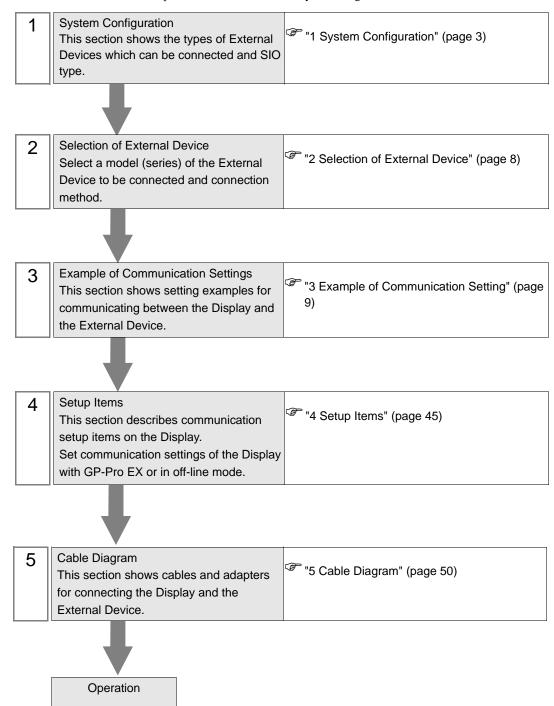
JW Series Computer Link SIO Driver

1	System Configuration	3
2	Selection of External Device	8
3	Example of Communication Setting	9
4	Setup Items	45
5	Cable Diagram	50
6	Supported Device	79
7	Device Code and Address Code	83
8	Error Messages	87

Introduction

This manual describes how to connect the Display and the External Device.

In this manual, the connection procedure will be described by following the below sections:



1 System Configuration

The system configuration in the case when the External Device of Sharp Manufacturing Systems Corporation and the Display are connected is shown.

Series	СРИ	Link I/F	SIO Type	Setting Example	Cable Diagram
	JW-21CU	JW-21CM*1	RS422/485 (4wire)	Setting Example 1 (page 9)	Cable Diagram 1 (page 50)
	JW-21C0	JW-21CW	RS422/485 (2wire)	Setting Example 2 (page 11)	Cable Diagram 2 (page 54)
JW20H		Communication port on the CPU	RS232C	Setting Example 3 (page 13)	Cable Diagram 3 (page 59)
JWZUH	IW 22CH	unit	RS422/485 (4wire)	Setting Example 4 (page 15)	Cable Diagram 4 (page 60)
	JW-22CU	IW 21CM*1	RS422/485 (4wire)	Setting Example 1 (page 9)	Cable Diagram 1 (page 50)
		JW-21CM*1	RS422/485 (2wire)	Setting Example 2 (page 11)	Cable Diagram 2 (page 54)
	Wy 21 CV WY	JW-21CM*1	RS422/485 (4wire)	Setting Example 1 (page 9)	Cable Diagram 1 (page 50)
	JW-31CUH1	JW-21CW	RS422/485 (2wire)	Setting Example 2 (page 11)	Cable Diagram 2 (page 54)
	JW-32CUH1 JW-32CUM1 JW-32CUM2 JW-33CUH1 JW-33CUH2 JW-33CUH3	PG/COMM1 on the CPU unit	RS422/485 (4wire)	Setting Example 5 (page 17)	Cable Diagram 5 (page 64)
JW30H		PG/COMM2 on the CPU unit	RS232C	Setting Example 6 (page 19)	Cable Diagram 6 (page 68)
			RS422/485 (4wire)	Setting Example 7 (page 21)	Cable Diagram 5 (page 64)
		IW 21CM*1	RS422/485 (4wire)	Setting Example 1 (page 9)	Cable Diagram 1 (page 50)
		JW-21CM*1	RS422/485 (2wire)	Setting Example 2 (page 11)	Cable Diagram 2 (page 54)

Series	CPU	Link I/F	SIO Type	Setting Example	Cable Diagram
		JW-10CM -	RS422/485 (4wire)	Setting Example 8 (page 23)	Cable Diagram 1 (page 50)
	JW-50CUH		RS422/485 (2wire)	Setting Example 9 (page 25)	Cable Diagram 2 (page 54)
JW50H JW70H		Communication port on the CPU	RS232C	Setting Example 10 (page 27)	Cable Diagram 3 (page 59)
JW100H	JW-70CUH JW-100CUH	unit	RS422/485 (4wire)	Setting Example 11 (page 29)	Cable Diagram 7 (page 69)
		JW-10CM	RS422/485 (4wire)	Setting Example 8 (page 23)	Cable Diagram 1 (page 50)
		JW-10CW	RS422/485 (2wire)	Setting Example 9 (page 25)	Cable Diagram 2 (page 54)
JW10	JW-1324K JW-1424K JW-1624K JW-1342K JW-1442K JW-1642K	Communication port on the base module	RS422/485 (2wire)	Setting Example 12 (page 31)	Cable Diagram 8 (page 73)

Series	CPU	Link I/F	SIO Type	Setting Example	Cable Diagram
		PG/COMM1 on	RS232C	Setting Example 13 (page 33)	Cable Diagram 9 (page 78)
	JW-311CU	the CPU unit	RS422/485 (4wire)	Setting Example 14 (page 35)	Cable Diagram 5 (page 64)
	JW-312CU	JW-21CM*2	RS422/485 (4wire)	Setting Example 17 (page 41)	Cable Diagram 1 (page 50)
		JW-21CM	RS422/485 (2wire)	Setting Example 18 (page 43)	Cable Diagram 2 (page 54)
JW300	JW-321CU JW-322CU JW-331CU JW-332CU	PG/COMM1 on the CPU unit RS	RS232C	Setting Example 13 (page 33)	Cable Diagram 9 (page 78)
377300			RS422/485 (4wire)	Setting Example 14 (page 35)	Cable Diagram 5 (page 64)
		PG/COMM2 on	RS232C	Setting Example 15 (page 37)	Cable Diagram 6 (page 68)
	JW-341CU JW-342CU JW-352CU	the CPU unit	CPU unit RS422/485 (Awire) Example	Setting Example 16 (page 39)	Cable Diagram 5 (page 64)
	JW-362CU	JW-21CM*2	RS422/485 (4wire)	Setting Example 17 (page 41)	Cable Diagram 1 (page 50)
		J W-21CIVI	RS422/485 (2wire)	Setting Example 18 (page 43)	Cable Diagram 2 (page 54)

^{*1} Note that some of them cannot be used or the range of use is restricted depending on the version of the link unit JW-21CM.

Version sticker on the front of the unit	Restriction of use
30Hn	Available to use without restriction
30H	Unable to read or write the file register 10 to 2C Unable to read or write the file register address 100000 to 176777
Without sticker Unable to use in the JW30H Series	

^{*2} Available with the Ethernet units compatible with JW300. "300" is labeled on the front of JW300-compatible units. For more information, contact the manufacturer of the External Device.

■ COM Port of IPC

When connecting IPC with External Device, the COM port which can be used changes with series and SIO type. Please refer to the manual of IPC for details.

Usable port

Series	Usable port			
Genes	RS-232C	RS-422/485(4 wire)	RS-422/485(2 wire)	
PS-2000B	COM1 ^{*1} , COM2, COM3 ^{*1} , COM4	-	-	
PS-3450A, PS-3451A	COM1, COM2*1*2	COM2*1*2	COM2*1*2	
PS-3650A, PS-3651A	COM1*1	-	-	
PS-3700A (Pentium®4-M) PS-3710A	COM1*1, COM2*1, COM3*2, COM4	COM3*2	COM3*2	
PS-3711A	COM1*1, COM2*2	COM2*2	COM2*2	
PL-3000B	COM1*1*2, COM2*1, COM3, COM4	COM1*1*2	COM1*1*2	

^{*1} The RI/5V can be switched. Please switch with the change switch of IPC.

Dip switch setting: RS-232C

Dip switch	Setting	Description	
1	OFF*1	Reserve (always OFF)	
2	OFF	SIO type: RS-232C	
3	OFF	510 type. R5-232c	
4	OFF	Output mode of SD (TXD) data: Always output	
5	OFF	Terminal resistance (220Ω) insertion to SD (TXD): None	
6	OFF	Terminal resistance (220 Ω) insertion to RD (RXD): None	
7	OFF	Short-circuit of SDA (TXA) and RDA (RXA): Does not Exist	
8	OFF	Short-circuit of SDB (TXB) and RDB (RXB): Does not Exist	
9	OFF	RS (RTS) Auto control mode: Disable	
10	OFF	No (115) Fuce control mode. Disable	

 $^{^{*}1}$ It is necessary to turn ON the set value, only when using PS-3450A and PS-3451A.

^{*2} It is necessary to set up the SIO type with the Dip switch. Please set up as follows according to SIO type to be used.

Dip switch setting: RS-422/485 (4 wire)

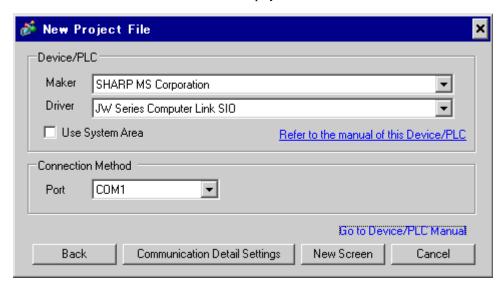
Dip switch	Setting	Description	
1	OFF	Reserve (always OFF)	
2	ON	SIO type: RS-422/485	
3	ON	510 type. R5-422/405	
4	OFF	Output mode of SD (TXD) data: Always output	
5	OFF	Terminal resistance (220Ω) insertion to SD (TXD): None	
6	OFF	Terminal resistance (220Ω) insertion to RD (RXD): None	
7	OFF	Short-circuit of SDA (TXA) and RDA (RXA): Does not Exist	
8	OFF	Short-circuit of SDB (TXB) and RDB (RXB): Does not Exist	
9	OFF	- RS (RTS) Auto control mode: Disable	
10	OFF		

Dip switch setting: RS-422/485 (2 wire)

Dip switch	Setting	Description	
1	OFF	Reserve (always OFF)	
2	ON	SIO type: RS-422/485	
3	ON	510 type. R5-422/465	
4	OFF	Output mode of SD (TXD) data: Always output	
5	OFF	Terminal resistance (220Ω) insertion to SD (TXD): None	
6	OFF	Terminal resistance (220Ω) insertion to RD (RXD): None Short-circuit of SDA (TXA) and RDA (RXA): Exist	
7	ON		
8	ON	Short-circuit of SDB (TXB) and RDB (RXB): Exist	
9	ON	RS (RTS) Auto control mode: Enable	
10	ON		

2 Selection of External Device

Select the External Device to be connected to the Display.



Setup Items	Setup Description		
Maker	Select the maker of the External Device to be connected. Select "Sharp MS Corporation".		
Select a model (series) of the External Device to be connected and connection method Select "JW Series Computer Link SIO". Check the External Device which can be connected in "JW Series Computer Link SIO system configuration. "1 System Configuration" (page 3)			
	Check this option when you synchronize the system data area of the Display and the device (memory) of the External Device. When synchronized, you can use the ladder program of the External Device to switch the display or display the window on the Display.		
	Cf. GP-Pro EXReference Manual "Appendix 1.4 LS Area (only for direct access method)"		
Use System Area	This can be also set with GP-Pro EX or in off-line mode of the Display.		
	Cf. GP-Pro EX Reference Manual "5.14.6[Setting Guide of [System Setting Window], Setting Guide of [Main Unit Settings], System Area Setting"		
	Cf. Maintenance/Troubleshooting "2.14.1 Settings common to all Display models ◆System Area Settings"		
Port	Select the Display port to be connected to the External Device.		

