



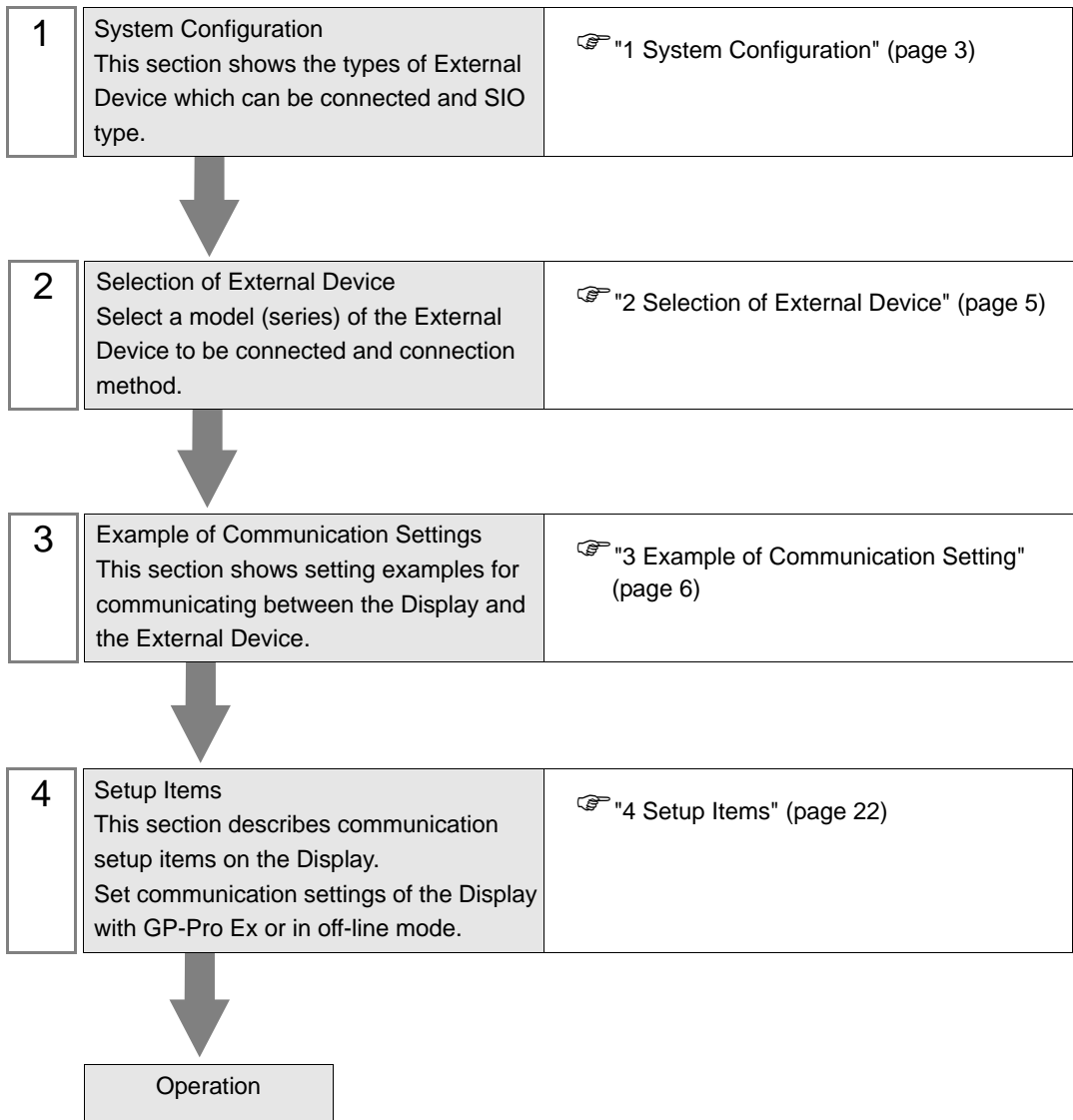
Personal Computer Link Ethernet Driver

| | | |
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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

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

| Series | CPU | Link I/F | Port No. | SIO Type | Data Code Settings | Setting Example |
|--------|--|--------------|----------------|----------------|-----------------------------|-----------------------------|
| FA-M3 | F3SP21-0N F3SP25-2N F3SP28-3N F3SP35-5N F3SP38-6N F3SP53-4H F3SP58-6H F3SP28-3S F3SP38-4S F3SP53-4S F3SP58-6S F3SP59-7S | F3LE01-5T *1 | 12289 | Ethernet (UDP) | Binary *2 | Setting Example 1 (page 6) |
| | | | | | ASCII *3 | Setting Example 2 (page 8) |
| | | | | Ethernet (TCP) | Binary *2 | Setting Example 5 (page 14) |
| | | | | | ASCII *3 | Setting Example 6 (page 16) |
| | | F3LE11-0T *1 | 12289 | Ethernet (UDP) | Binary *2 | Setting Example 1 (page 6) |
| | | | | | ASCII *3 | Setting Example 2 (page 8) |
| | | | | Ethernet (TCP) | Binary *2 | Setting Example 5 (page 14) |
| | | | | | ASCII *3 | Setting Example 6 (page 16) |
| | | 12291 | Ethernet (UDP) | Binary *3 | Setting Example 3 (page 10) | |
| | | | | ASCII *2 | Setting Example 4 (page 12) | |
| | | | Ethernet (TCP) | Binary *3 | Setting Example 7 (page 18) | |
| | | | | ASCII *2 | Setting Example 8 (page 20) | |

*1 In TCP connection, you can connect max 8 units of the External Device to 1 display unit.

