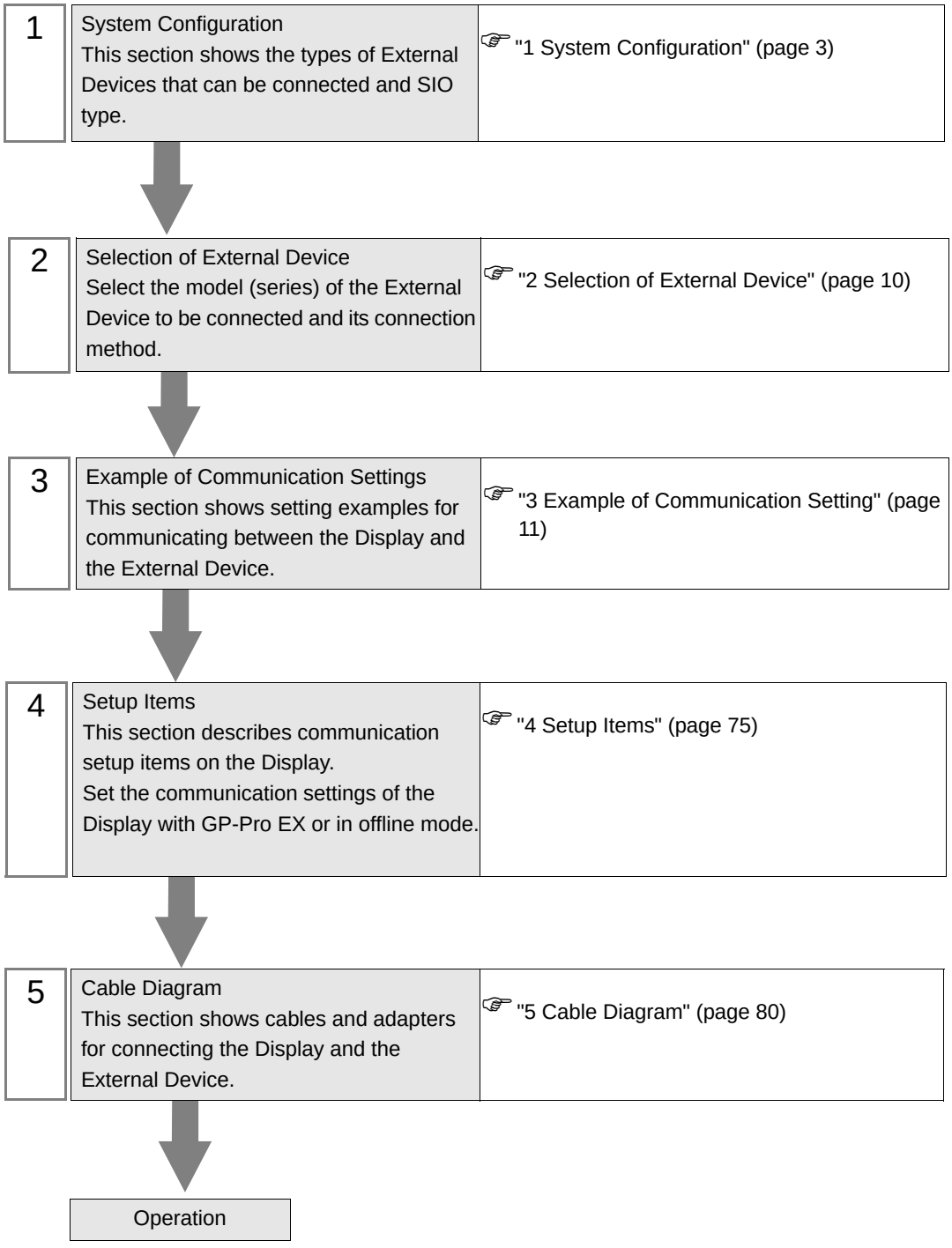
Yamatake Corporation

Digital Controller SIO Driver

Introduction

This manual describes how to connect the Display and the External Device (target controller).

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



1 System Configuration

The following shows the system configuration where the External Device from Yamatake Corporation and the Display are connected.

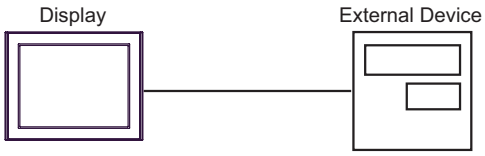
Series	CPU	Link I/F	SIO Type	Setting Example	Cable Diagram
SDC10	C10□□□□□05□□	Terminal block on the controller	RS422/485 (2wire)	Setting Example 1 (page 11)	Cable Diagram 5 (page 106)
SDC15	C15□□□□□03□□ C15□□□□□06□□	Terminal block on the controller	RS422/485 (2wire)	Setting Example 2 (page 13)	Cable Diagram 6 (page 115)
SDC20/21	C20□□□□03□□ C20□□□□05□□ C20□□□□10□□ C21□□□□04□□ C21□□□□07□□ C21□□□□09□□	Terminal block on the controller	RS232C	Setting Example 3 (page 15)	Cable Diagram 1 (page 80)
	C20□□□□02□□ C20□□□□04□□ C20□□□□09□□ C21□□□□03□□ C21□□□□06□□ C21□□□□08□□	Terminal block on the controller	RS422/485 (4wire)	Setting Example 4 (page 17)	Cable Diagram 2 (page 82)
			RS422/485 (2wire)	Setting Example 5 (page 19)	Cable Diagram 3 (page 88)
SDC25/26	C25□□□□□□2□□ C26□□□□□□2□□	Terminal block on the controller	RS422/485 (2wire)	Setting Example 6 (page 21)	Cable Diagram 6 (page 115)
SDC30/31	C30□□□□040□□ C30□□□□041□□ C31□□□□045□□ C31□□□□446□□ C31□□□□546□□	Terminal block on the controller	RS422/485 (4wire)	Setting Example 7 (page 23)	Cable Diagram 2 (page 82)
			RS422/485 (2wire)	Setting Example 8 (page 25)	Cable Diagram 3 (page 88)
SDC35/36	C35□□□□□□2□□ C35□□□□□□4□□ C36□□□□□□2□□ C36□□□□□□4□□	Terminal block on the controller	RS422/485 (2wire)	Setting Example 9 (page 27)	Cable Diagram 6 (page 115)
SDC40A	C40A□□□□□□□3□□	Terminal block on the controller	RS232C	Setting Example 10 (page 29)	Cable Diagram 1 (page 80)
	C40A□□□□□□□2□□	Terminal block on the controller	RS422/485 (4wire)	Setting Example 11 (page 31)	Cable Diagram 2 (page 82)
			RS422/485 (2wire)	Setting Example 12 (page 33)	Cable Diagram 3 (page 88)

Series	CPU	Link I/F	SIO Type	Setting Example	Cable Diagram
SDC40B	C40B□□□□□□□□3□□	Terminal block on the controller	RS232C	Setting Example 13 (page 35)	Cable Diagram 1 (page 80)
	C40B□□□□□□□□2□□	Terminal block on the controller	RS422/485 (4wire)	Setting Example 14 (page 37)	Cable Diagram 2 (page 82)
			RS422/485 (2wire)	Setting Example 15 (page 39)	Cable Diagram 3 (page 88)
SDC40G	C40G□□□□□095□□	Terminal block on the controller	RS422/485 (4wire)	Setting Example 16 (page 41)	Cable Diagram 2 (page 82)
			RS422/485 (2wire)	Setting Example 17 (page 43)	Cable Diagram 3 (page 88)
SDC45/46	C45A□□□□□□□□□□ C45A□□1 C46A□□□□□□□□□□ C46A□□1	Terminal block on the controller	RS422/485 (2wire)	Setting Example 29 (page 67)	Cable Diagram 8 (page 130)
DMC10	DMC10□□□□□□□□	Terminal block on the controller	RS422/485 (2wire)	Setting Example 18 (page 45)	Cable Diagram 4 (page 97)
DMC50	DMC50CH20□□□ DMC50CH40□□□ DMC50CS20□□□ DMC50CS40□□□	Terminal block on DMC50MR20□□□ Terminal block on DMC50ME20□□□	RS422/485 (4wire)	Setting Example 30 (page 69)	Cable Diagram 2 (page 82)
			RS422/485 (2wire)	Setting Example 31 (page 71)	Cable Diagram 3 (page 88)
DCP31	P31A□□□□□□□2□□	Terminal block on the controller	RS422/485 (4wire)	Setting Example 19 (page 47)	Cable Diagram 2 (page 82)
			RS422/485 (2wire)	Setting Example 20 (page 49)	Cable Diagram 3 (page 88)
DCP32	P32A□□□□□□□2□□	Terminal block on the controller	RS422/485 (4wire)	Setting Example 21 (page 51)	Cable Diagram 2 (page 82)
			RS422/485 (2wire)	Setting Example 22 (page 53)	Cable Diagram 3 (page 88)

Series	CPU	Link I/F	SIO Type	Setting Example	Cable Diagram
DCP551	DCP551□□□2□□	Terminal block on the controller	RS232C	Setting Example 23 (page 55)	Cable Diagram 1 (page 80)
			RS422/485 (4wire)	Setting Example 24 (page 57)	Cable Diagram 2 (page 82)
			RS422/485 (2wire)	Setting Example 25 (page 59)	Cable Diagram 3 (page 88)
DCP552	DCP552□□□2□□	Terminal block on the controller	RS232C	Setting Example 26 (page 61)	Cable Diagram 1 (page 80)
			RS422/485 (4wire)	Setting Example 27 (page 63)	Cable Diagram 2 (page 82)
			RS422/485 (2wire)	Setting Example 28 (page 65)	Cable Diagram 3 (page 88)
CMC10B	CMC10B	Communications connector on the host side	RS422/485 (4wire)	Setting Example 32 (page 73)	Cable Diagram 7 (page 124)

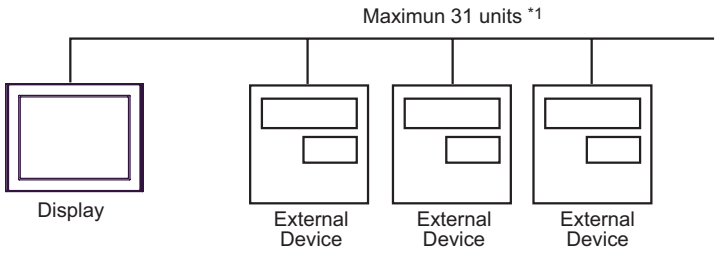
◆ Connection Configuration

- 1:1 Connection

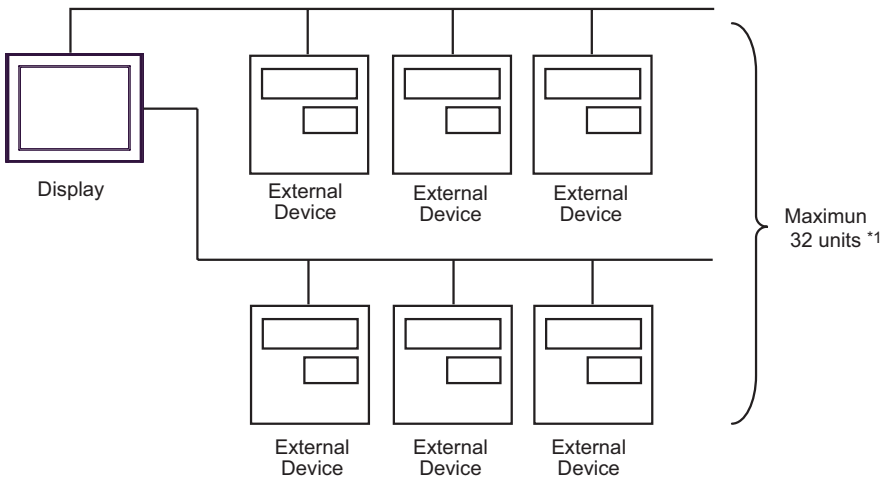


- 1:n Connection

  using 1 port



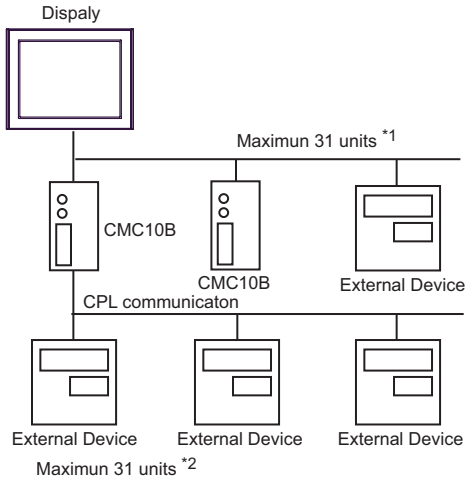
  using 2 port or more



- 1:n Connection (when CMC10B is used)

Up to 16 units of CMC10B can be connected to one Display.

In addition, up to 31 External Devices that support CPL communication can be connected to CMC10B.CMC10B always collects set data, allowing improved communication performance when many devices are connected.



*1 Up to 15 units can be connected if the External Devices include DMC10 or DMC50.

*2 Up to 15 units can be connected if the External Devices include DMC10. Note that DMC50 cannot be used.

NOTE

- For 1:n connection, do not add termination resistors if the Controllers to be connected include any of the following series.
  - -SDC15
  - -SDC25/26
  - -SDC35/36
  - -DMC10

■ 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		
	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 (T41 model), PS-3651A (T41 model)	COM1[*1]	-	-
PS-3650A (T42 model), PS-3651A (T42 model)	COM1[*1*2], COM2	COM1[*1*2]	COM1[*1*2]
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]
PS4000[*3]	COM1, COM2	-	-
PL3000	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.

*3 When making communication between an External Device and COM port on the Expansion slot, only RS-232C is supported. However, ER (DTR/CTS) control cannot be executed because of the specification of COM port.
For connection with External Device, use user-created cables and disable Pin Nos. 1, 4, 6 and 9.
Please refer to the IPC manual for details of pin layout.

DIP Switch setting: RS-232C

DIP Switch	Setting	Description
1	OFF[*1]	Reserved (always OFF)
2	OFF	SIO type: RS-232C
3	OFF	
4	OFF	Output mode of SD (TXD) data: Always output
5	OFF	Terminal resistance (220Ω) insertion to SD (TXD): None
6	OFF	Terminal resistance (220Ω) insertion to RD (RXD): None
7	OFF	Short-circuit of SDA (TXA) and RDA (RXA): 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)

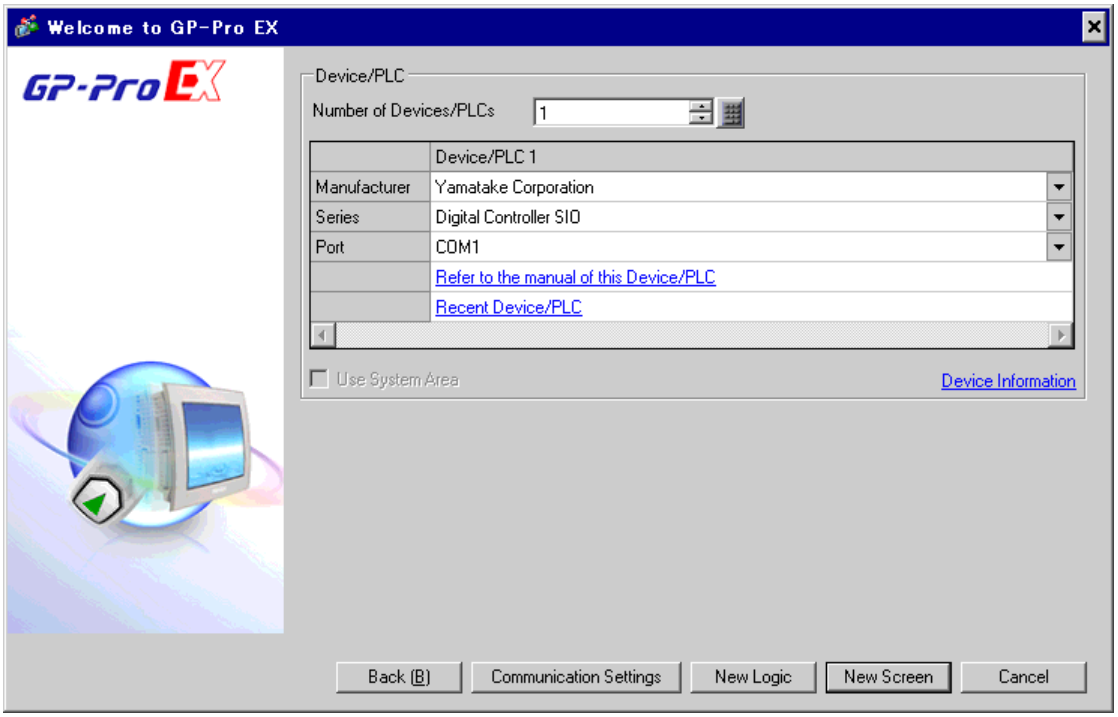
DIP Switch	Setting	Description
1	OFF	Reserved (always OFF)
2	ON	SIO type: RS-422/485
3	ON	
4	OFF	Output mode of SD (TXD) data: Always output
5	OFF	Terminal resistance (220Ω) insertion to SD (TXD): None
6	OFF	Terminal resistance (220Ω) insertion to RD (RXD): None
7	OFF	Short-circuit of SDA (TXA) and RDA (RXA): 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	
4	OFF	Output mode of SD (TXD) data: Always output
5	OFF	Terminal resistance (220Ω) insertion to SD (TXD): None
6	OFF	Terminal resistance (220Ω) insertion to RD (RXD): None
7	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.



Setup Items	Setup Description
Number of Devices/ PLCs	Use an integer from 1 to 4 to enter the number of Devices/PLCs to connect to the Display.
Manufacturer	Select the manufacturer of the External Device to be connected. Select "Yamatake Corporation".
Series	Select the model (series) of the External Device to be connected and connection method. Select "Digital Controller SIO". In the System Configuration, check to make sure the External Device you are connecting is supported in "Digital Controller SIO". ☞ "1 System Configuration" (page 3)
Port	Select the port of the Display to be connected to the External Device.
Use System Area	Not available in this driver.

3 Example of Communication Setting

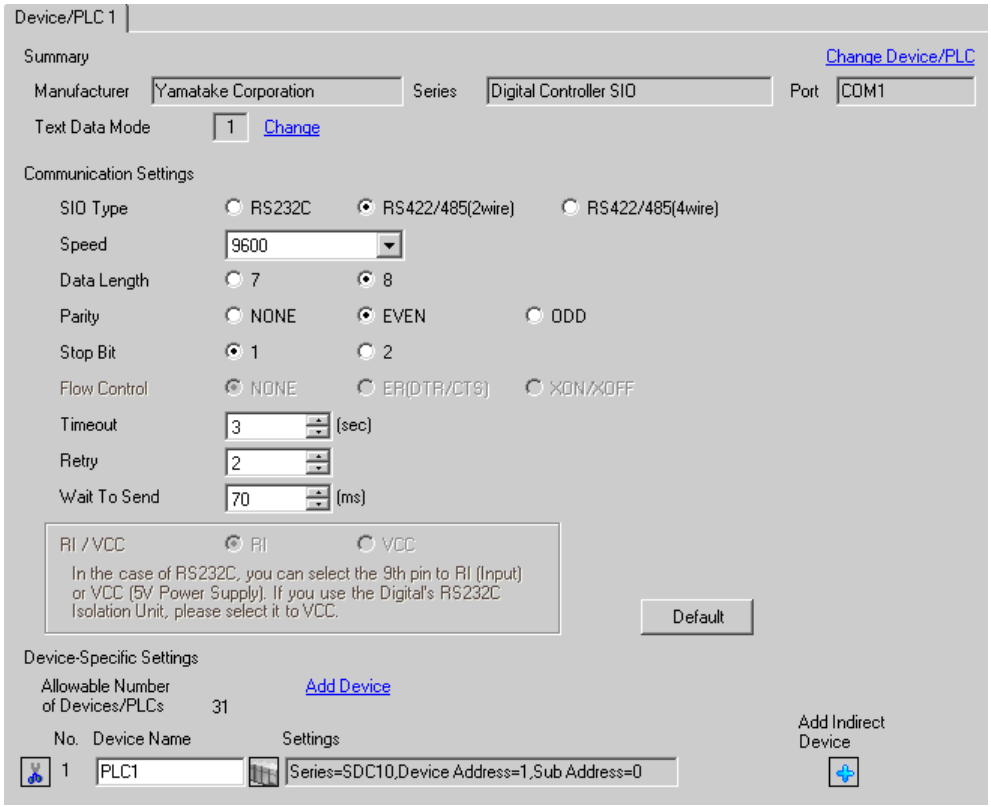
The following shows examples of communication settings for the Display and the External Device, which are recommended by Pro-face.

3.1 Setting Example 1

■ Setting of GP-Pro EX

◆ Communication Settings

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



IMPORTANT

- To use SDC10, you need to set Wait To Send to 70ms or more.

◆ Device Setting

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

■ Settings of External Device

To configure communication settings for the External Device, use the PARA, ENT, Down and Up keys on the front of the Controller. Refer to your Controller manual for details.

◆ Procedure

1 In operation mode, press and hold the PARA key (for 3 seconds) to move to parameter mode.
2 In parameter mode, press and hold the PARA key (for 3 seconds) to move to setup mode.
3 Press the PARA key several times to display the desired setup item.
4 Use the Down/Up keys to select a setting. (The set value will blink.)
5 When no operation is performed for 2 seconds, the set value stops blinking and the change is fixed.
6 Press and hold the PARA key (for 3 seconds) to move to the basic display.

◆ Settings

Setup Items	Settings
C22	1
C23	0

NOTE

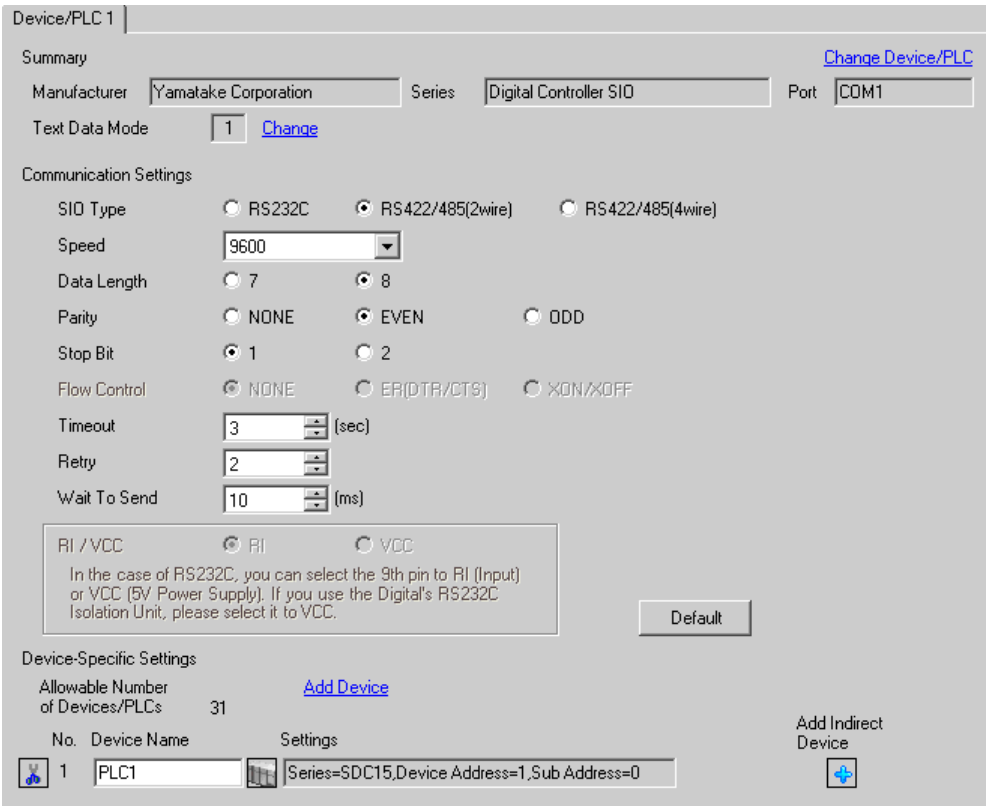
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.2 Setting Example 2

■ Setting of GP-Pro EX

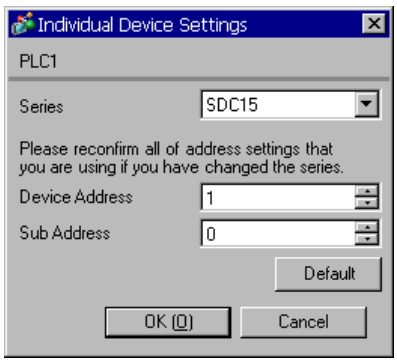
◆ Communication Settings

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



◆ Device Setting

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



■ Settings of External Device

To configure communication settings for the External Device, use the PARA, mode, Down and Up keys on the front of the Controller. Refer to your Controller manual for details.

◆ Procedure

1 In the operation display, press and hold the PARA key (for 2 seconds) to move to the parameter setting display.
2 In the parameter setting display, press and hold the PARA key (for 2 seconds) to move to the setup display.
3 Press the PARA key several times to display the desired setup item.
4 Use the Down/Up keys to select a setting. (The set value will blink.)
5 When no operation is performed for 2 seconds, the set value stops blinking and the change is fixed.
6 Press the mode key to move to the basic display.

◆ Settings

Setup Items	Settings
C64	0
C65	1
C66	1
C67	1
C68	0
C69	0

NOTE

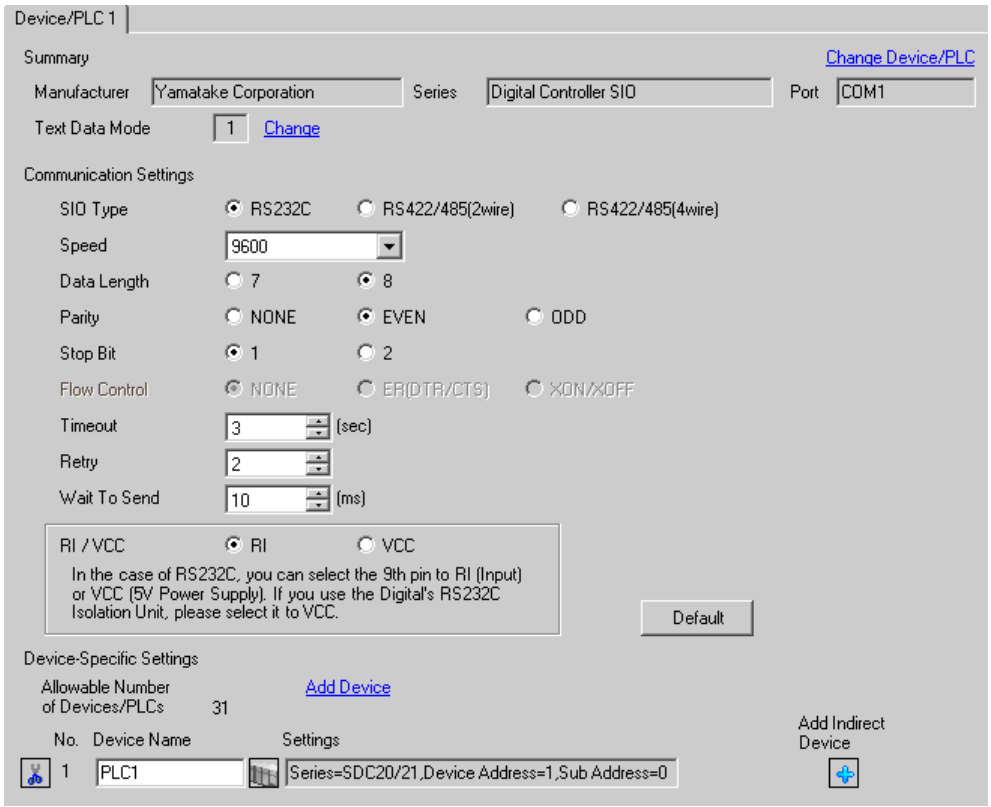
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.3 Setting Example 3

■ Setting of GP-Pro EX

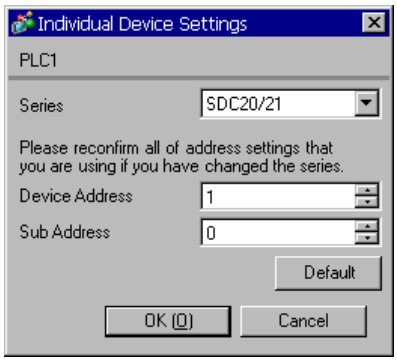
◆ Communication Settings

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



◆ Device Setting

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



■ Settings of External Device

To configure communication settings for the External Device, use the ENT, DISP, Down and Up keys on the front of the Controller. Refer to your Controller manual for details.

◆ Procedure

1 In the basic display, press and hold the ENT and Down keys simultaneously (for 3 seconds or more) to display the setup items.
2 Press the Down/Up keys to select a setup item and press the ENT key.
3 Use the Down/Up keys to select a setting and press the ENT key.
4 Press the DISP key to move to the basic display.

◆ Settings

Setup Items	Settings
C31	1
C32	0
C33	0

NOTE

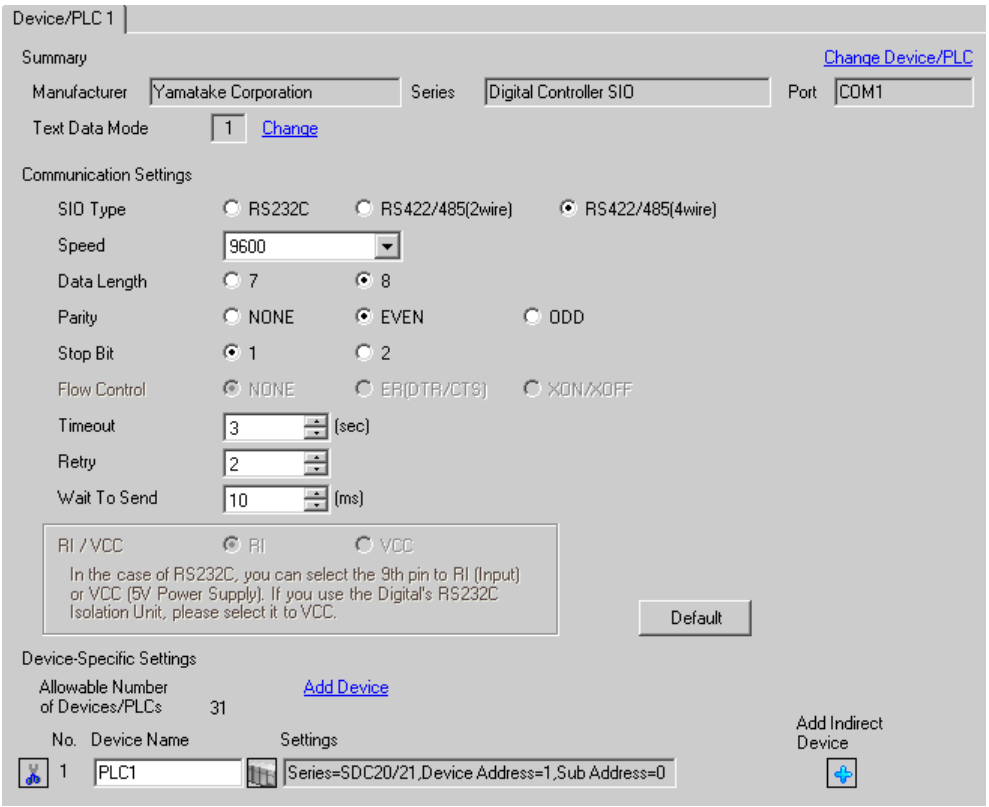
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.4 Setting Example 4

■ Setting of GP-Pro EX

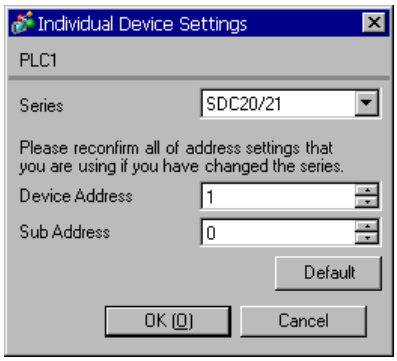
◆ Communication Settings

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



◆ Device Setting

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



■ Settings of External Device

To configure communication settings for the External Device, use the ENT, DISP, Down and Up keys on the front of the Controller. Refer to your Controller manual for details.

◆ Procedure

1 In the basic display, press and hold the ENT and Down keys simultaneously (for 3 seconds or more) to display the setup items.
2 Press the Down/Up keys to select a setup item and press the ENT key.
3 Use the Down/Up keys to select a setting and press the ENT key.
4 Press the DISP key to move to the basic display.

◆ Settings

Setup Items	Settings
C31	1
C32	0
C33	0

NOTE

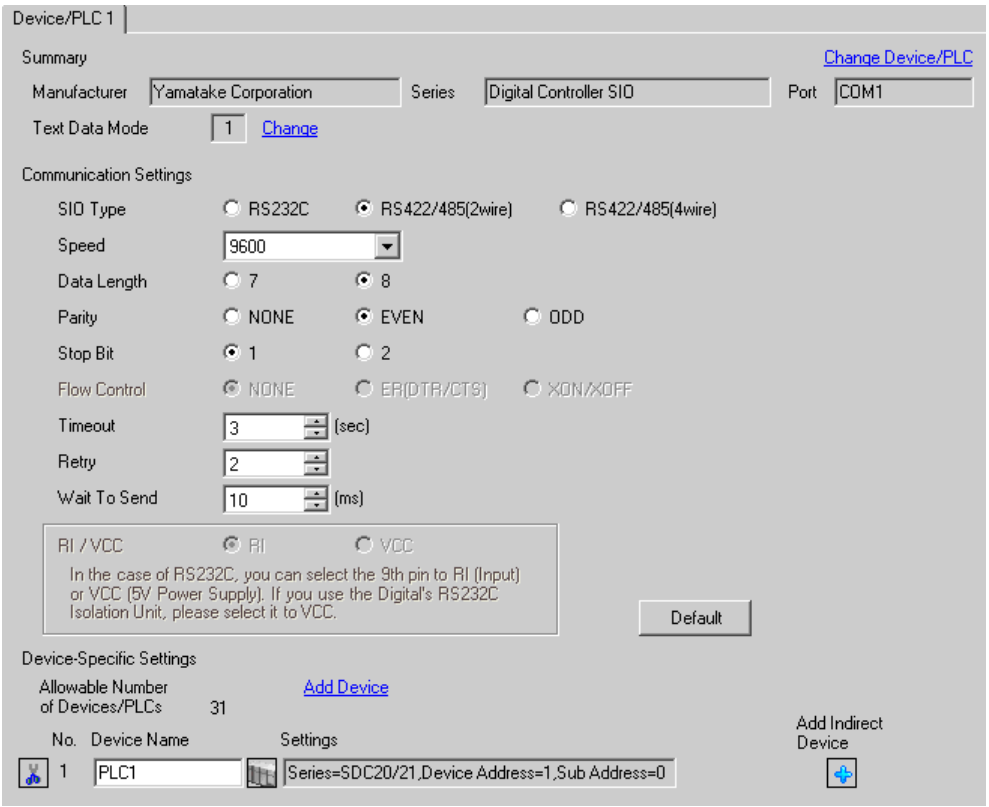
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.5 Setting Example 5

■ Setting of GP-Pro EX

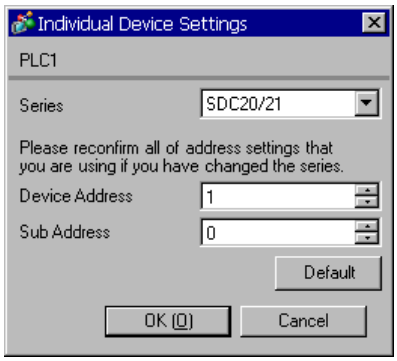
◆ Communication Settings

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



◆ Device Setting

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



■ Settings of External Device

To configure communication settings for the External Device, use the ENT, DISP, Down and Up keys on the front of the Controller. Refer to your Controller manual for details.

◆ Procedure

1 In the basic display, press and hold the ENT and Down keys simultaneously (for 3 seconds or more) to display the setup items.
2 Press the Down/Up keys to select a setup item and press the ENT key.
3 Use the Down/Up keys to select a setting and press the ENT key.
4 Press the DISP key to move to the basic display.

