VRF SYSTEM
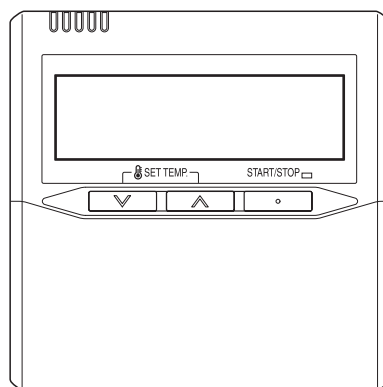# REMOTE CONTROLLER
(WIRED TYPE)
UTY-RNK ✱

English

中文

INSTALLATION MANUAL

For authorized service personnel only.

Contents

PART NO. 9373328070-03

1. SAFETY PRECAUTIONS

- The "SAFETY PRECAUTION" indicated in the manual contain important information pertaining to your safety. Be sure to observe them.
- For details of the operation methods, refer to the operating manual.
- Request the user to keep the manual 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.

- Perform electrical work by an authorized service personnel in accordance with the installation manual and the electrical wiring regulations or implementation regulations of the country. Also do not install this unit by yourself. Improper electric work will cause electric shock or a fire.

- 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.

- In the event of a malfunction (burning smell, etc.), immediately stop operation, turn off the electrical breaker, and consult authorized service personnel.

- Install a leakage circuit breaker to power supply cable in accordance with the related laws and regulations and electric company standards.

- Use a power source exclusively for this unit. Never share the power source with other electrical equipment. Doing so will cause fire and electric shock.

Do not install the unit in the following areas:
- 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.
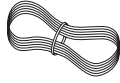- Install the unit in a well-ventilated place avoiding rains and direct sunlight.

- Do not operate this unit when your hands are wet. Touching the unit with wet hands will cause an electric shock.

- If children may approach the unit, take preventive measures so that they cannot reach the unit.

⚠ CAUTION	This mark indicates procedures which, if improperly performed, might possibly result in personal harm to the user or damage to property.

- Pay abundant care when transporting this unit because it is a precision device. Improper transportation will cause trouble.

- Do not touch the switches with sharp objects. Doing so will cause injury, trouble, or electric shock.

- Do not expose this unit directly to water. Doing so will cause trouble, electric shock, or heating.

- Do not set vessels containing a liquid on this unit. Doing so will cause heating, fire, or electric shock.

- 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.

- Do not insert articles into the slit parts of this unit. Doing so will cause trouble, heating, or electric shock.

2. ACCESSORIES

The following installation parts are supplied. Use them as required.

Name and Shape	Q'ty	Application
Installation manual	1	This manual
Operating manual	1	Instruction book for operation
(*) Remote controller cable (10m)	1	For connecting the remote controller
Screw (M4 × 16mm)	2	For installing the remote controller
Binder	1	For remote controller and remote controller cable binding

(*) UTY-RNKYT does not contain cables.

3. ELECTRICAL REQUIREMENT

When connecting the remote controller use the following wiring.

Use	Size	Wire type	Remarks
Remote controller cable	0.33 mm^2	22AWG Polar 3 core, Twisted pair	Use shield cable in accordance with local rules for cable.

* We recommend that you purchase our service parts for the remote controller cable. Contact service personnel to purchase this.
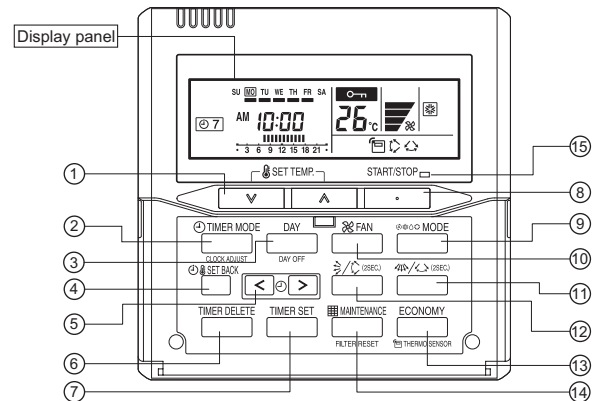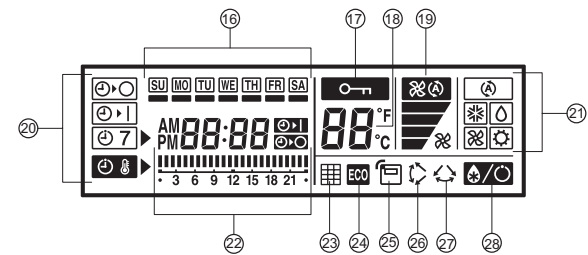
4. SELECTING AN INSTALLATION LOCATION

4.1. Dimensions

Unit : mm
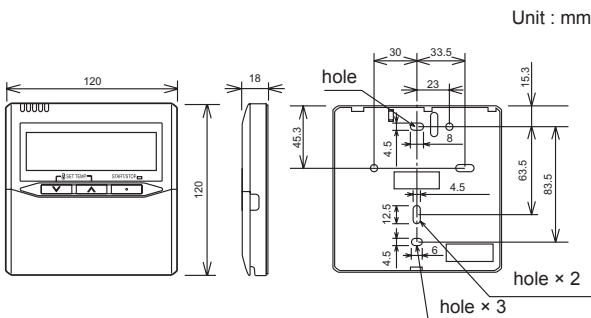
4.2. Name of parts

● With cover open

Display panel

● Display panel

① "SET TEMP. ∨", "SET TEMP. ∧" (Set Temperature Button)
② "TIMER MODE / CLOCK ADJUST" (Timer Mode/Clock Adjust Button)
③ "DAY / DAY OFF" (Day/Day OFF Button)
④ "SET BACK" (Set Back Button)
⑤ "< >", " >" (Set Time Button)
⑥ "TIMER DELETE" (Timer Delete Button)
⑦ "TIMER SET" (Timer Set Button)
⑧ "START/STOP" (Start/Stop Button)
⑨ "MODE" (Mode Button)
⑩ "FAN" (Fan Control Button)
⑪ "" (Horizontal airflow direction and swing Button)
⑫ "" (Vertical airflow direction and swing Button)
⑬ "ECONOMY / THERMO SENSOR" (Economy/Thermo Sensor Button)
⑭ "MAINTENANCE / FILTER RESET" (Maintenance/Filter Reset Button)
⑮ Operation Lamp
⑯ Day Display
⑰ Operation Lock Display
⑱ Temperature Display
⑲ Fan Speed Display
⑳ Timer Mode Display
㉑ Operation Mode Display
㉒ Timer and Clock Display
㉓ Filter Display
㉔ Economy Display
㉕ Thermo Sensor Display
㉖ Vertical Swing Display
㉗ Horizontal Swing Display
㉘ Defrost Display

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5. INSTALLING THE REMOTE CONTROLLER

| ⚠ 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 unit and install positively so that the unit will not topple or fall. |
| • When installing this unit, make sure that there are no children nearby. Otherwise, injury or electric shock could result. |
| • After installing this unit, perform the test operation to confirm that the unit is operating properly. Then, explain the operation of this unit to the customer. |
| • Before starting installation work, turn off the power of this unit and the connection destination. Do not turn on the power again until installation is completed. Otherwise, it will cause electric shock or fire. |
| • Use the accessories or specified power cable and connection cables. Do not modify power cable and connection cables other than those specified, do not use extension cords, and do not use independent branch wiring. The allowable current will be exceeded and cause electric shock or fire. |
| • Install the connection cables securely to the terminal block. Confirm that external force is not applied to the wire. Use connection cables made of the specified wire. If intermediate connection or insertion fixing are imperfect, it will cause electric shock, fire, etc. |
| • When connecting the power cable and transmission cable, layout the wiring so that the cover of this unit is securely fixed. If the cover is imperfectly fixed, it may cause fire or overheating of the terminals. |
| • Perform ground work positively. Do not connect the ground wire to a telephone ground wire, water pipe, or conductor rod. |
| • Always fasten the outside covering of the connection cord with the cord clamp. (If the insulator is chafed, electric leakage may occur.) |
| • When performing cable wiring work, be sure that it does not touch the user. Doing so will cause injury or electric shock. |
| • If any cable is damaged, do not repair or modify it yourself. Improper work will cause electric shock or fire. |