*2 Set the data code setting to ON.

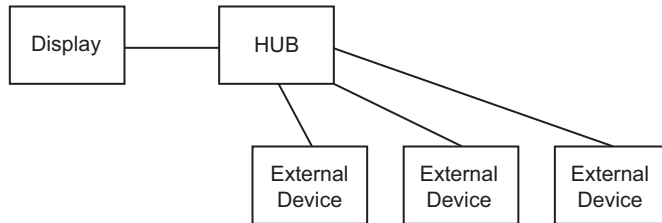
*3 Set the data code setting to OFF.

■ Connection Configuration

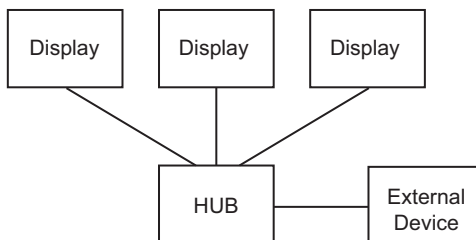
1:1 Connection



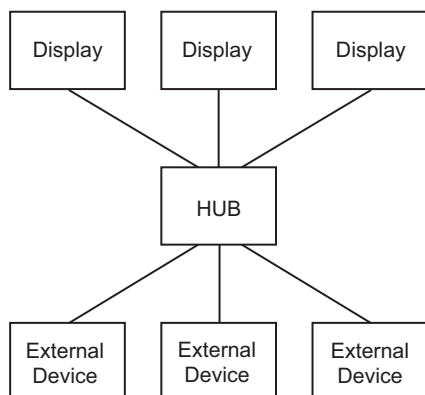
1:n Connection



n:1 Connection

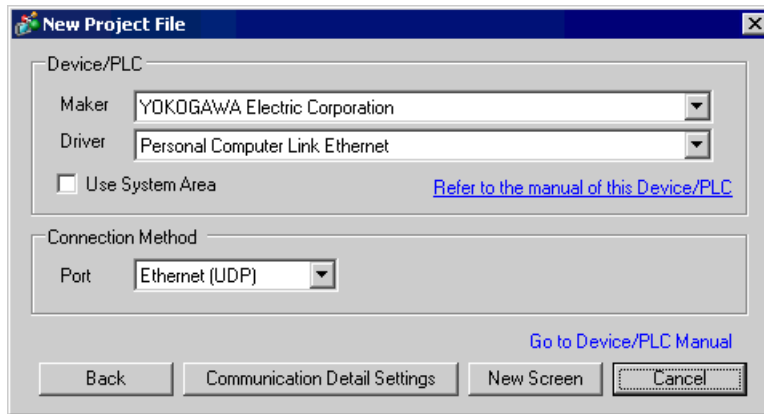


n:m Connection



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 "YOKOGAWA Electric Corporation". |
| Driver | Select a model (series) of the External Device to be connected and connection method. Select "Personal Computer Link Ethernet". Check the External Device which can be connected in "Personal Computer Link Ethernet" 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.

When you use the FA-M3 Series, use GP-Pro EX and the ladder software to set as below.


3.1 Setting Example 1

■ Settings of GP-Pro EX

◆ Communication Settings

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

◆ Device Setting

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

When you connect multiple External Device, click  from [Device-Specific Settings] of [Device/PLC Settings] to add another External Device.

◆ Notes

- Check with a network administrator about IP address. Do not set the duplicate IP address.
- Set IP address on the External Device for IP address in Device-specific settings.
- You need to set IP address on the Display in the off-line mode of the Display.

■ Setting of External Device

Use the switches on the side of Ethernet module for setting the External Device.

◆ IP Address Setting Switch

Use 8 Hex rotary switches for setting.

| Setup Items | Setup Description |
|----------------------------------|-------------------|
| IP Address Setting Rotary Switch | Option |

◆ Port No.

| Setup Items | Setup Description |
|-------------|-------------------|
| Port No. | 12289 |

◆ Condition Setting Switch

| DIP Switch | Settings | Setup Description |
|-------------------|----------|-------------------|
| SW1 | ON | Binary |
| SW2 | OFF | Not protect |
| SW3 | --- | (Reserved) |
| SW4 | --- | (Reserved) |
| SW5 | --- | (Reserved) |
| SW6 | --- | (Reserved) |
| SW7 ^{*1} | OFF | Close |
| SW8 | OFF | Normal |

*1 SW7 is available to set in F3LE01-5T only.

