# QnA Series CPU Direct Driver

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#### Introduction

This manual describes how to connect the Display and the External Device (target PLC). In this manual, the connection procedure will be described by following the below sections:

System Configuration "1 System Configuration" (page 3) This section shows the types of External Device which can be connected and SIO type. Selection of External Device "2 Selection of External Device" (page 6) Select a model (series) of the External Device to be connected and connection method. **Example of Communication Settings** 3 "3 Example of Communication Setting" This section shows setting examples for (page 7) communicating between the Display and the External Device. Setup Items 4 "4 Setup Items" (page 9) This section describes communication setup items on the display. Set communication settings of the Display with GP-Pro Ex or in offline mode. 5 Cable Diagram "5 Cable Diagram" (page 13) This section shows cables and adapters for connecting the Display and the External Device. Operation

# 1 System Configuration

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

| Series               | CPU  | Link I/F   | SIO Type             | Setting<br>Example               | Cable<br>Diagram                |
|----------------------|--|--|----------------------|----------------------------------|---------------------------------|
|                      | Series  Q2A CPU Q2ASH CPU -S1 Q2ASH CPU Q2AS CPU -S1 Q2AS CPU Q4AR CPU | Q3A CPU  | RS232C               | Setting<br>Example 1<br>(page 7) | Cable Diagram 1 (page 13)       |
| MELSEC QnA<br>Series |  |  | RS422/485<br>(4wire) | Setting<br>Example 2<br>(page 8) | Cable<br>Diagram 2<br>(page 14) |
|                      |  | 2-port adapter II<br>by Pro-face *1<br>(Model: GP070-MD11) | RS422/485<br>(4wire) | Setting<br>Example 2<br>(page 8) | Cable Diagram 3 (page 16)       |

<sup>\*1</sup> Supported by 2-port adapter II Rev. B or later. 2-port adapter II does not support the communication in 38,400. Please use it in 19,200.

#### ■ 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  |                    |                    |  |
|---|--|--------------------|--------------------|--|
| Selles  | RS-232C  | RS-422/485(4 wire) | RS-422/485(2 wire) |  |
| PS-2000B                                      | COM1 <sup>*1</sup> , COM2,<br>COM3 <sup>*1</sup> , COM4                | -                  | -                  |  |
| PS-3450A, PS-3451A,<br>PS3000-BA, PS3001-BD   | COM1, COM2*1*2   | COM2*1*2           | COM2*1*2           |  |
| PS-3650A (T41 model),<br>PS-3651A (T41 model) | COM1*1   | -                  | -                  |  |
| PS-3650A (T42 model),<br>PS-3651A (T42 model) | COM1*1*2, COM2   | COM1*1*2           | COM1*1*2           |  |
| PS-3700A (Pentium®4-M)<br>PS-3710A            | COM1 <sup>*1</sup> , COM2 <sup>*1</sup> ,<br>COM3 <sup>*2</sup> , COM4 | COM3*2             | COM3*2             |  |
| PS-3711A                                      | COM1*1, COM2*2   | COM2*2             | COM2*2             |  |
| PS4000 <sup>*3</sup>                          | COM1, COM2   | -                  | -                  |  |
| PL3000  | COM1*1*2, COM2*1,<br>COM3, COM4  | COM1*1*2           | COM1*1*2           |  |

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

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     | 510 type. R5-232c   |  |
| 4          | OFF     | Output mode of SD (TXD) data: Always output                     |  |
| 5          | OFF     | Terminal resistance (220 $\Omega$ ) insertion to SD (TXD): None |  |
| 6          | OFF     | Terminal resistance (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     |   |  |

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

<sup>\*2</sup> Set up the SIO type with the DIP Switch. Please set up as follows according to SIO type to be used.

<sup>\*3</sup> 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.

