

3M™ Volition™ Connecting System



# Innovative Cabling Solutions

**3M**

## 3M™ Volition™ VF-45™ Sockets

The 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.

The keyed VF-45 socket is available for networks that require separate, secure, controlled access. Each keyed VF-45 socket requires a color coded bezel and intermates with color coded keyed VF-45 patch cords.

### Ordering Information

Product Number	Description	Pkg. (lbs.)	Min. Order	UPC 051115-
<b>VOL-0001</b>	VF-45 socket, MM, with 250 µm fiber holder	96 each (2.08)	96 each	58290*
<b>VOL-0002</b>	VF-45 socket, SM, with 250 µm fiber holder	96 each (2.08)	96 each	75927*
<b>VOL-0003</b>	Keyed VF-45 socket MM, no bezel	96 each (2.08)	96 each	15693
<b>VOL-0720-BL</b>	Bezel for keyed VF-45 socket, blue	12 each (1.00)	12 each	18261
<b>VOL-0720-OR</b>	Bezel for keyed VF-45 socket, orange	12 each (1.00)	12 each	18262
<b>VOL-0720-GR</b>	Bezel for keyed VF-45 socket, green	12 each (1.00)	12 each	18263
<b>VOL-0720-BR</b>	Bezel for keyed VF-45 socket, brown	12 each (1.00)	12 each	18264
<b>VOL-0720-SL</b>	Bezel for keyed VF-45 socket, slate	12 each (1.00)	12 each	18265
<b>VOL-0720-RD</b>	Bezel for keyed VF-45 socket, red	12 each (1.00)	12 each	18266
<b>VOL-0720-BK</b>	Bezel for keyed VF-45 socket, black	12 each (1.00)	12 each	18267
<b>VOL-0720-YL</b>	Bezel for keyed VF-45 socket, yellow	12 each (1.00)	12 each	18268
<b>VOL-0720-VI</b>	Bezel for keyed VF-45 socket, violet	12 each (1.00)	12 each	18269
<b>VOL-0720-RS</b>	Bezel for keyed VF-45 socket, rose	12 each (1.00)	12 each	18270
<b>VOL-0720-AQ</b>	Bezel for keyed VF-45 socket, aqua	12 each (1.00)	12 each	18271
<b>VOL-0011</b>	VF-45 socket fiber holders, replacement 250 µm	96 each (2.21)	96 each	58627*
<b>VOL-0012</b>	VF-45 socket fiber holders for 900 µm buffer	96 each (2.21)	96 each	18717

\*UPC prefix 051138-

NOTE: MM – Multimode; SM – Singlemode

### Features

Meets TIA-568B specifications for small form factor interconnects

Fast installation using a simple termination process with VF-45 Quick Install Kit

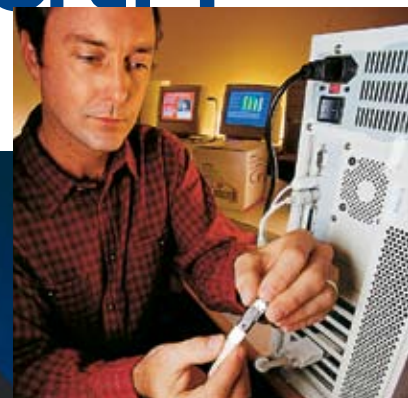
No expensive ceramic parts

Footprint dimensions of an RJ45 copper connector with keystone latch

High density of duplex connections

Integral dust protection

# Providing affordable high bandwidth networks



## 3M™ Volition™ Keystone RJ45 Jacks Cat. 5e and Cat. 6

The Cat. 5e and Cat. 6 RJ45 keystone jack design provides 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 provides reliability.

