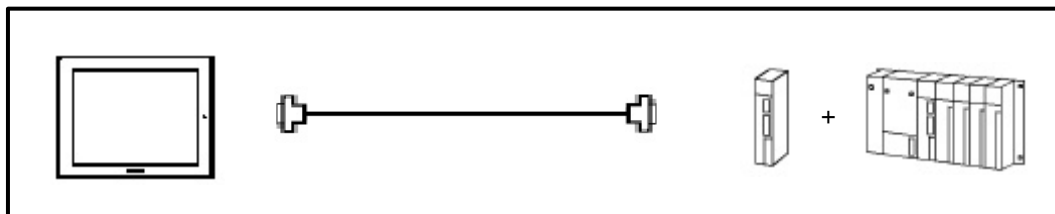


Mitsubishi < 2 > Mitsubishi Electric PLC

「A Series (AnUS) + LINK unit (Middle-sized)」 Connection method

System Structure



Object Model

 Model	Series	Notes
GP	GP70 Series GP77 / 77R Series GP2000 Series	Except of handy-type
GLC	GLC2000 Series	

Object P L C

 CPU	 Calculator link unit	Connection Method	 Connection cable	 GP
A2US	A1SJ71C24-R2 A1SJ71UC24-R2	RS-232C	Connection Method 【 1 】	
	A1SJ71UC24-R4	RS-422	Connection Method 【 2 】	
A2USH-S1	A1SJ71UC24-R2	RS-232C	Connection Method 【 1 】	
	A1SJ71UC24-R4	RS-422	Connection Method 【 2 】	

Procedure to connect GP to PLC

Select PLC type via GP-PRO/PBIII
C-Package

Refer to

Select PLC type



GP and PLC system settings
should follow the example.

Refer to

System Setting Example



Set GP system settings.
There are 2 settings methods. Use either one.
Set via GP-PRO/PBIII C-Package
And Transfer settings
Set via offline menu of GP

Refer to

System Setting

【GP】



Set PLC's system settings.

Refer to

System Setting 【PLC】



Connect GP to PLC
Verify the connection method matches
connection format, distance, etc.

Refer to

Connection Method &

Recommended products

Select PLC type

When creating a project file, select the following PLC type.



Mitsubishi Electric
MELSEC AnA (LINK))

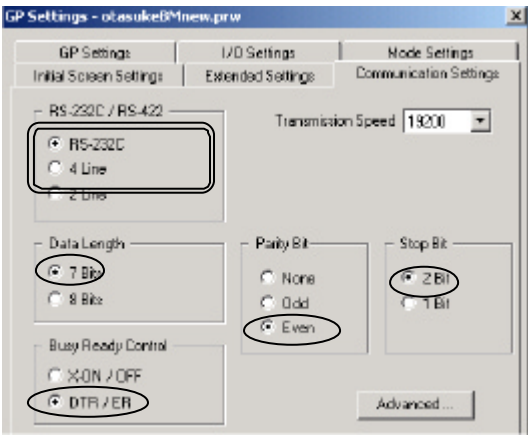
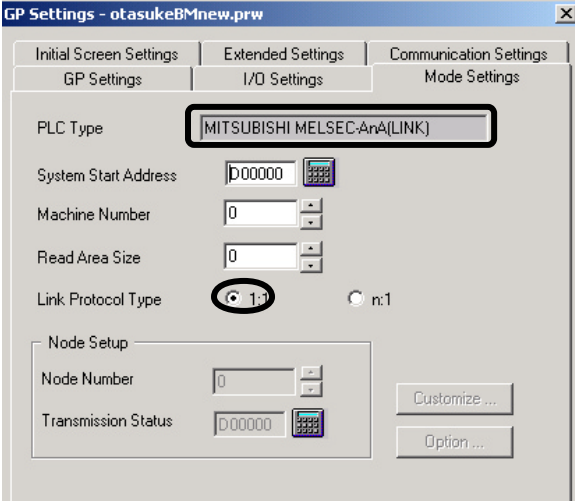
System Setting Example