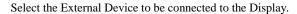
#### DIP Switch setting: RS-422/485 (4 wire)

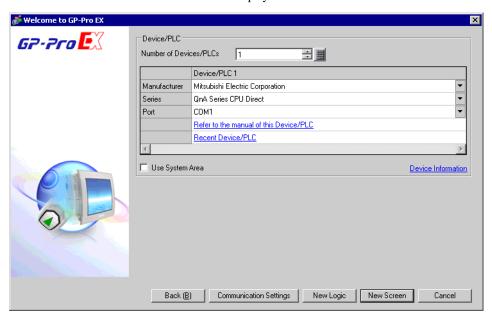
| DIP Switch | Setting | Description   |  |
|------------|---------|---|--|
| 1          | OFF     | Reserved (always OFF)                                   |  |
| 2          | ON      | SIO type: RS-422/485                                    |  |
| 3          | ON      | 510 type. R5-422/465                                    |  |
| 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      | 510 type. R5-422/465                                   |  |
| 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      | K5 (K15) Auto control mode. Enabled                    |  |

## 2 Selection of External Device





| Setup Items                | Setup Description  |  |  |
|----------------------------|--|--|--|
| Number of Devices/<br>PLCs | Enter an integer from 1 to 4 to define the number of Devices/PLCs to connect to the display.   |  |  |
| Manufacturer               | Select the manufacturer of the External Device to connect. Select "Mitsubishi Electric Corporation".   |  |  |
| Series                     | Select the External Device model (series) and the connection method. Select "QnA Series CPU Direct".  In System configuration, make sure the External Device you are connecting is supported by "QnA Series CPU Direct".  "1 System Configuration" (page 3)  |  |  |
| Port                       | Select the Display port to connect to the External Device.   |  |  |
| Use System Area            | Check this option to synchronize the system data area of the Display and the device (memory) of the External Device. When synchronized, you can use the External Device's ladder program to switch the display or display the window on the Display.  Cf. GP-Pro EX Reference Manual "LS Area (Direct Access Method Area)" This feature can also be set in GP-Pro EX or in the Display's offline mode.  Cf. GP-Pro EX Reference Manual "System Settings [Display Unit] - [System Area] Settings Guide"  Cf. Maintenance/Troubleshooting Guide "Main Unit - System Area Settings" |  |  |

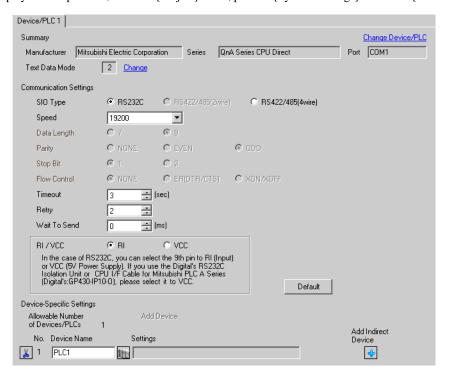
## 3 Example of Communication Setting

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 setup screen, from the [Project] menu, point to [System Settings] and select [Device/PLC].



#### Settings of External Device

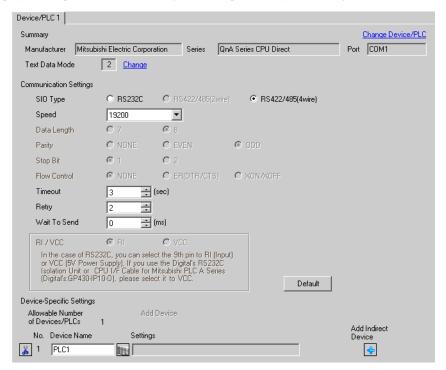
There is no setting on the External Device. The speed automatically switches according to the Display setting.

#### 3.2 Setting Example 2

#### ■ Setting of GP-Pro EX

#### ◆ Communication Settings

To display the setup screen, from the [Project] menu, point to [System Settings] and select [Device/PLC].



#### ■ Device Setting

There is no setting on the External Device. The speed automatically switches according to the Display setting.

