Uni-Telway Driver

Introduction

This manual describes how to connect the Display (GP3000 series) and the External Device (target PLC).

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

1	System Configuration This section shows the types of External Devices which can be connected and SIO type.	☞ "1 System Configuration" (page 3)

2	Selection of External Device Select a model (series) of the External Device to be connected and connection method.	☞ "2 Selection of External Device" (page 7)

3	Example of Communication Settings This section shows setting examples for communicating between the Display and the External Device.	☞ "3 Example of Communication Setting" (page 8)

4	Setup Items This section describes communication setup items on the Display. Set communication settings of Display with GP-Pro Ex or in off-line mode.	☞ "4 Setup Items" (page 21)

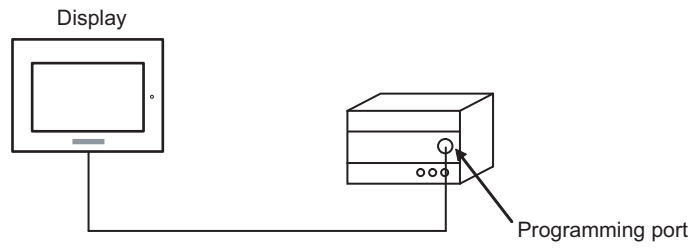| 5	Cable Diagram This section shows cables and adapters for connecting the Display and the External Device.	☞ "5 Cable Diagram" (page 26)

Operation

1 System Configuration

The system configuration in the case when the External Device of Schneider Electric Industries and the Display are connected is shown.

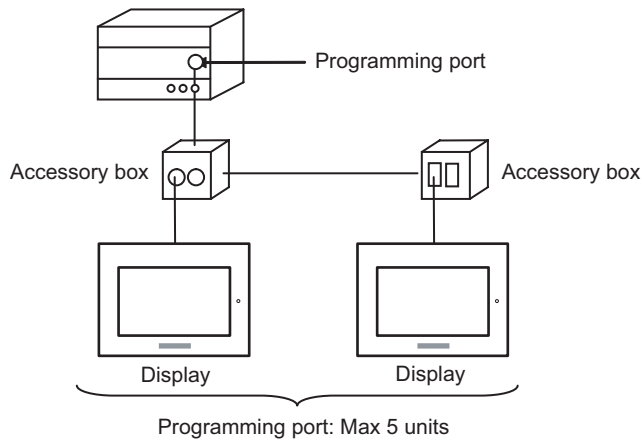| Series	CPU	Link I/F	SIO Type	Setting Example	Cable Diagram
Nano	TSX 07 3L □ □ 28 TSX 07 30 10 □ □ TSX 07 31 16 □ □ TSX 07 31 24 □ □ TSX 07 32 □ □ 28 TSX 07 33 □ □ 28	Programming port on CPU	RS232C	Setting Example 1 (page 8)	Cable Diagram 1 (page 26)
			RS422/485 (2wire)	Setting Example 2 (page 10)	Cable Diagram 2 (page 27)
		Accessory box AUX or TER port on TSX P ACC 01	RS422/485 (2wire)	Setting Example 2 (page 10)	Cable Diagram 2 (page 27)
		Accessory box TSX SCA 62	RS422/485 (2wire)	Setting Example 2 (page 10)	Cable Diagram 3 (page 30)
Micro	TSX 37 05 028DR1 TSX 37 08 056DR1 TSX 37 10 128DT1 TSX 37 10 128DR1 TSX 37 10 128DTK1 TSX 37 10 164DTK1 TSX 37 10 028AR1 TSX 37 10 028DR1 TSX 37 21 101 TSX 37 22 101 TSX 37 21 001 TSX 37 22 001	TER port on CPU	RS232C	Setting Example 3 (page 12)	Cable Diagram 1 (page 26)
			RS422/485 (2wire)	Setting Example 4 (page 15)	Cable Diagram 2 (page 27)
		AUX port on CPU	RS422/485 (2wire)	Setting Example 4 (page 15)	Cable Diagram 2 (page 27)
		Accessory box AUX or TER port on TSX P ACC 01	RS422/485 (2wire)	Setting Example 4 (page 15)	Cable Diagram 2 (page 27)
		Accessory box TSX SCA 62	RS422/485 (2wire)	Setting Example 4 (page 15)	Cable Diagram 3 (page 30)
	TSX 37 21 101 TSX 37 22 101 TSX 37 21 001 TSX 37 22 001	PCMCIA card TSX SCP 114 for RS485	RS422/485 (2wire)	Setting Example 5 (page 18)	Cable Diagram 4 (page 33)
Premium	TSX P57 103M TSX P57 153M TSX P57 203M TSX P57 253M TSX P57 303M TSX P57 353M TSX P57 453M	TER port on CPU	RS232C	Setting Example 3 (page 12)	Cable Diagram 1 (page 26)
			RS422/485 (2wire)	Setting Example 4 (page 15)	Cable Diagram 2 (page 27)
		AUX port on CPU	RS422/485 (2wire)	Setting Example 4 (page 15)	Cable Diagram 2 (page 27)
		Accessory box AUX or TER port on TSX P ACC 01	RS422/485 (2wire)	Setting Example 4 (page 15)	Cable Diagram 2 (page 27)
		Accessory box TSX SCA 62	RS422/485 (2wire)	Setting Example 4 (page 15)	Cable Diagram 3 (page 30)
		PCMCIA card TSX SCP 114 for RS485	RS422/485 (2wire)	Setting Example 5 (page 18)	Cable Diagram 4 (page 33)
		Communication Module TSX SCY 21601 for RS485	RS422/485 (2wire)	Setting Example 4 (page 15)	Cable Diagram 5 (page 38)

■ Connection Configuration
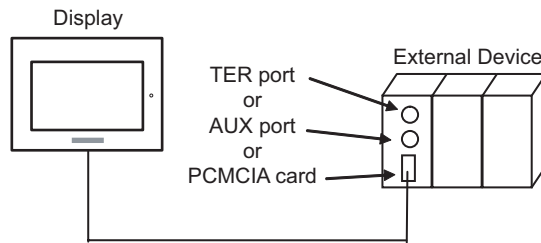
◆ Nano Series

• 1:1 Connection

Display

Programming port

• n:1 Connection

Programming port

Accessory box

Accessory box

Display

Display
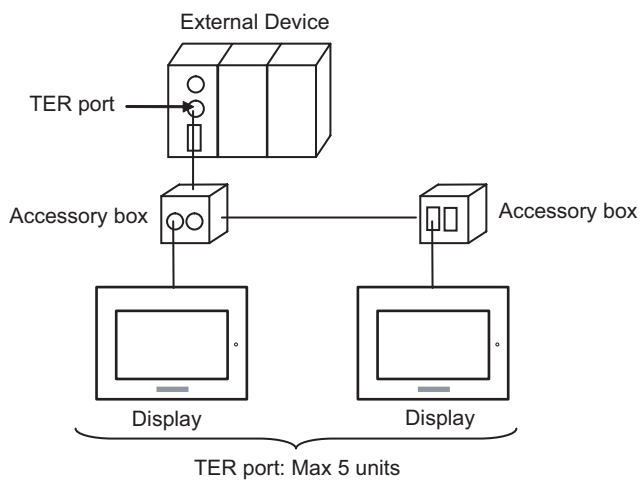
Programming port: Max 5 units
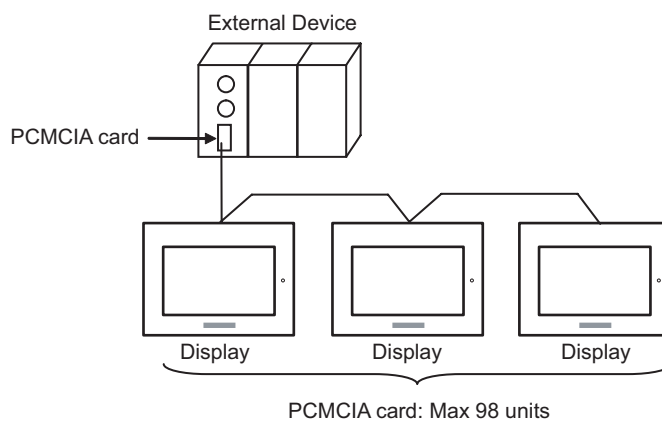
◆ Micro Series

• 1:1 Connection

You can connect the display to TER port, AUX port or PCMCIA card. Simultaneous connection is also available.

