12-1044
FVM100 Hand-held Probe

User Guide

Foreword

Thank you for purchasing our products. Before assembly and use, make certain that all of the parts you have ordered are present. Check the packaging carefully as some parts are small and can be overlooked. Also, locate any additional parts and accessories you may have purchased.

Safety Conventions

You should understand the following conventions before using the product described in this manual.

CAUTION

Refers to a potential *product* hazard, it requires a procedure which, if not correctly followed, may result in component damage. Do not proceed unless you understand and meet the required conditions.

FVM100 Hand-held Probe Introduction

The FVM100 **Hand-held Probe** is a portable, video microscope used to inspect fiber optic terminations. More specifically, it is used to inspect hard-to-reach connectors that are installed on the "backside" of patch panels or inside hardware devices. It eliminates the need to access the backside of patch panels or disassemble hardware devices prior to inspection.

Available Applications

● **Patch Panel Inspection**

Many patch panels are designed to allow the front connector to be easily inspected, but the back one is often difficult to access. Inspecting the connector on the front side of the panel can usually be performed with a simple fiber inspection microscope. However, the back connectors are not as easily inspected with traditional microscopes, thus requiring time-consuming troubleshooting. The FVM100 offers a fast and effective means of installing, troubleshooting or maintaining fiber optic patch panels.

● **Inspection of Cable Assemblies**

When Video Inspection Probe is equipped with proper Adapter Tip, you can also inspect patch cords, pigtails, and cable assemblies.

Structure/Parts

A. Analog Probe
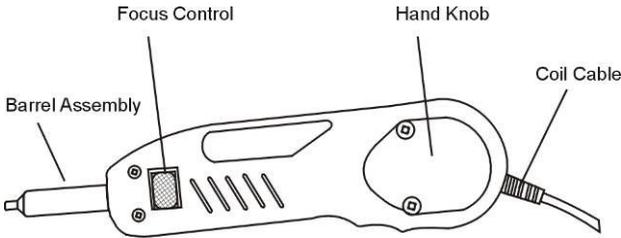
This probe utilizes an analog CCD, which outputs an NTSC or a PAL signal. The signal is routed through a 4-pin connector that routes power into the probe, and the video signal out of the probe. This unit is suitable for use with our hand held LCD display.

a 1. Barrel Assembly

The barrel assembly houses the optics which accommodates different adapters, such as FC, SC, ST, LC, E2000, MTRJ and other customized PC or APC adapters.

a 2. Focus Control

The default setting of magnification is 250x. When the figure shows on monitor, screw the focus control to make it clearest.

Structure/Parts

B. Hand-Held LCD Display

Standard: 3.5 inch Common Monitor

Surface

LCD

Power Indicator

Power Switch

Top

4-pin Connector

Power Connector

Brightness Control
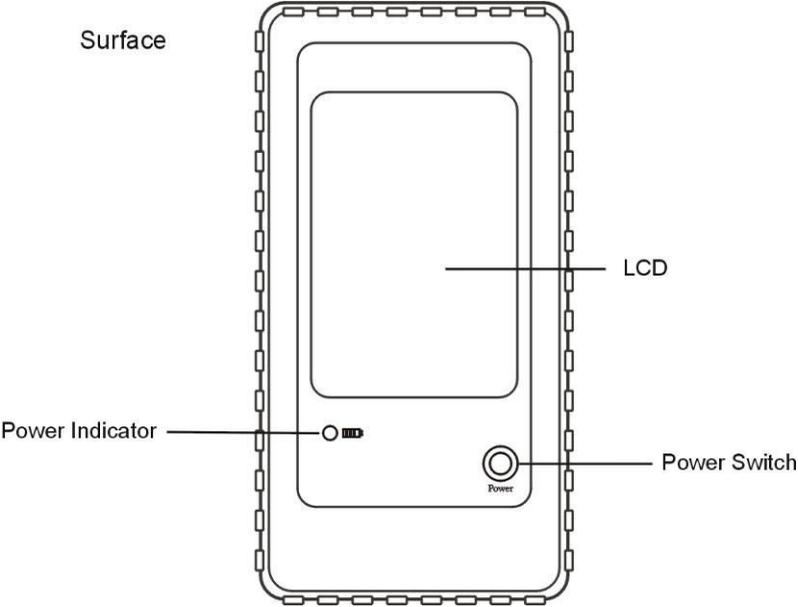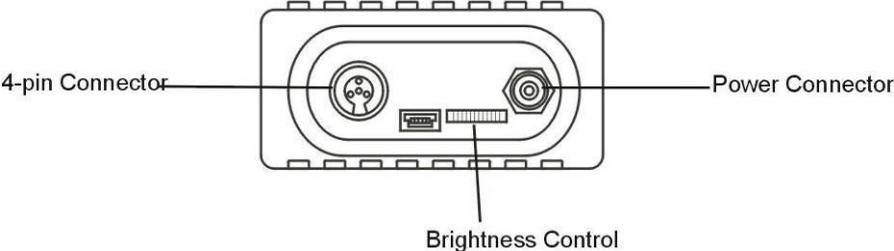
Structure/Parts

