

**Tooling**

**Powermeter Launch Lead Kits for Optical Testing and Certification**



Today testing of fiber optic links is more sensitive than ever. AMP NETCONNECT test kits guarantee precise and replicable fiber testing. All kits contain connectors with controlled end faces and support testing with 3 jumper test method in accordance to ISO/IEC 14763-3.

Each kit contains:

- Test leads for simplex and duplex IL test
- Test leads for CPR tests
- Fiber coupling bushes
- Two mandrels (Multimode only)
- Cleaning aides
- Instruction manual
- Data sheet of end face geometry

Description	Part Number
50 µm, Multimode Launch Lead	Y-6695241-X
62.5 µm, Multimode Launch Lead	Y-6695243-X
9 µm, Singlemode Launch Lead	Y-6695245-X

Y- -X	Connector Type
-1	SC/PC to SC/PC
-2	SC/PC to ST/PC
-3	SC/PC to LC/PC
-4	SC/PC to FC/PC
-5	SC/PC to MT-RJ

Y- -X	Connector Type
-6	ST/PC to SC/PC
-7	ST/PC to ST/PC
-8	ST/PC to LC/PC
-9	ST/PC to FC/PC
1- -0	ST/PC to MT-RJ

Y- -X	Connector Type
1- -1	LC/PC to SC/PC
1- -2	LC/PC to ST/PC
1- -3	LC/PC to LC/PC
1- -4	LC/PC to FC/PC
1- -5	LC/PC to MT-RJ

Y- -X	Connector Type
1- -6	FC/PC to SC/PC
1- -7	FC/PC to ST/PC
1- -8	FC/PC to LC/PC
1- -9	FC/PC to FC/PC
2- -0	FC/PC to MT-RJ

Explanation: Connector 1 — to test equipment  
Connector 2 — under test

**OTDR Launch Lead Kits for Optical Testing and Certification**

Each kit contains:

- Launch and tail lead
- Length 400 m Multimode and 500 m Singlemode
- Data sheet of end face geometry
- Coupling bushings
- Cleaning aides
- Instruction manual



Description	Part Number
50 µm, Multimode Launch Lead	Y-6695240-X
62.5 µm, Multimode Launch Lead	Y-6695242-X
9 µm, Singlemode Launch Lead	Y-6695244-X

Y- -X	Connector Type
-1	SC/PC to SC/PC
-2	SC/PC to ST/PC
-3	SC/PC to LC/PC
-4	SC/PC to FC/PC
-5	SC/PC to MT-RJ

Y- -X	Connector Type
-6	ST/PC to SC/PC
-7	ST/PC to ST/PC
-8	ST/PC to LC/PC
-9	ST/PC to FC/PC
1- -0	ST/PC to MT-RJ

Y- -X	Connector Type
1- -1	LC/PC to SC/PC
1- -2	LC/PC to ST/PC
1- -3	LC/PC to LC/PC
1- -4	LC/PC to FC/PC
1- -5	LC/PC to MT-RJ

Y- -X	Connector Type
1- -6	FC/PC to SC/PC
1- -7	FC/PC to ST/PC
1- -8	FC/PC to LC/PC
1- -9	FC/PC to FC/PC
2- -0	FC/PC to MT-RJ

Explanation: Connector 1 — to test equipment  
Connector 2 — under test

**Consumables for Power Meter and OTDR Launch Lead Kits**

Description	Part Number
Cleaning Lens Book	434376-1
Compressed Air Bottle	1206860-1
Cleaning Stick 2.50 mm	1918807-1
Cleaning Stick 1.25 mm	1918808-1
Cleaning Stick MT-RJ	1391089-1

