

FIBER OPTICS



Fiber Optic Tools Technical Basics

Pro'sKit® is a leading supplier of fiber optic tools and accessories. The **Pro'sKit®** one-stop shop provides complete solution for fiber optic termination tools such as strippers, Kevlar cutters, viewing scope, testers, fiber scribes, and cleaning kit.

Fiber Optic Connectors:

ST connector



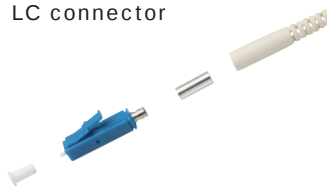
For datacom and telecom, widely used

SC connector



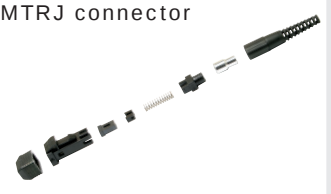
For multimode, rarely single mode, APC not possible

LC connector



For high-density connections, SFP transceivers

MTRJ connector



For duplex multimode connections

Fiber Optic Terminal Procedure



Fiber Optic Cable Test Method:

After the cables are installed and terminated, it's time for testing. For every fiber optic cable assembly, you will need to test the continuity, end-to-end loss and troubleshoot the problems. **Pro'sKit®** fiber optic tester will help to do this step more efficiently.

Continuity test by MT-7501 / MT-7505 / MT-7510

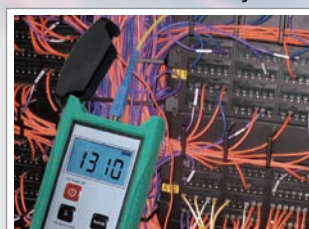


Continuity test
(see Vol.25 p.182)



Locate break point

End-to-end loss test by MT-7601 / MT-7602



Fiber Tester
(see Vol.25 p.181)



Fiber optical power test
(see Vol.25 p.181)

MT-7601 Fiber Optic Power Meter

Detector Type	InGaAs
Optical Connector	FC/SC/ST & 2.5mm Universal
Calibrated Wavelengths	850, 1300, 1310, 1490, 1550, 1625
Measurement Range	+6 ~ -70 dBm
Accuracy	(1550nm, 1310nm)±0.2dB/ (1490nm, 1625nm)±0.3dB/ (850nm, 1300nm)±0.4dB
Power Measurement Linearity	±2.0%
Display Resolution	+6 ~ -60dBm:0.01 dB (-60 ~ -70dBm:0.1 dB)
Power Display Units	dBm, mW, μW, nW
Reference comparison value	Yes
Modulation Detection	270Hz, 1KHz, 2KHz (850, 1300, 1310, 1490, 1550, 1625)
Operation voice prompts	Yes
Backlight	Yes
Automatic Power Off	10 min.(Can be cancelled)
Low Battery Warning	Low battery energy
Body protection	Yes
Battery Life	> 160 hours
Operating Temperature	-10 ~ +60 °C, < 90%
Storage Temperature	-20 ~ +70°C, < 90%
Power source	AA/LR6 1.5V×2 pcs (not included)
Size	165×80×35 mm
Weight	180g (w/o battery)
Optional Accessory	LC adaptor (SMT-7601-LC)
Individual packing	Color box



- Adapts to FC/SC/ST connectors
- Automatically auto power off after 10min of no operation
- 850nm/ 1300nm/ 1310nm/ 1490nm/ 1550nm/ 1625nm
- Comfortable LCD backlight display
- Can store the current laser source as a new reference value



Additional shock-proof cover & pouch bag



Fiber optic power test



Compatible connectors (LC with optional adaptor)

PROFESSIONAL



MT-7602 4 In 1 Fiber Optic Power Multimeter

Optical Power Meter	Detector Type	InGaAs
	Optical Connector	ST/SC/FC & 2.5mm Universal
	Calibrated Wavelengths	850/1300/1310/1490/1550/1625 nm
	Measurement Range	+6 ~ -70 dBm
	Accuracy	±0.2dB
Visual Fault Locator	Power Measurement Linearity	± 0.1 dB
	Display Resolution	± 0.01 dB
	Power Display Units	dBm, μW, mW
	Output Power	<1mW
	Range	3~5 km @SM
Lan Cable Tester	Connector	ST/SC/FC & 2.5mm Universal
	Laser Safety Rating	Class 2
	Wavelength	650nm±20nm
	Output Modes	Continuous (CW), 2 Hz pulsed
	Reverse Battery Protection	Yes
Visual Fault Locator	Connector	RJ45 & RJ11
	Cable	UTP LAN cable(8P8C), Telecom cable(6P2C/6P4C/6P6C)
	Measuring Length Max.	600 meter
	Automatic Power Off	10 min.(Can be cancelled)
	Low Battery Warning	Low battery energy
Lan Cable Tester	Battery Life	> 160 hours (only OPM)
	Power Source	AA/LR6 1.5V rechargeable battery ×2 (not included)
	Size	105×52×34 mm
	Optional Accessory	LC adaptor (SMT-7601-LC)
	Individual packing	Color box