## 4 Setup Items

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

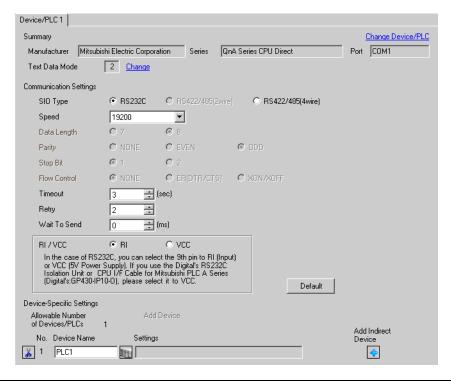
The setting of each parameter must be identical to that of External Device.

"3 Example of Communication Setting" (page 7)

#### 4.1 Setup Items in GP-Pro EX

#### ■ Communication Settings

To display the setup screen, from the [Project] menu, point to [System Settings] and select [Device/PLC].



| 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.                  |
| 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. |

continued to next page

| Setup Items  | Setup Description   |
|--------------|---|
| Wait To Send | Use an integer from 0 to 255 to enter standby time (ms) for the Display from receiving packets to transmitting next commands.   |
| RI/VCC       | You can switch RI/VCC of the 9th pin when you select RS232C for SIO type. It is necessary to change RI/5V by changeover switch of IPC when connect with IPC. Please refer to the manual of the IPC for more detail. |

### NOTE

- Refer to the GP-Pro EX Reference Manual for Indirect Device.
  - Cf. GP-Pro EX Reference Manual "Changing the Device/PLC at Runtime (Indirect Device)"

#### 4.2 Settings in Offline Mode

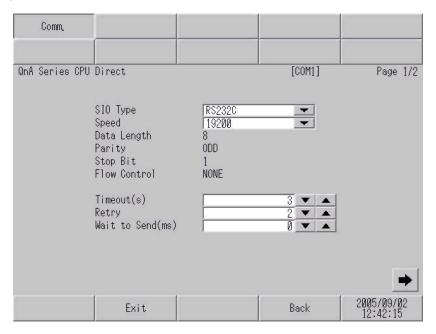


- Refer to the Maintenance/Troubleshooting guide for information on how to enter offline mode or about the operation.
- Cf. Maintenance/Troubleshooting Guide "Offline Mode"
- The number of the setup items to be displayed for 1 page in the offline mode depends on the Display in use. Please refer to the Reference manual for details.

#### ■ Communication Settings

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

(Page 1/2)

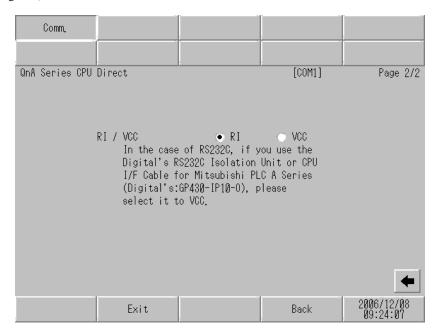


| Setup Items | Setup Description  |
|-------------|--|
| SIO Type    | Select the SIO type to communicate with the External Device.  MPORTANT  To make the communication settings correctly, confirm the serial interface specifications of Display unit for [SIO Type].  We cannot guarantee the operation if a communication type that the serial interface does not support is specified.  For details concerning the serial interface specifications, refer to the manual for Display unit. |
| Speed       | Select speed between the External Device and the Display.  |
| Data Length | Data length is displayed.  |
| Parity      | The parity check method is displayed.  |
| Stop Bit    | Stop bit length is displayed.  |

continued to next page

| Setup Items       | Setup Description  |
|-------------------|--|
| Flow Control      | The communication control method to prevent overflow of transmission and reception data is displayed.                                      |
| Timeout (s)       | 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 (ms) | Use an integer from 0 to 255 to enter standby time (ms) for the Display from receiving packets to transmitting next commands.              |

#### (Page 2/2)



| Setup Items | Setup Description   |
|-------------|---|
| RI/VCC      | You can switch RI/VCC of the 9th pin when you select RS232C for SIO type.  It is necessary to change RI/5V by changeover switch of IPC when connect with IPC.  Please refer to the manual of the IPC for more detail. |

• GP-4100 series and GP-4\*01TM do not have the [RI/VCC] setting in the offline mode.

