Mitsubishi Electric Corp.

A Series Ethernet Driver

1	System Configuration	3
2	Selection of External Device	5
3	Example of Communication Setting	6
4	Setup Items	19
5	Supported Device	23
6	Device Code and Address Code	25
7	Error Messages	

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 This section shows the types of External Devices which can be connected and SIO type.	"1 System Configuration" (page 3)
2	Selection of External Device Select a model (series) of the External Device to be connected and connection method.	"2 Selection of External Device" (page 5)
3	Example of Communication Settings This section shows setting examples for communicating between the display and the External Device.	"3 Example of Communication Setting" (page 6)
4	Setup Items This section describes communication setup items on the display. Set communication settings of the display with GP-Pro Ex or in off-line mode.	^{ভেল} "4 Setup Items" (page 19)
	Operation	

1 System Configuration

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

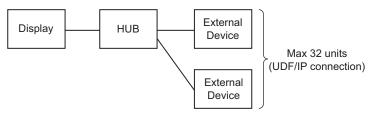
Series	CPU	Link I/F	SIO Type	Setting Example
	A0J2H A2A A2A-S1 A3A A2U	AJ71E71	Ethernet (UDP)	Setting Example 1 (page 6)
			Ethernet (TCP)	Setting Example 2 (page 10)
	A2U-S1 A3U A4U	A 171E71 62	Ethernet (UDP)	Setting Example 1 (page 6)
	A1N A2N	AJ71E71-S3	Ethernet (TCP)	Setting Example 2 (page 10)
	A2US	2US-S1 A1SJ71E71-B2 1S 1S 1S 1S 1S-C24 1SJ 2S A1SJ71E71-B5 2US A1SJ71E71-B5 2US-S1 A1SJ71E71-B2-S3 2USH-S1 1SJ 1SJ 2SJH 1SH 2SH	Ethernet (UDP)	Setting Example 3 (page 13)
MELSEC A	A2US-S1 A1S		Ethernet (TCP)	Setting Example 4 (page 16)
Series	A1SJ A2S		Ethernet (UDP)	Setting Example 3 (page 13)
	A2S-S1		Ethernet (TCP)	Setting Example 4 (page 16)
	A2US A2US-S1		Ethernet (UDP)	Setting Example 3 (page 13)
	A2USH-S1 A1SJ A2SJH A1SH A2SH		Ethernet (TCP)	Setting Example 4 (page 16)
			Ethernet (UDP)	Setting Example 3 (page 13)
		11911111111	Ethernet (TCP)	Setting Example 4 (page 16)

Connection Configuration

• 1:1 Connection

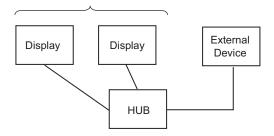


• 1:n Connection



• n:1 Connection

Max 8 units



2 Selection of External Device

Select the External Device to be connected to the display.

New Proje	ect File
	.c
Maker	Mitsubishi Electric Corporation
Driver	A Series Ethernet
🗖 Use S	System Area Refer to the manual of this Device/PLC
Connection	n Method
Port	Ethernet (UDP)
	Go to Device/PLC Manual
Back	Communication Detail Settings New Screen Cancel

Setup Items	Setup Description
Maker	Select the maker of the External Device to be connected. Select "Mitsubishi Electric Corp.".
Driver	Select a model (series) of the External Device to be connected and connection method. Select "A Series Ethernet". Check the External Device which can be connected in "A Series Ethernet" in system configuration.
Use System Area	 Check this option when you synchronize the system data area of the Display and the device (memory) of the External Device. When they are synchronized, you can use the ladder program of the External Device to change screens or to pop up a window on the Display. Cf. GP Pro-EX Reference Manual "Appendix 1.4 LS Area (Direct Access Method)" This can also be set with GP Pro-EX or in the Display off-line mode. Cf. GP Pro-EX Reference Manual " 5.17.6 Setting Guide of [System Setting Window]■[Main Unit Settings] Settings Guide ♦ System Area Setting" Cf. Maintenance/Troubleshooting "2.15.1 Settings common to all Display models ♦ 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.

