

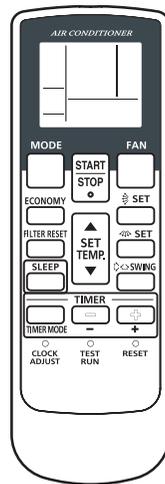
VRF SYSTEM REMOTE CONTROLLER (WIRELESS TYPE) UTY-LNH*

INSTALLATION MANUAL

For authorized service personnel only.

English

中文



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PART NO. 9371972046-02

1. SAFETY PRECAUTIONS

- The "SAFETY PRECAUTIONS" indicated in this manual contain important information pertaining to your safety. Be sure to observe them.
- Details of the operation methods refer to the operating manual. Request the user to keep them on hand for future use, such as for relocating or repairing the unit.

 WARNING	This mark indicates procedures which, if improperly performed, might lead to the death or serious injury of the user.
<ul style="list-style-type: none"> • Perform installation work in accordance with the installation manual. Request an authorized service personnel to perform installation work. Do not install this unit by yourself. Improper installation will cause injury, electric shock, fire, etc. 	
<ul style="list-style-type: none"> • In the event of a malfunction (burning smell, etc.), immediately stop operation, turn off the electrical breaker, and consult authorized service personnel. 	
<ul style="list-style-type: none"> • Do not turn on the power until all installation work is complete. 	
<ul style="list-style-type: none"> • Allow only authorized service personnel or contractors qualified in accordance with the safety standard of each country and the installation manual do the cabling work. Improper or incomplete work may cause an electric shock or a fire. 	
<ul style="list-style-type: none"> • If children may approach the unit, take preventive measures so that they cannot reach the unit. 	
<p>Do not install the unit in the following areas:</p> <ul style="list-style-type: none"> • Do not install the unit near a source of heat, steam, or flammable gas. • Area filled with mineral oil or containing a large amount of splashed oil or steam, such as a kitchen. It will deteriorate plastic parts, causing the parts to fall or the unit to leak water. • Area that generates substances that adversely affect the equipment, such as sulfuric gas, chlorine gas, acid, or alkali. It will cause the copper pipes and brazed joints to corrode, which can cause refrigerant leakage. • Area containing equipment that generates electromagnetic interference. It will cause the control system to malfunction, preventing the unit from operating normally. • Area that can cause combustible gas to leak, contains suspended carbon fibers or flammable dust, or volatile inflammables such as paint thinner or gasoline. If gas leaks and settles around the unit, it can cause a fire. • Do not use the unit for special purposes, such as storing food, raising animals, growing plants, or preserving precision devices or art objects. It can degrade the quality of the preserved or stored objects. • Install the unit in a well-ventilated place avoiding rains and direct sunlight. 	

 CAUTION	This mark indicates procedures which, if improperly performed, might possibly result in personal harm to the user or damage to property.
<ul style="list-style-type: none"> • 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. 	
<ul style="list-style-type: none"> • Do not touch any circuit board with your hands or with tools. Do not allow dust to collect on the circuit board. Doing so may cause fire or an electric shock. 	
<ul style="list-style-type: none"> • Do not press any control button using a sharp object. Doing so may cause an electric shock or a malfunction. 	
<ul style="list-style-type: none"> • Do not install in any place exposed to flammable gas leakage. Flammable gases accumulated around the body of the controller may cause an explosion. 	
<ul style="list-style-type: none"> • Dispose of the packing materials safely. Tear and dispose of the plastic packing bags so that children cannot play with them. There is the danger of suffocation if children play with the original plastic bags. 	
<ul style="list-style-type: none"> • 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. 	
<ul style="list-style-type: none"> • 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. 	
<ul style="list-style-type: none"> • Do not expose this unit directly to water. Doing so will cause trouble, electric shock, or heating. 	
<ul style="list-style-type: none"> • Do not wash with water. Doing so may cause an electric shock or breakdown. 	
<ul style="list-style-type: none"> • Do not touch any control button with wet hands. Doing so may cause an electric shock or breakdown. 	
<ul style="list-style-type: none"> • Do not set vessels containing a liquid on this unit. Doing so will cause heating, fire, or electric shock. 	
<ul style="list-style-type: none"> • 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. 	
<ul style="list-style-type: none"> • Pay abundant care when transporting this unit because it is a precision device. Improper transportation will cause trouble. 	