GP Setting		Calculator link unit	
Transmission Speed	19200bps	Transmission Speed	19200bps
Data length	7bit	Data bit	7bit
Stop bit	2bit	Stop bit	2bit
Parity bit	Even	Parity presence even/odd parity	Yes Even
Busy Ready Control	ER	Channel setting	RS-232C
Communication format (when using RS-232c)	RS-232C	Mode setting (when using RS-232C)	4 (protocol mode of form 4)
Communication format (when using RS-422)	4 wire type	Channel setting	RS-422
		Mode setting (when using RS-422)	8 (protocol mode of form 4)
-----		Write-in propriety during run	Possible
-----		Sum check presence	Yes
-----		Sending end terminator	Yes
-----		Reception side end terminator	Yes
Machine Number	0	Unit No.	0

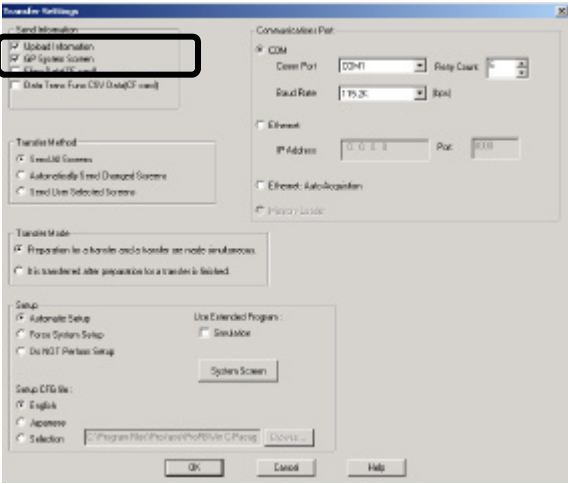
System Setting 【GP】

1 【Setting up by GP-PRO/PB C-Package】

"GP Setup" is chosen from a project manager screen.

Communication settings	Communication settings
	Transmission Speed :19200bps Data length :7bit Stop bit :2bit Parity bit :Even Busy Ready Control : ER Communication format When using RS-232C : RS-232C When using RS-422 : 4-wire type
	* For choose desired setting.
Mode settings	Mode settings
	System Start address :Optional addresses Machine Number : 0 Link Protocol Type :1 : 1

Set the screen of 「Project」 → 「Transfer」 → 「Setup」 → 「Transfer Settings」

Transfer settings	Transfer settings
	GP System Screen : checked

After the settings are complete, transfer them to GP.

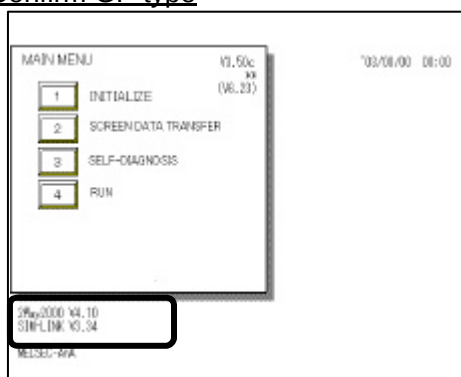
2 【Set up via GP】 Offline Menu

- Display Setting Screen. -

Within 10 seconds after the power supply turns on, push the upper left corner of the screen. Otherwise, push the upper right corner while pushing the lower right corner.

In that condition, push the lower left corner and the menu bar will display on the below part of the screen. Touch [Offline].

