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# 1. Safety precautions

- Please read this manual carefully before starting installation work to install the unit properly. Every one of the followings is important information to be observed strictly.

| WARNING | Failure to follow these instructions properly may result in serious consequences such as death, severe injury, etc. |
| CAUTION | Failure to follow these instructions properly may cause injury or property damage. |

It could have serious consequences depending on the circumstances.

- The following pictograms are used in the text:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>⚠️ Never do.</td>
<td></td>
</tr>
<tr>
<td>⚥ Always follow the instructions given.</td>
<td></td>
</tr>
</tbody>
</table>

- Keep this manual at a safe place where you can consult with whenever necessary. Show this manual to installers when moving or repairing the unit. When the ownership of the unit is transferred, this manual should be given to a new owner.

<table>
<thead>
<tr>
<th>WARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td>⚠️ Consult your dealer or a professional contractor to install the unit. Improper installation made on your own may cause electric shocks, fire or dropping of the unit.</td>
</tr>
<tr>
<td>⚥ Installation work should be performed properly according to this installation manual. Improper installation work may result in electric shocks, fire or break-down.</td>
</tr>
<tr>
<td>⚥ Be sure to use accessories and specified parts for installation work. Use of unspecified parts may result in drop, fire or electric shocks.</td>
</tr>
<tr>
<td>⚥ Install the unit properly to a place with sufficient strength to hold the weight. If the place is not strong enough, the unit may drop and cause injury.</td>
</tr>
<tr>
<td>⚥ Be sure to have the electrical wiring work done by qualified electrical installer, and use exclusive circuit. Power source with insufficient and improper work can cause electric shock and fire.</td>
</tr>
<tr>
<td>⚥ Shut OFF the main power supply before starting electrical work. Otherwise, it could result in electric shocks, break-down or malfunction.</td>
</tr>
<tr>
<td>⚥ Do not modify the unit. It could cause electric shocks, fire, or break-down.</td>
</tr>
<tr>
<td>⚥ Be sure to turn OFF the power circuit breaker before repairing/inspecting the unit. Repairing/inspecting the unit with the power circuit breaker turned ON could cause electric shocks or injury.</td>
</tr>
<tr>
<td>⚥ Do not install the unit in appropriate environment or where inflammable gas could generate, flow in, accumulate or leak. If the unit is used at places where air contains dense oil mist, steam, organic solvent vapor, corrosive gas (ammonium, sulfuric compound, acid, etc) or where acidic or alkaline solution, special spray, etc. are used, it could cause electric shocks, break-down, smoke or fire as a result of significant deterioration of its performance or corrosion.</td>
</tr>
<tr>
<td>⚥ Do not install the unit where water vapor is generated excessively or condensation occurs. It could cause electric shocks, fire, or break-down.</td>
</tr>
<tr>
<td>⚥ Do not use the unit in a place where it gets wet, such as laundry room. It could cause electric shocks, fire, or break-down.</td>
</tr>
<tr>
<td>⚥ Do not operate the unit with wet hands. It could cause electric shocks.</td>
</tr>
<tr>
<td>⚥ Do not wash the unit with water. It could cause electric shocks, fire, or break-down.</td>
</tr>
<tr>
<td>⚥ Use the specified cables for wiring, and connect them securely with care to protect electronic parts from external forces. Improper connections or fixing could cause heat generation, fire, etc.</td>
</tr>
<tr>
<td>⚥ Seal the inlet hole for remote control cable with putty. If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down. If dew or water enters the unit, it may cause screen display anomalies.</td>
</tr>
</tbody>
</table>
**WARNING**

- When installing the unit at a hospital, telecommunication facility, etc., take measures to suppress electric noises.
  It could cause malfunction or break-down due to hazardous effects on the inverter, private power generator, high frequency medical equipment, radio communication equipment, etc.
  The influences transmitted from the remote control to medical or communication equipment could disrupt medical activities, video broadcasting or cause noise interference.

- Do not leave the remote control with its upper case removed.
  If dew, water, insect, etc. enters through the hole, it could cause electric shocks, fire or break-down.

**CAUTION**

- Do not install the remote control at following places.
  (1) It could cause break-down or deformation of remote control.
     - Where it is exposed to direct sunlight
     - Where the ambient temperature becomes 0 °C or below, or 40 °C or above
     - Where the surface is not flat
     - Where the strength of installation area is insufficient
  (2) Moisture may be attached to internal parts of the remote controller, resulting in a display failure.
     - Place with high humidity where condensation occurs on the remote controller
     - Where the remote controller gets wet
  (3) Accurate room temperature may not be detected using the temperature sensor of the remote controller.
     - Where the average room temperature cannot be detected
     - Place near the equipment to generate heat
     - Place affected by outside air in opening/closing the door
     - Place exposed to direct sunlight or wind from air conditioner
     - Where the difference between wall and room temperature is large

- To connect to a personal computer via USB, use the dedicated software.
  Do not connect other USB devices and the remote controller at the same time.
  It could cause malfunction or break-down of the remote controller/personal computer.

---

2 . Accessories & Prepare on site

Following parts are provided.