2. ACCESSORIES

Description	Q'ty	Application
Installation manual 	1	This book
Operating manual 	1	Instruction book for operation
Battery (R03/LR03) 	2	For remote controller
Remote controller holder 	1	Use as remote controller holder
Screw (M3 x 12mm) 	2	For installing remote controller holder to the wall

3. TURNING ON THE POWER

- (1) Throw the circuit breakers for the indoor unit and outdoor unit.
- (2) Make sure that the operation indicator lamp and timer indicator lamp are slowly flashing alternately.
 - If the auto restart function has been set, the air conditioner will operate with the settings immediately before the power supply was turned off.
 - If an error has occurred, the lamps on the receiver unit will flash quickly to indicate the error code. (Refer to the installation manual of the indoor unit.)

4. INSTALLING THE REMOTE CONTROLLER

4.1. Load batteries (R03/LR03 x 2)

⚠ CAUTION

- Take care to prevent infants from accidentally swallowing batteries.
- When not using the Remote Controller for an extended period, remove the batteries to avoid possible leakage and damage to the unit.
- Dead batteries should be removed immediately and disposed of properly, either in a battery collection receptacle or to the appropriate authority.
- Do not attempt to recharge dry batteries.
- If your skin, eyes or mouth contact the battery liquid, wash with enough water immediately, and consult your doctor.

Note:

Use batteries in accordance with specified standard only. Replace discharged batteries with new units. Check the indicated poles and insert from the minus pole.

To load the batteries, refer to the operation manual of the wireless remote controller.

4.2. Installing the remote controller holder

⚠ WARNING

- Always use the accessories and specified installation work parts. Check the state of the installation parts. Not using the specified parts will cause units to fall off, water leakage, electric shock, fire, etc.
- Install at a place that can withstand the weight of the controller and install positively so that the unit will not topple or fall.
- When installing the controller holder take precautions to prevent access by infants. It may cause an injury.
- After installation of this unit, test for correct operation, and then explain the operation method to the customer.

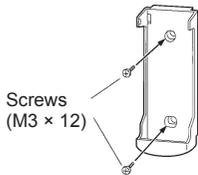
⚠ CAUTION

- Fixing of the holder cover with the screws in the standard parts may be unsuitable if the wall or ceiling material is weak. If so, prepare screws suitable for the wall or ceiling material, and fix it.
- Too tight fastening of screw may cause damage to the holder when fixing the holder of this unit.
- Check carefully the installation location of this unit.
 - A place where the indoor unit receives signals clearly from the main unit.
 - A place where direct sunshine is avoided.
 - A place avoiding thermal radiation from heating devices, such as a stove.

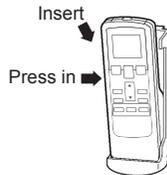
Note:

- Use the controller holder that is provided to avoid misplacing the remote controller.
- Out of the airflow from the air conditioner (cool or warm)
- Where the operation of the controller can easily be performed and the display is readily visible to the user.
- Out of the reach of small children.
- If there is a fluorescent light in the room in which the air conditioner is to be installed, turn it on and make sure that the signal from the remote controller can be received by the indoor unit from the intended installation location.
- When the signal receiving unit receives a signal from the remote controller, a short beeping sound will be heard.
- If the air conditioner unit is installed in a room in which a fluorescent light on an electronic lighting control system (i.e., inverter light) is installed, signal interference may occur.
- Mount at least 1m away from electrical appliances. (Signals will be obstructed and cause picture distortion or noises if the main unit is placed near such units)
- Install the remote controller holder to a wall, pillar, etc. with the screw.