Optional: 3.5 inch Monitor-MEM

Surface

LCD

Camera

Reserved Button

Reserved Button

Power Switch

Top

Power Connector

4-Pin Connector

USB Port

Brightness Control

SD Card Slot
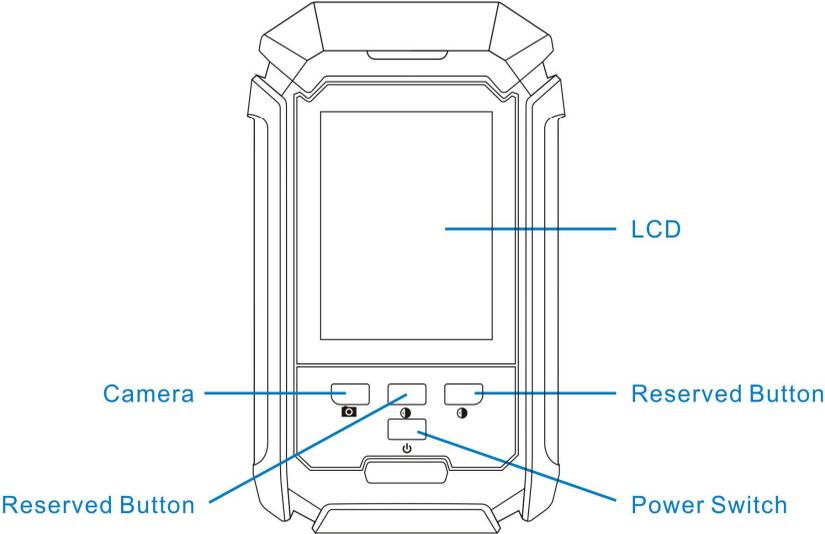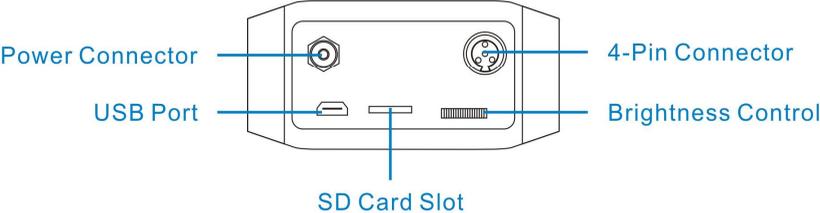
Structure/Parts

Monitor-MEM Function

1. Photo Snapping
When the 'Power Switch' is turned on, pressing 'Camera' would help you take a photo for the inspection.

2. Data outputting
If you need to check the data saved in the SD card, you can either connect the monitor via USB wire to your computer or take the SD card out of the SD slot and read it with the card reader we offered.

These monitors can be powered by an output 110-240V DC/AC or a

rechargeable Li-ion battery equipped inside. Video input is dedicated

to PAL/NTSC formatted probe. All of the display's controls are built into

the handle for easy access.

