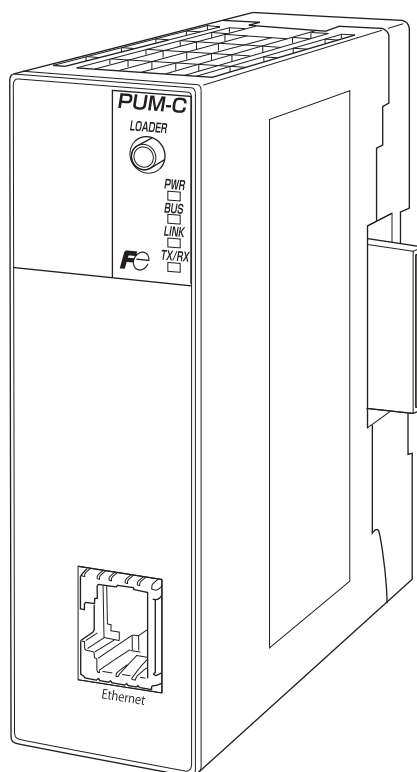




## User's Manual

# MULTI-LOOP MODULE TYPE TEMPERATURE CONTROLLER <Enhanced Communication Module (Ethernet)>

TYPE: PUMCE





## Please Read First (Safety Warnings)

Please read this section thoroughly before using and observe the mentioned safety warnings fully.

Safety warnings are categorized as "Warning", "Caution" or "Risk of Electrical Shock".

⚠ Warning	Improper use of the equipment may result in death or serious injuries.
⚠ Caution	Improper use of the equipment may cause injury or property damage.
Risk of ⚠ Electrical Shock	Indicates that a risk of electrical shock is present and the associated warning should be observed.

## Scope of application

- This equipment must be used under the following conditions:
  - the use of the equipment incurs no risk of a serious accident even if a failure or malfunction occurs on the equipment, and
  - in case of product failure or malfunction, safety measures such as redundant design, prevention of malfunction, fail safe system, foolproof mechanism are provided outside of the equipment.
- This product is designed and manufactured as a general-purpose product for general industrial applications.
- The warranty does not apply to the following cases:
  - for the use not described in or beyond the conditions or environment specified in the instruction manual or the user manual,
  - for the use which has large influence on publicity including nuclear power and other power generation, gas, and/or water,
  - for the use in which safety is especially required, because it may seriously affect railroads, vehicles, combustion equipment, medical equipment, entertainment devices, safety equipment, defense equipment, and/or human lives and property.

However, we will study the possibility of application of the equipment for the above use, if the user limits the usage of it and agrees to require no special quality. Please consult us.

## Warranty

### Period of warranty

Warranty period for this product including accessories is one year after delivery.

### Scope of warranty

- (1) If any failure or malfunction attributable to Fuji Electric occurs in the period of warranty, we will replace the product or failed parts without charge. Please note that, in the case where our engineer needs to visit your place for replacement, we cannot provide commissioning and/or readjustment for whole system including our product at repair or replacement of failed parts.

The warranty does not apply to failure or malfunction resulting from:

- a) Between the temperature sensor and the location where the voltage reaches or generates the values described below, secure clearance space and creepage distance as shown in the table below.
  - b) other devices or software not originate in Fuji Electric,
  - c) improper use, or an alteration or repair that is not performed by Fuji Electric,
  - d) factors that do not originate in the purchased or delivered product,
  - e) damages incurred during transportation or fall after purchase,
  - f) factors that were not foreseeable by the practical application of science and technology at the time of purchase or delivery,
  - g) any reason that Fuji Electric is not responsible for, including a disaster or natural disaster such as earthquake, thunder, storm and flood damage, or inevitable accidents such as abnormal voltage.
- (2) Regardless of the time period of the occurrence, Fuji Electric is not liable for the damage caused by the factors Fuji Electric is not responsible for, opportunity loss of the purchaser caused by malfunction of Fuji Electric product, passive damages, damage caused due to special situations regardless of whether it was foreseeable or not, and secondary damage, accident compensation, damage to products that were not manufactured by Fuji Electric, and compensation towards other operations.

### Period for repair and provision of spare parts after product discontinuation (maintenance period)

The discontinued models (products) can be repaired for five years from the date of discontinuation.

Also, most spare parts used for repair are provided for five years from the date of discontinuation. However, some electric parts may not be obtained due to their short life cycle. In this case, repair or provision of the parts may be difficult in the above period.

Please contact Fuji Electric or its service providers for further information.

## Warnig

### Installation and Wiring

- This equipment is intended to be used under the following conditions.

Ambient temperature	–10 to 50 degree C
Ambient humidity	90% RH or below (with no condensation)
Vibration	10 to 70Hz less than 9.8m/s <sup>2</sup> (1G)
Warm-up time	30 min. or more
Installation category	IEC61010-1: class II
Pollution level	IEC61010-1: degree 2

- Between the temperature sensor and the location where the voltage reaches or generates the values described below, secure clearance space and creepage distance as shown in the table below.

If such space cannot be secured, the IEC61010-1 safety compliance may become invalid.

Voltage used or generated by any assemblies	Clearance Space [mm]	Creepage Space [mm]
Up to 50 Vrms or Vdc	0.2	1.2
Up to 100 Vrms or Vdc	0.2	1.4
Up to 150 Vrms or Vdc	0.5	1.6
Up to 300 Vrms or Vdc	1.5	3.0
Above 300 Vrms or Vdc	Please consult our distributor	

- For the above, if voltage exceeds 50Vdc (called danger voltage), functional insulation is required between the earth and all terminals of the equipment.

Note that the insulation class for this equipment is as follows. Before installing, please confirm that the insulation class for equipment meets usage requirements.

Power supply	Ethernet
Loader communication	
Functional insulation (AC 1000 V)	Functional insulation (AC 500 V)

- In cases where damage or problems with this equipment may lead to serious accidents, install appropriate external protective circuits.
- To prevent damage and failure of the equipment, provide the rated power voltage.
- To prevent electric shock and equipment failure, do not turn the power ON until all wiring is complete.
- Before turning the power ON, confirm that clearance space has been secured to prevent shock or fire.
- Do not touch the terminal while the machine is ON. Doing so risks shock or equipment errors.
- Never disassemble, convert, modify or repair this equipment. Doing so risks abnormal operation, shock or fire.
- All of the wiring should be class 1 type wiring or the low voltage wires are routed separately from the hazardous voltage wires to ensure separation of circuits.
- When using a AWG-16 cable, you should use the crimp terminal that material thickness is 0.9mm or less.

### Maintenance

- When installing or removing the equipment, turn the power OFF. Otherwise, shock, operational errors or failures may be caused.
- Periodic maintenance is recommended for continuous and safe use of this equipment.
- Some parts installed on this equipment have a limited life and/or may deteriorate with age.
- The warranty period for this unit (including accessories) is one year, if the product is used properly.

## Service life

This product, excluding limited-life parts, is designed for a service life of 10 years under general operating conditions.

### Limited-life parts and consumable parts

Warranty period for this product including accessories is one year after delivery.

- Aluminum electrolytic capacitor
  - Designed service life: 10 years under general working conditions
  - Symptoms when a capacitor loses its capacity: deterioration of power quality, malfunction
  - Factors which affect capacitor life: temperature  
The life is shortened by half when the temperature rises by 10°C. (Arrhenius' law)
  - Replacement: Estimate the lifetime of capacitor according to your operating environment, and have the capacitor replaced or overhauled at appropriate time, at least once in 10 years.

Do not use capacitors beyond its lifetime. Otherwise, electrolyte leakage or depletion may cause odor, smoke, or fire. Please contact Fuji Electric or its service providers when an overhaul is required.

## Caution

### Caution when Installing

For install in UL listed enclosure only.

Please avoid installing in the following locations.

- Locations in which the ambient temperature falls outside the range of 0 to 50 degrees C when equipment is in use.
- Locations in which the ambient humidity falls outside the range of 45 to 85% RH when equipment is in use.
- Locations with rapid temperature changes, leading to dew condensation.
- Locations with corrosive gases (especially sulfide gas, ammonia, etc.) or flammable gases.
- Locations with vibration or shock directly.
- Locations in contact with water, oil, chemicals, steam or hot water.  
(If the equipment gets wet, there is a risk of electric shock or fire, so have it inspected by Fuji distributor.)
- Locations with high concentrations of atmospheric dust, salt or iron particles.
- Locations with large inductive interference, resulting in static electricity, magnetic fields or noise.
- Locations in direct sunlight.

- Locations that build up heat from radiant heat sources, etc.
- A switch or circuit breaker shall be included in the building installation. Please be it in close proximity to the equipment and within easy reach of the operator, and mark it as the disconnecting device for the equipment.

### Caution when Mounting to Cabinets/DIN Rails

- In case of mounting the temperature controllers to DIN rails, remember to push up the locking tabs to fasten the controllers onto DIN rail.
- To connect controllers, first release all locking tabs. Then, connect controllers and push up all locking tabs. Make sure that all locking tabs are fastened.
- Never fail to turn the power OFF, before detaching the terminal block or removing the main unit from the base part.
- In order to aid heat dissipation, do not block the top and the bottom of the equipment.
- When mounting/dismounting controllers to /from DIN rails, 30mm of clearance above and under the controllers should be provided.

### Caution for Wiring

- For wiring to the terminal block, apply crimp type terminals size M3.  
Use terminal screws in this product only.  
Screw size: M3×7 (with square washer)  
Screw tightening torque: 0.78 N • m (8kgf • cm)
- To avoid the influence of inductive noise, input signal wires should be separated from electric power lines or load lines.
- To use the RS-232C communication, attach noise filters to the AC power lines. (Not necessary, provided that the noise suppression of the power line is thoroughgoing)
- To comply with CE marking (EMC), we recommend to attach ferrite core to communication cable and power cable.

### Error Operation

- The alarm function does not work properly when an error occurs unless the settings are made correctly. Always verify its setting before operation.

#### Others

- Please do not wipe the equipment with organic solvents such as alcohol or benzene, etc. If wiping is necessary, use a neutral cleaning agent.
- Do not use mobile phones near this equipment (within 50cm). Otherwise a malfunction may result.
- Malfunctions may occur if the equipment is used near a radio, TV, or wireless device.
- This equipment requires approx. 5 to 30 seconds before it starts to output.
- Before installing and wiring, take necessary measures for electrostatic discharge (ESD).
- The power supply for this product is 24V DC. Please use the power source of appropriate volume depending on the number of units you connect.

Recommended power supply:

Cosel Electronics Co., Ltd. PBA Series

Omron Corporation S8VM Series

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# 1

## Overview

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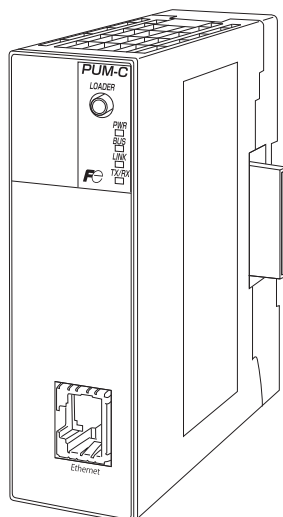
# 1.1 Overview

An enhanced communication module, PUMCE enables multi-loop module type temperature controller, PUM series (hereinafter referred to as PUM) to connect with MODBUS/TCP supporting control devices via Ethernet network. PUMCE also supports programless communication with Micrex-SX, which is the PLC produced by Fuji Electric.

## Point

- MODBUS/TCP is a communication protocol that can be used in Ethernet communication.
- Programless communication is the communication method that enables Micrex-SX to read and write PUM data without composing communication program.

Using side connectors for the enhanced communication module, PUMCE, or the temperature control module(PUM series) are connected enables a wiring to only one power terminal and a labor saving wiring.



## Confirming Accessories

Before using the product, please confirm that all of following accessories are included.

Description	Quantity
Temperature Controller Enhanced Communication Module (The equipment)	1 unit
Instruction Manual (Installation)	1 copy

# 1.2 Model Code

## Ethernet communication module

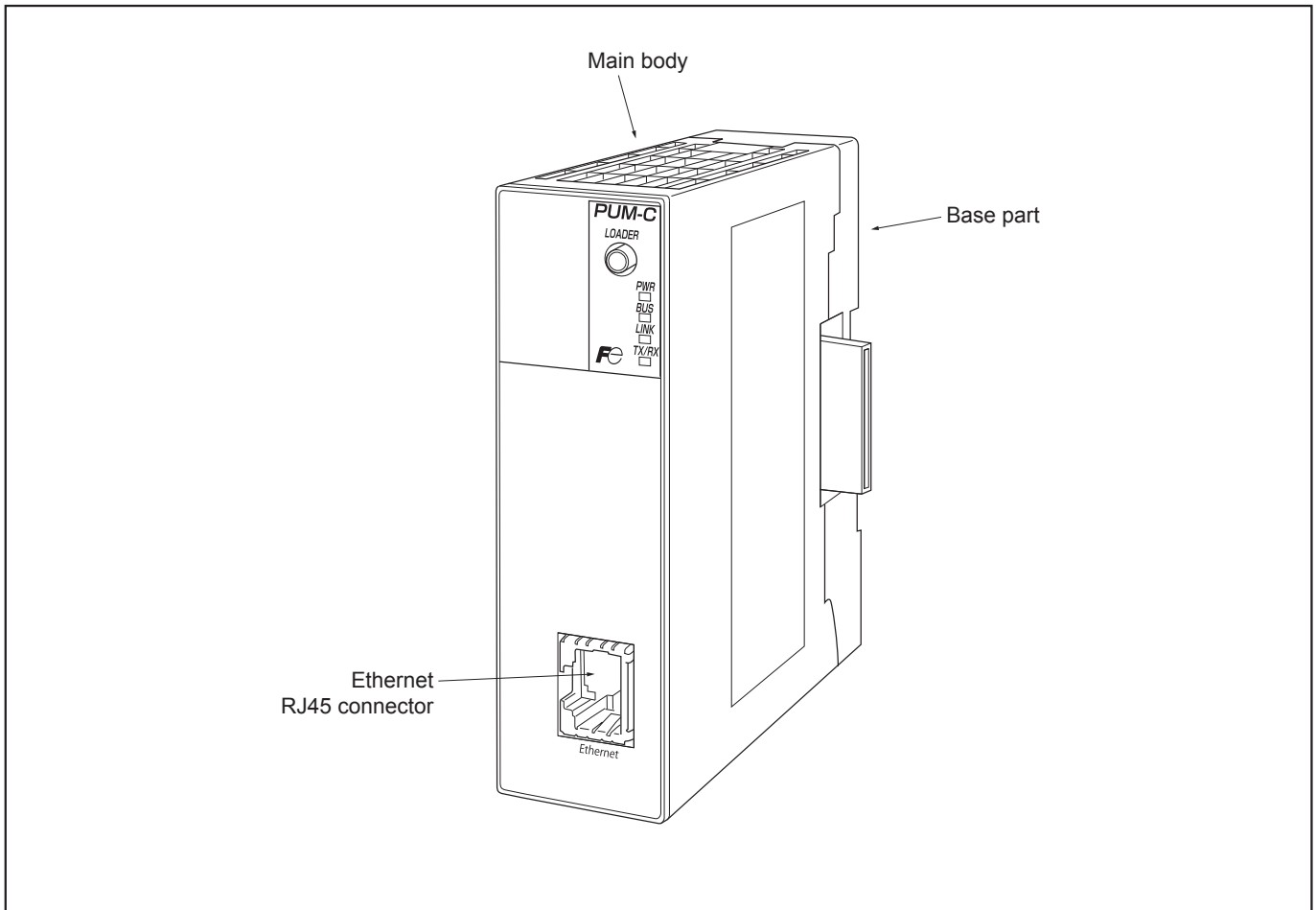
1	2	3	4	5	6	7	8	9	10	Contents	
P	U	M			Y	Y	1	-	0		
										Module type	
			C							Enhanced communication module	
										Communication functions	
				M						Mitsubishi's PLC programless communications	
										Instruction manual	
									A	Japanese	
									B	English	

## Accessories (Optional)

1	2	3	4	5	6	7	8	Contents	
P	U	M	Z	*					
					A	0	2	DIN rail mounting endplate	
					A	0	3	Side connecting terminal covers (right & left 1set)	
					A	0	4	Front face screw terminal cover	
					L	0	1	Loader connecting cable (RS-232C)	

# 1.3 Part Names and Functions

## External view



### Ethernet RJ45 connector

The RJ45 connector is for connecting the Ethernet cable.

### Main Body

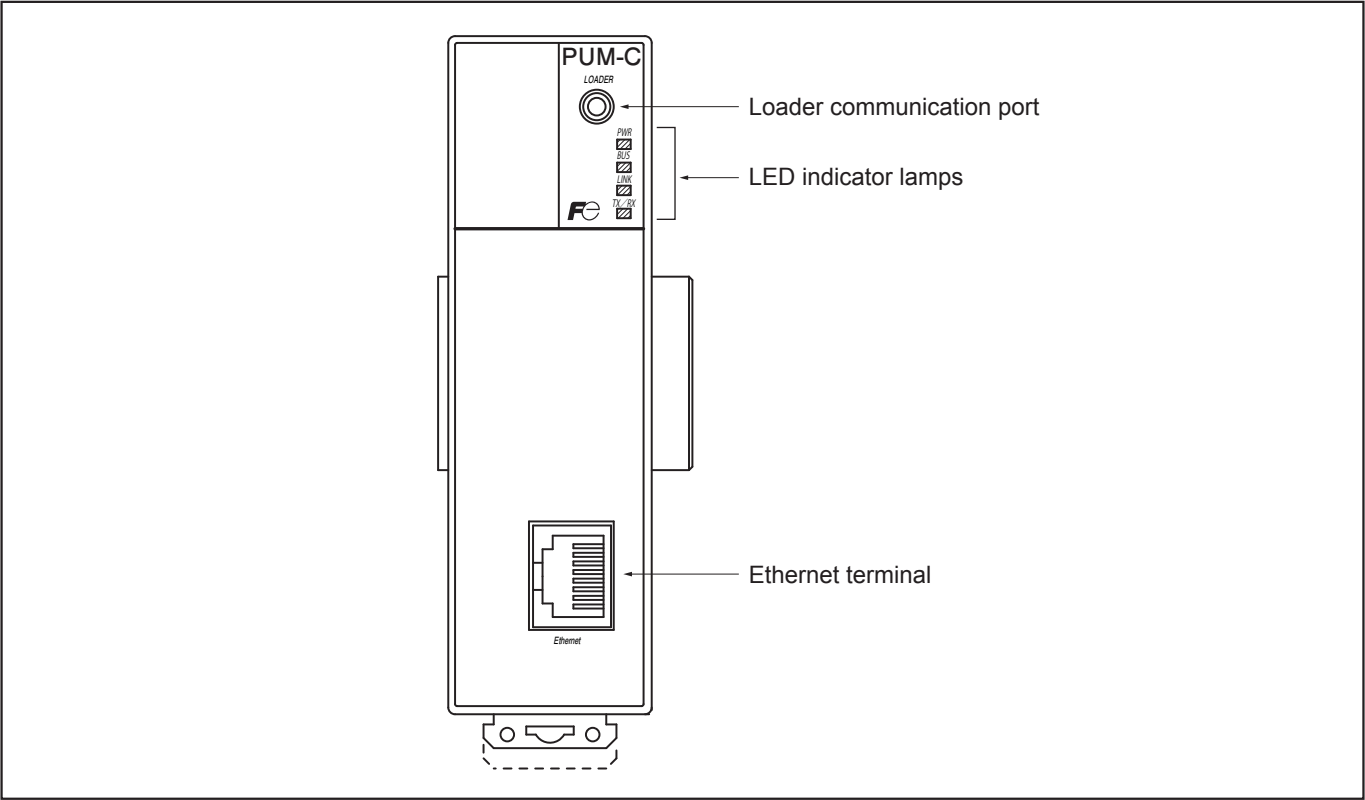
It is the main body of a module containing circuits for Ethernet communications.

- The main body is removable from the base part through one-touch operation.

### Base Part

The base part consists of power terminals, module connectors for connecting modules and the structure of fixing a module to DIN rails.

Front



LED Indicator Lamps

LED lamps indicate the following operational conditions.

Bridge communication

LED	Green	Red	Orange
PWR	ON: Normal operation	—	—
BUS	ON: inter-module communication (receiving)	—	ON: inter-module communication (transmitting)
LINK	ON: normal Ethernet communication link	—	—
TX/RX	—	—	ON: Ethernet communication data receiving or transmitting

## Mapping communication

LED	Green	Red	Orange
PWR	ON: Normal operation Blinking (0.5-sec. intervals): Performing initial polling with PUM	Blinking (1.0-sec. intervals): No communication established due to inter-device communication fault Blinking (0.5-sec. intervals): Registered parameter is out of range Switch setting is out of range EEPROM failure Invalid MAC address	—
BUS	ON: inter-module communication (receiving)	—	ON: inter-module communication (transmitting)
LINK	ON: normal Ethernet communication link	—	—
TX/RX	—	—	ON: Ethernet communication data receiving or transmitting

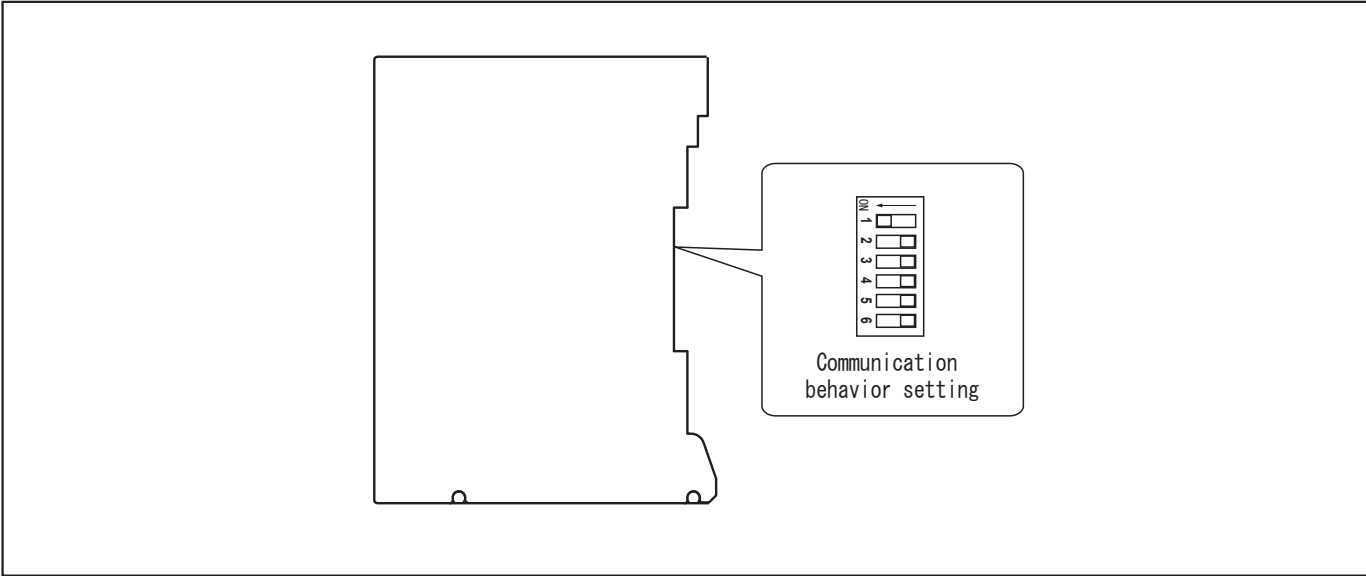
## Programless communication

LED	Green	Red	Orange
PWR	ON: Normal operation Blinking (0.5-sec. intervals): Performing initial polling with PUM	ON: faulty communication with Micrex-SX Blinking (1.0-sec. intervals): No communication established due to inter-device communication fault Blinking (0.5-sec. intervals): Registered parameter is out of range Switch setting is out of range EEPROM failure Invalid MAC address	—
BUS	ON: inter-module communication (receiving)	—	ON: inter-module communication (transmitting)
LINK	ON: normal Ethernet communication link	—	—
TX/RX	—	—	ON: Ethernet communication data receiving or transmitting

**Loader communication port**

Connecting the equipment to the PC that is installed PUM parameter loader software with a loader connecting cable (optional).

**Main part (Back face)**



**Communication behavior configuration Switch**

Communication behavior is set by DIP switch (SW1 to SW6) on the back face of the module.

Communication behavior	SW setting					
	1	2(Note 1)	3(Note 1)	4	5	6
Modbus/TCP bridge communication	Note 2	OFF	OFF	OFF		
Modbus/TCP mapping communication		OFF	ON			
Micrex-SX programless communication		ON	OFF			

(Note 1): Turning SW2 and SW3 ON at the same time is not possible.

(Note 2): If turning the SW1 ON, Ethernet setting operates with the factory-set value.

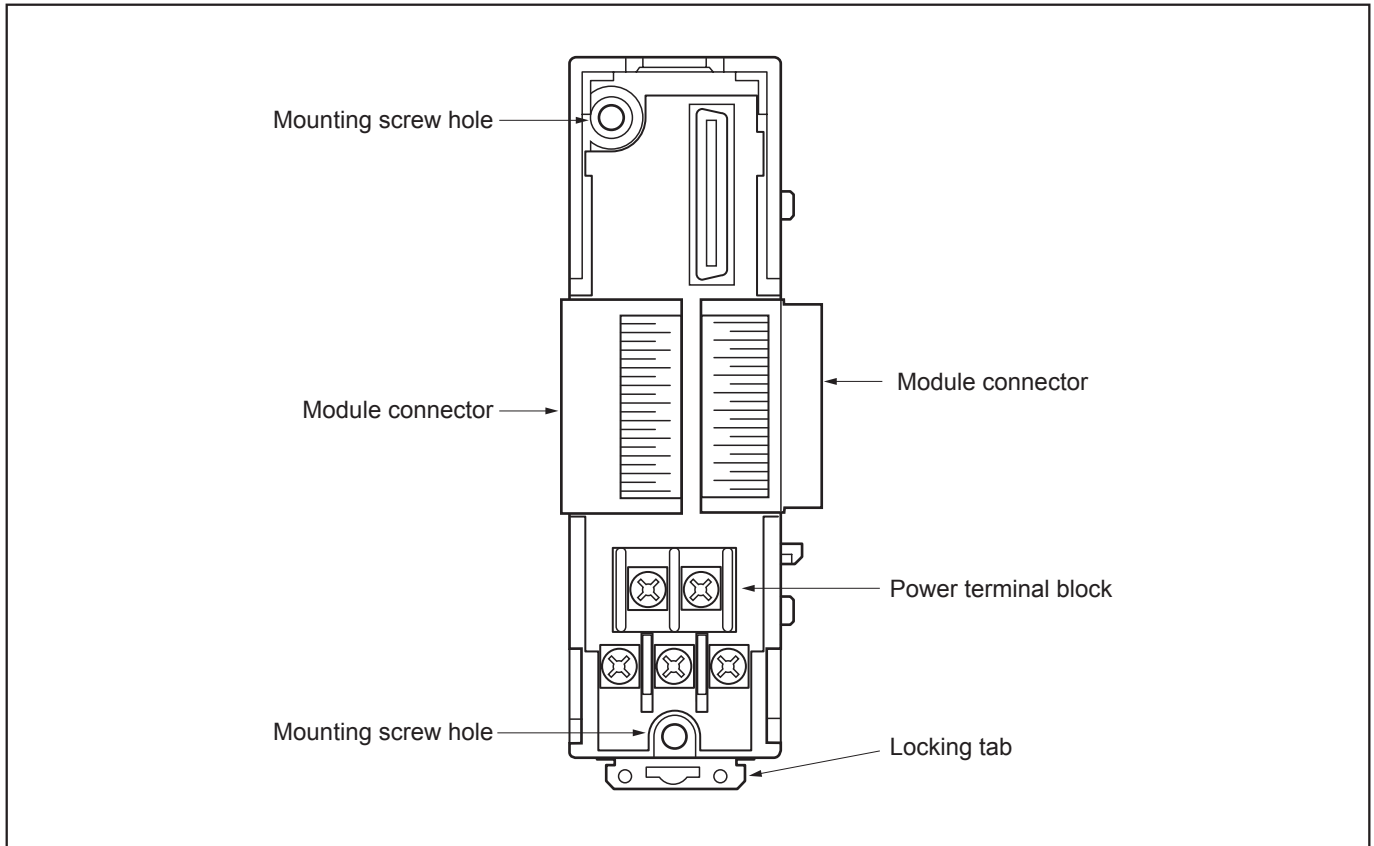
The following table shows the items to be reset to factory default ant their values.

Parameter	Set value	Remarks column
IP address (1)	COA8h	Combining IP address (1) and IP address (2) forms [192.168.0.100].
IP address (2)	0064h	
Subnet mask (1)	FFFFh	Combining default gateway (1) and default gateway (2) forms [255.255.255.0].
Subnet mask (2)	F000h	
Default gateway (1)	0000h	Combining IP address (1) and IP address (2) forms [0.0.0.0].
Default gateway (2)	0000h	

\* If once you reset the IP addresses by turning SW1 ON, they remain factory default value even when you turns SW1 OFF again.



## Base part



### Module connector

These connectors are for connecting modules laterally.

### Power terminal block

The power terminal block is for connecting the equipment to a module's power supply.

Connection with the only one module enables all modules to be supplied power via module connectors.

### Locking tab

The locking tab is for fastening a module to DIN rails and fastening each module connected laterally when mounting a module to DIN rail.

# 2

## System Configuration Example

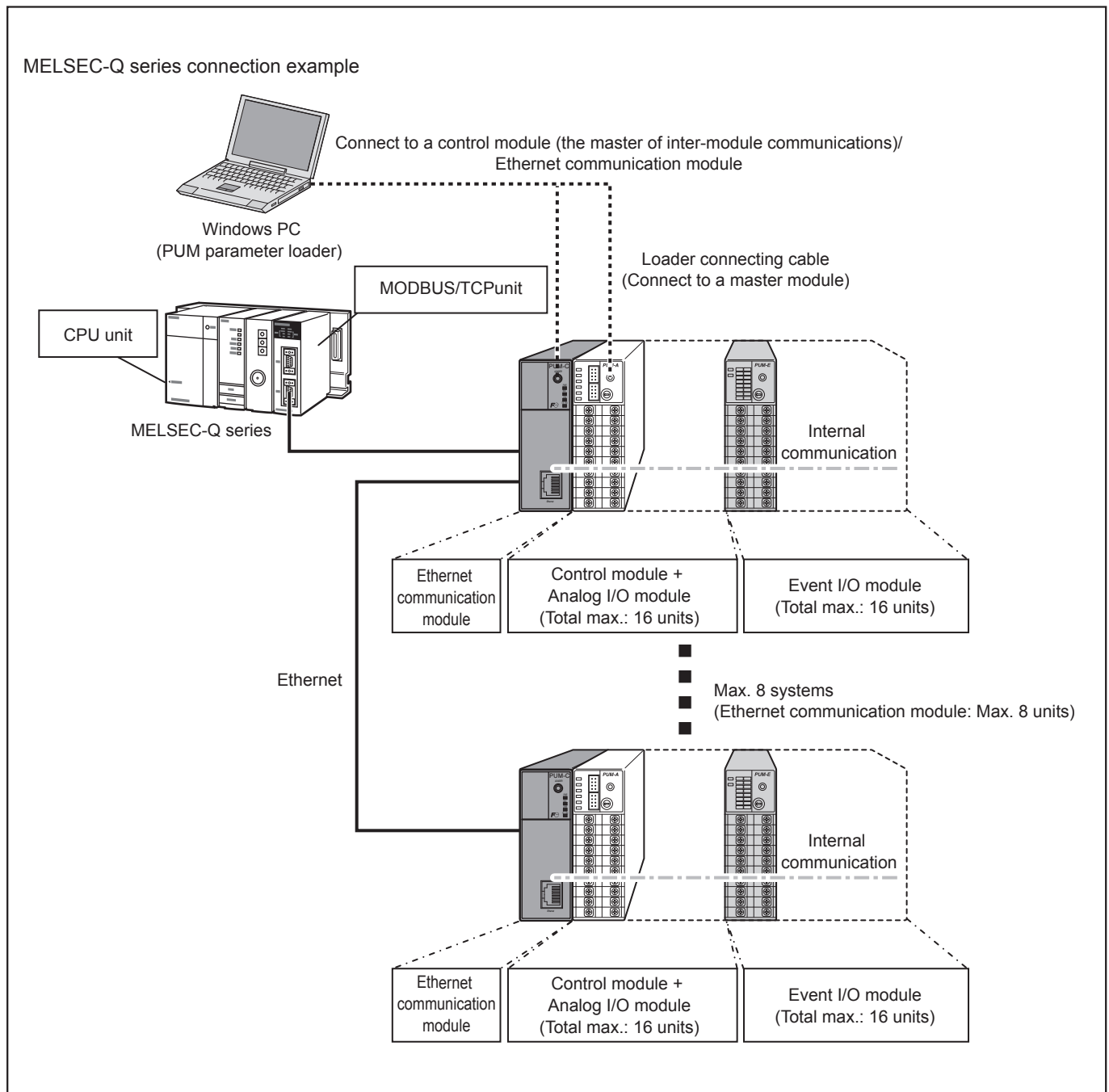
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Micrex-SX Programless Communication 2-5



## 2.1 System Configuration Example for Modbus/TCP Communication

The figure below shows an example of bridge communication and mapping communication using Modbus/TCP.

- Bridge communication and mapping communication are methods for connecting PUM and Modbus/TCP supporting PLC or POD via Ethernet network.



## 2.1 System Configuration Example for Modbus/TCP communication

---

### Point

- Distributed placement of module-type temperature controller system is possible by connecting several Ethernet communication modules over Local Area Network (LAN).
- Control or Analog I/O module station number ("1" to "16")

For proper communication, station number configuration is required. Set the leftmost module to "1" and set the rest of modules to "2" to "16" consecutively starting from the left. Make sure not to duplicate station numbers in the system.

- Event I/O module station number ("17" to "32")

Event I/O module station number always starts from "17" and be set to the rest of unit consecutively from "18" to "32". Make sure not to duplicate station numbers in the system.

- To use a Ethernet communication module, "connection permission of enhanced communication module (PUMC)" parameter should be set to "1: PUMC connected (RS-485:disable)" with the PUM parameter loader.

### Note

- Do not install any broadcast communication devices such as a PC or a server on the Ethernet environment for PUMCE.
- Use hubs and LAN cables for industrial use on the Ethernet environment for PUMCE.
- Only one host device can access to PUMCE.
- Connection between PUMCE and a host device is released if a preset amount of time has passed without communication. Reconnect if the connection is dropped.
- Be sure not to duplicate IP address.

## Basic Setting Items

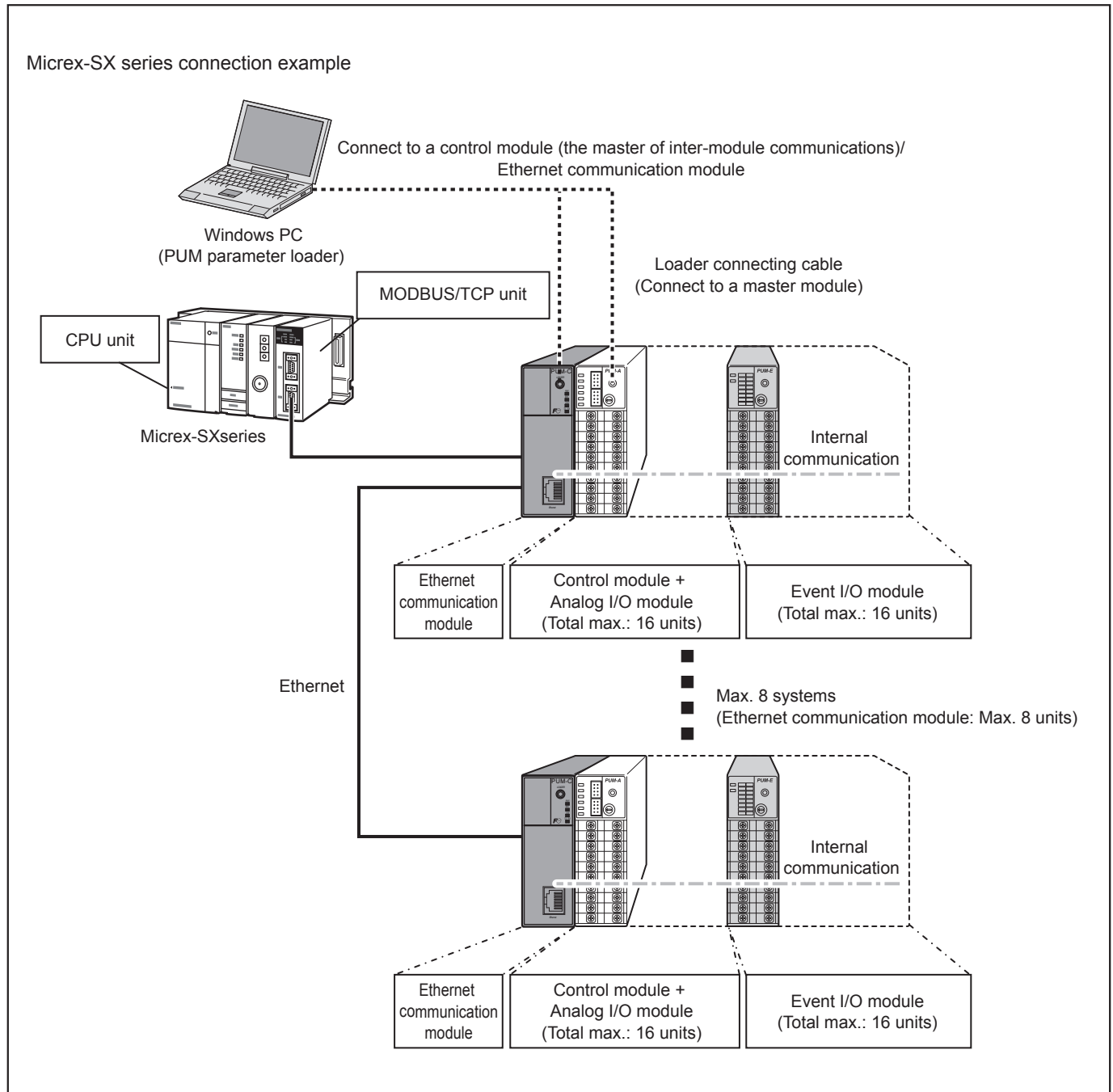
With this configuration, the following settings are required.

- Ethernet communication setting
- Device size of setting area/ monitor area (when using mapping communication)
- Registration of setting area 1 to 712/ monitor area 1 to 712 (when using mapping communication)

## 2.2 System Configuration Example for Micrex-SX Programless Communication

The figure below shows an example of programless communication with Fuji Electric PLC, Micrex-SX.

- Programless communication is the communication method that enables Micrex-SX to read and write PUM data without composing communication program.



### Point

- Distributed placement of module-type temperature control system is possible by connecting several Ethernet communication modules.
- Control or Analog I/O module station number ("1" to "16")

For proper communication, station number configuration is required. Set the leftmost module to "1" and set the rest of modules to "2" to "16" consecutively starting from the left. Make sure not to duplicate station numbers in the system.

- Event I/O module station number ("17" to "32")

Event I/O module station number always starts from "17" and be set to the rest of unit consecutively from "18" to "32". Make sure not to duplicate station numbers in the system.

- To use an Ethernet communication module, "connection permission of enhanced communication module (PUMC)" parameter should be set to "1: PUMC connected (RS-485:disable)" with the PUM parameter loader.

### Note

- Do not install any broadcast communication devices such as a PC or a server on the Ethernet environment for PUMCE.
- Use hubs and LAN cables for industrial use on the Ethernet environment for PUMCE.
- Only one host device can access to PUMCE.
- Connection between PUMCE and a host device is released if a preset amount of time has passed without communication. Reconnect if the connection is dropped.
- Be sure not to duplicate IP address.

## Basic Setting Items

With this configuration, the following settings are required.

- Ethernet communication setting
- SX communication setting
- SX device setting
- Registration of setting area 1 to 712/ monitor area 1 to 712

# 3

## Installation

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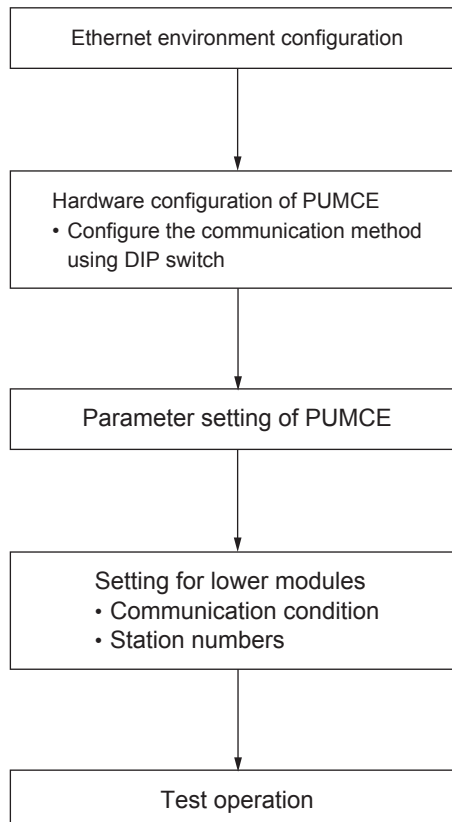




# 3.1 Installation Procedure

## Installation procedure

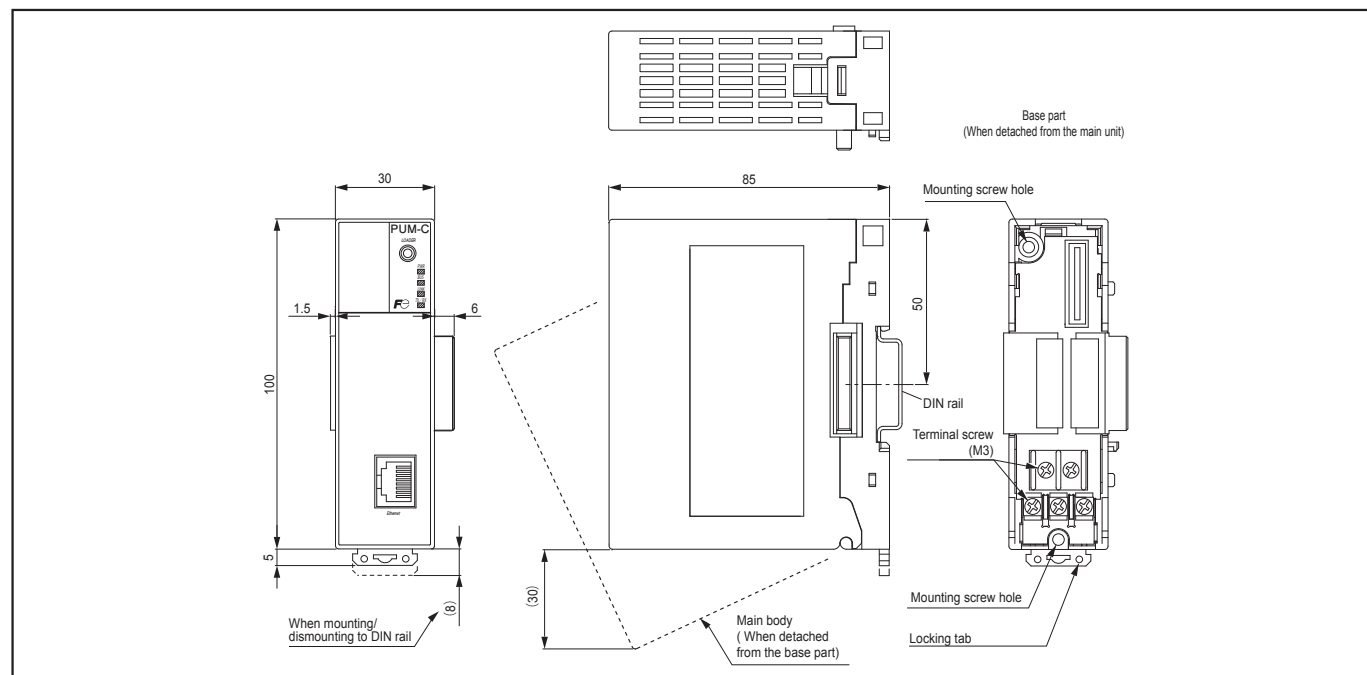
The flowchart below shows the setting procedure for startup.



## 3.2 Dimensions

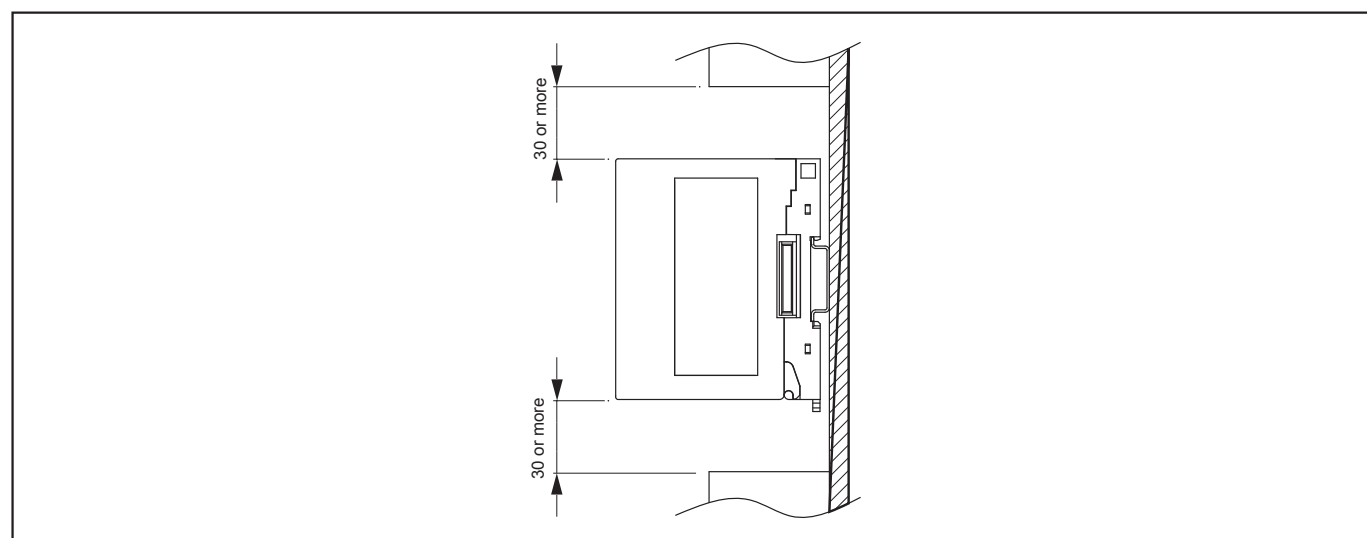
### External dimension

Provide enough clearance space for installation referring to the diagram below.



### Cautions when installing

In order to heat dissipation, provide clearance space of more than 30mm (50mm is recommended) above and under the equipment.



#### Point

Clearance space more than 30mm above and under a module should be provided when mounting/dismounting it to/from DIN rails.

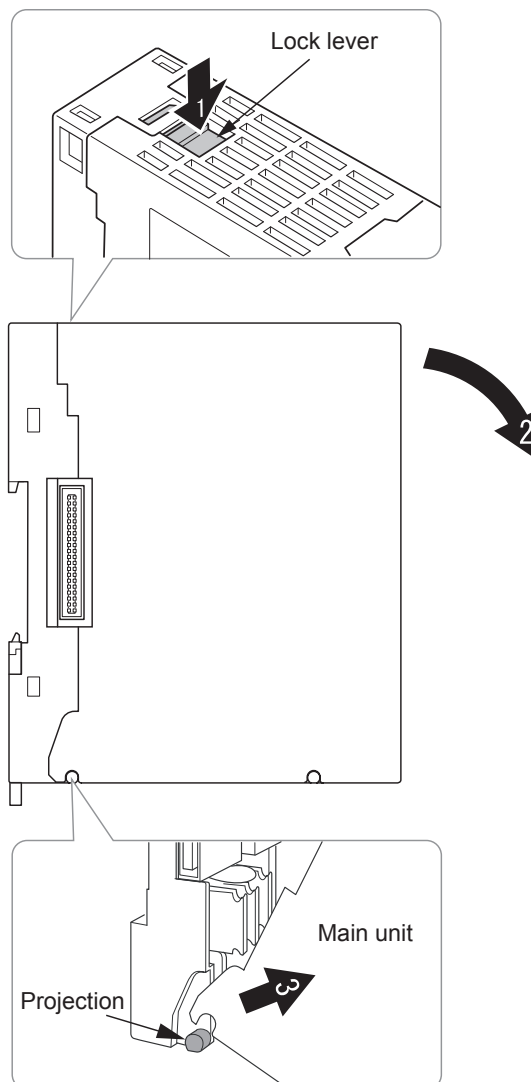
## 3.3 Mounting Modules

### How to attach/detach the base part from the main unit

Each module of Module Type Temperature Controller, PUM series, has the configuration that the base part is detachable through one-touch operation for easy installation and maintenance.

#### How to detach the bas part

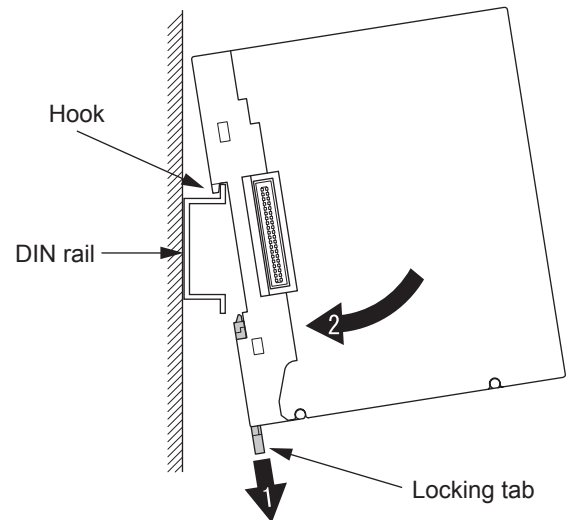
1. Press the lock lever on the top of the main unit.
2. Pull down the mainunit.
3. Detach the cutout at the lower end of the main unit block from the projection on the base unit.



## Mounting to DIN rails

### Mounting modules

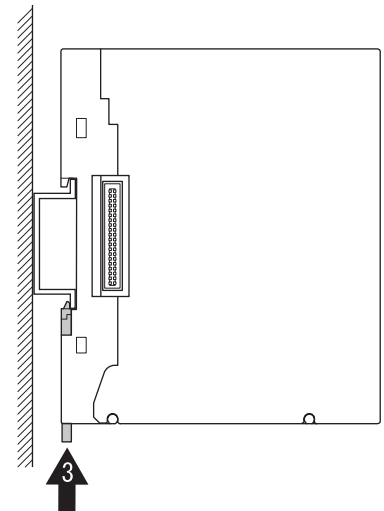
1. Pull down the locking tab of the base part. Hook the back part of the module onto the upper part of the DIN rails.
2. Push the module towards the direction of the arrow 2.



3. Pull up the locking tab of the base part to fasten the module onto the DIN rails.

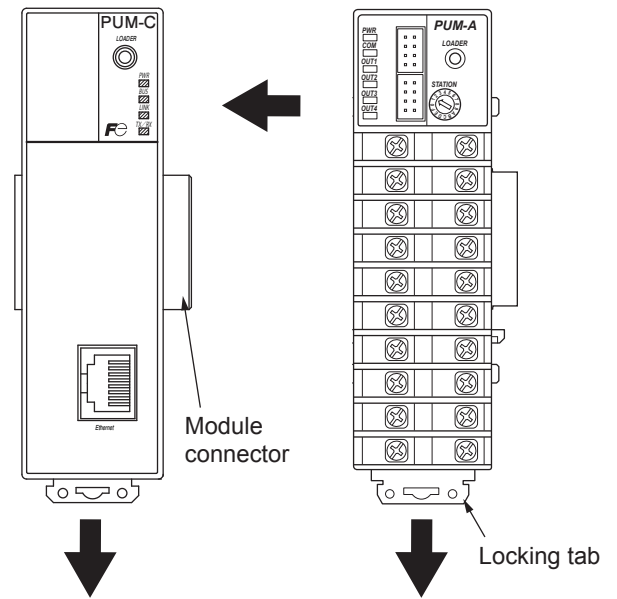
#### Point

When connecting the module after mounting it to the DIN rail, pull the locking tab up after connecting modules each other.

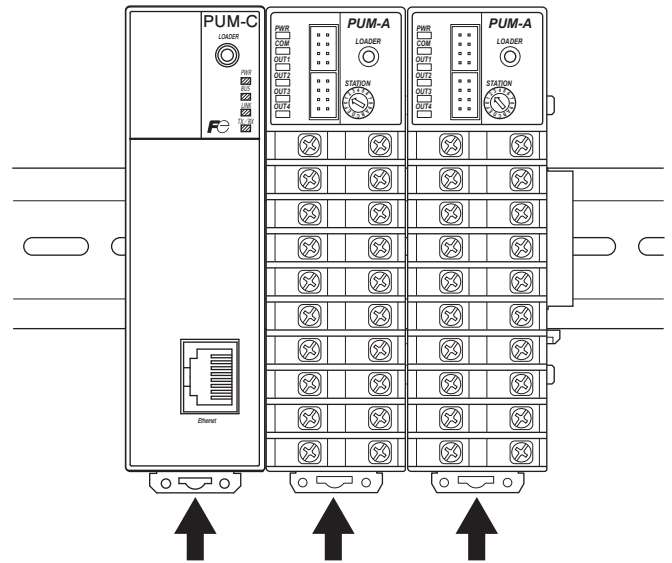


### Connecting modules

1. Check the locking tab is pulled down.
2. Connect modules by connecting module connectors with each other.

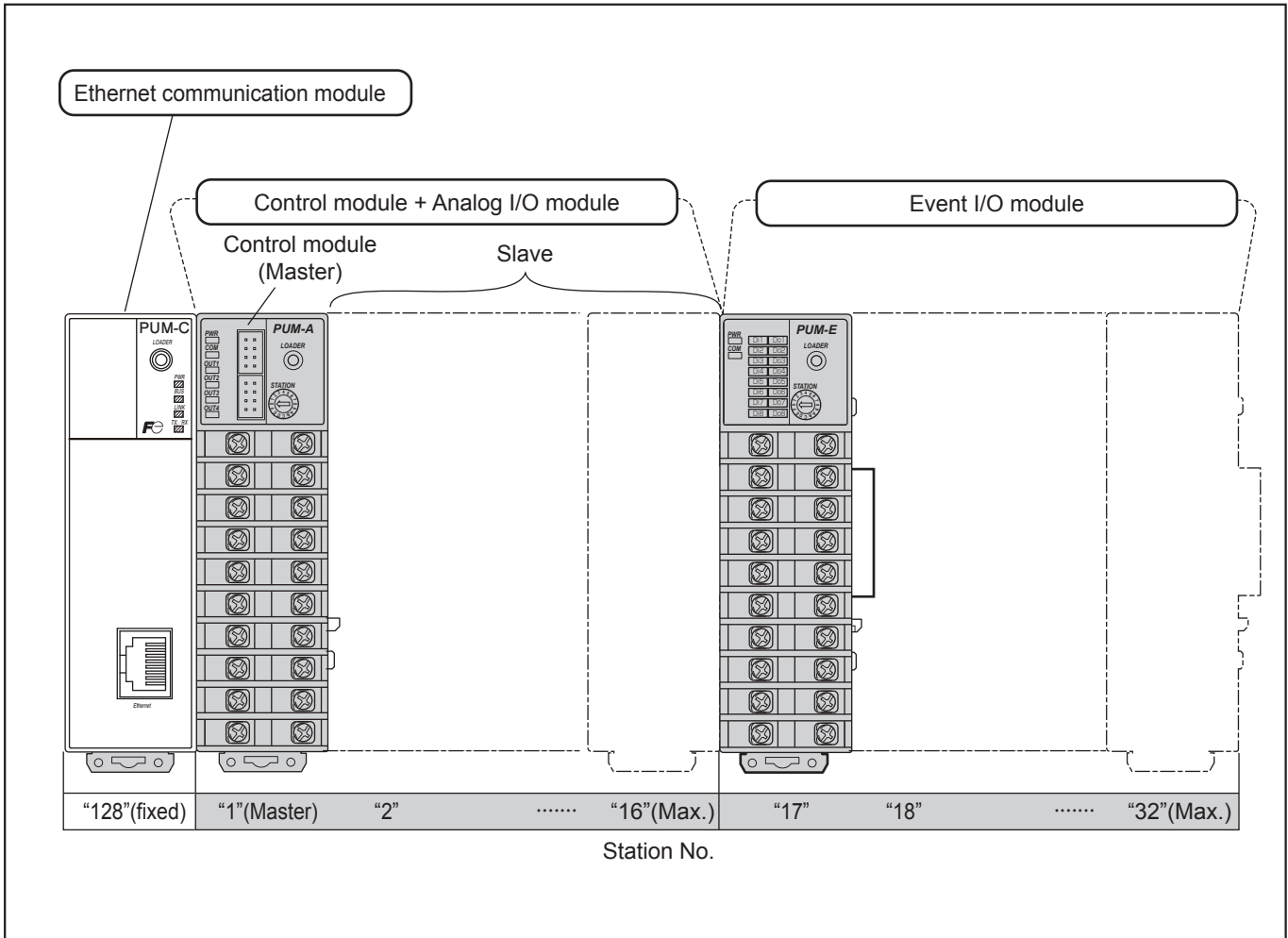


3. After mounting modules to the DIN rails, pull the all locking tabs up.
4. The power supplies are connected each other inside connected modules.



## Order of modules

Connecting a multi-loop module type temperature controller, PUM series, is shown as below.



### Point

A Ethernet communication module is always placed on the extreme left.

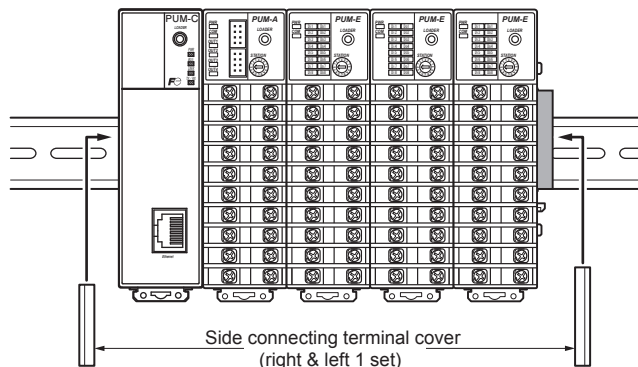
- An Ethernet communication module should be on the left of the master control module: it is always placed on the left.

Modules are basically placed in the order of station numbers starting from the left.

## 3.4 Attaching Accessories (Optional)

### Attaching side connecting terminal covers

Side connectors on both ends of connected modules are exposed. To prevent accidents and protect connectors, attaching side connecting terminal covers (PUMZ \* A03) is recommended.

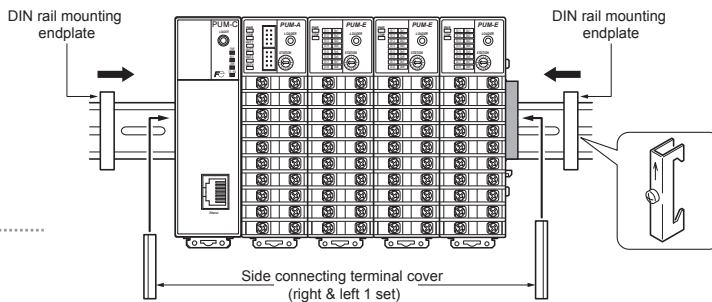


### Attaching endplates

In order to fix the equipment to a DIN rail more tightly, optional endplates (PUMZ \* A02) can be used.

#### Note

When attaching endplates, make sure to attach side connecting terminal covers prior to them.