Confirm GP type

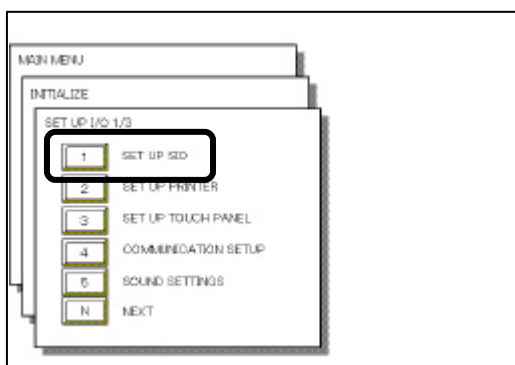


Confirm GP type

When Mitsubishi MELSEC - AnA(LINK) is chosen, it is displayed as follows.

「 MELSEC - AnA 」

System Settings



System Settings

「 MAIN MENU 」

↓

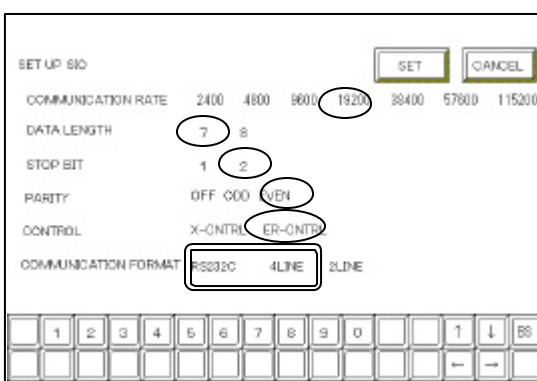
「 INITIALIZE 」

↓

「 SET UP I/O 」

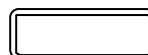
↓

「 SET UP SIO 」

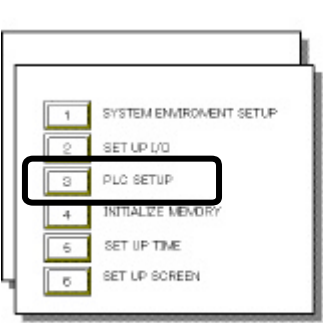
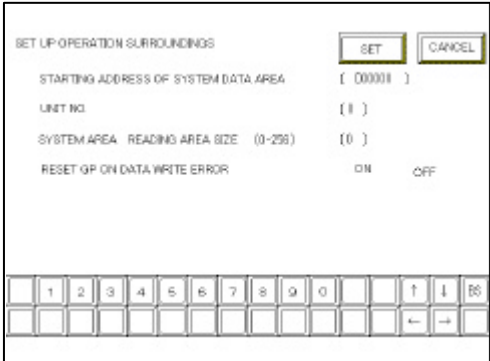


COMMUNICATION RATE : 19200bps
 DATA LENGTH : 7bit
 STOP BIT : 2bit
 PARITY : Even
 CONTROL : ER-CNTL
 COMMUNICATION FORMAT
 RS-232C use : RS-232C
 RS-422 use : 4-wire type

*

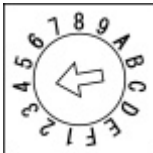


Please select the desired setting.

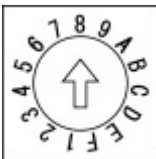
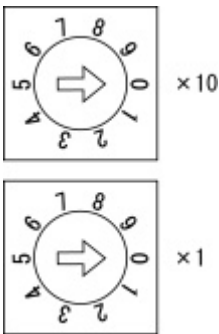
<u>SET UP OPERATION SURROUNDINGS</u> 	<u>SET UP OPERATION SURROUNDINGS</u> 「MAIN MENU」 ↓ 「INITIALIZE」 ↓ 「PLC SETUP」 ↓ 「SET UP OPERATION SURROUNDINGS」
	OPERATION SURROUNDINGS : 1 : 1
	STARTING ADDRESS OF SYSTEM DATA AREA : Optional addresses UNIT No . : 0

