Sharp Manufacturing Systems Corporation

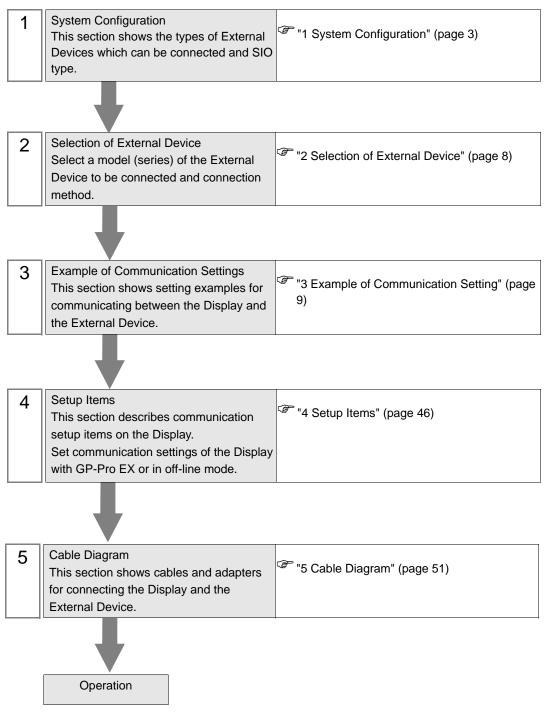
# JW Series Computer Link SIO Driver

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#### 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	CPU	Link I/F	SIO Type	Setting Example	Cable Diagram
	JW-21CU	JW-21CM <sup>*1</sup>	RS422/485 (4wire)	Setting Example 1 (page 9)	Cable Diagram 1 (page 51)
	JW-2100	JW-21CM	RS422/485 (2wire)	Setting Example 2 (page 12)	Cable Diagram 2 (page 55)
JW20H		Communication port on the CPU	RS232C	Setting Example 3 (page 14)	Cable Diagram 3 (page 60)
3002011	IW 22CH	unit	RS422/485 (4wire)     Example 4 (page 16)     Di (p       Satting     Satting	Cable Diagram 4 (page 61)	
	JW-22CU	JW-21CM <sup>*1</sup>	RS422/485 (4wire)	Setting Example 1 (page 9)	Cable Diagram 1 (page 51)
			RS422/485 (2wire)	Setting Example 2 (page 12)	Cable Diagram 2 (page 55)
	JW-31CUH1	JW-21CM <sup>*1</sup>	RS422/485 (4wire)	Setting Example 1 (page 9)	Cable Diagram 1 (page 51)
	JW-51C0111	JW-21CM	RS422/485 (2wire)	Setting Example 2 (page 12)	Cable Diagram 2 (page 55)
		PG/COMM1 on the CPU unitRS422/485 (4wire)Setting Example 5 (page 18)RS232CSetting Example 6 (page 20)	Example 5	Cable Diagram 5 (page 65)	
JW30H	JW-32CUH1		Example 6	Cable Diagram 6 (page 69)	
	JW-32CUM1 JW-32CUM2 JW-33CUH1 JW-33CUH2	the CPU unit	RS422/485 (4wire)	Setting Example 7 (page 22)	Cable Diagram 5 (page 65)
	JW-33CUH3	W 21CM*1	RS422/485 (4wire)	Setting Example 1 (page 9)	Cable Diagram 1 (page 51)
		JW-21CM <sup>*1</sup>	RS422/485 (2wire)	Setting Example 2 (page 12)	Cable Diagram 2 (page 55)

Series	CPU	Link I/F	SIO Type	Setting Example	Cable Diagram
	JW-50CUH	RS422/485 (4wire)	Setting Example 8 (page 24)	Cable Diagram 1 (page 51)	
	JW-50C011	J W-10CM	RS422/485 (2wire)	Setting Example 9 (page 26)	Cable Diagram 2 (page 55)
JW50H JW70H		Communication port on the CPU unit	RS232C	Setting Example 10 (page 28)	Cable Diagram 3 (page 60)
JW100H	JW-70CUH JW-100CUH		RS422/485 (4wire)	Setting Example 11 (page 30)	Cable Diagram 7 (page 70)
		JW-10CM	RS422/485 (4wire)	Setting Example 8 (page 24)	Cable Diagram 1 (page 51)
			RS422/485 (2wire)	Setting Example 9 (page 26)	Cable Diagram 2 (page 55)
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 32)	Cable Diagram 8 (page 74)

Series	CPU	Link I/F	SIO Type	Setting Example	Cable Diagram
		PG/COMM1 on	RS232C	Setting Example 13 (page 34)	Cable Diagram 9 (page 79)
	JW-311CU	the CPU unit	RS422/485 (4wire)	Setting Example 14 (page 36)	Cable Diagram 5 (page 65)
	JW-312CU	JW-21CM <sup>*2</sup>	RS422/485 (4wire)	Setting Example 17 (page 42)	Cable Diagram 1 (page 51)
		JW-21CM	RS422/485 (2wire)	Setting Example 18 (page 44)	Cable Diagram 2 (page 55)
JW300		PG/COMM1 on	RS232C	RS232C Setting Example 13 (page 34)	Cable Diagram 9 (page 79)
300300	JW-321CU	the CPU unit	RS422/485 (4wire)	Setting Example 14 (page 36)	Cable Diagram 5 (page 65)
	JW-322CU JW-331CU JW-332CU	PG/COMM2 on	RS232C	Setting Example 15 (page 38)	Cable Diagram 6 (page 69)
	JW-341CU JW-342CU JW-352CU	the CPU unit	RS422/485 (4wire)	Setting Example 16 (page 40)	Cable Diagram 5 (page 65)
	JW-362CU	JW-21CM*2	RS422/485 (4wire)	Setting Example 17 (page 42)	Cable Diagram 1 (page 51)
		J W-2 I CIVI	RS422/485 (2wire)	Setting Example 18 (page 44)	Cable Diagram 2 (page 55)

\*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	
30Н	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			
Conco	RS-232C	RS-422/485(4 wire)	RS-422/485(2 wire)	
PS-2000B	COM1 <sup>*1</sup> , COM2, COM3 <sup>*1</sup> , COM4	-	-	
PS-3450A, PS-3451A	COM1, COM2 <sup>*1*2</sup>	COM2 <sup>*1*2</sup>	COM2 <sup>*1*2</sup>	
PS-3650A, PS-3651A	COM1 <sup>*1</sup>	-	-	
PS-3700A (Pentium®4-M) PS-3710A	COM1 <sup>*1</sup> , COM2 <sup>*1</sup> , COM3 <sup>*2</sup> , COM4	COM3 <sup>*2</sup>	COM3 <sup>*2</sup>	
PS-3711A	COM1 <sup>*1</sup> , COM2 <sup>*2</sup>	COM2 <sup>*2</sup>	COM2 <sup>*2</sup>	
PL-3000B	COM1 <sup>*1*2</sup> , COM2 <sup>*1</sup> , COM3, COM4	COM1 <sup>*1*2</sup>	COM1 <sup>*1*2</sup>	

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

\*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-232C

Dip switch	Setting	Description
1	OFF <sup>*1</sup>	Reserve (always OFF)
2	OFF	SIO type: RS-232C
3	OFF	510 type. K5-252C
4	OFF	Output mode of SD (TXD) data: Always output
5	OFF	Terminal resistance (220 $\Omega$ ) insertion to SD (TXD): None
6	OFF	Terminal resistance (220 $\Omega$ ) 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	KS (KIS) Auto control mode. Disable

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

Dip switch	Setting	Description
1	OFF	Reserve (always OFF)
2	ON	SIO type: RS-422/485
3	ON	510 type. K5-422/405
4	OFF	Output mode of SD (TXD) data: Always output
5	OFF	Terminal resistance (220 $\Omega$ ) insertion to SD (TXD): None
6	OFF	Terminal resistance (220 $\Omega$ ) 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	KS (KIS) Auto control mode. Disdule

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

## 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. K5-422/465
4	OFF	Output mode of SD (TXD) data: Always output
5	OFF	Terminal resistance (220 $\Omega$ ) insertion to SD (TXD): None
6	OFF	Terminal resistance (220 $\Omega$ ) insertion to RD (RXD): None
7	ON	Short-circuit of SDA (TXA) and RDA (RXA): Exist
8	ON	Short-circuit of SDB (TXB) and RDB (RXB): Exist
9	ON	RS (RTS) Auto control mode: Enable
10	ON	KS (K15) Auto control mode. Endole

# 2 Selection of External Device

Select the External Device to be connected to the Display.