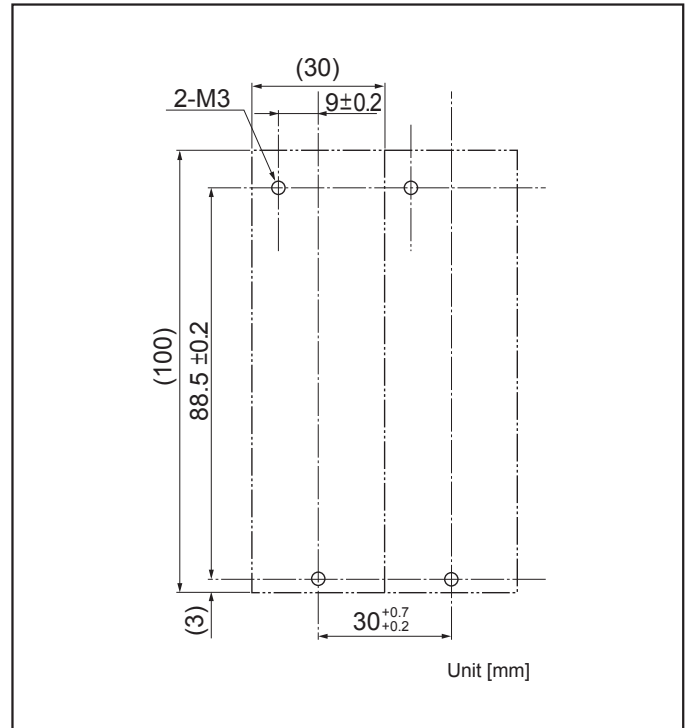
## 3.5 Mounting with Screws

When mounting modules with screws on the wall, check for the base parts of it beforehand.

### Point

Mounting screws are not included the product. If necessary, prepare two screws (M3) per unit.

1. Refer to the right figure for mounting screw hole size and the pitch, to decide the mounting position.



2. Remove the module main unit from the base part.

[3.3Mounting modules] [▶▶ 3-5](#)

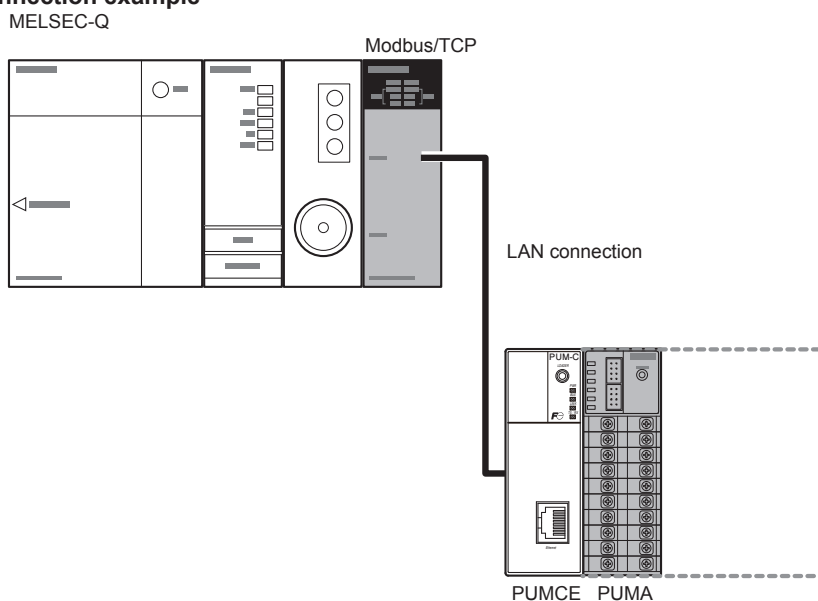
3. Connect the base parts and push the all locking tabs up to fix.
4. Fixate the base parts onto the mounting position with screws.
5. Fixate the base parts onto the mounting position with screws.

# 3.6 Connection

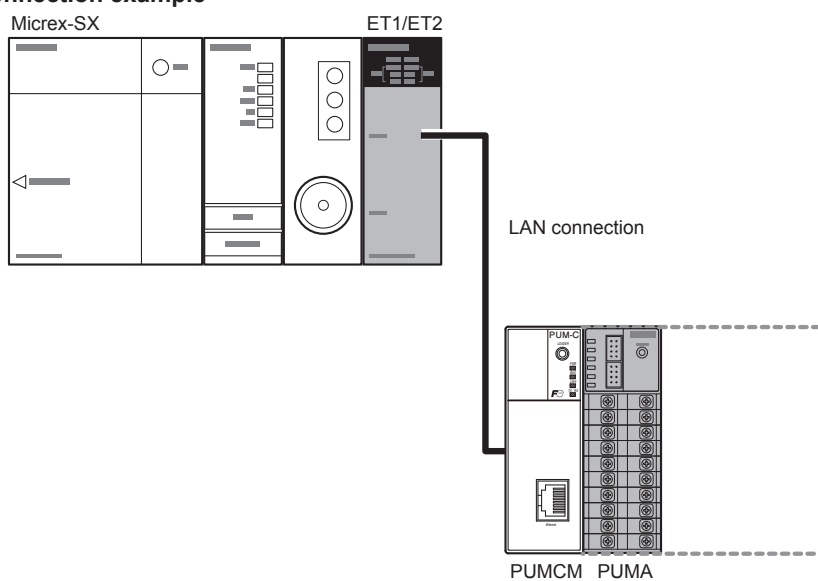
## Ethernet connection

Connect a multi-loop module-type temperature controller PUM series to a control device via an Ethernet communication module.

### MELSEC-Q series connection example



### MICREX-SX series connection example



#### Warning

Connect/separate PUM series, Temperature control system to/from PLC after turning OFF the power of the equipment or peripheral equipments to prevent electric shock and equipment failure.

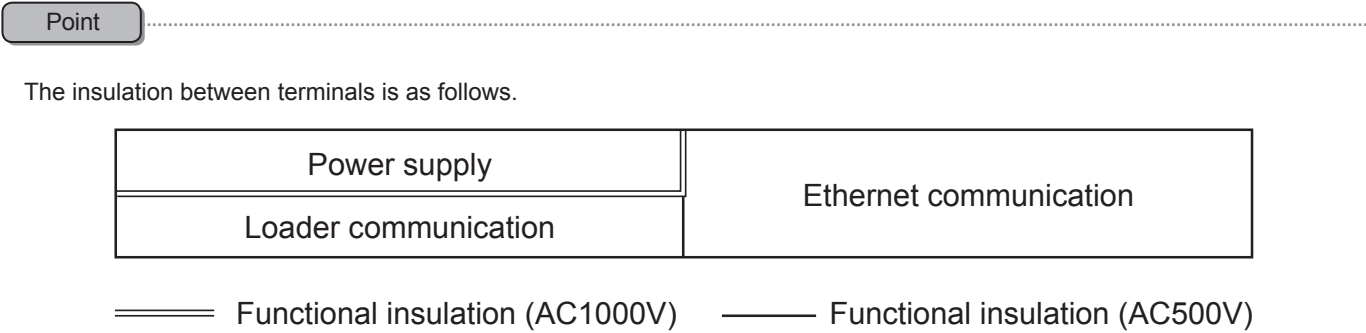
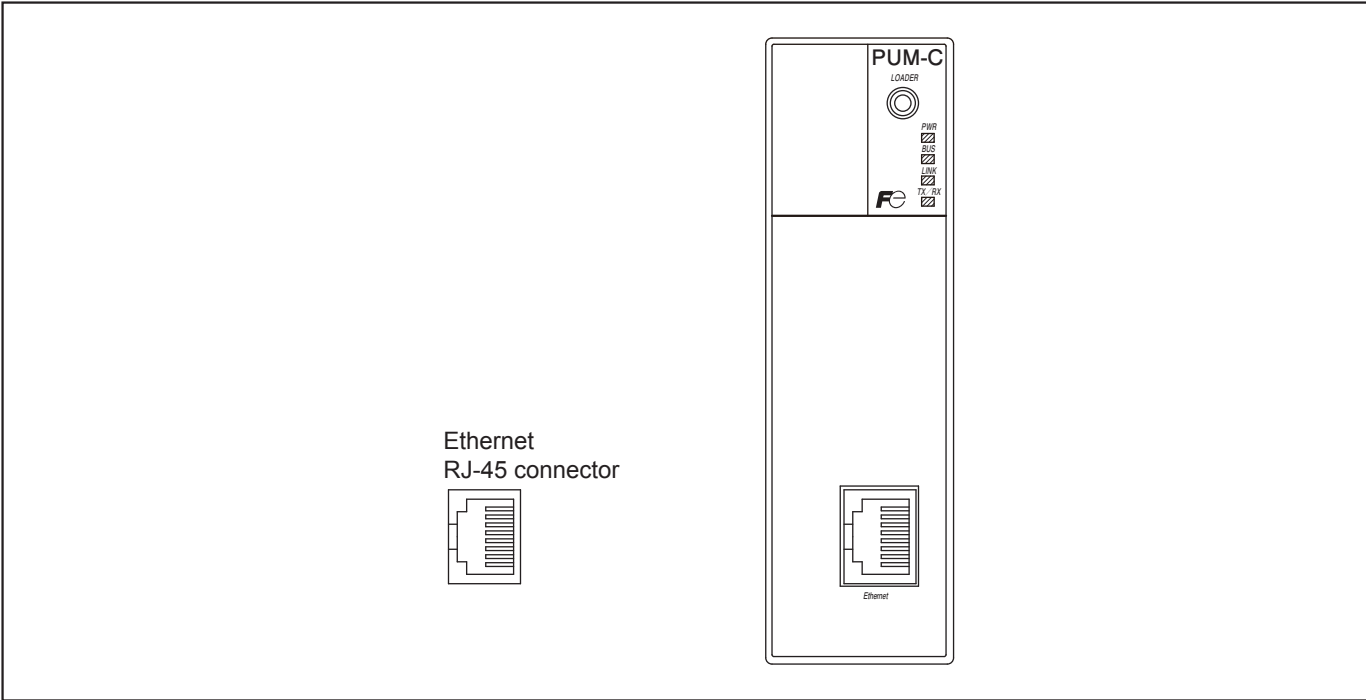
Note

Use hubs and LAN cables for industrial use. Using hubs and LAN cables for data communication may impede communication.  
Operability confirmed:   HUB: SIEMENS SCALANCE X208  
                                  LAN cable: Category 6, metal-shielded industrial LAN cables

Note

LAN cables and hubs are to be supplied by our customers.

Terminal



## Connecting modules

Connectable modules to the equipment are as follows.

- PUMA/B (Control module), PUMV/N/T (Analog I/O module), PUME (Event I/O module)

### Point

- Max. 32 units are connectable to the equipment. The number of connectable modules varies according to module types. Refer to user's manual for each module for details.
- When connected modules, power supplies are connected to other modules by connecting power supply lines to the one of the modules.

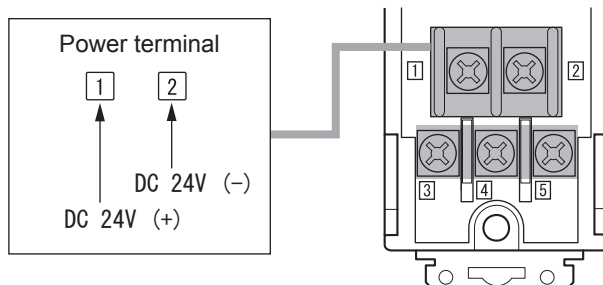
## Wiring for power supply

### Terminal layout

Power terminals are on the base part of each module.

Wiring is same for the all modules.

The power supplies to all connected modules by connecting this terminal to the only one of them.



Note: Power cable more than one should not be connected to power terminals.

### Note

- Wiring to a terminal block, use crimp terminal (screw size: M3).  
Use the screws in this product only.  
Screw size on the terminal block: M3×7 (with square washer)  
Clamp torque: 0.78N-m (8kgf-cm)
- Apply power cable with allowable current capacity larger than total consumption current of all connected modules.
- Power cable more than one should not be connected to power terminals.

3.6 Connection

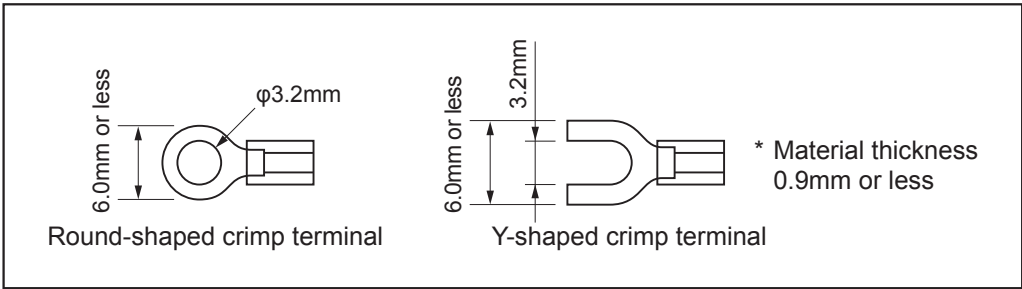
- When using AWG 16 cable, you should use the crimp terminal that material thickness is 0.9mm or less.
- Use the power cables and crimp terminals indicated below for wiring.

Power cable size

Cable type	Size
Power cable, output, others	0.25 – 1.25mm <sup>2</sup> (AWG22 to 16)

Crimp terminal size

Cable size	Clamp torque
0.25 – 1.25mm <sup>2</sup> (AWG22 to 16)	0.8Nm



# 4

## System Configuration

4.1	Ethernet .....	4-3
4.2	Bridge Communication .....	4-6
4.3	Mapping Communication .....	4-9
4.4	Micrex-SX Programless Communication	4-14



# 4.1 Ethernet

Explanation here is for establishing a LAN environment for the Ethernet communication module.

## Ethernet setting

Refer to the parameters below.

Parameter	Setting range	Unit	Factory-set value	Attribute	MODBUS Register No. (Relative address)
IP address (1)	0000h to FFFFh	None	C0A8h	R/W	40404(0193h)
IP address (2)	0000h to FFFFh	None	0064h	R/W	40405(0194h)
Subnet mask (1)	0000h to FFFFh	None	FFFFh	R/W	40406(0195h)
Subnet mask (2)	0000h to FFFFh	None	FF00h	R/W	40407(0196h)
Default gateway (1)	0000h to FFFFh	None	0000h	R/W	40408(0197h)
Default gateway (2)	0000h to FFFFh	None	0000h	R/W	40409(0198h)

### Point

It is recommended to perform Ethernet setting before connecting the Ethernet communication module to a LAN environment.

### Note

Be sure to restart PUMCE after changing Ethernet setting.

## IP address setting

Configure the IP addresses for the Ethernet communication module.

Refer to the parameters below.

Parameter	Setting range	Unit	Factory-set value	Attribute	MODBUS Register No. (Relative address)
IP address (1)	0000h to FFFFh	None	C0A8h	R/W	40404(0193h)
IP address (2)	0000h to FFFFh	None	0064h	R/W	40405(0194h)

IP address (1) indicates upper two addresses while IP address (2) indicate lower two addresses.

IP address (1) and IP address (2) are combined as one IP address.



## 4.1 Ethernet

---

The initial values are as follows:

Parameter	IP address (1)		IP address (2)	
	High byte	Low byte	High byte	Low byte
Set value (hexadecimal)	C0h	A8h	00h	64h
Actual address (decimal)	192	168	0	100

Actual IP address is [192.168.0.100].

### IP address setting example

Assume that you want to change IP address to [10.22.74.12].

Parameter	IP address (1)		IP address (2)	
	High byte	Low byte	High byte	Low byte
Desired address (decimal)	10	22	74	12
Set value (decimal)	0Ah	16h	4Ah	0Ch

From the table above, the setting should be as follows: IP address (1): 0A16h, IP address (2): 4A0Ch.

#### Note

- Do not duplicate an IP address already in use for other device.
- Automatic IP address allocation using router etc. is not supported. Be sure to assign IP address manually.
- If using a router, make sure not to assign automatically the same IP address as PUMCE to other device.
- Do not set low byte of IP address (2) to FFh (255).
- Consult your network administrator for available IP addresses.
- IPv6 is not supported.

## Subnet mask setting

Setup subnet masks for the Ethernet communication module.

Refer to the parameters below.

Parameter	Setting range	Unit	Factory-set value	Attribute	MODBUS Register No. (Relative address)
Subnet mask (1)	0000h to FFFFh	None	FFFFh	R/W	40406(0195h)
Subnet mask (2)	0000h to FFFFh	None	FF00h	R/W	40407(0196h)

Subnet mask (1) indicates upper two addresses while subnet mask (2) indicates lower two addresses. Subnet mask (1) and subnet mask (2) are combined as one subnet mask.

Refer to the IP address setting example for setting procedure.

### Point

- A subnet mask is a numerical value to discriminate between network address and host address among IP addresses. Usually, they do not need to be changed.

### Note

- Consult your network administrator before changing subnet mask setting.

## Default gateway setting

Configure default gateways for the Ethernet communication module.

Refer to the parameters below.

Parameter	Setting range	Unit	Factory-set value	Attribute	MODBUS Register No. (Relative address)
Default gateway (1)	0000h to FFFFh	None	0000h	R/W	40408(0197h)
Default gateway (2)	0000h to FFFFh	None	0000h	R/W	40409(0198h)

Default gateway (1) indicate upper two addresses while default gateway (2) indicates lower two addresses. Default gateway (1) and default gateway (2) are combined as one default gateway.

Refer to the IP address setting example for setting procedure.

### Point

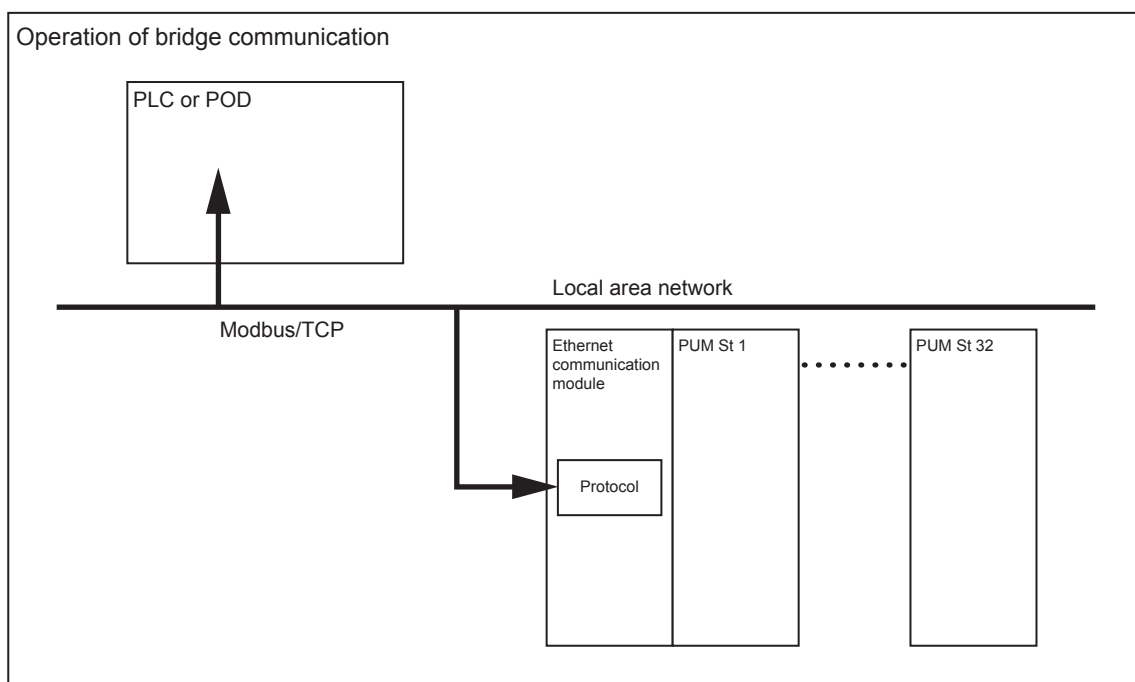
- A default gateway is the device that passes traffic from the local network to devices on other network. Generally, IP address of the router is the value for default gateway. Setup of default gateway is necessary when accessing other network beyond the router.
- PUMCE is capable of relaying 8 routers maximum.

# 4.2 Bridge Communication

In bridge communication, PUMCE bridges Modbus/TCP and Modbus/RTU.

PUMCE convert Modbus/TCP messages from a host device to Modbus/RTU and transmit them to PUMA/B, PUMV/N/T, and/or PUME. Response messages from PUMA/B, PUMV/N/T, and/or PUME are converted to Modbus/TCP to transmit to the host device. This function allows the host device to access most of the parameters of PUM series connected to PUMCE.

The figure below shows an overview of bridge communication.



## **PUMCE setting**

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All the DIP switches on the back face should set to OFF. No other setting is required.

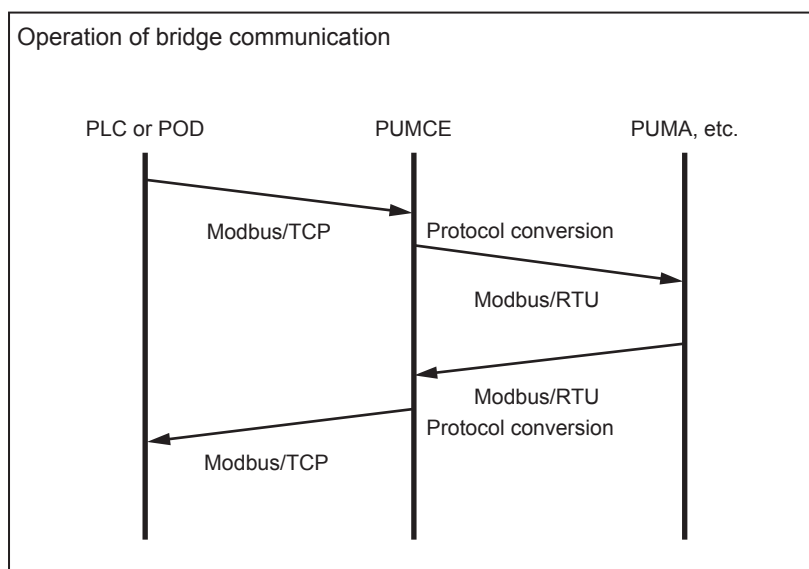
### **Note**

- Be sure to turn OFF the main unit before turning ON/OFF the DIP switches to change the communication method.
  - Note that all the Ethernet settings will be initialized if you set DIP switch 1 to ON.
  - Refer to Chapter # about Modbus/TCP message.
  - PUMCE parameters cannot be read or written through Modbus/TCP communication in Bridge communication.
-

### Operation of bridge communication

PUMCE converts the communication data of Modbus/TCP transmitted by a host device (PLC, POD, etc.) into Modbus/RTU and transmit it to PUM of the specified station. PUM receives Modbus/RTU data and reply PUMCE after executing the command. PUMCE converts Modbus/RTU data send back from PUM into Modbus/TCP and transmit to the host device.

The figure below shows the overview of Bridge communication.



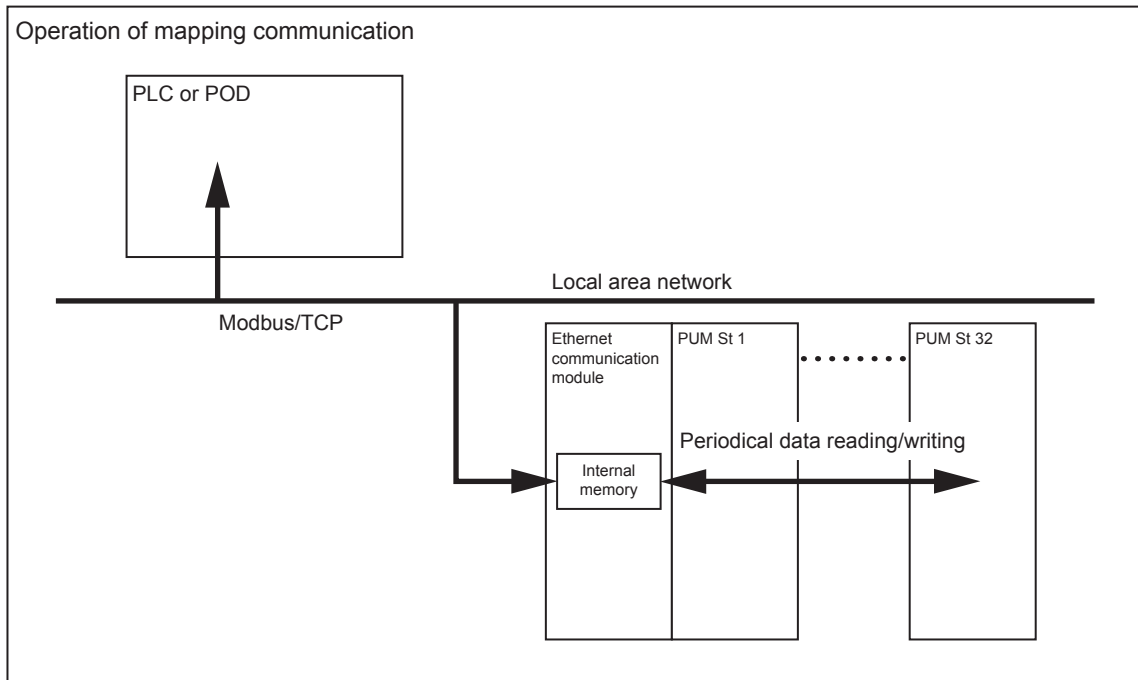
#### Note

- Be sure to specify station numbers when using Modbus/TCP communication, since Modbus communication of PUM does not support broadcast communication.

## 4.3 Mapping Communication

The mapping communication allows PUMCE to periodically read and write preset parameters of other PUM series connected to PUMCE. Through communication with PUMCE, a host device can read and write parameters of PUMA/B, PUMV/N/T, and/or PUME connected to PUMCE.

The figure below shows an overview of mapping communication.



### PUMCE setting

Set the DIP switch 3 on back face to ON, and the others to OFF.

#### Note

- Be sure to turn PUMCE OFF before turning ON/OFF the DIP switches to change the communication method.
- Note that all the Ethernet settings will be initialized if you set the DIP switch 1 to ON.
- Refer to Chapter # regarding Modbus/TCP message.

## Parameter setting

Register parameters for the mapping communication.

Refer to the parameters below.

Parameter	Setting range	Unit	Factory-set value	Attribute	MODBUS Register No. (Relative address)
Monitor area entry St. No. 1st to 712th word	0: unused 1 to 16: Control/analog module 17 to 32: Event module 128: Ethernet communication module	None	0	R/W	43001(0BB8h) to 44424(1147h)
Monitor area entry register No. the 1st to 712th word	0, 30000 to 49999*	None	0	R/W	
Setting area entry St. No. 1st to 712th word	0: unused 1 to 16: Control/analog module 17 to 32: Event module	None	0	R/W	41201(04B0h) to 42624(0A3Fh)
Setting area entry register No. the 1st to 712th word	0, 40000 to 49999*	None	0	R/W	
Monitor area device size	0 to 712	None	0	R/W	41067(042Ah)
Setting area device size	0 to 712	None	0	R/W	41063(0426h)

### Monitor area parameter entry

Configure parameters to readout data. The station number and Modbus register number of PUM that reads data are to be configured.

Refer to the parameters below.

Parameter	Setting range	Unit	Factory-set value	Attribute	MODBUS Register No. (Relative address)
Monitor area entry St. No. the 1st word	0: unused 1 to 16: Control/analog module 17 to 32: Event module 128: Ethernet communication module	None	0	R/W	43001(0BB8h)
Monitor area entry register No. the 1st word	0, 30000 to 49999*	None	0	R/W	43002(0BB9h)
-					
Monitor area entry St. No. the 712th word	0: unused 1 to 16: Control/analog module 17 to 32: Event module	None	0	R/W	44423(1146h)
Monitor area entry register No. the 712th word	0, 40000 to 49999*	None	0	R/W	44424(1147h)

\* You can setup only the addresses written in "Setting/Monitor area register number" (control module, event module, analog module). However, the parameters marked "\*" in the "Entry ban" column cannot be set. Register the readout parameters.

## Read out set values from the temperature control module

Read out the temperature control module's set values entered onto the setting area to the Setting area data field or the monitor area data field.

- Monitor parameters registration example

Assume that you want to register PV of Ch.1 to Ch.4 for PUMA of the station number 1.

Parameter	Set value
Monitor area entry St. No. the 1st word	1
Monitor area entry register No. the 1st word	31001
Monitor area entry St. No. the 2nd word	1
Monitor area entry register No. the 2nd word	32001
Monitor area entry St. No. the 3rd word	1
Monitor area entry register No. the 4th word	33001
Monitor area entry St. No. the 4th word	1
Monitor area entry register No. the 4th word	34001

### Note

- Be sure to register the 1st word when using mapping communication.
- Number of registerable parameters per reference station is limited. Also, please note that maximum number of registerable parameters is depends on each module shown below.

Module type	Maximum No.
PUMA/B, PUMV/N/T, PUMCE	32 words
PUME	8 words

If you register parameters more than the maximum number, the PWR indicator will blink red, and then comes to be in the communication fault status.



### Setting area parameter entry

Configure data-writing parameters. The station number and Modbus register number of the data-writing module are to be configured.

Refer to the parameters below.

Parameter	Setting range	Unit	Factory-set value	Attribute	MODBUS Register No. (Relative address)
Setting area entry St. No. the 1st word	00: unused 1 to 16: Control/analog module 17 to 32: Event module	None	0	R/W	41201(04B0h)
Setting area entry register No. the 1st word	0, 40000 to 49999*	None	0	R/W	41202(04B1h)
-					
-					
-					
Setting area entry St. No. the 712th word	0: unused 1 to 16: Control/analog module 17 to 32: Event module	None	0	R/W	42623(0A3Eh)
Setting area entry register No.	0, 40000 to 49999*	None	0	R/W	42624(0A3Fh)

\* You can setup only the addresses written in "Setting/Monitor area register number" (control module, event module, analog module). However, the parameters marked "\*" in the "Entry ban" column cannot be set. Register the readout parameters.

#### • Monitor parameters registration example

Assume that you want to register SV of Ch.1 to Ch.4 for PUMA of the station number 1.

Parameter	Set value
Setting area entry St. No. the 1st word	1
Setting area entry register No. the 1st word	40023
Setting area entry St. No. the 2nd word	1
Setting area entry register No. the 2nd word	40024
Setting area entry St. No. the 3rd word	1
Setting area entry register No. the 3rd word	40025
Setting area entry St. No. the 4th word	1
Setting area entry register No. the 4th word	40026

#### Note

- Be sure to register the 1st word when using mapping communication.
- Note that the numbers of parameters registrable for each station are limited depends on the type of module as follows.

Module type	Maximum No.
PUMA/B, PUMV/N/T	32 words
PUME	8 words

If you register parameters more than the maximum number, the PWR indicator will blink red, and then comes to be in the communication fault status.

- Parameters of Ethernet communication module cannot be registered in setting area.

## Device size

Setup the device size of the parameter that performs mapping communication.

Refer to the parameters below.

Parameter	Setting range	Unit	Factory-set value	Attribute	MODBUS Register No. (Relative address)
Monitor area device size	0 to 712	None	0	R/W	41067(042Ah)
Setting area device size	0 to 712	None	0	R/W	41063(0426h)

Specify the number of parameters, i.e. the number of the last words, registered in monitor area and setting area.

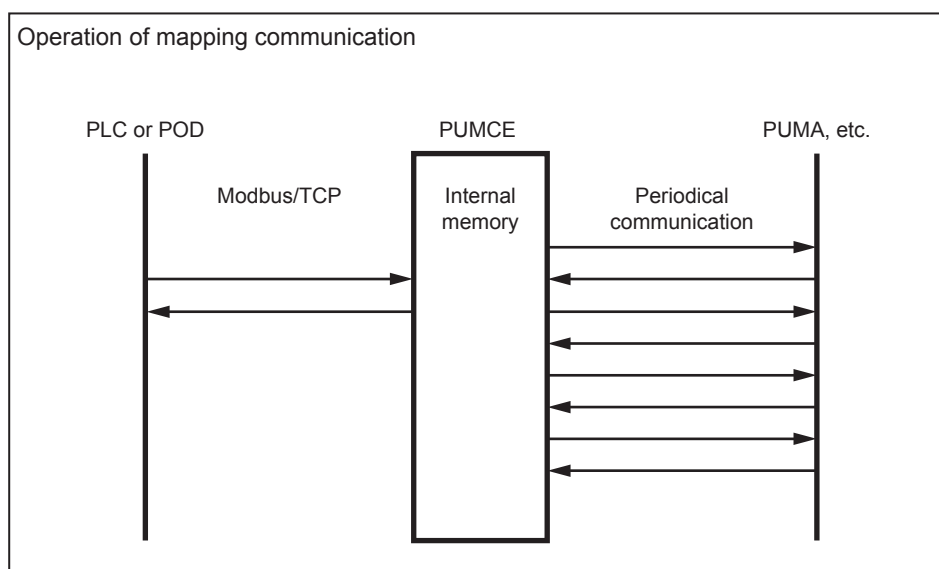
### Note

- Be sure to set the value of 1 or above for device size of both monitor area and setting area when using mapping communication.
- If any skipped number exists in registration of monitor area or setting area, set the number of the last words you registered, instead of the number of the words for mapping communication.

## Operation of mapping communication

In mapping communication, PUMCE and other PUM series periodically read and write the values of specified parameters, and store them in PUMCE memory. A host device can read/write specified parameters by accessing PUMCE memory.

The figure below shows an overview of mapping communication.



### Note

- The only station number available in mapping communication is 128 (80h). Note that no response can be made to other station number than above.

## 4.4 Micrex-SX Programless Communication

Micrex-SX programless communication is the function that enables Micrex-SX, PLC produced by Fuji Electric, to establish communication without programming.

### PUMCE setting

Set the DIP switch 2 on back face to ON, and the others to OFF.

#### Note

Programless communication is active regardless of ON/OFF of the DIP switch 1 on back face.

- Even if you perform mapping communication setting, programless communication remains active as long as the DIP switch 2 on back face is set to ON.
- Be sure to turn PUMCE OFF before turning ON/OFF the DIP switches to change the communication method.

Programless communication is available only with Fuji Electric PLC, Micrex-SX.

### SX communication setting

Configure the parameters that communicate with Micrex-SX.

Refer to the parameters below.

Parameter	setting range	Unit	Factory-set value	Attribute	MODBUS Register No. (Relative address)
SX communication inter-cycle time	0 to 5000	msec	100	R/W	41050(0419h)
SX communication starting time	1 to 255	sec	5	R/W	41051(041Ah)
SX response monitoring time	10 to 100000	msec	200	R/W	41052(041Bh)
Consecutive communication error count	10	times	10	R/W	41053(041Ch)
Target SX IP address (Upper)	0000 to FFFFh	None	C0A8h	R/W	41054(041Dh)
Target SX IP address (Lower)	0000 to FFFFh	None	0001h	R/W	41055(041Eh)
Connection method	0: Direct connection with loader 1: SX-bus connection	None	0: Direct connection with loader	R/W	41056(041Fh)
SX connection ID (L)	00h to FEh	None	00h	R/W	41057(0420h)
SX connection ID (H)	00h to 0Fh	None	00h	R/W	41058(0421h)
Operation at programless communication fault	0: RUN 1: STOP	None	1: STOP	R/W	41059(0422h)

#### Note

- SX communication starting time is the time when the communication with Micrex-SX starts after you turn on PUMCE.

### SX communication inter-cycle

Set the communication inter-cycle between the Ethernet communication module and Micrex-SX. This setting determines the memory update cycle of Micrex-SX.

Refer to the parameters below.

Parameter	Setting range	Unit	Factory-set value	Attribute	MODBUS Register No. (Relative address)
SX communication inter-cycle time	0 to 5000	msec	100	R/W	41050(0419h)

#### Note

- If you set the inter-cycle time shorter than necessary for one communication, communication cannot be performed at desired interval. In that case, communication shall be performed at minimum interval.
- Set the value with enough margins since the time required for one communication varies with communication load on an Ethernet network.

### SX communication starting time

Set the time that the Ethernet communication module and Micrex-SX start programless communication. This setting is necessary when matching the operation starting time with other devices.

Refer to the parameters below.

Parameter	Setting range	Unit	Factory-set value	Attribute	MODBUS Register No. (Relative address)
SX communication starting time	1 to 255	sec	5	R/W	41051(041Ah)

#### Note

- If you set the starting time less than the time necessary for Ethernet communication module to be ready for operation, communication does not start until Ethernet communication module is ready.
- Set a value in accordance with the situation, for the startup time of Ethernet communication module varies with registration status of monitor area and setting area.

### SX response monitoring time

Set the time to monitor communication between Ethernet communication module and Micrex-SX. Modify the monitoring time in accordance with data volume to be transferred. This parameter can be set in 10msec.

Refer to the parameters below.

Parameter	Setting range	Unit	Factory-set value	Attribute	MODBUS Register No. (Relative address)
SX communication starting time	10 to 10000	msec	200	R/W	41052(041Bh)

#### Note

- Although you can set shorter SX communication inter-cycle time by setting SX response monitoring time shorter, note that communication cannot be established if you set them too short.

### Consecutive communication error count

Set Consecutive communication error count when an error occurs in programless communication between the Ethernet communication module and Micrex-SX.

Refer to the parameters below.

Parameter	Setting range	Unit	Factory-set value	Attribute	MODBUS Register No. (Relative address)
Consecutive communication error count	0 to 10	times	10	R/W	41053(041Ch)

#### Note

- When no response is made by Micrex-SX even if PUMCE has tried to communicate with it as many times as set in the "Consecutive communication error count", PUMCE treats it as a communication fault and performs the operation configured in "Operation at programless communication fault" parameter.

### Target SX IP address

Set the IP address of Micrex-SX to which the Ethernet communication module accesses.

Refer to the parameters below.

Parameter	Setting range	Unit	Factory-set value	Attribute	MODBUS Register No. (Relative address)
Target SX IP address (Upper)	0000 to FFFFh	None	C0A8h	R/W	41054(041Dh)
Target SX IP address (Lower)	0000 to FFFFh	None	0001h	R/W	41055(041Eh)

Initial values are as follows:

Parameter	Target SX IP address (1)		Target SX IP address (2)	
	High byte	Low byte	High byte	Low byte
Set value (hexadecimal)	C0h	A8h	00h	01h
Actual address (decimal)	192	168	0	1

Actual IP address is [192.168.0.1].

Refer to "IP address setting" in "4.1 Ethernet setting" for detailed setting procedure.

#### Note

- IP address of the target SX should be same as that of Micrex-SX to perform programless communication.

### Connection method and SX connection ID

Configure the interface and CPU ID for connection between the Ethernet communication module and Micrex-SX.

Refer to the parameters below.

Parameter	Setting range	Unit	Factory-set value	Attribute	MODBUS Register No. (Relative address)
Connection method	0: single CPU 1: multi CPU	None	0	R/W	41053(041Fh)
SX connection ID	00h to FEh	None	0	R/W	41057(0420h)

	SX communication ID
Single-CPU configuration	00h
Multi-CPU configuration	
CPU ID=0	FEh
CPU ID=1	FDh
⋮	⋮
CPU ID=7	F7h

#### Note

- Refer to the Micrex-SX user's manual about ID setting on Micrex-SX side.

### Operation setting when a programless communication fault occurs

Set the operation when communication between Ethernet communication module and Micrex-SX is failed and then restored.

Refer to the parameters below.

Parameter	Setting range	Unit	Factory-set value	Attribute	MODBUS Register No. (Relative address)
Operation at programless communication fault	0: RUN 1: STOP	None	1	R/W	41059(0422h)

#### 0: RUN

Programless communication will be automatically resumed when Ethernet communication is restored.

#### 1: STOP (initial setting)

Programless communication is not resumed unless the designated procedures are not performed, even if Ethernet communication is restored.

Refer to "Communication restoration demand (Command: FFFFh)" about the procedure to resume programless communication.

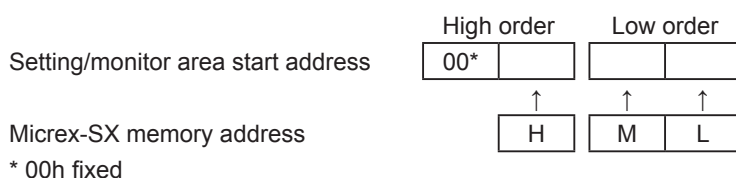
## SX device setting

Configure the device to be used with Micrex-SX.

Refer to the parameters below.

Parameter	Setting range	Unit	Factory-set value	Attribute	MODBUS Register No. (Relative address)
Setting area device type	2: Standard memory 4: Retain memory	None	2	R/W	41060(0423h)
Setting area start address (Lower)	0 to 65535	None	1000	R/W	41061(041Ah)
Setting area start address (Upper)	0 to 65535	None	0	R/W	41062(041Bh)
Setting area device size	0 to 712	None	0	R/W	41063(041Ch)
Monitor area device type	2: Standard memory 4: Retain memory	None	2	R/W	41064(041Dh)
Monitor area start address (Lower)	0 to 65535	None	0	R/W	41065(041Eh)
Monitor area start address (Upper)	0 to 65535	None	0	R/W	41066(041Fh)
Monitor area device size	0 to 712	None	0	R/W	41067(042Ah)

The following figure shows how the memory address of MICREX-SX matches the start address of setting/monitor area.



### Device type

Set the memory type of Micrex-SX that read/write from Ethernet communication module.

Refer to the parameters below.

Parameter	Setting range	Unit	Factory-set value	Attribute	MODBUS Register No. (Relative address)
Setting area device type	2: Standard memory 4: Retain memory	None	2	R/W	41060(0423h)
Monitor area device type	2: Standard memory 4: Retain memory	None	2	R/W	41064(041Dh)

2: Standard memory

A standard memory that is deleted when Micrex-SX is turned OFF.

4: Retain memory

A memory that is retained even after Micrex-SX is turned OFF. Note that the lifetime of Micrex-SX memory may be affected by frequent data rewriting.

#### Note

- Do not set the device type to other than 2 or 4.
- Refer to the Micrex-SX user's manual about memory area reservation on Micrex-SX side.
- Declare the data type as INT when reserving memory area on Micrex-SX.

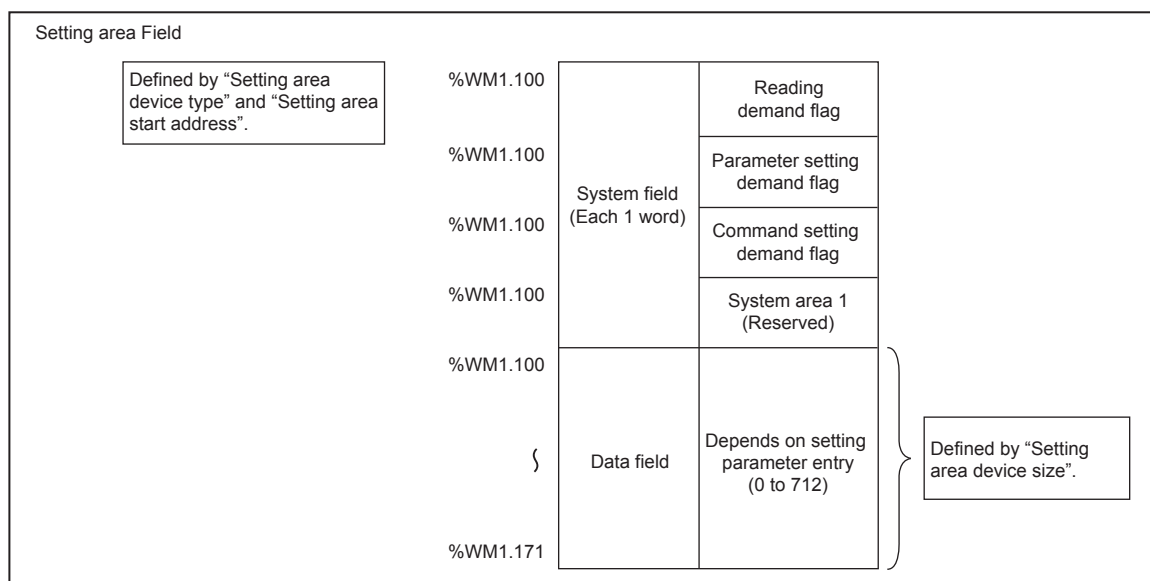
### Setting/Monitor area start address

Specify the memory address of Micrex-SX in which parameters are to be read/written.

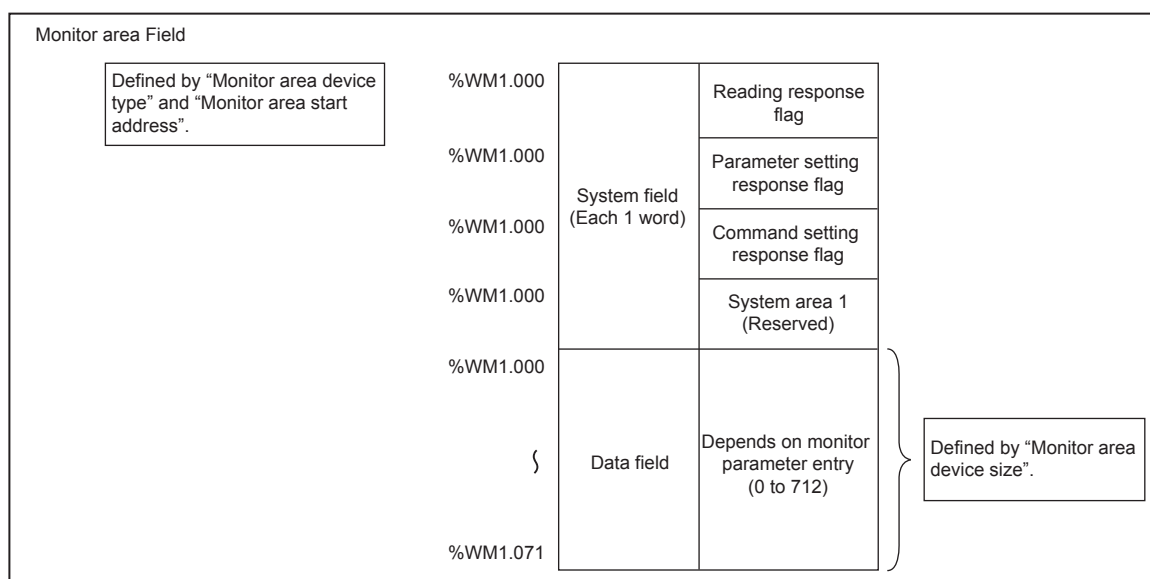
Refer to the parameters below.

Parameter	Setting range	Unit	Factory-set value	Attribute	MODBUS Register No. (Relative address)
Setting area start address (Lower)	0 to 65535	None	1000	R/W	41061(041Ah)
Setting area start address (Upper)	0 to 65535	None	0	R/W	41062(041Bh)
Monitor area start address (Lower)	0 to 65535	None	0	R/W	41065(041Eh)
Monitor area start address (Upper)	0 to 65535	None	0	R/W	41066(041Fh)

#### Memory of setting area



#### Memory of monitor area





### Note

- Set the address of setting area and that of monitor area such that they do not overlap.
- The rewrite of the data in memory area of setting area/monitor area is performed by the Ethernet communication module. Do not rewrite it on PLC.
- Refer to the Micrex-SX user's manual about memory area reservation on Micrex-SX side.

### Device size of setting/monitor area

Configure the memory size that each of the setting area and the monitor area uses.

The Ethernet communication module rewrites and read the memory in Micrex-SX according to the specified device size.

Refer to the parameters below.

Parameter	Setting range	Unit	Factory-set value	Attribute	MODBUS Register No. (Relative address)
Setting area device size	0 to 712	None	0	R/W	41063(041Ch)
Monitor area device size	0 to 712	None	0	R/W	41067(042Ah)

### Note

- Set the value of 1 or above for both setting area and monitor area.
- Refer to the Micrex-SX user's manual about memory area reservation on Micrex-SX side.

### Setting/Monitor area entry

Register parameters to be read and written in programless communication.

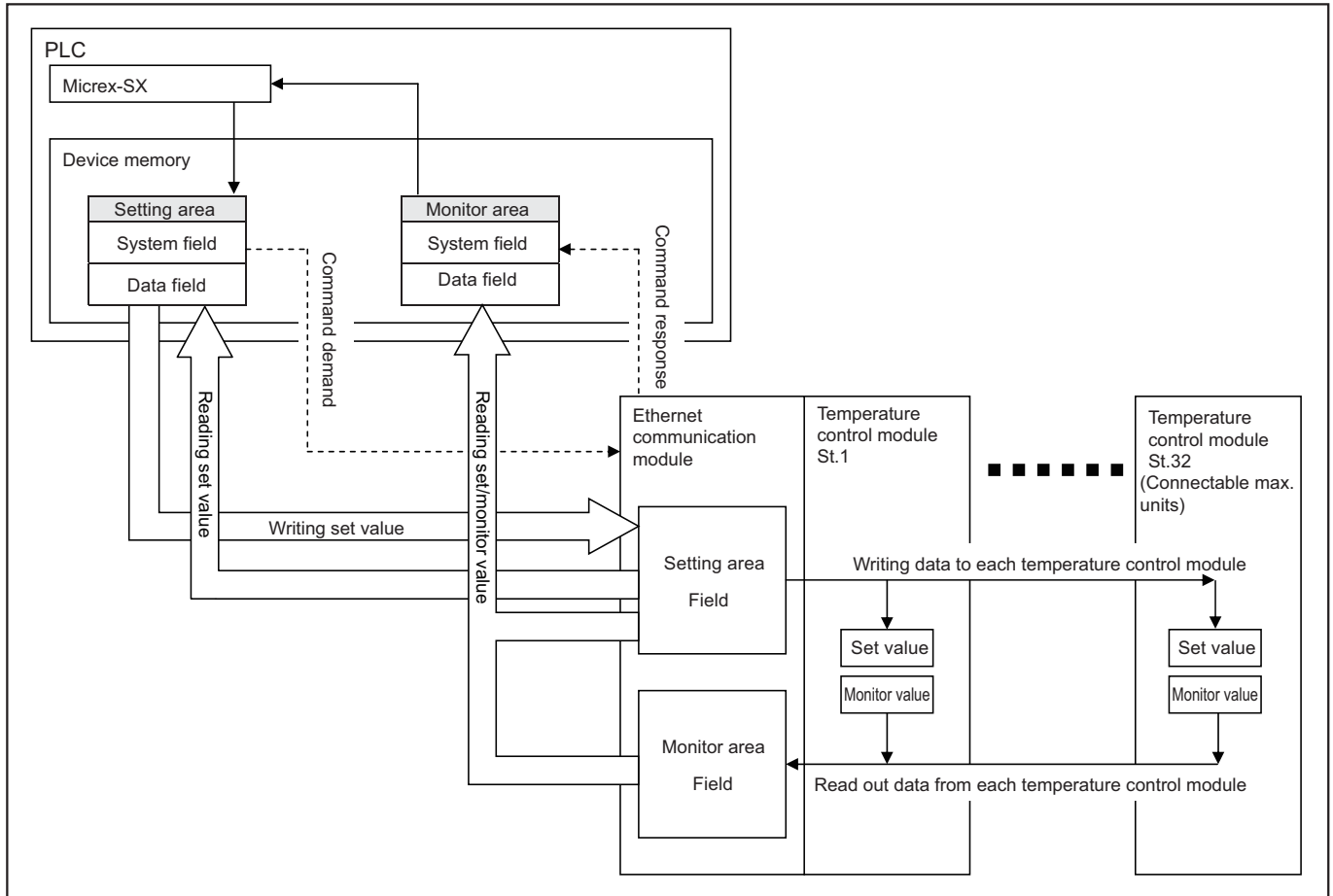
Regarding the registration procedure, refer to "Monitor area parameter entry" [▶▶ 4-10](#) and "Setting area parameter entry"

[▶▶ 4-12](#) in "4.3 Mapping communication."

## Operation of programless communication

In programless communication, the Ethernet communication module functions as a master of communication, and reads and writes Micrex-SX memory. Micrex-SX can read and write parameters by accessing the memory that has been read and written by the Ethernet communication module.

The figure below shows how parameters are read and written in programless communication.



### System field of setting area

Setting a "demand flag" for system field enables PLC to request PUM to change configuration, readout data, etc.

Item	Value	Command	Operation required
Reading demand flag	0000h	Stop operation	Stop the temperature control module data reading demand.
	0001h	Read out once	Execute the process once: reading out data from the temperature control module, and updating the monitor area data field.
	0002h	Continuous read out	Execute the process periodically: reading out data from the temperature control module, and updating the monitor area data field. Refer to "SX communication inter-cycle setting" <a href="#">▶▶ 4-15</a> about the fixed-cycle time.
	0003h	Set value reading out to the monitor area	Read out parameters' present values entered to the setting area from the temperature control module, and update the monitor area data field.
	0004h	Set value reading out to the setting area	Read out parameters' present values entered to the setting area from the temperature control module, and update the setting area data field.
Parameter setting demand flag	0000h	Stop operation	Stop the temperature control module data writing demand.
	0001h	Set once	Execute the process once: writing the set value set in the setting area data field to the temperature control module.
	0002h	Continuous setting	Execute the process periodically: writing the data set in the setting area data field to the temperature control module. Refer to "SX communication inter-cycle setting" <a href="#">▶▶ 4-15</a> about the fixed-cycle time.
Command setting demand flag	0000h	Stop operation	Stop the command execution demand to the programless communication module.
	FFFFh	Communication restoration demand	When the operation select is set to "Stop" with the programless communication module "Operation setting when a programless communication fault occurs" <a href="#">▶▶ 4-18</a> demand to restart operation for the programless communication module stopped with some faults. In addition, set "0000h" to the command setting demand flag, the programless communication module starts communication.
System area 1 (Reserved)	0000h	None	

**Point**

- If you set the value of a demand flag to other than "0000h", make sure to reset it to "0000h" before performing next demand. A demand flag is valid only when its value is changed from "0000h".

**Note**

- Do not use a command setting demand flag except for when communication restoration demand is necessary.

**Data field of setting area**

Set the data for writing to the temperature control parameter entered as setting parameters.

The data arrangement order is as set in "Setting area parameter entry".

**Point**

- The current set value is read to setting area by performing the "reading demand flag [0004h]" before starting control. This function saves your labor for setting the initial value on PLC.

**Note**

- If you perform data writing with all the memory of setting area set to the initial value, i.e. "0", the device may not operate properly depends on the contents of setting area entry.

### System field of monitor area

The response result from the PLC to the temperature control module that is required in the setting area system field or the temperature control module status can be confirmed.

Item	Value	Response	Explanation
Reading response flag	0000h	Stop data area update/ Complying with demand status	Updating of the data field in the monitor area via the programless communication is in the stopped state, or the reading demand flag is in a complying with demand status.
	0001h to 0004h	Normal response	That the response value is the same as the reading demand flag means that response to each demand is the normal response.
	8001h to 8004h	Demand's abnormal response	Abnormal response to each demand. (The state that communication errors are occurring between temperature control modules. Such as, nonexistent units)
	Other than those above	Abnormal response	Abnormal status other than the programless communications. (Such as, device memory setting duplication, overwrite by PLC sequence program)
Parameter setting response flag	0000h	Stop data area update/ Complying with demand status	Updating data field in the setting area via the programless communication is in the stopped state or the parameter setting demand flag is in the complying with demand status.
	0001h to 0002h	Normal response	That the response value is the same as the reading demand flag means that the response to each demand is the normal response.
	8001h to 8002h	Demand's abnormal response	Abnormal responses to each demand. (The state that communication errors are occurring between temperature control modules) The sources: such as, nonexistent units, the data out of range was written.
	Other than those above	Abnormal response	Abnormal status other than the programless communication. (Such as, device memory setting duplication, overwrite by PLC sequence program)
Command setting response flag	0000h	Stop data area update/ Complying with demand status	In the status of complying with the command setting demand flag.
	EEEEh	Stopped state	The programless communication is in the "stopped state".
	FFFFh	Restoration state	The response to "communication restoration demand" is normal.
	Other than those above	Abnormal response	Abnormal status other than the programless communication. (Such as, device memory setting duplication, overwrite by PLC sequence program)
System area 1 (Reserved)	0000h	None	

## Data field of monitor area

The monitor parameter read from the temperature control module is stored in this field.

### Note

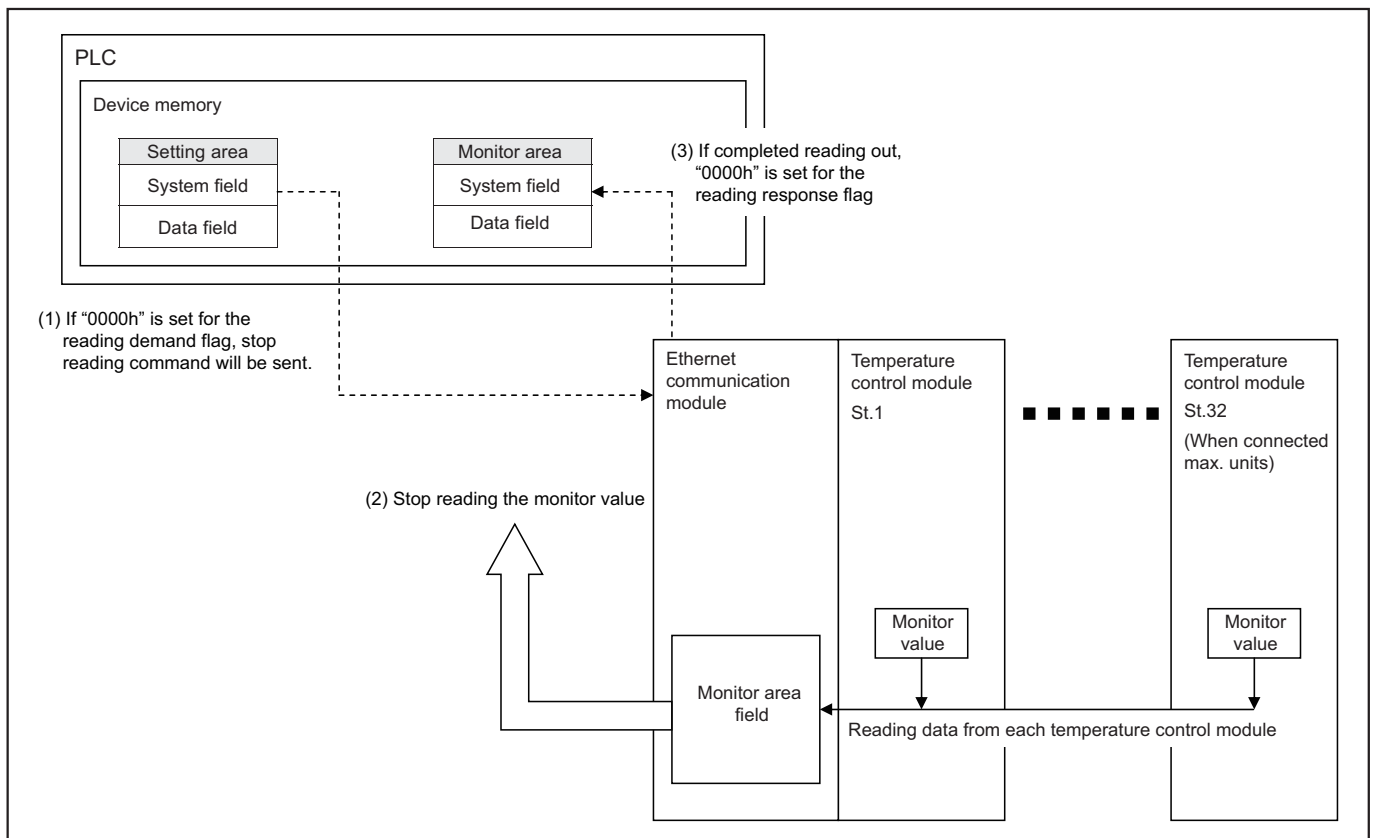
- The reading response flag and the setting response flag sometimes indicate abnormal status simultaneously, depends on the status of PUM.