◆ Settings

Setup Items	Settings
C31	1
C32	0
C33	0

NOTE

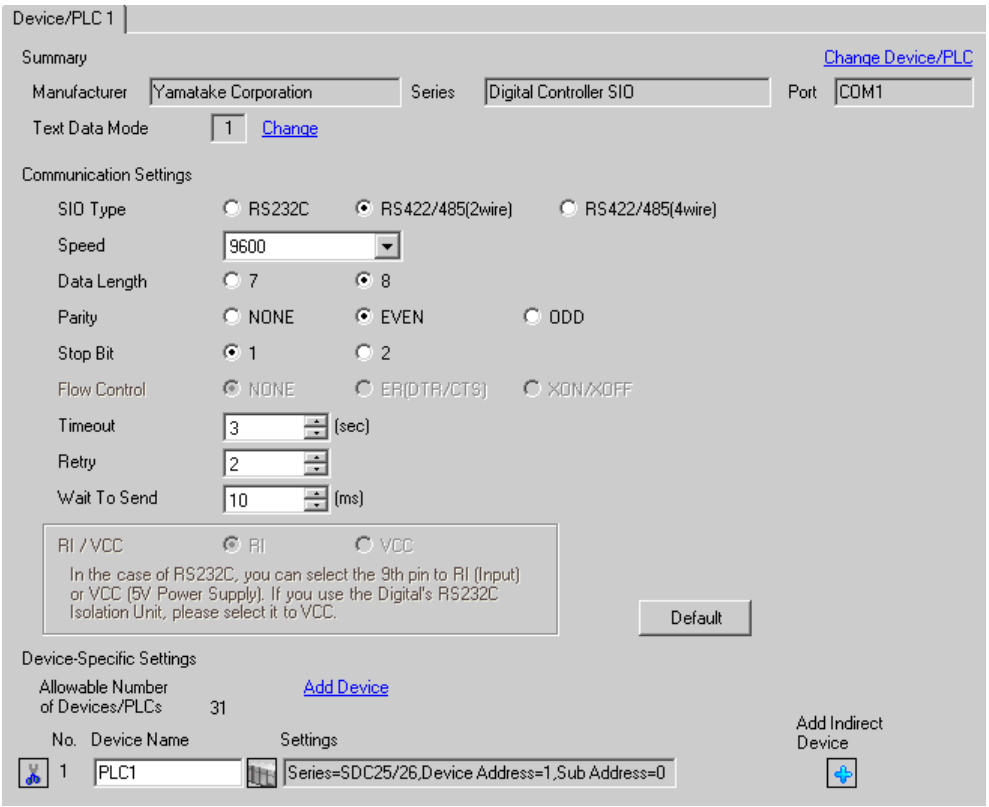
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.6 Setting Example 6

■ Setting of GP-Pro EX

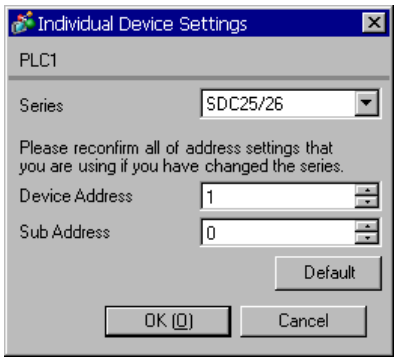
◆ Communication Settings

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



◆ Device Setting

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



■ Settings of External Device

To configure communication settings for the External Device, use the para, mode, enter, Down and Up keys on the front of the Controller. Refer to your Controller manual for details.

◆ Procedure

1 In the operation display, press and hold the para key (for 2 seconds) to move to the bank selection display.
2 In the bank selection display, press the enter key to move to the bank setup display.
3 Press the para key several times to display the desired setup item.
4 Press the enter key to blink the set value displayed.
5 Use the Down/Up keys to select a setting.
6 Press the enter key to fix the change.
7 Press the mode key to move to the operation display.

◆ Settings

Setup Items	Settings
C64	0
C65	1
C66	1
C67	1
C68	0
C69	0

NOTE

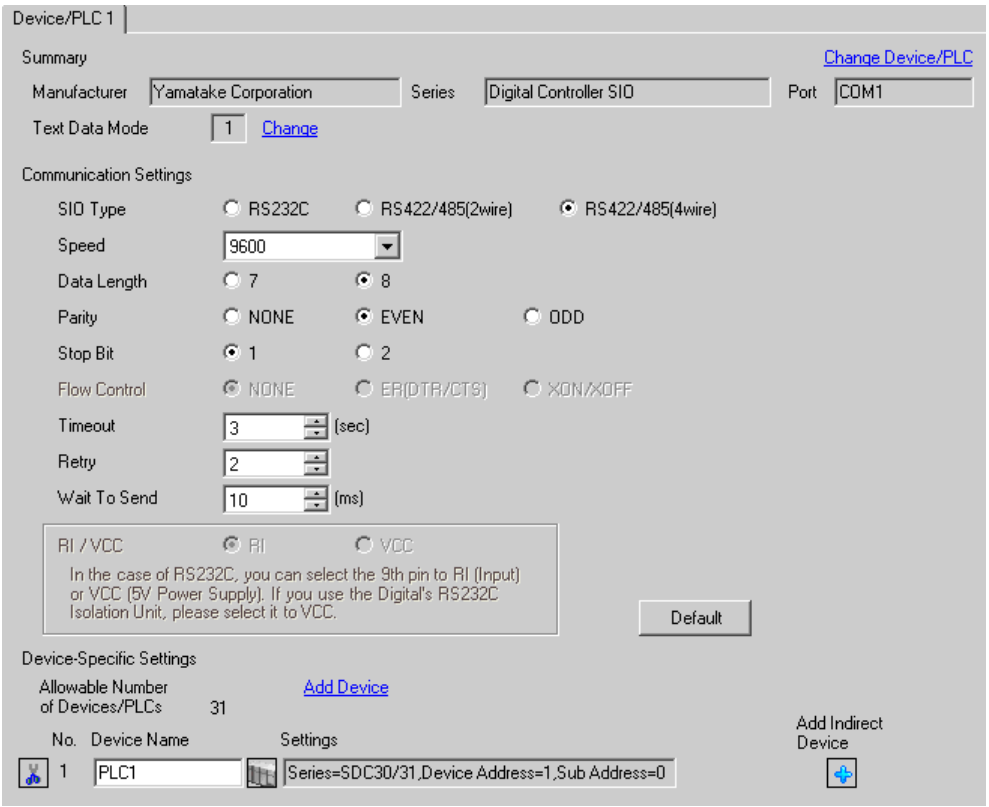
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.7 Setting Example 7

■ Setting of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

■ Settings of External Device

To configure communication settings for the External Device, use the ENT, DISP, MODE, Down and Up keys on the front of the Controller. You can change the communication settings only in READY mode. Switch the External Device to READY mode before setting.
Refer to your Controller manual for details.

◆ Procedure

1 In the basic display, press the MODE key twice. In the RUN/READY mode switching display that appears, change to READY mode.
2 In the basic display, press and hold the ENT and Down keys simultaneously for 3 seconds or more to display the setup items.
3 Press the Down/Up keys to select a setup item and press the ENT key.
4 Use the Down/Up keys to select a setting and press the ENT key.
5 Press the DISP key to move to the basic display.

◆ Settings

Setup Items	Settings
C31	1
C32	0
C33	0

NOTE

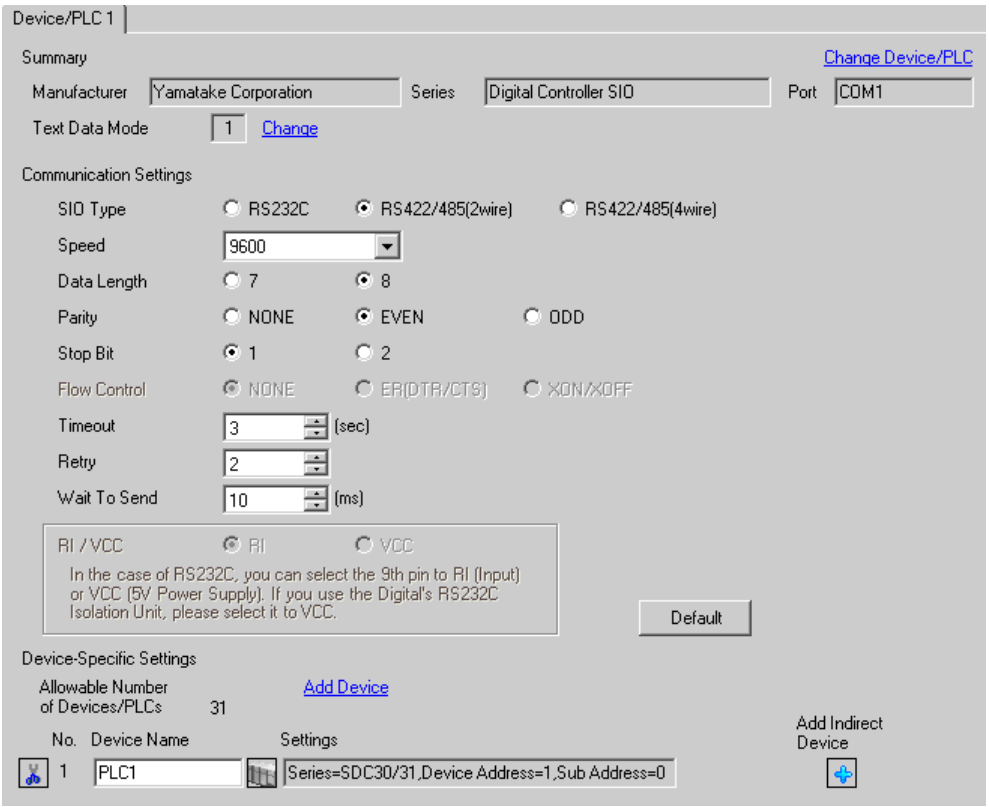
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.8 Setting Example 8

■ Setting of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

■ Settings of External Device

To configure communication settings for the External Device, use the ENT, DISP, MODE, Down and Up keys on the front of the Controller. You can change the communication settings only in READY mode. Switch the External Device to READY mode before setting.
Refer to your Controller manual for details.

◆ Procedure

1 In the basic display, press the MODE key twice. In the RUN/READY mode switching display that appears, change to READY mode.
2 In the basic display, press and hold the ENT and Down keys simultaneously for 3 seconds or more to display the setup items.
3 Press the Down/Up keys to select a setup item and press the ENT key.
4 Use the Down/Up keys to select a setting and press the ENT key.
5 Press the DISP key to move to the basic display.

◆ Settings

Setup Items	Settings
C31	1
C32	0
C33	0

NOTE

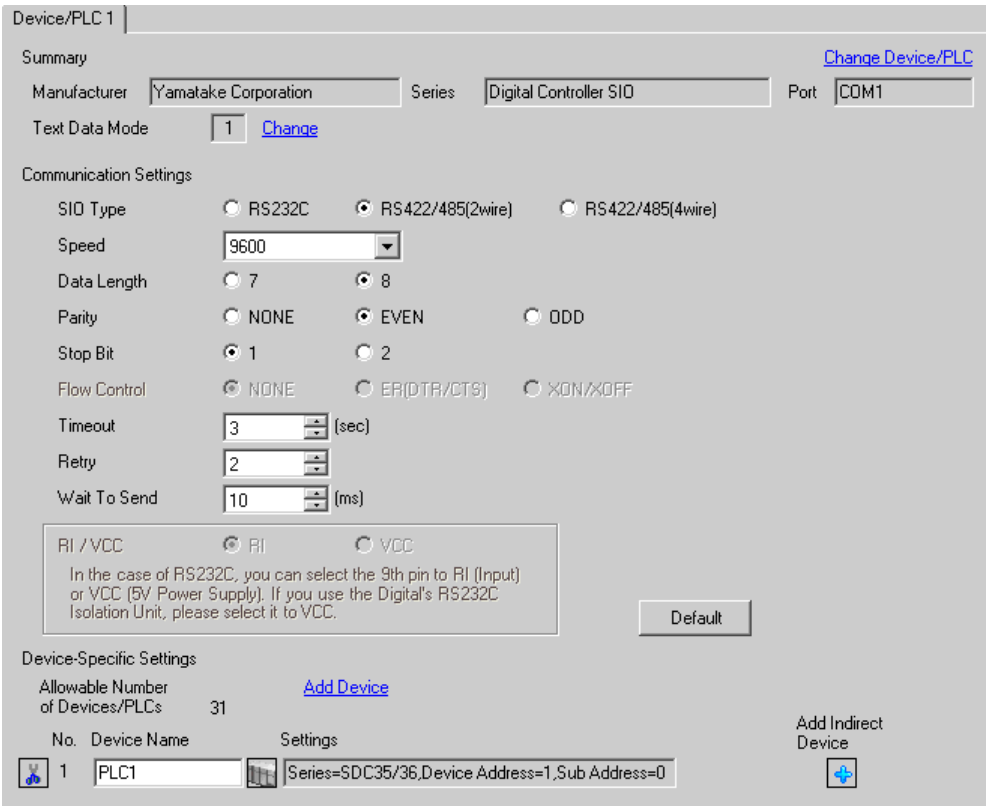
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.9 Setting Example 9

■ Setting of GP-Pro EX

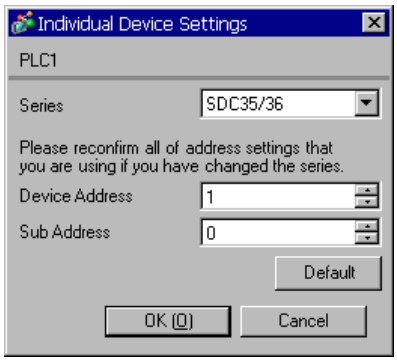
◆ Communication Settings

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



◆ Device Setting

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



■ Settings of External Device

To configure communication settings for the External Device, use the para, mode, enter, Down and Up keys on the front of the Controller. Refer to your Controller manual for details.

◆ Procedure

1 In the operation display, press and hold the para key (for 2 seconds) to move to the bank selection display.
2 In the bank selection display, press the enter key to move to the bank setup display.
3 Press the para key several times to display the desired setup item.
4 Press the enter key to blink the set value displayed.
5 Use the Down/Up keys to select a setting.
6 Press the enter key to fix the change.
7 Press the mode key to move to the operation display.

◆ Settings

Setup Items	Settings
C64	0
C65	1
C66	1
C67	1
C68	0
C69	0

NOTE

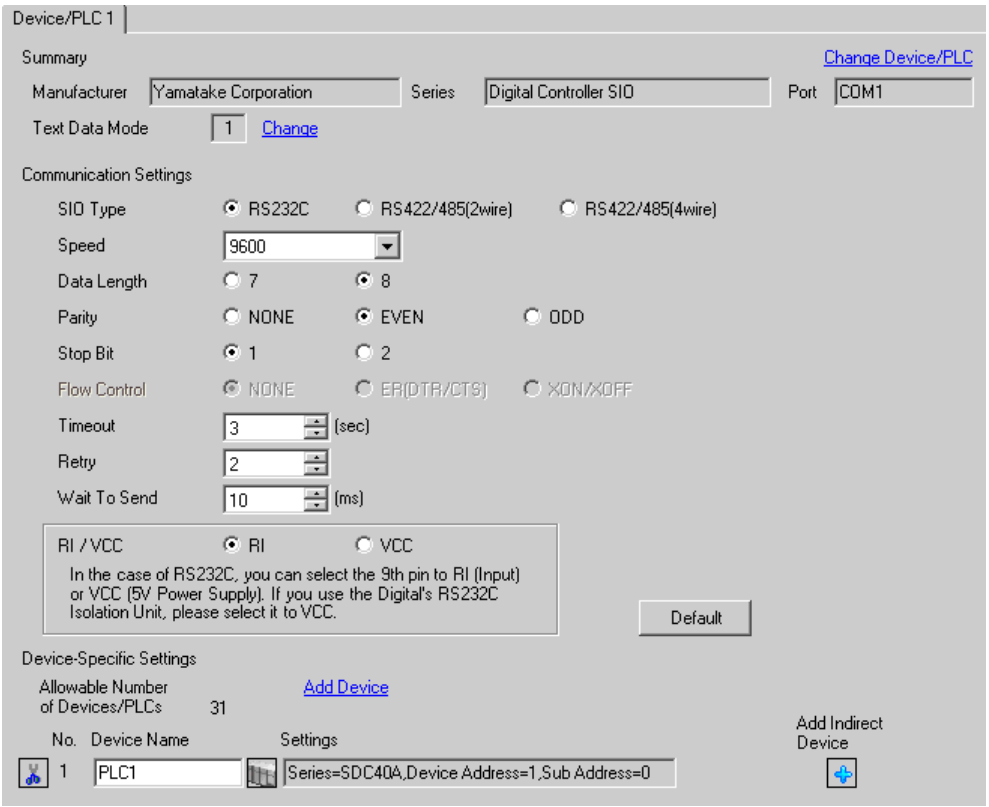
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.10 Setting Example 10

■ Setting of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

■ Settings of External Device

To configure communication settings for the External Device, use the PARA, ENT, DISP, Down and Up keys on the front of the Controller. You can change the communication settings only in READY mode. Switch the External Device to READY mode before setting.
Refer to your Controller manual for details.

◆ Procedure

1 In the basic display, press the PARA key to display PARA. Then press the ENT key to display rnry and move to READY mode.
2 In the basic display, press the PARA key several times to display SETUP.
3 Press the ENT key to display the setup items.
4 Press the Down/Up keys to select a setup item and press the ENT key.
5 Use the Down/Up keys to select a setting and press the ENT key.
6 Press the DISP key to move to the basic display.

◆ Settings

Setup Items	Settings
C84	1
C85	0

NOTE

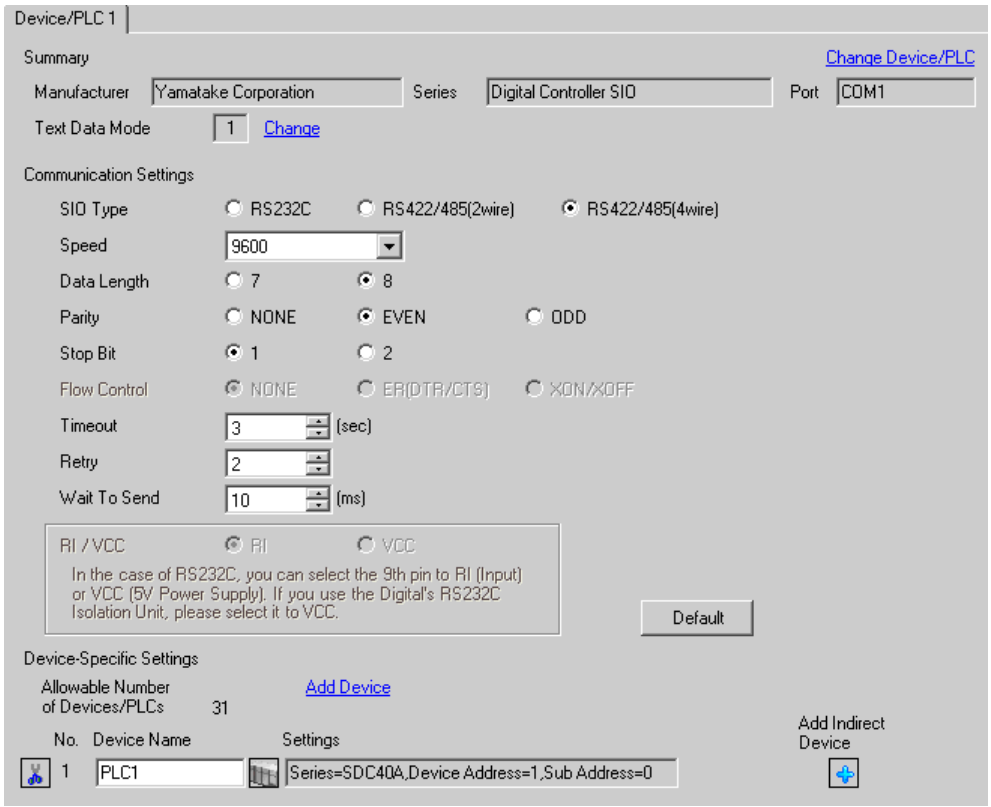
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.11 Setting Example 11

■ Setting of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

■ Settings of External Device

To configure communication settings for the External Device, use the PARA, ENT, DISP, Down and Up keys on the front of the Controller. You can change the communication settings only in READY mode. Switch the External Device to READY mode before setting.
Refer to your Controller manual for details.

◆ Procedure

1 In the basic display, press the PARA key to display PARA. Then press the ENT key to display rnry and move to READY mode.
2 In the basic display, press the PARA key several times to display SETUP.
3 Press the ENT key to display the setup items.
4 Press the Down/Up keys to select a setup item and press the ENT key.
5 Use the Down/Up keys to select a setting and press the ENT key.
6 Press the DISP key to move to the basic display.

◆ Settings

Setup Items	Settings
C84	1
C85	0

NOTE

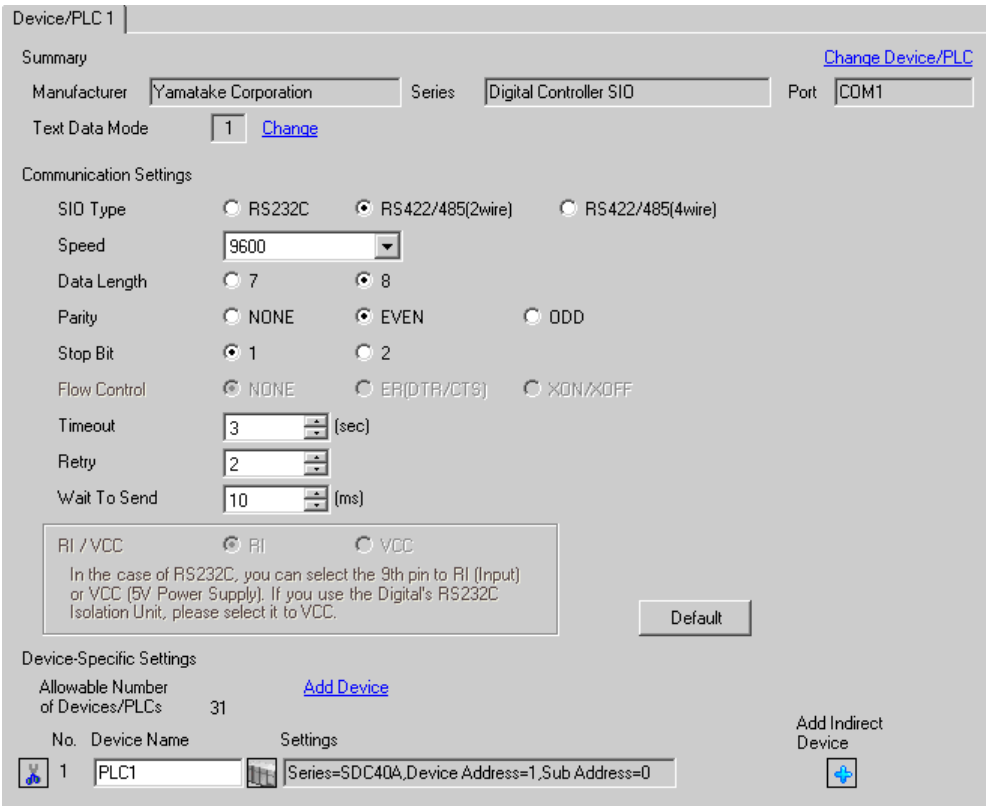
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.12 Setting Example 12

■ Setting of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

■ Settings of External Device

To configure communication settings for the External Device, use the PARA, ENT, DISP, Down and Up keys on the front of the Controller. You can change the communication settings only in READY mode. Switch the External Device to READY mode before setting.
Refer to your Controller manual for details.

◆ Procedure

1 In the basic display, press the PARA key to display PARA. Then press the ENT key to display rnry and move to READY mode.
2 In the basic display, press the PARA key several times to display SETUP.
3 Press the ENT key to display the setup items.
4 Press the Down/Up keys to select a setup item and press the ENT key.
5 Use the Down/Up keys to select a setting and press the ENT key.
6 Press the DISP key to move to the basic display.

◆ Settings

Setup Items	Settings
C84	1
C85	0

NOTE

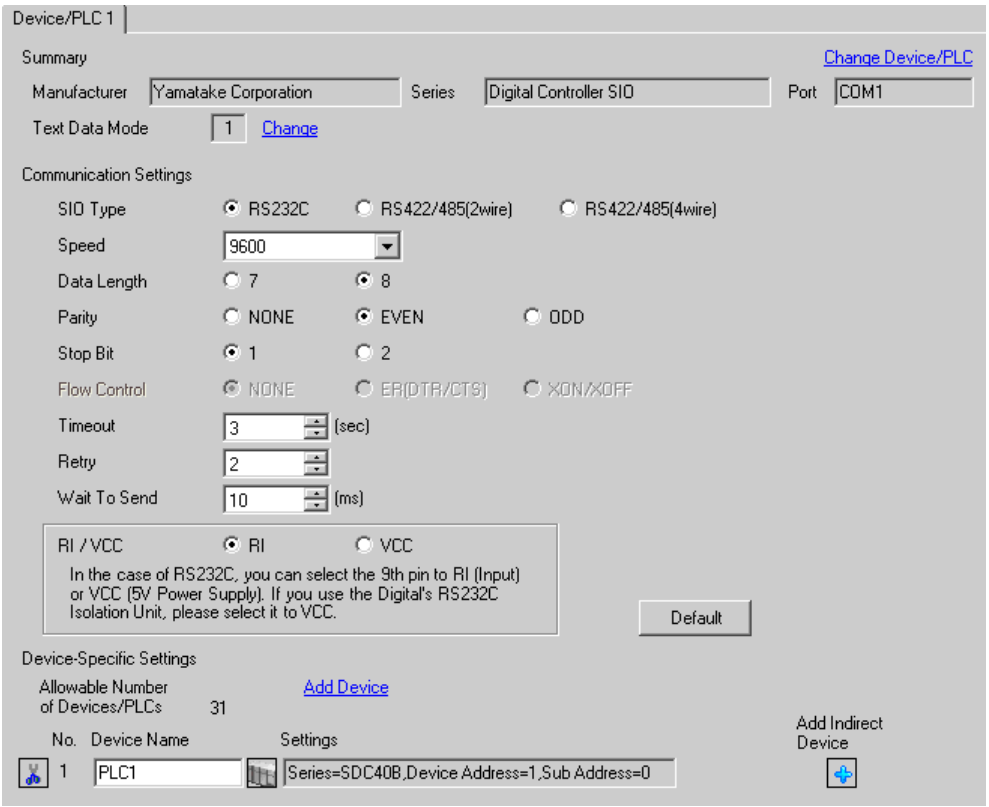
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.13 Setting Example 13

■ Setting of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

■ Settings of External Device

To configure communication settings for the External Device, use the PARA, ENT, DISP, Down and Up keys on the front of the Controller. Refer to your Controller manual for details.

◆ Procedure

1 In the basic display, press the PARA key to move to setup mode.
2 Press the ENT key to display the setup items.
3 Press the Down/Up keys to select a setup item and press the ENT key.
4 Use the Down/Up keys to select a setting and press the ENT key.
5 Press the DISP key to move to the basic display.

◆ Settings

Setup Items	Settings
C25	1
C26	0
C27	0

NOTE

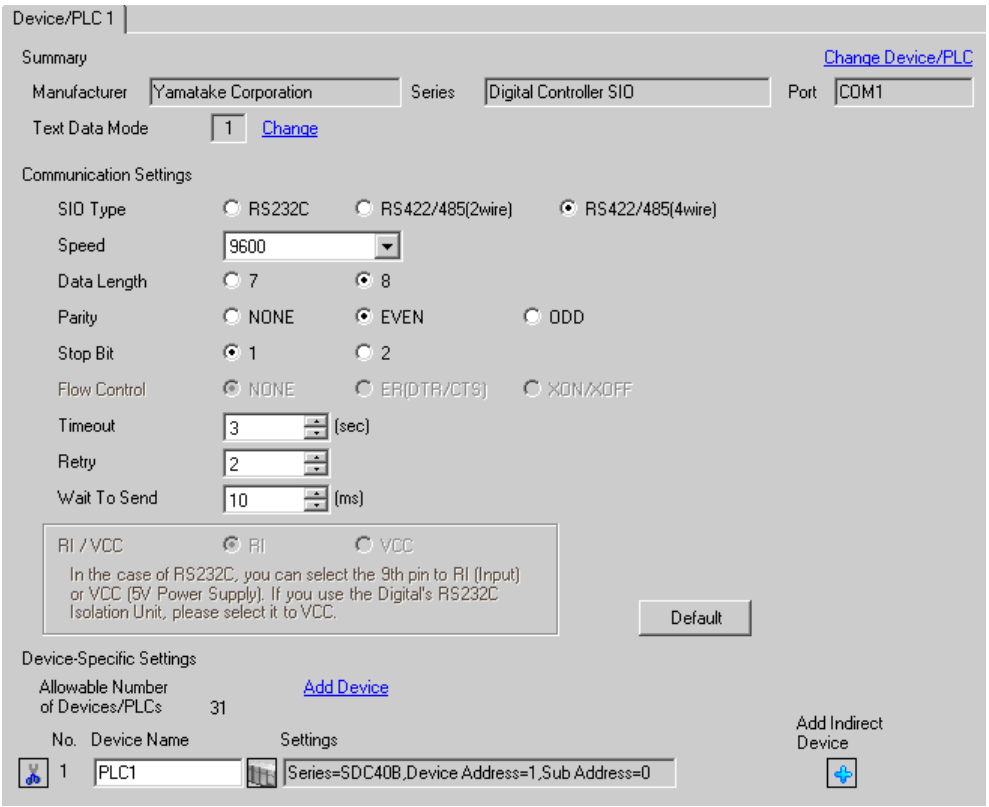
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.14 Setting Example 14

■ Setting of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

■ Settings of External Device

To configure communication settings for the External Device, use the PARA, ENT, DISP, Down and Up keys on the front of the Controller. Refer to your Controller manual for details.

◆ Procedure

1 In the basic display, press the PARA key to move to setup mode.
2 Press the ENT key to display the setup items.
3 Press the Down/Up keys to select a setup item and press the ENT key.
4 Use the Down/Up keys to select a setting and press the ENT key.
5 Press the DISP key to move to the basic display.

◆ Settings

Setup Items	Settings
C25	1
C26	0
C27	0

NOTE

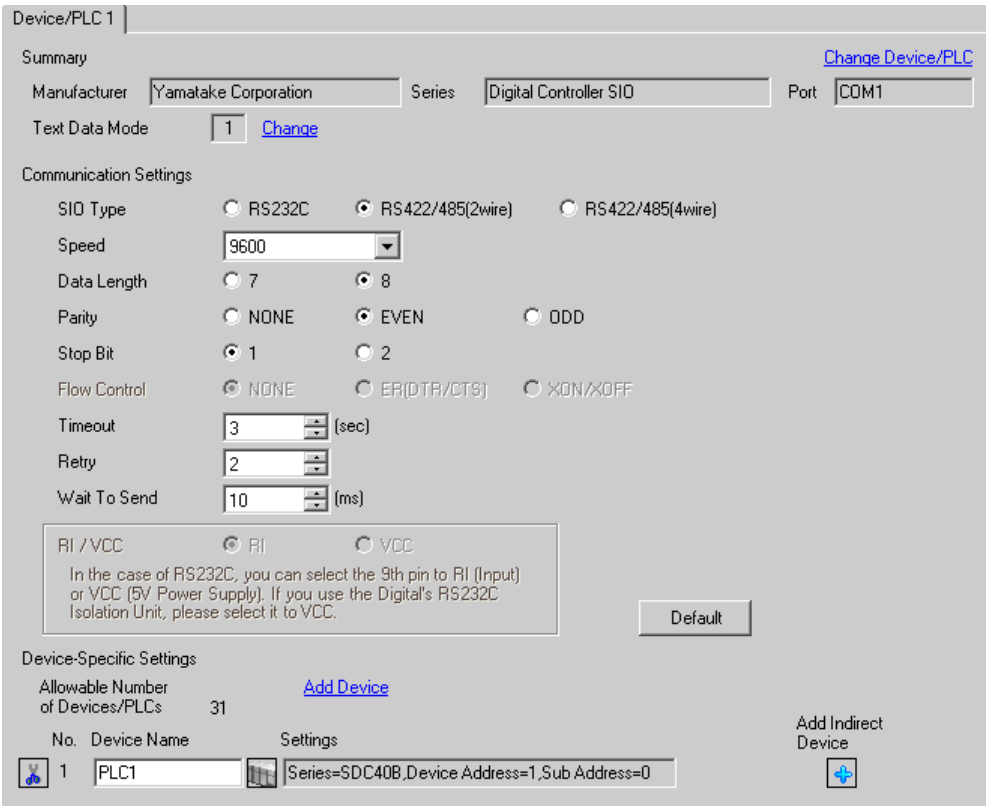
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.15 Setting Example 15

■ Setting of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

■ Settings of External Device

To configure communication settings for the External Device, use the PARA, ENT, DISP, Down and Up keys on the front of the Controller. Refer to your Controller manual for details.

◆ Procedure

1 In the basic display, press the PARA key to move to setup mode.
2 Press the ENT key to display the setup items.
3 Press the Down/Up keys to select a setup item and press the ENT key.
4 Use the Down/Up keys to select a setting and press the ENT key.
5 Press the DISP key to move to the basic display.

◆ Settings

Setup Items	Settings
C25	1
C26	0
C27	0

NOTE

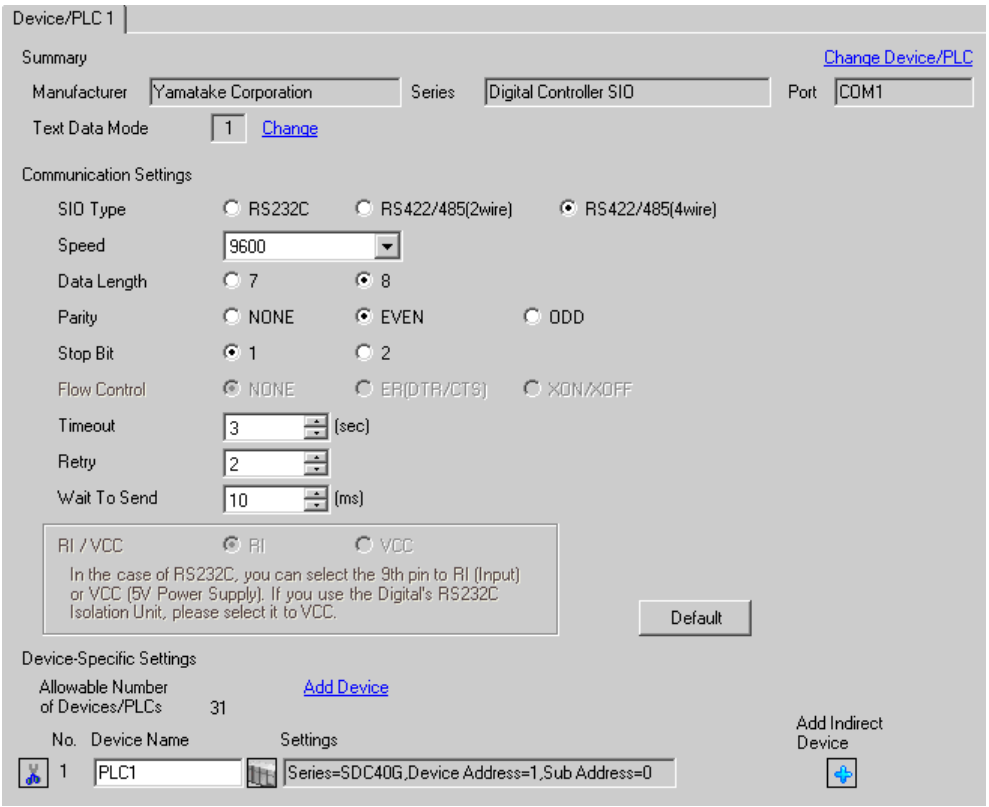
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.16 Setting Example 16

■ Setting of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

■ Settings of External Device

To configure communication settings for the External Device, use the PARA, ENT, DISP, Down and Up keys on the front of the Controller. You can change the communication settings only in READY mode. Switch the External Device to READY mode before setting.
Refer to your Controller manual for details.

◆ Procedure

1 In the basic display, press the PARA key to display PARA. Then press the ENT key to display rnry and move to READY mode.
2 In the basic display, press the PARA key several times to display SETUP.
3 Press the ENT key to display the setup items.
4 Press the Down/Up keys to select a setup item and press the ENT key.
5 Use the Down/Up keys to select a setting and press the ENT key.
6 Press the DISP key to move to the basic display.

◆ Settings

Setup Items	Settings
C25	1
C26	0
C27	0

NOTE

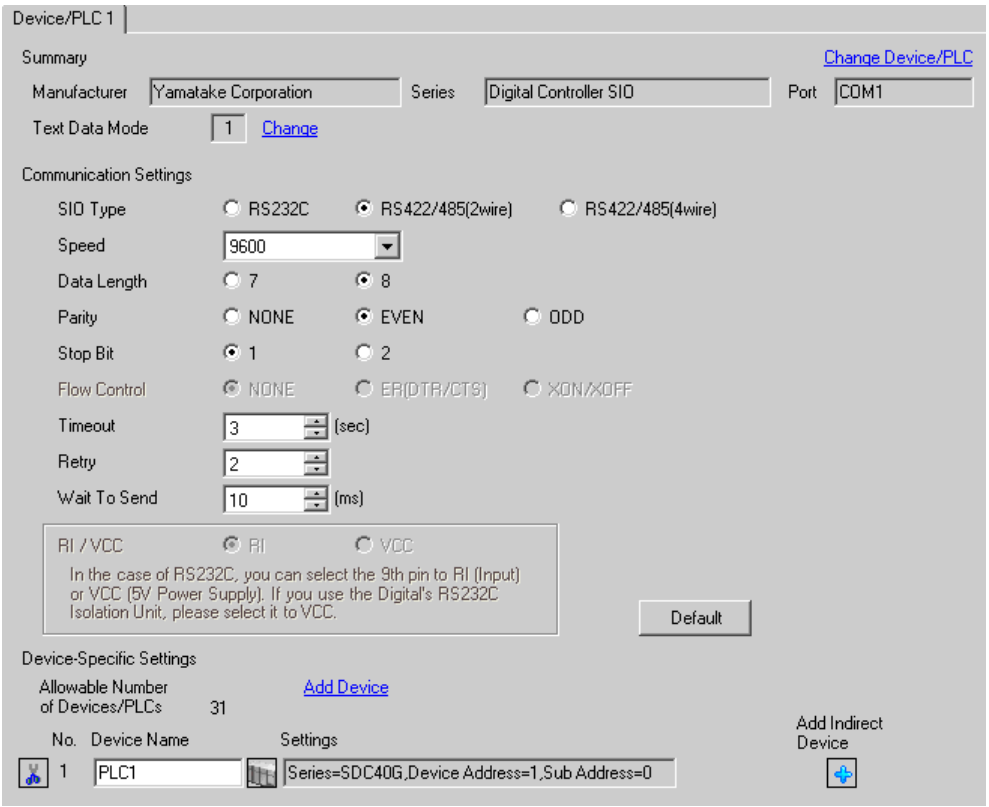
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.17 Setting Example 17

■ Setting of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

■ Settings of External Device

To configure communication settings for the External Device, use the PARA, ENT, DISP, Down and Up keys on the front of the Controller. You can change the communication settings only in READY mode. Switch the External Device to READY mode before setting.
Refer to your Controller manual for details.

