

ETNC24-SUPER-MDB-01

Owner's manual & Technician Settings



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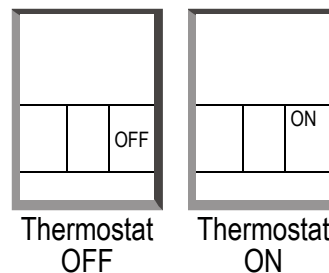
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Operating instructions

Turning the thermostat ON and OFF

- Press the [On/Off] button to turn the thermostat ON.
- Press again to turn the thermostat OFF.

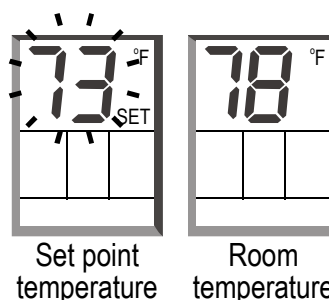
* The words "ON" or "OFF" will appear on display.



Adjusting the Set point temperature

- Press the [+] or [-] buttons once - the word "SET" and the set point temperature will flash.
- Press again to adjust the set point temperature.

* Room temperature display can be disabled by technician.



System Modes

- Press the [Mode] button to switch between modes:

- "Cool" Cooling
- "Heat" Heating
- "Cool" & "Heat" *Auto mode
- "Fan" Fan only

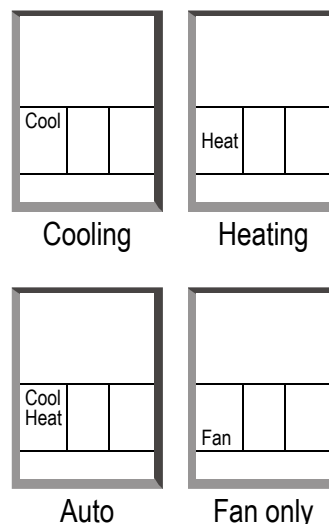
* In Auto mode, the system mode depends on the difference between room temperature and set point:

Set point temperature higher than Room temperature → Heating mode.

Set point temperature lower than Room temperature → Cooling mode.

* Auto mode can be disabled by technician.

* Active mode flashes during demand for cooling or heating.

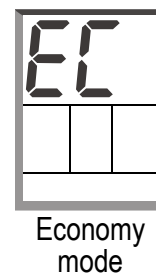


Economy mode

Economy mode can be used to keep the room temperature at economy levels during absence.

Economy set points for cool and heat are set by technician.

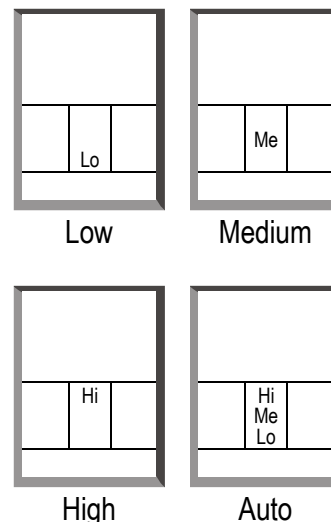
- Press and hold the [On/Off] button for 20 seconds to turn economy mode ON – "EC" will appear on display.
- Press the [On/Off] button again to return to normal mode.



Operating instructions (Cont')

Fan speeds (for 2 and 3 speeds configuration)

- Press the [Fan] button to switch between fan speeds:
 - "Lo" Low speed
 - "Me" Medium speed
 - "Hi" High speed
 - "Lo", "Me", "Hi" Auto speed
- * In Auto speed, the fan speed depends on the difference between room temperature and set point.
- * In 2 speeds configuration, medium speed is not active and the letters "Me" will not appear on display.
- * In 1 speed configuration, the fan speeds display will remain empty.
- * The active speed will flash.



Auto fan (Fan on demand)

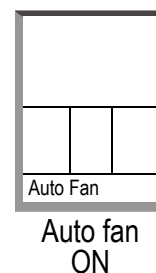
For thermostat with 1 speed configuration:

- Press the [Fan] button to turn Auto fan ON and OFF.

For thermostat with 2 or 3 speeds configuration:

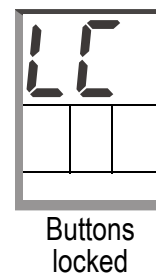
- Press and hold the [Fan] button for 3 seconds to turn Auto fan ON and OFF.

