

Photo



Descriptions

Enables centralized and individual control of M series and S series models with new-A control using M-NET.

Applicable Models

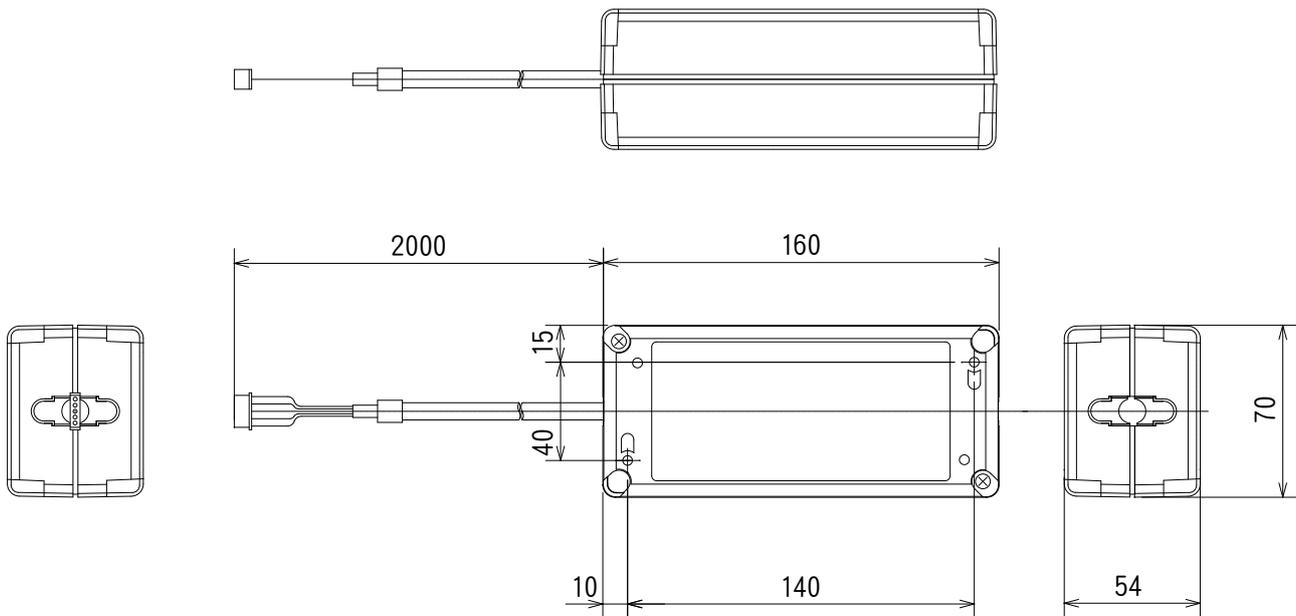
- MSZ-FA/GA ■ SEZ-KA
- MFZ-KA ■ SLZ-KA

Specifications

Power	12V DC (supplied from indoor unit)
Operating conditions	Indoor only (ambient temperature: 0 to 40°C , no condensation)
Indoor unit connecting cable	Dedicated 5-wire cable
Weight	350g (including indoor unit connecting cable)

Dimensions

Unit : mm



How to Use / How to Install

1. Before Installation

1.1. How to Use the M-NET Interface

⚠ Caution

When using a packaged air conditioner (PAC, city-multi) system remote controller, you cannot register packaged air conditioners (PACs) and room air conditioners (RACs) in the same group. In this case, register the PACs and RACs in different groups.

■ Functions

Centralized and individual management of RACs (including housing air conditioners) using M-NET(*).

