



Programmable Controller MELSEC-F

FX3U-7DM-HLD

USER'S MANUAL



Manual Number, Revision, Date table

This manual describes the part names, dimensions, mounting, and specifications of the product.

Effective February 2023 Specifications are subject to change without notice.

Safety Precaution (Read these precautions before use.)

This manual classifies the safety precautions into two categories:

WARNING and CAUTION

Warning and Caution icons and descriptions

Depending on the circumstances, procedures indicated by CAUTION may also cause severe injury.

Associated Manuals

Table with 3 columns: Manual name, Manual No., Description

For the operation of the display module, refer to the PLC main unit manual.

Refer to the FX3U Series User's Manual - Hardware Edition

How to obtain manuals

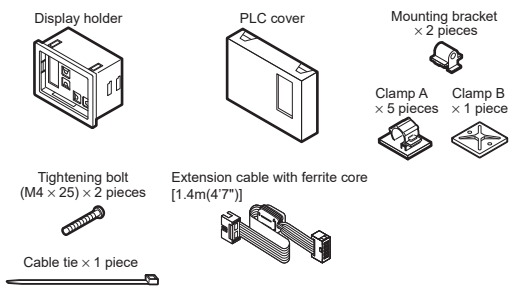
For product manuals or documents, consult with the Mitsubishi Electric dealer from who you purchased your product.

1. Outline

The FX3U-7DM-HLD display module holder is the attachment (cable accessory) which installs the display module (FX3U-7DM) for the FX3U or FX3UC-32MT-LT(-2) PLC to rear by control panel.

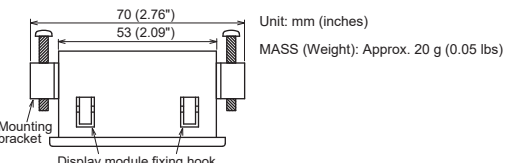
1.1 Incorporated Items

Verify that the product and accessories shown below are included in the package:

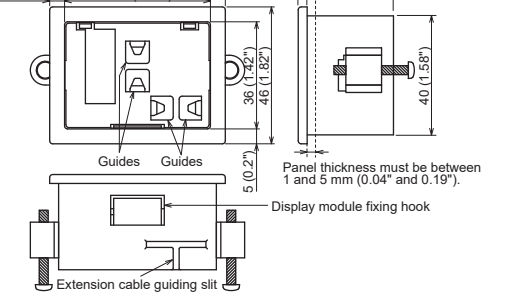


1.2 External Dimensions and Part Names

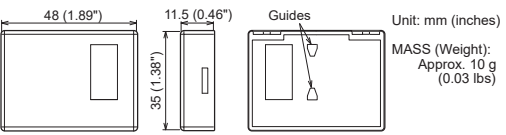
Display Holder



PLC Cover



Extension Cable

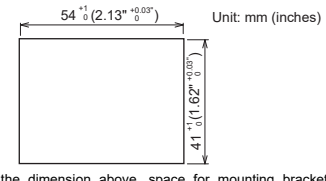


Unit: mm (inches) MASS (Weight): Approx. 20 g (0.05 lbs)

Unit: mm (inches) MASS (Weight): Approx. 10 g (0.03 lbs)

Unit: mm (inches) Ferrite core [21.5 (0.85) * 35 (1.38), 2 turns, ZCAT2235-1030A (Manufactured by TDK co., Ltd.)]

2. Panel Cut Dimension



In addition to the dimension above, space for mounting brackets is required by approximately 10 mm (0.4") in the right and left directions respectively.

3. Installation

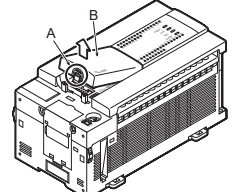
INSTALLATION PRECAUTIONS WARNING Make sure to cut off all phases of the power supply externally before attempting installation or wiring work.

INSTALLATION PRECAUTIONS CAUTION Use the product within the generic environment specifications described in this manual. Never use the product in areas with excessive dust, oily smoke, conductive dusts, corrosive gas (salt air, Cl2, H2S, SO2, or NO2), flammable gas, vibration or impacts, or expose it to high temperature, condensation, or rain and wind.

3.1 Before Installation

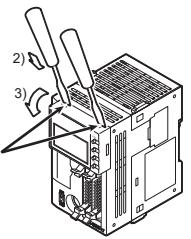
3.1.1 FX3U Series PLC

- 1) Power off the PLC. 2) Pushing the top cover hook (fig. A), remove the top cover (fig. B), as shown in the right figure.



3.1.2 FX3UC-32MT-LT(-2) PLC

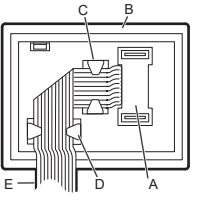
- 1) Power off the PLC. 2) Gently place the tip of a flat head screwdriver to the Display module fixing hooks (fig. A). 3) Tilt the flat head screwdriver at the two Display module fixing hooks (fig. A) to lift the display module from the main unit by about 1 mm (0.04").



