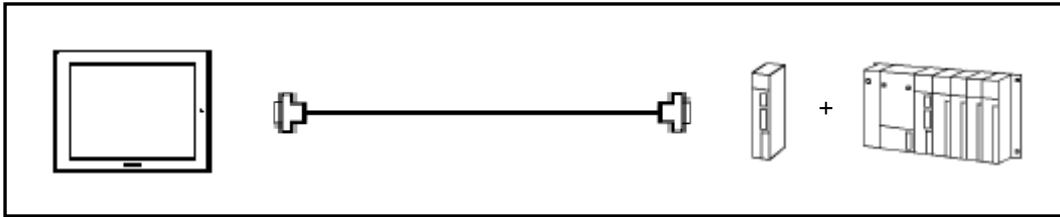



Mitsubishi <4> Mitsubishi Electric Corporation

A Series (AnN) + Link Unit (Large) Connection




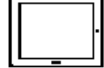
System Structure



GP

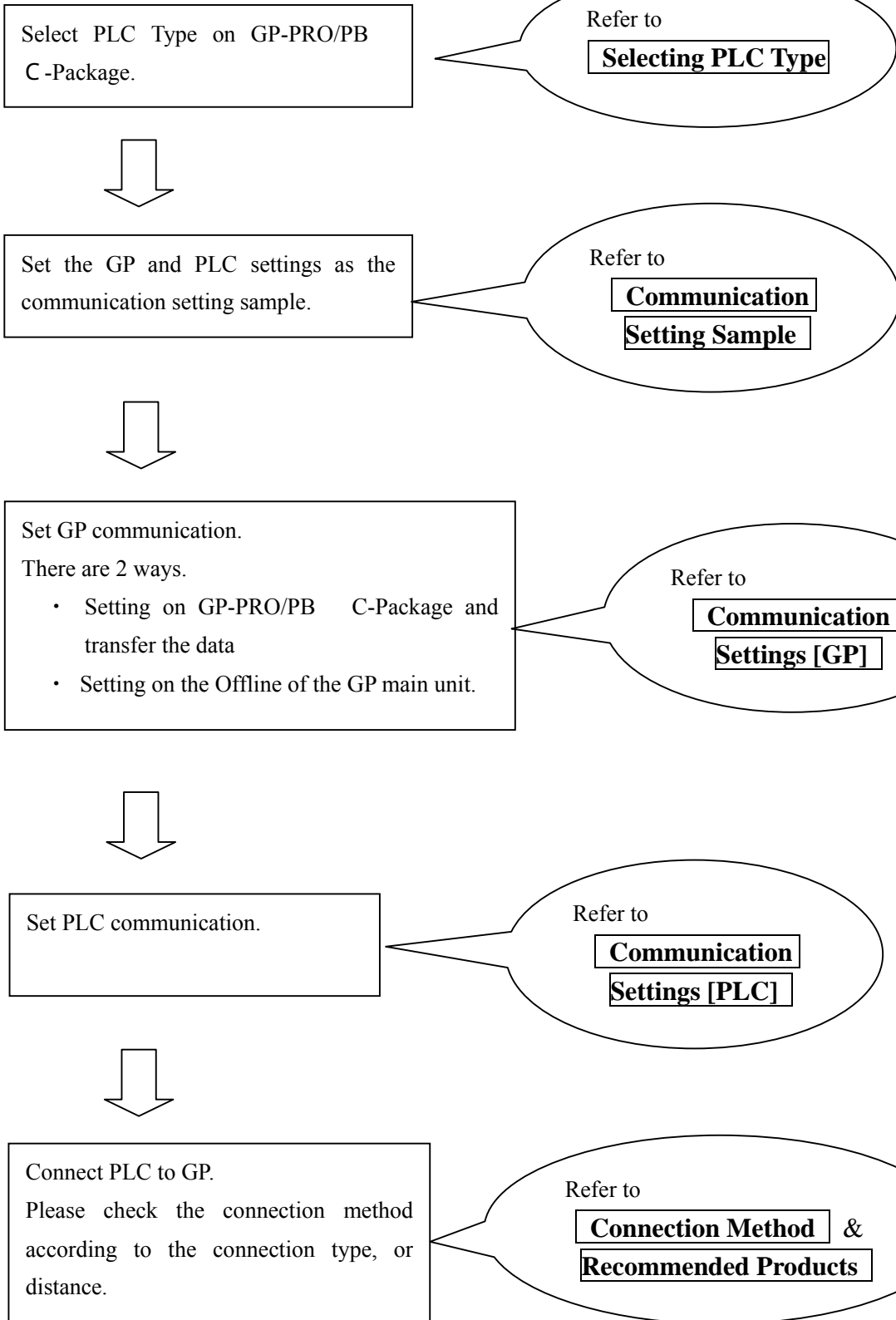
| Machine  | Model | Remark |
|---|---|----------------------------|
| GP | GP70 Series GP77/77R Series GP2000 Series | Excepting for handy types. |
| GLC | GLC2000 Series | |

