Temperature Controllers MODBUS SIO 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:



1 System Configuration

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

Series	CPU	Link I/F	SIO Type	Setting Example	Cable Diagram
		Port on CPU unit	RS-232C	"Setting Example 1" (page 9)	"Cable Diagram 1" (page 70)
	DB1□□□B■□□-□□□ *1		RS-422/485 (2 wire)	"Setting Example 2" (page 11)	"Cable Diagram 3" (page 81)
DB			RS-422/485 (4 wire)	"Setting Example 3" (page 13)	"Cable Diagram 2" (page 72)
		Port on CPU unit	RS-232C	"Setting Example 4" (page 15)	"Cable Diagram 1" (page 70)
	DB2□□□□□■-□□□ *2		RS-422/485 (2 wire)	"Setting Example 5" (page 17)	"Cable Diagram 3" (page 81)
			RS-422/485 (4 wire)	"Setting Example 6" (page 19)	"Cable Diagram 2" (page 72)
	KP1□□□C■□□-□□□ *1	Port on CPU unit	RS-232C	"Setting Example 7" (page 21)	"Cable Diagram 1" (page 70)
			RS-422/485 (2 wire)	"Setting Example 8" (page 23)	"Cable Diagram 3" (page 81)
			RS-422/485 (4 wire)	"Setting Example 9" (page 25)	"Cable Diagram 2" (page 72)
	KP2000000-000*2	Port on CPU unit	RS-232C	"Setting Example 10" (page 27)	"Cable Diagram 1" (page 70)
KP			RS-422/485 (2 wire)	"Setting Example 11" (page 29)	"Cable Diagram 3" (page 81)
			RS-422/485 (4 wire)	"Setting Example 12" (page 31)	"Cable Diagram 2" (page 72)
		Port on CPU unit	RS-232C	"Setting Example 13" (page 33)	"Cable Diagram 1" (page 70)
	KP3□0C□□■-□□□ *2		RS-422/485 (2 wire)	"Setting Example 14" (page 35)	"Cable Diagram 3" (page 81)
			RS-422/485 (4 wire)	"Setting Example 15" (page 37)	"Cable Diagram 2" (page 72)

Continues to the next page.

Series	CPU	Link I/F	SIO Type	Setting Example	Cable Diagram
	LT23	Port on CPU unit	RS-422/485 (2 wire)	"Setting Example 16" (page 39)	"Cable Diagram 3" (page 81)
	LT3□□□□■□0-□□□ *1	Port on CPU unit	RS-232C	"Setting Example 17" (page 41)	"Cable Diagram 1" (page 70)
			RS-422/485 (2 wire)	"Setting Example 18" (page 43)	"Cable Diagram 3" (page 81)
IТ			RS-422/485 (4 wire)	"Setting Example 19" (page 45)	"Cable Diagram 2" (page 72)
2.		Port on CPU unit	RS-232C	"Setting Example 20" (page 47)	"Cable Diagram 1" (page 70)
	LT4□□□□■□□-□□□ *1 *4		RS-422/485 (2 wire)	"Setting Example 21" (page 49)	"Cable Diagram 3" (page 81)
			RS-422/485 (4 wire)	"Setting Example 22" (page 51)	"Cable Diagram 2" (page 72)
	LT830	Port on CPU unit	RS-422/485 (2 wire)	"Setting Example 23" (page 53)	"Cable Diagram 3" (page 81)
JU	JUDDDDDDDD513 ^{*6} JUDDDDDDDD613 ^{*7}	Port on CPU unit	RS-422/485 (2 wire)	"Setting Example 24" (page 55)	"Cable Diagram 5" (page 96)
		Setting communications unit	RS-422/485 (2 wire)	"Setting Example 25" (page 57)	"Cable Diagram 4" (page 89)
			RS-422/485 (4 wire)	"Setting Example 26" (page 59)	"Cable Diagram 2" (page 72)
JW		Setting	RS-422/485 (2 wire)	"Setting Example 27" (page 61)	"Cable Diagram 4" (page 89)
		unit	RS-422/485 (4 wire)	"Setting Example 28" (page 63)	"Cable Diagram 2" (page 72)

*1 Only the External Device with the ■ part of the CPU type has codes blow can be used. R (RS-232C), A (RS-422A), S (RS-485)

- *2 Only the External Device with the part of the CPU type has codes blow can be used.
 R (RS-232C), A (RS-422A), S (RS-485), B (RS-232C + RS-232C), C (RS-232C + RS-422A),
 D (RS-232C + RS-485), E (RS-485 + RS-232C), F (RS-485 + RS-422A), G (RS-485 + RS-485)
- *3 Only the External Device with the part of the CPU type has codes blow can be used. S or 2 (RS-485)
- *4 To communicate with the Display, use LT400 series with Serial Number of LT4037**** or later. If one with Serial Number of LT4036**** or earlier is used, an error will be displayed.
- *5 Only the External Device with the part of the CPU type has codes blow can be used.
 2 (RS-485)
- *6 JU series with temperature controller feature <Unit space Master>.
- *7 JU series without temperature controller feature <Unit space Slave>.
 To communicate with the Display, connect JU series with temperature controller feature <Unit space Master> (JUDDDDDDDD513) to make master and slave unit communication. Please refer to the External Device manual on how to make unit communication.
- *8 Only the External Device with the part of the CPU type has codes blow can be used.
 3 or 4 (RS-422A, RS-485)
- *9 JU series Single-phase.

Connection Configuration

• 1:1 connection



• 1:n connection

The max number of External Device: 16



• 1:n connection (For JU series with temperature controller feature)



The max number of External Device (master): 16

■ 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			
Ochos	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.

*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-232C

DIP switch	Setting	Description	
1	OFF ^{*1}	Reserved (always OFF)	
2	OFF	SIO type: RS-232C	
3	OFF	510 type. R5-252C	
4	OFF	Output mode of SD (TXD) data: Always output	
5	OFF	Terminal resistance (220 Ω) 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		

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

DIP switch	Setting	Description	
1	OFF	Reserved (always OFF)	
2	ON	SIO type: RS-422/485	
3	ON	510 type. K5-422/405	
4	OFF	Output mode of SD (TXD) data: Always output	
5	OFF	Terminal resistance (220 Ω) 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		

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

DIP switch setting: RS-422/485 (2 wire)

DIP switch	Setting	Description	
1	OFF	Reserved (always OFF)	
2	ON	SIO type: PS 422/485	
3	ON	SIO type. KS-422/465	
4	OFF	Output mode of SD (TXD) data: Always output	
5	OFF	Terminal resistance (220 Ω) insertion to SD (TXD): None	
6	OFF	Terminal resistance (220 Ω) 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.

🏄 New Project File				×
G2-2co	Device/PLI			1
	Maker	CHINO Corporation	▼	
	Series	Temp. Controllers MODBUS SIO	▼	
	📕 Use S		Refer to the manual of this Device/PLC	
	Connection	Method		1
	Port	СОМ1		
			Go to Device/PLC Manual	
Back () Con	munication Settings New Lo	gic New Screen Cancel	

Setup Items	Setup Description
Maker	Select the maker of the External Device to be connected. Select "CHINO Corporation."
Series	Select a model (series) of the External Device to be connected and connection method. Select "Temp. Controllers MODBUS SIO." Check the External Device which can be connected in "Temp. Controllers MODBUS SIO" in system configuration. "" 1 System Configuration" (page 3)
Use System Area	This driver cannot be used.
Port	Select the Display port to be connected to the External Device.

3 Example of Communication Setting

The following shows examples of communication settings of the Display and the External Device, which is recommended by Pro-face.

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/P
Maker CHINO	Corporation Series Temp. Controllers MODBUS SIO Port COM1
Text Data Mode	1 Change
Communication Settings	
SIO Type	RS232C C RS422/485(2wire) C RS422/485(4wire)
Speed	9600
Data Length	O 7 O 8
Parity	NONE O EVEN O ODD
Stop Bit	
Flow Control	NONE O ER(DTR/CTS) O X0N/X0FF
Timeout	3 * (sec)
Retry	2 .
Wait To Send	10 • (ms)
RI / VCC	RI VCC
In the case of RS or VCC (5V Powe Isolation Unit, ple	i232C, you can select the 9th pin to RI (Input) ar Supply). If you use the Digital's RS232C area select if V/CC
roold.orr.orm, pro	Default
Device-Specific Settings	; - (Deview/PLC) 10 - 10
Number Device	Name Settings
1 PLC1	Series=DB1000 Series,Station No.=1

IMPORTANT

Set Wait To Send to 5ms or more.

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

💰 Individual Device Settings 🛛 🛛 🔀				
PLC1				
Series	DB1000 Series	•		
Please reconfirm all o you have changed the	f address settings that you ar e series.	e using if		
Station No.	1 📑			
		Default		
	OK (<u>0)</u>	Cancel		

Settings of External Device

Use the MODE key, SEL key, ENT key, shift key, down key and up key in front of the controller for communication settings of the External Device.

- 1 Press MODE key.
- 2 Press down/up key to move to "MODE7."
- **3** Press SEL key to display items to be set.
- 4 Press down/up key or shift key, select setting value, and press ENT key.

Setup Items	Setting Value
COM BIT RATE	9600bps
COM NUMBER	01
COM KIND	СОМ
COM PROTOCOL	MODBUS(RTU)
COM CHARCTER	8BIT/NON/STOP1

3.2 Setting Example 2

- Settings of GP-Pro EX
- Communication Settings

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

Device/PLC 1		
Summary		Change Device/PLC
Maker CHINO Corp	poration	Series Temp. Controllers MODBUS SIO Port COM1
Text Data Mode	1 <u>Change</u>	
Communication Settings		
SIO Type	C RS232C	RS422/485(2wire) O RS422/485(4wire)
Speed	9600	•
Data Length	O 7	© a
Parity	NONE	C EVEN C ODD
Stop Bit	● 1	C 2
Flow Control	NONE	C ER(DTR/CTS) C XON/XOFF
Timeout	3 🕂 (s	ec)
Retry	2 📫	
Wait To Send	10 🗦 (n	ns)
RI/VCC I	© BI	O VCC
In the case of RS232	C, you can select	t the 9th pin to RI (Input)
Isolation Unit, please :	select it to VCC.	Default
Device-Specific Settings		
Allowable Number of De	evices/PLCs	16 📊
Number Device Nam	ne	Settings
JPLC1		Series=DB1000 Series,Station No.=1

IMPORTANT

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Setting value for Wait To Send differs depending on the connection configuration. Set as shown below.

