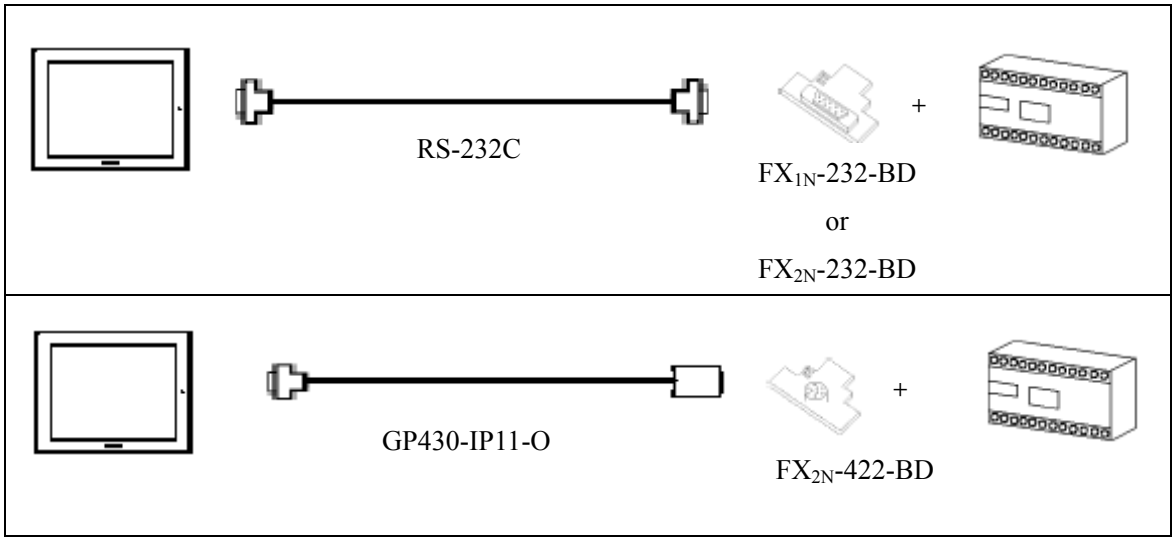
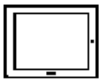
Mitsubishi <18> Mitsubishi Electric Corporation
FX Series + Expansion Board (CPU Direct Protocol) Connection