PLC

| CPU  | Computer Link Unit  | Communication Method | Connection Cable  | GP  |
|--|---|----------------------|--|---|
| A1N A2N A3N | AJ71C24 AJ71C24-S3 AJ71C24-S6 AJ71C24-S8 AJ71UC24 *1 | RS-232C | Connection Method [1] | |
| | | RS-422 | Connection Method [2] | |

*1: AJ71UC24 has been confirmed its connection only with A2N.

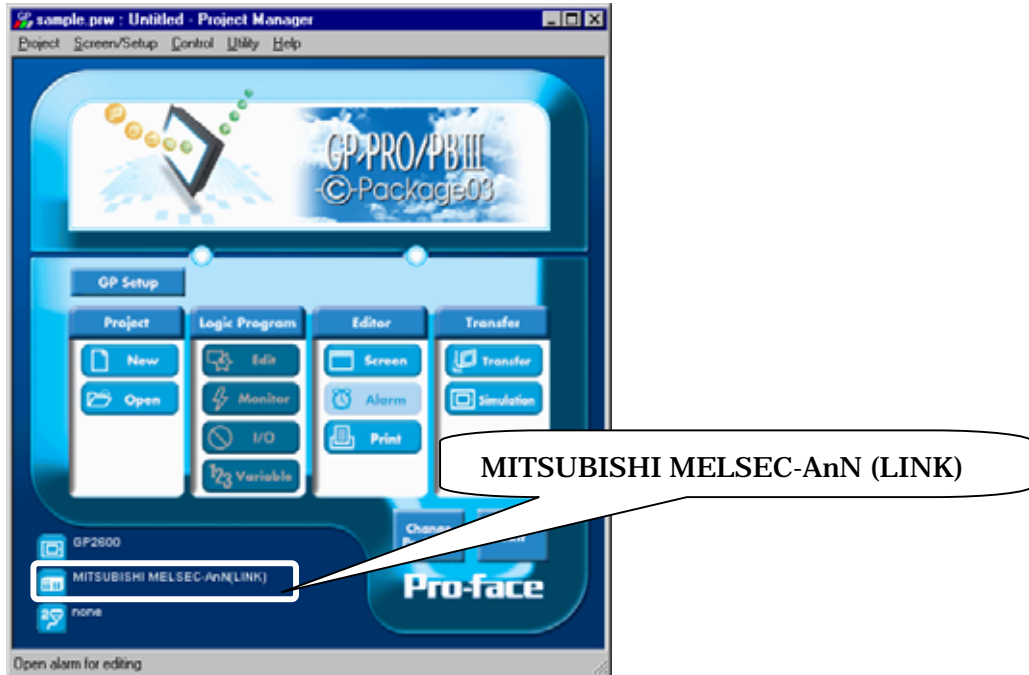
Procedure to Connect PLC



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 Parity setting even/odd | Yes 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 |
| --- | | Enable Sender Termination Resistor *1 | Yes |
| --- | | Enable Receiver Termination Resistor *1 | Yes |
| Unit No. | 0 | Station Number | 0 |