◆ Procedure

1 In the basic display, press the PARA key to display PARA. Then press the ENT key to display rnry and move to READY mode.
2 In the basic display, press the PARA key several times to display SETUP.
3 Press the ENT key to display the setup items.
4 Press the Down/Up keys to select a setup item and press the ENT key.
5 Use the Down/Up keys to select a setting and press the ENT key.
6 Press the DISP key to move to the basic display.

◆ Settings

Setup Items	Settings
C25	1
C26	0
C27	0

NOTE

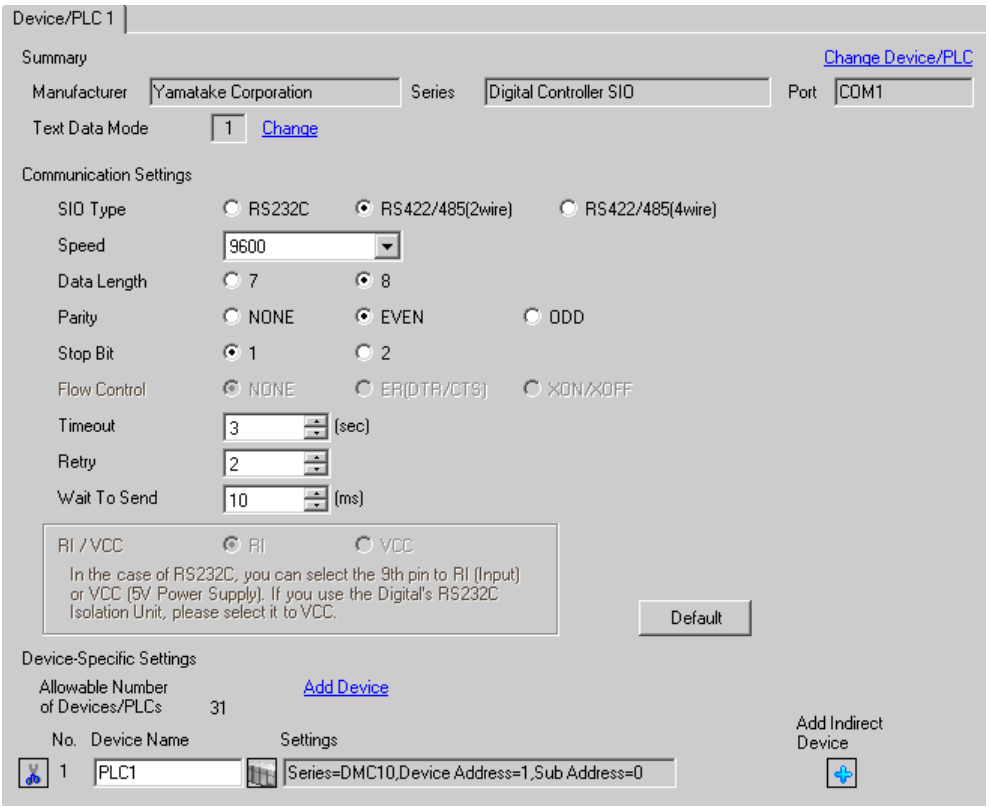
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.18 Setting Example 18

■ Setting of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

■ Settings of External Device

Use the ladder software to configure communication settings for the External Device. (Operation confirmed using the the Smart Loader Package SLP-D10 V3.0.1.) Set the device address of the External Device using the rotary switch on the front of the Controller.

Refer to your Controller manual for details.

◆ Procedure

1 Set the device address using the device address setting rotary switch on the front of the Controller.
After setting the address, reboot the External Device.
2 Click [Set] in the ladder software to display the setting screen.
3 Click [Model Setting] from the menu and select the model No. of the External Device.
4 Click [Environmental Setting] from the menu and configure the setup transfer settings.
5 Select [Communication] from [Basic Function] in the tree view and configure the communication settings.
6 Transfer the settings to the External Device.
When the writing is complete, reboot the External Device.

◆ Settings

Setup Items	Settings
Speed	3
Data format	0
Min. communication response time	1
Additional value of min. communication response time	0
CPL/MODBUSswitching	0
Memory protection	0

NOTE

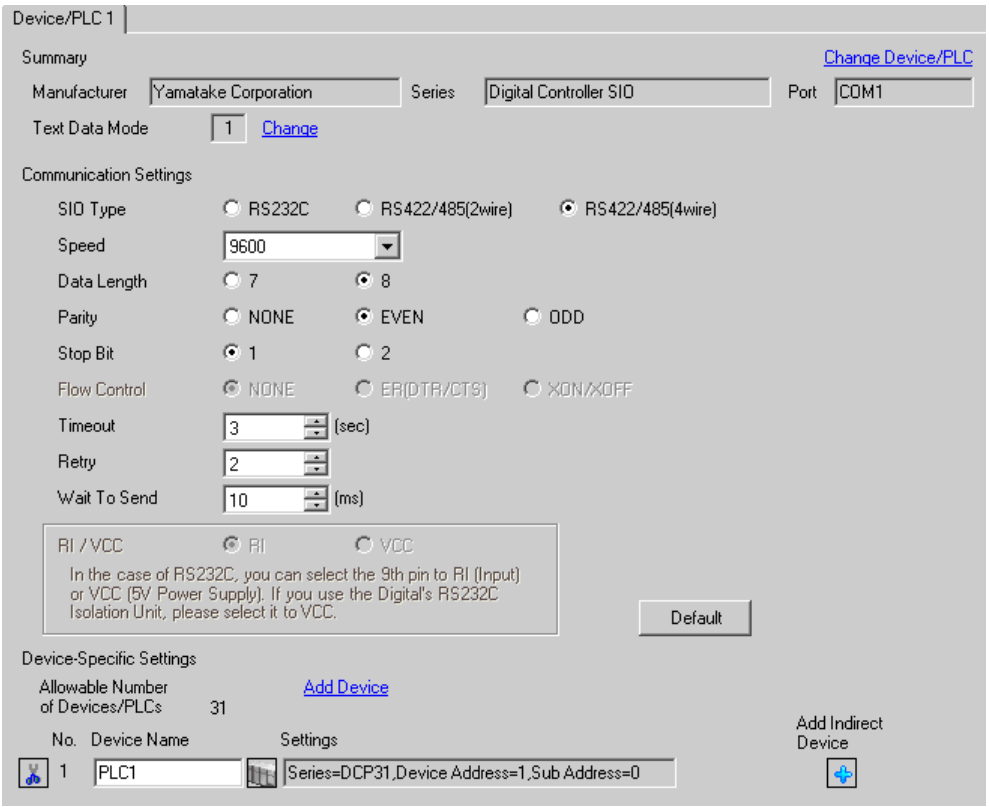
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.19 Setting Example 19

■ Setting of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

■ Settings of External Device

To configure communication settings for the External Device, use the FUNC, PARA, ENT, DISP, Down and Up keys on the front of the Controller. Refer to your Controller manual for details.

◆ Procedure

1 In the basic display, press the PARA key while holding down the FUNC key to move to the setting group selection screen.
2 Press the PARA key several times to display the setup data setting group, and press the ENT key.
3 Press the Down/Up keys several times to select a setup item and press the ENT key.
4 Use the Down/Up keys to select a setting and press the ENT key.
5 Press the DISP key to move to the basic display.

◆ Settings

Setup Items	Settings
C84	1
C85	0
C93	0

NOTE

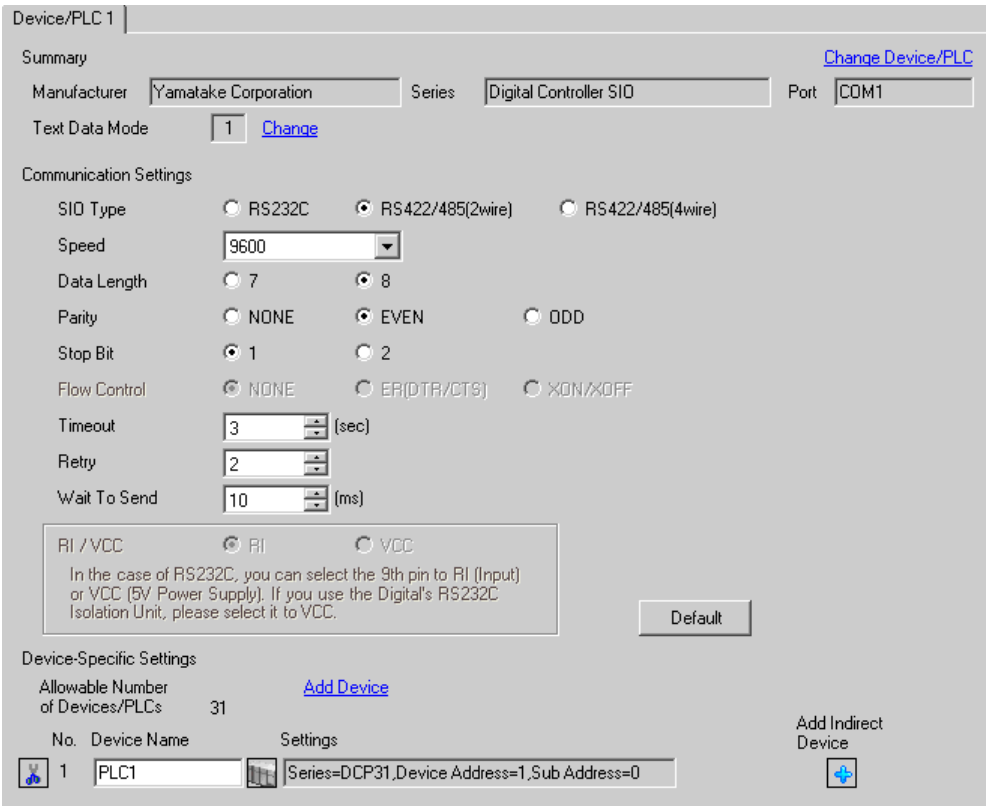
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.20 Setting Example 20

■ Setting of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

■ Settings of External Device

To configure communication settings for the External Device, use the FUNC, PARA, ENT, DISP, Down and Up keys on the front of the Controller. Refer to your Controller manual for details.

◆ Procedure

1 In the basic display, press the PARA key while holding down the FUNC key to move to the setting group selection screen.
2 Press the PARA key several times to display the setup data setting group, and press the ENT key.
3 Press the Down/Up keys several times to select a setup item and press the ENT key.
4 Use the Down/Up keys to select a setting and press the ENT key.
5 Press the DISP key to move to the basic display.

◆ Settings

Setup Items	Settings
C84	1
C85	0
C93	0

NOTE

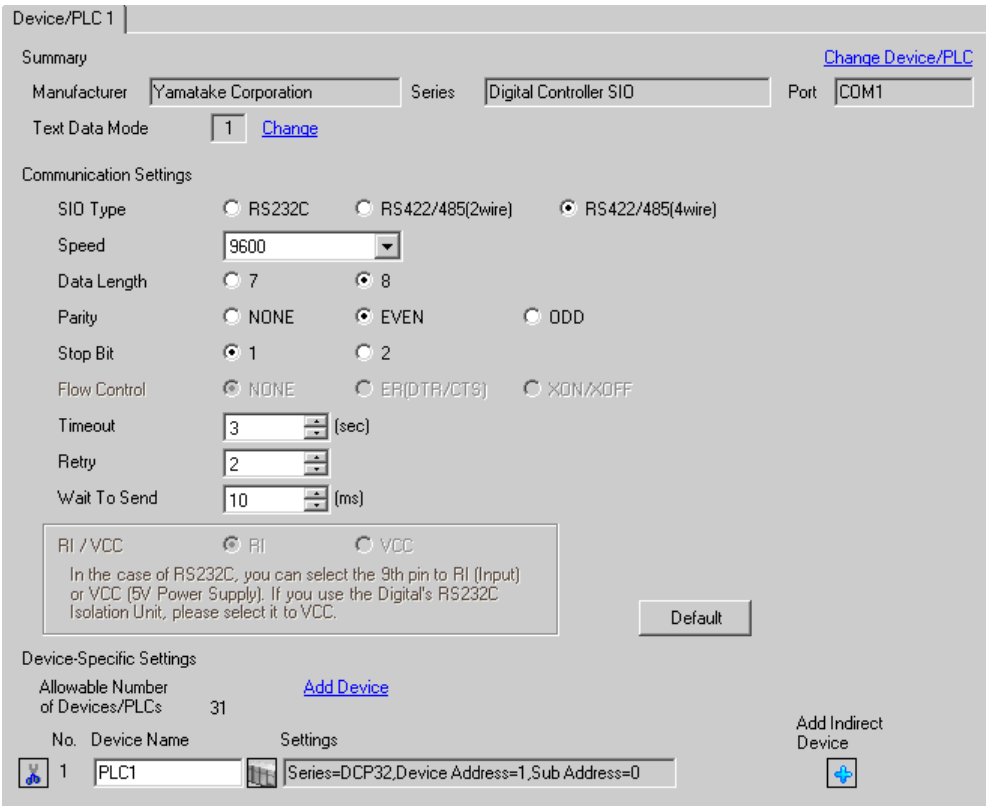
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.21 Setting Example 21

■ Setting of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

■ Settings of External Device

To configure communication settings for the External Device, use the FUNC, PARA, ENT, DISP, Down and Up keys on the front of the Controller. Refer to your Controller manual for details.

◆ Procedure

1 In the basic display, press the PARA key while holding down the FUNC key to move to the setting group selection screen.
2 Press the PARA key several times to display the setup data setting group, and press the ENT key.
3 Press the Down/Up keys several times to select a setup item and press the ENT key.
4 Use the Down/Up keys to select a setting and press the ENT key.
5 Press the DISP key to move to the basic display.

◆ Settings

Setup Items	Settings
C84	1
C85	0
C93	0

NOTE

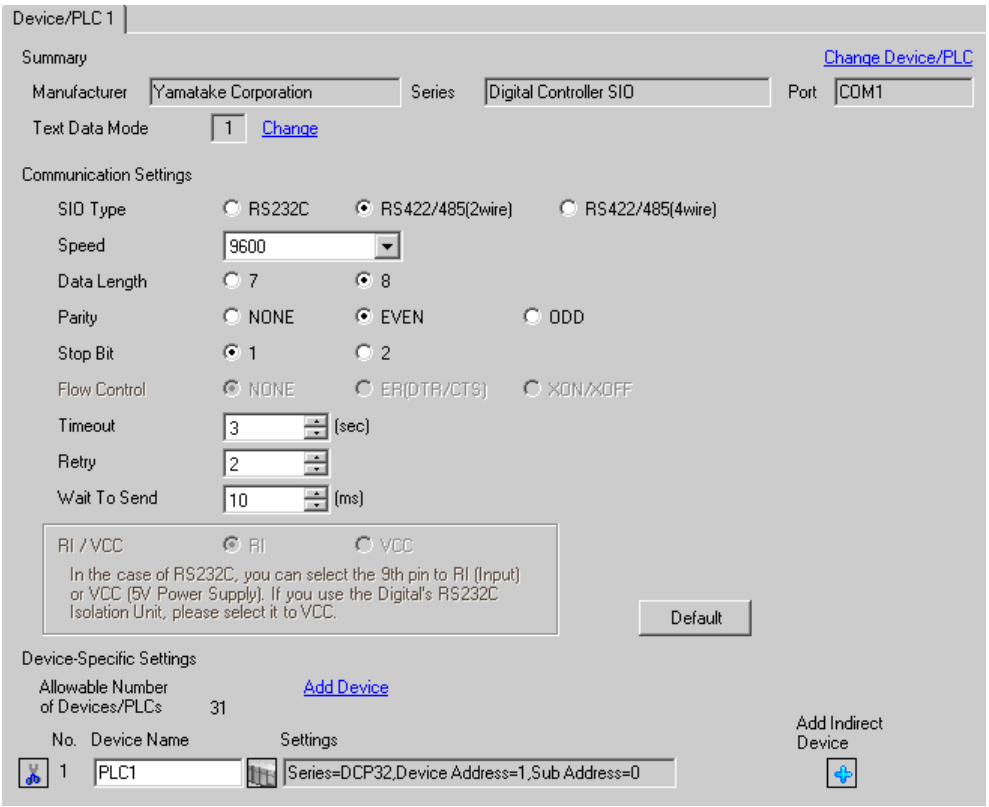
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.22 Setting Example 22

■ Setting of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

■ Settings of External Device

To configure communication settings for the External Device, use the FUNC, PARA, ENT, DISP, Down and Up keys on the front of the Controller. Refer to your Controller manual for details.

◆ Procedure

1 In the basic display, press the PARA key while holding down the FUNC key to move to the setting group selection screen.
2 Press the PARA key several times to display the setup data setting group, and press the ENT key.
3 Press the Down/Up keys several times to select a setup item and press the ENT key.
4 Use the Down/Up keys to select a setting and press the ENT key.
5 Press the DISP key to move to the basic display.

◆ Settings

Setup Items	Settings
C84	1
C85	0
C93	0

NOTE

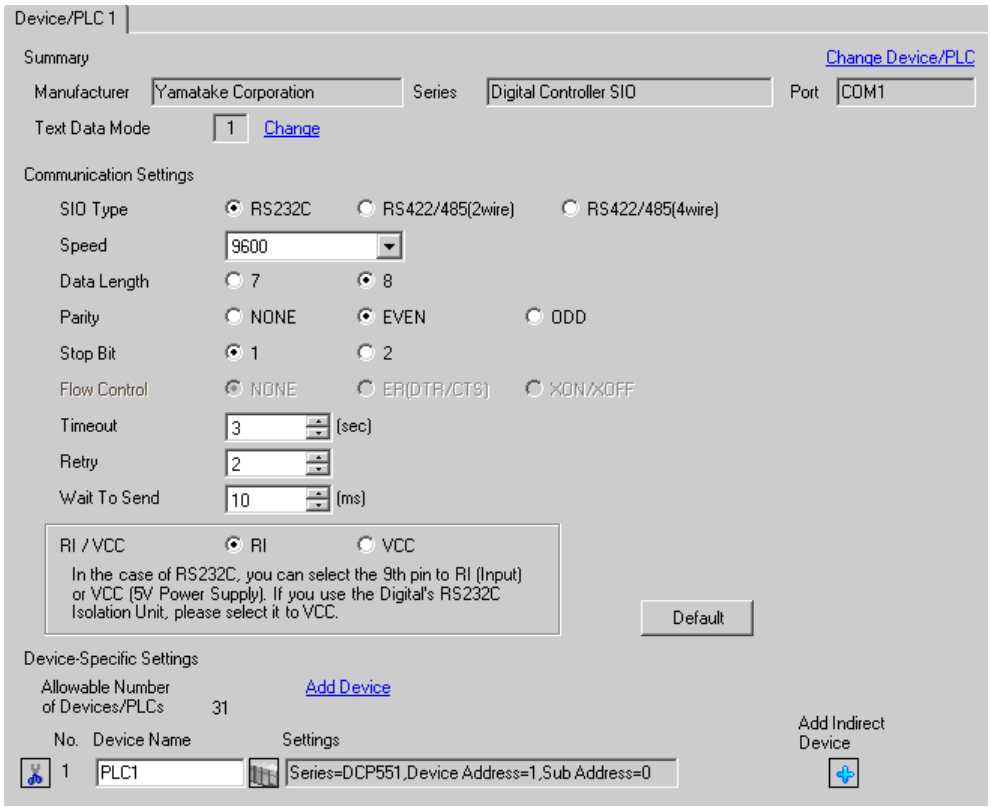
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.23 Setting Example 23

■ Setting of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

■ Settings of External Device

To configure communication settings for the External Device, use the PROG, RUN/HOLD, SETUP, ENT, DISP, Down and Up keys on the front of the Controller. You can change the communication settings only in READY mode. Switch the External Device to READY mode before setting.
Refer to your Controller manual for details.

◆ Procedure

1 Press the RUN/HOLD key while holding down the PROG key to move to READY mode.
2 In the basic display, press the SETUP key to move to the setup group.
3 Press the Down/Up keys several times to select a setup item and press the ENT key.
4 Use the Down/Up keys to select a setting and press the ENT key.
5 Press the DISP key to move to the basic display.

◆ Settings

Setup Items	Settings
C76	1
C77	0
C78	0
C79	0
C80	1
C97	0

NOTE

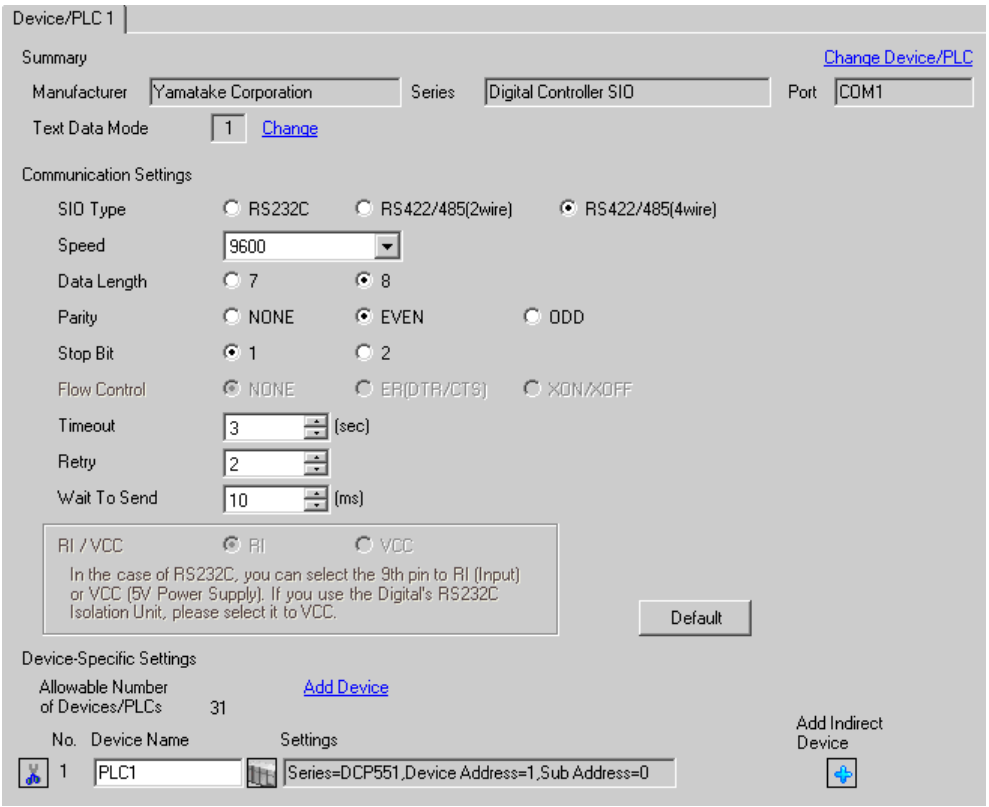
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.24 Setting Example 24

■ Setting of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

■ Settings of External Device

To configure communication settings for the External Device, use the PROG, RUN/HOLD, SETUP, ENT, DISP, Down and Up keys on the front of the Controller. You can change the communication settings only in READY mode. Switch the External Device to READY mode before setting.
Refer to your Controller manual for details.

◆ Procedure

1 Press the RUN/HOLD key while holding down the PROG key to move to READY mode.
2 In the basic display, press the SETUP key to move to the setup group.
3 Press the Down/Up keys several times to select a setup item and press the ENT key.
4 Use the Down/Up keys to select a setting and press the ENT key.
5 Press the DISP key to move to the basic display.

◆ Settings

Setup Items	Settings
C76	1
C77	0
C78	0
C79	0
C80	0
C97	0

NOTE

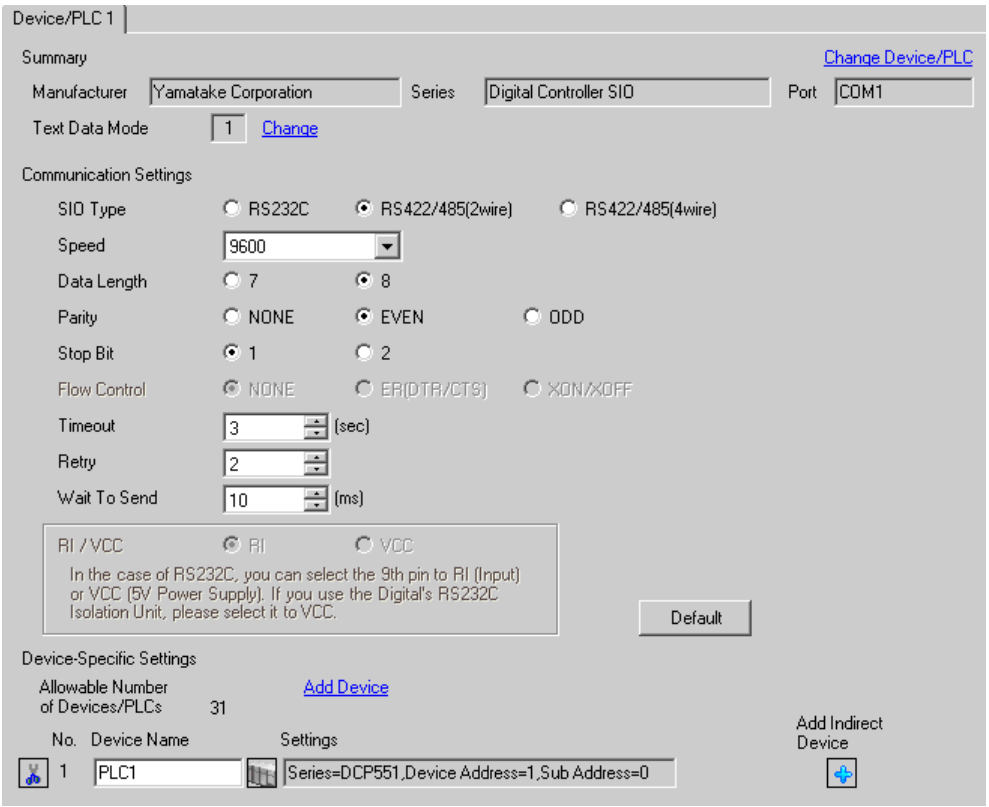
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.25 Setting Example 25

■ Setting of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

■ Settings of External Device

To configure communication settings for the External Device, use the PROG, RUN/HOLD, SETUP, ENT, DISP, Down and Up keys on the front of the Controller. You can change the communication settings only in READY mode. Switch the External Device to READY mode before setting.
Refer to your Controller manual for details.

◆ Procedure

1 Press the RUN/HOLD key while holding down the PROG key to move to READY mode.
2 In the basic display, press the SETUP key to move to the setup group.
3 Press the Down/Up keys several times to select a setup item and press the ENT key.
4 Use the Down/Up keys to select a setting and press the ENT key.
5 Press the DISP key to move to the basic display.

◆ Settings

Setup Items	Settings
C76	1
C77	0
C78	0
C79	0
C80	0
C97	0

NOTE

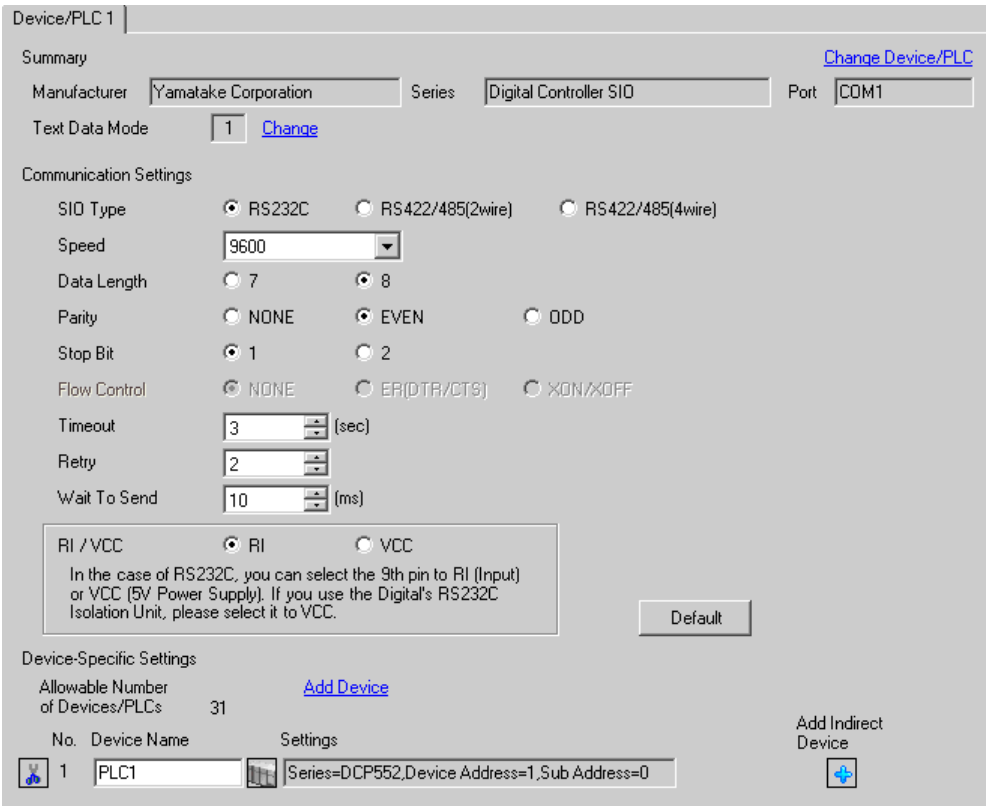
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.26 Setting Example 26

■ Setting of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

■ Settings of External Device

To configure communication settings for the External Device, use the PROG, RUN/HOLD, SETUP, ENT, DISP, Down and Up keys on the front of the Controller. You can change the communication settings only in READY mode. Switch the External Device to READY mode before setting.
Refer to your Controller manual for details.

◆ Procedure

1 Press the RUN/HOLD key while holding down the PROG key to move to READY mode.
2 In the basic display, press the SETUP key to move to the setup group.
3 Press the Down/Up keys several times to select a setup item and press the ENT key.
4 Use the Down/Up keys to select a setting and press the ENT key.
5 Press the DISP key to move to the basic display.

◆ Settings

Setup Items	Settings
C76	1
C77	0
C78	0
C79	0
C80	1
C97	0

NOTE

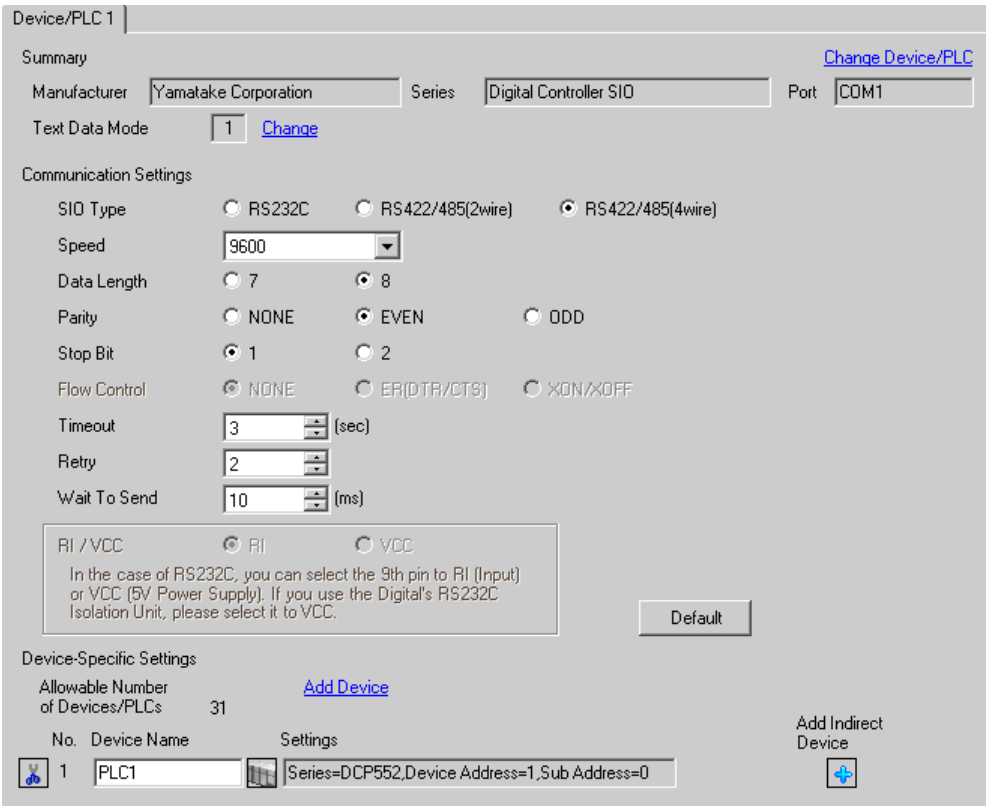
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.27 Setting Example 27

■ Setting of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

■ Settings of External Device

To configure communication settings for the External Device, use the PROG, RUN/HOLD, SETUP, ENT, DISP, Down and Up keys on the front of the Controller. You can change the communication settings only in READY mode. Switch the External Device to READY mode before setting.
Refer to your Controller manual for details.

◆ Procedure

1 Press the RUN/HOLD key while holding down the PROG key to move to READY mode.
2 In the basic display, press the SETUP key to move to the setup group.
3 Press the Down/Up keys several times to select a setup item and press the ENT key.
4 Use the Down/Up keys to select a setting and press the ENT key.
5 Press the DISP key to move to the basic display.

◆ Settings

Setup Items	Settings
C76	1
C77	0
C78	0
C79	0
C80	0
C97	0

NOTE

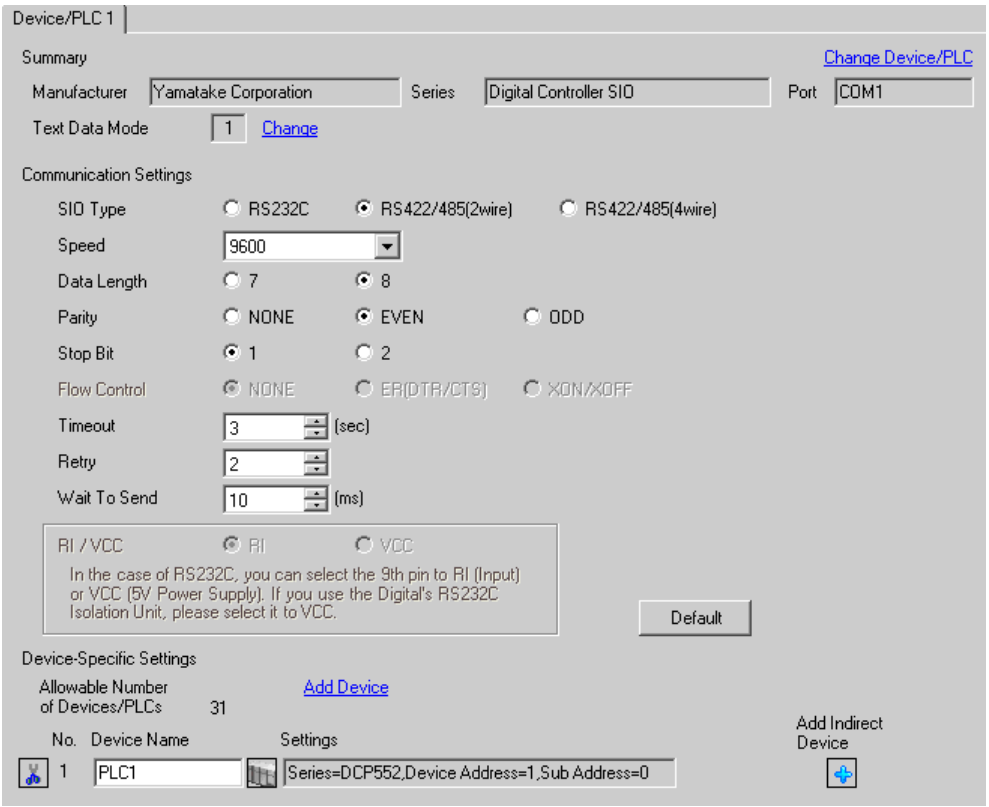
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.28 Setting Example 28

■ Setting of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

■ Settings of External Device

To configure communication settings for the External Device, use the PROG, RUN/HOLD, SETUP, ENT, DISP, Down and Up keys on the front of the Controller. You can change the communication settings only in READY mode. Switch the External Device to READY mode before setting.
Refer to your Controller manual for details.