### Features

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

Product Number	Description	Package	Min. Order	UPC 051115-
<b>VOL-OCK5E-U-AL</b>	RJ45 K5E Jack Cat. 5e UTP - Almond - bag of 8	12 bags	12 bags	22623
<b>VOL-OCK5E-U-BK</b>	RJ45 K5E Jack Cat. 5e UTP - Black - bag of 8	12 bags	12 bags	22621
<b>VOL-OCK5E-U-BL</b>	RJ45 K5E Jack Cat. 5e UTP - Blue - bag of 8	12 bags	12 bags	22617
<b>VOL-OCK5E-U-G</b>	RJ45 K5E Jack Cat. 5e UTP - Green - bag of 8	12 bags	12 bags	22618
<b>VOL-OCK5E-U-O</b>	RJ45 K5E Jack Cat. 5e UTP - Orange - bag of 8	12 bags	12 bags	22622
<b>VOL-OCK5E-U-R</b>	RJ45 K5E Jack Cat. 5e UTP - Red - bag of 8	12 bags	12 bags	22619
<b>VOL-OCK5E-U-W</b>	RJ45 K5E Jack Cat. 5e UTP - White - bag of 8	12 bags	12 bags	22613
<b>VOL-OCK5E-U-Y</b>	RJ45 K5E Jack Cat. 5e UTP - Yellow - bag of 8	12 bags	12 bags	22620
<b>VOL-OCK5E-F</b>	RJ45 K5E Jack Cat. 5e FTP - White - bag of 8	12 bags	12 bags	22614
<b>VOL-OCK5E-S</b>	RJ45 K5E Jack Cat. 5e STP - White Metallic Shield - bag of 8	12 bags	12 bags	22615
<b>VOL-OCK6-U-AL</b>	RJ45 K6 Jack Cat. 6 UTP - Almond - bag of 8	12 bags	12 bags	22630
<b>VOL-OCK6-U-BK</b>	RJ45 K6 Jack Cat. 6 UTP - Black - bag of 8	12 bags	12 bags	22628
<b>VOL-OCK6-U-BL</b>	RJ45 K6 Jack Cat. 6 UTP - Blue - bag of 8	12 bags	12 bags	22624
<b>VOL-OCK6-U-G</b>	RJ45 K6 Jack Cat. 6 UTP - Green - bag of 8	12 bags	12 bags	19417
<b>VOL-OCK6-U-O</b>	RJ45 K6 Jack Cat. 6 UTP - Orange - bag of 8	12 bags	12 bags	22629
<b>VOL-OCK6-U-R</b>	RJ45 K6 Jack Cat. 6 UTP - Red - bag of 8	12 bags	12 bags	22626
<b>VOL-OCK6-U-W</b>	RJ45 K6 Jack Cat. 6 UTP - White - bag of 8	12 bags	12 bags	22616
<b>VOL-OCK6-U-Y</b>	RJ45 K6 Jack Cat. 6 UTP - Yellow - bag of 8	12 bags	12 bags	22627
<b>VOL-OCK6-F</b>	RJ45 K6 Jack Cat. 6 FTP - White - bag of 8	12 bags	12 bags	22607
<b>VOL-OCK6-S</b>	RJ45 K6 Jack Cat. 6 STP - White Metallic Shield - bag of 8	12 bags	12 bags	22618



## 3M™ Volition™ Convex Face Plates

The Volition convex keystone face plate allows copper RJ45 jacks to be used with the Volition wall outlet adapters and can also be used for surface mount applications. This faceplate is available in office white in both 2- and 4-port configurations and comes with easy to use labels, label windows and port icons for port identification.



### Ordering Information

#### Volition Convex Face Plates

Product Number	Description	Pkg. (lbs.)	Min. order	UPC 051115-
<b>VOL-0712</b>	RJ45 face plate, convex 2 port, office white for keystone jack	50 each (4.41)	50 each	13535
<b>VOL-0714</b>	RJ45 face plate, convex 4 port, office white for keystone jack	50 each (4.50)	50 each	13537

#### Volition Convex Face Plate Accessories

<b>VOL-0790BL</b>	Reversible icons (voice/data) for keystone face plates, blue	10/pkg.	10 pkgs.	14869
<b>VOL-0790GR</b>	Reversible icons (voice/data) for keystone face plates, green	10/pkg.	10 pkgs.	14870
<b>VOL-0790RD</b>	Reversible icons (voice/data) for keystone face plates, red	10/pkg.	10 pkgs.	14871
<b>VOL-0790</b>	Reversible icons (voice/data) for keystone face plates, office white	10/pkg.	10 pkgs.	14893

## 3M™ Volition™ Fiber Wall Outlets

Volition wall outlet adapters allow fiber-optic connectors to be installed at the workstation outlet along with standard copper jacks or inserts. Volition furniture outlets allow VF-45 fiber sockets to be installed in office partitions.



