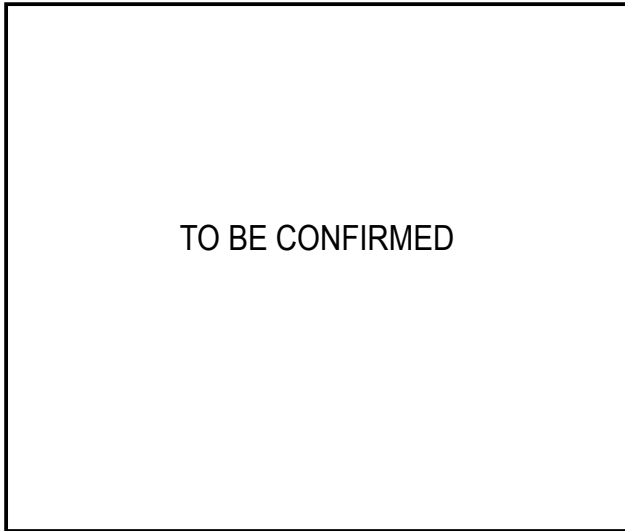




Photo



Descriptions

Possible to use wireless remote control even with wired remote control models.

Applicable Models

■ PCA-A24/30/36/42NHA

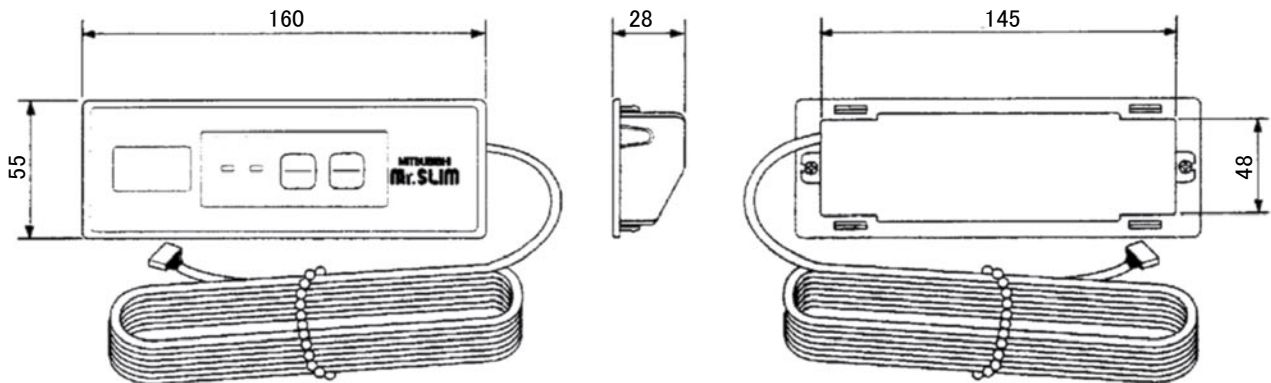
■

Specifications

Operation indication	During operation: LED (green) is lit, Alarm: LED (green) flashes.
Emergency operation	Cooler/heater button (start/stop) is provided.
Number of units controlled	Max. 16 refrigerant systems per group (One or more wireless light receivers must be installed for each refrigerant system.)
Adapter wiring	9-wire cord (standard accessory) with connector is connected to the connector (CN90) on the indoor unit control board.
Light receiver range	7m or less, at within 45 degrees to the front of receiver (the range varies with conditions)
Operating conditions	Temperature: 0 to 40°C , Humidity: 30 to 90% (no condensation)
Exterior	White gray (Munsell 4.48Y 7.92/0.66), ABS resin
Installation method	Attached to the brand label case of indoor unit.
Accessory	Cord clip x 2

Outline and Dimensions

Unit : mm



How to Use / How to Install

**Mitsubishi A-Control Ceiling Suspended Type (PCA-RP.GA / PCH-P.GAH) Series
Package Air-Conditioner**

Wireless Remote Controller PAR-SL99B-E (Light Receiver and Operation Transmitter) Installation Manual

This manual describes the installation for wireless remote controller of the Mitsubishi A-control ceiling suspended series package air-conditioner. Read this manual carefully.