<table>
<thead>
<tr>
<th>Accessories</th>
<th>R/C main unit, wood screw (ø3.5 x 16) 2 pcs, Quick reference</th>
</tr>
</thead>
</table>

Following parts are arranged at site. Prepare them according to the respective installation procedures.

<table>
<thead>
<tr>
<th>Item name</th>
<th>Q'ty</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switch box</td>
<td>1</td>
<td>These are not required when installing directly on a wall.</td>
</tr>
<tr>
<td>For 1 piece or 2 pieces (JIS C8340 or equivalent)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thin wall steel pipe for electric appliance directly on a wall. (JIS C8305 or equivalent)</td>
<td>As required</td>
<td></td>
</tr>
<tr>
<td>Lock nut, bushing (JIS C8330 or equivalent)</td>
<td>As required</td>
<td></td>
</tr>
<tr>
<td>Lacing (JIS C8425 or equivalent)</td>
<td>As required</td>
<td>Necessary to run R/C cable on the wall.</td>
</tr>
<tr>
<td>Putty</td>
<td>Suitably</td>
<td>For sealing gaps</td>
</tr>
<tr>
<td>Molly anchor</td>
<td>As required</td>
<td></td>
</tr>
<tr>
<td>R/C cable (0.3 mm² x 2 pcs)</td>
<td>As required</td>
<td>See right table when longer than 100 m</td>
</tr>
</tbody>
</table>

When the cable length is longer than 100 m, the max size for wires used in the R/C case is 0.5 mm². Connect them to wires of larger size near the outside of R/C. When wires are connected, take measures to prevent water, etc. from entering inside.

<table>
<thead>
<tr>
<th>Length</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 200 m</td>
<td>0.5 mm² x 2-core</td>
</tr>
<tr>
<td>&lt; 300m</td>
<td>0.75 mm² x 2-core</td>
</tr>
<tr>
<td>&lt; 400m</td>
<td>1.25 mm² x 2-core</td>
</tr>
<tr>
<td>&lt; 600m</td>
<td>2.0 mm² x 2-core</td>
</tr>
</tbody>
</table>
3. Installation place

Secure the installation space shown in the figure.
For the installation method, "embedding wiring" or "exposing wiring" can be selected.
For the wiring direction, "Backward", "Upper center" or "Upper left" can be selected.
Determine the installation place in consideration of the installation method and wiring direction.

4. Installation procedure

Perform installation and wiring work for the remote controller according to the following procedure.
Dimensions (Viewed from front)

To remove the upper case from the bottom cases of R/C
- Insert the tip of flat head screwdriver or the like in the recess at the lower part of R/C and twist it lightly to remove. It is recommended that the tip of the screwdriver be wrapped with tape to avoid damaging the case.
- Take care to protect the removed upper case from moisture or dust.

**In case of embedding wiring**
(When the wiring is retrieved “Backward”)
1. Embed the switch box and the R/C wires beforehand.
2. Seal the inlet hole for the R/C wiring with putty.
② When wires are passed through the bottom case, fix the bottom case at 2 places on the switch box.

Switch box for 1 pcs
Switch box for 2 pcs

③ Connect wires from X and Y terminals of R/C to X and Y terminals of indoor unit. R/C wires (X, Y) have no polarity. Fix wires such that the wires will run around the terminal screws on the top case of R/C.

④ Install the upper case with care not to pinch wires of R/C.

Cautions for wire connection
Use wires of no larger than 0.5 mm² for wiring running through the remote control case. Take care not to pinch the sheath.
Tighten by hand (0.7 N-m or less) the wire connection.
If the wire is connected using an electric driver, it may cause failure or deformation.

In case of exposing wiring
(When the wiring is taken out from the “upper center” or “upper left” of R/C)

① Cut out the thin wall sections on the cases for the size of wire.

When taking the wiring out from the upper center, open a hole before separating the upper and bottom cases. This will reduce risk of damaging the PCB and facilitate subsequent work.
When taking the wiring out from the upper left, take care not to damage the PCB and not to leave any chips of cut thin wall inside.

② Fix the bottom R/C case on a flat surface with two wood screws.

③ In case of the upper center, pass the wiring behind the bottom case. (Hatched section)

④ Connect wires from X and Y terminals of R/C to X and Y terminals of indoor unit. R/C wires (X, Y) have no polarity. Fix wires such that the wires will run around the terminal screws on the top case of R/C.

⑤ Install the top case with care not to pinch wires of R/C.

⑥ Seal the area cut in ① with putty.
5. Main/Sub setting when more than one remote controls are used

Up to two units of R/C can be used at the maximum for 1 indoor unit or 1 group.
One is main R/C and the other is sub R/C.
Operating range is different depending on the main or sub R/C.

Set the “Main” and “Sub” as described at Section 8.

---

Advice: Connection to personal computer

It can be set from a personal computer via the USB port (mini-B).
Connect after removing the cover for USB port of upper case.
Replace the cover after use.
Special software is necessary for the connection.
For details, view the web site or refer to the engineering data.

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Advice: Initializing of password

Administrator password (for daily setting items) and service password (for installation, test run and maintenance) are used.

