40VMC,VMF,VMU, VMW
VRF (Variable Refrigerant Flow) System
Wireless Controller Accessory

Owner's Manual

Part Number 40VM900001

CONTENTS

SAFETY CONSIDERATIONS

Read and follow manufacturer instructions carefully.

Understand the signal words — DANGER, WARNING, and CAUTION. DANGER identifies the most serious hazards which will result in severe personal injury or death. WARNING signifies hazards that could result in personal injury or death. CAUTION is used to identify unsafe practices, which would result in minor personal injury or product and property damage.

Recognize safety information. This is the safety-alert symbol (⚠). When this symbol is displayed on the unit and in instructions or manuals, be alert to the potential for personal injury. Installing, starting up, and servicing equipment can be hazardous due to system pressure, electrical components, and equipment location.

GENERAL

The wireless controller accessory is available for use with the VRF (variable refrigerant flow) indoor units listed in Table 1.

Table 1 — Wireless Controller Accessory Usage

UNIT	SIZES
40VMC Compact Cassette	007,009,012,015
40VMF 4-Way Cassette	009,012,015,018,024,030,036, 048
40VMU Under Ceiling-Floor	012,015,018,024,030,036,048
40VMW High Wall	007,009,012,015,018,024,030

Operating ranges of the wireless controller are as follows:

- Rated voltage: 3.0 v (2 AAA alkaline batteries).
- Minimum voltage for signal transmission: 2.4 v.
- Effective receiving distance: 26 to 36 ft.
- Operating temperature range: 23 to 140 F.

INSTALLING BATTERIES

The wireless controller uses 2 AAA alkaline batteries. Slide the cover to install the batteries. Be sure the poles are correctly positioned.

WIRELESS CONTROLLER INDICATORS

The wireless controller displays the following status indicators. See Fig. 1 for location of indicators.

- Temp (1) — Displays the set temperature. No display in this area if the unit is in AUTO mode.
- Transmitting indicator (2) — Icon flashes when the wireless controller sends a signal.
- ON/OFF (3) — Displays state of controller.
- Running mode (4) — Indicates current running mode when MODE button is pressed.
- Time (5) — Displays current time.
- Lock (6) — Lights when the LOCK button is pressed.
- Timer ON/OFF (7) — When timer is ON, the ON icon is lit. When timer is OFF, the OFF icon is lit. If timer ON and OFF are set simultaneously, both icons are lit.
- Fan speed (9) — When the FAN SPEED button is pressed, indicates current fan speed.

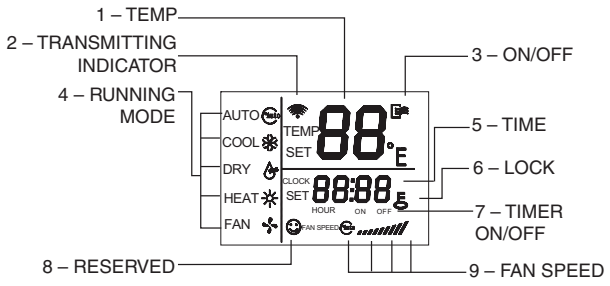

Fig. 1 — Wireless Controller Status Indicators

WIRELESS CONTROLLER BUTTON IDENTIFICATION

The following buttons are located on the wireless controller display. See Fig. 2 for button locations.

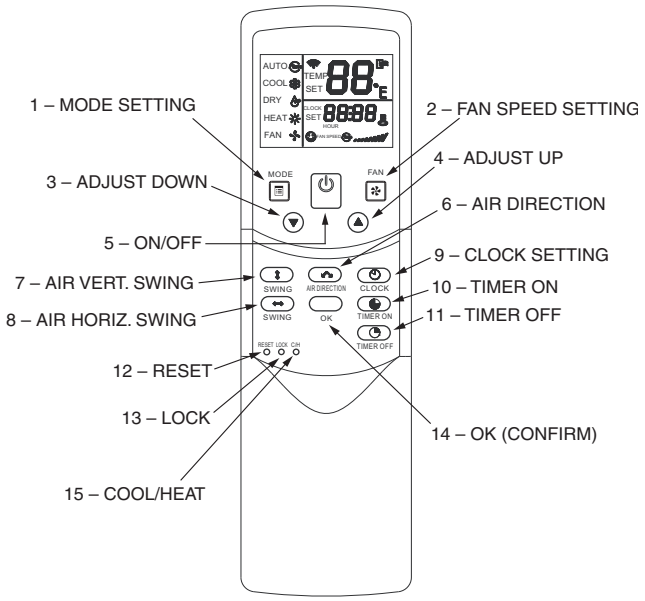

Fig. 2 —Wireless Controller Button Identification

- MODE SETTING (1) — When pressed, selects running mode in the following sequence:

  AUTO → COOL → DRY → HEAT → FAN

- FAN SPEED (2) — When pressed, selects fan speed in the following sequence:

