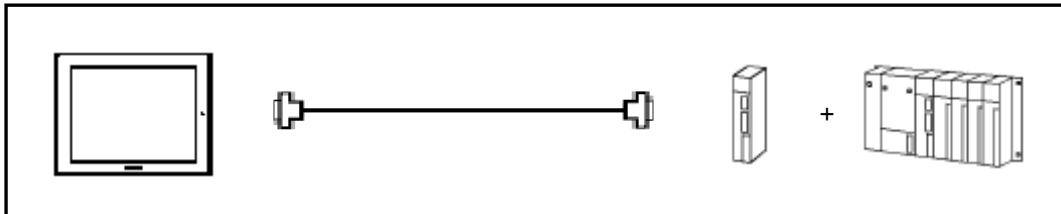



## Mitsubishi <2> Mitsubishi Electric Corporation

### A Series (AnUS) + Link Unit (Medium) Connection





#### System Structure



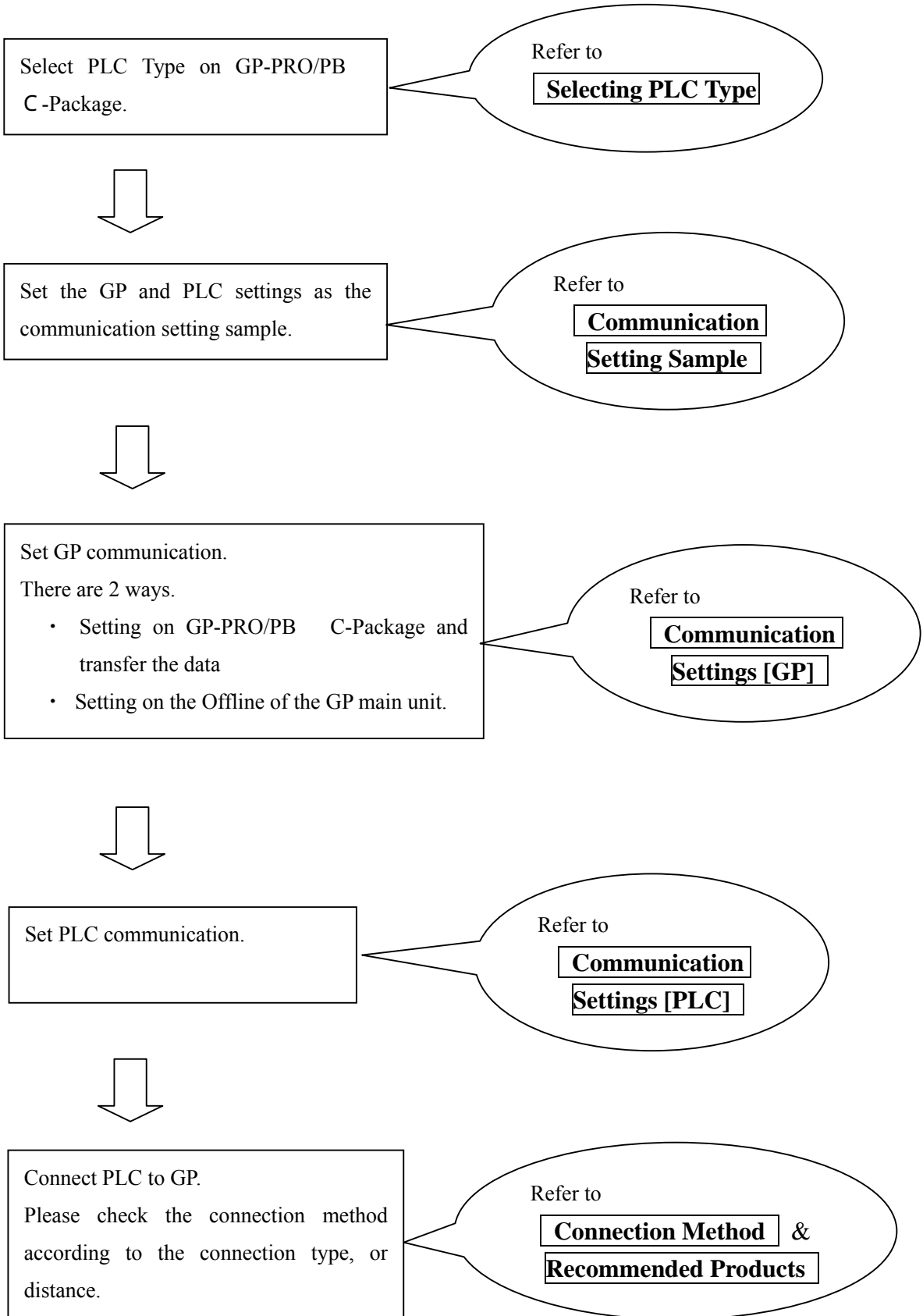
#### GP

Machine 	Model	Remark
GP	GP70 Series GP77/77R Series GP2000 Series	Excepting for handy types.
GLC	GLC2000 Series	

#### PLC

CPU 	Computer Link Unit 	Communication Method	Connection Cable 	GP 
A2US	A1SJ71C24-R2 A1SJ71UC24-R2	RS-232C	<b>Connection Method</b> [1]	
	A1SJ71UC24-R4	RS-422	<b>Connection Method</b> [2]	
A2USH-S1	A1SJ71UC24-R2	RS-232C	<b>Connection Method</b> [1]	
	A1SJ71UC24-R4	RS-422	<b>Connection Method</b> [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

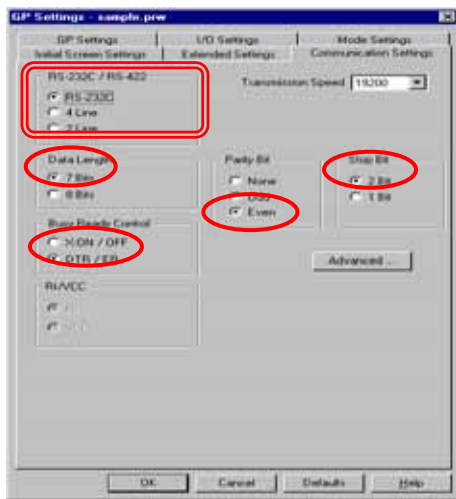
GP Setup		Computer Link Unit Settings	
Baud Rate	19200 bps	Baud Rate	19200 bps
Data Length	7 bits	Data Bit	7 bits
Stop Bit	2 bits	Stop Bit	2 bits
