Wireless Remote Controller

User Manual

Model: DRCZ
Important Notice

Johnson Controls, Inc. pursues a policy of continuing improvement in design and performance in its products. As such, Johnson Controls, Inc. reserves the right to make changes at any time without prior notice. Johnson Controls, Inc. cannot anticipate every possible circumstance that might involve a potential hazard.

This central controller is operated and serviced in the United States of America and comes with all required Safety, Danger, and Caution, and Warnings. No part of this manual may be reproduced in any way without the expressed written consent of Johnson Controls, Inc.

This manual provides common descriptions, basic and advanced information to operate this central controller. This manual should be considered as a permanent part of the air conditioning equipment and should remain with the air conditioning equipment. If you have questions, please contact your distributor or dealer.
DRCZ Wireless Remote Controller

Product Inspection upon Arrival

Upon receiving this product, inspect it for any damages incurred in transit. Claims for damage, either apparent or concealed, should be filed immediately with the shipping company. Check the model number, electrical characteristics (power supply, voltage, and frequency rating), and any accessories to determine if they agree with the purchase order.

The standard utilization for this unit is explained in these instructions. Use of this equipment for purposes other than what it designed for is not recommended.

Please contact your local agent or contractor as any issues involving installation, performance, or maintenance arise. Liability does not cover defects originating from unauthorized modifications performed by a customer without the written consent of Johnson Controls, Inc. Performing any mechanical alterations on this product without the consent of the manufacturer will render your warranty null and void.

For correct installation and operation, please read all instructions carefully and be aware of the following items:

- Install the DRCZ Remote Controller in dry areas with indirect sunlight.
- Avoid disassembling the DRCZ Remote Controller.
- Use dry hands to operate the DRCZ Remote Controller.
- Contact your distributor or dealer to install the DRCZ Remote Controller.
- The setting of Not Available does not affect the unit's operation.
DRCZ Wireless Remote Controller Z-Series

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1 SAFETY NOTICES

⚠️ OBSERVE NOTICES. Improper operation may cause damage to people or property.

⚠️ WARNING

Do not install this product in a corrosive, inflammable, or explosive environment, or a place with special requirements, such as a kitchen. Doing so will affect the normal operation or shorten the service life of the unit, or even create a fire hazard or serious injury. Please use a special air conditioner with anti-corrosive or anti-explosive function.

Exception Clauses

Manufacturer bears no responsibilities when personal injury or property loss is caused by the following reasons:

1. Damage to the product due to improper use or misuse of the product;

2. Altering, changing, maintaining, or using the product with other equipment without abiding by the instruction manual of manufacturer;

3. After verification, a product defect was directly caused by corrosive gas;

4. After verification, defects were the result of improper operation during transportation of product;

5. Operating, repairing, or maintaining the unit without abiding by the instruction manual or related regulations;

6. After verification, the problem or dispute was caused by the quality specification or performance of parts and components produced by other manufacturers;

7. The damage was caused by natural calamities, improper use of the environment, or a major force.
WARNING

Operation and Maintenance

• This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge, if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

• Children must not play with the appliance.

• Cleaning and user maintenance must not be made by children without supervision.

• Do not connect air conditioner to multi-purpose socket. Otherwise, it may cause a fire hazard.

• Do disconnect power supply when cleaning the air conditioner. Otherwise, it may cause electric shock.

• If the supply cord is damaged, it must be replaced by the manufacturer, service agent, or similarly qualified persons in order to avoid a hazard.

• Do not wash the air conditioner with water to prevent electric shock.

• Do not spray water on indoor unit. It may cause electric shock or malfunction.

• After removing the filter, do not touch fins to avoid injury. Do not use fire or hair dryer to dry the filter to avoid deformation or fire hazard.

• Maintenance must be performed by qualified professionals. Otherwise, it may cause personal injury or damage.

• Do not repair air conditioner by yourself. It may cause electric shock or damage. Please contact your distributor when you need to repair the air conditioner.

• Do not extend fingers or objects into air inlet or air outlet. It may cause personal injury or damage.
• Do not block air outlet or air inlet. It may cause malfunction.

• Do not spill water on the remote controller, otherwise the remote controller may be broken.

• When below phenomenon occurs, please turn OFF the air conditioner and disconnect power immediately. Contact the distributor or qualified professionals for service.
  
  o Power cord is overheating or damaged.
  o There’s an abnormal sound during operation.
  o Circuit breaker trips off frequently.
  o Air conditioner gives off a burning smell.
  o Indoor unit is leaking.

• If the air conditioner operates under abnormal conditions, it may cause malfunction, electric shock, or fire hazard.

• When turning ON or turning OFF the unit by using the emergency operation switch, please press this switch with an insulating object other than metal.

• Do not step on the top panel of the outdoor unit, or put heavy objects on it. This may cause damage or personal injury.

**Attachment**

• Installation must be performed by qualified professionals. Otherwise, it may cause personal injury or damage.

• Must follow the electric safety regulations when installing the unit.

• According to the local safety regulations, use qualified power supply circuit and circuit break.

• Do install the circuit breaker. If not, it may cause malfunction. An all-pole disconnection switch having a contact separation of at least 3 mm in all poles should be connected in fixed wiring.

• Including a circuit breaker with suitable capacity. Please refer to the table below. Air switch must be included with a magnet buckle and heating buckle function to protect against a short circuit and overload.
DRCZ Wireless Remote Controller

- Air Conditioner must be properly grounded. Incorrect grounding may cause electric shock.

- Don't use unqualified power cord.

- Make sure the power supply matches the requirements of air conditioner. Unstable power supply or incorrect wiring could cause a malfunction. Please install proper power supply cables before using the air conditioner.

- Properly connect the live wire, neutral wire, and grounding wire of power socket.

- Be sure to cut off the power supply before proceeding with any work related to electricity and safety.

- Do not turn ON the power before finishing installation. If the supply cord is damaged, it must be replaced by the manufacturer, service agent, or similarly qualified persons in order to avoid a hazard.

- The temperature of refrigerant circuit will be high; please keep the interconnection cable away from the copper tubing.

- The appliance must be installed in accordance with national wiring regulations.

- Installation must be performed in accordance with the requirement of NEC and CEC by authorized personnel only.

- The yellow-green wire in air conditioner is grounding wire, which can't be used for other purposes.

- The grounding resistance must comply with local electric safety regulations.

- The appliance must be positioned so that the plug is accessible.

- All wires of indoor unit and outdoor unit must be connected by a professional.

- If the length of power connection wire is insufficient, please contact the supplier for a new one. Avoid extending the wire by yourself.

- For the air conditioner with a plug, make sure the plug is reachable after finishing installation.
• For the air conditioner without a plug, a circuit breaker must be installed in the line.

• If you need to relocate the air conditioner to another place, only a qualified person can perform the work. Otherwise, it may cause personal injury or damage.