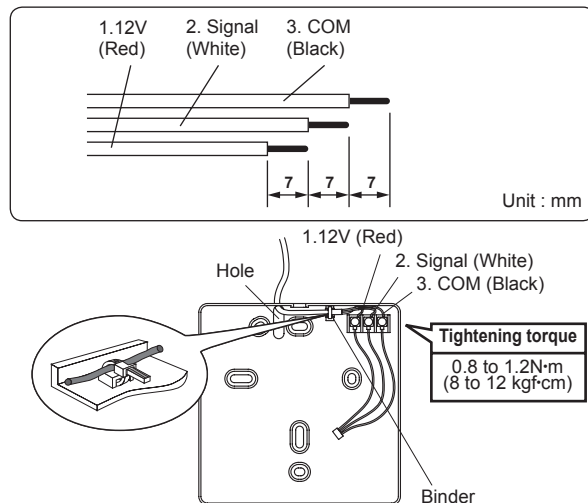| ⚠ CAUTION |
|---|
| • Do not set the DIP switch or rotary switch of this unit except as specified in this installation manual or the instruction manual supplied with the air conditioner. Setting the switches other than specified will cause an accident or trouble. |
| • Use an insulated screwdriver to set the DIP switches. |
| • Before opening the case of this unit, completely discharge static electricity charged on you body. Not doing so will cause trouble. |
| • Do not touch the circuit board and circuit board parts directly with your hands. Otherwise, injury or electric shock could result. |
| • Tightening the mounting screws too tight will damage the case of this unit. |
| • Be careful so that the front cover does not fall after the front cover screws are removed. Otherwise, injury could result. |
| • When performing wiring work, be careful not to damage the cable or injure yourself. Also, connect the connectors securely. Loose connectors will cause trouble, heating, fire, or electric shock. |
| • Install the indoor and outdoor units, power cable, signal cable and remote control cable 1 m away from television and radio to avoid distorted images and noise. |
| • Perform wiring so that water does not enter this unit along the external wiring. Always install a trap to the wiring or take other countermeasures. Otherwise it will cause trouble or electric shock or fire. |
| • Confirm the name of each unit and name of each terminal block of the unit and connect the wiring in accordance with the directions given in the manual so that there is no incorrect wiring. Incorrect wiring will damage the electric parts and cause smoke and fire. |
| • When installing the connection cable near a source of electromagnetic waves, use shielded cable. Otherwise, a breakdown or malfunction could result. |

5.1. Installation

Open the operation panel on the front of the remote controller, remove the two screws indicated in the following figure, and then remove the front case of the remote controller.

When open the remote controller, remove the connector from the front case. The cables may break if the connector is not removed and the front case hangs down.
When installing the front case, connect the connector to the front case. When removing and connecting the connector, be careful not to break the cables.

Front case (back side)   Rear case

Screws   Connector
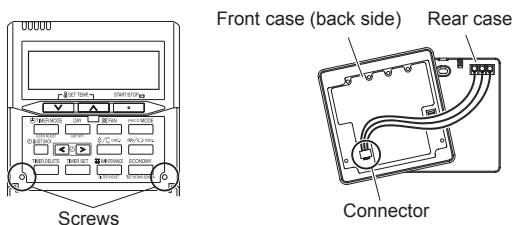
(1) Pass the remote controller cable through the hole in the rear case and connect the remote controller cable to the remote controller terminal block specified in Fig.1.
(2) Clamp the remote controller cable sheath with the binder as shown in Fig. 1.
(3) Cut off the excess binder.
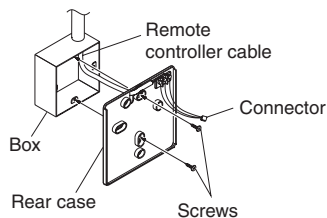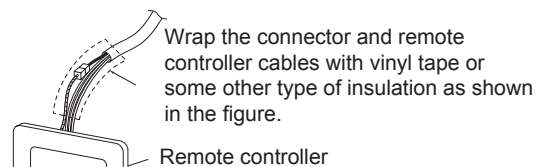(4) Install the rear case to the wall, box, etc., with two screws (Fig. 2).

Fig. 1

1.12V (Red)   2. Signal (White)   3. COM (Black)

7   7   7

Unit : mm

Hole

1.12V (Red)
2. Signal (White)
3. COM (Black)

Tightening torque
0.8 to 1.2N·m
(8 to 12 kgf·cm)

Binder

⚠ CAUTION	⚠ CAUTION
Be careful to avoid breaking the cable by over-tightening the binder.	**When connecting the remote controller cables, do not over-tighten the screws.**

Fig. 2 [Example]

Remote controller cable

Connector

Box

Rear case   Screws

Ground the remote controller if it has a ground cable.

Wrap the connector and remote controller cables with vinyl tape or some other type of insulation as shown in the figure.
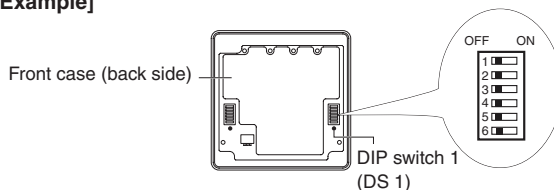
Remote controller

5.2. Setting the DIP switch

Set the remote controller DIP switches (Fig. 3).
Set DIP switch 1 - NO.6 to ON.
For the other switch, set it according to the situation.

Fig. 3
[Example]

Front case (back side)

OFF   ON
1
2
3
4
5
6

DIP switch 1
(DS 1)

	NO.	Switch state		Detail
		OFF	ON	
DIP switch 1 (DS 1)	1	★ Fixed at OFF		Cannot be used
	2	★ Master	Slave	Refer to 6 INSTALLATION METHODS.
	3	★ Fixed at OFF		Cannot be used
	4	★ Fixed at OFF		Cannot be used
	5	★ Fixed at OFF		Cannot be used
	6	★ Disable	Enable	Memory backup setting *1

(★ Factory setting)

*1. Memory backup setting : Set to ON to use batteries for the memory backup. If batteries are not used, all of the settings stored in memory will be deleted if there is a power failure.

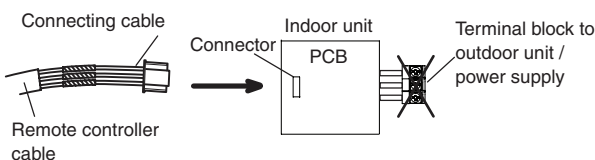## 5.3. Connection of Remote Controller Cable

⚠ CAUTION
• When connecting the remote controller cable to the indoor unit, do not connect it to the outdoor unit or the power terminal block. It may cause a failure.

There are 2 methods to connect the remote controller cable to the indoor unit. One is the connection using contained connecting cable, and the other is the connection the remote controller cable is connected to the exclusive terminal block of the indoor unit.

Exclusive terminal block for remote controller connection method is different depending on each model. Modify the remote controller cable as per below description and connect it.

(For the details, refer to the installation manual of the indoor unit to be used.)

5.3.1. When connecting to the connector

Connect the remote controller cable to the connecting cable, and insert it to the connector.

Connecting cable

Indoor unit

Connector

PCB

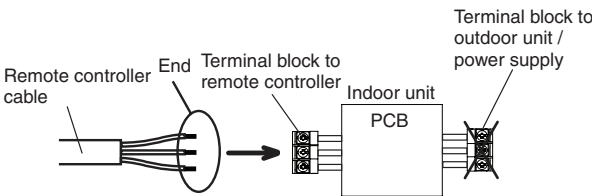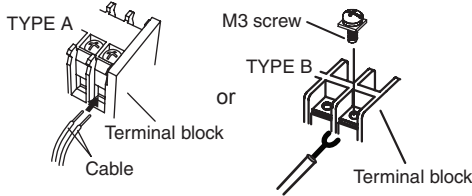Terminal block to outdoor unit / power supply

Remote controller cable

En-5

Modify the cable as per below methods.

(1) Use a tool to cut off the terminal on the end of the remote controller cable, and then remove the insulation from the cut end of the cable as shown in Fig. 1.

(2) Connect the remote controller cable and connecting cable as shown in Fig. 2.

(3) Be sure to insulate the connection between the cables.

Fig.1 Fig.2
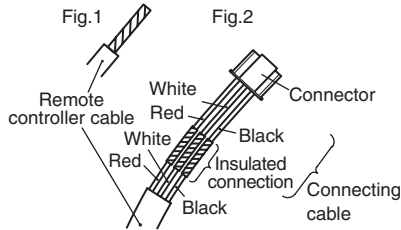
### 5.3.2. When connecting to exclusive terminal block

(1) When connecting to the exclusive terminal block of TYPE A or TYPE B (Fixing screw of M3)
Cut the Y-type terminal at the end of remote controller cable and connect it.

※ Y-type terminal may be damaged if it is inserted to the exclusive terminal block strongly.

※ It may be failed if it is connected to the outdoor unit or the terminal block for power supply.