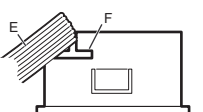
Carefully perform the above trying not to bend or break the Display module fixing hooks (fig. A).

3.4 Connecting Extension Cable to Display Holder

- 1) Connect the male connector side (fig. A) of the extension cable to the main unit connector on the display module. 2) Pass the extension cable (fig. E) into the guides (fig. C, D) on the display holder (fig. B).



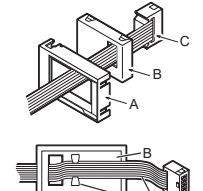
- 3) Pass the extension cable (fig. E) through the extension cable guiding slit (fig. F).



3.5 Connecting Extension Cable to Main Unit

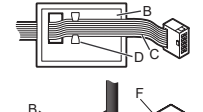
3.5.1 Connecting to FX3U Series PLC

- 1) Pass the female connector side (fig. C) of extension cable through the display module mounting top cover*1 (fig. A) and PLC cover (fig. B).

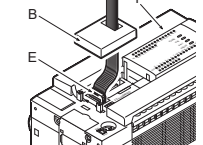


*1 It is an accessory of the FX3U-7DM.

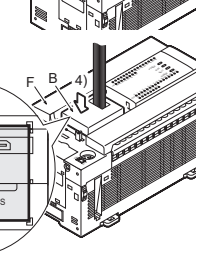
- 2) Pass the extension cable (fig. C) into the guides (fig. D) through the PLC cover (fig. B).



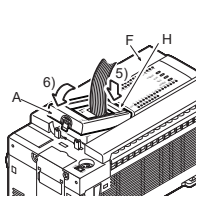
- 3) Connect the female connector side (fig. E) of the extension cable to the display module connector on the main unit (fig. F).



- 4) Insert the sliding PLC cover (fig. G) to G position as per the right figure of the main unit (fig. F).

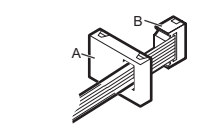


- 5) Place the right figure H side of the display module mounting top cover (fig. A) on the main unit (fig. F). 6) The display module mounting top cover (fig. A) is installed in the main unit (fig. F) as shown in the right figure.

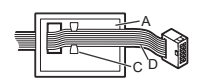


3.5.2 Connecting to FX3UC-32MT-LT(-2) PLC

- 1) Pass the female connector side (fig. B) of extension cable through the PLC cover (fig. A).

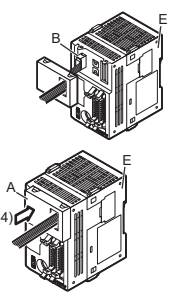


- 2) Pass the extension cable (fig. D) into the guides (fig. C) through the PLC cover (fig. A).



3) Connect the female connector side (fig. B) of the extension cable to the display module connector on the main unit (fig. E).

- 4) Slide PLC cover (fig. A), and install to the main unit (fig. E), as shown in the right figure.



4. Wiring

WIRING PRECAUTIONS WARNING Make sure to cut off all phases of the power supply externally before attempting installation or wiring work. Failure to do so may cause electric shock or damage to the product.

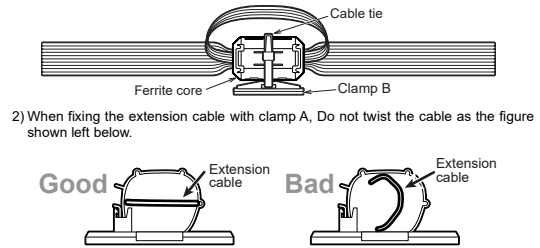
WIRING PRECAUTIONS CAUTION Install module so that excessive force will not be applied to extension cable. Failure to do so may result in wire damage/breakage or PLC failure.

When wiring the extension cable, keep a safe distance of more than 100 mm (3.94") from the noise source such as output cables of a PLC or power source.

4.1 Wiring inside Control Panel

Effects of noise are likely to take place if the extension cable touches the control panel. Use the clamps offered as an accessory to space the extension cable from the cabinet and the panel face as much as possible.

Caution on using a clamp 1) When fixing ferrite core to the extension cable with clamp B, fix them together as the figure shown below.



5. Remove

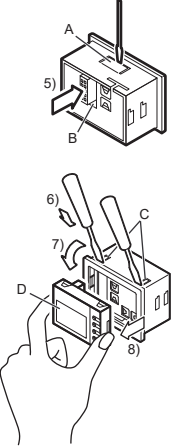
Follow the below procedures when uninstalling the display module in such a case as display module replacement.

5.1 Removing Display Module from Display Holder

Take these steps after dismounting the holder from the control panel.