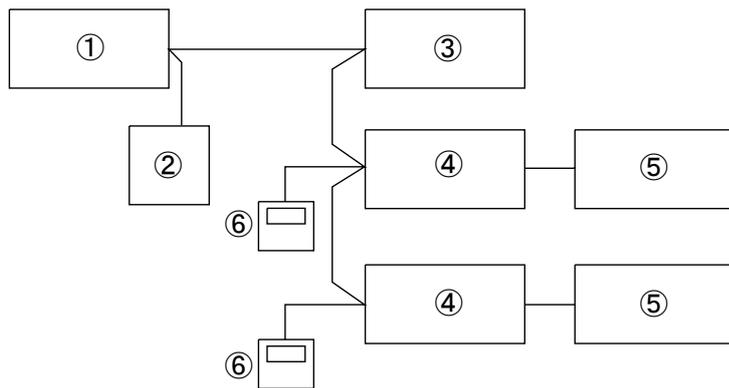
* A type of packaged air conditioner control (city-multi)

■ Related Products Sold Separately

- ME Remote Controller PAR-F27MEA
- Centralized Controller G-50A
- System Remote Controller PAC-SF44SRA
- ON/OFF Remote Controller PAC-YT40ANRA
- Schedule Timer (M-NET) PAC-YT34STA
- Power supply unit PAC-SC50KUA

■ Sample of System Configuration

Sample configuration of a system using a centralized controller



- ① Centralized controller
- ② Power supply unit
- ③ Packaged air conditioner system
- ④ M-NET Interface
- ⑤ RAC
- ⑥ ME Remote Controller

* The number of units that can be connected to the centralized controller (G-50A) is max. 50, including packaged air conditioners and RACs. The wiring from the M-NET Interface to the centralized controller can have a maximum length of 500 m. The wiring from the M-NET Interface to the ME Remote Controller can have a maximum length of 10 m. For details, see the MELANS Catalog and the instruction manuals for the Centralized Controller and ME Remote Controller.

1.2. Accessory

Before installing the device, make sure you have all the necessary parts.

■ Accessory

(1)	Interface unit	1
(2)	Mounting brackets	1
(3)	Screws (short) for mounting (2) 3.5×12	4
(4)	Cushioning material	1
(5)	Cord clamp for mounting (small)	2
(6)	Mounting cord clamp (large)	2
(7)	Screws for mounting (5) and (6) 3.5×12	2
(8)	Screw for mounting (5) and (6) 4×10 * Use this when mounting cord clamp to and around RAC.	1
(9)	Screw for mounting (5) and (6) 4×16 * Use this when mounting cord clamp together with the parts of RAC.	1
(10)	Fasteners (for joining the lead wires)	5
(11)	Cord clamp for wiring	5
(12)	Screws (black) for mounting (11) 3.5×16	5
(13)	Interface case mounting screws (black) 3.5×12	2

■ Items to Prepare at the Installation Site

(A)	Connection wiring (centralized controller) Shield wiring CVVS/CPEVS
(B)	Connection wiring (for connecting the ME Remote Controller) Remote control wires (2-core sheath wire 0.3 mm ²)
(C)	Related parts sold separately * Prepare the necessary number of parts sold separately as needed for your system.

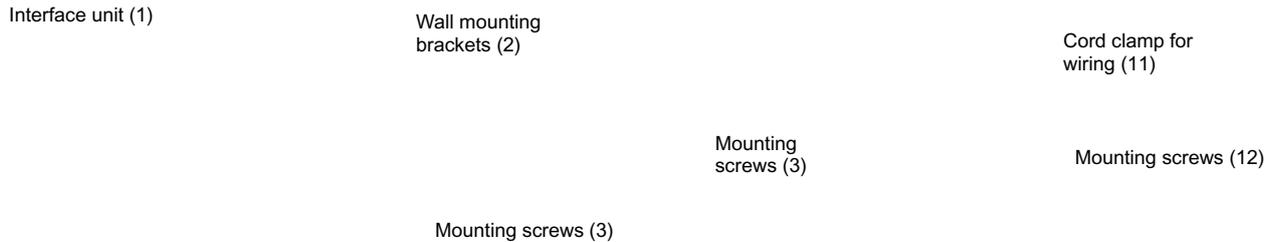
* CPEVS; PE insulated PVC jacketed shielded communication cable
* CVVS; PVC insulated PVC jacketed shielded control cable
PE: Polyethylene PVC: Polyvinyl chloride

2. Mounting the M-NET Interface Unit

The M-NET Interface unit should be placed in a location where the connecting cable from the interface can reach an indoor unit. The device will not function properly if the connecting cable is extended so the connecting cable should not be extended. Mount the interface unit securely to a pillar or wall using 2 or more screws.

