MITSUBISHI ELECTRIC

CE

CITY MULTI Control System
and Mr. SLIM Air Conditioners

Simple MA Controller PAC-YT51CRA

Installation Manual

This instruction manual describes how to install the Simple MA Controller for Mitsubishi Building Air Conditioning Systems, direct expansion type CITY MULTI air conditioner indoor units ("-A" type and later), and Mr. SLIM air conditioners. Please read this manual thoroughly and install the remote controller accordingly. For information on how to wire and install the air conditioning units, refer to the installation manual for them.

1 Safety Precautions

- Read these Safety Precautions and perform installation work accordingly.
- The following two symbols are used to dangers that may be caused by incorrect use and their degree:

⚠ **WARNING**	This symbol denotes what could lead to serious injury or death if you misuse the PAC-YT51CRA
⚠ **CAUTION**	This symbol denotes what could lead to a personal injury or damage to your property if you misuse the PAC-YT51CRA

- After reading this installation manual, give it and the indoor unit installation manual to the end user.
- The end user should keep this manual and the indoor unit installation manual in a place where he or she can see it at anytime. When someone moves or repairs the PAC-YT51CRA, make sure that this manual is forwarded to the end user.

⚠ WARNING

Ask your dealer or technical representative to install the unit.
Any deficiency caused by your own installation may result in an electric shock or fire.

Install in a place that is strong enough to withstand the weight of the PAC-YT51CRA.
Any lack of strength may cause the PAC-YT51CRA to fall down, resulting in personal injury.

Firmly connect the wiring using the specified cables. Carefully check that the cables do not exert any force on the terminals.
Improper wiring connections may produce heat and possibly a fire.

Never modify or repair the PAC-YT51CRA by yourself.
Any deficiency caused by your modification or repair may result in an electric shock or fire.
Consult with your dealer about repairs.

Ensure that installation work is done correctly following this installation manual.
Any deficiency caused by installation may result in an electric shock or fire.

All electrical work must be performed by a licensed technician, according to local regulations and the instructions given in this manual.
Any lack of electric circuit or any deficiency caused by installation may result in an electric shock or fire.

Do not move and re-install the PAC-YT51CRA yourself.
Any deficiency caused by installation may result in an electric shock or fire.
Ask your distributor or special vendor for moving and installation.

⚠ CAUTION

Do not install in any place exposed to flammable gas leakage.
Flammable gases accumulated around the body of PAC-YT51CRA may cause an explosion.

Do not use in any special environment.
Using in any place exposed to oil (including machine oil), steam and sulfuric gas may deteriorate the performance significantly or give damage to the component parts.

Wire so that it does not receive any tension.
Tension may cause wire breakage, heating or fire.

Completely seal the wire lead-in port with putty etc.
Any dew, moisture, insects entering the unit may cause an electric shock or a malfunction.

When installing the remote controller in a hospital or communication facility, take ample countermeasures against noise.
Inverters, emergency power supply generators, high-frequency medical equipment, and wireless communication equipment can cause the remote controller to malfunction or to fail. Radiation from the remote controller may effect communication equipment and prevent medial operations on the human body or interfere with image transmission and cause noise.

Never contact the power supply with the control wiring terminals.
Doing so will certainly cause the controller to catch fire.

Do not install in any place at a temperature of more than 40°C (104°F) or less than 0°C (32°F) or exposed to direct sunlight.
The PAC-YT51CRA may be deformed or may malfunction.

Do not touch any control button with your wet hands.
Doing so may cause an electric shock or a malfunction.

Do not wash with water.
Doing so may cause an electric shock or a malfunction.

Do not press any control button using a sharp object.
Doing so may cause an electric shock or a malfunction.

Do not touch any PCB (Printed Circuit Board) with your hands or with tools. Do not allow dust to collect on the PCB.
Doing so may cause fire or an electric shock.

Do not install in any place where acidic or alkaline solution or special spray are often used.
Doing so may cause an electric shock or malfunction.

Do not install in any steamy place such a bathroom or kitchen.
Avoid any place where moisture is condensed into dew. Doing so may cause an electric shock or a malfunction.

Use standard wires in compliance with the current capacity.
A failure to this may result in an electric leakage, heating or fire.