• Select a location that is out of reach of children and far away from animals or plants. If it is unavoidable, please add a fence for safety purposes.

• The indoor unit is installed close to the wall. Instructions for installation and use of this product are provided by the manufacturer.

⚠️ FCC WARNING

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

⚠️ FCC STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTICE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be
determined by turning the equipment OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the distributor or an experienced radio/TV technician for help.

**IC STATEMENT**

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

This equipment complies with FCC’s and IC’s RF radiation exposure limits set forth for an uncontrolled environment. The antenna(s) used for this transmitter must be installed and operated to provide a separation distance of at least 20 cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter. Installers must ensure that 20 cm of separation distance is maintained between the device (excluding its handset) and users.

Cet appareil est conforme aux limites d’exposition au rayonnement RF stipulées par la FCC et l’IC pour une utilisation dans un environnement non contrôlé. Les antennes utilisées pour cet émetteur doivent être installées et doivent fonctionner à au moins 20 cm de distance des utilisateurs et ne doivent pas être placées près d’autres antennes ou émetteurs ou fonctionner avec ceux-ci. Les installateurs doivent s’assurer qu’une distance de 20 cm sépare l’appareil (à l’exception du combiné) des utilisateurs.
Working Temperature Range

<table>
<thead>
<tr>
<th></th>
<th>Indoor side DB/WB(°F/°C)</th>
<th>Outdoor side DB/WB(°F/°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum cooling</td>
<td>80(26.7)/67(19.4)</td>
<td>129(54)/75(24)</td>
</tr>
<tr>
<td>Maximum heating</td>
<td>-(80/-)/26.7</td>
<td>75(24)/65(18.3)</td>
</tr>
</tbody>
</table>

**NOTICE:**
The operating temperature range (outdoor temperature) for
- cooling-only unit is:
  0°F(-18°C) ~ 129°F(54°C)
- heat pump unit is:
  -22°F (-30°C) ~ 129°F(54°C)

Parts Name

**Indoor Unit**

- panel
- filter
- horizontal louver
- remote controller
- air inlet
- power wire
- air outlet
- display temp.
- power

**NOTICE:**
The product may be different from the above image.
Please refer to each individual model type.

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2 USER NOTICE

◆ All indoor units must be supplied with unified power.
◆ Cut off the power supply before touching the electric element.
◆ Use only the power cable specified in this manual.
◆ Never knock on, throw, or frequently detach the DRCZ Wireless Remote Controller.
◆ Never operate the DRCZ Wireless Remote Controller with wet hands.
◆ Never scratch the DRCZ Wireless Remote Controller screen with hard or sharp objects.
◆ Normal working conditions for DRCZ Wireless Remote Controller:
  • Temperature: -20~60℃;
  • Humidity: less than 85%
◆ Location: indoors (install this product in the electric control cabinet) an area that has indirect sunlight, and is not subject to rain, snow, dirt, etc.

3 FUNCTION AND CONTROL

3.1 Introduction to DRCZ Wireless Remote Controller

This model adopts radio frequency (RF) remote control. The remote controller must be matched with the air conditioner before operation; otherwise, the remote control will not operate the unit correctly. Before operation, please read the instructions carefully and then operate as outlined.

NOTICE:

- Please perform the following operation within 6 ft of the indoor unit. Matching should only need to be done once on initial startup.
- During matching, please keep the DRCZ Wireless Remote Controller and air conditioner on standby status.
- If the DRCZ Wireless Remote Controller should fail to link to the indoor unit, turn power OFF to the system and try again.
3.2 Matching of DRCZ Wireless Remote Controller

When the unit is under standby status, please get close to the air conditioner (within 6 ft). Then, press the ON/OFF button while pressing the Humidify/Health button for 3 seconds.

The DRCZ Wireless Remote Controller and air conditioner will match automatically. The indoor unit provides 3 beeps once pairing is complete. If matching has failed, please get closer to the unit and try matching again.

3.3 Connecting to the DRCZ Wireless Remote Controller

- After powering up the system, the indoor unit beeps, and the operation indicator (온) turns ON (red indicator). After that, you can operate the air conditioner by using the DRCZ Wireless Remote Controller.

- Under ON status, press the button on the DRCZ Wireless Remote Controller. The signal icon “onical icon on the display of DRCZ Wireless Remote Controller blinks once, and the air conditioner makes a beeping sound, indicating the signal was sent to the air conditioner.
3.4 Buttons on the DRCZ Wireless Remote Controller
3.5 Introduction to Icons on Display Screen

3.6 Introduction to Buttons on DRCZ Wireless Remote Controller

**NOTICE:**

- This is a general use remote controller, it could be used for air conditioners with multiple functions. For some functions that the model doesn't have, if you press the corresponding button on the remote controller, the unit will keep the original running status.
- After turning ON the system, the indoor unit beeps, and the operation indicator 🔄 turns ON (red indicator). Then, you can operate the air conditioner by using the DRCZ Wireless Remote Controller.
- In ON status, press the button on the DRCZ Wireless Remote Controller. The signal icon “瓒” on the display of DRCZ Wireless Remote Controller blinks once, and the air conditioner makes a beeping sound, indicating the signal was sent to the air conditioner.

1. **ON/OFF Button**

Pressing this button turns the air conditioner ON or OFF. After turning on the air conditioner, the operation indicator 🔄 on the indoor unit's display is ON (green indicator). The color is different for different models; refer to each model. Then, the indoor unit makes a sound.
2. +/- Button

Press “+” or “-” button once to increase or decrease set temperature 0.5 ℃. By holding down the “+” or “-” button, the set temperature on the DRCZ Wireless Remote Controller changes quickly. Upon releasing the button after the setting is finished, the temperature indicator on the indoor unit changes accordingly. (Temperature cannot be adjusted under AUTO mode.)

When setting the TIMER, press the “+” or “-” button to adjust the time.

3. COOL button

Press this button, and the unit operates in COOL mode.

4. HEAT button

Press this button, and the unit operates in HEAT mode.

5. FAN button

Pressing this button can set the fan speed circularly as: low ( ), low medium ( ), medium ( ), medium high ( ), high ( ), Super ( ), auto (AUTO), and quiet ( ).

NOTICE:

- Turbo function is not available under DRY and AUTO mode.
- Quiet fan speed is the default when the unit is in SLEEP mode.
- The unit operates at low speed under DRY and AUTO Dry mode. The speed cannot be adjusted.
- Under AUTO speed, the air conditioner selects the proper fan speed automatically according to ambient temperature.

6. I FEEL Button

Press this button to start I FEEL function and “.” is displayed on the DRCZ Wireless Remote Controller. After this function is set, the DRCZ Wireless Remote Controller sends the detected ambient temperature to the indoor unit. Then, the unit automatically adjusts the indoor temperature according to the detected temperature. Press this button again to close the I FEEL function, and “.” disappears.
NOTICE:

Please put the DRCZ Wireless Remote Controller near the user when setting this function. Do not place the DRCZ Wireless Remote Controller near an object of high temperature or low temperature in order to avoid detecting an inaccurate ambient temperature.

