

# 40VM Series Indoor Fan Coils VRF (Variable Refrigerant Flow) System Touch Screen Wired Controller Accessory

## Installation and Operating Instructions

Part Number 40VM900005

### CONTENTS


	Page
<b>SAFETY CONSIDERATIONS</b> .....	1
<b>GENERAL</b> .....	1
<b>DIMENSIONAL DRAWING</b> .....	3
<b>INSTALLATION CONSIDERATIONS</b> .....	4
<b>INSTALLATION</b> .....	4
• Wiring the controller .....	4
• Mounting the controller .....	4
<b>OPERATION</b> .....	5
• Turn the screen on .....	5
• ON/OFF setting .....	5
• Setting the mode .....	5
• Setting the fan speed .....	5
• Setting the temperature .....	5
<b>MENU</b> .....	6
• Menu functions .....	6
• Menu operation .....	6
• Setting louver .....	6
• Enable schedule .....	7
• Setting schedule .....	7
• Holiday settings .....	7
• Setting override .....	8
• Setting date and time .....	8
• Setting daylight savings time .....	8
• Indoor temperature display .....	8
• Locking function .....	9
• Setting the touch tone .....	9
• Advanced information .....	9
• Querying indoor unit operating data .....	9
• Querying error records .....	9
• Querying dry contact status .....	10
<b>SERVICE MENU SETTINGS</b> .....	10
• Service menu password .....	10
• Setting room temp location .....	10
• Room temp sensor offset .....	10
• Setpoint limit .....	10
• Thermal sensitivity adj .....	11
• Changeover time .....	11
• Anti cold blow .....	11
• Thermo off fan speed .....	11
• Static pressure .....	11
• Occupancy sensor .....	11
• Supplemental heat/aux heat status .....	12
• Setting the indoor unit address .....	12
• Brand choice setting .....	12
• Firmware update .....	12
• Reset setting .....	13
• Error codes .....	14

### SAFETY CONSIDERATIONS

Read and follow manufacturer instructions carefully. Follow all local electrical codes during installation. All wiring must conform to local and national electrical codes. Improper wiring or installation may damage thermostat.

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 VRF (variable refrigerant flow) touch screen wired controller is a wall-mounted, low-voltage thermostat that maintains room temperature by controlling system operation. The controller is capable of displaying temperatures from 54°F~86°F for Standard Indoor Units, and 50°F~86°F for Outside Air Units.

The touch screen wired controller accessory is available for use with the VRF (variable refrigerant flow) system indoor units (IDUs) listed in Table 2. Figure 1 and Table 3 show a description of the icons used on this controller.

**Table 1 — Components shipped with unit**

NAME	IMAGE	QTY	FUNCTION
Screws		4	Used to Install Back Plate on the Wall
Zip Tie		1	Used to Bundle Wires

**Table 2 —Wired Controller Accessory Usage**

40VMA Outside Air	036, 048, 054, 072, 096
40VMC Compact Cassette	007,009,012,015
40VMF 4-Way Cassette	009,012,015,018,024,030,036, 048
40VMH High Static Ducted	024,030,036,048, 054, 072, 096
40VML Low Static Ducted	007, 009, 012, 015, 018, 024
40VMM Medium Static Ducted	007,009,012,015,018,024, 030, 036, 048
40VMR Floor Console - Recessed	007, 009, 012, 015, 018, 024
40VMU Under Ceiling/Floor	012,018,024,030,036,048
40VMV Vertical AHU	018,024,030,036,048, 054
40VMW High Wall	007,009,012,015,018, 024, 030
40VM900007 DI/DO Interface	N/A
40VMZ Reheat Unit	009,012,015,018, 024

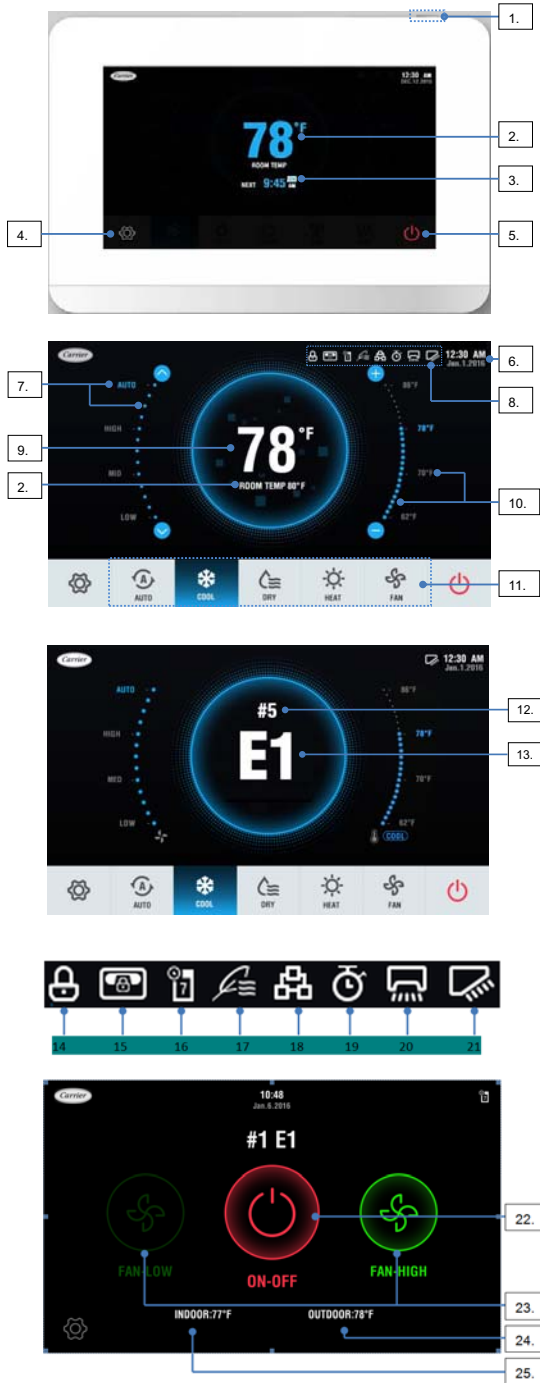
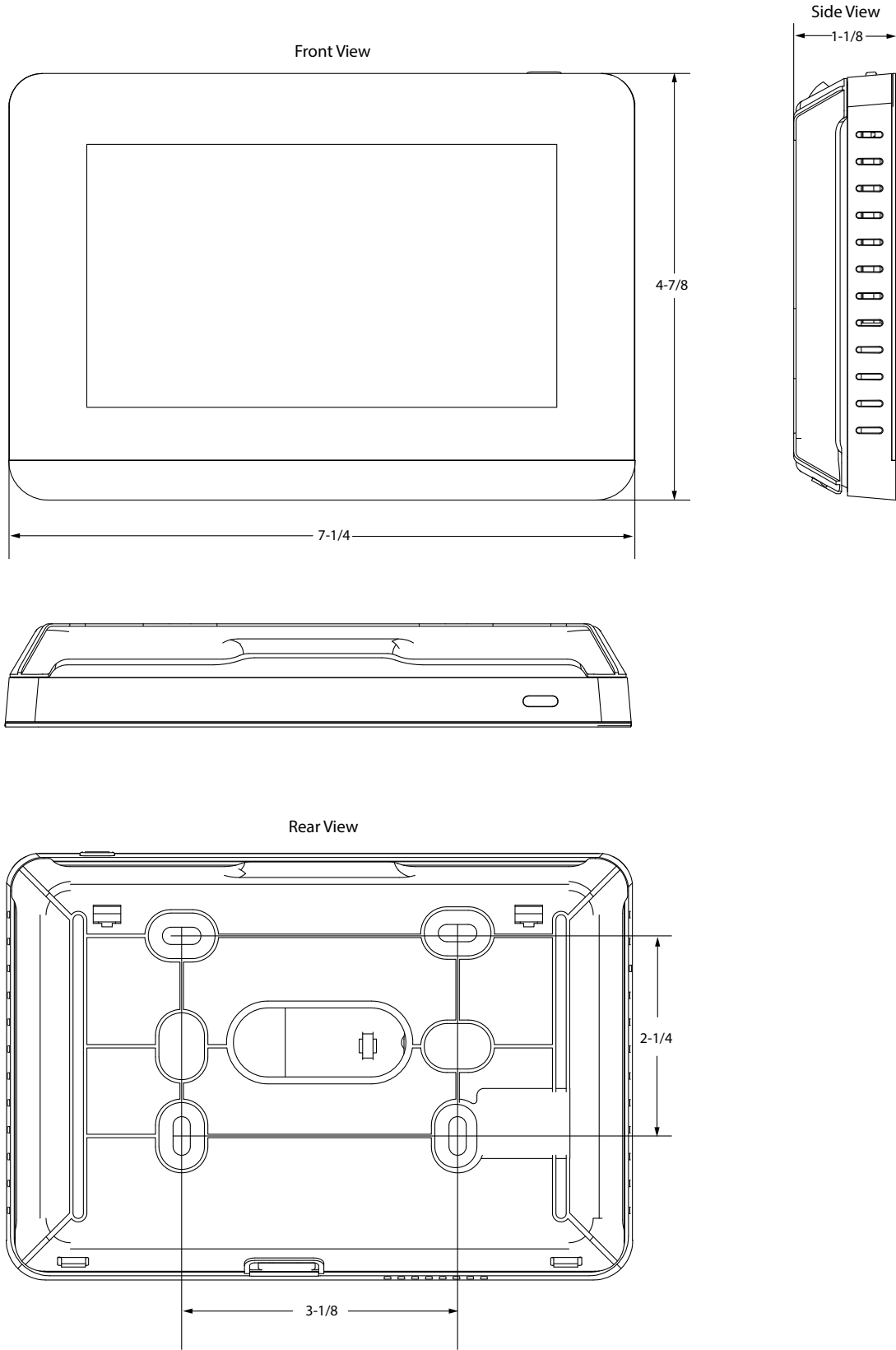