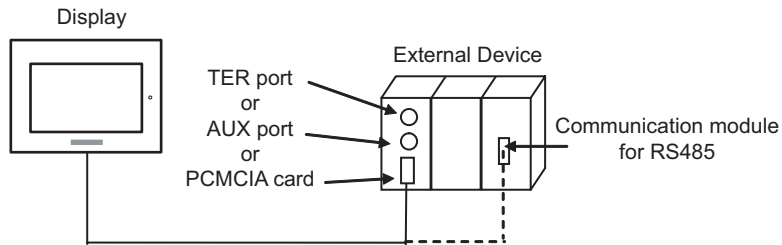• n:1 Connection (when using accessory box)
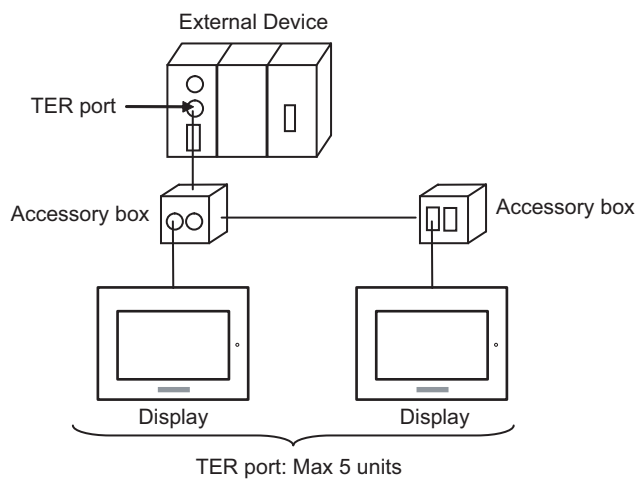

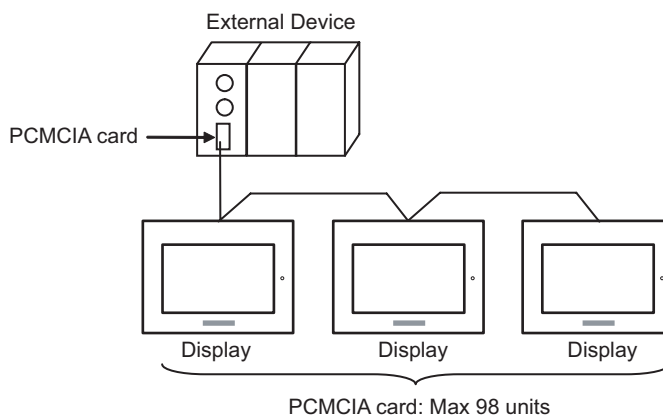• n:1 Connection (when using PCMCIA card for RS485)

◆ Premium Series

• 1:1 Connection

You can connect the display to TER port, AUX port, PCMCIA card or communication module. Simultaneous connection is also available.

• n:1 Connection (when using accessory box)

TER port: Max 5 units

• n:1 Connection (when using PCMCIA card for RS485)

PCMCIA card: Max 98 units

2　　　Selection of External Device

Select the External Device to be connected to the Display.

Setup Items	Setup Description
Maker	Select the maker of the External Device to be connected. Select "Schneider Electric Industries".
Driver	Select a model (series) of the External Device to be connected and connection method. Select "Uni-Telway". Check the External Device which can be connected in "Uni-Telway" in system configuration.)"1 System Configuration" (page 3)
Use System Area	Check this option when you synchronize the system data area of Display and the device (memory) of External Device. When synchronized, you can use the ladder program of External Device to switch the display or display the window on the display. 　　Cf.　GP-Pro EX Reference Manual "Appendix 1.4 LS Area (only for direct access method)" This can be also set with GP-Pro EX or in off-line mode of Display. 　　Cf.　GP-Pro EX Reference Manual " 6.13.6 Setting Guide of [System Setting Window]■[Main Unit Settings] Settings Guide◆System Area Setting" 　　Cf.　GP3000 Series User Manual "4.3.6 System Area Setting"
Port	Select the Display port to be connected to the External Device.

3   Example of Communication Setting

Examples of communication settings of the Display and the External Device, recommended by Pro-face, are shown.

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 workspace.

◆ Device Setting

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

When [Allowable No. of Device/PLCs] is multiple, you can click from [Device-Specific Settings] of [Device/PLC Settings] to add External Device which is available to set.

■ Setting of External Device

Use the ladder software "PL7-07" for communication settings on External Device.

Select [Programming Port] from [Configuration] in PL7-07 and perform the communication settings as below.

Setup Items	Setup Description
Type	UNI-TELWAY Master
Bit/sec	19200
DateBits	8 bits
ParityOdd	Odd
Stop Bits	1 bit
Number of Slaves	8

◆ Notes

• Do not set the address which exceeds "Number of Slaves" on External Device in Server Address and Clients Address. If you set the address which exceeds "Number of Slaves" in Server Address and Clients Address, timeout error will occur, which disables the communication with the External Device. In addition, when you connect many client devices (Display/External Device) on the same serial network, set the longer timeout on the Display.

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 workspace.

◆ Device Setting

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

When [Allowable No. of Device/PLCs] is multiple, you can click from [Device-Specific Settings] of [Device/PLC Settings] to add External Device which is available to set.

■ Setting of External Device

Use the ladder software "PL7-07" for communication settings on External Device.

Select [Programming Port] from [Configuration] in PL7-07 and perform the communication settings as below.

Setup Items	Setup Description
Type	UNI-TELWAY Master
Bit/sec	19200
DateBits	8 bits
ParityOdd	Odd
Stop Bits	1 bit
Number of Slaves	8

◆ Notes

• Do not set the address which exceeds "Number of Slaves" on External Device in Server Address and Clients Address. If you set the address which exceeds "Number of Slaves" in Server Address and Clients Address, timeout error will occur, which disables the communication with the External Device. In addition, when you connect many client devices (Display/External Device) on the same serial network, set the longer timeout on the Display.

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 workspace.

◆ Device Setting

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

When [Allowable No. of Device/PLCs] is multiple, you can click ⬚ from [Device-Specific Settings] of [Device/PLC Settings] to add External Device which is available to set.

■ Setting of External Device

Use the ladder software "PL7-07" for communication settings on External Device.

Go to [Configuration] in [Application Browser], [Hardware Configuration] and [Comm] in this order in "PL7-07", and perform the communication settings as below.

Setup Items	Setup Description
CHANNEL	CHANNEL 0
	UNI-TELWAY LINK
Type	Master
Trasmission Speed	19200
Data	8 bits
Parity	Odd
Stop	1 bit
Number of Slaves	8

◆ Notes

- Do not set the address which exceeds "Number of Slaves" on External Device in Server Address and Clients Address. If you set the address which exceeds "Number of Slaves" in Server Address and Clients Address, timeout error will occur, which disables the communication with the External Device. In addition, when you connect many client devices (Display/External Device) on the same serial network, set the longer timeout on the Display.

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 workspace.

Device/PLC 1

Summary   Change Device/PLC

  Maker   Schneider Electric Industries   Series   Uni-Telway   Port   COM1

  Text Data Mode   1   Change

Communication Settings

  SIO Type   ○ RS232C   ● RS422/485(2wire)   ○ RS422/485(4wire)

  Speed   19200

  Data Length   ○ 7   ● 8

  Parity   ○ NONE   ○ EVEN   ● ODD

  Stop Bit   ● 1   ○ 2

  Flow Control   ● NONE   ○ ER(DTR/CTS)   ○ XON/XOFF

  Timeout   3   (sec)

