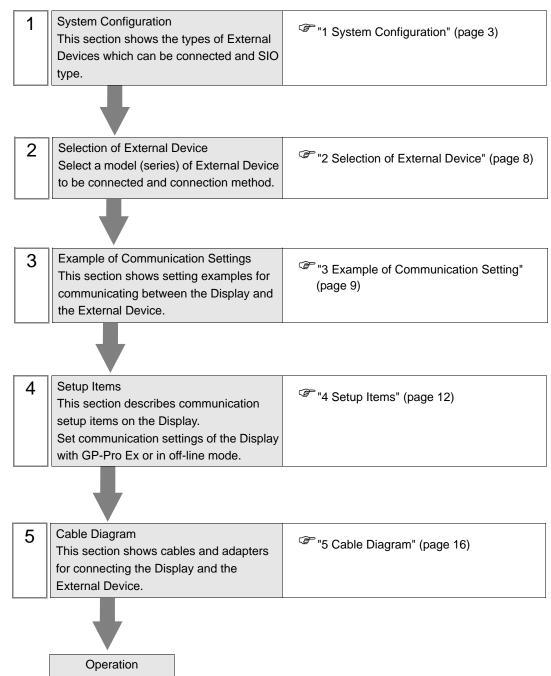
FX Series CPU Direct Driver

| 1 | System Configuration | 3 |
|---|----------------------------------|------|
| 2 | Selection of External Device | 8 |
| 3 | Example of Communication Setting | 9 |
| 4 | Setup Items | .12 |
| 5 | Cable Diagram | .16 |
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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:



1 System Configuration

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

| Series | CPU | Link I/F | SIO Type | Setting Example | Cable Diagram |
|---------------------|-------|--|----------------------|-----------------------------|----------------------------|
| | FX1 | CPU Direct | RS232C | Setting Example 1 (page 9) | Cable Diagram 1 (page 16) |
| | | CPU Direct | RS232C | Setting Example 1 (page 9) | Cable Diagram 1 (page 16) |
| | FX2 | 2-port adapter II by Pro-face (Model: GP070-MD11) | RS422/485 (4wire) | Setting Example 3 (page 11) | Cable Diagram 10 (page 29) |
| | FX2C | CPU Direct | RS232C | Setting Example 1 (page 9) | Cable Diagram 1 (page 16) |
| | | CPU Direct | RS422/485 (4wire) | Setting Example 2 (page 10) | Cable Diagram 2 (page 17) |
| | FX0S | 2-port adapter II by Pro-face (Model: GP070-MD11) | RS422/485 (4wire) | Setting Example 3 (page 11) | Cable Diagram 10 (page 29) |
| | FX0N | CPU Direct | RS422/485 (4wire) | Setting Example 2 (page 10) | Cable Diagram 2 (page 17) |
| | | FX2NC-232ADP | RS232C | Setting Example 1 (page 9) | Cable Diagram 9 (page 28) |
| MELSEC FX Series | | 2-port adapter II by Pro-face (Model: GP070-MD11) | RS422/485 (4wire) | Setting Example 3 (page 11) | Cable Diagram 10 (page 29) |
| | | CPU Direct | RS422/485 (4wire) | Setting Example 2 (page 10) | Cable Diagram 2 (page 17) |
| | | FX1N-232-BD | RS232C | Setting Example 1 (page 9) | Cable Diagram 3 (page 18) |
| | | FX0N-232ADP + FX1N-CNV-BD | RS232C | Setting Example 1 (page 9) | Cable Diagram 4 (page 20) |
| | FX1S, | FX2NC-232ADP + FX1N-CNV-BD | RS232C | Setting Example 1 (page 9) | Cable Diagram 7 (page 24) |
| | FX1N | FX1N-422-BD | RS422/485 (4wire) | Setting Example 2 (page 10) | Cable Diagram 6 (page 23) |
| | | 2-port adapter II by Pro- face (Model: GP070-MD11) | RS422/485 (4wire) | Setting Example 3 (page 11) | Cable Diagram 10 (page 29) |
| | | 2-port adapter II by Pro-face (Model: GP070-MD11) + FX1N-422-BD | RS422/485 (4wire) | Setting Example 3 (page 11) | Cable Diagram 11 (page 32) |

| Series | CPU | Link I/F | SIO Type | Setting Example | Cable Diagram |
|---------------------|-----------------|---|----------------------|-----------------------------|----------------------------|
| | | CPU Direct | RS422/485 (4wire) | Setting Example 2 (page 10) | Cable Diagram 2 (page 17) |
| | | FX2N-232-BD | RS232C | Setting Example 1 (page 9) | Cable Diagram 3 (page 18) |
| | | FX0N-232ADP + FX2N-CNV-BD | RS232C | Setting Example 1 (page 9) | Cable Diagram 4 (page 20) |
| | ENZON | FX2NC-232ADP +FX2N-CNV-BD | RS232C | Setting Example 1 (page 9) | Cable Diagram 7 (page 24) |
| | FX2N | FX2N-422-BD | RS422/485 (4wire) | Setting Example 2 (page 10) | Cable Diagram 6 (page 23) |
| | | 2-port adapter II by Pro-face (Model: GP070-MD11) | RS422/485 (4wire) | Setting Example 3 (page 11) | Cable Diagram 10 (page 29) |
| | | 2-port adapter II by Pro-face (Model: GP070-MD11) + FX2N-422-BD | RS422/485 (4wire) | Setting Example 3 (page 11) | Cable Diagram 11 (page 32) |
| | FX1NC, FX2NC | CPU Direct | RS422/485 (4wire) | Setting Example 2 (page 10) | Cable Diagram 2 (page 17) |
| | | FX0N-232ADP | RS232C | Setting Example 1 (page 9) | Cable Diagram 5 (page 22) |
| MELSEC FX Series | | FX2NC-232ADP | RS232C | Setting Example 1 (page 9) | Cable Diagram 9 (page 28) |
| | | 2-port adapter II by Pro-face (Model: GP070-MD11) | RS422/485 (4wire) | Setting Example 3 (page 11) | Cable Diagram 10 (page 29) |
| | FX3U, FX3UC | CPU Direct | RS422/485 (4wire) | Setting Example 2 (page 10) | Cable Diagram 2 (page 17) |
| | | FX3U-232-BD | RS232C | Setting Example 1 (page 9) | Cable Diagram 3 (page 18) |
| | | FX3U-232ADP + FX3U-232-BD, FX3U- 422-BD, FX3U-485-BD, FX3U-USB-BD or FX3U-CNV-BD | RS232C | Setting Example 1 (page 9) | Cable Diagram 8 (page 26) |
| | | FX3U-422-BD | RS422/485 (4wire) | Setting Example 2 (page 10) | Cable Diagram 6 (page 23) |
| | | 2-port adapter II by Pro-face (Model: GP070-MD11) | RS422/485 (4wire) | Setting Example 3 (page 11) | Cable Diagram 10 (page 29) |
| | | 2-port adapter II by Pro-face (Model: GP070-MD11) + FX3U-422-BD | RS422/485 (4wire) | Setting Example 3 (page 11) | Cable Diagram 11 (page 32) |