## Operation of reading demand/response flag

Setting commands for the system field “reading demand flag” in the device memory setting area enables the temperature control module parameters and the memory values entered as the monitor parameters to be read out to the device memory area data field. The operation results are set for the “reading response flag” in the monitor area system field in the device memory.

### Stop operation (Command: 0000h)

If setting “0000h” for the system field “reading demand flag” in the device memory setting area, the operation that the temperature control module parameters and the memory values entered as the monitor parameters are read out to the device memory area data field in the device memory comes to a stop.

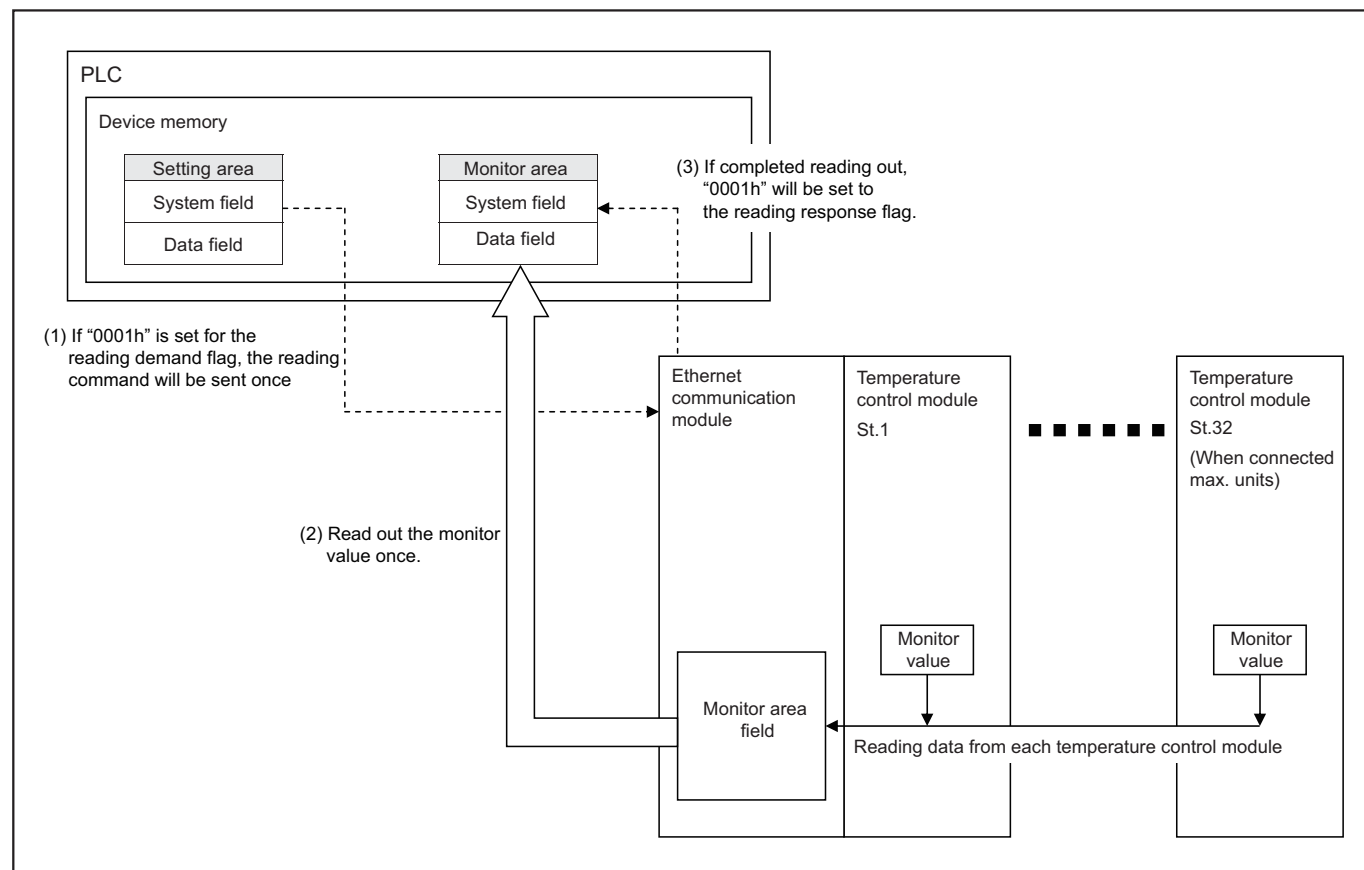


### Note

- If the reading demand flag is not set to “0000h”, the command for the reading demand flag is not complied. When modify the reading demand flag value, reset the reading demand flag to “0000h”, and then set the value again.

### Read out once (Command: 0001h)

Setting "0001h" for the system field "reading demand flag" in the device memory setting area enables the temperature control module parameters and the memory values entered as the monitor parameters to be read out once to the device memory area data field in the device memory.

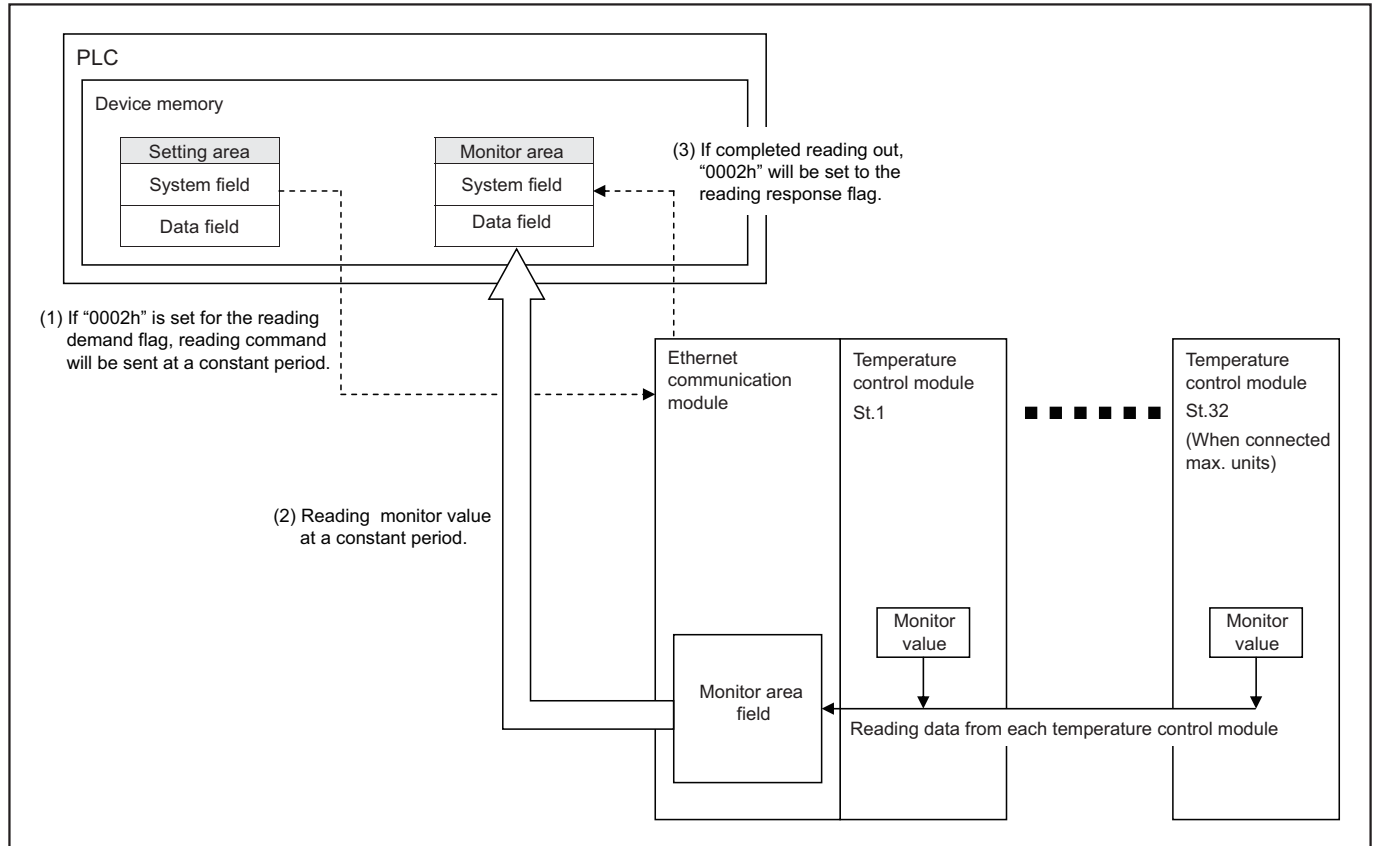


#### Point

- You can save time for data reading at next demand, by performing "stop operation command (0000h)" after finish reading out, which put programless communication into standby.

### Continuous reading out (Command: 0002h)

Setting “0002h” for the system field “reading demand flag” in the device memory setting area enables the temperature control module parameters and the memory values entered as the monitor parameters to be read out periodically to the device memory area data field in the device memory. (Refer to “SX communication inter-cycle time” [▶▶ 4-15](#) about the periodical time.)



If you want to stop continuous reading out, execute stop operation command (0000h) to put the programless communication module reading demand into the standby state.

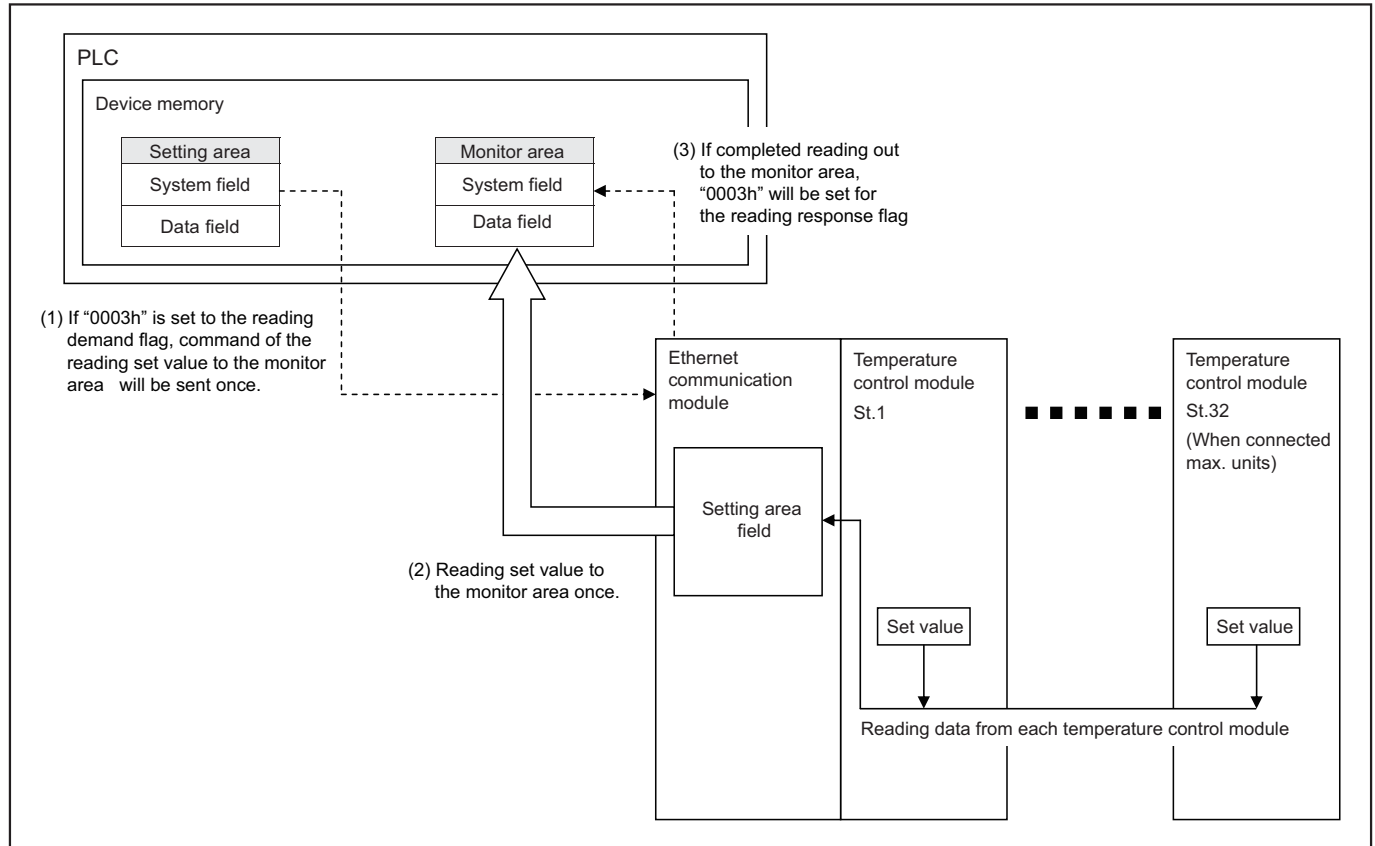
#### Point

- Internal monitor value for the Ethernet communication module can also be entered to the monitor area. The station number for the Ethernet communication module is “128”.



### Reading out set values to the monitor area (Command: 0003h)

Setting "0003h" for the system field "reading demand flag" in the device memory setting area enables the present parameter values entered to the setting area to be read out once from the temperature control module to the monitor area data field in the device memory.



#### Point

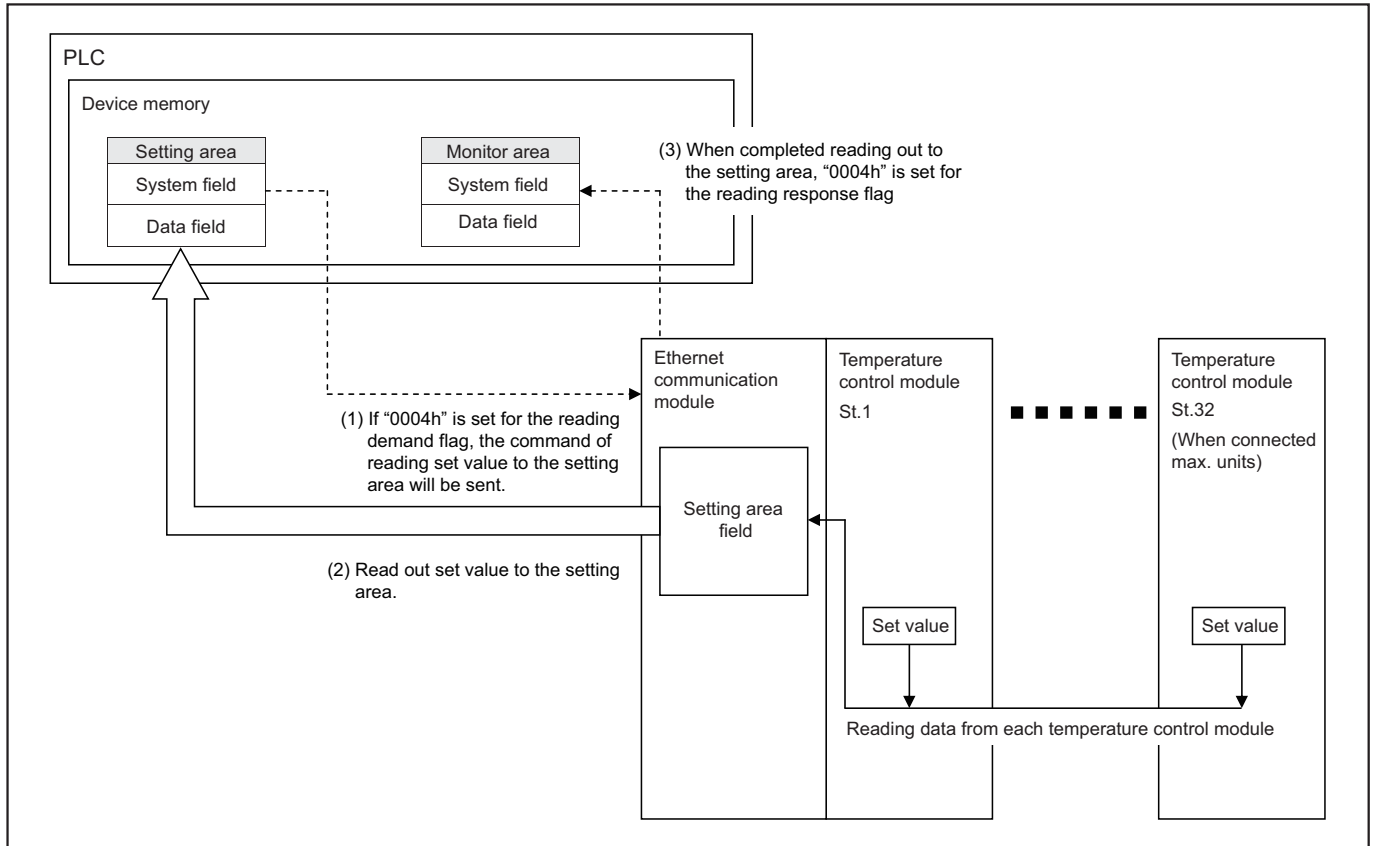
- You can save time for data reading at next demand, by performing "stop operation command (0000h)" after finish reading out, which put programless communication into standby.

#### Note

- With execution of this command, contents of the data field in the monitor area are discarded in order to read out the set value in the format of the setting area data field to the monitor area data field. If the monitor value in the monitor area is necessary after executing command, try to read out the monitor value by the reading out command again.

### Reading out set values to the setting area (Command: 0004h)

Setting "0004h" for the system field "reading demand flag" in the device memory setting area enables the present parameter values entered to the setting area to be read out once from the temperature control module to the setting area data field in the device memory.



#### Point

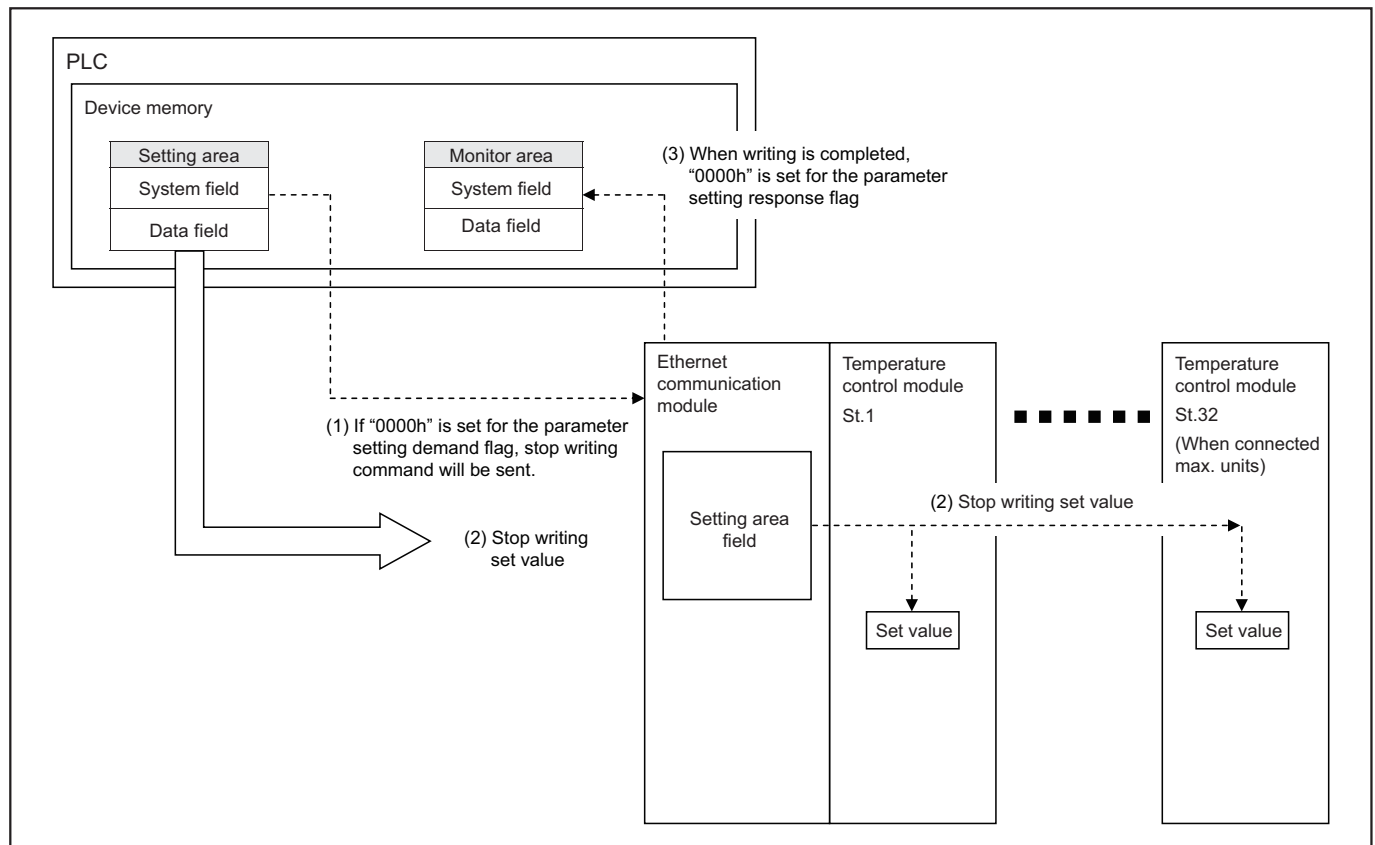
- You can save time for data reading at next demand, by performing "stop operation command (0000h)" after finish reading out, which put programless communication into standby.

## Operation of setting demand/response flag

Setting command for the system field “parameter setting demand flag” in the setting area enables the value of the data field to be written to the temperature control module parameter entered as the set parameter. The operation results are set for the “parameter setting response flag” of the system field in the monitor area.

### Stop operation (Command: 0000h)

Setting "0000h" for the system field "parameter setting flag" in the device memory setting area enables the value of data field in the setting area to stop being written to the temperature control module parameter entered as the setting parameter.



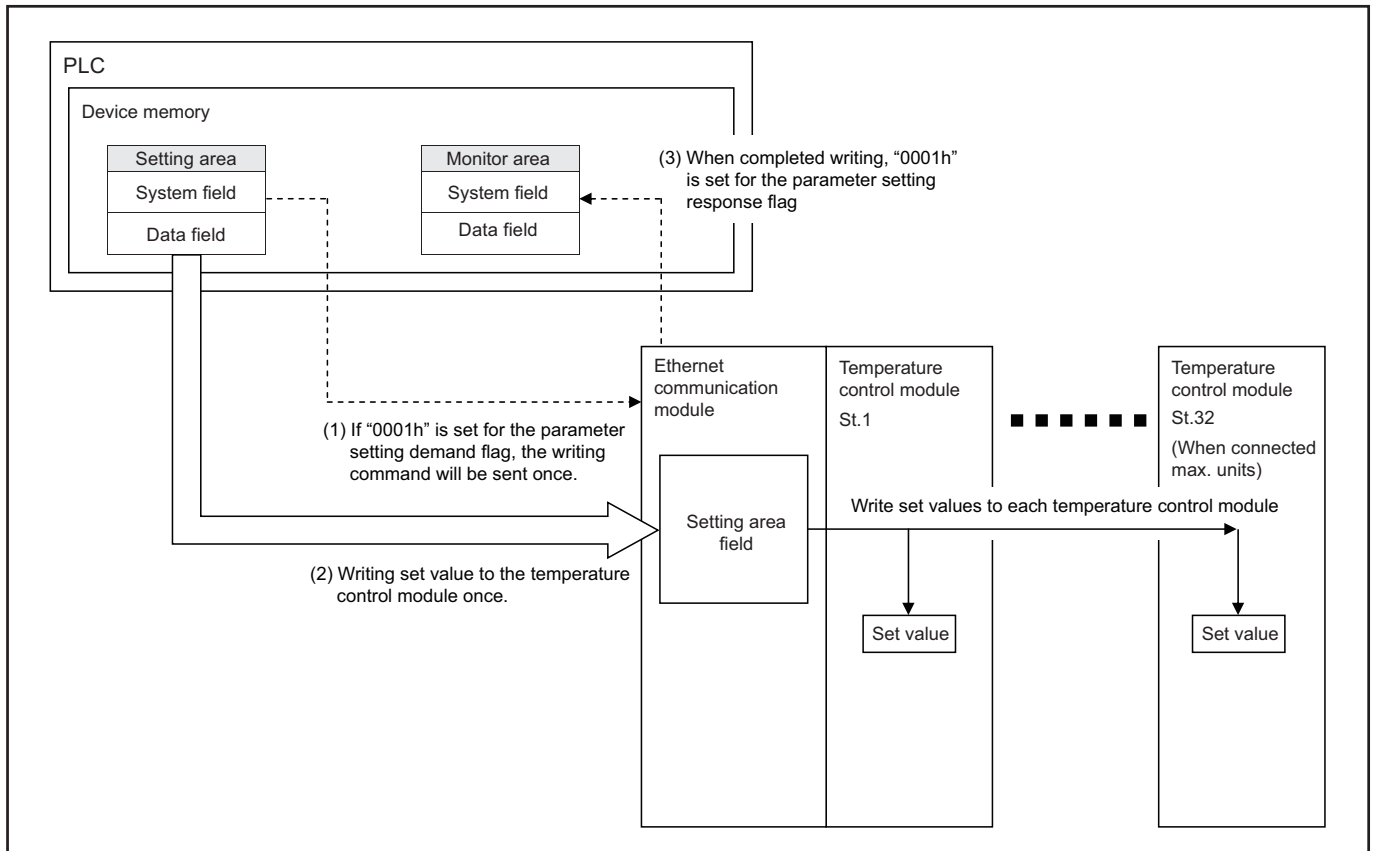
The programless communication module comes to be standby for the parameter setting demand with executing this command.

#### Note

- When the parameter setting demand flag is not "0000h" (Stopped state), command for the parameter setting demand flag is not complied. If modify the value of the parameter setting demand flag, set the value after reset the parameter setting demand flag to "0000h".

### Write once (Command: 0001h)

Setting "0001h" for the system field "parameter setting flag" in the device memory setting area enables the value of data field in the setting area to be written once to the temperature control module parameter entered as the setting parameter.



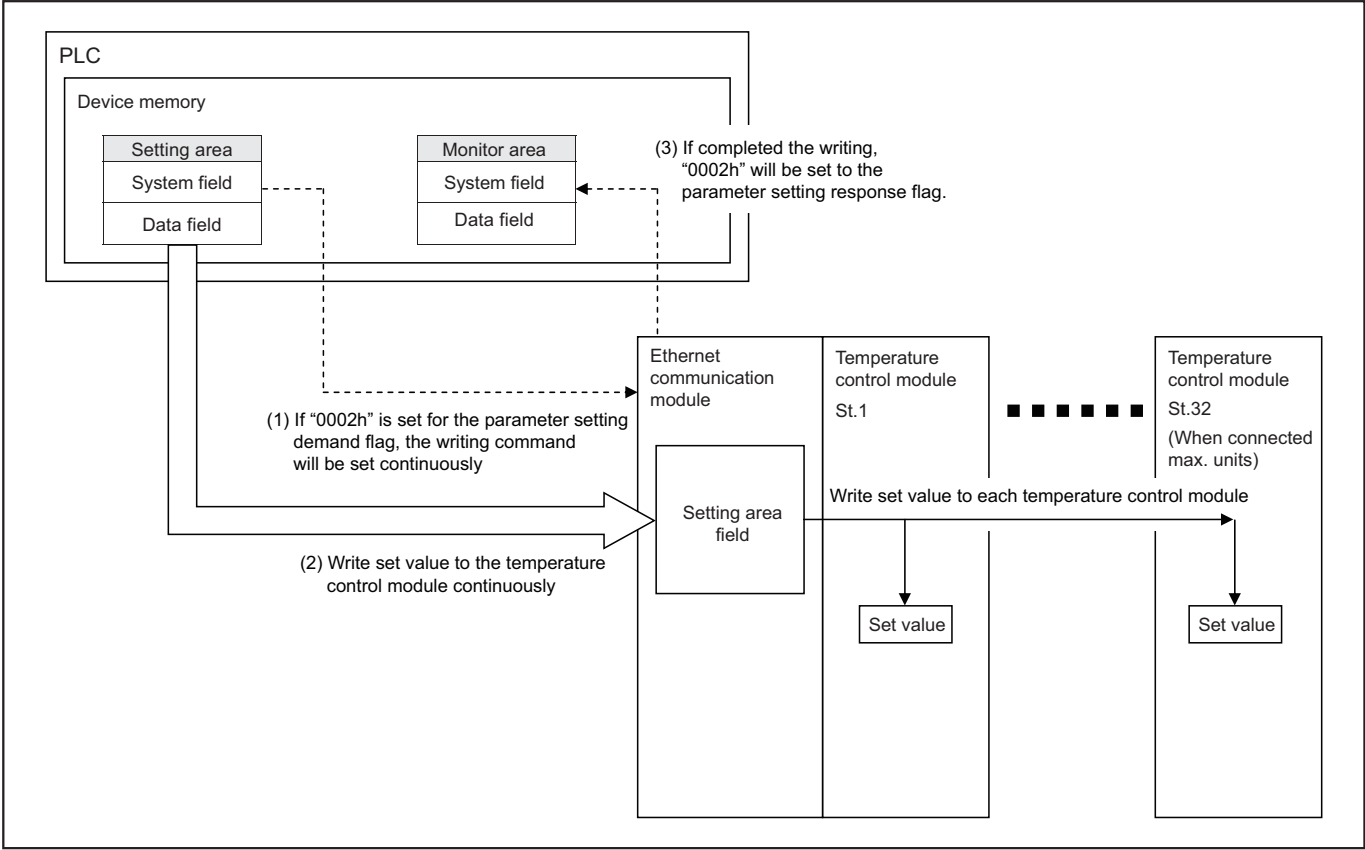
After writing, execute the stop operation command (0000h) to put the programless communication module's parameter setting demand into the standby status.

#### Note

- The temperature control module judges whether the set value has changed, and only if has changed, the set value will be updated.
- The parameters of the temperature control module that be reset automatically after executing the command, such as the temperature control module's auto tuning parameters, are not reflected in the memory of PLC. Confirm by the reading demand command, if the command has been executed.

Continuous writing (Command: 0002h)

Setting "0002h" for the system field "parameter setting flag" in the device memory setting area enables the value of data field in the setting area to be written periodically to the temperature control module parameter entered as the setting parameter. (Refer to "SX communication inter-cycle time" [▶▶ 4-15](#) about the periodical time).



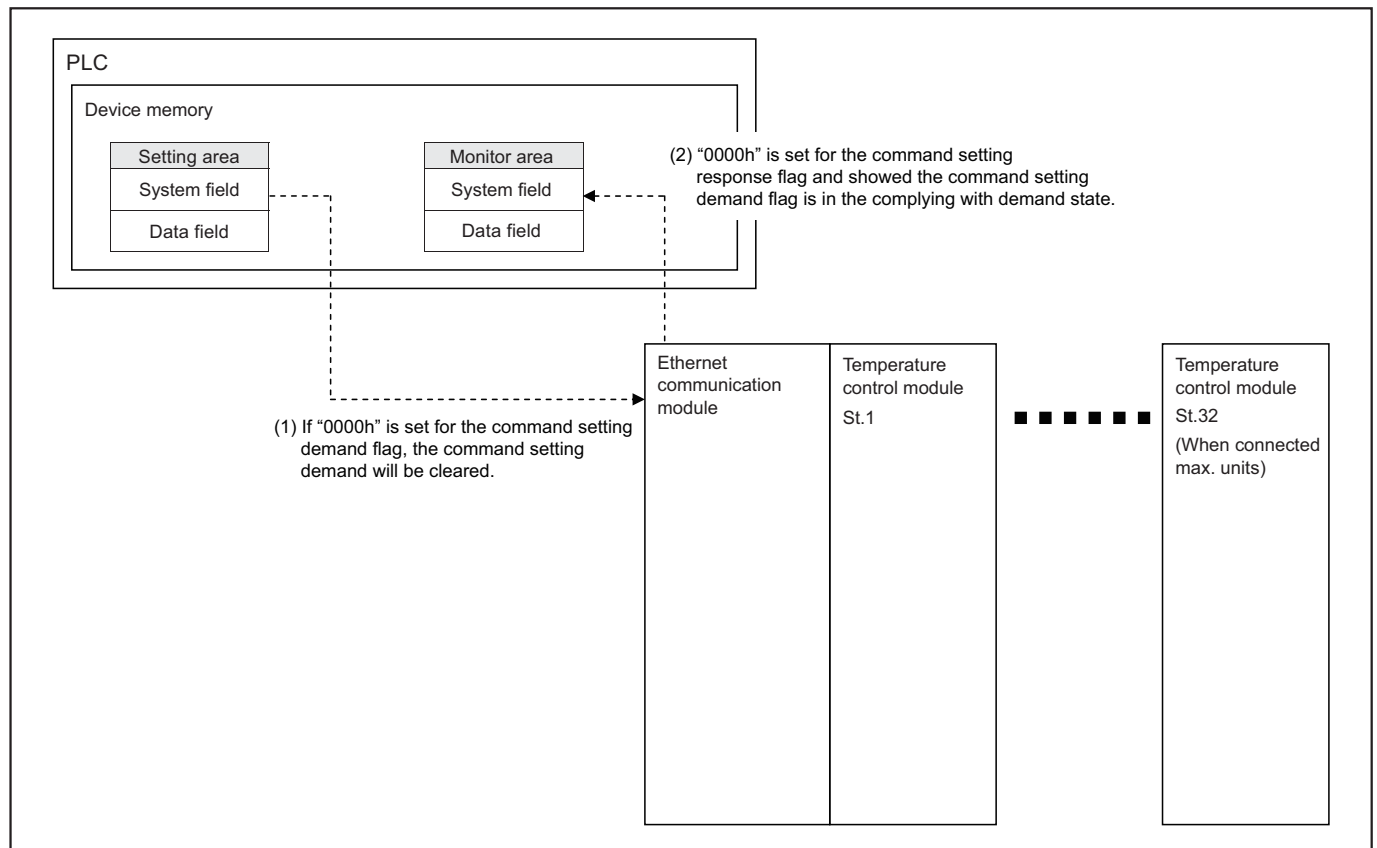
Execute the stop operation command (0000h) and put the programless communication module to the standby state in order to stop continuous writing.

## Operation of command setting demand/response flag

Setting command for the system field “command setting demand flag” in the setting area enables to indicate the operation for the programless communication module. The operation results are set in the system field “command setting response flag” of the monitor area.

### Stop operation (Command: 0000h)

Command setting demand status is cleared for the programless communication module by setting “0000h” for the “command setting demand flag”.



Executing this command puts the programless communication module into the standby status for the command setting demand.

#### Point

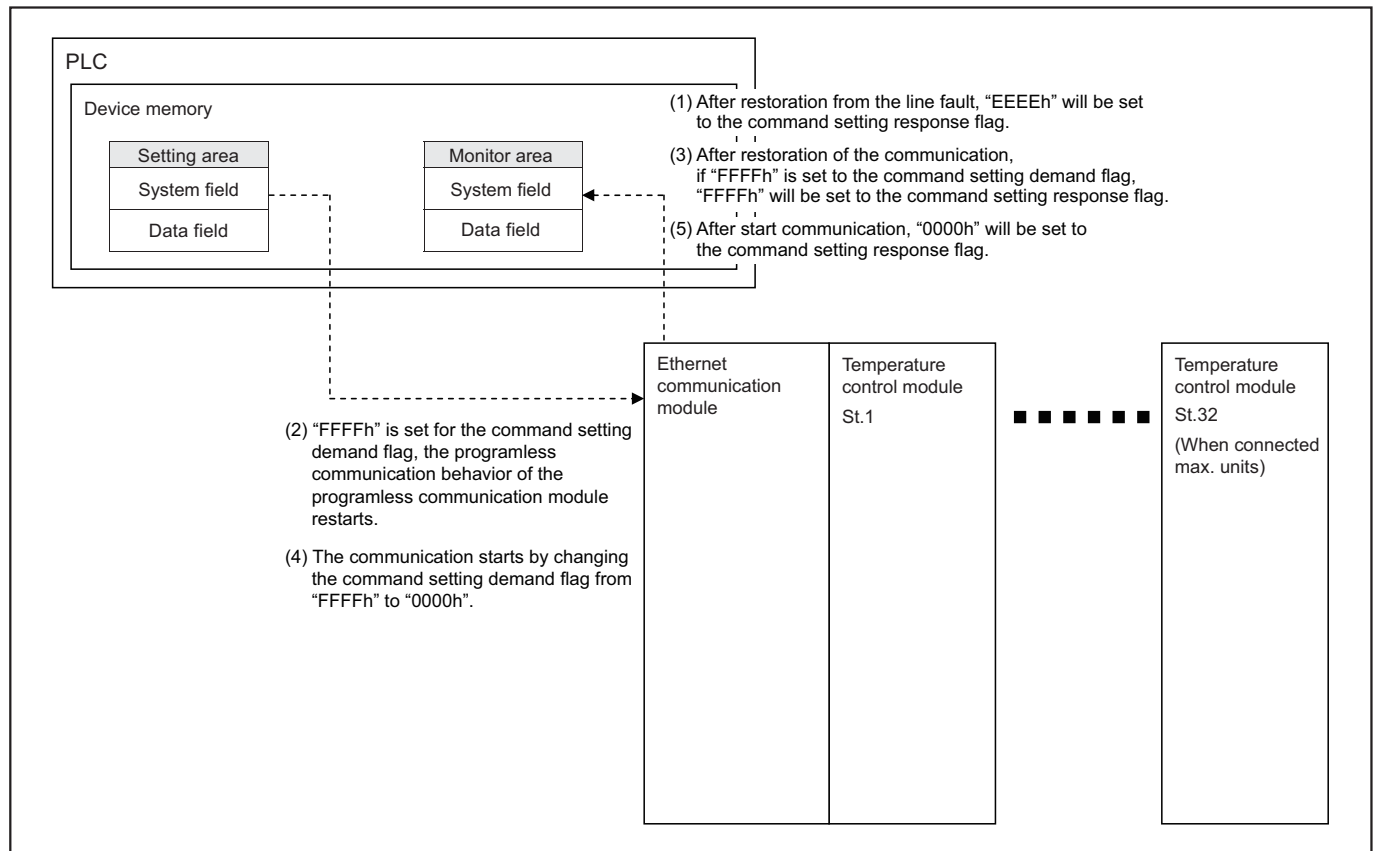
- The command response flag is 0000h during normal communication.

#### Note

- When the command setting demand flag is not set to “0000h” (Stop operation), the command for the command setting demand flag is not complied with. Set the value after reset the command setting demand flag to “0000h” (Stop operation) to modify the value of the command setting demand flag.

### Communication restoration demand (Command: FFFFh)

When "Stop" is selected for "Operation at communication fault" ▶▶ 4-18, this command requests the Ethernet communication module that has stopped operation due to communication fault to restart operation.



After communication restoration, execute the stop operation command to put the programless communication module's command setting demand into the standby status.

#### Note

- To execute the restoration procedure, the following two conditions should be satisfied:
  - "EEEEh"(Stopped status) has been set for the PLC setting area command setting response flag; and
  - the stop operation command of the reading demand flag and the stop operation command of the parameter setting demand flag has sent the normal response.
- When "Operation at communication fault" is set to "Stop", be sure to start Micrex-SX before starting PUMCE. If you start PUMCE before Micrex-SX, command setting response flag of setting area will be set to "EEEEh" and communication stopped.

# 5

## Communication

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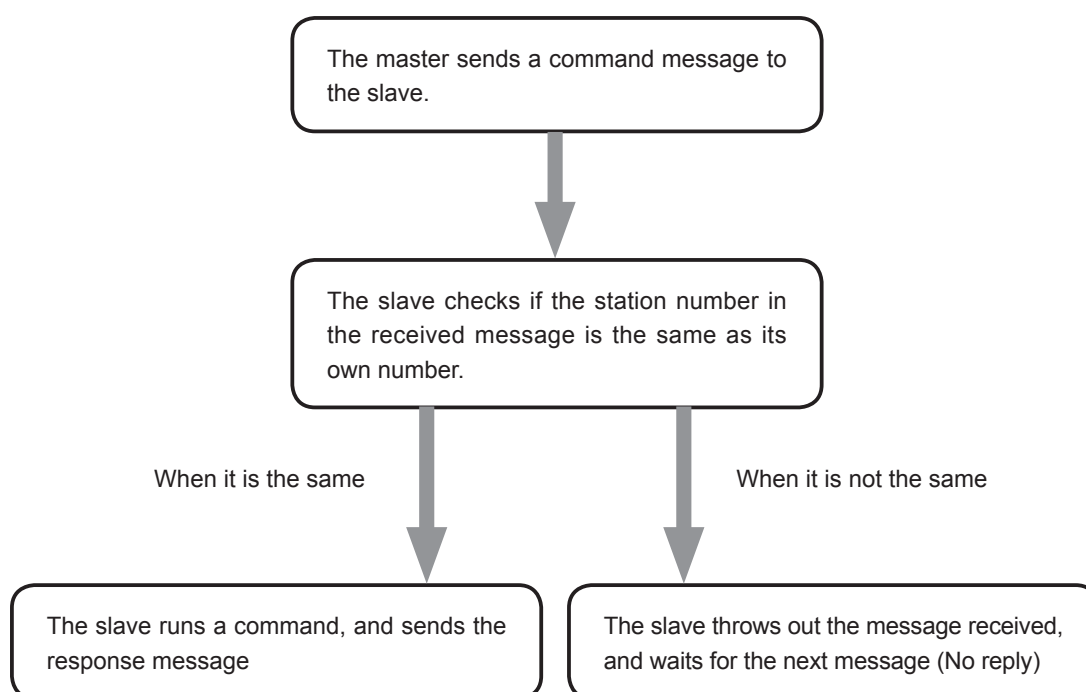
# 5.1 Modbus/TCP

Modbus/TCP is a Modbus protocol that operates on Ethernet TCP/IP.

Conventional PUM series products have used Modbus/RTU on RS232C or RS485. PUMCE converts Modbus/RTU to Modbus/TCP, thus allowing PUM series to operate on Ethernet network.

Same as Modbus/RTU, communication in Modbus/TCP is always carried out in a procedure that a master sends a command message and a corresponding slave sends a response message back.

The following flow diagram shows the communication procedure.



## Message composition

A command message is composed of four parts; a station number, a function code, a data part, and an error check code. They are sent in the order above.

Field Name	Number of Bytes
Ethernet information	6 bytes
Station Number	1 byte
Function code	1 byte
Data part	2 to 64 bytes

### Ethernet information

This is the information necessary for TCP/IP communication on Ethernet network.

The following items are to be set.

Field Name	Number of Bytes	Contents
Transmission ID	2 bytes	Specifies the ID for data transmission. Returns the copy of received ID.
Protocol ID	2 bytes	Specifies the protocol number to be used. It is fixed to "0" on PUMCE.
Data length	2 bytes	Specifies the length of data to be transmitted.

### Station Number

This is the number allocated to a slave.

Bridge communication: 1 to 32

Mapping communication: 128

### Function code

This code specifies the function for the slave to perform.

### Data part

These data is required to run the function code. The composition of the data part varies according to function codes.

You need to specify the coil number or the register number allocated to the data in the temperature controller to read or write the data through communication.

The coil number or the register number in messages uses relative addresses.

The relative address is calculated using the formula below.

$\text{Relative address} = (\text{The last 4 digits of a coil No. / register No.}) - 1$
---

Ex.) When a function code specifies a register number "40003",

$$\begin{aligned}\text{Relative address} &= (\text{The last 4 digits of 40003}) - 1 \\ &= 0002\end{aligned}$$

is used in the message.

## Slave response

- **Normal slave response**

A slave creates and replies the response message to each command message. A slave response message uses the same format as the corresponding command message.

Contents inside the data part vary according to function codes.

- **Irregular slave response**

If there is any problem (such as specification of a nonexistent function code) with the contents of command messages other than transmission error, a slave creates and sends back an error response message without running the command.

The composition of an error response message is as follows. The function code uses the value that the function code of the command message plus 80H.

Field Name	Number of Bytes
Ethernet information	6 bytes
Station Number	1 byte
Function code + 80H	1 byte
Error code	1 byte

The error codes are shown below.

Error code	Contents	Description
01H	Function code failure	A nonexistent function code is specified.
02H	Address failure for coil/register	The specified relative address for the coil No. /the register No. cannot be used by the specified function code.
03H	Coil/register/limit failure	The specified number of words is too many and specifies the range that does not contain the coil No. /register No. The specified data is beyond the limit.
06H	Busy state	Under data writing in the register. Retry communication after more than 100- sec interval.

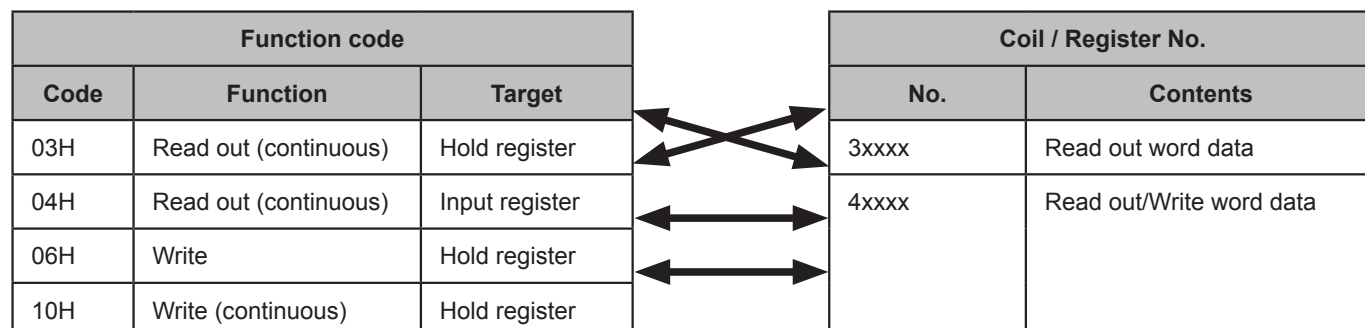
- **No slave response**

In the case that the station number specified by the command message is not the same as the station number specified for a slave, the slave sends no response.

## Function code

With MODBUS protocol, the different coil number and register number are allocated for each function code, and each function code reacts only to a certain coil number/register number.

The diagram below shows the correspondence between the function code and the coil number/register number.



The message length by each function is shown below.

Code	Contents	Number of allocatable data	Command message		Response message	
			Minimum	Maximum	Minimum	Maximum
03H	Read word data	125 words*	8 bytes	8 bytes	7 bytes	69 bytes
04H	Read out word data (Read out only)	125 words*	8 bytes	8 bytes	7 bytes	69 bytes
06H	Write word data	1 word	8 bytes	8 bytes	8 bytes	8 bytes
10H	Write series of word data	123 words*	11 bytes	73 bytes	8 bytes	8 bytes

\*: "Number of allocatable data" above is limited by the number of data that the equipment allocates for the coil/address number. (Excluding the function code 06H)

### Note

- Slave response may take some time depends on line condition of LAN when using Ethernet communication. Allow a master enough time to judge that there is no response from a slave.

## **5.2 Micrex-SX Loader Communication**

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Micrex-SX loader communication is the communication method that uses the loader function of Fuji Electric PLC, Micrex-SX.

Micrex-SX loader communication allows the device that accesses data in a CPU module via the communication port of Micrex-SX CPU or NP1L-ET1 to read and write data just by issuing a "demand command". It does not require programming for data transmission/reception on the CPU module.

Refer to Micrex-SX user's manual for detailed explanation of Micrex-SX loader communication.

# 5.3 Status

The status display is the parameter to monitor the Ethernet module operation.

You can access the status display by reading out from the front face loader port, by mapping communication, or by registering to the monitor area of Micrex-SX programless communication. (Set the "Monitor area entry St. No." parameter to "128" when entry for the monitor area.)

## Communication module status

The Ethernet communication module operation status can be referred.

Refer to the parameters below.

Parameter	Unit	Attribute	Modbus register No. (Relative address)
Parameter setting error	None	R	30301(012Ch)

## Programless communication status

The communication status between the Ethernet communication module and Micrex-SX can be confirmed.

Refer to the parameters below.

Parameter	Unit	Attribute	Modbus register No.(Relative address)
PLC error counter	time	R	31001(03E8h)
PLC error code	None	R	31002(03E9h)
PLC sending counter	time	R	31003(03EAh)
PLC receiving counter	time	R	31004(03EBh)
PLC reading size	word	R	31005(03ECh)
PLC writing size	word	R	31006(03EDh)
PLC inter-cycle time monitor	msec	R	31007(03EEh)
PLC inter-cycle time over counter	time	R	31008(03EFh)

### Description for each parameter

#### – PLC error counter

This is the programless communication error counter. It adds a count value "1"-by-"1" on "0" till "65535", and then back to "0".

#### – PLC error code

The error codes below are stored.

Error code	Description
100H	Command message timeout
101H	Response message timeout
102H	Sum check code error
103H	Header format error
110H	Hardware failure 1
111H	Hardware failure 2
7000H to 7FFFH	Micrex-SX error

#### – PLC sending counter

This is the programless communication sending counter. It adds a count value "1"-by-"1" on "0" till "65535", and then back to "0".

#### – PLC receiving counter

This is the programless communication receiving counter. It adds a count value "1"-by-"1" on "0" till "65535", and then back to "0".

#### – PLC reading size

This parameter indicates the size of read data on programless communication.

#### – PLC writing size

This parameter indicates the size of written data on programless communication.

#### – PLC inter-cycle time monitor

This parameter indicates the present value of the inter-PLC communication cycle. It stores the value in msec. The value of PLC inter-cycle time monitor changes depending on the state of a reading demand flag, a parameter setting demand flag, or a command setting demand flag.

#### – PLC inter-cycle time over counter

This parameter stores the number of times that the 1-cycle programless communication failed to complete within the time set to "SX communication inter-cycle time".



## 5.4 Address Map and Data Format

### Communication module status

Contents	Reading out/Writing data setting range	Factory-set value	Register No.
Parameter setting error	204h: PLC communication inter-cycle is invalid value 205h: PLC communication starting time is invalid value 206h: PLC response monitoring time is invalid value 207h: Number of PLC communication retry is invalid value 208h: Connection method is invalid value 20Ah: Operation at PLC communication fault is invalid value 210h: Setting area device type is invalid value 211h: Setting area device size is invalid value 212h: Monitor area device type is invalid value 213h: Monitor area device size is invalid value 214h: Setting area detail (The 1st word) is invalid value 215h: Monitor area detail (The 1st word) is invalid value 20Bh: Station bit error 221h: Modbus station response time-out period error 222h: Modbus station abnormal number of consecutive communication error 22Ah: Bridge communication setting error	-	30301

### Communication status with Micrex-SX

Contents	Reading out/Writing data setting range	Factory-set value	Register No.
PLC error counter	0→1→...→65535→0→1→...times	-	31001
PLC error code	100h: Command message timeout 101h: Response message timeout 103h: Header format error 7000h to 7FFFh: Micrex-SX error	-	31002
PLC sending counter	0→1→...→65535→0→1→...times	-	31003
PLC sending counter	0→1→...→65535→0→1→...times	-	31004
PLC reading size	0 to 712 bytes	-	31005
PLC writing size	0 to 712 bytes	-	31006
PLC inter-cycle time monitor	0 to 65535 msec	-	31007
PLC inter-cycle time over counter	0→1→...→65535→0→1→...times	-	31008

## Ethernet communication setting

Contents	Reading out/Writing data setting range	Factory-set value	Register No.
IP address (1)	0000h to FFFFh	C0A8h	40404
IP address (2)	0000h to FFFEh	0064h	40405
Subnet mask (1)	0000h to FFFFh	FFFFh	40406
Subnet mask (2)	0000h to FFFFh	FF00h	40407
Default gateway (1)	0000h to FFFFh	0000h	40408
Default gateway (2)	0000h to FFFFh	0000h	40409

## SX communication setting

Contents	Reading out/Writing data setting range	Factory-set value	Register No.
SX communication inter-cycle time	0 to 5000 msec	100	41050
SX communication starting time	1 to 255sec	5	41051
SX response monitoring time	10 to 10000 msec	200	41052
Consecutive communication error count	0 to 10 times	0	41053
Connection method	0: Direct connection with loader1: SX-bus connection	0	41056
Target SX IP address (1)	0000h to FFFFh	C0A8h	41054
Target SX IP address (2)	0000h to FFFEh	0001h	41055
SX connection ID (H)	0000h to 000Fh	0000h	41058
SX connection ID (L)	0000h to 00FEh	0000h	41057
Operation at programless communication fault	0: RUN 1: STOP	1	41059

### Note

- In some settings, SX communication inter-cycle cannot be maintained. In such a case, PUMCE reads/writes data as fast as it can. "PLC inter-cycle time over counter" counts the number of such cases.
- Configure "SX communication inter-cycle time" so as it is larger than "SX response monitoring time".

## SX device setting

Contents	Reading out/Writing data setting range	Factory-set value	Register No.
Setting area device type	1: Setting prohibited 2: Standard memory 3: Setting prohibited 4: Retain memory	2	41060
Setting area start address (Upper)	0 to 65535	1000	41061
Setting area start address (Lower)	0 to 65535	0	41062
Setting area device size	0 to 712 words	0	41063
Monitor area device type	1: Setting prohibited 2: Standard memory 3: Setting prohibited 4: Retain memory	2	41064
Monitor area start address (Upper)	0 to 65535	0	41065
Monitor area start address (Lower)	0 to 65535	0	41066
Monitor area device size	0 to 712 words	0	41067




## Setting area registration

Contents	Reading out/Writing data setting range	Factory-set value	Register No.
Setting area entry St. No. (The 1st word)	0: Unused 1 to 16: Control/Analog module 17 to 32 : Event module	0	41201
Setting area entry register No. (The 1st word)	0, 40000 to 49999 (Note1)	0	41202
Setting area entry St. No. (The 2nd word)	0: Unused 1 to 16: Control/Analog module 17 to 32 : Event module\	0	41203
Setting area entry register No. (The 2nd word)	0, 40000 to 49999 (Note1)	0	41204
-			
-			
-			
Setting area entry St. No. (The 711th word)	0: Unused 1 to 16: Control/Analog module 17 to 32 : Event module	0	42621
Setting area entry register No. (The 711th word)	0, 40000 to 49999 (Note1)	0	42622
Setting area entry St. No. (The 712th word)	0: Unused 1 to 16: Control/Analog module 17 to 32 : Event module	0	42623
Setting area entry register No. (The 712th word)	0, 40000 to 49999 (Note1)	0	42624

Note1: Only the addresses written in "Setting/Monitor area register number" (Control module ▶▶ 5-52), Event module ▶▶ 5-71, Analog module ▶▶ 5-78) are settable. However, the parameters marked "\*" in the "Entry ban" column cannot be set.

## Monitor area registration

Contents	Reading out/Writing data setting range	Factory-set value	Register No.
Monitor area entry St. No. (The 1st word)	0: Unused 1 to 16: Control/Analog module 17 to 32 : Event module	0	43001
Monitor area entry register No. (The 1st word)	0, 30000 to 49999 (Note 2)	0	43002
Monitor area entry St. No. (The 2nd word)	0: Unused 1 to 16: Control/Analog module 17 to 32 : Event module	0	43003
Monitor area entry register No. (The 2nd word)	0, 30000 to 49999 (Note 2)	0	43004
-			
-			
-			
Monitor area entry St. No. (The 711th word)	0: Unused 1 to 16: Control/Analog module 17 to 32 : Event module	0	44421
Monitor area entry register No. (The 711th word)	0, 30000 to 49999 (Note 2)	0	44422
Monitor area entry St. No. (The 712th word)	0: Unused 1 to 16: Control/Analog module 17 to 32 : Event module	0	44423
Monitor area entry register No. (The 712th word)	0, 30000 to 49999 (Note 2)	0	44424

Note 2: Only the addresses written in “Setting/Monitor area register number” (Control module  5-52, Event module  5-71, Analog module  5-78) are settable. However, the parameters marked “\*” in the “Entry ban” column cannot be set.