đ	💰 New Project File 🗙 🗙					
	Device/PL	c	1			
	Maker	SHARP MS Corporation				
	Driver	JW Series Computer Link SID				
	🗖 Use S	ystem Area Refer to the manual of this Device/PLC				
	-Connection Port	Method				
		Go to Device/PLC Manual				
	Back	Communication Detail Settings New Screen Cancel				

Setup Items	Setup Description		
Maker	Select the maker of the External Device to be connected. Select "Sharp MS Corporation".		
Driver       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.         Image: Select and Connected in a system configuration         Image: Select and Connected			
	<ul> <li>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.</li> <li>Cf. GP-Pro EXReference Manual "Appendix 1.4 LS Area (Direct Access Method)"</li> </ul>		
Use System Area	<ul> <li>This can be also set with GP-Pro EX or in off-line mode of the Display.</li> <li>Cf. GP-Pro EX Reference Manual "5.17.6[ Setting Guide of [System Setting Window], Setting Guide of [Main Unit Settings], System Area Setting"</li> <li>Cf. Maintenance/Troubleshooting "2.15.1 Settings common to all Display models ♦System Area Settings"</li> </ul>		
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/PLC 1	
Summary	Change Device/PLC
Maker S	HARP MS Corporation Series JW Series Computer Link SIO Port COM1
Text Data Mo	ode 2 <u>Change</u>
Communication Se	ittings
SIO Type	C RS232C C RS422/485(2wire) © RS422/485(4wire)
Speed	19200
Data Length	07 08
Parity	O NONE O EVEN O ODD
Stop Bit	C 1 C 2
Flow Control	O NONE O ER(DTR/CTS) O XON/XOFF
Timeout	3
Retry	2 -
Wait To Sen	± 0 📑 (ms)
RI / VCC	© RI C VCC
	of RS232C, you can select the 9th pin to RI (Input) Power Supply). If you use the Digital's RS232C
Isolation Ur	rower supply: in you use the bigital's hiszszc iit, please select it to VCC. Default
Device-Specific S	ettings
	mber of Devices/PLCs 16
Number Di	

NOTE

Setting value for Wait To Send differs depending on the External Device. Please refer to the manual of the External Device for more details.

## ♦ Device Setting

💰 Individual Device Settings			
PLC1			
Series	● JW-10/20H/30H/50H/70H/100H		
	Please reconfirm all of address settings that you are using if you have changed the series.		
Station No.(Oct)	1		
	Default		
	OK ( <u>0</u> ) Cancel		

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.

**NOTE** • 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/F	PLC 1						
Summa	iry					1	Change Device/PLC
Ma	aker SHARP M	S Corporation	Series	JW Serie	es Computer Link SIO	Port	COM1
Te	ext Data Mode	2 Change					
Commu	inication Settings						
SI	О Туре	O RS232C	• RS422/485()	2wire)	C RS422/485(4wire)		
Sp	peed	19200	•				
Da	ata Length	⊙ 7	C 8				
Pa	arity	C NONE	EVEN	0	ODD		
Ste	op Bit	O 1	● 2				
Flo	ow Control	C NONE	• ER(DTR/CT	s) O	XON/XOFF		
Tir	meout	3 📫 (s	ec)				
Re	etry	2 📫					
W	'ait To Send	n) 🛨 (n	าร)				
BI	/ VCC	© RI	O VCC				
0	in the case of RS23 or VCC (5V Power 9 Isolation Unit, please	Supply). If you use			Default		
Device	-Specific Settings						
	lowable Number of [		16 📷				
N	umber Device Na 1 PLC1	me	Settings	- 10/ 10/2		n Ma (C	
ð				s=0W-10/2	0H/30H/50H/70H/100H,Statio	n No.(U	icij=1

NOTE

• Setting value for Wait To Send differs depending on the External Device. Please refer to the manual of the External Device for more details.

#### Device Setting

💰 Individual	Device Settings	K
PLC1		
Series	● JW-10/20H/30H/50H/70H/100H ○ JW-300	
	Please reconfirm all of address settings that you are using if you have changed the series.	
Station No.(Oct)	1	
	Default	
	OK ( <u>D</u> ) Cancel	

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.

**NOTE** • 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.

Devid	e/PLC1						
Sum	imary					Change Device/A	PLC
	Maker SHARP M	4S Corporation	Series	JW Serie	es Computer Link SIO	Port COM1	
	Text Data Mode	2 Change					
Com	munication Settings						
	SIO Type	RS232C	O RS422/485(2)	2wire)	C RS422/485(4wire)		
	Speed	19200	•				
	Data Length	• 7	C 8				
	Parity	O NONE	EVEN	0	ODD		
	Stop Bit	O 1	• 2				
	Flow Control	O NONE	• ER(DTR/CT	S) O	XON/XOFF		
	Timeout	3 🕂 (se	c)				
	Retry	2 📫					
	Wait To Send	0 📫 (m	s)				
	RI / VCC	• BI	O VCC				
		32C, you can select Supply). If you use t select it to VCC.			Default		
Dev	ice-Specific Settings						
	Allowable Number of		16 🚮				
	Number Device Na	ame	Settings		:0H/30H/50H/70H/100H,Stati	on No (Oct)=1	
	<b>m</b> , 1, 201		HILL TO CHES			onno.(000)-1	

NOTE

• Setting value for Wait To Send differs depending on the External Device. Please refer to the manual of the External Device for more details.

#### Device Setting

💰 Individual	Device Settings	×
PLC1		
Series	● JW-10/20H/30H/50H/70H/100H	
	Please reconfirm all of address settings that you are using if you have changed the series.	
Station No.(Oct)	1	
	Default	
	OK ( <u>D</u> ) Cancel	

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	Tanty. 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(0)	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.

Devic	e/PLC 1						
Sum	mary					<u>(</u>	Change Device/PLC
	Maker SHARP M	4S Corporation	Series	JW Serie	es Computer Link SIO	Port	COM1
	Text Data Mode	2 Change					
Com	munication Settings						
	SIO Type	C RS232C	O RS422/485(	2wire)	• RS422/485(4wire)		
	Speed	19200	-				
	Data Length	● 7	O 8				
	Parity	O NONE	EVEN	0	ODD		
	Stop Bit	0.1	● 2				
	Flow Control	O NONE	• ER(DTR/CT	s) O	XON/XOFF		
	Timeout	3 ÷ (s	ec)				
	Retry	2 📫					
	Wait To Send	0 🕂 (n	ns)				
	RI / VCC	© BI	O VCC				
	In the case of RS2 or VCC (5V Power Isolation Unit, pleas	Supply). If you use			Default		
Devi	ce-Specific Settings						
	Allowable Number of Devices/PLCs 16						
	Number Device Na	ame	Settings	s=JW-10/2	0H/30H/50H/70H/100H,Statio	n No.íO	ct)=1
			HELL JO BILL				, -

NOTE

• Setting value for Wait To Send differs depending on the External Device. Please refer to the manual of the External Device for more details.

#### Device Setting

💰 Individual	💣 Individual Device Settings			
PLC1				
Series	● JW-10/20H/30H/50H/70H/100H			
	Please reconfirm all of address settings that you are using if you have changed the series.			
Station No.(Oct)	1			
	Default			
	OK ( <u>D</u> ) Cancel			

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	Tanty. 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(0)	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	/PLC1						
Summ	ary						Change Device/PLC
M	1aker SHARP M	S Corporation	Series	JW Serie	es Computer Link SIO	Port	COM1
Т	ext Data Mode	2 Change					
Comm	unication Settings						
S	ilO Type	C RS232C	O RS422/485()	2wire)	• RS422/485(4wire)		
S	ipeed	19200	•				
D	)ata Length	7	08				
P	Parity	C NONE	EVEN	0	ODD		
S	itop Bit	0.1	● 2				
F	low Control	C NONE	• ER(DTR/CT	s) O (	XON/XOFF		
Т	imeout	3 📫 (s	ec)				
R	letry	2 📑					
V	Vait To Send	0 📫 (n	ns)				
B	N / VCC	© RI	O VCC				
	In the case of RS23 or VCC (5V Power 9 Isolation Unit, please	Supply). If you use			Default		
Device	e-Specific Settings						
	llowable Number of D		16 🚮				
	Number Device Na	me	Settings	:=IW-10/2	DH/30H/50H/70H/100H,Static	n No (C	let)=1
			HILL JOENES		an convolution rout, add		···, ·

NOTE

• Setting value for Wait To Send differs depending on the External Device. Please refer to the manual of the External Device for more details.

#### Device Setting

💰 Individual	Device Settings X
PLC1	
Series	● JW-10/20H/30H/50H/70H/100H
	Please reconfirm all of address settings that you are using if you have changed the series.
Station No.(Oct)	1
	Default
	OK ( <u>D</u> ) Cancel

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	Tanty. 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(0)	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.

Devic	e/PLC1						
Sum	mary						Change Device/PLC
	Maker SHARP N	1S Corporation	Series	JW Serie	es Computer Link SIO	Port	COM1
	Text Data Mode	2 <u>Change</u>					
Com	munication Settings						
	SIO Type	RS232C	C RS422/485(	2wire)	C RS422/485(4wire)		
	Speed	19200	-				
	Data Length	7	C 8				
	Parity	C NONE	EVEN	0	ODD		
	Stop Bit	0.1	€ 2				
	Flow Control	C NONE	• ER(DTR/CT	s) O	XON/XOFF		
	Timeout	3 📑 (:	sec)				
	Retry	2 📫					
	Wait To Send	0 🕂 (1	ns)				
	RI / VCC	🖲 BI	O VCC				
	In the case of RS2 or VCC (5V Power Isolation Unit, pleas	Supply). If you use			Default		
Devi	ice-Specific Settings						
	Allowable Number of		16 📷				
	Number Device Na Number Device Na Number Device Na	ame	Settings	s=JW-10/2	0H/30H/50H/70H/100H,Static	n No.(C	)ct)=1
	,		Hall I State				

NOTE

• Setting value for Wait To Send differs depending on the External Device. Please refer to the manual of the External Device for more details.