## 5 Cable Diagram

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

- The FG pin of the main body of the External Device must be D-class grounded. Please refer to the manual of the External Device for more details.
- SG and FG are connected inside the Display. When connecting SG to the External Device, design the system
  not to form short-circuit loop.
- · Connect the isolation unit, when communication is not stabilized under the influence of a noise etc..

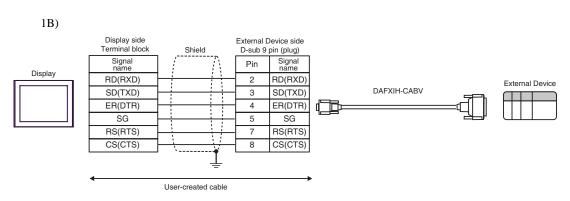
#### Cable Diagram 1

| Display<br>(Connection Port)                                    | Cable |   | Notes                  |
|---|-------|---|------------------------|
| GP3000 (COM1)<br>GP4000*1 (COM1)<br>ST (COM1)<br>IPC*2<br>PC/AT | 1A    | Interface internal cable for Mitsubishi FA equipments by Diatrend Corp.  DAFXIH-CABV (3m)                       | Available to order the |
| GP-4105 (COM1)  | 1B    | User-created cable  + Interface internal cable for Mitsubishi FA equipments by Diatrend Corp.  DAFXIH-CABV (3m) | length up to 15 m      |

<sup>\*1</sup> All GP4000 models except GP-4100 series and GP-4203T

#### ■ IPC COM Port (page 4)



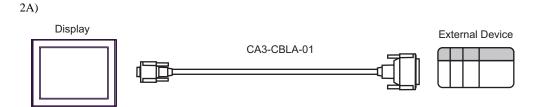


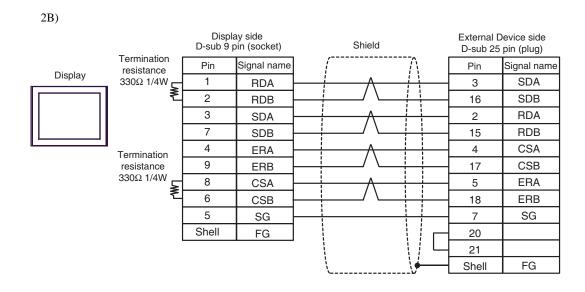
<sup>\*2</sup> Only the COM port which can communicate by RS-232C can be used.

#### Cable Diagram 2

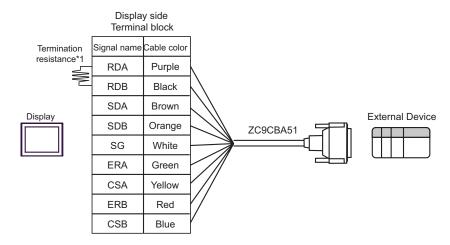
| Display<br>(Connection Port)   |    | Cable  | Notes                                  |
|--|----|--|--|
| GP3000 <sup>*1</sup> (COM1)<br>AGP-3302B (COM2)<br>GP4000 <sup>*2</sup> (COM2) | 2A | Mitsubishi A connection cable by Pro-face CA3-CBLA-01 (5m) |  |
| GP-4*01TM (COM1)<br>GP-4201T (COM1)<br>ST*3 (COM2)<br>IPC*4                    | 2B | User-created cable   | The cable length must be 500m or less. |
| GP-4106 (COM1)   | 2C | Mitsubishi PLC A Series Cable by Pro-face ZC9CBA51(5m)     |  |
| G1-4100 (COM1)   | 2D | User-created cable   | The cable length must be 500m or less. |

- \*1 All GP3000 models except AGP-3302B
- \*2 All GP4000 models except GP-4100 series, GP-4\*01TM, GP-4201T and GP-4\*03T
- \*3 All ST models except AST-3211A and AST-3302B
- \*4 Only the COM port which can communicate by RS-422/485 (4 wire) can be used.
  - IPC COM Port (page 4)