Fig. 1 — Touch Screen Wired Controller Icons

Table 3 — Icon Descriptions

ICON	DESCRIPTION
1. Screen ON/OFF icon	Turns the Screen on/off
2. Room temperature display	Display current room temperature
3. Scheduled time	Displays next scheduled event
4. Menu icon	Enters the menu
5. ON/OFF icon	Powers the IDU on/off
6. Date and Time	Displays the date and time
7. Fan speed settings	Sets and displays the current fan speed
8. Status bar	Displays setting items
9. Set temperature display	Displays the temperature setpoint
10. Temperature setpoint	Adjusts temperature setpoint
11. Mode icon	Chooses mode
12. Error IDU Address	Displays address of IDU in error
13. Error codes	Displays error codes
14. Function locking indicator	Turns on when the wired controller locks the on/off function, mode, or temperature setting
15. Central controller locking indicator	Turns on when the central controller locks the IDU function and the wired controller cannot use the corresponding functions of the IDU
16. Schedule	Turns on when the weekly schedule is available on the wired controller
17. Outside air unit symbol	Turns on when the wired controller is being used on a VRF outside air unit
18. Group control indicator	Turns on when the wired controller controls multiple IDUs (max 16 IDUs)
19. Override	Turns on when Override is enabled on the wired controller
20. Horizontal swing	Displays swing status when the IDU supports horizontal swing
21. Vertical swing	Displays swing status when the IDU supports vertical swing
22. DI/DO ON/OFF icon	Powers the DI/DO interface on/off (connected to a DI/DO interface)
23. DI/DO Fan speed setting	Sets and displays the current fan speed (connected to a DI/DO interface)
24. Outdoor temperature display	Displays the current Outdoor temperature (connected to a DI/DO interface)
25. Indoor temperature display	Displays the current indoor temperature (connected to a DI/DO interface)

# DIMENSIONAL DRAWING



Note: All dimensions are shown in inches.

**Fig. 2 — Dimensions**

## INSTALLATION CONSIDERATIONS

The thermostat should be mounted:

- Approximately 48 in. from the floor
- On a section of wall without water or drainage pipes

The thermostat should **NOT** be mounted:

- Where it can be directly affected by the unit's discharge airflow
- On external walls or near drafts from windows and doors
- Near shelves or curtains that may restrict air movement
- Near heat sources such as direct sunlight, heaters, dimmer
- Near switches, and other electrical devices

## INSTALLATION

To install the controller, perform the following procedures:

1. Turn off all power to the indoor unit.

### ⚠ WARNING

Electrical shock can cause personal injury and death. Before installing thermostat, shut off all power to this equipment during installation. There may be more than one power disconnect. Tag all disconnect locations to alert others not to restore power until work is completed.

2. If an existing thermostat is being replaced:
  - a. Remove existing thermostat from wall or unit.
  - b. Disconnect wires from existing thermostat. Do not allow wires to fall back into the wall or unit.
  - c. Discard or recycle old thermostat.

### ⚠ CAUTION

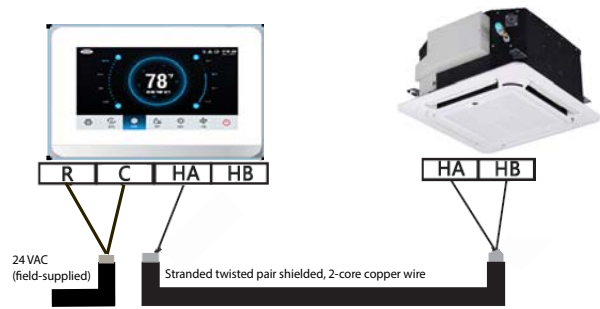
Failure to follow this caution may result in equipment damage or improper operation.

Improper wiring or installation may damage the thermostat. Check to make sure wiring sequence is correct at both ends before proceeding with installation or turning on unit.

3. Control Wire: Use 16 to 20 AWG (American Wire Gauge), stranded twisted pair shielded 2-core wiring (copper wire). Field-Provided 24VAC Power Wire: Use copper wire rated for at least 1 A. Follow all applicable electrical codes.

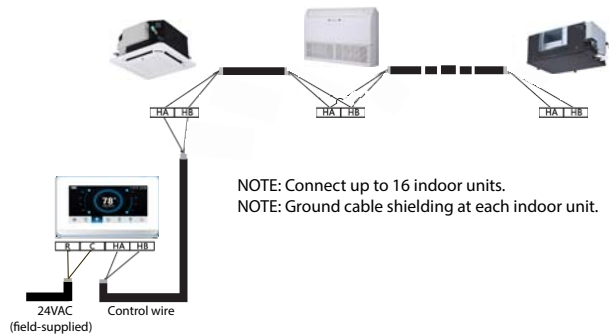
### Wiring the controller —

1. Using 2-core shielded twisted pair cable, 16 to 20 AWG (American Wire Gauge), attach the control cable to the HA/HB terminal on the indoor unit and other end to the controller HA/HB terminal. For connecting the controller to a single indoor unit, see Fig. 3. For connecting the controller to multiple indoor units see Fig. 4.
2. Connect field-provided 24VAC power to R and C terminals.



NOTE: Ground cable shielding at indoor unit

**Fig. 3 — Connecting to one indoor unit**



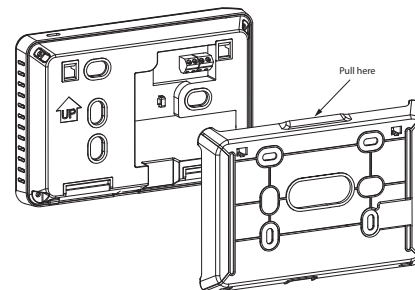
NOTE: Connect up to 16 indoor units.  
NOTE: Ground cable shielding at each indoor unit.

**Fig. 4 — Connecting to multiple indoor units**

NOTE: All of the indoor units connected to the controller must be on the same refrigerant circuit and connected to the same outdoor unit.

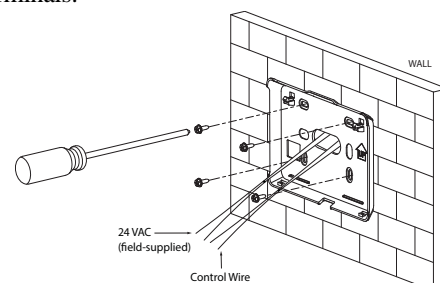
### Mounting the Controller —

1. Remove back cover from controller as shown in Figure 5.



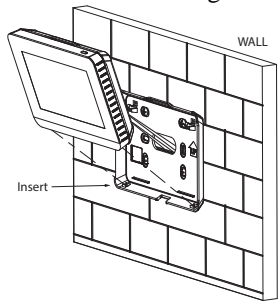
**Fig. 5 — Remove back cover from controller**

2. Cut a hole in the wall for the 2 wire bundles. Run the wires through the hole in the wall and through the center hole in the back cover.
3. Screw the back cover to the wall as shown in Figure 6, and attach the power and control wires to their respective terminals.



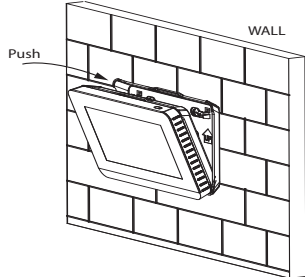
**Fig. 6 — Attach back cover to wall**

4. Angle the controller to insert it into the bottom snap joints of the back cover as shown in Figure 7.



**Fig. 7 — Attach controller to back cover**

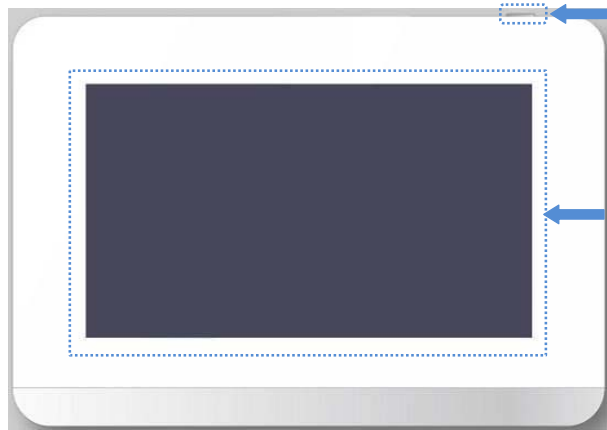
5. Push the controller back toward the wall until it snaps into place as shown in Figure 8.