### Ordering Information

#### Volition Fiber Wall Outlets

Product Number	Description	Pkg. (lbs.)	Min. order	UPC 051138-
<b>VOL-0250A</b>	Wall outlet adapter with 2-socket capability, single gang, office white	48 each (0.80)	48 each	58294
<b>VOL-0250B</b>	Wall outlet adapter with 2-socket capability, single gang, bright white	48 each (0.80)	48 each	58295
<b>VOL-0254</b>	4" x 4", double gang wall box, with 4-port face plate, office white	12 each (1.50)	12 each	13759*
<b>VOL-0254B</b>	4" x 4", double gang wall box, with 4-port face plate, bright white	12 each (1.50)	12 each	13760*
<b>VOL-0256-GY</b>	6 port, single gang face plate, bezel system, gray	12 each	12 each	16129
<b>VOL-0256-WH</b>	6 port, single gang face plate, bezel system, white	12 each	12 each	16130
<b>VOL-0300</b>	Blank port insert, office white	50 each (0.28)	50 each	89326
<b>VOL-0300B</b>	Blank port insert, bright white	50 each (0.28)	50 each	89358
<b>VOL-0300BK</b>	Blank port insert, black	50 each (0.28)	50 each	89360
<b>VOL-0300G</b>	Blank port insert, gray	50 each (0.28)	50 each	89359
<b>VOL-0350W</b>	2-port, furniture outlet, office white	48 each (0.90)	48 each	58686
<b>VOL-0350G</b>	2-port, furniture outlet, gray	48 each (0.90)	48 each	58687
<b>VOL-0350B</b>	2-port, furniture outlet, black	48 each (0.90)	48 each	58688

\*UPC prefix 051115-

## 3M™ VF-45™ Patch Cords

VF-45 patch cords use the superior reliability and ruggedness of 3M glass/glass/polymer (GGP) fiber optic cable which is ideal for applications requiring tight bends, durability and dependability.

The glass cladding around the core is reduced in size and surrounded with a permanent and protective polymer coating, resulting in a standard 125 μm fiber diameter. This provides a quality, highly durable connection.



### 3M™ VF-45™ PATCH CORDS

Features	Benefits
Tight bend radius fiber (3/8 inch or 9.5 mm)	Increased durability and reliability in small spaces
Cable flexibility	Easier to route and manage
Unique fiber structure and cable	Withstands abuse
Meets requirement of TIA/EIA 568 B.3	Long term reliability and 3M standards for multimode fibers at 850 nm and 1300 nm
3M-developed precision factory connector termination	Experienced assemblers and processes enhance both performance and reliability
100% optically tested	Assures low reflectance and low light loss

### Specifications

Connector Materials	VF-45 Connector		
Alignment	Ferrule-less V-groove		
Housing body	Engineered resin		
Boot	Thermoplastic elastomer		
Flame retardancy	UL-94 V-0		
VF-45 Connection	Singlemode	Multimode	
Insertion loss	0.20 dB mean 0.14 dB sigma	0.28 dB mean 0.06 dB sigma	
Reflection	-56.4 dB mean 3.4 dB sigma	-27.2 dB mean 1.77 dB sigma	
Operating temperature	-10° C to 60°C		-10° C to 60° C
Mating durability (500 matings)	< 0.75 dB max		< 0.75 dB max
Cable Specification	Singlemode 1310/1550 NM	50 μM 850/1300 NM	62.5 μM 850 NM
Attenuation	0.5/0.4 dB/km	3.5/1.5 dB/km	3.5/1.5 dB/km
Jacket Specification			

Patch cord cable meets both riser rated (OFNR) and low smoke zero halogen (LSZH) requirements. Standard duplex cable 2.4 mm zipcord.