2 Cheking the Supplied Parts

Check that the box includes the following parts in addition to this installation manual:

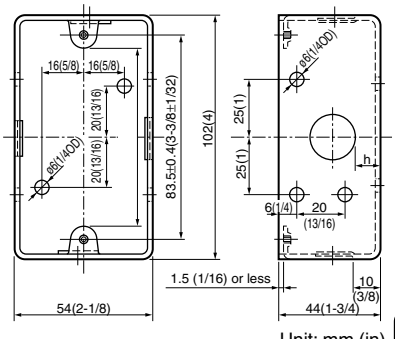
Remote Controller Model Name	Enclosed Parts
PAC-YT51CRA	(1) Simple MA Controller ..... 1 (2) Cross-recessed pan-head screws ..... 2 (3) Operation manual 3

NOTE: The parts listed below must be purchased separately.

(1) Cable connecting the remote controller to the indoor unit:
Use the cable specified below.

Cable type	VCTF or CVV (2-core): 0.75 – 1.25 mm² (stranded 16 to 20 AWG) or equivalent

* CVV is a control cable which is sheathed in polyvinyl chloride with polyvinyl insulated wires inside.



Switch box

Unit: mm (in)

NOTE: If you need to use a cable extension longer than 10 m (32 ft), select an electric wire that meets the following specifications:
Wire specification VCTF or CVV (2-core): 1.25 mm² (stranded 16 AWG) or equivalent

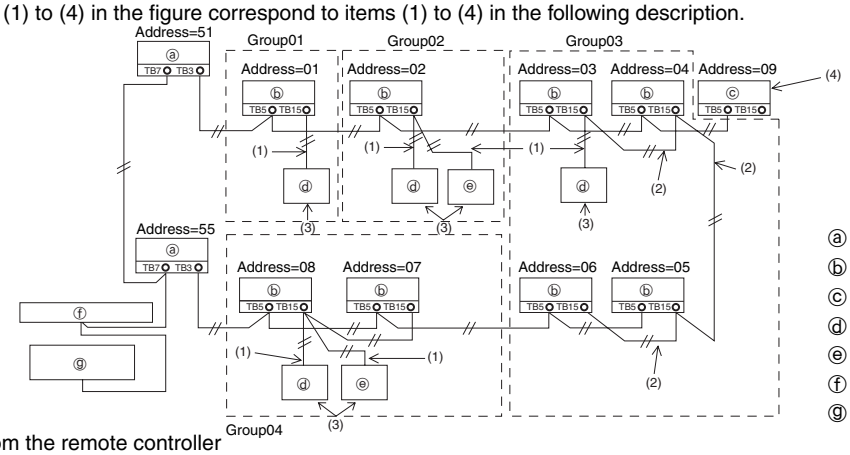
(2) The switch box is necessary for mounting. Use the switch box specified in the right.

3 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.



Connect to TB15 on the indoor unit.

ⓐ Outdoor unit
ⓑ Indoor unit
ⓒ LOSSNAY or OA processing unit
ⓓ Main Remote Controller
ⓔ Sub Remote Controller
ⓕ Central controller
ⓖ Power supply unit for transmission line

(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. Continue 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 (TB5) of the indoor units you want to operate as a group, and connect the MA remote controller to that point.
- When also it in combination with a CITY MULTI control system 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.

(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 6 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). Procure 0.75 - 1.25 mm² (stranded 16 - 28 AWG), 2-core cable at the installation site.

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

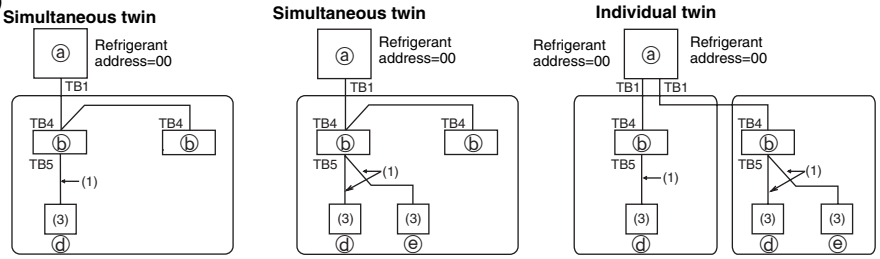
NOTE: When interlocking the MA remote controller with a LOSSNAY or OA processing unit, always set the address of all the indoor units in the group and the address of the LOSSNAY or OA processing unit.

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.

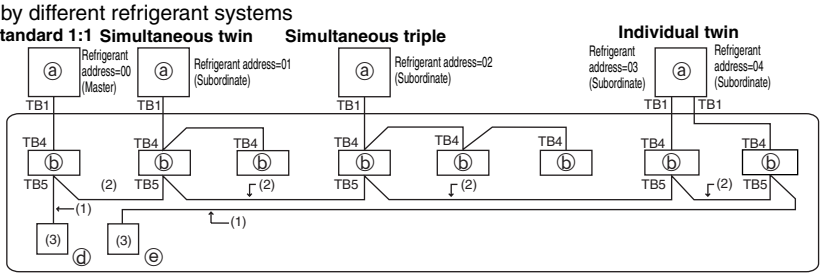
The numbers (1) to (3) in the figure correspond to items (1) to (3) in the following description.

