



PROGRAMMABLE CONTROLLERS
MELSEC-F

FX3s-5DM

INSTALLATION MANUAL



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|---------------|--------------|
| Manual Number | JY997D51601 |
| Revision | B |
| Date | October 2014 |

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:
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Effective October 2014
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Safety Precaution (Read these precautions before use.)

This manual classifies the safety precautions into two categories:

WARNING and **CAUTION**.

| | |
|----------------|---|
| WARNING | 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 **CAUTION** may also cause severe injury. It is important to follow all precautions for personal safety.

Associated Manuals

| Manual name | Manual No. | Description |
|--|--------------------------------------|---|
| FX3s Series User's Manual - Hardware Edition | JY997D48601 MODEL CODE: 09R535 | Explains the FX3s 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

FX3s-5DM comply with the EC Directive (EMC Directive). Further information can be found in the following manual.

→ **FX3s Series User's Manual - Hardware Edition**

Attention

- This product is designed for use in industrial applications.

Note

- Manufactured by: Mitsubishi Electric Corporation
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- Manufactured at: Mitsubishi Electric Corporation Himeji Works
840 Chiyoda-machi, Himeji, Hyogo, 670-8677 Japan
- Authorized Representative in the European Community:
Mitsubishi Electric Europe B.V.
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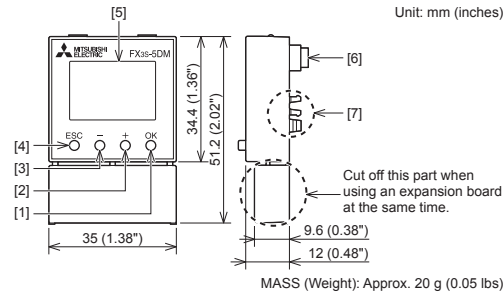
1. Outline

The FX3s-5DM display module (hereinafter called display module) is installed to the FX3s Series main unit or expansion board to monitor/change device states and values.

1.1 Incorporated Items

| | |
|----------------|-----------------------------------|
| Product | FX3s-5DM display module |
| Included items | Installation Manual (This manual) |

1.2 External Dimensions and Part Names



| No. | Name | Description |
|-----|----------------------------|---|
| [1] | "OK" button | Use to choose the item, set the value, etc. |
| [2] | "+" button | Use to move cursor or set the value. |
| [3] | "-" button | Use to move cursor or set the value. |
| [4] | "ESC" button | Use to cancel operation or return to previous screen. |
| [5] | Display | Displays current time and monitored status of device. |
| [6] | Connector for PLC | Used to connect display module to PLC. |
| [7] | Display module fixing hook | Used to fix display module to PLC. (When used together with an expansion board) |

2. Installation

INSTALLATION 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.

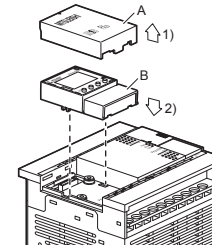
INSTALLATION PRECAUTIONS **CAUTION**

- 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 expose it high to temperature, condensation, or rain and wind. If the product is used in such conditions, electric shock, fire, malfunctions, deterioration or damage may occur.
- Do not touch the conductive parts of the product directly. Doing so may cause device failures or malfunctions.
- Connect the display module securely to the appropriate connector. Loose connections may cause malfunctions.

The following section describes the installation method for the FX3s Series PLC (FX3s-30M□). In this example, Turn off the power to the PLC before installation. For more details on removal and installation, refer to the PLC main unit manual.
→ **FX3s Series User's Manual - Hardware Edition**

2.1 When Installing the Display Module Directly to the Main Unit

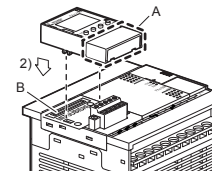
- Remove the top cover (A in the figure on the right).
- Make sure the display module (B in the figure on the right) is in parallel with the main unit and attach it to the optional equipment connector.



2.2 When Using the Display Module Together with an Expansion Board

Assuming that the expansion board is attached to the main unit. The connector cover for the expansion board is removed. To attachment of the expansion board, refer to the following manual.
→ **FX3s Series User's Manual - Hardware Edition**

- Cut off part A shown in the right figure (display module).
Caution: When part A is cut off, the display module can not be installed to the main unit directly.
- Make sure the display module is in parallel with the main unit and attach it to the optional equipment connector (B in the figure on the right).



3. Specifications

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 representative.
- 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.

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 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.

3.1 Applicable PLC

| Model name | Applicability |
|-----------------|--------------------|
| FX3s Series PLC | Ver. 1.20 or later |

- Only one display module can be used per main unit.

For details on the system configuration, refer to the following manual.
→ **FX3s Series User's Manual - Hardware Edition**

3.2 General Specifications

The general specifications are equivalent to the PLC main unit. For general specifications, refer to the following manuals.
→ **FX3s Series User's Manual - Hardware Edition**

3.3 Display Specifications

| Item | Specifications |
|-------------------|---|
| Display device | TN monochrome liquid crystal display |
| Display character | Seven-segment display + icon display |
| Backlight | Green LED backlight |
| Button | 4 operation buttons (ESC, -, +, and OK) |

4. Function List

The functions of a display module are listed as follows:
For details on the functions, refer to the following manuals.
→ **FX3s Series User's Manual - Hardware Edition**

- Monitor/Test
- Clock display and setting
- Operation button ON/OFF information
- Display screen protect function
- Specified device monitor function
- Back light off function
- Error display valid/invalid
- Decimal/hexadecimal current value display setting

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

Mitsubishi will not be held liable for damage caused by factors found not to be the cause of Mitsubishi, opportunity loss or lost profits caused by faults in the Mitsubishi products; damage, secondary damage, accident compensation caused by special factors unpredictable by Mitsubishi; damages to products other than Mitsubishi products; and to other duties.

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 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.