

Side

JY997D15401K

Programmable Controller MELSEC-F

FX₃U-7DM-HLD





This manual describes the part names, dimensions, mounting, and specifications of the product. Before use, read this manual and the manuals of all relevant products fully to acquire proficiency in handling and operating the product. Make sure to learn all the product information, safety information, and precautions. Store this manual in a safe place so that it can be taken out and read whenever necessary. Always forward it to the end user. Registration:

The company and product names described in this manual are registered trademarks or the trademarks of their respective companies.

Effective February 2023

Specifications are subject to change without notice

© 2004 Mitsubishi Electric Corporation

Safety Precaution (Read these precautions before use.) This manual classifies the safety precautions into two categories

MARNING and **MCAUTION**

<u></u> MARNING	Indicates that incorrect handling may cause hazardous conditions, resulting in death or severe injury.
∴CAUTION	Indicates that incorrect handling may cause hazardous conditions, resulting in medium or slight personal injury or physical damage.

Depending on the circumstances, procedures indicated by ACAUTION may also cause severe injury.
It is important to follow all precautions for personal safety.

Associated Manuals

Manual name	Manual No.	Description		
FX3U Series User's Manual - Hardware Edition	JY997D16501 MODEL CODE: 09R516	Explains the FX3U Series PLC specifications for I/O, wiring, installation, and maintenance.		
FX3UC Series User's Manual - Hardware Edition	JY997D28701 MODEL CODE: 09R519	Explains the FX3UC Series PLC specifications for I/O, wiring, installation, and maintenance.		
FX3s/FX3G/FX3GC/ FX3U/FX3UC Series Programming Manual - Basic & Applied Instruction Edition	JY997D16601 MODEL CODE: 09R517	Describes PLC programming for basic/applied instructions and devices.		

For the operation of the display module, refer to the PLC main unit manual. → Refer to the FX3U Series User's Manual - Hardware Edition → Refer to the FX3UC Series User's Manual - Hardware Edition

How to obtain manuals
For product manuals or documents, consult with the Mitsubishi Electric dealer For product manuals or documents, of 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 near by control panel.

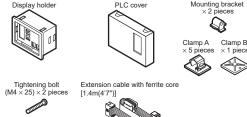
1.1 Incorporated Items

Cable tie \times 1 piece

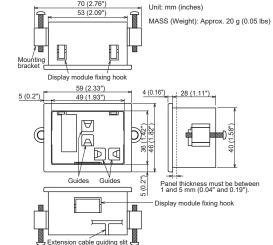
Verify that the product and acco

Mounting bracket

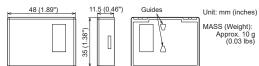
Q



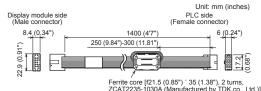
1.2 External Dimensions and Part Names



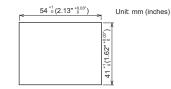
PLC Cover



Extension Cable



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 **_**MARNING

deterioration or damage may occur.

Make sure to cut off all phases of the power supply externally before attempting installation or wiring work. electric shock or damage to the product

∴ CAUTION

Use the product within the generic environment specifications described in the 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 o impacts, or expose it to high temperature, condensation, or rain and wind. If the product is used in such conditions, electric shock, fire, malfunction

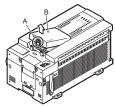
- Use screwdrivers carefully when performing installation work, thus avoidin accident or product damage.
- When drilling screw holes or wiring, make sure cutting or wire debris does n enter the ventilation slits.
- Failure to do so may cause fire, equipment failures or malfunctions.
- Do not touch the conductive parts of the product directly.

 Doing so may cause device failures or malfunctions. Connect product securely to their designated connectors.
- Loose connections may cause malfunctions
- Do not pull the cable when attaching or detaching the connector. Doing so may cause wire breakage.

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 remove the top the right figure.



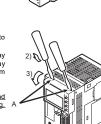
3.1.2 FX3UC-32MT-LT(-2) PLC

1) Power off the PLC.

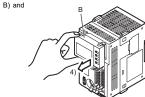
2) Gently place the tip of a flat head screwdriver to the Display module fixing hooks (fig. A).

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 (2041).

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



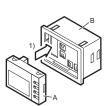
4) Hold the display module (fig. B) and remove the display module



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.



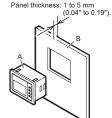
3.3 Mounting to Control Panel (Cabinet)

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

1) Drill an mounting hole on the panel face.

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

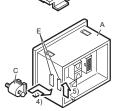
from the front of the panel (fig. B).



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.



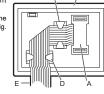
Tightening torque 0.18 to 0.22 N•m



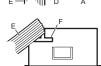
3.4 Connecting Extension Cable to Display Holder

 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).



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

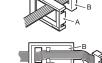


3.5 Connecting Extension Cable to Main Unit

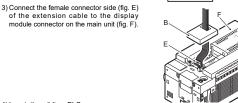
3.5.1 Connecting to FX3U Series PLC

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).

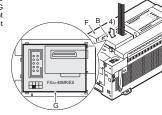
*1 It is an accessory of the FX3U-7DM.



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



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

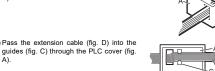


5) Place the right figure H side of the display module mounting top cover (fig. A) on the main unit (fig. F).

