

CITY MULTI Control System  
and Mitsubishi Mr. SLIM Air Conditioners

## Simple MA Remote Controller PAC-YT52CRA

Installation Manual

**For distribution to dealers and contractors**



This installation manual describes how to install the Simple MA Remote Controller for use with Mitsubishi Building Air Conditioning System, direct expansion type CITY MULTI air conditioner indoor units ("A" type and later), and Mitsubishi Mr. SLIM packaged air conditioners.

Please be sure to read this installation manual and Instruction Book that are supplied with the Remote Controller before proceeding with the installation. Failure to follow the instructions may result in equipment damage.

For information on how to wire and install the air conditioning units, refer to the installation manual. After the installation, hand over this manual to users.

### 1 Safety Precautions

- Read the following safety precautions prior to installation.
- Observe these precautions carefully to ensure safety.

 <b>WARNING</b>	Indicates a risk of death or serious injury if you misuse the PAC-YT52CRA.
 <b>CAUTION</b>	Indicates a risk of serious injury or structural damage if you misuse the PAC-YT52CRA.

- After reading this manual, provide this manual to end user for future reference.
- Keep this manual for future reference and refer to it as necessary. This manual should be made available to those who repair or relocate the controller. Make sure that the manual is forwarded to future end users.

**All electric work must be performed by qualified personnel.**

### General precautions

#### **WARNING**

Do not install the unit in a place where large amounts of oil, steam, organic solvents, or corrosive gases, such as sulfuric gas, are present or where acidic/alkaline solutions or sprays are used frequently. These substances can compromise the performance of the unit or cause certain components of the unit to corrode, which can result in electric shock, malfunctions, smoke, or fire.

To reduce the risk of shorting, current leakage, electric shock, malfunctions, smoke, or fire, do not wash the controller with water or any other liquid.

To reduce the risk of electric shock, malfunctions, smoke or fire, do not operate the switches/buttons or touch other electrical parts with wet hands.

To reduce the risk of injury or electric shock, stop the operation and switch off the power supply before cleaning, maintaining, or inspecting the controller.

To reduce the risk of injury or electric shock, before spraying a chemical around the controller, stop the operation and cover the controller.

To reduce the risk of injury, keep children away while installing, inspecting, or repairing the unit.

Properly install all required covers to keep moisture and dust out of the controller. Dust accumulation and water can cause electric shock, smoke, or fire.

## CAUTION

To reduce the risk of electric shock or malfunctions, do not touch the touch panel, switches, or buttons with a pointy or sharp object.

To reduce the risk of damage to the controller, do not directly spray insecticide or other flammable sprays on the controller.

To reduce the risk of injury and electric shock, avoid contact with sharp edges of certain parts.

To reduce the risk of injury, wear protective gear when working on the controller.

Consult your dealer for the proper disposal of the controller.

## Precautions during installation

### WARNING

Do not install the unit where there is a risk of leaking flammable gas.

If flammable gas accumulates around the unit, it may ignite and cause a fire or explosion.

### CAUTION

To reduce the risk of shorting, current leakage, electric shock, malfunctions, smoke, or fire, do not install the controller in a place exposed to water or in a condensing environment.

Controller must be installed by qualified personnel according to the instructions detailed in the Installation Manual.

Improper installation may result in electric shock or fire.

Install the top case into the bottom case until it clicks.

## Precautions during wiring

### WARNING

To reduce the risk of damage to the controller, malfunctions, smoke, or fire, do not connect the power cable to the signal terminal block.

Properly secure the cables in place and provide adequate slack in the cables so as not to stress the terminals. Improperly connected cables may break, overheat, and cause smoke or fire.

To reduce the risk of injury or electric shock, switch off the main power before performing electrical work.

All electric work must be performed by a qualified electrician according to the local regulations, standards, and the instructions detailed in the Installation Manual.

To reduce the risk of electric shock, install a breaker and a residual current circuit breaker on the power supply.

To reduce the risk of electric shock, smoke, or fire, install a breaker for each controller.

Use properly rated breakers and fuses (breaker, local switch <switch + fuse>, no-fuse breaker).

Breaker with a breaking capacity greater than the specified capacity may cause electric shock, malfunctions, smoke, or fire.

To reduce the risk of current leakage, overheating, smoke, or fire, use properly rated cables with adequate current carrying capacity.

Proper grounding must be provided by a licensed electrician.

Do not connect the grounding wire to a gas pipe, water pipe, lightning rod, or telephone wire.

Improper grounding may result in electric shock, smoke, fire, or malfunction due to electrical noise interference.

### CAUTION

To reduce the risk of electric shock, shorting, or malfunctions, keep wire pieces and sheath shavings out of the terminal block.

To reduce the risk of shorting, current leakage, electric shock, or malfunctions, keep the cables out of contact with controller edges.

To reduce the risk of electric shock, malfunctions, or fire, seal the gap between the cables and cable access holes with putty.

## Precautions for moving or repairing the controller

### WARNING

The controller should be repaired or moved only by qualified personnel.  
Do not disassemble or modify the controller.  
Improper installation or repair may cause injury, electric shock, or fire.

### CAUTION

To reduce the risk of electric shock, shorting, or malfunctions, keep wire pieces and sheath shavings out of the terminal block.

## Additional precautions

To avoid damage to the unit, use appropriate tools to install, inspect, or repair the unit.

This controller is designed for exclusive use with the Building Management System by Mitsubishi Electric. The use of this controller for with other systems or for other purposes may cause malfunctions.

To avoid discoloration, do not use benzene, thinner, or chemical rag to clean the controller.  
To clean the controller, wipe with a soft cloth soaked in water with mild detergent, wipe off the detergent with a wet cloth, and wipe off water with a dry cloth.

To avoid damage to the controller, provide protection against static electricity.

Take appropriate measures against electrical noise interference when installing the air conditioners in hospitals or facilities with radio communication capabilities.  
Inverter, high-frequency medical, or wireless communication equipment as well as power generators may cause the air conditioning system to malfunction. Air conditioning system may also adversely affect the operation of these types of equipment by creating electrical noise.

To avoid malfunctions, do not bundle power cables and signal cables together, or place them in the same metallic conduit.

Leave the circuit board and its protective film on the case.

To avoid damage to the controller, do not overtighten the screws.

Use a flat-head screwdriver with a blade width of 5 mm (7/32 inch).

Do not turn the flat-head screwdriver with fitting it in the latch strongly.

To avoid deformation and malfunction, do not install the remote controller in direct sunlight or where the ambient temperature may exceed 40°C (104°F) or drop below 0°C (32°F).

Do not install the controller on the control panel door. Vibrations or shocks to the controller may damage the controller or cause the controller to fall.

Secure the cable with a clamp.

Do not use solderless terminals to connect cables to the terminal block.  
Solderless terminals may come in contact with the circuit board and cause malfunctions or damage the controller cover.

After connecting the connector, install the top case properly.

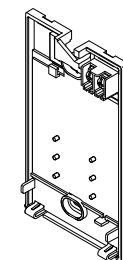
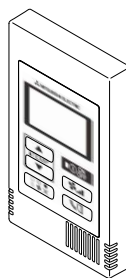


The following parts are included in the box.

