



Enterprise Network Solutions



Ordering Guide





***The components
of 3M's Enterprise
Network Solutions
feature innovative
and high performance
designs that offer
strong customer value.***

The 3M Telecom Enterprise Department offers an array of high performance solutions for copper, fiber and copper/fiber hybrid networks.

Global training and product support from a supplier with 40 years of experience in communications networking is available to 3M's customers and partners.

Whatever your network needs, from small LAN to campus-wide networks, from 10 Mbps to 10 Gbps, 3M's innovative systems offer efficient, reliable and cost-effective solutions:

- 3M™ Volition™ Network Solutions feature complete systems of advanced copper and fiber optic structured cabling components and associated electronic equipment.
- Fiber interconnect solutions include extensive lines of ferruled fiber optic connectors, splices and cable assemblies.

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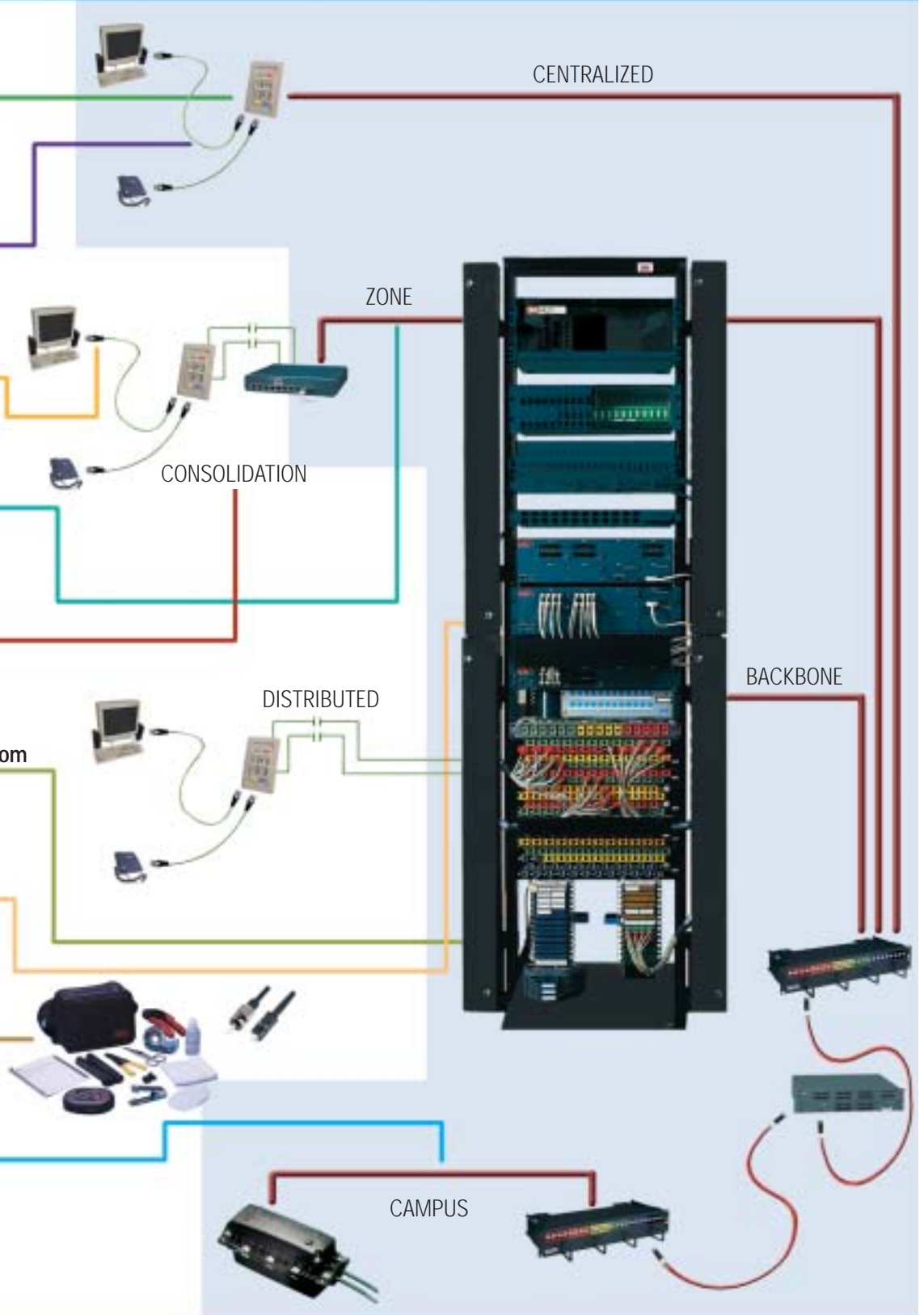
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System Solutions

3M™ Volition™ Network Solutions: the broadband migration path.

In less than 10 years, network speeds have increased from less than 10 Mbps to gigabit and above. With the pending approval of a 10 Gigabit Ethernet™ standard, there has never been a wider range of voice and data application choices requiring an extensive menu of media solutions.

In response to these advances, companies are building highly flexible copper, fiber and hybrid cabling infrastructures providing an upgrade path for forthcoming multimedia, bandwidth-intensive applications.

Whether you're considering a copper network, a fiber network or a hybrid, 3M Volition Network Solutions provides a proven, totally seamless and uniquely economical way to build it inside a building or campus environment.

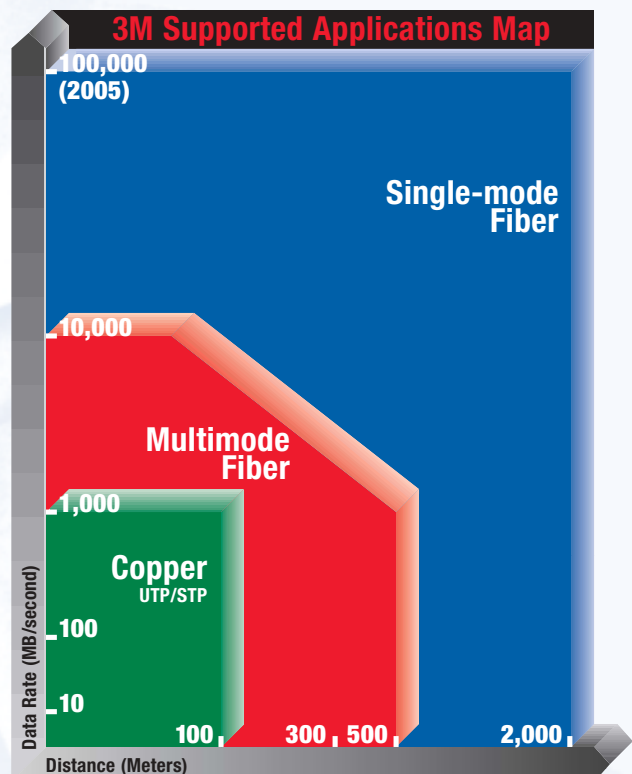
Complete LAN solutions for copper, hybrid and fiber optic networks.

If you've been thinking of building your network, you're considering current and future costs, component compatibility and the implications of a transition from a copper or hybrid network to fiber optics.

At 3M, we've given 40 years of serious thought to networks and how to make them better. With Volition Network Solutions, we've focused our efforts on reducing the complexity and applied cost of cabling infrastructure through innovations such as the small form factor VF-45™ fiber interconnect, robust and reliable copper connectors and high performance cable to support even the most demanding network applications.

When you choose Volition Network Solutions, you no longer have to worry about increased costs or downtime resulting from compatibility or transition issues. With Volition Network Solutions, you can migrate gradually and economically from a copper to a fiber optic network without a forklift upgrade.

Volition Network Solutions include copper, multimode and single-mode fiber products that can be used in combination for virtually every application.



Provides for conventional LAN distributed structured cabling, SOHO, residential and other short distance applications supporting networks up to gigabit data rates.

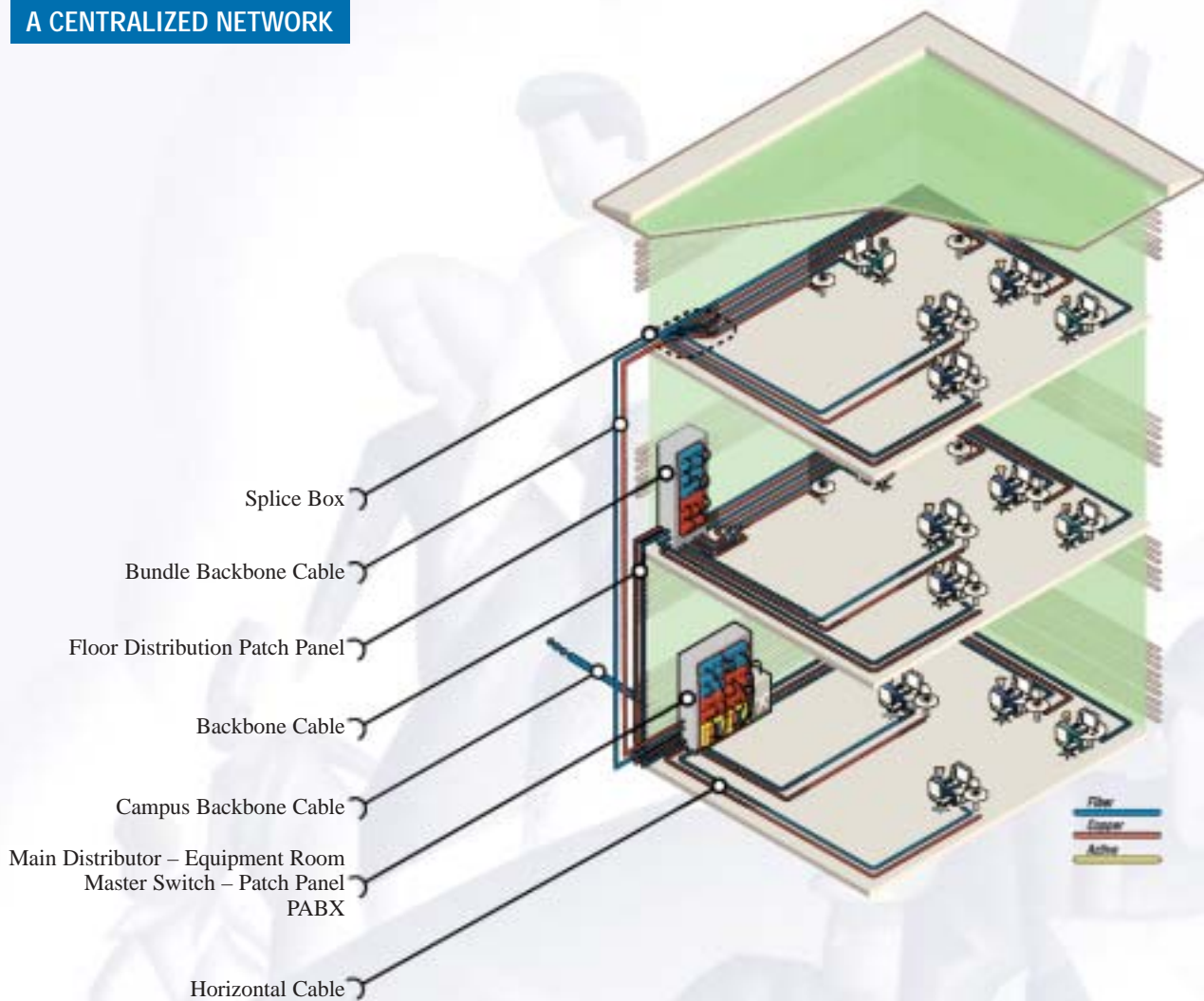
Media of choice for building backbones, centralized fiber networks, and data or system area networks where legacy or future bandwidth-intensive applications are considered.

