Hitachi IES Co., Ltd.

H Series Serial Driver

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PREFACE

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 This section shows the types of External Devices which can be connected and SIO type.	"1 System Configuration" (page 3)
2	Selection of External Device Select a model (series) of the External Device to be connected and connection method.	^{CP} "2 Selection of External Device" (page 10)
3	Example of Communication Settings This section shows setting examples for communicating between the Display and the External Device.	"3 Example of Communication Setting" (page 11)
4	Setup Items This section describes communication setup items on the Display. Set communication settings of the Display with GP-Pro EX or in off-line mode.	🕼 "4 Setup Items" (page 95)
5	Cable Diagram This section shows cables and adapters for connecting the Display and the External Device.	টি "5 Cable Diagram" (page 100)
	Operation	

1 System Configuration

The system configuration in the case when the External Device of Hitach IES Co., Ltd. and the Display are connected is shown.

Series	CPU	Link I/F	SIO Type	Setting Example	Cable Diagram
	H-20, H-28, H-40, H-64	Port on the CPU unit	RS232C	Setting Example 1 (page 11)	Cable Diagram 1 (page 100)
	H-200(CPU-02H) ^{*1} H-250(CPU21-02H) ^{*1} H-252B(CPU22-02HB) ^{*1}	Port on the CPU unit	RS232C	Setting Example 1 (page 11)	Cable Diagram 1 (page 100)
	H-252C(CPU22-02HC) ^{*1 *2}	Port on the CPU unit	RS232C	Setting Example 1 (page 11)	npleDiagramngCableDiagram 1(page 100)ngCableDiagram 1(page 100)ngCableDel 1Diagram 1(page 100)ngCableDel 1Diagram 1(page 100)ngCableDel 1Diagram 1(page 100)ngCableDel 1Diagram 1(page 100)ngCableDiagram 1(page 100)ngCableDiagram 1(page 100)ngCableDiagram 215)(page 100)ngCableDiagram 1(page 100)ngCableDiagram 1(page 100)ngCableDiagram 113)(page 100)ngCableDiagram 215)(page 103)ngCableDiagram 117)(page 100)ngCableDiagram 117)(page 100)
	H 200/CDH 02H)*1	Port on the CPU unit	RS232C	Setting Example 1 (page 11)	
H (Procedure 1)	H-300(CPU-03Ha) ^{*1} H-700(CPU-07Ha) ^{*1} H-2000(CPU-20Ha) ^{*1} H-2002(CPU2-20H) ^{*1}	СОММ-Н СОММ-2Н	RS232C	Setting Example 2 (page 13)	Diagram 1
			RS422/485 (4wire)	Setting Example 3 (page 15)	Diagram 2
	uni H-302(CPU2-03H) ^{*1} H-702(CPU2-07H) ^{*1} H-4010(CPU3-40H) ^{*1}	Port on the CPU unit	RS232C	Setting Example 1 (page 11)	Diagram 1
		СОММ-2Н	RS232C	Setting Example 2 (page 13)	Diagram 1
		COMM-211	RS422/485 (4wire)	Setting Example 3 (page 15)	(page 100) Cable Diagram 1 (page 100) Cable Diagram 2 (page 103) Cable Diagram 1 (page 100) Cable Diagram 1 (page 100) Cable Diagram 2 (page 103) Cable Diagram 2 (page 103) Cable Diagram 1 (page 100)
	H-300(CPU-03Ha) H-700(CPU-07Ha) H-2000(CPU-20Ha)		RS232C	Setting Example 4 (page 17)	Diagram 1
H (Procedure 2)	H-302(CPU2-03H) H-702(CPU2-07H) H-2002(CPU2-20H) H-4010(CPU3-40H) H-1002(CPU2-10H)	COMM-2H	RS422/485 (4wire)	Setting Example 5 (page 19)	Diagram 2

Series	CPU	Link I/F	SIO Type	Setting Example	Cable Diagram
	EH-150(EH-CPU104) EH-150(EH-CPU104A) EH-150(EH-CPU208) EH-150(EH-CPU208A) EH-150(EH-CPU308) EH-150(EH-CPU316)	Serial port 1 on the CPU unit Serial port 2 on the CPU unit	RS232C	Setting Example 6 (page 21)	Cable Diagram 3 (page 109)
			RS232C	Setting Example 6 (page 21)	Cable Diagram 3 (page 109)
	EH-150(EH-CPU308A) EH-150(EH-CPU316A) EH-150(EH-CPU448)	Serial port 1 on the CPU unit	Example /	Example 7	Cable Diagram 4 (page 112)
EH-150	EH-150(EH-CPU448A) EH-150(EH-CPU516) EH-150(EH-CPU548)	(2wire) Exam	Setting Example 8 (page 25)	Cable Diagram 5 (page 118)	
(Procedure 1)		Serial port 2 on the CPU unit	n RS232C Setting Example 6 (page 21)	Cable Diagram 3 (page 109)	
		Port1 on the EH-SIO unit ^{*3}	RS232C	Setting Example 9 (page 27)	Cable Diagram 12 (page 170)
	EH-150(EH-CPU516)	RS232C ^{*4}	RS232C ^{*4}	Setting Example 10 (page 29)	Cable Diagram 12 (page 170)
	EH-150(EH-CPU548) Port2 on the EH-SIO unit ^{*3}	RS422/485 (4wire) ^{*4}	Setting Example 11 (page 31)	Cable Diagram 6 (page 125)	
			RS422/485 (2wire) ^{*4}	Setting Example 12 (page 33)	Cable Diagram 7 (page 131)

Series	CPU	Link I/F	SIO Type	Setting Example	Cable Diagram	
	EH-150(EH-CPU104A) EH-150(EH-CPU208A)	Serial port 1 on the CPU unit	RS232C	Setting Example 13 (page 35)	Cable Diagram 3 (page 109)	
	EH-150(EH-CPU308A)		RS232C	Setting Example 13 (page 35)	Cable Diagram 3 (page 109)	
	EH-150(EH-CPU316A) EH-150(EH-CPU448) EH-150(EH-CPU448A) EH-150(EH-CPU516)	Serial port 1 on the CPU unit	RS422/485 (4wire)	Setting Example 14 (page 37)	Cable Diagram 4 (page 112)	
EH-150 (Procedur	EH-150(EH-CPU548)		RS422/485 (2wire)	Setting Example 15 (page 39)	Cable Diagram 5 (page 118)	
e 2)		Port1 on the EH-SIO unit ^{*3}	RS232C	Setting Example 16 (page 41)	Cable Diagram 12 (page 170) Cable	
	EH-150(EH-CPU516)		RS232C ^{*4}	Setting Example 17 (page 43)	Cable Diagram 12 (page 170)	
	EH-150(EH-CPU548)	Port2 on the EH-SIO unit ^{*3}	RS422/485 (4wire) ^{*4}	Setting Example 18 (page 45)	16Diagram 12 (page 170)17Cable17Diagram 12 (page 170)18Diagram 6 (page 125)19Diagram 7 (page 131)20Cable20Diagram 3 (page 109)21Cable	
			RS422/485 (2wire) ^{*4}	Setting Example 19 (page 47)	Diagram 7	
	MICRO-EH(EH-D10 \Box) ^{*5} MICRO-EH(EH-A14 \Box) ^{*5} MICRO-EH(EH-D14 \Box) ^{*5}	Port 1 on the CPU unit	RS232C	Setting Example 20 (page 49)	Diagram 3	
	CPU unit	Port 1 on the CPU unit	RS232C	Setting Example 20 (page 49)	Cable Diagram 3 (page 109)	
	$\begin{array}{c} \text{MICRO-EH}(\text{EH-A23}\square\square)^{*5} \\ \text{MICRO-EH}(\text{EH-D23}\square\square)^{*5} \\ \text{MICRO-EH}(\text{EH-A28}\square\square)^{*5} \\ \text{MICRO-EH}(\text{EH-D28}\square\square)^{*5} \end{array}$	Port 2 on the CPU unit	RS422/485 (4wire)	Setting Example 21 (page 51)	Cable Diagram 3 (page 109)Cable Diagram 3 (page 109)Cable Diagram 3 (page 109)Cable Diagram 4 (page 112)Cable Diagram 5 (page 118)Cable Diagram 12 (page 170)Cable Diagram 12 (page 170)Cable Diagram 12 (page 170)Cable Diagram 6 (page 125)Cable Diagram 7 (page 131)Cable Diagram 7 (page 109)Cable Diagram 3 (page 109)Cable Diagram 3 (page 109)Cable Diagram 3 (page 109)Cable Diagram 3 (page 140)Cable Diagram 3 (page 109)Cable Diagram 3 (page 109)	
MICRO- EH			RS422/485 (2wire)	Setting Example 22 (page 53)	Diagram 9	
(Procedure 1)		Port on the CPU unit	RS232C	Setting Example 20 (page 49)	Diagram 3	
	MICRO-EH(EH-A64 \square) ^{*5} MICRO-EH(EH-D64 \square) ^{*5} MICRO-EH(EH-A40 \square) ^{*5}	EH-OB232 ^{*6}	RS232C	Setting Example 23 (page 55)	Diagram 3	
	MICRO-EH(EH-D40 \square) ^{*5} MICRO-EH(EH-A20 \square) ^{*5} MICRO-EH(EH-D20 \square) ^{*5}	EH-OB485 ^{*7}	RS422/485 (4wire)	Setting Example 24 (page 57)	Diagram 10	
		ЕН-ОВ485 ′	RS422/485 (2wire)	Setting Example 25 (page 59)	Diagram 11	

Series	CPU	Link I/F	SIO Type	Setting Example	Cable Diagram
	MICRO-EH(EH-D10 \Box) ^{*5} MICRO-EH(EH-A14 \Box) ^{*5} MICRO-EH(EH-D14 \Box) ^{*5}	Port 1 on the CPU unit	RS232C	Setting Example 26 (page 61)	Cable Diagram 3 (page 109)
		Port 1 on the CPU unit	RS232C	Setting Example 26 (page 61)	Cable Diagram 3 (page 109)
	$\begin{array}{c} \text{MICRO-EH}(\text{EH-A23}\square\square)^{*5} \\ \text{MICRO-EH}(\text{EH-D23}\square\square)^{*5} \\ \text{MICRO-EH}(\text{EH-A28}\square\square)^{*5} \\ \text{MICRO-EH}(\text{EH-D28}\square\square)^{*5} \end{array}$	Port 2 on the	RS422/485 (4wire)	Setting Example 27 (page 63)	DiagramCable Diagram 3 (page 109)Cable Diagram 3 (page 109)Cable Diagram 3 (page 109)Cable Diagram 8 (page 140)Cable Diagram 9 (page 146)Cable Diagram 9 (page 109)Cable Diagram 3 (page 109)Cable Diagram 3 (page 109)Cable Diagram 3 (page 109)Cable Diagram 10 (page 155)Cable Diagram 11 (page 161)Cable Diagram 3 (page 109)Cable Diagram 11 (page 161)Cable Diagram 3 (page 109)Cable Diagram 3 (page 109)Cable Diagram 3 (page 109)Cable Diagram 3 (page 109)Cable Diagram 3 (page 109)Cable Diagram 13 (page 171)Cable Diagram 14
MICRO- EH		CPU unit	RS422/485 (2wire)	Setting Example 28 (page 65)	Diagram 9
(Procedure 2)		Port on the CPU unit	RS232C	Setting Example 26 (page 61)	Diagram 3
	MICRO-EH(EH-A64 \square) ^{*5} MICRO-EH(EH-D64 \square) ^{*5} MICRO-EH(EH-A40 \square) ^{*5} MICRO-EH(EH-D40 \square) ^{*5} MICRO-EH(EH-A20 \square) ^{*5} MICRO-EH(EH-D20 \square) ^{*5}	EH-OB232 ^{*6}	RS232C	Setting Example 29 (page 67)	Diagram 3
		EH-OB485 ^{*7}	RS422/485 (4wire)	Setting Example 30 (page 69)	Diagram 10
			RS422/485 (2wire)	Setting Example 31 (page 71)	Diagram 11
	EH-WD10DR	Serial port on the CPU unit	RS232C	Setting Example 32 (page 73)	Diagram 3
Web controller		RS	RS232C	Setting Example 40 (page 89)	Diagram 3
(Procedure 1 and 2)	nd 2) EH-WA23DR Serial port of	Serial port on the CPU unit	RS422/485 (4wire)	Setting Example 41 (page 91)	Diagram 13
			RS422/485 (2wire)	Setting Example 42 (page 93)	

Series	CPU	Link I/F	SIO Type	Setting Example	Cable Diagram
			RS232C	Setting Example 33 (page 75)	Cable Diagram 3 (page 109)
		Serial port on the CPU unit	RS422/485 (4wire)	Setting Example 34 (page 77)	Cable Diagram 4 (page 112)
			R422/S485 (2wire)	Setting Example 35 (page 79)	Cable Diagram 5 (page 118)
EHV (Procedure 1 and 2)	EHV-CPU128 EHV-CPU64 EHV-CPU32 EHV-CPU16	Port 1 on the EH-SIO unit ^{*3}	RS232C	Setting Example 36 (page 81)	Cable Diagram 12 (page 170)
			RS232C Setting Example 37 (page 83)	Example 37	Cable Diagram 12 (page 170)
		Port 2 on the EH-SIO unit ^{*3}	RS422/485 (4wire)	Setting Example 38 (page 85)	Cable Diagram 6 (page 125)
			RS422/485 (2wire)	Setting Example 39 (page 87)	Cable Diagram 7 (page 131)

*1 Connect to the peripheral port on the CPU module.

*2 When the peripheral port 2 on the CPU unit is used, CNCOM-05 conversion cable by Hitachi IES Co., Ltd. needs to be used between the 8 pin connector and D-sub 15 pin connecter.

*3 Version 2.0 or later of the EH-SIO software supports Procedure 1; version 2.1 or later supports Procedure 2. Furthermore, only EH-CPU548(Ver.E402 or later)/EH-CPU516(Ver.E202 or later) can use EH-SIO.

*4 Bit8 is used for interface selection of Port2 (RS232C or RS422/485).

*5 Model No. of the External Device "□" differs depending on the specification of each External Device.

*6 Communication board (RS232C).Can be used in the CPU of which version is Ver.0101 or later.

*7 Communication board (RS422/RS485).Can be used in the CPU of which version is Ver.0100 or later.

■ IPC COM Port

When connecting IPC with an External Device, the COM port used depends on the series and SIO type. Please refer to the IPC manual for details.

Usable port

Series	Usable Port				
Conco	RS-232C	RS-422/485(4 wire)	RS-422/485(2 wire)		
PS-2000B	COM1 ^{*1} , COM2, COM3 ^{*1} , COM4	-	-		
PS-3450A, PS-3451A, PS3000-BA, PS3001-BD	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, PL-3600T, PL-3600K, PL-3700T, PL-3700K, PL-3900T	COM1 ^{*1*2} , COM2 ^{*1} , COM3, COM4	COM1 ^{*1*2}	COM1 ^{*1*2}		

*1 The RI/5V can be switched. Use the IPC's switch to change if necessary.

*2 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 ^{*1}	Reserved (always OFF)	
2	OFF	SIO type: RS-232C	
3	OFF	510 type. R5-252e	
4	OFF	Output mode of SD (TXD) data: Always output	
5	OFF	Terminal resistance (220 Ω) 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): Not available	
8	OFF	Short-circuit of SDB (TXB) and RDB (RXB): Not available	
9	OFF	- RS (RTS) Auto control mode: Disabled	
10	OFF		

*1 When using PS-3450A, PS-3451A, PS3000-BA and PS3001-BD, turn ON the set value.

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

DIP switch	Setting	Description	
1	OFF	Reserved (always OFF)	
2	ON	SIO type: RS-422/485	
3	ON	S10 type. K5-422/465	
4	OFF	Output mode of SD (TXD) data: Always output	
5	OFF	Terminal resistance (220 Ω) 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): Not available	
8	OFF	Short-circuit of SDB (TXB) and RDB (RXB): Not available	
9	OFF	- RS (RTS) Auto control mode: Disabled	
10	OFF		

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

DIP switch	Setting	Description	
1	OFF	Reserved (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 Ω) insertion to SD (TXD): None	
6	OFF	Terminal resistance (220 Ω) insertion to RD (RXD): None	
7	ON	Short-circuit of SDA (TXA) and RDA (RXA): Available	
8	ON	Short-circuit of SDB (TXB) and RDB (RXB): Available	
9	ON	RS (RTS) Auto control mode: Enabled	
10	ON		

2 Selection of External Device

Select the External Device to be connected to the Display.

¢	💰 New Project File 🍡 🎽						
	Device/PL	C					
	Maker	Hitachi IES Co., Ltd.					
	Driver	H Series SIO					
	🗖 Use S	ystem Area Refer to the manual of this Device/PLC					
	Connection	Method					
	Port	COM1					
l		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 "Hitachi IES Co., Ltd.".	
Driver	Select a model (series) of the External Device to be connected and connection method. Select "H Series SIO". Check the External Device which can be connected in "H Series SIO" in system configuration. T System Configuration" (page 3)	
Use System Area	Check this option when you synchronize the system data area of Display and the device (memory) of External Device. When synchronized, you can use the ladder program of External Device to switch the display or display the window on the display. Cf. GP-Pro EX Reference Manual "LS Area (Direct Access Method Area)" This can also be set in GP-Pro EX or in the Display's off-line mode. Cf. GP-Pro EX Reference Manual "Display Unit (System Area) Settings Guide" Cf. Maintenance/Troubleshooting Manual "Main Unit - 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

Device/PLC 1			
Summary		Change Device/	PLC
Maker Hitachi IES (Co.,Ltd	Driver H Series SIO Port COM1	
Text Data Mode	1 <u>Change</u>		
Communication Settings			
SIO Type	• R\$232C	C RS422/485(2wire) C RS422/485(4wire)	
Speed	19200	•	
Data Length	• 7	C 8	
Parity	C NONE		
Stop Bit	● 1	© 2	
Flow Control	C NONE	• ER(DTR/CTS)	
Timeout	3 🔹 ((sec)	
Retry	2 📫		
Wait To Send	0 🕂 ((ms)	
Procedure	Procedure 1	T	
RI / VCC	• BI	O VCC	
	Supply). If you use	ect the 9th pin to RI (Input) se the Digital's RS232C 	
Device-Specific Settings			
Allowable No. of Dev	ice/PLCs 16 Unit	it(s) 📊	
No. Device Na	me	Settings	
👗 1 PLC1		Interies=H Series	

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

💰 Individu	al Device Se	ttings 🛛 🗙
PLC1		
	H Series rm all of address : if you have chang	
Station No.	0	÷
		Default
	OK (<u>D)</u>	Cancel

■ Settings of External Device (Port on the CPU unit: H-4010 only)

Use the switch on the CPU unit for communication settings. After communication settings, turn ON the power of the External Device again to enable the setting. Please refer to the manual of the External Device for more details.

- Mode Setting Switch
 - DIPSW1

DIP Switch	Settings	Description	
SW03	OFF	Port 1 Transmission Speed: 19,200 bps	
SW04	OFF	Port 2 Transmission Speed: 19,200 bps	



• Other transmission speed settings are shown below.

DIP Switch	Settings	Description	
SW03	ON	Port 1 Transmission Speed: 38,400 bps	
SW04	ON	Port 2 Transmission Speed: 38,400 bps	

3.2 Setting Example 2

Settings of GP-Pro EX

♦ Communication Settings

Device	e/PLC 1		
Sumr	nary		Change Device/PLC
	Maker Hitachi IES 0	Co.,Ltd	Driver H Series SIO Port COM1
	Text Data Mode	1 <u>Change</u>	
Comr	munication Settings		
	SIO Type	RS232C	O RS422/485(2wire) O RS422/485(4wire)
	Speed	19200	V
	Data Length	• 7	• 8
	Parity	O NONE	EVEN ODD
	Stop Bit	I	0 2
	Flow Control	C NONE	ER(DTR/CTS) C XON/XOFF
	Timeout	3 📫 (s	sec)
	Retry	2 🔹	
	Wait To Send	0 📑 (n	ms)
	Procedure	Procedure 1	T
	RI / VCC	🖲 BI	O VCC
		Supply). If you use	t the 9th pin to RI (Input) the Digital's RS232C Default
Devid	ce-Specific Settings		
	Allowable No. of Devi		
Г	No. Device Nar X 1 PLC1	ne	Settings
l	👗 1 PLC1		TE Delles-Li pelles

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

💰 Individu	ial Device Se	ttings 🛛 🗙
PLC1		
	H Series firm all of address if you have chang	
Station No.	0	÷
		Default
	OK (<u>0</u>)	Cancel

Settings of External Device(COMM-H, COMM-2H)

Use the switch on the I/F unit for communication settings. After communication settings, turn ON the power of the External Device again to enable the setting. Please refer to the manual of the External Device for more details.

DIP Switch	Settings	Description
01	OFF	Bit Length: 7 bits
02	ON	
03	ON	Baud Rate Transmission Speed: 19,200bps
04	ON	
05	ON	Parity Enable/Disable: Enable
06	ON	Parity Even/Odd: Even
07	OFF	Stop Bit Length: 1 bit
08	ON	Sum Check: Enable

Communication Setting Switch

Station Setting Rotary Switch

Rotary Switch	Settings	Description	
x10	0	Station No. of External Device (tenth digit)	
x1	0	Station No. of External Device (first digit)	

Mode Setting Rotary Switch

Rotary Switch	Settings	Description
MODE	2	Procedure: Procedure 1

- 3.3 Setting Example 3
 - Settings of GP-Pro EX
 - Communication Settings

Device/PLC 1		
Summary		Change Device/PLC
Maker Hitachi IES	Co.,Ltd	Driver H Series SIO Port COM1
Text Data Mode	1 <u>Change</u>	
Communication Settings		
SIO Type	C RS232C	C RS422/485(2wire) © RS422/485(4wire)
Speed	19200	•
Data Length	• 7	0.8
Parity	O NONE	EVEN ODD
Stop Bit	● 1	0 2
Flow Control	O NONE	ER(DTR/CTS) C XON/XOFF
Timeout	3 📫	(sec)
Retry	2 📫	
Wait To Send	0 🕂	(ms)
Procedure	Procedure 1	•
RI / VCC	© BI	O VCC
or VCC (5V Power	Supply). If you us	ect the 9th pin to RI (Input) se the Digital's RS232C
Isolation Unit, plea	se select it to VCC	Default
Device-Specific Settings		
Allowable No. of Dev		
No. Device Na	ame	Settings Series=H Series,Station No.=0
,		

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

💰 Individu	al Device Set	ttings 🗙
PLC1		
	H Series irm all of address : if you have chang	
Station No.	0	•
		Default
	OK (<u>0)</u>	Cancel

■ Settings of External Device (COMM-H, COMM-2H)

Use the switch on the I/F unit for communication settings. After communication settings, turn ON the power of the External Device again to enable the setting. Please refer to the manual of the External Device for more details.

DIP Switch	Settings	Description
01	OFF	Bit Length: 7 bits
02	ON	
03	ON	Baud Rate Transmission Speed: 19,200bps
04	ON	
05	ON	Parity Enable/Disable: Enable
06	ON	Parity Even/Odd: Even
07	OFF	Stop Bit Length: 1 bit
08	ON	Sum Check: Enable

Communication Setting Switch

Station Setting Rotary Switch

Rotary Switch	Settings	Description
x10	0	Station No. of External Device (tenth digit)
x1	0	Station No. of External Device (first digit)

Mode Setting Rotary Switch

Rotary Switch	Settings	Description
MODE	2	Procedure: Procedure 1

3.4 Setting Example 4

Settings of GP-Pro EX

♦ Communication Settings

Device/PLC 1	
Summary	Change Device/PLC
Maker Hitachi IES Co.,Ltd	Driver H Series SIO Port COM1
Text Data Mode 1 Cha	lae
Communication Settings	
SIO Type 💿 RS23	2C C RS422/485(2wire) C RS422/485(4wire)
Speed 19200	
Data Length 📀 7	C 8
Parity O NON	
Stop Bit 💿 1	© 2
Flow Control C NON	
Timeout 3	÷ (sec)
Retry 2	<u>:</u>
Wait To Send 0	🕂 (ms)
Procedure Procedu	•2 💌
RI/VCC 💿 RI	O VCC
or VCC (5V Power Supply). If	n select the 9th pin to RI (Input) ou use the Digital's RS232C
Isolation Unit, please select it t	VCC. Default
Device-Specific Settings	
Allowable No. of Device/PLCs No. Device Name	6 Unit(s) ut Settinas
1 PLC1	Series=H Series

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

💰 Individu	al Device Se	ttings 🛛 🗙
PLC1		
	H Series irm all of address : if you have chang	
Station No.	0	
		Default
	OK (<u>0)</u>	Cancel

Settings of External Device (COMM-2H)

Use the switch on the I/F unit for communication settings. After communication settings, turn ON the power of the External Device again to enable the setting. Please refer to the manual of the External Device for more details.

Communication Setting Switch				
DIP Switch	Settings	Description		
01	OFF	Bit Length: 7 bits		
02	ON			
03	ON	Baud Rate Transmission Speed: 19,200bps		
04	ON			
05	ON	Parity Enable/Disable: Enable		
06	ON	Parity Even/Odd: Even		
07	OFF	Stop Bit Length: 1 bit		
08	ON	Sum Check: Enable		

♦ C

Station Setting Rotary Switch

Rotary Switch	Settings	Description
x10	0	Station No. of External Device (tenth digit)
x1	0	Station No. of External Device (first digit)

Mode Setting Rotary Switch

Rotary Switch	Settings	Description
MODE	9	Procedure: Procedure 2

3.5 Setting Example 5

Settings of GP-Pro EX

♦ Communication Settings

Device/PLC 1	
Summary	Change Device/PLC
Maker Hitachi IES Co.,Ltd Driver H Series SIO	Port COM1
Text Data Mode 1 Change	
Communication Settings	
SIO Type C RS232C C RS422/485(2wire) 💿 RS422/485(4wi	re)
Speed 19200	
Data Length 💿 7 💿 8	
Parity O NONE O EVEN O ODD	
Stop Bit 1 2 	
Flow Control O NONE O ER(DTR/CTS) O XON/XOFF	
Timeout 3 😴 (sec)	
Retry 2	
Wait To Send 0 🚔 (ms)	
Procedure 2	
RI/VCC © RI C VCC	
In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.	
Isolation Unit, please select it to VLC.	ault
Device-Specific Settings	
Allowable No. of Device/PLCs 16 Unit(s)	
1 PLC1 Series=H Series,Station No.=0	

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

💰 Individu	al Device Set	ttings 🗙
PLC1		
	H Series irm all of address : if you have chang	
Station No.	0	•
		Default
	OK (<u>0)</u>	Cancel

Settings of External Device (COMM-2H)

Use the switch on the I/F unit for communication settings. After communication settings, turn ON the power of the External Device again to enable the setting. Please refer to the manual of the External Device for more details.