## Temperature control module internal communication statusn

Contents	Detail	Factory-set value	Register No.
Module operation status (1)	The corresponding bit of a connected temperature module is turned ON. (ON: in operation, OFF: stopped) * Among PUMA/B or PUMV/N/T, the module of which "Enhanced communication module (PUMC) connection permission" is set to "PUMC connected" is the one to be turned ON. b0: station No.1 to b15: station No.16	0	31105
Module operation status (2)	The corresponding bit of a connected event module is turned ON. *Among PUMEs, the module of which "Enhanced communication module (PUMC) connection permission" is set to "PUMC connected" is the one to be turned ON. b0: station No.17 to b15: station No.32	0	31106
MODBUS communication status (1)	The corresponding bit of a temperature control module which is not under MODBUS communication is turned ON. * Among PUMA/B or PUMV/N/T, the module of which "Enhanced communication module (PUMC) connection permission" is set to "PUMC connected" is the one to be turned ON. b0: station No.1 to b15: station No.16	0	31108
MODBUS communication status (2)	The corresponding bit of an event module which is not under MODBUS communication is turned ON. * The PUME of which "Enhanced communication module (PUMC) connection permission" is set to "PUMC connected" is the one to be turned ON. b0: station No.17 to b15: station No.32	0	31109
MODBUS communication error response (1)	If an error response message is received in MODBUS communication, the corresponding bit is turned ON. In a normal response, the corresponding bit is turned OFF. * The PUME of which "Enhanced communication module (PUMC) connection permission" is set to "PUMC connected" is the one to be turned ON. b0: station No.1 to b15: station No.16	0	31111
MODBUS communication error response (2)	If an error response message is received in MODBUS communication, the corresponding bit is turned ON. In a normal response, the corresponding bit is turned OFF. * The PUME of which "Enhanced communication module (PUMC) connection permission" is set to "PUMC connected" is the one to be turned ON. b0: station No.17 to b15: station No.32	0	31112

## 5.4 Address Map and Data Format

Contents	Detail	Factory-set value	Register No.
No. 1 module status (1)	Error counter and error code of the station: High-order 8 bits: error counter (0→1→...→255→0→1→...) Low-order 8 bits: error code The details of error codes are as follows. 01h to 03h, 06h: the error code stored in the response message 0Fh: invalid error codes (other than 01h to 03h, 06h) is stored in the response message 11h: Response timeout 12h: Oversized receipt (256 bytes or greater) 13h: Undersized receipt (under 4 bytes) 14h: Response message invalid station No. 15h: Response message CRC error 16h: Response message format error 20h: Invalid device information (during initial polling) 30h: device size error	0	31114
No. 1 module status (2)	Sending counter of the station: (0→1→...→65535→0→1→...)	0	31115
No. 1 module status (3)	Receiving counter of the station: (0→1→...→65535→0→1→...)	0	31116
No. 2 module status (1)	Error counter and error code of a station: High-order 8 bits: error counter (0→1→...→255→0→1→...) Low-order 8 bits: error code	0	31117
No. 2 module status (2)	Sending counter of the station: (0→1→...→65535→0→1→...)	0	31118
No. 2 module status (3)	Receiving counter of the station: (0→1→...→65535→0→1→...)	0	31119
No. 3 module status (1)	Error counter and error code of a station:	0	31120
⋮	⋮	⋮	⋮
No. 31 module status (3)	Receiving counter of the station:	0	31206
No. 32 module status (1)	Error counter and error code of a station: High-order 8 bits: error counter (0→1→...→255→0→1→...) Low-order 8 bits: error code	0	31207
No. 32 module status (2)	Sending counter of the station: (0→1→...→65535→0→1→...)	0	31208
No. 32 module status (3)	Receiving counter of the station: (0→1→...→65535→0→1→...)	0	31209
Inaccessible	-	-	31213 to 35000

## Register number order

Contents	Register No.	Relative address
IP address (1)	40404	0190h
IP address (2)	40405	0191h
Subnet mask (1)	40406	0192h
Subnet mask (2)	40407	0193h
Default gateway (1)	40408	0194h
Default gateway (2)	40409	0195h
SX communication inter-cycle time	41050	0419h
SX communication starting time	41051	041Ah
SX response monitoring time	41052	041Bh
Consecutive communication error count	41053	041Ch
Target SX IP address (1)	41054	041Dh
Target SX IP address (2)	41055	041Eh
SX Connection method	41056	041Fh
SX connection ID (L)	41057	0420h
SX connection ID(H)	41058	0421h
Operation at programless communication fault	41059	0422h
Setting area device type	41060	0423h
Setting area start address (Lower)	41061	0424h
Setting area start address (Upper)	41062	0425h
Setting area device size	41063	0426h
Monitor area device type	41064	0427h
Monitor area start address (Lower)	41065	0428h
Monitor area start address (Upper)	41066	0429h
Monitor area device size	41067	042Ah
Setting area detail (the 1th word) (1)	41201	04B0h
Setting area detail (the 1th word) (2)	41202	04B1h
Setting area detail (the 2th word) (1)	41203	04B2h
Setting area detail (the 2th word) (2)	41204	04B3h
Setting area detail (the 3th word) (1)	41205	04B4h
Setting area detail (the 3th word) (2)	41206	04B5h
Setting area detail (the 4th word) (1)	41207	04B6h
Setting area detail (the 4th word) (2)	41208	04B7h
Setting area detail (the 5th word) (1)	41209	04B8h
Setting area detail (the 5th word) (2)	41210	04B9h
Setting area detail (the 6th word) (1)	41211	04BAh
Setting area detail (the 6th word) (2)	41212	04BBh
Setting area detail (the 7th word) (1)	41213	04BCh
Setting area detail (the 7th word) (2)	41214	04BDh
Setting area detail (the 8th word) (1)	41215	04BEh
Setting area detail (the 8th word) (2)	41216	04BFh
Setting area detail (the 9th word) (1)	41217	04C0h
Setting area detail (the 9th word) (2)	41218	04C1h

Contents	Register No.	Relative address
Setting area detail (the 10th word) (1)	41219	04C2h
Setting area detail (the 10th word) (2)	41220	04C3h
Setting area detail (the 11th word) (1)	41221	04C4h
Setting area detail (the 11th word) (2)	41222	04C5h
Setting area detail (the 12th word) (1)	41223	04C6h
Setting area detail (the 12th word) (2)	41224	04C7h
Setting area detail (the 13th word) (1)	41225	04C8h
Setting area detail (the 13th word) (2)	41226	04C9h
Setting area detail (the 14th word) (1)	41227	04CAh
Setting area detail (the 14th word) (2)	41228	04CBh
Setting area detail (the 15th word) (1)	41229	04CCh
Setting area detail (the 15th word) (2)	41230	04CDh
Setting area detail (the 16th word) (1)	41231	04CEh
Setting area detail (the 16th word) (2)	41232	04CFh
Setting area detail (the 17th word) (1)	41233	04D0h
Setting area detail (the 17th word) (2)	41234	04D1h
Setting area detail (the 18th word) (1)	41235	04D2h
Setting area detail (the 18th word) (2)	41236	04D3h
Setting area detail (the 19th word) (1)	41237	04D4h
Setting area detail (the 19th word) (2)	41238	04D5h
Setting area detail (the 20th word) (1)	41239	04D6h
Setting area detail (the 20th word) (2)	41240	04D7h
Setting area detail (the 21th word) (1)	41241	04D8h
Setting area detail (the 21th word) (2)	41242	04D9h
Setting area detail (the 22th word) (1)	41243	04DAh
Setting area detail (the 22th word) (2)	41244	04DBh
Setting area detail (the 23th word) (1)	41245	04DCh
Setting area detail (the 23th word) (2)	41246	04DDh
Setting area detail (the 24th word) (1)	41247	04DEh
Setting area detail (the 24th word) (2)	41248	04DFh
Setting area detail (the 25th word) (1)	41249	04E0h
Setting area detail (the 25th word) (2)	41250	04E1h
Setting area detail (the 26th word) (1)	41251	04E2h
Setting area detail (the 26th word) (2)	41252	04E3h
Setting area detail (the 27th word) (1)	41253	04E4h
Setting area detail (the 27th word) (2)	41254	04E5h
Setting area detail (the 28th word) (1)	41255	04E6h
Setting area detail (the 28th word) (2)	41256	04E7h
Setting area detail (the 29th word) (1)	41257	04E8h
Setting area detail (the 29th word) (2)	41258	04E9h
Setting area detail (the 30th word) (1)	41259	04EAh
Setting area detail (the 30th word) (2)	41260	04EBh



## 5.4 Address Map and Data Format

Contents	Register No.	Relative address
Setting area detail (the 31th word) (1)	41261	04ECh
Setting area detail (the 31th word) (2)	41262	04EDh
Setting area detail (the 32th word) (1)	41263	04EEh
Setting area detail (the 32th word) (2)	41264	04EFh
Setting area detail (the 33th word) (1)	41265	04F0h
Setting area detail (the 33th word) (2)	41266	04F1h
Setting area detail (the 34th word) (1)	41267	04F2h
Setting area detail (the 34th word) (2)	41268	04F3h
Setting area detail (the 35th word) (1)	41269	04F4h
Setting area detail (the 35th word) (2)	41270	04F5h
Setting area detail (the 36th word) (1)	41271	04F6h
Setting area detail (the 36th word) (2)	41272	04F7h
Setting area detail (the 37th word) (1)	41273	04F8h
Setting area detail (the 37th word) (2)	41274	04F9h
Setting area detail (the 38th word) (1)	41275	04FAh
Setting area detail (the 38th word) (2)	41276	04FBh
Setting area detail (the 39th word) (1)	41277	04FCh
Setting area detail (the 39th word) (2)	41278	04FDh
Setting area detail (the 40th word) (1)	41279	04FEh
Setting area detail (the 40th word) (2)	41280	04FFh
Setting area detail (the 41th word) (1)	41281	0500h
Setting area detail (the 41th word) (2)	41282	0501h
Setting area detail (the 42th word) (1)	41283	0502h
Setting area detail (the 42th word) (2)	41284	0503h
Setting area detail (the 43th word) (1)	41285	0504h
Setting area detail (the 43th word) (2)	41286	0505h
Setting area detail (the 44th word) (1)	41287	0506h
Setting area detail (the 44th word) (2)	41288	0507h
Setting area detail (the 45th word) (1)	41289	0508h
Setting area detail (the 45th word) (2)	41290	0509h
Setting area detail (the 46th word) (1)	41291	050Ah
Setting area detail (the 46th word) (2)	41292	050Bh
Setting area detail (the 47th word) (1)	41293	050Ch
Setting area detail (the 47th word) (2)	41294	050Dh
Setting area detail (the 48th word) (1)	41295	050Eh
Setting area detail (the 48th word) (2)	41296	050Fh
Setting area detail (the 49th word) (1)	41297	0510h
Setting area detail (the 49th word) (2)	41298	0511h
Setting area detail (the 50th word) (1)	41299	0512h
Setting area detail (the 50th word) (2)	41300	0513h
Setting area detail (the 51th word) (1)	41301	0514h
Setting area detail (the 51th word) (2)	41302	0515h

Contents	Register No.	Relative address
Setting area detail (the 52th word) (1)	41303	0516h
Setting area detail (the 52th word) (2)	41304	0517h
Setting area detail (the 53th word) (1)	41305	0518h
Setting area detail (the 53th word) (2)	41306	0519h
Setting area detail (the 54th word) (1)	41307	051Ah
Setting area detail (the 54th word) (2)	41308	051Bh
Setting area detail (the 55th word) (1)	41309	051Ch
Setting area detail (the 55th word) (2)	41310	051Dh
Setting area detail (the 56th word) (1)	41311	051Eh
Setting area detail (the 56th word) (2)	41312	051Fh
Setting area detail (the 57th word) (1)	41313	0520h
Setting area detail (the 57th word) (2)	41314	0521h
Setting area detail (the 58th word) (1)	41315	0522h
Setting area detail (the 58th word) (2)	41316	0523h
Setting area detail (the 59th word) (1)	41317	0524h
Setting area detail (the 59th word) (2)	41318	0525h
Setting area detail (the 60th word) (1)	41319	0526h
Setting area detail (the 60th word) (2)	41320	0527h
Setting area detail (the 61th word) (1)	41321	0528h
Setting area detail (the 61th word) (2)	41322	0529h
Setting area detail (the 62th word) (1)	41323	052Ah
Setting area detail (the 62th word) (2)	41324	052Bh
Setting area detail (the 63th word) (1)	41325	052Ch
Setting area detail (the 63th word) (2)	41326	052Dh
Setting area detail (the 64th word) (1)	41327	052Eh
Setting area detail (the 64th word) (2)	41328	052Fh
Setting area detail (the 65th word) (1)	41329	0530h
Setting area detail (the 65th word) (2)	41330	0531h
Setting area detail (the 66th word) (1)	41331	0532h
Setting area detail (the 66th word) (2)	41332	0533h
Setting area detail (the 67th word) (1)	41333	0534h
Setting area detail (the 67th word) (2)	41334	0535h
Setting area detail (the 68th word) (1)	41335	0536h
Setting area detail (the 68th word) (2)	41336	0537h
Setting area detail (the 69th word) (1)	41337	0538h
Setting area detail (the 69th word) (2)	41338	0539h
Setting area detail (the 70th word) (1)	41339	053Ah
Setting area detail (the 70th word) (2)	41340	053Bh
Setting area detail (the 71th word) (1)	41341	053Ch
Setting area detail (the 71th word) (2)	41342	053Dh
Setting area detail (the 72th word) (1)	41343	053Eh
Setting area detail (the 72th word) (2)	41344	053Fh

Contents	Register No.	Relative address
Setting area detail (the 73th word) (1)	41345	0540h
Setting area detail (the 73th word) (2)	41346	0541h
Setting area detail (the 74th word) (1)	41347	0542h
Setting area detail (the 74th word) (2)	41348	0543h
Setting area detail (the 75th word) (1)	41349	0544h
Setting area detail (the 75th word) (2)	41350	0545h
Setting area detail (the 76th word) (1)	41351	0546h
Setting area detail (the 76th word) (2)	41352	0547h
Setting area detail (the 77th word) (1)	41353	0548h
Setting area detail (the 77th word) (2)	41354	0549h
Setting area detail (the 78th word) (1)	41355	054Ah
Setting area detail (the 78th word) (2)	41356	054Bh
Setting area detail (the 79th word) (1)	41357	054Ch
Setting area detail (the 79th word) (2)	41358	054Dh
Setting area detail (the 80th word) (1)	41359	054Eh
Setting area detail (the 80th word) (2)	41360	054Fh
Setting area detail (the 81th word) (1)	41361	0550h
Setting area detail (the 81th word) (2)	41362	0551h
Setting area detail (the 82th word) (1)	41363	0552h
Setting area detail (the 82th word) (2)	41364	0553h
Setting area detail (the 83th word) (1)	41365	0554h
Setting area detail (the 83th word) (2)	41366	0555h
Setting area detail (the 84th word) (1)	41367	0556h
Setting area detail (the 84th word) (2)	41368	0557h
Setting area detail (the 85th word) (1)	41369	0558h
Setting area detail (the 85th word) (2)	41370	0559h
Setting area detail (the 86th word) (1)	41371	055Ah
Setting area detail (the 86th word) (2)	41372	055Bh
Setting area detail (the 87th word) (1)	41373	055Ch
Setting area detail (the 87th word) (2)	41374	055Dh
Setting area detail (the 88th word) (1)	41375	055Eh
Setting area detail (the 88th word) (2)	41376	055Fh
Setting area detail (the 89th word) (1)	41377	0560h
Setting area detail (the 89th word) (2)	41378	0561h
Setting area detail (the 90th word) (1)	41379	0562h
Setting area detail (the 90th word) (2)	41380	0563h
Setting area detail (the 91th word) (1)	41381	0564h
Setting area detail (the 91th word) (2)	41382	0565h
Setting area detail (the 92th word) (1)	41383	0566h
Setting area detail (the 92th word) (2)	41384	0567h
Setting area detail (the 93th word) (1)	41385	0568h
Setting area detail (the 93th word) (2)	41386	0569h

Contents	Register No.	Relative address
Setting area detail (the 94th word) (1)	41387	056Ah
Setting area detail (the 94th word) (2)	41388	056Bh
Setting area detail (the 95th word) (1)	41389	056Ch
Setting area detail (the 95th word) (2)	41390	056Dh
Setting area detail (the 96th word) (1)	41391	056Eh
Setting area detail (the 96th word) (2)	41392	056Fh
Setting area detail (the 97th word) (1)	41393	0570h
Setting area detail (the 97th word) (2)	41394	0571h
Setting area detail (the 98th word) (1)	41395	0572h
Setting area detail (the 98th word) (2)	41396	0573h
Setting area detail (the 99th word) (1)	41397	0574h
Setting area detail (the 99th word) (2)	41398	0575h
Setting area detail (the 100th word) (1)	41399	0576h
Setting area detail (the 100th word) (2)	41400	0577h
Setting area detail (the 101th word) (1)	41401	0578h
Setting area detail (the 101th word) (2)	41402	0579h
Setting area detail (the 102th word) (1)	41403	057Ah
Setting area detail (the 102th word) (2)	41404	057Bh
Setting area detail (the 103th word) (1)	41405	057Ch
Setting area detail (the 103th word) (2)	41406	057Dh
Setting area detail (the 104th word) (1)	41407	057Eh
Setting area detail (the 104th word) (2)	41408	057Fh
Setting area detail (the 105th word) (1)	41409	0580h
Setting area detail (the 105th word) (2)	41410	0581h
Setting area detail (the 106th word) (1)	41411	0582h
Setting area detail (the 106th word) (2)	41412	0583h
Setting area detail (the 107th word) (1)	41413	0584h
Setting area detail (the 107th word) (2)	41414	0585h
Setting area detail (the 108th word) (1)	41415	0586h
Setting area detail (the 108th word) (2)	41416	0587h
Setting area detail (the 109th word) (1)	41417	0588h
Setting area detail (the 109th word) (2)	41418	0589h
Setting area detail (the 110th word) (1)	41419	058Ah
Setting area detail (the 110th word) (2)	41420	058Bh
Setting area detail (the 111th word) (1)	41421	058Ch
Setting area detail (the 111th word) (2)	41422	058Dh
Setting area detail (the 112th word) (1)	41423	058Eh
Setting area detail (the 112th word) (2)	41424	058Fh
Setting area detail (the 113th word) (1)	41425	0590h
Setting area detail (the 113th word) (2)	41426	0591h
Setting area detail (the 114th word) (1)	41427	0592h
Setting area detail (the 114th word) (2)	41428	0593h

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Contents	Register No.	Relative address
Setting area detail (the 115th word) (1)	41429	0594h
Setting area detail (the 115th word) (2)	41430	0595h
Setting area detail (the 116th word) (1)	41431	0596h
Setting area detail (the 116th word) (2)	41432	0597h
Setting area detail (the 117th word) (1)	41433	0598h
Setting area detail (the 117th word) (2)	41434	0599h
Setting area detail (the 118th word) (1)	41435	059Ah
Setting area detail (the 118th word) (2)	41436	059Bh
Setting area detail (the 119th word) (1)	41437	059Ch
Setting area detail (the 119th word) (2)	41438	059Dh
Setting area detail (the 120th word) (1)	41439	059Eh
Setting area detail (the 120th word) (2)	41440	059Fh
Setting area detail (the 121th word) (1)	41441	05A0h
Setting area detail (the 121th word) (2)	41442	05A1h
Setting area detail (the 122th word) (1)	41443	05A2h
Setting area detail (the 122th word) (2)	41444	05A3h
Setting area detail (the 123th word) (1)	41445	05A4h
Setting area detail (the 123th word) (2)	41446	05A5h
Setting area detail (the 124th word) (1)	41447	05A6h
Setting area detail (the 124th word) (2)	41448	05A7h
Setting area detail (the 125th word) (1)	41449	05A8h
Setting area detail (the 125th word) (2)	41450	05A9h
Setting area detail (the 126th word) (1)	41451	05AAh
Setting area detail (the 126th word) (2)	41452	05ABh
Setting area detail (the 127th word) (1)	41453	05ACh
Setting area detail (the 127th word) (2)	41454	05ADh
Setting area detail (the 128th word) (1)	41455	05AEh
Setting area detail (the 128th word) (2)	41456	05AFh
Setting area detail (the 129th word) (1)	41457	05B0h
Setting area detail (the 129th word) (2)	41458	05B1h
Setting area detail (the 130th word) (1)	41459	05B2h
Setting area detail (the 130th word) (2)	41460	05B3h
Setting area detail (the 131th word) (1)	41461	05B4h
Setting area detail (the 131th word) (2)	41462	05B5h
Setting area detail (the 132th word) (1)	41463	05B6h
Setting area detail (the 132th word) (2)	41464	05B7h
Setting area detail (the 133th word) (1)	41465	05B8h
Setting area detail (the 133th word) (2)	41466	05B9h
Setting area detail (the 134th word) (1)	41467	05BAh
Setting area detail (the 134th word) (2)	41468	05BBh
Setting area detail (the 135th word) (1)	41469	05BCh
Setting area detail (the 135th word) (2)	41470	05BDh

Contents	Register No.	Relative address
Setting area detail (the 136th word) (1)	41471	05BEh
Setting area detail (the 136th word) (2)	41472	05BFh
Setting area detail (the 137th word) (1)	41473	05C0h
Setting area detail (the 137th word) (2)	41474	05C1h
Setting area detail (the 138th word) (1)	41475	05C2h
Setting area detail (the 138th word) (2)	41476	05C3h
Setting area detail (the 139th word) (1)	41477	05C4h
Setting area detail (the 139th word) (2)	41478	05C5h
Setting area detail (the 140th word) (1)	41479	05C6h
Setting area detail (the 140th word) (2)	41480	05C7h
Setting area detail (the 141th word) (1)	41481	05C8h
Setting area detail (the 141th word) (2)	41482	05C9h
Setting area detail (the 142th word) (1)	41483	05CAh
Setting area detail (the 142th word) (2)	41484	05CBh
Setting area detail (the 143th word) (1)	41485	05CCh
Setting area detail (the 143th word) (2)	41486	05CDh
Setting area detail (the 144th word) (1)	41487	05CEh
Setting area detail (the 144th word) (2)	41488	05CFh
Setting area detail (the 145th word) (1)	41489	05D0h
Setting area detail (the 145th word) (2)	41490	05D1h
Setting area detail (the 146th word) (1)	41491	05D2h
Setting area detail (the 146th word) (2)	41492	05D3h
Setting area detail (the 147th word) (1)	41493	05D4h
Setting area detail (the 147th word) (2)	41494	05D5h
Setting area detail (the 148th word) (1)	41495	05D6h
Setting area detail (the 148th word) (2)	41496	05D7h
Setting area detail (the 149th word) (1)	41497	05D8h
Setting area detail (the 149th word) (2)	41498	05D9h
Setting area detail (the 150th word) (1)	41499	05DAh
Setting area detail (the 150th word) (2)	41500	05DBh
Setting area detail (the 151th word) (1)	41501	05DCh
Setting area detail (the 151th word) (2)	41502	05DDh
Setting area detail (the 152th word) (1)	41503	05DEh
Setting area detail (the 152th word) (2)	41504	05DFh
Setting area detail (the 153th word) (1)	41505	05E0h
Setting area detail (the 153th word) (2)	41506	05E1h
Setting area detail (the 154th word) (1)	41507	05E2h
Setting area detail (the 154th word) (2)	41508	05E3h
Setting area detail (the 155th word) (1)	41509	05E4h
Setting area detail (the 155th word) (2)	41510	05E5h
Setting area detail (the 156th word) (1)	41511	05E6h
Setting area detail (the 156th word) (2)	41512	05E7h

Contents	Register No.	Relative address
Setting area detail (the 157th word) (1)	41513	05E8h
Setting area detail (the 157th word) (2)	41514	05E9h
Setting area detail (the 158th word) (1)	41515	05EAh
Setting area detail (the 158th word) (2)	41516	05EBh
Setting area detail (the 159th word) (1)	41517	05ECh
Setting area detail (the 159th word) (2)	41518	05EDh
Setting area detail (the 160th word) (1)	41519	05EEh
Setting area detail (the 160th word) (2)	41520	05EFh
Setting area detail (the 161th word) (1)	41521	05F0h
Setting area detail (the 161th word) (2)	41522	05F1h
Setting area detail (the 162th word) (1)	41523	05F2h
Setting area detail (the 162th word) (2)	41524	05F3h
Setting area detail (the 163th word) (1)	41525	05F4h
Setting area detail (the 163th word) (2)	41526	05F5h
Setting area detail (the 164th word) (1)	41527	05F6h
Setting area detail (the 164th word) (2)	41528	05F7h
Setting area detail (the 165th word) (1)	41529	05F8h
Setting area detail (the 165th word) (2)	41530	05F9h
Setting area detail (the 166th word) (1)	41531	05FAh
Setting area detail (the 166th word) (2)	41532	05FBh
Setting area detail (the 167th word) (1)	41533	05FCh
Setting area detail (the 167th word) (2)	41534	05FDh
Setting area detail (the 168th word) (1)	41535	05FEh
Setting area detail (the 168th word) (2)	41536	05FFh
Setting area detail (the 169th word) (1)	41537	0600h
Setting area detail (the 169th word) (2)	41538	0601h
Setting area detail (the 170th word) (1)	41539	0602h
Setting area detail (the 170th word) (2)	41540	0603h
Setting area detail (the 171th word) (1)	41541	0604h
Setting area detail (the 171th word) (2)	41542	0605h
Setting area detail (the 172th word) (1)	41543	0606h
Setting area detail (the 172th word) (2)	41544	0607h
Setting area detail (the 173th word) (1)	41545	0608h
Setting area detail (the 173th word) (2)	41546	0609h
Setting area detail (the 174th word) (1)	41547	060Ah
Setting area detail (the 174th word) (2)	41548	060Bh
Setting area detail (the 175th word) (1)	41549	060Ch
Setting area detail (the 175th word) (2)	41550	060Dh
Setting area detail (the 176th word) (1)	41551	060Eh
Setting area detail (the 176th word) (2)	41552	060Fh
Setting area detail (the 177th word) (1)	41553	0610h
Setting area detail (the 177th word) (2)	41554	0611h

Contents	Register No.	Relative address
Setting area detail (the 178th word) (1)	41555	0612h
Setting area detail (the 178th word) (2)	41556	0613h
Setting area detail (the 179th word) (1)	41557	0614h
Setting area detail (the 179th word) (2)	41558	0615h
Setting area detail (the 180th word) (1)	41559	0616h
Setting area detail (the 180th word) (2)	41560	0617h
Setting area detail (the 181th word) (1)	41561	0618h
Setting area detail (the 181th word) (2)	41562	0619h
Setting area detail (the 182th word) (1)	41563	061Ah
Setting area detail (the 182th word) (2)	41564	061Bh
Setting area detail (the 183th word) (1)	41565	061Ch
Setting area detail (the 183th word) (2)	41566	061Dh
Setting area detail (the 184th word) (1)	41567	061Eh
Setting area detail (the 184th word) (2)	41568	061Fh
Setting area detail (the 185th word) (1)	41569	0620h
Setting area detail (the 185th word) (2)	41570	0621h
Setting area detail (the 186th word) (1)	41571	0622h
Setting area detail (the 186th word) (2)	41572	0623h
Setting area detail (the 187th word) (1)	41573	0624h
Setting area detail (the 187th word) (2)	41574	0625h
Setting area detail (the 188th word) (1)	41575	0626h
Setting area detail (the 188th word) (2)	41576	0627h
Setting area detail (the 189th word) (1)	41577	0628h
Setting area detail (the 189th word) (2)	41578	0629h
Setting area detail (the 190th word) (1)	41579	062Ah
Setting area detail (the 190th word) (2)	41580	062Bh
Setting area detail (the 191th word) (1)	41581	062Ch
Setting area detail (the 191th word) (2)	41582	062Dh
Setting area detail (the 192th word) (1)	41583	062Eh
Setting area detail (the 192th word) (2)	41584	062Fh
Setting area detail (the 193th word) (1)	41585	0630h
Setting area detail (the 193th word) (2)	41586	0631h
Setting area detail (the 194th word) (1)	41587	0632h
Setting area detail (the 194th word) (2)	41588	0633h
Setting area detail (the 195th word) (1)	41589	0634h
Setting area detail (the 195th word) (2)	41590	0635h
Setting area detail (the 196th word) (1)	41591	0636h
Setting area detail (the 196th word) (2)	41592	0637h
Setting area detail (the 197th word) (1)	41593	0638h
Setting area detail (the 197th word) (2)	41594	0639h
Setting area detail (the 198th word) (1)	41595	063Ah
Setting area detail (the 198th word) (2)	41596	063Bh

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Contents	Register No.	Relative address
Setting area detail (the 199th word) (1)	41597	063Ch
Setting area detail (the 199th word) (2)	41598	063Dh
Setting area detail (the 200th word) (1)	41599	063Eh
Setting area detail (the 200th word) (2)	41600	063Fh
Setting area detail (the 201th word) (1)	41601	0640h
Setting area detail (the 201th word) (2)	41602	0641h
Setting area detail (the 202th word) (1)	41603	0642h
Setting area detail (the 202th word) (2)	41604	0643h
Setting area detail (the 203th word) (1)	41605	0644h
Setting area detail (the 203th word) (2)	41606	0645h
Setting area detail (the 204th word) (1)	41607	0646h
Setting area detail (the 204th word) (2)	41608	0647h
Setting area detail (the 205th word) (1)	41609	0648h
Setting area detail (the 205th word) (2)	41610	0649h
Setting area detail (the 206th word) (1)	41611	064Ah
Setting area detail (the 206th word) (2)	41612	064Bh
Setting area detail (the 207th word) (1)	41613	064Ch
Setting area detail (the 207th word) (2)	41614	064Dh
Setting area detail (the 208th word) (1)	41615	064Eh
Setting area detail (the 208th word) (2)	41616	064Fh
Setting area detail (the 209th word) (1)	41617	0650h
Setting area detail (the 209th word) (2)	41618	0651h
Setting area detail (the 210th word) (1)	41619	0652h
Setting area detail (the 210th word) (2)	41620	0653h
Setting area detail (the 211th word) (1)	41621	0654h
Setting area detail (the 211th word) (2)	41622	0655h
Setting area detail (the 212th word) (1)	41623	0656h
Setting area detail (the 212th word) (2)	41624	0657h
Setting area detail (the 213th word) (1)	41625	0658h
Setting area detail (the 213th word) (2)	41626	0659h
Setting area detail (the 214th word) (1)	41627	065Ah
Setting area detail (the 214th word) (2)	41628	065Bh
Setting area detail (the 215th word) (1)	41629	065Ch
Setting area detail (the 215th word) (2)	41630	065Dh
Setting area detail (the 216th word) (1)	41631	065Eh
Setting area detail (the 216th word) (2)	41632	065Fh
Setting area detail (the 217th word) (1)	41633	0660h
Setting area detail (the 217th word) (2)	41634	0661h
Setting area detail (the 218th word) (1)	41635	0662h
Setting area detail (the 218th word) (2)	41636	0663h
Setting area detail (the 219th word) (1)	41637	0664h
Setting area detail (the 219th word) (2)	41638	0665h

Contents	Register No.	Relative address
Setting area detail (the 220th word) (1)	41639	0666h
Setting area detail (the 220th word) (2)	41640	0667h
Setting area detail (the 221th word) (1)	41641	0668h
Setting area detail (the 221th word) (2)	41642	0669h
Setting area detail (the 222th word) (1)	41643	066Ah
Setting area detail (the 222th word) (2)	41644	066Bh
Setting area detail (the 223th word) (1)	41645	066Ch
Setting area detail (the 223th word) (2)	41646	066Dh
Setting area detail (the 224th word) (1)	41647	066Eh
Setting area detail (the 224th word) (2)	41648	066Fh
Setting area detail (the 225th word) (1)	41649	0670h
Setting area detail (the 225th word) (2)	41650	0671h
Setting area detail (the 226th word) (1)	41651	0672h
Setting area detail (the 226th word) (2)	41652	0673h
Setting area detail (the 227th word) (1)	41653	0674h
Setting area detail (the 227th word) (2)	41654	0675h
Setting area detail (the 228th word) (1)	41655	0676h
Setting area detail (the 228th word) (2)	41656	0677h
Setting area detail (the 229th word) (1)	41657	0678h
Setting area detail (the 229th word) (2)	41658	0679h
Setting area detail (the 230th word) (1)	41659	067Ah
Setting area detail (the 230th word) (2)	41660	067Bh
Setting area detail (the 231th word) (1)	41661	067Ch
Setting area detail (the 231th word) (2)	41662	067Dh
Setting area detail (the 232th word) (1)	41663	067Eh
Setting area detail (the 232th word) (2)	41664	067Fh
Setting area detail (the 233th word) (1)	41665	0680h
Setting area detail (the 233th word) (2)	41666	0681h
Setting area detail (the 234th word) (1)	41667	0682h
Setting area detail (the 234th word) (2)	41668	0683h
Setting area detail (the 235th word) (1)	41669	0684h
Setting area detail (the 235th word) (2)	41670	0685h
Setting area detail (the 236th word) (1)	41671	0686h
Setting area detail (the 236th word) (2)	41672	0687h
Setting area detail (the 237th word) (1)	41673	0688h
Setting area detail (the 237th word) (2)	41674	0689h
Setting area detail (the 238th word) (1)	41675	068Ah
Setting area detail (the 238th word) (2)	41676	068Bh
Setting area detail (the 239th word) (1)	41677	068Ch
Setting area detail (the 239th word) (2)	41678	068Dh
Setting area detail (the 240th word) (1)	41679	068Eh
Setting area detail (the 240th word) (2)	41680	068Fh



Contents	Register No.	Relative address
Setting area detail (the 241th word) (1)	41681	0690h
Setting area detail (the 241th word) (2)	41682	0691h
Setting area detail (the 242th word) (1)	41683	0692h
Setting area detail (the 242th word) (2)	41684	0693h
Setting area detail (the 243th word) (1)	41685	0694h
Setting area detail (the 243th word) (2)	41686	0695h
Setting area detail (the 244th word) (1)	41687	0696h
Setting area detail (the 244th word) (2)	41688	0697h
Setting area detail (the 245th word) (1)	41689	0698h
Setting area detail (the 245th word) (2)	41690	0699h
Setting area detail (the 246th word) (1)	41691	069Ah
Setting area detail (the 246th word) (2)	41692	069Bh
Setting area detail (the 247th word) (1)	41693	069Ch
Setting area detail (the 247th word) (2)	41694	069Dh
Setting area detail (the 248th word) (1)	41695	069Eh
Setting area detail (the 248th word) (2)	41696	069Fh
Setting area detail (the 249th word) (1)	41697	06A0h
Setting area detail (the 249th word) (2)	41698	06A1h
Setting area detail (the 250th word) (1)	41699	06A2h
Setting area detail (the 250th word) (2)	41700	06A3h
Setting area detail (the 251th word) (1)	41701	06A4h
Setting area detail (the 251th word) (2)	41702	06A5h
Setting area detail (the 252th word) (1)	41703	06A6h
Setting area detail (the 252th word) (2)	41704	06A7h
Setting area detail (the 253th word) (1)	41705	06A8h
Setting area detail (the 253th word) (2)	41706	06A9h
Setting area detail (the 254th word) (1)	41707	06AAh
Setting area detail (the 254th word) (2)	41708	06ABh
Setting area detail (the 255th word) (1)	41709	06ACh
Setting area detail (the 255th word) (2)	41710	06ADh
Setting area detail (the 256th word) (1)	41711	06AEh
Setting area detail (the 256th word) (2)	41712	06AFh
Setting area detail (the 257th word) (1)	41713	06B0h
Setting area detail (the 257th word) (2)	41714	06B1h
Setting area detail (the 258th word) (1)	41715	06B2h
Setting area detail (the 258th word) (2)	41716	06B3h
Setting area detail (the 259th word) (1)	41717	06B4h
Setting area detail (the 259th word) (2)	41718	06B5h
Setting area detail (the 260th word) (1)	41719	06B6h
Setting area detail (the 260th word) (2)	41720	06B7h
Setting area detail (the 261th word) (1)	41721	06B8h
Setting area detail (the 261th word) (2)	41722	06B9h

Contents	Register No.	Relative address
Setting area detail (the 262th word) (1)	41723	06BAh
Setting area detail (the 262th word) (2)	41724	06BBh
Setting area detail (the 263th word) (1)	41725	06BCh
Setting area detail (the 263th word) (2)	41726	06BDh
Setting area detail (the 264th word) (1)	41727	06BEh
Setting area detail (the 264th word) (2)	41728	06BFh
Setting area detail (the 265th word) (1)	41729	06C0h
Setting area detail (the 265th word) (2)	41730	06C1h
Setting area detail (the 266th word) (1)	41731	06C2h
Setting area detail (the 266th word) (2)	41732	06C3h
Setting area detail (the 267th word) (1)	41733	06C4h
Setting area detail (the 267th word) (2)	41734	06C5h
Setting area detail (the 268th word) (1)	41735	06C6h
Setting area detail (the 268th word) (2)	41736	06C7h
Setting area detail (the 269th word) (1)	41737	06C8h
Setting area detail (the 269th word) (2)	41738	06C9h
Setting area detail (the 270th word) (1)	41739	06CAh
Setting area detail (the 270th word) (2)	41740	06CBh
Setting area detail (the 271th word) (1)	41741	06CCh
Setting area detail (the 271th word) (2)	41742	06CDh
Setting area detail (the 272th word) (1)	41743	06CEh
Setting area detail (the 272th word) (2)	41744	06CFh
Setting area detail (the 273th word) (1)	41745	06D0h
Setting area detail (the 273th word) (2)	41746	06D1h
Setting area detail (the 274th word) (1)	41747	06D2h
Setting area detail (the 274th word) (2)	41748	06D3h
Setting area detail (the 275th word) (1)	41749	06D4h
Setting area detail (the 275th word) (2)	41750	06D5h
Setting area detail (the 276th word) (1)	41751	06D6h
Setting area detail (the 276th word) (2)	41752	06D7h
Setting area detail (the 277th word) (1)	41753	06D8h
Setting area detail (the 277th word) (2)	41754	06D9h
Setting area detail (the 278th word) (1)	41755	06DAh
Setting area detail (the 278th word) (2)	41756	06DBh
Setting area detail (the 279th word) (1)	41757	06DCh
Setting area detail (the 279th word) (2)	41758	06DDh
Setting area detail (the 280th word) (1)	41759	06DEh
Setting area detail (the 280th word) (2)	41760	06DFh
Setting area detail (the 281th word) (1)	41761	06E0h
Setting area detail (the 281th word) (2)	41762	06E1h
Setting area detail (the 282th word) (1)	41763	06E2h
Setting area detail (the 282th word) (2)	41764	06E3h

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Contents	Register No.	Relative address
Setting area detail (the 283th word) (1)	41765	06E4h
Setting area detail (the 283th word) (2)	41766	06E5h
Setting area detail (the 284th word) (1)	41767	06E6h
Setting area detail (the 284th word) (2)	41768	06E7h
Setting area detail (the 285th word) (1)	41769	06E8h
Setting area detail (the 285th word) (2)	41770	06E9h
Setting area detail (the 286th word) (1)	41771	06EAh
Setting area detail (the 286th word) (2)	41772	06EBh
Setting area detail (the 287th word) (1)	41773	06ECh
Setting area detail (the 287th word) (2)	41774	06EDh
Setting area detail (the 288th word) (1)	41775	06EEh
Setting area detail (the 288th word) (2)	41776	06EFh
Setting area detail (the 289th word) (1)	41777	06F0h
Setting area detail (the 289th word) (2)	41778	06F1h
Setting area detail (the 290th word) (1)	41779	06F2h
Setting area detail (the 290th word) (2)	41780	06F3h
Setting area detail (the 291th word) (1)	41781	06F4h
Setting area detail (the 291th word) (2)	41782	06F5h
Setting area detail (the 292th word) (1)	41783	06F6h
Setting area detail (the 292th word) (2)	41784	06F7h
Setting area detail (the 293th word) (1)	41785	06F8h
Setting area detail (the 293th word) (2)	41786	06F9h
Setting area detail (the 294th word) (1)	41787	06FAh
Setting area detail (the 294th word) (2)	41788	06FBh
Setting area detail (the 295th word) (1)	41789	06FCh
Setting area detail (the 295th word) (2)	41790	06FDh
Setting area detail (the 296th word) (1)	41791	06FEh
Setting area detail (the 296th word) (2)	41792	06FFh
Setting area detail (the 297th word) (1)	41793	0700h
Setting area detail (the 297th word) (2)	41794	0701h
Setting area detail (the 298th word) (1)	41795	0702h
Setting area detail (the 298th word) (2)	41796	0703h
Setting area detail (the 299th word) (1)	41797	0704h
Setting area detail (the 299th word) (2)	41798	0705h
Setting area detail (the 300th word) (1)	41799	0706h
Setting area detail (the 300th word) (2)	41800	0707h
Setting area detail (the 301th word) (1)	41801	0708h
Setting area detail (the 301th word) (2)	41802	0709h
Setting area detail (the 302th word) (1)	41803	070Ah
Setting area detail (the 302th word) (2)	41804	070Bh
Setting area detail (the 303th word) (1)	41805	070Ch
Setting area detail (the 303th word) (2)	41806	070Dh

Contents	Register No.	Relative address
Setting area detail (the 304th word) (1)	41807	070Eh
Setting area detail (the 304th word) (2)	41808	070Fh
Setting area detail (the 305th word) (1)	41809	0710h
Setting area detail (the 305th word) (2)	41810	0711h
Setting area detail (the 306th word) (1)	41811	0712h
Setting area detail (the 306th word) (2)	41812	0713h
Setting area detail (the 307th word) (1)	41813	0714h
Setting area detail (the 307th word) (2)	41814	0715h
Setting area detail (the 308th word) (1)	41815	0716h
Setting area detail (the 308th word) (2)	41816	0717h
Setting area detail (the 309th word) (1)	41817	0718h
Setting area detail (the 309th word) (2)	41818	0719h
Setting area detail (the 310th word) (1)	41819	071Ah
Setting area detail (the 310th word) (2)	41820	071Bh
Setting area detail (the 311th word) (1)	41821	071Ch
Setting area detail (the 311th word) (2)	41822	071Dh
Setting area detail (the 312th word) (1)	41823	071Eh
Setting area detail (the 312th word) (2)	41824	071Fh
Setting area detail (the 313th word) (1)	41825	0720h
Setting area detail (the 313th word) (2)	41826	0721h
Setting area detail (the 314th word) (1)	41827	0722h
Setting area detail (the 314th word) (2)	41828	0723h
Setting area detail (the 315th word) (1)	41829	0724h
Setting area detail (the 315th word) (2)	41830	0725h
Setting area detail (the 316th word) (1)	41831	0726h
Setting area detail (the 316th word) (2)	41832	0727h
Setting area detail (the 317th word) (1)	41833	0728h
Setting area detail (the 317th word) (2)	41834	0729h
Setting area detail (the 318th word) (1)	41835	072Ah
Setting area detail (the 318th word) (2)	41836	072Bh
Setting area detail (the 319th word) (1)	41837	072Ch
Setting area detail (the 319th word) (2)	41838	072Dh
Setting area detail (the 320th word) (1)	41839	072Eh
Setting area detail (the 320th word) (2)	41840	072Fh
Setting area detail (the 321th word) (1)	41841	0730h
Setting area detail (the 321th word) (2)	41842	0731h
Setting area detail (the 322th word) (1)	41843	0732h
Setting area detail (the 322th word) (2)	41844	0733h
Setting area detail (the 323th word) (1)	41845	0734h
Setting area detail (the 323th word) (2)	41846	0735h
Setting area detail (the 324th word) (1)	41847	0736h
Setting area detail (the 324th word) (2)	41848	0737h

Contents	Register No.	Relative address
Setting area detail (the 325th word) (1)	41849	0738h
Setting area detail (the 325th word) (2)	41850	0739h
Setting area detail (the 326th word) (1)	41851	073Ah
Setting area detail (the 326th word) (2)	41852	073Bh
Setting area detail (the 327th word) (1)	41853	073Ch
Setting area detail (the 327th word) (2)	41854	073Dh
Setting area detail (the 328th word) (1)	41855	073Eh
Setting area detail (the 328th word) (2)	41856	073Fh
Setting area detail (the 329th word) (1)	41857	0740h
Setting area detail (the 329th word) (2)	41858	0741h
Setting area detail (the 330th word) (1)	41859	0742h
Setting area detail (the 330th word) (2)	41860	0743h
Setting area detail (the 331th word) (1)	41861	0744h
Setting area detail (the 331th word) (2)	41862	0745h
Setting area detail (the 332th word) (1)	41863	0746h
Setting area detail (the 332th word) (2)	41864	0747h
Setting area detail (the 333th word) (1)	41865	0748h
Setting area detail (the 333th word) (2)	41866	0749h
Setting area detail (the 334th word) (1)	41867	074Ah
Setting area detail (the 334th word) (2)	41868	074Bh
Setting area detail (the 335th word) (1)	41869	074Ch
Setting area detail (the 335th word) (2)	41870	074Dh
Setting area detail (the 336th word) (1)	41871	074Eh
Setting area detail (the 336th word) (2)	41872	074Fh
Setting area detail (the 337th word) (1)	41873	0750h
Setting area detail (the 337th word) (2)	41874	0751h
Setting area detail (the 338th word) (1)	41875	0752h
Setting area detail (the 338th word) (2)	41876	0753h
Setting area detail (the 339th word) (1)	41877	0754h
Setting area detail (the 339th word) (2)	41878	0755h
Setting area detail (the 340th word) (1)	41879	0756h
Setting area detail (the 340th word) (2)	41880	0757h
Setting area detail (the 341th word) (1)	41881	0758h
Setting area detail (the 341th word) (2)	41882	0759h
Setting area detail (the 342th word) (1)	41883	075Ah
Setting area detail (the 342th word) (2)	41884	075Bh
Setting area detail (the 343th word) (1)	41885	075Ch
Setting area detail (the 343th word) (2)	41886	075Dh
Setting area detail (the 344th word) (1)	41887	075Eh
Setting area detail (the 344th word) (2)	41888	075Fh
Setting area detail (the 345th word) (1)	41889	0760h
Setting area detail (the 345th word) (2)	41890	0761h

Contents	Register No.	Relative address
Setting area detail (the 346th word) (1)	41891	0762h
Setting area detail (the 346th word) (2)	41892	0763h
Setting area detail (the 347th word) (1)	41893	0764h
Setting area detail (the 347th word) (2)	41894	0765h
Setting area detail (the 348th word) (1)	41895	0766h
Setting area detail (the 348th word) (2)	41896	0767h
Setting area detail (the 349th word) (1)	41897	0768h
Setting area detail (the 349th word) (2)	41898	0769h
Setting area detail (the 350th word) (1)	41899	076Ah
Setting area detail (the 350th word) (2)	41900	076Bh
Setting area detail (the 351th word) (1)	41901	076Ch
Setting area detail (the 351th word) (2)	41902	076Dh
Setting area detail (the 352th word) (1)	41903	076Eh
Setting area detail (the 352th word) (2)	41904	076Fh
Setting area detail (the 353th word) (1)	41905	0770h
Setting area detail (the 353th word) (2)	41906	0771h
Setting area detail (the 354th word) (1)	41907	0772h
Setting area detail (the 354th word) (2)	41908	0773h
Setting area detail (the 355th word) (1)	41909	0774h
Setting area detail (the 355th word) (2)	41910	0775h
Setting area detail (the 356th word) (1)	41911	0776h
Setting area detail (the 356th word) (2)	41912	0777h
Setting area detail (the 357th word) (1)	41913	0778h
Setting area detail (the 357th word) (2)	41914	0779h
Setting area detail (the 358th word) (1)	41915	077Ah
Setting area detail (the 358th word) (2)	41916	077Bh
Setting area detail (the 359th word) (1)	41917	077Ch
Setting area detail (the 359th word) (2)	41918	077Dh
Setting area detail (the 360th word) (1)	41919	077Eh
Setting area detail (the 360th word) (2)	41920	077Fh
Setting area detail (the 361th word) (1)	41921	0780h
Setting area detail (the 361th word) (2)	41922	0781h
Setting area detail (the 362th word) (1)	41923	0782h
Setting area detail (the 362th word) (2)	41924	0783h
Setting area detail (the 363th word) (1)	41925	0784h
Setting area detail (the 363th word) (2)	41926	0785h
Setting area detail (the 364th word) (1)	41927	0786h
Setting area detail (the 364th word) (2)	41928	0787h
Setting area detail (the 365th word) (1)	41929	0788h
Setting area detail (the 365th word) (2)	41930	0789h
Setting area detail (the 366th word) (1)	41931	078Ah
Setting area detail (the 366th word) (2)	41932	078Bh



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Contents	Register No.	Relative address
Setting area detail (the 367th word) (1)	41933	078Ch
Setting area detail (the 367th word) (2)	41934	078Dh
Setting area detail (the 368th word) (1)	41935	078Eh
Setting area detail (the 368th word) (2)	41936	078Fh
Setting area detail (the 369th word) (1)	41937	0790h
Setting area detail (the 369th word) (2)	41938	0791h
Setting area detail (the 370th word) (1)	41939	0792h
Setting area detail (the 370th word) (2)	41940	0793h
Setting area detail (the 371th word) (1)	41941	0794h
Setting area detail (the 371th word) (2)	41942	0795h
Setting area detail (the 372th word) (1)	41943	0796h
Setting area detail (the 372th word) (2)	41944	0797h
Setting area detail (the 373th word) (1)	41945	0798h
Setting area detail (the 373th word) (2)	41946	0799h
Setting area detail (the 374th word) (1)	41947	079Ah
Setting area detail (the 374th word) (2)	41948	079Bh
Setting area detail (the 375th word) (1)	41949	079Ch
Setting area detail (the 375th word) (2)	41950	079Dh
Setting area detail (the 376th word) (1)	41951	079Eh
Setting area detail (the 376th word) (2)	41952	079Fh
Setting area detail (the 377th word) (1)	41953	07A0h
Setting area detail (the 377th word) (2)	41954	07A1h
Setting area detail (the 378th word) (1)	41955	07A2h
Setting area detail (the 378th word) (2)	41956	07A3h
Setting area detail (the 379th word) (1)	41957	07A4h
Setting area detail (the 379th word) (2)	41958	07A5h
Setting area detail (the 380th word) (1)	41959	07A6h
Setting area detail (the 380th word) (2)	41960	07A7h
Setting area detail (the 381th word) (1)	41961	07A8h
Setting area detail (the 381th word) (2)	41962	07A9h
Setting area detail (the 382th word) (1)	41963	07AAh
Setting area detail (the 382th word) (2)	41964	07ABh
Setting area detail (the 383th word) (1)	41965	07ACh
Setting area detail (the 383th word) (2)	41966	07ADh
Setting area detail (the 384th word) (1)	41967	07AEh
Setting area detail (the 384th word) (2)	41968	07AFh
Setting area detail (the 385th word) (1)	41969	07B0h
Setting area detail (the 385th word) (2)	41970	07B1h
Setting area detail (the 386th word) (1)	41971	07B2h
Setting area detail (the 386th word) (2)	41972	07B3h
Setting area detail (the 387th word) (1)	41973	07B4h
Setting area detail (the 387th word) (2)	41974	07B5h

Contents	Register No.	Relative address
Setting area detail (the 388th word) (1)	41975	07B6h
Setting area detail (the 388th word) (2)	41976	07B7h
Setting area detail (the 389th word) (1)	41977	07B8h
Setting area detail (the 389th word) (2)	41978	07B9h
Setting area detail (the 390th word) (1)	41979	07BAh
Setting area detail (the 390th word) (2)	41980	07BBh
Setting area detail (the 391th word) (1)	41981	07BCh
Setting area detail (the 391th word) (2)	41982	07BDh
Setting area detail (the 392th word) (1)	41983	07BEh
Setting area detail (the 392th word) (2)	41984	07BFh
Setting area detail (the 393th word) (1)	41985	07C0h
Setting area detail (the 393th word) (2)	41986	07C1h
Setting area detail (the 394th word) (1)	41987	07C2h
Setting area detail (the 394th word) (2)	41988	07C3h
Setting area detail (the 395th word) (1)	41989	07C4h
Setting area detail (the 395th word) (2)	41990	07C5h
Setting area detail (the 396th word) (1)	41991	07C6h
Setting area detail (the 396th word) (2)	41992	07C7h
Setting area detail (the 397th word) (1)	41993	07C8h
Setting area detail (the 397th word) (2)	41994	07C9h
Setting area detail (the 398th word) (1)	41995	07CAh
Setting area detail (the 398th word) (2)	41996	07CBh
Setting area detail (the 399th word) (1)	41997	07CCh
Setting area detail (the 399th word) (2)	41998	07CDh
Setting area detail (the 400th word) (1)	41999	07CEh
Setting area detail (the 400th word) (2)	42000	07CFh
Setting area detail (the 401th word) (1)	42001	07D0h
Setting area detail (the 401th word) (2)	42002	07D1h
Setting area detail (the 402th word) (1)	42003	07D2h
Setting area detail (the 402th word) (2)	42004	07D3h
Setting area detail (the 403th word) (1)	42005	07D4h
Setting area detail (the 403th word) (2)	42006	07D5h
Setting area detail (the 404th word) (1)	42007	07D6h
Setting area detail (the 404th word) (2)	42008	07D7h
Setting area detail (the 405th word) (1)	42009	07D8h
Setting area detail (the 405th word) (2)	42010	07D9h
Setting area detail (the 406th word) (1)	42011	07DAh
Setting area detail (the 406th word) (2)	42012	07DBh
Setting area detail (the 407th word) (1)	42013	07DCh
Setting area detail (the 407th word) (2)	42014	07DDh
Setting area detail (the 408th word) (1)	42015	07DEh
Setting area detail (the 408th word) (2)	42016	07DFh

Contents	Register No.	Relative address
Setting area detail (the 409th word) (1)	42017	07E0h
Setting area detail (the 409th word) (2)	42018	07E1h
Setting area detail (the 410th word) (1)	42019	07E2h
Setting area detail (the 410th word) (2)	42020	07E3h
Setting area detail (the 411th word) (1)	42021	07E4h
Setting area detail (the 411th word) (2)	42022	07E5h
Setting area detail (the 412th word) (1)	42023	07E6h
Setting area detail (the 412th word) (2)	42024	07E7h
Setting area detail (the 413th word) (1)	42025	07E8h
Setting area detail (the 413th word) (2)	42026	07E9h
Setting area detail (the 414th word) (1)	42027	07EAh
Setting area detail (the 414th word) (2)	42028	07EBh
Setting area detail (the 415th word) (1)	42029	07ECh
Setting area detail (the 415th word) (2)	42030	07EDh
Setting area detail (the 416th word) (1)	42031	07EEh
Setting area detail (the 416th word) (2)	42032	07EFh
Setting area detail (the 417th word) (1)	42033	07F0h
Setting area detail (the 417th word) (2)	42034	07F1h
Setting area detail (the 418th word) (1)	42035	07F2h
Setting area detail (the 418th word) (2)	42036	07F3h
Setting area detail (the 419th word) (1)	42037	07F4h
Setting area detail (the 419th word) (2)	42038	07F5h
Setting area detail (the 420th word) (1)	42039	07F6h
Setting area detail (the 420th word) (2)	42040	07F7h
Setting area detail (the 421th word) (1)	42041	07F8h
Setting area detail (the 421th word) (2)	42042	07F9h
Setting area detail (the 422th word) (1)	42043	07FAh
Setting area detail (the 422th word) (2)	42044	07FBh
Setting area detail (the 423th word) (1)	42045	07FCh
Setting area detail (the 423th word) (2)	42046	07FDh
Setting area detail (the 424th word) (1)	42047	07FEh
Setting area detail (the 424th word) (2)	42048	07FFh
Setting area detail (the 425th word) (1)	42049	0800h
Setting area detail (the 425th word) (2)	42050	0801h
Setting area detail (the 426th word) (1)	42051	0802h
Setting area detail (the 426th word) (2)	42052	0803h
Setting area detail (the 427th word) (1)	42053	0804h
Setting area detail (the 427th word) (2)	42054	0805h
Setting area detail (the 428th word) (1)	42055	0806h
Setting area detail (the 428th word) (2)	42056	0807h
Setting area detail (the 429th word) (1)	42057	0808h
Setting area detail (the 429th word) (2)	42058	0809h

Contents	Register No.	Relative address
Setting area detail (the 430th word) (1)	42059	080Ah
Setting area detail (the 430th word) (2)	42060	080Bh
Setting area detail (the 431th word) (1)	42061	080Ch
Setting area detail (the 431th word) (2)	42062	080Dh
Setting area detail (the 432th word) (1)	42063	080Eh
Setting area detail (the 432th word) (2)	42064	080Fh
Setting area detail (the 433th word) (1)	42065	0810h
Setting area detail (the 433th word) (2)	42066	0811h
Setting area detail (the 434th word) (1)	42067	0812h
Setting area detail (the 434th word) (2)	42068	0813h
Setting area detail (the 435th word) (1)	42069	0814h
Setting area detail (the 435th word) (2)	42070	0815h
Setting area detail (the 436th word) (1)	42071	0816h
Setting area detail (the 436th word) (2)	42072	0817h
Setting area detail (the 437th word) (1)	42073	0818h
Setting area detail (the 437th word) (2)	42074	0819h
Setting area detail (the 438th word) (1)	42075	081Ah
Setting area detail (the 438th word) (2)	42076	081Bh
Setting area detail (the 439th word) (1)	42077	081Ch
Setting area detail (the 439th word) (2)	42078	081Dh
Setting area detail (the 440th word) (1)	42079	081Eh
Setting area detail (the 440th word) (2)	42080	081Fh
Setting area detail (the 441th word) (1)	42081	0820h
Setting area detail (the 441th word) (2)	42082	0821h
Setting area detail (the 442th word) (1)	42083	0822h
Setting area detail (the 442th word) (2)	42084	0823h
Setting area detail (the 443th word) (1)	42085	0824h
Setting area detail (the 443th word) (2)	42086	0825h
Setting area detail (the 444th word) (1)	42087	0826h
Setting area detail (the 444th word) (2)	42088	0827h
Setting area detail (the 445th word) (1)	42089	0828h
Setting area detail (the 445th word) (2)	42090	0829h
Setting area detail (the 446th word) (1)	42091	082Ah
Setting area detail (the 446th word) (2)	42092	082Bh
Setting area detail (the 447th word) (1)	42093	082Ch
Setting area detail (the 447th word) (2)	42094	082Dh
Setting area detail (the 448th word) (1)	42095	082Eh
Setting area detail (the 448th word) (2)	42096	082Fh
Setting area detail (the 449th word) (1)	42097	0830h
Setting area detail (the 449th word) (2)	42098	0831h
Setting area detail (the 450th word) (1)	42099	0832h
Setting area detail (the 450th word) (2)	42100	0833h

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Contents	Register No.	Relative address
Setting area detail (the 451th word) (1)	42101	0834h
Setting area detail (the 451th word) (2)	42102	0835h
Setting area detail (the 452th word) (1)	42103	0836h
Setting area detail (the 452th word) (2)	42104	0837h
Setting area detail (the 453th word) (1)	42105	0838h
Setting area detail (the 453th word) (2)	42106	0839h
Setting area detail (the 454th word) (1)	42107	083Ah
Setting area detail (the 454th word) (2)	42108	083Bh
Setting area detail (the 455th word) (1)	42109	083Ch
Setting area detail (the 455th word) (2)	42110	083Dh
Setting area detail (the 456th word) (1)	42111	083Eh
Setting area detail (the 456th word) (2)	42112	083Fh
Setting area detail (the 457th word) (1)	42113	0840h
Setting area detail (the 457th word) (2)	42114	0841h
Setting area detail (the 458th word) (1)	42115	0842h
Setting area detail (the 458th word) (2)	42116	0843h
Setting area detail (the 459th word) (1)	42117	0844h
Setting area detail (the 459th word) (2)	42118	0845h
Setting area detail (the 460th word) (1)	42119	0846h
Setting area detail (the 460th word) (2)	42120	0847h
Setting area detail (the 461th word) (1)	42121	0848h
Setting area detail (the 461th word) (2)	42122	0849h
Setting area detail (the 462th word) (1)	42123	084Ah
Setting area detail (the 462th word) (2)	42124	084Bh
Setting area detail (the 463th word) (1)	42125	084Ch
Setting area detail (the 463th word) (2)	42126	084Dh
Setting area detail (the 464th word) (1)	42127	084Eh
Setting area detail (the 464th word) (2)	42128	084Fh
Setting area detail (the 465th word) (1)	42129	0850h
Setting area detail (the 465th word) (2)	42130	0851h
Setting area detail (the 466th word) (1)	42131	0852h
Setting area detail (the 466th word) (2)	42132	0853h
Setting area detail (the 467th word) (1)	42133	0854h
Setting area detail (the 467th word) (2)	42134	0855h
Setting area detail (the 468th word) (1)	42135	0856h
Setting area detail (the 468th word) (2)	42136	0857h
Setting area detail (the 469th word) (1)	42137	0858h
Setting area detail (the 469th word) (2)	42138	0859h
Setting area detail (the 470th word) (1)	42139	085Ah
Setting area detail (the 470th word) (2)	42140	085Bh
Setting area detail (the 471th word) (1)	42141	085Ch
Setting area detail (the 471th word) (2)	42142	085Dh

Contents	Register No.	Relative address
Setting area detail (the 472th word) (1)	42143	085Eh
Setting area detail (the 472th word) (2)	42144	085Fh
Setting area detail (the 473th word) (1)	42145	0860h
Setting area detail (the 473th word) (2)	42146	0861h
Setting area detail (the 474th word) (1)	42147	0862h
Setting area detail (the 474th word) (2)	42148	0863h
Setting area detail (the 475th word) (1)	42149	0864h
Setting area detail (the 475th word) (2)	42150	0865h
Setting area detail (the 476th word) (1)	42151	0866h
Setting area detail (the 476th word) (2)	42152	0867h
Setting area detail (the 477th word) (1)	42153	0868h
Setting area detail (the 477th word) (2)	42154	0869h
Setting area detail (the 478th word) (1)	42155	086Ah
Setting area detail (the 478th word) (2)	42156	086Bh
Setting area detail (the 479th word) (1)	42157	086Ch
Setting area detail (the 479th word) (2)	42158	086Dh
Setting area detail (the 480th word) (1)	42159	086Eh
Setting area detail (the 480th word) (2)	42160	086Fh
Setting area detail (the 481th word) (1)	42161	0870h
Setting area detail (the 481th word) (2)	42162	0871h
Setting area detail (the 482th word) (1)	42163	0872h
Setting area detail (the 482th word) (2)	42164	0873h
Setting area detail (the 483th word) (1)	42165	0874h
Setting area detail (the 483th word) (2)	42166	0875h
Setting area detail (the 484th word) (1)	42167	0876h
Setting area detail (the 484th word) (2)	42168	0877h
Setting area detail (the 485th word) (1)	42169	0878h
Setting area detail (the 485th word) (2)	42170	0879h
Setting area detail (the 486th word) (1)	42171	087Ah
Setting area detail (the 486th word) (2)	42172	087Bh
Setting area detail (the 487th word) (1)	42173	087Ch
Setting area detail (the 487th word) (2)	42174	087Dh
Setting area detail (the 488th word) (1)	42175	087Eh
Setting area detail (the 488th word) (2)	42176	087Fh
Setting area detail (the 489th word) (1)	42177	0880h
Setting area detail (the 489th word) (2)	42178	0881h
Setting area detail (the 490th word) (1)	42179	0882h
Setting area detail (the 490th word) (2)	42180	0883h
Setting area detail (the 491th word) (1)	42181	0884h
Setting area detail (the 491th word) (2)	42182	0885h
Setting area detail (the 492th word) (1)	42183	0886h
Setting area detail (the 492th word) (2)	42184	0887h