(1) Mount the Holder.



(2) Set the Remote Controller.



(3) To remove the Remote Controller (when use at hand).



5. ADDRESS SETTING

Address setting method can be selected from 3 options, outdoor unit, indoor unit and remote controller. Refer to the installation manual of outdoor unit or indoor unit when set up from the outdoor unit or the indoor unit.

■ Infrared address setting

- A wireless remote controller is required to set the infrared address setting.
 - This function is available in all indoor unit with infrared signal receiver.
 - Infrared address setting for duct type and cassette type models can be made possible by using the optional IR receiver unit.
- Note : Since Beeping sound generate from indoor unit PCB installed far away (not from IR Receiver unit), sound might not be heard.
- The indoor unit's refrigerant circuit address and indoor unit address can be set using the infrared address setting.
 - When remote controller address setting is required, set by the rotary switch on the indoor unit's PCB.

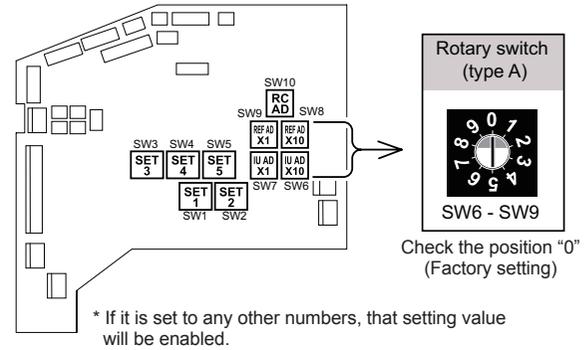
■ Preparation

- (1) Set the switch on the indoor unit's PCB that is used for manual address setting is set to "00" at factory setting.

(This process is unnecessary for newly installed and not yet set the SW.)

This is an example of PCB of indoor unit

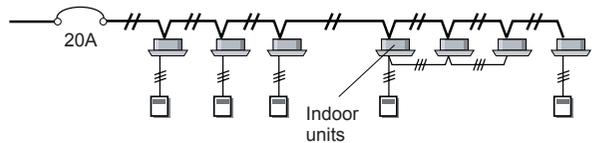
Refer to the installation manual of indoor unit when set up.



- (2) Turn on the power to the indoor unit.

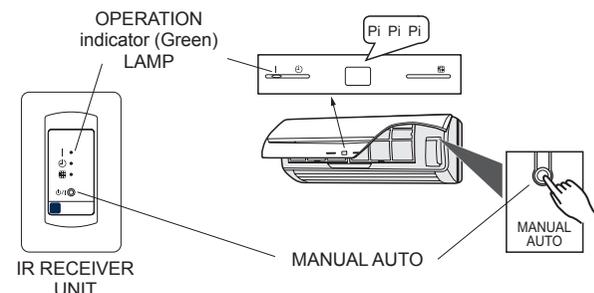
- * By turning on the power indoor units initializes EEV, so make sure the piping air-tight test and vacuuming have been conducted before turning on the power.
- * Also check again to make sure no wiring mistakes were made before turning on the power.

Breaker ON

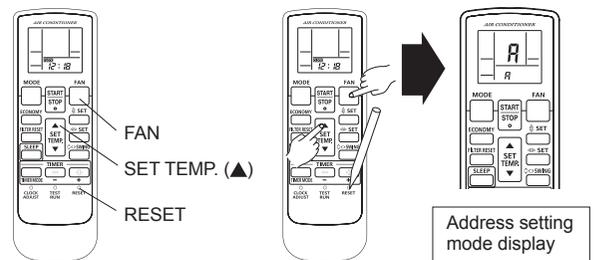


■ Switching selection of address setting mode

- (3) Press and hold the "MANUAL/AUTO" button for 3 seconds.