1. FIBER POWER METER
2. VISUAL FAULT LOCATOR
3. CABLE TESTER
4. LED FLASHLIGHT

- Simple 3 push-button operation
- Built-in USB connector for battery charger
- Auto power off for energy saving



Fiber optic power test



Break in fiber test



Cable tester



LED flashlight

BEST Value



RJ-11/RJ-45 Cable Tester (Remote)



3PK-NT018N Series Fiber Tester SC/ST Type 3PK-NT018S Series Mini Fiber Tester SC/ST Type

DBm to micro Watt conversion		
-20dBm=10 micro Watt	-30dBm=1.00 micro Watt	
-21dBm=7.9 micro Watt	-31dBm=0.79 micro Watt	
-22dBm=6.3 micro Watt	-32dBm=0.63 micro Watt	
-23dBm=5.0 micro Watt	-33dBm=0.50 micro Watt	
-24dBm=4.0 micro Watt	-34dBm=0.40 micro Watt	
-25dBm=3.2 micro Watt	-35dBm=0.32 micro Watt	
-26dBm=2.5 micro Watt	-36dBm=0.25 micro Watt	
-27dBm=2.0 micro Watt	-37dBm=0.20 micro Watt	
-28dBm=1.6 micro Watt	-38dBm=0.16 micro Watt	
-29dBm=1.3 micro Watt	-40dBm=0.10 micro Watt	

Model No.	Type	Individual packing
3PK-NT018N-ST	ST	Blister card
3PK-NT018N-SC	SC	
3PK-NT018S-ST	ST	
3PK-NT018S-SC	SC	



Features:

- Fastest display
- Easiest operation
- The most cost-effective solution
- Automatically power-saving mode
- Power on & battery low indicator

Specifications:

- Peak wavelength: 1300nm
- Fiber core: 62.5/125μ
- Power: 9-volt battery (Not included)



3PK-NT018N



3PK-NT018S

▶ MT-7501 / MT-7505 / MT-7510 Fiber Optic Visual Fault Locator

1 mW MT-7501

3-5 Km



5 mW MT-7505

6-7 Km



10 mW MT-7510

8-10 Km



1 Sec. Quick Illuminate

To make checking work convenient

2 Operation Modes

Locating fault accurately

3 Supported Connectors

To give more versatile choice (FC/SC/ST)

- Portable, durable and easy to use
- Both continuous and flashing modes available
- Additional pouch bag for convenient storage
- Supports 2.5mm universal connectors (for FC/SC/ST)
- Dust-proof & crash-proof cap design for laser head



Compatible connectors
(LC with optional adaptor)



Continuity test



Locate break point



Accessory



Model No.	MT-7501	MT-7505	MT-7510
Wavelength	650 nm±10 nm		
Output power	1 mW	5 mW	10 mW
Light source	CLASS II	CLASS IIIA	CLASS IIIB
Tested fiber length	3-5KM	6-7KM	8-10KM
Power (batteries)	AA (1.5 V) x 2		
Connector	2.5mm universal connector for FC, ST and SC		
OAL	175mm		
Operating temperature	-10~55°C		
Storage temperature	-10~70°C		
Optional accessory	LC adaptor (5MT-7601-LC)		
Individual packing	Color box		

▶ MT-7508 / MT-7509 Fiber Optic Visual Fault Locator



Measuring distance : 8KM



MT-7508
for testing ST, SC, FC connectors



ST FC SC



MT-7509
for testing LC connector

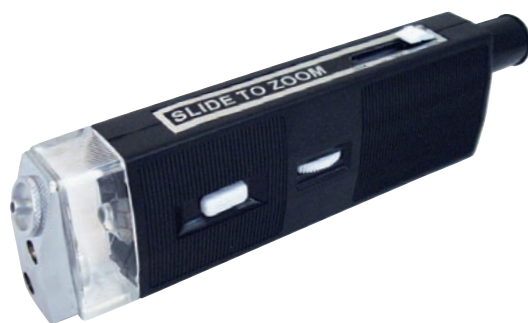


LC

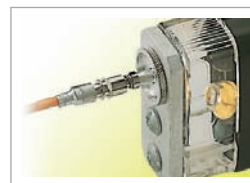


Model No.	MT-7508	MT-7509
Connector type	2.5mm (FC/SC/ST)	1.25mm (LC)
Light source	Class 3A laser diode	
Nominal wavelength	650±10nm	
Battery	1.5V AAA x2pcs (Not included)	
OAL(mm)	ø13.5x160	
Individual packing	Color box with black EVA inner case	

