



Wired and Wireless Zone Controllers

**Wired Model DWCMW
Wireless Model DRCMW**

Installation and Operation Manual

User Notice

Please read this Installation and Operation manual carefully before installation and operation and retain it for future reference.

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 inverter air conditioning unit is designed for standard air conditioning applications only. Do not use this unit for anything other than the purposes for which it was intended for.
- The installer and system specialist should safeguard against leakage in accordance with local pipefitter and electrical codes. The following standards may be applicable, if local regulations are not available. International Organization for Standardization: (ISO 5149 or European Standard, EN 378). No part of this manual may be reproduced in any way without the expressed written consent of Johnson Controls, Inc.
- This air conditioning accessory will be operated and serviced in the United States of America and comes with all required Safety, Danger, and Caution warnings.
- If you have questions, please contact your distributor or dealer.
- This manual provides common descriptions, basic and advanced information to maintain and service this air conditioning unit which you operate, as well for other models.
- This air conditioning unit has been designed for a specific temperature range. For optimum performance and long life, operate this unit within range limits.
- This manual should be considered as a permanent part of the air conditioning equipment and should remain with the air conditioning equipment.

Product Inspection upon Arrival

1. 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.
2. Check the model number, electrical characteristics (power supply, voltage, and frequency rating), and any accessories to determine if they agree with the purchase order.
3. 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.
4. 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.

Table of Contents

Safety Summary	i
Wired Zone Controller DWCMW	1
1 Wired Zone Controller DWCMW	1
1.1 Outside View of the Wired Zone Controller	1
1.2 Liquid Crystal Display (LCD) of the Wired Zone Controller	1
1.3 Introduction to the Symbols on LCD	2
2 Buttons.....	2
2.1 Buttons on the Wired Zone Controller	2
2.2 Functions of the Buttons.....	3
3 Operation Instructions	3
3.1 On/Off.....	3
3.2 Mode Setting	4
3.3 Temperature Setting.....	4
3.4 Fan Setting	4
3.5 Timer Setting	5
3.6 Swing Setting	7
3.7 Sleep Setting	7
3.8 Turbo Setting.....	11
3.9 Save Setting	12
3.10 E-heater Setting	14
3.11 Blow Setting	15
3.12 Quiet Setting.....	16
3.13 Other Functions.....	17
4 Errors	18
Wireless Zone Controller DRCMW	20
1 Function of Buttons	20
2 Guide for General Operation.....	22
3 Guide for Optional Operation	23
Commonly Found Errors and Maintenance	24
1 Commonly Found Errors	24
2 Maintenance	24
Customer Service, Technical Support	26

SAFETY MESSAGES



Indicates a hazardous situation that, if not avoided, could result in death or serious injury.



Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.



Indicates information considered important, but not hazard-related (e.g. messages relating to property damage).

GENERAL PRECAUTIONS



To reduce the risk of serious injury or death, read these instructions thoroughly and follow all warnings or cautions included in all manuals that accompanied this product and the indoor and outdoor units.

- This system, including this controller, should be installed by personnel certified by Johnson Controls, Inc. Personnel must be qualified according to local, state and national building and safety codes and regulations. Incorrect installation could cause leaks, electric shock, fire or explosion.
- Use appropriate personal protective equipment, such as gloves and protective goggles and electrical protection equipment and tools suited for electrical operation purposes.
- Do not stand on or put any material on the controller.
- When installing the controller cabling to the units, do not touch or adjust any safety devices inside the indoor or outdoor units. All safety features, disengagement, and interlocks must be in place and functioning correctly before the equipment is put into operation. If these devices are improperly adjusted or tampered with in any way, a serious accident can occur. Never bypass or jump out any safety device.
- Use only Johnson Controls recommended or provided as standardized or replacement parts.
- Johnson Controls shall not assume any liability for injuries or damage caused by not following steps outlined or described in this manual. Unauthorized modifications to Johnson Controls products are prohibited as they...
 - may create hazards which could result in death, serious injury or equipment damage.
 - will void product warranties.
 - may invalidate product regulatory certifications.
 - may violate OSHA standards.

NOTICE

Take the following precautions to reduce the risk of property damage

- Do not touch the main circuit board or electronic components in the controller or remote devices. Also, make sure that dust and/or steam does not accumulate on the circuit board.
- Locate the wireless zone controller at a distance of at least 3 ft. (approx. 1m) between the indoor unit and electric lighting. Otherwise, the receiver part of the unit may have difficulty receiving operation commands.
- If the wired zone controller is installed in a location where electromagnetic radiation is generated, make sure that the wired zone controller is shielded and cables are sleeved inside conduit tubing.
- If there is a source of electrical interference near the power source, install noise suppression equipment (filter).
- During the run test, check the unit's operation temperature. If the unit is used in an environment where the temperature exceeds the operation boundary, it may cause severe damage. Check the operational temperature boundary in the manual. If there is no specified temperature, use the unit within the operational temperature boundary of 35°~104°F (0~40°C).
- Read installation and appropriate user manuals for connection with PC or peripheral devices. If a warning window appears on PC, the product stops, does not work properly or works intermittently, immediately stop using the equipment.

INSTALLATION PRECAUTIONS

WARNING

To reduce the risk of serious injury or death, the following installation precautions must be followed:

- If the remote sensors are not used with this controller then do not install this controller...
 - in a room where there is no thermostat.
 - where the unit is exposed to direct sunshine.
 - where the unit will be in close proximity to a heat source.
 - where hot/cold air from the outdoors, or a draft from elsewhere (such as air vents, diffusers or grilles) can affect air circulation.
 - in areas with poor air circulation and ventilation.
- Perform the run test using the controller to ensure normal operation. Safety guards, shields, barriers, covers, and protective devices must be in place while the compressor/unit is operating. During the run test, keep fingers and clothing away from any moving parts.

After installation work for the system has been completed, explain the “Safety Precautions,” use, and maintenance of the unit to the customer according to the information in all manuals that accompanied the system. All manuals and warranty information must be given to the user or left near the Indoor Unit.

ELECTRICAL PRECAUTIONS



Take the following precautions to reduce the risk of electric shock, fire or explosion resulting in serious injury or death:

- Only use electrical protection equipment and tools suited for this installation.
- Insulate the wired zone controller against moisture and temperature extremes.
- Use specified cables between units and controller.
- The polarity of the input terminals is important, so be sure to match the polarity when using contacts that have polarity.
- Highly dangerous electrical voltages may be used in this system. Carefully refer to the wiring diagram and these instructions when wiring. Improper connections and inadequate grounding can cause serious injury or death.
- Before installing the controller or remote devices, ensure that the indoor and outdoor unit operation has been stopped. Further, be sure to wait at least five minutes before turning off the main power switch to the indoor or outdoor units. Otherwise, water leakage or electrical breakdown may result.
- Do not open the service cover or access panel to the indoor or outdoor units without turning OFF the main power supply. Before connecting or servicing controller or cables to indoor or outdoor units, open and tag all disconnect switches. Never assume electrical power is disconnected. Check with meter and equipment.
- Use an exclusive power supply at the controller’s rated voltage.
- Be sure to install circuit breakers (ground fault interrupter, isolating switch, molded case circuit breaker, and so forth) with the specified capacity. Ensure that the wiring terminals are tightened securely to recommended torque specifications.
- This equipment can be installed with a Ground Fault Circuit Breaker (GFCI), which is a recognized measure for added protection to a properly grounded unit. Install appropriate sized breakers / fuses / overcurrent protection switches, and wiring in accordance with local, state and NEC codes and requirements. The equipment installer is responsible for understanding and abiding by applicable codes and requirements.