Contents	Register No.	Relative address
Setting area detail (the 493th word) (1)	42185	0888h
Setting area detail (the 493th word) (2)	42186	0889h
Setting area detail (the 494th word) (1)	42187	088Ah
Setting area detail (the 494th word) (2)	42188	088Bh
Setting area detail (the 495th word) (1)	42189	088Ch
Setting area detail (the 495th word) (2)	42190	088Dh
Setting area detail (the 496th word) (1)	42191	088Eh
Setting area detail (the 496th word) (2)	42192	088Fh
Setting area detail (the 497th word) (1)	42193	0890h
Setting area detail (the 497th word) (2)	42194	0891h
Setting area detail (the 498th word) (1)	42195	0892h
Setting area detail (the 498th word) (2)	42196	0893h
Setting area detail (the 499th word) (1)	42197	0894h
Setting area detail (the 499th word) (2)	42198	0895h
Setting area detail (the 500th word) (1)	42199	0896h
Setting area detail (the 500th word) (2)	42200	0897h
Setting area detail (the 501th word) (1)	42201	0898h
Setting area detail (the 501th word) (2)	42202	0899h
Setting area detail (the 502th word) (1)	42203	089Ah
Setting area detail (the 502th word) (2)	42204	089Bh
Setting area detail (the 503th word) (1)	42205	089Ch
Setting area detail (the 503th word) (2)	42206	089Dh
Setting area detail (the 504th word) (1)	42207	089Eh
Setting area detail (the 504th word) (2)	42208	089Fh
Setting area detail (the 505th word) (1)	42209	08A0h
Setting area detail (the 505th word) (2)	42210	08A1h
Setting area detail (the 506th word) (1)	42211	08A2h
Setting area detail (the 506th word) (2)	42212	08A3h
Setting area detail (the 507th word) (1)	42213	08A4h
Setting area detail (the 507th word) (2)	42214	08A5h
Setting area detail (the 508th word) (1)	42215	08A6h
Setting area detail (the 508th word) (2)	42216	08A7h
Setting area detail (the 509th word) (1)	42217	08A8h
Setting area detail (the 509th word) (2)	42218	08A9h
Setting area detail (the 510th word) (1)	42219	08AAh
Setting area detail (the 510th word) (2)	42220	08ABh
Setting area detail (the 511th word) (1)	42221	08ACh
Setting area detail (the 511th word) (2)	42222	08ADh
Setting area detail (the 512th word) (1)	42223	08AEh
Setting area detail (the 512th word) (2)	42224	08AFh
Setting area detail (the 513th word) (1)	42225	08B0h
Setting area detail (the 513th word) (2)	42226	08B1h

Contents	Register No.	Relative address
Setting area detail (the 514th word) (1)	42227	08B2h
Setting area detail (the 514th word) (2)	42228	08B3h
Setting area detail (the 515th word) (1)	42229	08B4h
Setting area detail (the 515th word) (2)	42230	08B5h
Setting area detail (the 516th word) (1)	42231	08B6h
Setting area detail (the 516th word) (2)	42232	08B7h
Setting area detail (the 517th word) (1)	42233	08B8h
Setting area detail (the 517th word) (2)	42234	08B9h
Setting area detail (the 518th word) (1)	42235	08BAh
Setting area detail (the 518th word) (2)	42236	08BBh
Setting area detail (the 519th word) (1)	42237	08BCh
Setting area detail (the 519th word) (2)	42238	08BDh
Setting area detail (the 520th word) (1)	42239	08BEh
Setting area detail (the 520th word) (2)	42240	08BFh
Setting area detail (the 521th word) (1)	42241	08C0h
Setting area detail (the 521th word) (2)	42242	08C1h
Setting area detail (the 522th word) (1)	42243	08C2h
Setting area detail (the 522th word) (2)	42244	08C3h
Setting area detail (the 523th word) (1)	42245	08C4h
Setting area detail (the 523th word) (2)	42246	08C5h
Setting area detail (the 524th word) (1)	42247	08C6h
Setting area detail (the 524th word) (2)	42248	08C7h
Setting area detail (the 525th word) (1)	42249	08C8h
Setting area detail (the 525th word) (2)	42250	08C9h
Setting area detail (the 526th word) (1)	42251	08CAh
Setting area detail (the 526th word) (2)	42252	08CBh
Setting area detail (the 527th word) (1)	42253	08CCh
Setting area detail (the 527th word) (2)	42254	08CDh
Setting area detail (the 528th word) (1)	42255	08CEh
Setting area detail (the 528th word) (2)	42256	08CFh
Setting area detail (the 529th word) (1)	42257	08D0h
Setting area detail (the 529th word) (2)	42258	08D1h
Setting area detail (the 530th word) (1)	42259	08D2h
Setting area detail (the 530th word) (2)	42260	08D3h
Setting area detail (the 531th word) (1)	42261	08D4h
Setting area detail (the 531th word) (2)	42262	08D5h
Setting area detail (the 532th word) (1)	42263	08D6h
Setting area detail (the 532th word) (2)	42264	08D7h
Setting area detail (the 533th word) (1)	42265	08D8h
Setting area detail (the 533th word) (2)	42266	08D9h
Setting area detail (the 534th word) (1)	42267	08DAh
Setting area detail (the 534th word) (2)	42268	08DBh

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Contents	Register No.	Relative address
Setting area detail (the 535th word) (1)	42269	08DCh
Setting area detail (the 535th word) (2)	42270	08DDh
Setting area detail (the 536th word) (1)	42271	08DEh
Setting area detail (the 536th word) (2)	42272	08DFh
Setting area detail (the 537th word) (1)	42273	08E0h
Setting area detail (the 537th word) (2)	42274	08E1h
Setting area detail (the 538th word) (1)	42275	08E2h
Setting area detail (the 538th word) (2)	42276	08E3h
Setting area detail (the 539th word) (1)	42277	08E4h
Setting area detail (the 539th word) (2)	42278	08E5h
Setting area detail (the 540th word) (1)	42279	08E6h
Setting area detail (the 540th word) (2)	42280	08E7h
Setting area detail (the 541th word) (1)	42281	08E8h
Setting area detail (the 541th word) (2)	42282	08E9h
Setting area detail (the 542th word) (1)	42283	08EAh
Setting area detail (the 542th word) (2)	42284	08EBh
Setting area detail (the 543th word) (1)	42285	08ECh
Setting area detail (the 543th word) (2)	42286	08EDh
Setting area detail (the 544th word) (1)	42287	08EEh
Setting area detail (the 544th word) (2)	42288	08EFh
Setting area detail (the 545th word) (1)	42289	08F0h
Setting area detail (the 545th word) (2)	42290	08F1h
Setting area detail (the 546th word) (1)	42291	08F2h
Setting area detail (the 546th word) (2)	42292	08F3h
Setting area detail (the 547th word) (1)	42293	08F4h
Setting area detail (the 547th word) (2)	42294	08F5h
Setting area detail (the 548th word) (1)	42295	08F6h
Setting area detail (the 548th word) (2)	42296	08F7h
Setting area detail (the 549th word) (1)	42297	08F8h
Setting area detail (the 549th word) (2)	42298	08F9h
Setting area detail (the 550th word) (1)	42299	08FAh
Setting area detail (the 550th word) (2)	42300	08FBh
Setting area detail (the 551th word) (1)	42301	08FCh
Setting area detail (the 551th word) (2)	42302	08FDh
Setting area detail (the 552th word) (1)	42303	08FEh
Setting area detail (the 552th word) (2)	42304	08FFh
Setting area detail (the 553th word) (1)	42305	0900h
Setting area detail (the 553th word) (2)	42306	0901h
Setting area detail (the 554th word) (1)	42307	0902h
Setting area detail (the 554th word) (2)	42308	0903h
Setting area detail (the 555th word) (1)	42309	0904h
Setting area detail (the 555th word) (2)	42310	0905h

Contents	Register No.	Relative address
Setting area detail (the 556th word) (1)	42311	0906h
Setting area detail (the 556th word) (2)	42312	0907h
Setting area detail (the 557th word) (1)	42313	0908h
Setting area detail (the 557th word) (2)	42314	0909h
Setting area detail (the 558th word) (1)	42315	090Ah
Setting area detail (the 558th word) (2)	42316	090Bh
Setting area detail (the 559th word) (1)	42317	090Ch
Setting area detail (the 559th word) (2)	42318	090Dh
Setting area detail (the 560th word) (1)	42319	090Eh
Setting area detail (the 560th word) (2)	42320	090Fh
Setting area detail (the 561th word) (1)	42321	0910h
Setting area detail (the 561th word) (2)	42322	0911h
Setting area detail (the 562th word) (1)	42323	0912h
Setting area detail (the 562th word) (2)	42324	0913h
Setting area detail (the 563th word) (1)	42325	0914h
Setting area detail (the 563th word) (2)	42326	0915h
Setting area detail (the 564th word) (1)	42327	0916h
Setting area detail (the 564th word) (2)	42328	0917h
Setting area detail (the 565th word) (1)	42329	0918h
Setting area detail (the 565th word) (2)	42330	0919h
Setting area detail (the 566th word) (1)	42331	091Ah
Setting area detail (the 566th word) (2)	42332	091Bh
Setting area detail (the 567th word) (1)	42333	091Ch
Setting area detail (the 567th word) (2)	42334	091Dh
Setting area detail (the 568th word) (1)	42335	091Eh
Setting area detail (the 568th word) (2)	42336	091Fh
Setting area detail (the 569th word) (1)	42337	0920h
Setting area detail (the 569th word) (2)	42338	0921h
Setting area detail (the 570th word) (1)	42339	0922h
Setting area detail (the 570th word) (2)	42340	0923h
Setting area detail (the 571th word) (1)	42341	0924h
Setting area detail (the 571th word) (2)	42342	0925h
Setting area detail (the 572th word) (1)	42343	0926h
Setting area detail (the 572th word) (2)	42344	0927h
Setting area detail (the 573th word) (1)	42345	0928h
Setting area detail (the 573th word) (2)	42346	0929h
Setting area detail (the 574th word) (1)	42347	092Ah
Setting area detail (the 574th word) (2)	42348	092Bh
Setting area detail (the 575th word) (1)	42349	092Ch
Setting area detail (the 575th word) (2)	42350	092Dh
Setting area detail (the 576th word) (1)	42351	092Eh
Setting area detail (the 576th word) (2)	42352	092Fh



Contents	Register No.	Relative address
Setting area detail (the 577th word) (1)	42353	0930h
Setting area detail (the 577th word) (2)	42354	0931h
Setting area detail (the 578th word) (1)	42355	0932h
Setting area detail (the 578th word) (2)	42356	0933h
Setting area detail (the 579th word) (1)	42357	0934h
Setting area detail (the 579th word) (2)	42358	0935h
Setting area detail (the 580th word) (1)	42359	0936h
Setting area detail (the 580th word) (2)	42360	0937h
Setting area detail (the 581th word) (1)	42361	0938h
Setting area detail (the 581th word) (2)	42362	0939h
Setting area detail (the 582th word) (1)	42363	093Ah
Setting area detail (the 582th word) (2)	42364	093Bh
Setting area detail (the 583th word) (1)	42365	093Ch
Setting area detail (the 583th word) (2)	42366	093Dh
Setting area detail (the 584th word) (1)	42367	093Eh
Setting area detail (the 584th word) (2)	42368	093Fh
Setting area detail (the 585th word) (1)	42369	0940h
Setting area detail (the 585th word) (2)	42370	0941h
Setting area detail (the 586th word) (1)	42371	0942h
Setting area detail (the 586th word) (2)	42372	0943h
Setting area detail (the 587th word) (1)	42373	0944h
Setting area detail (the 587th word) (2)	42374	0945h
Setting area detail (the 588th word) (1)	42375	0946h
Setting area detail (the 588th word) (2)	42376	0947h
Setting area detail (the 589th word) (1)	42377	0948h
Setting area detail (the 589th word) (2)	42378	0949h
Setting area detail (the 590th word) (1)	42379	094Ah
Setting area detail (the 590th word) (2)	42380	094Bh
Setting area detail (the 591th word) (1)	42381	094Ch
Setting area detail (the 591th word) (2)	42382	094Dh
Setting area detail (the 592th word) (1)	42383	094Eh
Setting area detail (the 592th word) (2)	42384	094Fh
Setting area detail (the 593th word) (1)	42385	0950h
Setting area detail (the 593th word) (2)	42386	0951h
Setting area detail (the 594th word) (1)	42387	0952h
Setting area detail (the 594th word) (2)	42388	0953h
Setting area detail (the 595th word) (1)	42389	0954h
Setting area detail (the 595th word) (2)	42390	0955h
Setting area detail (the 596th word) (1)	42391	0956h
Setting area detail (the 596th word) (2)	42392	0957h
Setting area detail (the 597th word) (1)	42393	0958h
Setting area detail (the 597th word) (2)	42394	0959h

Contents	Register No.	Relative address
Setting area detail (the 598th word) (1)	42395	095Ah
Setting area detail (the 598th word) (2)	42396	095Bh
Setting area detail (the 599th word) (1)	42397	095Ch
Setting area detail (the 599th word) (2)	42398	095Dh
Setting area detail (the 600th word) (1)	42399	095Eh
Setting area detail (the 600th word) (2)	42400	095Fh
Setting area detail (the 601th word) (1)	42401	0960h
Setting area detail (the 601th word) (2)	42402	0961h
Setting area detail (the 602th word) (1)	42403	0962h
Setting area detail (the 602th word) (2)	42404	0963h
Setting area detail (the 603th word) (1)	42405	0964h
Setting area detail (the 603th word) (2)	42406	0965h
Setting area detail (the 604th word) (1)	42407	0966h
Setting area detail (the 604th word) (2)	42408	0967h
Setting area detail (the 605th word) (1)	42409	0968h
Setting area detail (the 605th word) (2)	42410	0969h
Setting area detail (the 606th word) (1)	42411	096Ah
Setting area detail (the 606th word) (2)	42412	096Bh
Setting area detail (the 607th word) (1)	42413	096Ch
Setting area detail (the 607th word) (2)	42414	096Dh
Setting area detail (the 608th word) (1)	42415	096Eh
Setting area detail (the 608th word) (2)	42416	096Fh
Setting area detail (the 609th word) (1)	42417	0970h
Setting area detail (the 609th word) (2)	42418	0971h
Setting area detail (the 610th word) (1)	42419	0972h
Setting area detail (the 610th word) (2)	42420	0973h
Setting area detail (the 611th word) (1)	42421	0974h
Setting area detail (the 611th word) (2)	42422	0975h
Setting area detail (the 612th word) (1)	42423	0976h
Setting area detail (the 612th word) (2)	42424	0977h
Setting area detail (the 613th word) (1)	42425	0978h
Setting area detail (the 613th word) (2)	42426	0979h
Setting area detail (the 614th word) (1)	42427	097Ah
Setting area detail (the 614th word) (2)	42428	097Bh
Setting area detail (the 615th word) (1)	42429	097Ch
Setting area detail (the 615th word) (2)	42430	097Dh
Setting area detail (the 616th word) (1)	42431	097Eh
Setting area detail (the 616th word) (2)	42432	097Fh
Setting area detail (the 617th word) (1)	42433	0980h
Setting area detail (the 617th word) (2)	42434	0981h
Setting area detail (the 618th word) (1)	42435	0982h
Setting area detail (the 618th word) (2)	42436	0983h

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Contents	Register No.	Relative address
Setting area detail (the 619th word) (1)	42437	0984h
Setting area detail (the 619th word) (2)	42438	0985h
Setting area detail (the 620th word) (1)	42439	0986h
Setting area detail (the 620th word) (2)	42440	0987h
Setting area detail (the 621th word) (1)	42441	0988h
Setting area detail (the 621th word) (2)	42442	0989h
Setting area detail (the 622th word) (1)	42443	098Ah
Setting area detail (the 622th word) (2)	42444	098Bh
Setting area detail (the 623th word) (1)	42445	098Ch
Setting area detail (the 623th word) (2)	42446	098Dh
Setting area detail (the 624th word) (1)	42447	098Eh
Setting area detail (the 624th word) (2)	42448	098Fh
Setting area detail (the 625th word) (1)	42449	0990h
Setting area detail (the 625th word) (2)	42450	0991h
Setting area detail (the 626th word) (1)	42451	0992h
Setting area detail (the 626th word) (2)	42452	0993h
Setting area detail (the 627th word) (1)	42453	0994h
Setting area detail (the 627th word) (2)	42454	0995h
Setting area detail (the 628th word) (1)	42455	0996h
Setting area detail (the 628th word) (2)	42456	0997h
Setting area detail (the 629th word) (1)	42457	0998h
Setting area detail (the 629th word) (2)	42458	0999h
Setting area detail (the 630th word) (1)	42459	099Ah
Setting area detail (the 630th word) (2)	42460	099Bh
Setting area detail (the 631th word) (1)	42461	099Ch
Setting area detail (the 631th word) (2)	42462	099Dh
Setting area detail (the 632th word) (1)	42463	099Eh
Setting area detail (the 632th word) (2)	42464	099Fh
Setting area detail (the 633th word) (1)	42465	09A0h
Setting area detail (the 633th word) (2)	42466	09A1h
Setting area detail (the 634th word) (1)	42467	09A2h
Setting area detail (the 634th word) (2)	42468	09A3h
Setting area detail (the 635th word) (1)	42469	09A4h
Setting area detail (the 635th word) (2)	42470	09A5h
Setting area detail (the 636th word) (1)	42471	09A6h
Setting area detail (the 636th word) (2)	42472	09A7h
Setting area detail (the 637th word) (1)	42473	09A8h
Setting area detail (the 637th word) (2)	42474	09A9h
Setting area detail (the 638th word) (1)	42475	09AAh
Setting area detail (the 638th word) (2)	42476	09ABh
Setting area detail (the 639th word) (1)	42477	09ACh
Setting area detail (the 639th word) (2)	42478	09ADh

Contents	Register No.	Relative address
Setting area detail (the 640th word) (1)	42479	09AEh
Setting area detail (the 640th word) (2)	42480	09AFh
Setting area detail (the 641th word) (1)	42481	09B0h
Setting area detail (the 641th word) (2)	42482	09B1h
Setting area detail (the 642th word) (1)	42483	09B2h
Setting area detail (the 642th word) (2)	42484	09B3h
Setting area detail (the 643th word) (1)	42485	09B4h
Setting area detail (the 643th word) (2)	42486	09B5h
Setting area detail (the 644th word) (1)	42487	09B6h
Setting area detail (the 644th word) (2)	42488	09B7h
Setting area detail (the 645th word) (1)	42489	09B8h
Setting area detail (the 645th word) (2)	42490	09B9h
Setting area detail (the 646th word) (1)	42491	09BAh
Setting area detail (the 646th word) (2)	42492	09BBh
Setting area detail (the 647th word) (1)	42493	09BCh
Setting area detail (the 647th word) (2)	42494	09BDh
Setting area detail (the 648th word) (1)	42495	09BEh
Setting area detail (the 648th word) (2)	42496	09BFh
Setting area detail (the 649th word) (1)	42497	09C0h
Setting area detail (the 649th word) (2)	42498	09C1h
Setting area detail (the 650th word) (1)	42499	09C2h
Setting area detail (the 650th word) (2)	42500	09C3h
Setting area detail (the 651th word) (1)	42501	09C4h
Setting area detail (the 651th word) (2)	42502	09C5h
Setting area detail (the 652th word) (1)	42503	09C6h
Setting area detail (the 652th word) (2)	42504	09C7h
Setting area detail (the 653th word) (1)	42505	09C8h
Setting area detail (the 653th word) (2)	42506	09C9h
Setting area detail (the 654th word) (1)	42507	09CAh
Setting area detail (the 654th word) (2)	42508	09CBh
Setting area detail (the 655th word) (1)	42509	09CCh
Setting area detail (the 655th word) (2)	42510	09CDh
Setting area detail (the 656th word) (1)	42511	09CEh
Setting area detail (the 656th word) (2)	42512	09CFh
Setting area detail (the 657th word) (1)	42513	09D0h
Setting area detail (the 657th word) (2)	42514	09D1h
Setting area detail (the 658th word) (1)	42515	09D2h
Setting area detail (the 658th word) (2)	42516	09D3h
Setting area detail (the 659th word) (1)	42517	09D4h
Setting area detail (the 659th word) (2)	42518	09D5h
Setting area detail (the 660th word) (1)	42519	09D6h
Setting area detail (the 660th word) (2)	42520	09D7h

Contents	Register No.	Relative address
Setting area detail (the 661th word) (1)	42521	09D8h
Setting area detail (the 661th word) (2)	42522	09D9h
Setting area detail (the 662th word) (1)	42523	09DAh
Setting area detail (the 662th word) (2)	42524	09DBh
Setting area detail (the 663th word) (1)	42525	09DCh
Setting area detail (the 663th word) (2)	42526	09DDh
Setting area detail (the 664th word) (1)	42527	09DEh
Setting area detail (the 664th word) (2)	42528	09DFh
Setting area detail (the 665th word) (1)	42529	09E0h
Setting area detail (the 665th word) (2)	42530	09E1h
Setting area detail (the 666th word) (1)	42531	09E2h
Setting area detail (the 666th word) (2)	42532	09E3h
Setting area detail (the 667th word) (1)	42533	09E4h
Setting area detail (the 667th word) (2)	42534	09E5h
Setting area detail (the 668th word) (1)	42535	09E6h
Setting area detail (the 668th word) (2)	42536	09E7h
Setting area detail (the 669th word) (1)	42537	09E8h
Setting area detail (the 669th word) (2)	42538	09E9h
Setting area detail (the 670th word) (1)	42539	09EAh
Setting area detail (the 670th word) (2)	42540	09EBh
Setting area detail (the 671th word) (1)	42541	09ECh
Setting area detail (the 671th word) (2)	42542	09EDh
Setting area detail (the 672th word) (1)	42543	09EEh
Setting area detail (the 672th word) (2)	42544	09EFh
Setting area detail (the 673th word) (1)	42545	09F0h
Setting area detail (the 673th word) (2)	42546	09F1h
Setting area detail (the 674th word) (1)	42547	09F2h
Setting area detail (the 674th word) (2)	42548	09F3h
Setting area detail (the 675th word) (1)	42549	09F4h
Setting area detail (the 675th word) (2)	42550	09F5h
Setting area detail (the 676th word) (1)	42551	09F6h
Setting area detail (the 676th word) (2)	42552	09F7h
Setting area detail (the 677th word) (1)	42553	09F8h
Setting area detail (the 677th word) (2)	42554	09F9h
Setting area detail (the 678th word) (1)	42555	09FAh
Setting area detail (the 678th word) (2)	42556	09FBh
Setting area detail (the 679th word) (1)	42557	09FCh
Setting area detail (the 679th word) (2)	42558	09FDh
Setting area detail (the 680th word) (1)	42559	09FEh
Setting area detail (the 680th word) (2)	42560	09FFh
Setting area detail (the 681th word) (1)	42561	0A00h
Setting area detail (the 681th word) (2)	42562	0A01h

Contents	Register No.	Relative address
Setting area detail (the 682th word) (1)	42563	0A02h
Setting area detail (the 682th word) (2)	42564	0A03h
Setting area detail (the 683th word) (1)	42565	0A04h
Setting area detail (the 683th word) (2)	42566	0A05h
Setting area detail (the 684th word) (1)	42567	0A06h
Setting area detail (the 684th word) (2)	42568	0A07h
Setting area detail (the 685th word) (1)	42569	0A08h
Setting area detail (the 685th word) (2)	42570	0A09h
Setting area detail (the 686th word) (1)	42571	0A0Ah
Setting area detail (the 686th word) (2)	42572	0A0Bh
Setting area detail (the 687th word) (1)	42573	0A0Ch
Setting area detail (the 687th word) (2)	42574	0A0Dh
Setting area detail (the 688th word) (1)	42575	0A0Eh
Setting area detail (the 688th word) (2)	42576	0A0Fh
Setting area detail (the 689th word) (1)	42577	0A10h
Setting area detail (the 689th word) (2)	42578	0A11h
Setting area detail (the 690th word) (1)	42579	0A12h
Setting area detail (the 690th word) (2)	42580	0A13h
Setting area detail (the 691th word) (1)	42581	0A14h
Setting area detail (the 691th word) (2)	42582	0A15h
Setting area detail (the 692th word) (1)	42583	0A16h
Setting area detail (the 692th word) (2)	42584	0A17h
Setting area detail (the 693th word) (1)	42585	0A18h
Setting area detail (the 693th word) (2)	42586	0A19h
Setting area detail (the 694th word) (1)	42587	0A1Ah
Setting area detail (the 694th word) (2)	42588	0A1Bh
Setting area detail (the 695th word) (1)	42589	0A1Ch
Setting area detail (the 695th word) (2)	42590	0A1Dh
Setting area detail (the 696th word) (1)	42591	0A1Eh
Setting area detail (the 696th word) (2)	42592	0A1Fh
Setting area detail (the 697th word) (1)	42593	0A20h
Setting area detail (the 697th word) (2)	42594	0A21h
Setting area detail (the 698th word) (1)	42595	0A22h
Setting area detail (the 698th word) (2)	42596	0A23h
Setting area detail (the 699th word) (1)	42597	0A24h
Setting area detail (the 699th word) (2)	42598	0A25h
Setting area detail (the 700th word) (1)	42599	0A26h
Setting area detail (the 700th word) (2)	42600	0A27h
Setting area detail (the 701th word) (1)	42601	0A28h
Setting area detail (the 701th word) (2)	42602	0A29h
Setting area detail (the 702th word) (1)	42603	0A2Ah
Setting area detail (the 702th word) (2)	42604	0A2Bh



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Contents	Register No.	Relative address
Setting area detail (the 703th word) (1)	42605	0A2Ch
Setting area detail (the 703th word) (2)	42606	0A2Dh
Setting area detail (the 704th word) (1)	42607	0A2Eh
Setting area detail (the 704th word) (2)	42608	0A2Fh
Setting area detail (the 705th word) (1)	42609	0A30h
Setting area detail (the 705th word) (2)	42610	0A31h
Setting area detail (the 706th word) (1)	42611	0A32h
Setting area detail (the 706th word) (2)	42612	0A33h
Setting area detail (the 707th word) (1)	42613	0A34h
Setting area detail (the 707th word) (2)	42614	0A35h
Setting area detail (the 708th word) (1)	42615	0A36h
Setting area detail (the 708th word) (2)	42616	0A37h
Setting area detail (the 709th word) (1)	42617	0A38h
Setting area detail (the 709th word) (2)	42618	0A39h
Setting area detail (the 710th word) (1)	42619	0A3Ah
Setting area detail (the 710th word) (2)	42620	0A3Bh
Setting area detail (the 711th word) (1)	42621	0A3Ch
Setting area detail (the 711th word) (2)	42622	0A3Dh
Setting area detail (the 712th word) (1)	42623	0A3Eh
Setting area detail (the 712th word) (2)	42624	0A3Fh
Monitor area detail (the 1st word) (1)	43001	0BB8h
Monitor area detail (the 1st word) (2)	43002	0BB9h
Monitor area detail (the 2nd word) (1)	43003	0BBAh
Monitor area detail (the 2nd word) (2)	43004	0BBBh
Monitor area detail (the 3rd word) (1)	43005	0BBCh
Monitor area detail (the 3rd word) (2)	43006	0BBDh
Monitor area detail (the 4th word) (1)	43007	0BBEh
Monitor area detail (the 4th word) (2)	43008	0BBFh
Monitor area detail (the 5th word) (1)	43009	0BC0h
Monitor area detail (the 5th word) (2)	43010	0BC1h
Monitor area detail (the 6th word) (1)	43011	0BC2h
Monitor area detail (the 6th word) (2)	43012	0BC3h
Monitor area detail (the 7th word) (1)	43013	0BC4h
Monitor area detail (the 7th word) (2)	43014	0BC5h
Monitor area detail (the 8th word) (1)	43015	0BC6h
Monitor area detail (the 8th word) (2)	43016	0BC7h
Monitor area detail (the 9th word) (1)	43017	0BC8h
Monitor area detail (the 9th word) (2)	43018	0BC9h
Monitor area detail (the 10th word) (1)	43019	0BCAh
Monitor area detail (the 10th word) (2)	43020	0BCBh
Monitor area detail (the 11th word) (1)	43021	0BCCh
Monitor area detail (the 11th word) (2)	43022	0BCDh

Contents	Register No.	Relative address
Monitor area detail (the 12th word) (1)	43023	0BCEh
Monitor area detail (the 12th word) (2)	43024	0BCFh
Monitor area detail (the 13th word) (1)	43025	0BD0h
Monitor area detail (the 13th word) (2)	43026	0BD1h
Monitor area detail (the 14th word) (1)	43027	0BD2h
Monitor area detail (the 14th word) (2)	43028	0BD3h
Monitor area detail (the 15th word) (1)	43029	0BD4h
Monitor area detail (the 15th word) (2)	43030	0BD5h
Monitor area detail (the 16th word) (1)	43031	0BD6h
Monitor area detail (the 16th word) (2)	43032	0BD7h
Monitor area detail (the 17th word) (1)	43033	0BD8h
Monitor area detail (the 17th word) (2)	43034	0BD9h
Monitor area detail (the 18th word) (1)	43035	0BDAh
Monitor area detail (the 18th word) (2)	43036	0BDBh
Monitor area detail (the 19th word) (1)	43037	0BDCCh
Monitor area detail (the 19th word) (2)	43038	0BDDh
Monitor area detail (the 20th word) (1)	43039	0BDEh
Monitor area detail (the 20th word) (2)	43040	0BDFh
Monitor area detail (the 21th word) (1)	43041	0BE0h
Monitor area detail (the 21th word) (2)	43042	0BE1h
Monitor area detail (the 22th word) (1)	43043	0BE2h
Monitor area detail (the 22th word) (2)	43044	0BE3h
Monitor area detail (the 23th word) (1)	43045	0BE4h
Monitor area detail (the 23th word) (2)	43046	0BE5h
Monitor area detail (the 24th word) (1)	43047	0BE6h
Monitor area detail (the 24th word) (2)	43048	0BE7h
Monitor area detail (the 25th word) (1)	43049	0BE8h
Monitor area detail (the 25th word) (2)	43050	0BE9h
Monitor area detail (the 26th word) (1)	43051	0BEAh
Monitor area detail (the 26th word) (2)	43052	0BEBh
Monitor area detail (the 27th word) (1)	43053	0BECCh
Monitor area detail (the 27th word) (2)	43054	0BEDh
Monitor area detail (the 28th word) (1)	43055	0BEEh
Monitor area detail (the 28th word) (2)	43056	0BEFh
Monitor area detail (the 29th word) (1)	43057	0BF0h
Monitor area detail (the 29th word) (2)	43058	0BF1h
Monitor area detail (the 30th word) (1)	43059	0BF2h
Monitor area detail (the 30th word) (2)	43060	0BF3h
Monitor area detail (the 31th word) (1)	43061	0BF4h
Monitor area detail (the 31th word) (2)	43062	0BF5h
Monitor area detail (the 32th word) (1)	43063	0BF6h
Monitor area detail (the 32th word) (2)	43064	0BF7h

Contents	Register No.	Relative address
Monitor area detail (the 33th word) (1)	43065	0BF8h
Monitor area detail (the 33th word) (2)	43066	0BF9h
Monitor area detail (the 34th word) (1)	43067	0BFAh
Monitor area detail (the 34th word) (2)	43068	0BFBh
Monitor area detail (the 35th word) (1)	43069	0BFCCh
Monitor area detail (the 35th word) (2)	43070	0BFDh
Monitor area detail (the 36th word) (1)	43071	0BFEh
Monitor area detail (the 36th word) (2)	43072	0BFFh
Monitor area detail (the 37th word) (1)	43073	0C00h
Monitor area detail (the 37th word) (2)	43074	0C01h
Monitor area detail (the 38th word) (1)	43075	0C02h
Monitor area detail (the 38th word) (2)	43076	0C03h
Monitor area detail (the 39th word) (1)	43077	0C04h
Monitor area detail (the 39th word) (2)	43078	0C05h
Monitor area detail (the 40th word) (1)	43079	0C06h
Monitor area detail (the 40th word) (2)	43080	0C07h
Monitor area detail (the 41th word) (1)	43081	0C08h
Monitor area detail (the 41th word) (2)	43082	0C09h
Monitor area detail (the 42th word) (1)	43083	0C0Ah
Monitor area detail (the 42th word) (2)	43084	0C0Bh
Monitor area detail (the 43th word) (1)	43085	0C0Ch
Monitor area detail (the 43th word) (2)	43086	0C0Dh
Monitor area detail (the 44th word) (1)	43087	0C0Eh
Monitor area detail (the 44th word) (2)	43088	0C0Fh
Monitor area detail (the 45th word) (1)	43089	0C10h
Monitor area detail (the 45th word) (2)	43090	0C11h
Monitor area detail (the 46th word) (1)	43091	0C12h
Monitor area detail (the 46th word) (2)	43092	0C13h
Monitor area detail (the 47th word) (1)	43093	0C14h
Monitor area detail (the 47th word) (2)	43094	0C15h
Monitor area detail (the 48th word) (1)	43095	0C16h
Monitor area detail (the 48th word) (2)	43096	0C17h
Monitor area detail (the 49th word) (1)	43097	0C18h
Monitor area detail (the 49th word) (2)	43098	0C19h
Monitor area detail (the 50th word) (1)	43099	0C1Ah
Monitor area detail (the 50th word) (2)	43100	0C1Bh
Monitor area detail (the 51th word) (1)	43101	0C1Ch
Monitor area detail (the 51th word) (2)	43102	0C1Dh
Monitor area detail (the 52th word) (1)	43103	0C1Eh
Monitor area detail (the 52th word) (2)	43104	0C1Fh
Monitor area detail (the 53th word) (1)	43105	0C20h
Monitor area detail (the 53th word) (2)	43106	0C21h

Contents	Register No.	Relative address
Monitor area detail (the 54th word) (1)	43107	0C22h
Monitor area detail (the 54th word) (2)	43108	0C23h
Monitor area detail (the 55th word) (1)	43109	0C24h
Monitor area detail (the 55th word) (2)	43110	0C25h
Monitor area detail (the 56th word) (1)	43111	0C26h
Monitor area detail (the 56th word) (2)	43112	0C27h
Monitor area detail (the 57th word) (1)	43113	0C28h
Monitor area detail (the 57th word) (2)	43114	0C29h
Monitor area detail (the 58th word) (1)	43115	0C2Ah
Monitor area detail (the 58th word) (2)	43116	0C2Bh
Monitor area detail (the 59th word) (1)	43117	0C2Ch
Monitor area detail (the 59th word) (2)	43118	0C2Dh
Monitor area detail (the 60th word) (1)	43119	0C2Eh
Monitor area detail (the 60th word) (2)	43120	0C2Fh
Monitor area detail (the 61th word) (1)	43121	0C30h
Monitor area detail (the 61th word) (2)	43122	0C31h
Monitor area detail (the 62th word) (1)	43123	0C32h
Monitor area detail (the 62th word) (2)	43124	0C33h
Monitor area detail (the 63th word) (1)	43125	0C34h
Monitor area detail (the 63th word) (2)	43126	0C35h
Monitor area detail (the 64th word) (1)	43127	0C36h
Monitor area detail (the 64th word) (2)	43128	0C37h
Monitor area detail (the 65th word) (1)	43129	0C38h
Monitor area detail (the 65th word) (2)	43130	0C39h
Monitor area detail (the 66th word) (1)	43131	0C3Ah
Monitor area detail (the 66th word) (2)	43132	0C3Bh
Monitor area detail (the 67th word) (1)	43133	0C3Ch
Monitor area detail (the 67th word) (2)	43134	0C3Dh
Monitor area detail (the 68th word) (1)	43135	0C3Eh
Monitor area detail (the 68th word) (2)	43136	0C3Fh
Monitor area detail (the 69th word) (1)	43137	0C40h
Monitor area detail (the 69th word) (2)	43138	0C41h
Monitor area detail (the 70th word) (1)	43139	0C42h
Monitor area detail (the 70th word) (2)	43140	0C43h
Monitor area detail (the 71th word) (1)	43141	0C44h
Monitor area detail (the 71th word) (2)	43142	0C45h
Monitor area detail (the 72th word) (1)	43143	0C46h
Monitor area detail (the 72th word) (2)	43144	0C47h
Monitor area detail (the 73th word) (1)	43145	0C48h
Monitor area detail (the 73th word) (2)	43146	0C49h
Monitor area detail (the 74th word) (1)	43147	0C4Ah
Monitor area detail (the 74th word) (2)	43148	0C4Bh

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Contents	Register No.	Relative address
Monitor area detail (the 75th word) (1)	43149	0C4Ch
Monitor area detail (the 75th word) (2)	43150	0C4Dh
Monitor area detail (the 76th word) (1)	43151	0C4Eh
Monitor area detail (the 76th word) (2)	43152	0C4Fh
Monitor area detail (the 77th word) (1)	43153	0C50h
Monitor area detail (the 77th word) (2)	43154	0C51h
Monitor area detail (the 78th word) (1)	43155	0C52h
Monitor area detail (the 78th word) (2)	43156	0C53h
Monitor area detail (the 79th word) (1)	43157	0C54h
Monitor area detail (the 79th word) (2)	43158	0C55h
Monitor area detail (the 80th word) (1)	43159	0C56h
Monitor area detail (the 80th word) (2)	43160	0C57h
Monitor area detail (the 81th word) (1)	43161	0C58h
Monitor area detail (the 81th word) (2)	43162	0C59h
Monitor area detail (the 82th word) (1)	43163	0C5Ah
Monitor area detail (the 82th word) (2)	43164	0C5Bh
Monitor area detail (the 83th word) (1)	43165	0C5Ch
Monitor area detail (the 83th word) (2)	43166	0C5Dh
Monitor area detail (the 84th word) (1)	43167	0C5Eh
Monitor area detail (the 84th word) (2)	43168	0C5Fh
Monitor area detail (the 85th word) (1)	43169	0C60h
Monitor area detail (the 85th word) (2)	43170	0C61h
Monitor area detail (the 86th word) (1)	43171	0C62h
Monitor area detail (the 86th word) (2)	43172	0C63h
Monitor area detail (the 87th word) (1)	43173	0C64h
Monitor area detail (the 87th word) (2)	43174	0C65h
Monitor area detail (the 88th word) (1)	43175	0C66h
Monitor area detail (the 88th word) (2)	43176	0C67h
Monitor area detail (the 89th word) (1)	43177	0C68h
Monitor area detail (the 89th word) (2)	43178	0C69h
Monitor area detail (the 90th word) (1)	43179	0C6Ah
Monitor area detail (the 90th word) (2)	43180	0C6Bh
Monitor area detail (the 91th word) (1)	43181	0C6Ch
Monitor area detail (the 91th word) (2)	43182	0C6Dh
Monitor area detail (the 92th word) (1)	43183	0C6Eh
Monitor area detail (the 92th word) (2)	43184	0C6Fh
Monitor area detail (the 93th word) (1)	43185	0C70h
Monitor area detail (the 93th word) (2)	43186	0C71h
Monitor area detail (the 94th word) (1)	43187	0C72h
Monitor area detail (the 94th word) (2)	43188	0C73h
Monitor area detail (the 95th word) (1)	43189	0C74h
Monitor area detail (the 95th word) (2)	43190	0C75h

Contents	Register No.	Relative address
Monitor area detail (the 96th word) (1)	43191	0C76h
Monitor area detail (the 96th word) (2)	43192	0C77h
Monitor area detail (the 97th word) (1)	43193	0C78h
Monitor area detail (the 97th word) (2)	43194	0C79h
Monitor area detail (the 98th word) (1)	43195	0C7Ah
Monitor area detail (the 98th word) (2)	43196	0C7Bh
Monitor area detail (the 99th word) (1)	43197	0C7Ch
Monitor area detail (the 99th word) (2)	43198	0C7Dh
Monitor area detail (the 100th word) (1)	43199	0C7Eh
Monitor area detail (the 100th word) (2)	43200	0C7Fh
Monitor area detail (the 101th word) (1)	43201	0C80h
Monitor area detail (the 101th word) (2)	43202	0C81h
Monitor area detail (the 102th word) (1)	43203	0C82h
Monitor area detail (the 102th word) (2)	43204	0C83h
Monitor area detail (the 103th word) (1)	43205	0C84h
Monitor area detail (the 103th word) (2)	43206	0C85h
Monitor area detail (the 104th word) (1)	43207	0C86h
Monitor area detail (the 104th word) (2)	43208	0C87h
Monitor area detail (the 105th word) (1)	43209	0C88h
Monitor area detail (the 105th word) (2)	43210	0C89h
Monitor area detail (the 106th word) (1)	43211	0C8Ah
Monitor area detail (the 106th word) (2)	43212	0C8Bh
Monitor area detail (the 107th word) (1)	43213	0C8Ch
Monitor area detail (the 107th word) (2)	43214	0C8Dh
Monitor area detail (the 108th word) (1)	43215	0C8Eh
Monitor area detail (the 108th word) (2)	43216	0C8Fh
Monitor area detail (the 109th word) (1)	43217	0C90h
Monitor area detail (the 109th word) (2)	43218	0C91h
Monitor area detail (the 110th word) (1)	43219	0C92h
Monitor area detail (the 110th word) (2)	43220	0C93h
Monitor area detail (the 111th word) (1)	43221	0C94h
Monitor area detail (the 111th word) (2)	43222	0C95h
Monitor area detail (the 112th word) (1)	43223	0C96h
Monitor area detail (the 112th word) (2)	43224	0C97h
Monitor area detail (the 113th word) (1)	43225	0C98h
Monitor area detail (the 113th word) (2)	43226	0C99h
Monitor area detail (the 114th word) (1)	43227	0C9Ah
Monitor area detail (the 114th word) (2)	43228	0C9Bh
Monitor area detail (the 115th word) (1)	43229	0C9Ch
Monitor area detail (the 115th word) (2)	43230	0C9Dh
Monitor area detail (the 116th word) (1)	43231	0C9Eh
Monitor area detail (the 116th word) (2)	43232	0C9Fh

Contents	Register No.	Relative address
Monitor area detail (the 117th word) (1)	43233	0CA0h
Monitor area detail (the 117th word) (2)	43234	0CA1h
Monitor area detail (the 118th word) (1)	43235	0CA2h
Monitor area detail (the 118th word) (2)	43236	0CA3h
Monitor area detail (the 119th word) (1)	43237	0CA4h
Monitor area detail (the 119th word) (2)	43238	0CA5h
Monitor area detail (the 120th word) (1)	43239	0CA6h
Monitor area detail (the 120th word) (2)	43240	0CA7h
Monitor area detail (the 121th word) (1)	43241	0CA8h
Monitor area detail (the 121th word) (2)	43242	0CA9h
Monitor area detail (the 122th word) (1)	43243	0CAAh
Monitor area detail (the 122th word) (2)	43244	0CABh
Monitor area detail (the 123th word) (1)	43245	0CACH
Monitor area detail (the 123th word) (2)	43246	0CADh
Monitor area detail (the 124th word) (1)	43247	0CAEh
Monitor area detail (the 124th word) (2)	43248	0CAFh
Monitor area detail (the 125th word) (1)	43249	0CB0h
Monitor area detail (the 125th word) (2)	43250	0CB1h
Monitor area detail (the 126th word) (1)	43251	0CB2h
Monitor area detail (the 126th word) (2)	43252	0CB3h
Monitor area detail (the 127th word) (1)	43253	0CB4h
Monitor area detail (the 127th word) (2)	43254	0CB5h
Monitor area detail (the 128th word) (1)	43255	0CB6h
Monitor area detail (the 128th word) (2)	43256	0CB7h
Monitor area detail (the 129th word) (1)	43257	0CB8h
Monitor area detail (the 129th word) (2)	43258	0CB9h
Monitor area detail (the 130th word) (1)	43259	0CBAh
Monitor area detail (the 130th word) (2)	43260	0CBBh
Monitor area detail (the 131th word) (1)	43261	0CBCh
Monitor area detail (the 131th word) (2)	43262	0CBDh
Monitor area detail (the 132th word) (1)	43263	0CBEh
Monitor area detail (the 132th word) (2)	43264	0CBFh
Monitor area detail (the 133th word) (1)	43265	0CC0h
Monitor area detail (the 133th word) (2)	43266	0CC1h
Monitor area detail (the 134th word) (1)	43267	0CC2h
Monitor area detail (the 134th word) (2)	43268	0CC3h
Monitor area detail (the 135th word) (1)	43269	0CC4h
Monitor area detail (the 135th word) (2)	43270	0CC5h
Monitor area detail (the 136th word) (1)	43271	0CC6h
Monitor area detail (the 136th word) (2)	43272	0CC7h
Monitor area detail (the 137th word) (1)	43273	0CC8h
Monitor area detail (the 137th word) (2)	43274	0CC9h

Contents	Register No.	Relative address
Monitor area detail (the 138th word) (1)	43275	0CCAh
Monitor area detail (the 138th word) (2)	43276	0CCBh
Monitor area detail (the 139th word) (1)	43277	0CCCh
Monitor area detail (the 139th word) (2)	43278	0CCDh
Monitor area detail (the 140th word) (1)	43279	0CCEh
Monitor area detail (the 140th word) (2)	43280	0CCFh
Monitor area detail (the 141th word) (1)	43281	0CD0h
Monitor area detail (the 141th word) (2)	43282	0CD1h
Monitor area detail (the 142th word) (1)	43283	0CD2h
Monitor area detail (the 142th word) (2)	43284	0CD3h
Monitor area detail (the 143th word) (1)	43285	0CD4h
Monitor area detail (the 143th word) (2)	43286	0CD5h
Monitor area detail (the 144th word) (1)	43287	0CD6h
Monitor area detail (the 144th word) (2)	43288	0CD7h
Monitor area detail (the 145th word) (1)	43289	0CD8h
Monitor area detail (the 145th word) (2)	43290	0CD9h
Monitor area detail (the 146th word) (1)	43291	0CDAh
Monitor area detail (the 146th word) (2)	43292	0CDBh
Monitor area detail (the 147th word) (1)	43293	0CDCCh
Monitor area detail (the 147th word) (2)	43294	0CDDh
Monitor area detail (the 148th word) (1)	43295	0CDEh
Monitor area detail (the 148th word) (2)	43296	0CDFh
Monitor area detail (the 149th word) (1)	43297	0CE0h
Monitor area detail (the 149th word) (2)	43298	0CE1h
Monitor area detail (the 150th word) (1)	43299	0CE2h
Monitor area detail (the 150th word) (2)	43300	0CE3h
Monitor area detail (the 151th word) (1)	43301	0CE4h
Monitor area detail (the 151th word) (2)	43302	0CE5h
Monitor area detail (the 152th word) (1)	43303	0CE6h
Monitor area detail (the 152th word) (2)	43304	0CE7h
Monitor area detail (the 153th word) (1)	43305	0CE8h
Monitor area detail (the 153th word) (2)	43306	0CE9h
Monitor area detail (the 154th word) (1)	43307	0CEAh
Monitor area detail (the 154th word) (2)	43308	0CEBh
Monitor area detail (the 155th word) (1)	43309	0CECh
Monitor area detail (the 155th word) (2)	43310	0CEDh
Monitor area detail (the 156th word) (1)	43311	0CEEh
Monitor area detail (the 156th word) (2)	43312	0CEFh
Monitor area detail (the 157th word) (1)	43313	0CF0h
Monitor area detail (the 157th word) (2)	43314	0CF1h
Monitor area detail (the 158th word) (1)	43315	0CF2h
Monitor area detail (the 158th word) (2)	43316	0CF3h

## 5.4 Address Map and Data Format

Contents	Register No.	Relative address
Monitor area detail (the 159th word) (1)	43317	0CF4h
Monitor area detail (the 159th word) (2)	43318	0CF5h
Monitor area detail (the 160th word) (1)	43319	0CF6h
Monitor area detail (the 160th word) (2)	43320	0CF7h
Monitor area detail (the 161th word) (1)	43321	0CF8h
Monitor area detail (the 161th word) (2)	43322	0CF9h
Monitor area detail (the 162th word) (1)	43323	0CFAh
Monitor area detail (the 162th word) (2)	43324	0CFBh
Monitor area detail (the 163th word) (1)	43325	0CFCh
Monitor area detail (the 163th word) (2)	43326	0CFDh
Monitor area detail (the 164th word) (1)	43327	0CFEh
Monitor area detail (the 164th word) (2)	43328	0CFFh
Monitor area detail (the 165th word) (1)	43329	0D00h
Monitor area detail (the 165th word) (2)	43330	0D01h
Monitor area detail (the 166th word) (1)	43331	0D02h
Monitor area detail (the 166th word) (2)	43332	0D03h
Monitor area detail (the 167th word) (1)	43333	0D04h
Monitor area detail (the 167th word) (2)	43334	0D05h
Monitor area detail (the 168th word) (1)	43335	0D06h
Monitor area detail (the 168th word) (2)	43336	0D07h
Monitor area detail (the 169th word) (1)	43337	0D08h
Monitor area detail (the 169th word) (2)	43338	0D09h
Monitor area detail (the 170th word) (1)	43339	0D0Ah
Monitor area detail (the 170th word) (2)	43340	0D0Bh
Monitor area detail (the 171th word) (1)	43341	0D0Ch
Monitor area detail (the 171th word) (2)	43342	0D0Dh
Monitor area detail (the 172th word) (1)	43343	0D0Eh
Monitor area detail (the 172th word) (2)	43344	0D0Fh
Monitor area detail (the 173th word) (1)	43345	0D10h
Monitor area detail (the 173th word) (2)	43346	0D11h
Monitor area detail (the 174th word) (1)	43347	0D12h
Monitor area detail (the 174th word) (2)	43348	0D13h
Monitor area detail (the 175th word) (1)	43349	0D14h
Monitor area detail (the 175th word) (2)	43350	0D15h
Monitor area detail (the 176th word) (1)	43351	0D16h
Monitor area detail (the 176th word) (2)	43352	0D17h
Monitor area detail (the 177th word) (1)	43353	0D18h
Monitor area detail (the 177th word) (2)	43354	0D19h
Monitor area detail (the 178th word) (1)	43355	0D1Ah
Monitor area detail (the 178th word) (2)	43356	0D1Bh
Monitor area detail (the 179th word) (1)	43357	0D1Ch
Monitor area detail (the 179th word) (2)	43358	0D1Dh

Contents	Register No.	Relative address
Monitor area detail (the 180th word) (1)	43359	0D1Eh
Monitor area detail (the 180th word) (2)	43360	0D1Fh
Monitor area detail (the 181th word) (1)	43361	0D20h
Monitor area detail (the 181th word) (2)	43362	0D21h
Monitor area detail (the 182th word) (1)	43363	0D22h
Monitor area detail (the 182th word) (2)	43364	0D23h
Monitor area detail (the 183th word) (1)	43365	0D24h
Monitor area detail (the 183th word) (2)	43366	0D25h
Monitor area detail (the 184th word) (1)	43367	0D26h
Monitor area detail (the 184th word) (2)	43368	0D27h
Monitor area detail (the 185th word) (1)	43369	0D28h
Monitor area detail (the 185th word) (2)	43370	0D29h
Monitor area detail (the 186th word) (1)	43371	0D2Ah
Monitor area detail (the 186th word) (2)	43372	0D2Bh
Monitor area detail (the 187th word) (1)	43373	0D2Ch
Monitor area detail (the 187th word) (2)	43374	0D2Dh
Monitor area detail (the 188th word) (1)	43375	0D2Eh
Monitor area detail (the 188th word) (2)	43376	0D2Fh
Monitor area detail (the 189th word) (1)	43377	0D30h
Monitor area detail (the 189th word) (2)	43378	0D31h
Monitor area detail (the 190th word) (1)	43379	0D32h
Monitor area detail (the 190th word) (2)	43380	0D33h
Monitor area detail (the 191th word) (1)	43381	0D34h
Monitor area detail (the 191th word) (2)	43382	0D35h
Monitor area detail (the 192th word) (1)	43383	0D36h
Monitor area detail (the 192th word) (2)	43384	0D37h
Monitor area detail (the 193th word) (1)	43385	0D38h
Monitor area detail (the 193th word) (2)	43386	0D39h
Monitor area detail (the 194th word) (1)	43387	0D3Ah
Monitor area detail (the 194th word) (2)	43388	0D3Bh
Monitor area detail (the 195th word) (1)	43389	0D3Ch
Monitor area detail (the 195th word) (2)	43390	0D3Dh
Monitor area detail (the 196th word) (1)	43391	0D3Eh
Monitor area detail (the 196th word) (2)	43392	0D3Fh
Monitor area detail (the 197th word) (1)	43393	0D40h
Monitor area detail (the 197th word) (2)	43394	0D41h
Monitor area detail (the 198th word) (1)	43395	0D42h
Monitor area detail (the 198th word) (2)	43396	0D43h
Monitor area detail (the 199th word) (1)	43397	0D44h
Monitor area detail (the 199th word) (2)	43398	0D45h
Monitor area detail (the 200th word) (1)	43399	0D46h
Monitor area detail (the 200th word) (2)	43400	0D47h



Contents	Register No.	Relative address
Monitor area detail (the 201th word) (1)	43401	0D48h
Monitor area detail (the 201th word) (2)	43402	0D49h
Monitor area detail (the 202th word) (1)	43403	0D4Ah
Monitor area detail (the 202th word) (2)	43404	0D4Bh
Monitor area detail (the 203th word) (1)	43405	0D4Ch
Monitor area detail (the 203th word) (2)	43406	0D4Dh
Monitor area detail (the 204th word) (1)	43407	0D4Eh
Monitor area detail (the 204th word) (2)	43408	0D4Fh
Monitor area detail (the 205th word) (1)	43409	0D50h
Monitor area detail (the 205th word) (2)	43410	0D51h
Monitor area detail (the 206th word) (1)	43411	0D52h
Monitor area detail (the 206th word) (2)	43412	0D53h
Monitor area detail (the 207th word) (1)	43413	0D54h
Monitor area detail (the 207th word) (2)	43414	0D55h
Monitor area detail (the 208th word) (1)	43415	0D56h
Monitor area detail (the 208th word) (2)	43416	0D57h
Monitor area detail (the 209th word) (1)	43417	0D58h
Monitor area detail (the 209th word) (2)	43418	0D59h
Monitor area detail (the 210th word) (1)	43419	0D5Ah
Monitor area detail (the 210th word) (2)	43420	0D5Bh
Monitor area detail (the 211th word) (1)	43421	0D5Ch
Monitor area detail (the 211th word) (2)	43422	0D5Dh
Monitor area detail (the 212th word) (1)	43423	0D5Eh
Monitor area detail (the 212th word) (2)	43424	0D5Fh
Monitor area detail (the 213th word) (1)	43425	0D60h
Monitor area detail (the 213th word) (2)	43426	0D61h
Monitor area detail (the 214th word) (1)	43427	0D62h
Monitor area detail (the 214th word) (2)	43428	0D63h
Monitor area detail (the 215th word) (1)	43429	0D64h
Monitor area detail (the 215th word) (2)	43430	0D65h
Monitor area detail (the 216th word) (1)	43431	0D66h
Monitor area detail (the 216th word) (2)	43432	0D67h
Monitor area detail (the 217th word) (1)	43433	0D68h
Monitor area detail (the 217th word) (2)	43434	0D69h
Monitor area detail (the 218th word) (1)	43435	0D6Ah
Monitor area detail (the 218th word) (2)	43436	0D6Bh
Monitor area detail (the 219th word) (1)	43437	0D6Ch
Monitor area detail (the 219th word) (2)	43438	0D6Dh
Monitor area detail (the 220th word) (1)	43439	0D6Eh
Monitor area detail (the 220th word) (2)	43440	0D6Fh
Monitor area detail (the 221th word) (1)	43441	0D70h
Monitor area detail (the 221th word) (2)	43442	0D71h

Contents	Register No.	Relative address
Monitor area detail (the 222th word) (1)	43443	0D72h
Monitor area detail (the 222th word) (2)	43444	0D73h
Monitor area detail (the 223th word) (1)	43445	0D74h
Monitor area detail (the 223th word) (2)	43446	0D75h
Monitor area detail (the 224th word) (1)	43447	0D76h
Monitor area detail (the 224th word) (2)	43448	0D77h
Monitor area detail (the 225th word) (1)	43449	0D78h
Monitor area detail (the 225th word) (2)	43450	0D79h
Monitor area detail (the 226th word) (1)	43451	0D7Ah
Monitor area detail (the 226th word) (2)	43452	0D7Bh
Monitor area detail (the 227th word) (1)	43453	0D7Ch
Monitor area detail (the 227th word) (2)	43454	0D7Dh
Monitor area detail (the 228th word) (1)	43455	0D7Eh
Monitor area detail (the 228th word) (2)	43456	0D7Fh
Monitor area detail (the 229th word) (1)	43457	0D80h
Monitor area detail (the 229th word) (2)	43458	0D81h
Monitor area detail (the 230th word) (1)	43459	0D82h
Monitor area detail (the 230th word) (2)	43460	0D83h
Monitor area detail (the 231th word) (1)	43461	0D84h
Monitor area detail (the 231th word) (2)	43462	0D85h
Monitor area detail (the 232th word) (1)	43463	0D86h
Monitor area detail (the 232th word) (2)	43464	0D87h
Monitor area detail (the 233th word) (1)	43465	0D88h
Monitor area detail (the 233th word) (2)	43466	0D89h
Monitor area detail (the 234th word) (1)	43467	0D8Ah
Monitor area detail (the 234th word) (2)	43468	0D8Bh
Monitor area detail (the 235th word) (1)	43469	0D8Ch
Monitor area detail (the 235th word) (2)	43470	0D8Dh
Monitor area detail (the 236th word) (1)	43471	0D8Eh
Monitor area detail (the 236th word) (2)	43472	0D8Fh
Monitor area detail (the 237th word) (1)	43473	0D90h
Monitor area detail (the 237th word) (2)	43474	0D91h
Monitor area detail (the 238th word) (1)	43475	0D92h
Monitor area detail (the 238th word) (2)	43476	0D93h
Monitor area detail (the 239th word) (1)	43477	0D94h
Monitor area detail (the 239th word) (2)	43478	0D95h
Monitor area detail (the 240th word) (1)	43479	0D96h
Monitor area detail (the 240th word) (2)	43480	0D97h
Monitor area detail (the 241th word) (1)	43481	0D98h
Monitor area detail (the 241th word) (2)	43482	0D99h
Monitor area detail (the 242th word) (1)	43483	0D9Ah
Monitor area detail (the 242th word) (2)	43484	0D9Bh