▶ 8PK-MA009 Fiber Optic Viewing Scope Kit



- This fiber optic viewing scope kit makes it simple to view ST/SC/FC
- Pre-encapsulated FDDI, and the ends of fiber before and after cleaving operations



Magnification	Light source	Battery	OAL (mm)	Individual packing
200X Adjustable	Bulb 2.25V/0.25A	1.5V AAx2pcs (not included)	148x46x25	Blister card

FB-1688 Fiber Cleaver

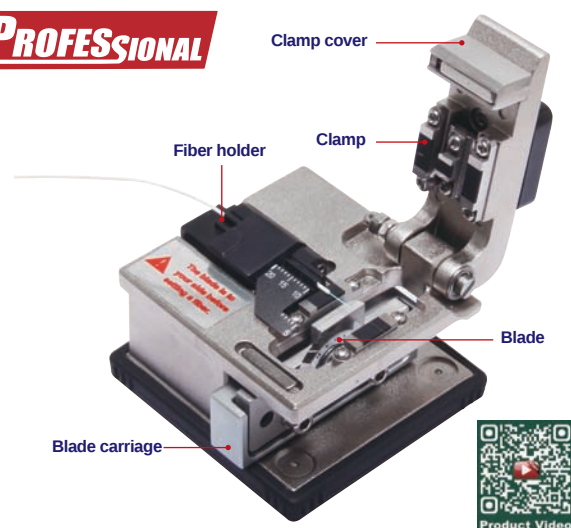
Standard Precision Single Mode Fiber Cleaver

- Simple and easy replacement of blade
- 16 cutting location for each blade, service life up to 48000 times
- Replacement blade is available, model No:5FB-1688-BLADE



Cladding Diameter	Fiber Count Coating Diameter	Cleave length	Dimensions	Cleaver Blade (5FB-1688-BLADE)	Individual packing
125 μ m	Single fiber 250 μ m & 900 μ m	5-20 mm	62x60x56 mm	16 cutting points Material: Tungsten steel	Color box

PROFESSIONAL



DK-2026N Carbide Fiber Scribe

- Flat, chisel geometry tip
- Carbide tip material perfect for scribing glass fiber
- Light weight, pen-size with pocket clip design



OAL(mm)	Individual packing
Ø 12x138	Blister card

CP-FB01 FTTH Drop Cable Stripper

- Universal Stripper for 3.1x2.0mm FTTH drop cables with steel wire or FRP strength member
- Made of zinc alloy with PVC non-slip handle
- Improve cable splicing, more efficient and easy to use



Body	Blade	Applications	OAL(mm)	Individual packing
Zinc alloy	CR12, HRC:60-63	For stripping FTTH drop cable, fiber cladding diameter: 125 μ m	30x110x20	Blister card

8PK-326 Fiber Optic Stripper



Strips 125 micron glass fiber with 250 micron buffer coating without scratching or nicking glass fiber



Material	HRC	OAL(mm)	Individual packing
S50C	48 $\pm$ 2°	148	Blister card

DK-2043 Fiber Optic Kevlar Cutter



For cutting Kevlar fiber optic cable



Micro serrated



Handle material	Blade HRC	Hardness (Cutting edge)	OAL (mm)	Individual packing
TPR	60 $\sim$ 62°	HV1200	160	Blister card

▶ FB-C008 / FB-C009 Fiber Optic One Click Cleaner



800 cleans for

FC/PC, ST, SC or LC Connectors and Bulkheads

Cleaning system

rotates 180° for a full sweep

Dry cleaning

cloth eliminates the need for solvents

Easy pushing motion

engages cleaner with audible click sound

Extendable nozzle

allows easy to reach the recessed connectors

Indication Window

for easy checking

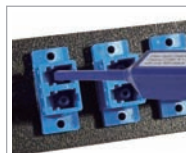
FB-C008

2.5mm FIBER OPTIC ONE CLICK CLEANER



FB-C009

1.25mm FIBER OPTIC ONE CLICK CLEANER



Model NO.	Applications	Length		Cleaning capacity	Individual packing
		Standard	Extended		
FB-C008	2.5 mm FC/PC, ST and SC Connectors and Bulkheads	175 mm	210 mm	600 +	Blister card
FB-C009	1.25 mm LC Connectors and Bulkheads				