■ When Using Wall Mounting Brackets (2)

- 1** Attach the wall mounting brackets (2) to the interface unit (1) using 2 mounting screws (3).
- 2** Mount the unit to a pillar or wall using 2 mounting screws (3)



■ When Mounting Directly to a Wall

Mount the interface unit (1) case to the wall using the mounting screws (3)

When mounting the interface unit (1) inside a ceiling or wall, install an access door to facilitate maintenance.

Interface case
mounting screws (13)

When the interface unit (1) is mounted above an indoor RAC unit, it should be positioned 40 mm or more away from the unit to ensure that ceiling grills can be removed.

Mounting screws (3)

40 mm or more

* When mounting the interface unit (1) using a cushioning material (4) be sure to mount it in a location where it will not fall.

Attach the interface unit (1) connecting cable here. Store extra connecting cable in the ductwork space behind the indoor RAC unit.

* If there is any slack in the connecting cable, use a fastener(10) to keep it in place.

Interface unit (1)

Cushioning material (4)

3. Setting the Switches

If the system is not configured correctly, the unit will not function properly. You may be unable to control the functions of the RAC from the System Controller/ME Remote Controller or functions not available on your RAC could appear on the System Controller/ME Remote Controller display. You should therefore ensure that the system is properly configured before connecting the power supply.

■ SW500 No. 1, No. 2 - Not in use

These should be set to OFF (if set to ON, the device will not communicate properly with the System Controller).

■ SW500 No. 3 - Power On/Off Settings

This setting indicates whether the RAC should be turned off or on when power is supplied to the RAC or M-NET Interface.

Turn on with power No
 [Unit remains off when the power is supplied.]

Turn on with power Yes
 [Unit turns on when the power is supplied.]

■ SW500 No. 4 - Availability of RAC purifier or fan mode

If there is no "Purifier" button on the wireless remote control, and if the word "Fan" does not appear when the "Mode" button is pressed, the purifier and fan modes are not available (set to OFF).

Does not have a purifier or fan mode

Has a purifier or fan mode

■ SW500 No. 5-8 - RAC Function Check

SW500	Function description	How to check a function	OFF	ON
No. 5	Availability of automatic operation mode (a mode that allows the air conditioner to determine whether to select cooling or heating).	If "Auto" is not displayed when you push the "Mode" button on the wireless remote control, the auto operation mode is not available (OFF).	Does not have an auto operation mode	Does have an auto operation mode
No. 6	Availability of a fan oscillation setting	If "Oscillate" is displayed when you push the "Fan Direction" button on the wireless remote control, the fan oscillation setting is available (OFF). (If there is no "Fan Direction" button, the setting is OFF.)	Has a fan oscillation setting	Does not have a fan oscillation setting
No. 7	Availability of a fan direction setting	If there is a Fan Direction button on the wireless remote control, the fan direction setting is available (OFF).	Has a fan direction setting	Does not have a fan direction setting
No. 8	Availability of a heating mode	If "Heat" appears when you push the "Mode" button on the wireless remote control, the unit is a model that offers both cooling and heating (OFF).	Dual cooling and heating model	Cooling unit only