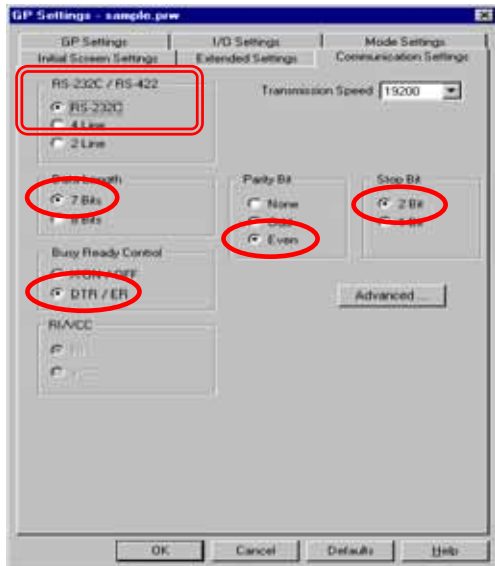
* 1: AJ71UC24 does not have this setting.

Communication Settings [GP]

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

Select [GP Setup] on Project Manager.

1) Communication Settings

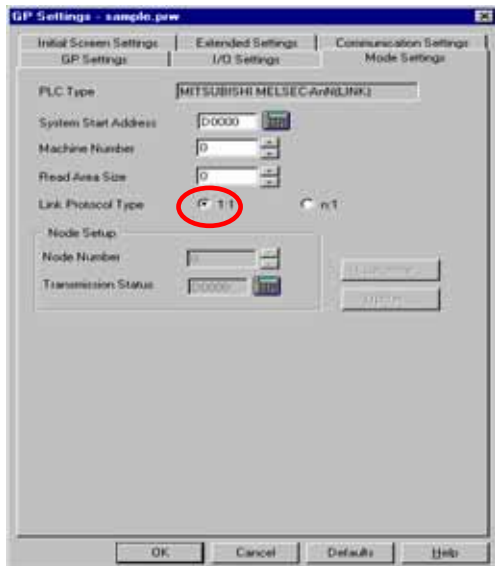


1) Communication Settings

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 Screens
- 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

Setup CFG file :

- English
- Japanese
- Selection

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

System Screen

OK Cancel Help

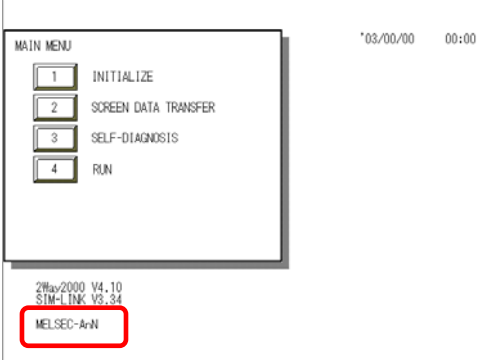
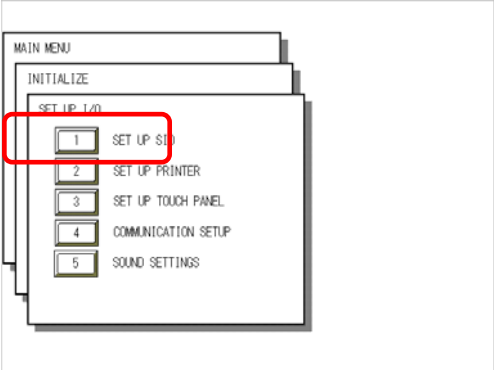
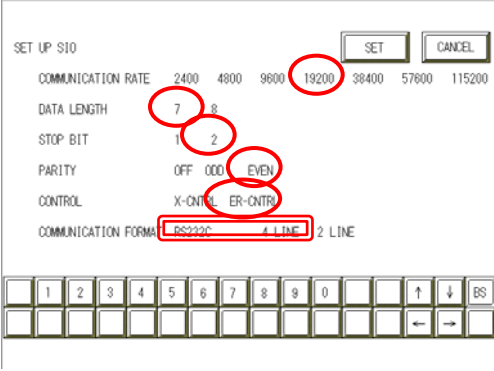
Communications Port