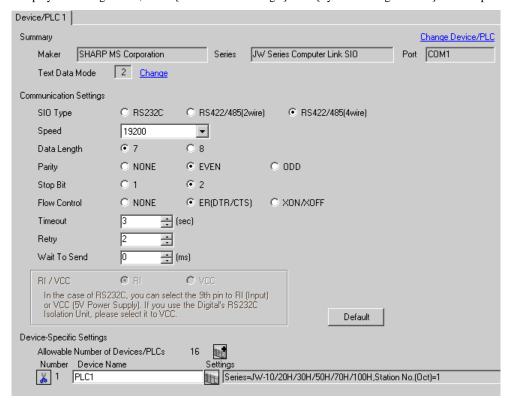
3 Example of Communication Setting

Examples of communication settings of the Display and the External Device, recommended by Digital Electronics Corp., are shown.

3.1 Setting Example 1

- Settings of GP-Pro EX
- Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.



Device Setting



Use the rotary switch on Link I/F for setting. Please refer to the manual of the External Device for more details. Restart the power of the External Device after setting the switch to enable the setting.

◆ Function Setting Switch

Rotary Switch	Setting Value	Setup Description
SW0	4	SIO Type: Computer link

◆ Station Setting Switch

Rotary Switch	Setting Value	Setup Description
SW2 (x10)	0	Station No. setting: Set the upper station number.
SW1 (x1)	1	Station No. setting: Set the lower station number.

• Set the station No. between 01 and 37 (o) with SW2 and SW1.

◆ Operation ModeSetting Switch

DIP Switch	Setting Value	Setup Description
SW3-1	OFF	Reserved
SW3-2	ON	Number of communication wire: 4 wire
SW3-3	OFF	Reserved
SW3-4	ON	Parity: Even

◆ Transfer Speed Setting Switch

Rotary Switch	Setting Value	Setup Description
SW4	0	Transmission speed: 19200bps

◆ Termination Resistance Switch

DIP Switch	Setting Value	Setup Description
SW7	ON	Insert the termination resistance: Set it to ON to insert the termination resistance. Set only the External Device which terminates the connection to ON.

◆ Unit No. Switch

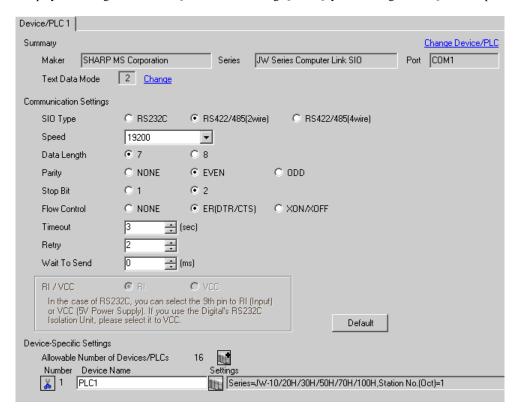
Rotary Switch	Setting Value	Setup Description
SW8	0	Set the data memory address for sub station 01 to 04.

3.2 Setting Example 2

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.



Device Setting



Use the rotary switch on Link I/F for setting. Please refer to the manual of the External Device for more details. Restart the power of the External Device after setting the switch to enable the setting.

◆ Function Setting Switch

Rotary Switch	Setting Value	Setup Description
SW0	4	SIO Type: Computer link

◆ Station Setting Switch

Rotary Switch	Setting Value	Setup Description
SW2 (x10)	0	Station No. setting: Set the upper station number.
SW1 (x1)	1	Station No. setting: Set the lower station number.

• Set the station No. between 01 and 37 (o) with SW2 and SW1.

◆ Operation ModeSetting Switch

DIP Switch	Setting Value	Setup Description
SW3-1	OFF	Reserved
SW3-2	OFF	Number of communication wire: 2 wire
SW3-3	OFF	Reserved
SW3-4	ON	Parity: Even

◆ Transfer Speed Setting Switch

Rotary Switch	Setting Value	Setup Description
SW4	0	Transfer Speed: 19200 bps

◆ Termination Resistance Switch

DIP Switch	Setting Value	Setup Description
SW7	ON	Insert the termination resistance: Set it to ON to insert the termination resistance. Set only the External Device which terminates the connection to ON.

◆ Unit No. Switch

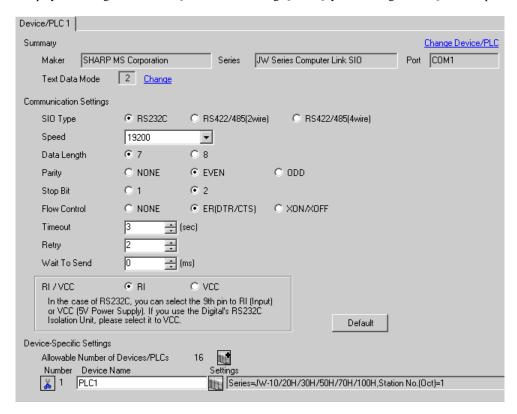
Rotary Switch	Setting Value	Setup Description
SW8	0	Set the data memory address for sub station 01 to 04.

3.3 Setting Example 3

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.



◆ Device Setting



Set the bit of system memory in the External Device to ON or OFF. Please refer to the manual of the External Device for more details.

Restart the power of the External Device after setting to enable the setting.

◆ Setting for #236

Setting Area	Setting Value	Setup Description
#236	30(H)	Communication setting. Enter in hex number. Description for each bit is shown below.

• Description for Bit

Bit in System Area	Setting Value	Setup Description
D0	OFF	
D1	OFF	Transfer Speed: 19200 bps
D2	OFF	
D3	OFF	Parity: Even
D4	ON	1 arry. Even
D5	ON	Stop bit: 2 bits
D6	OFF	Always OFF
D7	OFF	Always OFF

◆ Setting for #237

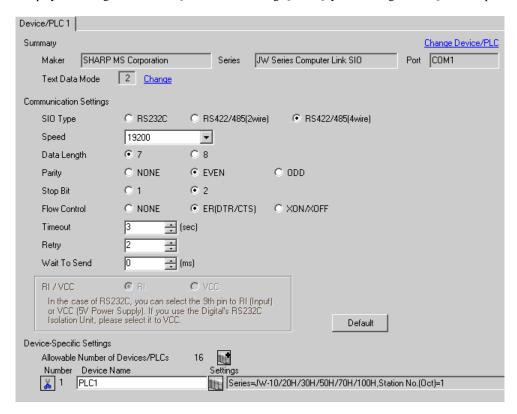
Setting Area	Setting Value	Setup Description
#237	1(o)	Station No. setting. Enter in octal number.

3.4 Setting Example 4

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.



◆ Device Setting



Set the bit of system memory in the External Device to ON or OFF. Please refer to the manual of the External Device for more details.

Restart the power of the External Device after setting to enable the setting.

◆ Setting for #236

Setting Area	Setting Value	Setup Description
#236	30(H)	Communication setting. Enter in hex number. Description for each bit is shown below.

· Description for Bit

Bit in System Area	Setting Value	Setup Description
D0	OFF	
D1	OFF	Transfer Speed: 19200 bps
D2	OFF	
D3	OFF	Parity: Even
D4	ON	1 arry. Even
D5	ON	Stop bit: 2 bits
D6	OFF	Always OFF
D7	OFF	Always OFF

◆ Setting for #237

Setting Area	Setting Value	Setup Description
#237	1(o)	Station No. setting. Enter in octal number.

◆ Termination Resistance Switch

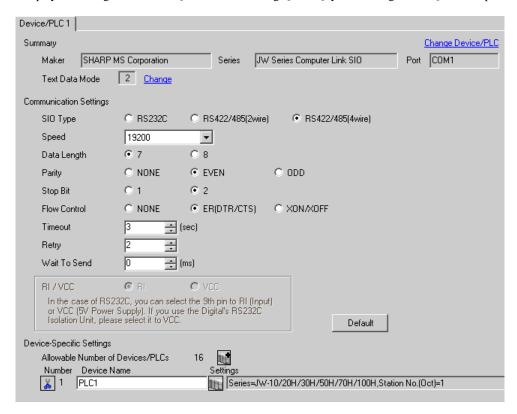
DIP Switch	Setting Value	Setup Description
SW1	ON	Insert the termination resistance: Set it to ON to insert the termination resistance. Set only the External Device which terminates the connection to ON.

3.5 Setting Example 5

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.



◆ Device Setting



Set the bit of system memory in the External Device to ON or OFF. Please refer to the manual of the External Device for more details.

Restart the power of the External Device after setting to enable the setting.

◆ Setting for #234

Setting Area	Setting Value	Setup Description
#234	30(H)	Communication setting. Enter in hex number. Description for each bit is shown below.

· Description for Bit

Bit in System Area	Setting Value	Setup Description
D0	OFF	
D1	OFF	Transfer Speed: 19200 bps
D2	OFF	
D3	OFF	Parity: Even
D4	ON	1 arry. Even
D5	ON	Stop Bit: 2 bits
D6	OFF	Always OFF
D7	OFF	Always OFF

◆ Setting for #235

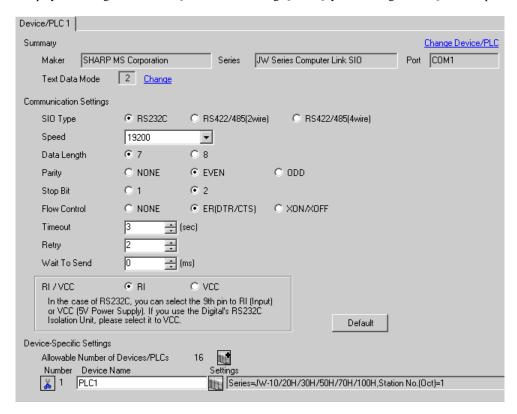
Setting Area	Setting Value	Setup Description
#235	1(o)	Station No. setting. Enter in octal number.

3.6 Setting Example 6

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.



◆ Device Setting



Set the bit of system memory in the External Device to ON or OFF. Please refer to the manual of the External Device for more details.

Restart the power of the External Device after setting to enable the setting.

◆ Setting for #236

Setting Area	Setting Value	Setup Description
#236	30(H)	Communication setting. Enter in hex number. Description for each bit is shown below.

· Description for Bit

Bit in System Area	Setting Value	Setup Description
D0	OFF	
D1	OFF	Transfer Speed: 19200 bps
D2	OFF	
D3	OFF	Parity: Even
D4	ON	1 arry. Even
D5	ON	Stop Bit: 2 bits
D6	OFF	Always OFF
D7	OFF	Always OFF

♦ Setting for #237

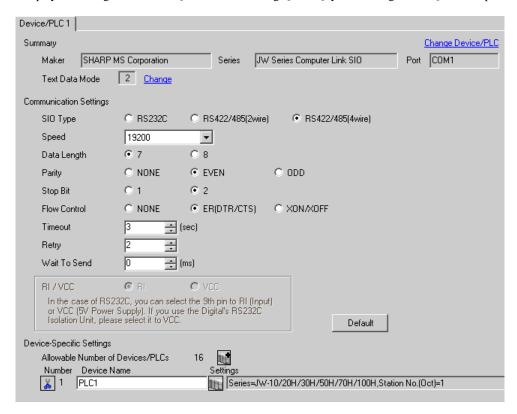
Setting Area	Setting Value	Setup Description
#237	1(o)	Station No. setting. Enter in octal number.