When using MELSEC A 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/PLC 1		
Summary		Change Device/PLC
Maker Mitsubishi Electric Corporation	Series A Series Ethernet	Port Ethernet (UDP)
Text Data Mode 2 Change		
Communication Settings		
Port No. 1024		
Timeout β 🔆 (sec)		
Retry 2		
Wait To Send 🛛 🧮 (ms)	Default	
Device-Specific Settings		
Allowable No. of Device/PLCs 32 Unit(s) 🔢		
	Settings	
👗 1 PLC1	IP Address=000.000.000.000,Port No.=1024,F	'C No.=255

Device Setting

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

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

💰 Individual Device Settings					×
PLC1					
IP Address	0. 0.	0.	0	1	
Port No.	1024 🕂]			
PC No.	255 🕂]		Default	
	OK	(0)		Cancel	

- 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.
- Limitations when you use UDP/IP to access the multiple PLCs via network are shown below.
 - When you set the retry frequency to zero, the error message of "Response timed out for initial communication command" is displayed at startup.
 - At startup, you cannot read the device data until timeout time elapses once.

Setting of External Device

To communicate MELSEC-A Series (Ethernet Interface Unit) with the display, you need to set the ladder program of the External Device and the DIP switch of the Ethernet Interface Unit. Settings of the sample ladder program and the DIP switch are shown below.

Example of Ladder Program

M9038	
Hxxxxxxx D100	: IP address of External Device ^{*1}
K0 D102	
H0100 D116	: Connecting method (UDP)
K1024 D124	: Port No. of External Device (in case of entering "1024" for
	example)
K1024 D127	: Port No. of display (in case of entering "1024" for example)
Hxxxxxxx D125	: IP address of display ^{*1}
HFFFFFFFF D128	
HFFFF D130	
M9036	
H0000 H0000 D100 K50	
X19	
K5 D113	
H0000 K13 D113 K1	
M9036	
Y0019	
M9036	
Y0008	
	Hxxxxxxx D100 K0 D102 H0100 D116 K1024 D124 K1024 D127 Hxxxxxxx D125 HFFFFFFF D128 HFFFF D130 M9036 H0000 H0000 D100 K50 X19 K5 D113 H0000 K13 D113 K1 M9036 Y0019 M9036

*1: xxxxxxx shows IP address (in Hex). Check with a network administrator about IP address. Do not set the duplicate IP address.

IMPORTANT	• Do not repeat the address used for communication settings on the External Device (D100 or higher in case of above) for the system area head address on the display for setting.

♦ Settings of Interface Unit

Mode Setting Switch

Settings		Setup Description
0	On-line	

Communication Condition Setting Switch

DIP Switch	Settings	Setup Description
SW1	OFF	Selection of line processing at TCP timeout error
SW2	OFF	Data Code Setting
SW3	OFF	Disable (Fixed to OFF)
SW4	OFF	Disable (Fixed to OFF)
SW5	OFF	Disable (Fixed to OFF)
SW6	OFF	Disable (Fixed to OFF)
SW7	ON	CPU Communication Timing Settings
SW8	OFF	Initial Timing Settings

- Check with a network administrator about IP address. Do not set the duplicate IP address.
- Always turn OFF (binary code) the data code switch of the External Device.
- When you write from the display during operation of the External Device, set to write enable.

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/PLC1		
Summary		Change Device/PLC
Maker Mitsubishi Electric Corporation	Series A Series Ethernet	Port Ethernet (TCP)
Text Data Mode 2 Change		
Communication Settings		
Port No. 🛛 🔂 🔁 Auto)	
Timeout β 🚊 (sec)		
Retry 0		
Wait To Send 🛛 🧮 (ms)	Default	
Device-Specific Settings		
Allowable No. of Device/PLCs 16 Unit(s)		
No. Device Name S	iettings IP Address=000.000.000.000,Port No.=1024,F	PC No.=255

Device Setting

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

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

💣 Individual Device Settings				×		
PLC1						
IP Address	0.	0.	0.	0	1	
Port No.	1024	÷				
PC No.	255	*			Default	
		0K (<u>0</u>)		Cancel	

- 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

To communicate MELSEC-A Series (Ethernet Interface Unit) with the display, you need to set the ladder program of the External Device and the DIP switch of the Ethernet Interface Unit. Settings of the sample ladder program and the DIP switch are shown below.