- Clamp electrical wires securely with a cable clamp after all wiring is connected to the terminal block. In addition, run wires securely through the wiring access channel.
- When installing the power lines, do not apply tension to the cables. Secure the suspended cables at regular intervals, but not too tightly.
- Make sure that the terminals do not come into contact with the surface of the electrical box. If the terminals are too close to the surface, it may lead to failures at the terminal connection.
- Do not clean with, or pour water, into the controller as it could cause electric shock and/or damage the unit. Do not use strong detergent such as a solvent. Clean with a soft cloth.
- Check that the ground wire is securely connected. Do not connect ground wiring to gas piping, water piping, lighting conductor, or telephone ground wiring.

Wired Zone Controller DWCMW

1 Wired Zone Controller DWCMW

(For use with the cassette model, wall-mounted, floor, and ceiling indoor units)

1.1 External View of the Wired Zone Controller



Fig.1 External View of Wired Zone Controller

1.2 Liquid Crystal Display (LCD) of Wired Zone Controller

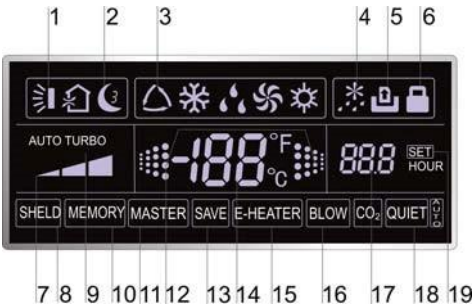


Fig.2 LCD of Wired Zone Controller

Wired Zone Controller DWCMW

1.3 Introduction to Symbols on LCD

Table 1

No.	Symbols	Description
1		Swing function.
2		Sleep function (Three types: sleep 1, sleep 2, and sleep 3)
3		Running modes of the indoor unit (Cooling, Dry, Fan, and Heating)
4		Defrosting function for the outdoor unit.
5		Gate-control function (not currently available for this unit)
6		Lock function.
7		High, middle, low, or auto fan speed of the indoor unit
8	SHIELD	Shield function: The button operation, temperature setting, "On/Off" operation, "Mode" setting, and "Save" setting are disabled."
9	TURBO	Turbo function.
10	MEMORY	Memory function (The indoor unit resumes the original setting state after power failure and then power recovery.)
11	MASTER	Master wired zone controller (not currently available for this unit)
12		It blinks in the ON state of the unit without operation of any button.
13	SAVE	Energy-saving function.
14		Ambient/preset temperature value.
15	E-HEATER	Electric auxiliary heating function.
16	BLOW	Blower function.
17		Timing value.
18	QUITE	Quiet function (Two types: quiet and auto quiet)
19	SET	It will be displayed under the debugging mode.

2 Buttons

2.1 Buttons on Wired Zone Controller

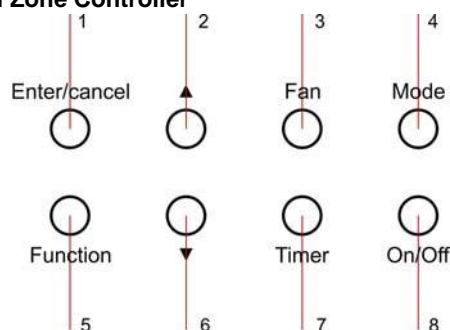




Fig. 3 Buttons on Wired Zone Controller

2.2 Functions of Buttons

Table 2

No.	Name	Function
1	Enter/Cancel	Function selection and cancellation. Press for five seconds to examine outdoor ambient temperature.
2	Y	Running temperature setting of the indoor unit, range: 60.8°F to 86°F (16°C to 30°C) Timer setting, range: 0.5 hr. to 24 hrs.
6	z	Switch-over between quiet, auto quiet, or among sleep 1, sleep2, or sleep 3.
3	Fan	Setting of the high/middle/low/auto fan speed.
4	Mode	Setting of the Cooling/Heating/Fan/Dry mode of the indoor unit.
5	Function	Switch-over among the functions of Swing/Sleep/Turbo/Save/E-heater/Blow / Quiet etc.
7	Timer	Timer setting.
8	On/Off	Turn on/off the indoor unit.
4+2	▲ + Mode	Press and hold these buttons for five seconds while the unit is OFF to enter/cancel the Memory function. (If memory is set for the indoor unit after a power failure, power recovery will resume as the original setting state. If not, the indoor unit is defaulted to be OFF after power recovery. Memory OFF is the default factory setting.)
3+6	Fan+ ▼	By pressing them at the same time while the unit is OFF,  will be displayed on the wired zone controller for the cooling only unit, while  will be displayed on the wired zone controller for the cooling and heating unit.
2+6	▲ + ▼	Upon start-up of a unit that had no malfunction or when the unit is OFF, press them at the same time for five seconds to enter a lock state. In this instance, no other buttons will respond if pressed. Press them again for five seconds to discontinue this condition.

3 Operation Instructions

3.1 On/Off

Press On/Off to turn ON the unit and turn it OFF by pressing the button again.

Note: Fig.4 indicates the "Off" state of the unit after powered "On". Fig.5 indicates the "On" state of the unit after powered "On".

Wired Zone Controller DWCMW



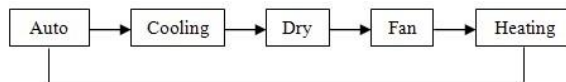
Fig. 4 "Off" State



Fig. 5 "On" State

3.2 Mode Setting

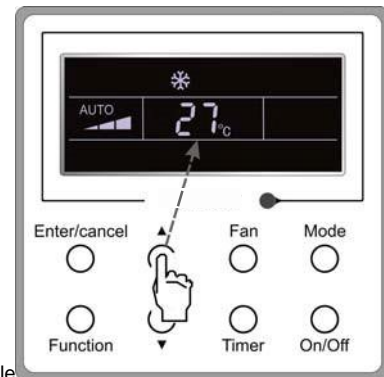
Under the "On" state of the unit, press Mode to switch the operation modes as in the following sequence:
Auto-Cooling-Dry-Fan-Heating.



3.3 Temperature Setting

Press ▲ or ▼ to increase/decrease the preset temperature. If pressing either of them continuously, the temperature will be increased or decreased by 1°C every 0.5 second, as shown in Fig.6.below

In the Cooling, Dry, Fan or Heating mode, the temperature setting range is 60.8°F to 86°F (16°C to 30°C).



In the Auto mode, the setting temperature is not adjustable

Fig.6

3.4 Fan Setting

In the "On"/"Off" state of the unit, press Fan and then the fan speed of the indoor unit will change in a sequential fashion as shown in Fig.7.

Wired Zone Controller DWCMW

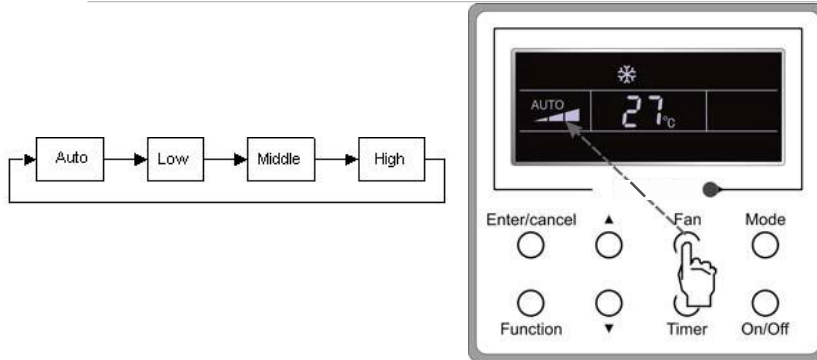


Fig.7

3.5 Timer Setting

In the "On" state of the unit press the Timer button to set the timer "Off" on the unit. In the "Off"-state of the unit, press the Timer button to set the timer "On" in the same way.

- Timer "On" setting:

In the "Off" state of the unit without a timer setting, if the Timer button is pressed, the LCD will display the hour with ON blinking. In this case, press the ▲ or ▼ button to adjust the timer. Then press Timer to confirm.

- Timer "Off" setting:

In the "On"-state of the unit without a timer setting, if the Timer button is pressed, the LCD will display the hour with OFF blinking. In this case, press the ▲ or ▼ button to adjust the timer ON. Then press Timer to confirm.