**Note:** Part Numbers are RoHS compliant except: ♦ Indicates non-RoHS compliant.



## Tooling (Continued)

### Tool Kit Compatibility Chart

	Part Number	MT-RJ Jacks	MT-RJ SECURE Jacks	MT-RJ Plugs	LIGHTCRIMP PLUS			LIGHTCRIMP		Epoxy/Polish						
					LC	SC	ST	SC	ST	LC	SC	ST	FC	FSD	FSMA	
Deluxe Premises Termination Tool Kit	1278949-2	X	X		X	X	X	X	X							
	1278949-3*	X	X		X	X	X	X	X							
MT-RJ Jack Tool Kit	1278346-1	X	X													
	1278346-2*	X	X													
LIGHTCRIMP PLUS No Epoxy/ No Polish Universal Tool Kit	1278118-4	X	X		X	X	X									
	1278118-5*	X	X		X	X	X									
MT-RJ Plug Termination Kit	1278745-1			X												
	1278745-2*			X												
LIGHTCRIMP PLUS No Epoxy/ No Polish LC Tool Kit	1754845-1				X											
	1754845-2*				X											
LIGHTCRIMP PLUS No Epoxy/ No Polish SC Tool Kit	1278022-1					X										
	1278022-2*					X										
LIGHTCRIMP PLUS No Epoxy/ No Polish ST Tool Kit	492697-1						X									
	492697-2*						X									
LIGHTCRIMP SC/ST No Epoxy/Polish Tool Kits	503957-1							X	X							
	503957-3							X	X							
	492543-1							X	X							
LIGHTCRIMP SC No Epoxy/ Polish Tool Kits	503706-1							X								
	503706-2							X								
LIGHTCRIMP ST No Epoxy/ Polish Tool Kits	503330-1								X							
	503330-3								X							
	492322-1								X							
Pro-installer Epoxy/ Polish Tool Kits	501258-7									X <sup>1</sup>	X	X	X	X	X	X
	501258-8									X <sup>1</sup>	X	X	X	X	X	X
	501258-9									X <sup>1</sup>	X	X	X	X	X	X
Epoxy/Polish SC/FC Tool Kit (no microscope, no curing oven)	503746-7									X <sup>2</sup>	X		X			
Epoxy/Polish ST Tool Kit (no microscope, no curing oven)	503746-1									X <sup>2</sup>		X				
Epoxy/Polish FSMA Tool Kit (no microscope, no curing oven)	503746-2									X <sup>2</sup>						X
Epoxy/Polish FSD Tool Kit (no microscope, no curing oven)	503746-6									X <sup>2</sup>				X		

<sup>1</sup> For LC terminations, also order Part Number 1754462-1.

<sup>2</sup> For LC terminations, also order Part Number 1754603-1.

\*Includes Precision Cleaver and Microscope.

### Epoxy/Polish Connector Consumables/Compatibility Chart

	Epoxies (Part Number)			Polishing Films (Part Number)					Consumable Package* Part Number
	EPO-TEK (504035-1)	TRA-CON (501195-4)	HYSOL (502418-1)	9 µm (1374484-1)	5 µm (228433-8)	Diamond Film (503887-1)	0.3 µm (228433-5)	Final Polishing Film (502748-2)	
LC Singlemode	X	X	X	X	X	X	X	—	502306-4
LC Multimode	X	X	X	X	X	X	X	—	502306-4
SC Singlemode	X	X	X	—	X	—	X	X	502306-2
SC Multimode	X	X	X	—	X	—	X	X	502306-2
ST Singlemode	—	X	X	—	X	—	X	X	502306-2
ST Multimode	—	X	X	—	X	—	X	—	502306-1

\*Epoxy & film for » 100 connectors.

**Note:** All part numbers are RoHS compliant.

**Tooling** (Continued)

**Deluxe Premises Termination Tool Kit**  
Part Number 1278949-2  
Part Number 1278949-3  
(Includes Precision Cleaver and Microscope)

**Product Facts**

- Includes all tools need for installing popular field-installable connectors
  - MT-RJ and MT-RJ SECURE Jacks
  - LIGHTCRIMP PLUS SC, LC and ST connectors
  - LIGHTCRIMP SC and ST connectors
- Convenient carrying case
- Includes consumables for LIGHTCRIMP connector terminations
  - For additional LIGHTCRIMP connector terminations, order additional polishing films 228433-9, 228433-8, 228433-7 and 228433-5 (page 93)
- Includes instructional CD-ROM video



**MT-RJ Jack Termination Tool Kit**  
Part Number 1278346-1  
Part Number 1278346-2  
(Includes Precision Cleaver and Microscope)

**Product Facts**

- Includes all tools needed for installing MT-RJ and MT-RJ SECURE Jacks



**MT-RJ Plug Termination Tool Kit**  
Part Number 1278745-1  
Part Number 1278745-2  
(Includes Precision Cleaver and Microscope)

**Product Facts**

- Includes all tools needed to terminate MT-RJ Plug in handy plastic case
- Contents: Cleave pen, Jacket/Buffer/Coating Stripper, KEVLAR Shears, Strip Template, Cable Clamps, Cure Fixtures, Crimp Tool, Die Sets, Epoxy Dispensers

**LIGHTCRIMP PLUS Termination Tool Kits**



**Product Facts**

- Includes all tools needed for installing the listed type LIGHTCRIMP PLUS no epoxy/no polish connectors, MT-RJ and MT-RJ SECURE Jacks
- LIGHTCRIMP PLUS Connector Termination Video CD-Rom also available separately, Part Number 1374503-1
- Convenient carrying case

Description	Part Number	
Universal LIGHTCRIMP PLUS No epoxy/No polish Tool Kit (SC, LC, ST and MT-RJ Jack)	1278118-4	1278118-5 <sup>1</sup>
LIGHTCRIMP PLUS LC Connector Termination Tool Kit	1754845-1	1754845-2 <sup>1</sup>
LIGHTCRIMP PLUS SC Connector Termination Tool Kit	1278022-1	1278022-2 <sup>1</sup>
LIGHTCRIMP PLUS ST Connector Termination Tool Kit	492697-1	492697-2 <sup>1</sup>

<sup>1</sup> Includes Precision Cleaver and Microscope.