Communication Setting Switch

DIP Switch	Settings	Description
01	OFF	Bit Length: 7 bits
02	ON	
03	ON	Baud Rate Transmission Speed: 19,200bps
04	ON	
05	ON	Parity Enable/Disable: Enable
06	ON	Parity Even/Odd: Even
07	OFF	Stop Bit Length: 1 bit
08	ON	Sum Check: Enable

Station Setting Rotary Switch

Rotary Switch	Settings	Description
x10	0	Station No. of External Device (tenth digit)
x1	0	Station No. of External Device (first digit)

Mode Setting Rotary Switch

Rotary Switch	Settings	Description
MODE	9	Procedure: Procedure 2

3.6 Setting Example 6

Settings of GP-Pro EX

♦ Communication Settings

Device/PLC 1					
Summary Change Device/PLC					
Maker 🛛	Hitachi IES Co.,Ltd	Driver H S	eries SIO	Port COM1	
Text Data	a Mode 1 <u>Char</u>	nge			
Communicatio	n Settings				
SIO Type	• • RS232	C C RS422/485(2wir	e) 🔿 RS422/485(4wire)		
Speed	19200	v			
Data Ler	igth 💿 7	O 8			
Parity	O NONE	EVEN	O ODD		
Stop Bit	● 1	C 2			
Flow Cor	itrol 🔿 NONE	ER(DTR/CTS)	C XON/XOFF		
Timeout	3	÷ (sec)			
Retry	2	÷			
Wait To 3	Send 0	÷ (ms)			
Procedur	e Procedure	∈1 ▼			
RI / VCC	. ● BI	O VCC			
In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.					
Device-Specif	ic Settings				
Allowable	• No. of Device/PLCs 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
	Device Name PLC1	Settings	Corios		
, 1		LE Selles=H	Delles		

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

💰 Individu	ial Device Se	ttings 🛛 🗙		
PLC1				
Series H Series				
Station No.	0	-		
		Default		
	OK (<u>O</u>)	Cancel		

Settings of External Device (Serial port on the CPU unit)

Use the switch on the CPU unit for communication settings. SIO type will be set to RS232C (Procedure 1) by entering 8000(H) in the address WRF037 with the ladder software (LADDER EDITOR for Windows). After communication settings, turn ON the power of the External Device again to enable the setting. Please refer to the manual of the External Device for more details.

Mode Setting Switch

DIP Switch	Settings	Description	
SW03	ON	Port 1 Transmission Speed: 19,200 bps	
SW04	OFF	For T Transmission Speed. 19,200 ops	
SW05	ON	Port 1 Operation: Specified port	
SW06	OFF	Port 2 Transmission Speed ^{*1} : 4,800 bps or 19,200 bps	

*1 When setting the transmission speed of Port 2 to 19,200 bps or 38,400 bps, set the port change switch to High(ON).

Transmission speed of Port 2 will be set with SW06 and PHL switches.

Port Change Switch

PHL Switch	Settings	Description
PHL Switch	ON	Port 2 Operation

NOTE

• When the change switch is ON, PHL signal becomes High(ON).

• Other transmission speed settings are shown below.

< Port 1 >

SW03	SW04	SW05	Transmission Speed
ON	ON	ON	4,800 bps
OFF	ON	ON	9,600 bps
OFF	OFF	ON	38,400 bps

< Port 2 >

SW06	PHL	Speed Speed
OFF	OFF	4,800 bps
ON	OFF	9,600 bps
ON	ON	38,400 bps

- 3.7 Setting Example 7
 - Settings of GP-Pro EX
 - Communication Settings

Device/PLC 1					
Summary		Change Device/PLC			
Maker Hitachi IES	Co.,Ltd	Driver H Series SIO Port COM1			
Text Data Mode	1 <u>Change</u>				
Communication Settings					
SIO Type	C RS232C	C RS422/485(2wire) © RS422/485(4wire)			
Speed	19200				
Data Length	• 7	C 8			
Parity	O NONE				
Stop Bit	I 1	© 2			
Flow Control	C NONE	ER(DTR/CTS) C XON/XOFF			
Timeout	3 📫	(sec)			
Retry	2				
Wait To Send	0 🗧	(ms)			
Procedure	Procedure 1				
RI / VCC	💿 BI	O VCC			
In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC. Default					
Device-Specific Settings					
Allowable No. of Device/PLCs 16 Unit(s)					
No. Device Name Settings No. Device Name Settings 1 PLC1 Image: Settings Settings					
J PLC1					

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

💰 Individu	al Device Se	ttings 🛛 🗙
PLC1		
	H Series irm all of address if you have chan	
Station No.	0	*
		Default
	OK (<u>D)</u>	Cancel

Settings of External Device (Serial port on the CPU unit)

Use the switch on the CPU unit for communication settings. SIO type will be set to RS422/RS485 (Procedure 1) by entering $A100(H)^{*1}$ in the address WRF037 with the ladder software (LADDER EDITOR for Windows). After communication settings, turn ON the power of the External Device again to enable the setting. Please refer to the manual of the External Device for more details.

*1 To enable the termination resistance, enter B100(H). In addition, enter the Station No. set on the Display in lower 2 digits of A100 (or B100)

Mode Setting Switch

DIP Switch	Settings	Description	
SW03	ON	Port 1 Transmission Speed: 19.200 bps	
SW04	OFF	rott i fransmission speed. 19,200 ops	
SW05	ON	Port 1 Operation: Specified port	

NOTE

Other transmission speed settings are shown below.

SW03	SW04	SW05	Speed Speed
ON	ON	ON	4,800 bps
OFF	ON	ON	9,600 bps
OFF	OFF	ON	38,400 bps

3.8 Setting Example 8

Settings of GP-Pro EX

♦ Communication Settings

Device/PLC 1					
Summary	Change Device/PLC				
Maker Hitachi IES Co.,Ltd [Driver H Series SIO Port COM1				
Text Data Mode 1 <u>Change</u>					
Communication Settings					
SIO Type C RS232C 💿 RS42	22/485(2wire) C RS422/485(4wire)				
Speed 19200 💌					
Data Length 📀 7 📀 8					
Parity C NONE					
Stop Bit © 1 © 2					
Flow Control C NONE	TR/CTS) O XON/XOFF				
Timeout 3 🙁 (sec)					
Retry 2 🕂					
Wait To Send 🛛 🕂 (ms)					
Procedure Procedure 1					
RI/VCC © RI O VCC					
In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C					
Isolation Unit, please select it to VCC. Default					
Device-Specific Settings					
Allowable No. of Device/PLCs 16 Unit(s)					
No. Device Name Settings No. Device Name Settings 1 PLC1 Image: Settings Settings					

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

💰 Individu	ial Device Se	ttings 🛛 🗙
PLC1		
	H Series irm all of address if you have chan	
Station No.	0	•
		Default
	OK (<u>O</u>)	Cancel

Settings of External Device (Serial port on the CPU unit)

Use the switch on the CPU unit for communication settings. SIO type will be set to RS422/RS485 (Procedure 1) by entering $A200(H)^{*1}$ in the address WRF037 with the ladder software (LADDER EDITOR for Windows). After communication settings, turn ON the power of the External Device again to enable the setting. Please refer to the manual of the External Device for more details.

*1 To enable the termination resistance, enter B200(H). In addition, enter the Station No. set on the Display in lower 2 digits of A200 (or B200)

Mode Setting Switch

DIP Switch	Settings	Description
SW03	ON	Port 1 Transmission Speed: 19,200 bps
SW04	OFF	1 of 1 Hanshinssion Speed. 17,200 ops
SW05	ON	Port 1 Operation: Specified port

NOTE

Other transmission speed settings are shown below.

SW03	SW04	SW05	Speed Speed
ON	ON	ON	4,800 bps
OFF	ON	ON	9,600 bps
OFF	OFF	ON	38,400 bps

3.9 Setting Example 9

Settings of GP-Pro EX

♦ Communication Settings

Device/PLC 1				
Summary				Change Device/PLC
Maker 🛛	Hitachi IES Co.,Ltd	Driver H S	eries SIO	Port COM1
Text Data	a Mode 1 <u>Char</u>	nge		
Communicatio	n Settings			
SIO Type	• • RS232	C C RS422/485(2wir	e) 🔿 RS422/485(4wire)	
Speed	19200	v		
Data Ler	igth 💿 7	O 8		
Parity	O NONE	EVEN	O ODD	
Stop Bit	• 1	C 2		
Flow Cor	itrol 🔿 NONE	ER(DTR/CTS)	C XON/XOFF	
Timeout	3	÷ (sec)		
Retry	2	÷		
Wait To 3	Send 0	÷ (ms)		
Procedur	e Procedure	∈1 ▼		
RI / VCC	. ● BI	O VCC		
or VCC		n select the 9th pin to RI (Inp ou use the Digital's RS232C VCC.		1
Device-Specif	ic Settings			
Allowable	• No. of Device/PLCs 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
	Device Name PLC1	Settings	Corios	
, 1		LE Selles=H	Delles	

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

💰 Individu	ial Device Se	ttings 🛛 🗙
PLC1		
	H Series firm all of address if you have chan	
Station No.	0	-
		Default
	OK (<u>O</u>)	Cancel

Settings of External Device (EH-SIO)

Use the switch on the EH-SIO for communication settings. After setting, assign I/O, and turn ON the power of the External Device again to enable the setting. Use the ladder software (LADDER EDITOR for Windows) for the I/O assignment.

Please refer to the manual of the External Device for more details.

Procedure

1.	1. Ose the Dir switch of the Dir 510 for communication settings.			
	DIP Switch	Settings	Description	
	01	OFF	G 1 10 2001	
	02	ON	Speed: 19,200 bps Please refer to the manual of the External Device for more details about other	
	03	ON	transmission speed settings.	
	04	ON		
	05	OFF	Transmission character configuration settings	
	06	ON	Data Length: 7 bits	
	07	OFF	Stop Bit: 1 bit Parity: Even	
	08	OFF	Always OFF	

1. Use the DIP switch on the EH-SIO for communication settings.

2. Ladder program is required for initial settings. Please refer to the manual of the External Device for more details.

3.10 Setting Example 10

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1			
Summary		Change Device/I	PLC
Maker Hitachi I	ES Co.,Ltd	Driver H Series SIO Port COM1	
Text Data Mode	1 <u>Change</u>		
Communication Setting	s		
SIO Type	RS232C	O RS422/485(2wire) O RS422/485(4wire)	
Speed	19200	•	
Data Length	• 7	• 8	
Parity	O NONE	EVEN O ODD	
Stop Bit	• 1	O 2	
Flow Control	O NONE	ER(DTR/CTS) O XON/XOFF	
Timeout	3 📫	(sec)	
Retry	2 📫		
Wait To Send	0 ÷	(ms)	
Procedure	Procedure 1		
RI / VCC	I BI	O VCC	
or VCC (5V Pov		ect the 9th pin to RI (Input) se the Digital's RS232C 	
Device-Specific Settin	_s		
	- Device/PLCs 16 Un		
No. Device	Name	Settings	
le i i con			

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

💰 Individu	ial Device Se	ttings 🛛 🗙
PLC1		
	H Series firm all of address if you have chan	
Station No.	0	-
		Default
	OK (<u>O</u>)	Cancel

Settings of External Device (EH-SIO)

Use the switch on the EH-SIO for communication settings. After setting, assign I/O, and turn ON the power of the External Device again to enable the setting. Use the ladder software (LADDER EDITOR for Windows) for the I/O assignment.

Please refer to the manual of the External Device for more details.

Procedure

1. Use the DIP switch on the EH-SIO for communication settings.

Communication Setting Switch 2 (for Port 2)

DIP Switch	Settings	Description
01	OFF	0 1 10 2001
02	ON	Speed: 19,200 bps Please refer to the manual of the External Device for more details about other
03	ON	transmission speed settings.
04	ON	and a state of the
05	OFF	Transmission character configuration settings
06	ON	Data Length: 7 bits
07	OFF	Stop Bit: 1 bit Parity: Even
08	OFF	Interface Type: RS232C

2. Ladder program is required for initial settings. Please refer to the manual of the External Device for more details.

3.11 Setting Example 11

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1		
Summary		Change Device/PLC
Maker Hitachi IES	Co.,Ltd	Driver H Series SIO Port COM1
Text Data Mode	1 <u>Change</u>	
Communication Settings		
SIO Type	C RS232C	C RS422/485(2wire) © RS422/485(4wire)
Speed	19200	•
Data Length	• 7	0.8
Parity	O NONE	EVEN ODD
Stop Bit	● 1	0 2
Flow Control	O NONE	ER(DTR/CTS) C XON/XOFF
Timeout	3 📫	(sec)
Retry	2 📫	
Wait To Send	0 🕂	(ms)
Procedure	Procedure 1	•
RI / VCC	© BI	O VCC
or VCC (5V Power	Supply). If you us	ect the 9th pin to RI (Input) se the Digital's RS232C
Isolation Unit, plea	se select it to VCC	Default
Device-Specific Settings		
Allowable No. of Dev		
No. Device Na	ame	Settings Series=H Series,Station No.=0
,		

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

💰 Individu	ial Device Se	ttings 🛛 🗙
PLC1		
	H Series firm all of address if you have chang	
Station No.	0	*
		Default
	OK (<u>0)</u>	Cancel

Settings of External Device (EH-SIO)

Use the switch on the EH-SIO for communication settings. After setting, assign I/O, and turn ON the power of the External Device again to enable the setting. Use the ladder software (LADDER EDITOR for Windows) for the I/O assignment.

Please refer to the manual of the External Device for more details.

Procedure

1. Use the DIP switch on the EH-SIO for communication settings.

Communication Setting Switch 2 (for Port 2)

DIP Switch	Settings	Description
01	OFF	0 1 10 2001
02	ON	Speed: 19,200 bps Please refer to the manual of the External Device for more details about other
03	ON	transmission speed settings.
04	ON	and a state of the
05	OFF	Transmission character configuration settings
06	ON	Data Length: 7 bits Stop Bit: 1 bit Parity: Even
07	OFF	
08	ON	Interface Type: RS422/RS485

2. Ladder program is required for initial settings. Please refer to the manual of the External Device for more details.

3.12 Setting Example 12

- Settings of GP-Pro EX
- ♦ Communication Settings

Summary Chance Device/PLC Maker Hitachi IES Co.,Ltd Driver H Series SIO Port COM1 Text Data Mode 1 Chance Port COM1 Communication Settings SIO Type RS232C RS422/485(2wire) RS422/485(4wire) Speed 19200 Image: Communication Settings Image: Communication Settings Image: Communication Settings Data Length 7 6 Respective Settings Image: Communication Settings Data Length 7 6 Respective Settings Image: Communication Settings Stop Bit 1 2 Image: Communication Settings Image: Communication Settings Retry 2 Image: Communication Settings Image: Communication Settings Image: Communication Settings Rit / VCC R Ri VCC Image: Communication Settings Image: Communication Settings Allowable No. of Device / PLCs 16 Unit(s) Settings Settings Settings No. Device Name Settings Settings Settings Settings Settings	Device/PLC1	
Text Data Mode 1 Communication Settings SID Type Speed 19200 Data Length 7 8 Parity NONE EVEN ODD Stop Bit 1 2 How Control NONE ER(DTR/CTS) XON/XOFF Timeout 3 (sec) Retry 2 Wait To Send 0 9 No. Device Mame Statings	Summary	Change Device/PLC
Communication Settings SID Type RS232C RS422/485(2wire) RS422/485(4wire) Speed 19200 Image: Speed Spee	Maker Hitachi IES Co.,Ltd Driver H Series	BID Port COM1
SID Type C RS232C RS422/485(2wire) C RS422/485(4wire) Speed 19200 Image: Comparison of the second of the sec	Text Data Mode 1 Change	
Speed 19200 Data Length 0 0 7 0 8 Parity NONE EVEN 0DD Stop Bit 1 0 1 2 Flow Control NONE 0 1 2 Flow Control NONE 0 1 2 Wait To Send 0 1 0 1 1 1 1 2 Flow Control No. Device /PLCs 16 Unit(s) No. Device Name Settings	Communication Settings	
Data Length Image: Text of the settings Parity NONE Parity NONE Stop Bit Image: Text of the settings Stop Bit Image: Text of the settings Flow Control NONE Procedure Image: Text of the settings Procedure Procedure 1 Procedure Image: Text of the settings Bit / VCC Ri In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (SV Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC. Device-Specific Settings Allowable No. of Device/PLCs	SIO Type C RS232C RS422/485(2wire)	O RS422/485(4wire)
Parity NONE EVEN ODD Stop Bit 1 2 Flow Control NONE ER(DTR/CTS) XON/XOFF Timeout 3 (sec) Retry 2 (sec) Retry 2 (sec) Procedure Procedure 1 (ms) Procedure Procedure 1 (ms) RI / VCC RI VCC In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (SV Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC. Default Device-Specific Settings Allowable No. of Device/PLCs 16 Unit(s) No. Device Name Settings	Speed 19200 💌	
Stop Bit I 2 Flow Control NONE ER(DTR/CTS) Timeout 3 (sec) Retry 2 (ms) Wait To Send Image: (ms) Procedure Procedure 1 RI / VCC RI In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (SV Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC. Device-Specific Settings Allowable No. of Device/PLCs No. Device Name	Data Length 💿 7 💿 8	
Flow Control NONE ER(DTR/CTS) XON/XOFF Timeout 3 (sec) Retry 2 (ms) Wait To Send 0 (ms) Procedure Procedure 1 (ms) RI / VCC RI VCC In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (ISV Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC. Default Device-Specific Settings Allowable No. of Device/PLCs 16 Unit(s) Settings	Parity O NONE O EVEN O	ODD
Timeout 3 1 (sec) Retry 2 1 Wait To Send 0 1 (ms) Procedure Procedure 1 1 RI / VCC RI VCC In the case of R5232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's R5232C Isolation Unit, please select it to VCC. Default Device-Specific Settings Allowable No. of Device/PLCs 16 Unit(s) Isolations No. Device Name Settings Settings Settings	Stop Bit 1 2 	
Retry 2 Wait To Send 0 Procedure Procedure 1 RI / VCC RI RI / VCC RI In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC. Device-Specific Settings Allowable No. of Device/PLCs 16 Unit(s) No. Device Name	Flow Control O NONE O ER(DTR/CTS) O	XON/XOFF
Wait To Send Image: Constraint of the send o	Timeout 3 📑 (sec)	
Procedure Procedure 1 RI / VCC RI VCC In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC. Default Device-Specific Settings Allowable No. of Device/PLCs 16 Unit(s) Image: Settings No. Device Name Settings	Retry 2	
RI / VCC RI VCC In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC. Default Device-Specific Settings Allowable No. of Device/PLCs 16 Unit(s) No. Device Name Settings	Wait To Send 0 📑 (ms)	
In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC. Device-Specific Settings Allowable No. of Device/PLCs 16 Unit(s) No. Device Name Settings	Procedure Procedure 1	
or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC. Device-Specific Settings Allowable No. of Device/PLCs 16 Unit(s) No. Device Name Settings	RI/VCC © RI C VCC	
Device-Specific Settings Allowable No. of Device/PLCs 16 Unit(s)	or VCC (5V Power Supply). If you use the Digital's RS232C	
Allowable No. of Device/PLCs 16 Unit(s) No. Device NameSettings	Isolation Unit, please select it to VLL.	Default
No. Device NameSettings		
		;Station No.=0

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

💰 Individu	al Device Se	ttines 🛛 🗙	
PLC1			
	H Series firm all of address if you have chang		[
Station No.	0	•	1
		Default	
	OK (<u>O</u>)	Cancel	

Settings of External Device (EH-SIO)

Use the switch on the EH-SIO for communication settings. After setting, assign I/O, and turn ON the power of the External Device again to enable the setting. Use the ladder software (LADDER EDITOR for Windows) for the I/O assignment.

Please refer to the manual of the External Device for more details.

Procedure

1. Use the DIP switch on the EH-SIO for communication settings.

Communication Setting Switch 2 (for Port 2)

DIP Switch	Settings	Description	
01	OFF	0 1 10 2001	
02	ON	Speed: 19,200 bps Please refer to the manual of the External Device for more details about other	
03	ON	transmission speed settings.	
04	ON		
05	OFF	Transmission character configuration settings	
06	ON	Data Length: 7 bits Stop Bit: 1 bit Parity: Even	
07	OFF		
08	ON	Interface Type: RS422/RS485	

2. Ladder program is required for initial settings. Please refer to the manual of the External Device for more details.

3.13 Setting Example 13

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1				
Summary				Change Device/PLC
Maker	litachi IES Co.,Ltd	Driver H Series SIC		Port COM1
Text Data	Mode 1 <u>Change</u>			
Communication	n Settings			
SIO Type	RS232C	C RS422/485(2wire)	RS422/485(4wire)	
Speed	19200	•		
Data Lenj	gth 💿 7	C 8		
Parity	C NONE	• EVEN O O	DD	
Stop Bit	I	O 2		
Flow Con	trol C NONE	💿 ER(DTR/CTS) 🛛 🔿 XI	DN/XOFF	
Timeout	3 🕂	(sec)		
Retry	2 🕂	1		
Wait To 9	iend 0 🕂	(ms)		
Procedure	e Procedure 2	•		
RI / VCC	🖲 BI	O VCC		
or VCC	ase of RS232C, you can se (5V Power Supply). If you c Unit, please select it to VC	ise the Digital's RS232C	Default	
Device-Specifi	c Settings			
	No. of Device/PLCs 16 U	1 T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
	Device Name PLC1	Settings		
š 1	li coi	TTE laeues=H aeues		

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

💰 Individu	ial Device Se	ttings 🗙	
PLC1			
Series H Series Please reconfirm all of address settings that you are using if you have changed the series.			
Station No.	0	÷	
		Default	
	OK (<u>D</u>)	Cancel	

Settings of External Device (Serial port on the CPU unit)

Use the switch on the CPU unit for communication settings. SIO type will be set to RS232C (Procedure 2) by entering C000(H) in the address WRF037 with the ladder software (LADDER EDITOR for Windows). After communication settings, turn ON the power of the External Device again to enable the setting. Please refer to the manual of the External Device for more details.

Mode Setting Switch

DIP Switch	Settings	Description	
SW03	ON	Port 1 Transmission Speed: 19,200 bps	
SW04	OFF		
SW05	ON	Port 1 Operation: Specified port	

NOTE

• Other transmission speed settings are shown below.

SW03	SW04	SW05	Speed Speed
ON	ON	ON	4,800 bps
OFF	ON	ON	9,600 bps
OFF	OFF	ON	38,400 bps

3.14 Setting Example 14

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1			
Summary		Change Device/PLC	
Maker Hitachi IES (Co.,Ltd	Driver H Series SIO Port COM1	
Text Data Mode	1 <u>Change</u>		
Communication Settings			
SIO Type	O RS232C	C RS422/485(2wire) C RS422/485(4wire)	
Speed	19200		
Data Length	• 7	C 8	
Parity	O NONE		
Stop Bit	● 1	© 2	
Flow Control	O NONE	ER(DTR/CTS) C XON/XOFF	
Timeout	3 📫	(sec)	
Retry	2 📫		
Wait To Send	0 🗧	(ms)	
Procedure	Procedure 2	×	
RI / VCC	© BI	O VCC	
	Supply). If you us	et the 9th pin to RI (Input) e the Digital's RS232C . Default	
Device-Specific Settings			
Allowable No. of Device/PLCs 16 Unit(s)			
No. Device Na	me	Settings Series=H Series,Station No.=0	
I PLC1			

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

💰 Individu	al Device Se	ttings 🛛 🗙
PLC1		
	H Series irm all of address if you have chan	
Station No.	0	*
		Default
	OK (<u>D)</u>	Cancel

Settings of External Device (Serial port on the CPU unit)

Use the switch on the CPU unit for communication settings. SIO type will be set to RS422/RS485 (Procedure 2) by entering $E100(H)^{*1}$ in the address WRF037 with the ladder software (LADDER EDITOR for Windows). After communication settings, turn ON the power of the External Device again to enable the setting. Please refer to the manual of the External Device for more details.

*1 To enable the termination resistance, enter F100(H). In addition, enter the Station No. set on the Display in lower 2 digits of E100 (or F100)

Mode Setting Switch

DIP Switch	Settings	Description	
SW03	ON	Port 1 Transmission Speed: 19,200 bps	
SW04	OFF	Fort 1 Transmission Speed. 19,200 bps	
SW05	ON	Port 1 Operation: Specified port	

NOTE

Other transmission speed settings are shown below.

SW03	SW04	SW05	Speed Speed
ON	ON	ON	4,800 bps
OFF	ON	ON	9,600 bps
OFF	OFF	ON	38,400 bps

3.15 Setting Example 15

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1		
Summary		Change Device/PLC
Maker Hitachi IES 0	Co.,Ltd	Driver H Series SIO Port COM1
Text Data Mode	1 <u>Change</u>	
Communication Settings		
SIO Type	C RS232C	• RS422/485(2wire)
Speed	19200	
Data Length	• 7	C 8
Parity	C NONE	EVEN O ODD
Stop Bit	● 1	O 2
Flow Control	C NONE	ER(DTR/CTS) C XON/XOFF
Timeout	3 🕂 ((sec)
Retry	2 📫	
Wait To Send	0 🔅 (ims)
Procedure	Procedure 2	•
RI / VCC	© RI	C VCC
	Supply). If you use	et the 9th pin to RI (Input) e the Digital's RS232C Default
Device-Specific Settings		
Allowable No. of Dev		
No. Device Nat	me	Settings
in the second		

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

💰 Individu	al Device Se	ttings 🛛 🗙
PLC1		
	H Series irm all of address if you have chan	
Station No.	0	*
		Default
	OK (<u>D)</u>	Cancel

Settings of External Device (Serial port on the CPU unit)

Use the switch on the CPU unit for communication settings. SIO type will be set to RS422/RS485 (Procedure 2) by entering $E200(H)^{*1}$ in the address WRF037 with the ladder software (LADDER EDITOR for Windows). After communication settings, turn ON the power of the External Device again to enable the setting. Please refer to the manual of the External Device for more details.