- Cancel timer:

After setting the timer, if the Timer button is pressed, the LCD won't display that the hour so the timer setting is canceled.

Timer "Off" setting under the "On" state of the unit is shown in Fig.8 below.

Wired Zone Controller DWCMW

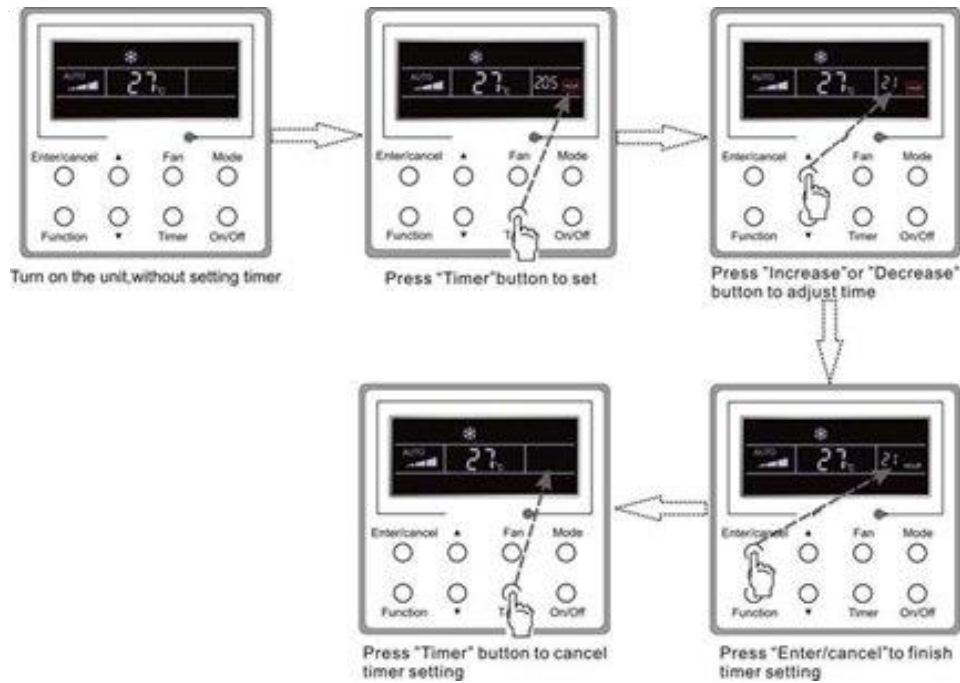
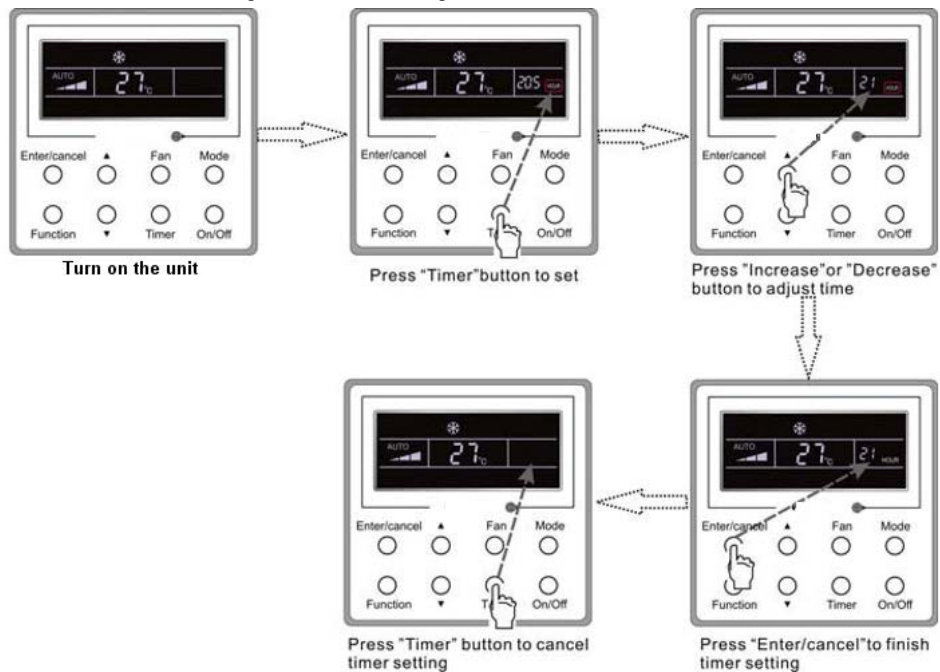




Fig. 8 Timer Off Setting under "On" State of Unit



Timer range: 0.5 hr. to 24 hrs. Every press of ▲ or ▼ will increase or decrease the set time by 0.5 hr. If either of them is pressed repeatedly, the set time will increase/decrease by 0.5 hr. every 0.5 seconds.

3.6 Swing Setting

Swing On: Press “Function” in the “On” state of the unit to activate the swing function. In this case,  will blink. After that, press Enter/Cancel to confirm.

Swing Off: When the Swing function is “On”, press “Function” to enter the Swing setting interface with  blinking. After that, press Enter/Cancel to cancel this function.

The Swing setting is shown in Fig.9 below

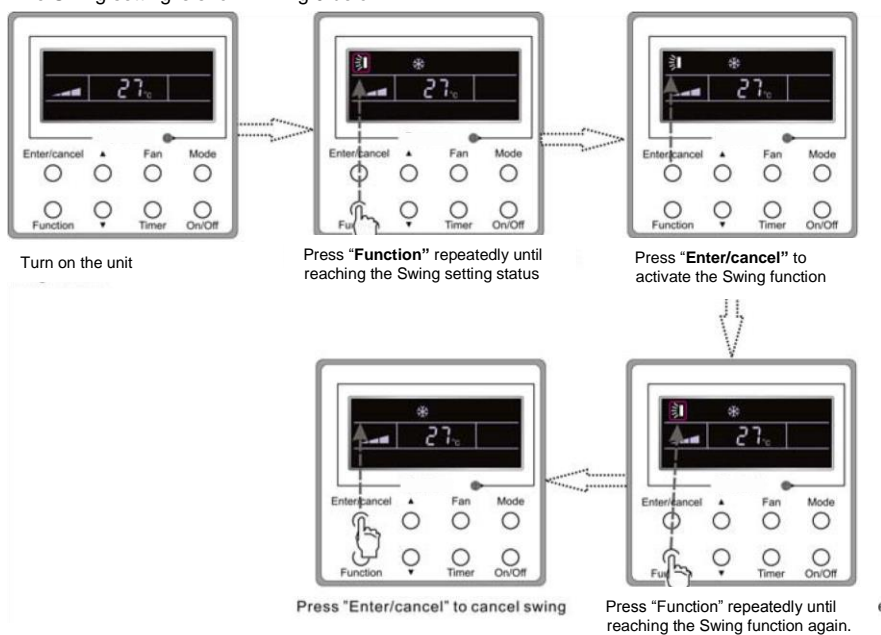


Fig. 9 Swing Setting

Note:

- 1) Sleep, Save, Turbo, Blow or Quiet setting is the same as the Swing setting.
- 2) After the setting has been done, press “Enter/cancel” to return to the setting status or quit automatically five seconds later.

3.7 Sleep Setting

Sleep On: Press “Function” in the “On” state of the unit until entering the Sleep setting state. After that, press “Enter/Cancel” to confirm this setting.

Sleep Off: When the Sleep function is activated, press “Function” to enter the Sleep setting status. After that, press “Enter/Cancel” to cancel this function.

The Sleep setting is shown in Fig.10 below.