7. **Simple Swing Button**

Under the Simple Swing mode, press this button to turn ON (screen displays the “◉” icon) or turn OFF (screen does not display the “◉” icon) the left-and-right swing function.

Under OFF status, press the “+” button and “◉” button simultaneously to toggle between the Simple Swing mode and Fixed Swing mode. While switching back and forth, the “◉” icon on the DRCZ Wireless Remote Controller flashes twice.

In the Fixed-angle Swing mode, press this button, and the left-and-right swing status changes according to the following sequence.

![Diagram of swing modes]

8. **MODE Button**

Press this button to select your required operation mode.

![Diagram of operation modes]

**AUTO Mode**

When selecting AUTO mode, the air conditioner operates automatically according to ambient temperature. The set temperature cannot be adjusted or displayed. Press the “FAN” button to adjust the Fan speed. Press the “◉” or “◉” button to adjust the blowing angle of the fan.

**COOL Mode**

After you select COOL mode, the air conditioner operates under the COOL mode. Press the “+” or “-” button to adjust the set temperature. Press the “FAN” button to adjust the fan speed. Press the “◉” or “◉” button to adjust the blowing angle of the fan.
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DRY Mode
When you select DRY mode, the air conditioner operates at a low speed. Under dry mode, the fan speed can't be adjusted.
Press the “🌡” or “🌡” button to adjust the blowing angle of the fan.

FAN Mode
When you select FAN mode, the air conditioner just blows the fan.
Press the “FAN” button to adjust the Fan speed. Press “🌡” or “🌡” button to adjust the blowing angle of the fan.

HEAT Mode
When you select the HEAT mode, the air conditioner operates under that mode. Press the “+” or “-” button to adjust the setting temperature. Press the “FAN” button to adjust the Fan speed. Press the “🌡” or “🌡” button to adjust the blowing angle of the fan. (The cooling-only unit won't receive a HEAT mode signal).

NOTICE:
- To prevent cold air from being discharged from the unit in HEAT mode, the indoor unit delays 1-5 minutes before allowing the fan to run (actual delay time depends on indoor ambient temperature).
- The setting temperature range for heat mode is: 61°F-86°F (16°C-30°C).

9. Simple Swing Button
Under Simple Swing mode, press this button to turn ON (display the “🌡” icon) or turn OFF (not display the “🌡” icon) the up-and-down swing function. Under OFF status, press the “+” button and “🌡” button simultaneously to toggle between the Simple Swing mode and Fixed Swing mode. During the switching time, the Simple Swing icon "🌡" on the DRCZ Wireless Remote Controller flashes twice.

Under the Fixed Swing mode, press this button and the up-and-down swing status changes in the following sequence:

10. T-ON/T-OFF Button
T-ON Button
The Timer ON, "T-ON" button can set the timer ON. Press this button, and the icon “.checkSelfPermissionDisappears. The word "ON" blinks on the screen.
Press the "+" or "-" button to adjust the T-ON setting. After each press, the T-ON setting increases or decreases by 1 min. By holding down the "+" or "-" button for 2 seconds, the time changes quickly until it reaches the required time.

Press "T-ON" to confirm the set time, and "ON" stops blinking. The icon “ assistir display of the message “Cancel Timer ON.” Under the condition that T-ON is started up, press the "T-ON" button to cancel the message.

T-OFF Button
The timer ON, "T-OFF" button can set the timer OFF. After pressing this button, the icon “ assistir disappears, and the word “OFF” blinks on the DRCZ Wireless Remote Controller screen. Press the "+" or "-" button to adjust the T-OFF setting. After each press of the "+" or "-" button, the T-OFF setting increases or decreases by 1 min.

By holding down the "+" or "-" button for 2 seconds, the time changes quickly until it reaches your required time. Press the "T-OFF" button to confirm the set time, and the word "ON" or “OFF” stops blinking. The icon “ assistir display of the message “Cancel T-OFF.” Under the condition that T-OFF is started up, press "T-OFF" button to cancel the message.

NOTICE:
- The timer can be set with the unit ON or OFF.
- Before setting T-ON or T-OFF, please adjust the clock time.
- After starting up T-ON or T-OFF, set the fan speed. The air conditioner is turned ON or turned OFF according to the set time. The ON/OFF button has no effect on the setting. If you don’t need this function, please use the DCRZ Wireless Remote Controller to cancel it.

11. CLOCK Button
Press this button to set the clock time, and the clock icon “ assistir on the DRCZ Wireless Remote Controller blinks. Press “+” or “-” button within 5 seconds to set the clock time. Each press of “+” or “-” button, increases or decreases the clock time by 1 minute. Holding down the “+” or “-” button allows you to change the time faster. Release this button when you reach the required time. Press the "CLOCK" button to confirm the time, and the clock icon “ assistir on the DRCZ Wireless Remote Controller stops blinking.
DRCZ Wireless Remote Controller

**NOTICE:**

- Clock time is in 24-hour time.
- The interval between two operations can't exceed 5 seconds or the DRCZ Wireless Remote Controller will exit the setting status. Operation for TIMER ON and TIMER OFF is the same.

12. **Humidity / Health Button**
Press this button to select your required operation mode.

*NOTICE:* This function is not available on this model.

13. **X-FAN Button**
Press this button in COOL or DRY mode, and the icon “ yağış” is displayed. The indoor fan continues operation for 2 minutes in order to dry the indoor unit even though you have turned OFF the unit. The X-FAN is defaulted to OFF from the factory. X-FAN is not available in AUTO, FAN, or HEAT mode.
After a cooling operation, this function is used to dry the coil and help prevent condensate from remaining on the coil.
- Set the X-FAN function ON. After turning OFF the unit by pressing the ON/OFF button, the indoor fan continues to run for about 2 minutes at low speed. During this period, you can press the X-FAN button to stop the indoor fan immediately.
- Set X-FAN function OFF. After turning OFF the unit by pressing the ON/OFF button, all functions will be stopped.

14. **Air Button**
Press this button to select your required operation mode.

*NOTICE:* This function is not available on this model.

15. **LIGHT Button**
Press this button to turn off display light on indoor unit. Press this button again to turn ON the display light.

16. **SLEEP Button**
Press button to select Sleep 1, Sleep 2, Sleep 3, Sleep 4, or Cancel.
In Sleep 1 and Sleep 2, the air conditioner runs according to a group of preset temperature curves.

**Sleep 3 – Setting the sleep curve under the SLEEP mode setting**

(1) Under Sleep 3 mode, long press the “AIR” button, and the DRCZ Wireless Remote Controller enters the personalized sleep setting. The timer zone of the DRCZ Wireless Remote Controller displays “1 hr,” the temperature zone setting “88” displays the corresponding temperature of the prior set sleep curve, and then the setting blinks. (The first entry displays according to the initial curve setting value from the factory.)