## Patch Cords and Media Converters Ordering Information

### 3M™ VF-45™ PATCH CORDS

Product Number	Description	Pkg. (Lbs.)	Min. Order	UPC 051115-
<b>Singlemode</b>				
<b>VOL-V9L/R1</b>	VF-45 to VF-45 9 μm SM LSZH/riser	12 each (0.50)	12 each	14667
<b>VOL-V9L/R2</b>	VF-45 to VF-45 9 μm SM LSZH/riser	12 each (1.00)	12 each	14669
<b>VOL-V9L/R3</b>	VF-45 to VF-45 9 μm SM LSZH/riser	12 each (1.50)	12 each	14670
<b>VOL-V9L/R5</b>	VF-45 to VF-45 9 μm SM LSZH/riser	12 each (2.50)	12 each	14671
<b>VOL-V9L/R8</b>	VF-45 to VF-45 9 μm SM LSZH/riser	12 each (3.00)	12 each	14673
<b>VOL-V9L/R15</b>	VF-45 to VF-45 9 μm SM LSZH/riser	12 each (6.00)	12 each	14674
<b>VOL-V9L/R30</b>	VF-45 to VF-45 9 μm SM LSZH/riser	12 each (10.00)	12 each	19001
<b>Multimode 50/125</b>				
<b>VOL-V5L/R1</b>	VF-45 to VF-45 50 MM LSZH/riser	12 each (0.50)	12 each	15031
<b>VOL-V5L/R2</b>	VF-45 to VF-45 50 MM LSZH/riser	12 each (1.00)	12 each	15033
<b>VOL-V5L/R3</b>	VF-45 to VF-45 50 MM LSZH/riser	12 each (1.50)	12 each	15034
<b>VOL-V5L/R5</b>	VF-45 to VF-45 50 MM LSZH/riser	12 each (2.50)	12 each	15035
<b>VOL-V5L/R8</b>	VF-45 to VF-45 50 MM LSZH/riser	12 each (3.00)	12 each	15037
<b>VOL-V5L/R15</b>	VF-45 to VF-45 50 MM LSZH/riser	12 each (6.00)	12 each	15038
<b>VOL-V5L/R30</b>	VF-45 to VF-45 50 MM LSZH/riser	12 each (10.00)	12 each	15039
<b>Keyed Multimode 50/125 – Keyed VF-45 patch cords require keyed collars, ordered separately and applied in the field.</b>				
<b>VOL-KV5L/R1</b>	Non-key VF-45 to keyed VF-45 50 MM LSZH/riser	12 each (0.50)	12 each	18335
<b>VOL-KV5L/R2</b>	Non-key VF-45 to keyed VF-45 50 MM LSZH/riser	12 each (1.00)	12 each	18336
<b>VOL-KV5L/R3</b>	Non-key VF-45 to keyed VF-45 50 MM LSZH/riser	12 each (1.50)	12 each	18337
<b>VOL-KV5L/R5</b>	Non-key VF-45 to keyed VF-45 50 MM LSZH/riser	12 each (2.50)	12 each	18338
<b>VOL-KK5L/R1</b>	Keyed VF-45 to keyed VF-45 50 MM LSZH/riser	12 each (0.50)	12 each	18339
<b>VOL-KK5L/R2</b>	Keyed VF-45 to keyed VF-45 50 MM LSZH/riser	12 each (1.00)	12 each	18340
<b>VOL-KK5L/R3</b>	Keyed VF-45 to keyed VF-45 50 MM LSZH/riser	12 each (1.50)	12 each	18341
<b>VOL-KK5L/R5</b>	Keyed VF-45 to keyed VF-45 50 MM LSZH/riser	12 each (2.50)	12 each	18342
<b>VOL-KK5L/R8</b>	Keyed VF-45 to keyed VF-45 50 MM LSZH/riser	12 each (3.00)	12 each	18343
<b>VOL-KK5L/R10</b>	Keyed VF-45 to keyed VF-45 50 MM LSZH/riser	12 each (4.00)	12 each	18344
<b>VOL-KK5L/R15</b>	Keyed VF-45 to keyed VF-45 50 MM LSZH/riser	12 each (6.00)	12 each	18345
<b>VOL-KK5L/R20</b>	Keyed VF-45 to keyed VF-45 50 MM LSZH/riser	12 each (8.00)	12 each	18346
<b>VOL-KK5L/R30</b>	Keyed VF-45 to keyed VF-45 50 MM LSZH/riser	12 each (10.00)	12 each	18347