Connection Configuration	Setting Value
1:1	5ms or more
1 : n	10ms or more

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].

💣 Individual Devi	ce Settings	×
PLC1		
Series	DB1000 Series	•
Please reconfirm you have change	all of address settings that you are usir ad the series.	ıg if
Station No.	1 \Xi	
	[)efault
	OK (<u>0</u>) Ca	ncel

Use the MODE key, SEL key, ENT key, shift key, down key and up key in front of the controller for communication settings of the External Device.

- 1 Press MODE key.
- 2 Press down/up key to move to "MODE7."
- $\mathbf{3}$ Press SEL key to display items to be set.
- 4 Press down/up key or shift key, select setting value, and press ENT key.

Setup Items	Setting Value
COM BIT RATE	9600bps
COM NUMBER	01
COM KIND	СОМ
COM PROTOCOL	MODBUS(RTU)
COM CHARCTER	8BIT/NON/STOP1

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/PLC 1	
Summary	Change Device/PLC
Maker CHINO Corporation Series Temp. Controllers MODBUS SIO F	Port COM1
Text Data Mode 1 Change	
Communication Settings	
SID Type O RS232C O RS422/485(2wire) @ RS422/485(4wire)	
Speed 9600 💌	
Data Length O 7 💿 8	
Parity © NONE © EVEN © ODD	
Stop Bit 💿 1 💿 2	
Flow Control O NONE O ER(DTR/CTS) O X0N/X0FF	
Timeout 3 💼 (sec)	
Retry 2	
Wait To Send 10 🙀 (ms)	
RI / VCC O RI O VCC	
In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (BV Power Supplie). If you use the Diotel's RS232C	
Isolation Unit, please select it to VCC. Default	
Device-Specific Settings	
Allowable Number of Devices/PLCs 16	
Number Device Name Settings	
J PLUI	

IMPORTANT

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Setting value for Wait To Send differs depending on the connection configuration. Set as shown below.

Connection Configuration	Setting Value
1:1	5ms or more
1 : n	10ms or more

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].

💣 Individual Devi	ce Settings	×
PLC1		
Series	DB1000 Series	•
Please reconfirm you have change	all of address settings that you are usir ad the series.	ıg if
Station No.	1 \Xi	
	[)efault
	OK (<u>0</u>) Ca	ncel

Use the MODE key, SEL key, ENT key, shift key, down key and up key in front of the controller for communication settings of the External Device.

- 1 Press MODE key.
- 2 Press down/up key to move to "MODE7."
- $\mathbf{3}$ Press SEL key to display items to be set.
- 4 Press down/up key or shift key, select setting value, and press ENT key.

Setup Items	Setting Value
COM BIT RATE	9600bps
COM NUMBER	01
COM KIND	СОМ
COM PROTOCOL	MODBUS(RTU)
COM CHARCTER	8BIT/NON/STOP1

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 CHINO C	rporation Series Temp. Controllers MODBUS SIO	Port COM1
Text Data Mode	1 Change	
Communication Settings		
SIO Type	• RS232C C RS422/485(2wire) C RS422/485(4wire)	
Speed	9600	
Data Length	O 7 O 8	
Parity	NONE O EVEN O ODD	
Stop Bit		
Flow Control	NONE O ER(DTR/CTS) O X0N/X0FF	
Timeout	3 (sec)	
Retry	2 -	
Wait To Send	10 * (ms)	
RI / VCC	RI O VCC	
In the case of RS2 or VCC (5V Power Isolation Unit, pleas	2C, you can select the 9th pin to RI (Input) Supply]. If you use the Digital's RS232C a select it to VCC. Default	1
Device-Specific Settings		
Allowable Number of	Jevices/PLCs 16	
Number Device N	me Settings Series=DB2000 Series,Station No.=1	

IMPORTANT

Set Wait To Send to 5ms or more.

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].

💣 Individual Device S	ettings	×
PLC1		
Series	DB2000 Series	•
Please reconfirm all of you have changed the	i address settings that you are series.	e using if
Station No.	1 ≑	
		Default
	OK (<u>0</u>)	Cancel

Use the MODE key, SEL key, ENT key, shift key, down key and up key in front of the controller for communication settings of the External Device.

- 1 Press MODE key.
- 2 Press down/up key to move to "MODE7."
- $\mathbf{3}$ Press SEL key to display items to be set.
- 4 Press down/up key or shift key, select setting value, and press ENT key.

Setup Items	Setting Value
COM BIT RATE	9600bps
COM NUMBER	01
COM KIND	СОМ
COM PROTOCOL	MODBUS(RTU)
COM CHARCTER	8BIT/NON/STOP1

3.5 Setting Example 5

Settings of GP-Pro EX

Communication Settings

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

Device/PLC 1		
Summary		Change Device/PLC
Maker CHINI) Corporation	Series Temp. Controllers MODBUS SID Port COM1
Text Data Mode	1 <u>Change</u>	
Communication Setting	s	
SIO Type	C RS232C	RS422/485(2wire) RS422/485(4wire)
Speed	9600	•
Data Length	O 7	© 8
Parity	NONE	O EVEN O ODD
Stop Bit	● 1	O 2
Flow Control	NONE	O ER(DTR/CTS) O XON/XOFF
Timeout	3 🗧	(sec)
Retry	2 🗧	
Wait To Send	10 🛨	(ms)
RI / VCC	© RI	O VCC
In the case of F	S232C, you can sele	et the 9th pin to RI (Input)
Isolation Unit, p	ease select it to VCC	. Default
Device-Specific Settin]\$	
Allowable Numbe	of Devices/PLCs	16 🔐
Number Device	Name	
🦾 i prici		ULE Joeries=DB2000 Series,Station No.=1

IMPORTANT

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Setting value for Wait To Send differs depending on the connection configuration. Set as shown below.

Connection Configuration	Setting Value
1:1	5ms or more
1 : n	10ms or more

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].

Individual Devi	ce Settings	×
PLC1		
Series	DB2000 Series	•
Please reconfirm you have change	all of address settings that you are using d the series.	, if
Station No.	1 \Xi	
	D	efault
	OK (<u>0</u>) Can	cel

Use the MODE key, SEL key, ENT key, shift key, down key and up key in front of the controller for communication settings of the External Device.

- 1 Press MODE key.
- 2 Press down/up key to move to "MODE7."
- $\mathbf{3}$ Press SEL key to display items to be set.
- 4 Press down/up key or shift key, select setting value, and press ENT key.

Setup Items	Setting Value
COM BIT RATE	9600bps
COM NUMBER	01
COM KIND	СОМ
COM PROTOCOL	MODBUS(RTU)
COM CHARCTER	8BIT/NON/STOP1

3.6 Setting Example 6

Settings of GP-Pro EX

Communication Settings

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

Device/PLC 1		
Summary		Change Device/PLC
Maker CHINO Co	orporation	Series Temp. Controllers MODBUS SIO Port COM1
Text Data Mode	1 <u>Change</u>	
Communication Settings		
SIO Type	C RS232C	C RS422/485(2wire) © RS422/485(4wire)
Speed	9600	•
Data Length	O 7	© a
Parity	NONE	O EVEN O ODD
Stop Bit	● 1	O 2
Flow Control	NONE	O ER(DTR/CTS) O XON/XOFF
Timeout	3 📑	(sec)
Retry	2 +	
Wait To Send	10 🕂 ((ms)
RI / VCC	© BI	O VCC
In the case of RS23 or VCC (5V Power (Isolation Unit, please	32C, you can selec Supply). If you use e select it to VCC,	ct the 9th pin to RI (Input) e the Digital's RS232C Default
Device-Specific Settings		
Allowable Number of I	Devices/PLCs	16 1
Number Device Na	ame	Settings Series=DB2000 Series,Station No.=1
Device-Specific Settings Allowable Number of I Number Device Na S 1 PLC1	Devices/PLCs ame	16 Jun Settings Jun Series=DB2000 Series,Station No.=1

IMPORTANT

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Setting value for Wait To Send differs depending on the connection configuration. Set as shown below.

Connection Configuration	Setting Value
1:1	5ms or more
1 : n	10ms or more

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].

💣 Individual Devi	ice Settings	×
PLC1		
Series	DB2000 Series	•
Please reconfirm you have change	all of address settings that you are using ad the series.	if
Station No.	1 📑	
	De	fault
	OK (<u>0</u>) Cano	el

Use the MODE key, SEL key, ENT key, shift key, down key and up key in front of the controller for communication settings of the External Device.

- 1 Press MODE key.
- 2 Press down/up key to move to "MODE7."
- $\mathbf{3}$ Press SEL key to display items to be set.
- 4 Press down/up key or shift key, select setting value, and press ENT key.

Setup Items	Setting Value
COM BIT RATE	9600bps
COM NUMBER	01
COM KIND	СОМ
COM PROTOCOL	MODBUS(RTU)
COM CHARCTER	8BIT/NON/STOP1

3.7 Setting Example 7

Settings of GP-Pro EX

Communication Settings

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

Device/PLC 1		
Summary		Change Device/PLC
Maker CHINO C	orporation	Series Temp. Controllers MODBUS SIO Port COM1
Text Data Mode	1 <u>Change</u>	
Communication Settings		
SIO Type	• RS232C	O RS422/485(2wire) O RS422/485(4wire)
Speed	9600	
Data Length	O 7	© 8
Parity	NONE	O EVEN O ODD
Stop Bit	● 1	0 2
Flow Control	NONE	O ER(DTR/CTS) O XON/XOFF
Timeout	3 🕂	sec)
Retry	2 +	
Wait To Send	10 🕂 I	ims)
RI / VCC	• BI	O VCC
In the case of RS2 or VCC (5V Power Isolation Unit, plea:	32C, you can sele Supply). If you us se select it to VCC.	ct the 9th pin to RI (Input) e the Digital's RS232C Default
Device-Specific Settings		
Allowable Number of	Devices/PLCs	16
Number Device N	ame	Settings Series=KP1000 Series,Station No.=1

IMPORTANT

Set Wait To Send to 5ms or more.

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].