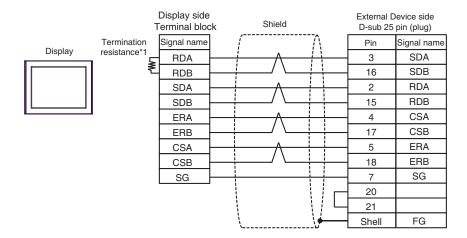
2C)



\*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              | OFF       |

2D)



\*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              | OFF       |

#### Cable Diagram 3

| Display<br>(Connection Port)  | Cable |   | Notes                                  |
|---|-------|---|--|
| GP3000 <sup>*1</sup> (COM1)<br>AGP-3302B (COM2)<br>GP-4*01TM (COM1)<br>ST <sup>*2</sup> (COM2)<br>IPC <sup>*3</sup> | 3A    | COM port conversion adapter by Pro-face CA3-ADPCOM-01  + 2-port adapter cable for AGP by Pro-face CA3-MDCB11 (5m)  + 2-port adapter II by Pro-face GP070-MD11 |  |
| IPC 3   | 3B    | User-created cable + 2-port adapter II by Pro-face GP070-MD11   | The cable length must be 600m or less. |
| GP3000*4 (COM2)   | 3C    | Online adapter by Pro-face CA4-ADPONL-01  + 2-port adapter cable for AGP by Pro-face CA3-MDCB11 (5m)  + 2-port adapter II by Pro-face GP070-MD11              |  |
|   | 3D    | Online adapter by Pro-face CA4-ADPONL-01  + User-created cable + 2-port adapter II by Pro-face GP070-MD11   | The cable length must be 600m or less. |
| GP-4106 (COM1)  | 3E    | User-created cable + 2-port adapter II by Pro-face GP070-MD11   | The cable length must be 600m or less. |
| GP4000 <sup>*5</sup> (COM2)<br>GP-4201T (COM1)  | 3F    | 2-port adapter cable by Pro-face PFXZCBCBMD1**6  + 2-port adapter II by Pro-face GP070-MD11   |  |
|   | 3B    | User-created cable  + 2-port adapter II by Pro-face GP070-MD11  | The cable length must be 600m or less. |

<sup>\*1</sup> All GP3000 models except AGP-3302B

<sup>\*2</sup> All ST models except AST-3211A and AST-3302B

<sup>\*3</sup> Only the COM port which can communicate by RS-422/485 (4 wire) can be used.

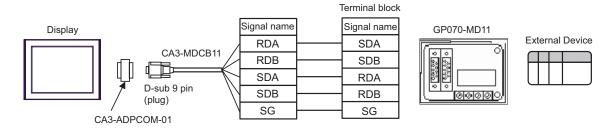
<sup>■</sup> IPC COM Port (page 4)

<sup>\*4</sup> All GP3000 models except GP-3200 series and AGP-3302B

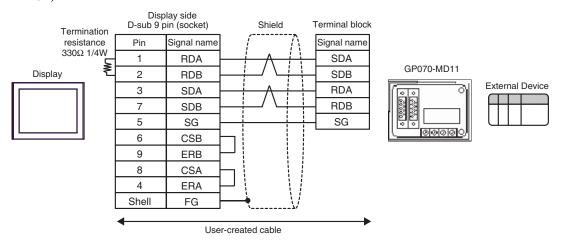
<sup>\*5</sup> All GP4000 models except GP-4100 series, GP-4\*01TM, GP-4201T and GP-4\*03T

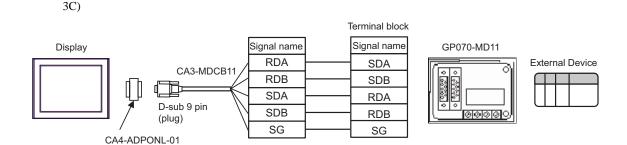
<sup>\*6</sup> When using a 2-port Adapter Cable (CA3-MDCB11) instead of the 2-port Adapter Cable, refer to Cable Diagram 3A.