Parity Bit	Even	Parity Check	Yes
		Parity setting even/odd	Even
Data Flow Control	ER Control		---
Communication Format (RS-232C)	RS-232C	Channel Setup Mode Setup (RS-232C)	RS-232C 4 (Format 4 protocol)
Communication Format (RS-422)	4-wire type	Channel Setup Mode Setup (RS-422)	RS-422 8 (Format 4 protocol)
	---	Write possible in RUN mode.	Possible
	---	Sum Check	Yes
Unit No.	0	Station Number	0

## Communication Settings [GP]

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

Select [GP Setup] on Project Manager.

### 1) Communication Settings

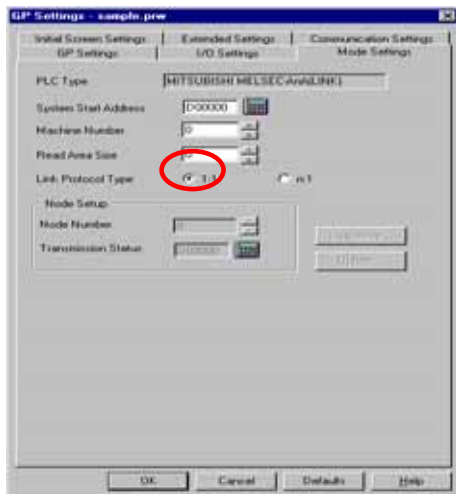


### 1) Communication Settings

Transmission Speed : 19200bps  
Data Length : 7 Bits  
Stop Bit: 2 Bits  
Parity Bit: Even  
Busy Ready Control : DTR / ER  
RS-232C/ RS-422  
RS-232C Connection: RS-232C  
RS-422 Connection: 4 Line

\* Select one in  depending on the communication method.