*1 To enable the termination resistance, enter F200(H). In addition, enter the Station No. set on the Display in lower 2 digits of E200 (or F200)

Mode Setting Switch

DIP Switch	Settings	Description	
SW03	ON	Port 1 Transmission Speed: 19.200 bps	
SW04	OFF	Fort 1 Transmission Speed. 19,200 bps	
SW05	ON	Port 1 Operation: Specified port	

NOTE

Other transmission speed settings are shown below.

SW03	SW04	SW05	Speed Speed
ON	ON	ON	4,800 bps
OFF	ON	ON	9,600 bps
OFF	OFF	ON	38,400 bps

3.16 Setting Example 16

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1		
Summary		Change Device/PLC
Maker Hitachi IES I	Co.,Ltd	Driver H Series SIO Port COM1
Text Data Mode	1 <u>Change</u>	
Communication Settings		
SIO Type	• RS232C	C RS422/485(2wire) C RS422/485(4wire)
Speed	19200	
Data Length	• 7	C 8
Parity	O NONE	
Stop Bit	• 1	© 2
Flow Control	O NONE	ER(DTR/CTS) C XON/XOFF
Timeout	3 📑 ((sec)
Retry	2 .	
Wait To Send	0 🕂 ((ms)
Procedure	Procedure 2	
RI / VCC	BI B	C VCC
	Supply). If you use	ct the 9th pin to RI (Input) e the Digital's RS232C . Default
Device-Specific Settings		
Allowable No. of Dev		
No. Device Na	me	Settings
in the second		

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

💰 Individu	ial Device Se	ttings 🛛 🗙
PLC1		
	H Series firm all of address if you have chan	
Station No.	0	-
		Default
	OK (<u>O</u>)	Cancel

Settings of External Device (EH-SIO)

Use the switch on the EH-SIO for communication settings. After setting, assign I/O, and turn ON the power of the External Device again to enable the setting. Use the ladder software (LADDER EDITOR for Windows) for the I/O assignment.

Please refer to the manual of the External Device for more details.

◆ Procedure

DIP Switch	Settings	Description	
01	OFF	S 1 10 2001	
02	ON	Speed: 19,200 bps Please refer to the manual of the External Device for more details about other	
03	ON	transmission speed settings.	
04	ON	tunisinision speed settings.	
05	OFF	Transmission character configuration settings	
06	ON	Data Length: 7 bits	
07	OFF	Stop Bit: 1 bit Parity: Even	
08	OFF	Always OFF	

1. Use the DIP switch on the EH-SIO for communication settings.

2. Ladder program is required for initial settings. Please refer to the manual of the External Device for more details.

3.17 Setting Example 17

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1		
Summary		Change Device/PLC
Maker Hitachi IES	Co.,Ltd	Driver H Series SIO Port COM1
Text Data Mode	1 <u>Change</u>	
Communication Settings		
SIO Type	• RS232C	O RS422/485(2wire) O RS422/485(4wire)
Speed	19200	
Data Length	• 7	• 8
Parity	O NONE	EVEN ODD
Stop Bit	● 1	0 2
Flow Control	O NONE	ER(DTR/CTS) C XON/XOFF
Timeout	3 📫 (s	sec)
Retry	2 📫	
Wait To Send	0 📫 (n	ms)
Procedure	Procedure 2	
RI / VCC	BI B	O VCC
		st the 9th pin to RI (Input) e the Digital's RS232C
	se select it to VCC.	Default
Device-Specific Settings		
Allowable No. of De		
	ime	Settings
NoDevice Na		Settings

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

💰 Individu	ual Device Se	ettings 🛛 🗙
PLC1		
	H Series firm all of address if you have chan	
Station No.	0	÷
		Default
	OK (<u>O</u>)	Cancel

Settings of External Device (EH-SIO)

Use the switch on the EH-SIO for communication settings. After setting, assign I/O, and turn ON the power of the External Device again to enable the setting. Use the ladder software (LADDER EDITOR for Windows) for the I/O assignment.

Please refer to the manual of the External Device for more details.

Procedure

1. Use the DIP switch on the EH-SIO for communication settings.

Communication Setting Switch 2 (for Port 2)

DIP Switch	Settings	Description
01	OFF	0 1 10 2001
02	ON	Speed: 19,200 bps Please refer to the manual of the External Device for more details about other
03	ON	transmission speed settings.
04	ON	aansinission speed settings.
05	OFF	Transmission character configuration settings
06	ON	Data Length: 7 bits
07	OFF	Stop Bit: 1 bit Parity: Even
08	OFF	Interface Type: RS232C

2. Ladder program is required for initial settings. Please refer to the manual of the External Device for more details.

3.18 Setting Example 18

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1		
Summary		Change Device/PLC
Maker Hitachi IES 0	Co.,Ltd	Driver H Series SIO Port COM1
Text Data Mode	1 <u>Change</u>	
Communication Settings		
SIO Type	C RS232C	O RS422/485(2wire)
Speed	19200	•
Data Length	• 7	© 8
Parity	O NONE	EVEN O ODD
Stop Bit	• 1	© 2
Flow Control	O NONE	• ER(DTR/CTS) C XON/XOFF
Timeout	3 📫 (s	sec)
Retry	2 +	
Wait To Send	(r	ns)
Procedure	Procedure 2	×
RI / VCC	© RI	O VCC
In the case of RS2 or VCC (5V Power Isolation Unit, pleas	Supply). If you use	t the 9th pin to RI (Input) • the Digital's RS232C Default
Device-Specific Settings		
Allowable No. of Devi		
No. Device Nar No. Device Nar	me	Settings Seties=H Series,Station No.=0
[0 0]]. = 2.1		

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

💰 Individu	al Device Se	ttings 🛛 🗙
PLC1		
	H Series firm all of address if you have chang	
Station No.	0	÷
		Default
	OK (<u>O)</u>	Cancel

Settings of External Device (EH-SIO)

Use the switch on the EH-SIO for communication settings. After setting, assign I/O, and turn ON the power of the External Device again to enable the setting. Use the ladder software (LADDER EDITOR for Windows) for the I/O assignment.

Please refer to the manual of the External Device for more details.

Procedure

1. Use the DIP switch on the EH-SIO for communication settings.

Communication Setting Switch 2 (for Port 2)

DIP Switch	Settings	Description
01	OFF	0 1 10 2001
02	ON	Speed: 19,200 bps Please refer to the manual of the External Device for more details about other
03	ON	transmission speed settings.
04	ON	uuisinission speed settings.
05	OFF	Transmission character configuration settings
06	ON	Data Length: 7 bits
07	OFF	Stop Bit: 1 bit Parity: Even
08	ON	Interface Type: RS422/RS485

2. Ladder program is required for initial settings. Please refer to the manual of the External Device for more details.

3.19 Setting Example 19

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1		
Summary		Change Device/PLC
Maker Hitachi IES 0	Co.,Ltd	Driver H Series SIO Port COM1
Text Data Mode	1 <u>Change</u>	
Communication Settings		
SIO Type	C RS232C	RS422/485(2wire) RS422/485(4wire)
Speed	19200	
Data Length	• 7	C 8
Parity	C NONE	
Stop Bit	€ 1	© 2
Flow Control	C NONE	ER(DTR/CTS) C XON/XOFF
Timeout	3 📫 ((sec)
Retry	2 📫	
Wait To Send	0 🕂 ((ms)
Procedure	Procedure 2	•
RI / VCC	© RI	O VCC
	Supply). If you use	ct the 9th pin to RI (Input) e the Digital's RS232C • Default
Device-Specific Settings		
Allowable No. of Dev		
No. Device Nar No. Device Nar	me	Settings Series=H Series,Station No.=0

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

💰 Individu	ial Device Se	ttings 🛛 🗙
PLC1		
	H Series firm all of address if you have chang	
Station No.	0	*
		Default
	OK (<u>0)</u>	Cancel

Settings of External Device (EH-SIO)

Use the switch on the EH-SIO for communication settings. After setting, assign I/O, and turn ON the power of the External Device again to enable the setting. Use the ladder software (LADDER EDITOR for Windows) for the I/O assignment.

Please refer to the manual of the External Device for more details.

Procedure

1. Use the DIP switch on the EH-SIO for communication settings.

Communication Setting Switch 2 (for Port 2)

DIP Switch	Settings	Description
01	OFF	0 1 10 2001
02	ON	Speed: 19,200 bps Please refer to the manual of the External Device for more details about other
03	ON	transmission speed settings.
04	ON	and a state of the
05	OFF	Transmission character configuration settings
06	ON	Data Length: 7 bits
07	OFF	Stop Bit: 1 bit Parity: Even
08	ON	Interface Type: RS422/RS485

2. Ladder program is required for initial settings. Please refer to the manual of the External Device for more details.

3.20 Setting Example 20

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1			
Summary		Change Device/F	PLC
Maker Hitachi IES	δ Co.,Ltd	Driver H Series SIO Port COM1	
Text Data Mode	1 <u>Change</u>		
Communication Settings			
SIO Type	• RS232C	O RS422/485(2wire) O RS422/485(4wire)	
Speed	19200	•	
Data Length	• 7	• 8	
Parity	O NONE	EVEN O ODD	
Stop Bit	• 1	0 2	
Flow Control	O NONE	ER(DTR/CTS) O XON/XOFF	
Timeout	3 📫	(sec)	
Retry	2 📫		
Wait To Send	0 ÷	(ms)	
Procedure	Procedure 1	•	
RI / VCC	🖲 BI	O VCC	
or VCC (5V Powe		ect the 9th pin to RI (Input) se the Digital's RS232C A Default	
Device-Specific Setting:			
	, evice/PLCs 16 Uni	it(s) 📊	
No. Device N	lame	Settings	
👗 1 PLC1		Series=H Series	

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

💰 Individ	lual Device Se	ettings 🛛 🗙
PLC1		
Series	H Series	•
	nfirm all of address ig if you have chan	
Station No.	0	<u>+</u>
		Default
	OK (<u>D</u>)	Cancel

Settings of External Device (Port on the CPU unit)

Use the ladder software (LADDER EDITOR for Windows) for communication settings. Please refer to the manual of the External Device for more details.

Procedure

1. Use the DIP switch inside the front cover of the External Device to enable the communication with the ladder software.

Set as the following table.

DIP Switch	Settings	Description
SW01	ON	T
SW02	OFF	Transmission Speed: 19,200 bps Please refer to the manual of the External Device for more details about other
SW03	OFF	transmission speed settings.
SW04	OFF	1 0

- 2. Set 0000(H) in I/O No.WRF01A and turn I/O No.R7F6 ON to write the settings in the FLASH memory in the External Device.
- WRF01A

Limit Bit	Settings	Description
15	0	Procedure 1

• R7F6

Limit Bit	Settings	Description
-	1	Writing in FLASH memory

3.21 Setting Example 21

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1		
Summary		Change Device/PLC
Maker Hitachi IES	Co.,Ltd	Driver H Series SIO Port COM1
Text Data Mode	1 <u>Change</u>	
Communication Settings		
SIO Type	C RS232C	C RS422/485(2wire) © RS422/485(4wire)
Speed	19200	•
Data Length	• 7	0.8
Parity	O NONE	EVEN ODD
Stop Bit	I	0 2
Flow Control	O NONE	ER(DTR/CTS) C XON/XOFF
Timeout	3 📫	(sec)
Retry	2	
Wait To Send	0 🕂	(ms)
Procedure	Procedure 1	•
RI / VCC	© BI	O VCC
or VCC (5V Power	Supply). If you us	ect the 9th pin to RI (Input) se the Digital's RS232C
Isolation Unit, plea	se select it to VCC	Default
Device-Specific Settings		
Allowable No. of Dev		
No. Device Na	ame	Settings Series=H Series,Station No.=0
,		

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

💰 Individu	al Device Set	ttings 🛛 🗙
PLC1		
Series Please reconfi	H Series	▼
you are using i	if you have chang ,	
Station No.	0	Default
	OK (0)	Cancel

Settings of External Device (Port on the CPU unit)

Use the ladder software (LADDER EDITOR for Windows) for communication settings. Please refer to the manual of the External Device for more details.

Procedure

- 1. Set the following communication settings in I/O No.WRF03D and turn I/O No.R7F6 ON to write the settings in the FLASH memory in the External Device.
- WRF03D Limit Bit Settings Description 15 1^{*1} Setting Change Request 14 Procedure 1 13 1 Station No.: Enable Transmission speed: 19,200bps 11 to 8 0010(H) Please refer to the manual of the External Device for more details about other transmission speed settings. 7 to 0 0 Station No.*2
- *1 For communication settings, set "1". It will be changed to "0" when turning the power of the External Device again.
- *2 Set the Station No. with BCD 2 digits. Bit position of 7 to 4 corresponds to the digit of 10, and of 3 to 0 corresponds to the digit of 1.

• R7F6

Limit Bit	Settings	Description
-	1	Writing in FLASH memory

3.22 Setting Example 22

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1		
Summary		Change Device/PLC
Maker Hitachi IES	Co.,Ltd	Driver H Series SIO Port COM1
Text Data Mode	1 <u>Change</u>	
Communication Settings		
SIO Type	C RS232C	RS422/485(2wire) RS422/485(4wire)
Speed	19200	
Data Length	• 7	C 8
Parity	O NONE	EVEN O ODD
Stop Bit	• 1	O 2
Flow Control	C NONE	ER(DTR/CTS) O XON/XOFF
Timeout	3 🚦	(sec)
Retry	2 📫	
Wait To Send	0 🕂	(ms)
Procedure	Procedure 1	
RI / VCC	© BI	O VCC
or VCC (5V Powe	r Supply). If you u	lect the 9th pin to RI (Input) ise the Digital's RS232C
Isolation Unit, plea	ase select it to VCC	C. Default
Device-Specific Settings		
Allowable No. of De		
No. Device N	ame	Settings Series=H Series,Station No.=0
·		

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

💰 Individu	al Device Se	ttings 🗙
PLC1		
	H Series irm all of address : if you have chang	
Station No.	0	•
		Default
	OK (<u>0)</u>	Cancel

Settings of External Device (Port on the CPU unit)

Use the ladder software (LADDER EDITOR for Windows) for communication settings. Please refer to the manual of the External Device for more details.

Procedure

- 1. Set the following communication settings in I/O No.WRF03D and turn I/O No.R7F6 ON to write the settings in the FLASH memory in the External Device.
- WRF03D

Limit Bit	Settings	Description
15	1*1	Setting Change Request
14	0	Procedure 1
13	1	Station No.: Enable
11 to 8	0010(H)	Transmission speed: 19,200bps Please refer to the manual of the External Device for more details about other transmission speed settings.
7 to 0	0	Station No. ^{*2}

*1 For communication settings, set "1". It will be changed to "0" when turning the power of the External Device again.

- *2 Set the Station No. with BCD 2 digits. Bit position of 7 to 4 corresponds to the digit of 10, and of 3 to 0 corresponds to the digit of 1.
- R7F6

Limit Bit	Settings	Description
-	1	Writing in FLASH memory

3.23 Setting Example 23

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1			
Summary		Change Device/F	PLC
Maker Hitachi IES	δ Co.,Ltd	Driver H Series SIO Port COM1	
Text Data Mode	1 <u>Change</u>		
Communication Settings			
SIO Type	• RS232C	O RS422/485(2wire) O RS422/485(4wire)	
Speed	19200	•	
Data Length	• 7	• 8	
Parity	O NONE	EVEN O ODD	
Stop Bit	• 1	O 2	
Flow Control	O NONE	ER(DTR/CTS) O XON/XOFF	
Timeout	3 📫	(sec)	
Retry	2 📫		
Wait To Send	0 ÷	(ms)	
Procedure	Procedure 1	•	
RI / VCC	🖲 BI	O VCC	
or VCC (5V Powe		ect the 9th pin to RI (Input) se the Digital's RS232C A Default	
Device-Specific Setting:			
	, evice/PLCs 16 Uni	it(s) 📊	
No. Device N	lame	Settings	
👗 1 PLC1		Series=H Series	

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

💰 Individu	ial Device Se	ttings 🛛 🗙
PLC1		
	H Series firm all of address : if you have chang	
Station No.	0	÷
		Default
	OK (<u>0</u>)	Cancel

Settings of External Device (EH-OB232)

Use the ladder software (LADDER EDITOR for Windows) for communication settings. Please refer to the manual of the External Device for more details.

Procedure

- 1. Set the following communication settings in I/O No.WRF03D and turn I/O No.R7F6 ON to write the settings in the FLASH memory in the External Device.
- WRF03D

Limit Bit	Settings	Description
15	1*1	Setting Change Request
14	0	Procedure 1
13	0	Station No.: Disable
11 to 8	0010(H)	Transmission speed: 19,200bps Please refer to the manual of the External Device for more details about other transmission speed settings.

*1 For communication settings, set "1". It will be changed to "0" when turning the power of the External Device again.

• R7F6

Limit Bit	Settings	Description
-	1	Writing in FLASH memory

3.24 Setting Example 24

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1	
Summary	Change Device/PLC
Maker Hitachi IES Co.,Ltd	Driver H Series SIO Port COM1
Text Data Mode 1 Cha	92
Communication Settings	
SIO Type C RS23	C C RS422/485(2wire) 💿 RS422/485(4wire)
Speed 19200	•
Data Length 💿 7	C 8
Parity C NONE	EVEN O ODD
Stop Bit 💿 1	© 2
Flow Control C NONE	ER(DTR/CTS) C XON/XOFF
Timeout 3	× (sec)
Retry 2	
Wait To Send 0	* (ms)
Procedure Procedu	1 💌
RI / VCC C RI	C VCC
In the case of RS232C, you ca or VCC (5V Power Supply). If y Isolation Unit, please select it t	ou use the Digital's RS232C
Isolation onic, please select it t	Default
Device-Specific Settings	
Allowable No. of Device/PLCs 1 No. Device Name	5 Unit(s) III Settings
👗 1 PLC1	Series=H Series,Station No.=0

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

💰 Individu	al Device Se	ttings 🛛 🗙
PLC1		
	H Series irm all of address : if you have chang	
Station No.	0	•
		Default
	OK (<u>0)</u>	Cancel

Settings of External Device (EH-OB485)

Use the ladder software (LADDER EDITOR for Windows) for communication settings. Please refer to the manual of the External Device for more details.

Procedure

- 1. Set the following communication settings in I/O No.WRF03D and turn I/O No.R7F6 ON to write the settings in the FLASH memory in the External Device.
- WRF03D

Limit Bit	Settings	Description
15	1*1	Setting Change Request
14	0	Procedure 1
13	1	Station No.: Enable
11 to 8	0010(H)	Transmission speed: 19,200bps Please refer to the manual of the External Device for more details about other transmission speed settings.
7 to 0	0	Station No. ^{*2}

*1 For communication settings, set "1". It will be changed to "0" when turning the power of the External Device again.

- *2 Set the Station No. with BCD 2 digits. Bit position of 7 to 4 corresponds to the digit of 10, and of 3 to 0 corresponds to the digit of 1.
- R7F6

Limit Bit	Settings	Description
-	1	Writing in FLASH memory

3.25 Setting Example 25

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1		
Summary		Change Device/PLC
Maker Hitachi IES	Co.,Ltd	Driver H Series SIO Port COM1
Text Data Mode	1 <u>Change</u>	
Communication Settings		
SIO Type	C RS232C	RS422/485(2wire) RS422/485(4wire)
Speed	19200	
Data Length	• 7	C 8
Parity	O NONE	EVEN O ODD
Stop Bit	• 1	O 2
Flow Control	C NONE	ER(DTR/CTS) O XON/XOFF
Timeout	3 🚦	(sec)
Retry	2 📫	
Wait To Send	0 🕂	(ms)
Procedure	Procedure 1	
RI / VCC	© BI	O VCC
or VCC (5V Powe	r Supply). If you u	lect the 9th pin to RI (Input) ise the Digital's RS232C
Isolation Unit, plea	ase select it to VCC	C. Default
Device-Specific Settings		
Allowable No. of De		
No. Device N	ame	Settings Series=H Series,Station No.=0
·		

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

💰 Individu	al Device Se	ttings 🛛 🗙
PLC1		
	H Series irm all of address : if you have chang	
Station No.	0	•
		Default
	OK (<u>0)</u>	Cancel

Settings of External Device (EH-OB485)

Use the ladder software (LADDER EDITOR for Windows) for communication settings. Please refer to the manual of the External Device for more details.

Procedure

- 1. Set the following communication settings in I/O No.WRF03D and turn I/O No.R7F6 ON to write the settings in the FLASH memory in the External Device.
- WRF03D

Limit Bit	Settings	Description
15	1*1	Setting Change Request
14	0	Procedure 1
13	1	Station No.: Enable
11 to 8	0010(H)	Transmission speed: 19,200bps Please refer to the manual of the External Device for more details about other transmission speed settings.
7 to 0	0	Station No. ^{*2}

*1 For communication settings, set "1". It will be changed to "0" when turning the power of the External Device again.

- *2 Set the Station No. with BCD 2 digits. Bit position of 7 to 4 corresponds to the digit of 10, and of 3 to 0 corresponds to the digit of 1.
- R7F6

Limit Bit	Settings	Description
-	1	Writing in FLASH memory

3.26 Setting Example 26

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1			
Summary		Change Devic	e/PLC
Maker Hitachi IES	Co.,Ltd	Driver H Series SIO Port COM1	
Text Data Mode	1 <u>Change</u>		
Communication Settings			
SIO Type	RS232C	O RS422/485(2wire) O RS422/485(4wire)	
Speed	19200		
Data Length	• 7	• 8	
Parity	O NONE	EVEN ODD	
Stop Bit	● 1	© 2	
Flow Control	O NONE	ER(DTR/CTS)	
Timeout	3 ÷	(sec)	
Retry	2 🔅		
Wait To Send	0 🗧	(ms)	
Procedure	Procedure 2	T	
RI / VCC	🖲 BI	O VCC	
or VCC (5V Powe		ect the 9th pin to RI (Input) se the Digital's RS232C . Default	
Device-Specific Settings			
• -	evice/PLCs 16 Uni	t(s) 🔢	
No. Device N	lame	Settings	
👗 1 PLC1		Series=H Series	

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

💰 Individu	al Device Se	ttings 🛛 🗙
PLC1		
Series Please recont	H Series firm all of address	▼ settings that
you are using Station No.	if you have chang	ged the series.
	,	Default
	OK (<u>O</u>)	Cancel

■ Settings of External Device (Port on the CPU unit)

Use the ladder software (LADDER EDITOR for Windows) for communication settings. Please refer to the manual of the External Device for more details.

Procedure

1. Use the DIP switch inside the front cover of the External Device to enable the communication with the ladder software.

Set as the following table.

DIP Switch	Settings	Description
SW01	ON	G 1 10 2001
SW02	OFF	Speed: 19,200 bps Please refer to the manual of the External Device for more details about other
SW03	OFF	transmission speed settings.
SW04	OFF	r r r r r r r r r r r r r r r r r r r

- 2. Set 8000(H) in I/O No.WRF01A and turn I/O No.R7F6 ON to write the settings in the FLASH memory in the External Device.
- WRF01A

Limit Bit	Settings	Description
15	1	Procedure 2

• R7F6

ĺ	Limit Bit	Settings	Description
ĺ	-	1	Writing in FLASH memory

3.27 Setting Example 27

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1			
Summary			Change Device/PLC
Maker Hitachi IES C	o.,Ltd	Driver H Series SID	Port COM1
Text Data Mode	1 <u>Change</u>		
Communication Settings			
SIO Type	C RS232C	C RS422/485(2wire) • RS422/485(4wire)	
Speed	19200	•	
Data Length	7	C 8	
Parity	C NONE	EVEN ODD	
Stop Bit	● 1	C 2	
Flow Control	C NONE	• ER(DTR/CTS) • XON/XOFF	
Timeout	3 <u>+</u> (se	ec)	
Retry	2 .		
Wait To Send	0 🕂 (m	s)	
Procedure	Procedure 2		
RI / VCC	© RI	O VCC	
or VCC (5V Power S	Supply). If you use I	the 9th pin to RI (Input) the Digital's RS232C	-1
Isolation Unit, please	e select it to VLL.	Default	
Device-Specific Settings			
Allowable No. of Devic No. Device Nam) 🛄 Settings	
1 PLC1		Series=H Series,Station No.=0	

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

💰 Individu	al Device Se	ttings 🛛 🗙
PLC1		
Series H Series Please reconfirm all of address settings that you are using if you have changed the series.		
Station No.	0	•
		Default
	OK (<u>0)</u>	Cancel

Settings of External Device (Port on the CPU unit)

Use the ladder software (LADDER EDITOR for Windows) for communication settings. Please refer to the manual of the External Device for more details.

Procedure

- 1. Set the following communication settings in I/O No.WRF03D and turn I/O No.R7F6 ON to write the settings in the FLASH memory in the External Device.
- WRF03D

Limit Bit	Settings	Description
15	1*1	Setting Change Request
14	1	Procedure 2
13	1	Station No.: Enable
11 to 8	0010(H)	Transmission speed: 19,200bps Please refer to the manual of the External Device for more details about other transmission speed settings.
7 to 0	0	Station No. ^{*2}

*1 For communication settings, set "1". It will be changed to "0" when turning the power of the External Device again.