**Fig. 8 — Snap controller into place**

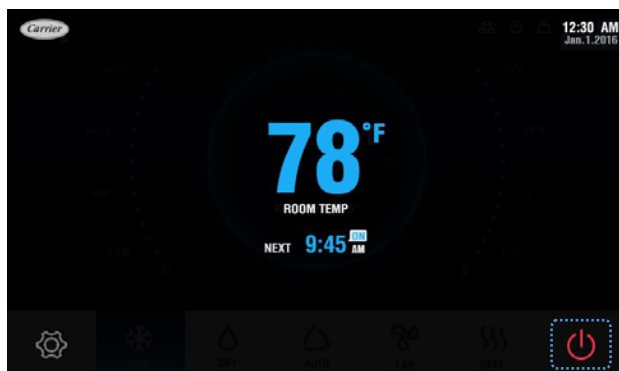
### OPERATION

**Turn the screen on** — Press the Screen ON/OFF icon or touch the Screen.



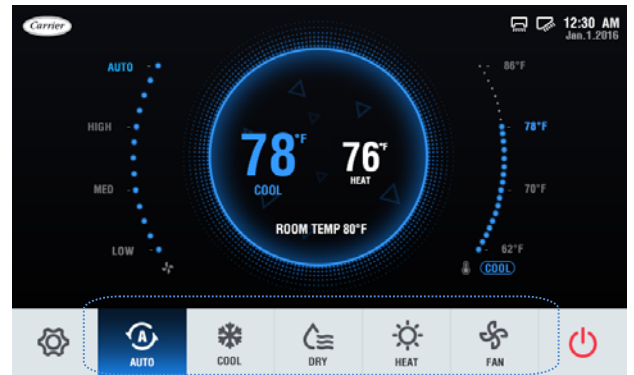
**Fig. 9 — Turn screen on**

**ON/OFF setting** — Touch the “ON/OFF” icon to turn the indoor unit on or off.



**Fig. 10 — On/Off setting**

**Setting the mode** — Touch the “Mode” icon in the mode selection area to choose the mode.







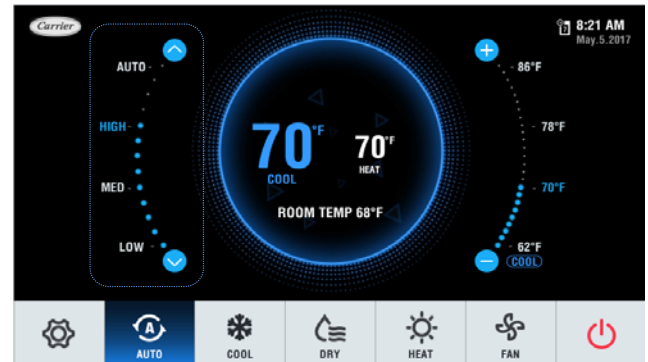
**Fig. 11 — Indoor Unit Operating Icon and LED**

### NOTES:

AUTO mode is unavailable when the wired controller is connected to a heat pump system.

AUTO and DRY mode are unavailable when the wired controller is connected to a VRF outside air unit.

**Setting the fan speed** — The   icons will not be visible until the IDU is turned on as shown in Figure 10. Touch the corresponding fan speed text or the icon   to set the fan speed. See Figure 12.





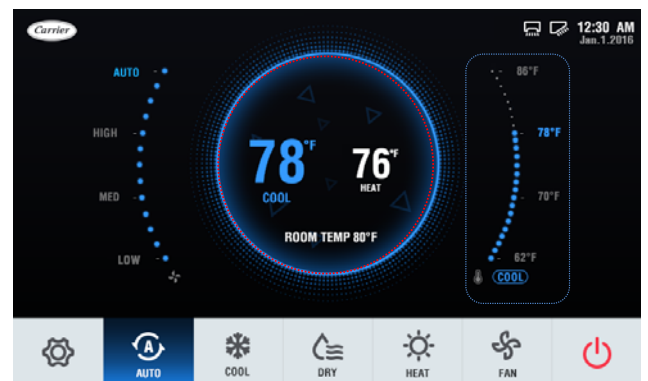
**Fig. 12 — Fan Speed Setting**

Optional fan speed modes include AUTO, HIGH, MED, and LOW.



### NOTES:

There is no AUTO fan speed when the wired controller is connected to a VRF outside air unit. In DRY mode, the fan speed is permanently set to AUTO.

**Setting the temperature** — The   icons will not be visible until the IDU is turned on as shown in Figure 10. See Figure 13.



**Fig. 13 — Setting the temperature**

Touch the icon   or the corresponding temperature text to set the temperature. See Figure 14.

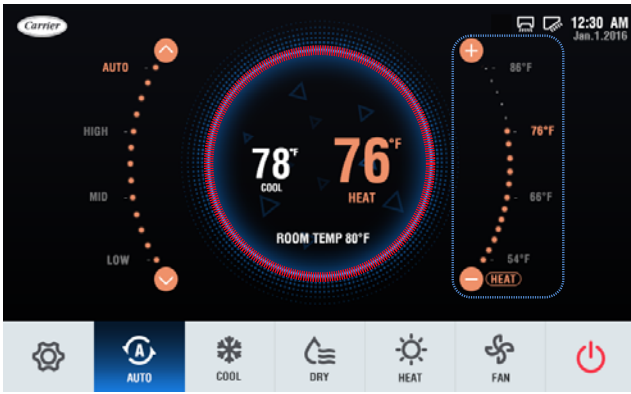


Fig. 14 — Setting the temperature

Table 4 —Temperature setpoint ranges

Operation mode	Set temperature range
COOL/DRY	62°F-86°F
HEAT	54°F-86°F
AUTO (dual setpoints)	[COOL] 62°F-86°F [HEAT] 54°F-86°F
FAN	Not settable
COOL for outside air unit	50°F-86°F
HEAT for outside air unit	54°F-86°F

## MENU

### Menu functions —

Table 5 —Settings on Main Menu

Menu item	Description
LOUVER	Used to configure airflow direction settings.
SCHEDULE	SCHEDULE ON-OFF Used to enable or disable schedule control.
	SET SCHEDULE Set the startup time and operation stop time. Up to 8 actions can be set for each day.
	OVERRIDE Set up the amount of time the settings can be overridden before returning to the defined schedule pattern
DATE AND TIME	Used to configure date and time settings and corrections.
DAYLIGHT SAVINGS TIME	Used to adjust the clock in observance of daylight savings time.
ROOM TEMP	Used to set display room temperature on the home screen.
LOCK	Used to lock selected functions
TOUCH TONE	Used to enable or disable touch tone.
ADVANCED INFORMATION	OPERATING DATA Used to display the IDU information.
	ERROR CODE Used to check error information when an error occurs
	DRY CONTACTS Used to display the dry contacts status.
Service	Setting parameters

### Menu operations —

1. Touch the “MENU” icon to open the menu.

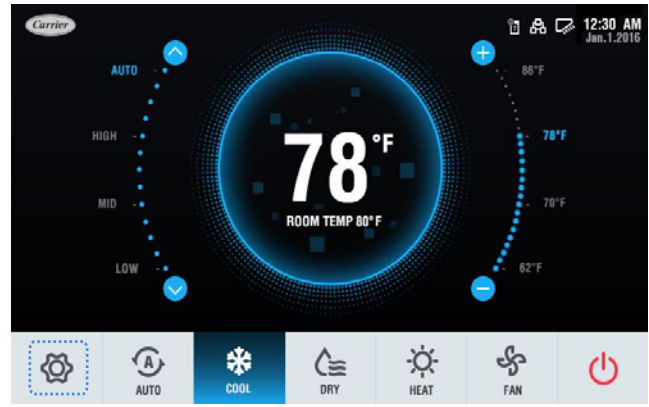


Fig. 15 — Menu icon at home screen

2. Slide the submenu list up/down to scroll to various settings. See Figure 16.
3. Touch the “HOME” icon at the top of the submenu to return to the homepage. See Figure 16.

The current settings are automatically saved and the system returns to the homepage if there is no operation in 30 seconds.

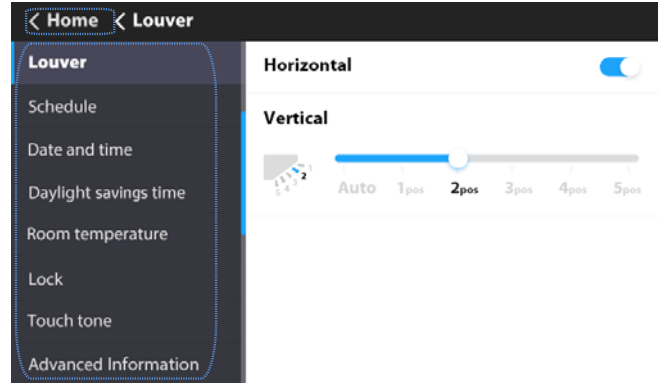


Fig. 16 — Submenu

### Setting louver —

NOTE: The louver function does not apply to some indoor units. When the indoor unit does not support a louver function such as horizontal louver, the corresponding louver setting function is unavailable.

1. Choose Louver on the Menu interface.
2. Turn ON/OFF Horizontal.
3. Touch or slide to the desired position or Auto louver.

