

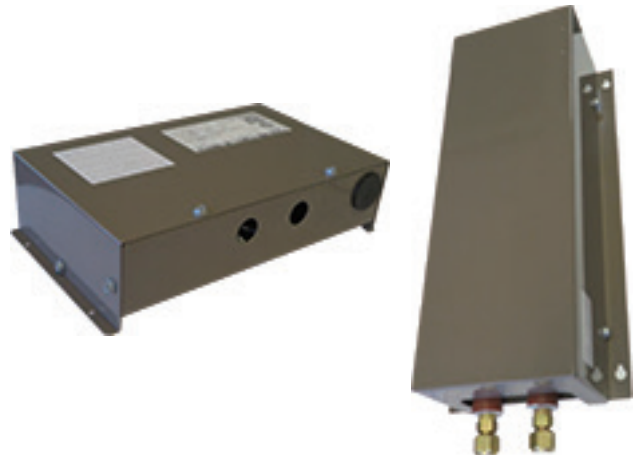
Operation Manual

For DX-Kit

Type	Model
DX-Kit for Multi-Position Air Handler	EXV-018E
	EXV-024E
	EXV-030E
	EXV-036E
	EXV-048E
	EXV-060E

IMPORTANT:

***READ AND UNDERSTAND
THIS MANUAL BEFORE
USING THIS DX-KIT.
KEEP THIS MANUAL FOR
FUTURE REFERENCE.***



PMGB0382

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 product is designed for standard air conditioning applications only. Do not use this product for anything other than the purposes for which it was intended.
- The installer and system specialist shall safeguard against leakage in accordance with local 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 product will be operated and serviced in the United States of America and comes with a full complement of the appropriate 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 product which you operate as well for other models.
- This product has been designed for a specific temperature range. For optimum performance and long life, operate this product within the range limits according to the table below.

Temperature

		Maximum	Minimum
Cooling Operation	Indoor	89°F DB/73°F WB (32°C DB/23°C WB)	69°F DB/59°F WB (21°C DB/15°C WB)
	Outdoor	118°F DB (48°C DB) *	14°F DB (-10°C DB) *
Heating Operation	Indoor	80°F DB (27°C DB)	59°F DB (15°C DB)
	Outdoor	59°F WB (15°C WB) *	-4°F WB (-20°C WB) *

DB: Dry Bulb, WB: Wet Bulb

* The temperature may change depending on the outdoor unit.

- This manual should be considered as a permanent part of the air conditioning equipment and should remain with the air conditioning equipment.



TABLE OF CONTENTS

1. Introduction	1
2. Safety Instructions	1
3. Before Operation.....	5
4. Names of Parts	6
4.1 DX-Kit	6
4.2 Wired Controller (CIW01).....	7
5. Operation Method	8
5.1 Basic Operation.....	8
5.2 Cooling / Heating / Fan Mode.....	9
5.3 Temperature Setpoint.....	10
5.4 Fan Speed.....	10
5.5 Operation.....	11
5.6 Automatic Heating/Cooling Operation	12
5.7 Setback Operation.....	12
6. Automatic Control	13
7. Troubleshooting	14
7.1 This is Normal	14
7.2 Before Contact	14
7.3 Contact Distributor.....	15
7.4 Alarm Code	16


1. Introduction

Read this manual carefully before working with this product.
Keep this information with this product.

2. Safety Instructions

Signal Words	
 WARNING	Indicates a hazardous situation that, if not avoided, could result in death or serious injury.
 CAUTION	Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.
NOTICE	Indicates information considered important, but not hazard-related (for example, messages relating to property damage).

General Precautions

 WARNING	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 the product and are attached to the unit. <i>Refer back to these safety instructions as needed.</i>
--	--

- This system 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. In areas where Seismic Performance requirements are specified, the appropriate measures should be taken during installation to guard against possible damage or injury that might occur in an earthquake if this product is not installed correctly, injuries may occur due to a falling product.
- Use appropriate Personal Protective Equipment (PPE), such as gloves and protective goggles and, where appropriate, have a gas mask nearby. Also use electrical protection equipment and tools suited for electrical operation purposes. Keep a wet cloth and a fire extinguisher nearby during brazing. Use care in handling, rigging, and setting of bulky equipment.
- When transporting, be careful when picking up, moving and mounting this product. Although the product may be packed using plastic straps, do not use them for transporting this product from one location to another. Do not stand on or put any material on this product. Get a partner to help, and bend with your knees when lifting to reduce strain on your back. Sharp edges or thin aluminum fins on the air conditioner can cut fingers, so wear protective gloves.
- 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 or switch.