  AUTO → LOW → MED → HIGH

- ADJUST DOWN (3) — Decreases the set temperature. When pressed and held, temperature decreases 1° F per 0.5 seconds.
- ADJUST UP (4) — Increases the set temperature. When pressed and held, temperature increases 1° F per 0.5 seconds.
- ON/OFF (5) — Turns the indoor unit on or off.
- AIR DIRECTION (6) — Activates the air deflector swing function. Each press turns the deflector 6 degrees. For normal operation and more efficient cooling and heating, the deflector cannot be set to the closed position. When the unit is turned off, the deflector will return to the closed position.
- AIR VERTICAL SWING (7) — Turns air vertical swing function on or off.
- AIR HORIZONTAL SWING (8) — Turns air horizontal swing function on or off.
- CLOCK (9) — Displays the current time (when controller is reset or powered on for the first time, displays 12:00).
- TIMER ON (10) — Each button press increases the TIMER ON setting by 0.5 hours. When the set time exceeds 10 hours, each button press increases TIMER ON by one hour. Adjusting the setting to 0.0 cancels the TIMER ON setting.
- TIMER OFF (11) — Each button press increases TIMER OFF setting by 0.5 hours. When the set time exceeds 10 hours, each button press increases TIMER OFF by one hour. Adjusting the setting to 0.0 cancels the TIMER OFF setting.
- RESET (12) — Press this button with a 1-mm needle to cancel current settings and reset the controller.
- LOCK (13) — Press this button with a 1-mm needle to lock or unlock current settings. When locked, all buttons are inoperative except the LOCK button.
- OK (14) — Confirm time settings and modifications.
- COOL/HEAT (15) — Press this button with a 1-mm needle to shift modes between COOL only and COOL and HEAT. The factory default mode is COOL and HEAT.

OPERATION

Initial Parameter Setting

1. The parameter settings should only be adjusted when it is necessary to change the default functions.
2. To change the default functions of the controller, adjust the parameters as shown in the table below:

FIRST CODE (X)	FUNCTION	SECOND CODE (Y)	
		0	1
0	Heat recovery/ Heat pump	Heat recovery (with AUTO mode) (default)	Heat pump (Without AUTO mode)
1	Celsius/ Fahrenheit display	Celsius	Fahrenheit (default)

3. The wireless controller parameters include two codes “X” and “Y.” The first code “X” represents function type, the second code “Y” defines which function is being selected.
4. Setting Parameters:
   a. On the wireless controller, simultaneously press and hold the MODE and FAN buttons for 5 seconds to enter the first parameter setting state (heat recovery/heat pump).
   b. The value of this first code “X” is “0”; press the UP/DOWN buttons to adjust the second code value.
   c. After setting the first parameter value, press the OK button to switch to the second parameter (Centigrade/Fahrenheit).
   d. The value of the first code “X” is “1”; press the UP/DOWN buttons to adjust the second code value.

Setting the Clock

1. To set the current time, press and hold the CLOCK button for 5 seconds until the hour icon flashes. Use the UP/DOWN buttons to adjust the hour.
2. Press the CLOCK button again, the minute icon will start flashing. Use the UP/DOWN buttons to adjust the minute, then press OK to confirm settings.

Setting the Unit for AUTO Operation (Heat Recovery Only)

1. Press the MODE button to change to AUTO.
2. The temperature cannot be adjusted using the remote control while in AUTO mode. The default setting for indoor units is 70 F for heating and 75 F for cooling.
3. Press the ON/OFF button. The running indicator light on the indoor unit is on continuously. The unit will work in AUTO mode. Press the ON/OFF button again to stop the operation.

Setting COOL/HEAT/DRY (Manual) Operation

1. Press the MODE button to select COOL, HEAT, or DRY.
2. Adjust the temperature with the up and down arrow buttons. The typical range is 62 to 86 F.

Setting FAN Operation

NOTE: In FAN mode the temperature is not adjustable.

1. Press the FAN SPEED button to select AUTO, LOW, MED, or HIGH.
2. Press ON/OFF. The running indicator light on the indoor unit is on continuously. The unit will work in the selected mode. Press ON/OFF again to stop the operation.

Setting the Timer — The TIMER ON and TIMER OFF functions turn the unit on and off at set times.

TIMER ON — This function sets a time to turn the unit on. For example, when the unit is powered off and TIMER ON is set to 5 hours, the unit will start after 5 hours have passed. (If the unit is already on, the TIMER ON setting does not affect it.) To set TIMER ON:

1. Press TIMER ON. The SET, HOUR, and ON icons light.
2. Press TIMER ON again and adjust the time.
3. Keep pressing the TIMER ON button. The time increases in 0.5 hour increments. When the set time exceeds 10 hours, pressing the button increases the time in one hour increments.

After 0.5 seconds, the controller sends the TIMER ON command to the unit.