(2) Press the “+” and “-” button to set the corresponding temperature. After setting, press the “AIR” button to confirm.

(3) Then, the timer time on the DRCZ Wireless Remote Controller increases automatically by 1 hr (that is, “2 hr” or “3 hr”… or “8 hr”). The temperature zone setting “88” displays the corresponding temperature of the last sleep curve that was set and then blinks.

(4) Repeat step (2) and step (3) until the 8-hour temperature setting is finished. Then, the sleep curve is set successfully. Next, the DRCZ Wireless Remote Controller resumes display of the original timer time, and the temperature zone resumes display of the original set temperature.

**Sleep 3 – Sleep curve inquiry under the DIY Sleep mode**

User can inquire about the set sleep curve according to the setting method of the sleep curve. Enter the setting of personalized sleep, but do not change the temperature. Press the “AIR” button to confirm setting.

**NOTICE:**

In the above setting or inquiry procedure, if no button is pressed within 10 seconds, the DRCZ Wireless Remote Controller exits from the sleep curve setting and resumes original display.

If the ON/OFF, MODE, TIMER, HUMIDIFY, SLEEP, COOLING, or HEATING button is pressed during the setting or inquiry procedure, the DRCZ Wireless Remote Controller exits the sleep curve setting.
DRCZ Wireless Remote Controller

- Sleep 4 is Siesta mode. The set temperature automatically changes according to the siesta features.
- Sleep function is disabled if the air conditioner is restarted after power failure. When the sleep function is turned ON, the quiet fan speed also turns ON.
- Sleep function cannot be set in AUTO mode.

17. **Wi-Fi Button**

Press this button 3 seconds to set Wi-Fi function to ON or OFF. If the indoor unit is turned OFF, you can access the Wi-Fi function by pressing the mode and Wi-Fi buttons at the same time.

**About X-Fan function**

This function indicates that to avoid mold, any moisture on the evaporator of indoor unit is blown off after the unit is stopped.

- Having set X-FAN function ON, when you turn ON the unit by pressing ON/OFF button, the indoor fan continues running for about 2 minutes at low speed. In this period, press X-FAN button to stop indoor fan directly.
- After setting the X-FAN function OFF, and after turning OFF the unit by pressing ON/OFF button, the complete unit is turned OFF directly.

**About AUTO RUN**

When AUTO RUN mode is selected, the set temperature is not displayed on the LCD. The unit operates automatically in accordance with the room’s ambient temperature to select the best running method to achieve comfort in the space.

**About Lock**

Press + and - buttons simultaneously to lock or unlock the keyboard. If the DRCZ Wireless Remote Controller is locked, the lock icon “ Depths” is displayed on the keyboard. Press any button, and the mark flickers three times. When the keyboard is unlocked, the mark disappears.

**About Switching Between Fahrenheit and Celsius**

With the indoor unit turned OFF, press the MODE and “-” buttons simultaneously to switch between °C and °F.
3.7 Introduction to Combination Buttons and Their Functions

Energy-saving Function

In COOL mode, press "TEMP" and "CLOCK" buttons simultaneously to start up or turn OFF the energy-saving function. Once the energy-saving function is started up, "SE" is displayed on the DRCZ Wireless Remote Controller screen, and the air conditioner adjusts the set temperature automatically according to default settings to reach the best energy-saving effect. Press "TEMP" and "CLOCK" buttons simultaneously again to exit the energy-saving function.

**NOTICE:**

- In the energy-saving function, fan speed is defaulted at AUTO speed and can’t be adjusted.
- In the energy-saving function, set temperature can’t be adjusted.
- Sleep function and energy-saving function cannot operate at the same time. If the energy-saving function was set under COOL mode, press the Sleep button to cancel the Energy-saving function. If Sleep function was set under cooling mode, start up the Energy-saving function, and it cancels the Sleep function.

46°F (8°C) Heating Function

In HEAT mode, press the "TEMP" and "CLOCK" buttons simultaneously to start up or turn OFF 46°F (8°C) heating function. When this function is started up, "💰" and 46°F (8°C) are displayed on the screen, and the air conditioner maintains heating status at 46°F (8°C). Press "TEMP" and "CLOCK" buttons simultaneously again to exit 46°F (8°C) Heating function.

**NOTICE:**

Under 46°F (8°C) heating function, the fan speed is defaulted to AUTO speed and can’t be adjusted.

- In 46°F (8°C) heating function, set temperature can’t be adjusted.
- Sleep function and 46°F (8°C) heating function can’t operate at the same time. If 46°F (8°C) heating function was set in HEAT mode, pressing Sleep button cancels the 46°F (8°C) heating function. If sleep function was set under heating mode, starting up the 46°F (8°C) heating function will cancel the Sleep function.
- Under °F temperature, 46 °F heating is displayed on the screen.
3.8 Operation Guide
1. Once power is confirmed at the indoor unit, press the “ON/OFF” button on the DRCZ Wireless Remote Controller to turn ON the air conditioner.
2. Press the “MODE” button to select your required mode: AUTO, COOL, DRY, FAN, or HEAT.
3. Press the “+” or “-” button to set your required temperature. (Temperature cannot be adjusted in AUTO mode).
4. Press the “FAN” button to set your required fan speed: AUTO, low, medium, or high speed.
5. Press the “)” button to select the blowing angle of the fan.

3.9 Replacement of Batteries in the DRCZ Wireless Remote Controller
1. Press the back side of DRCZ Wireless Remote Controller marked “otre” as shown in the figure, and then push out the cover of battery box along the arrow direction.
2. Replace expired batteries with two AAA (1.5V) alkaline batteries, being careful to observe polarity when installing.
3. Reinstall the battery cover.

NOTICE:
Battery level is displayed on the screen of the DRCZ Wireless Remote Controller. When the battery icon “□” is flickering, replace the batteries; otherwise, the DRCZ Wireless Remote Controller cannot function properly.
• During operation, point the DRCZ Wireless Remote Control signal sender at the receiver window on the indoor unit.
• The distance between signal sender and receiver window must be no more than 26 ft, with no obstacles between them.
• Signal may be interrupted in a room with fluorescent fixtures or other wireless devices. Keep the DRCZ Wireless Remote Controller close to indoor unit during operation.
• If the remote is not being used for an extended period of time, remove the batteries to prevent damage to the remote from corrosion or leakage.
• If there is no display on the remote control, try new batteries first, then check the battery terminals for corrosion.
3.10 Emergency Operation

If remote controller is lost or damaged, please use the auxiliary button to turn ON or turn OFF the air conditioner. The procedure in detail is shown in the following figure: (1) Open the panel. (2) Press the auxiliary button to turn ON or turn OFF the air conditioner. When the air conditioner is turned ON, it will operate in AUTO mode.