The ultimate media solution for very high-speed transmission rates and longer distances ranging from a few to a thousand meters; addresses existing and anticipated rapid growth in network traffic volume.

System Solutions

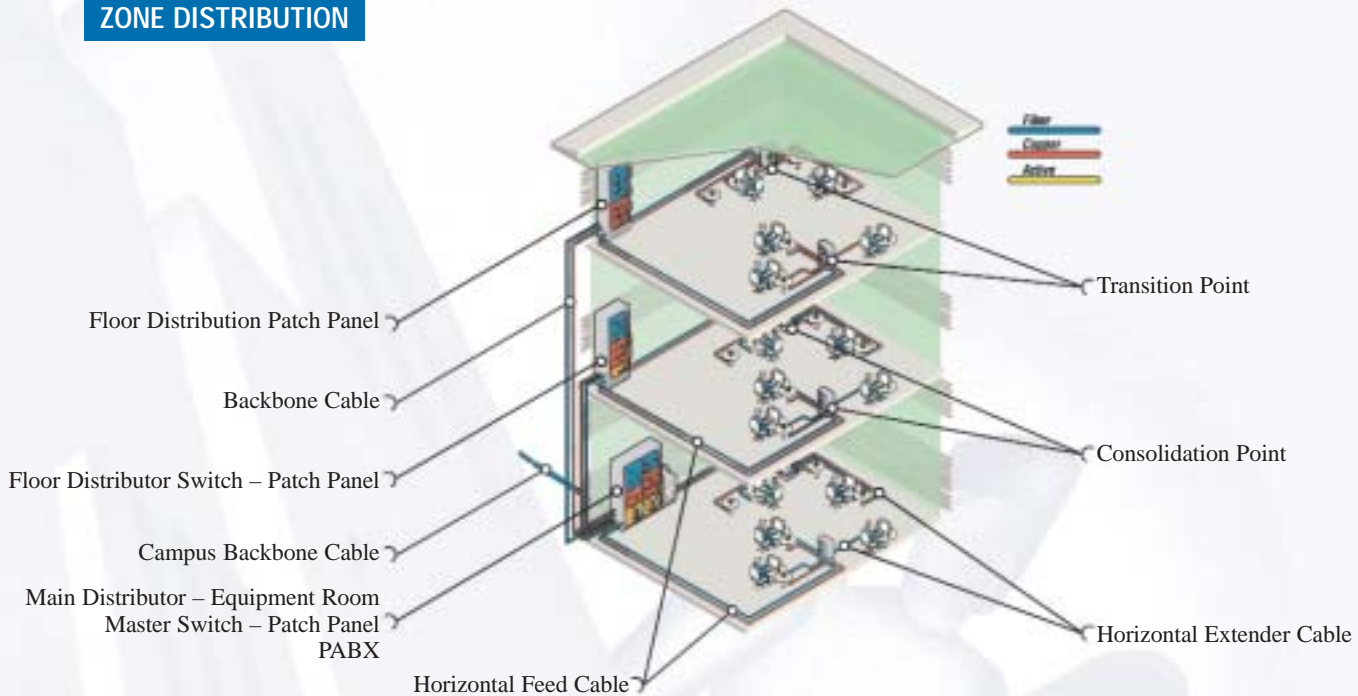
Whatever your Broadband Migration Path, 3M™ Volition™ Network Systems Has the Right Solution.

A CENTRALIZED NETWORK



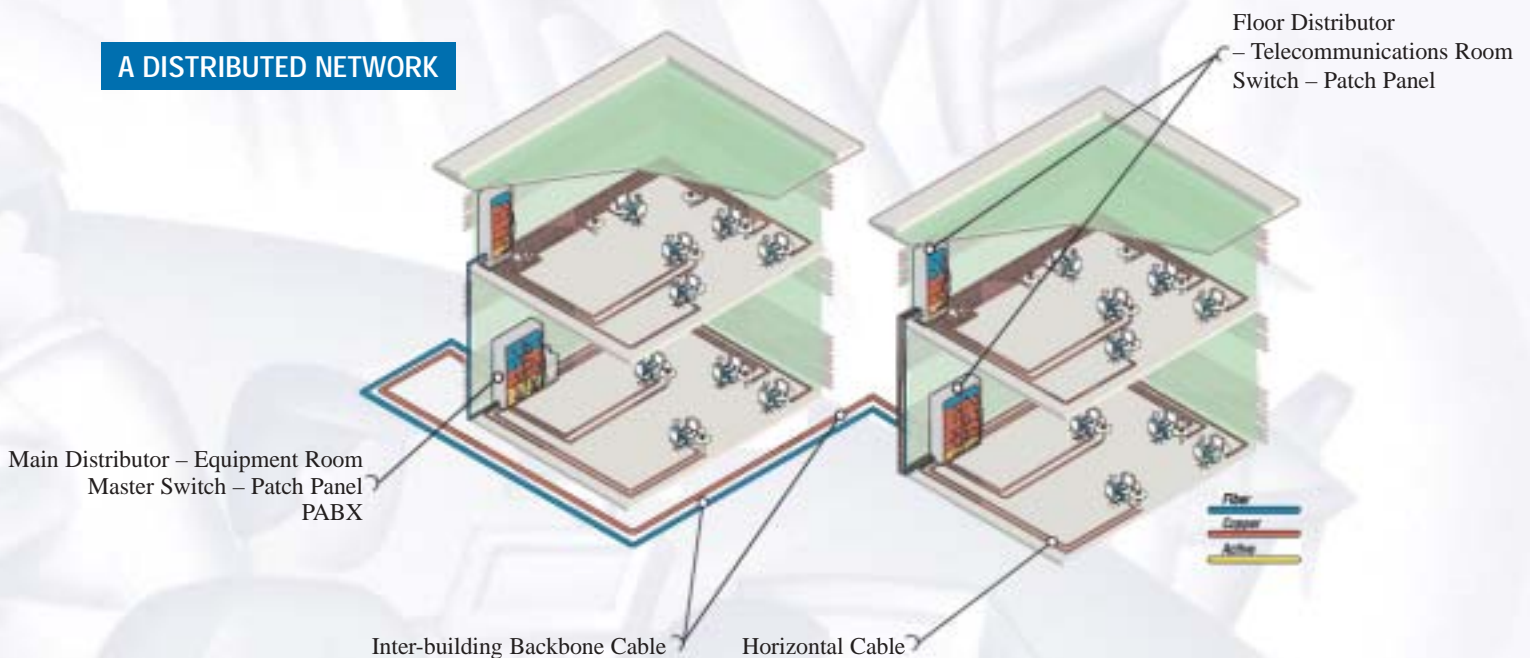
Optical fiber's bandwidth and ability to carry data over long distances is best utilized in centralized networks. Centralized networks have more unblocked bandwidth than distributed networks and are therefore better suited for combined voice, video and data traffic requiring quality of service implementation. Optical fiber eliminates intermediate closets, thus simplifying network layout and reducing overall system cost. A centralized network is the most efficient and cost-effective way to implement fiber-to-the-desk.

ZONE DISTRIBUTION



Moves, adds or changes in an open-office environment can be accommodated quickly and efficiently through consolidation points by combining permanent feeder cabling with pre-terminated plug-and-play extender cables associated with the work area. Providing connectivity closer to end-users not only adds flexibility, but also reduces network downtime and re-cabling needs, which can result in significant cost savings.

A DISTRIBUTED NETWORK



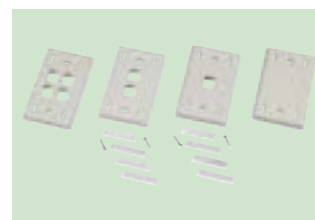
In the conventional distributed structured cabling design, backbone cable is optical fiber, where the horizontal segment of the network typically consists of twisted-pair copper cable or optical fiber cable. Backbone cables in an inter-building network travel from a main cross-connect (distributor) to one or more horizontal cross-connects within the telecommunication rooms on each floor, which includes active electronics equipment such as hubs, concentrators or switches.

Work Area Outlets

3M offers a complete line of interconnect, wall box and faceplate products to provide many combinations for structured cabling systems. These contain industry recognized interchangeable keystone latch fiber and copper jacks including the VF-45™ and RJ45

respectively. Also available is a full line of ferrule connectors such as ST and SC types including the 3M Hot Melt. Volition single gang and double gang wall boxes with interchangeable faceplates include various color options.

Face Plates		
Product Number	Description	Packaging
VOL-0712	RJ45 Face Plate, Convex 2 Port, Office White for Keystone Jack	50/cs.
VOL-0712B	RJ45 Face Plate, Convex 2 Port, Bright White for Keystone Jack	50/cs.
VOL-0714	RJ45 Face Plate, Convex 4 Port, Office White for Keystone Jack	50/cs.
VOL-0714B	RJ45 Face Plate, Convex 4 Port, Bright White for Keystone Jack	50/cs.
VOL-FP2M-F1K	RJ45 Module 22.5 x 45 for 1 Keystone Jack	24/cs.
VOL-FP4M-F1K	RJ45 Module 45 x 45 for 1 Keystone Jack	24/cs.
VOL-FP4M-F2K	RJ45 Module 45 x 45 for 2 Keystone Jacks	24/cs.
VOL-0790X*	Reversible Icons for Keystone Face Plates (8 in a pack)	10 sets of 8
*X denotes color. BL=Blue, GR=Green, RD=Red, YL=Yellow		
VOL-0700B	Blank Port, Single Gang, Standard Face Plate, Bright White	25/cs.
VOL-0700	Blank Port, Single Gang, Standard Face Plate, Office White	25/cs.
VOL-0701B	1 Port, Single Gang, Standard Face Plate, Bright White	25/cs.
VOL-0701	1 Port, Single Gang, Standard Face Plate, Office White	25/cs.
VOL-0702B	2 Port, Single Gang, Standard Face Plate, Bright White	25/cs.
VOL-0702	2 Port, Single Gang, Standard Face Plate, Office White	25/cs.
VOL-0703B	4 Port, Single Gang, Standard Face Plate, Bright White	25/cs.
VOL-0703	4 Port, Single Gang, Standard Face Plate, Office White	25/cs.



Face Plates, continued

Product Number	Description	Packaging
VOL-0250A	Wall Outlet Adapter with 2 Socket Capability, Single Gang, Ivory	48 ea.
VOL-0250B	Wall Outlet Adapter with 2 Socket Capability, Single Gang, Office White	48 ea.
VOL-0254	4 x 4, Double Gang, 4 Port Face Plate, Office White	12 ea.
VOL-0254B	4 x 4, Double Gang, 4 Port Face Plate, Bright White	12 ea.
VOL-0300	Blank Port Insert, Office White	48 ea.
VOL-0300B	Blank Port Insert, Bright White	48 ea.
VOL-0300G	Blank Port Insert, Gray	48 ea.
VOL-0300BK	Blank Port Insert, Black	48 ea.
VOL-0350W	2 Port, Furniture Outlet, Office White	48 ea.
VOL-0350G	2 Port, Furniture Outlet, Gray	48 ea.
VOL-0350B	2 Port, Furniture Outlet, Black	48 ea.



Work Area Outlets

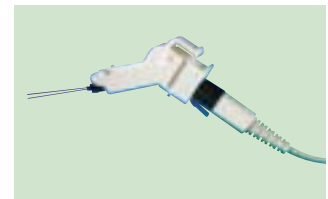
Fiber Optic Sockets and Adapters

VF-45 Sockets

The 3M™ Volition™ VF-45™ Socket is a small form factor (SFF) connector, one half the size of standard duplex fiber optic interconnect providing affordable, high bandwidth networks. The VF-45 plug and socket intermate like an 8-pin modular jack, bringing the simplicity of the RJ45 jack to optical fiber applications.

