

HMI setting

TS107* (800 * 480) 32K-Color

Read/Write Area

PLC1: COM1: [MITSUBISHI ELECTRIC]

PLC2: No connection

PLC3: No connection

PLC4: No connection

PLC5: No connection

PLC6: No connection

PLC7: No connection

PLC8: No connection

Others

Printer: USB

Simulator: No connection

PLC1

Device: PLC

Maker: MITSUBISHI ELECTRIC

Series: FX3U/3UC/3G series CPU

Connect to: COM1

Change

Default

Communication SettingDetailTarget SettingsLadder Transfer Port

Connection Mode: 1:1

Signal Level: RS-422/485

Baud Rate: 115K BPS

Data Length: 7-Bit

Stop Bit: 1-Bit

Parity: Even

Retrials: 3

Time-out Time: 50

Send Delay Time: 0

Start Time: 0

Code: DEC

Text Process: LSB->MSB

Comm. Error Handling: Continue

Reset Condition

Return Time: 1

Auto-restoration upon screen switch-over

PLC1

Device: PLC

Maker: MITSUBISHI ELECTRIC

Series: FX3U/3UC/3G series CPU

Connect to: COM1

Change

Default

Communication SettingDetailTarget SettingsLadder Transfer Port

Priority: 1

System memory(\$\$) V7 Compatible

Transfer Table Control Memory

Internal: 0

\$u: 16330

Multi-link2 with V7/V6

Multi-link2 with V9

PLC1

Device: PLC

Maker: MITSUBISHI ELECTRIC

Series: FX3U/3UC/3G series CPU

Connect to: COM1

Change

Default

Communication SettingDetailTarget SettingsLadder Transfer Port

Connection Check Memory

PLC1: D: 0000

PLC1

Device: PLC

Maker: MITSUBISHI ELECTRIC

Series: FX3U/3UC/3G series CPU

Connect to: COM1

Change

Default

Communication SettingDetailTarget SettingsLadder Transfer Port

Use Ladder Tool

Connection: USB B

Port No.: 1024

Ladder Communication is not Used in Local Mode


PLC module FX3U-422-BD

Side
B

JY997D13101B

Side
A


JAPANESE / ENGLISH



PROGRAMMABLE CONTROLLERS

FX3U-422-BD

Changes for the Better



Manual Number JY997D13101

Revision B

Date June 2005


This manual describes the part names, dimensions, mounting and specifications of the product. Before use, read this manual and manuals of relevant products fully to acquire proficiency in handling and operating the product. Make sure to learn all the product information, safety information, and precautions.

Notes: Always store this manual in a safe place so that you can take it out and read it whenever necessary. Always forward it to the end user.


Registration
The company name and the product name to be described in this manual are the registered trademarks or trademarks of each company.

Effective June 2005
Specifications are subject to change without notice.

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DANGER



CAUTION

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 circumstances, procedures indicated by **CAUTION** may also be linked to serious results. In any case, it is important to follow the directions for usage.

Associated Manuals

Manual name	Manual No.	Description
FX3U Series User's Manual - Hardware Edition	JY997D16001 MODEL CODE: 05R516	Explains FX3U Series PLC specification details for I/O, wiring, installation, and maintenance.
FX3U/FX3UC Series Programming Manual - Basic & Applied Instruction Edition	JY997D16001 MODEL CODE: 05R517	Describes PLC programming for basic/applied instructions and devices.
FX Series User's Manual Data Communication Edition	JY997D16001 MODEL CODE: 05R519	Explains NN link, parallel link, computer link, no protocol communication by RS instructions/FX2N-232C.

Note: FX3UC Series PLC specification details for I/O, wiring, installation, and maintenance can only be found in the Japanese Manual.

This manual describes installation and specification details for the FX3U-422-BD, or the wiring (including use of terminal resistor and preparation of cable) with communication equipment, the system configuration, the communication setting, and program examples, refer to the "FX Series User's Manual - Data Communication Edition".

How to obtain manuals
For the necessary product manuals or documents, consult with the Mitsubishi Electric dealer from where you purchase your product.