3.7 Setting Example 7

■ Settings of GP-Pro EX

Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.



◆ Device Setting



Set the bit of system memory in the External Device to ON or OFF. Please refer to the manual of the External Device for more details.

Restart the power of the External Device after setting to enable the setting.

◆ Setting for #236

Setting Ar	ea	Setting Value	Setup Description
#236		30(H)	Communication setting. Enter in hex number. Description for each bit is shown below.

· Description for Bit

Bit in System Area	Setting Value	Setup Description
D0	OFF	
D1	OFF	Transfer Speed: 19200 bps
D2	OFF	
D3	OFF	Parity: Even
D4	ON	1 arry. Even
D5	ON	Stop Bit: 2 bits
D6	OFF	Always OFF
D7	OFF	Always OFF

◆ Setting for #237

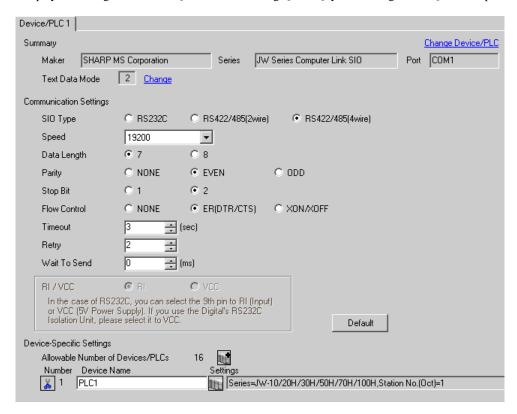
Setting Area	Setting Value	Setup Description
#237	1(o)	Station No. setting. Enter in octal number.

3.8 Setting Example 8

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.



◆ Device Setting



Use the rotary switch on Link I/F for setting. Please refer to the manual of the External Device for more details. Restart the power of the External Device after setting the switch to enable the setting.

◆ Function Setting Switch

Rotary Switch	Setting Value	Setup Description
SW0	4	SIO Type: Computer link

◆ Station Address Setting Switch

Rotary Switch	Setting Value	Setup Description
SW2	0	Station No. setting: Set the upper station number.
SW1	1	Station No. setting: Set the lower station number.

• Set the station No. between 01 and 37 (o) with SW2 and SW1.

◆ Operation ModeSetting Switch

DIP Switch	Setting Value	Setup Description
SW3-1	OFF	Reserved
SW3-2	ON	Number of communication wire: 4 wire
SW3-3	OFF	Reserved
SW3-4	ON	Parity: Even

◆ Transfer SpeedSetting Switch

Rotary Switch	Setting Value	Setup Description
SW4	0	Transfer Speed: 19200 bps

◆ Termination Resistance Switch

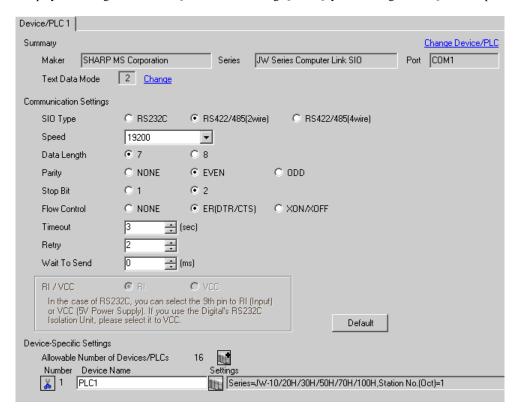
DIP Switch	Setting Value	Setup Description
SW7	ON	Insert the termination resistance: Set it to ON to insert the termination resistance. Set only the External Device which terminates the connection to ON.

3.9 Setting Example 9

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.



◆ Device Setting



Use the rotary switch on Link I/F for setting. Please refer to the manual of the External Device for more details. Restart the power of the External Device after setting the switch to enable the setting.

◆ Function Setting Switch

Rotary Switch	Setting Value	Setup Description
SW0	4	SIO Type: Computer link

◆ Station Address Setting Switch

Rotary Switch	Setting Value	Setup Description
SW2	0	Station No. setting: Set the upper station number.
SW1	1	Station No. setting: Set the lower station number.

• Set the station No. between 01 and 37 (o) with SW2 and SW1.

◆ Operation ModeSetting Switch

DIP Switch	Setting Value	Setup Description
SW3-1	OFF	Reserved
SW3-2	OFF	Number of communication wire: 2 wire
SW3-3	OFF	Reserved
SW3-4	ON	Parity: Even

◆ Transfer SpeedSetting Switch

Rotary Switch	Setting Value	Setup Description
SW4	0	Transfer Speed: 19200 bps

◆ Termination Resistance Switch

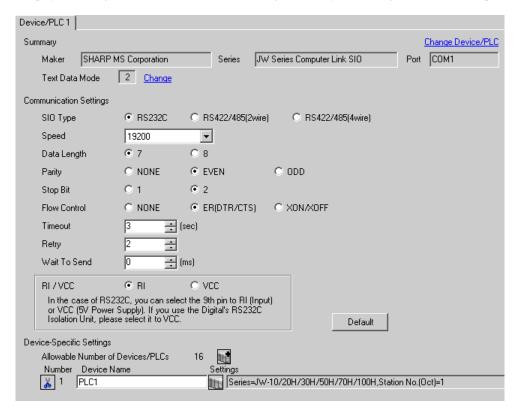
DIP Switch	Setting Value	Setup Description
SW7	ON	Insert the termination resistance: Set it to ON to insert the termination resistance. Set only the External Device which terminates the connection to ON.

3.10 Setting Example 10

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.



◆ Device Setting



Set the bit of system memory in the External Device to ON or OFF. Please refer to the manual of the External Device for more details.

Restart the power of the External Device after setting to enable the setting.

◆ Setting for #0236

Setting Area	Setting Value	Setup Description
#0236	30(H)	Communication setting. Enter in hex number. Description for each bit is shown below.

· Description for Bit

Bit in System Area	Setting Value	Setup Description
D0	OFF	
D1	OFF	Transfer Speed: 19200 bps
D2	OFF	
D3	OFF	Parity: Even
D4	ON	1 arry. Even
D5	ON	Stop Bit: 2 bits
D6	OFF	Always OFF
D7	OFF	Always OFF

◆ Setting for #0237

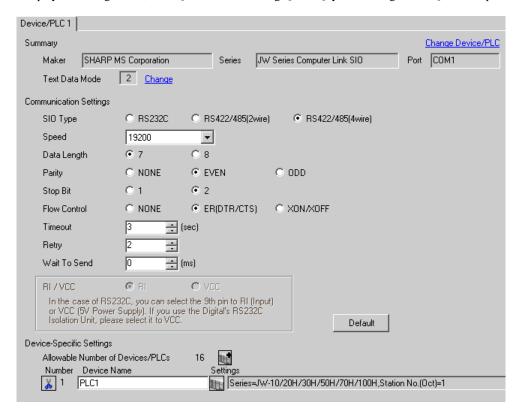
Setting Area	Setting Value	Setup Description
#0237	1(o)	Station No. setting. Enter in octal number.

3.11 Setting Example 11

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.



◆ Device Setting



Set the bit of system memory in the External Device to ON or OFF. Please refer to the manual of the External Device for more details.

Restart the power of the External Device after setting to enable the setting.

◆ Setting for #0236

Setting Area	Setting Value	Setup Description
#0236	30(H)	Communication setting. Enter in hex number. Description for each bit is shown below.

· Description for Bit

Bit in System Area	Setting Value	Setup Description
D0	OFF	
D1	OFF	Transfer Speed: 19200 bps
D2	OFF	
D3	OFF	Parity: Even
D4	ON	1 arry. Even
D5	ON	Stop Bit: 2 bits
D6	OFF	Always OFF
D7	OFF	Always OFF

◆ Setting for #0237

Setting Area	Setting Value	Setup Description
#0237	1(o)	Station No. setting. Enter in octal number.

◆ Termination Resistance Switch

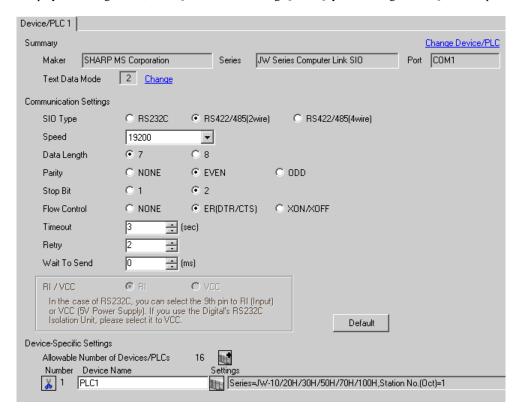
Insert the termination resistance at the end. Connecting the 6th and 13th pins in the port on the External Device allows the termination resistance to be inserted.

3.12 Setting Example 12

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.



◆ Device Setting



Set the bit of system memory in the External Device to ON or OFF. Please refer to the manual of the External Device for more details.

Restart the power of the External Device after setting to enable the setting.

◆ Setting for #234

Setting Area	Setting Value	Setup Description
#234	00(H)	Communication mode setting: Computer link

◆ Setting for #236

Setting Area	Setting Value	Setup Description
#236	30(H)	Communication setting. Enter in hex number. Description for each bit is shown below.

Description for Bit

Bit in System Area	Setting Value	Setup Description
D0	OFF	
D1	OFF	Transfer Speed: 19200 bps
D2	OFF	
D3	OFF	Parity: Even
D4	ON	1 arry. Even
D5	ON	Stop Bit: 2 bits
D6	OFF	Always OFF
D7	OFF	Data Length: 7 bits

◆ Setting for #237

Setting Area	Setting Value	Setup Description
#237	1(o)	Station No. setting. Enter in octal number.

◆ Termination Resistance Switch

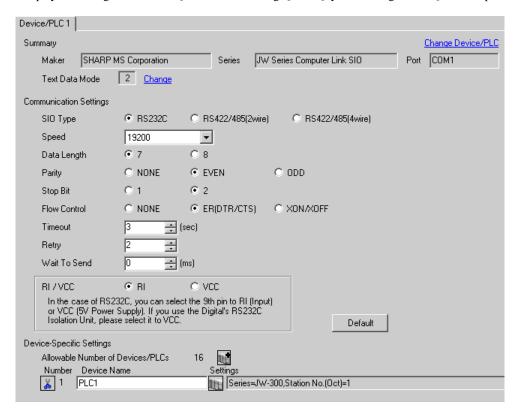
DIP Switch	Setting Value	Setup Description
SW7	ON	Insert the termination resistance: Set it to ON to insert the termination resistance. Set only the External Device which terminates the connection to ON.

3.13 Setting Example 13

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.



◆ Device Setting



Set the bit of system memory in the External Device to ON or OFF. Please refer to the manual of the External Device for more details.

Restart the power of the External Device after setting to enable the setting.

◆ Setting for #0234

Setting Area	Setting Value	Setup Description
#0234	30(H)	Communication setting. Enter in hex number. Description for each bit is shown below.