Wired Zone Controller DWCMW

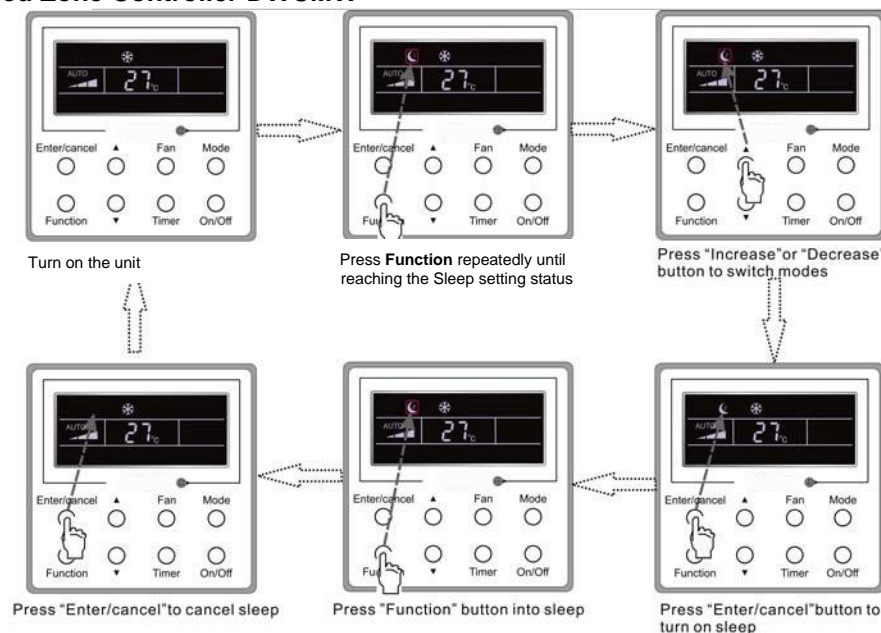


Fig. 10 Sleep Setting

Sleep "Off" is the default after a power failure and then power recovery. Sleep functions are not available under the Fan mode.

There are three Sleep modes: Sleep 1, Sleep 2 and Sleep 3.

a. Sleep 1

In the Cooling or Dry mode, the temperature will increase by 1°C after the unit runs under Sleep1 for one hour and 1°C after another hour. After that, the unit will continue to run at this temperature.

In the Heating mode, the temperature will decrease by (1°C) after the unit runs under Sleep 1 for one hour and 1°C after another hour. After that, the unit will continue to run at this temperature.

b. Sleep 2

In the Cooling mode, the temperature may be set between 60.8°F to 73.4°F (16°C to 23°C), 75.2°F to 80.6°F (24°C to 27°C), or 82.4°F to 84.2°F (28°C to 29°C). Their Sleep curves are shown in Fig.11 below. (Note: The curve is only for reference, the actual temperature is subject to the time point.).

For example: The temperature in the Cooling mode is set at 77°F (25°C) . Under the mode of Sleep 2, the temperature will increase by 33°F (1°C) every hour. After it increases by 35.6°F (2°C) in total, it will remain at 80.6°F (27°C). Seven hours later, it will decrease by 33°F (1°C), in other words, 78.8°F (26°C). After that, the unit will keep running at 78.8°F (26°C).

Wired Zone Controller DWCMW

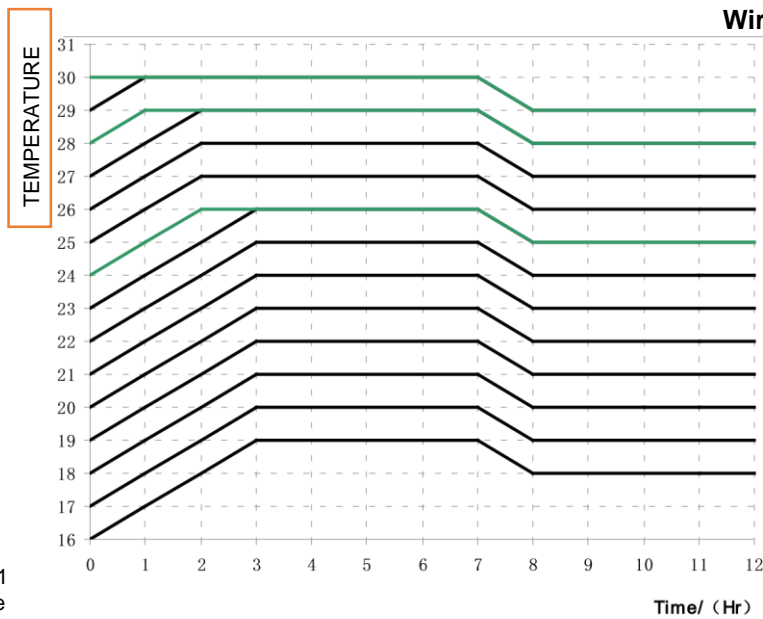


Fig.11
Mode

Sleep Curve of Sleep 2 in Cooling

In the Heating mode, the temperature may be set at 60.8°F (16°C) or between 62.6°F to 68°F (17°C to 20°C), 69.8°F to 80.6°F (21°C to 27°C), or 82.4°F to 86°F (28°C to 30°C). Their Sleep curves are shown in Fig.12below.

Wired Zone Controller DWCMW

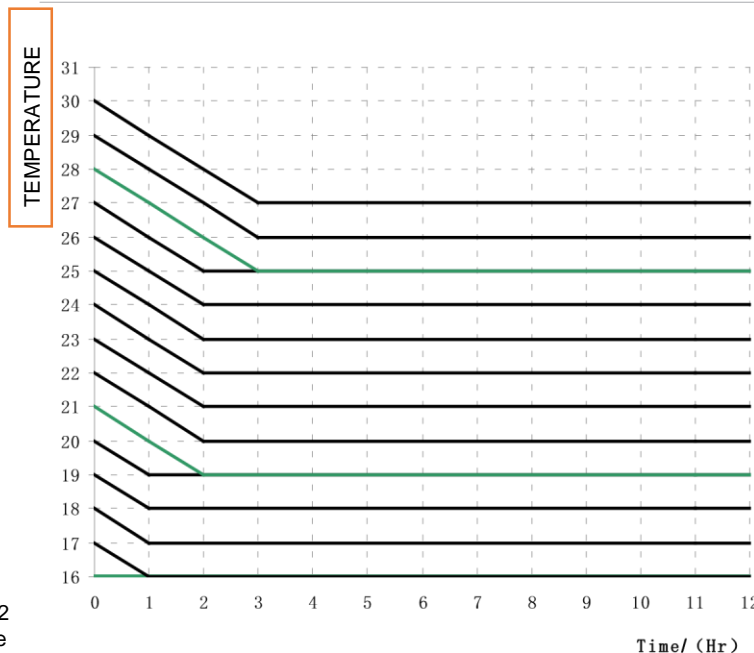


Fig.12
Mode

Sleep Curve of Sleep 2 in Heating

The temperature in the Heating mode is set at 71.6°F (22°C). Under the mode of Sleep 2, the temperature will decrease by 33°F (1°C) every hour. After it decreases by 66°F (2°C) in total, in other words, 68°F (20°C), the unit will keep running at 68°F (20°C).

c. Sleep 3

Sleep curve setting under Sleep 3 (Set the mode yourself (DIY))

1. Under the mode of Sleep 3, press "Timer" to enter the Sleep setting. In this case, the timing value of "1 HOUR" is displayed once and the corresponding temperature with the last Sleep curve setting is displayed where the ambient/preset temperature is also displayed once.
2. Press ▲ or ▼ to change the corresponding temperature setting.
- 3 Press Timer. Time will automatically increase by one hour, and the corresponding temperature with the last Sleep curve setting is displayed where the ambient/preset temperature is displayed once.
4. Repeat Step 2 and Step 3 until an eight-hour Sleep setting is completed.
5. Press "Enter/cancel" to confirm the setting.

The Sleep curve setting under Sleep 3 is shown in Fig. 13 below.