(2) When connecting to the exclusive terminal block of TYPE C (Fixing screw M4)

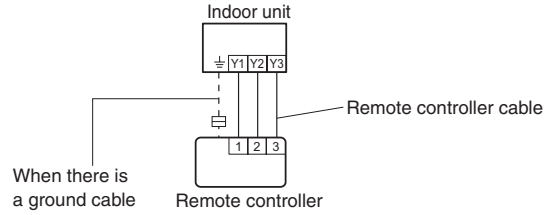Connect the end of remote controller cable directly to the exclusive terminal block.
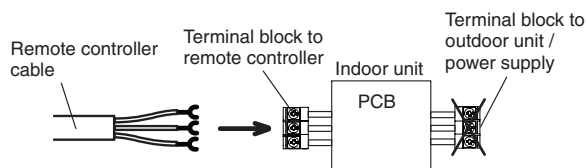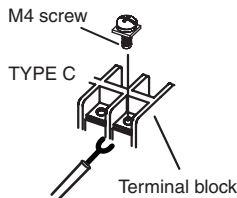
※ It may be failed if it is connected to the outdoor unit or the terminal block for power supply.

6. INSTALLATION METHODS

6.1. Group control

(1) Wiring method (indoor unit to remote controller)

Indoor unit

Remote controller cable

When there is a ground cable   Remote controller

• A number of indoor units can be operated at the same time using a single remote controller.

Indoor unit 0 Indoor unit 1 Indoor unit 2 Indoor unit 3

Remote controller cable
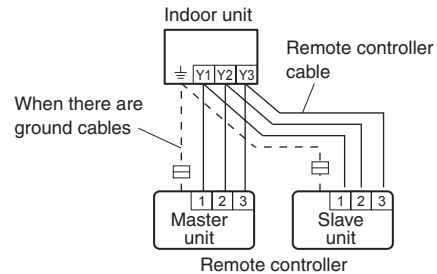
Remote controller
When there is a ground cable
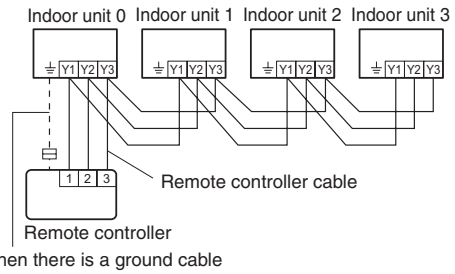
(2) Remote controller address setting
Set each remote controller address using the switch of each indoor unit in order from 0.
(Refer to the installation manual for the indoor unit.)
Up to 16 indoor units can be connected.

6.2. Dual remote control

• Two remote controllers can be used to operate the indoor units.
• The timer and self-diagnosis functions cannot be used on the slave units.
• The remote controller (UTB- * LA) and remote controller (UTB- * U * , UTB- * P * , UTB- * R *) cannot be connected at the same time.

(1) Wiring method
(indoor unit to remote controller)

Indoor unit

Remote controller cable

When there are ground cables

Master unit   Slave unit

Remote controller

(2) Remote controller DIP Switch 1- No. 2 setting
Set the remote controller DIP switch 1- No. 2 according to the following table.

Number of remote controllers	Master unit	Slave unit
	DIP switch 1 - No. 2	DIP switch 1 - No. 2
1 (Single)	OFF	–
2 (Dual)	OFF	ON

- Group control and dual remote control can be used together.
- When connecting two remote controllers, the remote controller can also be connected together with another type of remote controller.

7. TURNING ON THE POWER

⚠ CAUTION
• Recheck the wiring. Incorrect wiring will cause trouble.

(1) Check the remote controller wiring and DIP switch settings.
(2) Install the front case.
   * When installing the front case, connect the connector to the front case (in 5 INSTALLING THE REMOTE CONTROLLER).
(3) Check the indoor and outdoor unit wiring and circuit board switch settings, and then turn on the power of the indoor and outdoor units.
   After " 9C " has flashed on the set temperature display for several seconds, the clock display will appear in the center of the remote controller display.

*   For the wiring and circuit board switch settings method, refer to the installation manual for the indoor unit and outdoor unit.

8. SETTING THE ROOM TEMPERATURE DETECTION LOCATION

⚠ CAUTION
• In order to detect the room temperature correctly when using the temperature sensor of the remote controller, do not install the remote controller in a place where it will be exposed to direct sunlight or directly below the air outlet of the indoor unit.

The detection location of the room temperature can be selected from the following two methods. Choose the detection location that is best for the installation location.

The temperature sensor of the indoor unit or the remote controller can be used to detect the room temperature.

Press the "ECONOMY / ▤ THERMO SENSOR" button for 2 seconds or more to select the temperature sensor of the indoor unit or the remote controller.

Indoor unit

ℹ NOTES

The remote controller sensor cannot be used if the indoor unit has no temperature setting function. When this function cannot be used, the lock display [🔒] will flash when the "ECONOMY / ▤ THERMO SENSOR" button is pressed.
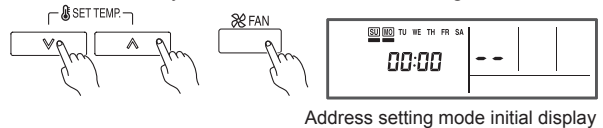
9. ADDRESS SETTING

Address setting method of indoor unit 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.
- "Indoor unit address" and "Refrigerant circuit address" can be set using the remote controller.
- This function can be set in all indoor units when the remote controller is connected.
- "Remote controller address" cannot be set in this function. Ensure to set with the Rotary switch of PCB of the indoor unit.
- When setting the address of indoor unit, refer to installation manual of indoor unit.
- When setting the address of outdoor unit automatically, refer to installation manual of outdoor unit.
- When setting the address with a remote controller, refer to installation manual of indoor unit for setting details of indoor unit.

### Switching selection of address setting mode
(1) Press the "🌡 SET TEMP. ∨" button, "🌡 SET TEMP. ∧" button and "❄ FAN" button for more than 5 seconds simultaneously. Then shift to Address setting mode.

Address setting mode initial display

Indoor unit address setting
(2) Press the "🕐🌡 SET BACK" button and select the Remote controller address (Select the relevant indoor unit).

Remote controller address
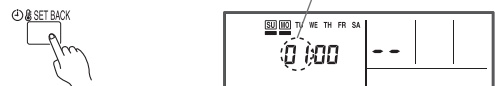
Ex. When Remote controller address "01" is selected.

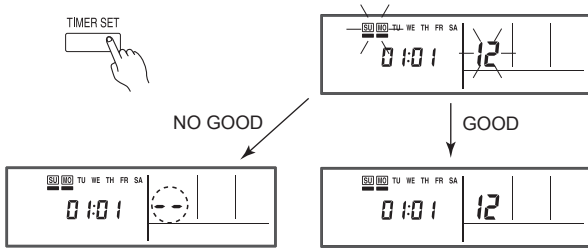(3) The Address code "01" blinks when pressing the "≪ 🕐" button or "🕐 ≫" button.

Address code

(4) Set the Indoor unit address data by pressing the "🌡 SET TEMP. ∨" button or "🌡 SET TEMP. ∧" button. (Range of setting is 00-63.)

Indoor unit address data

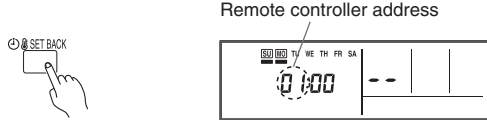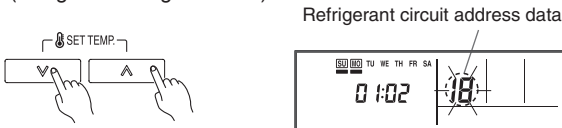Ex. When Indoor unit address data "12" is selected.

(5) Fix the Indoor unit address data by pressing the "TIMER SET" button. (Data is transferred to the indoor unit).

NO GOOD   GOOD

• When Indoor unit address data is not set in the indoor unit address. (-- is displayed).
• Set the Indoor unit address data again as per procedure 3-5 above.

When Indoor unit address data is set in the indoor unit properly. (Blinking changes to steady illumination)

Refrigerant circuit address setting

(6) Press the "SET BACK" button and select the Remote controller address (Select the relevant indoor unit).

Remote controller address

Ex. When Remote controller address "01" is selected.

---

(7) The Address code "02" blinks when pressing the "<" button or "> " button.

Address code

< : Down button
> : Up button

---

(8) Set the Refrigerant circuit address data by pressing the "SET TEMP. ∨" button or "SET TEMP. ∧" button. (Range of setting is 00-99.)

Refrigerant circuit address data

Ex. When Refrigerant circuit address data "18" is selected.

---

(9) Fix the Refrigerant circuit address data by pressing the "TIMER SET" button. (Data is transferred to the indoor unit)

NO GOOD   GOOD
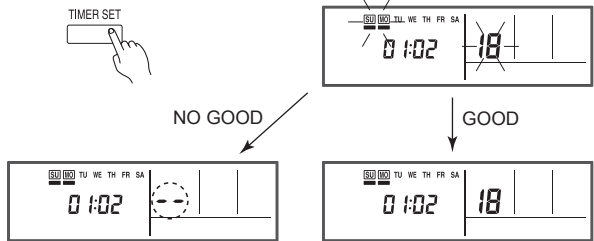
• When Refrigerant circuit address data is not set in the indoor unit. (-- is displayed)
• Set the Refrigerant circuit address data again as per procedure 8-9 above.