· Description for Bit

Bit in System Area	Setting Value	Setup Description
D0	OFF	
D1	OFF	Transfer Speed: 19200 bps
D2	OFF	
D3	OFF	Parity: Even
D4	ON	1 arry. Even
D5	ON	Stop Bit: 2 bits
D6	OFF	Data Length: 7 bits
D7	OFF	Always OFF

◆ Setting for #0235

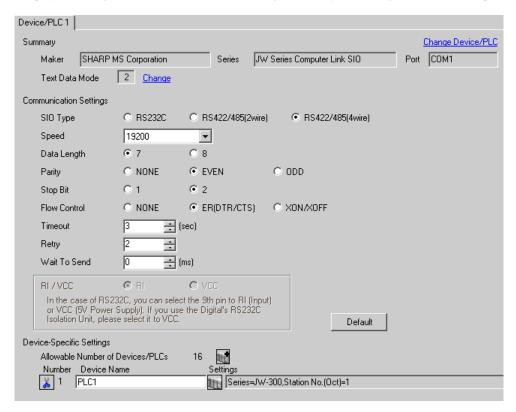
Setting Area	Setting Value	Setup Description
#0235	1(o)	Station No. setting. Enter in octal number.

3.14 Setting Example 14

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.



◆ Device Setting



Set the bit of system memory in the External Device to ON or OFF. Please refer to the manual of the External Device for more details.

Restart the power of the External Device after setting to enable the setting.

◆ Setting for #0234

Setting Area	Setting Value	Setup Description
#0234	30(H)	Communication setting. Enter in hex number. Description for each bit is shown below.

· Description for Bit

Bit in System Area	Setting Value	Setup Description
D0	OFF	
D1	OFF	Transfer Speed: 19200 bps
D2	OFF	
D3	OFF	Parity: Even
D4	ON	1 arry. Even
D5	ON	Stop Bit: 2 bits
D6	OFF	Data Length: 7 bits
D7	OFF	Always OFF

◆ Setting for #0235

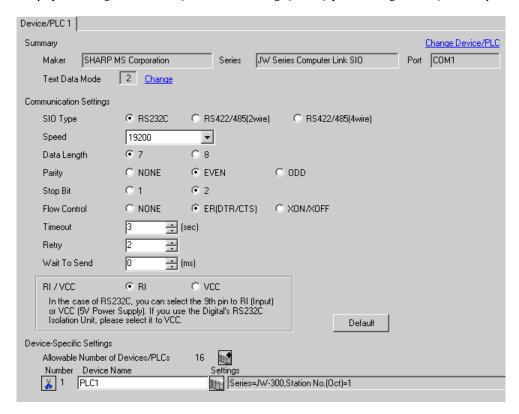
Setting Area	Setting Value	Setup Description
#0235	1(o)	Station No. setting. Enter in octal number.

3.15 Setting Example 15

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.



◆ Device Setting

To display the setting screen, click [[Setting]] of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device

Set the bit of system memory in the External Device to ON or OFF. Please refer to the manual of the External Device for more details.

Restart the power of the External Device after setting to enable the setting.

◆ Setting for #0236

Setting Area	Setting Value	Setup Description
#0236	30(H)	Communication setting. Enter in hex number. Description for each bit is shown below.

· Description for Bit

Bit in System Area	Setting Value	Setup Description
D0	OFF	
D1	OFF	Transfer Speed: 19200 bps
D2	OFF	
D3	OFF	Parity: Even
D4	ON	1 arry. Even
D5	ON	Stop Bit: 2 bits
D6	OFF	Data Length: 7 bits
D7	OFF	Always OFF

◆ Setting for #0237

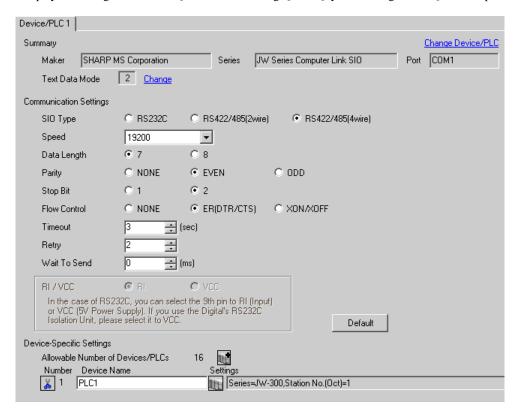
Setting Area	Setting Value	Setup Description
#0237	1(o)	Station No. setting. Enter in octal number.

3.16 Setting Example 16

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.



◆ Device Setting

To display the setting screen, click [[Setting]] of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device

Set the bit of system memory in the External Device to ON or OFF. Please refer to the manual of the External Device for more details.

Restart the power of the External Device after setting to enable the setting.

◆ Setting for #0236

Setting Area	Setting Value	Setup Description
#0236	30(H)	Communication setting. Enter in hex number. Description for each bit is shown below.

· Description for Bit

Bit in System Area	Setting Value	Setup Description
D0	OFF	
D1	OFF	Transfer Speed: 19200 bps
D2	OFF	
D3	OFF	Parity: Even
D4	ON	1 arry. Even
D5	ON	Stop Bit: 2 bits
D6	OFF	Data Length: 7 bits
D7	OFF	Always OFF

◆ Setting for #0237

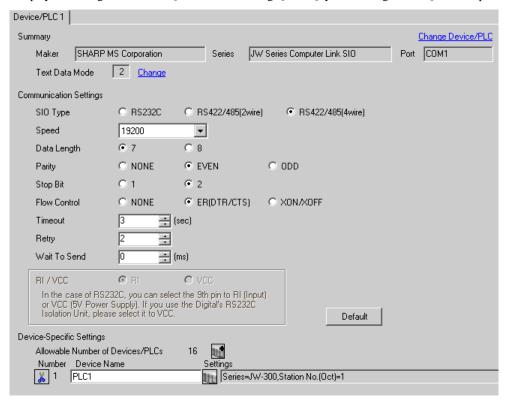
Setting Area	Setting Value	Setup Description
#0237	1(o)	Station No. setting. Enter in octal number.

3.17 Setting Example 17

■ Settings of GP-Pro EX

Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.



Device Setting

To display the setting screen, click [[Setting]] of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device

Use the rotary switch on Link I/F for setting. Please refer to the manual of the External Device for more details. Restart the power of the External Device after setting the switch to enable the setting.

◆ Function Setting Switch

Rotary Switch	Setting Value	Setup Description
SW0	4	SIO Type: Computer link

◆ Station Setting Switch

Rotary Switch	Setting Value	Setup Description
SW2 (x10)	0	Station No. setting: Set the upper station number.
SW1 (x1)	1	Station No. setting: Set the lower station number.

• Set the station No. between 01 and 37 (o) with SW2 and SW1.

◆ Operation ModeSetting Switch

DIP Switch	Setting Value	Setup Description
SW3-1	OFF	Reserved
SW3-2	ON	Number of communication wire: 4 wire
SW3-3	OFF	Reserved
SW3-4	ON	Parity: Even

◆ Transfer Speed Setting Switch

Rotary Switch	Setting Value	Setup Description
SW4	0	Transmission speed: 19200bps

◆ Termination Resistance Switch

DIP Switch	Setting Value	Setup Description
SW7	ON	Insert the termination resistance: Set it to ON to insert the termination resistance. Set only the External Device which terminates the connection to ON.

◆ Unit No. Switch

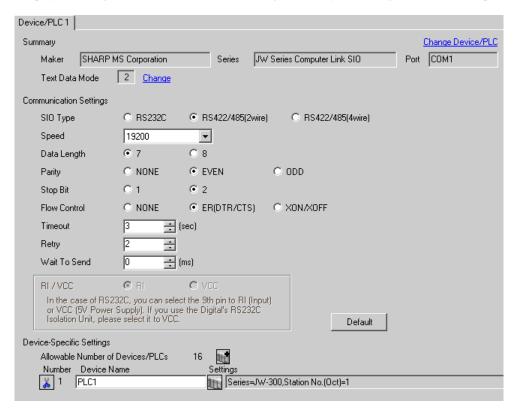
Rotary Switch	Setting Value	Setup Description
SW8	0	Set the data memory address for sub station 01 to 04.

3.18 Setting Example 18

■ Settings of GP-Pro EX

◆ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.



Device Setting

To display the setting screen, click [[Setting]] of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].



■ Settings of External Device

Use the rotary switch on Link I/F for setting. Please refer to the manual of the External Device for more details. Restart the power of the External Device after setting the switch to enable the setting.

◆ Function Setting Switch

Rotary Switch	Setting Value	Setup Description
SW0	4	SIO Type: Computer link

◆ Station Setting Switch

Rotary Switch	Setting Value	Setup Description
SW2 (x10)	0	Station No. setting: Set the upper station number.
SW1 (x1)	1	Station No. setting: Set the lower station number.

• Set the station No. between 01 and 37 (o) with SW2 and SW1.

◆ Operation ModeSetting Switch

DIP Switch	Setting Value	Setup Description
SW3-1	OFF	Reserved
SW3-2	OFF	Number of communication wire: 2 wire
SW3-3	OFF	Reserved
SW3-4	ON	Parity: Even

◆ Transfer Speed Setting Switch

Rotary Switch	Setting Value	Setup Description
SW4	0	Transfer Speed: 19200 bps

◆ Termination Resistance Switch

DIP Switch	Setting Value	Setup Description
SW7	ON	Insert the termination resistance: Set it to ON to insert the termination resistance. Set only the External Device which terminates the connection to ON.

◆ Unit No. Switch

Rotary Switch	Setting Value	Setup Description
SW8	0	Set the data memory address for sub station 01 to 04.

4 Setup Items

Set communication settings of the Display with GP-Pro Ex or in off-line mode of the Display.

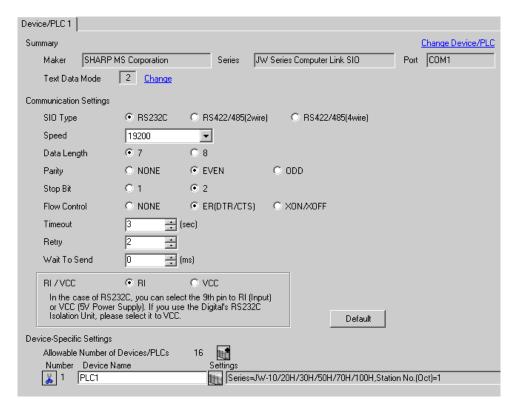
The setting of each parameter must be identical to that of External Device.

"3 Example of Communication Setting" (page 9)

4.1 Setup Items in GP-Pro EX

■ Communication Settings

To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.



Setup Items	Setup Description
SIO Type	Select the SIO type to communicate with the External Device.
Speed	Select speed between the External Device and the Display.
Data Length	Select data length.
Parity	Select how to check parity.
Stop Bit	Select stop bit length.
Flow Control	Select the communication control method to prevent overflow of transmission and reception data.
Timeout	Use an integer from 1 to 127 to enter the time (s) for which the Display waits for the response from the External Device.

Continued to next page.

Setup Items	Setup Description
Retry	In case of no response from the External Device, use an integer from 0 to 255 to enter how many times the Display retransmits the command.
Wait To Send	Use an integer from "0 to 255" to enter standby time (ms) for the Display from receiving packets to transmitting next commands.
RI/VCC	Switches RI/VCC of the 9th pin. It is necessary to change RI/5V by changeover switch of IPC when connect with IPC. Please refer to the manual of the IPC for more detail.

■ Device Setting

To display the setting screen, click [[Setting]] of the External Device you want to set from [Device-Specific Settings] of [Device/PLC Settings].