    Client Address   4

    No. of Consecutive Address   1

  RI / VCC   ● RI   ○ VCC

  In the case of RS232C, you can select the 9th pin to RI (Input)
  or VCC (5V Power Supply). If you use the Digital's RS232C
  Isolation Unit, please select it to VCC.   Default
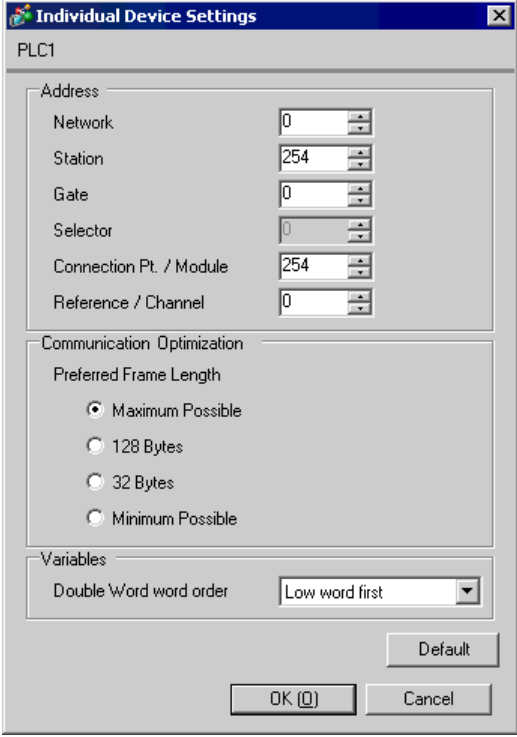
Device-Specific Settings
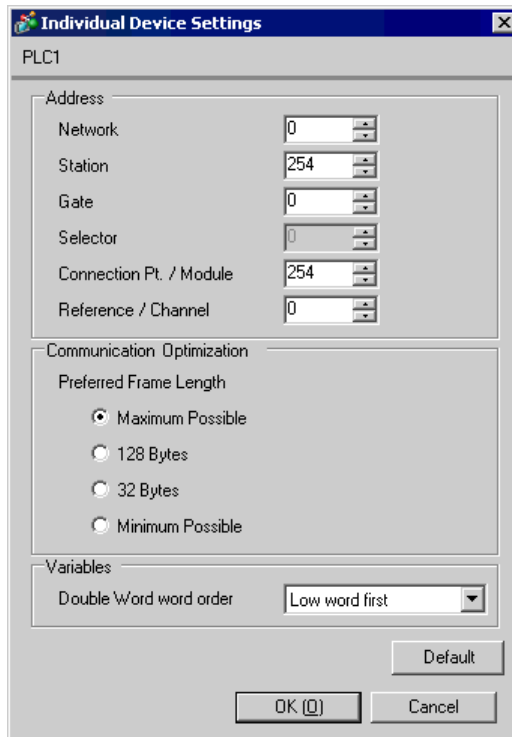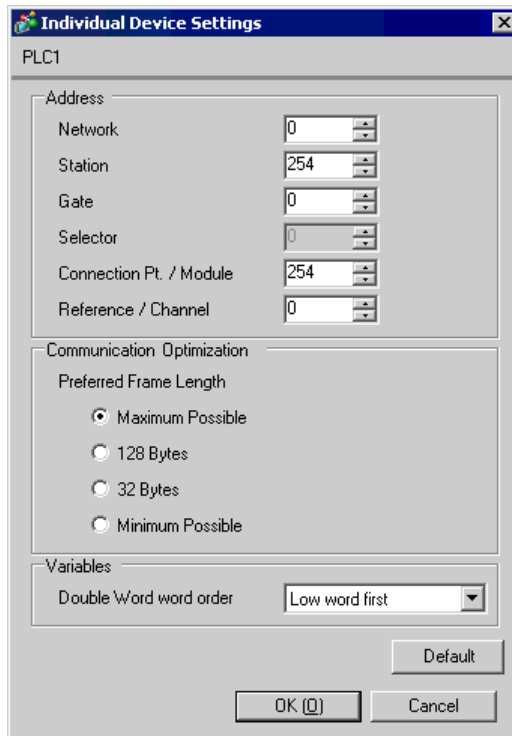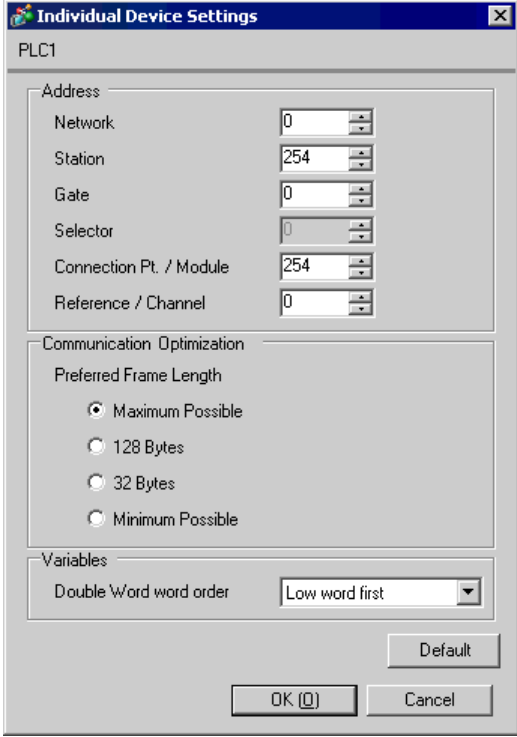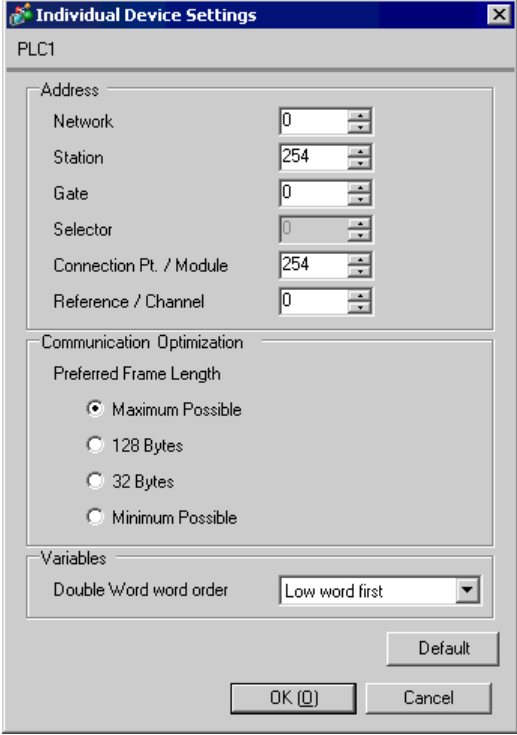
  Allowable No. of Device/PLCs 16 Unit(s)

    No.   Device Name   Settings

    1   PLC1   Network=0,Station=254,Gate=0,Selector=0,Connection Pt. / Module=254,Re

◆ Device Setting

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

When [Allowable No. of Device/PLCs] is multiple, you can click ▥ from [Device-Specific Settings] of [Device/PLC Settings] to add External Device which is available to set.

■ Setting of External Device

Use the ladder software "PL7-07" for communication settings on External Device.

Go to [Configuration] in [Application Browser], [Hardware Configuration] and [Comm] in this order in "PL7-07", and perform the communication settings as below.

Setup Items	Setup Description
CHANNEL	CHANNEL 0
	UNI-TELWAY LINK
Type	Master
Trasmission Speed	19200
Data	8 bits
Parity	Odd
Stop	1 bit
Number of Slaves	8

◆ Notes

• Do not set the address which exceeds "Number of Slaves" on External Device in Server Address and Clients Address. If you set the address which exceeds "Number of Slaves" in Server Address and Clients Address, timeout error will occur, which disables the communication with the External Device. In addition, when you connect many client devices (Display/External Device) on the same serial network, set the longer timeout on the Display.

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 workspace.

◆ Device Setting

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

When [Allowable No. of Device/PLCs] is multiple, you can click   from [Device-Specific Settings] of [Device/PLC Settings] to add External Device which is available to set.

■ Setting of External Device

Use the ladder software "PL7-07" for communication settings on External Device.

Go to [Configuration] in [Application Browser], [Hardware Configuration] and [Comm] in this order in "PL7-07", and perform the communication settings as below.

Setup Items	Setup Description
CHANNEL	CHANNEL 1
	TSX SCP 114 RS485 MP PCMCIA CARD
	UNI-TELWAY LINK
Type	Master
Trasmission Speed	19200
Data	8 bits
Parity	Odd
Stop	1 bit
Number of Slaves	8

◆ Notes

• Do not set the address which exceeds "Number of Slaves" on External Device in Server Address and Clients Address. If you set the address which exceeds "Number of Slaves" in Server Address and Clients Address, timeout error will occur, which disables the communication with the External Device. In addition, when you connect many client devices (Display/External Device) on the same serial network, set the longer timeout on the Display.

4　　　Setup Items

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

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

)"3 Example of Communication Setting" (page 8)

4.1　　　Setup Items in GP-Pro EX

■ Communication Settings

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

Setup Items	Setup Description
SIO Type	Select the SIO type to communicate with the External Device.
Speed	Select speed between the External Device and the Display.
Data Length	Select data length.
Parity	Select how to check parity.
Stop Bit	Select stop bit length.
Flow Control	Select the communication control method to prevent overflow of transmission and reception data.
Timeout	Use an integer from 1 to 127 to enter the time (s) for which the Display waits for the response from the External Device.
Client Address	Use an integer from 1 to 98 to enter the client address (source address).
No. of Consecutive Address[*1]	Use an integer 1 to 5 to enter the No. of consecutive address.
RI/VCC	You can switch RI/VCC of the 9th pin when you select RS232C for SIO type.

*1　Set the value of "Client address + Consecutive address number - 1" to 98 or less. Address which exceeds 98 is not used because it is not polled from the master.

■ Device Setting

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

When [Allowable No. of Device/PLCs] is multiple, you can click ▐▐ from [Device-Specific Settings] of [Device/PLC Settings] to add External Device which is available to set.

Setup Items	Setup Description
Network	Enter the Network No. of the destination External Device.
Station	Enter the station No. in the network.
Gate	Enter the gate No. in the network.
Selector	Enter the connected communication channel. This item becomes available only when the gate value is "8."
Connection Pt./Module	Enter the connection point in case of Level 6 Addressing, and enter the module number in case of Level 5 Addressing.
Reference/Channel	Enter the reference in case of Level 6 Addressing, and enter the channel in case of Level 5 Addressing.
Preferred Frame Length	Specify the frame length.
Double Word word order[1]	Specify the word order when displaying the 16-bit device in 32-bit.

*1 When you change the word order, set all devices in the screen data again.

4.2　　　　Setup Items in Off-Line Mode

NOTE • Please refer to GP3000 Series User Manual for more information on how to enter off-line mode or about operation.
   Cf. GP3000 Series User Manual "Chapter 4 Settings"

■ Communication Settings

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

Comm.	Device	Option		

Uni-Telway   [COM1]   Page 1/1

```
SIO Type            RS232C          ▼
Speed               19200           ▼
Data Length         8
Parity              ○ NONE    ○ EVEN    ● ODD
Stop Bit            ● 1       ○ 2
Flow Control        NONE
Timeout(s)                    3  ▼  ▲

Client Address                4  ▼  ▲
No. of Consecutive            1  ▼  ▲
```

| | Exit | | Back | 2005/09/02 13:14:42 |

Setup Items	Setup Description
SIO Type	Select the SIO type to communicate with the External Device.
Speed	Select speed between the External Device and the Display.
Data Length	Select data length.
Parity	Select how to check parity.
Stop Bit	Select stop bit length.
Flow Control	Select the communication control method to prevent overflow of transmission and reception data.
Timeout	Use an integer from 1 to 127 to enter the time (s) for which the Display waits for the response from the External Device.
Client Address	Use an integer from 1 to 98 to enter the client address (source address).
No. of Consecutive[1]	Use an integer 1 to 5 to enter the No. of consecutive address.

