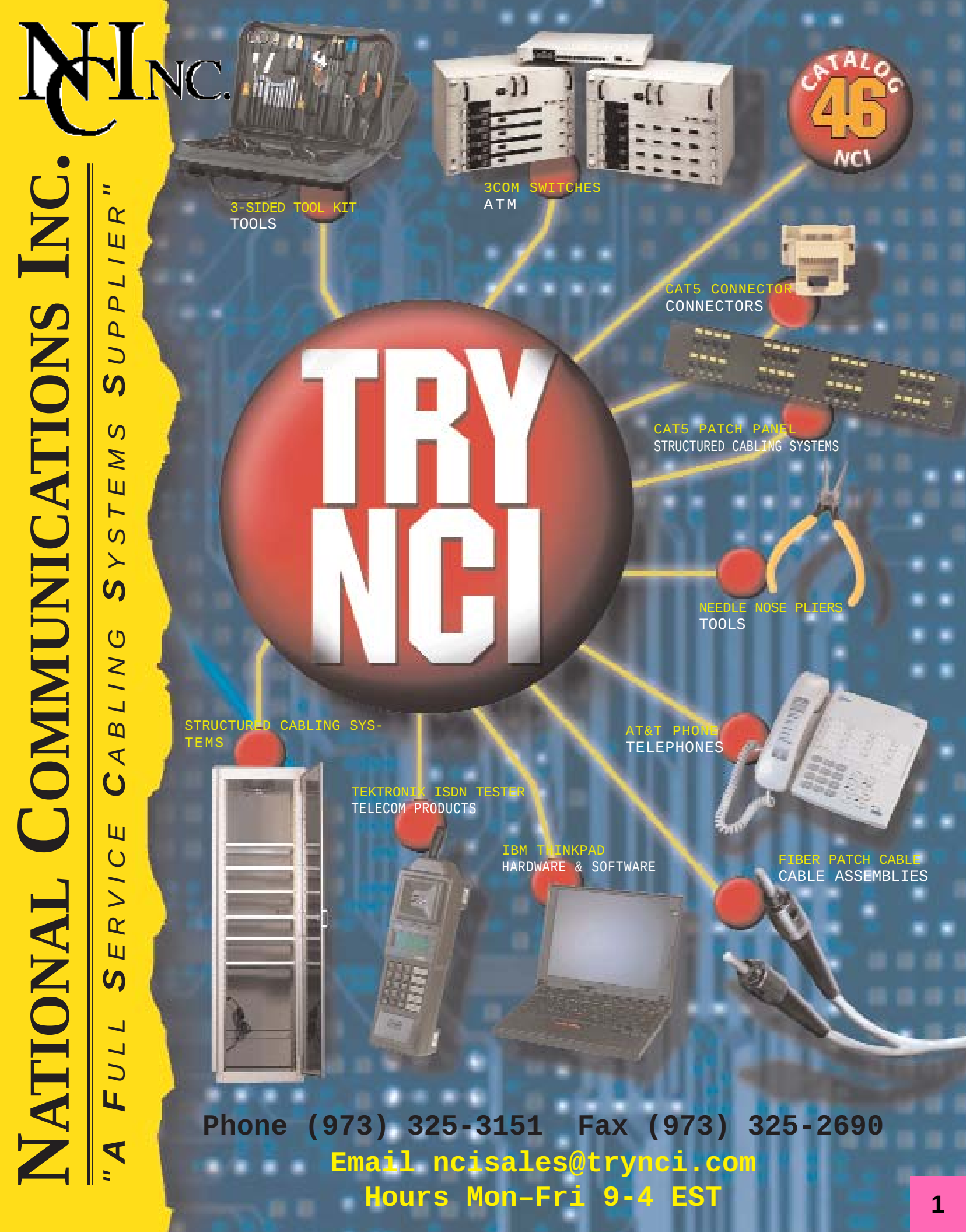
National Communications Inc.

"A Full Service Cabling Systems Supplier"



Phone (973) 325-3151 Fax (973) 325-2690

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Hours Mon–Fri 9-4 EST

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Dear Valued Customer,

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As President of National Communications, Inc., I am very pleased to introduce myself and our organization. NCI is a dynamic full service cabling systems supplier that can manage all of your data and voice communication supply and accessory needs.

NCI is a manufacturer and distributor of bulk cable, connectors, fiber optics, networking products and telephone supplies. At our new facility we stock a huge selection of day-to-day material for your computer and telephone networking needs.

Custom products from assemblies to patchpanels are our specialty. We are always eager to find out exactly what our customers need. This guarantees your complete satisfaction and our mutual success.

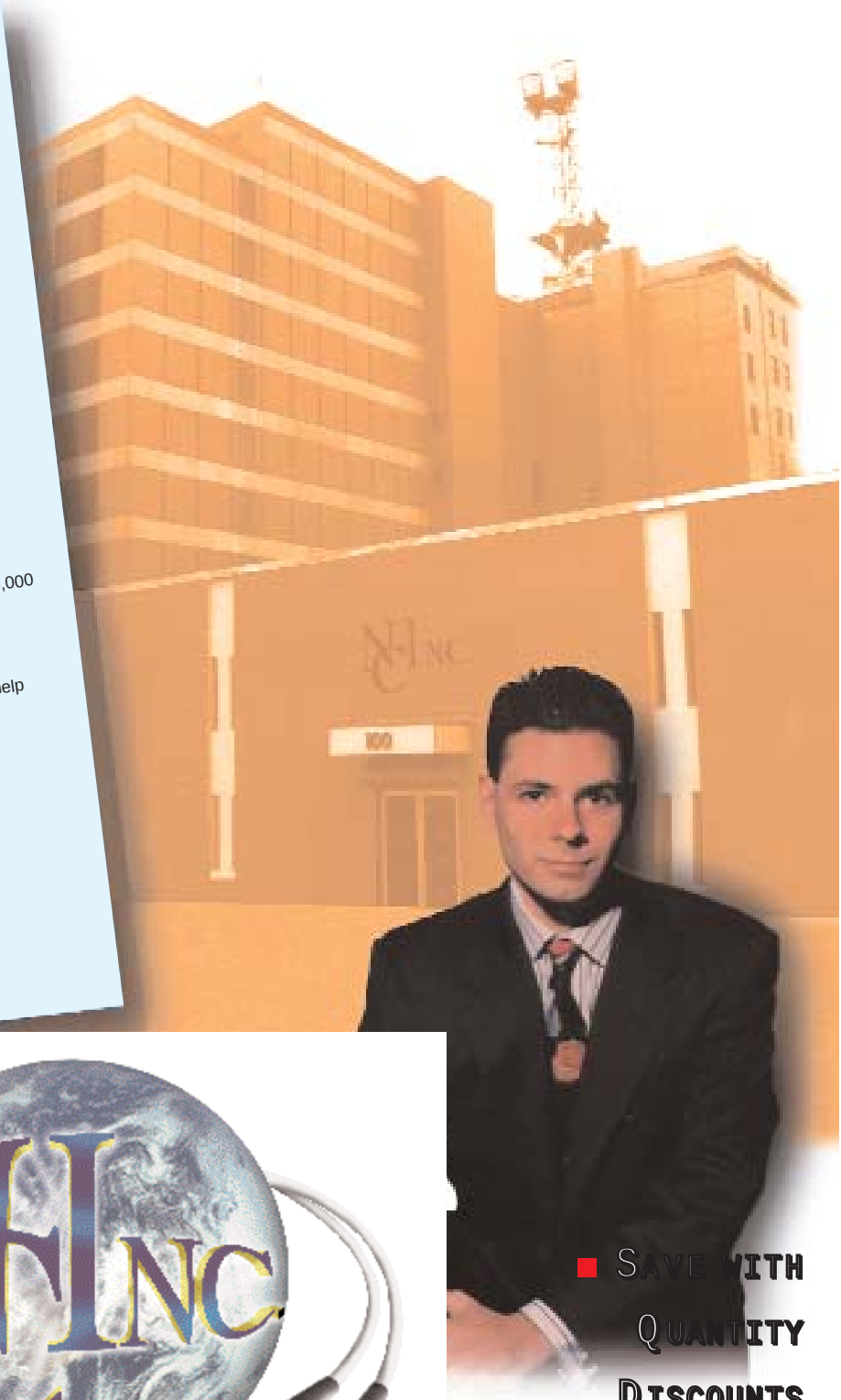
Our Sales Manager will assign a Sales Consultant to your account who, with your help, will identify all your needs.

Please take the time to look through our new catalog with pricing on over 10,000 products! You will find it full of all the products you need for servicing your computer and telephone systems. We accept Visa, MC, and Amex to make purchasing as easy as possible.

I look forward to talking to you soon about our catalog and how NCI can help your organization succeed in today's competitive marketplace and grow with tomorrow's emerging technologies.

Sincerely,

Andy Brooke
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Cat5 4 Pair



As Low As K

RCI Master Console



As Low As Page 91

100Base-T



As Low As Page 43

Microtest

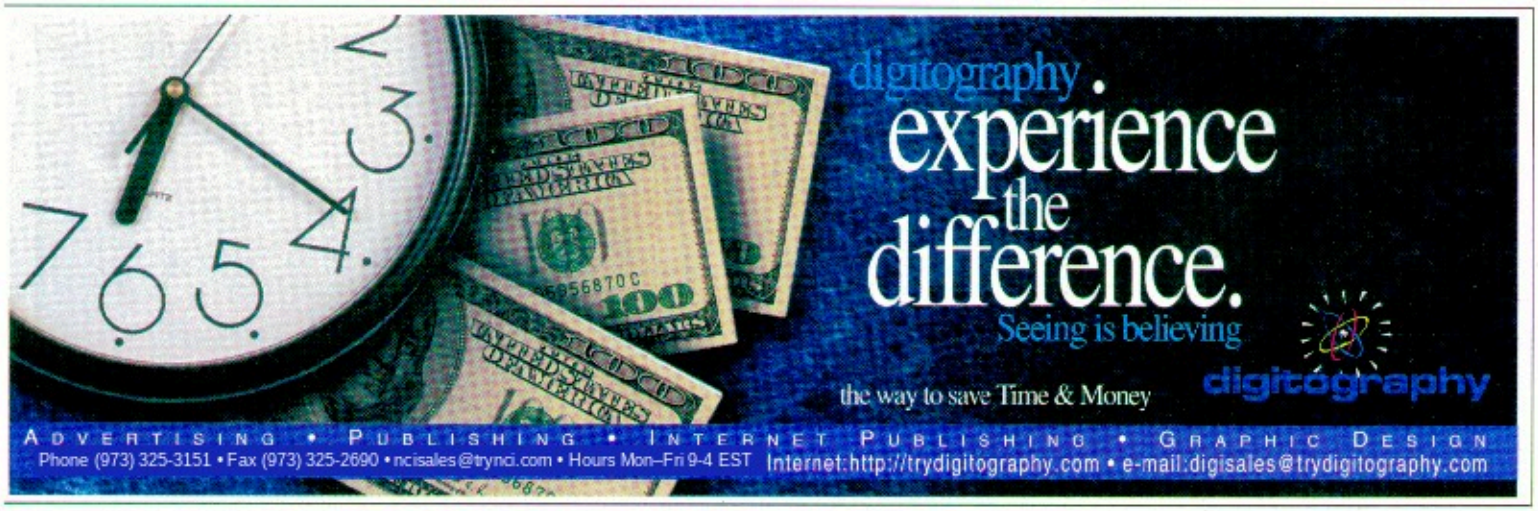


SLT3



NCI Inc. Table of Contents

- Special / Hot Products
- Apple
- Arcnet
- AS400 / RISC 6000 / IBM Systems
- ATM
- Baluns / Media Filters
- Bulk Cable
- Cable Assemblies
- Connectors / Kits / Components
- Ethernet
- Fiber Optic
- Hardware and Software
- Structure Cabling Systems
- Switches
- Telecom Products
- Telephones
- Token Ring
- Tools - Test Equipment / Cable Mgmt. / Reference
- Index / Order Form & Info



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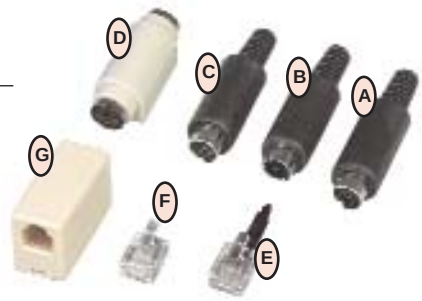
DESCRIPTION	PART #
78 OHM 20AWG SHIELDED PVC	271070
78 OHM 20AWG SHIELDED *PLENUM*	291070
2PR. LEVEL 3 SOLID UTP PVC	213002AL3
2PR. LEVEL 3 SOLID UTP *PLENUM*	233002AL3



78 ohm cable has 20awg tinned copper conductors with a 93% braid shield available with a blue PVC jacket or a plenum rated jacket. This cable is used for computer, Unisys TDI, SC party line, and broadcast cabling.

Twisted pair cable has 24awg level 3 solid conductors. Used for Telnet applications.

DESCRIPTION	PART #
MINI DIN 3 PLUG FOR APPLETALK (A)	311215
MINI DIN 4 PLUG FOR APPLETALK (B)	311232
MINI DIN 8 PLUG FOR APPLETALK (C)	311238
MINI DIN 3 SPLICE FEMALE (D)	311217
RJ11 4 POS TERMINATOR (E)	311201
RJ11 4 POS MODULAR PLUG (F)	414005RSO
RJ11 F- F COUPLER (G)	414060



Serial cables used to connect Imagewriter I, II, and Hayes modems to your computer.



DESCRIPTION	PART #
IMAGEWRITER II, MD8PM-MD8PM, 10FT (A)	Q30011-010
IMAGEWRITER I, HIGH SPEED MODEM, 6FT (B)	Q30211-006

Connects various peripherals to the DB9 port. DB9 Male Series.



DESCRIPTION	PART #
IMAGEWRITER II, DB9M-MD8M- 6 FT.	Q30311-006
DB9M - MD8F- ADAPTER*	Q30621-A
DB9M - MD8M- 6 FT.	Q30711-006

DESCRIPTION	PART #
HAYES MODEM, 5 PIN DIN M-DB25M,6FT.	Q31411-006



DESCRIPTION	PART #
MD8M-MD8M- STRAIGHT - 6FT	Q32211-006
MD8M-MD8M- STRAIGHT - 12FT	Q32211-012
MD8M-MD8F EXTENDER - 6FT*	Q32321-006
MD8M-MD8F EXTENDER - 12FT	Q32321-012



DESCRIPTION	PART #
MD4M-MD4M STRAIGHT - 6FT	Q32411-006
MD4M-MD4M STRAIGHT - 12FT	Q32411-012
MD4M-MD4F STRAIGHT - 6FT*	Q32511-006



These connectors allow Apple Talk over phone cable. They use Modular telephone wiring and jacks for a reliable and low cost network for your MAC's.

TELNET- RJ11 TO MD8M

PART # 410159 .....

OTHER TYPES AVAILABLE. ALSO SOLD IN 10 AND 50 PACKS. PLEASE CALL FOR CURRENT PRICING.



ETHER THIN TRANSCEIVERS

Connect your device directly to an Ethernet network. Features LED for transmit, receive, link, detect collision, power, and SQE switch. Available in AUI/UTP and Thin or AAUI/UTP and Thin.

DESCRIPTION	1-4	5-25
ETHER 10- T- AUI/UTP		
PART # 410194		





93 ohm star or bus topology with passive or active hubs.

Description	Part #
RG62A/U PVC	271060
RG62A/U *Plenum*	291060



We carry the finest most cost effective BNC connectors for your Arcnet system.

Description	PVC #	10	50	100
1pc BNC Male Rt. Angle Twist- On (A)	321036			
1pc BNC Female Twist- On (D)	321206			
1pc BNC Male Twist- On (E)	321200			
2pc BNC Male Crimp (B)	321057			
3pc BNC Male Crimp (C)	321055			
3pc BNC Female Crimp	321050			

Description	Plenum #	100
3pc BNC Male Crimp	321032	
3pc BNC Female Crimp	321051	
2pc BNC Male Crimp	321058	
1pc BNC Male Twist- On	321111	
1pc BNC Female Twist- On	321113	



Adapters & Kits	Part #
BNC F-F (Splice) Inline Coupler (A)	323105
BNC Terminator- 93ohm (B)	326907
BNC Full Boot Strain Relief (C)	323114
BNC 1/2 Boot Strain Relief	323116



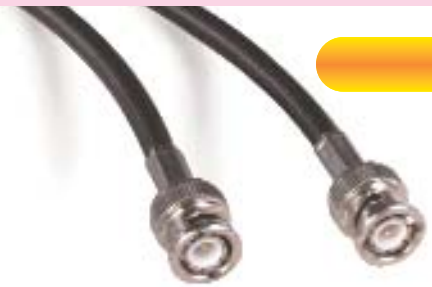
Used as the center of a Star Configuration in an Arcnet Network.

	10	50	100
Part # 341010			



Designed to convert a 93 OHM coaxial signal to an unshielded twisted pair cable. Transparent at 2.5 Mbps for up to 100 meters.

Arcnet RJ11 Balun - No Pigtail
Part# 360029.....



All the Arcnet cables you will ever need are made at NCI. These cables feature the highest quality cable, connectors, strain reliefs, and workmanship. Custom Lengths and configuratons with same day shipping is our specialty. All cables 300% guaranteed:

100% on quality, 100% on delivery and 100% on your satisfaction.

Arcnet Cable Assemblies	Part #
Arcnet Cable Assembly PVC 6 ft.	Q32711-006
Arcnet Cable Assembly PVC 10 ft.	Q32711-010
Arcnet Cable Assembly PVC 15 ft.	Q32711-015
Arcnet Cable Assembly PVC 25 ft.	Q32711-025
Custom Lengths - PVC	Q32711-✶✶✶
Plenum	Q32710-✶✶✶

✶✶✶=Length in Feet

Optional- Add Suffix -FB = Fullboot Assembly (Add per Cable)
Add Suffix -HB = Halfboot Assembly (Add per Cable)

20awg stranded conductors (1 tinned and 1 bare copper) with a foil and an 86% braid shield. Used for computer, broadcast, IBM system 34, 36, 38, and AS/400 LAN cabling.



DESCRIPTION	PART #
20AWG SHIELDED PVC*	271100
20AWG SHIELDED *PLENUM*	291100

These connectors are used when installing Twinax cable for 3X and AS/400 systems. These precision connectors provide a quality termination.



DESCRIPTION	PART#	REF#
MALE PVC-CRIMP (D)	325103	
MALE *PLENUM*-CRIMP	325104	
MALE PVC- SOLDER	325105	7362229
MALE *PLENUM* - SOLDER	325107	7362064
FEMALE PVC- SOLDER	325109	6838959
F-F COUPLER (B)	325110	7362230
FEEDTHRU PANEL JACK	325112	7369083
PANEL JACK SOLDER TYPE	325114	7362179
TERMINATOR MALE (A)	325130	6091068
TERMINATOR FEMALE	325131	
"T" CONNECTOR F-F-F	325125	6851167
"T" CONNECTOR F-M-F (C)	325120	

These cables are used for connecting 3X and AS/400 systems. They use 100 ohm Twinax cable and quality Twinaxial solder type connectors.



LENGTH	PVC#
6FT	M31006
10 FT	M31010
15 FT	M31015
25 FT	M31025
50 FT	M31050
CUSTOM LENGTH - PVC	M31*** +
CUSTOM LENGTH - *PLENUM*	M33*** +

***=LENGTH IN FEET
OPTIONAL FEMALE CONNECTORS ADD PER END

The T Adapters with 9 and 15 pin connectors are used with PC's equipment with 3X emulation boards. The Twinax T adapters are used with standard Twinax monitors and peripherals.



DESCRIPTION	PART #	REF #
"T" TWINAX (A)	325140	6457102
"T" DB9-TWINAX (B)	325142	
"T" DB15-TWINAX (C)	325144	

An inexpensive twisted pair solution for your 3X or AS/400 system. It is very high quality with 50 um Modular Jacks.



DESCRIPTION	PART #	REF #
RJ11-TWINAX NO PIGTAIL PINS 3 & 4*	360002	1143
RJ45-TWINAX NO PIGTAIL PINS 4 & 5	360004	4554


LIC 3 HIGH SPEED


LIC 1

Lineset cables for 3704-3705 Front End Processor.

DESCRIPTION	PART#	REF#	
LIC 1	Q21821-***	6089075	CALL FOR PRICING

Lineset cables for 3725 Front End Processor. ASSEMBLY CHARGE+

DESCRIPTION	PART#	REF#	PVC
3725 LIC 3 - HIGH SPEED	Q21721-***	1733820	

Lineset cables for 3745 Front End Processor.

DESCRIPTION	PART#	REF#	
3745 LIC 3	Q21921-***	58X9485	CALL FOR LATEST PRICING

IBM® DATA CENTER

For IBM 360,370,and 380 series. Utilizes high speed mini Coax cable. Call NCI for all your IBM Data Center needs. Our knowledgeable and courteous sales staff will be happy to assist you.



DESCRIPTION	PART#	REF#	ASSEMBLY+PER	PVC
IBM 360 20 COND. BLUE	Q22021-***	5460185		
IBM 370 24 COND. BLUE*	Q22121-***			

***=LENGTH IN FEET

ATM

Sharing mission-critical data with speed and efficiency among employees, customers, vendors and distributors located around the globe is the goal of any successful company. Today, more than ever, a business must be able to implement high-bandwidth applications, such as multimedia, CAD/CAM and large database management systems, that increase its capacity to process information.

Incorporating the latest technological innovations, such as video, collaborative computing and medical imaging, is a must that improves your ability to serve customers.

With ATM, a powerful networking technology, these goals are being achieved. Seamless LAN/WAN connectivity for improved communication, bandwidth-on-demand for all applications, and simultaneously integrated voice, video and data to support today's innovative multimedia applications are all a part of what ATM can do for you.

ATM Technology

ATM is a switched, connection-oriented networking technology that provides dedicated, high-speed connections to virtually an unlimited number of users. It operates on a cell-based fast-packet communication method that supports transfer rates from Mbps to 10 Gbps.

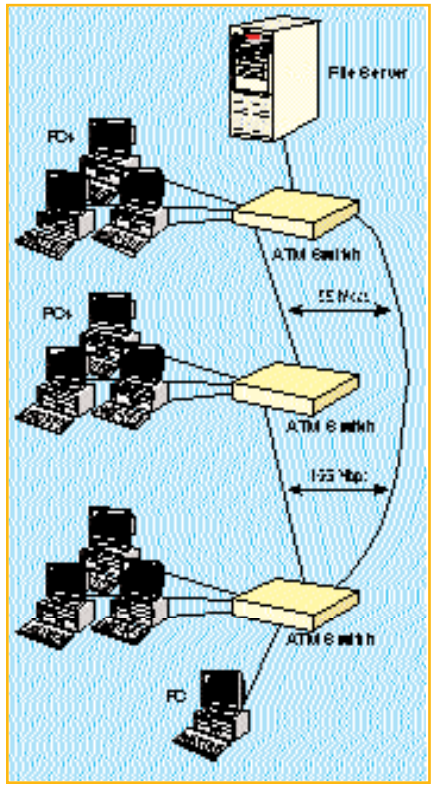
Dedicated media connections running in parallel allow an ATM switch to simultaneously support multiple conversations, eliminating the bandwidth contention and data bottlenecks found on shared-media networks such as Ethernet, Token Ring and FDDI.

When Data is transferred in an ATM network, a switched virtual circuit (SVC) is established between the sender and receiver. The information is converted into fixed-length cells, which are transmitted through the network and reassembled into data packets at the destination.

ATM relies on the reliability of digital lines to ensure data integrity and does not use error-correction protocols. Numerous transmissions can take place at once, enabling ATM to accommodate multiple dialogues quickly, easily and reliably.

ATM's dedicated bandwidth is capable of easily supporting data-intensive applications such as high-resolution computer graphics, large data-base management systems and high-end engineering packages. The technology's high throughput and real-time information delivery also make it a perfect solution for emerging multimedia applications combining data, voice and animation.

ATM can be installed into an existing network as needed without upgrading the entire LAN!





Bay Networks

The LattisCell™ family of Asynchronous Transfer Mode (ATM) switches delivers a total ATM solution for high-speed networking environments. Working with SynOptics' ATM Network Management Application, the Connection Management System software, ATM SBus adapter cards and EtherCell™ Ethernet-to-ATM switches, the LattisCell products allow users to implement a complete, high-performance ATM network.

Description	Ref#	Part #	
ATM Router Model 5780	AD1304006	315551	
ATM Router Model 5780	AD1304007	315553	
ATM Router Software VNR	AD1308001	315555	
LattisCell ATM Switch	10115R	315556	Call 4
LattisCell ATM Switch 16SC MMF Sonnet	10114R	315557	29,797
LattisCell ATM Switch 14SC MMF 2BNC E3 w/RPS	10114R-E3	315559	37,447
LattisCell ATM Switch 14SC MMF 2ST SMF w/RPS	10114R-SM	315561	37,447
Ethernet/ATM Router Mux 13 12-10BT 1-155Mbps Sonet OC-3C Fiber	10328-F	315563	

The Intelligent Hub is a low-profile, stackable 8-port hub designed to connect multiple workstations and additional hubs to an ARCNET network. In combination with SMC's Network Management Software, this hub provides a level of network fault tolerance previously unavailable in any ARCNET local area network environment. There are two versions: one for coax networks, and the other for twisted pair networks.

SMC Arcnet Intelligent Hub



DESCRIPTION	PART#
SMC ARCNET INTELLIGENT HUB, COAX VERSION, 8 PORT	534244



The 365A Adapter is a twinaxial-to-twisted-pair balun that eliminates the need for twinaxial cable to connect equipment in IBM® System 36/38 and Application System/400™ environments. The adapter allows the 1 Mbps signals of the IBM equipment to be transmitted over the unshielded twisted-pair wiring of the AT&T SYSTIMAX® Premises Distribution System (PDS).

The 365A Adapter consists of a flame-retardant plastic housing with a short section of twinaxial cable terminated with a male twinaxial connector. The other end of the housing contains an 8-pin modular jack. The 366A Terminating Adapter is included in this package.

DESCRIPTION	PART #	REF #
AT&T 365A ADAPTER	400074	105282610

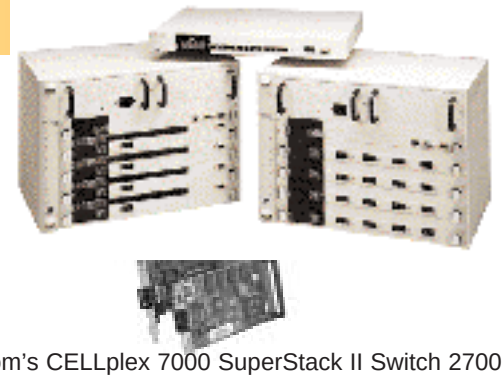
digital™

Digital's networking products have been recognized for excellence in performance, innovation, and investment protection for nearly two decades. Digital has always led the way in networks helping to keep you competitive. Today we're leading the way in client/server networking and high-performance switched networks.



Description	Ref#	Part #
1 Port 155 Mbps SMF ATM	DESSL-AC	536101
2 Port 155 Mbps SMF ATM	DESSL-AD	544001
ATM MODPHY DS3/T2 Coax	DAGGT-AA	544003
ATM MODPHY Multimode Fiber	DAGGM-AA	544005
ATM MODPHY Single Mode Fiber	DAGGS-AA	536109
GIGA/ATM 1 Port 622 MMF LC	DAGGL-CA	536111
GIGA/ATM 1 Port 622 Modular LC	DAGGL-BA	536113
GIGA/ATM 1 Port 622 SMF LC	DAGGL-CB	536115
GIGA/ATM 1 Port E1 UTP Modphy	DAGE1-AA	536117
GIGA/ATM 1 Port E3 Coax Modphy	DAGGE-AA	536119
GIGA/ATM 1 Port TI UTP Modphy	DAGT1-AA	536121
GIGA/ATM w/52 MMF Ports	DAGGL-AB	536123
GIGA/ATM 1C, 2MMF 25 MF Ports	DAGGA-DA	536125
GIGA/ATM 5 SLT Chass, PWR, CLK	DAGND-AA	536127
GIGA/ATM ATMLINE Card 2 Ports for DS Sonet	DEFGT-BA	536129
GIGA/ATM 1 Port 155 UTP Modphy	DAGGU-AA	536131
GIGA/ATM 48V Power Module	DAGPL-AB	536133
GIGA/ATM 5V Power Module	DAGPL-AA	536135
GIGA/ATM Cell Buffer Exp Card	DAGCB-AA	536137
GIGA/ATM Chasis (No Power No Line Cards)	DAGGA-CA	536139
GIGA/ATM 4 Port Line Card 155Mb/s MMF	DAGGL-AA	536141

3Com®



Description	Ref#	Part #	
Cellplex 7000 Switch Kit	3C37000	536919	
Cellplex 7000 4 Port Interface Card	3C37052	536921	
Cellplex 7000 OC-3C Mudule	3C37058	536923	
Cellplex 7000 OC-3C MM Module	3C37100	536925	
Cellplex 7000 Redundant Switch Engine	3C37016	536927	
7201 Enet/ATM Interface Card	3C37263	536929	
7X00 Interface Card for Cellplex 700	3C37300	536931	
ATMLink PCI-155 Fiber Adapter	3C971-F	536933	
Cellplex 7000 1 DS-3 Physical Module	3C37061	536935	
Cellplex 7000 1 OC-3C Physical Module MM	3C37060	536937	
Cellplex 7000 1 DS-3 Physical Module	3C37061	536939	
Cellplex 7000 Physical Module (one TP0)	3C37062	536941	
Cellplex 7000 Power Supply Module	3C37061	536943	
Netbuilder II MP ATM Link	3C6075	543999	
Superstack II Switch 2700 OC3 Multimode	3C32700A	543997	
Superstack II Switch 2700 DS3 ATM	3C32710A	543995	6,106
Superstack II Switch 2700 OC3 Singlemode	3C32711A	543993	8,114
7200 Enet/ATM Nic 12 Enet 30C-3C MM ATM Ports	3C37262	543991	8,345
ATMLINK PCI-55 Fiber Adapter	3C971-F	543989	
7200 Fiber Enet/ATM Interface Card	3C37264	543987	13,353
7201 Fiber Enet/ATM Interface Card (12-10 Base Fl Port)	3C37266	543985	11,684
7201F Fiber Ethernet/ATM Interface Card	3C37265	337739	10,632

3Com's CELLplex 7000 SuperStack II Switch 2700 switches open up traffic bottlenecks, boost performance, and extend manageability, while maintaining the installed network infrastructure.

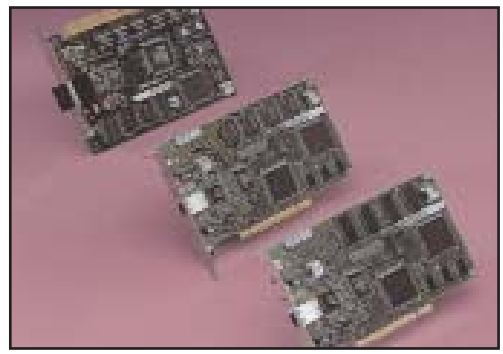
In combination, they let you scale performance easily throughout the network.

CELLplex™ 7000 is an ATM switch that provides ATM connections as well as Ethernet interface linked in a non-blocking switching architecture.

SuperStack II Switch 2700 is a stackable Ethernet/ATM workgroup switch that employs 3Com's leading-edge "ZipChip" processor for full-wire-speed Ethernet connections to Ethernet LANs, and ATM connectivity to the backbone.

SMC®

SMC, a leading worldwide supplier of industry-standard LAN products, provides a comprehensive portfolio of networking solutions for scaling, managing and connecting LANs. Under its Unity framework, SMC has outlined a strategy for building and expanding networks to meet current bandwidth and management requirements, while providing a migration path to ATM.



Description	Ref#	Part #
ATM Power 155 EISA Adapter 2MB Uses UTP-5 Cable	SMC9747D	534203
ATM Power 155 EISA Adapter 2MB Uses MMF Cable	SMC9747F	534205
ATM Power 155 EISA Adapter 256KB Uses UTP-5 Cable	SMC9742D	534207
ATM Power 155 EISA Adapter 256KB Uses MMF Cable	SMC9742F	534209
ATM Power 155 PCI Adapter 2MB Uses UTP-5 Cable	SMC9746D	534211
ATM Power 155 PCI Adapter 2MB Uses MMF Cable	SMC9746F	534213
ATM Power 155 PCI Adapter 512KB Uses UTP-5 Cable	SMC974IF	534215
ATM Power 155 PCI Adapter 512KB Uses MMF Cable	SMC974ID	534217
ATM Power 155 Sbus Adapter 2MB Uses UTP-5 Cable	SMC9749D	534219
ATM Power 155 Sbus Adapter 2MB Uses MMF Cable	SMC9749F	534221
ATM Power 155 Sbus Adapter 512KB Uses UTP-5 Cable	SMC9744D	534223
ATM Power 155 Sbus Adapter 512KB Uses MMF Cable	SMC9744F	534225

Baluns & Media Filters

Balun stands for BALanced/UNbalanced and is measured in ohms. A balun is an impedance matching transformer. It is a passive device that converts the impedance of coaxial cable so that its signal can run on twisted pair wiring, however, the signal can



signed to connect a
0 catagory-A device to
hielded twisted pair.
. distance is 3000 ft.

Description	Part #	Ref #
3270 Type A RJ45 No Tail	340065	B4554
3270 Type A Slim- Line RJ45- 25ft pins 1&2	360100	ATT353A
3270 Type A Slim- Line RJ11- 8ft pins 3&4*	340068	SL-114318



Passively converts Ethernet 1E EE802.3 10 Base-2 (50 ohm) Coaxial cable to (105 OHM) twisted pair cable. It is transparent at 10 Mbps up to 330 ft. Used in 10 Base-2 (Thinnet) LANS, point to point.

Description	Part #	Ref #
Ethernet RJ11	360104	2534
Ethernet RJ45*	360106	3645

NOTE: This is not a transceiver. Must be used in PAIRS.

This Video Adaptor is a twisted pair media balun that allows the transmiss
and audio signals over
4 pair UTP



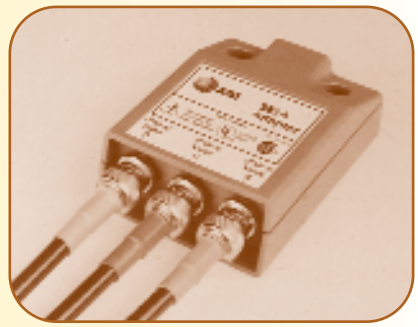
Connections:
Video: BNC (female)
Audio: Standard Phono Jack (2)
Output: 8-position modular jack

Distances:
Color Transmission - 15
Bl. & Wh. - 2500' (762m)

Description	Part #
Video Adapter Balun	400044

Must be Use in Pairs

Connections:
Input: 3 BNC (female)
Output: 8-position/ 8-conductor modular jack



Distances:
Cat5 Cable - 500' (152m)
Cat3 Cable - 330'(100m)

This video adapter provides the intrabuilding connectivity of RGB component video equipment to Cat 3 or Cat unshielded twisted pair (UTP) wiring. This device is a twisted pair media adapter used to support red-green-blue (RGB) video monitors with resolutions of up to 640 by 480 pixels and refresh rates up to 72 Hz.

Description	Part #
Composite Video Adapter Balun	400043

Must be Use in Pairs



Now you can convert your DB9 Token Ring connector to an RJ11 or RJ45 connector for use with UTP cabling. Type 3A Token Ring cable can be used in place of the more expensive Type 1A cable, when using the Type 3 Media Filter. You can connect up to 72 workstations, achieve speeds up to 16Mbps and have workstations up to 200 feet away from their MAU's. Available in 4/16 Mbps version, so you can run at 4Mbps.

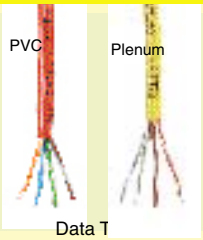
Description	Part #	Ref #
4/16Mbps RJ11 - No Line Cord	360116	MF1611
4/16Mbps RJ45 - No Line Cord	360118	MF1645
4/16Mbps RJ11 - w/8ft Line Cord	360120	MF16118
4/16 Mbps RJ45 - w/8ft line Cord	360122	MF16458
4/16 Mbps RJ11 - w/6" DB9 & 8ft Line Cord	360124	MF16168
4/16 Mbps RJ45 - w/6" DB9 & 8ft Line Cord	360126	MF16568

UNSHIELDED TWISTED PAIR

Unshielded Twisted Pair (UTP) SuperCat 5 - PVC & Plenum

24 GUAGE

Belden has a commitment to providing the most thorough lineup of wire and cable solutions.The **Datatwist-350** series is tested to support high speed applications upto **350Mhz**.



Data T
350 Enhanced

DESCRIPTION	PVC #	1K-5K	1'-999'	*PLENUM #*	1K-5K	1'-999'
4PR DATA TWIST-350 ENHANCED	318043			318419		

Berk-Tek is a world leader in the development and manufacturing of high performance cables. The **LANMark** series is designed to support high speed applications up to **350Mhz**. Berk-Tek guarantees enhanced ACR,NexT, SRL and PS-NexT.



DESCRIPTION	PVC #	1K-5K	1'-999'	*PLENUM #*	1K-5K	1'-999'
4PR LANMARK 350 ENHANCED	540801		/ FT	540803		

Unshielded Twisted Pair (UTP) - Level 5 - PVC & Plenum

24 GUAGE

Level 5 UTP has a performance rate of 100 mbps. We offer these cables in a siamese type construction to offer you time and money savings on your installations. The best cost for performance cable available today.



DESCRIPTION	PVC #	1K-5K	500'-999'	1'-499'	*PLENUM #*	1K-5K	500'-999'	1'-499'
2PR LEVEL5 SOLID UTP	213002AL5				233002AL5			
4PR LEVEL5 SOLID UTP	213004AL5				233004AL5			
4PR LEVEL5 SOLID UTP ZIPCORD	213004AL5ZIP				233004AL5ZIP			
6PR LEVEL5 SOLID UTP	213006AL5				233006AL5			
8PR LEVEL5 SOLID UTP	213008AL5				-------			
25PR LEVEL5 SOLID UTP	213025AL5				233025AL5			

Unshielded Twisted Pair (UTP) - Level 3 - PVC & Plenum

24 GUAGE

Level 3 cable is ideal for 16 mbps Token Ring and 10 Base "T" applications. We offer a dual 4 pair zipcord type cable that eliminates the need of running 2 separate cables to station location. Speeds up to 16 mbps can be achieved.



DESCRIPTION	PVC #	1K-5K	500'-999'	1'-499'	*PLENUM #*	1K-5K	500'-999'	1'-499'
2PR LEVEL3 SOLID UTP	213002AL3				233002AL3			
3PR LEVEL3 SOLID UTP^{O}	213003AL3				233003AL3			
4PR LEVEL3 SOLID UTP	213004AL3				233004AL3			
6PR LEVEL3 SOLID UTP	213006AL3				233006AL3			
8PR LEVEL3 SOLID UTP	213008AL3				233008AL3			
12PR LEVEL3 SOLID UTP	213012AL3				233012AL3			
25PR LEVEL3 SOLID UTP	213025AL3				233025AL3			
50PR LEVEL3 SOLID UTP	213050AL3				233050AL3			
75PR LEVEL3 SOLID UTP	213075AL3				233075AL3			
100PR LEVEL3 SOLID UTP	213100AL3				233100AL3			

Unshielded Twisted Pair (UTP) - Level 2 - Plenum

24 GUAGE

Level 2 cable is equivalent to IBM's Type 3. It's ideal for 4 mbps Token Ring, RS-232, RS422, System/3X, and AS/400 utilizing UTP. Speeds up to 4 Mbps can be achieved.



DESCRIPTION	*PLENUM #*	1K-5K	500'-999'	1'-499'
2PR LEVEL 2 SOLID UTP	233002AL2			
3PR LEVEL 2 SOLID UTP	233003AL2			
4PR LEVEL 2 SOLID UTP	233004AL2			
6PR LEVEL 2 SOLID UTP	233006AL2			
8PR LEVEL 2 SOLID UTP	233008AL2			
12PR LEVEL 2 SOLID UTP	233012AL2			
25PR LEVEL 2 SOLID UTP^{O}	233025AL2			/ FT
50PR LEVEL 2 SOLID UTP	233050AL2			
100PR LEVEL 2 SOLID UTP	233100AL2			

BULK CABLE

LAN CABLE



CAT 5 Shielded Twisted Pair (STP)

This new high performance cable is suitable for network speeds of up to 100mbps. The addition of an overall foil shield reduces EMI/RFI interference. Available in PVC and *PLENUM* jackets.

24 GUAGE

DESCRIPTION	PVC #	1K-5K	500'-999'	1'-499'	*PLENUM* #	1K-5K	500'-999'	1'-499'
2PR LEV5 SOLID STP	227002AL5				229002AL5			
4PR LEV5 SOLID STP[O]	227004AL5				229004AL5			
25PR LEV5 SOLID STP	227025AL5				229025AL5			
2PR LEV5 STRANDED STP	224002AL5				244002AL5			
4PR LEV5 STRANDED STP	224004AL5				244004AL5			

OTHER PAIR COUNTS ARE AVAILABLE. PLEASE CONSULT YOUR SALESPERSON FOR MORE INFORMATION.WE CAN MANUFACTURE HYBRIDS AND COMPOSITE CABLES FOR YOUR SPECIAL REQUIREMENTS.

CAT 5 Stranded Patch Cable - 10 BASE T



This is the perfect cable for high speed patching of your level 5 (100Mhz) networks.
This cable is not recommended for premise cabling. It should only be used for patching and wallplate to PC cords.
NOTE: If you are installing Level 5 premise cable, keep that level thru-out your patch panels, wall outlets, connectors and patch cables. This will allow your network to operate at those levels without any bottlenecks.

24 GUAGE

DESCRIPTION	PVC #	1K-5K	500'-999'	1'-499'	*PLENUM* #	1K-5K	500'-999'	1'-499'
2PR LEV 5 STRANDED UTP BONE	203002AL5Q				----------			
3PR LEV 5 STRANDED UTP BONE	203003AL5Q				----------			
4PR LEV 5 STRANDED UTP BONE	203004AL5Q				223004AL5Q			

Q **Use Suffix: 1=Bone 2=Red 3=Green 4=Blue 5=Black 6=Yellow**
Other Cables Available.

Thin Ethernet - RG58A/U



50 ohm Coaxial segments (185 meters max. 10Base-2) with a 19x32 stranded 20awg center conductor.
Foil & braid shielding

DESCRIPTION	PART #
THINNET RG58A/U PVC	271080
THINNET RG58A/U *PLENUM*	291080

Thick Ethernet



50 ohm Coax cable backbone segment(500 meters max. 802.3, 10Base-5).

DESCRIPTION	PART #
THICK ETHERNET BACKBONE PVC YELLOW	271120
THICK ETHERNET BACKBONE *PLENUM* ORANGE	291120

Transceiver AUI Drop Cable



4 pair 20awg where each pair is individually shielded and the cable has an overall foil shield with a 95% braid shield.

DESCRIPTION	PART #
AUI DROP CABLE PVC[O]	272055
AUI DROP CABLE *PLENUM*	292055

Office Drop Cable



A thin version of the standard AUI drop cable used for patching. The cable is 4 pair (1pair 24awg / 3pair 28awg) where each pair is individually shielded and the cable has an overall foil shield with a 95% braid shield.

DESCRIPTION	PART #
OFFICE AUI CABLE PVC	272057

78 ohm



20awg tinned copper conductors with a 93% braid shield available with a blue PVC jacket or a Plenum rated jacket. This cable is used for computers, Unisys TDI, SC party line & broadcast cabling.

20 AWG

Description	Part #
Twinax 78 ohm Shielded PVC^{O}	271070
Twinax 78 ohm Shielded *Plenum*	291070

100 ohm



20awg stranded conductors (1 tinned & 1 bare copper) with a foil and an 86% braid shield. Used for computers, IBM system 34, 36, 38 and AS/400 LAN cabling

20 AWG

Description	Part #
Twinaxial 100 ohm Shielded PVC^{O}	271100

COAXIAL

ARCNET Coaxial - RG62A/U



93 ohm star or bus topology with passive or active hubs.

Description	Part #
RG62A/U PVC^{O}	271060

Coaxial - 50 ohm

RG58/U audio, broadcast, and computer cable. This cable has a 20awg solid center conductor with a 95% braid shield. This cable is not recommended for Ethernet because of the solid center conductor.



20 AWG

Description	Part #
RG58/U Braid Shield PVC^{O}	271017

Coaxial - 75 ohm

RG59, RG6, and RG11 video, broadcast, and computer cable. These cables have a braid shield.

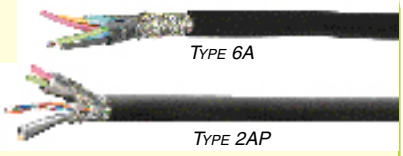


Description	PVC #	1K-5K	500'-999'	1'-499'	*PLENUM* #	1K-5K	500'-999'	1'-499'
Mini RG59 27awg Braid Shield	271055				291055			
RG59 20awg Braid Shield^{O}	271040				291040			
RG6 18awg Foil & Braid Shield	271065				291065			
RG11 11awg Foil & Braid Shield	271071				291071			
Dual RG59	271050				29105 0			

TOKEN RING



Type 1AP



Type 6A

Type 2AP

Type 1A / 1AP - A Level5 2pair cable with 22awg solid conductors, each pair individually foil shielded and overall shielded in a flexible tinned copper braid. These cables are 150 ohms and have super low mutual capcitance (8.5pf/ft)

Description	Part #	Ref #
Type 1A PVC	272030	33G2772

Type 2A / 2AP - Same as Type 1A/1AP cable, plus 4 voice pairs inside the outer jacket

Description	Part #	Ref #
Type 2A PVC	272040	33G2773

Siamese Type 2A / 2AP - Same as above, but the 4 voice pairs are in a seperate jacket bonded parallel to outer jacket of data pairs.

Description	Part #
Siamese Type 2A PVC	272045

Type 6A - 2 pair 26awg Overall Shielded cable used mostly for patch cable because of

Description	Part #	Ref #
Type 6A PVC	272050	33G277

Type 8A - 2 pair 26awg cable with a flat constructed jacketto allow under carpet

Description	Part #	Ref #
Type 8A PVC	272070	4716750

Type 9A / 9AP - Same as Type 1A, but is 25% smaller due to 26awg (not 22awg)

Description	Part #	Ref #
Type 9AP *Plenum*	292047	33G8223

BULK CABLE

SILVER SATIN MODULAR CORD - UNSHIELDED & SHIELDED



DESCRIPTION	PART #
4 COND. UNSHIELDED	218100
6 COND. UNSHIELDED	218110
8 COND. UNSHIELDED	218120
10 COND. UNSHIELDED	218130
3 COND. SHIELDED + 1 DRAIN	218105
5 COND. SHIELDED + 1 DRAIN	218115
7 COND. SHIELDED + 1 DRAIN	218125

STANDARD COLOR IS GREY. FOR BLACK ADD SUFFIX -B TO PART# AND 10% TO PRICE.

TELEPHONE CABLES

HOT ITEM!!!



24 GUAGE

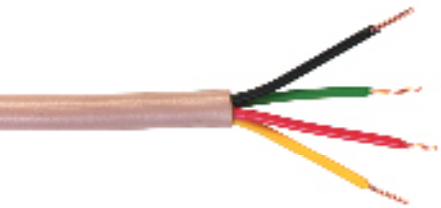
DESCRIPTION	PART #	10K- 49K
1 PAIR CROSS CONNECT LEVEL 5	217001AL5	
2 PAIR CROSS CONNECT LEVEL 5	217002AL5	
3 PAIR CROSS CONNECT LEVEL 5	217003AL5	
4 PAIR CROSS CONNECT LEVEL 5 O	217004AL5	
2 PAIR CROSS CONNECT LEVEL 5	217002AL5-BELD	



Used for short runs between blocks and equipment.

DESCRIPTION	24AWG	1K- 9K	10K-49K	22AWG	1K-49K
1 PAIR WHITE/BLUE	217001A			217001B	
1 PAIR WHITE/RED O	217011A				
1 PAIR WHITE/ORANGE	217021A			217021B	
1 PAIR WHITE/GREEN	217031A				
1 PAIR WHITE/BLACK	217041A				
1 PAIR BLUE/YELLOW	217051A				
1 PAIR BLUE/RED	217061A				
1 PAIR RED/GREEN	217071A			217071B	
2 PAIR WHITE BLUE/WHITE ORANGE	217002A			217002B	
2 PAIR RED BLUE/RED ORANGE	217012A				
3 PAIR WHITE BLUE/WHITE ORANGE/WHITE GREEN	217003A				
4 PAIR WHITE BLUE/WHITE ORANGE/WHITE GREEN/WHITE BLUE	217004A				

ddd dd



DESCRIPTION	PART #
4COND 24AWG SOLID GRAY	210004AG
4COND 24AWG SOLID BEIGE O	210004AB
4COND 24AWG SOLID WHITE	210004AW
4COND 22AWG SOLID GRAY	210004BG
4COND 22AWG SOLID BEIGE	210004BB
4COND 22AWG SOLID WHITE	210004BW



24 GUAGE

Used for voice and low speed data transmission, instrumentation and computer hook-up applications. We stock 24awg solid annealed copper cable with tinned copper drain.Type CMR SPEC.8009.

DESCRIPTION	PART #
2PR SHIELDED PVC O	214002AL1
4PR SHIELDED PVC	214004AL1
25PR SHIELDED PVC	214025AL1

WE CAN OFFER YOU DIFFERENT PAIR COUNTS and AWG's.CONSULT YOUR SALESPERSON.



24 GUAGE

Used for central office and PBX equipment cabling and interconnections. We stock 24awg tinned solid annealed copper cable. SPEC 4753 CMR.

DESCRIPTION	PART #
25PR GRAY	223025A

Aerial & Duct Air Core Cables REA SPEC PE 22



For aerial and duct use. Cable has an aluminum shield with a plastic core wrap and a black polyethylene jacket.

24 GUAGE

Description	Part #
6pr PE 22	215006A
12pr PE 22O	215012A
25pr PE 22	215025A
50pr PE 22	215050A

Self Supporting (Figure 8) Air Core Cables REA SPEC PE 38

Cable is designed for aerial installations where self-support is necessary. One black polyethylene jacket in parallel construction to a 7 strand class A messenger supports the cable and provides element protection.



24 GUAGE

Description	Part #
6pr PE 38	220006A
12pr PE 38	220012A
25pr PE 38	220025A
50pr PE 38	220050A

Direct Burial or Aerial Filled Cable REA PE 89



Filled foam-skin insulation, designed for duct or direct burial trunk service. A longitudinally applied aluminum tape with a black polyethylene.

24 GUAGE

Description	Part #
6pr PE 89	221006A
12pr PE 89O	221012A
25pr PE 89	221025A
50pr PE 89	221050A

Direct Burial or Aerial Filled Cable REA SPEC PE

Filled/Solid insulation. A petroleum "jelly" compound flooding the inside of the cable eliminates any moisture passage in the event of outer jacket damage.



24 GUAGE

Description	Part #
6pr 24awg PE 39	222006A
12pr 24awg PE 39O	222012A
25pr 24awg PE 39	222025A
50pr 24awg PE 39	222050A

DATA COMMUNICATION CABLES



24awg stranded conductor cable for use in electronic applications such as RS232, serial data, audio, and control cabling. 30 pf/ft.

22 GUAGE

	1-5K	500'-999'	1'-499'
201002B			
4 Cond. Stranded 201004B			
5 Cond. Stranded 201005B			
8 Cond. Stranded 201008B			
12 Cond. Stranded 201012B			
15 Cond. Stranded 201015B			
25 Cond. Stranded 201025B			

OTHER GUAGE SIZES AND *PLENUM* JACKETED CABLE AVAILABLE. PLEASE CONSULT YOUR SALESPERSON FOR FURTHER DETAILS.

Multiconductor Shielded



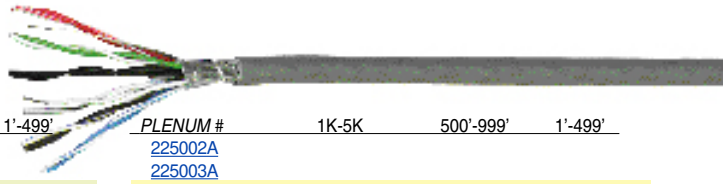
Foil shielded cable with 24awg stranded conductor. For sound, broadcast, audio, computer, RS232, and instrumentation cabling. 33 pf/ft.

24 GUAGE

Description	PVC #	1-5K	500'-999'	1'-499'
4 Cond. Stranded Shielded O	202004A			
5 Cond. Stranded Shielded	202005A			
6 Cond. Stranded Shielded	202006A			
8 Cond. Stranded Shielded	202008A			
10 Cond.Stranded Shielded	202010A			
12 Cond.Stranded Shielded	202012A			
15 Cond.Stranded Shielded	202015A			
25 Cond.Stranded Shielded	202025A			

Multipair Shielded

Low cap cable used in extended distance RS232, RS423, RS449, V.35, serial data, audio, and control cabling. 12.5 pf/ft.



Description	PVC #	1K-5K	500'-999'	1'-499'	*PLENUM* #	1K-5K	500'-999'	1'-499'
2pair 24awg Stranded Shielded	205002A				225002A			
3pair 24awg Stranded Shielded	205003A				225003A			
4pair 24awg Stranded Shielded	205004A				225004A			
6pair 24awg Stranded ShieldedO	205006A				225006A			
9pair 24awg Stranded Shielded	205009A				225009A			
12.5 pair 24awg Stranded Shielded	205012HA				225012HA			
18.5 pair 24awg Stranded Shielded	205018HA				19Pair- 225019A			

OTHER PAIR COUNTS AVAILABLE. CONSULT YOUR SALESPERSON.

Multipair-Individually Shielded

22awg cable with individually foil shielded pairs under one jacket. For computer, point of sale, and loop cable. 30 pf/ft.



Description	PVC #	1K-5K	500'-999'	1'-499		
2pair 22awg Stranded Ind. Shielded	208002B				228002B	
3pair 22awg Stranded Ind. Shielded	208003B				228003B	

OTHER PAIR COUNTS AVAILABLE. CONSULT YOUR SALESPERSON.

Multipair Extended Distance - Foil & Braid Shielded

Used for extended distance EIA/TIA RS232 & EIA/TIA 422 applications. 12.5 pf/ft.



Description	PVC #	1K-5K	500'-999'	1'-499		
2pair 24awg Stranded Foil & braid	206002A				226002A	
3pair 24awg Stranded Foil & braid	206003A				226003A	
4pair 24awg Stranded Foil & braid	206004A				226004AO	
6pair 24awg Stranded Foil & braid	206006A				226006A	
12.5 pair 24awg Stranded Foil & braid	206012HA					

OTHER PAIR COUNTS AVAILABLE. CONSULT YOUR SALESPERSON.

Bulk Cable

Ribbon Cable

Our flexible multiconductor flat ribbon cable is made with 28awg stranded conductors on .050" centers. Covered with a PVC jacket. UL listed






Gray

Description	Part #	100ft.+
9 Cond.	272109	
10 Cond.	272110	
14 Cond.	272114	
15 Cond.	272115	
16 Cond.	272116	
20 Cond.O	272120	
25 Cond.	272125	

Colored

Description	Part #	100ft.+
9 Cond.	273109	
10 Cond.	273110	
14 Cond.	273114	
15 Cond.	273115	
16 Cond.	273116	
20 Cond.	273120	
25 Cond.	273125	
26 Cond.	273126	
34 Cond.	273134	
37 Cond.	273137	
40 Cond.	273140	
50 Cond.O	273150	
60 Cond.	273160	
64 Cond.	273164	

Color Twisted

Description	Part #	100ft.+
9 Cond.	274109	
10 Cond.	274110	
14 Cond.	274114	
15 Cond.	274115	
16 Cond.	274116	
20 Cond.	274120	
25 Cond.	274125	
26 Cond.	274126	

Shielded Flat

Description	Part #	100ft.+
9 Cond.	275109	
10 Cond.	275110	
14 Cond.	275114	
15 Cond.	275115	
16 Cond.	275116	
20 Cond.O	275120	
25 Cond.	275125	
26 Cond.	275126	
34 Cond.	275134	
37 Cond.	275137	
40 Cond.	275140	
50 Cond.	275150	
60 Cond.	275160	
64 Cond.	275164	

Specialty Cable

AT&T

Description	Part #	Ref #
ABAM 22awg 16pr PVC	400041	106989346
ABAM 22awg 30pr PVC	400027	106556632
4pr Cat5 Yellow Patch Cable	400023	106999071
4pr Plenum Cat 5	292077	2061

Belden

Description	Part #	Ref #
Data Twist -5 4pr Plenum	318423	
Data Twist 350 4 pr PVC	318403	SM1700A
Mini 75 ohm Coax PVC	318413	8218
RG59 PVC Black	318401	8241
2pr, 22 awg Type 1 Plenum	318405	82688
3pr, 22 awg Ind/Shld PVC	318415	8777
RG6 Coax PVC	318411	9114
7 Cond 24awg Foil/Braid PVC	318409	9932

T-1 High Speed



A 2 pair 22awg solid tinned conductor individually shielded and jacketed. This cable comes in multiple pair counts and features flexibility, low attenuation, good crosstalk isolation, and high speed. Used for terminating high frequency lines to carrier equipment in central offices.

Description	Part #
T-1 High Speed 1Pair PVC	271025
T-1 High Speed 2Pair PVC	271026
T-1 Hgh Spd. 2Pair *Plenum*O	291026
T-1 High Speed 4 Pair PVC	271027
T-1 High Speed 5 Pair PVC	271028
T-1 High Speed 8 Pair PVC	271030
T-1 Hgh Spd. 10 Pair PVC	271031
T-1 Hgh Spd. 12 Pair PVC	271032

T-1 Low Speed

A 2 pair 22awg solid cable with overall foil shield.



Description	Part #
T-1 Low Speed PVC	271024
T-1 Low Speed *Plenum*O	291024

[illegible]



A MiniCoax bundle with stranded conductors that are foil & braid shielded. Used in TV cameras, HDTV monitors, & computer VDT VGA/ CGA monitors

DESCRIPTION	PART #	REF#
RGB 3 COAX PVC	271019	1164A
RGB 4 COAX PVC	271020	1167A
RGB 5 COAX PVC	271016	
RGB 3 COAX *PLENUM*O	291019	

[illegible]



These cables feature a number of mini RG62A/U 93 ohm coax cables under one jacket. Used primarily in IBM 3274, 3271, and 31 series controllers and IBM 3277, 3270, 3279, and 3278 terminals. We can make custom length assemblies for you in PVC or Plenum or provide you the tools and connectors to make them yourself. Other coax counts available.

DESCRIPTION	PART #
20 COND. MINI RG62A/U PVCO	271021
24 COND. MINI RG62A/U PVC	271022
34 COND. MINI RG62A/U PVC	271023
24 COND. MINI RG62A/U *PLENUM*	291022
34 COND. MINI RG62A/U *PLENUM*	291023

Quotron Type Cable



An RG59 cable with a bonded 4 conductor 22awg solid copper cable. Used to connect Quotron terminals to control units.

DESCRIPTION	PART #
QUOTRON PVC	272012
QUOTRON *PLENUM*O	292012

[illegible]

An RG59 coaxial cable bonded to a single pair 22awg stranded cable with an overall foil shield. Used for Atex computer systems.



DESCRIPTION	PART #	REF#
ATEX PVCO	272010	9265
ATEX *PLENUM*	292010	

[illegible]



We offer many different conductor counts and gauge sizes. Listed below are some of the more popular types

DESCRIPTION	PART #
2 COND 18AWG	272002D
2 COND 16AWGO	272002E
2 COND 14AWG	272002F
2 COND 12AWG "SUPER SPEAKER"	272002GS

[illegible]

Available in an ultra flexible TPE jacketed cable with 2 to 4 conductors. Standard type features gray jacket and 2 bare copper conductors with 95% bare copper braid shield.



DESCRIPTION	PART #
STANDARD 2 COND PVC GRAY.	272080
ULTRA 2 COND 22AWG TPEO	272081
ULTRA 4 COND 22AWG TPE	272082

PLEASE INDICATE JACKET COLOR FOR ULTRA CABLES: BLUE, ORANGE, RED, YELLOW OR BLACK.

[illegible]



These cables are designed for motor and transformer leads, external wiring of machinery, building wiring, and ground wiring. They feature premium grade PVC jackets in a range of colors and are resistant to corrosion, heat & moisture. Available in 8awg thru 20awg stranded bare copper, some with a foil shield.

DESCRIPTION	PART #
2 COND 12AWG UNSHIELDED 300V	201002G
2 COND 14AWG UNSHIELDED 300V	201002F
2 COND 16AWG UNSHIELDED 300VO	201002ER
2 COND 16AWG UNSHIELDED 300V	201002EW
2 COND 20AWG UNSHIELDED 300V	201002C
2 COND 12AWG SHIELDED 300V	200002G
2 COND 14AWG SHIELDED 300V	200002F
2 COND 16AWG SHIELDED 300V	200002E
2 COND 18AWG SHIELDED 300V	200002D
2 COND 20AWG SHIELDED 300V	200002C

***PLENUM* AND DIFFERENT CONDUCTOR COUNTS AND JACKET COLORS AVAILABLE. CONSULT YOUR SALESPERSON.**

[illegible]



DESCRIPTION	PART #
1 COND 8AWG UNSHIELDED 600V	201110IQQ
1 COND 12AWG UNSHIELDED 600V	201110GQQ
1 COND 18AWG UNSHIELDED 600V	201110DQQ

QQ**COLORS : BK=**BLACK, **BL=**BLUE, **RE=**RED, **GR=**GREEN, **OR=**ORANGE, **WH=**WHITE, **GY=**GRAY, **YE=**YELLOW, **BR=**BROWN.

[illegible]

Three 75 ohm Coaxial cables and one 5 pair 24awg stranded cable with an overall foil shield. Used to connect Bloomberg terminals to control units.

DESCRIPTION	PART #
BLOOMBERG PVC	271018
BLOOMBERG *PLENUM*	291018

[illegible]

[illegible]

CUSTOM CABLE ASSEMBLIES

2 Hour Quote Response!

NCI INC.

National Communications is Your First and Last Stop for Custom Made Cables. Our Cables are Guaranteed for Life
Follow the 10 Easy Steps to Your Quality Assembly. If You Need Some Help Just Call Our Knowledgeable Sales

1 Cable Type

1-Unshielded
2-Foil-Shielded
3-Foil and Braid Shielded
4-Flat
5-None
6-Cat5
7-Silver Satin
8-Other _____

2 Length: _____

Put "A" for Adapter



3 Cable Jacket Type

1-PVC
2-Plenum
3-None
4-Other _____

4 Pinning Specifications:

A Pin#	Connector	B Pin#
Examples		
1/2		1/4,5
1		
2		
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5A Gender Male ☐ Female ☐

6A Connector Type (Circle one:)

1- DB9
2- DB15
3- DB25
4- DB37
5- DB50
6- HD15
7- HD26
8- HD44
9- HD62
10-HD78
11- 36 Pin Centronics
12- 24 Pin Telco
13- 50 Pin Telco Cat5
14- 50 Pin telco
15- RJ11 4 wire
16- RJ11 6 wire
17- RJ22 handset 4 wire
18- RJ45 8 wire
19- DEC™ MMJ
20- RJ69 10 wire
21- M/50
22- M/34 (V.35)
23- Spade Lugs, length
24- BNC
25- Other: _____

7A Special Instructions (Circle Options:)

1- One end cut (Blunt)
2- Pins Only
3- Plastic☐ Metalized☐ Metal☐
4- Slide Label
5- Thumbscrews
6- Ports
7- Screwlocks: Male or Female
8- Bail
9- 90 degree hood
Specify cable exit: _____
10- Pairing
11- Flying leads, length: _____
12- Label: _____
13- Other: _____

8A Drain Wire (Circle one:)

(Applies only to foil-shielded cables)
1- Cut drain wire
2- Pin drain by itself.....Pin# _____
4- Wrap drain w/conductor.....Pin# _____
5- Attach drain to shell

9 Quantity: _____

2 Hour Response!

Part#: _____
Price: _____
Delivery: _____
Comments: _____

5B Gender Male ☐ Female ☐

6B Connector Type (Circle one:)

1- DB9
2- DB15
3- DB25
4- DB37
5- DB50
6- HD15
7- HD26
8- HD44
9- HD62
10-HD78
11- 36 Pin Centronics
12- 24 Pin Telco
13- 50 Pin Telco Cat5
14- 50 Pin telco
15- RJ11 4 wire
16- RJ11 6 wire
17- RJ22 handset 4 wire
18- RJ45 8 wire
19- DEC™ MMJ
20- RJ69 10 wire
21- M/50
22- M/34 (V.35)
23- Spade Lugs, length
24- BNC
25- Other: _____

7B Special Instructions (Circle Options:)

1- One end cut (Blunt)
2- Pins Only
3- Plastic☐ Metalized☐ Metal☐
4- Slide Label
5- Thumbscrews
6- Ports
7- Screwlocks: Male or Female
8- Bail
9- 90 degree hood
Specify cable exit: _____
10- Pairing
11- Flying leads, length: _____
12- Label: _____
13- Other: _____

8B Drain Wire (Circle one:)

(Applies only to foil-shielded cables)
1- Cut drain wire
2- Pin drain by itself.....Pin# _____
3- Wrap drain w/conductor.....Pin# _____
4- Attach drain to shell

10

Name: _____
Title: _____
Company: _____
Address: _____
City: _____ State: _____ Zip: _____

Phone / Fax
Phone (973) 325-3151 Fax (973) 325-2690
Email ncisales@trynci.com Hours Mon–Fri 9-4 EST

NO Cancels or Returns on Custom Cables

Length	Part#
3ft	Q07211-003-?
8ft	Q07211-008-?
10ft	Q07211-010-?
15ft	Q07211-015-?
25ft	Q07211-025-?
30ft	Q07211-030-?
50ft	Q07211-050-?
100ft	Q07211-100-?
Custom Lengths	Q07211-***-? +

***** = Length in Feet
?=Color: 1=Bone, 2=Red, 3=Green,4=Blue, 5=Black, 6=Yellow
Standard Color is Bone

Cross Over Patch Cables
for Hub to Hub Connections ONLY!

Length	Part#
2ft	N00056-002-?
3ft	N00056-003-?
4ft	N00056-004-?
5ft	N00056-005-?
6ft	N00056-006-?
8ft	N00056-008-?
10ft	N00056-010-?
15ft	N00056-015-?
30ft	N00056-030-?
Custom Lengths	N07211-***-? +



RJ45-RJ45.

Description	Part #	5 ft.	Part #	ft
1 Pair 110-110	400014-005		400014-010	
2 Pair 110-110	400016-005		400016-010	
3 Pair 110-110	400018-005		400018-010	
4 Pair 110-110	400020-005		400020-010	
4 Pair 110-RJ45	400022-005		400022-010	

Other Lengths Available



The 12 leg octopus cable can be used to go from concentrator to patch panel.
The 6 leg can be used to go from patch panel to patch panel.
NCI can custom make this cable to your specifications. Call for more info.

Description	Part #
2 Pair - 12 Leg 6' Telco w/RJ45 - CAT5 Pins 1,2,3,6	N00035-006
4 Pair - 6 Leg 6' Telco w/RJ45 - Pins 1-8, 568B wiring	N00406-006



Length	Part#
DB9M-DB9M Molded 6ft	Q00411-006
DB9M-DB9M Molded 10ft	Q00411-010
DB9M-DB9F Molded 6ft*	Q00421-006
DB9M-DB9F Molded 10ft.	Q00421-010
DB9M-DB9F Molded 15ft.	Q00421-015
DB9F-DB9F Molded 6ft.	Q00431-006



Length	Part#	
Custom Lengths - PVC	Q004?1***-Q	PVC
Plenum	Q004?0***-Q	*Plenum*

***** = Amount in Feet - ? = 1=MALE-MALE, 2=MALE-FEMALE, 3=FEMALE-FEMALE.

Description	Part #
DB15M-DB15M Molded 6ft.	Q00611-006
DB15M-DB15F Molded 6ft*	Q00621-006
Custom Lengths - PVC	Q006?1***-Q
Plenum	Q006?0***-Q

***** = Amount in Feet - ? = 1=MALE-MALE, 2=MALE-FEMALE, 3=FEMALE-FEMALE.



Description	Part #		
HD15M-HD15M Molded 6ft	Q01411-006		
HD15M-HD15M Molded 10ft	Q01411-010		
HD15M-HD15M Molded 12ft	Q01411-012		
HD15M-HD15F Molded 6ft*	Q01421-006		
HD15M-HD15F Molded 10ft	Q01421-010		
HD15M-HD15F Molded 12ft	Q01421-012		
HD15M-HD15F Molded 15ft	Q01421-015		
Custom Lengths - PVC	Q014?1***-Q	+	
Plenum	Q014?0***-Q	+	
SUPER-VGA HD15M-F Using MiniCoax 6ft	**Q01721-006**	---	---
SUPER-VGA HD15M-F Using MiniCoax 25ft	**Q01721-025**	---	---
SUPER-VGA HD15M-F Using MiniCoax 50ft	**Q01721-050**	---	---
SUPER-VGA Custom Lengths - PVC	**Q017?1***-Q**	+	

***** = Amount in Feet - ? = 1=MALE-MALE, 2=MALE-FEMALE, 3=FEMALE-FEMALE.



CABLE ASSEMBLIES



DESCRIPTION	PART #
DB25 MOLDED M-M, M-F, F-F	3FT. .....Q0082?1-003
	6FT .....Q0082?1-006
	10FT .....Q0082?1-010
	15FT .....Q0082?1-015
	20FT .....Q0082?1-020
	25FT .....Q0082?1-025
	35FT .....Q0082?1-035
	50FT .....Q0082?1-050
	75FT .....Q0082?1-075
	100FT .....Q0082?1-100
CUSTOM LENGTHS - PVC	.....Q0082?1✱✱✱-Q
PLENUM	.....Q0082?0✱✱✱-Q

✱✱✱ = AMOUNT IN FEET

? =1=MALE-MALE, 2=MALE-FEMALE, 3=FEMALE-FEMALE.



DESCRIPTION	PART #
HD26 M-M, M-F, F-F	
CUSTOM LENGTHS - PVC	.....Q0092?1✱✱✱-Q
PLENUM	.....Q0092?0✱✱✱-Q

✱✱✱ = AMOUNT IN FEET

?= 1=MALE-MALE, 2=MALE-FEMALE, 3=FEMALE-FEMALE.



DESCRIPTION	PART #
DB37M-DB37M MOLDED 3FT*	.....Q01011-003
DB37M-DB37M MOLDED 6FT.	.....Q01011-006
DB37M-DB37F MOLDED 3FT.	.....Q01021-003
DB37M-DB37F MOLDED 6FT.	.....Q01021-006
CUSTOM LENGTHS - PVC	.....Q0102?1✱✱✱-Q
PLENUM	.....Q0102?0✱✱✱-Q

✱✱✱ = AMOUNT IN FEET ?= 1=MALE-MALE, 2=MALE-FEMALE, 3=FEMALE-FEMALE.



DESCRIPTION	PART #	
HD44 M-M, M-F, F-F		
CUSTOM LENGTHS - PVC	.....Q0112?1✱✱✱-Q	PVC
PLENUM	.....Q0112?0✱✱✱-Q	PLENUM

✱✱✱ = AMOUNT IN FEET ?= 1=MALE-MALE, 2=MALE-FEMALE, 3=FEMALE-FEMALE.



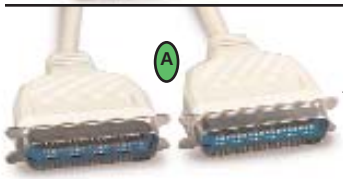
DESCRIPTION	PART #	
DB50M-DB50M MOLDED 6FT*	.....Q01211-006	
DB50M-DB50F MOLDED 6FT.	.....Q01221-006	
CUSTOM LENGTHS - PVC	.....Q0122?1✱✱✱-Q	PVC
PLENUM	.....Q0122?0✱✱✱-Q	PLENUM

✱✱✱ = AMOUNT IN FEET ? = 1=MALE-MALE, 2=MALE-FEMALE, 3=FEMALE-FEMALE.



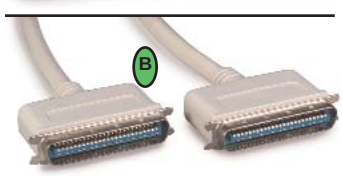
DESCRIPTION	PART #	
HD62 M-M, M-F, F-F		
CUSTOM LENGTHS - PVC	.....Q0132?1✱✱✱-Q	PVC
PLENUM	.....Q0132?0✱✱✱-Q	PLENUM

✱✱✱ = AMOUNT IN FEET ? = 1=MALE-MALE, 2=MALE-FEMALE, 3=FEMALE-FEMALE.



DESCRIPTION	PART #	
M-M 6FT (A)	.....Q02211-006	
M-M 10FT	.....Q02211-010	
M-M 15FT	.....Q02211-015	
M-F 6FT	.....Q02221-006	
M-F 10FT	.....Q02221-010	
M-F 15FT	.....Q02221-015	
F-F 6FT	.....Q02231-006	
F-F 10FT	.....Q02231-010	
CUSTOM LENGTHS - PVC	..Q0222?1✱✱✱-Q	PVC
PLENUM	..Q0222?0✱✱✱-Q	PLENUM

✱✱✱ = LENGTH IN FEET - ? = 1=MALE-MALE, 2=MALE-FEMALE, 3=FEMALE-FEMALE.

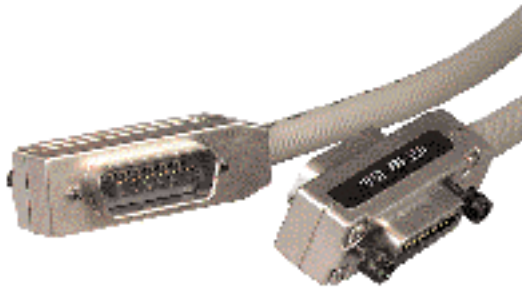


DESCRIPTION	PART #	
M-M 3FT (B)	.....Q02411-003	
M-M 6FT	.....Q02411-006	
M-M 10FT	.....Q02411-010	
M-F 3FT	.....Q02421-003	
M-F 6FT	.....Q02421-006	
M-F 10FT	.....Q02421-010	
CUSTOM LENGTHS - PVC	..Q0242?1✱✱✱-Q	PVC
PLENUM	..Q0242?0✱✱✱-Q	PLENUM

✱✱✱ = LENGTH IN FEET - ? = 1=MALE-MALE, 2=MALE-FEMALE, 3=FEMALE-FEMALE.

CABLE AS

DESCRIPTION	PART #
IEEE 488 BUS CABLE 6FT	Q03641-006
IEEE 488 BUS CABLE 14FT	Q03641-014
IEEE 488 BUS CABLE 28FT	Q03641-028



DESCRIPTION	PART #
CUSTOM 12 PAIR TELCO 90° PVC*	P12??***
PLENUM	Q12??***

*** = LENGTH IN FEET ?? = GENDER PP=MALE-MALE, PC=MALE-FEMALE, CC=FEMALE-FEMALE.

NOTE: ADD PER CONNECTOR FOR 180° ON ALL TELCO ASSEMBLIES.
HOOD BAIL LOCK & SHIELDED CABLES AVAILABLE. PLEASE CALL.

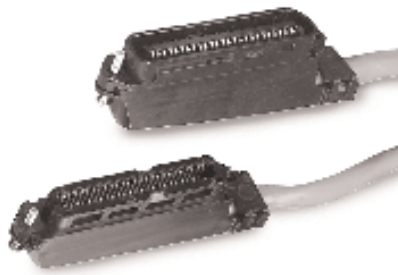


25 PAIR TELCO ASSEMBLY 90 DEGREES

DESCRIPTION	PART #
25 PAIR TELCO 90° 3FT	P25??003- L3
25 PAIR TELCO 90° 5FT	P25??005- L3
25 PAIR TELCO 90° 10FT	P25??010- L3
25 PAIR TELCO 90° 15FT	P25??015- L3
25 PAIR TELCO 90° 20FT	P25??020- L3
25 PAIR TELCO 90° 25FT	P25??025- L3
25 PAIR TELCO 90° 30FT	P25??030- L3
25 PAIR TELCO 90° 35FT	P25??035- L3
25 PAIR TELCO 90° 50FT	P25??050- L3

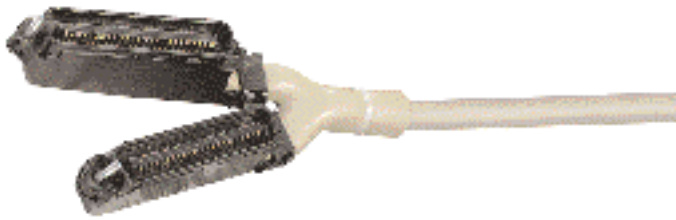
DESCRIPTION	PART #	
25 PAIR TELCO 90° 75FT	P25??075- L3	
25 PAIR TELCO 90° 100FT	P25??100- L3	
25 PAIR TELCO 90° 150FT	P25??150- L3	
25 PAIR TELCO 90° 200FT	P25??200- L3	
CUSTOM 25 PAIR TELCO 90° PVC	P25??***- L3	+
PLENUM	Q25??***- L3	+
CUSTOM *NEW CAT 5* PVC	P25??***- L5	+
NEW CAT 5 PLENUM	Q25??***- L5	+

*** = LENGTH IN FEET ?? = GENDER PP=MALE-MALE, PC=MALE-FEMALE, CC=FEMALE-FEMALE, PX=MALE-BLUNT, CX=FEMALE-BLUNT.



DESCRIPTION	PART #	
CUSTOM PVC	P50??***- L3	+
PLENUM	Q50??***- L3	+

*** = LENGTH IN FEET
?? = GENDER PP=MALE-MALE, PC=MALE-FEMALE, CC=FEMALE-FEMALE, PX=MALE-BLUNT, CX=FEMALE-BLUNT.



DESCRIPTION	PART #	
CUSTOM PVC	P75??***- L3	+
PLENUM	Q75??***- L3	+

*** = LENGTH IN FEET
?? = GENDER PP=MALE-MALE, PC=MALE-FEMALE, CC=FEMALE-FEMALE, PX=MALE-BLUNT, CX=FEMALE-BLUNT.



DESCRIPTION	PART #	
CUSTOM PVC	P100??***- L3	+
PLENUM	Q100??***- L3	+

*** = LENGTH IN FEET
?? = GENDER PP=MALE-MALE, PC=MALE-FEMALE, CC=FEMALE-FEMALE, PX=MALE-BLUNT, CX=FEMALE-BLUNT.



DESCRIPTION	PART #
2 WIRE 24 LEG 3' TELCO 50 (MALE)-RJ11	M11003
4 WIRE 12 LEG 3' TELCO 50 (MALE)-RJ11	M12003
6 WIRE 8 LEG 3' TELCO 50 (MALE)-RJ12	M13003
8 WIRE 6 LEG 3' TELCO 50 (MALE)-RJ45	M14003
2 WIRE 24 LEG 3' TELCO 50 (FEMALE)-RJ11	M16003
4 WIRE 12 LEG 3' TELCO 50 (FEMALE)-RJ11	M17003
6 WIRE 8 LEG 3' TELCO 50 (FEMALE)-RJ12	M18003
8 WIRE 6 LEG 3' TELCO 50 (FEMALE()-RJ45	M19003



CABLE ASSEMBLIES










SCSI - 1 CABLE ASSEMBLIES

Description	Part #
DB25M-Centronic50M 3ft	Q04011-003
DB25M-Centronic50M 6ft	Q04011-006
DB25M-Centronic50M 10ft	Q04011-010

Description	Part #
Centronic50M-DB50M 6ft	Q04211-006

Description	Part #
Centronic50M-Centronic50F 3ft	Q02421-003
Centronic50M-Centronic50F 6ft	Q02421-006
Centronic50M-Centronic50F 10ft	Q02421-010

Description	Part #
Centronic50M-Centronic50M 3ft	Q02411-003
Centronic50M-Centronic50M 6ft	Q02411-006
Centronic50M-Centronic50M 10ft	Q02411-010

SCSI - 2 CABLE ASSEMBLIES

Description	Part #
HPD50M-HPD50M 3ft	Q04411-003
HPD50M-HPD50M 6ft	Q04411-006
HPD50M-HPD50M 10ft	Q04411-010

Description	Part #
HPD50M-HPD50F 6ft	Q04421-006
HPD50M-HPD50F 10ft	Q04421-010

Description	Part #
HPD50M-Centronic50M 3ft	Q04611-003
HPD50M-Centronic50M 6ft	Q04611-006

Description	Part #
HPD50M-DB50M 3ft	Q04811-003
HPD50M-DB50M 6ft	Q04811-006
HPD50M-DB50M 10ft	Q04811-010
DB50M-DB50M 6ft	Q01211-006

Description	Part #
HD Cent50 Male-Cent50 Male 3ft	Q50811-003
HD Cent50 Male-Cent50 Male 6ft	Q50811-006
HD Cent50 Male-DB50 Male 3ft	Q51011-003
HD Cent50 Male-DB50 Male 6ft	Q51011-006
HD Cent50 Male-HD Cent50 Male 3ft	Q51211-003
HD Cent50 Male-HD Cent50 Male 6ft	Q51211-006

SCSI - 3 CABLE ASSEMBLIES

Description	Part #
HPD68 Male to Male 3'	QO3311-003
HPD68 Male to Male 6'	QO3311-006
HPD68M to Centronics 50M 3'	QO3511-003
HPD68M to Centronics 50M 6'	QO3511-006
HPD68M to SCSI 2 HPD 50M w/Latch 3'	QO3711-003
HPD68M to SCSI 2 HPD 50M w/Latch 6'	QO3711-006
HPD50 Male to SCSI 3 HPD 68M w/Screw 3'	QO3911-003
HPD50 Male to SCSI 3 HPD 68M w/Screw 6'	QO3911-006
HPD68M to 2 SCSI 2 HPD 50M w/Screw 6'	QO4111-006

Description	Part #
HPD68M - Centronics 50M 6'	QO5811-006
HPD68F - Centronics 50M 6'	QO5821-006
HPD68 - SCSI 2 HPD 50 6'	QO5911-006
HPD68F - DB50M 3'	QO6021-003
HPD68M - Centronics 50F SCSI Adaptor	QO6121-00A
Single Ended Active HPD68 Terminator	QO6511-1
SCSI 3M - SCSI1M Adaptor	QO6711-A
SCSI Fast Wide Cable 3'	QO6911-006
SCSI Fast Wide Cable 6'	QO6911-003
SCSI 3 Wide Internal 3 Conn 30"	QO6313-RIB
SCSI 3 Wide Internal 5 Conn 56"	QO6315-RIB
SCSI 3 Wide Internal 7 Conn 80"	QO6317-RIB
SCSI 3 Wide Internal 8 Conn 92"	QO6318-RIB

SPECIAL SCSI CABLES

Description	Part #
DEC SCSI Cable Assemblies	
SCSI HPD68F-Centronic50M 6ft	Q05821-006
SCSI HPD68F-DB50M 3ft.	Q06021-003
IBM SCSI Cable Assemblies	
RISC HPD60M-Centronic50M 5ft	Q06011-005
RISC HPD60M-Centronic50M/F 5ft.	Q06241-005
SCSI Flat Ribbon Drive Cable Assemblies	
Single-Internal 18" (50Socket-50S.)	Q06411-002
Dual-External 22"(50Socket-50S.-50S.)	Q06611-002
Special SCSI Cable Assemblies	
SCSI-2 HPD100M-HPD100M 1ft	Q06811-001

☛ Due to Everchanging Technical Definitions, Changes Have Been Made to SCSI Terminology.

SCSI-1 -Will remain the same
SCSI-2 -Will also be know as **FAST SCSI**
SCSI-3 -Will also be know as **ULTRA SCSI** or **ULTRA2 SCSI**

NCI will use **SCSI-1,2,3** as our terminology

ULTRA SCSI
includes FAST 20 and Double Speed SCSI

ULTRA SCSI2
includes FAST 40 devices

CABLE ASSEMBLIES

These high speed cables are 34 conductor with a PVC jacket.

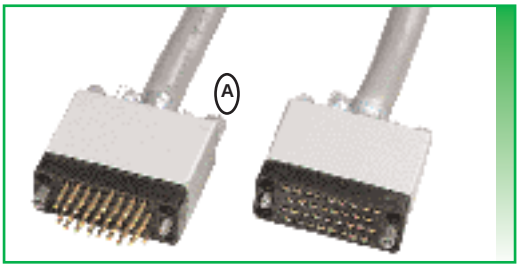
DESCRIPTION	PART #
V.35 M-M 6FT.	Q76011-006
V.35 M-M 10FT.	Q76011-010
V.35 M-M 15FT	Q76011-015
V.35 M-F 6FT (A)	Q76021-006
V.35 M-F 10FT.	Q76021-010
V.35 M-F 15FT	Q76021-015
V.35 F-F 6FT.	Q76031-006
V.35 F-F 10FT.	Q76031-010
V.35 F-F 15FT.	Q76031-015
CUSTOM 34 CDTR - PVC.	Q760?1-***
PLENUM ...	Q760?0-***
CUSTOM 18 CDTR - PVC.	Q761?1-***
PLENUM ...	Q761?0-***

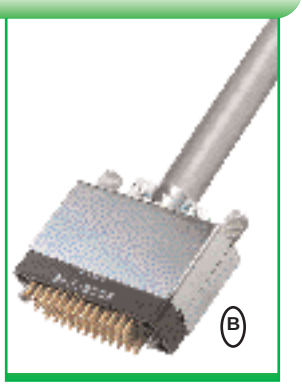
*** = LENGTH IN FEET

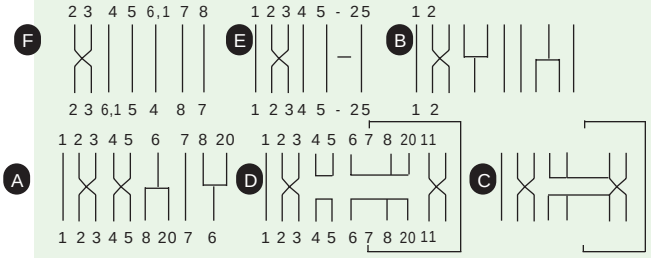
? =GENDER: 1=MALE-MALE, 2=MALE-FEMALE, 3=FEMALE-FEMALE.

DESCRIPTION	PART #
CUSTOM 50 CDTR-PVC (B) ..	Q762?1-***
PLENUM	Q762?0-***

*** = LENGTH IN FEET ? =GENDER:
1=MALE-MALE, 2=MALE-FEMALE, 3=FEMALE-FEMALE.







DESCRIPTION	PART #
(A) FULL HANDSHAKE DB25 M-F	403250
(B) STANDARD 1 DB25 M-F	403248
(C) STANDARD 2 DB25 M-F	403254
(D) NO HANDSHAKE DB25 M-F.	403252
(E) PRINTER DB25 M-F.	403246
(F) STANDARD NULL DB9 M-F	403244



DESCRIPTION	PART #	
DB25M - CENTRONIC 36M 3FT	Q00121-003	
DB25M - CENTRONIC 36M 6FT	Q00121-006	
DB25M - CENTRONIC 36M 10FT	Q00121-010	
DB25M - CENTRONIC 36M 15FT	Q00121-015	
DB25M - CENTRONIC 36M 20FT	Q00121-020	
DB25M - CENTRONIC 36M 25FT	Q00121-025	
DB25M - CENTRONIC 36M 35FT	Q00121-035	
DB25M - CENTRONIC 36M 50FT	Q00121-050	
CUSTOM LENGTHS - PVC	Q00121***-Q	PVC
PLENUM	Q00120***-Q	PLENUM

*** = AMOUNT IN FEET









Serial Printer (Null Modem) cable works on most serial printers, except HP Laser.

DESCRIPTION	PART #	
DB9F-DB25M 6FT.	Q02821-006	
DB9F-DB25M 10FT.	Q02821-010	
DB9F-DB25M 15FT.	Q02821-015	
CUSTOM LENGTHS - PVC	Q02821-***-Q	PVC
PLENUM	Q02820-***-Q	PLENUM

*** = AMOUNT IN FEET

DESCRIPTION	PART #
DB9F-DB25M ADAPTER	Q03821-00A
DB9F-DB25F ADAPTER	Q03831-00A
DB9M-DB25M ADAPTER	Q03811-00A
DB9F-DB25M 1FT	Q03821-001
DB9F-DB25M 6FT	Q03821-006
DB9F-DB25M 10FT	Q03821-010
DB9F-DB25M 15FT	Q03821-015
CUSTOM LENGTHS - PVC	Q038?1-***-Q PVC
PLENUM	Q038?0-***-Q PLENUM

*** = AMOUNT IN FEET ?=GENDER: 1=MALE-MALE, 2=MALE-FEMALE, 3=FEMALE-FEMALE

DESCRIPTION	PART #	
DB9F-DB25M 6FT.	Q03421-006	
DB9F-DB25M 10FT	Q03421-010	
CUSTOM LENGTHS - PVC	Q03421-***-Q	PVC
PLENUM	Q03420-***-Q	PLENUM

*** = AMOUNT IN FEET

DESCRIPTION	PART #	
DB9F-DB9F 6FT.	Q03031-006	
CUSTOM LENGTHS - PVC	Q03031-***-Q	PVC
PLENUM	Q03030-***-Q	PLENUM

*** = AMOUNT IN FEET

DESCRIPTION	PART #	
DB25M-DB25F 6FT	Q03221-006	
DB25M-DB25F 10FT	Q03221-010	
CUSTOM LENGTHS - PVC	Q03221-***-Q	PVC
PLENUM	Q03220-***-Q	PLENUM

*** = AMOUNT IN FEET

Serial Printer (Null Modem) cable works on most serial printers, except HP Laser.

DESCRIPTION	PART #	
DB25M-M, M-F, F-F 6FT.	Q026?1-006	
DB25M-M, M-F, F-F 10FT.	Q026?1-010	
DB25M-M, M-F, F-F 15FT.	Q026?1-015	
DB25M-M, M-F, F-F 20FT.	Q026?1-020	
DB25M-M, M-F, F-F 25T.	Q026?1-025	
CUSTOM LENGTHS - PVC	Q026?1-***-Q	PVC
PLENUM	Q026?0-***-Q	PLENUM

*** = AMOUNT IN FEET ? =GENDER: 1=MALE-MALE, 2=MALE-FEMALE, 3=FEMALE-FEMALE.

Cable Assemblies



Description	Part #	
Mini Din 3M - Mini Din 3M 6ft	Q76311-006	
Mini Din 3M - Mini Din 3F 6ft	Q76321-006	
Mini Din 4M - Mini Din 4M 6ft	Q76411-006	
Mini Din 6M - Mini Din 6M 6ft	Q01811-006	
Mini Din 6M - Mini Din 6M 12ft	Q01811-012	
Mini Din 6M - Mini Din 6F 6ft	Q01821-006	
Mini Din 6M - Mini Din 6F 12ft	Q01821-012	
Mini Din6 Custom Lengths-PVC	Q018?1***-Q	PVC
Plenum	Q018?0***-Q	Plenum
MD8M-MD8M- Straight - 6ft	Q32211-006	
MD8M-MD8M- Straight - 12ft	Q32211-012	
MD8M-MD8F Extender - 6ft*	Q32321-006	
MD8M-MD8F Extender - 12ft	Q32321-012	
Mini Din 9M - Mini Din 9M 6ft	Q76611-006	
Mini Din 9M - Mini Din 9M 12ft	Q76611-012	
Din 4M - Din 4M 6ft	Q76811-006	
Din 5M-Din 5M 6ft	Q01611-006	
Din 5M-Din 5M 12ft	Q01611-012	
Din 5M-Din 5F 6ft	Q01621-006	
Din 5M-Din 5F 10ft	Q01621-010	
Din 5M-Din 5F 25ft	Q01621-025	
Din 5 Custom Lengths - PVC	Q016?1***-Q	PVC
Plenum	Q016?0***-Q	Plenum
Din 6M - Din 6M 6ft	Q77011-006	
Din 6M - Din 6F 6ft	Q77021-006	
Din 8M - Din 8M 6ft	Q77211-006	
Din 8M - Din 8F 6ft	Q77221-006	

*** = Amount in Feet



Description	Part #
Din 5 Female to Mini 6 Male Adapter (A)	Q98121-A
Din 5 Female to Mini 6 Male 1 ft (B).	Q98121-001
Din 5 Male to Mini 6 Female Adapter	Q98221-A
Din 5 Male to Mini 6 Female 1 ft	Q98221-001

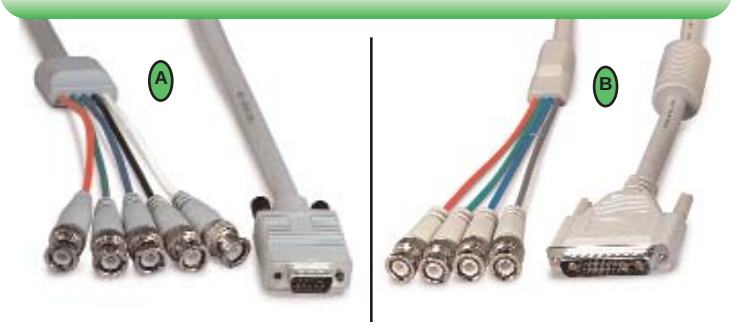
Description	Part #	
RG59 F (male) to F (Male) PVC	N00385-***	PVC or Plenum
RG59 F (male) to BNC (Male) PVC	N00399-***	PVC or Plenum
RG59 BNC (male) to BNC (Male) PVC	N00027-***	PVC or Plenum
75 Ohm Terminator BNC Type	326904	
75 Ohm Terminator F Type	380057	



BIG SAVINGS

NCI offers this hard drive cable for far less than the original manufacturer. We carry a full line of DEC compatible products. Call our knowledgeable sales department for more information.