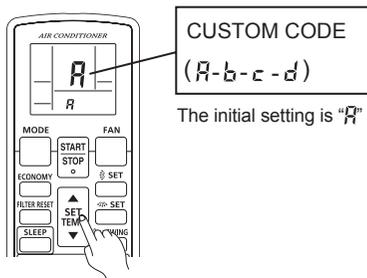
- (4) Press and hold the "FAN" and the "SET TEMP. ▲" buttons. Whilst holding these 2 buttons, press the "RESET" button.



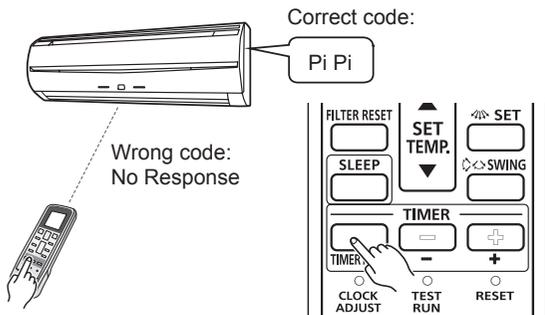
- The position of the “MANUAL/AUTO” button varies depending on the model. Refer to the operating manual for the position that is included with the unit.
- The error will be displayed by continuously pressing the “MANUAL/AUTO” for 10 sec or more. In this case release the button or turn off the power.
- When the address has already been set in the circuit board, the OPERATION LAMP will light up and the TIMER and FILTER LAMPs will display the number of setting address.
- An explanation of the displayed information as shown below.

■ Selection and confirmation of custom code

- (5) Press the “SET TEMP. ▲” or “SET TEMP. ▼” buttons to select the custom code that matches the setting with the indoor unit. By selecting the appropriate custom code, the communication between the indoor unit and the wireless RC become possible.



- (6) Press the “TIMER MODE” button to send the code to the indoor unit.

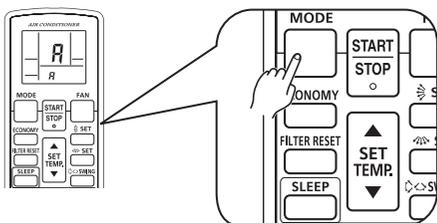


- Custom code returns to “A” when RESET button is pressed.
- Custom code setting is required when set up again.

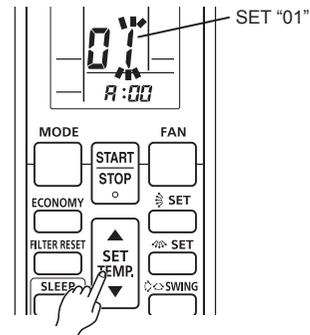
■ Address setting

• Indoor unit address setting

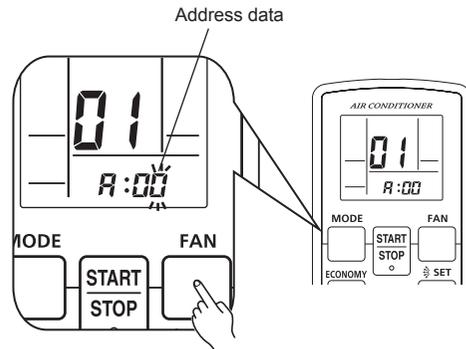
- (7) Press the “MODE” button to access the address setting mode.



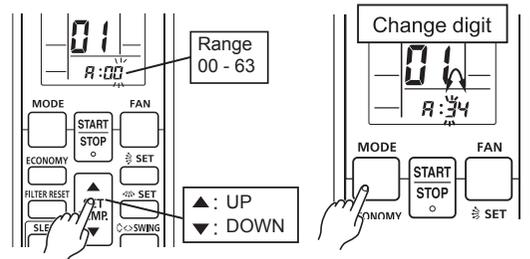
- (8) Make sure the bottom number function number is '01'. If the number is other than '01', press the “▲” or the “▼” buttons to alter.