- 1) Turn OFF the power. 2) Disconnect the extension cable. 3) Remove the display holder from the panel face. 4) Float the display module fixing hook (fig. A) at the bottom of the display holder a little using a flat head screwdriver. 5) Push out the main unit connector (fig. B) part of the display module from the rear while keeping the display module fixing hook (fig. A) up a little.

Be careful not to drop the display module.



- 6) Gently place the tip of the flat head screwdriver to the display module fixing hooks (fig. C) on the top face of the display holder. 7) Float the two display module fixing hook (fig. C) at the top of the display holder a little by the flat head screwdriver. 8) Hold the display module (fig. D) and remove the display module (fig. D) from the front side.

5.2 Removing PLC Cover from PLC

For the FX3U PLC, refer to the FX3U Series User's Manual - Hardware Edition. Removing PLC Cover from FX3UC-32MT-LT(-2) PLC The removing method from PLC is the same as the removing method of display module (FX3U-7DM).

6. Specification

6.1 Applicable PLC

Table with 2 columns: Item, Description

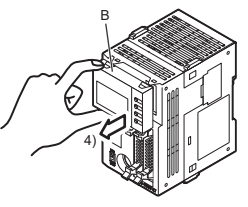
6.2 General Specifications

Table with 2 columns: Item, Specification

7. Caution on use

STARTUP AND MAINTENANCE PRECAUTIONS CAUTION Do not disassemble or modify the PLC. Doing so may cause fire, equipment failures, or malfunctions.

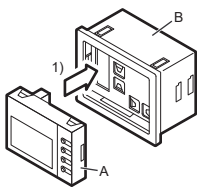
- 4) Hold the display module (fig. B) and remove the display module.



3.2 Installation to Display Holder

- 1) Install the display module (fig. A) to the display holder (fig. B).

Press in until the display module surface becomes level with the display holder surface.



3.3 Mounting to Control Panel (Cabinet)

Mount the display module to the control panel after installing it to the display holder.

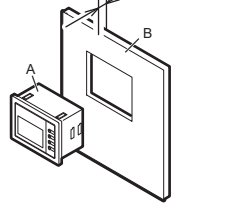
- 1) Drill an mounting hole on the panel face.

For panel cut dimension, refer to chapter 2

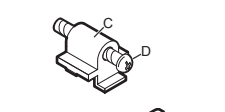
The panel thickness to which the display module is mounted must be between 1 and 5 mm (0.04" and 0.19").

- 2) Insert the display holder (fig. A) from the front of the panel (fig. B).

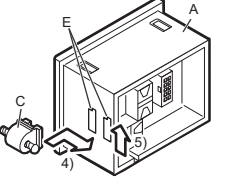
Panel thickness: 1 to 5 mm (0.04" to 0.19").



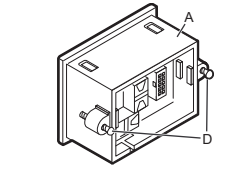
- 3) Insert the tightening bolt (fig. D) into the mounting bracket (fig. C). Be careful of the direction and insert correctly as indicated on the right.



- 4) Inset the hook of mounting bracket (fig. C) into the mounting hook holes (fig. E) on display holder (fig. A) as shown in the right figure. 5) Slide the mounting bracket (fig. C) upward to fix it.



- 6) Tighten two tightening bolts (fig. D) on the right and left until the display holder (fig. A) is securely fastened.



Tightening torque 0.18 to 0.22 N·m

DISPOSAL PRECAUTIONS CAUTION Please contact a certified electronic waste disposal company for the environmentally safe recycling and disposal of your device.

TRANSPORTATION AND STORAGE PRECAUTIONS CAUTION The product is a precision instrument. During transportation, avoid impacts larger than those specified in the general specifications by using dedicated packaging boxes and shock-absorbing pallets.

This product or display module does not have protective construction against water and such. Do not let a drop of water touch either.

Compliance with the WEEE Directive

Note: This symbol mark is for EU countries only. This symbol mark is according to the directive 2012/19/EU Article 14 Information for users and Annex IX.

This symbol means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from your household waste.

「电器电子产品有害物质限制使用标识要求」的表示方式

Note: This symbol mark is for China only.

含有害物质的名称, 含有量, 含有部品. 本产品中所含有的有害物质名称, 含有量, 含有部品如下表所示.

Table with 6 columns: Component Name, Lead (Pb), Mercury (Hg), Cadmium (Cd), Hexavalent Chromium (Cr(VI)), Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE)

本表格依据SJ/T 11364的规定编制. 表示该有害物质在该部件所有均质材料中的含量均在GB/T 26572规定的限量要求以下.

基于中国标准法的参考规格: GB/T15969.2

This manual confers no industrial property rights or any rights of any other kind, nor does it confer any patent licenses.

Exclusion of loss in opportunity and secondary loss from warranty liability. Regardless of the gratis warranty term, Mitsubishi shall not be liable for compensation to:

For safe use. This product has been manufactured as a general-purpose part for general industries, and has not been designed or manufactured to be incorporated in a device or system used in purposes related to human life.