Wired Zone Controller DWCMW

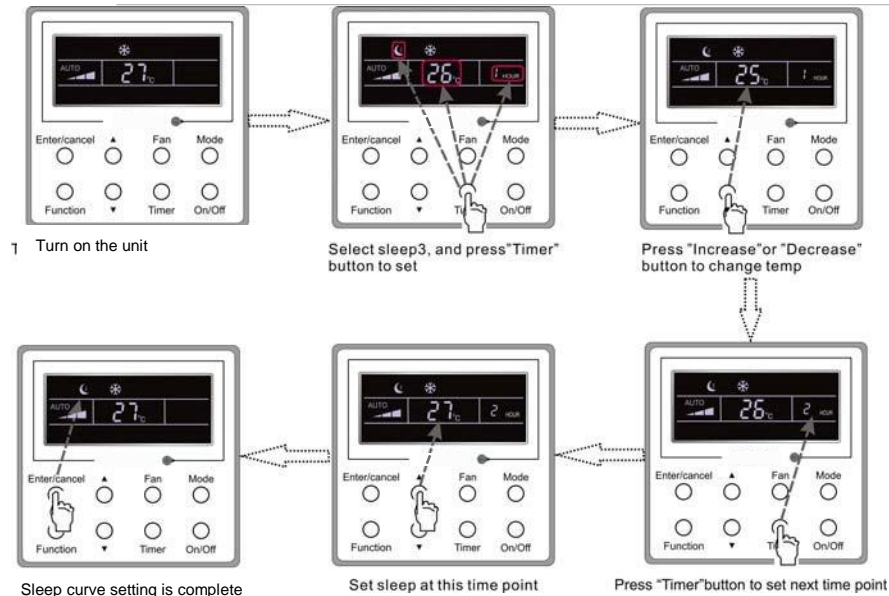


Fig. 13 Sleep Curve Setting under Sleep 3

Notes:

1) During the above setting, if Function is pressed down or there is not any operation within five seconds, the curve setting will be canceled. 2) 78.8°F (26°C) is the default Sleep curve temperature set at the factory. The wired zone controller will automatically recall the Sleep curve after setting.

3.8 Turbo Setting

Turbo function: The unit at the high fan speed can realize quick cooling or heating so that the room temperature can quickly approach the setting value.

In the Cooling or Heating mode, press "Function" until the unit enters the Turbo setting interface and then press "Enter/cancel" to confirm the setting.

When the Turbo function is activated, press "Function" to enter the Turbo setting interface and then press "Enter/cancel" to cancel this function.

The Turbo function setting is shown in Fig. 14 below.

Wired Zone Controller DWCMW

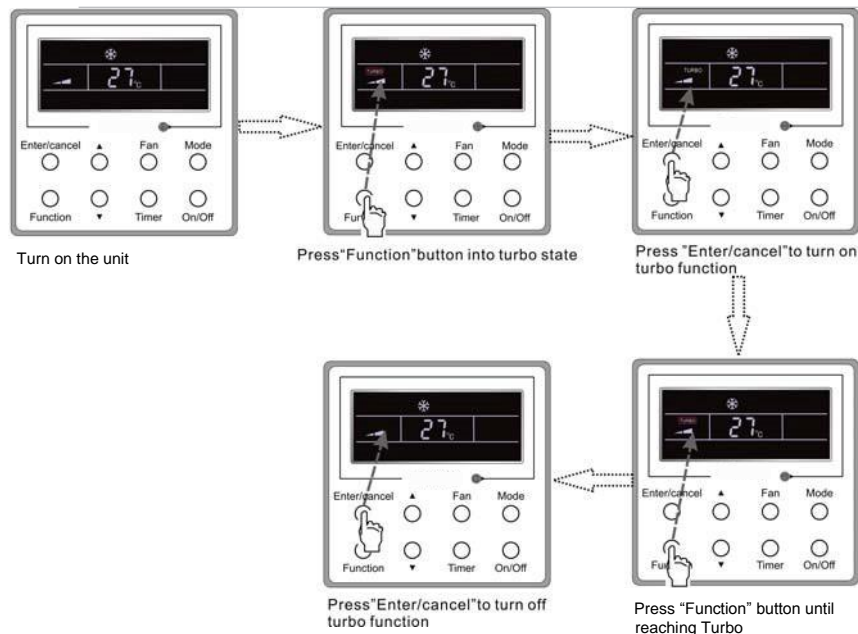


Fig.14 Turbo Setting

Notes:

- 1) When the Turbo function is activated, if the difference between the room temperature and set temperature is a, or below 35.6°F (2°C) and detected for one minute, the Turbo function will be automatically deactivated.
- 2) The Turbo function is unavailable in the Dry and Fan mode. The Turbo function is off after a power failure and then power recovery. If the Quiet function is on, the Turbo function will be subsequently canceled.

3.9 Save Setting

Save: Energy saving which will result in the air conditioner running in a lower temperature range is realized by setting a lower limited value in the Cooling or Dry mode and an upper limited value in the Heating mode.

Save Setting for Cooling:

Under the "On" state and in the Cooling or Dry mode of the unit, press "Function" to enter the Save setting interface. Then press ▲ or ▼ to adjust the lower limit value in the Cooling mode. After that, press "Enter/cancel" to activate the Save function. The initial lower limit value in the Cooling mode is 78.8°F (26°C).

Cancel to activate the Save function.

When the Save function is activated, press "Function" to enter the Save setting interface and then press "Enter/cancel" to cancel this function.

The Save setting for cooling is shown in Fig.15 below.

Wired Zone Controller DWCMW

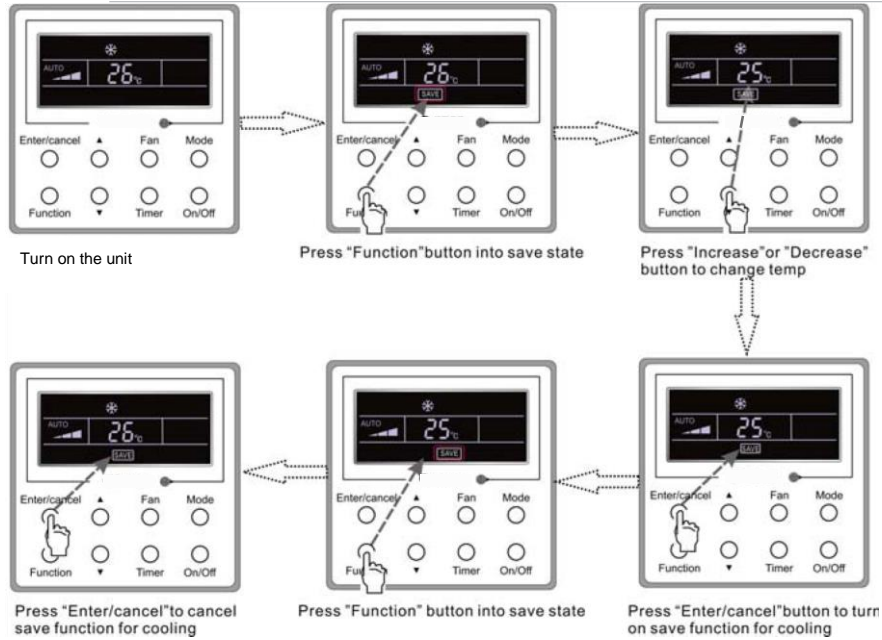


Fig. 15 Saving Setting for Cooling

Save Setting for Heating:

Under the "On" state or in the Heating mode of the unit, press "Function" to enter the Save setting interface. Then press ▲ or ▼ to adjust the upper limit value in the Heating mode. The upper initial limit value in the Heating mode is 68°F (20°C).

After the Saving function is activated, press "Function" to enter the Save setting interface and then press "Enter/Cancel" to cancel this function.

The Save setting for heating is shown in Fig. 16 below.