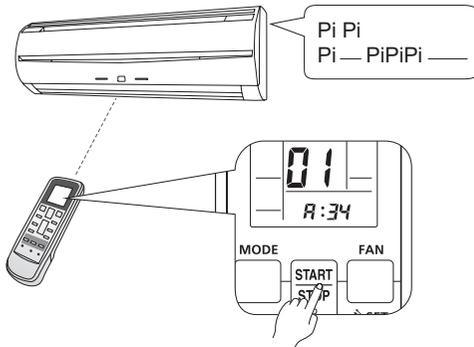
- (9) Press the “FAN” button to access the address data setting mode. The address data will flash once this button is pressed.



- (10) Press the “▲” or the “▼” buttons to adjust the address data. The indoor unit address range is between 00 and 63. Each time the “MODE” button is pressed, it switches between 1 unit and 10 units positions.



- (11) Press the "START/STOP" button once to send the information. A beeping noise will be heard if the command is accepted.

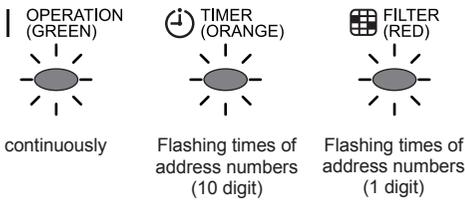


* In the following cases the setting signal is not read and a buzzer sounds.

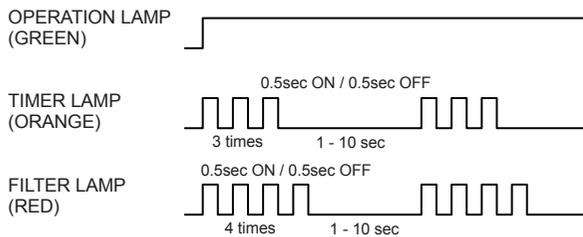
The indoor unit address No. is set out of range (64 or more) : Pi Pi Pi _____ (3 sec)

The setting of the rotary switch on the PCB is not "00" : Pi Pi Pi Pi Pi

- (12) Indoor unit will display the indoor unit address data number on "TIMER ⌚" (ORANGE) and "FILTER 🧼" (RED) light.



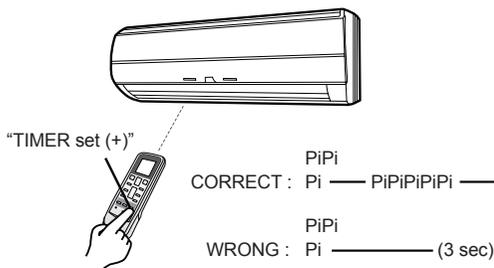
(Example) ADDRESS : 34



* ADDRESS 0 setting will not indicate TIMER LAMP and FILTER LAMP.

• Confirmation of address setting

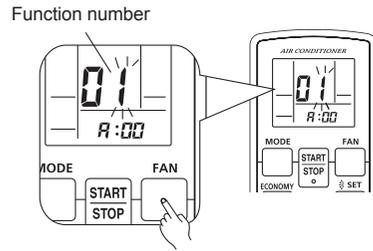
- (13) Press the "TIMER set (+)" button.



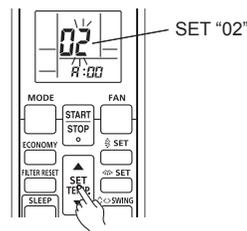
• Refrigerant circuit address setting

Note : The refrigerant circuit address can also be set even while above indoor unit address display.

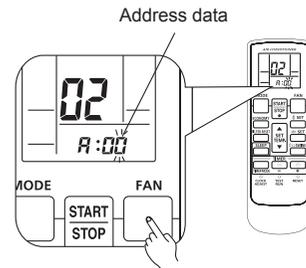
- (14) Press the "FAN" button to select the function number.