## Patch Cords and Media Converters Ordering Information

### 3M™ VF-45™ PATCH CORDS

Product Number	Description	Pkg. (Lbs.)	Min. Order	UPC 051115-
<b>Multimode 62.5/125</b>				
VOL-V6L/R1	Patch Cord VF-45 to VF-45 62.5 MM LSZH/riser 1M	12 each (0.50)	12 each	18745
VOL-V6L/R2	Patch Cord VF-45 to VF-45 62.5 MM LSZH/riser 2M	12 each (1.00)	12 each	18746
VOL-V6L/R3	Patch Cord VF-45 to VF-45 62.5 MM LSZH/riser 3M	12 each (1.50)	12 each	18747
VOL-V6L/R5	Patch Cord VF-45 to VF-45 62.5 MM LSZH/riser 5M	12 each (2.50)	12 each	18748
VOL-V6L/R8	Patch Cord VF-45 to VF-45 62.5 MM LSZH/riser 8M	12 each (3.00)	12 each	18749
VOL-V6L/R10	Patch Cord VF-45 to VF-45 62.5 MM LSZH/riser 10M	12 each (4.00)	12 each	71000*
VOL-V6L/R15	Patch Cord VF-45 to VF-45 62.5 MM LSZH/riser 15M	12 each (6.00)	12 each	71001*
VOL-V6L/R20	Patch Cord VF-45 to VF-45 62.5 MM LSZH/riser 20M	12 each (10.00)	12 each	71002*
<b>Keyed Multimode 62.5/125 – Keyed VF-45 patch cords require keyed collars, ordered separately and applied in the field.</b>				
VOL-KV6L/R1	Patch Cord NON-KEY VF to KEY VF 62.5 LSZH/riser 1M	12 each (0.50)	12 each	21548
VOL-KV6L/R2	Patch Cord NON-KEY VF to KEY VF 62.5 LSZH/riser 2M	12 each (1.00)	12 each	21549
VOL-KV6L/R3	Patch Cord NON-KEY VF to KEY VF 62.5 LSZH/riser 3M	12 each (1.50)	12 each	21550
VOL-KV6L/R5	Patch Cord NON-KEY VF to KEY VF 62.5 LSZH/riser 5M	12 each (2.50)	12 each	21551
VOL-KK6L/R1	Patch Cord KEY VF to KEY VF 62.5 LSZH/riser 1M	12 each (0.50)	12 each	21539
VOL-KK6L/R2	Patch Cord KEY VF to KEY VF 62.5 LSZH/riser 2M	12 each (1.00)	12 each	21540
VOL-KK6L/R3	Patch Cord KEY VF to KEY VF 62.5 LSZH/riser 3M	12 each (1.50)	12 each	21541
VOL-KK6L/R5	Patch Cord KEY VF to KEY VF 62.5 LSZH/riser 5M	12 each (2.50)	12 each	21542
VOL-KK6L/R8	Patch Cord KEY VF to KEY VF 62.5 LSZH/riser 8M	12 each (3.00)	12 each	21543
VOL-KK6L/R10	Patch Cord KEY VF to KEY VF 62.5 LSZH/riser 10M	12 each (4.00)	12 each	21544
VOL-KK6L/R15	Patch Cord KEY VF to KEY VF 62.5 LSZH/riser 15M	12 each (6.00)	12 each	21545
VOL-KK6L/R20	Patch Cord KEY VF to KEY VF 62.5 LSZH/riser 20M	12 each (8.00)	12 each	21546
VOL-KK6L/R30	Patch Cord KEY VF to KEY VF 62.5 LSZH/riser 30M	12 each (10.00)	12 each	21547
<b>Keyed Collars – Keyed collars require collar application tool, ordered separately.</b>				
VOL-0030-BL	Collar to keyed patch cord, blue	12 each (0.25)	12 each	18272
VOL-0030-OR	Collar to keyed patch cord, orange	12 each (0.25)	12 each	18273
VOL-0030-GR	Collar to keyed patch cord, green	12 each (0.25)	12 each	18274
VOL-0030-BR	Collar to keyed patch cord, brown	12 each (0.25)	12 each	18275
VOL-0030-SL	Collar to keyed patch cord, slate	12 each (0.25)	12 each	18276
VOL-0030-RD	Collar to keyed patch cord, red	12 each (0.25)	12 each	18277
VOL-0030-BK	Collar to keyed patch cord, black	12 each (0.25)	12 each	18278
VOL-0030-YL	Collar to keyed patch cord, yellow	12 each (0.25)	12 each	18279
VOL-0030-VI	Collar to keyed patch cord, violet	12 each (0.25)	12 each	18280
VOL-0030-RS	Collar to keyed patch cord, rose	12 each (0.25)	12 each	18281
VOL-0030-AQ	Collar to keyed patch cord, aqua	12 each (0.25)	12 each	18282
VOL-0563B	Tool for collar application	1 each (0.25)	1 each	18397

\*UPC Prefix 051138-

# 3M™ Volition™ Ethernet Media Converter VOL-M100FX-AN

The Volition media converter provides an inexpensive way to extend data links over long distances (2 km in full-duplex mode) and provides connectivity at the workstation between copper and fiber media.