Wired Zone Controller DWCMW

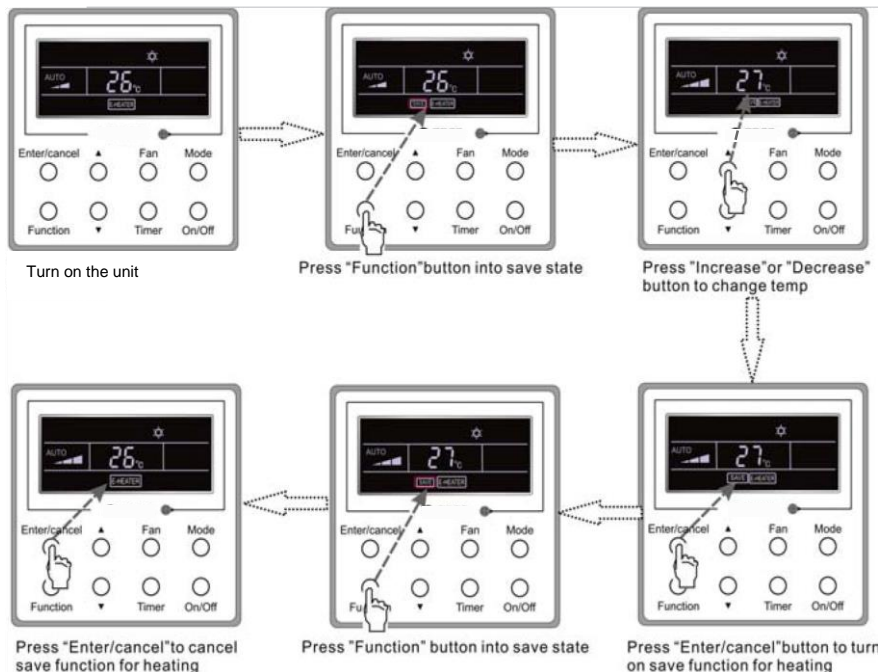


Fig.16 Save Setting for Heating

Notes:

- 1) If pressing "Function" on the Save setting interface, or if there is not any operation for five seconds after the last button is pressed, the Save setting will be canceled automatically by the system, placing the present setting data in memory.
- 2) When power is on after a power failure, the Save function will be memorized.

3.10 E-heater Setting

E-heater (auxiliary electric heating function): In the Heating mode, it is possible to turn on E-heater for efficiency improvement.

Once the wired zone controller or the remote controller enters the Heating mode, this function will be turned on automatically.

Press "Function" in the Heating mode to enter the E-heater setting interface. Then press "Enter/cancel" to cancel this function.

Press "Function" to enter the E-heater setting interface if the E-heater function has not been activated. Then press "Enter/Cancel" to turn it on.

The setting of this function is shown in Fig.17 below:

Wired Zone Controller DWCMW

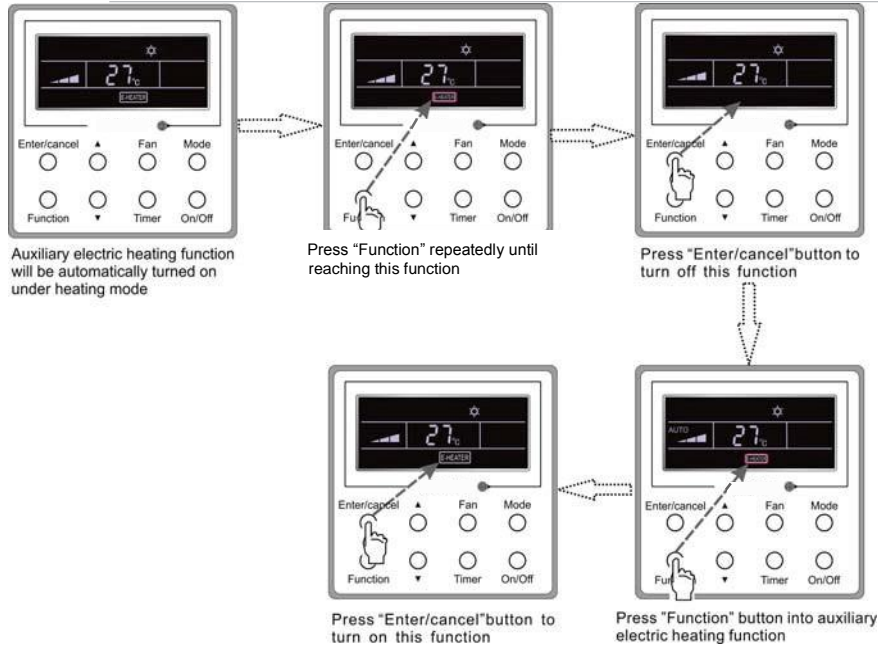


Fig.17 E-heater Setting

3.11 Blow Setting

Blow function: After the unit is turned off, this function assists in water evaporation to avoid mildew in the indoor unit.

In the Cooling or Dry mode, press Function until the unit enters the Blow setting status. Then press "Enter/cancel" to activate this function.

When the Blow function is activated, press "Function" repeatedly until reaching the Blow setting status. Then press "Enter/cancel" to cancel this function.

The Blow function setting is shown in Fig.18 below.

Wired Zone Controller DWCMW

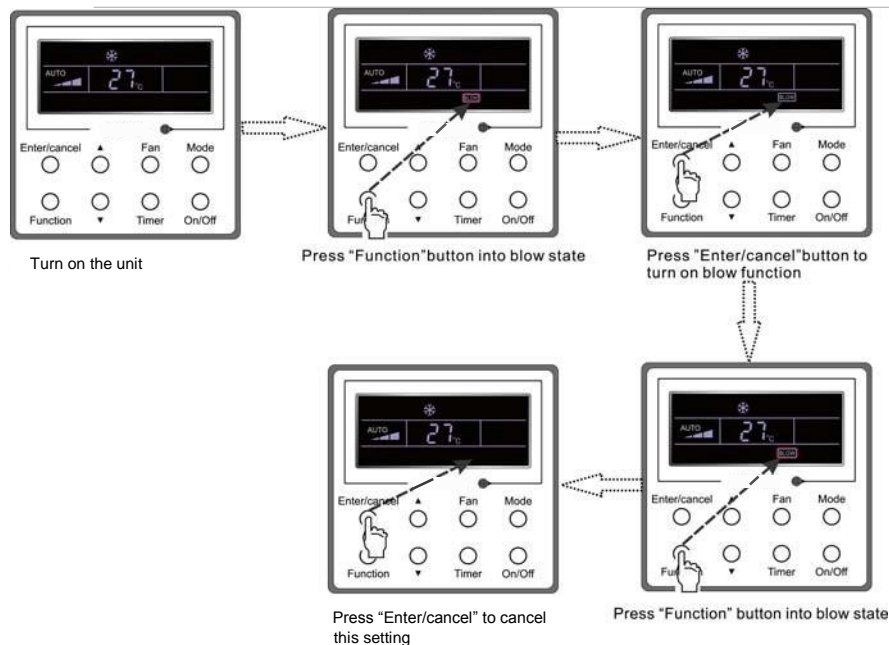


Fig.18 Blow Setting

Notes:

- 1) When the Blow function is activated, if turning off the unit by pressing On/Off or using the remote controller, the indoor fan will run at the low fan speed for 10 min. with "BLOW" displayed on the LCD. While, if the Blow function is deactivated, the indoor fan will turn off automatically.
- 2) Blow function is not available in the Fan or Heating mode.

3.12 Quiet Setting

The Quiet function consists of two kinds: quiet and auto quiet.

Press "Function" repeatedly until the unit enters the Quiet setting interface, with "Quiet" or "Auto" blinking. Then press "Enter/cancel" to confirm.

When the Quiet function is activated, press "Function" until the unit enters the Quiet setting status, with "Quiet" or "Auto" blinking. Then press "Enter/cancel" to cancel this function.