Parts name	Qty.	Appearance
Remote controller (top case)	1	Right figure *1
Remote controller (bottom case)	1	Right figure *2
Roundhead cross slot screws M4×30	2	*3
Wood screw 4.1×16 (for direct wall installation)	2	*3
Installation Manual (this manual)	1	
Instruction Book	1	

Top case \*1

Bottom case \*2



\*3 ISO metric screw thread

\*4 Remote controller cable is not included.

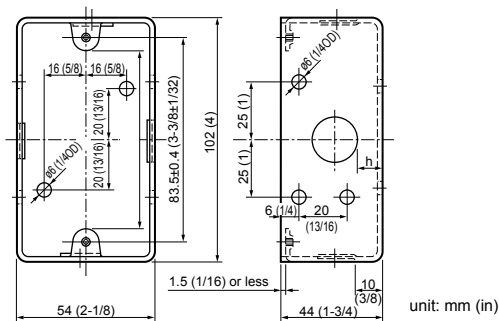
3	Field-supplied parts/Required tools
---	-------------------------------------

### (1) Field-supplied parts

The following parts are field-supplied parts.

Parts name	Qty.	Notes
Single switch box	1	Not required for direct wall installation
Thin metal conduit	Necessary	
Lock nut and bushing	Necessary	
Cable cover	Necessary	Required for routing remote controller cable along a wall
Putty	Reasonable	
Molly anchor	Necessary	
Remote controller cable (Use a 0.3 mm <sup>2</sup> (AWG22) 2-core sheathed cable.)	Necessary	

### Switch box



unit: mm (in)

## (2) Field-supplied tools

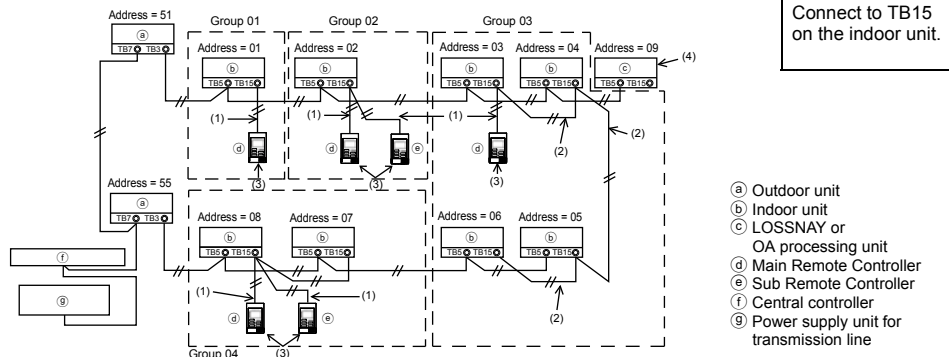
- Flat-tip screwdriver (Width: 3 - 5 mm (1/8 - 7/32 inch))
- Knife or Nipper
- Miscellaneous tools

## 4 How To Wire Transmission Line

The wiring is different when the remote controller is connected to a CITY MULTI control system ("-A" type and later) and when it is connected to a Mr. SLIM air conditioner (A control type). The wiring also differs with the system configuration. Check the system used.

### 1. Connecting to CITY MULTI control system

The numbers (1) to (4) in the figure correspond to items (1) to (4) in the following description.



#### (1) Wiring from the remote controller

- Connect to the MA remote controller terminal block (TB15) on the indoor unit.
- The terminal block has no polarity. Connect to the terminal block at the rear bottom of the remote controller.

#### (2) Operating in a group (Groups 03, and 04 above)

- Interconnect the MA remote controller terminal block (TB15) of the indoor units you want to operate as a group, and connect the MA remote controller to that point.
- When the remote controller is used in combination with the system controller as shown in the figure above, group setting at the system controller (central controller in the figure above) is necessary.

#### (3) Number of connectable remote controllers (groups 02 and 04)

- A main remote controller and one sub remote controller, a total of two, can be connected to a group made up of indoor units.

NOTE: When using this Simple MA remote controller in combination with other MA remote controllers, be sure to follow the compatibility rules below.

Indoor unit function	Main remote controller	Sub remote controller	Compatibility
Models applicable for AUTO (dual set point) mode	This Simple MA remote controller	This Simple MA remote controller	Compatible, and AUTO (dual set point) mode can be used depending on the indoor units to be connected.
	Other MA remote controllers	This Simple MA remote controller	Compatible, but AUTO (dual set point) mode cannot be used.
	This Simple MA remote controller	Other MA remote controllers	Incompatible
Models not applicable for AUTO (dual set point) mode	Combination with all of the above		Compatible

- (4) To interlock to a LOSSNAY or OA processing unit, make the following settings using the remote controller. (For a description of how to set an interlock, see section (7) Ventilation Setting .)
- Set the LOSSNAY or OA processing unit address and the address of all the indoor units you want to interlock.
- (5) Total length of remote controller wiring
- The simple MA controller can be wired up to 200 m (656 ft).

⚠ CAUTION	Remote controllers cannot be wired together. Only one wire can be connected to the remote controller terminal block.	
-----------	--	--

NOTE: When interlocking the MA remote controller with a LOSSNAY or OA processing unit, always set the address of all the indoor units in the group and the address of the LOSSNAY or OA processing unit.

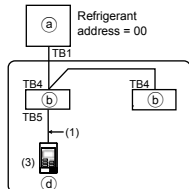
## 2. Connecting to Mr. SLIM air conditioner

The remote controller wiring depends on the system configuration. Check the system configuration. Wire the remote controller as shown in the example below.

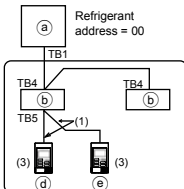
The numbers (1) to (3) in the figure correspond to items (1) to (3) in the following description.

- [1] Connecting the remote controller for each refrigerant system (Standard 1:1, simultaneous twin, simultaneous triple, simultaneous four)

**Simultaneous twin**



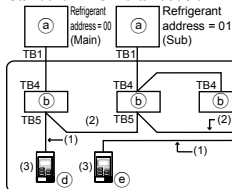
**Simultaneous twin**



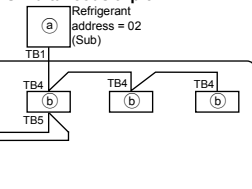
Connect to TB5 on the indoor unit.

- [2] When grouping by different refrigerant systems

**Standard 1:1 Simultaneous twin**



**Simultaneous triple**



- Ⓐ Outdoor unit
- Ⓑ Indoor unit
- Ⓓ Main Remote Controller (Simple MA Controller)
- Ⓔ Sub Remote Controller (Simple MA Controller)

- \* Set the refrigerant address using the outdoor unit dip switches. (For more information, refer to the outdoor unit installation manual.)

- \* All the indoor units enclosed in   are controlled as one group.

(1) Wiring from remote controller

- Connect to indoor unit TB5 (remote controller terminal block). (The terminal block has no polarity.)
- For simultaneous multi type, when mixing various types of indoor units, always connect the remote controller to the indoor unit with the most functions (wind velocity, vane, louver, etc.).