◆ Procedure

1 Press the RUN/HOLD key while holding down the PROG key to move to READY mode.
2 In the basic display, press the SETUP key to move to the setup group.
3 Press the Down/Up keys several times to select a setup item and press the ENT key.
4 Use the Down/Up keys to select a setting and press the ENT key.
5 Press the DISP key to move to the basic display.

◆ Settings

Setup Items	Settings
C76	1
C77	0
C78	0
C79	0
C80	0
C97	0

NOTE

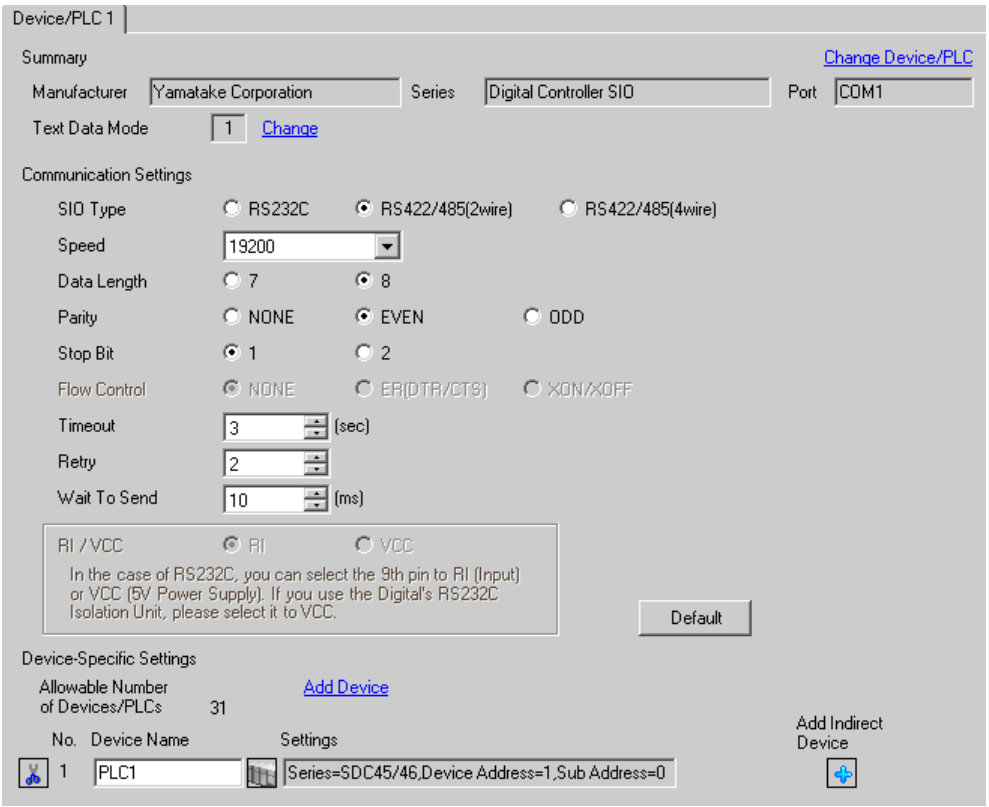
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.29 Setting Example 29

■ Setting of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

■ Settings of External Device

To configure communication settings for the External Device, use the para, enter, display, and cursor keys on the front of the Controller.

Refer to your Controller manual for details.

◆ Procedure

1 In the operation display, press and hold the para key (for 2 seconds) to move to PARA bank mode.
2 Press the para key to display RS-485 communication bank mode (rS485).
3 Press the enter key to move to RS-485 communication bank mode.
4 Press the para key to select a setup item and press the enter key.
5 Use the cursor keys to select a setting and press the enter key.
6 Press the display key to move to the operation display.
7 Reboot the External Device.

◆ Settings

Setup Items	Settings
Com.02	1
Com.03	2
Com.04	1
Com.05	0
Com.06	0
Com.07	3

NOTE

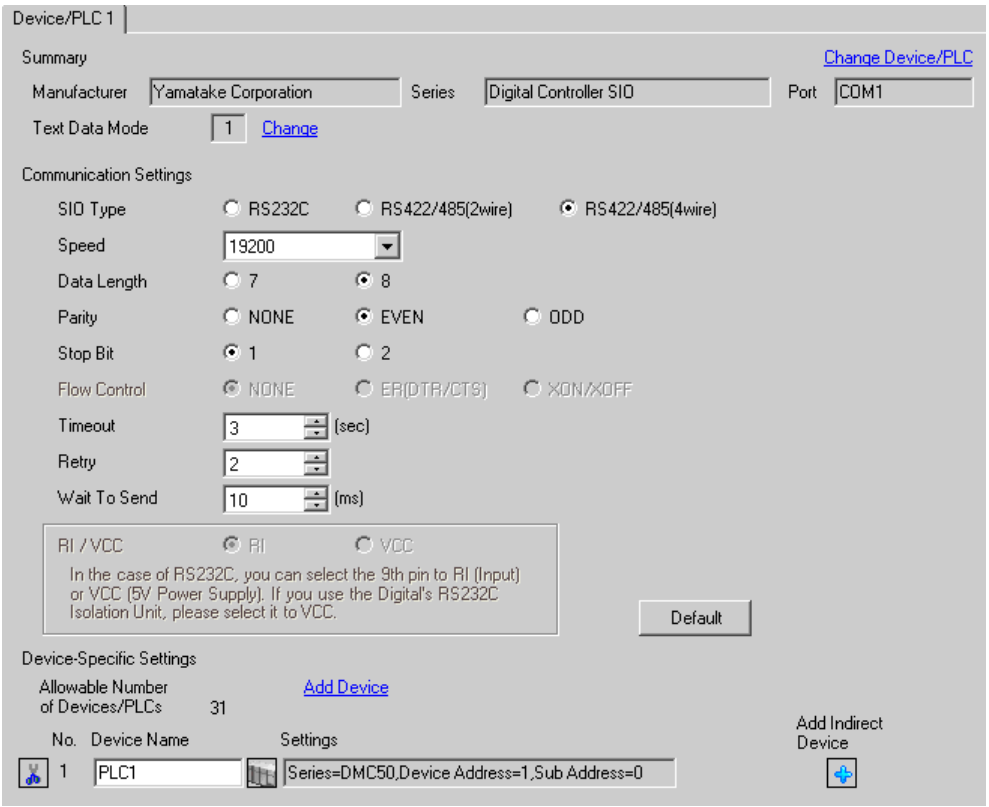
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.30 Setting Example 30

■ Setting of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

■ Settings of External Device

Use the ladder software (Smart Loader Package SLP-D510 V2.2.3) to configure communication settings for the External Device. Use the rotary switch on the front of the Controller to set the device address of the External Device.

Refer to your Controller manual for details.

◆ Procedure

1 Set the device address using the device address setting rotary switch on the front of the Controller, as shown below.

After setting the address, reboot the External Device.

Rotary Switch	Settings
ADR	1

2 Start up the ladder software.

3 Select [New Project] from the [Project] menu.

4 In the [Project Group] dialog box, click [OK] to display the [Project Definition] dialog box.

5 Type a project name in [Project Name].

6 Select the module you want to use from [Module Type], and then click [OK].

7 Select [System Parameters] - [Communication Setup] - [Instance] in the tree view.

8 Set [Trans.Speed (RS-485 port1)] and [Protocol (RS-485 port1)] on the [Instance Body] tab as shown below.

Setup Items	Settings
Trans.Speed (RS-485 port1)	3
Protocol (RS-485 port1)	1

9 Right-click the [Instance Body] tab and select [Download] from the menu that appears to download the settings to the External Device.

10 Reboot the External Device.

NOTE

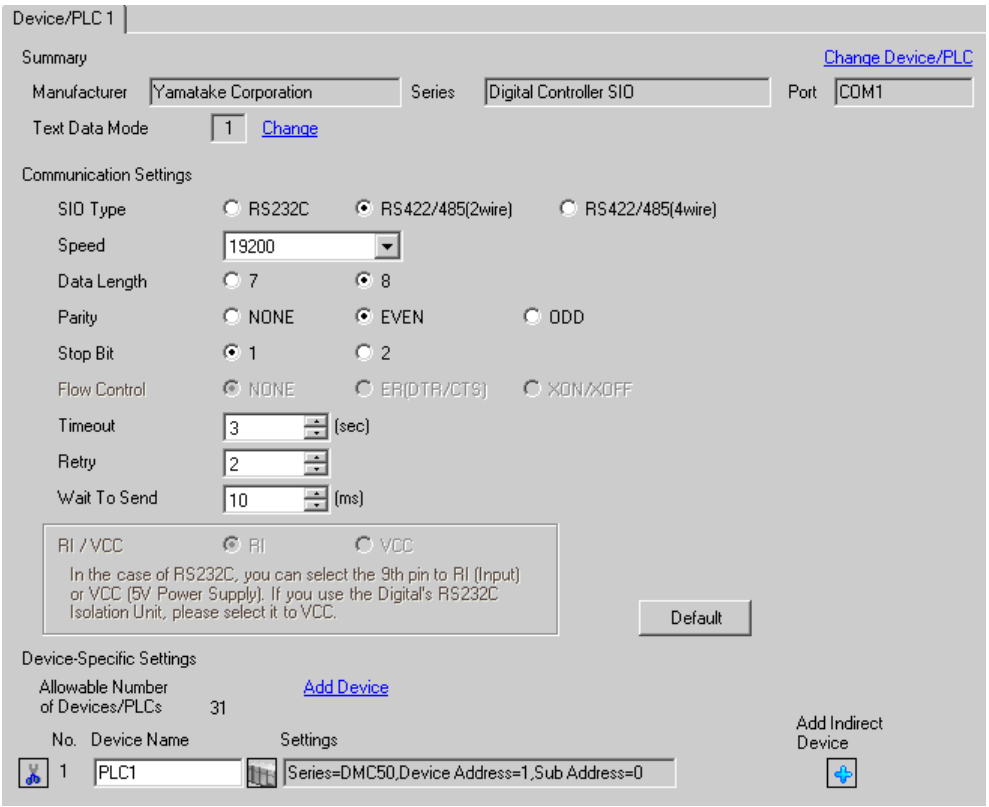
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.31 Setting Example 31

■ Setting of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

■ Settings of External Device

Use the ladder software (Smart Loader Package SLP-D510 V2.2.3) to configure communication settings for the External Device. Use the rotary switch on the front of the Controller to set the device address of the External Device.

Refer to your Controller manual for details.

◆ Procedure

1 Set the device address using the device address setting rotary switch on the front of the Controller, as shown below.

After setting the address, reboot the External Device.

Rotary Switch	Settings
ADR	1

2 Start up the ladder software.

3 Select [New Project] from the [Project] menu.

4 In the [Project Group] dialog box, click [OK] to display the [Project Definition] dialog box.

5 Type a project name in [Project Name].

6 Select the module you want to use from [Module Type], and then click [OK].

7 Select [System Parameters] - [Communication Setup] - [Instance] in the tree view.

8 Set [Trans.Speed (RS-485 port1)] and [Protocol (RS-485 port1)] on the [Instance Body] tab as shown below.

Setup Items	Settings
Trans.Speed (RS-485 port1)	3
Protocol (RS-485 port1)	1

9 Right-click the [Instance Body] tab and select [Download] from the menu that appears to download the settings to the External Device.

10 Reboot the External Device.

NOTE

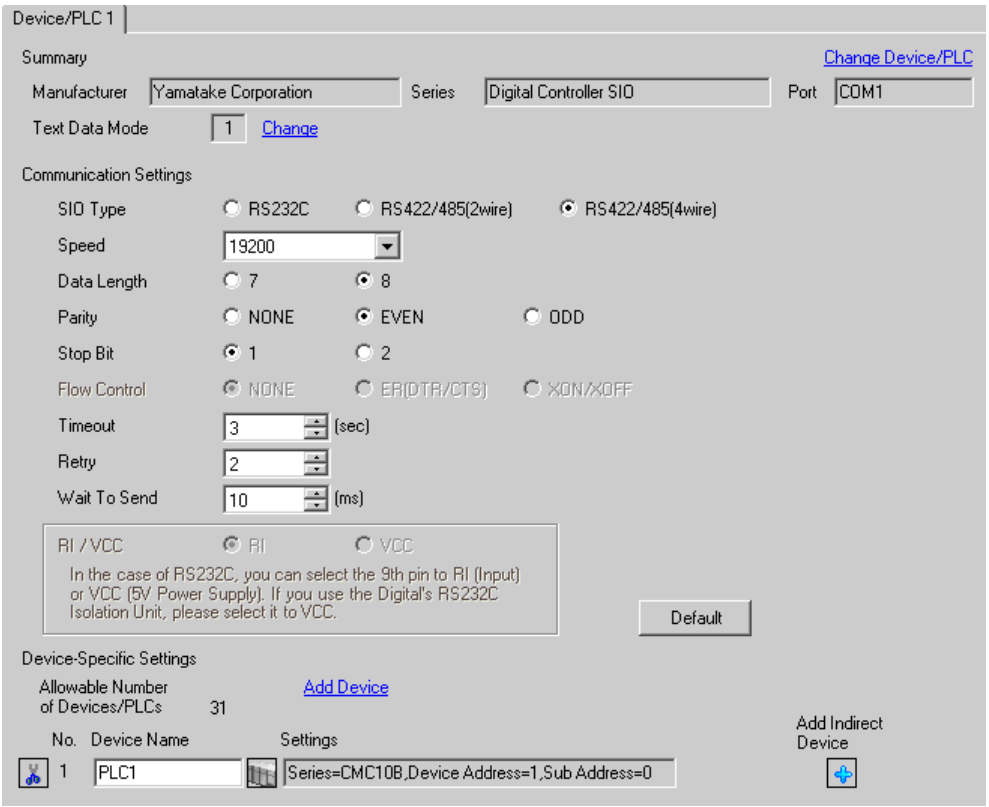
- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

3.32 Setting Example 32

■ Setting of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

■ Settings of External Device

Use the ladder software (Smart Loader Package SLP-CM1 V2.0.1) to configure communication settings for the External Device. Use the rotary switch on the front of the Controller to set the device address and transmission speed of the External Device.

Refer to your Controller manual for details.

◆ Procedure

1 Set the device address and transmission speed using the rotary switch on the front of the Controller, as shown below.

After setting them, reboot the External Device.

Rotary Switch	Settings
CMC ADDRESS (x10)	0
CMC ADDRESS (x1)	1
HOST ←→ CMC BRATE	2

2 Start the ladder software and select [Setup].

3 Select [Communication] - [Host] in the tree view and set [Data format] as shown below.

Setup Items	Settings
Data format	0

4 Select [Write (SLP10 to CMC10B)] from the [Communication] menu, and download the set data to the External Device.

5 Reboot the External Device.

NOTE

- The parameters to be set vary depending on the Controller. Refer to your Controller manual for details.

4 Setup Items

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

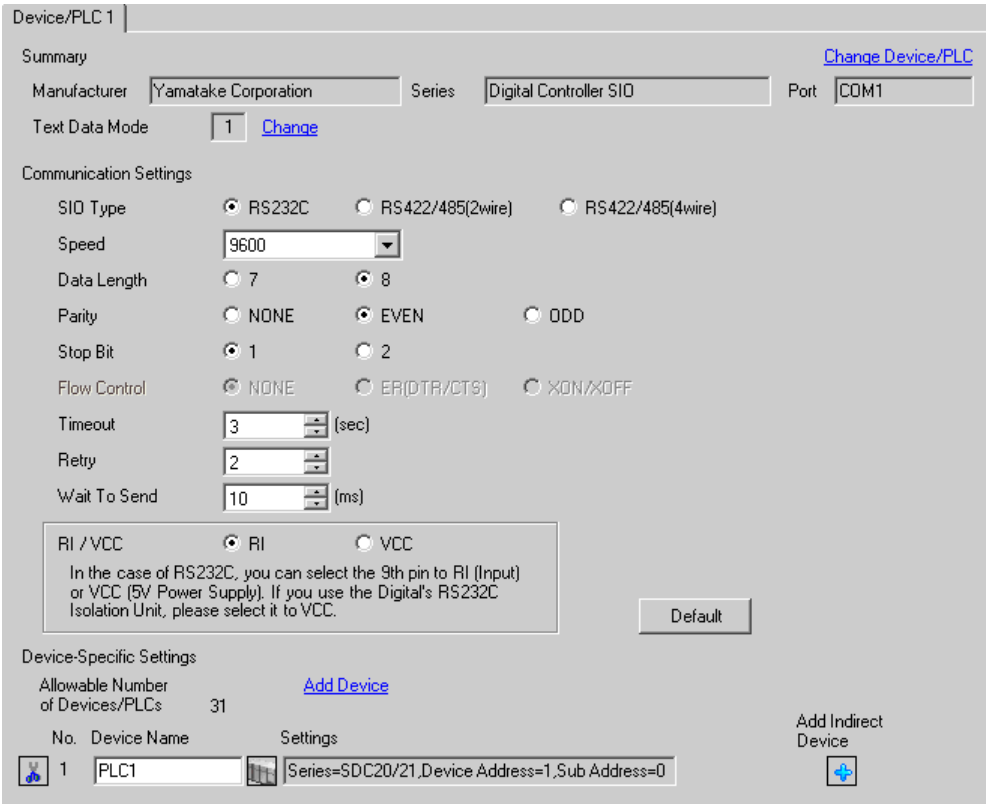
The setting of each parameter must match that of the External Device.

☞"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 the workspace.



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

Continued to next page.

Setup Items	Setup Description
Retry	In case of no response from the External Device, enter how many times the Display retransmits the command, from "0 to 255".
Wait To Send	Enter the standby time (ms) from when the Display receives packets until it transmits the next command, from "0 to 255".
RI/VCC	Switches between RI/VCC of the 9th pin. To connect to the IPC, you need to switch between RI/5V using the IPC selector switch. Refer to your IPC manual for details.

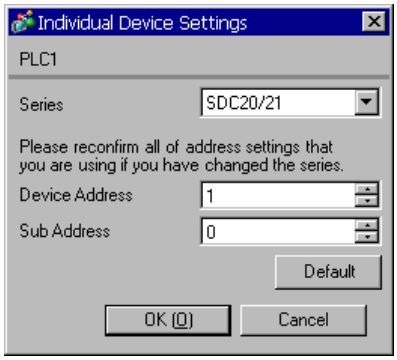
NOTE

- Refer to the GP-Pro EX Reference Manual for Indirect Device.

■ Device Setting

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

To connect multiple External Devices, from [Device-Specific Settings] in the [Device/PLC] window, click [Add Device] to add another External Device.



Setup Items	Setup Description
Series	Displays the model of the External Device.
Device Address	Enter the address of the External Device, from "1 to 127".
Sub Address	Enter "0" to communicate with the External Device. If you communicate with the child station (External Device) via the parent station (CMC10B, DMC10, or DMC50), however, enter "1 to 31" for the child station address.

4.2 Settings in Offline Mode

NOTE

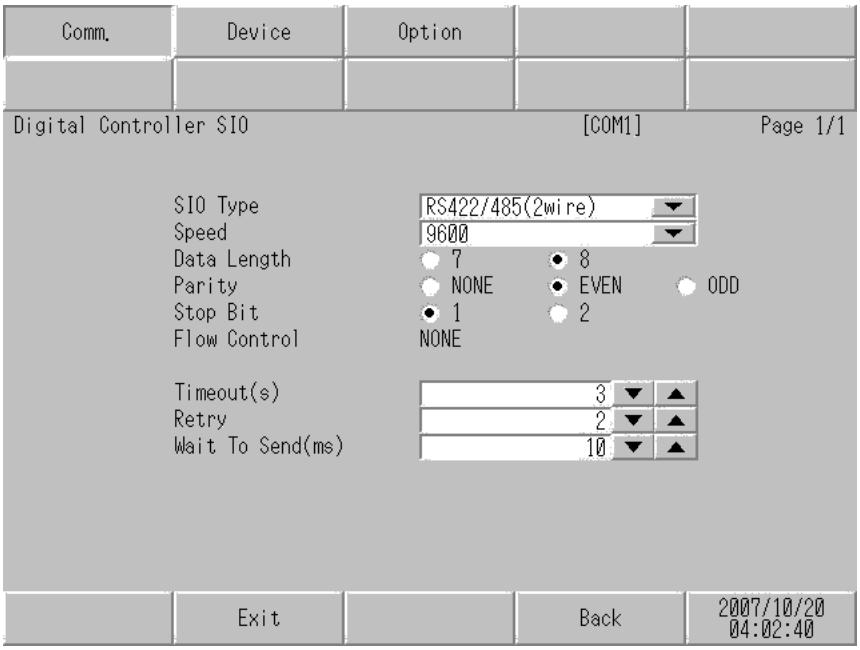
- Refer to the Maintenance/Troubleshooting guide for information on how to enter offline mode or about the operation.

  Cf. Maintenance/Troubleshooting Guide "Offline Mode"

- The number of the setup items to be displayed for 1 page in the offline 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 offline mode. Touch the External Device you want to set from the list that appears.



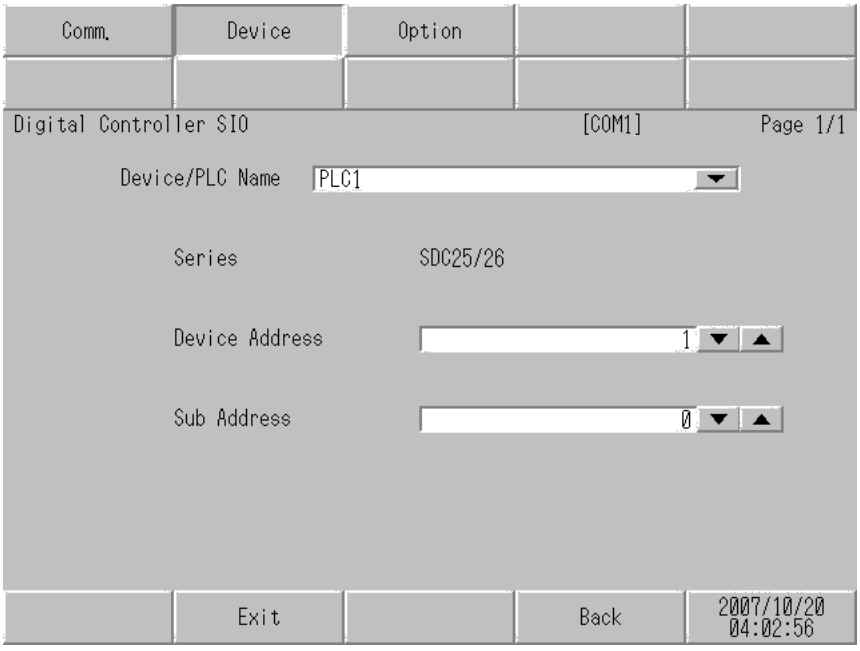
Setup Items	Setup Description
SIO Type	Select the SIO type for communicating with the External Device. **IMPORTANT** In the communication settings, set [SIO Type] correctly according to the serial interface specifications of the Display. If you select an SIO type that the serial interface does not support, proper operation cannot be guaranteed. Refer to your Display manual for details on the serial interface specifications.
Speed	Select the communication speed between the External Device and the Display.
Data Length	Select a data length.
Parity	Select how to check parity.
Stop Bit	Select a stop bit length.

Continued to next page.

Setup Items	Setup Description
Flow Control	Displays the communication control method to prevent overflow of transmission and reception data.
Timeout	Enter the time (s) for which the Display waits for a response from the External Device, from "1 to 127".
Retry	In case of no response from the External Device, enter how many times the Display retransmits the command, from "0 to 255".
Wait To Send	Enter the standby time (ms) from when the Display receives packets until it transmits the next command, from "0 to 255".

■ Device Setting

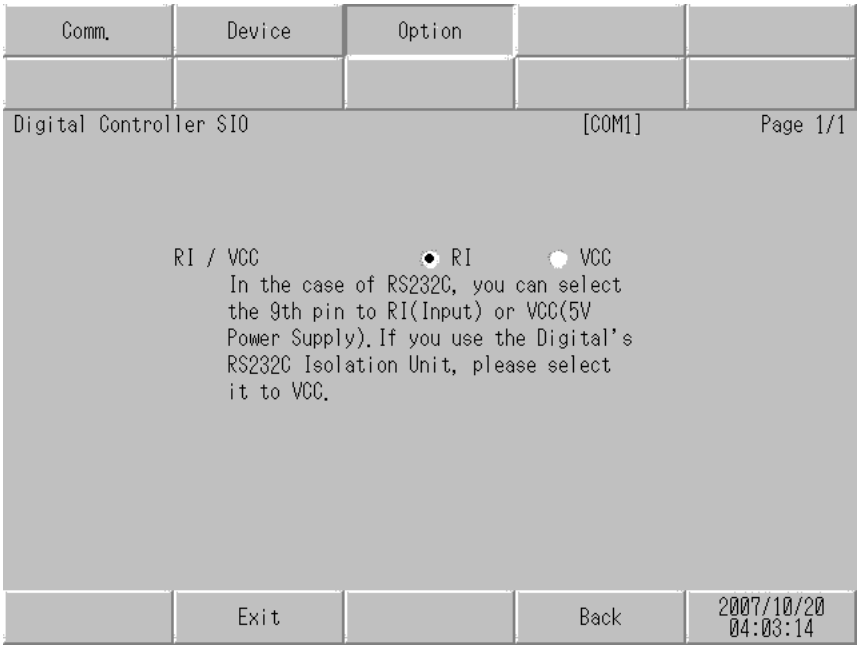
To display the setting screen, touch [Device/PLC Settings] from [Peripheral Equipment Settings]. Touch the External Device you want to set from the list that appears, and touch [Device Settings].



Setup Items	Setup Description
Device/PLC Name	Select the External Device to set. Device name is the title of the External Device set with GP-Pro EX. (Initial value [PLC])
Series	Displays the model of the External Device.
Device Address	Enter the address of the External Device, from "1 to 127".
Sub Address	Enter "0" to communicate with the External Device. If you communicate with the child station (External Device) via the parent station (CMC10B, DMC10, or DMC50), however, enter "1 to 31" for the child station address.

■ Option

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



Setup Items	Setup Description
RI/VCC	Switches between RI/VCC of the 9th pin. To connect to the IPC, you need to switch between RI/5V using the IPC selector switch. Refer to your IPC manual for details.

NOTE

- GP-4100 series do not have the [Option] setting in the offline mode.

5 Cable Diagram

The cable diagram shown below may differ from that recommended by Yamatake Corporation. Please be assured, however, that there is no operational problem in applying the cable diagram shown in this manual.

- The FG pin on the External Device must be D-class grounded. Refer to your External Device manual for details.
- The SG and FG are connected inside the Display. If you connect the External Device to the SG, do not form any short-circuit loop in the system design.
- Consult your External Device manual for the pin No. on the External Device side. It varies depending on the additional function.
- If the communication is not stable because of noise or other factors, connect an isolation unit.
- Recommended cable

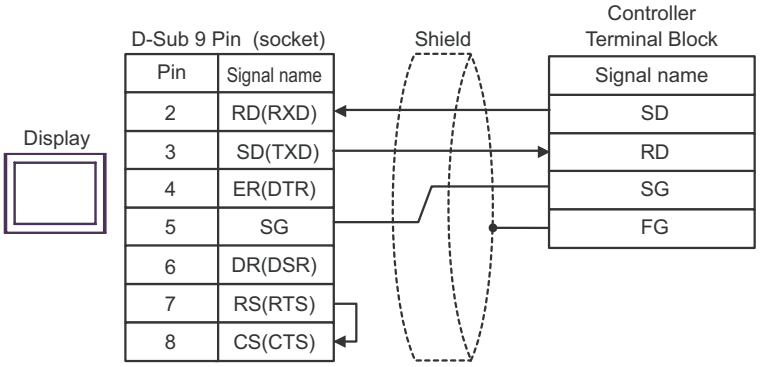
Company Name		Model
Fujikura Densen, Ltd.	Duplex	IPEV-S-0.9mm^2 x 1P
	Triplex	ITEV-S-0.9mm^2 x 1T
Hitachi Cable, Ltd.	Duplex	KPEV-S-0.9mm^2 x 1P
	Triplex	KTEV-S-0.9mm^2 x 1T

Cable Diagram 1

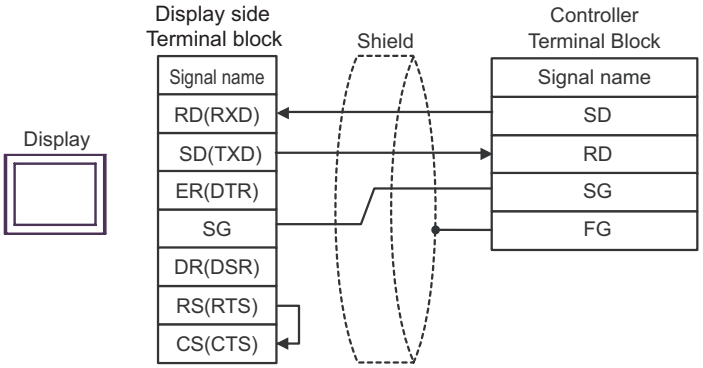
Display (Connection Port)	Cable		Remarks
GP3000 (COM1) ST (COM1) LT (COM1) IPC*1 PC/AT	1A	User-created cable	Cable length: 15m or less
GP-4105 (COM1)	1B	User-created cable	

*1 Available only with COM ports that support RS-232C.
☞ ■ IPC COM Port (page 8)

1A)


D-Sub 9 Pin (socket)
Shield
Controller
Terminal Block
Display
Pin
Signal name
2
RD(RXD)
3
SD(TXD)
4
ER(DTR)
5
SG
6
DR(DSR)
7
RS(RTS)
8
CS(CTS)
Signal name
SD
RD
SG
FG

1B)


Display side
Terminal block
Shield
Controller
Terminal Block
Display
Signal name
RD(RXD)
SD(TXD)
ER(DTR)
SG
DR(DSR)
RS(RTS)
CS(CTS)
Signal name
SD
RD
SG
FG

Cable Diagram 2

Display (Connection Port)	Cable		Remarks
GP3000[*1] (COM1) AGP-3302B (COM2) ST[*2] (COM2) LT (COM1) IPC[*3]	2A	COM port conversion adapter by Pro-face. CA3-ADPCOM-01 + Connector terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	Cable length: 500m or less
	2B	User-created cable	
GP3000[*4] (COM2)	2C	Online adapter by Pro-face CA4-ADPONL-01 + Connector 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

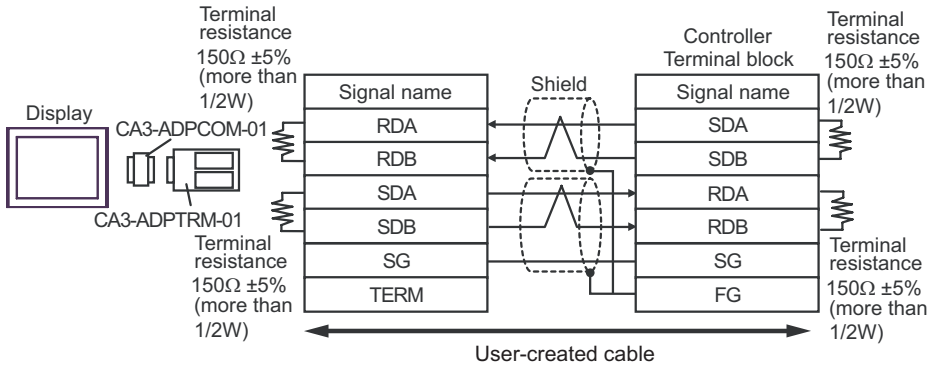
*2 All ST models except AST-3211A and AST-3302B

*3 Available only with COM ports that support RS-422/485 (4wire).
☞ ■ IPC COM Port (page 8)

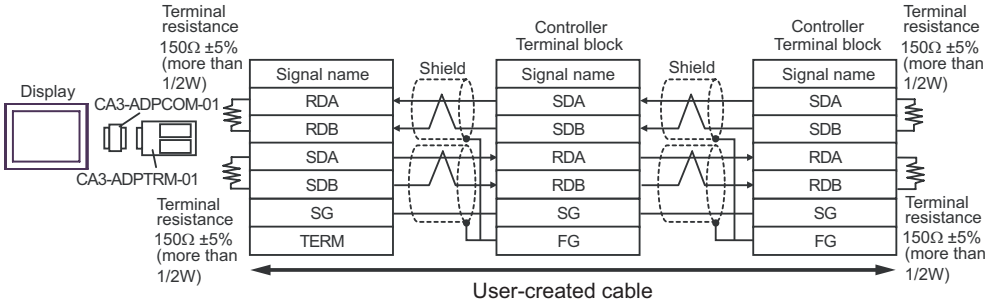
*4 All GP3000 models except the GP-3200 Series and AGP-3302B

2A)

- 1:1 Connection

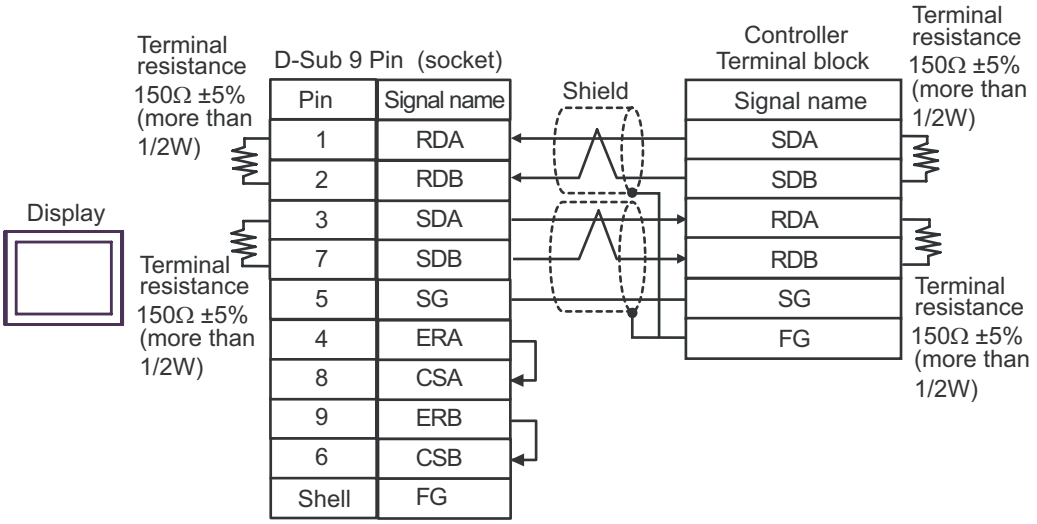


- 1:n Connection

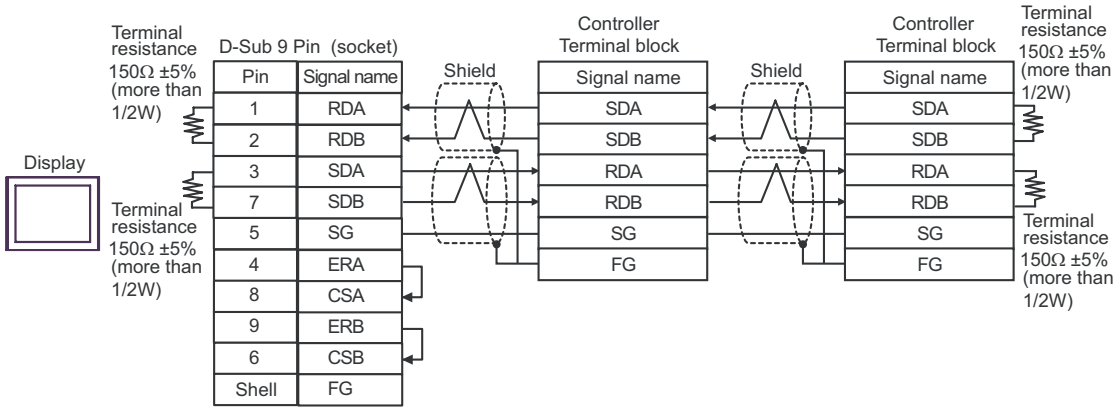


2B)

- 1:1 Connection

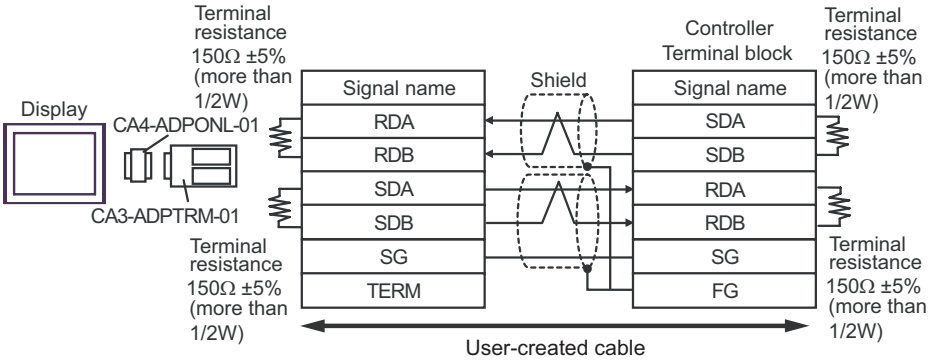


- 1:n Connection

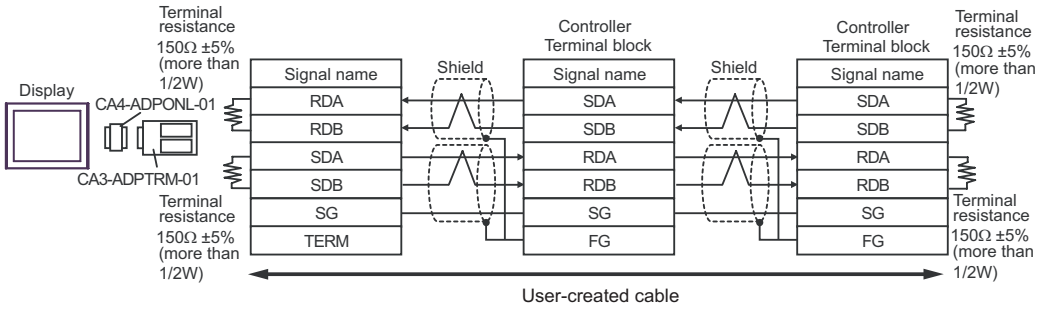


2C)