1 Safety Precautions

- Read these "Safety Precautions" thoroughly and install securely.
- Precautions are classified using the following symbols depending on the extent and type of danger by erroneous handling.

⚠ WARNING	Erroneous handling can cause death or serious injury.
⚠ CAUTION	Erroneous handling can cause personal injury or damage.

- After using this manual, be sure to pass it to the customer together with the instruction manual provided with the indoor unit. Ask the customer to keep this installation manual and the instruction manual in a handy place, and to show them to the engineer when the air-conditioner is moved or repaired. Also ask the customer to pass them to any new user.

⚠ WARNING

Ask a dealer or specialist to install the unit.

Incomplete installation could cause electric shock, fire, etc.

Securely install the unit in a place that can with stand the weight.

Otherwise, the unit could fall, which could cause injury.

Never modify the unit or repair it by yourself.

Modification or incorrect repair could cause electric shock, fire, etc. Consult the dealer from whom you purchased the unit.

Do not move the unit by yourself.

Incomplete installation could cause electric shock, fire, etc. Ask the dealer or a specialist for installation.

Securely install the unit, referring to this installation manual.

Incomplete installation could cause electric shock, fire, etc.

All accessories must be installed by an authorized technician. The user must not try to install accessories. Improperly installed accessories can cause water leakage, electric shock or fire. Shortage in electrical circuit capacity or incomplete construction could cause fire, etc.

Securely connect the specified remote control cord, and fix it so that the terminal connector is free from any external force via the cord.

Incomplete connection or fixing could cause heat, fire, etc.

⚠ CAUTION

Do not install the unit in a place where flammable gas could leak.

If gas leaks or accumulates around the unit, it could cause ignition, explosion, etc.

Do not use the unit in an abnormal environment.

Usage in a place where there is much oil (including machine oil), steam, sulfide gas, etc. could greatly degrade its performance or damage components.

Take sufficient countermeasures against noise when the unit is installed in hospital, communication office, etc.

This unit could malfunction when affected by inverter equipment, private electric generator, high-frequency medical instruments, radio communication devices, etc. Also, this unit could adversely affect medical instruments, communication devices, etc., thus interfering with human medical treatment, or causing disturbance in broadcast pictures or noise.

When doing wiring, make sure that wires are not subject to tension.

Tension on wires could disconnect them, or cause heat, fire, etc.

Do not rinse this unit with water.

Doing so could cause fault, electric shock, etc.

Do not install the unit in a place where the ambient temperature is over 40°C or below 0°C, or exposed to direct sunlight.

Installing in such a place could cause deformation, fault, etc.

Do not install the unit in a bathroom, kitchen, etc. where a great amount of steam is generated.

Avoid installing in a wall where condensation occurs. Installing in such a place could cause a fault, electric shock, etc.

Do not install the unit in a place where acid solution, alkaline solution, special spray, etc. are frequently used.

Installing in such a place could cause fault, electric shock, etc.

Do not touch circuit boards with hands or tools, or allow dust to adhere to them.

Failure to do so could cause fault, fire, etc.

Do not operate buttons with wet hands.

Failure to do so could cause fault, electric shock, etc.

Do not push buttons with sharp objects.

Failure to do so could cause fault, electric shock, etc.

2 Making Sure of Components

Make sure that the following components, along with this manual, are packed in the box.

Component	PAR-SL99B-E
Wireless remote controller	1
Receiver board	1
Remote control holder	1
"AAA" LR03 alkaline batteries	2
4.1x16 wood screws	2
Cord retaining clips	2
Connection cord fixing seal (12x30 size)	1

NOTE : The remote signal will reach the receiver over a distance of approx. 7 m in a straight line and left or right. If the infrared receiver is affected by fluorescent light (especially, inverter type), it will not be able to receive the signal. Take this into consideration when installing fluorescent lights or replacing them.