Applicable standard

FX3U-422-BD made in June, 2005 or later complies with EC directive (EMC Directive). Further information can be found in the following manual.
However, FX3UC-32 M1-L1 does not comply with EC directive (EMC Directive).
→ Refer to FX3U Series Hardware Manual (Manual No. JY997D16001)

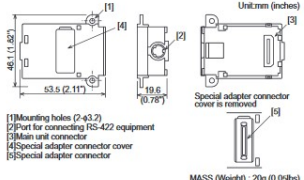
1. Outline

FX3U-422-BD is the board with a port for connecting a programming tool, GOT, or ET Series.

1.1 Incorporated Items

Product	RS-422 communication expansion board FX3U-422-BD
Included items	M3 tapping screws for installation: 2 pcs. Installation Manual (This manual)

1.2 External Dimensions and Part Names




Unit:mm (inches)

[1]Mounting holes (ø4.2)
[2]Port for connecting RS-422 equipment
[3]Main unit connector
[4]Special adapter connector cover
[5]Special adapter connector

MASS (Weight): 20g (0.09lbs)

2. Installation


INSTALLATION PRECAUTIONS



DANGER

• Cut off all phases of the power source externally before starting the installation or wiring work, thus avoiding electric shock or damages to the product.

INSTALLATION PRECAUTIONS




CAUTION

• Use the product in the environment within the general specifications described in PLC main unit manual (Hardware Edition).
Never use the product in areas with dust, oily smoke, conductive dusts, corrosive gas (salt air, Cl₂, H₂S, NH₃, SO₂, or NO_x), flammable gas, vibrations or impacts, or expose it to high temperature, condensation, or wind and rain. If the product is used in such a place described above, electrical shock, fire, malfunction, damage, or deterioration may be caused.
• Use screwdrivers carefully when performing installation work, thus avoiding accident or product damage.
• When drilling screw holes or wiring, cutting chips or wire chips should not enter ventilation slots.
Such an accident may cause fire, failure or malfunction.
• Do not touch the conductive parts of the product directly, thus avoiding failure or malfunction.
• Fix the expansion board securely to the specified connector.
Incorrect connection may cause malfunction.

3. Specification


STARTUP AND MAINTENANCE PRECAUTIONS



CAUTION

• Do not disassemble or modify the unit.
Doing so may cause failure, malfunction or fire.
* For repair, contact your local Mitsubishi Electric distributor.
• Do not drop the product or do not exert strong impact, doing so may cause damage.


DISPOSAL PRECAUTIONS



CAUTION

• Please contact a company certified in the disposal of electronic waste for environmentally safe recycling and disposal of the product.

TRANSPORT AND STORAGE PRECAUTIONS



CAUTION

• During transportation avoid any impact as the product is a precision instrument. Check the operation of the product after transportation.

3.1 Applicable PLC

Model name	Applicability
FX3U Series PLC	Ver.2.00 or later (from the first product)
FX3UC Series PLC	Ver.1.00 or later

Only one function expansion board can be used for one main unit.
Two or more FX3U-422-BD cannot be used, or other expansion boards such as FX3U-232-BD or FX3U-485-BD cannot be installed/used together with FX3U-422-BD.
For details of the system configuration, refer to the following manual.
→ Refer to FX Series User's Manual - Data Communication Edition

3.2 General Specifications

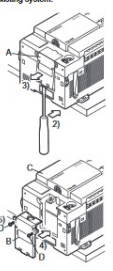
General specifications are equivalent to the PLC main unit. For general specifications, refer to the following manual.
However, since the product is not isolated between communication lines and the CPU of main unit, please don't perform any dielectric withstand voltage test and insulation resistance test to this product.
→ Refer to FX3U Series User's Manual - Hardware Edition


3.3 Power supply specifications

5V DC, 20 mA is supplied as the power from the main unit. However, current consumption becomes higher depending on the connected peripheral equipment. For details, refer to the manual of the connected unit.
For the capacity of 5V DC power of main unit, refer to the following manual.
→ Refer to FX3U Series User's Manual - Hardware Edition

3.4 Communication specifications

Item	Specification
Transmission standard	In conformance to RS-422
Maximum transmission distance	50 m (164ft) maximum
Connection method	8-pin MINI DIN (female)
Communication method	Half duplex
Communication format	Programming communication
Insulation	Not insulated (Between communication line and CPU)





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