When Refrigerant circuit address data is set in the indoor unit properly. (Blinking changes to steady illumination)

Completion of address setting mode

(10) Address setting mode is released and returns to normal display if the "SET TEMP. ∨" button, "SET TEMP. ∧" button and "FAN" button are pressed simultaneously.
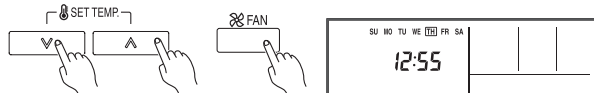
Normal mode display

* Address setting mode is released automatically if no key is pressed for 60 seconds even the above buttons are not pressed.
(Switch to Address setting mode as per procedure 1 above. It is automatically released when Address setting)

---

(11) After completing the ADDRESS SETTING, be sure to turn off the power and turn it on again.

---

10. FUNCTION SETTING

This procedure changes the function settings used to control the indoor unit according to the installation conditions. Incorrect settings can cause the indoor unit to malfunction.

Perform the "FUNCTION SETTING" according to the installation conditions using the remote controller.

• Refer to the indoor unit installation manual for details on the function numbers and setting numbers.
• Prepare for setting of indoor unit referring to installation manual of indoor unit before start of functional setting.

(1) Press the "SET TEMP. ∨" button, "SET TEMP. ∧" button and "FAN" button simultaneously for more than 5 seconds to enter the function setting mode.
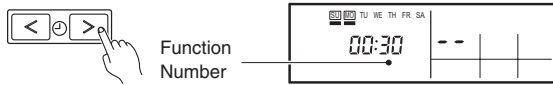

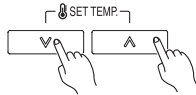(2) Press the "SET BACK" button to select the indoor unit number.


Unit number of INDOOR UNIT

(3) Press the "< ⏱ " button or " ⏱ >" button to select the function number.

Function Number

(4) Press the " 🌡 SET TEMP. ⌄ " button or " 🌡 SET TEMP. ⌃ " button to select the setting number. The display flashes during setting number selection.

SET TEMP.

(5) Press the " TIMER SET " button to confirm the setting.
Press the " TIMER SET " button for a few seconds until the setting number stops flashing.
If the setting number display changes or if "- -" is displayed when the flashing stops, the setting number has not been set correctly.
(An invalid setting number may have been selected for the indoor unit.)

Setting Value

NO GOOD   GOOD
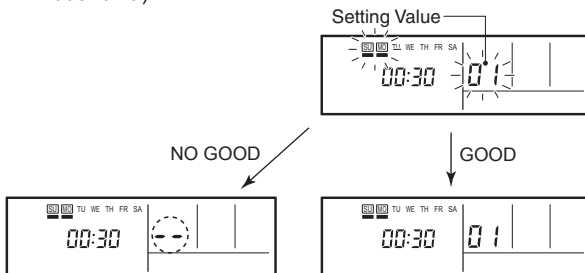
• When Setting Number data is not set in the indoor unit.
  (-- is displayed)
• Set the Setting Number data again as per procedure 4 above.

When Setting Number data is set in the indoor unit properly
(Blinking changes to steady illumination)

(6) Repeat steps 2 to 5 to perform additional settings.
Press the " 🌡 SET TEMP. ⌄ " button, " 🌡 SET TEMP. ⌃ " button and " 🌀 FAN " button simultaneously again for more than 5 seconds to cancel the function setting mode. In addition, the function setting mode will be automatically canceled after 1 minute if no operation is performed.

(7) After completing the FUNCTION SETTING, be sure to turn off the power and turn it on again.

11. ADMINISTRATIVE INDOOR UNIT SETTING

• If "Priority on Administrative Indoor Unit" is selected in the setting of priority mode by PUSH SWITCH of outdoor unit (refer to installation manual of outdoor unit), an indoor unit selected from the same refrigerant system can be set to "Administrative Indoor Unit". "Administrative Indoor Unit" shall be set by the wired remote controller.
<What is Administrative Indoor Unit>
  An indoor unit which decides the priority mode (cooling or heating) in a same refrigerant system.
  • "Administrative Indoor Unit" can be set to a unit in a same refrigerant system.
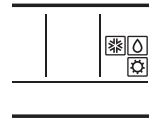<About setting and releasing of Administrative Indoor Unit>
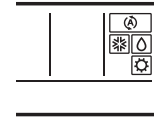 • Setting and releasing of "Administrative Indoor Unit".

(1) After the indoor unit stops operation, press the " ⏻❄☀ MODE " button of wired remote controller for 5 seconds continuously.
  • The operating mode of the wired remote controller display lights on after 5 seconds as follows.
  (1)-a) The indication not set as "Administrative Indoor Unit".
  (1)-b) The indication set as "Administrative Indoor Unit".

Note:
• " ⏻❄☀ MODE " button is locked by below reasons while the marking 🔒 lights on.
  In such case, "Administrative Indoor Unit" cannot be set or released.

  Operation Lock Display

• "Priority on Administrative Indoor Unit" is not selected in the setting of priority mode of outdoor unit.
  ⇒ Set "Administrative Indoor Unit" in the wired remote controller after selecting "Priority on Administrative Indoor Unit" in setting of priority mode of outdoor unit.
• Another indoor unit was set to "Administrative Indoor Unit" already.
  ⇒ Release the setting "Administrative Indoor Unit" of another indoor unit.

• Set or release "Administrative Indoor Unit".
(2) Press the " ⏻❄☀ MODE " button.
  • Display (1)-b) when setting, and display (1)-a) when releasing.
  ⇒ The display blinks when the " ⏻❄☀ MODE " button is pressed, and the display of (1)-a) and (1)-b) alters whenever the " ⏻❄☀ MODE " button is pressed.
  ⇒ The contents set in the wired remote controller are transferred to the indoor unit immediately after the display is selected. It may take 10 seconds depending on communication conditions. While this period, the button operation will be suspended.
  ⇒ It returns to the normal display after 20 seconds automatically if the operation button is not pressed.
  ⇒ When setting or releasing is completed, the indication on wired remote controller changes to the normal indication from blinking.
(3) Complete the setting or releasing of "Administrative Indoor Unit".
  • Press the " ⏻❄☀ MODE " button of the wired remote controller again for 5 seconds continuously.
  ⇒ The indication returns to normal display if the " ⏻❄☀ MODE " button is pressed for 5 seconds continuously.
    (It returns to normal indication after 20 seconds even if the " ⏻❄☀ MODE " button is not pressed.)

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12. TEST OPERATION

- Test operation method of the indoor unit is explained.
- Refer to the indoor unit installation manual for the list of items to check.

(1) If the operation lamp is on, press the "START/STOP" button to turn it off.

START/STOP

(2) Press the "MODE" button and "FAN" button at the same time for more than two seconds to start the test operation.

The operation lamp will light up and "01" will be displayed on the set temperature display.

FAN   MODE

Test operation display
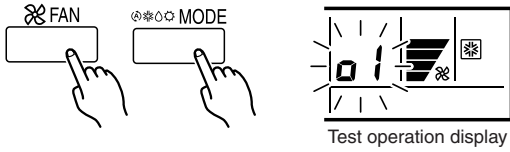
(3) To stop the test operation, press the "START/STOP" button.

* The "SET TEMP. ∨" button or "SET TEMP. ∧" button do not function. However, the other buttons can be used to change the settings.
* Test operation is used for constrained operation of the outdoor unit.

Note:
- When "02" is indicated on the temperature display, it means under maintenance.
  Indoor unit cannot be operated.

13. ERROR CODE DISPLAY

If an error occurs, the following display will be shown.

Faulty unit No.
(0-15, C0)

Error code

SU MO TU WE TH FR SA
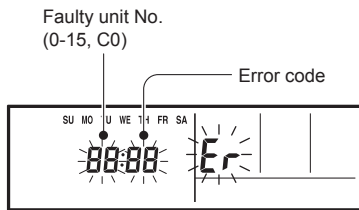
Ex. Error code display

Do not used the operation below if an error has occurred.
- When 0-15 is indicated on the Faulty unit No., error has occurred at the indoor unit. Refer to the indoor unit installation manual.