The Quiet function setting is shown in Fig.3.16 below:

Wired Zone Controller DWCMW

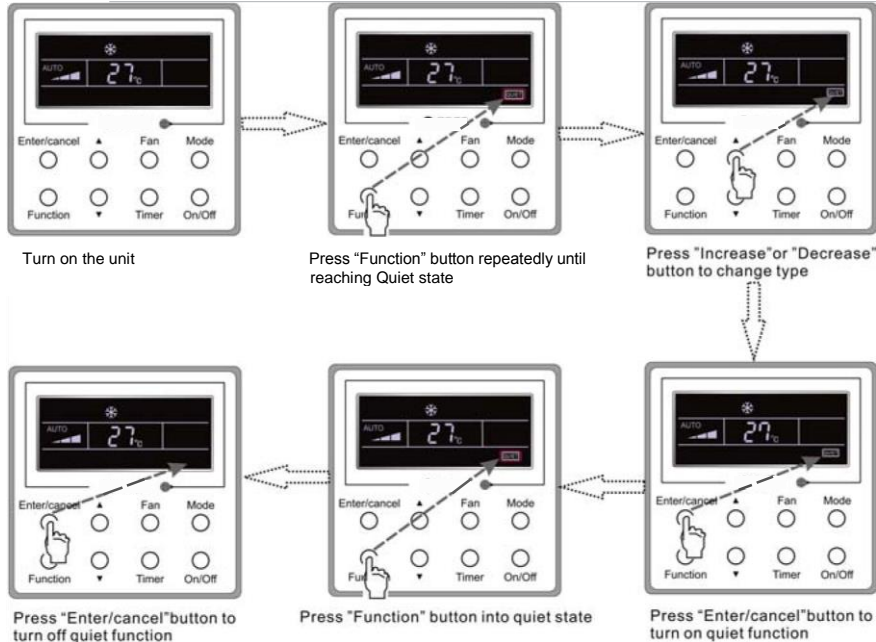


Fig.19 Quiet Setting

Notes:

1) When the Quiet function is activated, the fan speed is low and cannot be adjusted.

2) When the Auto Quiet function is activated, the unit will run according to the difference between the room temperature and the temperature to be set. In this case, the fan speed is adjustable.


Difference between the room temperature and the temperature to be set: The fan speed will keep its current speed if the temperature difference is equal to or greater than 39.2°F (4°C). The fan speed will reduce by one setting if the temperature difference is between 37.4°F (3°C) and 35.6°F (2°C). The fan will be at minimum if the temperature difference is equal to or less than 33.8°F (1°C).

3) When the Auto Quiet function is on, the fan speed cannot be increased but can be reduced. If the high fan speed is manually adjusted, the function will quit automatically.

4) There is no Auto Quiet function in the Fan or Dry mode. Quiet "Off" is the default after a power failure and then power recovery.

3.13 Other Functions

a. Lock

Upon start-up of a unit with no malfunction or under the "Off" state of the unit, press ▲ or ▼ at the same time for five seconds until the wired zone controller enters the Lock function. In this case, the LCD displays . After that, repress these two buttons at the same time for five seconds to quit this function.

Under the Lock state, all buttons are disabled.

b. Memory

Memory switch-over: In the "Off" state of the unit, press "Mode" and ▲ at the same time for five seconds to switch memory states between memory "On" and memory "Off". When this function is activated, Memory will be displayed. If this function is not set, the unit will be in the "Off" state after a power failure and then power recovery.

Wired Zone Controller DWCMW

Memory recovery: If this function has been set for the wired zone controller, after a power failure the wired zone controller will resume its original running state upon power recovery. Memory contents: On/Off, Mode, set temperature, set fan speed, Save function and Lock function.

c. Enquiry of the Outdoor Ambient Temperature

Under the "On" or "Off" state of the unit, press "Enter/cancel" for five seconds, and the outdoor ambient temperature will be displayed after a clicking sound. This enquiry state will quit by pressing Function or On/Off or during the temperature adjustment. If there is no operation for 10 seconds, it will also quit automatically.

4 Errors Display

If there is an error occurring during the operation of the system, the error code will be displayed on the LCD, as show in Fig.20. If multiple errors occur at the same time, their codes will be displayed in a sequential fashion.

Note: If an error code is displayed, reference Table 5.1 below for error code explanation and contact you service representative for further assistance."

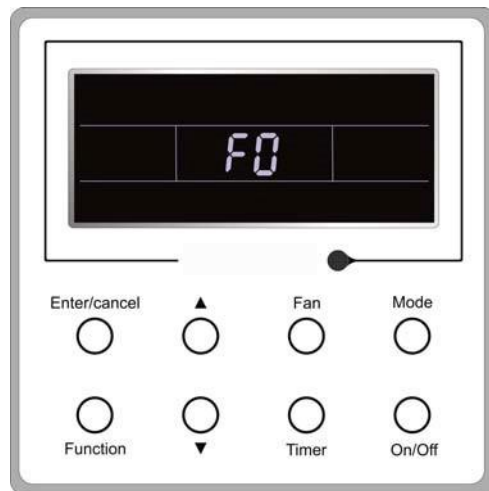


Fig.20

Wired Zone Controller DWCMW

Table 3 Definition of Each Error

Error	Error Code
High pressure protection	E1
Low pressure protection	E3
Discharge protection	E4
Over-current protection	P5
Communication error	E6
Indoor Water Overflow Protection	E9
Mode Conflict	E7
Anti-freezing protection	E2
Defrosting or oil returning for heating	H1
Indoor ambient temperature sensor open/short circuit	F1
Evaporator temperature sensor open/short circuit	F2
Indoor unit (liquid valve) refrigerant pipe inlet temperature sensor error	b5
Indoor unit (gas valve) refrigerant pipe outlet temperature sensor error	b7
Condenser coil inlet temperature sensor open/short circuit	A5
Condenser coil midway temperature sensor error	F4
Condenser coil outlet temperature sensor open/short circuit	A7
Discharge air temperature sensor error	F5
Outdoor ambient temperature sensor error	F3
Module temperature sensor error	oE
Outdoor unit overall error	oE

Wireless Remote Controller DRCMW

Wireless Remote Controller (DRCMW)

Notes:

- 1) Be sure that there are no obstructions between the receiver and the remote controller.
- 2) Do not drop the remote controller.
- 3) Do not let the remote controller get wet, expose it to direct sunlight or expose it to heat.
- 4) This is a general-use remote controller. If pressing a button which has no corresponding function, the unit will not change its status.

1 Functions of Buttons



Fig.21






1) ON/OFF (⏻)

Press this button to turn the unit on/off. After that, the sleep function will be canceled but the preset time still remains.

2) MODE

Auto, Cool, Dry, Fan, Heat modes can be selected in a sequential fashion by pressing this button. Auto mode is the default after the power is on. Under Auto mode, the temperature will not be displayed. Under Heat mode, the initial value is 82.4°F (28°C). Under other modes, the initial value is 77°F (25°C).




-  Auto
-  Cool
-  Dry
-  Fan
-  Heat (Only for cooling and heating)

3) SLEEP

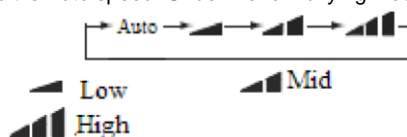
Sleep On and Sleep Off can be selected by pressing this button. Once powered on, the default is Sleep Off.

Wireless Remote Controller DRCMW





After the unit is turned off, the Sleep function is canceled. When the sleep function is set already, the symbol  will be displayed. At this time, the time of the timer can be adjusted. Under Fan and Auto modes, this function is not available.

4) FAN

Auto, Low, Middle, or High fan speed can be sequentially selected by pressing this button. After powered on, the default is Auto speed. Under Dehumidifying mode, only Low fan speed is available.



5) CLOCK

The clock can be set up by pressing this button, with the symbol  displayed and blinking. In such a case, pressing "+" or "-" within five seconds can adjust the value. If the button is pressed down for more than two seconds, the value on ten's place will increase by 1 every 0.5 second. After that, repress this button and then the  symbol stops blinking, which indicates the setting is made successfully. After powered on, the default value is 12:00 with  displayed. Once the  symbol is displayed, the current time is the Clock value; otherwise it is the Timer value.