| Series | CPU | Link I/F | SIO Type | Setting Example | Cable Diagram | |
|---------------------|------|--|---|-----------------------------|-----------------------------|----------------------------|
| | | CPU Direct | RS422/485 (4wire) | Setting Example 2 (page 10) | Cable Diagram 2 (page 17) | |
| | | FX3G-232-BD | RS232C | Setting Example 1 (page 9) | Cable Diagram 3 (page 18) | |
| | FX3G | FX3U-232ADP + FX3G-CNV-ADP | RS232C | Setting Example 1 (page 9) | Cable Diagram 8 (page 26) | |
| MELSEC FX Series | | FX3G-422-BD | RS422/485 (4wire) | Setting Example 2 (page 10) | Cable Diagram 6 (page 23) | |
| | | | 2-port adapter II by Pro-face (Model: GP070-MD11) | RS422/485 (4wire) | Setting Example 3 (page 11) | Cable Diagram 10 (page 29) |
| | | 2-port adapter II by Pro-face (Model: GP070-MD11) + FX3G-422-BD | RS422/485 (4wire) | Setting Example 3 (page 11) | Cable Diagram 11 (page 32) | |

■ 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

| | Usable Port | | | | |
|--|---|--------------------|--------------------|--|--|
| Series | Coable 1 oft | | | | |
| Conco | RS-232C | RS-422/485(4 wire) | RS-422/485(2 wire) | | |
| PS-2000B | COM1 ^{*1} , COM2, COM3 ^{*1} , COM4 | - | - | | |
| PS-3450A, PS-3451A, PS3000-BA, PS3001-BD | COM1, COM2*1*2 | COM2*1*2 | COM2*1*2 | | |
| PS-3650A, PS-3651A | COM1*1 | - | - | | |
| PS-3700A (Pentium®4-M) PS-3710A | COM1*1, COM2*1, COM3*2, COM4 | COM3*2 | COM3*2 | | |
| PS-3711A | COM1*1, COM2*2 | COM2*2 | COM2*2 | | |
| PL-3000B, PL-3600T, PL-3600K, PL-3700T, PL-3700K, PL-3900T | COM1*1*2, COM2*1, COM3, COM4 | COM1*1*2 | COM1*1*2 | | |

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

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. N5-232c | |
| 4 | OFF | Output mode of SD (TXD) data: Always output | |
| 5 | OFF | Terminal resistance (220Ω) insertion to SD (TXD): None | |
| 6 | OFF | Terminal resistance (220 Ω) insertion to RD (RXD): None | |
| 7 | OFF | Short-circuit of SDA (TXA) and RDA (RXA): Not available | |
| 8 | OFF | Short-circuit of SDB (TXB) and RDB (RXB): Not available | |
| 9 | OFF | RS (RTS) Auto control mode: Disabled | |
| 10 | OFF | K3 (K13) Auto control mode. Disabled | |

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

^{*2} Set up the SIO type with the DIP switch. Please set up as follows according to SIO type to be used.

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

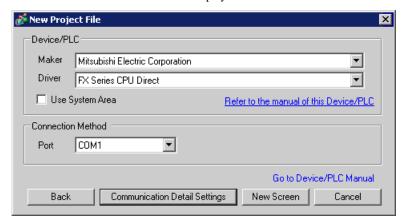
| DIP switch | Setting | Description | |
|------------|---------|---|--|
| 1 | OFF | Reserved (always OFF) | |
| 2 | ON | SIO type: RS-422/485 | |
| 3 | ON | 310 type. K3-422/403 | |
| 4 | OFF | Output mode of SD (TXD) data: Always output | |
| 5 | OFF | Terminal resistance (220Ω) insertion to SD (TXD): 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 | | |

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 "Mitsubishi Electric Corporation". | |
| Driver | Select a model (series) of the External Device to be connected and connection method. Select "FX Series CPU Direct". Check the External Device which can be connected in "FX Series CPU Direct" in system configuration. "I 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 (Direct Access Method)" This can also be set in GP-Pro EX or in the Display's off-line mode. Cf. GP-Pro EX Reference Manual "5.17.6 [System Settings] Setting Guide, [Display Unit] Settings Guide, System Area Settings" Cf. Maintenance/Troubleshooting Manual "2.15.1 Settings common to all Display models, [Main Unit Settings] Settings Guide, System Area Settings" | |
| Port | Select the Display port to be connected to the External Device. | |

3 Example of Communication Setting

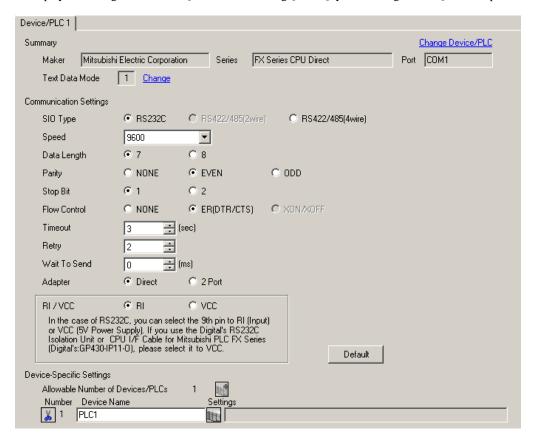
Examples of communication settings of the Display and the External Device, recommended by Pro-face, are shown.

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.



Setting of External Device

Settings of External Device are not necessary.

Notes

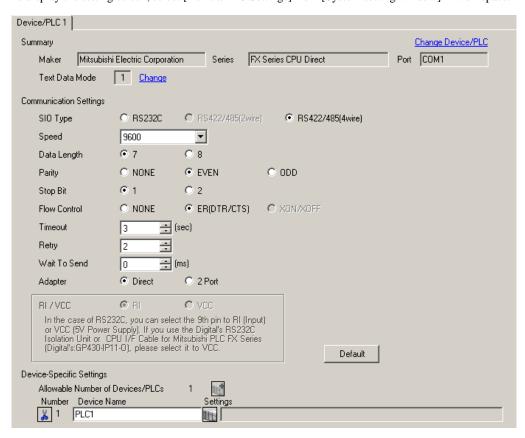
When using the function extension board, store data "0" in D8120. Also, be sure to store data "0" between
D8173 and D8180. Then, set M8070 and M8071 to OFF. When using channel 2 for FX3U, FX3UC or FX3G,
store data "0" in D8420 instead of D8120.

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.



Setting of External Device

Settings of External Device are not necessary.

Notes

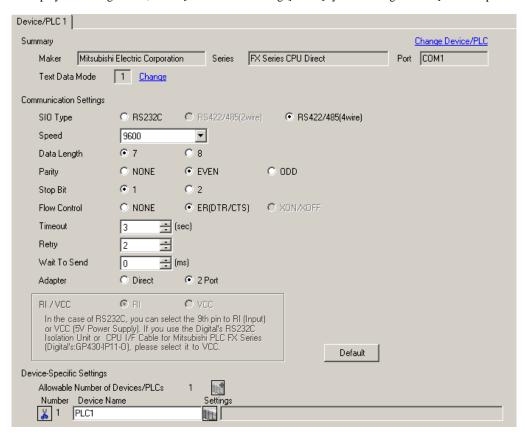
When using the function extension board, store data "0" in D8120. Also, be sure to store data "0" between
D8173 and D8180. Then, set M8070 and M8071 to OFF. When using channel 2 for FX3U, FX3UC or FX3G,
store data "0" in D8420 instead of D8120.