- 1:1 Connection

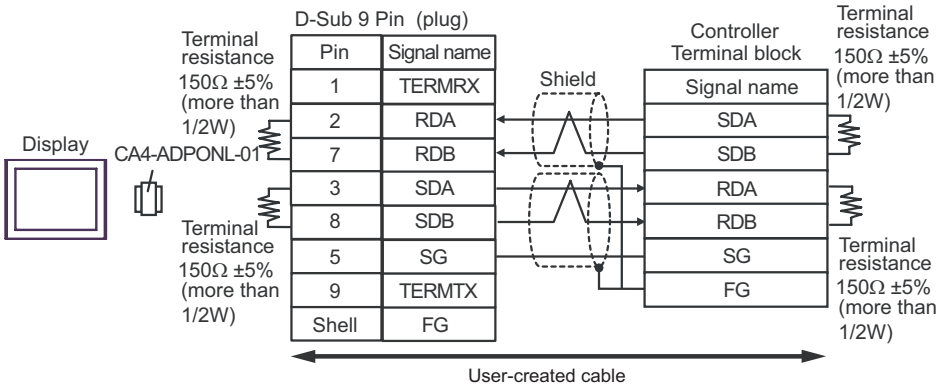


- 1:n Connection

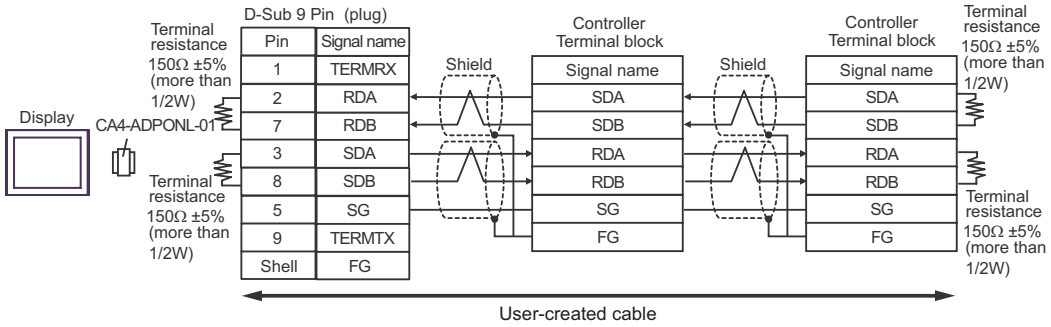


2D)

- 1:1 Connection

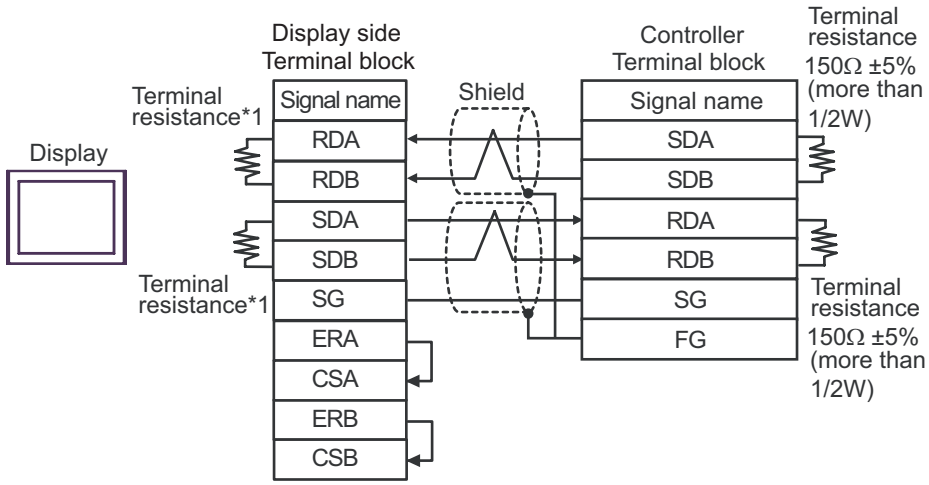


- 1:n Connection

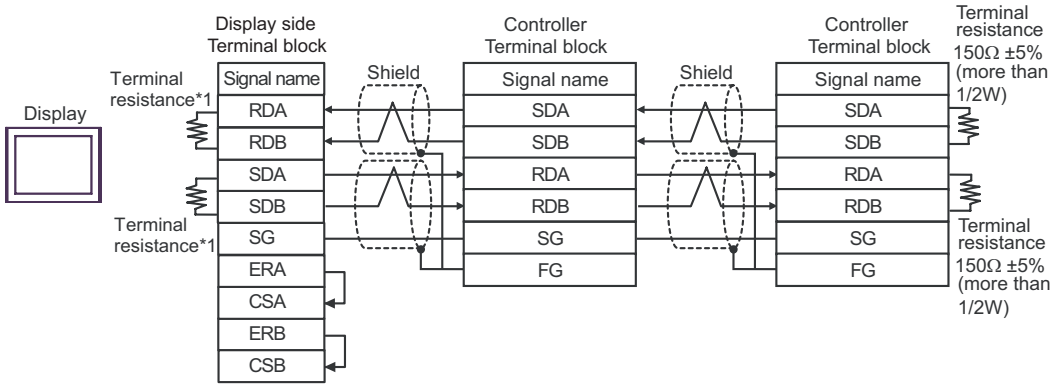


2E)

- 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	ON
2	ON
3	ON
4	ON

Cable Diagram 3

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

*1 All GP3000 models except AGP-3302B

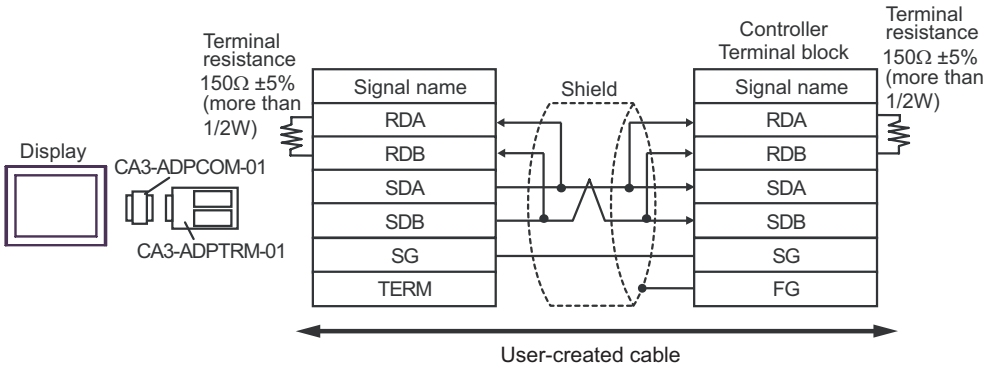
*2 All ST models except AST-3211A and AST-3302B

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

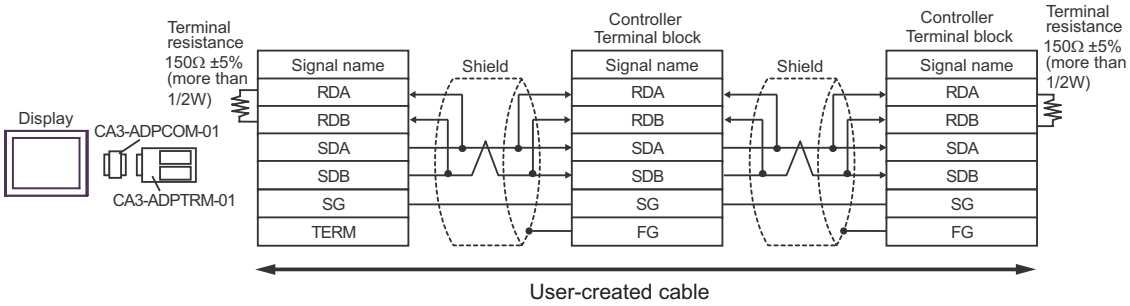
*4 Available only with COM ports that support RS-422/485 (2wire).
☞ ■ IPC COM Port (page 8)

3A)

- 1:1 Connection

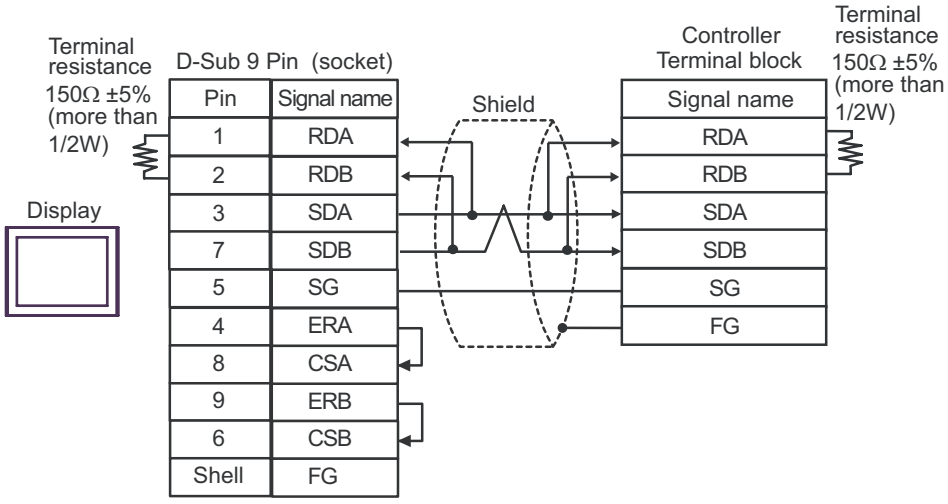


- 1:n Connection

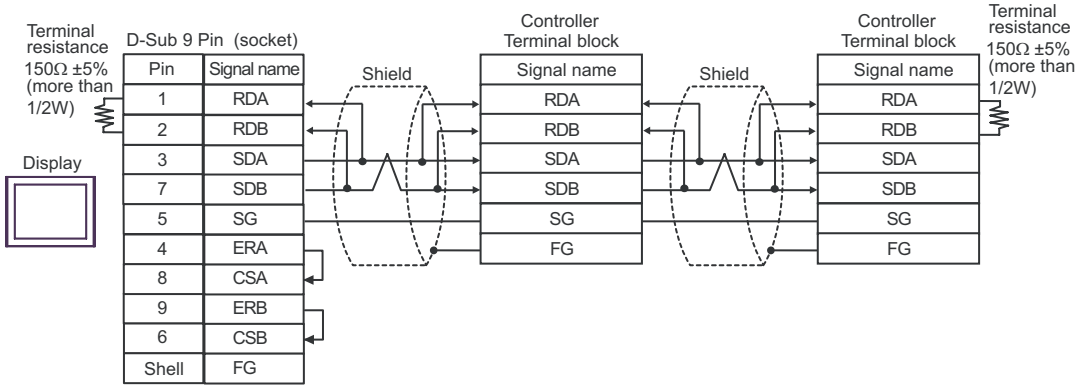


3B)

- 1:1 Connection

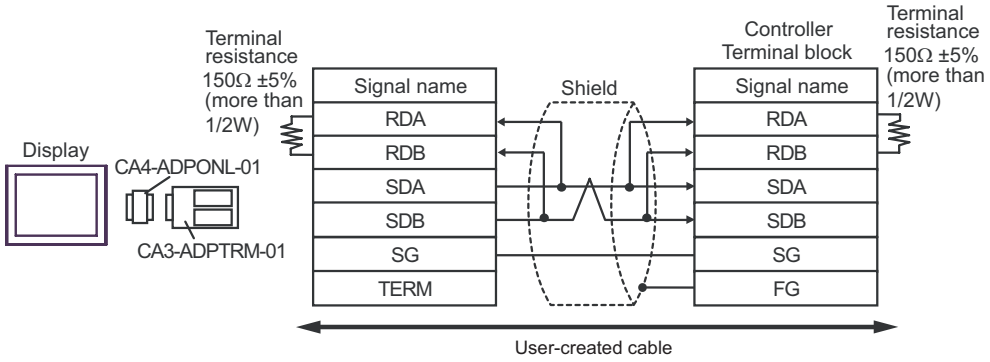


- 1:n Connection

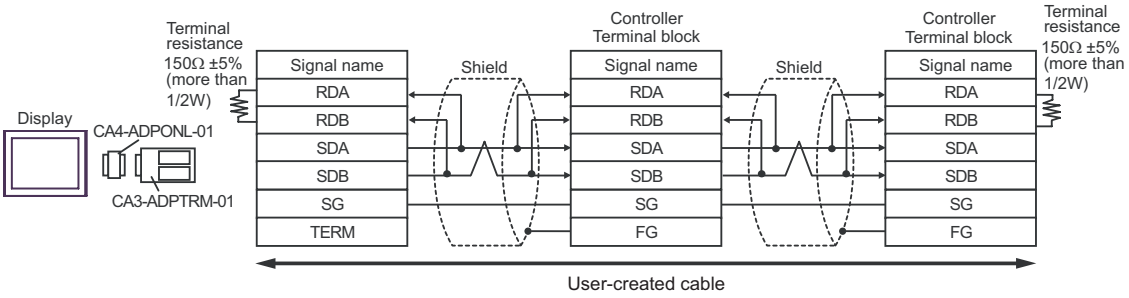


3C)

- 1:1 Connection

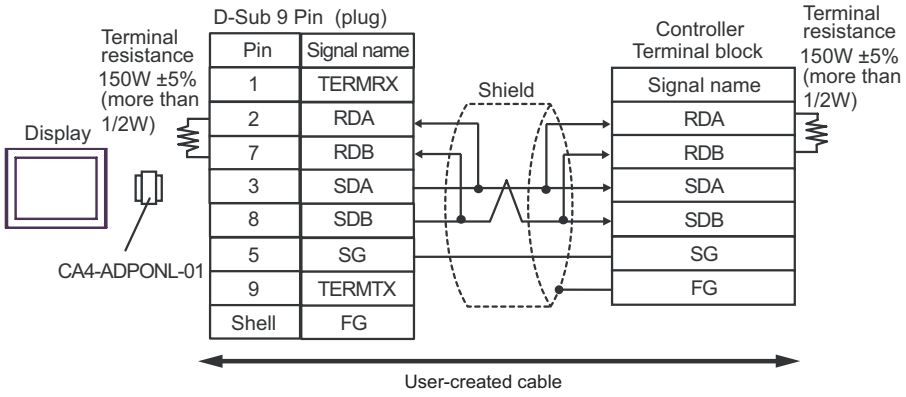


- 1:n Connection

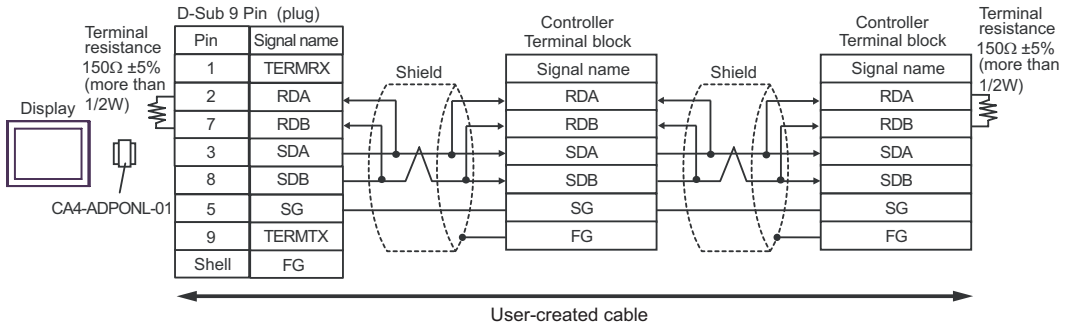


3D)

- 1:1 Connection

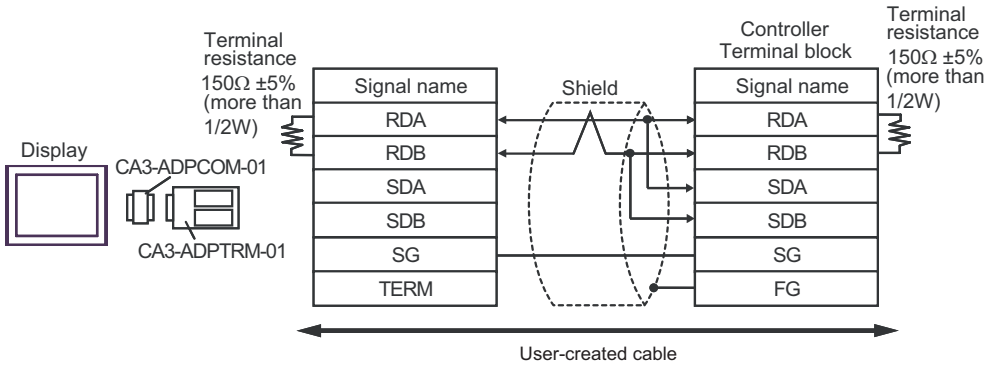


- 1:n Connection

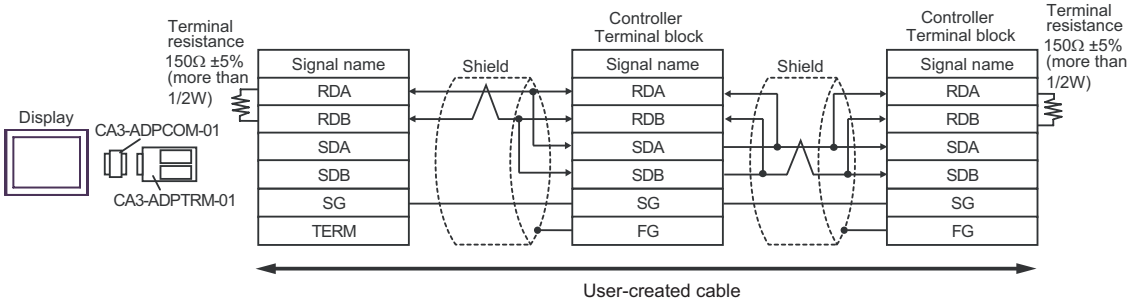


3E)

- 1:1 Connection

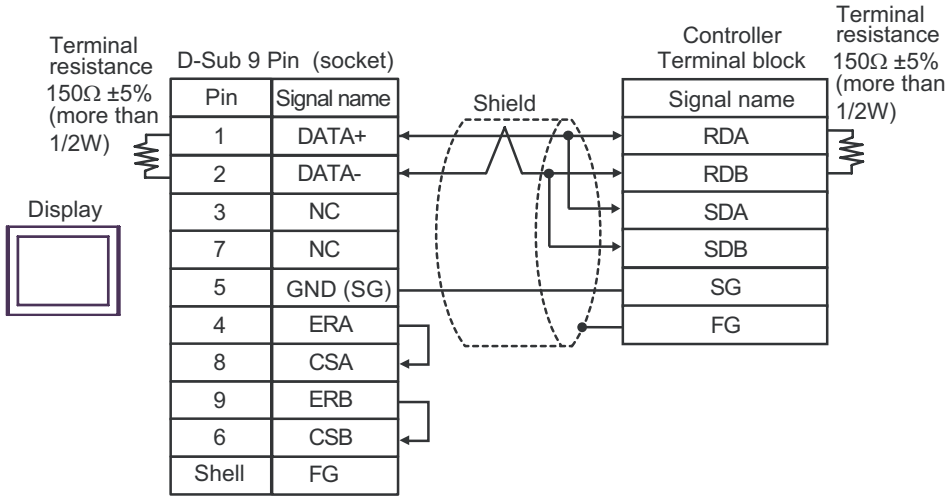


- 1:n Connection

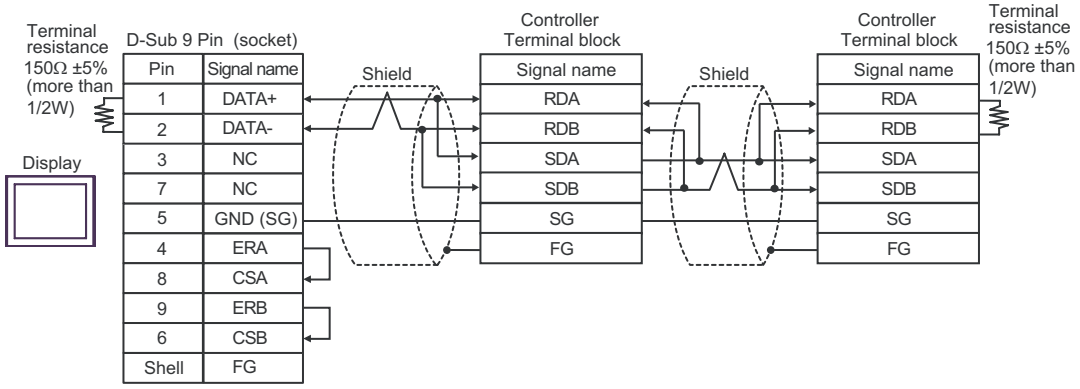


3F)

- 1:1 Connection

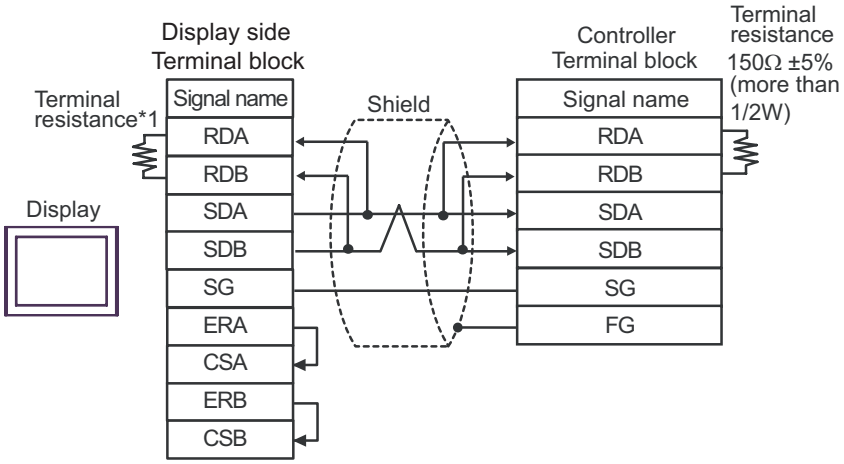


- 1:n Connection

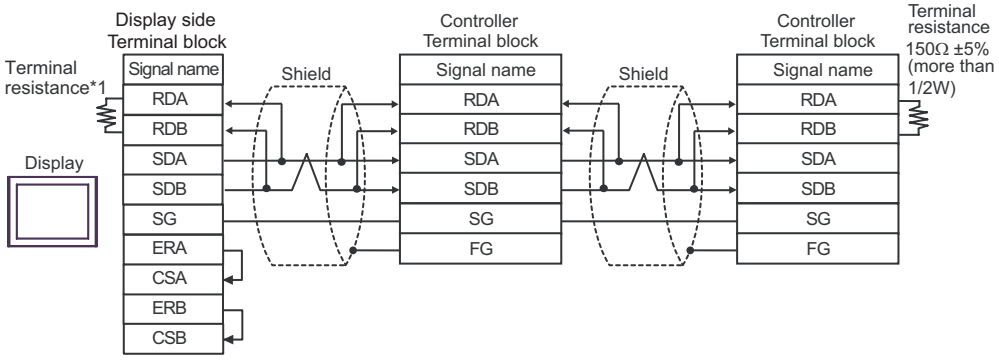


3G)

- 1:1 Connection



- 1:n Connection

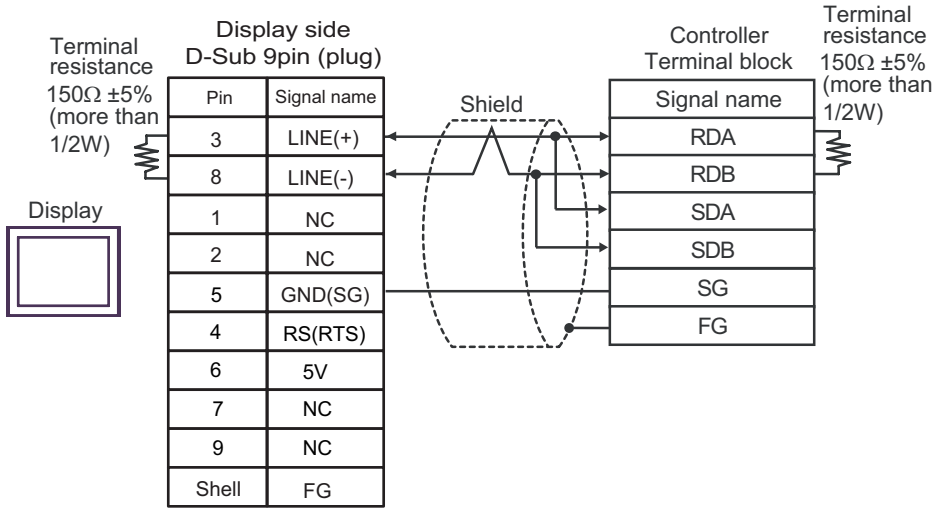


*1 The resistance in the Display is used as the termination resistance. Set the value of the DIP Switch on the rear of the Display as shown in the table below.

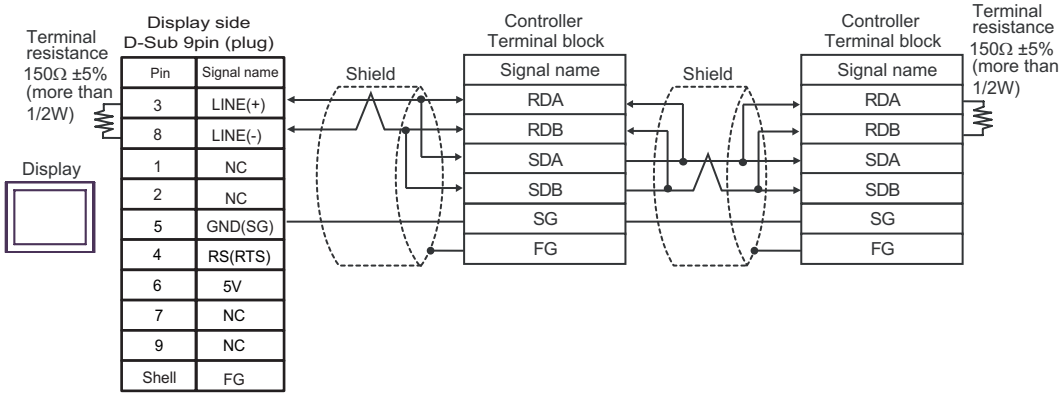
DIP Switch No.	Set Value
1	OFF
2	OFF
3	ON
4	ON

3H)

- 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 4

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

*1 All GP3000 models except AGP-3302B

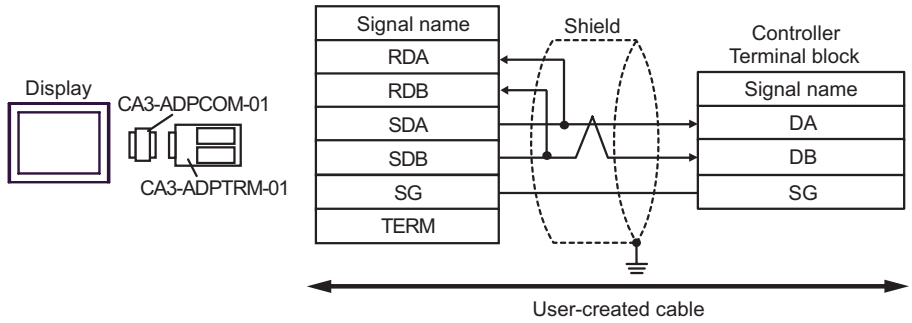
*2 All ST models except AST-3211A and AST-3302B

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

*4 Available only with COM ports that support RS-422/485 (2wire).
☞ ■ IPC COM Port (page 8)

4A)

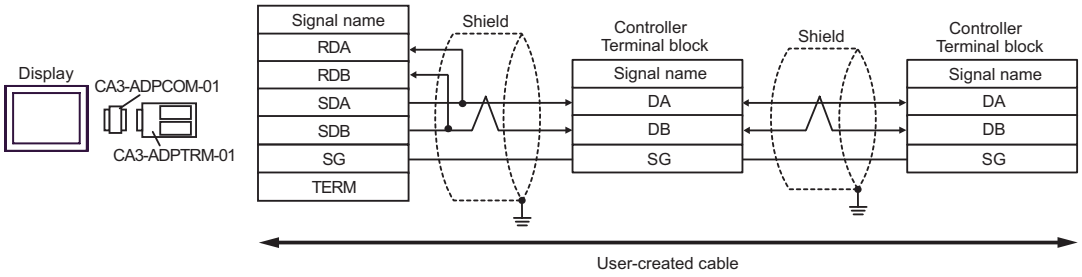
- 1:1 Connection



NOTE

- No termination resistor is required.

- 1:n Connection

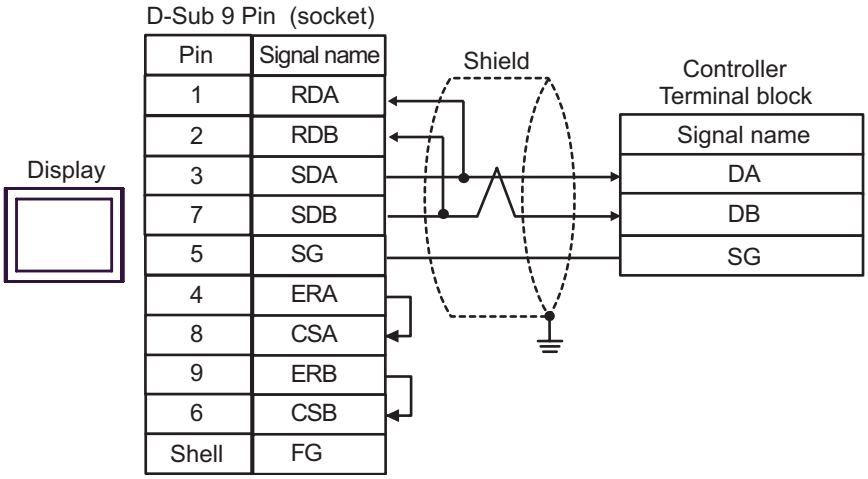


NOTE

- No termination resistor is required.

4B)

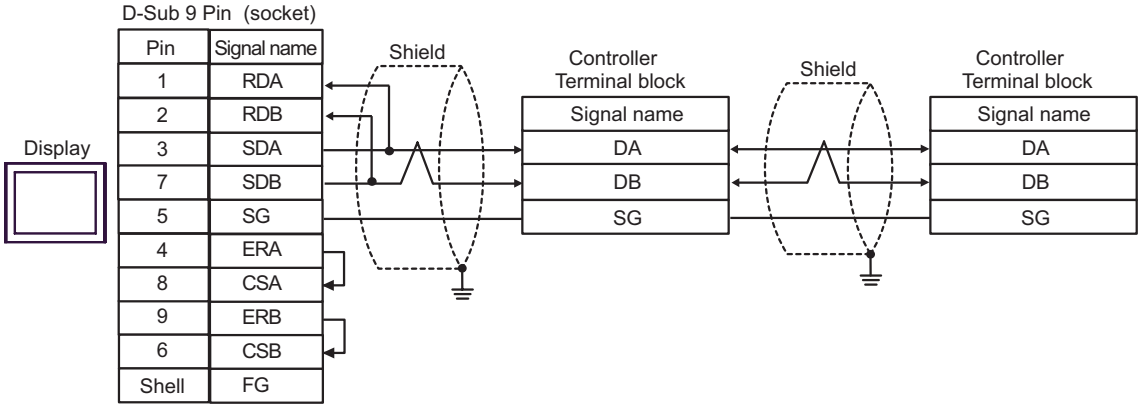
- 1:1 Connection



NOTE

- No termination resistor is required.

- 1:n Connection

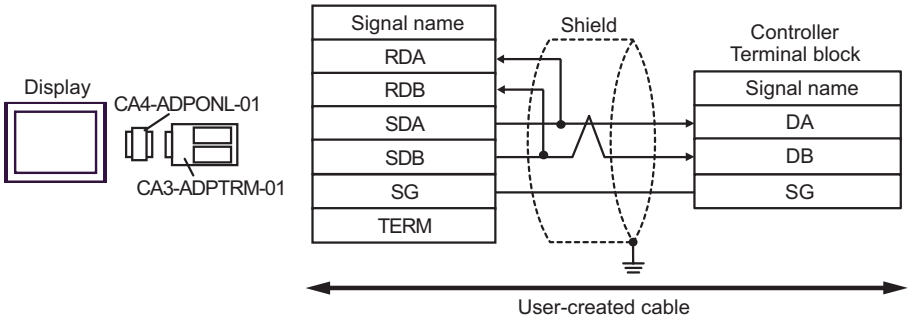


NOTE

- No termination resistor is required.

4C)

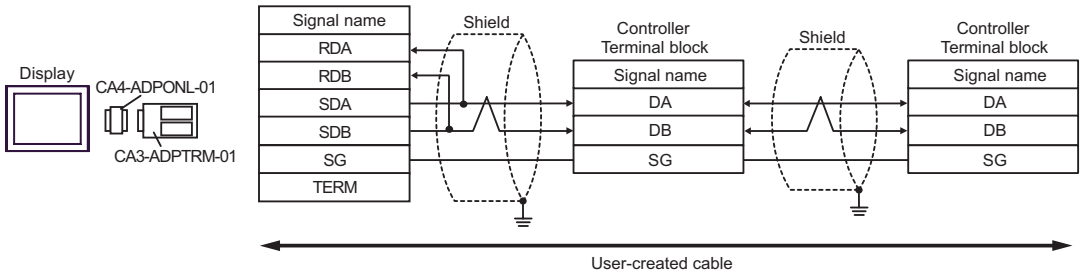
- 1:1 Connection



NOTE

- No termination resistor is required.

- 1:n Connection

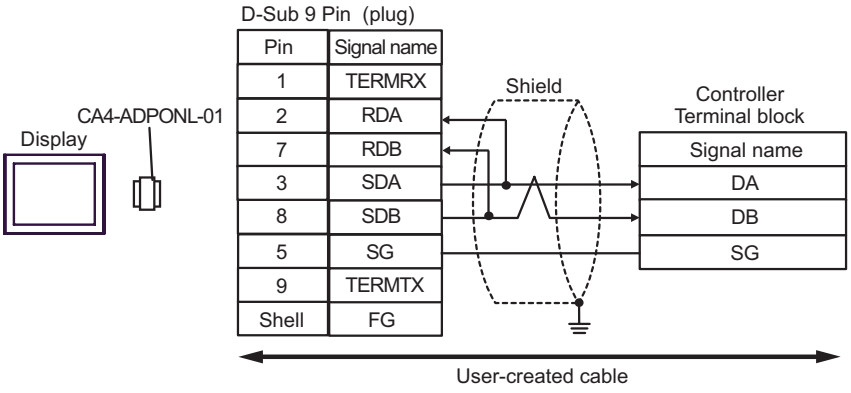


NOTE

- No termination resistor is required.

4D)

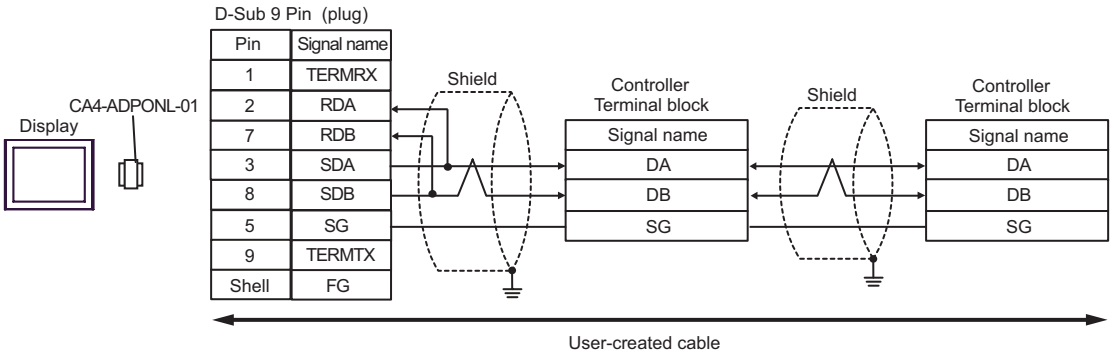
- 1:1 Connection



NOTE

- No termination resistor is required.