Description	Part #	Ref #
Flat High Speed Hard Drive Cable	Q04711-050	BC26V



Description		Part #
3 BNC-DB15 Male	6ft	Q12611-006
4 BNC-4 BNC	8ft	Q11411-008
4 BNC-DB13W3 Male (B)	6ft	Q10611-006
4 BNC-DB13W3 Male w/dip switch	6ft	Q10811-006
4 BNC-DB13W3 Female	6ft	Q11011-006
4 BNC-HD15 Male	6ft	Q12211-006
5 BNC-5 BNC	8ft	Q11611-008
5 BNC-DB15 Male	6ft	Q12411-006
5 BNC-HD15 Male (A)	6ft	Q12011-006
DB13W3 Male-DB13W3 Male	6ft	Q11211-006
DB13W3 Male-DB13W3 Female	6ft	Q11811-006
Sony VGA Gender Changer		Q07211-00A
Sony Multi-Sync Monitor Cable	6ft	Q07411-006
NEC VGA Gender Changer		Q07611-00A
Hitachi VGA Changer		Q07811-00A
Samsung CN 4551 VGA Cable	6ft	Q08011-006
Mitsubisi 1381 VGA Cable	6ft	Q08211-006
Mitsubisi 1451 VGA Cable	6ft	Q08411-006
Thomson 4375 VGA Cable	6ft	Q08611-006
Tatung VGA Gender Changer		Q08811-00A
Tatung or Taxan 7700 VGA Cable	6ft	Q09011-006
Sony VGA Monitor to EGA Changer		Q09211-00A
NEC VGA Monitor to EGA Changer		Q09411-00A
Tatung VGA Monitor to EGA Changer		Q09611-00A
MAC II to Sony VGA Cable	6ft	Q09811-006
MAC II to Mitsubisi VGA Cable	6ft	Q10011-00A
MAC LC to VGA Monitor Adapter		Q10211-00A
VGA Y Cable (2HD-15S 1HD-15P)	6"	Q10411-001



Description	Part #
Hard Drive - 2 cables (34 & 20pin)	380450
Hard Drive & Floppy - 3 cables (2-34 & 20pin)	380452
IDE H.D. Dual (40pin) & AT Floppy Dual (34pin)	380454
IDE Hard Drive Single (40pin)	380456
IDE Hard Drive Dual (40pin)	380458
Floppy AT Dual	380460
Floppy XT Dual-3 Cardedge-Twist 10-16	380462
Hard Drive Cable AT Dual Twist 25-29	380464
Hard Drive Cable At (Dual Purpose & 3.5)	380466
Floppy Cable AT (Dual Floppy & Tape Back-Up)	380468



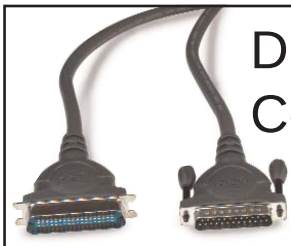
Description	Part #
Bantam-Bantam 1'	332411
Bantam-Bantam 3'	332401
Bantam-Bantam 5'	332407
Bantam-Bantam 25'	332415
Bantam-310 8'	332409
310M-Bantam F Adapter	332413
2Cond Loop Back Plug	332419
Double Loop Back Plug	332403

Telect Loopback Plug



DESCRIPTION	PART #
TELECT LOOPBACK PLUG	541701

DB25M-Cent36



The premium quality Belkin IEEE 1284-1994 compliant "A-B" cable assembly is designed to fully support all of the capabilities and advantages of the IEEE 1284 standard, including all high speed and bi-directional/Bi-tronic data transmission. It will also provide superior performance in all other PC to parallel printer applications, including the use of all non-IEEE 1284 computers and printers.

-This cable features a DB25 "A" connector for the PC and a Centronics 36P "B" connector for the printer. It has been fully tested and certified by Belkin to be compliant with the IEEE 1284-1994 and other applicable industry standards.
-This cable will perform flawlessly in all modes, including Centronics compatible, Bi-Directional, Bi-tronic, Nibble, Byte, ECP, EPP, Level 1&2, and Type 1, 2, & 3, and with all PC's and printers

DESCRIPTION	PART #
BELKIN DB25M-CENT36M	415205

Mini Din 6F-DB9F Adapter



DESCRIPTION	PART #
MINI DIN 6F-DB9F ADAPTER	Q98231-A

DB25M-M



The premium quality Belkin IEEE 1284-1994 compliant "A-A" cable assembly is designed to fully support all of the capabilities and advantages of the IEEE 1284 standard, including all high speed and bi-directional/Bi-tronic data transmission. It will also provide superior performance in all other PC to switch box applications.

-This cable features a DB25 "A" connector for the PC and a DB25 "A" connector for the switch box. It has been fully tested and certified by Belkin to be compliant with the IEEE 1284-1994 and other applicable industry standards.
-This cable will perform flawlessly in all modes, including Centronics compatible, Bi-Directional, Bi-tronic, Nibble, Byte, ECP, EPP, Level 1&2, and Type 1, 2, & 3, and with all PC's and printers

DESCRIPTION	PART #
BELKIN DB25M-M	541905

RJ45-RJ45 Patch Cable



DESCRIPTION	PART #
AMP MODULAR PLUG CABLE ASSEMBLY CAT5, RJ45-RJ45 PATCH CABLE 8'	315114

V.24 - V.35 Interface Converter

The V.24 - V.35 Interface Converter connects two data communications products: one has a V.24 interface and the other has a V.35 interface. The Converter is used in synchronous applications and operates at data rates up to 64 Kbps. It converts the physical as well as the electrical interfaces. Its circuitry converts the interface within short range -- use the Converter to connect devices located close to each other (less than 6.5 feet [2 m] apart).

The Converter operates without AC power, using ultra-low power from the DTE and DCE equipment data and control signals. It is switch-selectable for one of the following two applications:

- Connecting a V.24 (RS-232) DTE to a V.35 DCE
- Connecting a V.24 (RS-232) DCE to a V.35 DTE

The Converter offers these features:

- Cable and connectors are built into a single unit
- Transparent to protocol
- Operates at speeds up to 64 Kbps
- Quick and easy to install
- Works without AC power



Specifications

Speed - Up to 64 Kbps
Maximum Distance - 6.5 ft. (2.0 m)
Operation - Synchronous
Leads Supported - V.35: A, B, C, D, E, F, H, P, R, S, T, U, V, W, X, Y, AA
V.24/RS-232: 1, 2, 3, 4, 5, 6, 7, 8, 15, 17, 20,
Indicators - None
Flow Control - Provided by attached devices (transparent to protocol)
Interface - V.24/RS-232 and V.35; both DTE/DCE shunt-selectable
Connectors - V.24: DB25 (male), V.35: 34-pin (male or female)
Power - Derives power from interface
Size - 0.9"Hx2.1"Wx4.3"D (2.2x5.5x9 cm)
Weight - 0.9 lb. (0.4 kg), including cable and connectors

DESCRIPTION	PART#
EAZY V.24 - V.35 INTERFACE CONVERTER	313549

NCI INC.

SHIELDED 568A/B

NEW

Shielded Keystone Jack Category 5, 568A or 568B, features AT&T 110 IDC connector. Provides a direct punch-down (with termination pattern the same as the UMI). 110 punch-down tool recommended for termination. Fits any Keystone port opening .580" x .790" common among competitor faceplates.

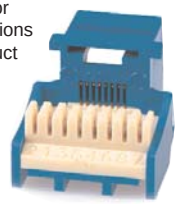


CAT 5

SHIELDED 568A/B
PART # 538401

ICC's Engineering Department designs and develops new technologies for our interconnect customers. As an active member of the Telecommunications Industry Association, ICC guarantees our customers that every ICC product will meet or exceed the highest industry standards of quality and reliability.

ICC's Quality Control Department specifications ensure strict compliance to FCC, TIA, and UL standards by inspecting and testing every component before it leaves our warehouse. As a result, we have the lowest product defect and return rate in the industry.



Back of Modules

FIBER OPTIC



PART # 312245
COLORS AVAILABLE 5-6-9

MODULAR CAT5 RJ45



PART # 312201
COLORS AVAILABLE 0-4-5-6-7-9

MODULAR CAT3 RJ45



PART # 312202
COLORS AVAILABLE 0-4-5-6-7-9

MODULAR 6P6C RJ12



PART # 312225
COLORS AVAILABLE 0-5-6-9

MODULAR MMJ



PART # 312243
COLORS AVAILABLE 5-6-9

FEEDTHROUGH COUPLERS MODULES RJ12



PART # 312205
COLORS AVAILABLE 0-6-9

FEEDTHROUGH COUPLERS MODULES



PART # 312207
COLORS AVAILABLE 0-6-9

FEEDTHROUGH BNC MODULES



PART # 311478
COLORS AVAILABLE 5-6-9

FEEDTHROUGH CATV MODULES



PART # 312229
COLORS AVAILABLE 5-6-9

BLANK FILL-IN MODULES



PART # 312221
COLORS AVAILABLE 5-6-9

ROUND HOLE INSERTS



PART # 312237
COLORS AVAILABLE 5-6-9

COLOR IDENTIFICATION



PART # 312235
COLORS AVAILABLE 0-4-5-6-7-9

1 PORT SINGLE GANG FACE



PART # 312209
COLORS AVAILABLE 5-6-9

2 PORT SINGLE GANG FACE PLATE



PART # 312211
COLORS AVAILABLE 5-6-9

3 PORT SINGLE GANG FACE



PART # 312213
COLORS AVAILABLE 5-6-9

4 PORT SINGLE GANG FACE PLATE



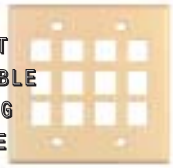
PART # 312215
COLORS AVAILABLE 5-6-9

6 PORT SINGLE GANG FACE PLATE



PART # 312217
COLORS AVAILABLE 5-6-9

12 PORT DOUBLE GANG FACE



PART # 312233
COLORS AVAILABLE 5-6-9

MOUNTING BOX

SINGLE & DOUBLE GANG



TYPE	PART #
SINGLE GANG	312223
DOUBLE GANG	312241

COLORS AVAILABLE 5-6-9

SURFACE MOUNT BOX



PART # 312203
COLORS AVAILABLE 5-6-9

SURFACE MOUNT BOX



PART # 312219
COLORS AVAILABLE 5-6-9

DUPLEX MODULAR MTNG PLATE



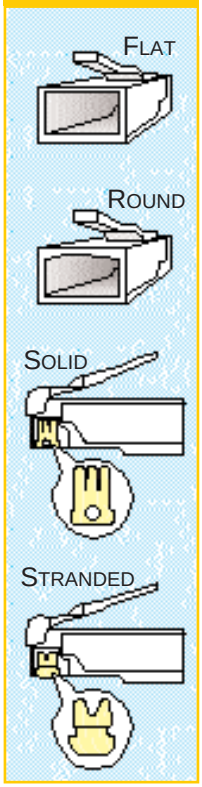
PART # 312231
COLORS AVAILABLE 5-6-9

COLORS KEY SUFFIX 0=Black 4=Blue 5=White 6=Grey 7=Red 9=Ivory

CONNECTORS

CONNECTORS

TYPES





AMP

DESCRIPTION	PART #
RJ11 PLUG 6 POS X 4 CONTACT SOLID	314915
RJ12 PLUG 6 POS X 6 CONTACT	315101
RJ12 PLUG 6 POS X 6 CONTACT ROUND SOLID	315102
RJ45 PLUG 8 POS X 8 CONTACT CAT5	315015
RJ45 PLUG 8 POS X 8 CONTACT	414030-AMP
RJ45 PLUG 8 POS X 8 CONTACT ROUND SOLID TYPE	414030RSO-AMP
RJ45 PLUG 8 POS X 8 CONTACT KEYED	414031-AMP
RJ45 PLUG 8 POS X 8 CONTACT KEYED ROUND SOLID	414031RSO-AMP
RJ45 PLUG 8 POS X 8 CONTACT ROUND STRANDED	414030RST-AMP
MMJ PLUG 6 POS X 6 CONTACT	315103
MMJ PLUG 6 POS X 6 CONTACT ROUND SOLID	315104

NCI FLAT STRANDED TYPE

DESCRIPTION	PART #
4 POS HANDSET RJ22	414002
4 POS RJ11	414005
6 POS RJ12	414020
6 POS MMJ DEC TYPE	414021
8 POS RJ45	414030
8 POS RJ45 KEYED	414031
10 POS RJ69	414035
10 POS RJ69 KEYED	414038

ROUND STRANDED TYPE

DESCRIPTION	PART #
4 POS RJ11	414005RST
6 POS RJ12	414020RST
6 POS MMJ DEC TYPE	414021RST
8 POS RJ45	414030RST
8 POS RJ45 KEYED	414031RST

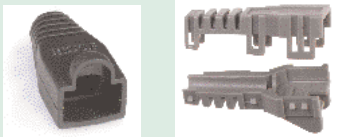
ROUND SOLID TYPE

DESCRIPTION	PART #
4POS RJ11	414005RSO
6POS RJ12	414020RSO
6POS MMJ DEC TYPE	414021RSO
8POS RJ45	414030RSO
8POS RJ45 KEYED	414031RSO



SHIELDED 8 POSITION CONNECTORS

DESCRIPTION	PART #
8POS RJ45 FLAT CABLE TYPE	414056
8POS RJ45 ROUND STRANDED TYPE	414057
8POS RJ45 ROUND SOLID TYPE	414058
8POS RJ45 DELUXE CONNECTOR*	414059



DESCRIPTION	PART #
RUBBER STRAIN RELIEF PLUG PROTECTOR (BLACK)	414034
PLASTIC STRAIN RELIEF PLUG PROTECTOR (GREY)2 PIECE	414034-GRAY
RUBBER STRAIN RELIEF PLUG PROTECTOR (RED)	414034-RED
RUBBER STRAIN RELIEF PLUG PROTECTOR (YELLOW)	414034-YELLOW

MODULAR TO D-SUB ADAPTERS

Modular to D-sub adapters are 1 or 2 Piece construction that have the modular jack leads pre-terminated with pins or sockets for loading into a D-sub connector. Easily assembled on site or can be custom configured by technicians.



MOD ADAPTER TYPE	4 COND RJ11	6 COND RJ12	6 COND MMJ	8COND RJ45	10COND RJ69
DB9 PIN 1 PIECE MALE	441175	441171	441173	441205	441254
DB9 PIN 1 PIECE FEMALE	441170	441172	441174	441202	441255
DB15 PIN 1 PIECE MALE	441176	441177	441181	441208	441256
DB15 PIN 1 PIECE FEMALE	441178	441179	441182	441207	441257
DB25 PIN 1 PIECE MALE	441185	441190	441192	441210	441258
DB25 PIN 1 PIECE FEMALE	441180	441191	441193	441220	441259
DB9 PIN 2 PIECE MALE	441230	441231	441232	441233	441260
DB9 PIN 2 PIECE FEMALE	441234	441235	441236	441237	441261
DB15 PIN 2 PIECE MALE	441238	441239	441240	441241	441262
DB15 PIN 2 PIECE FEMALE	441242	441243	441244	441245	441263
DB25 PIN 2 PIECE MALE	441246	441247	441248	441249	441264
DB25 PIN 2 PIECE FEMALE	441250	441251	441252	441253	441265

PRICING .....1-24 .....
....25-49 .....
....50-99 .....
100-250 .....

STANDARD COLOR IS GREY. MOST ADAPTERS ARE ALSO AVAILABLE IN COLORS: 0=BLACK, 1=RED, 2=BLUE, 3=YELLOW, 4=GREEN ADD PER ADAPTER FOR COLORS. ADD FOR WIRING MOD TAPS

DUAL MOD TAP

DESCRIPTION	PART #
SPECIAL DUAL RJ45 TO DB25 MALE	411270

MODULAR INLINE COUPLERS



DESCRIPTION	PART #
4 COND (RJ11) HANDSET TYPE	414060E
4 COND (RJ11) STANDARD	414060
6 COND (RJ12) STANDARD	414060A
6 COND MMJ TYPE	414060B
8 COND (RJ45) STANDARD	414060C
8 COND (RJ45) SHIELDED	414060P
8 COND (RJ45) CAT5	318315
10 COND (RJ69) STANDARD	414060D

CAT5

DESCRIPTION	PART #
TELCO HOOD 90° FOR CAT5 PLUG	403249
TELCO HOOD 120° FOR CAT5 PLUG	403259
TELCO PLUG CAT 5	403247


Telco Hood 90°


Telco Hood 120°

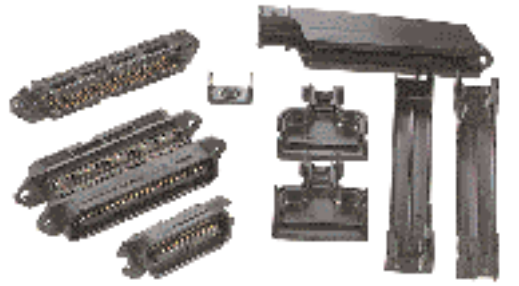
50 POSITION *24/26 AWG SOLID OR 24AWG STRANDED*

DESCRIPTION	PART #
HOOD KIT 90°	413050
HOOD KIT 180°	413051

DESCRIPTION	MALE#	FEMALE #	1-49	50-99	100-999
CONNECTOR ONLY BAIL	417073	----------			
CONNECTOR ONLY SCREW	413040	413045			

DESCRIPTION	MALE#	FEMALE #	1-49	50-99	100-999
CONNECTOR KIT SCREW 90°	413060	413065			
CONNECTOR KIT SCREW 180°	413061	413066			
CONNECTOR KIT BAIL 90°	413081	----------			
CONNECTOR KIT BAIL 180°	413082	----------			
CONNECTOR KIT MALE/FEMALE BI 90°	-------411000--------				

DESCRIPTION	MALE#	FEMALE #	1-49	50-99	100-999
22 AWG CONNECTOR KIT SCREW 90°	413056	413057			



36 POSITION *24/26 AWG SOLID OR 24AWG STRANDED*

DESCRIPTION	PART #
HOOD KIT 90°	314932
HOOD KIT 180°	314931

DESCRIPTION	MALE#	FEMALE #	1-49	50-99	100-999
CONNECTOR ONLY BAIL	314934	----------			
CONNECTOR ONLY SCREW	314929	314928			

DESCRIPTION	MALE#	FEMALE #	1-49	50-99	100-999
CONNECTOR KIT SCREW 90°	314996	314938			
CONNECTOR KIT SCREW 180°	314940	314942			
CONNECTOR KIT BAIL 90°	314944	314946			
CONNECTOR KIT BAIL 180°	314948	314950			

24 POSITION *24/26 AWG SOLID OR 24AWG STRANDED*

DESCRIPTION	PART #
HOOD KIT 90°	413077
HOOD KIT 180°	413078

DESCRIPTION	MALE#	FEMALE #	1-49	50-99	100-999
CONNECTOR ONLY BAIL	413086	----------			
CONNECTOR ONLY SCREW	413070	413085			

DESCRIPTION	MALE#	FEMALE #	1-49	50-99	100-999
CONNECTOR KIT SCREW 90°	413046	413047			
CONNECTOR KIT SCREW 180°	413048	413049			
CONNECTOR KIT BAIL 90°	413083	----------			
CONNECTOR KIT BAIL 180°	413084	----------			

Also Available in 22 AWG

TELCO CONNECTOR HARDWARE &



DESCRIPTION	PART #
FEMALE BAIL LATCHES	515071
DUST COVER MALE BLUE	515072
DUST COVER FEMALE RED	515073
FINGER BOOTS 50PR 1- 2	515074
FINGER BOOTS 75PR 1- 2- 3	515075
FINGER BOOTS 100PR 1- 2- 3- 4	515076
AMP 25 PAIR LACINGCOMB	515066
BUTTERFLY INSTALL TOOL WITH CASE	515065
T- HANDLE WIRE INSERTION TOOL	515070

V.35

These connectors are used in V.35 applications. Our special head comes with screwlocks and a superior stain relief. We carry contacts for 20- 24 AWG cable which have 30 mil gold plating.



V.35 CONNECTORS

DESCRIPTION	PART #
V.35 MALE CONNECTOR	311420
V.35 FEMALE CONNECTOR	311425
V.35 MALE COMPLETE KIT: HOOD, CONN, PINS	311106

V.35 HOOD KIT

DESCRIPTION	PART #
HOOD KIT	311430
SHROUD	311432
HOOD KIT WITH SHROUD	311431

V.35 CONTACTS

DESCRIPTION	PART #
MALE PINS 20- 24 AWG	311440
FEMALE PINS 20- 24 AWG	311441

V.35 TOOLS

DESCRIPTION	PART #
EXTRACTION TOOL	514053
CRIMP TOOL	514020



AMP Insulation Displacement (IDC) Kits

Description	Male	Female	1-24	25-49	50-250
DB9 IDC Kit	315113	315115			
DB15 IDC Kit	315041	315043			
DB25 IDC Kit*	315007	315005			



D-Subminiature Connector Kits

Description	Male	Female	1-24	25-49	50-250
DB9 Crimp Kit Gray	310311	310314			
DB15 Crimp Kit Gray	310331	310334			
HD15 Crimp Kit Gray	311310	311311			
DB25 Crimp Kit Gray	310351	310354			
DB37 Crimp Kit Gray	310371	310374			
DB50 Crimp Kit Gray	310391	310394			

Add suffix-S for Solder.



Black Plastic Kit "AMP Type" - Crimp or Solder

Description	Male	Female	1-24	25-49	50-250
DB9 Crimp Kit Black	310310	310315			
DB15 Crimp Kit Black	310330	310335			
HD15 Crimp Kit Black	311312	311313			
DB25 Crimp Kit Black	310350	310355			
DB37 Crimp Kit Black	310370	310375			
DB50 Crimp Kit Black	310390	310395			

Add suffix-S for Solder.



Metalized Plastic Kit - Crimp or Solder

Description	Male	Female	1-24	25-49	50-250
DB9 Crimp Kit Metalized	310312	310316			
DB15 Crimp Kit Metalized	310332	310336			
HD15 Crimp Kit Metalized	311314	311315			
DB25 Crimp Kit Metalized	310352	310356			
DB37 Crimp Kit Metalized	310372	310376			
DB50 Crimp Kit Metalized	310392	310396			

Add suffix-S for Solder.



Metal Kit - Crimp or Solder

Description	Male	Female	1-24	25-49	50-250
DB9 Crimp Kit Metal	310313	310317			
DB15 Crimp Kit Metal	310333	310337			
HD15 Crimp Kit Metal	311316	311317			
DB25 Crimp Kit Metal	310353	310357			
DB37 Crimp Kit Metal	310373	310377			
DB50 Crimp Kit Metal	310393	310397			

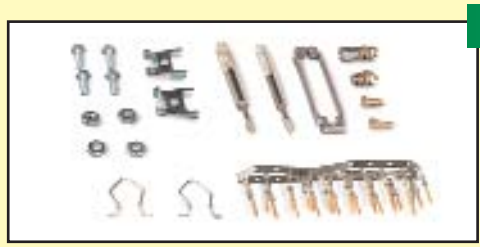
Add suffix-S for Solder.



Quick Snap Kit - Crimp or Solder

Description	Male	Female	1-24	25-49	50-250
DB9 Crimp Kit Quick- Snap	380300	380312			
DB15 Crimp Kit Quick- Snap	380302	380314			
HD15 Crimp Kit Quick- Snap	380310	380322			
DB25 Crimp Kit Quick- Snap	380304	380316			
DB37 Crimp Kit Quick- Snap	380306	380318			
DB50 Crimp Kit Quick- Snap	380308	380320			

Add suffix-S for Solder.



D-Subminiature Accessories

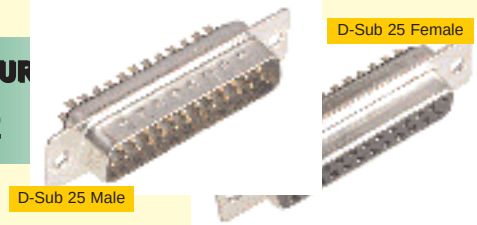
Description	Male	Independent	Female	1-24	25-49	50-250
DB Pins	310151		310155			
High-Density Pins	310153		310154			
Screwlock Kit			300108			
Screw & Retainer Kit	315033					
Hex Nut 6mm		380342				
Screw & Saddle Washer		380324				
Bail Lock Kit		380332				
Slide Latch for Ethernet Hood		380338				
Post Set		380340				
Screwlock (no washer - no nut)		332825				

Hoods for D-Sub Connectors

Description	Part #
DB9 Black Foldover	**314201**
DB15 Black Foldover	**315023**
DB25 Black Foldover	**310277**
DB37 Black Foldover	**314903**
DB9 & HD15 Gray Plastic	310220
DB15 & HD26 Gray Plastic	310240
DB25 & HD44 Gray Plastic	310270
DB37 & HD62 Gray Plastic	310280
DB50 & HD78 Gray Plastic	310290
DB9 & HD15 Black Plastic	310222
DB15 & HD 26 Black Plastic	310242
DB25 & HD44 Black Plastic	310272

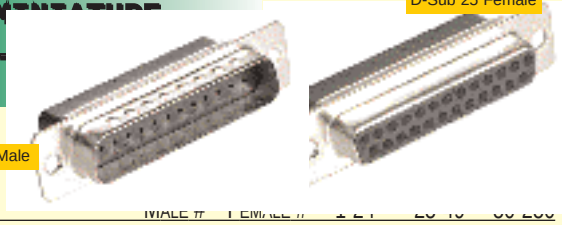
Description	Part#
DB37 & HD62 Black Plastic	310282
DB50 & HD78 Black Plastic	310292
DB9 & HD15 Metalized Plastic	310325
DB15 & HD26 Metalized Plastic	310243
DB25 & HD44 Metalized Plastic	310273
DB37 & HD62 Metalized Plastic	310283
DB50 & HD78 Metalized Plastic	310293
DB9 & HD15 Metal	310230
DB15 & HD26 Metal	310245
DB25 & HD44 Metal	310274
DB37 & HD62 Metal	310284
DB50 & HD78 Metal	310294
DB 9 & HD15 Quick Snap	310227
DB15 & HD26 Quick Snap	310247
DB25 & HD44 Quick Snap	310277
DB37 & HD62 Quick Snap	310287
DB50 & HD78 Quick Snap	310297

D-Subminiature Solder Type



Description	Male #	Female #
D-Sub 9 solder Connector	310409	310410
D-Sub 15 solder Connector	310415	310420
D-Sub 25 solder Connector	310425	310427
D-Sub 37 solder Connector	310432	310435
D-Sub 50 solder Connector	310437	310438

D-Subminiature Crimp T



Description	Male #	Female #
D-Sub 9 Crimp Connector	310170	310175
D-Sub 15 Crimp Connector	310177	310178
D-Sub 25 Crimp Connector	310180	310185
D-Sub 37 Crimp Connector	310182	310183
D-Sub 50 Crimp Connector	310187	310188

Contacts and Tooling for Crimp Type

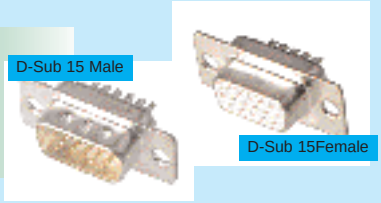
Description	Male #	1-49	50 +
Male Contacts	310151		
Female Contacts	310155		
Insertion/Extraction Tool	514055		---
Contact Crimper	514010		---
D-Sub Crimp Tool LV	514015		

D-Sub (IDC) AMP



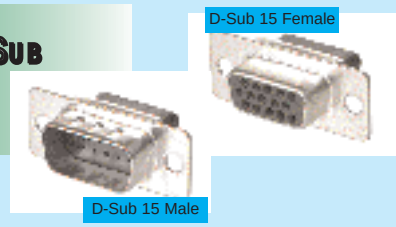
Description	Male #	Female #	1-24	25-49	50-250
D- Sub 9 IDC Connector	310571	310576			
D- Sub 15 IDC Connector	310581	310586			
D- Sub 25 IDC Connector*	310591	310596			
D- Sub 37 IDC Connector	310602	310603			

High Density D-Sub Connectors



Description	Male #	Female #	1-24	25-49	50-250
HD D-Sub 15 Solder Connector	310482	310483			
HD D-Sub 26 Solder Connector	310486	310487			
HD D-Sub 44 Solder Connector	310491	310492			
HD D-Sub 62 Solder Connector	310495	310496			
HD D-Sub 78 Solder Connector	310497	310498			

High Density D-Sub Connectors



Description	Male #	Female #	1-24	25-49	50-250
HD D-Sub 15 Crimp	310480	310481			
HD D-Sub 26 Crimp	310484	310485			
HD D-Sub 44 Crimp	310489	310490			
HD D-Sub 62 Crimp	310493	310494			

Contacts and Tooling for Crimp

Description	Male #	1-49	50 +
Male Contact	310153		
Female Contact	310154		
D-Sub Crimp Tool HV	514011		--
Insertion/Extraction High Density	514058		---D sub
Crimp Tool LV	514015		

D-Sub TRW Cinch IDC All-Plastic Connectors



Description	Male #	Female #	1-24	25-49	50-250
D- Sub 9 IDC Plastic	310570P	310575P			
D- Sub 15 IDC Plastic	310580P	310585P			
D- Sub 25 IDC Plastic	310590P	310595P			
Special Grey Hoods For Above					
DB9	310250				
DB15	310251				
DB25	310252				

D-Sub TRW Cinch IDC Metal Connectors

Description	Male #	Female #	1-24	25-49	50-250
D- Sub 9 IDC Metal	310570	310575			
D- Sub 15 IDC Metal	310580	310585			
D- Sub 25 IDC MEtal	310590	310595			
Special Black Hoods For Above					
DB9	310281				
DB15	310276				
DB25	310278				



CONNECTORS



COAXIAL 3 PCS CRIMP BNC

All machined Brass with nickel plating, gold plated pins and individually bagged

DESCRIPTION	PART #
RG 59 & 62,140,210 PVC	321055
RG58,141 PVC	321030
RG6 PVC	321031
RG 59 & 62 *PLENUM*	321032
BELDEN 8281	321033
RG 174,187,188,&316	321034
RG 8X MINI 8	321035
RG 58 AU	321022
RG58 *PLENUM*	321039

DESCRIPTION	PART #
RG 58 THINNET PVC	321022
RG 122	321040
RG 142,400,223	321041
RG 180,195	321042
RG 303	321043
RG 450 PROFLEX	321044
RG 179	321045
BELDEN 8218	321046
RG11	321047
BELDEN 89907	321048



COAXIAL 2 PCS CRIMP BNC

DESCRIPTION	PART #
RG59 & 62	321057
RG58	321066
RG6	321067
BELDEN 8281	321068
RG59 & 62 TEFLON	321058
RG58 AU	321069
RG58 *PLENUM*	321070
RG58 THINNET*	321071
RG6 *PLENUM*	321072



COAXIAL 3 PCS SOLDER BNC

DESCRIPTION	PART #
RG58	321214
RG59 & 62	321216
RG6	321218
RG59 & 62 *PLENUM*	321220
RG8X MINI 8	321222
BELDEN 8281	321224



COAXIAL TWIST-ON BNC FEMALE

DESCRIPTION	PART #
RG59 & 62	321236
RG59 & 62 *PLENUM*	321238
RG58	321240
RG58 *PLENUM*	321242
BELDEN 8281	321244
RG6	321246



BNC REMOVAL

DESCRIPTION	PART #
12" BNC REMOVAL TOOL	512034



COAXIAL TWIST-ON BNC

DESCRIPTION	PART #
RG59 & 62*	321200
RG58	321202
RG6	321204
RG59 & 62 *PLENUM*	321206
BELDEN 8281	321208
RG58 *PLENUM*	321210
RG 58 AU	321212
RG58 THIN NET	321213



COAXIAL RT. ANGLE TWIST-ON BNC

DESCRIPTION	PART #
RG59 & 62	321200
RG 59 & 62 PVC*	321226
RG 59 & 62 *PLENUM*	321228
RG 58	321230
BELDEN 8281	321232
RG6	321234



BNC TWIN LEAD CONNECTORS

Use to terminate Belden 9272, RG78, RG108A

DESCRIPTION	PART #
CLAMP TYPE	321248
CRIMP TYPE	321250
INLINE SPLICE F- F	321252
F- M- F "T" CONNECTOR*	321254
F- F- F "T" CONNECTOR	321256
DOUBLE MALE SPLICE	321258



BNC TERMINATORS

DESCRIPTION	PART #
50 OHM BNC TERMINATOR	326901
50 OHM BNC TERMINATOR W/CHAIN	326902
75 OHM BNC TERMINATOR	326904
93 OHM BNC TERMINATOR*	326907

F Type Connectors

RG59 With 1/2" Ring





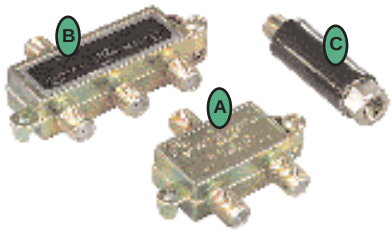
RG59 Twist On PVC

These connectors used in IEEE 802.5 Thicknet Cable.

Description	Part #
RG59 with 1/4" Ring (F- 59A)	380056
F Terminator 75 ohm	380057
RG59 with 1/2" Ring (F- 59ALM)	380058
RG59 Twist on PVC	380060
RG59 with 1/2" Ring (Tin)	380061
RG59 with 1/2" Ring *Plenum*	380062
RG6 with 1/4" Ring (F56A)	380064
RG6 with 1/2" Ring (F56ALM)	380066
RG6 with 1/2" Ring *Plenum*	380068
RG6 Twist- On PVC	380070
RG11 with 1/5" Ring	380072
RG11 3 pcs PVC	380074
RG11 3 pcs *Plenum*	380076

F Video- CATV Accessories

Splitters



These splitters allow you to have one
outputs. Insertion loss ranges from 3
cast wall mountable with grounding lu

Description	Part #
2 way splitter 3.5db (A)	711050
3 way splitter 3.5db- 6.5db (B)	711052
4 way splitter 6.5db	711054
6 way splitter 6.5db	711056
8 way splitter 12db	711058
Inline Booster 10db (C)	711060
Inline Surge Protector	711053

FIn-Line Surge Protector



This protects TV, LANS, CAMERAS, etc., against high voltage light strikes to outdoor cable. Place between equipment and incoming line. The best money you ever spent to save your equipment.

Description	Part #
F Surge Protector	711053

F Adapters

M-M Inline Splice





Grounding Block

Description	Part #
M- M Inline Splice F71	380078
F- F Inline Splice F81	380080
F- F- F "T" Adapter	380082
M- F Right Angle	380084
Grounding Block with F- 81	380086

Video Switches



These switches allow you to have one input. All 75 ohm input & output and push button style. 90db isolation.

Description	Part #
AB- 2 Way*	711070
ABC- 3 Way	711071

Matching Transformers



300ohm Screw Type- 75ohm Push-On

75ohm-300ohm Indoor



Provides the matching of 75ohms to 300ohms or vise-versa in video applications.

Description	Part #
75ohm- 300ohm Indoor Type	712220
75ohm- 300ohm Outdoor Type	712221
300ohm Down Lead- 75ohm Indoor	712222
300ohm Screw Type- 75ohm Push- On	712223

N Series Connectors



These connectors used in IEEE 802.5 Thicknet Cable.

Description	Part #
N- Crimp PVC	323070
N- Crimp *Plenum*	323071
N- Twist- On PVC*	323072
N- Twist- On *Plenum*	323073
N- Compression Plug PVC	323074
N- Compression Plug *Plenum*	323075
N- Compression Jack PVC	323076
N- Compression Jack *Plenum*	323077

N Series Adaptors &



Description	Part #
F- F Adapter **(A)**	321091
M- M Adapter	321092
M- F Right Angle Adapter	321093
M- M Right Angle Adapter	321094
F- M- F "T" Adapter	321095
Terminator Plug, Male- 50 ohm	321096
Terminator Jack, Female- 50 ohm **(B)**	321097

InterSeries Adapters

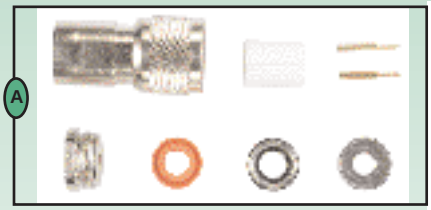


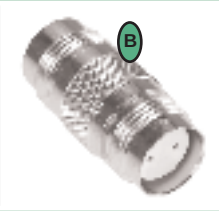
These adapters are all machines with gold plated pins.
they allow you to connect one series type to another, ie BNC to UHF, etc...

Description	Part #	Description	Part #
BNC(M)-UHF(F)	322001	N(M)-"F"(F)	322007
BNC(M)-UHF(M)	322018	N(F)-BNC(M)	322005
BNC(M)-RCA Plug	322022	N(F)-BNC(F)	322008
BNC(F)- "F"(M)	322043	N(F)-"F"(M)	322015
BNC(F)-RCA(M)	322030	N(F)-"F" (F)	322016
BNC(F)-UHF(F)	322021	N(F)-UHF(F)	322019
BNC(F)-UHF(M)	322000	RCA(F)-RCA(F)	322031
BNC(F)-TNC(M)	322009	RCA(F)-BNC(M)	322032
"F"(F)-RCA Jack	322029	RCA(F)-UHF(M)	322033
"F"(F)-BNC(M)	322034	RCA(F)-3.5mmP lug	322038
"F"(F)-UHF(M)	322035	RCA(F)-"F"(F)	322039
"F"(F)-RCA(M)	322036	SMA(F)-BNC(F)	322045
"F"(F)-3.5mm Plug	322037	SMA(M)-BNC(F)	322047
"F"(F)-UHF(F)	322042	SMA(F)-BNC(M)	322049
"F"(F)-PAL(M) Plug	322044	SMA(M)-BNC(M)	322051
Mins UHF(F)-TNC(M)	322023	TNC(F)-BNC(M)	322010
Mins UHF(F)-BNC(M)	322024	TNC(F)-N(M)	322011
Mins UHF(M)-BNC(F)	322025	TNC(F)-UHF(F)	322041
Mins UHF(F)-UHF(M)	322026	UHF(M)-N(F)	322004
Mins UHF(M)-TNC(F)	322027	UHF(F)-TNC(M)	322012
Mins UHF(M)-UHF(F)	322028	UHF(F)-3.5(M)P lus	322020
N(M)-BNC(M)	322013	UHF(F)-RCA(M)	322002
N(M)-"F" (M)	322017	UHF(F)-N(M)	322003
N(M)-UHF(M)	322014	UHF(F)-"F"(F)	322040
N(M)-BNC(F)	322006		

TWINAX

Twinax Cable Connectors









These connectors are used when installing Twinax cable for 3X and AS/400 systems. These precision connectors provide a quality termination.

Description	Part#	Ref#
Male PVC- Crimp (A)	325103	
Male *Plenum* - Crimp	325104	
Male PVC- Solder	325105	7362229
Male *Plenum* - Solder	325107	7362064
Female PVC- Solder	325109	6838959
F-F Coupler (B)	325110	7362230
Feedthru Panel Jack	325112	7369083
Panel Jack Solder Type	325114	7362179
"T" Connector F-M-F (C)	325120	
"T" Connector F-F-F	325125	6851167
Terminator Male (D)	325130	6091068
Terminator female	325131	

Twinax Pins



Description	Part #
Male Pins- Solder*	325126
Female Pins- Solder	325127
Male Pins - Crimp	325128
Female Crimp	325129

Ribbon Cable Connectors



D-Sub Metal Shell Connectors

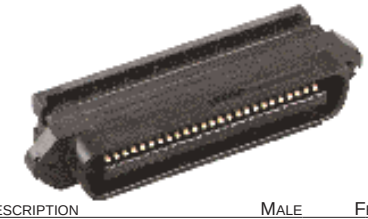
We carry a full line of Ribbon Cable Connectors from D-Sub to IDC Socket Types. All connectors have gold plated contacts and quality strain reliefs.

Description	Male	Female	1-24	25-49	50-250
DB 9 Metal Shell	380088	380090			
DB15 Metal Shell	380092	380094			
DB25 Metal Shell	380096	380098			
DB37 Metal Shell*	380100	380102			



D-Sub All-Plastic

Description	Male	Female	1-24	25-49	50-250
DB 9 All-Plastic	310930	310931			
DB15 All-Plastic	310932	310933			
DB25 All-Plastic*	310910	310915			
DB37 All-Plastic	310934	310935			



IDC Centronics All Plastic

Description	Male	Female	1-24	25-49	50-250
14 Pin	380344	380346			
24 Pin	380348	380350			
36 Pin	380352	380354			
50 Pin*	310805	310810			



IDC Socket Standard .100"

Description	Male	1-24	25-49	50-250
10 Position	380376			
14 Position	380380			
16 Position	380382			
20 Position	380384			
24 Position	380386			
26 Position	380388			
34 Position	380392			
40 Position	380394			
50 Position	380396			
60 Position	380398			
64 Position*	380400			



IDC Card Edge

Description	Male	1-24	25-49	50-250
10 Position	380402			
14 Position	380404			
16 Position	380406			
20 Position	380408			
26 Position*	380410			
34 Position	380412			
34 Position With Key	380414			
40 Position	380416			
50 Position	380418			
60 Position	380420			
64 Position	380422			

DIN & MINI DIN

DIN CONNECTORS



DESCRIPTION	MALE	FEMALE	1-24	25-49	50-250
3 PIN DIN 180 DEGREES	311200	311202			
4 PIN DIN 210 DEGREES*	311204	311206			
5 PIN DIN 180 DEGREES	311208	311210			
5 PIN DIN 240 DEGREES	311212	311214			
5 PIN DIN 360 DEGREES	311216	311218			
6 PIN DIN 240 DEGREES	311220	311222			
7 PIN DIN 270 DEGREES	311224	311226			
8 PIN DIN 270 DEGREES	311228	311229			
8 PIN DIN 262 DEGREES	380424	380426			

MINI DIN CONNECTORS



DESCRIPTION	MALE	FEMALE	10	25
3 PIN MINI DIN	311230	311231		
3 PIN MINI DIN SPLICE MALE	311203	311217		
4 PIN MINI DIN	311232	311233		
5 PIN MINI DIN	311234	311235		
6 PIN PS/2 TYPE*	311236	311237		
8 PIN MAC TYPE	311238	311239		

MICRO PHONE XLR TYPE

DESCRIPTION	PART #	25
3 PIN XLR MALE*	327132	
3 PIN XLR FEMALE	327133	
3 PIN XLR MALE CHASSIS MT.	327135	
3 PIN XLR FEMALE CHASSIS MT.	327136	



SCSI

SCSI3 Differential-Screw Type



SCSI2 Differential HPD68



SCSI1 Passive Cent50-Male Bail



SCSI3 Active-Clip Type



SCSI2 Differential DB50



SCSI1 Passive DB50-Screw Type



SCSI3 - HPD68

SCREW TYPE	DESCRIPTION	PART #
	ACTIVE	332872
	PASSIVE	332873
	DIFFERENTIAL	332874
CLIP TYPE	ACTIVE	332875
	PASSIVE	332876
	DIFFERENTIAL	332877
	LOOPBACK TESTER	332578

SCSI2 - HPD50

CLIP TYPE	DESCRIPTION	PART #
	ACTIVE	Q04551
	ACTIVE W/CHAIN	332879
	PASSIVE	Q04552
	INTERNAL ACTIVE	332887

Other Types of SCSI Terminators and Connectors Available

SCSI1

MALE BAIL	DESCRIPTION	PART #
	CENT 50ACTIVE	332881
	CENT50 PASSIVE	410151
SCREW TYPE	DB25 M-F ACTIVE	332883
	DB25 M-F PASSIVE	332884
	DB25 MALE ACTIVE	332885
	DB25 MALE PASSIVE	332886
	DB50	410152
	DIFFERENTIAL DB50	332880
	IDC SOCKET PASSIVE	335150
	IDC SOCKET ACTIVE	335151
	IDC SOCKET M-F	335152

CONNECTORS

Stop wear & tear on serial & parallel ports and correct gender mismatches with our slimline gender menders.
We carry many types including the new Male/Female type. Featuring tin plating and gold plated pins.

GENDER MENDERS



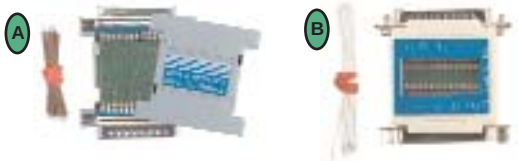
Slim Line D-Subminuature

Description	Part #
DB9 Male to Male Gender Mender	310750S
DB15 Male to Male Gender Mender	310753S
DB25 Male to Male Gender Mender	310785S
DB37 Male to Male Gender Mender	310756S
DB50 Male to Male Gender Mender	310759S
DB9 Male to Female Gender Mender	310744S
DB15 Male to Female Gender Mender	310745S
DB25 Male to Female Gender Mender	310746S
DB37 Male to Female Gender Mender	310747S
DB9 Female to Female Gender Mender	310751S
DB15 Female to Female Gender Mender	310754S
DB25 Female to Female Gender Mender	310788S
DB37 Female to Female Gender Mender	310757S
DB50 Female to Female Gender Mender	310760S



High Density Gender Menders

Description	Part #
HD15 Male to Male	310762
HD15 Male to Female	310764
HD15 Female to Female	310763
HD26 Male to Male	310776
HD26 Female to Female	310766
HD44 Male to Male	310768
HD44 Female to Female	310769
HD62 Male to Male	310771
HD62 Female to Female	310772



DB25 Mini Patch Gender

Create your own custom adapter. Featuring 2 D-Sub connectors and jumper leads that you insert or solder or have NCI customize them for you.

Description	Part #
DB25 Mini Patch Male to Male	310740
DB25 Mini Patch Female to Female	310741
DB25 Mini Patch Male to Female (Closed Solder Jumper Box) (A)	310742
DB25 Mini Patch Male to Female (Open Insertable Jumper Box) (B)	310742-TEMP



Telco 50 Position Gender Mender

Description	Part #
50 pos Male to Male	310777
50 pos Female to Female*	310778



Description	Part #
V.35 Male to Male*	332833
V.35 Female to Female	332835
V.35 Male - DB25 Male	332843
V.35 Female - DB35 Female	332845

V.35 Gender Mender & Adapters



Centronics Gender Mender

Description	Part #
Cen 14 Male to Male	310744
Cen 24 Male to Male	310745
Cen 36 Male to Male	310746
Cen 50 Male to Male	310747
Cen 50 Male to Male Slimeline	310774S



Centronics Gender Mender

Description	Part #
Cen 14 Female to Female	310748
Cen 24 Female to Female	310749
Cen 36 Female to Female Slimline *	310775S
Cen 50 Female to Female	310752



Use a 36pin Centronics cable with a 25pin IBM PC, AT, OR, XT Compatible.

Centronics to RS232

Description	Part #
DB25M to Cen 36 M	310790
DB25F to Cen 36 M	310791
DB25M to Cen 36 F	310792



SCSI Adapters

Description	Part #
SCSI3 68 pin Male - Cent 50 Fem	332854
SCSI3 68 pin Female - Cent 50 Fem	332855
SCSI3 68 pin Male - SCSI2 Female	332856
SCSI2 Female to Cent 50 Male	332857
SCSI2 Male to Cent 50 Female	332858
SCSI2 Male to DB 25 Female	332859
SCSI2 to DB 50 Male Changer	332860
SCSI2 Cent to Regular Cent 50	332861
SCSI3 Male to SCSI2 Male Changer	332862
SCSI2 Female to Regular Cent 50 Male	332863
SCSI3 Male to Male	332864
SCSI3 Female to Female	332865
SCSI2 Female to 1200- 050 Converter	332853
DB-25 Male to Cent 50 Female	332866
DB-25 Female to Cent 50 Male	332867
SCSI2 Female to DB-50 Male	332868
SCSI2 Male to Cent Male	332869
SCSI3 Female to SCSI2 Male	332870
SCSI3 Male to SCSI2 Female	332871

High Density to D-Sub Adapters

Description	Part #
HD15 Male to DB9 Male	310761
HD15 Female to DB9 Male	310758
HD15 Female to DB9 Female	310755
HD15 Male to DB9 Female	310776

Telco Adapters M&F 50 Pin



Description	Part #
Telco Modular Adapter 50 pin Fem, 8 Pos RJ45	415013
Telco Modular Adapter 50 pin Male, 8 Pos RJ45	415017

IDC Header 50Pos/M





Description	Part #
IDC Header 50 position Male	380501

TNC Connector



Description	Part #
TNC Connector , RG59 & 62 Plenum	380006

RJ45 Solid Connector



Description	Part #
45 Solid 22/24awg Modular Connector	513053

RJ 45 Boot



Description	Part #	Ref#
Ortronic RJ45 Boot	311999	20300082-GRN

DB9 Plug Tin



Description	Part #	Ref#
AMP DB9 Plug Tin	315089	205204-4

Local Area Network (LAN)

A data communications system designed to link computers and peripheral devices such as printers and modems. LAN cabling has a limited usable distance of up to 6 miles and 10 Km and is best used within a building or campus environment.

The advantages of using a LAN is that users can share peripheral devices connected to the LAN instead of having those devices attached to each computer. Network users can also share information stored in the network server(s) such as databases and programs. In addition, network users can communicate with each other via messaging or e-mail.

Ethernet

A local area network used to connect computers and peripheral devices (printers, modems, etc.) so they can be shared by users of the network. Originally developed by Xerox, DEC, and Intel to run at 10Mbps, Ethernet networks can now run at 100Mbps. Named after the invisible substance thought by some to fill all space and transmit electromagnetic waves, Ethernet is the most widely used networking system in the world.

Ethernet can use twisted pair, coaxial, or fiber optic cabling and BNC, RJ45, or fiber optic connectors.

The IEEE (Institiute of Electrical and Electronic Engineers) created the 802.3 standard for the operation of 10 Mbps networks. There are different versions of 802.3, depending on the type of cabling used. The IEEE standard for Thick Ethernet is 10Base5 and for Thin Ethernet is 10Base2. The standard for twisted pair Ethernet is 10BaseT and the standard for fiber optics is 10BaseFL.

Ethernet accesses data using CSMA/CD - Carrier Sense Multiple Access with Collision Detection. This method allows multiple users to access the network through a common cable. All devices attached to the network check for transmissions in progress (signals are checked not only at the start of transmission but also during transmission). If no signals are present the transmission is sent. If a signal is detected then transmission is delayed. Collision detection is applied when two or more devices transmit at the same time. In this case each device stops transmission and attempts to retransmit after waiting a certain amount of time (different for each device and determined by an algorithm). The same occurs in the event of a collision. A device knows if a collision occurred when it does not receive its own transmission back.

NCI

IEEE stands for the Institute of Electrical and Electronic Engineers.

Topologies

There are two topologies used with an Ethernet network and they are bus and star. BUS TOPOLOGY is used by 10 Base5 and 10 Base2. It consists of a shared common cable with a 50ohm terminator connected to each end. Devices can be attached anywhere on the cable with the use of a T-connector. Transmission signals are sent throughout the entire cable, however, only the device with the proper address receives the signal. Bus topology's disadvantage is that if a break occurs anywhere in the cable the entire network connected to it goes down. STAR TOPOLOGY is used by 10 BaseT & 10 BaseFL AND 100 BaseTX, 100 BaseT4, & 100 BaseFX. It connects workstations to a central hub via individual cables directly wired to the hub. Thus, a break in the cable only affects the individual device connected to the hub. However, if the central hub breaks down, then the entire network is down.

Benefits of Using Ethernet

Fast & Accurate Transmission of Data with Speeds of up to 100Mbps

Varied Cable Types - Coax, Thin Coax, UTP, and Fiber Optic

2 Topologies - Bus and Star

Compatible with more LAN devices than any other standard.

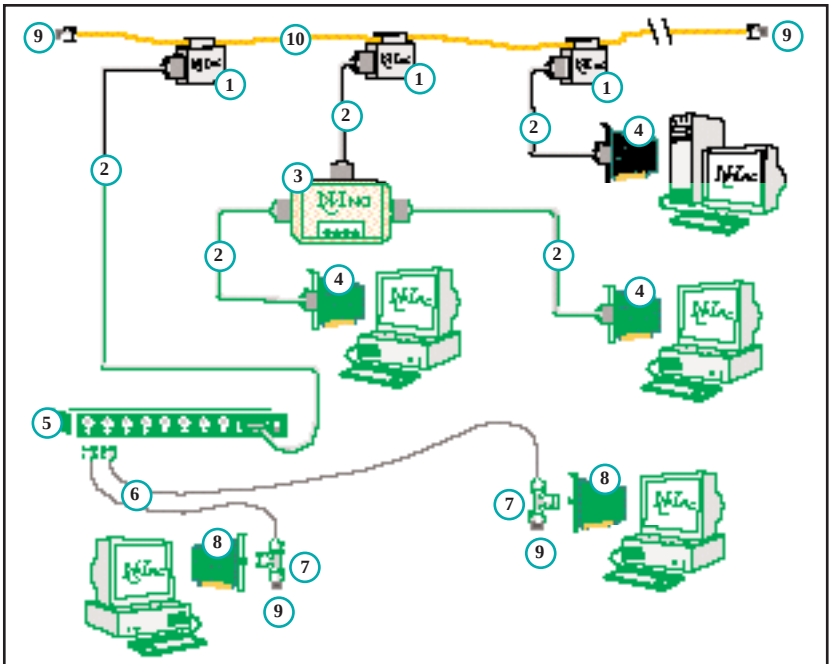
ETHERNET

10BASE5 - STANDARD THICK ETHERNET

is called thick because of the thick coaxial cabling (trunk cable) used in its application. 10 is for 10 Megabits per second (Mbps) operation, BASE is for baseband operation, and 5 is for a maximum of 500 meters of cable segment length. Communication between stations is achieved through external transceivers attached to the shared cabling or segment. The external transceiver is connected to a Network Interface Card (NIC) via a transceiver cable.

10 BASE 5 PARAMETERS AND WIRING RULES

- Maximum Length per segment is 500 meters or 1640feet.
- Maximum of 100 stations per segment are allowed.
- Maximum of 1024 stations may be attached to a 10Base5 network.
- Bus topology.
- Up to 100 transceivers can be attached to a single 500 meter segment.
- Only transceivers without SQE test enabled should be used with repeaters.
- Minimum distance between transceivers is 2.5 feet.
- Maximum length of standard AUI transceiver drop cable is 50 meters.
- Maximum length of office transceiver cable is 12.5 meters.
- Repeaters may be used to extend the signal thereby increasing overall



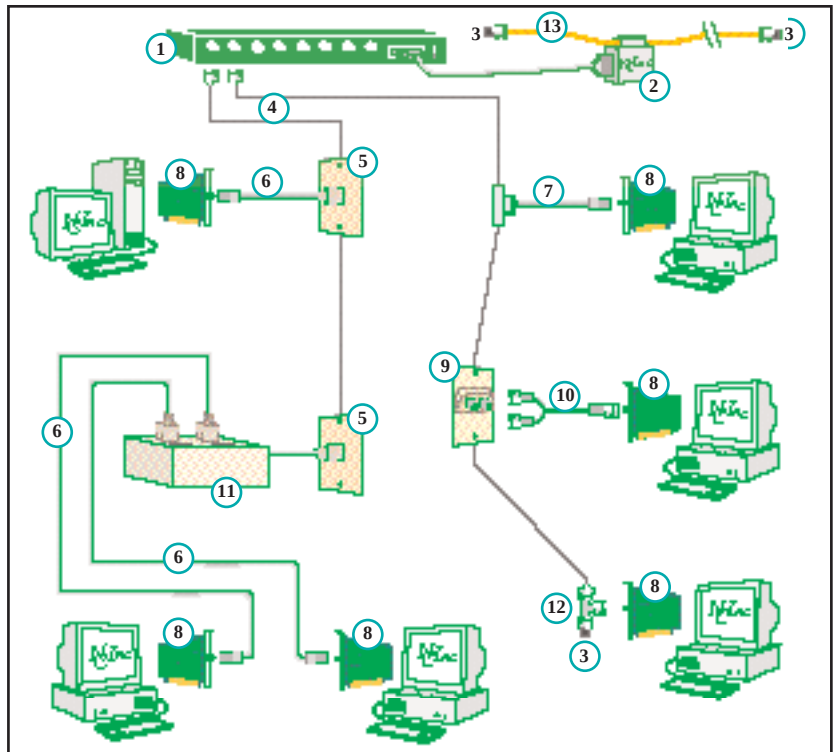
1. Transceiver - pg. 48, 49
2. Transceiver Cables - pg. 41
3. 2 Port AUI Fanout - pg. 49
4. Thicknet AUI Network Card - pg. 42
5. Thinnet Repeater - pgs. 43, 44, 50
6. PVC Thinnet Cable - pg. 41
7. BNC T- Connector - pg. 40
8. Thinnet BNC Network Card - pg. 42
9. 50 Ohm Terminator - pg. 40
10. Thick Ethernet Trunk Cable - pg. 41

10BASE2 - THIN ETHERNET

got its name because the coaxial cable it runs on is thinner than the cable used for Thick Ethernet. 10 is for 10 Mbps operation, Base is for baseband operation and 2 is for a maximum of 200 meters (actually, 187 meters) of cable segment length. The Network Interface Card (NIC) performs the functions of a transceiver so that no external transceiver is needed for workstations.

10 BASE 2 PARAMETERS AND WIRING RULES

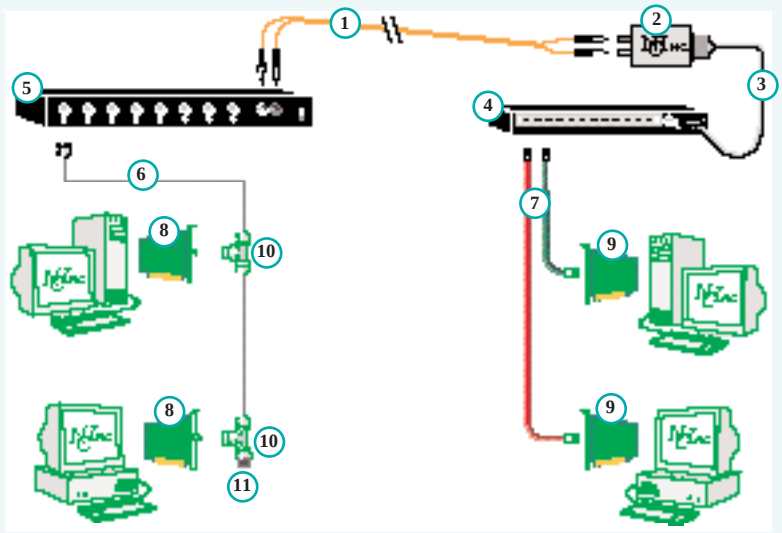
- Maximum length per segment is 185 meters or 607 feet.
- Maximum of 30 stations per segment are allowed.
- Maximum of 1024 stations may be attached to a 10Base2 network.
- Bus topology.
- NIC's come with built-in transceivers so connections are made directly to NIC via T-connector.
- Typically, devices are daisy chained using T-connectors so there must be 2 cables connected to workstation; 1 going IN; 1 coming OUT.
- T-connectors must be plugged directly into NIC. There can not be any cable between T-connector and NIC.
- A minimum of 0.5 meter or 1.6 feet is allowed between T-connectors.
- BNC transceivers and transceiver cables must be used on NIC's that do not have built-in transceivers.
- Maximum transceiver cable length is 50 meters or 165 feet.
- External Transceivers must be placed at least 0.5 meters or 1.6 feet apart.
- Both ends of the cable segment must be terminated with a 50 ohm terminator.
- One end of the cable must be grounded. The other end must remain ungrounded.
- Terminator must be attached to open jack of T-connector at both ends of the segment. Do not attach terminator directly to cable without T-



1. 8 port Repeater - pgs. 43, 44, 50
2. Transceiver - pg. 48, 49
3. 50 Ohm Terminator - pg. 40
4. PVC Thinnet Cable - pg. 41
5. Thinnet Tap Assembly & Wallplate - pg.40
6. Thinnet Drop Cable Assembly - pg. 41
7. Self Terminating Drop Cable Assembly- Call
8. Network Card - pg. 42
9. No Drop Wallplate - Call
10 . No Drop Cable Asmbly - Call
11. Thinnet Tap 4 Port Expansion Box - pg. 40
12. BNC T- Connector - pg. 40
13. Thick Ethernet Trunk Coax Cable - pg.41

10BaseFL Ethernet

cable consists of thin glass filaments that transmit light waves carrying very large amounts of data for very long distances. 10 is for 10 Mbps operation, Base is for baseband operation and FL is the fiber optic link to the network. Since signals are transmitted with the use of light waves, electromagnetic and radio frequency interference (EMI/RFI) is nonexistent. A fiber network is best for conditions where EMI/RFI interference is heavy. Fiber optic cable also offers added security because transmissions are safe from electronic bugging. In the diagram layout the fiber optic cable is being used as a backbone to connect a Thin Ethernet network to a 10BaseT network. Fiber optic cable is great for use as a backbone because it can be run for up to 2 km and interference is not a problem. Also great for building to building cabling.



1. Fiber Optic Cable- pgs. 38, 56, 57, 58, 62, 63
2. Transceiver - pgs. 48, 49
3. Transceiver Cable - pgs. 38, 41
4. 10 Base T Hub - pgs. 43, 44
5. Thinnet Repeater - pg. 50
6. PVC Thinnet Cable - pgs. 38, 41
7. Cat 5 Color Coded Patch Cables - pg. 41
8. Thin Ethernet BNC Network Card - pg. 42
9. 10 Base T RJ45 Network Card - pg. 42
10. BNC T- Connector - pg. 40
11. 50 Ohm Terminator - pg. 40

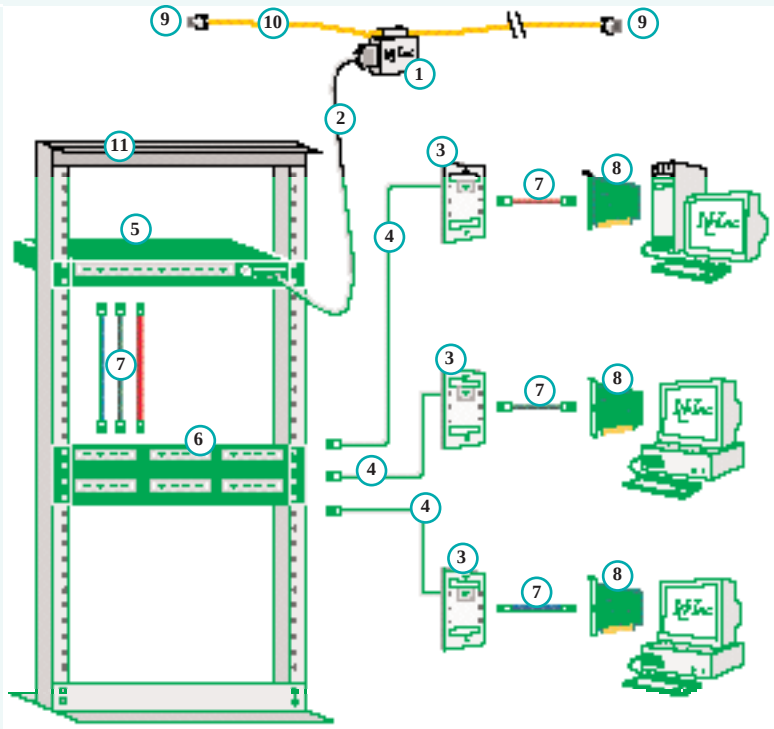
10 BaseFL Parameters and Wiring Rules

10BaseT Ethernet

became popular due its ease of use, its usage of unshielded twisted pair (UTP) cabling and its low cost. 10 is for 10 Megabits per second (Mbps) operation, BASE is for baseband operation, and T is for the twisted pair cable used for the network. The Network Interface Card (NIC) performs the functions of a transceiver so that no external transceiver is needed for stations. 10BaseT requires the use of a hub or concentrator because it uses a star topology. The hub serves as a central switching station thus controlling the incoming and outgoing signals. When using star topology if a station goes down it does not affect the rest of the network. Typically a RJ45 connector is connected to UTP cabling and is run straight from the hub to the NIC (10BaseT NIC's have a built-in RJ45 transceiver). Pins 1 and 3 transmit data and pins 3 and 6 receive data (the other pins are not used).

10 BaseT Parameters and Wiring Rules

- Maximum length per segment is 100 meters or 330 feet.
- Maximum of 2 devices per segment; one is the station and the other is the hub.
- Maximum of 2 Inter-Repeater Links between devices without using bridge or switch (A hub is a repeater).
- Star topology.



1. Transceiver - pgs. 48, 49
2. Transceiver Cable - pgs. 38, 41
3. Cat 5 Wallplate Assembly - pg. 54
4. Cat5 UTP Cable - pgs. 39, 41
5. 10 BaseT Hub - pgs. 43, 44
6. Cat 5 Patch Panel - pg. 54
7. Cat 5 Color Coded Patch Cables - pg. 41
8. 10 BaseT RJ45 Network Card - pg. 42
9. 50 Ohm Terminator - pg. 40
10. Thick Ethernet Trunk Cable - pgs. 38, 41
11. Equipment Rack - pg. 87

Ethernet Switching

How can I get more out of my Ethernet network?

If you find yourself asking this question then Ethernet switching may be your answer. An Ethernet Switch is basically a bridge that allows multiple user transmission.

Fast Ethernet has specific distance limitations that can be a problem if your network has many users. Switching overcomes these limitations because each port in the switch acts separately from the others. Distance calcualtions start an ew at each port.

Switches also work on 10 Mbps networks. For more info see below and check out our Ethernet Switching Section on page 45

Ethernet Bridging

What is a Bridge?

A bridge is a device that

- **Full-Duplex**
  Simoultaneous bidirectional transmission.
- **Half-Duplex**
  Bidirectional transmission but not simoultaneous.

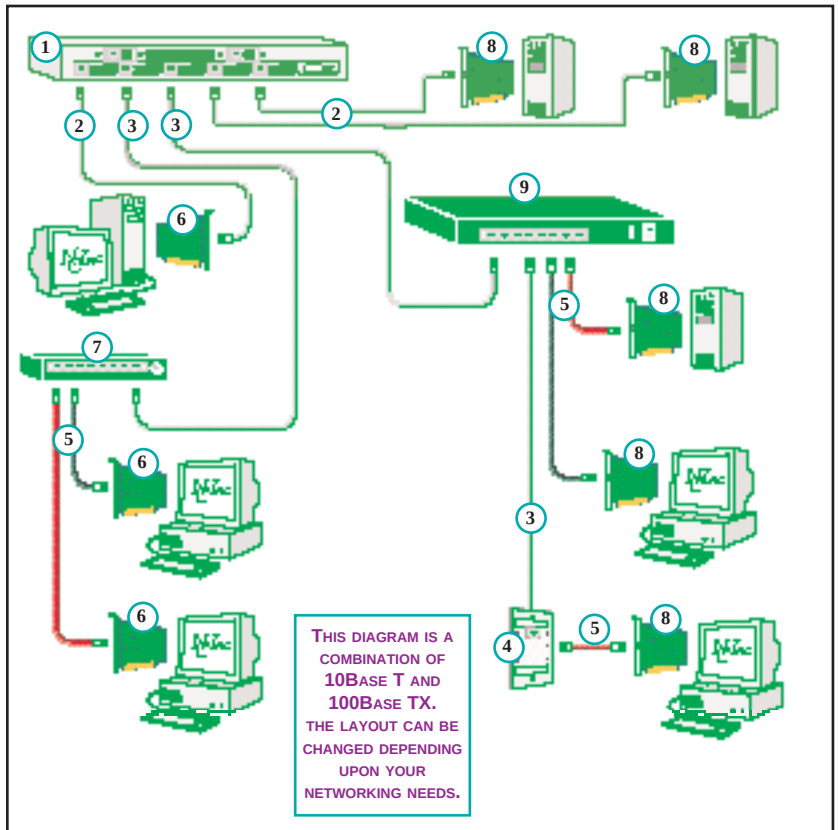
100 BaseT - Fast Ethernet

A system designed to achieve 100 Mbps access time on Ethernet networks, which is 10 times the speed of standard Ethernet. The IEEE* amended the 802.3 specifications to include 100 BaseTX, 100 BaseT4 and 100 BaseFX. 100 BaseT is configured in a star topology and therefore requires the use of a hub. Signals are transmitted from a central hub directly over one cable segment to the NIC's. Fast Ethernet makes use of the same CSMA/CD access method allowing multiple devices to operate while avoiding transmission collisions. Although Fast Ethernet works at 10 times the speed of standard Ethernet, it also operates at over 10 times less the maximum allowable network diameter - from 2500 meter to 210 meters over copper.

There are two classes of repeaters (hubs) in 100 BaseT - Class I and Class II. When using Class I, data should not pass through more than one repeater and two 100 meter cable segments. Class I has a latency of .7 or less microseconds. When using Class II, data should not pass through more than two repeaters, two 100 meter cable segments and one 10 meter interrepeater link. Class II has a latency of or less microseconds (latency is the waiting time).

The same rules apply as for 10BaseT except as noted above. The 100BaseT standard is made up of 3 versions:

100BASE TX is full-duplex capable in point to point unshared applications because it uses 1 pair to receive and 1 pair to transmit. Designed to run over 2 pairs of category 5 unshielded twisted pair cable with RJ45 connectors and EIA/TIA 568B pinning. It can also be run on IBM type 1 sheilded twisted pair (existing Token Ring wiring) with an impedence matching device and DB9 connectors or regular STP and DB9 connectors. Max segment length is 100m.

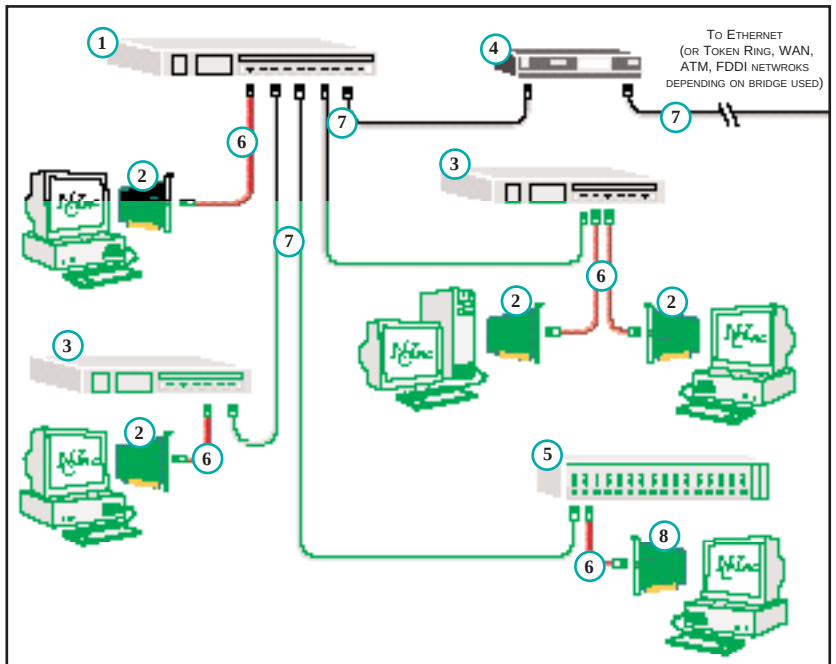


This diagram is a combination of 10Base T and 100Base TX. The layout can be changed depending upon your networking needs.

1. 10 / 100 Mbps Ethernet Switch - pg. 45
2. Cross Pinned Cat5 UTP Cable - pg. 41
3. Straight Pinned Cat5 UTP Cable -pg. 41
4. Cat 5 Wallplate Assembly - pg. 54
5. Cat 5 Color Coded Patch Cables - pg. 41
6. 10 BaseT Network Card - pg. 42
7. 10 BaseT Ethernet Hub - pgs.43, 44
8. 100 BaseT Network Card - pg. 42
9. 100 BaseT Fast Ethernet Hub - pg. 43

100VG AnyLAN

was developed by Hewlett Packard along with others to be the standard for Fast Ethernet. The IEEE gave that title to 100BASE T and 100VG AnyLAN wound up getting its own standard of 802.12. It is not Ethernet but it is compatible with either 802.3 Ethernet or 802.5 Token Ring (depending on the manufacturer). 100VG AnyLAN relies on the hub to control network access. The hub uses Token Passing, a method where each station receives and passes the right to use the single shared channel on the LAN. All stations are guaranteed access to the network at regular consistent intervals. This provides support for time sensitive applications like voice, video and multimedia. While Ethernet uses a CSMA/CD access scheme (see the Intro to Ethernet section for more details) 100VG AnyLAN uses a Demand Priority access scheme. Demand Priority allows one or more stations to send high priority transmissions first. If the hub receives a high priority request, it completes its current transmission and then immediately grants access to the high priority request. When all high priority requests are dealt with, normal operation resumes. Preventing time outs is simple: the hub grants temporary high priority status to normal priority requests. This creates a collision free network and is designed



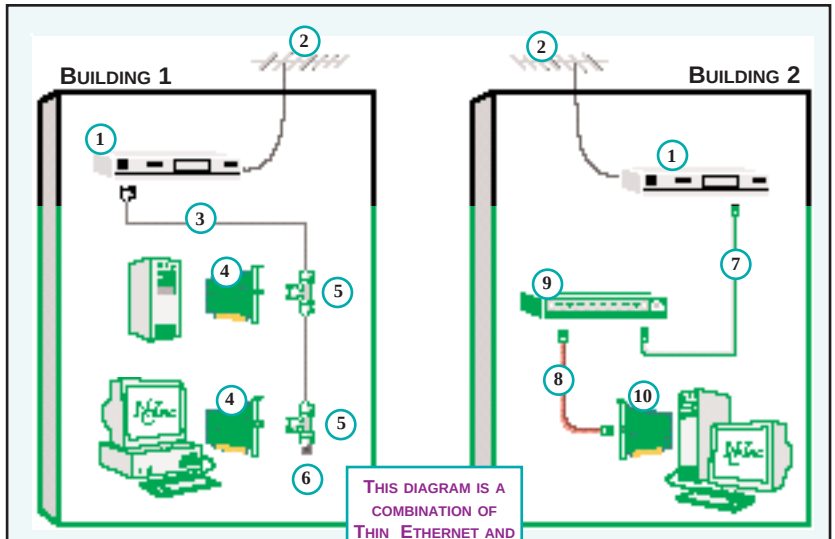
1. 100VG AnyLAN Hub - pg. 48
2. 100VG AnyLAN Network Card - pg. 48
3. 100VG AnyLAN Hub - pg. 48
4. 100VG to Ethernet Bridge - pg. 48
5. 10/100 Mbps Ethernet Switch - pg. 45
6. 4pair Cat5 Color Coded Patch Cables - pg. 41
7. 4 pair Cat5 UTP Cable - pg. 39
8. 10 BaseT Network Card - pg. 42

Wireless Ethernet

uses spread spectrum technology to transmit data as radio waves, . Spread spectrum spreads the transmission over a broad frequency range, from 902 thru 928 MHz. Eavesdropping is virtually eliminated because only the receiving unit is able to un-spread the transmission. The concept for spread spectrum was created by actress Hedy Lamarr back in 1940. It was put to use in the 1960's for use in the military and is so effective that it is still in use today.

If you have a location that you cannot or do not want to install cabling, then wireless Ethernet is the solution to your problems. Wireless Ethernet has data throughput of 2Mbps and can be used for up to 3 miles depending upon the hardware installed (No FCC License is required).

We've covered security, speed and distance. How about costs? Well, if you have or are thinking



This diagram is a combination of Thin Ethernet and 10Base T. The layout can be changed depending upon your networking needs.

1. Wireless Ethernet Bridge - pg. 47
2. Outdoor Antenna - pg. 47
3. PVC Thinnet Cable - pg. 38
4. Thin Ethernet Network Card - pg. 42
5. BNC T Connector - pg. 40
6. 50 Ohm Terminator - pg. 40
7. Cat5 UTP Cable - pg. 39
8. Cat5 Color Coded Patch Cables - pg. 41
9. 10 BaseT Ethernet Hub - pgs. 43, 44
10. 10 BaseT Network Card - pg. 42

Standard Package Lengths - 1000ft reel

Meets or Exceeds EIA/TIA 568 Standards

We stock all the bulk cable for your Ethernet installations. Comes in standard reel lengths, but we'll cut any length you need. Also available in boxes. For further specs see our Bulk Cable section.

Thin Ethernet 50 ohm RG58 coaxial cable



Used with 10Base2. Max. length per segment is 185 meters or 607 ft. Both ends of the cable must be terminated with a 50 ohm terminator and one end must be grounded. For further information on Thin Ethernet and 10Base2 see page 34 in our Introduction to Ethernet section.

Sheild - 95% TC+ Foil
Center Conductor - 20awg 19/33 TC stranded
Nominal Attenuation - 12dB/1000 ft.@10MHz
Nominal Impedance - 50 ohms

Description	UL Type	Jacket	Dieletric	O.D.	Core O.D.	Weight per 1000' Reel	Nom.Cap.	Vel. of Prop.	Part #	500'-999'	1'-499'
RG58 A/U Thinnet	CL2	PVC	Foamed PE	in	.101in	27 lbs.	26.2 pF/ft	78%	271080		
RG58 A/U Thinnet	CL2P	Plenum	Foamed FEP	in.	.101in	29 lbs.	26.2 pF/ft	78%	291080		

Thick Ethernet 50 ohm coaxial trunk cable



Used with 10Base5. Maximum length per segment is 500 meters or 1640 ft. Both ends of the cable segment must be terminated with a 50 ohm terminator.

Marked every 2.5m for transceiver placement. For further info on Thick Ethernet see page 34 in our Introduction to Ethernet section.

Sheild - 2 foil + 2 90% TC braid
Center Conductor - 12 awg - .0855 in. solid BC
Nominal Attenuation - 5.2 dB/1000 ft. @ 10MHz
Nominal Impedance - 50 ohms
Nominal Capacitance - 25 pF/ft

Description	UL Type	Jacket	Dieletric	Core O.D.	O.D.	Weight per 1000' Reel	Part #	500'-999'	1'-499'
Trunk Cable	CL2	PVC Yellow	Foamed PE	in.	.247in.	130lbs	271120		
Trunk Cable	CL2P	Plenum Orange	Foamed FEP	in.	.247in.	136lbs	291120		

Transceiver

AUI Transceiver Drop 4pair 20awg individually shielded cable

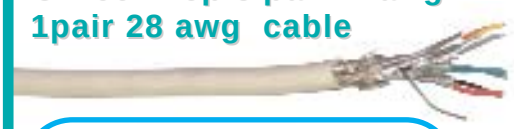


Used to connect a network device to a transceiver. Each pair is individually foil shielded and the cable has an overall foil shield with a 95% braid shield. Maximum segment length is 50 meters. For further information see page 33 in our Introduction to Ethernet section.

Sheild - Ind. foil + OA foil + 95% braid + Drain
Center Conductor - 20 AWG 7/28 Stranded
Nominal Attenuation -19d/1000ft. @ 10MHz
Nominal Impedance - 78 Ohms
Nominal Capacitance - 17 pF/ft

Description	UL Type	Jacket	O.D.	Weight per 1000' Reel	Part #	500'-999'	1'-499'
4pr Transceiver Drop Cable	CL2	PVC	in.	105 lbs.	272055		
4pr Transceiver Drop Cable	CMP	Plenum	in.	108 lbs.	292055		

Office Drop 3 pair 24awg 1pair 28 awg cable



Is smaller and more flexible than regular transceiver cable. Each pair is individually foil shielded with an overall foil shield and a 95% braid shield. Maximum segment length is 5 meters.

Sheild -Ind. foil + OA foil + 95% braid + Drain
Center Conductor - 1pair 24AWG / 3 pair 28AWG
Nominal Impedance - 78 ohms
Nominal Capacitance - 19.7 pF/ft

Description	UL Type	Jacket	O.D.	Weight per 1000' Reel	Part #	500'-999'	1'-499'
Multipair Office Drop Cable	CL2	PVC	in.	44 lbs.	272057		

62.5 / 125 micron Duplex Multimode Cable



Used with 10BaseFL Ethernet and FOIRL. Max segment length is 2km or 1.2 miles. We have listed here the most commonly used Ethernet fiber optic cabling. Please check our Fiber Optic section for more types of fiber optic bulk cable.

Crush Resistance - 114 lbs/in.
Wavelength - 850 / 1300 nm
Attenuation - 3.3 / 0.8 dB/km
Minimum Bandwidth - 160 / 500 MHz/km
Operating Temp. - -20°C - +70°C

Description	UL Type	Jacket	O.D.	Cladding Diameter	Buffer Diameter	Weight per 1000' Reel	Part #	ft,
62.5/125 Micron	OFNR	PVC	2.9x6.2mm	125m m	900 microns	12 lbs.	219132	
62.5/125 Micron	OFNR	PVC (White/Green)	2.9x6.2mm	125m m	900 microns	12 lbs.	219132-WH/GREEN	
62.5/125 Micron	OFNP	Plenum	2.9x6.2mm	125m m	900 microns	12 lbs.	239132	

All cable specifications may vary and are subject to change

We stock all the bulk cable for your Ethernet installations. Comes in standard reel lengths, but we'll cut any length you need. For further specs see our Bulk Cable section.

Standard Package Lengths - 1000ft reel or box

Meets or Exceeds EIA/TIA 568 Standards

Nominal Impedance - 100 ohms +/-15%

350 Mhz Enhanced Category 5 Unshielded Twisted Pair (UTP).

For use in 100BaseT applications. Maximum length per segment is 100 meters or 330 ft. Not recommended for areas with high electromagnetic or radio frequency interference (EMI/RFI).



Description	Jacket	AWG	UL Type	Capacitance	Weight	Insulation	O.D.	Frequency	Attenuation	Crosstalk	Part#
2pr Cat 5 Solid	PVC	24	CMR	17pF/ft.	33 lbs.	PE	in.	100 MHz	»»»64dB/Kft	»»32dB@Kft	213002AL5-350
2pr Cat 5 Solid	Plenum	24	CMP	17pF/ft.	38 lbs.	FEP	in.	100 MHz	»»»64dB/Kft	»»32dB@Kft	233002AL5-350
4pr Cat 5 Solid	PVC	24	CMR	17pF/ft.	33 lbs.	PE	in.	100 MHz	»»»64dB/Kft	»»32dB@Kft	213004AL5-350
4pr Cat 5 Solid	Plenum	24	CMP	17pF/ft.	38 lbs.	FEP	in.	100 MHz	»»»64dB/Kft	»»32dB@Kft	233004AL5-350

Category 5 Stranded Patch Cable.

Used for modular patch cords to connect your PC to a wallplate connected to your network.

*AVAILABLE IN THESE

1	2	3	4	5	6	7	8
BONE	RED	GREEN	BLUE	BLACK	YELLOW	WHITE	BROWN



Description	Jacket	AWG	UL Type	Capacitance	Weight	Insulation	O.D.	Frequency	Attenuation	Crosstalk	Part#
2pr Cat5 Stranded	PVC	24	CM	13.5 pF/ft	17 lbs.	PE	in.	100MHz	»»»23dB/100m	»» 51dB	203002AL5*
3pr Cat5 Stranded	PVC	24	CM	13.5 pF/ft	20 lbs.	PE	in.	100MHz	»»»23dB/100m	»» 51dB	203003AL5*
4pr Cat5 Stranded	PVC	24	CM	13.5 pF/ft	26 lbs.	PE	in.	100MHz	»»»23dB/100m	»» 51dB	203004AL5*

CAT5 & CAT3 24 AWG Unshielded Twisted Pair (UTP).

Used in 10BaseT applications, Category 3 or higher UTP is preferred. Maximum length per segment is 100 meters or 330 ft. Not recommended for areas with high electromagnetic or radio frequency interference (EMI/RFI).



Description	Jacket	AWG	UL Type	Capacitance	Weight	Insulation	O.D.	Frequency	Attenuation	Crosstalk	Part#
2pr **Cat 5** Solid	PVC	24	CMR	15pF/ft.	15 lbs.	POLYOLEFIN	in.	100 MHz	»»»»67dB/Kft	»»32dB@Kft	213002AL5
4pr **Cat 5** Solid	PVC	24	CMR	15pF/ft.	24 lbs.	POLYOLEFIN	in.	100 MHz	»»»»67dB/Kft	»»32dB@Kft	213004AL5
25pr **Cat 5** Solid	PVC	24	CMR	14pF/ft	139 lbs.	PE	in.	100 MHz	»»»»67dB/Kft	»»32dB@Kft	213025AL5
2pr **Cat 5** Solid	Plenum	24	CMP	15pF/ft.	16 lbs.	FEP	in.	100 MHz	»»»»67dB/Kft	»»32dB@Kft	233002AL5
4pr **Cat 5** Solid	Plenum	24	CMP	15pF/ft.	25 lbs.	FEP	in.	100 MHz	»»»»67dB/Kft	»»32dB@Kft	233004AL5
25pr **Cat 5** Solid	Plenum	24	CMP	14pF/ft.	141 lbs.	FEP	in.	100 MHz	»»»»67dB/Kft	»»32dB@Kft	233025AL5
2pr **Cat 3** Solid	PVC	24	CMR	19pF/ft.	10 lbs.	SR PVC	in.	16 MHz	»»»»40dB/Kft	»»13dB@Kft	213002AL3
4pr **Cat 3** Solid	PVC	24	CMR	19pF/ft.	18 lbs.	SR PVC	in.	16 MHz	»»»»40dB/Kft	»»13dB@Kft	213004AL3
25pr **Cat 3** Solid	PVC	24	CMR	22pF/ft.	99 lbs.	SR PVC	in.	16 MHz	»»»»44dB/Kft	»14.4dB@Kft	213025AL3
2pr **Cat 3** Solid	Plenum	24	CMP	20pF/ft.	16 lbs.	LS PVC	in.	16 MHz	»»»»40dB/Kft	»»13dB@Kft	233002AL3
4pr **Cat 3** Solid	Plenum	24	CMP	20pF/ft.	20 lbs.	LS PVC	in.	16 MHz	»»»»40dB/Kft	»»13dB@Kft	233004AL3
25pr **Cat 3** Solid	Plenum	24	CMP	20pF/ft.	101 lbs.	LS PVC	in.	16 MHz	»»»»44dB/Kft	»14.4dB@Kft	233025AL3

Some pair counts available in **COLORS.** Please call for more info.

Siamese Cat 5 UTP

Max length per segment is 100 meter or 330 ft. Not recommended for areas with high electromagnetic or radio frequency interference (EMI/RFI).



Description	Jacket	AWG	UL Type	Capacitance	Weight	Insulation	O.D.	Frequency	Attenuation	Crosstalk	Part#
4pr Cat 5 Solid	PVC	24	CMR	5.6nF/100m	42 lbs.	PE	in.	100MHz	»»»22dB/100m	»»» 32dB	213004AL5ZIP
4pr Cat 5 Solid	Plenum	24	CMP	5.6nF/100m	54 lbs.	FEP	in.	100MHz	»»»22dB/100m	»»» 32dB	233004AL5ZIP

24 AWG Shielded Twisted Pair (STP).

Overall shield with drainwire. Recommended for areas with high electromagnetic or radio frequency interference (EMI/RFI).



Description	Jacket	AWG	UL Type	Capacitance	Weight	Insulation	O.D.	Frequency	Attenuation	Crosstalk	Part#	1k5k
2pr Cat 5 Solid	PVC	24	CM	15pF/ft	21 lbs.	POLYOLEFIN	in.	100MHz	»»»67dB/Kft	»»32dB@Kft	227002AL5	
4pr Cat 5 Solid	PVC	24	CM	15pF/ft	34 lbs.	POLYOLEFIN	in.	100MHz	»»»67dB/Kft	»»32dB@Kft	227004AL5	
2pr Cat 5 Solid	Plenum	24	CMP	15pF/ft	29 lbs.	FEP	in.	100MHz	»»»67dB/Kft	»»32dB@Kft	229002AL5	
4pr Cat 5 Solid	Plenum	24	CMP	15pF/ft	37 lbs.	FEP	in.	100MHz	»»»67dB/Kft	»»32dB@Kft	229004AL5	

All Cable Specifications May Vary And Are Subject To Change

FOR CAT 5

MODULAR CONNECTORS

10BaseT and 100BaseT

Used with twisted pair cabling for solid or stranded trunk or patch cables. For more mudular connectors see page 24



TYPE	PART #
CAT5 RJ45 PLUG	
8 POS X 8 CONTACT	315015
FLAT STRANDED	414030
ROUND STRANDED	414030RST
ROUND SOLID	414030RSO
FLAT STRANDED KEYED	414031
ROUND STRANDED KEYED	414031RST
ROUND SOLID KEYED	414031RSO
SHIELDED FLAT	414056
SHIELDED ROUND STRANDED	414057
SHIELDED ROUND SOLID	414058
SHIELDED DELUXE	414059

FIBER OPTIC CONNECTORS

10 Base FL

All connectors are 125m m multimode for use in Fiber Optic Ethernet Applications. For more connectors see



TYPE	FERRULE	LOSS	REF #	PART #
NCI ST	CERAMIC/PC	<0.5dB	3STCM125	410532
AMP ZIP FDDI	CERAMIC	0.6dB	502015-1	410564
NCI SMA905	ST.STEEL	<0.8dB	3905AM125	410574
MOLEX	ZIRCONIA/PC	0.2dB	86061-0000	410636

ETHERNET AUI CONNECTORS

For use in Ethernet transceiver applications using DB15 connectors.



TYPE	PART #
DB15 ETHERNET HOODS 90°	380334
DB15 ETHERNET HOODS 180°	380336
BOOTS FOR 180° ETHERNET HOOD	311407
DB15 MALE CRIMP CONNECTOR	310177
DB15 FEMALE CRIMP CONNECTOR	310178
POSTS (SET)	380340
SLIDE LATCH	380338

OR MORE

BNC CONNECTORS & ADAPTERS

Thin Ethernet 10 BASE 2

Used in ThinEthernet Applications. Our connectors are quality machined nickel plsted brass bodies with 50um gold flashed pins. Superior strain relief and finish make them a reliable termination. For more connectors and adapters see our Connectors section on page 28 & 29.



PVC THIN ETHERNET	PART#
MALE 3PC CONN.	321022
MALE 3PC CRIMP "AMP"	321022-AMP
MALE 2PC CRIMP	321071
MALE COMPR. & SOLDER	321053
FEMALE 3PC CRIMP	321024
PLENUM THIN ETHERNET	**PART#**
MALE 3PC CONN.	321023
MALE 2PC CONN.	321070
ADAPTERS THIN ETHERNET	**PART#**
50 OHM TERMINATOR	326901
50 OHM TERMINATOR W/ GRND CHAIN	326902
T-CONNECTOR F-M-F	323107

N CONNECTORS & ADAPTERS

Thick Ethernet 10 BASE 5

Used in Thick Ethernet Applications. Our connectors are quality machined nickel plsted brass bodies with 50um gold flashed pins. Superior strain relief and finish make them a reliable termination. For more connectors and adapters see our Connectors section on page 29.