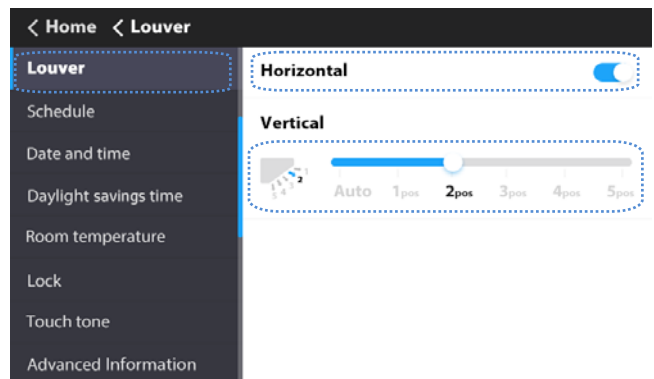
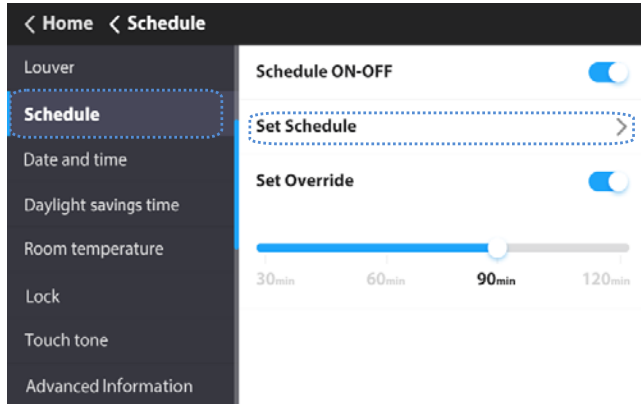


Fig. 17 — Set Louver



**Enable schedule** — Adjust the wired controller clock before using schedule management.

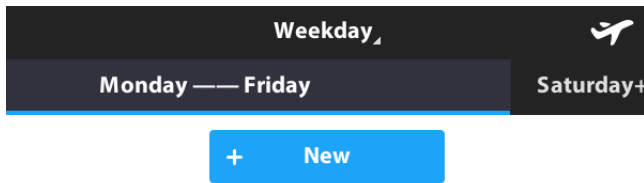
1. Choose Schedule on the menu interface.
2. Turn the Schedule ON/OFF.
3. Touch Set Schedule.



**Fig. 18 — Setting Schedule**

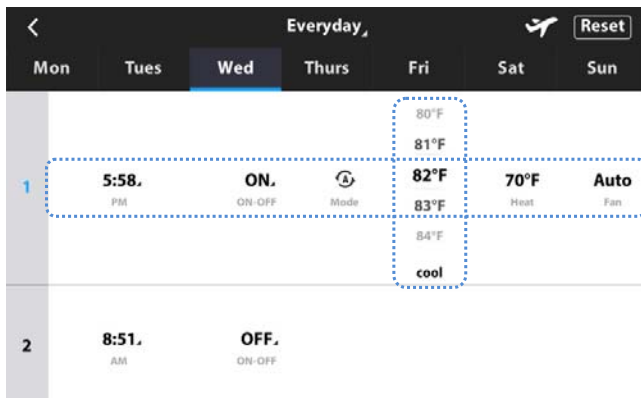
**Setting schedule** —

1. To add a new schedule, touch **+ New**



**Fig. 19 —Add New Schedule**

2. Set the scheduled time, ON/OFF mode, running mode, temperature setpoint, and fan speed by sliding the corresponding items.

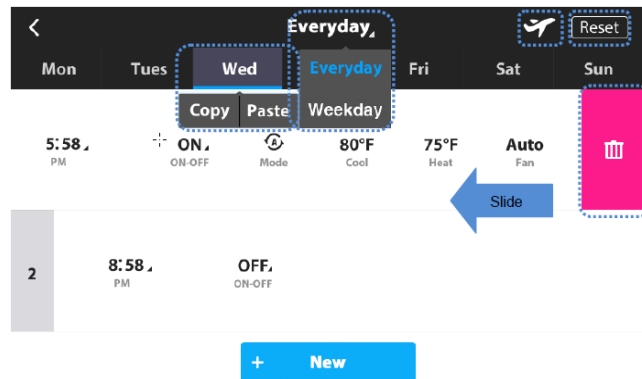


**Fig. 20 — Schedule**

**Table 6 —Daily Patterns**


Parameter	Description
Day	Select the specific day for timer settings
Time	Set the timer time. Up to 8 timer time points can be set for each day
ACT	Set ON/OFF to automatic
Mode	Set the running mode if the ON function is automatic
Cool	When automatic or cooling mode is set, set the cooling temperature value
Heat	When automatic or heating mode is set, set the heating temperature value
Dry	When dry mode is set, set the dry temperature value
Fan	Set the Fan speed to automatic

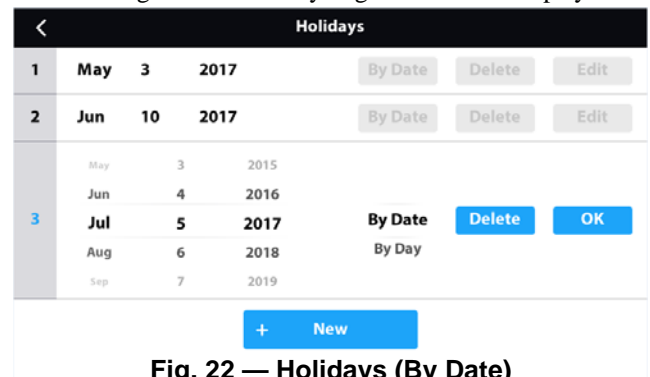
3. Touch the “Everyday” icon to switch the mode between Everyday and Weekday.
4. Touch to choose a day of the week. You can use the Copy and Paste option to copy the parameters to other days of the week.
5. Slide the schedule from right to left to show the Delete icon.
6. Touch Reset to reset all the scheduled tasks.



**Fig. 21 — Setting Schedule**

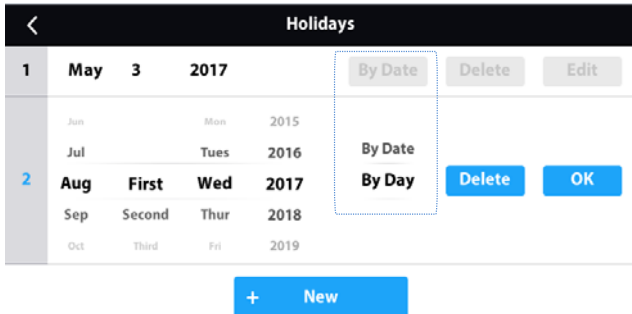
**Holiday settings** —

1. Touch the  icon from the Setting Schedule screen (Figure 20) to access Holiday settings. Touch **+ New** to create a new Holiday. Touch Edit to adjust the existing or new Holiday. Figure 21 will be displayed.



**Fig. 22 — Holidays (By Date)**

2. Touch “By Date” or “By Day” to change how the Date is displayed. See Figures 21 and 22.

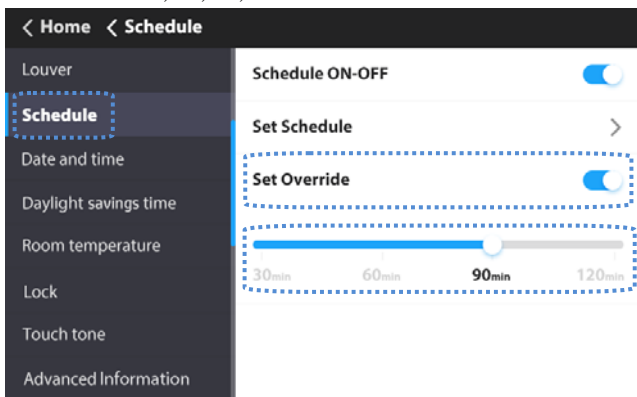


**Fig. 23 — Holidays (By Day)**

**Setting override —**

1. Toggle Set Override to turn override ON/OFF.
2. Choose override time.

When Override is turned on, the available length of time can be set to 30, 60, 90, or 120 minutes.



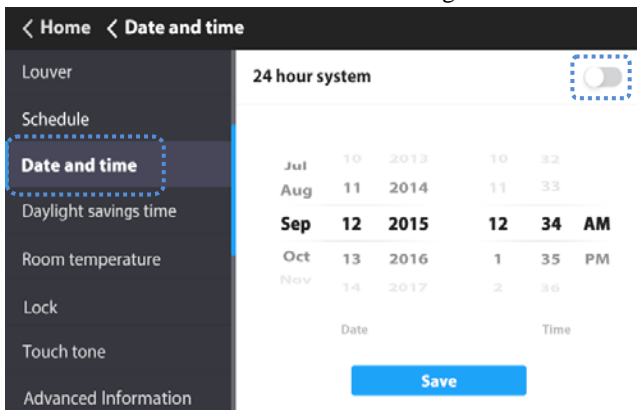
**Fig. 24 — Set Override**

Override delay operation is only valid once. It must be reset after operating.

The OVERRIDE function will set the amount of time the settings can be overridden before returning to the defined schedule pattern.

**Setting the date and time —**

1. Choose “Date and time” on the Menu interface.
2. To use a 24 hour time format, toggle 24 hour system ON.
3. Set the date and time by sliding the corresponding items up and down.
4. Touch the Save icon to save the settings.

