

**Tooling and Accessories**



**Professional Installer Kits — Epoxy Type Connectors**

The Professional Installer Kits from Tyco Electronics provide the professional installer with the necessary tools required to perform terminations on the complete line of epoxy type fiber optic connector products. Included in the kit is a crimp tool, with a set of interchangeable dies. In addition, an Inspection Microscope and Epoxy Curing Oven are included with specific kits.

**Part Number 501258-7**

For: FSD Connectors, ST, FC (Polymer crimp body), FSMA, and SC (Polymer crimp body)

Includes those tools necessary to terminate the connectors listed above. This is a complete kit which includes:

- Crimp tool and crimping dies

- Polishing bushings
- Polishing film
- Cable and fiber strippers
- Microscope with tripod (see page 33 for details)
- Epoxy curing oven (see page 33 for details)

**Part Number 501258-8**

The same as 501258-7 except the epoxy oven operates at 220 VAC.

**Part Number 501258-9**

The same as 501258-7 except kit does not contain microscope or epoxy curing oven.

**Note:** Epoxy not included in kit. It must be purchased separately. See specific product page for part numbers.



**Termination Kits — Epoxy Type Connectors**

Termination kits provide the materials and tools (except epoxy, curing oven, and microscope) required to terminate a particular type of fiber optic connector. Tools are conveniently packaged in a handy carrying case. The kits contain polishing materials for approximately 60 connectors. The consumable items in the kit can be purchased separately.

For: Tyco Electronics' ST, FSMA, FSD, RSD, SC (polymer crimp body), FC (polymer crimp body)

**Termination Kit**

Connector Type	Part Number
ST	503746-1
FSMA	503746-2
FSD	503746-6
FC and SC (polymer crimp body)	503746-7

**Cyclops Cable Stripper Part Number 1375317-1**

Ideal for stripping twisted-pair (UTP & STP) and fiber optic cables up to 0.43" diameter.

**Termination Tool Kits — No Epoxy Type**

For MT-RJ Jack and Plug Termination Tool Kits, see page 55.

For LIGHTCRIMP Plus Termination Tool Kits, see page 58.

For LIGHTCRIMP Termination Tool Kits, see page 59.

For Additional Tooling Information, Request Global Application Tooling Catalog 296240.

Tooling and Accessories (Continued)

**QC Quick Cure Adhesive**

**Product Facts**

- One-part adhesive eliminates the hassle and mess of mixing
- Applies easily and cures in minutes without heat or UV light
- Works with standard multimode epoxy-style connectors without performance degradation
- Faster procedure for time-saving productivity and lower installed costs



Tube Size	Typical Connector Terminations Per Tube*	Part Number
3 grams	100	492508-1

\*Your individual termination techniques will affect the number of terminations per tube.

**Epoxies**

**EPO-TEK Epoxies**

Tyco Electronics offers EPO-TEK epoxies formulated for fiber optic applications. Each epoxy is a pre-measured, two-part material packaged in a BIPAX. Simply remove the BIPAX center divider and work the epoxy together.



**Adhesive Applicator  
Part Number 501473-3**

**Product Facts**

- EPO-TEK Epoxy
- Pre-measured BIPAX for consistent results
- Ideal for bonding fibers
- Long relative pot life
- High service temperature

Description	Part Number
<b>Individual Epoxies</b>	
4-gram pack EPO-TEK 353ND	504035-1
<b>Recommended Accessories</b>	
Syringe manual use (3ccs)	501473-3
<b>Epoxy Specifications 600-4EPO</b>	
Cure Time Room Temp.	15 min @ 115°C
Pot Life	4 hr.
Color Before Curing	Amber
Color After Curing	Red
Viscosity (cps)	2000
Maximum Temperature	200°C
Glass Transition Temp.	124°C