- * While ON, "Auto Fan" will appear on display and the fan will cycle only with demand for cooling or heating.
- * While OFF, the fan will cycle continuously regardless of demand for cooling or heating.
- * Auto fan is not available in Fan only mode.
- * While using Oil heater with Auto fan, the fan will be disabled.



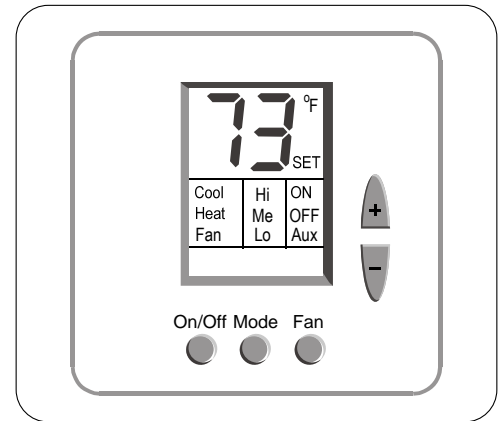
Locking the thermostat buttons

- Make sure the set point temperature is different than 10-11°C / 50-51°F.
- Press and hold the [Mode] button for 15 seconds until "LC" appears on display.
- Press and hold the [Mode] button again for 15 seconds to unlock the buttons.
- * Separate locking features for selected buttons can be reached through communication control.



Installation

The ETNC24-SUPER-MDB-01 is designed for wall mounting in the room to be controlled. It should be located where the occupant can easily read the LCD display and use the controls. If the built in temperature sensor is being used to measure room temperature, the module should be placed where the temperature is representative of the general room conditions. Cold or warm air draughts; radiant heat and direct sunlight should be avoided.

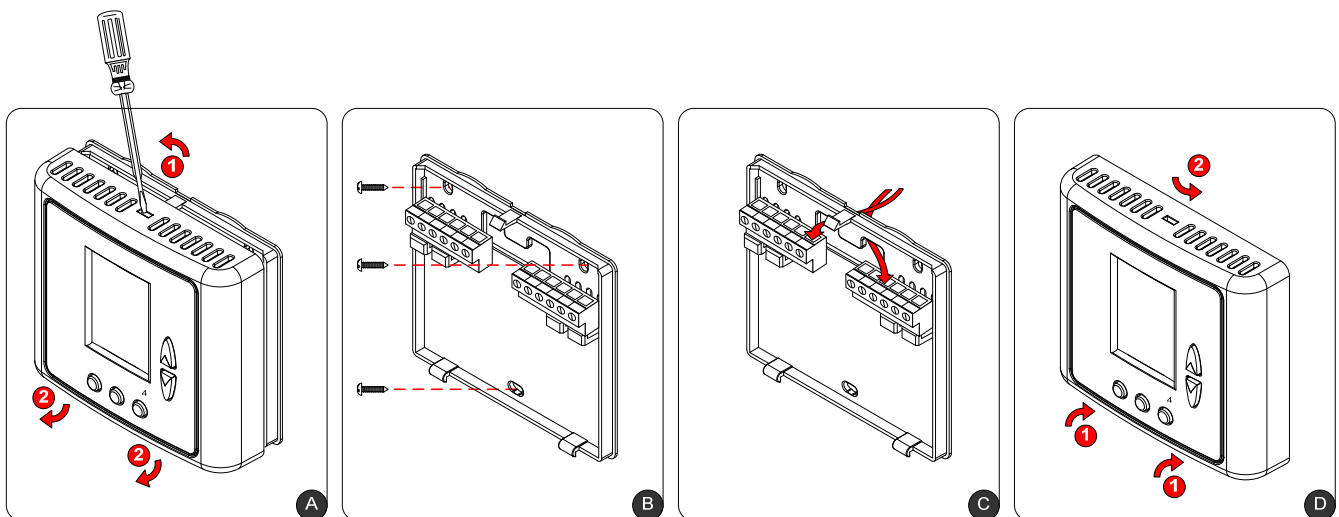


General points to follow:

- Disconnect power to the main board before installing the unit.
- The standard height to install this unit is 1.6 meter (5 feet) from the floor.