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



Connect to TB5 on the indoor unit.

[2] When grouping by different refrigerant systems



ⓐ 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.

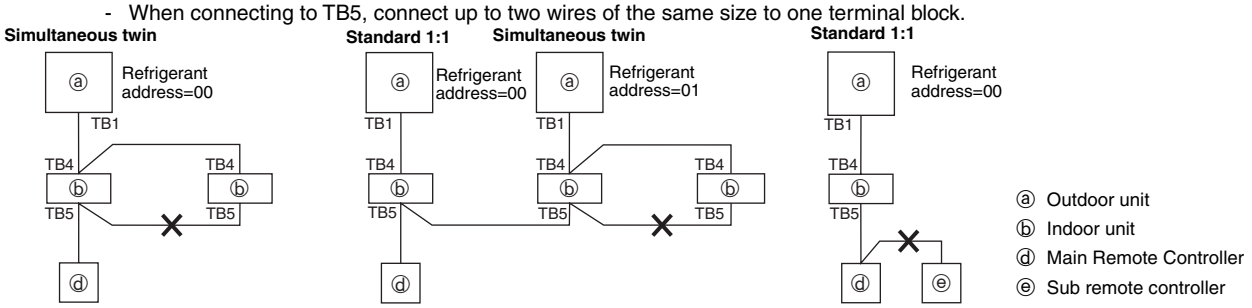
(1) Wiring from remote controller
- Connect to indoor unit TB5 (remote controller terminal block). (The terminal block has no polarity.)
- For simultaneous multi type, when mixing various types of indoor units, always connect the remote controller to the indoor unit with the most functions (wind velocity, 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 master unit (refrigerant address = 00). Also, when the master unit is the simultaneous multi type, always satisfy the conditions of (1) above.
- The MA compact 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 master remote controller and subordinate remote controller.
- When only one remote controller is connected to one group, set it as the master controller. When two remote controllers are connected to one group, set the master remote controller and subordinate remote controller. (For a description of how to set the master/subordinate switch, see step 5 in section 4 How To Install.)

(4) Total length of remote controller wiring
- The remote controller can be wired up to 200 m (656-1/8 ft). Procure 0.75 ~ 1.25 mm^2 (16 ~ 28 AWG), 2-core cable at the installation site.

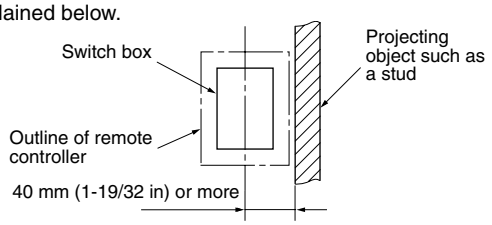
⚠ CAUTION
- The wiring cannot be connected to TB5 of the indoor unit of the same refrigerant system. If so connected, the system will not operate normally.
- Remote controllers cannot be wired together. Only one wire can be connected to the remote controller terminal block.
- When connecting to TB5,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



4 How To Install

1. Mount the switch box

(1) Install the switch box (purchased separately) as explained below.



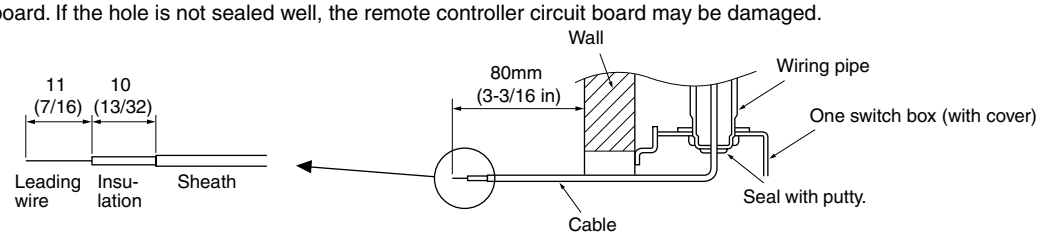
NOTE:
- Be sure to install the switch box with the clearance shown in the illustration at the left. (Check the space between the unit and any projection such as a stud.)
- Leave a space of 120 mm (4-3/4 in) or more below the remote controller so that the screwdriver can be used.
- Since the remote controller is equipped with a temperature sensor, install the remote controller in a location where the average room temperature can be detected and which is not directly affected by some heat source, direct sunlight or air blown from an air conditioner.