### 2) Mode Settings



### 2) Mode Settings

System Start Address: Arbitrary Address  
Machine No.: 0  
Link Protocol Type: 1:1

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

### 3) Transfer Settings

**Transfer Settings**

**Send Information**

- Upload 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.

**Setup**

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

**Use Extended Program :**

- Simulation

System Screen

**Setup CFG file :**

- English
- Japanese
- Selection

C:\Program Files\pro-face\ProPBWin\protocol\ Browse...

**Communications Port**

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

OK Cancel Help

3) Transfer Settings GP System Settings: Checked

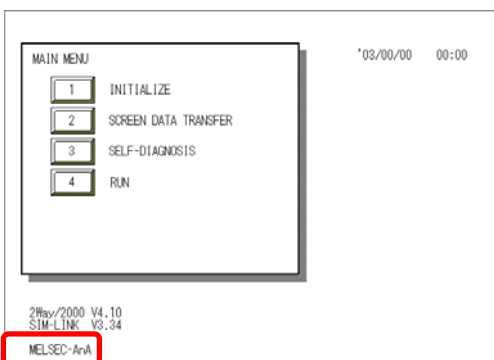
Transfer to GP after settings completed.

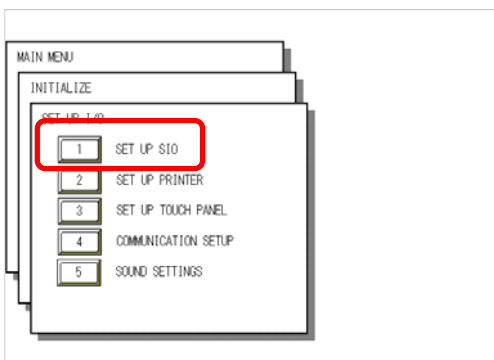
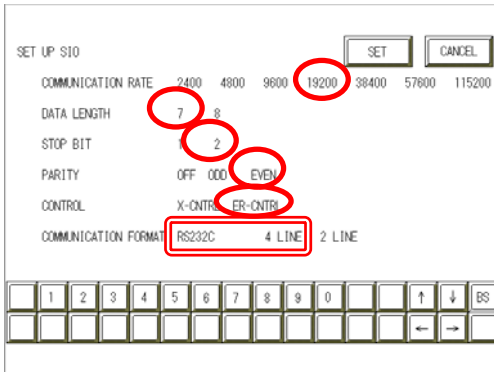
## 2 [GP Settings]

- Displaying Setting Screen -

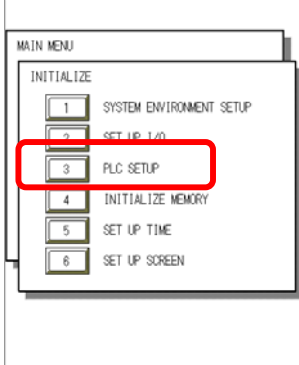
Touch the left top of the screen within 10 second after powering on.

Or touch the right top and the right bottom of the screen at the same time. Keep 2 points touched and touch the left bottom. The menu bar will display on the bottom of the screen. Then touch [Offline].

<p><u>1) Checking GP Type</u></p> 	<p><u>1) Checking GP Type</u></p> <p>If you have selected Mitsubishi MELSEC-AnA (LINK), the following will be shown.</p> <p>“MELSEC-AnA”</p>
--	--

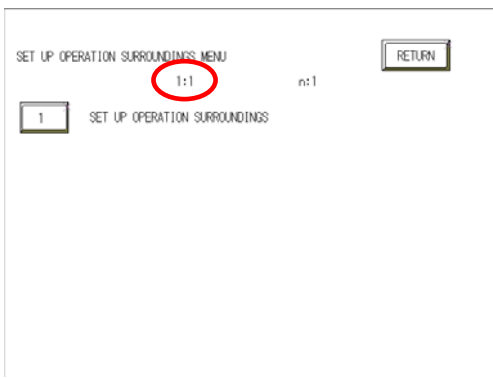
<p><u>2) Communication Settings</u></p> 	<p><u>2) Communication Settings</u></p> <p>[MAIN MENU] ↓ [INITIALIZE] ↓ [SET UP I/O] ↓ [SET UP SIO]</p>
	<p>Communication Rate: 19200bps Data Length: 7 Bits Stop Bit: 2 Bits Parity: Even Control: ER Cntrl Communication Format RS-232C Connection :RS-232C RS-422 Connection :4 Line</p> <p>* Select one in <input type="text"/> .</p>