**Note:** All part numbers are RoHS compliant.

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**Tooling** (Continued)

**No Epoxy/No Polish Upgrade and Adaptive Termination Tool Kits**

**Product Facts**

- **Upgrade Tool Kit** supplements existing LIGHTCRIMP PLUS Tool Kits with tools needed to install LC connectors
- **Adaptive Tool Kits** supplements existing fiber optic tool kits with the tools needed to terminate
- LIGHTCRIMP PLUS connectors**
  - **Saves money on full tool kit by reusing tools from currently owned tool kits**

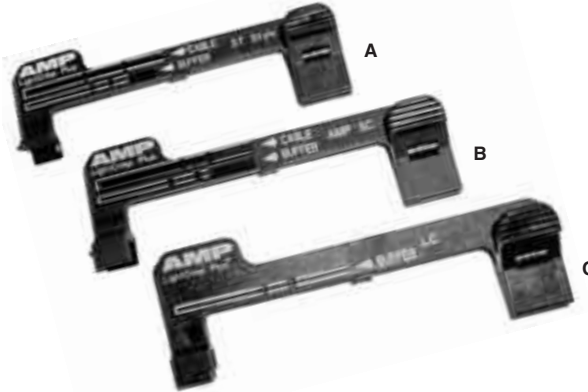
Description	Terminates	Includes	Cost Savings	Part Number
LC LIGHTCRIMP PLUS Upgrade Kit	LIGHTCRIMP PLUS LC	LC Die Set and Cable Holder	Low Cost Upgrade for Current Tool Kit	1754847-2
LC LIGHTCRIMP PLUS Adaptive Kit	LIGHTCRIMP PLUS LC	Crimp Tool, LC Die Set, LC Cable Holder, Cleave Tool and Instruction Sheet	Fiber and Cable Strippers in Current Tool Kit	1754846-1 1754846-2*
SC LIGHTCRIMP PLUS Adaptive Kit	LIGHTCRIMP PLUS SC	Crimp Tool, SC Die Set, SC Cable Holder, Cleave Tool and Instruction Sheet	Fiber and Cable Strippers in Current Tool Kit	1754737-1 1754737-2*
Combination LIGHTCRIMP PLUS Adaptive Kit	LIGHTCRIMP PLUS SC and ST	Crimp Tool, SC and ST Die Sets, SC and ST Cable Holders, Cleave Tool and Instruction Sheets	Fiber and Cable Strippers in Current Tool Kit	1754739-1 1754739-2*
ST LIGHTCRIMP PLUS Adaptive Kit	LIGHTCRIMP PLUS ST	Crimp Tool, ST Die Set, ST Cable Holder, Cleave Tool and Instruction Sheet	Fiber and Cable Strippers in Current Tool Kit	1754738-1 1754738-2*

\*Includes microscope and precision cleaver

**LIGHTCRIMP PLUS Cable Holders**

**Product Facts**

- **Used in LIGHTCRIMP PLUS connector terminations (included in LIGHTCRIMP PLUS Tool Kits)**



Description	Figure	Part Number
ST	A	492703-1
SC	B	1278023-1
LC	C	1754138-1

**Fiber Optic Cleave Tool**  
Part Number 492674-1

**Product Facts**

- **Cleave fibers for LIGHTCRIMP PLUS connectors**
- **One is included in basic tool kits for MT-RJ Jacks and LIGHTCRIMP PLUS connectors (not the LC Upgrade Kit)**
- **Easy to use: clamp, score and bend**
- **Blade life-span is » 1000 cleaves**