- The administrator password at factory default is “0000”. This setting can be changed (Refer to User's Manual).

If the administrator password is forgotten, it can be initialized by holding down the [F1] and [F2] switches together for five seconds on the administrator password input screen.

- Service password is “9999”, which cannot be changed.

When the administrator password is input, the service password is also accepted.
6. Functions and menu items of the remote control

Names and functions of sections on the R/C (Operating section)

Touch panel system, which is operated by tapping the LCD screen with a finger, is employed for any operations other than the Run/Stop, F1 and F2 switches.

1. Run/Stop switch
   One push on the button starts operation and another push stops operation.

2. F1 switch
   This switch starts operation that is set in F1/F2 function setting.

3. F2 switch

4. Operation lamp
   This lamp lights in green (yellow-green) during operation. It changes to red (orange) if any error occurs. Operation lamp luminance can be changed.

5. LCD (With backlight)
   A tap on the LCD lights the backlight. The backlight turns off automatically if there is no operation for certain period of time. Lighting period of the backlight lighting can be changed. If the backlight is ON setting, when the screen is tapped while the backlight is turned off, the backlight only is turned on. (Operations with switches 1, 2 and 3 are excluded.)

6. USB port
   USB connector (mini-B) allows connecting to a personal computer. For operating methods, refer to the instruction manual attached to the software for personal computer (eco-touch remote control utility software).

Note

When connecting to a personal computer, do not connect simultaneously with other USB devices. Please be sure to connect to the computer directly, without going through a hub, etc.
Names and functions of sections on the R/C (Display)

*All icons are shown for the sake of explanation.

1. **Clock, Room name display**
   Displays the current time and the room name.

2. **Icon display**
   Each icon is displayed when one of following settings is going on.
   - When the demand control is effective.
   - When setting is made from the sub R/C.
   - When the central control (Optional) is running.
   - When the periodical inspection is necessary.
   - During the ventilation operation.
   - When “filter sign” is up.
   - When the Permission/Prohibition setting is made.
   - When the weekly timer is set.

3. **Menu button**
   When setting or changing other than the following 4-8, tap the menu button. Then menu items are displayed, select one and set.

4. **Change operation mode button**
   Displays the operation mode which is selected currently. Tap this button to change the operation mode.

5. **Change set temp button**
   Displays the temperature which is set currently. Tap this button to change the set temperature.

6. **Change flap direction button**
   Displays the flap direction which is selected currently. When the 3D auto flow operation is enabled, 3D auto display will appear. Tap this button to change the flap direction.

7. **Change the fan speed button**
   Displays the fan speed which is selected currently. Tap this button to change the fan speed.

8. **Timer button**
   Displays simplified contents of the timer which is set currently. (When two or more timers are set, contents of the timer which will be operated immediately after is displayed.) Tap this button to set the timer.

9. **Message display**
   Status of air conditioner operation and messages of the R/C operations etc. are displayed.

10. **F1, F2 switch function display**
    Displays the function that is set for each switch. The function for these switches can be changed in F1/F2 function setting.
7. Main item

Main menu

Basic operation
- Run
- Stop
- Change operation mode
- Change set temp
- Change flap direction
- Change the fan speed
- F1, F2 switch operation
- High power operation
- Energy-saving operation
- Silent mode control

Useful functions
- Individual flap control
- Anti draft setting
- Timer
  - Set ON timer by hour
  - Set OFF timer by hour
  - Set ON timer by clock
  - Set OFF timer by clock
  - Confirm
- Favorite setting
- Weekly timer
- Home leave mode
- External ventilation
- Select the language

Energy-saving setting
- Sleep timer
- Peak-cut timer
- Automatic temp set back
- Infrared sensor (motion sensor) control

Filter
- Filter sign reset

User setting
- Initial settings
  - Clock setting
  - Date & time display
  - Summer time
  - Contrast
  - Backlight
  - Controller sound
  - Operation lamp luminance
- Administrator settings
  - Permission/Prohibition setting
  - Outdoor unit silent mode timer
  - Setting temp range
  - Temp increment setting
  - Set temp display
  - R/C display setting
  - Change administrator password
  - F1/F2 function setting