#### Device Setting

💰 Individual	Device Settings X
PLC1	
Series	● JW-10/20H/30H/50H/70H/100H C JW-300
	Please reconfirm all of address settings that you are using if you have changed the series.
Station No.(Oct)	1
	Default
	OK ( <u>D</u> ) Cancel

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 #222

Setting Area	Setting Value	Setup Description
#222	0(H)	RS232C connection

#### 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	Tanty. 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(0)	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.

Devic	e/PLC1						
Sum	mary					ļ	Change Device/PLC
	Maker SHARP M	4S Corporation	Series	JW Seri	es Computer Link SIO	Port	COM1
	Text Data Mode	2 <u>Change</u>					
Com	munication Settings						
	SIO Type	C RS232C	C RS422/485(	(2wire)	• RS422/485(4wire)		
	Speed	19200	-				
	Data Length	• 7	C 8				
	Parity	O NONE	EVEN	0	ODD		
	Stop Bit	0.1	2     2				
	Flow Control	O NONE	ER(DTR/CT)	S) O	XON/XOFF		
	Timeout	3 📫 (*	sec)				
	Retry	2 📫					
	Wait To Send	0 ÷ (r	ns)				
	RI / VCC	© RI	O VCC				
	In the case of RS2 or VCC (5V Power Isolation Unit, pleas	Supply). If you use			Default		
Dev	ice-Specific Settings						
	Allowable Number of		16 📷				
	Number Device Na	ame	Settings	s=JW-10/2	0H/30H/50H/70H/100H,Statio	on No.(O	lct)=1
	· ·		Polici i Polici				

NOTE

• Setting value for Wait To Send differs depending on the External Device. Please refer to the manual of the External Device for more details.

#### Device Setting

💰 Individual	Device Settings	×
PLC1		
Series	● JW-10/20H/30H/50H/70H/100H	
	Please reconfirm all of address settings that you are using if you have changed the series.	
Station No.(Oct)	1	
	Default	
	OK ( <u>0</u> ) Cancel	

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 #222

1:1 Connection

Setting Area	Setting Value	Setup Description
#222	00(H)	RS-422A connection

1:n Connection

Setting Area	Setting Value	Setup Description
#222	04(H)	RS-422A connection

# • "1:n Connection" is enabled by using JW-32CUH1/33CUH1/33CUH2/33CUH3 (with software version 3.5 or later) or JW-32CUM1/32CUM2.

#### 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	Tanty. 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(0)	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.

Devic	e/PLC1		
Sum	mary		Change Device/PLC
	Maker SHARP M	1S Corporation	Series JW Series Computer Link SIO Port COM1
	Text Data Mode	2 <u>Change</u>	
Com	munication Settings		
	SIO Type	C RS232C	C RS422/485(2wire) © RS422/485(4wire)
	Speed	19200	T
	Data Length	• 7	C 8
	Parity	O NONE	
	Stop Bit	0.1	© 2
	Flow Control	C NONE	ER(DTR/CTS)     C XON/XOFF
	Timeout	3 📑 (;	(sec)
	Retry	2	
	Wait To Send	0 🔅 (	(ms)
	RI / VCC	© RI	C VCC
		Supply). If you use	et the 9th pin to RI (Input) e the Digital's RS232C . Default
Dev	ice-Specific Settings		
	Allowable Number of		16
	Number Device Na	ame	Settings Series=JW-10/20H/30H/50H/70H/100H,Station No.(Oct)=1

NOTE

• Setting value for Wait To Send differs depending on the External Device. Please refer to the manual of the External Device for more details.

#### Device Setting

💰 Individual	Device Settings X
PLC1	
Series	● JW-10/20H/30H/50H/70H/100H
	Please reconfirm all of address settings that you are using if you have changed the series.
Station No.(Oct)	1 *
	Default
	OK ( <u>D</u> ) Cancel

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

ſ	Rotary Switch	Setting Value	Setup Description
ſ	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.

**NOTE** • 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	e/PLC1						
Summ	nary						Change Device/PLC
ł	Maker SHARP M	IS Corporation	Series	JW Serie	es Computer Link SIO	Port	COM1
1	Text Data Mode	2 <u>Change</u>					
Comm	nunication Settings						
9	SIO Type	C RS232C	• RS422/485(2	2wire)	C RS422/485(4wire)		
9	Speed	19200	•				
[	Data Length	• 7	O 8				
F	Parity	C NONE	• EVEN	0	ODD		
9	Stop Bit	O 1	● 2				
F	Flow Control	C NONE	• ER(DTR/CTS	S) O	XON/XOFF		
1	Timeout	3 <u>+</u> (s	ec)				
F	Retry	2 .					
١	Wait To Send	n) 🗧 (r	ns)				
F	RI / VCC	🖲 BI	O VCC				
	In the case of RS23 or VCC (5V Power 9 Isolation Unit, please	Supply). If you use			Default		
Devid	e-Specific Settings						
	Allowable Number of [		16 📷				
Г	Number Device Na	ime	Settings	-lw/.10/2	0H/30H/50H/70H/100H,Statio	n No (C	lot)=1
L	<u>. , ,</u>		HILE ISelies	-011/2	on a son a son a son a formation a son		

NOTE

• Setting value for Wait To Send differs depending on the External Device. Please refer to the manual of the External Device for more details.

#### Device Setting

💰 Individual	Device Settings	×
PLC1		
Series	● JW-10/20H/30H/50H/70H/100H	
	Please reconfirm all of address settings that you are using if you have changed the series.	'
Station No.(Oct)	1	
	Default	
	OK ( <u>D</u> ) Cancel	

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

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

#### Station Address Setting Switch

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

**NOTE** • 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	e/PLC 1						
Summ	nary					1	Change Device/PLC
ł	Maker SHARP M	1S Corporation	Series	JW Serie	es Computer Link SIO	Port	COM1
	Text Data Mode	2 <u>Change</u>					
Comn	nunication Settings						
9	SIO Type	RS232C	O RS422/485()	2wire)	O RS422/485(4wire)		
9	Speed	19200	•				
l	Data Length	• 7	08				
ł	Parity	C NONE	EVEN	0	ODD		
9	Stop Bit	O 1	● 2				
I	Flow Control	C NONE	• ER(DTR/CT	s) O	XON/XOFF		
	Timeout	3 📫 (s	ec)				
ł	Retry	2					
١	Wait To Send	0 📫 (n	ns)				
F	RI / VCC	• RI	O VCC				
	In the case of RS23 or VCC (5V Power S Isolation Unit, pleas	Supply). If you use			Default		
Devic	ce-Specific Settings						
	Allowable Number of I		16 📷				
Г	Number Device Na	ime	Settings	s=1\u/-10/2	0H/30H/50H/70H/100H,Statio	n No (O	Ict)=1
L	<u>. 1700</u>		HE Joene.				-o(j=1

NOTE

• Setting value for Wait To Send differs depending on the External Device. Please refer to the manual of the External Device for more details.

#### Device Setting

💰 Individual	Device Settings	×
PLC1		
Series	● JW-10/20H/30H/50H/70H/100H	
	Please reconfirm all of address settings that you are using if you have changed the series.	
Station No.(Oct)	1	
	Default	
	OK ( <u>0</u> ) Cancel	

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	Tanty. 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.

Devic	e/PLC1			
Sum	mary		Change Device/PL	<u>c</u>
	Maker SHARP N	4S Corporation	Series JW Series Computer Link SIO Port COM1	-
	Text Data Mode	2 Change		
Com	munication Settings			
	SIO Type	O RS232C	O RS422/485(2wire)	
	Speed	19200	▼.	
	Data Length	7	0.8	
	Parity	O NONE	EVEN C ODD	
	Stop Bit	0.1	• 2	
	Flow Control	O NONE	ER(DTR/CTS) O XON/XOFF	
	Timeout	3 <u>+</u> (si	sec)	
	Retry	2		
	Wait To Send	0 📫 (m	ms)	
	RI / VCC	© BI	O VCC	
		Supply). If you use	et the 9th pin to RI (Input) e the Digital's RS232C Default	
Devi	ice-Specific Settings			
	Allowable Number of		16 🦉	
	Number Device N	ame	Settings Setes=JW-10/20H/30H/50H/70H/100H,Station No.(Oct)=1	_
	,			

NOTE

• Setting value for Wait To Send differs depending on the External Device. Please refer to the manual of the External Device for more details.

