Changes for the Better

PROGRAMMARIE CONTROLLERS

FX₃U-CNV-BD

INSTALLATION MANUAL



Manual Number	JY997D13601
Revision	С
Date	September 2007

his manual describes the part names dimensions mounting and specifications of the product. Refore 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

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

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-ffective September 2007

Specifications are subject to change without notice.

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Safety Precaution (Read these precautions before use.)

This manual classifies the safety precautions into two categories: **♦DANGER** and **▶CAUTION**

DANGER

Indicates that incorrect handling may cause hazardou conditions, resulting in death or severe injury.

⚠ CAUTION

Indicates that incorrect handling may cause hazardous conditions, resulting in medium or slight personal injur 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 FX3U Series PLC specifications for I/O, wiring, installation, and maintenance.
FX3UC Series User's Manual - Hardware Edition	JY997D28701 MODEL CODE: 09R519	Explains FX3UC Series PLC specifications for I/O, wiring, installation, and maintenance.

How to obtain manuals

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

Applicable standards

FX3U-CNV-BD units made in June, 2005 or later comply with the EC Directive (EMC Directive). Further information can be found in the following manual However, the FX3UC-32MT-LT does not comply with the EC Directive (EMC

→ Refer to the FX3U Series Hardware Manual (Manual No. JY997D18801)

The FX3U-CNV-BD is an expansion board for connecting the analog and communication special adaptors to the main unit of a PLC.

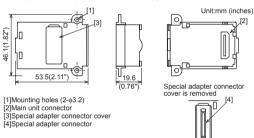


(4 analog special adaptors + 2 special adaptors for communication)

1.1 Incorporated Items

FX3U-CNV-BD Installation Manual M3 tapping screws This for installation (2 pcs) manual An An

1.2 External Dimensions and Part Names



MASS (Weight): 10g (0.03lbs)

2. Installation

INSTALLATION PRECAUTIONS	DANGER
installation or wiring	all phases of the power supply externally before attempting work. cause electric shock or damage to the product.

NSTALLATION / CAUTION PRECAUTIONS

Use the product within the generic environment specifications described in PLC main unit manual (Hardware Edition)

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 exposed to high temperature, condensation, or rain and wind. If the product is used in such conditions, electric shock, fire, malfunctions deterioration or damage may occur.

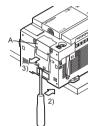
- Use screwdrivers carefully when performing installation work, thus avoiding accident or product damage.
- When drilling screw holes or wiring, make sure cutting or wire debris does not enter the ventilation slits
- Failure to do so may cause fire, equipment failures or malfunctions.
- Do not touch the conductive parts of the product directly.
- Doing so may cause device failures or malfunctions
- Connect expansion board securely to their designated connectors Loose connections may cause malfunctions.

The following section describes the installation method for the FX3U/FX3UC-32MT-LT Series PLC (FX3U Series PLC is used for the following example).

For more details on installation and removal, 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

2.1 Installation Method

- 1) Power off the PLC. Disconnect all the cables connected to the PLC. Demount the PLC from the DIN rail.
- 2) Using a flat head screwdriver as shown in the figure on the right, lift the dummy expansion board cover (fig. A) making sure not to damage the circuit board or electronic parts.
- 3) Remove the dummy expansion board cover (fig. A) perpendicularly away from the main unit.



- 4) Make sure the expansion board (fig. B) is in parallel with the main unit (fig. C) and attach it to the expansion board connector.
- 5) Fix the expansion board (fig. B) to the main unit using the provided M3 tapping screws (fig. D). Tighten to a torque of 0.3 to 0.6 N·m



3. Specification

STARTUP AND MAINTENANCE PRECAUTIONS

∴CAUTION

- Do not disassemble or modify the PLC. Doing so may cause fire, equipment failures, or malfunctions. * For repair, contact your local Mitsubishi Electric distributor.
- Do not drop the product or exert strong impact to it. Doing so may cause damage

DISPOSAL PRECAUTIONS

♠CAUTION

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

TRANSPORT AND STORAGE PRECAUTIONS

/ CAUTION

The product is a precision instrument, During transportation, avoid any impacts. Failure to do so may cause failures in the product. After transportation, verify the operations of the product

3.1 Applicable PLC

Model name	Applicability
FX3U Series PLC	Ver.2.20 or later (from first production)
FX3UC-32MT-LT	Ver.1.00 or later (from first production)

- . The expansion board cannot be connected to FX3UC Series PLCs other than the FX3UC-32MT-LT
- . Only one expansion board can be used per main unit. Additional expansion boards such as the FX3U-CNV-BD, FX3U-422-BD or FX3U-485-BD cannot be installed/used together with the FX3U-CNV-BD.

For details on the system configuration, refer to the following manual

→ Refer to the FX Series User's Manual - Data Communication Edition

3.2 General Specifications

The general specifications are equivalent to the PLC main unit. For general specifications, refer to the following manuals.

→ Refer to the FX3U Series User's Manual - Hardware Edition → Refer to the FX3UC Series User's Manual - Hardware Edition

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- 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 power, electric power, 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.

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