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.



■ Setting of External Device

Settings of External Device are not necessary.

Notes

When using the function extension board, store data "0" in D8120. Also, be sure to store data "0" between
D8173 and D8180. Then, set M8070 and M8071 to OFF. When using channel 2 for FX3U, FX3UC or FX3G,
store data "0" in D8420 instead of D8120.

4 Setup Items

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

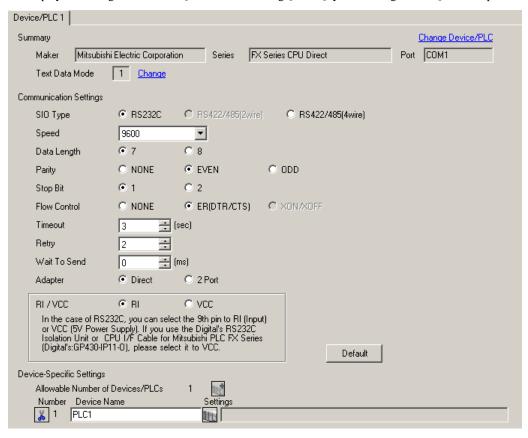
The setting of each parameter must be identical to that of External Device.

"3 Example of Communication Setting" (page 9)

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 External Device and Display. NOTE • Supported range of speed varies depending on the type. FX3U, FX3UC and FX3G support up to 115.2K. FX1N, FX1NC, FX2N and FX2NC support up to 38400. Note that they support up to 19200 when using FX-232W or FX232AWC. Other CPUs support up to 9600. |
| Data Length | Select data length. |
| Parity | Select how to check parity. |
| Stop Bit | Select stop bit length. |

| Setup Items | Setup Description |
|--------------|---|
| Flow Control | Select the communication control method to prevent overflow of transmission and reception data. |
| Timeout | Use an integer from 1 to 127 to enter the time (s) for which the Display waits for the response from the External Device. |
| Retry | In case of no response from the External Device, use an integer from 0 to 255 to enter how many times the Display retransmits the command. |
| Wait To Send | Use an integer from 0 to 255 to enter standby time (ms) for the Display from receiving packets to transmitting next commands. |
| Adapter | Select "Direct" or "2 Port " for the adapter to be used. When using 2-port adapter II, select "2 Port". |
| 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. |

4.2 Setup Items in Off-Line Mode

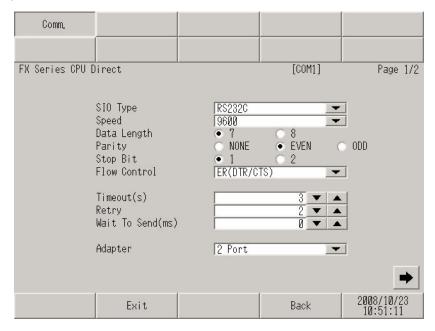


- Refer to the Maintenance/Troubleshooting manual for information on how to enter off-line mode or about the operation.
- Cf. Maintenance/Troubleshooting Manual "2.2 Off-line Mode"

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.

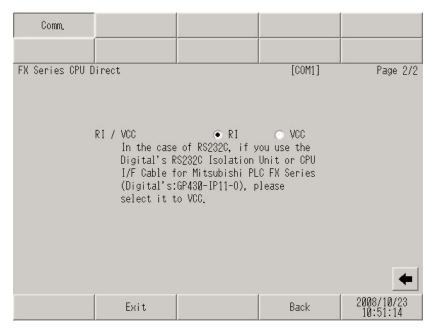
(Page 1/2)



| Setup Items | Setup Description |
|-------------|--|
| | Select the SIO type to communicate with the External Device. |
| SIO Type | 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. |
| | Select speed between External Device and Display. |
| Speed | Supported range of speed varies depending on the type. FX3U, FX3UC and FX3G support up to 115.2K. FX1N, FX1NC, FX2N and FX2NC support up to 38400. Note that they support up to 19200 when using FX-232W or FX232AWC. Other CPUs support up to 9600. |
| Data Length | Select data length. |
| Parity | Select how to check parity. |

| Setup Items | Setup Description |
|--------------|--|
| 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. |
| 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. |
| Adapter | Select "Direct" or "2 Port " for the adapter to be used. When using 2-port adapter II, select "2 Port". |

(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. | | |

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

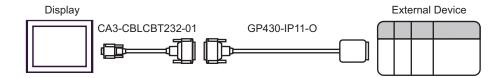
- The FG pin of the External Device body must be D-class grounded. Please refer to the manual of the External Device for more details.
- SG and FG are connected inside the Display. When connecting SG to the External Device, design the system not to form short-circuit loop.
- · Connect the isolation unit,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

Cable Diagram 1

| Display (Connection Port) | Cable | Notes |
|--|--|-------|
| GP (COM1) ST (COM1) IPC*1 PC/AT | 9-25 232C conversion cable by Pro-face CA3-CBLCBT232-01 (0.2m) + Mitsubishi PLC FX Series program control I/F cable by Pro-face GP430-IP11-O (5m) | |

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

■ IPC COM Port (page 6)



| Display (Connection Port) | Cable | Notes |
|---|---|-------|
| GP*1 (COM1) AGP-3302B (COM2) ST*2 (COM2) IPC*3 | Mitsubishi FX connection cable by Pro-face CA3-CBLFX/1M-01 (1m) or CA3-CBLFX/5M-01 (5m) | |

- *1 All GP models except AGP-3302B
- *2 All ST models except AST-3211A
- *3 Only the COM port which can communicate by RS-422/485 (4 wire) can be used.
 - IPC COM Port (page 6)



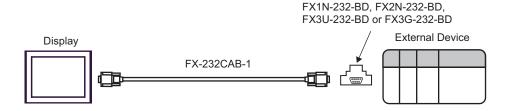
| Display (Connection Port) | Cable | Notes |
|---------------------------------|---|---------------------------------------|
| GP (COM1) ST (COM1) IPC*1 | RS232C communication cable by Mitsubishi Electric Corp. FX-232CAB-1 (3m) + Function extension board by Mitsubishi Electric Corp.*2 FX1N-232-BD, FX2N-232-BD, FX3U-232-BD or FX3G-232-BD | |
| PC/AT | Your own cable + Function extension board by Mitsubishi Electric Corp.*2 FX1N-232-BD, FX2N-232-BD, FX3U-232-BD or FX3G-232-BD | The cable length must be 15m or less. |

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

^{*2} Supported function extension boards vary depending on the model.