Example of Ladder Program

M9038	
Hxxxxxxx D100	: IP address of External Device ^{*1}
K0 D102	
H8000 D116	: Connecting method (TCP)
K1024 D124	: Port No. of External Device (in case of entering "1024" for
	example)
Hxxxxxxx D125	: IP address of display ^{*1}
HFFFFFFFF D128	
HFFFF D130	
M9036	
H0000 H0000 D100 K50	
X19	
K5 D113	
H0000 K13 D113 K1	
M9036	
Y0019	
M9036	
Y0008	
	Hxxxxxxx D100 K0 D102 H8000 D116 K1024 D124 Hxxxxxxx D125 HFFFFFFF D128 HFFFF D130 M9036 H0000 H0000 D100 K50 X19 K5 D113 H0000 K13 D113 K1 M9036 Y0019 M9036

*1: xxxxxxx shows IP address (in Hex). Check with a network administrator about IP address. Do not set the duplicate IP address.

IMPORTANT •	Do not repeat the address used for communication settings on the External Device (D100 or higher in case of above) for the system area head address on the display for setting
	for setting.

♦ Settings of Interface Unit

Mode Setting Switch

Settings		Setup Description
0	On-line	

Communication Condition Setting Switch

DIP Switch	Settings	Setup Description
SW1	OFF	Selection of line processing at TCP timeout error
SW2	OFF	Data Code Setting
SW3	OFF	Disable (Fixed to OFF)
SW4	OFF	Disable (Fixed to OFF)
SW5	OFF	Disable (Fixed to OFF)
SW6	OFF	Disable (Fixed to OFF)
SW7	ON	CPU Communication Timing Settings
SW8	OFF	Initial Timing Settings

- Check with a network administrator about IP address. Do not set the duplicate IP address.
- Always turn OFF (binary code) the data code switch of the External Device.
- When you write from the display during operation of the External Device, set to write enable.

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/PLC1		
Summary		Change Device/PLC
Maker Mitsubishi Electric Corporation	Series A Series Ethernet	Port Ethernet (UDP)
Text Data Mode 2 <u>Change</u>		
Communication Settings		
Port No. 1024		
Timeout 3 🚊 (sec)		
Retry 2		
Wait To Send 🛛 📋 (ms)	Default	
Device-Specific Settings		
Allowable No. of Device/PLCs 32 Unit(s) 📷		
	Settings	
👗 1 PLC1 📗	IP Address=000.000.000.000,Port No.=1024,F	°C No.=255

Device Setting

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

When you connect multipleExternal Device, click if 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.	1024 📫		
PC No.	255 🚦	Default	
	OK (<u>O</u>)	Cancel	

- 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.
- Limitations when you use UDP/IP to access the multiple PLCs via network are shown below.
 - When you set the retry frequency to zero, the error message of "Response timed out for initial communication command" is displayed at startup.
 - At startup, you cannot read the device data until timeout time elapses once.

Setting of External Device

To communicate MELSEC-A Series (Ethernet Interface Unit) with the display, you need to set the ladder program of the External Device and the DIP switch of the Ethernet Interface Unit. Settings of the sample ladder program and the DIP switch are shown below.

Example of Ladder Program

LD	M9038	
DMOVP	Hxxxxxxx D100	: IP address of External Device ^{*1}
MOVP	K0 D102	
MOV	H0100 D116	: Connecting method (UDP)
MOV	K1024 D124	: Port No. of External Device (in case of entering "1024" for
		example)
MOV	K1024 D127	: Port No. of display (in case of entering "1024" for example)
DMOV	Hxxxxxxx D125	: IP address of display ^{*1}
DMOV	HFFFFFFFF D128	
MOV	HFFFF D130	
LD	M9036	
TOP	H0000 H0000 D100 K50	
LD	X19	
MOV	K5 D113	
TOP	H0000 K13 D113 K1	
LD	M9036	
OUT	Y0019	
LD	M9036	
OUT	Y0008	
END		

*1: xxxxxxx shows IP address (in Hex). Check with a network administrator about IP address. Do not set the duplicate IP address.

IMPORTANT •	Do not repeat the address used for communication settings on the External Device (D100 or higher in case of above) for the system area head address on the display
	for setting.