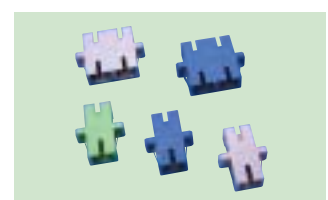
- Meets TIA 568B specifications for small form factor interconnects
- Fast installation using a simple termination process
- No expensive ceramic parts
- Footprint dimensions of an RJ45 copper connector
- High density of duplex connections
- Integral dust protection

Product Number	Description	Packaging
VOL-0001	VF-45 Socket, MM	96/cs.
VOL-0002	VF-45 Socket, SM	96/cs.
VOL-001X*	Keyed VF-45 Socket, MM *X denotes color. BLU=Blue, RED=Red, ORN=Orange, GRN=Green, BLK=Black, YEL=Yellow	96/cs.
VOL-0011	VF-45 Socket Fiber Holders	96/cs.



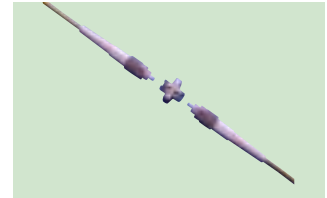
Couplings

Product Number	Description	Packaging
ST		
6112	Coupling ST MM Simplex	1 bag, 60/cs.
6113	Coupling ST MM Duplex	1 bag, 60/cs.
8113	Coupling ST SM Duplex	1 bag, 60/cs.
8119	Coupling ST SM Simplex	1 bag, 60/cs.
SC		
6310	Coupling SC MM Simplex	1 bag, 60/cs.
6313	Coupling SC MM Duplex	1 bag, 60/cs.
8310	Coupling SC SM Simplex	1 bag, 60/cs.
8310-G	Coupling SC/APC Green	1 bag, 60/cs.
8313	Coupling SC SM Duplex	1 bag, 60/cs.



Couplings, continued

Product Number	Description	Packaging
FC/PC		
6210	Coupling FC MM	1 bag, 60/cs.
8210	Coupling FC SM	1 bag, 60/cs.
8211	Coupling FC SM D-Mount	1 bag, 60/cs.
8211-APC	Coupling FC/APC SM	1 bag, 60/cs.



Copper Sockets and Adapters

RJ45 Jacks

The 3M™ Volition™ Cat. 5e and Cat. 6 RJ45 keystone jack design guarantees consistent and repeatable results. The jack offers tool-less installation and can be reused many times. The integral shutter protects the contacts from dirt and dust and ensures reliability. Associated with the Volition jacks are system components and accessories (e.g. cable, patch cords, outlets, patch panels...) optimized for maximum system performance and reliability.

- Tool-less installation
- Keystone dimensions
- Integral dust protection



Product Number	Description	Packaging
VOL-OCK5E-U-X*	RJ45 Cat. 5e K5E Jack UTP Tool-less *X denotes color. W=White, BU=Blue, G=Green, R=Red, Y=Yellow, BL=Black, O=Orange	96/cs.
VOL-OCK6-U-X*	RJ45 Cat. 6 K6 Jack UTP Tool-less *X denotes color. W=White, BU=Blue, G=Green, R=Red, Y=Yellow, BL=Black, O=Orange	96/cs.
VOL-J5EAX*	Jack Cat. 5e Keystone 568AB Punchdown *X denotes color. BL=Black, O=Orange, BU=Blue, OW=Office White	50/bag

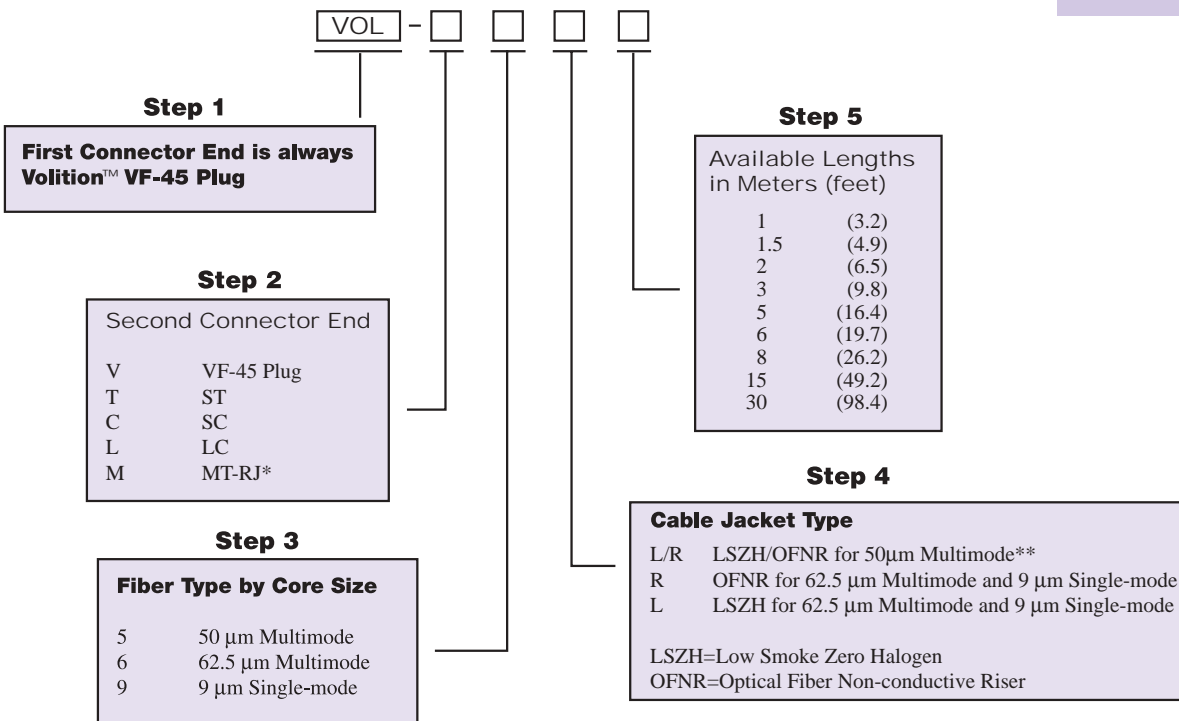
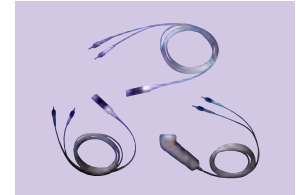
Patch Cords

3M offers a full line of patch cords with VF-45™, LC, SC, FC, MT-RJ and ST fiber optic connectors as well as RJ45 Cat. 5e and Cat. 6 jacks for copper networks. All cable assemblies meet the requirements in TIA/EIA-568B for both indoor and outdoor use.

Simplex, duplex and hybrid fiber cable assemblies are available with a variety of connectors to meet your needs at the equipment or patch panels. The charts below allow you to configure the patch cord that fits your requirement.

VF-45 Patch Cord Ordering Chart

In five easy steps, you can accurately specify your VF-45 Patch Cord. Establish 3M part numbers by using the following codes.



Example: VF-45 to ST, 9 μm Single-mode OFNR Cable, 2 meters.

VOL - T 9 R 2
VOL-T9R2

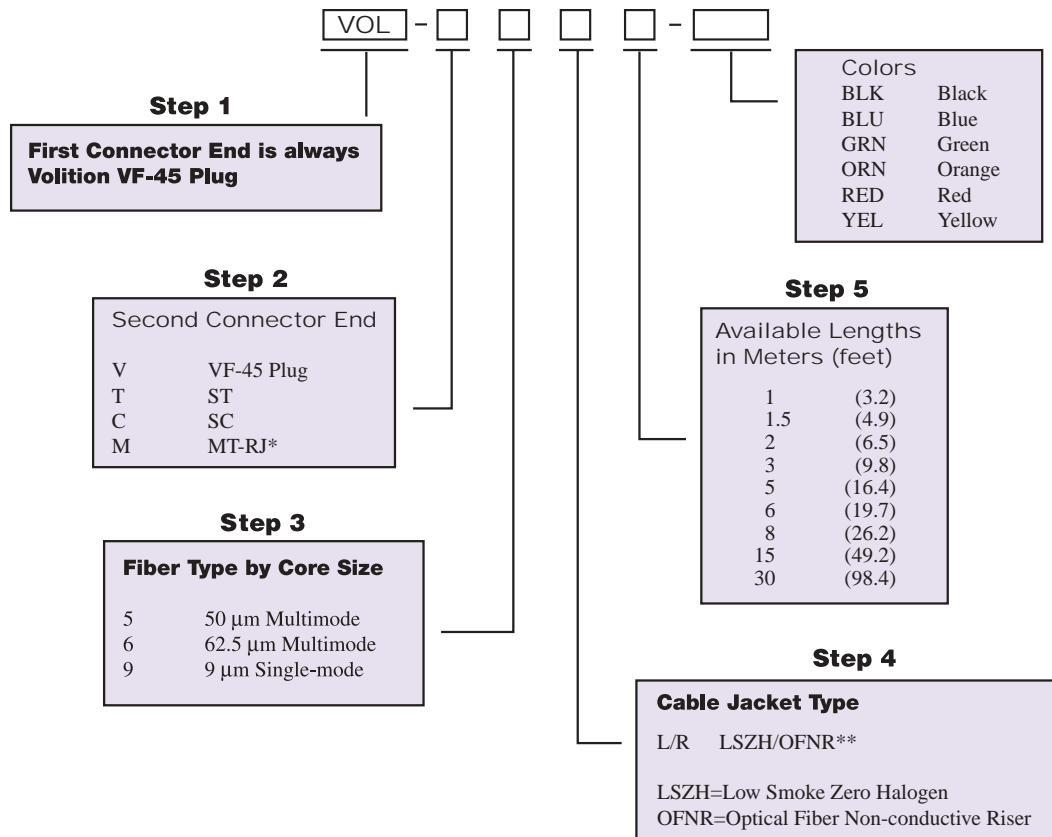
Example: VF-45 to VF-45, 50 μm Multimode L/R Cable, 30 meters.

VOL - V 5 L/R 30
VOL-V5L/R30

*MT-RJ is available for multimode only.
**One cable part number meets both ratings.

Keyed VF-45 Patch Cord Ordering Chart

In five easy steps, you can accurately specify your Keyed VF-45™ Patch Cord.
Establish 3M part numbers by using the following codes.



Example: Keyed VF-45 to ST, 62.5 μm Multimode L/R Cable, 2 meters, Blue.

VOL - T 6 L/R 2 - BLU

(VOL-T6L/R2-BLU)

Example: Keyed VF-45 to VF-45, 50 μm Multimode L/R Cable, 30 meters, Green.