(2) Purchase the thin-copper wiring pipe and locknuts and bushings separately.

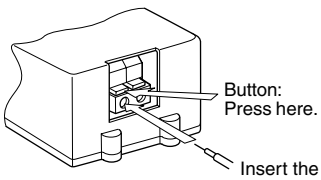
2. Install the remote controller

(1) Pull out about 80 mm of cable from the wall and remove the insulation from its end.

(2) Use putty to seal the cable lead-in hole in order to prevent insects from damaging the wiring and to prevent air from condensing on the remote controller circuit board. If the hole is not sealed well, the remote controller circuit board may be damaged.

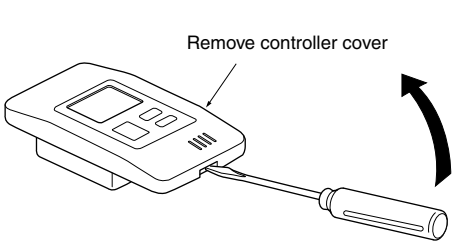


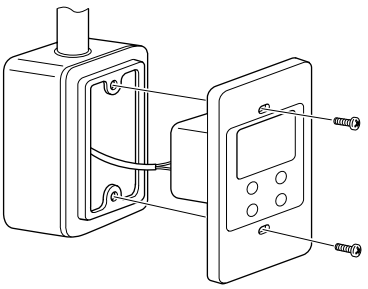
(3) Connect the cable to the terminal board in the bottom rear of the simple MA controller unit.



- The cable does not have polarity.
- When connecting stranded cable, hold down the button on the terminal board while inserting the cable.
- The cable connects to the main terminal board when it is inserted into the bottom terminal.
- When disconnecting the cable, hold down the button while pulling out the cable.
- After inserting the cable, slightly tug on it to check that it does not easily disconnect. If the cable is not securely connected, a short-circuit or malfunction may occur.

(4) Remove the controller cover using a standard screwdriver, then attach the simple MA controller unit to the switch box using the two enclosed cross-recessed pan-head screws. Use a standard screwdriver with a blade that is 4 mm (5/32 in) or wider to remove the cover.





⚠ CAUTION	- Forcing off the cover using a screwdriver that is less than 4 mm (5/32 in) wide may result in damage to the equipment. - Attach the remote controller to a level surface. Do not overtighten the screws, otherwise the case may become deformed or break.

(5) 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".

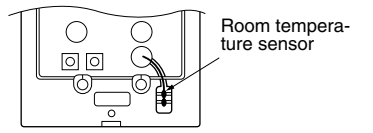
Setting the dip switches

There are switches on the front of the remote controller. 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 all "ON".)

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 "Main"
2	Temperature display units setting	Celsius	Fahrenheit	When the temperature is displayed in [Fahrenheit], set to "No".
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 "No".
4	Indoor temperature display	Yes	No	When you do not want to display the indoor temperature, set to "No".

(6) After setting the remote controller address, attach the remote controller cover.
When attaching the remote controller cover, set the top of the cover onto the two top hooks, then push in on the bottom of the cover until it snaps into place.
If the bottom of the cover is attached first, the top of the cover cannot be attached. Forcefully pushing in the top of the cover to attach it may break the hooks.

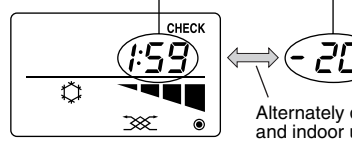
⚠ CAUTION	- Press in on the bottom of the cover until it snaps into place. - When attaching the remote controller cover, be careful not to move the room temperature sensor out of place. Moving the sensor out of place or pinching it while attaching the cover may result in the sensor malfunctioning or being damaged.



5 Test Run

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

test run time	indoor unit piping temperature
The amount of time: remaining for the test run is displayed. Display range: 2:00 to 0:01 After two hours, the test run stops automatically.	Display range: –20°C (–4°F) to 70°C (158°F) "–20°C" or "70°C" flashes on the display



Alternately displays the test run time and indoor unit piping temperature.

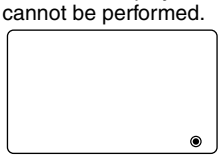
6 Ventilation Setting

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.)

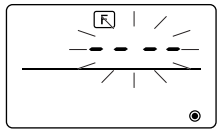
Perform this operation when you want to register the LOSSNAY or OA processing unit, confirm the registered units, or delete the registered units controlled by the remote controller.
The following uses indoor unit address 05 and LOSSNAY or OA processing unit address 30 as an example to describe the setting procedure.