- Before servicing, turn-OFF current at the power source and use accepted lockout and tag out procedures at all main switches.
- This product is the pressurized system. Never loosen threaded joints while the system is under pressure and never open pressurized system parts.
- Johnson Controls will 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;

Refrigerant Precautions



To reduce the risk of serious injury or death, the following refrigerant precautions must be followed.

- As originally manufactured, this product contains refrigerant installed by Johnson Controls. Johnson Controls uses only refrigerants that have been approved for use in the product intended home country or market. Johnson Controls distributors similarly are only authorized to provide refrigerants that have been approved for use in the countries or markets they serve. The refrigerant used in this product is identified on the unit's faceplate and/or in the associated manuals. Any additions of refrigerant into this product must comply with the country's requirements with regard to refrigerant use and should be obtained from Johnson Controls distributors. Use of any non-approved refrigerant substitutes will void the warranty and will increase the potential risk of injury or death.
- If installed in a small room, take measures to prevent the refrigerant from exceeding the maximum allowable concentration in the event that refrigerant gases should escape. The installation should meet requirements in ASHRAE Standards 15 and 34. If refrigerant gas has leaked during the installation work, ventilate the room immediately.
- Before installation is complete, make sure that the refrigerant leak test has been performed. If refrigerant gases escape into the air, turn OFF the main switch, extinguish any open flames and contact your service contractor. Refrigerant (Fluorocarbon) for this unit is odorless. If the refrigerant should leak and come into contact with open flames, toxic gas could be generated. Also, because the fluorocarbons are heavier than air, they settle to the floor, which could cause asphyxiation.
- When installing this product, and connecting refrigerant piping, keep all piping runs as short as possible, and make sure to securely connect the refrigerant piping before the compressor starts operating. If the refrigerant piping is not connected and the compressor activates with the stop valve opened, the refrigerant cycle will become subjected to extremely high pressure, which can cause an explosion or fire.
- Tighten the flare nut with a torque wrench in the specified manner. Do not apply excessive force to the flare nut when tightening. If you do, the flare nut can crack and refrigerant leakage may occur.
- A compressor/unit comprises a pressurized system. Never loosen threaded joints while the system is under pressure and never open pressurized system parts.
- When maintaining, relocating, and disposing of this product, dismantle the refrigerant piping after the compressor stops.

Electrical Precautions



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

- Highly dangerous electrical voltages are 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 servicing, open and tag all disconnect switches. Never assume electrical power is disconnected. Check with meter and equipment.
- Only use electrical protection equipment and tools suited for this installation.
- Use specified cables between units.
- Communication cable should be a minimum of AWG18 (0.82mm²), 2-Conductor, Stranded Copper. Shielded cable must be considered for applications and routing in areas of high EMI and other sources of potentially excessive electrical noise to reduce the potential for communication errors. When shielded cable is applied, proper bonding and termination of the cable shield is required as per Johnson Controls guidelines. Plenum and riser ratings for communication cables must be considered per application and local code requirements.
- Use an exclusive power supply for the air conditioner at this product's rated voltage.
- Be sure to install circuit breakers (ground fault interrupter, isolating switch, molded case circuit breaker and so on), with the specified capacity. Ensure that the wiring terminals are tightened securely to recommended torque specifications. If a circuit breaker or fuse is frequently activated, shut down the system and contact your service contractor.
- 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.
- Turn OFF and disconnect this product from the power supply when handling the service connector. Do not open the service cover or access panel to this product, the indoor or outdoor units without turning OFF the main power supply.
- After stopping operation, be sure to wait at least five minutes before turning off the main power switch. Otherwise, water leakage or electrical breakdown may result. Disconnect the power supply completely before attempting any maintenance for electrical parts. Check to ensure that no residual voltage is present after disconnecting the power supply.
- Do not clean with, or pour water into, the controller as it could cause electric shock and/or damage this product. Do not use strong detergent such as a solvent. Clean with a soft cloth.
- Check that the ground wiring is securely connected. Do not connect ground wiring to gas piping, water piping, lighting conductor, or telephone ground wiring.
- If a circuit breaker or fuse is frequently activated, shut down the system and contact your service contractor.
- 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.