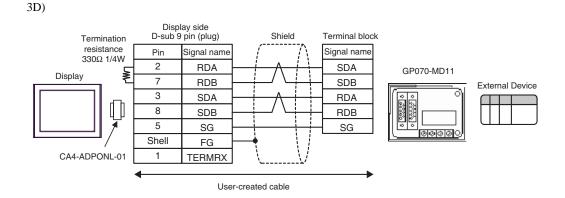
3A)

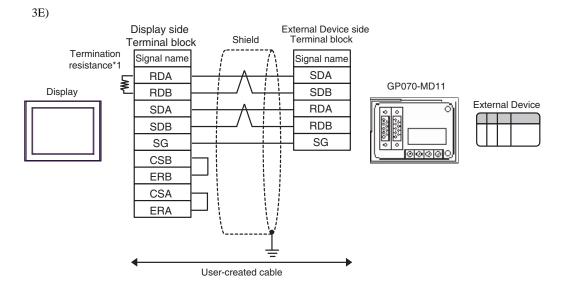


3B)





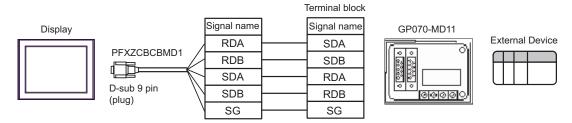




\*1 The resistance in the Display is used as the termination resistance. Set the value of the DIP Switch on the rear of the Display as shown in the table below.

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

3F)



# 6 Supported Device

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

This address can be specified as system data area.

| Device                          | Bit Address       | Word Address     | 32 bits | Notes             |
|---------------------------------|-------------------|------------------|---------|-------------------|
| Input Relay                     | X0000 - X1FFF     | X0000 - X1FF0    |         | *** 0]            |
| Output Relay                    | Y00000 - Y1FFF    | Y0000 - Y1FF0    |         | *** 0]            |
| Internal Relay                  | M00000 - M32767   | M00000 - M32752  |         | ÷ 16)             |
| Special Relay                   | SM0000 - SM2047   | SM0000 - SM2032  |         | ÷16)              |
| Latch Relay                     | L000000 - L32767  | L00000 - L32752  |         | <u>÷16</u> ]      |
| Annunciator                     | F00000 - F32767   | F00000 - F32752  |         | <u>÷16</u> ]      |
| Edge Relay                      | V00000 - V32767   | V00000 - V32752  |         | <u>÷16</u> )      |
| Step Relay                      | S0000 - S8191     | S0000 - S8176    |         | <u>÷16</u> )      |
| Link Relay                      | B0000 - B7FFF     | B0000 - B7FF0    |         | *** 0]            |
| Special Link Relay              | SB000 - SB7FF     | SB000 - SB7F0    |         | *** 0]            |
| Timer (Contact)                 | TS00000 - TS23087 |                  |         |                   |
| Timer (Coil)                    | TC00000 - TC23087 |                  |         |                   |
| Retentive Timer (Contact)       | SS00000 - SS23087 |                  |         |                   |
| Retentive Timer (Coil)          | SC00000 - SC23087 |                  |         |                   |
| Counter (Contact)               | CS00000 - CS23087 |                  |         |                   |
| Counter (Coil)                  | CC00000 - CC23087 |                  |         |                   |
| Timer (Current Value)           |                   | TN0000 - TN23087 |         |                   |
| Retentive Timer (Current Value) |                   | SN0000 - SN23087 |         |                   |
| Counter (Current Value)         |                   | CN0000 - CN23087 |         |                   |
| Data Register                   |                   | D0000 - D25983   |         | <u> </u>          |
| Special Register                |                   | SD0000 - SD2047  |         |                   |
| Link Register                   |                   | W0000 - W657F    |         | <sub>Bit</sub> F) |
| Special Link Register           |                   | SW000 - SW7FF    |         | Bit1              |

