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RMF-CMX100-V1 Commax Interface

# RMF-CMX100-V1 Commax Interface Instruction Manual

**Contents**

# RMF

**RMF-CMX100-V1 Commax Interface**

## Product Information

**Specifications**:

- **Model:** RMF-CMX100-V1
- **Interface:** Commax
- **Firmware Version:** 1.0.0

## Product Usage Instructions

### Safety Precautions

- **Attention:** Incorrect handling can result in electrical injury, device malfunction, and damage. Thoroughly read the following safety precautions before each use of this product.
- **Warning:** Power supply to the indoor unit must be removed when configuring DIP switch settings and when connecting/disconnecting CN105 connector to the indoor unit board.

### Setting Up the Device

- Prior to connecting the RMF-CMX100-V1 to other devices, set the DIP switch positions by removing the four screws on the back of RMF-CMX100-V1.
- Address setting is required for communication with the Commax controller. Refer to Table 4.2 for DIP switch positions SW1-1 to 4 for device address setting of the interface board.

### Wiring Instructions
*Note:* Do not proceed to wiring section until DIP switch settings have been set and power to the indoor unit is removed.

1. **Step 1:** Connect the interface board (B) to the Commax controller (C) using an RS-485 wire.

**FAQ**

**Q: What should I do if I encounter difficulties during installation?**
**A:** If you encounter difficulties during installation, please refer to the troubleshooting section of the manual or contact our customer support for assistance.

**RMF-CMX100-V1 Commax Interface**

**INSTALLATION / INSTRUCTION MANUAL**
Please read prior to installing/operating device. Keep this manual for future reference.

## Supplied Parts

- RMF-CMX100-V1 (Quantity – 1)
- Installation Manual (Quantity – 1)

## Amendment Register

| Document version | Firmware Version | Date | Author | Notes |
|---|---|---|---|---|
| 1.0.0 | 1.0.0 | 1/9/2020 | FM | Initial version of firmware V1.0.0 |
| 1.0.1 | 1.0.0 | 10/9/2022 | MD | -Added compatibility and mode setting charts for SEZ-KD & SUZ-KA |
| 1.0.2 | 2.3 | 8/23/2023 | FM | Revised instance number order; changed HEX address setting |

## Compatibility

| Firmware Version | Indoor Unit (Model Number) | Outdoor Unit (Model Number) | Notes |
|---|---|---|---|
| 1.0.0 | - PVFY-P-NAMU-E (& later versions) <br> - PEFY-P-NMAU-E (& later versions) | Not Applicable | |
| | SEZ-KD(NA4) | SUZ-KA(NA/NAHZ) | |
| 2.3 | Unchanged | Unchanged | |

## Safety Precautions

**ATTENTION** – INCORRECT HANDLING CAN RESULT IN ELECTRICAL INJURY, DEVICE MALFUNCTION AND DAMAGE

THOROUGHLY READ THE FOLLOWING SAFETY PRECAUTIONS BEFORE EACH USE OF THIS PRODUCT (THE "DEVICE").

- Do not expose the device to, or immerse the device in, water. Doing so could lead to electrical shock to a person, device malfunction or device damage.
- Do not install the device in a bathroom, kitchen, or any room where high humidity or steam could form. Condensation could develop on or around the device and cause electrical shock to a person, device malfunction and device damage.
- Do not install the device in a location where a gas leak could occur.
- Do not expose the device to heat or radiation, including direct sunlight, or install the device in a location where the temperature could be greater than 40°C (104°F) or less than 0°C (32°F). This could result in device deformation or device malfunction.
- Always ensure the device is installed in an area without exposure to high frequency noise.
- Power generators, inverters, and high-frequency or radio communication equipment may interfere with the operation of this device.
- All electrical work should be performed by a qualified technician and in accordance with applicable laws and instructions outlined in this manual.
- Use standard wiring with the proper current capacity to avoid current leak, excessive heat, and fire.
- Use only specified cables and wiring; securely connect each so that the terminals do not bear any weight.
- Include slack in the power supply wiring. Tension in the wiring may cause it to excessively heat up and break, which could result in a fire.
- Improperly connected or short-circuited cables or wiring may produce heat and cause device malfunction, device damage, and fire.
- Capacity shortage to the power supply circuit or improper installation may result in electrical shock or fire.
- Do not modify or alter this device or cable in any manner whatsoever.
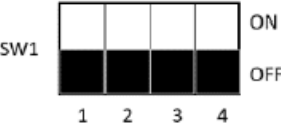
**Warning:**

- To avoid danger or suffocation, safely dispose of the packing materials and keep away from children.
- Packing materials, such as nails and other metal or wooden parts, may cause injuries.