💣 Individual Device S	Gettings	×
PLC1		
Series	KP1000 Series	
Please reconfirm all of you have changed the	f address settings that you are using if e series.	
Station No.	1 📑	
	Default	
	OK (<u>O)</u> Cancel	

Use the MODE key, SEL key, ENT key, right key, down key and up key in front of the controller for communication settings of the External Device.

- 1 Press MODE key.
- $2 \,$ Press down/up key to move to "MODE8."
- **3** Press SEL key to display items to be set.
- 4 Press down/up key or right key, select setting value, and press ENT key.

Setup Items	Setting Value
COM BIT RATE	9600bps
COM NUMBER	01
COM KIND	СОМ
COM PROTOCOL	MODBUS(RTU)
COM CHARCTER	8BIT/NON/STOP1

3.8 Setting Example 8

Settings of GP-Pro EX

Communication Settings

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

Device/PLC 1		
Summary		Change Device/PLC
Maker CHINO Corp	poration	Series Temp. Controllers MODBUS SIO Port COM1
Text Data Mode	1 <u>Change</u>	
Communication Settings		
SIO Type	O RS232C	RS422/485(2wire) C RS422/485(4wire)
Speed	9600	T
Data Length	O 7	© 3
Parity	NONE	C EVEN C ODD
Stop Bit	• 1	© 2
Flow Control	NONE	O ER(DTR/CTS) O XON/XOFF
Timeout	3 📫 (s	ec)
Retry	2 *	
Wait To Send	10 📫 (r	ns)
RI / VCC	© RI	O VCC
In the case of RS232	C, you can selec	t the 9th pin to RI (Input)
Isolation Unit, please	select it to VCC.	Default
Device-Specific Settings		
Allowable Number of De	evices/PLCs	16 📊
Number Device Nam	ne	Settings
J PLC1		Series=KP1000 Series,Station No.=1

IMPORTANT

٠

Setting value for Wait To Send differs depending on the connection configuration. Set as shown below.

Connection Configuration	Setting Value
1:1	5ms or more
1 : n	10ms or more

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].

<i>参</i> Individual Dev	rice Settings	×
PLC1		
Series	KP1000 Series	•
Please reconfirm you have change	n all of address settings that you are using ed the series.	if
Station No.	1 🚍	
	De	fault
	OK (<u>0</u>) Canc	el

Use the MODE key, SEL key, ENT key, right key, down key and up key in front of the controller for communication settings of the External Device.

- 1 Press MODE key.
- $2 \,$ Press down/up key to move to "MODE8."
- $\mathbf{3}$ Press SEL key to display items to be set.
- 4 Press down/up key or right key, select setting value, and press ENT key.

Setup Items	Setting Value
COM BIT RATE	9600bps
COM NUMBER	01
COM KIND	СОМ
COM PROTOCOL	MODBUS(RTU)
COM CHARCTER	8BIT/NON/STOP1

3.9 Setting Example 9

- 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 CHINO C	orporation	Series Temp. Controllers MODBUS SIO Port COM1
Text Data Mode	1 <u>Change</u>	
Communication Settings		
SIO Type	C RS232C	C RS422/485(2wire) © RS422/485(4wire)
Speed	9600	•
Data Length	O 7	© a
Parity	NONE	O EVEN O ODD
Stop Bit	© 1	O 2
Flow Control	NONE	O ER(DTR/CTS) O XON/XOFF
Timeout	3 🐳	(sec)
Retry	2 +	
Wait To Send	10 🕂 ((ms)
RI / VCC	© RI	O VCC
In the case of RS2 or VCC (5V Power Isolation Unit, pleas	32C, you can selec Supply). If you use e select it to VCC.	ct the 9th pin to RI (Input) e the Digital's RS232C Default
Device-Specific Settings		
Allowable Number of	Devices/PLCs	16
Number Device Na	ime	Settings Series=KP1000 Series,Station No.=1
Device-Specific Settings Allowable Number of Number Device Na S 1 PLC1	Devices/PLCs ame	16 J Settings Series=KP1000 Series,Station No.=1

IMPORTANT

٠

Setting value for Wait To Send differs depending on the connection configuration. Set as shown below.

Connection Configuration	Setting Value
1:1	5ms or more
1 : n	10ms or more

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].

Individual Devi	ce Settings	×
PLC1		
Series	KP1000 Series	•
Please reconfirm you have change	all of address settings that you are usi ad the series.	ng if
Station No.	1 🗮	
		Default
	OK (<u>0</u>) Ca	incel

Use the MODE key, SEL key, ENT key, right key, down key and up key in front of the controller for communication settings of the External Device.

- 1 Press MODE key.
- $2 \,$ Press down/up key to move to "MODE8."
- $\mathbf{3}$ Press SEL key to display items to be set.
- 4 Press down/up key or right key, select setting value, and press ENT key.

Setup Items	Setting Value
COM BIT RATE	9600bps
COM NUMBER	01
COM KIND	СОМ
COM PROTOCOL	MODBUS(RTU)
COM CHARCTER	8BIT/NON/STOP1

3.10 Setting Example 10

- 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 CHINO Corporation Series Temp. Con	trollers MODBUS SIO Port COM1
Text Data Mode 1 Change	
Communication Settings	
SID Type 💿 RS232C 💿 RS422/485(2wire) 🛇) RS422/485(4wire)
Speed 9600 💌	
Data Length O 7 O 8	
Parity O NONE O EVEN O DD	D
Stop Bit 💿 1 💿 2	
Flow Control NONE C ER(DTR/CTS) C ×0	NXOFF
Timeout 3 📑 (sec)	
Retry 2	
Wait To Send 10 🔹 (ms)	
RI/VCC © RI © VCC	
In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.	Default
Device-Specific Settings	
Allowable Number of Devices/PLCs 16	
Number Device Name Settings	ies,Station No.=1

IMPORTANT

Set Wait To Send to 5ms or more.

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].

💣 Individual Device S	iettings	×
PLC1		
Series	KP2000 Series	•
Please reconfirm all of address settings that you are using if you have changed the series.		
Station No.	1 📫	
		Default
	OK (<u>0</u>)	Cancel

Use the MODE key, SEL key, ENT key, right key, down key and up key in front of the controller for communication settings of the External Device.

- 1 Press MODE key.
- $2 \,$ Press down/up key to move to "MODE8."
- $\mathbf{3}$ Press SEL key to display items to be set.
- 4 Press down/up key or right key, select setting value, and press ENT key.

Setup Items	Setting Value
COM BIT RATE	9600bps
COM NUMBER	01
COM KIND	СОМ
COM PROTOCOL	MODBUS(RTU)
COM CHARCTER	8BIT/NON/STOP1

3.11 Setting Example 11

- 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 CHI	NO Corporation	Series Temp. Controllers MODBUS SID Port COM1
Text Data Mod	e 1 <u>Change</u>	
Communication Setti	ngs	
SIO Type	C RS232C	RS422/485(2wire) O RS422/485(4wire)
Speed	9600	•
Data Length	O 7	• 8
Parity	NONE	O EVEN O ODD
Stop Bit	I	O 2
Flow Control	NONE	© ER(DTR/CTS) © XON/XOFF
Timeout	3 +	(sec)
Retry	2 +	
Wait To Send	10 🗧	(ms)
RI / VCC	© Fil	O VCC
In the case of	RS232C, you can sele	et the 9th pin to RI (Input)
Isolation Unit,	please select it to VCC	Default
Device-Specific Set	ings	
Allowable Numl	per of Devices/PLCs	16 📷
Number Dev	ice Name	Settings
M PLU		Joenes=N=2000 Series, Station No.=1

IMPORTANT

٠

Setting value for Wait To Send differs depending on the connection configuration. Set as shown below.

Connection Configuration	Setting Value
1:1	5ms or more
1 : n	10ms or more

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].

<i>参</i> Individual Dev	ice Settings	×
PLC1		
Series	KP2000 Series	•
Please reconfirm you have change	all of address settings that you are using ad the series.	ı if
Station No.	1 芸	
	D	efault
	OK (<u>0</u>) Can	cel

Use the MODE key, SEL key, ENT key, right key, down key and up key in front of the controller for communication settings of the External Device.

- 1 Press MODE key.
- $2 \,$ Press down/up key to move to "MODE8."
- **3** Press SEL key to display items to be set.
- 4 Press down/up key or right key, select setting value, and press ENT key.

Setup Items	Setting Value
COM BIT RATE	9600bps
COM NUMBER	01
COM KIND	СОМ
COM PROTOCOL	MODBUS(RTU)
COM CHARCTER	8BIT/NON/STOP1

3.12 Setting Example 12

- 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 CHINO C	Corporation	Series Temp. Controllers MODBUS SIO Port COM1		
Text Data Mode	Text Data Mode 1 Change			
Communication Settings				
SIO Type	C RS232C	C RS422/485(2wire) C RS422/485(4wire)		
Speed	9600	•		
Data Length	O 7	© 8		
Parity	NONE	C EVEN C ODD		
Stop Bit	● 1	© 2		
Flow Control	NONE	O ER(DTR/CTS) O XON/XOFF		
Timeout	3 ÷ (s	ec)		
Retry	2 🔹			
Wait To Send	10 📫 (n	ns)		
RI / VCC	🗢 BI	O VCC		
In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.				
Device-Specific Settings				
Allowable Number of Devices/PLCs 16				
1 PLC1	ame	Settings Seties=KP2000 Series,Station No.=1		
Maker CHIND C Text Data Mode Communication Settings SID Type Speed Data Length Parity Stop Bit Flow Control Timeout Retry Wait To Send RI / VCC In the case of RS2 or VCC (SV Power Isolation Unit, plea Device-Specific Settings Allowable Number of Number Device N	Corporation	Series Temp. Controllers MODBUS SID Port CDM1 C RS422/485(2wire) RS422/485(2wire) RS422/485(2wire) RS422/485(4wire) C a C EVEN ODD C 2 C EVEN ODD C 2 C ER(DTR/CTS) XON/XOFF see) ns) VCC the 9th pin to RI ((nput) the Digital's RS232C Default 16 Settings Setting S		

IMPORTANT

٠

Setting value for Wait To Send differs depending on the connection configuration. Set as shown below.

Connection Configuration	Setting Value
1:1	5ms or more
1 : n	10ms or more

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].