VOL - V 5 L/R 30 - GRN

(VOL-V5L/R30-GRN)

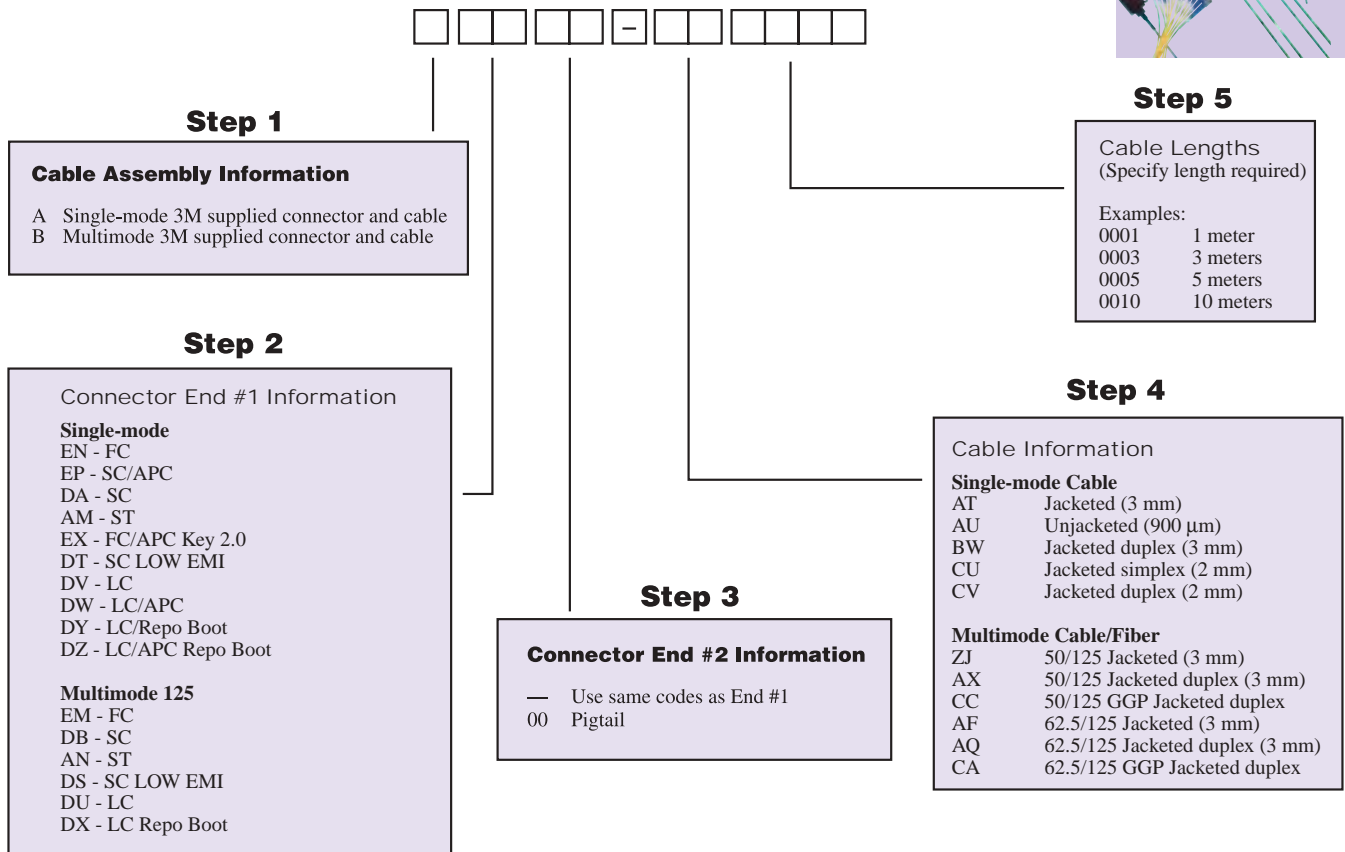
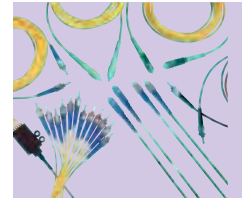
*MT-RJ is available for multimode only.

**One cable part number meets both ratings.

Patch Cords

Standard Jumpers and Pigtails Cable Assemblies Ordering Chart (Simplex and Duplex)

In five easy steps, you can accurately specify your cable assembly.
Establish 3M part numbers by using the following codes.



For additional cables, including multi-fiber or plenum jacket, please call 800/695 0447. Push #1 for ordering department or push #3 for literature.

NOTE: Pigtails must be ordered in multiples of two.

Example: Multimode SC to LC 50/125 GGP Duplex, 10 meters

B
D
B
D
U
-
C
C
0
0
1
0

(BDBDU-CC0010)

Twisted Pair

Category 5e UTP

Product Number	Description	Packaging
VOL-PC5E0X*	Cat. 5e Patch Cable	12/box (1, 2, 3 m) 6/box (5 m)

*X denotes length in meters. 1, 2, 3 and 5 meters available.

Category 6 UTP

Product Number	Description	Packaging
VOL-PC60X*	Cat. 6 Patch Cable	12/box (1, 2, 3 m) 6/box (5 m)

*X denotes length in meters. 1, 2, 3 and 5 meters available.



Connectors

Drawing on 70 years of adhesive expertise and 40 years of experience in ceramic technology, 3M provides the most convenient, reliable, and easy-to-install connectors for both fiber and copper networks.

- 3M™ Hot Melt Fiber Optic Connectors have a proven record of high yield and reliable performance in both indoor and outdoor local area networks around the world.
- 3M™ Crimplok™ Fiber Optic Connectors are ideal where there is no electricity or in difficult locations.

- 3M™ Volition™ VF-45™ connectors offer unprecedented simplicity.
- The 3M™ Volition™ K5E and K6 RJ45 jacks significantly exceed standard link performance requirements and can be installed with no tool.
- All 3M connectors have been qualified to ANSI/TIA/EIA-568B.

Twisted Pair

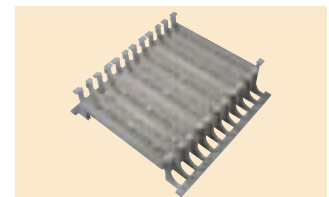
RJ45

The 3M™ Volition™ Cat. 5e and Cat. 6 RJ45 keystone jack design guarantees consistent and repeatable results. The jack offers tool-less installation and can be reused many times. The integral shutter protects the contacts from dirt and dust and ensures reliability. Associated with the Volition jacks are system components and accessories (e.g. cable, patch cords, outlets, patch panels...) optimized for maximum system performance and reliability.

- Tool-less installation
- Keystone dimensions
- Integral dust protection



Product Number	Description	Packaging
VOL-OCK5E-U-X* *X denotes color.	RJ45 Cat. 5e K5E Jack UTP Tool-less W=White, BU=Blue, G=Green, R=Red, Y=Yellow, BL=Black, O=Orange	96/cs.
VOL-OCK6-U-X* *X denotes color.	RJ45 Cat. 6 K6 Jack UTP Tool-less W=White, BU=Blue, G=Green, R=Red, Y=Yellow, BL=Black, O=Orange	96/cs.
VOL-J5EAX* *X denotes color.	Jack Cat. 5e Keystone 568AB Punchdown BL=Black, O=Orange, BU=Blue, OW=Office White	50/bag



110 XC

Product Number	Description	Packaging
110 Termination Blocks		
VOL-0660	110 Termination Block with Legs, 100 pair	1/box
VOL-0661	110 Termination Block with Legs, 300 pair	1/box
VOL-0668	C4 110 Connector for 110 Block, 4 pair	1000/bag

Fiber Optic

VF-45 Sockets

The 3M™ Volition™ VF-45™ Socket is a small form factor (SFF) connector, one half the size of standard duplex fiber optic interconnects providing affordable, high bandwidth networks. The VF-45™ plug and socket intermate like an 8-pin modular jack, bringing the simplicity of the RJ45 jack to optical fiber applications.

- Meets TIA 568B specifications for small form factor interconnects
- Fast installation using a simple termination process
- No expensive ceramic parts
- Footprint dimensions of an RJ45 copper connector
- High density of duplex connections
- Integral dust protection

Product Number	Description	Packaging
VOL-0001	VF-45 Socket, MM	96/cs.
VOL-0002	VF-45 Socket, SM	96/cs.
VOL-001X*	Keyed VF-45 Socket, MM *X denotes color. BLU=Blue, RED=Red, ORN=Orange, GRN=Green, BLK=Black, YEL=Yellow	96/cs.
VOL-0011	VF-45 Socket Fiber Holders	96/cs.



ST Connectors

Product Number	Description	Packaging
6100-X*	ST MM Hot Melt *X denotes color of boot. W=White, B=Black, R=Red	1/bag, 60/cs.
6105-X*	ST MM, Epoxy *X denotes color of boot. W=White, B=Black, R=Red	1/bag, 60/cs.
6901	ST MM Crimplok	1/bag, 60/cs.
8100-YS	ST SM Hot Melt	1/bag, 60/cs.
8106	ST SM, Epoxy	1/bag, 60/cs.
8107	ST SM, Epoxy (127 µm)	1/bag, 60/cs.
8901	ST SM Crimplok	1/bag, 60/cs.



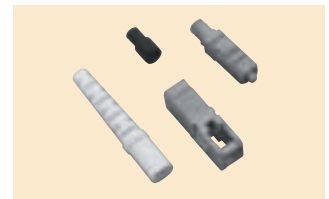
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MM – Multimode; SM – Single-mode; FM – Field Mountable

Connectors

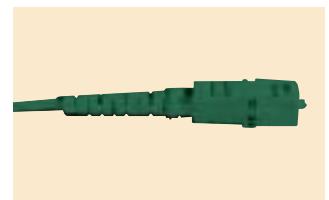
SC Connectors

Product Number	Description	Packaging
6300-W	SC MM Hot Melt	1/bag, 60/cs.
6300-X*5-12	SC MM Hot Melt	1/bag, 60/cs.
*X denotes color of boot. W=White, B=Black, R=Red, BE=Beige		
6304-BE	SC MM Composite Ferrule, Beige Boot	1/bag, 60/cs.
6306-X*	SC MM, Epoxy	1/bag, 60/cs.
*X denotes color of boot. B=Black, R=Red, BE=Beige		
6309-X*	SC MM LOW EMI	1/bag, 60/cs.
*X denotes color of boot. W=White, BE=Beige		
6900	SC MM Crimplok	1/bag, 60/cs.
8300	SC SM Hot Melt	1/bag, 60/cs.
8306	SC SM, Epoxy	1/bag, 60/cs.
8307	SC SM, (127 μm), Epoxy	1/bag, 60/cs.
8308	SC SM, Ultra High Temp Hot Melt	1/bag, 60/cs.
8309U	SC SM LOW EMI, Epoxy, Blue Boot	1/bag, 60/cs.
8309W	SC SM LOW EMI, Epoxy White Boot	1/bag, 60/cs.
8900	SC SM Crimplok	1/bag, 60/cs.



SC/APC

Product Number	Description	Packaging
8306-SC/APC	SC/APC (126 μm) SM FM Connector, Hand Polish	1/bag, 60/cs.
AEPGL3	SC/APC SM, Epoxy, Machine Polish	1K/cs.



MM – Multimode; SM – Single-mode; FM – Field Mountable

FC Connectors		
Product Number	Description	Packaging
6200	FC MM Hot Melt	1/bag, 60/cs.
6202	FC MM, Epoxy	1/bag, 60/cs.
6204-BE	FC MM Composite Ferrule	1/bag, 60/cs.
8200-W	FC SM Hot Melt	1/bag, 60/cs.
8203	FC SM, Epoxy	1/bag, 60/cs.
8204	FC SM (127 µm) Epoxy	1/bag, 60/cs.
8206-FC/APC	FC/APC (126 µm) SM FM Connectors, Hand Polish	1/bag, 60/cs
8208	FC SM Ultra High Temp Hot Melt	1/bag, 60/cs



MM – Multimode; SM – Single-mode; FM – Field Mountable

Cable

Volition Network Solutions include both copper and fiber cabling systems. Fiber cable is offered in multimode and single-mode horizontal and backbone configurations, riser, plenum and outside plant specified. Copper horizontal cable in both riser

and plenum ratings are available in Cat. 5e, Cat. 6 and enhanced bandwidth performance. This product range covers all applications from 300 feet distributed architectures to centralized networks spanning thousands of feet in length.