The media converter is designed to connect either 100Base-TX or 10Base-T networking equipment to 100BaseFX fiber optic systems. This small and compact unit can be installed at any workstation operating at 10 or 100 Mbps.

The media converter is shipped with an AC/DC switching power supply and is also capable of tapping power via the USB port on both desktop and laptop computers with the provided USB cable. The compact size of this media converter allows it to be stored out of the way of the user.



3M™ Volition™ Ethernet Media Converter

## Features

Cost effective copper-to-fiber conversion using 3M™ VF-45™ Interface

Full-duplex transmission

Compact size, easy to install

Complies with relevant IEEE 802.3/standards

Auto-negotiation and auto-MDI/MDIX on TP wiring

Plug and play

Extend operating distances to 2 km in full-duplex mode

# Extend data links over distance





## 3M™ Volition™ Ethernet Media Converter VOL-M100FX-AN

Specifications		
	<b>Ethernet standard</b>	IEEE 802.3u/802.3
	<b>Networking</b>	10 base T/100 base TX/100 base FX
<b>Copper</b>	<b>Connector</b>	RJ45 100 ohm
	<b>Distance</b>	100 meters
<b>Fiber</b>	<b>Connector</b>	VF-45
	<b>Source</b>	LED
	<b>Wavelength</b>	1300 nm
	<b>Distance</b>	2 km
	<b>Fiber types</b>	50/125 μm and 62.5/125 μm
	<b>Sensitivity</b>	-31 dBm
	<b>Output power</b>	0.275 NA fiber:
	<b>62.5/125 mm</b>	-14 dBm to -20 dBm
	<b>Output power</b>	0.20 NA fiber:
	<b>50/125 mm</b>	-19 dBm to -25 dBm
<b>Electrical</b>	<b>Power usage and</b>	2 W
	<b>BTU/hr</b>	6.7 BTU/hr
	<b>Wall outlet</b>	100-240 VAC, 50-60 Hz
	<b>Power requirements</b>	North American, EUR, and UK power cables included
	<b>USB supplied power (5 V and &lt;400 mA typical)</b>	Unit can draw power off a USB port via the supplied power cable. USB port cannot be shared with other devices.
<b>Environmental</b>	<b>Temperature:</b>	0° C ~ +42° C
	<b>Operating</b>	+32° F ~ +107.6°
	<b>Temperature:</b>	-30° C ~ +65° C
	<b>Storage</b>	-22° F ~ +149° F
	<b>Humidity: operating</b>	85% R.H. non-condensing
	<b>Humidity: storage</b>	90% R.H.
<b>Physical</b>	<b>Size – approx.</b>	7.6 x 5.2 x 2.3 cm (3.2 x 2.0 x 0.8 in.)
	<b>Weight – approx.</b>	50 gm / 1.75 oz
<b>Agency approvals</b>	<b>Electromagnetic</b>	FCC Part15, Class A, EN55022, Class A
	<b>Safety</b>	UL1950, cUL, EN60950

## Ordering Information

Product Number	Description	PKG (Lbs.)	Min. Order	UPC 051115-
VOL-M100FX-AN	100 meg media converter auto-negotiating, USB power	6 each (7.80)	6 each	16208

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## 3M™ Volition™ VF-45™ Field Mount Plug

The field mount plug facilitates the use of consolidation point designs, enables emergency link creation through field-made cable assemblies, and allows custom length cable assemblies to be made on site. It is terminated onto Volition style two-fiber cable with the quick install kit, the same kit used for the VF-45 socket. An additional plug actuation tool is required and ordered separately.