(2) When grouping with difference refrigerant systems

- Group using the remote controller wiring. Connect the remote controller to an arbitrary indoor unit of each refrigerant system you want to group.
- When mixing different types of indoor units in the same group, always make the outdoor unit connecting the indoor unit with the most functions (wind velocity, vane, louver, etc.) the Main unit (refrigerant address = 00). Also, when the Main unit is the simultaneous multi type, always satisfy the conditions of (1) above.
- The Simple MA Remote Controller can control up to 16 refrigerant systems as one group.

(3) Up to two remote controllers can be connected to one group

- When two remote controllers are connected to one group, always set the Main remote controller and Sub remote controller.
- When only one remote controller is connected to one group, set it as the Main controller. When two remote controllers are connected to one group, set the Main remote controller and Sub remote controller. (For a description of how to set the Main/Sub switch, see step 5 in section

(5 | How To Install | ).

NOTE: When using this Simple MA remote controller in combination with other MA remote controllers, be sure to follow the compatibility rules below.

Indoor unit function	Main remote controller	Sub remote controller	Compatibility
Models applicable for AUTO (dual set point) mode	This Simple MA remote controller	This Simple MA remote controller	Compatible, and AUTO (dual set point) mode can be used depending on the indoor units to be connected.
	Other MA remote controllers	This Simple MA remote controller	Compatible, but AUTO (dual set point) mode cannot be used.
	This Simple MA remote controller	Other MA remote controllers	Incompatible
Models not applicable for AUTO (dual set point) mode	Combination with all of the above		Compatible

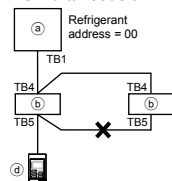
(4) Total length of remote controller wiring

- The Simple MA Remote Controller can be wired up to 500 m (1640 ft).

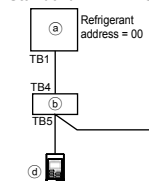
**⚠ CAUTION**

- The wiring cannot be connected to TB5 of the indoor unit of the same refrigerant system. If so connected, the system will not operate normally.
- Remote controllers cannot be wired together. Only one wire can be connected to the remote controller terminal block.
- When connecting to TB5, connect up to two wires of the same size to one terminal block.

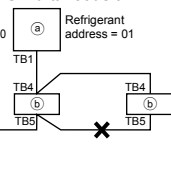
**Simultaneous twin**



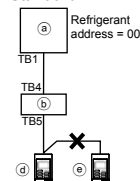
**Standard 1:1**



**Simultaneous twin**



**Standard 1:1**



- (a) Outdoor unit
- (b) Indoor unit
- (d) Main Remote Controller
- (e) Sub Remote Controller

## 5 How To Install

This remote controller is for the wall installation. It can be installed either in the switch box or directly on the wall. When performing direct wall installation, wires can be thread through either back or top of the remote controller.

### (1) Selecting an installation site

Install the remote controller (switch box) on the site where the following conditions are met.

(a) A flat surface

(b) A place where the remote controller can measure the accurate indoor temperature

Sensors to monitor indoor temperature are on the indoor unit and on the remote controller. When the room temperature is monitored with the sensor on the remote controller, the built-in sensor on the Main remote controller monitors the room temperature. When using the sensor on the remote controller, follow the instructions below.

- To monitor the accurate indoor temperature, install the remote controller away from direct sunlight, heat sources, and the supply air outlet of the air conditioner.
- Install the remote controller in a location that allows the sensor to measure the representative room temperature.
- Install the remote controller where no wires are routed around the temperature sensor on the controller. (If wires are routed, the sensor cannot measure accurate indoor temperature.)

### Important

Do not install the controller in a place where the difference between the remote controller surface temperature and the actual room temperature will be great. If the temperature difference is too high, room temperature may not be adequately controlled.

To reduce the risk of malfunctions, do not install the controller in a place where water or oil may come into contact with the controller, or in a condensing or corrosive environments.

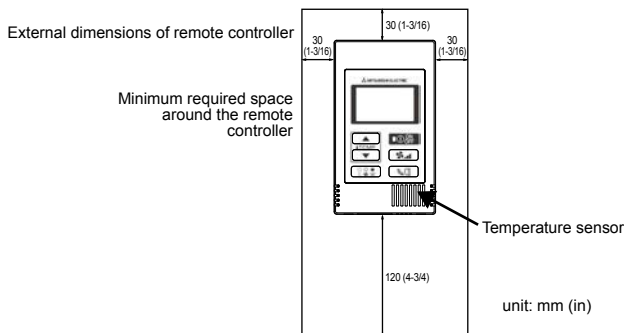
To avoid deformation and malfunction, do not install the remote controller in direct sunlight or where the ambient temperature may exceed 40°C (104°F) or drop below 0°C (32°F).

Do not install the remote controller directly onto electrically conductive objects such as metal plate that has not been painted.

## (2) Installation space

Leave a space around the remote controller as shown in the figure shown below, regardless of whether the controller is installed in the switch box or directly on the wall. Removing the remote controller will not be easy with insufficient space.

Also, leave an operating space in front of the remote controller.



## (3) Installation work

Controller can be installed either in the switch box or directly on the wall. Perform the installation properly according to the installation method.

### ① Drill a hole in the wall.

#### ■ Installation using a switch box

- Drill a hole in the wall, and install the switch box on the wall.
- Connect the switch box to the conduit tube.

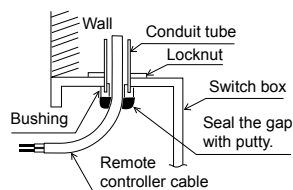
#### ■ Direct wall installation

- Drill a hole in the wall, and thread the cable through it.

### ② Seal the cable access hole with putty

#### ■ Installation using a switch box

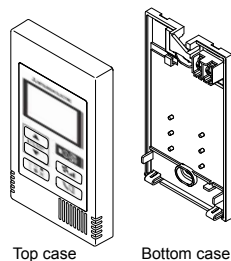
- Seal the remote controller cable access hole at the connection of switch box and conduit tube with putty.



To reduce the risk of electric shock, malfunctions, or fire, seal the gap between the cables and cable access holes with putty.

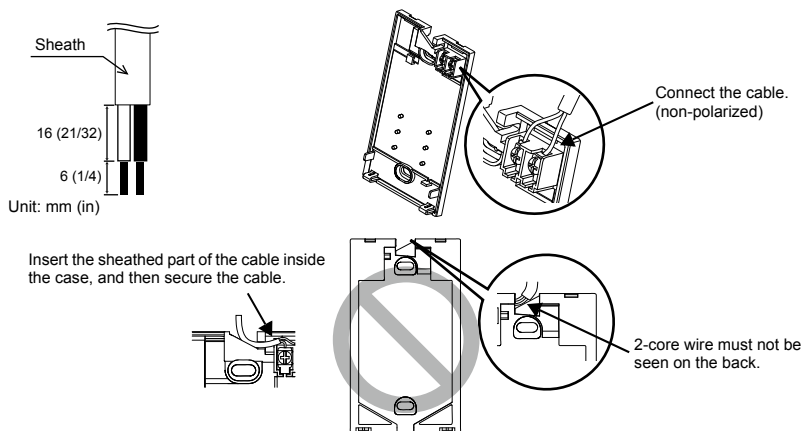


③ Prepare the bottom case of the remote controller.