#### Device Setting

💰 Individual Device Settings 🛛 🗙				
PLC1				
Series	● JW-10/20H/30H/50H/70H/100H			
	Please reconfirm all of address settings that you are using if you have changed the series.			
Station No.(Oct)	1 *			
	Default			
	OK ( <u>D</u> ) Cancel			

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	Tanty. 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(0)	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.

Devid	ce/PLC 1						
Sum	mary					1	Change Device/PLC
	Maker SHARP N	MS Corporation	Series	JW Seri	es Computer Link SIO	Port	COM1
	Text Data Mode	2 Change					
Com	munication Settings						
	SIO Type	C RS232C	RS422/485(	2wire)	C RS422/485(4wire)		
	Speed	19200	•				
	Data Length	• 7	08				
	Parity	O NONE	EVEN	0	ODD		
	Stop Bit	01	• 2				
	Flow Control	O NONE	• ER(DTR/CT	s) O	XON/XOFF		
	Timeout	3 📫 (se	ec)				
	Retry	2 +					
	Wait To Send	0 🕂 (m	s)				
	RI / VCC	© RI	O VCC				
	or VCC (5V Power	32C, you can select Supply), If you use					
	Isolation Unit, pleas	se select it to VLL.			Default		
Dev	ice-Specific Settings						
	Allowable Number of Number Device N		16 🚮 Settings				
	1 PLC1	ano		s=JW-10/2	0H/30H/50H/70H/100H,Statio	n No.(O	lct)=1

NOTE

• Setting value for Wait To Send differs depending on the External Device. Please refer to the manual of the External Device for more details.

#### Device Setting

💰 Individual I	Device Settings	×
PLC1		
Series	● JW-10/20H/30H/50H/70H/100H ● JW-300	
	Please reconfirm all of address settings that you are using if you have changed the series.	
Station No.(Oct)	1	
	Default	
	OK ( <u>0</u> ) Cancel	

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	- Fairty. 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(0)	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/PLC 1			
Summary			Change Device/PLC
Maker	SHARP MS Corporation S	eries JW Series Computer Link SIO	Port COM1
Text Data N	Node 2 <u>Change</u>		
Communication 9	Settings		
SIO Type	• RS232C	2/485(2wire) C RS422/485(4wire)	
Speed	19200 💌		
Data Lengti	h €7 €8		
Parity	○ NONE	ODD CODD	
Stop Bit	O 1 O 2		
Flow Contro	I O NONE 💿 ER(D'	TR/CTS) C XON/XOFF	
Timeout	3 📫 (sec)		
Retry	2		
Wait To Se	nd 0 📑 (ms)		
RI / VCC	I O VCC		
or VCC (5	e of RS232C, you can select the 9th pi V Power Supply). If you use the Digital Jnit, please select it to VCC.		
Device-Specific	Settings		
	lumber of Devices/PLCs 16		
	Device Name Sett PLC1	ings Cariaa IV ( 200 Chaire No (Car) -1	
<u>i</u> ' [		Series=JW-300,Station No.(Oct)=1	

NOTE

• Setting value for Wait To Send differs depending on the External Device. Please refer to the manual of the External Device for more details.

#### Device Setting

💰 Individual	Device Settings	×
PLC1		
Series	○ JW-10/20H/30H/50H/70H/100H    • JW-300	
	Please reconfirm all of address settings that you are using if you have changed the series.	
Station No.(Oct)	1	
	Default	
	OK ( <u>0</u> ) Cancel	

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	
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(0)	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/PLC1			
Summary			Change Device/PLC
Maker SHARP MS Corpor	tion Series JW S	eries Computer Link SIO	Port COM1
Text Data Mode 2 <u>Cr</u>	ange		
Communication Settings			
SIO Type 🛛 🔿 RS2	32C C RS422/485(2wire)	RS422/485(4wire)	
Speed 19200	▼		
Data Length 📀 7	C 8		
Parity C NOM	E 🔍 EVEN 🤇	O ODD	
Stop Bit 🛛 C 1	2		
Flow Control C NON	e 💿 er(DTR/CTS) 🤇	C XON/XOFF	
Timeout 3	📫 (sec)		
Retry 2	-		
Wait To Send 0	• (ms)		
RI / VCC 💿 RI	O VCC		
	an select the 9th pin to RI (Input) you use the Digital's RS232C to VCC.	Default	
Device-Specific Settings			
Allowable Number of Devices/f	LCs 16 🚮		
Number Device Name	Settings		
👗 1  PLC1	Series=JW-30	0,Station No.(Oct)=1	

NOTE

• Setting value for Wait To Send differs depending on the External Device. Please refer to the manual of the External Device for more details.

#### Device Setting

💰 Individual	Device Settings	×
PLC1		
Series	○ JW-10/20H/30H/50H/70H/100H    • JW-300	
	Please reconfirm all of address settings that you are using if you have changed the series.	
Station No.(Oct)	1	
	Default	
	OK ( <u>0</u> ) Cancel	

# 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 #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	Tanty. 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(0)	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/F	PLC 1					
Summa	ary					Change Device/PLC
Ma	aker SHARP M	S Corporation	Series J	W Series Computer Linl	k SIO	Port COM1
Τe	ext Data Mode	2 <u>Change</u>				
Commu	inication Settings					
SI	О Туре	• RS232C	C RS422/485(2wir	e) C RS422/48	5(4wire)	
Sp	peed	19200	-			
Da	ata Length	• 7	C 8			
Pa	arity	O NONE	EVEN	C ODD		
St	top Bit	O 1	• 2			
Flo	ow Control	O NONE	• ER(DTR/CTS)	C XON/XOFF		
Tir	meout	3 📫 (s	ec)			
Re	etry	2				
W	ait To Send	0 ÷ (n	s)			
RI	I / VCC	• RI	O VCC			
0		Supply). If you use	the 9th pin to RI (Inp the Digital's RS232C		Default	
Device	-Specific Settings					
	Iowable Number of D		16 📷			
N	lumber Device Na	me	Settings			
ă	1 PLC1		Series=J\	V-300,Station No.(Oct):	=1	

NOTE

• Setting value for Wait To Send differs depending on the External Device. Please refer to the manual of the External Device for more details.

#### 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].

💰 Individual	Device Settings	×
PLC1		
Series	○ JW-10/20H/30H/50H/70H/100H    ⊙ JW-300	
	Please reconfirm all of address settings that you are using if you have changed the series.	
Station No.(Oct)	1	
	Default	
	OK ( <u>0</u> ) Cancel	

# 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	Tanty. 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(0)	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.

Devic	e/PLC1				
Sum	mary				Change Device/PLC
	Maker SHARP M	1S Corporation	Series JW Series	s Computer Link SIO	Port COM1
	Text Data Mode	2 <u>Change</u>			
Com	munication Settings				
	SIO Type	C RS232C	O RS422/485(2wire)	• RS422/485(4wire)	
	Speed	19200	•		
	Data Length	• 7	O 8		
	Parity	C NONE	• EVEN C C	IDD	
	Stop Bit	0.1	● 2		
	Flow Control	C NONE	● ER(DTR/CTS) C ×	ON/XOFF	
	Timeout	3 📑 (;	ec)		
	Retry	2			
	Wait To Send	0 🔅 (	s)		
	RI / VCC	© RI	O VCC		
		Supply). If you use	the 9th pin to RI (Input) the Digital's RS232C	Default	
Devi	ice-Specific Settings				
	Allowable Number of		16 📷		
	Number Device Na	ame	Settings	tation No (Oot)-1	
			Interestory-300,51	auon 1x0.(UCt)=1	

NOTE

• Setting value for Wait To Send differs depending on the External Device. Please refer to the manual of the External Device for more details.

#### Device Setting

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

💰 Individual	Device Settings 🗙
PLC1	
Series	○ JW-10/20H/30H/50H/70H/100H
	Please reconfirm all of address settings that you are using if you have changed the series.
Station No.(Oct)	1
	Default
	OK ( <u>D</u> ) Cancel

# 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	Tanty. 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(0)	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	e/PLC 1			
Sumr	mary			Change Device/PLC
	Maker SHARP N	4S Corporation	Series JW Series Computer Link SID P	ort COM1
	Text Data Mode	2 Change		
Comr	munication Settings			
	SIO Type	C RS232C	C RS422/485(2wire)  © RS422/485(4wire)	
	Speed	19200	×	
	Data Length	• 7	© 8	
	Parity	C NONE	EVEN     ODD	
	Stop Bit	01	• 2	
	Flow Control	C NONE	• ER(DTR/CTS) • XON/XOFF	
	Timeout	3 📫 (s	ec)	
	Retry	2		
	Wait To Send	n) 🗧 🛛	ns)	
	RI / VCC	© RI	O VCC	
	or VCC (5V Power	Supply). If you use	the 9th pin to RI (Input) the Digital's RS232C	
	Isolation Unit, pleas	e select it to VCC.	Default	
Devi	ce-Specific Settings			
	Allowable Number of		16	
[	Number Device Na 1 PLC1	ame	Settings Series=JW-300,Station No.(Oct)=1	
L	<b>.</b> ,			

• Setting value for Wait To Send differs depending on the External Device. Please refer to the manual of the External Device for more details.