Operation

WARNING

- Do not insert fingers or objects into air inlet/outlet of the air handler. Injury can result from rotating fan blades or energized electrical components.
- Do not touch the wired controller with wet hands. Failure of the wired controller or an electrical shock can result.
- Hair spray, insecticides, lacquers, and other pressurized substances should not be used within 3.3ft (1m) of any air conditioning unit. They can react with energized electrical components and cause fire.
- Do not install this product anywhere discharge airflow can pass directly toward nearby heating equipment (space heaters). It may interfere with the combustion process in this product.
- Air circulation should be optimized to achieve the best distribution pattern and not settle into isolated pockets that can make people uncomfortable.
- When this product is operating with heating equipment, ventilate a room sufficiently. Any leaked refrigerant gas that happens to come into contact with any heat source can become toxic on contact and can cause suffocation in the immediate area.
- Shut down at the main power source if the GFCI (Ground Fault Circuit Interrupter) activates frequently. Contact your distributor or contractor immediately. Failure to act accordingly can result in serious injury and damage to this product.
- CAUTION! If you smell anything burning, shut down this product and turn OFF the power at the main power source. Contact the fire department and your installer or electrical contractor.
- Make sure that a test for leakage of refrigerant gases has been performed. The refrigerant used for this unit (HFC R410A) is a non-flammable, non-toxic, and odorless gas. However if refrigerant should leak and make contact with sparks, fire; will erupt and generate toxic gas. Also, fluorocarbon, which is heavier than air will cover the floor surface and can cause suffocation.
- If fluorocarbon gas should leak, turn OFF all heating equipment and ventilate the room immediately. Mop down or vacuum floor areas of residual toxic particulate.
- CAUTION! Do not operate this product with the electrical box exposed. Incidental contact with energized electrical components can prove fatal.

Repair / Relocation

WARNING

- When the air conditioner is to be repaired or transported to a new location, contact your distributor or contractor. If the repair and the installation are not completed, electric shock or fire can result.

Others

WARNING

- Turn OFF all power at the main power source before performing maintenance work. Failure to do so can result in damage to internal components with severe or fatal electrical shock.
- Insulate all electrical components and connections from exposure to moisture. Failure to do so can result in an electrical short or fire.
- Do not tamper with or attempt to "repair" electrical wiring or connections. Call your installer or electrical contractor. Serious or fatal injury can occur.
- Perform all maintenance work on a firm and stable platform to minimize the risk of injury.
- Do not attempt to "clean" components with liquid or powdered cleaning agents during maintenance. Electric shock, sparks, flame, and serious or fatal injury can occur.
- System piping is charged with refrigerant and highly pressurized.