[Setting Procedure]

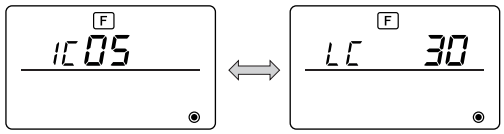
① Stop the air conditioner using the remote controller [ON/OFF] button. If the OFF display shown below does not appear at this time, step 2 cannot be performed.



② Press and hold down the [(Fan Speed Adjustment)] and [TEMP. (▽)] 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.



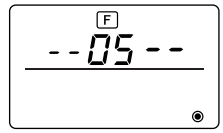
③ Registration confirmation result
- The indoor unit address and registered LOSSNAY or OA processing unit address are displayed alternately.



LC: LOSSNAY
FU: OA Processing unit

<Indoor unit address and indoor unit display> <LOSSNAY address display and LOSSNAY display>

- When LOSSNAY or OA processing unit are not registered

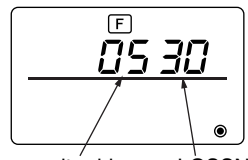


④ If registration is unnecessary, end registration by pressing and holding down the [(Fan Speed Adjustment)] and [TEMP. (▽)] buttons at the same time for two seconds.
If a new LOSSNAY or OA processing unit must be registered, go to step **1. Registration procedure** . If you want to confirm another LOSSNAY 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 >

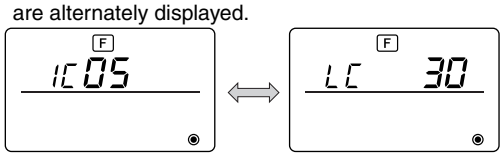
⑤ Set the address of the LOSSNAY or OA processing unit and the indoor unit connected by the remote controller you want to register using the [TEMP. (△) and (▽)] buttons. (01 to 50)

⑥ After setting, press the [(Fan Speed Adjustment)] button and set the Lossnay address you want to register by operating the [TEMP. (△) and (▽)] buttons. (01~50)



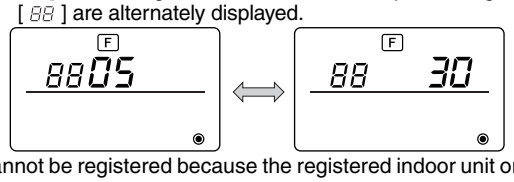
Indoor unit address LOSSNAY or OA processing unit address

⑦ Press the [ON/OFF] 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.



LC: LOSSNAY
FU: OA Processing unit

- 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.

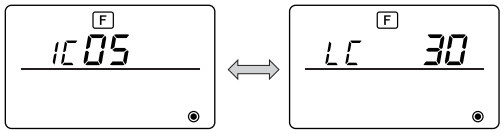


Cannot be registered because the registered indoor unit or LOSSNAY or OA processing unit does not exist.
Cannot be registered because another LOSSNAY or OA processing unit was registered at the registered indoor unit.

< 2. Confirmation procedure >

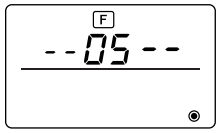
⑧ Set the address of the indoor unit connected by the remote controller whose LOSSNAY or OA processing unit you want to confirm using the [TEMP. (△) and (▽)] buttons. (01 to 50)

⑨ Press the [ON/OFF] button and [(Fan Speed Adjustment)] 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.

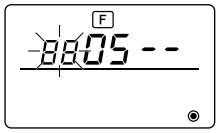


LC: LOSSNAY
FU: OA Processing unit

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



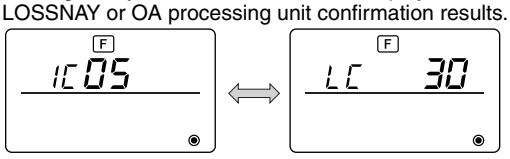
- Registered indoor unit address does not exist.



< 3. Deletion procedure >

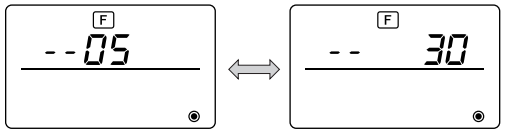
Use this procedure when you want to delete registration of indoor units connected by the remote controller and LOSSNAY or OA processing unit.

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.

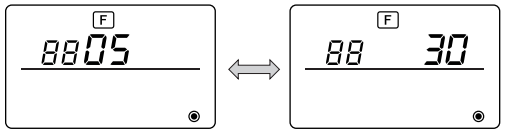


LC: LOSSNAY
FU: OA Processing unit

⑪ Press the [TEMP. (△) and (▽)] button 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.