**Note:** All part numbers are RoHS compliant.

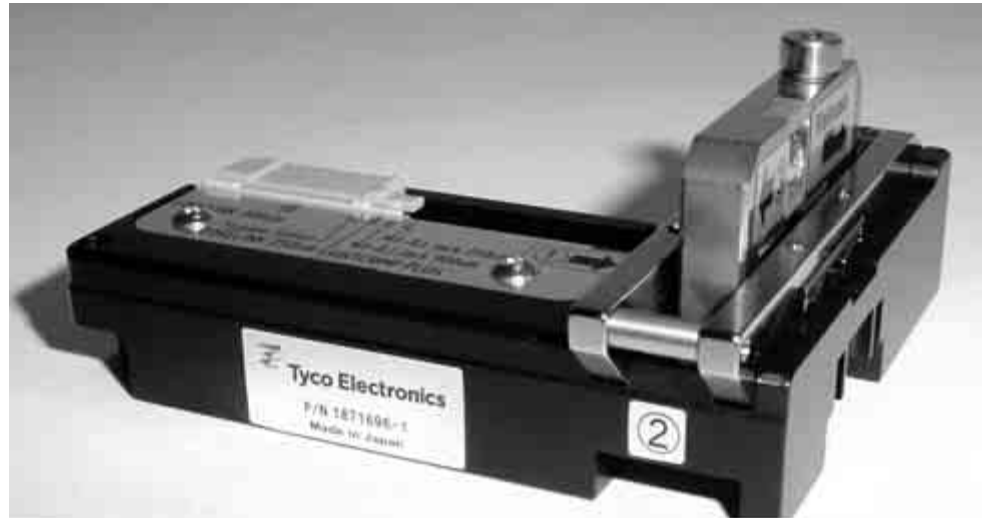
**Tooling** (Continued)



**“New” Hand Held Precision Cleaver**

**Part Number 1871696-1  
Hand Held Precision Cleaver**

**Part Number 1871696-2  
Hand Held Precision Cleaver  
with Trash Can  
(not a stocked item)**



**Product Facts**

- **Operator independent = no craft sensitivity = consistent cleave every time**
- **Hand held operation**
- **10,000 cleave blade life**
- **4, 6, 8, 10, and 18 millimeter cleave lengths**
- **Product specific markings for LIGHTCRIMP PLUS and MT-RJ jack connectors, CORELINK splice, and fusion splicing**
- **Cleaved surface angle < 1.5°**
- **No lip, no fracture, and no roll-off**
- **Padded belt case for convenience and storage**
- **Neck lanyard included**

Tyco Electronics' hand held precision fiber cleaver provides precision quality cleaves with the feel and robustness of a full scale precision cleaver in a hand held size at an exceptionally competitive price. The 10,000 cleave blade life far exceeds that of any other hand held cleaver currently on the market. The detailed scale markings indicate

proper cleave lengths for popular Tyco Electronics field installable fiber optic connectors and mechanical splices in addition to the standard numerical markings for other applications including fusion splicing. The included belt pouch and neck lanyard ensure that the cleaver is always within reach.

**Applications**

Affordable precision cleaving solution for:

- **Field installable mechanical splice connectors**
- **Fusion splicing**
- **Mechanical splicing**
- **Bare fiber adapters**

**Product Dimensions**

**Length** — 74 mm [2.913 in.]  
**Width** — 65.5 mm [2.578 in.]  
**Thickness** — 33.5 mm [1.318 in.]  
**Weight** — 136 g [0.30 lb.]

**Note:** All part numbers are RoHS compliant.



**Tooling** (Continued)

**LIGHTCRIMP Termination Tool Kits**

**Product Facts**

- Includes all tools needed for installing the listed type LIGHTCRIMP no epoxy/polish connectors
- Convenient carrying case
- Includes consumables for installing 60 LIGHTCRIMP connectors
  - For additional LIGHTCRIMP terminations, order additional polishing films 228433-9, 228433-8, 228433-7 and 228433-5 (page 93)
- Note: photo is representative of kits — contents may vary by Part Number



Description		Microscope (if listed)	Part Number
LIGHTCRIMP SC	Termination Kit	—	503706-1
		Premium Microscope	503706-2
LIGHTCRIMP ST	Termination Kit	—	503330-1
		Premium Microscope	503330-3
	Mini Tool Kit	—	492322-1
LIGHTCRIMP SC and ST	Termination Kit	—	503957-1
		Premium Microscope	503957-2
	Mini Tool Kit	—	492543-1

**LIGHTCRIMP Cleave Tool**  
**Part Number 503705-1**

**Product Facts**

- Used in both SC and ST LIGHTCRIMP Connector terminations
- Included in the Deluxe and LIGHTCRIMP Tool Kits