- *2 Set the Station No. with BCD 2 digits. Bit position of 7 to 4 corresponds to the digit of 10, and of 3 to 0 corresponds to the digit of 1.
- R7F6

Limit Bit	Settings	Description
-	1	Writing in FLASH memory

3.28 Setting Example 28

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1		
Summary		Change Device/PLC
Maker Hitachi IES	Co.,Ltd	Driver H Series SIO Port COM1
Text Data Mode	1 <u>Change</u>	
Communication Settings		
SIO Type	C RS232C	• RS422/485(2wire)
Speed	19200	•
Data Length	• 7	0.8
Parity	C NONE	EVEN ODD
Stop Bit	• 1	0 2
Flow Control	C NONE	• ER(DTR/CTS) C XON/XOFF
Timeout	3 🔹	(sec)
Retry	2 +	
Wait To Send	0 ÷	(ms)
Procedure	Procedure 2	•
RI / VCC	© RI	O VCC
	Supply). If you us	ect the 9th pin to RI (Input) se the Digital's RS232C 2. Default
Device-Specific Settings		
Allowable No. of Dev	/ice/PLCs_16Uni	it(s)
No. Device Na		Settings
👗 1 PLC1		Series=H Series,Station No.=0

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

💰 Individu	al Device Se	ttings 🛛 🗙
PLC1		
Series H Series Please reconfirm all of address settings that you are using if you have changed the series.		
Station No.	0	•
		Default
	OK (<u>0)</u>	Cancel

Settings of External Device (Port on the CPU unit)

Use the ladder software (LADDER EDITOR for Windows) for communication settings. Please refer to the manual of the External Device for more details.

Procedure

- 1. Set the following communication settings in I/O No.WRF03D and turn I/O No.R7F6 ON to write the settings in the FLASH memory in the External Device.
- WRF03D

Limit Bit	Settings	Description
15	1*1	Setting Change Request
14	1	Procedure 2
13	1	Station No.: Enable
11 to 8	0010(H)	Transmission speed: 19,200bps Please refer to the manual of the External Device for more details about other transmission speed settings.
7 to 0	0	Station No. ^{*2}

*1 For communication settings, set "1". It will be changed to "0" when turning the power of the External Device again.

- *2 Set the Station No. with BCD 2 digits. Bit position of 7 to 4 corresponds to the digit of 10, and of 3 to 0 corresponds to the digit of 1.
- R7F6

Limit Bit	Settings	Description
-	1	Writing in FLASH memory

3.29 Setting Example 29

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1	
Summary	Change Device/PLC
Maker Hitachi IES Co.,Ltd	Driver H Series SIO Port COM1
Text Data Mode 1 Cha	lae
Communication Settings	
SIO Type 💿 RS23	2C C RS422/485(2wire) C RS422/485(4wire)
Speed 19200	
Data Length 📀 7	C 8
Parity O NON	
Stop Bit 💿 1	© 2
Flow Control C NON	
Timeout 3	÷ (sec)
Retry 2	<u>:</u>
Wait To Send 0	🕂 (ms)
Procedure Procedu	•2 💌
RI/VCC 💿 RI	O VCC
or VCC (5V Power Supply). If	n select the 9th pin to RI (Input) ou use the Digital's RS232C
Isolation Unit, please select it t	VCC. Default
Device-Specific Settings	_
Allowable No. of Device/PLCs No. Device Name	6 Unit(s) ut Settinas
1 PLC1	Series=H Series

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

💰 Individu	ial Device Se	ttings 🛛 🗙	
PLC1			
Series H Series Please reconfirm all of address settings that you are using if you have changed the series.			
Station No.	0	÷	
		Default	
	OK (<u>0</u>)	Cancel	

Settings of External Device (EH-OB232)

Use the ladder software (LADDER EDITOR for Windows) for communication settings. Please refer to the manual of the External Device for more details.

Procedure

- 1. Set the following communication settings in I/O No.WRF03D and turn I/O No.R7F6 ON to write the settings in the FLASH memory in the External Device.
- WRF03D

Limit Bit	Settings	Description
15	1*1	Setting Change Request
14	1	Procedure 2
13	0	Station No.: Disable
11 to 8	0010(H)	Transmission speed: 19,200bps Please refer to the manual of the External Device for more details about other transmission speed settings.

*1 For communication settings, set "1". It will be changed to "0" when turning the power of the External Device again.

• R7F6

Limit Bit	Settings	Description
-	1	Writing in FLASH memory

3.30 Setting Example 30

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1		
Summary		Change Device/PLC
Maker Hitachi IES 0	Co.,Ltd	Driver H Series SIO Port COM1
Text Data Mode	1 <u>Change</u>	
Communication Settings		
SIO Type	C RS232C	O RS422/485(2wire)
Speed	19200	v
Data Length	• 7	© 8
Parity	O NONE	EVEN O ODD
Stop Bit	• 1	© 2
Flow Control	O NONE	• ER(DTR/CTS) C XON/XOFF
Timeout	3 📫 (s	sec)
Retry	2 +	
Wait To Send	(r	ns)
Procedure	Procedure 2	×
RI / VCC	© RI	O VCC
In the case of RS2 or VCC (5V Power Isolation Unit, pleas	Supply). If you use	t the 9th pin to RI (Input) • the Digital's RS232C Default
Device-Specific Settings		
Allowable No. of Devi		
No. Device Nar No. Device Nar	me	Settings Seties=H Series,Station No.=0
[0 0]]. = 2.1		

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

💰 Individu	al Device Se	ttings 🛛 🗙
PLC1		
	H Series irm all of address : if you have chang	
Station No.	0	•
		Default
	OK (<u>0)</u>	Cancel

Settings of External Device (EH-OB485)

Use the ladder software (LADDER EDITOR for Windows) for communication settings. Please refer to the manual of the External Device for more details.

Procedure

- 1. Set the following communication settings in I/O No.WRF03D and turn I/O No.R7F6 ON to write the settings in the FLASH memory in the External Device.
- WRF03D

Limit Bit	Settings	Description
15	1*1	Setting Change Request
14	1	Procedure 2
13	1	Station No.: Enable
11 to 8	0010(H)	Transmission speed: 19,200bps Please refer to the manual of the External Device for more details about other transmission speed settings.
7 to 0	0	Station No. ^{*2}

*1 For communication settings, set "1". It will be changed to "0" when turning the power of the External Device again.

- *2 Set the Station No. with BCD 2 digits. Bit position of 7 to 4 corresponds to the digit of 10, and of 3 to 0 corresponds to the digit of 1.
- R7F6

Limit Bit	Settings	Description
-	1	Writing in FLASH memory

3.31 Setting Example 31

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1		
Summary		Change Device/PLC
Maker Hitachi IES	Co.,Ltd	Driver H Series SIO Port COM1
Text Data Mode	1 <u>Change</u>	
Communication Settings		
SIO Type	C RS232C	RS422/485(2wire) RS422/485(4wire)
Speed	19200	•
Data Length	7	C 8
Parity	C NONE	
Stop Bit	• 1	© 2
Flow Control	C NONE	ER(DTR/CTS) C XON/XOFF
Timeout	3 📫	(sec)
Retry	2 📫	
Wait To Send	0 🔅	(ms)
Procedure	Procedure 2	
RI / VCC	© RI	O VCC
	Supply). If you us	ect the 9th pin to RI (Input) se the Digital's RS232C
Device-Specific Settings		
Allowable No. of Dev		it(s) 📊
No. Device Na	ame	Settings
👗 1 PLC1		Series=H Series,Station No.=0

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

💰 Individu	al Device Se	ttings 🛛 🗙
PLC1		
	H Series irm all of address : if you have chang	
Station No.	0	•
		Default
	OK (<u>0)</u>	Cancel

Settings of External Device (EH-OB485)

Use the ladder software (LADDER EDITOR for Windows) for communication settings. Please refer to the manual of the External Device for more details.

Procedure

- 1. Set the following communication settings in I/O No.WRF03D and turn I/O No.R7F6 ON to write the settings in the FLASH memory in the External Device.
- WRF03D

Limit Bit	Settings	Description
15	1*1	Setting Change Request
14	1	Procedure 2
13	1	Station No.: Enable
11 to 8	0010(H)	Transmission speed: 19,200bps Please refer to the manual of the External Device for more details about other transmission speed settings.
7 to 0	0	Station No. ^{*2}

*1 For communication settings, set "1". It will be changed to "0" when turning the power of the External Device again.

*2 Set the Station No. with BCD 2 digits. Bit position of 7 to 4 corresponds to the digit of 10, and of 3 to 0 corresponds to the digit of 1.

Limit Bit	Settings	Description
-	1	Writing in FLASH memory

3.32 Setting Example 32

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/F	PLC1				
Summa	ry				Change Device/PLC
Ma	aker Hitachi IES C	o.,Ltd	Driver H Se	eries SIO	Port COM1
Te	ext Data Mode 🛛	1 <u>Change</u>			
Commu	inication Settings				
SI	О Туре	RS232C	C RS422/485(2wire	e) O RS422/485(4wire)	
Sp	beed	19200	-		
Da	ata Length	⊙ 7	08		
Pa	arity	C NONE	EVEN	O ODD	
Ste	op Bit	● 1	C 2		
Flo	ow Control	C NONE	ER(DTR/CTS)	O XON/XOFF	
Tir	meout	3 📫 (s	ec)		
Re	etry	2			
\sim	ait To Send	0 📑 (r	ns)		
Pro	ocedure	Procedure 1	-		
RI	/ VCC	• BI	O VCC		
			t the 9th pin to RI (Inpu the Digital's RS232C	ut)	
	solation Unit, please			Default	
Device	-Specific Settings				
All	lowable No. of Devid				
ă	No. Device Nam 1 PLC1	ne	Settings	eb Controller Series	
00			HILL FORMER IN S		

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	Web Controller S	eries 💌
Please reconfirm all of address settings that you are using if you have changed the series.		
Station No. 0		
		Default
	OK (<u>D</u>)	Cancel

Settings of External Device (Web controller)

Use the Web Browser to access the External Device for communication setting. Please refer to the manual of the External Device for more details.

Procedure

Please refer to the manual of the Web controller for more details.

1. If you set the operation mode setting switch of the External Device as follows, the temporary IP address of the Ethernet port will be set to 192.168.0.1.

<Operation Mode Setting Switch>

•Set the rotary switch to "2"

- 2. Use the LAN cable to connect the Ethernet port of PC to the Ethernet port of the Web controller.(connect via HUB or with the cross cable directly.)
- Enter "http://192.168.0.1/mwconfig.cgi" in the address input box of the Web Browser to access the External Device.

To access, you need to set the upper 3 bytes of PC's IP address to 192.168.0.. (ex. 192.168.0.10)

- 4. Login in the displayed System Configuration Login screen.
- Select [Serial Protocol]-[Passive HIProtocol] from [System Configuration] on the displayed screen for communication settings. After settings, click [SET] to confirm the setting values.

Serial-Passive HIProtocol

Setup Items	Setting Value
Interface Type	RS232C
Transmission Control Procedure	Procedure1 1:1 ^{*1}
Transmission Speed	19.2 kbps
Station No.	0

- *1 To use Procedure 2, select [Procedure 2 1:1].
- Set the operation mode setting switch of the External Device and turn ON the power again.
 <Operation Mode Setting Switch>

•Set the rotary switch to "0"

3.33 Setting Example 33

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1		
Summary		Change Device/PLC
Maker Hitad	hi IES Co.,Ltd	Driver H Series SIO Port COM1
Text Data Mo	de 1 <u>Change</u>	
Communication Se	ttings	
SIO Type	RS232C (C RS422/485(2wire) C RS422/485(4wire)
Speed	19200	•
Data Length	• 7 • 0	C 8
Parity	C NONE C	EVEN ODD
Stop Bit	© 1 (© 2
Flow Control	C NONE (ER(DTR/CTS) C XON/XOFF
Timeout	3 📫 (sec	c)
Retry	2	
Wait To Send	i 🛛 🕂 (ms)	.)
Procedure	Procedure 1	×
RI / VCC	⊙ RI (C VCC
or VCC (5V	of RS232C, you can select th Power Supply). If you use th it, please select it to VCC.	
Device-Specific S	attinas	
	of Device/PLCs 16 Unit(s)	ate .
	vice Name	Settings
👗 1 PL	J	Series=EHV Series

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

💰 Individu	ial Device Se	ttings 🍡 🎽	¢
PLC1			
Series	EHV Series	•]
Please reconfirm all of address settings that you are using if you have changed the series.			
Station No.	0		1
		Default	
	OK (<u>O</u>)	Cancel	

Settings of External Device (Serial port on the CPU unit)

Use the programming software (Control Editor) for communication settings. Please refer to the manual of the External Device for more details.

Procedure

- 1. Start the programming software and create the project. The project is displayed in the offline mode.
- 2. Select [Editor Communication Setting] from the [Tool] menu to display the communication setting dialog box.
- 3. Select either "USB" or "Serial" for the communication method to transfer the communication setting to the External Device and click [Setting].
- 4. Use the USB cable or serial cable (by Hitachi IES Co., Ltd.) to connect PC to the External Device.
- 5. Select [Mode Change] [Online] from the [Online] menu to move to the online mode.
- 6. Select [CPU Settings] [Serial Communication Settings] from the [Tool] menu to perform the communication settings.
- CPU Communication Settings (Serial Communication Settings)

Setup Items	Settings
Serial Communication Settings	Specified
Port Type	RS232C
Speed	19.2 kbps
Communication Procedure	Procedure 1 $(1:1)^{*1}$

*1 To use Procedure 2 for communication, select [Procedure 2 (1:1)].

7. Turn ON the power of the External Device again.

3.34 Setting Example 34

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1		
Summary		Change Device/PLC
Maker Hitachi IES	Co.,Ltd	Driver H Series SIO Port COM1
Text Data Mode	1 Change	
Communication Settings		
SIO Type	C RS232C	C RS422/485(2wire) © RS422/485(4wire)
Speed	19200	•
Data Length	7	C 8
Parity	C NONE	
Stop Bit	• 1	© 2
Flow Control	C NONE	• ER(DTR/CTS) • XON/XOFF
Timeout	3	(sec)
Retry	2	
Wait To Send	0 🔅	(ms)
Procedure	Procedure 1	
RI / VCC	🗇 BI	O VCC
	Supply). If you us	ect the 9th pin to RI (Input) se the Digital's RS232C ~ Default
Device-Specific Settings		
Allowable No. of Dev	/ice/PLCs 16 Uni	it(s)
No. Device Na		Settings
👗 1 PLC1		Series=EHV Series,Station No.=0

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

💰 Individu	ial Device Se	ttings 🛛 🗙
PLC1		
	EHV Series irm all of address if you have chan	
Station No.	0	
		Default
	OK (<u>O)</u>	Cancel

Settings of External Device (Serial port on the CPU unit)

Use the programming software (Control Editor) for communication settings. Please refer to the manual of the External Device for more details.

Procedure

- 1. Start the programming software and create the project. The project is displayed in the offline mode.
- 2. Select [Editor Communication Setting] from the [Tool] menu to display the communication setting dialog box.
- 3. Select either "USB" or "Serial" for the communication method to transfer the communication setting to the External Device and click [Setting].
- 4. Use the USB cable or serial cable (by Hitachi IES Co., Ltd.) to connect PC to the External Device.
- 5. Select [Mode Change] [Online] from the [Online] menu to move to the online mode.
- 6. Select [CPU Settings] [Serial Communication Settings] from the [Tool] menu to perform the communication settings.
- CPU Communication Settings (Serial Communication Settings)

Setup Items	Settings
Serial Communication Settings	Specified
Port Type	RS422/RS485
Speed	19.2 kbps
Communication Procedure	Procedure 1 (1:n) ^{*1}
Station No.	Enter the Station No. set on the display. ^{*2}

*1 To use Procedure 2 for communication, select [Procedure 2 (1:n)].

- *2 If you set the Station No. to "None", communication is not available.
- 7. Turn ON the power of the External Device again.

3.35 Setting Example 35

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1	
Summary	Change Device/PLC
Maker Hitachi IES Co.,Ltd Driver H Series SIO	Port COM1
Text Data Mode 1 Change	
Communication Settings	
SIO Type C RS232C © RS422/485(2wire) C RS422/485(4wire)	
Speed 19200	
Data Length 💿 7 💿 8	
Parity CINONE O EVEN CI ODD	
Stop Bit 💿 1 💿 2	
Flow Control C NONE © ER(DTR/CTS) C XON/XOFF	
Timeout 3 🚉 (sec)	
Retry 2	
Wait To Send 0 📑 (ms)	
Procedure Procedure 1	
RI / VCC © RI O VCC	
In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.	
Device-Specific Settings Allowable No. of Device/PLCs 16 Unit(s)	
No. Device Name Settings	
1 PLC1 III Series=EHV Series,Station No.=0	

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

💰 Individu	ial Device Se	ttings 🛛 🗙
PLC1		
	EHV Series irm all of address if you have chan	
Station No.	0	
		Default
	OK (<u>O</u>)	Cancel

Settings of External Device (Serial port on the CPU unit)

Use the programming software (Control Editor) for communication settings. Please refer to the manual of the External Device for more details.

Procedure

- 1. Start the programming software and create the project. The project is displayed in the offline mode.
- 2. Select [Editor Communication Setting] from the [Tool] menu to display the communication setting dialog box.
- 3. Select either "USB" or "Serial" for the communication method to transfer the communication setting to the External Device and click [Setting].
- 4. Use the USB cable or serial cable (by Hitachi IES Co., Ltd.) to connect PC to the External Device.
- 5. Select [Mode Change] [Online] from the [Online] menu to move to the online mode.
- 6. Select [CPU Settings] [Serial Communication Settings] from the [Tool] menu to perform the communication settings.
- CPU Communication Settings (Serial Communication Settings)

Setup Items	Settings
Serial Communication Settings	Specified
Port Type	RS422/RS485
Speed	19.2 kbps
Communication Procedure	Procedure 1 (1:n) ^{*1}
Station No.	Enter the Station No. set on the display. ^{*2}

*1 To use Procedure 2 for communication, select [Procedure 2 (1:n)].

- *2 If you set the Station No. to "None", communication is not available.
- 7. Turn ON the power of the External Device again.

3.36 Setting Example 36

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/F	PLC 1				
Summa	ry -				Change Device/PLC
Ma	aker Hitachi IES C	o.,Ltd	Driver H Sei	ries SIO	Port COM1
Te	ext Data Mode	1 <u>Change</u>			
Commu	nication Settings				
SI	О Туре	• RS232C	C RS422/485(2wire)) O RS422/485(4wire)	
Sp	beed	19200	-		
Da	ata Length	• 7	O 8		
Pa	arity	O NONE	EVEN	O ODD	
Ste	op Bit	• 1	O 2		
Flo	ow Control	C NONE	ER(DTR/CTS)	C XON/XOFF	
Tir	meout	3 🔹 (s	ec)		
Re	etry	2 🔹			
W	ait To Send	n) 🗧 🛛	ns)		
Pr	ocedure	Procedure 1	•		
BI	/ VCC	🖲 BI	O VCC		
			t the 9th pin to RI (Input the Digital's RS232C	t)	
	solation Unit, please		the Digital's H02020	Default	
Device	-Specific Settings				
All	owable No. of Devic	ce/PLCs_16 Unit(:	s) 📊		
	No. Device Nam 1 PLC1	ne	Settings	10	
			Series=EH\	/ belles	

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

💰 Individu	al Device Se	ttings 🛛 🗙	
PLC1			
Series	EHV Series	•	
Please reconfirm all of address settings that you are using if you have changed the series.			
Station No.	0	÷	
		Default	
	OK (<u>0</u>)	Cancel	

Settings of External Device (EH-SIO)

Use the switch on the EH-SIO for communication settings. After setting, assign I/O, and turn ON the power of the External Device again to enable the setting. Use the ladder software (LADDER EDITOR for Windows) for the I/O assignment.

Please refer to the manual of the External Device for more details.

Procedure

1. Use the DIP switch on the EH-SIO for communication settings.

DIP Switch	Settings	Description	
01	OFF	Speed: 19,200 bps Please refer to the manual of the External Device for more details about other transmission speed settings.	
02	ON		
03	ON		
04	ON	ansinosion speed settings.	
05	OFF	Transmission character configuration settings Data Length: 7 bits	
06	ON		
07	OFF	Stop Bit: 1 bit Parity: Even	
08	OFF	Always OFF	

• Communication Setting Switch 1 (for Port 1)

2. Ladder program is required for initial settings. Please refer to the manual of the External Device for more details.

3.37 Setting Example 37

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1			
Summary		Change Device/PLC	2
Maker Hitachi IES	Co.,Ltd	Driver H Series SIO Port COM1	ľ.
Text Data Mode	1 Change		
Communication Settings			
SIO Type	RS232C	C RS422/485(2wire) C RS422/485(4wire)	
Speed	19200		
Data Length	• 7	C 8	
Parity	O NONE		
Stop Bit	● 1	© 2	
Flow Control	O NONE	ER(DTR/CTS) O XON/XOFF	
Timeout	3 📫	(sec)	
Retry	2 📫		
Wait To Send		(ms)	
Procedure	Procedure 1		
RI / VCC	• BI	O VCC	
or VCC (5V Power	Supply). If you use	et the 9th pin to RI (Input) e the Digital's RS232C	
Isolation Unit, plea	se select it to VCC.	Default	
Device-Specific Settings			
Allowable No. of Dev		1 T 1946	
No. Device Na 1 PLC1	ame	Settings	_

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

💰 Individu	al Device Se	ttings 🛛 🗙	
PLC1			
Series	EHV Series	•	
Please reconfirm all of address settings that you are using if you have changed the series.			
Station No.	0	÷	
		Default	
	OK (<u>0</u>)	Cancel	

Settings of External Device (EH-SIO)

Use the switch on the EH-SIO for communication settings. After setting, assign I/O, and turn ON the power of the External Device again to enable the setting. Use the ladder software (LADDER EDITOR for Windows) for the I/O assignment.

Please refer to the manual of the External Device for more details.

Procedure

1. Use the DIP switch on the EH-SIO for communication settings.

DIP Switch	Settings	Description	
01	OFF	G 1 10 2001	
02	ON	Speed: 19,200 bps Please refer to the manual of the External Device for more details about other transmission speed settings.	
03	ON		
04	ON	tutismission speed settings.	
05	OFF	Transmission character configuration settings	
06	ON	Data Length: 7 bits	
07	OFF	Stop Bit: 1 bit Parity: Even	
08	OFF	Interface Type: RS232C	

• Communication Setting Switch 2 (for Port 2)

2. Ladder program is required for initial settings. Please refer to the manual of the External Device for more details.

3.38 Setting Example 38

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1		
Summary		Change Device/PLC
Maker Hitachi IES Co.,Ltd	Driver H Series SIO	Port COM1
Text Data Mode 1 Change		
Communication Settings		
SIO Type C RS232C	RS422/485(2wire) RS422/485(4wire)	
Speed 19200	•	
Data Length 💿 7	• 8	
Parity C NONE	● EVEN C ODD	
Stop Bit 💿 1	0 2	
Flow Control O NONE	ER(DTR/CTS) C XON/XOFF	
Timeout 3 📑 (se	c)	
Retry 2 📑		
Wait To Send 🛛 📑 (ms	8)	
Procedure Procedure 1	•	
RI / VCC © RI	O VCC	
In the case of RS232C, you can select t or VCC (5V Power Supply). If you use th Isolation Unit, please select it to VCC.		
L Device-Specific Settings		
Allowable No. of Device/PLCs 16 Unit(s)	and the second sec	
No. Device Name	Settings	
3 PLC1	Series=EHV Series,Station No.=0	

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

💰 Individu	ial Device Se	ttings 🛛 🗙
PLC1		
	EHV Series	
Station No.	0	•
		Default
	OK (<u>0)</u>	Cancel

Settings of External Device (EH-SIO)

Use the switch on the EH-SIO for communication settings. After setting, assign I/O, and turn ON the power of the External Device again to enable the setting. Use the ladder software (LADDER EDITOR for Windows) for the I/O assignment.

Please refer to the manual of the External Device for more details.

Procedure

1. Use the DIP switch on the EH-SIO for communication settings.

DIP Switch	Settings	Description	
01	OFF		
02	ON	Speed: 19,200 bps Please refer to the manual of the External Device for more details about other	
03	ON	transmission speed settings.	
04	ON		
05	OFF	Transmission character configuration settings	
06	ON	Data Length: 7 bits	
07	OFF	Stop Bit: 1 bit Parity: Even	
08	ON	Interface Type: RS422/RS485C	

• Communication Setting Switch 2 (for Port 2)

2. Ladder program is required for initial settings. Please refer to the manual of the External Device for more details.

3.39 Setting Example 39

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1		
Summary		Change Device/PLC
Maker Hitachi IES C	lo.,Ltd	Driver H Series SIO Port COM1
Text Data Mode	1 <u>Change</u>	
Communication Settings		
SIO Type	C RS232C	RS422/485(2wire) RS422/485(4wire)
Speed	19200	
Data Length	• 7	08
Parity	C NONE	EVEN O ODD
Stop Bit	⊙ 1	© 2
Flow Control	C NONE	ER(DTR/CTS) O XON/XOFF
Timeout	3 📫 (;	sec)
Retry	2	
Wait To Send	0 🕂 (r	ms)
Procedure	Procedure 1	T
RI / VCC	🖲 BI	O VCC
	Supply). If you use	t the 9th pin to RI (Input) e the Digital's RS232C Default
Device-Specific Settings		
Allowable No. of Devi		
No. Device Nar	ne	Settings Series=EHV Series,Station No.=0
. , cor		

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

💰 Individu	ial Device Se	ttings 🛛 🗙
PLC1		
	EHV Series	
Station No.	0	•
		Default
	OK (<u>0)</u>	Cancel

Settings of External Device (EH-SIO)

Use the switch on the EH-SIO for communication settings. After setting, assign I/O, and turn ON the power of the External Device again to enable the setting. Use the ladder software (LADDER EDITOR for Windows) for the I/O assignment.

Please refer to the manual of the External Device for more details.