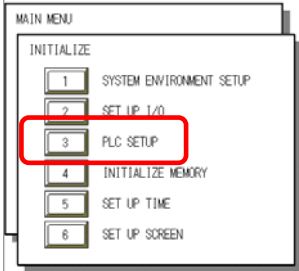
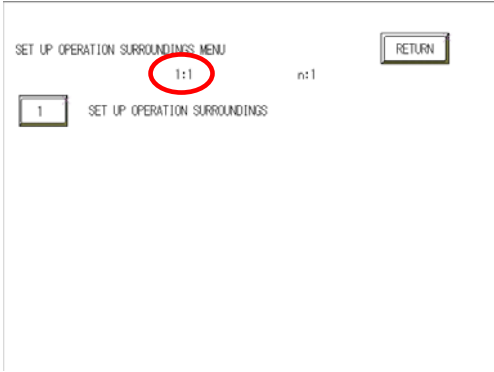
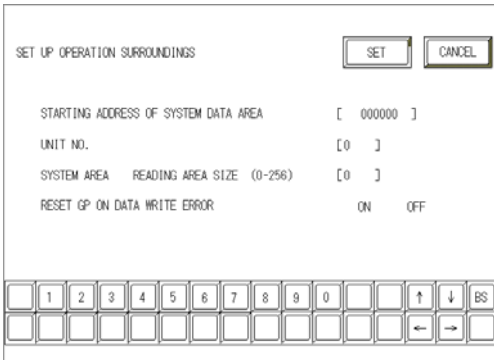
- COM
- Comm Port: COM1 Retry Count: 5
- Baud Rate: 115.2K (bps)
- Ethernet
- IP Address: 0.0.0.0 Port: 8000
- Ethernet: Auto Acquisition
- Memory Loader

3) Transfer Settings GP System Settings: Checked

Transfer to GP after settings completed.

2 [GP Settings]


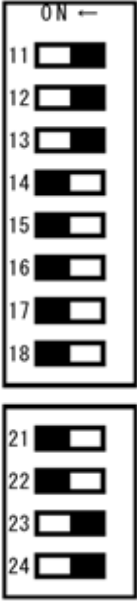
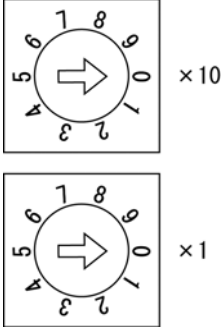
| | |
|--|--|
| <p><u>1) Checking GP Type</u></p>  | <p><u>1) Checking GP Type</u></p> <p>If you have selected Mitsubishi MELSEC-AnN (LINK), the following will be shown.</p> <p>“MELSEC-AnN”</p> |
| <p><u>2) Communication Settings</u></p>  | <p><u>2) Communication Settings</u></p> <p>[MAIN MENU] ↓ [INITIALIZE] ↓ [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> |

| | |
|--|--|
| <p><u>3) Setting up Operation Surroundings</u></p>  | <p><u>3) Setting up Operation Surroundings</u></p> <p>[MAIN MENU] ↓ [INITIALIZE] ↓ [PLC SETUP] ↓ [PLC SETUP]</p> |
|  | <p>SET UP OPERATION SURROUNDINGS MENU: 1:1</p> |
|  | <p>Starting Address of System Data Area: Arbitrary Address Unit No.: 0</p> |


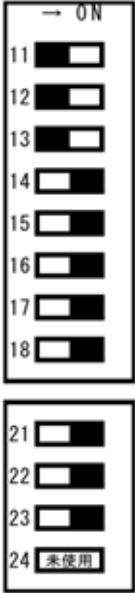
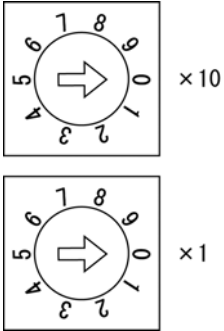
Communication Settings [PLC]