When connecting multiple External Devices, you can click from [Device-Specific Settings] of [Device/PLC Settings] to add the External Device which is available to set.



Setup Items	Setup Description
Series	Select a series of the External Device
Station No. (Oct)	Enter the unit No. of the External Device with "01 to 77" (octal). NOTE When connecting the JW10 Series, enter with "0 to 77" (octal).

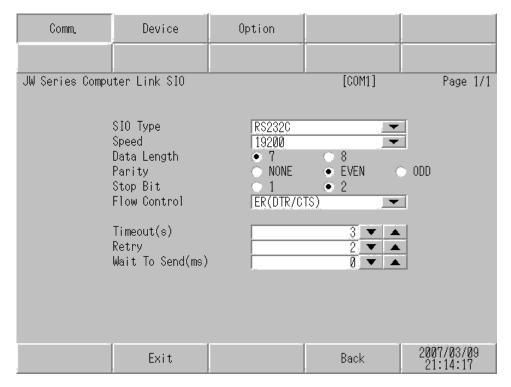
4.2 Settings in Off-Line Mode



- Please refer to Maintenance/Troubleshooting for more information on how to enter off-line mode or about operation.
- Cf. Maintenance/Troubleshooting "2.2 Offline Mode"

■ Communication Settings

To display the setting screen, touch [Device/PLC Settings] from [Peripheral Equipment Settings] in the off-line mode. Touch the External Device you want to set from the displayed list.

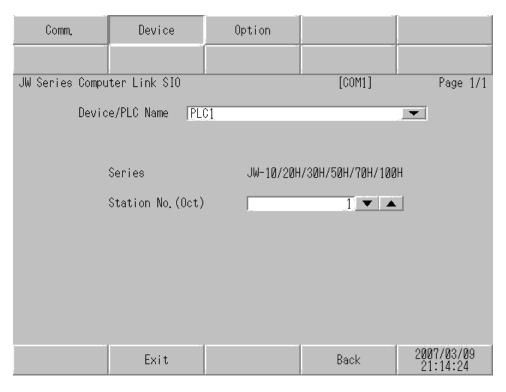


Setup Items	Setup Description
SIO Type	Select the SIO type to communicate with the External Device. MPORTANT To make the communication settings correctly, confirm the serial interface specifications of Display unit for [SIO Type]. We cannot guarantee the operation if a communication type that the serial interface does not support is specified. For details concerning the serial interface specifications, refer to the manual for Display unit.
Speed	Select speed between the External Device and the Display.
Data Length	Select data length.
Parity	Select how to check parity.
Stop Bit	Select stop bit length.
Flow Control	Select the communication control method to prevent overflow of transmission and reception data.

Setup Items	Setup Description
Timeout	Use an integer from 1 to 127 to enter the time (s) for which the Display waits for the response from the External Device.
Retry	In case of no response from the External Device, use an integer from 0 to 255 to enter how many times the Display retransmits the command.
Wait To Send	Use an integer from "0 to 255" to enter standby time (ms) for the Display from receiving packets to transmitting next commands.

■ Device Setting

To display the setting screen, touch [Device/PLC Settings] from [Peripheral Equipment Settings]. Touch the External Device you want to set from the displayed list, and touch [Device Settings].



Setup Items	Setup Description
Device/PLC Name	Select the External Device to set. Device name is a title of the External Device set with GP-Pro EX. (Initial value [PLC1])
Series	Display a series of the External Device
Station No. (Oct)	Enter the unit No. of the External Device with "01 to 77" (octal). NOTE • When connecting the JW10 Series, enter with "0 to 77" (octal).

■ Option

To display the setting screen, touch [Device/PLC Settings] from [Peripheral Equipment Settings]. Touch the External Device you want to set from the displayed list, and touch [Option].

Comm.	Device	Option		
JW Series Compu	ter Link SIO		[COM1]	Page 1/1
	the 9th pin Power Suppl	● RI of RS232C, you to RI(Input) or y). If you use th ation Unit, plea	can select VCC(5V e Digital's	
	Exit		Back	2007/03/09 21:14:28

Setup Items	Setup Description
RI/VCC	Switches RI/VCC of the 9th pin. It is necessary to change RI/5V by changeover switch of IPC when connect with IPC. Please refer to the manual of the IPC for more detail.

5 Cable Diagram

The cable diagram shown below may be different from the cable diagram recommended by Sharp Manufacturing Systems Corporation. Please be assured there is no operational problem in applying the cable diagram shown in this manual.

- The FG pin of the main body of the External Device must be D-class grounded. Please refer to the manual of the External Device for more details.
- SG and FG are connected inside the Display. When connecting SG to the External Device, design the system not to form short-circuit loop.
- · Connect the isolation unit, when communication is not stabilized under the influence of a noise etc..

Cable Diagram 1

Display (Connection Port)		Cable	Remarks
GP ^{*1} (COM1) AGP-3302B (COM2) ST ^{*2} (COM2) IPC ^{*3}	A	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	
	В	Your own cable	
GP*4 (COM2)	С	Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	Cable length: 1000m or less
	D	Online adapter by Pro-face CA4-ADPONL-01 + Your own cable	

^{*1} All GP models except AGP-3302B

^{*2} All ST models except AST-3211A

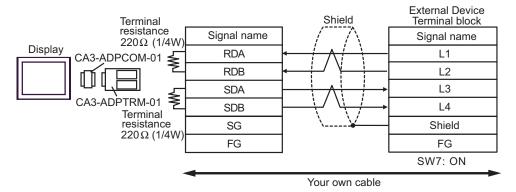
^{*3} Only the COM port which can communicate by RS-422/485 (4 wire) can be used.

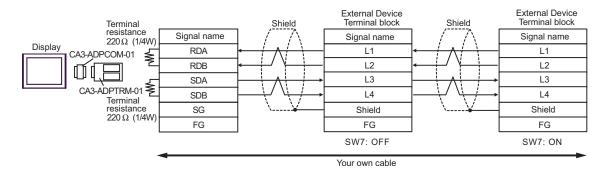
© ■ COM Port of IPC (page 6)

[&]quot; " ,

^{*4} All GP models except GP-3200 series and AGP-3302B

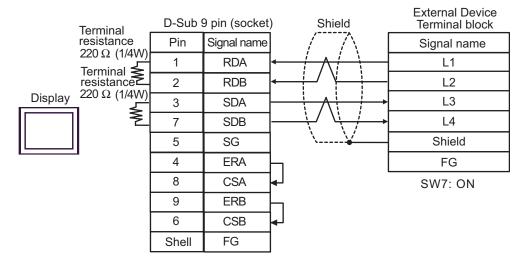
- A. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 Connection



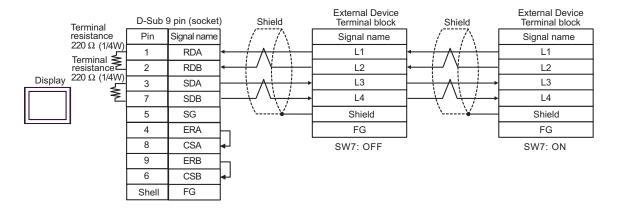


• When IPC is used as the Display, the terminal resistance of 220Ω can be inserted by the fact that the dip switch 5, 6 of IPC is turned to ON.

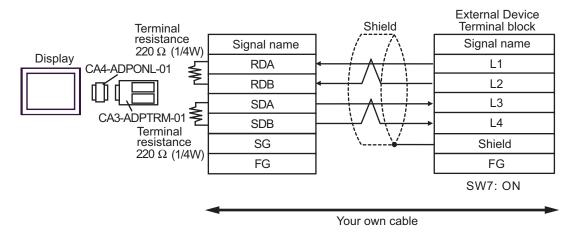
- B. When your own cable is used
- 1:1 Connection

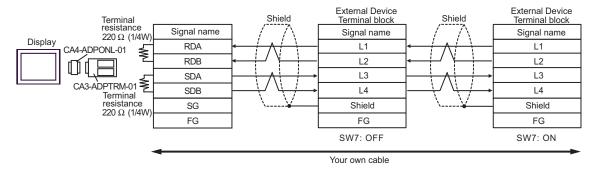


1:n Connection

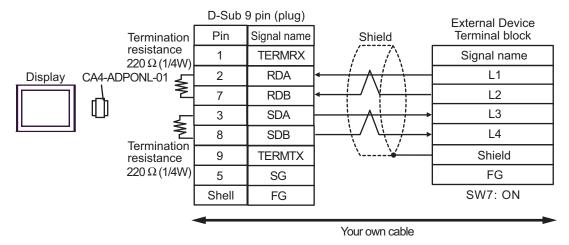


- NOTE
- When IPC is used as the Display, the terminal resistance of 220Ω can be inserted by the fact that the dip switch 5, 6 of IPC is turned to ON.
- C. When using the online adapter (CA4-ADPONL-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 Connection

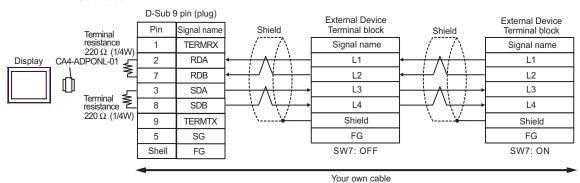




- D. When using the online adapter (CA4-ADPONL-01) by Pro-face and your own cable
- 1:1 Connection



1:n Connection



Cable Diagram 2

Display (Connection Port)		Cable	Remarks
GP*1 (COM1) AGP-3302B (COM2) ST*2 (COM2)	A	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	
	В	Your own cable	
GP*3 (COM2)	С	Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	Cable length: 1000m or less
	D	Online adapter by Pro-face CA4-ADPONL-01 + Your own cable	
IPC*4	Е	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	
	F	Your own cable	

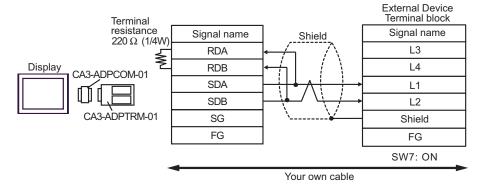
^{*1} All GP models except AGP-3302B

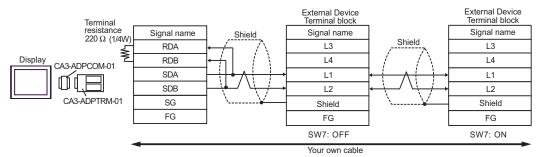
^{*2} All ST models except AST-3211A

^{*3} All GP models except GP-3200 series and AGP-3302B

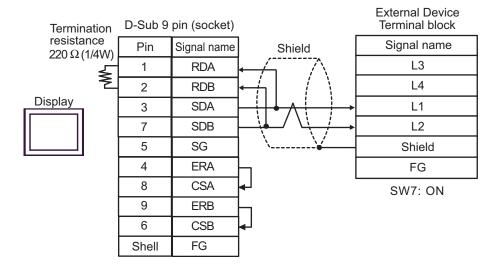
Only the COM port which can communicate by RS-422/485 (2 wire) can be used. $\hfill \Box$ COM Port of IPC (page 6) *4