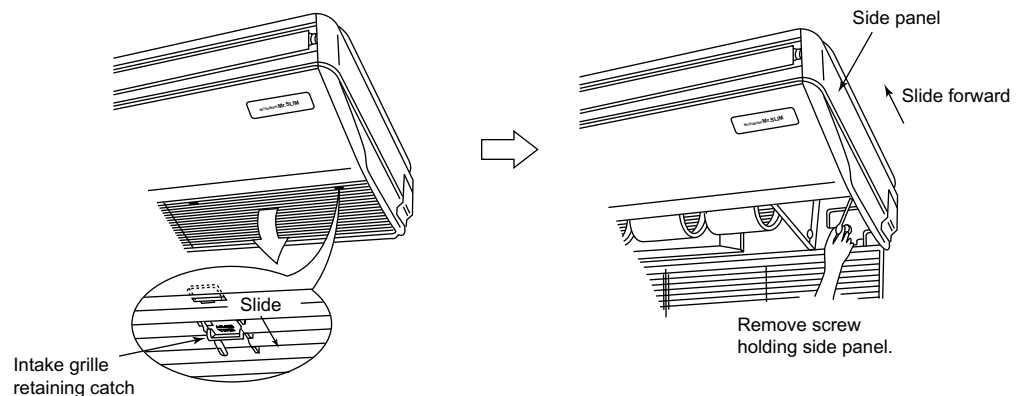
3 How to Install

※Be sure to turn power off before installing.

(1) Receiver board

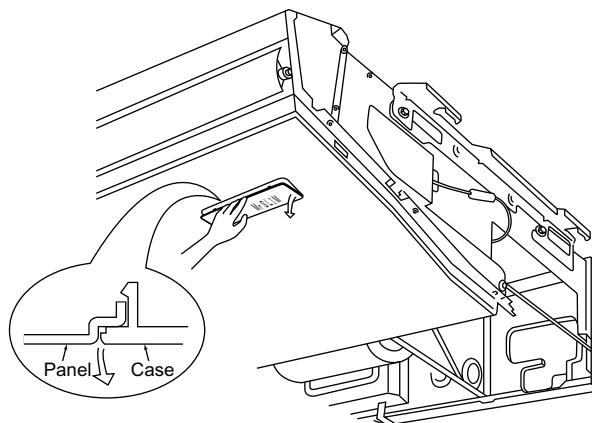
① Removing intake grille and right side panel

- Slide the catch holding the intake grille backwards to open the grille. Remove the screw holding the grille and then slide the side panel forward to remove it.



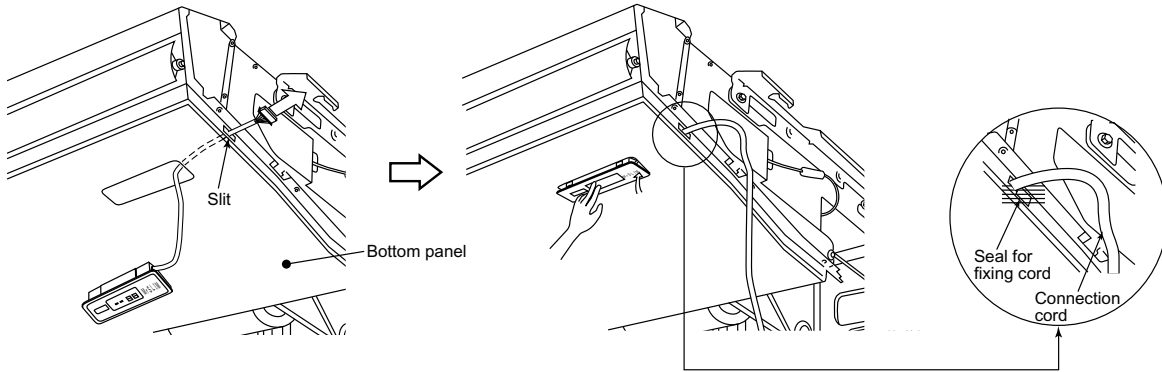
② Removing existing brand label case

- Remove the brand label case (name plate with characters Mr.SLIM) from the bottom right of unit. If the case is not needed. If it is difficult to remove the case, use a flat bladed screwdriver, etc., taking care not to damage the panel.