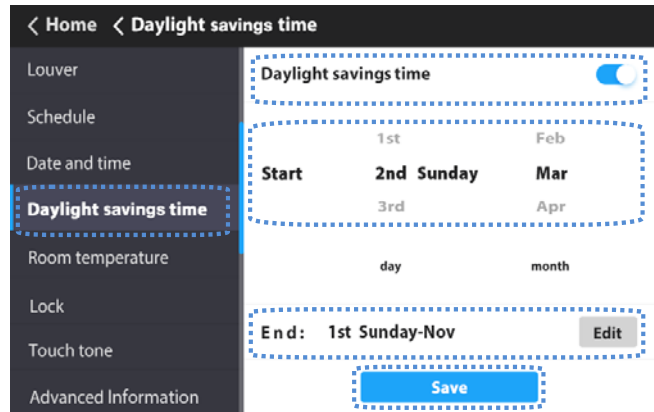


Available date range: January 1, 2000 - December 31, 2037

**Fig. 25 —Set Date and Time**

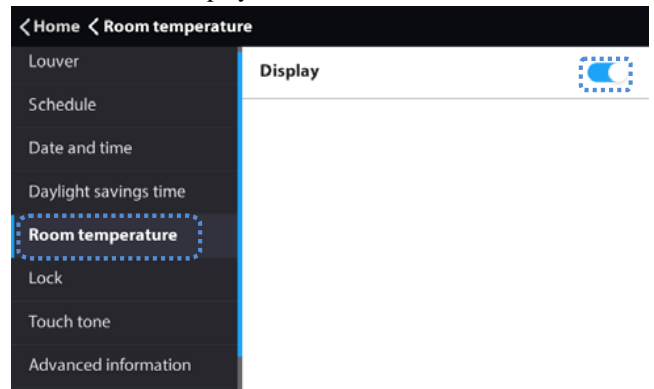
**Setting daylight savings time —** When enabled, the clock automatically moves forward one hour at 2 am on the specified start date. The clock goes back one hour at 2 am on the specified end date.

1. Choose “Daylight savings time” on the Menu interface.
2. Turn the “Daylight savings time” ON/OFF.
3. Touch the “Edit” icon.
4. Slide the corresponding items to set the start date and end date respectively.
5. Touch the Save icon to save the settings.



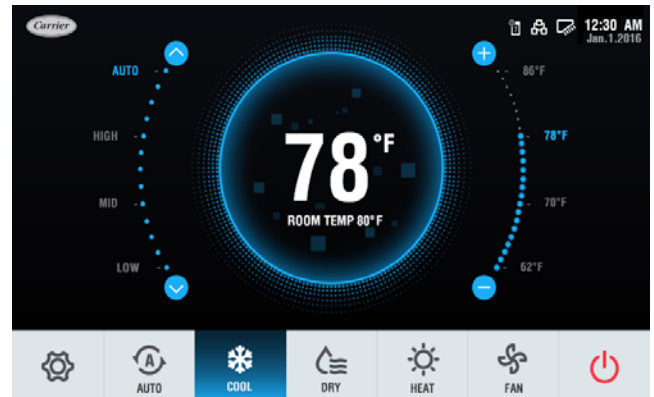
**Fig. 26 —Daylight Savings Time Indoor temperature display —**

1. Choose “Room temperature” on the menu interface.
2. Turn the “Display” ON/OFF.



**Fig. 27 —Room Temperature Display**

When the display is on, the indoor temperature will be displayed on the homepage.



**Fig. 28 —Indoor Temperature Display on Homepage**



## Locking function

The wired controller can lock the following functions. They cannot be changed using the icons on the wired controller.

Choosing “Lock” on the “Menu” interface will lock:

- The IDU power-on/off function
- Running mode
- Temperature setting
- Schedule setting

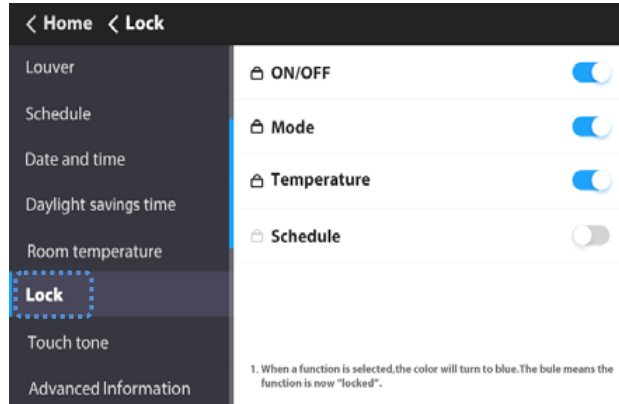



Fig. 29 —Locking Function

When a function is selected, the color will turn to blue meaning that the function is now “locked”.

When the locking function is enabled, the  icon will be displayed on the homepage. When the locked function icon is selected, it will blink indicating that the function is locked.

When the schedule setting is locked, the system prompts the user that the weekly schedule is locked when you try to access the week timing mode.



Schedule is locked!

**Note:** If the central controller is sending locking signals to an IDU while the touch screen wired controller also sends a command to the same IDU simultaneously, the locking command from the central controller may be invalid.

## Setting the touch tone —

1. Choose “Touch tone” on the menu interface.
2. Turn Touch tone ON/OFF.

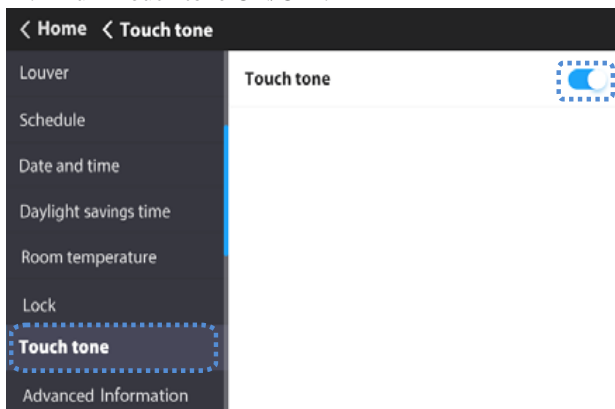


Fig. 30 —Touch Tone

When a corresponding option is turned on, a beep is generated when the button is touched.

**Advanced information** — Choose “Advanced Information” on the Menu interface.

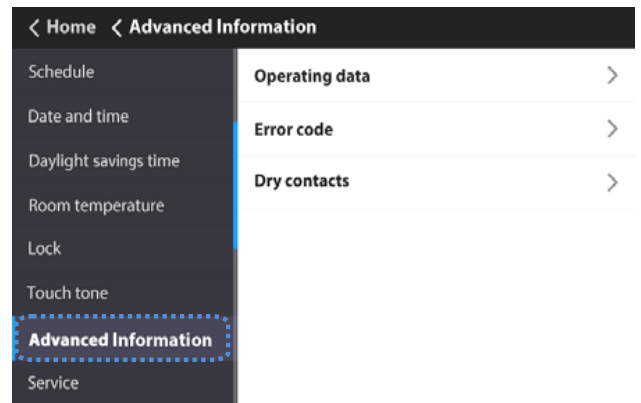


Fig. 31 —Advanced Information

## Querying indoor unit operating data —

1. Choose “Operating data” on the “Advanced Information” interface.

On the “Operating data” interface, the wired controller will display indoor unit address.

2. Touch the indoor unit # icon.

The wired controller will display the number of indoor units connected to the wired controller, indoor units' temperature sensor readings, and louver settings.

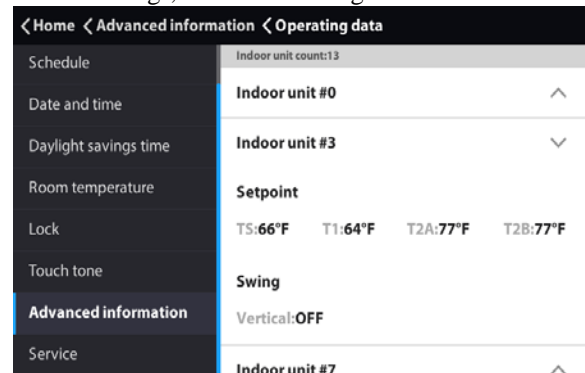


Fig. 32 —Query IDU Operating Data

**Querying error records** — Choose “Error code” on the “Advanced Information” interface.

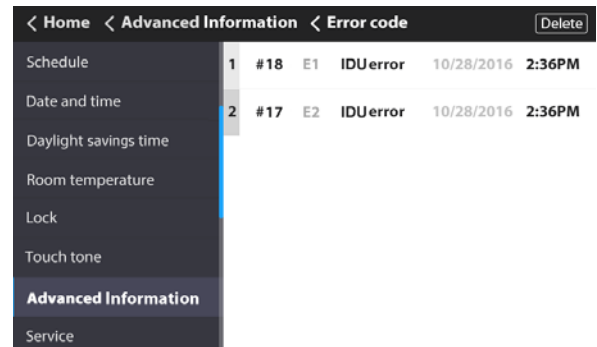


Fig. 33 —Query Error Records

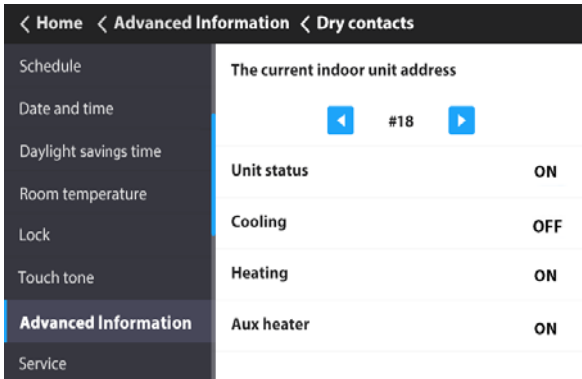
- The wired controller saves up to 20 groups of fault records.
- Touch the Delete icon to delete all the error messages.
- It displays the unit address (0~63 for indoor unit and 128 for outdoor unit) and the related error code.
- An address is not displayed when the wired controller has a fault.