PVC THICK ETHERNET	PART#
MALE CRIMP.	323070
MALE TWIST-ON	323072
MALE COMPRESSION PLUG	323074
FEMALE COMPRESSION JACK	323076
PLENUM THICK ETHERNET	**PART#**
MALE CRIMP.	323071
MALE TWIST-ON	321073
MALE COMPRESSION PLUG	323075
FEMALE COMPRESSION JACK	323077
ADAPTERS THICK ETHERNET	**PART#**
MALE 50 OHM TERMINATOR PLUG	323066
FEMALE 50 OHM TERMINATOR JACK	323068
T-CONNECTOR F-M-F	321095

The Thinnet Tap

Thin Ethernet 10 BASE 2

features a unique contact arrangement that provides an internal termination when the plug is disconnected. This eliminates the need for T-connectors and allows stations to be moved without disrupting the network. The system is a great solution to multi-user Ethernet LANs where moves and changes are frequent. The expansion box offers a perfect solution for small clusters in your office. Easy to install using a screwdriver, cutter and pliers.



DESCRIPTION	PART #	REF #
THINNET TAP ASSEMBLY	328102	222503-1
THINNET TAP TERMINATOR	328104	222504-1
TERMINATOR W/GROUND WIRE	328106	413661-1
WALLPLATE	328108	222754-1
WALLPLATE DUST COVER	328110	413294-1
THINNET TAP DROP CABLE 8 ft.	328112	222675-1
THINNET TAP DROP CABLE 16ft	328114	222675-3
THINNET TAP DROP CABLE 25ft	328116	222675-4
THINNET TAP 4 PORT EXPANSION BOX	328118	413507-1
NO DROP PLATE	328125	

CABLE ASSEMBLIES

All the Ethernet cables you will ever need are made at NCI. These cables feature the highest quality cable, connectors, strain reliefs, and workmanship. Custom lengths and

THIN ETHERNET CABLE ASSEMBLIES



Our assemblies feature BNC connectors on each end, male or female, and are available in standard and custom lengths. Connect one end to your coax wallplate and the other end to a T-connector attached to a Network Interface Card (NIC).

Thin Ethernet cable has a maximum length of 607 feet.

Thin Ethernet 10 BASE 2

LENGTH	PART #	REF #
6 FT. PVC	M35006	BC16M-✶✶✶
10 FT. PVC	M35010	BC16M-✶✶✶
15 FT. PVC	M35015	BC16M-✶✶✶
25 FT PVC.	M35025	BC16M-✶✶✶
50 FT. PVC	M35050	BC16M-✶✶✶
CUSTOM LENGTHS - PVC	M35✶✶✶	PVC
PLENUM	M36✶✶✶	PLENUM

✶✶✶ = LENGTH IN FEET

OPTIONAL- ADD SUFFIX -FB = FULLBOOT ASSEMBLY (ADD PER CABLE)
ADD SUFFIX -HB = HALFBOOT ASSEMBLY (ADD PER CABLE)

THICK ETHERNET CABLE ASSEMBLIES



Our assemblies feature "N" type connectors on each end, male or female, and are available in standard and custom lengths. Marked every 2.5 meters to insure proper transceiver placement. Both ends must have a 50ohm terminator connected to it.

Thick Ethernet has a maximum length of 1640 feet.

Thick Ethernet 10 BASE 5

LENGTH	PART #	REF #
75 FT. PVC	M48075	BHNE2B-✶✶✶
230 FT. PVC	M48230	BHNE2B-✶✶✶
385 FT. PVC	M48385	BHNE2B-✶✶✶
1640 FT. PVC	M481640	BHNE2B-✶✶✶
CUSTOM LENGTHS - PVC	M48✶✶✶	PVC
PLENUM	M49✶✶✶	PLENUM

✶✶✶ = LENGTH IN FEET

TRANSCEIVER CABLE ASSEMBLIES



Used to connect to transceivers. Strong outer jacket, great for long runs.

LENGTH	PART #	REF #
PVC 15 FT.	M38015	BNE3H-✶✶
PVC 30 FT.	M38030	BNE3H-✶✶
PVC 65 FT.	M38065	BNE3H-✶✶
PVC 130 FT.	M38130	BNE3H-✶✶
CUSTOM LENGTHS - PVC	M38✶✶✶	+ FT. PVC
PLENUM	M39✶✶✶	+ FT. PLENUM

✶✶✶ = LENGTH IN FEET

OPTIONAL - HOODING(STRAIGHT OR RIGHT ANGLE), AND HARDWARE(SLIDELATCH, POST, OR SCREWS)

OFFICE DROP CABLE ASSEMBLIES



Each pair is individually foil shielded and the cable has an overall foil shield with a 95% braid shield. Great for short runs.

LENGTH	PART #	REF #
1 FT.	M37001-✶	BNE4C-✶
2 FT.	M37002-✶	BNE4C-✶
3 FT.	M37003-✶	BNE4C-✶
5 FT.	M37005-✶	BNE4C-✶
10 FT.	M37010-✶	BNE4C-✶
15 FT.	M37015-✶	BNE4C-✶
CUSTOM LENGTHS	M37✶✶✶-✶	+ FT.

ALL SIX AUI TRANSCEIVER CABLES LISTED ABOVE ARE OFFICE TYPE BOTH ENDS STRAIGHT.

✶✶✶ = LENGTH IN FEET
ADD SUFFIX -A = FEMALE LATCH - MALE POST
ADD SUFFIX -B = FEMALE LATCH - MALE SCREW

CATEGORY 5 CABLE ASSEMBLIES



LENGTH	PART#
3FT.	Q07211-003-?
8FT.	Q07211-008-?
10FT.	Q07211-010-?
15FT.	Q07211-015-?
25FT.	Q07211-025-?
30FT.	Q07211-030-?
50FT.	Q07211-050-?
100FT.	Q07211-100-?
CUSTOM LENGTHS	Q07211-✶✶✶-? +

✶✶✶ = LENGTH IN FEET

?=Color: 1=Bone, 2=Red, 3=Green, 4=Blue, 5=Black, 6=Yellow

CATEGORY 5 CROSS OVER CABLE ASSEMBLIES

LENGTH	PART#
2FT.	N00056-002-?
3FT.	N00056-003-?
4FT.	N00056-004-?
5FT.	N00056-005-?
6FT.	N00056-006-?
8FT.	N00056-008-?
10FT.	N00056-010-?
15FT.	N00056-015-?
30FT.	N00056-030-?
CUSTOM LENGTHS	N07211-✶✶✶-? +

✶✶✶ = LENGTH IN FEET

?=Color: 1=Bone, 2=Red, 3=Green, 4=Blue, 5=Black, 6=Yellow

100 Base-T Cards

SMC

SMC's dual-speed EtherPower 10/100™ PCI card leads the industry in throughput, speed and efficiency. Installation takes less than 30 seconds. This card senses the hub or switch speed (10Mbps or 100Mbps). Use it in a 10Base-T network today and migrate to 100Base-TX Fast Ethernet when you need the additional bandwidth. Includes free SNMP agent and full complement drivers. FCC Class B compliant.

- **Cost effective 100Mbps technology • Installs in less than 30 seconds**
- **Seamless migration from 10 to 100Mbps • Free SNMP agent • Low CPU utilization**

Description	Part#
EtherPower 10/100	534229
EtherPower 10/100 PCI	534231
Ether 10/100 EISA	534233

FREE SNMP Agent

intel

• One step installation with high performance 32-bit architecture throughput at over 87M bps and lower CPU utilization under 30% • IEEE 802.3 compliant, seamless migration from 10 to 100Mbps Ethernet with support for 100Base-TX, T4 and 10Base-T • Now with Adaptive Technology which modifies the actual microcode that runs on the silicon • One connector and hub speed auto-sensing. Full-duplex capable (TX only), single RJ45 port and same driver

Description	Part#
EtherExpress Pro/100 B PCI	313629
EtherExpress Pro/100 B PCI (5 pack)	313631
Pro/100 ISA	313633
EtherExpress Pro/100 EISA	313635
Pro 100-T4 PCI	313637
EtherExpress Pro/100 PCI Smart Mod. Adapt	313639

Xircom

Portable PC users can now connect to both 10 or 100 Mbps Fast Ethernet networks with this high performance PC Card. Autonegotiation of 10 to Mbps speeds provide a seamless connection in both network environments. These Upgradeable models are 10Mbps adapters for those who plan to implement Fast Ethernet in the future.

Description	Part #
CreditCard 10/100 Ready	331903
CreditCard 10/100 Upgr 10-T	331905
CreditCard 10/100 Upgr 10-T Combo	331907
10/100 Mbps Upgradeable Kit	331909

3Com

3Com's Fast EtherLink 10/100 adapters are the easiest, most affordable way to move to 100Mbps networking. Install the adapter once, and it will operate with all major 10Base-T and 100Base-TX hub types - no software or hardware changes are necessary. Like 3Com's market-leading EtherLink III family, Fast Etherlink adapters provide Parallel Tasking® performance, one-step installation with AutoLink™ software, a money-back guarantee of compatibility with PCI-compliant machines.

Description	Part#
Fast EtherLink ISA 10/100 Base-TX Adapter (5 Pack)	337702
Fast EtherLink ISA 10/100 Base-TX Adapter	337704
Fast EtherLink 10/100 EISA UTP	337723
Fast EtherLink 10/100 EISA UTP (5 pack)	337725
Fast EtherLink 10/100 PCI	337727
Fast EtherLink 10/100 PCI UTP (20 pack)	337729
Fast EtherLink 10/100 PCI (5 pack)	337731
Fast EtherLink XL100 PCI	337733
Fast EtherLink XL100 PCI (5 pack)	337735
Fast EtherLink XL100 PCI (20 pack)	337737



• Instant migration from 10 to 100Mbps networking • LED indicators for easy monitoring of Link integrity and data traffic • Plug n Play • Full-Duplex • Lifetime warranty • Deluxe NCI card is a 32-bit PCI 10/100 Ethernet Adapter. Supports any existing 10 Mbps network while providing simple integration to 100Mbps.

Description	Part#
Deluxe 10/100 PCI	403239
Deluxe 10/100 PCI (5 pack)	403241

Best

BOCA RESEARCH INC

The new BOCALAN card 10/100 provides an affordable high-performance 100Mbps Ethernet solution for IEEE 802.3 100Base-TX networks. It features a 32-bit PCI 10-pin bus and provides ten times the bandwidth of existing 10Base-T networks. This enables higher data transfer rates, increased throughput and low CPU overhead.

Description	Part#
BOCALAN card 10/100	339205

FAST Ethernet Card

Allied Telesyn International

The AT-2560TX is the impressive, new 10/100 PCI adapter card from Allied Telesyn International. The AT 2560TX delivers maximum network bandwidth, while utilizing very little CPU resources to get the job done. A sophisticated 32 bit, Bus-Mastering architecture makes sure important network data moves at top speed on and off the LAN.Auto sensing technology makes changing from 10 to 100Mb a nobrainer. You can install the cards today running at 10mb. As you upgrade your hubs, all affected workstations are instantly updated.

Description	Part#
AT-2560 TX	313219
AT-2560 TX (5pack)	313221

NEW

digital

Parallel cut-through bus master architecture and other patented features maximize data throughput and minimize CPU utilization. Automatically adjusts to 10Mb/s or 100Mb/s network speeds. Cards support full-duplex for increased bandwidth up to 200Mb/s. Supports many platforms. Easy installation.

Description	Part#
Fast Etherwork PCI 10/100	536103
Fast Etherwork PCI 10/100 (5 pack)	536105
Fast Etherwork PCI 10/100 (25 pack)	536107

ASANTÉ

Adapter PC Edition

• Instant migration from 10Mbps to 100Mbps networking • N-Way Auto-negotiation • The PCI adapter's 32-bit bus mastering design allows maximun throughput without loading the host CPU • Easily visible LEDs indicate 10 Mbps operation,100Mbps operation, link integrity and data traffic. All-in-one compatibility to 10Base-T and 100Base-Tx Ethernet networks. A single RJ-45 port and all drivers support both 10 and 100Mbps operation.Available in 20 packs

Description	Part#
AsanteFAST 10/100 PCI	400705
AsanteFAST 10/100 PCI (5 pack)	400707

All-in-one compatibility to 10Base-T and 100Base-TX Ethernet networks. The AsanteFAST 10/100 offers compatibility with both Macintosh and PC PCI bus computers and works with existing 10Mbps Network. When it's time to switch your department to 100Mbps simply plug the network cable into a Fast Ethernet hub and your AsanteFAST 10/100 is ready to run at 100Mbps. The adapter will automatically connect at the correct speed. Available in 5 and 20 packs.

Description	Part#
10/100 Adapter (Mac/PC)	400709
10/100 NuBus Adapter	400711

10 Base-T Cards

SMC

EtherEZ™ Plug and Play - SMC's EtherEZ adapters support the Plug and Play (PnP) specification, making them fully auto-configurable in a PnP computer - simply install and power up!
EtherPower™ PCI - SMC's PCI adapters are auto-configurable - just install and power up the system
EtherPower 10/100™ PCI Adapter - With these dual speed, bus-master adapters, you can future-proof your network. Set them for 10Mbps to operate with all 10Base-T devices. When you need additional bandwidth simply set them to 100Mbps

Description	Part#
EtherPower™ PCI Cards	
PCI Card RJ45	534277
PCI Card RJ45 5 Pack	534279
PCI Card RJ45/BNC	534281
PCI Card RJ45/BNC 5 Pack	534283
EtherEZ™ Plug and Play Cards	
Plug and Play RJ45	534285
Plug and Play RJ45 5 Pack	534287
Plug and Play BNC	534289
Plug and Play BNC 5 Pack	534291
Plug and Play RJ45/BNC	534293
Plug and Play RJ45/BNC 5 Pack	534295

BOCA RESEARCH INC

Affordable BOCALAN Cards 2000+

- **Easy to install • Software configurable • Programmable diagnostic LED • New lower Price**
- **Fully NE2000 compatible • Fully software configurable, jumperless design • Free technical support**

The BOCALAN Card 2000+ Combo is a lower price, easy to install Ethernet card for ISA bus systems that connects to10Base-T and 10 Base-2 networks. The BOCALAN Card 2000+ ensures compability with all NE2000 network operating systems.

BOCALAN Card Plug and Play Adapters

- **High performance, low priced adapters • Easy to install • Intel & Microsoft Plug and Play design**
- **IEEE 802.3 compliant**

The BOCALAN Card TP and Combo 16-Bit Ethernet Adapters for ISA bus systems feature a jumperless design and Plug and Play/Windows 95. These high performance, low priced, easy-to-install Ethernet Adapters are fully software configurable and come with one RJ45 jack for 10Base-T or an RJ45 and BNC for 10Base-T and 10Base-2 networks.

Description	Part#
Affordable BOCALAN Cards 2000+	
10Base-T	339207
10Base-T / 10Base-2	339209
BOCALAN Card Plug and Play Adapters	
10Base-T	339211
10Base-T / 10Base-2	339213

AE-200 Plug and Play • Supports full duplex operation on the 10 Base-T and BNC port • On-board Remote Boot ROM socket for diskless workstations • LED indicators for Activity and Port Link detection.
32 Bit PCI Bus Ethernet Adapter • Low Power consumption with sleep mode • Jabber timer for detecting transmitter failure

Description	Part#
Adapter Combo	541401
Adapter Combo 5 Pack	541403
Adapter Combo 20 Pack	541405
NCI's AE-200 Plug and Play	
Plug and Play 10Base-T	541407
AE-200 Plug and Play Combo	541409
Bit PCI Bus Ethernet Adapter	
AE-380 PCI Bus Master PCI Card	541411
AE-360 Non Bus Mastering PCI Card	541413

Plug - n - Play

intel

Plus Adapter - Intel's New EtherExpress™ PRO 10+ Adapters give you superior networking performance, simple Plug and Play installation, and standards based node management for your high powered PCs.
Plus Adapter with Flash - Intel's PRO 10+ adapters with flash also provide centralized driver updates pre-boot virus protection and have limited lifetime warranty.
PCI Plus Adapter - High performance with low CPU utilization, make the connection with the new EtherExpress™ PRO/10+PCI Adapter

Description	Part#
EtherExpress PRO 10+ RJ45	313655
EtherExpress PRO 10+ RJ45 5 Pack	313657
EtherExpress PRO 10+ RJ45/BNC	313659
EtherExpress PRO 10+ RJ45/BNC 5 Pack	313661
EtherExpress PRO 10+ Combo	313663
EtherExpress PRO 10+ Combo 5 Pack	313665
EtherExpress PRO RJ45 w/Flash	313667
EtherExpress PRO 10+ RJ45/BNC w/Flash	313669
EtherExpress PRO 10+ Combo w/Flash	313671
PRO 10+ PCI 10Base-T	313673
PRO 10+ PCI 10Base-T 5 Pack	313675
PRO 10+ PCI Combo	313677
PRO 10+ PCI Combo 5 Pack	313679

Allied Telesyn International

Improve Performance with this 10Mbit PCI card. Auto-configurable on power-up and supports full duplex operation.Windows 95 certified. ***Series 2000 Plus*** - Reliable and cost effective jumpers-less the NE2000-compatible solution is easy to install and maintain. ***Series 1700 Plus - ASIC ISA*** Software configurable jumpers allow simple, trouble freeinstallation. 32 KB on-board memory for programmed I/O

Description	Part#
AT-2450T RJ45	536741
AT-2550BT RJ45 and BNC	536743
AT-2450T 5 Pack + 1 Free	536745
AT-2550BT 5 Pack	536747
Series 2000 Plus	
AT-2000 10Base-T	536749
AT-2000 10Base-T BNC/AUI	536751
AT-2000 10Base-T 5 Pack + 1 Free	536753
AT-2000 10Base-T BNC/AUI 5 Pack + 1 Free	536755
Series 1700 Plus	
10 Base-T	536757
10 Base-T 5 Pack	536759
10 Base-T & 10 Base-2	536761
10 Base-T & 10 Base-2 5 Pack	536763
10 Base-T & 10 Base-FL	536765
Series 1720 Plus MCA	
10 Base-T	536767
10 Base-T & 10 Base-2	536769
10 Base-T & 10 Base-FL	536771

Description & Part#	Single	5 pack	20 Pack
EtherLink III UTP only	536965	536965-A	536965-B
EtherLink III UTP/AUI	536967	536967-A	536967-B
EtherLink III BNC/AUI	536969	536969-A	536969-B
EtherLink III Combo	536971	536971-A	536971-B
EtherLink III UTP 32-Bit EISA	536973	536973-A	------
EtherLink III XL PCI UTP only	536975	536975-A	536975-B
EtherLink III XL Combo	536977	536977-A	536977-B
EtherLink III BNC 32-Bit EISA	536979	536979-A	------
EtherLink III PCI UTP only	536981	536981-A	536981-B
EtherLink III PCI Combo	536983	536983-A	536983-B

100 Base-T Hubs

Bay Networks

- 12 100Base TX UTP Ports - Stack up to 6 BayStack 100TX Hubs
- NetGauge offers easy-to-read hub status
- Optional BayStack management module avialable - Optional redundant power supply available

DESCRIPTION	PART#
100 BASE-T FAST ETHERNET STACKABLE	315551
HUB CABLE	315553

- 8 or 16 100Base -TX ports - Expandible from 8 to 64 users - Plug-and-play with software to configure - Built-in LEDs clearly indicated individual port status - Uplink switch simplifies network extension - IEEE 802.3u standard compliant

NEW

DESCRIPTION	PART#
TX 8 PORT	315555
TX 16 PORT	315557

- Class 1 fast Ethernet compliant - Two daisy-chain ports for stackability
- Strict compliance with the IEEE 802.3 standards

DESCRIPTION	PART#
T4 12 PORT	333315
TX 12 PORT	333317
FX 12 PORT	333319

DESCRIPTION	PART#
LINKBUILDER FMS TX 12 PORT	337749
LINKBUILDER FMS HUB EXPANSION CABLE	337751
LINKBUILDER FMS MGMT. MODULE	337753
TRASCEND WORKGROUP MANAGER. FOR WINDOWS V.4.0	337755

3Com

- SuperStack II Hub support for category 3 UTP cable
- SuperStack II UPS power supply keeps your network running during your blackouts • High-performance 100Mbps hbs • Each hub support 12 100Mbps ports and an optional 13 port for downlink • Stackable system allows for growth from 12 ports to 144
- Optional redundant power supply endures maximun network uptime • Front panel provides LEDs for cheking port status • Both offer 3Com performance and reability • User-friendly slide in SNMP management module lets you add network management when you need it • Lifetime manufacturer's warranty

NEW

DESCRIPTION	PART#
SUPERSTACK II TX HUB	337739
SUPERSTACK II T4 HUB	337741
SUPERSTACK II UPS BACKUP	337743
SUPERSTACK II MGMT. MODULE	337745
SUPERSTACK II UPS MGMT. MODULE	337747



Best

DESCRIPTION	PART#
8 PORT HUB	541550
12 PORT HUB	541552

ASANTÉ

- Connects from 12 to 180 users per stack running 100Base TX Fast Ethernet • Class II stackable architecture supports up to 358 ports in one collision domain • AsantéFAST 100 Management Module snaps on to the hub stack for full SNMP management • Auto positioning isolates problems ports and keeps networks running

DESCRIPTION	PART#
TX 12 PORT	400713
TX / FX 8 PORT	400715
FAST ETHERNET MANAGEMENT MODULE	400717

- 6 and 12 port hubs that connect your users to a 100Base TX Fast Ethernet Network - 10 times the performance of 10 Mbps Ethernet for workgroups with high-band width requirements - Plug it in and power it up! - No switches, no jumpers, and no software required

DESCRIPTION	PART#
TX 6 PORT	400719
TX 12 PORT	400721

intel

The Intel Experss Stackable Hub combines the high-performance of modular hubs with the low-cost and flexibility of stackable hubs. The Intel Express Stackable 12 Port Hub also includes an expansion slot for a management module, and a media slot for uplinks to fiber.

DESCRIPTION	PART#
TX STACKABLE & 10 PRO 100 PCI CARDS	313641
ETHEREXPRESS STACKABLE TX 12 PORT	313643

digital

- Compact Fast Ethernet hub for high-performance workgroups
- A single hubs support 8 users or daisy-chain 2 hubs for 14 users
- Auto-partitioning, auto-polarity detection and auto-jabber lock-up to minimize performance disruptions

DESCRIPTION	PART#
ETHERWORKS 8TX HUB 8 PORT	536109

HUBS: Just because you have a small LAN doesn't mean you have to go overboard on your hub. We offer many styles and sizes that allow for easy growth cascading when your needs change. These hubs come in BNC, 10 Base-T, and combination port configurations. Need a special hub? **Ask your salesperson! We can supply your requirements.**

10 Base-T Hubs

Accton

5-PORT SMART ETHERNET HUB

• Portable, lightweight • At a glance network diagnostics • Connects 5 PCs together using 10Base-T • Can daisy chain up to 3 hubs together • Additional RJ45 port provided for cascading to other hubs • Can be used on the desktop or mounted anywhere with enclosed velcro patch

DESCRIPTION	PART#
VENUS 5 PORT	333115

8 & 16 PORT HUBS W/ SMARTWATCH

• Microprocesor-based design monitors network utilization, collisions, link and port status • Complete diagnostic LEDs simplify troubleshooting and display overall hub activity

DESCRIPTION	PART#
8 PORT	333117

DESCRIPTION	PART#
CROSSBOW 681 24 PORT	537401
CROSSBOW 682 24 PORT	537403
CROSSBOW CC6030Z MODULE	537405
CROSSBOW CC6035Z MODULE	537407
CROSSBOW CC6039Z MODULE	537409

DESCRIPTION	PART#
9 PORT ETHERNET UNMANAGED	537501
16 PORT UNMANAGED	537503
16 PORT MANAGED	537505

DESCRIPTION	PART#
4 PORT UTP RPTR 1/ AUI	332507
4 PORT UTP RPTR 1/ BNC	332509
4 PORT MINI RPTR	332511
8 PORT UTP RPTR 1/ AUI	332513
8 PORT UTP RPTR 1/ BNC	332515
8 PORT ETHERNET SWITCH	332517
8 PORT MINI RPTR	332519
8 PORT MINI RPTR INTL VERSION	332521
9 PORT UTP RPTR	332523

DESCRIPTION	PART#
MSX2500 12 PORT SLAVE RJ45, SNMP	537601
MSX2500 12 PORT MASTER RJ45, SNMP	537603
MSX2500 12 PORT BASIC RJ45, SNMP	537603

DESCRIPTION	PART#
MR415T MINI 4 PORT	313224
MR815T MINI 8 PORT	313225
MR820TR MINI 8 PORT AUI OR BNC	313227

Allied Telesyn International

The 12, 16 and 24 port full-size hubs offer both AUI and BNC uplink ports can be used simultaneosly and also feature a sturdy metal chassis for long-term durability. All Allied Telesyn hubs offer easy-to-read LED status

DESCRIPTION	PART#
F3012 12 PORT AUI OR BNC	313229
F3016 16 PORT AUI OR BN	313231
F3024 24 PORT AUI OR BNC	313233

• Optimal configuration flexibity system redundancy to connect users in stand-alone LANs • Reconfigured by the user or preconfigured at the factory • Using a chassis provide up to 104 ports • Chassis support horizontal and vertical mounting • Can be mounted in 19" racks or directly on the wall.

DESCRIPTION	PART#
12 PORT UTP	313235
12 PORT UTP W/1 AUI	313237
16 PORT UTP W/1 AUI	313239
AUI/AUI SINGLE PORT REPEATER	313241
BNC/BNC SINGLE PORT REPEATER	313243
12 PORT W/SNMP, TELCO/AUI	313245
12 PORT W/SNMP, TELCO/BNC	313247
12 PORT W/SNMP, RJ45, AUI	313249
12 PORT W/SNMP, RJ45, BNC	313251
12 PORT SNMP MGMT. UTP	313253
12 PORT SNMP MGMT. UTP RPTR.	313255
8 PORT BNC W/SNMP, BNC/AUI	313257
6 PORT FL CONCENTARTOR W/SNMP, ST/AUI	313259
6 PORT F.O. SNMP MGMT. RPTR.	313261
6 PORT F.O. SNMP MGMT. RPTR.	313263
8 PORT BNC W/SNMP	313265
8 PORT BNC SNMP MGMT. RPTR.	313267
8 PORT BNC SNMP MGMT. RPTR.	313269
24 PORT (AUI, TELCO)	313271
24 PORT UTP W/1 AUI, 1 BNC	313273
24 PORT W/SNMP, RJ45/AUI	313275
24 PORT W/SNMP, TELCO/AUI	313277
24 PORT SNMP MGMT. TELCO RPTR.	313279
24 PORT SNMP MGMT. TELCO RPTR.	313281
24 PORT SNMP MGMT. UTP RPTR.	313283
24 PORT SNMP MGMT. UTP RPTR.	313285
SLAVE SNMP MGMT. RJ45 RPTR.	313287
24 PORT W/ SECURITY SEG.	313289
3600 2 SLOT CHASIS	313291
3600 4 SLOT CHASIS	313293
3600 8 SLOT CHASIS	313295
19" RACK MOUNT BRACKET 3600	313297

Allied Telesyn International

Workgroup Concentrators are standard-based hubs that provide networking solutions for small to medium size Ethernet local area networks. It can be used in a stanalone enviromtent, or two units can be stacked together via an expansion cable. An optional 3101 network management module is also available which provides SNMP, Telnet, and local management capabilities.

- 24 or 48 Base-T ports with shielded RJ45 connectors
- Port security features
- Selectable backbone ports

DESCRIPTION	PART#
3100 SERIES 24 PORT	536701
3100 SERIES 48 PORT	536703
3101 SNMP MGMT MODULE	536705
MOUNTING BRACKET	536707

Canary Communications is dedicated to the design, development, and production of innovative products to meet the needs of the network customers

DESCRIPTION	PART#
MINI ENET HUB 4 PORTS, 4 RJ45, 1 BNC	333321
MINI HUB 4 PORTS, 4 AUI	333323
THINNET REPEATER 4 PORTS	333325
MINI ENET HUB 8 PORTS, 4 RJ45, 1 BNC/AUI	333327

Best

DESCRIPTION	PART#
4 PORT HUB	541554
8 PORT HUB	541556
12 PORT HUB	541558

PRICES CHANGE OFTEN. CALL NCI FOR MOST CURRENT PRICES

10 Base-T Hubs

3Com

SuperStack™II stackable hubs provide complete media flexibility and manageability. It provides features like high-performance RMON, resilient links, and powerful security. This simple, cost-effective connectivity solution is ideal for local, wide area, and SNA networks.

Description	Part#
SuperStack II 12 Port	337757
SuperStack II 24 Port	337759
SuperStack II Port Switch Hub - 12 Port	337761
SuperStack II Port Switch Hub - 24 Port	337763
SuperStack II 48 Port System	337765
SuperStack II UPS Backup	337767
SuperStack II 6 Port Fiber Hub	337769
LinkBuilder II 12 Port	337771
LinkBuilder II 24 Port	337773
LinkBuilder II 6 Port Fiber Hub	337775
LinkBuilder II Management Module	337777
Transcend Workgroup Manager v.4.0	337779
EtherLink SmartAgent for NetWare	337781

The basic OfficeConnect hub/8TPO supplies eight twisted-pair ports and simple LEDs for network monitoring. For offices that plan to expand, the 8TCP features a ninth, coaxial port that permits connection of other devices. The 8TPM offers the added power of support for transcend Quick Configuration Manager software via an integral SNMP SmartAgent

- Easy Installation & use - Simplified administration
- Complete network control - Full interoperability - Convenient expandability

Description	Part#
8 TPO	337783
8 TPC	337785
8 TPM	337787
Print Server	337789
Fax Server	337791
Remote 510	337793
Remote 530	337795

• Optimized for small LAN's • Configuration flexibility • Manufacturer's Lifetime Warranty

Description	Part#
TP/ 12 Hub	337797

DECrepeater Stackable hub products provide network connectivity for any type of Ethernet device --from a PC to a mainframe system. All products can be used as standalone devices or snapped into the DEChub 90 or DEChub 900 backplane chassis. DECHub products connect any vendor's devices that support IEEE 802.3

• Automatically indentifies and isolates faulty ports • Front panel LEDs indicate power, network activity and port status at a glance • Plug-and-Play --fully operational at start-up; modules can be easily "hot-swapped" • Same products can be used as a standalone or hub • Simple, low-cost, graphical MS-Windows based graphical management • DECHub products can be used both in a stack standalone or in a hub with out modification • Only stackables in the industry with this features.

digital

Description	Part#
90 TS 8 Port Stackable	536111
90 TS 8 Port Module	536113
90 FL 4 Fiber, 1 BNC	536115
90 FA 1 Fiber, 1 AUI, 1 BNC	536117
90 C 6 Port BNC Stackable	536119
90 FC Stackable 2 Fiber, 1 AUI	536121
90 Backplane Chassis	536123
900 Multi switch Backplane	536125

DECrepeater 90T-16 is a 16 port, manageable Ethernet 10Base-T Digital MultiStack System stackable hub. It can be SNMP managed using single Digital 90-series repeater manager including: a DECrepeater 90TS, DECrepeater 90FS or DECagent, along with ClearVISN Stack Manager a Windows-based management application.

Description	Part#
90 T 16 Port w/ Clear VISN Stack Manager	536127

TurboStack

2 different types of switches • shared or segmented backplane chassis products • SNMP managed and slave/manageable modules • hot swappability • SNMP redundancy in the stack • 3 types network management

Description	Part#
12 Port w/SNMP	536129
24 Port w/SNMP	536131
6 Port Fiber ST	536133
12 Port Fiber ST	536135
16 Port Switch w/100 Base-T TX Uplink	536137

SMC

Whether you choose the 5, 8 or 16 port model, you get no-configuration installation - no switches or software.
With LED indicators for link, traffic and partition status of each port, plus network utilization and collision levels you're always informed. Each hub includes a daisy-chain port. You can cascade hubs to meet growing needs.

- 8-Port model features a BNC port for thin coax backbone con nection - 16-Port models included both BNC and AUI ports to link to larger networks - Manufacturer's lifetime warranty on all models

Description	Part#
5 RJ45 Ports	534255
8 RJ45 Ports	534257
16 RJ45 Ports	534259

EASY

The most versatile hubs on the market today! Use them stand-alone for small workgroups. As your network grows, stack them eight high to build a multimedia Ethernet hub with up to 224 ports. Separate the stack into as many as 32 individual 10 Mbps segments for workgroups that need additional bandwidth but do not need to share data. Top the stack with an switch to interconnect the segments, so your workgroups can communicate with each other without losing any bandwidth.

- Stackable up eight units high to form a 224-port multimedia hub - Segmentable up to 32 Ethernet segments per stack - Scalable up to 320 Mbps of aggregate bandwidth - Manageable via SNMP In-band, Out-of-band or remote

Description	Part#
12 RJ45 Ports, 1 BNC port, 1 AUI Port	534267
26 RJ45 Ports, 1 BNC port, 1 AUI Port	534269
14 RJ45 Ports	534271
28 RJ45 Ports	534273
Optional Network Management Module	534275
Stacking Cable	534277
SNMP-Based Network Management Software	534279

Bay Networks

Description	Part#
3308B 10BT Host Module 12 Ports	670387
3304A Fiber Host Module (6 FOIRL Ports	670389
3000N Premise Concentrator Ethernet	670400
3030-OIHW 4 Slot Ethernet Chassis w/Pwr Spply	670404
3301 Ethernet 8 Port Thinnet Host Module	670408
3307HD 24 Port 10 Base T Host Mod (2 Telco 50)	670415
3308B 10 Base-T RJ45 12 Port	670416
3333 Retiming Module w/AUI Port	670417
3334-ST Retiming Module w/Fiber ST Port	315503
3514ST Token Ring Module w/Fiber Optic Repeater	315507
3000SR Token Ring Chassis Concentrator 12 Slot	315525
3505B 12 Port STP/UTP Token Ring Host Module	315533
3314SA Enet Network Mgmt Mod FOIRL & ADV	315545
5000N Ethernet Chassis 14 Slots	315511
5001 Power Supply AC	315513
5310A Network Mgmt Mod	315515
5311A Ethernet DCE for 5310	315517
5308-AF 16 Port 10 Base T Host Module	315519
5308A 24 Port 10 Base T Host Module	315521
5110 Supervisory Module	315523
Token-Ring NMM with DCE	315527
5575F Token-Ring Cluster	315531
5304P Fiber Host Mod w/Retiming 10 Port	315535
5310SA Enet Network Mgmt Module with NCE	315539
5378-F Quad Cluster 4 ST & 10 10 Base T	315543
810M 8PT 10 Base-T Hub w/Basic Mgmt	315509

- SNMP managed through Optivity® software, with full RMON functionality - Redundant power supplies and clocks assure reliability - Compatible with full range of BayStack switches routers and 100 Base-T hubs for a complete managed solution - Hot-swappable

Description	Part#
12 RJ45	536801
24 RJ45	536803
AUI Media Adapter	536805
10 Base2 Media Adapter	536807
BaseFL Media Adapter	536809
Media Adapter	536811
Basic Network Mgmt Module	536813
Advanced Network Mgmt Module	536815
SA Adv. Network Mgmt Module	536817
Cascade Cable	536819

- Scalability: Expand from 12 to 24 ports; stack six units for 132 managed hubs
- Manageability: Optivity® plus Advanced agent management

Description	Part#
12 Port	536821
24 Port	536823
FL Fiber Module	536825
Hub to Hub Cable	536827
SNMP Module Kit	536829
Advanced Network Mgmt. Module	536831

HEWLETT PACKARD

HP AdvanceStack 10Base-T networking products offer low-cost choices and a flexible platform for stand alone and interconnected workgroups. Entry-level hubs and modules, ideal for relatively small businesses, let you "pay as you grow." Interconnected workgroups will find the HP AdvanceStack 10Base-T hubs and modules are aggressively priced.
Choose from 12, 24 and 48 port hubs. Add one SNMP expansion module and you can manage a stack of 16 hubs (784 nodes) up to 185 meters apart!
HP AdvanceStack hubs are designed and built with HP quality and backed by a Manufacturer's Lifetime Warranty.

- Provides "hot swap" capabilities - Includes Intel i960 RISC-based processor, 1Mbyte RAM and 256 Kbytes Flash EEP-ROM - Free management software (StackManager) - Expansion modules available for bridge/routing, security, and dial-in/dial-out capability - Upgradeable to advanced management capabilities (DMM or SNMP modules)

EASY

Standalone Workgroups

Description	Part#
8E Port	315629
8U Port	315631
8U Port w/SNMP	315633
16U Port	315635
16U Port w/SNMP	315637

Managed Workgroups

Description	Part#
12 Port	315639
12 Port w/SNMP	315641
12 Port ,12RJ45, 1BNC	315643
24 Port	315645
24 Port w/SNMP	315647
48 Port	315649
48 Port w/SNMP	315651
48 Port w/ 1 AUI	315653
210 Router Module v.35	315655
210 Router w/SNMP v.35	315657
Etherwist CX 9 Plus 9BNC, 1AUI	315659
Etherwist FO 8 Plus	315661

Managed Workgroups

Description	Part#
SNMP Module	315663
AUI Port Module	315665
Twisted Pair Transceiver Module	315667
Thinlan Transceiver Module	315669

The SynOptics 2000 family of 10Base-T workgroup hubs consist of the Model 2803/2804 and the 2813/2814.In stand-alone configurations, the Model 2803 and 2804 offer simple connectivity and low-level management. Both models provide connectivity and a choice of Standard and Advanced agent management options. The Model 2803 and 2804 feature 16 modular RJ45 unshielded twisted pair host ports, as well as front-panel AUI (Model 2803) or ST-type 10Base-FL compatible (Model 2804) up-ports for connecting to a variety of network backbones. A series of front-panel LEDs report hub traffic, collisions, management control and expansion status, while per-port LEDs indicate link and partition status for individual connectors.

Description	Part#
2803 - 16 Port Manageable w/ AUI Port	315559
2803 - 16 Port, AUI Interconnection Port,Unmgnd	315561
2804 - 16 Port Manageable w/ Fiber Port	315563
2804 - 16 Port, Fiber Interconnection Port, Unmgnd	315565
2813 04 - 16 Port Managed w/ AUI Port and Adv. SNMP Mgnt (RMNO	315567
2813 04 - 16 Port, AUI Interconnection Port, Adv Mgnt.	315569
2813 05 - 16 Port Managed w/ AUI Port and Standard SNMP Mgnt	315571
2813 03 -16 Port, AUI Interconnection Port,Basic,Mgnt	315573
2813SA - 16 Port, AUI Interconnection Port, Adv. Analyzer Mgnt	315575
2814 04 - 16 Port Managed w/ Fiber Port and Adv. SNMP Mgnt (RMNO)	315577
2814 04 -16 Port,Fiber Interconnection Prt,Adv. Mgnt	315579
2814 05 -16 Port,Fiber Interconnection Port,BasicMgnt	315581
2814SA - 16 Port, Fiber Interconnection Port, Adv. Analyzer Mgnt	315583
2813 04 - 16 Port Managed w/ Fiber Port and Standard SNMP Mgnt	315585
Lic. Adv. Mgnt. Agent for 281X.	315587
281X Expansion Cable.	315589

The Model 800 10Base-T Workgroup Hub supports small offices and standalone networks requiring simple connectivity. Eight ports offer a plug-and-play solution for linking equipment such as PCs, printers, and servers. The Model 800M 10Base-T Workgroup Hub is just like the Model 800, with the addition of integrated SNMP management capabilities that make the hub a perfect solution for small LANs requiring connectivity to the corporate network. Built-in SNMP firmware allows the Model 810M to be managed port-by-port from a central management station. The Model 2800A 10Base-T Workgroup Concentrator, from Bay Networks™ delivers a compact and affordable solution for small networks supporting up to 16 users, bringing market leading quality to low-end Ethernet market.

Description	Part#
Model 800	315591
Model 810M	315593
2800 16 Port	315595

SWITCHES

How can I get more out of my Ethernet network?

If you find yourself asking this question then Ethernet switching may be your answer. An Ethernet Switch is basically a bridge that allows multiple user transmission. Fast Ethernet has specific distance

3Com

- Open up server bottlenecks with a 100Mbps Fast Ethernet Uplink
- LAN security architecture automaticaly disconnects unauthorized devices
- The LinkSwitch 1000 offers full SNMP management, including Remote management (RMON)
- Get detailed per-port statitcs 3Com's LinkSwitch products have revolutionized the workgroup switching with fast, simple, low-cost, highly-manageable designs.

Description	Part#
SuperStack II Switch 1000 12 Port	536901
SuperStack II Switch 2200	536903
LinkSwitch 1000 24 Port	536905
LinkSwitch 1000 12 Port	536907
LinkSwitch 500	536909
LinkSwitch 2200	536911
LinkSwitch 3000TP	536913
LinkSwitch 3000 Fiber	536915
SuperStack II Switch 1000 24 Port	536917

ASANTÉ

4 Port 10Base-T Ethernet switch plus 100 Base-TX Fast Ethernet link

- Plug-and-Play installation is transparent to network users
- SNMP-manageable from any SNMP network manager, Telnet or console Port

Description	Part#
5216 Switch	400723

- Support simultaneous packet transfers at full Ethernet bandwidth
- 10Mbps ports leverage existing network infrastucture-no need to rewire, change adapters, or management system

Description	Part#
Ready Switch 5104	400725

Bay Networks

- Performance: Segments existing shared-media networks for increased per formance
- Simplicity: Easy to install and configure
- Reliability:Redundant power and SNMP management ensures uninterrupted performance
- Affordability: Cost-effective- use wherever bandwidth is an issue

The Bay Networks™ Ethernet Workgroup Switch offers performance-enhan cing switching solutions for high-density wiring closets. It's a simple, cost-effective method for segmenting networks to improve performance and eliminate data bottle-necks. In addition to the 10Mbps switch ports, an optional 100Mbps 100Base T Fast Ethernet switched port supports high-speed connections to high-utilization servers and backbones. Plug-in Media Adapters offering 100Base TX or 100Base FX connectivity are available for supporting 100Base T Fast Ethernet over Category 5 unshielded twisted pair (UTP) for Fiber Optic Cabling.

Description	Part#
Ethernet Workgroup Switch	536833
Ethernet Workgroup Switch w/ 1000BaseT	536835

CiscoPro Etherswitch CPW

- Inmediate Plug and Play capability
- 16 10Base-T switched ports ans 2 expansions slots
- Error-FREE cut-through and store-and-Foward Switching
- Address filtering on source and destination addresses
- 1700 addresses per port
- IEEE 802.1 compliant
- Bridge MIB, EthernetMIB, SNMP MIBII and EtherSwitch extensions
- Flash PROM for software updates

Description	Part#
EtherSwitch 1600A 16RJ45/1 AUI/SNMP	537201
EtherSwitch 1600A 16RJ45/1 AUI/SNMP Full Duplex	537203
EtherSwitch 1600A 16RJ45/1 AUI/SNMP Full Duplex 8MB for 10K addresses	537205
CPW 1600 Expansion Module Option	
Single Port CPW100T Mod. adds 100Base-TX Connect	537207
Single Port CPW100F Mod. adds 100Base-FX Fiber Optyic Connectivity	537209
3 Port CPW310F Mod. adds 100Base-F Fiber Optic Connectivity	537211
4 Port CPW410t adds additional 10 Base-T	537213
CPW Stack port w/ 280Mbps + cable	537215
CPW0800-A EtherSwitch Stack Matrix Chasis+ Matrix Switch Connects 3 to 8 CPW 1600's	537217



Accton

- Creates 8 network segments, up to 80Mbps in total bandwidth
- Supports Hall and full Duplex modes simultanously

Accton's SwitchHub-8s is the perfect upgrade to your existing network group, providing easy installation and full-duplex power at a low price.
This Plug-and-Play unit installs in minutes increasing your current network per-formance up to 8 times!

NEW

Description	Part#
SwitchHub 8s	333121

SMC

NEW

SMC's EZSwitch™ is the easy way to boost the bandwidth of your Ethernet work-group. This switch provides dedicated 10Mbps connections to your hubs, server, and power users. It features high-speed, cross-bar switching matrix, "on-the-fly" switching design that supports multiple conversions for increased troughput and server availability, and EZWatch LEDS.
The EZ Switch Plus™ offers everything the EZ Switch has, plus one 100Base-TX port. The new TigerSwitch£ XFE Switch has 16 10Base-T ports and one 100Base-TX Fast Ethernet port, each supporting filtering and forwarding at full wire speed.

Description	Part#
TigerSwitch XFE	534261
EZSwitch	534263
EZSwitch Plus	534265

NEW

Microdyne

- Uses enhanced store-and-forward switching technology
- Communicates at wire speed
- Installs quickly, easily and transparently into your current LAN
- Provide superior LAN performance with maximun throughput, minimun response time, and efficient utilization of bandwidth

Description	Part#
Eagle Switch 4x4	537101

Description	Part#
Eagle Switch 4x100	537103

intel

The Intel Experss 100Base-TX 5 Port Switching Hub gives you the band-width to connect Fast Ethernet hubs, servers and clients for a tenfold performance increase over 10Mbps Ethernet.

Description	Part#
Express 10Base-TX Switching Hub	313645
Express 10Base-TX Switching Uplink Mod.	313647
Express 10Base-TX Switching Uplink Mod.	313649

PRICES CHANGE OFTEN. PLEASE CALL NCI FOR MOST CURRENT PRICES

ETHERNET

PCMCIA

3Com

EthetLink III Parallel Tasking



Delivers Full Parallel Tasking performance in a credit card-size package, outpacing competitive cards by up to 110%

- **AutoLink auto-installation software for NetWare automatically configures the I/O base address, interrupt request level, and transceiver type.**
- **A real power conserver, the twisted-pair adapter draws less than 50 milliamps for longest use between battery charges**

EtherLink III Lan+Modem PC Card combines the functions of a powerful Ethernet adapter and a high speed 28.8 Kbps Fax/Modem can operate simultaneously or separately.

Description	Part#
3Com EtherLink III PCMCIA 10T	536953
3Com EtherLink III PCMCIA Combo	536955
3Com EtherLink III 28.8 Fax/Modem & 10BaseT	536957

SMC

EtherEZ & EtherEZ with



SMC's Ether-EZ PC Card is the easy way to make all your Ethernet connections. SilmulTasking™ technology gives you top network performance, and EZStart makes installation a snap. The EtherEZ PC Card provides the features you want most-speed, compatibility, ease-of-use, and low power consumption. The card comes with a full set of network drivers, CSS, and a travel pouch. The Combo model comes with RJ-45 and BNC connectors. The 10 Base-T model provides an RJ-45 connector. The EtherEZ with Modem combines the functions of an Ethernet adapter with a 28.8 Kbps data/14.4 fax modem in a single PC card.

Description	Part#
EZ PCMCIA 10Base-T	534269
EZ PCMCIA 10Base-2	534271
EZ PCMCIA 10Base-T & 28.8 Modem	534273
EZ PCMCIA 10Base-2 & 28.8 Modem	534275

Xircom

CreditCard Ethernet Adapter IIps & Ethernet



• Advanced Look Ahead Pipelining for unprecedented performance • Full-duplex capability for peak network performance, optimum utilization of 20Mbps full-duplex environments with IIps • Supported by Windows 95 and Windows NT for immediate "Plug & Play" • Support for Hotswap and suspend/resume allows you to retain your network connection while integrated power management preserves your PC's battery life • Intuitive Windows-based user utility for easy adapter management.

Description	Part#
CreditCard Ethernet Adapter IIps 10-T	381911
CreditCard Ethernet Adapter IIps 6 Pack 10-T	381913
CreditCard Ethernet Adapter IIps 10-T/10-2	381915
Pocket Ethernet Adapter III 10-T	381917
Pocket Ethernet Adapter III 10-T/10-2	381919
CreditCard Modem 28.8	381921
CreditCard Ethernet Modem 28.8 10-T	381923
CreditCard Ethernet Modem 28.8 10-T/10-2	381925

FUJITSU



LAN/SCSI Combo Card

The SCSI components is compatible with most SCSI devices and achieves a transfer rate of up to 2.6MB per second. Includes SCSI accelerator software. The LAN component offers a bus transfer rate of up to 10 Mbps plus a 16 Kbyte buffer, and a 16 bit data bus. The LAN/SCSI Combo card works with any computer that supports PCMCIA

10Base-T and 10Base-T/2 Ethernet Adapters

The 10Base-T and 10Base-T2 Ethernet cards from Fujitsu are the fastest way to access data. The adapters maintain a bus transfer rate of up to 10 Mbps and utilize a 16 Kbyte buffer and 16 bit data bus!

SCSI 600 Interface Adapters

Transfer data at rates up to 2.6MB. Complete with common drivers and compatible with most SCSI devices. Work with any computer that supports PCMCIA. Includes SCSI Accelerator Software

Serial Card

Fujitsu's Serial card has a 115.2 Kbps baud rate. The Serial cards meet PCMCIA Type II standards, and have an internal 16550 UART. Use your current serial peripherals without swapping cables. And Microsoft Windows-based installation software automatically configures your PC!

ISDN Internet Surfer PC Card

The Fujitsu Internet Surfer PC Card is an ISDN terminal adapter that's designed for graphics-intensive Internet access. Fujitsu's ISDN PC Card allows you to access the internet at speeds twice as fast as a standard 28.8 fax/modem. And it provides Point-to point Protocol (PPP) and complies with all Card and Socket Services for installation and configuration.

28.8 Fax/Modem Adapters

Fujitsu's 28.8 Fax/Modem cards offer (v.34) bps data transmission speeds and Windows-based installation software that automatically sets-up and configures your PC. Both cards can be used with any analog PBX systems and are Type II Cards, Both support Class I and Class II fax. Both 288 and 144 cards come with an easy-to-use SafeJack adapter providing two standard phone cord sockets!

Stereo Sound Adapter

Get a 16 bit sound for virtually all of your multimedia needs! Whether you need sound for games or software, the Fijitsu Stereo Sound card provides maximum stereo performance, multiple sound interfaces, and a 16 bit D/A converter.

Description	Part#
LAN/SCSI Combo Card	541301
10Base-T Adapters	541303
10Base-T/2 Ethernet Adapters	541305
SCSI 600 Interface Adapters	541307
ISDN Internet Surfer PC Card	541309
Serial Card	541311

Description	Part#
Stero Sound Adapter	541313
28.8 Fax/Modem Card	541315
14.4 Fax/Modem Card	541317
28.8 Cellular	541319
33.6 Fax/Modem	541321
33.6 LAN/Modem	541323

ThunderCard

SBE REMOTE CONNECTIVITY



Offering spectacular performance in a tiny package, ThunderCard provides convenient PCMCIA ISDN support. Telecommuters can install ThunderCard in a portable PC for the utmost in high-speed remote access. Your current communication programs will control ThunderCards just like they control a regular modem.
High-speed ISDN connectivity between your remote offices can be achieved by plugging ThunderCard into SBE's netXpand family of remote connectivity products. Simply insert one or more ThunderCards into a netXpand SoHo, Central, or Routeman. You can even use ThunderCard for high-speed ISDN access to the Internet. ThunderCard supports the full 128Kbps capacity of ISDN and can connect at Speeds up to 256Kbps with netXpand's compression feature. NT1 Included.

Description	Part#
ThunderCard Adapter	541201

WIRELESS LAN ETHERNET

The ARLAN 600 family of wireless networking products offers high speed wireless LAN connectivity to most any Ethernet network. These products incorporate Aironet's microcelular architecture and direct sequence spread spectrum radio technology to provide true LAN Connectivity.

Access points (cell controllers) attach to an Ethernet backbone or are configured as wireless repeaters, and provide connectivity for wireless client adapters. wireless clients move through cells seamlessly, maintaining a single network connection. Each adapter is shipped with NDIS, ODI, and packet driver software, enabling connectivity to most any popular network. Test software is also included which enables a wireless client to verify a radio cell coverage. All ARLAN products are available in the 900 Mhz and 2.4 Ghz band. **These products may be operated in the US and Canada without a radio license.**

ARLAN The ARLAN 640 Wireless Ethernet Bridge enables high speed, wireless data connections between separate Ethernet-cable LANs up to six miles apart. The ARLAN 640 is based on spread spectrum radio technology to provide fast and reliable wireless bridging. The ARLAN 640 can be operated without a radio license in the US and Canada.



• Ethernet (802.3 and Type II) MAC-layer bridging • Full learning bridge (default), configurable filtering and forwarding • Configurable via console connection or via Telnet session • Configurable as wireless repeater enabling greater coverage • SNMP (MIB II and Aironet Enterprise MIB) support • 10Base-T, 10Base2 and 10Base5 connections • Configurable data rate enabling lower speed/longer speed range - Maximum 860 Kbps data rate (900 Mhz products) - Maximum 2 Mbps data rate (2.4Ghz products) • **Multiple, non- overlapping channels -** Maximum 1 860 Kbps data rate (900 Mhz products) - Maximum 3 2 Mbps data rate (2.4Ghz products).

SPECIFICATIONS:

FREQUENCY: 900 MHZ
DATA RATE: SELECTABLE UP TO 860 KBPS
POWER: 125 VAC ADAPTER (SUPPLIED)
MODULATION: DIRECT SEQUENCE SPREAD SPECTRUM
MEDIA ACCESS: PACKET SWITCHED
TRANSMIT POWER: 620 MILIWATS
RANGE: UP TO 6 MILES
ANTENNAS: 6" DETACHABLE DIPOLE STANDARD

ARLAN The ARLAN 630 is an Ethernet backbone and acts as a cell controller for wireless repeater, thereby increasing range even where a backbone connection is impractical. The ARLAN 630 has a 10Base-T,10Base2, and 10Base5 connectors. It can be configured via a console port or via a Telnet session. The 630 also supports SNMP (MIB and Aironet Enterprise MIB). Configuration is stored in flash ROM, insuring proper configuration even after a power line failure. The ARLAN 630 is shipped with a detachable dipole antenna. External antennas and cabling are also available.

SPECIFICATIONS:

FREQUENCY: 900 MHZ
DATA RATE: SELECTABLE UP TO 860 KBPS
INDEPENDENT CHANNELS: 1 AT 860 KBPS
POWER: 125 VAC ADAPTER (SUPPLIED)
MODULATION: DIRECT SEQUENCE SPREAD SPECTRUM
MEDIA ACCESS: PACKET SWITCHED
TRANSMIT POWER: 620 MILIWATS

ARLAN The ARLAN 655 is a half-size ISA card wireless LAN adapter. It communicates to a LAN backbone via an ARLAN 630. Peer-to peer wireless configurations (no 630) are also supported. The ARLAN 655 provides true LAN connectivity to most any Ethernet LAN. NDIS, ODI and Packet Driver software is included, along with link test (RF coverage verification) utility software. The ARLAN 655 is shipped with a detachable dipole antenna.

ARLAN The ARLAN 670 is a full-size Micro Channel card wireless LAN adapter. It communicates to a LAN backbone via an ARLAN 630. Peer-to-peer wireless configurations (no 630) are also supported. The ARLAN 670 provides true LAN connectivity to most any Ethernet LAN. NDIS, ODI and Packet Driver software is included along with link test (RF coverage verification) utility software. The ARLAN 670 is shipped with a detachable dipole antenna.

ARLAN The ARLAN 690 is a two piece PCMCIA wireless LAN adapter. It communicates to a LAN backbone via an ARLAN 630. Peer-to-peer wireless communications are also supported The ARLAN 670 supplied with NDIS, ODI and Packet Driver software along with link test utility software. The ARLAN 670 is shipped with a detachable dipole antenna.

Aironet™

DESCRIPTION	PART#
WIRELESS ETHERNET BRIDGE 640	541101
ACCESS POINT 630	541103
WIRELESS HALF-SIZE ISA CARD 655	541105
WIRELESS MICRO CHANNEL CARD 670	541107
WIRELESS PCMCIA CARD 690	541109

FreePort Wireless Ethernet



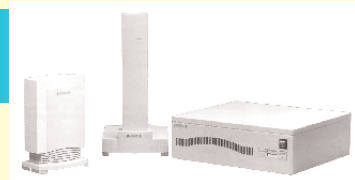
Windata's Free Port Wireless Ethernet LAN System is an inbuilding wireless LAN that provides easy network environments and in disaster recovery, rapid deployment or temporary situations.

• 16Mbps aggregate data rate • Spread spectrum radio technology • Ethernet compatibility • SNMP network management • License free • Fast and easy installation • Hub based architecture • Seamless integration with wired networks • Cost effective

WINDATA

DESCRIPTION	PART#
FREEPORT WIRELESS HUB+ANTENNA	541001
SINGLE ETHERNET TRANSCEIVER	541003
8 PORT ETHERNET TRANSCEIVER	541005
SEE PORT NETWORK MANAGEMENT SOFTWARE	541007

WINDATA

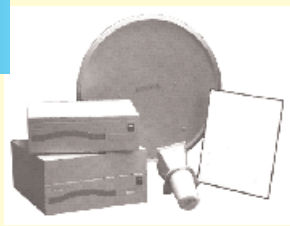


AirPort I™

The AirPort I is an interbuilding connectivity solution primarily designed for smaller distances and window-to window access. (1000 ft.) with general line of sight to the point of connection. Utilizing a wireless hub/remote architecture, the AirPort I relies on a standalone hub to manage the product's remote device. This ensures optimal performance and a reliable data channel in the face unpredictable atmospheric conditions.

DESCRIPTION	PART#
AIRPORT I, ANTENNA,SNMP,AUI,+RJ45	541009
AIRPORT REMOTE	541011
HUB RACK MOUNT KIT	541013
WALL MOUNT BRACKET API,ANT+REMOTE	541015

AirPort II Wireless



AirPort II™

The AirPort II provides an interbuilding connectivity solution with the flexibility to be installed indoors or outdoors. It can communicate at distances up to 1.4 kilometers (4750 feet) with general line of sight to the point of connection. Remote-Hub_Remote access is 2.8 kilometers. Similar to the AirPort I, the AirPort II features a wireless hub/remote architecture providing reliability and low error rates rates in inherently difficult communication environments.

DESCRIPTION	PART#
AIRPORT II HUB INDOOR ANTENNA	541017
AIRPORT II HUB OUTDOOR ANTENNA	541019
DISTRIBUTION UNIT MULTIPLE ANTENNAS	541021
REMOTE W/INDOOR ANTENNA	541023
REMOTE W/OUTDOOR ANTENNA	541025
ADDITIONAL INDOOR ANTENNA	541027
ADDITIONAL OUTDOOR ANTENNA	541029
ANTENNA EXTENSION CABLE 50' LENGTH	541031
INSTALLER'S KIT	541033

100VG & TX Adapters and



HEWLETT PACKARD

- IEEE compliance provides flexible, switch-configurable Ethernet and Token Ring frame support over existing cabling
- "Plug-and-Forget" installation set-up and configuration time
- Industry-leading, Manufacturer's lifetime warranty

See our diagram layout on page 37.

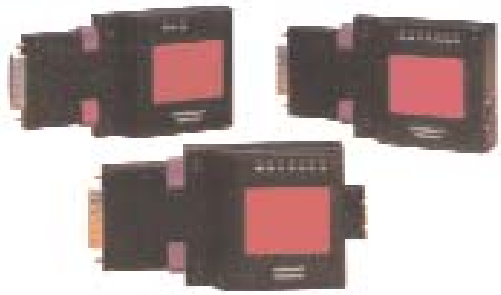
Description	Part#
AdvanceStack 7 Port 100VG 7E hub	315685
AdvanceStack 7 Port Managed 7M 110VGHub	315687
AdvanceStack 14 Port 100VG 14 hub	315689
HP 110VG SNMP/Bridge Module	315691
Desk Direct 10/100VG PCI Adapter	315693
Desk Direct 10/100VG ISA Adapter	315695
Desk Direct 10/100VG EISA Adapter	315697
Desk Direct 10/100VG TX PCI	315699
Desk Direct 10/100VG TX PCI 6 Pack	537001
Desk Direct 10/100VG TX PCI 24 Pack	537003

Transceivers

Transceivers provide the electronic and physical interface between Coaxial and AUI type Ethernet segments. Microtransceivers allow for compact interface to the PC LAN card. Available in a variety of configurations. Featuring LEDs for link, polarity, and heartbeat status. If you need a small cluster of users in one area, try our Fanout units. They allow from 1 to 4 nodes off your Ethernet bus in a "cubical type" office area.

Transceivers 100 Mbps

Description	Part#
Fiber SC - MII 2 Km max	333329
Fiber SC - MII 500 mm max	333331
Fiber ST - MII 2 Km max	333333
Fiber ST - MII 500 mm max	333305
100 Base-TX - MII (must use Cat 5)	333335
100 Base-T4 - MII (must use Cat 5)	333337



Transceivers 10 Mbps

These transceivers bring Thin Ethernet, UTP, for Fiber Optic wiring directly to your workstations, so you save on cabling costs. The 10Base-T (UTP) and 10Base-2 (Thin Coax) units support distances up to 100 meters and 185 meters respectively. The Fiber Optic Units are the latest in Ethernet fiber-optic LAN Micro Transceivers and are plug-compatible with IEEE.802.3 hardware On all models, the Signal Quality Error (SQE)/heartbeat test can easily be enable via a switch on the outside of each unit.



Description	Part#
Micro Transceiver 10Base-FL SMA	333339
Micro Transceiver 10Base-FL SC	333341
Micro Transceiver 10 Base-FL ST	670466
Micro Transceiver 1 RJ45 - 1 AUI	313203
Micro Transceiver 1 BNC - 1 AUI	670464
Micro Transceiver1 BNC - 2 AUI	670470
Micro Transceiver1 BNC - 4 AUI	670472
Micro Transceiver1 RJ45 - 4 AUI	670474
Micro Transceiver1 VTAP - 1 AUI	670476
VTAP Thicknet Coring Tool (used w/ Part# 670476)	314981

FANOUT TRANSCEIVER

2 and 4 Port Fanout Transceiver



Use these Fanouts to create local workgroups on your larger network or your own self-contained mini-network. Can be powered from the workstation connected to port 1 or by the included power pack. Diagnostic LED's show full status at a glance, SQE can be disabled for use with repeaters. 10Mhz throughput to all ports.

DESCRIPTION	PART#
2 PORT FANOUT (UPLINK PORT OPTIONAL)	313921
4 PORT FANOUT (UPLINK PORT OPTIONAL)	313923
4 PORT FANOUT TRANSCEIVER W/AUI	313925
EXPANSION MODULES:	
10BASE-T UNSHIELDED TWISTED PAIR	313927
10BASE-2 COAX (BNC)	313929
10BASE-FL FIBER OPTIC (ST)	313931
10BASE-5 THINCKNET AUI (D15)	313933

CentreCOM Multiport Fanouts

Allied Telesyn International



2 and 4 Port Fanout

• IEEE 802.3 compliant, ethernet Version 1.0 and 2.0 compatible AUIs • Powered by DTE, no external power required • Transparent to installed hardware • Two or four AUIs from a single transceiver drop cable • Simple installation with no additional AUI cables • Status and diagnostic LEDs • Five year warranty • Dimensions: 2 Port: 6.4"x 2.8"x1.3" - 4 Port: 6.4"x2.8"x2.2"



8 Port Fanout with LEDs, Slim-line

• IEEE 802.3 compliant, ethernet Version 1.0 and 2.0 compatible AUIs • Cascade up to 64 ports • Standalone network or attach to an Ethernet backbone • Switch-selectable SQE test; local and remote operation • Slim-line chassis occupies just one slot in a 19" rack • On Line, Transmit and Transceiver Power LEDs per port • Receive and Collision LEDs • Standalone or rack mountable • One year warranty • Dimensions: 8 Port: 17.0"x 9.9"x1.7"

DESCRIPTION	PART #
2 PORT FANOUT	536709
4 PORT FANOUT	536711
8 PORT FANOUT W/LEDS	536713

PRINT SERVERS

HP JetDirect Cards & HP JetDirect Ex Print Server



HEWLETT PACKARD

- **Internal print server for HP Printers**
- **Includes support for LocalTalk networks**
- **Supports up to 16 Netware file servers and 64 print queues**
- **Throughput up to 350Kbps**

Use the HP JetDirect EX interface card to connect parallel-based printers anywhere on an Ethernet or Token Ring LAN.

Fully compliant with Novel NetWare security features, the JetDirect features automatic network/protocol switching environments, with data transfer rates of up to 230Kbps. The JetDirect EX Plus 3 supports 3 parallel printers.

DESCRIPTION	PART#
HP JETDIRECT CARDS	
ETHERNET/802.3 - RJ45 (10BASE-T) 8 PIN MINI DIN	315673
ETHERNET LOCAL TALK /802.3 /BNC/RJ45 8 PIN MINI DIN	315675
TOKEN RING 802.5 - DB9/RJ45	315677
HP JETDIRECT EX PRINT SERVER	
JETDIRECT EX PLUS	315679
TOKEN RING 802.5 - DB9	315681
ETHERNET EX PLUS 3 /802.3 /BNC/RJ45	315683

LANpress MP Print Servers



CASTELLE

The LANpress MP print server family set the standard for simplified access and management of network printing resources, giving you the flexibility to locate your printers next to your workgroup where they are needed. Castelle print servers fit easily into mixed environments with the flexibility of multi-protocol support, while still providing easy installation, proven reliability, high performance, and cost effectiveness.Castelle's support NetWare, Unix, TCP/IP, Windows NT, LAN Server/Manager, and EtherTalk networks environments. The entire LANpress family features full NetWare NDS compatibility and FLASH memory for easy upgradability.

DESCRIPTION	PART#
LANPRESS JR. ETHERNET	537301
LANPRESS 1P ETHERNET	537303
LANPRESS 2+1 ETHERNET	537305
LANPRESS 3+1 ETHERNET	537307

NetportExpress Pro

intel



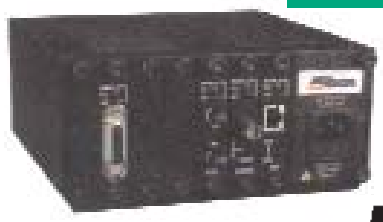
• Faster performance at over 200Kbps • Native multi-protocol support • Integrates with enterprise management consoles • Centralized management by logical domains • Bi-directional communications boost print reliability

Intel NetPort Express PRO Print Servers make it easy to add, use and control printers anywhere on your network. The compact external and internal versions offer an easy-to-use tool for single installation and configuration. External print server offers one serial and two parallel ports for connecting multiple printers.

DESCRIPTION	PART#
NETPORTEXPRESS PRO ETHERNET (INTERNAL)	313651
NETPORTEXPRESS PRO ETHERNET (EXTERNAL)	313653

Repeaters

Modular MultiPort/ MultiMedia Repeater



LANCAST

Ideal for networks that demand superior design flexibility. The modular design supports up to seven segments. Mix and match any media to any media. The repeater is fully compliant to IEEE 802.3 standards for 10Base-T, 10Base-5, 10Base-2, 10Base-FL and FOIRL, plus meets all the requirements of a repeater such as signal level, retiming, preamble regeneration and automatic partitioning. Each module has LED's to aid in network diagnosis and management and are hotswappable should a failure occur. A universal power supply supports 90-250/VAC at 50Hz or 60 Hz. Select the segments you need today and expand with future segments tomorrow.

Description	Part#
Chasis w/Power Module	312821
Fiber Optic Module w/ ST	312823
Coax Module w/ BNC	312827
Twisted Pair Module w/RJ45	312829
AUI Module w/DB15 Female	312831
AUI Module w/DB15 Male	312833
Blank Filler Panel	312835

Addtron 5 Segment MultiPort Repeater

ADDTRON



The Addtron Multi Port Repeater is a compact, 5 segment Ethernet repeater that enhances you multi-wiring network by allowing 5 segment combinations to connect to either Thin or 10Base-T environments. It includes two BNC Thin Coaxial ports and two RJ45 UTP ports. Media flexibility is further enhanced with a Thick Ethernet AUI segment for connection to a backbone or remote facility.

Description	Part#
5 segments Multi-Port Repeater	408303

2 or 6 Port MultiMedia Repeater



TRANSITION networks

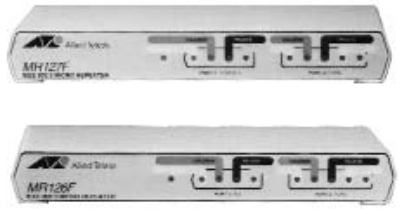
- **One AUI port standard**
- **Two or six slots for optional mix and match SICs (Slide in cards)**
- **LEDs for Power & Receive; individual port Receive, Collision & Partition**

No two ethernet networks are alike. That's why we developed the Multi Media Repeater-an Ethernet hub supporting multiple types of media. The base unit contains one AUI port and two or six slots for optional Slide-in-Cards (SICs)
SICs can be mixed and matched in a unit in any combination. They easily install by inserting them into an expansion slot. Your investment is preserved when your environment changes because you only add or replace the Slide-in-Cards. No jumpers are used. No additional configuration required.
All multimedia products comply with IEEE 802.3 Ethernet specifications and are UL listed. They meet FCC Class A standards and have a two year limited warranty.

Description	Part#
2 port Multimedia Repeater	314325
6 port Multimedia Repeater	314327
10Base-T Slide-in-Card	314329
BNC Slide-in-Card	314331
AUI Slide-in-Card	314333

Two-Port Micro Repeaters

Allied Telesyn International



- **Fully IEEE Compliant**
- **Desktop, wall mount, or optional rack mount installation**
- **BNC ports with user-selectable termination switch**
- **Low cost -High Quality**
- **Coax, UTP, Thick Ethernet, and Fiber Optics support**

Fully compliant, compact repeaters offer low-cost solutions for media conversion and LAN extension applications.
These two-port Ethernet repeaters/media converters let you connect UTP, Thin coax, and Fiber in any combination. Segments on either side of the unit support full length, fully-repeated Ethernet transmission as specified by the IEEE. The repeaters will extend segments of any media type and are 802.5 compliant.
The Allied Telesyn family of repeaters combines all Ethernet media types with the features and functionality of larger repeaters. The small size allows for easy desktop, wall mount, or rack mount installation.

Description	Part#
BNC/RJ45	536715
AUI/RJ45	536717
AUI/BNC	536719
AUI/AUI	536721
BNC/BNC	536723
RJ45/ST	536725
AUI/ST	536727
BNC/ST	536729

100Base-FX to TX Converter



The "twister" is our new 100Base-TX to FX Fast Ethernet Converter which permits transparent integration of UTP Category 5 and Fiber Optic Fast Ethernet segments. It provides users with an affordable and reliable means of media conversion.
A shielded RJ45 connector supports 100Base-TX links up to 100 meters over Category 5 unshielded twisted pair cable. An SC type fiber optic connector supports the 100Base-FX link up to 2km over 50/125µm, 62.5/125µm, or 100/140µm multimode duplex fiber optic cable.

Description	Part#
TX to FX Fast Ethernet Converter	313847

NCI Fast Ethernet Converters



NCI Inc.

Compatible with IEEE 802.3
13 Diagnostic LED indicators
Dimensions:1.50"/8"/5.12"

Fast Ethernet media converters convert 100Base-FX to 100Base-TX and vice versa. Simply plug-in the cables. These units convert media without adding delay to the network making use of state-of-the-art integrated circuits and surface-mount technology.
Consequently they do not impact the repeater budget of Fast Ethernet.
Is a two port converter with a RJ45 100Base-TX port on one side and a SC-type Fiber Optic on the other side.The is essentially the same device expect that the fiber optic connector is the ST-type.
Both converts support a 100Base-TX transmission range up to 100 meters over Category 5 unshielded twisted pair cable. Both SC-type and ST-type Fiber Optic converters support a transmission range of 2km (full Duplex) and 400 meters (half duplex), duplex 50/125, 62.5/125 and 100/140 Fiber Optic cable.
The converters both support auto-negotiate half or full duplex operation.

Description	Part#
100 Base-TX Media Converter (SC to RJ45)	403243 C ALL
100 Base-TX Media Converter (ST to RJ45)	403245 C ALL

AT-MC12T Universal Media Converters



Allied Telesyn International

The AT-MC12T CentreCom universal media converter provides connection between unshielded twisted pair media and female Attachment Unit Interface (AUI) with slide latch. Any Ethernet transeiver with a standard male AUI interface can be connected and locked to the AT-MC12T. With Surface Mount Technology and the latest IC designs, they provide compact, simple, and very inexpensive solutions to Ethernet media conversion.

Description	Part#
AUI to UTOP	536731
UTP to BNC Kit	536733
UTP to ST Kit	536735

10Base-2 to Fiber



10Base-2 to 10Base-T



10Base-T to 10Base-FL



100Base-TX to 100Base-FX



10Base-T to Fiber 8port



10Base-2 to Fiber SMA

Connect a 10Base-2 segment to a fiber optic segment and extend network distance up to 2000 meters (6600 feet) with the Coax to Fiber Media Converter. Easily connect an existing 10Base-2 segment or device to an Ethernet Fiber Optic backbone. Switch selectable coax termination: 50 ohm, 25ohm, or NO termination.

10Base-2 to Fiber ST

Make the transition from thin to fiber easy with this media converter. Just hook your existing thin network through the converter and take advantage of the longer distance available through fiber optics (up to 2000meters). You can connect a 10Base-2 device or a thin coax segment to a fiber optic device or a fiber hub. The functions as a media converter therefore you won't lose a repeater budget.
This compact unit measures up at only 2.75" x 2.25" x 0.95" (7.0cm x 5.6cm x 2.3cm), has switch selectable coax termination of 50 ohm, 25 ohm or none and has three status LEDs; Main: Power & Jabber; Fiber: Receive, Link & Collision and Coax: Collision & Receive.

TRANSITION networks

10Base-2 to 10Base-T

Transition's Coax to 10Base-T Media Converter reduces the price per port when installing a 10Base-T network with existing coax cabling. This unit can support up to 24 devices daisy chained on one coax segment (per twisted pair segment).
External terminator switch allows the user to either connect it directly onto a coax terminal.

10Base-T to 10Base-FL

Designed to allow direct conversion of 10Base-T devices to fiber optic cabling over Ethernet utilizing the IEEE 802.3 10Base-FL standard, this Bi-directional converter allows 10Base-T nodes or hubs at distances up to 2 kilometers without adding delay. Plug and Play compatibility with other 10Base-FL FOIRL, and older AT&T Starlan UTP Ethernet equipment is guaranteed since it is compliant with the 10Base-FL and 10Base-T standards.

Fast Ethernet 100Base-TX to 100Base-FX

Increase the flexibility of your Ethernet cabling installation by connecting a 100Base-T twisted pair device to a 100Base-FX compliant port that has either an ST or SC fiber optic connector. Extend the network distance between two 100Base-T devices using the converters back-to-back such as full duplex switch and a file server up to 2000 meters (6600 feet).

10Base-T to Fiber Full Duplex

The 10Base-T to Fiber full duplex media converter connects a UTP segment to 10Base-FL compliant ports (either ST or SMA) with the added capability of supporting the faster line speeds of full duplex installations. Now you can connect an existing 10Base-T segment or device, such as a printer that does not support a fiber optic connection, to an Ethernet Fiber Optic backbone.
When two of these converters are used back to back, they can extend the distance between two 10Base-T devices up to 2000 meters (6600 feet) without using a repeater!
The new 10Base-T to Fiber 8 port Media Converter provides 8 connections with power one supply. A more economical solution than 8 separate converters when many connections are needed. Simple installation.

Description	Part#
100Base-TX to 100Base-FX	314323
10Base-T to 10Base-FL Full Duplex	314325
10Base-T to 10Base-FL	314327
10Base-T to 10Base-2	314329
10Base-2 to Fiber SMA	314331
10Base-2 to Fiber ST	314333
10Base-T to Fiber 8 Port	314335

ETHERNET

ISDN Bridges and Routers extend your network to include the home office as well as any size remote branch office. Users are able to easily access both multi-user host and client/server based network resources at any time.

ISDN Brigdes & Routers

Bay Networks

Nautica CLAM - Corporate LAN Access Module

Multi-user host and client/server based network resources can be easily accessed at any timevia the Nautica Clam Bridge/Router. Offers a high-performance, scalable and easy-to-use design making it an ideal choice for evolving ISDN networks.
The CLAM is ideal for home offices or small branch offices. It is equipped with one BRI port and one Ethernet port.

Supports ISDN Basic Rate Interface (BRI) and Primary Rate Interface (PRI), and a wide range of routed protocols including Novell IPX/SPX, TCP/IP, Netbios, Microsoft WINS and Banyan VINES, as well as the OSPF and RIP1 and RIP2 routing protocols.
• Also Supports Industry Standard Point-to-Point Protocol (PPP) and Multilink PPP (RFC 1717) ensuring interoperability with central site routers that also support Multilink PPP and other third party routers on the Internet.

Description	Part#
Clam Bridge ISDN BRI/Cable 10BT LAN	536835
Clam Router ISDN Bri/Interface 10BT DB9 Adapter w/Software	536837

Farallon



FARALLON

Netopia ISDN Internet Router

Whether connecting multiple sites or connecting a single location directly to the Internet, Netopia is the only choice.
Netopia includes:
• Shared ISDN Internet Access for workgroups • Plug and Play, built-in BRI NT1 with U interface, Dual 10BT, AUI, Local Talk • Extensive security including PAP, CHAP, IP firewall filtering, and callback • 100% compatible with major Internet services providers • Includes "best-of-class" Internet software • TCP/IP, AppleTalk, AURP Routing • Built-in LocalTalk to Ethernet Routing • Built-in DHCP/MacIP Server for automated IP address allocation • Up to 512K throughput • PPP, MultiLink PPP for transparent bandwidth on demand.

Description	Part#
Netopia w/IP Routing 5 user	538701
Netopia w/IP Routing	538703
Netopia w/IP and AppleTalk	538705

3Com® *AccessBuilder Remote ISDN Bridge/Routers*



AccessBuilder Description	Part#
Remote Office 600 ISDN Basic Rate Bridge/Router with U Interface	536945
Remote Office 600 ISDN BRI Bridge/Router - Dual BRI with 2 U Interfaces	536949
Remote Office 500 ISDN BRI Bridge/Router with U Interface	536947
Remote User 400 ISDN BRI Bridge/Router with U Interface	536951

High Speed ISDN BRI Remote Routing

Fast, affordable connections for IP and IPX Ethernet LANs
End-to-end AccessBuilder® Remote ISDN connections speed remote networking and save time and money. The bridge/routers provide data compression for cost-efficient data transmission over dial or leased lines and they support IPX/SPX spoofing (session emulation) to minimize dial-up line charges in Netware® environments.
The AccessBuilder ISDN bridge/routers offer many features that remove complexity from network administration.
Whether an organization needs to interconnect many remote offices or provide a single link to the Internet, these bridge/routers deliver speed, ease of use and value.
• High Performance - AccessBuilder ISDN BRI (Basic Rate Interface) bridge/routers utilize data compression and channel aggregation to deliver up to 512 Kbps throughput.
• Novell IPX/SPX spoofing - Eliminates most polling traffic to reduce usage charges for ISDN dial-up lines.
• Security - Data encryption, authorized bridge tables, calling-line identification and support for third party authentication servers provide robust security.
• Simplified Management - AccessBuilder ISDN bridge/routers offer intuitive configuration and convenient central management through SNMP and telnet plus local monitoring through front panel LCD/LED indicators.
• Easy Field Upgrades - Flash EPROM memory ensures fast, simple software upgrades on site or remotely.
• Supports MAC level bridging, TCP/IP, Novell IPX, FCP, PPP, MP, BACP and DHCP.
• Analog Support - The Remote Office 500 supports analog telephony equipment.

What is a Bridge? A bridge is a device that connects 2 or more networks and forwards packets between them using the MAC layer source and destination addresses. Bridges have the same net number on either side.

What is a Router? A router acts much like a bridge, but operate using different methods. Routers use the IP portion of the transmission packet to access the network address. They can find the best route between networks even if there are several networks in between. Routers have different net numbers on each end.

When do I need a Router? You need a router if you want to connect to the internet, or if

2265 Local Bridge



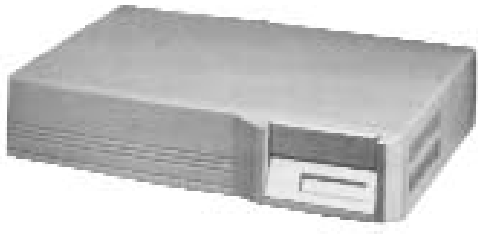
RETIX

The 2265 Local Bridge provides a simple and efficient way to connect IEEE 802.3 networks, including Ethernet, Thin Ethernet and StarLAN. When used to divide a large network into a smaller, interconnected segments, Retix bridges offer dramatic increases in traffic capacity and improved fault isolation. The 2265 has 4 ports, two thin and thick Ethernet, but only 2 each can be used at one time.

- **Connects two IEEE 802.3/Ethernet LANs, using any topology**
- **Increase effective LAN bandwidth by intelligent traffic filtering**
- **Improve LAN reliability by partitioning and segmentation**
- **Automatically locate and learn end station addresses**
- **Interoperate with all Retix centrally managed internetworking products**

Description	Part#	
Local Bridge 2265	538501	C ALL

4660 High Performance Local



RETIX

The 4660 Local Bridge provides a simple and efficient way to connect IEEE 802.3 networks, including Ethernet, Thin Ethernet FOIRL and twisted pair wiring. When used to divide a large network into smaller interconnected segments, the 4660 offer dramatic increases in traffic capacity and improved fault isolation.

- **Segments a network to maximize network performance**
- **Improves network reliability & identify problem areas quickly**
- **Interconnect different LAN media to provide network flexibility**
- **Expand network past cable length limit & repeater restrictions**
- **Uses autolearning functions for easy installation and easy use**
- **Improves control over the network with management systems**
- **Operates at top speed for high throughput**

Description	Part#	
Local Bridge 4660	538503	C ALL
Interface Module BNC	538505	C ALL
Interface Module AUI	538507	C ALL
Interface Module RJ45	538509	C ALL
Interface Module FOIRL	538511	C ALL

8229 Bridge



IBM

The 8229 bridge is a functional enhancement and replacement to the 8209 bridge, as of July 1994. The enhancements to the 8229 include modular design, rack mountable, flash memory for code downloading, increased media speed, enhanced management and the addition of a WAN bridge. The bridge comes in three models, with connection of either two local Token Ring, a local Token Ring and a local Ethernet, or a two remote Token Ring over a Wide Area Network at speeds up to T1/E1. The enhanced management provides the ability to be managed via either IBM LAN Network Manager (LNM) or a ANMP manager such as IBM AIX Netview/6000

Description	Part#	
Chassis connects 2 Local Token Ring	316121	C ALL
Chassis connects 1 Local Token Ring & 1 local Ethernet	316123	CALL
Chassis connects local Token Ring & Remote Token Ring via WAN	316125	C ALL
Single Port token Ring Module	316127	C ALL
Dual Port token Ring Module	316129	C ALL
Ethernet Module	316131	C ALL
WAN Module	316133	C ALL

Ethernet Bridges



Allied Telesyn

- **Self-learning MAC layer bridges**
- **Sustained 25,000 packets/second filtering**
- **Sustained 12,500 packets/second forwarding**
- **Two media options per network segment - BNC or AUI**
- **Supports up to 2000 MAC addresses in filter table**
- **Standalone or rack-mount installation**

Description	Part#
Learning Bridge	536737
SNMP Mang. Learning Bridge	536739

NB-20E Local Ethernet-to-Ethernet



The NB-20E is a low-cost, medium-performance bridge that connects two 10 Mbps Ethernet segments. This bridge features a software filtering system that determines which packets are allowed to pass through the bridge. The NB-20E can be configured as the root bridge and also to filter broadcast packets.

Media Supported: STP/UTP, Fiber Optic, Coaxial, AUI
Type of Interface: AUI

Description	Part#	
NB-20E	538601	C ALL

NB-25E Managed Local Ethernet-to-Ethernet

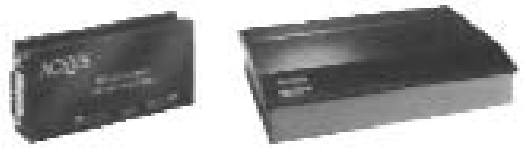


The NB-25E is a high-performance bridge that connects two 10 Mbps Ethernet segments. This bridge features a hardware filtering system that determines which packets are allowed to pass through the bridge without imposing a load on the host CPU. This allows increased bridge speed and permits the use of a large Source Address Table. The NB-25E can be configured as the root bridge and also to filter broadcast packets.

Description	Part#	
NB-25E	538603	C ALL

Ethernet Bridges

The transceiver-sized MicroConnect is the world's smallest. It is designed to separate workgroups from the building backbone and support up to 256 users per workgroup. Its plug and play feature makes for easy installation and requires no external power. The EtherConnect IL Bridge supports Spanning Tree Algorithm and SNMP. It also has extensive filtering options which include static and dynamic address, protocol, and port-map filtering. They both have automatic address learning and aging, plus full wire speed filtering and forwarding at 14,880 pps.The EtherConnect IL Router incorporates both bridging and routing functions to deliver maximum performance, security, and easy management. Routed protocols include IP/IPX, with all other protocols being bridged. It also supports Spanning Tree Algorithm and SNMP management.



ACSYS/ CONNECTWARE

Description	Part#	
MicroConnect Ethernet Local Bridge	538801	C ALL
EtherConnect Intelligent Local Bridge	538803	C ALL
EtherConnect Intelligent Local Router	538805	C ALL

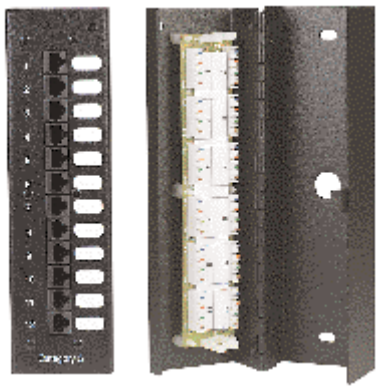
ETHERNET

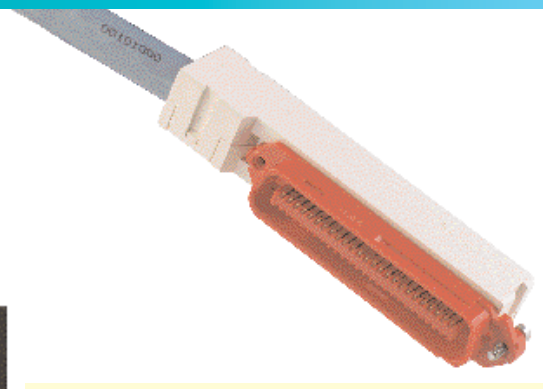
Cat 5 is a telecommunication cabling standard. In order for cable to be labeled Cat 5 it must meet the performance benchmarks that the EIA/TIA provide for UTP wiring. This allows Cat 5 to reach transmission speeds of up to 100 Mbps. Cat 5 not only supports Ethernet but also RS-232,

NCI INC.

12PT Panel

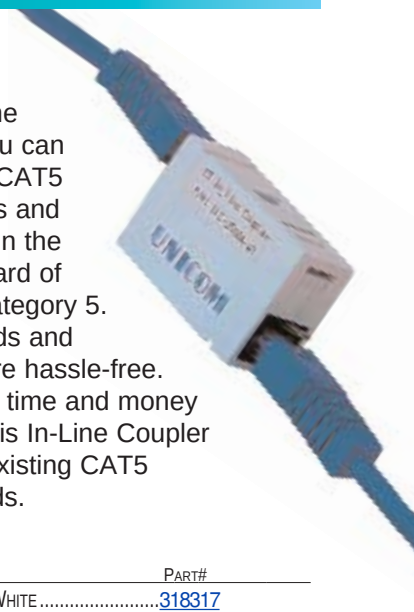
Closed 110/568B Open



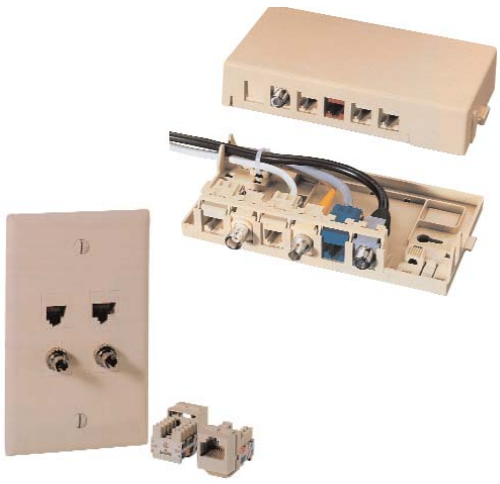


Description	Part#
25PR. Male Plug	403247
Color-Code Bar for Butterfly Tool	403257
90˚ Hood w/ Strain-Relief	403249
120˚ Hood w/ Strain-Relief	403259
25PR. 24PT Panel T568B to Telco Fem	403251
25PR. 6PT Dist Box Panel T568B	403253
110 Type 6PT Dist Box	403255
12PT Panel 110/568B	860404

With Unicom's CAT5 In-line Coupler you can easily join CAT5 patch cords and still maintain the high standard of EIA/TIA Category 5. Moves, adds and changes are hassle-free. You'll save time and money by using this In-Line Coupler and your existing CAT5 Patfch cords.



Description	Part#
In-Line Coupler White	318317
In-Line Coupler 16PT Panel	318318



Description	Part#
RJ45 Jack	312415-Ivory
6 PT Surface Mt	312419-Ivory
3 PT Wallplate w/ 1 Blank	312413-Ivory
Ivory Blanks 10 Pack	312417-Ivory
24 Port Cat 5 Panel 568B	312421-Ivory

CONTACT SALES PERSON FOR MORE LEVITON PRODUCTS

AT&T



Description	Part#
RJ45 Jack 568B	400037
Single Outlet Faceplate	400097
Duplex Outlet Faceplate	400099
24 PT 568B Panel	313415

CONTACT SALES PERSON FOR MORE AT&T PRODUCTS



Description	Part#
1 RJ45 JACK 568B	311991
2 RJ45 JACK 568B	311901
Single Gang Wallplate	311905
Double Gang Wallplate	311921
Blank Module	311903
Single Gang Box	311939
Dual Gang Box	311923
24 PT 568B Panel	311913

CONTACT SALES PERSON FOR MORE ORTRONICS PRODUCTS

Ethernet 5 Port Hub



DESCRIPTION	PART#
AXEL H-5 ETHERNET, 5 PORT HUB	535901

Technical Specification

- Standard: IEEE 802.3 10BASE-T
- Number of Twisted-Pair Ports: 5
- Cascading: "Uplink"
- LED Indicators: 5 for Link/Rx, 1 for Power, 1 for Collision
- EMI: FCC Class A
- DC Input: 7.5VDC/9VDC (AC power adapter), 5VDC (Keyboard power extractor)
- Power consumption: 2W max
- Power Source: AC power adapter or keyboard power extractor
- Dimension: 81x102x26mm (3.02x4.12x1.02in)
- Weight: 108 grams (excluding power adapter)
- Operating Temperature: degrees Celsius
- Humidity: 10-90% non-condensing

Ascend Bridge/Router



DESCRIPTION	PART#
ASCEND PIPELINE 75 BRIDGE/ROUTER	542501

Black Box Local Repeater

Black Box Local Repeater
Model LE602A-R3



Specifications
Ports: 2 BNC
Interface: 10Base2
Cable Required: RG58 coaxial
Maximum Distance: 185 m (607 ft.) of Thin Ethernet cable
Data Rate: 10 Mbps
Connectors: 1 Rear-mounted IEC 320 male power inlet, both BNC ports female
Power: Input: 90 to 260 VAC, 47 to 63 Hz into internal autosensing power supply
6ft. power cord with NEMA 5-15P plug and IEC 320 female outlet
MTBF: 40,000 hours
Cooling Method: Convection
Temperature Tolerance: Operating: 32 to 122º F (0 to 50º C)
Storage: -4 to 140º F (-20 to 60º C)
Humidity Tolerance: 10 to 95% noncondensing
Size: 1.8"H x 8.5"W x 5.4"D (4.6 x 21.6 x 13.7 cm)
Weight: 2.5 lb. (1.1 kg)

DESCRIPTION	PART#
BLACK BOX LOCAL REPEATER, 2 PORT	313531

3Com 10Base-T Hub



- simple installation in less than 10 minutes
- Easy connections for up to 8 workstations
- Ergonomic design saves space and ensures silent operation
- Convenient "stacking clips" for easy expandability and secure stacking of multiple OfficeConnect units
- Unique "Alert" LED to simplify troubleshooting
- For home or office use
- True compatibility with Windows®95, NetWare®, and other network operating systems

Connections
8 10BASE-T RJ45 ports (Port 8 is switchable, allowing connection of multiple units using 10BASE-T cable).
Dimensions
Width 220 mm (8.7 in)
Height 35.8 mm (1.4 in)
Depth 135.4 mm (5.3 in)
Power
11 VA
Standards
Functional
ISO 8802/3
IEEE 802.3
EMC
EN 55022 Class B
EN 50082-1
FCC Part 15 Class B Verified
C108.8 Class B
VCCI Class 2
Screened (shielded) cables must be used to ensure compliance with these standards.