💣 Individual Devi	ce Settings	×
PLC1		
Series	KP2000 Series	•
Please reconfirm you have change	all of address settings that you are usined the series.	ng if
Station No.	1 📑	
	1	Default
	OK (<u>0</u>) Ca	ncel

Use the MODE key, SEL key, ENT key, right key, down key and up key in front of the controller for communication settings of the External Device.

- 1 Press MODE key.
- $2 \,$ Press down/up key to move to "MODE8."
- **3** Press SEL key to display items to be set.
- 4 Press down/up key or right key, select setting value, and press ENT key.

Setup Items	Setting Value
COM BIT RATE	9600bps
COM NUMBER	01
COM KIND	СОМ
COM PROTOCOL	MODBUS(RTU)
COM CHARCTER	8BIT/NON/STOP1

3.13 Setting Example 13

- 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	e/PLC		
Maker CHINO Corporation Series Temp. Controllers MODBUS SIO Port COM1			
Text Data Mode 1 Change			
Communication Settings			
SIO Type 💿 RS232C 🔿 RS422/485(2wire) 🔿 RS422/485(4wire)			
Speed 9600			
Data Length C 7 C 8			
Parity C NONE C EVEN C ODD			
Stop Bit 💿 1 💿 2			
Flow Control C NONE C ER(DTR/CTS) C X0N/X0FF			
Timeout 3 💼 (sec)			
Retry 2			
Wait To Send 10 💼 (ms)			
RI/VCC C RI O VCC			
In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.			
Device-Specific Settings			
Allowable Number of Devices/PLCs 16			
Number Device Name Settings Number Device Name Settings 1 PLC1 Image: Settings Settings			

IMPORTANT

Set Wait To Send to 5ms or more.

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].

💣 Individual Device Se	ettings 🛛	×
PLC1		
Series	KP3000 Series	
Please reconfirm all of address settings that you are using if you have changed the series.		
Station No.	1 🗮	
	Default	
	OK (<u>D)</u> Cancel	

Use the MODE key, SEL key, ENT key, right key, down key and up key in front of the controller for communication settings of the External Device.

- 1 Press MODE key.
- $2 \,$ Press down/up key to move to "MODE8."
- $\mathbf{3}$ Press SEL key to display items to be set.
- 4 Press down/up key or right key, select setting value, and press ENT key.

Setup Items	Setting Value
COM BIT RATE	9600bps
COM NUMBER	01
COM KIND	СОМ
COM PROTOCOL	MODBUS(RTU)
COM CHARCTER	8BIT/NON/STOP1

3.14 Setting Example 14

- 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	CHINO Corporation	Series Temp. Controllers MODBUS SIO Port COM1
Text Dat	a Mode 1 <u>Cha</u>	<u>ae</u>
Communicatio	n Settings	
SIO Type	• O RS23	C 💿 RS422/485(2wire) 🔿 RS422/485(4wire)
Speed	9600	
Data Ler	ngth O 7	O a
Parity	NONE	O EVEN O ODD
Stop Bit	● 1	O 2
Flow Cor	itrol 💿 NONE	O ER(DTR/CTS) O XON/XOFF
Timeout	3	(sec)
Retry	2	
Wait To :	Send 10	* (ms)
RI / VCC	© RI	O VCC
In the or VCC	base of RS232C, you ca	select the 9th pin to RI (Input)
Isolation	n Unit, please select it to	VCC. Default
Device-Specific Settings		
Allowable	e Number of Devices/PL	Cs 16 📷
Number	Device Name	Settings
	I con	Joenes=KF 3000 Senes, Station NU.=1

IMPORTANT

٠

Setting value for Wait To Send differs depending on the connection configuration. Set as shown below.

Connection Configuration	Setting Value
1:1	5ms or more
1 : n	10ms or more

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].

<i></i> Individual Devi	ce Settings	×
PLC1		
Series	KP3000 Series	•
Please reconfirm you have change	all of address settings that you are usined the series.	ng if
Station No.	1 \Xi	
	[Default
	OK (<u>0</u>) Ca	ncel

Use the MODE key, SEL key, ENT key, right key, down key and up key in front of the controller for communication settings of the External Device.

- 1 Press MODE key.
- $2 \,$ Press down/up key to move to "MODE8."
- $\mathbf{3}$ Press SEL key to display items to be set.
- 4 Press down/up key or right key, select setting value, and press ENT key.

Setup Items	Setting Value
COM BIT RATE	9600bps
COM NUMBER	01
COM KIND	СОМ
COM PROTOCOL	MODBUS(RTU)
COM CHARCTER	8BIT/NON/STOP1
3.15 Setting Example 15

- 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 CHINO Cor	poration	Series Temp. Controllers MODBUS SIO Port COM1	
Text Data Mode	1 Change		
Communication Settings			
SIO Type	C RS232C	© RS422/485(2wire) © RS422/485(4wire)	
Speed	9600	•	
Data Length	07	© 8	
Parity	NONE	C EVEN C ODD	
Stop Bit	● 1	C 2	
Flow Control	NONE	C ER(DTR/CTS) C XON/XOFF	
Timeout	3 📑 (s	ec)	
Retry	2 🔅		
Wait To Send	10 🕂 (r	ns)	
RI / VCC	© RI	O VCC	
In the case of RS232C, you can select the 9th pin to RI (Input)			
Isolation Unit, please select it to VCC. Default			
Device-Specific Settings			
Allowable Number of Devices/PLCs 16			
Number Device Nam	ne	Settings	
PLUI		UT Jaeles=VLanning and a selectation inor=1	

IMPORTANT

٠

Setting value for Wait To Send differs depending on the connection configuration. Set as shown below.

Connection Configuration	Setting Value
1:1	5ms or more
1 : n	10ms or more

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].

Individual Devi	ce Settings	×
PLC1		
Series	KP3000 Series	•
Please reconfirm you have change	all of address settings that you are usir ad the series.	g if
Station No.	1 🚍	
	[)efault
	OK (<u>0</u>) Ca	ncel

Use the MODE key, SEL key, ENT key, right key, down key and up key in front of the controller for communication settings of the External Device.

- 1 Press MODE key.
- $2 \,$ Press down/up key to move to "MODE8."
- **3** Press SEL key to display items to be set.
- 4 Press down/up key or right key, select setting value, and press ENT key.

Setup Items	Setting Value
COM BIT RATE	9600bps
COM NUMBER	01
COM KIND	СОМ
COM PROTOCOL	MODBUS(RTU)
COM CHARCTER	8BIT/NON/STOP1

3.16 Setting Example 16

- 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 CHIN	O Corporation	Series Temp. Controllers MODBUS SID Port COM1	
Text Data Mode	1 <u>Change</u>		
Communication Settin]s		
SIO Type	C RS232C	RS422/485(2wire) RS422/485(4wire)	
Speed	9600	•	
Data Length	07	© 8	
Parity	NONE	O EVEN O ODD	
Stop Bit	1	O 2	
Flow Control	NONE	O ER(DTR/CTS) O XON/XOFF	
Timeout	3 📫	(sec)	
Retry	2 📫		
Wait To Send	10 🕂	(ms)	
RL/ VCC	© Fil	O VCC	
In the case of RS232C, you can select the 9th pin to RI (Input)			
Isolation Unit, please select it to VCC. Default			
Device-Specific Settings			
Allowable Number of Devices/PLCs 16			
Number Devic	e Name		
I PLCI		Joeries=L1230 Series,Station No.=1	

IMPORTANT

٠

Setting value for Wait To Send differs depending on the connection configuration. Set as shown below.

Connection Configuration	Setting Value
1:1	20ms or more
1 : n	65ms or more

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].

<i>参</i> Individual Dev	ice Settings	×
PLC1		
Series	LT230 Series	•
Please reconfirm you have change	all of address settings that you are using i ed the series.	ŕ
Station No.	1 🗮	
	Def	ault
	OK (<u>0</u>) Cance	el

Use the SEL/ENT key, DOWN key and UP key in front of the controller for communication settings of the External Device.

- **1** Press SEL/ENT key for 2 seconds.
- 2 Press UP key to move to "MODE7."
- **3** Press SEL/ENT key to display items to be set.
- 4 Press DOWN/UP key, select setting value, and press SEL/ENT key.

Setup Items	Setting Value
PtCL	rtU
FUnC	Com
AdrS	1
rAtE	9600
CHAr	5

3.17 Setting Example 17

- Settings of GP-Pro EX
- Communication Settings

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

IMPORTANT

Set Wait To Send to 20ms or more.

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].

💣 Individual Device	e Settings	×
PLC1		
Series	LT300 Series	•
Please reconfirm all of address settings that you are using if you have changed the series.		
Station No.	1 📫	
		Default
	OK (<u>D</u>)	Cancel

Use the MODE key, SEL/ENT key, DOWN key and UP key in front of the controller for communication settings of the External Device.

- 1 Press MODE key.
- 2 Press UP key to move to "MODE7."
- $\mathbf{3}$ Press SEL/ENT key to display items to be set.
- 4 Press DOWN/UP key, select setting value, and press SEL/ENT key.

Setup Items	Setting Value
PtCL	rtU
FUnC	Com
AdrS	1
rAtE	9600
CHAr	5

3.18 Setting Example 18

- 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 CHINO	Corporation	Series Temp. Controllers MODBUS SID Port COM1	
Text Data Mode	1 <u>Change</u>		
Communication Settings			
SIO Type	C RS232C	RS422/485(2wire) RS422/485(4wire)	
Speed	9600		
Data Length	O 7	© a	
Parity	NONE	C EVEN C ODD	
Stop Bit	● 1	© 2	
Flow Control	NONE	O ER(DTR/CTS) O XON/XOFF	
Timeout	3 📫	(sec)	
Retry	2 📫		
Wait To Send	10 🔅	(ms)	
RI / VCC	© RI	O VCC	
In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (5V Power Supply). If you use the Digital's RS232C Isolation Unit, please select it to VCC.			
Device-Specific Settings			
Allowable Number of Devices/PLCs 16			
Number Device	Name	Settings	

IMPORTANT

٠

Setting value for Wait To Send differs depending on the connection configuration. Set as shown below.

Connection Configuration	Setting Value
1:1	20ms or more
1 : n	65ms or more

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].