■ SW510, SW501 - Address settings

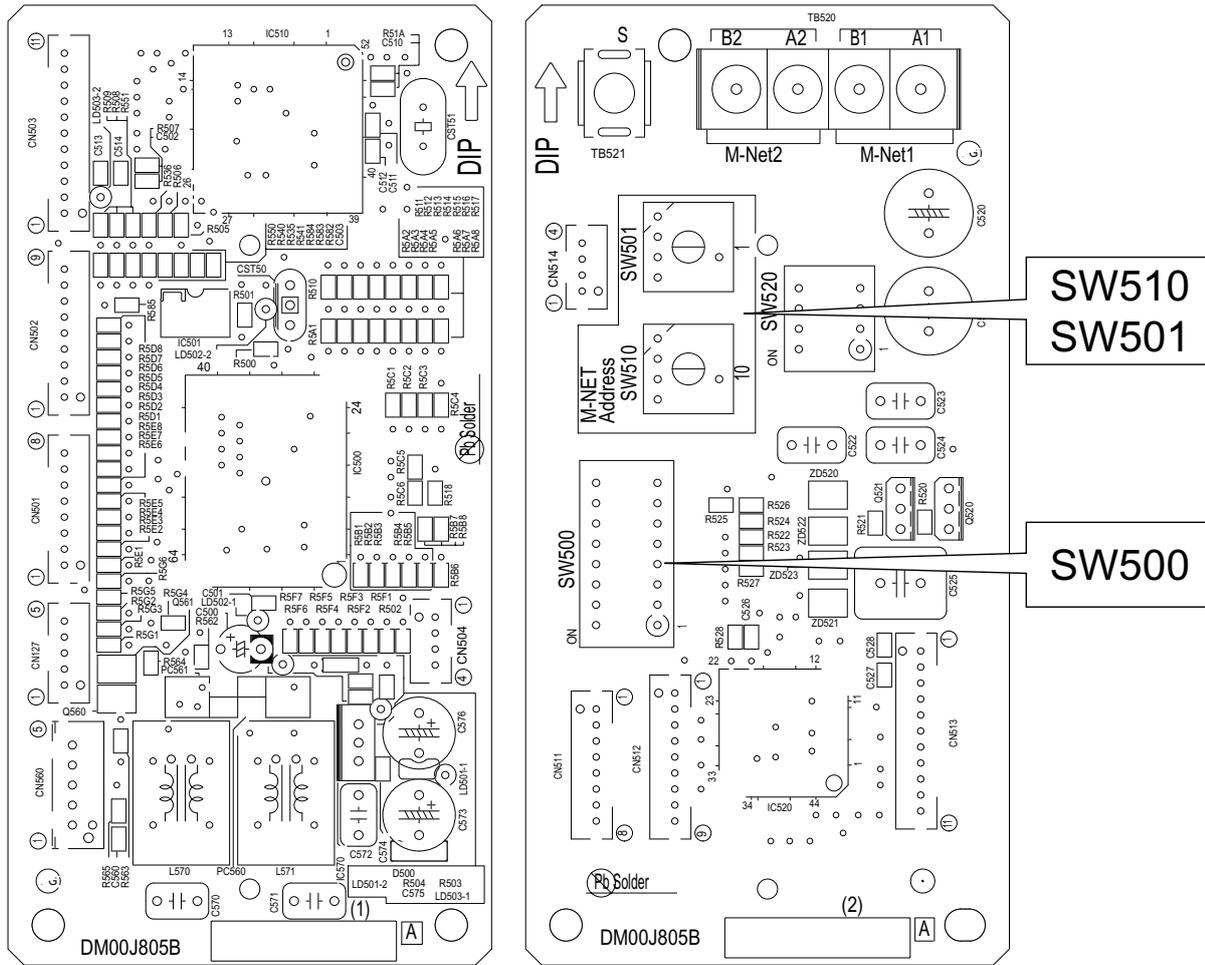
Specifies the address settings for centralized management (address settings can be set from 01-50).

Self-Address

10s position 1s position

SW510 sets the 10s position of the address and SW501 sets the 1s position of the address. For example, to set a unit to the address 25, set SW510 to "2" and SW501 to "5".

■ Position of SW500, SW501, SW510



4. Connecting the M-NET Interface

Connect the M-NET Interface board to the RAC indoor control board.

RAC

Interface unit (1)

Indoor control board

Connect the connecting cable that comes with the M-NET Interface unit to the connector CN105 on the indoor control board.

- The cables connected to the RAC should be mounted on or near the RAC.
If the connecting cable is not securely mounted, the connector may detach, break, or malfunction.