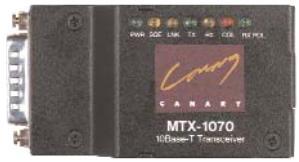
System Requirements
To create a complete Ethernet network with the OfficeConnect Hub/8TPO you will need the following items:
- A network adapter with 10BASE-T connection installed in each PC to be connected to the hub. If you don't already have adapters in place, 3Com offers a complete family of EtherLink® III adapters-the world's best-selling and easiest-to-install network adapters.

- A "straight-through" 10BASE-T cable (up to 100 meters [328 feet] long) for each PC or device being connected.

- Network operating system software. 3Com's OfficeConnect Hub/8TPO is fully compatible with all leading network operating system software, including Windows 95, Windows NT, Novell NetWare, and more than 100 other PC and network operating systems.

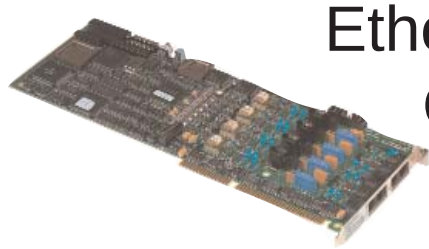
DESCRIPTION	PART#
3COM OFFICE CONNECT, 10BASE-T HUB	536920

Canary Transceiver



Description	Part#
Canary, MTX-1070 Transceiver	333312

Ethernet Card



Description	Part#
Dialogic 41D-INT	542401

Accton Ether Hub



Description	Part#	Ref#
Accton Etherhub-8S	670337	EN2040

10 Base-T Hub



Description	Part#	Ref#
Allied Telesyn 24pt 10BT Hub	536967	3024TR

2500CAT5 Modular Panel - 24 Port

The front of the panel is equipped with 24 8-pin modular jacks designed to accomodate modular plug-ended jumper cords.
The rear of the panel is equipped with four RJ-21 type 50-pin jacks, designed to accomodate cables terminated in the corresponding plug. A Velcro™ fastener is furnished to secure each individual plug to the panel.



Description	Part#	Ref#
AT&T 24port 2500CAT5 Modular Panel	451313	107641250

16 Port Lattishub



Description	Part#	Ref#
Bay Networks 16pt Lattishub w/AUI	670388	2803

Fiber Optics

Fiber optic cable consists of thin glass filaments that transmit lightwaves carrying very large amounts of data for very long distances. Since signals are transmitted with the use of light waves, electromagnetic and radio frequency interference (EMI / RFI) is nonexistent. Lightning and high voltage interference is also eliminated. A fiber network is best for conditions where EMI / RFI interference is heavy or where safe operation free from sparks and static is a must. Fiber optic cable also offers added security because transmissions are safe from electronic eaves-dropping.

WHY DO I NEED IT ?

If you're planning a new network or adding to an existing one, fiber optic is an ideal choice! Fiber optic cable is a so great because it carries a very large amount of data for very long distances in a small package. If you install fiber now you won't need to reinstall some other media in the future because fiber is the cable of the future.

Fiber optic cabling also offers a higher signal bandwidth and very low attenuation rates. That means increased transmission capacity and fewer repeater, making it a great choice for broadcast and telecommunications use.

WHERE DO I NEED IT ?

1) Point to point applications like:
   a) Local area network bridging
   b) CAD/CAM
   c) Video
   d) Modems
   e) Computer channel extenders
   f) Voice/ data multiplexers
2) Local area network applications
3) Broadcast & Telecommunications
4) Static-Free Environments
5) Military applications

What You'll

So you've decided to go with a fiber optic network. Great! You are going to need certain things to get started. The following list should help you dive into the brand new world of fiber optic networking.

1.) The cable length. You'll need to get an estimate of how much cable you'll be using. Don't forget to add for slack, future considerations and murphy's law.

2.) Figure out what kind of cable you'll need. The cable type (aerial,burial or interbuilding) and its construction (i.e. simplex, duplex, etc.).

3.) Find out your cable specs. We'll need to know the fiber core/clad size (i.e. 62.5/125m m see page 56 and the fiber count (i.e. 4 count).

4.) We will connectorize the cable ends for you so we'll also need to know the connector type (i.e. ST, SMA, etc. see pages 59, 60, 61).

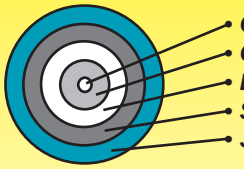
5.) Keeping your cable ends in order is easy with an Enclosed Patch Panel (see pages 79, 80). If you order your Mating Sleeves (see page 64) with us we will install them free of charge.

6.) Determine how many Patch Cords you'll need and how long they need to be.

Benefits of Using Fiber Optics

Fast & accurate transmission of data with speeds of up to 100Mbps.
Future-ready system frees you from constant upgrading.
Immune to EMI / RFI, Lightning and Electronic Eavesdropping.
Data transmission can reach lengths of more than 20 km

NCI's Fiber Facts



BUFFER - Coating applied directly over core and cladding for strength and protection. Sizes range from 250µm to 900µm (µm = micron).

CLADDING - A coating of material on the core of a lower refractive index than the core that causes reflection within the core so that lightwaves can travel through the cable.

CORE - The center of the fiber optic cable usually made of glass or plastic where the light is transmitted. Cores are either multimode or singlemode.

FIBER SIZE - This consists of the core, cladding, and buffer sizes. A measurement of 62.5/125/900 means the core is 62.5µm, the cladding is 125µm and the buffer coating is 900µm. Sometimes only the core and clad sizes are shown.

FIBER TYPES - There are 2 basic types:

SINGLEMODE: Fiber optic cable designed to carry the single wavelength selected for transmission. Best used when clear transmission for long distances is required. Typical diameter is 8µm.

MULTIMODE: Fiber optic cable designed to carry multiple signals set apart by frequency or phase. Best used where broadband information-capacity is required. The core is much larger than singlemode fiber, usually 25 to 200 µm. The fiber core may be either step index or graded index. ***Step index*** fiber has a uniform refractive index within the core and a sharp step-like decrease in refractive index of the core and cladding. ***Graded index*** fiber has a core with many layers of glass each having a lower index of refraction as you go outward from the axis. This reduces dispersion or fading of the transmission.

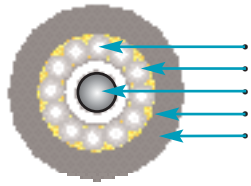
MICRON (m m) - Unit of measurement equal to one millionth of a meter.

62.5 / 125 micron Multimode Breakout Cable



Used *within buildings* in riser shafts or under computer room floors and *between buildings* in dry conduit runs below the frost line. This cable is constructed for individual routing of cables and quick and easy installation of connectors. *Each fiber has kevlar reinforcement and a 2.4mm jacket*. There is no need for splicing or breakout kits.

UL Listed riser rated OFNR.

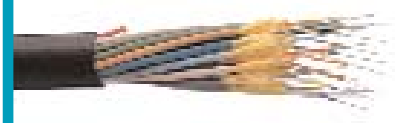


12 FIBER DISTRIBUTION CABLE

COUNT	USAGE	WGT /1000'	DIAMETER	850/1300nm TYPICAL ATTENUATION	850/1300nm MIN. BANDWIDTH	OPERATING TEMPERATURE	PART #
4 FIBER	INDOOR		11mm	3.5 / 0.9 dB/km	160/500 Mhz-km	-20˚C to +70˚C	219145
6 FIBER	INDOOR		13mm	3.5 / 0.9 dB/km	160/500 Mhz-km	-20˚C to +70˚C	219146
4 FIBER	IN/OUTDOOR	49LBS	8mm	3 / 1 dB/km	160/500 Mhz-km	-40˚C to +85˚C	219213
6 FIBER	IN/OUTDOOR	60LBS	9.5mm	3 / 1 dB/km	160/500 Mhz-km	-40˚C to +85˚C	219215
12 FIBER	IN/OUTDOOR	106LBS	12.5mm	3 / 1 dB/km	160/500 Mhz-km	-40˚C to +85˚C	219217

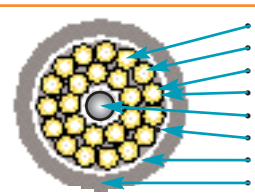
PLENUM CABLE AND HIGHER COUNTS ALSO AVAILABLE. PLEASE CALL FOR MORE INFO.

62.5 / 125 micron Multimode Distribution Cable



Used for point to point applications. *Within buildings* it can be run in conduits, as a backbone or over dropped ceilings. To run *between buildings* , cable must be riser rated and be run in dry conduits. *Each fiber has 900 m m buffer* but no individual strength member. Distribution cables are a cost effective solution for a wide range of network applications.

UL Listed riser rated OFNR.



24 FIBER BREAKOUT CABLE

COUNT	USAGE	WGT /1000'	DIAMETER	850/1300nm TYPICAL ATTENUATION	850/1300nm MIN. BANDWIDTH	OPERATING TEMPERATURE	PART #
6 FIBER	INDOOR		5.4mm	3.5 / 0.9 dB/km	160/500 Mhz-km	-20˚C to +65˚C	219143
12 FIBER	INDOOR		7.7mm	3.5 / 0.9 dB/km	160/500 Mhz-km	-20˚C to +65˚C	219144
4 FIBER	IN/OUTDOOR	22LBS	5mm	3 / 1 dB/km	160/500 Mhz-km	-20˚C to +65˚C	219219
6 FIBER	IN/OUTDOOR	24LBS	5.5mm	3 / 1 dB/km	160/500 Mhz-km	-20˚C to +65˚C	219221
12 FIBER	IN/OUTDOOR	30LBS	6.5mm	3 / 1 dB/km	160/500 Mhz-km	-20˚C to +65˚C	219223
24 FIBER	IN/OUTDOOR	49LBS	8mm	3 / 1 dB/km	160/500 Mhz-km	-20˚C to +65˚C	219225

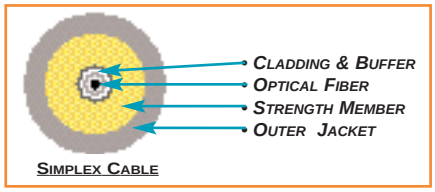
PLENUM CABLE AND HIGHER COUNTS ALSO AVAILABLE. PLEASE CALL FOR MORE INFO.

ALL CABLE SPECIFICATIONS MAY VARY AND ARE SUBJECT TO CHANGE

Simplex Cable

For use in Data communications and campus wide applications. Great for making patch cords. This cable has a tight buffer construction and is reinforced with Kevlar making it a great choice for your fiber applications.

Diameter - 2.9mm
UL Type - OFNR (Riser listed)
Operating Temp. - -20°C - +70°C



SIMPLEX CABLE

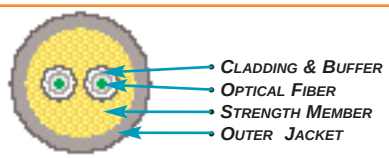


DESCRIPTION	FIBER TYPE	850/1300 nm TYPICAL ATTENUATION	850/1300 nm MINIMUM BANDWIDTH	PVC #	PER FT.	PLENUM #	PER FT.
9/125	SINGLEMODE	- / 0.5 dB/km	- - - - -	219150		239150	
50/125	MULTIMODE	3 / 1 dB/km	400/400 Mhz Km	219120		239120	
62.5/125	MULTIMODE	3.5 / 0.9 dB/km	160/500 Mhz Km	219130		239130	
100/140	MULTIMODE	4.5 / 2 dB/km	100/100 Mhz Km	219140		239140	

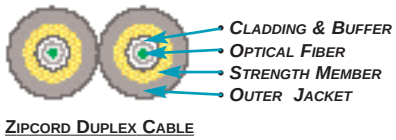
Duplex Cable

Used for Ethernet and FDDI applications, our duplex cable features high quality optical fiber with Kevlar reinforcement.

Diameter - Zipcord: 2.9mm x 6.2mm
Round PVC : 4.4mm
Round Plenum: 4.8mm
UL Type - OFNR (Riser listed)
OFNP (for plenum)
Operating Temp. - -20°C - +70°C



ROUND DUPLEX CABLE



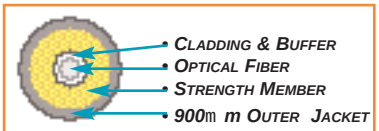
ZIPCORD DUPLEX CABLE



DESCRIPTION	CONSTRUCTION	850/1300 nm TYPICAL ATTENUATION	850/1300 nm MINIMUM BANDWIDTH	PVC #	PER FT.	PLENUM #	PER FT.
9/125	ZIPCORD	- / 0.5 dB/km	- - - - -	219152		239152	
50/125	ZIPCORD	3 / 1 dB/km	400/400 Mhz Km	219122		239122	
62.5/125	ZIPCORD	3.5 / 0.9 dB/km	160/500 Mhz Km	219132-ORANGE		239132	
62.5/125	ZIPCORD	3.5 / 0.9 dB/km	160/500 Mhz Km	219132-WH/GREEN		------	---
62.5/125	ROUND FDDI	3.3 / 0.8 dB/km	160/500 Mhz Km	219227		239227	
100/140	ZIPCORD	4.5 / 2 dB/km	100/100 Mhz Km	219142		239142	

Micro Cable

Used in areas where cable conditions are crowded, micro cable works like standard fiber optic cabling. Micro cable optical fiber has a 125µm clad diameter, a 250µm coating, and a 900µm outer jacket diameter. Available in singlemode or multimode.



MICRO CABLE

DESCRIPTION	FIBER TYPE	PART#
MICRO CABLE 9/125	SINGLEMODE	219229
MICRO CABLE 62.5/125	MULTIMODE	219231

Innerduct

Innerduct provides additional mechanical protection and identification for exposed fiber optic cabling and our innerduct will not break under sub zero temperatures. It has an O.D. of 1.365" and an I.D. of 1.049".



DESCRIPTION	PART #
INNERDUCT WITHOUT PULL LINE	401002
INNERDUCT WITH PULL LINE*	401004
INNERDUCT PLENUM	401005

Pulling Eye Grip

Assists in the pulling of cable through conduits, blocks or sheaves. Pulling tension remains uniform along the cable. Provides protection against damage of cable. We can install the grip on for you. For more info, call our sales department.



DESCRIPTION	PART #	REF #
PULLING EYE GRIP FOR MULTIFIBER	410477	F1-1001
PULLING EYE GRIP FOR SIMPLEX & DUPLEX	874113	F1-1001B
PULLING EYE GRIP INSTALLED BY NCI	874115	F1-1001A

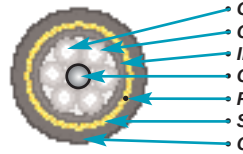
ALL CABLE SPECIFICATIONS MAY VARY AND ARE SUBJECT TO CHANGE

Loose Tube Cable

Designed for general purpose outdoor applications where extreme temperatures and high moisture conditions exist. High quality fiber is contained in loose gel filled buffer tubes and is suitable for outdoor duct, aerial and direct burial installations.This cable is run between buildings and when entering a building should typically not exceed 50 ft. *Also available with armored construction.*

Type	Size	Mode	Diameter	Part #
2 fiber	62.5/125	MM	5mm	219147
4 fiber	62.5/125	MM	8mm	219153
6 fiber	62.5/125	MM	12.7mm	219148
12 fiber	9/125	SM	12.7mm	219149

Higher Fiber Counts Also Available. Call our Sales Dept. for More Info.



24 Fiber Breakout Cable

Wavelength - 850 / 1300 nm
Typical Attenuation - 3.5 / 0.9 dB/km
Minimum Bandwidth - 160 / 500 MHz/km
Operating Temp. - -40°C to +70°C

62.5 / 125 Aerial Cable

Used for aerially supported applications. Designed to be self-supporting and

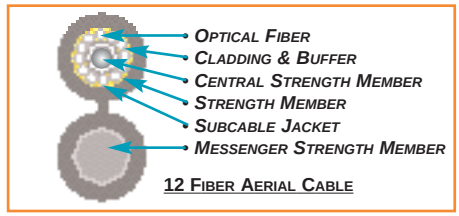


requires no support cable. Our aerial cable is a 12 fiber figure 8 messenger cable with a 190ft. span length, medium storm load rating and galvanized steel strength member. Before you order, you'll need to know your span lengths, mid-span sag limitations and storm load rating. If you dont know what they are, give us a call. We'll be happy to help you.

Cable Diameter : 6.5 mm
Messenger Diameter : 8.5 mm

Description	Wgt /1000 ft	Part #	
12 fiber	201 lbs	219154	(*when you buy 3280ft. (1km)*)

Other Specs and Fiber Counts Available. Call Us for More Info.



12 Fiber Aerial Cable

Wavelength - 850 / 1300 nm
Typical Attenuation - 3 / 1 dB/km
Minimum Bandwidth - 160 / 500 MHz/km
Operating Temp. - -55°C to +85°C

Buried Marker Tape

"Caution Fiber Optic Cable Buried Below". Available in detectable and undetectable versions. Comes in 3" wide and 1000' long rolls.

Description	Part #
Detectable Marker Tape	541415
Undetectable Marker Tape	541417

Plastic Cable

Used for short run optical data transmission, sensing and illumination. Practical applications include robotics, light guides, lamp monitors and sensor heads. Available in a 2.2mm diameter polyethylene jacket with a 960m m core and a 40m m cladding. ST connectors are recommended.

Description	Jacket	Core	Clad	Part #
Simplex	2.2mm	960µm	40µm	219156
Duplex	2.2mm x 2	960µm	40µm	219157

Accessories	Part #	
Plastic Cable ST Connector (1mm)	219159	
Plastic Cable ST Mating Sleeve	219161	C all
Plastic Cable Connectorization Kit	219163	C all
Plastic Cable Splice	219165	C all

Wavelength - 660 nm
Typical Attenuation - 300 dB/km
Operating Temp. - -20°C to +60°C



Plastic Cable

Bare Fiber

Singlemode and multimode available.

Description	Part #
9/125	219167
62.5/125	219169

Buffered Fiber

Singlemode and multimode available.

Description	Part #
Simplex	219171
Duplex	219173

All cable specifications may vary and are subject to change

CONNECTORS

ST Type Connector

ST stands for straight tip and was originally designed by AT&T. NCI carries many different makes of ST type fiber optic connector. We want to give you a wide selection to make your fiber optic installation as easy as possible. ST connectors use a bayonet style coupling mechanism for latching. Our NCI ST connectors are top quality y at low cost. Rear-crimp design attaches directly to cable and strength members creating a very secure strain relief. Comes with a 3mm boot (900µm boots available). Available in either **Singlemode (SM)** or **Multimode (MM)** versions.



ST Make	Type	Size	Ferrule	Typ.Loss	Part #	Ref #
AMP	SM	126µm	Ceramic	0.3dB	410516	502579-2
AT&T	SM	125µm	Ceramic	0.5dB	410514	105143911
Molex	SM	126µm	Zirconia	0.3dB	410520	86012-5000
NCI	SM	126µm	Ceramic	0.2dB	403224	F1-0069
3M	SM	126µm	Zirconia/PC	0.2dB	410522	8106
3M	SM	127µm	Zirconia/PC	0.2dB	410523	8107
AMP	MM	125µm	Zirconia/PC	0.5dB	410551	504766-3
AMP	MM	125µm	Zirconia/PC	0.3dB	410526	501380-1
GTE	MM	125µm	Ceramic/PC	0.5dB	410544	WO 3756
Molex (Metal Housing)	MM	125µm	Ceramic	0.6dB	336411	86012-0000
Molex (PlasticHousing)	MM	125µm	Ceramic	0.6dB	410540	86010-0000
Molex (900µm)	MM	125µm	Ceramic	0.6dB	410542	86010-0500
NCI	MM	125µm	Polymer	0.3dB	403226	F1-0059
NCI	MM	125µm	S.S. Alloy	0.4dB	410528	F1-0061
NCI	MM	140µm	S.S. Alloy	0.5dB	410530	F1-0063
NCI	MM	230µm	S.S. Alloy	0.5dB	403228	F1-0064
NCI	MM	125µm	Ceramic	0.3dB	410532	F1-0066
NCI	MM	140µm	Ceramic	0.5dB	410534	F1-0067
Siecor	MM	125µm	Composite/PC	0.2dB	312515	95-101-02
Siecor	MM	125µm	Ceramic/PC	0.2dB	312517	95-101-44
3M	MM	125µm	Zirconia/PC	0.2dB	410524	6105
3M Push Pull	MM	125µm	Zirconia/PC	0.4dB	314629	6102
NCI Plastic Fiber .1mm		S.S. Alloy	0.5dB	0.5dB	403229	F1-0065
AT&T ST II Crimp Tool					410546	60-3010
CAP - ST Female Cover					410547	
CAP - ST Male Cover					410549	

SC Type Connector

SC stands for square connector and was originally designed by NTT (Nippon Telephone & Telegraph). NCI carries many different makes of SC type fiber optic connector. We want to give you a wide selection to make your fiber optic installation as easy as possible. SC connectors use a push-pull coupling mechanism which allows for dense packaging and its internal spring-loaded ferrule resists shock, vibration and temperature stress. Available in either **Singlemode (SM)** or **Multimode (MM)** versions.



SC Make	Type	Size	Ferrule	Typ.Loss	Part #	Ref #
AMP	SM	126µm	Zirconia/PC	0.3dB	410632	502882-2
Molex	SM	126µm	Zirconia/PC	0.15dB	410630	86061M5000
Siecor	SM	127µm	Zirconia/PC	0.2dB	312519	95-200-08
3M	SM	126µm	Zirconia/PC	0.3dB	410628	8306
AMP	MM	125µm	Zirconia/PC	0.3dB	410638	502883-1
Molex	MM	125µm	Zirconia/PC	0.2dB	410636	86061M0000
Siecor	MM	125µm	Zirconia/PC	0.2dB	312521	95-100-48
3M	MM	125µm	Zirconia/PC	0.3dB	410634	6306

FC Type Connector

FC stands for face contact and was originally designed by NTT (Nippon Telephone & Telegraph). NCI carries many different makes of FC type fiber optic connector. We want to give you a wide selection to make your fiber optic installation as easy as possible. FC connectors use a threaded keyed design and are compatible with NTT-FC and NEC-D3 hardware. The anti-rotation key prevents fiber endface damage and rotational sensitivity and the floating ferrule prevents shock and vibration. Available in either **Singlemode (SM)** or **Multimode (MM)** versions.



Make	Type	Size	Ferrule	Typ.Loss	Part #	Ref #
AMP	SM	126µm	Ceramic/PC	0.3dB	410598	501505-3
Molex	SM	2.4-3mm	Zirconia/PC	0.2dB	410604	86057M5000
NCI	SM	126µm	Zirconia/PC	0.2dB	403231	F1-2069
Siecor	SM	126µm	Zirconia/PC	0.2dB	312523	95-200-10
3M	SM	126µm	FC/PC III Zirconia	0.3dB	410602	8203
3M	SM	127µm	FC/PC I Zirconia	0.3dB	314631	8207
Molex	MM	2.4-3mm	Zirconia/PC	0.2dB	336413	86057M3000
NCI	MM	125µm	Zirconia/PC	0.3dB	403233	F1-2066
NCI	MM	125µm	Metal Alloy	0.3dB	410610	
NCI	MM	140µm	Metal Alloy	0.3dB	410612	
Siecor	MM	125µm	Zirconia/PC	0.2dB	312525	95-100-10
3M	MM	125µm	FC/PC III Zirconia	0.3dB	410608	6202

CONNECTORS

SMA Type Connector



SMA stands for subminiature type A. The SMA905 connector is a straight ferrule design and the SMA906 is a stepped ferrule design using a plastic sleeve for alignment. NCI carries different makes of SMA type fiber optic connector. We want to give you a wide selection to make your fiber optic installation as easy as possible. Available in **Multimode (MM)** version.

Make	Type	Size	Ferrule	Typ.Loss	Part #	Ref #
Augat	905	125µm	ARCAP AP10	0.8dB	410586	698-DSC-125A
Molex	905	125µm	Alumina/PC	0.25dB	410584	86021-0000
LCS	905	125µm	Stainless Alloy	0.8dB	410574	3905AM125
AMP*	906	125µm	Stainless Steel	0.6dB	410580	504094-1
AMP	906	140µm	Stainless Steel	0.6dB	410582	504094-3
Augat	906	125µm	ARCAP AP10	0.8dB	410588	698-JSC-125A
LCS	906	125µm	Stainless Alloy	0.8dB	410576	3906AM125
LCS	906	140µm	Stainless Alloy	0.8dB	410578	3906AM140

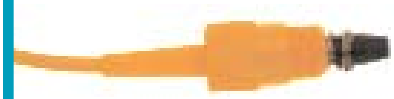
D4 Type Connector



D4 stands for DIN 4. DIN stands for Deutsche Institut fur Normung (German Institute for Standardization). Used primarily in European electronic applications, and also used throughout the world. NCI carries different makes of D4 type fiber optic connector. We want to give you a wide selection to make your fiber optic installation as easy as possible. Available in **Singlemode(SM) and Multimode (MM)** versions.

Make	Type	Size	Ferrule	Typ.Loss	Part #	Ref #
Amp*	SM	126µm	Ceramic	0.3dB	410640	501508-3
Specail PC Polish Disc for AMP D4 Connector					410646	501867-1
LCS	SM	126µm	Zirconia	0.3dB	410644	5D4SM126
Seiko	SM	125µm	Zirconia/PC	0.3dB	410643	SDP-1Z-PD-S5
Seiko	MM	125µm	Zirconia/PC	0.3dB	410645	SDP-1Z-PD-S5

Biconic Connectors



Developed by AT&T, it is a precision molded screw-on type design that yields low dB insertion loss. Used on interconnect cable and buffered or unbuffered fiber. Used for cable-cable or cable-equipment single fiber connections. Available in **Singlemode (SM) or Multimode (MM).**

Make	Type	Size	Typ.Loss	Part #	Ref #
AT&T	SM	125µm	0.5dB	410616	104310032
3M	SM	127µm	0.6dB	410620	8002
3M	MM	125µm	0.6dB	410622	6001
Porta*	MM	125µm	0.6dB	410624	4001071125
Porta	MM	126µm	0.6dB	410625	4201071126

AMP Mini BNC Connector

Specified by IBM and Rolm. Fast termination with easy connection. Works with 3mm cable jacket. Available in **Multimode (MM).**

Type	Size	Ferrule	Typ.Loss	Part #	Ref #
Multimode	125µm	Stainless Steel	0.2db	410594	504002-1
Multimode	140µm	Stainless Steel	0.2db	410596	504002-2

Duplex Connectors

FDDI Connectors



FDDI stands for Fiber Distributed Data Interface. This duplex fiber optic connector is fully compatible w/ANSI FDDI PMD document. Used for Zip Cord or *Plenum* cable. NCI carries different makes of FDDI type fiber optic connector to give you a wide selection and make your fiber optic installation as easy as possible. FDDI connectors use latch mating sign.

FDDI Make	Size	Ferrule	Typ.Loss	Part #	Ref #
AMP Zipcord	125µm	Ceramic	0.6dB	410564	502015-1
AMP Round	125µm	Ceramic	0.6db	410566	501780-1
AMP Assembly Fixture Kit				*410572*	*502023-1*
Molex Zip or Plenum	125µm	Ceramic	0.3dB	336415	86030-0200
Molex Round	125µm	Ceramic	0.3dB	336417	86030-0100
Siecor Zip or Round	125µm	Zirconia	0.3dB	312511	95-100-05

Escon Connectors



Escon connectors use a free floating ferrule structure and a positive latch mating design. Escon connectors use standard ST polish and a special 2 die crimper. Available in **Multimode (MM).**

Escon Make	Size	Ferrule	Typ.Loss	Part #	Ref #
Molex for Zipcord	125µm	Zirconia	0.15dB	336419	86040-3200
Molex for 4.8mm Round	125µm	Zirconia	0.15dB	336421	86040-3100

SC Duplex Connectors



SC duplex connectors use a non-optical disconnect push-pull latching design. Meets NTT-SC and Bellcore standards. Works with 3mm jacketed fiber. Available in **Singlemode (SM) or Multimode (MM).**

SC Duplex Make	Size	Ferrule	Typ.Loss	Part #	Ref #
Molex Singlemode	126µm	Zirconia	0.15dB	336423	86066-5000
Molex Multimode*	125µm	Zirconia	0.34dB	336407	86066-0000
SC Duplex Mating Sleeve				336425	86166-0010

CONNECTORS

HOT MELT

3M Hot Melt connectors have adhesive already applied to the connector so that no application of epoxy is needed. That means you don't need a syringe or an applicator and no mixing. That saves time and money! A Hot Melt kit is available with all the tools you need to connectorize.

3M ST Hot Melt
3M ST Push Pull Hot Melt

ST stands for straight tip and was originally designed by AT&T. The ST type Hot Melt fiber optic connector from 3M uses a bayonet style coupling mechanism for latching. NCI also carries the 3M Push Pull Hot Melt connector. It connects with a push and disconnects with a pull. Simple, huh? In order to disconnect you must pull on the housing of the connector so don't worry about someone pulling on the cable Great in areas where less space is available. Converting to duplex is a snap! Simply clip together the 2 connectors using the duplex clips (see below).

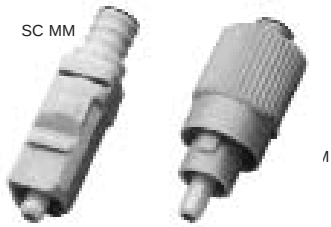
Type	Size	Ferrule	Typ.Loss	Part #	Ref #
Multimode	125µm	Zirconia/PC	0.4dB	410552	6100
ST Hot Melt Termination Kit				410556	6150A
Hot Melt Conversion Oven, Holder and Cooling Stand				410554	6156
Push Pull Multimode	125um	Zirconia/PC	0.2db	410558	6102-H
4 Duplex Clips & 2 Duplex Caps				410562	6199-DC



3M SC and FC Hot Melt Connectors

3M's SC type Hot Melt connector has a push-pull coupling mechanism for ease of installation.

FC connectors use a threaded keyed design. The anti-rotation key prevents fiber endface damage and rotational sensitivity and the floating ferrule prevents shock and vibration



Type	Size	Ferrule	Typ.Loss	Part #	Ref #
SC Multimode	125µm	Zirconia/PC	0.3dB	314633	6300
FC Multimode	125µm	Zirconia/PC	0.3dB	314635	6200
SC / FC Hot Melt Termination Kit				314637	6150A
Hot Melt Conversion Oven, Holder and Cooling Stand				314639	6156

3M's new crimplok connector provides quick and easy installation and superior performance. Installs in about 2 minutes. The fiber passes thru the back of the connector beyond the end of the activation cap. Pressing the cap locking arm closes the metal element around the fiber.

AMP's Lightcrimp connector uses precision molding and crimping to provide a strong and reliable termination. This is done with a 2-step crimp, cleave and 30 second polish. A no-epoxy installation in less than 2 minutes.

Make	Type	Size	Ferrule	Typ.Loss	Part #	Ref #
3M Crimplok	ST	125µm	Zirconia	0.3dB	314641	6901
3M Crimplok	SC	125µm	Zirconia	0.3dB	314643	6900
AMP LightCrimp	ST	125µm	St. Steel	0.38 dB	410548	504034-1
Lightcrimp XTC Tool Kit					410550	503125-1
XTC Crimp Tool					315047	503568-1
XTC Cleave Tool					315049	502700-2

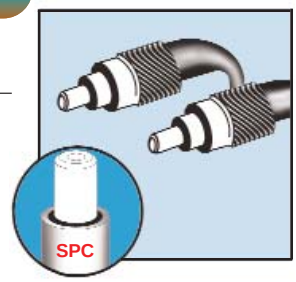


NCI'S Specialty SPC, UPC and APC cables are designed to meet your needs for whatever application you are using. These specialty cables are used mostly by the telecommunications and cable TV industries where lasers are used for transmitting signals. These cables will not bounce back light into the laser and will not erode the laser. These cables feature the highest quality cable, con-

Super PC (SPC) Patch Cords >-40dB

Typical return losses of > -40dB. These cables are designed for super PC requirements and are tested to insure low return loss.

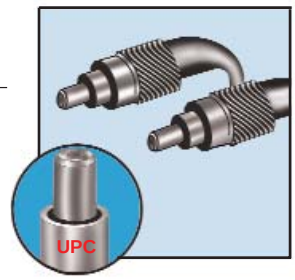
DESCRIPTION	PART #	
ST-ST SIMPLEX	F01S3SS****1	+
FC-FC SIMPLEX	F01S3LL****1	+
SC-SC SIMPLEX	F01S3MM****1	+
D4-D4 SIMPLEX	F01S3RR****1	+



Ultra PC (UPC) Patch Cords >-50dB

Typical return losses of > -50dB. These cables are designed for ultra PC requirements and are tested to insure low return loss.

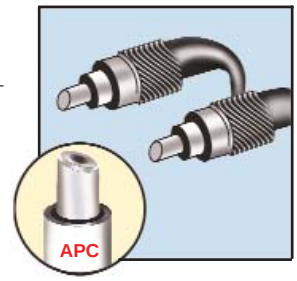
DESCRIPTION	PART #	
ST-ST SIMPLEX	F01S3NN****1	+
FC-FC SIMPLEX	F01S3QQ****1	+
SC-SC SIMPLEX	F01S3PP****1	+



Angled PC (APC) Patch Cords >-60dB

Typical return losses of > -60dB with a typical mating loss of dB, not exceeding .5dB . The Angled PC connectors are ground to an 8 degree angle and are then polished to the required finish. They are then tested to insure low return loss.

DESCRIPTION	PART #	
ST-ST SIMPLEX	F01S3UU****1	+
FC-FC SIMPLEX	F01S3TT****1	+
SC-SC SIMPLEX	F01S3VV****1	+



FURCATION TUBING

Available in 3mm, 1.2mm and 900µm diameters. The 3mm tubing receives 250 µm, 500µm or 900µm buffered fiber. The 1.2mm tubing receives 250µm, 500µm or 900µm diameter coated or buffered fiber.

COLOR	SIZE	PART#	REF#	
ORANGE	3mm	403250	001-FT-SF-3	PER FT.
WHITE	1.2mm	403259	001-FT-SF-1.2	PER FT.
CLEAR	900µm	403260	001-FT-SF-900	PER FT.

STRAIN RELIEF BOOTS

Works on or crimp. and comes in 900µm and 3mm sizes.



DESC.	PART#	
900µm BOOT	403261-☆	EA.
3mm BOOT	403262-☆	EA.
AMP 90° 3mm BLACK BOOT	315108-☆	EA.

REPLACE ★ WITH COLOR DESIRED: 1-**RED**, 2- **GREEN**, 3- YELLOW, 4- **BLACK**.



DUST CAP

Covers all types ST, SC and FC terminated connectors. Cap fits over ferrule and is held on to cable by strap.

PART#	REF#	
403263	900-111-2006-1	EA.

All the fiber optic cables you will ever need are at NCI. These cables feature the highest quality cable, connectors, strain reliefs, and workmanship. Custom lengths and configurations with same day shipping is our specialty. All cables

SIMPLEX PATCH CORDS



DESCRIPTION	PART #
ST-ST SIMPLEX MULTIMODE PVC 62.5/125 3FT	F01S3JJ00031
CUSTOM LENGTHS - PVC	F01S3JJ****1
PLENUM	F01S3JJ****2
FC-FC SIMPLEX SINGLEMODE PVC 9/125 3FT.	F01S3CC00031
CUSTOM LENGTHS - PVC	F01S3CC****1
PLENUM	F01S3CC****2
FC-FC SIMPLEX MULTIMODE PVC 62.5/125 3FT.	F01S3CC00031
CUSTOM LENGTHS - PVC	F01S3CC****1
PLENUM	F01S3CC****2
BICONIC-BICONIC SIMPLEX SM PVC 9/125 3FT	F01S1AA00031
CUSTOM LENGTHS - PVC	F01S1AA****1
PLENUM	F01S1AA****2
D4-D4 SIMPLEX SINGLEMODE PVC 9/125 3FT	F01S1BB00031
CUSTOM LENGTHS - PVC	F01S1BB****1
PLENUM	F01S1BB****2
SC-SC SIMPLEX MM PVC 62.5/125 3FT	F01S3FF00031
CUSTOM LENGTHS - PVC	F01S3FF****1
PLENUM	F01S3FF****2

DUPLEX PATCH CORDS



DESCRIPTION	PART #
ST-ST DUPLEX MULTIMODE 62.5/125 3FT	F02D3JJ00031
CUSTOM LENGTHS - PVC	F02D3JJ****1
PLENUM	F02D3JJ****2
SC-SC DUPLEX MULTIMODE 62.5/125 3FT	F02D3FF00031
CUSTOM LENGTHS - PVC	F02D3FF****1
PLENUM	F02D3FF****2
SMA906-SMA906 DUPLEX MM 62.5/125 3FT	F02D3HH00031
CUSTOM LENGTHS - PVC	F02D3HH****1
PLENUM	F02D3HH****2
SMA906-ST DUPLEX MM PVC 62.5/125 3FT	F02D3HJ00031
CUSTOM LENGTHS - PVC	F02D3HJ****1
PLENUM	F02D3HJ****2
FDDI-FDDI DUPLEX MM PVC 62.5/125 3FT	F02D3DD00031
CUSTOM LENGTHS - PVC	F02D3DD****1
PLENUM	F02D3DD****2
FDDI ESCON® - FDDI ESCON® DUPLEX MM PVC 62.5/125 3FT	F02D3KK00031
CUSTOM LENGTHS - PVC	F02D3KK****1
PLENUM	F02D2KK****2
FDDI-ST DUPLEX MM PVC 62.5/125 3FT	F02D3DJ00031
CUSTOM LENGTHS - PVC	F02D3DJ****1
PLENUM	F02D3DJ****2

NCI INC.

HOW MANY FIBERS DO YOU NEED?	WHAT TYPE OF FIBER CONSTRUCTION DO YOU NEED?	WHAT SIZE FIBER DO YOU NEED?	WHAT TYPE OF CONNECTOR END & POLISH DO YOU NEED?	HOW LONG SHOULD YOUR CABLE BE?	WHAT TYPE OF JACKET DO YOU NEED?
F- □□	- □	- □	- □/□	- □□□□	- □
FIBER	TYPE	MODE	CONNECTOR TYPES	LENGTH IN FEET	JACKET
01 - 99	B = BREAKOUT I = DISTRIBUTION S = SIMPLEX D = DUPLEX (ZIPCORD) L = LOOSE TUBE X = OTHER	SINGLEMODE 1 = 9µm MULTIMODE 2 = 50 µm 3 = 62.5 µm 4 = 100 µm 5 = OTHER	A = BICONIC X = BLUNT B = D4 C = FC D = FDDI K = FDDI ESCON E = MINI-BNC F = SC W= SC DUPLEX G = SMA 905 H = SMA 906 J = ST-CERAMIC I = ST-STAINLESS Z = OTHER SPECIAL POLISHING ANGLED T = FC-APC V = SC-APC U = ST-APC SUPER R = D4-SPC L = FC-SPC M= SC-SPC S = ST-SPC ULTRA Q = FC-UPC P = SC-UPC N = ST-UPC	0001 - 9999	1= PVC 2= PLENUM

EXAMPLE: F-02-B-1-A/A-0025-1

CALL FOR YOUR FIBER PRICES

WE WOULD LIKE TO LIST ALL PRICES FOR FIBER ASSEMBLIES,
BUT THERE ARE TOO MANY VARIATIONS TO LIST !
CALL FOR A QUICK QUOTE.

WE WILL SOON HAVE A BUILD-YOUR-OWN FIBER ASSEMBLY PAGE
ON OUR WEB SITE @ http://www.trynci.com !

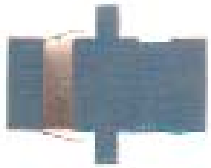
MATING SLEEVES

Mating sleeves do what they say. They mate two connectors. They allow you to attach to a patch panel and to interconnect your fiber optic network.



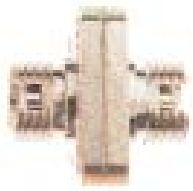
ST Mating Sleeves

Make	Type	Design	Housing	Sleeve	Part #	Ref #
Molex	SM	Threaded	Polymer	Zirconia	410654	86110-0000
NCI	SM	Threaded	Metal	Zirconia	403237	F1-8200
3M	MM	Threaded	Metal	Copper	410662	6110
3M	MM	Flanged	Metal	Copper	410656	6111
AMP	MM	Threaded	Metal	Metal	410664	501381-1
Methode	MM	Threaded	Metal	Polymer	410668	908-213-01
Molex	MM	Threaded	Polymer	Polymer	403235	86113-0000
NCI	MM	Threaded	Metal	Polymer	403239	F1-8100
T&B	MM	Threaded			410670	91840



SC Mating Sleeves

Make	Type	Design	Sleeve	Part #	Ref #
AMP	SM/MM	Flanged	Metal	410696	502632-1
Methode	SM/MM	Flanged	Bronze	338107	308-102-02
Methode	SM/MM	Duplex	Bronze	338109	308-104-02
Molex	SM/MM	Flanged	Zirconia	410698	86161-0000



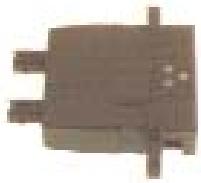
FC Mating Sleeves

Make	Type	Design	Housing	Sleeve	Part #	Ref #
AMP	SM/MM	Square-Flanged	Metal	Bronze	410679	501506-2
Methode	SM/MM	Square Flanged	Metal	Ceramic	338111	408-4A3-02
Molex	SM/MM	Threaded D-Hole	Metal	Ceramic	410681	86152-1000
NCI	SM/MM	Square-Flanged	Metal	Bronze	410682	F1-9229
Seiko	SM/MM	Square-Flanged	Metal	Bronze	410680	SAA-1
FC Singlemode Mating Sleeve with Chain and Metal Cap					403240	
Chain with Metal Cap without sleeve.					403244	



SMA Mating Sleeves

Make	Type	Design	Housing	Sleeve	Part #	Ref #
AMP	MM-905/906	Threaded	Metal	Metal	410674	501049-1
Molex	MM-905/906	Threaded	Polymer	Polymer	410672	86121-0000



Duplex Mating Sleeves

Make	Type	Design	Housing	Part #	Ref #
AMP	MM	FDDI-FDDI	Polymer	410700	501926-1
Methode	SM/MM	ESCON-ESCON	Polymer	338113	508-202-01
Methode	SM/MM	ESCON-ESCON	Polymer	338115	508-202-02



All Other Mating Sleeves

Make	Model	Type	Design	Sleeve	Part #	Ref #
AMP	D4	SM/MM	Flanged	Metal	410690	501509-2
GTE	D4	SM/MM	Flanged	Metal	410692	WO1558
LCS	D4	SM/MM	Flanged	Metal	410694	3ADAD4SM
NCI	D4	SM/MM	Flanged	Copper	403248	F1-7100
3M	Biconic	SM	Flanged	Polymer	410684	8010
Methode	Biconic	SM	Flanged	Polymer	410686	708-10X-01
Porta	Biconic	SM	Flanged	Polymer	403627	4270001000
Methode	Biconic	MM	Flanged	Polymer	410688	708-20X-01
AMP	Optimate	MM	Flanged	Polymer	410676	501185-1
Sumitomo	Mini BNC	MM	Flanged	Metal	410678	ILAMBNC

ATTENUATORS

An attenuator is a device that reduces signal amplitude by a specific amount with no added distortion.
(Excessive light during transmission, at the detector location, can cause system failure).

BULKHEAD ATTENUATORS

MOUNTED DIRECTLY ON THE PATCH PANEL OR BREAKOUT BOX.

3M ST BULKHEAD ATTENUATOR

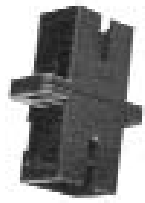
Available in Singlemode or Multimode.
Attenuation for Multimode is slightly lower than Singlemode.



TYPE/ATTENUATION	PART #	REF #
ST / 5dB*	410770	8121S
ST / 10dB	410772	8122S
ST / 15dB	410774	8123S
ST / 20dB	410776	8124S

3M SC BULKHEAD ATTENUATOR

Available in Singlemode or Multimode.
Attenuation for Multimode is slightly lower than Singlemode.



TYPE/ATTENUATION	PART #	REF #
SC / 5dB	314618	8321S
SC / 10dB	314620	8322S
SC / 15dB	314622	8323S
SC / 20dB	314624	8324S

3M FC/PC BULKHEAD ATTENUATOR

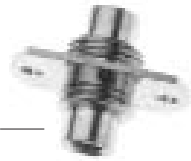
Available in Singlemode. This bulkhead attenuator replaces FC/PC mating sleeve.



TYPE/ATTENUATION	PART #	REF #
FC/PC / 5dB*	410762	8221S
FC/PC / 10dB	410764	8222S
FC/PC / 15dB	410766	8223S
FC/PC / 20dB	410768	8224S

NCI D4 BULKHEAD ATTENUATOR

Available in Singlemode. This bulkhead attenuator replaces D4 mating sleeve.



TYPE/ATTENUATION	PART #	REF #
D4 / 5dB*	410754	F1-7215-5
D4 / 10dB	410756	F1-7215-10
D4 / 15dB	410758	F1-7215-15
D4 / 20dB	410760	F1-7215-20

VARIABLE ATTENUATORS

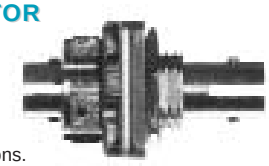
VARIABLE ATTENUATOR

By simply twisting the top mounted screw this variable attenuator provides increments of 0.5dB. Use with a power meter and light source to ascertain the fixed attenuator value your system requires.
Available in 2 meter length and insertion loss of 3dB.

VARIABLE ATTENUATOR TYPE	PART #	REF #
SM WITH 8-9µM CORE - NO CONNECTORS	540901	F1-0031
SM WITH ST CONNECTORS	540903	F1-0031-ST
SM WITH FC CONNECTORS	540905	F1-0033-FC
SM LOW BACK REFLECTION W/FC CONNECTORS	540907	F1-0033-LBR
MM WITH 62.5µM CORE - NO CONNECTORS	540909	F1-1033
MM WITH ST CONNECTORS	540911	F1-1033-ST

AIR-GAP VARIABLE ATTENUATOR

NCI's air-gap variable attenuator is able to accomodate either ST or FC connectors. A tool is provided to increase attenuation to dB needed. This attenuator can be attached directly to a patch panel or breakout box and can be used in either single or multimode applications.
Insertion loss of .15dB.



VARIABLE ATTENUATOR TYPE	PART #	REF #
ST VARIABLE AIR GAP	540931	F1-2250
FC VARIABLE AIR GAP	540933	F1-2251

VARIABLE ATTENUATOR CONNECTOR

TYPE	PART #	REF #
ST VARIABLE ATTENUATOR CONNECTOR	540913	F1-0822FC
FC VARIABLE ATTENUATOR CONNECTOR	540915	F1-0822ST

This connector has the ability to increment in units of 0.1dB. Can be used in either single or multimode applications.

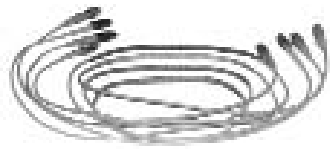


INLINE ATTENUATORS

INLINE ATTENUATOR

TYPE	PART #	REF #
SM WITH 8-9µM CORE - NO CONNECTORS	540917	F1-0031
SM WITH ST CONNECTORS	540919	F1-0031-ST

NCI's Inline Attenuator has the ability to increment in units of 0.1dB and has an a low insertion loss. Can be used in either single or multimode applications.



FIXED ATTENUATORS

NCI's fixed attenuators are shaped like washers and are fitted at the light source.

The mated connectors are spaced causing attenuation. Fixed attenuators can be placed on more than one mated location thereby increasing total attenuation. Each colored attenuator is a different width so each one has different dB values. The table shows typical loss but specific loss is not set because it varies depending on different conditions. NCI's fixed attenuators are sold individually or in packs. Packets of 5 different widths are available, so you can find out what size you need. After you have the right width, you order just the width you need in packs or individually.

TYPE	QTY.	COLOR	PART #	REF #
ST	5 PACK	1 EACH COLOR	540921	A450
ST	10 PACK	YOUR CHOICE	540923	A450-20
SMA	5 PACK	1 COLOR	540925	A40D
SMA	10 PACK	YOUR CHOICE	540927	A40D-20
FDDI	10 PACK	2 COLOR	540929	A450-FDDI

COLOR	TYPICAL ATTENUATION 850nm	1300nm
SILVER	6.0 dB	11.7 dB
GOLD	5.5 dB	11.3 dB
GREEN	4.8 dB	10.2 dB
BLUE	3.6 dB	9.1 dB
RED	2.5 dB	7.4 dB

INDIVIDUAL FIXED ATTENUATORS

COLOR	ST PART#	SMA PART#	FDDI PART#
SILVER	410724	410734	410744
GOLD	410730	410740	410750
GREEN	410728	410738	410748
BLUE	410726	410736	410746
RED	410732	410742	410752

ADAPTERS

MALE TO MALE ADAPTERS



NCI's **Male to Male** adapters are 2 connectors bonded to each other and sharing a common fiber.

TYPE	CORE/CLAD	PART #	REF #
ST to ST	62.5/125	403264	F1-8704-ST
ST to SMA	62.5/125	403265	F1-8704-SMA
ST to FC	9/125	403266	F1-8704-FC

FEMALE TO FEMALE ADPATERS

ST-FC



ST-Escon



SC-FC



ST - SC	TYPE	PART #	REF #
AMP	ST TO SC	315051	502780-1
METHODE	ST TO SC	338117	308-192-02

ST - FC	TYPE	PART #	REF #
AMP	ST TO FC	315053	502782-1
METHODE	ST TO FC	338119	408-292-02

ST - SMA	TYPE	PART #	REF #
NCI	ST-SMA	540126	F1-4732

ST - FDDI	TYPE	PART #	REF #
MOLEX	ST-FDDI	336405	86133A0300

ST - ESCON	TYPE	PART #	REF #
MOLEX	ST TO ESCON	403246	86143-0300

SC - FC	TYPE	PART #	REF #
AMP	SC TO FC	315055	502781-1
METHODE	SC TO FC	338121	308-342-02

MALE TO FEMALE ADPATERS

St-M SC



CI's **Male to Female** adapters let you onnect one type of fiber optic connecto another of a different gender.

St-Male to FC-Fem



TYPE	CORE/CLAD	PART #	REF #
ST-MALE TO ST-FEMALE	62.5/125	403285	F1-8705-ST
ST-MALE TO SC-FEMALE	62.5/125	403287	F1-8705-SC
ST-MALE TO FC-FEMALE	62.5/125	403289	F1-8706-ST
FC-MALE TO ST-FEMALE	62.5/125	403291	F1-8705-FC
SMA-MALE TO ST-FEMALE	62.5/125	403293	F1-8705-SMA

BARE FIBER ADAPTERS



Great for power meter hook-up and temporary system repair. Strip and cleave 125µm fiber and insert into adapter. It's that easy. Use piano wire (see consumable section) to remove broken fibers. Can be re-used over and over.

TYPE	PART #	REF #
ST BARE FIBER ADAPTER	403295	F1-8194
FC BARE FIBER ADAPTER	403297	F1-8294
SMA 905 BARE FIBER ADAPTER	403299	F1-8394

CUSTOM HYBRID ADAPTERS

We custom make male hybrid adapters to your specifications. You'll need the appropriate mating sleeve to join your fiber optic cable. Please look on pages **59, 60, 61** to select the connectors needed for your hybrid.

TYPE	PART #	
CUSTOM HYBRID ADAPTER	410722-***	OF 2 CONNECTORS

***= LENGTH IN FEET

COUPLERS / SPLITTERS

NETWORK COUPLERS



Available in Singlemode or Multimode. Also available with Singlemode 1300/1500 **W**ave **D**ivision **M**ultiplexer. Specify core/clad size, connector style and type, and split ratio.

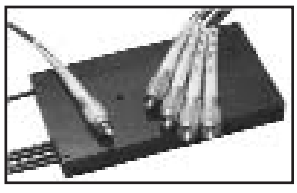
DESCRIPTION	PART #	REF #
1 x 2 - ST OR FC	403267	F1-93205-S2
1 x 4 - ST or FC	403269	F1-93205-S4
1x2 with SM 1300/1500 WDM	403271	F1-93205-S6

GOULD 2x2 COUPLER / SPLITTER



Available in Singlemode or Multimode. 50/50 splitting ratio with a typical loss of <0.5 dB on Singlemode and <0.4dB on Multimode. Singlemode ar 1300nm and Multimode at 850-1300nm.

DESCRIPTION	PART #	REF #
2x2 SINGLEMODE 9/125	403268	22303315022201
2x2 Multimode 62.5/125	403270	15312005022101



NCI COUPLERS

Available in Singlemode or Multimode. 50/50 splitting ratio w/ insertion loss of <0.5 dB. Operating temperatures are -40˚ to +80˚C. NCI will install furcation tubes and connectors on coated fibers.

DESCRIPTION	PART #	REF #
1 x 2 SINGLEMODE	329151	F1-93205-I
1 x 2 MULTIMODE	329153	F1-93205-IM
2 x 2 SINGLEMODE	329161	F1-93205
2 x 2 MULTIMODE	329163	F1-93205-M
1 x 4 SINGLEMODE	329171	F1-93205-4
1 x 4 MULTIMODE	329173	F1-93205-4M

WDM - WAVE DIVISION MULTIPLEXER



1300nm and 1500nm light goes into singular singlemode fibers and comes out with a combined signal output in one fiber and you can reverse this process. Specify connector type.

TYPE	CORE/CLAD	PART #	REF #
ST to ST	62.5/125	403272	F1-8704-ST
ST to SMA	62.5/125	403274	F1-8704-SMA
ST to FC	9/125	403276	F1-8704-FC

ALL SPECIFICATIONS MAY VARY AND ARE SUBJECT TO CHANGE.

Fusion Splicer

What is a fusion splicing? Attaching 2 fibers, forming an interface between them and then removing the common surfaces, thereby removing the interface, so that no reflection or refraction occurs. Great for systems maintenance or emergency restorations.

Features: 50X microscope, rechargeable battery good for 80 splices (AC arc), piezo drive controls Z-axis movement.
Dimensions: 4"x6"x1.75". **Weight:** < 2 lbs.



Description	Part #	Ref #
Fusion Splicer	408609	MRINI

Protection Sleeve Oven



Works with NCI protection sleeves up to 2.5 inches long. Shrinks in only one minute Comes with a 12volt DC adapter. Optional battery pack will work 100 times on one charge.
Dimensions: 2"x4"x2.7" **Weight:** 1.5 lbs.

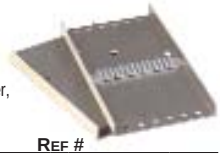
Description	Part #	Ref #
Protection Sleeve Oven	540945	F1-1722
Battery Pack	540947	F1-1722

Fusion Splice Protection Sleeves

Protection sleeves protect a fusion splice. NCI's sleeves replace Raychem and Sumimoto sleeves saving you lots of money. Inner Tube-EVA; Outer Tube-Polyolefin; Operating Temp-105˚C; Final Shrink Dimension-.0625"; Rod Diameter-.0625"; Length 2.3"

Description	Part #	Ref #
Protection Sleeve	540941	F1-1002
Ribbon Protection Sleeve	540943	F1-1012QP
Splice Protection Housing	540939	F1-1002M

NCI Splice Trays w/Splice Holders



Comes with a press-on "L" bracket for looping to either entry side or exit side. **Features:** Plastic coated aluminum body, foam padded cover, radius sides and punched end holes.

Type	Capacity	Holder	Part #	Ref #
Fusion	12	Soft	410794	F1-6707F
Mechanical	12	Soft	410796	F1-6707M
Bare Fiber	12	Rigid	540936	F1-6707B
Heat Shrink	6	Rigid	540937	F1-6707H

Splice Holders



Type	Capacity	Holder	Part #	Ref #
Fusion	12	Soft	540948	F1-6707FC
Mechanical	12	Soft	540949	F1-6707MC
Bare Fiber Fusion	12	Rigid	540950	USC-FN12
Heat Shrink	6	Rigid	540951	USC-HS6
Universal	12	Soft	540952	USC-1200

Splice Closures, Patch Panels and Interconnects are in our Fiber Optic Hardware section on pages 79, 80

Universal Splice Trays



Works with single fusion, mass fusion, ribbon or mechanical splices. Also works with Fibrlok splices. Uses a single strap to fit into the following closures: *3M 2178; AT&T LG/SCI 2600; Siecor SC Series; Keptel LG-600; Preformed Reddiseal.*
Features: Clear plastic cover, interchangeable inserts, inline or butt splicing capable, and a low profile tray.

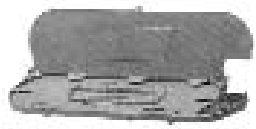
Version	Capacity	Part #	Ref #
Universal Splice Tray	24	410804	LL-8400
Tray Strap		410806	91724-00

Fusion Splice Trays

Available in either Bare FIber or Protection Sleeve versions.
Comes with a clear plastic cover. Holds up to 12 bare fiber fusion splices or 12 NCI protection sleeves. **Dimensions:** 12" x 4" ; fits most interconnect boxes.

Version	Capacity	Part #	Ref #
Tray for Bare Fiber	12	410794	F1-8729B
Tray for Protection Sleeves	12	410795	F1-8729

3M Fibrlok Splice Tray



Holds up to 24 Fibrlok splices and receives up to 8 buffer tubes (holding up to 48 fibers). Buffer tubes are secured with channel snaps eliminating cable ties. Trays are stackable by snapping together. **Dimensions:** 15.5" x 4.25"

Version	Capacity	Part #	Ref #
3M Fibrlok Splice Tray	24	410802	2524

Ultra Splice



This reusable and tuneable splice works on any size buffer from 250µm to 1mm. To install simply cleave and insert the fibers, check fiber location in glass capillary and twist locking nut to finish. Avg. Ins. loss <0.2dB.

Description	Part #	Ref #
Singlemode	410956	33G8228
Multimode	410958	33G8227
Multimode 100/400µm	410960	

3M Fibrlok II



Splices buffer size from 250 to 900µm. Splicin seconds after preparing fiber ends. 2501 tool n assembly. Works on both singlemode and mult Average Insertion Loss <0.1dB.

Description	Part #	Ref #
Fibrlok Splice	950956	2529
Fibrlok Assembly Tool	950957	2501

Amp Corelink



This reusable and tuneable splice works on 250 to 900µm buffer. Transparent housing allows fiber alignment to be seen. Comes with 2 splice keys and 12 splices. Average Insertion Loss < 0.1dB.

Description	Part #	Ref #
Amp Corelink Splice	540953	Corelink12

Siecor CamSplice



Splices any size buffer from 250 - 900µm. Features "cam" locking and self centering fiber alignment. Works on both singlemode and multimode fiber. Avg. Insertion Loss<0.2dB. Blind (non-tuned) Insertion Loss <0.5dB typical.

Description	Part #	Ref #	
Cam Splice (sold individually)	950954	95-000-04	ea.
Assembly Fixture	950955	2104040-01	

Siecor Lab Splice

Description	Part #	Ref #
Siecor Lab Splice - 120-145um, Single or Multimode	409007	WO1140

This reusable elastomeric splice accepts 125µm to 145µm cladding diameters. Works on both singlemode and multimode fiber.



All Specifications May Vary and Are Subject To Change.

TOOL KITS

TERMINATION KIT

NCI provides you with the selection of tools and consumables you'll need to quickly & efficiently **terminate about 100 connectors.** When you use up your consumables, just order more and you are ready to go (hardware & tools need not be reordered). Items may be ordered individually or as a consumables kit (see our consumables section). Kits come standard with a flashlight and a Clauss stripper unless otherwise specified (see below). Sturdy case holds and protects contents. **Ovens not Included**. Add – for oven version.



Included in Termination Kits: (FOR A LIST OF INSTRUCTIONS, ASK YOUR SALESPERSON) ST Continuity Tester ***or*** Flashlight ***(Choose One)***, Miller Stripper ***or*** Claus Stripper ***(Choose One)***, Workmat, **Polish Disc (*spec ify connector type*)**, PC Polish Pad, **Glass Polish Plate**, Universal Crimp Tool, **100x microscope with Adapter**, 5 packs of 2-part Epoxy, **Epoxy Mixer**, Epoxy Applicator, **5 Syringes**, 9"x13" Polish Film (5pcs 5µm, 5pcs 1µm, 10pcs 0.3µm), **No-Nik Strippers w/Red Handle**, Jacket Stripper, **Buffer Tube Stripper**, Pliers, **4-bit Screwdriver**, Diamond Scribe, **Utility Razor**, Scissors, **Tweezers**, Piano Wire, **Canned Air**, Cotton Swabs, **Alcohol**, **Kim Wipes**, Matching Gel, **Tape Measure**, Black Electrical Tape, **Storage Box**, Cable Markers, **Cable Ties**, Red, Black and Green Shrink Tubing and **Fusion Splice Sleeves**.

KIT TYPE	PART #	REF #
ST*	410310	F1-0053-ST
SC	410311	F1-0053-SC
FC	410314	F1-0053-FC
SMA	410312	F1-0053-SMA
FDDI	410318	F1-0053-FDDI

SPLICE KIT

NCI provides you with the selection of tools and consumables you'll need to quickly restore breaks in your fiber optic cabling system. Kits come standard with flashlight and a Clauss stripper unless otherwise specified (see below).
Sturdy case holds and protects contents.

Included in NCI Splice Kit: Siecor pocket cleaver. A Fitel cleaver may be substituted for an additional – . **Please specify your choice.**

Included in U.V. Splice Kit: Power U.V. Lamp, U.V. Adhesive, Goggles and Batteries.

Included in Fibrlok Splice Kit: Fibrlok Assembly Tool.

Included in All Kits:
ST Continuity Tester ***or*** Flashlight ***(Choose One)***, Miller Stripper ***or*** Claus Stripper ***(Choose One)***, **No-Nik Strippers w/Red Handle**, Jacket Stripper, **Buffer Tube Stripper**, 4-bit Screwdriver, **Pliers**, Diamond Scribe, **Utility Razor**, Scissors, **Tweezers**, Piano Wire, **Canned Air**, Cotton Swabs, **Alcohol**, Kim Wipes, **Matching Gel**, Tape Measure, **Black Electrical Tape**, Storage Box, **Cable Markers**, Cable Ties, **Red, Black and Green Shrink Tubing** and Fusion Splice Sleeves.

DESCRIPTION	PART #	REF #
SPLICE KIT - *FUSION, CORELINK, ULTRA SPLICE, FINGER SPLICE & LAB SPLICE KIT*	410301	F1-0053-FF
U.V. CURING SPLICE KIT	410304	F1-0053-UV
FIBRLOK SPLICE KIT	410306	F1-0053-F I

BASIC TOOL KIT

NCI provides you with the selection of tools and consumables you'll need to manage your fiber optic cabling system. Sturdy case holds and protects contents. Extra space in this kit allows this basic tool kit to be used as a termination or splice kit by purchasing additional items. Kit comes standard with flashlight and a Clauss stripper unless otherwise specified (see below).

Included in Kit:
ST Continuity Tester ***or*** Flashlight ***(Choose One)***, Miller Stripper ***or*** Claus Stripper ***(Choose One)***, **No-Nik Strippers w/Red Handle**, Jacket Stripper, **Buffer Tube Stripper**, 4-bit Screwdriver, **Pliers**, Diamond Scribe, **Utility Razor**, Scissors, **Tweezers**, Piano Wire, **Canned Air**, Cotton Swabs, **Alcohol**, Kim Wipes, **Matching Gel**, Tape Measure, **Black Electrical Tape**, Storage Box, **Cable Markers**, Cable Ties, **Red, Black and Green Shrink Tubing** and Fusion Splice Sleeves.

DESCRIPTION	PART #	REF #
BASIC TOOL KIT	410300	F1-0053

MORE KITS

CONSUMABLES REPLACEMENT KITS



All the replacement supplies needed for your Basic, Splice, or Termination kits.

All Consumables kits include: 1 can air, 4oz. alcohol, 100 swabs, 1 box Kim wipes.
Termination kit also includes: 5 packs of 2-part epoxy, 5 syringes, 9" x 6.5" polishing film (25 pcs each- 5µm, 1µm & 0.3µm).

TYPE	PART #
BASIC OR SPLICE	410324

NCI EDUCATIONAL KIT

NCI provides you with the selection of tools and consumables you'll need to recreate an operational fiber optic system in your training room or classroom. For more information check out our training section on page 84 or call our sales department.

DESCRIPTION	PART #
EDUCATIONAL KIT	403286
KIT WITHOUT POWER METER & LIGHT SOURCE	403288
LAB MANUAL 2ND ED.	403290
Consumable Replacement Kit	403292

UNIVERSAL BREAKOUT KIT



The instructions and supplies you'll need to terminate loose tube fibers. Number of terminations depends on fiber count and length.

Incl. in Kit: 25 meters (82 ft.) of 1.2mm & 3mm furcation tubing, 13mm & 26mm diameter black shrink tubing, 2 packs gel remover and 2 packs of 2gram Hysol epoxy.

DESCRIPTION	PART #	REF #
UNIVERSAL BREAKOUT KIT	403278	F1-5527

UV KIT

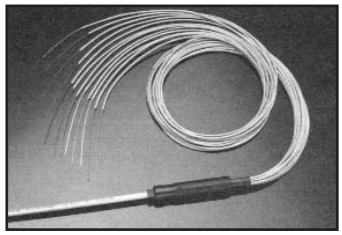
NCI supplies you with the equipment you'll need to cure your epoxy applications. Our U.V. lamp is battery operated so it goes where you go with no need for an outlet.

Included in Kit: 1 U.V. Lamp with high intensity bulb, 1 oz. bottle U.V. Epoxy, goggles and batteries.

DESCRIPTION	PART #	REF #
U.V. KIT	403280	WO1067
REPLACEMENT BULB	403282	WO1063
SAFETY GLASSES	403284	WO1067G

SIECOR FAN-OUT KITS

SIECOR SPIDER FAN-OUT KIT (ENHANCED)



Designed for both factory & field termination of loose tube (250µm) cable of up to 24 fibers, this Spider Fan-Out Kit provides a low-cost option for multi-fiber terminations. No special tools or heat shrinks required. **Incl. in Kit:** 900µm Fan-Out Assembly and Furcation Unit.

DESCRIPTION	PART #	REF #
6 FIBER 250µm MULTIMODE	312529	SFK-P-06-250-M
12 FIBER 250µm MULTIMODE	312531	SFK-P-12-250-M
24 FIBER 250µm MULTIMODE	312533	SFK-P-24-250-M

SIECOR BUFFER TUBE FAN-OUT KIT

Designed specifically for the indoor termination of 6 or 12 fiber buffer tubes. Requires no more hardware or space than needed for terminating tight buffer cable. Excellent for field installations of connectors.

Incl. in Kit: 900µm Fan-Out Assembly and Furcation Unit.

FIBERS	TUBE LENGTH	TUBE SIZE	PART #	REF #
6	25IN.	2.4mm	312535	FAN-BT25-06
6	36IN.	3 mm	312537	FAN-BT36-06
12	25IN.	2.4mm	312539	FAN-BT25-12
12	36IN.	3mm	312541	FAN-BT36-12

BARE FIBER KITS

MESON BARE FIBER KIT



Designed to hold fiber diameters of 125µm. Great for use on temporary coupled connector applications and power meter & light source connections. Easy to use: simply cleave and insert bare fiber.

Incl. in Kit: ST, SC, FC, SMA & Biconic Connectors, Holding Clamp, Fiber Removal Wire and Case.

DESCRIPTION	PART #	REF #
MESON BARE FIBER KIT	540701	JU828-125

NCI BARE FIBER KIT



Adapters are assembled with snap-on clip. Easy use: strip, cleave and insert. That's it. Works with both singlemode and multimode.

Incl. in Kit: ST, SC, FC & SMA Connectors, Optic Prep Wipes, Fiber Removal Wire and Carrying Case.

DESCRIPTION	PART #	REF #
NCI BARE FIBER KIT	403294	F1-23458

FIBER OPTIC CRIMP TOOLS

These low-cost, fully rachetable crimp tools are available in various hex sizes to accomodate your specific connector types. Look at descriptions to find correct tools for your application.



MAKE	STYLE	PART #
AMP	ST, SC, FC, D4 SMA, MINIBNC	410424
AMP	FDDI	315002
AUGAT	SMA	410426
LCS/AMP	ST, FC	315004
LCS/AMP	SMA	410426
METHODE	ALL TYPES	410426
MOLEX	ST (860102000)	410426
MOLEX	SC, FC, SC DUPLEX	410521
MOLEX	FC DIE FOR SC TOOL	410525
MOLEX	FDDI,	410527
MOLEX	ESCON	336402
NCI	ST	540122
SIECOR	ST, SC, FC	312544
SIECOR	FDDI	312513
3M℠	ST, ST HOT MELT, FC(8206)	410426
3M	ST PUSH-PULL, SC, FC(8203)	310671
AMP REPLACEMENT DIE		**314952**
REPLACEMENT DIE		**410428**

STRIPPERS

NO NIK FIBER STRIPPERS



Most widely used strippers. They come in various color coded handles for different size stripping needs.

MUSTARD - FOR LOOSE TUBE 250µm COATING
BLUE, **WHITE**, DARK GREEN - LOOSE TUBE
RED - 250µm OR 500µm COATING & 900µm BUFFER TUBE

TYPE	COLOR	PART#	REF#
175µm	MUSTARD	539101	NN175
200µm	RED	410432	NN203
250µm	BLUE	410434	NN254
300µm	WHITE	410436	NN305
350µm	DARK GREEN	410438	NN014

MILLER STRIPPER



Strips 250µm coated loose tube fiber and removes 900µm buffer tube when stripping coatings. Spring action handle and .006" laser drilled hole ensures quick super smooth stripping.

DESCRIPTION	PART#	REF#
MILLER STRIPPER	410444	WO-1224

CLAUSS STRIPPER



This stripper has 2 holes. The first hole strips 250µm or 500µm coating ***and*** 900µm buffer tube. The second hole strips up to a 3mm jacket.

DESCRIPTION	PART#	REF#
CLAUSS STRIPPER	539301	WO-1225

JACKET STRIPPER



Strip and cut jackets from simplex fiber cable. Removal of jacket kevlar member is easy with a Dual V notch blade and spring.

DESCRIPTION	PART#	REF#
JACKET STRIPPER	410454	F1-0016

SUMITOMO STRIPPER



Sumitomo offers 2 top quality strippers.
The JR-2 strips 250µm coating.
The JR-11 strips the coating from 250µm ***and*** 900µm buffer.

STRIPPER TYPE	PART#	REF#
250µM	539401	JR-2
250µM & 900µm	539403	JR-11

BUFFER TUBE STRIPPER



The grey stripper is great for stripping jacket from simplex fiber both vertically and horizontally without nicking. 3 blades adjust to most fibers up to 1/8" diameter.
The blue buffer tube stripper works on coaxial cable from 1/8" to 7/32".

DESCRIPTION	PART#	REF#
GREY BUFFER TUBE STRIPPER℠	410456	F1-0017
BLUE BUFFER TUBE STRIPPER	539103	F1-0018
3 REPLACEMENT BLADES	410458	F1-0021

STRIPPERS, SLITTERS & CUTTERS

AUGAT STRIP TOOL KIT



Removes buffer and jacket without nicking. Blades and tube guides are interchangeable and replaceable.
Included in Starter Kit: 5 Blades, 2 Blade Holders, 1 Blade Holder Cleaner and 7 Tube Guides.

DESCRIPTION	PART#	REF#
STARTER KIT	410446	698-STK-100
BLADES - VIOLET (STRIPS TO 125um)	410448	698-RMS-4A-06
BLADES - WHITE (STRIPS TO 250um)	410450	698-RMS-4A-12
BLADES - BLUE (STRIPS TO 500um)	410452	698-RMS-4A-21
BLADE HOLDER	539501	698-TMS-1G01
REPL. TUBE GUIDES (254-554µm)	539503	698-RMS-5A-10
REPL. TUBE GUIDES (254-343µm)	539505	698-RMS-5A-13
REPL. TUBE GUIDES (457-573µm)	539507	698-RMS-5A-21

CERAMIC KEVLAR FIBER CUTTER



Lightweight, non-conductive and ergonomically designed. Superhard ceramic blades last up to 50 times longer than stainless blades.

DESCRIPTION	PART#	REF#
CERAMIC CUTTER	410472	PA-1510A

ROUND CABLE JACKET SLITTER

This tool is used to strip jacket off of a multifiber cable with max O.D. of 1.5" and max jacket thickness of .187".

DESCRIPTION	PART#	REF#
CABLE SLITTER	410460	PA-1820
DELUXE STRIPPER	410461	---
2 REPL. BLADES	410462	PA-2109

KEVLAR CUTTER



This serrated blade, made from high carbon steel, cuts kevlar clean and quickly and comes with a spring actioned handle. Low-cost scissors are available as well..

DESCRIPTION	PART#	REF#
KEVLAR CUTTER	410470	F1-6430
METAL SCISSORS	410471	F1-0020

SCRIBES

DIAMOND HAND SCRIBES



The retractable 60° cone point is shaped out of diamond and banded to a stainless steel shaft in a deluxe metal or economy plastic holder.

DESCRIPTION	PART#	REF#
DELUXE METAL SCRIBE	410464	WO-1223
ECONOMY PLASTIC SCRIBE	410466	FO-90-C

WEDGE DIAMOND SCRIBE



The 90° wedge scribe provides a wider surface to achieve scribe. Available in a rugged plastic holder.

DESCRIPTION	PART#	REF#
90° WEDGE SCRIBE	410468	FO-90-W

SAPPHIRE SCRIBES



The 90° sapphire scribe provides a wider surface to achieve scribe. Available in a deluxe metal holder.

DESCRIPTION	PART#	REF#
90° SAPPHIRE SCRIBE	539105	FO-90-S

SIECOR CARBIDE SCRIBES



Siecor's carbide scribe provides a wide surface to achieve scribe. Available in a deluxe metal holder.

DESCRIPTION	PART#	REF#
SIECOR CARBIDE SCRIBE	322543	FO-90-B

Fiber Optics

Cleavers

Seicor Pocket Cleaver



A diamond edge cleaver made of high impact plastic. Provides precise endface quality with typical cleave angles of 1-2° and cleave lengths of 0.125" to 0.75". Works on singlemode and multimode fiber.
Dimensions: 3.5" x 0.45" diameter.

Description	Part#	Ref#
GTE Pocket Cleaver	410474	WO-2220

York Cleaver



York's **FK11-4** cleaver is the top of the line. Accepts titanium impregnated and polarization maintaining fiber. Cleave angles of ±0.16° or better than 0.5°. Cleave fiber diameters of 80-200µm. Powered on one 9V battery and performs over 10,000 cleaves. Blade performs over 20,000 cleaves before replacement is needed. The **FK12** is an angled cleaver that adjusts from 0 to 15° with 1° repeatability at 8°.

Description	Part#	Ref#
York Cleaver	539601	FK11-4
York Angled Cleaver	539603	FK12

York Field Cleaver



York's **MR-1** field cleaver performs over 10,000 cleaves before diamond blade needs replacement. Cleave angles of <0.1°. Works on both singlemode and multimode fiber with nominal diameters at 125µm.

Description	Part#	Ref#
York Field Cleaver	539605	MR-1
Repl. Blade	539607	

C all

Fitel Cleaver



The ceramic blade performs over 6000 cleaves with 90° at <1° for fusion splices and 99% at <2° for mechanical splices. Works on singlemode and multimode fibers. Comes with carrying case.

Description	Part#	Ref#
Fitel Cleaver	410476	F1-0010
Repl. Blade	410475	CL008

T & B Cleaver



Excellent for laboratory or stringent loss budgets. The tool can precisely scale a cleave length 3 to 20mm. Works on singlemode and multimode fibers.
Incl. with tool: Bench Mounting Clamp, Hand Carrying Strap, and Rugged Case.

Description	Part#	Ref#
Cleave Tool	410478	92208
Breaking Clamp Replacement	410479	---

Alcoa Fujikura Cleaver



Cleaves more than 8000 times before circular blade needs replacement. Cleaver accepts 250-900µm fiber and performs precise splices at <0.5dB. Cleave length is adjustable. Works on Singlemode and Multimode fibers

Description	Part#	Ref#
Alcoa Fujikura Cleaver	539701	CT07
Replacement Blade	539703	S006244

Curing Ovens

Heat Oven



Cures up to **24 FC, ST, D4, SMA,** or up to **20 Biconic connectors** (Biconic holding block sold sep.). Even heat distribution minimizes connector loss. Uses standard outlet and has a detachable cord.

Description	Part #	Ref #
24 Connector Heat Oven	409042	9551
Biconic Holding Block	409044	9060
Curing Stand	409050	9451S
FDDI (10) Holding Block	409043	9090

Mini Ovens



NCI has 2 models available. The first cures up to **6 ST or SMA connectors.** The second model cures **1 FDDI and up to 4 ST or SMA connectors.**.

Description	Part #	Ref #
ST/SMA Mini Oven -Cures 6	409046	80865-000
Multicure Mini Oven- 1-FDDI & 4-ST/SMA	409048	80871-000

SCOPES & GAUGES

NCI INSPECTION MICROSCOPE



Perfect for bare fiber, cleave or multimode connector inspection. The 100x scope has a built-in, battery-powered illuminator. Batteries not included and are not needed for some applications.
Incl. in Kit: 100x Scope, ST, SC, FC and SMA Adapters and Hardwood Stand.

DESCRIPTION	PART#	REF#
NCI INSPECTION SCOPE KIT	410482	F1-0111-E
SCOPE (NO ADAPTERS)	410484	F1-0111
ST ADAPTER	410488	F1-0111-B
SC ADAPTER	410492	F1-0111-F
FC ADAPTER	410492	F1-0111-D
SMA ADAPTER	410486	F1-0111-A
BICONIC ADAPTER	410490	F1-0111-C
HARDWOOD STAND	410494	F1-0111-S

BUEHLER FIBRSKOPE



This **portable** scope provides high optical resolution quality that allows you to view surface imperfections on connector endfaces. Works great on both singlemode and multimode connector inspection. Available in 400x or 200x magnification.
Incl. with Scopes: FC, SMA and Biconic adapters, accessories. and case **(ST and SC adpaters sold sep.).**

DESCRIPTION	PART#	REF#
BUEHLER 400X	410498	0801-0502
BUEHLER 200X	410496	0801-0500
ST ADAPTER	410500	0810-0223
SC ADAPTER	539801	0810-0248
REPLACEMENT BULB	539803	0818-0110

AMP INSPECTION SCOPE



100x scope works on both singlemode and multimode connectors. 20x eye piece adapter converts scope to 200x. Scope comes with ST adapter. Everything else sold separately.

DESCRIPTION	PART#	REF#
100X SCOPE W/ ST ADAPTER	315048	502978-1
20X ADAPTER CONVERTS TO 200X	315050	502969-2
ST ADAPTER	315052	502973-1
FC ADAPTER	315054	502974-1
D4 ADAPTER	315056	502975-1
SC ADAPTER	315057	502976-1
SCOPE TRIPOD	315058	502965-1
AC/DC PLUG ADAPTER	315059	502967-1
REPLACEMENT BULB	315060	502964-1

BICONIC GAUGE



Needed to measure tip length during polishing procedure of a biconic connector. The gauge comes complete with a calibration reference plug to assure accurate readings. NCI can calibrate your gauge for you (see below).

DESCRIPTION	PART#	REF#
BICONIC GAUGE	410512	F1-3689
CALIBRATION CHARGE	410513	

HEAT GUNS

HEAT GUN



Great for heat shrinking protection sleeves or shrink tubing. This heat gun has a variable heat control setting to allow user to adjust heat to desired level.

DESCRIPTION	PART #
STANDARD	537901
HEAVY DUTY (PRINCESS)	537903

MINI TORCH



A low-cost alternative to our higher priced heat gun. This hand-help micro torch is great for heat shrink applications. Refill with common butane lighter fluid.

DESCRIPTION	PART #	REF #
MINI TORCH	539109	F1-0811

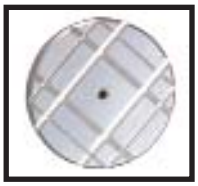
Polishing is a precise process involving the movement of the fiber end over a rough surface. NCI provides polish discs, polish film and polishing machines of the highest quality

POLISH DISCS



ST - Prepares all types including PC style and AT&T STII. *Available in low-cost plastic version good for 100 polishes.*

DESCRIPTION	PART#	REF#
ST DISC	409020	F1-6925
ST PLASTIC DISC	539111	503304-1



SC & ST PUSH-PULL - Prepares SC and ST Push-Pull connectors.

DESCRIPTION	PART#	REF#
SC & ST PUSH-PULL DISC	539113	F1-6928



FC/PC - Available in standard flat style or AMP's curved style. If polishing pre-radius PC connector it is recommended that you use Blue Dye Epoxy (# 410332) at ferrule end.

DESCRIPTION	PART#	REF#
AMP FC/PC CURVED DISC	409014	501861-1
FC/PC FLAT DISC	409016	F1-8705

BICONIC - Works on Singlemode and Multimode connectors. NCI recommends using a Biconic Gauge for accurate polish length.

DESCRIPTION	PART#	REF#
BICONIC DISC	409026	F1-6927
BICONIC GUAGE	410512	F1-3689



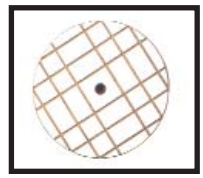
4 POSITION ST - Polish 4 ST type connectors at once, saving time and money. Comes with instructions.

DESCRIPTION	PART#	REF#
4 POSITION ST DISC	539115	F1-6977ST



FDDI - Polishes AMP and Methode FDDI connectors. Works on both ferrules at once. For ease of use, we recommend that you order 2 assembly fixture kits with each disc.

DESCRIPTION	PART#	REF#
AMP FDDI DISC	409022	501791-1
AMP ASSEMBLY FIXTURE KIT	409024	502023-1



SMA - Prepares SMA 905 &906 connectors. Polishes to precise length, so you don't need a length measurement gauge

DESCRIPTION	PART#	REF#
SMA 905 & 906 DISC	409018	F1-2280

D4 & MINI BNC - D4 disc accepts a 2mm ferrule. The AMP 501505-3 D4 connector requires the AMP D4 polish dIsc. The mini-BNC polish disc polishes the min-BNC connector.

DESCRIPTION	PART#	REF#
NCI D4 DISC	409030	F1-6926
AMP D4 DISC	409032	501867-1
MINI BNC DISC	409034	CAT-006

POLISHING MACHINES



BUEHLER FIBRMET POLISH MACHINE

Capable of flat or angled (APC) polishing in < 2 minutes (avg). Discs designed for repeatable results with no special skill needed. Works with commercially available connectors and bare optical fibers.

Incl. with Polisher: 2 Aluminum Polishing Wheels, 20-3µm & 10-.3µm Polishing Discs, Storage Area for Discs, Water Bottle, self-contained carrying case with strap + more.

Size: 12"W x 9.5"H x 13"D. **Weight:** 30lbs (14kg).

(ADAPTERS SOLD SEP.)

DESCRIPTION	PART#	REF#
FIBRMET POLISH MACHINE	539805	69-3000-160
ST ADAPTER	539807	69-3086
FC ADAPTER	539809	69-3062
BUEHLER 3µm DISCS - 50 PACK	539811	F1-0110-3
BUEHLER .3µm DISCS - 50 PACK	539813	F1-0110-03

CALL FOR ANGLED (APC) ADAPTER PRICING & AVAILABLILITY

3M POLISH MACHINE



3M's portable one-step polish machine uses dry, single paper technology. Since no water is needed, there is no clean-up. Comes standard with ST adapter. When polishing Hot Melt connectors the 2µm polish film is recommended. 12V DC unit comes with 110V AC adapter.

DESCRIPTION	PART#	REF#
3M POLISH MACHINE	409038	6850-A
POLISH FILM - 2µm 4" DIA.-50 PACK	409040	6192B
SC HOLDER ADPATER	314648	6392
FC HOLDER ADPATER	314650	6292

POLISHING (LAPPING) FILM

POLISHING FILM

These films come in Aluminum Oxide **(AO)** or Silicon Carbide **(SC)** versions. They vary in abrasiveness from 15µm to 0.3µm for final polish. We recommend using the polish extender to maximize and enhance polishing.



Color coded as follows: WHITE- 0.3µm, GREEN- 1µm, BLUE- 2µm, PINK- 3µm, Lt.Gray- 5µm, LT.BLUE- 9µm, DK.GRAY- 8µm.

Polishing film sheets come in 9x6.5" or 9x13" sizes and come in 25piece packs.
Machine polishing film comes in 4" or 5" discs and in 50 piece packs.

9x6.5" SHEETS	PART#	25PCS
AO - 0.3µm	410392	
AO - 1µm	410394	
AO - 2µm	539117	
AO - 3µm	410396	
SC - 5µm	410398	
AO - 9µm	539119	
AO - 15µm	410402	

9x13" SHEETS	PART#	25PCS
AO - 0.3µm	410404	
AO - 1µm	410406	
AO - 2µm	539121	
AO - 3µm	410408	
SC - 5µm	410410	
AO - 9µm	539123	
AO - 15µm	410414	

POLISH MACHINE FILM	PART#	50PCS
B UEHLER **AO** - 4" DISC - 3µm	410416	
B UEHLER **AO** - 4" DISC - 0.3µm	410418	
3M **AO** - 4" DISC - 2µm	410420	
3M **AO** - 5" DISC - 2µm	539125	
AO - 4" DISC - 0.05µm	539127	
AO - 4" DISC - 30µm	539129	

DESCRIPTION	PART#	REF#
POLISH EXTENDER - 32 OZ.	539131	2031
APPLICATOR BOTTLE	539135	F1-7302

3 IN 1 TRI-COAT POLISHING FILM

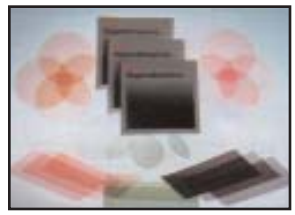


One sheet with 3 different grades of abrasive surface. 0.3µm, 1µm and 5µm strips spaced evenly on a 9"x13" sheet. One sheet allows you to polish a connector without having to switch.

DESCRIPTION	PART#
TRI-COATING POLISHING FILM - 25 PCS	539137

DIAMOND POLISHING FILM

Available in either 4" diamond disc or 3"x6" diamond sheet. Our 4" diamond disc polishing films are for use with the Seikoh Giken polishing machine or comparible model.



COLOR	SIZE	TYPE	PART#	
PINK	3µm	4" DIAMOND DISC	539141	EA.
BROWN	6µm	4" DIAMOND DISC	539143	EA.
GREEN	30µm	4" DIAMOND DISC	539145	EA.
VIOLET	1µm	3"x6" DIAMOND SHEET	539147	EA.
PINK	3µm	3"x6" DIAMOND SHEET	539149	EA.
GREEN	30µm	3"x6" DIAMOND SHEET	539151	EA.

ACCESSORIES

SOFT POLISH PAD & GLASS PLATE



In order to polish fiber connectors properly you must have a strong and flat surface. We offer 2 sizes of glass plates, 6"x9" and 9"x13". The Soft Polish pad is used over the glass plate when polishing PC style pre-readius connectors.

DESCRIPTION	PART#	REF#
6"x9" GLASS POLISH PLATE	539139	F1-9111A
9"x13" GLASS POLISH PLATE	409028	F1-9111
SOFT POLISH PLATE	409036	05-00053

CONNECTOR CLEANER

Special polyester film cleans dust, lint and grease from connector ends. Works in 2 strokes replacing the need for alcohol swabs and solvents. Saves time and money.

DESCRIPTION	PART#	REF#
CONNECTOR CLEANER	539153	F1-6270
REPLACEMENT FILM	539155	F1-6271

EPOXY

Epoxy



Each packet of epoxy has 2 parts inside. When a seperation pin is removed, epoxy is mixed within the packet. Each 2 gram packet supplies 25-35 connectors.
NOTE: The longer the cure times, the less stress on the fiber.

Type	Pot Life	Cure Time	Heat Cure Time	Heat Cure Temp	Part#	Ref#
Standard Epoxy	30min.	24hrs.	1 hr	65°C	539157	BAF110
5 Min Epoxy	5min.	2hrs.	N/A	N/A	539159	BAF120
Low Pot Life 15 Min Epoxy	60min.	N/A	15min.	110°C	539161	BAF230
High Pot Life 15 Min Epoxy	2hrs.	N/A	15min.	110°C	539163	BAF253
Blue Dye Epoxy	2hrs.	24hrs.	1 hr	65°C	539165	BAF113
Epoxy Mixer					539167	501202-1

HySol Epoxy

Comes in 2 tubes: 1 glue tube and 1 hardener tube. They must be mixed and then either time or heat cured. Quick-dry 4 gram packet is available with a cure time of 5-10 minutes.

Type	Pot Life	Cure Time	Heat Cure Time	Heat Cure Temp	Part#	Ref#
HySol Epoxy - 3.3 oz.	30min.	24hrs.	30min.	100°C	410338	F1-7070
Quick Dry 4 Gram Packet	3min.	5-10min.	N/A	N/A	410340	F1-7070PL

EPO-TEK® Epoxy



This heat sensitive epoxy comes in two containers. They are mixed at a 1 to 10 ratio. Once heat is applied the liquid epoxy hardens and turns an amber color.
Pot Life: 6 hrs.
Cure Time: 1 min.@150°C or 5 min.@100°C
NOTE: Heat must be applied to harden epoxy.

Description	Part#	Ref#
EPO-TEK Epoxy - 8 oz. Kit	410339	353ND

EPO-TEK is registered trademark of Epoxy Technology.

Self-Curing Epoxy

Cures in only a few minutes. Comes with 10 filled syringes and 2 primer vials.
NOTE: Applicator needles sold sep.

Description	Part#	Ref#
Self-Curing Epoxy with Primer	539179	F1-7171



Application Syringes and Needles

These are empty syringes with a 1.2mm needle. Great for use with epoxy.
We also have a larger needle for use with 3M connectors #8203, 8306, 6306 and 6102.

Description	Part#	Ref#
Empty Syringe with 1.2mm Needle	410380	501473-3
25 pack Syringes	410382	501473-3
Needle for 3M Connectors	539177	F1-4012

UV Kit

NCI supplies you with the equipment you'll need to cure your epoxy applications. Our U.V. lamp is battery operated so it goes where you go with no need for an outlet.
Included in Kit: 1 U.V. Lamp with high intensity bulb, 1 oz. bottle U.V. Epoxy, goggles and batteries.

Description	Part #	Ref #
U.V. Kit	539167	WO1067
Replacement Bulb	539169	WO1063
Safety Glasses	539171	WO1067G

Ultra-Violet Adhesive

This is the same adhesive that comes with the U.V. kit. Cure time relative to light intensity with peak sensitivity @ 365µm)Yields aprox. 55 splices.

Description	Part#	Ref#
1 oz. U.V. Adhesive	539173	WO1057

U.V. Adhesive Syringe

Pre-filled 3cc syringes.

Description	Part#	Ref#
3cc Syringe U.V. Adhesive	539175	FS453

CONSUMABLES

CONSUMABLES REPLACEMENT KITS

All the replacement supplies needed for your Basic, Splice, or Termination kits. **All Consumables kits include:** 1 can air, 4oz. alcohol, 100 swabs, 1 box Kim wipes.
Termination kit also includes: 5 packs of 2-part epoxy, 5 syringes, 9" x 6.5" polishing film (25 pcs each- 5µm, 1µm & 0.3µm).



TYPE	PART #	REF #
BASIC OR SPLICE	410324	F1-0053C
TERMINATION	410326	F1-0053D

MATCHING GEL

Reduces Fresnel reflections when applied to mechanical splices and connectors. A Gel-filled syringe is available.



DESCRIPTION	PART#	REF#
0.4 OZ.MATCHING GEL	410386	F1-0001
GEL-FILLED SYRINGE	410380	9006

CABLE GEL REMOVER

Water-based solvent for cleaning loose tube cable filling gel. Great for greasy cleanup jobs.

DESCRIPTION	PART#	REF#
12 PACK WIPES	410364	F1-1011
32 OZ. SPRAY BOTTLE	410366	F1-1091S
1 GALLON CONTAINER	410368	F1-1091G
3 GALLON CONTAINER	410370	F1-1091
POLYWATER - 1 GALLON	539181	F1-1091GP
POLYWATER - 3 GALLON	539183	F1-1091P

PULLING LUBRICANT

Designed to reduce friction when pulling fiber thru jacket. Works with all types of fiber jackets.