[1] Set the value of "Client address + Consecutive address number - 1" to 98 or less. Address which exceeds 98 is not used because it is not polled from the master.

◼ Device Setting

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

Comm.	Device	Option		

Uni-Telway   [COM1]   Page 1/1

Device/PLC Name   PLC1   ▼

Network   0   ▼ ▲
Station   254   ▼ ▲
Gate   0   ▼ ▲
Selector   0   ▼ ▲
Connection Pt./Module   254   ▼ ▲
Reference/Channel   0   ▼ ▲

Frame Length   Maximum Possible   ▼

Double Word word order Low word first

| | Exit | | | Back | 2005/09/02 13:14:44 |

Setup Items	Setup Description
Device/PLC Name	Select the External Device for device setting. Device name is a title of External Device set with GP-Pro EX.(Initial value [PLC1])
Network	Enter the Network No. of the destination External Device.
Station	Enter the station No. in the network.
Gate	Enter the gate No. in the network.
Selector	Enter the connected communication channel. This item becomes available only when the gate value is "8."
Connection Pt./Module	Enter the connection point in case of Level 6 Addressing, and enter the module number in case of Level 5 Addressing.
Reference/Channel	Enter the reference in case of Level 6 Addressing, and enter the channel in case of Level 5 Addressing.
Frame Length	Specify the frame length.
Double Word word order	The word order when displaying the 16-bit device in 32-bit is displayed. You cannot change the word order in [Device Setting] in off-line mode.

■ Option

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

Comm.	Device	Option		

Uni-Telway   [COM1]   Page 1/1

                    RI / VCC   ● RI   ○ VCC
                    In the case of RS232C, you can select
                    the 9th pin to RI(Input) or VCC(5V
                    Power Supply). If you use the Digital's
                    RS232C Isolation Unit, please select
                    it to VCC.

| | Exit | | Back | 2005/09/02 13:14:46 |

| Setup Items	Setup Description
RI/VCC	You can switch RI/VCC of the 9th pin when you select RS232C for SIO type.

5   Cable Diagram

The cable diagram shown below may be different from the cable diagram recommended by Schneider Electric Industries. Please be assured there is no operational problem in applying the cable diagram shown in this manual.

- The FG pin of the main body of External Device must be D-class grounded. Please refer to the manual of External Device for more details.
- SG and FG are connected inside Display. When connecting SG to External Device, design the system not to form short-circuit loop.

Cable Diagram 1

Display (Connection Port)	Cable	Notes
GP (COM1)	Cable by Schneider Electric Industries TSX PCX 1031 (2.5m)	
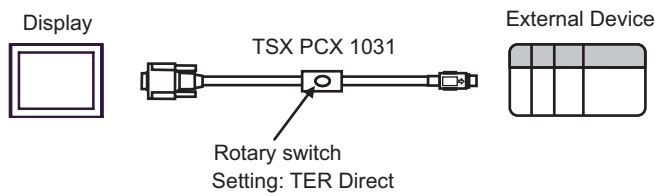
Cable Diagram 2

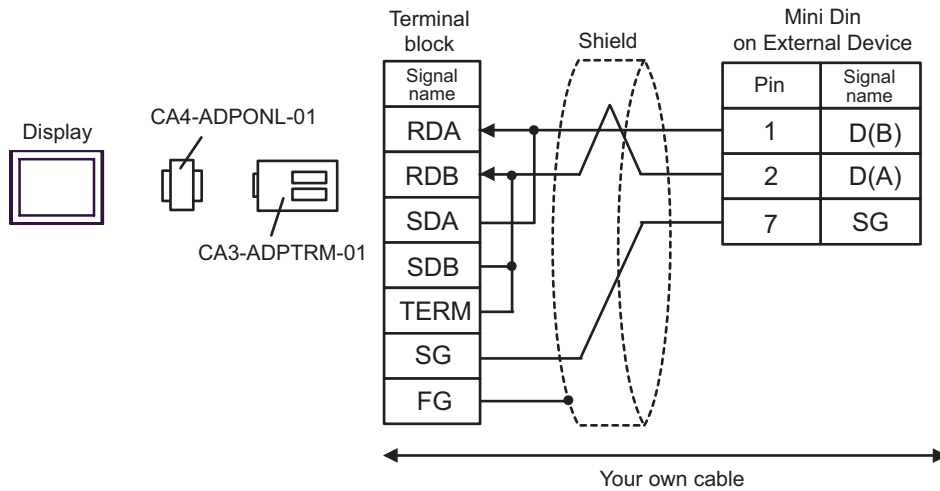| Display (Connection Port)		Cable	Notes
GP*1 (COM1) AGP-3302 (COM2)	A	COM port conversion adapter (for COM1) by Pro-face CA3-ADPCOM-01 + Connector terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	The cable length must be 10m or less.
	B	Your own cable	
GP*1 (COM2)	C	Online adapter by Pro-face CA3-ADPONL-01 + Connector terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	
	D	Online adapter by Pro-face CA4-ADPONL-01 + Your own cable	

*1   All GP models except AGP-3302

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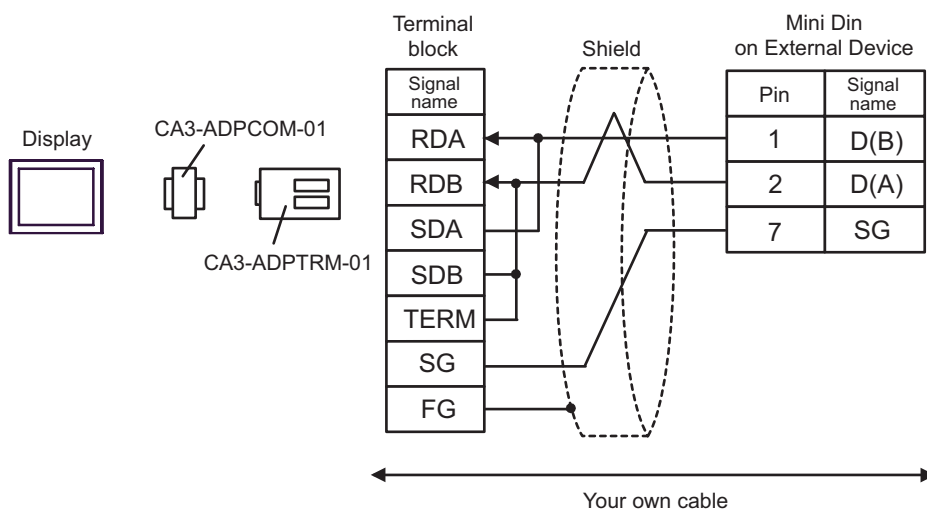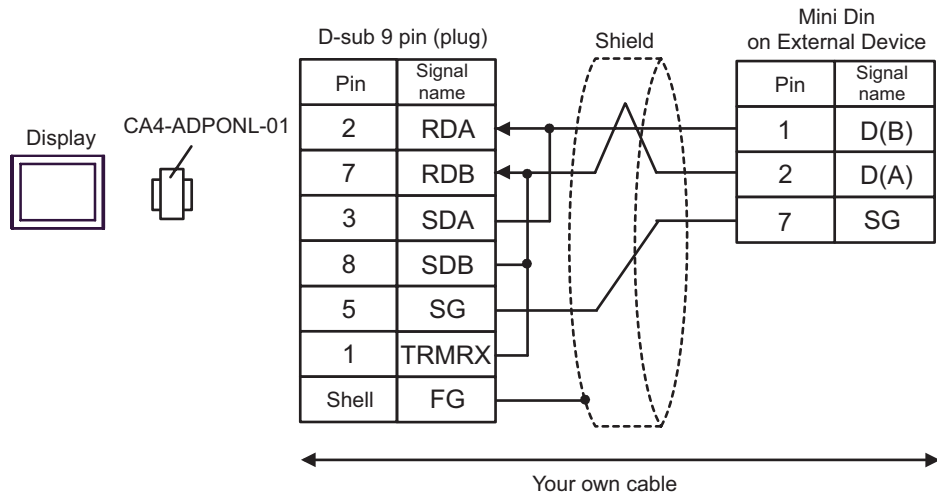
B. When using your own cable