System Setting 【PLC】

1 【RS-232C】

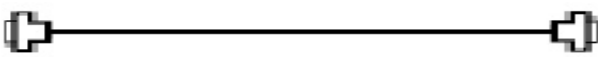
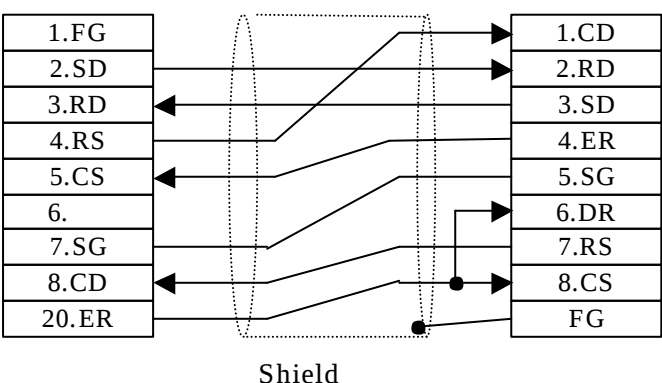
<u>Mode settings</u> MODE 	<u>Mode settings</u> 4 (Form 4 protocol mode)
<u>Communication settings</u> Please set a switch by the black side.  SW03 No Use SW04 ON SW05 OFF SW06 ON SW07 ON SW08 OFF SW09 ON SW10 ON SW11 ON SW12 ON	<u>Communication settings</u> Transmission Rate : 19200bps Data bit : 7 bit Stop bit : 2 bit Parity Check : Yes Parity Even / Odd : Even Write possible during Run mode : Possible Sum check : Yes

2 【RS-422】

<u>Mode settings</u> MODE 	<u>Mode settings</u> 8 (Form 4 protocol mode)																								
<u>Communication settings</u> Please set a switch by the black side  <table border="0"> <tr><td>SW01</td><td>No Use</td></tr> <tr><td>SW02</td><td>ON</td></tr> <tr><td>SW03</td><td>No Use</td></tr> <tr><td>SW04</td><td>ON</td></tr> <tr><td>SW05</td><td>OFF</td></tr> <tr><td>SW06</td><td>ON</td></tr> <tr><td>SW07</td><td>ON</td></tr> <tr><td>SW08</td><td>OFF</td></tr> <tr><td>SW09</td><td>ON</td></tr> <tr><td>SW10</td><td>ON</td></tr> <tr><td>SW11</td><td>ON</td></tr> <tr><td>SW12</td><td>ON</td></tr> </table>	SW01	No Use	SW02	ON	SW03	No Use	SW04	ON	SW05	OFF	SW06	ON	SW07	ON	SW08	OFF	SW09	ON	SW10	ON	SW11	ON	SW12	ON	<u>Communication settings</u> Transmission Rate : 19200bps Data bit : 7 bit Stop bit : 2 bit Parity Check : Yes Parity even / odd : Even Write possible during Run mode : Possible Sum check : Yes
SW01	No Use																								
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SW05	OFF																								
SW06	ON																								
SW07	ON																								
SW08	OFF																								
SW09	ON																								
SW10	ON																								
SW11	ON																								
SW12	ON																								
<u>Station number settings</u> STATION NO . 	<u>Station number settings</u> 0 station																								

Connection Method

【 1 】 RS-232C

Type	Communication Method	Distance
When to use GP000-IS02-MS		3 m
When to create the cable	GP side (25p male) PLC side (25p male)  Shield	Within 15m



Please be sure to connect SG.