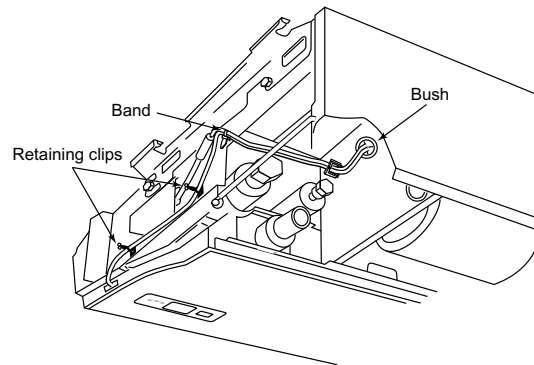
③ Installing receiver board

- Pass the receiver board connector through the right side of the square hole to which the brand label case was attached, and then pull the connector and cord through the slit in the right side of the bottom panel.
- Fit the infrared receiver into the square hole where the brand label case was attached.
- Use the connection cord fixing seal (provided) to block the slit in the right side of bottom panel so that the cord will not move



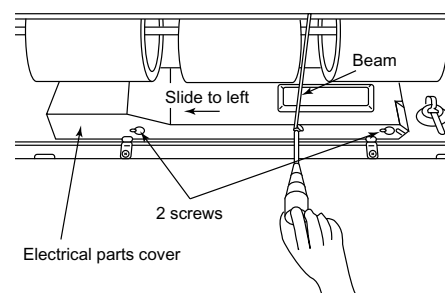
④ Attaching cord retaining clips and laying out cord

- Insert the cord retaining clips into the holes ($\phi 5$) in the bottom middle of the metal plate on the unit right side.
- Using the clips to retain the cord, pass it through the retaining band and tighten the band.
- Lay out the cord over the refrigerant pipe and pass it through the bush attached to the inner metal plate.



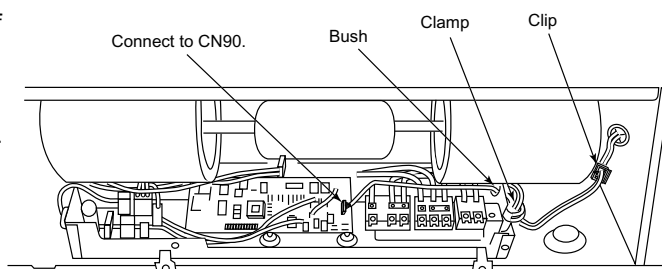
⑤ Removing beam and electrical parts cover

- Remove the beam.
- Loosen the two screws at the bottom of electrical parts cover, and then slide the cover to the left to remove it.



⑥ Connecting receiver board connector to control circuit board.

- Pass the cord through the bush at the top right of electrical parts case.
- Connect the connector to CN90 on the right of the control board.
- If the cord is loose, bundle it using the clamp under the above bush.

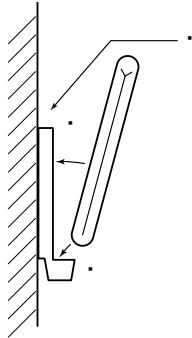


⑦ Reinstalling removed components

- Reinstall the removed components in reverse order.

(2) Remote control holder

- To install the wireless remote controller on a wall, first attach the remote control holder to a wall.



Fitting remote control into holder

- Fix the remote control holder to the wall using the two wood screws provided.
 - Insert the remote control into the holder.
 - Push the remote control against the wall.

Removing remote control

- Pull the top of remote control forward.

4 Model Select

This remote controller needs model number setting before use.

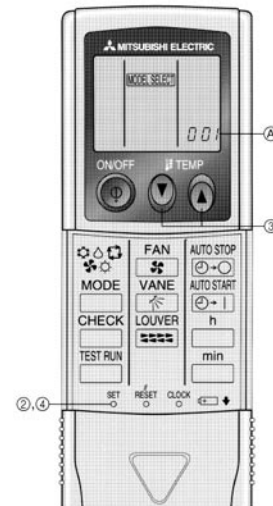
Set the model number in the following order.