**Fig. 34 —Error Code/Address Field**

**Querying dry contact status —**

1. Choose “Dry contacts” on the “Advanced Information” interface to display status of unit and dry contact outputs.
2. Touch the ◀ or ▶ icon to switch between IDUs.

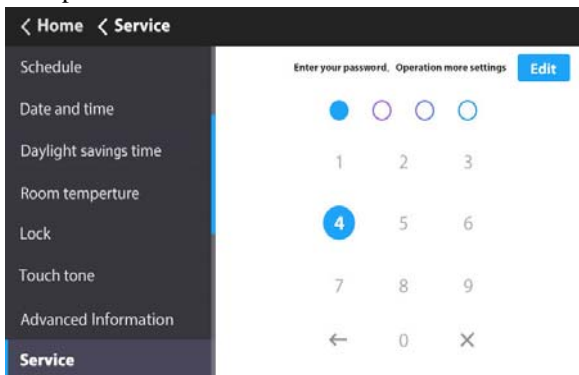


**Fig. 35 —Query Dry Contact Status**

**SERVICE MENU SETTINGS**

**Service menu password —**

1. Choose “Service” on the “Menu” interface.
2. Enter the password to access the settings. The default password is 0000.

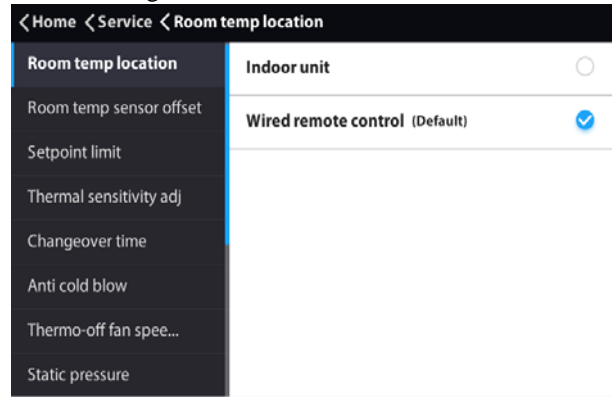


**Fig. 36 —Service Menu Password Entry**

3. Touch the Edit icon to access password settings.
4. Slide the submenu to view more options.
5. Enter the correct password. The sub-options under Service settings are displayed.

See Table 7 and the following sections for details on additional Service Menu settings.

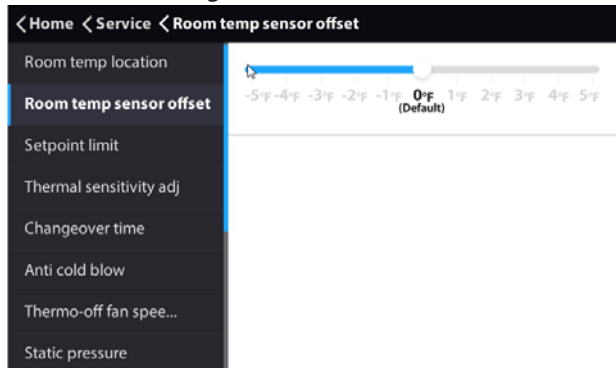
**Setting room temp location —** Select “Room temp location” setting on the “Service” interface.



**Fig. 37 —Room temp location**

The room temperature location can be set to Indoor unit or Wired remote control as required. The default setting is Wired remote control.

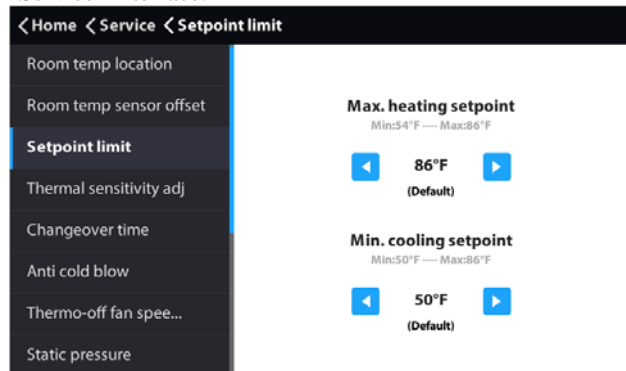
**Room temp sensor offset —** Select “Room temp sensor offset” setting on the “Service” interface.



**Fig. 38 —Room temp sensor offset**

The Room temp sensor offset sets the temperature compensation value for the wired controller. The default value is 0°F.

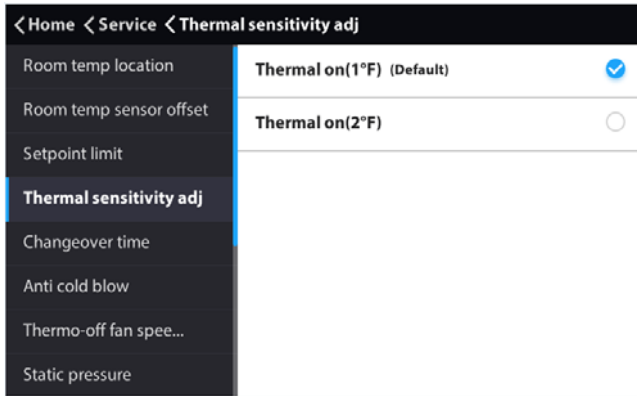
**Setpoint limit —** Select “Setpoint limit” setting on the “Service” interface.



**Fig. 39 —Setpoint limit**

The setpoint limit can set the upper limit of the temperature range to heating and the lower limit to cooling. The default is 86°F for heating and 50°F for cooling.

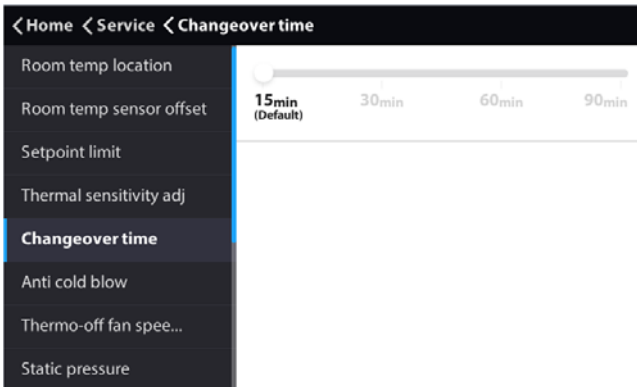
**Thermal sensitivity adj** — Select “Thermal sensitivity adj” setting on the “Service” interface.



**Fig. 40 —Thermal Sensitivity Adj.**

The thermal sensitivity adj sets a capacity interval. The default is THERMAL ON (1°F).

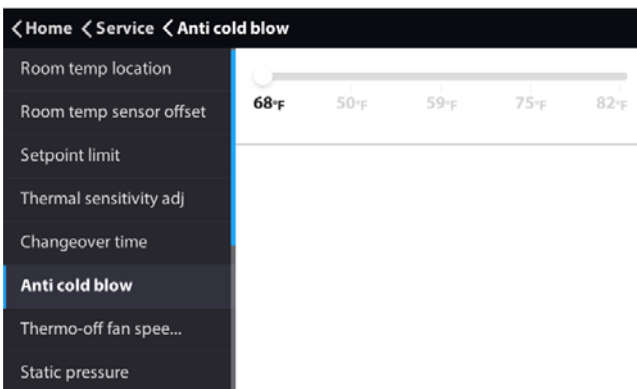
**Changeover time** — Select “Changeover time” setting on the “Service” interface.



**Fig. 41 —Changeover Time**

This is the changeover time for AUTO mode (NOTE: AUTO mode is available for Heat Recovery systems only; it is not available for Heat Pump systems.). Changeover time can be set to 15 (default), 30, 60 or 90 minutes.

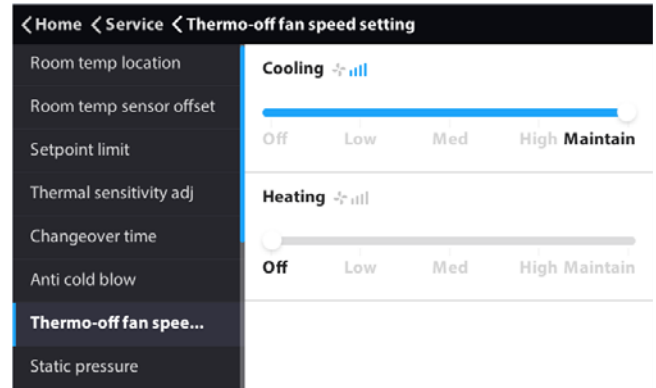
**Anti cold blow** — Select “Anti cold blow” setting on the “Service” interface.



**Fig. 42 —Anti Cold Blow**

To prevent the discharge of cold air, the IDU fan is shut off at coil temperatures below this setting. Default setting is 68F.