▶ FB-C010 Fiber Optic Connector Cleaner



Refillable cleaning tape

Full cleaning for SC, FC, MU, LC, ST, D4, DIN Connectors

- Special non-alcohol high density textile fiber type eliminates the need for solvents
- Offering over 500 cleans for SC, FC, MU, LC, ST, D4, DIN Connectors
- Indication see through window for easy checking

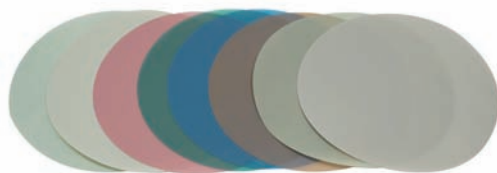


The refillable cleaning tape:
Model No.5FB-C010-RPM

Material	Cleaning times	Applications	Dimensions	Individual packing
high density textile fibers	500/per box	For cleaning SC, FC, ST, MU, LC, D4, MT, DIN connector	115×79×32 mm	Blister card

▶ Diamond Lapping Film

- The diamond lapping film consists of precision graded diamond particles resin bonded to a uniform mylar film



Model No.	Specifications	Color
FB-6008-0.5D	Diamond Lapping Film, 0.5μM, Ø5" disk, 100pcs/pack	White
FB-6008-1D	Diamond Lapping Film, 1μM, Ø5" disk, 100pcs/pack	Gray
FB-6008-3D	Diamond Lapping Film, 3μM, Ø5" disk, 100pcs/pack	Purple
FB-6008-6D	Diamond Lapping Film, 6μM, Ø5" disk, 100pcs/pack	Brown
FB-6008-9D	Diamond Lapping Film, 9μM, Ø5" disk, 100pcs/pack	Blue
FB-6008-30D	Diamond Lapping Film, 30μM, Ø5" disk, 100pcs/pack	Green
FB-6008-15SIC	Silicon Carbide Lapping Film, 15μM, Ø5" PSA polis disc, 100pcs/pack	Olive green
FB-6008-30SIC	Silicon Carbide Lapping Film, 30μM, Ø5" PSA polis disc, 100pcs/pack	Olive green
Individual packing	Poly bag	

▶ 1FB-ST / 1FB-SC / 1FB-LC1 ST/SC/LC Polishing Disk



- Inserts connector into polishing disk
- Polish using a figure 8 motion on sandpaper sheet (not included)



1FB-ST



1FB-SC



1FB-LC1



Model No.	OAL(mm)	Individual packing
1FB-ST	32.8	Blister card
1FB-SC	37.8	
1FB-LC1	32.8	

PK-9460 Fiber Optic Basic Cleaning Kit

Ideal for removing and trapping contaminants of fiber optic connector end face in fiber optic installations.

Contents	
MS-153A	Bulb Blower (Φ42mm)
FB-C008	2.5mm Fiber Optic one Click Cleaner
FB-C009	1.25mm Fiber Optic one Click Cleaner
FB-C010	Fiber Optic Cleaning Cassette
FB-C011	Lint free wiper
9C003	Cleaning Liquid
9Z-940KP	Zippered Carrying Bag (280x197x70mm)
Individual packing	
Inner box + Color label shrink	



PK-9461 Fiber Optic Basic Cleaning and Inspection Kit

Ideal for removing and trapping contaminants of fiber optic connector end face in fiber optic installations.

Contents	
MS-153A	Bulb Blower (Φ42mm)
FB-C008	2.5mm Fiber Optic one Click Cleaner
FB-C009	1.25mm Fiber Optic one Click Cleaner
FB-C010	Fiber Optic Cleaning Cassette
FB-C011	Lint free wiper
9C003	Cleaning Liquid
8PK-MA009	Fiber Optic Viewing Scope Kit
9Z-940KP	Zippered Carrying Bag (280x197x70mm)
Individual packing	
Inner box + Color label shrink	



PK-9462 Fiber Optic Basic Cleaning, Inspection and Test Kit

Ideal for removing and trapping contaminants of fiber optic connector end face in fiber optic installations.