DESCRIPTION	PART#	REF#
1 GALLON	410372	F-320
1 QUART SQUEEZE BOTTLE	410374	F-35

PIANO WIRE

Perfect for removing broken fibers from inside ferrule or bare fiber adapters. Simply attach wire to supplied holder and insert to remove broken fiber. Comes in 2" long 125µm pieces.



DESCRIPTION	PART#	REF#
PIANO WIRE - 8 PCS.	410384	F1-8265

ISOPROPYL ALCOHOL

Used for cleaning connector ends.
NOTE: All alcohol must be ground shipped. Not for consumption.



DESCRIPTION	PART#	REF#
4 OZ. PLASTIC DISPENSER	410344	F1-0007
12-PAK	410346	F1-0007
GALLON CONTAINER	410348	F1-0007-G
4 OZ. CANNED	410349	F1-0068
8 OZ. EMPTY DISPENSER	539185	F1-007P

KIMWIPES EX-L

Kimberly-Clark, the leader in innovative wiping systems, offers Kimwipes, a nearly lint-free wiper. Used with alcohol to clean fiber and connector ends.



DESCRIPTION	PART#	REF#
1 BOX - 280 WIPERS	410350	34-155
12 PACK - 2856 WIPERS	410352	34-155

OPTIC PREP WIPE

Use this pre-moistened lens tissue (instead of alcohol and wipes) to clean and polish optical grade surfaces such as fibers and connector ends.

DESCRIPTION	PART#	REF#
1 BOX - 50 PREPS	410360	F1-1003

SWABS

Available from NCI are 2 swab types. A foam swab designed with a flexible handle and a 2.5mm size. Eliminates the need to remove the bulkhead from any 2.5 mm equipment. Great for ST, SC and FC connectors.
We also carry regualr cotton swabs on 6" wood handle.

DESCRIPTION	PART#	REF#
2.5mm FOAM SWABS - 50 COUNT	410356	F1-0005
COTTON SWABS - 100 COUNT	410354	F1-0006

CANNED AIR

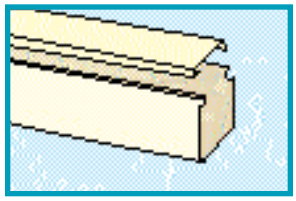
Ozone-free, moisture-free, clean pressurized air. Blasts away dirt and lint.



DESCRIPTION	PART#	REF#
CANNED AIR - 10 OZ.	889115	F1-1007

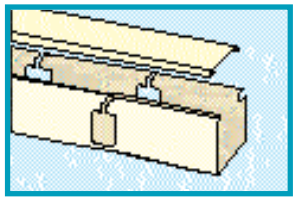
ACCESSORIES

CABLE MANAGEMENT



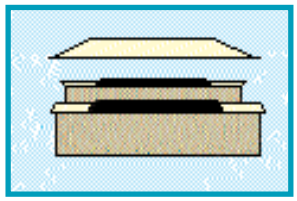
2"x 2"x 6' FIBER OPTIC DUCT W/COVER

PART#	REF#
539189	...FRS-STWC-22RG



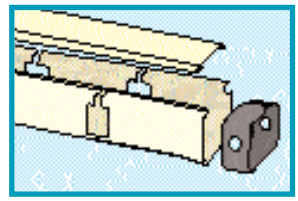
2"x 2"x 6' SLOTTED F.O. DUCT W/COVER

PART#	REF#
539191	FRS-SLWC-22RG



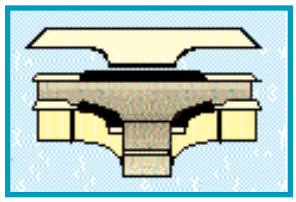
2"x 2" FIBER OPTIC DUCT SPLICE

PART#	REF#
539193	FRS-SPLC-22RG



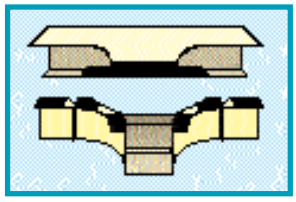
2"x 2" CABLE RETAINER

PART#	REF#
539195	FRS-CR22



2"x 2" HORIZONTAL "T"

PART#	REF#
539197	FRS-ITC-22RG



2"x 2" VERTICAL "T"

PART#	REF#
539199	FRS-VTC-22RG



2"x 2" 90° HORIZONTAL ELBOW

PART#	REF#
539198	FRS-9HE-22RG



2"x 2" 90° VERTICAL "DOWN" ELBOW

PART#	REF#
539196	FRS-9VOE-22RG

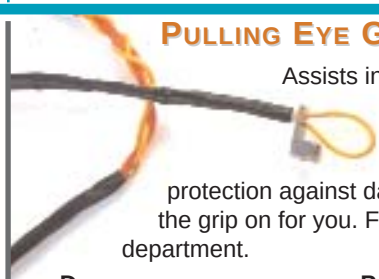
INNERDUCT



Innerduct provides additional mechanical protection and Identification for exposed fiber optic cabling and our innerduct will not break under sub zero temperatures. It has an O.D. of 1.365" and an I.D. of 1.049".

DESCRIPTION	PART #
WITHOUT PULL LINE	401002
WITH PULL LINE	401004
INNERDUCT PLENUM	**401005**

PULLING EYE GRIP



Assists in the pulling of cable through conduits, blocks or sheaves. Pulling tension remains uniform along the cable. Provides protection against damage of cable. We can install the grip on for you. For more info, call our sales department.

DESCRIPTION	PART #	REF #
FOR MULTIFIBER	410477	F1-1001
FOR SIMPLEX & DUPLEX	874113	F1-1001B
GRIP INSTALLED BY NCI	874115	F1-1001A

CABLE NETTING

Goes around connector as added protection. Expands to 2 inches and pulls down to 1/2 inch.

DESCRIPTION	PART #	REF #
CABLE NETTING	539187	F1-5700

LABELS

WA= Wrap Around **WO**= Write On
SA= Self Adhesive **TO**= Tie On

DESCRIPTION	PART#	
8" - **WA** "FIBER OPTIC CABLE"	540101	EA
4" - **WA** "FIBER OPTIC CABLE"	540102	EA
2.75"x 4" **SA** "WARNING FIBER OPTIC CABLE"	540103	EA
3.25"x 1.75" **SA** "WARNING ..." 25 PACK	540104	
3.5"x 1.75" **TO** "CAUTION ..." 25 PACK	540105	
5"x 8" - LASER WARNING	540106	EA

FOR MORE CABLE SUPPLIES
SUCH AS SHRINK TUBING, CABLE TIES,
CABLE MARKERS AND MORE,
TURN TO OUR CABLE MANAGEMENT SECTION
ON PAGE 121

FIBER

3M FIBER MANAGEMENT SYSTEM

Set up a central access point for splicing and interconnection of fiber optic cabling. System includes a connector module, providing interconnection for 12 or 24 ST splices, and a splice module, where cable is spliced and excess cable is stored. Can be used alone or combined with additional modules allowing for expansion and flexibility. All metal construction makes it a rugged unit and door locks make it secure.

DIMENSIONS: CONNECTOR MODULE: 8.75"x 8.75"x 4" SPLICE MODULE: 14"x 17.6"x 5"

DESCRIPTION	PART#	REF#
12 PORT ST CONNECTOR MODULE	410830	8173
24 PORT ST CONNECTOR MODULE	410831	8174
SPLICE MODULE - HOLDS 12 SPLICE TRAYS	410832	8570

NCI FIBER MANAGEMENT SYSTEM

One interconnect module protects up to 12 connectors. Module can be used as a splice module as well as a combination interconnect/splice module. Our wall mountable module can be rack-mounted with a rack-mount bracket (sold sep.).

CONSTRUCTION: INJECTION MOLDED. **DIMENSIONS:** 12"Hx 12"Wx 4"D

INTERCONNECT MODULE TYPE	PART#	REF#
MODULE W/12 POS. ST/FC BULKHEAD PLATE	540107	F1-2010
MODULE W/12 POS. SC BULKHEAD PLATE	540108	F1-2010 SC
MODULE W/12 ST ADAPTERS MOUNTED	54019	F1-2010 LL
MODULE W/12 FC ADAPTERS MOUNTED	540110	F1-2010 LLFC
MODULE W/12 SC ADAPTERS MOUNTED	540111	F1-2010 LLSC
MODULE W/12 ST PIGTAILS	540112	F1-2010 LP
MODULE W/19" BRACKET AND SPLICE TRAY (*PLEASE SPECIFY FUSION OR MECHANICAL*)	540113	F1-2010C
ST/FC SIDE BULKHEAD PLATE	540114	F1-2010BST
SC SIDE BULKHEAD PLATE	540115	F1-2010BSC
19" RACK MOUNT BRACKET (BEIGE)	540116	F1-2010P

DITEL FIBER DISTRIBUTION CENTER

This 72 fiber termination and connection housing unit can be equipped with 6 pack panels for direct termination or with 6 pack modules for splicing. Use the reversible frame mounting brackets to install in either a 19" or 23" rack.

DESCRIPTION	PART#	REF#
FIBER CONNECTION HOUSING UNIT	540301	FCH-7200
ST SIX PACK PANEL - UNLOADED	540303	FCH-6ST
FC SIX PACK PANEL - UNLOADED	540305	FCH-6FC
D4 SIX PACK PANEL - UNLOADED	540307	FCH-6D4
SC SIX PACK PANEL - UNLOADED	540309	FCH-6SC

CLOSURES &

3M FIBRDOME CLOSURE



Protects fiber from the elements while providing fast and easy no-cost re-entry. Weatherproof, water-tight and U.V. resistant. Re-entry is a breeze. Just pull the latch. No special tools needed. Can be installed in above-ground pedestals, hand-holes and mounted on poles and strands.

Splices are enclosed in a polypropylene dome clamped together with a stainless steel latch and sealed with an O-ring. Pre-stretched tubing is slipped over the base of the closure and onto a gel-sealing collar.

INCLUDED IN ALL CLOSURES: 1TRANSITION TRAY AND 1 SPLICE TRAY.
FD06 CLOSURE HAS THE CAPACITY FOR 1 MORE SPLICE TRAY .
FD08 CLOSURE HAS THE CAPACITY FOR 3 MORE SPLICE TRAYS .

DESCRIPTION	PART#	REF#
FD06 FIBRDOME CLOSURE	310651	FD06
FD08 FIBRDOME CLOSURE	310652	FD08

KEPTEL CLOSURE

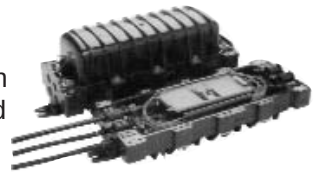


Weatherproof, water-tight and U.V. resistant. Great for all aerial, burial and pdestal applications. Using 3 splice trays the closure holds 36 single fused fibers or 96 mass fused ribbon fibers.

INCLUDED IN KIT: MAIN CORE FRAME WITH FIVE PILLOW BLOCKS AND SEALS, PRESSURE VALVE, CABLE SHEATH CLAMPS, CSM TIE DOWNS, FIBER ROUTING RINGS, DOME WITH V- CLAMP AND 2 C-HALF SEALS. **(SPLICE TRAY SOLD SEP.)**

DESCRIPTION	PART#	REF#
KEPTEL CLOSURE	535403	LG-100
MINI SPLICE TRAY (1)	535405	LL-2450

3M 2178 SPLICE CASE



Protect your fiber optic splices with the 3M 2178 Splice Case.The rigid non-filled case withstands moisture, temperature extremes, cable flexing, and is flame retardant. Requires no special tools or complicated training for installation. Four cable entry ports (2 per end) accomodate 0.4 to 1" diameter fiber. The 2180 re-entry kit has all materials needed for re-entry. Aerial bracket kit has the materials for aerial installation.

INCLUDED IN RE-ENTRY KIT: 2 PLUGS, 2 HOSE CLAMPS, 8 CABLE TIES (4 GREEN & 4 BLUE), 1 HEX KEY, 48 SEALING WASHERS, 1 BOX SEALING CORD, 1 BOX SEALING TAPE.

DESCRIPTION	PART#	REF#
3M 2178 SPLICE CASE	410808	2178
RE-ENTRY KIT	410810	2180
AERIAL BRACKET KIT	410812	2182
FIBRLOK SPLICE TRAY	410802	2524

ENCLOSURES

WALL MOUNT SPLICE ENCLOSURE

This wall-mounted unit comes in 2 types. One type protects up to 12 fusion splices with protection sleeves and the other protects up to 12 low profile mechanical splices. Splices are secured to splice holder within the enclosure.

ENCLOSURE TYPE	PART#	REF#
FOR FUSION SPLICES	540117	F1-4868-F
FOR MECHANICAL SPLICES	540119	F1-4868-M

AMP 12 OR 24 PORT WALL MOUNT ENCLOSURE

This wall-mounted unit is available in either a 12 port or 24 port version. Both versions have ST type adapters connected right on the box. Great for fast field installation.

ENCLOSURE TYPE	PART#	REF#
12 ST PORTS	540121	559094-1
24 ST PORTS	540123	559237-1

PATCH PANELS

PATCH PANELS



These 12 port 19" patch panels are all metal construction, and accommodate ST, SC, FC, D4, SMA and FDDI type adapters. MM=MULTIMODE SM=SINGLEMODE

DESCRIPTION	TYPE	PART#
PATCH PANEL UNLOADED	N/A	540125
UNLOADED PANELWITH REAR PANEL	N/A	540126
PATCH PANEL WITH ST ADAPTERS	MM	540127
PATCH PANEL WITH SC ADAPTERS	SM	540128
PATCH PANEL WITH FC ADAPTERS	SM	540129
PATCH PANEL WITH D4 ADAPTERS		540130
PATCH PANEL WITH SMA ADAPTERS	MM	540131
PATCH PANEL WITH FDDI ADAPTERS	MM	540132

THOMAS & BETTS RACKMOUNT PANEL



Patch fiber links and store fiber terminations with this 24 port T&B rackmount panel. We ship it unloaded or with up to 24 ST adapters. Rear panel measures 9"x 17". Steel construction.

DESCRIPTION	PART#	REF#
UNLOADED 24 PORT PANEL	330517	025-10
OPTICAL COVER	330519	025-1024-C

RACKS



WE'LL KNOCK YOU OVER WITH OUR SELECTION OF RACKS AND ENCLO-SURES AND OUR LOW

ST Test Set Kit

Install connectors, repair broken fibers and test optical losses with our Test Set kit. Everything you need to do the job is included. A must have for any fiber optic techinician or contractor.

Included In Kit:

ST Continuity Tester ***or*** Flashlight ***(Choose One)***, Miller Stripper ***or*** Claus Stripper ***(Choose One)***, Hand Held Power Meter, **Dual Light Source,** 2 ST-ST Patchcords (1m), **ST Mating Sleeve**, 6 ST Multimode Connectors, **6 ST Singlemode connectors,** 100x microscope with Adapter, **ST Polish Disc,** PC Polish Pad, **Glass Polish Plate**, 25 pcs.Tri-coated 3-in-1 Polish Film, **Epoxy Mixer,** 5 packs of 2-part Epoxy, **Epoxy Mixer Pad**, Epoxy Applicator, **5 Syringes**, 1 bottle Alcohol, **Kim Wipes**, Universal Crimp Tool, **4-bit Screwdriver**, Scissors, **Utility Razor**, Diamond Scribe, **Jacket Stripper,** Tweezers, **Piano Wire,** Black Tape, **Canned Air**, Cotton Swabs, **Matching Gel** and Tape Measure.

Description	Part #	Ref #
ST Test Set Kit	540133	F1-0053TS-ST

Deluxe Power Meter

Our Deluxe Power Meter has six wavelength settings from 670nm thru 1550nm and a .01dBm resolution. It also has zero reset capability for direct loss readout of fiber. Readout can be displayed in dB, dBm or watts on the LCD display. Comes with AC/DC power supply, carrying case and FC adapter. Our Deluxe Power Meter also uses 4 AA Ni-Cad batteries and lasts 10 to 16 hours depending on usage.

Calibrated Settings: 670, 780, 850, 1300, 1310 and 1550nm

Wavelength Range: 850- 1550nm
Detector: Germanium
Resolution: dB
Display: LCD w/ dB, dBm, mw, uw or nw
Operating Temperature: 10°C to 50°C

Measurement Range: -70 to +3dBm
Accuracy: ±0.2dB (±5%)
Linearity: + 0.02dB
Bulkhead: FC (Standard), ST, SC, D4 or SMA
Weight: 1.1 lbs.

Description	Part #	Ref #
Deluxe Power Meter	540134	F1-1550DLX

NCI Power Meter

The NCI Power Meter is a low cost and **accurate** alternative to the high priced "name" brands. There are three wavelength settings: 850nm, 1310nm and 1550nm.Uses a 2mm diameter germanium detector sensing area and accomodates many different adapter types. Let your saleperson know which adapter you need; ST, FC, D4, SMA or Biconic. Uses 4 AA alkaline batteries and has it's own carrying case.

Comes with a 2 year warranty.

Calibrated Settings: 850, 1310 and 1550nm

Wavelength Range: 850- 1550nm
Detector: Germanium
Display: LCD w/ dBm
Operating Temperature: -5°C to +50°C

Measurement Range: -60 to +3dBm
Resolution: 0.1 dB
Bulkhead: ST, FC, D4, SMA or Biconic
Weight: 1 lb.

Description	Part #	Ref #
NCI Power Meter *PLEASE SPECIFY ADAPTER CHOICE*	540147	F1-8513HH
ST Adapter	540149	F1-8513ST
SMA Adapter	540150	F1-8513SMA
FC Adapter	540151	F1-8513FC
D4 Adapter	540152	F1-8513D4
Biconic Adapter	540153	F1-8513BI
NOTE: CATV Power Meter has a measurement range of -45 to +16dBm		
CATV Power Meter	540154	**F1-8513HHCATV**

NCI Light Source

Available in single and dual wavelength models. Uses a high performance edge emitting diode that focuses more light into the fiber core. When using our Power Meter the NCI Light Source provides a 35dB budget on singlemode fiber. Comes with an ST or FC adapter. Uses 4 AA alkaline batteries and has it's own carrying case. **2 year warranty.**

Operating Temperature: -5°C to 50°C **Weight:** 1 lb.

Operating Wavelength:	**850nm**	**1300nm**
Spectral Bandwidth:	45nm	60nm
Optical Power:	-22dBm @ 1300nm on 9/125 fiber	
Bulkhead:	ST	FC

Description	Part #	Ref #
Dual Light Source	540154	F1-8513HS
850nm Light Source w/ST adapter	540155	F1-0850HS
1300nm Light Source w/FC adapter	540156	F1-1300HS

Heavy Duty Power Meter

Germanium detector provides measurement capability for 850nm, 1300nm and 1550nm wavelengths. Supplied with a rechargeable Ni-Cad battery and an ST or SMA adapter (please specify). **Comes with a 2 year warranty on parts and labor.**

Wavelength Range: 850- 1550nm **Measurement Range:** -60 to +3dBm
Operating Temperature: -20°C to +50°C **Weight:** 3lbs.

Description	Part #	Ref #
Heavy Duty Power Meter	540135	F1-1550RM
ST Adapter	540136	F1-8513ST
SMA Adapter	540137	F1-8513SMA
FC Adapter	540138	F1-8513FC
D4 Adapter	540139	F1-8513D4
Biconic Adapter	540140	F1-8513BI

Heavy Duty Light Source

Available in single and dual wavelength models. All models come standard with rechargeable Ni-Cad batteries and continuous wave (CW) & 2 KHz modulation. 1300nm lightsource can be used on both single and multimode fiber with a 35dB budget on singlemode when used with our power meters.

Comes with 2 year warranty on parts and labor.

Operating Temperature: -5°C to 50°C **Weight:** 3 lbs. **Operating Wavelength:** **850nm** **1300nm**

Spectral Bandwidth:	45nm	60nm
Optical Power: (62.5 core)	-15dBm	-17dBm
Bulkhead:	ST	ST or FC

Description	Part #	Ref #
Heavy Duty Dual Light Source	540141	F1-8513RS
Heavy Duty 850nm	540142	F1-0850RS
Heavy Duty 1300nm	540143	F1-1300RS

Heavy Duty Test Set

This is a combination of our Power Meter and Light Source in one.
A germanium detector provides measurement capability for 850nm, 1300nm and 1550nm wavelengths. 1300nm light source can be used on both single and multimode fiber with a 35dB budget measuring distances up to 75km in singlemode fiber when used with our power meter. Supplied with a rechargeable Ni-Cad battery and an ST or SMA adapter (please specify). **Comes with a 2 year warranty on parts and labor.**

Same Specifications As Our Heavy Duty Power Meter And Light Source.

Description	Part #	Ref #
Heavy Duty Test Set - Power Meter w/ Dual Light Source	540144	F1-8513TS
Test Set w/850nm Light Source	540145	F1-0850TS

Laser Light Source

Available 1310nm and 1550nm wavelength models. Achieves an optical output of 0dBm (1mw) in singlemode fiber. Comes with an FC adapter standard (optional ST or SC).Uses 4 AA alkaline batteries and has it's own carrying case. 2 year warranty. Works with NCI Power Meter.

Operating Temperature: -5°C to 50°C **Weight:** 1 lb.
Operating Wavelength: 1310nm and 1550nm
Spectral Bandwidth: 2nm typical, 5nm maximum
Optical Power: 1mw
Bulkhead: FC (standard), ST or SC

Description	Part #	Ref #
1310nm Laser Light Source	540157	F1-1300HL
1550nm Laser Light Source	540158	F1-1550HL

Power Meter Conversion Module

Converts multimeters into power meters. Simply plug in the module and your multimeter can measure 850nm, 1300nm and 1550nm wavelengths Multimeter display is shown in dBm.
Available with ST adapters.

Description	Part #	Ref #
Conversion Module	540159	MOP-1-LG

Fiber Optic O/E Converter

Converts optical signals to electrical. Conveniant BNC connector mounts directly to oscilloscope or digitizer. Great for quickly checking operation of a laser source, optical transmitter or output of a fiber communications line.

Description	Part #	Ref #
Optical/Electrical Converter	540160	TIA-500


17XTG


2XT


3XT


7XT

3M PHOTODYNE 3XT OPTICAL MINI METER

This pocket-sized low-cost mini-meter is used with the Photodyne 2XT Optical Mini-Light Source to provide complete optical power measure-ment. Unit uses a germanium detector and is calibrated to 3 wave-length settings: 850nm, 1300nm and 1550nm. Universal interface makes changing adapters easy. Uses 9V alkaline battery and lasts about 20 hours.

OPERATING TEMPERATURE: 0°C to 40°C **WEIGHT:** 4 oz.

DESCRIPTION	PART #	REF #
MINI-METER W/ST ADAPTER	310653	3XT-2041
MINI-METER W/FC ADAPTER	310654	3XT-2021

3M PHOTODYNE 2XT OPTICAL MINI SOURCE

This pocket-sized low-cost mini-light source is used with the Photodyne 3XT Optical Mini-Meter to provide complete optical power measurement. Available in 2 dual wavelength models: 850/1300nm and 1300/1550nm. Uses 9V alkaline battery and lasts about 10 hours.

OPERATING TEMPERATURE: 0°C to 40°C **WEIGHT:** 4.5 oz.

DESCRIPTION	PART #	REF #
850/1300nm W/ST ADAPTER	310655	2XT-8513T
1300/1550nm W/FC ADAPTER	310656	2XT-1315J

3M PHOTODYNE ADAPTERS

These adapters mate Photdyne sensors to a wide variety of industry standard fiber optic connectors.

DESCRIPTION	PART #	REF #
ST ADAPTER	310657	2041
SC ADAPTER	310659	2058
FC ADAPTER	310661	2021

3M PHOTODYNE 17XTG HAND-HELD POWER METER

The most powerful, full-featured optical power meters on the market. For use with the Photodyne 7XT Light Source. Works with singlemode and multimode fiber. Great for use on LAN's, ATM, SONET, analog cable TV systems and Erbium-Doped Fiber Amplifiers (EDFA). Perfect for maintenance, restoration, engineering, testing and link commissioning. Seven different wavelengths standard: 780, 820, 850, 980, 1300, 1480 and 1550nm plus 30 more wavelengths in 10nm increments.
Store & recall up to 1200 readings in 600 memory locations.
Rs232C and RJ-11 interfaces allow for printing or uploading.
Comes with AC adapter and carrying case and also uses 9V alkaline battery that lasts about 20 hours.

CALIBRATED SETTINGS: 780, 820, 850, 980, 1300, 1480 and 1550nm
WAVELENGTH RANGE: 780- 1550nm **DYNAMIC RANGE:** -64 to +20dBm@1550nm
DETECTOR: Germanium **RESOLUTION:** dBm
DISPLAY: LCD **BULKHEAD:** ST, FC, D4, SMA or Biconic
OPERATING TEMPERATURE: -5°C TO +50°C **WEIGHT:** 1.1 lbs.

DESCRIPTION	PART #	REF #
17XTG METER W/ST ADAPTER	310663	17XTG-2041-01
17XTG METER W/FC ADAPTER	310665	17XTG-2021-01

3M PHOTODYNE 7XT LASER LIGHT SOURCE

Used alone as a single-mode light source or used in combination with the 17XTG Power Meter to provide a variety of optical power measurements Available in a dual 1310/1550nm wavelength model. Great for attenuation testing, return loss measurement, link conformance testing and fiber identification. Comes with AC adapter and carrying case and also uses 9V alkaline battery that lasts about 12 hours.

OPERATING TEMPERATURE: 0°C to 40°C **WEIGHT:** 1.1 lbs.

DESCRIPTION	PART #	REF #
LASER LIGHT SOURCE W/ST ADAPTER	310669	7XT-1315T-01

LASER PRECISION FIBER IDENTIFIER

Simple and non-destructive signal detection for jacketed fiberoptic cable. The LP Fiber identifier ndicates the presence and direction of traffic on fiber. Works on jacketed or bare fiber singlemode or multimode fiber types. Also detects modulated or CW signal. Unit interfaces with the LP 5025 Optical Power Meter.

NOTE: *You must have the Laser Presicion LP5025 series Optical Power Meter in order to operate the LP AM-450.*



DESCRIPTION	PART #	REF #
LP FIBER IDENTIFIER	319046	AM-450

MINI LID SYSTEM (LOCAL INJECTION DETECTION)

Portable unit has an LCD display and is not much bigger than a video cassette. Works with both singlemode and multimode with coating diameters of ≤ 250µm. Provides optical port for pigtail usage. System comes with five pigtail adapters: ST, SC, FC, D4 and Biconic. Also included are instructions and a carrying case. PLEASE CALL FOR FULL SPECS.

DESCRIPTION	PART #	REF #
MINI LID SYSTEM	540171	F1-8118

WILCOM FIBER IDENTIFIER

Works with 250µm or 900µm fiber, 3mm colored patchcords and ribbon fiber. Simply insert fiber into guide and as the unit gently and safely bends fiber just enough to detect light presence and traffic direction. Unit also detects 270Hz, 1kHz and 2kHz modulated carrier tone.
Operates on one 9v battery (included). types simply use a patch cord and mating sleeve.

DESCRIPTION	PART #	REF #
WILCOM FIBER IDENTIFIER	540407	F6121A

FIBER CONTINUITY TESTER

This flashlight style hand-held unit is rugged, low cost and easy to use. After you connect to an ST or SMA connector*, and click the rear switch on, a red LED light transmits across fiber to end. Red light is easily seen, especially when you have a handfull of cable ends. Uses 2 "C" batteries.
*for other connector types simply use a patch cord and mating sleeve.

DESCRIPTION	PART #	REF #	
ST CONTINUITY TESTER	540172	F1-5000	–
SMA CONTINUITY TESTER	540173	F1-5000SMA	–

VISUAL FAULT FINDER

Operates with a 4mw laser that transmits 670nm of red light. The Visual Fault Finder actually lets you see if there are breaks or macrobends in the fiber because the intensity of light is that strong. The red laser light can be seen through a 3mm PVC jacket if there is a break or macro-bend in the cable. Works where OTDR cannot because of dead zones. Great for detecting, isolating and optimizing you fiber breaks. Also works as a continuity tester. Operates on one 9v battery (included).

OPTIMIZED FOR SINGLEMODE=SM OPTIMIZED FOR MULTIMODE=MM

DESCRIPTION	PART #	REF #
SM/MM - WITH ST CONNECTOR	548174	OF-1000S
MM - WITH ST CONNECTOR	548175	OF-1000M
SM - WITH FC CONNECTOR	548176	OF-1000SFC

INFRARED DETECTION CARD

Special phosphorous compound glows when infrared light is shined on to the card. Smaller than a credit card, It can detect 850nm wavelength light or 1300/1550 wavelength light. Lasts for years.

DESCRIPTION	PART #	REF #	
850nm DETECTION CARD	548177	F1-4101	–
1300/1550nm DETECTION CARD	548178	F1-4103	–

Laser Precision Light Sources

A variety of light sources in different wavelengths. Both LED and Laser light sources are available.
ST adapters are standard.
Constructed of high impact Lexan.
Please Call For Full Specs.



Multimode=MM Singlemode=SM

Description	Source	Part #	Ref #
850nm-MM	LED	319003	LP-5100
1300nm-MM	LED	319004	LP-5110
850/1300nm-MM	LED	319006	LP-5150
1310nm-SM	Laser	319008	LP-5210A
1550nm-SM	Laser	319010	LP-5220A

Laser Precision Power Meters

NCI offers 2 of laser precision's best power meters: the LP-5000 Standard Power Meter and the LP5025 Deluxe Power Meter. These low-cost power meters are high quality and give you the features you need. The Deluxe unit features extended measurement range with 27 selectable wavelengths, port for AM-450 Fiber Identifier, rugged weather resistant construction, memory for up to 100 loss readings, reports printing capabilities, and a pass/fail mode with a user defined loss threshold.



Please Call For Full Specs.

Description	Part #	Ref #
LP Standard Power Meter	410918	LP-5000
LP Deluxe Power Meter	319028	LP-5025
Thermal Printer w/Cable for Deluxe Meter	319030	FF-105
*LP Fiber Identifier	319032	AM-450

NCI Test Box

Simulates a fiber optic system. Used for calibration, training, testing or demonstration. Please Specify fiber size, length and connector types. Also include location and desired losses of any splices and system loss in dB. Custom boxes available.

Singlemode=SM Multimode=MM

Description	Part #	Ref #
SM- 1100m Test Box w/3 Splices	540160	PS-1100TB
MM- 1100m Test Box w/3 Splices	540162	PS-1100TB

Please Call For Full Specs.

OTDR Consumable Supplies

An assortment of supplies to be used with Laser Precisions OTDR equipment. Thermal paper for use with TD 1000 and TD1001. Floppy disks, plotter paper and pens are for use with th L.P. TD9950, TD9960 and TD2000.

Description	Part #	Ref #
Thermal Paper - 3rolls	319034	F1-0030-1
3.5" Floppy Disk - 10 pak	319036	F1-0070
Plotter Paper - 3 rolls	319038	F1-0030

Wilcom Fiber Ranger

Designed to measure the distance to fiber events along fiber cables in optical fiber systems. Multimode unit comes with ST adapter for 50/125 fiber. For use with fiber diameters of 50um and higher. Data cable and program disk allow user to connect to a PC for data logging, graphic display and index refraction correction factor.



Description	Part #	Ref #
850nm Multimode Fiber Ranger	540401	FRM-5M
1310nm Singlemode Fiber Ranger	540403	FRM-5S
Data Cable and Program Disk	540405	FRM-5S

Please Call For Full Specs.

NCI Pulse Suppressor Build-Out Box

Terminated Corning fiber is housed in a heavy duty case. Metal cable wrap-around provides fast and easy return of cable. For use with OTDR operations, trouble shooting, installations and lab use. Specify connector types, fiber type and length.

Singlemode=SM Multimode=MM

Description	Part #	Ref #
SM- 500m Pulse Suppressor	540163	PS-500
MM- 500m Pulse Suppressor	540164	PS-500
SM- 1100m Pulse Suppressor	540165	PS-1100
MM- 1100m Pulse Suppressor	540166	PS-1100

NCI Mini-Pulse Suppressor Build-Out Box

Designed to test connectors using the latest version OTDR. Specify connector type.

Description	Part #	Ref #
SM- 100m Mini-Pulse Suppressor	540167	BOB100
MM- 100m Mini-Pulse Suppressor	540168	BOB100
SM- 200m Mini-Pulse Suppressor	540169	BOB200
MM- 200m Mini-Pulse Suppressor	540170	BOB200



WHAT IS OTDR?

An **Optical Time Domain Reflectometer** is a test and measurement device used to check the accuracy of fusion splices and the location of fiber optic breakers. It measures the send and return time of a lightwave pulse.

Laser Precision Hand Held OTDR

All the features of a mainframe OTDR are found in these portable test sets at half the price. These Mini-OTDRs let you test fiber optic cable with the touch of a finger. Simply press the TEST or FAULT LOCATE button and you'll perform a complete test in less than one minute. All information is displayed: length of fiber, end of fiber, number of features found, loss for each event, total loss, and reflectance of each event. No special training needed. The TD-1000 series also has Optical Return Loss (ORL) capability with signal and gain control.

Operating Temperature: 0°C to 40°C **Weight:** 9 lbs. **Please Call For Full Specs.**

Description	Part #	Ref #
1310nm Singlemode OTDR	319014	TD1000B
850nm Multimode OTDR	319016	TD1000E
1300nm Multimode OTDR	319018	TD1000F
850/1310nm Dual OTDR	319020	TD1000D
1310/1550nm Singlemode OTDR	319022	TD1001A
1310nm Singlemode OTDR	319024	TD1001B

Laser Precision Optical Loss Test Set

Easy to use, rugged and water- resistant unit that provides accuracy and linearity. Measurement modes and parameters are set with a combination of soft and hard keys. Backlit LCD display.



Description	Part #	Ref #
1310/1550nm Test Set	319042	LP-5025-S50

Please Call For Full Specs.

OTDR Calibration Box Test Box

Provides quick inspection of your OTDR. Initial scan is required as a reference. Simply printout results and match against next scan. Can also be used as a test box for lab or educational purposes. Specify fiber, connector type, desired length and splice type.

Description	Part #	Ref #

Fiber Optic Video System

Video transmission over fiber provides immunity to electronic eavesdropping and travels for distances up to 2.5km. Setup is quick and easy. The camera hooks up to the transmitter and the monitor hooks up to the receiver via BNC connectors. Then interconnect with 62.5/125 simplex fiber optic cable with ST connectors. It's that easy! Units are powered by 12 volt power supplies. Comes *with* ***or*** *without* camera, monitor and fiber.

Bandwidth: 0 to 5mHz
Dynamic Range: 10dB on multimode fiber
Operating Temperature: 0°C to 50°C

Description	Part #	Ref #
Transmitter & Receiver with 2 Power Supplies	410890	F1-5386
Video System with Transmitter, Receiver, Camera & Monitor	540183	F1-5387
Simplex 62.5/125 Fiber Cable	219130	-

Thomas & Betts Data Interface Connector

Now you can interconnect between your RS-232 and fiber optic ST connections. Features include full-duplex async data transfer at rates of up to 19.2kB and 6 control/handshake lines over one duplex fiber cable. Immune to EMI/RFI and transmission can travel up to 2.5 km. Operates on external plug-in power supply or directly through DB25 connector.

DTE- Data Terminal Equipment DCE- Data Communications Equipment

Description	Part #	Ref #	
DTE - Female RS-232	410892	94811FG	
DTE - Male RS-232	410896	94811G	
DCE - Female RS-232	410894	94812FG	
DCE - Male RS-232	410898	94812G	
Power Supply	410900	94802PS	–

Talk sets are great when doing installations and testing of fiber optic cable. They are designed to allow users to communicate over fiber. The advantages to this become obvious during testing, when launch and receive conditions have to be exact. Telephones are not always near and walkie-talkies are affected by EMI/RFI. Fiber optic talk sets are

Ixian Fiber Optic Talk Set



Used when installing and testing fiber optic cable, these talk sets are designed to allow users to communicate over that cable. Ixian offers 3 different models to choose from. **Sold in pairs.**

OVC-JS-85 - 25dB budget on SM fiber.
Uses 9v batt.(included) and lasts about 15 hrs
OVC-JS-1300 - 30dB budget on SM fiber.
Uses 9v batt.(included) and lasts about 15 hrs.
OVC-JS-1300DF - Laser powered. 40dB budget on SM fiber.
Uses rechargeable Ni-Cad batteries and lasts over 8 hrs. Comes with 2 wallmount charges, 2 dual-ear headsets and carry case.

MM-Multimode SM-Singlemode

Description	Part #	Ref #
MM Talk Set w/ ST Adapter	410933	OVC-JS-85S
SM/MM Talk Set w/ FC Adapter	410935	OVC-JS-1300F
SM Laser Talk Set w/ FC Adapter	410929	OVC-JS-1300DF

NCI Fiber Optic Talk Set



Used when installing and testing fiber optic cable, these talk sets are designed to allow users to communicate over that cable via an internal speaker/micro-phone. Headsets are available but are sold sep. These talk sets are available in either singlemode or multimode models.
Singlemode model has 30dB budget.
Multimode model has 25dB budget.
Operates on 9v batteries. **Sold in pairs.**

MM-Multimode SM-SingleMode

Description	Part #	Ref #
MM Talk Set w/ ST Adapter	540179	F1-108-M
SM Talk Set w/ FC Adapter	540180	F1-108-S
Plug-In Headsets - 2 Sets	540181	F1-108-HS
Deluxe Case	540182	F1-108-CA

TRAINING EQUIPMENT

NCI Educational Kit

NCI provides you with the selection of tools and consumables you'll need to recreate an operational fiber optic system in your training room or classroom. Comes with or without Power Meter and Light Source. All tools are re-usable. Only consumables and connectors need to be re-ordered. Topics cover fiber prep and splicing, fiber termination, light loss, power meter and light source operation, OTDR and much more.

Description	Part #	Ref #
Educational Kit	540183	F1-0060
Kit without Power Meter & Light Source	540184	F1-0060S
Lab Manual 2nd Ed.	540185	F1-0062
Consumable Replacement Kit	540186	F1-0062C

Connectorizer Training Kit



NCI provides you with the tools and consumables you'll need to terminate 2 ST fiber optic connectors. You'll end up with either an ST patch cable or 2 terminated connectors. Easy to follow step by step instructions allow user to learn how it is done right. Great for training purposes.

Included in Kit: 2 Ceramic ST Connectors, ST Adapter, 1 meter of 62.5/125 Simplex Fiber Cable, 1 pack Epoxy, 1 ST Polish Disc, 2 pcs Polish Film, 1 bottle Acetone, 1 Optic Prep Wipe, 1 Razor, Set of Instructions.

Description	Part #	Ref #	
Connectorizer Training Kit	540187	F1-7701	–

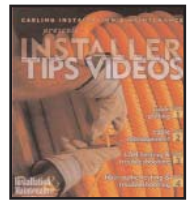
NTSC Training Videos



Comprehensive fiber optic training videos.
Subjects range from theory to troubleshooting.

Description	Part #	Ref #
Introduction to Fiber Optic Theory and Structure	540188	F1-4500
Fiber Optic Cable Preperation and Installation	540189	F1-4550
Fiber Optic Splicing, Connectorization & Patch Panels	540190	F1-4600
Fiber Optic Testing, Troubleshooting and Documentation	540191	F1-4650
Fiber Optic Applications	540192	F1-4700
Fiber Optic Safety	540193	F1-4750
Fiber Optic System Design	540194	F1-4850
Fiber Optic Installation	540195	F1-4900
Fiber Optic LED's, Lasers and Detectors	540196	F1-4950

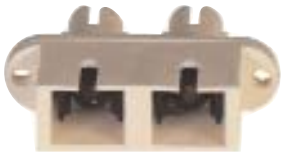
CI&M Training Videos



Cable Installation & Maintenance Magazine has produced a series of informative Installer Tips Videos.
Each video is 30 minutes long and includes 5 tips each. Each procedure is shown, start to finish, so that you can see exactly how it is done. Videos may be purchased separately or as a 4 pack. Installer tips booklet included for reference.

Description	Part #	Ref #
Video Installer Tips 4 pack - Includes all 4 Videos	540197	F1-4000
Fiber Optic Testing and Troubleshooting	540198	F1-4100
Cable Pulling	540199	F1-4200
LAN Testing & Troubleshooting	540118	F1-4300
Cable Management	540120	F1-4400

AMP Mating Sleeve



DESCRIPTION	PART #	REF #
AMP MATING SLEEVE	410701	504663-1

Cleaning Pads

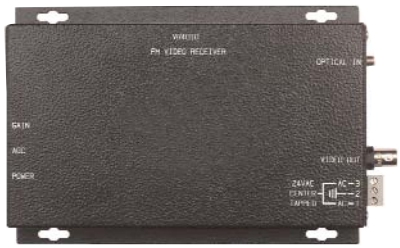
Lym-Tech cleaning pads are lint free, saturated with isoproply alcohol and are safe for skin contact. They are very effective cleansers for CRT Keyboards, Screens, Magnetic Tape Heads, Discs, Telephones, and other similar surfaces. Removes Dust, Dirt, Oxides and most Contaminants



DESCRIPTION	PART #	REF #
LYM TECH LINT FREE CLEANING PADS (QTY 60)	316301	C-43

Video Receiver

The VR4010 is designed to convert a frequency modulated 850 nm optical (light) signal from an attached fiber optic cable to a broadcast quality electrical video output signal for Closed Circuit Television (CCTV) monitoring.



DESCRIPTION	PART
VIDEO RECEIVER VR4010	410927

NETWORKING PRODUCTS

[redacted]

NetWare 4.1

5- user CD H60001
10- user CD H60003
25- user CD H60005
50- user CD H60007
100- user CD H60009

NetWare

5- user 3.5" H60011
10- user 3.5" H60013
25- user 3.5" H60015
50- user 3.5" H60017
100- user 3.5" H60019

GroupWise V4.1

Multilingual client/admin CD H60021
Single-user license H60023
5- user license H60025
25- user license H60027
50- user license H60029

ManageWise V2.0

10- user CD H60031
50- user CD H60033
100- user CD H60035

LAN WorkPlace V5.0

Single- user CD H60037
10- user CD H60039
100- user CD H60041

BackOffice Server V2.0

Version upg Cd H60043
Comp upg CD H60045
Full version CD H60047
5- client license H60049
20- client license H60051

Windows NT S1

Server upg CD H60053
Server CD H60055
Network Value Pack upg H60057
Netware Value Pack w/internet Info Server H60059
Single- client license H60061
20- client license pack H60063

Windows NT Server V4.0

Upg + 5- client license CD H60065
Upg + 10- client license CD H60067
Comp upg + 5- client license CD H60069
Comp upg + 10- client license CD H60071
Server + 5- client license CD H60073
Server + 10- client license CD H60075
Single- client license upg H60077
Single- client license H60079

Microsoft SQL Server V6.5

Server + 5- client license CD H60081
Server + 10- client license CD H60083
Server + 25- client license CD H60085
5- client license H60087
20- client license H60089

Microsoft Systems Mgmt Server V1.1

SMS Server CD H60091
SMS Server upg CD H60093
Single-client license H60095
20- client license H60097

Microsoft SNA Server V2.11

SNA Server CD H60099
Single-client license H60101
20- client license pack H60103

Microsoft Exchange Server V4.0

Server + 5- client license CD H60105
Server + 10- client license CD H60107
Server + 25- client license CD H60109

LANtastic V7.0

Starter kit 3.5" + CD H60111
Add-on kit 3.5" + CD H60113
1-user comp upg CD H60115
10-user comp upg CD H60117

ModemShare V7.0

1 shared port, unlimited users H60119
4 shared ports, unlimited users H60121
32 shared ports, unlimited users H60123

DATA STORAGE

Eagle96 TBU internal H60125
Eagle TR-3 3.2GB TBU internal H60127
EXB-8700LT 5/10GB TBU external H60129

Jumbo 350 350MB TBU internal H60131
Jumbo 1400 1.3GB TBU internal H60133
Trakker 350MB TBU parallel H60135
T1000E 800MB TBU parallel H60137

Zip drive 100MB parallel H60139
Zip drive 100MB SCSI H60141
Ditto Easy 800MB Travan internal H60143
Ditto Easy 800MB Travan external H60145
Jaz drive 1GB internal SCSI-2 ..... H60147
Jaz drive 1GB external SCSI-2 ..... H60149
Jaz drive 1GB cartridge H60151

10XTREME 10X CDR internal H60153
RCD 5040 2X CDR recorder internal H60155
RCD 5040 2X CDR recorder external H60157
Vertex 2.6GB optical hard drive internal H60159
Vertex 2.6GB optical hard drive external H60161

EZ135 135MB IDE internal H60163
EZ135 135MB SCSI external H60165
EZ135 135MB external H60167
EZ135 135MB cartridge H60169
EZFlyer 230MB SCSI external H60171
EZFlyer 230MB external H60173
EZFlyer 230MB cartridge H60175

MULTIMEDIA

ADS TV Superscan 2 PC to TV converter H60177
Connectix QuickCam for Windows H60179
Connectix Color QuickCam for Windows H60181
EXP 8X CD w/game port PCMCIA H60183
EXP 8X CD w/sound module PCMCIA H60185
Microsolutions 4X CD parallel H60187
Microsolutions 6X CD w/sound parallel H60189
Microsolutions 8X CD parallel H60191
Minolta Snappy video still capture H60193
NEC 4x4 4X CD 4-disc changer internal H60195
NEC 4x4 4X CD 7-disc changer external H60197
NEC 6Xi 6X CD internal H60199
NEC 6Xe 6X CD external H60201
NEC 8V 8X CD internal IDE H60203
NEC 8Xi 8X CD internal SCSI-2 ..... H60205
NEC 8Xe 8X CD external SCSI-2 ..... H60207
Panasonic portable 4X CD SCSI H60209
Sony portable 4X CD Discman H60211
SunMoonStar 6X CD portable H60213
SunMoonStar 8X CD intrnal IDE/ATAPI H60215
SunMoonStar 8X CD portable H60217

INPUT DEVICES

Desktop GlidePoint H60219
GlidePoint Windows 95 keyboard H60221

Drawing Slate II 6x9 w/pressure pen H60223
Drawing Slate II 12x12 w/pressure pen H60225

PhotoPC digital camera H60227
ActionScanning System II H60229
ES1000C color scanner H60231
ES1200C Pro color scanner H60233

HEWLETT PACKARD

HP ScanJet 4s desktop scanner H60235
HP ScanJet 4p flatbed scanner H60237
HP ScanJet 4c flatbed scanner H60239
HP ScanJet 4c document feeder H60241

DC20 Digital Science Camera H60243
DC40 Digital Science Camera H60245
DC50 Digital Science Camera H60247

MouseMan 96 ..... H60249
Cordless MouseMan H60251
TrackMan Marble H60253
TrackMan Live! cordless pointer H60255
PageScan color scanner H60257

PageWiz compact scanner H60259
ScanMaker E3 color flatbed H60261

Vista-S6E SOHO scanner H60263
Vista S-12 scanner H60265

PaperPort Vx scanner H60267
PaperPort ix scanner H60269

MONITORS

Mag Innovision DX1595 PnP 15" .28mm H60271
Mag Innovision DX1795 PnP 17" .26mm H60273
Mag Innovision DX15T 15" .26mm H60275
Mag Innovision DX17T 17" .26mm H60277
Mag Innovision MXP17F 17" .26mm H60279
Mag Innovision MX21F 21" .28mm H60281
Magnavox CM2099 14" .28mm H60283
Magnavox CM2015 15" .28mm H60285
Magnavox CM1215 15" .28mm H60287
Magnavox CM4018 17" .28mm H60289
Magnavox 20CM64 20" .31mm H60291
NEC C400 14" .28mm H60293
NEC XV15+ 15" .28mm H60295
NEC M500 15" .25mm H60297
NEC XV17+ 17" .28mm H60299
NEC XE21 21" .28mm H60301
NEC XP21 21" .28mm H60303

Samsung 17GLi 17" .28mm H60305
Samsung 17GLsi 17" .26mm H60307
Sony Multiscan 15sx 15" PnP .25mm H60309
Sony Multiscan 15sfII 15" PnP .25mm H60311
Sony Multiscan 17sfII 17" PnP .25mm H60313
Sony Multiscan 17sell 17" PnP .25mm H60315
Sony Multiscan 20sfII 20" PnP .30mm H60317
ViewSonic 15GS 15" .27mm H60319
ViewSonic 17GS 17" .27mm H60321
ViewSonic G810 21" .25mm H60323
ViewSonic P810 21" .25mm H60325
ViewSonic P815 21" .25mm H60327
ViewSonic PT810 21" .30mm H60329

VIDEO BOARDS

ATI 3D Xpression PCI 2MB H60331
ATI Graphics Xpression PCI 2MB H60333
ATI Graphics Xpression ISA 2MB H60335
ATI Graphics Pro Turbo PCI 2MB H60337
ATI Graphics Pro Turbo PCI 4MB H60339
ATI Video Xpression PCI 2MB H60341
Diamond Stealth64 2120 PCI 1MB H60343
Diamond Stealth64 Video 3240XL PCI 2MB H60345
Matrox Millennium PCI 2MB WRAM H60347
Matrox Millennium PCI 4MB WRAM H60349
Matrox Mystique PCI 2MB WRAM H60351

OVERDRIVE PROCESSORS

Intel OverDrive DX4/75 ..... H60353
Intel OverDrive DX4/100 ..... H60355
Intel OverDrive Pentium 63MHz H60357
Intel OverDrive Pentium 83MHz H60359
Intel OverDrive Pentium
120/133MHz upg for 5/60, 5/66 ..... H60361
Intel OverDrive Pentium125MHz upg for 5/75 ..... H60363
Intel OverDrive Pentium150MHz upg for 5/90 ..... H60365
Intel OverDrive Pentium 166MHz upg for 5/100 ..... H60367

PC CARDS

3Com Etherlink IIIC H60369
3Com Etherlink III 28.8 Enet 10BT H60371
Adaptec APA 1460 SCSI-2 ..... H60373
Hayes EZJack 14.4 w/fax H60375
Hayes EZJack V.34 28.8 w/fax H60377
IBM 14.4 modem H60379
IBM Ethernet adapter 10BT H60381
IBM 28.8 data/fax modem H60383
IBM Token Ring 16/4 ..... H60385
Megahertz 10BT Enet adapter w/XJACK H60387
Megahertz 28.8 V.34 data/fax w/XJACK H60389
Megahertz 28.8 V.34 cellular w/XJACK H60391
Megahertz 28.8/Enet cellular w/XJACK H60393
Megahertz 28.8/Enet combo cellular w/XJACK H60395
Megahertz AllPoints wireless H60397
Motorola Montana 28.8 cellular H60399
New Media 22.8 NetSurfer fax/modem H60401
Simple 14.4 modem + voice H60403
Simple 28.8 Communicator Cellular H60405
Simple 28.8 Communicator H60407
SMC EtherEZ 10BT H60409
SMC EtherEZ combo H60411
USR Sportster V.34 28.8 with DataView H60413
Xircom Ethernet 10BT H60415
Xircom Ethernet combo H60417
Xircom Ethernet + modem 28.8 10BT H60419
Xircom Ethernet + modem 28.8 combo H60421

COMPUTERS

Satellite & Satellite Pro Notebooks

100CS 5/75 8MB 500MB 10.4" dual H60423
110CS 5/100 8MB 810 11.3" dual H60425
110CT 5/100 8MB 810 11.3" active H60427
410CS 5/90 8MB 772MB 11.3" dual H60429
410CDT 5/90 8MB 772MB 11.3" active 4X CD H60431
420CDS 5/100 8MB 810MB 11.3" dual 6X CD H60433
420CDT 5/100 8MB 1.26GB 11.3" active 6X CD. H60435

Portege Notebooks

500CS 5/120 16MB 1.26GM 12.1" dual H60437
500CDT 5/120 16MB 1.26GB12.1" active 6X CDH60439
610CT 5/90 8MB 720MB 9.5" active H60441
650CT 5/133 16MB 1.26GB 11.3" active H60443

Tecrta Notebooks

720CDT 5/133 16MB 1.2GB 2.1" active 6X CD H60445
730CDT 5/150 16MB 2GB12.1" active 6X CD H60447

Ascentia Notebooks

J10 5/75 8MB 500MB 10.4" dual H60449
J20 5/100 8MB 540MB 11.3" dual H60451
J30 5/100 8MB 800MB 10.4" dual H60453
J30 5/100 8MB 800MB 10.4" active H60455
J50 5/133 8MB 800MB 10.4" active H60457
P30 5/100 8MB 800MB 11.3" dual 4X CD H60459
P30 5/100 8MB 1.2GB 11.3" dual 4X CD H60461
P40 5/120 16MB 1GB 11.3" active 6X CD H60463
P40 5/120 16MB 2.1GB 11.3" active 6X CD H60465
P50 5/133 8MB 800MB 11.3" active 4X CD H60467
P50 5/133 8MB 1.2GB 11.3" active 4X CD H60469
P50 5/133 24MB 1GB 12.1" active 6X CD H60471
P50 5/133 24MB 2.1GB 12.1" active 6X CD H60473

Advantage! Lifestyle Mini-towers
9312 5/166 16MB 2.5GB 8X CD H60475
9310 5/166 24MB 2.5GB 8X CD H60477
9315 5/166 32MB 2.5GB 8X CD H60479
9316 5/200 32MB 2GB 8X CD H60481

Advantage! 9300 Series Mini-towers
9304 5/133 24MB 1.6GB 8X CD H60483
9308 5/166 24MB 2.5GB 8X CD H60485
9314 5/200 24MB 4GB 8X CD H60487

Bravo Desktops
LC 5100 5/100 8MB 630MB H60489
LC 5100 5/100 16MB 1.2GB H60491
LC 5133 5/133 8MB 630MB H60493
LC 5133 5/133 16MB 1.2GB H60495
LC 5166 5/166 16MB 1.2GB H60497
MS 5100 5/100 16MB 1.2GB H60499
MS 5100 5/100 16MB 2.1GB H60501
MS 5133 5/133 16MB 1.2GB H60503
MS 5133 5/133 16MB 2.1GB H60505
MS 5166 5/166 16MB 2.1GB H60507

Bravo Mini-towers
MS-T 5100 5/100 16MB 1.2 GB H60509
MS-T 5100 5/100 16MB 2.1GB H60511
MS-T 5133 5/133 16MB 1.2GB H60513
MS-T 5133 5/133 16MB 2.1GB H60515

Versa Notebooks
2400 5/100 8MB 810MB 11.3" dual H60517
2400CD 5/100 16MB 1GB 11.3" dual 6X CD H60519
4200 5/100 8MB 810MB 10.4" active H60521
4230 5/133 8MB 1GB 10.4" active 6X CD H60523
4050H 5/90 8MB 810MB 10.4" active H60525
4080H 5/120 8MB 1GB 10.4" active H60527
6000H 5/100 16MB 1.08GB 11.3" active 6X CD .H60529
6030H 5/133 16MB 1.35GB 12.1" active 6X CD .H60531
6030X 5/133 16MB 1.44GB 12.1" active 6X CD .H60533

Extensa Notebooks
510 5/100 8MB 810MB 10.4 dual H60535
560CDT 5/75 8MB 1.2GB 10.4" active 4X CD..... H60537
570CD 5/100 8MB 810MB 11.3" dual 6X CD..... H60539
570CDT 5/100 8MB 1.2GB 10.4" active 4X CD...H60541

TravelMate Notebooks
TM5100 5/90 8MB 10.4" dual H60543
TM5200 5/120 8MB 1.2GB 11.3" active..... H60545
TM5300 5/120 8MB 1.2GB 11.3" active..... H60547
TM6020 5/120 8MB 1.08GB 11.3" active..... H60549
TM 6030 5/133 16MB 1.35GB 12.1" active..... H60551

HEWLETT PACKARD

Vectra 500 Series Desktops
510CD 5/120 16MB 1.28GB 6X CD H60553

Vectra 500 Series Mini-towers
515CCx 5/120 16MB 1.28GB 6X CD..... H60555
515CD 5/133 16MB 1.62GB 6X CD H60557
515MCx 5/133 16MB 1.62GB 6X CD H60559
515MCx 5/150 16MB 1.62GB 6X CD H60561
515MCx 5/166 16MB 1.62GB 6X CD H60563

Armada Notebooks
1120 5/100 8MB 810MB 10.4" dual H60565
1120T 5/100 8MB 810MB 10.4" active H60567
4110 5/100 8MB 810MB 11.3" dual H60569
4110D 5/100 8MB 810MB 11.3" dual H60571
4120 5/120 16MB 1.08GB 11.3" dual H60573
4120T 5/120 16MB 1.08GB 11.8" active..... H60575
4130 T 5/133 16MB 1.08GB 11.8" active..... H60577

LTE 5000 Series Notebooks
5000 5/75 8MB 810MB 10.4" active H60579
5100 5/90 8MB 810MB 10.4" active H60581
5100 5/90 8MB 810MB 10.4" active 2X CD..... H60583
5150 5/100 8MB 810MB 11.3" dual..... H60585
5200 5/120 8MB 1.35GB 10.4" active H60587
5250 5/120 16MB 810MB 10.4" active H60589
5280 5/120 16MB 1.3GB 11.3" active H60591
5300 5/133 16MB 1.3GB 12.1" active H60593
5380 5/133 16MB 2.16GB 12.1" active H60595

Deskpro 2000 Series Desktops
5100/630 5/100 8MB 630MB H60597
5100/1200 5/100 8MB 1.2GB H60599
5100/1200 5/100 16MB 1.2GB H60601
5120/1200 5/120 8MB 1.2GB H60603
5120/1200 5/120 16MB 1.2GB H60605
5133/1200 5/133 16MB 1.2GB H60607
5133/2500 5/133 16MB 2.5GB H60609
5166/1200 5/166 16MB 1.2GB H60611
5166/2500 5/166 16MB 2.5GB H60613
5200/2500 5/200 32MB 2.5GB H60615
6180/1200/CD 6/180 16MB 1.2GB 8X CD..... H60617
6200/2500/CD 6/200 16MB 2.5GB 8X CD H60619

Deskpro 2000 Series Mini-towers
5133/2500/CD 5/133 16MB 2.5GB 8X CD H60621
5166/2500/CD 5/166 32MB 2.5GB 8X CD H60623
6200/2500/CD 6/200 32MB 2.5GB 8X CD H60625

Deskpro 4000 Series Desktops
5120/1080 5/120 16MB 1.08GB H60627
5120/1620/LS 5/120 16MB 1.62GB..... H60629
5133/1080 5/133 16MB 1.08GB H60631
5133/1620 5/133 16MB 1.62GB H60633
5166/1620 5/166 16MB 1.62GB H60635
5166/2500/LS 5/166 16MB 2.5GB..... H60637
6180/1620/CDS 6/180 32MB 1.62GB H60639
6200/2500/LS/CDS 6/200 32MB 2.5GB H60641

Deskpro 4000 Series Mini-towers
5133/1620/LS 5/133 32MB 1.62GB..... H60643
5166/2500/CDS 5/166 32MB 2.5GB H60645

Deskpro 6000 Series Desktops
5166/1080/CDS 5/166 16MB 1.08GB 8X CD..... H60647
5166/1080/CDS 5/166 32MB 1.08GB 8X CD..... H60649
5200/1080/CDS 5/200 32MB 1.08GB 8X CD..... H60651
6180/2150/CDS 6/180 32MB 2.15GB 8X CD..... H60653
6200/2150/CDS 6/200 32MB 2.15GB 8X CD..... H60655
6200/4200/PDS 6/200 32MB 4.2GB PD-CD..... H60657

Deskpro 6000 Series Mini-towers
5166/2150/CDS 5/166 32MB 2.15GB 8X CD..... H60659
6200/4200/PDS 6/200 32MB 4.2GB PD-CD..... H60661

ThinkPad Notebooks
365ED 5/100 8MB 540MB 10.4" dual 4X CD H60663
365X 5/100 8MB 810MB 10.4" dual H60665
365X 5/100 8MB 810MB 10.4" active..... H60667
365XD 5/100 8MBf 810MB 10.4" dual 4X CD H60669
365XD 5/120 8MB 1GB 11.3" dual 4X CD H60671
365XD 5/120 8MB 1GB 10.4" active 4X CD..... H60673
560 5/100 8MB 810MB 11.3" dual..... H60675
560 5/120 8MB 810MB 12.1" active H60677
560 5/133 8MB 1GB 12.1" active H60679
760E 5/120 8MB 810MB 12.1" active..... H60681
760E 5/120 8MB 1.2GB 12.1" active H60683
760E 5/120 16MB 1.08GB 12.1" active H60685
760ED 5/133 16MB 1.2GB 12.1" active 4X CD...H60687
760EL 5/100 8MB 810MB 11.3" dual H60689
760ELD 5/100 8MB 810MB 12.1" active 4X CD..H60691
760EL 5/120 8MB 810MB 11.3" dual H60693
760EL 5/120 8MB 1.08GB 12.1" active..... H60695
760EL 5/133 16MB 1.08GB 12.1" active..... H60697

Aptiva Series Desktops
C33 5/133 16MB 1.6GB 8X CD..... H60699
C65 5/166 16MB 2GB 8X CD..... H60671
C73 5/200 16MB 2.5GB 8X CD..... H60673

PC300 Series Desktops
PC330 5/133 16MB 1.2GB 3 bays H60675
PC330 5/133 16MB 1.6GB 3 bays H60677
PC340 5/100 16MB 1.2GB 4 bays H60679
PC340 5/133 16MB 1.2GB 4 bays H60681
PC350 5/100 16MB 1.2GB 5 bays H60683
PC350 5/133 16MB 1.2GB 5 bays H60685
PC350 5/133 16MB 1.6GB 5 bays H60687
PC350 5/133 16MB 1.6GB 5 bays 6X CD..... H60689
PC350 5/166 16MB 1.6GB 5 bays H60691

PC700 Series Desktops
PC700 5/100 16MB 1.2GB 5 bays H60693
PC700 5/133 16MB 1.2GB 5 bays H60695
PC700 5/166 16MB 1.2GB 5 bays H60697

PRINTERS

BJ30 monochrome..... H60699
BJC70..... H60701
BJC210..... H60703
BJC610..... H60705
BJC4100..... H60707
MultiPASS 800 print/copy/scan/fax..... H60709
MultiPASS C2500 color print/copy/scan/fax H60711

AP5000+..... H60713
DFX5000+ H60715
DFX8000..... H60717
FX870 ..... H60719
FX1170 ..... H60721
LQ870..... H60723
LQ1070+..... H60725
LQ2170..... H60727
LX300 ..... H60729
Stylus 1500..... H60731
Stylus Color 500 ..... H60733
Stylus Color II H60735
Stylus Color IIs..... H60737
Stylus Pro Color..... H60739
Stylus Pro XL color H60741

HEWLETT PACKARD

HP DeskJet 400 printer..... H60743
HP DeskJet 340 portable inkjet printer H60745
HP DeskJet 682C color printer H60747
HP DeskJet 820Cse color printer H60749
HP LaserJet 5L Xtra printer H60751
HP LaserJet 5P printer H60753
HP OfficeJet inkjet fax/copier/printer H60755
HP OfficeJet 350 inkjet fax/copier/printer/scanner... H60757

4039 10 Plus..... H60759
Optra E H60761
Optra LX+ H60763
Optra N..... H60765
Optra R+..... H60767
Optra Rt+ H60769

184 Turbo H60771
320 Turbo H60773
321 Turbo H60775
ML395..... H60777
ML520..... H60779
ML521..... H60781
ML590..... H60783
ML591..... H60785
Okipage 4w..... H60787
OL600e..... H60789
OL610e/PS H60791
OL810E..... H60793

1150..... H60795
2023..... H60797
2130..... H60799
KX-P6500 Laser H60801

microLaser Pro/8 ..... H60803
microLaser PowerPro/12 ..... H60805

HARD DRIVES & CONTROLLERS

540MB EIDE..... H60807
1.6GB Fast-ATA H60809
2.0GB Fast-ATA H60811

631MB Fast-ATA H60813
1.08GB Fast-ATA2 ..... H60815
1.08GB Fast SCSI-2..... H60817
2.1GB Fast ATA-2 ..... H60819
2.14GB Fast SCSI-2..... H60821
2.14GB F/W SCSI-2 ..... H60823
4.29GB Fast SCSI-2..... H60825
9GB Fast SCSI-2..... H60827

Caviar 853MB EIDE..... H60829
Caviar 1.2GB EIDE..... H60831
Caviar 1.62GB EIDE..... H60833
Caviar 2.1GB EIDE-2..... H60835
Caviar 2.5GB EIDE-2..... H60837

CONTROLLER
Acculogic SIDE-4+ w/par 2 serial game H60839
Acculogic SIDE-3+ w/on-board BIOS..... H60841
Adaptec AVA1505 SCSI-2 CD Kit H60843
Adaptec 1542CP SCSI Master Kit..... H60845
Adaptec PCI Ultra Wide SCSI Kit H60847
Promise EIDEMAX ISA 2HD on-brd BIOS H60849
Promise EIDE2300+ VLB 4HD on-brd BIOS 6550 .... H60851

MODEMS

ACCURA 144 internal w/fax H60853
ACCURA 144 external w/fax H60855
ACCURA 288 V.34 internal w/fax..... H60857
ACCURA 288 V.34 external w/fax..... H60859
ACCURA 288 DSVD internal..... H60861
ACCURA 228 DSVD external..... H60863
OPTIMA 288 Business Modem external..... H60865
OPTIMA 288 V.34 internal w/fax H60867

DeskPorte V.34 28.8S external H60869
DeskPorte V.34 28.8P external H60871
WWWebPorte Internet kit V.34 28.8S external..... H60873

BitSURFR ISDN adapter internal..... H60875
BitSURFR ISDN adapter external..... H60877
BitSURFR Pro ISDN terminal adapter..... H60879
ModemSURFR V.34 28.8 internal H60881
ModemSURFR V.34 28.8 external H60883
OnlineSURFR V.34 28.8 internal..... H60885
OnlineSURFR V.34 28.8 external..... H60887
VoiceSURFR V.34 28.8 internal H60889

14.4 internal w/fax..... H60891
14.4 Mini-tower w/fax..... H60893
V.34 28.8 internal w/fax H60895
V.34 28.8 Mini-tower w/fax H60897

Sportster Series
14.4 internal w/fax..... H60899
14.4 external w/fax..... H60901
V.34 28.8 internal w/fax H60903
V.34 28.8 external w/fax H60905
Voice V.34 28.8 internal w/fax H60907
Voice V.34 28.8 external w/fax H60909
Winmodem V.34 28.8 internal w/fax H60911
ISDN 128K terminal adapter..... H60913

Courier Series
V.34 28.8 internal w/fax H60915
V.34 28.8 external w/fax H60917
I-modem ISDN V.34 faxmodem internal..... H60919
I-modem ISDN V.34 faxmodem external..... H60921

V.34 28.8 faxmodem external..... H60923
V.34 28.8 Voice Speakerphone internal H60925
V.34i Plus 28 33.6 internal..... H60927
V.34x Plus 33.6 external..... H60929

BATTERY BACKUP AND UPS

Back-UPS Office..... H60931
Back-UPS Pro 280 PNP H60933
Back-UPS Pro 420 PNP H60935
Back-UPS Pro 650 PNP H60937
Smart-UPS 700..... H60939
Smart-UPS 1000..... H60941
Smart-UPS 1400..... H60943
SurgeArrest Personal H60945
SurgeArrest Professional..... H60947
SurgeArrest Network H60949

BC250..... H60951
BC PERS 420 ..... H60953
BC PERS 500 ..... H60955
BC PRO 550 ..... H60957
BC PRO 675 ..... H60959
BC PRO 850 ..... H60961
BC PRO 1050 ..... H60963
Isobar 4 outlet..... H60965
Isobar 6 outlet..... H60967
OmniStart 280 PNP H60969
OmniSmart 450 PNP H60971
OmniSmart 675 PNP H60973





Wireless Keyboard

DESCRIPTION PART #

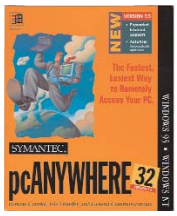


USRobotics 33.6 Sportster Faxmodem

Features:

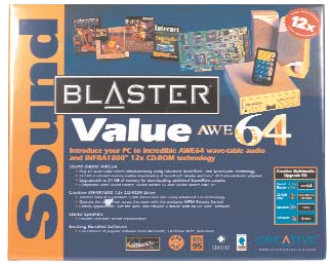
- Transmit data more than twice as fat as with a 14.4 Kbps modem. Save phone and online time charges.
- Send faxes directly from your computer. Send and receive faxes while running other applications send group and delayed faxes, create personalized phonebooks for quicker dialing.
- Supports 33.6 Kbps, true ITU-T V.34 data transmission at 28.8 Kbps, V.32 bis at 14.4 Kbps.
- Universally compatible with all ITU-T standard V.34, V.32 bis, V.32, V.22 bis, Bell 212A/V.22, V.23, V.25 and Bell 103/V.21 modems.
- Built-in 16550 UART for improved performance.
- Ensures data integrity and fast transmission with hardware-based V.42/MNP 2-4 error control and V.42 bis/MNP 5 data compression for throughput up to 115,200 bps.
- Supports V.17 14.4 bps, V.29 9600 bps and V.27 ter 4800 bps Group III fax machines and fax modems.
- Displays help screens on your computer. Easy to follow installation guide included.
- On board speaker with software volume control.
- Permanently stores preferred modem default settings and four most-used phone numbers in memory.
- Compatible with most popular fax and communications software packages.
- Supports the industry-standard AT command set.

DESCRIPTION PART #



Software- PC Anywhere

DESCRIPTION PART #



Sound Blaster

DESCRIPTION PART #

iomega Zip 100mb 6-pack

Use Zip disks to:

- Expand your hard drive without limits
- Move your work easily to different locations and computers
- Backup fast and easy
- Collect large scanned or downloaded files
- Take work home or on the road with you
- Give your kids disks for school work and other stuff



Comes with a free Zip Caddy

- Holds six Zip disks
- Can be positioned horizontally or vertically
- Coordinates with your Zip drive
- Stores your Zip disk with or without cases

DESCRIPTION PART #

Microsoft FrontPage 97



DESCRIPTION PART #

Structured Cabling Systems

NCI carries a full line of racks, enclosures and all the accessories you need and can custom assemble your Rack or Enclosure for you .We also carry a full line of loaded and unloaded patch panels.

We are dedicated to being your full service *structured* cabling systems supplier. As always, if you dont see what you are looking for, call us and we will be happy to assist you in your order.

23" Solid Cantilevered Shelf



19" Vented SemiCenter Mt Shelf





19" Ventilated Cantilevered Shelf



Cable Mgt Bracket 8 Ring w/Clips

Cable Mgt Bracket 5 Ring





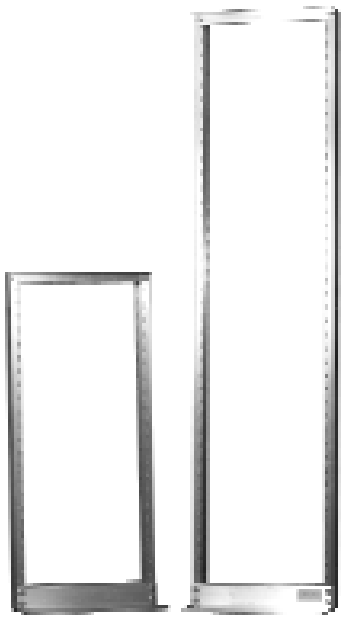
Cable Mgt Bracket 2 Ring w/Clips



19" Mounting Bars



24" to 19" Adapter Brackets 1.7"



19"x47" Rack 19"x84" Rack

These aluminum racks are designed with drilled holes on both sides of the rails. Easy to put together model comes in 84" or 47" Height and 19" or 23" width. The finish is standard aluminum or black enamel.

UPS SHIPPABLE.

Description	Aluminum #	Black #
19"x84" Rack	611005	611005B
23"x84" Rack	611008	611008B
19"x47" Rack	611006	311006B
23"x47" Rack	611009	311009B

Description	Part #
19" Solid Cantilevered Shelf	611037
19" Ventilated Cantilevered Shelf	611038
19" Solid Center Mt. Shelf	611039
19" Vented SemiCenter Mt Shelf	611060
23" Solid Cantilevered Shelf	611040
23" Ventilated Shelf	611041
23" Solid Center Mt Shelf	611042
19" Sliding Shelf	611043
23" Sliding Shelf	611044
19" Mounting Bars	611045
23" Mounting Bars	611046
24" to 19" Adapter Brackets 1.7"	611047

Description	Part #
24" to 19" Adapter Brackets 3.5"	611048
24" to 19" Adapter Brackets 5"	611049
24" to 19" Adapter Brackets 7"	611050
24" to 19" Adapter Brackets 8.7"	611051
23" to 19" Adapter Brackets 1.7"	611052
23" to 19" Adapter Brackets 3.5"	611053
23" to 19" Adapter Brackets 5"	611054
23" to 19" Adapter Brackets 7"	611055
23" to 19" Adapter Brackets 8.7"	611056
Cable Mgt Bracket 5 Ring	611057
Cable Mgt Bracket 2 Ring w/Clips	611058
Cable Mgt Bracket 8 Ring w/Clips	611059
84" Vertical Cable Mgt Bracket	320719

Structured Cabling Systems

Custom Cabinets & Enclosures



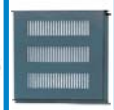
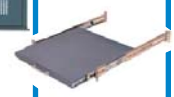










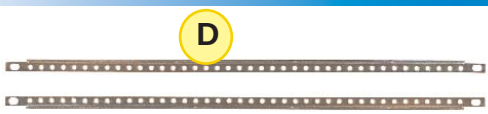
Closed Sided Cabinet*	Open Sided Cabinet*	Internal Dimensions			External Dimensions			Side Panels for Open Side cabinet (Price Side)*	Plexi Door with Lock	Solid Vented with Lock*	Vented Top* (Required for Fan Options)	Solid Top*	Rear Set of Mounting Angles	Solid Shelf*	Vented Shelf*	Sliding Shelf*
Part#	Part#	H	W	D	H	W	D	Part#	Part#	Part#	Part#	Part#	Part#	Part#	Part#	Part#
315798	315796	36	19	24	43	23	24	315756	542103	542105	315703	542101	315734	315716	315713	315721
315779	315794	36	19	30	43	23	30	315754			315744	315791		315732	315775	315724
315781	315792	49	19	24	56	23	24	315752	315748	315787	315703	542101	315785	315716	315713	315721
315790	315788	49	19	30	56	23	24	315750			315744	315791		315732	315775	315724
315786	315701	70	19	24	77	23	24	315711	315707	315705	315703	542101		315716	315713	315721
315784	315755	70	19	30	77	23	30	315757			315744	315791	315709	315732	315775	315724
315782	315780	70	24	24	77	28	24	315711	315746	315720	315742	315738		315730	315739	315722
315768	315766	70	24	30	77	28	30	315757			315740	315736		315728	315726	315793
315777	315751	77	19	24	84	23	24	315741	315745	315747	315703	542101		315716	315713	315721
315761	315768	77	19	30	84	23	30	315799			315744	315791	315733	315732	315775	315724
315762	315727	77	24	24	84	28	24	315741	315735	315718	315742	315738		315730	315739	315722
315760	315758	77	24	30	84	28	30	315799			315740	315736		315728	315726	315793

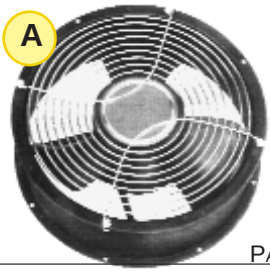
* For Colors Add Suffix: -Blue, -Beige, -IBMWhite, -Black

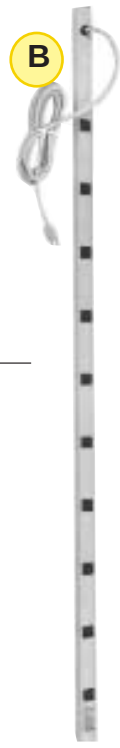
This is an example of a typical cabinet enclosure with a top mount fan, rack mount power strip, 6 shelves and a plexi door



Cabinets & Enclosures Accessories

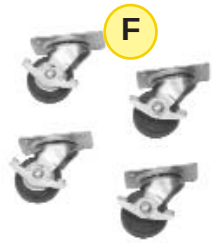












Description	Part #
10" Top Mount Fan (A)	315715
6 Outlet 15 Amp Power Strip	315714
10 Outlet 15 Amp Power Strip	315753
10 Outlet 20 Amp Power Strip (B)	315769
Twistlock 20 Amp Power Strip	315737
Rack Mount Power Strip (C)	318101
Mounting Bars (D)	611045
Cabinet Light	315706
Grounding Lug Assembly	315708
Gang Kit for Enclosure	315710
Leveler Kit	315763
10-32 Truss Head Screw (E)	870115
Locking Caster (F)	315767

12.25" Hinged Mini Wall Rack



32 Port 3.5" BNC 1/2" Feed Thru



12 Port 1.75" Keystone IDC Panel



8.75" Hinged Mini Wall Rack



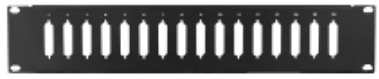
1.5" Hinged Mini Wall Rack



5.375" Hinged MIni Wall Rack



DB25 16 Port 3.5"





5.25x19" Filler Panel

3.5" Hinged Ring Adapter

MINI WALL RACKS

DESCRIPTION	PART #
RACK FOR MAU	998220
1.75" HINGED RACK	998222
3.5" HINGED RACK	998224
5.375" HINGED RACK	998226
7" HINGED RACK	998228
8.75" HINGED RACK	998230
10.5" HINGED RACK	998232

RING ADAPTERS

DESCRIPTION	PART #
3.5" HINGED RING	998236
5.375" HINGED RING	998238
7" HINGED RING	998240
8.75" NOT HINGED RING	998250

BNC 1/2" FEED THRU

DESCRIPTION	UNLOADED #	LOADED #
16 PORT 1.75"	998026	998062
16 PORT 3.5"	998028	998064
24 PORT 3.5"	998030	998066
32 PORT 3.5"	998032	998068
48 PORT 5.25"	998034	998070
64 PORT 7.0"	998036	998072
96 PORT 8.75"	998038	998074

TWINAX FEEDTHRU

DESCRIPTION	UNLOADED #	LOADED #
16 PORT 3.5"	998042	998078
24 PORT 3.5"	998044	998080
32 PORT 7.0"	998046	998082

IBM DATA

DESCRIPTION	UNLOADED #	LOADED #
12 PORT 3.5"	998084	998092
16 PORT 5.25"	998086	998094
32 PORT 8.75"	998088	998096

KEYSTONE IDC PANEL

USE SUFFIX= -1 FOR RJ11, -2 FOR RJ12, -3 FOR RJ45

DESCRIPTION	UNLOADED #	LOADED #
12 PORT 1.75"	998011	998047
16 PORT 1.75"	998012	998048
16 PORT 3.5"	998014	998050
24 PORT 3.5"	998016	998052
32 PORT 3.5"	998018	998054
48 PORT 5.25"	998020	998056
64 PORT 7.0"	998022	998058

FILLER PANELS

RACKS	PART #
x 19"	998002
3.5 x 19"	998004
x 19"	998006
7 x 19"	998008
x 19"	998010

D- SUB 9, 15, 25, 37 AND 50

DESCRIPTION	UNLOADED #	LOADED #
DB9 16 PORT 3.5"	998100	998124
DB9 32 PORT 5.25"	998102	998126
DB15 16 PORT 3.5"	998104	998128
DB15 32 PORT 5.25"	998106	998130
DB25 16 PORT 3.5"	998108	998132
DB25 24 PORT 5.25"	998110	998134
DB25 32 PORT 7.0"	998112	998136
DB25 48 PORT 8.75"	998114	998138
DB25 64 PORT 10.50"	998116	998140
DB25 96 PORT 12.25"	998118	998142
DB37 16 PORT 3.5"	998120	998144



LVO - #317303



Keystone - # 998184



Coax 3/8"-2 - # 998175

LOW VOLTAGE OUTLET MOUNTING PLATE

DESCRIPTION	PART #
SINGLE GANG	317303
DOUBLE GANG	317305

STAINLESS STEEL WALLPLATES - DOUBLE GANG

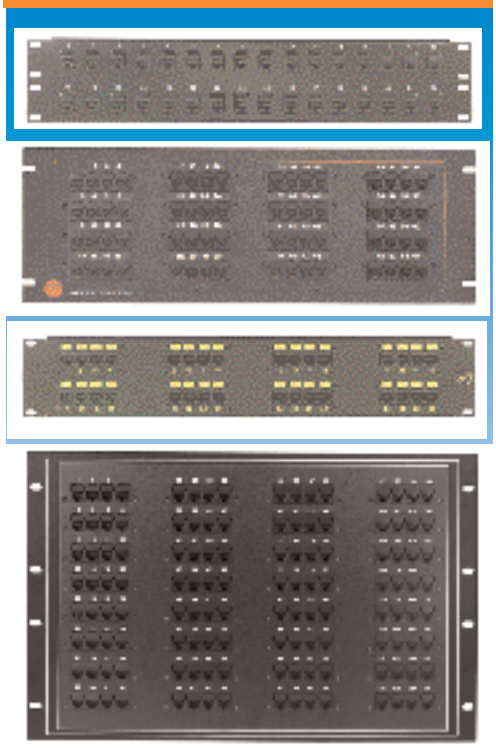
DESCRIPTION	PART #
BLANK	998194
DB15-1	998196
DB25-2	998198
DB25-4	998200
DB25-1 AND KEYSTONE-2	998202
COAX 1/2"-2	998204
KEYSTONE-4	998206

STAINLESS STEEL WALLPLATES - SINGLE GANG

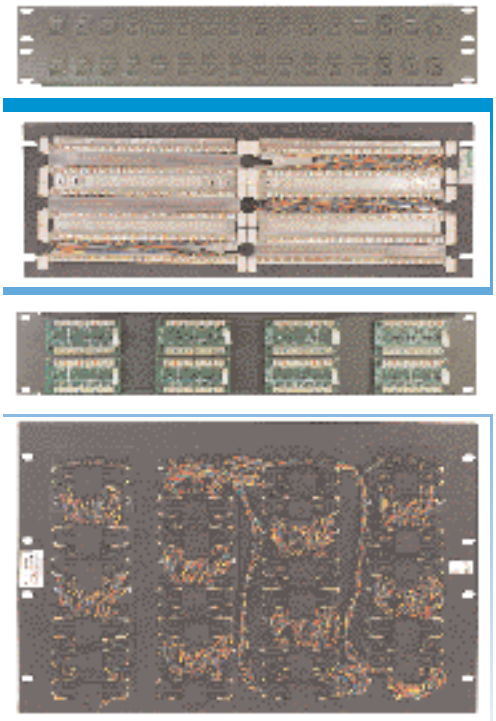
DESCRIPTION	PART #
BLANK	998148
BLANK WATER PROOF	998149
DB9-1	998150
DB9-2	998152
DB15-1	998154
DB15-2	998156
DB25-1	998158
DB25-2	998160
DB25-1 AND TWINAX-1	998162
DB25-1 AND COAX 1/2"-1	998164
DB25-1 AND KEYSTONE-1	998166
CENTRONICS-1	998168
COAX 1/2"-1	998170
COAX 3/8"-1	998172
COAX 1/2"-2	998174
COAX 3/8"-2	998176
COAX 1/2"-1 & KEYSTONE-1	998178
IBM DATA-1	998180
IBM DATA-1 & KEYSTONE-1	998182
KEYSTONE-1	998184
KEYSTONE-2	998186
KEYSTONE-3	998185

Structured Cabling Systems

Patch Panel Front



Patch Panel Back



12 Port

Panel Type	Part #	to Telco	Part #	to 110 Level 3	Part #	to 110 Level 5	Part #	Feed Thru
2 COND(RJ11)	860100		860178		---	---	---	---
2 COND(RJ11) Fem	860100F		---	---	---	---	---	---
4 COND (RJ11)	860102		860180		---	---	---	---
6 COND (RJ12)	860104		860182		---	---	860402	
6 COND (MMJ)	860106		860184		---	---	---	---
8 COND (RJ45)	860108		860186		---	---	860406	
10 COND (RJ69)	860109		860187		---	---	860407	
M66 Eliminator	---	---	---	---	860403		---	---

16 Port

Panel Type	Part #	to Telco	Part #	to 110 Level 3	Part #	to 110 Level 5	Part #	Feed Thru
2 COND (RJ11)	860110		860188		---	---	---	---
4 COND (RJ11)	860112		860190		---	---	---	---
6 COND (RJ12)	860114		860192		---	---	---	---
6 COND (MMJ)	860116		860194		---	---	---	---
8 COND (RJ45)	860118		860196		860117		860416	
10 COND (RJ69)	860119		860197		---	---	860417	

24 Port

Panel Type	Part #	to Telco	Part #	to 110 Level 3	Part #	to 110 Level 5	Part #	Feed Thru
2 COND (RJ11)	860120		860198		---	---	---	---
2 COND (RJ11) Fem	860120F		---	---	---	---	---	---
4 COND (RJ11)	860122		860200		---	---	---	---
4 COND (RJ45) 10BT	860127		---	---	---	---	---	---
6 COND (RJ12)	860124		860202		---	---	860422	
6 COND (MMJ)	860126		860204		---	---	---	---
8 COND (RJ45)	860128		860206		860266		860426	
8 COND (RJ45) Fem	860128F		---	---	---	---	---	---
10 COND (RJ69)	860129		860207		---	---	860427	

25 Port

Panel Type	Part #	to Telco
2 COND (RJ11)	860123F	

32 Port

Panel Type	Part #	to Telco	Part #	to 110 Level 3	Part #	to 110 Level 5	Part #	Feed Thru
2 COND (RJ11)	860130		860208		---	---	---	---
4 COND (RJ11)	860132		860210		---	---	---	---
6 COND (RJ12)	860134		860212		---	---	860432	
6 COND (MMJ)	860136		860214		---	---	---	---
8 COND (RJ45)	860138		860216		860276		860436	
10 COND (RJ 69)	860139		860217		---	---	860437	

48 Port

Panel Type	Part #	to Telco	Part #	to 110 Level 3	Part #	to 110 Level 5	Part #	Feed Thru
2 COND (RJ11)	860140		860218		---	---	---	---
2 COND (RJ11) Fem	860140F		---	---	---	---	---	---
4 COND (RJ11)	860142		860220		---	---	---	---
6 COND (RJ12)	860144		860222		---	---	860442	
6 COND (MMJ)	860146		860224		---	---	---	---
8 COND (RJ45)	860147		860226		860286		860446	
10 COND (RJ69)	860145		860227		---	---	860447	

64 Port

Panel Type	Part #	to Telco	Part #	to 110 Level 3	Part #	to 110 Level 5	Part #	Feed Thru
2 COND (RJ11)	860148		860228		---	---	---	---
4 COND (RJ11)	860150		860230		---	---	---	---
6 COND (RJ12)	860152		860232		---	---	860452	
6 COND (MMJ)	860154		860234		---	---	---	---
8 COND (RJ45)	860156		860236		860296		860456	
10 COND (RJ69)	860157		860237		---	---	860457	

96 Port

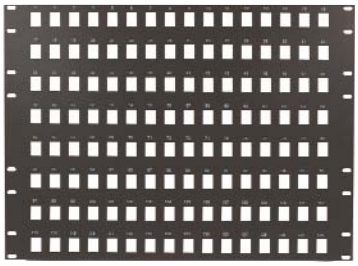
Panel Type	Part #	to Telco	Part #	to 110 Level 3	Part #	to 110 Level 5	Part #	Feed Thru
2 COND (RJ11)	860158		860238		---	---	---	---
4 COND (RJ11)	860160		860240		---	---	---	---
6 COND (RJ12)	860162		860242		---	---	860462	
6 COND (MMJ)	860164		860244		---	---	---	---
8 COND (RJ45)	860166		860246		860306		860466	
10 COND (RJ69)	860167		860247		---	---	860467	

128 Port

Panel Type	Part #	to Telco	Part #	to 110 Level 3	Part #	to 110 Level 5	Part #	Feed Thru
2 COND (RJ11)	860168		860248		---	---	---	---
4 COND (RJ11)	860170		860250		---	---	---	---
6 COND (RJ12)	860172		860252		---	---	860472	
6 COND (MMJ)	860174		860254		---	---	---	---
8 COND (RJ45)	860176		860256		860255		860479	
10 COND (RJ69)	860177		860257		---	---	860480	

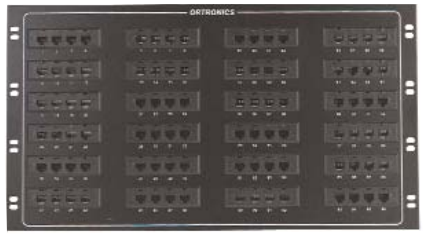
All Telco Panels Come Standard with Male Connectors (Female are Optional)
Standard Wiring for RJ11, RJ12 is USOC ; for RJ45 568.B Wiring
Other Wiring Available: ATT568A, 10 BASE T, DEC, NEVADA WEST.
Call Now For More Info.

128 Port Panel



DESCRIPTION	PART#
UNLOADED 128 PORT 14" (RJ45) PATCH PANEL	998023
LOADED	998029

96 Port Panel



DESCRIPTION	PART#
4 COND RJ45 10BT TO TELCO 96 PORT PATCH PANEL	311989

Lightwave Communications, Inc.

ServerSwitch

ServerSwitch Controls Up to 25 Sun® Workstations from 1 Keyboard/Monitor

Transport High Resolution Video and Keyboard Signals from Up to 25 Sun® Workstations/Servers to a single Video Display/Keyboard.



A **ServerSwitch** is an active, microprocessor controlled switching device which allows a single keyboard, monitor and mouse to be switched among 5 different workstations. **ServerSwitch** can be daisy-chained to access up to 25 CPUs from 1 monitor and keyboard. Video, keyboard and mouse signals are all switched transparently to each CPU, eliminating interference with active CPU processes. Keyboard emulation is supplied at all times to all CPUs (regardless of switch position), thereby eliminating a processor re-boot which would occur if a processor detected a missing keyboard. All video channels are passed transparently along with their respective monitor sense lines, allowing correct CPU video setup. The LED display on the master will always show the selected channel. In the event of disconnection or interruption of any one of the inputs to the **ServerSwitch**, an error will be displayed on the front panel of the **ServerSwitch** when that channel is selected. With the optional **Remote Control Unit**, ServerSwitches can be controlled from a user location outside the computer installation. For long distances (up to 3.000') a **VDE/200 Video Display Extension System** can be used. CALL for more information.


Front


Back

Features
- Transparent to all Sun® monitor and keyboard types, uses standard Sun® cabling
- Pushbutton selection with Error and Channel display for ease of operation
- Error indicator flashes if signal is not present on a selected channel
- Two rack-units in height for up to 5 worksattions, may stand alone. Switches up to 25 workstation inputs in daisy-chain configuration.
- Remote Control Unit also available

Specifications

Video Connections:	13W3 female connectors
Keyboards Connections:	8 pin mini-DIN female connectors
Power:	115/230V 50/60 Hz W, switched, fused
Operating Temparature:	0-45˚C
Indicators	
Channel Select:	LEDs
Error:	LEDs flash "E", then input number
Power indicator:	Channel LEDs will be lit when power is on
Switch Type:	Electronic touch
Dimensions, Weight:	3-12" x 16-3/4 W19" (including rack mount ears) x 10" D; 10 pounds

Description	Part #	
ServerSwitch Model 5000	333201	
Video Cable 6' Long	333203	
Din Keyboard 6' Long	333205	
Remote Cntrl Unit w/ 25' Serial Cable	333207	CALL

MasterConsole®

RCI®

Control 2 to 64 PC's with a single keyboard, mouse and monitor up to 150' away. Turn on AutoScan, and **Master Console** will display the activity of the connected computers at intervals between 1 and 16 seconds.



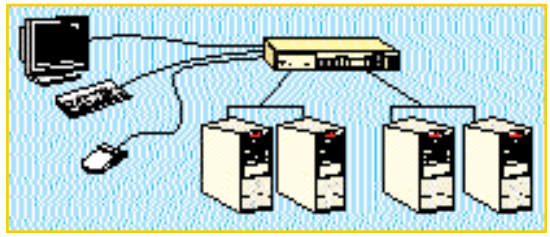
Front


Back

Applications:
- Control of multiple network servers, bridges and gateways.
- Software development/testing on multiple workstations/servers.
- Networking stress testing.
- System integration and burn-in testing.