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Contents	Register No.	Relative address
Monitor area detail (the 243th word) (1)	43485	0D9Ch
Monitor area detail (the 243th word) (2)	43486	0D9Dh
Monitor area detail (the 244th word) (1)	43487	0D9Eh
Monitor area detail (the 244th word) (2)	43488	0D9Fh
Monitor area detail (the 245th word) (1)	43489	0DA0h
Monitor area detail (the 245th word) (2)	43490	0DA1h
Monitor area detail (the 246th word) (1)	43491	0DA2h
Monitor area detail (the 246th word) (2)	43492	0DA3h
Monitor area detail (the 247th word) (1)	43493	0DA4h
Monitor area detail (the 247th word) (2)	43494	0DA5h
Monitor area detail (the 248th word) (1)	43495	0DA6h
Monitor area detail (the 248th word) (2)	43496	0DA7h
Monitor area detail (the 249th word) (1)	43497	0DA8h
Monitor area detail (the 249th word) (2)	43498	0DA9h
Monitor area detail (the 250th word) (1)	43499	0DAAh
Monitor area detail (the 250th word) (2)	43500	0DABh
Monitor area detail (the 251th word) (1)	43501	0DACH
Monitor area detail (the 251th word) (2)	43502	0DADh
Monitor area detail (the 252th word) (1)	43503	0DAEh
Monitor area detail (the 252th word) (2)	43504	0DAFh
Monitor area detail (the 253th word) (1)	43505	0DB0h
Monitor area detail (the 253th word) (2)	43506	0DB1h
Monitor area detail (the 254th word) (1)	43507	0DB2h
Monitor area detail (the 254th word) (2)	43508	0DB3h
Monitor area detail (the 255th word) (1)	43509	0DB4h
Monitor area detail (the 255th word) (2)	43510	0DB5h
Monitor area detail (the 256th word) (1)	43511	0DB6h
Monitor area detail (the 256th word) (2)	43512	0DB7h
Monitor area detail (the 257th word) (1)	43513	0DB8h
Monitor area detail (the 257th word) (2)	43514	0DB9h
Monitor area detail (the 258th word) (1)	43515	0DBAh
Monitor area detail (the 258th word) (2)	43516	0DBBh
Monitor area detail (the 259th word) (1)	43517	0DBCh
Monitor area detail (the 259th word) (2)	43518	0DBDh
Monitor area detail (the 260th word) (1)	43519	0DBEh
Monitor area detail (the 260th word) (2)	43520	0DBFh
Monitor area detail (the 261th word) (1)	43521	0DC0h
Monitor area detail (the 261th word) (2)	43522	0DC1h
Monitor area detail (the 262th word) (1)	43523	0DC2h
Monitor area detail (the 262th word) (2)	43524	0DC3h
Monitor area detail (the 263th word) (1)	43525	0DC4h
Monitor area detail (the 263th word) (2)	43526	0DC5h

Contents	Register No.	Relative address
Monitor area detail (the 264th word) (1)	43527	0DC6h
Monitor area detail (the 264th word) (2)	43528	0DC7h
Monitor area detail (the 265th word) (1)	43529	0DC8h
Monitor area detail (the 265th word) (2)	43530	0DC9h
Monitor area detail (the 266th word) (1)	43531	0DCAh
Monitor area detail (the 266th word) (2)	43532	0DCBh
Monitor area detail (the 267th word) (1)	43533	0DCCh
Monitor area detail (the 267th word) (2)	43534	0DCDh
Monitor area detail (the 268th word) (1)	43535	0DCEh
Monitor area detail (the 268th word) (2)	43536	0DCFh
Monitor area detail (the 269th word) (1)	43537	0DD0h
Monitor area detail (the 269th word) (2)	43538	0DD1h
Monitor area detail (the 270th word) (1)	43539	0DD2h
Monitor area detail (the 270th word) (2)	43540	0DD3h
Monitor area detail (the 271th word) (1)	43541	0DD4h
Monitor area detail (the 271th word) (2)	43542	0DD5h
Monitor area detail (the 272th word) (1)	43543	0DD6h
Monitor area detail (the 272th word) (2)	43544	0DD7h
Monitor area detail (the 273th word) (1)	43545	0DD8h
Monitor area detail (the 273th word) (2)	43546	0DD9h
Monitor area detail (the 274th word) (1)	43547	0DDAh
Monitor area detail (the 274th word) (2)	43548	0DDBh
Monitor area detail (the 275th word) (1)	43549	0DDCh
Monitor area detail (the 275th word) (2)	43550	0DDDh
Monitor area detail (the 276th word) (1)	43551	0DDEh
Monitor area detail (the 276th word) (2)	43552	0DDFh
Monitor area detail (the 277th word) (1)	43553	0DE0h
Monitor area detail (the 277th word) (2)	43554	0DE1h
Monitor area detail (the 278th word) (1)	43555	0DE2h
Monitor area detail (the 278th word) (2)	43556	0DE3h
Monitor area detail (the 279th word) (1)	43557	0DE4h
Monitor area detail (the 279th word) (2)	43558	0DE5h
Monitor area detail (the 280th word) (1)	43559	0DE6h
Monitor area detail (the 280th word) (2)	43560	0DE7h
Monitor area detail (the 281th word) (1)	43561	0DE8h
Monitor area detail (the 281th word) (2)	43562	0DE9h
Monitor area detail (the 282th word) (1)	43563	0DEAh
Monitor area detail (the 282th word) (2)	43564	0DEBh
Monitor area detail (the 283th word) (1)	43565	0DECCh
Monitor area detail (the 283th word) (2)	43566	0DEDh
Monitor area detail (the 284th word) (1)	43567	0DEEh
Monitor area detail (the 284th word) (2)	43568	0DEFh

Contents	Register No.	Relative address
Monitor area detail (the 285th word) (1)	43569	0DF0h
Monitor area detail (the 285th word) (2)	43570	0DF1h
Monitor area detail (the 286th word) (1)	43571	0DF2h
Monitor area detail (the 286th word) (2)	43572	0DF3h
Monitor area detail (the 287th word) (1)	43573	0DF4h
Monitor area detail (the 287th word) (2)	43574	0DF5h
Monitor area detail (the 288th word) (1)	43575	0DF6h
Monitor area detail (the 288th word) (2)	43576	0DF7h
Monitor area detail (the 289th word) (1)	43577	0DF8h
Monitor area detail (the 289th word) (2)	43578	0DF9h
Monitor area detail (the 290th word) (1)	43579	0DFAh
Monitor area detail (the 290th word) (2)	43580	0DFBh
Monitor area detail (the 291th word) (1)	43581	0DFCh
Monitor area detail (the 291th word) (2)	43582	0DFDh
Monitor area detail (the 292th word) (1)	43583	0DFEh
Monitor area detail (the 292th word) (2)	43584	0DFFh
Monitor area detail (the 293th word) (1)	43585	0E00h
Monitor area detail (the 293th word) (2)	43586	0E01h
Monitor area detail (the 294th word) (1)	43587	0E02h
Monitor area detail (the 294th word) (2)	43588	0E03h
Monitor area detail (the 295th word) (1)	43589	0E04h
Monitor area detail (the 295th word) (2)	43590	0E05h
Monitor area detail (the 296th word) (1)	43591	0E06h
Monitor area detail (the 296th word) (2)	43592	0E07h
Monitor area detail (the 297th word) (1)	43593	0E08h
Monitor area detail (the 297th word) (2)	43594	0E09h
Monitor area detail (the 298th word) (1)	43595	0E0Ah
Monitor area detail (the 298th word) (2)	43596	0E0Bh
Monitor area detail (the 299th word) (1)	43597	0E0Ch
Monitor area detail (the 299th word) (2)	43598	0E0Dh
Monitor area detail (the 300th word) (1)	43599	0E0Eh
Monitor area detail (the 300th word) (2)	43600	0E0Fh
Monitor area detail (the 301th word) (1)	43601	0E10h
Monitor area detail (the 301th word) (2)	43602	0E11h
Monitor area detail (the 302th word) (1)	43603	0E12h
Monitor area detail (the 302th word) (2)	43604	0E13h
Monitor area detail (the 303th word) (1)	43605	0E14h
Monitor area detail (the 303th word) (2)	43606	0E15h
Monitor area detail (the 304th word) (1)	43607	0E16h
Monitor area detail (the 304th word) (2)	43608	0E17h
Monitor area detail (the 305th word) (1)	43609	0E18h
Monitor area detail (the 305th word) (2)	43610	0E19h

Contents	Register No.	Relative address
Monitor area detail (the 306th word) (1)	43611	0E1Ah
Monitor area detail (the 306th word) (2)	43612	0E1Bh
Monitor area detail (the 307th word) (1)	43613	0E1Ch
Monitor area detail (the 307th word) (2)	43614	0E1Dh
Monitor area detail (the 308th word) (1)	43615	0E1Eh
Monitor area detail (the 308th word) (2)	43616	0E1Fh
Monitor area detail (the 309th word) (1)	43617	0E20h
Monitor area detail (the 309th word) (2)	43618	0E21h
Monitor area detail (the 310th word) (1)	43619	0E22h
Monitor area detail (the 310th word) (2)	43620	0E23h
Monitor area detail (the 311th word) (1)	43621	0E24h
Monitor area detail (the 311th word) (2)	43622	0E25h
Monitor area detail (the 312th word) (1)	43623	0E26h
Monitor area detail (the 312th word) (2)	43624	0E27h
Monitor area detail (the 313th word) (1)	43625	0E28h
Monitor area detail (the 313th word) (2)	43626	0E29h
Monitor area detail (the 314th word) (1)	43627	0E2Ah
Monitor area detail (the 314th word) (2)	43628	0E2Bh
Monitor area detail (the 315th word) (1)	43629	0E2Ch
Monitor area detail (the 315th word) (2)	43630	0E2Dh
Monitor area detail (the 316th word) (1)	43631	0E2Eh
Monitor area detail (the 316th word) (2)	43632	0E2Fh
Monitor area detail (the 317th word) (1)	43633	0E30h
Monitor area detail (the 317th word) (2)	43634	0E31h
Monitor area detail (the 318th word) (1)	43635	0E32h
Monitor area detail (the 318th word) (2)	43636	0E33h
Monitor area detail (the 319th word) (1)	43637	0E34h
Monitor area detail (the 319th word) (2)	43638	0E35h
Monitor area detail (the 320th word) (1)	43639	0E36h
Monitor area detail (the 320th word) (2)	43640	0E37h
Monitor area detail (the 321th word) (1)	43641	0E38h
Monitor area detail (the 321th word) (2)	43642	0E39h
Monitor area detail (the 322th word) (1)	43643	0E3Ah
Monitor area detail (the 322th word) (2)	43644	0E3Bh
Monitor area detail (the 323th word) (1)	43645	0E3Ch
Monitor area detail (the 323th word) (2)	43646	0E3Dh
Monitor area detail (the 324th word) (1)	43647	0E3Eh
Monitor area detail (the 324th word) (2)	43648	0E3Fh
Monitor area detail (the 325th word) (1)	43649	0E40h
Monitor area detail (the 325th word) (2)	43650	0E41h
Monitor area detail (the 326th word) (1)	43651	0E42h
Monitor area detail (the 326th word) (2)	43652	0E43h



## 5.4 Address Map and Data Format

Contents	Register No.	Relative address
Monitor area detail (the 327th word) (1)	43653	0E44h
Monitor area detail (the 327th word) (2)	43654	0E45h
Monitor area detail (the 328th word) (1)	43655	0E46h
Monitor area detail (the 328th word) (2)	43656	0E47h
Monitor area detail (the 329th word) (1)	43657	0E48h
Monitor area detail (the 329th word) (2)	43658	0E49h
Monitor area detail (the 330th word) (1)	43659	0E4Ah
Monitor area detail (the 330th word) (2)	43660	0E4Bh
Monitor area detail (the 331th word) (1)	43661	0E4Ch
Monitor area detail (the 331th word) (2)	43662	0E4Dh
Monitor area detail (the 332th word) (1)	43663	0E4Eh
Monitor area detail (the 332th word) (2)	43664	0E4Fh
Monitor area detail (the 333th word) (1)	43665	0E50h
Monitor area detail (the 333th word) (2)	43666	0E51h
Monitor area detail (the 334th word) (1)	43667	0E52h
Monitor area detail (the 334th word) (2)	43668	0E53h
Monitor area detail (the 335th word) (1)	43669	0E54h
Monitor area detail (the 335th word) (2)	43670	0E55h
Monitor area detail (the 336th word) (1)	43671	0E56h
Monitor area detail (the 336th word) (2)	43672	0E57h
Monitor area detail (the 337th word) (1)	43673	0E58h
Monitor area detail (the 337th word) (2)	43674	0E59h
Monitor area detail (the 338th word) (1)	43675	0E5Ah
Monitor area detail (the 338th word) (2)	43676	0E5Bh
Monitor area detail (the 339th word) (1)	43677	0E5Ch
Monitor area detail (the 339th word) (2)	43678	0E5Dh
Monitor area detail (the 340th word) (1)	43679	0E5Eh
Monitor area detail (the 340th word) (2)	43680	0E5Fh
Monitor area detail (the 341th word) (1)	43681	0E60h
Monitor area detail (the 341th word) (2)	43682	0E61h
Monitor area detail (the 342th word) (1)	43683	0E62h
Monitor area detail (the 342th word) (2)	43684	0E63h
Monitor area detail (the 343th word) (1)	43685	0E64h
Monitor area detail (the 343th word) (2)	43686	0E65h
Monitor area detail (the 344th word) (1)	43687	0E66h
Monitor area detail (the 344th word) (2)	43688	0E67h
Monitor area detail (the 345th word) (1)	43689	0E68h
Monitor area detail (the 345th word) (2)	43690	0E69h
Monitor area detail (the 346th word) (1)	43691	0E6Ah
Monitor area detail (the 346th word) (2)	43692	0E6Bh
Monitor area detail (the 347th word) (1)	43693	0E6Ch
Monitor area detail (the 347th word) (2)	43694	0E6Dh

Contents	Register No.	Relative address
Monitor area detail (the 348th word) (1)	43695	0E6Eh
Monitor area detail (the 348th word) (2)	43696	0E6Fh
Monitor area detail (the 349th word) (1)	43697	0E70h
Monitor area detail (the 349th word) (2)	43698	0E71h
Monitor area detail (the 350th word) (1)	43699	0E72h
Monitor area detail (the 350th word) (2)	43700	0E73h
Monitor area detail (the 351th word) (1)	43701	0E74h
Monitor area detail (the 351th word) (2)	43702	0E75h
Monitor area detail (the 352th word) (1)	43703	0E76h
Monitor area detail (the 352th word) (2)	43704	0E77h
Monitor area detail (the 353th word) (1)	43705	0E78h
Monitor area detail (the 353th word) (2)	43706	0E79h
Monitor area detail (the 354th word) (1)	43707	0E7Ah
Monitor area detail (the 354th word) (2)	43708	0E7Bh
Monitor area detail (the 355th word) (1)	43709	0E7Ch
Monitor area detail (the 355th word) (2)	43710	0E7Dh
Monitor area detail (the 356th word) (1)	43711	0E7Eh
Monitor area detail (the 356th word) (2)	43712	0E7Fh
Monitor area detail (the 357th word) (1)	43713	0E80h
Monitor area detail (the 357th word) (2)	43714	0E81h
Monitor area detail (the 358th word) (1)	43715	0E82h
Monitor area detail (the 358th word) (2)	43716	0E83h
Monitor area detail (the 359th word) (1)	43717	0E84h
Monitor area detail (the 359th word) (2)	43718	0E85h
Monitor area detail (the 360th word) (1)	43719	0E86h
Monitor area detail (the 360th word) (2)	43720	0E87h
Monitor area detail (the 361th word) (1)	43721	0E88h
Monitor area detail (the 361th word) (2)	43722	0E89h
Monitor area detail (the 362th word) (1)	43723	0E8Ah
Monitor area detail (the 362th word) (2)	43724	0E8Bh
Monitor area detail (the 363th word) (1)	43725	0E8Ch
Monitor area detail (the 363th word) (2)	43726	0E8Dh
Monitor area detail (the 364th word) (1)	43727	0E8Eh
Monitor area detail (the 364th word) (2)	43728	0E8Fh
Monitor area detail (the 365th word) (1)	43729	0E90h
Monitor area detail (the 365th word) (2)	43730	0E91h
Monitor area detail (the 366th word) (1)	43731	0E92h
Monitor area detail (the 366th word) (2)	43732	0E93h
Monitor area detail (the 367th word) (1)	43733	0E94h
Monitor area detail (the 367th word) (2)	43734	0E95h
Monitor area detail (the 368th word) (1)	43735	0E96h
Monitor area detail (the 368th word) (2)	43736	0E97h

Contents	Register No.	Relative address
Monitor area detail (the 369th word) (1)	43737	0E98h
Monitor area detail (the 369th word) (2)	43738	0E99h
Monitor area detail (the 370th word) (1)	43739	0E9Ah
Monitor area detail (the 370th word) (2)	43740	0E9Bh
Monitor area detail (the 371th word) (1)	43741	0E9Ch
Monitor area detail (the 371th word) (2)	43742	0E9Dh
Monitor area detail (the 372th word) (1)	43743	0E9Eh
Monitor area detail (the 372th word) (2)	43744	0E9Fh
Monitor area detail (the 373th word) (1)	43745	0EA0h
Monitor area detail (the 373th word) (2)	43746	0EA1h
Monitor area detail (the 374th word) (1)	43747	0EA2h
Monitor area detail (the 374th word) (2)	43748	0EA3h
Monitor area detail (the 375th word) (1)	43749	0EA4h
Monitor area detail (the 375th word) (2)	43750	0EA5h
Monitor area detail (the 376th word) (1)	43751	0EA6h
Monitor area detail (the 376th word) (2)	43752	0EA7h
Monitor area detail (the 377th word) (1)	43753	0EA8h
Monitor area detail (the 377th word) (2)	43754	0EA9h
Monitor area detail (the 378th word) (1)	43755	0EAAh
Monitor area detail (the 378th word) (2)	43756	0EABh
Monitor area detail (the 379th word) (1)	43757	0EACH
Monitor area detail (the 379th word) (2)	43758	0EADh
Monitor area detail (the 380th word) (1)	43759	0EAEh
Monitor area detail (the 380th word) (2)	43760	0EAFh
Monitor area detail (the 381th word) (1)	43761	0EB0h
Monitor area detail (the 381th word) (2)	43762	0EB1h
Monitor area detail (the 382th word) (1)	43763	0EB2h
Monitor area detail (the 382th word) (2)	43764	0EB3h
Monitor area detail (the 383th word) (1)	43765	0EB4h
Monitor area detail (the 383th word) (2)	43766	0EB5h
Monitor area detail (the 384th word) (1)	43767	0EB6h
Monitor area detail (the 384th word) (2)	43768	0EB7h
Monitor area detail (the 385th word) (1)	43769	0EB8h
Monitor area detail (the 385th word) (2)	43770	0EB9h
Monitor area detail (the 386th word) (1)	43771	0EBAh
Monitor area detail (the 386th word) (2)	43772	0EBBh
Monitor area detail (the 387th word) (1)	43773	0EBCh
Monitor area detail (the 387th word) (2)	43774	0EBDh
Monitor area detail (the 388th word) (1)	43775	0EBEh
Monitor area detail (the 388th word) (2)	43776	0EBFh
Monitor area detail (the 389th word) (1)	43777	0EC0h
Monitor area detail (the 389th word) (2)	43778	0EC1h

Contents	Register No.	Relative address
Monitor area detail (the 390th word) (1)	43779	0EC2h
Monitor area detail (the 390th word) (2)	43780	0EC3h
Monitor area detail (the 391th word) (1)	43781	0EC4h
Monitor area detail (the 391th word) (2)	43782	0EC5h
Monitor area detail (the 392th word) (1)	43783	0EC6h
Monitor area detail (the 392th word) (2)	43784	0EC7h
Monitor area detail (the 393th word) (1)	43785	0EC8h
Monitor area detail (the 393th word) (2)	43786	0EC9h
Monitor area detail (the 394th word) (1)	43787	0ECAh
Monitor area detail (the 394th word) (2)	43788	0ECBh
Monitor area detail (the 395th word) (1)	43789	0ECCh
Monitor area detail (the 395th word) (2)	43790	0ECDh
Monitor area detail (the 396th word) (1)	43791	0ECEh
Monitor area detail (the 396th word) (2)	43792	0ECFh
Monitor area detail (the 397th word) (1)	43793	0ED0h
Monitor area detail (the 397th word) (2)	43794	0ED1h
Monitor area detail (the 398th word) (1)	43795	0ED2h
Monitor area detail (the 398th word) (2)	43796	0ED3h
Monitor area detail (the 399th word) (1)	43797	0ED4h
Monitor area detail (the 399th word) (2)	43798	0ED5h
Monitor area detail (the 400th word) (1)	43799	0ED6h
Monitor area detail (the 400th word) (2)	43800	0ED7h
Monitor area detail (the 401th word) (1)	43801	0ED8h
Monitor area detail (the 401th word) (2)	43802	0ED9h
Monitor area detail (the 402th word) (1)	43803	0EDAh
Monitor area detail (the 402th word) (2)	43804	0EDBh
Monitor area detail (the 403th word) (1)	43805	0EDCh
Monitor area detail (the 403th word) (2)	43806	0EDDh
Monitor area detail (the 404th word) (1)	43807	0EDEh
Monitor area detail (the 404th word) (2)	43808	0EDFh
Monitor area detail (the 405th word) (1)	43809	0EE0h
Monitor area detail (the 405th word) (2)	43810	0EE1h
Monitor area detail (the 406th word) (1)	43811	0EE2h
Monitor area detail (the 406th word) (2)	43812	0EE3h
Monitor area detail (the 407th word) (1)	43813	0EE4h
Monitor area detail (the 407th word) (2)	43814	0EE5h
Monitor area detail (the 408th word) (1)	43815	0EE6h
Monitor area detail (the 408th word) (2)	43816	0EE7h
Monitor area detail (the 409th word) (1)	43817	0EE8h
Monitor area detail (the 409th word) (2)	43818	0EE9h
Monitor area detail (the 410th word) (1)	43819	0EEAh
Monitor area detail (the 410th word) (2)	43820	0EEBh

## 5.4 Address Map and Data Format

Contents	Register No.	Relative address
Monitor area detail (the 411th word) (1)	43821	0EECh
Monitor area detail (the 411th word) (2)	43822	0EEDh
Monitor area detail (the 412th word) (1)	43823	0EEEh
Monitor area detail (the 412th word) (2)	43824	0EEFh
Monitor area detail (the 413th word) (1)	43825	0EF0h
Monitor area detail (the 413th word) (2)	43826	0EF1h
Monitor area detail (the 414th word) (1)	43827	0EF2h
Monitor area detail (the 414th word) (2)	43828	0EF3h
Monitor area detail (the 415th word) (1)	43829	0EF4h
Monitor area detail (the 415th word) (2)	43830	0EF5h
Monitor area detail (the 416th word) (1)	43831	0EF6h
Monitor area detail (the 416th word) (2)	43832	0EF7h
Monitor area detail (the 417th word) (1)	43833	0EF8h
Monitor area detail (the 417th word) (2)	43834	0EF9h
Monitor area detail (the 418th word) (1)	43835	0EFAh
Monitor area detail (the 418th word) (2)	43836	0EFBh
Monitor area detail (the 419th word) (1)	43837	0EFCh
Monitor area detail (the 419th word) (2)	43838	0EFDh
Monitor area detail (the 420th word) (1)	43839	0EFEh
Monitor area detail (the 420th word) (2)	43840	0EFFh
Monitor area detail (the 421th word) (1)	43841	0F00h
Monitor area detail (the 421th word) (2)	43842	0F01h
Monitor area detail (the 422th word) (1)	43843	0F02h
Monitor area detail (the 422th word) (2)	43844	0F03h
Monitor area detail (the 423th word) (1)	43845	0F04h
Monitor area detail (the 423th word) (2)	43846	0F05h
Monitor area detail (the 424th word) (1)	43847	0F06h
Monitor area detail (the 424th word) (2)	43848	0F07h
Monitor area detail (the 425th word) (1)	43849	0F08h
Monitor area detail (the 425th word) (2)	43850	0F09h
Monitor area detail (the 426th word) (1)	43851	0F0Ah
Monitor area detail (the 426th word) (2)	43852	0F0Bh
Monitor area detail (the 427th word) (1)	43853	0F0Ch
Monitor area detail (the 427th word) (2)	43854	0F0Dh
Monitor area detail (the 428th word) (1)	43855	0F0Eh
Monitor area detail (the 428th word) (2)	43856	0F0Fh
Monitor area detail (the 429th word) (1)	43857	0F10h
Monitor area detail (the 429th word) (2)	43858	0F11h
Monitor area detail (the 430th word) (1)	43859	0F12h
Monitor area detail (the 430th word) (2)	43860	0F13h
Monitor area detail (the 431th word) (1)	43861	0F14h
Monitor area detail (the 431th word) (2)	43862	0F15h

Contents	Register No.	Relative address
Monitor area detail (the 432th word) (1)	43863	0F16h
Monitor area detail (the 432th word) (2)	43864	0F17h
Monitor area detail (the 433th word) (1)	43865	0F18h
Monitor area detail (the 433th word) (2)	43866	0F19h
Monitor area detail (the 434th word) (1)	43867	0F1Ah
Monitor area detail (the 434th word) (2)	43868	0F1Bh
Monitor area detail (the 435th word) (1)	43869	0F1Ch
Monitor area detail (the 435th word) (2)	43870	0F1Dh
Monitor area detail (the 436th word) (1)	43871	0F1Eh
Monitor area detail (the 436th word) (2)	43872	0F1Fh
Monitor area detail (the 437th word) (1)	43873	0F20h
Monitor area detail (the 437th word) (2)	43874	0F21h
Monitor area detail (the 438th word) (1)	43875	0F22h
Monitor area detail (the 438th word) (2)	43876	0F23h
Monitor area detail (the 439th word) (1)	43877	0F24h
Monitor area detail (the 439th word) (2)	43878	0F25h
Monitor area detail (the 440th word) (1)	43879	0F26h
Monitor area detail (the 440th word) (2)	43880	0F27h
Monitor area detail (the 441th word) (1)	43881	0F28h
Monitor area detail (the 441th word) (2)	43882	0F29h
Monitor area detail (the 442th word) (1)	43883	0F2Ah
Monitor area detail (the 442th word) (2)	43884	0F2Bh
Monitor area detail (the 443th word) (1)	43885	0F2Ch
Monitor area detail (the 443th word) (2)	43886	0F2Dh
Monitor area detail (the 444th word) (1)	43887	0F2Eh
Monitor area detail (the 444th word) (2)	43888	0F2Fh
Monitor area detail (the 445th word) (1)	43889	0F30h
Monitor area detail (the 445th word) (2)	43890	0F31h
Monitor area detail (the 446th word) (1)	43891	0F32h
Monitor area detail (the 446th word) (2)	43892	0F33h
Monitor area detail (the 447th word) (1)	43893	0F34h
Monitor area detail (the 447th word) (2)	43894	0F35h
Monitor area detail (the 448th word) (1)	43895	0F36h
Monitor area detail (the 448th word) (2)	43896	0F37h
Monitor area detail (the 449th word) (1)	43897	0F38h
Monitor area detail (the 449th word) (2)	43898	0F39h
Monitor area detail (the 450th word) (1)	43899	0F3Ah
Monitor area detail (the 450th word) (2)	43900	0F3Bh
Monitor area detail (the 451th word) (1)	43901	0F3Ch
Monitor area detail (the 451th word) (2)	43902	0F3Dh
Monitor area detail (the 452th word) (1)	43903	0F3Eh
Monitor area detail (the 452th word) (2)	43904	0F3Fh

Contents	Register No.	Relative address
Monitor area detail (the 453th word) (1)	43905	0F40h
Monitor area detail (the 453th word) (2)	43906	0F41h
Monitor area detail (the 454th word) (1)	43907	0F42h
Monitor area detail (the 454th word) (2)	43908	0F43h
Monitor area detail (the 455th word) (1)	43909	0F44h
Monitor area detail (the 455th word) (2)	43910	0F45h
Monitor area detail (the 456th word) (1)	43911	0F46h
Monitor area detail (the 456th word) (2)	43912	0F47h
Monitor area detail (the 457th word) (1)	43913	0F48h
Monitor area detail (the 457th word) (2)	43914	0F49h
Monitor area detail (the 458th word) (1)	43915	0F4Ah
Monitor area detail (the 458th word) (2)	43916	0F4Bh
Monitor area detail (the 459th word) (1)	43917	0F4Ch
Monitor area detail (the 459th word) (2)	43918	0F4Dh
Monitor area detail (the 460th word) (1)	43919	0F4Eh
Monitor area detail (the 460th word) (2)	43920	0F4Fh
Monitor area detail (the 461th word) (1)	43921	0F50h
Monitor area detail (the 461th word) (2)	43922	0F51h
Monitor area detail (the 462th word) (1)	43923	0F52h
Monitor area detail (the 462th word) (2)	43924	0F53h
Monitor area detail (the 463th word) (1)	43925	0F54h
Monitor area detail (the 463th word) (2)	43926	0F55h
Monitor area detail (the 464th word) (1)	43927	0F56h
Monitor area detail (the 464th word) (2)	43928	0F57h
Monitor area detail (the 465th word) (1)	43929	0F58h
Monitor area detail (the 465th word) (2)	43930	0F59h
Monitor area detail (the 466th word) (1)	43931	0F5Ah
Monitor area detail (the 466th word) (2)	43932	0F5Bh
Monitor area detail (the 467th word) (1)	43933	0F5Ch
Monitor area detail (the 467th word) (2)	43934	0F5Dh
Monitor area detail (the 468th word) (1)	43935	0F5Eh
Monitor area detail (the 468th word) (2)	43936	0F5Fh
Monitor area detail (the 469th word) (1)	43937	0F60h
Monitor area detail (the 469th word) (2)	43938	0F61h
Monitor area detail (the 470th word) (1)	43939	0F62h
Monitor area detail (the 470th word) (2)	43940	0F63h
Monitor area detail (the 471th word) (1)	43941	0F64h
Monitor area detail (the 471th word) (2)	43942	0F65h
Monitor area detail (the 472th word) (1)	43943	0F66h
Monitor area detail (the 472th word) (2)	43944	0F67h
Monitor area detail (the 473th word) (1)	43945	0F68h
Monitor area detail (the 473th word) (2)	43946	0F69h

Contents	Register No.	Relative address
Monitor area detail (the 474th word) (1)	43947	0F6Ah
Monitor area detail (the 474th word) (2)	43948	0F6Bh
Monitor area detail (the 475th word) (1)	43949	0F6Ch
Monitor area detail (the 475th word) (2)	43950	0F6Dh
Monitor area detail (the 476th word) (1)	43951	0F6Eh
Monitor area detail (the 476th word) (2)	43952	0F6Fh
Monitor area detail (the 477th word) (1)	43953	0F70h
Monitor area detail (the 477th word) (2)	43954	0F71h
Monitor area detail (the 478th word) (1)	43955	0F72h
Monitor area detail (the 478th word) (2)	43956	0F73h
Monitor area detail (the 479th word) (1)	43957	0F74h
Monitor area detail (the 479th word) (2)	43958	0F75h
Monitor area detail (the 480th word) (1)	43959	0F76h
Monitor area detail (the 480th word) (2)	43960	0F77h
Monitor area detail (the 481th word) (1)	43961	0F78h
Monitor area detail (the 481th word) (2)	43962	0F79h
Monitor area detail (the 482th word) (1)	43963	0F7Ah
Monitor area detail (the 482th word) (2)	43964	0F7Bh
Monitor area detail (the 483th word) (1)	43965	0F7Ch
Monitor area detail (the 483th word) (2)	43966	0F7Dh
Monitor area detail (the 484th word) (1)	43967	0F7Eh
Monitor area detail (the 484th word) (2)	43968	0F7Fh
Monitor area detail (the 485th word) (1)	43969	0F80h
Monitor area detail (the 485th word) (2)	43970	0F81h
Monitor area detail (the 486th word) (1)	43971	0F82h
Monitor area detail (the 486th word) (2)	43972	0F83h
Monitor area detail (the 487th word) (1)	43973	0F84h
Monitor area detail (the 487th word) (2)	43974	0F85h
Monitor area detail (the 488th word) (1)	43975	0F86h
Monitor area detail (the 488th word) (2)	43976	0F87h
Monitor area detail (the 489th word) (1)	43977	0F88h
Monitor area detail (the 489th word) (2)	43978	0F89h
Monitor area detail (the 490th word) (1)	43979	0F8Ah
Monitor area detail (the 490th word) (2)	43980	0F8Bh
Monitor area detail (the 491th word) (1)	43981	0F8Ch
Monitor area detail (the 491th word) (2)	43982	0F8Dh
Monitor area detail (the 492th word) (1)	43983	0F8Eh
Monitor area detail (the 492th word) (2)	43984	0F8Fh
Monitor area detail (the 493th word) (1)	43985	0F90h
Monitor area detail (the 493th word) (2)	43986	0F91h
Monitor area detail (the 494th word) (1)	43987	0F92h
Monitor area detail (the 494th word) (2)	43988	0F93h

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Contents	Register No.	Relative address
Monitor area detail (the 495th word) (1)	43989	0F94h
Monitor area detail (the 495th word) (2)	43990	0F95h
Monitor area detail (the 496th word) (1)	43991	0F96h
Monitor area detail (the 496th word) (2)	43992	0F97h
Monitor area detail (the 497th word) (1)	43993	0F98h
Monitor area detail (the 497th word) (2)	43994	0F99h
Monitor area detail (the 498th word) (1)	43995	0F9Ah
Monitor area detail (the 498th word) (2)	43996	0F9Bh
Monitor area detail (the 499th word) (1)	43997	0F9Ch
Monitor area detail (the 499th word) (2)	43998	0F9Dh
Monitor area detail (the 500th word) (1)	43999	0F9Eh
Monitor area detail (the 500th word) (2)	44000	0F9Fh
Monitor area detail (the 501th word) (1)	44001	0FA0h
Monitor area detail (the 501th word) (2)	44002	0FA1h
Monitor area detail (the 502th word) (1)	44003	0FA2h
Monitor area detail (the 502th word) (2)	44004	0FA3h
Monitor area detail (the 503th word) (1)	44005	0FA4h
Monitor area detail (the 503th word) (2)	44006	0FA5h
Monitor area detail (the 504th word) (1)	44007	0FA6h
Monitor area detail (the 504th word) (2)	44008	0FA7h
Monitor area detail (the 505th word) (1)	44009	0FA8h
Monitor area detail (the 505th word) (2)	44010	0FA9h
Monitor area detail (the 506th word) (1)	44011	0FAAh
Monitor area detail (the 506th word) (2)	44012	0FABh
Monitor area detail (the 507th word) (1)	44013	0FACh
Monitor area detail (the 507th word) (2)	44014	0FADh
Monitor area detail (the 508th word) (1)	44015	0FAEh
Monitor area detail (the 508th word) (2)	44016	0FAFh
Monitor area detail (the 509th word) (1)	44017	0FB0h
Monitor area detail (the 509th word) (2)	44018	0FB1h
Monitor area detail (the 510th word) (1)	44019	0FB2h
Monitor area detail (the 510th word) (2)	44020	0FB3h
Monitor area detail (the 511th word) (1)	44021	0FB4h
Monitor area detail (the 511th word) (2)	44022	0FB5h
Monitor area detail (the 512th word) (1)	44023	0FB6h
Monitor area detail (the 512th word) (2)	44024	0FB7h
Monitor area detail (the 513th word) (1)	44025	0FB8h
Monitor area detail (the 513th word) (2)	44026	0FB9h
Monitor area detail (the 514th word) (1)	44027	0FBAh
Monitor area detail (the 514th word) (2)	44028	0FBBh
Monitor area detail (the 515th word) (1)	44029	0FBCh
Monitor area detail (the 515th word) (2)	44030	0FBDh

Contents	Register No.	Relative address
Monitor area detail (the 516th word) (1)	44031	0FBEh
Monitor area detail (the 516th word) (2)	44032	0FBFh
Monitor area detail (the 517th word) (1)	44033	0FC0h
Monitor area detail (the 517th word) (2)	44034	0FC1h
Monitor area detail (the 518th word) (1)	44035	0FC2h
Monitor area detail (the 518th word) (2)	44036	0FC3h
Monitor area detail (the 519th word) (1)	44037	0FC4h
Monitor area detail (the 519th word) (2)	44038	0FC5h
Monitor area detail (the 520th word) (1)	44039	0FC6h
Monitor area detail (the 520th word) (2)	44040	0FC7h
Monitor area detail (the 521th word) (1)	44041	0FC8h
Monitor area detail (the 521th word) (2)	44042	0FC9h
Monitor area detail (the 522th word) (1)	44043	0FCAh
Monitor area detail (the 522th word) (2)	44044	0FCBh
Monitor area detail (the 523th word) (1)	44045	0FCCCh
Monitor area detail (the 523th word) (2)	44046	0FCDh
Monitor area detail (the 524th word) (1)	44047	0FCEh
Monitor area detail (the 524th word) (2)	44048	0FCFh
Monitor area detail (the 525th word) (1)	44049	0FD0h
Monitor area detail (the 525th word) (2)	44050	0FD1h
Monitor area detail (the 526th word) (1)	44051	0FD2h
Monitor area detail (the 526th word) (2)	44052	0FD3h
Monitor area detail (the 527th word) (1)	44053	0FD4h
Monitor area detail (the 527th word) (2)	44054	0FD5h
Monitor area detail (the 528th word) (1)	44055	0FD6h
Monitor area detail (the 528th word) (2)	44056	0FD7h
Monitor area detail (the 529th word) (1)	44057	0FD8h
Monitor area detail (the 529th word) (2)	44058	0FD9h
Monitor area detail (the 530th word) (1)	44059	0FDAh
Monitor area detail (the 530th word) (2)	44060	0FDBh
Monitor area detail (the 531th word) (1)	44061	0FDCCh
Monitor area detail (the 531th word) (2)	44062	0FDDh
Monitor area detail (the 532th word) (1)	44063	0FDEh
Monitor area detail (the 532th word) (2)	44064	0FDFh
Monitor area detail (the 533th word) (1)	44065	0FE0h
Monitor area detail (the 533th word) (2)	44066	0FE1h
Monitor area detail (the 534th word) (1)	44067	0FE2h
Monitor area detail (the 534th word) (2)	44068	0FE3h
Monitor area detail (the 535th word) (1)	44069	0FE4h
Monitor area detail (the 535th word) (2)	44070	0FE5h
Monitor area detail (the 536th word) (1)	44071	0FE6h
Monitor area detail (the 536th word) (2)	44072	0FE7h



Contents	Register No.	Relative address
Monitor area detail (the 537th word) (1)	44073	0FE8h
Monitor area detail (the 537th word) (2)	44074	0FE9h
Monitor area detail (the 538th word) (1)	44075	0FEAh
Monitor area detail (the 538th word) (2)	44076	0FEBh
Monitor area detail (the 539th word) (1)	44077	0FECb
Monitor area detail (the 539th word) (2)	44078	0FEDh
Monitor area detail (the 540th word) (1)	44079	0FEEh
Monitor area detail (the 540th word) (2)	44080	0FEFh
Monitor area detail (the 541th word) (1)	44081	0FF0h
Monitor area detail (the 541th word) (2)	44082	0FF1h
Monitor area detail (the 542th word) (1)	44083	0FF2h
Monitor area detail (the 542th word) (2)	44084	0FF3h
Monitor area detail (the 543th word) (1)	44085	0FF4h
Monitor area detail (the 543th word) (2)	44086	0FF5h
Monitor area detail (the 544th word) (1)	44087	0FF6h
Monitor area detail (the 544th word) (2)	44088	0FF7h
Monitor area detail (the 545th word) (1)	44089	0FF8h
Monitor area detail (the 545th word) (2)	44090	0FF9h
Monitor area detail (the 546th word) (1)	44091	0FFAh
Monitor area detail (the 546th word) (2)	44092	0FFBh
Monitor area detail (the 547th word) (1)	44093	0FFCb
Monitor area detail (the 547th word) (2)	44094	0FFDh
Monitor area detail (the 548th word) (1)	44095	0FFEh
Monitor area detail (the 548th word) (2)	44096	0FFFh
Monitor area detail (the 549th word) (1)	44097	1000h
Monitor area detail (the 549th word) (2)	44098	1001h
Monitor area detail (the 550th word) (1)	44099	1002h
Monitor area detail (the 550th word) (2)	44100	1003h
Monitor area detail (the 551th word) (1)	44101	1004h
Monitor area detail (the 551th word) (2)	44102	1005h
Monitor area detail (the 552th word) (1)	44103	1006h
Monitor area detail (the 552th word) (2)	44104	1007h
Monitor area detail (the 553th word) (1)	44105	1008h
Monitor area detail (the 553th word) (2)	44106	1009h
Monitor area detail (the 554th word) (1)	44107	100Ah
Monitor area detail (the 554th word) (2)	44108	100Bh
Monitor area detail (the 555th word) (1)	44109	100Ch
Monitor area detail (the 555th word) (2)	44110	100Dh
Monitor area detail (the 556th word) (1)	44111	100Eh
Monitor area detail (the 556th word) (2)	44112	100Fh
Monitor area detail (the 557th word) (1)	44113	1010h
Monitor area detail (the 557th word) (2)	44114	1011h

Contents	Register No.	Relative address
Monitor area detail (the 558th word) (1)	44115	1012h
Monitor area detail (the 558th word) (2)	44116	1013h
Monitor area detail (the 559th word) (1)	44117	1014h
Monitor area detail (the 559th word) (2)	44118	1015h
Monitor area detail (the 560th word) (1)	44119	1016h
Monitor area detail (the 560th word) (2)	44120	1017h
Monitor area detail (the 561th word) (1)	44121	1018h
Monitor area detail (the 561th word) (2)	44122	1019h
Monitor area detail (the 562th word) (1)	44123	101Ah
Monitor area detail (the 562th word) (2)	44124	101Bh
Monitor area detail (the 563th word) (1)	44125	101Ch
Monitor area detail (the 563th word) (2)	44126	101Dh
Monitor area detail (the 564th word) (1)	44127	101Eh
Monitor area detail (the 564th word) (2)	44128	101Fh
Monitor area detail (the 565th word) (1)	44129	1020h
Monitor area detail (the 565th word) (2)	44130	1021h
Monitor area detail (the 566th word) (1)	44131	1022h
Monitor area detail (the 566th word) (2)	44132	1023h
Monitor area detail (the 567th word) (1)	44133	1024h
Monitor area detail (the 567th word) (2)	44134	1025h
Monitor area detail (the 568th word) (1)	44135	1026h
Monitor area detail (the 568th word) (2)	44136	1027h
Monitor area detail (the 569th word) (1)	44137	1028h
Monitor area detail (the 569th word) (2)	44138	1029h
Monitor area detail (the 570th word) (1)	44139	102Ah
Monitor area detail (the 570th word) (2)	44140	102Bh
Monitor area detail (the 571th word) (1)	44141	102Ch
Monitor area detail (the 571th word) (2)	44142	102Dh
Monitor area detail (the 572th word) (1)	44143	102Eh
Monitor area detail (the 572th word) (2)	44144	102Fh
Monitor area detail (the 573th word) (1)	44145	1030h
Monitor area detail (the 573th word) (2)	44146	1031h
Monitor area detail (the 574th word) (1)	44147	1032h
Monitor area detail (the 574th word) (2)	44148	1033h
Monitor area detail (the 575th word) (1)	44149	1034h
Monitor area detail (the 575th word) (2)	44150	1035h
Monitor area detail (the 576th word) (1)	44151	1036h
Monitor area detail (the 576th word) (2)	44152	1037h
Monitor area detail (the 577th word) (1)	44153	1038h
Monitor area detail (the 577th word) (2)	44154	1039h
Monitor area detail (the 578th word) (1)	44155	103Ah
Monitor area detail (the 578th word) (2)	44156	103Bh

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Contents	Register No.	Relative address
Monitor area detail (the 579th word) (1)	44157	103Ch
Monitor area detail (the 579th word) (2)	44158	103Dh
Monitor area detail (the 580th word) (1)	44159	103Eh
Monitor area detail (the 580th word) (2)	44160	103Fh
Monitor area detail (the 581th word) (1)	44161	1040h
Monitor area detail (the 581th word) (2)	44162	1041h
Monitor area detail (the 582th word) (1)	44163	1042h
Monitor area detail (the 582th word) (2)	44164	1043h
Monitor area detail (the 583th word) (1)	44165	1044h
Monitor area detail (the 583th word) (2)	44166	1045h
Monitor area detail (the 584th word) (1)	44167	1046h
Monitor area detail (the 584th word) (2)	44168	1047h
Monitor area detail (the 585th word) (1)	44169	1048h
Monitor area detail (the 585th word) (2)	44170	1049h
Monitor area detail (the 586th word) (1)	44171	104Ah
Monitor area detail (the 586th word) (2)	44172	104Bh
Monitor area detail (the 587th word) (1)	44173	104Ch
Monitor area detail (the 587th word) (2)	44174	104Dh
Monitor area detail (the 588th word) (1)	44175	104Eh
Monitor area detail (the 588th word) (2)	44176	104Fh
Monitor area detail (the 589th word) (1)	44177	1050h
Monitor area detail (the 589th word) (2)	44178	1051h
Monitor area detail (the 590th word) (1)	44179	1052h
Monitor area detail (the 590th word) (2)	44180	1053h
Monitor area detail (the 591th word) (1)	44181	1054h
Monitor area detail (the 591th word) (2)	44182	1055h
Monitor area detail (the 592th word) (1)	44183	1056h
Monitor area detail (the 592th word) (2)	44184	1057h
Monitor area detail (the 593th word) (1)	44185	1058h
Monitor area detail (the 593th word) (2)	44186	1059h
Monitor area detail (the 594th word) (1)	44187	105Ah
Monitor area detail (the 594th word) (2)	44188	105Bh
Monitor area detail (the 595th word) (1)	44189	105Ch
Monitor area detail (the 595th word) (2)	44190	105Dh
Monitor area detail (the 596th word) (1)	44191	105Eh
Monitor area detail (the 596th word) (2)	44192	105Fh
Monitor area detail (the 597th word) (1)	44193	1060h
Monitor area detail (the 597th word) (2)	44194	1061h
Monitor area detail (the 598th word) (1)	44195	1062h
Monitor area detail (the 598th word) (2)	44196	1063h
Monitor area detail (the 599th word) (1)	44197	1064h
Monitor area detail (the 599th word) (2)	44198	1065h

Contents	Register No.	Relative address
Monitor area detail (the 600th word) (1)	44199	1066h
Monitor area detail (the 600th word) (2)	44200	1067h
Monitor area detail (the 601th word) (1)	44201	1068h
Monitor area detail (the 601th word) (2)	44202	1069h
Monitor area detail (the 602th word) (1)	44203	106Ah
Monitor area detail (the 602th word) (2)	44204	106Bh
Monitor area detail (the 603th word) (1)	44205	106Ch
Monitor area detail (the 603th word) (2)	44206	106Dh
Monitor area detail (the 604th word) (1)	44207	106Eh
Monitor area detail (the 604th word) (2)	44208	106Fh
Monitor area detail (the 605th word) (1)	44209	1070h
Monitor area detail (the 605th word) (2)	44210	1071h
Monitor area detail (the 606th word) (1)	44211	1072h
Monitor area detail (the 606th word) (2)	44212	1073h
Monitor area detail (the 607th word) (1)	44213	1074h
Monitor area detail (the 607th word) (2)	44214	1075h
Monitor area detail (the 608th word) (1)	44215	1076h
Monitor area detail (the 608th word) (2)	44216	1077h
Monitor area detail (the 609th word) (1)	44217	1078h
Monitor area detail (the 609th word) (2)	44218	1079h
Monitor area detail (the 610th word) (1)	44219	107Ah
Monitor area detail (the 610th word) (2)	44220	107Bh
Monitor area detail (the 611th word) (1)	44221	107Ch
Monitor area detail (the 611th word) (2)	44222	108Dh
Monitor area detail (the 612th word) (1)	44223	107Eh
Monitor area detail (the 612th word) (2)	44224	107Fh
Monitor area detail (the 613th word) (1)	44225	1080h
Monitor area detail (the 613th word) (2)	44226	1081h
Monitor area detail (the 614th word) (1)	44227	1082h
Monitor area detail (the 614th word) (2)	44228	1083h
Monitor area detail (the 615th word) (1)	44229	1084h
Monitor area detail (the 615th word) (2)	44230	1085h
Monitor area detail (the 616th word) (1)	44231	1086h
Monitor area detail (the 616th word) (2)	44232	1087h
Monitor area detail (the 617th word) (1)	44233	1088h
Monitor area detail (the 617th word) (2)	44234	1089h
Monitor area detail (the 618th word) (1)	44235	108Ah
Monitor area detail (the 618th word) (2)	44236	108Bh
Monitor area detail (the 619th word) (1)	44237	108Ch
Monitor area detail (the 619th word) (2)	44238	108Dh
Monitor area detail (the 620th word) (1)	44239	108Eh
Monitor area detail (the 620th word) (2)	44240	108Fh

Contents	Register No.	Relative address
Monitor area detail (the 621th word) (1)	44241	1090h
Monitor area detail (the 621th word) (2)	44242	1091h
Monitor area detail (the 622th word) (1)	44243	1092h
Monitor area detail (the 622th word) (2)	44244	1093h
Monitor area detail (the 623th word) (1)	44245	1094h
Monitor area detail (the 623th word) (2)	44246	1095h
Monitor area detail (the 624th word) (1)	44247	1096h
Monitor area detail (the 624th word) (2)	44248	1097h
Monitor area detail (the 625th word) (1)	44249	1098h
Monitor area detail (the 625th word) (2)	44250	1099h
Monitor area detail (the 626th word) (1)	44251	109Ah
Monitor area detail (the 626th word) (2)	44252	109Bh
Monitor area detail (the 627th word) (1)	44253	109Ch
Monitor area detail (the 627th word) (2)	44254	109Dh
Monitor area detail (the 628th word) (1)	44255	109Eh
Monitor area detail (the 628th word) (2)	44256	109Fh
Monitor area detail (the 629th word) (1)	44257	10A0h
Monitor area detail (the 629th word) (2)	44258	10A1h
Monitor area detail (the 630th word) (1)	44259	10A2h
Monitor area detail (the 630th word) (2)	44260	10A3h
Monitor area detail (the 631th word) (1)	44261	10A4h
Monitor area detail (the 631th word) (2)	44262	10A5h
Monitor area detail (the 632th word) (1)	44263	10A6h
Monitor area detail (the 632th word) (2)	44264	10A7h
Monitor area detail (the 633th word) (1)	44265	10A8h
Monitor area detail (the 633th word) (2)	44266	10A9h
Monitor area detail (the 634th word) (1)	44267	10AAh
Monitor area detail (the 634th word) (2)	44268	10ABh
Monitor area detail (the 635th word) (1)	44269	10ACh
Monitor area detail (the 635th word) (2)	44270	10ADh
Monitor area detail (the 636th word) (1)	44271	10AEh
Monitor area detail (the 636th word) (2)	44272	10AFh
Monitor area detail (the 637th word) (1)	44273	10B0h
Monitor area detail (the 637th word) (2)	44274	10B1h
Monitor area detail (the 638th word) (1)	44275	10B2h
Monitor area detail (the 638th word) (2)	44276	10B3h
Monitor area detail (the 639th word) (1)	44277	10B4h
Monitor area detail (the 639th word) (2)	44278	10B5h
Monitor area detail (the 640th word) (1)	44279	10B6h
Monitor area detail (the 640th word) (2)	44280	10B7h
Monitor area detail (the 641th word) (1)	44281	10B8h
Monitor area detail (the 641th word) (2)	44282	10B9h

Contents	Register No.	Relative address
Monitor area detail (the 642th word) (1)	44283	10BAh
Monitor area detail (the 642th word) (2)	44284	10BBh
Monitor area detail (the 643th word) (1)	44285	10BCh
Monitor area detail (the 643th word) (2)	44286	10BDh
Monitor area detail (the 644th word) (1)	44287	10BEh
Monitor area detail (the 644th word) (2)	44288	10BFh
Monitor area detail (the 645th word) (1)	44289	10C0h
Monitor area detail (the 645th word) (2)	44290	10C1h
Monitor area detail (the 646th word) (1)	44291	10C2h
Monitor area detail (the 646th word) (2)	44292	10C3h
Monitor area detail (the 647th word) (1)	44293	10C4h
Monitor area detail (the 647th word) (2)	44294	10C5h
Monitor area detail (the 648th word) (1)	44295	10C6h
Monitor area detail (the 648th word) (2)	44296	10C7h
Monitor area detail (the 649th word) (1)	44297	10C8h
Monitor area detail (the 649th word) (2)	44298	10C9h
Monitor area detail (the 650th word) (1)	44299	10CAh
Monitor area detail (the 650th word) (2)	44300	10CBh
Monitor area detail (the 651th word) (1)	44301	10CCh
Monitor area detail (the 651th word) (2)	44302	10CDh
Monitor area detail (the 652th word) (1)	44303	10CEh
Monitor area detail (the 652th word) (2)	44304	10CFh
Monitor area detail (the 653th word) (1)	44305	10D0h
Monitor area detail (the 653th word) (2)	44306	10D1h
Monitor area detail (the 654th word) (1)	44307	10D2h
Monitor area detail (the 654th word) (2)	44308	10D3h
Monitor area detail (the 655th word) (1)	44309	10D4h
Monitor area detail (the 655th word) (2)	44310	10D5h
Monitor area detail (the 656th word) (1)	44311	10D6h
Monitor area detail (the 656th word) (2)	44312	10D7h
Monitor area detail (the 657th word) (1)	44313	10D8h
Monitor area detail (the 657th word) (2)	44314	10D9h
Monitor area detail (the 658th word) (1)	44315	10DAh
Monitor area detail (the 658th word) (2)	44316	10DBh
Monitor area detail (the 659th word) (1)	44317	10DCh
Monitor area detail (the 659th word) (2)	44318	10DDh
Monitor area detail (the 660th word) (1)	44319	10DEh
Monitor area detail (the 660th word) (2)	44320	10DFh
Monitor area detail (the 661th word) (1)	44321	10E0h
Monitor area detail (the 661th word) (2)	44322	10E1h
Monitor area detail (the 662th word) (1)	44323	10E2h
Monitor area detail (the 662th word) (2)	44324	10E3h



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Contents	Register No.	Relative address
Monitor area detail (the 663th word) (1)	44325	10E4h
Monitor area detail (the 663th word) (2)	44326	10E5h
Monitor area detail (the 664th word) (1)	44327	10E6h
Monitor area detail (the 664th word) (2)	44328	10E7h
Monitor area detail (the 665th word) (1)	44329	10E8h
Monitor area detail (the 665th word) (2)	44330	10E9h
Monitor area detail (the 666th word) (1)	44331	10EAh
Monitor area detail (the 666th word) (2)	44332	10EBh
Monitor area detail (the 667th word) (1)	44333	10ECh
Monitor area detail (the 667th word) (2)	44334	10EDh
Monitor area detail (the 668th word) (1)	44335	10EEh
Monitor area detail (the 668th word) (2)	44336	10EFh
Monitor area detail (the 669th word) (1)	44337	10F0h
Monitor area detail (the 669th word) (2)	44338	10F1h
Monitor area detail (the 670th word) (1)	44339	10F2h
Monitor area detail (the 670th word) (2)	44340	10F3h
Monitor area detail (the 671th word) (1)	44341	10F4h
Monitor area detail (the 671th word) (2)	44342	10F5h
Monitor area detail (the 672th word) (1)	44343	10F6h
Monitor area detail (the 672th word) (2)	44344	10F7h
Monitor area detail (the 673th word) (1)	44345	10F8h
Monitor area detail (the 673th word) (2)	44346	10F9h
Monitor area detail (the 674th word) (1)	44347	10FAh
Monitor area detail (the 674th word) (2)	44348	10FBh
Monitor area detail (the 675th word) (1)	44349	10FCh
Monitor area detail (the 675th word) (2)	44350	10FDh
Monitor area detail (the 676th word) (1)	44351	10FEh
Monitor area detail (the 676th word) (2)	44352	10FFh
Monitor area detail (the 677th word) (1)	44353	1100h
Monitor area detail (the 677th word) (2)	44354	1101h
Monitor area detail (the 678th word) (1)	44355	1102h
Monitor area detail (the 678th word) (2)	44356	1103h
Monitor area detail (the 679th word) (1)	44357	1104h
Monitor area detail (the 679th word) (2)	44358	1105h
Monitor area detail (the 680th word) (1)	44359	1106h
Monitor area detail (the 680th word) (2)	44360	1107h
Monitor area detail (the 681th word) (1)	44361	1108h
Monitor area detail (the 681th word) (2)	44362	1109h
Monitor area detail (the 682th word) (1)	44363	110Ah
Monitor area detail (the 682th word) (2)	44364	110Bh
Monitor area detail (the 683th word) (1)	44365	110Ch
Monitor area detail (the 683th word) (2)	44366	110Dh

Contents	Register No.	Relative address
Monitor area detail (the 684th word) (1)	44367	110Eh
Monitor area detail (the 684th word) (2)	44368	110Fh
Monitor area detail (the 685th word) (1)	44369	1110h
Monitor area detail (the 685th word) (2)	44370	1111h
Monitor area detail (the 686th word) (1)	44371	1112h
Monitor area detail (the 686th word) (2)	44372	1113h
Monitor area detail (the 687th word) (1)	44373	1114h
Monitor area detail (the 687th word) (2)	44374	1115h
Monitor area detail (the 688th word) (1)	44375	1116h
Monitor area detail (the 688th word) (2)	44376	1117h
Monitor area detail (the 689th word) (1)	44377	1118h
Monitor area detail (the 689th word) (2)	44378	1119h
Monitor area detail (the 690th word) (1)	44379	111Ah
Monitor area detail (the 690th word) (2)	44380	111Bh
Monitor area detail (the 691th word) (1)	44381	111Ch
Monitor area detail (the 691th word) (2)	44382	111Dh
Monitor area detail (the 692th word) (1)	44383	111Eh
Monitor area detail (the 692th word) (2)	44384	111Fh
Monitor area detail (the 693th word) (1)	44385	1120h
Monitor area detail (the 693th word) (2)	44386	1121h
Monitor area detail (the 694th word) (1)	44387	1122h
Monitor area detail (the 694th word) (2)	44388	1123h
Monitor area detail (the 695th word) (1)	44389	1124h
Monitor area detail (the 695th word) (2)	44390	1125h
Monitor area detail (the 696th word) (1)	44391	1126h
Monitor area detail (the 696th word) (2)	44392	1127h
Monitor area detail (the 697th word) (1)	44393	1128h
Monitor area detail (the 697th word) (2)	44394	1129h
Monitor area detail (the 698th word) (1)	44395	112Ah
Monitor area detail (the 698th word) (2)	44396	112Bh
Monitor area detail (the 699th word) (1)	44397	112Ch
Monitor area detail (the 699th word) (2)	44398	112Dh
Monitor area detail (the 700th word) (1)	44399	112Eh
Monitor area detail (the 700th word) (2)	44400	112Fh
Monitor area detail (the 701th word) (1)	44401	1130h
Monitor area detail (the 701th word) (2)	44402	1131h
Monitor area detail (the 702th word) (1)	44403	1132h
Monitor area detail (the 702th word) (2)	44404	1133h
Monitor area detail (the 703th word) (1)	44405	1134h
Monitor area detail (the 703th word) (2)	44406	1135h
Monitor area detail (the 704th word) (1)	44407	1136h
Monitor area detail (the 704th word) (2)	44408	1137h

Contents	Register No.	Relative address
Monitor area detail (the 705th word) (1)	44409	1138h
Monitor area detail (the 705th word) (2)	44410	1139h
Monitor area detail (the 706th word) (1)	44411	113Ah
Monitor area detail (the 706th word) (2)	44412	113Bh
Monitor area detail (the 707th word) (1)	44413	113Ch
Monitor area detail (the 707th word) (2)	44414	113Dh
Monitor area detail (the 708th word) (1)	44415	113Eh
Monitor area detail (the 708th word) (2)	44416	113Fh
Monitor area detail (the 709th word) (1)	44417	1140h
Monitor area detail (the 709th word) (2)	44418	1141h
Monitor area detail (the 710th word) (1)	44419	1142h
Monitor area detail (the 710th word) (2)	44420	1143h
Monitor area detail (the 711th word) (1)	44421	1144h
Monitor area detail (the 711th word) (2)	44422	1145h
Monitor area detail (the 712th word) (1)	44423	1146h
Monitor area detail (the 712th word) (2)	44424	1147h
Parameter setting error	30301	012Ch
MAC address (1)	30401	0190h
MAC address (2)	30402	0191h
MAC address (3)	30403	0192h
IP address (1)	30404	0193h
IP address (2)	30405	0194h
Subnet mask (1)	30406	0195h
Subnet mask (2)	30407	0196h
Default gateway (1)	30408	0197h
Default gateway (2)	30409	0198h
PLC error counter	31001	03E8h
PLC error code	31002	03E9h
PLC sending counter	31003	03EAh
PLC receiving counter	31004	03EBh
PLC reading size	31005	03ECh
PLC writing size	31006	03EDh
PLC inter-cycle time monitor	31007	03EEh
PLC inter-cycle time over counter	31008	03EFh

## 5.5 Setting/Monitor Area Entry Numbers (Control module)

The table below shows the register numbers of a control module, which are settable to each parameter of "Setting/Monitor area entry St. No." and "Setting/Monitor area entry register No." of a programless communication module.