💣 Individual Dev	ice Settings	×
PLC1		
Series	LT 300 Series	•
Please reconfirm you have change	all of address settings that you are usined the series.	ng if
Station No.	1 📑	
	1	Default
	OK (<u>0</u>) Ca	incel

Use the MODE key, SEL/ENT key, DOWN key and UP key in front of the controller for communication settings of the External Device.

- 1 Press MODE key.
- 2 Press UP key to move to "MODE7."
- $\mathbf{3}$ Press SEL/ENT key to display items to be set.
- 4 Press DOWN/UP key, select setting value, and press SEL/ENT key.

Setup Items	Setting Value
PtCL	rtU
FUnC	Com
AdrS	1
rAtE	9600
CHAr	5

3.19 Setting Example 19

- 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 CH	INO Corporation	Series Temp. Controllers MODBUS SID Port COM1
Text Data Mod	e <u>1</u> <u>Change</u>	
Communication Sett	ings	
SIO Type	C RS232C	© RS422/485(2wire) © RS422/485(4wire)
Speed	9600	
Data Length	O 7	© 8
Parity	NONE	O EVEN O ODD
Stop Bit	● 1	O 2
Flow Control	NONE	C ER(DTR/CTS) C XON/XOFF
Timeout	3 +	(sec)
Retry	2 +	
Wait To Send	10 🗧	(ms)
RI / VCC	© BI	O VCC
In the case of MCC (BV P	fRS232C, you can sele Yower Supply). If you us	ct the 9th pin to RI (Input)
Isolation Unit	please select it to VCC	. Default
Device-Specific Set	tings	
Allowable Num	ber of Devices/PLCs	16 📷
Number Dev	rice Name	Settings
	1	

IMPORTANT

٠

Setting value for Wait To Send differs depending on the connection configuration. Set as shown below.

Connection Configuration	Setting Value
1:1	20ms or more
1 : n	65ms or more

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].

<i>参</i> Individual Dev	rice Settings	×
PLC1		
Series	LT 300 Series	_
Please reconfirm you have chang	n all of address settings that you are using if red the series.	
Station No.	1 🗮	
	Defa	ault
	OK (<u>0</u>) Cance	

Use the MODE key, SEL/ENT key, DOWN key and UP key in front of the controller for communication settings of the External Device.

- 1 Press MODE key.
- 2 Press UP key to move to "MODE7."
- $\mathbf{3}$ Press SEL/ENT key to display items to be set.
- 4 Press DOWN/UP key, select setting value, and press SEL/ENT key.

Setup Items	Setting Value
PtCL	rtU
FUnC	Com
AdrS	1
rAtE	9600
CHAr	5

3.20 Setting Example 20

- Settings of GP-Pro EX
- Communication Settings

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

IMPORTANT

Set Wait To Send to 5ms or more.

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].

💰 Individual Device Settings 🛛 🔀		
PLC1		
Series	LT 400 Series	•
Please reconfirm all of address settings that you are using if you have changed the series.		
Station No.	1 📫	
		Default
	OK (<u>0</u>)	Cancel

Use the MODE key, SEL/ENT key, DOWN key and UP key in front of the controller for communication settings of the External Device.

- 1 Press MODE key.
- 2 Press UP key to move to "MODE7."
- $\mathbf{3}$ Press SEL/ENT key to display items to be set.
- 4 Press DOWN/UP key, select setting value, and press SEL/ENT key.

Setup Items	Setting Value
PrtCL	rtU
FUnC	Com
AdrS	1
rAtE	9600
CHArA	8n1

3.21 Setting Example 21

- 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 CHIN	IO Corporation	Series Temp. Controllers MODBUS SID Port COM1
Text Data Mode	1 <u>Change</u>	
Communication Settin	gs	
SIO Type	C RS232C	RS422/485(2wire) RS422/485(4wire)
Speed	9600	•
Data Length	07	© 8
Parity	NONE	O EVEN O ODD
Stop Bit	I	O 2
Flow Control	NONE	O ER(DTR/CTS) O XON/XOFF
Timeout	3 📫	(sec)
Retry	2 📫	
Wait To Send	10 🕂	(ms)
RL/VCC	© FI	O VCC
In the case of an VCC (B) (Pa	RS232C, you can sele	et the 9th pin to RI (Input)
Isolation Unit, p	please select it to VCC	. Default
Device-Specific Settir	igs	
Allowable Numbe	er of Devices/PLCs	16 🔐
Number Devic	e Name	
I PLUT		LE Joenes=L 1 400 Series, Station No.=1

IMPORTANT

٠

Setting value for Wait To Send differs depending on the connection configuration. Set as shown below.

Connection Configuration	Setting Value
1:1	5ms or more
1 : n	10ms or more

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].

<i>参</i> Individual Dev	ice Settings	×
PLC1		
Series	LT 400 Series	•
Please reconfirm you have change	all of address settings that you are using i ed the series.	ŕ
Station No.	1 🗮	
	Def	ault
	OK (<u>D</u>) Cance	el

Use the MODE key, SEL/ENT key, DOWN key and UP key in front of the controller for communication settings of the External Device.

- 1 Press MODE key.
- 2 Press UP key to move to "MODE7."
- $\mathbf{3}$ Press SEL/ENT key to display items to be set.
- 4 Press DOWN/UP key, select setting value, and press SEL/ENT key.

Setup Items	Setting Value
PrtCL	rtU
FUnC	Com
AdrS	1
rAtE	9600
CHArA	8n1

3.22 Setting Example 22

- 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 CHINO Corporation	Series Temp. Controllers MODBUS SIO Port COM1
Text Data Mode 🛛 🚺 📴	ange
Communication Settings	
SIO Type 🛛 C RS2	32C 🔿 RS422/485(2wire) 💿 RS422/485(4wire)
Speed 9600	▼
Data Length 🛛 🔿 7	© a
Parity 💽 NOM	IE O EVEN O ODD
Stop Bit 💽 1	C 2
Flow Control 📀 NOM	IE C ER(DTR/CTS) C XGN/XOFF
Timeout 3	(sec)
Retry 2	
Wait To Send 10	* (ms)
RI / VCC 💿 RI	O Vec
In the case of RS232C, you o or VCC (5V Power Supply). It Isolation Unit, please select it	an select the 9th pin to RI (Input) you use the Digital's RS232C to VCC. Default
Device-Specific Settings	
Allowable Number of Devices/F	2LCs 16 🛄
Number Device Name	Settings Image Setties=LT400 Series,Station No.=1

IMPORTANT

٠

Setting value for Wait To Send differs depending on the connection configuration. Set as shown below.

Connection Configuration	Setting Value
1:1	5ms or more
1 : n	10ms or more

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].

<i>参</i> Individual Dev	ice Settings	×
PLC1		
Series	LT 400 Series	•
Please reconfirm you have change	all of address settings that you are using i ed the series.	ŕ
Station No.	1 🗮	
	Def	ault
	OK (<u>D</u>) Cance	el

Use the MODE key, SEL/ENT key, DOWN key and UP key in front of the controller for communication settings of the External Device.

- 1 Press MODE key.
- 2 Press UP key to move to "MODE7."
- $\mathbf{3}$ Press SEL/ENT key to display items to be set.
- 4 Press DOWN/UP key, select setting value, and press SEL/ENT key.

Setup Items	Setting Value
PrtCL	rtU
FUnC	Com
AdrS	1
rAtE	9600
CHArA	8n1

3.23 Setting Example 23

- 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 CHINO Co	rporation	Series Temp. Controllers MODBUS SIO Port COM1
Text Data Mode 🛛	1 <u>Change</u>	
Communication Settings		
SIO Type	C RS232C	RS422/485(2wire) RS422/485(4wire)
Speed	9600	×
Data Length	O 7	© 8
Parity	NONE	C EVEN C ODD
Stop Bit	● 1	© 2
Flow Control	NONE	ER(DTR/CTS) C XON/XOFF
Timeout	3 📫 (:	sec)
Retry	2 +	
Wait To Send	10 🗦 (ms)
RI / VCC	© BI	O VCC
In the case of RS23 or VCC (5V Power S Isolation Unit, please	2C, you can selec iupply). If you use select it to VCC.	t the 9th pin to RI (Input) the Digital's RS232C Default
Device Creatile Settings		
Allowable Number of D	evices/PLCs	16
Number Device Nar	me	Settings
👗 1 🛛 PLC1		Series=LT830 Series,Station No.=1

IMPORTANT

٠

Setting value for Wait To Send differs depending on the connection configuration. Set as shown below.

Connection Configuration	Setting Value
1:1	20ms or more
1 : n	65ms or more

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].

💣 Individual Dev	ice Settings	×
PLC1		
Series	LT830 Series	•
Please reconfirm you have change	all of address settings that you are usi ad the series.	ng if
Station No.	1 🚍	
		Default
	OK (<u>O</u>) Ca	incel

Use the SEL/ENT key, DOWN key and UP key in front of the controller for communication settings of the External Device.

- **1** Press SEL/ENT key for 2 seconds.
- 2 Press UP key to move to "MODE6."
- **3** Press SEL/ENT key to display items to be set.
- 4 Press DOWN/UP key, select setting value, and press SEL/ENT key.

Setup Items	Setting Value
PtCL	rtU
FUnC	Com
AdrS	1
rAtE	9600
CHAr	8n1

3.24 Setting Example 24

- 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 CHINO (Corporation	Series Temp. Controllers MODBUS SID Port COM1
Text Data Mode	1 Change	
Communication Settings		
SIO Type	C RS232C	RS422/485(2wire) RS422/485(4wire)
Speed	9600	
Data Length	O 7	© 8
Parity	NONE	C EVEN C ODD
Stop Bit	● 1	© 2
Flow Control	NONE	© ER(DTR/CTS) © XON/XOFF
Timeout	3 🔹	(sec)
Retry	2 *	
Wait To Send	10 🕂	(ms)
RI / VCC	© RI	O VCC
In the case of RS2 or VCC (5V Power Isolation Unit, plea	232C, you can sele Supply). If you us se select it to VCC	et the 9th pin to RI (Input) e the Digital's RS232C . Default
Device-Specific Settings		
Allowable Number of	f Devices/PLCs	16
Number Device N	ame	Securings Image: Series_Station No.=1

IMPORTANT

٠

Setting value for Wait To Send differs depending on the connection configuration. Set as shown below.

Connection Configuration	Setting Value
1:1	5ms or more
1 : n	10ms or more

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].