7 Function Selection

Please set the following functions connected with Mr.SLIM if it is neccessary.
(Cannot be performed with CITY MULTI Control system.)

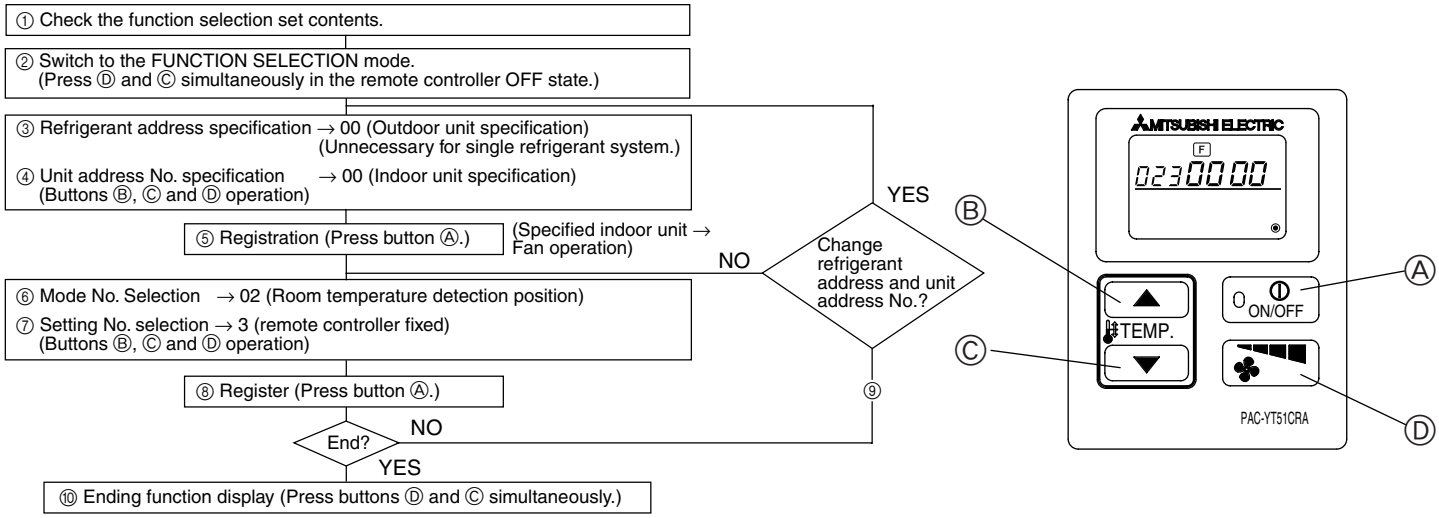
Set the functions of each indoor unit from the remote controller, as required. The functions of each indoor unit can be selected only from the remote controller.
Set the functions by selecting the necessary items from Table 1.

Table 1. Function selection contents (For a detailed description of the factory settings and mode of each indoor unit, refer to the indoor unit installation manual.)

Function	Settings	Mode No.	Setting No.	Check	Object unit address No.
Power failure automatic recovery	Not available	01	1		Unit address No. 00
	Available (Approximate 4 minutes wait-period after power is restored.)	01	2		
Indoor temperature detecting	Indoor unit operating average	02	1		These items are set for all indoor units.
	Set by indoor unit's remote controller	02	2		
	Remote controller's internal sensor	02	3		
OA processing unit connectivity	Not Supported	03	1		
	Supported (indoor unit is not equipped with outdoor-air intake)	03	2		
	Supported (indoor unit is equipped with outdoor-air intake)	03	3		
Power voltage	240 V	04	1		
	220 V, 230 V	04	2		
AUTO mode	Energy saving cycle automatically enabled	05	1		
	Energy saving cycle automatically disabled	05	2		
Filter sign	100 Hr	07	1		Unit address No. 01 to 04 or AL
	2500 Hr	07	2		
	No filter sign indicator	07	3		
Fan speed	Quiet / Standard	08	1		
	Standard / High ceiling ① (PL(H)(A)-P·AA type)	08	2		
	High ceiling / High ceiling ②	08	3		
No. of air outlets	4 directions	09	1		These items are set for each indoor unit.
	3 directions	09	2		
	2 directions	09	3		
Installed options (high-performance filter)	Not supported	10	1		
	Supported	10	2		
Up/down vane setting	No vanes	11	1		
	Equipped with vanes (No. 1 set)	11	2		
	Equipped with vanes (No. 2 set)	11	3		
Energy saving air flow (Heating mode)	Disabled	12	1		
	Enabled	12	2		
Humidifier (Direct Add-on type)	Not supported	13	1		
	Supported	13	2		

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

[Function selection flow]
First grasp the function selection flow. The following describes setting of "Room temperature detection position" of Table 1 as an example.
(For the actual setting procedure, see [Setting procedure] ① to ⑩.)