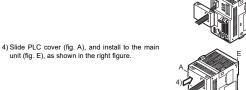
(fig. A) is installed in the main unit (fig. F) as shown in the right figure.



3.5.2 Connecting to FX3UC-32MT-LT(-2) PLC Pass the female connector side (fig. B) of extension cable through the PLC cover (fig.



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



Wiring

∴ WARNING PRECAUTIONS

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.

/IRING RECAUTIONS

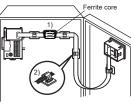
∴CAUTION

- 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 drilling screw holes or wiring, make sure cutting or wire debris does no
- enter the ventilation slits.
 Failure to do so may cause fire, equipment failures or malfunctions.
- Make sure to observe the following precautions in order to prevent any damage to the machinery or accidents due to abnormal data written to the PLC under the influence of noise:
- Do not bundle the main circuit line together with or lay it close to the main circuit, high-voltage line or load line. Otherwise, noise disturbance and/or surge induction are likely to take place. As a guideline, lay the control line at least 100mm (3.94") or more away from

in circuit or high-voltage lines. When wiring the extension cable, keep a safe distance of more than 100 mm (3.94") source such as output cables of a PLC or power source

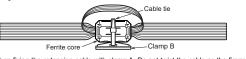
4.1 Wiring inside Control Panel

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. Moreover, the ferrite core with extension cable should be fixed so that it will not move

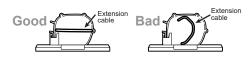


Caution on using a clamp

When fixing ferrite core to the the figure shown below.



When fixing the extension cable with clamp A, Do not twist the cable as the figure shown left below.



5. Remove

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

5.1 Removing Display Module from Display Holder Take these steps after dismounting the holder from the control panel

Turn OFF the power.

2) Disconnect the extension cable 3) Remove the display holder from the panel face.

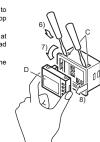
A) Float the display module fixing hook (fig. A) at the bottom of the display holder a little using a flat head

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



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).

→ For the FX3UC-32MT-LT(-2) PLC, refer to subsection 3.1.2

6. Specification 6.1 Applicable PLC

	• •			
	Item	Description		
Ap		FX3U Series PLC (from first production) FX3UC-32MT-LT(-2) PLC (from first production)		

6.2 General Specifications

item	0 to 55°C (32 to 131°F) when operating and -25 to 75°C (-4 to 158°F) when stored 5 to 95°RH (no condensation) when operating						
Ambient temperature							
Ambient humidity							
Working atmosphere	Free from corrosive or flammable gas and excessive conductive dusts						
		Frequency (Hz)	Acceleration (m/s ²)	Half amplitude (mm)	Sweep Count for X, Y, Z: 10		
Mile 41	Under	10 to 57Hz	-	0.075mm			
Vibration resistance	intermittent vibration	57 to 150Hz	9.8m/s ²	-	times (80 min in		
	Under	10 to 57Hz	-	0.035mm	each direction)		
	continuous vibration	57 to 150Hz	4.9m/s ²	-			
Shock resistance	THE PRODUCTION OF THE PRODUCTI						
Working altitude	<2000m						
Protection	Equivalent to IP40 (Non - watertight type construction)						

7. Caution on use

STARTUP AND MAINTENANCE PRECAUTIONS	 ∴ CAUTION

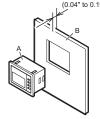
Doing so may cause damage.

- Do not disassemble or modify the PL
- Do not drop the product or exert strong impact to it.

MITSUBISHI ELECTRIC CORPORATION

ightarrow For panel cut dimension, refer to chapter 2

2) Insert the display holder (fig. A)



5) Slide the mounting bracket (fig. C) upward to fix it.

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



⚠CAUTION

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

STORAGE PRECAUTIONS ACAUTION

The product is a precision instrument. During transportation, avoid impact larger than those specified in the general specifications by using dedicated packaging boxes and shock-absorbing palettes. Failure to do so may cause failures in the product. After transportation, verify operation of the product and check for damage of the mounting part, etc.

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.

含有有害6物质的名称,含有量,含有部品

产品中有害物质的名称及含量

本产品中所含有的有害6物质的名称,含有量,含有部品如下表

	部件名称		有害物质					
			铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴 二苯醚 (PBDE)
	可编程	外壳	0	0	0	0	0	0
	控制器	印刷基板	×	0	0	0	0	0

本表格依据SJ/T 11364的规定编制。

and other tasks

〇: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。 ※:表示该有害物质至少在该部件的某一均质材料中的含量超出GB/T 26572规定的限量要求

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. Mitsubishi Electric Corporation cannot be held responsible for any problems involving industrial property rights which may occur as a result of using the contents noted in this manual.

Warranty
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:
(1) Damages caused by any cause found not to be the responsibility of Mitsubishi. (3) Special damages and secondary damages whether foreseeable or not, compensation for accidents, and compensation for damages to products other than Mitsubishi products. (4) Replacement by the user, maintenance of on-site equipment, start-up test run

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. Before using the product for special purposes such as nuclear pov aerospace, medicine or passenger movement vehicles, consult with Mitsubishi Electric This product has been manufactured under strict quality control. However
- when installing the product where major accidents or losses could occur if the product fails, install appropriate backup or failsafe functions in the system.