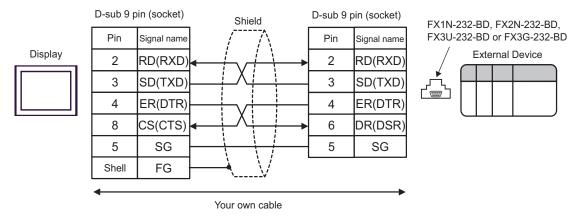
| CPU | Function Extension Board |
|-------------|-----------------------------|
| FX1S, FX1N | FX1N-232-BD |
| FX2N | FX2N-232-BD |
| FX3U, FX3UC | FX3U-232-BD |
| FX3G | FX3G-232-BD |

A) When using the RS232C communication cable by Mitsubishi Electric Corp. (FX-232CAB-1) and the function extension board (FX1N-232-BD, FX2N-232-BD, FX3U-232-BD or FX3G-232-BD) by Mitsubishi Electric Corp.



[■] IPC COM Port (page 6)

B) When using your own cable and the function extension board (FX1N-232-BD, FX2N-232-BD, FX3U-232-BD or FX3G-232-BD) by Mitsubishi Electric Corp.



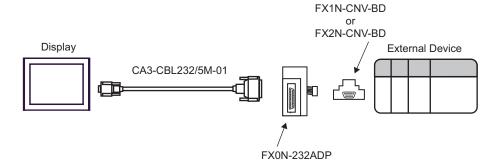
| Display | Cable | Notes |
|--|---|---------------------------------------|
| GP (COM1) ST (COM1) IPC*1 PC/AT | A RS-232C cable by Pro-face CA3-CBL232/5M-01 (5m) + Communication adapter by Mitsubishi Electric Corp. FX0N-232ADP + Function extension board by Mitsubishi Electric Corp.*2 FX1N-CNV-BD or FX2N-CNV-BD | |
| | Your own cable + Communication adapter by Mitsubishi Electric Corp. FX0N-232ADP + Function extension board by Mitsubishi Electric Corp.*2 FX1N-CNV-BD or FX2N-CNV-BD | The cable length must be 15m or less. |

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

^{*2} Supported function extension boards vary depending on the model.

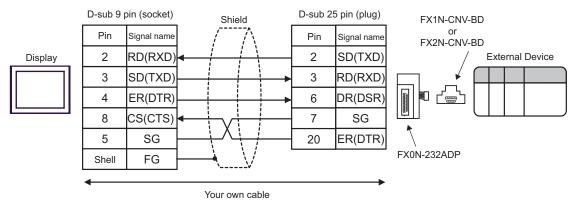
| CPU | Function Extension Board |
|------------|-----------------------------|
| FX1S, FX1N | FX1N-CNV-BD |
| FX2N | FX2N-CNV-BD |

A) When using the RS-232C cable (CA3-CBL232/5M-01) by Pro-face, the communication adapter (FX0N-232ADP) by Mitsubishi Electric Corp. and the function extension board (FX1N-CNV-BD or FX2N-CNV-BD) by Mitsubishi Electric Corp.



[■] IPC COM Port (page 6)

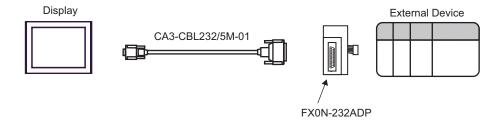
B) When using your own cable, the communication adapter (FX0N-232ADP) by Mitsubishi Electric Corp. and the function extension board (FX1N-CNV-BD or FX2N- CNV-BD) by Mitsubishi Electric Corp.



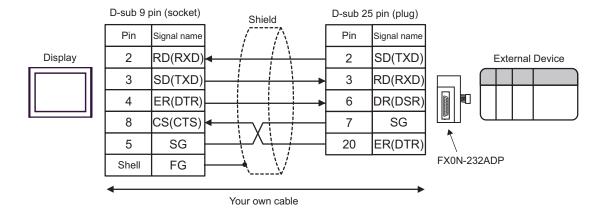
| Display (Connection Port) | | Cable | Notes |
|--|---|--|---------------------------------------|
| GP (COM1) ST (COM1) IPC*1 PC/AT | A | RS-232C cable by Pro-face CA3-CBL232/5M-01 (5m) + Communication adapter by Mitsubishi Electric Corp. FX0N-232ADP | |
| | В | Your own cable + Communication adapter by Mitsubishi Electric Corp. FX0N-232ADP | The cable length must be 15m or less. |

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

A) When using the RS-232C cable by Pro-face (CA3-CBL232/5M-01) and the communication adapter (FX0N-232ADP) by Mitsubishi Electric Corp.



B) When using your own cable and the communication adapter (FX0N-232ADP) by Mitsubishi Electric Corp.



IPC COM Port (page 6)

| Display (Connection Port) | Cable | Notes |
|---|--|-------|
| GP*1 (COM1) AGP-3302B (COM2) ST*2 (COM2) IPC*3 | Mitsubishi FX connection cable by Pro-face CA3-CBLFX/1M-01 (1m) or CA3-CBLFX/5M-01 (5m) + Function extension board by Mitsubishi Electric Corp.*4 FX1N-422-BD, FX2N-422-BD, FX3U-422-BD or FX3G-422-BD | |

- *1 All GP models except AGP-3302B
- *2 All ST models except AST-3211A
- *3 Only the COM port which can communicate by RS-422/485 (4 wire) can be used.
 - IPC COM Port (page 6)
- *4 Supported function extension boards vary depending on the model.

| CPU | Function Extension Board |
|-------------|-----------------------------|
| FX1S, FX1N | FX1N-422-BD |
| FX2N | FX2N-422-BD |
| FX3U, FX3UC | FX3U-422-BD |
| FX3G | FX3G-422-BD |



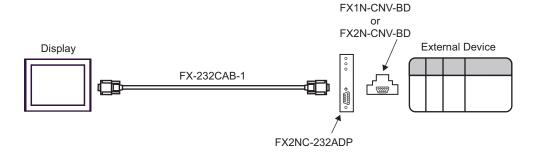
| Display (Connection Port) | Cable | | Notes |
|--|-------|---|---------------------------------------|
| GP (COM1) ST (COM1) IPC*1 PC/AT | A | S232C communication cable by Mitsubishi Electric Corp. FX-232CAB-1 (3m) + Communication adapter by Mitsubishi Electric Corp. FX2NC-232ADP + Function extension board by Mitsubishi Electric Corp. FX1N-CNV-BD or FX2N-CNV-BD | |
| | В | Your own cable + Communication adapter by Mitsubishi Electric Corp. FX2NC-232ADP + Function extension board by Mitsubishi Electric Corp.*2 FX1N-CNV-BD or FX2N-CNV-BD | The cable length must be 15m or less. |

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

^{*2} Supported function extension boards vary depending on the model.

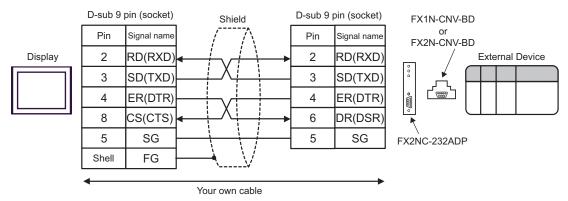
| CPU | Function Extension Board | |
|------------|-----------------------------|--|
| FX1S, FX1N | FX1N-CNV-BD | |
| FX2N | FX2N-CNV-BD | |

A) When using the RS232C communication cable (FX-232CAB-1), the communication adapter (FX2NC-232ADP) by Mitsubishi Electric Corp. and the function extension board (FX1N-CNV-BD or FX2N-CNV-BD) by Mitsubishi Electric Corp.