<i>参</i> Individual Devi	ce Settings	×
PLC1		
Series	JU Series	•
Please reconfirm you have change	all of address settings that you are usined the series.	ıg if
Station No.	1 🚍	
	[)efault
	OK (<u>0</u>) Ca	ncel

Use the rotary switch and DIP switches of the External Device for communication settings of the External Device. Please refer to the manual of the External Device for more details.

• Rotary switch (SW1)

Rotary switch	Setting Value
SW1	1

• DIP switch (SW2)

DIP switches	Setting Value
SW1	OFF
SW2	OFF
SW3	OFF
SW4	OFF
SW5	OFF
SW6	OFF
SW7	OFF
SW8	OFF

3.25 Setting Example 25

- 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 CHINO Corporation	Series Temp. Controllers MODBUS SIO Port COM1
Text Data Mode 1 Change	1
Communication Settings	
SIO Type O RS232C	RS422/485(2wire) RS422/485(4wire)
Speed 9600	•
Data Length 🖸 7	© 8
Parity 💿 NONE	C EVEN C ODD
Stop Bit 💿 1	© 2
Flow Control NONE	O ER(DTR/CTS) O XON/XOFF
Timeout 3	(sec)
Retry 2	
Wait To Send 10	- (ms)
RI/VCC © RI	O VCC
In the case of RS232C, you can s or VCC (5V Power Supply). If you Isolation Unit, please select it to V	elect the 9th pin to RI (Input) use the Digital's RS232C CC. Default
Device-Specific Settings	
Allowable Number of Devices/PLCs	16 1
1 PLC1	Seurrys Series=JU Series(Single-Phase),Station No.=1

IMPORTANT

٠

Setting value for Wait To Send differs depending on the connection configuration. Set as shown below.

Connection Configuration	Setting Value
1:1	5ms or more
1 : n	10ms or more

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].

Individual Devid	e Settings	×
PLC1		
Series	JU Series(Single-Phase)	•
Please reconfirm a you have changed	all of address settings that you are using d the series.	if
Station No.	1 芸	
	De	fault
	0K (<u>0</u>) Cano	el

Use the MODE key, ENT key, down key and up key in front of the controller for communication settings of the External Device.

- 1 Press MODE key.
- 2 Press up key to move to "MODE3."
- **3** Press ENT key to display items to be set.
- 4 Press down/up key, select setting value, and press ENT key.

Setup Items	Setting Value
PtCL	rtU
AdrS	1
rAtE	9600
CHAr	8n1

3.26 Setting Example 26

- 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 CHI	NO Corporation	Series Temp. Controllers MODBUS SID Port COM1
Text Data Mode	e 1 <u>Change</u>	
Communication Setti	ngs	
SIO Type	C RS232C	© RS422/485(2wire) © RS422/485(4wire)
Speed	9600	T
Data Length	07	© 8
Parity	NONE	O EVEN O ODD
Stop Bit	1	O 2
Flow Control	NONE	O ER(DTR/CTS) O XON/XOFF
Timeout	3 📫	(sec)
Retry	2 +	
Wait To Send	10 🗧	(ms)
RI / VCC	© Fil	O VCC
In the case of	RS232C, you can sele	ct the 9th pin to RI (Input)
Isolation Unit,	please select it to VCC	Default
Device-Specific Sett	ings	
Allowable Numb	per of Devices/PLCs	16 📊
Number Dev	ice Name	Settings Series III Series(Single Disso) Station No1

IMPORTANT

٠

Setting value for Wait To Send differs depending on the connection configuration. Set as shown below.

Connection Configuration	Setting Value
1:1	5ms or more
1 : n	10ms or more

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].

Individual Devid	e Settings	×
PLC1		
Series	JU Series(Single-Phase)	•
Please reconfirm a you have changed	all of address settings that you are using d the series.	if
Station No.	1 芸	
	De	fault
	0K (<u>0</u>) Cano	el

Use the MODE key, ENT key, down key and up key in front of the controller for communication settings of the External Device.

- 1 Press MODE key.
- 2 Press up key to move to "MODE3."
- **3** Press ENT key to display items to be set.
- 4 Press down/up key, select setting value, and press ENT key.

Setup Items	Setting Value
PtCL	rtU
AdrS	1
rAtE	9600
CHAr	8n1

3.27 Setting Example 27

- 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 CHINC	Corporation	Series Temp. Controllers MODBUS SIO Port COM1
Text Data Mode	1 <u>Change</u>	
Communication Settings	3	
SIO Type	C RS232C	RS422/485(2wire) RS422/485(4wire)
Speed	9600	T
Data Length	O 7	© 3
Parity	NONE	C EVEN C ODD
Stop Bit	⊙ 1	© 2
Flow Control	NONE	O ER(DTR/CTS) O XON/XOFF
Timeout	3 📑	(sec)
Retry	2 📫	
Wait To Send	10 🗧	(ms)
RI / VCC	© RI	O VCC
In the case of R or VCC (5V Pow Isolation Unit, pla	6232C, you can sele er Supply). If you us sase select it to VCC	ect the 9th pin to RI (Input) se the Digital's RS232C ~ Default
Device-Specific Setting	s	
Allowable Number	of Devices/PLCs	16
Number Device	Name	Settings

IMPORTANT

٠

Setting value for Wait To Send differs depending on the connection configuration. Set as shown below.

Connection Configuration	Setting Value	
1:1	5ms or more	
1 : n	10ms or more	

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].

Individual Devi	ce Settings	×
PLC1		
Series	JW Series	•
Please reconfirm you have change	all of address settings that you are using i ad the series.	f
Station No.	1 🗮	
	Def	ault
	0K (<u>0</u>) Cance	el

Use the MODE key, ENT key, down key and up key in front of the controller for communication settings of the External Device.

- 1 Press MODE key.
- $2 \,$ Press up key to move to "MODE3."
- **3** Press ENT key to display items to be set.
- 4 Press down/up key, select setting value, and press ENT key.

Setup Items	Setting Value
PtCL	rtU
AdrS	1
rAtE	9600
CHAr	8n1

3.28 Setting Example 28

- Settings of GP-Pro EX
- Communication Settings

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

Device/F	PLC 1		
Summar	ſŷ		Change Device/PLC
Ma	aker CHINO Co	orporation	Series Temp. Controllers MODBUS SIO Port COM1
Te	ext Data Mode	1 <u>Change</u>	
Commu	nication Settings		
SIC	Э Туре	C RS232C	© RS422/485(2wire) © RS422/485(4wire)
Sp	eed	9600	
Da	ata Length	O 7	© 8
Pa	rity	NONE	O EVEN O ODD
Sto	op Bit	● 1	© 2
Flo	ow Control	NONE	O ER(DTR/CTS) O XON/XOFF
Tin	neout	3 🕂 (:	sec)
Re	etry	2 🔹	
Wa	ait To Send	10 🕂 (ns)
BI	/ VCC	© RI	O VCC
ir o is	n the case of RS23 or VCC (5V Power S solation Unit, please	12C, you can selec Supply). If you use e select it to VCC.	t the 9th pin to RI (Input) the Digital's RS232C Default
Device-	Specific Settings		
Alle	owable Number of [Devices/PLCs	16 1
	1 PLC1	ime	settings Series=JW Series,Station No.=1

IMPORTANT

٠

Setting value for Wait To Send differs depending on the connection configuration. Set as shown below.

Connection Configuration	Setting Value	
1:1	5ms or more	
1 : n	10ms or more	

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].

Individual Devi	ce Settings	×
PLC1		
Series	JW Series	•
Please reconfirm you have change	all of address settings that you are using i ad the series.	f
Station No.	1 🗮	
	Def	ault
	0K (<u>0</u>) Cance	el

Use the MODE key, ENT key, down key and up key in front of the controller for communication settings of the External Device.

- 1 Press MODE key.
- $2 \,$ Press up key to move to "MODE3."
- **3** Press ENT key to display items to be set.
- 4 Press down/up key, select setting value, and press ENT key.

Setup Items	Setting Value
PtCL	rtU
AdrS	1
rAtE	9600
CHAr	8n1

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.

Devid	ce/PLC 1				
Sum	mary		Change Device/PLC		
	Maker CHINO C	orporation	Series Temp. Controllers MODBUS SIO Port COM1		
	Text Data Mode	1 <u>Change</u>			
Corr	munication Settings				
	SIO Type	RS232C	C RS422/485(2wire) C RS422/485(4wire)		
	Speed	9600			
	Data Length	O 7	© 8		
	Parity	NONE	O EVEN O ODD		
	Stop Bit	⊙ 1	© 2		
	Flow Control	NONE	O ER(DTR/CTS) O XON/XOFF		
	Timeout	3 📫 (s	ec)		
	Retry	2 *			
	Wait To Send	10 📫 (r	ns)		
	RI / VCC	🖲 RI	O VCC		
	In the case of RS23 or VCC (5V Power Isolation Unit, pleas	32C, you can selec Supply). If you use e select it to VCC.	t the 9th pin to RI (Input) the Digital's RS232C Default		
Device-Specific Settings					
	Allowable Number of	Devices/PLCs	16		
	Number Device Na	ime	Settings Seties=DB1000 Series,Station No.=1		
	· ·				

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	Display 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.	
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	CC 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.	

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].

<i></i> Individual Device	Settings	×		
PLC1				
Series	DB1000 Series	•		
Please reconfirm all of address settings that you are using if you have changed the series.				
Station No.	1 芸			
		Default		
	OK (<u>D</u>) C	Cancel		

Setup Items	Setup Description		
Series	Select the External Device series.		
Station No.	Use an integer 1 to 99 to enter the station number of the External Device to communicate.		

4.2 Communication Settings 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	Option		
Temp. Controllers I	MODBUS SIO		[COM1]	Page 1/1
	S10 Type Speed Data Length Parity Stop Bit Flow Control Timeout(s) Retry Wait To Send(ms)	R\$422/485(1) 9600 8 ● NONE ● 1 NONE	2wire)	
	Exit		Back	2007/10/30 14:53:59

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	Display 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 (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.		

Continues to the next page.

Setup Items	Setup Description	
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 Settings

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

Comm,	Device	Option		
Temp. Controllers N	10DBUS SIO		[COM1]	Page 1/1
Device	/PLC Name PLC	1		▼
	Series Station No.	DB1000 Seri	es1	
	Exit		Back	2007/10/30 14:54:03

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])
Series	Display the External Device series.
Station No.	Use an integer 1 to 99 to enter the station number of the External Device to communicate.