3. Before Operation

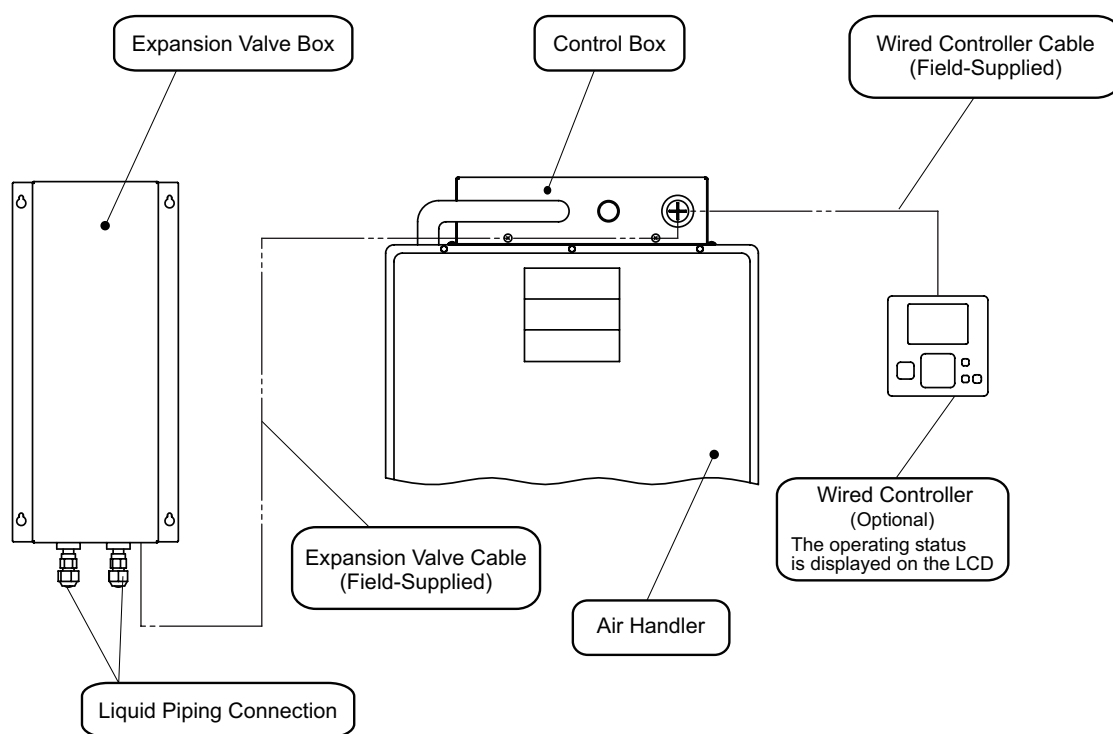
NOTICE

Power is turned on. Apply power to the outdoor unit(s) at least 12 hours prior to operation of the system for preheating of the compressor oil. Make sure that the outdoor unit is not covered with snow or ice. If it is, remove it by using hot water that is approximately 122°F (50°C). If the water temperature is higher than 122°F (50°C), it will cause damage to plastic parts.

- Turn OFF the main power switch when the system is stopped for a long period of time.
If the main switch is not turned OFF, electricity is consumed because the oil heater is always energized during compressor stopping.
- When the system is started after a shutdown longer than approximately three months, it is recommended that the system be checked by your service contractor.