Please refer to User's manual.
<table>
<thead>
<tr>
<th>Service setting</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation settings</td>
<td>Installation date</td>
</tr>
<tr>
<td></td>
<td>Company information</td>
</tr>
<tr>
<td></td>
<td>Test run</td>
</tr>
<tr>
<td></td>
<td>Static pressure adjustment</td>
</tr>
<tr>
<td></td>
<td>Change auto-address</td>
</tr>
<tr>
<td></td>
<td>Address setting of main IU</td>
</tr>
<tr>
<td></td>
<td>IU back-up function</td>
</tr>
<tr>
<td></td>
<td>Infrared sensor (motion sensor) setting</td>
</tr>
<tr>
<td>R/C function settings</td>
<td>Main/Sub of R/C</td>
</tr>
<tr>
<td></td>
<td>Return air temp</td>
</tr>
<tr>
<td></td>
<td>R/C sensor</td>
</tr>
<tr>
<td></td>
<td>R/C sensor adjustment</td>
</tr>
<tr>
<td></td>
<td>Operation mode</td>
</tr>
<tr>
<td></td>
<td>°C / °F</td>
</tr>
<tr>
<td></td>
<td>Fan speed</td>
</tr>
<tr>
<td></td>
<td>External input</td>
</tr>
<tr>
<td></td>
<td>Upper/lower flap control</td>
</tr>
<tr>
<td></td>
<td>Left/right flap control</td>
</tr>
<tr>
<td></td>
<td>Ventilation setting</td>
</tr>
<tr>
<td></td>
<td>Auto-restart</td>
</tr>
<tr>
<td></td>
<td>Auto temp setting</td>
</tr>
<tr>
<td></td>
<td>Auto fan speed</td>
</tr>
<tr>
<td>IU settings</td>
<td>Fan speed setting</td>
</tr>
<tr>
<td></td>
<td>Filter sign</td>
</tr>
<tr>
<td></td>
<td>External input 1</td>
</tr>
<tr>
<td></td>
<td>External input 1 signal</td>
</tr>
<tr>
<td></td>
<td>External input 2</td>
</tr>
<tr>
<td></td>
<td>External input 2 signal</td>
</tr>
<tr>
<td></td>
<td>Heating thermo-OFF temp adjustment</td>
</tr>
<tr>
<td></td>
<td>Return temperature adjustment</td>
</tr>
<tr>
<td></td>
<td>Fan control in cooling thermo-OFF</td>
</tr>
<tr>
<td></td>
<td>Fan control in heating thermo-OFF</td>
</tr>
<tr>
<td></td>
<td>Anti-frost temp</td>
</tr>
<tr>
<td></td>
<td>Anti-frost control</td>
</tr>
<tr>
<td></td>
<td>Drain pump operation</td>
</tr>
<tr>
<td></td>
<td>Keep fan operating after cooling is stopped</td>
</tr>
<tr>
<td></td>
<td>Keep fan operating after heating is stopped</td>
</tr>
<tr>
<td></td>
<td>Intermittent fan operation in heating</td>
</tr>
<tr>
<td></td>
<td>Fan circulator operation</td>
</tr>
<tr>
<td></td>
<td>Control pressure adjust</td>
</tr>
<tr>
<td></td>
<td>Auto operation mode</td>
</tr>
<tr>
<td></td>
<td>Thermo. rule setting</td>
</tr>
<tr>
<td></td>
<td>Auto fan speed control</td>
</tr>
<tr>
<td></td>
<td>IU overload alarm</td>
</tr>
<tr>
<td></td>
<td>External output setting</td>
</tr>
<tr>
<td>Service &amp; Maintenance</td>
<td>IU address</td>
</tr>
<tr>
<td></td>
<td>Next service date</td>
</tr>
<tr>
<td></td>
<td>Operation data</td>
</tr>
<tr>
<td></td>
<td>Error display</td>
</tr>
<tr>
<td></td>
<td>Saving IU settings</td>
</tr>
<tr>
<td></td>
<td>Special settings</td>
</tr>
<tr>
<td></td>
<td>Indoor unit capacity display</td>
</tr>
</tbody>
</table>

Contact company

Please refer to User's manual.
8. Power on and initial setting

Set the main and sub R/C units according to the display at the power on.
- Main/Sub setting not performed => (1)
- Main/Sub setting performed => (2)

(1) When the main and sub are not yet set,

①⇒② Main/sub input screen is displayed.
When tapping the [Main] or [Sub] button, initial setting starts.
If any wrong button has been tapped by mistake, the setting can be changed after the end of the initializing operation. (10. R/C function setting④)
When using two eco touch remote controllers for one IU or one group, if the first one is set for the [Main], the second is set for the [Sub] automatically.

<table>
<thead>
<tr>
<th>① Start screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version : 0000</td>
</tr>
<tr>
<td>Program ID : 00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>② Main/sub set input</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select main or sub remote control.</td>
</tr>
<tr>
<td>Main</td>
</tr>
</tbody>
</table>

The screen changes to ③⇒④⇒⑤.

<table>
<thead>
<tr>
<th>③ IU search on</th>
</tr>
</thead>
<tbody>
<tr>
<td>Searching IU</td>
</tr>
<tr>
<td>50%</td>
</tr>
</tbody>
</table>

The red LED will blink if communication is not established in ten minutes.

<table>
<thead>
<tr>
<th>④ IU info acquisition on</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loading IU settings.</td>
</tr>
<tr>
<td>Will finish 1230 seconds later.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>⑤ TOP screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>16:14 (Mon)</td>
</tr>
<tr>
<td>23.0°C</td>
</tr>
<tr>
<td>F1: High power</td>
</tr>
</tbody>
</table>

Caution

When only one unit of R/C is used, tap the [Main] button. In the state of initial setting, if either one of buttons ([Main]/[Sub]) is not tapped, it keeps the screen unchanged.
(2) When the main and sub are set

**⑥ Set continue acknowledge**

Do you want to save up the previous settings of R/C before power ON?