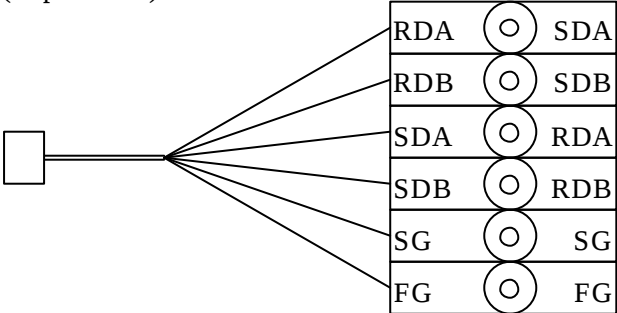
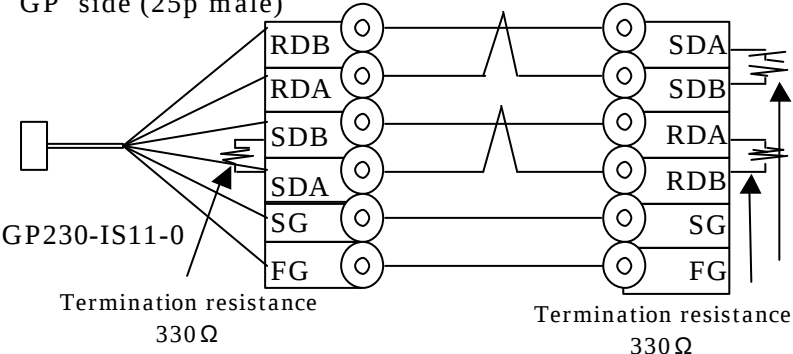


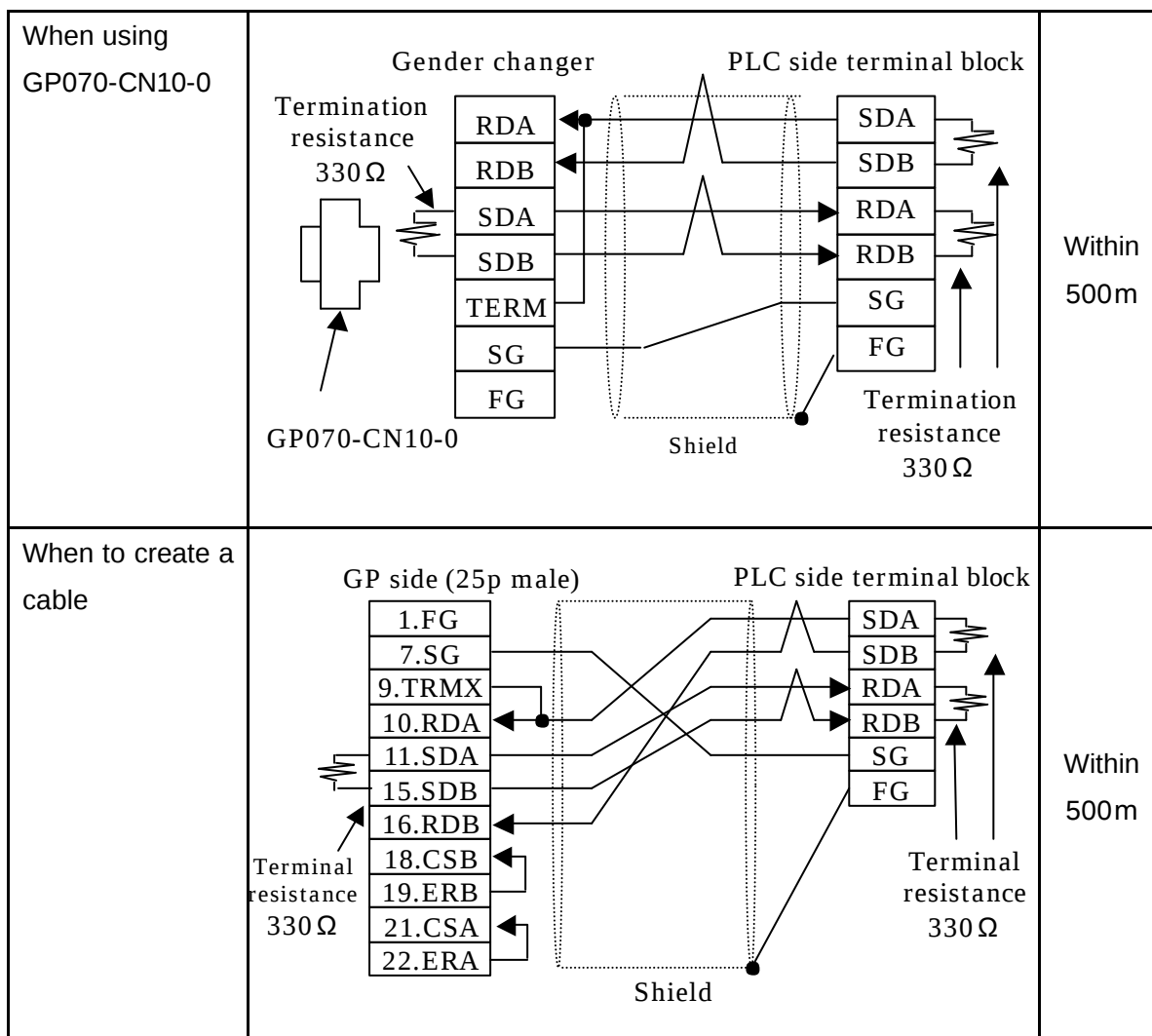
Note: Option cable GP000-IS02-MS is set only to 3 m, please make himself, if you connect by the other length.