4. Names of Parts

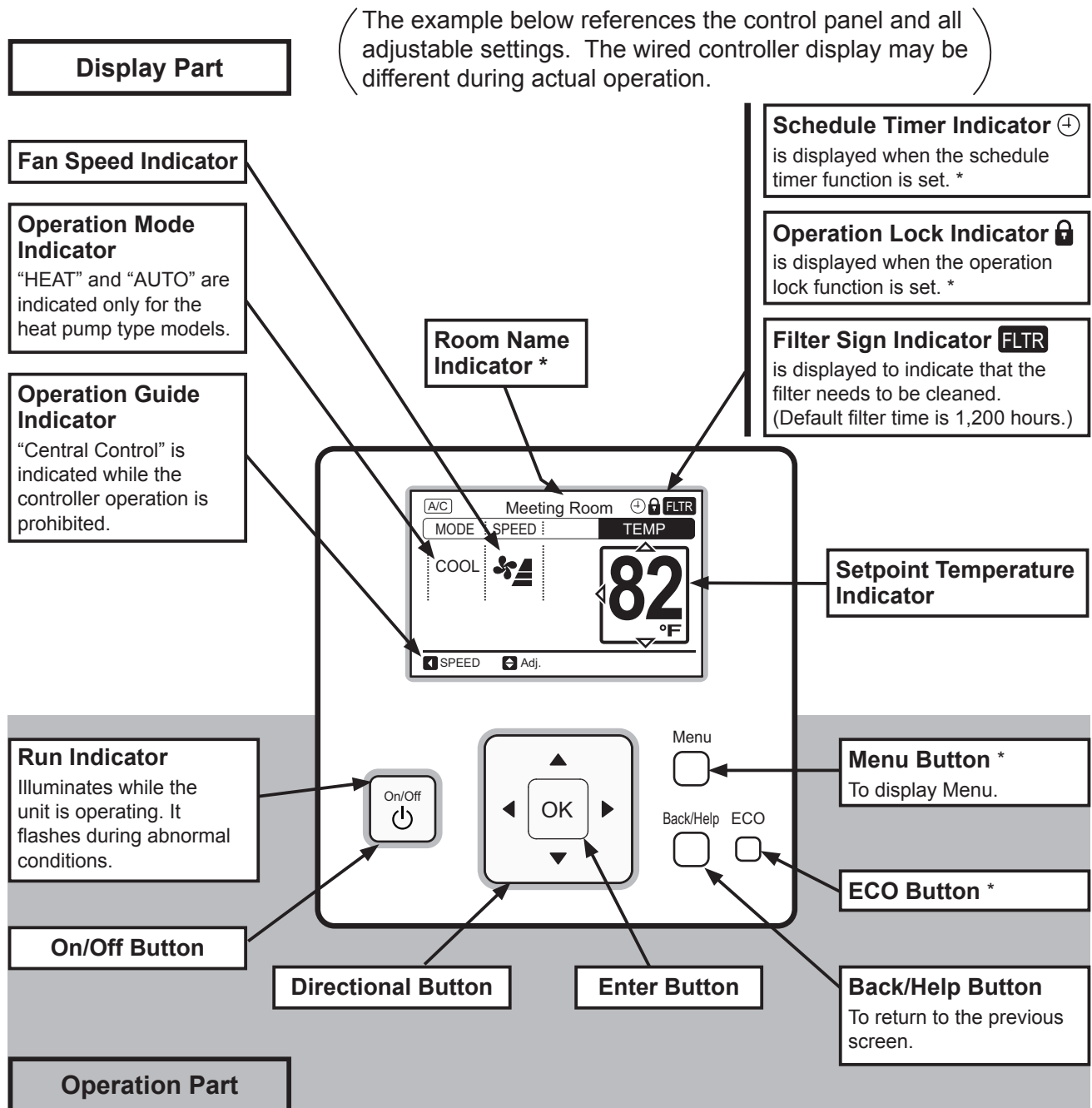
4.1 DX-Kit



4.2 Wired Controller (CIW01)

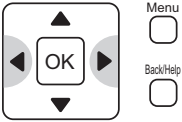
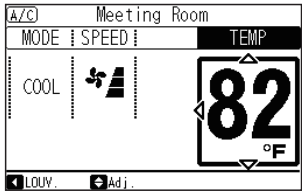
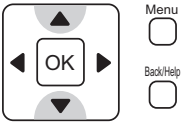
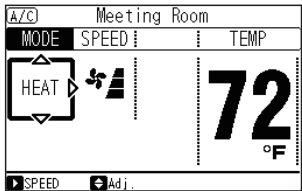
Used when connected to this DX-Kit that is combined with the air handler.

Following is an example of how the CIW01 is utilized. If other models of the controller are utilized, operate the unit according to the manual for that controller.



5. Operation Method

5.1 Basic Operation

Item Selection	Press “◀” or “▶”, to move the icon to “MODE”, “SPEED”, “LOUV.” and “TEMP”.		
Change of Settings	To change the setting, select (“MODE”, “SPEED”, “LOUV.” or “TEMP”) and at the same time, press “Δ” or “∇”.		

- For this product, “LOUV.” is not displayed on the Liquid Crystal Display (LCD).

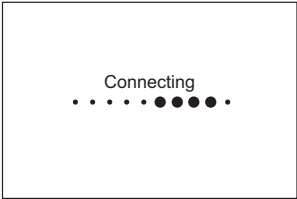

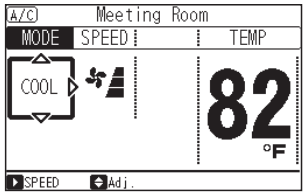


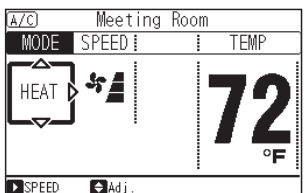
5.2 Cooling / Heating / Fan Mode

Heating Mode is for VRF systems only and is not available for typical systems.

Function

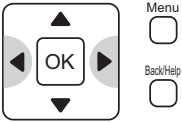
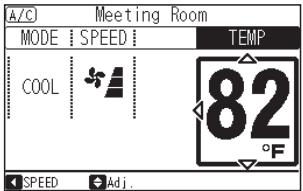
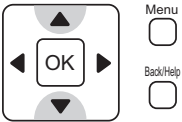
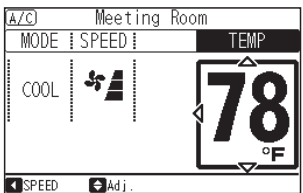
- * Cooling Mode: To decrease the room temperature.
- * Heating Mode: To increase the room temperature.
- * Dry Mode: To decrease the humidity in the room.
- * Fan Mode: To circulate the air in the room.

- Dry mode does not perform properly if there are other heat sources that exceed the unit's capacity.
- The humidity control is unavailable for this unit. If you require dehumidification and the control of humidity, choose specialized equipments.
- Decreasing of the humidity during dry operation might be unavailable.