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

D) When using the online adapter (CA4-ADPONL-01) by Pro-face and your own cable
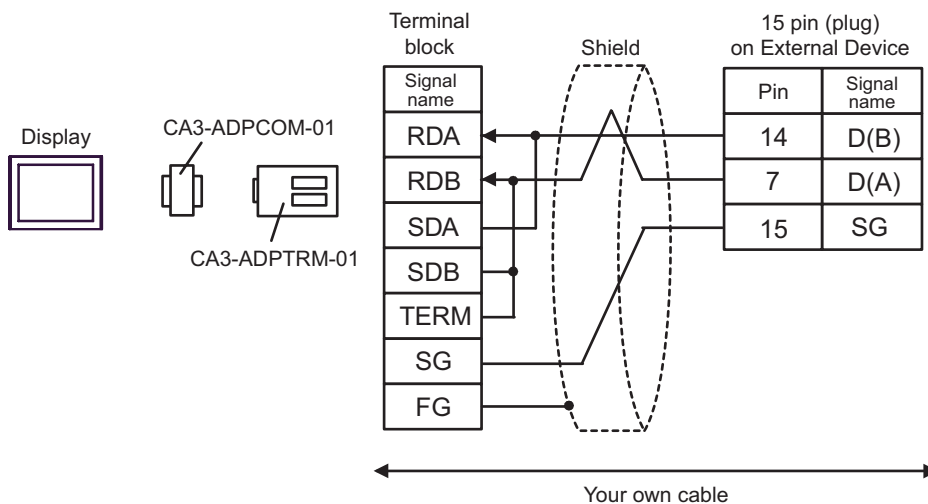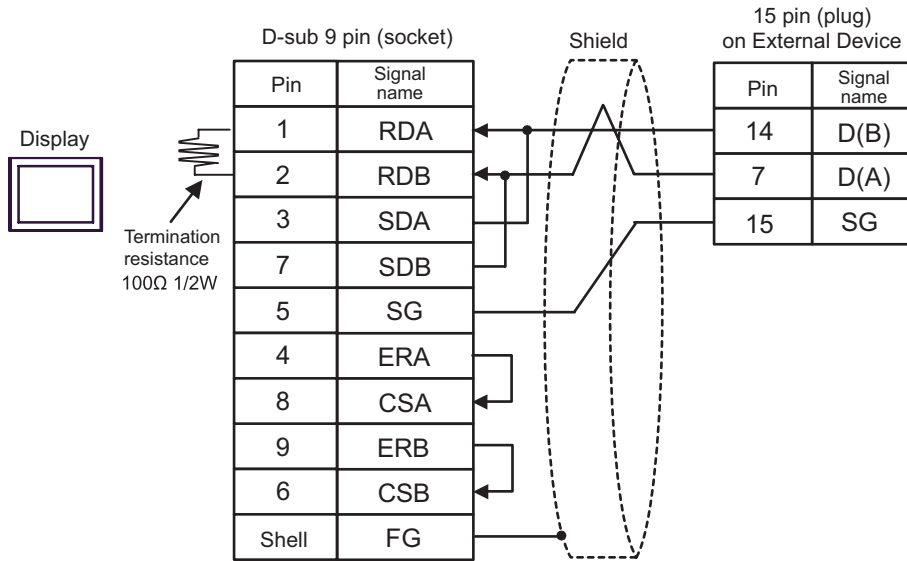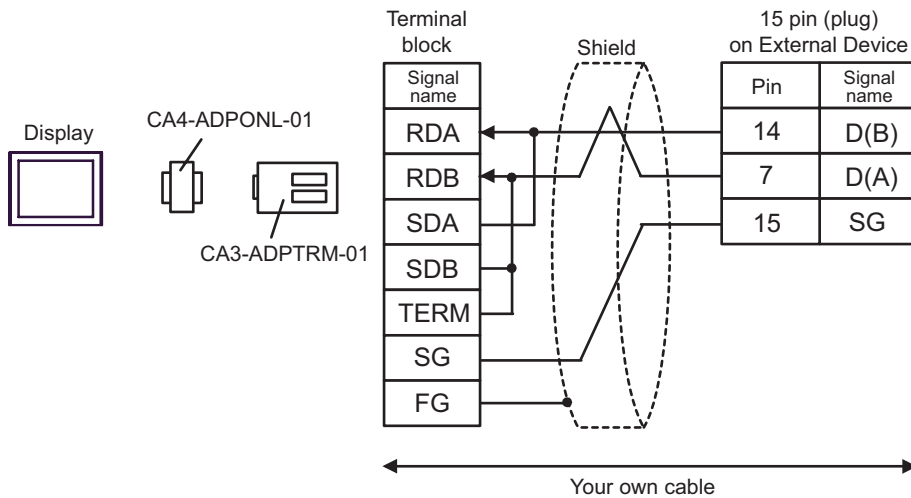
			D-sub 9 pin (plug)		Shield		Mini Din on External Device	
			Pin	Signal name			Pin	Signal name
Display	CA4-ADPONL-01		2	RDA			1	D(B)
			7	RDB			2	D(A)
			3	SDA			7	SG
			8	SDB				
			5	SG				
			1	TRMRX				
			Shell	FG				
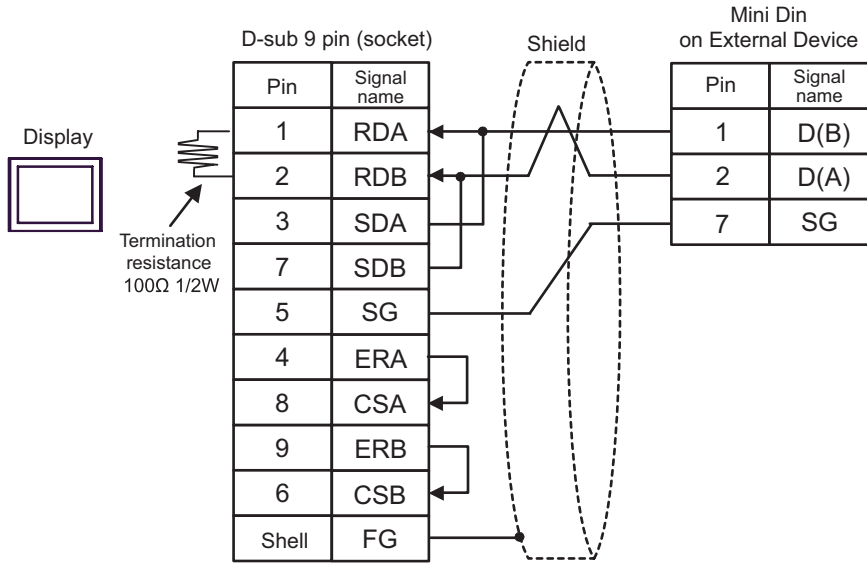
Your own cable

Cable Diagram 3

Display (Connection Port)		Cable	Notes
GP*1 (COM1) AGP-3302 (COM2)	A	COM port conversion adapter (for COM1) by Pro-face CA3-ADPCOM-01 + Connector terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	The cable length must be 10m or less.
	B	Your own cable	
GP*1 (COM2)	C	Online adapter by Pro-face CA4-ADPONL-01 + Connector terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	
	D	Online adapter by Pro-face CA4-ADPONL-01 + Your own cable	

*1   All GP models except AGP-3302

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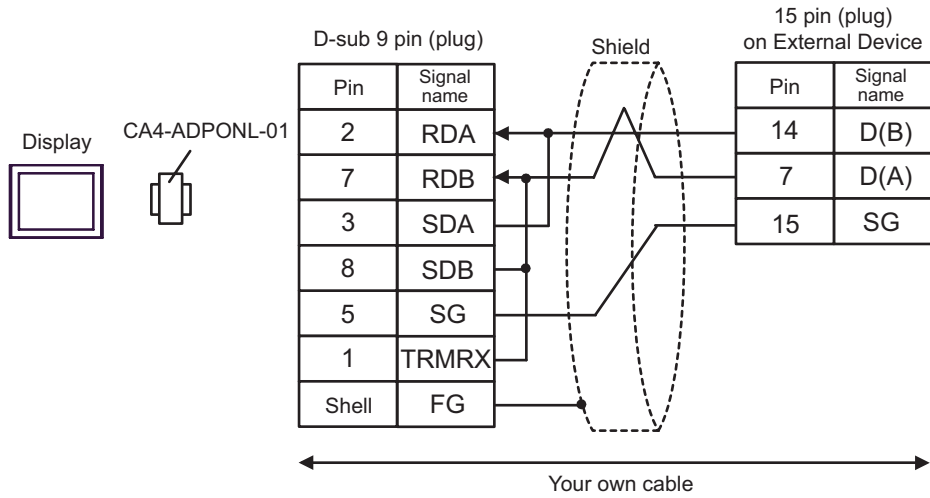
B) When using your own cable

D-sub 9 pin (socket)		15 pin (plug) on External Device	
Pin	Signal name	Pin	Signal name
1	RDA	14	D(B)
2	RDB	7	D(A)
3	SDA	15	SG
7	SDB		
5	SG		
4	ERA		
8	CSA		
9	ERB		
6	CSB		
Shell	FG		

Display

Termination resistance 100Ω 1/2W

Shield

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

Terminal block	15 pin (plug) on External Device	
Signal name	Pin	Signal name
RDA	14	D(B)
RDB	7	D(A)
SDA	15	SG
SDB		
TERM		
SG		
FG		

Display

CA4-ADPONL-01

CA3-ADPTRM-01

Shield

Your own cable

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

Pin	Signal name
2	RDA
7	RDB
3	SDA
8	SDB
5	SG
1	TRMRX
Shell	FG

Pin	Signal name
14	D(B)
7	D(A)
15	SG

D-sub 9 pin (plug)

15 pin (plug) on External Device

Shield

Display

CA4-ADPONL-01

Your own cable

Cable Diagram 4

Display (Connection Port)		Cable	Notes
GP*1 (COM1) AGP-3302 (COM2)	A	COM port conversion adapter (for COM1) by Pro-face CA3-ADPCOM-01 + Connector terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Uni-Telway connection cable TSX SCP CU 4030 (3m) by Schneider Electric Industries	The cable length must be 10m or less. For n:1 connection, you need your own cable for connection between the Displays.
	B	Your own cable + Uni-Telway cable by Schneider Electric Industries TSX SCP CU 4030 (3m)	
GP*1 (COM2)	C	Online adapter by Pro-face CA4-ADPONL-01 + Connector terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Uni-Telway cable by Schneider Electric Industries TSX SCP CU 4030 (3m)	
	D	Online adapter by Pro-face CA4-ADPONL-01 + Your own cable + Uni-Telway cable by Schneider Electric Industries TSX SCP CU 4030 (3m)	

*1　All GP models except AGP-3302

NOTE　• Line color for both D (A) and SG is white. As SG (red) and SG (white) are twisted pair, as well as D (A) and D (B), you can judge which line is SG or D (A).