TIMER OFF — This function sets a time to turn the unit off. For example, when the unit is powered on and TIMER OFF is set to 5 hours, the unit will shut down after 5 hours have passed. (If the unit is already off, the TIMER OFF setting does not affect it.) To set TIMER OFF:

1. Press TIMER OFF. The SET, HOUR, and OFF icons light.
2. Press TIMER OFF again and adjust the time.
3. Keep pressing the TIMER OFF button. The time increases in 0.5 hour increments. When the set time exceeds 10 hours, pressing the button increases the time in one hour increments.

After 0.5 seconds, the controller sends the TIMER OFF command to the unit.

SETTING TIMER ON AND TIMER OFF SIMULTANEOUSLY — This function is based on the difference between TIMER ON and TIMER OFF settings.

Examples when the unit is powered off:

- TIMER ON is set to 5 hours, TIMER OFF is set to 6 hours: the unit will start after 5 hours have passed, run for an hour, then shut down.
- TIMER ON is set to 5 hours, TIMER OFF is set to 4 hours: the unit will start after 5 hours have passed. The TIMER OFF setting has no effect on the unit.
- TIMER ON is set to 5 hours, TIMER OFF is set to 5 hours: the system adds half an hour to the TIMER OFF time automatically. The unit starts after 5 hours have passed, then shuts down after running for half an hour. (If the times are set to more than 10 hours, the system adds one hour to the TIMER OFF time.)

Examples when the unit is powered on:

- TIMER ON is set to 5 hours, TIMER OFF is set to 6 hours: the unit shuts down after 6 hours. The TIMER ON setting has no effect on the unit.
- TIMER ON is set to 5 hours, TIMER OFF is set to 4 hours: the unit shuts down after 4 hours, then starts after an hour has passed.
- TIMER ON is set to 5 hours, TIMER OFF is set to 5 hours: the system adds half an hour to the TIMER OFF time automatically. The unit shuts down after 5.5 hours have passed. The TIMER ON setting has no effect on the unit. (If the times are set to more than 10 hours, the system adds one hour to the TIMER OFF time.)

To set timers:

1. Follow Steps 1-3 in the TIMER ON section above.
2. Follow Steps 1-3 in the TIMER OFF section above.

After 0.5 seconds, the controller sends the TIMER ON and TIMER OFF commands to the unit.

MODIFYING TIMER OPERATION — Press the appropriate TIMER button and change the time setting. Set the time to 0.0 to cancel the timer operation.

INDOOR UNIT ADDRESSING

Each indoor unit must have a unique address which can be set from 0 to 63 for proper system operation. The whole system, outdoor units, indoor units, and MDC (Multiport Distribution Controller) are included, and should be powered on when setting an address by remote controller. If "FE" is displayed on the LED screen of the controller or display board of the indoor unit, there is no address for this indoor unit. After setting all indoor units' addresses, turn the power to the indoor units off and on again to clear the errors.

Indoor unit addressing can be performed using the wireless remote controller. When using the wireless controller, the user must maintain a line of sight with the receiver on the indoor unit.

Use a tool to press and hold the LOCK button for at least 10 seconds, then press the ON/OFF button to activate. Click the UP button or the DOWN button to select an address and press the FAN button to send the setting.

To display an indoor unit address, use a tool to press and hold the LOCK button for at least 10 seconds, then press the ON/OFF button to activate, and press the MODE button to query the addresses.

Indoor unit addressing can be accomplished automatically in the heat pump system. On the outdoor units main PCB board DIP switch "S6" is set to 00 (default set from factory). This setting means each indoor unit is set to auto-address. This process takes 6 minutes or more to complete when first powering on the unit depending on the number of indoor units connected to the system.

TROUBLESHOOTING

Certain conditions can affect the operation of the wireless controller:

- Curtains, doors, or other obstructions may prevent the wireless controller signal from being received by the indoor unit.
- If the wireless controller is exposed to wet conditions, direct sunlight, or high temperatures damage may occur and the accessory will need to be replaced.
- Do not expose the signal receiver to sunlight. Exposure to sunlight may cause the infrared signal receiver to malfunction.
- Remove nearby electronic devices. Electronic signals may affect controller performance.
- The effective transmitting distance of the controller is 26 to 36 ft. Aim the signal transmitter portion of the controller at the indoor unit receiver.

Replacing the Batteries — Slide the cover and replace used batteries with 2 AAA alkaline batteries, ensuring that the poles are correctly positioned.

- Do not put used batteries or batteries of a different type in the controller.
- Remove the batteries if the controller will not be used for a long period.

Batteries may need to be replaced in these circumstances:

- If pressing the ON/OFF button resets the controller, the batteries are low and should be replaced.
- If no receiving sound is heard from the indoor unit, or the transmitting indicator light (see Fig. 1) on the controller does not flash, replace the batteries.

Manufacturer reserves the right to discontinue, or change at any time, specifications or designs without notice and without incurring obligations.
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