**Tooling and Accessories (Continued)**

**Epoxies (Continued)**



**TRA-CON Epoxy-Bipax**

Properties	Use With	Number of Packs/ Size (gr)	Approx. Number of Conn.	Part Number
<b>General Purpose Use:</b>				
Low Viscosity High Impact Blue for Easy Polish 30 min. Pot Life Operating Temperature: -60 to 100°C Ambient Cure: 24 hr. @ 25°C Oven Cure: 2 hr. @ 65°C or 10 min. at 110°C	FSD ST FC SC FSMA LC	25/2	250	501195-4

**HYSOL Epoxy-Tubes**

Properties	Use With	Number of Packs/ Size (gr)	Approx. Number of Conn.	Part Number
<b>General Purpose Use:</b>				
Medium Viscosity Blue Color for Easy Polish 30 min. Pot Life Oven Cure: 30 min. @ 100°C	FSD ST FC SC FSMA LC	1 set of tubes	400	502418-1

Description	Part Number							
	FSMA	Multimode ST	Singlemode ST	FC	FSD/RSD	SC	LIGHTCRIMP XTC	LC
<b>Hand Polishing Film: (Pack of 10 sheets)</b>								
15µm	—	—	—	—	—	—	228433-9	—
9 mm***	—	—	—	—	—	—	—	1374484-1
5µm	228433-8	228433-8	228433-8	228433-8	228433-8	228433-8	228433-8	228433-8
1µm	228433-7	228433-7	—	—	228433-7	—	228433-7	—
<b>Fine Diamond Film*</b>								
0.3µm	228433-5	228433-5	228433-5	228433-5	228433-5	228433-5	228433-5	228433-5
<b>Final Polish Film*</b>								
	—	—	502748-2	502748-2	—	502748-2	—	—
<b>Consumables Kit**</b>								
	502306-1	502306-1	502306-2	502306-2	502306-1	502306-2	—	—

\*Pack of 5.  
\*\*Contains all consumable supplies for at least 100 connectors  
\*\*\* Pack of 15



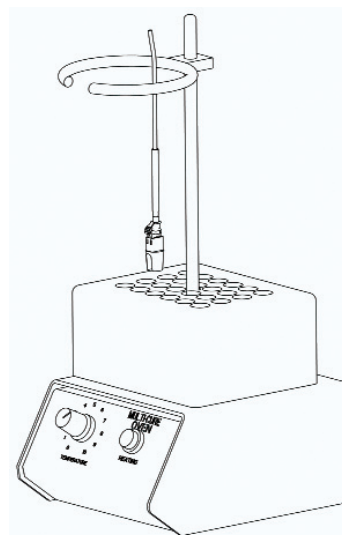
**Tooling and Accessories (Continued)**

**Epoxy Curing Oven**

The Epoxy Curing Oven reduces the time required to cure epoxy in fiber optic connectors. The oven provides a uniform, controlled curing environment which increases productivity and consistency of terminations. The unit accepts all Tyco Electronics connectors. The unit comes equipped to cure up to four duplex connectors and 12 single connectors at once. Optional adapter blocks are available to cure 8 duplex or 24 single connectors. It features a variable temperature control from 60°C to 125°C and includes a thermometer and cable support bracket. 110 and 220 VAC units are available.



Instruction Sheet 804-9460



Description	Part Number
110 VAC	502134-1
240 VAC	502134-2
Adapter Block for 8 Duplex Connectors	502222-1
Adapter Block for 24 Single Connectors	502129-1
Block Assembly for 1.6, 2.0 & 2.4 mm SC & FC (metal crimp body) & LC Connectors	1457628-1

**Inspection Microscope Kits**

The Inspection Microscope is designed specifically for visual examination of terminated or cleaved ends of singlemode and multimode fibers in both field and laboratory applications. This portable, hand-held unit provides magnification for optimum detection of flaws. It operates on battery power. The complete microscope kit includes a handy carrying case, tripod stand, and all adapters needed to inspect the following connectors: FSMA, FSD, ST, FC, F07 and SC.