- **Yes**
- **No**

**⑦ Initialize acknowledge**

Do you want to restore default R/C setting?

- **Yes**
- **No**

**⑧ Initialize set on**

R/C is initializing.

- **Yes**
- **No**

The screen changes to **⑥⇒⑤**.

The screen changes to **⑦**.

If the screen is not tapped for more than 15 seconds, the **Yes** (Continue) is selected and the display changes to the screen of **⑤**.

Yes The screen changes to **①⇒②**.

No The screen changes to **⑥**.

After the initializing, it returns to the default state.
9. Installation settings and test run

<table>
<thead>
<tr>
<th>TOP screen</th>
<th>Menu ➔ Service setting ➔ Installation settings ➔ Service password</th>
</tr>
</thead>
</table>

1. **Installation settings menu #1**

   - Installation date
   - Company information
   - Test run
   - Static pressure adjustment
   - Change auto-address

   Select the item.  

   The selected screen is displayed.

2. **Installation settings menu #2**

   - Address setting of main IU
   - IU back-up function
   - Infrared sensor setting

   Select the item.  

   The selected screen is displayed.

3. **Installation date**

   - Set the date.

   Select the date with ▲▼ buttons, and tap the Set button.

4. **Company information**

   - Company
   - Phone No.

   Select the item.

   Enter the company information.

5. **Enter the Company**

   - Company
   - Alphabet
   - Écriture

   Enter the company name using up to 26 one-byte characters and then tap the Set button. You can enter alphanumeric, Japanese Kana, Kanji, Cyrillic, or Chinese characters.

6. **Enter the Phone No.**

   - Phone No.

   Enter the phone number of the company using up to 13 characters and then tap the Set button.

7. **Test run**

   - Cooling test run
   - Drain pump test run
   - Compressor Hz fixed operation

   Select the item.

   The selected screen is displayed.

8. **Cooling test run**

   - Start

   When tapping [Start], test run starts for 30 min. at 5°C in cooling. Finish-condition of test run is follows. Passage of 30 min. /Stop the IU /Change “Set temp”, “Operation mode” on the TOP screen.

   This can be operated while cooling is stopped. When the room temperature is too low to start the cooling test run, it operates for 30 minutes by decreasing the set temperature to 5°C.

9. **Drain pump test run**

   - Run
   - Stop

   Drain pump can be operated independently.
In case of Multi series (KX) models, the IU addresses registered with the auto-address setting method can be changed with this function.

This function changes the OU address for each IU. Select an IU and,

I When an indoor unit is selected and the Change button is tapped, the display changes to the Change auto-address screen.

II Tap the Set button to return to the screen and display the new address.

III Tap the Finish button to register the new address.

In case of Multi Series (KX) models, it is possible to let indoor units (Sub IUs) follow the operation mode (Heating, cooling) of the indoor unit (Main IU). Set the address of the Main IU to the Sub IUs. The Sub IUs to which the Main IU address is set follow the Main IU settings.

In case of 2 sets of indoor units (2 groups) connected to one R/C, it is available to perform back-up operation with them.

1. IU rotation: Operate 2 sets of indoor units alternately at every set time of operation interval.

2. IU capacity back-up: When the temp difference between the set temp and the actual room temp is higher than the set temp diff., 2 sets of indoor units operate.

3. IU fault back-up: If one of the IU has a fault and stops, the other one starts operation.

Select Enable/Disable (tapping Disable changes to Enable) and tap the Enter button to confirm the settings.
For customers who adapt a motion sensor, please proceed the setting shown on the left and enable the indoor unit to be used to detect the activity amounts of persons.

When the infrared (motion) sensor is disabled, activity amounts of persons will not be detected and thus the infrared sensor control (power saving and auto-off) will not be performed.

The infrared (motion) sensor cannot be enabled for the indoor unit older than FDT-VG or FDT-KXZE1.

When the infrared (motion) sensor setting is tapped, “Invalid request.” will be displayed.

In IU rotation function, the timer to changeover the operation of 2 indoor units is set. The timer can be set within the range of 10 to 990 hours in increments of ten hours.

After the time is changed, tap Set for temporary setting.

After temporary setting, return to the IU Back-up function screen and tap Enter.

The difference between the setting temperature for a change between one unit and two units for capacity back-up and room temperature is set. The temperature can be set within the range of 2 to 5 °C in increments of 1 °C.

After the temperature is changed, tap Set for temporary setting.

After temporary setting, return to the IU Back-up function screen and tap Enter.

1. The back-up control is unavailable when the operation mode is "Auto". When the back-up control is set for the air conditioner that specifies "Auto" for the operation mode, the operation mode changes to "Cooling" automatically.
2. When the rotation control is set, the fault back-up control will be enabled automatically. In this case, the fault back-up control cannot be disabled alone. When the rotation operation is disabled, the fault back-up control will also be disabled.
3. When the capacity back-up control is set, the fault back-up control will be enabled automatically. In this case, the fault back-up control cannot be disabled alone. When the capacity back-up control is disabled, the fault back-up control will also be disabled.
4. It is also possible to enable the fault back-up control alone.
5. The home leave mode, warming up and external input cannot be set together with the back-up control.
6. While the rotation or fault back-up control is set, either of the two target indoor units (two groups) will operate. Both units will not operate at the same time.
7. An indoor unit having younger address will start the operation first in each control.