♦ Settings of Interface Unit

Mode Setting Switch

Settings		Setup Description
0	On-line	

Communication Condition Setting Switch

DIP Switch	Settings	Setup Description
SW1	OFF	Selection of line processing at TCP timeout error
SW2	OFF	Data Code Setting
SW3	ON	CPU Communication Timing Settings
SW4	OFF	Initial Timing Settings

- Check with a network administrator about IP address. Do not set the duplicate IP address.
- Always turn OFF (binary code) the data code switch of the External Device.
- When you write from the display during operation of the External Device, set to write enable.

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/PLC 1		
Summary		Change Device/PLC
Maker Mitsubishi Electric Corporation	Series A Series Ethernet	Port Ethernet (TCP)
Text Data Mode 2 Change		
Communication Settings		
Port No. 🕺 🔁 Auto	1	
Timeout 3 🚊 (sec)		
Retry 0		
Wait To Send 🛛 🧮 (ms)	Default	
Device-Specific Settings		
Allowable No. of Device/PLCs 16 Unit(s)		
No. Device Name S	ettings IP Address=000.000.000.000,Port No.=1024,F	°C No.=255

Device Setting

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

When you connect multipleExternal Device, click if 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.	1024	÷			
PC No.	255	÷		Default	
	0	K (<u>D)</u>		Cancel	

- 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

To communicate MELSEC-A Series (Ethernet Interface Unit) with the display, you need to set the ladder program of the External Device and the DIP switch of the Ethernet Interface Unit. Settings of the sample ladder program and the DIP switch are shown below.

Example of Ladder Program

M9038	
Hxxxxxxx D100	: IP address of External Device ^{*1}
K0 D102	
H8000 D116	: Connecting method (TCP)
K1024 D124	: Port No. of External Device (in case of entering "1024" for
	example)
Hxxxxxxx D125	: IP address of display ^{*1}
HFFFFFFFF D128	
HFFFF D130	
M9036	
H0000 H0000 D100 K50	
X19	
K5 D113	
H0000 K13 D113 K1	
M9036	
Y0019	
M9036	
Y0008	
	Hxxxxxxx D100 K0 D102 H8000 D116 K1024 D124 Hxxxxxxx D125 HFFFFFFFF D128 HFFFF D130 M9036 H0000 H0000 D100 K50 X19 K5 D113 H0000 K13 D113 K1 M9036 Y0019 M9036

*1: xxxxxxx shows IP address (in Hex). Check with a network administrator about IP address. Do not set the duplicate IP address.

IMPORTANT	• Do not repeat the address used for communication settings on the External Device (D100 or higher in case of above) for the system area head address on the display
	for setting.

♦ Settings of Interface Unit

Mode Setting Switch

Settings		Setup Description
0	On-line	

Communication Condition Setting Switch

DIP Switch	Settings	Setup Description
SW1	OFF	Selection of line processing at TCP timeout error
SW2	OFF	Data Code Setting
SW3	ON	CPU Communication Timing Settings
SW4	OFF	Initial Timing Settings

- Check with a network administrator about IP address. Do not set the duplicate IP address.
- Always turn OFF (binary code) the data code switch of the External Device.
- When you write from the display during operation of the External Device, set to write enable.

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)

NOTE • Set the Display's IP address in off-line mode.

Cf. Maintenance/Troubleshooting Manual "2.5 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.

Device/PLC1		
Summary		Change Device/PLC
Maker Mitsubishi Electric Corporation	Series A Series Ethernet	Port Ethernet (UDP)
Text Data Mode 2 Change		
Communication Settings		
Port No. 1024 芸		
Timeout β 🔆 (sec)		
Retry 2		
Wait To Send 🛛 🧮 (ms)	Default	
Device-Specific Settings		
Allowable No. of Device/PLCs 32 Unit(s) 📷		
	Settings	
1 PLC1	IP Address=000.000.000.000,Port No.=1024,F	°C No.=255

Setup Items	Setup Description
	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.
Port No.	 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 I ([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 if from [Device-Specific Settings] of [Device/PLC Settings] to add another External Device.