[■] IPC COM Port (page 6)

B) When using your own cable, the communication adapter (FX2NC-232ADP) by Mitsubishi Electric Corp. and the function extension board (FX1N-CNV-BD or FX2N- CNV-BD) by Mitsubishi Electric Corp.



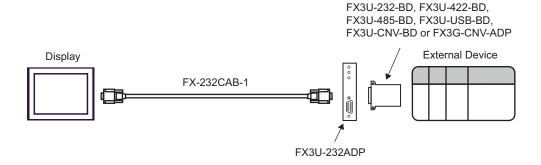
| Display (Connection Port) | Cable | Notes |
|---------------------------------|---|---------------------------------------|
| GP (COM1) ST (COM1) IPC*1 | RS232C communication cable by Mitsubishi Electric Corp. FX-232CAB-1 (3m) + Communication adapter by Mitsubishi Electric Corp. FX3U-232ADP + Function extension board by Mitsubishi Electric Corp.*2 FX3U-232-BD, FX3U-422-BD, FX3U-485-BD, FX3U-USB-BD, FX3U-CNV-BD or FX3G-CNV-ADP | |
| PC/AT | Your own cable + Communication adapter by Mitsubishi Electric Corp. FX3U-232ADP + Function extension board by Mitsubishi Electric Corp.*2 FX3U-232-BD, FX3U-422-BD, FX3U-485-BD, FX3U-USB-BD, FX3U-CNV-BD or FX3G-CNV-ADP | The cable length must be 15m or less. |

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

^{*2} Supported function extension boards vary depending on the model.

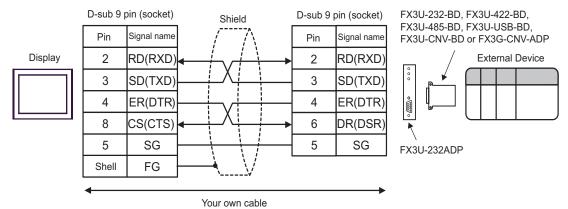
| CPU | Function Extension Board | |
|-------------|---|--|
| FX3U, FX3UC | FX3U-232-BD FX3U-422-BD FX3U-485-BD FX3U-USB-BD FX3U-CNV-BD | |
| FX3G | FX3G-CNV-ADP | |

A) RS232C communication cable (FX-232CAB-1) by Mitsubishi Electric Corp., the communication adapter (FX3U-232ADP) by Mitsubishi Electric Corp. and the function extension board (FX3U-232-BD, FX3U-422-BD, FX3U-485-BD, FX3U-USB-BD, FX3U-CNV-BD or FX3G-CNV-ADP) by Mitsubishi Electric Corp.



[■] IPC COM Port (page 6)

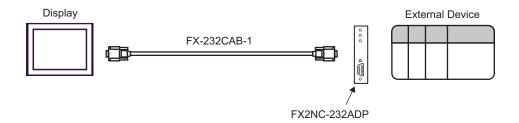
B) When using your own cable, the communication adapter (FX3U-232ADP) by Mitsubishi Electric Corp. and the function extension board (FX3U-232-BD, FX3U-422-BD, FX3U-485-BD, FX3U-USB-BD, FX3U-CNV-BD or FX3G-CNV-ADP) by Mitsubishi Electric Corp.



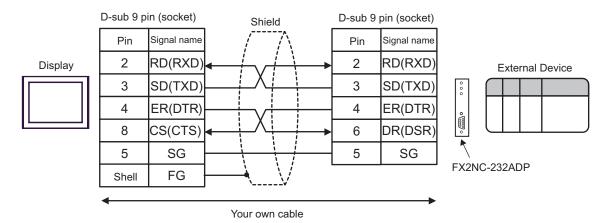
| Display (Connection Port) | Cable | Notes |
|---------------------------------|---|---------------------------------------|
| GP (COM1) ST (COM1) IPC*1 | RS232C communication cable by Mitsubishi Electric Corp. FX-232CAB-1 (3m) + Communication adapter by Mitsubishi Electric Corp. FX2NC-232ADP | |
| PC/AT | B Communication adapter by Mitsubishi Electric Corp. FX2NC-232ADP | The cable length must be 15m or less. |

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

A) When using the RS232C communication cable (FX-232CAB-1) by Mitsubishi Electric Corp. and the communication adapter (FX2NC-232ADP) by Mitsubishi Electric Corp.



B) When using your own cable and the communication adapter (FX2NC-232ADP) by Mitsubishi Electric Corp.



[■] IPC COM Port (page 6)

| Display (Connection Port) | Cable | Notes |
|---|--|--|
| GP*1 (COM1) AGP-3302B (COM2) ST*2 (COM2) IPC*3 | 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 + Connector conversion cable by Mitsubishi Electric Corp.*4 FX-20P-CADP (0.3m) | |
| | Your own cable + 2-port adapter II by Pro-face GP070-MD11 + Connector conversion cable by Mitsubishi Electric Corp.*4 FX-20P-CADP (0.3m) | The cable length must be 600m or less. |
| GP*5 (COM2) | 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 + Connector conversion cable by Mitsubishi Electric Corp.*4 FX-20P-CADP (0.3m) | |
| | Online adapter by Pro-face CA4-ADPONL-01 + Your own cable + 2-port adapter II by Pro-face GP070-MD11 + Connector conversion cable by Mitsubishi Electric Corp.*4 FX-20P-CADP (0.3m) | The cable length must be 600m or less. |

^{*1} All GP models except AGP-3302B

^{*2} All ST models except AST-3211A

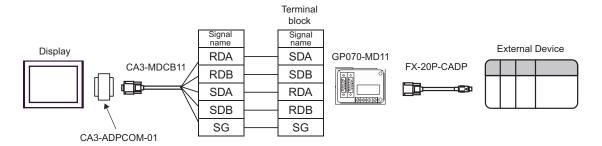
^{*3} Only the COM port which can communicate by RS-422/485 (4 wire) can be used.

[■] IPC COM Port (page 6)

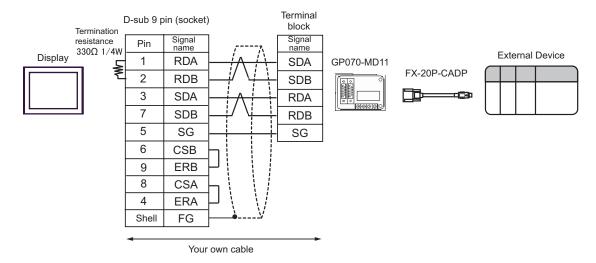
^{*4} For FX2, the connector conversion cable (FX-20P-CADP) by Mitsubishi Electric Corp. is not necessary.