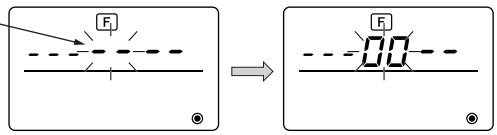


[Procedure] (Set only when change is necessary.)

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 Ⓓ [(Fan Speed Adjustment)] 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.

Refrigerant address display



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.)

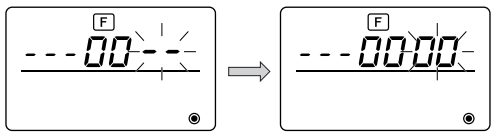
* If the remote controller enters the OFF state after the " F (FUNCTION)" and room temperature displays " 88 " have flashes for two seconds, communication is probably abnormal. Make sure there are no noise sources near the transmission line.

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 Ⓓ [(Fan Speed Adjustment)] button. The unit address No. display "– –" flashes.

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

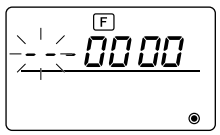
Unit address No. display



* When setting mode 1 to 3, set the unit address No. to "00".
* When setting modes 7 to 11:
  - 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 Ⓐ [ON/OFF] button. The refrigerant address and unit address No. are registered.
After a while, the mode No. display "– –" flashes.

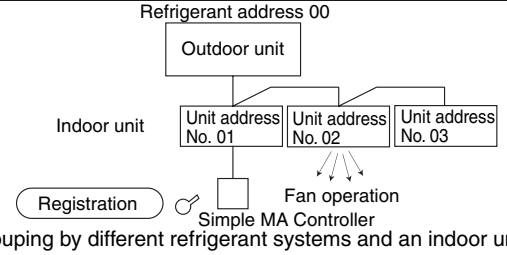
Mode No. display



* 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 ② and ③.

When registered using the Ⓐ [ON/OFF] , 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.

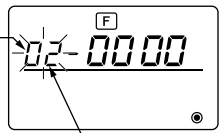
Ex) When refrigerant address 00, unit address No. = 02 registered



* 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 Ⓑ [TEMP. (△)] and Ⓒ [TEMP. (▽)] buttons. (Only the settable mode numbers can be selected.)

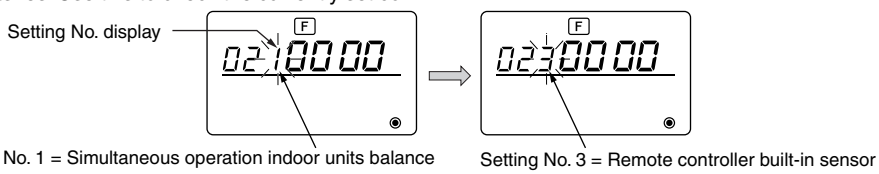
Mode No. display



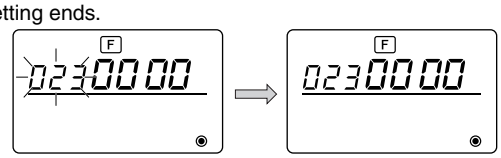
Mode No. 02 = Room temperature detection position

⑦ Select the setting contents of the selected mode.
When the Ⓓ [(Fan Speed Adjustment)] button is pressed, the current setting No. flashes. Use this to check the currently set contents.

Select the setting No. using the Ⓑ [TEMP. (△)] and Ⓒ [TEMP. (▽)] buttons.



⑧ The contents set at steps ③ to ⑦ are registered.
When the Ⓐ [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 "– –" appears at the mode No. and setting No. displays and " 88 " flashes at the room temperature display, communication is probably abnormal. Make sure there are no noise sources near the transmission line.

⑨ To select more functions, press the Ⓓ [(Fan Speed Adjustment)] and repeat steps ③ to ⑧.

⑩ End function selection.
Press and hold down the Ⓒ [TEMP. (▽)] and Ⓓ [(Fan Speed Adjustment)] 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.