- A. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 Connection

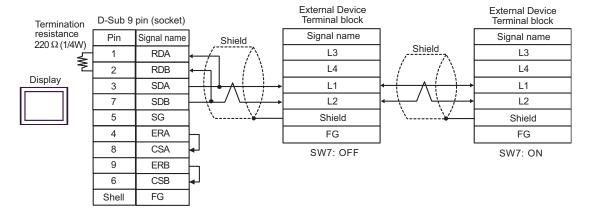




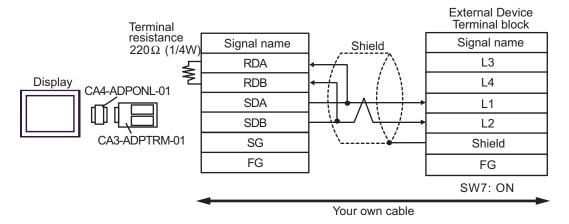
- B. When your own cable is used
- 1:1 Connection



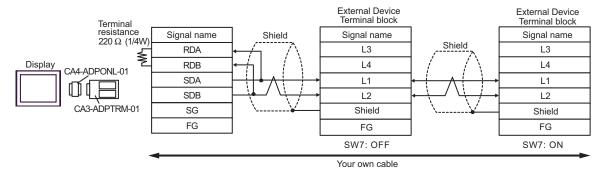
1:n Connection



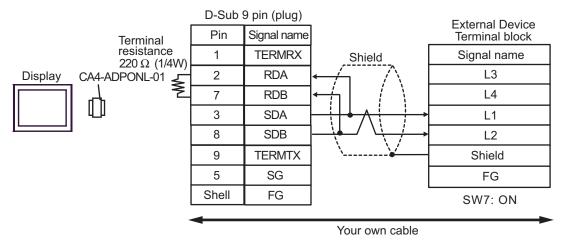
- C. When using the online adapter (CA4-ADPONL-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 Connection



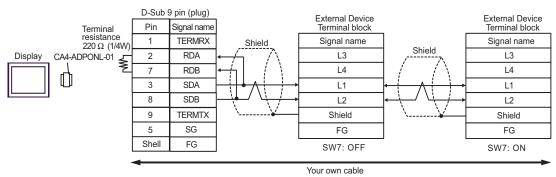
1:n Connection



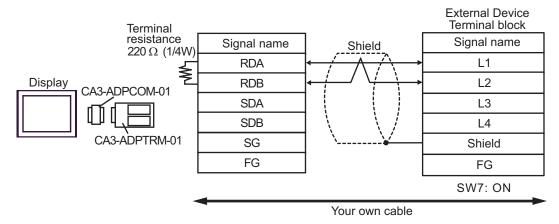
- D. When using the online adapter (CA4-ADPONL-01) by Pro-face and your own cable
- 1:1 Connection

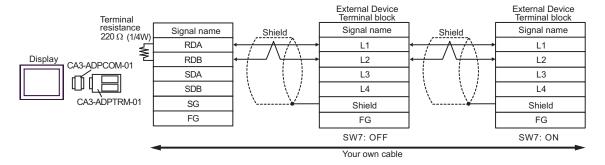


1:n Connection



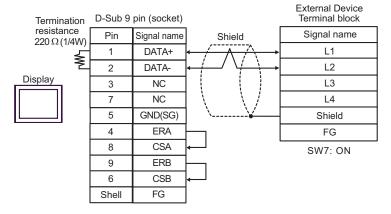
- E. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 Connection



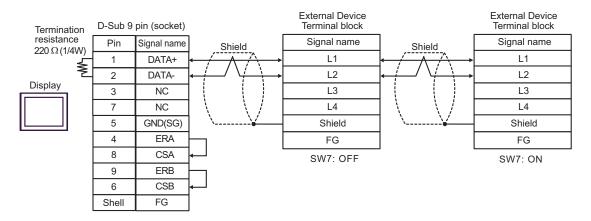


NOTE

- When IPC is used as the Display, the terminal resistance of 220Ω can be inserted by the fact that
 the dip switch 6 of IPC is turned to ON.
- F. When your own cable is used
- 1:1 Connection



1:n Connection



NOTE

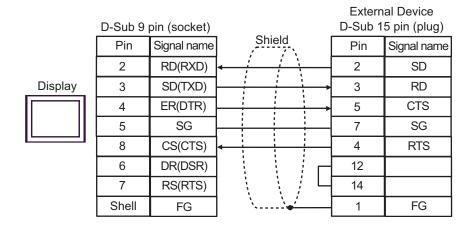
• When IPC is used as the Display, the terminal resistance of 220Ω can be inserted by the fact that the dip switch 6 of IPC is turned to ON.

Cable Diagram 3

Display (Connection Port)	Cable	Remarks
GP (COM1) ST (COM1) IPC*1 PC/AT	Your own cable	Cable length: 15m or less

^{*1} Only the COM port which can communicate by RS-232C can be used.

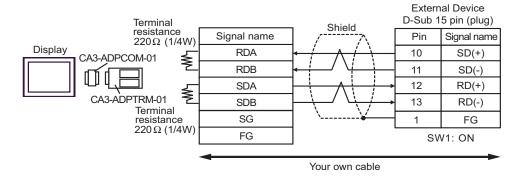
© ■ COM Port of IPC (page 6)

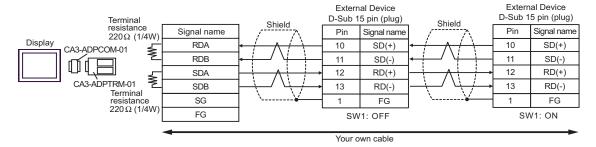


Cable Diagram 4

Display (Connection Port)	Cable		Remarks
GP*1 (COM1) AGP-3302B (COM2) ST*2 (COM2) IPC*3	A	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	
	В	Your own cable	
GP*4 (COM2)	С	Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	Cable length: or less
	D	Online adapter by Pro-face CA4-ADPONL-01 + Your own cable	

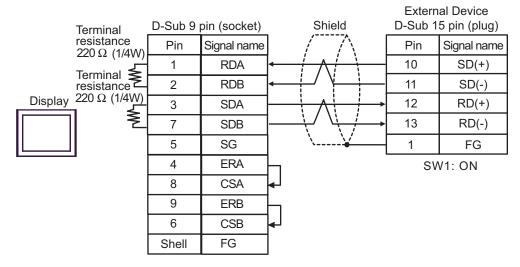
- *1 All GP models except AGP-3302B
- *2 All ST models except AST-3211A
- *3 Only the COM port which can communicate by RS-422/485 (4 wire) can be used.
 - T■ COM Port of IPC (page 6)
- *4 All GP models except GP-3200 series and AGP-3302B
 - A. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
 - 1:1 Connection



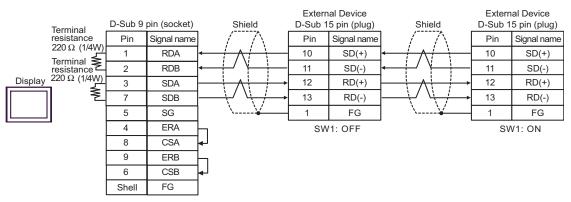


NOTE

- When IPC is used as the Display, the terminal resistance of 220Ω can be inserted by the fact that the dip switch 5, 6 of IPC is turned to ON.
- B. When your own cable is used
- 1:1 Connection



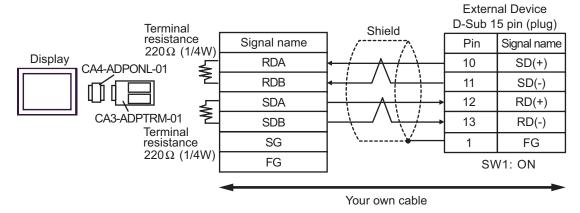
• 1:n Connection

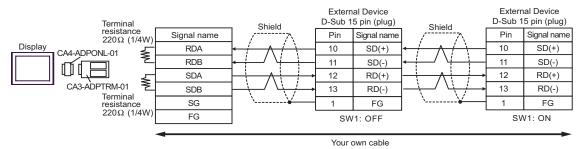


NOTE

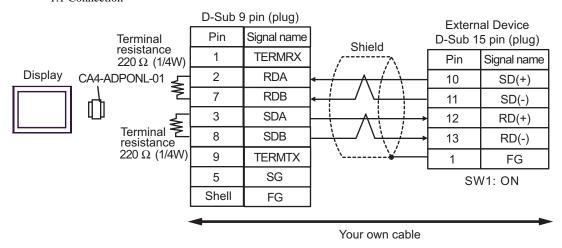
 When IPC is used as the Display, the terminal resistance of 220Ω can be inserted by the fact that the dip switch 5, 6 of IPC is turned to ON.

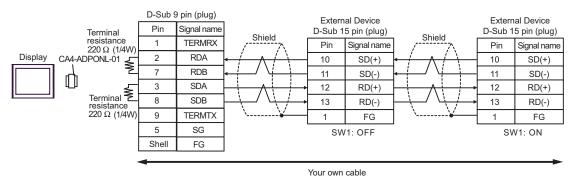
- C. When using the online adapter (CA4-ADPONL-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 Connection





- D. When using the online adapter (CA4-ADPONL-01) by Pro-face and your own cable
- 1:1 Connection





Cable Diagram 5

Display (Connection Port)		Cable	Remarks
GP*1 (COM1) AGP-3302B (COM2) ST*2 (COM2) IPC*3	A	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	
	В	Your own cable	
GP*4 (COM2)	С	Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	Cable length: 1000m or less
	D	Online adapter by Pro-face CA4-ADPONL-01 + Your own cable	

^{*1} All GP models except AGP-3302B

^{*4} All GP models except GP-3200 series and AGP-3302B



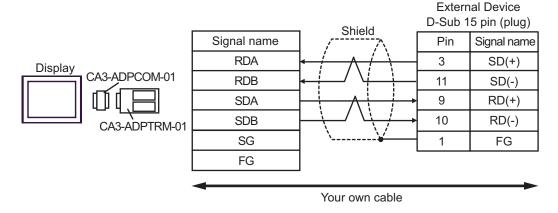
- Do not connect anything to Pins No. 2, 4, 8 and 12 on the External Device.
- Do not connect to Pins No. 14 and 15 on the External Device since voltage is +5V.

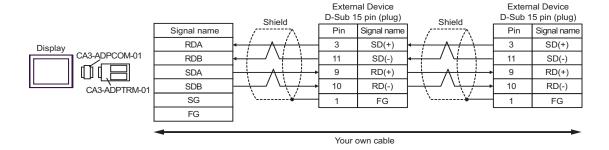
^{*2} All ST models except AST-3211A

^{*3} Only the COM port which can communicate by RS-422/485 (4 wire) can be used.