### Note

Parameters marked "\*" in the "Entry ban" column in the table can not be changed via programless communication modules.  
Do not set them to each parameter of "Setting/Monitor area entry St. No." and "Setting/Monitor area entry register No."

### Operation parameter

Contents	Reading out/Writing data setting range	Depends on Input range	Factory-set value	Register No.1 (Ch1)	Register No.2 (Ch2)	Register No.3 (Ch3)	Register No.4 (Ch4)	Entry ban
Local SV value	0 to 100% FS	○	0	40001 41001	40002 42001	40003 43001	40004 44001	*
Communication SV value	0 to 100% FS	○	0	40023 41100	40024 42100	40025 43100	40026 44100	
MV value	-3.0 to 103.0%		-	40005 41002	40006 42002	40007 43002	40008 44002	
Manual mode switch	0: Auto 1: Manual		0 (Auto)	40013 41003	40014 42003	40015 43003	40016 44003	
RUN/Standby switch	0: RUN 1: Standby		0 (RUN)	40017 41004	40018 42004	40019 43004	40020 44004	
Remote mode switch	0: Local 1: Remote		0 (Local)	40009 41007	40010 42007	40011 43007	40012 44007	
Auto-tuning RUN command	0: Stop/End 1: Normal type 2: Low PV type		0	41005	42005	43005	44005	
DO output unlatch command	0: OFF 1: Unlatch		0	41031	42031	43031	44031	
ALM1 set value 1	-100 to 100% FS	○	2.5% FS	41033	42033	43033	44033	
ALM1 set value 2	-100 to 100% FS	○	2.5% FS	41034	42034	43034	44034	
ALM2 set value 1	-100 to 100% FS	○	2.5% FS	41041	42041	43041	44041	
ALM2 set value 2	-100 to 100% FS	○	2.5% FS	41042	42042	43042	44042	
ALM3 set value 1	-100 to 100% FS	○	2.5% FS	41049	42049	43049	44049	
ALM3 set value 2	-100 to 100% FS	○	2.5% FS	41050	42050	43050	44050	
ALM4 set value 1	-100 to 100% FS	○	2.5% FS	41057	42057	43057	44057	
ALM4 set value 2	-100 to 100% FS	○	2.5% FS	41058	42058	43058	44058	
ALM5 set value 1	-100 to 100% FS	○	2.5% FS	41065	42065	43065	44065	
ALM5 set value 2	-100 to 100% FS	○	2.5% FS	41066	42066	43066	44066	

## Control (PID) parameters

Contents	Reading out/Writing data setting range	Depends on Input range	Factory-set value	Register No.1 (Ch1)	Register No.2 (Ch2)	Register No.3 (Ch3)	Register No.4 (Ch4)	Entry ban
Proportional band [P]	0.0 to 999.9%		5.0	41102	42102	43102	44102	
Integration time [I]	0 to 3200sec		240	41103	42103	43103	44103	
Derivation time [D]	0.0 to 999.9sec		60.0	41104	42104	43104	44104	
ON/OFF control hysteresis	0 to 50% FS	○	0.25% FS	41105	42105	43105	44105	
Cooling proportional band coefficient [cool]	0.0 to 100.0		1.0	41106	42106	43106	44106	
Dead band	-50.0 to 50.0%		0	41107	42107	43107	44107	
Output convergence value	-100.0 to 100.0%		0	41108	42108	43108	44108	
Anti-reset windup [ARW]	0 to 100% FS	○	100% FS	41109	42109	43109	44109	
Direct/Reverse action setting [MV1/MV2]	0: Reverse/None 1: Direct/None 2: Reverse/Direct 3: Direct/Reverse 4: Reverse/Reverse 5: Direct/Direct		0	41110	42110	43110	44110	
SV Lower Limit	0 to 100% FS	○	0% FS	41218	42218	43218	44218	
SV Upper Limit	0 to 100% FS	○	100% FS	41219	42219	43219	44219	
MV1 Lower Limit	-3.0 to 103.0%		-3.0	41255	42255	43255	44255	
MV1 Upper Limit	-3.0 to 103.0%		103.0	41256	42256	43256	44256	
MV2 Lower Limit	-3.0 to 103.0%		-3.0	41257	42257	43257	44257	
MV2 Upper Limit	-3.0 to 103.0%		103.0	41258	42258	43258	44258	
Output limiter type setting	0: MV1 -3.0%/103.0% MV2 -3.0%/103.0% 1: MV1 Limit/103.0% MV2 -3.0%/103.0% 2: MV1 -3.0%/Limit MV2 -3.0%/103.0% 3: MV1 Limit/ Limit MV2 -3.0%/103.0% 4: MV1 -3.0%/103.0% MV2 Limit/103.0% 5: MV1 Limit/103.0% MV2 Limit/103.0% 6: MV1 -3.0%/Limit MV2 Limit/103.0% 7: MV1 Limit/Limit MV2 Limit/103.0% 8: MV1 -3.0%/103.0% MV2 -3.0%/Limit 9: MV1 Limit/103.0% MV2 -3.0%/Limit 10: MV1 -3.0%/Limit MV2 -3.0%/Limit 11: MV1 Limit/Limit MV2 -3.0%/Limit 12: MV1 -3.0%/103.0% MV2 Limit/Limit 13: MV1 Limit/103.0% MV2 Limit/Limit 14: MV1 -3.0%/Limit MV2 Limit/Limit 15: MV1 Limit/Limit MV2 Limit/Limit		0	41259	42259	43259	44259	

## Setup parameters

Contents	Reading out/Writing data setting range	Depends on Input range	Factory-set value	Register No.1 (Ch1)	Register No.2 (Ch2)	Register No.3 (Ch3)	Register No.4 (Ch4)	Entry ban
PV input type	0: JPt100 (0 to 150°C) 1: JPt100 (-150 to 600°C) 2: Pt100 (0 to 150°C) 3: Pt100 (-150 to 300°C) 4: Pt100 (-150 to 850°C) 5: J (0 to 400°C) 6: J (0 to 800°C) 7: K (0 to 400°C) 8: K (0 to 800°C) 9: K (0 to 1200°C) 10: R (0 to 1600°C) 11: B (0 to 1800°C) 12: S (0 to 1600°C) 13: T (-199 to 400°C) 14: E (-199 to 800°C) 18: N (0 to 1300°C) 19: PL-2 (0 to 1300°C) 21: Voltage (0 to 5V) 22: Voltage (1 to 5V) 23: Voltage (0 to 10V) 24: Voltage (2 to 10V) 25: Voltage(±5V) 26: Voltage(±10V) 30: Non 31: Pt100 (-200 to 850°C) 32: Pt100 (-200 to 800°C) 35: J (-200 to 850°C) 36: J (-150 to 850°C) 37: J (-200 to 800°C) 38: K (-200 to 850°C) 39: K (-150 to 850°C) 40: K (-200 to 800°C)		7(TC/Pt) 22(VI)	40151 41029	40152 42029	40153 43029	40154 44029	*

## 5.5 Setting/Monitor Area Entry Numbers (Control module)

Contents	Reading out/Writing data setting range	Depends on Input range	Factory-set value	Register No.1 (Ch1)	Register No.2 (Ch2)	Register No.3 (Ch3)	Register No.4 (Ch4)	Entry ban
PV input scale lower	-1999 to 9999		0% FS	41212	42212	43212	44212	*
PV input scale upper	-1999 to 9999		100% FS	41213	42213	43213	44213	*
Input master Ch	0 to 4Ch		0	41535	42535	43535	44535	
Decimal place	0: No decimal point 1: One decimal place 2: Two decimal places		0	41214	42214	43214	44214	*
PV input	0: PV 1: MV1 2: PV: (PV Change)		0(PV)	41539	42539	43539	44539	
Temperature unit	0: °C 1: Not selectable		°C	41215	42215	43215	44215	*
PV input shift	-10 to 10% FS	○	0	41216	42216	43216	44216	
SV set value shift	-50 to 50% FS	○	0	41217	42217	43217	44217	
PV input filter	0.0 to 120.0sec		2.0	41220	42220	43220	44220	
PV display zero adjustment	-50 to 50% FS	○	0	41221	42221	43221	44221	
PV display span adjustment	-50 to 50% FS	○	0	41222	42222	43222	44222	
Cold junction compensation	0: OFF 1: ON		1 (ON)	41223	42223	43223	44223	
RSV zero adjustment	-50 to 50% FS	○	0	41225	42225	43225	44225	
RSV span adjustment	-50 to 50% FS	○	0	41226	42226	43226	44226	
SV unite	0:PV 1:MV		0(PV)	41531	42531	43531	44531	*
Remote input master St. No.	0 to 16		0	41532	42532	43532	44532	*
Remote input master Ch. No.	0/1 to 4		Each Ch.	41533	42533	43533	44533	*
FAULT MV1 set value	-3.0 to 103.0%		-3.0	41260	42260	43260	44260	
FAULT MV2 set value	-3.0 to 103.0%		-3.0	41261	42261	43261	44261	
SoftStart MV1 value	-3.0 to 103.0%		103.0	41262	42262	43262	44262	*
SoftStart MV2 value	-3.0 to 103.0%		103.0	41263	42263	43263	44263	*
SoftStart time	0 to 99min. 59sec.		0	41264	42264	43264	44264	*
Standby MV1 value	-3.0 to 103.0%		-3.0	41268	42268	43268	44268	
Standby MV2 value	-3.0 to 103.0%		-3.0	41269	42269	43269	44269	
Standby mode setting	0: ALM=OFF 1: ALM=ON		0	41270	42270	43270	44270	
Linkage operation master St. No. setting	0 to 16		0	41536	42536	43536	44536	*
Linkage operation master Ch. No. setting	1 to 4		Each Ch.	41537	42537	43537	44537	*

## System parameters

Contents	Reading out/Writing data setting range	Depends on Input range	Factory-set value	Register No.1 (Ch1)	Register No.2 (Ch2)	Register No.3 (Ch3)	Register No.4 (Ch4)	Entry ban
Current output range	4: 0 to 20mA 5: 4 to 20mA		5 (4-20mA)	40166 41801	40167 42801	40168 43801	40169 44801	
Output type	0: Own St. PV 1: Own St. SV 2: Own St. DV 3: Own St. MV 1 4: Own St. MV 2 5: Other St. PV 6: Other St. SV 7: Other St. MV 8: Own St. DO1 9: Own St. DO2 10: Own St. DO3 11: Own St. DO4 12: Own St. DO5 13: Non		3 (Own St. MV1)	40171 41803	40177 42803	40183 43803	40189 44803	
Proportional cycle	1 to 120sec.		2 (SSR drive) /30 (relay)	40176	40182	40188	40194	
Output master St.	0 to 16 St.		0	40172 41804	40178 42804	40184 43804	40190 44804	*
Output master Ch.	1 to 4Ch		Each Ch.	40173 41805	40179 42805	40185 43805	40191 44805	*
Output scaling base	-100.0 to 100.0%		0.0	40175 41807	40181 42807	40187 43807	40193 44807	
Output scaling span	-100.0 to 100.0%		100.0	40174 41806	40180 42806	40186 43806	40192 44806	
Output shutdown	0000 to 1111 bit0: Output 1 shutdown bit1: Output 2 shutdown bit2: Output 3 shutdown bit3: Output 4 shutdown		0000	40201				

Contents	Reading out/Writing data setting range	Depends on Input range	Factory-set value	Register No.1 (Ch1)	Register No.2 (Ch2)	Register No.3 (Ch3)	Register No.4 (Ch4)	Entry ban
DI-1 function select	0: No function 1: RUN /Standby switch 2: Auto/Manual switch 3: Local /Remote switch 4: No function 5: No function 6: Start AT (Normal type) 7: Start AT (Low voltage PV) 8: No function 9: No function 10: Ramp SV ON/OFF 11: Ramp SV Hold 12: Ramp soak OFF 13: Ramp soak LUN/HOLD switch 14: No function 15: No function 16: No function 17: Unlatch (All) 18: Unlatch (DO1) 19: Unlatch (DO2) 20: Unlatch (DO3) 21: Unlatch (DO4) 22: Unlatch (DO5) 23: No function 24: No function 25: No function 26: Start timer (DO1) 27: Start timer (DO2) 28: Start timer (DO3) 29: Start timer (DO4) 30: Start timer (DO5) 31: No function 32: No function 33: No function 34: No function 35: No function		0	41013	42013	43013	44013	



## 5.5 Setting/Monitor Area Entry Numbers (Control module)

Contents	Reading out/Writing data setting range	Depends on Input range	Factory-set value	Register No.1 (Ch1)	Register No.2 (Ch2)	Register No.3 (Ch3)	Register No.4 (Ch4)	Entry ban
DI-1 function select	36: No function 37: No function 38: Ramp soak pattern NO.1 39: Ramp soak pattern NO.2 40: Ramp soak pattern NO.4 41: Ramp soak RUN 42: Ramp soak HOLD 43: DO1:Ramp soak RUN start 44: DO2:Ramp soak RUN start 45: DO3:Ramp soak RUN start 46:DO4:Ramp soak RUN start 47: DO4:Ramp soak RUN start 48: No function 49: Output1 shutdown 50: Output2 shutdown 51: Output3 shutdown 52: Output4 shutdown 53: No function 54: Valve OPEN 55: Valve CLOSE 56: Input CH.switch 1 57: Input CH.switch 1							
DI-2 function select	0 to 57		0	41014	42014	43014	44014	
DI-3 function select	0 to 57		0	41015	42015	43015	44015	
DI-4 function select	0 to 57		0	41016	42016	43016	44016	
DI-5 function select	0 to 57		0	41017	42017	43017	44017	
DI-6 function select	0 to 57		0	41018	42018	43018	44018	
DI-7 function select	0 to 57		0	41019	42019	43019	44019	
DI-8 function select	0 to 57		0	41020	42020	43020	44020	
DI-9 function select	0 to 57		0	41021	42021	43021	44021	
DI-10 function select	0 to 57		0	41022	42022	43022	44022	
DI-11 function select	0 to 57		0	41023	42023	43023	44023	
DI-12 function select	0 to 57		0	41024	42024	43024	44024	
DI-13 function select	0 to 57		0	41025	42025	43025	44025	
DI-14 function select	0 to 57		0	41026	42026	43026	44026	
DI-15 function select	0 to 57		0	41027	42027	43027	44027	
DI-16 function select	0 to 57		0	41028	42028	43028	44028	
DI master St. setting	0 to 32		0	41011	42011	43011	44011	*
DO1 output event type setting	0 to 218		0	41032	42032	43032	44032	*

Contents	Reading out/Writing data setting range	Depends on Input range	Factory-set value	Register No.1 (Ch1)	Register No.2 (Ch2)	Register No.3 (Ch3)	Register No.4 (Ch4)	Entry ban
DO1 option function setting	0000 to 1111 bit0: Alarm latch function bit1: Error input alarm function bit2: Non-excitation output function bit3: Hold reset function		0000	41036	42036	43036	44036	
DO2 output event type setting	0 to 218		0	41040	42040	43040	44040	*
DO2 option function setting	0000 to 1111 bit0: Alarm latch function bit1: Error input alarm function bit2: Non-excitation output function bit3: Hold reset function		0000	41044	42044	43044	44044	
DO3 output event type setting	0 to 218		0	41048	42048	43048	44048	*
DO3 option function setting	0000 to 1111 bit0: Alarm latch function bit1: Error input alarm function bit2: Non-excitation output function bit3: Hold reset function		0000	41052	42052	43052	44052	
DO4 output event type setting	0 to 218		0	41056	42056	43056	44056	*
DO4 option function setting	0000 to 1111 bit0: Alarm latch function bit1: Error input alarm function bit2: Non-excitation output function bit3: Hold reset function		0000	41060	42060	43060	44060	
DO5 output event type setting	0 to 218		0	41064	42064	43064	44064	*
DO5 option function setting	0000 to 1111 bit0: Alarm latch function bit1: Error input alarm function bit2: Non-excitation output function bit3: Hold reset function		0000	41068	42068	43068	44068	
Ramp SV ON/OFF	0: OFF 1: ON		1 (ON)	41299	42299	43299	44299	
Ramp SV-decline	0 to 100% FS	○	0	41300	42300	43300	44300	
Ramp SV-incline	0 to 100% FS	○	0	41301	42301	43301	44301	

## 5.5 Setting/Monitor Area Entry Numbers (Control module)

Contents	Reading out/Writing data setting range	Depends on Input range	Factory-set value	Register No.1 (Ch1)	Register No.2 (Ch2)	Register No.3 (Ch3)	Register No.4 (Ch4)	Entry ban
Ramp SV slope time units	0: Slope deg/hr. 1: Slope deg/min.		0 (Slope deg/hr.)	41302	42302	43302	44302	
Control method	0: PID 1: FUSSY PID 2: PID against open-loop		0 (PID)	41291	42291	43291	44291	
ON/OFF hysteresis setting	0: OFF 1: ON		1 (ON)	41292	42292	43292	44292	
Mode at startup	0: Auto 1: Manual 2: Remote 3: Standby		0 (Auto)	41304	42304	43304	44304	*
MV communication	0: MV1 1: MV2		0(MV1)	40195 41810	40196 42810	40197 43810	40198 44810	*
Process	0: 200 msec 1: 100 msec		0(200 msec)	41294	42294	43294	44294	*

## Ramp/soak

Contents	Reading out/Writing data setting range	Depends on Input range	Factory-set value	Register No.1 (Ch1)	Register No.2 (Ch2)	Register No.3 (Ch3)	Register No.4 (Ch4)	Entry ban
Ramp/soak command	0: off 1: on 2: holde		0(stop)	41006	42006	43006	44006	
Pattern arrangement	0: Normal pattern 1: Special pattern 2: 64 STEP		0: Normal pattern	41408	42408	43408	44408	
Ramp/soak Activation pattern (STEP No.)	0 to 7		6	41431	42431	43431	44431	
Time	0: hr.min. 1: min.sec.		0:hr.min.	41432	42432	43432	44432	
SV-1	0 to 100%FS	○	0%FS	41451	42451	43451	44451	
Step 1 Ramp time	0 to 99min.59sec. /0 to 99hr59min.		0	41452	42452	43452	44452	
Step 1 Soak time	0 to 99min.59sec. /0 to 99hr59min.		0	41453	42453	43453	44453	
SV-2	0 to 100%FS	○	0%FS	41454	42454	43454	44454	
Step 2 Ramp time	0 to 99min.59sec. /0 to 99hr59min.		0	41455	42455	43455	44455	
Step 2 Soak time	0 to 99min.59sec. /0 to 99hr59min.		0	41456	42456	43456	44456	
SV-3	0 to 100%FS	○	0%FS	41457	42457	43457	44457	
Step 3 Ramp time	0 to 99min.59sec. /0 to 99hr59min.		0	41458	42458	43458	44458	
Step 3 Soak time	0 to 99min.59sec. /0 to 99hr59min.		0	41459	42459	43459	44459	
SV-4	0 to 100%FS	○	0%FS	41460	42460	43460	44460	
Step 4 Ramp time	0 to 99min.59sec. /0 to 99hr59min.		0	41461	42461	43461	44461	
Step 4 Soak time	0 to 99min.59sec. /0 to 99hr59min.		0	41462	42462	43462	44462	
SV-5	0 to 100%FS	○	0%FS	41463	42463	43463	44463	
Step 5 Ramp time	0 to 99min.59sec. /0 to 99hr59min.		0	41464	42464	43464	44464	
Step 5 Soak time	0 to 99min.59sec. /0 to 99hr59min.		0	41465	42465	43465	44465	
SV-6	0 to 100%FS	○	0%FS	41466	42467	43466	44466	
Step 6 Ramp time	0 to 99min.59sec. /0 to 99hr59min.		0	41467	42468	43467	44467	
Step 6 Soak time	0 to 99min.59sec. /0 to 99hr59min.		0	41468	42469	43468	44468	
SV-7	0 to 100%FS	○	0%FS	41469	42469	43469	44469	
Step 7 Ramp time	0 to 99min.59sec. /0 to 99hr59min.		0	41470	42470	43470	44470	
Step 7 Soak time	0 to 99min.59sec. /0 to 99hr59min.		0	41471	42471	43471	44471	
SV-8	0 to 100%FS	○	0%FS	41472	42472	43472	44472	
Step 8 Ramp time	0 to 99min.59sec. /0 to 99hr59min.		0	41473	42473	43473	44473	
Step 8 Soak time	0 to 99min.59sec. /0 to 99hr59min.		0	41474	42474	43474	44474	

## 5.5 Setting/Monitor Area Entry Numbers (Control module)

Contents	Reading out/Writing data setting range	Depends on Input range	Factory-set value	Register No.1 (Ch1)	Register No.2 (Ch2)	Register No.3 (Ch3)	Register No.4 (Ch4)	Entry ban
SV-9	0 to 100%FS	○	0%FS	41475	42475	43475	44475	
Step 9 Ramp time	0 to 99min.59sec. /0 to 99hr59min.		0	41476	42476	43476	44476	
Step 9 Soak time	0 to 99min.59sec. /0 to 99hr59min.		0	41477	42477	43477	44477	
SV-10	0 to 100%FS	○	0%FS	41478	42478	43478	44478	
Step 10 Ramp time	0 to 99min.59sec. /0 to 99hr59min.		0	41479	42479	43479	44479	
Step 10 Soak time	0 to 99min.59sec. /0 to 99hr59min.		0	41480	42480	43480	44480	
SV-11	0 to 100%FS	○	0%FS	41481	42481	43481	44481	
Step 11 Ramp time	0 to 99min.59sec. /0 to 99hr59min.		0	41482	42482	43482	44482	
Step 11 Soak time	0 to 99min.59sec. /0 to 99hr59min.		0	41483	42483	43483	44483	
SV-12	0 to 100%FS	○	0%FS	41484	42484	43484	44484	
Step 12 Ramp time	0 to 99min.59sec. /0 to 99hr59min.		0	41485	42485	43485	44485	
Step 12 Soak time	0 to 99min.59sec. /0 to 99hr59min.		0	41486	42486	43486	44486	
SV-13	0 to 100%FS	○	0%FS	41487	42487	43487	44487	
Step 13 Ramp time	0 to 99min.59sec. /0 to 99hr59min.		0	41488	42488	43488	44488	
Step 13 Soak time	0 to 99min.59sec. /0 to 99hr59min.		0	41489	42489	43489	44489	
SV-14	0 to 100%FS	○	0%FS	41490	42490	43490	44490	
Step 14 Ramp time	0 to 99min.59sec. /0 to 99hr59min.		0	41491	42491	43491	44491	
Step 14 Soak time	0 to 99min.59sec. /0 to 99hr59min.		0	41492	42492	43492	44492	
SV-15	0 to 100%FS	○	0%FS	41493	42493	43493	44493	
Step 15 Ramp time	0 to 99min.59sec. /0 to 99hr59min.		0	41494	42494	43494	44494	
Step 15 Soak time	0 to 99min.59sec. /0 to 99hr59min.		0	41495	42495	43495	44495	
SV-16	0 to 100%FS	○	0%FS	41496	42496	43496	44496	
Step 16 Ramp time	0 to 99min.59sec. /0 to 99hr59min.		0	41497	42497	43497	44497	
Step 16 Soak time	0 to 99min.59sec. /0 to 99hr59min.		0	41498	42498	43498	44498	
Ramp/soak mode	0 to 15		0	41433	42433	43433	44433	
Guarantee soak on/off	0: off 1: on		0: off	41441	42441	43441	44441	
Guarantee soak band(Upper)	0 to 50	○	1.25%FS	41443	42443	43443	44443	
Guarantee soak band(Lower)	0 to 50	○	1.25%FS	41442	42442	43442	44442	
PV start	0: off 1: on		0(off)	41444	42444	43444	44444	
Continue mode	0: RSE 1: Con 2: ini		0(RSE)	41445	42445	43445	44445	

## Valve control

Contents	Reading out/Writing data setting range	Depends on Input range	Factory-set value	Register No.1 (Ch1)	Register No.2 (Ch2)	Register No.3 (Ch3)	Register No.4 (Ch4)	Entry ban
Valve control	0: PID control 1: SRV1 2: SRV2		0(PID control)	41312	42312	43312	44312	
Dead band setting of PFB	0.01 to 100.0	○	50.0	41295	42295	43295	44295	
Valve stroke time	5 to 180sec		5.0	41296	42296	43296	44296	

## Alarm parameters

Contents	Reading out/Writing data setting range	Depends on Input range	Factory-set value	Register No.1 (Ch1)	Register No.2 (Ch2)	Register No.3 (Ch3)	Register No.4 (Ch4)	Entry ban
ALM1 hysteresis	0 to 50% FS	○	1°C	41035	42035	43035	44035	
ALM1 delay time	0 to 99min.59sec. / 0 to 99hr.59min.		0	41037	42037	43037	44037	
ALM1 delay time units	0: sec. 1: min.		0 (sec.)	41038	42038	43038	44038	
ALM2 hysteresis	0 to 50% FS	○	1°C	41043	42043	43043	44043	
ALM2 delay time	0 to 99min.59sec. / 0 to 99hr.59min.		0	41045	42045	43045	44045	
ALM2 delay time units	0: sec. 1: min.		0 (sec.)	41046	42046	43046	44046	
ALM3 hysteresis	0 to 50% FS	○	1°C	41051	42051	43051	44051	
ALM3 delay time	0 to 99min.59sec. / 0 to 99hr.59min.		0	41053	42053	43053	44053	
ALM3 delay time units	0: sec. 1: min.		0 (sec.)	41054	42054	43054	44054	
ALM4 hysteresis	0 to 50% FS	○	1°C	41059	42059	43059	44059	
ALM4 delay time	0 to 99min.59sec. / 0 to 99hr.59min.		0	41061	42061	43061	44061	
ALM4 delay time units	0: sec. 1: min.		0 (sec.)	41062	42062	43062	44062	
ALM5 hysteresis	0 to 50% FS	○	1°C	41067	42067	43067	44067	
ALM5 delay time	0 to 99min.59sec. / 0 to 99hr.59min.		0	41069	42069	43069	44069	
ALM5 delay time units	0: sec. 1: min.		0 (sec.)	41070	42070	43070	44070	
Object Ch. No. for interchannel ALM1	1 to 4		1	41039	42039	43039	44039	
Object Ch. No. for interchannel ALM2	1 to 4		1	41047	42047	43047	44047	
Object Ch. No. for interchannel ALM3	1 to 4		1	41055	42055	43055	44055	
Object Ch. No. for interchannel ALM4	1 to 4		1	41063	42063	43063	44063	
Object Ch. No. for interchannel ALM5	1 to 4		1	41071	42071	43071	44071	
Changeover the arrangement of CT input terminal	0: AB arrangement 1: AA arrangement		0 (AB arrangement)	40202				*
CT[A]HB alarm set value	0.0 to 50.0(A)		0	41072	42072	43072	44072	
CT[A]HB alarm hysteresis	0.0 to 50.0(A)		0.5	41073	42073	43073	44073	
CT[A]HB load short-circuit alarm set value	0.0 to 50.0(A)		0	41074	42074	43074	44074	
CT[A]HB load short-circuit alarm hysteresis	0.0 to 50.0(A)		0.5	41075	42075	43075	44075	
CT B monitor	0:off 1:on		0(off)	41083	42083	43083	44083	
CT[B]HB alarm set value	0.0 to 50.0(A)		0	41076	42076	43076	44076	
CT[B]HB alarm hysteresis	0.0 to 50.0(A)		0.5	41077	42077	43077	44077	
CT[B]HB load short-circuit alarm set value	0.0 to 50.0(A)		0	41078	42078	43078	44078	

Contents	Reading out/Writing data setting range	Depends on Input range	Factory-set value	Register No.1 (Ch1)	Register No.2 (Ch2)	Register No.3 (Ch3)	Register No.4 (Ch4)	Entry ban
CT[B]HB load short-circuit alarm hysteresis	0.0 to 50.0(A)		0.5	41079	42079	43079	44079	
Loop break detection time	0 to 9999sec		0 (Off)	41080	42080	43080	44080	
Loop break detection band	0 to 100% FS	○	2.5% FS	41081	42081	43081	44081	



## Communication parameters

Contents	Reading out/Writing data setting range	Depends on Input range	Factory-set value	Register No.1 (Ch1)	Register No.2 (Ch2)	Register No.3 (Ch3)	Register No.4 (Ch4)	Entry ban
RS-485 Parity setting	0: None 1: Odd 2: Even		0		40111			*
RS-485 Communication speed	0: 9.6kbps 1: 19.2kbps 2: 38.4kbps 3: Forbidden 4: 115.2kbps		1		40115			*
RS-485 Communication permission	0: Ready only 1: Read/Write		1 (R/W)		40114			*
RS-485 Response interval time	0 to 25 (20ms/1digit)		0		40113			*
Enhanced communication module (PUMC) connection permission	0: PUMC not connected (RS-485 Enable) 1: PUMC connected (RS-485 Disable)		0 (RS-485 Enable)		40116			*
Master/slave setting in connected modules	0: Master 1: Slave		1 (Slave)		40117			*
User address 01 : Register No. specification	30000 to 49999		30002(PV1)		40301			*
User address 02 : Register No. specification	30000 to 49999		30002(PV1)		40302			*
User address 03 : Register No. specification	30000 to 49999		30002(PV1)		40303			*
User address 04 : Register No. specification	30000 to 49999		30002(PV1)		40304			*
User address 05 : Register No. specification	30000 to 49999		30002(PV1)		40305			*
User address 06 : Register No. specification	30000 to 49999		30002(PV1)		40306			*
User address 07 : Register No. specification	30000 to 49999		30002(PV1)		40307			*
User address 08 : Register No. specification	30000 to 49999		30002(PV1)		40308			*
User address 09 : Register No. specification	30000 to 49999		30002(PV1)		40309			*
User address 10 : Register No. specification	30000 to 49999		30002(PV1)		40310			*
User address 11 : Register No. specification	30000 to 49999		30002(PV1)		40311			*
User address 12 : Register No. specification	30000 to 49999		30002(PV1)		40312			*
User address 13 : Register No. specification	30000 to 49999		30002(PV1)		40313			*
User address 14 : Register No. specification	30000 to 49999		30002(PV1)		40314			*
User address 15 : Register No. specification	30000 to 49999		30002(PV1)		40315			*
User address 16 : Register No. specification	30000 to 49999		30002(PV1)		40316			*
User address 17 : Register No. specification	30000 to 49999		30002(PV1)		40317			*

## 5.5 Setting/Monitor Area Entry Numbers (Control module)

Contents	Reading out/Writing data setting range	Depends on Input range	Factory-set value	Register No.1 (Ch1)	Register No.2 (Ch2)	Register No.3 (Ch3)	Register No.4 (Ch4)	Entry ban
User address 18 : Register No. specification	30000 to 49999		30002(PV1)		40318			*
User address 19 : Register No. specification	30000 to 49999		30002(PV1)		40319			*
User address 20 : Register No. specification	30000 to 49999		30002(PV1)		40320			*
User address 21 : Register No. specification	30000 to 49999		30002(PV1)		40321			*
User address 22 : Register No. specification	30000 to 49999		30002(PV1)		40322			*
User address 23 : Register No. specification	30000 to 49999		30002(PV1)		40323			*
User address 24 : Register No. specification	30000 to 49999		30002(PV1)		40324			*
User address 25 : Register No. specification	30000 to 49999		30002(PV1)		40325			*
User address 26 : Register No. specification	30000 to 49999		30002(PV1)		40326			*
User address 27 : Register No. specification	30000 to 49999		30002(PV1)		40327			*
User address 28 : Register No. specification	30000 to 49999		30002(PV1)		40328			*
User address 29 : Register No. specification	30000 to 49999		30002(PV1)		40329			*
User address 30 : Register No. specification	30000 to 49999		30002(PV1)		40330			*
User address 31 : Register No. specification	30000 to 49999		30002(PV1)		40331			*
User address 32 : Register No. specification	30000 to 49999		30002(PV1)		40332			*
User address 01 : R/W field	Depends on "User address 01"		-		45001			*
User address 02 : R/W field	Depends on "User address 02"		-		45002			*
User address 03 : R/W field	Depends on "User address 03"		-		45003			*
User address 04 : R/W field	Depends on "User address 04"		-		45004			*
User address 05 : R/W field	Depends on "User address 05"		-		45005			*
User address 06 : R/W field	Depends on "User address 06"		-		45006			*
User address 07 : R/W field	Depends on "User address 07"		-		45007			*
User address 08 : R/W field	Depends on "User address 08"		-		45008			*
User address 09 : R/W field	Depends on "User address 09"		-		45009			*
User address 10 : R/W field	Depends on "User address 10"		-		45010			*
User address 11 : R/W field	Depends on "User address 11"		-		45011			*
User address 12 : R/W field	Depends on "User address 12"		-		45012			*

## 5.5 Setting/Monitor Area Entry Numbers (Control module)

Contents	Reading out/Writing data setting range	Depends on Input range	Factory-set value	Register No.1 (Ch1)	Register No.2 (Ch2)	Register No.3 (Ch3)	Register No.4 (Ch4)	Entry ban
User address 13 : R/W field	Depends on "User address 13"		-	45013				*
User address 14 : R/W field	Depends on "User address 14"		-	45014				*
User address 15 : R/W field	Depends on "User address 15"		-	45015				*
User address 16 : R/W field	Depends on "User address 16"		-	45016				*
User address 17 : R/W field	Depends on "User address 17"		-	45017				*
User address 18 : R/W field	Depends on "User address 18"		-	45018				*
User address 19 : R/W field	Depends on "User address 19"		-	45019				*
User address 20 : R/W field	Depends on "User address 20"		-	45020				*
User address 21 : R/W field	Depends on "User address 21"		-	45021				*
User address 22 : R/W field	Depends on "User address 22"		-	45022				*
User address 23 : R/W field	Depends on "User address 23"		-	45023				*
User address 24 : R/W field	Depends on "User address 24"		-	45024				*
User address 25 : R/W field	Depends on "User address 25"		-	45025				*
User address 26 : R/W field	Depends on "User address 26"		-	45026				*
User address 27 : R/W field	Depends on "User address 27"		-	45027				*
User address 28 : R/W field	Depends on "User address 28"		-	45028				*
User address 29 : R/W field	Depends on "User address 29"		-	45029				*
User address 30 : R/W field	Depends on "User address 30"		-	45030				*
User address 31 : R/W field	Depends on "User address 31"		-	45031				*
User address 32 : R/W field	Depends on "User address 32"		-	45032				*

## Configuration parameters

Contents	Reading out/Writing data setting range	Depends on Input range	Factory-set value	Register No.1 (Ch1)	Register No.2 (Ch2)	Register No.3 (Ch3)	Register No.4 (Ch4)	Entry ban
Control when burnout is detected	0: Stop control 1: Continue control		0 (Stop control)	41407	42407	43407	44407	
LED2 Lamp Configuration	0 to 255		1	40222				*
LED3 Lamp Configuration	0 to 255		12	40223				*
LED4 Lamp Configuration	0 to 255		13	40224				*
LED5 Lamp Configuration	0 to 255		14	40225				*
LED6 Lamp Configuration	0 to 255		15	40226				*
Reset main unit	0: Do nothing 1: Reset main unit		0	40101				*

## Monitor parameters

### Note

Monitor parameter can be entered to the monitor area only. Do not enter it to the setting area.

Contents	Reading out/Writing data setting range	Depends on Input range	Factory-set value	Register No.1 (Ch1)	Register No.2 (Ch2)	Register No.3 (Ch3)	Register No.4 (Ch4)	Entry ban
SV value	0 to 100% FS	○	-	30905	30906	30907	30908	
Remote mode switch	0: Local 1: Remote		-	30030 31037	30031 32037	30032 33037	30033 34037	
System time	0 to 65535		-	30001				
Measurement value (PV)	-5 to 105% FS		-	30002 31001	30003 32001	30004 33001	30005 34001	
Measurement value (SV)	0 to 100% FS		-	30006 31002	30007 32002	30008 33002	30009 34002	
DV	-105 to 105% FS		-	30010 31003	30011 32003	30012 33003	30013 34003	
Output value (MV1)	-3.0 to 103.0%		-	30014 31004	30016 32004	30018 33004	30020 34004	
Output value (MV2)	-3.0 to 103.0%		-	30015 31005	30017 32005	30019 33005	30021 34005	
Remote SV (RSV)	0.0 to 100.0% FS		-	30022 31045	30023 32045	30024 33045	30025 34045	
RCJtemp	-3276.7 to 3276.7°C		-	30110 31016	30111 32016	30112 33016	30113 34016	
Heater current [A]	0.0 to 50.0A		-	30071 31046	30073 32046	30075 33046	30077 34046	
Heater current [B]	0.0 to 50.0A		-	30072 31047	30074 32047	30076 33047	30078 34047	
Leak current [A]	0.0 to 50.0A		-	30081 31048	30083 32048	30085 33048	30087 34048	
Leak current [B]	0.0 to 50.0A		-	30082 31049	30084 32049	30086 33049	30088 34049	
Error source display	0 to FFFF		-	31008	32008	33008	34008	
Alarm 1 to 5 status	0 to 001F		-	31007	32007	33007	34007	

## 5.5 Setting/Monitor Area Entry Numbers (Control module)

Contents	Reading out/Writing data setting range	Depends on Input range	Factory-set value	Register No.1 (Ch1)	Register No.2 (Ch2)	Register No.3 (Ch3)	Register No.4 (Ch4)	Entry ban
Event input status	0 to FFFF		-	31061	32061	33061	34061	
Remaining time on timer 1	0 to 99min.59sec. / 0 to 99hr. 59min.		-	31011	32011	33011	34011	
Remaining time on timer 2	0 to 99min.59sec. / 0 to 99hr. 59min.		-	31012	32012	33012	34012	
Remaining time on timer 3	0 to 99min.59sec. / 0 to 99hr. 59min.		-	31013	32013	33013	34013	
Remaining time on timer 4	0 to 99min.59sec. / 0 to 99hr. 59min.		-	31014	32014	33014	34014	
Remaining time on timer 5	0 to 99min.59sec. / 0 to 99hr. 59min.		-	31015	32015	33015	34015	
Output value	-3.0 to 103.0%		-	30120	30121	30122	30123	
RS-485 communication permission	0: Read only 1: Read/ Write		-	30062				
PWM Output status monitor (ALL)	0 to 15		-	30066				
PWM Output status monitor (each Ch)	0 to 15		-	31906	32906	33906	34906	
Estimated MV value	0.0 to 100.0%		-	30931 31907	30932 32907	30933 33907	30934 34907	
Ramp/Soak progress	0 to 129		-	30034 31009	30035 32009	30036 33009	30037 34009	
Ramp/Soak elapsed time	0 to 99min59sec /0 to 99hr59min		-	30038 31010	30039 32010	30040 33010	30041 34010	
RS485 communication error alarm monitor	0 to FFFF			30067				

## 5.6 Setting/Monitor Area Entry Numbers (Event I/O module)

The table below shows the register numbers of an event I/O module, which are settable to each parameter of "Setting/Monitor area entry St. No." and "Setting/Monitor area entry register No." of a programless communication module.

### Note

Parameters marked "\*" in the "Entry ban" column in the table can not be changed via programless communication modules.  
Do not set them to each parameter of "Setting/Monitor area entry St. No." and "Setting/Monitor area entry register No."

### Operation parameters

Contents	Reading out/Writing data setting range	Factory-set value	Register No.	Entry ban
RUN/Standby Switch	0: RUN 1: Standby	0	40021	
DI output unlatch command	0: OFF 1: Unlatch	0	40022	
DO output unlatch command	0: OFF 1: Unlatch	0	40023	

### Digital input parameters

Contents	Reading out/Writing data setting range	Factory-set value	Register No.	Entry ban
DI1 input option	Bit 0 : LATCH Bit 1 : NOT Bit 2 : AND Bit 3 : OR	0	40701	
DI1 input logic operation AND	0-00FF	0	40703	
DI1 input logic operation OR	0-00FF	0	40704	
DI2 input option	0-15	0	40705	
DI2 input logic operation AND	0-00FF	0	40707	
DI2 input logic operation OR	0-00FF	0	40708	
DI3 input option	0-15	0	40709	
DI3 input logic operation AND	0-00FF	0	40711	
DI3 input logic operation OR	0-00FF	0	40712	
DI4 input option	0-15	0	40713	

## 5.6 Setting/Monitor Area Entry Numbers (Event module)

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Contents	Reading out/Writing data setting range	Factory-set value	Register No.	Entry ban
D14 input logic operation AND	0-00FF	0	40715	
D14 input logic operation OR	0-00FF	0	40716	
D15 input option	0-15	0	40717	
D15 input logic operation AND	0-00FF	0	40719	
D15 input logic operation OR	0-00FF	0	40720	
D16 input option	0-15	0	40721	
D16 input logic operation AND	0-00FF	0	40723	
D16 input logic operation OR	0-00FF	0	40724	
D17 input option	0-15	0	40725	
D17 input logic operation AND	0-00FF	0	40727	
D17 input logic operation OR	0-00FF	0	40728	
D18 input option	0-15	0	40729	
D18 input logic operation AND	0-00FF	0	40731	
D18 input logic operation OR	0-00FF	0	40732	

## Digital output parameters

Contents	Reading out/Writing data setting range	Factory-set value	Register No.	Entry ban
DO1 output type	0: Event output 1: Control output	0	40401	*
DO1 master St. No.	0-255	0	40402	*
DO1 master Ch. No.	1-4	1	40403	*
DO1 BIT position	0-FFFF	1	40404	
DO1 output option	Bit 0 : LATCH Bit 1 : NOT Bit 2 : AND Bit 3 : OR	0	40405	
DO1 output logic operation AND	0-00FF	0	40407	
DO1 output logic operation OR	0-00FF	0	40408	
DO1 scaling base	-100.0 - +100.0	0	40409	
DO1 scaling span	-100.0 - +100.0	1000	40410	
DO1 proportion cycle	1-120	30	40411	
DO1 output limit (lower)	0.0 - 100.0	0	40412	
DO1 output limit (upper)	0.0 - 100.0	1000	40413	
DO1 limit type	0: Lower limit -3%, Upper limit 103% 1: Lower limit, Upper limit 103% 2: Lower limit -3%, Upper limit 3: Lower limit, Upper limit	0	40414	
DO2 output type	0: Event output 1: Control output	0	40415	*
DO2 master St. No.	0-255	0	40416	*
DO2 master Ch. No.	1-4	1	40417	*
DO2 BIT position	0-FFFF	2	40418	
DO2 output option	0-15	0	40419	
DO2 output logic operation AND	0-00FF	0	40421	
DO2 output logic operation OR	0-00FF	0	40422	
DO2 scaling base	-100.0 - +100.0	0	40423	
DO2 scaling span	-100.0 - +100.0	1000	40424	
DO2 proportion cycle	1-120	30	40425	
DO2 output limit (lower)	0.0 - 100.0	0	40426	
DO2 output limit (upper)	0.0 - 100.0	1000	40427	
DO2 limit type	0-3	0	40428	
DO3 output type	0: Event output 1: Control output	0	40429	*
DO3 master St. No.	0-255	0	40430	*
DO3 master Ch. No.	1-4	1	40431	*
DO3 BIT position	0-FFFF	4	40432	



## 5.6 Setting/Monitor Area Entry Numbers (Event module)

Contents	Reading out/Writing data setting range	Factory-set value	Register No.	Entry ban
DO3 output option	0-15	0	40433	
DO3 output logic operation AND	0-00FF	0	40435	
DO3 output logic operation OR	0-00FF	0	40436	
DO3 scaling base	-100.0 - +100.0	0	40437	
DO3 scaling span	-100.0 - +100.0	1000	40438	
DO3 proportion cycle	1-120	30	40439	
DO3 output limit (lower)	0.0 - 100.0	0	40440	
DO3 output limit (upper)	0.0 - 100.0	1000	40441	
DO3 limit type	0-3	0	40442	
DO4 output type	0: Event output 1: Control output	0	40443	*
DO4 master St. No.	0-255	0	40444	*
DO4 master Ch. No.	1-4	1	40445	*
DO4 BIT position	0-FFFF	8	40446	
DO4 output option	0-15	0	40447	
DO4 output logic operation AND	0-00FF	0	40449	
DO4 output logic operation OR	0-00FF	0	40450	
DO4 scaling base	-100.0 - +100.0	0	40451	
DO4 scaling span	-100.0 - +100.0	1000	40452	
DO4 proportion cycle	1-120	30	40453	
DO4 output limit (lower)	0.0 - 100.0	0	40454	
DO4 output limit (upper)	0.0 - 100.0	1000	40455	
DO4 limit type	0-3	0	40456	
DO5 output type	0: Event output 1: Control output	0	40457	*
DO5 master St. No.	0-255	0	40458	*
DO5 master Ch. No.	1-4	1	40459	*
DO5 BIT position	0-FFFF	16	40460	
DO5 output option	0-15	0	40461	
DO5 output logic operation AND	0-00FF	0	40463	
DO5 output logic operation OR	0-00FF	0	40464	
DO5 scaling base	-100.0 - +100.0	0	40465	
DO5 scaling span	-100.0 - +100.0	1000	40466	
DO5 proportion cycle	1-120	30	40467	
DO5 output limit (lower)	0.0 - 100.0	0	40468	
DO5 output limit (upper)	0.0 - 100.0	1000	40469	
DO5 limit type	0-3	0	40470	

Contents	Reading out/Writing data setting range	Factory-set value	Register No.	Entry ban
DO6 output type	0: Event output 1: Control output	0	40471	*
DO6 master St. No.	0-255	0	40472	*
DO6 master Ch. No.	1-4	1	40473	*
DO6 BIT position	0-FFFF	0	40474	
DO6 output option	0-15	0	40475	
DO6 output logic operation AND	0-00FF	0	40477	
DO6 output logic operation OR	0-00FF	0	40478	
DO6 scaling base	-100.0 - +100.0	0	40479	
DO6 scaling span	-100.0 - +100.0	1000	40480	
DO6 proportion cycle	1-120	30	40481	
DO6 output limit (lower)	0.0 - 100.0	0	40482	
DO6 output limit (upper)	0.0 - 100.0	1000	40483	
DO6 limit type	0-3	0	40484	
DO7 output type	0: Event output 1: Control output	0	40485	*
DO7 master St. No.	0-255	0	40486	*
DO7 master Ch. No.	1-4	1	40487	*
DO7 BIT position	0-FFFF	0	40488	
DO7 output option	0-15	0	40489	
DO7 output logic operation AND	0-00FF	0	40491	
DO7 output logic operation OR	0-00FF	0	40492	
DO7 scaling base	-100.0 - +100.0	0	40493	
DO7 scaling span	-100.0 - +100.0	1000	40494	
DO7 proportion cycle	1-120	30	40495	
DO7 output limit (lower)	0.0 - 100.0	0	40496	
DO7 output limit (upper)	0.0 - 100.0	1000	40497	
DO7 limit type	0-3	0	40498	
DO8 output type	0: Event output 1: Control output	0	40499	*
DO8 master St. No.	0-255	0	40500	*
DO8 master Ch. No.	1-4	1	40501	*
DO8 BIT position	0-FFFF	0	40502	
DO8 output option	0-15	0	40503	
DO8 output logic operation AND	0-00FF	0	40505	
DO8 output logic operation OR	0-00FF	0	40506	
DO8 scaling base	-100.0 - +100.0	0	40507	
DO8 scaling span	-100.0 - +100.0	1000	40508	
DO8 proportion cycle	1-120	1	40509	

## 5.6 Setting/Monitor Area Entry Numbers (Event module)

Contents	Reading out/Writing data setting range	Factory-set value	Register No.	Entry ban
DO8 output limit (lower)	0.0 - 100.0	0	40510	
DO8 output limit (upper)	0.0 - 100.0	1000	40511	
DO8 limit type	0-3	0	40512	

## Communication parameters

Contents	Reading out/Writing data setting range	Factory-set value	Register No.	Entry ban
RS-485 parity setting	0: None 1: Odd 2: Even	0	40111	*
RS-485 response interval time	0 to 25 (1digit/20ms)	1	40113	*
RS-485 communication permission	0: Ready only 1: Read/Write	1	40114	*
RS-485 communication speed	0: 9.6kbps 1: 19.2kbps 2: 38.4kbps 3: Forbidden 4: 115.2kbps	1	40115	*
Enhanced communication module (PUMC) connection permission	0: PUMC not connected (RS-485 Enable) 1: PUMC connected (RS-485 Disable)	0	40116	*

## Configuration parameters

Contents	Reading out/Writing data setting range	Factory-set value	Register No.	Entry ban
FAULT output 1 set value	0: HOLD 1: OFF	0	40260	
Standby output set value	0000-FFFF	0	40268	
Standby mode setting	0: DI=input value DO= Standby output set value 1: DI=All OFF DO=Standby output set value	0	40270	
LED2 Lamp configuration	0-2	1	40222	*

## Monitor parameters

### Note

Monitor parameter can be entered to the monitor area only. Do not enter it to the setting area.

Contents	Reading out/Writing data setting range	Factory-set value	Register No.	Entry ban
Digital output calculated result monitor	0000 - FFFF	-	31002	
Digital input calculated result monitor	0000 - FFFF	-	31001	
Digital input terminal monitor	0000 - FFFF	-	31003	

## Internal DO data area

Contents	Reading out/Writing data setting range	Factory-set value	Register No.	Entry ban
Internal DO data area 1	Event output 1: ON 2: OFF Control output 0.00 to 100.00	0	41001	
Internal DO data area 2		0	41002	
Internal DO data area 3		0	41003	
Internal DO data area 4		0	41004	
Internal DO data area 5		0	41005	
Internal DO data area 6		0	41006	
Internal DO data area 7		0	41007	
Internal DO data area 8		0	41008	
Internal DO data area 9		0	41009	
Internal DO data area 10		0	41010	
Internal DO data area 11		0	41011	
Internal DO data area 12		0	41012	
Internal DO data area 13		0	41013	
Internal DO data area 14		0	41014	
Internal DO data area 15		0	41015	
Internal DO data area 16		0	41016	

## 5.7 Setting/Monitor Area Entry Numbers (Analog module)

The table below shows the register numbers of an analog module, which are settable to each parameter of "Setting/Monitor area entry St. No." and "Setting/Monitor area entry register No." of a programless communication module.

### Note

Parameters marked "\*" in the "Entry ban" column in the table can not be changed via programless communication modules.  
Do not set them to each parameter of "Setting/Monitor area entry St. No." and "Setting/Monitor area entry register No."

### Operation parameters

Contents	Readout/Write data setting range	Depends on input range	Factory-set value	Register No. 1 (Ch1)	Register No. 2 (Ch2)	Register No. 3 (Ch3)	Register No. 4 (Ch4)	Entry ban	Aio	Ai	Ao
RUN/Standby SW	0: RUN 1: Standby		0 (RUN)	40017 41004	40018 42004	40019 43004	40020 44004		○	○	○
Internal analog output field	-327.6 to 327.6%		0	40251	40252	40253	40254		○	×	○
Digital output latch release command	0: OFF 1: Release latch		0 (OFF)	41031	42031	43031	44031		○	○	×
ALM1 set value 1	-100 to 100% FS	○	2.5% FS	41033	42033	43033	44033				
ALM1 set value 2	-100 to 100% FS	○	2.5% FS	41034	42034	43034	44034				
ALM2 set value 1	-100 to 100% FS	○	2.5% FS	41041	42041	43041	44041				
ALM2 set value 2	-100 to 100% FS	○	2.5% FS	41042	42042	43042	44042				
ALM3 set value 1	-100 to 100% FS	○	2.5% FS	41049	42049	43049	44049				
ALM3 set value 2	-100 to 100% FS	○	2.5% FS	41050	42050	43050	44050				
ALM4 set value 1	-100 to 100% FS	○	2.5% FS	41057	42057	43057	44057				
ALM4 set value 2	-100 to 100% FS	○	2.5% FS	41058	42058	43058	44058				
ALM5 set value 1	-100 to 100% FS	○	2.5% FS	41065	42065	43065	44065				
ALM5 set value 2	-100 to 100% FS	○	2.5% FS	41066	42066	43066	44066				

## Setup parameters

Contents	Readout/Write data setting range	Depends on input range	Factory-set value	Register No. 1 (Ch1)	Register No. 2 (Ch2)	Register No. 3 (Ch3)	Register No. 4 (Ch4)	Entry ban	Aio	Ai	Ao
Analog input type	0: JPt100(0 to 150°C) 1: JPt100(-150 to 600°C) 2: Pt100(0 to 150°C) 3: Pt100(-150 to 300°C) 4: Pt100(-150 to 850°C) 5: J(0 to 400°C) 6: J(0 to 800°C) 7: K(0 to 400°C) 8: K(0 to 800°C) 9: K(0 to 1200°C) 10: R(0 to 1600°C) 11: B(0 to 1800°C) 12: S(0 to 1600°C) 13: T(-199 to 400°C) 14: E(-199 to 800°C) 18: N(0 to 1300°C) 19: PL-2(0 to 1300°C) 21: Voltage (0 to 5V) 22: Voltage (1 to 5V) 23: Voltage (0 to 10V) 24: Voltage (2 to 10V)		7(TC/Pt) 22(VI)	40151 41029	40152 42029	40153 43029	40154 44029	*	○	○	×
Analog input scale lower	-1999 to 9999		0% FS	41212	42212	43212	44212	*			
Analog input scale upper	-1999 to 9999		100% FS	41213	42213	43213	44213	*			
Decimal place	0: No decimal point 1: One decimal place 2: Two decimal places		0 (TC/Pt) 1 (VI)	41214	42214	43214	44214	*			
Temperature unit	0: Degree C 1: Not selectable		0 (°C)	41215	42215	43215	44215	*			
Analog input shift	-10 to 10% FS	○	0	41216	42216	43216	44216				
Analog input filter	0.0 to 120.0sec		2.0	41220	42220	43220	44220				
Analog input display zero adjustment	-50 to 50% FS	○	0	41221	42221	43221	44221				
Analog input display span adjustment	-50 to 50% FS	○	0	41222	42222	43222	44222				
Cold junction compensation	0: OFF 1: ON		1 (ON)	41223	42223	43223	44223				
Analog output lower limit	-25.0 to 125.0%		-3.0	41255	42255	43255	44255		○	×	○
Analog output upper limit	-25.0 to 125.0%		103.0	41256	42256	43256	44256				
Standby analog output set value	-3.0 to 103.0%		-3.0	41268	42268	43268	44268				

## 5.7 Setting/Monitor Area Entry Numbers (Analog module)

Contents	Readout/Write data setting range	Depends on input range	Factory-set value	Register No. 1 (Ch1)	Register No. 2 (Ch2)	Register No. 3 (Ch3)	Register No. 4 (Ch4)	Entry ban	Aio	Ai	Ao
Standby mode setting	0: ALM=OFF 1: ALM=ON		0	41270	42270	43270	44270		○	○	×
Linkage operation master St. No.	0 to 255		0	41536	42536	43536	44536	*	○	○	○
Linkage operation master Ch. No	1 to 4		Each Ch.	41537	42537	43537	44537	*			

## System parameters

Contents	Readout/Write data setting range	Depends on input range	Factory-set value	Register No. 1 (Ch1)	Register No. 2 (Ch2)	Register No. 3 (Ch3)	Register No. 4 (Ch4)	Entry ban	Aio	Ai	Ao
Current output range	4: 0 to 20mA 5: 4 to 20mA		5 (4-20mA)	40166 41801	40167 42801	40168 43801	40169 44801		○	×	○
Output type	0: Ai of own station 1: Output 0% 2: Output 0% 3: Output 0% 4: Internal analog output field 5: PV of other St. 6: SV of other St. 7: MV of other St.		3 (output 0%)	40171 41803	40177 42803	40183 43803	40189 44803				
Output master St.	0 to 255 stations		0	40172 41804	40178 42804	40184 43804	40190 44804	*			
Output master Ch.	1 to 4Ch		Each Ch.	40173 41805	40179 42805	40185 43805	40191 44805	*			
Output scaling base	-100.0 to 100.0%		0.0	40175 41807	40181 42807	40187 43807	40193 44807				
Output scaling span	-100.0 to 1000.0		100.0	40174 41806	40180 42806	40186 43806	40192 44806				
Output shutdown	0000 to 1111 bit 0 : Output 1 shutdown bit 1 : Output 2 shutdown bit 2 : Output 3 shutdown bit 3 : Output 4 shutdown		0000	40201							
DI-1 function select	0: No function 1: RUN/Standby SW 2: No function 3: No function 4: No function 5: No function 6: No function 7: No function 8: No function 9: No function 10: No function 11: No function 12: No function 13: No function 14: No function 15: No function 16: No function 17: Latch release (all) 18: Latch release (DO1) 19: Latch release (DO2) 20: Latch release (DO3) 21: Latch release (DO4) 22: Latch release (DO5) 23: No function		0	41013	42013	43013	44013		○	○	○



## 5.7 Setting/Monitor Area Entry Numbers (Analog module)

Contents	Readout/Write data setting range	Depends on input range	Factory-set value	Register No. 1 (Ch1)	Register No. 2 (Ch2)	Register No. 3 (Ch3)	Register No. 4 (Ch4)	Entry ban	Aio	Ai	Ao
DI-1 function select	24: No function 25: No function 26: Start timer(DO1) 27: Start timer(DO2) 28: Start timer(DO3) 29: Start timer(DO4) 30: Start timer(DO5) 31: No function 32: No function 33: No function 34: No function 35: No function 36: No function 37: No function 38: No function 39: No function 40: No function 41: No function 42: No function 43: No function 44: No function 45: No function 46: No function 47: No function 48: No function 49: Output 1 shutdown 50: Output 2 shutdown 51: Output 3 shutdown 52: Output 4 shutdown		0	41013	42013	43013	44013		○	○	○
DI-2 function select	0 to 52		0	41014	42014	43014	44014				
DI-3 function select	0 to 52		0	41015	42015	43015	44015				
DI-4 function select	0 to 52		0	41016	42016	43016	44016				
DI-5 function select	0 to 52		0	41017	42017	43017	44017				
DI-6 function select	0 to 52		0	41018	42018	43018	44018				
DI-7 function select	0 to 52		0	41019	42019	43019	44019				
DI-8 function select	0 to 52		0	41020	42020	43020	44020				
DI-9 function select	0 to 52		0	41021	42021	43021	44021				
DI-10 function select	0 to 52		0	41022	42022	43022	44022				
DI-11 function select	0 to 52		0	41023	42023	43023	44023				
DI-12 function select	0 to 52		0	41024	42024	43024	44024				
DI-13 function select	0 to 52		0	41025	42025	43025	44025				
DI-14 function select	0 to 52		0	41026	42026	43026	44026				
DI-15 function select	0 to 52		0	41027	42027	43027	44027				
DI-16 function select	0 to 52		0	41028	42028	43028	44028				
DI master St. setting	0 to 255		0	41011	42011	43011	44011	*			

## 5.7 Setting/Monitor Area Entry Numbers (Analog module)

Contents	Readout/Write data setting range	Depends on input range	Factory-set value	Register No. 1 (Ch1)	Register No. 2 (Ch2)	Register No. 3 (Ch3)	Register No. 4 (Ch4)	Entry ban	Aio	Ai	Ao
DO 1 output event type setting	0-102		0	41032	42032	43032	44032	*	○	○	×
DO1 option function setting	0000 to 1111 bit 0 : Alarm latch function bit 1 : Error input alarm function bit 2 : Non-excitation output function bit 3 : Hold reset function		0000	41036	42036	43036	44036				
DO2 output event type setting	0-102		0	41040	42040	43040	44040	*			
DO2 option function setting	0000 to 1111 bit 0 : Alarm latch function bit 1 : Error input alarm function bit 2 : Non-excitation output function bit 3 : Hold reset function		0000	41044	42044	43044	44044				
DO3 output event type setting	0-102		0	41048	42048	43048	44048	*			
DO3 option function setting	0000 to 1111 bit 0 : Alarm latch function bit 1 : Error input alarm function bit 2 : Non-excitation output function bit 3 : Hold reset function		0000	41052	42052	43052	44052				
DO4 output event type setting	0-102		0	41056	42056	43056	44056	*			
DO4 option function setting	0000 to 1111 bit 0 : Alarm latch function bit 1 : Error input alarm function bit 2 : Non-excitation output function bit 3 : Hold reset function		0000	41060	42060	43060	44060				
DO5 output event type setting	0-102		0	41064	42064	43064	44064	*			
DO5 option function setting	0000 to 1111 bit 0 : Alarm latch function bit 1 : Error input alarm function bit 2 : Non-excitation output function bit 3 : Hold reset function		0000	41068	42068	43068	44068				
Mode at startup	0: Auto mode 1: Standby 2: Standby 3: Standby		0 (Auto)	41304	42304	43304	44304	*	○	○	○

## Alarm parameter

Contents	Readout/Write data setting range	Depends on input range	Factory-set value	Register No. 1 (Ch1)	Register No. 2 (Ch2)	Register No. 3 (Ch3)	Register No. 4 (Ch4)	Entry ban	Aio	Ai	Ao
ALM1 hysteresis	0 to 50% FS	○	0.25% FS	41035	42035	43035	44035		○	○	×
ALM1 delay time	0 to 99 min. 59sec. /0 to 99hr. 59min.		0	41037	42037	43037	44037				
ALM1 delay time units	0: sec. 1: min.		0 (Second)	41038	42038	43038	44038				
ALM2 hysteresis	0 to 50% FS	○	0.25% FS	41043	42043	43043	44043				
ALM2 delay time	0 to 99 min. 59sec. /0 to 99hr. 59min.		0	41045	42045	43045	44045				
ALM2 delay time units	0: sec. 1: min.		0 (Second)	41046	42046	43046	44046				
ALM3 hysteresis	0 to 50% FS	○	0.25% FS	41051	42051	43051	44051				
ALM3 delay time	0 to 99 min. 59sec. /0 to 99hr. 59min.		0	41053	42053	43053	44053				
ALM3 delay time units	0: sec. 1: min.		0 (Second)	41054	42054	43054	44054				
ALM4 hysteresis	0 to 50% FS	○	0.25% FS	41059	42059	43059	44059				
ALM4 delay time	0 to 99 min. 59sec. /0 to 99hr. 59min.		0	41061	42061	43061	44061				
ALM4 delay time units	0: sec. 1: min.		0 (Second)	41062	42062	43062	44062				
ALM5 hysteresis	0 to 50% FS	○	0.25% FS	41067	42067	43067	44067				
ALM5 delay time	0 to 99 min. 59sec. /0 to 99hr. 59min.		0	41069	42069	43069	44069				
ALM5 delay time units	0: sec. 1: min.		0 (Second)	41070	42070	43070	44070				
Object Ch. No. for interchannel ALM1	1 to 4		1	41039	42039	43039	44039				
Object Ch. No. for interchannel ALM2	1 to 4		1	41047	42047	43047	44047				
Object Ch. No. for interchannel ALM3	1 to 4		1	41055	42055	43055	44055				
Object Ch. No. for interchannel ALM4	1 to 4		1	41063	42063	43063	44063				
Object Ch. No. for interchannel ALM5	1 to 4		1	41071	42071	43071	44071				

# 6

## Loader Communications

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# 6.1 Loader Communication Functions

The equipment equipped with communication functions via the loader interface, which enables data exchange to such devices as PC.