◆ Notes

- Check with a network administrator about IP address. Do not set the duplicate IP address.

3.2 Setting Example 2

■ Settings of GP-Pro EX

◆ Communication Settings

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

Device/PLC 1

Summary [Change Device/PLC](#)

Maker: YOKOGAWA Electric Corporation Series: Personal Computer Link Ethernet Port: Ethernet (UDP)

Text Data Mode: 1 [Change](#)

Communication Settings

Port No.: 1024

Timeout: 3 (sec)

Retry: 2

Wait To Send: 0 (ms) [Default](#)

Device-Specific Settings

Allowable No. of Device/PLCs: 32 Unit(s) [Settings](#)

| No. | Device Name | Settings |
|-----|-------------|---|
| 1 | PLC1 | Data Code=Ascii, IP Address=000.000.000.000, Port No.=12289 |

◆ 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 you connect multiple External Device, click from [Device-Specific Settings] of [Device/PLC Settings] to add another External Device.

Individual Device Settings

PLC1

IP Address: 0.0.0.0

Port No.: 12289

Data Code: Binary Ascii

[Default](#)

[OK \(O\)](#) [Cancel](#)

◆ Notes

- Check with a network administrator about IP address. Do not set the duplicate IP address.
- Set IP address on the External Device for IP address in Device-specific settings.
- You need to set IP address on the Display in the off-line mode of the Display.

■ Setting of External Device

Use the switches on the side of Ethernet module for setting the External Device.

◆ IP Address Setting Switch

Use 8 Hex rotary switches for setting.

| Setup Items | Setup Description |
|----------------------------------|-------------------|
| IP Address Setting Rotary Switch | Option |

◆ Port No.

| Setup Items | Setup Description |
|-------------|-------------------|
| Port No. | 12289 |

◆ Condition Setting Switch

| DIP Switch | Settings | Setup Description |
|-------------------|----------|-------------------|
| SW1 | OFF | ASCII |
| SW2 | OFF | Not protect |
| SW3 | --- | (Reserved) |
| SW4 | --- | (Reserved) |
| SW5 | --- | (Reserved) |
| SW6 | --- | (Reserved) |
| SW7 ^{*1} | OFF | Close |
| SW8 | OFF | Normal |

*1 SW7 is available to set in F3LE01-5T only.

◆ Notes

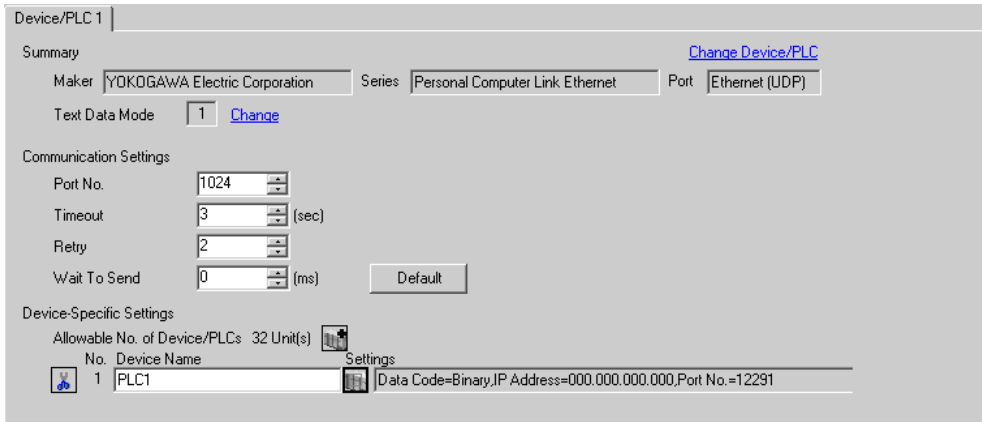
- Check with a network administrator about IP address. Do not set the duplicate IP address.

3.3 Setting Example 3


■ Settings of GP-Pro EX


◆ Communication Settings

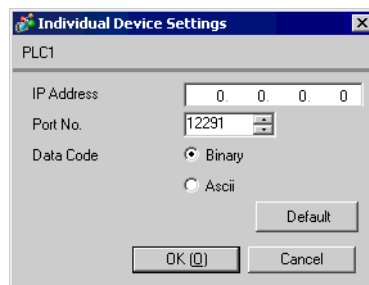
To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.



◆ Device Setting

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

When you connect multiple External Device, click  from [Device-Specific Settings] of [Device/PLC Settings] to add another External Device.



◆ Notes

- Check with a network administrator about IP address. Do not set the duplicate IP address.
- Set IP address on the External Device for IP address in Device-specific settings.
- You need to set IP address on the Display in the off-line mode of the Display.

■ Setting of External Device

Use the switches on the side of Ethernet module for setting the External Device.