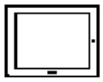
System Structure



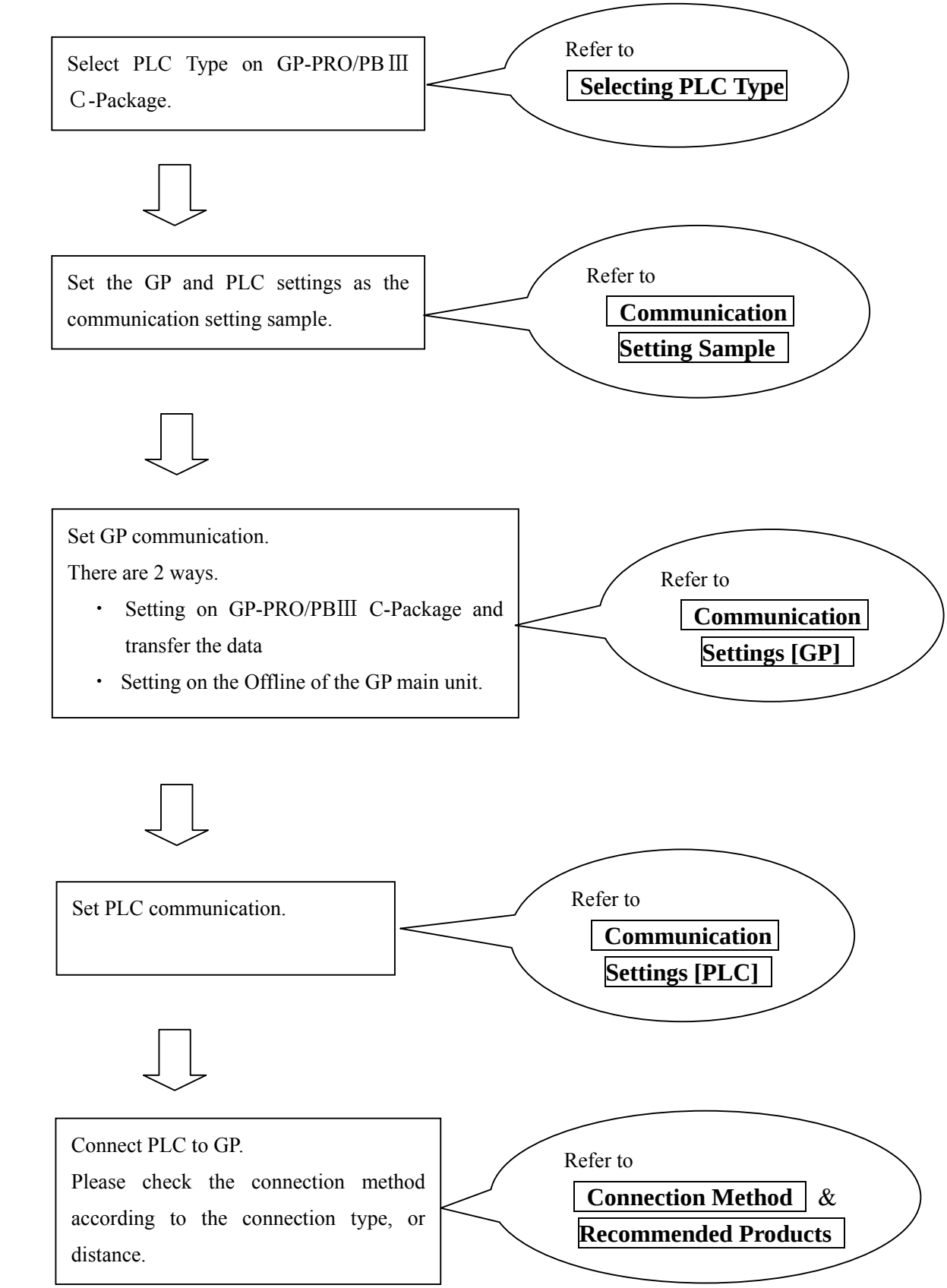
GP

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 Ⅱ 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



Selecting PLC Type

Start up GP-PRO /PBIII.

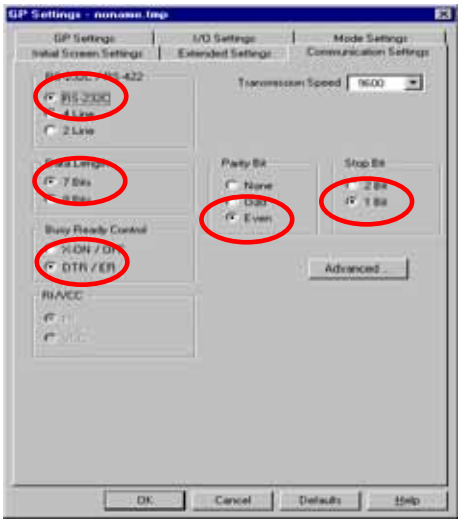
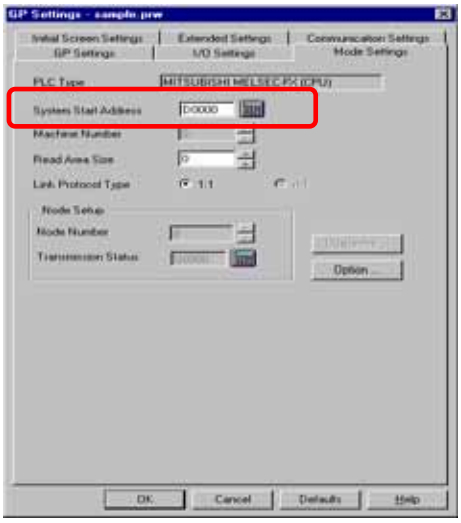
Select the following PLC Type when creating the project file.