Select Enable/Disable for the infrared sensor of the indoor unit connected to the R/C.

- For customers who adapt a motion sensor, please proceed the setting shown on the left and enable the indoor unit to be used to detect the activity amounts of persons.
- The infrared (motion) sensor cannot be enabled for the indoor unit older than FDT-VG or FDT-KXZE1.
- When the infrared (motion) sensor setting is tapped, "Invalid request." will be displayed.
10. R/C function settings

Advice: It is valid when unit stops.

TOP screen ⇒ Service setting ⇒ R/C function settings ⇒ Service password

The selected screen is displayed.

④ Main/Sub of R/C

Use this when changing the Main/Sub setting of R/C.

⑤ Return air temp

Thermo. rule is applied based on the temperature detected with the return air temp sensor of IU.
When plural indoor units are connected to one R/C, the return air temp applied to the thermo. rule can be selected.
1. [Individual]: Thermo. rule is applied based on the return air temp of each IU. When plural units are connected to one R/C, it is based on the return air temp of the main unit.
2. [Master IU]: Thermo. rule is applied based on the return air temp of IU having the youngest address out of IUs connected.
   If there are several sets of plural units each of which is connected to one R/C, it is based on the IU having the youngest address out of the main units of each plural units.
3. [Averaged temp]: Thermo. rule is applied based on the average of return air temperatures of IUs connected.

You can change IU main unit return air temperature sensor to the R/C side.
- [Disable]: The Indoor temp display changes to the temperature measured by the sensor at the main unit. ⇒ 7
- [Enable]: The Indoor temp display changes to the temperature measured by the R/C side sensor. ⇒ 8
- [Enable(Heating only)]: The Indoor temp display changes to the temperature measured by the R/C side sensor during heating only.
- [Enable(Cooling only)]: The Indoor temp display changes to the temperature measured by the R/C side sensor during cooling only.
When the R/C sensor is disabled, the TOP screen displays "Room ◦ °C".

When the R/C sensor is enabled, the TOP screen displays "Room (R/C) ◦ °C".

You can adjust the R/C sensor detection temperature.

- Adjustment in cooling ➞ ⑩
- Adjustment in heating ➞ ⑪

The R/C sensor detection temperature during cooling operation can be corrected. Set the value within the range of -3 to +3.

The R/C sensor detection temperature during heating operation can be corrected. Set the value within the range of -3 to +3.

You can adjust the R/C sensor detection temperature.

- Adjustment in cooling ➞ ⑩
- Adjustment in heating ➞ ⑪

The R/C sensor detection temperature during cooling operation can be corrected. Set the value within the range of -3 to +3.

Fan speed can be changed to the selected one. It may not be available to select some of fan speeds depending on indoor unit models.

Set the range to apply the external input received through CNT of either one IU to plural indoor units connected in one system.

- Individual This is applied only to the IU receiving CNT input.
- All units This is applied to all indoor units connected.
### 16 Upper/lower flap control

<table>
<thead>
<tr>
<th>Stop at fixed position</th>
<th>The upper/lower flap can be set to stop at one of four positions.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop at any position</td>
<td>The flap can be set to stop at any position immediately after operating the R/C switch.</td>
</tr>
</tbody>
</table>

### 17 Left/right flap control

<table>
<thead>
<tr>
<th>Fixed position stop</th>
<th>The left/right flap can be set to stop in eight different patterns.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop at any position</td>
<td>The flap can be set to stop at any position immediately after operating the R/C switch.</td>
</tr>
</tbody>
</table>

### 18 Ventilation setting

<table>
<thead>
<tr>
<th>Set this when a ventilation device is connected.</th>
<th>Disable</th>
<th>Interlocking</th>
<th>Independent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interlocking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If the unit stops during operation,

- **Enable** It returns to the state before the power failure as soon as the power supply is restored (After the end of the primary control at the power on).
- **Disable** It stops after the restoration of power supply.

### 19 Auto-restart

<table>
<thead>
<tr>
<th>Auto-restart</th>
<th>Enable</th>
<th>Disable</th>
</tr>
</thead>
</table>

### 20 Auto temp setting

<table>
<thead>
<tr>
<th>Auto temp setting</th>
<th>Enable</th>
<th>Disable</th>
</tr>
</thead>
</table>

### 21 Auto fan speed

<table>
<thead>
<tr>
<th>Auto fan speed</th>
<th>Enable</th>
<th>Disable</th>
</tr>
</thead>
</table>
11. IU settings

Advice: It is valid when unit stops.

TOP screen ➔ Menu ➔ Service setting ➔ IU settings ➔ Service password

① IU select #1

IU select

000 001 002 003
004 005 006 007

All units

Select an IU address.

② IU select #2

IU select

008 009 010 011
012 013 014 015

All units

Select an IU address.

③ Loading

The display changes to ④ after receiving data from the IU.

When plural indoor units are connected, they are displayed on the screen.