**Note:** All part numbers are RoHS compliant.

**Tooling** (Continued)

**Pro-Installer Epoxy/Polish Connector Termination Tool Kits**

**Product Facts**

- Includes all tools necessary to install SC, ST, and FC Connectors
  - For LC terminations, also order Part Number 1754462-1
- Tool kits include:
  - Pro-Crimper II Hand Tool and crimping dies
  - Polishing bushings
  - Polishing film (also sold separately, page 93)
  - Cable and fiber strippers
  - Scissors
  - Scribe tool
- Includes polishing films to install 60 epoxy/polish connectors
  - Epoxy is sold separately (see page 92)
- Kits available with curing oven and microscope or without
- Convenient carrying case
- Photo is representative of kits — contents vary by Part Number



**Professional Installer Kit**

Description	Part Number
With 110 V Curing Oven and Microscope	501258-7
With 220 V Curing Oven and Microscope	501258-8
Without Curing Oven or Microscope	501258-9

**Epoxy/Polish Connector Termination Tool Kits**

**Product Facts**

- Includes all tools necessary to install the listed epoxy/polish connectors
  - For LC terminations, also order Part Number 1754603-1
- Tool kits include:
  - Pro-Crimper II Hand Tool and crimping dies
  - Polishing bushings
  - Polishing film (also sold separately, page 93)
  - Cable and fiber strippers
  - Scissors
  - Scribe tool
- Includes polishing films to install » 60 epoxy/polish connectors
  - Epoxy is sold separately (see page 92)
- Does not include curing oven or microscope
- Convenient carrying case



Description	Part Number
SC and FC	503746-7
ST	503746-1
FSMA	503746-2
FSD	503746-6

**Note:** All part numbers are RoHS compliant.

**Tooling** (Continued)

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

**Product Facts**

- Cyclops Stripper ideal for stripping twisted pair (UTP and STP) and fiber optic cables up to 10.92 [0.43] diameter



**Sapphire-Tipped Scribe Tool and Accessories**

**Product Facts**

- Long-lasting sapphire blade
- Pen-type casing
- Used to install all Epoxy/Polish Connectors
- Included in Epoxy/Polish Tool Kits



Description	Part Number
Sapphire-tipped Scribe Tool	504064-1
Replacement Blades	504290-1

**Note:** All part numbers are RoHS compliant.



**Tooling** (Continued)

**Epoxy/Polish LC Termination Accessories**

**Product Facts**

- Supplement epoxy/polish tool kits on page 90 with these components to terminate LC Epoxy/Polish Connectors

- Different polishing films are required for LC polishing (see table on page 85 and films on page 93)

Description	Part Number
LC Polishing Puck — Metal	1754074-1
LC Cable Preparation Template	1588756-1
LC Hand Tool and Die Set	1588176-1
LC 1.25 mm Ferrule Microscope Adapter	1278997-1
LC Oven Block Assembly	1457628-1
LC Adaptive Kit — Anaerobic Epoxy Style	1754603-1
LC Adaptive Kit — Heat Cure	1754462-1

**EPO-TEK 353ND Epoxy**  
Part Number 504035-1



**Product Facts**

- For use with SC and LC Connectors
- Pre-measured two-part packets for consistent results
- Long pot life once mixed
- Heat-cured epoxy
- Supplied in 4-gram packets
- Cures in 15 minutes at 115° C

**TRA-CON Epoxies**  
Part Number 1918652-1



**Product Facts**

- For use with SC, LC, and ST Connectors
- Pre-measured two-part packets for consistent results
- Can be heat-cured or cured at ambient temperature
- Supplied in 2-gram packets
- Each packet terminates » 250 connectors
- 25 packets per pack
- Pot life = 30 minutes
- Cures in:
  - 24 hours @ 25° C
  - 2 hours @ 65° C
  - 10 minutes @ 110° C

**HYSOL Epoxy-Tubes**  
Part Number 502418-1



**Product Facts**

- For use with SC, LC, ST, FSD, FC, and FSMA Connectors
- Two-part epoxy in two tubes
- Heat-cured epoxy
- Terminates » 400 connectors
- One set of two (2) tubes per part number
- Pot life = 30 minutes
- Cures in 30 minutes at 100° C

**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
- Not for use with singlemode terminations



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.

Note: All part numbers are RoHS compliant.