See page 34 for specific Microscope Part Numbers.

**Product Facts**

- Pre-centered adapter mount provides quick, easy focusing, and changing of connectors
- Kg-3 infrared filter to protect the user
- Durable, lightweight A.B.S. plastic microscope body
- Lockable, high-density polyethylene, double-well carrying case with anti-static foam cutouts

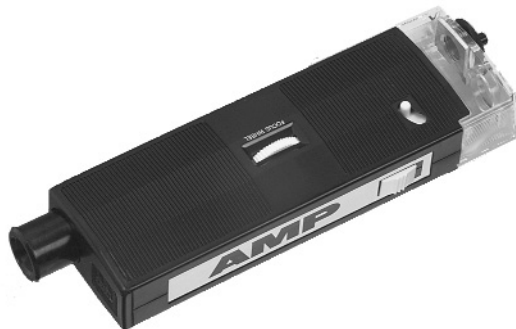


Tooling and Accessories (Continued)

**Microscope with 10x Objective Kits**

Components Description	Part Number	Qty.	Adapter Markings	Microscope Kit	
				502970-1	502970-3
100x Microscope (10x Eyepiece)	502978-1	1	—	yes	—
200x Microscope (20x Eyepiece)	502978-2	1	—	—	yes
FSMA	502971-1	1	FSMA	yes	yes
D4	502975-1	1	D4	yes	yes
Universal 2.5 mm**	502977-1	1	—	yes	yes
LC 1.25 ferrule adapter	1278997-1	1	—	—	—
FC/APC adapter (not included with kit)	504617-1	1	—	—	—
SC/APC adapter (not included with kit)	504618-1	1	—	—	—
<b>Batteries</b>					
"AA" Alkaline	—	2	—	yes	yes
Bulb, 2.8V Lamp Red on/off Switch	502964-1	1	—	yes	yes
Bulb, 2.5V Lamp Green on/off Switch	1278471-1	1	—	—	—
Tripod	502965-1	1	—	yes	yes
Carrying Case	—	1	—	yes	yes
<b>Accessories</b>					
20x Eyepiece	502969-2	—	—	—	Included
10-20x Zoom Eyepiece	502969-3	—	—	—	—
10x Eyepiece	502969-1	—	—	Included	—
<b>Adapters 100x Microscope Version</b>					
F07	492547-1	—	—	—	—
MT-RJ	492749-1	—	—	—	—
MPO	492414-1	—	—	—	—
MPO APC	492415-1	—	—	—	—
LIGHTRAY MPX Connectors	492526-1	—	—	—	—
LIGHTRAY MPX APC Connectors	492527-1	—	—	—	—
ESCON	492477-1	—	—	—	—

\*\* Inspects ST, SC, FC, FSD and RSD connectors.



**Inspection Microscope Pocket Model**

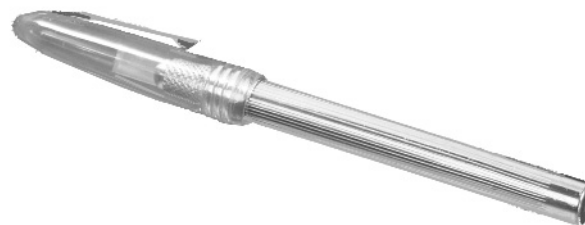
**Product Facts**

- 100 power magnification
- Compact hand-held size
- Range of adapters available for fiber optic connectors
- Built-in illumination
- Battery operated

Description	Part Number
Microscope	1278132-1
SMA Adapter	1278133-1
2.5 mm Universal Adapter (SC or ST)	1278134-1

**Danger:** Active fibers should never be viewed through a microscope.

Instruction Sheet 408-4497



**Scribe Tool**

**Sapphire-Tipped Scribe Tool Part No. 504064-1**

**Replacement Blades Part No. 504290-1**

**Product Facts**

- Long-lasting sapphire blade
- Pen-type case

Instruction Sheet 408-4293



Tooling and Accessories (Continued)