Description	Part #
2 Channel	331409
4 Channel	331413
8 Channel	331405
16 Channel	331419
VGA Video Cable Kits (each cable kit connects 2 PC's	
3' VGA Cable Kit	331401
7' VGA Cable Kit	331403
10' VGA Cable Kit	331411
20' VGA Cable Kit	331415
Other Lengths Available. Please Call	
Accessories	
Serial Port to PS/2 Mouse Port Converter	331421
6' Daisy Chain Cable (for 6 channel P-Model)	331423
19" Rack-Mount Brackets for 2 or 4 Ports Models	331417
19" Rack-Mount for 8 or 16 Ports Models (2 Brakes Req. for Z0605-2)	331407

Features:
- Reclaim valuable space instantly
- Eliminate clutter & cost of keyboards monitor & mice.
- Improve productivity with central control of PC's.
- 100% reliability with superb video quality.
- Hot-Key gives you to the option of directly selecting PC's from a single keyboard.



SWITCHES



Share Up to 8 PCs with 1 printer using standard parallel printer cables. 1 Mb built-in buffering releases PCs from print jobs.
This deluxe High-Speed Buffered AutoSwitch ensures fast, error-free printing with no waiting. This Switch is designed for complex print jobs. Boost your productivity by sharing your parallel printer with 2,4, or 8 PCs. Also works flawlessly with complex Windows, Windows 95 and PostScript print jobs and graphics-generating software.

Memory:	1 MB
Interface:	Centronics and IBM® PC parallel compatible
Connectors:	Input: 2, 4 or 8 36-pin Centronics female Output: 1 DB25 female
Indicators:	1-segment display for Power-up, Ready and Port Activity Status
Dimensions:	2 Port: 2.2" x 8.7" x 4.3" 4 Port: 3" x 8.7" x 4.3" 8 Port: 4.5" x 8.7" x 4.3"
Weight:	2 Port: 4.2 lb. - 4 Port 4.8 lb. - 8 Port 6.2 lb.

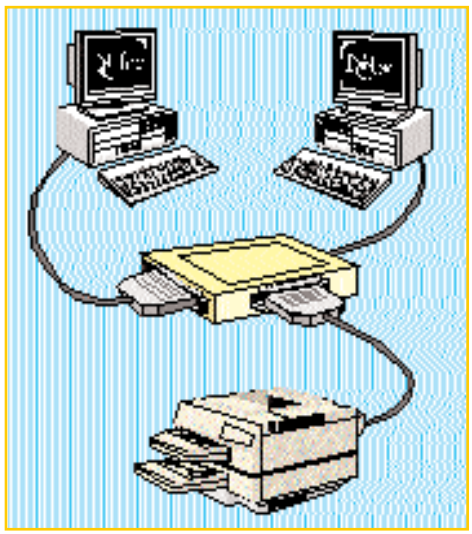
DELUXE AUTO BUFFERSWITCHES

DESCRIPTION	PART #
2 PORT	540517
4 PORT	540519
8 PORT	540521



COMPACT PARALLEL AUTO BUFFERSWITCHES

- 2 computers share 1 parallel printer
- LEDs indicate channel-in-use & buffer status
- 10 or 60 sec. timeout & DB25F connectors
- 25-50KCps transfer rate & up to 80% data compresion, w/manual override switch
- Form feed enable/disable
- Recommended Cables:
  Computer: DB25M/M
  Printer: DB25M/Cen36M





CONSOLE PARALLEL AUTO BUFFERSWITCHES

FOR 1 PARALLEL PRINTERS

- Up to 8 computers share 1 parallel printer, DB25F connectors
- First-come, first-serve input selection w/manual override selector switch
- Expandable to 2 Meg, 20-40KCps transfer rate and up to 80% data compression
- LEDs indicate channel-in-use, ready, & manual override
- Settable 5-60 sec timeout & auto form feed enable/disable
- Recommended Cables
  Computer: DB25M/M
  Printer: DB25M/Cen36M

FOR 2 PARALLEL PRINTERS

- Up to 4 computers share 2 parallel printers & DB25F connectors
- LEDs indicate channel-in-use & buffer status
- 16KCps transfer rate & 3-200 sec timeout
- Form feed enable/disable, concurrent input arbitration, & 255 multicopy function
- First-come, first serve w/reset button
- Daisy chainable, up to 2 stages (16 x 6)
- Includes DOS/Windows printer software.
- Recommended Cables
  Computer: DB25M/M
  Printer: DB25M/Cen36M

SERIAL AUTO BUFFERSWITCHES

- Up to 4 computers share 2 serial printers
- 255 multicopy function & 256K buffer expandable to 3.3 Meg.
- LEDs indicate channel-in-use, buffer ready & full
- Automatic input selection w/reset button & concurrent Input/Output arbitration
- DB25F (input-DCE), 2 DB25M (output-DTE) connectors
- Auto form feed enable/disable, hardware and/or Xon-Xoff handshake
- Settable 3-200 sec timeout, 300-38400bps buffer speed
- Reconfigurable to 3 to 1 or 5 to 1
- Includes DOS/Windows software for printer selection
- Recomended Cables
  Computer: DB25M/F
  Printer: depends on your printer

AUTO BUFFERSWITCHES

COMPACT PARALLEL AUTO BUFFERSWITCHES

DESCRIPTION	PART #
2 TO 1, 256K	403273
2 TO 1, 1 MEG	403275
2 TO 1, 2 MEG	403277

CONSOLE PARALLEL AUTO BUFFERSWITCHES

DESCRIPTION	PART #
4 TO 1, 256K EXPD. TO 2 MEG	403279
4 TO 1, 1 MEG EXPD. TO 2 MEG	403281
8 TO 1, 256K EXPD. TO 2 MEG	403283
8 TO 1, 1 MEG EXPD. TO 2 MEG	403285
*2 TO 2, 256K EXPD. TO 3.3 MEG	403287
*4 TO 2, 256K EXPD. TO 3.3 MEG	403289

SERIAL AUTO BUFFERSWITCHES

DESCRIPTION	PART #
2 TO 2, 256K EXPD. TO 3.3 MEG	403291
4 TO 2, 256K EXPD. TO 3.3 MEG	403293

***Styles may vary**

Now your parallel printer can be shared among 2, 4 or even 8 users, and you can use the same standard parallel printer cables you'd use for just a single PC.
With its 8-KB buffer, it's the economical answer to handling several smaller print jobs.

Description	Part #
2 Port	540523
4 Port	540525
8 Port	540527

Memory:	8KB
Interface:	Centronics and IBM® PC parallel compatible
Connectors:	Input: 2, 4, 8 36-pin Centronics female Output: 1 DB25 female
Indicators:	7-segment display for Power-up, Ready, and Port Activity Status
Dimensions:	2 Port: 2.2" x 8.7" x 4.3" 4 Port: 3" x 8.7" x 4.3" 8 Port: 4.5" x 8.7" x 4.3"
Weight:	2 Port: 4.2 lb. - 4 Port 4.8 lb. - 8 Port 6.2 lb.



ServerMaster allows a single user station to access up to 64 or 216 servers/PCs. Ideal for network administrators who need to update directories, control security, and monitor the status of multiple servers. Also great for remote operation of multiple PC and QC during PC burn in procedures. Saves the space needed for monitors, keyboards, and mice AND saves administrators time.

1 to 6 Servers

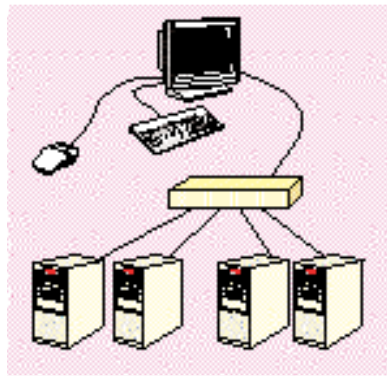
- Single Keyboard/VGA/ mouse access 6 servers
- Cascadable to expand access up to 216 computers
- 1 ready & 6 Port status LEDs, auto scan mode or manual
- Supports 486/Pentium/PS/2 & VGA/SVGA
- Features regular PC keyboard/mouse port
- Daisy chain option can expand access up to 216 PCs
- Din5/Mini6, HD15, DB9 connectors

Description	Part #
6 Servers	403234

1 to 4 Servers

- Single keyboard/VGA/ mouse access 4 servers
- Cascadable to expand access up to 64 computers
- Port status LEDs, auto scan mode or manual
- Supports 486/Pentium/PS/2 & VGA/SVGA
- Features dual PC & PS/2 keyboard/mouse port
- One user station access 4 computers
- Switch by keyboard or selection button
- Built-in buzzer for switching confirmation
- Din5/Mini6, HD15, DB9/Mini6 connectors

Description	Part #
4 Servers	403233

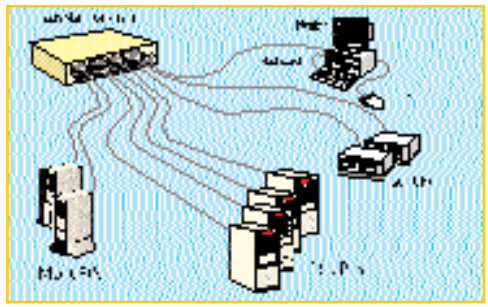


The Single Control Station

- Control PC, Mac® and Sun® CPUs from 1 keyboard, monitor, and mouse or mix different platforms
- Keyboard emulation avoids lockups and allows you to use the mouse and keyboard of your choice
- Keyboard and Alphanumeric display enable users to define and display a name for each CPU
- Convenient switching options - keyboard, front-panel, or RS 232 serial port - provide greater control and flexibilty

PC / MAC / SUN

Description	Part #
4 to 1	540501
8 to 1	540503
12 to 1	540505
16 to 1	540507



Connect all your IBM® PC,Mac® and Sun® servers or CPUs via a single keyboard, monitor, and mouse. You can monitor the CPU currently under control using the ServManager's alphanumeric display.



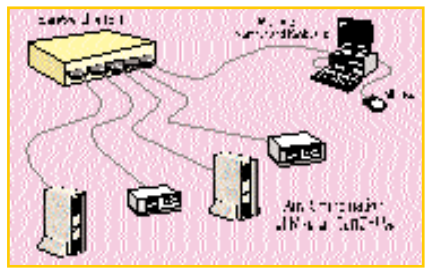
You can switch from the front-panel keypad, keyboard commands or the RS-232 serial port. Get the right configuration for your application. Call NCI for more information.

Save Space, Time and Money

- Control Up to 256 Macintosh® or Sun® CPUs with 1 keyboard, monitor, and mouse.
- Switch from your keyboard, the Switch's front panel, or remotely
- Rackmount Kits are also available

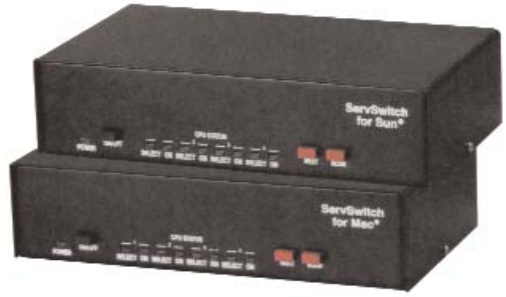
SUN

Description	Part #
2 to1	540509
4 to 1	540511



MAC

Description	Part #
2 to1	540513
4 to 1	540515



SWITCHES

Switching is one of the most common money-saving techniques in office computing. With a switch, users share the printer. We offer 2 types of switches: manual & auto. With manual switches, users control shared equipment by turning a knob or pressing a button. Auto-switches follow preset instructions about time and circumstance, and allow greater flexibility. PBX switches let multiple users share a fixed number of ports. Fallback/Remote switches give you auto line or equip. backup. Activated switches give remote control over connections.











Description	Type	Use	Part#
Mini Din 8 pin	AB	MAC+,II,IIc,SE Apple	810562
Mini Din 8 pin	ABC	MAC+,II,IIc,SE Apple	810563
Mini Din 8 pin	ABCD	MAC+,II,IIc,SE Apple	810564
Mini Din 8 pin	XOVER	MAC+,II,IIc,SE Apple	810567
Din 5 pin	AB	Keyboard	810712
Din 5 pin	ABC	Keyboard	810713
Din 5 pin	ABCDEFGHIJK	Keyboard	810711
DB9	AB	Monitor/AT SerialPort	810442
DB9	ABC	Monitor/AT SerialPort	810443
DB9	ABCD	Monitor/AT SerialPort	810444
DB9	ABCDEF	Monitor/AT SerialPort	810446
DB9	ABCDEFGHIJK	Monitor/AT SerialPort	8104411
DB9	XOVER	Monitor/AT SerialPort	810447
DB15	AB	Ethernet, Joy Stick	810452
DB15	ABC	Ethernet, Joy Stick	810453
DB15	ABCD	Ethernet, Joy Stick	810454
DB15	ABCDEF	Ethernet, Joy Stick	810456
HD15	AB	VGA/PS2 Monitor	810462
HD15	ABCD	VGA/PS2 Monitor	810464
HD15	ABCDEF	VGA/PS2 Monitor	810466
DB25	AB	Serial/Parallel Port	810472
DB25	ABC	Serial/Parallel Port	810473
DB25	ABCD	Serial/Parallel Port	810474
DB25	ABCDE	Serial/Parallel Port	810475
DB25	ABCDEF	Serial/Parallel Port	810476
DB25	XOVER	Serial/Parallel Port	810477
DB25-DB25-C36	AB	Parallel Printer	810732
DB25x4-C36	ABCD	Parallel Printer	810734
DB37	AB	Hard Drive	810492
DB37	ABC	Hard Drive	810493
DB37	ABCD	Hard Drive	810494
DB37	XOVER	Hard Drive	810497
DB50	AB	Hard Drive	810502
DB50	ABCD	Hard Drive	810504
Centronics24	AB	IEE488/HPLab Acc.	810402
Centronics24	ABC	IEE488/HPLab Acc	810403
Centronics24	ABCD	IEE488/HPLab Acc	810404
Centronics24	ABCDE	IEE488/HPLab Acc	810405
Centronics24	XOVER	IEE488/HPLab Acc	810407
Centronics36	AB	Parallel Printer	810412
Centronics36	ABC	Parallel Printer	810413
Centronics36	ABCD	Parallel Printer	810414
Centronics36	ABCDE	Parallel Printer	810415
Centronics36	XOVER	Parallel Printer	810417
Cent36x2-DB25	AB	Parallel Printer	810742
Cent36x4-DB25	ABCD	Parallel Printer	810744
Centronics 50	AB	SCSI,Telco	810432
RJ11	AB	CommunicationLine/Data	810542
RJ11	ABC	CommunicationLine/Data	810543
RJ11	ABCD	CommunicationLine/Data	810544
RJ11	XOVER	CommunicationLine/Data	810547
MMJ (RJ12)	AB	CommunicationLine/Data	810692
MMJ (RJ12)	ABC	CommunicationLine/Data	810693
MMJ (RJ12)	ABCD	CommunicationLine/Data	810694
RJ45	AB	CommunicationLine/Data	810552
RJ45	ABC	CommunicationLine/Data	810553
RJ45	ABCD	CommunicationLine/Data	810554
RJ45	XOVER	CommunicationLine/Data	810557
V.35	AB	High Speed Data	810682
V.35	ABC	High Speed Data	810683
V.35	ABCD	High Speed Data	810684
Keyboard MiniDin4&DB15	ABCD	MacKeyboard/Monitor	810463
KeyboardDin5&DB9	AB	XT/AT Keybd Mon.	810522
KeyboardDin5&DB9	ABCD	XT/AT Keybd Mon	810524
Keybrd Din5&HD15	AB	XT/AT Keybd/VGAMonitor	810752
Keybrd Din5&HD15	ABCD	XT/AT Keybd/VGAMonitor	810754
Keybrd Mini6&HD15	AB	PS2 Keybd & VGAMonitor	810532
Keybrd Mini6&HD15	ABCD	PS2 Keybd & VGAMonitor	810534
Twinaxial	AB	Network	810572
Twinaxial	ABC	Network	810573
Twinaxial	ABCD	Network	810574
Twinaxial	XOVER	Network	810577
Coaxial (BNC)	AB	Video	810582
Coaxial (BNC)	ABC	Video	810583
Coaxial (BNC)	ABCD	Video	810584
Coaxial (BNC)	XOVER	Video	810587

Share your display with up to 8 other VGA monitors. Great for product presentations, classrooms, conferences or software demonstrations.

Specifications

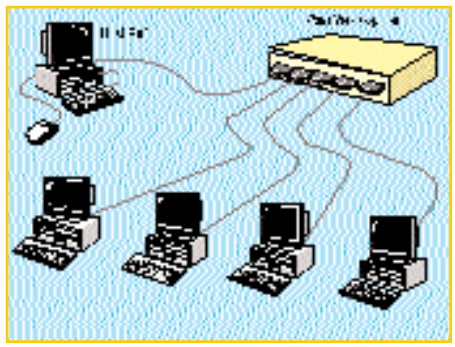
Connectors VGA Splitters: HD-15 Male input. HD-15 Female 4 Ports; HD-15 Female 8 Ports output.

Dimensions:

4 Port; 2' x 51/8 w x 6'

8 Port; 3' x 7' w x 10'

Description	Part #
4 Port	316401
8 Port	316402









TV Converter

DESCRIPTION PART#





Auto Switches

These Belkin Bitronic AutoSwitches allow 2 or 4 (depending on the model) computers to share one IEEE 1284 compatible printer. They fully take advantage of the bi-directional features and capabilities of any bi-directional printer. New IEEE 1284 compatible printers can now send printer information such as paper jams, printing status, printer off-line, out of paper and other messages to all the computers at the same time. Also functions with non-bi-directional printers. For All Bi-Directional Printers

- Compatible with HP, Canon, Epson and other Bi-Directional Printers
- IEEE 1284 Compatible

DESCRIPTION	PART#
BELKIN BITRONICS 2PORT AUTOSWITCH	541901

Presenter TVIEW Gold

Connect Your Mac or PC to any TV or VCR

With this small, lightweight computer interface and Apple MacIntosh, DOS, Windows or OS/2-based software, you can create high impact presentations to view on any television. This allows you to make group presentations from your desktop, Apple Powerbook or PC compatible laptop.

The Presenter TVIEW™ Gold is an external plug & play hook up that will not slow down your computer, even while displaying on a large 50" screen or projection TV. The Presenter TVIEW Gold uses revolutionary circuitry that far surpasses the quality of anything previously introduced to the market. It offers such features as Sharp View™ and Clear Image™, which produce unparalleled quality screen displays. The Video Stabilizer™ eliminates screen flicker.

Features:

- Built-in Fit-TV™ - Insure you audience will see the whole picture on the TV...no missing menu bars. Fit-TV™ is guaranteed to show an entire computer screen up to 800 x 600 on any standard TV.
- New Video Stabilizer™ - The Presenter TVIEW Gold introduces revolutionary circuitry design with its new video stabilizer. Because TV and computer scan lines produce images differently, screen flicker results when converting a computer-generated image for TV display. Traditional methods for filtering flicker still leave residual flicker that diminishes display quality or reduces resolution. The Presenter TVIEW Gold uses pioneering line averaging technology with the video stabilizer to virtually eliminate screen flicker.
- Sharp View™ - Sharp View advanced circuitry cleans up any residual smearing that occurs when video lines are averaged, so text is sharper, colors truer and more vibrant, and image resolution is higher.
- High Res - Supports up to 1024 x 768 and 16.7 million colors with most computers.
- Plug & Play Anywhere - The Presenter TVIEW Gold works with televisions supporting NTSC and PAL. The Presenter TVVIEW Gold also supports the SCART (Euroconnector) input for clarity as good as a computer monitor. Travel the world with one box.
- Multiscan Passthrough Mode - This mode enables users to view presentations simultaneously on both their monitor and TV screen.
- Clear Image - Technology improves text using any standard TV with an RCA video input.



Includes:

- The Presenter TVIEW Gold
- 1 Apple MacIntosh Video Cable
- 1 VGA Cable
- Power Cube
- Composite Video Cable
- S-Video Cable
- MacIntosh Software: Electronic Marker
- PC Software: Video Fonts, Electronic Marker

Monitor Support:

- Apple™ RGB monitors
- Apple multiple scan monitors
- All VGA monitors

System Requirements:

- MacIntosh with monitor port
- PC with VGA output

Specifications:

- Input: MacIntosh RGB, VGA DB-15
- Output: Composite RCA, S-Video, Apple RGB, VGA

Physical Features:

Main Unit - 8.25" x 3.8" x .94"

DESCRIPTION PART#

Plotter Buffer PL-121

Specifications

Dram Memory - 64KB-4MB
I/O Channels - One serial Input/One serial Output
Front Pannel Indicators - RAM status, Plotter error, Buffer ready, Pause, Replot/Run
Power Comsumption - Max. 11 W
Operation Temperature - 5°C - 40°C (41°F - 104°F)
Stock Temperature - -20°C - 60°C (-4°F -140°F)
CPU - Z-80A
Power - DC9V, 1.2A
Humidity - 0-80%
Function Key - Reset, Pause, Run, Cancel
Replot, Slow-Down - Supported
Time Out Selection - 10 seconds or 30 seconds
Auto Form Feed - Supported (For Printer Only)
Protocol - Hardware, XON/XOFF, ENQ/ACK, No
Baud Rate - 150-19200 bps
Data Bits - 7 or 8
Stop Bits - 1 or 2
Parity Check - Disabled, Even, Odd
Dimensions - 184x127x61 mm

The Plotter Buffer PL-121 is designed to speed up the releasing file speed from a host computer to a plotter. It also provides the same ability for a printer with a RS-232C serial port.



BACK



DESCRIPTION	PART#



VGA/ PS2/ PS2M

DESCRIPTION	PART #	REF#
EAZY VGA/PS2/PS2M	313507	EHN051-0010



VGA/ PS2/ PS2M

DESCRIPTION	PART #	REF#
EAZY VGA/PS2/PS2M	313505	EHN054-0001

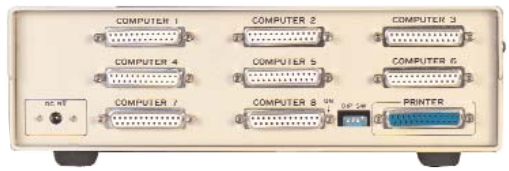
CPU to Server Switch



DESCRIPTION	PART #	REF#
EAZY CPU TO SERVER SWITCH	313627	EHN205-0010

8 to 1 Parallel





DESCRIPTION	PART #
AUTO DATA SWITCH BOX 8 TO 1 PARALLEL	810922

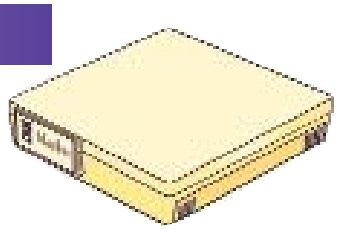
ISDN stands for Integrated Services Digital Network. The 2 basic types of ISDN are known as subscriber interfaces and consist of BRI and PRI.BRI stands for Basic Rate Interface and is 144,000 bits per second (bps). PRI stands for Primary Rate Interface and is 1,544,000 bps.BRI works with desktop applications while PRI works with telephone switches, computer telephony and voice processing systems. Basic Rate Interface is available from your local phone company. If you have any questions call our sales dept.

IBM

High Speed digital & analog communications over a single line.

The IBM NT Extended lets you take advantage of high bandwidth and speed - up to 64 kilobits per second (Kbps) - via 2 ISDN B channels. Installing the ISDN NT Extended is easy. With minimal or no rewiring required in most cases. You simply connect it between your workstation's ISDN adapter and the modular telephone wall jack using the provided RJ11 cables. An A/C

IBM
Network Terminator Extended
Part# 316135



US ROBOTICS

Sportster ISDN 128K is a PC-based terminal adapter that is designed specifically for telecommuting and Internet access.

It provides connectivity to an ISDN BRI and allows simultaneous voice and data communications. Equipped with an RJ-11 jack, the Sportster ISDN 128K can be used with a standard telephone or fax machine to communicate over the digital network.

UsRobotic
Sportster ISDN 128K
Part# 402203



MOTOROLA

The Motorola BitSURFER Pro ISA for ISDN is a high speed Internal terminal adapter that gives you dial up access to ISDN for super-fast web browsing, sending or down-loading graphics, and much more. For more information on Motorola products call our sales department.

Motorola
Network Terminaton-1 Device NTID
Part# 331103
Terminal N/Boilt-In NT-1
Part# 331121
Hibrid Modem/Terminal Adapter
Part# 331123
BitSurfer Pro ISA
Part# 331125





TEKTRONIX

The CrafTek CT-100 meets high standards for ruggedness, portability and reiliability.

In addition to traditional analog POTS service, the portable test set provides comprehensive ISDN and P-Phone measurements and indicators for rapid performance verification and fault diagnosis. New services can be provided more efficiently, customer downtime minimized and problems quickly resolved.
-Internet Access Testing -Personal Video Conferencing -Telecommuting

Tektronix
CT-100 ISDN Tester
Part# 535801



CARDINAL

The Cardinal ISDN Adapter transmits up to four times faster than the fastest V.34 modem. High speed ISDN links to the Internet avoid long delays in finding data resources and accessing information on the Internet.

Cardinal
Basic Rate ISA Adapter
Part# 314809



3Com

The Arpeggio family of products combines ISDN services, bridging and TCP/IP and Novell® routing to deliver high-speed network communications over standard telephone lines.

3Com

Arpegio Lite	Part# 536959	1199
Arpegio Plus Basic Rate	Part# 536961	2399
Arpegio Plus Office	Part# 536963	2919



Telecom Products

DDS stands for Dataphone Digital Service also known as Digital Data System. It is a private line digital service with data rates ranging from 2,400 to 56,000 bits per sec. AT&T offers DDS on a long distance basis and offered on a local basis by local phone compnaies.

MULTITECH



Choose this versatile DSU/CSU if you're using DDS (Dedicated Digital Service up to 56Kbps). Its standard features include both V.35, RS232, and RJ48 connections. It operates synchronously at rates up to 56Kbps and asynchronously at rates up to 19.2Kbps. The MultiDSU56K complies with AT&T PUBS 41450 and 62310 requirements, and operates over point-to-point or multipoint circuits. Features include clocking options, elastic store for analog off-net extensions, antistreaming, and RTS and DSRsignal forced-on selection. MultiDSU56K works in DDS Multipoint, LADS (Local Area Data Set), Tail Circuit and Analog Off-Net applications.

MULTITECH DSU MT56DSU
Part# 334903

MOTOROLA

Motorola has the widest selection of high-speed modems, digital transmission products, concentrators, routers, and custom network management systems available today. With Motorola you'll find a larger-than-ever choice of products to help you reduce your capital equipment and network line costs, achieve higher networking speeds, performance, and productivity, keep pace with new public and private transmission services as they become available and take advantage of break-through new mobile, teleconfer-encing, PC-based, and other communi-cations technologies.









SW5611 4 WIRE SW56 W/V.35 INTERFACE LCD
Part# 331105

SW5611 4 WIRE SW56 W/RS232 INTERFACE LCD
Part# 331107

MR64 DSU/CSU 64K SYNC & ASYNC LCD PANEL STANDALONE W/RS232 & V.35 INTERFACE
Part# 331109

DU56 2 WIRE SW56 W/V.35 INTERFACE V25BIS AT COMMAND DSU/CSU
Part# 331139

DU56 (RS232) DSU/CSU 2 WIRE RS232 INTERFACE V25BIS AT COMMAND
Part# 331113

3512 NMS SINGLE PORT W/INTERNAL 4 WIRE SW56 RESTORAL
Part# 331115 1532

3512 NMS SINGLE PORT W/INTERNAL MODEM V32BIS 1 LINE RESTORAL
Part# 331117 1532

3512 SINGLE PORT W/INTERNAL 4 WIRE SW56 RESTORAL
Part# 331119 1166

DU170 2 WIRE SW56 W/V.35 INTERFACE LCD
Part# 331111

COMPATIBLE



MICROROUTER 900I ETHERNET ROUTER
Part# 540201

MICROROUTER 1000R ETHERNET ROUTER
Part# 540203

4-WIRE DDS FOR MICROROUTER 9001& 1000R 56K CSU/DSU
Part# 540205

CRAY



CSU/DSU UP TO 56K STANDALONE W/RS449 INTERFACE
Part# 589901

ROUTERMATE 56 56K CSU/DSU 1-V35 SNMP/TELNET OR V100 TERMINAL
Part# 539903

Telecom Products

T1 is a digital transmission link with a capacity of 1.544Megabits Per Sec. T1 uses 2 pairs of standard twisted pair cable. T1 has capacity ofof 24 voice concersations individually digitized at 64 Kbps. More voice channels can be used, however, higher grade equipment is needed.T1 is great for Wide Area Networks and when using Bridges and Routers.

FT1 is Fractional T1. That means that FT1 is just a portion of full T1, and that means it is not as fast as full T1. FT1 is cheaper than T1 and that is why it is popular. FT1 is used for video conferencing, high speed applications and computer imaging.
NCI can help you order all that you'll need to set up your T1. Just call our sales department.

MOTOROLA

Supports all T1/FT1 standards along with SNMP network management.

-Your choice of two powerful models:
FT 100M with two data ports
FT 100M with one data port and one Add/Drop port
-Operates at all standard data rates up to Mbps
-SNMP-based, MIB-II compliant network management with range of alarms and ESF performance history
-Menu-driven local management acessible through VT100 terminal or

T1 CSU/DSU Dual V.35 SNMP Mgmt DTE via DB25 ia V.35
Part# 331127
V.35 v/V.35 Interface to DTE via DB25
Part# 331129



AT&T PARADYNE

3150 ESF T1 Channel Service Unit is a full-featured standalone model which directly connects to mutiple formatting environments, including D4 and Extended Superframe Format (ESF) T1. Windows-based front panel emulation software and flash memory software downloading make it easy to operate and upgrade.

T-1 Esf CSU Standalone
Part# 400079

Carrier T-1 Esf DSU/CSU 2 Port - FDL/EDL - Ext DBU Option
Part# 400081

T-1 DSU/CSU Standalone 1 Port
Part# 400083



Cray Communications

-Up to 24 synchronous channels
-Drop-and-insert DSX port
-SNMP management
-ESF performance monitoring
-T1 and fractional T1 compatible
-Frame relay compatible

12S T-1 DSU/CSU w/Non Expandable Ni Cable
Part# 539905

Routermate T-1/FT-1 CSU/DSU 1 - V.35 SNMP
Part# 539907



TELTONE LINE SIMULATORS

ILS - 2000 ISDN Line Simulator - ISDN Demonstrator

The Teltone ILS-1000 is a portable, stand-alone, end-to-end, ISDN Basic Rate Interface (BRI) Central Office SImulator. It's also the most affordable and convenient way to develop and test ISDN-BRI products designed for either U or S/T interface, including network terminations, Type 1 terminating equipment, and terminal adapters. With the Teltone ILS-2000, you can avoid the trouble and expense of specifying ISDN services and buying protocol analyzers. You can demonstrate physical layer, data link layer, and network layer operations during multiple real-time voice or data calls- on your desktop!



ILS-2000 Productivity Features:

- **Two ISDN-BRI (2B+d) Lines for end-to-end simulation.**
- **U (2B1Q) and S/T (ASI Bipolar) interfaces at each line.**
- **Speech, 3.1 Khz audio, 7 khz audio, Curcuit Mode Data, and D Channel Packet Mode Data.**
- **Point-to-point and point-to-multipoint configurations**
- **In-band tones and primary line power to six terminating devices.**
- **Supports National ISDN-1, AT&T, DMS-100, and ETSI switch provisioning.**
- **Supports auto-Initializing terminals, including AT&T Management I Information Messages (MIM)**

TELTONE ILS-2000 ISDN Line Simulator
Part# 332615

ISDN Demostrator Productivity Features:

ILS-2000 Features, exept:

- **Supports ISDN-1, only (AT&T 5ESS optional**
- **U 92B1Q) interface at each line**
- **Operates off 110 VAC only**

TELTONE ISDN Demonstrator
Part# 332657





Back



CommLYNX™

Teltone's CommLYNX PC software brings the power of sophisticated call center CTI systems to your desktop. Whether you are a salesperson, a telecommuter, or a small business owner, and if your business is telephone intensive, then you will immediately benefit from the "near predictive dialing" capabilities of CommLYNX. CommLYNX combines a feature-rich, Windows™-based user interface with Teltone's T-311 Telephone Access Unit to give you real productivity that other PC-based calling products can't touch. More than just a power dialer, it's a complete call management system at your fingertips.

CommLYNX™ Productivity features:

- **Complete more calls in less time.** Recognizes busy signals, reorder tones, no answers, SIT's, and autodials the next number in a group.
- **Built-in links to your applications.** Easily integrates with your existing contact management software such as ACT!, TeleMagic, Maximizer, Time & Chaos, and DOS applications.
- **Create call activity reports.** Captures call info such as phone numbers names, date, duration, and subject. Stores info for easy access and report generation.
- **Screen inbound calls.** The CommLYNX Caller ID feature alerts users to who is calling, displaying a "Call Announce" icon which flashes on screen until answered. Can also work transparently in the background.
- **Replaces your phone.** Your headset or handset plugs into the T-311, giving you the convenience of hands-free calling. You can use your standard phone by plugging it directly to the T-311.
- **Speed dial keys.** Programmable "soft keys" save time dialing frequently called numbers.
- **Telephone company service support.** Supports Caller ID, Visual Message Waiting, voice mail, Centrex services for call hold, forward, transfer, and single line conference calling.

TELTONE CommLYNX™ - Includes one T-311 computer access device with AC power adapter, 3.5" disk(s) containing CommLYNX software, one 6 foot cord with DB9 RS-232 connectors, and one 7 foot telephone line cord.
PART #332609

TELECOMMUTING: THE TIME IS NOW!
You can immediately begin to realize the benefits of telecommuting: Increased productivity, reduced absenteeism, employee retention, and increased job satisfaction. Call NCI today to get your employees off the road and on to productivity!



Back



OFFICELINK®

OfficeLink is a compact, single-user device which allows employees to make and receive phone calls from their homes or "telework" centers, *while appearing to callers as if they are in the office.* Your employees can work from any touchtone telephone and anyone calling them will assume they are calling from the office.

Telecommuters can use PBX features to transfer callers, set up a conference call, or leave voice mail messages. OfficeLink is the economical telecommuting solution: with minimal investment your company can begin, right away, to realize the benefits of the "virtual office".

Office Link Productivity Features:

- **Quick & Easy Installation.** As simple as plugging in an incoming and an outgoing analog telephone line to the unit. Installed at the company PBX or ACD location.
- **Ease of Use.** Once your employees learn a few short touchtone commands, they are ready to go to work.
- **A Connection for Your Application.** Office Link offers 2 types of network connections between the the telecommuter and the office phone system.
  Continuous Connection: Designed for businesses with intensive incoming call traffic, the continuous connection feature maintains a con stant network link with company's phone system. Incoming calls are announced with a tone in the headset.
  Per-Call Connection: This connection is maintained only for the duration of individual calls and is suited for intermittent calling. A distinctive headset tone announces business calls, so the telecommuter can answer with a business greeting.
- **Cost Effective.** Move employees off-site and reduce overhead. Replace off-premises extension (OPX) lines.Comply with commuter-trip reduction requirements.
- **Mobility.** Telecommuters' calls can follow them wherever they go. The telecommuter calls the OfficeLink whenever he changes location and enters the current number.
- **25 Telecommuters.** Multiple employees can share the benefits of OfficeLink, if they telecommute at different times.
- **Access to Phone System Features.** Employees can use all the features of the office telephone system, just as though they were on site.
- **Remote Administration.** Allows the system administrator to change passwords and otherwise remotely manage the system.
- **Rock Solid Security.** Designed with the security of your phone system in mind, OfficeLink's anti-hacker feature will frustrate any unauthorized caller.
  Passwords: Passwords of up to ten digits can be changed as often as necessary to ensure security.
  Lock-Out: OfficeLink blocks calls after multiple attempts to enter an unauthorized password.
  Dial Back: Only employees whose numbers have been preloaded into the OfficeLink are given access with this feature. Dial Back also enables toll reversal where the com pany is to be billed for long distance calls.

Call Records: OfficeLink provides a serial port for real-time recording of all call activity.

TELTONE OfficeLink® **Part# 332611**

TELEPHONE SIMULATORS

Telephone Line Simulators

Teltone's Telephone Line Simulators make it easy to test equipment such as phones, fax machines, or modems. You can also demonstrate products at customer sites or trade shows and provide telecom training. Everything you need in a compact AC-powered unit. Teltone Line Simulators provide true network simulation with accurate dial tone, audible ring, and busy signals to the telephones or other devices connected to them. Many functions of the TLS-3B, TLS-4, TLS-5 are easily programmed with a touch-tone phone or with Teltone's Cipher™ software on your PC. You can program unique primary and secondary phone numbers for each line. Simulate PBX features such as hunt groups, "9" outside line access, transferring, conferencing, etc. Set dial tone delays, network response delays, flash detect, and more. There's no limit to the ways you can use Teltone's Telephone Line Simulators.

2-Line Telephone Simulators

TLS-3A Productivity Features:

- Two loop start lines with single talk path
- Precise call progress tones (dial tone, busy, reorder, ringback)
- Tone and Rotary Dialing
- Dial-up test tones
- Secondary dial tones
- Cost effective basic functions

TLS-3A Telephone Simulator

PART# 332601

TLS-3B Productivity Features:

ALL THE FEATURES OF THE TLS-3A, PLUS:

- Programmable features include : Primary / secondary phone numbers (up to 16 digits) Off hook modes, Network response delays, Test to frequencies, Line attenuation
- Caller ID information generated in single and multiple message formats. Simulates privacy blockage, out-of-area calls, and transmission errors.
- Visual message waiting indicator
- Programmable dial-up test tones (dial, busy, reorder, ringback, silence)

TLS-3B Telephone Simulator

TLS-3A



4-Line Telephone Simulators

TLS-4 Productivity Features:

- Four simulated phone lines with two talk paths. EAch line can have unique primary and secondary phone numbers, up to 16 digits long.
- Precise call progress tones (dial, busy, and ringback tones. Eight selectable wave forms. Programmable call processing delays. Selectable response to non-valid numbers.
- Simulate a PBX hunt group, "9" access to outside line. Calls can be transferred, put on hold, and conferenced.
- **Forced Disconnect** (Cut-off On Disconnect or Calling Party Control): Disconnects either the caller or called party after a programmable delay.
- **Hot Lines**: Automatically Ring another station(s) when the handset of a connected device is lifted.
- **Distinctive Ringing**:Preset standard ring cycle of 2 seconds on and 4 seconds off for each lines first number. Programmable ring cadences for each lines second number.
- **Auto Port**: Standard 5-pin DIN jack for recording or playing voices or tones.

Touchtone command string sets up all features. Settings for each line (Except phone number and caller name) can be cloned from one line to another.

- Programmable dial-up test tones (dial, busy, reorder, ringback silence)

TLS-4 Telephone Simulator

Part# 332603

TLS-5A Productivity Features:

ALL THE FEATURES OF TLS-4 PLUS:

- Caller ID info generated in Bellcore-specified single and multiple data message formats. Information may include calling number, caller name, date, and time of call. Simulates privacy blockage, outof-area calls and transmission errors.
- U.S. (115 VAC) and International (230 VAC) power versions.

TLS-5A Telephone Simulator

Part# 332605

TLS-5C Productivity Features:

ALL THE FEATURES OF TLS-4 and TLS-5A PLUS:

- Caller ID in Call Waiting (SCWID) • Call Forwarding • Speed Dialing
- Automatic Callback • Automatic Recall • Distintive Call Waiting
- Optional selection of stuttered dialtone type with Visual Message Waiting

TLS-5C Telephone Simulator

Part# 332629

TLS-4



TLS-5A



LINE SHARING DEVICES

"CUT OUT YOUR DEDICATED PHONE LINES WHILE ADDING TO YOUR BOTTOM LINE."

Experience the Benefits of Teltone Line Sharing:

- Share a single telephone line between four telecom devices. • Eliminate extra modem lines used for only brief periods. • Ensure correct call routing every time.
- Enhance employee safety by giving priority to telephone users. • Collect / transmit data from local or remote sites. • Simple installation and setup.

...and it's affordably priced!

Line Sharing

Teltone's Line Sharing Switch and Polling Controller let you take advantage of the unused capacity of your phone lines by allowing up to four telecommunications devices (phone, modem, fax, etc.) to share a single line. Your inbound or outbound data collection and other online transactions will take place as with dedicated lines, but without the extra line cost.



Emergency override access to the phone line can be provided as needed for your application. The Line Sharing Switch operates alone or with the Polling Controller to give you a flexible ,cost- effective way to collect data without affecting critical telephone service.

The Lines Sharing Switch eliminates the cost of extra lines at your remote site regardless of whether you dial your call from your host or from your remote location. The Line Sharing Switch will allow you to share the outbound access of one line with two to four devices and prioritize how each device can interrupt the others to use the line.Any device that can be connected to a standard telephone line can receive or place calls through the Line Sharing Switch, including telephones, modems, point-of-sale terminals, credit / debit authorization terminals, fax machines, voice mail systems, answering machines and others. A Polling Controller is only required at your host site if you need to down load data or new software to the remote site. You get significant line cost savings and line access flexibility. When the Line Sharing Switch and the Polling Controller are connected in a dual unit architecture Polling System, they make the most cost-effective and functional outbound system of its type. In this configuration, the Polling Controller is located at the central polling location and a Line Sharing Switch is located at the remote location. These components communicate across the public switched network to set up and disconnect calls quickly and accurately.

System Components:

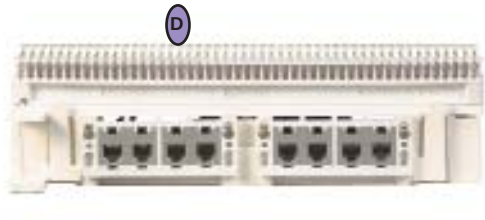
- Line Sharing Switch located at the remote location where lines are being consolidated. Versions available to support 2, 3, and 4 port applications.

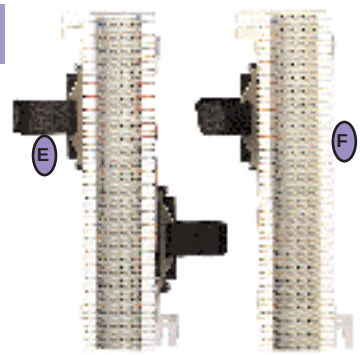
Line Sharing Switch **Part# 332655**

Polling Controller **Part# 332663**

66 BLOCKS







UNWIRED BLOCKS

DESCRIPTION	PART #
66 M125 PUNCHDOWN BLOCK 25PR	421005
66 M150 PUNCHDOWN BLOCK 50PR (B)	421010
66 M STANDOFF BRACKET (89 D) (A)	421020
66 M425 BLOCK AND BRACKET (C)	421000
66 M BRACKET (89 E) FOR SMALL BLOCK	421001
66 M BLOCK 12 PAIR SPLIT	421003

WIRED BLOCKS TO MOD JACKS

Custom Wiring Available. Listing Below is Standard Wiring.

DESCRIPTION	PART #		
WITH 16 4 COND (RJ11)	421140		
WITH 12 4 COND (RJ11)	421141		
WITH 8 4 COND (RJ11)	421142		
WITH 16 6 COND (RJ12) (D)	421145		
WITH 12 6 COND (RJ12)	421143		
WITH 8 6 COND (RJ12)	421146		
WITH 8 4 COND (RJ45)	421147	-------	-------
WITH 12 8 COND (RJ45)	421150		
WITH 6 8 COND (RJ45)	421151		
WITH 5 10 COND (RJ45)	421156		

WIRED BLOCKS TO TELCO

DESCRIPTION	PART #		
66 M125 W/1MALE TELCO BOTTOM ENTRY	421110		
66 M125 W/1MALE TELCO TOP ENTRY (F)	421113		
66 M125 W/1FEMALE TELCO BOTTOM ENTRY	421111		
66 M125 W/1FEMALE TELCO TOP ENTRY	421112		
66 M150 W/1MALE TELCO BOTTOM ENTRY	421115		
66 M150 W/1MALE TELCO TOP ENTRY	421119		
66 M150 W/1FEMALE TELCO BOTTOM ENTRY	421117		
66 M150 W/1FEMALE TELCO TOP ENTRY	421118		
66 M150 W/2MALE TELCO BOTTOM ENTRY (E)	421120		
66 M150 W/2MALE TELCO TOP ENTRY	421128		
66 M150 W/2FEMALE TELCO BOTTOM ENTRY	421125		
66 M150 W/2FEMALE TELCO TOP ENTRY	421127		
66 M150 W/4FEMALE TELCO BOTTOM ENTRY WIRW	421129	-------	-------
66 M150 W/1MALE&1FEMALE TELCO BOTTOM ENTRY	421130		
66 M150 W/1MALE&1FEMALE TELCO TOP ENTRY	421131		
66 M150 W/1FEM TOP ENTRY&1FEM BOTTOM ENTRY	421132	-------	-------
66 M150 W/1MALE BOTTOM ENTRY&1FEM TOP ENTRY	421135	-------	-------



Bridging Clips & Covers

DESCRIPTION	PART#
2 POSITION	421050
3 POSITION	421051
4 POSITION	421052
1 PAIR COVER	421062



Multiple Bridging Clips - 2x2 position with Test Access

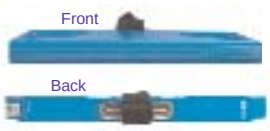
DESCRIPTION	PART#		
WHITE	421059		
RED	421053		
YELLOW	421058		
BLUE	421056		
GREEN	421057		
VIOLET	421053VL		
TESTER	311784	-----	-----



66 Block Clip Extender

DESCRIPTION	PART#
1 TWO PRONG CLIP	421190
2 ONE PRONG CLIP	421191
1 ONE PRONG CLIP	421192
TESTER - 66 TYPE RABBIT EARS	421054





66 Block to Mod Adapter for testing

DESCRIPTION	PART #		
2 COND (RJ11)	421155		
4 COND (RJ11)	421160		
6 COND (RJ12)	421165		
8 COND (RJ45)	421169		
50 COND (TELCO 50 MALE)*	421180	-------	-------
50 COND (TELCO 50 FEMALE)	421181	-------	-------



66 Block to Mod Adapter

Used for side-by-side connections.

DESCRIPTION	PART #
2 COND (RJ11)	421158
4 COND (RJ11)	421157
6 COND (RJ12)	421159
8 COND (RJ45)	421161



Snap On Hinged Cover for 66 M1 Block

DESCRIPTION	PART #
BLUE	421070BL
GREEN	421070GN
RED	421070RE
YELLOW	421070YE
ORANGE	421070OR
WHITE	421070IV
GRAY	421070GR



Hook & Loop Holdowns for 25 Pair Connectors

DESCRIPTION	PART #
HOLDOWNS-1 STRAP BLACK	990200
HOLDOWNS-2 STRAPS WHITE	990202



Designation strips

DESCRIPTION	PART #
WHITE	421086
RED	421087
BLUE	421088
YELLOW	421089
GREEN	421090

110 BLOCKS & ACCESSORIES

110 WIRING BLOCKS WITH ACCESSORIES



DESCRIPTION	PART #
100PR 110 BLOCK 4PR CLIPS COMPLETE W/ACCESSORIES	421212
100PR 110 BLOCK 5PR CLIPS COMPLETE W/ACCESSORIES	421214
300PR 110 BLOCK 4PR CLIPS COMPLETE WACCESSORIES	421216
300PR 110 BLOCK 5PR CLIPS COMPLETE W/ACCESSORIES	421218
50 PAIR 110 BLOCK WITH NO ACCESSORIES	421220
100 PAIR 110 BLOCK WITH NO ACCESSORIES	421222
300 PAIR 110 BLOCK WITH NO ACCESSORIES	421224

110 Block- Additional Accessories



DESCRIPTION	PART#		
3PR CONNECTING MODULE(CLIP) FOR 110 BLOCK	421226		
4PR CONNECTING MODULE(CLIP) FOR 110 BLOCK	421228		
5PR CONNECTING MODULE(CLIP) FOR 110 BLOCK	421230		
LABELS FOR ABOVE 6 PER PACK	421232		
LABEL HOLDER FOR ABOVE 6 PER PACK	421234	------	------

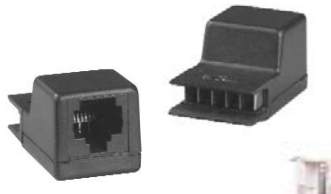
Prewired 110 Blocks



DESCRIPTION	PART #
100PR W/1FT LEV.5-25PR FEMALE TELCO EXTENSIONS	421236
300PR W/1FT LEV.5-25PR FEMALE TELCO EXTENSIONS	421238

ALL FOR OTHER CUSTOM CONFIGURATIONS

Test Modules For 110 System



DESCRIPTION	PART#
110 TO 6 COND. (RJ11)	400075
110 TO 8 COND. (CAT 5)	400077
110 TO 8 COND.(RJ45) ADAPTER	421240
110 TO 8X8 COND.(RJ45) ADAPTER SHOE	421242
110 TO 50 PIN (TELCO) MALE ADAPTER SHOE	421244

Modular Preterminated 110 Blocks



DESCRIPTION	PART#
110 TO 12 PORT 2 WIRE (RJ11) STANDARD	421246
110 TO 12 PORT 4 WIRE (RJ11) STANDARD	421248
110 TO 12 PORT 6 WIRE (RJ12) STANDARD	421250
110 TO 12 PORT 4 WIRE (RJ45) 10 BASE T	421252
110 TO 12 PORT 8 WIRE (RJ45) STANDARD	421254
110 TO 36 PORT 6 WIRE (RJ12) STANDARD	421256
110 TO 36 PORT 8 WIRE (RJ45) STANDARD	421258
110 TO 48 PORT 2 WIRE (RJ11) STANDARD	421260
110 TO 48 PORT 4 WIRE (RJ11) STANDARD	421262

BIX BLOCKS ACCESSORIES



DESCRIPTION	PART #	REF #		
DISTRIBUTION BLOCK 25PR	423003	QCBIX1A		
BRIDGING CONNECTOR 12-2PR CLIPS	423005	QCBIX2A		
MULTIPLYING CONNECTOR 5- 5 PAIR	423008	QCBIX5A		
KEY APPARATUS CONNECTOR	423010	QCBIX7A		
DIODE CONNECTOR- 24 DIODES	423012	QCBIX9A		
MODULAR CONNECTOR	423060	QCBIX36DA	--------	--------
10 CONNECTOR MOUNT	423020	QBIX10A		
40 CONNECTOR MOUNT	423021	QMBIX10B		
2 CONNECTOR MOUNT	424186	QMBIX10C		
PUNCH DOWN TOOL	423026	QTBIX16A		
TEST PROBE	423029	QTBIX17A		
DISTRIBUTION RING	423040	QRBIX19A		
DESIGNATION STRIP	423055	QSBIX20A		
TEST PROBE 25 PAIR	423030	QTBIX22A		
TEST SHOE 25 PAIR	423031	QTBIX21A		
PLASTIC GUARD	423057	QTBIX23A		
MODULAR CONNECTOR	424188	QCBIX36A		
BLANK RED LABEL	423065	P0588402	--------	--------





MODULAR JACKS

Flush Mount Wall Plates - Screw Type



SINGLE JACK

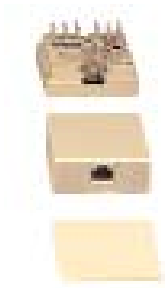
DESCRIPTION	PART #
4 COND (RJ22) HANDSET TYPE	424186
4 COND (RJ11) STANDARD	346330
6 COND (RJ12) STANDARD	346345
6 COND MMJ STYLE	346331
8 COND (RJ45) STANDARD	346332
8 COND (RJ45) KEYED	346333



DUPLEX JACK

DESCRIPTION	PART #
4 COND (RJ22) HANDSET TYPE	424191
4 COND (RJ11) STANDARD	424190
6 COND (RJ12) STANDARD	424192
6 COND MMJ TYPE	424194
8 COND (RJ45) STANDARD	424196
8 COND (RJ45) KEYED	424198

Surface Mount Jacks w/Sticky Back- *66 Punch Down Type*



SINGLE JACK

DESCRIPTION	PART #
4 COND (RJ11) STANDARD	424015
6 COND (RJ12) STANDARD	424016
8 COND (RJ45) STANDARD	424017
8 COND (RJ45) KEYED	424134
8 COND (RJ45) SHORTING 31X	424136

DUPLEX JACK

DESCRIPTION	PART #
4 COND (RJ11) STANDARD	424138
6 COND (RJ12) STANDARD	424140
8 COND (RJ45) STANDARD	424142
8 COND (RJ45) KEYED	424144
8 COND (RJ45) SHORTING31X	424146

Surface Mount Jacks - *110 Style*



SINGLE JACK

DESCRIPTION	PART #
6 COND (RJ12) 103A TYPE	424002
8 COND (RJ45) 103A TYPE	424003
8 COND (RJ45) 103D KEYED TYPE	424148



DUPLEX JACK

DESCRIPTION	PART #
6 COND (RJ12) 104A TYPE L1&L2	424004
8 COND (RJ45) 104A TYPE L1&L2	424005
6 COND (RJ12) 104B TYPE VOICE & DATA	424008
8 COND (RJ45) 104B TYPE VOICE & DATA	424009
1-6 COND (RJ12) & 1-8 COND (RJ45) 108B TYPE VOICE&DATA	424006



Face Plates For All Receptical Jacks

DESCRIPTION	PART #
SINGLE PLATE PLASTIC - 105 TYPE	424240
SINGLE PLATE METAL - 105 TYPE	424242
DUPLEX PLATE PLASTIC - 106 TYPE	334801
DUPLEX PLATE STAIN. STEEL 106 TYPE	424246
QUAD PLATE PLASTIC - 106 TYPE	424248

Flush Mount Jack 4 Cond



Surface Mount Jack 6 Cond



Waterproof Outdoor Jacks

DESCRIPTION	PART #
FLUSH MOUNT JACK 4 COND(RJ11)	424250
FLUSH MOUNT JACK 6 COND(RJ12)	424252
SURFACE MOUNT JACK 4 COND(RJ11)	424254
SURFACE MOUNT JACK 6 COND(RJ12)	424256

Flush Mount "Wallphone" Plate - with Two

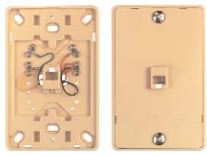
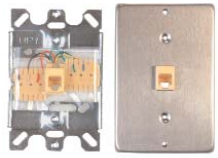


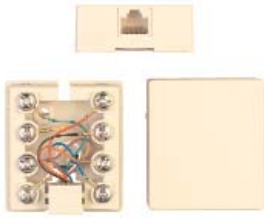
Plate comes with two nipples for hooking on to phone.



DESCRIPTION	PART #
4 COND (RJ22) HANDSET TYPE	424122
4 COND (RJ11) PLASTIC STANDARD	346335
4 COND (RJ11) METAL STANDARD	346336
4 COND (RJ11) PLASTIC W/2 SIDEJACKS	424200
4 COND (RJ11) METAL W/1BOTTOMJACK	424202
6 COND (RJ12) PLASTIC STANDARD	346338
6 COND (RJ12) METAL STANDARD	346337
6 COND (RJ12) METAL STANDARD	346342
6 COND (RJ12) STNLS STEEL W/KEYSTONE	346350

Surface Mount Jacks w/Sticky Back - *Screw Type 42A

Single Jack 8 cond (RJ45) Standard



SINGLE JACK

DESCRIPTION	PART #
4 COND (RJ22) HANDSET TYPE	424122
4 COND (RJ11) STANDARD	424040
6 COND (RJ12) STANDARD	424041
6 COND MMJ STYLE	424124
8 COND (RJ45) STANDARD	424042
8 COND (RJ45) KEYED	424126
8 COND (RJ45) SHORTING 31X	424128
10 COND (RJ69) STANDARD	424043

DUPLEX JACK

DESCRIPTION	PART #
4 COND (RJ22) HANDSET TYPE	424130
4 COND (RJ11) STANDARD	424050
6 COND (RJ12) STANDARD	424051
8 COND (RJ45) STANDARD	424052
8 COND (RJ45) KEYED	424132

OLD FASHIONED 4 PRONG SURFACE JACK 424129



Recepticle Jacks - Screw Type

SINGLE JACK

DESCRIPTION	PART #
4 COND (RJ22) HANDSET TYPE	424204
4 COND (RJ11) STANDARD	424206
6 COND (RJ12) STANDARD	424208



110 Type

SINGLE JACK

DESCRIPTION	PART #
8 COND (RJ45) 102A TYPE	424220
8 COND (RJ45) KEYED 102B TYPE	424222



SINGLE JACK SIZE JACKS

DESCRIPTION	PART #
4 COND (RJ11) 105 TYPE	424224
6 COND (RJ12) 105 TYPE	424226
8 COND (RJ45) 105 AF TYPE	424228
8 COND (RJ45) KEYED DATA 105 BF	424230



DUPLEX JACK

DESCRIPTION	PART #
8 COND (RJ45) 102A TYPE	424220
6 COND (RJ12) STANDARD L1 & L2	424232
8 COND (RJ45) STANDARD L1 & L2	424234
8 COND (RJ45) STANDARD 106 BFD TYPE VOICE & DATA	424236
1-6 COND (RJ12) & 1-8 COND (RJ45) 107BFD TYPE VOICE & DATA	424238

HARMONICAS

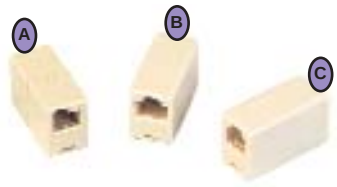


DESCRIPTION	PART #
TELCO (50PIN) MALE TO 12-4 COND (RJ11) JACKS	424150
TELCO (50PIN) MALE TO 8-6 COND (RJ12) JACKS	424152
TELCO (50PIN) MALE TO 8-6 COND MMJ JACKS	424154
TELCO (50PIN) MALE TO 6-8 COND (RJ45) JACKS	424156
TELCO (50PIN) MALE TO 5-10 COND (RJ69) JACKS	424158
TELCO (50PIN) FEMALE TO 12-4 COND (RJ11) JACKS	424160
TELCO (50PIN) FEMALE TO 8-6 COND (RJ12) JACKS	424162
TELCO (50PIN) FEMALE TO 8-6 COND MMJ JACKS	424164
TELCO (50PIN) FEMALE TO 6-8 COND (RJ45) JACKS	424166
TELCO (50PIN) TO 5-10 COND (RJ69) JACKS	424168
TELCO (10BASE-T) FEMALE TO 12-4 COND RJ45 PINS 1,2,3,6	441099
TELCO (10BASE-T) MALE TO 12-4 COND RJ45 PINS 1,2,3,6	441100

BREAKOUT BOXES

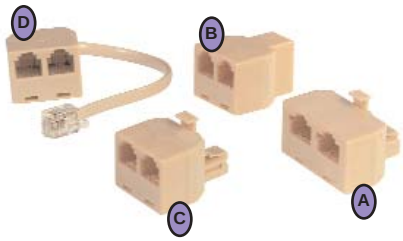
DESCRIPTION	PART #
25PORT 2COND(RJ11) TO 2-TELCO BRIDGED(1M&1F)	441110
24PORT 4COND(RJ11) TO 2-TELCO FEMALE	424170
16PORT 6COND(RJ12) TO 2-TELCO FEMALE	424172
12PORT 2COND(RJ11) TO 1-TELCO FEMALE	424174
12PORT 4COND(RJ11) TO 1-TELCO FEMALE	441108
12PORT 4COND(RJ11) TO 2-TELCO BRIDGED(1M&1F)	424176
12PORT 8COND(RJ45) TO 2-TELCO FEMALE	424178
8PORT 6COND(RJ12) TO 1-TELCO FEMALE	441106
8PORT 6COND(RJ12) TO 2-TELCO BRIDGED(1M&1F)	424180
6PORT 8COND(RJ45) TO 2-TELCO BRIDGED(1M&1F)	424182
5PORT 10COND(RJ69) TO 1-TELCO FEMALE	424184

MODULAR ADAPTERS COUPLERS & SPLITTERS



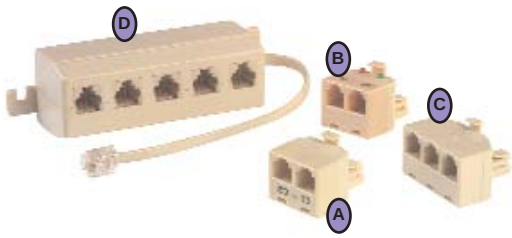
Modular Inline Coupler

DESCRIPTION	PART #
4 COND (RJ11) HANDSET TYPE	414060E
4 COND (RJ11) STANDARD	414060
6 COND (RJ12) STANDARD (C)	414060A
6 COND MMJ TYPE (A)	414060B
8 COND (RJ45) STANDARD (B)	414060C
10 COND (RJ69) STANDARD	414060D
RJ11 TYPE HAND PLUG - REVOLVING	414080



Modular "T" Type Adapters - 2 Way Splitter

DESCRIPTION	PART #
M-F-F 4 COND (RJ11)	414066
M-F-F 6 COND (RJ12) (C)	414068
M-F-F 8 COND (RJ45) (A)	414078
MALE W/ 1FT EXT.-F-F 4 COND (RJ11) (D)	414066C1
MALE W/25FT EXT.-F-F 4 COND (RJ11)	414066C25
F- F- F 4 COND (RJ11)	414065
F- F- F 6 COND (RJ12) (B)	414067
F- F- F 8 COND (RJ45)	414077



Special "T" Type Adapters

DESCRIPTION	PART #
DUPLEX 4 COND (RJ11) "T" - M-F-F LINE 1 & LINE 2 SPLITTER (A)	424258
DUPLEX PRIORITY HOT LINE ADAPTER M-F-F STOPS ANSWERING MACHINE (B)	424260
TRIPLEX ADAPTER 6 COND (RJ12) M-F-F-F LINE1, LINE 2 & LINE 3 SPLITTER	424262
TRIPLEX SPLITTER 4 COND (RJ11) M-F-F-F EVENLY SPLITS TO 3 JACKS	424264
TRIPLEX SPLITTER 6 COND (RJ12) M-F-F-F EVENLY SPLITS TO 3 JACKS (C)	424266
TRIPLEX ADAPTER 4 COND (RJ11) M-F-F-F LINE 1, LINE 2 & L1&L2 SPLITTER	424268
5 TO 1 SPLITTER 4 COND (RJ11) M1FT.-F-F-F-F-F (D)	424270
TELCO (50 PIN FEMALE) TO 4 COND (RJ11)	424272
TELCO (50 PIN FEMALE) TO 6 COND (RJ12)	424274
TELCO (50 PIN FEMALE) TO 6 COND MMJ	424276
TELCO (50 PIN FEMALE) TO 8 COND (RJ45)	424278
TELCO (50 PIN MALE) TO 4 COND (RJ11)	424280
TELCO (50 PIN MALE) TO 6 COND (RJ12)	424282
TELCO (50 PIN MALE) TO 6 COND MMJ	424284
TELCO (50 PIN MALE) TO 8 COND (RJ45)	424286

Telecom Products

Telephone Accessories



Fax Switches

A fax switch will answer the call & decipher whether its a voice call or fax message and send it to your fax or phone automatically. A 3-Port or 4-Port fax switch, for single or multi-lines, will connect fax, phone, & answering machine.

Description	Part #	1- 4	5- 14
3 Port single/multi-lines*	461300		
3 Port with Security Codes	461305		
4 Port	461307		

Music On Hold Adapter

Compatible with phones that have a hold button.

Description	Part #
Music-On-Hold Adapter	461311

Telephone Recording Device

Automatically turns tape recorder on & off when handset is lifted & hung up.

Description	Part #
Recording Device	461313



Description	Part #
95 Display Battery Powered	403701
95 Display AC Adapter Included	536301

Description	Part #
30 Minute Prepaid	541560
90 Minute Prepaid	541562

Privacy Adapter

Automatically lets you know if conversation is being listened to on another extension. LED indicator & Override switch

Description	Part #
Adapter	461315

"HOT" Number Dialer



As soon as the handset that is attached to the dialer goes off the hook, it will automatically dial a pre-programmed phone number.

Description	Part #
Number Dialer	461317

Shoulder





Length	Part#
Half Moon Shoulder Rest	464117-?
Large	464115-?
Small	464116-?

?= 0=Black, 1=Brown, 3=Beige, 4=Ash, 5=White, 6=Grey, 7=Red, 9=Ivory.

Coil Cords

Data Coil Cords

Description	Part #
6 Cond. 7ft.	47500-?-!
6 Cond. 14ft.	47510-?-!
6 Cond. 25ft.	47520-?-!
8 Cond. 7ft.	47600-?-!
8 Cond 14ft.	47610-?-!
8 Cond 25ft.	47620-?-!

?=Color: 0=Black, 1=Brown, 3=Biege, 4=Ash, 5=White, 6=Gray, 7=Red, 9=Ivory

!=Wiring Type: 1=Data(Straight Thru), 2=Telco(Reversed) 3=Mod to Spade+ 4=Spade to Spade+



?= 0=Black, 1=Brown, 2=Mauve, 3=Beige, 4=Ash, 5=White, 6=Grey, 7=Red, 8=Blue, 9=Ivory.

Handset Coil Cords Mod-Mod (4 Cond.)

Modular handset cord available in different lengths and colors. Certain colors not available in certain lengths

Length	Part#
7ft.	47100-?
12ft.	47110-?
25ft.	47120-?
50ft.	47130-?



?= 0=Black, 1=Brown, 2=Mauve, 3=Beige, 4=Ash, 5=White, 6=Grey, 7=Red, 8=Blue, 9=Ivory.

Handset Coil Cord Accessories Mod-Spade (4 Cond.)

Length	Part#
7'	47200-?
12'	47210-?
25'	47220-?

Handset Coil Cords - Spade-Spade (4 Cond.)

?= 0=Black, 1=Brown, 2=Mauve, 3=Beige, 4=Ash, 5=White, 6=Grey, 7=Red, 8=Blue, 9=Ivory.

Length	Part#
7' Flat	47300-?
12' Flat	47310-?
25' Flat	47320-?
7' Round	47400-?
12' Round	47410-?

Handset Coil Cord Accessories - Mod-Mod (4 Cond.)





Description	Part #			
Cord Untwister	473204			
Cord Retractor - 8ft.	473205	------	------	------
Cord Retractor - 16ft.	473206	------	------	------

Silver Satin Cords



Description	Part #
4 cond (RJ11) - 4 cond (RJ11) 7ft.	Q14011-007-1-!
4 cond (RJ11) - 4 cond (RJ11) 14ft.	Q14011-014-1-!
4 cond (RJ11) - 4 cond (RJ11) 25ft.	Q14011-025-1-!
Custom Configurations - 4 cond.	Q14011***-?-!
6 cond (RJ12) - 6 cond (RJ12) 7ft.	Q14211-007-1-!
6 cond (RJ12) - 6 cond (RJ12) 14ft.	Q14211-014-1-!
6 cond (RJ12) - 6 cond (RJ12) 25ft.	Q14211-025-1-!
Custom Configurations - 6 cond.	Q14211***-?-!
8 cond (RJ45) - 8 cond (RJ45) 7ft.	Q14411-007-1-!
8 cond (RJ45) - 8 cond (RJ45) 14ft.	Q14411-014-1-!
8 cond (RJ45) - 8 cond (RJ45) 25ft.	Q14411-025-1-!
Custom Configurations - 8 cond.	Q14411***-?-!
cond(RJ69) - cond(RJ69) 7ft.	Q14611-007-1-!
10 cond(RJ69) - 10 cond(RJ69) 14ft.	Q14611-014-1-!
10 cond(RJ 69) - 10 cond(RJ69) 25ft.	Q14611-025-1-!
Custom Configurations - 10 cond	Q14611***-?-!

***= Amount in Feet ?= Color : 1=Grey, 2=Black

!= Wiring Type: 1=Data (Straight Thru) 2=Telco (Reversed) 3=Mod to Spade+ 4=Spade to Spade+

Shielded Cables Available. Call Now For Immediate Delivery!

3ComImpact IQ
External ISDN Modem

3ComImpact IQ External ISDN Modem

- Eliminates bottlenecks typical of other digital modems by providing highest available throughput-230,400 bits per second
- Transfers up to 4 times more information for the price using standard Stacker® LZS compression
- Delivers "power" user performance by running 128,000 bps data sessions
- Point-and-click interface with on-line help for Windows 95, Windows NT, and Windows 3.x
- No additional equipment required with built-in NT-1
- Compatible with any web browser, on-line service, or other communications software that supports AT commands
- No special set-up with automatic QuickSelect™ protocol selection (PPP, V.120) and Async-Sync PPP™
- Automatic on-line product registration
- Automatic adjustment of data session speed to place or receive a voice or fax call
- Easy connection of multiple analog devices (telephone/fax/modem) with Ringer Equivalency Number (REN) of 3 per port
- Simultaneous use of 2 analog devices



Back



DESCRIPTION	PART#	REF#
3COMIMPACT IQ EXTERNAL ISDN MODEM.....	337758	882

ISDN Router



The Prestige is the first to integrate a Router, Bridge, ISDN terminal adapter and V.34 modem into a single device. In a modem-sized box, the Prestige offers inexpensive yet complete telecommunications and internetworking solutions for your home or branch office. It's ideal for everything from cruising the Internet to receiving calls from remote users to making LAN-to-LAN connections to remote nodes.
Some distinguishing features include support for a full range of networking protocols such as TCP/IP, Novell IPX, Appletalk routing, and Transparent Bridging. The complete solution also includes remote user support, and Internet Single User Account, POTS line support, extensive Network Management, and solid security features.

DESCRIPTION	PART#

ISDN Modem



DESCRIPTION	PART#

CSU/ DSU



DESCRIPTION	PART #
EAZY MT100A-449-R2 T1 CSU/DSU....	313589

What is ISDN?
ISDN is essentially three high-speed digital phone lines rolled into one standard phone line. It allows you to transmit voice, data, and even images at the same time through a single existing line-all at extremely high speeds and at relatively low costs.

How Does It Work?
The basic ISDN line contains three separate channels. Two of these-the B channels-carry user transmissions from a telephone, computer, fax or almost any other device. The third or D channel carries call setup information for the network, but can also transmit user data. That means you can conduct three separate transactions-say a voice call, a computer transmission and a credit card authorization-at the same time through the same ISDN line.

The M-106E Remote Access Unit enables off-premises users to dial in to a PBX, key telephone, or CO Centrex system in order to access WATS, FX, and tie lines, or other specialized services. The unit is microprocessor controlled, and provides a number of optional features which you can configure through software using a DTMF telephone.

Remote Access Unit



Back



Features:

- Dial Back
- Programmable Control Codes
- Call Duration Timing
- Reseize
- Idle Detect
- Busy/Reorder Disconnect
- Rings Before Answer
- Milliwatt Detect
- Voice Verification of Program Options
- Voice Switched Amplifier
- Passwords
- Answer Tone
- Switchhook Flash
- Manual Disconnect
- Dial Tone Detect
- Detect Standard Ring Only
- Prevent
- Non-volatile Memory
- Remote Programming

DESCRIPTION	PART#
TELTONE M-106E REMOTE ACCESS UNIT	332633

Paradyne T1/F1



DESCRIPTION	PART #
PARADYNE 7110 SNMP DSU/CSU	544601

Punch Block



DESCRIPTION	PART#	REF#
SIEMON PUNCH BLOCK	311753	S66B850-3-849

Datacom - TiNA



Digital Answerer
- Answering machine provides 25 minutes of digital recording
- Date and time stamp
- Messages are fully accessible by remote access
- 6 different outgoing messages can be programmed to play at a specific date & time
- Visual & audio message alert

Voice Mailboxes
- Provides 9 individual mailboxes and 1 group mailbox
- Ideal for the home office or small office

Caller-ID
- 220 name & number storage capacity
- 3-line display identifies caller's name and number and date/time of call
- Automatic dial back

Call Blocking
- Block undesirable incoming calls by specific number or list of numbers
- Restrict access to outgoing long distance or specific numbers

Voice Message Pad
- Records message reminders to be played back at a specific date & time

Call Management Lists
- Program VIP calls, Quiet calls, Incoming and Outgoing blocked calls
- Over 2500 number storage capacity

Call Forwarding
- Forward calls to another number, pager or a cellular phone
- Calls are rerouted to the voice mail box if not answered
- Specific numbers or all numbers can be forwarded

Other Features
- Permanent memory requires no battery backup
- Programmable in English & French

DESCRIPTION	PART#
TINA BY DATACOM - A CALL MANAGEMENT SYSTEM	410827

Music-on-Hold Digital Announcer



Features:
- Automatic downloading, with prewview function, from a standard cassette tape
- Automatic reload after power outage

* High reliability - no tape wear or maintenance problems
- Choice of 600-ohm or 1-watt (8-ohm) output
- Built-in monitor speaker with on/off switch
- Volume control (for monitor speaker and outputs)
- One time play capability (external contact trigger)
- Status (LED) indicators

DESCRIPTION	PART#
BOGEN PROHOLD MUSIC-ON-HOLD DIGITAL ANNOUNCER	402803



DESCRIPTION	PART #
BACKBOARD BLUE M183B-1	311759-BLUE



DESCRIPTION	PART #
BACKBOARD BLUE M183A-1	311761-BLUE



DESCRIPTION	PART #
DISTSPOOL M187-B-1	311763-WHITE

Data Mate



- Communicates messages silently and unobtrusively
- Single touch message transmission
- Executive units feature a built-in clock, calendar, and calculator
- Executive units can output hard copies on printer accessories
- Technical Specifications:
  - Dimensions - L 217mm, W 182mm, H 65mm
  - Electrical - Input 115/120 220/240 VAC 50/60Hz
  - Output - 12V at 3.6VA AC

DESCRIPTION	PART #
DATA MATE EXECUTIVE MESSAGE UNIT	544201

AT&T Adapter



DESCRIPTION	PART #
AT&T 104152558 ADAPTER-400B2	400059

Punch Block



DESCRIPTION	PART #
SIEMON S66B3-50 PUNCH BLOCK	311795

Adapters



DESCRIPTION	PART #	REF#
SIEMON GREEN ADAPTER	311792	DT-RJ48X-7

TECHNOLOGY DESIGNED TO ENHANCE THE QUALITY OF LIFE.

This is the concept of "Human Electronics", the guiding principle of the Panasonic company. Creating technology to communicate, educate and entertain, they continually strive to connect pure science to the real needs and desires of consumers all over the world.

Panasonic
just slightly ahead of our time.

Panasonic Single Line Telephones

Single Line

Description	Part #	Ref #
28# Memory, LNR, Feature Phone	451105	KX- T2310
28# Memory, Speaker Phone, LNR	451106	KX- T2315
28# Memory,Pause & Timed Flash	451107	KX- T2335
28# Mem,Auto Busy, Redial Spkph	451110	KX- T2355
28# LCD Display Spkph	490111	KX-2365
30# Caller I.D.M. LCD 26# Speed Dial	330444	KX- T2380
Spkph w/ Intercom	330446	KX- T3180



Panasonic Multi-Line Telephones

Multi Line

Description	Part #	Ref #
28# Mem,Conf,Elect, Hold	451114	KX- T3120
24# Mem, Elect, Vol, Auto Redial	990106	KX- T3165
24# Mem, LCD, Cof Spkph	990108	KX- T3175
Intercom Individual Page	990110	KX- T3280
3 Line 24# Mem, LCD Spkph	990112	KX- T3185
4 Line 24# Mem, No-KSU, Auto Dial	330448	KX- TS400



Panasonic Cordless Telephones

Cordless

Description	Part #	Ref #
25 Channel 2-Way Paging w/Intercom	330443	KX- TC180
25 Channel Handset Locator	330450	KX- TC100
2 Line Wait 3 way Conference	330452	KX- TC280
30 Channel 900 Mhz Phone	330454	KX- TC900
900 Mhz w/Handsfree Headset	330456	KX- TC905W
2 Line Unit 900 Mhz 3 Way Conference	330458	KX- TC930
900 Mhz 7 Day Battery Standby	330460	KX- T952OB
900 Mhz All Digital Ans. system	330462	KX- T955OB
Caller ID Name+# 30# Caller ID Mem	330464	KX- T4108
10 Channel w/Answer Machine	330466	KX- T4310
10 Channel Base Spkph w/Answer Machine	330468	KX- T4410
Ultra Quick Charge w/Answer Machine	330470	KX- T4360
LCD on Cordless Handset w/Answer Machine	330472	KX- T4400
Dual Stance Cordless, All Digital w/Answer Machine	330474	KX- T4365
Sound Charger Plus w/Digital 23 Min	330476	KX- T4550
Reversible Cordless w/Digital 30 Min w/Ans. Mach.	330478	KX- T4600





Panasonic Telephone Answer Machine

Answering Machine

Description	Part #	Ref #
Dual Standard Cassette	990132	KX- T1451
Dual MicroCassette 2 Line Answ. Mach	990144	KX- T5300
All Digital	330441	KX- T8100
20 Min All Digital Combo Answ. Mach	330480	KX- T2850
30 Min All Digital Combo Answ. Mach	330482	KX- T2880
Dual MicroCassette Combo Answ. Mach.	990154	KX- T2720
2 Line Combo-Dual MicroCassette	451428	KX- T2740
All Digital TAD	330484	KX- TM80



TELEPHONES

TELEPHONES

HEADSETS TOPS



MIRAGE

- MINIATURE ON THE EAR RECEIVER
- ULTRA LIGHTWEIGHT
- QUICK DISCONNECT
- RECEIVER VOLUME CONTROL

FOR NORMAL ENVIRONMENTS
Part#330340 Ref# H41

FOR USE IN NOISY AREAS
Part#330323 Ref# H41N



STARSET II

- CLIP ON IN-EAR DESIGN
- LIGHTWEIGHT CAPSULE
- QUICK DISCONNECT
- RECEIVER VOLUME CONTROL

FOR NORMAL ENVIRONMENTS
Part#330344 Ref# H31

FOR USE IN NOISY AREAS
Part#330345 Ref# H31N



SUPRA

- ADJUSTABLE HEADBAND
- QUICK DISCONNECT
- RECEIVER VOLUME CONTROL

FOR NORMAL ENVIRONMENTS
Part#330341 Ref# H51

FOR USE IN NOISY AREAS
Part#330309 Ref# H51N



SUPRA BINAURAL

- BINAURAL DESIGN FOR NOISY AREAS
- QUICK DISCONNECT
- HEADBAND STYLE

FOR NORMAL ENVIRONMENTS
Part#330346 Ref# H61

FOR USE IN NOISY AREAS
Part#330313 Ref# H61N



TRISTAR

- INNOVATIVE 3-POINT DESIGN FOR EXTRA COMFORT
- 4 USER SELECTABLE EARBUDS
- EXCEPTIONALLY LIGHTWEIGHT

FOR NORMAL ENVIRONMENTS
Part#330342 Ref# H81

FOR USE IN NOISY AREAS
Part#330343 Ref# H81N

ENCORE

• SES SOUND ENHANCEMENT TONE CONTROL •
• EXTREMELY LIGHTWEIGHT •

FOR NORMAL ENVIRONMENTS (BINAURAL)
Part#330347 Ref# H101

FOR USE IN NOISY AREAS (BINAURAL)
Part#330348 Ref# H101N



FOR NORMAL ENVIRONMENTS (MONAURAL)
Part#330349 Ref# H91

FOR USE IN NOISY AREAS (MONAURAL)
Part#330350 Ref# H91N



HEADSETS BOTTOMS



UNIVERSAL MODULAR ADAPTER

Specify this adapter when using a NCI headset with most ordinary phones (except dial-in-handset).
With volume control dial, headset/handset switch and mute.

STANDARD
Part#330317 Ref# M10

WITH SLEEP FEATURE OFF
Part#330351 Ref# M10S



PLUG PRONG ADAPTER

Use this adapter with operator consoles, PBX and most ACD's. With volume control dial.

STANDARD
Part#330352
Ref# P10

HIGH-GAIN
Part#330353
Ref# P10H

HEADSETS ACCESSORIES

DESCRIPTION	PART #	REF #
FOAM EAR CUSHIONS (BLACK) SET OF 2	330305	15729-05
LEATHERETTE EAR CUSHIONS SET OF 2	330353	19025-01
VERSATIP EARTIP (ONE SIZE FITE ALL)	330354	25640-01
TIP KITS (SIZE 1-4)	330355	09288-S IZE
VOICE TUBES (MOST MODELS)	330356	17593-01
VOICE TUBES (TRISTAR AND ENCORE)	330357	29960-01
SHORT WIRE FROM MICROPHONE TO PHONE	330358	26718-01
QD LOCK	330359	26304-01
BACKGROUND NOISE SUPPRESSOR	330301	10757
CLOTHING CLIP	330330	06439-20
EYEGLASS CLIP	330361	07169-20
AC/DC CONVERTER	330329	26503-01
MODULAR TO PLUG PRONG ADAPTOR	330362	18709-01
MUTE SWITCH (NEW MODELS)	330307	27708-01
MUTE SWITCH (OLD MODELS)	330363	27717-01
TRAINING Y-CONNECTOR	330364	27019-01
10" EXTENSION CORD	330365	26144-01
FOAM WINDSCREEN	330366	26316-01
MODULAR TO QUICK DISCONNECT CABLE	330315	26716-01
JACKETS	330368	JSB-200-1
WINDSCREEN REPLACEMENT	330370	24316-01

HEADSET-ECONOMICAL

FOR SMALL BUSINESSES



DESCRIPTION	PART #	REF #
HANDS FREE HEADSET W/SINGLE LINE TELEPHONE, HAS DIAL PAD FOR MAKING CALLS, TONE PULSE SWITCHABLE, MUTE BUTTON, USE ON LEFT OR RIGHT EAR WITH VOLUME CONTROL.	990196	SP- 04
HANDS FREE HEADSET FOR USE ON CARBON OR ELECTRONIC PHONES. HAS VOLUME CONTROL, MUTE BUTTON. FULLY MODULAR.	990198	SP- 05
HEADSET ECONOMICAL	330311	SP- 06
SPIRIT HEADSET	330321	SP- 02

AT&T TELEPHONES



DESCRIPTION	PART #	REF #
2 LINE SPEAKER PHONE	451310	822
1 LINE SPEAKER PHONE	451311	825

STANDARD TELEPHONES

RUGGED TELEPHONES



Fully modular with push buttons and 7ft. coil cord. Excellent for home, office, or 1A 2 Equipment.

DESCRIPTION	LINES	PART #	1- 4	5- 14	15-
WALL PRINCES TYPE 2354	1	451087-?			
DESKTOP STANDARD PAIR 2500	1	451095-?			
WALL STANDARD PHONE 2554	1	451060-?			
STANDARD PHONE 2564	5	451050-?			
STANDARD PHONE 2830	10	451010-?			
STANDARD PHONE 2831	20	451020-?			
STANDARD PHONE 2861	30	451030-?			

?= 0=Black, 1=Brown, 3=Beige, 4=Ash, 5=White, 6=Gray, 7=Red, 9=Ivory

"A" Lead Available - Please Consult Salesperson

STANDARD TELEPHONES ACCESSORIES

CONFIDENCORS



Noise cancelling microphone. Used in 2500 type handsets with removable carbon mic. Used by all major financial markets, banks, and noisy areas.

DESCRIPTION	PART#
CONFIDENCER - DROP IN	461005-?
CONFIDENCER - SCREW IN	461006-?

?= 0=BLACK, 1=BROWN, 3=BEIGE, 4=ASH, 5=WHITE, 7=RED, 9=IVORY

G STYLE HANDSETS



For common 2500 style phones, modular, no cord. Also available in non-modular, hard-wired configurations.

DESCRIPTION	STANDARD	PUSH TO MUTE	PUSH TO TALK	SPECIAL AMPLIFY TRANSMIT	AMPLIFY RECEIVE	PUSH TO MUTE W/ AMP REC	PUSH TO TALK W/ AMP REC. & TALK
MODULAR NO CORD CARBON MIC PART#	451505-?	451510-?	451517-?	451525-?	451520-?	451530-?	451532-?
ELECTRET-CARBON COMPATIBLE MIC PART#	451507-?	451508-?	451515-?	451518-?	451519-?	451522-?	451523-?

?= 0=BLACK, 1=BROWN, 3=BEIGE, 4=ASH, 5=WHITE, 7=RED, 9=IVORY

HANDSET HOOK



DESCRIPTION	PART#
HANDSET HOOK-CHROME (NO HOLES, HAS BACKPLATE)	451599-Chrome
HANDSET HOOK-METAL	451599

K STYLE HANDSETS



Call our Sales Department with Make and Model #
For Exact Replacement Handsets
(AT&T, Panasonic, ITT, etc.)

UNIVERSAL AMPLIFIED K STYLE HANDSET



NOW AVAILABLE!

DESCRIPTION	PART#
K STYLE HANDSET	451527-?

?= 0=Black, 4=Ash, 5=White, 6=Pearl Grey

UNIVERSAL HANDSET AMPLIFIER



Provides amplification and works with almost any telephone

DESCRIPTION	PART#
POWERED HANDSET AMPLIFIER (W/AC ADAPTER)	461225-?
POWERED HANDSET AMPLIFER (BATTERY OPERATED)	461224-?

?= 0=Black, 4=Ash, 9=Ivory

TELEPHONES

PAY TELEPHONES



LOCAL ONLY
QUARTER ONLY

- ATTRACTIVE GRAY COLOR
- FREE OR CHARGE FOR NUMBERS, i.e. 911, 800, 0, 411, 555-1212, etc.
- RESTRICT: 976, 900, 950, OVERSEAS AND 10 DIGITS
- CHOOSE IN AND OUT TIME SETTINGS: 1 - 16 MINUTES
- OWNER'S KEY WILL ALLOW USE WITHOUT A COIN
- TARGET'S INVENTORY IS PROGRAMMED TO ALLOW 10 DIGIT LOCAL DIALING FOR THE D.C. METRO AREA

Part# 330485Ref# Telco707



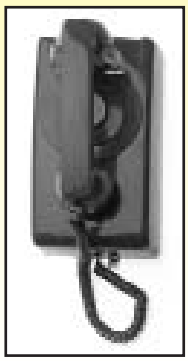
LONG DISTANCE

- ATTRACTIVE GRAY COLOR
- FREE OR CHARGE FOR NUMBERS, i.e. 911, 800, 0, 411, 555-1212, etc.
- RESTRICT: 976, 900, 950, OVERSEAS AND 10 DIGITS
- CHARGE UP TO 6 QUARTERS FOR ANY COMBINATION OF EXCHANGES AND AREA CODES
- BOTH INCOMING AND OUTGOING CALLS CAN BE TIMED
- BLOCK HOOK SWITCH AND TONE DIALERS
- COPYRIGHTED PROGRAMMING CAPABILITIES
- OWNER'S KEY WILL ALLOW USE WITHOUT A COIN

Part# 330486Ref# Telco757

HOT LINE TELEPHONES





TONE/PULSE SWITCHABLE SINGLE NUMBER DIALERS

- REPLACES LEASED RING-DOWN CIRCUITS USING STANDARD LOOP START CO LINES.
- PROGRAMMABLE PAUSE FOR USE BEHIND CENTREX OR BEHIND A PABX

DESK PHONE
Part# 330487Ref# K-1900D-2

WALL PHONE
Part# 330488Ref# K-1900W-2

NEW NON-VOLATILE MEMORY

NO-DIAL PHONES





RED NO-DIAL PHONES

WALL PHONE W/RINGER
Part# 330489Ref# K-1500P-W

DESK PHONE W/RINGER
Part# 330490Ref# K-1500P-D

ELEVATORS PHONES



- PHONE LINE POWERED • INSTALLS IN STANDARD ELEVATOR PHONE BOX
- VANDAL RESISTANT

HANDSFREE
Part# 330491Ref# K-1500-EHF

HANDSFREE W/HANDSET
Part# 330492Ref# K-1500-E

HANDSFREE W/HANDSET & RINGER
Part# 330493Ref# K-1500-ER

HANDSFREE, BRAILLE LABELLED, REMOTELY PROGRAMMABLE, ADA COMPLIANT WITH NON-VOLATILE MEMORY
Part# 330494Ref# K-1600-EHF

Lucent ISDN Telephones (AT&T)



Model 8520T

Features:

- Large Display Screen-at seven lines deep by 24 characters wide, the screen is easy to read and use.
- Personal Directory-this easy-to-use and easy-to-revise directory holds 144 numbers • Call Log-there's storage for 60 entries, each of the most recent 20 calls answered and 20 calls unanswered are stamped with the time, date, and calling party's name and number • Security Lock-you can lock up your directory and call logs with a password of your choosing.
- 20 Multi-function Buttons-these buttons can represent line status for up to 20 lines or give access to switch-based call management features.
- Dedicated Feature Buttons-these buttons simplify use of features such as Conference Call, Mute, Speakerphone, Transfer, Redial, and Hold.
- Message Waiting Light-you always know when someone's called.
- Easy Data Connections-you can link this terminal and your PC with a standard modem cable. No additional hardware or wiring is required to enable the two systems to work together effectively.

Physical Dimensions and Weight:

- The desktop terminal measures 11 1/2 inches (29.1 cm) wide by 10 1/4 inches (26 cm) long by 5 3/8 inches (13.66 cm) high.
- Weight is 4 3/4 lbs. (2.17 Kg).

Description	Part #	Ref #
Lucent ISDN Phone Voice & Data (Black)	542209	106906415
Lucent ISDN Phone Voice & Data (White)	542211	106906423



Model 8510T

Features:

- Ten call appearance or feature buttons with associated visual indicators which provide access to capabilities provided by the switch.
- Fixed feature buttons for Hold, Conference, Drop, Transfer, Redial, Mute, Speaker, Volume and Exit.
- Interactive softkeys which are used with the display to allow individual users to create, access and control their own personal directories and call logs and to program a variety of set features.
- "Lock" feature to protect user privacy.
- Liquid crystal display containing two lines by 24 characters, which can easily be seen from a wide range of viewing angles.
- Adjustable height that permits the user to change the set angle based on personal preference.
- Adaptive speakerphone that can be adjusted for optimal performance in both noisy and quiet environments.

Physical Dimensions and Weight:

- The desktop terminal measures 7.8 inches (19.8 cm) wide by 9.5 inches (24.1cm) long by 5.3 inches (13.4 cm) high.
- Weight is 3.2 lbs. (1.45 kg).

Description	Part #	Ref #
Lucent ISDN Phone Voice & Data	542207	106604408

Some more ISDN Phones:

Description	Part #	Ref #
Lucent ISDN Phone WO/NT1	542201	407438423
Lucent ISDN Phone W/NT1	542203	407438738
Lucent ISDN Phone Voice Only	542205	107538464

Panasonic 900Mhz Cordless Phone



- 900Mhz Operation for Extended Range
- All Digital Answering System
- Hands-Free Digital Speakerphone
- Spare Battery Charger
- Flash Memory Message Backup
- 14-Day Standby Battery Life
- Voice Menu/Time Day Stamp
- 30-Channel Auto Scan
- Sound Charger™ Technology
- 2-Digit LCD Readout on Base Unit
- Electronic Volume Control
- Automatic Intercom with 2-Way Paging
- Digital Security Code
- Lighted Keypad

Description	Part #	Ref #
Panasonic 900Mhz Cordless	330459	KX-TCM940



2 Line Cordless VTech Phone

Features:

- Caller ID with Alpha-Numeric LCD Readout on Base. Automatically displays Time/Date Stamp and stores last 32 incoming calls.
- Caller ID with Alpha-Numeric LCD Readout on Handset. Displays incoming and outbound telephone numbers, functions and line usage.
- Digital 900 MHz Clarity and Range. Superb audio without interference from other electronic devices.
- 100% digital Security. 65,000 encrypted security codes with Automatic Channel Scan.
- Mute, Flash, Hold and 4-Way Conferencing.
- Wall-Mountable Base Unit with Intercom Features.
- Digital Volume Control, hearing aid compatible.
- 20-number Speed Dial Memory.
- High-Capacity NiCad Battery, 5.5 hours of talk time or 120 hours of standby.
- Out-of-Range and Low Battery Indicator.
- 4 Programmable Rings for Each Line, tone or pulse dialing compatibility.