Faulty unit No.	Error code	Contents
C0	15	Incompatible indoor unit is connected
C0	12	Indoor unit ↔ remote controller communication error

VRF 系统
遥控器
（有线式）
UTY-RNK*

安装说明书

只供授权专业维修人员使用。

目录

1. 安全注意事项
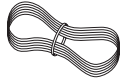
- 本说明书中出现的"安全注意事项"包含与您的安全有关的重要信息。务必遵守这些信息。
- 有关操作方法的详细信息，请参见使用说明书。
- 请用户将本说明书保存在手边，以备将来机组迁移或维修时使用。

⚠ 警告	本标志表示如果操作失当可能会导致用户死亡或严重伤害。

- 电气工作应由授权的维修人员按照安装说明书和国家的电气接线规范或实施规范进行。另外，请勿自行安装本机组。电气工作不当会导致触电或火灾。

- 请按照安装说明书进行安装工作。请授权的维修人员进行安装工作。请勿自行安装本机组。安装不当会导致人身伤害、触电、火灾等。

- 当本机组出现故障（发出燃烧气味等）时，应立即停止操作，关闭断路器，并与授权专业维修人员接洽。

- 根据有关法规和电力公司的标准在电源线上安装漏电断路器。

- 请使用本机组专用的电源。切勿与其它电气设备共用一个电源。否则会导致火灾和触电。

请勿将机组安装在以下地方：
- 请勿将机组安装在靠近热源、蒸汽或易燃气体的地方。
- 充满矿物油或含有大量飞溅油或蒸汽的地方，例如厨房。这样会使塑料零件变质，导致零件坠落或机组漏水。
- 能产生对设备有不利影响的物质（例如含硫气体、氯气、酸或碱）的地方。会导致铜管和铜焊接头腐蚀，引起制冷剂泄漏。
- 有能产生电磁干扰的设备的地方。会引起控制系统故障，妨碍机组正常运行。
- 能导致可燃气体泄漏、含有悬浮碳纤维、易燃粉尘或挥发性易燃物（如油漆稀释剂或汽油）的地方。如果气体泄漏并聚积在机组周围，会导致火灾。
- 请勿将机组用于存放食品、饲养动物、种植植物或保存精密设备或工艺品等特殊用途。这样会影响所保存或存放的物品的质量。
- 将机组安装在通风良好之处，避免雨淋和阳光直射。

- 请勿在手湿时操作本机组。用湿手触摸机组会导致触电。

- 如儿童有可能接近机组时，请采取适当的预防措施，使他们无法接触到机组。

⚠ 注意	本标志表示如果操作失当可能会对用户的人身受到伤害或财产受到损失。

- 运输本机组时要特别小心，因为它属于精密设备。运输不当会引起故障。

- 请不要用尖锐的物体触摸开关。否则会导致人身伤害、故障或触电。

- 请勿让本机组直接置于有水的环境中。否则会导致故障、触电或发热。

- 请勿将装有液体的容器放在本机组上。否则会导致发热、火灾或触电。

- 请安全处置包装材料。将塑料包装袋撕碎并丢弃，使儿童无法用其玩耍。如果儿童拿着未撕开的塑料袋玩耍，会有窒息的危险。

- 请勿将物品插入到本机的狭缝部分中。否则，可能会导致故障、发热或触电。

2. 附件

提供下列安装部件，请按需要使用。

名称及形状	数量	用途
安装说明书	1	本说明书
使用说明书	1	操作的说明书
(*) 遥控器电线（10m)	1	用于连接遥控器
螺钉 (M4 x 16mm)	2	用于安装遥控器
绑扎件	1	用于绑扎遥控器和遥控器电线

(*) UTY-RNKYT 不包含电线。

3. 电气要求

连接遥控器时使用下列接线。
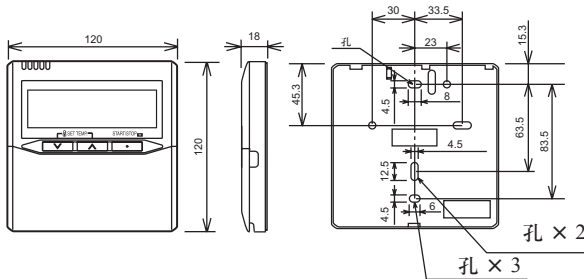
用途	尺寸	电线类型	备注
遥控器电线	0.33 mm²	22AWG 极性 3 芯，双绞线	按照当地有关电线的法规使用屏蔽电缆。

* 建议购买本公司的遥控器电线维修部件。如要购买部件，请与服务代表接洽。

4. 选择安装位置

4.1. 尺寸

单位 : mm

4.2. 各部分名称

● 盖打开时
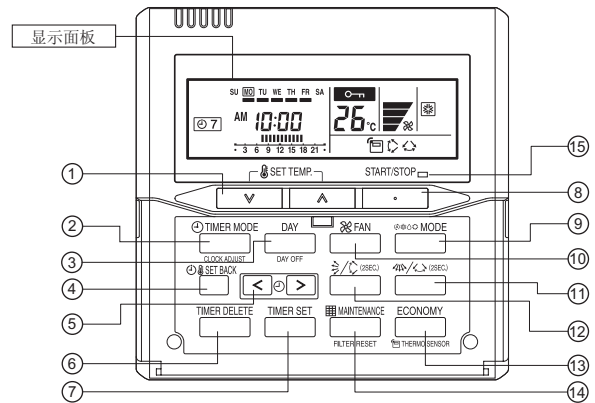
显示面板

● 显示面板
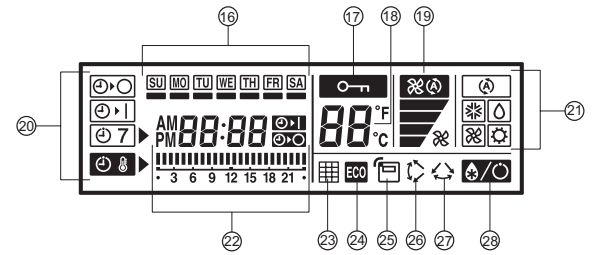
① "SET TEMP. ∨"，"SET TEMP. ∧"（设定温度按钮）
② "TIMER MODE / CLOCK ADJUST"（定时器模式／时钟调节按钮）
③ "DAY / DAY OFF"（工作日／工作日关机按钮）
④ "SET BACK"（重设按钮）
⑤ "< ⊙"，"⊙ >"（设定时间按钮）
⑥ "TIMER DELETE"（定时器删除按钮）
⑦ "TIMER SET"（定时器设定按钮）
⑧ "START/STOP"（开始／停止按钮）
⑨ "MODE"（模式按钮）
⑩ "FAN"（风扇控制按钮）
⑪ "⁄"（水平气流方向和摆动按钮）
⑫ "⁄"（垂直气流方向和摆动按钮）
⑬ "ECONOMY / THERMO SENSOR"（节能／温度传感器按钮）
⑭ "MAINTENANCE / FILTER RESET"（维护／过滤网复位按钮）
⑮ 运行指示灯
⑯ 工作日显示
⑰ 运行锁定显示
⑱ 温度显示
⑲ 风扇转速显示
⑳ 定时器模式显示
㉑ 运行模式显示
㉒ 定时器和时钟显示
㉓ 过滤网显示
㉔ 节能显示
㉕ 温度传感器显示
㉖ 垂直摆动显示
㉗ 水平摆动显示
㉘ 除霜显示