Procedure

1. Use the DIP switch on the EH-SIO for communication settings.

DIP Switch	Settings	Description	
01	OFF		
02	ON	Speed: 19,200 bps Please refer to the manual of the External Device for more details about other	
03	ON	transmission speed settings.	
04	ON		
05	OFF	Transmission character configuration settings	
06	ON	Data Length: 7 bits	
07	OFF	Stop Bit: 1 bit Parity: Even	
08	ON	Interface Type: RS422/RS485C	

• Communication Setting Switch 2 (for Port 2)

2. Ladder program is required for initial settings. Please refer to the manual of the External Device for more details.

3.40 Setting Example 40

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1				
Summary				Change Device/PLC
Maker Hitachi IES C	io.,Ltd	Driver H Se	eries SIO	Port COM1
Text Data Mode	1 <u>Change</u>			
Communication Settings				
SIO Type	• R\$232C	C RS422/485(2wire)	e) C RS422/485(4wire)	
Speed	19200	-		
Data Length	• 7	C 8		
Parity	O NONE	EVEN	O ODD	
Stop Bit	⊙ 1	C 2		
Flow Control	O NONE	ER(DTR/CTS)	C XON/XOFF	
Timeout	3 📑 (se	ec)		
Retry	2 📫			
Wait To Send	0 🕂 (m	15)		
Procedure	Procedure 1	•		
RI / VCC	• BI	C VCC		
or VCC (5V Power 9	Supply). If you use	t the 9th pin to RI (Inpu the Digital's RS232C	it)	
Isolation Unit, please	e select it to VCC.		Default	
Device-Specific Settings				
Allowable No. of Devi No. Device Nan		s) 📷 Settings		
1 PLC1			eb Controller Series	

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

💰 Individu	al Device Se	ttines 🛛 🗙	
PLC1			
	Web Controller S irm all of address : if you have chang	settings that	1
Station No.	0	*	
		Default	l
	OK (<u>0</u>)	Cancel	

Settings of External Device (Web controller)

Use the Web Browser to access the External Device for communication setting. Please refer to the manual of the External Device for more details.

Procedure

Please refer to the manual of the Web controller for more details.

1. If you set the operation mode setting switch of the External Device as follows, the temporary IP address of the Ethernet port will be set to 192.168.0.1.

<Operation Mode Setting Switch>

•Set only the DIP switch4 to ON

- 2. Use the LAN cable to connect the Ethernet port of PC to the Ethernet port of the Web controller.(connect via HUB or with the cross cable directly.)
- Enter "http://192.168.0.1/mwconfig.cgi" in the address input box of the Web Browser to access the External Device.

To access, you need to set the upper 3 bytes of PC's IP address to 192.168.0.. (ex. 192.168.0.10)

- 4. Login in the displayed System Configuration Login screen.
- Select [Serial Protocol]-[Passive HIProtocol] from [System Configuration] on the displayed screen for communication settings. After settings, click [SET] to confirm the setting values.

Serial-Passive HIProtocol

Setup Items	Setting Value
Interface Type	RS232C
Transmission Control Procedure	Procedure1 1:1 ^{*1}
Transmission Speed	19.2 kbps
Station No.	0

- *1 To use Procedure 2, select [Procedure2 1:1].
- Set the operation mode setting switch of the External Device and turn ON the power again.
 <Operation Mode Setting Switch>

•Set all the DIP switch to OFF

3.41 Setting Example 41

- Settings of GP-Pro EX
- ♦ Communication Settings

Devic	e/PLC1		
Sum	mary		Change Device/PLC
	Maker Hitachi IE	S Co., Ltd.	Series H Series SIO Port COM1
	Text Data Mode	1 <u>Change</u>	
Com	munication Settings		
	SIO Type	C RS232C	O RS422/485(2wire)
	Speed	19200	
	Data Length	• 7	08
	Parity	O NONE	EVEN ODD
	Stop Bit	⊙ 1	0 2
	Flow Control	O NONE	ER(DTR/CTS) C XON/XOFF
	Timeout	3 🕂 (:	sec)
	Retry	2 🗧	
	Wait To Send	0 🗧 (ms)
	Procedure	Procedure 1	×
	RI / VCC	© BI	O VCC
	In the case of RS23 or VCC (5V Power S Isolation Unit, pleas	Supply). If you use	xt the 9th pin to RI (Input) e the Digital's RS232C Default
Dev	ice-Specific Settings		
	Allowable Number of I		16 🙀
	Number Device Na	ame	Settings
	👗 1 🛛 PLC1		Series=Web Controller Series

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

💰 Individu	al Device Se	ttines 🛛 🗙	
PLC1			
	Web Controller S irm all of address : if you have chang	settings that	1
Station No.	0	<u>*</u>	
		Default	l
	OK (<u>0</u>)	Cancel	

Settings of External Device (Web controller)

Use the Web Browser to access the External Device for communication setting. Please refer to the manual of the External Device for more details.

Procedure

Please refer to the manual of the Web controller for more details.

1. If you set the operation mode setting switch of the External Device as follows, the temporary IP address of the Ethernet port will be set to 192.168.0.1.

<Operation Mode Setting Switch>

•Set only the DIP switch4 to ON

- 2. Use the LAN cable to connect the Ethernet port of PC to the Ethernet port of the Web controller.(connect via HUB or with the cross cable directly.)
- Enter "http://192.168.0.1/mwconfig.cgi" in the address input box of the Web Browser to access the External Device.

To access, you need to set the upper 3 bytes of PC's IP address to 192.168.0.. (ex. 192.168.0.10)

- 4. Login in the displayed System Configuration Login screen.
- Select [Serial Protocol]-[Passive HIProtocol] from [System Configuration] on the displayed screen for communication settings. After settings, click [SET] to confirm the setting values.

Serial-Passive HIProtocol

Setup Items	Setting Value
Interface Type	RS-422/485
Transmission Control Procedure	Procedure1 1:1 ^{*1}
Transmission Speed	19.2 kbps
Station No.	0

- *1 To use Procedure 2, select [Procedure2 1:1].
- Set the operation mode setting switch of the External Device and turn ON the power again.
 <Operation Mode Setting Switch>

•Set all the DIP switch to OFF

3.42 Setting Example 42

- Settings of GP-Pro EX
- ♦ Communication Settings

Device/PLC 1			
Summary			Change Device/PLC
Maker Hitachi	ES Co., Ltd.	Series H Series SIO	Port COM1
Text Data Mode	1 Change		
Communication Settings			
SIO Type	○ R\$232C	5422/485(2wire) O RS422/485(4wire)	
Speed	19200 💌]	
Data Length	• 7 • 8		
Parity	O NONE O EV	/EN O ODD	
Stop Bit	⊙1 O 2		
Flow Control	C NONE C EF	R(DTR/CTS) O XON/XOFF	
Timeout	3 📫 (sec)		
Retry	2 +		
Wait To Send	0 🕂 (ms)		
Procedure	Procedure 1]	
RI / VCC	© RI O VO		
or VCC (5V Powe	232C, you can select the 9th Supply). If you use the Dig se select it to VCC.	h pin to RI (Input) gital's RS232C Default	
Device-Specific Settings			
Allowable Number of			
Number Device I	lame	Settings Series=Web Controller Series	

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

💰 Individu	al Device Se	ttines 🛛 🗙	
PLC1			
	Web Controller S irm all of address : if you have chang	settings that	1
Station No.	0	<u>*</u>	
		Default	l
	OK (<u>0</u>)	Cancel	

Settings of External Device (Web controller)

Use the Web Browser to access the External Device for communication setting. Please refer to the manual of the External Device for more details.

Procedure

Please refer to the manual of the Web controller for more details.

- 1. If you set the operation mode setting switch of the External Device as follows, the temporary IP address of the Ethernet port will be set to 192.168.0.1.
 - <Operation Mode Setting Switch>
 - Set only the DIP switch4 to ON
- 2. Use the LAN cable to connect the Ethernet port of PC to the Ethernet port of the Web controller.(connect via HUB or with the cross cable directly.)
- Enter "http://192.168.0.1/mwconfig.cgi" in the address input box of the Web Browser to access the External Device.

To access, you need to set the upper 3 bytes of PC's IP address to 192.168.0.. (ex. 192.168.0.10)

- 4. Login in the displayed System Configuration Login screen.
- Select [Serial Protocol]-[Passive HIProtocol] from [System Configuration] on the displayed screen for communication settings. After settings, click [SET] to confirm the setting values.

Serial-Passive HIProtocol

Setup Items	Setting Value
Interface Type	RS-422/485
Transmission Control Procedure	Procedure1 1:1 ^{*1}
Transmission Speed	19.2 kbps
Station No.	0

- *1 To use Procedure 2, select [Procedure2 1:1].
- Set the operation mode setting switch of the External Device and turn ON the power again.
 <Operation Mode Setting Switch>

•Set all the DIP switch to OFF

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 11)

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 Hitachi IES I	Co.,Ltd	Driver HS	ieries SIO	Port COM1
Text Data Mode	1 <u>Change</u>			
Communication Settings				
SIO Type	• RS232C	O R\$422/485(2win	e) 💿 RS422/485(4wire))
Speed	19200	•		
Data Length	• 7	0.8		
Parity	O NONE	EVEN	O ODD	
Stop Bit	● 1	O 2		
Flow Control	O NONE	ER(DTR/CTS)	C XON/XOFF	
Timeout	3 📫	(sec)		
Retry	2 ÷			
Wait To Send	0 🕂	(ms)		
Procedure	Procedure 1	•		
RI / VCC	• BI	O VCC		
	Supply). If you use	ct the 9th pin to RI (Inp e the Digital's RS232C		ik
Device-Specific Settings				
Allowable No. of Dev	rice/PLCs 16 Unit	:(s) 📷		
No. Device Na	me	Settings	Carias	
👗 1 PLC1		🔢 Series=H	Selles	

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.

Continues to the 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.
Procedure	Select the transmission control procedure on the External Device.
RI/VCC	You can switch RI/VCC of the 9th pin when you select RS232C for SIO type. 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.

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

💰 Individu	al Device S	ettings 🛛 🗙
PLC1		
	H Series irm all of addres if you have char	
Station No.	0	*
		Default
	OK (<u>0)</u>	Cancel

Setup Items	Setup Description		
Series	Selects a model of the External Device.		
Station No.	Enter the unit No. of the External Device.		

4.2 Settings in Off-Line Mode

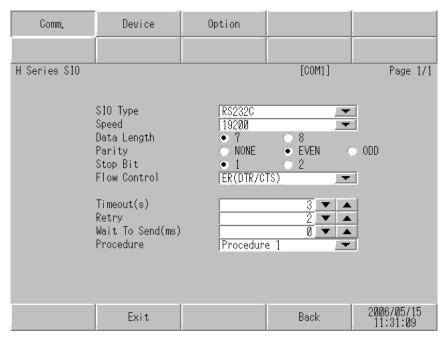
NOTE

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

- Cf. Maintenance/Troubleshooting Manual "Off-line Mode"
- The number of the setup items to be displayed for 1 page in the off-line mode depends on the Display in use. Please refer to the Reference manual for details.

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. 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.

Setup Items	Setup Description
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.
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.
Procedure	Select the transmission control procedure on the External Device.

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		
H Series SIO			[COM1]	Page 1/1
Devic	e/PLC Name PL	01		T
	Series	H Series		
	Station No.		0 🔻 🔺]
	F 11			2006/05/15
	Exit		Back	2006/05/15 11:31:12

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	Displays a model of the External Device.
Station No.	Enter the unit No. of the External Device.

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		
H Series 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	2006/05/15 11:31:14

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.

NOTE

• GP-4100 series do not have the [Option] setting in the off-line mode.

5 Cable Diagram

The cable diagram shown below may be different from the cable diagram recommended by Hitachi IES Co., Ltd. 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 ^{*1}	Remarks
GP3000 (COM1) ST (COM1)	1A	By Hitachi IES Co., Ltd. WVCB02H	
IPC ^{*2} PC/AT	1B	User-created cable1	Cable length:
	1C	User-created cable2	15m or less
GP-4105 (COM1)	1D	User-created cable1	
	1E	User-created cable2	

*1 You need to change the wiring depending on the speed.

	H-200 H-250 H-252B		H-252C		H-300/H-302 H-700/H-702 H-2000/H-2002		H-4010	
	Speed	Wiring	Speed	Wiring	Speed	Wiring	Speed	Wiring
Peripheral Port 1	2400bps 4800bps 9600bps	1B 1D	2400bps 4800bps	1A 1B 1C	4800bps	1B 1D	4800bps	1B 1D
or Serial Port 1	19200bps	1A 1C 1E	9600bps 19200bps	1D 1E	19200bps	1A 1C 1E	19200bps 38400bps	1A, 1C,1E 1A,1B,1C 1D,1E
Darinharal Dart 2			4800bps	1B,1D			4800bps	1B,1D
Peripheral Port 2 or Serial Port 2		-		1A	-	-	19200bps	1A, 1C,1E
		19200bps	1C 1E			38400bps	1A,1B,1C 1D,1E	

*2 Only the COM port which can communicate by RS-232C can be used. ☞ ■ IPC COM Port (page 8) 1A)



1B)

D-Sub 9 pin (socket)					External Device D-Sub 15 pin			
	Pin	Signal name	Shield	Pin	Signal name			
	2	RD(RXD)		2	SD			
Display	3	SD(TXD)		3	RD			
	6	DR(DSR)		5	CS	•		
	4	ER(DTR)		7	DR			
	5	SG		9	SG			
	7	RS(RTS)		8	PHL			
	8	CS(CTS)		4	RS			
	Shell	FG		14	PV12			

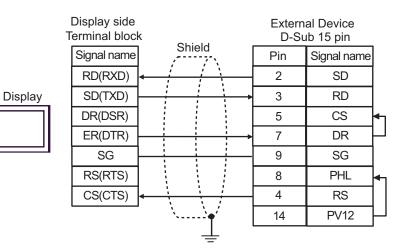
1C)

D-Sub 9	pin (socket)			al Device ıb 15 pin
Pin	Signal name	Shield	Pin	Signal name
2	RD(RXD)		2	SD
3	SD(TXD)		3	RD
6	DR(DSR)		5	CS 🗲
4	ER(DTR)		7	DR —
5	SG		9	SG
7	RS(RTS)		8	PHL 🗲
8	CS(CTS)	← 1 / / / / / / / / / / / / / / / / / /	4	RS
Shell	FG	<u> </u>	14	PV12
	Pin 2 3 6 4 5 7 8	2 RD(RXD) 3 SD(TXD) 6 DR(DSR) 4 ER(DTR) 5 SG 7 RS(RTS) 8 CS(CTS)	Pin Signal name 2 RD(RXD) 3 SD(TXD) 6 DR(DSR) 4 ER(DTR) 5 SG 7 RS(RTS) 8 CS(CTS)	D-Sub 9 pin (socket) D-Su Pin Signal name Pin 2 RD(RXD) 2 3 SD(TXD) 3 6 DR(DSR) 5 4 ER(DTR) 7 5 SG 9 7 RS(RTS) 8 8 CS(CTS) 4

Display side **External Device** D-Sub 15 pin Terminal block Shield Signal name Pin Signal name RD(RXD) 2 SD SD(TXD) 3 RD Display DR(DSR) 5 CS 7 ER(DTR) DR SG 9 SG RS(RTS) 8 PHL 4 CS(CTS) RS 14 **PV12**

1E)

1D)



Cable Diagram 2

Display (Connection Port)	Cable		Remarks
GP3000 ^{*1} (COM1) AGP-3302B (COM2) ST ^{*2} (COM2) IPC ^{*3}	2A	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	Cable length: 250m or less
	2B	User-created cable	
GP3000 ^{*4} (COM2)	2C	Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	
	2D	Online adapter by Pro-face CA4-ADPONL-01 + User-created cable	
GP-4106 (COM1)	2E	User-created cable	

*1 All GP3000 models except AGP-3302B

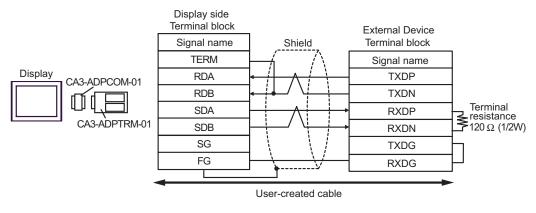
*2 All ST models except AST-3211A and AST-3302B

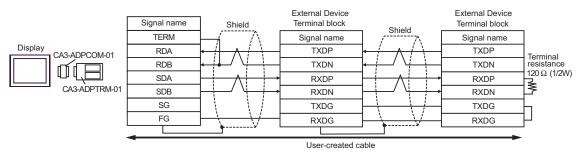
*3 Only the COM port which can communicate by RS-422/485 (4 wire) can be used. ☞ ■ IPC COM Port (page 8)

*4 All GP3000 models except GP-3200 series and AGP-3302B

2A)

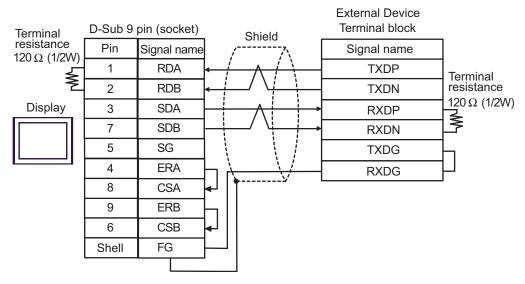
• 1:1 Connection

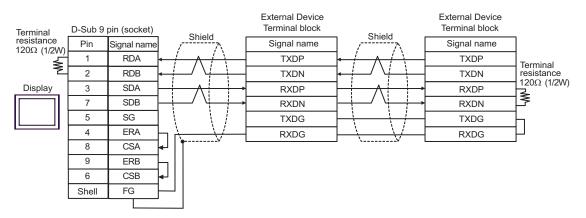




2B)

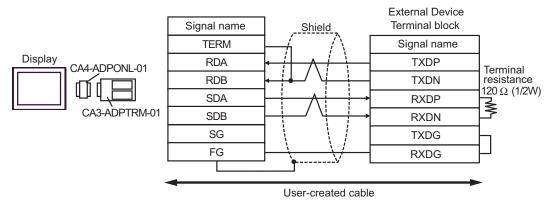
• 1:1 Connection

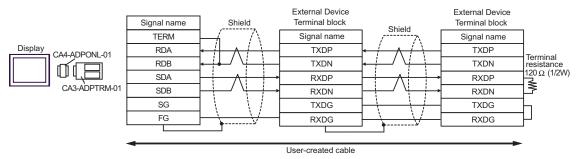




2C)

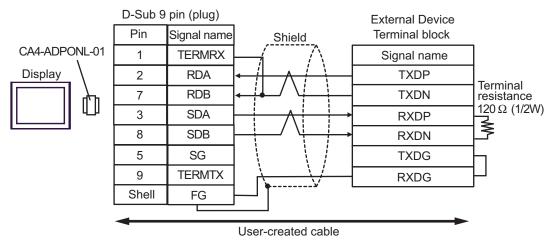
• 1:1 Connection

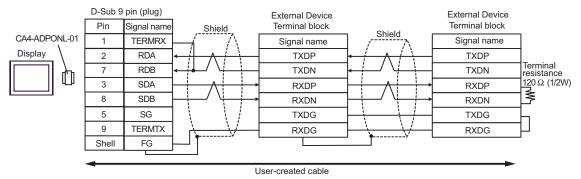




2D)

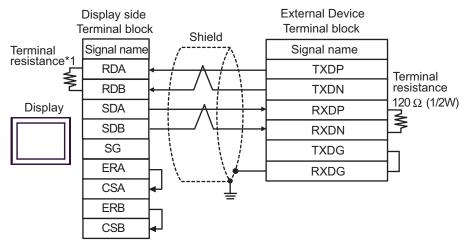
• 1:1 Connection



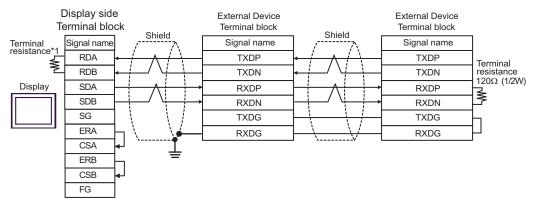


2E)

1:1 Connection



1:n Connection



*1 The resistance in the Display is used as the termination resistance. Set the value of the DIP Switch on the rear of the Display as shown in the table below.

DIP Switch No.	Set Value	
1	OFF	
2	OFF	
3	ON	
4	ON	

Cable Diagram 3

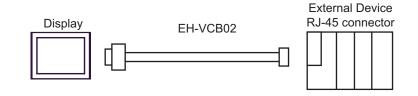
Display (Connection Port)		Cable ^{*1}	Remarks
	3A	By Hitachi IES Co., Ltd. EH-VCB02(2m)	
GP3000 (COM1)	3B	By Hitachi IES Co., Ltd. WVCB02H(2m) + Conversion cable by Hitachi IES Co., Ltd. EH-RS05(0.5m)	Remarks Cable length: 15m or less
ST (COM1) IPC ^{*2} PC/AT	3C	User-created cable 1 + Conversion cable by Hitachi IES Co., Ltd. EH-RS05(0.5m)	
3		User-created cable 2 + Conversion cable by Hitachi IES Co., Ltd. EH-RS05(0.5m)	-
	3E	User-created cable + By Hitachi IES Co., Ltd. EH-VCB02(2m)	
GP-4105 (COM1)	3F	User-created cable 1 + Conversion cable by Hitachi IES Co., Ltd. EH-RS05(0.5m)	
	3G	User-created cable 2 + Conversion cable by Hitachi IES Co., Ltd. EH-RS05(0.5m)	

*1 You need to change the wiring depending on the speed.

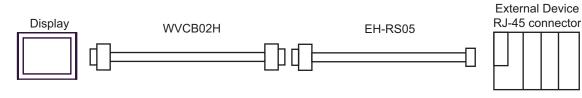
	EH-150		
	Speed	Wiring	
Peripheral Port 1 or Serial Port 1	4800bps 9600bps 19200bps 38400bps	3A, 3B 3C, 3D 3E, 3F 3G	
Peripheral Port 2 or	4800bps 9600bps	3A, 3C 3E, 3F	
Serial Port 2	19200bps 38400bps	3B, 3D 3G	

Only the COM port which can communicate by RS-232C can be used. ☞ ■ IPC COM Port (page 8) *2

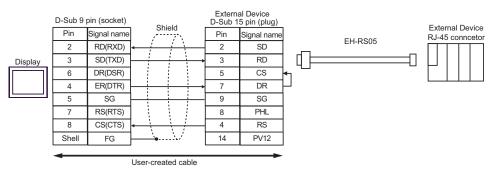
3A)



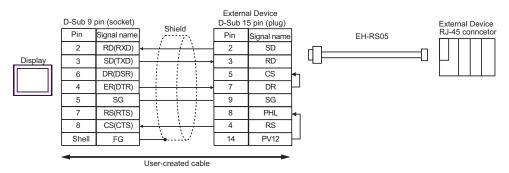
3B)

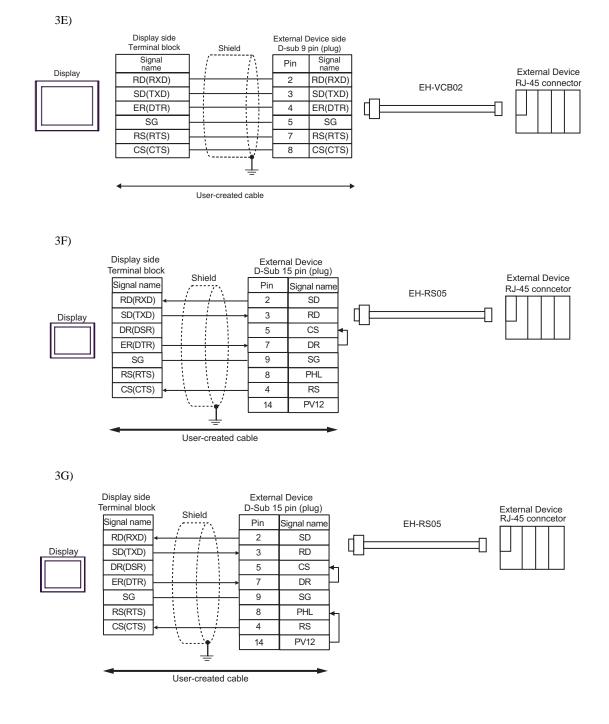


3C)



3D)





Cable Diagram 4

Display (Connection Port)		Cable	Remarks
GP3000 ^{*1} (COM1) AGP-3302B (COM2) ST ^{*2} (COM2) IPC ^{*3}		COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Conversion cable by Hitachi IES Co., Ltd. EH-RS05	
	4B	User-created cable + Conversion cable by Hitachi IES Co., Ltd. EH-RS05	
GP3000 ^{*4} (COM2)	4C Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Conversion cable by Hitachi IES Co., Ltd. EH-RS05		Cable length: 500m or less
	4D	Online adapter by Pro-face CA4-ADPONL-01 + User-created cable + Conversion cable by Hitachi IES Co., Ltd. EH-RS05	
GP-4106 (COM1)	4E User-created cable + Conversion cable by Hitachi IES Co., Ltd. EH-RS05		

*1 All GP3000 models except AGP-3302B

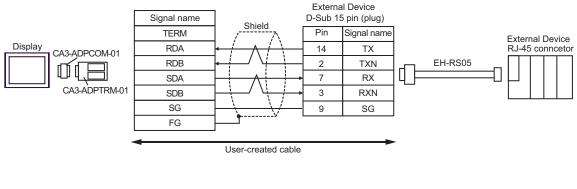
*2 All ST models except AST-3211A and AST-3302B

*3 Only the COM port which can communicate by RS-422/485 (4 wire) can be used. ☞ ■ IPC COM Port (page 8)

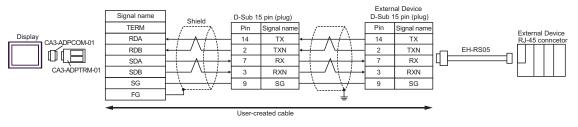
*4 All GP3000 models except GP-3200 series and AGP-3302B

4A)

• 1:1 Connection

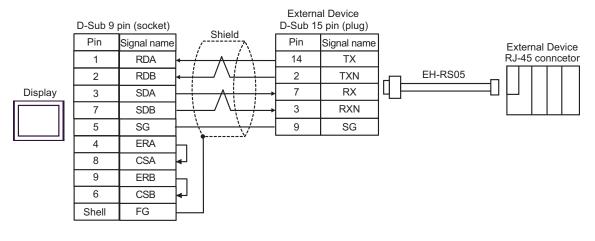


• 1:n Connection

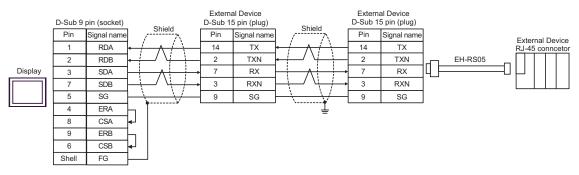


4B)