④ Connect the remote controller cable to the terminal block on the bottom case.

Peel off the remote controller cable sheath as shown below to connect to the terminal block properly. Secure the remote controller cable so that the peeled part of the cable will fit into the case.



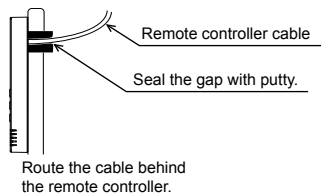
■ Direct wall installation

- Seal the hole through which the cable is threaded with putty.

To reduce the risk of electric shock, shorting, or malfunctions, keep wire pieces and sheath shavings out of the terminal block.

**Important**

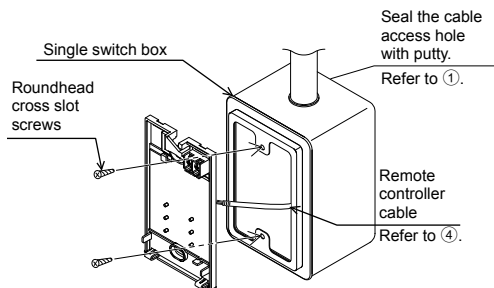
Do not use solderless terminals to connect cables to the terminal block. Solderless terminals may come in contact with the circuit board and cause malfunctions or damage the controller cover.



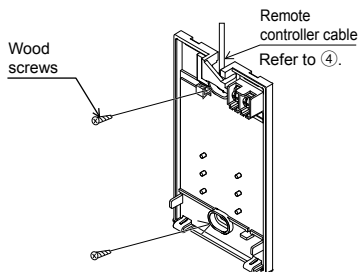
## ⑤ Install the bottom case.

Be sure to secure two places of the bottom case.

### ■ Installation using a switch box



### ■ Direct wall installation



## Important

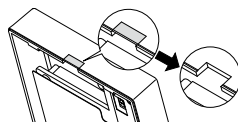
To avoid deformation and damage to the bottom case, do not overtighten the screws.

To avoid damage to the bottom case, do not make holes on it.

## ⑥ Cut out the cable access hole.

### ■ Direct wall installation (when running the cable along the wall)

- Cut out the thin-wall part on the cover (the shaded area in the right figure) with a knife or a nipper.
- Thread the cable from the groove behind the bottom case through this access hole.



## ⑦ Set the dip switches on the top case.

When using two remote controllers in one group, set the dip switches.

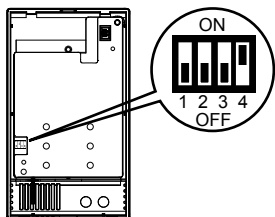
When using two remote controllers in one group, specify the main and sub remote controllers using dip switch No. 1 shown below.

- When connecting only one remote controller to one group, it is always the main remote controller. When connecting two remote controllers to one group, set one remote controller as the main remote controller and the other as the sub remote controller.
- The factory setting is "Main".

### Setting the dip switches

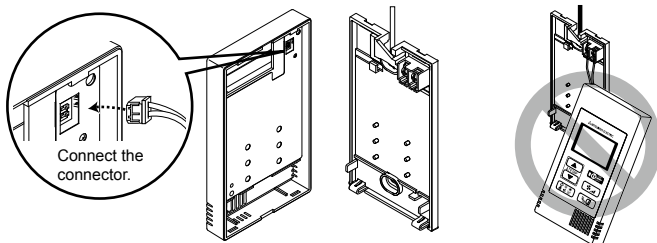
There are switches on the back of the top case. Remote controller Main/Sub and other function settings are performed using these switches. Ordinarily, only change the Main/Sub setting of SW1. (The factory settings are ON for SW1, 2, and 3 and OFF for SW4.)

SW No.	SW contents Main	ON	OFF	Comment
1	Remote controller Main/Sub setting	Main	Sub	Set one of the two remote controllers at one group to "ON".
2	Temperature display units setting	Celsius	Fahrenheit	When the temperature is displayed in [Fahrenheit], set to "OFF".
3	Cooling/heating display in AUTO mode	Yes	No	When you do not want to display "Cooling" and "Heating" in the AUTO mode, set to "OFF".
4	Indoor temperature display	Yes	No	When you want to display the indoor temperature, set to "ON".



# ⑧ **Connect the connector to the top case.**

Connect the connector on the bottom case to the socket on the top case.



## **Important**

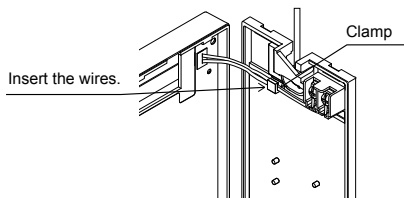
To prevent malfunctions, do not remove the protective sheet or the circuit board from the top case.

To prevent cable breakage and malfunctions, do not hang the top controller casing hang by the cable as shown in the figure above.

# ⑨ **Insert the wires into the clamp.**

## **Important**

Hold the wires in place with the clamp to prevent undue force from being applied to the terminal block and causing cable breakage.



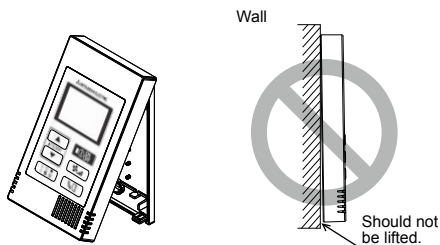
# ⑩ **Install the top case on the bottom case.**

Two mounting tabs are at the top of the top case.

Hook those two tabs onto the bottom case, and click the top case into place. Check that the case is securely installed and not lifted.

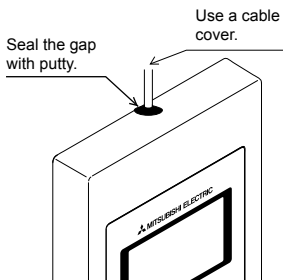
## **Important**

When attaching the top casing to the bottom casing, push it until it they click into place. If they are not properly locked into place, they may fall, causing personal injury, controller damage, or malfunctions.



■ Direct wall installation (when running the cable along the wall)

- Thread the cable through the access hole at the top of the remote controller.
- Seal the cut-out part of the cover with putty.
- Use a cable cover.

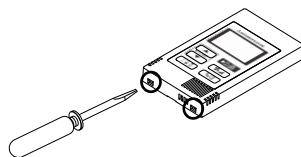


Thread the cable through the top of the remote controller.

• **Uninstalling the top case**

① Uninstalling the top case

Insert a flat-tip screwdriver with a blade width of 3-5 mm (1/8-7/32 inch) into the latches at the bottom of the remote controller and lift the latches. Then, pull up the top case.