Description	Part #	Ref#
VTech 2-Line Digital Cordless	400805	922 CID

TELEPHONES

Headset & Base



DESCRIPTION	PART #
PLANTRONIC CT460 HEADSET & BASE.....	330319

BELL Phones-Favorite



Trim Style Phone
- Lighted Key Pad
- Last Number Redial
- Cancel Button
- On/Off Ringer Switch
- Desk/Wall Mountable
- Tone/Pulse Switchable

DESCRIPTION	PART #	REF #
BELL PHONES-FAVORITE.....	317105	51810

BELL Phones-Classic Favorite



Trim Style Phone
- 13 Number Memory
- 3 Emergency One-Touch
- Mute Button
- Illuminated Keypad
- Last Number Redial
- Flash Button
- Tone/Pulse Dialing
- Ringer On/Off Switch
- Desk/Wall Use
- Hearing Aid Compatible

DESCRIPTION	PART #	REF #
BELL PHONES-CLASSIC FAVORITE	317107	52890

AT&T Trimline 210



- Fully Illuminated Dial
- Receiver Volume Control
- Redial Button
- Flash Feature
- Ringer Control
- Mute Button
- Selectable Dialing
- Table or Wall Convertible
- Hearing Aid Compatible

DESCRIPTION	PART #
AT&T TRIMLINE 210	400073

AT&T Two-Line



- 2-Line Telephone
- 12 Number Memory
- Hold Button
- Lighted Dial
- Receiver Volume Control
- Redial Button
- Line-In-Use Indicators
- Distinctive Ringing Feature
- Separate Ringer Controls
- Mute Button
- Flash Feature
- Selectable Dialing
- Table or Wall Convertible

DESCRIPTION	PART #	REF #
AT&T TWO-LINE	400072	262

BELL Phones-Classic Favorite 2 Line Trimstyle



- 13 Number Memory
- 3 Emergency One-Touch
- 3 Way Call Conferencing
- Line Status Indicators
- Distinctive Ringer for Each Line
- Hold with Indicator
- Last Number Redial
- Flash Button
- Pause Button
- Tone/Pulse Dialing
- Ringer On/Off Switch
- Desk/Wall Use
- Hearing Aid Compatible

DESCRIPTION	PART #	REF #
BELL PHONES CLASSIC FAVORITE.....	542901	52900
2-LINE TRIMSTYLE		

Uniden Cordless Phone



DESCRIPTION	PART #
UNIDEN 9200 2-LINE CORDLESS	338801

Uniden - Extend•A•Phone



The all new 25 Clear Channel AutoScan Cordless Extend•A•Phone gives you improved "clear channel" performance like never before. Loaded with exceptional features and built with quality that really goes the distance, Uniden cordless phones are the best value in cordless technology today.

Features:
- 25 Channel Autoscan
- True Compander Circuitry
- 10 Memory Dialing
- Trim Style Design
- 14 Day Battery Life
- Page/Find Feature
- Autotalk™ & Autostandby™
- Wall or Desk Mountable
- Linden Decorator Color

DESCRIPTION	PART #	REF #
UNIDEN - EXTEND•A•PHONE	338809	XC610

Polycom - Sound Station

The Sound Solution
Polycom's SoundStation(r) and SoundStation EX offer a sound alternative to speakerphones. Breakthrough, full-duplex Acoustic Clarity Technology(r) lets you engage in natural, free-flowing conversation and enables even the most soft-spoken participants to be heard clearly. So conference calls are more productive—and more enjoyable!

The three unidirectional microphones and powerful, digitally tuned speaker provide full coverage, whether used in a conference room or an office. In fact, SoundStation EX can accommodate up to 25 participants in rooms as large as 15 by 30 feet. There's even a wireless lavaliere microphone for formal presentations.

Simple
If you can dial a phone, you can use SoundStation. The built-in keypad looks and works just like the touch-tone* telephone pad you've been using forever (right down to the handy mute button and flash key). It even has a jack to plug in a tape recorder. And it's just as simple to install. A single cord connects the compact console unit to a wall module that contains both power and telephone interfaces. Just plug it in, insert it into a standard analog phone jack or AAO, and dial.

SoundStation
- Elegantly styled, exceptional full-duplex clarity
- Easy to install
- Integrated keypad
- Ideal for small- to medium-size conference rooms

SoundStation EX
- Delivers all features and functions of SoundStation
- Includes two microphone ports for future expendability
- External microphones available separately
- Wireless lavaliere microphone system available separately

SoundStation EX with External Microphones
- Bundled with SoundStation EX, two 6 ft. cables and two external microphones
- Ideal for medium- to large-size conference rooms
- Each external microphone features a mute button and a dual-color status LED
- Wireless lavaliere microphone system available separately



SoundStation EX with External Microphones
and the Wireless Microphone System
- Versatile SoundStation EX system package for large rooms
- Wireless lavaliere microphone system provides exceptional performance for stand-up presenters
- Two different frequencies available to avoid interference between conference rooms

DESCRIPTION	PART #
POLYCOM - SOUND STATION	339807

TELEPHONES



Doorphone

When you connect the Doorphone (KX-T30865) to the EMSS (KX-T30810, KX-T61610, etc.) the Doorphone adapter (KX-T30860D) is required.

DESCRIPTION	PART#	REF#
PANASONIC DOORPHONE.....	330428	KX-T30865

Doorphone Adapter



This KX-T30860D is required when you connect the Doorphone (KX-T30865) to the EMSS (KX-T30810, KX-T61610, etc.).

DESCRIPTION	PART#	REF#
PANASONIC DOORPHONE ADAPTER	330429	KX-T30860D



10 Button Strip

DESCRIPTION	PART #	REF#
COMDIAL 10 BUTTON STRIP	451376-G	KBA9-G



Sony 2-Line

- 2-Line Operation
- Distinct Rings for Each Line
- Three-Way Conference Capability
- HOLD Button
- 10 Speed-Dial Presets
- FLASH Button
- Programmable Pause
- Last-Number Redial
- Ringer Volume Control
- Wall Mountable

DESCRIPTION	PART #
SONY IT-M10 2-LINE PHONE	316010



DESCRIPTION	PART #	REF #
VIKING W-1000 DORR BOX.....	402103	LM24M



DESCRIPTION	PART #	REF #
VIKING W-3000 DOOR BOX	402105	LM24D



Fax Switch

Fax switches allow your fax or modem to share your existing phone line. The FAXJ-300 answers first, monitors for CNG, Touch Tone or quiet, then routes the call to the proper port. Compatible with virtually all fax machines.

DESCRIPTION	PART#	REF#

TOKEN RING BULK CABLE

FOR THE FOLLOWING ITEMS SEE OUR BULK CABLE SECTION ON PAGE 11

TOKEN RING-TYPE 1A / 1AP

TOKEN RING-TYPE 2A / 2AP

TOKEN RING-SIAMESE TYPE 2A / 2AP

TOKEN RING TYPE 6A - TOKEN RING TYPE 8A

TOKEN RING TYPE 9A / 9AP

TOKEN RING-TYPE 3 (SEE BULK TELEPHONE CABLE)



TOKEN RING CONNECTORS

We stock the latest type connectors for all your Token Ring connector needs. So If you are running Type 1, Type 2, or Type 3 UTP for your 4/16 mbps Token Ring Network, you can rely on NCI for all of your connector needs.

DESCRIPTION	PART #	REF.#
TYPE A DATA CONN.-ORIGINAL	311491	8310574
TYPE B DATA CONN.-ATTACH. LOCKING CLIP*	311490	6091000
4 PAIR KEYSTONE-POST TYPE	311471	6091030
3 PAIR KEYSTONE-POST TYPE	311470	8310575

TOKEN RING CABLE ASSEMBLIES

We assemble Token Ring cables using the finest quality IBM specified connectors and cable types. These cables are designed for the high speed and reliability you expect out of your network. Trust us to assemble special lengths or configurations. We make LIC, BUS & TAG, & Bay Networks Token Ring cables, to name a few. If you need more help choosing the right cable, consult your sales engineer.



PATCH CABLES

These multi-purpose cables have a data connector on each end. We use Type 6 cable for its performance and flexibility. If you require Type 1 cable consult your salesperson, and we will be glad to make them for you.

DESCRIPTION	PART #	REF #
8 FT. PATCH CABLE TYPE 6	Q80121-006	8642551
30 FT. PATCH CABLE TYPE 6	Q80121-030	8642552
75 FT. PATCH CABLE TYPE 6	Q80121-075	6339134
150 FT. PATCH CABLE TYPE 6	Q80121-150	6339135
CUSTOM LENGTH TYPE 6 - PVC	Q80121-***	
TYPE 1 - PVC	Q80221-***	
TYPE 1 - PLENUM	Q80220-***	

***= LENGTH IN FEET

PC ADAPTER CABLE

Used to connect a PC to your network. They have one DB9 male connector on one end, and a data connector on the other end. Standard cables are made with Type 6 cable, however, Type 1 cable can be used if you prefer.

DESCRIPTION	PART #	REF #
8FT. PC ADAPTER CABLE	Q80321-008	6339098
15FT. PC ADAPTER CABLE	Q80321-015	
CUSTOM LENGTH TYPE 6	Q80321-***	+

***= LENGTH IN FEET

TYPE 3 MEDIA FILTER

This unit connects a workstation to a Token Ring Network over UTP (Unshielded Twisted Pair) lobe wiring. Consists of a DB9 male to an 8ft. UTP cable terminated with a RJ11 or RJ45. It operates at both 4 & 16 mbps and we can make a longer leg if needed. Other types avail.: SEE BALUN SECTION.

DESCRIPTION	PART #	REF #
8FT. RJ11- 4/16 MBPS	360120	6466941
8FT. RJ45 - 4/16 MBPS	360122	6466941-8

DATA TO RJ11/45 ADAPTERS

This adapter converts a shielded twisted pair Type 1 data connector to a modular RJ11 or RJ45.

DESCRIPTION	PART #	REF #
DATA TO RJ11 PINS 2,3,4,5	311472	ICSIIC
DATA TO RJ45 PINS 3,4,5,6	311473	ICS45CN
DATA TO RJ45 PINS 1,2,4,5	311492	ICS45C

IMPEDANCE MATCHING DEVICE

This device converts the impedance of IBM Type 1 shielded cable (150 ohm) to Type 3 unshielded twisted pair cable (105 ohm).

DESCRIPTION	PART #	REF #
DATA TO RJ11- 3270 +AS400-PINS 2,3,4,5	311493	112534C
DATA TO RJ45- 3270 +AS400-PINS 1,2,4,5	311494	451245C
DATA TO RJ45- ETHERNET- PINS 1,2,3,6	319301	556904-1
DATA TO RJ45- ETHERNET- PINS 1,2,3,6	319301	LIE3382

CROSS-OVER PATCH CABLES

Used with IBM 8218 and 8219 to provide repeating capability for a back up path. It is made up with special yellow cable and data connector on each end.

DESCRIPTION	PART #	REF #
8 FT. YELLOW CROSS-OVER	Q80721-008	6339137
CUSTOM LENGTHS	Q80721-***	+

***= LENGTH IN FEET

TWINAX "Y" CABLE

This cable is used to connect display stations, printers and series local communication controllers to the cabling system, with a cable-through feature.

DESCRIPTION	PART #	REF #
8T. TWINAX "Y" CABLE	Q80921-008	8642550
CUSTOM LENGTH - PVC	Q80921-***	

***=LENTH IN FEET

TWINAX DIRECT CABLE

Attaches the last terminal in a Twinax daisy chain to the cabling system. It features a data connector on one end and a Twinax connector on the other end.

DESCRIPTION	PART #	REF #
8 FT. DIRECT CONNECT CABLE	Q81121008	6091075
CUSTOM LENGTH - PVC	Q81121-***	+ / FT.

***=LENGHT IN FEET

TWINAX GREEN BALUN CABLE

This cable is intended to attach system 3x, as 400, 5250, 5260, and 5520 devices to twisted pair type wiring. It matches 100 ohm twinax to that of 150 ohm Type 1 cable.

DESCRIPTION	PART #	REF #
8FT. TWINAX GREEN BALUN	771070	6091070

SEE OUR WIDE SELECTION OF BALUNS IN BALUN SECTION.

RED BALUN CABLE

Used to connect 3278 terminals to the cabling sytem. Red identifies 3278 device. Coax connector to data connector 8 ft. cable.

DESCRIPTION	PART #	REF #
8FT. RED BALUN CABLE	771074	8642546
CABLELESS RED BALUN	771073	6339802
DUAL CABLELESS RED BALUN	771072	6339083

SEE OUR WIDE SELECTION OF BALUNS IN BALUN SECTION.



YELLOW BALUN CABLE

This cable connects 3277 terminals to the cabling system. Yellow identifies 3277 devices. Coax connector to data connector 8 ft. cable.

DESCRIPTION	PART #	REF #
8 FT. YELLOW BALUN CABLE	Q90111-008	8642544

SEE OUR WIDE SELECTION OF BALUNS IN BALUN SECTION.

3270 COAXIAL TO TWISTED PAIR ADAPTER (CTPA)

THIS 3270 CTPA CONNECTS 3270 TYPE A DEVICES TO CLUSTER CONTROL UNITS USING TYPE 3 CABLING.

DESCRIPTION	PART #	REF #
8 FT. 3270 CTPA ADAPTER	Q90211-008	61X4584

3270 DUAL PURPOSE CONN. TO TWISTED PAIR ADAPTER (DPC-T3)

This allows direct connection from 3174 subsystem control units or 3299 Terminal Multiplexers to 3270 devices. VIA Type 3 Cable.

DESCRIPTION	PART #	REF #
8 FT. 3270 DPC-T3 ADAPTER	Q90311-008	83X9758

DUAL PURPOSE CONNECTOR ATTACHMENT CABLE (DPC)

Dual Purpose Connector (DPC) cables are used to attach 3299 multiplexers (Model 1, 2, or 3) to a face plate receptacle. DPC replaces the Red Coaxial Balun at the 3299 Model 2. Offered with a single or double DP Connector.

DESCRIPTION	PART #	REF #
8FT. SINGLE DPC CABLE	Q90411-008	6339073
30FT. SINGLE DPC CABLE	Q90411-030	6339074
8FT. DOUBLE DPC CABLE	Q90511-008	6339075

PLUG & JACK ASSEMBLY

Used to connect IBM 3600 or 4700 workstations to cabling system. It has one data connector on one end, and one male and female 1/4" connector terminated on the other end. Standard length is 15".

DESCRIPTION	PART #	REF #
P&J ASSEMBLY	Q90611-0008	8310552

LOOP CABLE ASSEMBLY

Connect your IBM 3600 or 4700 terminal to a port box, controller, or another terminal. The cable is 8 ft. long with male and female 1/4" connector.

DESCRIPTION	PART #	REF #
8FT. LOOP CABLE	Q90711-008	1563155

MFA/422 ATTACHMENT CABLE

The MFA/422 cable is used to connect IBM 3101 or 4975 devices to the network. An 8 ft. Data Connector to RS 232 DB25 male is standard.

DESCRIPTION	PART #	REF #
8 MFA/422 CABLE	Q90811-008	8310553

GENERAL PURPOSE ATTACHMENT CABLE

This cable connects a modem to a receptacle. It is an 8 ft. cable with a data connector on one end to spade leads for screw downs.

DESCRIPTION	PART #	REF #
8FT. E CABLE	Q90911-008	8310554

"Y" ASSEMBLY

Used for creating a financial workstation loop or a Twinax daisy chain at the distribution panel. It can also attach two 3278 or 3277 Coax terminals to the same wall outlet when used in conjunction with the appropriate balun. Standard length is 4 ft.

DESCRIPTION	PART #	REF #
4FT. Y ASSEMBLY	Q91011-004	8642549



SHIELDED TWISTED PAIR ADAPTER CABLE

Consists of a data connector to a shielded RJ45 plug using a modified Type 6 Cable. Equal to synoptics 950 type cables used with synoptic hubs.

DESCRIPTION	PART #	REF #
NCI STP CONC.PATCH CABLE (TOKENRING)- 6FT.	Q8511-006	950-06
NCI STP CONC.PATCH CABLE(TOKEN RING)- 8FT.	Q8511-008	950-08
NCI STP CONC.PATCH CABLE(TOKEN RING)-10FT.	Q8511-010	950-10
NCI STP CONC.PATCH CABLE(TOKEN RING)-15FT.	Q8511-015	950-15
NCI STP CONC.PATCH CABLE(TOKEN RING)-20FT.	Q8511-020	950-20
NCI STP CONC.PATCH CABLE(TOKEN RING)-25FT.	Q8511-025	950-25
NCI STP CONC.PATCH CABLE(TOKEN RING)-30FT.	Q8511-030	950-30

CALL FOR ALL TOKEN RING CABLES & CUSTOM LENGTHS. WE HAVE THE BEST DELIVERY!

DUAL STATION ACCESS MODULE

Used to connect two workstations directly to each other. It is made up of two SAM Cables connected together with a yellow crossover cable.

DESCRIPTION	PART #	REF #
8 FT. DUAL SAM CABLE	Q91111-008	SW-SAM2

SINGLE STATION ACCESS MODULE

A cost, effective, & flexible design to create or expand aToken Ring Network. Circuitry in the module connects a workstation when the right signal is received. Offered in three styles: Data to Data, Data to DB9 Male, & RJ11 to RJ45 plugs.

DESCRIPTION	PART #	REF #
8 FT. SAM- DC/DC	Q91211-008	SAM-DC
8 SAM-DC/DB9	Q91311-008	SAM-DB9
8 FT. SAM-RJ11/RJ45	Q91411-008	CAM-TP3

TOKEN RING

Token Rings

Expander "Y" Cable

Used with a SAM, to add a work station to an existing MAU port.

Description	Part #	Ref #
Expander "Y" Cable	Q91511-008	EX-Y

FDDI Copper Adapter Cable

Used to connect a workstation to your IBM FDDI Copper Adapter / A.

Description	Part #	Ref #
8ft. FDDI Copper Adapter Cable	999658	33G2761

FDDI Copper Reversing Cable

This cable will enable you to attach a dual-attached workstation IBM Extender card to the network.

Description	Part #	Ref #
8 ft. FDDI Copper Reversing Cable	999660	33G2762

FDDI Copper Wrap Plug

This allows you to run diagnostics on IBM FDDI Copper adapter.

Description	Part #	Ref #
Copper Wrap Plug	999662	33G2759

Copper Concentrator Port Cable

Used to attach an IBM cabling system lobe to the master(m) port of a Copper Device Attachment Module installed in an IBM8240 FDDI Concentrator.

Description	Part #	Ref #
8 ft. Copper Concentrator Port cable	999033	33G2760

Token Ring Cards / Hardware

Network Interface Cards

We feature the best NIC cards from manufacturers such as Proteon,Xircom, and Asante for MAC Environments. It is available for 4/16 Mbps networks with ISA, EISA, MCA, and MACINTOSH SE, SE/30, IIsi, and LC/LCII.

Description	Part #	Ref #
Proteon 4/16 Bus Master ISA 16 Bit	725555	P1392
Proteon 4/16 Bus Master EISA 32 Bit	725557	P1990
Proteon 4/16 Bus Master MCA 16 Bit	725559	P1892
Proteon 4/16 Bus Master ISA 8 Bit	725561	P1391
Pronet-10 Interface Card 16 bit	725562	P1308
Pronet-10 Interface Card 8 bit	725564	P1303
Xircom Ext. Token Ring 8 Bit	725566	ET16BU
Xircom 16/4 Token Ring DB9 16 Bit	725568	PT2-16B3
Xircom 16/4 Token Ring RJ11 16 Bit	725570	PT2-16BT
Asante MAC Ring 4wbps SE 16 Bit	725572	09-00420-01
Asante MAC Ring 4/16 wbps 32 Bit	725574	09-00410-01
Asante MAC Ring IIsi 32 Bit	725576	99-00024-01
Asante MAC Ring LC 16 Bit	725578	99-00025-01
Smart 16/4 AT Plus Ring Node	725579	-------- --------



Multistation Access Units (MSAU)

Our MSAU units come loaded with features and options. If you have a small network, that doesn't need much management, then go with our standard units. For larger, more sophisticated networks, we feature Fiber RI/RO ports, monitoring LED's and active intelligent MSAU's Let our sales staff help you choose the right one for your needs. All IEEE 802.5 compatible.

Description	Part #	Ref #
8 port IBM Standard	771078	6091014
8 port UTP Lobes, Data &UTP RI/RO	725582	BM330-10
12 port UTP Lobes & RI/RO, LED LANTACH & Bypass	725586	TR9228A-121XX
8 port UTP Lobes & RI/RO, lligent Active MSAU	725588	LAT3214
12 port UTP Lobes & RI/RO, Optional Fiber RI/RO	725590	TR-9228A-12-3XX C all For Current Pricing

Coaxial Power MAU™

This MAU provides the interconnection between workstations and a Token Ring network on existing 3270 coaxial cable. Offers great savings when the cost of rewiring is considered. You must use a coax adapter at each station.

Description	Part #	Ref #
Coaxial Power MAU™ 93	725592	LAT3247
Coaxial Workstation Adapter	725594	LAT3248

Controlled Access Unit (CAU)

This is an intelligent wiring concentrator with a built-in copper repeater or optional Fiber concentrators allowing you to add workstations to a Token Ring LAN at speeds of 4/16 Mbps.

Description	Part #	Ref #
Controlled Access Unit	725596	CAU8230

Set-Up Tools

You must initialize a new passive MSAU in order to install it. To do so simply plug a Relay Set-Up Tool into each lobe port for a few seconds and then each ring port. 9 Volt battery included.

WARNING: Not for use on a MSAU connected to an operating network.

Description	Part #	Ref #
Set-Up Tool for UTP MSAU	310194	31906L
Set-Up Tool for Type-1 MSAU	310195	31907L

Fiber Optic Converter

This unit is fully compatible with the IBM 8220. It can link two token ring networks up to 3.3km apart. Features loopback capabilitites, 4/16 mbps networks and reclocks signal.

Description	Part #	Ref #
Fiber Optic Converter	771079	96X5810

Copper Repeaters

This repeater is fully compatible with the IBM-8218 4Mbps unit.

Description	Part #	Ref #
Copper Repeater 4 Mbps	999001	6339532

Fiber Optic Repeaters

This unit is fully compatible to the IBM 8219 repeater. The unit features LED's to show status of low signal, low light and loopback. If you need to mount this unit or the copper repeater, we have a 19" rack housing and a surface mount bracket.

Description	Part #	Ref #
Fiber Optic Repeater	771083	6339535
19" rack mount housing	612450	6339139
Surface Mount bracket	612452	

Token Ring Fiber Optic Tranceivers

Extending you Token Ring lobe and ring distance is now easy and affordable. Just get a pair of our Fiber Optic Token Ring Transceivers.

> To connect the transceiver to a MSAU ring-out or lobe port use a cross-pinned cable.

> To connect the transceiver to a MSAU ring-in port or to a NIC (network interface card) with a RJ45 jack use a straight pinned cable.

NOTE: If you have a Type-1 NIC the DB-9 transceiver plugs directly in.

Description	Part #
DB-9 STMM Fiber Transceiver	310196
RJ-45 STMM	310197
DB9-ST SM	310198
RJ-45ST SM	310199



Loop Wire Concentrator

Used in creating an MCL loop configuration, this concentrator has an I/O port and 8 lobe ports. Units available in a 19" rack mountable panel and an optional fully enclosed stand-alone unit. The LWC-R is a unit that connects Radial Loop Stations to the 8100 loop.

Description	Part #	Ref#
LWC 19" rack mount	999003	6091077
LWC 19" stand alone	999005	6091077
LWC-R 8100 Loop Station Conc.- 9 port	999007	1657330
LWC-R 8100 Loop Station Conc.-18 port	999009	
Loop Station concentrator	999011	4760511
Radial Loop Station Connector	999013	1657310
Wrap Loop station connector	999015	1657320
Cable bracket	999017	6091042

Token Ring Bridge / Router





The Local Token Ring Bridge is a stand-alone unit that can be used in conjuntiun with SynOptics Lattis-Ring workgroup hubs as well as other IEEE 802.5 and IBM compatible MAUs.

The TokenMaster 1000 allows you to connect even the smallest remote Token Ring networks. It supports IPX, TCP/IP routing and source routing bridging

Description	Part #	Ref #	
Local Token Ring Bridge	310200	2722	Call For Pricing
TokenMaster 1000 Remote Bridg/Rout	310201	TM100-2	
Additional V.35 WAN cable	310202	CBL-235	
Additional RS232 Wan cable	310203	CBL-232	

IBM Faceplates and Surface Mount & Boxes



These faceplates and surface mount boxes are used with IBM cables and connectors. The face plates mount directly on NEMP type electrical boxes. The surface boxes can be mounted with screws or incl. magnetic backing.

Faceplates

Description	Part #	Ref #
Type 1 - 1 Data Connector	346000	8310572
Type 2 - 1 Data Conn., 1 voice Jack	346002	6091025
Type 3 - 1 Data Conn., 2 RJ11 Jacks	346004	T3FP
Type 4 - 1 Data Conn., 2 RJ45 Jacks	346005	T4FP

Surface Mount Boxes

Description	Part #	Ref #
Surface Mount Box Only	346001	
Type 1 SM with Type 1 Plate.	346106	4760486
Type 2 SM with Type 2 Plate	346108	6091029
Type 3 SM with Type 3 plate	346107	T3SM
Type 4 SM with Type 4 plate	346109	T4SM

Distribution Panel

We offer distribution panels in various port sizes and cable mounting arrangements. These are 19" rack mountable, complete with rack ground kit, grounding tower and cable routing guides. If you wish to have a special unit made, our in-house manufacturing division can accommodate your needs.

Description	Part #	Ref #
64 Port Panel	771080	8642520
32 Port Panel-1/2 Size	771081	
32 Port Wall mount version	999019	DP32WM
32 Port Data & 64 Port Voice-Full Size	999021	DP3264
80 Port Panel for CAU/LAM Systems	999023	DP80

Distribution Patch Panels

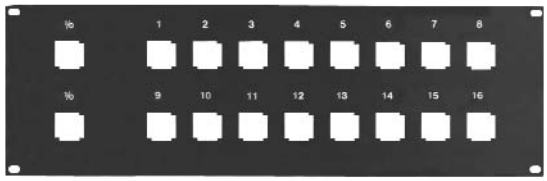
These panels are 19" rack mountable and are used only for patching. They are not intended for grounding of type 1 and 2 cable runs. Available in many different port counts and configurations. Listed below are the most popular models.

Description	Part #
12 Port 3.50"x19" panel	999025
16 port 5.25x19" panel	999027
32 port 8.75x19" panel	999029
64 port 15.75x19" pane	999031

Distribution Panels



DESCRIPTION	PART #
8 PORT DISTRIBUTION PANEL	999024



DESCRIPTION	PART #
16 PORT DISTRIBUTION PANEL	999027

Coax Token Ring



DESCRIPTION	PART #
CMAU 8 PORT COAX MAU W/COAX RING IN RING OUT	725598

POWER TOOLS

NCI carries an assort
ment of the power too
you need to make your
lation go smooth and t
We offer 9.6 volt and
& Driver kits ranging
1/2". We also carry
batteries and a univer



Description	Ref#	Part#
3/8" VSR 9.6V Drill / Driver Kit	6201DWHE	405101
3/8" VSR 9.6V Socket Driver Kit	6702DW	405111
3/8" VSR 12V Drill / Driver Kit	6211DWHE	405113
1/2" VSR 12V Drill / Driver Kit	6311DWHE	405103
3/8" VSR 12V Hammer Drill Kit	8411DWH	405107
Spare Battery for 9.6V Tools		405109
Spare Battery for 12V Tools		405115
Universal Charger / 9.6V & 12V Packs		405117
Drill - Tree Step Drills 1/8" - 1/2"		537801
Drill - Tree Step Drills 1/4" - 3/4"		537803

Description	Part #
Standard	537901
Heavy Duty (Princess)	537903

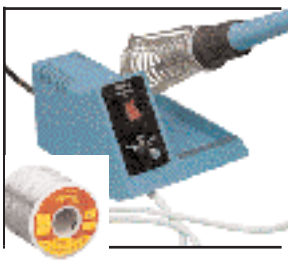


UNGAR



High quality shrink tubing made of polyolfin material. Shrinks to half size. Standard color is black with other colors available. Sold in continuous lengths of up to 100 feet.

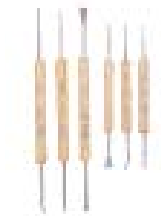
Description	Part #
Heat Shrink Tubing 3/64"	873102
Heat Shrink Tubing 1/16"	873104
Heat Shrink Tubing 3/32"	873106
Heat Shrink Tubing 1/8"	873110
Heat Shrink Tubing 3/16"	873111
Heat Shrink Tubing 1/4"	873120
Heat Shrink Tubing 3/8"	873113
Heat Shrink Tubing 1/2"	873130
Heat Shrink Tubing 3/4"	873140
Heat Shrink Tubing 1"	873116
Heat Shrink Tubing 1.5"	873117
Heat Shrink Tubing 2"	873118
Heat Shrink Tubing 3"	873119
Heat Shrink Tubing 4"	873115



Soldering Station

Description	Part #
WCC 100 Soldering Station	538101

Description	Part #
60/40 Solder .025	871201
60/40 Solder .031	871200
60/40 Solder .040	871203
60/40 Solder .062	871205



Description	Part #
Solder Aid Kit (6 piece kit)	538201



Fastblow SlowBlow Grasshopper FLAT

Description	Fastblow	Slowblow
AGC.25AMP	870006	--------
AGC.5AMP	870007	--------
AGC.75AMP	870008	--------
AGC 1AMP	870015	870000
AGC 1.5AMP	870009	870001
AGC 2AMP	870016	870010
AGC 2.5AMP	870014	870002
AGC 3AMP	870017	870003
AGC 3.5AMP	870018	--------
AGC 4AMP	870019	870004
AGC 5AMP	870020	870005
AGC 6AMP	870022	--------
AGC 7AMP	870024	--------
AGC 7.5AMP	870025	--------
AGC 8AMP	870027	--------
AGC 10AMP	870030	--------
AGC 15AMP	870032	--------
AGC 20AMP	870035	--------

AGC	Fastblow	Slowblow

For All Your Data and Telecom Needs. We have ALL FUSES. **Call NCI NOW for any fuse you need!**

Description	Regular
FLAT .5 AMP	870050
FLAT 2 AMP	870060
FLAT 5 AMP	870065
FLAT 1.3 AMP	870052
Grasshopper .2AMP	870062
Grasshopper .25AMP	870070
Grasshopper .5AMP	870071
Grasshopper .75AMP	870073
Grasshopper 1AMP	870075
Grasshopper 1.3AMP	870076
Grasshopper 1.5AMP	870067
Grasshopper 2AMP	870072
Grasshopper 2.5AMP	870079
Grasshopper 3AMP	870074
Grasshopper 4AMP	870061
Grasshopper 5AMP	870077
Grasshopper 7.5AMP	870078
Grasshopper 10AMP	870063
Grasshopper 12AMP	870064
Grasshopper 15AMP	870066

	Flat	Grasshopper
Price		

Deluxe Screwdrivers



Description	Point/Tip Size	Shank Length	Overall Length	Part #
Phillips	#1	3"	6 3/4"	317005
Phillips	#2	4"	6 3/4"	520015
Phillips	#2	11 1/2"	3 7/16"	317027
Phillips	#3	6"	11"	317007
Slotted	3/16	3"	6 3/4"	317001
Slotted	3/16	4"	7 3/4"	317013
Slotted	3/16	6"	9 3/4"	317003

NCI Screwdrivers



6 Inches

Description	Part#
NCI Screw Driver-Flat& Philips Tips	519050



Nut Drivers

Description	Point/Tip Size	Shank Length	Overall Length	Part #
HEX	11/32	3"	6 5/8"	317039
HEX	1/2	3"	7"	317037

Standard Screwdrivers



Description	Point/Tip Size	Shank Length	Overall Length	Part #
Phillips	#0	2 1/2"	4 15/16"	317033
Phillips	1	3"	6 1/2"	317045
Phillips	2	4"	7 5/8"	317047
Phillips	#0	2 1/2"	5 1/4"	317031
Slotted	1/8	3"	6"	520020
Slotted	3/16	3"	6 5/8"	520024
Slotted	1/4	6"	9 5/8"	520026
Slotted	1/8	10"	13"	520022
Slotted	1/8	3"	4 7/8"	317029
Slotted	5/16	1 3/4"	4"	317025

TOOLS

NCI carries a wide assortment of Strippers and Cutters at great prices. As always, if you can't find what you need, call us today and we'll help you find it.



Part # 516505



25 Pair Telco Cable Cutter

Part # 516504



Coax Cable Cutter

Part # 317061



Wire Cutter

Part # 317063



Toggle™ RG59 / 62

Part # 516514

Toggle™ Ethernet Thick Wire

Part # 516516

Toggle™ RG58

Part # 516509

Toggle™ RG58 Plenum

Part # 516512



Cable T&B 4pr Stripper

Part # 516011



Cable Slitter

Part # 516010



Coaxial Stripper 2 Blade

Part # 516025

Replacement Blade

Part # 516008



Coaxial Stripper 3 Blade

Part # 516035

Replacement Blade

Part # 516009



Self-Adjusting Wire Stripax

Part # 516507



MiniStripax

Part # 516508



T-Stripper 16- 26 awg Stranded

Part # 516506



Strip Master Conductor Cable

Part # 516131



Phone Stripmaster

Part # 319703



Adjustable Wire Strippers

Part # 516101

With Spring

Part # 516102



Tongue & Grove Pliers

4 1/2" ..... Part # 541601
6 1/2" ..... Part # 541603
10" ..... Part # 541605
12" ..... Part # 541607



Linemans Deluxe 9" Pliers

Part # 519013



8" High Leverage Diagonal Cutter

Part # 317049



7 1/4" Ne Type Side Cutters

Part # 317051



Diagonal Cutters 6" Bell Type

Part # 519020



6" Diagonal Cutter

With Skinning hole

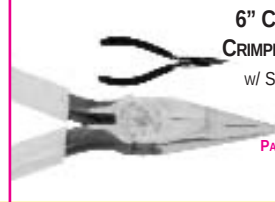
Part # 317053



5" Diagonal Cutter

With V&W Notches

Part # 317055



6" Connector Crimping Pliers

w/ Side Cutters

Part # 317057



6" Longnose Insulation Skinner

22 or 24 ang.

Part # 317059



Longnose 6"

Part # 519022



6" Longnose

With Side Cutters

Part # 317041



Diagonal Flush Cutters 4"

Part # 519024



6" Tapered Needle Nose Pliers

Part # 317017



5 1/2" Extra Slim Needle Nose Pliers

Part # 317015



4" Midget Diagonal Cutters

With Spring

Part # 317019



4" Midget Slimnose

With Spring

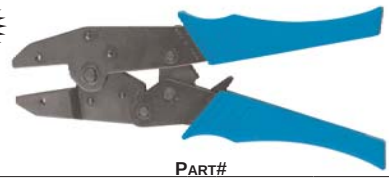
Part # 317023

Crimp Tools

The IDEAL Crimpmaster ™ Crimp Tool Series is designed for plant maintenance, field service, LAN installers, prototype shops and small production runs. There is not a better low-cost ratcheted crimper made. Our Crimpmaster™ Crimp Tools are full-cycle, compound leverage and triple ratcheted to give exact precision to every crimp connection. The frames are made of a high grade stamped-hardened steel.
A built-in safety release is included for removal of partially crimped connectors placed in the incorrect die cavity.

The crimp dies are dual-nest, precision-die cast and hardened to deliver the proper crimp specifications for oval-ized barrel crimps, insulation support to gauge requirements and hex crimps for MS39012 type connectors, non-insulated open barrel crimp style connectors and non-insulated terminals and splices. Many dies offer multiple size coax usage to increase tool versatility.

each



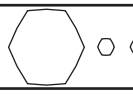
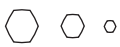
Description	Part#
Crimpmaster ™ Crimp Tools	319719

each



Die sold sep.

Interchangeable Die Sets for Coaxial Connectors

Application	Crimp Size	Connector	Part #
RG58, 59 and 62AU, BNC and TNC 3 piece connectors			318227
Cambridge Products BNC's RG58, 59, 62AU CP-88-1 & 2, CP-89-1 & 2 series Connectors and others			318225
N-series Coax Connectors. MS39012 type N-series plugs and jacks for RGB, RG11, RG213 and RG126 Cable			318229
CATV"F" connectors RG59 and RG6			318231
AMP BNC/TNC RG58			842027
AMP BNC/TNC RG59/62AU			318233
RG58 and RG174 cable groups for both 50 and 75 ohm center pins (Thinnet)			318235
RG58 and Belden B281 cable groups for both 50 and 75 ohm center pins.			318237
RG8 BNC/TNC			318239
RG174 and small cable connectors			318241
RG58, RG59, 62 Teflon BNC, TNC (plenum) and AIM			318243
RG6, RG58, BNC, (amphenol, KIngs, AIM)			318245
Belden 1694A			318247

Interchangeable Die Sets for Fiber Optics

Application	Connector	Part #
Universal fiber optic die crimps most SMA type fiber optic con-nectors HEX		318249

Interchangeable Die Sets for Open Barrel Terminals

Application	Terminal	Part #
22-12 AWG. Non-Insulated, open barrels contacts		318269

Interchangeable Die Sets for Modular Plugs

Application	Connector	Part #
RJ45 modular Plugs (WE) 8 position		318253
RJ11, 2 ,4 and 6 position (WE)		318255
Handset plugs (WE)		318257
RJ45 modular plugs (AMP) Keyed and non-Keyed, 8 position		318259
RJ11, 2, 4 and 6 position (AMP)		318261
RJ11 DEC-MMJ		318263
RJ69 10 position		318265

Interchangeable Die Sets for Closed Barrel Terminals Non-Insulated Terminals

Application	Terminal	Part #
22-8 AWG. Non-Insulated terminals and splices.		318267

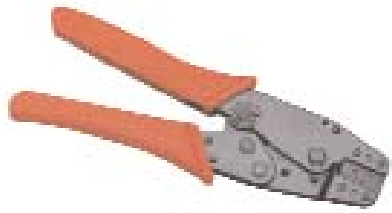
Interchangeable Die Sets for Closed Barrel Terminals Insulated Terminals

Application	Terminal	Part #
22-12 AWG. Insulated terminals and splices. Dies are color coded to AWG specifications		318271
22-12 AWG. Insulated terminals and splices. Maximum crimp for smaller wire barrels. Dies are color coded to AWG specifications		318273
26-14 AWG. Insulated terminals and splices. Dies are color coded to AWG specifications		318275

TOOLS



DB Crim
Part # 514011



DB Crimp Tool Low Volume
Part # 514015 .....



V.35 (
High '
Part # 514020 .....



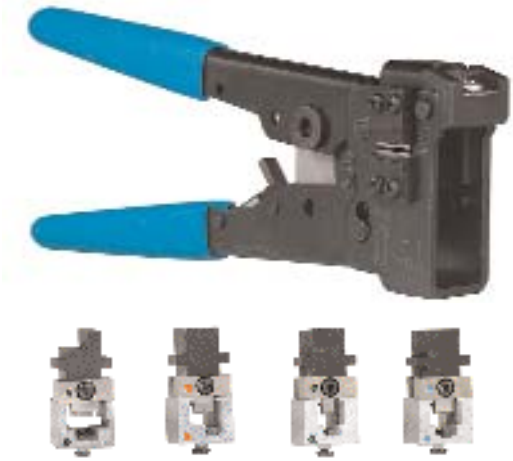
Insertion/Extraction Tool STD. D-Sub
Part # 514055 .....



Extraction Tool V.35
Part # 514053 .....



Amp Insertion / Extraction Tool D-Sub
Part # 315045 .....



NCI sells these crimp tools with or without dies. The dies can be purchased separately or purchased installed.

Description	Part #
AMP HV TOOL WITH "NO DIE"	513000
TOOLS WITH DIE	
4 Cond. Handset & Tool	513005
RJ11/12 4&6 Cond. Tool	513010
DEC MMJ Tool	513012
RJ45 8 Cond. Tool	513015
DIE ONLY	
4 Cond. "Die Only"	513020
RJ11/12 4&6 Cond. "Die Only"	513018
DEC MMJ 6 Cond. "Die Only"	513019
RJ45 8 Cond. "Die Only"	513030
Blade for AMP Tool (Top & Bottom)	314965



4 Cond. Handset Tool LV
Part # 513070



RJ11/12, 4&6 Cond. LV
Part # 513071



DEC MMJ 6 Cond. LV
Part # 513072



RJ45 8 Cond. LV
Part # 513073



RJ69 10 Cond. LV
Part # 513074



Probe Pick
Part # 512064



Spudgers- Wired Ends
Part # 512066



Punchdown Tool Krone
Part # 512031



D814 Tool w/66 Blade "Impact"
Part # 512035

D814 Tool w/No Die
Part # 512037

D814 Tool w/110 Blade
Part # 512036

Ideal Punch Down Tool w/66 BLade
Part # 319707



Standard Blade Kit- 2-66, 2-110, 2-Punches
Part # ?



Deluxe DBK- 6 Blade Kit
Part # 512038



Manual Wire Wrap / Unwrap Tool
Part # 511060



Manual Wire Wrap Gun for 24 AWG
Part # 511040



AT&T 5 pr. 110 Punch Down Tool
Part # 512043

Siemon 5 pr. Punch Down Tool
Part # 311751

D814 66 Blade for
Part # 512050



D814 110 Blade for
Part # 512044



D814 Krone Blade for
Part # 512039



D814 Bix Blade for
Part # 512041



These "Butt-In" test sets feature: DTMF Pulse, Last# Redial, Built-In Ringer, Amplified Speaker, Recall Memories, HI-Z monitor and speaker phone. STD=Standard cord ABN.

TS19 Models



TS21 Models



TS22 Models



WTS Models



Description	Part#	Ref #	DTMF	Last# Redial	Ringer	Amplified Speaker	Recall Memories	Hi-Z Monitor	Speaker Phone
TS19 Mean Green "Cord Set A"	852018	TS19A	‡	‡	‡			‡	
TS19 Mean Green "Cord Set B"	851546	TS19B	‡	‡	‡			‡	
TS21 Standard Cord 5"	852020	TS21STD	‡	Pulse					
TS21 Angled Nails Cord 5"	851548	TS21ABN	‡	Pulse					
TS21 Weather Resistant	851550	TS21WR	‡	Pulse					
TS21 Ground Start System Cord	851552	TS21GND	‡	Pulse					
TS21 Central Office Cord w/346A Plus	851554	TS21CO	‡	Pulse					
TS22 Amp. Speaker, Ringer, 9# Memory STD Cord	852022	TS22STD	‡	‡	‡	‡	‡		
TS22 Amp. Speaker, Ringer, 9# Memory Nail Cord	851556	TS22ABN	‡	‡	‡	‡	‡		
TS22 Amp. Speaker, Ringer, 9# Ground Start	851558	TS22GND	‡	‡	‡	‡	‡		
TS22 Amp. Speaker, Ringer, 9# Central Office	851560	TS22CO	‡	‡	‡	‡	‡		
TS22 Amp. Speaker, Phone +Hi- Z, STD Cord	851562	TS22ASTD	‡	‡	‡	‡	‡	‡	‡
TS22 Amp. Speaker, Phone +Hi- Z, Nail Cord	851564	TS22ABN	‡	‡	‡	‡	‡	‡	‡
TS22 Amp. Speaker, Phone +Hi- Z, Ground Start	851566	TS22AGND	‡	‡	‡	‡	‡	‡	‡
TS22 Amp. Speaker, Phone +Hi- Z, Central Office	851568	TS22ACO	‡	‡	‡	‡	‡	‡	‡
WTS- 301 Weatherproof	851570	WTS301	‡	‡	‡			‡	
WTS- 201 Weatherproof	852025	WTS201	‡	‡	‡			‡	

IDEAL

The IDEAL PathFinder™ Tester is specifically designed for professional installers and maintenance technicians. It maps, tests and troubleshoots installed data communications, phone wiring and coaxial cable runs in a new construction and in existing facilities. Quickly and easily map, test and verify both common and modified wiring configurations from one location.

Kit Contains:
- PathFinder Tester
- Four Remote Modules
- Storage Case



33-812 PathFinder Tester Kit

Part # 319721

Kit Contains:
- PathFinder Tester
- Four Remote Modules
- RJ-45 Crimpmaster Crimp Tool
- Punchmaster Punch Down Tool
- Blade for Punch Down Tool
- Amplifier Probe
- Twisted Pair Stripper & Cutter
- Storage Case



33-813 PathFinder Tester Kit

Part # 319723

Kit Contains:
- PathFinder Tester
- Four Remote Modules
- Wiring Verifier-Patch Cable Tester
- Smart6™ Modular Tester
- Data8™ Modular Tester Adapter
- Amplifier Probe
- Storage Case



33-814 PathFinder Tester Kit

Part # 319725



MT-5000 Siemon Multitester

Part # 311747



PC Cable check

Part # 318201



SLT 3 Tester

Part # 314101



STM-8- Test Usoc, At&t, Dec, 10-Base-T

Part # 851544



Fox & Hound Holster

Part # 534303

Fox & Hound Tracer

Part # 534301



Inductive Amplifier 200B

Part # 852030



Inductive Amplifier 200EP

Part # 851536



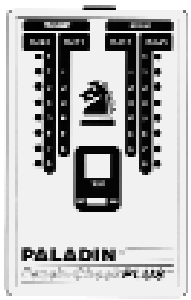
Inductive Amplifier Holster

Part # 852031



Inductive Amplifier

Part # 320001



Patch Check Plus-8 Wire Tester

Part # 851542



Tone Generator Superior Alligator

Part # 852017



RS232 Breakout Box

Part # 851112

V.35 Breakout Box

Part # 313661

MICROTEST®

Microtest invented hand-held LAN cable testers and is the leader in cable certification and diagnostic technology. They've pioneered innovative solutions to real world networking problems and those innovations led the industry in making life easier for LAN managers, service providers and cable installers.

MT-350 Scanner Kit

The Network Cable Expert In A Box!

It saves you time installing, troubleshooting, and maintaining your network cable systems.

The **MT350 Scanner** supports Ethernet, Token Ring, 10 BASE-T and other standard network types: The Autotest complies to industry specs to accurately measure crosstalk, attenuation, length, resistance, noise, signal-to-crosstalk ratio and more, on all wire pairs. Using **Flash ROM Technology** you can quickly upgrade your **MT350** capabilities by downloading ROM updates into your scanner - instantly & in the field. The **MT350** keeps you going with a replaceable, rechargeable battery that has 8 hours of operation (4 hours in continuous Autotest mode).

MT-310 Scanner Kit

The Convenient, Easy-to-Use Network Fault Finder for On-the-Go Network Troubleshooting and Certification.

The **MT310 Scanner** solves many challenges associated with troubleshooting and managing both unshielded twisted pair (UTP) and coax networks. It is designed for the LAN administrator, LAN technician or cable installer.

The menu-driven user interface is designed to be especially easy to learn and use in the field. Plus, if the cable fails you don't have to guess why. The **MT310 Scanner** identifies out-of-spec results. The latest Autotest result can be printed to any 9600 baud serial printer or simply download to any database as a comma-separated file.With the optional Cable Tracer-II you can even trace cables located in floors, walls and ceiling.

PentaScanner

Pentascanner is the fastest, hand-held cable certification and diagnostic solution for category 5 cable systems.

PentaScanner's easy-to-read, backlit, graphical displays shows you right where wiring errors are, so you can go directly to the source and make the necessary corrections. PentaScanner also monitors and graphs network traffic, to help solve intermittent cable problems. PentaScanner's Autotest performs a full suite of tests, compares the results to EIA 568A & Network standards, grades cable category and gives you a pass/fail result. Then you can print your complete easy-to-read certification report or store up to 500 Autotest results. PentaScanner's Autotest meets industry specifications to accurately measure crosstalk, attenuation, length, signal-to-attenuation ratio, capacitance, impedance and more, on all 4 wire pairs and the shield. PentaScanner supports all network and cable types.With a 10 hour replaceable, rechargeable battery PentaScanner keeps you going for the entire job.

MICROTEST



MT-350 Scanner Kit
Part. # 851594



Penta Scanner w/ 2 Way Injector
Part. #318911

Penta Scanner w/ Super Injector
Part. # 851996

2 Way Injector for Old Penta Scanner
Part. #318909



MT-310 Scanner Kit
Part. # 851590

Scanner Accessories

Description	Part #	
Cable Management System Software	318913	
CMS F/ Windows	318915	C all
Cable Tracer	318917	
RJ45 F-F, Shielded	318919	C all
Telco Adapter Kit MT-350	851602	
Token Ring Adapter	318921	
Coax Adapter Kit	851606	
Large Canvas Case	318923	C all

Telco Adapter Kit MT-350



Telco Adapter Kit MT-350





Cable Tracer



LANTEK PRO XL
Part. # 540601 **4441**.00

FIBERKIT for LANTEK PRO XL
Part. # 540603 –

WAVETEK

LANTEK™ PRO Series... *Certify with Confidence.*

Confidence and speed! The two qualities you need most to certify and troubleshoot your LAN installation. Confidence to know your LAN meets TIA and ISO standards.

And speed to do your job efficiently and economically. In less than 30 seconds, the Autotest completes line map, DC loop resistance, length, capacitance, Dual Next™, attenuation and Attenuation-to-Crosstalk Ratios (ACR) measurements.

The LANTEK™ PRO gives you tremendous speed advantage, without compromising performance. Our advanced design guarantees TSB-67 Level II accuracy for basic and channel links.

The LANTEK™ PRO stores up to 500 Autotests. You can easily print each test or download all the tests into a PC for later use. You can even sort test results! Users can select TIA or ISO Autotest suites to automatically perform all the tests required by the respective standard. Cable types and test suites can be customized by the user to adapt to specific needs.

The LANTEK™ PRO also comes with built-in troubleshooting using Cable Expert™. If Autotest fails, a simple press of the button enables Cable Expert™ to highlight the suspected problem and display troubleshooting advice describing both the problem and the possible causes.

And with a typical battery life of more than 8 hours, the LANTEK PRO™ is ready for a full day's work. The dual bay battery charger comes standard with the tester. Recharging takes less than 3 hours.

Now announcing new Fiber Optic Cable power loss measurements capability for the LANTEK™ PRO! . With the new FIBERKIT, the LANTEK™ PRO directly displays optical power loss through fiber cable, splices and connectors. With this powerful but simple fiber conversion, you can verify proper connection of fiber cabling with the same LANTEK™ PRO you use for copper cable. Save big dollars with the convenience of adding FIBERKIT capability to your LANTEK™ PRO - now the only LAN cable tester capable of testing ALL your cable.

FLUKE

The First digital Cat 5 tester with unique diagnostic capabilities



DPS - 100 Cat 5 Tester
Part. #334305
DPS - 100 w/ Smart Remote
(for 2 way Testing)
Part. #334307
Smart Remote for Standard DSP-100)
Part. #334309
Spare Battery
Part. #334311
External Battery Carger
Part. #334313
Standard Remote

Certify your category 5 UTP cabling installation with confidence. The Fluke DSP-100 is a rugged, handheld field tester that uses a revolutionary digital technology to give you a powerful combination of capabilities. • Laboratory-level accuracy in a handheld field tester • Meets or exceeds the stringent TIA TBS-67 Level II accuracy requirements • Record test time: Complete test of a four pair Cat 5 cable in less than 17 seconds • Automatically test NEXT from ends • Unmatched diagnostics: Precisely locate the source of crosstalk problems • Connects directly to 8-pin modular jacks (RJ45) without external adapter • Test a wide variety of LAN cabling systems: UTP, FTP, STP (IBM Type 1,2,6,9), Coax • Saves up to 500 test results • Free Windows® based DSP-LINK software delivers sophisticated test results data management • Fast test execution, accurate answers, and diagnostics save you time and money • NiCD rechargeable battery (10-12 hrs) rechargeable time 2.5 hrs - May be recharged while using - Memory backup Lithium battery - Remote uses 9 Volt good for 6 mos.

Comprehensive LAN cable performance tester



652 Cable Meter
Part. #334317

The Fluke 652 CableMeter provides a complete suite of tests; from wire mapping to noise and traffic measurements; from Near-End Crosstalk (NEXT) to identifying split pairs and conformance testing to EIA/TIA568 cable specification.
• Test and troubleshoots Coax, UTP, and STP • Capability to add two user-defined cable types • Verify end-to-end connectivity per EIA/TIA 568 wiring standard • Detect wiring problems: opens, shorts, miswires, (crossed,reversed,split pair) • Measure length as well as distance to fault using TDR • Measure termination impedance and characteristic impedance • Measure attenuation and NEXT up to 20 MHz and report worst case • Issue pass/fail result based on IEEE 802 link segment specification • Verify conformance to EIA/TIA cable specifications • Time-stamped noise monitoring • Print LAN cable results (memory capacity of 500 tests) • Monitor Ethernet traffic: utilization and collisions • Bright four-line display with backlight • 6AA alkaline battery, 650R remote Unit, 1 9Volt alkaline battery, 8 hrs continuous operation • **Comes with 650R Remote Unit, C650 soft case, AC Adapter, Users manual, Warranty registration, N6520 cable kit contains:2 RJ45 Patch Cables, 2 RJ45 8 Clip Lead Cables, 2 RJ45 Remote Couplers, 1 50W BNC Coaxial Cable, 1 Printer Cable, DB9 to DB25.**

The Easy to Use & Multifuntional LAN Cable tester



650 Cable Meter
Part. 334319

The Fluke 650 LAN CableMeter offers the right combination of performance, features and ease of use for rapid problem diagnosis and certification of LAN cables. It is ideal for use by cable installers, LAN maintainers and managers who work with both unshielded twisted pair (UTP) or coaxial cables.
• Test and troubleshoots Coax, UTP • Capability to add two user-defined cable types • Verify end-to-end connectivity per EIA/TIA 568 wiring standard • Detect wiring problems: opens, shorts, miswires, (crossed-,reversed-,split pair) • Measure length as well as distance to fault using TDR • Measure termination impedance and characteristic impedance • Measure attenuation and NEXT up to 10 MHz and report worst case • Issue pass/fail result based on IEEE 802 link segment specification • Verify conformance to EIA/TIA cable specifications • Time-stamped noise monitoring • Print LAN cable results (memory capacity of 50 tests) • Monitor Ethernet traffic: utilization and collisions • Replaceable 9 Volt alkaline batteries or 120 Volt ac line adapter • **Comes with Remote unit, 2 RJ45 patch, RJ45 clip lead cable, 50W BNC Coaxial Cable ac line adapter, 2 spare 9 Volt batteries, soft carrying case, manual.**

The one-person LAN cable verification tool



620 Cable Meter
Part. 334321
Cable Identifiers #2-4
Part. 334323
Cable Identifiers #5-8
Part. 334325

The new Fluke 620 CableMeter verifies the correct termination, connection and routing of LAN cabling. Utilizing a new technology, the 620 is the only instrument that can test whether a connection has been properly implemented without using a remote unit at the other end of the cable. This allows the installers to "test the connection as they go".
• One person verifies each connection as he goes - Does not require a remote unit at the end of the cable - "Certifying" tested cables saves time and money • Test all LAN cable types • UTP, STP, FTP, Coax • 2, 3, 4, wire pairs in twisted pair cables • Tests (all category) UTP cables and hardware • Verify end-to-end connectivity per EIA/TIA 569 wiring standard • Detect wiring problems: opens, shorts, miswires, (crossed-,reversed-,split pair) • Locates wiring/connection errors (distance to the open or short) • Measure cable length • Easy to use - Single rotary knob to select the test • Two line LCD display with backlight • Handheld, 1.5 Volt Alkaline Size AA batteries (2) long battery life (50 hours continuous), cable identifier: none • **Comes with, Carrying case, 1 UTP category 5 patch cable, RJ45-RJ45 straight through, 4 ft/1.25m in length (EIA/TIA 4 pair Cat 5), 1 RJ45-RJ45 In-line Coupler (Barrel connector),1 cable identifier for the verification of wire map and cable routing, Quick reference card, Operator manual • Warranty card.**

The one-button answer to wire mapping



610 Cable Mapper
Part. #334327
Cable Identifiers #2-4
Part. #334329
Cable Identifiers #5-8
Part. #334331

The new Fluke 610 Cable Mapper is designed to find all UTP termination faults at the touch of a button and detect split pairs - something no other wiremapper can do.

• Verify end-to-end UTP connectivity per EIA/TIA 569 wiring standard • Detect wiring problems: opens, shorts, miswires, (crossed-,reversed-,split pair) • Lowest cost product to detect "Split Pair" - Measures Near End Cross Talk (NEXT) at 10 MHz • Bright LEDs indicated pass (green) or fail (red) for each wire pair • Failure code is displayed with each wiring detect • Always requires a "Cable Identifier" at the remote end of the cable • Test cables up to 122m (400ft) in length • Lightweight, handheld design in protective holster • 1 9Volt Alkaline battery (battery life 1500 tests), Cable identifier: none, Low power indication on the display • **Comes with 1 Cable identifier (#1), Soft carrying case, User manual, warranty registration card, N6103 Cable Kit: 1 24" RJ45-to-RJ45 straight through patch cable, 2 RJ45-to-RJ45 female couplers.**

STM-8 Modular Test Set

The economical and versatile hand tester.



The STM-8 is capable of testing up to 900m (2,950ft) of 1, 2, 3 or 4 pair UTP cable for opens, shorts, reversals, miswires and split pairs. Easy-to-read LCD display, and multiple remotes allow one person to quickly test and identify up to four different cable runs from one location. Tests T568A/B, USOC, 10Base-T, Token Ring and TP-PMD wiring configurations. Low battery and line voltage indicators standard. Kit consists of master unit with a remote plug along with an in-line coupler, a modular cord, Sieman's Wiring Reference Guide, instructions, and a 9V alkaline battery all packed into a handy carrying case. Three additional remote plugs can be purchased for multiple channel testing. Each of the four remotes can be identified by the master unit.

STM-8 Hand Held Tester
Part # 851544 –

Remote Plugs B, C & D
Part.# 311749 –

SLT-3 Modular Cable Tester

The ergonomically designed hand-held tester.

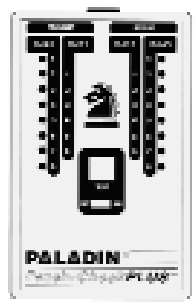


SLT-3 Modular Cable Set
Part. # 314101 –

The MOD-TAP SLT3's innovative 3-in-1 design features modular jacks for testing USOC, 568A/B and RS423 (MMJ) cabling systems providing instant identification of most common voice and data cabling problems including shorts, opens, reversals, and miswires. The master and remote units separate for end-to-end testing of installed cabling & results are shown on LED display.
Both pieces snap together when not in use making it easy to carry and store.
This ergonomically designed hand-held unit is lightweight, rugged, and impact-resistant. Kit includes a 9V alkaline battery.

Patch-Check Plus Cable Tester

For remote continuity testing of voice and data media using RJ11 and RJ45 jacks.



Patch Check Plus
Part. # 851542 –

Patch Check Plus verifies continuity of each wire of RJ11 or RJ45 cable installations up to 1200ft in length from one end. Patch Check Plus identifies open, shorted and cross connected wires with clear L.E.D. display and audible signal. Each touch of the test button compares the relationship of one pin on the transmit side with the corresponding pin at the far end receiver. Transmitter and receiver are shipped with 9 Volt batteries installed and system interconnects for RJ11, RJ45 and MMJ (DEC)

IDEAL TOOL KITS



IDEAL Premier T-Master™ Twisted Pair Kit

Part # 851580

Ref #

Kit Includes:
1 IDEAL PremierMaster™ TelCom Crimp Frame, 1 RJ45 keyed & non-keyed die set, 1 RJ11 die set, 1RJ11 DEC MMJ die set, 1 AMP RJ45 die set, 1 IDEAL Cyclops® twisted pair cable stripper, 1 round cable cutter, 50 each RJ11 DEC MMJ round modular plugs, RJ11 six-position round modular plugs, RJ11 four-position round modular plugs, Blow molded case with foam cut-out interior.



Universal Lan Kit w/ Connectors

Part # 851574

Ref #

Kit Includes:
1 Coax Stripper, 1 Coax cassette, 1 Ethernet Thickwire Toggle stripper, 1 DEC Thinnet Toggle RG58 stripper, 1 Ideal Crimpmaster™ Crimp Tool frame, 1 Coax Cable Cutter, 1 Coax Center Conductor Trimmer, 1 Round Cable Slitter, 1 AMP Thinnet RG58 round coax die set, 1 RG58 & RG59/62 coax die set,1 RG8/11 Thickwire Ethernet Die Set, 1 RG58 & RG59 Plenum Die Set, RG58/59 terminators, RG8/11 terminators, RG8/11 connectors, RG58/59 male-female female tees, RG59 BNC connectors, RG58 Thinnet BNC connectors, RG58/59 coupler BNC connectors, RG8/11 TNC couplers, Blow molded case with foam cut-out interior.



RJ45/11 2,4,6 & 8 Position Combination TelCom Termination Kit

Part # 851582

Ref #

Kit Includes:
1 RJ45/11 Combination TelCom Crimp Tool for keyed & non-keyed RJ45 plugs with built-in cut strip blades, 15 each of 4 & 6 position RJ11 modular plugs, 15 each 8 position RJ45 modular plugs, Blow molded case with foam cut-out interior.



Crimpmaster Ethernet Kit

Part # 851581

Ref #

Kit Includes:
1 IDEAL Crimpmaster™ Crimp Tool, 1 RG58 & RG59/62 hex coax die set, 1 Thickwire Ethernet die set, 1 RG58 toggle coax stripper, 1 Ethernet Thickwire Toggle stripper, Blow molded case with foam cut-out interior.



Economy 10Base-T Kit

Part # 851578

Ref #

Kit Includes:
1 RJ11/45 IDEAL Telemaster™ TelCom crimper, 1 IDEAL Cyclops® twisted pair cable stripper, 50 each RJ45 eight-position modular plugs, Blow molded case with foam cut-out interior.



IDEAL Crimpmaster™ RG58/RG59 BNC Combination Crimping Tool

Part # 851584

Ref #

Kit Includes:
1 RG58/59 Crimp Tool, 1 three step Coax Stripper, 10 each RG58 male BNC connectors, 10 each RG59 male BNC Connectors, 5 each RG58 blue strain relief boots, 5 each RG58 black strain relief boots, 5 each RG59 blue strain relief boots, 5 each RG59 black strain relief boots, Blow molded case with foam cut-out interior.

Twisted Pair Installer Kit

Part # 319711

Ref #

Kit Includes:
1 602-100 Tone Generator & 62-104 Amplifier Probe for identifying cable pairs, 1 Cable cutter, 1 Wire stripper for removing twisted pair outer jackets, 1 eight position modular plug crimp tool, 1 RJ11 modular plug die set, Heavy-duty plastic case with foam inserts to store and protect tools from job site conditions.

Voice and Data Termination Kit

Part # 319717

Ref #

Kit Includes:
1 Punch down tool with 110 blade, 66 blade IDEAL Crimpmaster™ RJ45 Tool, RJ11 die set, Round cable cutter, Line cord stripper, Amplifier probe and tone generator.

Deluxe IDEAL Crimpmaster™ Coaxial Crimping Kit

Part # 851572

Ref #

Kit Includes:
1 IDEAL Crimpmaster™ tool frame, 1 Coax Stripper, 1 Replacement Coax Cassette, 1 RG58 & RG59/62 Die Set, 1 RG58 & RG8281 Die Set, 1 RG58 & RG174 Die Set, 1 RG8/11 Ethernet Die Set, 1 RG58 & RG59 Plenum Die Set, 1 RG58 round AMP Thinnet/Die set, Blow molded case with foam cut-out interior.

Twisted Pair Coax Termination Kit

Part # 319715

Ref #

Kit Includes:
1 Punch down tool with 66 blade, 110 blade, IDEAL Crimpmaster™ frame only, RJ11 die set, RJ11 DEC die set, RG45 die set, N-Series die set, RJ45 AMP die set, RG58-RG59 & RG62 BNC die set, round thinwire die set, round cable cutter, line cord stripper, UTP stripper, 2 coax stripper, replacement cassette.

Cable Service Termination Kit

Part # 319713

Ref #

Kit Includes:
1 IDEAL Crimpmaster™ full cycle ratchet crimping tool, die sets for RJ45 & RJ11 modular plugs, 1 die set for BNC/TNC connectors for RG58 - RG62 & RG58 cables, round cable cutter & coaxial center conductor trimmer, tone generator, amplifier probe, IDEAL wiring verifier cable tester.

Twin-Ax Termination Kit

Part # 851576

Ref #

Kit Includes:
1 Twin-Ax Cable Stripper, 1 IDEAL Super T®-Stripper Static Dissipative, 1 Center Conductor Trimmer, 1 4-Way Indent Center Pin Crimper, Blow molded case with foam cut-out interior.

TOOL KITS



Computer Service Kit 12 pieces

Part # 517720

Computer Service Kit 21 pieces

Part # 517721

Computer Service Kit 24 pieces

Part # 517722

3-Sided Tool Kit

Designed for those electronic technicians who service/repair a broad range of systems. Cordura plus case measures 18 x 12 1/2 x 9 1/2 outside and weighs 6 lbs, empty. Easily transported by web-strap handles or included shoulder strap. Tool compartment measures 17 1/2 x 12 x 1 1/2" inside, the computer/paper file side measures 17 1/2 x 12 x 3 1/2" inside and middle equipment section measures 17 1/2 x 12 x 4" inside. Tool kit weighs 15 lbs.

Kit Includes:
75 tools in all:
Cover, soldering iron • Desolder Tool • Extension blade, 4" • Handle, T-style • Hex blades, (9): - 3/15" • Hey key set, (6): 1.5-5mm • Mirror/magnet retriever • Nutdriver blades, (9): 3 1/16 -1/2" • Penlight, AAA • Pliers (6): 6" long nose with cutter; 7" groove joint; 4 3/4" long nose; 5" locking • Scissors, electrician's • Screwdriver 2-in-1 • Screwdriver blades (4): slotted4 and 3/16, Phillips: #1 and #2 • Screwdriver, offset; Phillips/slotted • Screwdriver (7): slotted 1/4 x4, 1/8 x8, 3/32 x2, 3/16 x6" Phillips: #0 x 2, #1 x 6", #2 x 4" • Screwdriver set, jewelers; 3 Phillips, 3 slotted • Screwstarter, double end • Socket set, 13 pc.: 1/4" drive • Soldering iron, 25 watt • Tweezers, Boley • Wire stripper/cutter • Wrench, adjustable, 6" Zipper case

3 Sided Tool Kit

Part # 334009

Tool Kit Refill

Part # 334011

3 Sided Case Only

Part # 334023

Front



Back

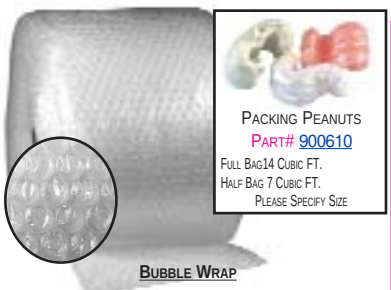


Closed



For Fiber Optic Tools & Kits see our FIBER OPTICS Section

INSTALLER Accessories



Bubble Wrap

Full Reel - 250' x 2' x 1/2" # 900625
Half Reel - 125' x 2' x 1/2" # 900625

Packing Peanuts
Part# 900610
Full Bag14 Cubic Ft.
Half Bag 7 Cubic Ft.
Please Specify Size

TOOL POUCH
Part# 500105

TOOL BAG
Part# 500100
Klein 5102-20"





Description	Part #
Black Electrical Tape	900162BK
Blue Electrical Tape	900162BL
Brown Electrical Tape	900162BR
Green Electrical Tape	900162GR
Gray Electrical Tape	900162GY
Orange Electrical Tape	900162OR
Red Electrical Tape	900162RE
Yellow Electrical Tape	900162YE
White Electrical Tape	900162WH



Description	Part #
Fish Tape - SNAKE - 50" x 1/8" Steel*	874205
Fish Tape - SNAKE - 50" x 3/16" Steel	874207
Fish Tape - SNAKE - 50" x 1/4" Steel	874209
Fish Tape - SNAKE - 100" x 1/4" Steel	874220
Fish Tape - SNAKE - 100" x 1/8" Steel	874208
Pull String	874105



Description	Part #	Repl. Lamp#
AAA (2 bat) Type	870878	870888 2 pk
AA (2 bat) Type	870879	870889 2 pk
Belt Holster for Above 2	870999	----- ------
C (2 Bat) Type	870880	870890 ea
C (3 Bat) Type	870881	870891 ea
C (4 Bat) Type	870882	870892 ea
D (2 Bat) Type	870883	870890 ea
D (3 Bat) Type	870884	870891 ea
D (4 Bat) Type	870885	870892 ea
D (5 Bat) Type	870880	870893 ea
D (6 Bat) Type	870887	870894 ea



Computer ac cleans inside of computer or keyboard surface attachments bags.

Computer Vac .....# 851608
Replacement Bags .....# 851611



Panavise Head #534000
Panavise Base #534001



Description	Part #
Air Freshener - Mint 12 oz	889122
Air Freshener - Spice 12 oz	889122-SPICE
Duster Spray (Compressed Air) 10oz	889115
Anti Static Spray 16 oz	889118
Chamois Tips - 50 Swabs 6.5" s/s	889102
Chamois Tips - 50 Swabs 3.5" d/s	889103
Contact Cleaner 16 oz	889110
Contact Cleaner Plus (w/ Lube) 16 oz	889101
Contact Restorer 16 oz	889114
Control Wipes 6" x 6" 300 qty	889108
Control Wipes 9" x 9" 300 qty	889109
Cotton Tips - 100 qty	889104
Electro Cleaner 12 oz	889124
Gold Guard 8 oz. can	889106
Lithum Spray grease	889126
Lubricant (Pulling) - Quart	889128
Lubricant (Pulling) - Gallon	889130
Oil - Drilling, Tapping & Cut (Thick)	889127
Magnetic Head Cleaner 8 oz	889117
Penetrating Oil 12 oz	889121
Plastic & Glass Anti-Static Cleaner 16 oz	889116
Silicone 8 oz	889119
Sink and Porcelan Cleaner 12 oz	889123
Super Glue	889120
Super Bonder 1 oz	8891250



Standard Roll is 108 feet.

Description	Part #
Double Sided Foam Tape 1/2"	900145
Double Sided Foam Tape 1"	900148
Double Sided Foam Tape 2"	900150

Description	Part #
Double Sided Foam Squares 2" x 2"	424075



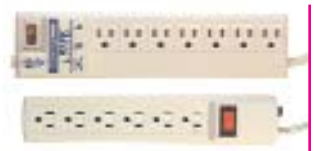
Standard Roll is 75 feet.

Description	Part #
Hook 1" White	900180
Loop 1" White	900182
Hook 2" White	900185
Loop 2" White	900186
Hook 4" White	900190
Loop 4" White	900191

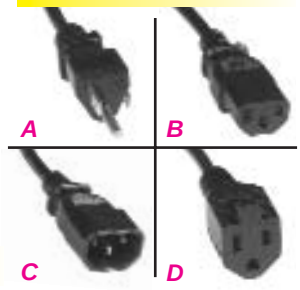


Description	Part #
AAA....1.5 Volt	870815
AA....1.5 Volt	870810
C .....1.5 Volt	870818
D .....1.5 Volt	870820
N .....1.5 Volt	870821
9 Volt	870825

Power Strips



Description	Part #
TRIPP LITE Super 7 - Filters EMI/RFI, Suppression, Checks line	335001
6 Outlet w/Spike & Surge	817150
6 Outlet	817125



Description	Part #
PC Power Cord (A,B)	817101
PC Monitor Cord (C,D)	817102
PC Monitor Ext. (B,C)	817111

Grounding Wrist Strap
Part # 314627

Tape Measures 30' x 1"
Part # 332109



Description	Part #
Extension Cards 6 ft	817115
Extension Cards 10 ft	817117
Extension Cards 15 ft	817105
Extension Cards 25 ft	817119
Extension Cards 50 ft	817104

Staple Guns & Staples



Description	Part #
T18 Staple Gun (34/16 Crown)	517504
T18 3/8" Staples - Box 1000	870602
T18 7/16" Staples - Box 1000	870603
T25 Staple Gun (1/4" Crown)	517505
T25 9/32" Staples - Box 1000	815526
T25 3/8" Staples - Box 1000	870600
T25 7/16" Staples - Box 1000	870605
T25 9/16" Staples - Box 1000	870607
T50 Staple Gun	517506
T50 3/8" Staple 1250	870611
T50 5/16" Staple 1250	517507
T50 1/2" Staple 1250	517508
T50 9/16" Staple 1250	517509
T75 Staple Gun (1/2 Crown)	517510
T75 9/16" Staples - Box 1000	870609
T75 5/8" Staples - Box 1000	815532
T75 7/8" Staples - Box 1000	815534
T59 Staple Gun (Up to 5/16")	870619
T59 Staple 1/4" Clr. 300	870613
T59 Staple 5/6" Clr. 300	870615
T59 Staple 5/6" Bl 300	870617



Cable Duct



Description	Part #
Ivory .75" x .5" x 6'*	320401
Ivory 1.25" x .75" x 6'	320407



Description	Part #
Gray 2" x 2" x 6' w/Cover	521723
Gray 3" x 3" x 6' w/Cover	521724



Description	Part #
Gray 2" x 2" x 6' w/Cover	521720
Gray 3" x 3" x 6' w/Cover	521721
Gray 4" x 4" x 6' w/Cover*	521722



Description	Part #
Flexi Floor Duct Cord Guard 3" wide (Ivory)	817175

Cable Ties



Cable Tie Gun
Part #517550



Part #320421



Description	Part #
4" Nylon White STD	522110W
6" Nylon White STD	522113W
8" Nylon White STD	522129W
12" Nylon White STD	522130W

Colors: B=Black, Y=Yellow, G=Green, O=Orange, R=Red, N=Brown, U=Blue
W= White Standard Cable - Add 25% to



Description	Part #
4" I.D. Nylon Cross Type	522220W



Description	Part #
6" Nylon	522313W
8" Nylon	522325W



Description	Part #
Open Loop Ties 1" x 7"	522115☆
Open Loop Ties 1" x 12"	522117☆
Open Loop Ties 1.5" x 18"	522118☆



Description	Part #
Hook & Loop Cable Tie	338201-B
Hook & Loop Cable Tie 8" w/Grommet	522116-BR



Description	Part #
Cable Clamp 1/2" Screw Type	521100
3/4 Square Adhesive Base	521505
1 1/8 Square Adhesive Base	521508
1 1/2 Square Adhesive Base	521511

"D" Rings

Plastic



Description	Part #
3" x 3" Closed	421572
5" x 3" Closed	421572
6" x 4" Closed	421573
8" x 4" Closed	421574

Metal Closed "D" Rings



Description	Part #
2" x 2" Closed	421550
3" x 3" Closed	421555
5" x 3" Closed	421560

Plastic Open "D" Rings



Description	Part #
S143 "D" Ring 1.7 "x 1.7" x 3.5"	421567
S144 "D" Ring 3.95" x 2.5" 3" Open	421568
S145 "D" Ring 4" x 2.5" x 4.8" Open	421565
S146 "D" Ring 6" x 2.5" x 5.2" Open	421566
S147 "Double" Ring 10" x 2.5" x 5.2"	421570

Mounting Hardware



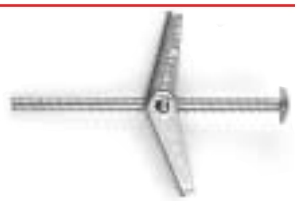
Description	Part #
"B" Connerctors	421055
UR - 2/3 Wire Butt Conn	424625
UG 2 Wire Trap	421630
UY - 2 Wire Butt Conn	421060



Description	Part #
Clips- 6mm CATV Type RG58, 59, & 62	421610
Clips- 7mm RG6, RG59 Dual Sheild	421611



Description	Part #
W/O Screw	421621
W/ Screw	421620



Description	Part #
.187" x 3"	870100
.25" x 4"	870103



Description	Part #
1"	870325
1 1/4"	870327
1 5/8"	870330
2"	870333

Accessories



PT-340 P-Touch Labeler
Part #313715
PT-540 P-Touch Labeler
Part #313723
TZ-221 BK on WH Crtrdg 3/8"
Part #313717
TZ-231 BK on WH Crtrdg 1/2"
Part #313719



Standard Point Permanent Marker
Part # 522140

Extra Fine Point Permanent Marker
Part # 522411

* Colors: B=Black, L=Blue, R=Red, G=Green

Pocket Wire Marker



90 Pack Write - On Labels 3/4" x 3"
Part # 522520

Computer Printable



1" x 2.25"
Part # 522525

8-200	208-992	1000&UP

Priced Label Sold In Rows of 8



450 ID Markers per Book

Description	Part #
Handi Book	522507
Handi Book A-Z, 0-15, +,-,/	522509
Handi Book	522511
Handi Book	522528
Handi Book 1"x2 1/2" Write-On Label	522532

B/O Wire Wrapping Gun



Description	Part#	Ref#
OK Battery Operated Wire Wrapping Gun	511062	BW-928BF

Hammer



Description	Part#	Ref#

Batteries



Description	Part#	
Eveready Rechargable C Batteries	534502	(2 per pack)

66 Blade



Description	Part#	Ref#

Battery Charger



Description	Part#

Work Light



Description	Part#	Ref#

Electric Wire Wrapping Gun



Wraps 18-30 Awg (1.0 to .25mm) wire

Description	Part#	Ref#
OK Electric Wire Wrapping Gun.....	318801	21-BF-U

Wire Wrapping Sleeve



Description	Part#	Ref#
OK 22-24 Awg Wire Wrapping Sleeve.....	318807	P2224

Wire Wrapping Bit



Description	Part#	Ref#

MicroScanner



Microscanner-The Essential Cable Checker
Simple Twisted Pair Cable Testing:

- Displays cable lenghts and pinouts
- Pinpoints opens, shorts and mis-wired pairs
- Generates tone for locating hidden cables
- Matches cables to offices during adds, moves and changes

Microscanner is the fastest tool to verify cable integrity and wire configuration for:

- 10 Base T
- Token Ring
- Fast Ethernet
- ATM 155
- Category 3
- Category 4
- Category 5

Description	Part#	Ref#
Microscanner for Twisted Pair.....	318912	8200-00
(9 Volt Alkaline Battery Included)		

AT&T Product Labels



Description	Part#
AT&T 110 Product Configurator Insert Labels.....	421232

Bix Punch Down Tool



Description	Part#	Ref#

Ideal Replacement Blade

For 45-162, 45-163, 45-165



Description	Part#	Ref#
Ideal Replacement Blade (3 pack).....	410458	L-9225

Modular Die



Description	Part#	Ref#

Mounting Bracket



Description	Part#	Ref#
Siemon Mounting Bracket.....	311755	SB8-10

D714 Impact Tool



- Automatically Provides Uniform Termination on 66 and 110 Blocks
- Automatically Triggered
- Selectable Impact Force

Description	Part#	Ref#

Mounting Bracket



Description	Part#	Ref#



- 270 Joule Energy Rating
- Full 3 Line AC Protection
- UL 1449 Rating of 330 Volts
- UL 1283 Approved EMI/RFI Noise Filtration

Description	Part#	Ref#

Fluke Meter Tester



Features:

- MIN MAX AVERAGE recording mode with Min Max Alert.
- PEAK MIN MAX recording mode.
- Frequency and Duty Cycle measurement.
- Capacitance measurement.
- Touch Hold and Relative modes.
- Input Alert detects wrong input jack connections.
- Splash and dust proof case
- Digital display is or 4.5 digits
- Fast! 3.75-digit display updates 4 times/second.
- Analog display is a high resolution pointer.
- Back-lit display.
- 1000V protection in all functions.

Description	Part#

In-Line Modular Adapter



Description	Part#	Ref#
Harris 4wire In-Line Modular Adapter	331809	10210-100

SPC-395 Tool Kit



Description	Part#

Klein SPC-33 Tool Kit



Description	Part#

Makita Screwdriver Pack



Description	Part#

Leather Belt Sheath Included

- Needlenose Pliers
- Regular Pliers
- Wire Cutters
- Hard Wire Cutters
- Clip Point Knife
- Metal/Wood File
- 8 Inch/20cm Ruler
- Can/Bottle Opener
- Small Screwdriver
- Medium Screwdriver
- Large Screwdriver
- Phillips Screwdriver (#1/#2)
- Awl/Punch

Pocket Tool



Description	Part#

Ratchet Set



Description	Part#	Ref#

Ratchet Set



Description	Part#

TOOLS



Crimp Tool

DESCRIPTION PART#



Standoff Cable Tie Mount

DESCRIPTION PART# REF#



WireScope 155

The WireScope 155 is the first level II cable analyzer to provide test coverage beyond 100 MHz. Featuring laboratory grade accuracy and a wide dynamic range, the WireScoop 155 is a powerful tool for certifying even the highest quality cabling, exceeding the category 5 requirements.

With the WireScope 155, you can:

- Certify premises wiring for TIA-568 Category 3, 4 or 5 compliance
- Certify premises wiring for ISO 11801 Class B, C or D compliance
- Determine whether the installation will support 155 Mb/s ATM networking
- Analyze measured cable parameters against the requirements of 20 standard LANs
- Measure the length of each pair in the cable or distance to cable fault
- Identify and locate split pairs, shorts, opens and miswires
- Certify fiber optic cable installations by attaching an optional Fiber SmartProbe
- Print or upload test results to a PC
- Customize cable and network parameters

Basic Operation

The WireScope 155 works in concert with the Dual Remote 155 to perform a complete set of bi-directional measurements. The Dual Remote 155 is connected at the far end of the cable under test and assists the WireScope during the test by providing the needed cable terminations and by generating a swept signal for the attenuation measurement.

Since Near End Crosstalk (NEXT) is often different at each end of the cable, it must be measured at both ends to find the worst case pair combination. The WireScope measures NEXT at the near end while Dual Remote measures NEXT at the far end of the cable under test. The measurements performed at both ends of the cable can be accessed on the WireScope.

DESCRIPTION PART#



10 Base-T MultiTester

TS130-R2

Specifications:

Indicators - (21) LEDs: (16) for cable testing, (2) for Link Pulse Detection, (1) for Data, (1) for Tip/Ring or Hub/DTE, (1) for Power.

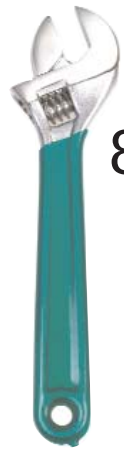
Connectors - (2) RJ45 female

Power - (1) 9V Battery

Size - 4.5"H x 2.8"W x 1"D (11.4 x 7.1 x 2.5 cm)

Weight - 0.5 lb. (0.23 kg)

DESCRIPTION PART#



8" Wrench

Adjustable wrench with cushion grip

DESCRIPTION PART#

JTK-36GC Toolkit



DESCRIPTION PART#

Time Motion



DESCRIPTION PART#

Fuse Puller



DESCRIPTION PART#

Tile Puller



DESCRIPTION PART#

BNC Removal Tool



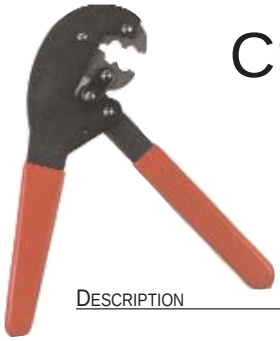
DESCRIPTION PART#

Crimp Tool



DESCRIPTION PART#

Crimp Tool



DESCRIPTION PART#

Crimp Tool



DESCRIPTION PART#

Crimp Tool



DESCRIPTION PART#

Walkie Talkie



DESCRIPTION _____ PART# _____

JTK45 Toolkit



DESCRIPTION _____ PART# _____

Crimp Tool



DESCRIPTION _____ PART# _____

Cutter & Blades



DESCRIPTION _____ PART# _____

Light Stick



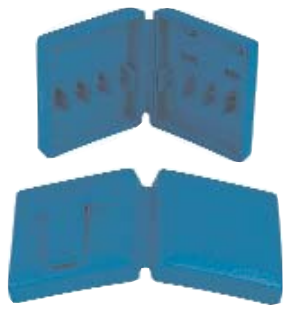
DESCRIPTION _____ PART# _____

Surge Protector



DESCRIPTION _____ PART# _____

D-Blade Cases



DESCRIPTION _____ PART# _____

Reference Books

NCI offers a wide and varied selection of reference books for the computer professional, the computer illiterate, and everyone in between. We do our best to offer all the books you might need, however, due to the fast pace of the industry, new books are always coming out. If you need something you don't see here, give us a call and we'll do our best to get it for *you*.

1001 Computer Telephony Tips, Secrets and Shortcuts

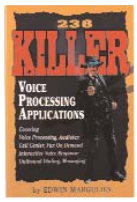


by Edwin Margulies 516 pgs, May 1996

Finally! A book crammed with the best advice from the top experts in telephones, computers and communications. This is a "must read" for both newcomers and industry veterans. It contains a treasure trove of pointers from the most knowledgeable pioneers in computer telephony. Written in short, no-nonsense "sound bite" style, this book delivers over 1000 dollar & sanity-saving tips. You'll save the price of the book with 1 useful tip.

NCI# 815589

236 Killer Voice Processing Applications

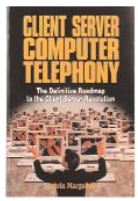


by Edwin Margulies 504 pgs, Sept. 1995

Your telephone is the 1st line to your customers. You can give them information easily with voice processing systems But which is best for your company? This book is crammed with real-world examples of voice processing.
It gives you an overview of all the systems you could choose. Once you know the field, you can pick the ones that make the most sense for your company - ease of use, speed, price, customer impact, etc. With the right apps, your customers will appreciate you more, and your company is more productive and more profitable in the process.

NCI# 815573

Client Server Computer Telephony

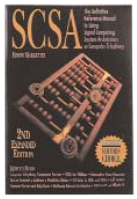


by Edwin Margulies 549 pgs, Aug. 1994

Almost every phone system (PBX and ACD) can now be attached to and controlled by a server on a local area network. This is a major revolution in telecom and offers major advantages to users. This is the 1st book on computer telephony. It spells out the benefits and a detailed description of how to achieve them. Over 20 experts have contributed chapters. They came from **DEC, Dialogic, Enterprise Integration Group, GammaLink, Microsoft, Novell, Opus Research, Sunsoft, Tern Systems** and **TRT**. Includes specifications and descriptions of the major client-server technologies - **SCSA, Novell's Telephony Services,** and **Microsoft's Windows Telephony.**

NCI# 815585

SCSA: The Definitive Reference Manual to Using Signal Computing System Architecture in Computer Telephony



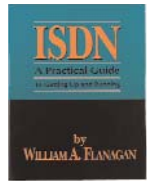
By E. Margulies 450pgs, 2nd ed. Feb. 1996

SCSA is a standard adopted by over 250+ companies, incl. **IBM, NEC, Northern Telecom, TI, Panasonic, Dialogic** and **Tandem.** Written by one of the architects of the standard, this guide is crammed with never-before published details of the fastest growing standard in PC-based call processing. Packed with over 100 drawings, graphs and tables, this easy-to-read book is a great primer for professionals in computer telephony. It shows how to build SCSA apps. incl. IVR, fax-on-demand, audiotex, predictive dialers, CTI links to PBXs and ACDs wireless, cellular and paging, international callback devices, help desks, telephony servers, multi-PC IVR solutions and other customized telecom solutions.

2nd EDITION

NCI# 815593

ISDN: A Practical, Simple, Easy-To-Use Guide to Getting Up and Running on ISDN

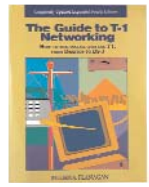


by William Flanagan, 180 pgs, Oct. 1995

ISDN is an overnight success in the US--after 15 years in development and decade of deployment in Europe. Equipment vendors are rushing to support it. Telephone companies are selling it for every size application. Pricing is very appealing. Even residential customers are targeted for telecommuting and Internet access. If you want to understand how this digital technology will affect you, your network, or how your company does business, read this book. You don't have time for the 5-foot pile of standards documents that describe ISDN, and only equipment engineers and designers need that much detail. Here's the one book that gives you, the network operator or communications manager, just what you need (and maybe a bit more) to evaluate ISDN for your own business and talk with confidence to carriers and other vendors.

NCI# 815605

The Guide to T-1 Networking

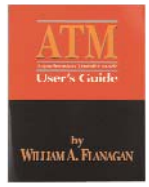


by William Flanagan 222 pgs, 1990

This perennial best seller is a thorough guide to buying, installing and using T-1 circuits and the often complex equipment that you need to hook into T-1 lines.
There are four reasons to buy T-1: • Major dollar savings on long distance calls, international calls, voice, data and video calls. • Substantially better communications quality. T-1 is all digital. • Flexibility to reconfigure connections --- voice one minute, data the next, video the next. • Improve network reliability. Achieving these four benefits can be painful and expensive (T-1 expertise is short among telephone companies). That's where this book comes in. It will save you and your company a fortune in mistakes you'll be able to avoid.

NCI# 815518

ATM: Asynchronous Transfer Mode The Complete Guide

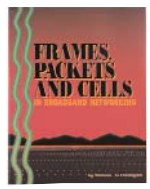


By William Flanagan, 230 pgs, 1994

ATM is here and working. It is new and complex. It delivers major cost savings, major speed improvements, major flexibility gains in the design and operation of consolidated networks of voice, data, video and imaging. This book defines and explains, in simple, concise terms, how ATM Adaptation Layers put information into cells without changing the nature of the service seen by the user. The steps of dividing long files into segments, frames, and cell payloads is fully illustrated.

NCI# 815611

Frames, Packets, & Cells for Broadband Networking

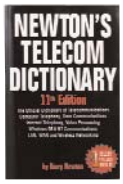


by William Flanagan, 242 pgs, 1991

This book takes you into the basic concepts of frames, packets, and cells. Clear, simple language cuts through the buzzwords to the facts you need, regardless of your vendor. Comparisons and contrasts among technologies give you the insight to choose the one that's best for your applications. This is a big book: more than 250 8 1/2" x 11" pages. It has to be large because it holds the essential information from an entire library of source documents ---over 30 feet of shelves worth.

NCI# 815520

REFERENCE



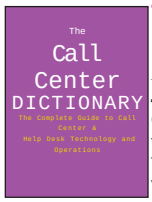
NEWTON'S TELECOM DICTIONARY 11TH ED.

THE OFFICIAL DICTIONARY OF TELECOMMUNICATIONS, COMPUTER TELEPHONY, INTERNET TELEPHONY, DATA COMMUNICATIONS, VOICE PROCESSING, WINDOWS 95 & NT COMMUNICATIONS AND LAN, WAN & WIRELESS NETWORKING.

BY HARRY NEWTON, 1450 PGE, JUNE 1996, 11TH UPDATED ED.

If you're in this great industry, you simply must have this book. ***Why?*** There's been a major explosion in telecom terms. No one can keep up - no matter how long you've been in telecom. We have many new telecom standards TAPI, TSAPI, Tmap, MAPI, MVIP, SCSA, ATM, ADSL. We have many new telecom technologies - from fiber to the Internet, from computer telephony to voice processing, from serial bus to speech recognition. And then there are the vendor-specific terms -- like the million ways to say "Centrex". Everyone's making up new telecom terms. That's why this dictionary was made -- to throw a virtual lifeline. **We used to publish a new edition of this dictionary every 2 years, but now we publish a new edition every 6 months. It has become that hectic. Our guarantee: We keep this dictionary up to date.** This dictionary covers telecommunications switching, transmission and intelligence adding (as in computer telephony). We cover the equipment in your office through to the underwater cable that takes your calls to Japan. We cover satellites and fiber. Every "new" telecom company from **Intel** to **Microsoft** to **Novell** to **Apple** to **National Semiconductor** to **IBM** to **Motorola** to **Dialogic** uses this dictionary for training. All the traditional telecom companies including **AT&T**, **MCI, Sprint, Northern Telecom, Nynex, Rockwell, PacBell, BellSouth, Ericsson** and **GTE** have contributed their company's definitions. As a result, Newton's Telecom Dictionary has truly become an industry-standard dictionary. The Dictionary has been very favorably reviewed in the magazines -- PC magazine called it an "essential resource". Business Week says "mystified by terms such as pink noise, pure aloha, Gorizont?...Newton can help." Newton's Telecom Dictionary is unlike any other technical reference you've ever read. 1st, it assumes that you, the reader, are not technical. 2nd, it assumes you want to fully understand the term. So it not only defines terms, but also tells you how it works, how you use it, what its benefits are and how it fits into the greater scheme of things.