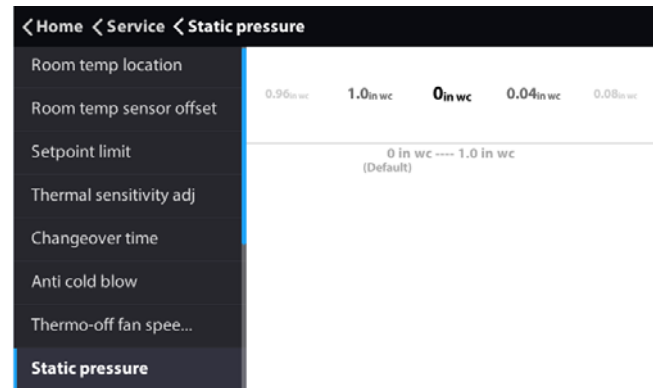
**Thermo-off fan speed** — Select “Thermo-off fan speed” setting on the “Service” interface.



**Fig. 43 —Thermo-Off Fan Speed**

This determines IDU fan behavior when the zone is satisfied (“thermo off”) - for both heating and cooling mode. For cooling mode, the default setting is to *Maintain* last fan speed before satisfying. For heating mode, the default setting is for the fan to be off.

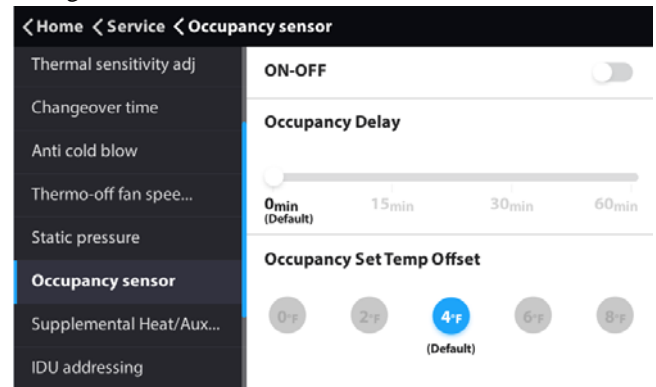
**Static pressure** — Select “Static pressure” setting on the “Service” interface.



**Fig. 44 —Static Pressure**

This selects the static pressure setting of the IDU fan. (NOTE: only applicable to IDUs with static pressure settings.) The default setting is 0 in wc.

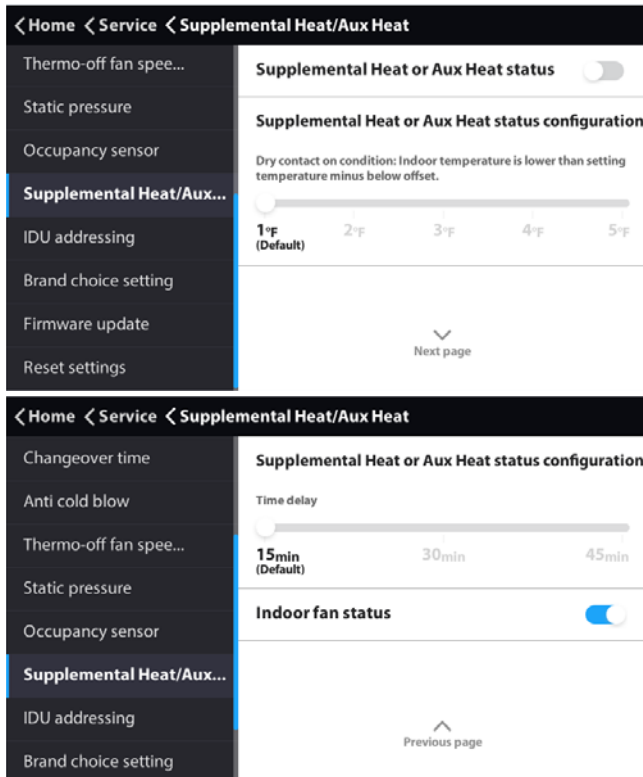
**Occupancy sensor** — Select “Occupancy sensor” setting on the “Service” interface.



**Fig. 45 —Occupancy Sensor**

These settings are used when a field-provided occupancy sensor is connected to contact input on IDU control board. *ON* enables occupancy sensor setback; *Occupancy Delay* sets the amount of delay before setback; and *Occupancy Set Temp Offset* selects the amount of setback after Occupancy Delay has elapsed.

## Supplemental heat/aux heat status —



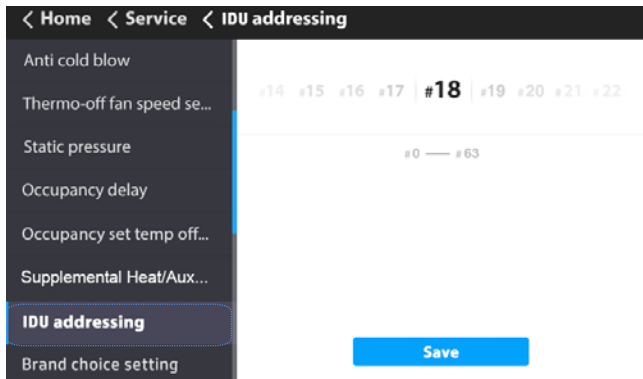
**Fig. 46 —Supplemental Heat/Aux Heat Status**

These settings are used when the IDU is controlling a field-provided auxiliary heat source via its ACB interface contact output.

Turning *Aux Heat Status* on enables this function; *Status Configuration* selects the amount of temperature differential before triggering aux. heat output; *Time Delay* selects amount of time before triggering aux heat output; and turning *Fan Status* on commands the IDU fan to run while aux heat output is active.

**Setting the indoor unit address —** The IDU communication address can be set only when the wired controller is connected to one IDU.

1. Slide to choose the IDU address.
2. Touch the Save icon to send current address to the IDU.

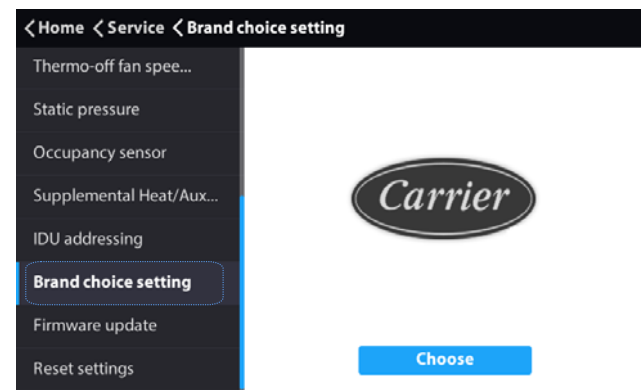


The available range of IDU address is #0 – #63.

**Fig. 47 —Indoor Unit Address**

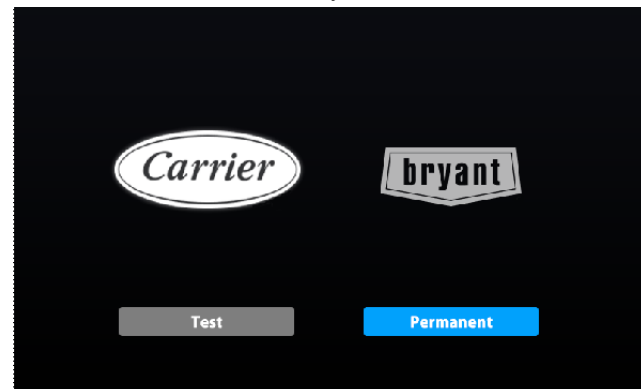
## Brand choice setting —

1. Choose “Brand choice setting” on the “Service” interface.



**Fig. 48 —Brand Choice Setting**

2. Select either Carrier or Bryant.



**Fig. 49 —Brand Selection**

“Test” is a one-time setting and will not be saved. The brand needs to be selected again upon the next start-up.

“Permanent” indicates permanent setting and will be effective permanently.

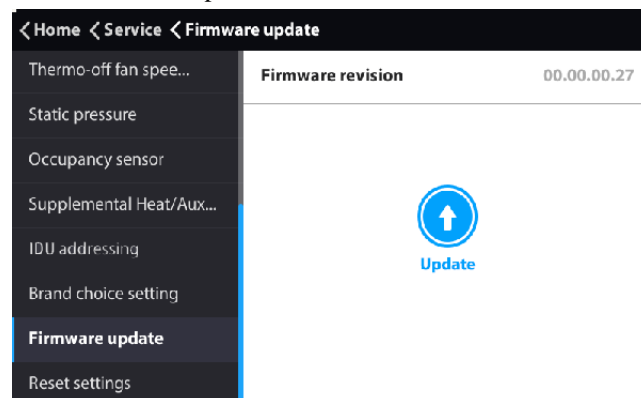
**Firmware update —** A USB disk in NTFS or FAT format is required.

1. To use the firmware upgrade function, save the firmware file and verification file in the root directory of the USB disk.

Updating the firmware will restore the controller parameters to factory settings while applying changes associated with the firmware version.