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)	---

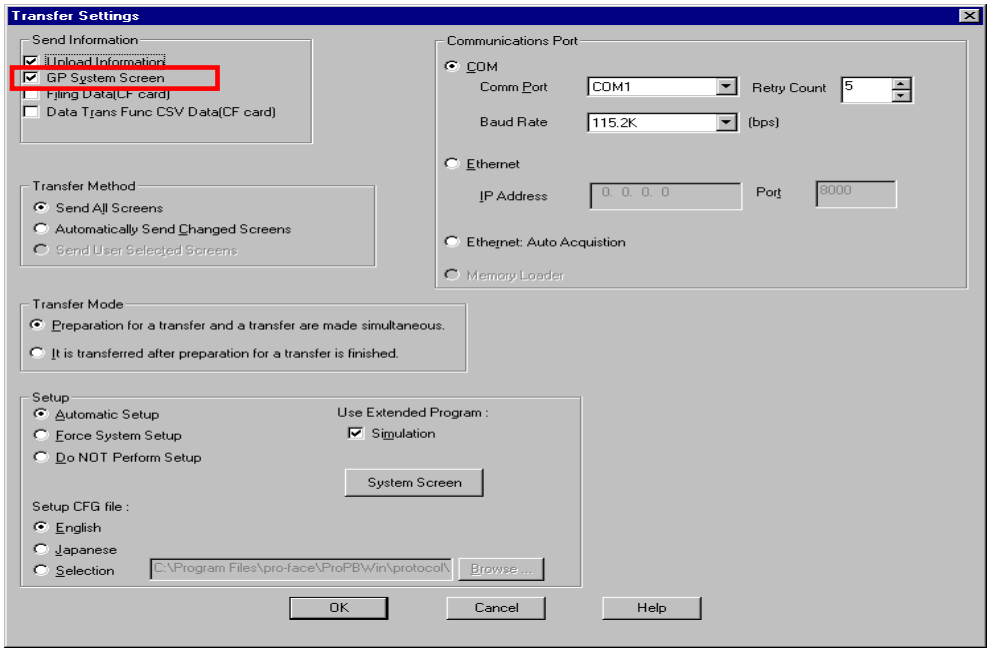
Communication Settings [GP]

1 [GP-PRO/PBIII 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].

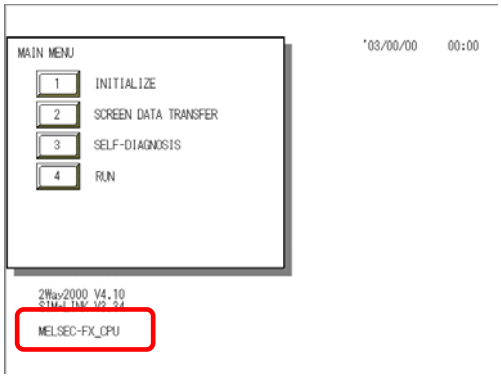
3) Transfer Settings



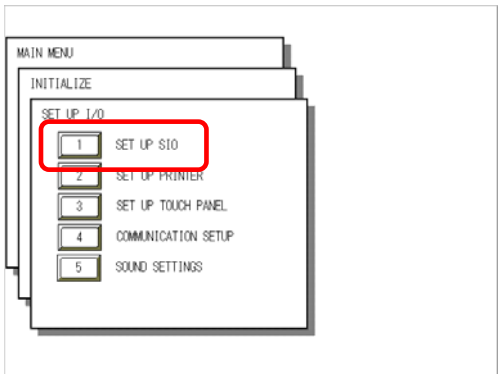
3) Transfer Settings GP System Settings: Checked

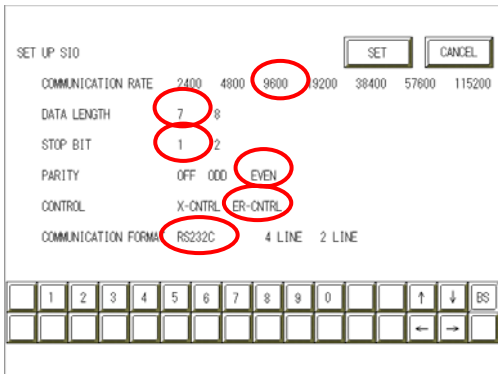
Transfer to GP after settings completed.