Option

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

	Comm.	Device	Option		
Temp.	Controllers	MODBUS SIO		[COM1]	Page 1/1
		RI / VCC In the case of the 9th pin to Power Supply). RS232C Isolati it to VCC.	• RI f RS232C, you can sel b RI(Input) or VCC(5V If you use the Digi ion Unit, please sele	• VCC lect / lal's lect	
		Exit		Back	2007/10/30 14:59:19

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.		

5 Cable Diagram

The cable diagram shown below may be different from the cable diagram recommended by CHINO Corporation. 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) LT (COM1)	A	RS-232C communication cable by CHINO Corporation RZ-CRS6□□ ^{*2}	Cable length: 15m or less
PC/AT	В	Your own cable	

*1 Only the COM port which can communicate by RS-232C can be used. ^(G) "■ IPC COM Port" (page 6)

*2 \square shows cable length.

IL ID O D TANT

• Terminal number to be used for communication varies depending on the External Device. Terminal numbers corresponding to each series are shown below.

Series	SD	RD	SG
DB1000	13	12	14
DB2000 (COM1)	27	26	28
DB2000 (COM2)	30	29	31
KP1000	13	12	14
KP2000 (COM1)	27	26	28
KP2000 (COM2)	30	29	31
KP3000 (COM1)	27	26	28
KP3000 (COM2)	30	29	31
LT300/400	11	13	15

A) When using the RS-232C Communication Cable by CHINO Corporation



B) When using your own cable

	D	isplay	External Device
	Pin	Signal name	Shield Signal name
Display	2	RD (RXD)	 ✓ ✓ SD
	3	SD (TXD)	
	5	SG	SG
	7	RS (RTS)	
	8	CS (CTS)	▲ \
	Shell	FG	V

Cable Diagram 2

Display (Connection Port)		Cable	Notes
	А	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	
GP ^{*1} (COM1) AGP-3302B (COM2) ST ^{*2} (COM2) LT (COM1) IPC ^{*3}	В	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + RS-422 cable by Pro-face CA3-CBL422-01 + Your own cable	
	С	RS-422 cable by Pro-face CA3-CBL422/5M-01 + Your own cable	
	D	Your own cable	Cable length: 600m or less
	Е	Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	
GP ^{*4} (COM2)	F	Online adapter by Pro-face CA4-ADPONL-01 + Your own cable	
	G	Online adapter by Pro-face CA4-ADPONL-01 + RS-422 cable by Pro-face CA3-CBL422-01 + Your own cable	

*1 All GP models except AGP-3302B

*2 All ST models except AST-3211A and AST-3302B

*4 All GP models except GP-3200 series and AGP-3302B
IMPORTANT

• Terminal number to be used for communication varies depending on the External Device. Terminal numbers corresponding to each series are shown below.

Series	SDA	SDB	RDA	RDB	SG
DB1000	14	15	12	13	16
DB2000 (COM1)	28	29	26	27	30
DB2000 (COM2)	31	32	29	30	28
KP1000	14	15	12	13	16
KP2000 (COM1)	28	29	26	27	30
KP2000 (COM2)	31	32	29	30	28
KP3000 (COM1)	28	29	26	27	30
KP3000 (COM2)	31	32	29	30	28
LT300/400	11	12	13	14	15
JU Single-phase	1	2	3	4	5
JW	1	2	3	4	5

- A) When using the COM port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- Display Terminal block Shield Signal name **External Device** CA3-ADPCOM-01 Display TERMRX Signal name SDA RDA RDB SDB SDA RDA CA3-ADPTRM-01 SDB **RDB** Termination SG SG resistance 100Ω FG Your own cable 1:n connection External Device Terminal block Signal name External Device External Device Shield Shield TERMRX Signal name Signal name CA3-ADPCOM-01 Display SDA RDA SDA SDB RDB SDB RDA SDA RDA \geq RDB RDB SDB CA3-ADPTRM-01 Termination SG SG SG resistance 100Ω FG

Your own cable

- B) When using the COM port conversion adapter (CA3-ADPCOM-01), the RS-422 cable (CA3-CBL422-01) by Pro-face and your own cable
- 1:1 connection





- C) When using the RS-422 cable (CA3-CBL422/5M-01) by Pro-face and your own cable
- 1:1 connection





- D) When using your own cable
- 1:1 connection





- E) When using the online adapter (CA4-ADPONL-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 connection





Your own cable

- F) When using the online adapter (CA4-ADPONL-01) by Pro-face and your own cable
- 1:1 connection





- G) When using the online adapter (CA4-ADPONL-01), the RS-422 cable (CA3-CBL422-01) by Pro-face and your own cable
- 1:1 connection





Cable Diagram 3

Display (Connection Port)		Cable	Notes
GP ^{*1} (COM1) AGP-3302B (COM2) ST ^{*2} (COM2) LT (COM1)	А	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	
	В	Your own cable	
GP ^{*3} (COM2)	С	Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	Cable length: 600m or less
	D	Online adapter by Pro-face CA4-ADPONL-01 + Your own cable	
IPC ^{*4}	Е	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	
	F	Your own cable	

*1 All GP models except AGP-3302B

*2 All ST models except AST-3211A and AST-3302B

*3 All GP models except GP-3200 series and AGP-3302B

*4 Only the COM port which can communicate by RS-422/485 (2 wire) can be used. ^(G) "■ IPC COM Port" (page 6)

IMPORTANT

• Terminal number to be used for communication varies depending on the External Device. Terminal numbers corresponding to each series are shown below.

Series	SA	SB	SG
DB1000	12	13	14
DB2000 (COM1)	26	27	28
DB2000 (COM2)	29	30	31
KP1000	12	13	14
KP2000 (COM1)	26	27	28
KP2000 (COM2)	29	30	31
KP3000 (COM1)	26	27	28
KP3000 (COM2)	29	30	31
LT230	6	7	8
LT300/400	11	12	15
LT830	6	7	8

- A) When using the comport conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 connection



FG

Your own cable

- B) When using your own cable
- 1:1 connection





SB

SG

Termination

resistance 100Ω

- C) When using the online adapter (CA4-ADPONL-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 connection



SB

SG

Your own cable

RDB

SDA

SDB

SG FG

CA3-ADPTRM-01

ł

- D) When using the online adapter (CA4-ADPONL-01) by Pro-face and your own cable
- 1:1 connection





- E) When using the com port conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 connection





- F) When using your own cable
- 1:1 connection





Cable Diagram 4

Display (Connection Port)		Cable	Notes
GP ^{*1} (COM1) AGP-3302B (COM2) ST ^{*2} (COM2) LT (COM1)	А	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	
	В	Your own cable	
GP ^{*3} (COM2)	С	Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	Cable length: 600m or less
	D	Online adapter by Pro-face CA4-ADPONL-01 + Your own cable	
IPC*4	E	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	
	F	Your own cable	

*1 All GP models except AGP-3302B

*2 All ST models except AST-3211A and AST-3302B

*3 All GP models except GP-3200 series and AGP-3302B

*4 Only the COM port which can communicate by RS-422/485 (2 wire) can be used. ^(G) "■ IPC COM Port" (page 6)

- A) When using the comport conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 connection





- B) When using your own cable
- 1:1 connection





- C) When using the online adapter (CA4-ADPONL-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 connection





- D) When using the online adapter (CA4-ADPONL-01) by Pro-face and your own cable
- 1:1 connection





- E) When using the comport conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 connection





- F) When using your own cable
- 1:1 connection





Cable Diagram 5

Display (Connection Port)		Cable	Notes
GP ^{*1} (COM1) AGP-3302B (COM2) ST ^{*2} (COM2) LT (COM1)	А	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	
	В	Your own cable	
GP ^{*3} (COM2)	С	Online adapter by Pro-face CA4-ADPONL-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	Cable length: 600m or less However, between the master and the slave cable length: 10m or less
	D	Online adapter by Pro-face CA4-ADPONL-01 + Your own cable	lengui. 1011 of less
IPC ^{*4}	Е	COM port conversion adapter by Pro-face CA3-ADPCOM-01 + Terminal block conversion adapter by Pro-face CA3-ADPTRM-01 + Your own cable	
	F	Your own cable	

*1 All GP models except AGP-3302B

*2 All ST models except AST-3211A and AST-3302B

*3 All GP models except GP-3200 series and AGP-3302B

*4 Only the COM port which can communicate by RS-422/485 (2 wire) can be used. ^(G) "■ IPC COM Port" (page 6)

- A) When using the comport conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 connection



IMPORTANT • Connect No. 17 and No. 18 between slaves as shown in the figure above.

Pin

17

18

Signal name

SA2

SB2

Termination

resistance 100Ω

- B) When using your own cable
- 1:1 connection



IMPORTANT • Connect No. 17 and No. 18 between slaves as shown in the figure above.

(slave) Pin Signa

17

18

Signal name

SA2

SB2

Termination resistance

1000

- C) When using the online adapter (CA4-ADPONL-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 connection



IMPORTANT

Connect No. 17 and No. 18 between slaves as shown in the figure above.

- D) When using the online adapter (CA4-ADPONL-01) by Pro-face and your own cable
- 1:1 connection



- E) When using the comport conversion adapter (CA3-ADPCOM-01), the terminal block conversion adapter (CA3-ADPTRM-01) by Pro-face and your own cable
- 1:1 connection



Your own cable

IMPORTANT

Connect No. 17 and No. 18 between slaves as shown in the figure above.

Termination

resistance 100Ω

- F) When using your own cable
- 1:1 connection



IMPORTANT

Connect No. 17 and No. 18 between slaves as shown in the figure above.

Termination resistance

100Ω

18

•

6 Supported Device

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

Enter the External Device address in the dialog below.

	💰 Input Address 🛛 🗙				<				
	Devi	ice/P	LC	PLC1	_	_	•]	_1
	4			000	1		~		
	Ba	ick				C	lr		
	Α	В	С		7	8	9		
2、	D	Е	F		4	5	6		
					1	2	3		
	Re	eferer	nce		0	E	nt		

- 1. Address Enter the address.
- 2. Reference

Available parameter list is displayed. Click the parameter to use and press "Select", then the address is entered.

There are some temperature controller data with decimal points.