**Tooling** (Continued)

**Epoxy Applicator Syringe**  
Part Number 501473-3

**Product Facts**

- 3 cc capacity



**Epoxy Curing Oven**

**Product Facts**

- Reduces time required to cure epoxy
- Provides a uniform, controlled curing environment
- Used for all epoxy/polish connectors
- Comes equipped to cure up to four Duplex Connectors and 12 Simplex Connectors at once
  - Optional blocks reconfigure to 8 Duplex or 24 Simplex Connectors
- Variable temperature control (60°C to 125°C)
- Includes thermometer and cable support bracket
- Two voltage options
- Curing sleeves on page 98



Description	Part Number
110 VAC	502134-1
220 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 and FC (metal crimp body) and LC Connectors	1457528-1

**Polishing Films**

**Product Facts**

- Used to install LIGHTCRIMP and epoxy/polish connectors

Description	Part Number							
	FSMA	Multimode ST	Singlemode ST	FC	FSD/RSD	SC	LIGHTCRIMP XTC	LC
<b>Hand Polishing Film:</b>								
15 µm <sup>4</sup>	—	—	—	—	—	—	228433-9	—
9 mm	—	—	—	—	—	—	—	1374484-1 <sup>3</sup>
5 µm <sup>4</sup>	228433-8	228433-8	228433-8	228433-8	228433-8	228433-8	228433-8	228433-8
1 µm <sup>4</sup>	228433-7	228433-7	—	—	228433-7	—	228433-7	—
<b>Fine Diamond Film<sup>1</sup></b>	—	—	—	—	—	—	—	503887-1
0.3 µm <sup>4</sup>	228433-5	228433-5	228433-5	228433-5	228433-5	228433-5	228433-5	228433-5
<b>Final Polish Film<sup>1</sup></b>	—	—	502748-2	502748-2	—	502748-2	—	—
<b>Consumables Kit<sup>2</sup></b>	502306-1	502306-1	502306-2	502306-2	502306-1	502306-2	—	502306-4

<sup>1</sup> Pack of 5.

<sup>2</sup> Contains all consumable supplies for at least 100 connectors.

<sup>3</sup> Pack of 15.

<sup>4</sup> Pack of 100.

**Note:** All part numbers are RoHS compliant.

**Tooling** (Continued)

**Hand Held Visual Fault Locator (VFL)**

**Product Facts**

- 650 nm (visible) Class 2  
1.0 mW max Diode Laser
- Continuous and flashing  
(2-3 Hz pulsed) modes
- Rugged rubber shell and  
body design modeled after a  
popular military connector
- Lanyard attached dust cover
- Standard 2.5 mm adapter for  
SC, ST, and FC connectors
- Optional 1.25 mm adapter  
for LC and MU connectors.
- Unique design allows  
adapter to permanently  
reside on VFL so it is not  
misplaced allowing user to  
choose 1.25 mm or 2.5 mm
- Uses 1 “AA” style battery  
for >30 hours of continuous  
use
- Soft-sided belt case for  
convenience and storage



The Tyco Electronics Hand Held Visual Fault Locator (VFL) is a rugged and affordable solution for identifying breaks and bending in optical fibers and cabling. Its powerful, red (650 nm) laser provides the ability to locate damaged, broken, or tightly bent fibers that cause undesirable attenuation in your system.

The jacket of the cable will glow red at the location of the fault. The FLASH button

allows the user to toggle between continuous or pulsed mode. The compact, rugged, and balanced design is based upon a popular harsh environment fiber optic connector. The single “AA” style battery is good for >30 hours of continuous use and the soft-sided protective case with belt loop provides a convenient and protective means of storage.

**Applications**

Affordable VFL Solution for:

- Identifying breaks, bends, and other damage in optical fibers
- Tracing fiber paths
- Identifying termination errors
- Continuity testing

**Product Dimensions**

- Length** — 18.5 cm [7.283 in]
- Width** — 2.2 cm [0.866 in]
- Thickness** — 2.2 cm [0.866 in]
- Weight (w/battery)** — 150 g [0.33 lb]

Description	Part Number
Hand Held Visual Fault Locator	1828352-1
1.25 mm Adapter for Hand Held VFL	1828353-1
Includes Part Numbers 1828352-1 and 1828353-1	1828352-2

**Note:** All part numbers are RoHS compliant.

**Tooling** (Continued)

**Hand Held Microscope**

**Product Facts**

- High quality glass optics
  - 200X magnification
- Optimal visual examination of terminated ends
  - 500um field of view
- Dual illumination
  - Coaxial for inspecting polish quality
  - Oblique for general conditions
- Pre-centered, threaded adapter mount provides easy focusing and changing of connectors
- Field and laboratory examination for multimode and singlemode fibers
- Portable
- Integral infrared filter for safety
  - Do NOT use any microscope to view active fiber signals
- Disposable, Type LR44 batteries
- Long-life LED (approximately 100,000 hours of operation)
- Each Kit includes:
  - 10-power objective microscope with an impact resistant ergonomic rubber shell and high quality glass optics
  - 20-power eyepiece
  - Padded carrying case with an integrated belt loop and internal adapter storage pocket
  - Neck lanyard with safety breakaway feature
  - Universal 2.5 mm ferrule adapter (for SC, ST and FC)
- Other adapters available are:
  - Universal 1.25 mm (adapts LC and MU)
  - MT-RJ
  - MPO
  - MPO APC
  - MPX
  - MPX APC



Tyco Electronics' hand held microscope incorporates high quality glass optics and dual illumination lighting for unsurpassed 200X magnification. With a 500 µm Field of View (FOV) and both coaxial and oblique illuminations, this microscope will meet the proposed TIA/IEC hand held microscope specification for a polish quality scope (coaxial) and general conditions scope (oblique) in one compact unit.