Without setting the air conditioner will not work properly.

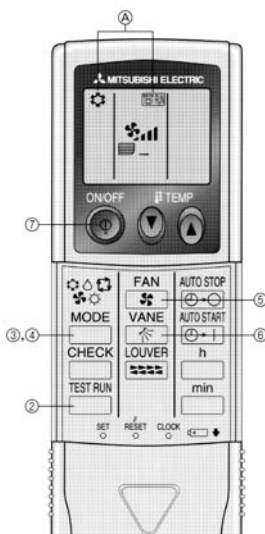
(The factory setting of model number is "001".)

- Insert batteries.
- Press the SET button with something sharp at the end.
 - MODE SELECT blinks and Model No. is lighted.
- Press the temp (▲/▼) button to set the Model No.
- Press the SET button with something sharp at the end.
 - MODE SELECT and Model No. are lighted for three seconds, then turned off.

Indoor	Outdoor	Model No.
PCA		001
	PUZ	001
	PUY	001
		001
		033



5 Test Run



Measure an impedance between the power supply terminal block on the outdoor unit and the ground with a 500 V Megger and check that it is equal to or greater than 1.0 MΩ.

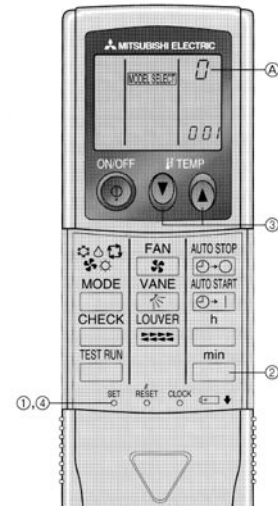
- Turn on the main power to the unit.
- Press the TEST RUN button twice continuously.
 - (Start this operation from the status of remote controller display turned off.)
 - TEST RUN and current operation mode are displayed.
- Press the MODE (COOL) button to activate COOL mode, then check whether cool air is blown out from the unit.
- Press the MODE (HEAT) button to activate HEAT mode, then check whether warm air is blown out from the unit.
- Press the FAN button and check whether strong air is blown out from the unit.
- Press the VANE button and check whether the auto vane operates properly.
- Press the ON/OFF button to stop the test run.

NOTE : ● Point the remote controller towards the indoor unit receiver while following steps ② to ⑦.
● It is not possible to run the in FAN, DRY or AUTO mode.

6 Pair Number Setting

- This is the setting to specify the unit to operate with the wireless remote controller.
- Make setting for J41, J42 (Jumper wire) of indoor controller board and the pair number of wireless remote controller.
- The pair number setting is available with the 4 patterns as shown in the <Table 2> from A to D. Make setting for the pair number (J41, J42) of indoor controller board and the pair number of wireless remote controller which is used as shown in the <Table 2>. *The factory setting is pattern A.

- ① Press the SET button with something sharp at the end.
Start this operation from the status of remote controller display turned off.
- ② Press the button twice continuously.
pair No. "0" blinks.
- ③ Press the temp button to set the pair number you want to set.
- ④ Press the SET button with something sharp at the end.
Set pair number is lighted for three seconds then turned off.



* Pair No. of wireless remote controller	Indoor PC board
0	Factory setting
1	Cut J41
2	Cut J42
3 ~ 9	Cut J41, J42

7 Function Selection

[Changing the setting of the supply voltage for the indoor unit for A-control series.]

The setting of the supply voltage is done by the remote controller.

Be sure to change the power voltage setting depending on the voltage used.