On the Display, data with decimal points are treated as follow.

<When reading>

Read data from the temperature controller is integral number without decimal points.

e.g. When a value of temperature controller is 100.0:

Value of temperature controller: 100.0

Displayed value on the Display (setting is without decimal points): 1000

To display decimal points on the Data Display, set "Decimal Places" of "Display" tab.

For example, if the specification of temperature controller data is in the first decimal position, set 1 to "Decimal Places."

e.g. When a value of temperature controller is 100.0:

Value of temperature controller: 100.0

Displayed value on the Display (setting is without decimal points): 1000

Displayed value on the Display (setting is the first position of decimal points): 100.0

<When writing>

When writing to the temperature controller, set integral number without decimal points.

6.1 DB1000 series

This address can be specified as system data area.

Device	Bit Address	Word Address	32bits	Notes
Digital Setting Value	00101	_		
	00111			
Digital Input Data	10002 - 10124	-		*1
Analog Input Data	-	30101 - 30143	[<u>H/L</u>]	<u>ві</u> т 15 *1
Analog Setting Value	_	40001 - 40596*2		<u>ві t</u> 15)
Operational Status Setting		49056 - 49512		<u>віt</u> 15

*1 Write disable

*2 Write disable in 40151.

• System area setting that can be used with controller is read area size for reading only. Please refer to the GP-Pro EX Reference Manual for read area size.

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"

6.2 DB2000 series

This address can be specified as system data area.

Device	Bit Address	Word Address	32bits	Notes
Digital Setting Value	00101	_		
Digital Getting value	00111	-		
Digital Input Data	10002 - 10124	-		*1
Analog Input Data	-	30101 - 30143	[H/L]	<u>ві</u> т 15 *1
Analog Setting Value	_	40001 - 40650*2		<u>ві</u> t15
Operational Status Setting	-	49056 - 49536		<u>ві</u> t15

*1 Write disable

*2 Write disable in 40151.

NOTE	• System area setting that can be used with controller is read area size for read	ng only.
	Please refer to the GP-Pro EX Reference Manual for read area size.	
	Cf. CD Dro EX Deference Menuel "Appendix 1.4.1.8 Area (Direct Ac	ana Matha

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.

6.3 KP1000 series

This address can be specified as system data area.

Device	Bit Address	Word Address	32bits	Notes
Digital Setting Value	00101	_		
Digital Getting value	00111	-		
Digital Input Data	10002 - 10124	-		*1
Analog Input Data	-	30101 - 30144	[H/L]	<u>ві</u> т 15 *1
Analog Setting Value		40001 - 40650 ^{*2}		<u>ві</u> t15
Pattern Setting	-	49003 - 49534 ^{*3}		<u>ві</u> t15

*1 Write disable

*2 Write disable in 40151.

*3 Write disable in 49040.

NOTE

• System area setting that can be used with controller is read area size for reading only. Please refer to the GP-Pro EX Reference Manual for read area size.

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"

6.4 KP2000 series

This address can be specified as system data area.

Device	Bit Address	Word Address	32bits	Notes
Digital Setting Value	00101	_		
Digital Getting value	00111			
Digital Input Data	10002 - 10124	-		*1
Analog Input Data	-	30101 - 30144	[H/L]	<u>ві</u> т 15 *1
Analog Setting Value		40001 - 40650*2		<u>ві</u> t15
Pattern Setting	-	49003 - 49536 ^{*3}		<u>ві t</u> 15

*1 Write disable

*2 Write disable in 40151.

*3 Write disable in 49040.

• System area setting that can be used with controller is read area size for reading only. Please refer to the GP-Pro EX Reference Manual for read area size.

> 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.

6.5 KP3000 series

This address can be specified as system data area.

Device	Bit Address	Word Address	32bits	Notes
Digital Input Data	10005	-		*1
Analog Input Data	-	30109 - 30144	[H/L]	<u>ві t15</u> *1
Analog Setting Value	_	40008 - 40574 ^{*2}		<u>ві</u> t15
Pattern Setting	-	49003 - 49534 ^{*3}		<u>ві</u> t15

*1 Write disable

*2 Write disable in 40151.

*3 Write disable in 49040.

NOTE

• System area setting that can be used with controller is read area size for reading only. Please refer to the GP-Pro EX Reference Manual for read area size.

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.

⁽³⁾ "Manual Symbols and Terminology"

6.6 LT230 series

This address can be specified as system data area. Device **Bit Address** Word Address 32bits Notes *1 00101 **Digital Setting Value Digital Input Data** 10004 - 10120 _ <u>ві t</u>151 Analog Input Data 30101 - 30142 լ ዘ / Լլ 40008^{*3} 40114 - 40119 вit Analog Setting Value 40201 - 40251 49501 - 49512

*1 When writing, key lock of External Device needs to be set to lock 4. When writing to other than lock 4, a communication error will be displayed.

*2 Write disable

*3 Write disable in 40008.

NOTE

• System area setting that can be used with controller is read area size for reading only.

Please refer to the GP-Pro EX Reference Manual for read area size.

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.

This address can be encoified as system

6.7 LT300 series

	<u>P</u>		specified as s	ystem uata area.
Device	Bit Address	Word Address	32bits	Notes
Digital Setting Value	00101	-	- 	*1
Digital Input Data	10004 - 10122	-		*2
Analog Input Data	-	30101 - 30142		ві t 15 *2
Analog Setting Value	-	40008 ^{*3} 40114 - 40119 40201 - 40251 49501 - 49512		<u>₿ i 1</u> 5] *1

*1 When writing, key lock of External Device needs to be set to lock 4. When writing to other than lock 4, a communication error will be displayed.

*2 Write disable

*3 Write disable in 40008.

NOTE

• System area setting that can be used with controller is read area size for reading only. Please refer to the GP-Pro EX Reference Manual for read area size.

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"

6.8 LT400 series

This address can be specified as system data area.

Device	Bit Address	Word Address	32bits	Notes
Digital Setting Value	00101 - 00109	-		*1
Digital Input Data	10002 - 10124	-		*2
Analog Input Data	-	30101 - 30142		<u>ві</u> т 15 *2
Analog Setting Value		40001 - 40093		
	-	40112 - 40166		<u>віt</u> 15
	_	40201 - 40388		*1
		49501 - 49512		

*1 When writing, key lock of External Device needs to be set to lock 4. When writing to other than lock 4, a communication error will be displayed.

*2 Write disable

- System area setting that can be used with controller is read area size for reading only.
 Please refer to the GP-Pro EX Reference Manual for read area size.
 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"

This address can be specified as system data area.

6.9 LT830 series

Device	Bit Address	Word Address	32bits	Notes
Digital Setting Value	00101	-		*1
Digital Input Data	10004 - 10120	-		*2
Analog Input Data	-	30101 - 30142		ві t 15 *2
Analog Setting Value	-	40008 ^{*3} 40114 - 40119 40201 - 40211 49501 - 49512		<u>₿ i</u> 15] *1

Г

*1 When writing, key lock of External Device needs to be set to lock 3. When writing to other than lock 3, a communication error will be displayed.

*2 Write disable

*3 Write disable in 40008.

NOTE

• System area setting that can be used with controller is read area size for reading only. Please refer to the GP-Pro EX Reference Manual for read area size.

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.
6.10 JU series with temperature controller feature

This address can be specified as system data area.

Device	Bit Address	Word Address	32bits	Notes
Digital Setting Value	00101 - 00106	_		*1
	01102 - 01612 ^{*2}	-		
Digital Input Data	10002 - 10122	_		*3
	11109 - 11614 ^{*2}			
Analog Input Data		30101 - 30142		<u> </u>
	-	31101 - 31612 ^{*2}	[H/L]	Bit I ↓ *3
		39001 - 39080	1	
Analog Setting Value		40001 - 40384		
	_	41102 - 41672*2		<u>віt</u> 15
	-	48111 - 48618 ^{*2}		*1
		49501 - 49525		

*1 When writing, key lock of External Device needs to be set to lock 4. When writing to other than lock 4, a communication error will be displayed.

*2 Specify the address in the style below for Operation terminal function (01102 - 01612), Operation terminal operation part (11109 - 11614), Operation terminal measurement data (31101 - 31612), and Operation terminal parameter (41102 - 41672/48111 - 48618).

EX. Elevation (41D03)



*3 Write disable



• Please refer to the precautions on manual notation for icons in the table.

"Manual Symbols and Terminology"

6.11 JU series Single-phase

		This address can be	specified as s	ystem data area.
Device	Bit Address	Word Address	32bits	Notes
Digital Setting Value	01001 - 01013	-		*1
Digital Input Data	11001 - 11015	-		*2
Analog Input Data	-	31101 - 31112	[H/L]	віt 15 *2
Analog Setting Value	-	41001 - 41013 49501		ві t 15 *1

*1 When writing, key lock of External Device needs to be set to locked. When writing in unlocked status, a communication error will be displayed.

*2 Write disable

• System area setting that can be used with controller is read area size for reading only. Please refer to the GP-Pro EX Reference Manual for read area size.

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"

6.12 JW series

This address can be specified as system data area.

Device	Bit Address	Word Address	32bits	Notes
Digital Setting Value	01001 - 01014	-		*1
Digital Input Data	11001 - 11019	-		*2
Analog Input Data	-	31101 - 31182	[Н/Ц	ві t 15 *2
Analog Setting Value	-	41001 - 41018		<u>ві</u> t15
		49501		*1

*1 When writing, key lock of External Device needs to be set to locked. When writing in unlocked status, a communication error will be displayed.

*2 Write disable

NOTE

• System area setting that can be used with controller is read area size for reading only. Please refer to the GP-Pro EX Reference Manual for read area size.

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.

Thease feler to the precations on manual notation for feons in

"Manual Symbols and Terminology"

7 Device Code and Address Code

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

Device	Device Name	Device Code (HEX)	Address Code
Analog Input Data	3	0001	Word Address
Analog Setting Value	4	0000	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.	
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 such as "IP address (Decimal): MAC address (Hex)." Device address is displayed 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])"

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.

Error Codes Unique to External Device

Error codes unique to External Device are shown below.

Error Code	Description
18 (12H)	 Cannot be set^{*1} When key setting is not locked. When trying to set an item that cannot be selected in the type.

*1 Causes for setting error depend on the External Device. Please refer to the manual of the External Device for more details.