Before Operation	<p>Turn ON the power supply. Turn ON the main power approximately 12 hours before operation in order to preheat the compressor.</p> <p>Do not turn OFF the main power of the indoor unit during heating or cooling season.</p>		
1	Press “◀” or “▶” to select “MODE”.		
2	<p>By pressing “Δ” or “∇”, the mode is changed as follows.</p> 		


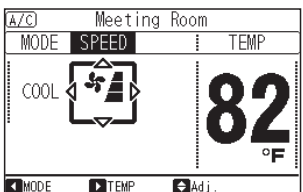

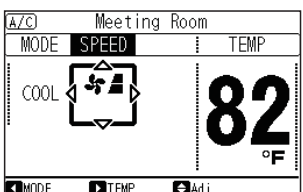
- Automatic heating/cooling operation requires an extra setting. Contact your distributor or contractor for details.

5.3 Temperature Setpoint

1	Press “◀” or “▶” and select “TEMP”.		
2	By pressing “Δ”, the temperature is increases by 1°F (0.5°C). (Max. 86°F (30°C)) By pressing “∇”, the temperature is decreases by 1°F (0.5°C). COOL, FAN operation: Min. 66°F (19°C) HEAT operation: Min. 62°F (17°C)		


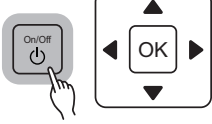
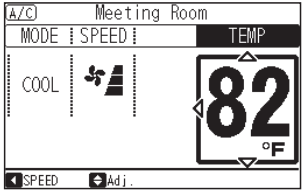
- Once the optional function “Automatic Reset of Temperature Setpoint” is set:
If you change the temperature setpoint on the wired controller, after a set time the temperature returns automatically to the setpoint with the function “Automatic Reset of Temperature Setpoint”.
- Configure minimum and maximum temperature setpoint limits:
In the wired controller’s Test Run Menu, in the “Function Selection” mode, select a cooling lower limit and heating upper limit.
- Contact your distributor or contractor for details on optional functions “Automatic Reset of Temperature Setpoint”, “Cooling Lower Limit for Temperature Setpoint” and “Heating Upper Limit for Temperature Setpoint”.

5.4 Fan Speed

1	Press “◀” or “▶” and select “SPEED”.		
2	By pressing “Δ” or “∇”, the fan speed is changed as follows. <div data-bbox="504 1565 737 1684" style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> ◀ HIGH ▶ LOW ▶ </div>		


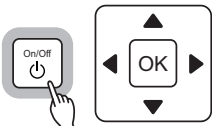
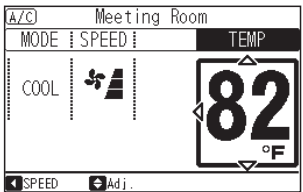
- During the dry mode, the fan speed automatically changes to “LOW”, and you cannot change it to any other fan speed. (Only the current setting is displayed on the liquid crystal display (LCD). “LOW” is NOT displayed.)
- The fan speed settings “HIGH2”, “MED” and “AUTO” are not available.

5.5 Operation

Operation Start	<p>Press “” (On/Off). The RUN indicator turns ON and the operation starts.</p>		
------------------------	---	--	---

Temperature/Air Flow Setting

- The setting condition is stored in memory. Therefore, no daily setting is required. After you turn OFF this product at the controller, the temperature setpoint and airflow settings are retained. If a setting change is required, refer to Sections 5.2 to 5.4.

Operation Stop	<p>Press “” (On/Off) again. The RUN indicator turns OFF and the operation stops.</p>		
-----------------------	---	--	---

- Following the heat cycle, the air handler fan may continue to operate for up to two minutes to disperse residual heat from the unit.

An automatic heating/cooling operation and setback operation requires extra settings.
Contact your distributor or contractor for details.

5.6 Automatic Heating/Cooling Operation

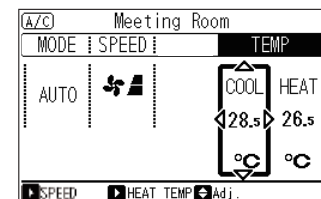
In case dual setpoint is selected in automatic heating/cooling operation, during auto mode both cooling setpoint and heating setpoint can be selected.

By default, temperature when the heating/cooling mode changes is as follows.

Cooling mode changes to heating mode when the indoor temperature is at the heating setpoint -2°F (-1°C).

Heating mode changes to cooling mode when the indoor temperature is at the cooling setpoint $+2^{\circ}\text{F}$ ($+1^{\circ}\text{C}$).

If the temperature for changing modes must be changed, contact your distributor or contractor for details.



NOTE:

In case of Celsius Indication.

5.7 Setback Operation

If the setback operation is enabled and the card key is removed, the setpoint is adjusted for setback, and the fan operates at "Low" speed.