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5. 安装遥控器

⚠ 警告

- 务必使用附件和指定的安装工作零件。检查安装零件的状态。若不使用指定的零件，会导致机组坠落、漏水、触电、火灾等。

- 应选择可以完全支撑机组重量的地方进行安装，并将机组安装牢固，以免倾倒或坠落。

- 当安装本机时，请确保周围没有儿童。否则，可能会导致人身伤害或触电。

- 安装本机后，执行试运行以确定本机运行正常。然后，向客户说明本机的操作。

- 开始安装工作之前，请关闭本机组的电源和连接目的地。请不要在安装工作尚未完成时就打开电源。否则会导致触电或火灾。

- 请使用附件或指定电源线和连接线。请勿改装规定以外的电源线和连接线，请勿使用延长线，请勿使用独立的分支线路。否则会超过允许的电流，导致触电或火灾。

- 将连接线牢固地安装在接线盒上。确认不会有外力施加在电线上。请使用用指定电线制成的连接线。如果中间连接或插入固定不当，会导致触电、火灾等。

- 连接电源线和信号线时，线路的布线应确保本机组的机盖固定牢固。如果机盖固定不牢固，会导致火灾或端子过热。

- 要正确进行接地工作。请勿将地线连接到电话地线、水管或导体棒上。

- 必须用线夹固定连接线的绝缘层。（如果绝缘层被擦破，可能会发生漏电。）

- 进行电线接线工作时，务必不要触摸用户。否则会导致人身伤害或触电。

- 如果电线损坏，不要自行维修或改装。工作不当会导致触电或火灾。

⚠ 注意

- 切勿设定本机组的 DIP 开关或旋转开关，除非是本安装说明书或空调附带的说明书所规定的。若在规定以外设定开关，会导致事故或故障。

- 请使用绝缘螺丝刀设定 DIP 开关。

- 打开本机组的壳体之前，请排净您身上所带的静电。否则会导致故障。

- 请勿用手直接触摸电路板和电路板部件。否则，可能会导致人身伤害或触电。

- 将安装螺钉拧得过紧会损坏本机组的壳体。

- 小心不要在拆下前盖螺钉后使前盖掉落。否则，可能会导致人身伤害。

- 进行接线工作时，小心不要损坏电线或弄伤您自己。同时牢固地接好插头。插头不牢固会导致故障、发热、火灾或触电。

- 安装室内 / 室外机、电源线、信号线和遥控电线时，应距离电视机和收音机 1 m 远，以避免图像失真和噪音。

- 进行接线时，要确保水不会顺着外部线路进入本机组中。务必在线路上安装除水弯头或采取其它应对措施。否则会导致故障、触电或火灾。

- 确认每台机组的名称和机组每个接线盒的名称，并按照说明书规定的方向连接线路，确保不会发生接线错误。接线错误会损坏电气零件，引起烟雾和火灾。

- 在电磁波发生源附近安装连接线时，请使用屏蔽线。否则会导致击穿或故障。

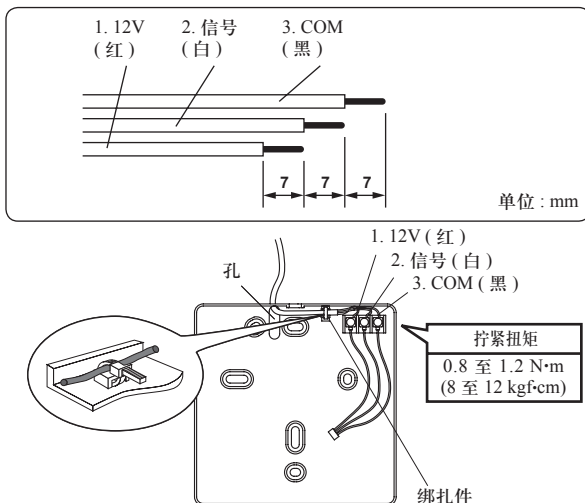### 5.1. 安装

打开遥控器正面的操作面板，如右图所示卸下两枚螺钉，然后取下遥控器的前盖。

> 打开遥控器时，请脱开前盖上的接头。如果不脱开接头，并将前盖悬挂的话，电线可能会折断。
> 安装前盖时，请先将接头连接到前盖上。脱开和连接接头时，小心不要折断电线。

前盖（背面）　后盖

螺钉

接头
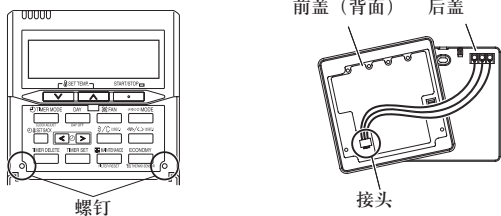
(1) 将遥控器电线穿过后壳的孔并连接到图 1 中所示的遥控器接线盒上。
(2) 如图 1 所示，用扎带将遥控器电线护套夹住。
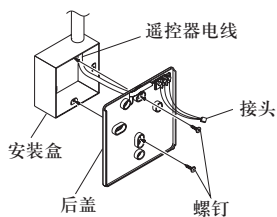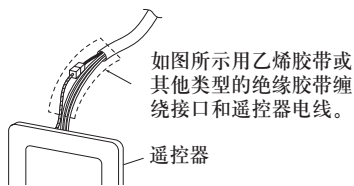(3) 剪去绑扎件多余的部分。
(4) 用两枚螺钉将后盖安装在墙上，安装盒或其他部位。(图 2)

图 1

1. 12V（红）　2. 信号（白）　3. COM（黑）

7　7　7

单位 : mm

1. 12V (红)
2. 信号 (白)
3. COM (黑)

孔

拧紧扭矩
0.8 至 1.2 N·m
(8 至 12 kgf·cm)

绑扎件

⚠ 注意

小心不要过分拧紧绑扎件而折断电线。

⚠ 注意

连接遥控器电线时，请勿将螺钉拧得过紧。

图 2 [示例]

遥控器电线

接头

安装盒

后盖

螺钉

将具有地线的遥控器接地。

如图所示用乙烯胶带或其他类型的绝缘胶带缠绕接口和遥控器电线。

遥控器

5.2. 设定 DIP 开关

请设定遥控器的 DIP 开关。(图 3)

将 DIP 开关 1 －编号 6 设定为 ON（开）。

对于其它开关，请根据实际情况进行设定。

图 3
[示例]

OFF　ON

前盖（背面）

DIP 开关 1
(DS 1)
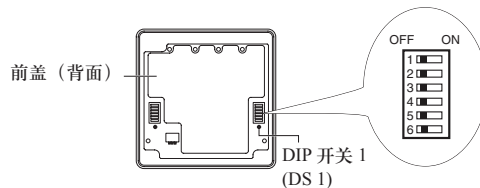
	编号	开关状态		说明
		OFF（关）	ON（开）	
DIP 开关 1 (DS 1)	1	★ 固定为 OFF (关)		无法使用
	2	★ 主机	子机	请参阅"6. 安装方法"。
	3	★ 固定为 OFF (关)		无法使用
	4	★ 固定为 OFF (关)		无法使用
	5	★ 固定为 OFF (关)		无法使用
	6	★ 停用	启用	存储器备份设定 *1

（★ 出厂设定 ）

*1. 存储器备份设定 ：　要采用电池作为存储器的后备电源，请设定为 ON（开）。如果没有使用电池，则发生电源故障时，保存在存储器内的所有设定均会删除。

5.3. 遥控器电线的连接
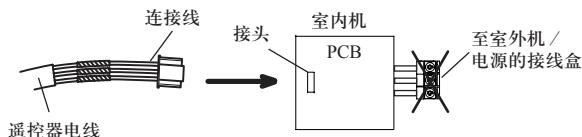
⚠ 注意

• 将遥控器电线连接到室内机时，切勿将其连接到室外机或接线盒。否则可能会导致故障。

可以通过 2 种方法将遥控器电线连接到室内机。一种是使用附带的连接线连接，另一种是通过将遥控器电线连接到室内机的专用接线盒进行连接。

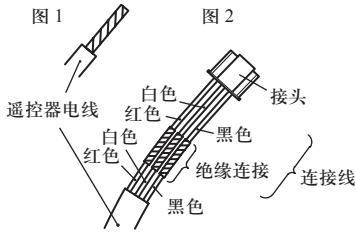遥控器的专用接线盒连接方法因机型而异。按照下面的说明修改遥控器电线并进行连接。

（有关详情，请参见要使用室内机的安装说明书。）
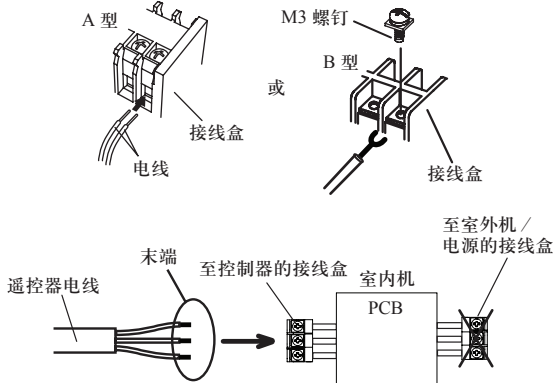
5.3.1. 连接到接头时

将遥控器电线连接到连接线，然后将其插入接头。

连接线　接头　室内机 PCB　至室外机／电源的接线盒

遥控器电线

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按照下面的方法修改电线。

(1) 用工具切下遥控器电线一端的端头，然后按图 1 所示剥下电线切割端的绝缘皮。
(2) 如图 2 所示连接遥控器电线与连接线。
(3) 请务必绝缘电线间的连接部。

图 1　　　　图 2

遥控器电线
白色
红色
白色
红色

接头
黑色
黑色
绝缘连接
连接线

5.3.2. 连接到专用的接线盒时

(1) 连接到 A 型或 B 型（固定螺钉 M3）的专用接线盒时
切掉遥控器电线末端的 Y 型端子后进行连接。

A 型
或
M3 螺钉
B 型

接线盒
电线
接线盒

遥控器电线
末端
至控制器的接线盒
室内机
PCB
至室外机／电源的接线盒

※ 如果用力将 Y 型端子插入到专用接线盒，其可能会损坏。

※ 如果将其连接到室外机或电源的接线盒，则连接可能会失败。
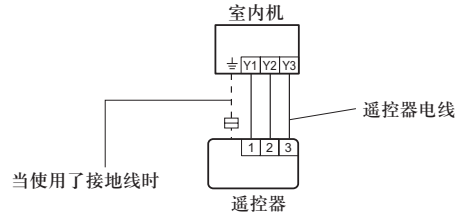
(2) 连接到 C 型（固定螺钉 M4）的专用接线盒时
直接将遥控器电线的末端连接到专用的接线盒。

