Datasheet

TM-161 VISUAL FAULT LOCATOR

USER'S MANUAL (V2.0)

Model: TM-161A (Wavelength：650nm) TM-161B (Wavelength：635nm)

Output power： 10MW 15MW 20MW 25MW 30MW

1. Summary:

The TM-161 Visual fault locator has two light output modes: continuous light (CW) and 1Hz frequency of light. It will display the output mode through the indicator. The aluminum shell material and small size will be portable to carry.

2. Features:

- ✧ High power laser and visible 650nm/635nm red light
- ✧ Anti-collision shell
- ✧ Pen style design to make it easy to carry
- ✧ Continuous light or 1Hz frequency of light output
- ✧ applicable for SM and MM fiber (Single-mode, multi-mode fiber)
- ✧ Universal alkaline battery
- ✧ Continuous working time more than 40 hours

3. Application

- ✧ Insert the fiber into VFL through Fiber Connector. It can be used as reference of the multi-core cable
- ✧ End to end fiber identification
- ✧ Identify the breaks and micro-bend of the pigtail/fiber
- ✧ OTDR dead zone fault locator: check the fiber fault point which OTDR can't find (breakpoint, the beginning and the end of the fiber properties, and also the high loss section due to the microbending, for example: fiber optic patch cords, pigtails, the optical fiber core wire in junction box or bare fibe, etc
- ✧ Identify the certain distance of fiber according to the power. Such as 10mw pen style VFL can check the distance up to 10kms

4. Keypad

This LED indicator shows the following working mode:

1) power on indicator(red)
2) 1Hz frequency indicator(red and winking)
3) power off (indicator runout)

5. Operation

- ✧ Take off the dust-proof cap

- ✧ Clean the Fiber connector before test
- ✧ Connect the fiber's adapter to the output port of visual fault locator
- ✧ Press the button to start the testing, users would visually find the broken and micro bends
- ✧ Press this button to inject 1Hz modulation to the tested fiber
- ✧ Press this button again to turn off the unit.
- ✧ Take out the fiber and cover the dust proof cap of visual fault locator

6. Specification

Model	TM-161 Pen type visual fault locator
Emitter	LD
wavelength	650±10nm/635nm
Output power	10mw;15mw;20mw;30mw
Transmission distance	Depending on the output power
Working mode	CW & modulation
modulation	1Hz，working cycle:60%
connector	2.5mm universal connector
Power	2pcs AA battery
Operating temperature	-10℃～+50℃
Storage temperature	-20℃～+70℃
Weight(including battery)	162g（excluding batteries）
Length * diameter(mm)	185*25
Working hours	10mw continuous work≥20h

7. Replace the batteries

If the battery level is very low, please turn off the unit immediately and replace the batteries

1) Turn off the unit
2) Take out the cover of battery compartment and replace the old batteries with new ones.

8. Maintenance

1) Tlease handle it with care and keep the connector clean
2) Do not look into the VFL directly due to the laser is harmful to your eyes
3) Fix the batteries correctly
4) Take out the batteries if not in use for a period of time

9. Trouble-shootings

Problem	Reason	Solution
Faint light 1	Lower power	Replace the battery
Faint light 2	Damaged or polluted connector	Inspect the connector or clean it
Hot connector	Laser overtime work	Keep using or turn off to cool down
Hot metallic cover 1	Internal short circuit	Take out the battery and sent back to manufacture
Hot metallic cover 2	Wrong battery polarity	Fix the battery again
Fail to turn on the unit	Lower power	Replace the battery