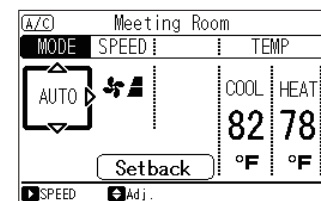
During this time, "Setback" is displayed on the LCD.

By default,

Cooling: Setpoint $+4^{\circ}\text{F}$ ($+2.5^{\circ}\text{C}$)

Heating: Setpoint -4°F (-2.5°C)

If the adjustment for setback operation must be changed, contact your distributor or contractor for details.



NOTE:

In case of Fahrenheit Indication.

6. Automatic Control

Used when combined with the air handler.

This air conditioning unit automatically starts the following operations according to the indoor conditions.

The system is equipped with the following functions.

Three-Minute Guard		<ul style="list-style-type: none">▪ Enforced Stoppage: After the compressor stops, it remains off for at least three minutes. If the system is restarted within approximately three minutes time frame, the RUN indicator is activated. However, the cooling operation or the heating operation remains off and does not start until after three minutes has elapsed.▪ Enforced Operation: Approximately three minutes after the compressor starts, if all indoor units of the system are Thermo OFF, then the compressor operates continuously during those three minutes. However, if a controller stops all indoor units of the system, the compressor has stopped.
Cooling and Dry	Frost Prevention	When the indoor unit is operating at a low discharge air temperature, the cooling operation may change to fan operation for a while to avoid frost formation on the indoor heat exchanger.
	Self-Cleaning of Expansion Valve	The electronic expansion valve self cleans when the cooling operation has stopped. During self cleaning, you may hear the refrigerant flow from the indoor unit. This is not abnormal.
Heating	Hot Start	To prevent a discharge of cold air in the room, the fan speed is controlled automatically from the slow position and the low position to the setpoint of the discharge air temperature. The wired controller LCD displays "HOT-START".
	Defrost Operation	The indoor unit fan operation is stopped to prevent cold air discharge during the defrost operation. The wired controller LCD displays "HOT-START"
	Residual Heat Removal	When the heating operation is stopped, indoor fan operation may remain at the slow speed for a maximum of two minutes to lower the internal temperature of the indoor unit.
	Prevention of Overload Operation	The indoor unit stops heating as the outdoor air temperature approaches and exceeds 70°F (21°C) or more by activation of the outdoor thermistor.

NOTE

- This air conditioning unit uses a hot air circulation system for the heating operation. If the space is large or the room temperature is excessively low, it takes time to heat the entire room. After heating the room and discharged air reaches the required temperature, the "HOT-START" indicator turns OFF.
- During or just after the defrosting operation, the wired controller LCD may display "HOT-START". During defrost, "HOT-START" activates to ensure comfort by reducing the delivery of cold air in the heating cycle. This is NOT abnormal.

7. Troubleshooting

7.1 This is Normal

Phenomenon		Cause
Operation Stopped	All indicator lights on the wired controller are turned OFF.	The micro-computer is activated to protect the device from electromagnetic waves. Restart the operation.
	After Power Failure	Restart the operation. If the instantaneous power failure is within two seconds, the operation restarts automatically.
Sound from Expansion Valve Box	Sound of water flowing or bubbling during the operation.	This sound may be heard when the refrigerant flows especially during the approximate three minutes when the compressor stops or starts.
“HOT-START” on LCD Turns ON		Depending on the operation mode or operating conditions, these indicators may occur.
Operation Mode on LCD is Flashing		

7.2 Before Contact

Refer to the information below before contacting a contractor.

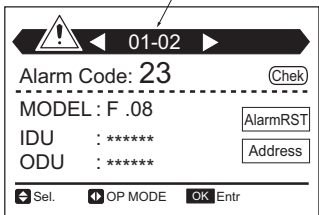
Trouble		Check Point	Action
Operation Unavailable		Check that the main power source is turned ON.	Turn ON the main power source for the air conditioner.
		Check that the fuse is not blown out or the circuit breaker of the main power source is not tripped.	Replace the fuse or reset the circuit breaker. If the trouble recurs, contact your contractor or distributor.
Immediate Shutdown after Start-up	Cooling	Check that the air inlet and outlet of the outdoor unit are not covered with paper, vinyl or other objects.	Remove objects covering the air inlet and outlet.
	Heating	Check for any obstacles preventing the air flow near the air inlet and outlet of the outdoor unit.	Remove the obstacles preventing the air flow.
		Check that the outlet air is not short-circuited to the air inlet.	
Insufficient Cooling or Heating		Check that the operation mode is correct.	If the fan mode is selected, switch the operation mode to cooling or heating.
		Check that the set temperature is correct.	If not, change the set temperature by pressing “Δ” or “▽” by the wired controller.
		Check that the air flow direction is correct.	If not, change the air flow direction. In case the footing is not heated well during the heating operation, change the louver downward.
		Check that the air filter is not clogged.	Clean the air filter.
		Check that a window or a door is not opened.	Close the window or the door.
		Check for any obstacles preventing the air flow near the air inlet and outlet of the indoor and outdoor units.	Remove the obstacles.