M4 螺钉
C 型
接线盒

遥控器电线
至控制器的接线盒
室内机
PCB
至室外机／电源的接线盒
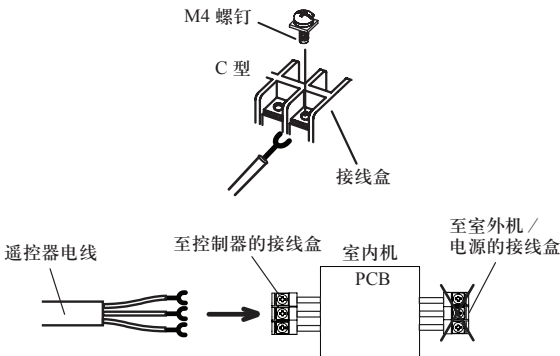
※ 如果将其连接到室外机或电源的接线盒，则连接可能会失败。

6. 安装方法

6.1. 群组控制

(1) 接线方法（由室内机至遥控器）

室内机
Y1 Y2 Y3
遥控器电线
1 2 3
遥控器
当使用了接地线时

• 您可以使用一个遥控器同时操作多台室内机。

室内机 0　　室内机 1　　室内机 2　　室内机 3
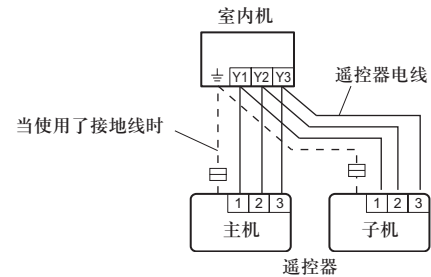Y1 Y2 Y3
遥控器电线
1 2 3
遥控器
当使用了接地线时
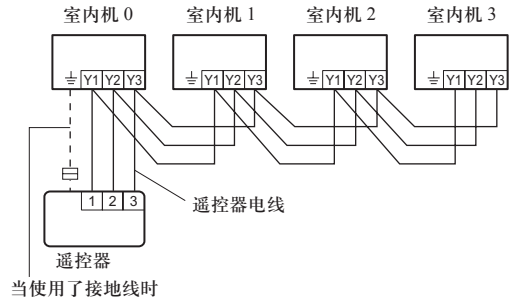
(2) 遥控器的地址设定
使用每台室内机的开关，从 0 开始顺序设定每个遥控器地址。
（请参考室内机的安装说明书。）
最多可以连接 16 台室内机。

6.2. 两个遥控器

• 您可以使用两个遥控器操作室内机。
• 子机无法使用定时器功能和自检功能。
• 不可同时连接遥控器（UTB-*LA）和遥控器（UTB-*U*, UTB-*P*, UTB-*R*）。

(1) 接线方法
（由室内机至遥控器）

室内机
Y1 Y2 Y3
遥控器电线
当使用了接地线时
1 2 3　　　　1 2 3
主机　　　　子机
遥控器

(2) 2 号遥控器的 DIP 开关 1 - 2 号设定
根据下列表格设定 2 号遥控器的 DIP 开关 1 - 2 号。

遥控器的数目	主机	子机
	2 号遥控器的 DIP 开关 1 - 2 号	2 号遥控器的 DIP 开关 1 - 2 号
1（单控）	关	–
2（双控）	关	开

• 可以同时使用组控制和双遥控。
• 连接两个遥控器时，也可以将遥控器与另一类型的遥控器一起连接。

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7. 接通电源

⚠ 注意

- 再次检查接线。不正确的接线将会导致故障。

(1) 检查遥控器的接线和 DIP 开关设定。
(2) 安装前盖。
　　* 安装前盖时，请将接头连接到前盖上（请参阅"5. 安装遥控器"）。
(3) 检查室内和室外机的接线以及电路板的开关设定，然后接通室内和室外机的电源。
　　当 " $9C$ " 在设定温度显示屏上闪烁数秒后，遥控器的显示屏中央会出现时钟显示。

* 有关接线和电路板开关的设定方法，请参见室内机和室外机安装说明书。

8. 设定检测室温的位置

⚠ 注意

- 为了能在使用遥控器的温度传感器时正确检测室温，请勿将遥控器安装在易受阳光直射处或直接装在室内机出气口的下面。

您可以从以下两种方法中选择检测室温的位置。请根据安装位置，选择最合适的检测位置。
可以使用室内机或遥控器的温度传感器来检测室温。

按下"ECONOMY / 🗗 THERMO SENSOR"按钮 2 秒钟以上，以选择室内机或遥控器的温度传感器。

ℹ 注

如果室内机无温度设定功能，则无法使用遥控器传感器。无法使用此功能时，当按下"ECONOMY / 🗗 THERMO SENSOR"按钮，锁定显示 🔒 会闪烁。

9. 地址设定

有 3 种室内机的地址设定方法可供选择（室外机、室内机和遥控器）。从室外机或室内机进行设定时，请参见室外机或室内机的安装说明书。

- 可以使用遥控器设定"室内机地址"和"制冷剂回路地址"。
- 连接简易遥控器时，可以在所有室内机中设定此功能。
- 无法在此功能中设定"遥控器地址"。
　确保使用室内机 PCB 的旋转开关设定。
- 设定室内机的地址时，请参阅室内机的安装说明书。
- 自动设定室外机的地址时，请参阅室外机的安装说明书。
- 使用遥控器设定地址时，请参阅室内机的安装说明书以了解室内机的设定详情。

地址设定模式的切换选择

(1) 同时按 "🌡 SET TEMP. ⋁" 按钮、"🌡 SET TEMP. ⋀" 按钮和 "❈ FAN" 按钮 5 秒钟以上。切换到地址设定模式。
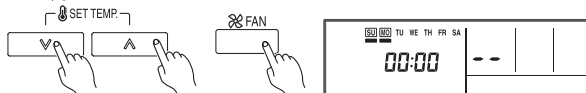
地址设定模式初始显示

室内机地址设定

(2) 按下 "⏱🌡 SET BACK" 按钮并选择遥控器地址（选择相应的室内机）。

遥控器地址

例）选择了遥控器地址"01"时。

(3) 按下 "≪ ⏱" 按钮或 "⏱ ≫" 按钮时，地址代码"01"闪烁。

地址代码

(4) 按下 "🌡 SET TEMP. ⋁" 按钮或 "🌡 SET TEMP. ⋀" 按钮设定室内机地址数据。（设定范围：00-63。）

室内机地址数据

例）选择了室内机地址数据"12"时。

(5) 按下"TIMER SET"按钮确定室内机地址数据。（数据被传输
到室内机）。

TIMER SET

不正确　　　　　　　正确

01:01　12

01:01　--　　　　　01:01　12
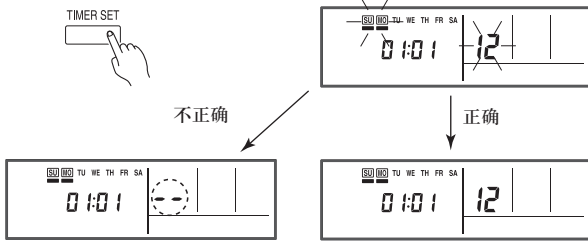
• 未在室内机中设定室内机地址
  数据时。（会显示 --）
• 按照上述步骤 3-5 重新设定室内
  机地址数据。

在室内机中正确设定了室内机地
址数据时。（闪烁变为稳定亮起）

制冷剂回路地址设定

(6) 按下"⏱🌡 SET BACK"按钮并选择遥控器地址（选择相应的室
内机）。

遥控器地址

SET BACK

01:00　--
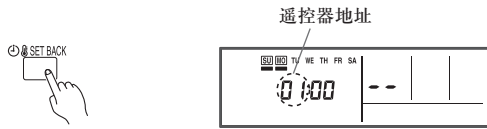
例）选择了遥控器地址"01"时。

---

(7) 按下"< ⏱"按钮或"⏱ >"按钮时，地址代码"02"闪烁。

地址代码

< 　>

01:02　00

< : 向下按钮
> : 向上按钮

---

(8) 按下"🌡 SET TEMP. ⋁"按钮或"🌡 SET TEMP. ⋀"按钮设定
制冷剂回路地址数据。（设定范围：00-99。）

制冷剂回路地址数据

SET TEMP.