^{*5} All GP models except GP-3200 series and AGP-3302B

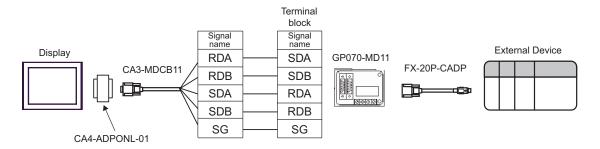
A) When using the COM port conversion adapter (CA3-ADPCOM-01) by Pro-face, the 2-port adapter cable for AGP (CA3-MDCB11) by Pro-face, the 2-port adapter II (GP070-MD11) by Pro-face, and the connector conversion cable (FX-20P-CADP) by Mitsubishi Electric Corp.



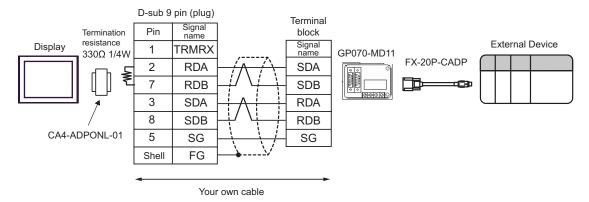
B) When using your own cable, the 2-port adapter II (GP070-MD11) by Pro-face and the connector conversion cable (FX-20P-CADP) by Mitsubishi Electric Corp.



C) When using the online adapter (CA4-ADPONL-01) by Pro-face, the 2-port adapter cable for AGP (CA3-MDCB11) by Pro-face, the 2-port adapter II (GP070-MD11) by Pro-face, and the connector conversion cable (FX-20P-CADP) by Mitsubishi Electric Corp.



D) When using the online adapter (CA4-ADPONL-01) by Pro-face, your own cable, the 2-port adapter II (GP070-MD11) by Pro-face, and the connector conversion cable (FX-20P-CADP) by Mitsubishi Electric Corp.



| Display (Connection Port) | Cable | Notes |
|---|---|--|
| GP*1 (COM1) AGP-3302B (COM2) ST*2 (COM2) IPC*3 | 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 + Connector conversion cable by Mitsubishi Electric Corp. FX-20P-CADP (0.3m) + Function extension board by Mitsubishi Electric Corp. FX1N-422-BD, FX2N-422-BD, FX3U-422-BD or FX3G-422-BD | |
| | Your own cable + 2-port adapter II by Pro-face GP070-MD11 + B Connector conversion cable by Mitsubishi Electric Corp. FX-20P-CADP (0.3m) + Function extension board by Mitsubishi Electric Corp. *4 FX1N-422-BD, FX2N-422-BD, FX3U-422-BD or FX3G-422-BD | The cable length must be 600m or less. |

continued to next page

| Display (Connection Port) | Cable | Notes |
|------------------------------|--|--|
| GP*5 (COM2) | 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 + Connector conversion cable by Mitsubishi Electric Corp. FX-20P-CADP (0.3m) + Function extension board by Mitsubishi Electric Corp. FX1N-422-BD, FX2N-422-BD, FX3U-422-BD or FX3G-422-BD | |
| | Online adapter by Pro-face CA4-ADPONL-01 + Your own cable + 2-port adapter II by Pro-face GP070-MD11 + Connector conversion cable by Mitsubishi Electric Corp. FX-20P-CADP (0.3m) + Function extension board by Mitsubishi Electric Corp. *4 FX1N-422-BD, FX2N-422-BD, FX3U-422-BD or FX3G-422-BD | The cable length must be 600m or less. |

^{*1} All GP models except AGP-3302B

^{*4} Supported function extension boards vary depending on the model.

| CPU | Function Extension Board |
|-------------|-----------------------------|
| FX1S, FX1N | FX1N-422-BD |
| FX2N | FX2N-422-BD |
| FX3U, FX3UC | FX3U-422-BD |
| FX3G | FX3G-422-BD |

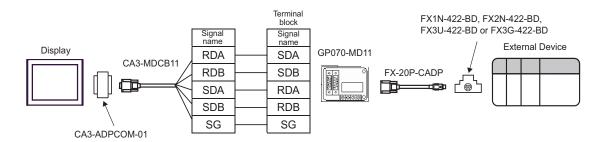
^{*5} All GP models except GP-3200 series and AGP-3302B

^{*2} All ST models except AST-3211A

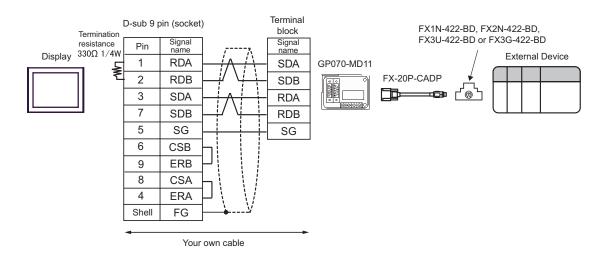
^{*3} Only the COM port which can communicate by RS-422/485 (4 wire) can be used.

IPC COM Port (page 6)

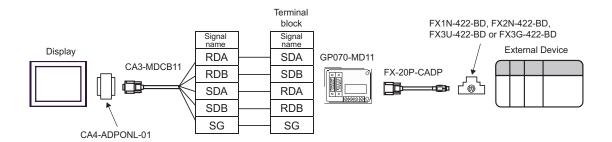
A) When using the COM port conversion adapter (CA3-ADPCOM-01) by Pro-face, the 2-port adapter cable for AGP (CA3-MDCB11) by Pro-face, the 2-port adapter II (GP070-MD11) by Pro-face, the connector conversion cable (FX-20P-CADP) by Mitsubishi Electric Corp. and the function extension board (FX1N-422-BD, FX2N-422-BD, FX3U-422-BD or FX3G-422-BD) by Mitsubishi Electric Corp.



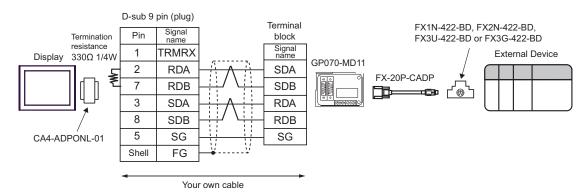
B) When using your own cable, the 2-port adapter II (GP070-MD11) by Pro-face, the connector conversion cable (FX-20P-CADP) by Mitsubishi Electric Corp., and the function extension board (FX1N-422-BD, FX2N-422-BD, FX3U-422-BD or FX3G-422-BD) by Mitsubishi Electric Corp.



C) When using the online adapter (CA4-ADPONL-01) by Pro-face, the 2-port adapter cable for AGP (CA3-MDCB11) by Pro-face, the 2-port adapter II (GP070-MD11) by Pro-face, the connector conversion cable (FX-20P-CADP) by Mitsubishi Electric Corp. and the function extension board (FX1N-422-BD, FX2N-422-BD, FX3U-422-BD or FX3G-422-BD) by Mitsubishi Electric Corp.



D) When using the online adapter (CA4-ADPONL-01) by Pro-face, your own cable, the 2-port adapter II (GP070-MD11) by Pro-face, the connector conversion cable (FX-20P-CADP) by Mitsubishi Electric Corp. and the function extension board (FX1N-422-BD, FX2N-422-BD, FX3U-422-BD or FX3G-422-BD) by Mitsubishi Electric Corp.



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 connecting equipment.