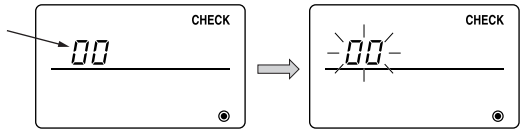
NOTE: When the functions of an indoor unit were changed by function selection after the end of installation, always indicate the set contents by entering a ○ or other mark in the appropriate check field of Table 1.

8 Self diagnosis

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

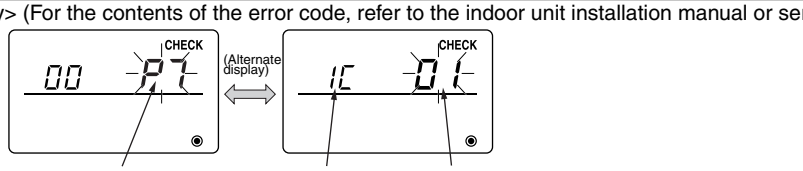
① Switch to the self-diagnosis mode.
When the Ⓐ [ON/OFF] button and the Ⓒ [TEMP. (▽)] button are pressed for 5 seconds or longer, the figure shown below is displayed.

② Set the address or refrigerant address No. you want to self-diagnosis.
When the Ⓑ [TEMP. (△)] and Ⓒ [TEMP. (▽)] 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.

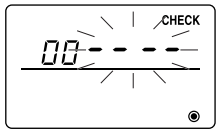


Approximately three seconds after the change operation, the self-diagnosis refrigerant address changes from flashing to a steady light and self-diagnosis begins.

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



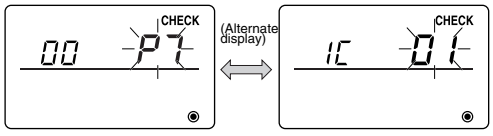
<When there is no error history>



<When opposite side does not exist>

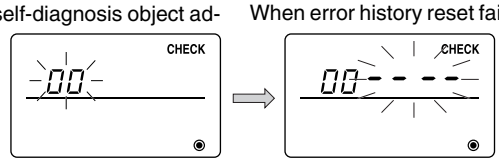


④ Error history reset
The error history is displayed in ③ self-diagnosis results display.



When the Ⓓ [(Fan Speed Adjustment)] 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 Ⓐ [ON/OFF] button and the Ⓒ [TEMP. (▽)] button simultaneously for 5 seconds or longer. → Resets self-diagnosis and returns to the state before self-diagnosis.

Press the Ⓐ [ON/OFF] button.→ Self-diagnosis resets and indoor units stop.

(When operation is prohibited, this operation is ineffective.)

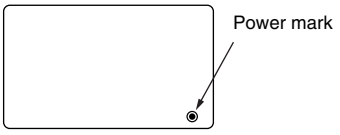
9 Remote Controller Check

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.

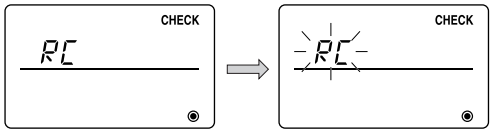
When the power mark is off, check the remote controller wiring and the indoor unit.



② Switch to the remote controller check mode.

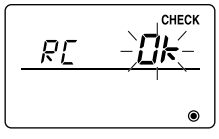
When the Ⓑ [TEMP. (△)] button and Ⓓ [(Fan Speed Adjustment)] button are pressed simultaneously for 5 seconds or longer, the figure shown below is displayed.

When the Ⓐ [ON/OFF] button is pressed, remote controller check begins.



③ Remote controller check result

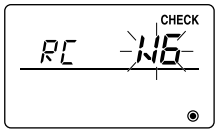
<When remote controller is normal>



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

<When remote controller is faulty>

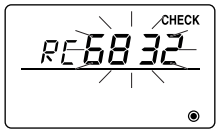
(Error display 1) "NG" flashes → Remote controller send/receive circuit abnormal



Remote controller switching is necessary.

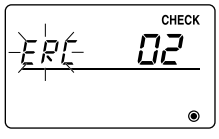
When the problem is other than the checked remote controller

(Error code 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

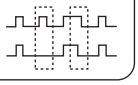


"Data error count" is the difference between the number of bits of remote controller send data and the number of bits actually sent to the transmission line. In this case, the send data was disturbed by the noise, etc. Check the transmission line.

When data error count is 02

Remote controller send data

Send data on transmission line



④ Remote controller check reset

When the Ⓑ [TEMP. (△)] button and Ⓓ [(Fan Speed Adjustment)] button are pressed simultaneously for 5 seconds or longer, remote controller diagnosis is reset and the [HO] and run lamp flash and 30 seconds later the remote controller returns to its state before diagnosis.