◆ IP Address Setting Switch

Use 8 Hex rotary switches for setting.

| Setup Items | Setup Description |
|----------------------------------|-------------------|
| IP Address Setting Rotary Switch | Option |

◆ Port No.

| Setup Items | Setup Description |
|-------------|-------------------|
| Port No. | 12291 |

◆ Condition Setting Switch

| DIP Switch | Settings | Setup Description |
|------------|----------|-------------------|
| SW1 | OFF | Binary |
| SW2 | OFF | Not protect |
| SW3 | --- | (Reserved) |
| SW4 | --- | (Reserved) |
| SW5 | --- | (Reserved) |
| SW6 | --- | (Reserved) |
| SW7 | OFF | Close |
| SW8 | OFF | Normal |

◆ Notes

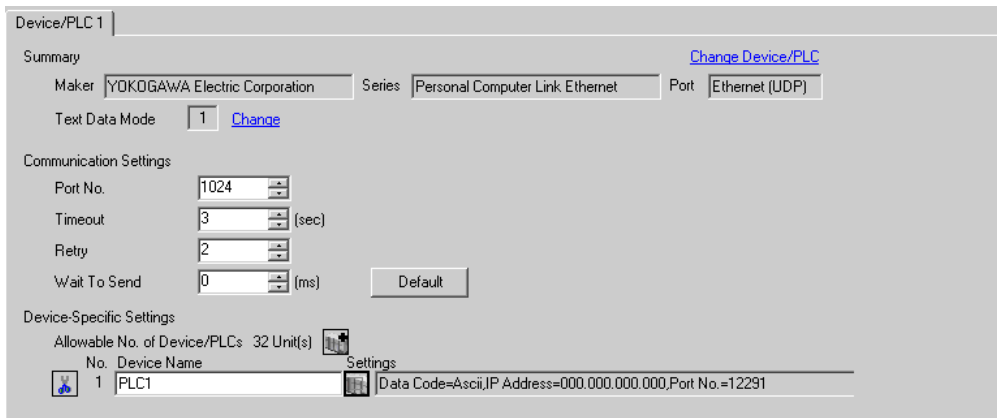
- Check with a network administrator about IP address. Do not set the duplicate IP address.

3.4 Setting Example 4


■ Settings of GP-Pro EX

◆ Communication Settings

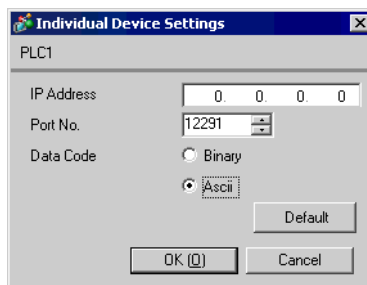
To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.



◆ Device Setting

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

When you connect multiple External Device, click  from [Device-Specific Settings] of [Device/PLC Settings] to add another External Device.



◆ Notes

- Check with a network administrator about IP address. Do not set the duplicate IP address.
- Set IP address on the External Device for IP address in Device-specific settings.
- You need to set IP address on the Display in the off-line mode of the Display.

■ Setting of External Device

Use the switches on the side of Ethernet module for setting the External Device.

◆ IP Address Setting Switch

Use 8 Hex rotary switches for setting.

| Setup Items | Setup Description |
|----------------------------------|-------------------|
| IP Address Setting Rotary Switch | Option |

◆ Port No.

| Setup Items | Setup Description |
|-------------|-------------------|
| Port No. | 12291 |

◆ Condition Setting Switch

| DIP Switch | Settings | Setup Description |
|------------|----------|-------------------|
| SW1 | ON | ASCII |
| SW2 | OFF | Not protect |
| SW3 | --- | (Reserved) |
| SW4 | --- | (Reserved) |
| SW5 | --- | (Reserved) |
| SW6 | --- | (Reserved) |
| SW7 | OFF | Close |
| SW8 | OFF | Normal |

◆ Notes

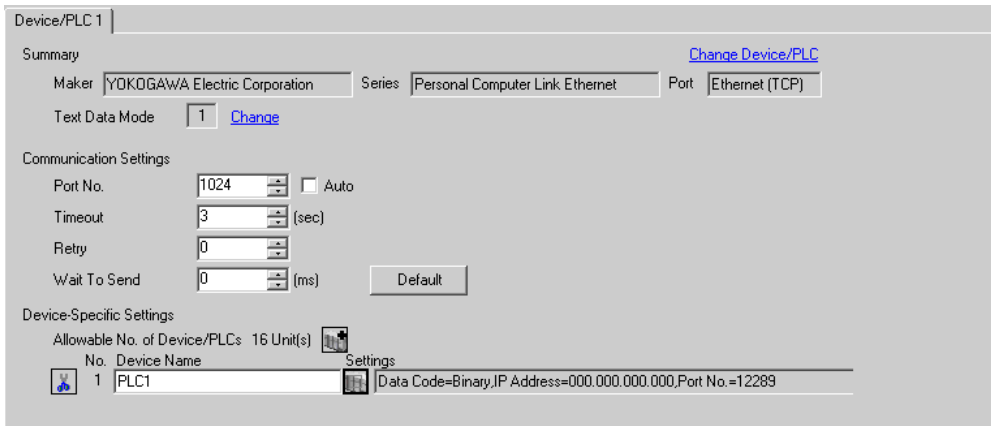
- Check with a network administrator about IP address. Do not set the duplicate IP address.