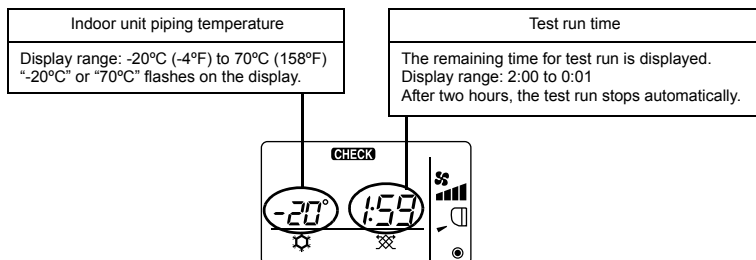
**Important**

To prevent damage to the controller casing, do not force the flat-tip screwdriver to turn with its tip inserted in the slot.

Do not insert the flat-tip screwdriver too far. Doing so will damage the circuit board.

## 6 Test Run

1. Before making a test run, refer to the "Test Run" section of the indoor unit installation manual.
2. When the  button and  button are pressed simultaneously for 2 seconds or longer, test run is performed.
3. Stop the test run by pressing the  button.
4. If trouble occurred during the test run, refer to the "Test Run" section of the indoor unit installation manual.






## 7 Ventilation Setting

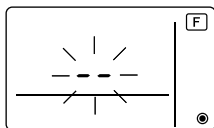
Make this setting only when interlocked operation with LOSSNAY or OA processing unit is necessary with CITY MULTI models.  
(This setting cannot be made with Mr. SLIM air conditioners.)

Perform this operation when you want to register the LOSSNAY or OA processing unit, confirm the registered units, or delete the registered units controlled by the remote controller.

The following uses indoor unit address 05 and LOSSNAY or OA processing unit address 30 as an example to describe the setting procedure.

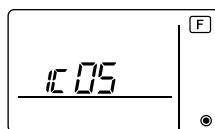
### [Setting Procedure]

- ① Stop the air conditioner using the remote controller  button.
- ② Press and hold down the  and  buttons at the same time for two seconds. The display shown below appears. The remote controller confirms the registered LOSSNAY or OA processing unit addresses of the currently connected indoor units.

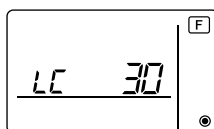


- ③ Registration confirmation result

- The indoor unit address and registered LOSSNAY or OA processing unit address are displayed alternately.

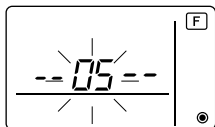


<Indoor unit address and indoor unit display>



<LOSSNAY address display and LOSSNAY display>

- When LOSSNAY or OA processing unit are not registered



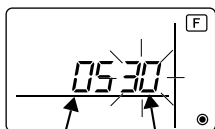
- ④ If registration is unnecessary, end registration by pressing and holding down the and buttons at the same time for two seconds.

If a new LOSSNAY or OA processing unit must be registered, go to step **1. Registration procedure**.

If you want to confirm another LOSSNAY or OA processing unit, go to step **2. Confirmation procedure**. To delete a registered LOSSNAY or OA processing unit, go to step **3. Deletion procedure**.

### <1. Registration procedure>

- ⑤ Set the address of the indoor unit to be interlocked with the LOSSNAY unit using the and buttons. (01 to 50)
- ⑥ After setting, press the button and set the Lossnay address you want to register by operating the and buttons. (01~50)

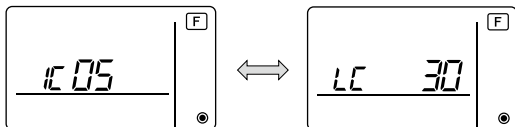


Indoor unit address      LOSSNAY or OA processing unit address

- ⑦ Press the button, and register the set indoor unit address and LOSSNAY address.

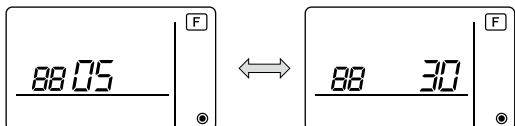
- Registration end display

The indoor unit address and "IC" and LOSSNAY address and "LC" are alternately displayed.



- Registration error display

If the address is not registered correctly, the indoor unit address and [ 88 ], and the registered LOSSNAY (or OA processing unit address) and [ 88 ] are alternately displayed.

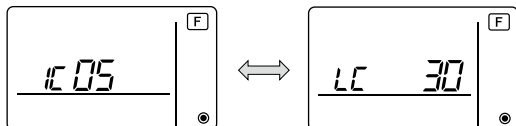


Cannot be registered because the registered indoor unit or LOSSNAY or OA processing unit does not exist.

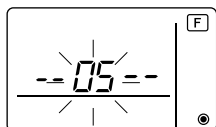
Cannot be registered because another LOSSNAY or OA processing unit was registered at the registered indoor unit.

## <2. Confirmation procedure>

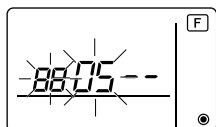
- ⑧ Set the address of the indoor unit connected by the remote controller whose LOSSNAY or OA processing unit you want to confirm using the **TEMP ▲** and **TEMP ▼** buttons. (01 to 50)
- ⑨ Press the **ON/OFF** button and **CLIMATE** button simultaneously for 2 seconds, and check the LOSSNAY address registered at the set indoor unit address.
  - Confirmation end display (When LOSSNAY is connected.)  
The indoor unit address and "IC" and registered LOSSNAY address and "LC" are alternately displayed.



- Confirmation end display (When LOSSNAY or OA processing unit is not connected.)



- Registered indoor unit address does not exist.



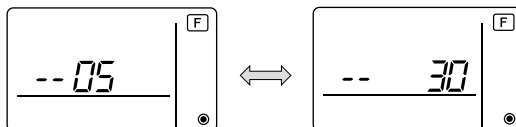
## <3. Deletion procedure>

Use this procedure when you want to delete registration of indoor units connected by the remote controller and LOSSNAY or OA processing unit.

- ⑩ Confirm (see **2. Confirmation procedure**) the LOSSNAY or OA processing unit you want to delete and display the indoor units and LOSSNAY or OA processing unit confirmation results.
- ⑪ Press the **TEMP ▲** and **TEMP ▼** buttons simultaneously for 2 seconds, and delete registration of the LOSSNAY or OA processing unit address registered at the set indoor unit.

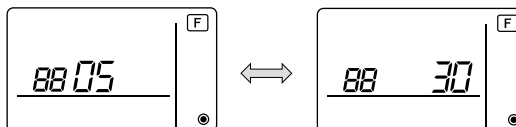
- Deletion end display

Indoor unit address and "--" and registered LOSSNAY or OA processing unit address and "--" are alternately displayed.



- Deletion error display

When deletion was not performed properly.



## 8 Function Selection for Mr. SLIM

Make the following settings for Mr. SLIM if necessary.  
(This setting cannot be made with CITY MULTI Control System. To make CITY MULTI indoor unit settings from the remote controller, refer to section (9 | Function Selection for CITY MULTI | ).)