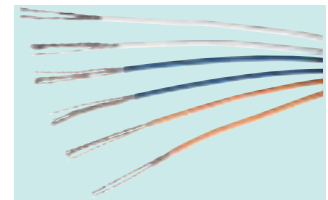
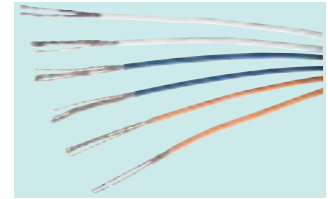
Twisted Pair

Category 5e Twisted Pair

Product Number	Description	Packaging
VOL-C5E350PO	Cat. 5e 350MHz Plenum, Orange	1000 ft. reel
VOL-C5E350PW	Cat. 5e 350MHz Plenum, White	1000 ft. reel
VOL-C5E350PU	Cat. 5e 350MHz Plenum, Blue	1000 ft. reel
VOL-C5E350RO	Cat. 5e 350MHz Riser, Orange	1000 ft. reel
VOL-C5E350RW	Cat. 5e 350MHz Riser, White	1000 ft. reel
VOL-C5E350RU	Cat. 5e 350MHz Riser, Blue	1000 ft. reel

Category 6 Twisted Pair

Product Number	Description	Packaging
VOL-C6PW	Cat. 6 4 Pair #23 AWG UTP Plenum, White	1000 ft. reel
VOL-C6PU	Cat. 6 4 Pair #23 AWG UTP Plenum, Blue	1000 ft. reel
VOL-C6PO	Cat. 6 4 Pair #23 AWG UTP Plenum, Orange	1000 ft. reel
VOL-C6RW	Cat. 6 4 Pair #23 AWG UTP Riser, White	1000 ft. reel
VOL-C6RU	Cat. 6 4 Pair #23 AWG UTP Riser, Blue	1000 ft. reel
VOL-C6RO	Cat. 6 4 Pair #23 AWG UTP Riser, Orange	1000 ft. reel



Note: Length of delivered cable may vary from -0% to +5%.

MM – Multimode; SM – Single-mode.

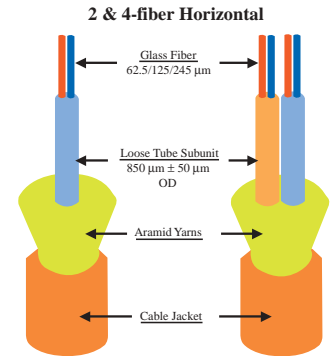
Fiber Optic

3M™ Volition™ internal, horizontal and backbone cables have a unique design that packages each pair of 250 micron coated fibers in a separate buffer tube, to facilitate the termination of the VF-45™ socket.

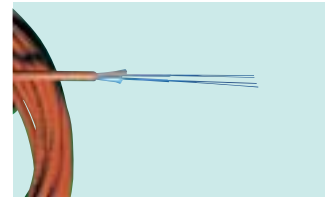
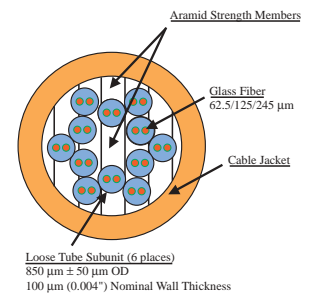
Horizontal cables are available in standard lengths of 1 km and 2 km; backbone cables are available in incremental lengths between 500 m and 6 km. Special constructions are also available upon request.

50/125 μm MM Horizontal & Backbone Fiber

Product Number	Description	Packaging
VOL-H52P1	Horizontal 50/125 μm, 2 Fiber Plenum	3,280 ft. (1 km)
VOL-H54P1	Horizontal 50/125 μm, 4 Fiber Plenum	3,280 ft. (1 km)
VOL-B56P	Backbone 50/125 μm, 6 Fiber Plenum	250 ft. min.
VOL-B512P	Backbone 50/125 μm, 12 Fiber Plenum	250 ft. min.
VOL-B524P	Backbone 50/125 μm, 24 Fiber Plenum	250 ft. min.
VOL-B548P	Backbone 50/125 μm, 48 Fiber Plenum	250 ft. min.
VOL-B572P	Backbone 50/125 μm, 72 Fiber Plenum	250 ft. min.
VOL-B596P	Backbone 50/125 μm, 96 Fiber Plenum	250 ft. min.
VOL-B56R	Backbone 50/125 μm, 6 Fiber Riser	250 ft. min.
VOL-B512R	Backbone 50/125 μm, 12 Fiber Riser	250 ft. min.
VOL-B524R	Backbone 50/125 μm, 24 Fiber Riser	250 ft. min.
VOL-B548R	Backbone 50/125 μm, 48 Fiber Riser	250 ft. min.
VOL-B572R	Backbone 50/125 μm, 72 Fiber Riser	250 ft. min.
VOL-B596R	Backbone 50/125 μm, 96 Fiber Riser	250 ft. min.



24-fiber Backbone



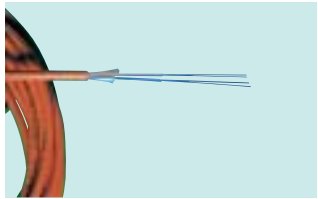
(continued on page 20)

Note: Length of delivered cable may vary from -0% to +5%.

MM – Multimode; SM – Single-mode.

Cable

62.5/125 μm MM Horizontal & Backbone Fiber		
Product Number	Description	Packaging
VOL-H62P1	Horizontal 62.5/125 μm , 2 Fiber Plenum	3,280 ft. (1 km)
VOL-H64P1	Horizontal 62.5/125 μm , 4 Fiber Plenum	3,280 ft. (1 km)
VOL-B66P	Backbone 62.5/125 μm , 6 Fiber Plenum	250 ft. min.
VOL-B612P	Backbone 62.5/125 μm , 12 Fiber Plenum	250 ft. min.
VOL-B624P	Backbone 62.5/125 μm , 24 Fiber Plenum	250 ft. min.
VOL-B648P	Backbone 62.5/125 μm , 48 Fiber Plenum	250 ft. min.
VOL-B672P	Backbone 62.5/125 μm , 72 Fiber Plenum	250 ft. min.
VOL-B696P	Backbone 62.5/125 μm , 96 Fiber Plenum	250 ft. min.
VOL-B66R	Backbone 62.5/125 μm , 6 Fiber Riser	250 ft. min.
VOL-B612R	Backbone 62.5/125 μm , 12 Fiber Riser	250 ft. min.
VOL-B624R	Backbone 62.5/125 μm , 24 Fiber Riser	250 ft. min.
VOL-B648R	Backbone 62.5/125 μm , 48 Fiber Riser	250 ft. min.
VOL-B672R	Backbone 62.5/125 μm , 72 Fiber Riser	250 ft. min.
VOL-B696R	Backbone 62.5/125 μm , 96 Fiber Riser	250 ft. min.

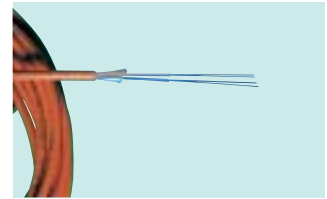


Note: Length of delivered cable may vary from -0% to +5%.

MM – Multimode; SM – Single-mode.

9 μm SM Horizontal & Backbone Fiber

Product Number	Description	Packaging
VOL-H92P1	Horizontal 9/125 μm, SM 2 Fiber Plenum	3,280 ft. (1 km)
VOL-H94P1	Horizontal 9/125 μm, SM 4 Fiber Plenum	3,280 ft. (1 km)
VOL-H92R1	Horizontal 9/125 μm, SM 2 Fiber Riser	3,280 ft. (1 km)
VOL-H94R1	Horizontal 9/125 μm, SM 4 Fiber Riser	3,280 ft. (1 km)
VOL-B96P	Backbone 9/125 μm, 6 Fiber Plenum	250 ft. min, 6K ft. max
VOL-B912P	Backbone 9/125 μm, 12 Fiber Plenum	250 ft. min, 6K ft. max
VOL-B924P	Backbone 9/125 μm, 24 Fiber Plenum	250 ft. min, 6K ft. max
VOL-B948P	Backbone 9/125 μm, 48 Fiber Plenum	250 ft. min, 6K ft. max
VOL-B972P	Backbone 9/125 μm, 72 Fiber Plenum	250 ft. min, 6K ft. max
VOL-B996P	Backbone 9/125 μm, 96 Fiber Plenum	250 ft. min, 6K ft. max
VOL-B96R	Backbone 9/125 μm, 6 Fiber Riser	250 ft. min, 6K ft. max
VOL-B912R	Backbone 9/125 μm, 12 Fiber Riser	250 ft. min, 6K ft. max
VOL-B924R	Backbone 9/125 μm, 24 Fiber Riser	250 ft. min, 6K ft. max
VOL-B948R	Backbone 9/125 μm, 48 Fiber Riser	250 ft. min, 6K ft. max
VOL-B972R	Backbone 9/125 μm, 72 Fiber Riser	250 ft. min, 6K ft. max
VOL-B996R	Backbone 9/125 μm, 96 Fiber Riser	250 ft. min, 6K ft. max



Note: Length of delivered cable may vary from -0% to +5%.

MM – Multimode; SM – Single-mode.

Open Office Solutions

Open-office structured cabling as defined by Telecommunications Systems Bulletin TSB75 is ideally suited to managing the changing node number, location and administration needs in a modern open-office environment. The Consolidation and Transition Point cabling practices are designed to:

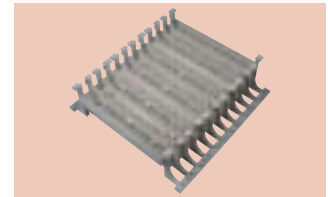
- minimize the amount of re-cabling involved in modular furniture moves
- simplify material choices and installation practices
- allow for quick and cost-effective moves, changes, rearrangements, and upgrades
- provide for media transition

Consolidation Point

110 XC Connecting Blocks

3M™ Volition™ 110 Terminal Blocks are available in 100 and 300 pair versions with legs. May be field terminated with 22-26 AWG solid wire. Designation strips are included with each 110 wiring block purchased. C4 110 Clips available.

Product Number	Description	Packaging
VOL-0660	110 Termination Block with Legs, 100 pair	1/box
VOL-0661	110 Termination Block with Legs, 300 pair	1/box
VOL-0668	C-4 110 Connector for 110 Block, 4 pair	1000/bag



Switches

The 3M™ Volition™ VOL-1081 Switch adds low-cost desktop switching to the Volition fiber optic switch family.

The VOL-1081 has eight 10/100 RJ45 switch ports and one 100 Mbps VF-45™ uplink port. Offices, classrooms and other rooms with small numbers of users will benefit from the dedicated 100 Mbps of bandwidth per port this switch has to offer. The 100 Mbps VF-45 fiber uplink enables a small room of users to connect to another network up to 2000 meters away. This long-distance support eliminates the need for repeaters every 100 meters required with copper cable uplinks.

Product Number	Description	Packaging
VOL-1081	Switch 8 Ports 10/100Mb RJ45, 1 Port 100Mb VF-45	1/box



MM – Multimode; SM – Single-mode

Volition™ VF-45 Field Mount Plug

The 3M™ Volition Field Mount VF-45™ Plug facilitates consolidation point design, enables emergency link restoration through field-made cable assemblies, and allows custom length cable assemblies to be made on site. Since it is terminated with the current VF-45 installation kit, you can count on fast duplex termination and high reliability.