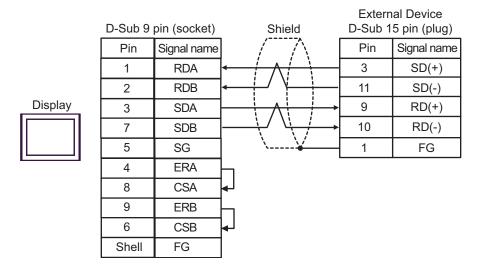
[■] COM Port of IPC (page 6)

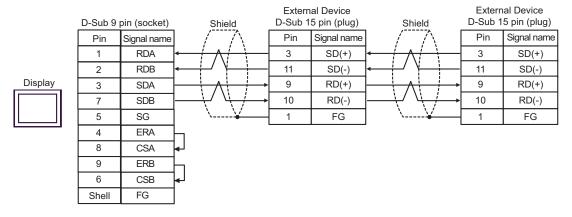
- A. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 Connection



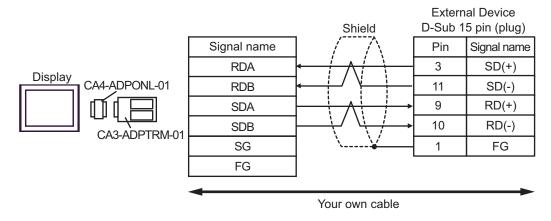


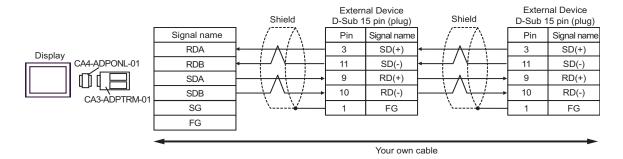
- B. When your own cable is used
- 1:1 Connection



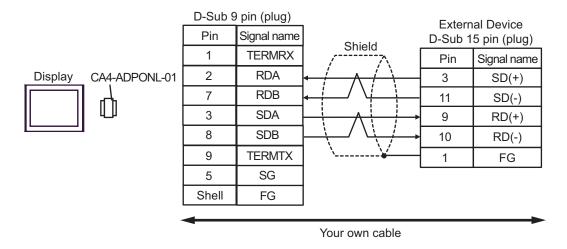


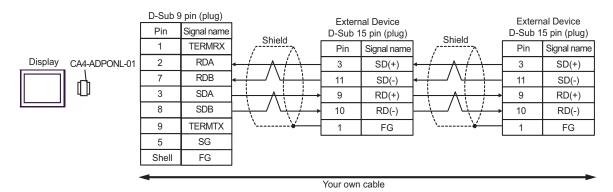
- C. When using the online adapter (CA4-ADPONL-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 Connection





- D. When using the online adapter (CA4-ADPONL-01) by Pro-face and your own cable
- 1:1 Connection



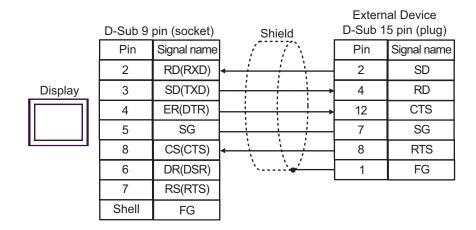


Cable Diagram 6

Display (Connection Port)	Cable	Remarks
GP (COM1) ST (COM1) IPC*1 PC/AT	Your own cable	Cable length: 15m or less

^{*1} Only the COM port which can communicate by RS-232C can be used.

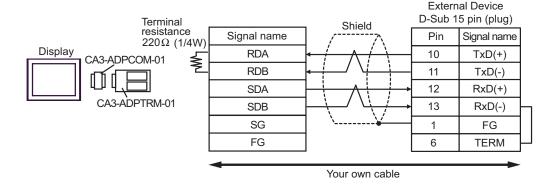
© ■ COM Port of IPC (page 6)

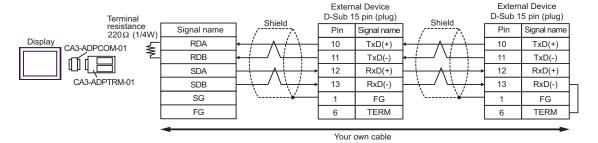


Cable Diagram 7

Display (Connection Port)	Cable		Remarks
GP*1 (COM1) AGP-3302B (COM2) ST*2 (COM2) IPC*3	A	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	
	В	Your own cable	
GP*4 (COM2)	С	Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	Cable length: 1000m or less
	D	Online adapter by Pro-face CA4-ADPONL-01 + Your own cable	

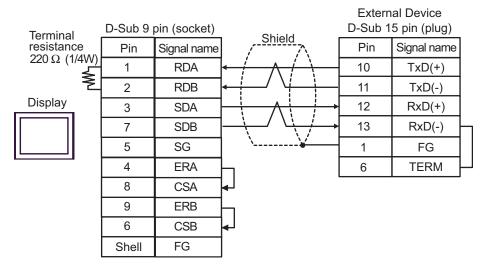
- *1 All GP models except AGP-3302B
- *2 All ST models except AST-3211A
- *3 Only the COM port which can communicate by RS-422/485 (4 wire) can be used.
 - COM Port of IPC (page 6)
- *4 All GP models except GP-3200 series and AGP-3302B
 - A. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
 - 1:1 Connection



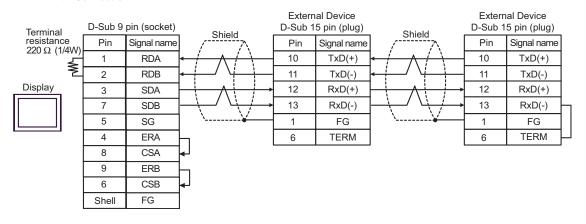


NOTE

- When IPC is used as the Display, the terminal resistance of 220Ω can be inserted by the fact that the dip switch 6 of IPC is turned to ON.
- B. When your own cable is used
- 1:1 Connection



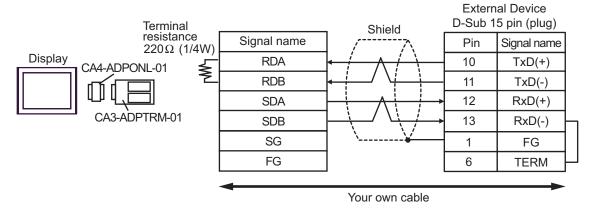
• 1:n Connection

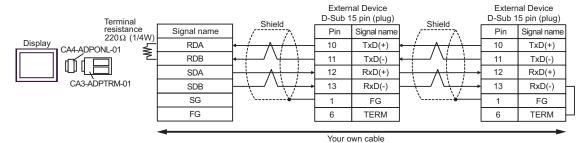


NOTE

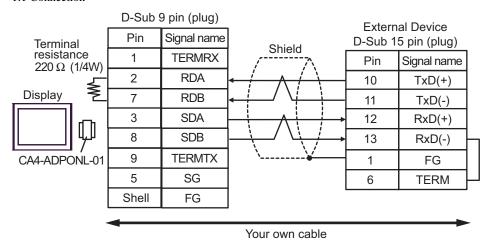
When IPC is used as the Display, the terminal resistance of 220Ω can be inserted by the fact that the dip switch 6 of IPC is turned to ON.

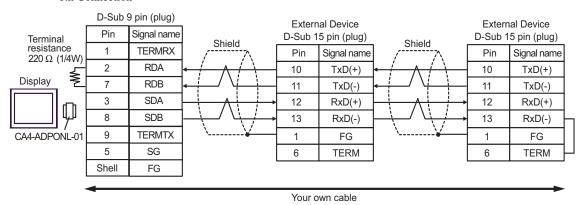
- C. When using the online adapter (CA4-ADPONL-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 Connection





- D. When using the online adapter (CA4-ADPONL-01) by Pro-face and your own cable
- 1:1 Connection





Cable Diagram 8

Display (Connection Port)		Cable	Remarks
GP*1 (COM1) AGP-3302B (COM2) ST*2 (COM2)	A	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	
	В	Your own cable	
GP*3 (COM2)	С	Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	Cable length: 1000m or less
	D	Online adapter by Pro-face CA4-ADPONL-01 + Your own cable	
IPC*4	Е	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	
	F	Your own cable	

^{*1} All GP models except AGP-3302B

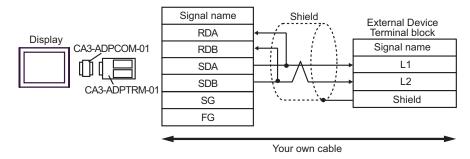
^{*2} All ST models except AST-3211A

^{*3} All GP models except GP-3200 series and AGP-3302B

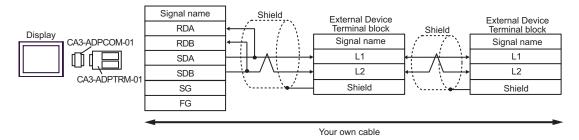
^{*4} Only the COM port which can communicate by RS-422/485 (2 wire) can be used.

[■] COM Port of IPC (page 6)

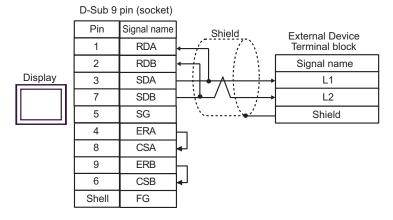
- A. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 Connection



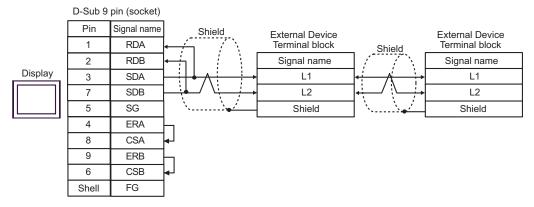
• 1:n Connection



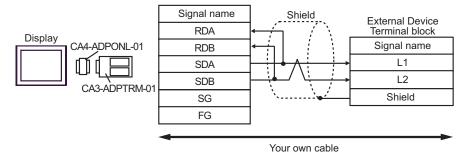
- B. When your own cable is used
- 1:1 Connection



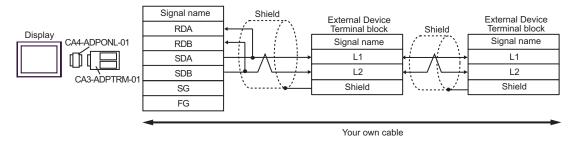
1:n Connection



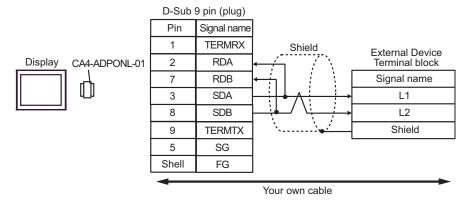
- C. When using the online adapter (CA4-ADPONL-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 Connection



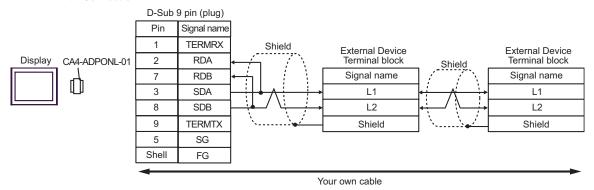
• 1:n Connection



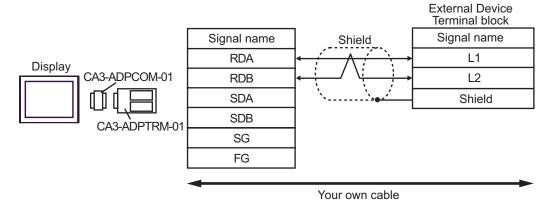
- D. When using the online adapter (CA4-ADPONL-01) by Pro-face and your own cable
- 1:1 Connection



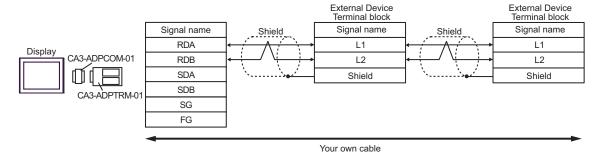
1:n Connection



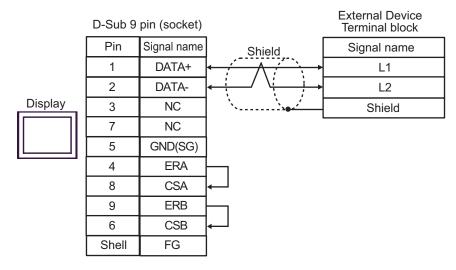
- E. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 Connection



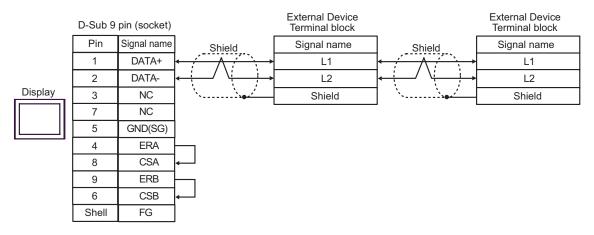
• 1:n Connection



- F. When your own cable is used
- 1:1 Connection



• 1:n Connection

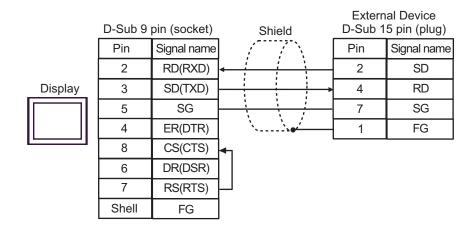


Cable Diagram 9

Display (Connection Port)	Cable	Remarks
GP (COM1) ST (COM1) IPC*1 PC/AT	Your own cable	Cable length: 15m or less

^{*1} Only the COM port which can communicate by RS-232C can be used.