## Configuration Instructions

- **Note:** Power supply to indoor unit must be removed when configuring DIP switch settings and when connecting/disconnecting CN105 connector to the indoor unit board.
- Prior to connecting the RMF-CMX100-V1 to the other devices, set the DIP switch positions by removing the four screws on the back of RMF-CMX100-V1.

Address setting is required for communication with the Commax controller. Please reference table 4.2 below for DIP switch positions SW1-1 to 4 for device address setting of the interface board.

**Table 4.1**

## DIP Switch SW1 Description
### (DIP Switch position is represented as black [ ■ ])

| SW1-(1 to 4) | Address | SW1-(1 to 4) | Address (HEX) |
|---|---|---|---|
|  | N/A (Default) 04 |  | 03 |
|  | 01 | - | - |
|  | 02 | - | - |

## Wiring Instructions

**Note:** Do not proceed to wiring section of this manual until DIP switch settings have been set and power to indoor unit is removed.

- **Step 1:** Connect the interface board (B) to the Commax controller (C) using a RS-485 wire <200ft.
- **Step 2:** Connect the interface board (A) to the indoor unit control board (D) using the 4-foot CN105 cable.

| Legend | | |
|---|---|---|
| Symbol | Connector / Terminal | Location of Connector |
| A | CN105-1 | RMF-CMX100-V1 (Interface board) |
| B | RS-485 | RMF-CMX100-V1 (Interface board) |
| C | LAN | Commax Controller |
| D | CN105 | Mitsubishi Electric Indoor Unit Control Board |

- **Step 3:** Supply power to the indoor unit and confirm green LED is flashing at the rate of approximately 0.5Hz. If the LED does not flash, power down the indoor unit, disconnect interface board from the system and repeat steps 1 and 2. If LED does not light, replace the Interface board.

## Mode Settings Chart

- **Note:** MA/PAR Mitsubishi Controller must be connected to the indoor unit for accessing the settings. Function

settings must be properly configured prior to system start-up.

- For more information on mode settings procedures visit **www.mitsubishitechinfo.ca**

| SEZ UNIT FUNCTION SETTINGS | | | |
|---|---|---|---|
| **Definition** | **Mode** | **Setting #** | **Setting Description** |
| Power Failure Auto Restart | 1 | 1 | Disabled |
| | | 2* | Enabled |
| Static Settings | 08 & 10 | | See Static Pressure Settings Below |
| Frost Prevention Temp | 15 | 1* | 2°C (36°F) |
| | | 2 | 3°C (37°F) |
| Heater Control | 23 | 1* | Set Temp-2.5°C ON |
| | | 2 | Set Temp-2.5°C ON & Enable Heater During Defrost/Error |
| Heating Height Offset 4°C | 24 | 1* | Available (ON) 4°C (7.2°F) UP |
| | | 2 | Not Available (OFF) |
| Fan Speed Thermal-Off (Heating) | 25 | 1* | Extra Low |
| | | 2 | Stop |
| | | 3 | RC Setting |
| Fan Speed Thermal-Off (Cooling) | 27 | 1* | RC Setting |
| | | 2 | Stop |
| Abnormal Pipe Temperature Detection (P8) | 28 | 1* | Available (ON) |
| | | 2 | Not Available (OFF) |

*Factory Default Setting

**External Static Pressure Setting for SEZ**

| External Static Pressure | Setting No. of Mode 08 | Setting No. of Mode 10 |
|---|---|---|
| 0.02 in. WG [5Pa] | 1 | 2 |
| 0.06 in. WG [15Pa] | 1 | 1 |
| 0.14 in. WG [35Pa] | 2 | 1 |
| 0.20 in. WG [50Pa] | 3 | 1 |

**RMF-CMX100-V1_1.0.2**

## Documents / Resources

**[Commax RMF-CMX100-V1 Commax Interface](#)** [pdf] Instruction Manual
RMF-CMX100-V1 Interface, RMF-CMX100-V1, Interface

## References

- 🐢 **[MESCA Technical Information Center](#)**
- **[User Manual](#)**