2. HANDLING PROCEDURES

Communication setting

Refer to 3. COMMUNICATION SETTING

Mounting and Wiring

Refer to COM-JE [For RB Series] Installation Manual (IMR01Y39-E2)

PLC communication connection setting

Refer to 4. PLC COMMUNICATION ENVIRONMENT SETTING

PLC setting

Refer to 5. CONTROLLER COMMUNICATION SETTING

Data transfer

Refer to 7. DATA TRANSFER

3. COMMUNICATION SETTING

For this setting, use a small bladescrewdriver.

Set the address such that it is different to the other addresses on the same line. Otherwise, problems or malfunction may result.

3.1 Address Setting

For Host communication, set the address for COM-JE at 0 to 31. For PLC communication, set the address for each group 0 to 7. For Host communication, the addresses of COM-JE units are set in any order.

3.2 Protocol Selections and Communication Speed Setting

- PLC communication setting switch

Set the communication speed, data bit configuration, and protocol for PLC communication. In addition, select the communication port of modular connector.

- Communication setting

Refer to 3. COMMUNICATION SETTING

FACTORY SET

Data 8-bit, without parity, Stop 1-bit

OFF

ON

OFF

ON

38400 bps

9600 bps

19200 bps

Communication speed

Factory setting: 9600 bps

4. PLC COMMUNICATION ENVIRONMENT SETTING

There are two types of PLC communication environment setting modes: by switch and via Host communication.

Setting by the switch

When set by switch, the setting details cannot be check afterwards. When changing the details, set them via Host communication. In addition, as each switch position is moved during the setting, record the switch ON/OFF position before making the setting.

Setting procedure

1. Turn off the power supply.
2. Before setting the PLC communication environment, record the ON/OFF positions of address setting switch, Host communication setting switch and PLC communication setting switch.
3. Turn off all of the sub switches in the Host communication setting switch. In addition, turn on all of the sub switches in the PLC communication setting switch.
4. Turning on the power sets the COM-JE to the PLC communication environment setting mode. If set to the PLC communication environment mode, the RUN lamp goes off and the FAIL lamp flashes.

5. Select a setting item with a Host communication setting switch or a PLC communication setting switch. Select setting items one by one.

- For the PLC communication setting switch, change its position from OFF to ON.
- For the Host communication setting switch, change its position from ON to OFF.

6. Set data with address setting switch.

After the setting is finished, the Host communication setting switch return its position to OFF from ON for the PLC communication setting switch, to ON from OFF on the Host communication setting switch.

The.RUN lamp goes on and it goes off after the set data has been registered (about 3 seconds later).

7. Repeat the above steps from 5 to 7, to other setting items.

8. After setting is completed, check the setting values with RUN lamp indication lamp.

9. Turn on the power again.

10. Return the ON/OFF positions of address setting switch, the Host communication setting switch and PLC communication setting switch to the positions already recorded.

11. Turn on the power again.

The set data valid if the power is turned on again.
### Setting by Host communication

For the PLC communication setting switch, please adjust the communication speed and change the terminal assignment. For the details, please refer to the "Instructions for the PLC communication setting switch" on page 10.

**Switch No.** Setting item | Data range (Address setting switch) | Factory set value
--- | --- | ---
1 | Station number | 0 to 3 | 0
2 | PC number | 0 to 255 | 0
3 | Register start number | 0 to 15000 | 0

**Setting items list**

| Setting item | PLC address | Protocol Type 1 protocol mode | Data bit configuration | Communication speed 15000 bps (factory set value) |
--- | --- | --- | --- | --- |
1 | Station number | GQ | 8500 | 32768 |
2 | PC number | GV | 8501 | 32769 |
3 | Register start number | GB | 8502 | 32770 |

### 7. DATA TRANSFER

**Data transfer type**

For data transfer between the PLC and controller, both fixed data transfer type and free data transfer type are available.

**Fixed data transfer type**

This data transfer type is used when only a few items of data are transferred. For details, please refer to page 11.

### 5. CONTROLLER COMMUNICATION SETTING

Set the communication setting switch as follows:

**Prefix**

Data bit configuration: Data bit, without parity, Stop bit 1, Data bit 8

**Communication speed** 15000 bps (factory set value)

#### 6. PLC COMMUNICATION SETTING

For the PLC data as follows, please make sure the following setting items:

**MITSUBISHI MELSEC series**

| Protocol | Description | Type | 4 protocol mode |
--- | --- | --- | --- |
1 | Communication setting | | | |
2 | Communication speed | 15000 bps | | |
3 | Data bit configuration | Data bit, without parity | Stop bit 1, Data bit 8 | |
4 | Data bit configuration | Data bit, with parity | Stop bit 1, Data bit 8 | |
5 | Data bit configuration | Data bit, with parity and even check | Stop bit 1, Data bit 8 | |
6 | Data bit configuration | Data bit, with parity and odd check | Stop bit 1, Data bit 8 | |

**OMRON SYSMAC series**

| Protocol | Description | Type | 4 protocol mode |
--- | --- | --- | --- |
1 | Communication setting | | | |
2 | Communication speed | 15000 bps | | |
3 | Data bit configuration | Data bit, without parity | Stop bit 1, Data bit 8 | |
4 | Data bit configuration | Data bit, with parity | Stop bit 1, Data bit 8 | |
5 | Data bit configuration | Data bit, with parity and even check | Stop bit 1, Data bit 8 | |
6 | Data bit configuration | Data bit, with parity and odd check | Stop bit 1, Data bit 8 | |

**Data setting**

When transmitting data of temperature settings values from PLC to the controller by a fixed data transfer type:

1. Set "1" or "Setting item number 10 + 2" to the request command.
2. When (data write) is set to the controller communication data map of the PLC, the data is transferred.

### 7.2 Transmitter Procedures

**CAUTION**

If you set all the data setting values to zero it is sent by the specified controllers at the beginning of each day. Therefore, unexpected operation may occur in the PLC. To avoid this, please make sure the following data transmission protocol when creating a program.

- Change each set value of controller from the PLC after the initial settings are made.
- If each set value of controller is changed from the PLC not setting the initial value, all the set values of the controller are rewritten by the controller communication data map at that time.

**Data processing precautions**

- The data type is treated as binary data with a sign and without a decimal point. For this reason, carefully express and set the data (excluding the bit data).
- The COM JE does not detect a data setting range error. After the specified controller has executed the request command "2. Set data monitor" to check that the data has been correctly set.