Mounting screws (8)4 ×10

Mounting cord clamp (6)

Electrical wire mounting bracket

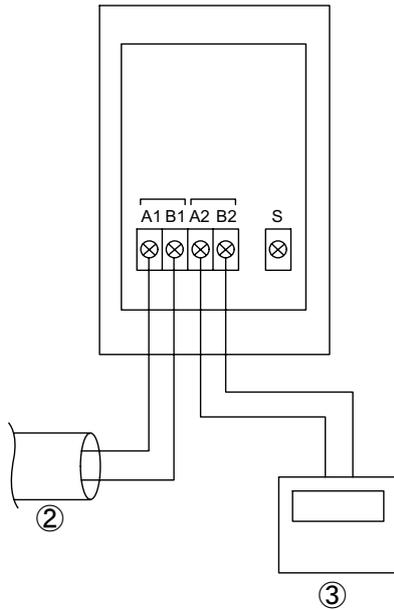
Mounting screws (9)4 ×16

Mounting cord clamp (6)

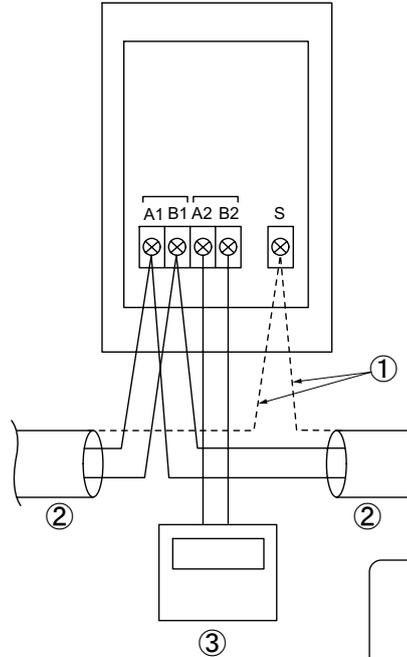
5. Connecting the M-NET Interface, the Power Supply, and the ME Remote Controller

- When connecting the unit to a system controller or ME Remote Controller, connect the transmission line of the M-NET to the control signal terminal.
Connect the 2-core connection wirings (A) to A1/B1 or A2/B2 (they can be connected to either).
- Cross the shield portion of each connecting wire using the S terminal only when cross wiring the connection wires.
- When connecting the connection wirings (A) and the ME Remote Controller connection wirings (B) to the terminal board, there is no need to worry about polarity.

When the connection wirings (A) are not cross-wired



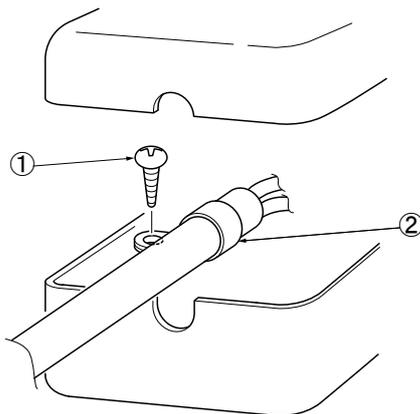
When the connection wirings (A) are cross-wired



- ① Shield
- ② Connection wirings (A)
(M-NET transmission wire)
- ③ ME Remote Controller
(only when needed)

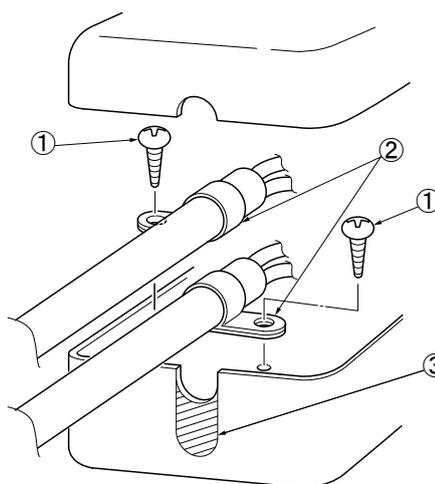
Bare wire size

- After completing the wiring, securely affix a cord clamp to each electrical wire.



- ① Screws
- ② Cord clamp (large)
- ③ Cut with nippers at the notches.
Make sure the cut surface is free of any burr so that the connection wire does not get damaged.