#### Device Setting

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

💰 Individual I	Device Settings 💦 🎽	٢
PLC1		
Series	○ JW-10/20H/30H/50H/70H/100H    ⊙ JW-300	
	Please reconfirm all of address settings that you are using if you have changed the series.	
Station No.(Oct)	1	
	Default	
	OK (D) Cancel	

# 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.

**NOTE** • 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.

Devic	ce/PLC 1		
Sum	mary		Change Device/PLC
	Maker SHARP N	4S Corporation	Series JW Series Computer Link SIO Port COM1
	Text Data Mode	2 Change	
Com	munication Settings		
	SIO Type	C RS232C	RS422/485(2wire)     RS422/485(4wire)
	Speed	19200	
	Data Length	• 7	C 8
	Parity	O NONE	
	Stop Bit	01	● 2
	Flow Control	O NONE	ER(DTR/CTS)     C XON/XOFF
	Timeout	3 📫 (	(sec)
	Retry	2 🔹	
	Wait To Send	0 📑 (	(ms)
	RI / VCC	© BI	O VCC
		Supply). If you use	ect the 9th pin to RI (Input) se the Digital's RS232C ~ Default
Dev	rice-Specific Settings Allowable Number of	Devices/PLCs	16 10
	Number Device Na		Settings
	👗 1 🛛 PLC1		Series=JW-300,Station No.(Oct)=1

NOTE

• Setting value for Wait To Send differs depending on the External Device. Please refer to the manual of the External Device for more details.

#### ♦ Device Setting

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

💰 Individual I	Device Settings	×
PLC1		
Series	○ JW-10/20H/30H/50H/70H/100H	
	Please reconfirm all of address settings that you are using if you have changed the series.	
Station No.(Oct)	1	
	Default	
	OK ( <u>0</u> ) Cancel	

# 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.

**NOTE** • 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.

Device/PLC 1					
Summary					Change Device/PLC
Maker	SHARP MS Corporati	on Series	JW Series Compu	uter Link SIO	Port COM1
Text Data M	Aode 2 <u>Char</u>	nge	,		,
Communication S	Settinas				
SIO Type	• RS23	2C 🔿 RS422/485	(2wire) C RS-	422/485(4wire)	
Speed	19200	-		, <i>,</i> ,	
Data Lengt	h • 7	0.8			
Parity		• EVEN			
Stop Bit	0 1	• 2			
Flow Contro		ER(DTR/C1	rs) C XON/XO	)FF	
Timeout	3	÷ (sec)			
Retry	2				
Wait To Se	nd 0				
BL/ VCC	• BI				
	- · · ·	n select the 9th pin to R	l (Input)		
or VCC (5		ou use the Digital's RS2			
				Default	
Device-Specific	-				
	lumber of Devices/PL				
	Device Name	Settings			11 - 200 - 12 - 14
j i ⊫	2LC1	In Serie	/s=JW-10/20H/30H/	/50H/70H/100H,Statio	n No.[Uct]=1

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 I ([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 in from [Device-Specific Settings] of [Device/PLC Settings] to add the External Device which is available to set.

💰 Individual (	Device Settings	×
PLC1		
Series	● JW-10/20H/30H/50H/70H/100H	⊂ JW-300
	Please reconfirm all of address settings if you have changed the series.	that you are using
Station No.(Oct)	1	
		Default
	OK ( <u>D</u> )	Cancel

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

# 4.2 Settings in Off-Line Mode

NOTE

• Refer to the Maintenance/Troubleshooting manual for information on how to enter off-line mode or about the operation.

Cf. Maintenance/Troubleshooting Manual "2.2 Off-line 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.

Comm.	Device	Option		
JW Series Compu	ter Link SIO		[COM1]	Page 1/1
	SIO Type Speed Data Length Parity Stop Bit Flow Control Timeout(s) Retry Wait To Send(ms)	RS232C 19200 • 7 • NONE • 1 FER(DTR/C	8 • EVEN • 2 TS) 3 • 4 • 2 • 2 • 2 • 2 • 2 • 2 • 2 • 2	ODD
	Exit		Back	2007/03/09 21:14:17

Setup Items	Setup Description		
SIO Type	Select the SIO type to communicate with the External Device.         Important         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].

Comm.	Device	Option	-	
JW Series Compu	iter Link SIO		[COM1]	Page 1/1
Devic	e/PLC Name PLC	01		<b>_</b>
	Series	JW-10/20H	I/30H/50H/70H/100	Н
	Station No.(Oct)		1 🔻 🔺	
	<b></b>			2007/03/09
	Exit		Back	2007/03/09 21:14:24

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	RI / VCC In the case the 9th pin Power Suppl	<ul> <li>RI</li> <li>of RS232C, you</li> <li>to RI(Input) or</li> <li>y). If you use th</li> <li>ation Unit, plea</li> </ul>	can select VCC(5V e Digital's	Page 1/1
	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.

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 <sup>*1</sup> (COM1) AGP-3302B (COM2) ST <sup>*2</sup> (COM2) IPC <sup>*3</sup>	А	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 <sup>*4</sup> (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	

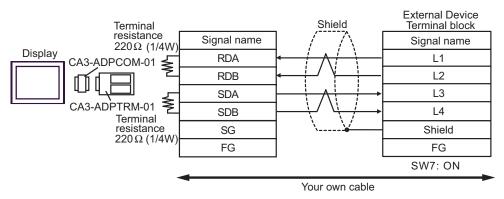
\*1 All GP models except AGP-3302B

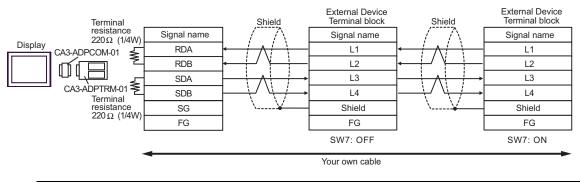
\*2 All ST models except AST-3211A

\*3 Only the COM port which can communicate by RS-422/485 (4 wire) can be used.
 I COM Port of IPC (page 6)

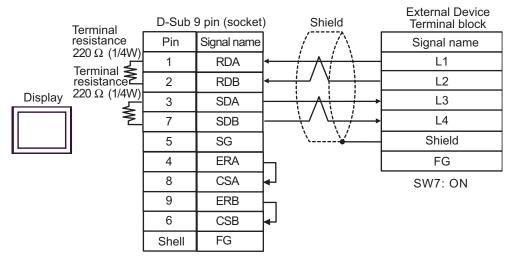
\*4 All GP models except GP-3200 series and AGP-3302B

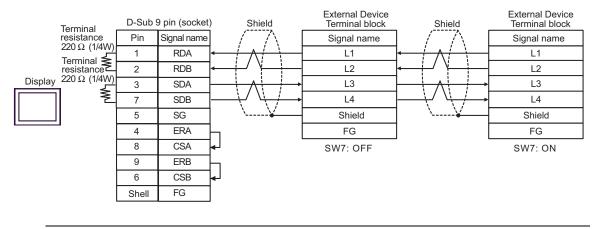
- A. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 Connection





- When IPC is used as the Display, the terminal resistance of  $220\Omega$  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

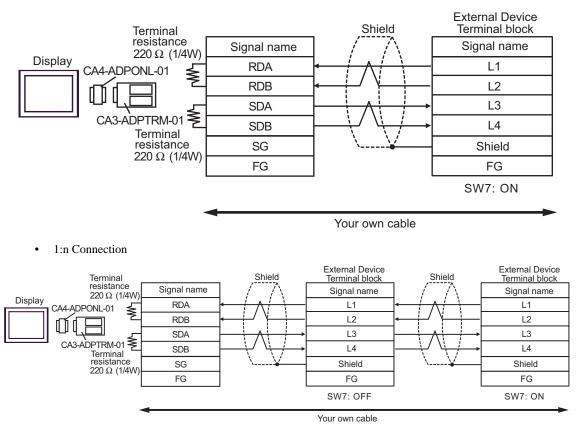




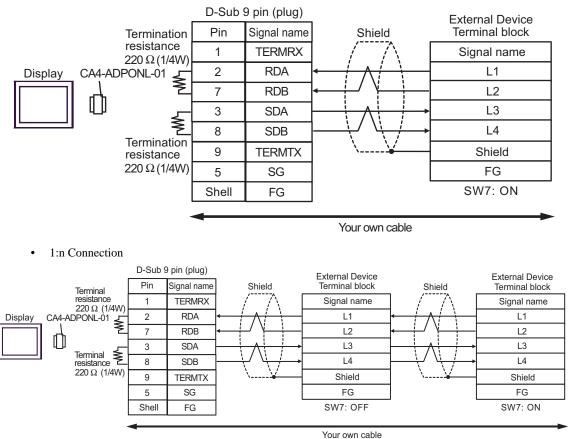
NOTE

• When IPC is used as the Display, the terminal resistance of  $220\Omega$  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