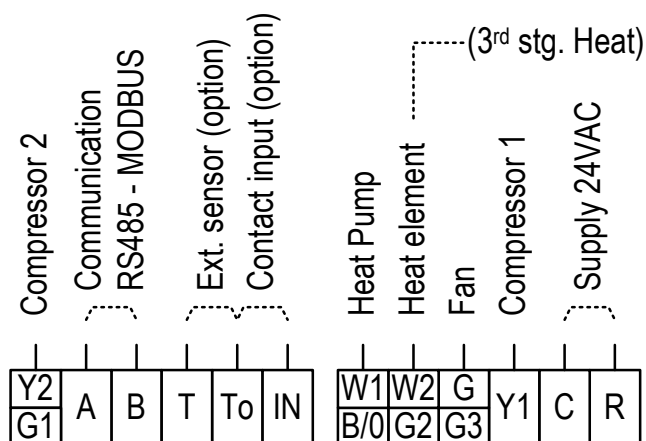
Installation procedure:

- Separate the front panel from back panel by pressing the tongue located in the top of the unit and pull the back panel out.
- Line the back panel up against the wall or flat surface. Install three screws as required.
- Make electrical connections as shown on enclosed electrical wiring diagram.
- Install the cove to the back panel; first the two tabs on the bottom and then the top tongue. Push until tight against the wall.