A) When using the COM port conversion adapter (CA3-ADPCOM-01), the connector terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and Uni-Telway connection cable (TSX SCP CU 4030)

• 1:1 Connection
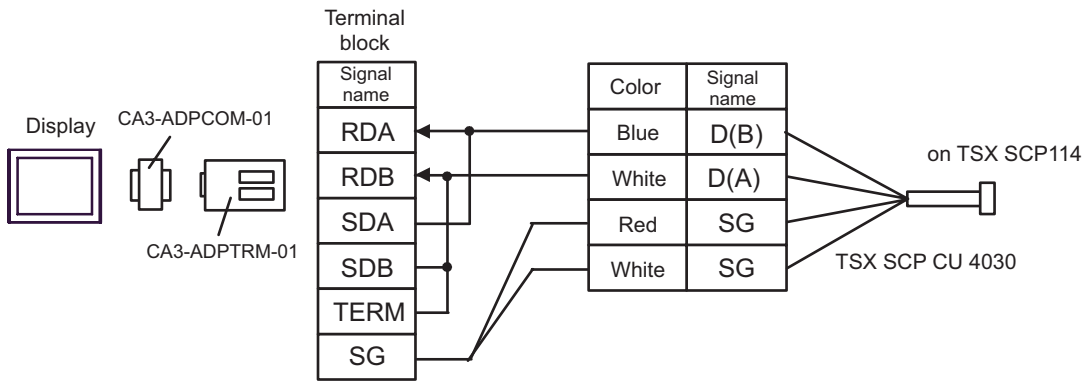
• n:1 Connection
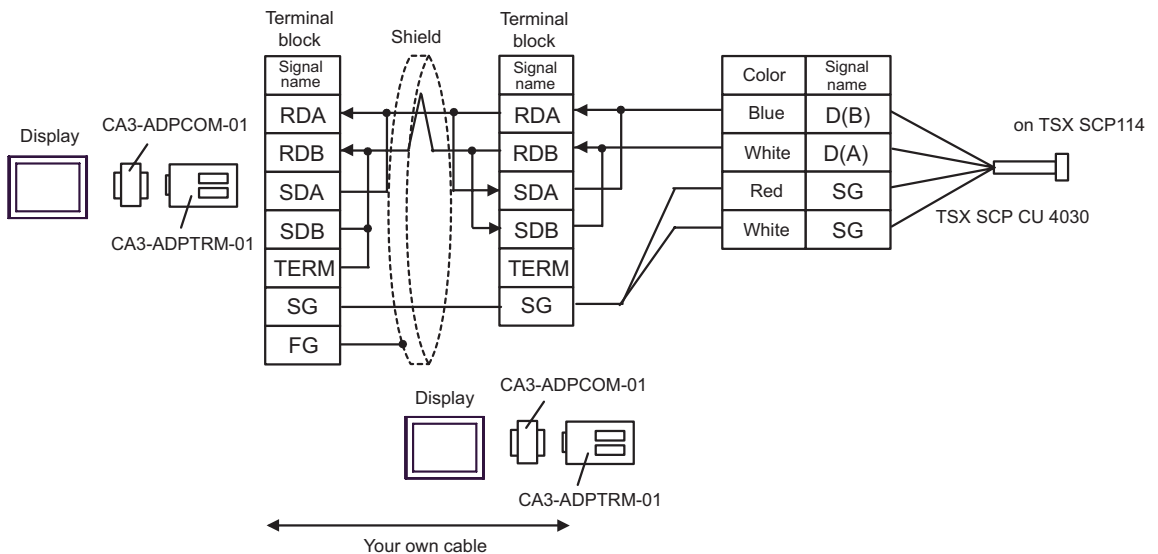
B) When using your own cable and Uni-Telway connection cable (TSX SCP CU 4030) by Schneider Electric