### Specifications

VF-45 field mount plug interconnected with VF-45 sockets conform to the following combination of TIA and 3M performance specifications:

Test	Test Condition/Requirements	Typical Results 50	Typical Results 62.5
Attenuation	< 0.75 dB max	850 nm Avg. = -0.35, Std. Dev. = 0.11, 1310 nm Avg. = -0.31, Std. Dev. = 0.10 dB	850 nm Avg. = 0.34, Std. Dev. = 0.10, 1310 nm Avg. = 0.26, Std. Dev. = 0.09 dB
Reflection	> 20 dB max	850 nm Avg. = -34.31, Std. Dev. = 1.21, 1310 nm Avg. = -35.91, Std. Dev. = 1.46 dB	850 nm Avg. = 27.8, Std. Dev. = 1.27 dB, 1310 nm Avg. = 29.3, Std. Dev. = 1.55 dB
Mating durability	500 cycles, < 0.75 dB max	Pass	Pass
Strength of coupling	> 33 N, < 0.75 dB max	Pass	Pass
Plug flex	100 cycles, ± 90 degrees, 0.5 kg, < 0.75 dB max	Pass	Pass
Plug twist	10 cycles, ± 2.5 revolutions, 15 N, < 0.75 dB max	Pass	Pass
Cold	-0°C for 96 hours, < 0.3 dB increase	Pass	Pass
Heat	+60°C for 4 days, < 0.3 dB increase	Pass	Pass
Cycling	-10°C to 60°C, 5 cycles, < 0.3 dB increase	Pass	Pass
Humidity	95% RH, +40°C for 4 days, < 0.3 dB increase	Pass	Pass
Tensile load	> 50 N, side pull > 19.4 N	Pass	Pass
Plug cable retention	< 0.75 dB max	Pass	

### Ordering Information

Product Number	Description	Pkg.	Min. Order	UPC 051115-
<b>The field mount plug is available in 50 µm and 62.5 µm multimode versions, in packages of 12.</b>				
VOL-FMP612	VF-45 field mount plug 62.5/125 MM non-keyed	12/package	12/each	15569
<b>The field mount plug is designed for termination to Volition style two-fiber horizontal cable and requires the VF-45 quick install kit and actuation tool. Consumables are provided with each package.</b>				
VOL-0563	VF-45 quick install kit	1 each	1 package	16206
VOL-0563A	Actuation tool, VF-45 field mount plug	1 each	1 package	15115

\*UPC prefix 051138-

NOTE: MM – Multimode; SM – Singlemode

To order Volition style horizontal and backbone cable, contact General Cable at 859-572-8933

## Volition™ VF-45™ Termination Kits

The VF-45 Quick Install Kit contains all the materials necessary to install VF-45 sockets onto duplex fiber optic cable. You can complete fiber installations fast and easy; duplex fiber terminations can be completed in less than two minutes. The kit is also used for termination of VF-45 Field Mount Plugs.



### VF-45 Quick Install Kit

**Product Number:** VOL-0563 **Pkg (lbs.):** 1 kit (4.08) **Min. Order:** 1 kit **UPC:** 051115-16206

### VF-45 Maintenance Cleaning Kit

For both keyed and non-keyed VF-45 sockets

**Product Number:** VOL-0573 **Pkg (lbs.):** 1 kit (2.04) **Min. Order:** 1 kit **UPC:** 051115-14607



### HFE-Based Cleaning Fluid, 16 oz. Bottle

**Product Number:** VOL-0570A **Pkg (lbs.):** 12 each (20.76) **Min. Order:** 12 each

**UPC:** 051138-58561

## Ordering Information

### Volition™ VF-45™ Termination Kit Replacements

Product Number	Description	Pkg. (lbs.)	Min. Order	UPC 051115-
6365-JS	Jacket stripper	1 each (0.22)	1 each	16201
VOL-0560B	Snips	1 each (0.22)	1 each	58564*
VOL-0560C	Micromodule stripper	1 each (0.10)	1 each	58565*
VOL-0560D	Fiber stripper, 250 µm coating	1 each (0.12)	1 each	58566*
VOL-0560F	Polishing puck assembly (includes puck polishing face)	1 each (0.14)	1 each	58568*
VOL-0560G	Puck polishing face	12 each (0.10)	12 each	58569*
VOL-0562H	Polishing station assembly	1 each (0.92)	1 each	88324*
VOL-0562J	Quick polish cleave button	1 each (0.40)	1 each	88239*
VOL-0562K-666XW	Lapping film, 2 x 5	500 sheets	50 sheets	70035***
VOL-0563M	Microscope dual light	1 each (1.12)	1 each	16207
VOL-0560N	Cotton swabs	10 pkgs. (0.80)	10 pkgs.	58595*
05-00017	Lint free cloth	100/pack (0.05)	1 pack	48999**
VOL-0560R	Bottle, alcohol, empty	12 each (0.74)	12 each	58597*
05-00251	Cleaning wipes	1 each (0.10)	1 each	49017**
VOL-0562S	Quick install tool case	1 each (1.22)	1 each	88237*
VOL-0562M	Tool pouch	1 each (0.62)	1 each	88238*

\*UPC prefix 051138-

\*\*UPC prefix 054007-

\*\*\*UPC prefix 051111-

## Volition™ VF-45™ Reference Test Cable Set

Reference cable kits enable connections to test equipment with the ST, SC or FC connector interface. Essential for creating a reference reading prior to link testing, they can be used with other manufacturers' test equipment.