![Panel and auxiliary button diagram](image)

**WARNING:** Use insulated object to press the auxiliary AUTO button.

3.11 Cleaning and Maintenance

**WARNING**

- Turn off the air conditioner and disconnect the power before cleaning the air conditioner to avoid electric shock.
- Do not wash the air conditioner with water to avoid electric shock.
- Do not use volatile liquid to clean the air conditioner.

**Clean the surface of the indoor unit**

Use a soft dry cloth or a wet cloth to clean the surface of the indoor unit when it is dirty.

**NOTICE:** Do not remote the panel when cleaning the unit.

**Clean the filter**

1. **Open the panel**

   Open the panel along the direction of the arrow less than 60 degrees from the two sides of the panel. Do not open the panel too forcibly.

2. **Remove the filter**

   Remove the filter as indicated in the fig. on the right.
3. Clean the filter
Use a dust catcher or water to clean the filter. If the filter is very dirty, use water (below 113°F (45°C)) to clean it. Then, put it in a shady and cool place to dry.

4. Re-install the filter
Re-install the filter and close the cover tightly.
Press the arrows in (1) position to ensure the cover is closed tightly.

**WARNING**
- The filter should be cleaned every three months. If there is a lot of dust in the operational environment, you can clean more frequently.
- After removing the filter, do not touch the fins to avoid injury.
- Do not use fire or a hair dryer to dry the filter to avoid stretching or deforming the filter, or creating a fire hazard.

**NOTICE: Getting the unit ready for use**
1. Check that air inlets or outlets are not blocked.
2. Be sure circuit breaker, plug, and socket are in good condition.
3. Make sure the filter is clean.
4. Check that the condensate pipe is not damaged.

**NOTICE: After the season is over**
1. Disconnect the power supply.
2. Clean the filter and the indoor unit’s panel.

**NOTICE: Recycling and disposal**
1. Much of the packing materials are recyclable. Please dispose of them in the appropriate recycling unit.
2. If you want to dispose of the air conditioner, please contact the local dealer or consult the service center for the correct method of disposal.
### 3.12 General Troubleshooting

Please check the following items before requesting maintenance. If the issue still isn’t solved, contact your distributor or qualified professionals.

<table>
<thead>
<tr>
<th>Issue</th>
<th>Check items</th>
<th>Solution</th>
</tr>
</thead>
</table>
| Indoor unit can’t receive a signal, or the Wireless Remote Controller (DRCZ) is not functioning. | • Is the remote controller having signal interference (from static electricity, intermittent voltage)? | • Pull out the plug.  
• Reinsert the plug after 3 min. and then turn ON unit again. |
|                                                                       | • Is the remote controller within signal range?                              | • Signal range is 26 ft (8m).                                                               |
|                                                                       | • Are there obstacles in the way of the signal?                             | • Remove obstacles.                                                                           |
|                                                                       | • Is the remote controller pointing at the unit’s receiver window?          | • Using the correct angle, point the remote controller at receiver window on indoor unit.    |
|                                                                       | • Is the remote controller response slow? Is the display fuzzy or no display? | • Check the batteries. If batteries are low, replace them.                                   |
|                                                                       | • No display when operating remote controller?                             | • Check if remote controller appears damaged. If so, replace it.                              |
|                                                                       | • Is there a fluorescent light in the room?                                 | • Move the remote controller close to the indoor unit.  
• Turn OFF the fluorescent light and try sending the signal again.     |
<p>| No air is blowing out from indoor unit                                | • Is air inlet or outlet of indoor unit blocked?                            | • Remove obstacles.                                                                            |
|                                                                       | • In HEAT mode, when does indoor temperature reach set temperature?        | • After reaching set temperature, indoor unit stops blowing air.                             |
|                                                                       | • HEAT mode is ON but no air is blowing?                                   | • The indoor unit delays start several minutes to prevent cold air from blowing out.         |</p>
<table>
<thead>
<tr>
<th>Issue</th>
<th>Check items</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air conditioner isn’t operating</td>
<td>• Is there a power failure?</td>
<td>• Wait until power recovery.</td>
</tr>
<tr>
<td></td>
<td>• Is the plug loose?</td>
<td>• Reinsert the plug.</td>
</tr>
<tr>
<td></td>
<td>• Air switch trips off or fuse is</td>
<td>• Ask professionals to</td>
</tr>
<tr>
<td></td>
<td>blown?</td>
<td>replace air switch or fuse.</td>
</tr>
<tr>
<td></td>
<td>• Is the wiring malfunctioning?</td>
<td>• Ask professionals to</td>
</tr>
<tr>
<td></td>
<td>• Unit restarted immediately</td>
<td>replace wiring.</td>
</tr>
<tr>
<td></td>
<td>after stopping operation?</td>
<td>• Wait 3 minutes and then turn ON the unit</td>
</tr>
<tr>
<td></td>
<td>• Is function setting for the</td>
<td>again.</td>
</tr>
<tr>
<td></td>
<td>remote controller correct?</td>
<td>• Reset the function.</td>
</tr>
<tr>
<td>Mist is emitting from air outlet of indoor unit</td>
<td>• Is the indoor temperature or</td>
<td>The indoor air has cooled rapidly. Once indoor</td>
</tr>
<tr>
<td></td>
<td>humidity high?</td>
<td>air temperature and humidity</td>
</tr>
<tr>
<td></td>
<td>• Does your required temperature</td>
<td>decrease, the mist will disappear.</td>
</tr>
<tr>
<td></td>
<td>exceed the set temperature</td>
<td></td>
</tr>
<tr>
<td></td>
<td>range?</td>
<td>• Set temperature range: 61°F<del>86°F (16ºC</del>30ºC).</td>
</tr>
<tr>
<td>Unable to adjust set temperature</td>
<td>• Is the unit operating under</td>
<td>• Temperature can’t be</td>
</tr>
<tr>
<td></td>
<td>AUTO mode?</td>
<td>adjusted in AUTO mode. Switch the operation</td>
</tr>
<tr>
<td></td>
<td>• Does your required temperature</td>
<td>mode to adjust</td>
</tr>
<tr>
<td></td>
<td>exceed the set temperature</td>
<td>temperature, if needed.</td>
</tr>
<tr>
<td>Cooling (Heating) is not working well.</td>
<td>• Is voltage too low?</td>
<td>• Wait unit voltage returns to normal.</td>
</tr>
<tr>
<td></td>
<td>• Is filter dirty?</td>
<td>• Clean the filter.</td>
</tr>
<tr>
<td></td>
<td>• Is set temperature in the</td>
<td>• Adjust the temperature to</td>
</tr>
<tr>
<td></td>
<td>proper range?</td>
<td>proper range.</td>
</tr>
<tr>
<td></td>
<td>• Is a door or window open?</td>
<td>• Close door and window.</td>
</tr>
<tr>
<td>Issue</td>
<td>Check items</td>
<td>Solution</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Odors are present</td>
<td>• Is there an odor source such as furniture, cigarettes, etc.?</td>
<td>• Eliminate the source of odor.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Clean the filter.</td>
</tr>
<tr>
<td>Air conditioner is suddenly operating normally</td>
<td>• Is there signal interference such as thunder, wireless devices, etc.?</td>
<td>• Disconnect the power, then reconnect the power and turn ON the unit again.</td>
</tr>
<tr>
<td>Outdoor unit is emitting vapor</td>
<td>• Is HEAT mode turned ON?</td>
<td>• During defrost in HEAT mode, vapor may generate. This is normal.</td>
</tr>
<tr>
<td>Water flowing noise</td>
<td>• Did air conditioner just now turn ON or turn OFF?</td>
<td>• The noise is the sound of refrigerant flowing inside the unit. This is normal.</td>
</tr>
<tr>
<td>Cracking noise</td>
<td>• Did air conditioner just now turn ON or turn OFF?</td>
<td>• The noise is the sound of friction caused by expansion or contraction of the panel or other parts due to the change of temperature.</td>
</tr>
</tbody>
</table>
3.13 Error Codes