6.1 When using FX1

This address can be specified as system data area.

| Device | Bit Address | Word Address | 32bits | Notes |
|----------------------------|--------------------------------|---------------|--------|---------------------|
| Input Relay | X000 - X167 | X000 - X160 | | <u>○○↑</u> 8] *1 *2 |
| Output Relay | Y000 - Y167 | Y000 - Y160 | | <u>○○⊤</u> 8] *2 |
| Internal Relay | M0000 - M1023 | M0000 - M1008 | | <u>÷16</u> 1 |
| Special Auxiliary Relay | M8000 - M8255 | M8000 - M8240 | | ÷16) *3 |
| State | S0000 - S0999 | S0000 - S0992 | | ÷16) |
| Timer (Contact) | TS000 - TS245 | | [L/H] | |
| Counter (Contact) | CS000 - CS135 CS200 - CS255 | | | |
| Timer (Current Value) | | TN000 - TN245 | | |
| Counter (Current Value) | | CN000 - CN135 | | |
| Counter (Current Value) | | CN235 - CN255 | | *4 |
| Data Register | | D000 - D127 | | _{B:+} F] |
| Special Data Register | | D8000 - D8069 | | B:+F] *3 |

^{*1} Includes an area in which you cannot write.

^{*4 32-}bit device.



- Please refer to the GP-Pro EX Reference Manual for system data area.
 - Cf. GP-Pro EX Reference Manual "Appendix 1.4 LS Area (Direct Access Method)"
- Please refer to the precautions on manual notation for icons in the table.

^{*2} Specify word address only for the divisible value by 20oct. (Example: X0, X20, X40..., X160)

^{*3} Special area. This area may be used by the system, and includes an area in which you cannot write. Please refer to the manual attached to the External Device for more detail.

[&]quot;Manual Symbols and Terminology"

6.2 When using FX2, FX2C, FX0N, FX0S

This address can be specified as system data area.

| Device | Bit Address | Word Address | 32bits | Notes |
|----------------------------|---------------|---------------|------------|--------------------------|
| Input Relay | X000 - X337 | X000 - X320 | | <u>○○↑</u> 8] *1 *2 |
| Output Relay | Y000 - Y337 | Y000 - Y320 | | <u>ост</u> 8] *2 |
| Internal Relay | M0000 - M1535 | M0000 - M1520 | | <u>÷16</u>) |
| Special Auxiliary Relay | M8000 - M8255 | M8000 - M8240 | | ÷16) *3 |
| State | S0000 - S0999 | S0000 - S0992 | | <u>÷16</u>) |
| Timer (Contact) | TS000 - TS245 | | _ - | |
| Counter (Contact) | CS000 - CS255 | | | |
| Timer (Current Value) | | TN000 - TN255 | | |
| Counter (Current Value) | | CN000 - CN199 | | |
| Counter (Current Value) | | CN200 - CN255 | | *4 |
| Data Register | | D0000 - D2999 | | Bit F) *5 |
| Special Data Register | | D8000 - D8255 | ĺ | B : + F) *3 |

^{*1} Includes an area in which you cannot write.

To use this area in FX0N, you need set it as file register. Please refer to the manual attached to the External Device for more detail.



- Please refer to the GP-Pro EX Reference Manual for system data area.
 - Cf. GP-Pro EX Reference Manual "Appendix 1.4 LS Area (Direct Access Method)"
- Please refer to the precautions on manual notation for icons in the table.
 - "Manual Symbols and Terminology"

^{*2} Specify word address only for the divisible value by 20oct. (Example: X0, X20, X40..., X320)

^{*3} Special area. This area may be used by the system, and includes an area in which you cannot write. Please refer to the manual attached to the External Device for more detail.

^{*4 32-}bit device.

^{*5} D1000-D2499 in FX0N is the file register.

6.3 When using FX1S

This address can be specified as system data area.

| Device | Bit Address | Word Address | 32bits | Notes |
|----------------------------|--------------------------------|--------------------------------|--------|-----------------------------|
| Input Relay | X000 - X017 | X000 - X000 | | <u>ост</u> 8] *1 *2 |
| Output Relay | Y000 - Y015 | Y000 - Y000 | | <u>ост</u> 8] *2 |
| Internal Relay | M0000 - M0511 | M0000 - M0496 | | <u>÷16</u>) |
| Special Auxiliary Relay | M8000 - M8255 | M8000 - M8240 | | ÷16) *3 |
| State | S0000 - S0127 | S0000 - S0112 | | ÷16ì |
| Timer (Contact) | TS000 - TS063 | | | |
| Counter (Contact) | CS000 - CS031 CS235 - CS255 | | | |
| Timer (Current Value) | | TN000 - TN063 | | |
| Counter (Current Value) | | CN000 - CN031 | | |
| Counter (Current Value) | | CN235 - CN255 | | *4 |
| Data Register | | D0000 - D0255 D1000 - D2499 | | <u>■ : +</u> F) *5 |
| Special Data Register | | D8000 - D8255 | | _{в і т} F) *3 |

^{*1} Includes an area in which you cannot write.

*5 D1000-D2499 in FX1S is the file register.

To use this area in FX1S, you need set it as file register. Please refer to the manual attached to the External Device for more detail.



- Please refer to the GP-Pro EX Reference Manual for system data area.
 - Cf. GP-Pro EX Reference Manual "Appendix 1.4 LS Area (Direct Access Method)"
- Please refer to the precautions on manual notation for icons in the table.
 - "Manual Symbols and Terminology"

^{*2} Specify word address only for the divisible value by 20oct. (Example: X0)

^{*3} Special area. This area may be used by the system, and includes an area in which you cannot write. Please refer to the manual attached to the External Device for more detail.

^{*4 32-}bit device.

6.4 When using FX1N, FX1NC

This address can be specified as system data area.

| Device | Bit Address | Word Address | 32bits | Notes |
|----------------------------|---------------|---------------|--------|---------------------|
| Input Relay | X000 - X177 | X000 - X160 | | <u>○CT</u> 8] *1 *2 |
| Output Relay | Y000 - Y177 | Y000 - Y160 | | <u>○○⊤</u> 8] *2 |
| Internal Relay | M0000 - M1535 | M0000 - M1520 | | <u>÷16</u>] |
| Special Auxiliary Relay | M8000 - M8255 | M8000 - M8240 | | ÷16) *3 |
| State | S000 - S999 | S000 - S992 | | <u>÷16</u>] |
| Timer (Contact) | TS000 - TS255 | | | |
| Counter (Contact) | CS000 - CS255 | | | |
| Timer (Current Value) | | TN000 - TN255 | | |
| Counter (Current Value) | | CN000 - CN199 | | |
| Counter (Current Value) | | CN200 - CN255 | | *4 |
| Data Register | | D0000 - D7999 |] | Bit F) *5 |
| Special Data Register | | D8000 - D8255 | | (B) *3 |

^{*1} Includes an area in which you cannot write.

^{*5} You cannot use the data register D7999 as the 32-bit address device. This is because D8000 which is HIGH of the 32-bit device is handled as a different device.