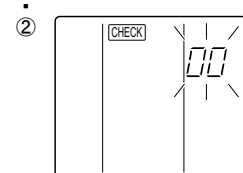
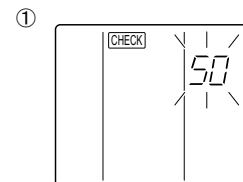
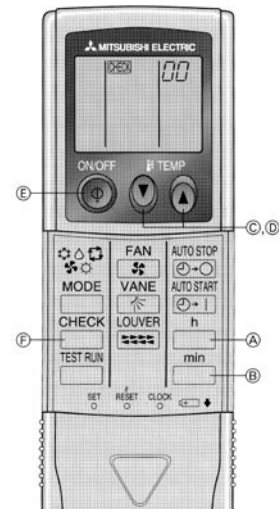
- ① Go to the function select mode
Press the CHECK button (F) twice continuously.
(Start this operation from the status of remote controller display turned off.)
CHECK is lighted and "00" blinks.
- ② Setting the unit number
Press the temp button (A) and button (B) to set the unit number "00". Direct the wireless remote controller toward the receiver of the indoor unit and press the button (A).
- ③ Selecting a mode
Enter 04 to change the power voltage setting using the (C) and (D) buttons. Direct the wireless remote controller toward the receiver of the indoor unit and press the button (A).
Current setting number:
1=1 beep (one second)
2=2 beeps (one second each)
3=3 beeps (one second each)



※ If a mode number that can not be recognized by the unit is entered, three beeps (3 beeps of 0.4 seconds duration) will be heard.
Reenter the mode number selecting.

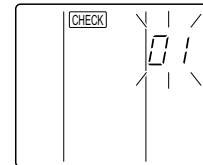
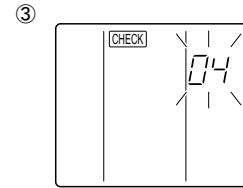
※ If the signal was not received by the sensor or an error occurred during transmission, you will not hear a beep or a "double beep" may be heard.
Press the button again.

- ④ Selecting the setting number
Use the (C) and (D) buttons to change the power voltage setting to 01 (240 V). Direct the wireless remote controller toward the sensor of the indoor unit and press the button (A).
→ At this time, current setting number for selected mode number will be output by the interrupted buzzer sounds and the blinks of operation indicator.

Output : setting number = 1 → beep beep (0.4 second + 0.4 second) × 1
2 → beep beep (0.4 second + 0.4 second) × 2
3 → beep beep (0.4 second + 0.4 second) × 3



- ※ If a setting number that can not be recognized by the unit is entered, three beeps (3 beeps of 0.4 seconds duration) will be heard (unit will beep only).
Reenter the setting number selecting.
- ※ If the signal was not received by the sensor or an error occurred during transmission, you will not hear a beep or a "double beep" may be heard.
Press the button again.
- ※ If the number that can not be set is input, the former setting number will be set.
- ⑤ To select multiple functions continuously
Repeat steps ③ and ④ to change multiple function settings continuously.
- ⑥ Complete function selection
Direct the wireless remote controller toward the sensor of the indoor unit and press the  button .



NOTE : Whenever changes are made to the function settings after construction or maintenance, be sure to record the added functions with an "O", in the "Check" column provided on the chart.

Other function selections

Now that you know how to change the power voltage setting, there are several other settings that can be changed as well. The following table lists the various settings that can be changed through the remote controller and the default settings.

Table 3

Function	Settings	PCA-RP-GA / PCH-P-GAH
Power failure automatic recovery	Not available	*1
	Available	*1
Indoor temperature detecting	Indoor unit operating average	○
	Set by indoor unit's remote controller	
	Remote controller's internal sensor	
LOSSNAY connectivity	Not supported	○
	Supported (indoor unit is not equipped with outdoor-air intake)	
	Not supported (indoor unit is not equipped with outdoor-air intake)	
Power voltage	240V	
	220V, 230V	○
Auto mode (only for PUZ)	Energy saving cycle automatically enabled	○
	Energy saving cycle automatically disabled	
Filter sign	100Hr	
	2500Hr	○
	No filter sign indicator	
Fan speed	Quiet	
	Standard	○
	High ceiling	
No. of air outlets	4 directions	—
	3 directions	—
Installed options (high-performance filter)	Not supported	○
	Supported	
Up/down vane setting	No vanes	
	Equipped with vanes(No.1 set)	○
	Equipped with vanes(No.2 set)	
Energy saving air flow (Heating mode)	Disabled	○
	Enabled	
Humidifier (Direct Add-on type)	Not supported	○
	Supported	

*1 Power failure automatic recovery initial setting depends on the connecting outdoor unit.