3.5 Setting Example 5


■ Settings of GP-Pro EX

◆ Communication Settings

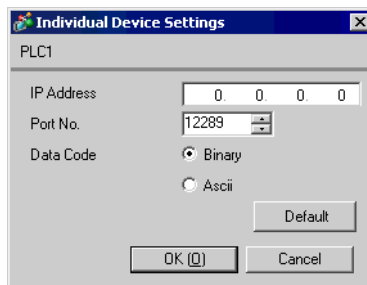
To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.



◆ Device Setting

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

When you connect multiple External Device, click  from [Device-Specific Settings] of [Device/PLC Settings] to add another External Device.



◆ Notes

- Check with a network administrator about IP address. Do not set the duplicate IP address.
- Set IP address on the External Device for IP address in Device-specific settings.
- You need to set IP address on the Display in the off-line mode of the Display.

■ Setting of External Device

Use the switches on the side of Ethernet module for setting the External Device.

◆ IP Address Setting Switch

Use 8 Hex rotary switches for setting.

| Setup Items | Setup Description |
|----------------------------------|-------------------|
| IP Address Setting Rotary Switch | Option |

◆ Port No.

| Setup Items | Setup Description |
|-------------|-------------------|
| Port No. | 12289 |

◆ Condition Setting Switch

| DIP Switch | Settings | Setup Description |
|-------------------|----------|-------------------|
| SW1 | ON | Binary |
| SW2 | OFF | Not protect |
| SW3 | --- | (Reserved) |
| SW4 | --- | (Reserved) |
| SW5 | --- | (Reserved) |
| SW6 | --- | (Reserved) |
| SW7 ^{*1} | OFF | Close |
| SW8 | OFF | Normal |

*1 SW7 is available to set in F3LE01-5T only.

◆ Notes

- Check with a network administrator about IP address. Do not set the duplicate IP address.

3.6 Setting Example 6

■ Settings of GP-Pro EX

◆ Communication Settings

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

◆ Device Setting

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

When you connect multiple External Device, click from [Device-Specific Settings] of [Device/PLC Settings] to add another External Device.

◆ Notes

- Check with a network administrator about IP address. Do not set the duplicate IP address.
- Set IP address on the External Device for IP address in Device-specific settings.
- You need to set IP address on the Display in the off-line mode of the Display.

■ Setting of External Device

Use the switches on the side of Ethernet module for setting the External Device.

◆ IP Address Setting Switch

Use 8 Hex rotary switches for setting.

| Setup Items | Setup Description |
|----------------------------------|-------------------|
| IP Address Setting Rotary Switch | Option |

◆ Port No.

| Setup Items | Setup Description |
|-------------|-------------------|
| Port No. | 12289 |

◆ Condition Setting Switch

| DIP Switch | Settings | Setup Description |
|-------------------|----------|-------------------|
| SW1 | OFF | ASCII |
| SW2 | OFF | Not protect |
| SW3 | --- | (Reserved) |
| SW4 | --- | (Reserved) |
| SW5 | --- | (Reserved) |
| SW6 | --- | (Reserved) |
| SW7 ^{*1} | OFF | Close |
| SW8 | OFF | Normal |

*1 SW7 is available to set in F3LE01-5T only.

◆ Notes

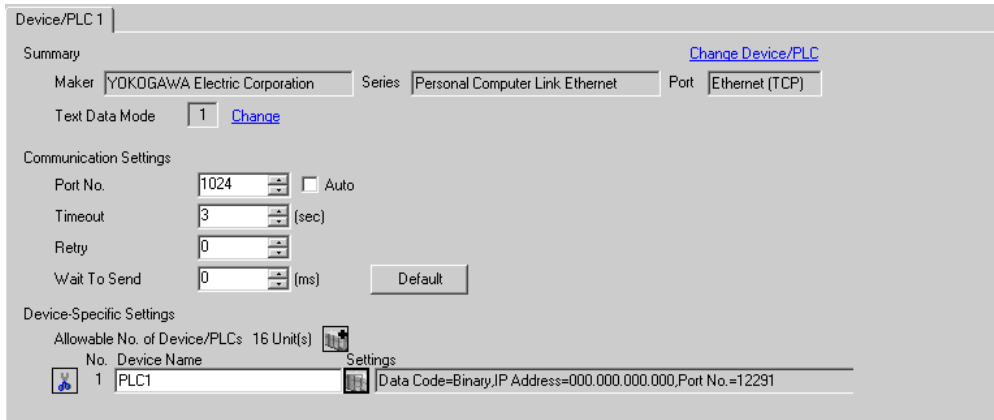
- Check with a network administrator about IP address. Do not set the duplicate IP address.