• 1:1 Connection

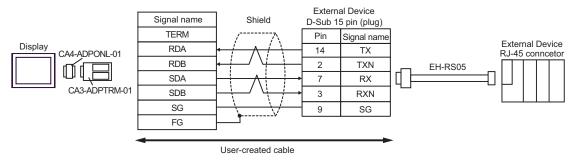


• 1:n Connection

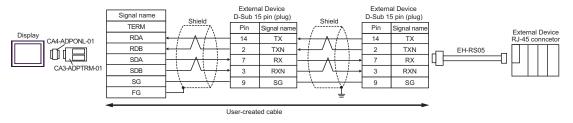


4C)

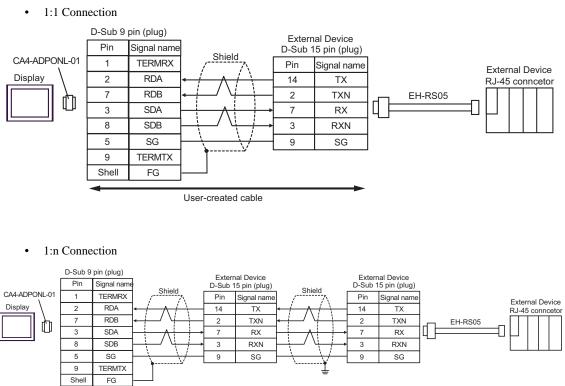
• 1:1 Connection



• 1:n Connection



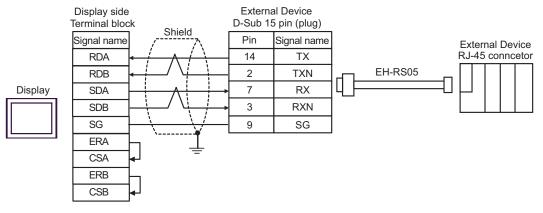
4D)



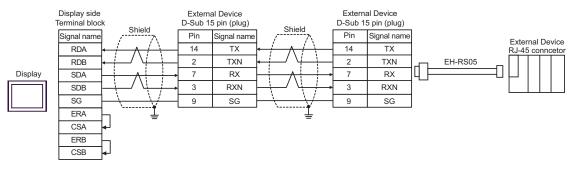
User-created cable

4E)

• 1:1 Connection



• 1:n Connection



Cable Diagram 5

Display (Connection Port)		Cable	Remarks
GP3000 ^{*1} (COM1) AGP-3302B (COM2) ST ^{*2} (COM2)	5A	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable + Conversion cable by Hitachi IES Co., Ltd. EH-RS05	
	5B	User-created cable + Conversion cable by Hitachi IES Co., Ltd. EH-RS05	
GP3000 ^{*3} (COM2)	5C	Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable + Conversion cable by Hitachi IES Co., Ltd. EH-RS05	
	5D	Online adapter by Pro-face CA4-ADPONL-01 + User-created cable + Conversion cable by Hitachi IES Co., Ltd. EH-RS05	Cable length: 500m or less
IPC*4	5E	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable + Conversion cable by Hitachi IES Co., Ltd. EH-RS05	
	5F	User-created cable + Conversion cable by Hitachi IES Co., Ltd. EH-RS05	
GP-4106 (COM1)	5G	User-created cable + Conversion cable by Hitachi IES Co., Ltd. EH-RS05	

Display (Connection Port)		Cable	Remarks
GP-4107 (COM1)	5H	User-created cable + Conversion cable by Hitachi IES Co., Ltd. EH-RS05	Cable length: 500m or less

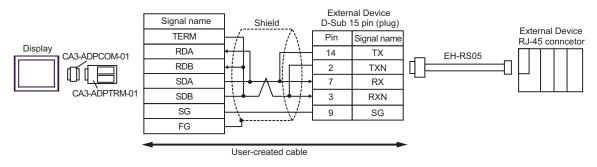
*1 All GP3000 models except AGP-3302B

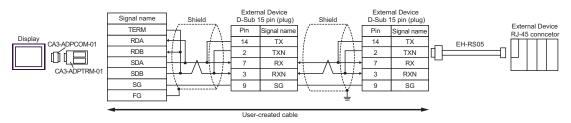
*2 All ST models except AST-3211A and AST-3302B

- *3 All GP3000 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. ⁽³⁷⁾ ■ IPC COM Port (page 8)

5A)

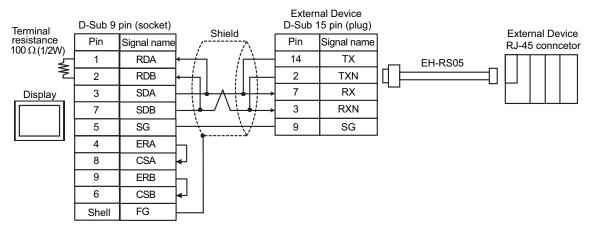
• 1:1 Connection



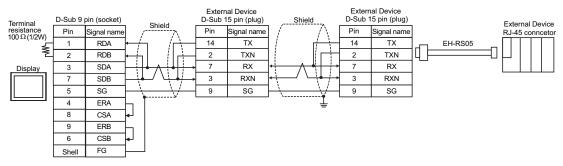


5B)

1:1 Connection

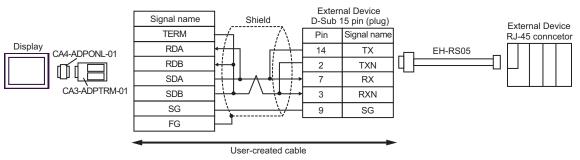


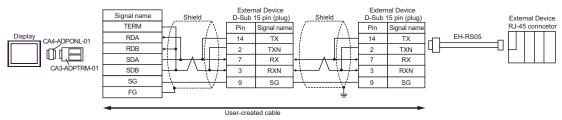
• 1:n Connection



5C)

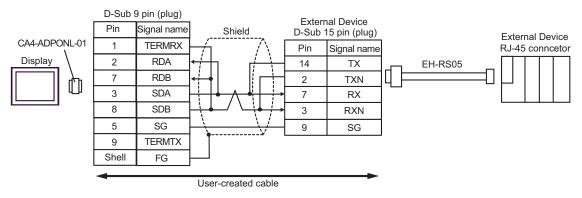
• 1:1 Connection



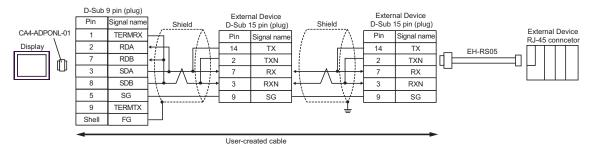


5D)

1:1 Connection

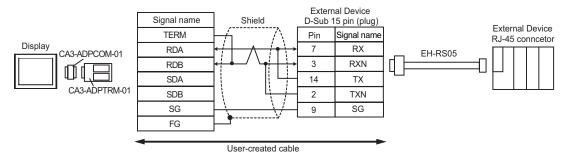


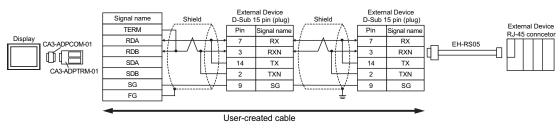
• 1:n Connection



5E)

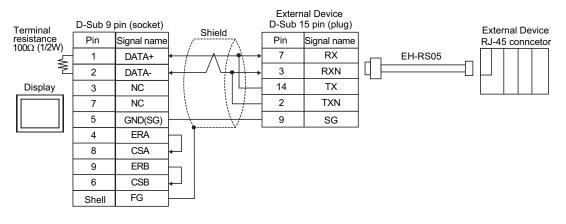
• 1:1 Connection

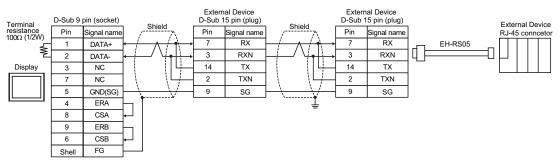




5F)

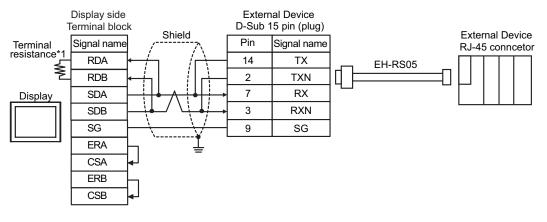
• 1:1 Connection



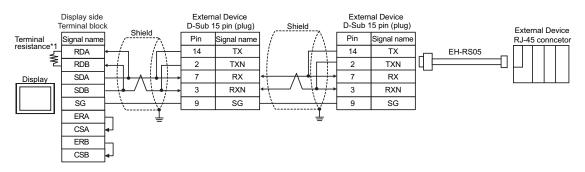


5G)

• 1:1 Connection



• 1:n Connection

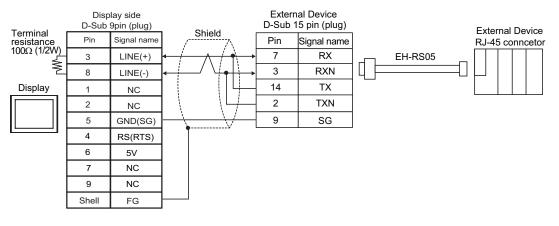


*1 The resistance in the Display is used as the termination resistance. Set the value of the DIP Switch on the rear of the Display as shown in the table below.

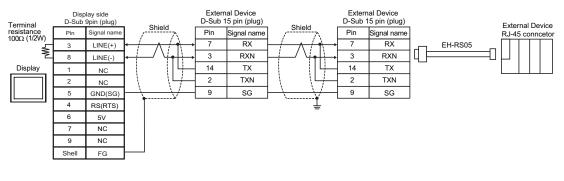
DIP Switch No.	Set Value
1	OFF
2	OFF
3	ON
4	ON

5H)

• 1:1 Connection



• 1:n Connection



IMPORTANT •	The 5V output (Pin #6) on the GP-4107 is the power for the Siemens AG's
	PROFIBUS connector. Do not use it for other devices.

NOTE	

• In COM on the GP-4107, the SG and FG terminals are isolated.

Cable Diagram 6

Display (Connection Port)		Cable	Remarks
GP3000 ^{*1} (COM1) AGP-3302B (COM2) ST ^{*2} (COM2) IPC ^{*3}	6A	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	
	6B	User-created cable	
GP3000 ^{*4} (COM2)	6C	Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	Cable length: 500m or less
6E		Online adapter by Pro-face CA4-ADPONL-01 + User-created cable	
GP-4106 (COM1)	6E	User-created cable	

*1 All GP3000 models except AGP-3302B

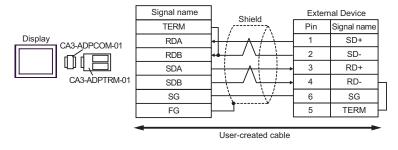
*2 All ST models except AST-3211A and AST-3302B

*3 Only the COM port which can communicate by RS-422/485 (4 wire) can be used. ☞ ■ IPC COM Port (page 8)

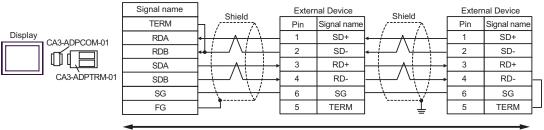
*4 All GP3000 models except GP-3200 series and AGP-3302B

6A)

• 1:1 Connection



• 1:n Connection



User-created cable

6B)

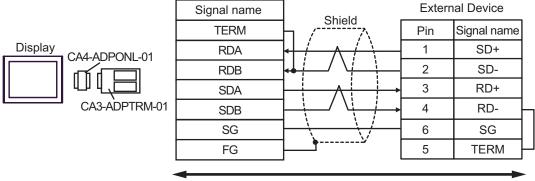
• 1:1 Connection

Terminal	D-Sub 9	pin (socket)	Shield	nal Device	
resistance 100 Ω (1/2W)	resistance Pin Signal name			Pin	Signal name
` í	1	RDA	\leftarrow / \land / \land	1	SD+
Ŵ	2	RDB		2	SD-
Display	3	SDA	$ \land $	3	RD+
	7	SDB		4	RD-
	5	SG	$- \setminus - \vee -$	6	SG
	4	ERA	•••••	5	TERM
	8	CSA	↓		
	9	ERB			
	6	CSB	↓		
	Shell	FG			

Terminal	D-Sub 9	pin (socket)	n Shield	Exterr	nal Device	n Shield	Exteri	nal Device
resistance 100 Ω (1/2W)	Pin	Signal name		Pin	Signal name		Pin	Signal name
) í	1	RDA	$ \leftarrow \land \land \land \leftarrow$	1	SD+	$ + \wedge / $	1	SD+
ž	2	RDB		2	SD-		2	SD-
Display	3	SDA		3	RD+		3	RD+
	7	SDB	$ - -/ \vee - \rightarrow$	4	RD-		4	RD-
	5	SG	$\vdash \setminus - \setminus / -$	6	SG	$\vdash \bigvee \vdash$	6	SG
	4	ERA	h •	5	TERM		5	TERM
	8	CSA	┝┛			-		
	9	ERB	h l					
	6	CSB	₄」					
	Shell	FG	J					

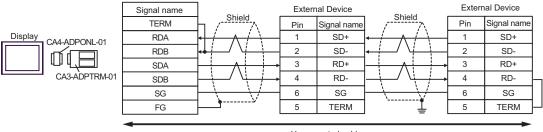
6C)

• 1:1 Connection



User-created cable

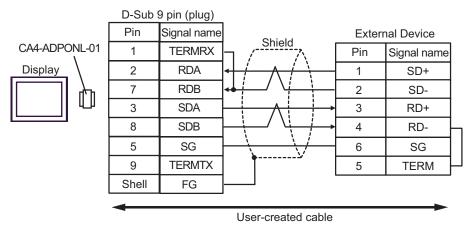
• 1:n Connection

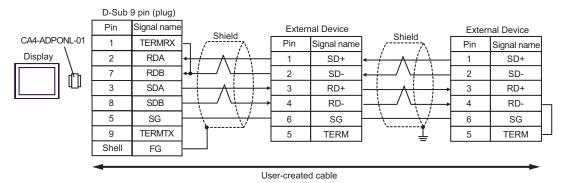


User-created cable

6D)

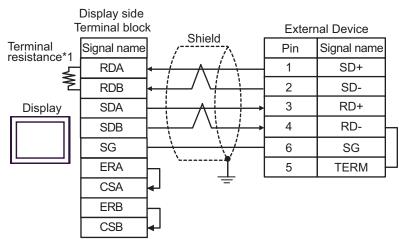
• 1:1 Connection



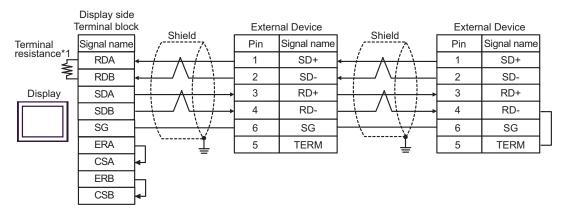


6E)

• 1:1 Connection



• 1:n Connection



*1 The resistance in the Display is used as the termination resistance. Set the value of the DIP Switch on the rear of the Display as shown in the table below.

DIP Switch No.	Set Value
1	OFF
2	OFF
3	ON
4	ON

Cable Diagram 7

Display (Connection Port)		Cable	Remarks		
GP3000 ^{*1} (COM1) AGP-3302B (COM2) ST ^{*2} (COM2)	7A	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable			
	7B	User-created cable			
GP3000 ^{*3} (COM2)	7C 7D	Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable Online adapter by Pro-face CA4-ADPONL-01 + User-created cable	Cable length: 500m or less		
IPC*4 71		COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable User-created cable			
GP-4106 (COM1)	7G	User-created cable			
GP-4107 (COM1)	7H	User-created cable			

*1 All GP3000 models except AGP-3302B

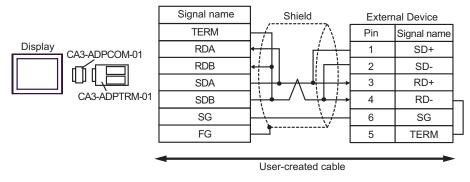
*2 All ST models except AST-3211A and AST-3302B

*3 All GP3000 models except GP-3200 series and AGP-3302B

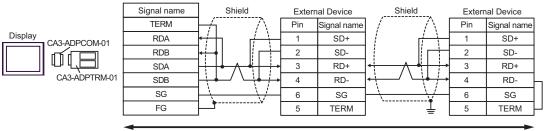
*4 Only the COM port which can communicate by RS-422/485 (2 wire) can be used. ☞ ■ IPC COM Port (page 8)

7A)

• 1:1 Connection



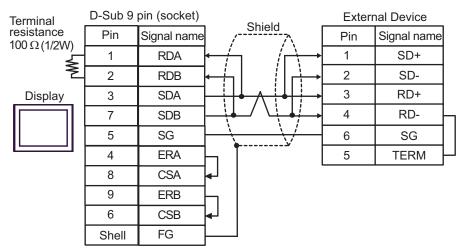
• 1:n Connection

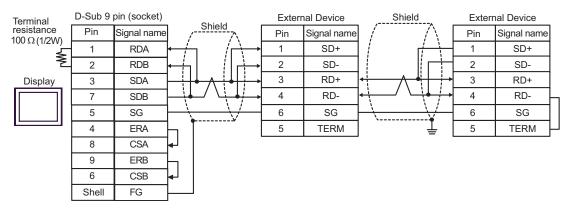


User-created cable

7B)

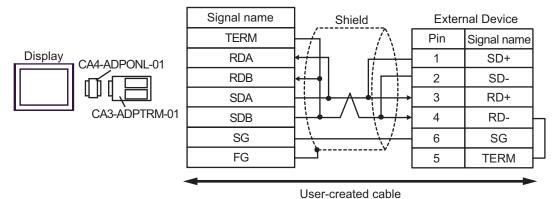
• 1:1 Connection



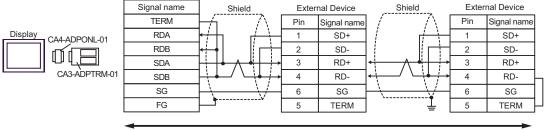


7C)

• 1:1 Connection



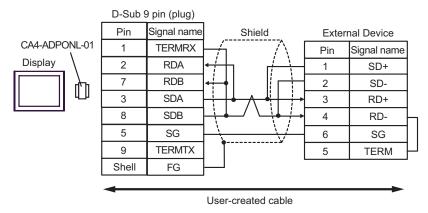
• 1:n Connection



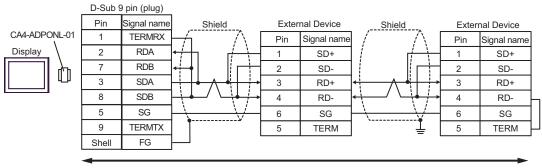
User-created cable

7D)

• 1:1 Connection



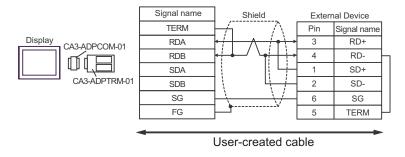
• 1:n Connection

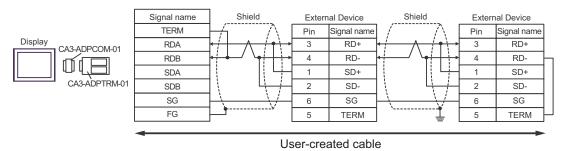


User-created cable

7E)

• 1:1 Connection

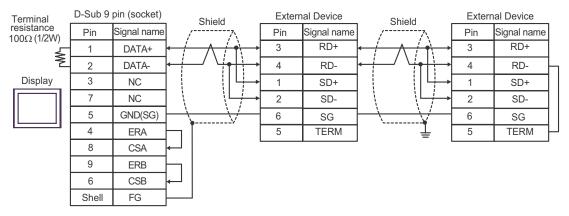




7F)

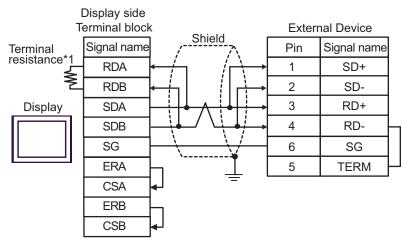
• 1:1 Connection

Terminal	D-Sub 9	pin (socket)		External Device			
resistance 100Ω (1/2W)	Pin	Signal name	Shield	Pin	Signal name		
_ز ·	1	DATA+	$\leftarrow / \land / \rightarrow \rightarrow$	3	RD+		
₹_	2	DATA-	< <u>├</u> / \ <u></u>	4	RD-		
Display	3	NC		1	SD+		
	7	NC		2	SD-		
	5	GND(SG)		6	SG		
	4	ERA		5	TERM		
	8	CSA					
	9	ERB					
	6	CSB	←				
	Shell	FG					

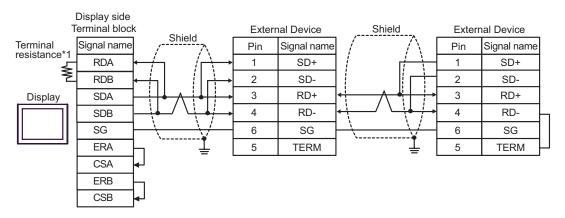


7G)

• 1:1 Connection



• 1:n Connection



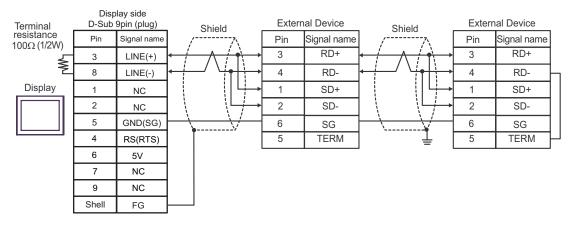
*1 The resistance in the Display is used as the termination resistance. Set the value of the DIP Switch on the rear of the Display as shown in the table below.

DIP Switch No.	Set Value
1	OFF
2	OFF
3	ON
4	ON

7H)

• 1:1 Connection

Terminal		lay side 9pin (plug)		External Device			
resistance 100Ω (1/2W)	Pin	Signal name		Pin	Signal name		
	3	LINE(+)	<u>← / </u>	→ 3 RD+			
Ž	8	LINE(-)	┥╶┊ ──╱ ╰┊ ╕ ╎┊─→	4	RD-		
Display	1	NC			SD+		
	2	NC		2	SD-		
	5	GND(SG)		6	SG		
	4	RS(RTS)		5	TERM		
	6	5V					
	7	NC					
	9	NC					
	Shell	FG					



IMPORTANT	The 5V output (Pin #6) on the GP-4107 is the power for the Siemens AG's PROFIBUS connector. Do not use it for other devices.
NOTE	• In COM on the GP-4107, the SG and FG terminals are isolated.

Cable Diagram 8

Display (Connection Port)		Cable	Remarks		
GP3000 ^{*1} (COM1) AGP-3302B (COM2) ST ^{*2} (COM2) IPC ^{*3}	8A	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable			
	8B	User-created cable			
GP3000 ^{*4} (COM2)	8C	Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	Cable length: 250m or less		
	8D	Online adapter by Pro-face CA4-ADPONL-01 + User-created cable			
GP-4106 (COM1)	8E	User-created cable			

*1 All GP3000 models except AGP-3302B

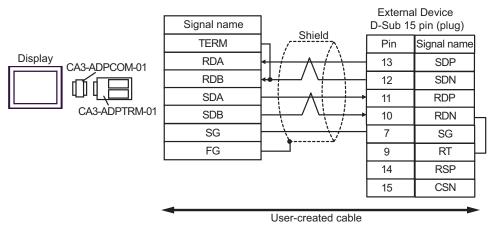
*2 All ST models except AST-3211A and AST-3302B

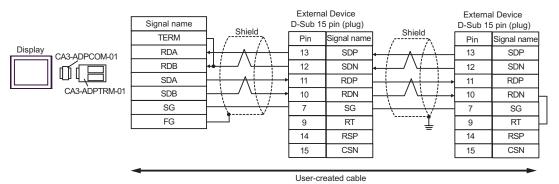
*3 Only the COM port which can communicate by RS-422/485 (4 wire) can be used. ☞ ■ IPC COM Port (page 8)

*4 All GP3000 models except GP-3200 series and AGP-3302B

8A)

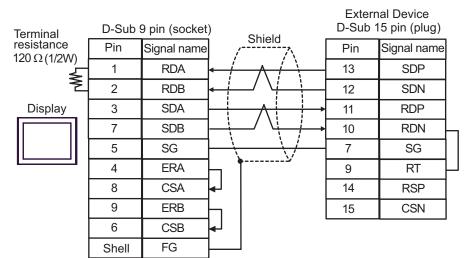
• 1:1 Connection





8B)

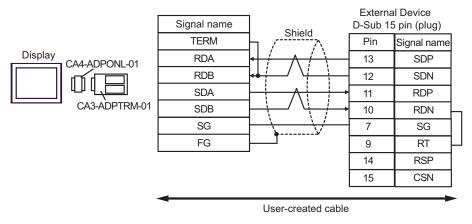
• 1:1 Connection

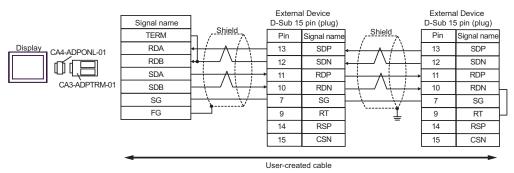


Terminal	D-Sub 9 pin (socket)			External Device D-Sub 15 pin (plug)					External Device D-Sub 15 pin (plug)		
resistance 120 Ω (1/2W)	Pin	Signal name	Shield	Pin	Signal name	Shield	Pin	Signal name			
	1	RDA	┝─┼	$+ \wedge + +$	13	SDP		13	SDP		
×.	2	RDB	┝┼	_/ \{	12	SDN		12	SDN		
Display	3	SDA	\vdash	\land	11	RDP	$ \rightarrow $	11	RDP		
	7	SDB	\vdash		10	RDN		10	RDN		
	5	SG	\vdash		7	SG		7	SG		
	4	ERA	Ъ		9	RT		9	RT		
	8	CSA	┢┙		14	RSP	_	14	RSP		
	9	ERB	Ь		15	CSN		15	CSN		
	6	CSB	┝┛								
	Shell	FG	<u> </u>								

8C)

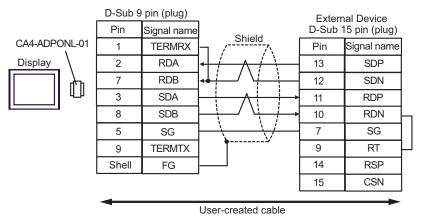
• 1:1 Connection

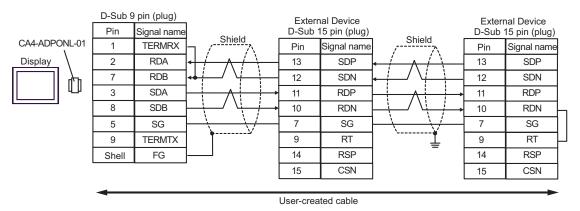




8D)

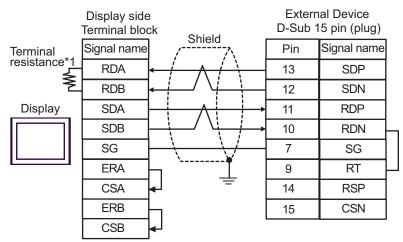
• 1:1 Connection



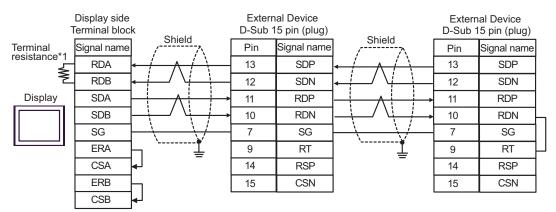


8E)

• 1:1 Connection



• 1:n Connection



*1 The resistance in the Display is used as the termination resistance. Set the value of the DIP Switch on the rear of the Display as shown in the table below.