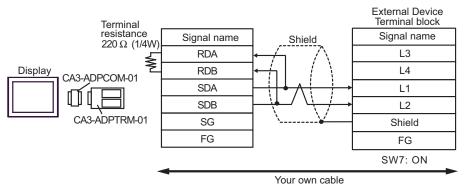
Display (Connection Port)		Cable	Remarks
GP <sup>*1</sup> (COM1) AGP-3302B (COM2) ST <sup>*2</sup> (COM2)	А	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	
	В	Your own cable	
GP <sup>*3</sup> (COM2)	С	Online adapter 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		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

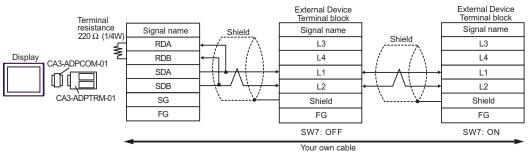
\*2 All ST models except AST-3211A

\*3 All GP models except GP-3200 series and AGP-3302B

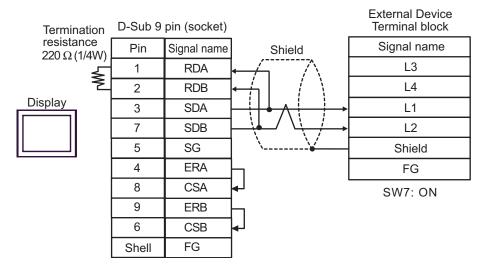
- A. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 Connection



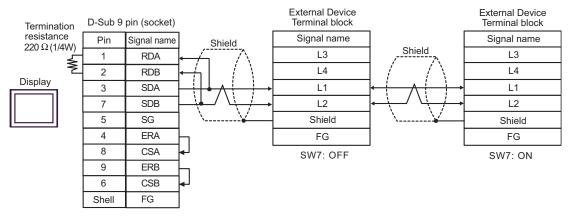
1:n Connection



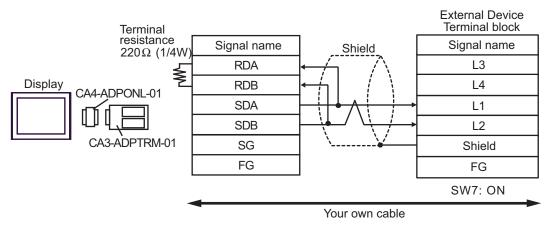
- B. When your own cable is used
- 1:1 Connection



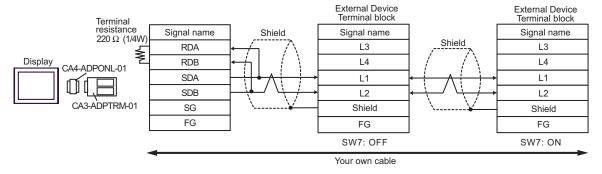
#### 1:n Connection



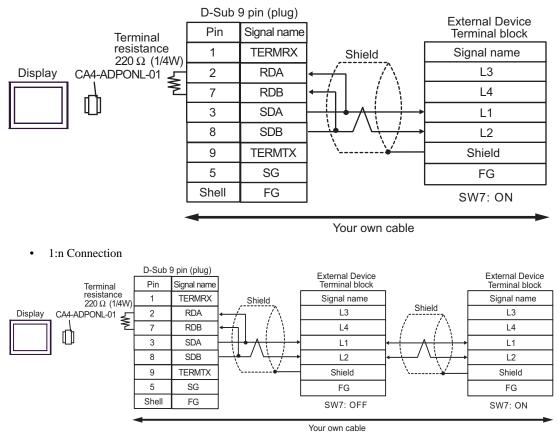
- C. When using the online adapter (CA4-ADPONL-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 Connection



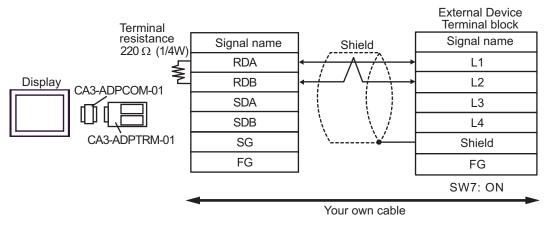
• 1:n Connection

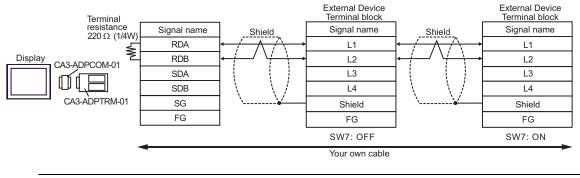


- D. When using the online adapter (CA4-ADPONL-01) by Pro-face and your own cable
- 1:1 Connection



- 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

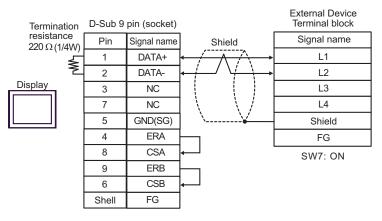




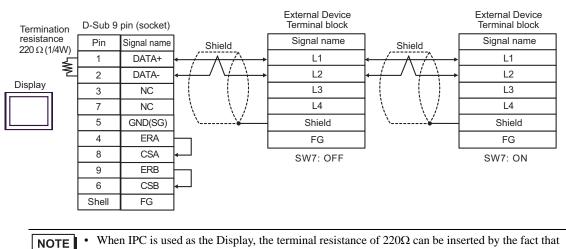
NOTE

• 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



the dip switch 6 of IPC is turned to ON.

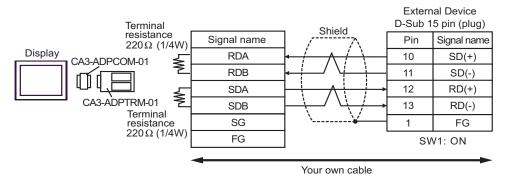
Display (Connection Port)	Cable	Remarks
GP (COM1) ST (COM1) IPC <sup>*1</sup> PC/AT	Your own cable	Cable length: 15m or less

	D-Sub 9	pin (socket)			al Device 5 pin (plug)
	Pin	Signal name	Shield	Pin	Signal name
	2	RD(RXD)		2	SD
Display	3	SD(TXD)		3	RD
	4	ER(DTR)		5	CTS
	5	SG		7	SG
8	8	CS(CTS)	▲	4	RTS
	6	DR(DSR)		12	
	7	RS(RTS)		14	
	Shell	FG	<u></u>	1	FG

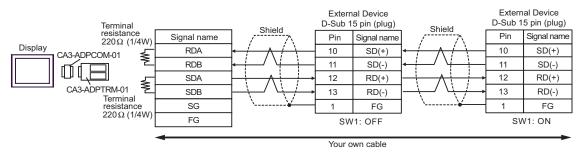
Display (Connection Port)		Cable	Remarks
GP <sup>*1</sup> (COM1) AGP-3302B (COM2) ST <sup>*2</sup> (COM2) IPC <sup>*3</sup>	А	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	
	В	Your own cable	
GP <sup>*4</sup> (COM2)	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
- \*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

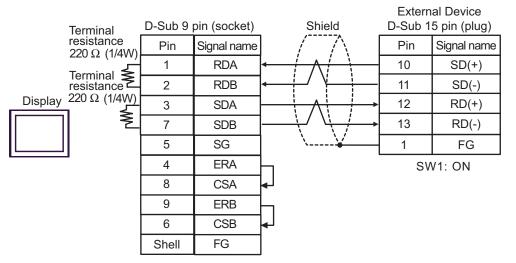


1:n Connection

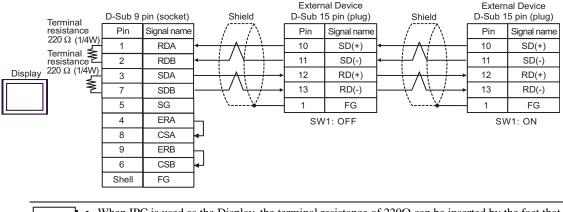


# **NOTE** • When IPC is used as the Display, the terminal resistance of $220\Omega$ can be inserted by the fact that the dip switch 5, 6 of IPC is turned to ON.

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

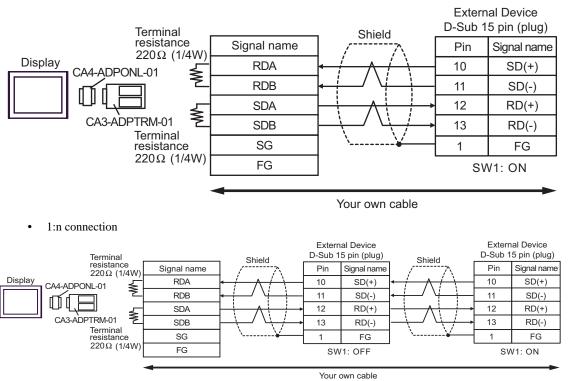


1:n Connection

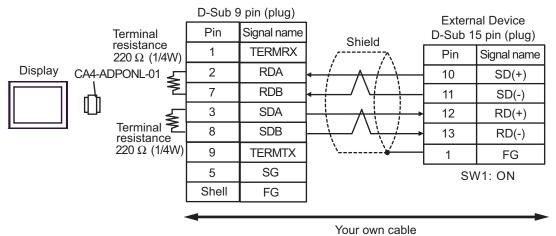


**NOTE** • When IPC is used as the Display, the terminal resistance of  $220\Omega$  can be inserted by the fact that the dip switch 5, 6 of IPC is turned to ON.