Product Number	Description	Packaging
VOL-FMP612	VF-45 Field Mount Plug, 62.5/125 µm MM	12/pkg
VOL-0562	VF-45 Quick Install Kit	1/cs.
VOL-H62P1	Horizontal 62.5/125 µm, 2 Fiber Plenum	3,280 ft. (1 km)

Wall Mounted Patch Panels – VF-45 Fiber

Wall mounted patch panels are manufactured in powder-coated sheet metal and can be fixed quickly and easily by four screws. A hinged door on the front of the panel provides access to the VF-45™ sockets and can be locked using a padlock (not supplied) for extra security.

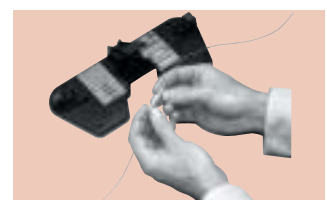
Product Number	Description	Packaging
VOL-0412	12 port, VF-45 Wall Mounted Patch Panel	1 ea.
VOL-0414	24 port, VF-45 Wall Mounted Patch Panel	1 ea.
VOL-0406B*	6 Port Wall Mounted Patch Panel with Bezels	1 ea.
VOL-0412B*	12 Port Wall Mounted Patch Panel with Bezels	1 ea.
VOL-0424B*	24 Port Wall Mounted Patch Panel with Bezels	1 ea.

* "B" version specifically designed to accept Keyed VF-45 sockets and VF-45 Field Mount Plug

Fibrlok Mechanical Splice

The 3M™ Fibrlok™ II 2529 Universal Optical Fiber Splice was designed for splicing any combination of 250 to 900 micron coated fibers. Utilizing field-proven Fibrlok technology, the 2529 Universal Splice provides a single-splice size, as well as all the advantages and benefits of the original Fibrlok II Optical Fiber Splice.

Product Number	Description	Packaging
2529	Fibrlok II Universal Optical Fiber Splice (250 x 900)	60 ea.
2530	Fiber Splice Prep Kit (with T&B Cleaving Tool)	1/cs.
2531	Fiber Splice Prep Kit (without Cleaving Tool)	1/cs.
2501	Fibrlok Assembly Tool	1/cs.



Telecommunications Room

3M offers a complete line of fiber and copper patch panels and interconnect solutions for the telecommunications room environment. These high density and flexible designs provide industry recognized interchangeable keystone latch copper

jacks, and the VF-45™ fiber SFF and RJ45 copper respectively. Also available is a full line of ferrule interconnects, such as ST and SC types including the 3M Hot Melt.

Patch Panels

Rack Mounted Patch Panels – VF-45 Fiber

The 3M™ Volition™ patch panel range offers a suitable patch panel for every installation requirement “Flush mount” technology of the VF-45™ sockets with maximum port density means efficient use of the space in the 19" rack with flush front ports.

Product Number	Description	Packaging
VOL-0400EXP-G	Expansion Panel for VOL-0400 Series Patch Panel, Slide Kit, Green	1 ea.
VOL-0400S-G	Patch Panel, Rack Mount, 24 Port 2U with Cable Management Slide Kit, Green	1 ea.
VOL-0401S-G	Patch Panel, Rack Mount, 24 Port 1U without Cable Management Slide Kit, Green	1 ea.
VOL-0402S-G	Patch Panel, Rack Mount, 48 Port 3U, with Cable Management, Slide Kit, Green	1 ea.
VOL-0499-G	Cable Management for Media Converter	4 ea.

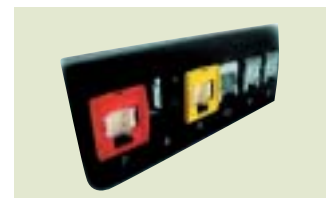


Rack Mounted Patch Panels – Twisted Pair

3M™ Volition™ Classic and Economic Patch Panels are modular and allow precise mounting and clean presentation of the RJ45 keystone jacks (K5E and K6).

Product Number	Description	Packaging
VOL-PPCA-FX*K	RJ45 Patch Panel Classic, Brush Aluminum for Keystone Jacks	1 ea.
VOL-PPCB-FX*K	RJ45 Patch Panel Classic, Black Aluminum for Keystone Jacks	1 ea.

*X denotes number of keystone jacks. 16, 24, 32 or 48.



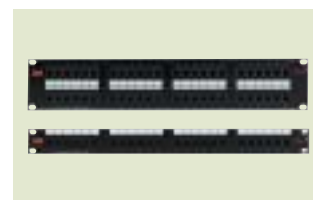
Rack Mounted Patch Panels – Twisted Pair, continued

Product Number	Description	Packaging
VOL-PPUD-FX*K	RJ45 Patch Panel UTP Economic for Keystone Jacks	1 ea.
*X denotes number of keystone jacks. 16 or 24		
VOL-PCC-X*	RJ45 Port Color Cap	10 sets of 8
*X denotes color. B=Blue, G=Green, R=Red, Y=Yellow		

Patch Panel – 110 Punch Down

The 3M™ Volition™ 110 punch-down style patch panels are available in 24-port (1U) and 48-port (2U) configurations to provide high density and feature easy to use write-on labels for port labeling.

Product Number	Description	Packaging
VOL-PP5E24B	Patch Panel Cat. 5e 110 Contact UTP 568A/B 24 Port, Black	1 ea.
VOL-PP5E48B	Patch Panel Cat. 5e 110 Contact UTP 568A/B 48 Port, Black	1 ea.
VOL-PP624B	Patch Panel Cat. 6 110 Contact UTP 568A/B, 24 Port, Black	1 ea.
VOL-PP648B	Patch Panel Cat. 6 110 Contact UTP 568A/B, 48 Port, Black	1 ea.



Wall Mounted Patch Panels – VF-45 Fiber

Wall patch panels are manufactured in powder-coated sheet metal and can be fixed to the wall quickly and easily by four screws. A hinged door on the front of the panel provides access to the VF-45™ sockets and can be locked using a padlock (not supplied) for extra security.

Product Number	Description	Packaging
VOL-0412	12 port, VF-45 Wall Mounted Patch Panel	1 ea.
VOL-0414	24 port, VF-45 Wall Mounted Patch Panel	1 ea.
VOL-0406B	6 Port Wall Mounted Patch Panel with Bezels	1 ea.
VOL-0412B	12 Port Wall Mounted Patch Panel with Bezels	1 ea.
VOL-0424B	24 Port Wall Mounted Patch Panel with Bezels	1 ea.
* "B" version specifically designed to accept Keyed VF-45 sockets and VF-45 Field Mount Plug		



Telecommunications Room

Fiber Distribution Units

The 8400 Series Fiber Distribution System consists of fiber distribution units (FDUs), coupling plates and fiber cable management components. The 8425 family of FDUs is capable of accommodating up to 144 ports and is available in versions that are lockable and/or provide space which allows for up to 72 splices in the rear of the unit.

Standard ST, SC, FC coupling plates are available in both single and duplex formats and standard ports counts.



Product Number	Description	Packaging
8423	Fiber Distribution Unit (Rack Mount), 12-24 Port	1 ea.
8425	Fiber Distribution Unit (Rack Mount), 72 Port	1 ea.
8432	Fiber Distribution Unit (Wall Mount), 12 Port	1 ea.
8434	Fiber Distribution Unit (Wall Mount), 24-36 Port	1 ea.
8436	Fiber Distribution Unit (Wall Mount), 36-48 Port	1 ea.
8470	Fiber Management Unit	1 ea.
8475	Vertical Jumper Organizer	1kit
8406-CM	Plate, 6 Port, SC MM with Couplings	4 ea.
8406-CS	Plate, 6 Port, SC SM with Couplings	4 ea.
8406-CSA	Plate, 6 Port, SC SM, Angle Polish with Couplings	4 ea.
8406-DCM	Plate, 6 Port, Duplex, SC MM with Couplings	4 ea.
8406-FM	Plate, 6 Port, FC MM with Couplings	4 ea.
8406-FS	Plate, 6 Port, FC SM with Couplings	4 ea.
8406-FSA/2.15	Plate, 6 Port, FC SM, Angle Polish, with Couplings	4 ea.
8406-TM	Plate, 6 Port, ST MM with Couplings	4 ea.
8406-TS	Plate, 6 Port, ST SM with Couplings	4 ea.
8408-CM	Plate, 8 Port, SC MM with Couplings	3 ea.
8408-CS	Plate, 8 Port, SC SM with Couplings	3 ea.
8408-CSA	Plate 8 Port SC SM Angle Polish Coupling	3 ea.
8408-DCM	Plate, 8 Port, SC MM, Duplex with Couplings	3 ea.
8408-FS	Plate, 8 Port, FC SM with Couplings	3 ea.
8408-TM	Plate, 8 Port, SC MM with Couplings	3 ea.
8408-TS	Plate, 8 Port, ST SM with Couplings	3 ea.
8412-DCM	Plate, 12 Port, SC MM, Duplex with Couplings	1 ea.

Fiber Distribution Units, continued

Product Number	Description	Packaging
8412-DCS	Plate, 12 Port, SC SM, Duplex with Couplings	1 ea.
8412-TM	Plate, 12 Port, ST MM with Couplings	1 ea.
8412-TS	Plate, 12 Port, ST SM with Couplings	1 ea.
8423-BKT	23 Rack Mounting Kit for 8423	1 ea.
8423-EXP	12-24 Port Expander for 8423	1 ea.
8425-BP	72 Port FDU with Splice Tray	1 ea.
8425-BPL	72 Port FDU with Splice Tray & Lock	1 ea.
8425-L	72 Port FDU (Lockable)	1 ea.
8499-1W	Plate, Blank, Single Position	12 ea.
8499-4W	Plate, Blank, Four Position	1 ea.

Networking Hardware

A 3M™ Volition™ network is designed to maximize the speed and flexibility of today's hybrid networks while preparing you for the future. Whether you have a copper or a fiber network, centralized, zoned or

distributed, 3M can help you provide the networking hardware necessary for the high-powered applications of today's networks at a price that won't ruin your budget.

Switches

Our switch product line combines high port density with lower per-port pricing for a cost-effective switching solution. By combining a non-blocking switching architecture and a high-speed uplink option for high-bandwidth connections into a modular chassis architecture, 3M has created a solution that is extremely fast yet flexible enough for either copper or fiber networks.



Product Number	Description	Packaging
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Volition 4000 and 5000 Series

VOL-4000-NA	4 Slot Modular Switch Chassis, North America	1/cs.
VOL-5000	8 Slot Modular Switch Chassis, with Single Power Supply and Power Conversion Kit	1/cs.
VOL-5000-R	8 Slot Modular Switch Chassis, with Redundant Power Option and Power Conversion Kit	1/cs.



Switch Accessories

Product Number	Description	Packaging
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VOL-4001	8 Port 10FL Module with VF-45, for VOL-4000/5000 Series Switches	1/cs.
VOL-4008	8 Port 100FX Module, 1300nm, with VF-45, for VOL-4000/5000 Series Switches	1/cs.
VOL-4008-T	8 Port 10/100TX Copper Module, for VOL-4000/5000 Series Switches	1/cs.
VOL-4100	Gigabit Uplink Module, 850nm, with SC, for VOL-4000/5000 Series Switches	1/cs.
VOL-4100-SK	Stacking Module Kit (2 Modules/1 Cable) for Switches	1/cs.
VOL-4100-S	Gigabit Stacking Module, for VOL-4000/5000 Series Switches	1/cs.
VOL-4100-C	Gigabit Stacking Cable, for VOL-4000/5000 Series Switches	1/cs.
VOL-4100-LX	Single Port 1000LX Gigabit Uplink Module, 1300nm, with SC for VOL-4000/5000 Series Switches	1/cs.