When the status of the air conditioner is abnormal, the temperature indicator or indoor unit will blink and display the corresponding error code. Please refer to the following list for identification of error codes.

<table>
<thead>
<tr>
<th>Error code</th>
<th>Troubleshooting</th>
</tr>
</thead>
<tbody>
<tr>
<td>E5</td>
<td>This error can be eliminated by restarting the unit. If restarting does not eliminate the error code, please contact qualified professionals for service.</td>
</tr>
<tr>
<td>E6</td>
<td>This error can be eliminated by restarting the unit. If restarting does not eliminate the error code, please contact qualified professionals for service.</td>
</tr>
<tr>
<td>E8</td>
<td>This error can be eliminated by restarting the unit. If restarting does not eliminate the error code, please contact qualified professionals for service.</td>
</tr>
<tr>
<td>U8</td>
<td>This error can be eliminated by restarting the unit. If restarting does not eliminate the error code, please contact qualified professionals for service.</td>
</tr>
<tr>
<td>H6</td>
<td>This error can be eliminated by restarting the unit. If restarting does not eliminate the error code, please contact qualified professionals for service.</td>
</tr>
<tr>
<td>C5</td>
<td>Please contact qualified professionals for service.</td>
</tr>
<tr>
<td>F1</td>
<td>Please contact qualified professionals for service.</td>
</tr>
<tr>
<td>F2</td>
<td>Please contact qualified professionals for service.</td>
</tr>
</tbody>
</table>

**NOTICE:** If you have other error codes, please contact a qualified professional for service.

**WARNING**
- If the following issues occur, turn OFF the air conditioner and disconnect power immediately. Then contact the distributer or a qualified professional for service.
  - Power cord is overheating or damaged.
  - Abnormal sound occurs during operation.
  - Air switch trips OFF frequently.
  - Air conditioner gives off a burning smell.
  - Indoor unit is leaking.
- Do not repair or replenish the air conditioner by yourself.
- Operating the air conditioner under abnormal conditions could cause malfunction, electric shock, or a fire hazard.
3.14 Installation Dimension Diagram
Safety Precautions for Installing and Relocating the Unit

To ensure safety, be mindful of the following precautions.

**WARNING**

- When installing or relocating the unit, be sure to keep the refrigerant circuit free from air or substances other than the specified refrigerant. Any presence of air or other foreign substance in the refrigerant circuit will cause system pressure rise or compressor rupture, resulting in injury.

- When installing or moving this unit, do not charge with refrigerant that does not comply that on the nameplate or an unqualified refrigerant. Otherwise, it may cause abnormal operation, wrong action, mechanical malfunction or even series safety accident.

- When refrigerant needs to be recovered during relocation or repair of the unit, be sure that the unit is running in cooling mode. Fully close the valve at high pressure side (liquid valve). About 30-40 seconds later, fully close the valve at low pressure side (gas valve), immediately stop the unit, and disconnect power. Refrigerant recovery should not exceed 1 minute. If refrigerant recovery takes too much time, air may be sucked in and cause pressure rise or compressor rupture, resulting in injury.

- During refrigerant recovery, make sure that the liquid valve and gas valve are fully closed and power is disconnected before detaching the connection pipe. If compressor starts running when stop valve is open and connection pipe is not yet connected, air will be sucked in and cause pressure rise or compressor rupture, resulting in injury.

- When installing the unit, make sure that connection pipe is securely connected before the compressor starts running. If compressor starts running while stop valve is open and connection pipe is not yet connected, air is sucked that could cause pressure rise or compressor rupture, resulting in injury.

- Prohibit installing the unit at the place where there may be leaked corrosive gas or flammable gas. If there leaked gas around the unit, it may cause explosion and other accidents.

- Do not use extension cords for electrical connections. If the electric wire is not long enough, please contact a local service center authorized and ask for a proper electric wire. Poor connections may lead to electric shock or fire.

- Use the specified types of wires for electrical connections between the indoor and outdoor units. Firmly clamp the wires so that their terminals receive no external stresses. Electric wires with insufficient capacity, incorrect wire connections, and insecure wire terminals may cause electric shock or fire.
3.16 Tools for Installation

<table>
<thead>
<tr>
<th>Tool Type</th>
<th>Tool Type</th>
<th>Tool Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level meter</td>
<td>Screw drivers</td>
<td>Impact drills</td>
</tr>
<tr>
<td>Drill heads</td>
<td>Pipe expanders</td>
<td>Torque wrenches</td>
</tr>
<tr>
<td>Open-end wrenches</td>
<td>Pipe cutters</td>
<td>Leakage detectors</td>
</tr>
<tr>
<td>Vacuum pumps</td>
<td>Pressure meters</td>
<td>Universal meters</td>
</tr>
<tr>
<td>Inner hexagon spanners</td>
<td>Measuring tapes</td>
<td></td>
</tr>
</tbody>
</table>

**NOTICE:**

- Please contact the local distributor for installation.
- Don’t use an unqualified power cord.

3.17 Selection of Installation Location

**Basic requirements**

Do not install the unit in the following places. If unavoidable, please consult your local distributor:

- Area with strong heat sources, vapors, flammable or explosive gas, or volatile objects spread in the air.
- Area with high-frequency devices (such as welding machine, medical equipment).
- Area near the coastal water.
- Area with oil or fumes in the air.
- Area that has sulfureted gas.
- Other places with special circumstances.
- The unit must not be installed in the laundry room.
- Do not install the unit on an unstable or moving base structure (such as a truck) or in a corrosive environment (such as a chemical factory).