NCI# 815512



THE CALL CENTER DICTIONARY

BY MADELINE BODIN & KEITH DAWSON, 350 PGS, FEB. 1996

Over 1,200 comprehensive and easy-to-read entries covering Help Desk, Telemarketing, Customer Service, Voice Processing, Switches, Software, Training, and Call Center Management. This book is the key to understand how call centers work. The language of the call center comes from many fields. It includes technical terms such as telecommunications, engineering, & computer programming. B marking, customer service and quality assurance terms loom large. The Call Center Dictionary explains them all in a way that is simple enough for a newcomer to grasp, but with enough depth to give insight to an old pro. It not only tells you what a particular technology is, it tells you how using that technology can improve your relationship with your customer and it warns you about bad techniques that can alienate customers. The Call Center Dictionary is your lifeline to the bewildering array of products and services used in the modern call center. It's a dictionary you can use to explain things to your customers. A dictionary you can consult after a meeting with the MIS guy, use it to get a leg up on the jargon of your new job or to explore what a call center can do to improve your business.

NCI# 815503



PC TELEPHONY -

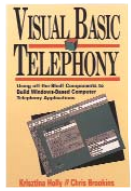
THE COMPLETE GUIDE TO DESIGNING, BUILDING & PROGRAMMING SYSTEMS USING DIALOGIC AND RELATED HARDWARE

(1st & 2nd ed. titled "PC-Based Voice Processing.")

BY BOB EDGAR, 771 PGS, 3RD UPDATED ED., 1995

This book covers Call, Voice, and Fax Processing, Voice Recognition, Speech Synthesis, Switching, Conferencing and Telecommunications on PCs. Thousands of people have bought this book and built powerful computer telephony systems. By reading this book you will learn how to build PC Telephony Systems that are also called Voice Mail, Audiotext, Automated Attendants, Automatic Call Distributors, Interactive Voice Response systems, Predictive Dialers, PBXs, Voice Servers, Voice Clients. This book is aimed at the developer of PC-based Computer Telephony systems who wants to design, build and sell a complete system (a system integrator, a VAR, a reseller, etc.) or who builds part of a system (voice processing component board, fax-board, voice recognition subsystem, a text-to-speech speaker, etc.).

NCI# 815516



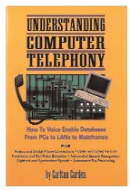
VISUAL BASIC TELEPHONY

USING OFF-THE-SHELF COMPONENTS TO BUILD WINDOWS-BASED COMPUTER TELEPHONY APPLICATIONS

BY K. HOLLY & C. BROOKINS, 151 PGS, 1995

Until recently, integrating the power of the desktop PC with the accessibility of the telephone - to build applications such as voice mail, fax-on-demand, and touch-tone data retrieval - has been reserved for a select few. But in 1991, a revolution occurred in software development: Microsoft unveiled Visual Basic which turned the development tools industry upside down with its remarkable features. • Easy-to-use graphical environment. • Industry standard BASIC language. • Completely open architecture for third-party add-on components. • Unparalleled data access. • No runtime fees.

NCI# 815567



UNDERSTANDING COMPUTER TELEPHONY

HOW TO VOICE ENABLE DATABASES FROM PCS TO LANS TO MAINFRAMES

BY C. CARDEN, 350 PGS, FEB. 1996

Finally! A book that explains Computer Telephony technology in simple terms. Gain a better understanding of the way CT works and how to use it. From basic phone connections to speaking & faxing online data, various CT technologies are described through a sample interactive voice/fax response application. Recent market studies indicate that 58% of US businesses will invest in CT solutions by 1997! This book introduces VARs and system integrators to the exploding CT market and uncovers profitable opportunities. The market opportunities and technologies are reviewed in five easily referenced sections: • Market Opportunities - CT integration with current solutions, new applications development, and vertical market leverage. • Telephone Connections - Analog, T-1, E-1, and ISDN. • Caller Input - Caller ID, touchtone, dial pulse detection, and speech recognition. • CT Output - Digitized and synthesized speech, fax processing, call transfer, and outdialing. • Data Access - IBM mainframe & midrange, RS-232, LAN Xbase, and SQL/ODBC.

NCI# 815563

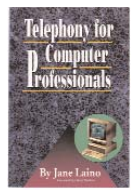


COMPUTER TELEPHONY ON THE SUN PLATFORM

BY PATRICK KANE, 350 PGS, FEB. 1996

In many respects, SUN is the perfect platform for delivering value added computer telephony services. Go into telephone company central offices, and you'll find Sun computers running the most critical part of today's phone network - signaling system 7. Go into the Internet and over 50% of all the servers are Suns. Now Sun is focusing on computer telephony. It has created "Customer Management Solutions" which combines computer technology with telephone access to dramatically improve communications between a company and its customers. Tasks it handles includes buying goods, reporting problems, getting help, tracking shipments, telemarketing, collections. The book covers computer telephony from the basics through applications design and solutions, to interaction with the Internet, to integrated use of all the CT tools - interactive voice response, fax-on-demand, outbound dialing ANI, DNIS, ISDN, etc. This easy-to-read, comprehensive book includes chapters such as: • What is computer telephony? • Understanding the telephone system • Why computer telephony on Sun? • Customer Management Solutions • The Internet, Intranet, Netra, HotJava • Communications Networks • The components • Configurations • Computer telephony standards • The SunXTL Teleservices platform • Assistive technologies for CT applications • Sun solutions for computer telephony • Sun in the telephone companies • Complete CT solutions, applications generators and C tool kits for telephony • Java • The future of computer telephony • Where to go for help • Glossary.

NCI# 815595

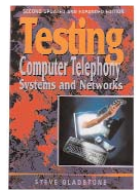


TELEPHONY FOR COMPUTER PROFESSIONALS

BY JANE LAINO, 279 PGS, 1994

This book teaches computer professionals everything they need to know about telecommunications. Though computers and telecom appear to use the same technology, they are very different in every aspect - from the way services are priced and bought to the nature of the telecom vendor, especially the telephone company. This book is based on the author's many years in telecom consulting, replete with war stories, screw-ups and lessons learned. Excellent education for computer professionals.

NCI# 815601



TESTING COMPUTER TELEPHONY SYSTEMS & NETWORKS 2NDED.

BY S. GLADSTONE, 350 PGS, FEB. 1996

The book is structured to systematically help you:

1. Understand Computer Telephony testing. Chapters devoted to understanding CT testing identify key components, issues, and likely CT problems to familiarize you with quality impacting CT issues.

2. Address service objectives. Developing your service objectives. Key to any system or network is understanding how you want the system to work.

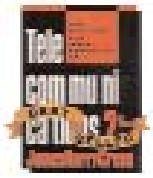
3. Develop the test plan. The test plan is the document that will guide the actual testing methods and the actual test which will encompass your test plan.

4. Select test tools. Understand what tools are needed and provide guidelines for test automation tools.

5. Test and analyze. Provides concrete examples on how to perform high-leverage CT tests.

NCI# 815559

HANDBOOK OF TELECOMMUNICATIONS



BY J. HARRY GREEN, 715 PGS, 1993

This book belongs on the bookshelf of every telecom professional - user or vendor. This is a book every professional can use every day. Want a quick update on satellites? Signaling systems? Cellular radio? Testing? Network design concepts? Microwave radio? It's in there!!!

NCI# 815505

HANDBOOK OF TELECOMMUNICATIONS MANAGEMENT



BY JAMES HARRY, 669 PGS

Without a doubt, the best book ever written on telecom management. If you're involved, you must have this book: Partial Contents: Strategic Telecom Planning; Feasibility Analysis; Forecasting Telecom Services; Developing Requirements and Specifications; Writing Requests for Proposals.

NCI# 815507

THE GUIDE TO LOCAL AND LONG DISTANCE COMPANY BILLING PRACTICE AND PROCEDURES



HOW TO AUDIT YOUR BILLS, SECURE REFUNDS AND SELECT THE MOST COST EFFICIENT SERVICE

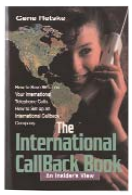
BY M. BROSNAN, J. BUTTERWORTH & J. MESSINA, 192PGS,1993

90% of all business phone bills are wrong!
90% are wrong in the phone company's favor!

This is NOT because phone companies are crooked. Just that most of them have awful billing systems and most of their customers have awful checking systems. Most customers don't check their bills and don't secure the huge refunds for overbilling they're entitled to. This book shows you in step by step, easy to understand terms how you can audit your own local and log distance telephone bills. By examining case examples, you will be able to understand complicated, arcane and confusing telephone company billing terms, procedure and records. You will learn how to get sizeable refunds from your telephone companies -- local and log distance. And you will obtain those refunds.

NCI# 815561

THE INTERNATIONAL CALLBACK BOOK



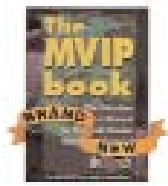
HOW TO SAVE 65%+ ON YOUR INTERNATIONAL TELEPHONE CALLS AND SET UP AN INTERNATIONAL CALLBACK COMPANY

BY G. RETSKE, 340 PGS, 1995

Want to save 65% on your international calls? Want to get rich by opening an international callback company? This is the first book on this brand new industry. Using Callback, Barriers to Callback (with suggestions on getting around them), Designing a Marketing Plan, Selecting the Right Equipment, Financing a Callback Company, Selecting a Callback Company, US Carrier Involvement, PTT Response, FCC Actions and the Future of Callback. The author of this book has been involved on all sides of Callback, designing and selling equipment, marketing callback, using callback and has set up his own company. This book contains all his experiences.

NCI# 815599

THE MVIP BOOK



THE DEFINITIVE REFERENCE MANUAL FOR THE MULTI-VENDOR INTEGRATION PROTOCOL- THE WORLDWIDE COMPUTER TELEPHONY STANDARD

BY GO-MVIP, 400 PGS, OCT. 1995

The only book for multi-vendor integration protocol developers. Available application technologies include voice processing, multiline facsimile, speech recognition, text-to-speech, telephone call switching and call processing, video and audio conferencing, video codecs, data communications, inverse multiplexing, MVIP-to-LAN interfaces (IsoEthernet,FDDI-II) and numerous telephony interfaces (DID, E&M, T-1, E-1, ISDN PRI and BRI, and proprietary PBX interfaces). Prepared by GO-MVIP, the international MVIP assoc.

NCI# 815509

CUSTOMER SERVICE OVER THE PHONE



BY S. COSCIA, 96 PGS, 1995

Call Centers are growing at the rate of more than 30% a year. The influx of entry level CSRs demands proven customer service strategies that work. You get scores of scripts that enable you to avoid problems by not creating them in the first place. You get the most effective, helpful and innovate customer service book available.

Effective -"Our staff agrees that Customer Service Over the Phone has improved our communication skills."
- Joanne Wysokowki, Chemical Bank.

Helpful -"*Customer Service Over the Phone* has been a helpful tool in training, not only for our guest relations staff, but employees who serve internal customers."
- Sherri L. Nelson, Olive Garden Restaurants.

NCI# 815603

HOW TO CABLE THE HOME OFFICE / SMALL OFFICE

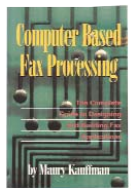


BY E. BROSCH, 200 PGS, 1995

Many businesses now encourage employees to establish an office in the home, and magazines and books provide a ton of information on how to organize and start up a business. It is estimated that there will be over 20 million home offices before the year 2000. This book shows the importance of telecommun-ications to the home/small office, the existing home telephone arrangement and its problems, and how the standard may be used to design, plan, install, and test a system that will carry the home office into the future.

NCI# 815511

COMPUTER BASED FAX PROCESSING



THE COMPLETE GUIDE TO DESIGNING AND BUILDING FAX APPLICATIONS

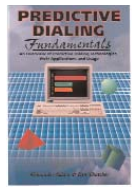
BY M. KAUFFMAN, 212 PGS, DEC. 1994

This book will teach you how to build the most popular PC-based fax applications, including: LAN Fax Server, Fax Broadcasting and Fax-On-Demand using industry standard hardware from **GammaLink** and **Brooktrout.** Start by learning the basics of fax processing and telephony and what is enhanced fax. Then, move on to compression, standards, application generators, boards and buses. End by seeing step-by-step instructions to building your own applications.

Partial Contents: CBF processing • basic telephony • call routing • facsimile technology • standards • LAN fax • APIs • MAPI • TAPI•- CAS.

NCI# 815557

PREDICTIVE DIALING FUNDAMENTALS

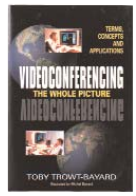


BY ALEKSANDER SZLAM & KEN THATCHER, 150PGS, FEB. 1996

This is is a must read if you're a newcomer to predictive dialers and responsible for analyzing, recommending and deploying outbound call center solutions, or if you're familiar with current technologies, but want to know more about how leading edge technologies play a role in the productivity of the call center. Did you know that predictive dialers help companies to: Increase agent productivity by 150% to 400% • Experience a ROI within 9 to 12 months • Talk to a least two people in the same time it takes to manually dial and reach one • Boost agent morale by removing the remedial tasks of manual dialing. Learn fundamental info about predictive dialers: what they are, how they work, how they benefit business that are conducting telemarketing, customer service and collection calls, as well as what the future holds for call centers.

NCI# 815569

VIDEOCONFERENCING: THE WHOLE PICTURE



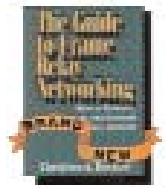
BY TOBY TROW-BAYARD, 469 PGS, 1994

This book is a videoconferencing system and network buyers guide. It helps you understand all aspects of videoconferencing, incl:

• Videoconferencing systems from boardroom to desktop, hardware and software, the players and their positions • Applications • Building a credible business case for videoconferencing • Coding, compression and standards-based and propriety algorithms • Selecting and accessing various videoconferencing networks (both WAN and LAN) including inverse multiplexing • How to develop a videoconferencing RFP, including hundreds of questions that should not be overlooked during the procurement process • How to buy multipoint scheduling and on-going operational issues relative to videoconferencing • Videoconferencing as it relates to The Information Superhighway and a glimpse in to the future of videoconferencing.

NCI# 815597

THE GUIDE TO FRAME RELAY NETWORKING



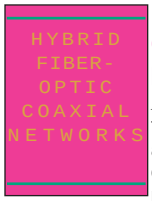
HOW TO EVALUATE, IMPLEMENT, AND MAINTAIN A FRAME RELAY NETWORK

BY C. A. HECHART, 410 PGS, 1995

Frame relay can relieve many headaches of bandwidth-hungry apps. This book is a guide to evaluating, designing, implementing and maintaining your own frame relay network. ***Why Choose Frame Relay?***

Savings • Reliability • Automatic routing around network failures and virtual connectivity • Value added features • Your carrier takes responsibility for spare capacity and network diversity. **Flexibility**. • The virtual connectivity provided by frame relay allows the network to be quickly modified. Capacity on individual connections can change in real-time. **Simplicity**. Frame relay allows you to simplify your network infrastructure, reduce the number of vendors you manage, and cut admin:costs.

NCI# 815513

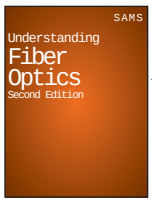


Hybrid Fiber Optic/Coaxial (HFC) Networks

by E. Tunmann, 320 pgs, 1995

This book covers the planning, design and implementation of Hybrid Fiber-optic/Coaxial (HFC) broadband networks as they apply to schools, universities, hospitals, factories, and offices, whether they are in a single building or in multiple campuses. Within the next few years, the need for multichannel, bi-directional video transmissions will multiply within every enterprise because of the coming integration of video into the conduct of business and the process of learning. (HFC) has become the platform of choice for both cable TV and telephone companies for distribution of video, voice and data in the outside world. HFCs are economical and practical and provide the highest bi-directional capacity at the lowest capital investment. HFC has become a favored broadband access platform because it is a moderate-cost, flexible transmission medium, capable of delivering heterogeneous traffic of varying bandwidth, modulation formats and latency characteristics in circuit, channel or packet-based formats. **Contents:** Video Network Architectures • Spectrum utilization • Analog and Digital Video Transmission • The Gateway and Operations Center • The HFC Broadband Network Components and Performance • Planing the HFC Network • The Design Information Checklist • The HFC Networks components • The HFC Broadband Network Design Process (Inside Plant Design) • The HFC Broadband Network Design Process (Outside Plant Design) • HFC Installation Considerations • Acceptance • Testing and Documentation • HFC Proposal Specifications.

NCI# 815515

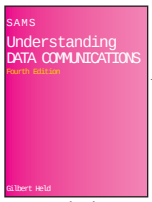


Understanding Fiber Optics

by Jeff Hecht, 477 pgs, 1993

1. Fundamentals of Fiber Optics **2**. Types of Fibers **3**. Cabling **4**. Light Sources **5**. Transmission **6**. Receivers **7**. Repeaters, Regenerators and Optical Amplifiers **8**. Connectors **9**. Splicing **10**. Couplers and Switchers **11**.Tools and Accessories **12**. Measurements **13**. LANs **14**. Long Distance Fiber.

NCI# 815525

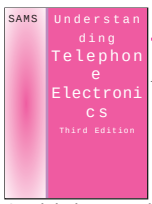


Understanding Data Communications

by G. Held, 434 pgs, 4th Ed. 1994

1. An Overview of Data Communications **2**. Terminal Devices **3**. Messages and Transmissions Channels **4**. Asynchronous Modems **5**. Synchronous Modems, Digital Transmission, and Service Units **6**. Multiplexing Techniques **7**. Fiber-Optics and Satellite **8**. Protocols and Error Control **9**. Personal Computer Communications Software **10**. Alternatives in Local Area Networks **11**. Architectures and Packet Network **12**. Network Design and Management **13**. ISDN

NCI# 815521



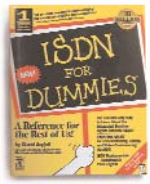
Understanding Telephone Electronics

by S. Bigelow, 368 pgs, 1993

1. The Telephone System **2**. The Conventional Telephone Set **3**. Electronic Speech Circuits **4**. Electronic Dialing & Ringing Circuits **5**. A Microcomputer in the Telephone **6**. Digital Transmission Techniques **7**. Electronic in the Central Office **8**. Network Transmission **9**. Modems.

NCI# 815517

The DUMMIES Books



ISDN for Dummies

by D. Angell, 332 pgs, 1995

This book makes your conversion from the bucolic world of analog communications to digital communications via ISDN a smooth one. You'll find that this guide serves two distinct purposes. The 1st is to make you an educated consumer of ISDN services. The 2nd is to give you hands-on experience working with ISDN to perform a variety of real-world applications. ISDN for Dummies boils down the essentials you need to master ISDN's powerful capabilities. Partial Contents: Getting Started with ISDN • The Zen of ISDN • Making the ISDN Connection • Developing Your CPE Game Plan • NT1s, NT1 plus Devices, and ISDN Telephones • Going the NT1 Route • Going the NT1 Plus Route • Using IBM 7845 Extended • Remote Access via ISDN • ISDN Remote Access Options • Using the Combinet EVERYWARE 1000 • Going the Easy Internet Access Route • I Want My Desktop Video Conferencing • Video Conferencing with Proshare.

NCI# 815501

Internet for Dummies 3rd Ed.

by J. R. Levine, C. Baroudi, M. L. Young, 400 pgs, 1995

For novice users unsure of how to take advantage of the Mother of all Networks, this completely updated edition leads you through the trials of getting on the Net, and provides a vital reference that helps you get where you want to go on the World Wide Web and swap
e-mail, software, news, and more across the globe. • Find information for hooking up with local internet providers as well as larger services like Compuserve, America Online, Microsoft Network, and more • Surf the Web in a snap with all new coverage of Netscape • Download megabytes of free software • Get completely revised information that reflects the latest changes due to the Net's explosive growth • Join electronic mailing lists • Ten ways to become and accomplished Net user.

NCI# 815545

Networking for Dummies

by Doug Lowe, 349 pgs, 1994

Here's the friendly, easy-to-follow networking guide for those who have three or more computers at the office and know you should network them, but aren't sure what a network is let alone how to set one up! Networking for dummies explains everything you need to know to select, set up, use, and manage a small computer network, presented in a plain English style that doesn't require a degree in computer science to understand.
• Covers Novell's Netware, plus NetWare Lite, Lantastic, and Windows for Workgroups • Learn the critical task of networking a printer • Learn to solve common but annoying network problems yourself • Includes coverage if Macintosh networking basics • Includes a network User's Guide for innocent bystanders forced to use a network against their will.

NCI# 815546

Client/Server Computing for Dummies

by Doug Lowe, 396 pgs, 1995

What is client/server computing and why is everyone talking about it? Get answers to this and many other questions with Client/Server Computing for Dummies. You'll find friendly explanations of this new technology and what it can do for your company in plain English - no computer science degree required. • Discover how client/server systems are created with fundamental components like client computers, graphical user interfaces, server computers, and local area networks • Find a complete manager's guide to maintaining client/server systems • Get descriptions of 20 client/server vendors and their products in a bonus trade show section • Save money by learning about hidden costs of client/server computing.

NCI# 815547

PCs for Dummies 3rd Edition

by Dan Gookin, 402 pgs, 1995

This bestseller completely updated to bring novice PC users the latest information on PC hardware and software from how to select and set up your computer system to troubleshooting common PC problems. Its filled with fun and easy to follow advice that will help you get your computer up and purring in no time - Set up your computer, printer, and modem • What's inside your PC, including the Pentium and OverDrive chips, PCMCIA cards and accelerated video cards • New information on MS-DOS 6.22, Windows 3.1, OS/2, Novell DOS, and UNIX • Do-it-yourself troubleshooting.

NCI# 815548

Upgrading & Fixing PCs for Dummies

by A. Rathbone, 341pgs, 1995

Revive and recharge your old PC in a jiffy the cheap and painless way with Upgrading & Fixing PCs for Dummies. This hands-on guide will help you install the hardware you need and fix nagging problems in your PC with clear, easy-to-follow instructions. Do-it-yourself troubleshooting so you can spend your money on upgrades instead of costly repairs. • Turn a 386 into a 486 with Intel's Overdrive chips • Add a new video card or hard disk with ease • Install new types of memory chips • Figure out what's broken and learn how to fix it • Upgrade your computer to run Windows 95.

NCI# 815549

Customer Service for Dummies

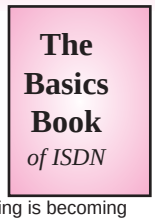
by K. Leland & K. Bailey, 346 pgs, 1995

Whether you're a business owner, corporate executive, manager, service provider, or customer, you know that quality customer service is the key to begin successful in business in the 90's. Uncover the mystery surrounding customer service and provides you with an outline for how to provide the best service possible.

NCI# 815550

The BASICS Books

The Basics Book of ISDN



by Motorola, 64 pgs, 1992

ISDN is about to happen bigtime in North America. Most telcos are now offering under BRI lines. Terminal CPE equipment has dropped dramatically in price. Telecommuting is becoming popular. ISDN offers major advantages in speed, reliability and cleanliness of voice, data, video and imagining transmission. This little book is a simple, fast introduction to ISDN. You'll learn ISDN terminology and the nuts and bolts of how it allows voice, data, video, facsimile, e-mail, etc to travel simultaneously over the same wires.

NCI# 815552

The Basics Book of Information Networking

by Motorola, 176 pgs, 1992

You'll learn topics such as key acronyms, understanding digital services, multiplexing, protocols, modems, T-1 and Fractional T-1,etc.

NCI# 815554

The Basics Book of OSI and Network Management

by Motorola, 96 pgs, 1992

This book is designed for MIS people who want a quick but accurate summary of what telecom network management is, who should worry about it, and why.

NCI# 815556

The Basics Book of Frame Relay

by Motorola, 96 pgs, 1992

The book offers information on the benefits of the technology and where it fits with other communications standards.

NCI# 815558

The Basics Book of X.25 Packet Switching

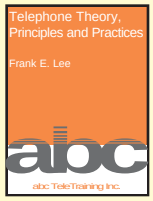
by Motorola, 80 pgs, 1992

A short, easy-to-read book on how packet switching technology differs from traditional circuit switching, and in what environments each excels.

NCI# 815560

abc's TeleTraining Manuals

Vol. 1: Telephone Theory Principles and Practices



by F.E. Lee, Rev. 2nd ed., 160 pgs, 1985

Contents: • Introduction to telephony • Electricity in a circuit • The telephone receiver • The induction coil • Capacitance vs. selfinductance • Increment circuit development • Anti-sidetone circuits • The generator principle • Principles of polarized based ringers • Principles of relays • Special purpose relays • Fundamentals of switching • Line lamp and supervisory circuits • Line protection • Methods of line protection • Subscriber signaling-rotary and touch dialing • Step-by-step switching • Crossbar • Electronic switching.

NCI# 815562

Vol. 2: Station Installation and Maintenance (Revised)

by F.E. Lee, Revised ed., 91 pgs, 1986

Contents: • Planning a drop-wire installation • Installing a drop line • Installing coaxial drop wire • Installation at camps and trailer courts • Installation of protectors • Protector maintenance • Grounding • Prewiring • Station wire installation • Exposed wiring • Concealed wiring • Job specifications • Troubleshooting • Locating faults in subscriber line circuits • Fault locating procedures • Locating faults in instrument circuits • Multiple line key equipment.

NCI# 815564

Vol. 5: Cable, Inside and Out

by Frank W. Horn, 88 pgs, 1978

Contents: • Introduction to cable • Transmission • Paper and pulp insulated cable-design and manufacture • Paper and pulp insulated cable: lay-ups and color schemes • Plastic insulated conductor cable • Even count color code P/C core lay-ups • Special constructions • Cable Sheaths • Cable armors and protections • Central office wire and cable station and cable out-side wire • Interface cables • Factory testing • Filled cable • Aluminum conductor joining • Closures • Cable terminals • Installation • Maintenance • Special options • Choosing the right cable • Cable dictionary.

NCI# 815568

Vol. 9: Design Background for Telephone Switching

by L.F. Goeller, 80 pgs, 1978

Contents: • System organization • Interfacing station lines • Interfacing trunks • User-oriented features • Data processing functions • Positions systems for operators and attendants • Maintenance, reliability and response to abnormal conditions • Physical design.

NCI# 815576

Vol. 10: Principles of Switching

by Paul Fleming, 121 pgs, 1979

Contents: • Control switching • The matrix • Control • Electronic switching • Simples • Duplex • Half-duplex • Analog vs Digital • Two-wire vs four-wire transmission • Signalization • Tabulation of alternatives • Multiple stations • Types of switches • Circuit, message, space division • Single • Two stage grading • Link systems Blocking and non-blocking matrices • TDM matrices • Register systems • Classes of service • Automatic billing • AIOD; routing plans • Memories • PAM and more.

NCI# 815578

Vol. 11: Data Communications Practice

by Bruce L. Meyer, 55 pgs, 1979

Contents: • Common carriers • Networks • Transmission facilities • Data communication equipment • Message formats • Communication control procedures • Codes • Signaling rates • Functional interfaces • Channel characteristics • System design.

NCI# 815580

Vol. 12: Practical Grounding and Protection

by Mike Brewer, 179 pgs, 1987

A manual providing a basic, yet comprehensive examination of grounding principles and techniques with an emphasis on practical applications to telecom systems. **Contents:** Central Office • Outside Plant from both protection and noise standpoints • Radio Systems • Private Telephone Systems and Large PABX Systems.

NCI# 815581

Vol. 14: Power Line Interference Problems & Solutions

by Russ Gundrum, 50 pgs, 1982

Contents: • Nature of the problem: Power influence parameters • Susceptibility parameters • Multipair induction neutralizing transformers (INTs) • Single circuit noise chokes • Inductive interference trends • Investigative considerations • Electromagnetic power line interference.

NCI# 815583

Vol. 15: Basic Guide to 1A2 Key Telephone Installation

by Nicholas Arkon, 84 pgs, 1986

Contents: • The 1A2 key telephone system • The key service unit • The 1A2 key telephone • Installing the feature block • Intercoms • Cross connections • Wiring diagrams • Review questions and answers • 1A2 trouble analysis tables.

NCI# 815584

ABC Teletraining Supplemental Series



Anatomy of Telecommunications

by Tom Smith, 160 pgs, 1987

Contents: • Common Carriers • Regulation • Return of competition • Breakup of the Bell System • Access Charges • U.S. Telecommunications Operations • Basic Electricity for Telecommunications • The Telephone terminal • Special purpose CPE: Transmission principles • Transmission systems • Transmission media • Switching systems • Non-switching equipment in the central office: The national network.

NCI# 815586

Fiber Optics Cable - A Lightguide

by James J. Refi, 208 pgs, 1991

Contents: • Optical Fibers: what they are • Optical loss • Bandwidth I • Bandwidth II • Mechanical properties of fibers • Fiber Manufacturing • Inside and Outside plant cables • Factory Testing Installation • Fiber Joining I • Fiber Joining II • Splice closures and interconnect cabinets • Field Testing • Reliability and maintenance • Hostile environments • Specialty Fibers.

NCI# 815588

Management in Action

by Robert E. Stoffels, 44 pgs, 1981

Contents: • What's it all about? • the natural leader • mission • unit objectives • scheduling • controls • your management style • delegating • decision-making • discussing performance • selection people • motivation • analyzing performance verbal communication.

NCI# 815590

Tables for Traffic Management & Design

by Theodore Frankel;, 70 pgs, 1977

Contents: • Traffic formulae • Application examples • Selected bibliography • Tables-Erlang B, poisson, Erlang C, Crommelin-Pollaczak, Engset, Binomial and Delay • Conversion Chart-Erlangs • CCs • Call minutes.

NCI# 815592

Basic Telephone Installation

50 pgs, 1984

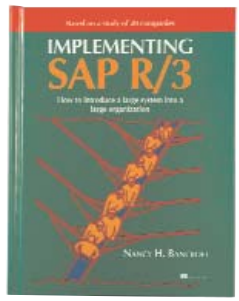
A step-by-step, non technical guide for the residential or small business installer. Basic Telephone Installation procedures, with into on wiring to jacks, plug and adapters. Extensive illustrations.

NCI# 815594

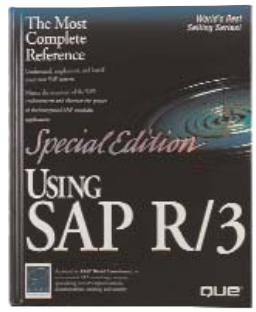
TOOLS



Developing SAP's R/3 Applications with ABAP/4
Includes Reusable Source Code, ABAP/4 Documentation, and an Overview of SAP R/3 System Architecture
NCI# 815613



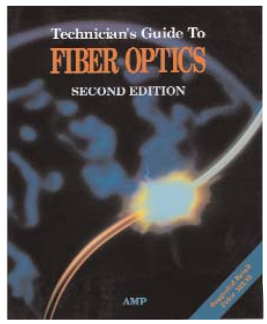
Implementing SAP R/3
How to introduce a large system into a large organization
Based on a study of 20 companies
NCI# 815615



Using SAP R/3 Special Edition
Understand, implement, and install your own SAP system
Master the structure of the SAP environment and discover the power of the integrated SAP modules application
NCI# 815617

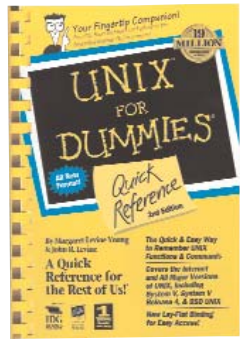


CORBA Fundamentals and Programming
-Explains OMG's CORBA and Object Management Architecture
-Describes how to select and evalute your Object Request Broker and CORBA services package
-Features a working example in C, C++, and Smalltalk
NCI# 815621

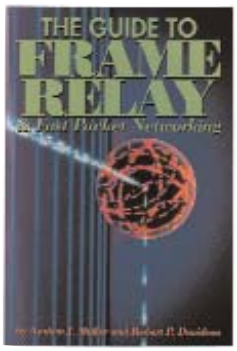


Technician's Guide to Fiber Optics - Second Edition

NCI# 315028

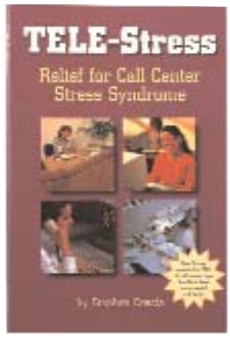


Unix for Dummies - Quick Reference
-The Quick & Easy Way to Remember UNIX Functions & Commands
-Covers the Internet and All Major Versions of UNIX, Including System V, System V Release 4, & BSD UNIX
-New Lay-Flat Binding for Easy Access!
NCI# 815623



The Guide To Frame Relay & Fast Packet Networking

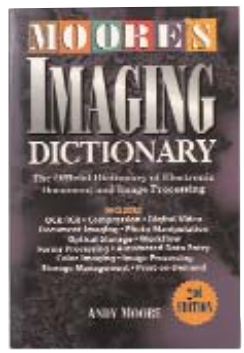
NCI# 815524



TELE-Stress
Relief for Call Center Stress Syndrome
by Steve Coscia, 96 pgs, July 1996

Stress in call centers is a big problem. A new exclusive survey reveals that 98% of call center professionals experience at least one stressful call daily. Calls from irate customers are the leading cause of TeleStress. This problem demands common sense strategies that work. This book has them. You get a practical explanation of what stress is, how it affects your body and how to overcome it. You get easy to read short stories along with relevant cartoons. You get the most extensive and comprehensive survey ever conducted on call center stress. You get the experience of one of the leaders in the customer service and call center industry. Every call center agent should read this book.

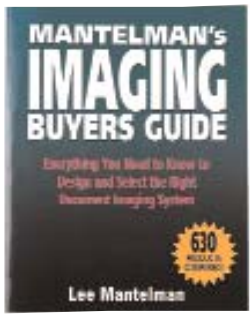
NCI# 815555



Moore's Imaging Dictionary - Second Edition
The Official Dictionary of Electronic Document and Image Processing
by Andy Moore, 290 pgs, 1995

Includes: OCR/ICR - Compression - Digital Video
- Document Imaging - Photo Manipulation - Optical Storage
- Workflow - Forms Processing - Automated Data Entry
- Color Imaging - Image Processing - Storage Management
- Print on Demand

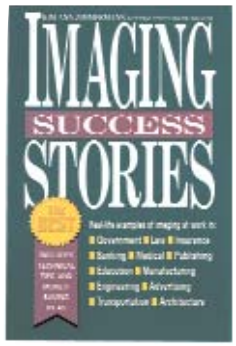
NCI# 815522



Mantelman' Imaging Buyers Guide
by Lee Mantelman, 576 pgs, 1995

Everything You Need to Know to Design and Select the Right Document Imaging System

NCI# 815553



Imaging Success Stories
by Kim Ann Zimmermann, 209 pgs, 1995

Real-life examples of imaging at work in:
- government - law - insurance - banking
- medical - publishing - education
- manufacturing - engineering - advertising
- transportation - architecture

NCI# 815551



Fault Resilient PCs
by Richard Grigonis, 320 pgs, July 1996

In a highly competitive, 24-hour a day global economy, businesses with "mission critical" applications find that any computer "downtime" at all has become unacceptable, PCs have become so integrated with so many business functions that any computer system problem whatsoever often grinds a company's operations to a halt,l resulting in an immediate, tangible loss in dollars and cents. An amazing number of companies rely upon out-of-date, conventional desktop computers lacking "fault resilient" capabilities, which means that when such systems fail, they not only stay down for a considerable period of time, but in many cases data is lost - and data is a company's most precious non-human resource. This book will help you choose a computer system that can "take a licking" and keep on providing service, even if one or more of its components fail. It should be read by anyone installing or overhauling a computer system that runs revenue-generating applications.

NCI# 815579



Customers - Arriving with a History Leaving with an Experience.
by Andrew Waite, 380 pgs, March 1996

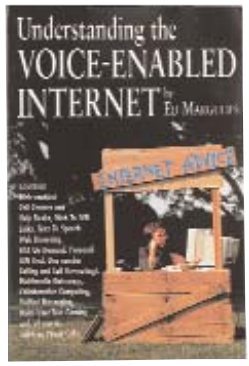
This book has a 74-page sample Request for Proposal to buy an ACD - automatic call distributor, the central piece of technology in any call center. If you hired a consultant, this RFP would cost you a minimum of This book is based on the premise that life for call center and help desk managers has become far more complex than just an ACD - equipment decision. That's what the rest of the book is about. Phone calls from customers are not just "events," but are significant milestones in customer relationships. They include correspondence by m ail, by fax, by e-mail, by Internet and "touching" by interactive voice response and computer telephony links. The author has over 20 years intimate experience with call centers.

NCI# 815577



The Guide To Sonet - Planning, Installing & Maintaining Broadband Networks
by Robert P. Davidson and Nathan J. Miller, 215 pgs, 1991

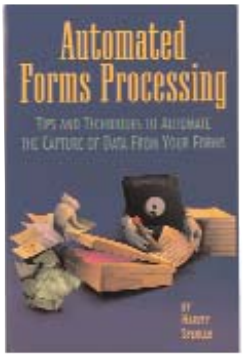
NCI# 815587



Understanding the Voice-Enabled Internet
by Edwin Margulies, 720 pgs, August 1996

Computer telephony is supercharging the Internet. There are three major developments. The biggest is the confluence of the World Wide Web with computer telephony, platform hooks and links. It's a new way to get voice to the customer visiting you on the Internet. Then there's Internet technology on internal company computer telephony groupware apps, through "Intranets" and "Intrawebs". Internet Telephony is also making nearly free long-distance "voice" and "video" calls on the Net a reality.

NCI# 815591



Automated Forms Processing
- Tips and Techniques to Automate the Capture of Data from your Forms
by Harvey Spencer, 247 pgs, 1996

NCI# 815571

INDEX

#

10 BASE T CABLE
110 BLOCKS
110 PATCH PANELS
110 PUNCH DOWN TOOLS
31X BLOCKS
3270 TWISTED PAIR ADAPTER
3COM ETHERLINK
3M DORRAN FIBER SPLICE
42A BLOCKS
5 PR 110 PUNCH DOWN TOOL
66 BLOCK COVERS
66 BLOCK TO MOD ADAPTER
66 BLOCKS
66 CLIP EXTENDERS
66 PUNCH DOWN TOOLS
100 BASE T CARDS
100 BASE T HUBS
100 VGA ANYLAN

A

ADAPTER BRACKETS
ADAPTERS- F TYPE
ADAPTERS-3M BARE FIBER
ADAPTERS-CUSTOM FIBER HYBRIDS
ADAPTERS-ETHERNET BNC
ADAPTERS-FIBER HYBRID
ADAPTERS-INTERSERIES
ADAPTERS-N SERIES
ADAPTERS-TNC
AERIAL CABLE PE22
AIR FRESHNER
AIR SPRAY
ALCOHOL
ANSWERING MACHINES
ANTI STATIC SPARY
APPLE
APPLE SPLICE
APPLE TERMINATOR
APPLETALK
APPLETALK 2PR UTP
APPLETALK 78 OHM CABLE
ARCNET CABLE
ARCTNET-CONNECTORS
ARCTNET-RG62 CABLE
AS400/3X
ASANTE HUB
ATEX CABLE
ATTENUATORS-3M BICONIC BULKHEAD
ATTENUATORS-3M FC/PC BULKHEAD
ATTENUATORS-D4 BULKHEAD
ATTENUATORS-FDDI
ATTENUATORS-SMA
ATTENUATORS-ST
AUTO SWITCH BOXES

B

B CONNECTORS
BACKUP DRIVES
BALUNS
BALUNS-3270 COAX
BALUNS-ARCNET
BALUNS-ETHERNET COAX
BALUNS-GREEN BALUN
BALUNS-SELF TERMINATING DB15
BALUNS-SELF TERMINATING TWINAX
BALUNS-SLIMLINE COAX
BALUNS-TWINAX
BANNANAS
BATTERIES
BICONIC CABLE ASSEMBLY
BICONIC MATING SLEEVES
BIX BLOCKS
BIX TOOL
BLOOMSBERG CABLE
BNC MATING SLEEVES
BNC PATCH PANELS
BOOKS
BRACKETS
BREAKOUT BOXES
BREAKOUT FIBER CABLE
BRIDGES
BRIDGING CLIPS
BROADCAST CABLE
BULK CABLE
BUS AND TAG CABLES
BUTT SET

C

CABLE ASSEMBLIES
CABLE CUTTERS
CABLE DUCT
CABLE MANAGEMENT
CABLE MANAGEMENT BRACKET
CABLE SLITTER
CABLE TIE GUN
CABLE TIES
CABLE-OFFICE TRANSCEIVER
CABLE-THICKNET
CABLE-THINNET
CABLE-TRANSCEIVER
CABLES- 5 BNC/ 5 BNC
CABLES-10 BASE T
CABLES-APPLE II
CABLES-ARCNET
CABLES-AT-MODEM
CABLES-AUI OFFICE TYPE
CABLES-AUI THICK TYPE
CABLES-CENT 50M/DB25M
CABLES-CENT 50M/DB50M
CABLES-CENT 50M/F
CABLES-CENT 50M/M
CABLES-CENTRONIC 36 PIN
CABLES-CENTRONICS 50
CABLES-DB13W3
CABLES-DB15
CABLES-DB25
CABLES-DB37
CABLES-DB50
CABLES-DB9
CABLES-DEC HARD DRIVE
CABLES-DEC SCSI
CABLES-DIN
CABLES-ETHERNET TRUNK
CABLES-FLOPPY DRIVE
CABLES-HALF PITCH
CABLES-HARD DRIVE 34/20 PIN
CABLES-HAYES MODEM
CABLES-HD26
CABLES-HD44
CABLES-HD62
CABLES-HITACHI MONITOR
CABLES-HP BUS IEEE 488
CABLES-HP LASERJET AT TYPE
CABLES-HP LASERJET XT TYPE
CABLES-HYDRA FLAT SATIN
CABLES-IBM BUS AND TAG
CABLES-IBM SCSI RISC
CABLES-IDE DRIVE
CABLES-IMAGEWRITER I,II
CABLES-LASER 128
CABLES-LIC 3725
CABLES-MAC 128K/512K
CABLES-MAC PLUS
CABLES-MINI DIN
CABLES-MITSUBISHI MONITOR
CABLES-NEC MONITOR
CABLES-NULL MODEM DB25M/M,M/F,F/F
CABLES-NULL MODEM DB9F/DB25M
CABLES-NULL MODEM DB9F/F
CABLES-OCTOPUS L5
CABLES-PARALLEL PRINTER
CABLES-PATCH UTP STRANDED LEV 5 32-
CABLES-RGB MONITOR
CABLES-RGBS MONITOR
CABLES-RISC 6000
CABLES-SAMSUNG MONITOR
CABLES-SCSI 1 CEN50M/DB25M
CABLES-SCSI 1 EXTENSION
CABLES-SCSI 1 EXTERNSION CEN50M/DB50M
CABLES-SCSI 1 EXTERNSION CEN50M/F
CABLES-SCSI 1 PERIPHERAL
CABLES-SCSI 1 PERIPHERAL CEN50M/M
CABLES-SCSI 1 SYSTEM
CABLES-SCSI 1 TERMINATORS
CABLES-SCSI 1-SCSI 2 HPD50M/CEN50M
CABLES-SCSI 100 DOCKING CABLE
CABLES-SCSI 100 HPD M/M
CABLES-SCSI 2
CABLES-SCSI 2 CEN26/DB25M
CABLES-SCSI 2 HDCEN50M/DB50M
CABLES-SCSI 2 HDCEN50M/M
CABLES-SCSI 2 HPD50M/F
CABLES-SCSI 2 HPD50M/M
CABLES-SCSI 2 TO SCSI 1
CABLES-SCSI 3 TO SCSI 1
CABLES-SCSI APPLE POWERBOOK
CABLES-SCSI APPLE POWERBOOK
CABLES-SCSI FLAT DRIVE EXT.
CABLES-SCSI FLAT DRIVE INT.
CABLES-SELF-TERMINATING ·T·
CABLES-SERIAL PRINTER
CABLES-SONY MONITOR
CABLES-SPECIAL SCSI
CABLES-SUPER SERIAL CARD
CABLES-SWICH BOX APPLE
CABLES-TATUNG MONITOR
CABLES-TAXAN MONITOR
CABLES-TELCO 100PR
CABLES-TELCO 12PR
CABLES-TELCO 25PR
CABLES-TELCO 50PR
CABLES-TELCO 75PR
CABLES-THINNET
CABLES-THINNET TAP
CABLES-THOMSON MONITOR
CABLES-TWINAX 100 OHM
CABLES-V.35
CABLES-V.50
CABLES-VGA ·Y·
CABLES-VGA MONITOR HD15
CABLES RED BALUN
CANNED AIR
CANTILEVER SHELF
CAT 5 PATCH PANELS
CATAGORY 5 CABLE
CATAGORY 5 PRODUCTS
CATV ACCESSORIES
CAU
CD-ROM DRIVE
CHAMOIS TIPS
CHEMICALS
CLEANERS
CLOSURES
COAX 50 OHM CABLE
COAX 75 OHM CABLE
COAX 93 OHM CABLE
COAX CLIPS
COAX INTERFACE KIT
COAX STRIPPER
COAXIAL CRIMP TOOLS
COAXIAL POWER MAU
COIL CORDS
CONFIDENCORS
CONNECTOR BOOTS
CONNECTOR KITS-D SUB
CONNECTORS
CONNECTORS-3M HOT MELT ST
CONNECTORS-3M PUSH-PULL ST
CONNECTORS-BAIL KITS
CONNECTORS-BICONIC
CONNECTORS-BNC 2PCS
CONNECTORS-BNC 3PCS
CONNECTORS-BNC 3PCS SOLDER
CONNECTORS-BNC T TYPES
CONNECTORS-BNC TWIN LEAD
CONNECTORS-BNC TWIST ON FEMALE
CONNECTORS-BNC TWIST TYPE
CONNECTORS-D SUB CRIMP TYPE
CONNECTORS-D SUB HIGH DENSITY CRIMP
CONNECTORS-D SUB HIGH DENSITY SOLDER
CONNECTORS-D SUB SOLDER TYPE
CONNECTORS-D4
CONNECTORS-DIN
CONNECTORS-ETHERNET
CONNECTORS-F TYPE
CONNECTORS-FC
CONNECTORS-FDDI
CONNECTORS-IDC D SUB METAL
CONNECTORS-IDC D SUB PLASTIC
CONNECTORS-MINI BNC
CONNECTORS-MINI DIN
CONNECTORS-MODULAR
CONNECTORS-MODULAR ROUND
CONNECTORS-MODULAR SHIELDED
CONNECTORS-N TYPE
CONNECTORS-NO EPOXY ST
CONNECTORS-RIBBON CENTRONICS PLASTIC
CONNECTORS-RIBBON D SUB METAL
CONNECTORS-RIBBON D SUB PLASTIC
CONNECTORS-RIBBON IDC CARD EDGE
CONNECTORS-RIBBON IDC SOCKET
CONNECTORS-RT. ANGLE BNC
CONNECTORS-SC
CONNECTORS-SMA TYPE
CONNECTORS-ST TYPE
CONNECTORS-TELCO
CONNECTORS-TELCO 24 POS
CONNECTORS-TELCO 50 POS
CONNECTORS-TRW IDC D SUB METAL
CONNECTORS-TRW IDC D SUB PLASTIC
CONNECTORS-TWINAX
CONNECTORS-XLR TYPE
CONTROL WIPES
CONTROLLED ACCESS UNIT (CAU)
COPPER CONCENTRATOR PORT CABLE
COPPER REPEATERS
CORD RETRACTOR
CORD UNTWISTER
CORDLESS TELEPHONES
COTTON SWABS
COTTON WIPES
COVERS 66 BLOCK
CQBLE STRIPPERS
CRIMP TOOLS
CROSS CONNECT CABLE
CROSS CONNECT LEV 5
CROSS OVER PATCH CABLES
CSU/DSU·S
CUSHION REST
CUTTERS

D

D RING PANEL
D RINGS
D SUB CRIMP PINS
D SUB HARDWARE
D SUB PIN CRIMPER TOOL
D4 CABLE ASSEMBLY
D4 CONNECTORS
D4 MATING SLEEVES
D814 TOOL
DATA COIL CORDS
DATA CONNECTORS
DATA SWITCHES
DATA TO RJ11/45 ADAPTERS
DATACONNECTOR PATCH PANELS
DDS CSU/DSU
DESIGNATION STRIPS
DESK PHONES
DIAGNAL CUTTERS
DIRECT BURIAL ALUM SHIELDED PE39
DIRECT BURIAL CABLE PE89
DISTRIBUTION PANELS
DISTRIBUTION SPOOLS
DOT MATRIX PRINTERS
DOUBLE SIDED TAPE
DPC ATTACHMENT CABLE
DROP CABLE
DRY WALL SCREWS
DUAL MOD ADAPTER
DUAL PURPOSE ATTACHMENT CABLE
DUAL RG-59 WANG
DUAL STATION ACCESS MODULE
DUPLEX FIBER CABLE
DUST COVER TELCO
DUSTER SPRAY

E

ELECTRICAL TAPE
ELECTRO CLEANER
ENCLOSURES
EPOXY
EQUIPMENT RACKS
ETHERNET
ETHERNET HUBS
ETHERNET REPEATERS
ETHERNET SWITCHES
ETHERNET TRANSCEIVER
EXPANDER ·Y· CABLE
EXTENDED DISTANCE CABLE

F

FACEPLATES
FANOUTS
FAX SWITCHES
FC CABLE ASSEMBLY
FC MATING SLEEVES
FDDI CABLE ASSEMBLY
FDDI COPPER ADAPTER CABLE
FDDI COPPER REVERSING CABLE
FDDI COPPER WRAP PLUG
FDDI MATING SLEEVES
FEED THROUGH PATCH PANELS
FIBER CONSUMABLES
FIBER MATING SLEEVES
FIBER METER
FIBER OPTIC BREAKOUT KITS
FIBER OPTIC CABLE
FIBER OPTIC CABLE ASSEMBLIES
FIBER OPTIC CONNECTORS
FIBER OPTIC CONVERTER
FIBER OPTIC HEAT OVEN
FIBER OPTIC PATCH PANELS
FIBER OPTIC REPEATERS
FIBER OPTIC SPLICE CASE
FIBER OPTIC SPLICES
FIBER OPTIC TALK SET
FIBER OPTIC TEST EQUIPMENT
FIBER POLISHING DISCS
FIBER SPLICE KIT
FIBRLOK SPLICE
FIGURE 8 CABLE PE38
FILLER PANELS
FINGER BOOTS
FISHTAPE
FLASHLIGHTS
FLAT COLOR RIBBON CABLE
FLAT CORDS
FLAT GRAY RIBBON CABLE
FLAT HEAD SCREWDRIVERS
FLAT TWISTED CABLE
FLOOR DUCT
FLUKE
FLUSH MOUNT WALL JACKS
FOAM TAPE
FOX & HOUND
FUSES
FUSION SPLICE TRAY
FUSION SPLICERS

G

G STYLE HANDSETS
GEMERAL PURPOSE ATTACHMENT CABLE
GENDER MENDER CENTRONIC
GLASS POLISH PLATE
GLUE
GOLD GUARD
GOOD & PLENTY CONNECTORS
GREEN BALUN

H

HANDSET CORDS
HANDSET REST
HANDSETS
HARMONICAS
HEADSETS
HEAT OVEN
HEX NUTS
HOODS- D SUB
HOODS-ETHERNET AUI TYPE
HOODS-TRW BLACK D SUB
HOODS-TRW GRAY D SUB
HOODS-V.35
HOOK & LOOP HOLDOWNS
HOOK & LOOP TAPE
HOOK-UP CABLE
HOT NUMBER DIALER
HYSOL EPOXY

INDEX

I

IBM TOKEN RING CABLE
IBM TYPE 1A CABLE
IBM TYPE FACEPLATES
IMAGEWRITER II CABLES
INDUCTIVE AMPLIFIERS
INNERDUCT
INSERTION EXTRACTION TOOL
INTEL ETHEREXPRESS
ISDN
ISDN LINE SIMULATORS

K

K STYLE HANDSETS
KEYSTONE CONNECTORS
KEYSTONE PANELS
KRONE TOOL

L

LABELS
LAN CABLE 21-
LAPPING FILM
LASERJET PRINTERS
LATTIS LINK
LEVEL 5 PATCH PANELS
LEVITON
LIGHT SOURCE
LINEMANS TEST SET
LINE SHARING
LINE SIMULATORS
LITHIUM SPRAY GREASE
LOCAL INJECTION
LOCAL INJECTION DETECTION SYSTEM
LONGNOSE PLIERS
LOOP CABLE ASSEMBLY
LOOP WIRE CONCENTRATOR
LOW CAP CABLE
LUBRICANT
LWC

M

MAC NETWORKING
MAGLIGHTS
MARKERS
MATCHING GEL
MATCHING TRANSFORMERS
MAU
MECHANICAL SPLICES
MEDIA CONVERTERS
MEDIA FILTERS
MFA/422 ATTACHMENT CABLE
MICROPHONE CABLE
MICROTEST TESTERS
MICROTRANSCEIVERS 100 BASE-T
MICROTRANSCEIVERS 10 BASE-T
MINI COAX RG62A/U
MMJ PATCH PANELS
MOD ADAPTERS
MODEMS
MODULAR ADAPTERS
MODULAR CORDS
MODULAR COUPLERS
MODULAR CRIMP TOOLS
MODULAR INLINE COUPLERS
MODULAR JACKS
MODULAR PATCH PANELS
MODULAR SPLITTERS
MODULAR T ADAPTERS
MODULES CAT 5 JACKS
MONITORS
MOOUNTING BARS
MOUNTING HARDWARE
MSAU
MULTI CONDUCTOR CABLE
MULTISTATION ACCESS UNITS
MUSIC ON HOLD ADAPTER

N

NETWORK INTERFACE CARDS
NETWORK INTERFACE CARDS-ETHERNET
NOISE CANCELLING MIC
NT-1
NT-1 PLUS

O

OFFICE DROP CABLE
OIL
OPTICAL DRIVES
ORTRONICS
OTDR
OUTDOOR JACKS

P

PARALLEL PRINTER BUFFERS
PASSIVE HUB
PATCH CABLES
PATCH CORD TESTER
PATCH PANELS
PC ADAPTER CABLES
PCMCIA CARDS
PE 22 CABLE
PENETRATING OIL
PHILIPS HEAD SCREW DRIVERS
PIANO WIRE
PLASTIC & GLASS CLEANER
PLIERS
POLISH DISCS
POLISH PAD
POLISHING MACHINE
POSTS
POWER CABLE 300-600 VOLT
POWER METERS
POWER STRIP
POWER TOOLS
PRINT SERVERS
PRINTERS
PRIVACY ADAPTER
PROBE PICK
PROTOCOL ANALYSERS
PULLING COMPOUND
PULLING LUBRICANT
PUNCH DOWN TOOLS
PUNCHDOWN BLOCKS

Q

QUOTRON CABLE

R

RACK MOUNT POWER STRIP
RACK TERMINATION CABINETS
RADIAL LOOP STATION CONCENTRATOR
RECEPTICLE JACKS
RED BALUN
REFERENCE MANUALS
RELAY RACKS
REMOVABLE TAPE DRIVES
RETIX ETHERNET BRIDGE
RETIX TOKEN RING BRIDGE
RG-11
RG-58A/U
RG-6
RG-62A/U
RGB COAX CABLE
RIBBON CABLE
RIBBON CABLE CONNECTORS
RISC 6000
PATCH PANELS - RJ11, RJ12, RJ45, RJ69
RS 232 CABLE BULK
RS 232 CRIMP TOOL

S

SC CABLE ASSEMBLY
SC MATING SLEEVES
SCANNERS
SCREWDRIVERS
SCREWS
SERIAL PRINT BUFFERS
SERVERSWITCHES
SHELVES
SHIELDED TELEPHONE CABLE
SHIELDED TWISTED PAIR CABLE
SHRINK TUBING
SIGNAL BOOSTER CATV
SILICONE
SILVER SATIN CORDS
SIMPLEX CABLE
SINGLE STATION ACCESS MODULE
SLIDE LATCH
SMA 905 CABLE ASSEMBLY
SMA 906 CABLE ASSEMBLY
SMA MATING SLEEVES
SMC ETHERCARD
SNAKE
SOFTWARE
SPEAKER CABLE
SPEAKER PHONES
SPECIAL APPLICATION CABLE
SPLICES
SPLITTERS F TYPE
SPUDGERS
ST CABLE ASSEMBLY
ST MATING SLEEVES
STAINLESS STEEL WALLPLATES
STANDOFF BRACKETS
STAPLE GUN
STAPLES
STP CABLE
STRANDED BULK PATCH CABLE LEV 5
STRANDED SHIELDED BULK STP LEV 5
STRIP MASTER
SUPER GLUE
SURFACE MOUNT JACKS
SURGE PROTECTOR-F TYPE
SWITCHED 56 DSU/CSU
SWITCHES
SWITCHES, ETHERNET
SWITCHES-VIDEO CATV AB/ABC
SYNOPTICS HUBS
SYNOPTICS MODULES
SYRINGE
SYRINGE COUPLANT

T

T STRIPPERS
T-1 CABLE
T-1 CSU/DSU
T-1 HIGHSPEED
TAPE
TAPE BACKUP
TAPE DRIVES
TELCO ADAPTERS
TELCO CONNECTOR
TELCO PATCH PANELS
TELECOM DICTIONARY
TELEPHONE ANSWERING MACHINES
TELEPHONE CABLE UTP LEV 2
TELEPHONE CABLE UTP LEV 5
TELEPHONE HEADSETS
TELEPHONE RECORDING DEVICE
TELEPHONE SHIELDED CABLE
TELEPHONE SWITCHBOARD CABLE
TELEPHONES
TELNET
TELNET CONNECTORS
TERMINAL ADAPTER
TERMINATION PANELS
TERMINATOR-93 OHM BNC
TERMINATOR-SCSI
TERMINATORS- N TYPE
TERMINATORS- TWINAX M&F
TERMINATORS-HALF PITCH DB50
TEST EQUIPMENT
THICKNET CABLE
THINNET CABLE
THINNET DROP CABLES
THINNET EXPANSION BOX
THUMB SCREWS
TIE WRAPS
TINNED TELEPHONE CABLE
TOGGLE
TOGGLE BOLTS
TOKEN RING
TONE GENERATORS
TOOL KITS
TOOL POUCH
TOOLS- BUTTERFLY TELCO
TOOLS- T HANDLE TELCO
TOOLS-AUGAT FIBER STRIPPER
TOOLS-BICONIC GAUGE
TOOLS-BUEHLER FIBRSKOPE
TOOLS-ETHERNET COAX
TOOLS-ETHERNET TERMINATION KIT
TOOLS-FIBER BUFFER TUBE STRIPPER
TOOLS-FIBER CRIMPERS
TOOLS-FIBER DIAMOND SCRIBE
TOOLS-FIBER INSPECTION MICROSCOPE
TOOLS-FIBER MILLER STRIPPERS
TOOLS-FIBER SLITTER
TOOLS-FIBER T STRIPPERS
TOOLS-FIBER TERMINATION KIT
TOOLS-FIBER TOOL KIT
TOOLS-FITEL CLEAVER
TOOLS-KEVLAR CUTTER
TOOLS-NO-NIK
TOOLS-POCKET CLEAVER
TOOLS-T&B CLEAVER
TOOLS-THICKNET STRIPPER
TOOLS-THINNET STRIPPER
TOOLS-V.35 CONTACT CRIMPER
TRANSCEIVER DROP CABLE
TS19
TS21
TS22
TUBING
TWINAX -Y- CABLE
TWINAX OHM CABLE
TWINAX 78 OHM CABLE
TWINAX CONN PINS
TWINAX CONNECTORS
TWINAX DIREECT CABLE
TWINAX PATCH PANEL
TYPE 1 CABLE
TYPE 1 FACEPLATE
TYPE 1A CABLE
TYPE 2 CABLE
TYPE 2 FACEPLATE
TYPE 2A CABLE
TYPE 3
TYPE 3 MEDIA FILTER
TYPE 3 MEDIA JUMPER
TYPE 6A
TYPE 8A
TYPE 9A

U

UG CONNECTORS
UNINTERRUPTIBLE POWER SUPPLIES
UNIVERSAL CLOSURE
UNIVERSAL SPLICE TRAY
UPS
UR CONNECTORS
UY CONNECTORS

V

V.35 CONNECTORS
V.35 CONTACTS
V.35 CRIMP TOOL
V.35 EXTRACTION TOOL
VACUUM CLEANER
VGA MONITORS
VGA MULTIPLIER
VISUAL FAULT DETECTOR
VSR DRILL DRIVER

W

WALL TERMINATION CABINETS
WALLPHONE WALLPLATES
WALLPHONES
WALLPLATES
WALLPLATES- CATEGORY 5
WALLPLATES-TWINAX
WATERPROOF JACKS
WIPES
WIRE WRAP GUN
WIRED BLOCKS
WRITE-ON LABELS

X

Y

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For most efficient
service, please have a list of quantities and part numbers available. If paying by credit card, have your MasterCard, Visa, or American Express card handy.

By FAX: (973) 325-2690

Our FAX line is open 24 hours a day, 7 days a week, 365 days a year. Faxed orders received after closing are promptly handled the next business day. Please include your daytime phone number.

BY EMAIL: SEND YOUR ORDER TO:

National Communications Inc.
Email ncisales@trynci.com
Hours Mon–Fri 9-4 EST

Handling Charge:

A handling charge applies to all orders

Payment:

Several convenient payment options are available. Check, money order, MasterCard, Visa, American Express and C.O.D., as well as credit terms to qualified companies and institutions.

A credit application can be obtained by calling (973) 325-3151 , and talking to a sales representative. When opening an account with us, please allow sufficient time to complete the approval process. To avoid delay of your initial order, you may want to include a check or authorize a C.O.D. shipment.

Shipment:

National Communications ships all orders processed by 4:00 PM the same day with no additional charge. FOB point is our warehouse.

Customer Service: (973) 325-3151

A friendly, competent staff of Customer Service Representatives are available Mon–Fri 9-4 EST (closed Saturday) to assist you. Please have your sales order or invoice number available when you call.

Sales Tax:

Only New Jersey and New York residents need to remit sales tax. If you are tax exempt, simply FAX a copy of your Resale Certificate (ST- 3 Form) with your order.

Return Policy:

National Communications will gladly accept merchandise returns when you follow this procedure:

1. Contact a Customer Service Rep to obtain a return authorization number.
2. Include your RMA# on all packages and packing lists.
3. All returns must be made within 30 days of the date of the invoice and be accompanied by the original invoice number and a brief explanation of the reason for the return.
4. Return freight charge must be prepaid. Sorry, no C.O.D. returns can be accepted.
5. Merchandise must be returned in original packaging and in resalable condition.
6. Parts returned due to customer error are subject to a 25% re-stocking fee. Custom products are not returnable.
7. Defective merchandise may be returned within 90 daysof date of invoice and need not be in original packaging.This return policy may be altered for specific circumstances.
8. Software is non-returnable.

Foreign Orders:

In addition to the United States and its territories, National Communications Inc. also accepts order from other countries. All orders for foreign countries must be shipped to a forwarding agent of your choice in the U.S. An additional handling charge of will be included for processing and invoicing. All foreign shipments are handled by Cashier's check or Wire Transfer in U.S. Funds.

Freight Damage:

If you receive merchandise that has been damaged in transit it is important to keep the shipping carton, packing material and parts intact. Always note carton damage at time of delivery with the carrier. Please contact National Communications Customer Service Department for assistance with your claim.

Prices/Quantities:

Prices are subject to change without notice and quantities may be limited.

Product Liability:

National Communication's sole obligation for products that prove to be defective will be replaced or refunded. This warranty does not apply to products which have been subject to misuse(including static discharge), neglect, accident, or modification, or which have been soldered or altered during assembly and are not capable of being tested. In no event shall National Communication's liability exceed the buyers purchase price nor will National Communications be liable for any indirect or consequential damages.

INTERNET
http://www.trynci.com
e-mail: ncisales@trynci.com
CONTACT
National Communications Inc.
Email ncisales@trynci.com
Hours Mon–Fri 9-4 EST
PHONE / FAX
Phone (973) 325-3151 Fax (973) 325-2690
Email ncisales@trynci.com Hours Mon–Fri 9-4 EST

PAYMENT METHOD

CHECK ENCL. BILL ME ☐ C.O.D. ☐ BILL MY: MC / VISA / AMEX (CIRCLE)
OTHER - NEW ACCOUNT #
REQUEST CREDIT LINE ☐ EXP. DATE
MINIMUM ORDER .00 NAME ON CARD
SIGNATURE

TERMS: NET 15 ALL PRODUCTS F.O.B. SHIPPING POINT PRICES SUBJECT TO CHANGE

Date / /
P.O. #
Salesperson

OFFICE USE ONLY
MANAGER
AUTHORIZATION

BILL TO ACCT. # RETAIL / WHOLESALE
Full Co. Name
Addr. 1
Addr. 2
Addr. 3
City State ZIP
Phone ( ) Fax ( )
Buyer/Contact
Ship: UPS(Ground, Blue,Orange, Red), Mess., Truck, FedEx, Other:

OFFICE USE ONLY
Taxable: New York, New Jersey, NONE
Terms: AMEX, M/C, VISA, NET 15, Other:

SHIP TO ACCT. # RETAIL / WHOLESALE
Full Co. Name
Addr. 1
Addr. 2
Addr. 3
City State ZIP
Phone ( ) Fax ( )
Buyer/Contact
Ship: UPS(Ground, Blue,Orange, Red), Mess., Truck, FedEx, Other:

OFFICE USE ONLY
Taxable: New York, New Jersey, NONE
Terms: AMEX, M/C, VISA, NET 15, Other:

LINE#	QTY.	PART NUMBER	PAGE #	DESCRIPTION	UNIT P E	P E EXTND
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

CONDITIONS: All products manufactured by National Communications Incorporated (NCI) carry a one (1) year warranty against defects in workmanship and labor. Our warranty is limited to repairing or replacing products which prove defective upon NCI inspection. Misuse, abuse, or alteration of any product will void all warranties. All products not manufactured by NCI are warranted by their respective manufacturers. Please consult our sales staff for more details. **No returns accepted without RMA#. All claims must be made within ten (10) days.**

SEE FULL TERMS AND CONDITIONS ON FOLLOWING PAGE.

SUBTOTAL	
SHIPPING	
HANDLING	5
TAX [NJ-6% NY-8.25%]	
TOTAL	

SEND CATALOG? CHECK HERE ☐ HOW MANY? FREE

"A FULL SERVICE CABLING SYSTEMS SUPPLIER"

TERMS AND CONDITIONS OF SALE

1. Due to the high cost of processing and handling, we must have a minimum order of or a service charge will be added to the invoice.

2. All prices are subject to change without notice. Please call for most current pricing. NCI is not responsible for any typographical errors.

3. Your Order is accepted but acceptance is expressly conditioned upon acceptance by you of the terms and conditions contained herein. Seller is not bound by any terms on Buyer's order which attempt to impose any condition at variance with Seller's terms which are included herein. Seller's failure to object to provisions contained in any of the Buyer's forms shall not be deemed an acceptance of any of Buyer's terms or a waiver of the provisions of Seller's terms and conditions which shall constitute the entire, final, and exclusive statement of the Sales Contract between the parties.

4. The agreement between Seller and Buyer (the "Sales Contract") with respect to the products described in this acknowledgement(the "products") shall consist of the terms contained herein together with any additions or revisions of such terms mutually agreed to in writing by Seller and Buyer. Seller shall not be bound by any additional or different terms, whether printed or otherwise, in Buyer's purchase order or in any other communication from Buyer to Seller, unless specifically agreed to by Seller in writing.The Sales Contract shall be for the benefit of Seller and Buyer and not for the benefit of any other person. Prior courses of dealing and verbal agreements not reduced to a writing signed by Seller to the extent they modify, add to or detract from the Sales Contract, shall not be binding on Seller.

5. The Sales Contract may not be modified or rescinded except by a writing signed by Seller and Buyer. If all or part of the Sales Contract is terminated by such modification or recession, Buyer, in the absence of contrary written agreement between Seller and Buyer, shall pay termination charges based upon cost determined by accepted accounting principles, plus a reasonable profit on the entire quantity ordered. Cost shall include any amount Seller must pay to its suppliers due to any termination by Seller of a purchase order for products intended for Buyer.

6. Buyer shall pay purchase price within fifteen (15) days from date of shipment unless otherwise stated on the front side hereof.Price is F.O.B. first point of shipment unless otherwise stated on the front hereof. Title to and risk of loss of the products pass to Buyer upon delivery to carrier. In the event Buyer fails to pay the total purchase price within said 15 day period, Seller shall be entitled to collect an interest charge of the lesser of 1.5% of the unpaid purchase price per month or the maximum amount allowed by applicable laws. Seller shall also be entitled, in addition to all other remedies available at law or in equity to recover reasonable attorneys fees and/or other expenses in collecting the purchase price or otherwise enforcing or successfully defending itself in respect of this Sales Contract.

7. Any tax or other governmental charge upon the production, sale, shipment or use of the products which Seller is required to pay or collect from Buyer shall be paid by Buyer to Seller, unless buyer furnishes Seller with exemption certificates acceptable to taxing authorities. Such amount shall be due whether or not included on the invoice.

8. Shipping date is estimated on the basis of immediate receipt by Seller of Buyer's order and all information, drawings and approvals to be furnished by Buyer, and the absence of delays, direct or indirect, resulting from or contributed by the circumstances beyond Seller's reasonable control. Seller will in good faith endeavor to ship by estimated shipping date. Seller shall have the right to make partial shipments.

9. Seller will comply with minimum specifications for the method of transportation specified. If no method of transportation is specified on the front side hereof, shipment will be by a reasonable method of transportation.

10. Unless otherwise specified on the front side hereof, quantities are subject to normal manufacturers allowances. Such allowances in the case of wire and cable are plus10% and minus 5%. The purchase price will equal the unit price multiplied by the quantity shipped.

11. All orders are shipped F.O.B. shipping point via common carrier (usually UPS), unless otherwise specified. Orders placed before 1:30pm EST will ship out that day, on stock items. Seller warrants to Buyer that the products at the time of shipment will be commercially free from defects in material and workmanship and will be materially in accord with specifications referred to on the front hereof or otherwise specifically agreed to in writing by the parties hereto. Seller passes on and assigns to Buyer the warranties made to Seller by its suppliers and Seller's warranty in its entirety shall be deemed limited by and shall not extend beyond such warranties. The length of the warranty period will be the length established by the manufacturer of the products and shall in no event extend beyond one year from date of shipment. Buyer shall proceed exclusively and directly against such supplier at Seller's request. This Warranty shall be ineffective and shall not apply to goods that have been subjected to misuse or abuse, neglect, accident, damage, or improper installation or maintenance. All non-defective products returned are subject to 25% restocking fee. No returns on custom products.This includes products not shipped from stock.Buyer will inspect the goods upon delivery and will promptly notify Seller in writing of any defect in the products. Seller's sole obligation under these warranties will be limited to either, at Seller's option and expense, repairing or furnishing a replacement F.O.B. first point of shipment for the products or parts thereof which Seller reasonably determines do not conform with these warranties, and Buyer's exclusive remedy for breach of any such warranties will be enforcement of such obligation of Seller. All claims for shortages or defects shall be submitted in writing to Seller within ten (10) days from date material is received by Buyer; otherwise such claims shall be irrevocably waived. Seller is not responsible for damage incurred in transit. No agent, employee, or representative of the Seller has any authority to bind Seller to any representation, affirmation or warranty concerning the products and any such representation, affirmation or warranty shall not be deemed to have become a part of the basis of this Sales Contract and shall be unenforceable. THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OF MERCHANTABILITY, FITNESS FOR PURPOSE AND OF ANY OTHER TYPE, WHETHER EXPRESS OR IMPLIED.

12. IN NO EVENT SHALL SELLER BE LIABLE FOR CONSEQUENTIAL DAMAGES, nor shall Seller's liability on any claims for damages arising out of or connected with the Sales Contract or the manufacture, sale, delivery or use of the products exceed the purchase price of the products. Seller shall not be liable for any failure to perform its obligations under the Sales Contract resulting directly or indirectly from or contributed to by acts of God; acts of Buyer; acts of civil or military authority; priorities; fires; strikes or other labor disputes; accidents; floods; epidemics; war; riot; delays in transportation; lack of inability to obtain raw materials, components, labor, fuel or supplies; or other circumstances beyond Seller's reasonable control, whether similar or dissimilar to the foregoing.

13.Installation shall be by the Buyer, unless other wise specifically stated in the specifications which are part of the Sales Contract. Final inspection of products prior to installation thereof will be the obligation of the Buyer.

14. Seller will hold Buyer harmless against any rightful claim of any third person by way of infringement of any United States Letters Patent by the products which are of Seller's own manufacture, but, if Buyer furnishes specifications to Seller. Buyer will hold Seller harmless against any such claim which arises out of compliance with the specification; provided that the party seeking to be held harmless notifies the other party and gives it right to defend. Except as in this paragraph provided, Seller makes no warranty that the equipment will be delivered free of the rightful claim of any third party by way of infringement or the like. Seller's obligation under this paragraph shall not apply to any infringement consisting of the use of the products as a part of goods manufactured by Buyers or others.

15. Any bounced check will have imposed a fee plus bank charge for NSF or UCF. A check returned for insufficient funds or stopped payment is a criminal offense, and at its discretion, Seller may proceed with charges against the issuer. If any check is returned, Buyer will automatically be placed on a prepay or certified COD basis.

16.This acknowledgement and Sales Contract shall be governed by the Uniform Commercial Code as adopted in the state of Seller's principal place of business as effective and in force on the contract date. Wherever a term defined by said Uniform Commercial Code is used in these Standard Provisions the definition contained in the Uniform Commercial Code is to control. Any action for breach of the sales contract or any covenant or warranty must be commenced within one year after the cause of action accrues.

NATIONAL COMMUNICATIONS INC.

BUSINESS CREDIT APPLICATION

PLEASE PRINT OR TYPE

NCI INC.

Date _____ Credit Line Requested _____ Tax Exempt# _____ Customer Number (NCI will assign) _____

Full Legal Name - _____ Business Tel. # _____ Fax # _____

Yes ☐ No ☐

1) Name _____ Acct. # _____ Contact _____

2) Name _____ Acct. # _____ Contact _____

3) Name _____ Acct. # _____ Contact _____

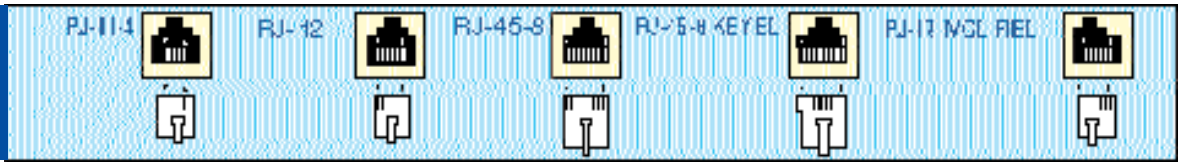
THE UNDERSIGNED, BY THE EXECUTION OF THIS CREDIT APPLICATION, AGREES THAT IT SHALL PAY FOR ALL OUTSTANDING BALANCES PER TERMS AS AGREED BETWEEN BOTH PARTIES. IN THE EVENT THIS ACCOUNT IS REFERRED TO ANY ATTORNEY FOR COLLECTION, THE PARTIES AGREE THAT AN

Auth. Signature _____ (Print Name)

I, _____ (NAME) RESIDING AT _____ (ADDRESS) FOR AND IN CONSIDERATION OF YOUR EXTENDING CREDIT AT MY REQUEST TO _____ (COMPANY) (HEREINAFTER REFERRED TO AS THE "COMPANY"), OF WHICH I AM _____ (TITLE), HEREBY PERSONALLY GUARANTEE TO YOU THE PAYMENT AT NATIONAL COMMUNICATIONS INC. IN THE STATE OF NEW JERSEY ANY OBLIGATION OF THE COMPANY AND I HEREBY AGREE TO BIND MYSELF TO PAY YOU ON DEMAND ANY SUM WHICH MAY BECOME DUE TO YOU BY THE COMPANY WHENEVER THE COMPANY SHALL FAIL TO PAY THE SAME. IT IS UNDERSTOOD THAT THIS GUARANTEE SHALL BE A CONTINUING AND IRREVOCABLE GUARANTEE AND INDEMNITY FOR SUCH INDEBTEDNESS OF THE COMPANY. I DO HEREBY WAIVE NOTICE DEFAULT, NON-PAYMENT AND NOTICE HEREOF AND CONSENT TO ANY MODIFICATION OR RENEWAL OF CREDIT AGREEMENT HEREBY GUARANTEE.

Auth. Signature _____ (Print Name)

MODULAR JACK & PLUG PIN ASSIGMENTS



WIRING SPECIFICATIONS



25 PAIR CABLE COLOR CODE	TELCO PIN #	110 PIN #	USOC WIRING RJ11 6P2C	USOC WIRING RJ11 6P4C	USOC WIRING RJ12 6P6C	USOC WIRING RJ45 8P8C	356A WIRING RJ45 8P6C	10 BASE-T WIRING RJ45 8P4C	AT&T EIA 568B RJ45 8P8C	EIA 568B RJ45 8P8C	DEC WIRING MMJ 6P4C	DEC WIRING MMJ 6P6C
WHITE/BLUE	26	1	4	4	4	5	5	1	5	5	2	2
BLUE/WHITE	1	2	3	3	3	4	4	2	4	4	3	3
WHITE/ORANGE	27	3	4	2	2	3	1	3	1	3	5	5
ORANGE WHITE	2	4	3	5	5	6	2	6	2	6	4	4
WHITE/GREEN	28	5	4	4	1	2	3	1	3	1	2	1
GREEN/WHITE	3	6	3	3	6	7	6	2	6	2	3	6
WHITE/BROWN	29	7	4	2	4	8	5	3	7	7	5	2
BROWN/WHITE	4	8	3	5	3	1	4	6	8	8	4	3
WHITE/SLATE	30	9	4	4	2	5	1	1	5	5	2	5
SLATE/WHITE	5	10	3	3	5	4	2	2	4	4	3	4
RED/BLUE	31	11	4	2	1	3	3	3	1	3	5	1
BLUE/RED	6	12	3	5	6	6	6	6	2	6	4	6
RED/ORANGE	32	13	4	4	4	2	5	1	3	1	2	2
ORANGE RED	7	14	3	3	3	7	4	2	6	2	3	3
RED/GREEN	33	15	4	2	2	8	1	3	7	7	5	5
GREEN/RED	8	16	3	5	5	1	2	6	8	8	4	4
RED/BROWN	34	17	4	4	1	5	3	1	5	5	2	1
BROWN/RED	9	18	3	3	6	4	6	2	4	4	3	6
RED/SLATE	35	19	4	2	4	3	5	3	1	3	5	2
SLATE/RED	10	20	3	5	3	6	4	6	2	6	4	3
BLACK/BLUE	36	21	4	4	2	2	1	1	3	1	2	5
BLUE/BLACK	11	22	3	3	5	7	2	2	6	2	3	4
BLACK/ORANGE	37	23	4	2	1	8	3	3	7	7	5	1
ORANGE/BLACK	12	24	3	5	6	1	6	6	8	8	4	6
BLACK/GREEN	38	25	4	4	4	5	5	1	5	5	2	2
GREEN/BLACK	13	26	3	3	3	4	4	2	4	4	3	3
BLACK/BROWN	39	27	4	2	2	3	1	3	1	3	5	5
BROWN/BLACK	14	28	3	5	5	6	2	6	2	6	4	4
BLACK/SLATE	40	29	4	4	1	2	3	1	3	1	2	1
SLATE/BLACK	15	30	3	3	6	7	6	2	6	2	3	6
YELLOW/BLUE	41	31	4	2	4	8	5	3	7	7	5	2
BLUE/YELLOW	16	32	3	5	3	1	4	6	8	8	4	3
YELLOW/ORANGE	42	33	4	4	2	5	1	1	5	5	2	5
ORANGE/YELLOW	17	34	3	3	5	4	2	2	4	4	3	4
YELLOW/GREEN	43	35	4	2	1	3	3	3	1	3	5	1
GREEN/YELLOW	18	36	3	5	6	6	6	6	2	6	4	6
YELLOW/BROWN	44	37	4	4	4	2	5	1	3	1	2	2
BROWN/YELLOW	19	38	3	3	3	7	4	2	6	2	3	3
YELLOW/SLATE	45	39	4	2	2	8	1	3	7	7	5	5
SLATE/YELLOW	20	40	3	5	5	1	2	6	8	8	4	4
VIOLET/BLUE	46	41	4	4	1	5	3	1	5	5	2	1
BLUE/VIOLET	21	42	3	3	6	4	6	2	4	4	3	6
VIOLET/ORANGE	47	43	4	2	4	3	5	3	1	3	5	2
ORANGE/VIOLET	22	44	3	5	3	6	4	6	2	6	4	3
VIOLET/GREEN	48	45	4	4	2	2	1	1	3	1	2	5
GREEN/VIOLET	23	46	3	3	5	7	2	2	6	2	3	4
VIOLET/BROWN	49	47	4	2	1	8	3	3	7	7	5	1
BROWN/VIOLET	24	48	3	5	6	1	6	6	8	8	4	6
VIOLET/SLATE	50	49	-	-	-	-	-	-	-	-	-	-
SLATE/VIOLET	25	50	-	-	-	-	-	-	-	-	-	-
#OF MODULAR JACKS PER TELCO CONNECTOR			24	12	8	6	8	12	6	6	12	8

1st 3 digits of Destination Zip Code	ZONES Ground	3 Day Select	2nd Day Select Air	Next Day Air	Next Day Early AM
004-005	2	302	202	102	142
006-007	—	—	225	125	—
008	—	—	**	**	—
009	—	—	225	125	—
010-013	2	302	202	102	142
014	3	303	203	103	143
015-016	2	302	202	102	142
017-042	3	303	203	103	143
043-044	4	304	204	104	—
045	3	303	203	103	—
046-049	4	304	204	104	—
050-051	3	303	203	103	—
052-053	2	302	202	102	—
054-059	3	303	203	103	—
060-089	2	302	202	102	142
090-099	—	—	—	—	—
100-127	2	302	202	102	142
128-136	3	303	203	103	143
137-139	2	302	202	102	—
140-147	3	303	203	103	143
148-149	2	302	202	102	142
150-153	4	304	204	104	144
154-163	3	303	203	103	143
164-165	4	304	204	104	—
166-169	3	303	203	103	143
170-199	2	302	202	102	142
200-209	3	303	203	103	143
210-213	2	302	202	102	142
214-218	3	303	203	103	143
219	2	302	202	102	—
220-238	3	303	203	103	143
239-243	4	304	204	104	144
244	3	303	203	103	—
245-253	4	304	204	104	—
254	3	303	203	103	—
255-264	4	304	204	104	—
265	3	303	203	103	—
266	4	304	204	104	—
267-268	3	303	203	103	—
270-288	4	304	204	104	144
289	5	305	205	105	—
290-293	4	304	204	104	144
294	5	305	205	105	—
295-297	4	304	204	104	—
298-299	5	305	205	105	—
300-324	5	305	205	105	145
325	6	306	206	106	—
326-329	5	305	205	105	145
330-334	6	306	206	106	146
335-338	5	305	205	105	145
339	6	306	206	106	—
340-341	—	—	—	—	—
342-347	5	305	205	105	145
349	6	306	206	106	—
350-364	5	305	205	105	145
365-366	6	306	206	106	146
367-375	5	305	205	105	145
376-379	4	304	204	104	144
380-386	5	305	205	105	145
387	6	306	206	106	—
388-389	5	305	205	105	—
390-392	6	306	206	106	146
393	5	305	205	105	—
394-396	6	306	206	106	146
397-399	5	305	205	105	—
400-402	5	305	205	105	145
403-418	4	304	204	104	144
420-424	5	305	205	105	145
425-426	4	304	204	104	144
427	5	305	205	105	145
430-459	4	304	204	104	144
460-466	5	305	205	105	145
467-468	4	304	204	104	144
469	5	305	205	105	145
470	4	304	204	104	144
471-472	5	305	205	105	145
473	4	304	204	104	144
474-479	5	305	205	105	145
480-496	4	304	204	104	144
497-499	5	305	205	105	145
500-504	5	305	205	105	145
505	6	306	206	106	—
506-507	5	305	205	105	145
508	6	306	206	106	—
509	5	305	205	105	—
510-516	6	306	206	106	146
520-559	5	305	205	105	145
560-576	6	306	206	106	146
577	7	307	207	107	147
580-585	6	306	206	106	146
586-593	7	307	207	107	147
594	8	308	208	108	—
595	7	307	207	107	—
596-599	8	308	208	108	—
600-639	5	305	205	105	145
640-649	6	306	206	106	146
650-652	5	305	205	105	145
653	6	306	206	106	—
654-655	5	305	205	105	—
656-676	6	306	206	106	146
677	7	307	207	107	—
678	6	306	206	106	—
679	7	307	207	107	—
680-692	6	306	206	106	146
693	7	307	207	107	147
700-722	6	306	206	106	146
723-725	5	305	205	105	145
726-732	6	306	206	106	146
733	7	307	207	107	—
734-738	6	306	206	106	—
739	7	307	207	107	—
740-764	6	306	206	106	146
765	7	307	207	107	—
766-767	6	306	206	106	—
768-769	7	307	207	107	—
770-778	6	306	206	106	146
779-797	7	307	207	107	147
798-799	8	308	208	108	147
800-814	7	307	207	107	147
815	8	308	208	108	148
816-820	7	307	207	107	147
821	8	308	208	108	—
822-830	7	307	207	107	147
831-865	8	308	208	108	148
870-872	7	307	207	107	147
873-874	8	308	208	108	—
875-877	7	307	207	107	—
878-880	8	308	208	108	—
881-884	7	307	207	107	—
885-898	8	308	208	108	148
900-961	8	308	208	108	148
962-966	—	—	—	—	—
967-968	—	—	224	124	—
969	—	**	**	—	—
970-994	8	308	208	108	148
995-999	—	—	*	*	*

PLEASE ADD HANDLING PER ORDER. CHARGES SUBJECT TO CHANGE.
ANY FRACTION OF A POUND OVER THE WEIGHT SHOWN TAKES THE NEXT HIGHER RATE.
PACKAGE WITH DECLARED VALUE OVER ADD FOR ADDTNL OR FRACTIO
THEREOF. ADD FOR ANY AIR PACKAGE SHIPPED FROM NCI OR DELIVERED TO YOU ON A SATURDAY
ADD FOR ANY C.O.D.

UPS NEXT DAY AIR EARLY A.M.

1 to 70 pounds
UPS Letters & Packages

POUNDS	WEIGHT 142	143	144	145	146	147	148
LETTER							
1							
2							
3							
4							
5							
ADDL.							

UPS RED NEXT DAY AIR

UPS Letters & Packages

POUNDS	WEIGHT 102	103	104	105	106	107	108	124	125	126
LETTER										
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
ADDL.										

UPS BLUE 2ND DAY AIR

UPS Letters & Packages

POUNDS	WEIGHT 202	203	204	205	206	207	208	224	225	226
LETTER										
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
EA.ADDL										

UPS ORANGE 3RD DAY SELECT

1 to 70 pounds
UPS Packages

POUNDS	WEIGHT 302	303	304	305	306	307	308
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
EA.ADDL							

UPS GROUND

1 to 70 pounds
UPS Letters & Packages

POUNDS	WEIGHT 2	3	4	5	6	7	8
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
EA.ADDL							

FOR RESIDENTIAL GROUND ADD ADDITIONAL

WEIGHTS AND MEASURES

Cubic Measure

1728 cubic inches	1 cubic foot
27 cubic feet	1 cubic yard
128 cubic feet	1 cord (wood)
2150.42 cubic inches	1 standard bu.
231 cubic inches	1 U.S. standard gal.

Dry Measure

2 pints	1 quart
8 quarts	1 peck
4 pecks	1 bushel

Liquid Measure

4 gills	1 pint
2 pints	1 quart
4 quarts	1 gallon
311/2 gallons	1 barrel

Imperial Liquid Measure

1 U.S. gallons	imperial gallon
1 U.S. gallons	liters
1 imperial gallon	U.S. gallons
1 imperial gallon	liters
1 liter	U.S. gallon

Long Measure

12 inches	1 foot
3 feet	1 yard
51/2 yards	1 rod
40 rods	1 furlong
8 furlongs	1 statute mile
3 land miles	1 league

Marines' Measure

6 feet	1 fathom
120 fathoms	1 cable length
5,280 feet	1 statute mile
feet	1 nautical mile

Square Measure

144 sq. inches	1 sq. foot
9 sq. feet	1 sq. length
301/4 sq. yards	1 sq. rod
640 acres	1 sq. mile

Metric Equivalents

Linear measure	
1 centimeter	0.3937 inch
1 inch	centimeters
1 foot	0.3048 meter
1 meter inches	1.0936 yds.
1 yard	0.9144 meter
1 rod	meters
1 kilometer	mile
1 mile	kilometers
Square Measure	
1 sq. cm	0.1550 sq. inch
1 sq. inch	sq. centimeters
1 sq. foot	0.0929 sq. meter
1 sq. meter	sq. yards
1 sq. yard	0.8361 sq. meter
1 hectare	acres
1 acre	0.4047 hectare
1 sq. kilometer	sq.mile
1 sq. mile	sq. kilometers

1 gram	0.03527 ounce
1 ounce	grams
1 kilogram	2.2046 pounds
1 pound	0.4536 kilogram
1 metric ton	0.98421 English ton
1 English ton	metric ton

Measure of Volume

1 cubic cm.	cubic finch
1 cubic inch	cubic centime-
ters	
1 cubic foot	0.0283 cubic meter
1 cubic meter	cubic yards
1 cubic yard	0.7646 cubic meter
1 liter	1.0567 quarts liquid
1 quart dry	liters
1 quart liquid	0.9463 liter
1 liter	1.0567 quarts
1 gallon	3.78541 liters
1 peck	liters
1 hectoliter	2.8375 bushels

Temperature Conversions

A Fahrenheit degree is smaller than a Celsius (Centigrade) degree, one Fahrenheit degree being 5 / 9 of a Celsius degree

To convert Fahrenheit degrees into Celsius, subtract 32 , multiply by 5, and divide by 9.

To convert Celsius into Fahrenheit, multiply by 9, divide by 5, and add 32.
The freezing point of water is 32 F., 0 C. the boiling point is 212 F., 100 C.

PLANNING CALENDARS 1997-98



1997

JANUARY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

1- New Year's Day
20- Martin Luther King Jr. Day (USA)

FEBRUARY

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

12- Lincoln's Birthday (USA)
12- Ash Wed.- 14-Valentine's Day
17- President's Day (USA)
22- Washington's Birthday (USA)

MARCH

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

17- St. Patrick's Day
23- Palm Sunday
28- Good Friday - 30- Easter

APRIL

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

6- Daylight Saving Time Begins
22- Passover
23- Secretaries Day

MAY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

5- May Day Holiday (UK)
11- Mother's Day - 18-Whitsunday (Pentecost)
19- Victoria Day (Canada)
26- Memorial Day (USA) - Spring Holiday (UK)

JUNE

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

14- Flag Day (USA)
15- Father's Day

JULY

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

1- Canada Day (Canada)
4- Independence Day (USA)

AUGUST

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

25- Late Summer Holiday (UK)

SEPTEMBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

1- Labor Day

OCTOBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

2- Rosh Hashana - 11- Yom Kippur
13- Columbus Day (USA)
13- Thanksgiving (Can) - 16- Natl. Boss Day
26- Daylight Saving Time Ends

NOVEMBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

11- Veterans Day (USA)
13- Remembrance Day (Can)
27- Thanksgiving Day (USA)

DECEMBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

24- Hanukkah
25- Christmas
26- Boxing Day (Aust. Can. NZ. UK.)

1998

JANUARY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

1- New Year's Day
19- Martin Luther King Jr. Day (USA)

FEBRUARY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

12- Lincoln's Birthday (USA)
14-Valentine's Day
16- President's Day (USA)
22- Washington's Birthday (USA)
25- Ash Wed.

MARCH

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

17- St. Patrick's Day

APRIL

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

5- Palm Sunday
5- Daylight Saving Time Begins
10- Good Friday - 11- Passover
12- Easter - 22- Secretaries Day

MAY

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

4- May Day Holiday (UK)
10- Mother's Day - 18- Victoria Day (Can)
25- Memorial Day - 31-Whitsunday (Pentecost)

JUNE

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

14- Flag Day (USA)
21- Father's Day

JULY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

1- Canada Day (Canada)
4- Independence Day (USA)

AUGUST

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

31- Late Summer Holiday (UK)

SEPTEMBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

7- Labor Day
21- Rosh Hashana
30- Yom Kippur

OCTOBER

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
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12- Thanksgiving (Can) -
16- Natl. Boss Day
25- Daylight Saving Time Ends

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S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

11- Veterans Day (USA)
11- Remembrance Day (Can)
26- Thanksgiving Day (USA)

DECEMBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

14- Hanukkah
25- Christmas
26- Boxing Day (Aust. Can. NZ. UK.)

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