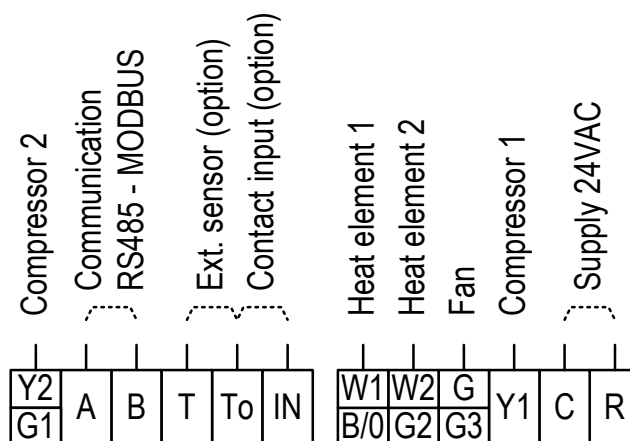


Wiring

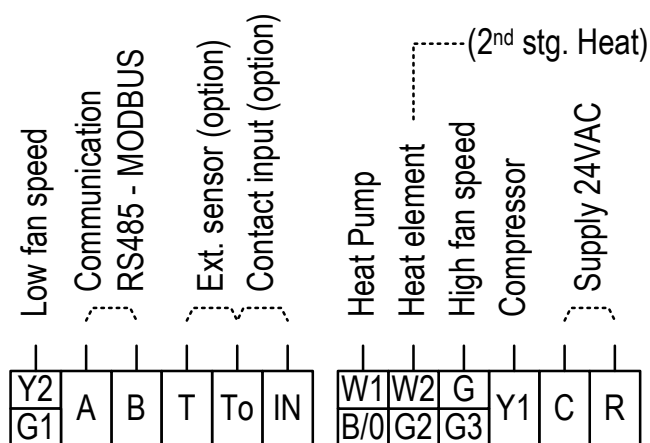
Heat pump system with 1 fan speed



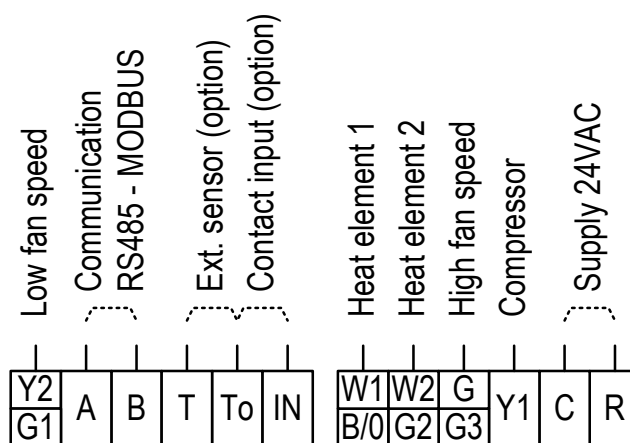
Non Heat pump system with 1 fan speed



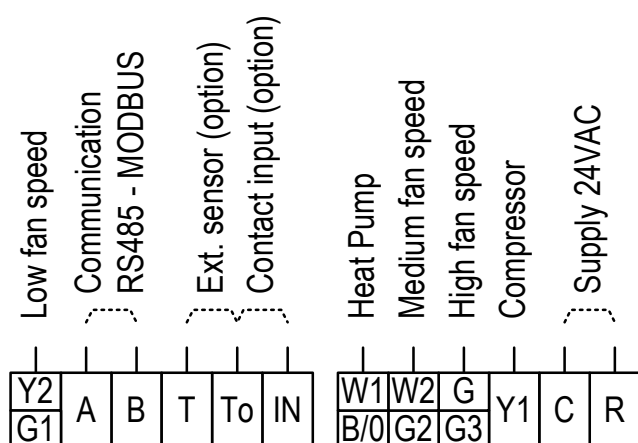
Heat pump with 2 fan speed



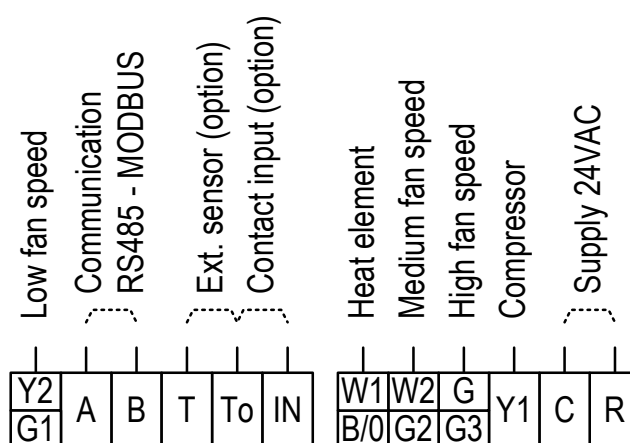
Non Heat pump with 2 fan speed



Heat pump with 3 fan speed



Non Heat pump with 3 fan speed



* Ext. sensor = External sensor

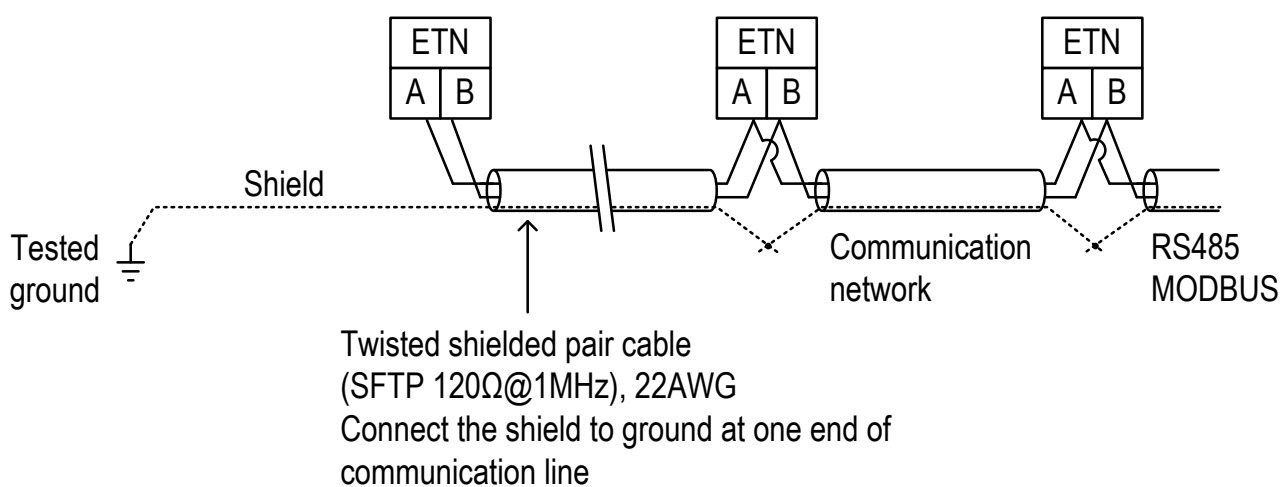
* In some configurations, the thermostat offers connection to 2 and/or 3 stages of cooling or heating. Where the system uses less stages than offered, leave the unnecessary terminals unwired.

Wiring (Cont')

Communication Network

Do not run communication cables in the same conduit of high voltage (24VAC) electrical cables and if you cross an electrical cable, cross at a 90° angle. Mixing high and low voltage lines may cause serious communication problems.