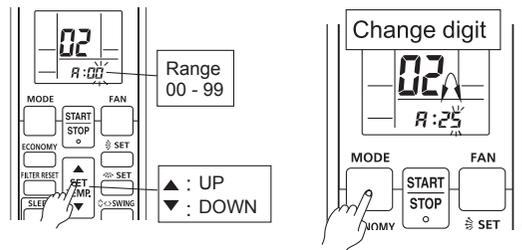
- (15) Press the "▲" or the "▼" button to adjust function number 02.



- (16) Press the "FAN" button to access the address data setting mode. The address data will flash once this button is pressed.

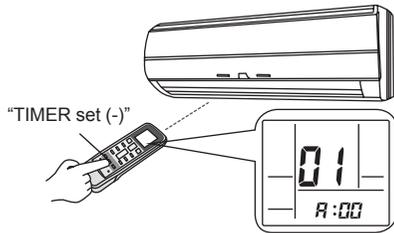


- (17) Press the "▲" or the "▼" buttons to adjust the address data. The refrigerant circuit address range is between 00 and 99. Each time the "MODE" button is pressed, it switches between 1 unit and 10 units positions.

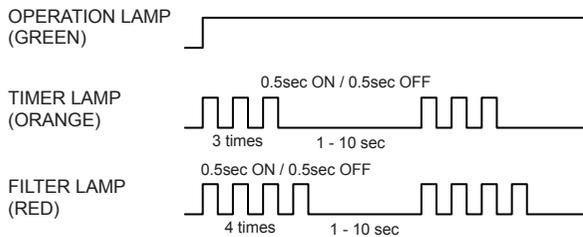


■ Indoor unit address setting

(25) Make sure the function number is "01" Refer to (8) Press the "TIMER set (-)" button.

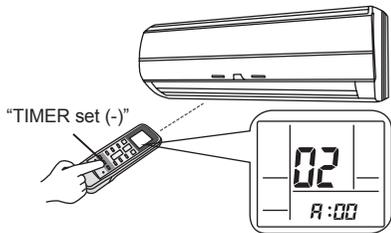


(Example) ADDRESS : 34



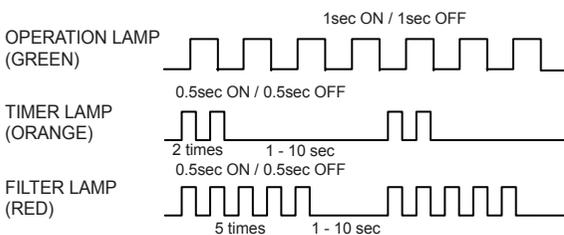
• Refrigerant circuit address setting

(26) Make sure the function number is "02" Refer to (15) Press the "TIMER set (-)" button.

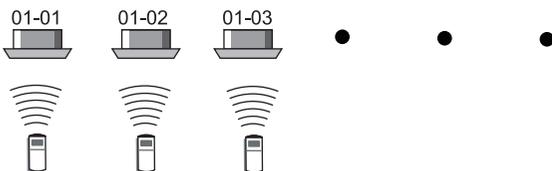


• Press the RESET button to cancel the address setting mode.

(Example) ADDRESS : 25



■ Setting up each indoor unit



Repeat steps (1) through to (26). Steps (1) through to (6) and (21) to (26) only need to be carried out if the custom code is different to the factory setting of "A".