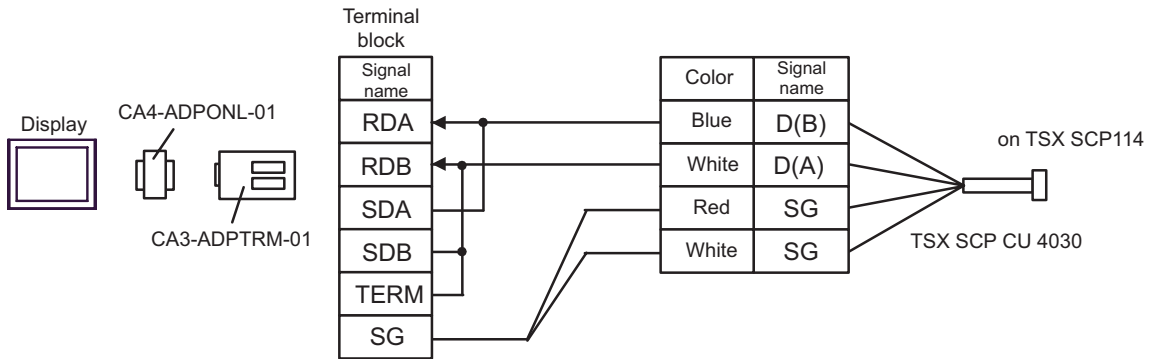Industries
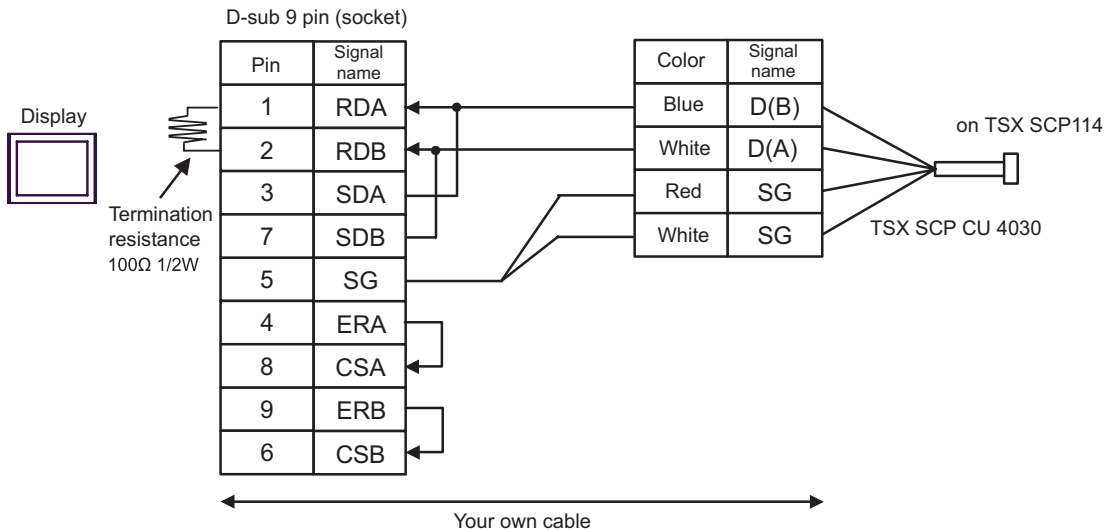
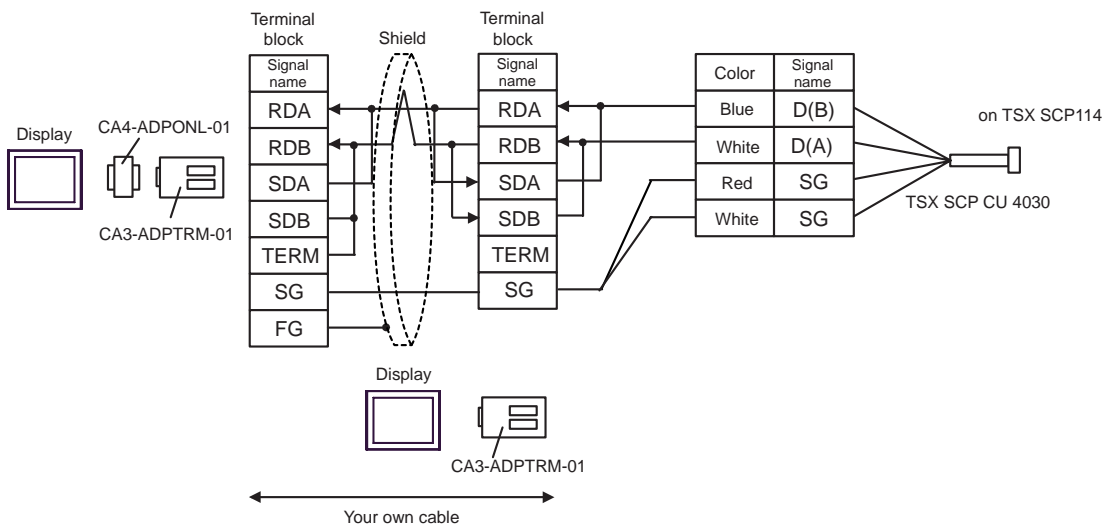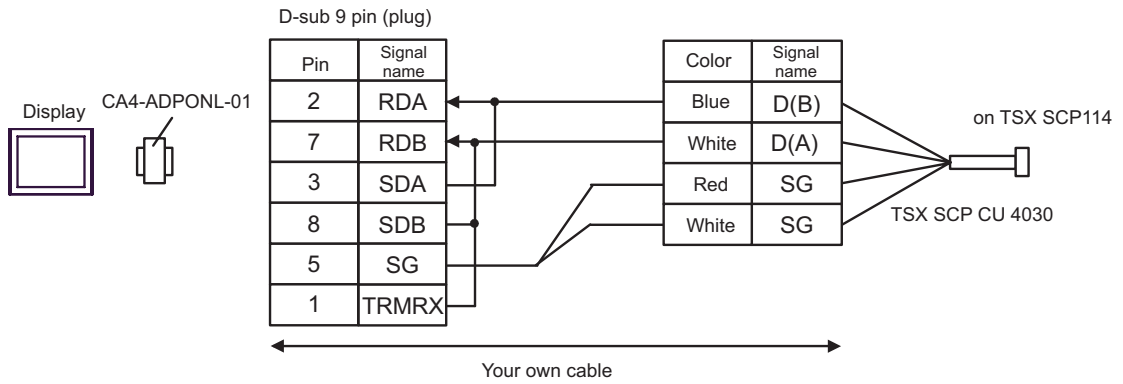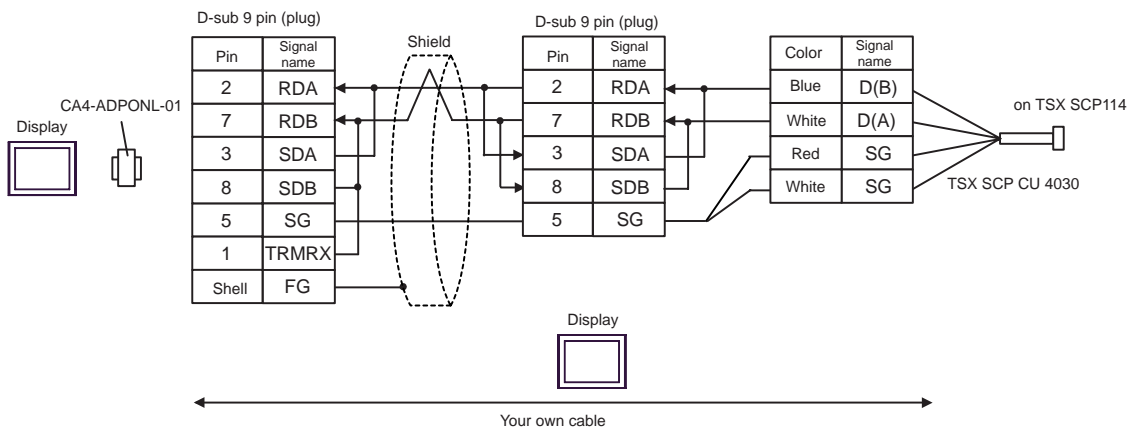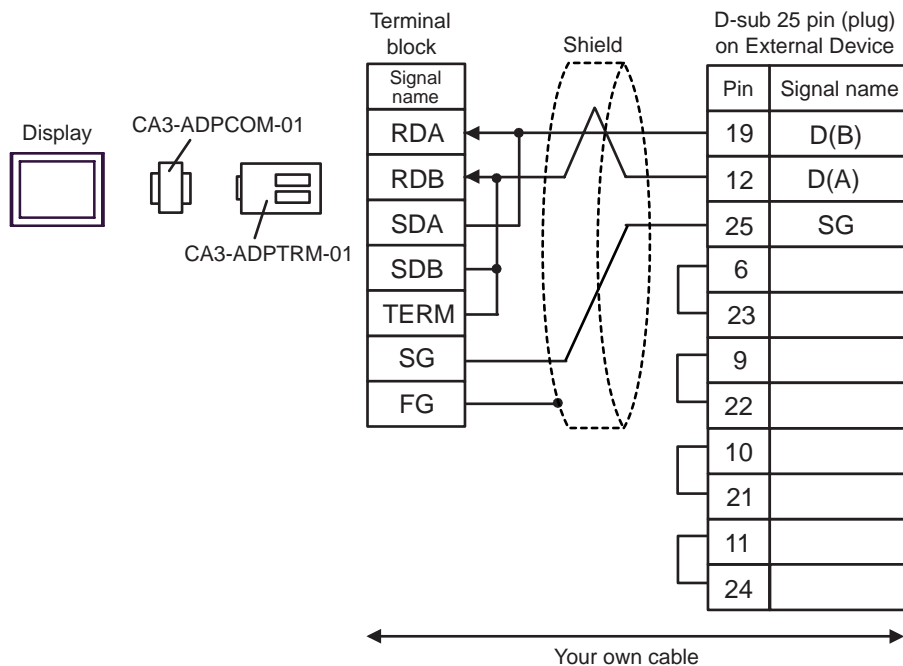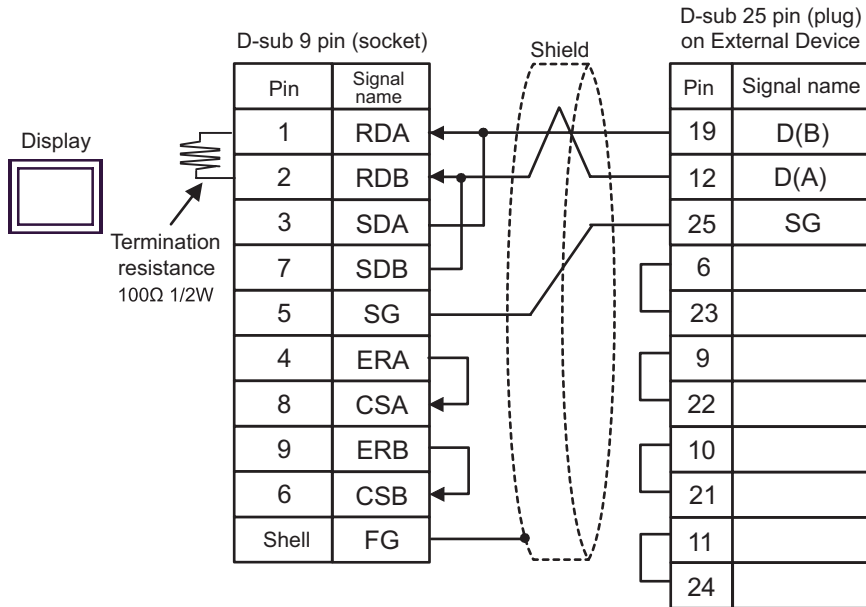• 1:1 Connection
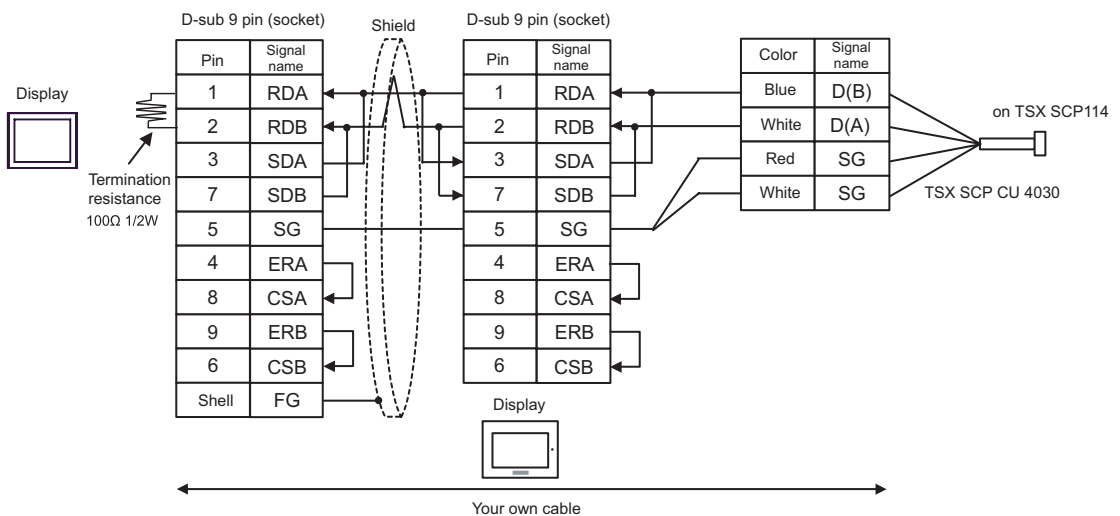
• n:1 Connection