7.3 Contact Distributor

If the problem still exists even after checking previous issues or other problems not mentioned in the previous issues occur, stop using the product and contact your distributor or contractor.

! WARNING

If an abnormality such as a burnt odor or something similar occurs, stop the operation and turn OFF the main power source immediately. If the power source is not turned OFF, there may be damage to the product, electric shock or fire. Contact your distributor or contractor.

Trouble	Action before Contacting Contractor or Distributor
The protection devices (fuse, breaker, GFCI, and so forth) are frequently activated or the operation switch does not work.	Turn OFF the power source.
<ul style="list-style-type: none"> The RUN indicator (red) is flashing. The indoor unit number, the alarm code, the unit model code and the number of connected indoor units are displayed on the LCD. If multiple indoor units are connected to one controller, the above abnormality information is displayed individually for each indoor unit. <p>Check the details on the LCD and contact your distributor.</p> <div style="text-align: center;"> <p>Indoor Unit Number</p>  </div>	<p>Refer to the alarm code table. Contact and advise your distributor of the indicator details on the wired controller.</p>

Provide the following information when contacting your distributor.

- 1) Unit Model
- 2) Explain the Trouble or Problem
- 3) Alarm Code Number on the LCD or Details about the Flashing Indicator

7.4 Alarm Code

Code	Category	Content of Abnormality	Code	Category	Content of Abnormality
01	Indoor Unit	Activation of Protection Device	36	System	Incorrect Indoor Unit Combination
02	Outdoor Unit	Activation of Protection Device (High Pressure Cut)	38		Problem with Protective Pickup Circuit in Outdoor Unit
03	Communication	Operational Irregularities between Indoor and Outdoor Units	39	Compressor	Problem with Running Current at the Constant Speed Compressor
04		Problem between Inverter PCB and Outdoor PCB	41	Pressure	Overload Cooling
05	Supply Phase	Problem of Power Source Phases	42		Overload Heating
06	Voltage	Abnormal Voltage Drop in Outdoor Unit	43	Protection Device	Activation of the Pressure Ratio Decrease Protection Device
07	Cycle	Decrease in Superheated Discharge Gas	44		Activation of the Low Pressure Decrease Protection Device
08		Increase in Discharge Gas Temperature	45		Activation of the Low Pressure Increase Protection Device
09	Outdoor Unit	Activation of Protection Device for Outdoor Fan	46		Activation of the High Pressure Increase Protection Device
11	Sensor on Indoor Unit	Inlet Air Thermistor Failure	47		Activation of the High Pressure Decrease Protection Device
12		Outlet Air Thermistor Failure	48		Activation of the Overcurrent Protection Device
13		Freeze Protection Thermistor Failure	51	Inverter	Problem with the Inverter Current Sensor
14		Gas Piping Thermistor Failure	52		Activation of the Inverter Overcurrent Protection
20	Sensor on Outdoor Unit	Compressor Thermistor Failure	53		Activation of the Transistor Module Protection
21		High Pressure Sensor Failure	54		Abnormality of Inverter Fin Temperature
22		Outdoor Air Thermistor Failure	56	Outdoor Fan	Abnormality of Detection for Fan Motor Position
23		Discharge Gas Thermistor Failure	57		Activation of the Fan Controller Protection
24		Evaporating Thermistor Failure	58		Abnormality of Fan Controller
29		Low Pressure Sensor Failure	b0	System	Incorrect Setting of Unit Capacity
31	System	Incorrect Capacity Setting of Outdoor Unit and Indoor Unit	b1		Incorrect Setting of Unit and Refrigerant Cycle No.
32		Incorrect Setting of Other Indoor Unit Number	EE	Compressor	Compressor Protection Alarm
35		Incorrect Setting of Indoor Unit No.			