The communication system composed of the one to one communication between a master (such as, personal computer) and a slave (the equipment).

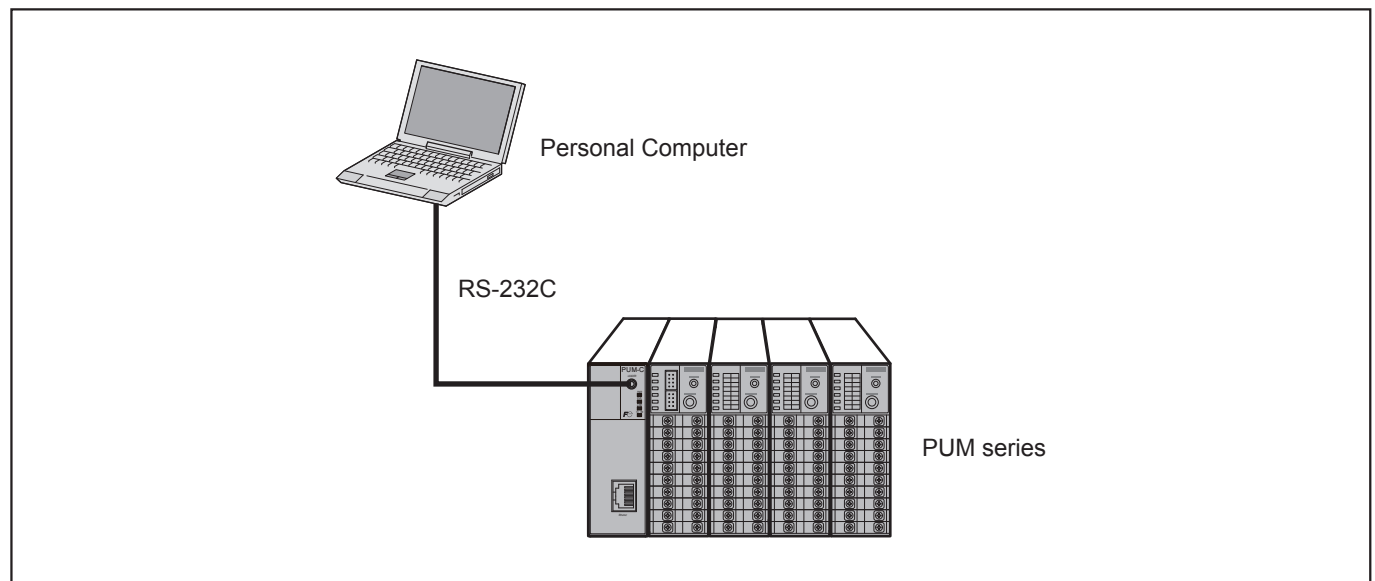
## Note

- The system constructed with the equipment as slaves do not respond to messages issued by the master with broadcast queries are where the station number is "0".
- Communications with a loader interface should not be performed during production operation.
- The equipment can not perform communication to a programless communication module with it connected to a loader port on the control module.

The sending/receiving data format should be same to perform communication between a master and a slave. The communication data format by the MODBUS protocol is explained in this manual.

When performing the loader communication, connect an optional loader connecting cable (RS-232C, Type: PUMZ\*L01) to the front face loader communication port of the main unit in order to perform RS-232 communication to the personal computer.

## Connection with PC



# 6.2 Loader Communication Specifications

## Loader interface

Item	Specifications	
Electrical specifications	EIA RS232C	
Transmission method	3-wire system, half duplex serial	
Synchronous method	Asynchronous	
Connection mode	1 : 1	
Station number	128	
Communication speed	19.2kbps (fixed)	
Data format	Data length	8 bits
	Stop bit	1 bits
	Parity	None (fixed)
Transmission code	HEX value (MODBUS RTU mode)	
Error detection	CRC-16	
Insulation	No insulation with the internal circuit	

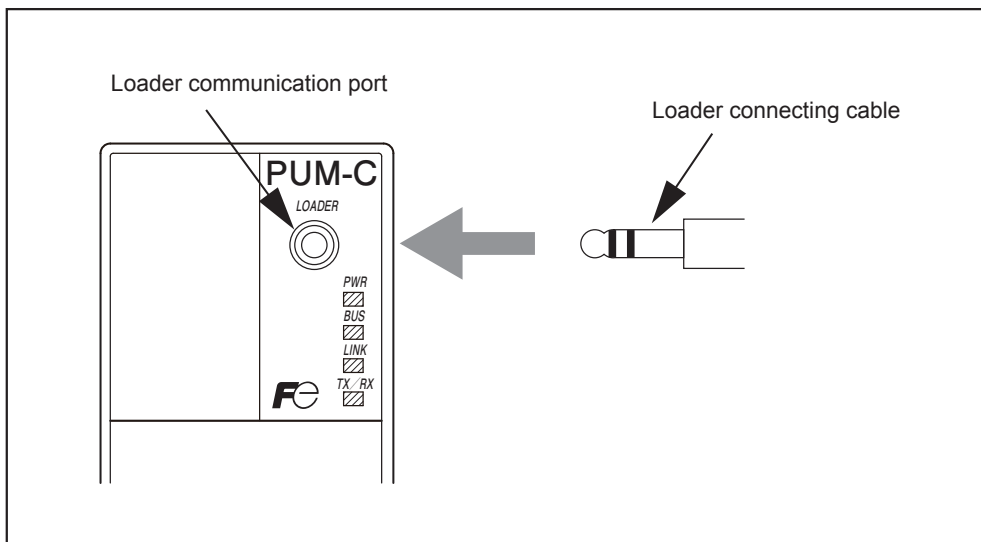
## 6.3 Loader Connection

### Warning



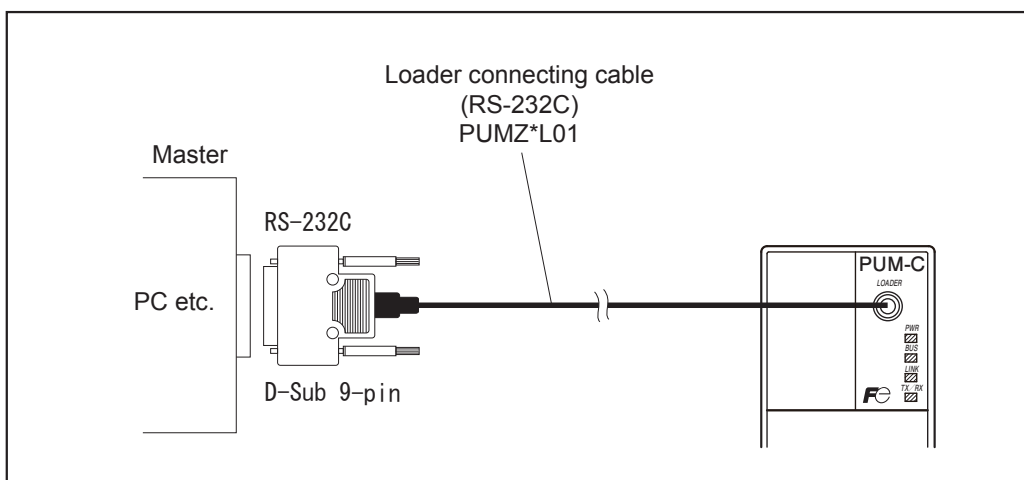
DO NOT TURN THE POWER ON UNTIL ALL OF THE WIRING IS COMPLETED.  
THERE IS A RISK OF ELECTRICAL SHOCK OR DAMAGE.

### Communication terminal



### Connection with a loader communication port

- Use an optional loader connecting cable (RS-232C).





## 6.4 Setting Loader Communication Parameters

In order to perform communication between the master and the equipment properly, the setting below is necessary.

- All communication conditions settings for both of the master and the equipment should be the same.

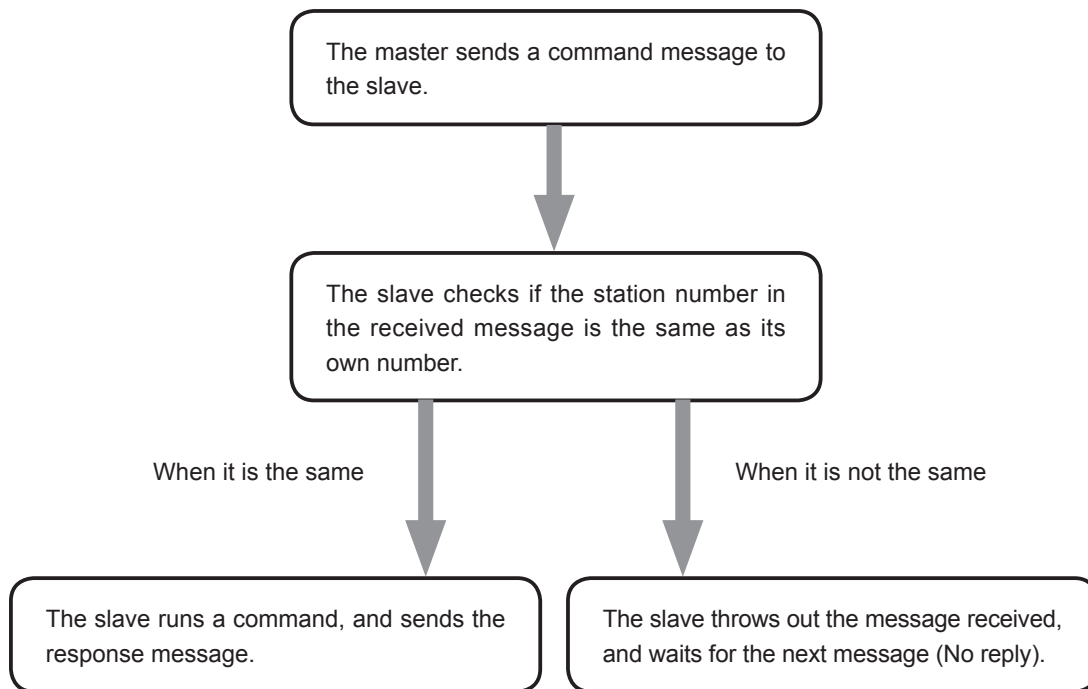
### Setting items for loader interface (The equipment)

Items	Setting range	Factory-set value	Remarks column
Station No.	128	128	The value is fixed regardless of the setting of St. No. configuration SW.
Communication speed setting	19.2kbps (Fixed)	—	Not changeable
Data length	8 bits	—	Not changeable
Parity	None	—	Not changeable

## 6.5 MODBUS Communication Protocol

The communication system with MODBUS protocol always performs communication by using the procedure that “the master sends a command message first, and the applicable slave sends a response message back”.

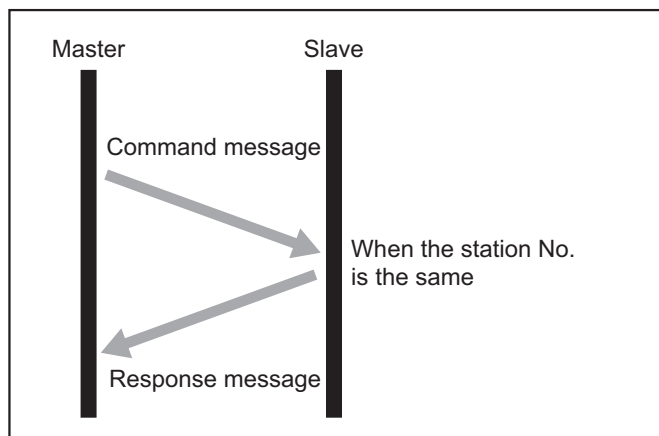
Communication procedure is shown in the flow chart below.



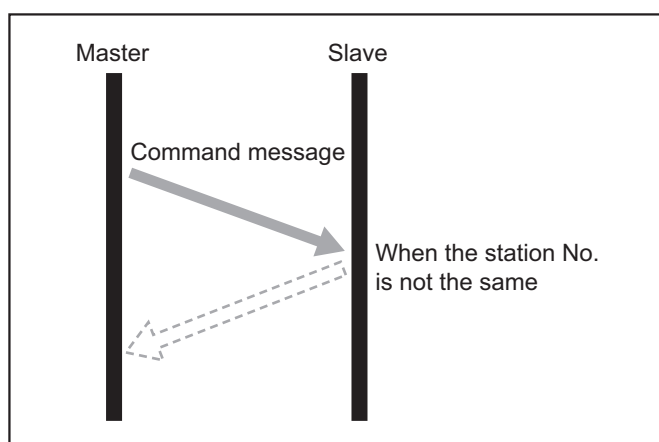
## 6.5 MODBUS Communication Protocol

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When the station number in the command message received is the same as its own number.



When the station number in the command message received is not the same as its own number.



## Message composition

Command messages are composed of four parts; a station number, a function code, a data part, and an error check code, and sent them in the order above.

Field Name	Number of Bytes
Station No.	1 byte
Function code	1 byte
Data part	2 to 64 bytes
Error check code (CRC-16)	2 bytes

### Station No.

This is the number allocated to a slave. It is fixed to "128".

### Function code

This code specifies the function for the slave to perform.

### Data part

These data is required to run the function code. The composition of the data part varies according to function codes. Coil number or register number is allocated to the data in the temperature controller, and specify those numbers to read out/write through communications.

The coil number or the register number in messages uses relative addresses.

The relative address is calculated using the formula below.

$$\text{Relative address} = (\text{The last 4 digits of a coil No. / register No.}) - 1$$

Ex.) When a function code specifies a register number "40003"

$$\text{Relative address} = (\text{The last 4 digits of 40003}) - 1$$

$$= 0002$$

is used in the message.

### Error check code

This code is for detecting the message error (changes in the bits) during the signal transmission process. MODBUS protocol mode (RTU mode) uses CRC-16 (Cyclic Redundancy Check).

**Slave response****• Normal slave response**

A slave creates and replies the response message to each command message. The slave response message uses the same format as the command message. Contents inside the data part vary according to function codes.

**• Irregular slave response**

If there are problems (such as specification of a nonexistent function code) with the contents of command messages other than transmission error, a slave creates and sends back an error response message without running the command.

The composition of an error response message is as follows. The function code uses the value that the function code of the command message plus 80H.

Field Name	Number of Bytes
Station No.	1 byte
Function Code + 80H	1 byte
Error Code	1 byte
Error Check Code (CRC-16)	2 bytes

The error codes are shown below.

Error Code	Contents	Explanation
01H	Function code failure	A nonexistent function code was specified. Check the function code.
02H	Address failure for coil/register	The specified relative address for the coil No. /the register No. cannot be used by the specified function code.
03H	Coil/register/limit failure	The specified number of words is too many and specifies the range that does not contain the coil No./register No. The specified data is specified beyond the limit.
06H	Busy state	Data is been writing in the register. Retrying communication after more than 100- sec interval.

**• No slave response**

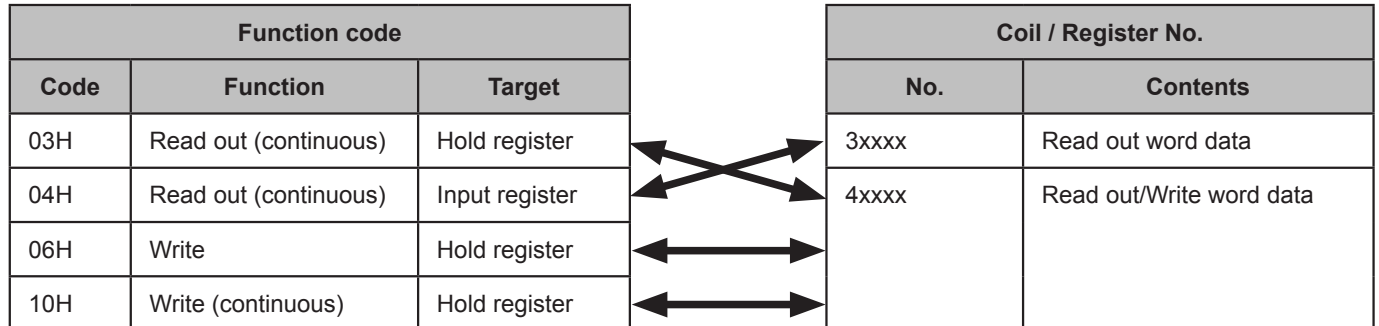
In the following cases, a slave ignores the command message, and send the response message back neither.

- In the case that the station number specified by the command message is not the same as the station number specified for a slave.
- In the case that the error check code does not correspond or the transmission error (such as parity error) is detected.
- In the case that the interval between the message composing data is 24 bit time or more.

## Function code

With MODBUS protocol, the different coil number/register number is allocated depends on the function code, and each function code is only available for a certain coil number/register number.

The diagram below is shown the correspondence between the function code and the coil number/register number.



The message length on the each function is shown below.

Code	Contents	Number of allocatable data	Command message		Response message	
			Minimum	Maximum	Minimum	Maximum
03H	Read word data	125 words*	8 bytes	8 bytes	7 bytes	69 bytes
04H	Read out word data (Read out only)	125 words*	8 bytes	8 bytes	7 bytes	69 bytes
06H	Write word data	1 word	8 bytes	8 bytes	8 bytes	8 bytes
10H	Write series of word data	123 words*	11 bytes	73 bytes	8 bytes	8 bytes

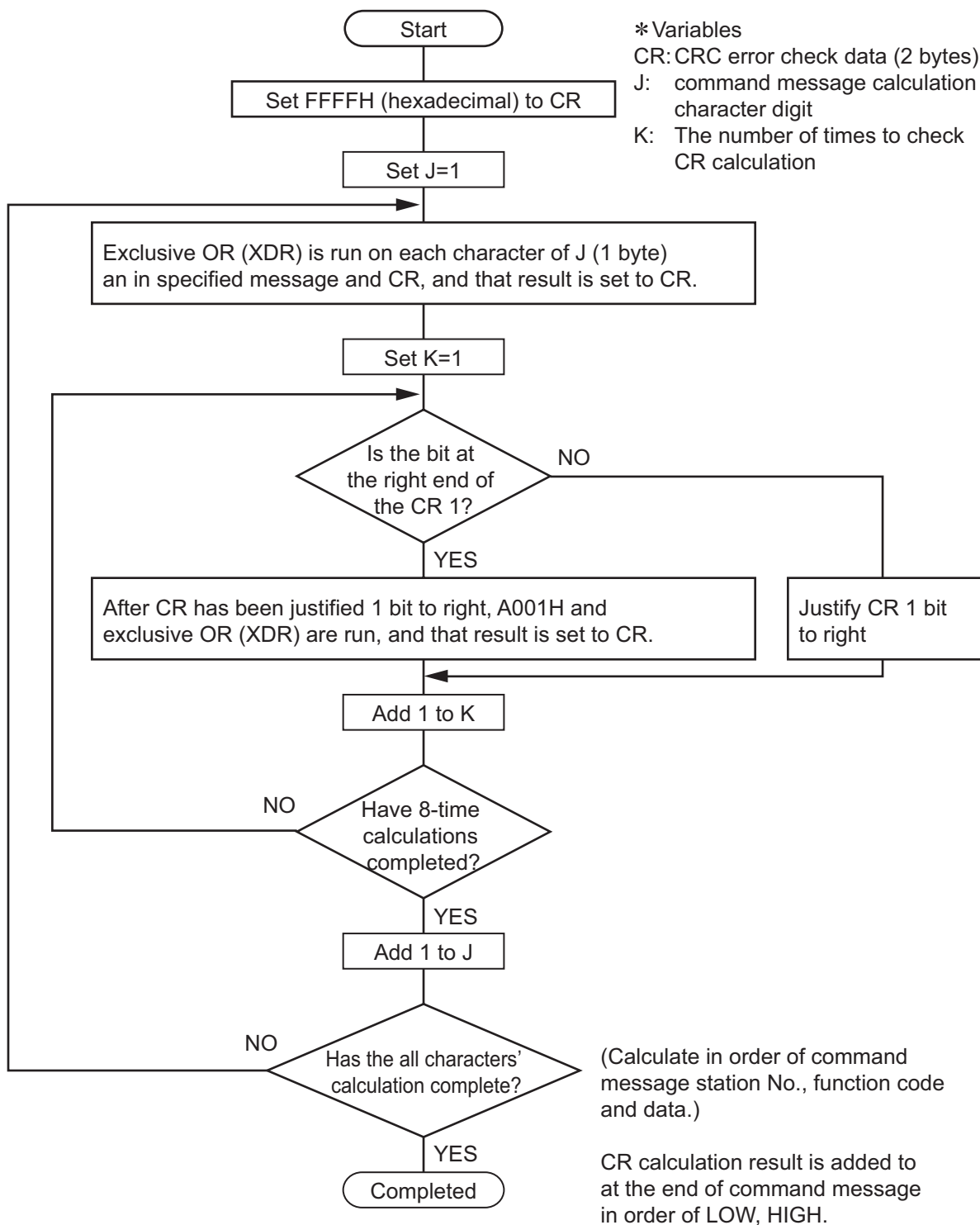
\*: "Number of allocatable data" above is limited by the number of data that the equipment allocates for the coil/address number.  
(Excluding the function code 06H)

## Error check code (CRC-16) calculation

CRC-16 is 2-byte (16-bit) error check code. The calculating range is the starting position of the message (station number) to the end of the data part.

A slave calculates the CRC of the message received, and does not send the response message back, if the result is not the same as the CRC code received.

The flow for CRC-16 calculation is as below.



## Transmission control procedure

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### Master communication method

Master should start communication following the rules below.

1. Provide more than 48-bit time blank state before sending the command message.
2. The interval between the sent messages should be less than 24 bit times.
3. The master will be in the receiving standby mode within 24 bit time after sending the command message.
4. Provide blank state more than 48 bit time prior to sending the next message after receiving the response message. (the same as the 1st rule)
5. For safety, create the framework where the master checks the response message, and if there is no response or errors occur, retry at least 3 times.

#### Note

The definition above is the minimum required value. For safety, creating the master side program with providing margins 2 to 3 times as large is recommended. For a concrete example, creating the blank state (the 1<sup>st</sup> rule above) more than 10ms, the interval between bytes (the 2<sup>nd</sup> rule above) and switching from sending to receiving (the 3<sup>rd</sup> rule) within 1ms for 19.2kbps is recommended.

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### Frame detection

There are 2 states with the circuit as below.

- Blank state (no data on the circuit)
- Communication state (data running on the circuit)

The equipment connected on the circuit is in the receiving state first and monitors the circuit. When the blank state more than 24 bit time appears, it detects the end of the previous frame and will be in the receiving standby mode within the next 24 bit time. When data appears on the circuit, it begins receiving and when the blank state more than 24 bit appears again, it detects the end of the frame. In other words, the data appears on the circuit during appearance of the first blank state more than 24 bit time to the next blank state more than 24 bit time is loaded as one frame (a bundle of data). Therefore, one frame should be sent following the rules below.

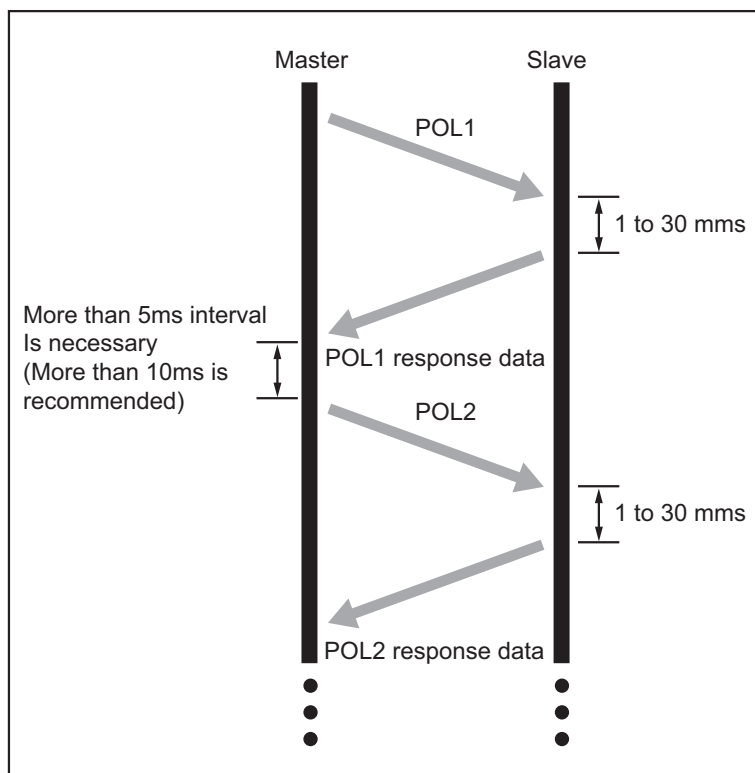
- Provide the blank state more than 48 bit time before sending the command message.
- The interval between bytes of the message sent should be less than 24 bit time.



### The equipment response

The equipment, after detected the frame (detection of the blank state more than 24 bit time), runs that frame as the command message. In the case the frame message is for the own station, the equipment send the response message back; it takes about 1 to 30 ms for this operation. (How long it takes is depends on the contents of the command message.) Therefore, the master, after sending the command message, should follow the rules shown below

- After sending the command message, the master will be in the receiving standby mode within 24 bit time.



# 6.6 Command and Transmission Frame Details

## Reading data

### Reading Word Data (Function Code: 03H)

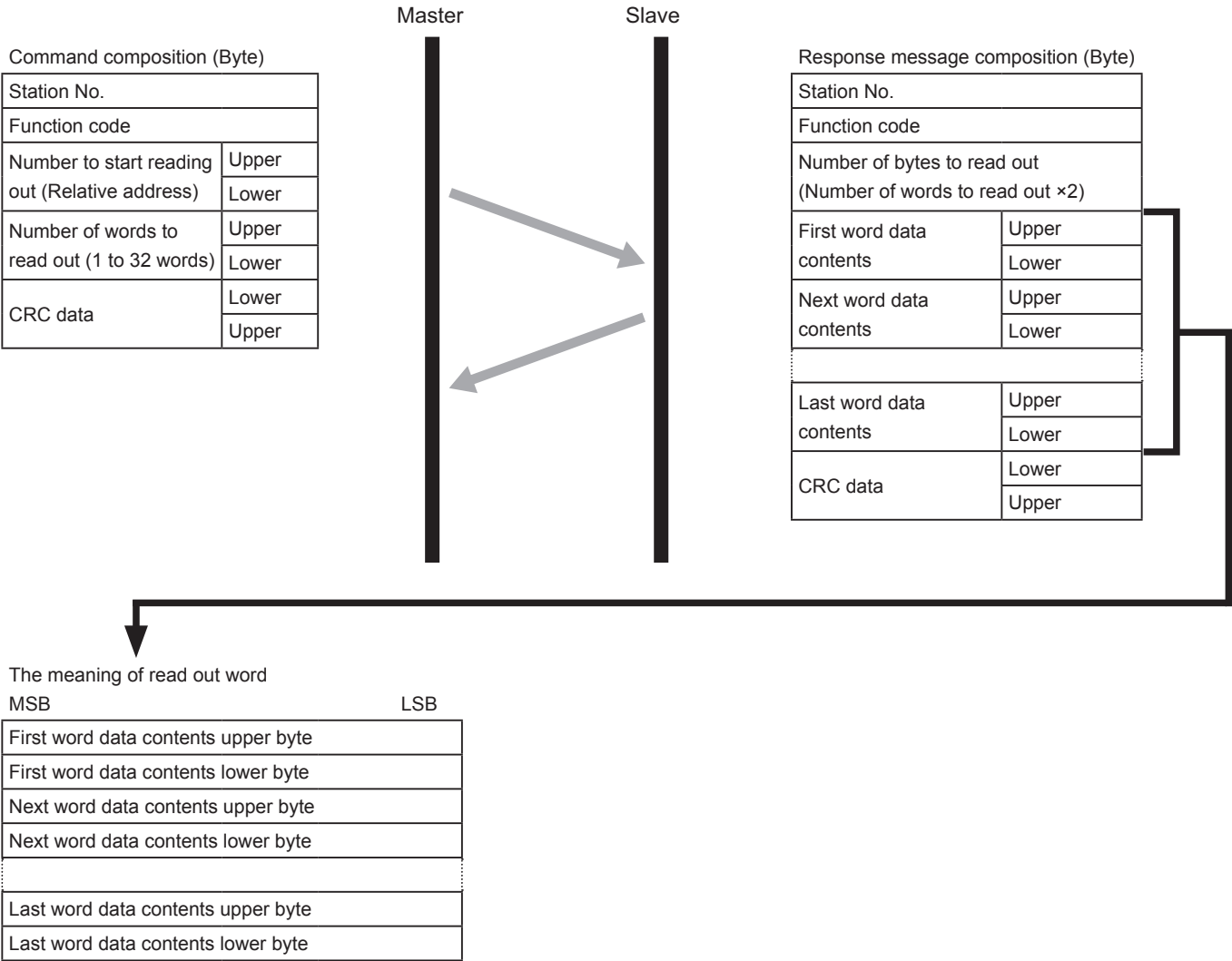
The unit reads word data continuously for the specified number of words from the first number to start reading from.  
The slave forwards the read word data from the upper number of bytes to the lower number.

#### Note

- When reading out word data continuously, specification beyond the range of the relative address will result in no response.
- Do not write data to the number not listed on the MODBUS register numbers. (It might cause the equipment's abnormal operation.)

Function code	03H
Number of readable words in one message	125

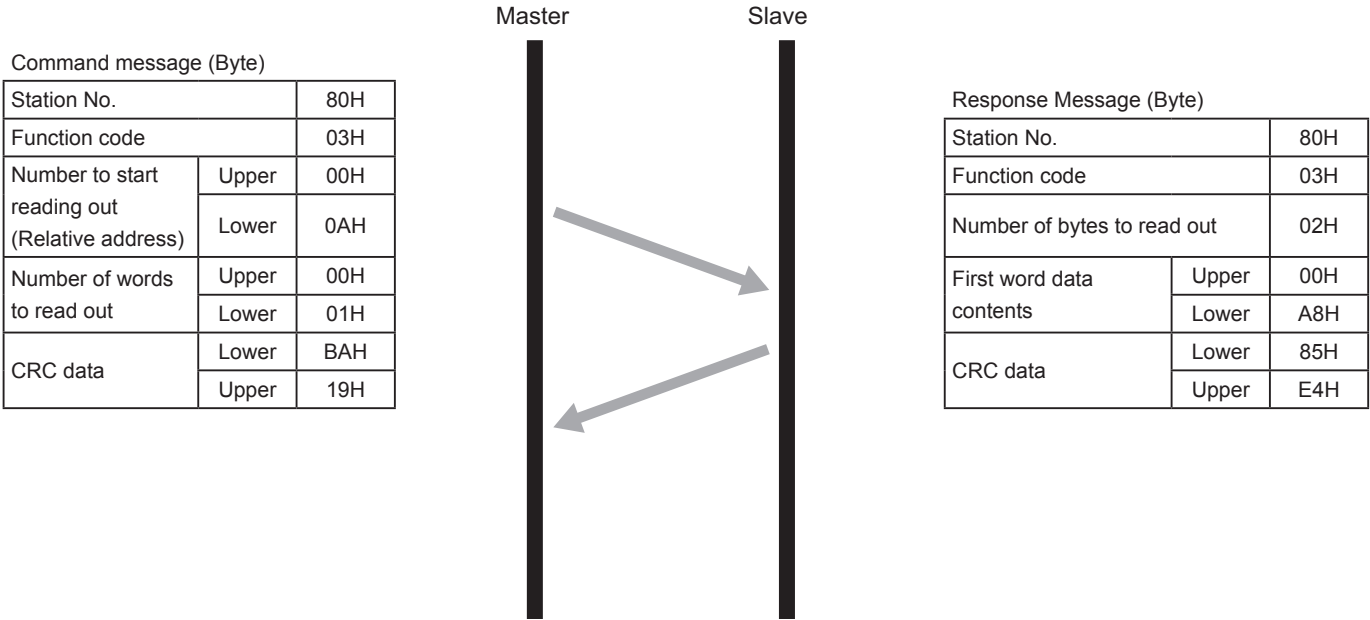
• Message composition



• **Example of message transmission**

When reading out the set value of “Device Type of Setting Area” from a programless communication module, the message composition is as follows.

- “Device type of the setting area” relative address: 000Ah



**The meaning of read out data**

Device type of the setting area= 00A8h (Data register)

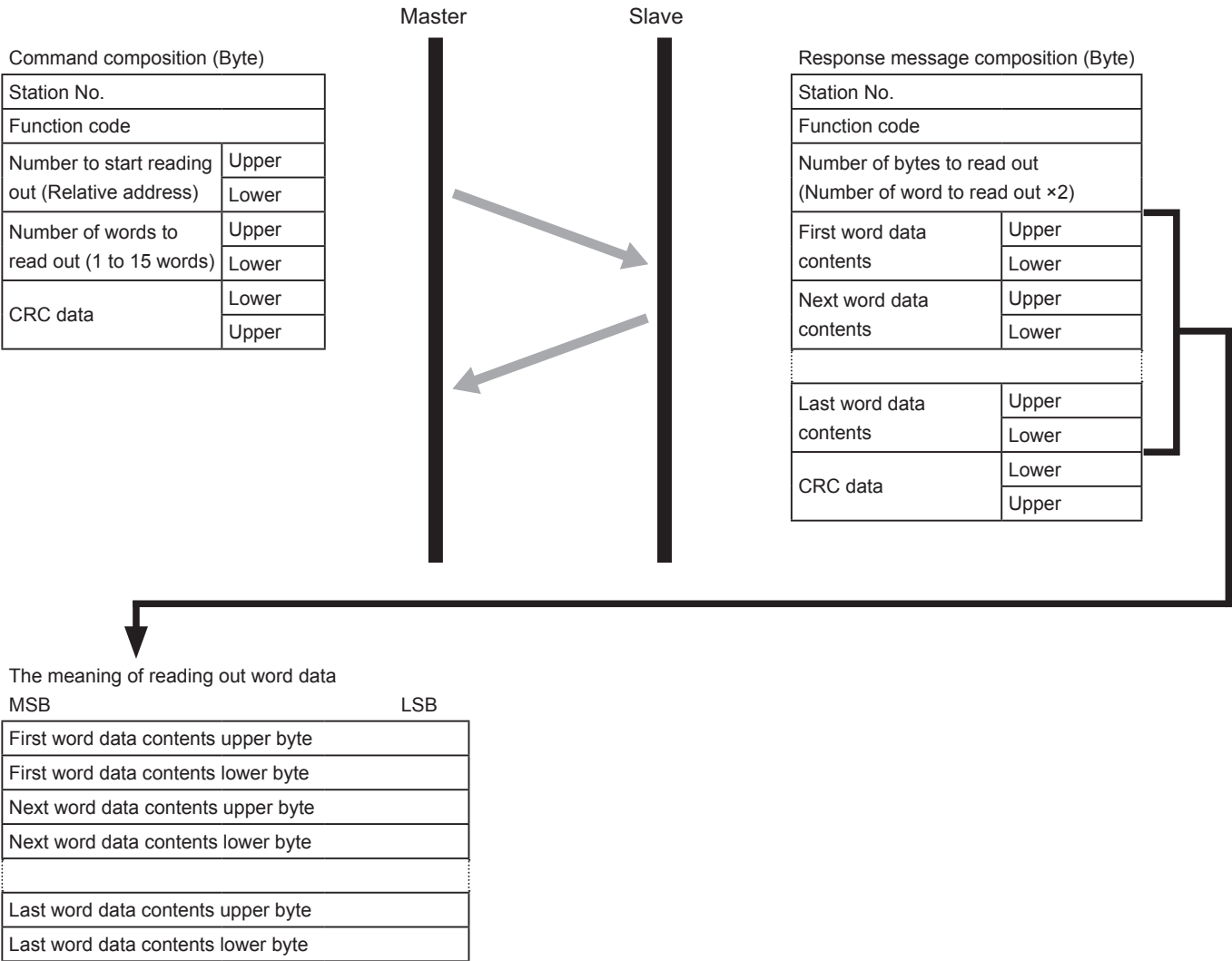
Reading out read-only word data (Function code: 04H)

The equipment reads out the word data specified by the number of words to read out continuously from the number to start reading out.

A slave sends the read out data in order of the upper bytes, the lower bytes.

Function code	04H
Max. number of readable words in one message	125
Relative address	0000H to OFDCH
Register No.	30001 to 34061

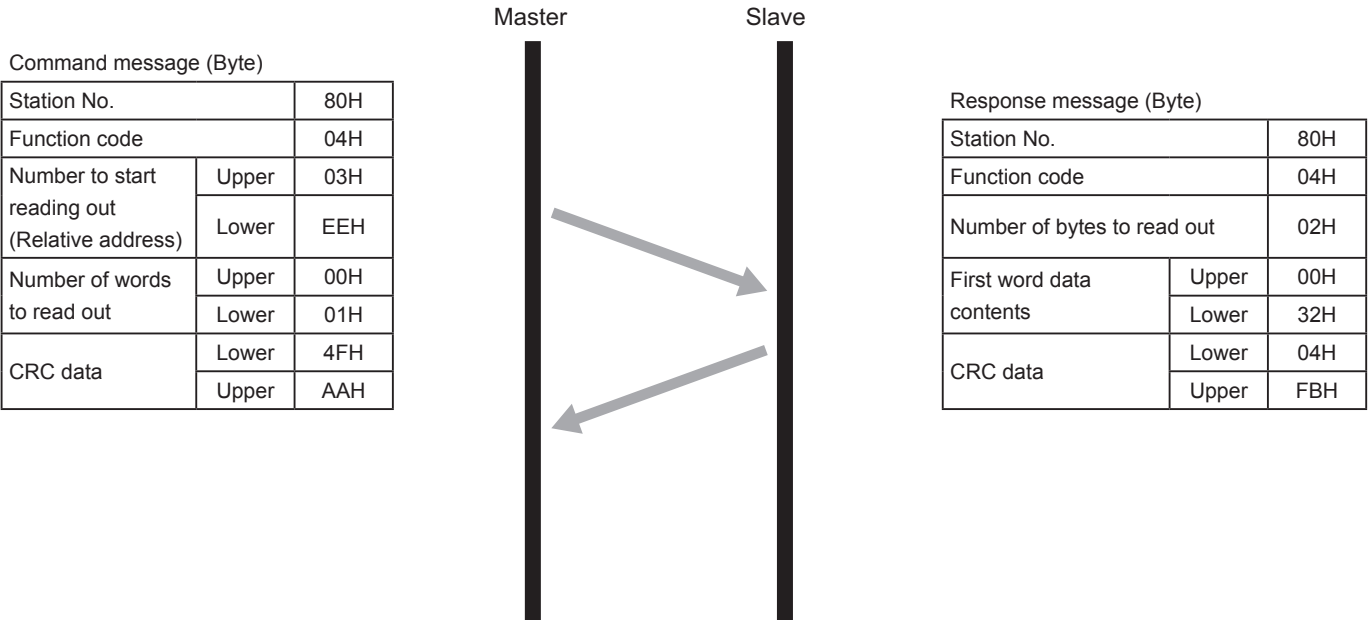
• Message composition



• **Example of message transmission**

When reading out “PLC inter-cycle time monitor” from the programless communication module, the message composition is as follows.

- “PLC inter-cycle time monitor” relative address: 03EEh



**The meaning of read out data**

PLC inter-cycle time monitor = 50ms

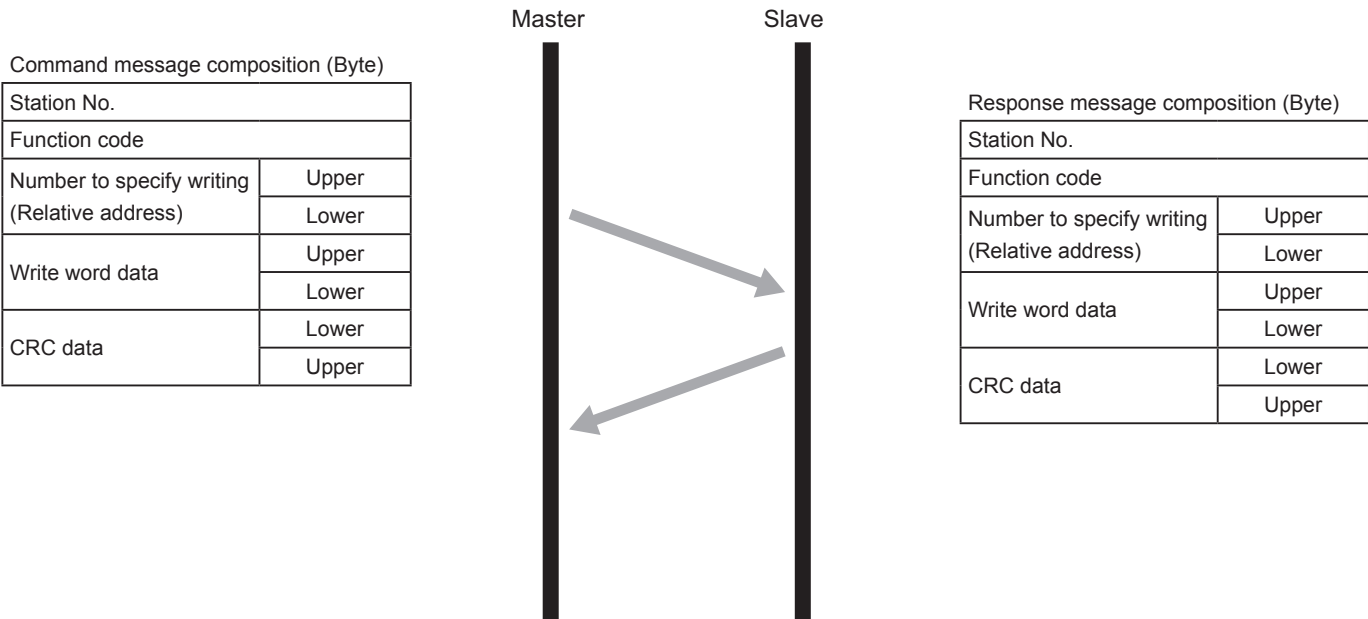
# Writing data

## Writing word Data (1 word, function code: 06H)

This writes the specified data to the specified number for word data. The master sends the data to be written from the upper number of bytes to the lower number.

Function code	06H
Max. number of readable words in one message	1

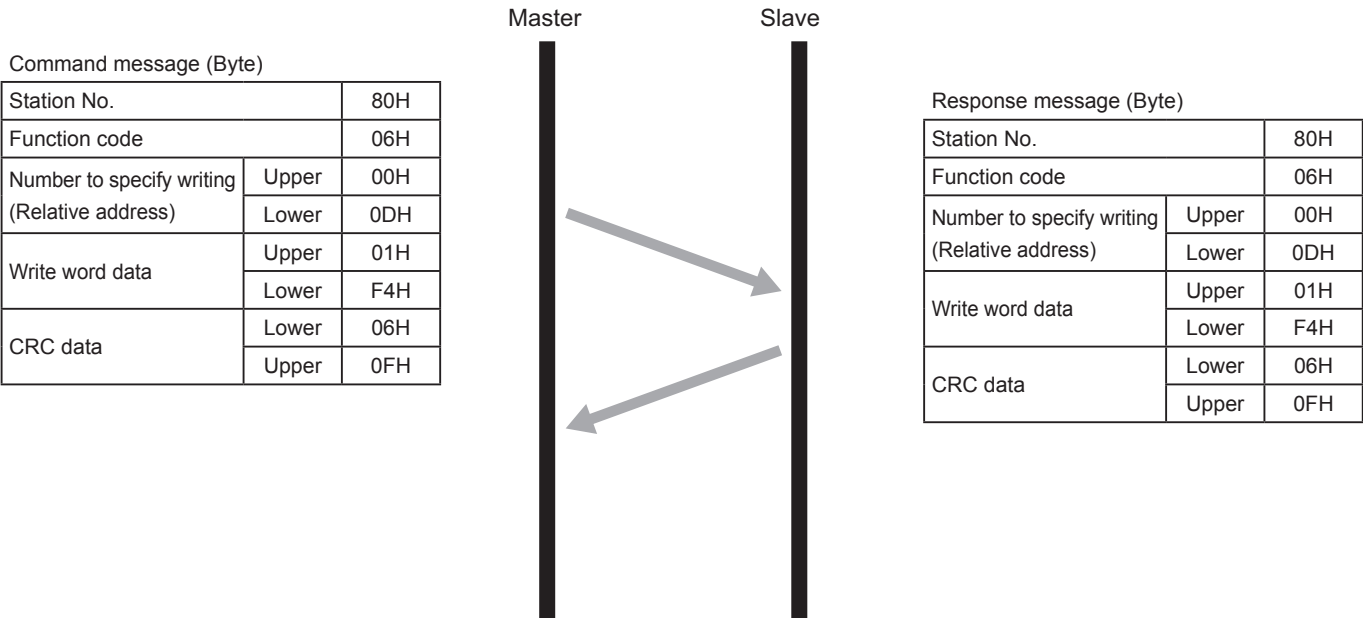
• Message composition



• **Example of message transmission**

This example shows when setting “Setting Area Device Size” for the programless communication module to 500 (01F4h).

- “Setting Area Device Size” relative address: 000Dh



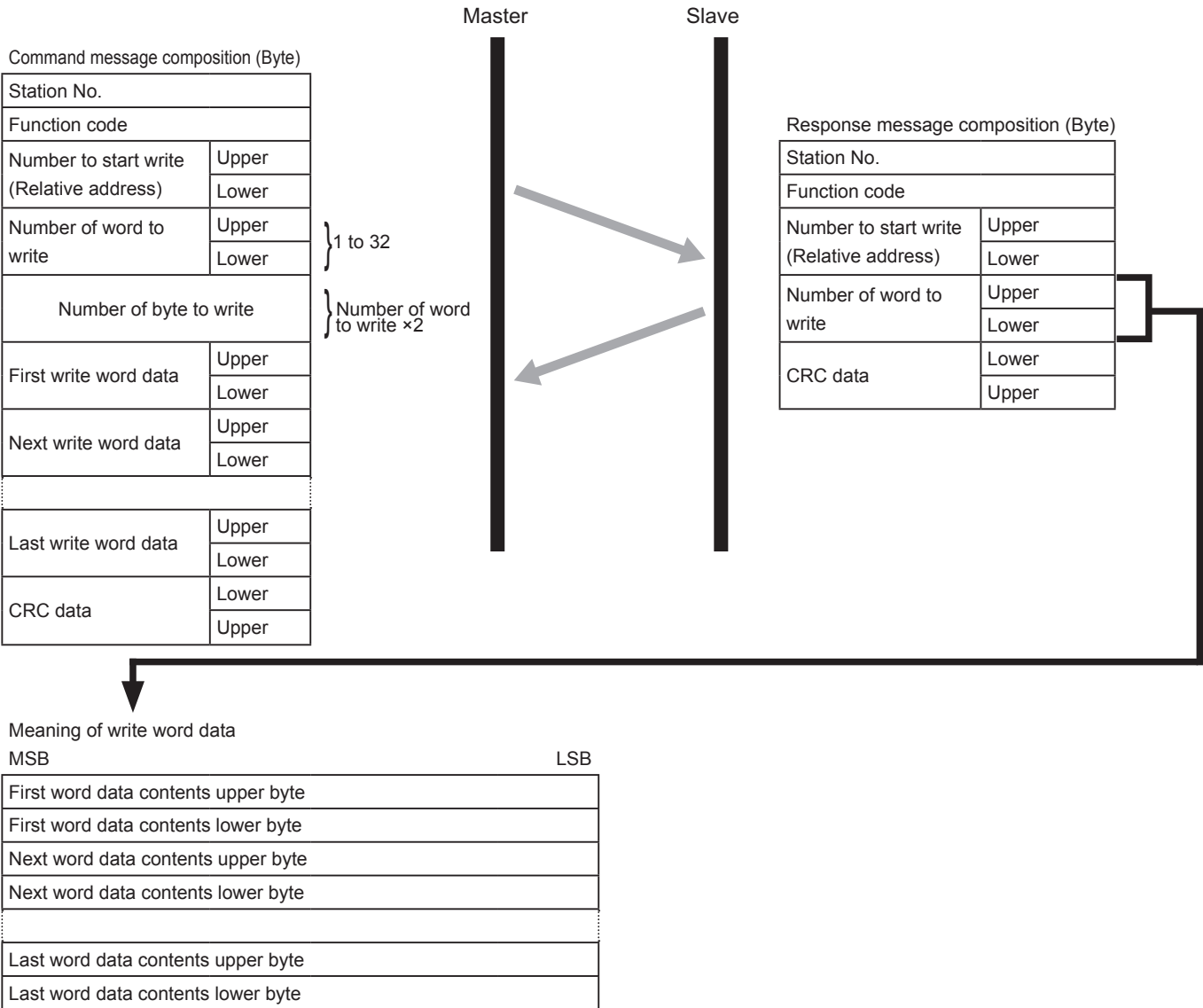


Write series of words (Function code: 10H)

Write how long it takes to write words and the series of word information beginning from the start writing number.  
The master sent the writing word data in order of the upper, the lower.

Function code	10H
Max. number of readable words in one message	123

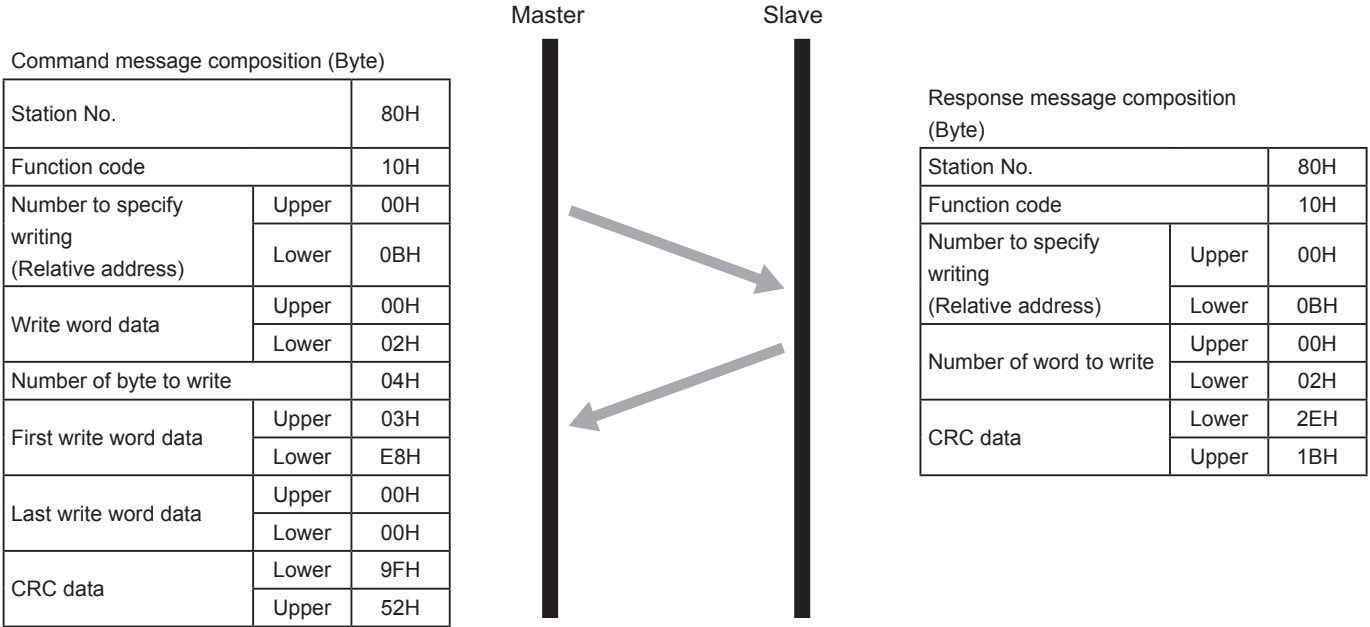
• Message composition



• **Example of message transmission**

This example shows when setting 1000 (03E8h) to "Setting Area Start Address (Lower, Upper)" of the programless communication module.

- Setting area start address (Lower) = 1000 (=03EBh)
  - Setting area start address (Upper) = 0 (=0000h)
- 
- "Setting area start address (Lower)" relative address: 000Ch



# 7

## Trouble Shooting

7.1	Error Procedure .....	7-3
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# 7.1 Error Procedure

## Troubles during operation

If troubles occur during operation, check the type of your module, its connection and parameter setting for any abnormalities. Refer to the user's manual for Micrex-SX on the problem related to Micrex-SX.

The dialog below shows the typical troubles and the solutions for them.

Troubles	Causes	Solutions
PWR indicator: No light (even if turning the power ON)	No power supply to the main unit	Check the power supply wiring is installed.
	Supply voltage is out of the allowable range.	Use the power supply conforming to the main unit specifications.
	Main unit failure	Replace the module.
PWR indicator: RED light	No corresponding Micrex-SX exist on LAN, despite programless communication is selected as connection method.	Install Micrex-SX in LAN.
	Wrong IP address for Micrex-SX.	Check the set value for the target SX IP address (1) and (2).
	Wrong set value for connection method between LAN and SX.	Check the set value for SX connection method.
	Wrong ID for target Micrex-SX.	Set the value for SX connection ID (L)/(H) to match Micrex-SX.
PWR indicator: RED blinking (1-sec interval)	Invalid value for parameter registered with PLC module.	Check the error code of "parameter setting error". Correct the set value for the parameter using PUM parameter loader, and then restart.
	Invalid switch setting.	Check the error code of "parameter setting error". Correct the setting, and then restart.
PWR indicator: RED blinking (0.5-sec interval)	Communication with other PUM series connected to PUMCE interrupted.	Check that all the PUM series are properly connected with connectors.
	One or some of the PUM series connected to PUMCE restarted.	Restart PUMCE.

## 7.1 Error Procedure

Troubles	Causes	Solutions
PWR indicator: GREEN blinking (1-sec interval)	None of the PUM series connected to PUMCE recognized.	Change the set value for "connection permission of enhanced communication module" parameter of the PUM series to "PUMC connected", and then restart.
		Check that all the PUM series are properly connected with connectors.
PWR indicator: GREEN blinking (0.5-sec interval)	Under the process of initial polling.	Please wait until the process is complete.
Communication failure with PUMCE	Duplicate IP address with other device.	Modify the IP address setting not to be duplicated with other device.
	Wrong target IP address.	Check the IP address of PUMCE.
	Ethernet cable disconnected.	Connect the Ethernet cable.
	Too large communication load for LAN	Avoid installing the devices on LAN that always use a large amount of data.
Communication failure with PUMCE installed across a router.	Default gateway not configured.	Set the IP addresses for default gateway (1) and (2) to that of the router to which PUMCE is connected.
Communication failure with the station No. 128 (PUMCE) during bridge communication.	PUMCE parameters cannot be read or written in bridge communication.	Be sure not to read or write PUMCE parameters in bridge communication.
No response from PUM series other than station No. 128 during mapping communication.	Only PUMCE (station No.128) among PUM series can be accessed in mapping communication.	Be sure not to access any PUM series except PUMCE in mapping communication.
Monitor area response flag shows abnormal response status (in the 8000hs) during programless communication.	Invalid value was written to the control/analog/event module.	Correct the value set for the setting area data field.
Data in the all modules cannot be readout during programless communication (Even if set the Reading demand flag and Parameter setting demand flag for PLC setting area, data cannot be readout).	Programless communication is in a stop state (Command setting response flag "EEEEh" or "FFFFh").	Demand the communication restoration by using the Command setting demand flag in Micrex-SX setting area.
	Inter-module connection failure.	Check the inter-module connection.
	The unit failure	Replace the module.

## Troubles during loader connection

The diagram below shows the list of the cases frequently occurs and their solution.

Refer to the parameter loader user's manual as well.

Troubles	Causes	Solutions
No connection to the PUM parameter loader is possible.	Connection error to the parameter loader for PUM	Check the connection status of the parameter loader connecting cable for PUM. Check if there is any connecting cable break.
		Check if the assembly of the parameter loader connecting cable for PUM correct.
	Communication conditions mismatch	Check such as communication speed set value, parity set value.
	Wrong host	Check that the parameter loader connecting cable for PUM is connected to the loader port of the Ethernet communication module.
Parameter change is not possible.	Attempting the parameter input value writes the value out of the setting range.	Modify and write the input value within the setting range.

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