DIP Switch No.	Set Value
1	OFF
2	OFF
3	ON
4	ON

Cable Diagram 9

Display (Connection Port)		Cable	Remarks
GP3000 ^{*1} (COM1) AGP-3302B (COM2) ST ^{*2} (COM2)	9A	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	
	9B	User-created cable	
GP3000 ^{*3} (COM2)	9C 9D	Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable Online adapter by Pro-face CA4-ADPONL-01 + User-created cable	Cable length: 250m or less
IPC*4	9E 9F	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable User-created cable	
GP-4106 (COM1)	9G	User-created cable	
GP-4107 (COM1)	9H	User-created cable	

*1 All GP3000 models except AGP-3302B

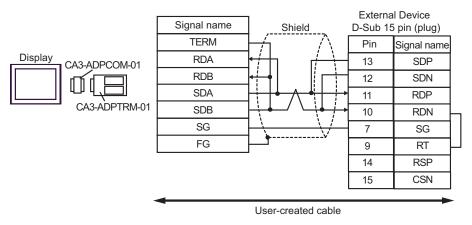
*2 All ST models except AST-3211A and AST-3302B

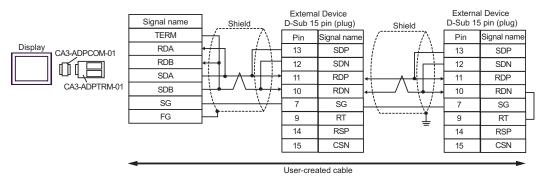
*3 All GP3000 models except GP-3200 series and AGP-3302B

*4 Only the COM port which can communicate by RS-422/485 (2 wire) can be used. ☞ ■ IPC COM Port (page 8)

9A)

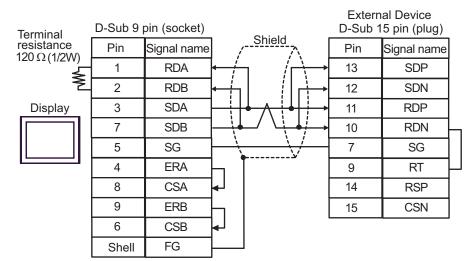
• 1:1 Connection

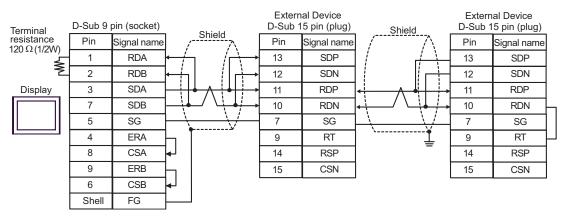




9B)

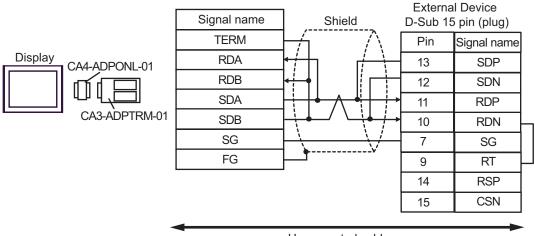
• 1:1 Connection





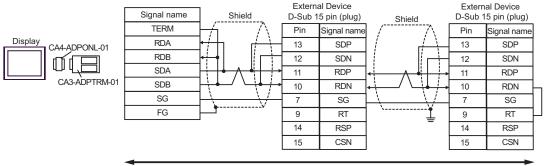
9C)

• 1:1 Connection



User-created cable

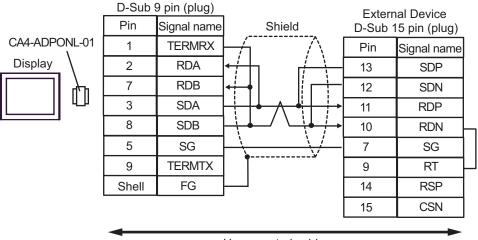
• 1:n Connection



User-created cable

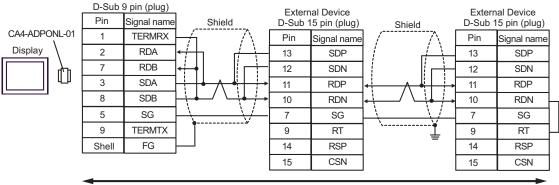
9D)

• 1:1 Connection



User-created cable

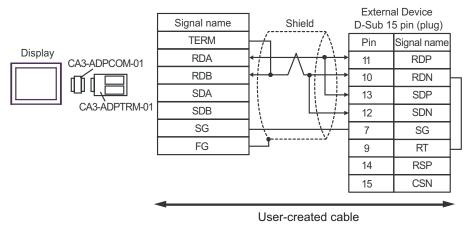
• 1:n Connection

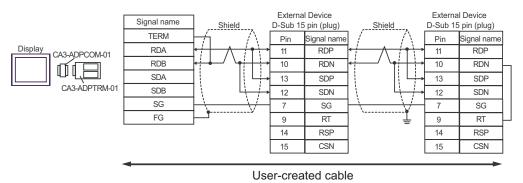


User-created cable

9E)

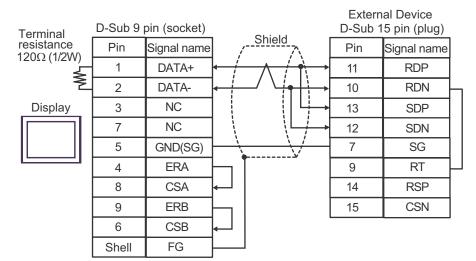
• 1:1 Connection

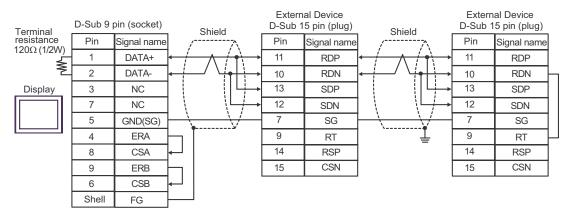




9F)

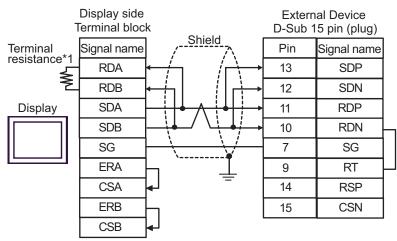
• 1:1 Connection



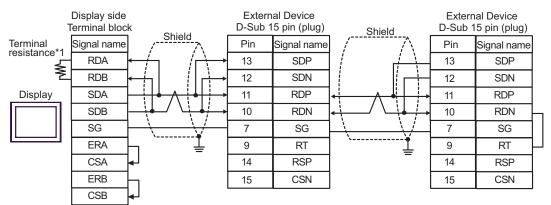


9G)

• 1:1 Connection



• 1:n Connection

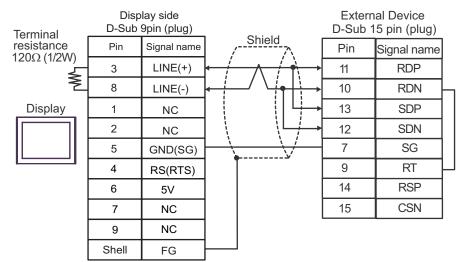


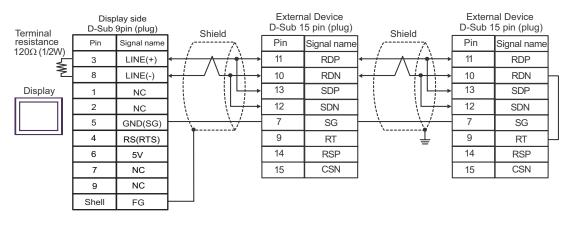
*1 The resistance in the Display is used as the termination resistance. Set the value of the DIP Switch on the rear of the Display as shown in the table below.

DIP Switch No.	Set Value
1	OFF
2	OFF
3	ON
4	ON

9H)

1:1 Connection





IMPORTANT	The 5V output (Pin #6) on the GP-4107 is the power for the Siemens AG's PROFIBUS connector. Do not use it for other devices.
NOTE	In COM on the GP-4107, the SG and FG terminals are isolated.

Cable Diagram 10

Display (Connection Port)		Cable	Remarks
GP3000 ^{*1} (COM1) AGP-3302B (COM2) ST ^{*2} (COM2) IPC ^{*3}	10A	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	
	10B	User-created cable	
GP3000 ^{*4} (COM2)	10C	Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	Cable length: 500m or less
	10D	Online adapter by Pro-face CA4-ADPONL-01 + User-created cable	
GP-4106 (COM1)	10E	User-created cable	

*1 All GP3000 models except AGP-3302B

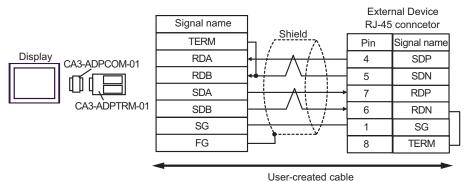
*2 All ST models except AST-3211A and AST-3302B

*3 Only the COM port which can communicate by RS-422/485 (4 wire) can be used. ☞ ■ IPC COM Port (page 8)

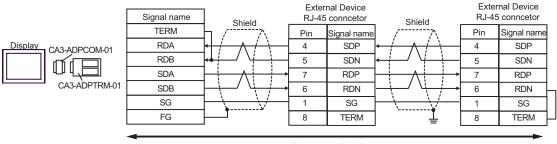
*4 All GP3000 models except GP-3200 series and AGP-3302B

10A)

• 1:1 Connection



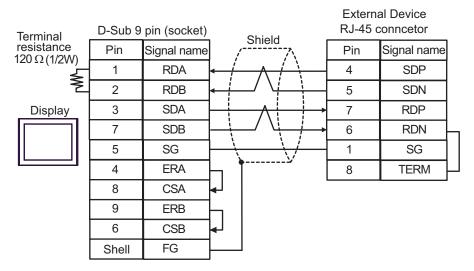
• 1:n Connection



User-created cable

10B)

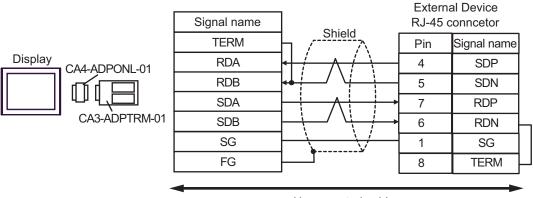
• 1:1 Connection



Terminal	D-Sub 9	pin (socket)	Shield		al Device conncetor	Shield		al Device conncetor
resistance 120 Ω (1/2W)	Pin	Signal name		Pin	Signal name		Pin	Signal name
` É	1	RDA	$ \leftarrow \land \land \land \leftarrow$	4	SDP	$ \land \land \land \land$	4	SDP
Ŵ	2	RDB	┝╍┟╌┙╵┟╴┼╴	5	SDN		5	SDN
Display	3	SDA		7	RDP		7	RDP
	7	SDB	<u> </u>	6	RDN		6	RDN
	5	SG	$\vdash \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	1	SG		1	SG
	4	ERA		8	TERM	Ŧ	8	TERM
	8	CSA	₄」					
	9	ERB						
	6	CSB	₄」					
	Shell	FG	<u> </u>					

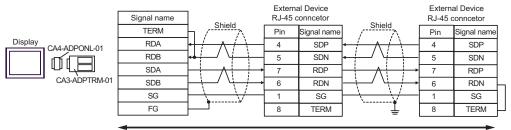
10C)

• 1:1 Connection



User-created cable

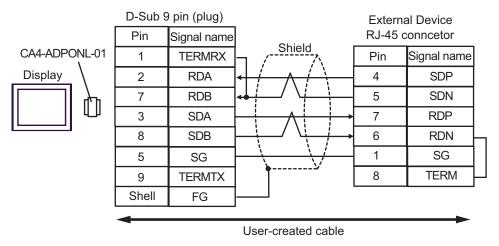
• 1:n Connection



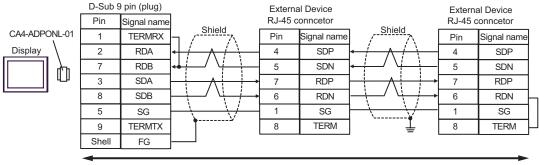
User-created cable

10D)

• 1:1 Connection



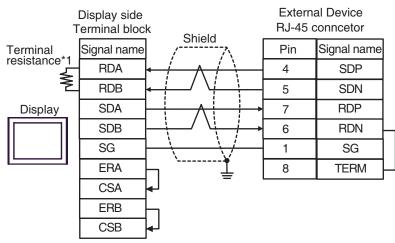
• 1:n Connection



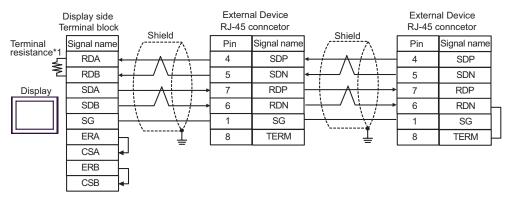
User-created cable

10E)

• 1:1 Connection



• 1:n Connection



*1 The resistance in the Display is used as the termination resistance. Set the value of the DIP Switch on the rear of the Display as shown in the table below.

DIP Switch No.	Set Value
1	OFF
2	OFF
3	ON
4	ON

Cable Diagram 11

Display (Connection Port)	Cable		Remarks
GP3000 ^{*1} (COM1) AGP-3302B (COM2) ST ^{*2} (COM2)	11A	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	
	11B	User-created cable	
GP3000 ^{*3} (COM2)	11C	CA3-ADPTRM-01 + User-created cable	
	11D	Online adapter by Pro-face CA4-ADPONL-01 + User-created cable	Cable length: 500m or less
IPC ^{*4}	11E	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	
	11F User-created cable		
GP-4106 (COM1)	11G	User-created cable	
GP-4107 (COM1)	11H	User-created cable	

*1 All GP3000 models except AGP-3302B

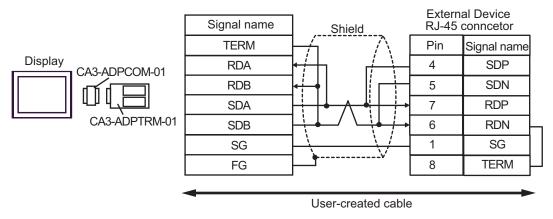
*2 All ST models except AST-3211A and AST-3302B

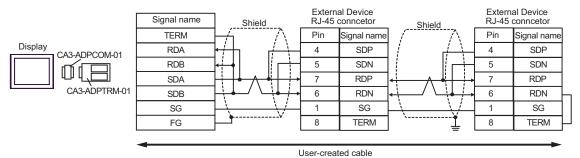
*3 All GP3000 models except GP-3200 series and AGP-3302B

*4 Only the COM port which can communicate by RS-422/485 (2 wire) can be used. ☞ ■ IPC COM Port (page 8)

11A)

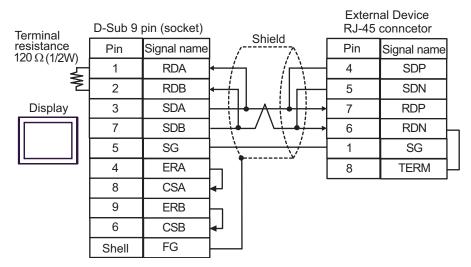
• 1:1 Connection

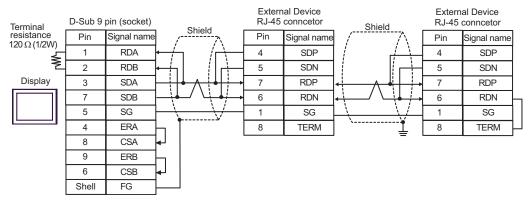




11B)

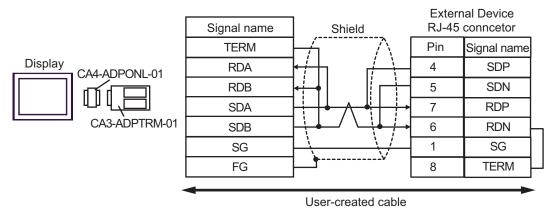
• 1:1 Connection

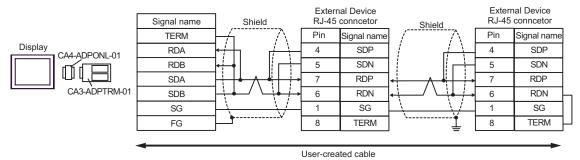




11C)

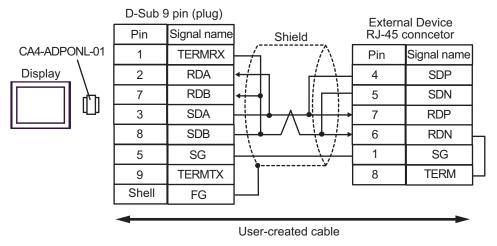
• 1:1 Connection



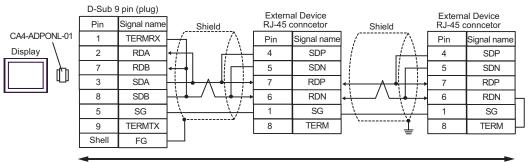


11D)

• 1:1 Connection



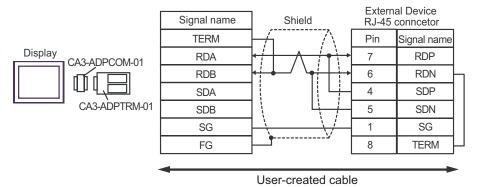
• 1:n Connection



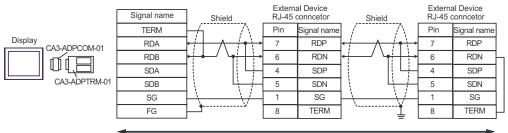
User-created cable

11E)

• 1:1 Connection



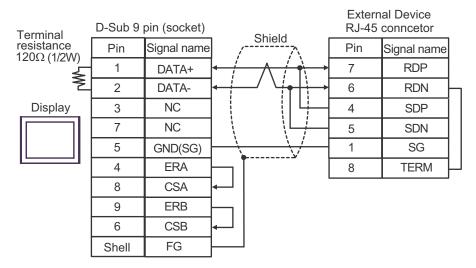
• 1:n Connection

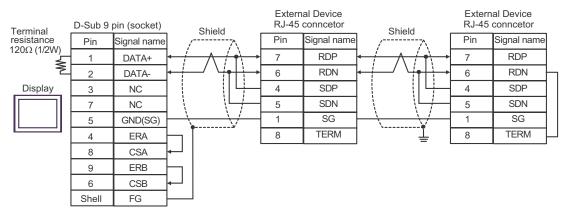


User-created cable

11F)

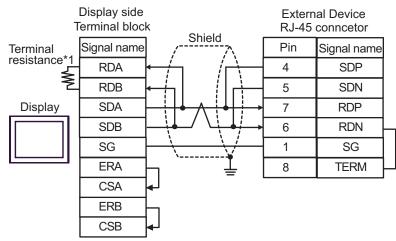
• 1:1 Connection



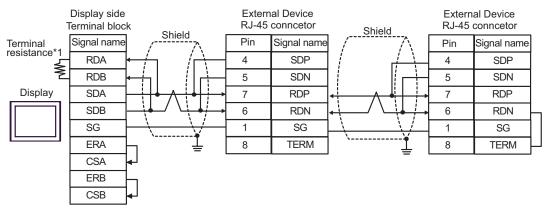


11G)

1:1 Connection



• 1:n Connection

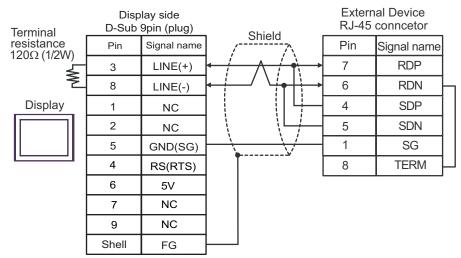


*1 The resistance in the Display is used as the termination resistance. Set the value of the DIP Switch on the rear of the Display as shown in the table below.

DIP Switch No.	Set Value
1	OFF
2	OFF
3	ON
4	ON

11H)

• 1:1 Connection



• 1:n Connection

Terminal		olay side 9pin (plug)	Shield		nal Device conncetor	Shield		nal Device conncetor
resistance	Pin	Signal name		Pin	Signal name		Pin	Signal name
120Ω (1/2W) 丢	3	LINE(+)	$ \vdash / \land / \uparrow \rightarrow $	7	RDP		7	RDP
N.	8	LINE(-)	┝╶┼──╯╰┼ャ┼┼→	6	RDN	┥ ┤┤┤	6	RDN
Display	1	NC	1 -	4	SDP		4	SDP
	2	NC] \ _ \	5	SDN		5	SDN
	5	GND(SG)		1	SG		1	SG
	4	RS(RTS)		8	TERM	<u> </u>	8	TERM
	6	5V						
	7	NC						
	9	NC						
	Shell	FG	<u> </u>					

IMPORTANT •	The 5V output (Pin #6) on the GP-4107 is the power for the Siemens AG's
	PROFIBUS connector. Do not use it for other devices.

NOTE

• In COM on the GP-4107, the SG and FG terminals are isolated.

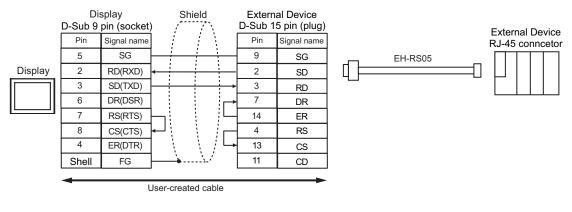
Cable Diagram 12

Display (Connection Port)	Cable		Remarks
GP3000 (COM1) ST (COM1) IPC ^{*1} PC/AT	12A	User-created cable + Conversion cable by Hitachi IES Co., Ltd. EH-RS05(0.5m)	Cable length:
GP-4105 (COM1)	12B	User-created cable + Conversion cable by Hitachi IES Co., Ltd. EH-RS05(0.5m)	15m or less

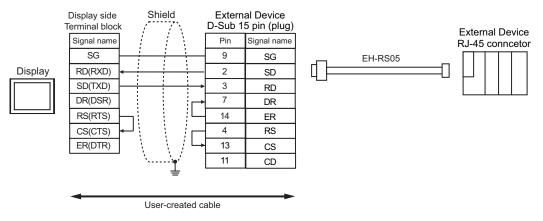
*1 Only the COM port which can communicate by RS-232C can be used.

IPC COM Port (page 8)

12A)



12B)



Cable Diagram 13

Display (Connection Port)		Cable	Remarks
GP3000 ^{*1} (COM1) AGP-3302B (COM2) ST ^{*2} (COM2) IPC ^{*3}	13A	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	
	13B	User-created cable	
GP3000 ^{*4} (COM2)	13C	Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	Cable length: 500m or less
	13D	Online adapter by Pro-face CA4-ADPONL-01 + User-created cable	
GP-4106 (COM1)	13E	User-created cable	

*1 All GP3000 models except AGP-3302B

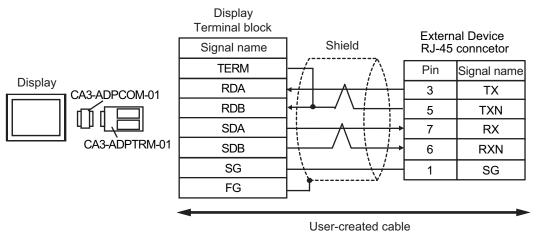
*2 All ST models except AST-3211A and AST-3302B

*3 Only the COM port which can communicate by RS-422/485 (4 wire) can be used. ☞ ■ IPC COM Port (page 8)

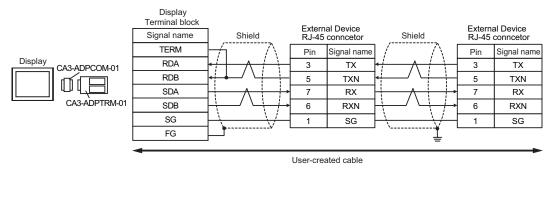
*4 All GP3000 models except GP-3200 series and AGP-3302B

13A)

• 1:1 Connection



• 1:n Connection



NOTE

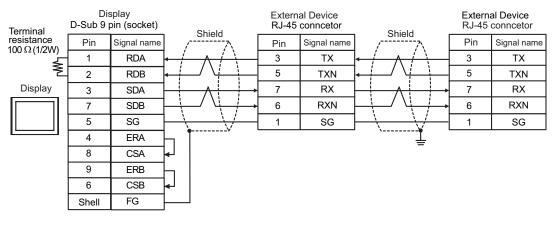
Please turn on the DIP Switch 1 to enable build-in resistance(100Ω) on the remotest External Device side.