**Indoor Unit**

Select a location for installation:

- Where there is no obstruction near the inlet.
- Where the condensation water can be emptied easily.
- Convenient to connect the outdoor unit near the power socket.
- Out of reach of children.
- Able to withstand the weight of the indoor unit and won’t increase noise and vibration.
- Where the unit is installed 2.5m above the floor.
- Where the unit is NOT right above the electric appliance.
- Away from a fluorescent lamp.
3.18 Requirements for Electrical Connection

Safety Precautions

- You must follow the electric safety regulations when installing the unit.
- Follow local safety regulations; use required power supply circuit and air switch.
- Make sure the power supply matches the air conditioner to avoid an unstable power supply, incorrect wiring, or malfunction. Please install the proper power supply cables before using the air conditioner.
- Properly connect the live wire, neutral wire, and grounding wire of power socket.
- Be sure to cut off the power supply before doing any work related to electricity and safety. Finish installation before turning ON the power.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent, or professional persons in order to avoid a hazard.
- The temperature of refrigerant circuit will be high; be sure to keep the connection cable away from the copper tubing.
- The appliance must be installed in accordance with local wiring regulations.

Grounding Requirements

- The air conditioner is a first-class electrical unit. It must be properly grounded with a specialized grounding device by a professional. Make sure the unit is always grounded effectively; otherwise, it may cause electric shock.
- The yellow-green wire in the air conditioner is the grounding wire. This wire can't be used for other purposes.
- The grounding resistance must comply with local safety codes and regulations.
- The appliance must be positioned so that the plug is accessible.
- An all-pole disconnection switch having a contact separation of at least 3mm in all poles must be connected in attached wiring. For models with a power plug, make sure the plug is within reach after installation.
3.19 Installation of Indoor Unit

Step 1: choosing the installation location
Recommend and then confirm location with the customer.

Step 2: install the wall-mounting frame
1. Hang the wall-mounting frame on the wall; adjust it horizontally with the leveling meter and then mark where to put screw holes on the wall.
2. Drill the screw holes on the wall with an impact drill (the specification of the drill head should be the same size as the plastic expansion piece) and then insert the plastic expansion pieces in the holes.
3. Attach the wall-mounting frame on the wall with screws (ST4.2X25TA) and then make sure the frame is firmly installed by pulling the frame. If the plastic expansion piece is loose, drill another hole nearby.