continued to next page

| Device   | Bit Address | Word Address             | 32 bits | Notes                |
|--|-------------|--------------------------|---------|----------------------|
| File Register (Normal)                           |             | R00000 - R32767          |         | E : t F]*1           |
| File Register (Block switching is not necessary) |             | ZR0000000 -<br>ZR1042431 |         | <sub>В:+</sub> F) *1 |
|  |             | 0R00000 - 0R32767        |         |                      |
|  |             | 1R00000 - 1R32767        |         |                      |
|  |             | 2R00000 - 2R32767        |         |                      |
| *0   |             | 3R00000 - 3R32767        | [L/H]   |                      |
| File Register <sup>*2</sup> (0R - 31R)           | :           | :                        |         | E : + F]*1           |
|  |             |                          |         |                      |
|  |             | 29R00000 - 29R32767      |         |                      |
|  |             | 30R00000 - 30R32767      |         |                      |
|  |             | 31R00000 - 31R26623      |         |                      |

<sup>\*1</sup> You need the memory card when using the file register.

#### NOTE

- Please refer to the GP-Pro EX Reference Manual for system data area.
  - Cf. GP-Pro EX Reference Manual "LS Area (Direct Access Method Area)"
- Please refer to the precautions on manual notation for icons in the table.
  - "Manual Symbols and Terminology"
- Even if you use an address not existing in the External Device, no read error may be displayed. In this case, the read-out data keeps 0.

  In writing, an error is displayed.

<sup>\*2</sup> Set the block No. on the head of device name. This is the device name for conversion with GP-Pro/PB III for Windows. When you newly specify the device, we recommend that you should use the file register (Block switching is not necessary).

## 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<br>Name | Device Code<br>(HEX) | Address Code                          |
|--|----------------|----------------------|---------------------------------------|
| Input Relay                                      | X              | 0080                 | Value of word address divided by 0x10 |
| Output Relay                                     | Y              | 0081                 | Value of word address divided by 0x10 |
| Internal Relay                                   | M              | 0082                 | Value of word address divided by 16   |
| Special Relay                                    | SM             | 0083                 | Value of word address divided by 16   |
| Latch Relay                                      | L              | 0084                 | Value of word address divided by 16   |
| Annunciator                                      | F              | 0085                 | Value of word address divided by 16   |
| Edge Relay                                       | V              | 0086                 | Value of word address divided by 16   |
| Step Relay                                       | S              | 0087                 | Value of word address divided by 16   |
| Link Relay                                       | В              | 0088                 | Value of word address divided by 0x10 |
| Special Link Relay                               | SB             | 0089                 | Value of word address divided by 0x10 |
| Timer (Current Value)                            | TN             | 0060                 | Word Address                          |
| Retentive Timer (Current Value)                  | SN             | 0062                 | Word Address                          |
| Counter (Current Value)                          | CN             | 0061                 | Word Address                          |
| Data Register                                    | D              | 0000                 | Word Address                          |
| Special Register                                 | SD             | 0001                 | Word Address                          |
| Link Register                                    | W              | 0002                 | Word Address                          |
| Special Link Register                            | SW             | 0003                 | Word Address                          |
| File Register (Normal)                           | R              | 000F                 | Word Address                          |
| File Register (Block switching is not necessary) | ZR             | 000E                 | Word Address                          |

continued to next page

| Device                      | Device<br>Name | Device Code<br>(HEX) | Address Code |
|-----------------------------|----------------|----------------------|--------------|
|                             | 0R             | 0010                 | Word Address |
|                             | 1R             | 0011                 | Word Address |
|                             | 2R             | 0012                 | Word Address |
|                             | 3R             | 0013                 | Word Address |
| File Register<br>(0R - 31R) | :              | :                    | :            |
|                             | 28R            | 002C                 | Word Address |
|                             | 29R            | 002D                 | Word Address |
|                             | 30R            | 002E                 | Word Address |
|                             | 31R            | 002F                 | 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. 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.  |
|                       | Displays IP address or device address of External Device where error occurs, or error codes received from External Device.  |
| Error Occurrence Area | <ul> <li>NOTE</li> <li>IP address is displayed such as "IP address(Decimal): MAC address(Hex)".</li> <li>Device address is diplayed such as "Address: Device address".</li> <li>Received error codes are displayed such as "Decimal[Hex]".</li> </ul> |

Display Examples of Error Messages

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



- 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.