Set the functions of each indoor unit from the remote controller, as required. The functions of each indoor unit can be selected only from the remote controller.

Set the functions by selecting the necessary items from Table 1.

Table1. Function selection contents

(For a detailed description of the factory settings and mode of each indoor unit, refer to the indoor unit installation manual.)

Mode No.	Mode	Settings	Setting No.	Check	Unit numbers
01	Automatic recovery after power failure	Disable	1		Set "00" for the Unit number. These settings apply to all the connected indoor units.
		Enable (Four minutes of standby time is required after the restoration of power.)	2		
02	Thermistor selection (Indoor temperature detection)	Average temperature reading of the indoor units in operation	1		
		Thermistor on the indoor unit to which the remote controller is connected (fixed)	2		
		Built-in sensor on the remote controller	3		
03	LOSSNAY connection	Not connected	1		
		Connected (without outdoor air intake by the indoor units )	2		
		Connected (with outdoor air intake by the indoor units )	3		
04	Power voltage	240 V	1		
		220 V, 230 V	2		
07	Filter sign	100 hours	1		Set "01" to "04" or "AL" for the Unit number. These settings apply to each indoor unit.
		2500 hours	2		
		Not displayed	3		
08	Fan speed	Silent mode (or standard)	1		
		Standard (or High ceiling 1)	2		
		High ceiling (or High ceiling 2)	3		
09	No. of air outlets	4 directional	1		
		3 directional	2		
		2 directional	3		
10	Installed options (High performance filter)	No	1		
		Yes	2		
11	Vane setting	No vanes (or the vane setting No.3 is effective.)	1		
		Equipped with vanes (The vane setting No.1 is effective.)	2		
		Equipped with vanes (The vane setting No.2 is effective.)	3		

\* Static pressure setting can be made by using Mode 08 in combination with Mode 10 depending on the indoor unit model. Refer to the Indoor unit Installation Manual for details.

\* For mode numbers other than listed above, refer to the indoor unit installation manual.

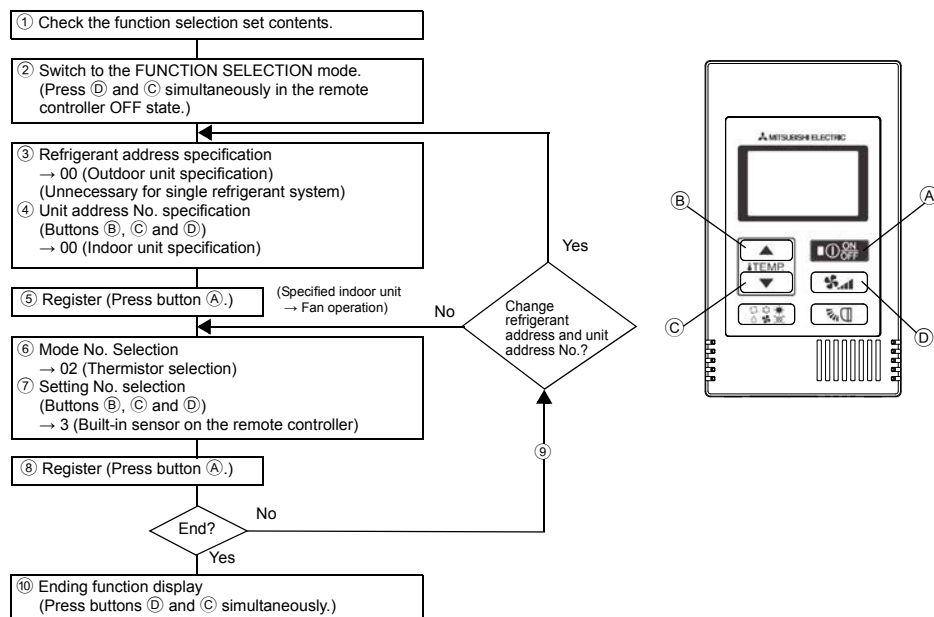
**NOTE:** When the indoor unit functions were changed using the function selection after installation is complete, always indicate the set contents by entering check marks or other marks in the appropriate check field of Table 1.



## [Function selection flow]

First grasp the function selection flow. The following describes setting of “Thermistor selection” of Table 1 as an example.

(For the actual setting procedure, see [Setting procedure] ① to ⑩.)



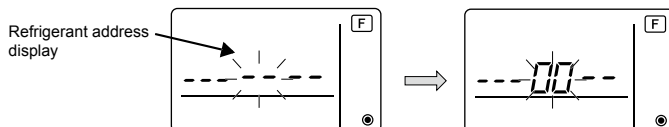
## [Setting procedure] (Set only when change is necessary.)

- ① Check the set contents of each mode. When the set contents of a mode were changed by function selection, the functions of that mode also change.  
Check the set contents as described in steps ② to ⑦ and change the setting based on the entries in the Table 1 check field. For the factory settings, refer to the indoor unit installation manual.

- ② Set the remote controller to Off.

Press and hold down the **ⓓ** and the **ⓒ** **TEMP. ▼** buttons at the same time for two seconds or longer.

“**F** (FUNCTION)” blinks for a while, then the remote controller display changes to the display shown below.



- ③ Set the outdoor unit refrigerant address No.

When the **ⓑ** **TEMP. ▲** and **ⓒ** **TEMP. ▼** buttons are pressed, the refrigerant address No. decreases and increases between 00 and 15.

Set it to the refrigerant address No. whose function you want to select.

(This step is unnecessary for single refrigerant system.)

\* If the remote controller enters the OFF state after the “F (FUNCTION)” and room temperature displays “88” have flashes for two seconds, communication is probably abnormal. Make sure there are no noise sources near the transmission line.

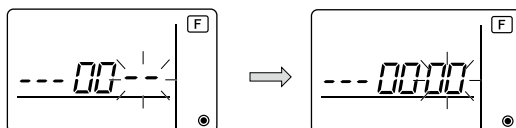
NOTE: If you make a mistake during operation, end function selection by step ⑩ and repeat selection from step ②.

④ Set the indoor unit address No.

Press the **(D)** button. The unit address No. display “--” flashes.

When the **(B)** **TEMP ▲** and **(C)** **TEMP ▼** buttons are pressed, the unit address No. changes in the order of 00 ↔ 01 ↔ 02 ↔ 03 ↔ 04 ↔ AL. Set it to the unit address No. of the indoor unit whose functions you want to set.

Unit address No.  
display



\* When setting mode 1 ~ 6, set the unit address No. to “00”.

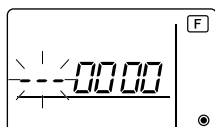
\* When setting modes 7 to 14:

- When setting for each indoor unit, set the unit address No. to “01-04”.
- When batch setting for all indoor units, set the unit address No. to “AL”.

⑤ Refrigerant address and unit address No. registration

Press the **(A)** **ON OFF** button. The refrigerant address and unit address No. are registered. After a while, the mode No. display “--” flashes.