### 3) Setting up Operation Surroundings

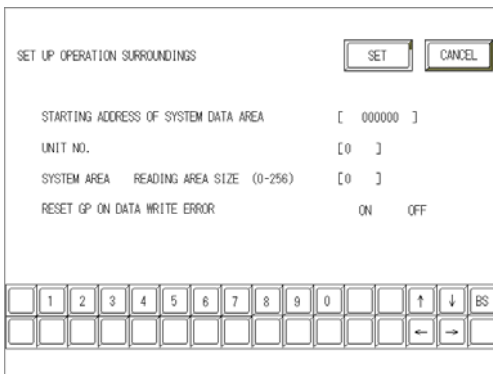


### 3) Setting up Operation Surroundings

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



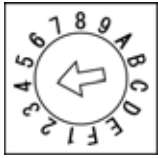
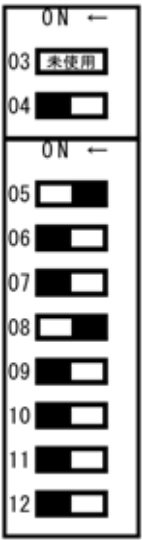
SET UP OPERATION SURROUNDINGS MENU:  
 1:1



Starting Address of System Data Area:  
 Arbitrary Address  
 Unit No.: 0

## Communication Settings [PLC]

### 1. RS-232C Connection

<p>1) <u>Mode Setup</u></p> <p>MODE </p>	<p>1) <u>Mode Setup</u></p> <p>4 (Format 4 Protocol)</p>
<p>2) <u>Communication Settings</u></p> <p><b><u>Set switches to the black.</u></b></p> 	<p>2) <u>Communication Settings</u></p> <p>Baud Rate :19200bps              Data Bit :7 Bits              Stop Bit :2 Bits              Parity Check :Yes              Parity Setting Even/Odd :Even              Write Possible in RUN Mode: Possible              Sum Check :Yes</p>