Recommended products

GP connector / Cover	Dsub25 pin plug	XM2A-2501	< Omron makes >
	Dsub25 cover for pin	XM2S-2511	< Omron makes >
	Screw Jacks	XM2Z-0071	< Omron makes >
Cable	CO-MA-VV-SB5P × 28AWG < Hitachi cable, Ltd. makes >		
Lock screw	Meter coarse thread M2.6 × 0.45 pitch		

【 2 】 RS-422 Connection

Type	Communication Method	istance																		
When using GP230-IS11-0	Cable side 6 separated line GP side(25p male)  PLC side 6pole terminal block PLC side terminal block <table><tr><td>RDA</td><td>○</td><td>SDA</td></tr><tr><td>RDB</td><td>○</td><td>SDB</td></tr><tr><td>SDA</td><td>○</td><td>RDA</td></tr><tr><td>SDB</td><td>○</td><td>RDB</td></tr><tr><td>SG</td><td>○</td><td>SG</td></tr><tr><td>FG</td><td>○</td><td>FG</td></tr></table> 5m	RDA	○	SDA	RDB	○	SDB	SDA	○	RDA	SDB	○	RDB	SG	○	SG	FG	○	FG	
RDA	○	SDA																		
RDB	○	SDB																		
SDA	○	RDA																		
SDB	○	RDB																		
SG	○	SG																		
FG	○	FG																		
When extending using GP230-IS11-0	Cable side 6 separated line GP side (25p male)  PLC side 6 pole terminal block <table><tr><td>SDA</td><td>○</td></tr><tr><td>SDB</td><td>○</td></tr><tr><td>RDA</td><td>○</td></tr><tr><td>RDB</td><td>○</td></tr><tr><td>SG</td><td>○</td></tr><tr><td>FG</td><td>○</td></tr></table> Termination resistance 330Ω 5 ~ 500 m	SDA	○	SDB	○	RDA	○	RDB	○	SG	○	FG	○							
SDA	○																			
SDB	○																			
RDA	○																			
RDB	○																			
SG	○																			
FG	○																			



• Please be sure to connect SG.

• About Terminator

PLC side : Between SDA-SDB Between RDA-RDB 330Ω
(The number of watt specified by the PLC side)

GP side : Required part(refer to connection figure.) 330Ω
(The number of watt specified by the PLC side)



Recommended products

GP connector / Cover	Dsub25 pin plug	XM2A-2501 < Omron makes >
	Dsub25 cover for pin	XM2S-2511 < Omron makes >
	Screw Jacks	XM2Z-0071 < Omron makes >
Cable	SPEV(SB)-MPC-0.2*3P < MITSUBISHI CABLE INDUSTRIES, LTD. makes >	
Lock screw	Meter coarse thread M2.6 × 0.45 pitch	