When the connection wirings (A) are cross-wired



⚠ Caution

- Electrical work should be performed in accordance with the Technical Standards Regarding Electrical Equipment and the Interior Wiring Standards.
- Connection wiring and remote control wiring should be located as far away from other electrical wiring as possible. Placing them too closely together could cause a malfunction.

6. Notes Regarding Use

Please read this information carefully before attempting a test run.

The following control information should be thoroughly explained and provided to the users of this device. (Please provide these instructions to the user once the installation is complete.)

- * This M-NET Interface operates RACs using the controls of a packaged air conditioner (city-multi), but there are several limitations imposed as a result of the functional differences between RACs and packaged air conditioners.
 1. When operating the system using a system controller or ME Remote Controller, these operations will not appear on the display of the wireless remote controller.
 2. The dehumidifying modes of individual RACs cannot be operated using the ME Remote Controller/System Controller. When an independent dehumidifying mode is set using the remote controller that came with the RAC, "Dry" will appear on the display because there is no corresponding mode on the ME Remote Controller/System Controller.
 3. Functions that are available on the ME Remote Controller/System Controller but that are not available on the RAC can be operated by switching to a predetermined separate operation mode. (See the "Table of RAC Functions Activated from the ME Remote Controller/System Controller.")
 4. Functions that are available on the remote controller of the RAC but are not available on the ME Remote Controller/System Controller will produce a predetermined display. In this case, the actual operation and the display may differ. (If the fan speed is automatically set using the remote controller that came with the RAC, the setting "High" will appear on the ME Remote Controller/System Controller. Likewise, if the fan direction is set to automatic, the setting "Downward Air Flow 80%" will appear on the ME Remote Controller/System Controller.)
 5. Because the temperature range of the RAC is broader than the ME Remote Controller/System Controller, when the RAC is set to lower than 17°C or higher than 30°C, the temperature display on the ME Remote Controller/System Controller will show the minimum or maximum temperature that can be set. (For example, even if the room air conditioner is set to cool a room to 16°C, the display on the ME Remote Controller/System Controller may read "17°C.")
The RAC operates according to the room temperature detected by the RAC unit.
 6. Timer operations should be set using only the remote controller that came with the RAC or the ME Remote Controller/System Controller. If both are used to set the timer to the same time, the timer will not function properly.
 7. When the timer is set using the remote controller that came with the RAC, the timer information will not be displayed on the ME Remote Controller/System Controller.
 8. If the timer is set using the ME Remote Controller/System Controller, the timer set using that device will not be cancelled even if the unit is turned off using the remote controller that came with the RAC.
 9. When manual operations using the system controller are prohibited, the remote controller that came with the RAC will not function, but the beeping sound that is emitted when it is operating normally will still sound.
 10. To clear an error message from the display of the ME Remote Controller/System Controller, briefly turn off the unit using the ME Remote Controller/System Controller or the remote controller that came with the RAC. (The error display on the air conditioner unit may be cleared automatically, but it will not clear from the ME Remote Controller/System Controller until the unit is turned off.)
 11. The room temperature sensor installed in the ME Remote Controller cannot be used.

7. Table of RAC Functions Activated from the ME Remote Controller/System Controller

This table shows the RAC functions that can be activated by the ME Remote Controller/System Controller.

	ME Remote Controller/System Controller operations/display	RAC response
Power	On/Off	On/Off
Mode	Fan	Fan
	Auto Cool	Cool
	Auto Heat	Heat
	Cool	Cool
	Heat	Heat
	Dry	Dry
Temperature settings	17-30 °C	17-30 °C
Fan speed settings	Low	Low
	Medium 1	Low
	Medium 2	Medium
	High	High
Air directional settings	Position 1 (Horiz.)	Position 1 (Horiz.)
	Position 2	Position 3
	Position 3	Position 4
	Position 4	Position 5
	Swing	Swing

* Some items may not be displayed, depending on the switch settings.

* When operating the unit using the remote controller that came with the RAC, the operation shown on the remote is the one that will be activated on the actual RAC unit. In this case, the information shown on the display of the ME Remote Controller/System Controller may not accurately reflect the unit's actual operations (see the "Notes Regarding Use").