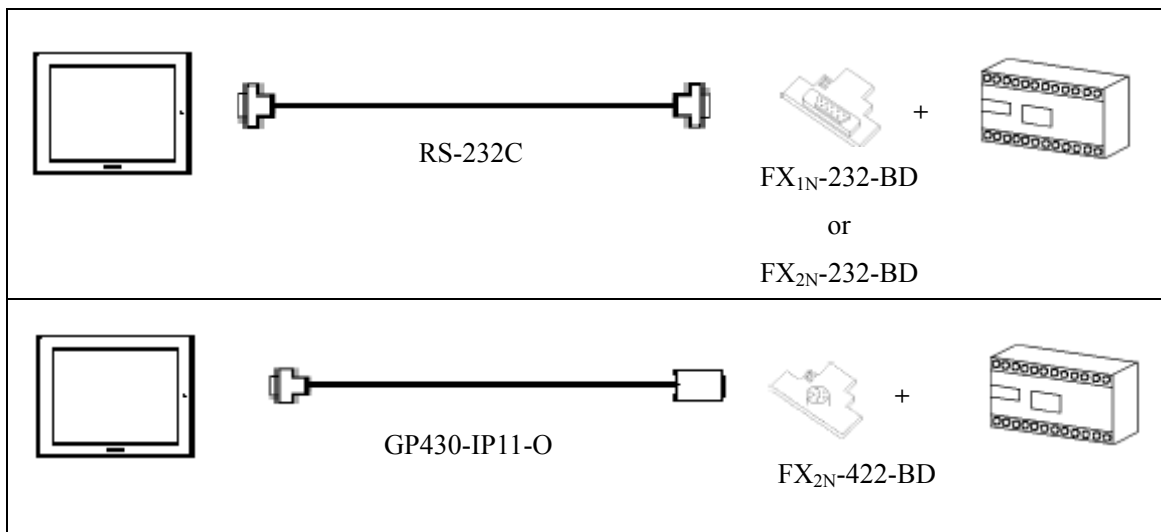



Mitsubishi <18> Mitsubishi Electric Corporation

FX Series + Expansion Board (CPU Direct Protocol) Connection







System Structure



GP

Machine 	Model	Remark
GP	GP70 Series GP77/77R Series GP2000 Series	Excepting for handy types. The internal 2-Port feature is supported by only GP77/77R Series and GP2000 Series.
GLC	GLC2000 Series	2-Port Adapter and the internal 2-Port feature are not supported.

PLC

CPU	Expansion Board	Communication Method	Connection Cable	GP 	
					
FX _{1S}	FX _{1N} -232-BD 	RS-232C	Connection Method [1]		
FX _{2N}	FX _{2N} -232-BD 				
	FX _{2N} -422-BD 		Connection Method [2]		

Procedure to Connect PLC

Select PLC Type on GP-PRO/PB C -Package.

Refer to

Selecting PLC Type



Set the GP and PLC settings as the communication setting sample.

Refer to

**Communication
Setting Sample**



Set GP communication.
There are 2 ways.

- Setting on GP-PRO/PB C-Package and transfer the data
- Setting on the Offline of the GP main unit.

Refer to

**Communication
Settings [GP]**



Set PLC communication.

Refer to

**Communication
Settings [PLC]**



Connect PLC to GP.
Please check the connection method according to the connection type, or distance.

Refer to

**Connection Method &
Recommended Products**

Selecting PLC Type

Start up GP-PRO /PBIII.

Select the following PLC Type when creating the project file.



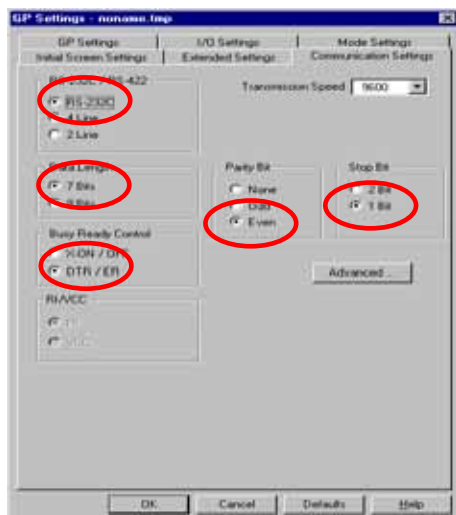
Communication Setting Sample

GP Setup		FX Series Settings
Baud Rate	9600 bps	---
Data Length	7 bits (fixed)	---
Stop Bit	1 bit (fixed)	---
Parity Bit	Even (fixed)	---
Data Flow Control	ER Control	---
Communication Format	RS-232C	---
Unit No.	0 (fixed)	---