💰 Individual Device Settings					
PLC1					
IP Address	0. 0.	0.	0	1	
Port No.	1024 🚊	1			
PC No.	255 🕂	ł		Default	
	OK	(0)		Cancel	

Setup Items	Setup Description
IP Address	 Set IP address of the External Device. NOTE Check with a network administrator about IP address. Do not set the duplicate IP address.
Port No.	Use an integer from 1024 to 65535 to enter the port No. of the External Device.
PC No.	Set PC No. when you communicate via network. Use an integer from 0 to 64 to enter PC No. of the External Device to communicate. If you do not communicate via network, enter 255.

4.2 Setup Items in Off-Line Mode

NOTE

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.

Comm.	Device			
A Series Ethern	net		[UDP]	Page 1/1
	Port No.	◯ Fixed	● Auto 1024 ▼ ▲	
	Timeout(s) Retry Wait To Send(ms)			
	Exit		Back	2005/09/02 12:28:10

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 (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.

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	8 		
A Series Ethern	et		[UDP]	Page 1/1
Devic	e/PLC Name PLC			-
	IP Address Port No. PC No.		00 1024 ▼ ▲ 255 ▼ ▲	
	Exit		Back	2005/09/02 12:28:12

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 Check with a network administrator about IP address. Do not set the duplicate IP address.
Port No.	Use an integer from 1024 to 65535 to enter the port No. of the External Device.
PC No.	Set PC No. when you communicate via network. Use an integer from 0 to 64 to enter PC No. of the External Device to communicate. If you do not communicate via network, enter 255.

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.

Device	Bit Address	Word Address	32 bits	Notes
Input	X0000 - X07FF	X0000 - X07F0		*** 0
Output	Y0000 - Y07FF	Y0000 - Y07F0		*** 0
Internal Relay	M0000 - M8191	M0000 - M8176		÷16)
Special Relay	M9000 - M9255	M9000 - M9240		÷16)
Latch Relay	L0000 - L8191	L0000 - L8176	-	÷16)
Step Relay	S0000 - S8191	S0000 - S8176		÷16)
Annunciator	F0000 - F2047	F0000 - F2032		÷16)
Link Relay	B0000 - B0FFF	B0000 - B0FF0		*** 0
Timer (Contact)	TS0000 - TS2047		-	
Timer (Coil)	TC0000 - TC2047			
Counter (Contact)	CS0000 - CS1023			
Counter (Coil)	CC0000 - CC1023			
Timer (Current Value)		TN0000 - TN2047		
Counter (Current Value)		CN0000 - CN1023		
Data Register		D0000 - D6143		<u>ві t15</u>]
Special Register		D9000 - D9255	Ţ	<u>ві t</u> 15)
Link Register		W0000 - W0FFF	-	_{вit} F
File Register		R0000 - R8191	-	_{в і 1} 5
		0R0000 - 0R8191		_{в і т} 15
Extension File Register (0R - 64R)		1R0000 - 1R8191		<u>ві 15</u>]
		2R0000 - 2R8191]	ві 15
	:	:]	:
		63R0000 - 63R8191]	_{в і т} 15
		64R0000 - 64R8191]	_{в і т} 15)

This address can be specified as system data area.

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"

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	Х	0080	Value of word address divided by 0x10	
Output	Y	0081	Value of word address divided by 0x10	
Internal Relay	M (0000-8999)	0082	Value of word address divided by 16	
Special Relay	M (9000-9999)	0083	Value of (word address - 9000) divided by 16	
Latch Relay	L	0084	Value of word address divided by 16	
Step Relay	S	0087	Value of word address divided by 16	
Annunciator	F	0085	Value of word address divided by 16	
Link Relay	В	0088	Value of word address divided by 0x10	
Timer (Current Value)	TN	0060	Word Address	
Counter (Current Value)	CN	0061	Word Address	
Data Register	D	D 0000	Ward Address	
Special Register	D		Word Address	
Link Register	W	0002	Word Address	
File Register	R	000F	Word Address	
	0R	0010	Word Address	
Extension File Register (0R - 64R)	1R	0011	Word Address	
	2R	0012	Word Address	
	:	:	:	
	63R	004F		
	64R	0050	Word Address	

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 IP address is displayed as "IP address (Decimal): MAC address (Hex)". Device address is displayed as "Address: Device address". Received error codes are displayed as "Decimal [Hex]". 		

Display Examples of Error Messages

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

NOTE

• Refer to your External Device manual for details on received error codes.

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