The built in IR-laser attenuation filter will provide protection from accidental exposure to active fibers, although intentional and prolonged viewing of active fibers is not recommended. The ergonomic, impact resistant shell provides a rugged feel, and the included padded belt case and neck lanyard ensure that the microscope is always within reach.

**Applications**

Affordable inspection device for:

- Polish inspection
- General conditions (debris) inspection
- Cleave quality inspection
- Verifying core size

**Product Dimensions**

**Length** — 186.9 mm [7.359 in.]  
**Width** — 51.6 mm [2.030 in.]  
**Height** — 31.5 mm [1.240 in.]  
**Weight** — 317.5 g [0.70 lb.]

Description		Part Number
Hand Held Microscope		1754767-1
	1.25 mm Universal LC and MU	1754765-1
	2.5 mm Universal SC, ST and FC	1754766-1
	SC APC	1828833-1
	MT-RJ	1754768-1
Adapters	MPO	1828836-1
	MPO APC	1828837-1
	LIGHTRAY MPX Connectors	1828834-1
	LIGHTRAY MPX APC Connectors	1828835-1
	FSMA	1985040-1*

\* Coupling adapter Part Number 1985041-1 required.

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

**Note:** All part numbers are RoHS compliant.

**Tooling** (Continued)

**MTP/MPO IBC Cleaner**  
Part Number 1918809-1

**Product Facts**

- Cleans male or female MTP/MPO connectors
- Pre-washed cleaning cloth is lint and debris free
- Each cleaner is capable of more than 400 cleanings
- Can be used for bulkhead and unmated MTP/MPO cleaning
- Protective dust cover doubles as an adapter cap for cleaning unmated connectors
- FOCIS 5-Type MTP/MPO interface compliant
- Removes dust and oil contamination
- Ideal solution for cleaning parallel optics transceivers

MTP is a trademark of US Conec Ltd.



The MTP/MPO IBC (In Bulkhead Cleaner) dry cloth cleaner offered by Tyco Electronics utilizes a densely woven micro-fiber cloth that cleans male (with pins) or female MTP/MPO connectors while in adapters, bulkheads, faceplates, or in unmated form with the unique adapter/dust cover. The unique cleaning cloth also reduces static charge

making it one of the most advanced cleaning systems available for bulkhead optical connector cleaning.

**Applications**

For effective cleaning of:

- Male and female MTP/MPO connectors inside mating adapters
- Unmated male and female MTP/MPO connectors using included adapter

- Parallel optics transceivers
- Networking gear including switches and routers
- Factory or field connectors

**Product Dimensions**

**Length** — 184.2 mm [7.25 in.]  
**Width** — 56.5 mm [2.22 in.]  
**Thickness** — 22 mm [0.866 in.]  
**Adapter Length** — 19.5 mm [0.759 in.]

**OPTIPOP R Reel Cleaner**

**Product Facts**

- Static attraction is minimized
- Ultra clean micro-fiber cloth captures debris and other contamination
- Robust cloth does not fray or leave fibrous material behind
- Reduces the number of field and test issues caused by contaminated end faces
- High-end cost effective cleaning solution



**Reel Cleaner Refill (Six per Pack)**  
Part Number 1918806-1

OPTIPOP is a trademark of NTT Advanced Technology Corporation.



The OPTIPOP R dry cloth cassette cleaners offered by Tyco Electronics utilize a densely woven micro-fiber cloth that cleans fiber optic connector tips while reducing static charge. This makes them one of the most advanced cleaning systems available for optical connector cleaning.

**Applications**

A variety of reel cleaner configurations allow for use on the major optical connector types including FC, SC, ST, LC, MU, ODVA conforming, MT-RJ, and MPO.

**Product Dimensions**

**Length** — 127 mm [5.00 in.]  
**Width** — 83 mm [3.26 in.]  
**Thickness** — 48 mm [1.89 in.]  
**Weight** — 150 g [0.33 lb.]