1. RS-232C Connection

1-1 [Connecting via Computer Link Unit AJ71C24 / AJ71C24-S3 / AJ71C24-S6 / AJ71C24-S8]


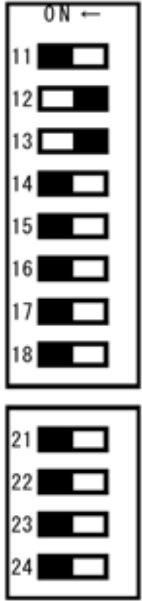
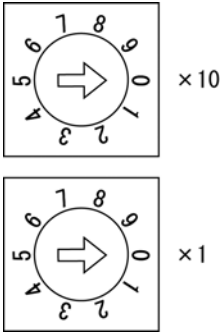
| | |
|---|--|
| <p><u>1) Mode Setup</u></p> <p>MODE</p>  | <p><u>1) Mode Setup</u></p> <p>4 (Format 4 Protocol)</p> |
| <p><u>2) Communication Settings</u></p> <p>Set switches to the black.</p>  | <p><u>2) Communication Settings</u></p> <p>Baud Rate :19200bps Data Bit :7 Bits Stop Bit :2 Bits Parity Check :Yes Parity Setting Even/Odd :Even Write Possible in RUN Mode: Possible Sum Check :Yes Enable Sender Termination Resistor: Yes Enable Receiver Termination Resistor: Yes</p> |
| <p><u>3) Node Settings</u></p> <p>STATION NO</p>  | <p><u>3) Node Settings</u></p> <p>Station Number: 0</p> |

1-2 [Connecting via Computer Link Unit AJ71UC24]


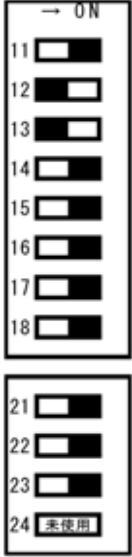
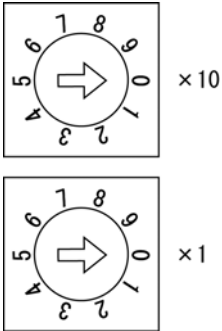
| | |
|---|--|
| <p><u>1) Mode Setup</u></p> <p>MODE</p>  | <p><u>1) Mode Setup</u></p> <p>4 (Format 4 Protocol)</p> |
| <p><u>2) Communication Settings</u></p> <p>Set switches to the black.</p>  | <p><u>2) Communication Settings</u></p> <p>Baud Rate :19200bps Data Bit :7 Bits Stop Bit :2 Bits Parity Check :Yes Parity Setting Even/Odd :Even Write Possible in RUN Mode: Possible Sum Check :Yes</p> |
| <p><u>3) Node Settings</u></p> <p>STATION NO</p>  | <p><u>3) Node Settings</u></p> <p>Station Number: 0</p> |

2. RS-422 Connection

2-1 [Connecting via Computer Link Unit AJ71C24 / AJ71C24-S3 / AJ71C24-S6 / AJ71C24-S8]