In order to prevent any potential contact between high and low voltage wires, group the high voltage wires together using a non conductive cable clamp, as close as possible to the thermostat, and repeat the procedure on the low voltage wires (A, B, 0, To, IN).



End of line jumper

First and last devices in the communication line should be terminated with a 120Ω resistor to prevent signal reflection.

JMP1 – End of line jumper

Short – End of line

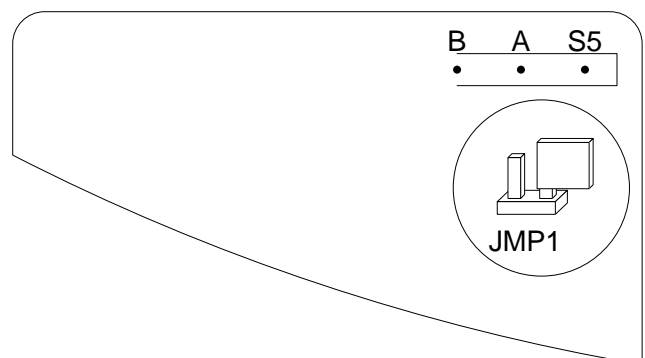
Open – Not end of line (default)



Jumper
Short



Jumper
Open



Contact Input

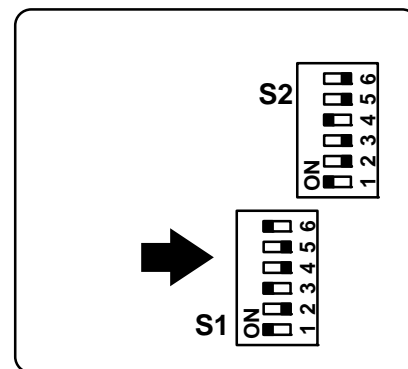
The IN,0 Dry contact , normally open terminals can be used to connect any contact input (i.e window contact or door switch).

When the contact is closed, the thermostat will either turn OFF or switch to Economy set points (please refer to technician settings).

DIP switch S1 settings

Important: Disconnect power to the unit before changing the configuration of the DIP switches.

Default position:



Using the internal temperature sensor or connect an external sensor to T-To terminals

Internal sensor (default).....S1.1 On S1.2 Off S1.3 On

External sensor.....S1.1 Off S1.2 On S1.3 Off



Internal sensor



External sensor

Heat pump (Active in Cool or in Heat)

or Non Heat pump (Electrical or Oil heaters)

Non Heat pump with El. heaters (default) ... S1.4 Off S1.5 Off

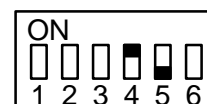
Non Heat pump with Oil heaters S1.4 Off S1.5 On

Heat pump system active in Heat.....S1.4 On S1.5 Off

Heat pump system active in Cool.....S1.4 On S1.5 On



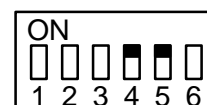
Non Heat pump
With El. heaters



Heat pump
Active in Heat



Non Heat pump
With Oil heaters

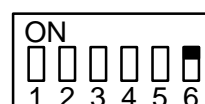


Heat pump
Active in Cool

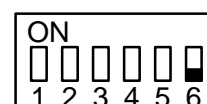
Window contact operation (when closes)

Use Economy set points (default).....S1.6 On

Turn the unit Off S1.6 Off



Economy
set points

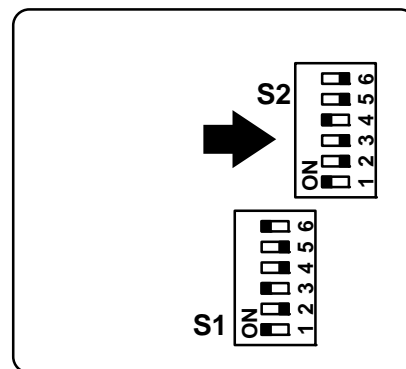


Turn unit
Off

DIP switch S2 settings

Important: Disconnect power to the unit before changing the configuration of the DIP switches.

Default position:



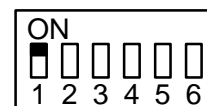
Selecting temperature display –

1- Normal display shows room temp. and [+] or [-] buttons shows the set point.

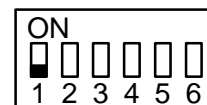
2- Normal display shows the set point. Room temp. cannot be displayed.