■ Reset the power after setting up address of all indoor units

Important

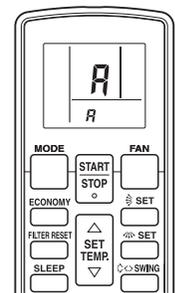
- If the reset is not performed, address cannot be read in normally.
 - After all the addresses have been set, the circuit breaker needs to be switched off for at least 2 minutes. After the 2 minutes has passed, power can be restored.
 - The set address is stored in the PCB and will remain in memory even when the power is turned off. However setting address is effective after power reset. Record the address set in the indoor unit on a label, etc., and affix the label to the unit so it can be used for after-sales service operations.
- * Address 0 setting will not indicate TIMER LAMP and FILTER LAMP.
- * Once the "RESET" button is pressed on the remote controller, the OPERATION MODE will be set in the "AUTO MODE". Please adjust the OPERATION MODE to either "COOLING" or "HEATING" before trying to operate the air conditioner.
- * Note : If CUSTOM CODE is set to anything other than "A", the remote controller must be set accordingly to the INDOOR UNIT setting.

6. FUNCTION SETTING

- This procedure changes to the function settings used to control the indoor unit according to the installation conditions. Incorrect settings can cause the indoor unit malfunction.
- After the power is turned on, perform the "FUNCTION SETTING" according to the installation conditions using the remote controller.
- The settings may be selected between the following two:
Function Number or Setting Number.
- Settings will not be changed if invalid numbers or setting numbers are selected.
- Refer to the installation manual for the function number and the setting number of the indoor unit.

Entering the Function Setting Mode

- While pressing the FAN button and SET TEMP. (▲) simultaneously, press the RESET button to enter the function setting mode.



STEP 1

Setting the Remote Controller Signal Code

Use the following steps to select the signal code of the remote controller. (Note that the air conditioner cannot receive a signal code if the air conditioner has not been set for the signal code.)

The signal codes that are set through this process are applicable only to the signals in the FUNCTION SETTING. For details on how to set the signal codes through the normal process, refer to SELECTING THE REMOTE CONTROLLER SIGNAL CODE.

- Press the SET TEMP. (▲) (▼) button to change the signal code between $\overline{A} \rightarrow \overline{B} \rightarrow \overline{C} \rightarrow \overline{D}$.
Match the code on the display to the air conditioner signal code. (initially set to \overline{A})
(If the signal code does not need to be selected, press the MODE button and proceed to STEP 2.)
- Press the TIMER MODE button and check that the indoor unit can receive signals at the displayed signal code.
- Press the MODE button to accept the signal code, and proceed to STEP 2.

The air conditioner signal code is set to A prior to shipment. Contact authorized service personnel to change the signal code.

The signal code shall be reset in **6**. Set the same code as set up here.

The remote controller resets to signal code A when the batteries in the remote controller are replaced. If you use a signal code other than signal code A, reset the signal code after replacing the batteries.

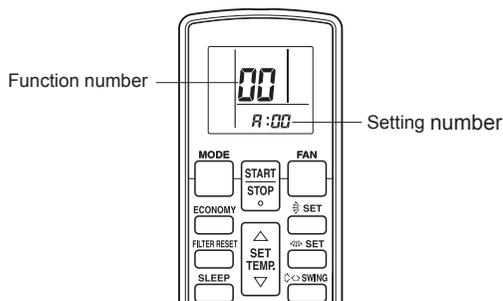
If you do not know the air conditioner signal code setting, try each of the signal codes ($\overline{A} \rightarrow \overline{B} \rightarrow \overline{C} \rightarrow \overline{D}$) until you find the code which operates the air conditioner.

Set the address setting and function setting after switching the function number.

STEP 2

Selecting the Function Number and Setting Number

- Press the SET TEMP. (▲) (▼) buttons to select the function number.
(Press the MODE button to switch between the left and right digits.)
- Press the FAN button to proceed to setting the number.
(Press the FAN button again to return to the function number selection.)
- Press the SET TEMP. (▲) (▼) buttons to select the setting number.
(Press the MODE button to switch between the left and right digits.)
- Press the TIMER MODE button, and START/STOP button, in the order listed to confirm the settings.
- Press the RESET button to cancel the function setting mode.
- After completing the FUNCTION SETTING, be sure to turn off the power and turn it on again.