- 1:n Connection

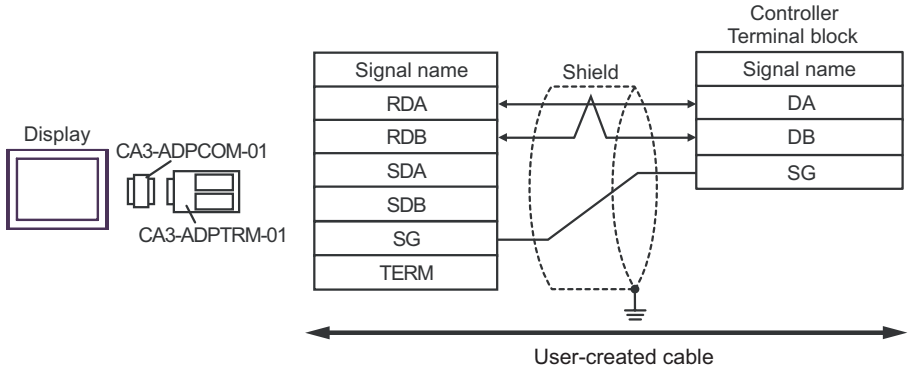


NOTE

- No termination resistor is required.

4E)

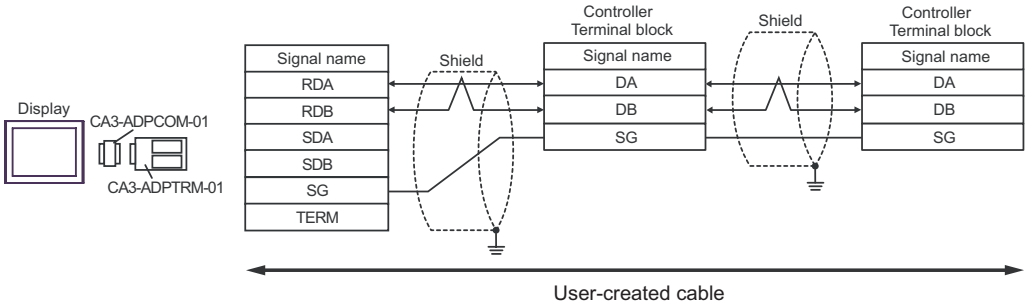
- 1:1 Connection



NOTE

- No termination resistor is required.

- 1:n Connection

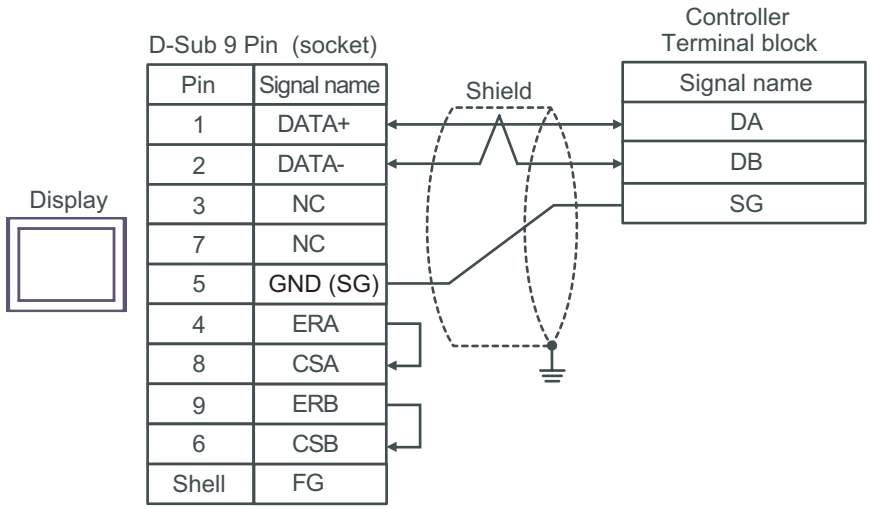


NOTE

- No termination resistor is required.

4F)

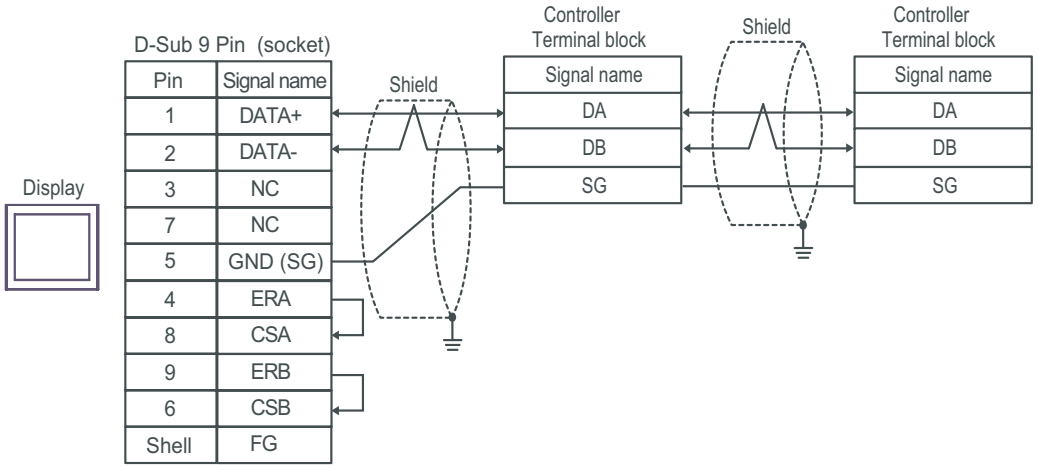
- 1:1 Connection



NOTE

- No termination resistor is required.

- 1:n Connection

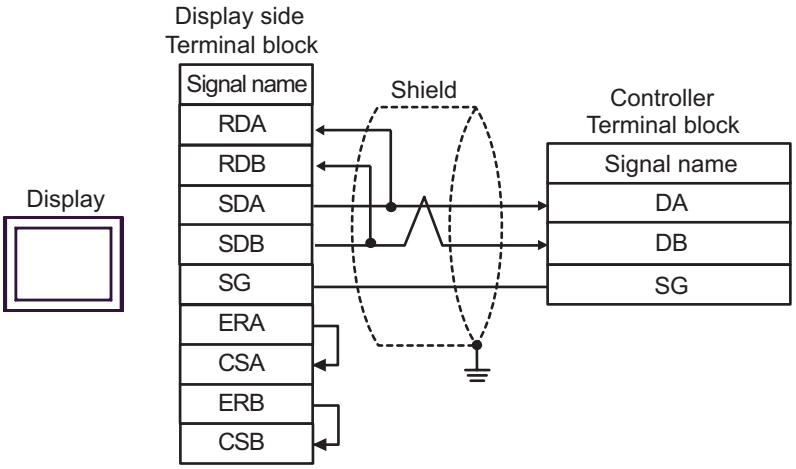


NOTE

- No termination resistor is required.

4G)

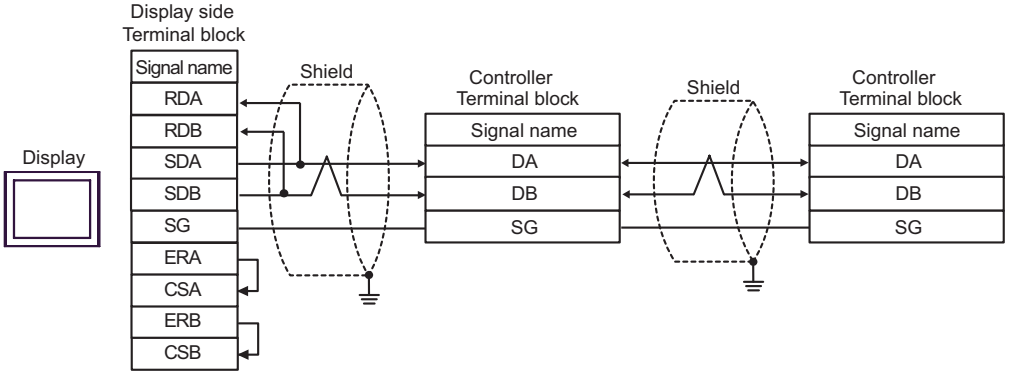
- 1:1 Connection



NOTE

- No termination resistor is required.

- 1:n Connection

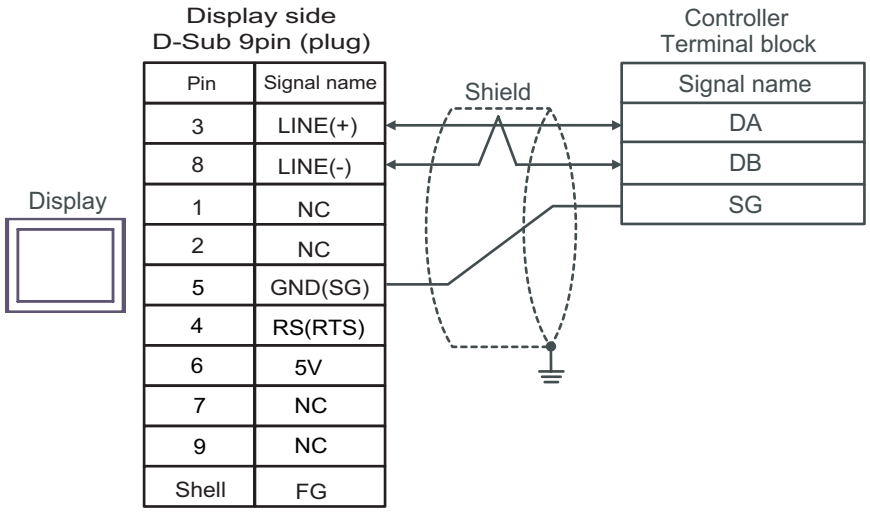


NOTE

- No termination resistor is required.

4H)

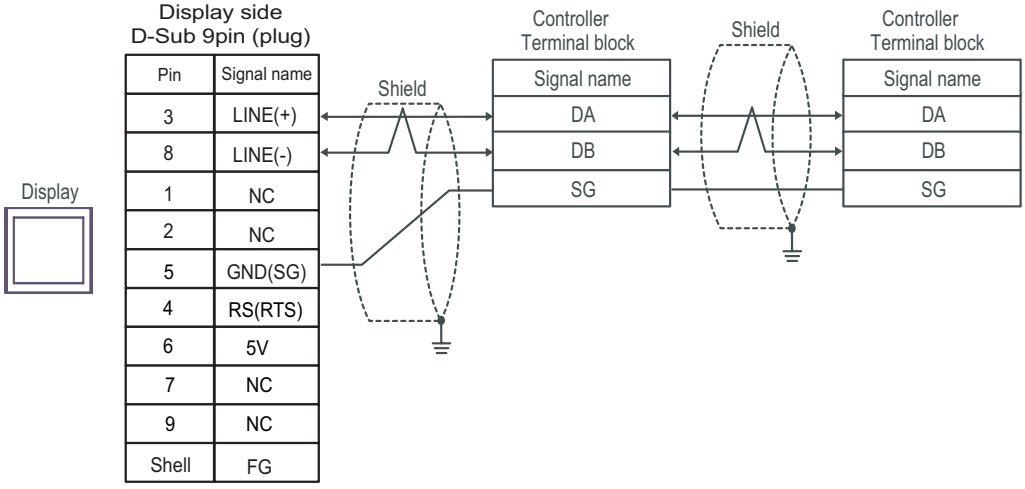
- 1:1 Connection



NOTE

- No termination resistor is required.

- 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

- No termination resistor is required.
- In COM on the GP-4107, the SG and FG terminals are isolated.

Cable Diagram 5

Display (Connection Port)	Cable		Remarks
GP3000[*1] (COM1) AGP-3302B (COM2) ST[*2] (COM2) LT (COM1)	5A	COM port conversion adapter by Pro-face. CA3-ADPCOM-01 + Connector terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	Cable length: 500m or less
	5B	User-created cable	
GP3000[*3] (COM2)	5C	Online adapter by Pro-face CA4-ADPONL-01 + Connector terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	
	5D	Online adapter by Pro-face CA4-ADPONL-01 + User-created cable	
IPC[*4]	5E	COM port conversion adapter by Pro-face. CA3-ADPCOM-01 + Connector terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	
	5F	User-created cable	
GP-4106 (COM1)	5G	User-created cable	
GP-4107 (COM1)	5H	User-created cable	

*1 All GP3000 models except AGP-3302B

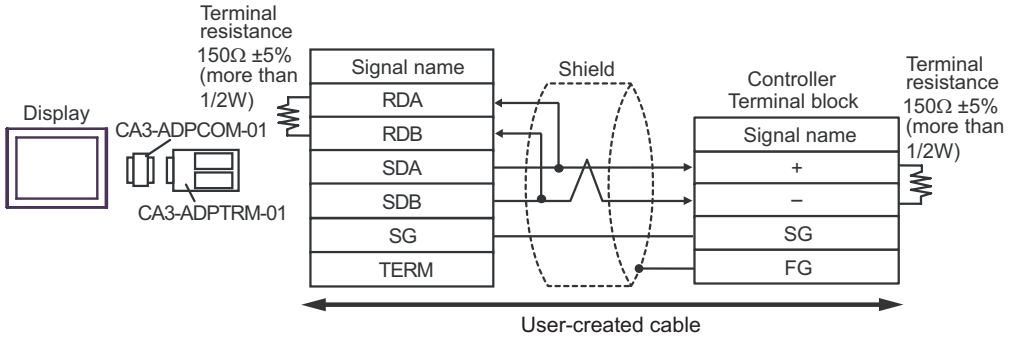
*2 All ST models except AST-3211A and AST-3302B

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

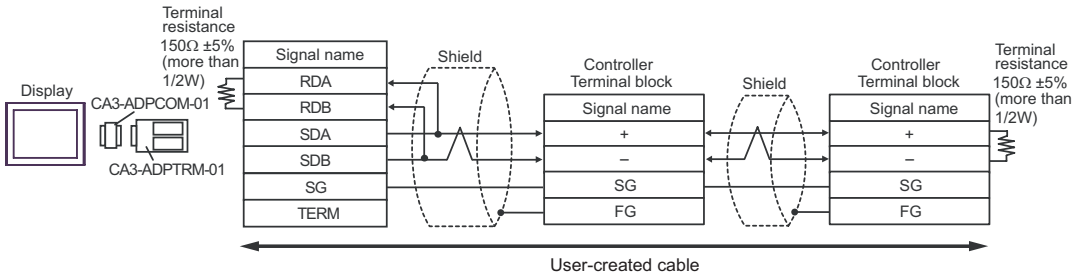
*4 Available only with COM ports that support RS-422/485 (2wire).
☞ ■ IPC COM Port (page 8)

5A)

- 1:1 Connection

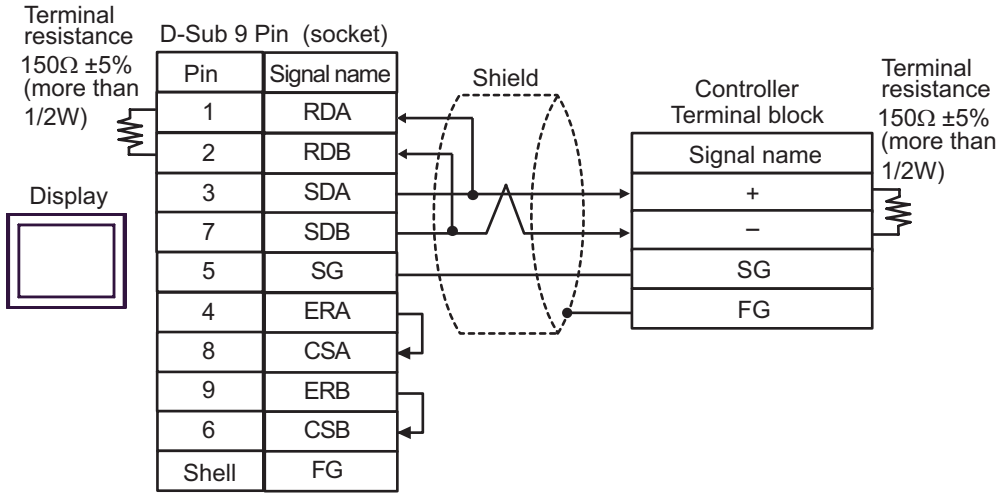


- 1:n Connection

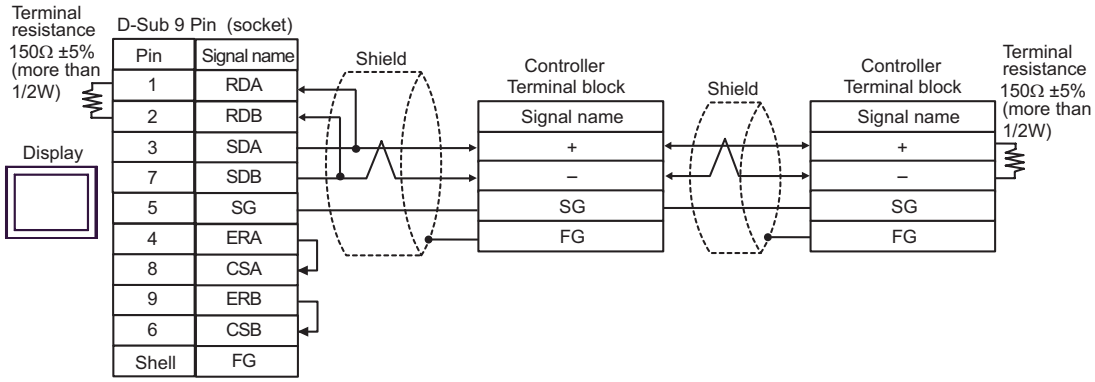


5B)

- 1:1 Connection

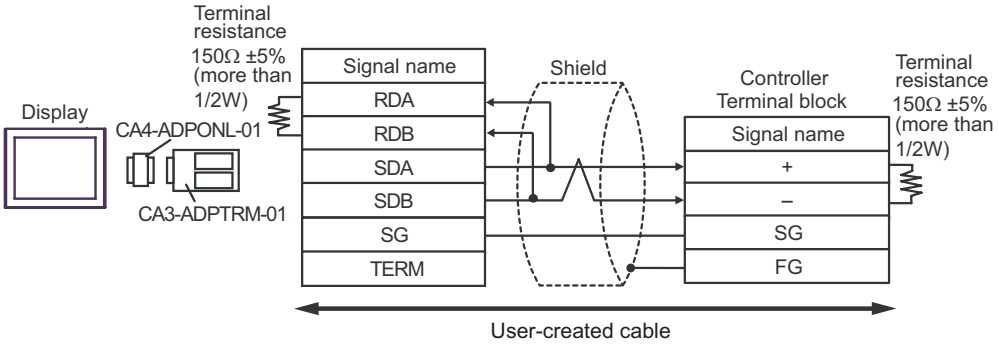


- 1:n Connection

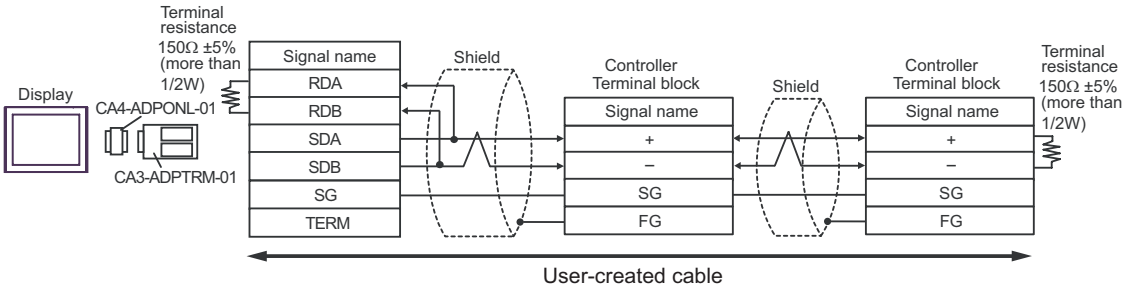


5C)

- 1:1 Connection

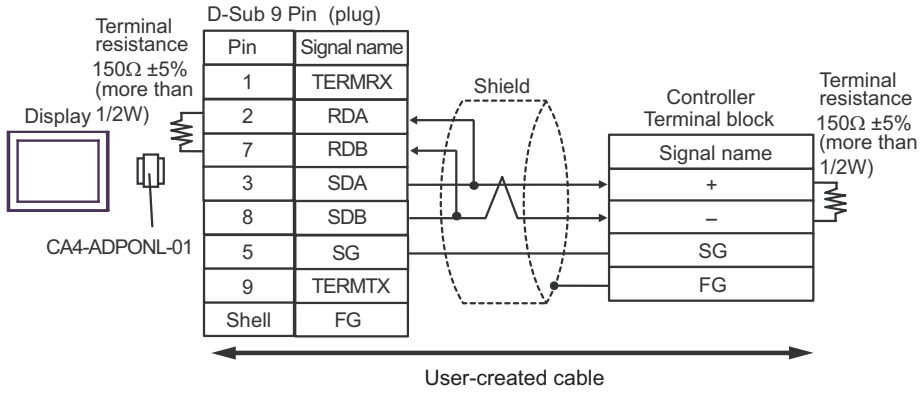


- 1:n Connection

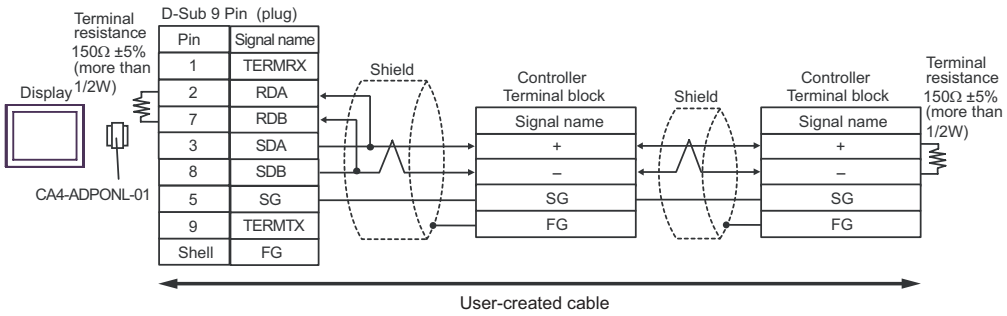


5D)

- 1:1 Connection

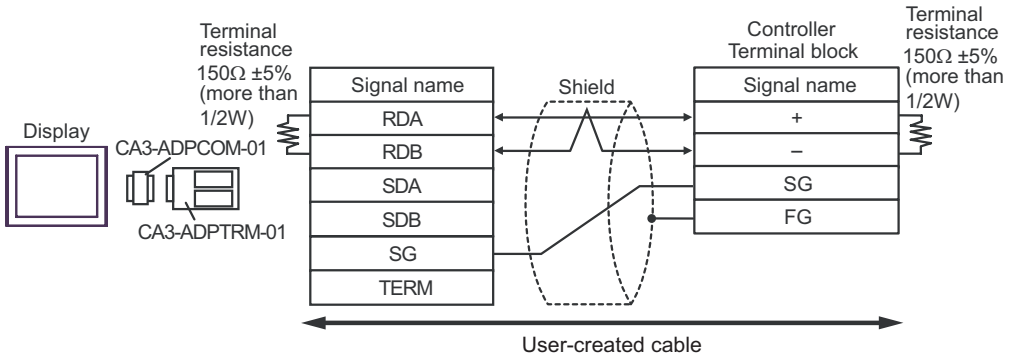


- 1:n Connection

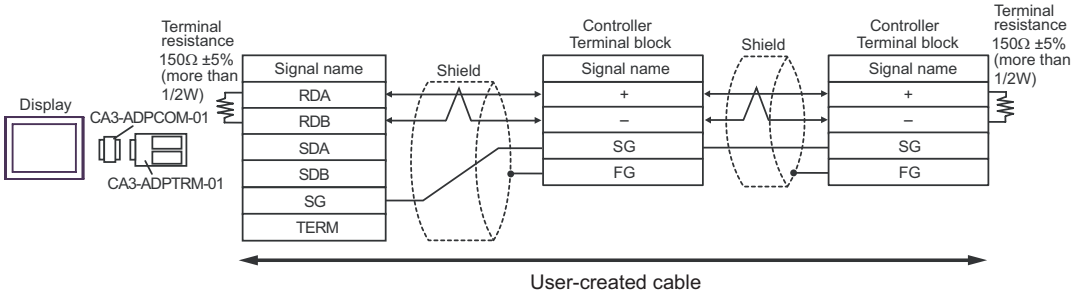


5E)

- 1:1 Connection

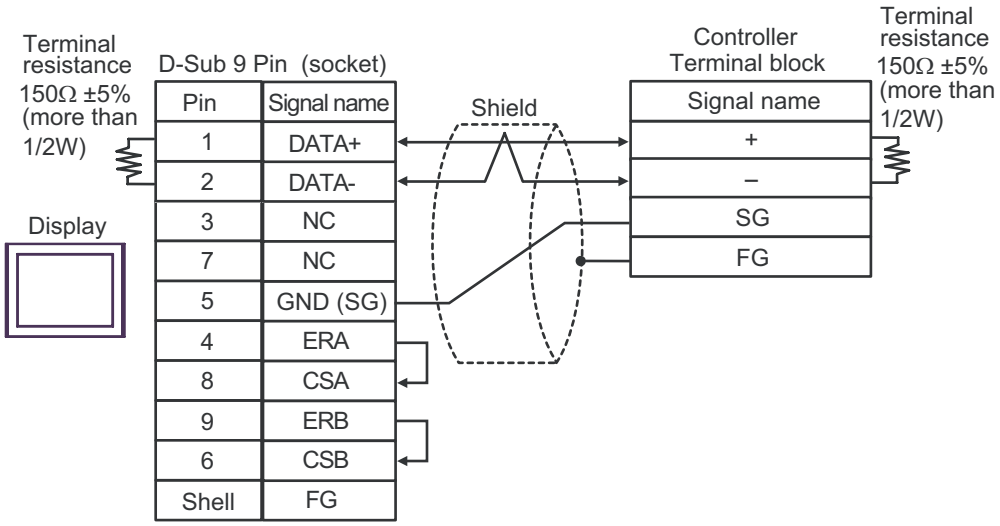


- 1:n Connection

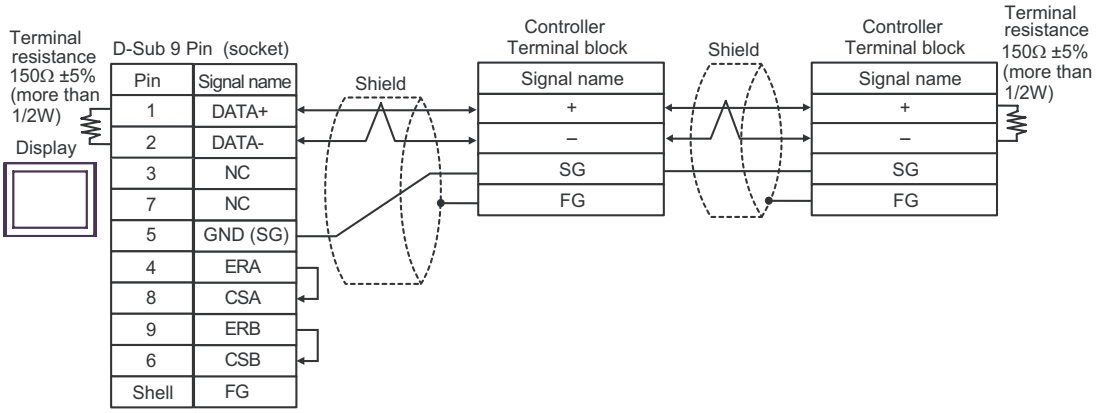


5F)

- 1:1 Connection

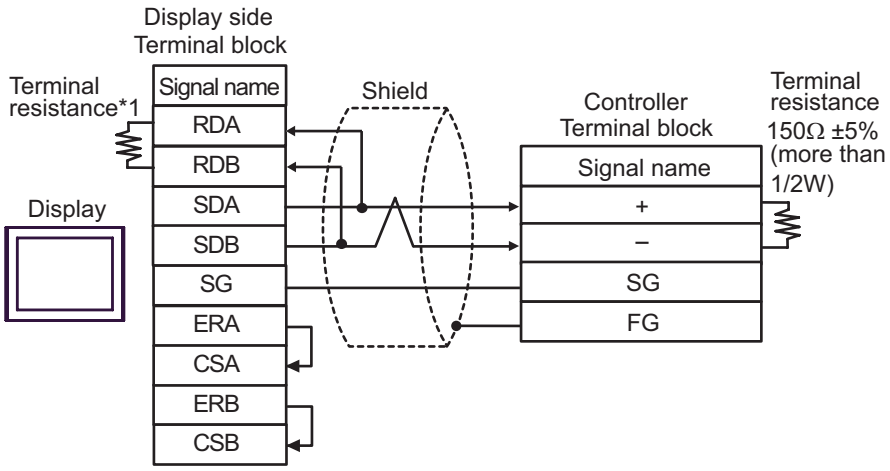


- 1:n Connection

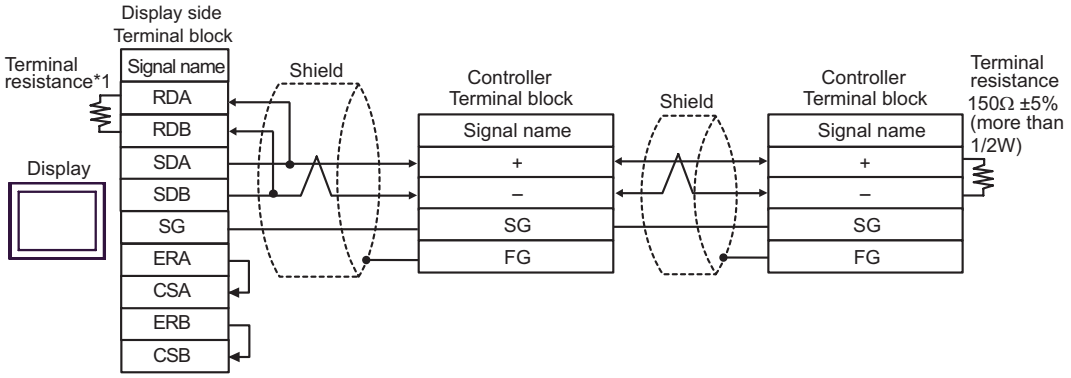


5G)

- 1:1 Connection



- 1:n Connection

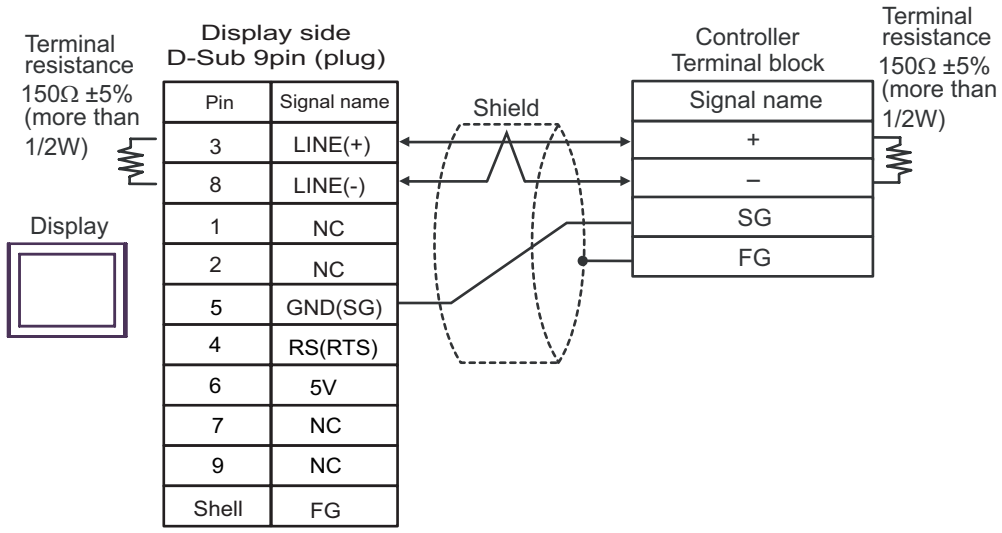


*1 The resistance in the Display is used as the termination resistance. Set the value of the DIP Switch on the rear of the Display as shown in the table below.

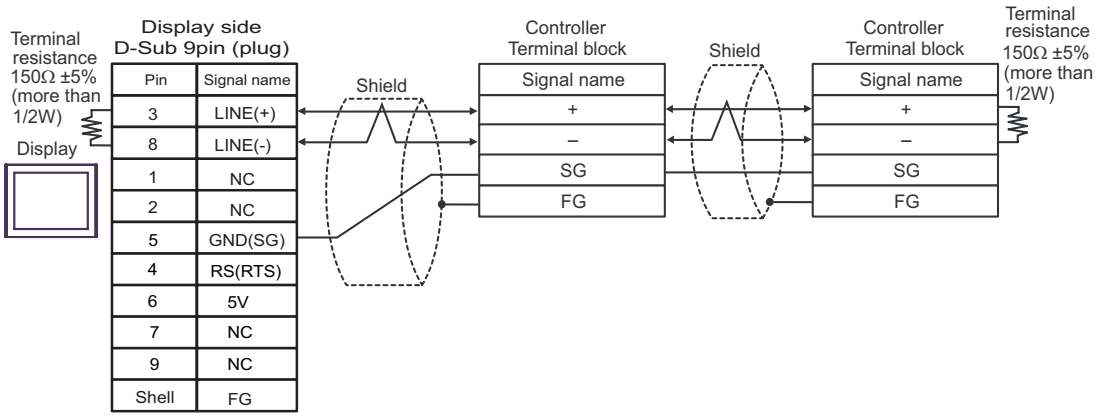
DIP Switch No.	Set Value
1	OFF
2	OFF
3	ON
4	ON

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) LT (COM1)	6A	COM port conversion adapter by Pro-face. CA3-ADPCOM-01 + Connector terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	Cable length: 500m or less
	6B	User-created cable	
GP3000[*3] (COM2)	6C	Online adapter by Pro-face CA4-ADPONL-01 + Connector terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	
	6D	Online adapter by Pro-face CA4-ADPONL-01 + User-created cable	
IPC[*4]	6E	COM port conversion adapter by Pro-face. CA3-ADPCOM-01 + Connector terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	
	6F	User-created cable	
GP-4106 (COM1)	6G	User-created cable	
GP-4107 (COM1)	6H	User-created cable	

*1 All GP3000 models except AGP-3302B

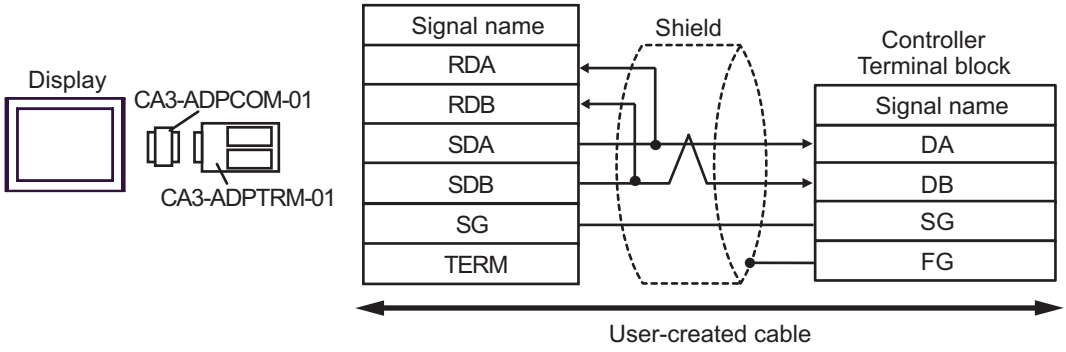
*2 All ST models except AST-3211A and AST-3302B

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

*4 Available only with COM ports that support RS-422/485 (2wire).
☞ ■ IPC COM Port (page 8)

6A)

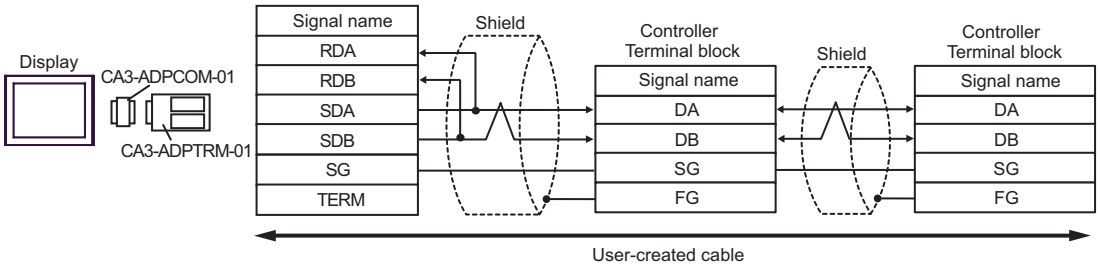
- 1:1 Connection



NOTE

- No termination resistor is required.

- 1:n Connection

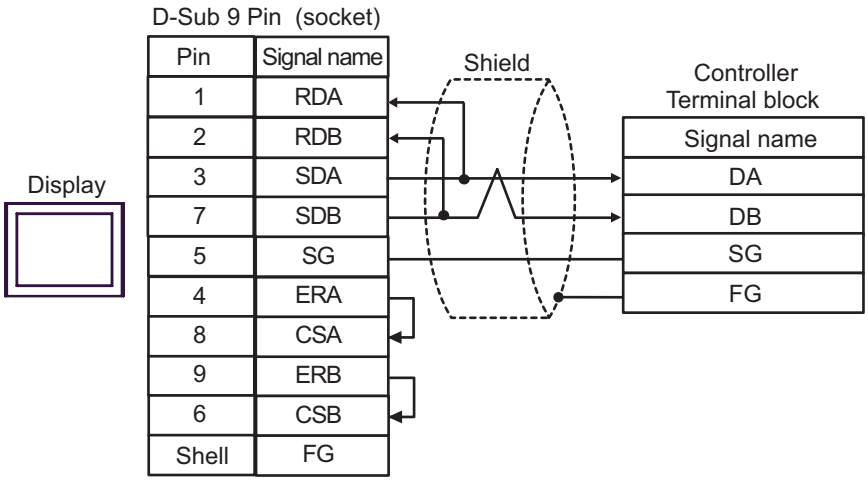


NOTE

- No termination resistor is required.