Things to remember when entering function selections:

The basic procedure for entering function selections is the same as described for switching between power voltages. However, there are some differences at step ② for selecting the unit number, step ③ for selecting the mode number and step ④ for selecting the setting number.

The following Tables (4) and (5) list the various function settings, mode numbers and setting numbers.

Table (2) details the functions of the entire refrigerant system while Table (5) shows the functions that can be set for the indoor unit.

Table 4. Itemized functions of the entire refrigerant system (select unit number 00)

Mode	Settings	Mode no.	Setting no.	Check	Remarks
Power failure automatic recovery	Not available	01	1		
	Available (Approximately 4-minutes wait-period after power is restored.)		2		Approx. 4-minute wait-period after power is restored.
Indoor temperature detecting	Indoor unit operating average	02	1		
	Set by indoor unit's remote controller		2		
	Remote controller's internal sensor		3		
LOSSNAY connectivity	Not Supported	03	1		
	Supported (indoor unit is not equipped with outdoor-air intake)		2		
	Not supported (indoor unit is equipped with outdoor-air intake)		3		
Power voltage	240V	04	1		
	220V, 230V		2		
Auto mode (only for PUZ)	Energy saving cycle automatically enabled	05	1		
	Energy saving cycle automatically disabled		2		

Table 5. Itemized functions of the indoor unit (select unit numbers 01 to 03 or 07)

Mode	Settings	Mode no.	Setting no.	Check	Remarks
Filter sign	100Hr	07	1		
	2500Hr		2		
	No filter sign indicator		3		
Fan speed	Quiet	08	1		
	Standard		2		
	High ceiling		3		
No. of air outlets	Standard	09	1		
	High ceiling		2		
Installed options (high-performance filter)	Not supported	10	1		
	Supported		2		
Up/down vane setting	No vanes	11	1		
	Equipped with vanes(No.1 set)		2		
	Equipped with vanes(No.2 set)		3		
Energy saving air flow (Heating mode)	Disable	12	1		
	Enable		2		
Humidifier (Direct Add-on type)	Not supported	13	1		
	Supported		2		

② Setting the unit numbers

Set "00" as the unit number when setting functions from Table 4.

When setting functions from Table 5:

-When setting functions for an indoor unit in an independent system, set the unit number to 01.

-When setting functions for a simultaneous-Twin Triple indoor unit system, assign unit numbers from 01 to 03 to each indoor unit.

-When setting the same functions for an entire simultaneous Twin Triple-indoor unit system, assign "07" as the unit number.

③ Selecting the mode number

Select from Table 4 and Table 5.

④ Selecting the setting number.

8 Self-Check

① Turn on the main power to the unit.

② Press the **CHECK** button twice continuously.

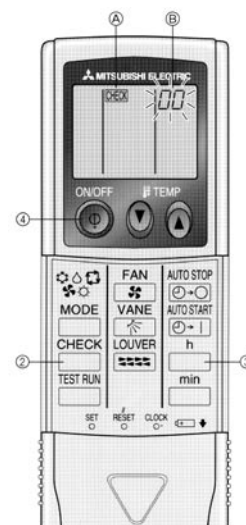
(Start this operation from the status of remote controller display turned off.)

Ⓐ **CHECK** begins to light.

Ⓑ «00» begins to blink.