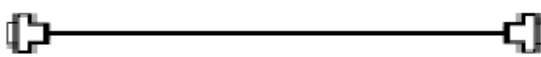
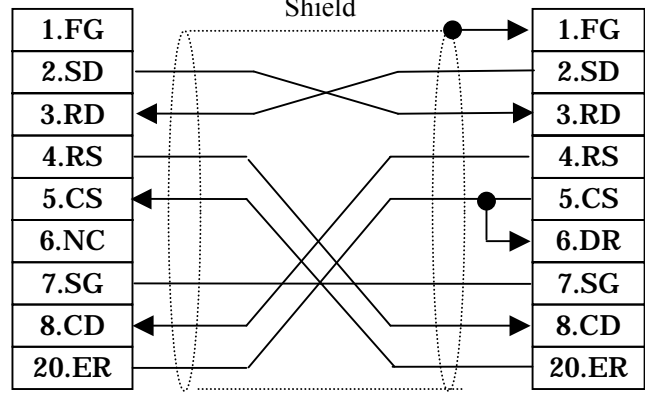
| | |
|--|--|
| <p>1) <u>Mode Setup</u></p> <p>MODE </p> | <p>1) <u>Mode Setup</u></p> <p>8 (Format 4 Protocol)</p> |
| <p>2) <u>Communication Settings</u></p> <p><u>Set switches to the black.</u></p>  | <p>2) <u>Communication Settings</u></p> <p>Baud Rate :19200bps Data Bit :7 Bits Stop Bit :2 Bits Parity Check :Yes Parity Setting Even/Odd :Even Write Possible in RUN Mode: Possible Sum Check :Yes Enable Sender Termination Resistor: Yes Enable Receiver Termination Resistor: Yes</p> |
| <p>3) <u>Node Settings</u></p> <p>STATION NO</p>  | <p>3) <u>Node Settings</u></p> <p>Station Number: 0</p> |

2-2 [Connecting via Computer Link Unit AJ71UC24]

| | |
|--|---|
| <p>1) Mode Setup</p> <p>MODE</p>  | <p>1) Mode Setup</p> <p>8 (Format 4 Protocol)</p> |
| <p>2) Communication Settings</p> <p>Set switches to the black.</p>  | <p>2) Communication Settings</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> |
| <p>3) Node Settings</p> <p>STATION NO</p>  | <p>3) Node Settings</p> <p>Station Number: 0</p> |

Connection Method

1. RS-232C Connection

| Type | Connection Method | Distance |
|-----------------------|--|---------------|
| Using GP410-IS00-O |  | 5m |
| Creating Cable | <p>To GP (25p Male) Shield To PLC (25p Male)</p>  | Within 15m |



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

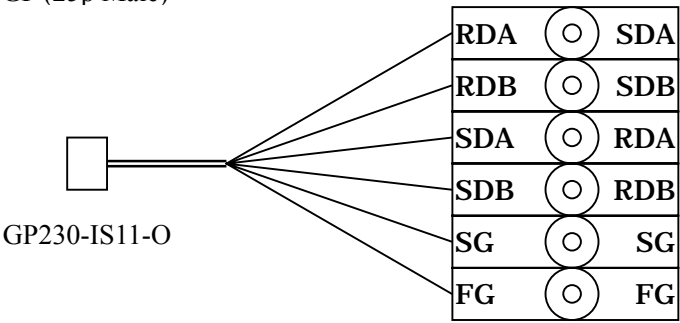
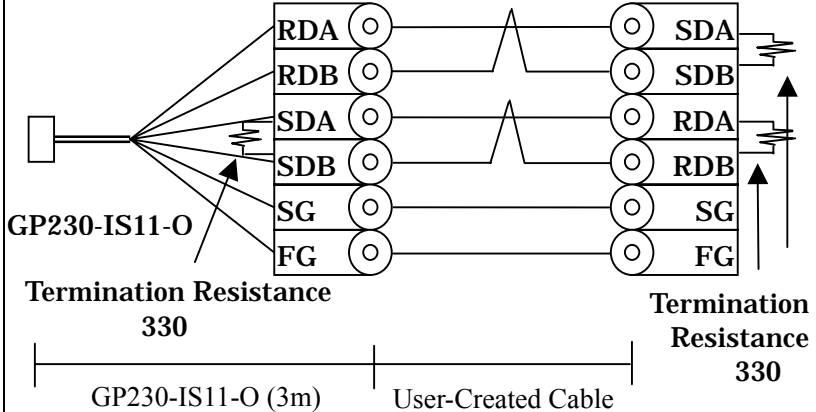
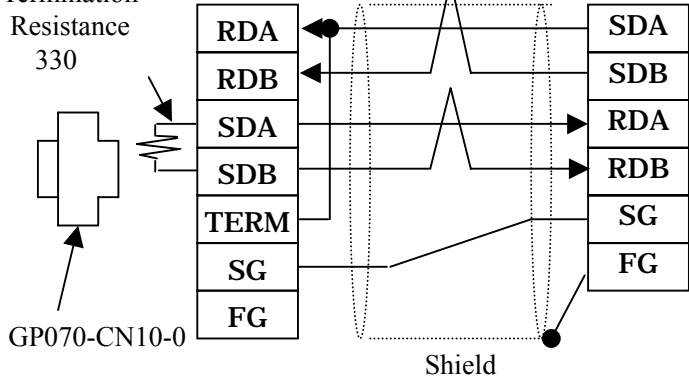