3.7 Setting Example 7


■ Settings of GP-Pro EX

◆ Communication Settings

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



◆ Device Setting

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

When you connect multiple External Device, click  from [Device-Specific Settings] of [Device/PLC Settings] to add another External Device.



◆ Notes

- Check with a network administrator about IP address. Do not set the duplicate IP address.
- Set IP address on the External Device for IP address in Device-specific settings.
- You need to set IP address on the Display in the off-line mode of the Display.

■ Setting of External Device

Use the switches on the side of Ethernet module for setting the External Device.

◆ IP Address Setting Switch

Use 8 Hex rotary switches for setting.

| Setup Items | Setup Description |
|----------------------------------|-------------------|
| IP Address Setting Rotary Switch | Option |

◆ Port No.

| Setup Items | Setup Description |
|-------------|-------------------|
| Port No. | 12291 |

◆ Condition Setting Switch

| DIP Switch | Settings | Setup Description |
|------------|----------|-------------------|
| SW1 | OFF | Binary |
| SW2 | OFF | Not protect |
| SW3 | --- | (Reserved) |
| SW4 | --- | (Reserved) |
| SW5 | --- | (Reserved) |
| SW6 | --- | (Reserved) |
| SW7 | OFF | Close |
| SW8 | OFF | Normal |

◆ Notes

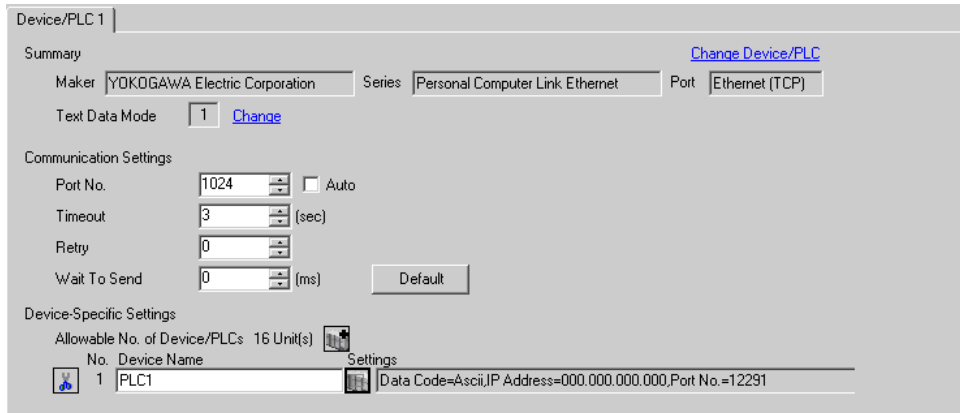
- Check with a network administrator about IP address. Do not set the duplicate IP address.

3.8 Setting Example 8


■ Settings of GP-Pro EX


◆ Communication Settings

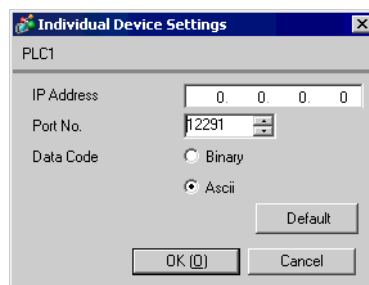
To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.



◆ Device Setting

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

When you connect multiple External Device, click  from [Device-Specific Settings] of [Device/PLC Settings] to add another External Device.



◆ Notes

- Check with a network administrator about IP address. Do not set the duplicate IP address.
- Set IP address on the External Device for IP address in Device-specific settings.
- You need to set IP address on the Display in the off-line mode of the Display.

■ Setting of External Device

Use the switches on the side of Ethernet module for setting the External Device.

◆ IP Address Setting Switch

Use 8 Hex rotary switches for setting.

| Setup Items | Setup Description |
|----------------------------------|-------------------|
| IP Address Setting Rotary Switch | Option |

◆ Port No.

| Setup Items | Setup Description |
|-------------|-------------------|
| Port No. | 12291 |

◆ Condition Setting Switch

| DIP Switch | Settings | Setup Description |
|------------|----------|-------------------|
| SW1 | ON | ASCII |
| SW2 | OFF | Not protect |
| SW3 | --- | (Reserved) |
| SW4 | --- | (Reserved) |
| SW5 | --- | (Reserved) |
| SW6 | --- | (Reserved) |
| SW7 | OFF | Close |
| SW8 | OFF | Normal |

◆ Notes

- Check with a network administrator about IP address. Do not set the duplicate IP address.