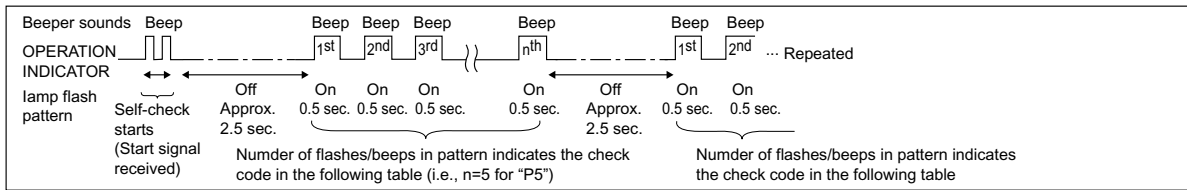
③ While pointing the remote controller toward the unit's receiver, press the **h** button. The check code will be indicated by the number of times that the buzzer sounds from the receiver section and the number of blinks of the operation lamp.

④ Press the ON / OFF button to stop the self-check.

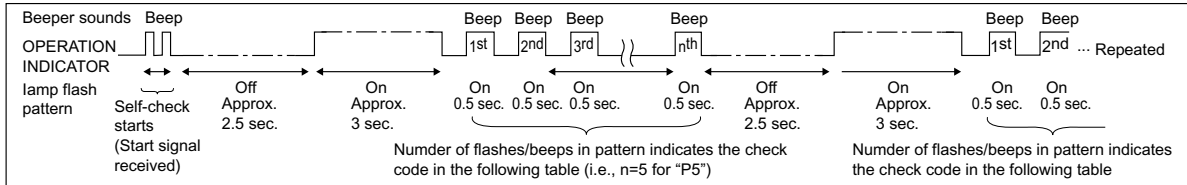


● Refer to the following tables for details on the check codes.

【Output pattern A】



【Output pattern B】



【Output pattern A】 Errors detected by indoor unit

Wireless remote controller Beeper sounds/OPERATION INDICATOR lamp flashes (Number of times)	Wired remote controller Check code	Symptom	Remark
1	P1	Intake sensor error	
2	P2, P9	Pipe (Liquid or 2- phase pipe) sensor error	
3	E6, E7	Indoor / outdoor unit communication error	
4	P4	Drain sensor error	
5	P5	Drain pump error	
6	P6	Freezing / Overheating safeguard operation	
7	EE	Communication error between indoor and outdoor units	
8	P8	Pipe temperature error	
9	E4	Remote controller signal receiving error	
10	-	-	
11	-	-	
12	Fb	indoor unit control system error (memory error, etc.)	
No sound	--	No corresponding	

【Output pattern B】 Errors detected by unit other than indoor unit (outdoor unit, etc)

Wireless remote controller Beeper sounds/OPERATION INDICATOR lamp flashes (Number of times)	Wired remote controller Check code	Symptom	Remark
1	E9	Indoor/outdoor unit communication error (Transmitting error)(Outdoor unit)	For details, check the LED display of the outdoor controller board
2	UP	Compressor overcurrent interruption	
3	U3, U4	Open / short of outdoor unit thermistors	
4	UF	Compressor overcurrent interruption (When compressor locked)	
5	U2	Abnormal high discharging temperature/49C worked/insufficient refrigerant	
6	U1, Ud	Abnormal high pressure (63H worked)/Overheating safeguard operation	
7	U5	Abnormal temperature of heat sink	
8	U8	Outdoor unit fan safeguard stop	
9	U6	Compressor overcurrent interruption/Abnormal of power module	
10	U7	Abnormality of super heat due to low discharge temperature	
11	U9, UH	Abnormality such as overvoltage or voltage shortage and abnormal synchronous signal to main circuit/Current sensor error	
12	-	-	
13	-	-	
14	Others	Other errors (Refer to the technical manual for the outdoor unit.)	

*1 If the beeper does not sound again after the initial two beeps to confirm the self-check start signal was received and the OPERATION INDICATOR lamp does not come on, there are no error records.

*2 If the beeper sounds three times continuously “beep, beep, beep (0.4+0.4+0.4 sec.)” after the initial two beeps to confirm the self-check start signal was received, the specified refrigerant address is incorrect.

- On wireless remote controller
The continuous buzzer sounds from receiving section of indoor unit.
Blink of operation lamp
- On wired remote controller
Check code displayed in the LCD.