6B)

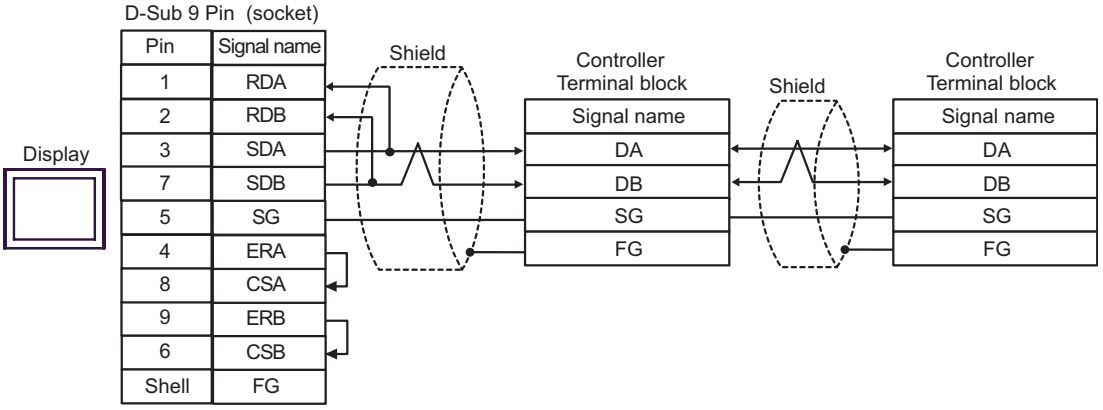
- 1:1 Connection



NOTE

- No termination resistor is required.

- 1:n Connection

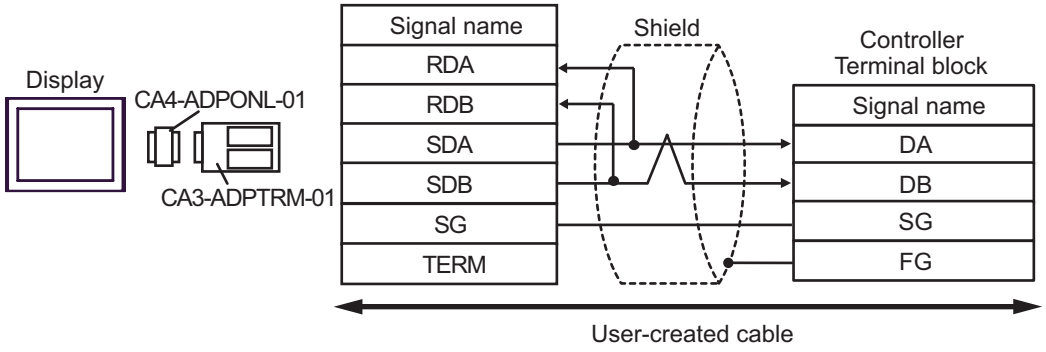


NOTE

- No termination resistor is required.

6C)

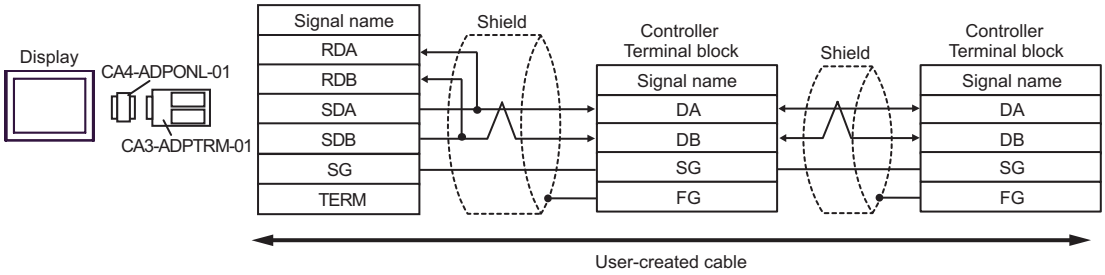
- 1:1 Connection



NOTE

- No termination resistor is required.

- 1:n Connection

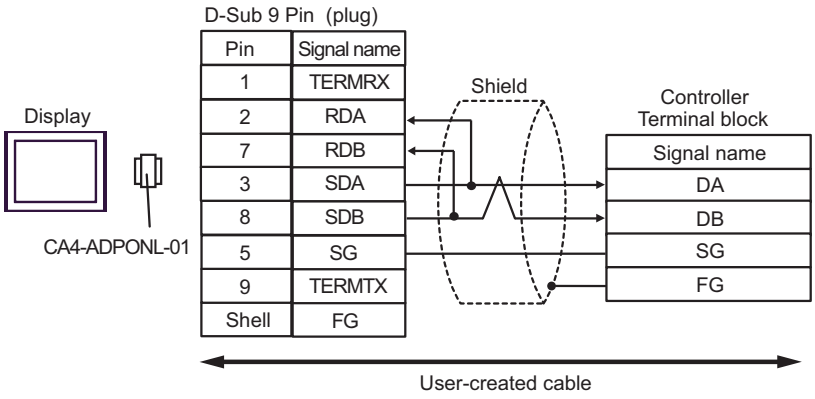


NOTE

- No termination resistor is required.

6D)

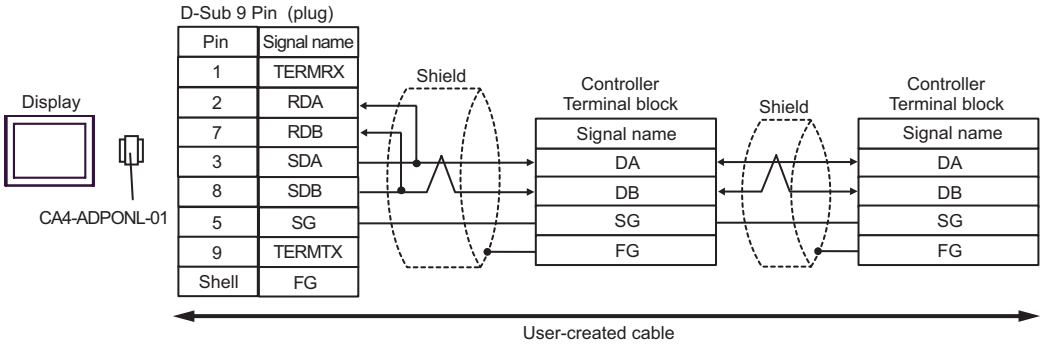
- 1:1 Connection



NOTE

- No termination resistor is required.

- 1:n Connection

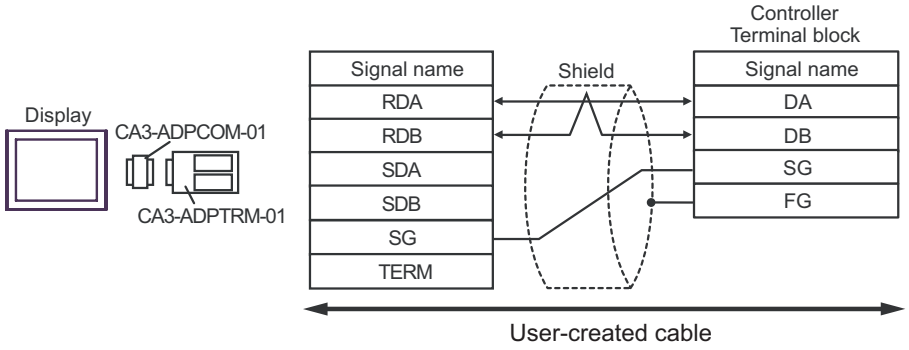


NOTE

- No termination resistor is required.

6E)

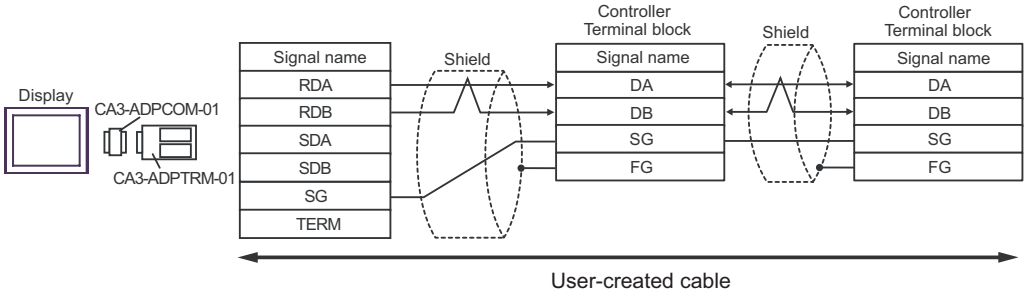
- 1:1 Connection



NOTE

- No termination resistor is required.

- 1:n Connection

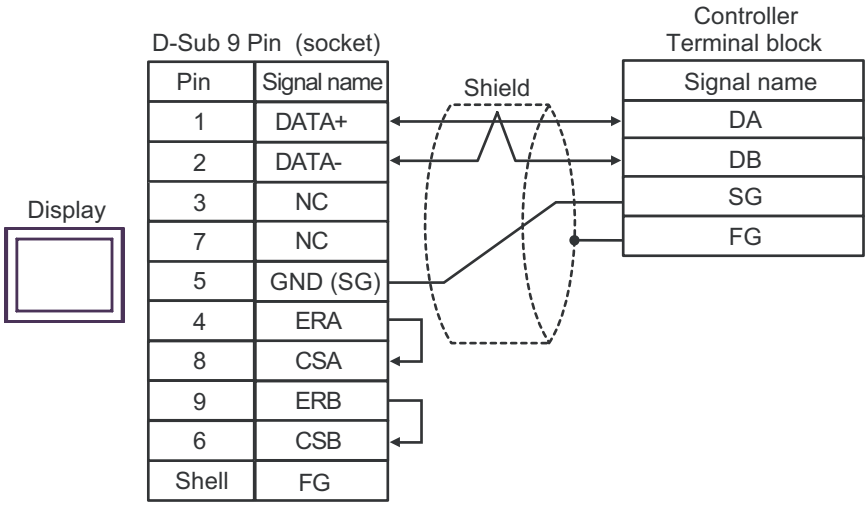


NOTE

- No termination resistor is required.

6F)

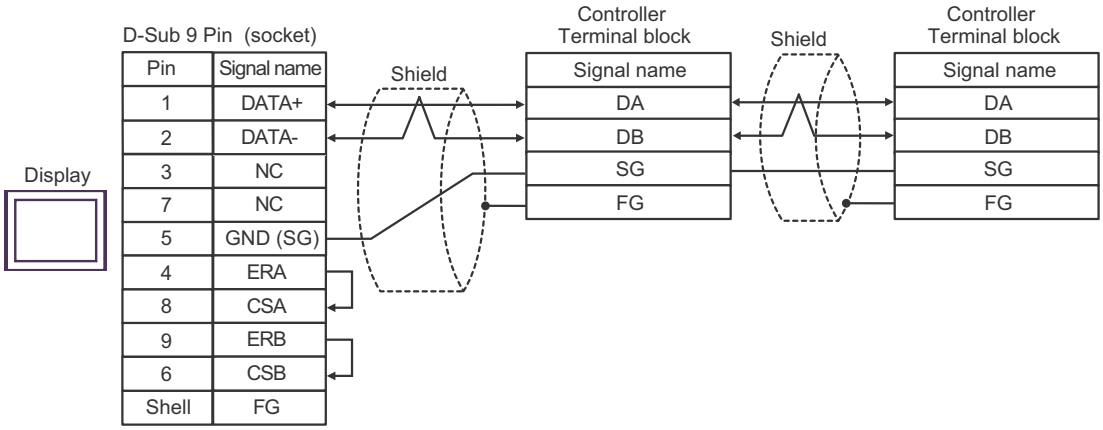
- 1:1 Connection



NOTE

- No termination resistor is required.

- 1:n Connection

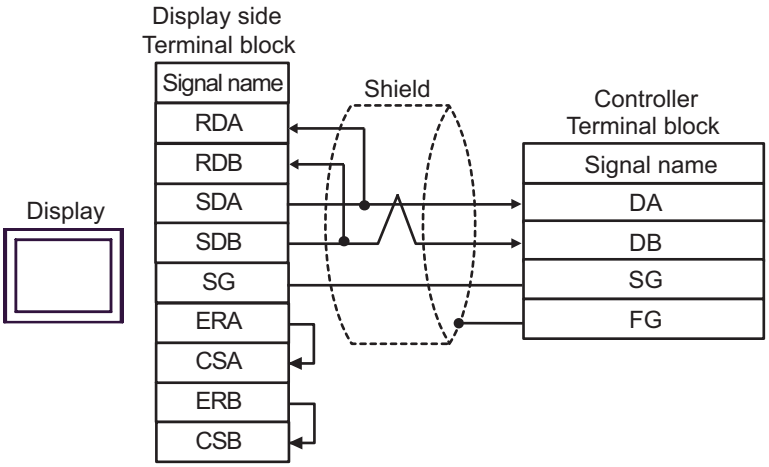


NOTE

- No termination resistor is required.

6G)

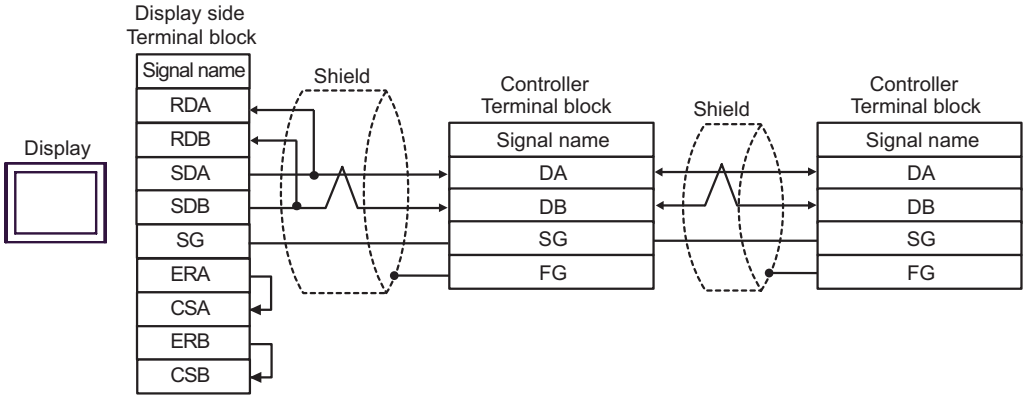
- 1:1 Connection



NOTE

- No termination resistor is required.

- 1:n Connection

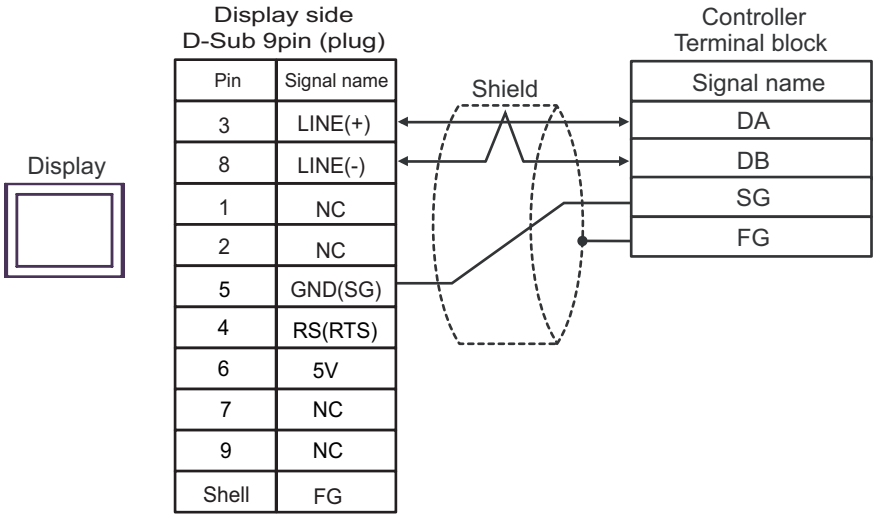


NOTE

- No termination resistor is required.

6H)

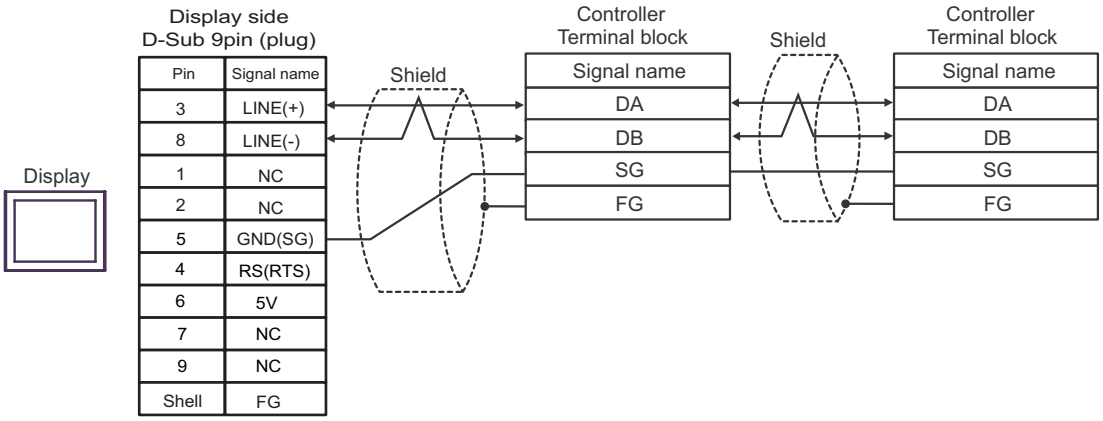
- 1:1 Connection



NOTE

- No termination resistor is required.

- 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

- No termination resistor is required.
- In COM on the GP-4107, the SG and FG terminals are isolated.

Cable Diagram 7

Display (Connection Port)	Cable		Remarks
GP3000[*1] (COM1) AGP-3302B (COM2) ST[*2] (COM2) LT (COM1) IPC[*3]	7A	COM port conversion adapter by Pro-face. CA3-ADPCOM-01 + Connector terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	Cable length: 500m or less
	7B	User-created cable	
GP3000[*4] (COM2)	7C	Online adapter by Pro-face CA4-ADPONL-01 + Connector terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	
	7D	Online adapter by Pro-face CA4-ADPONL-01 + User-created cable	
GP-4106 (COM1)	7E	User-created cable	

*1 All GP3000 models except AGP-3302B

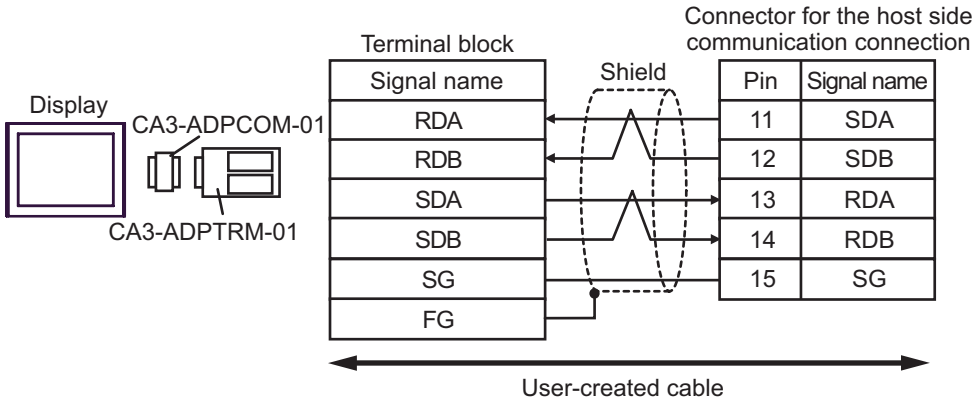
*2 All ST models except AST-3211A and AST-3302B

*3 Available only with COM ports that support RS-422/485 (4wire).
☞ ■ IPC COM Port (page 8)

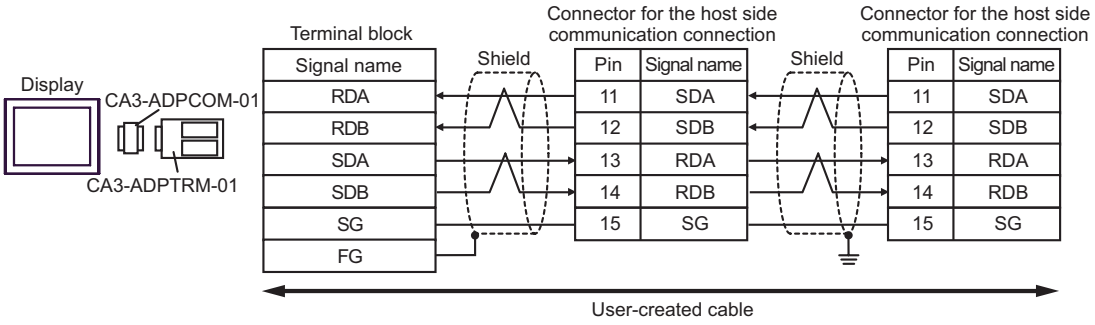
*4 All GP3000 models except the GP-3200 Series and AGP-3302B

7A

- 1:1 Connection

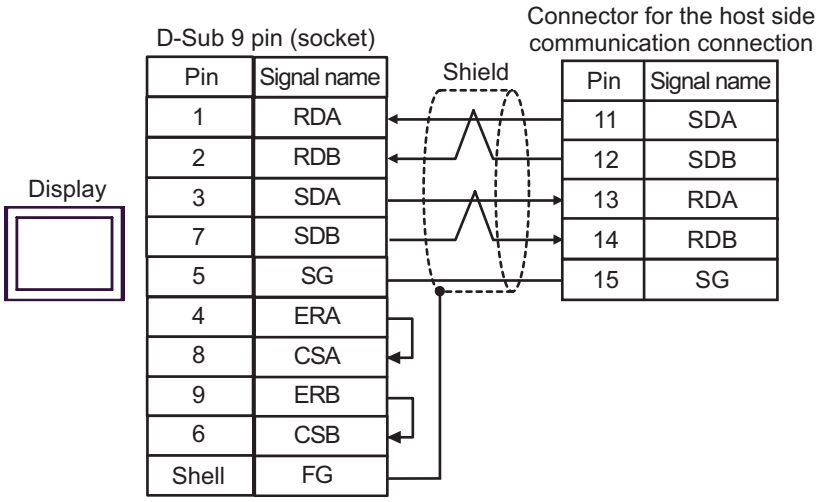


- 1:n Connection

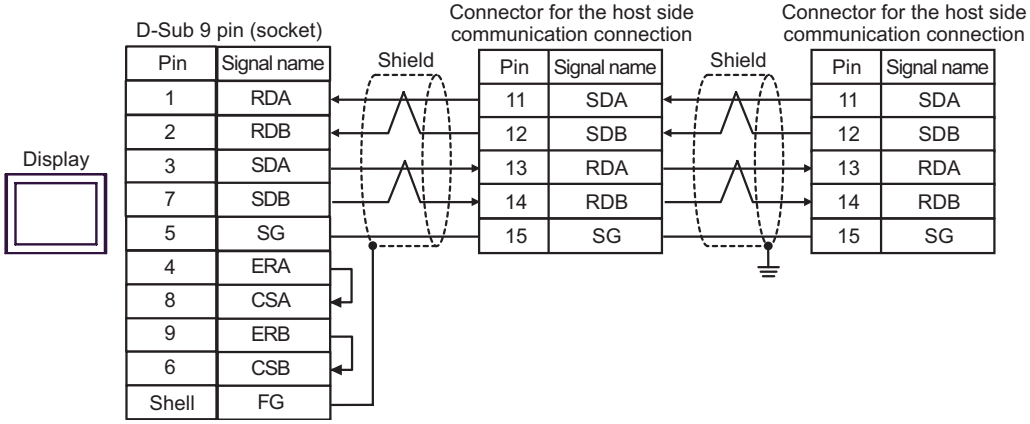


7B)

- 1:1 Connection

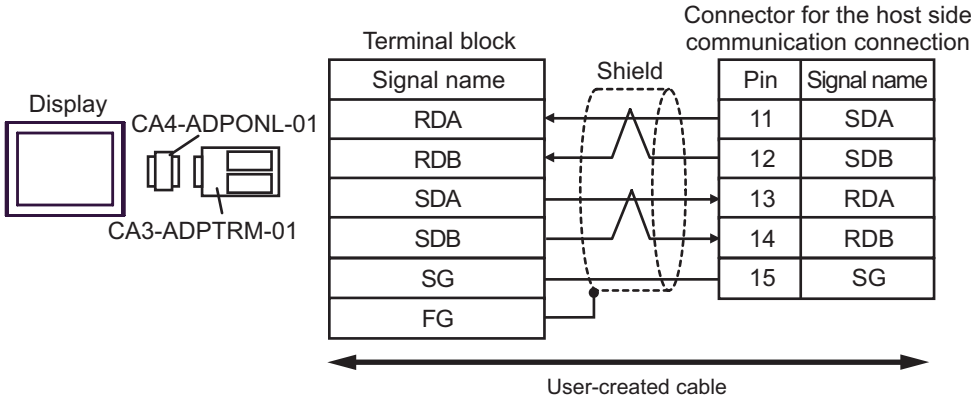


- 1:n Connection

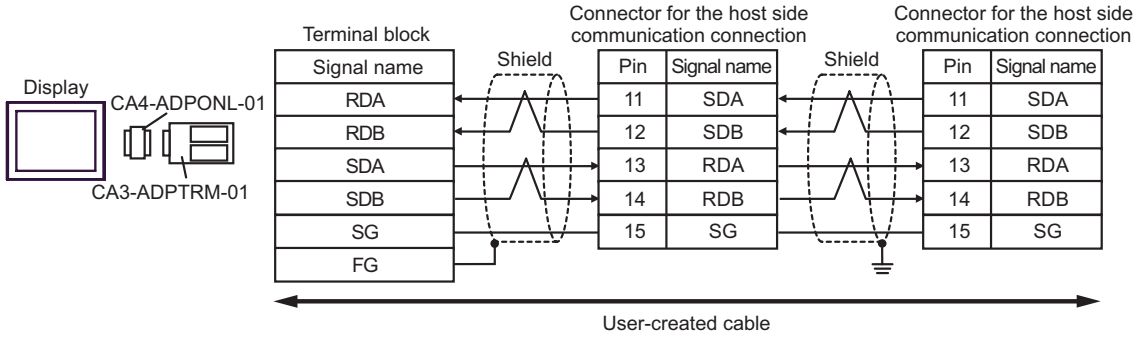


7C)

- 1:1 Connection

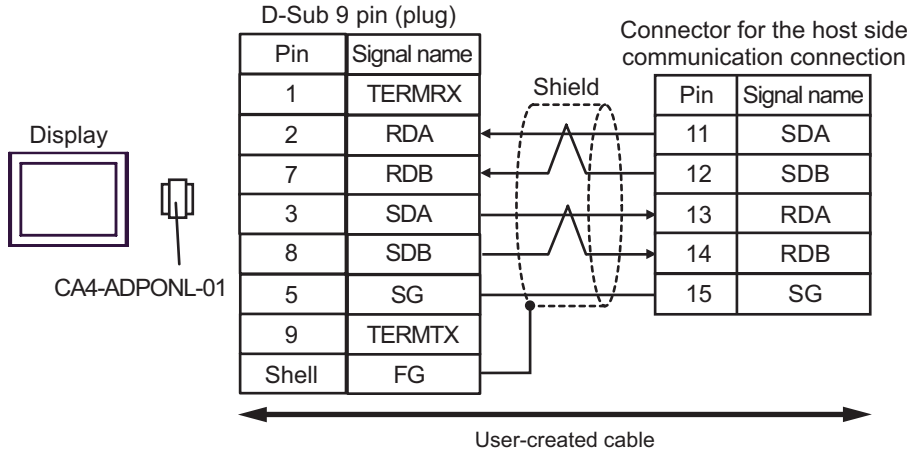


- 1:n Connection

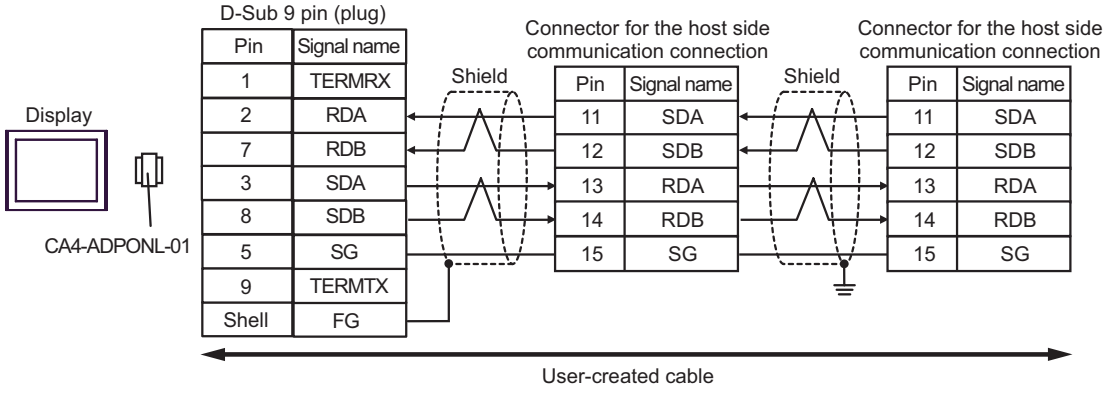


7D)

- 1:1 Connection

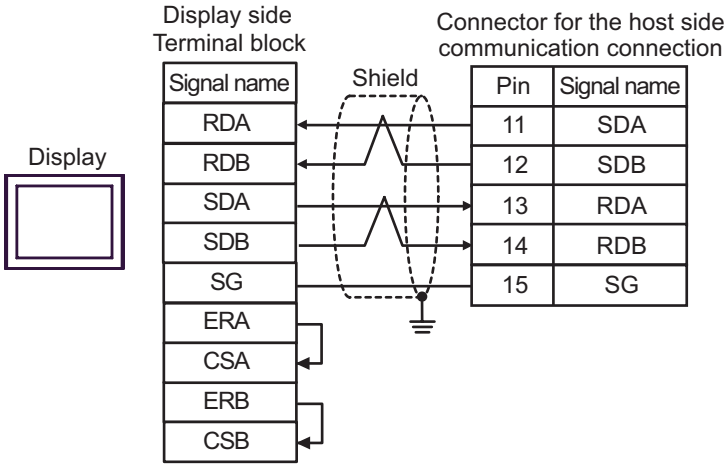


- 1:n Connection

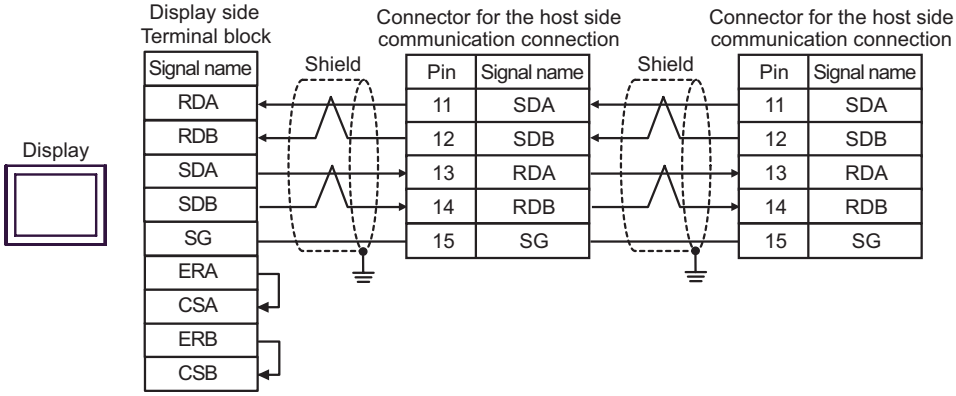


7E)

- 1:1 Connection



- 1:n Connection



Cable Diagram 8

Display (Connection Port)	Cable		Remarks
GP3000[*1] (COM1) AGP-3302B (COM2) ST[*2] (COM2) LT (COM1)	8A	COM port conversion adapter by Pro-face. CA3-ADPCOM-01 + Connector terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	Cable length: 500m or less
	8B	User-created cable	
GP3000[*3] (COM2)	8C	Online adapter by Pro-face CA4-ADPONL-01 + Connector terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	
	8D	Online adapter by Pro-face CA4-ADPONL-01 + User-created cable	
IPC[*4]	8E	COM port conversion adapter by Pro-face. CA3-ADPCOM-01 + Connector terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + User-created cable	
	8F	User-created cable	
GP-4106 (COM1)	8G	User-created cable	
GP-4107 (COM1)	8H	User-created cable	

*1 All GP3000 models except AGP-3302B

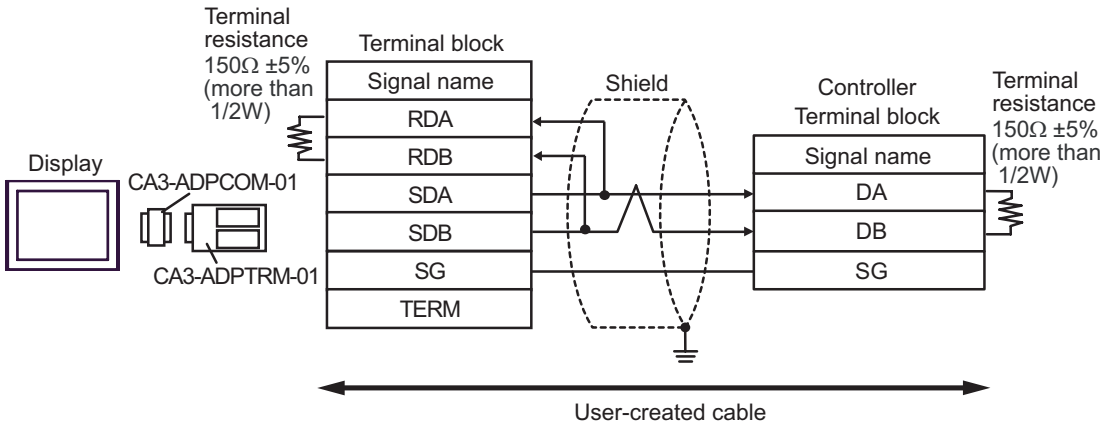
*2 All ST models except AST-3211A and AST-3302B

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

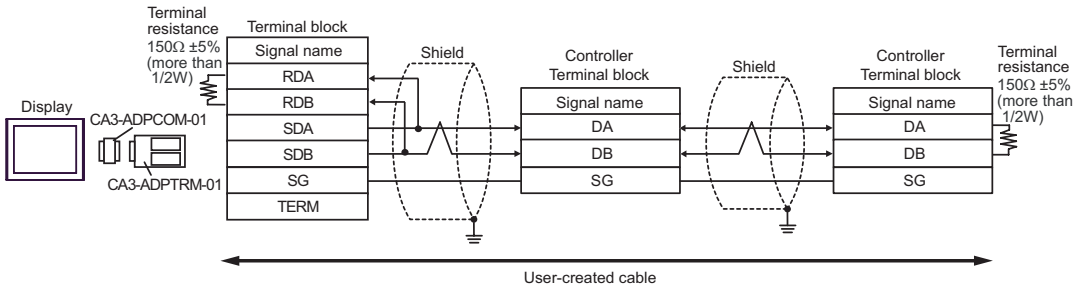
*4 Available only with COM ports that support RS-422/485 (2wire).
☞ ■ IPC COM Port (page 8)

8A)