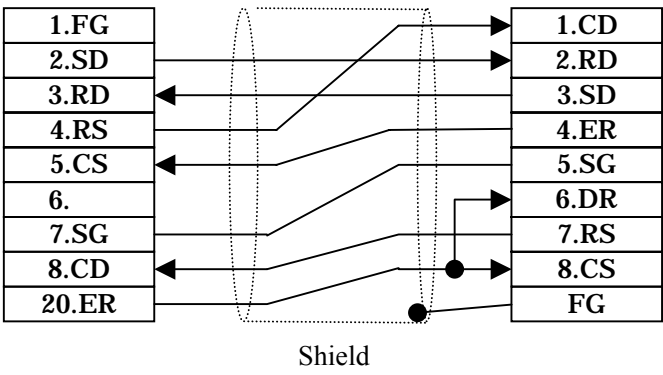






## Connection Method

### 1. RS-232C Connection

Type	Connection Method	Distance																		
Using GP000-IS02-MS		3m																		
Creating Cable	<p>To GP (25p Male) <span style="float: right;">To PLC (9p Male)</span></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">1.FG</td> <td style="width: 50%; text-align: center;">1.CD</td> </tr> <tr> <td style="text-align: center;">2.SD</td> <td style="text-align: center;">2.RD</td> </tr> <tr> <td style="text-align: center;">3.RD</td> <td style="text-align: center;">3.SD</td> </tr> <tr> <td style="text-align: center;">4.RS</td> <td style="text-align: center;">4.ER</td> </tr> <tr> <td style="text-align: center;">5.CS</td> <td style="text-align: center;">5.SG</td> </tr> <tr> <td style="text-align: center;">6.</td> <td style="text-align: center;">6.DR</td> </tr> <tr> <td style="text-align: center;">7.SG</td> <td style="text-align: center;">7.RS</td> </tr> <tr> <td style="text-align: center;">8.CD</td> <td style="text-align: center;">8.CS</td> </tr> <tr> <td style="text-align: center;">20.ER</td> <td style="text-align: center;">FG</td> </tr> </table> <p style="text-align: center;">Shield</p> 	1.FG	1.CD	2.SD	2.RD	3.RD	3.SD	4.RS	4.ER	5.CS	5.SG	6.	6.DR	7.SG	7.RS	8.CD	8.CS	20.ER	FG	Within 15m
1.FG	1.CD																			
2.SD	2.RD																			
3.RD	3.SD																			
4.RS	4.ER																			
5.CS	5.SG																			
6.	6.DR																			
7.SG	7.RS																			
8.CD	8.CS																			
20.ER	FG																			



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

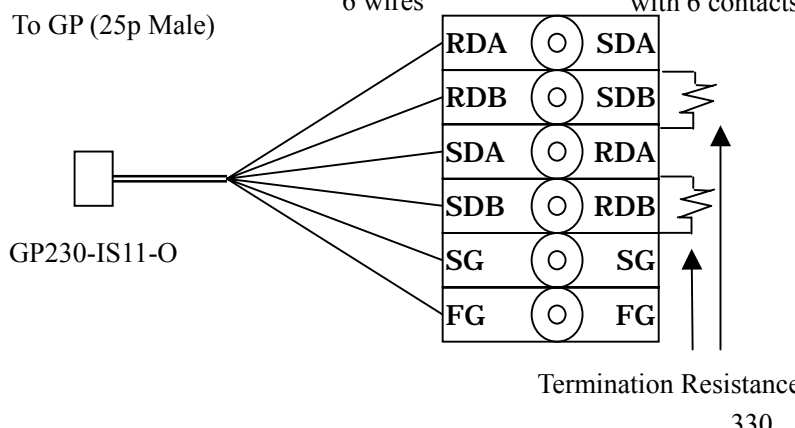
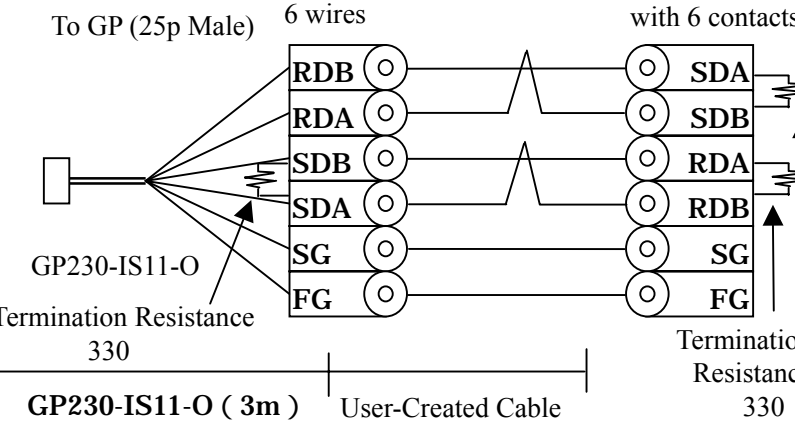
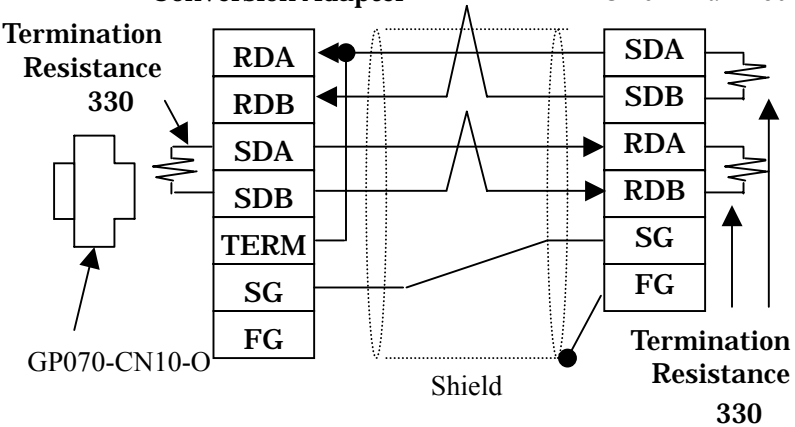