Contents	
MS-153A	Bulb Blower (Φ42mm)
FB-C008	2.5mm Fiber Optic one Click Cleaner
FB-C009	1.25mm Fiber Optic one Click Cleaner
FB-C010	Fiber Optic Cleaning Cassette
FB-C011	Lint free wiper
9C003	Cleaning Liquid
8PK-MA009	Fiber Optic Viewing Scope Kit
MT-7601	Fiber Optic Power Meter
9Z-940KP	Zippered Carrying Bag (280x197x70mm)
Individual packing	
Inner box + Color label shrink	



PK-6942 Fiber Optic Tool Kit With MT-7508

PK-6940 fiber tool kit contains a complete set of fiber optic tools necessary for quickly and easily terminating epoxy style fiber connectors.

Contents	
MT-7058	Fiber Optic Visual Fault Locator (for FC/SC/ST)
8PK-362	Fiber Optic Stripper
DK-2043	Fiber Optic Kevlar Cutter
DK-2026N	Carbide Fiber Scribe
CP-301F4	Fiber Optic Crimping Tool
8PK-MA009	Fiber Optic Viewing Scope Kit(200X) and Disd (LC)
8PK-C002	Foam Swabs Cleaning Kit
9G100N	Syringe(2.5ml)
903-133	Utility Component Storage Box
1FB-LC1/SC/ST	SC/ST/LC Polishing Disk 32.8mm
Individual packing	
Inner box + Color label shrink	



1PK-940KN Fiber Optic Tool Kit



This tool kit provides a complete fiber optic termination tools such as strippers, crimpers, Kevlar cutters, viewing scope and cleaning kit for easy and quick termination.

Contents	
103-132C	Utility component storage box
1FB-SC	SC polishing disk
1FB-ST	ST polishing disk
1PK-258A	Side Cutter 125mm
8PK-301F1	Fiber optic crimping tool
8PK-326	Fiber optic stripper
8PK-C002	Foam swabs cleaning kit
8PK-MA009	Fiber optic viewing scope kit
9G100N	Universal syringe 2.5ml
DK-2026N	Carbide fiber scribe
DK-2043	Fiber optic kevlar cutter
9Z-940KP	Carrying zipper bag (280x197x70mm)
Individual packing	Inner box + Color label shrink

PK-9458 FTTH Fiber Optic Tool Kit

PROFESSIONAL



Contents	
MT-7602	4 in 1 fiber optic power multimeter
FB-C008/FB-C009	1.25/2.5mm One click Cleaner
FB-1688	Fiber cleaver
CP-376TR	4P/6P/8P Telecom Crimping Tool
CP-FB01	FTTH drop cable stripper
8PK-326	Fiber optical stripper
1PK-067DS	Dual color side cutting plier (165mm)
9SD-207B	Pro-soft screwdriver (+#2 6x100mm)
9SD-201A	Pro-soft screwdriver (-3.0 3.0x75mm)
DK-2043	Fiber optic kevlar cutter
DK-2060	Auto stop measuring tape
MS-018	Leak proof dispenser pump bottle
FL-528	1W LED head light
PD-2612	8 Oz curved claw hammer
SB-1592	Component storage box(145x92x40mm)
MS-153A	Bulb blower (φ42mm)
8PK-C002	Foam swabs cleaning kit
5MT-7601-LC	Fiber optical power meter lc adaptor
9PK-153	Brush
9TC-752	Aluminium frame tool case (400x280x134mm)
Individual packing	Color box

1 MT-7602 4 in 1 fiber optic power multimeter

- Fiber optic power meter
- Cable tester
- Visual fault locator
- LED flashlight



2 FB-C008 / FB-C009 1.25/2.5mm One click cleaner

800 cleans for FC/PC, ST, SC or LC Connectors

- Easy pushing motion
- Extendable nozzle
- 180° rotates cleaning system
- Indication Window



3 FB-1688 Fiber cleaver

16 cutting location for each blade. Blade life up to 48000 times

- Body: Zinc alloy anodic treatment
- Blade: Tungsten
- Blade dimension: Φ20×t2.0mm
- Dimensions: 62x60x56mm
- Cladding Diameter: 125 μm
- Cleave length: 10~20 mm
- Cleave angle: ≤ 0.8°



4 CP-376TR 4P/6P/8P Telecom Crimping Tool

- Body: S45C
- Handle: Black:T.P.R Green:PP
- Application: 8P8C/RJ45, 6P2C/6P4C/6P6C RJ11/RJ12
- modular plugs, RJ22 4P2C/4P4C handset modular plugs

5 CP-FB01 FTTH Drop Cable Stripper



- Body: Zinc alloy steel
- Blade: CR12
- for 3.1x2.0mm drop cable

6 8PK-326 Fiber Optical Stripper

- Strips 125 micron glass fiber with 250 micron buffer coating
- Material : S50C