Hand Tools



**PRO-CRIMPER II Hand Tool**  
Instruction Sheet 408-4020

**PRO-CRIMPER II Hand Tool**

Connector	Cable Jacket Diameter (mm)	Part Number		
		Hand Tool w/ Die Set	Hand Tool Only	Die Set Only
FSMA	3.0	58551-1	58532-1	58552-1 (hex die)
ST Ceramic	3.0	58433-4	58532-1	58424-1
ST Stainless Steel	3.0	58433-4	58532-1	58424-1
ST Polymer Composite	3.0	58433-4	58532-1	58424-1
ST Ceramic Used with Loose Tube	3.8	—	58532-1	503890-1
ST Stainless Steel (504XXX series only)	3.0	58551-1	58532-1	58552-1
SC/FC (Polymer crimp body)	3.0	503911-1	58532-1	503910-1
	2.4 & 3.0	492026-1	58532-1	492025-1
SC, FC (Metal crimp body)	1.6-2.0, 2.4	1588176-1	58532-1	1588175-1
SC/FC (Metal crimp body)	3.0	—	58532-1	492131-1
MPO		1588698-1	—	—
FSD - Ceramic	DUALAN & LDD	58519-1	58532-1	58510-1
FSD - Polymer	DUALAN & LDD	58519-1	58532-1	58510-1
FSD/MC - Ceramic	DUALAN & LDD	58519-1	58532-1	58510-1
FSD Breakout Kit	DUALAN & Protection Kit	58519-1	58532-1	58510-1
LIGHTCRIMP Plus and LIGHTCRIMP ST	3.0	492623-1	58532-2	492622-1
LIGHTCRIMP Plus and LIGHTCRIMP SC	3.0	492782-1	58532-2	492783-1
LIGHTCRIMP Plus LC		1754137-1	58532-1	1754136-1
MT-RJ Plug	1.8	1278632-1	58532-1	1278627-1
LC	3.0, 2-4, 1.6-2.0	1588176-1	58532-1	1588175-1

**Polishing Bushing, Curing Sleeves and Strip Card Kits**

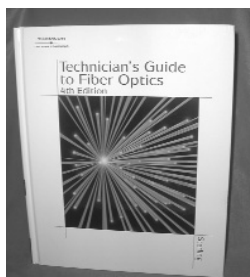
Connector	Cable Jacket Diameter (mm)	Part Number		
		Polishing Bushing	Curing Sleeves/Pieces	Strip Card Kit
<b>FSMA</b>	3.0	228025-1	502249-1 (12 pcs.)	501818-1
<b>ST</b>				
Ceramic, Stainless Steel	3.0	503337-1 (Metal) 503304-1 (Black Polymer)	502259-1 (12 pcs.)	501818-1
Polymer Composite	3.0	503304-1 (Beige Polymer)	502259-1 (12 pcs.)	501818-1
FC	3.0	504862-1	502862-2 (6 pcs.)	501818-1
SC	3.0	502631-1 (Black Polymer)	502656-1 (1 pc.)	501818-1
LC		—	1457630-X <sup>1</sup> (12 pcs.)	1588756-1
FSD - Ceramic & Polymer	DUALAN & LDD	501795-1*	502023-1**	501818-1

\* Curing Assembly Kit with polishing bushing.

\*\* Curing Assembly Kit without polishing bushing.

<sup>1</sup> -1 LC Behind the wall

-2 LC Jumper



**Technicians Guide to Fiber Optics (4th Edition)**

**Author: Don Sterling**

**Available on the Internet at [www.amazon.com](http://www.amazon.com) (ISBN 1-4018-1270-8)**

An excellent introductory and intermediate level fiber optic text, this informative book covers the fundamentals of data transmission, fiber theory, fiber characteristics, sources and detectors, connectors and splice products, and other fiber optic components.