Communication Settings [GP]

1 [GP-PRO/PB C-Package Setting]

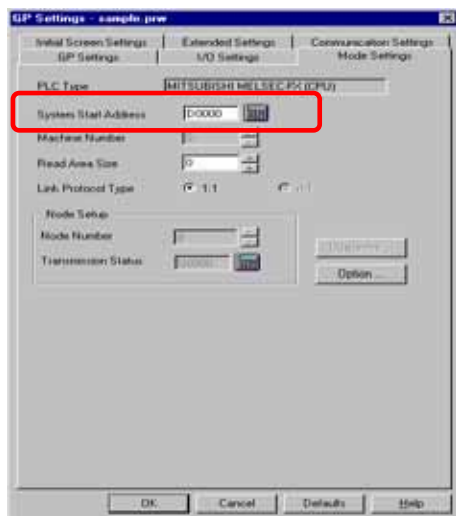
1) Communication Settings



1) Communication Settings

Transmission Speed : 9600bps
 Data Length : 7 Bits
 Stop Bit: 1 Bit
 Parity Bit: Even
 Busy Ready Control : DTR / ER
 RS-232C/ RS-422: RS-232C

2) Mode Settings



2) Mode Settings

System Start Address: Arbitrary Address

Select [Transfer] --> [Setup] --> [Transfer Settings].

3) Transfer Settings

Transfer Settings

Send Information

- ☒ Unload Information
- ☒ GP System Screen
- ☐ Filing Data(CF card)
- ☐ Data Trans Func CSV Data(CF card)

Transfer Method

- ☒ Send All Screens
- ☐ Automatically Send Changed Screens
- ☐ Send User Selected Screens

Transfer Mode

- ☒ Preparation for a transfer and a transfer are made simultaneous.
- ☐ It is transferred after preparation for a transfer is finished.

Communications Port

- ☒ COM
 - Comm Port: COM1
 - Baud Rate: 115.2K (bps)
 - Retry Count: 5
- ☐ Ethernet
 - IP Address: 0. 0. 0. 0
 - Port: 8000
- ☐ Ethernet: Auto Acquisition
- ☐ Memory Loader

Setup

- ☒ Automatic Setup
- ☐ Force System Setup
- ☐ Do NOT Perform Setup

Use Extended Program :

- ☒ Simulation

Setup CFG file :

- ☒ English
- ☐ Japanese
- ☐ Selection

System Screen

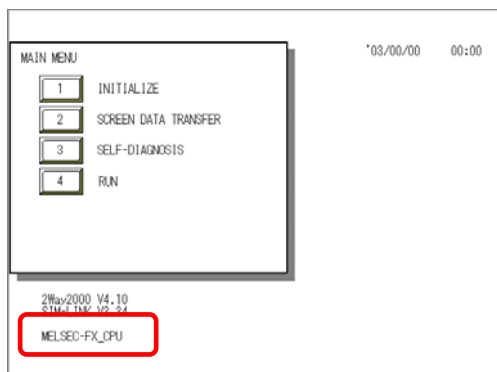
OK Cancel Help

3) Transfer Settings GP System Settings: Checked

Transfer to GP after settings completed.

2 [GP Settings]

1) Checking GP Type

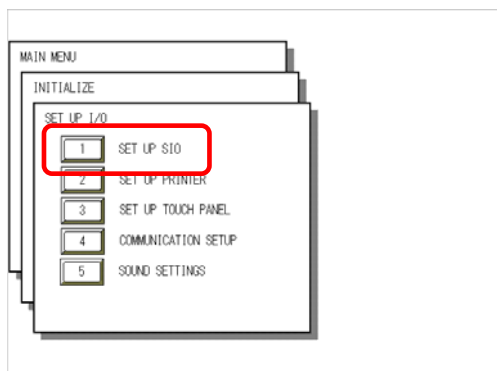


1) Checking GP Type

If you have selected Mitsubishi MELSEC-FX (CPU), the following will be shown.