000 to 015 Individual settings are performed for indoor units.

All units The same setting applies to all units.

④ IU setting menu #1

IU settings

Fan speed setting
Filter sign
External input 1
External input 1 signal
External input 2

Select the item.

The selected screen is displayed.

⑤ IU setting menu #2

IU settings

External input 2 signal
Heating thermo-OFF temp adjustment
Return temperature adjustment
Fan control in cooling thermo-OFF
Fan control in heating thermo-OFF

Select the item.

⑥ IU setting menu #3

IU settings

Anti-frost temp
Anti-frost control
Drain pump operation
Keep fan operating after cooling is stopped
Keep fan operating after heating is stopped

Select the item.

⑦ IU setting menu #4

IU settings

Intermittent fan operation in heating
Fan circulator operation
Control pressure adjust
Auto operation mode
Thermo. rule setting

Select the item.

⑧ IU setting menu #5

IU settings

Auto fan speed control
IU overload alarm
External output setting

Select the item.

⑨ Fan speed setting

Fan speed setting

Set the fan speed tap for the IU. Refer to the engineering data for details.
Set the time to display the filter sign.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>180Hr</td>
</tr>
<tr>
<td>2</td>
<td>600Hr</td>
</tr>
<tr>
<td>3</td>
<td>1,000Hr</td>
</tr>
<tr>
<td>4</td>
<td>1,000Hr Operation stop</td>
</tr>
</tbody>
</table>

Set the control at the time when the signal is input to the external input 1 (CNT) of IU. Refer to the engineering data for details.

Set the signal type to input to the external input 1 (CNT) of IU. Refer to the engineering data for details.

This is operable when the IU equipped with the external input 2 is connected. Refer to the engineering data for details.
Adjust the temperature for judging to make thermostat ON or OFF during heating operation. Adjustable range is 0°C / +1°C / +2°C / +3°C.

Set the fan speed at the heating thermo-OFF. 
- **Low**: The fan runs at the low speed.
- **Set fan speed**: The fan runs at the same speed as that during the thermo-ON operation.
- **Intermittent**: Cycles of Lo fan operation for 2 minutes and stop for 5 minutes are repeated.
- **Stop**: The fan is stopped.

Adjust the main return air temperature sensor detection temperature. Adjustable range is -2°C / -1.5°C / -1°C / 0°C / +1°C / +1.5°C / +2°C.

Set the fan speed at the cooling thermo-OFF.
- **Low**: The fan runs at the low speed.
- **Set fan speed**: The fan runs at the same speed as that during the thermo-ON operation.
- **Intermittent**: Cycles of Lo fan operation for 2 minutes and stop for 5 minutes are repeated.
- **Stop**: The fan is stopped.

Select the anti-frost control temperature.
- **Temp Low**: The fan speed increases during the anti-frost control.
- **Temp High**: The fan speed does not change during the anti-frost control.

Set the fan control during the anti-frost control.
- **Enable**: The fan speed increases during the anti-frost control.
- **Disable**: The fan speed does not change during the anti-frost control.
Select the residual fan operation time period after stopping and the thermo-OFF in cooling mode.

- **No setting**: Residual fan operation not performed.
- **Setting 1**: 0.5 hours
- **Setting 2**: 2 hours
- **Setting 3**: 6 hours

*Residual time may vary.

Select the residual fan operation time period after stopping and the thermo-OFF in heating mode.

- **No setting**: Residual fan operation not performed.
- **Setting 1**: 0.5 hours
- **Setting 2**: 2 hours
- **Setting 3**: 6 hours

Set this when operating the fan as a circulator.

- **Disable**: During the fan operation, the fan runs continuously.
- **Enable**: During the fan operation, the fan runs and stops based on the difference between temperatures detected with the R/C sensor and the return air sensor.

Set the control pressure when connecting the outdoor air conditioning unit to the Multi (KX) System.

- **Standard** Normal
- **Type1** When all operating IUs are in this mode, the control pressure value is changed.
The method of switching between cooling and heating in the auto operation mode can be selected from three options.

Set the condition for each method.

**Auto 1 details**

Set the temperatures switching to cooling and heating. Switching temperatures can be set within the range of 1°C to 4°C.

**Auto 2 details**

Set the temperatures switching to cooling and heating and the outdoor temp settings to limit in cooling and heating.

**Auto 3 details**

Set the temperature difference between the set temp and the actual room temp switch cooling and heating.

**Auto 2**

The temp difference between the set temp and the actual room temp switch cooling and heating.

**Auto 3**

The actual room temp and outdoor temp switch cooling and heating.

- [Set temp - Temp switching to cooling] < [Indoor return air temp] ⇒ Operation mode: Cooling
- [Set temp + Temp switching to heating] > [Indoor return air temp] ⇒ Operation mode: Heating

◆ The temp switching to cooling/heating is 4°C, the outdoor temp setting to limit in cooling is 19°C, and the outdoor temp setting to limit in heating is 18°C.
Set the outdoor temp settings to limit in cooling and heating and the indoor temp settings to limit in cooling and heating.