- Please refer to the GP-Pro EX Reference Manual for system data area.
 - Cf. GP-Pro EX Reference Manual "Appendix 1.4 LS Area (Direct Access Method)"
- Please refer to the precautions on manual notation for icons in the table.
 - "Manual Symbols and Terminology"

^{*2} Specify word address only for the divisible value by 20oct. (Example: X0, X20, X40..., X160)

^{*3} Special area. This area may be used by the system, and includes an area in which you cannot write. Please refer to the manual attached to the External Device for more detail.

^{*4 32-}bit device.

6.5 When using FX2N, FX2NC

This address can be specified as system data area.

| Device | Bit Address | Word Address | 32bits | Notes |
|----------------------------|---------------|---------------|--------|----------------------|
| Input Relay | X000 -X377 | X0000 - X0360 | | <u>○○▼</u> 8] *1 *2 |
| Output Relay | Y000 - Y377 | Y0000 - Y0360 | | <u>○○▼</u> 8] *2 |
| Internal Relay | M0000 - M3071 | M0000 - M3056 | | <u>÷16</u>] |
| Special Auxiliary Relay | M8000 - M8255 | M8000 - M8240 | | ÷ 16) *3 |
| State | S000 - S999 | S000 - S992 | | <u>÷16</u>] |
| Timer (Contact) | TS000 - TS255 | | | |
| Counter (Contact) | CS000 - CS255 | | | |
| Timer (Current Value) | | TN000 - TN255 | | |
| Counter (Current Value) | | CN000 - CN199 | | |
| Counter (Current Value) | | CN200 - CN255 | | *4 |
| Data Register | | D0000 - D7999 | | <u>Bi +</u> F) *5 |
| Special Data Register | | D8000 - D8255 | | _{Віт} F) *3 |

^{*1} Includes an area in which you cannot write.

*5 You cannot use the data register D7999 as the 32-bit address device. This is because D8000 which is HIGH of the 32-bit device is handled as a different device.



- Please refer to the GP-Pro EX Reference Manual for system data area.
 - Cf. GP-Pro EX Reference Manual "Appendix 1.4 LS Area (Direct Access Method)"
- Please refer to the precautions on manual notation for icons in the table.
 - "Manual Symbols and Terminology"

^{*2} Specify word address only for the divisible value by 20oct. (Example: X0, X20, X40..., X360)

^{*3} Special area. This area may be used by the system, and includes an area in which you cannot write. Please refer to the manual attached to the External Device for more detail.

^{*4 32-}bit device.

6.6 When using FX3U, FX3UC

This address can be specified as system data area.

| Device | Bit Address | Word Address | 32bits | Notes |
|----------------------------|---------------|-----------------|--------|--------------------------|
| Input Relay | X000 - X377 | X0000 - X0360 | L/H | <u>○c⊤</u> 8] *1 *2 |
| Output Relay | Y000 - Y377 | Y0000 - Y0360 | | <u>ост</u> 8] *2 |
| Internal Relay | M0000 - M7679 | M0000 - M7664 | | ÷16) |
| Special Auxiliary Relay | M8000 - M8511 | M8000 - M8496 | | ÷16) *3 |
| State | S0000 - S4095 | S0000 - S4080 | | ÷16) |
| Timer (Contact) | TS000 - TS511 | | | |
| Counter (Contact) | CS000 -CS255 | | | |
| Timer (Current Value) | | TN000 - TN511 | | |
| Counter (Current Value) | | CN000 - CN199 | | |
| Counter (Current Value) | | CN200 - CN255 | | *4 |
| Data Register | | D0000 -D7999 | | B: + F) *5 |
| Special Data Register | | D8000 - D8511 | | <u>₿;</u> † F] *3 |
| Extension Register | | R00000 - R32767 | | B : t F) *3 |

^{*1} Includes an area in which you cannot write.

^{*5} You cannot use the data register D7999 as the 32-bit address device. This is because D8000 which is HIGH of the 32-bit device is handled as a different device.



- Please refer to the GP-Pro EX Reference Manual for system data area.
 - Cf. GP-Pro EX Reference Manual "Appendix 1.4 LS Area (Direct Access Method)"
- Please refer to the precautions on manual notation for icons in the table.
 - "Manual Symbols and Terminology"

^{*2} Specify word address only for the divisible value by 20oct. (Example: X0, X20, X40..., X360)

^{*3} Special area. This area may be used by the system, and includes an area in which you cannot write. Please refer to the manual attached to the External Device for more detail.

^{*4 32-}bit device.

6.7 When using FX3G

This address can be specified as system data area.

| Device | Bit Address | Word Address | 32bits | Notes |
|----------------------------|---------------|-----------------|--------|------------------------------------|
| Input Relay | X000 - X177 | X0000 - X0160 | [L/H] | <u>○○⊤</u> 8] *1 *2 |
| Output Relay | Y000 - Y177 | Y0000 - Y0160 | | <u>○○⊤</u> 8] *2 |
| Internal Relay | M0000 - M7679 | M0000 - M7664 | | <u>÷16</u>] |
| Special Auxiliary Relay | M8000 - M8511 | M8000 - M8496 | | ÷16) *3 |
| State | S0000 - S4095 | S0000 - S4080 | | <u>÷16</u>) |
| Timer (Contact) | TS000 - TS319 | | | |
| Counter (Contact) | CS000 -CS255 | | | |
| Timer (Current Value) | | TN000 - TN319 | | |
| Counter (Current Value) | | CN000 - CN199 | | |
| Counter (Current Value) | | CN200 - CN255 | | *4 |
| Data Register | | D0000 -D7999 | | Bit F) *5 |
| Special Data Register | | D8000 - D8511 | | _{В і т} F ₁ *3 |
| Extension Register | | R00000 - R23999 | | B i t F) *3 |

^{*1} Includes an area in which you cannot write.

^{*5} You cannot use the data register D7999 as the 32-bit address device. This is because D8000 which is HIGH of the 32-bit device is handled as a different device.



- Please refer to the GP-Pro EX Reference Manual for system data area.
 - Cf. GP-Pro EX Reference Manual "Appendix 1.4 LS Area (Direct Access Method)"
- Please refer to the precautions on manual notation for icons in the table.
 - "Manual Symbols and Terminology"

^{*2} Specify word address only for the divisible value by 20oct. (Example: X0, X20, X40..., X160)

^{*3} Special area. This area may be used by the system, and includes an area in which you cannot write. Please refer to the manual attached to the External Device for more detail.

^{*4 32-}bit device.

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 |
|----------------------------|-------------|----------------------|---------------------------------------|
| 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 Auxiliary Relay | M8 | 0083 | Value of word address divided by 16 |
| State | S | 0087 | Word Address |
| Timer (Current Value) | TN | 0060 | Word Address |
| Counter (Current Value) | CN | 0061 | Word Address |
| Counter (Current Value) *1 | CN | 0062 | Word Address |
| Data Register | D | 0000 | Word Address |
| Special Data Register | D8 | 0001 | Word Address |
| Extension Register*2 | R | 000F | Word Address |

^{*1 32-}bit device.

^{*2} Supported only by FX3U, FX3UC and FX3G.

8 Error Messages

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

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

Display Examples of Error Messages

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



• Refer to "When an error is displayed (Error Code List)" in "Maintenance/Troubleshooting Manual" for details on the error messages common to the driver.