Switch Accessories, continued

Product Number	Description	Packaging
VOL-4100-VF	Single Port 1000SX Gigabit Uplink Module, 850nm with VF-45 for VOL 4000/5000 Series Switches	1/cs.
VOL-5000-PS	Power Supply Module for VOL-5000-R Chassis	1/cs.

Mini Switch

Product Number	Description	Packaging
VOL-1081	8 Port, 10/100Mb RJ45, 1 Port 100Mb VF-45	1/cs.



Media Converters

Reduce cabling costs and extend the range of your 10Base-T/100Base-TX Ethernet network by seamlessly connecting your copper and fiber cabling. Using either stand-alone or 19" rack mount chassis versions, you can cost-effectively migrate to fiber with a modular approach to network upgrades.

Product Number	Description	Packaging
VOL-0201	10Base-T/FL PC Version	6/cs.
VOL-0202	10Base-T/FL 24 Port Rack Mount with Power Cord Kit	1/cs.
VOL-M100FX-12	100Mb FX/TX 12 Port Rack Mount with Power Cord Kit	1/cs.
VOL-M100FX-NA	100Mb FX/TX PC Version, North America	6 ea.



Network Interface Cards

Networks continue to require increasingly higher throughput to support bandwidth requirements. Our line of high speed network adapters includes dedicated fiber versions as well as a combination fiber/copper card for flexibility in mixed cabling environments.

Product Number	Description	Packaging
VOL-N100VF	100Mb NIC PCI Bus, with VF-45	1/cs.
VOL-N100VF+TX	PCI 100Mb NIC VF-45+RJ45 Wake on LAN	1/cs.
VOL-N1000SC-LX	1Gb NIC LX 1 Port SC	1/cs.
VOL-N1000SC-SX	1Gb NIC LX 1 Port SC	1/cs.
VOL-N2000SC-LX	1Gb NIC LX 2 Port SC	1/cs.
VOL-N2000SC-SX	1Gb NIC SX 2 Port SC	1/cs.



Tools, Accessories and Consumables

It has never been easier to install 3M fiber interconnect products with user-friendly termination kits. The 3M kits contain all the materials necessary to install product in the field.

Termination Kits

VF-45 Termination Kits

The 3M™ Volition™ Socket Termination Kit contains all the materials necessary to install VF-45™ sockets onto duplex fiber optic cable. With the VF-45 socket termination kit, you can complete fiber installations faster and easier; duplex fiber terminations can be completed in less than two minutes.



Product Number	Description	Packaging
VOL-0562	VF-45 Quick Install Kit	1/cs.
VOL-0573*	VF-45 Maintenance Cleaning Kit	1/cs.
VOL-0570A	HFE-Based Cleaning Fluid, 16 oz. Bottle	12/cs.
VOL-0799	12 Fiber 6 Tube Breakout Kit for 250 μm OSP fiber	1 ea.

* For both Keyed VF-45 and Non-Keyed VF-45



Replacements for Kits

05-00002	Cable Jacket Stripper	1 ea.
VOL-0560B	Snips	1 ea.
VOL-0560C	Buffer Tube Stripper	1 ea.
VOL-0560D	Dual Fiber Stripper, 250 μm Coating	1 ea.
VOL-0560F	Polishing Puck Assembly (includes Puck Polishing Face)	1 ea.
VOL-0560G	Puck Polishing Face	1 ea.
VOL-0562H	Polishing Station Base Sub Assembly	1 ea.
VOL-0562J	Cleave Button with Scribe	1 ea.
VOL-0562K	Lapping Film, 2 x 5	5 sheets
VOL-0560L	Fiber View Scope with Adapter Base	1 ea.
VOL-0562L	Penlight	1 ea.
VOL-0560N	Cotton Swabs	100 ea.
05-00017	Lint Free Wipes	100 ea.
VOL-0560R	Bottle, Alcohol, Empty	1 ea.
05-00251	Cleaning Wires, 0.004 diameter	1 ea.
VOL-0562B	Blades, Replacement Duplex Strip	1 ea.

Replacements for Kits, continued

Product Number	Description	Packaging
VOL-0562C	View Scope Adapter	1 ea.
VOL-0562X	View Scope, 75x	1 ea.
VOL-0562S	Quick Install Tool Case	1 ea.
VOL-0562V	Quick Install Station Door	1 ea.
VOL-0562W	Fiber Stub Cap	1 ea.
VOL-0562M	Quick Install Tool Pouch	1 ea.

VF-45 Reference Test Cable Set

3M™ Volition™ reference cable kits enable connections to be made to test equipment fitted with the ST or SC connector interface. Essential for creating a reference reading prior to link testing, they can be used with the VOL-2290 test set or other manufacturers' test equipment.

The transmit cable consists of a VF-45™ socket on one end and a choice of either 2 ST, SC or FC connectors on the other end. The receive cable has a VF-45 socket housed in a protective casing on one end and at the other end there are either 2 ST, SC or FC connectors.

Product Number	Description	Packaging
VOL-UREF-062-ST	Reference Cable Kit with ST 62.5/125 μm	1 set/cs.
VOL-UREF-062-SC	Reference Cable Kit with SC 62.5/125 μm	1 set/cs.
VOL-UREF-050-ST	Reference Cable Kit with ST 50/125 μm	1 set/cs.
VOL-UREF-050-SC	Reference Cable Kit with SC 50/125 μm	1 set/cs.
VOL-UREF-SM-SC	Reference Cable Kit with SC 9/125 μm	1 set/cs.
VOL-UREF-SM-FC	Reference Cable Kit with FC 9/125 μm	1 set/cs.
VOL-UREF-SM-ST	Reference Cable Kit with ST 9/125 μm	1 set/cs.



(continued on page 32)

Tools, Accessories and Consumables

3M™ Crimplok™/Hot Melt/Epoxy Kits and Accessories

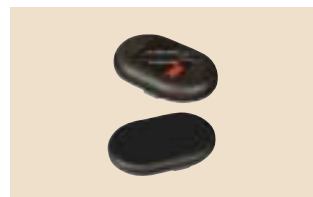
3M Termination Kits and Accessories provide all tools and materials necessary to terminate the major fiber optic connectors in the industry today. A variety of kits is available to meet your needs in terminating all 3M connectors.

Crimplok

Product Number	Description	Packaging
6955	Crimplok Kit	1 kit

Replacements for Crimplok Kit

Product Number	Description	Packaging
6955-C	Crimp Tool (HM & Crimplok)	1 ea.
6955-P	Polishing Tool, Crimplok	1 ea.
SP-00503	Lapping Film, One Step, Crimplok	50 sheets
8892	Polishing Jig, Universal	1 ea.
6955-T	Activation Tool, Crimplok	1 ea.
6355-A	View Scope, 100x	1 ea.
6955-S	Buffer Stripper	1 ea.
05-00002	Cable Stripper	1 ea.
VOL-0560B	Snips	1 ea.
05-00017	Lint Free Cloths, 4x4	100 ea.
VOL-0560R	Bottle, Alcohol	1 ea.
6955-H	Crimplok Tool Pouch	1 ea.



Hot Melt		
Product Number	Description	Packaging
6355	Hot Melt Kit (120V)	1 kit
6351	Hot Melt Kit (230V)	1 kit
6355-U	UHT Hot Melt Upgrade Kit	1 kit



Replacements for Hot Melt Kit		
Product Number	Description	Packaging
6312	Hot Melt Oven (120V) in 6355 Kit	1 ea.
6323	Hot Melt Oven (230V) in 6351 Kit	1 ea.
6955-C	Crimp Tool (HM and Crimplok)	1 ea.
6190	ST Connector Holder	4 ea.
SP-00504	SC Connector Holder	4 ea.
SP-00505	FC Connector Holder	4 ea.
6191	Cooling Stand	1 ea.
6355-P	Polish Pad, One-Step	1 ea.
6192-A-254X-2D5	Lapping Film, One Step, Hot Melt	200 sheets
6192-AA-263X-0.05D5	Lapping Film, One Step, Hot Melt	50 sheets
6355-D	Scoring Tool, Diamond	1 ea.
6355-A	View Scope, 100x	1 ea.
6955-S	Buffer Stripper	1 ea.
05-00053	Soft Polishing Pad	1 ea.
661X-0.5S	0.5µm Diamond Lapping Film	100 sheets
836X-0.02S	0.02µm Lapping Film	50 Sheets
05-00002	Cable Stripper	1 ea.
VOL-0560B	Snips	1 ea.
05-00017	Lint Free Cloths, 4x4	100 ea.
VOL-0560R	Bottle, Alcohol	1 ea.
VM600042ATX	Hot Melt Video	1 ea.



Hot Melt Auto Polisher		
Product Number	Description	Packaging
6392	SC Holder for 6850	1 ea.
6850A	Auto Polisher 120v	1 ea.

(continued on page 34)

Tools, Accessories and Consumables

Epoxy

Product Number	Description	Packaging
8365	Epoxy Kit (120V)	1 kit
8361	Epoxy Kit (230V)	1 kit

Replacements for Epoxy Kit

Product Number	Description	Packaging
05-00261	Curing Oven (120V) in 8365 Kit	1 ea.
05-00282	Curing Oven (230V) in 8361 Kit	1 ea.
8365-C	Crimp Tool and Die Set	1 ea.
05-00039	ST Heat Sink	6 ea.
SP-00508	SC Heat Sink	6 ea.
SP-00507	FC Connector Holder	6 ea.
05-00090	Curing Stand	1 ea.
05-00053	Polish Pad, Soft, Epoxy	1 ea.
8692	Epoxy, Fiber Optic	10 ea.
261X-5S 5 μ m	Lapping Film, 5 μ m ALOX	50 ea.
661X-1.5S 1.5 μ m	Lapping Film, 1.5 μ m Diamond	15 ea.
262X-1S 1 μ m	Lapping Film, 1 μ m ALOX	50 ea.
263X-0.05S 0.05 μ m	Lapping Film, Final, 0.05 μ m ALOX	50 ea.
8892	Polishing Jig, Universal	2 ea.
6355-D	Scoring Tool, Diamond	1 ea.
6355-A	View Scope, 100x	1 ea.
6955-S	Buffer Stripper	1 ea.
05-00002	Cable Stripper	1 ea.
VOL-0560B	Snips	1 ea.
05-00017	Lint Free Cloth, 4x4	100 ea.
VOL-0560R	Bottle, Alcohol	1 ea.
05-00255	Syringe, 3cc	25 ea.
05-00251	Cleaning Wires, .004 diameter	12 ea.

Fibrlok Mechanical Splice

The 3M™ Fibrlok™ II 2529 Universal Optical Fiber Splice is designed for splicing any combination of 250 and 900 micron coated fibers. The Fibrlok II Universal Optical Fiber Splice can be used with either single-mode or multimode fibers with a (nominal) glass cladding diameter of 125 microns.

The 3M™ Fibrlok™ 2600 series multi-fiber optical splicing system is suitable for both single-mode or multimode fibers having a secondary coating of 250 microns.



Fibrlok Mechanical Splice

Product Number	Description	Packaging
2529	Fibrlok II Universal Optical Fiber Splice (250 x 900)	60 ea.
2530	Fiber Splice Prep Kit (with T&B Cleaving Tool)	1 ea.
2531	Fiber Splice Prep Kit (without Cleaving Tool)	1 ea.
2501	Fibrlok Assembly Tool	1 ea.