- 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 D-Sub 9 pin (plug) External Device External Device Terminal resistance 220 Ω (1/4W) CA4-ADPONL-01 Pin Signal name D-Sub 15 pin (plug) D-Sub 15 pin (plug) Shield Shield 1 TERMRX Pin Signal name Pin Signal name 2 RDA Display 10 SD(+) 10 SD(+) Į 7 RDB 11 SD(-) 11 SD(-) Ó 3 SDA 12 12 RD(+) RD(+) Terminal resistance 220 Ω (1/4W) 8 SDB RD(-) 13 13 RD(-) 9 TERMTX 1 FG 1 FG 5 SG SW1: OFF SW1: ON Shell FG Your own cable

•

Display (Connection Port)		Cable	Remarks
GP <sup>*1</sup> (COM1) AGP-3302B (COM2) ST <sup>*2</sup> (COM2) IPC <sup>*3</sup>	А	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 <sup>*4</sup> (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	

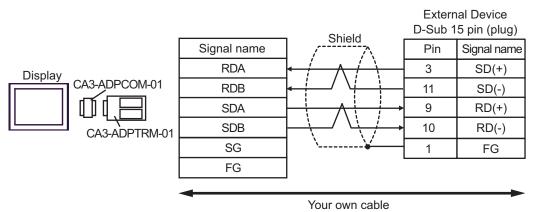
\*1 All GP models except AGP-3302B

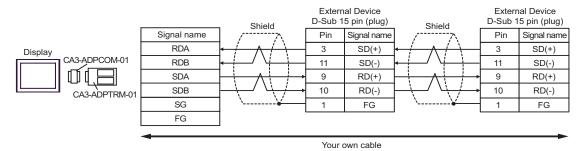
\*2 All ST models except AST-3211A

#### \*4 All GP models except GP-3200 series and AGP-3302B

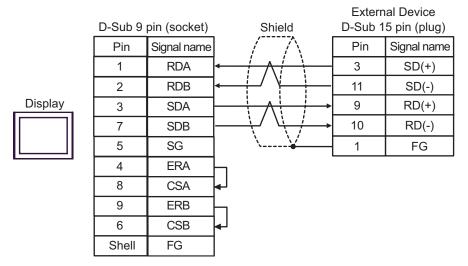
NOTE
Do not connect anything to Pins No. 2, 4, 8 and 12 on the External Device.
Do not connect to Pins No. 14 and 15 on the External Device since voltage is +5V.

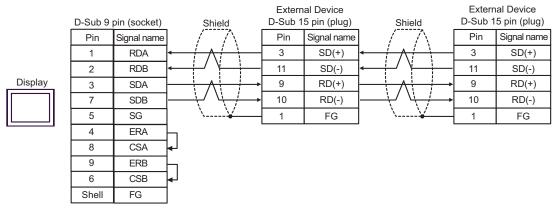
- A. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 Connection



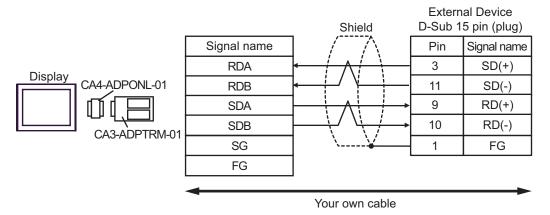


- B. When your own cable is used
- 1:1 Connection

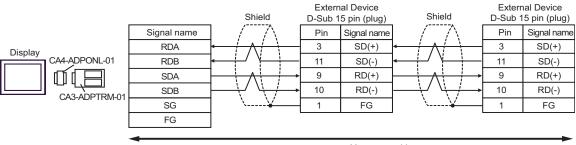




- C. When using the online adapter (CA4-ADPONL-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 Connection

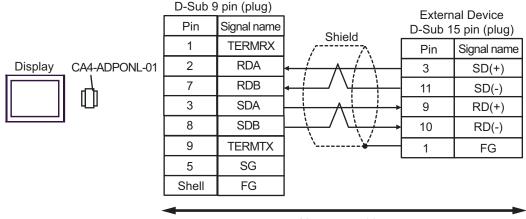


• 1:n Connection

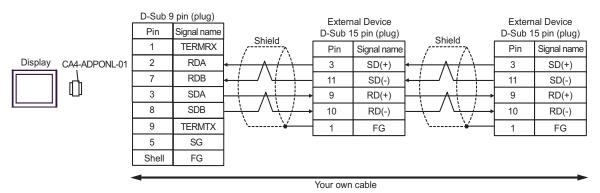


Your own cable

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



Your own cable



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

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

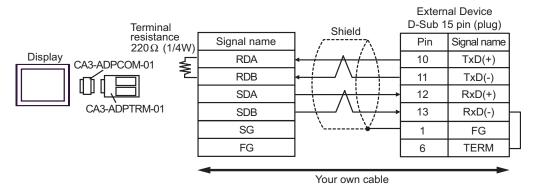
	D-Sub 9 pin (socket)		Shield	External Device D-Sub 15 pin (plug)	
Display	Pin	Signal name		Pin	Signal name
	2	RD(RXD)		2	SD
	3	SD(TXD)		4	RD
	4	ER(DTR)		12	CTS
	5	SG		7	SG
	8	CS(CTS)		8	RTS
	6	DR(DSR)		1	FG
	7	RS(RTS)			
	Shell	FG			

Display (Connection Port)	Cable		Remarks	
GP <sup>*1</sup> (COM1) AGP-3302B (COM2) ST <sup>*2</sup> (COM2) IPC <sup>*3</sup>	А	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 <sup>*4</sup> (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		

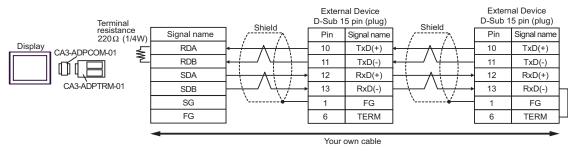
\*1 All GP models except AGP-3302B

\*2 All ST models except AST-3211A

- \*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

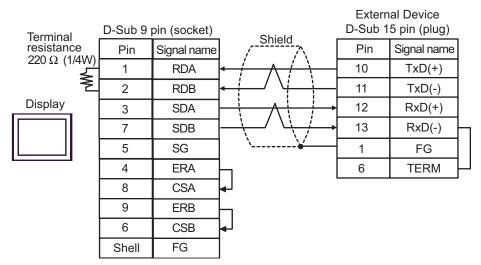


1:n Connection

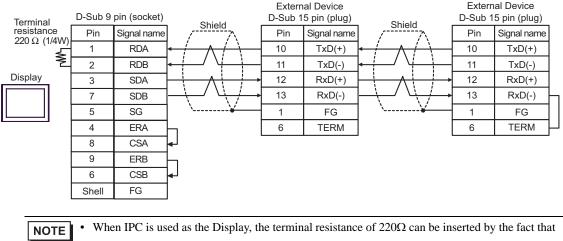


# **NOTE** • When IPC is used as the Display, the terminal resistance of $220\Omega$ can be inserted by the fact that the dip switch 6 of IPC is turned to ON.

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

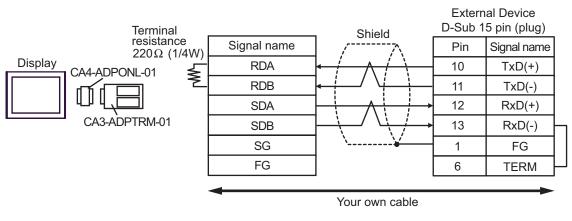


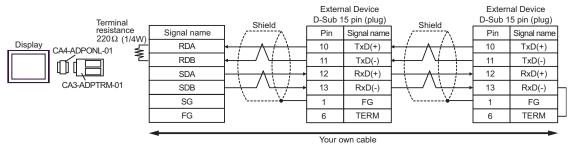
1:n Connection



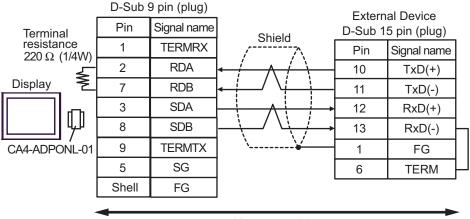
the dip switch 6 of IPC is turned to ON.