Step 3: open the piping hole
1. Choose the position of the piping hole according to the direction of the outlet pipe. Position the piping hole a little lower than the wall-mounted frame, as shown in the following diagram.

```
2. Open a piping hole with the diameter of Φ55 or Φ70 on the selected outlet pipe position. For condensate to drain smoothly, slant the piping hole on the wall slightly downward to the outdoor side with a gradient of 5-10 degrees.

NOTICE:
• Pay attention to dust prevention and take relevant safety measures when opening the hole.
• The plastic expansion pieces are not provided. Please purchase them locally.
Step 4: outlet pipe
1. The pipe can be led out in the direction of right, back right, left, or back left.

2. When leading out the pipe from left or right, cut out the corresponding hole at the bottom of the case.

---

Step 5: connect the pipe of indoor unit
1. Aim the pipe joint at the corresponding bell mouth.

2. Tighten the union nut by hand.

3. Adjust the torque force by referring to the following sheet. Place the open-end wrench on the pipe joint and place the torque wrench on the union nut. Tighten the union nut with torque wrench.

<table>
<thead>
<tr>
<th>Hex nut diameter</th>
<th>Tightening torque (N·m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Φ 6</td>
<td>15~20</td>
</tr>
<tr>
<td>Φ 9.52</td>
<td>30~40</td>
</tr>
<tr>
<td>Φ 12</td>
<td>45~55</td>
</tr>
<tr>
<td>Φ 16</td>
<td>60~65</td>
</tr>
<tr>
<td>Φ 19</td>
<td>70~75</td>
</tr>
</tbody>
</table>

4. Wrap insulating pipe around the indoor pipe and joint of connection pipe; then, wrap it with tape.

5. If a 9k, 12k, or 18k indoor unit is connecting with a Duct Free Mini Split outdoor unit, a transitional pipe joint (provided) should be added at the pipe joint of the indoor unit evaporative assembly (assy) as the pipe joint of evaporator assy with pipe diameter of Φ12, Φ12, or Φ16. Please refer to steps 1-4 during installation.
Step 6: install condensate hose

1. Connect the condensate hose to the outlet pipe of the indoor unit.

2. Bind the joint with tape.

3. Add insulating pipe to the indoor unit condensate hose to prevent condensation.

**NOTICE:**

The plastic expansion pieces are not provided. Please purchase them locally.

Step 7: connect wire of indoor unit

1. Open the panel, remove the screw on the wiring cover, and lift off the cover.
DRC2 Wireless Remote Controller

2. Pass the power connection wire through the cable-cross hole at the back of the indoor unit. Then, pull the wire out from the front side.

3. Remove the wire clip; connect the power connection wire to the wiring terminal according to the color; tighten the screw and fasten the connection wire with the wire clip. After finishing wiring, clamp the grounding wire (yellow-green wire) into the wire-crossing groove as shown in the following figure, in order to avoid squeezing the wire when closing the electric box cover.

4. Put the wiring cover back on the unit and tighten the screw.

5. Close the panel.

**NOTICE:**

- All wires of indoor unit and outdoor unit must be connected by an HVAC professional.
- If the length of power connection wire is insufficient, please contact the supplier for a new one. Avoid extending the wire by yourself.
- For the air conditioner that has plug, the socket must be reachable after finishing installation.
- For the air conditioner without a plug, an air switch must be installed in the line. The air switch should be all-pole parting, and the contact parting distance should be more than 3mm.
Step 8: bind pipe

1. Use vinyl tape to bind together the connection pipe, power cord, and condensate hose.

2. Bind them with the tape evenly.

3. Reserve a certain length of condensate hose and power cord for installation at the end when binding them. At the required length, separate the indoor power cord and then separate the condensate hose from the connection pipe.

4. Bind the liquid pipe and gas pipe separately at the end.

Step 9: hang the indoor unit

1. Put the bound-together pipes in the wall pipe, and pass them through the wall hole.

2. Hang the indoor unit on the wall-mounting frame.

3. Seal the gaps between the pipes and wall hole.

NOTICE: Do not bend the condensate hose excessively to prevent blockage.
3.20 Vacuum Pumping

**Using the vacuum pump**

1. Remove the valve caps from the liquid valve and gas valve, and from the nut of refrigerant charging vent.

2. Connect the charging hose of piezometer to the refrigerant charging vent of the gas valve and then connect the other charging hose to the vacuum pump.

3. Open the piezometer completely and operate for 10-15 min to be sure that the pressure of piezometer remains at -0.1MPa.

4. Close the vacuum pump and maintain this status for 1-2 minutes to be sure the pressure of piezometer remains at -0.1MPa. If the pressure decreases, there may be leakage.

5. Remove the piezometer, open the valve core of liquid valve and gas valve completely with inner hexagon spanner.

6. Tighten the screw caps of valves and refrigerant charging vent.

7. Reinstall the handle.

**Leakage detection**

1. Use the leakage detector to check for leakage.

2. Use soapy water, if the leakage detector is not available. Apply soapy water on the suspected leakage area for more than 3 minutes. If there are air bubbles coming from the leakage area, then there is a leak.
3.21 After Installation Check
Verify according to the following requirements after completing installation.

<table>
<thead>
<tr>
<th>Check items</th>
<th>Possible malfunction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has the unit been installed firmly?</td>
<td>The unit may drop, shake, or make a noise.</td>
</tr>
<tr>
<td>Have you done the refrigerant leakage test?</td>
<td>A leak may cause insufficient cooling (heating) capacity.</td>
</tr>
<tr>
<td>Is heat insulation of pipeline sufficient?</td>
<td>Insufficient insulation may cause condensation and water dripping.</td>
</tr>
<tr>
<td>Is condensate emptying well?</td>
<td>Insufficient emptying of condensation may cause dripping.</td>
</tr>
<tr>
<td>Is power supply voltage according to voltage marked on the nameplate?</td>
<td>Incorrect voltage may cause malfunction or damage to parts.</td>
</tr>
<tr>
<td>Are electric wiring and pipeline installed correctly?</td>
<td>Incorrect installation may cause malfunction or damage to parts.</td>
</tr>
<tr>
<td>Is the unit grounded securely?</td>
<td>Unsecure grounding may cause electrical leakage.</td>
</tr>
<tr>
<td>Does the power cord follow the specification?</td>
<td>Not following specification may cause malfunction or damage to parts.</td>
</tr>
<tr>
<td>Is there any obstruction in the air inlet and outlet?</td>
<td>Obstruction may cause insufficient cooling (heating) capacity.</td>
</tr>
<tr>
<td>The dust and sundries caused during installation are removed?</td>
<td>Dust and sundries may cause malfunction or damage to parts.</td>
</tr>
<tr>
<td>The gas valve and liquid valve of connection pipe are open completely?</td>
<td>Partial valve opening may cause insufficient cooling (heating) capacity.</td>
</tr>
<tr>
<td>Has the inlet and outlet of piping hole been covered?</td>
<td>An uncovered piping hole may cause insufficient cooling (heating) capacity or waste electricity.</td>
</tr>
</tbody>
</table>

3.22 Test Operation
- Turn ON the electricity, and press the ON/OFF button on the remote controller to start operation.
- Press the MODE button to select AUTO, COOL, DRY, FAN, and HEAT to verify whether operation is normal or not.
- If the ambient temperature is lower than 61°F (16°C), the air conditioner can’t start cooling.
3.23 Configuration of Connection Pipe

1 Standard length of connection pipe
   - 5m, 7.5m, and 8m

2 Minimum length of connection pipe is 3m.

3 Maximum length of connection pipe:

<table>
<thead>
<tr>
<th>Cooling capacity</th>
<th>Maximum length of connection pipe</th>
</tr>
</thead>
<tbody>
<tr>
<td>5000Btu/h (1465W)</td>
<td>15</td>
</tr>
<tr>
<td>7000Btu/h (2051W)</td>
<td>15</td>
</tr>
<tr>
<td>9000Btu/h (2637W)</td>
<td>15</td>
</tr>
<tr>
<td>12000Btu/h (3516W)</td>
<td>20</td>
</tr>
<tr>
<td>18000Btu/h (5274W)</td>
<td>25</td>
</tr>
<tr>
<td>24000Btu/h (7032W)</td>
<td>25</td>
</tr>
<tr>
<td>28000Btu/h (8204W)</td>
<td>30</td>
</tr>
<tr>
<td>36000Btu/h (10548W)</td>
<td>30</td>
</tr>
<tr>
<td>42000Btu/h (12306W)</td>
<td>30</td>
</tr>
<tr>
<td>48000Btu/h (14064W)</td>
<td>30</td>
</tr>
</tbody>
</table>

4 The additional refrigerant oil and refrigerant charging required after expanding connection pipe
   - After the length of connection pipe is expanded to 10m at the basis of standard length, you should add 5ml of refrigerant oil for each additional 5m of connection pipe.

   - The calculation method of additional refrigerant charging amount (on the basis of liquid pipe) is:

     \[
     \text{Additional refrigerant charging amount} = \text{expanded length of liquid pipe} \times \text{additional refrigerant charging amount per meter}
     \]

   - Based on the length of standard pipe, add refrigerant according to the requirement, as shown in the following table. The additional refrigerant charging amount per meter is different according to the diameter of the liquid pipe.
### Configuration of Connection Pipe

Additional refrigerant charging amount for R22, R407C, R410A, and R134a

<table>
<thead>
<tr>
<th>Diameter of connection pipe</th>
<th>Outdoor unit throttle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid pipe (mm)</td>
<td>Gas pipe (mm)</td>
</tr>
<tr>
<td>Φ6</td>
<td>Φ9.52 or Φ12</td>
</tr>
<tr>
<td>Φ6 or Φ9.52</td>
<td>Φ16 or Φ19</td>
</tr>
<tr>
<td>Φ12</td>
<td>Φ19 or Φ22.2</td>
</tr>
<tr>
<td>Φ16</td>
<td>Φ25.4 or Φ31.8</td>
</tr>
<tr>
<td>Φ19</td>
<td>-</td>
</tr>
<tr>
<td>Φ22.2</td>
<td>-</td>
</tr>
</tbody>
</table>
NOTICE:
Improper pipe expanding is the main cause of refrigerant leakage. Please expand the pipe according to the following steps.

A. Cut the pipe
- Confirm the pipe length according to the distance of indoor unit and outdoor unit.
- Cut the required pipe with a pipe cutter.

B. Remove the burrs
- Remove the burrs with shaper and prevent the burrs from getting into the pipe.

C. Put on suitable insulating pipe

D. Put on the union nut.
- Remove the union nut on the indoor connection pipe and outdoor valve; install the union nut on the pipe.

E. Expand the port
- Expand the port with the expander.

NOTICE:
- “A” is different according to the diameter. Please refer to the following table.

<table>
<thead>
<tr>
<th>Outer diameter (mm)</th>
<th>A(mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max</td>
<td>Min</td>
</tr>
<tr>
<td>Φ6-6.35(1/4&quot;)</td>
<td>1.3</td>
</tr>
<tr>
<td>Φ9.52(3/8&quot;)</td>
<td>1.6</td>
</tr>
<tr>
<td>Φ12-12.7(1/2&quot;)</td>
<td>1.8</td>
</tr>
<tr>
<td>Φ15.8-16(5/8&quot;)</td>
<td>2.4</td>
</tr>
</tbody>
</table>

F. Inspection
- Check the quality of the expanded port. If there is any blemish, expand the port again according to the steps above.