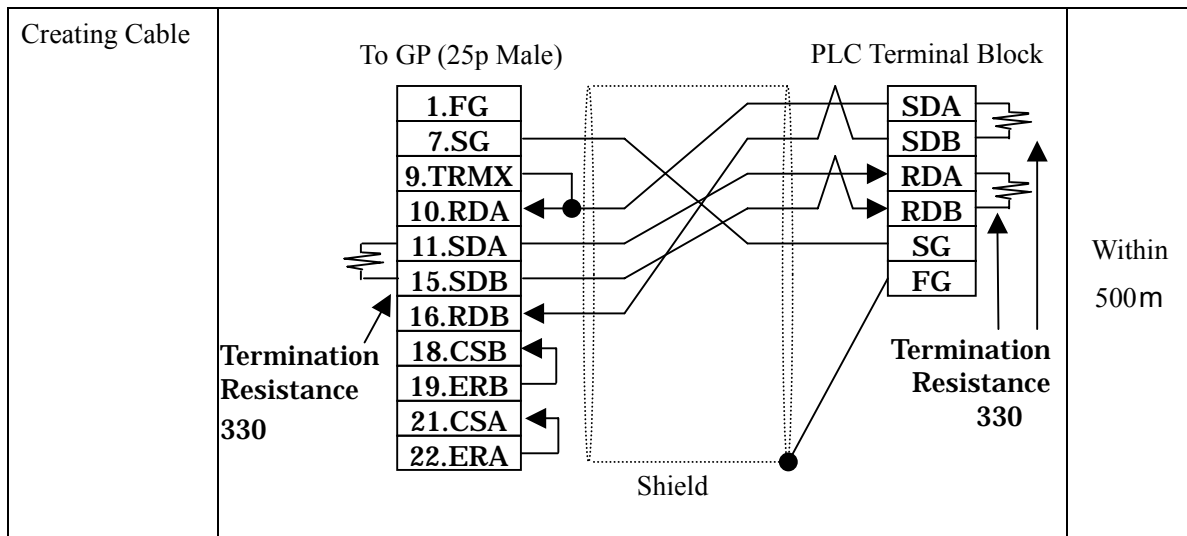
The optional cable, GP000-IS02-MS is 3m long. If you need a longer cable or shorter, please use a User-Created cable to connect.

## 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	

## 2. RS-422 Connection

Type	Connection Method	Distance
Using GP230-IS11-O	<p>Cable with 6 wires</p> <p>PLC Terminal Block with 6 contacts</p> <p>To GP (25p Male)</p>  <p>Termination Resistance 330</p>	5m
Extending GP230-IS11-O	<p>Cable with 6 wires</p> <p>PLC Terminal Block with 6 contacts</p> <p>To GP (25p Male)</p>  <p>Termination Resistance 330</p> <p>GP230-IS11-O (3m)</p> <p>User-Created Cable</p> <p>Termination Resistance 330</p>	5 - 500 m
Using GP070-CN10-O	<p>Conversion Adapter</p> <p>PLC Terminal Block</p> <p>Termination Resistance 330</p>  <p>Shield</p> <p>Termination Resistance 330</p>	Within 500m



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

\* Termination resistance when using AJ71UC24

PLC / between SDA and SDB, between RDA and RDB : 330

(with wattage specified on PLC)

GP Unit / as required (Refer to Cable Diagrams) : 330

(with wattage specified on PLC)

### 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	SPEV(SB)-MPC-0.2*3P <Mitsubishi Cable Ind.>	
Setscrew	Metric Coarse Screw Tread : M2.6 × 0.45	