4 Setup Items

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

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

☞ "3 Example of Communication Setting" (page 6)

IMPORTANT

- You need to set IP address on the display in the off-line mode of the display.
Cf. GP3000 Series User Manual "4.3.7 Ethernet Settings"


4.1 Setup Items in GP-Pro EX

■ Communication Settings

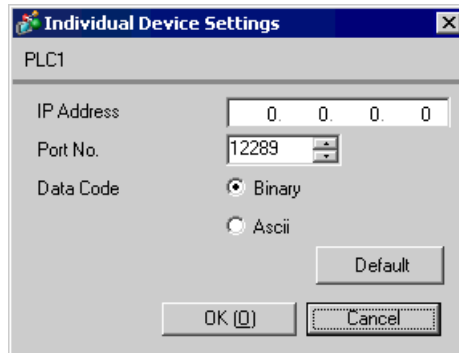
To display the setting screen, select [Device/PLC Settings] from [System setting window] in workspace.

| Setup Items | Setup Description |
|--------------|--|
| Port No. | Use an integer from 1024 to 65535 to enter the port No. of the Display. When you check the option of [Auto Assign], the port No. will be automatically set. NOTE • [Auto Assign] option is available to set only when you select "Ethernet (TCP)" in [Connecting Method]. |
| Timeout | Use an integer from 1 to 127 to enter the time (s) for which the Display waits for the response from the External Device. |
| Retry | In case of no response from the External Device, use an integer from 0 to 255 to enter how many times the Display retransmits the command. |
| Wait To Send | Use an integer from 0 to 255 to enter standby time (ms) for the Display from receiving packets to transmitting next commands. |

■ Device Setting

To display the setting screen, 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, click  from [Device-Specific Settings] of [Device/PLC Settings] to add another External Device.



| Setup Items | Setup Description |
|-------------|--|
| IP Address | Set IP address of the External Device. NOTE <ul style="list-style-type: none"> Check with a network administrator about IP address. Do not set the duplicate IP address. |
| Port No. | Use an integer 12289 or 12291 to enter the port No. of the External Device. |
| Data Code | Select the data format to communicate with the External Device from "Binary" or "ASCII". |

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 | | | |
|---------------------------------|---|--|-------|------------------------|
| Personal Computer Link Ethernet | | | [UDP] | Page 1/1 |
| Port No. | <input checked="" type="radio"/> Fixed <input type="radio"/> Auto | | 1024 | ▼ ▲ |
| Timeout(s) | | | 3 | ▼ ▲ |
| Retry | | | 2 | ▼ ▲ |
| Wait To Send(ms) | | | 0 | ▼ ▲ |
| | Exit | | Back | 2005/09/01 19:39:44 |

| Setup Items | Setup Description |
|--------------|--|
| Port No. | Set the Port No. of the Display. In UDP connection, entered port No. will be assigned regardless of whether you select [Fixed] or [Auto]. In TCP connection, select either of [Fixed] or [Auto]. When you select [Fixed], use an integer from 1024 to 65535 to enter the port No. of the Display. When you select [Auto], the port No. will be automatically assigned regardless of the entered value. |
| Timeout | Use an integer from 1 to 127 to enter the time (s) for which the Display waits for the response from the External Device. |
| Retry | In case of no response from the External Device, use an integer from 0 to 255 to enter how many times the Display retransmits the command. |
| Wait To Send | Use an integer from 0 to 255 to enter standby time (ms) for the Display from receiving packets to transmitting next commands. |

■ Device Setting


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













| | | | | |
|---------------------------------|-----------|-------|----------|------------------------|
| Comm. | Device | | | |
| Personal Computer Link Ethernet | | [UDP] | Page 1/1 | |
| Device/PLC Name | [PLC1] | | | |
| IP Address | 0 0 0 0 | | | |
| Port No. | 12289 ▼ ▲ | | | |
| Data Code | Binary ▼ | | | |
| Exit | | Back | | 2005/09/01 19:39:47 |

| 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]) |
| IP Address | Set IP address of the External Device. NOTE <ul style="list-style-type: none"> Check with a network administrator about IP address. Do not set the duplicate IP address. |
| Port No. | Use an integer 12289 or 12291 to enter the port No. of the External Device. |
| Data Code | Select the data format to communicate with the External Device from "Binary" or "ASCII". |

5 Supported Device

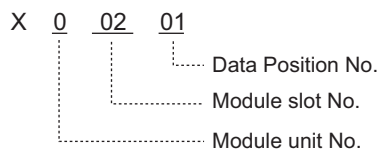
Range of supported device address is shown in the table below. Please note that the actually supported range of the devices varies depending on the External Device to be used. Please check the actual range in the manual of your External Device.