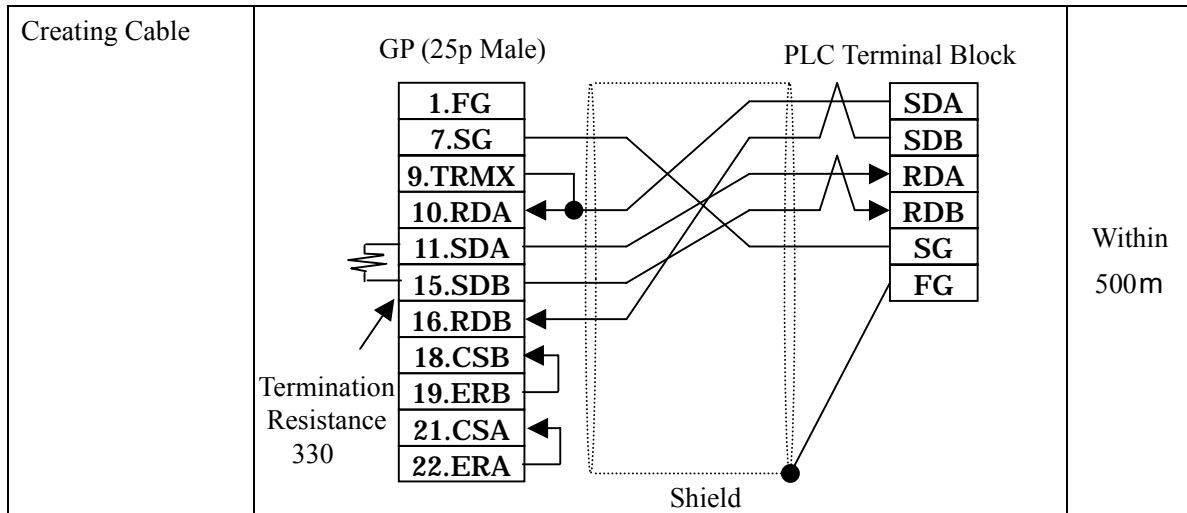
The optional cable, GP410-IS00-O is 5m long. If you need a longer cable or shorter, please use a User-Created cable to connect.

Recommended Products

| | | | |
|---------------------------|--|-----------|-------------|
| 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 style="text-align: center;">Cable with 6 wires PLC Terminal Block with 6 contacts</p> <p>To GP (25p Male)</p>  <p style="text-align: center;">GP230-IS11-O</p> | 5m |
| Extending GP230-IS11-O | <p style="text-align: center;">Cable with 6 wires PLC Terminal Block with 6 contacts</p> <p>To GP (25p Male)</p>  <p style="text-align: center;">Termination Resistance 330 Termination Resistance 330</p> <p style="text-align: center;">GP230-IS11-O (3m) User-Created Cable</p> | 5 - 500 m |
| Using GP070-CN10-O | <p style="text-align: center;">Conversion Adapter PLC Terminal Block</p> <p>Termination Resistance 330</p>  <p style="text-align: center;">GP070-CN10-O Shield</p> | Within 500m |



- * If a communication cable is used, it must be connected to the SG.
- * Turn on the termination resistance switch on the PLC. (Excepting for AJ71UC24)
- * 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 | | |