C. Standard Tips
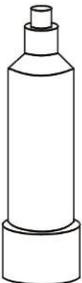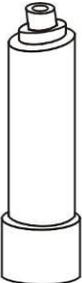
25-U-M   125-U-M   25-A-M   125-A-M
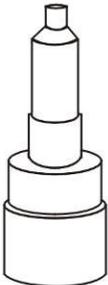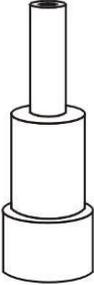
25-U-F   LC-U-F   SC-A-F

Installation

Tip Assembly

Installing Tips on Probe
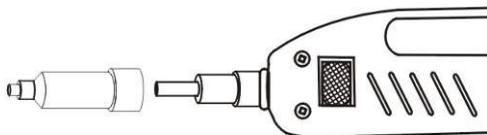
Assembly & Tip Installed Standard

Step 1

Locate tip you want to install and look at the threaded end. This

screw acts as a "key" and is already mounded with the Key Channel.

DO NOT try to screw the Key Channel off from the threaded Key,

which might destroy the whole probe.

Step 2

Slightly screw the Key that you need onto the Key Channel.

LCD Monitor Assembly & Controls

Using the LCD Display with the Probe

Connect the Probe to the Display

Step 1

Connect the cable from the probe to the monitor using the 4-pin connector on the bottom of the monitor.

Step 2

Connect the AC power adapter/charger if necessary.

On/Off Control

 (Toggle switch) Press upward to turn the unit on, press downward to shut the unit off.

AC Power

Using the DC/AC power adapter has the following advantages:

Use external power (DC/AC power adapter/charger) to power the LCD directly from a DC/AC power source, or charge the battery pack. Both can be accomplished simultaneously.

Technical Specifications

Video Inspection Probe

Magnification	400x (9'' Monitor) 250x (3.5'' Monitor)
Resolution Ratio	0.5 um
Display	3.5'' TFT-LCD, 960x240 pixels
Video Output	NTSC / PAL
Weight/Dimensions	0.18 kg / 18 x 4 x 3.5 cm
Wire Length	1.2 M

Application

Adapter Type	Description
25-U-M (2.5mm UPC Male)	FC/SC/ST/E2000 patch cord UPC termination
125-U-M (1.25mm UPC Male)	LC/MU patch cord UPC termination
25-A-M (2.5mm APC Male)	FC/SC/ST/E2000 patch cord APC termination
125-A-M (1.25mm APC Male)	LC/MU patch cord APC termination
25-U-F (2.5mm UPC) Female)	FC/SC/ST/E2000 UPC bulkhead
LC-U-F (LC UPC Female)	LC UPC bulkhead

General Information

SC-A-F (SC APC Female)	SC APC bulkhead
FC-A-F (FC APC Female)	FC APC bulkhead
LC-A-F (LC APC Female)	LC APC bulkhead

Other Adapters can be offered on request.

Other Parts

Power Supply	12.6V rechargeable Li Battery
Monitor	0.30 kg / 14.5 x 7.5 x 4 cm 0.40 kg / 17 x 10 x 4.5 cm
Work/Storage Temp.	-20℃~+50℃ / -30℃~+60℃

Accessories

Type	Function Description
Standard Accessories	Standard Accessories Inspection Probe x1 3.5" monitor x1 25-U-M x1 ; 125-U-M x1 25-U-F x1 ; LC-U-F x1 Recharger ; Manual ; Carrying bag ; Li Battery
Optional Accessories	25-A-M ; 125-A-M ; SC-A-F ; FC-A-F ; LC-A-F AV-USB 2.0 Converter

General Information

Warranty

We warrant this equipment against defects in material and workmanship for a period of one year from the date of original shipment. We also warrant that this equipment will meet applicable specifications under normal use. During the warranty period, we will, at our sole discretion, repair or replace for any defective product free of charge should the equipment need to be repaired.

IMPORTANT

The warranty will become null and void if

• **the equipment has been tampered with, repaired, or worked upon by unauthorized individuals.**

• **the warranty label has been removed.**

• **product enclosure screws, other than those specified in this manual,   have been removed.**

• **the product enclosure has been opened, other than as explained in this manual.**

• **the equipment serial number has been altered, erased, or removed.**

• **the equipment has been misused, neglected, or damaged by accident.**