The transmit cable consists of a VF-45 plug on one end and a choice of either two 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 two ST, SC or FC connectors.



### Reference Cable Kit with ST 62.5/125 $\mu\text{m}$

**Product Number:** VOL-UREF-062-ST **Pkg (lbs.):** 1 kit (0.70) **Min. Order:** 1 kit **UPC:** 051115-13773

### Reference Cable Kit with SC 62.5/125 $\mu\text{m}$

**Product Number:** VOL-UREF-062-SC **Pkg (lbs.):** 1 kit (0.70) **Min. Order:** 1 kit **UPC:** 051115-14577

### Reference Cable Kit with ST 50/125 $\mu\text{m}$

**Product Number:** VOL-UREF-050-ST **Pkg (lbs.):** 1 kit (0.20) **Min. Order:** 1 kit **UPC:** 051115-13767

### Reference Cable Kit with SC 50/125 $\mu\text{m}$

**Product Number:** VOL-UREF-050-SC **Pkg (lbs.):** 1 kit (0.65) **Min. Order:** 1 kit **UPC:** 051115-13770

### Reference Cable Kit with SC 9/125 $\mu\text{m}$

**Product Number:** VOL-UREF-SM-SC **Pkg (lbs.):** 1 kit (0.64) **Min. Order:** 1 kit **UPC:** 051115-14579

### Reference Cable Kit with FC 9/125 $\mu\text{m}$

**Product Number:** VOL-UREF-SM-FC **Pkg (lbs.):** 1 kit (0.64) **Min. Order:** 1 kit **UPC:** 051115-14580

### Reference Cable Kit with ST 9/125 $\mu\text{m}$

**Product Number:** VOL-UREF-SM-ST **Pkg (lbs.):** 1 kit (0.50) **Min. Order:** 1 kit **UPC:** 051115-14578

# Interconnect Solutions for Telecommunications



# 3M™ Volition™ VF-45™ Fiber Optic Patch

3M offers a complete line of fiber patch panels and interconnect solutions for the telecommunications room environment. These high-density and flexible panels are designed for the 3M™ Volition™ VF-45™ Fiber Interconnect.



## Rack Mounted Patch Panels

Rack mounted patch panel for every installation requiring “flush mount” technology of the 3M™ Volition™ VF-45™ Sockets with maximum port density means efficient use of the space in the 19" rack with flush front ports. Each panel includes slide mount hardware to allow access to rear cable management.

### Product Number: VOL-0400EXP-G

**Description:** Expansion Panel for VOL-0400 Series Patch Panel, Slide Kit, Green

**PKG. (lbs.):** 1 each (1.16) **Min. order:** 1 each **UPC:** 051115-14548

### Product Number: VOL-0400S-G

**Description:** Patch Panel, Rack Mount, 24 Port 2U with Cable Management Slide Kit, Green

**PKG. (lbs.):** 1 each (8.00) **Min. order:** 1 each **UPC:** 051138-87451

### Product Number: VOL-0401S-G

**Description:** Patch Panel, Rack Mount, 24 Port 1U without Cable Management Slide Kit, Green

**PKG. (lbs.):** 1 each (6.85) **Min. order:** 1 each **UPC:** 051138-87453

## Wall Mounted Patch Panels

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 can be padlocked (not supplied) for extra security.

### Product Number: VOL-0406B

**Description:** 6 Port Wall Mounted Patch Panel with Bezels

**PKG. (lbs.):** 1 each (2.57) **Min. order:** 1 each **UPC:** 051115-13719



To order 3M™ Volition™ products, call 800/426 8688.  
For more information, please contact your local 3M representative.

To order 3M™ Volition™ style horizontal and backbone cable, contact General Cable at 859-572-8933.

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