13B)

• 1:1 Connection

Terminal	Display D-Sub 9 pin (socket)		Shield	External Device RJ-45 conncetor	
resistance 100 Ω (1/2W) Display	Pin	Signal name		Pin	Signal name
	1	RDA		3	TX
	2	RDB		5	TXN
	3	SDA	\land	7	RX
	7	SDB		6	RXN
	5	SG		1	SG
	4	ERA	•*		
	8	CSA	↓		
	9	ERB			
	6	CSB	↓		
	Shell	FG			

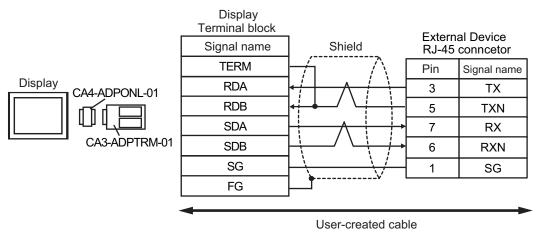
• 1:n Connection



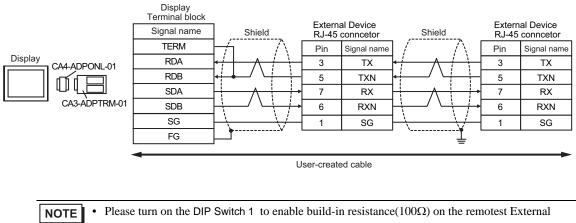
NOTE • Please turn on the DIP Switch 1 to enable build-in resistance(100 Ω) on the remotest External Device side.

13C)

• 1:1 Connection



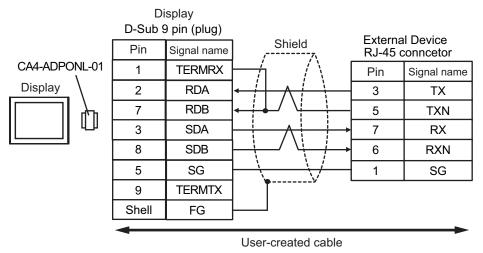
• 1:n Connection



Device side.

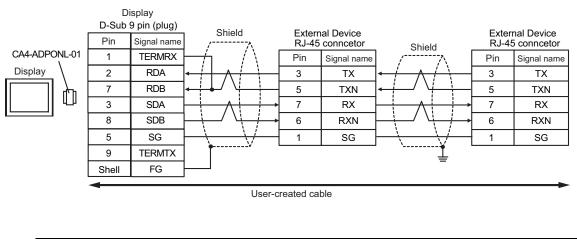
13D)

• 1:1 Connection



• 1:n Connection

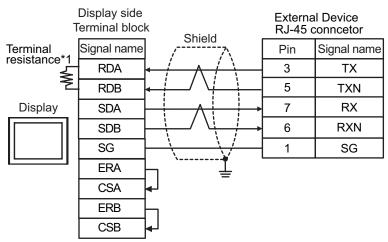
NOTE



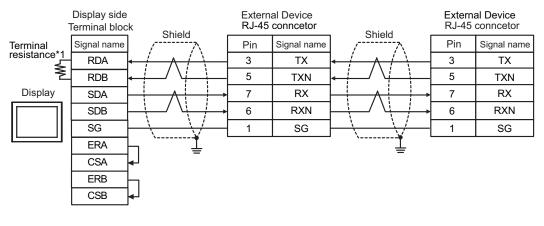
• Please turn on the DIP Switch 1 to enable build-in resistance(100Ω) on the remotest External Device side.

13E)

1:1 Connection



• 1:n Connection



NOTE

Please turn on the DIP Switch 1 to enable build-in resistance(100 Ω) on the remotest External Device side.

*1 The resistance in the Display is used as the termination resistance. Set the value of the DIP Switch on the rear of the Display as shown in the table below.

DIP Switch No.	Set Value
1	OFF
2	OFF
3	ON
4	ON

Cable Diagram 14

Display (Connection Port)	Cable		Remarks
GP3000 ^{*1} (COM1) AGP-3302B (COM2) ST ^{*2} (COM2)	14A	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	
	14B	User-created cable	
GP3000 ^{*3} (COM2)	14C	Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable Online adapter by Pro-face CA4-ADPONL-01	Cable length: 500m or less
		User-created cable	
IPC ^{*4}	14E	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	
	14F	User-created cable	
GP-4106 (COM1)	14G	User-created cable	
GP-4107 (COM1)	14H	User-created cable	

*1 All GP3000 models except AGP-3302B

*2 All ST models except AST-3211A and AST-3302B

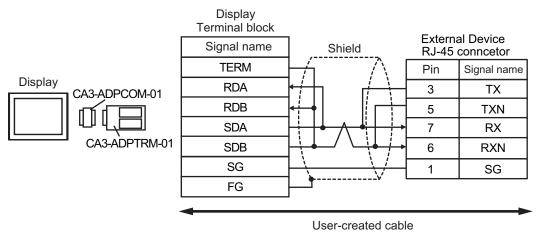
*3 All GP3000 models except GP-3200 series and AGP-3302B

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

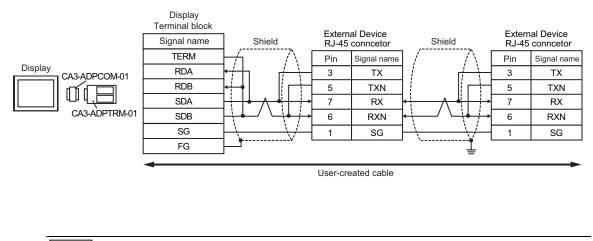
IPC COM Port (page 8)

14A)

• 1:1 Connection



• 1:n Connection



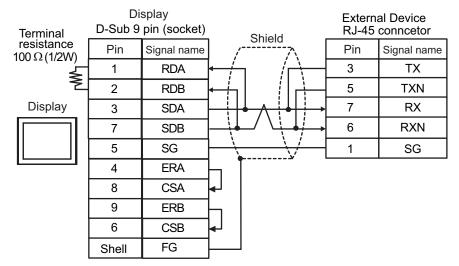
NOTE

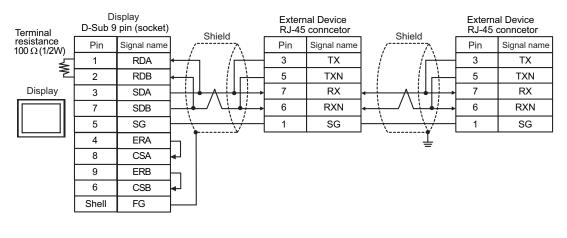
٠

Please turn on the DIP Switch 1 to enable build-in resistance(100 Ω) on the remotest External Device side.

14B)

1:1 Connection

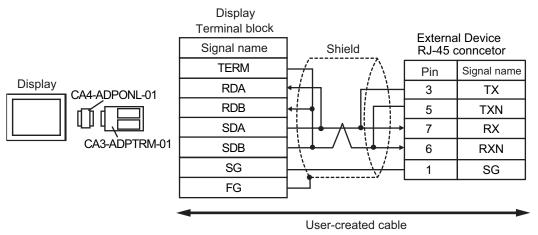




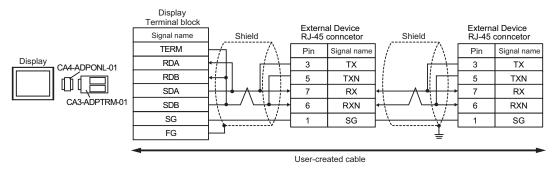
NOTE	Please turn on the DIP Switch 1 to enable build-in resistance(100Ω) on the remotest External
	Device side.

14C)

• 1:1 Connection



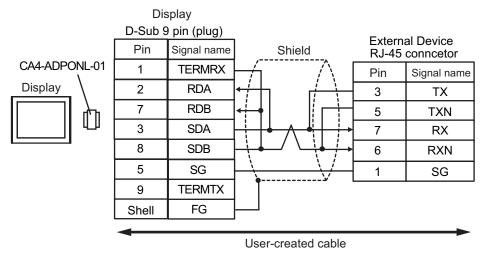
• 1:n Connection



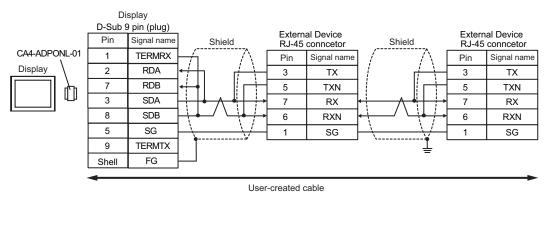
• Please turn on the DIP Switch 1 to enable build-in resistance(100Ω) on the remotest External Device side.

14D)

• 1:1 Connection



1:n Connection

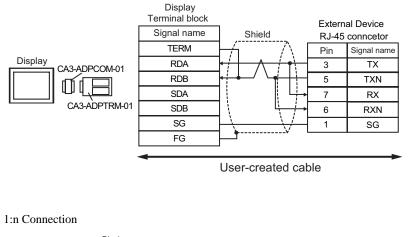


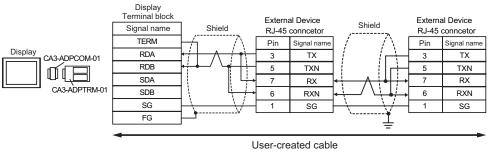
• Please turn on the DIP Switch 1 to enable build-in resistance(100 Ω) on the remotest External Device side.

14E)

•

• 1:1 Connection





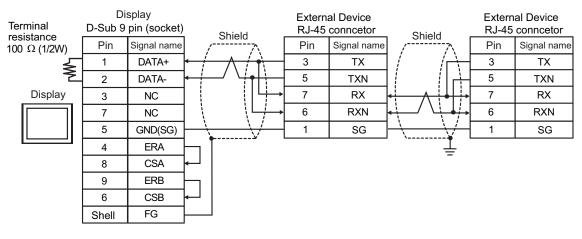
NOTE • Please turn on the DIP Switch 1 to enable build-in resistance(100Ω) on the remotest External Device side.

14F)

• 1:1 Connection

Terminal	Display D-Sub 9 pin (socket)		Shield		l Device conncetor
resistance 100 Ω (1/2W)	Pin	Signal name		Pin	Signal name
) í	1	DATA+		3	TX
n n n n n n n n n n n n n n n n n n n	2	DATA-	┝ <u></u> ╡──╯╰┤ ╿ ┤──	5	TXN
Display	3	NC	╽┊┊┊╎└┼→	7	RX
	7	NC	│	6	RXN
	5	GND(SG)	$\vdash \bigvee \vdash$	1	SG
	4	ERA			
	8	CSA	┝─┘│		
	9	ERB			
	6	CSB	┝╾┙╽		
	Shell	FG	 		

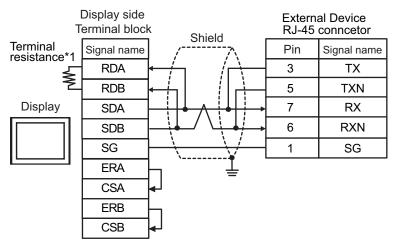
• 1:n Connection



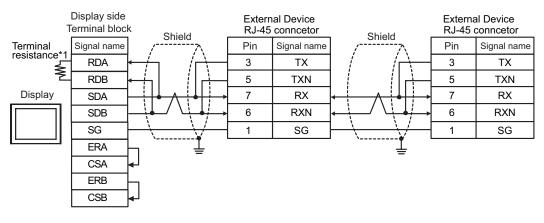
• Please turn on the DIP Switch 1 to enable build-in resistance(100 Ω) on the remotest External Device side.

14G)

• 1:1 Connection



• 1:n Connection



- Please turn on the DIP Switch 1 to enable build-in resistance(100 Ω) on the remotest External Device side.
- *1 The resistance in the Display is used as the termination resistance. Set the value of the DIP Switch on the rear of the Display as shown in the table below.

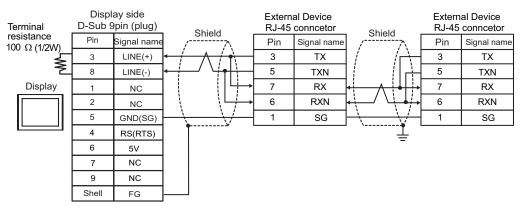
DIP Switch No.	Set Value
1	OFF
2	OFF
3	ON
4	ON

14H)

• 1:1 Connection

Terminal	Display side D-Sub 9pin (plug)		Shield	External Device RJ-45 conncetor			
resistance	Pin	Signal name		Pin	Signal name		
100 Ω (1/2W)	3	LINE(+)		3	TX		
×.	8	LINE(-)	╺╶┼──╯╰┼┳╎┼──	5	TXN		
Display	1	NC	┆╎└┼→	7	RX		
	2	NC	│	6	RXN		
	5	GND(SG)	$ \longrightarrow $	1	SG		
	4	RS(RTS)					
	6	5V					
	7	NC					
	9	NC					
	Shell	FG					

• 1:n Connection



 Please turn on the DIP Switch 1 to enable build-in resistance(100Ω) on the remotest External Device side. In COM on the GP-4107, the SG and FG terminals are isolated. 	IMPORTANT	•	The 5V output (Pin #6) on the GP-4107 is the power for the Siemens AG's PROFIBUS connector. Do not use it for other devices.
	NOTE		Device side.

6 Supported Device

Range of supported device address is shown in the table below.

6.1 H/EH-150/MICRO-EH Series

This address can be specified as system data area.

Device	Bit Address	Word Address	Double Word Address	32 bits	Remarks
External Input	X00000-X05A95	WX0000- WX05A7	DX0000-DX05A6		*1 *2
External Output	Y00000-Y05A95	WY0000- WY05A7	DY0000-DY05A6		*2
Remote Input Relay	X10000-X49995	WX1000-WX4997	DX1000-DX4996		*1 *3
Remote Output Relay	Y10000-Y49995	WY1000-WY4997	DY1000-DY4996		*3
Internal Output	R000-R7BF	-	-		
Special Internal Output	R7C0-R7FF	-	-		
Data Area	M0000-M3FFF	WM000-WM3FF	DM000-DM3FE		
First CPU Link	L00000-L03FFF	WL0000-WL03FF	DL0000-DL03FE		
Second CPU Link	L10000-L13FFF	WL1000-WL13FF	DL1000-DL13FE		
On Delay Timer	TD0000 -TD1023	-	-		
Single-shot Timer	SS0000-SS1023	-	-		
Watchdog Timer	WDT0000- WDT1023	-	-	[L/H]	
Mono Stable Timer	MS0000-MS1023	-	-		
Retentive Timer	TMR0000- TMR1023	-	-		
Up Counter	CU0000-CU2047	-	-		
Ring Counter	RCU0000- RCU2047	-	-		
Up-down Counter	CT0000-CT2047	-	-]	
Extended Timer	TM0000 - TM2047	-	-		
Timer Counter (Elapsed Value)	-	TC0000-TC2047	-		
Extended Timer (Elapsed Value)	-	TV0000 - TV2047	-		

continued to next page

Device	Bit Address	Word Address	Double Word Address	32 bits	Remarks
Word Internal Output	-	WR0000- WRC3FF	DR0000-DRC3FE		Bit F
Special Word Internal Output	-	WRF000- WRF1FF	DRF000-DRF1FE	(L/H)	<u>віt</u> F
Network Link Area	-	WN0000- WN7FFF	DN0000-DN7FFE		Bit F

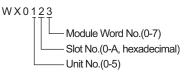
*1 Write disable

*2 Specify as shown below.

(Example) External input unit No.1, Slot No.2, Internal Module Bit No.34

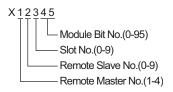


(Example) External input unit No.1, Slot No.2, Internal Module Word No.34

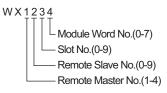


*3 Specify as shown below.

(Example) Remote External Input Remote Master No.1, Remote Slave No.2, Slot No.3, Internal Module Bit No.45



(Example) Remote External Input Remote Master No.1, Remote Slave No.2, Slot No.3, Internal Module Word No.4



NOTE

Available type and range of device vary depending on CPU. Be sure to check them in each CPU manual before using.

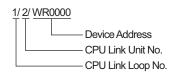
How to set address when using the CPU link

Set the check box of "Use CPU Link" to ON.

When using CPU Link, loop No. and unit No. are added to the address.

<i></i> Input Address (Wor	d)						>	۲
Device/PLC PLC1							•	
💌 Using CPU Link	WR		•	000)	_		
Loop No. Unit No.		Ba	ick			C	Clr	
1 = / 0 = /	А	В	С		7	8	9	
	D	Е	F		4	5	6	
					1	2	3	
					0	E	nt	

(Example) Loop No.1, Unit No.2



NOTE • Please refer to the GP-Pro EX Reference Manual for system data area.

Cf. GP-Pro EXReference Manual "LS Area (Direct Access Method)"

• Please refer to the precautions on manual notation for icons in the table.

⁽³⁷⁾ "Manual Symbols and Terminology"

6.2 Web Controller Series

This address can be specified as system data area.

Device	Bit Address	Word Address	Double Word Address	32 bit	Remarks
External Input	X0000-X0012 X1000-X1015 X2000-X2015 X3000-X3015 X4000-X4015	WX030-WX031 WX100-WX104 WX200-WX204 WX300-WX304 WX400-WX404	DX030 DX100-DX103 DX200-DX203 DX300-DX303 DX400-DX403		*1
External Output	Y0100-Y0109 Y1016-Y1031 Y2016-Y2031 Y3016-Y3031 Y4016-Y4031	WY40 WY105-WY107 WY205-WY207 WY305-WY307 WY405-WY407	DY105-DY106 DY205-DY206 DY305-DY306 DY405-DY406		
Internal Output	R000-R7BF	-	-		
Special Internal Output	R7C0-R7FF	-	-		
Data Area	M0000-M3FFF	WM000-WM3FF	DM000-DM3FE	⊺L / H)	
On Delay Timer	TD000-TD255	-	-		*2
Single-shot Timer	SS000-SS255	-	-		*2
Up Counter	CU000-CU255	-	-		*2
Up-down Counter	CT000-CT255	-	-		*2*3
Timer Counter (Elapsed Value)	-	TC000-TC255	-		
Word Internal Output	-	WR0000- WRC3FF	DR0000-DRC3FE		*4 <u>Bit</u> F
Word Special Internal Output		WRF000- WRF1FF	DRF000-DRF1FE		(Bit F)

*1 Write disable

*2 Each timer or counter needs to be defined on the ladder program.

*3 Both the Up-down counter Up input and Down input are defined by CT, however, the device names of the External Device are CTU, CTDrespectively.

To access CTU, define the corresponding address as CTU on the ladder program of the External Device. Similarly, to access CTD, define the corresponding address as CTD on the ladder program of the External Device.

*4 In case of EH-WD10DR, the address range is "WR0000-WR3FFF", "DR0000-DR3FFE".

NOTE

• Please refer to the GP-Pro EX Reference Manual for system data area.

Cf. GP-Pro EXReference Manual "LS Area (Direct Access Method)"

• Please refer to the precautions on manual notation for icons in the table.

"Manual Symbols and Terminology"

6.3 EHV Series

This address can be specified as system data area.

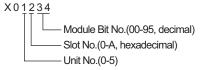
Device	Bit Address	Word Address	Double Word Address	32 bits	Remarks
External Input	X00000-X05A95	WX0000- WX05A7	DX0000-DX05A6		*1 *2
External Output	Y00000-Y05A95	WY0000- WY05A7	DY0000-DY05A6		*2
Remote Input Relay	X10000-X45A95	WX1000- WX45A7	DX1000-DX45A6		*1 *3
Remote Output Relay	Y10000-Y45A95	WY1000- WY45A7	DY1000-DY45A6		*3
Extension External Input	EX00000- EX5A7FF	WEX0000- WEX5A7F	DEX0000- DEX5A7E		*1
Extension External Output	EY00000- EY5A7FF	WEY0000- WEY5A7F	DEY0000- DEY5A7E		
Internal Output	R000-R7BF	-	-		
Special Internal Output	R7C0-RFFF	-	-		
Data Area	M00000-M7FFFF	WM0000- WM7FFF	DM0000- DM7FFE		
First CPU Link	L00000-L03FFF	WL0000-WL03FF	DL0000-DL03FE	 	
Second CPU Link	L10000-L13FFF	WL1000-WL13FF	DL1000-DL13FE		
Third CPU Link	L20000-L23FFF	WL2000-WL23FF	DL2000-DL23FE		
Fourth CPU Link	L30000-L33FFF	WL3000-WL33FF	DL3000-DL33FE		
Fifth CPU Link	L40000-L43FFF	WL4000-WL43FF	DL4000-DL43FE		
Sixth CPU Link	L50000-L53FFF	WL5000-WL53FF	DL5000-DL53FE		
Seventh CPU Link	L60000-L63FFF	WL6000-WL63FF	DL6000-DL63FE		
Eighth CPU Link	L70000-L73FFF	WL7000-WL73FF	DL7000-DL73FE		
On Delay Timer	TD0000-TD2559	-	-		
Off Delay Timer	TDN0000- TDN2559	-	-		
Single-shot Timer	SS0000-SS2559	-	-		
Watchdog Timer	WDT0000- WDT2559	-	-		
Mono Stable Timer	MS0000-MS2559	-	-	1	
Retentive Timer	TMR0000- TMR2559	-	-		
Up-down Counter	CT000-CT511	-	-		
Up Counter	CU000-CU511	-	-		

Device	Bit Address	Word Address	Double Word Address	32 bits	Remarks
Link Counter	RCU000-RCU511	-	-		
Timer Counter (Elapsed Value)	-	TC0000-TC2559	-		
Word Internal Output	WR00000- WREFFFF	WR0000- WREFFF	DR0000-DREFFE	[L / H]	
Special Word Internal Output	WRF000.0- WRFFFF.F	WRF000- WRFFFF	DRF000-DRFFFE		
Data Area	WN00000.0- WN1FFFF.F	WN00000- WN1FFFF	DN00000- DN1FFFE		

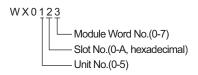
*1 Write disable

*2 Specify as shown below.

(Example) External input unit No.1, Slot No.2, Internal Module Bit No.34



(Example) External input unit No.1, Slot No.2, Internal Module Word No.3

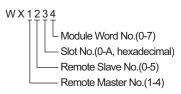


*3 Specify as shown below.

(Example) Remote External Input Remote Master No.1, Remote Slave No.2, Slot No.3, Internal Module Bit No.45



(Example) Remote External Input Remote Master No.1, Remote Slave No.2, Slot No.3, Internal Module Word No.4



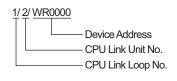
When using CPU Link

Set the check box of "Use CPU Link" to ON.

When using CPU Link, loop No. and unit No. are added to the address.

💰 Input Address (Wor	d)						×
Device/PLC PLC1							•
🔽 Using CPU Link	WR		•	0000)		
Loop No. Unit No.		Ba	ick			C	lr
1 = / 0 = /	A	В	С		7	8	9
,	D	Е	F		4	5	6
					1	2	3
					0	E	nt

(Example) Loop No.1, Unit No.2



NOTE • Please refer to the GP-Pro EX Reference Manual for system data area.

Cf. GP-Pro EXReference Manual "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.

7.1 H/EH-150/MICRO-EH Series

Device	Device Name	Device Code (HEX)	Address Code
	X	80	Word Address
External Input	WX	00	Word Address
	DX	20	Word Address
	Y	81	Word Address
External Output	WY	01	Word Address
	DY	21	Word Address
	М	82	Word Address
Data Area	WM	02	Word Address
	DM	22	Word Address
	L	83	Word Address
CPU Link	WL	63	Word Address
	DL	23	Word Address
Timer Counter (Elapsed Value)	тс	60	Word Address
Extended Timer (Elapsed Value)	TV	61	Word Address
Word Internal Output	WR	00	Word Address
Word Internal Output	DR	24	Word Address
Network Link Area	WN	01	Word Address
	DN	25	Word Address

7.2 Web Controller Series

Device	Device Name	Device Code (HEX)	Address Code
External Input	Х	80	Word Address
	WX		Word Address
	DX	20	Word Address
External Output	Y	81	Word Address
	WY		Word Address
	DY	21	Word Address
Data Area	М	82	Word Address
	WM		Word Address
	DM	22	Word Address
Timer Counter (Elapsed Value)	TC	60	Word Address
Word Internal Output Word Special Internal Output	WR	00	Word Address
	DR	24	Word Address

7.3 EHV Series

Device	Device Name	Device Code (HEX)	Address Code
External Input	Х	80	Word Address
	WX		Word Address
	DX	20	Word Address
	Y	01	Word Address
External Output	WY	- 81	Word Address
	DY	21	Word Address
	EX	94	Word Address
Extension External Input	WEX	- 84	Word Address
	DEX	26	Word Address
	EY	- 85	Word Address
Extension External Output	WEY	85	Word Address
	DEY	27	Word Address
	М	82	Word Address
Data Area	WM		Word Address
	DM	22	Word Address
	L	83	Word Address
CPU Link	WL		Word Address
	DL	23	Word Address
Word Internal Output	WR	00	Word Address
	DR	24	Word Address
Data Area	WN	01	Word Address
	DN	25	Word Address
Timer Counter (Elapsed Value)	тс	60	Word Address

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	Description	
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.	
Error Occurrence Area	Displays IP address or device address of the External Device where error occurs, or error codes received from the External Device.	
	 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 "Hex[Hex]". 	

Display Examples of Error Messages

"RHAA035:PLC1: Error has been responded for device write command (Error Code: [02H,02H])"

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.

Driver-Specific Error Codes

Error codes are sent as separated 2 bytes codes The Display displays the error number using 1-byte code. Example:

Reply command	Return code	Error display
<u>01</u>	07	<u>01</u> <u>07</u>

Error Code	Description	
01, 05	The requested number of points is beyond the designated range.	
01, 06	Designated device does not exist.	
01, 07	Designated device address is beyond the range.	

NOTE

• Please refer to the manual of the External Device for more detail of received error codes.