"[Indoor temp, cooling] < [Indoor return air temp] and [Outdoor temp, cooling] < [Outdoor air temp]"
⇒ Operation mode: Cooling

"[Indoor temp, heating] > [Indoor return air temp] and [Outdoor temp, heating] > [Outdoor air temp]"
⇒ Operation mode: Heating

Set the temperature switching to cooling with Auto 1 and Auto 2.
The temperature can be set within the range of 1 to 4 °C.

Set the temperature switching to heating with Auto 1 and Auto 2.
The temperature can be set within the range of 1 to 4 °C.

Set the outdoor temperature for cooling with Auto 2 and Auto 3.
The temperature can be set within the range of 10 to 22 °C.

Set the indoor temperature for cooling with Auto 3.
Indoor temp, cooling: Can be set within the range of 18°C to 30°C.

Set the indoor temperature for heating with Auto 3.
The temperature can be set within the range of 10 to 30 °C.
Auto fan speed control

Set the switching range of the fan tap at the auto fan speed setting.

**Auto 1**
The fan tap is changed in the range of High ⇒ Medium ⇒ Low.

**Auto 2**
The fan tap is changed in the range of Powerful high ⇒ High ⇒ Medium ⇒ Low.

Cooling offset

Heating offset

Thermo. rule setting

Set the room temperature control, thermostat ON/OFF switching method and condition.

- **Standard**
The thermostat judges based on the indoor temperature and set temperature.
- **Outdoor temp basis**
The thermostat judges based on the outdoor temperature and the cooling and heating offset values.

The room temperature setting will be disabled.

The thermostat judges based on the outdoor temperature and the cooling and heating offset values.

(a) Cooling offset: The thermostat judges based on [Outdoor temp - Cooling offset value] during cooling.

- The thermostat trips ON when [Indoor temp] > [Outdoor temp - Cooling offset value].
- This value can be set in the range of 0°C to 10°C.

(b) Heating offset: The thermostat judges based on [Outdoor temp + Heating offset value] during heating.

- The thermostat trips ON when [Indoor temp] < [Outdoor temp + Heating offset value].
- This value can be set in the range of 0°C to 5°C.
When the room temperature differs to some extent from the setting temperature at 30 minutes after the start of operation, the overload alarm signal is transmitted from the external output (CNT-5).

Select the output destination to change and then select the function to be allocated to the selected output. The following shows output connectors and defaults.

- **External output 1** CNT-2 Operation output
- **External output 2** CNT-3 Heating output
- **External output 3** CNT-4 Compressor ON output
- **External output 4** CNT-5 Inspection (Error) output

Refer to the engineering data for details.
12. Service & Maintenance

When 8 or more units are connected, further data are displayed on the next page. When the Check button is tapped after selecting an IU address, the fan of the selected IU can be operated. ⇒④

Run Tap this button to start the fan operation.
Stop Tap this button to stop the fan operation.

After reading the indoor unit data, the operation data at the time of reading are displayed. Tapping the Update button to update the data. To automatically update data and display, up to six items can be selected. Tapping the Display button after selecting six items changes the display to ⑭.
Operation data #4

- IU 000
- OU heat exch. Temp 2
- Comp bottom temp
- Discharge pipe temp

Select 6 items for display & tap [Display].

Operation data #5

- IU 000
- OU heat exch. Temp 2
- Compressor Hz
- High pressure
- Low pressure

Select 6 items for display & tap [Display].

Operation data #6

- IU 000
- OU heat exch. Temp 2
- Comp bottom temp
- Discharge pipe temp

Select 6 items for display & tap [Display].

Operation data #7

- IU 000
- OU EEV 1 opening
- OU EEV 2 opening

Select 6 items for display & tap [Display].

Individual display

- IU heat exch. temp 1
- IU heat exch. Temp 2

Select the item.

Error display

- Error History
- Display anomaly data
- Erase anomaly data
- Reset periodical check

Select the item.

Error history (Sample)

- IU 000
- Error Code

Date and time when error occurred, IU address and Error Code are displayed. Tap the [Delete] button to delete the error history.

Display anomaly data #1

- IU 000
- Error Code
- OU

The operation data obtained just before the occurrence of an error are displayed.

Display anomaly data #2

- IU 000
- Error Code
- OU

- IU heat exch. temp 3
- IU fan speed
- Required Hz
- Answer Hz
- IU EEV opening
The operation data obtained just before the occurrence of an error are displayed.

The anomaly data is erased.

The time count is reset by resetting the periodical check.

If an IU to which the saved date is transferred is selected, the Transfer the saved data acknowledge screen is displayed. Tap [Yes] to transfer the data.
Use this when the display and the touch position are not matched.

Tap the center of [+].

Finish ⇒ Calibration is completed.

### Indoor unit capacity display

Capacities of IUs connected to the R/C are displayed.

When seven units or more are connected, tap the [Next] button to view all.

These items may not be displayed depending on the combination of IUs and OUs.
13. Select the language

The menu for select the language is displayed.
Select the language to be displayed on the R/C and tap the Set button.
You can select from the following languages:
English/German/French/Spanish/Italian/
Dutch/Turkish/Portugal/Russian/
Polish/Japanese/Chinese