Multifiber Fibrlok Splice

Product Number	Description	Packaging
2604	Fibrlok Multi-Fiber Optical Splice (4 Fiber)	12 ea.
2608	Fibrlok Multi-Fiber Optical Splice (8 Fiber)	12 ea.
2612	Fibrlok Multi-Fiber Optical Splice (12 Fiber)	12 ea.
2600	Fibrlok Multi-Fiber Optical Splice Prep Kit	1 ea.
2670	Multi-Fiber Ribbon Construction Tool Kit	1 ea.
2650-ACK2	Angled Cleaver Adapter Kit	1 ea.



Outside Plant

For 40 years, 3M has provided solutions to major telecommunications access providers, local exchange carriers and PTTs throughout the world. Our products, systems and services are optimized for construction and rehabilitating networks for faster, more reliable and higher bandwidth transmissions. With the

convergence of voice and data in campus-wide enterprise networks, the protection and maintenance of your cabling infrastructure require the same level of quality support whether you are a small company or a large carrier.

Fiber Optic Closures, Splice Trays and Accessories

2178 Fiber Optic Closures

With the features of the popular 2178 splice case added to the 2178-LS series is made of a tough chemical-resistant material and a new gasket seal that make this the ideal splice case for outside plant, underground, aerial, pedestal and direct buried applications. The ease of installation is unsurpassed, requiring no special tools or complicated training procedures. The closures are reenterable to allow access to the splices and hold cables of varying sizes that provide flexibility to add ports on both ends with the cable addition kit or splice organizer trays.

Product Number	Description	Packaging
2178-LS	Large Fiber Optic Splice Case	1 ea.
2178-S	Small Fiber Optic Splice Case	1 ea.
2178-LL	2178-LL Extra Large Fiber Optic Splice Case	1 ea.
2178-S/FR	2178-S/FR Small, Fire Retardant, Fiber Optic Splice Case	1 ea.
2178-LS/FR	2178-LS/FR Large, Fire Retardant, Fiber Optic Splice Case	1 ea.
2178-LL/FR	2178-LL/FR Extra Large, Fire Retardant, Fiber Optic Splice Case	1 ea.

2178 Accessories

Product Number	Description	Packaging
2180	2180 Fiber Optic Cable Kit (For Re-entering 2178 Case)	1 ea.
2181	Cable Addition Kit	1 ea.
2181-LS	2181-LS Cable Addition Kit for 2178-L/S Series Splice Cases	1 ea.
2181-LS/FR	2181-LS/FR Cable Addition Kit for 2178-LS/FR Series Splice Case	1 ea.



Fiber Splice Organizer Trays

Product Number	Description	Packaging
2522	Small Fiber Splice Organizer Tray	3 ea.
2523	Large Fiber Splice Organizer Tray	3 ea.
2524	Fibrlok 2524 Splice Organizer Tray	3 ea.



FibrDome Fiber Optic Splice Closure

FibrDome Closures protect fiber optic splices from the elements while providing fast and easy no-cost reentry. The closures can be installed in above-ground pedestals, hand-holes, and mounted on poles and strands.

Product Number	Description	Packaging
FD06	FibrDome Closure	1 ea.
FD08	FibrDome Closure	1 ea.



3M™ Fiber Optic Closure System

The 3M™ Fiber Optic Closure System is a full series of splice closures and trays used for housing, organizing and protecting single or mass fusion fiber splices. A full range of closure sizes, diameters from 76-241 mm (3-9½") in combination with lengths up to 914 mm (36") give system designers multiple options. While smaller size closures would normally be considered optimal, larger closures can be used in many cases to provide extra storage space for ribbon or buffer tubed fiber.

Product Number	Description	Packaging
LL2-418	Fiber Closure Butt or 2 x 2 Cables	1 ea.
LL2-518	Fiber Closure Butt or 2 x 2 Cables	1 ea.



3M™ Fibrlok™ Mechanical Splice

Product Number	Description	Packaging
2529	Fibrlok II Universal Optical Fiber Splice (250 to 900)	60 ea.
2530	Fiber Splice Preparation Kit (with T&B Cleaving Tool)	1 kit
2531	Fiber Splice Preparation Kit (without Cleaving Tool)	1 kit
2501	Fibrlok Assembly Tool	1 ea.



(continued on page 38)

Outside Plant

3M™ Multifiber Fiblok™ Splice

Product Number	Description	Packaging
2604	Fiblok Multi-Fiber Optical Splice (4 Fiber)	12 ea.
2608	Fiblok Multi-Fiber Optical Splice (8 Fiber)	12 ea.
2612	Fiblok Multi-Fiber Optical Splice (12 Fiber)	12 ea.
2600	Fiblok Multi-Fiber Optical Splice Prep Kit	1 kit
2670	Multi-Fiber Ribbon Construction Tool Kit	1 kit
2650-ACK2	Angled Cleaver Adapter Kit	1 ea.





Network Accessories

3M has an extensive array of accessories essential to today's network installers to assure the highest level of quality and improved efficiencies. From wire-pulling gels to static control materials, from

fire-protection products to marker and label products, and finally with a wide range of tape solutions, 3M is able to offer installers a comprehensive solution from one source.

Cable Lubricants

3M™ Wire Pulling Lubricant is a translucent white polymer gel that produces a low coefficient of friction for smooth, low tension wire and cable pulling.

Product Number	Description
WL-1	Wire Pulling Lubricant, Gel
WL-55	Wire Pulling Lubricant, Gel
WL-QT	Wire Pulling Lubricant, Gel
WLC-1	Wire Pulling Lubricant, Communications
WLC-5	Wire Pulling Lubricant, Communications
WLC-55	Wire Pulling Lubricant, Communications
WLC-QT	Wire Pulling Lubricant, Communications



Fire Protection Products

The complete line of 3M fire protection products helps prevent fire, smoke, toxic fumes and moisture from passing through penetrations in fire-rated walls and floors. These easy-to-install products are suitable for a wide variety of firestop applications.

Product Number	Description
2000	Fire Barrier Silicone Sealant
2001	Fire Barrier Silicone RTV Foam
2003	Fire Barrier Silicone Sealant
CP-25	WB+ Fire Barrier Water Base Caulk
CS-195+	Fire Barrier Composite Sheet
FS 195+	Fire Barrier Wrap Strap
MPP+	Moldable Putty+Pads
MP+	Moldable Putty Stix
RC-1	Fire Barrier Restricting Collar



Scotchcode™ Marker and Label Products

3M™ Scotchcode™ identification systems give you dozens of ways to mark your work. Use these products for marking wire and cable of all diameters, distribution panels, repair and replacement parts, terminal strips, control panels and much more.

Product Number	Description
SDR	Scotchcode SDR Dispenser Refill Rolls
STD-TAG	Scotchcode STD-TAG Wire Marker Dispenser (Filled)
STD-C	Scotchcode STD-C Wire Marker Tape Dispenser
SLS	Scotchcode Write-On Dispensers



Static Control Bags

3M™ Static Control Bags protect sensitive electronic components from damage by electrostatic discharge.

Product Number	Description
1900	Metal-In Static Shielding Bag
1910	Metal-In Static Shielding Bag, Zipper Closure
2100R	Metal-Out Testable Transparent Static Shielding Bag
2110R	Metal-Out Testable Static Shielding Zipper Bag
2120R	Cushioned Static Shielding Bag



Network Accessories

Tapes

With over 30 electrical insulating, sealing and specialty tapes, 3M has the products to meet your needs. From Scotch® Super 33+ Vinyl Electrical Tape to Scotch® 130C Linerless Rubber Splicing Tape to Scotch® 88T All Weather Telephone Tape, 3M tapes provide exceptional performance and reliability.



Product Number	Description
130C	Rubber Tape
1700	Tartan™ Vinyl Tape
RM 2228	Rubber Mastic Tape
27	Glass Tape
Super 33+	Scotch® Super 33+ Vinyl Tape
35	Scotch® 35 Vinyl Tape
3939	Tartan™ Duct Tape
40	Scotch® Anti-Static Tape
49	Scotch® Aluminum Foil-Backed Tape
49656	Tartan™ Vinyl Electrical Tape
50	Scotchrap™ Tape
69	Scotch® 69 Glass Cloth Electrical Tape
77	Fire and Electric Arc Proof Tape
88	Super Vinyl Tape
88T	Scotch® All Weather Telephone Plastic Tape
898	Scotch® Superior Performance Filament Tape
P4	Tape

Scotch® Cable and Wire Tie Wrap

Scotch Cable and Wire Tie Wrap provides a convenient new way to bundle wire and cables, assemblies and to handle other fastening needs more safely and securely. It is strong, flexible and available in a variety of colors, sizes and shapes, including easy-to-apply straps, plus perforated and continuous rolls.



Product Number	Description
3M100-1/2Px-yy	1/2-inch Perforated Roll
3M100-1Px-yy	1-inch Perforated Roll
3M100-3/8Px-BK	3/8-inch Perforated Roll
3M100-3/8-yy	3/8-inch Perforated Roll
3M100-1/2UC-BK	1/2-inch Uncut Roll, Black
3M100-1UC-BK	1-inch Uncut Roll, Black
3M100-3/8UC-BK	3/8-inch Uncut Roll, Black
3M100-HHD	Hand-held Dispenser

(x=perforated length in 6 or 8 inch increments, yy=color in black, white, green, blue, red and yellow)

*6-inch perforated rolls available in black only

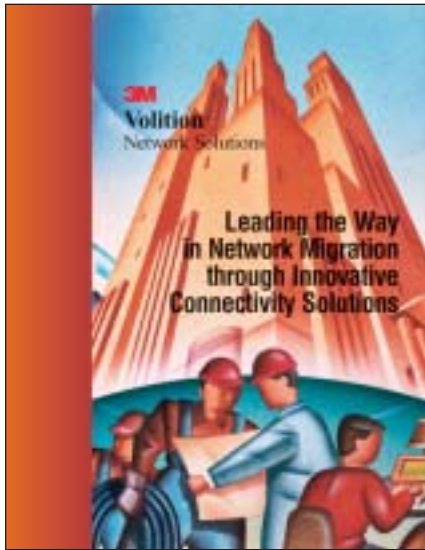
3M™ Dynatel™ 940CLM/TDR Cable Length Meter/Time Domain Reflectometer

The lightweight 3M Dynatel 940CLM/TDR Cable Length Meter/Time Domain Reflectometer identifies any open or short and finds the distance to it in seconds, instantly measures and displays cable length in feet or meters, continually measures voltage to identify live circuits and transmits four different tone frequencies and patterns to trace hidden cables or identify cable pairs.



Product Number	Description
940CLM/TDR	Cable Length Meter/Time Domain Reflectometer

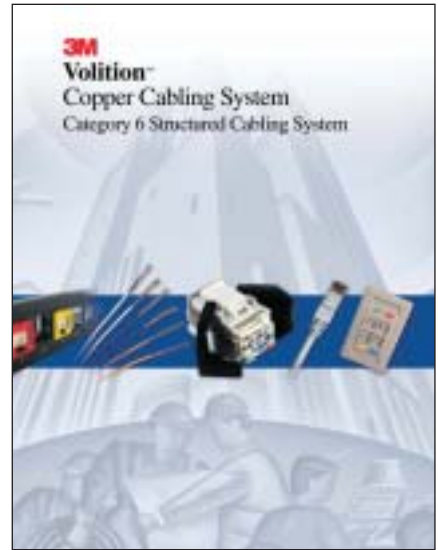
Additional Literature Available at www.3MTelecommunications.com or www.3M.com/enterprise



Capabilities Brochure



3M TED Ordering Guide



System Catalog



Technical Documents



Product Data Sheets



Vertical Brochure

Important Notice

Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use.

Warranty; Limited Remedy; Limited Liability.

3M's product warranty is stated in its Product Literature included with the product packaging or available upon request. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED**

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