■ COM Port of IPC (page 6)



6 Supported Device

Range of supported device address is shown in the table below. Available type and range of device vary depending on CPU. Be sure to check them in each CPU manual before using.

■JW-10/20H/30H/50H/70H/100H Series

This address can be specified as system data area.

Device	Bit Address	Word Address	32 bits	Remarks
Relay ^{*1}	0000.0-1577.7	A0000-A1576 (]0000-]1576)		÷ 2] [00 T 8]
	2000.0-7577.7	A2000-A7576 (]2000-]7576)		÷ Z OCTV
Timer (Contact)	T0000-T1777	-		<u>ост</u> 8 ј
Counter (Contact)	C0000-C1777	-		<u>ост</u> 8)
Timer Counter (current value) *1	-	B0000-B3776 (b0000-b3776)		÷ 2] Oct 8]
value)		T0000-T3776		<u>в і т</u> 15)
	-	09000-09776		
	-	19000-19776		
	-	29000-29776		
	-	39000-39776		
	-	49000-49776	[L/H]	
	-	59000-59776		
	-	69000-69776		
	-	79000-79776		
Desistan	-	89000-89776		<u>÷ 2] ⊙ст8</u>]
Register	-	99000-99776		_{в і т} 15)
	-	E0000-E0776		
	-	E1000-E1776		
	-	E2000-E2776		
	-	E3000-E3776		
	-	E4000-E4776		
	-	E5000-E5776		
	-	E6000-E6776		
	-	E7000-E7776		

Device	Bit Address	Word Address	32 bits	Remarks
	-	1000000-1177776		
	-	2000000-2177776		
	-	6000000-6177776		
	-	7000000-7177776	[L/H]	÷ 2] oc 7 8]
	-	- F10000000-F10177776		
	-	F11000000-F11177776		
File Register*2				
	-	F1E000000-F1E177776		B i ₹ 15]
	-	F1F000000-F1F177776	- -	
		F20000000-F20177776		
		F21000000-F21177776		
	-	F2B000000-F2B177776		
	-	F2C000000-F2C177776		

^{*1} Values in parentheses are used for the word address of the relay and the timer counter (current value) (B) in the manual of the External Device. For entry, use AXXXX or BXXXX.

^{*2} File Register consists of the file number and the address.





- Please refer to the GP-Pro EX Reference Manual for system data area.
- Cf. GP-Pro EXReference Manual "Appendix 1.4 LS Area (only for direct access method)"
- Please refer to the precautions on manual notation for icons in the table.
 - "Manual Symbols and Terminology"

■JW-300 Series

This address can be specified as system data area.

Device	Bit Address	Word Address	32 bits	Remarks
Relay	00000.0-54377.7	A00000-A54376 (]00000-]54376)		<u>÷ 2</u>]
Timer (Contact)	T00000-T17777	-		<u>ост</u> 8]
Counter (Contact)	C00000-C17777	-		<u>ост</u> 8]
Timer Counter (current		B00000-B37776		÷ 2] Bit15
value)*1	-	TC00000-TC17777		
	-	09000-09776		
	-	19000-19776		
Register(09, 19, 29, 39, 49, 59, 69, 79, 89, 99)				÷ 2] _{B i 1} 15]
	-	89000-89776		
	-	99000-99776		
	-	E0000-E0776	[L/H]	
	-	E1000-E1776		
Register(E0, E1, E2, E3, E4, E5, E6, E7)				÷ 2] [15]
, , , , , , ,	-	E6000-E6776		
	-	E7000-E7776		
	-	109000-109776		
	-	119000-119776		
Register(109-389)				÷ 2] [B; 15]
	-	379000-379776		
	-	389000-389776		
Register Z	-	Z000-Z377	1	<u>в</u> , 15
File Register	-	1-00000000 - 1-37777776		÷ 2] B++15]
System Memory*1	-	SYS0000-SYS2776		<u>÷ 2</u>]*2

^{*1} The name of system memory is "#" in the External Device. To use "#" as an internal register in the Display, it can not use. Therefore, it changes "#" to "SYS".

^{*2} Write disable

NOTE

- Please refer to the GP-Pro EX Reference Manual for system data area.
- Cf. GP-Pro EXReference Manual "Appendix 1.4 LS Area (only for direct access method)"
- Please refer to the precautions on manual notation for icons in the table.
 - "Manual Symbols and Terminology"

7 Device Code and Address Code

Use device code and address code when you select "Device Type & Address" for the address type in data displays.

■JW-10/20H/30H/50H/70H/100H Series

Device	Device Name	Device Code (HEX)	Address Code
Relay	A	0080	Value of word address divided by 2
Country (Connect Value)	Т	0060	Value of word address divided by 2
Counter (Current Value)	В	0061	Value of word address divided by 2
	09	0000	Value of word address divided by 2
	19	0001	Value of word address divided by 2
	29	0002	Value of word address divided by 2
	39	0003	Value of word address divided by 2
	49	0004	Value of word address divided by 2
	59	0005	Value of word address divided by 2
	69	0006	Value of word address divided by 2
	79	0007	Value of word address divided by 2
Dogistan	89	0008	Value of word address divided by 2
Register	99	0009	Value of word address divided by 2
	E0	000A	Value of word address divided by 2
	E1	000B	Value of word address divided by 2
	E2	000C	Value of word address divided by 2
	E3	000D	Value of word address divided by 2
	E4	000E	Value of word address divided by 2
	E5	000F	Value of word address divided by 2
	E6	0010	Value of word address divided by 2
	E7	0011	Value of word address divided by 2

Device	Device Name	Device Code (HEX)	Address Code
	1	0012	Value of word address divided by 2
	2	0013	Value of word address divided by 2
	6	0017	Value of word address divided by 2
	7	0018	Value of word address divided by 2
	F10	0019	Value of word address divided by 2
	F11	001A	Value of word address divided by 2
File Register			
	F1E	0027	Value of word address divided by 2
	F1F	0028	Value of word address divided by 2
	F20	0029	Value of word address divided by 2
	F21	002A	Value of word address divided by 2
	F2B	0034	Value of word address divided by 2
	F2C	0035	Value of word address divided by 2

■JW-300 Series

Device	Device Name	Device Code (HEX)	Address Code
Relay	A	0080	Value of word address divided by 2
Timer/Counter (Current	В	0061	Value of word address divided by 2
Value)	TC	0060	Word Address
	09	0000	Value of word address divided by 2
	19	0001	Value of word address divided by 2
	29	0002	Value of word address divided by 2
	39	0003	Value of word address divided by 2
Register (09, 19, 29, 39, 59,	49	0004	Value of word address divided by 2
69, 79, 89, 99)	59	0005	Value of word address divided by 2
	69	0006	Value of word address divided by 2
	79	0007	Value of word address divided by 2
	89	0008	Value of word address divided by 2
	99	0009	Value of word address divided by 2
	Е0	000A	Value of word address divided by 2
	E1	000B	Value of word address divided by 2
	E2	000C	Value of word address divided by 2
Register (E0, E1, E2, E3,	E3	000D	Value of word address divided by 2
E4, E5, E6, E7)	E4	000E	Value of word address divided by 2
	E5	000F	Value of word address divided by 2
	E6	0010	Value of word address divided by 2
	E7	0011	Value of word address divided by 2

Device	Device Name	Device Code (HEX)	Address Code
	109	0040	Value of word address divided by 2
	119	0041	Value of word address divided by 2
	129	0042	Value of word address divided by 2
	139	0043	Value of word address divided by 2
	149	0044	Value of word address divided by 2
	159	0045	Value of word address divided by 2
	169	0046	Value of word address divided by 2
	179	0047	Value of word address divided by 2
	189	0048	Value of word address divided by 2
	199	0049	Value of word address divided by 2
	209	004A	Value of word address divided by 2
	219	004B	Value of word address divided by 2
	229	004C	Value of word address divided by 2
	239	004D	Value of word address divided by 2
Register (109 to 389)	249	004E	Value of word address divided by 2
	259	004F	Value of word address divided by 2
	269	0050	Value of word address divided by 2
	279	0051	Value of word address divided by 2
	289	0052	Value of word address divided by 2
	299	0053	Value of word address divided by 2
	309	0054	Value of word address divided by 2
	319	0055	Value of word address divided by 2
	329	0056	Value of word address divided by 2
	339	0057	Value of word address divided by 2
	349	0058	Value of word address divided by 2
	359	0059	Value of word address divided by 2
	369	005A	Value of word address divided by 2
	379	005B	Value of word address divided by 2
	389	005C	Value of word address divided by 2
Resister Z	Z	0037	Value of word address divided by 2
File Register	1-	0012	Value of word address divided by 2
System Memory	SYS	0062	Value of word address divided by 2

8 Error Messages

Error messages are displayed on the screen of the Display as follows: "No. : Device Name: Error Message(Error Occurrence Area)". Each description is shown below.

Item	Requirements	
No.	Error No.	
Device Name	Name of the External Device where error occurs. Device name is a title of the External Device set with GP-Pro EX.((Initial value[PLC1])	
Error Message	Displays messages related to the error which occurs.	
	Displays IP address or device address of the External Device where error occurs, or error codes received from the External Device.	
Error Occurrence Area	 NOTE IP address is displayed such as "IP address(Decimal): MAC address(Hex)". Device address is displayed such as "Address: Device address". Received error codes are displayed such as "Decimal[Hex]". 	

Display Examples of Error Messages

"RHAA035: PLC1: Error has been responded for device write command (Error Code: 1[01H])"



- Please refer to the manual of the External Device for more detail of received error codes.
- Please refer to "When an error message is displayed (Error code list)" of "Maintenance/ Troubleshooting" for a common error message to the driver.

■ Error Codes Specific to the External Device

Error codes specific to the External Device are shown below.

Error Code	Description
0x01	Format error.
0x07	Writing to PLC memory is not executed correctly.
0x0A	Parity error.
0x0B	Framing error.
0x0C	Overrun error.
0x0D	Sum check error.
0x0F	Other CPU is accessing memory.
0x1B	System memory error.