⋁　⋀

01:02　18

例）选择了制冷剂回路地址数
据"18"时。

---

(9) 按下"TIMER SET"按钮确定制冷剂回路地址数据。（数据被
传输到室内机）

TIMER SET

01:02　18

不正确　　　　　　　正确

01:02　--　　　　　01:02　18
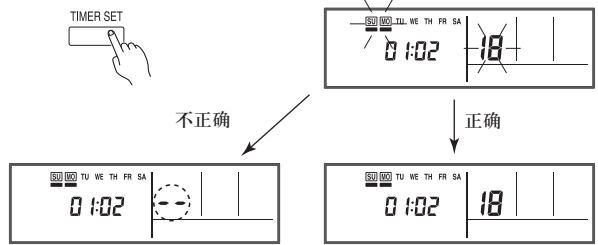
• 未在室内机中设定制冷剂回路
  地址数据时。（会显示 --）
• 按照上述步骤 8-9 重新设定制
  冷剂回路地址数据。

在室内机中正确设定了制冷剂回
路地址数据时。（闪烁变为稳定亮
起）

地址设定模式的结束

(10) 如果同时按下"🌡 SET TEMP. ⋁"按钮、"🌡 SET TEMP. ⋀"
     按钮和"❋ FAN"按钮，地址设定模式会被解除并返回到
     正常显示。

SET TEMP.　　❋ FAN

⋁　⋀

12:55
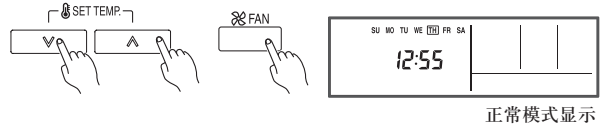
正常模式显示

* 即使没有按上述按钮，如果在 60 秒钟内没有按下任何按键，
  地址设定模式将被自动解除。
  （进行地址设定时，如果按照上述步骤 1 的说明切换到地址设
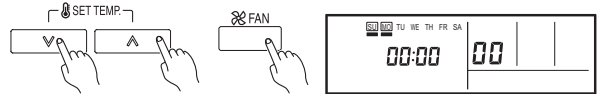 定模式，其会被自动解除。）

---

(11) 完成地址设定后，请务必关闭电源再重新打开。

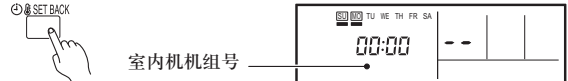
10. 功能设定

该步骤更改了根据安装情况用来控制室内机的功能设定。

不正确的设定可能导致室内机故障。

使用遥控器根据安装情况执行"功能设定"。

• 有关功能编号和设定值的详细信息，请参阅室内机安装说明
  书。
• 开始功能设定前，参阅室内机的安装说明书为室内机的设定
  做好准备。

(1) 同时按下"🌡 SET TEMP. ⋁"按钮、"🌡 SET TEMP. ⋀"按钮
    和"❋ FAN"按钮 5 秒或以上，以进入功能设定模式。

SET TEMP.　　❋ FAN

⋁　⋀

00:00　00

(2) 按下"⏱🌡 SET BACK"按钮以选择室内机机组号。

SET BACK

00:00　--

室内机机组号

(3) 按下"＜ 🕐"按钮或"🕐 ＞"按钮以选择功能编号。

功能编号

(4) 按下"🌡SET TEMP. ⋁"按钮或"🌡SET TEMP. ⋀"按钮以选择设定值。选择设定值时，该显示会按右图所示闪烁。
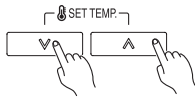
SET TEMP.

(5) 按下"TIMER SET"按钮确认设定。
按下"TIMER SET"按钮数秒，直到设定值停止闪烁为止。
如果设定值显示更改或闪烁停止时显示"‐ ‐"，表示设定值的设定不正确。
（室内机可能选择了无效的设定值。）

设定值

不正确   正确
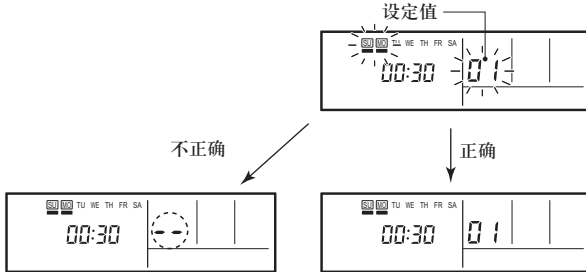
• 未在室内机中设定设定号码数据时。（会显示 --）
• 按照上述步骤 4 的说明重新设定设定号码数据。

在室内机中正确设定了设定号码数据时。（闪烁变为稳定亮起）

(6) 重复步骤 2 至 5 进行其他设定。
再次同时按下"🌡SET TEMP. ⋁"按钮、"🌡SET TEMP. ⋀"按钮和"❀FAN"按钮 5 秒或以上，以取消功能设定模式。
另外，如果不执行任何操作，1 分钟以后会自动取消功能设定模式。

(7) 完成功能设定后，请务必关闭电源再重新打开。

---

11. 管理室内机设定

• 如果通过室外机的按钮开关（请参阅室外机的安装说明书）在优先级模式设定中选择了"管理室内机优先"，则可以将从相同制冷剂系统中选择的室内机设定为"管理室内机"。应使用有线遥控器设定"管理室内机"。

＜ 什么是管理室内机 ＞
决定相同的制冷剂系统中优先级模式（制冷或制热）的室内机。

• 可以将相同制冷剂系统中的室内机设定为"管理室内机"。

＜ 关于管理室内机的设定和解除 ＞
• "管理室内机"的设定和解除。

(1) 室内机停止运行后，持续按有线遥控器的"🅐❄◌☼ MODE"按钮 5 秒钟。
• 5 秒钟后，有线遥控器的运行模式显示亮起，如下所示：

(1)-a　表示未设定为"管理室内机"。

(1)-b　表示被设定为"管理室内机"。

注意：
• 🔒标记亮起时，"🅐❄◌☼ MODE"按钮会由于下面的原因被锁定。
此时，无法设定或解除"管理室内机"。

运行锁定显示
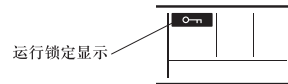
• 没有在室外机的优先级模式设定中选择"管理室内机优先"。
⇒在室外机的优先级模式设定中选择"管理室内机优先"后，在有线遥控器中设定"管理室内机"。
• 已经有另外一台室内机被设定为"管理室内机"。
⇒解除另外一台室内机的"管理室内机"设定。

• 设定或解除"管理室内机"。
(2) 按"🅐❄◌☼ MODE"按钮。
• 设定时显示 (1)-b，解除时显示 (1)-a。
⇒按下"🅐❄◌☼ MODE"按钮时显示闪烁，然后每按一次"🅐❄◌☼ MODE"按钮显示将在 (1)-a 和 (1)-b 间切换。
⇒选择显示后，在有线遥控器中设定的内容会被立即传送到室内机。根据通信条件，可能需要 10 秒钟的时间。此期间，按钮操作将被挂起。
⇒如果未按下运行按钮，20 秒钟后会自动返回正常显示。
⇒设定或解除完成后，有线遥控器上的指示将从闪烁变为正常指示。

(3) 完成"管理室内机"的设定或解除。
• 再次持续按有线遥控器的"🅐❄◌☼ MODE"按钮 5 秒钟。
⇒如果持续按下"🅐❄◌☼ MODE"按钮 5 秒钟，指示会返回到正常显示。
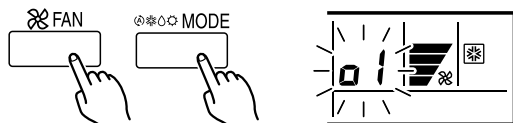（即使没有按下"🅐❄◌☼ MODE"按钮，20 秒钟后也会返回到正常指示。）

12. 试运行

- 以下内容对室内机的试运行方法进行了说明。
- 有关检查项目的列表，请参阅室内机的安装说明书。

(1) 如果运行指示灯点亮，按"START/STOP"按钮使指示灯熄灭。
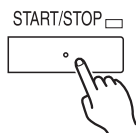
(2) 同时按下"⊙❄♨☼ MODE"和"� FAN"按钮 2 秒钟以上开始试运行。

运行指示灯会点亮，"ο1"会显示在设定温度显示屏上。

试运行显示

(3) 要停止试运行，按"START/STOP"按钮。

* "🌡 SET TEMP. ∨"按钮或"🌡 SET TEMP. ∧"按钮不起作用。但是，可以使用其它按钮更改设定。
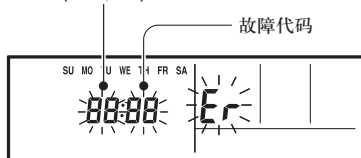
* 试运行用于室外机的限制运行。

注意：
- 在温度画面上显示"ο2"时，表示正在维护中。无法操作室内机。

13. 故障代码显示

如果发生故障，将出现以下显示。

故障机组号码
(0-15, C0)

故障代码

例) 故障代码显示

如果发生故障，请不要进行以下操作。
- 故障机组号码上显示 0-15 时，表示室内机发生了故障。请参见室内机安装说明书。

故障机组号码	故障代码	内容
C0	15	连接了不兼容的室内机
C0	12	室内机↔遥控器通信故障