- 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



Your own cable

٠ 1:n Connection D-Sub 9 pin (plug) External Device **External Device** Pin Signal name D-Sub 15 pin (plug) D-Sub 15 pin (plug) Terminal resistance 220 Ω (1/4W) Shield Shield TERMRX 1 Pin Signal name Pin Signal name 2 RDA 10 10 TxD(+) TxD(+) ş Display 7 RDB 11 TxD(-) 11 TxD(-) 3 SDA 12 RxD(+) 12 RxD(+) 8 SDB 13 RxD(-) RxD(-) 13 9 TERMTX CA4-ADPONL-01 1 FG 1 FG 5 SG 6 TERM 6 TERM Shell FG Your own cable

## Cable Diagram 8

Display (Connection Port)		Cable	Remarks
GP <sup>*1</sup> (COM1) AGP-3302B (COM2) ST <sup>*2</sup> (COM2)	А	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)	C	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		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	

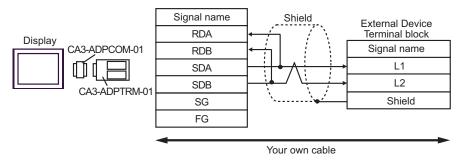
\*1 All GP models except AGP-3302B

\*2 All ST models except AST-3211A

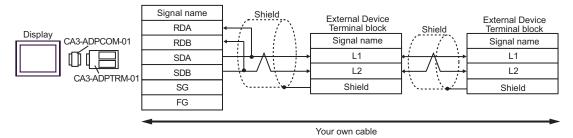
\*3 All GP models except GP-3200 series and AGP-3302B

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

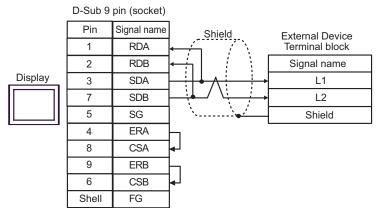
- A. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 Connection



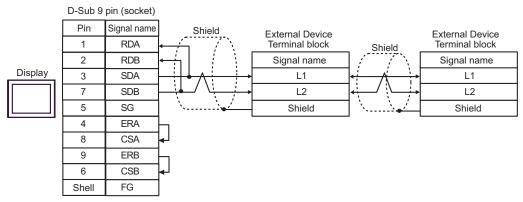
• 1:n Connection



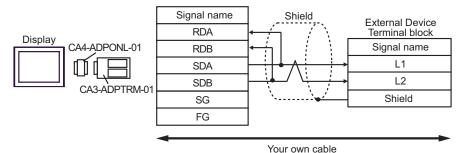
- B. When your own cable is used
- 1:1 Connection



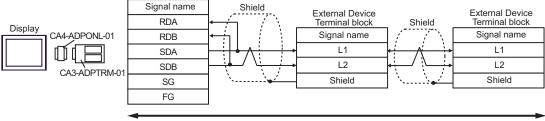
• 1:n Connection



- 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

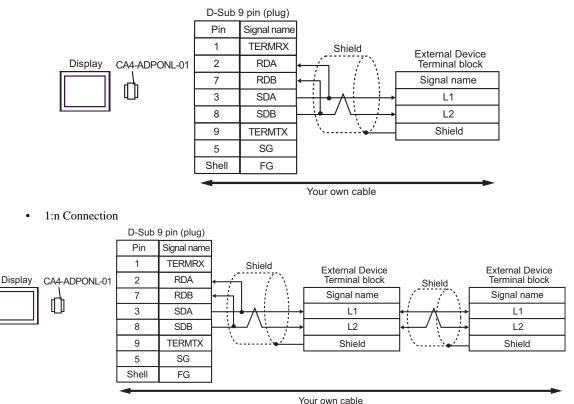


• 1:n Connection

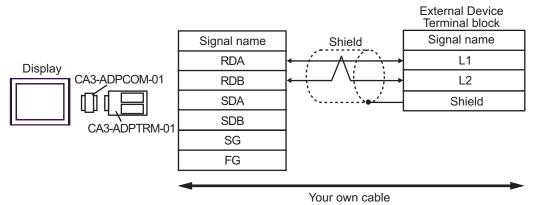


Your own cable

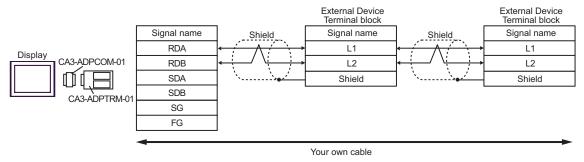
- D. When using the online adapter (CA4-ADPONL-01) by Pro-face and your own cable
- 1:1 Connection



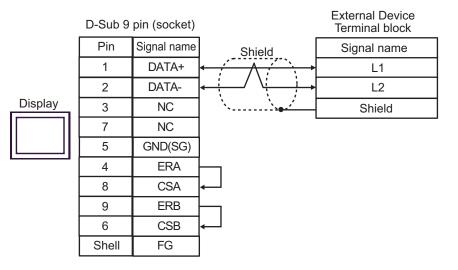
- E. When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 Connection



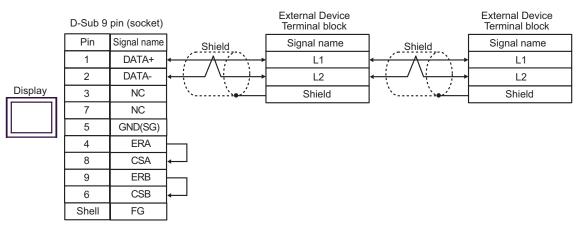
• 1:n Connection



- 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 <sup>*1</sup> 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)

D-Sub 9 pin (socket)		Shield	External Device D-Sub 15 pin (plug)		
	Pin	Signal name		Pin	Signal name
	2	RD(RXD)	← [	2	SD
Display	3	SD(TXD)		4	RD
	5	SG	[	7	SG
	4	ER(DTR)	·····	1	FG
	8	CS(CTS)	- <b>4</b> ๅ		
	6	DR(DSR)			
	7	RS(RTS)			
	Shell	FG			

# 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

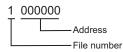
This address can be specified as system data area.

Device	Bit Address	Word Address	32 bits	Remarks
Relay <sup>*1</sup>	0000.0-1577.7	A0000-A1576 (]0000-]1576)		<u> </u>
Kelay	2000.0-7577.7	A2000-A7576 (]2000-]7576)		÷2] [][8]
Timer (Contact)	T0000-T1777	-		oc 7 8]
Counter (Contact)	C0000-C1777	-		<u>oct</u> 8]
Timer Counter (current value) *1	-	B0000-B3776 (b0000-b3776)		÷ 2] [8]
value)		Т0000-Т3776		<u>вт,<b>15</b></u> ]
	-	09000-09776		
	-	19000-19776		
	-	29000-29776		
	-	39000-39776		
	-	49000-49776	[L/H]	
	-	59000-59776		
	-	69000-69776		
	-	79000-79776		
	-	89000-89776		÷ 2] [00 T 8]
Register	-	99000-99776		<sub>ві т</sub> 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		
	-	600000-6177776		
	-	7000000-7177776		ן <u>÷ 2 סכד 8</u> ) <u>⊪, 15</u> )
	-	F10000000-F10177776		
File Register <sup>*2</sup>	-	F11000000-F11177776	<u>[L / H]</u>	
	-	F1E000000-F1E177776		
	-	- F1F000000-F1F177776		
	- F2000000-F20177776 - F2100000-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.



NOTE

- Please refer to the GP-Pro EX Reference Manual for system data area.
- Cf. GP-Pro EXReference Manual "Appendix 1.4 LS Area (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)		÷2]
Timer (Contact)	T00000-T17777	-		OCT 8]
Counter (Contact)	C00000-C17777	-		OCT 8
Timer Counter (current		B00000-B37776		÷ 2] вт 15
value) <sup>*1</sup>	-	TC00000-TC17777		
	-	09000-09776		
	-	19000-19776		
Register(09, 19, 29, 39, 49, 59, 69, 79, 89, 99)				( <u>+</u> 2) <mark>⊮⊤15</mark>
	-	89000-89776		
	-	99000-99776		
	-	E0000-E0776		
	-	E1000-E1776		
Register(E0, E1, E2, E3, E4, E5, E6, E7)				÷ 2] в; 15]
, , , , ,	-	E6000-E6776		
	-	E7000-E7776		
	-	109000-109776		
Register(109-389)	-	119000-119776		
				÷ 2] ві 15
	-	379000-379776		
	-	389000-389776		
Register Z	-	Z000-Z377	Ť	<u>ві t</u> 15)
File Register	-	1-00000000 - 1-37777776		÷ 2] 🖬 15]
System Memory <sup>*1</sup>	-	SYS0000-SYS2776		÷ <b>2</b> ] <sup>*2</sup>

\*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 (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	А	0080	Value of word address divided by 2
Counton (Current 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
Decistor	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	А	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
	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
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	<ul> <li>NOTE</li> <li>IP address is displayed such as "IP address(Decimal): MAC address(Hex)".</li> <li>Device address is displayed such as "Address: Device address".</li> <li>Received error codes are displayed such as "Decimal[Hex]".</li> </ul>		

#### Display Examples of Error Messages

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

**NOTE** • Refer to your External Device manual for details on received error codes.

• Refer to "When an error is displayed (Error Code List)" in "Maintenance/Troubleshooting Manual" for details on the error messages common 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.