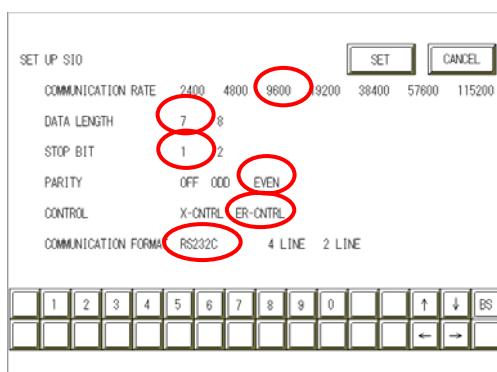
“MELSEC-FX_CPU”

2) Communication Settings



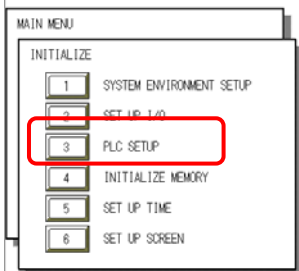
2) Communication Settings

[MAIN MENU]
↓
[INITIALIZE]
↓
[SET UP I/O]
↓
[SET UP SIO]



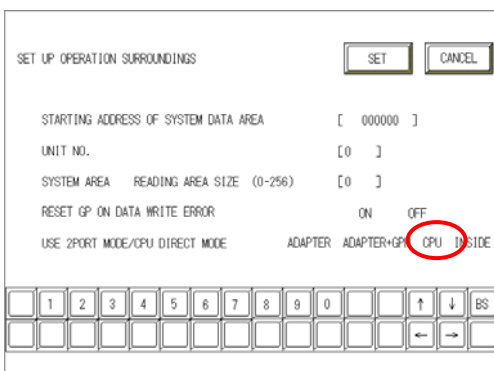
Communication Rate: 9600bps
Data Length : 7 Bits
Stop Bit: 1 Bit
Parity: Even
Control : ER Cntrl
Communication Format : RS-232C

3) Setting up Operation Surroundings



3) Setting up Operation Surroundings

[MAIN MENU]
↓
[INITIALIZE]
↓
[PLC SETUP]
↓
[PLC SETUP]



Starting Address of System Data Area:
Arbitrary Address
Use 2-Port Mode/CPU Direct Mode: CPU



Caution



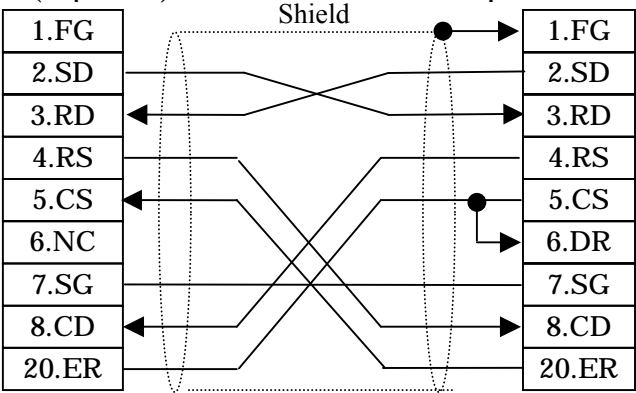
2-Port Adapter and Internal
2-Port Feature cannot be used.

Communication Settings [PLC]

There are no items to set on the PLC.

Connection Method

[Connecting to FX_{1N}-232-BD、FX_{2N}-232-BD via Expansion Board]

Type	Connection Method	Distance
Using GP410-IS00-O	<p>To GP  GP410-IS00-O or F₂-232CAB by Mitsubishi Elec.  To PLC</p> <p>Commercial D-sub 25pin↔D-sub 9pin Conversion Connector (Straight Type)</p>	5m
Creating Cable * a part of GP410-IS00-O	<p>To GP (25p Male) Expansion Board</p> 	Within 15m



Important * If a communication cable is used, it must be connected to the SG.

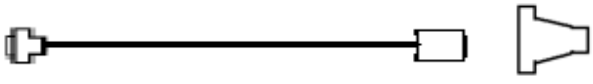
NOTE

The optional cable, GP410-IS00-O is 5m long. If you need a longer cable or shorter, please use a user-created cable to connect.

Recommended Products

Connector/Cover for GP	D-sub 25 pin Plug	XM2A-2501	<OMRON Co.>
	Cover for D-sub 25 pin	XM2S-2511	<OMRON Co.>
	Jack Screw	XM2Z-0071	<OMRON Co.>
Cable	CO-MA-VV-SB5P × 28AWG <Hitachi Cable Ltd.>		
Setscrew	Metric Coarse Screw Tread : M2.6 × 0.45		

[Connecting to FX_{2N}-422-BD via Expansion Board]

Connection Method		Distance
<p>To GP </p> <p>GP430-IP11-O</p> <p>25pin ↔ Round pin Conversion Adapter FX-20P-CADP by Mitsubishi Elec.</p> <p>To PLC</p>		5m



A user-created cable cannot be used.
Please be sure to use GP430-IP11-O.