Mode No. display



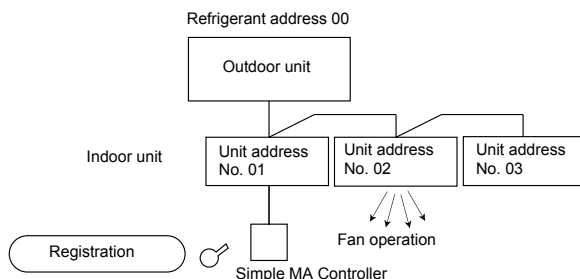
\* When “88” flashes at the room temperature display, the selected refrigerant address is not in the system. When “F” is displayed at the unit address No. display, and when it flashes together with the refrigerant address display, the selected unit address No. does not exist. Correctly set the refrigerant address and unit address No. by repeating steps ③ and ④.

☞ When registered using the **(A)** **ON OFF** button, the registered indoor unit begins fan operation.

When you want to know the location of the indoor units of the unit address No. whose functions were selected, check here.

When the unit address No. is 00 or AL, all the indoor units of the selected refrigerant address perform the fan operation.

EX): When refrigerant address 00, unit address No. = 02 registered

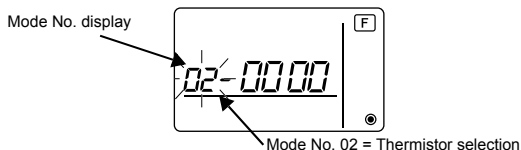


\* When grouping by different refrigerant systems and an indoor unit other than the specified refrigerant address performs the fan operation, the refrigerant address set here is probably duplicated.

Recheck the refrigerant address at the outdoor unit dip switches.

# ⑥ Mode No. selection

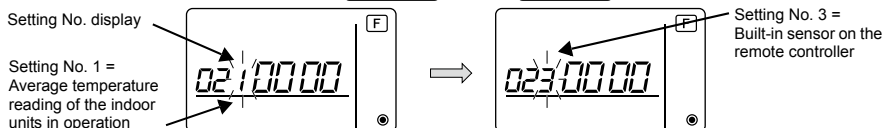
Select the mode No. you want to set with the (B) **TEMP ▲** and (C) **TEMP ▼** buttons. (Only the settable mode numbers can be selected.)



# ⑦ Select the setting contents of the selected mode.

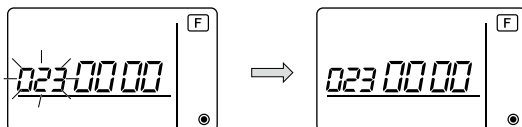
When the (D) **ON/OFF** button is pressed, the current setting No. flashes. Use this to check the currently set contents.

Select the setting No. using the (B) **TEMP ▲** and (C) **TEMP ▼** buttons.



# ⑧ The contents set at steps ③ to ⑦ are registered.

When the (A) **ON/OFF** button is pressed, the mode No. and setting No. flash and registration begins. The flashing mode No. and setting No. change to a steady light and setting ends.



\* When “88” flashes at the Mode No. display, communication is probably abnormal.  
Make sure there are no noise sources near the transmission line.

# ⑨ To select more functions, press the (D) **ON/OFF** and repeat steps ③ to ⑧.

# ⑩ End function selection.

Press and hold down the (C) **TEMP ▼** and (D) **ON/OFF** buttons at the same time for two seconds or longer.

After a while, the function selection display disappears and the remote controller returns to the air conditioner off display.

\* Do not operate the air conditioner from the remote controller for 30 seconds after the end of function selection.

NOTE: When the functions of an indoor unit were changed by function selection after the end of installation, always indicate the set contents by entering check marks or other marks in the appropriate check field of Table 1.

## 9 Function Selection for CITY MULTI

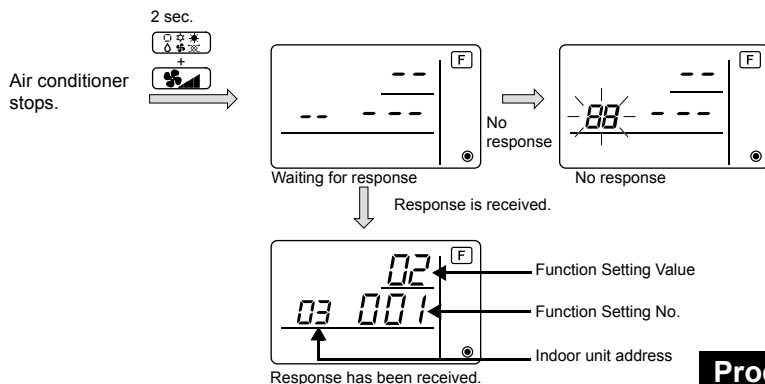
Make this setting only when the function settings need to be changed on CITY MULTI.  
(This setting cannot be made with Mr. SLIM Control System. To make settings for Mr. SLIM, refer to section (8) Function Selection for Mr. SLIM.)

Set the functions of each indoor unit from the remote controller, as required.  
Refer to the Indoor unit Installation Manual for factory settings, mode No., and the setting No. of the indoor units.

**NOTE:** Be sure to write down any settings that you change performing the following steps.

### ■ Setting the indoor unit Setting Value



- Press the **ON/OFF** button to stop the operation of the air conditioner.
- Press and hold down the **□ ☆ ★** and the **□ ☆ ★** buttons at the same time for two seconds or longer to check the current settings.
- When the response has been received from the indoor unit, the current settings appear. If there is no response, nothing appears.

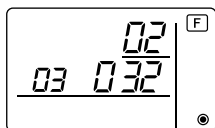


**Procedure A**

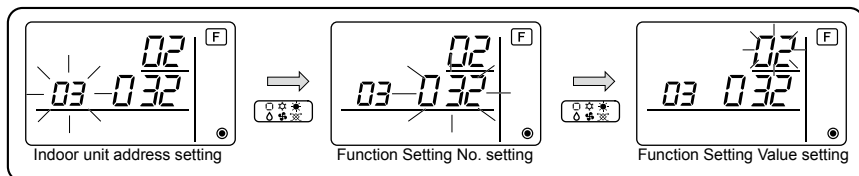
- Press the **TEMP. ▲** and the **TEMP. ▼** buttons to set the address of the indoor unit whose settings to be made. (ALL, 1 to 50)
- Press the **□ ☆ ★** button, then press the **TEMP. ▲** and the **TEMP. ▼** buttons to set the Function Setting No. to be set. (000 to 255)
- Press the **□ ☆ ★** button, then press the **TEMP. ▲** and the **TEMP. ▼** buttons to set the Function Setting Value. to be set (00 to 15)
- Press the **ON/OFF** button to set the settings.

- ⑧ If the set settings need to be changed, repeat steps ④ to ⑦.

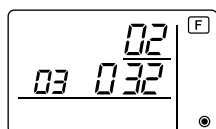
To complete the settings, press the  and the  buttons at the same time for two seconds or longer.



Response has been received.



Waiting for response

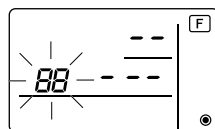


Response has been received.

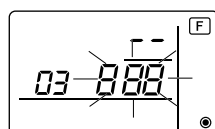


Setting completed

No response









The specified indoor unit does not exist.