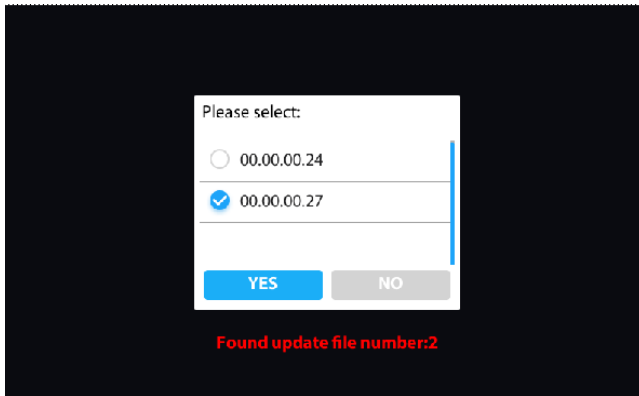
Keep the power connected during the update process.

2. Insert the USB disk into the controller.
3. Choose “Firmware update” on the “Service” interface.
4. Touch the “Update” icon.



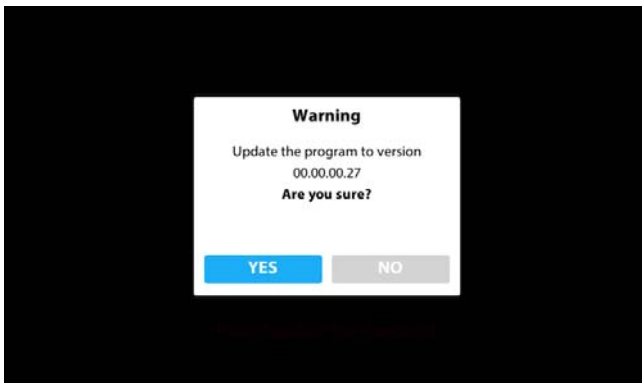
**Fig. 50 —Firmware Update**

5. Select the Firmware version.



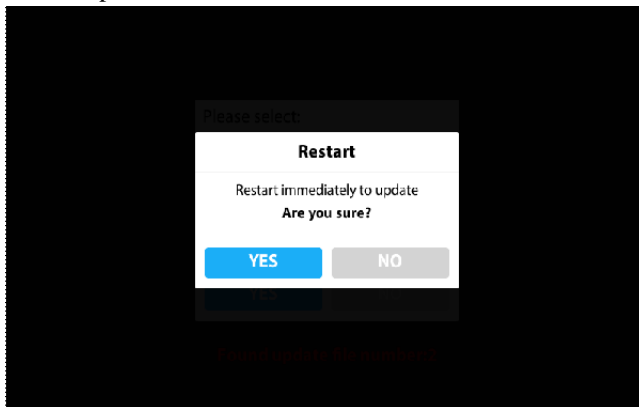
**Fig. 51 —Firmware Selection**

6. Touch the YES icon to confirm the update.



**Fig. 52 —Firmware Update Confirmation**

7. Touch the YES icon to confirm the “restart immediately to update”.



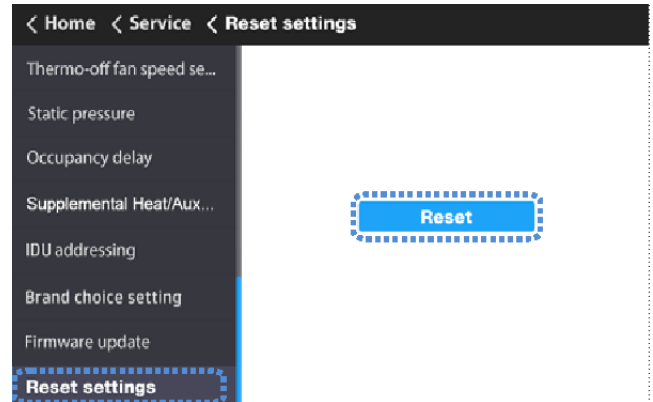
**Fig. 53 —Confirm Restart**

The controller will be restarted during the update process.

8. Reset user parameters after the successful update (such as schedules, room temperature display, etc.).

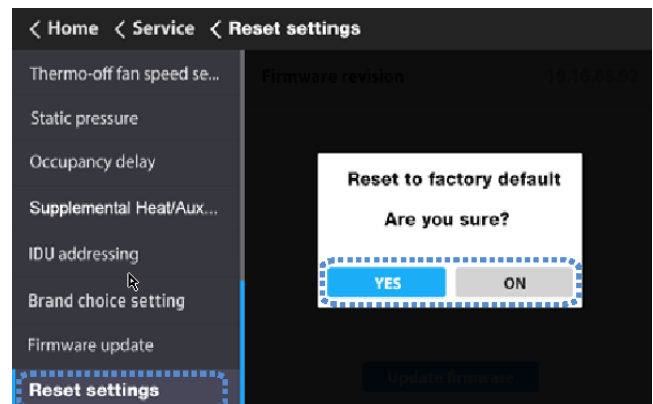
## Reset setting —

1. Choose “Reset setting” on the “Service” interface.
2. Touch the “Reset icon” to reset.



**Fig. 54 —Reset Settings**

3. Touch the YES icon to confirm the operation.



**Fig. 55 —Confirmation of Settings Reset**

All the controller parameters will be restored to factory settings.

**Table 7 —Parameter Details**

No.	SERVICE menu	Description	Set parameter
1	ROOM TEMP SENSOR LOCATION	Select whether to use the IDU room temperature sensor or the room temperature sensor of the wired controller.	INDOOR UNIT WIRD REMOTE CONTROL (default)
2	ROOM TEMP SENSOR OFFSET	The temperature compensation value for wired controller T1	-5°F, -4°F, -3°F, -2°F, -1°F, 0°F (default), 1°F, 2°F, 3°F, 4°F, 5°F Or -5°C, -4°C, -3°C, -2°C, -1°C, 0°C (default), 1°C, 2°C, 3°C, 4°C, 5°C
3	SETPOINT LIMIT	MAX. HEATING SETPOINT SETTING	Set the upper limit of the temperature range for heating. 86°F (default), 85°F, 84°F... 30°C (default), 29°C, 28°C...
		MIN. COOLING SETPOINT SETTING	Set the lower limit of the temperature range for cooling. 50°F (default), 51°F, 52°F... 10°C (default), 11°C, 12°C...
4	THERMAL SENSITIVITY ADJ	Select a capacity interval.	THERMAL ON (1°F) (default), THERMAL ON (2°F) Or THERMAL ON (1°C) (default), THERMAL ON (1°C)
5	CHANGEOVER TIME	AUTO mode changeover time.	15min (default), 30min, 60min, 90min
6	ANTI COLD BLOW	Set the temperature when the fan is turned off to prevent cold winds.	68°F (default), 50°F, 59°F, 75°F, 82°F Or 20°C (default), 10°C, 15°C, 24°C, 28°C
7	THERMO-OFF FAN SPEED SETTING	COOLING	Set the fan step for cooling thermo off. OFF, LOW, MEDIUM, HIGH, MAINTAIN (default)
		HEATING	Set the fan step for heating thermo off. OFF (default), LOW, MEDIUM, HIGH, MAINTAIN
8	STATIC PRESSURE	Set the IDU static pressure of the DC fan.	0: 0 in WC (default) 1: 0.04 in WC 2: 0.08 in WC 3: 0.12 in WC 4: 0.16 in WC 5: 0.20 in WC 6: 0.24 in WC 7: 0.28 in WC 8: 0.32 in WC 9: 0.36 in WC 10: 0.40 in WC 11: 0.44 in WC 12: 0.48 in WC 13: 0.52 in WC 14: 0.56 in WC 15: 0.60 in WC 16: 0.64 in WC 17: 0.68 in WC 18: 0.72 in WC 19: 0.76 in WC 20: 0.80 in WC 21: 0.84 in WC 22: 0.88 in WC 23: 0.92 in WC 24: 0.96 in WC 25: 1.0 in WC
9	OCCUPANCY SENSOR	OCCUPANCY ON/OFF	Set occupancy delay function valid or invalid OFF (default), ON
		OCCUPANCY DELAY	Set the time for delayed power-off of the unattended IDU (valid only when the IDU is connected to an infrared sensing controller). 0min(default), 15min, 30min, 60min
		OCCUPANCY SET TEMP OFFSET	Setback temperature setpoint amount after occupancy delay elapses. 0°F, 2°F, 4°F (default), 6°F, 8°F Or 0°C, 1°C, 2°C (default), 3°C, 4°C
10	Supplemental heat or Aux Heat status	Supplemental heat or Aux Heat status	OFF (Default), ON
		Supplemental heat or Aux Heat status configuration	1°F (default), 2°F, 3°F, 4°F, 5°F Or 1°C (default), 2°C, 3°C
		Time delay	15min (Default), 30min, 45min
		Indoor fan status	ON (Default), OFF

**ERROR CODES**

**Table 8 —IDU Error Codes**

Number	Error Code	Description
1	FE	The address is unavailable when the system is first powered
2	dd	Mode conflict
3	E1	IDU and ODU communication error
4	E2	T1 sensor error
5	E3	TA sensor error (Fresh air unit only)
6	E4	T2B sensor error
7	E5	T2A sensor error
8	E6	DC fan error
9	E7	EEPROM error
10	UU	MDC self-check error
11	E9	Communication error with the wired controller
12	Eb	EXV short circuit and jamming error
13	Ed (FLASH)	ODU error (entered backup running mode)
14	Ed	ODU error
15	EE	Water level alarm error

**Table 9 —Wired Controller Error Codes**

Number	Error Code	Description
1	E9	Wired controller and IDU communication error
2	FP	Overflow of number of online IDUs