Description	Part Number
MPO w/pins reel cleaner	1918802-1
One slot reel cleaner; 1.25 mm, 2.5 mm, MT No Pins	1918803-1
MT-RJ plug w/pins reel cleaner	1918804-1
Two slot reel cleaner; 1.25 mm and 2.5 mm	1918805-1
Reel cleaner refill (six per pack)	1918806-1

**Note:** All part numbers are RoHS compliant.



**Tooling** (Continued)

**OPTIPOP C Card Cleaner**

**Product Facts**

- Static attraction is minimized
- Ultra clean micro-fiber cloth captures debris and other contamination
- Robust cloth does not fray or leave fibrous material behind
- Reduces the number of field and test issues caused by contaminated end faces
- Compact size



Card Cleaner Refill (Ten per Pack)  
Part Number 1918811-1

The compact OPTIPOP C dry cloth card cleaner offered by Tyco Electronics utilizes a densely woven micro-fiber cloth that cleans fiber optic connector tips while reducing static charge. This makes it one of the most advanced cleaning systems available for optical connector cleaning.

**Applications**

The card cleaner can be used on major optical connector types including FC, SC, ST, LC, MU, LC, ODVA, MT-RJ\*, and MPO\*.

\*Without guide pins installed.

**Product Dimensions**

- Length** — 120 mm [4.72 in.]
- Width** — 57 mm [2.24 in.]
- Thickness** — 16 mm [0.63 in.]
- Weight** — 60 g [0.13 lb.]

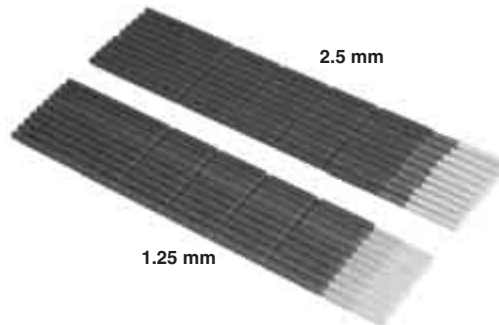
Description	Part Number
Fiber connector card cleaner	1918810-1
Card cleaner refill (ten per pack)	1918811-1

OPTIPOP is a trademark of NTT Advanced Technology Corporation.

**NEOCLEAN Stick Cleaner**

**Product Facts**

- Perforated handle for customizing length and angle
- Ultra clean micro-fiber cloth captures debris and other contamination while minimizing static attraction
- Robust cloth does not fray or leave fibrous material behind
- Reduces the number of field and test issues caused by contaminated end faces
- Convenient packaging



The NEOCLEAN dry cloth stick cleaners offered by Tyco Electronics utilize a densely woven micro-fiber cloth that cleans fiber optic connector tips while reducing static charge. This makes them one of the most advanced cleaning systems available for bulkhead optical connector cleaning.

**Applications**

The stick cleaners can be used on major single fiber optical connector types inside bulkhead adapters including FC, SC, ST, LC, MU, LC ODVA, and MT-RJ Jacks in addition to transceivers and lenses.

**Product Dimensions**

- Part Number 1918807-1**  
**2.5 mm Stick Cleaner**  
**Overall Length** — 151.2 mm [5.95 in.]  
**Tip Diameter** — 1.25 mm [0.049 in.]  
**Handle Diameter** — 2.65 mm [0.104 in.]  
**Tip Length** — 12.6 mm [0.496 in.]



- Part Number 1918808-1**  
**1.25 mm Stick Cleaner**  
**Overall Length** — 151.2 mm [5.95 in.]  
**Tip Diameter** — 2.5 mm [0.098 in.]  
**Handle Diameter** — 2.65 mm [0.104 in.]  
**Tip Length** — 20.0 mm [0.787 in.]



NEOCLEAN is a trademark of NTT Advanced Technology Corporation.

**Note:** All part numbers are RoHS compliant.

**Tooling** (Continued)

**Hand Tools**



**PRO-CRIMPER III Hand Tool**

Instruction Sheet 408-4020  
<http://www.tycoelectronics.com/documents>

**PRO-CRIMPER III 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
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	1.6 – 2.0	1754137-1	58532-2	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	503304-2 (Beige Polymer)	502259-1 (12 pcs.)	501818-1
<b>FC</b>	3.0	504862-1	502862-2 (6 pcs.)	1754636-1
<b>SC</b>	3.0	502631-1 (Black Polymer)	502656-1 (1 pc.)	1754636-1
<b>LC</b>		1754074-1 (Metal) 1918196-1 (Black Polymer)	1457630-X <sup>1</sup> (12 pcs.)	1588756-1
<b>FSD - Ceramic &amp; Polymer</b>	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 900 μm  
 -2 LC jacketed cable

**Note:** All part numbers are RoHS compliant.

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- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

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