7. SELECTING THE REMOTE CONTROLLER SIGNAL CODE

When two or more air conditioners are installed in a room and the remote controller is operating an air conditioner other than the one you wish to set, change the signal code of the remote controller to operate only the air conditioner you wish to set (four selections possible).

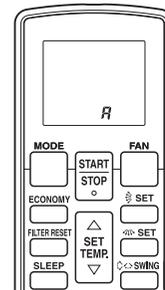
When two or more air conditioners are installed in a room, please contact your retailer to set the individual air conditioner signal codes.

- Confirm the setting of the remote controller signal code and the printed circuit board setting.
If these are not confirmed, the remote controller cannot be used to operate for the air conditioner.

Remote Controller Settings

Use the following steps to select the signal code of the remote controller. (Note that the air conditioner cannot receive a signal code if the air conditioner has not been set for the signal code.)

- Press the START/STOP button until only the clock is displayed on the remote controller display.
- Press the MODE button for at least five seconds to display the current signal code (initially set to \overline{A}).
- Press the SET TEMP. (▲) (▼) button to change the signal code between $\overline{A} \rightarrow \overline{B} \rightarrow \overline{C} \rightarrow \overline{D}$.
Match the code on the display to the air conditioner signal code.
- Press the MODE button again to return to the clock display. The signal code will be changed.



If no buttons are pressed within 30 seconds after the signal code is displayed, the system returns to the original clock display. In this case, start again from step 1.

The air conditioner signal code is set to A prior to shipment. Contact your retailer to change the signal code.

The remote controller resets to signal code A when the batteries in the remote controller are replaced. If you use a signal code other than signal code A, reset the signal code after replacing the batteries.

If you do not know the air conditioner signal code setting, try each of the signal codes ($\overline{A} \rightarrow \overline{B} \rightarrow \overline{C} \rightarrow \overline{D}$) until you find the code which operates the air conditioner.

Indoor Unit Setting (Example)

PCB and switch layout in each indoor unit are different. Refer to the installation manual of each indoor unit.

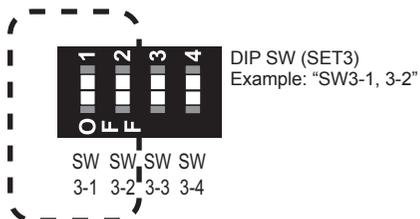


Table A

	Custom code			
	A (Factory setting)	b	c	d
DIP SW 3-1	OFF	ON	OFF	ON
DIP SW 3-2	OFF	OFF	ON	ON

Refer to the installation manual of indoor unit since settings are different depending on each indoor unit.

⚠ CAUTION

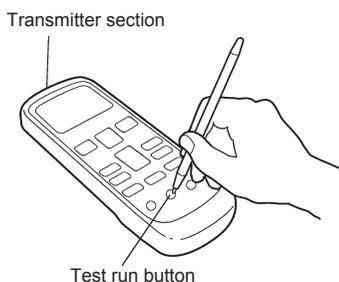
- When setting the DIP switch, be careful to avoid damaging other parts of the printed circuit board.

8. TEST OPERATION

CHECK ITEMS

(1) OPERATION METHOD

- For the operation method, refer to the operating manual.
- The outdoor unit may not operate depending on the room temperature. In this case, press the test run button on the remote controller while the air conditioner is running. (Point the transmitter section toward the air conditioner and press the test run button with the tip of a ball-point pen, etc.)



- To end test operation, press the remote controller START/STOP button.
(When the air conditioner is run by pressing the test run button, the OPERATION indicator lamp and TIMER indicator lamp will simultaneously flash slowly.)
- If the receiver unit is flashing (0.1 sec ON/0.1 sec OFF), there is an error; therefore, turn off the power immediately.

(2) ABOUT FUNCTIONING OF THE REMOTE CONTROLLER

- Check the behavior of each key in accordance with the operating manual.
- Refer to the installation manual of the indoor unit since the setting methods are different for each indoor unit.