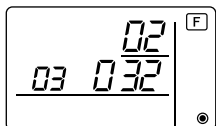
The setting for the specified Function Setting No. has not been completed.

## ■ Checking the indoor unit Function Setting Value

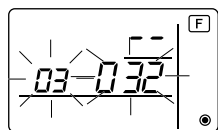
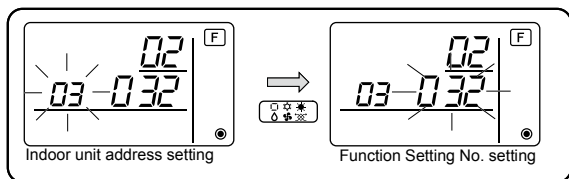
- ① Perform the Procedure A on the previous page.
- ② Press the  and the  buttons to set the address of the indoor unit whose settings to be checked. (ALL, 1 to 50)
- ③ Press the  button, then press the  and the  buttons to set the Function Setting No. to be checked. (000 to 255)
- ④ Press the  button to display the current Function Setting Value.

- ⑤ To check the settings, repeat steps ② to ④.

To complete the checking process, press the  and the  buttons at the same time for two seconds or longer.



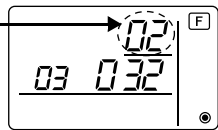
Response has been received.



Waiting for response

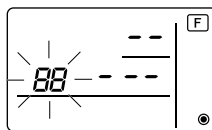


Current setting value

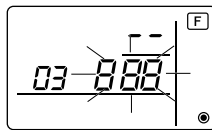


Response has been received.

No response



The specified indoor unit does not exist.





The setting for the specified Function Setting No. has not been completed.



## 10 Self diagnosis

Retrieve the error history of each unit using the Simple MA controller.

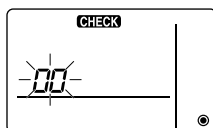
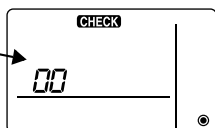
- ① Switch to the self-diagnosis mode.

When the (A)  button and the (C)  button are pressed for 5 seconds or longer, the figure shown below is displayed.

- ② Set the address or refrigerant address No. you want to self-diagnosis.

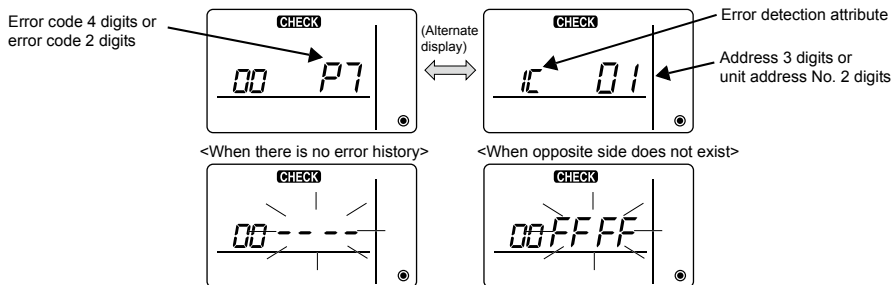
When the (B)  and (C)  are pressed, the address decreases and increases between 01 and 50 or 00 and 15. Set it to the address No. or refrigerant address No. you want to self-diagnosis.

Self-diagnosis address  
or self-diagnosis  
refrigerant address



Approximately three seconds after the change operation, the self-diagnosis refrigerant address changes from flashing to a steady light and self-diagnosis begins.

- ③ Self-diagnosis result display <Error history> (For the contents of the error code, refer to the indoor unit installation manual or service handbook.)



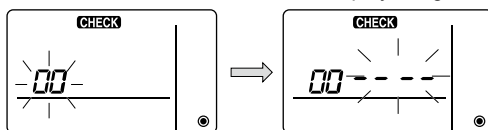
- ④ Error history reset

The error history is displayed in ③ self-diagnosis results display.

When the **D** button is pressed two times successively within three seconds, the self-diagnosis object address and refrigerant address flash.

When the error history was reset, the display shown below appears.

When error history reset failed, the error contents are displayed again.



- ⑤ Self-diagnosis reset

There are the following two ways of resetting self-diagnosis.

Press the **A** button and the **C** button simultaneously for 5 seconds or longer.  
→ Resets self-diagnosis and returns to the state before self-diagnosis.

Press the **A** button. → Self-diagnosis resets and indoor units stop. (When operation is prohibited, this operation is ineffective.)

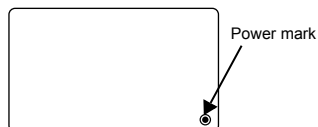
## 11 Remote Controller Check

When the air conditioner cannot be controlled from the Simple MA controller, use this function to check the remote controller.

- ① First check the power mark.

When normal voltage (DC12V) is not applied to the remote controller, the power mark goes off.

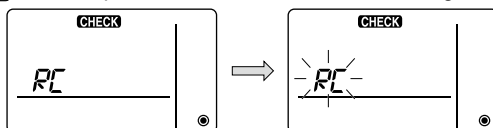
When the power mark is off, check the remote controller wiring and the indoor unit.



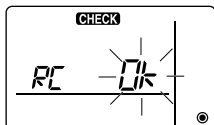
- ② Switch to the remote controller check mode.

When the **B** button and **D** button are pressed simultaneously for 5 seconds or longer, the figure shown below is displayed.

When the **A** button is pressed, remote controller check begins.

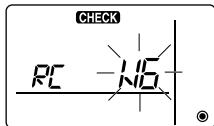


③ Remote controller check result  
<When remote controller is normal>



Since there is no problem at the remote controller, check for other causes.

<When remote controller is faulty>



(Error display 1) "NG" flashes → Remote controller send/receive circuit abnormal

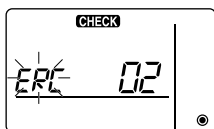
Remote controller switching is necessary.

When the problem is other than the checked remote controller



(Error display 2) "E3" "6833" "6832" flash → Cannot send

There is noise on the transmission line, or the indoor unit or another remote controller is faulty. Check the transmission line and the other remote controllers.



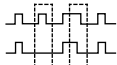
(Error display 3) "ERC" and data error count are displayed → Data error generation

"Data error count" is the difference between the number of bits of remote controller send data and the number of bits actually sent to the transmission line. In this case, the send data was disturbed by the noise, etc. Check the transmission line.





When data error count is 02

Remote controller send data  
Send data on transmission line



④ Remote controller check reset

When the (B)  button and (D)  button are pressed simultaneously for 5 seconds or longer, remote controller diagnosis is reset, the [HO] and run lamp flash for a certain period of time, and then the remote controller returns to its state before diagnosis.

# MITSUBISHI ELECTRIC CORPORATION

HEAD OFFICE: TOKYO BLDG. 2-7-3, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN  
Authorized representative in EU: MITSUBISHI ELECTRIC EUROPE B.V.

HARMAN HOUSE, 1 GEORGE STREET, UXBRIDGE, MIDDLESEX UB8 1QQ, U.K.