- 1:1 Connection

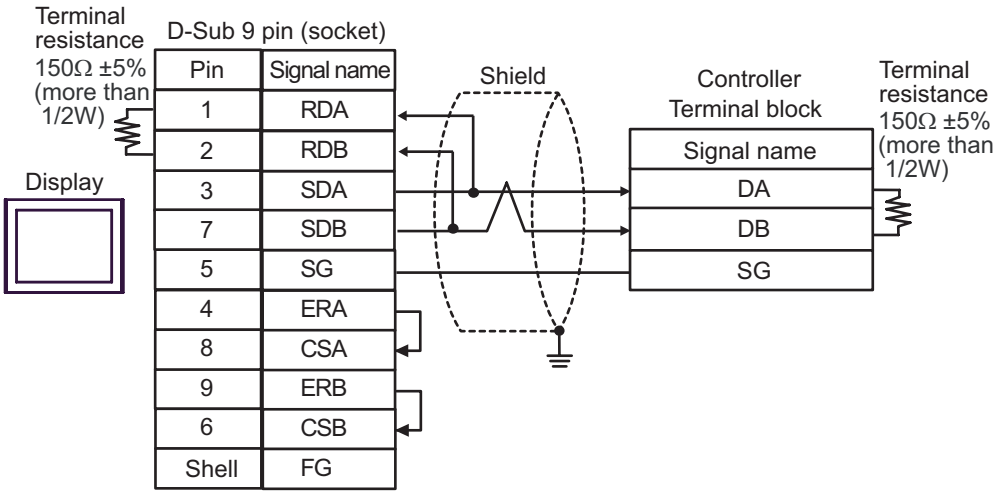


- 1:n Connection

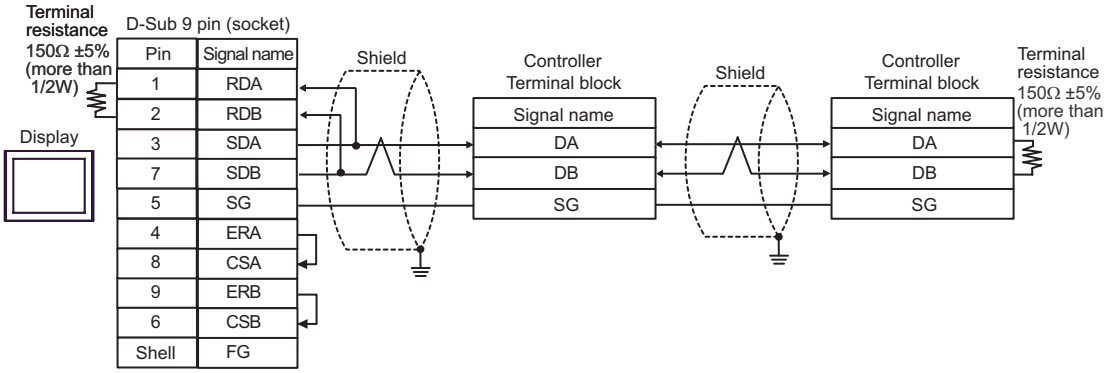


8B

- 1:1 Connection

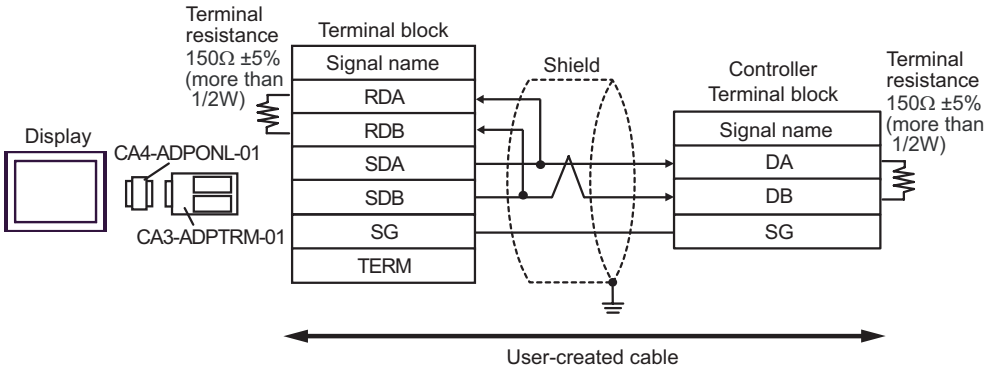


- 1:n Connection

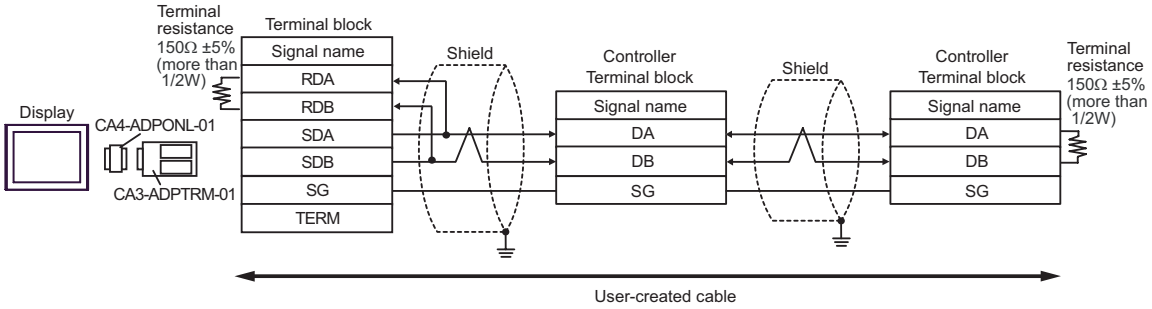


8C)

- 1:1 Connection

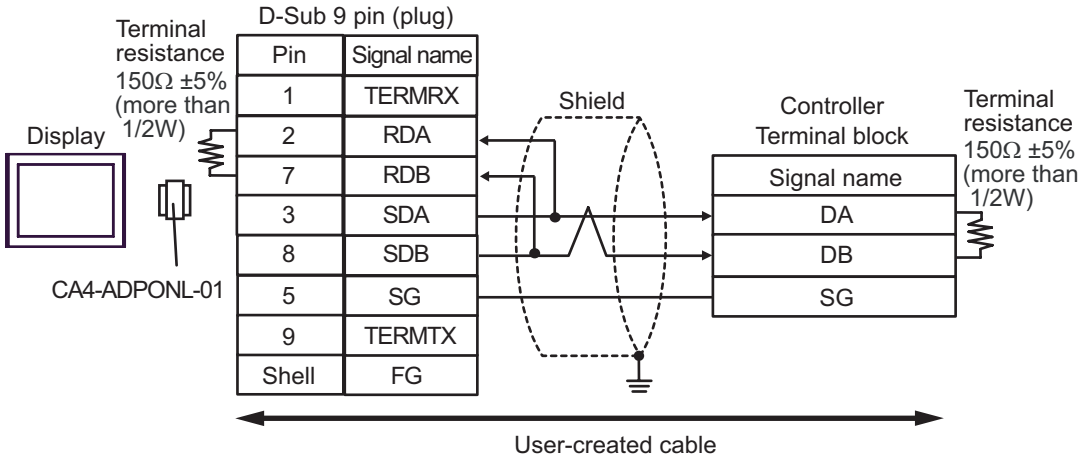


- 1:n Connection

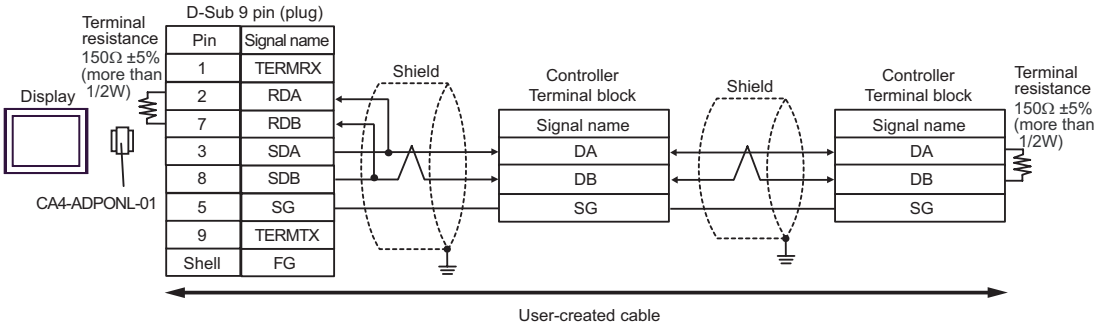


8D)

- 1:1 Connection

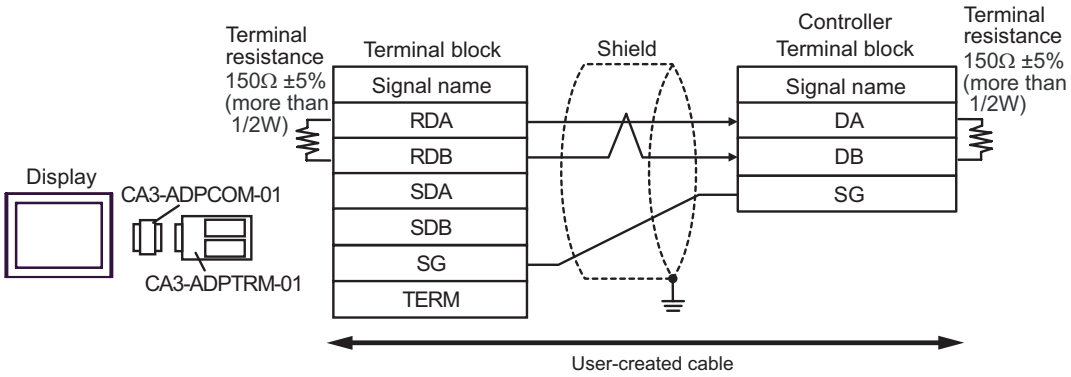


- 1:n Connection

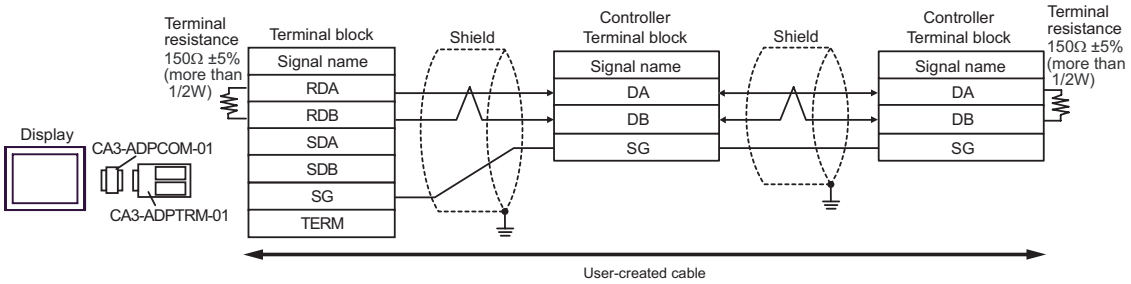


8E)

- 1:1 Connection

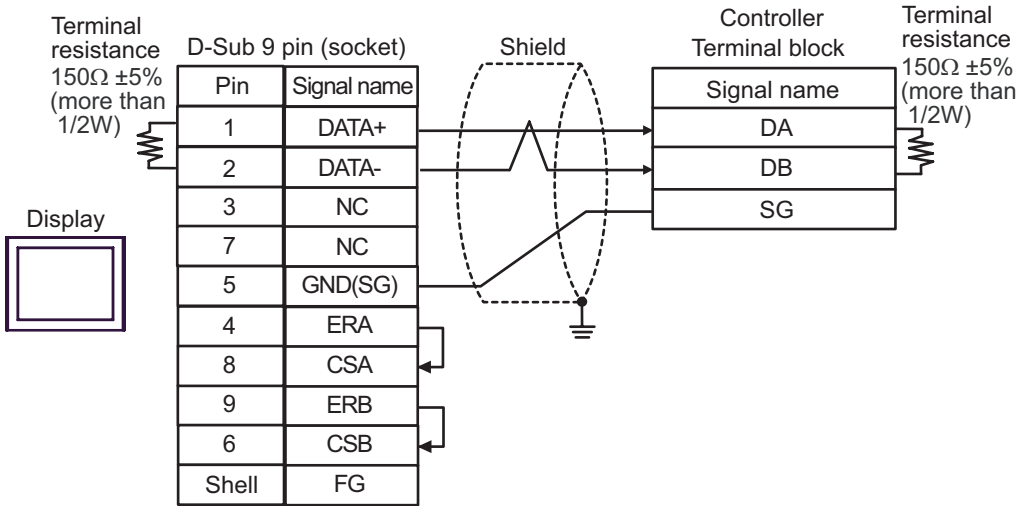


- 1:n Connection

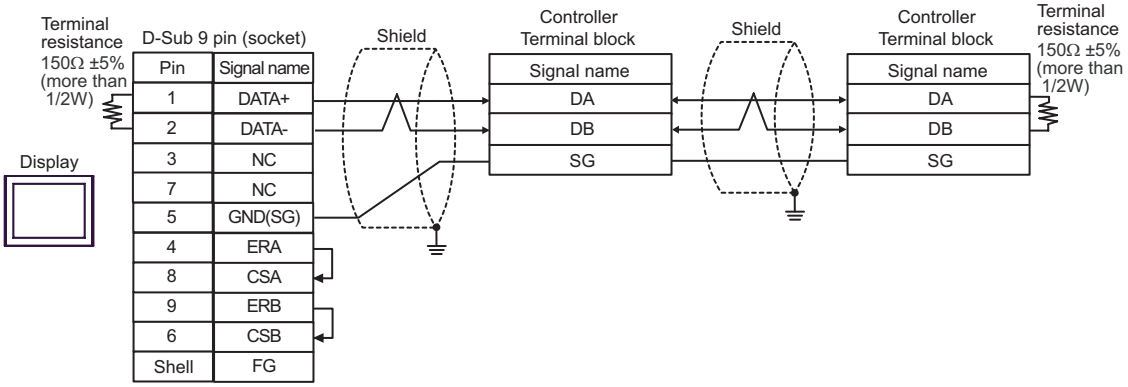


8F)

- 1:1 Connection

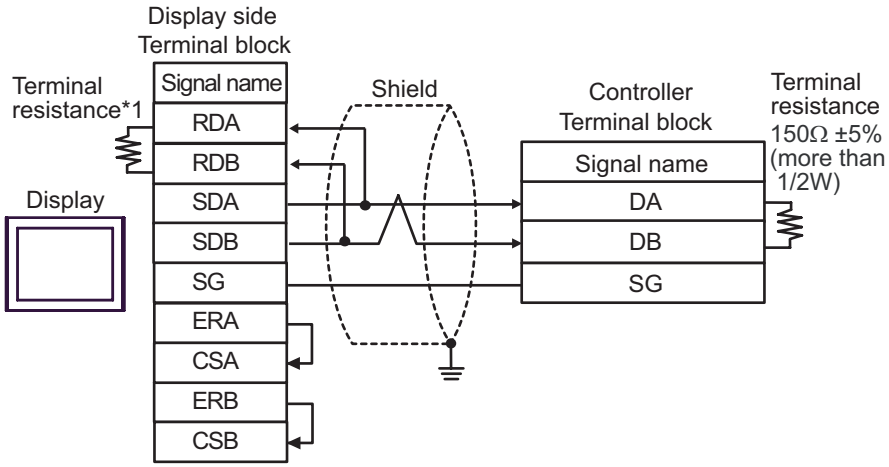


- 1:n Connection

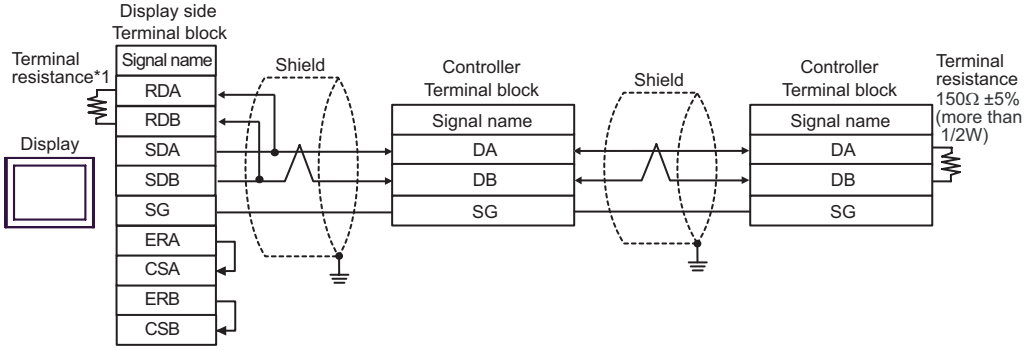


8G)

- 1:1 Connection



- 1:n Connection

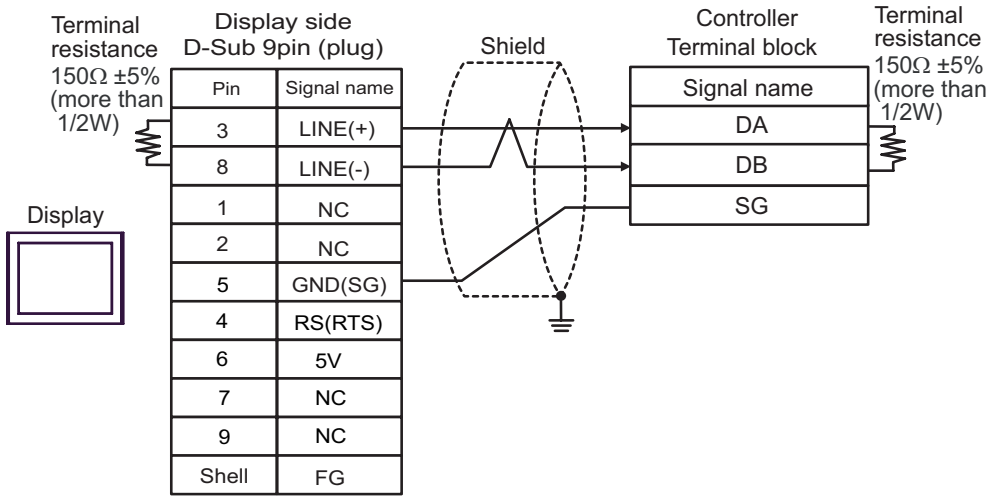


*1 The resistance in the Display is used as the termination resistance. Set the value of the DIP Switch on the rear of the Display as shown in the table below.

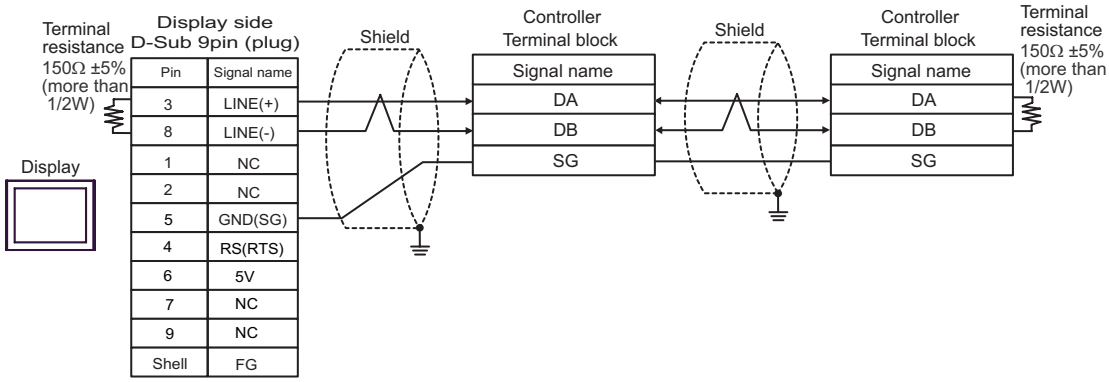
DIP Switch No.	Set Value
1	OFF
2	OFF
3	ON
4	ON

8H)

- 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.

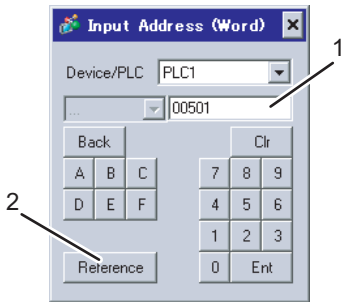
NOTE

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

6 Supported Devices

The following table shows the range of supported device addresses. Note that the actually supported range varies depending on the External Device to be used. Please check the actual range in your External Device manual.

Enter the External Device address in the dialog box below.



1. Address — Enter the address.
2. Browse — A list of available parameters is displayed. Click the parameter you want to use, and press "Select" to enter the address.

6.1 SDC10

: This address can be specified as system data area.

Device	Bit Address	Word Address	32 bits	Remarks
Data	00501.0-04504.F	00501-04504	L/H	*1

*1 When bits are written, the Display reads the corresponding word address from the External Device, sets particular bits of that word address to ON, and then returns the resulting address to the External Device. Note that the correct data may not be written if you change the word address using the ladder program while the Display reads data from the External Device and returns it.

IMPORTANT

- Setting [Enable System Data Area] in the system area setting of GP-Pro EX may cause malfunction. Do not set [Enable System Data Area].

NOTE

- You can set only the reading area size in the Controller's system area setting. Refer to the GP-Pro EX Reference Manual for the reading area size.

  Cf. GP-Pro EX Reference Manual "LS Area (only for direct access method Area)"

- Refer to the precautions on manual notation for icons in the table.

  ☞ "Manual Symbols and Terminology"

- Even if you use a nonexistent address, the read error may not be displayed. In this case, "0" is retained for the read data. Note that the write error is displayed.

6.2 SDC15/SDC25/SDC26/SDC35/SDC36

: This address can be specified as system data area.

Device	Bit Address	Word Address	32 bits	Remarks
Data	00273.0-31243.F	00273-31243	L / H	*1

*1 When bits are written, the Display reads the corresponding word address from the External Device, sets particular bits of that word address to ON, and then returns the resulting address to the External Device. Note that the correct data may not be written if you change the word address using the ladder program while the Display reads data from the External Device and returns it.

IMPORTANT

- Setting [Enable System Data Area] in the system area setting of GP-Pro EX may cause malfunction. Do not set [Enable System Data Area].

NOTE

- You can set only the reading area size in the Controller's system area setting. Refer to the GP-Pro EX Reference Manual for the reading area size.

  Cf. GP-Pro EX Reference Manual "LS Area (only for direct access method Area)"

- Refer to the precautions on manual notation for icons in the table.

  ☞ "Manual Symbols and Terminology"

- Even if you use a nonexistent address, the read error may not be displayed. In this case, "0" is retained for the read data. Note that the write error is displayed.

6.3 SDC20/SDC21

: This address can be specified as system data area.

Device	Bit Address	Word Address	32 bits	Remarks
Data	0301.0-0690.F	0301-0690	L / H	*1

*1 When bits are written, the Display reads the corresponding word address from the External Device, sets particular bits of that word address to ON, and then returns the resulting address to the External Device. Note that the correct data may not be written if you change the word address using the ladder program while the Display reads data from the External Device and returns it.

IMPORTANT

- Setting [Enable System Data Area] in the system area setting of GP-Pro EX may cause malfunction. Do not set [Enable System Data Area].

NOTE

- You can set only the reading area size in the Controller's system area setting. Refer to the GP-Pro EX Reference Manual for the reading area size.

  Cf. GP-Pro EX Reference Manual "LS Area (only for direct access method Area)"

- Refer to the precautions on manual notation for icons in the table.

  ☞ "Manual Symbols and Terminology"

- Even if you use a nonexistent address, the read error may not be displayed. In this case, "0" is retained for the read data. Note that the write error is displayed.

6.4 SDC30/SDC31

: This address can be specified as system data area.

Device	Bit Address	Word Address	32 bits	Remarks
Data	00501.0-06049.F	00501-06049	L / H	*1

*1 When bits are written, the Display reads the corresponding word address from the External Device, sets particular bits of that word address to ON, and then returns the resulting address to the External Device. Note that the correct data may not be written if you change the word address using the ladder program while the Display reads data from the External Device and returns it.

IMPORTANT

- Setting [Enable System Data Area] in the system area setting of GP-Pro EX may cause malfunction. Do not set [Enable System Data Area].

NOTE

- You can set only the reading area size in the Controller's system area setting. Refer to the GP-Pro EX Reference Manual for the reading area size.

  Cf. GP-Pro EX Reference Manual "LS Area (only for direct access method Area)"

- Refer to the precautions on manual notation for icons in the table.

  ☞ "Manual Symbols and Terminology"

- Even if you use a nonexistent address, the read error may not be displayed. In this case, "0" is retained for the read data. Note that the write error is displayed.

6.5 SDC40A

: This address can be specified as system data area.

Device	Bit Address	Word Address	32 bits	Remarks
Data	00501.0-06100.F	00501-06100	L / H	*1

*1 When bits are written, the Display reads the corresponding word address from the External Device, sets particular bits of that word address to ON, and then returns the resulting address to the External Device. Note that the correct data may not be written if you change the word address using the ladder program while the Display reads data from the External Device and returns it.

IMPORTANT

- Setting [Enable System Data Area] in the system area setting of GP-Pro EX may cause malfunction. Do not set [Enable System Data Area].

NOTE

- You can set only the reading area size in the Controller's system area setting. Refer to the GP-Pro EX Reference Manual for the reading area size.

  Cf. GP-Pro EX Reference Manual "LS Area (only for direct access method Area)"

- Refer to the precautions on manual notation for icons in the table.

  ☞ "Manual Symbols and Terminology"

- Even if you use a nonexistent address, the read error may not be displayed. In this case, "0" is retained for the read data. Note that the write error is displayed.

6.6 SDC40B

: This address can be specified as system data area.

Device	Bit Address	Word Address	32 bits	Remarks
Data	00501.0-08902.F	00501-08902	L / H	*1

*1 When bits are written, the Display reads the corresponding word address from the External Device, sets particular bits of that word address to ON, and then returns the resulting address to the External Device. Note that the correct data may not be written if you change the word address using the ladder program while the Display reads data from the External Device and returns it.

IMPORTANT

- Setting [Enable System Data Area] in the system area setting of GP-Pro EX may cause malfunction. Do not set [Enable System Data Area].

NOTE

- You can set only the reading area size in the Controller's system area setting. Refer to the GP-Pro EX Reference Manual for the reading area size.

  Cf. GP-Pro EX Reference Manual "LS Area (only for direct access method Area)"

- Refer to the precautions on manual notation for icons in the table.

  ☞ "Manual Symbols and Terminology"

- Even if you use a nonexistent address, the read error may not be displayed. In this case, "0" is retained for the read data. Note that the write error is displayed.

6.7 SDC40G

: This address can be specified as system data area.

Device	Bit Address	Word Address	32 bits	Remarks
Data	00501.0-06100.F	00501-06100	L / H	*1

*1 When bits are written, the Display reads the corresponding word address from the External Device, sets particular bits of that word address to ON, and then returns the resulting address to the External Device. Note that the correct data may not be written if you change the word address using the ladder program while the Display reads data from the External Device and returns it.

IMPORTANT

- Setting [Enable System Data Area] in the system area setting of GP-Pro EX may cause malfunction. Do not set [Enable System Data Area].

NOTE

- You can set only the reading area size in the Controller's system area setting. Refer to the GP-Pro EX Reference Manual for the reading area size.

  Cf. GP-Pro EX Reference Manual "LS Area (only for direct access method Area)"

- Refer to the precautions on manual notation for icons in the table.

  ☞ "Manual Symbols and Terminology"

- Even if you use a nonexistent address, the read error may not be displayed. In this case, "0" is retained for the read data. Note that the write error is displayed.

6.8 SDC45/46

: This address can be specified as system data area.

Device	Bit Address	Word Address	32 bits	Remarks
Data	1000.0-BFFF.F	1000-BFFF	L / H	*1

*1 When bits are written, the Display reads the corresponding word address from the External Device, sets particular bits of that word address to ON, and then returns the resulting address to the External Device. Note that the correct data may not be written if you change the word address using the ladder program while the Display reads data from the External Device and returns it.

IMPORTANT

- Setting [Enable System Data Area] in the system area setting of GP-Pro EX may cause malfunction. Do not set [Enable System Data Area].

NOTE

- You can set only the reading area size in the Controller's system area setting. Refer to the GP-Pro EX Reference Manual for the reading area size.

  Cf. GP-Pro EX Reference Manual "LS Area (only for direct access method Area)"

- Refer to the precautions on manual notation for icons in the table.

  ☞ "Manual Symbols and Terminology"

- Even if you use a nonexistent address, the read error may not be displayed. In this case, "0" is retained for the read data. Note that the write error is displayed.

6.9 DMC10

: This address can be specified as system data area.

Device	Bit Address	Word Address	32 bits	Remarks
Data	01001.0-07806.F	01001-07806	L / H	*1

*1 When bits are written, the Display reads the corresponding word address from the External Device, sets particular bits of that word address to ON, and then returns the resulting address to the External Device. Note that the correct data may not be written if you change the word address using the ladder program while the Display reads data from the External Device and returns it.

IMPORTANT

- Setting [Enable System Data Area] in the system area setting of GP-Pro EX may cause malfunction. Do not set [Enable System Data Area].

NOTE

- You can set only the reading area size in the Controller's system area setting. Refer to the GP-Pro EX Reference Manual for the reading area size.

  Cf. GP-Pro EX Reference Manual "LS Area (only for direct access method Area)"

- Refer to the precautions on manual notation for icons in the table.

  ☞ "Manual Symbols and Terminology"

- Even if you use a nonexistent address, the read error may not be displayed. In this case, "0" is retained for the read data. Note that the write error is displayed.

6.10 DMC50

: This address can be specified as system data area.

Device	Bit Address	Word Address	64 bits	Remarks
Data	00000001.00-CF1FFF3A.1F	00000001-CF1FFF3A	L / H	*1

*1 When bits are written, the Display reads the corresponding word address from the External Device, sets particular bits of that word address to ON, and then returns the resulting address to the External Device. Note that the correct data may not be written if you change the word address using the ladder program while the Display reads data from the External Device and returns it.

IMPORTANT

- Setting [Enable System Data Area] in the system area setting of GP-Pro EX may cause malfunction. Do not set [Enable System Data Area].

NOTE

- You can set only the reading area size in the Controller's system area setting. Refer to the GP-Pro EX Reference Manual for the reading area size.

  Cf. GP-Pro EX Reference Manual "LS Area (only for direct access method Area)"

- Refer to the precautions on manual notation for icons in the table.

  ☞ "Manual Symbols and Terminology"

- Even if you use a nonexistent address, the read error may not be displayed. In this case, "0" is retained for the read data. Note that the write error is displayed.

6.11 DCP31/DCP32

: This address can be specified as system data area.

Device	Bit Address	Word Address	32 bits	Remarks
Data	00501.0-04600.F	00501-04600	L / H	*1

*1 When bits are written, the Display reads the corresponding word address from the External Device, sets particular bits of that word address to ON, and then returns the resulting address to the External Device. Note that the correct data may not be written if you change the word address using the ladder program while the Display reads data from the External Device and returns it.

IMPORTANT

- Setting [Enable System Data Area] in the system area setting of GP-Pro EX may cause malfunction. Do not set [Enable System Data Area].

NOTE

- You can set only the reading area size in the Controller's system area setting. Refer to the GP-Pro EX Reference Manual for the reading area size.

  Cf. GP-Pro EX Reference Manual "LS Area (only for direct access method Area)"

- Refer to the precautions on manual notation for icons in the table.

  ☞ "Manual Symbols and Terminology"

- Even if you use a nonexistent address, the read error may not be displayed. In this case, "0" is retained for the read data. Note that the write error is displayed.

6.12 DCP551

: This address can be specified as system data area.

Device	Bit Address	Word Address	32 bits	Remarks
Data	00256.0-01712.F	00256-01712	L / H	*1

*1 When bits are written, the Display reads the corresponding word address from the External Device, sets particular bits of that word address to ON, and then returns the resulting address to the External Device. Note that the correct data may not be written if you change the word address using the ladder program while the Display reads data from the External Device and returns it.

IMPORTANT

- Setting [Enable System Data Area] in the system area setting of GP-Pro EX may cause malfunction. Do not set [Enable System Data Area].

NOTE

- You can set only the reading area size in the Controller's system area setting. Refer to the GP-Pro EX Reference Manual for the reading area size.

  Cf. GP-Pro EX Reference Manual "LS Area (only for direct access method Area)"

- Refer to the precautions on manual notation for icons in the table.

  ☞ "Manual Symbols and Terminology"

- Even if you use a nonexistent address, the read error may not be displayed. In this case, "0" is retained for the read data. Note that the write error is displayed.

6.13 DCP552

: This address can be specified as system data area.

Device	Bit Address	Word Address	32 bits	Remarks
Data	00256.0-02003.F	00256-02003	L / H	*1

*1 When bits are written, the Display reads the corresponding word address from the External Device, sets particular bits of that word address to ON, and then returns the resulting address to the External Device. Note that the correct data may not be written if you change the word address using the ladder program while the Display reads data from the External Device and returns it.

IMPORTANT

- Setting [Enable System Data Area] in the system area setting of GP-Pro EX may cause malfunction. Do not set [Enable System Data Area].

NOTE

- You can set only the reading area size in the Controller's system area setting. Refer to the GP-Pro EX Reference Manual for the reading area size.

  Cf. GP-Pro EX Reference Manual "LS Area (only for direct access method Area)"

- Refer to the precautions on manual notation for icons in the table.

  ☞ "Manual Symbols and Terminology"

- Even if you use a nonexistent address, the read error may not be displayed. In this case, "0" is retained for the read data. Note that the write error is displayed.

6.14 CMC10B

: This address can be specified as system data area.

Device	Bit Address	Word Address	32 bits	Remarks
Data	00401.0-07868.F	00401-07868	L / H	*1

*1 When bits are written, the Display reads the corresponding word address from the External Device, sets particular bits of that word address to ON, and then returns the resulting address to the External Device. Note that the correct data may not be written if you change the word address using the ladder program while the Display reads data from the External Device and returns it.

IMPORTANT

- Setting [Enable System Data Area] in the system area setting of GP-Pro EX may cause malfunction. Do not set [Enable System Data Area].

NOTE

- You can set only the reading area size in the Controller's system area setting. Refer to the GP-Pro EX Reference Manual for the reading area size.

  Cf. GP-Pro EX Reference Manual "LS Area (only for direct access method Area)"

- Refer to the precautions on manual notation for icons in the table.

  ☞ "Manual Symbols and Terminology"

- Even if you use a nonexistent address, the read error may not be displayed. In this case, "0" is retained for the read data. Note that the write error is displayed.

7 Device Code and Address Code

Use device code and address code when you select "Device Type & Address" for the address type of the data display or other devices.

7.1 SDC10

Device	Device Name	Device Code (HEX)	Address Code
Data	---	0080	Word Address

7.2 SDC15 /SDC 25/SDC26 / SDC35/SDC36

Device	Device Name	Device Code (HEX)	Address Code
Data	---	0080	Word Address

7.3 SDC20/SDC21

Device	Device Name	Device Code (HEX)	Address Code
Data	---	0080	Word Address

7.4 SDC30/SDC31

Device	Device Name	Device Code (HEX)	Address Code
Data	---	0080	Word Address

7.5 SDC40A

Device	Device Name	Device Code (HEX)	Address Code
Data	---	0080	Word Address

7.6 SDC40B

Device	Device Name	Device Code (HEX)	Address Code
Data	---	0080	Word Address

7.7 SDC40G

Device	Device Name	Device Code (HEX)	Address Code
Data	---	0080	Word Address

7.8 SDC45/46

Device	Device Name	Device Code (HEX)	Address Code
Data	---	0080	Word Address

7.9 DMC10

Device	Device Name	Device Code (HEX)	Address Code
Data	---	0080	Word Address

7.10 DMC50

Device	Device Name	Device Code (HEX)	Address Code
Data	000	0080	Word Address
Data	001	0081	Word Address
Data	002	0082	Word Address
Data	021	00A1	Word Address
Data	022	00A2	Word Address
Data	023	00A3	Word Address
Data	041	00C1	Word Address
Data	045	00C5	Word Address
Data	061	00E1	Word Address
Data	071	00F1	Word Address
Data	074	00F4	Word Address
Data	0A1	0121	Word Address
Data	0A2	0122	Word Address
Data	0A3	0123	Word Address
Data	0C1	0141	Word Address
Data	0C3	0143	Word Address

Continued to next page.

Device	Device Name	Device Code (HEX)	Address Code
Data	0C4	0144	Word Address
Data	0C5	0145	Word Address
Data	0C6	0146	Word Address
Data	0E1	0161	Word Address
Data	0E2	0162	Word Address
Data	0E3	0163	Word Address
Data	0E5	0165	Word Address
Data	0E6	0166	Word Address
Data	0E7	0167	Word Address
Data	0E8	0168	Word Address
Data	0F1	0171	Word Address
Data	0F2	0172	Word Address
Data	0F3	0173	Word Address
Data	103	0183	Word Address
Data	201	0281	Word Address
Data	202	0282	Word Address
Data	203	0283	Word Address
Data	211	0291	Word Address
Data	212	0292	Word Address
Data	213	0293	Word Address
Data	214	0294	Word Address
Data	234	02B4	Word Address
Data	235	02B5	Word Address
Data	236	02B6	Word Address
Data	241	02C1	Word Address
Data	242	02C2	Word Address
Data	243	02C3	Word Address
Data	301	0381	Word Address
Data	801 802 ..... 9FE 9FF	0881 0882 ..... 0A7E 0A7F	Word Address

Continued to next page.

Device	Device Name	Device Code (HEX)	Address Code
Data	C00	0C80	Word Address
Data	C01 C02 ..... C62 C63	0C81 0C82 ..... 0CE2 0CE3	Word Address
Data	CF1	0D71	Word Address

7.11 DCP31/DCP32

Device	Device Name	Device Code (HEX)	Address Code
Data	---	0080	Word Address

7.12 DCP551

Device	Device Name	Device Code (HEX)	Address Code
Data	---	0080	Word Address

7.13 DCP552

Device	Device Name	Device Code (HEX)	Address Code
Data	---	0080	Word Address

7.14 CMC10B

Device	Device Name	Device Code (HEX)	Address Code
Data	---	0080	Word Address

8 Error Messages

Error messages are displayed on the Display screen 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 an error has occurred. Device name is the title of the External Device set with GP-Pro EX. (Initial value [PLC1])
Error Message	Displays messages related to an error that has occurred.
Error Occurrence Area	Displays the IP address or device address of the External Device where an error has occurred, or error codes received from the External Device. NOTE • IP address is displayed as "IP address (Decimal): MAC address (Hex)". • Device address is displayed as "Address: Device address". • Received error codes are displayed as "Decimal [Hex]".

Display Examples of Error Messages

"RHAA035: PLC1: Error has been responded for device write command (Error Code: 2[02H])"

NOTE

- Refer to your External Device manual for details on received error codes.
- Refer to "Display-related errors" in "Maintenance/Troubleshooting guide" for details on the error messages common to the driver.

■ Notes on Using the Device Monitor

The External Device has inaccessible areas.

If you attempt to display a range that includes inaccessible areas using the bit or word batch monitor, an error may occur and no data may be displayed.

In this case, set the address you want to display as the first one, or use the random monitor.