6) LIGHT

Light On and Light Off can be set by pressing this button when the unit is at On or Off status. After powering on, the default is Light On.

7) TURBO

In Cool or Heat mode, pressing this button can activate or deactivate this function. When this function is on, its symbol will be displayed. Any change of either mode or fan speed will automatically cancel this function.

8) BLOW

Blow On and Blow Off can be set by pressing this button. In Cool and Dehumidifying modes, press this button to activate this function and then "BLOW" will be displayed. After that, it can be canceled by repressing this button. After powering on, the default is Blow Off. If the on/off button is operated or the unit is switched to the Cool or Dehumidifying mode, it will keep its original status. When the unit is turned off, only Blow Off is available. Under Auto, Fan or Heat mode, this function is unavailable.

9) - (Decreasing Temperature)


The preset temperature can be decreased by pressing this button. If the button is pressed down for more than two seconds, the temperature will be decreased quickly until it is released, with °F (°C) displayed at the time. Under Auto mode, the temperature adjustment is unavailable.

10) + (Increasing Temperature)

The preset temperature can be increased by pressing this button. If the button is pressed down for more than two seconds, the temperature will be increased quickly until it is released, with °F (°C) displayed all the time. Under Auto mode, the temperature adjustment is unavailable. The setting range is 61°F to 86°F (16°C to 30°C).

Wireless Remote Controller DRCMW



11) TEMP

By pressing this button, it can be decided which temperature will be displayed, indoor set temperature, or indoor ambient temperature. When the indoor unit is powered on, the indoor set temperature will be displayed, but if the status is changed to , the indoor ambient temperature will be displayed. However, the indoor set temperature will be displayed again when the controller receives other remote control signals. Without setting this function, the default is the indoor set temperature.

12) SWING UP/DOWN ()

The swing angle which changes in a sequential fashion as indicated below can be selected by pressing this button:



This kind of remote controller is universal. The three swing statuses of  are the same as that of .

If the swing function is deactivated when the air guide louver is swing up and down, it will stop at the current position.

 Indicates that the air guide louver swings up and down among all five positions.

13) AIR ()

Air on or Air off can be selected by pressing this button.

14) TIMER ON

“ON” will be displayed and blink for five seconds by pressing this button. Adjust the time by pressing “+” or “-” within five seconds. Each press will increase or decrease the time by one minute. If the button is pressed down for more than two seconds, the time will change quickly in this way: First, the value on the one’s place is changed and then the value on the ten’s place. Once Timer ON has been set already, it can be canceled by pressing it again. Before the setting, please adjust the CLOCK to the current actual time.


15) TIMER OFF

TIME OFF can be activated by pressing this button, with “OFF” blinking. The method of setting is the same as that for TIMER ON.

16) I FEEL

This function can be activated by pressing this button and canceled by pressing again. When this function is on, the I FEEL information will be sent out in 200ms after each operation on the controller and the remote controller will send the temperature information to the main controller every 10 minutes.

2 Guide for General Operation

- After powered on, press ON/OFF and then the unit will start to run. (Note: when powered off, the guide louver of the main unit will close automatically).
- Press MODE to select the desired running mode.
- Press “+” or “-” to set the desired temperature. It is unnecessary to set the temperature under the AUTO mode.
- Press FAN to set the fan speed, AUTO, LOW, MID, or HIGH.
- Press  to select the swing angle.

3 Guide for Optional Operation

a. About BLOW

This function assists in water evaporation to avoid mildew in the indoor unit.

1) BLOW ON: When pressing the ON/OFF button to turn off the unit, the indoor fan will continue running for about another 10 minutes at the low speed. The indoor fan can be stopped by pressing the BLOW button.

2) BLOW OFF: When pressing the ON/OFF button to turn off the unit, the whole unit will be completely stopped

b. About AFTERHEAT BLOW

Under the Heat mode or Auto Heat mode, if the unit is turned off, the compressor and outdoor fan will stop running immediately and the upper and lower guide board will rotate to the horizontal position, while the indoor fan will still run at the low fan speed. Then, 10 seconds later, the unit will stop completely.

c. About AUTO RUN

When AUTO RUN is selected, the setting temperature will not be displayed on the LCD and the unit will choose a suitable running mode automatically in accordance with the room temperature.

d. About TURBO

If this function is activated, the unit will run at super-high fan speed to cool or heat quickly so that the ambient temperature will approach the preset temperature as soon as possible.

Wireless Remote Controller DRCMW

III Commonly Found Errors and Maintenance

1 Commonly Found Errors

If the unit runs abnormally, please check the possible causes listed in the table below

Table 4 Definition of Each Error

Error (s)	Possible Cause(s)
The unit can't be started.	1. The unit is not energized. 2. The leakage switch trips owing to electric leakage. 3. The power voltage is too low.
The unit stops soon after run for a little while.	1. The inlet or outlet opening of the indoor or the outdoor unit is blocked.
The cooling effect is poor.	1. The air filter is too dirty or is blocked. 2. There are too many heat resources or people in the room. 3. The door or window is open. 4. There is an obstacle at the air inlet or outlet. 5. The preset temperature is too high.
The heating effect is poor.	1. The air filter is too dirty or is blocked. 2. A door or window is not fully closed. 3. The preset temperature is too low.
The controller is out of control.	1. The remote controller may crash when batteries are replaced. In this case, press the button "ACL" to let it recover. 2. Is it in the signal receiving range? Is there an obstacle in its way? 3. For a ducted indoor unit, the remote controller should be operated pointing at the wired zone controller. 4. Check if the voltage of the batteries in the remote controller is sufficient. If not, replace the batteries.

Note: If the unit still runs abnormally after the above checks and handling, please stop the unit immediately and contact the serviceman at the local authorized service center for repair.

2 Maintenance

⚠CAUTION Please pay attention to the following items before cleaning and maintenance.

- Cut off the main power supply of the indoor unit before touching any wired equipment.
- Only after the power supply is cut off can the cleaning be done, or it may cause electric shock or injury.
- Do not clean the unit with water because of possible electric shock.
- Any standing platform for cleaning should be stable.
-

a. Cleaning of the Air Filter

Wireless Remote Controller DRCMW

- Do not disassemble the air filter except for cleaning. Otherwise, there may be a malfunction.
- When the unit is used in heavy dust circumstances, the air filter should be cleaned frequently (generally once every two weeks).

b. Maintenance before Seasonal Use

- Check to see if the air inlet and outlet of the indoor and outdoor units are blocked.
- Check to see if the grounding wire is in good condition.
- Check to see if the wiring is in good condition.
- Check to see if the indicator light of the power supply blinks after power is on.

Note: If there is something abnormal, please contact an authorized serviceman for guidance.

c. Maintenance after Seasonal Use

- If it is sunny, let the unit run in the Swing mode for a half day to dry the inside of the unit.
- If the unit is not to be used for a long time, please switch off the main power supply to save energy. In this case, the indicator light of the wired zone controller will go out.

Support Contact Information:

	Phone	Email
Technical Support Support during installation, commissioning, service and troubleshooting	1(844) 873-4443	BE-VRFTechSupport@jci.com
Applications and Design Presale assistance with equip applications and design support, as well as use of selection tool	1(844) 873-6755	BE-VRFApplicationDesign@jci.com
Customer Service Assistance ordering equipment, parts and accessories	1(844) 873-4445	BE-VRFCustomerService@jci.com
Warranty Assistance with warranty registration, warranty claims, etc.	1(844) 873-9768	BE-VRFWarranty@jci.com
Parts Equipment and parts pre and post-sale support	1(844) 873-4445	BE-VRFParts@jci.com

Product improvement, specifications and appearance in this manual are subject to change without prior notice.

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