 This address can be specified as system data area.

| Device | Bit Address | Word Address | 32 bits | Notes |
|-------------------------|------------------|--|---------|--|
| Input Relay | X00201 to X71664 | X00201 to X71649 | L / H |  *1*2 |
| Output Relay | Y00201 to Y71664 | Y00201 to Y71649 | |  *1 |
| Internal Relay | I00001 to I65535 | I0001 to I65521 | |  |
| Common Relay | E0001 to E4096 | E0001 to E4081 | |  |
| Special Relay | M0001 to M9984 | M0001 to M9969 | |  |
| Link Relay | L00001 to L78192 | L00001 to L78177 | |  *3 |
| Timer (Contact) | TU0001 to TU3072 | --- | | |
| Counter (Contact) | CU000 to CU3072 | --- | | |
| Timer (Current Value) | --- | TP0001 to TP3072 | | |
| Timer (Setting Value) | --- | TS0001 to TS3072 | | *2 |
| Counter (Current Value) | --- | CP0001 to CP3072 | | |
| Counter (Setting Value) | --- | CS001 to CS3072 | | *2 |
| Data Register | --- |  D00001 to D65535 | |  |
| Common Register | --- | B000001 to B262144 | |  |
| General Register | --- | R0001 to R4096 | |  |
| Special Register | --- | Z0001 to Z1024 | |  |
| Link Register | --- | W00001 to W78192 | |  *3 |

*1 Address for input relay and output relay can be specified when data position number (bit) 01 to 49 for lower 2 digits is the value of (multiples of 16) + 1 only.

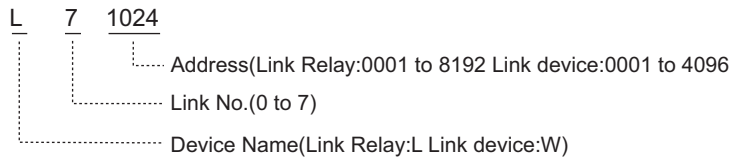
Example: X00201




*2 Write disable

*3 In link relay (L) and link register (W), the upper 1st digit on address input area shows the link number, and lower 4th digit shows the address. Specify the word address for link relay (L) and link register (W) with the value of (multiples of 16) + 1.

Example: When specifying L71024 of link relay

**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 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 |
|-----------------------|-------------|-------------------|---|
| Input Relay | 1X | 0080 | $(\text{Module unit No.} \times 0x40) + ((\text{Module slot No.} - 1) \times 0x4) + ((\text{Terminal No.} - 1) \text{ divided by } 16)$ |
| | 2X | 0180 | |
| | 3X | 0280 | |
| | 4X | 0380 | |
| Output Relay | 1Y | 0081 | $(\text{Module unit No.} \times 0x40) + ((\text{Module slot No.} - 1) \times 0x4) + ((\text{Terminal No.} - 1) \text{ divided by } 16)$ |
| | 2Y | 0181 | |
| | 3Y | 0281 | |
| | 4Y | 0381 | |
| Internal Relay | 1I | 0082 | Value of (word address - 1) divided by 16 |
| | 2I | 0182 | |
| | 3I | 0282 | |
| | 4I | 0382 | |
| Common Relay | 1E | 0084 | Value of (word address - 1) divided by 16 |
| | 2E | 0184 | |
| | 3E | 0284 | |
| | 4E | 0384 | |
| Special Relay | 1M | 0083 | Value of (word address - 1) divided by 16 |
| | 2M | 0183 | |
| | 3M | 0283 | |
| | 4M | 0383 | |
| Link Relay | 1L | 0088 | $(\text{Link No.} \times 0x10000) + ((\text{word address} - 1) \text{ divided by } 16)$ |
| | 2L | 0188 | |
| | 3L | 0288 | |
| | 4L | 0388 | |
| Timer (Current Value) | 1TP | 0060 | Value of word address from which 1 is deducted |
| | 2TP | 0160 | |
| | 3TP | 0260 | |
| | 4TP | 0360 | |

continued to next page

| Device | Device Name | Device Code (HEX) | Address Code |
|-------------------------|-------------|-------------------|---|
| Timer (Setting Value) | 1TS | 0063 | Value of word address from which 1 is deducted |
| | 2TS | 0163 | |
| | 3TS | 0263 | |
| | 4TS | 0363 | |
| Counter (Current Value) | 1CP | 0061 | Value of word address from which 1 is deducted |
| | 2CP | 0161 | |
| | 3CP | 0261 | |
| | 4CP | 0361 | |
| Counter (Setting Value) | 1CS | 0064 | Value of word address from which 1 is deducted |
| | 2CS | 0164 | |
| | 3CS | 0264 | |
| | 4CS | 0364 | |
| Data Register | 1D | 0000 | Value of word address from which 1 is deducted |
| | 2D | 0100 | |
| | 3D | 0200 | |
| | 4D | 0300 | |
| Common Register | 1B | 0004 | Value of word address from which 1 is deducted |
| | 2B | 0104 | |
| | 3B | 0204 | |
| | 4B | 0304 | |
| General Register | 1R | 0003 | Value of word address from which 1 is deducted |
| | 2R | 0103 | |
| | 3R | 0203 | |
| | 4R | 0303 | |
| Special Register | 1Z | 0001 | Value of word address from which 1 is deducted |
| | 2Z | 0101 | |
| | 3Z | 0201 | |
| | 4Z | 0301 | |
| Link Register | 1W | 0002 | (Link No. x 0x10000) + ((word address - 1) divided by 16) |
| | 2W | 0102 | |
| | 3W | 0202 | |
| | 4W | 0302 | |

7 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. Device name 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 <ul style="list-style-type: none"> 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.