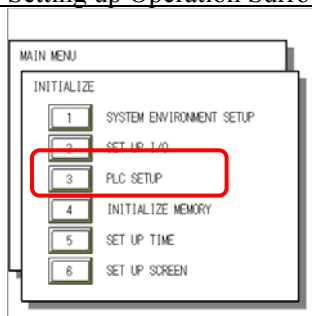
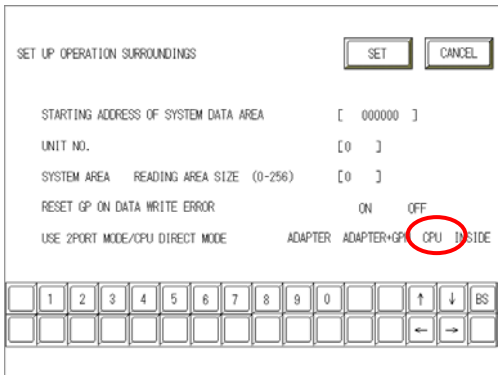
2 [GP Settings]

<table>
<tr>
<td>1) Checking GP Type
 
</td>
<td>1) Checking GP Type

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

"MELSEC-FX_CPU"</td>
</tr>
<tr>
<td>2) Communication Settings
 
</td>
<td>2) Communication Settings

[MAIN MENU]
↓
[INITIALIZE]
↓
[SET UP I/O]
↓
[SET UP SIO]</td>
</tr>
<tr>
<td> 
</td>
<td>Communication Rate: 9600bps
Data Length : 7 Bits
Stop Bit: 1 Bit
Parity: Even
Control : ER Cntrl
Communication Format : RS-232C</td>
</tr>
</table>

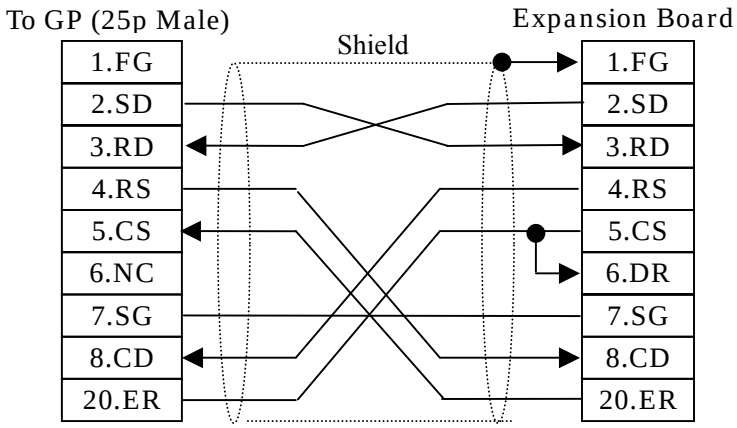
3) Setting up Operation Surroundings	3) Setting up Operation Surroundings
	[MAIN MENU] ↓ [INITIALIZE] ↓ [PLC SETUP] ↓ [PLC SETUP]
	Starting Address of System Data Area: Arbitrary Address Use 2-Port Mode/CPU Direct Mode: CPU **Caution** 2-Port Adapter II and Internal 2-Port Feature cannot be used.

Communication Settings [PLC]

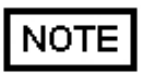
There are no items to set on the PLC.

Connection Method

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

<table>
<tr><th>Type</th><th>Connection Method</th><th>Distance</th></tr>
<tr><td>Using
GP410-IS00-O</td><td>To GP
GP410-IS00-O
or
F_2-232CAB by
Mitsubishi Elec.
Commercial
D-sub 25pin↔D-sub 9pin
Conversion Connecter
(Straight Type)
To PLC</td><td>5m</td></tr>
<tr><td>Creating Cable
* a part of
GP410-IS00-O</td><td> 
</td><td>Within
15m</td></tr>
</table>

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

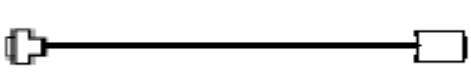


The optional cable, GP410-IS00-O is 5m long. If you need a longer cable or shorter, please use a user-created cable to connect.

Recommended Products

Connecter/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
To GP  To PLC GP430-IP11-O 25pin ↔Round pin Conversion Adapter FX-20P-CADP by Mitsubishi Elec.	5m

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