Display both room and set point temp. (default)..... S2.1 On

Display set point temperature only..... S2.1 Off



Set point & Room



Set point only

Fan speeds configuration

One Fan speed (default)..... S2.2 Off S2.3 Off

Two Fan speeds..... S2.2 On S2.3 Off

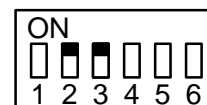
Three Fan speeds..... S2.2 On S2.3 On



One speed



Two speeds

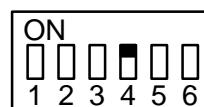


Three speeds

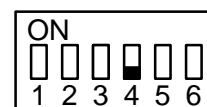
Enabling or disabling Auto change over mode

Enable the use of Auto mode (default)..... S2.4 On

Disable Auto mode..... S2.4 Off



Enable Auto mode

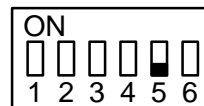


Disable Auto mode

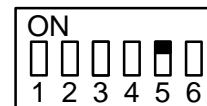
Temperature scale

Fahrenheit (default)..... S2.5 On

Celsius..... S2.5 Off



Celsius

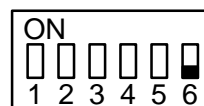


Fahrenheit

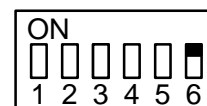
Enabling or disabling the 3 minutes compressor delay

3 Minutes compressor delay (default)..... S2.6 Off

No compressor delay..... S2.6 On



3 Minutes delay

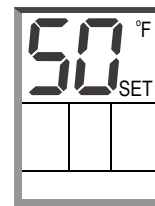


No delay

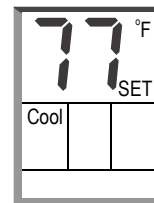
Technician Settings

1. Enter technician settings mode:

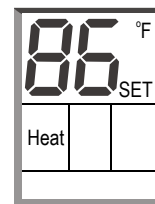
- Adjust the set-point temperature to 10°C or to 50°F.
- Press and hold the [Mode] button for 15 seconds to enter technician settings mode.
- Use the [Mode] button to move between parameters 2-7.
- Use the [+] and [-] buttons to make adjustments.
- When finished, press the [Mode] button and Readjust the set point.



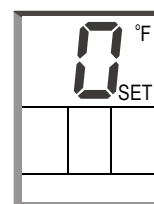
1. Enter technician settings



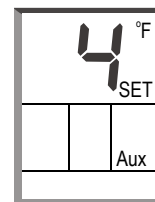
2. Limit Cool



3. Limit Heat



4. Offset



5. Dead zone

2. Adjusting the temperature limit for Cool

(range 10...30°C/50...86°F, default 10°C/50°F).

3. Adjusting the temperature limit for heat

(range 10...30°C/50...86°F, default 30°C/86°F).

4. Adjusting the Offset for calibration of measured temperature

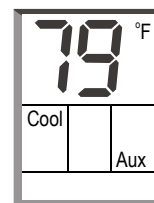
(range -5...+5°C/-9...+9°F, default 0°C/0°F).

5. Adjusting the Dead zone

(range 2...5°C/4...9°F, default 2°C/4°F).

6. Adjusting the set point temp. for cooling in economy mode

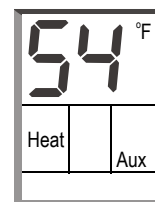
(range 18...30°C/64...86°F, default 26°C/79°F).



6. EC Cool

7. Adjusting the set point temp. for heating in economy mode

(range 10...22°C/50...72°F, default 12°C/54°F).

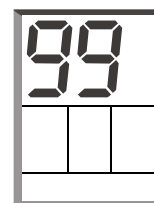
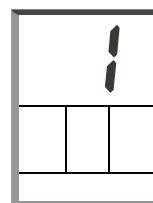


7. EC Heat

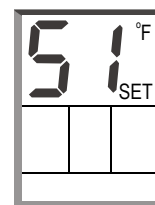
Communication MAC Address

- Adjust the set point temperature to 11°C or to 51°F.
- Press and hold the [Mode] button (15 sec.) to enter MAC Address settings mode.
- Use the [+] and [-] buttons to change the MAC Address (range 1 to 99)
- When finished, press the [Mode] button and Readjust the set point.

* Do not use the same MAC Address for two units.



Communication MAC Address (1-99)



Enter MAC Addr. settings

Technician Settings



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