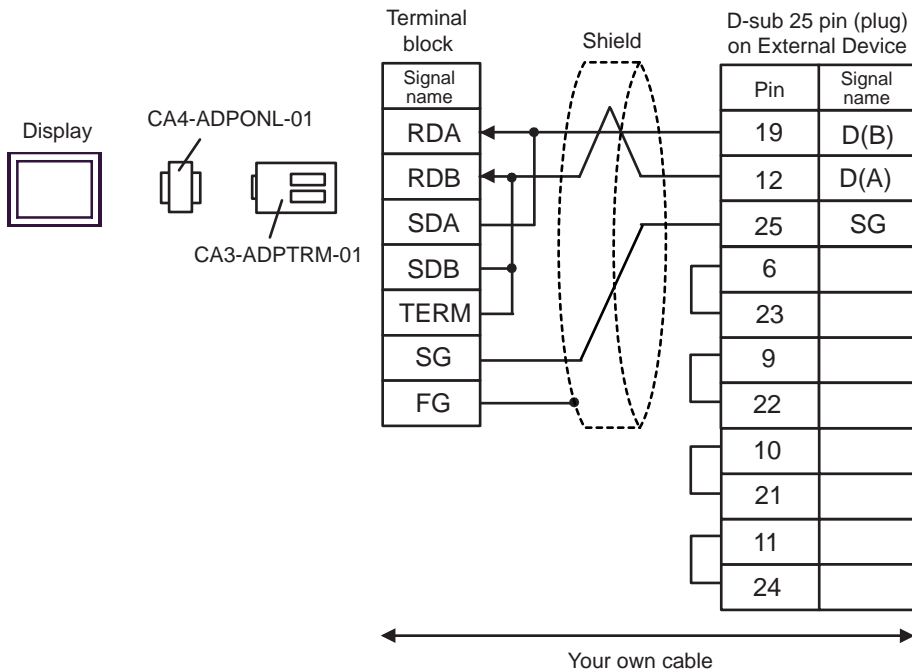C) When using the online adapter (CA4-ADPONL-01), the connector terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and Uni-Telway connection cable (TSX SCP CU 4030) by Schneider Electric Industries

• 1:1 Connection

• n:1 Connection

D) When using the online adapter (CA4-ADPONL-01) by Pro-face, your own cable and Uni-Telway connection cable (TSX SCP CU 4030) by Schneider Electric Industries

• 1:1 Connection

• n:1 Connection

Cable Diagram 5

Display (Connection Port)		Cable	Notes
GP[*1] (COM1) AGP-3302 (COM2)	A	COM port conversion adapter (for COM1) by Pro-face CA3-ADPCOM-01 + Connector terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	The cable length must be 10m or less.
	B	Your own cable	
GP[*1] (COM2)	C	Online adapter by Pro-face CA4-ADPONL-01 + Connector terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	
	D	Online adapter by Pro-face CA4-ADPONL-01 + Your own cable	

*1   All GP models except AGP-3302

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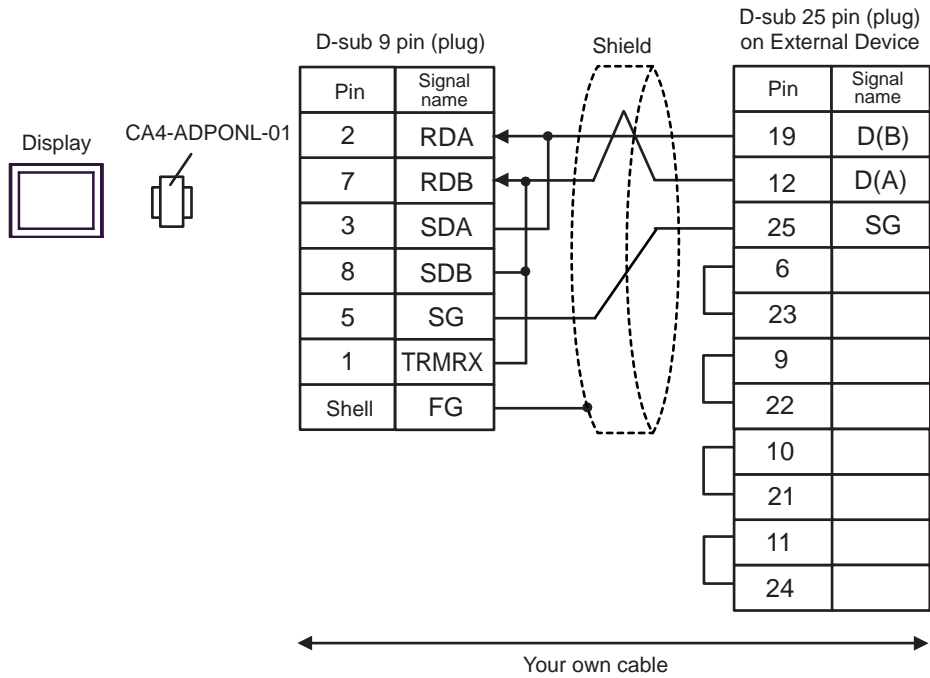
B) When using your own cable

D-sub 9 pin (socket)

Shield

D-sub 25 pin (plug)
on External Device

Pin	Signal name
1	RDA
2	RDB
3	SDA
7	SDB
5	SG
4	ERA
8	CSA
9	ERB
6	CSB
Shell	FG

Pin	Signal name
19	D(B)
12	D(A)
25	SG
6	
23	
9	
22	
10	
21	
11	
24	

Display

Termination
resistance
100Ω 1/2W

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

Terminal
block

Shield

D-sub 25 pin (plug)
on External Device

Display

CA4-ADPONL-01

CA3-ADPTRM-01

Signal name
RDA
RDB
SDA
SDB
TERM
SG
FG

Pin	Signal name
19	D(B)
12	D(A)
25	SG
6	
23	
9	
22	
10	
21	
11	
24	

Your own cable

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


Your own cable

6 Supported Device

Range of supported device address is shown in the table below. Please note that the actually supported range of the devices varies depending on the External Device to be used. Please check the actual range in the manual of your External Device.

As it also varies depending on the "Software Configuration" setting of the ladder software, please check accordingly.

6.1 Nano Series

▭▭▭▭ This address can be specified as system data area.

| Device	Bit Address	Word Address	32bits	Notes
Internal Word	---	%MW00000 - %MW00255		ʙⁱₜ**15**
Internal Double Word	---	%MD00000 - %MD00254		*2 ÷**2**ʙⁱₜ**31**
Constant Word	---	%KW00000 - %KW00063	⌐L/H or H/L ⌐ *1	ʙⁱₜ**15** *3
System Word	---	%SW00000 - %SW00127		ʙⁱₜ**15**
Internal Bit	%M00000 - %M00127	---		
System Bit	%S00000 - %S00127	---		

*1 High and low relationship of the stored data is specified by the [Double Word word order] setting of [Device Setting].

"4.1 Setup Items in GP-Pro EX ■Device Setting" (page 22), "4.2 Setup Items in Off-Line Mode ■Device Setting" (page 24)

*2 Use in 32-bit specification. When you perform 16-bit or bit specification, use %MW device. They use the same area inside the External Device.

*3 Write disable.

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

6.2 Micro Series

This address can be specified as system data area.

| Device	Bit Address	Word Address	32bits	Notes
Internal Word	---	%MW00000 - %MW17543	L/H or H/L *1	₈ᵢₜ15
Internal Double Word	---	%MD00000 - %MD17542		*2 ÷2 ₈ᵢₜ31
Constant Word	---	%KW00000 - %KW13879		₈ᵢₜ15 *3
System Word	---	%SW00000 - %SW00127		₈ᵢₜ15
Internal Bit	%M00000 - %M00255	---		
System Bit	%S00000 - %S00127	---		

*1   High and low relationship of the stored data is specified by the [Double Word word order] setting of [Device Setting].

   "4.1 Setup Items in GP-Pro EX ■Device Setting" (page 22), "4.2 Setup Items in Off-Line Mode ■Device Setting"

   (page 24)

*2   Use in 32-bit specification. When you perform 16-bit or bit specification, use %MW device. They use the same area inside the External Device.

*3   Write disable.

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

6.3 Premium Series

This address can be specified as system data area.

| Device	Bit Address	Word Address	32bits	Notes
Internal Word	---	%MW00000 - %MW32463		[Bit15]
Internal Double Word	---	%MD00000 - %MD32462	L/H or H/L *1	*2 [÷2] [Bit31]
Constant Word	---	%KW00000 - %KW32759		[Bit15] *3
System Word	---	%SW00000 - %SW00255		[Bit15]
Internal Bit	%M00000 - %M32633	---		
System Bit	%S00000 - %S00127	---		

*1 High and low relationship of the stored data is specified by the [Double Word word order] setting of [Device Setting].

   "4.1 Setup Items in GP-Pro EX ■Device Setting" (page 22), "4.2 Setup Items in Off-Line Mode ■Device Setting" (page 24)

*2 Use in 32-bit specification. When you perform 16-bit or bit specification, use %MW device. They use the same area inside the External Device.

*3 Write disable.

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

7 Device Code and Address Code

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

Device	Device Name	Device Code (HEX)	Address Code
Internal word	%MW	0000	Word Address
Internal Double Word	%MD	0002	Value of word address divided by 2
Constant Word	%KW	0003	Word Address
System Word	%SW	0004	Word Address

8   Error Messages

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

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

Display Examples of Error Messages

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

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

Memo