

# MRCOOL<sup>®</sup> Universal WiFi Thermostat



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# APPLICATION

MRCOOL® Wi-Fi touchscreen programmable thermostat is a 7-Day programmable thermostat that provides universal system compatibility, precise comfort control and effortless programming.

MRCOOL® provides temperature control for gas, oil, electric and heat pumps for up to 3 heating and 2 cooling systems. Not only can you remotely monitor and control the heating and cooling system in your home or business — you can stay connected to your comfort system wherever you go.

# FEATURES

- Large, clear display with backlight shows temperature, set temperature and humidity.
- Menu-driven programming makes setup effortless.
- Beautiful ergonomic design is smart and sophisticated to match your lifestyle.
- Touchscreen capability.
- Connect to the Internet to monitor and control your heating/cooling system
- Compressor protection

# SPECIFICATIONS

## Temperature Setting Range

Heating: 40°F to 90°F (4°C to 32°C).

Cooling: 50°F to 99°F (10°C to 37°C).

## Operating Ambient Temperature:

32°F to 122°F (0°C to 50°C).

## Shipping Temperature:

14°F to 140°F (-10°C to 60°C).

## Operating Relative Humidity (Noncondensing):

IRS -1: 5% to 95%.

ORS -1: 5% to 95%.

## Humidity Display Range:

0% to 99%.

## Clock Accuracy:

+/- 2 minute per month.

**Cool Indication:**

Show "Cool On" on the screen when Cool is activated.

**Heat Indication:**

Show "Heat On" on the screen when Heat is activated.

**Auxiliary Heat Indication:**

Show "Aux On" on the screen when Auxiliary Heat is activated.



# INSTALLATION

## When Installing this Product

1. Read these instructions carefully. Failure to follow the instructions can damage the product or cause hazardous conditions.
2. Check the ratings given in the instructions to make sure the product is suitable for your application.
3. Installer must be a trained, experienced service technician.
4. After completing installation, use these instructions to check out the product operation.

## Selecting Location

Install the thermostat about 5 feet (1.5m), above the floor in an area with good air circulation at average temperature. See Fig.4.

Do not install the thermostat where it can be affected by:

- Drafts or dead spots behind doors and in corners.
- Hot or cold air from ducts.

---Radiant heat from sun or appliances, concealed pipes and chimneys.

---Unheated or uncooled areas such as an outside wall behind the thermostat.

### **Mounting Means:**

Mounts directly on the wall in the living space using mounting screws and anchors provided.

### **Dimensions:**

1. MRCOOL® dimensions: see Fig. 1.
2. MRCOOL® back case: see Fig. 2.
3. MRCOOL® cover plate see Fig. 3.

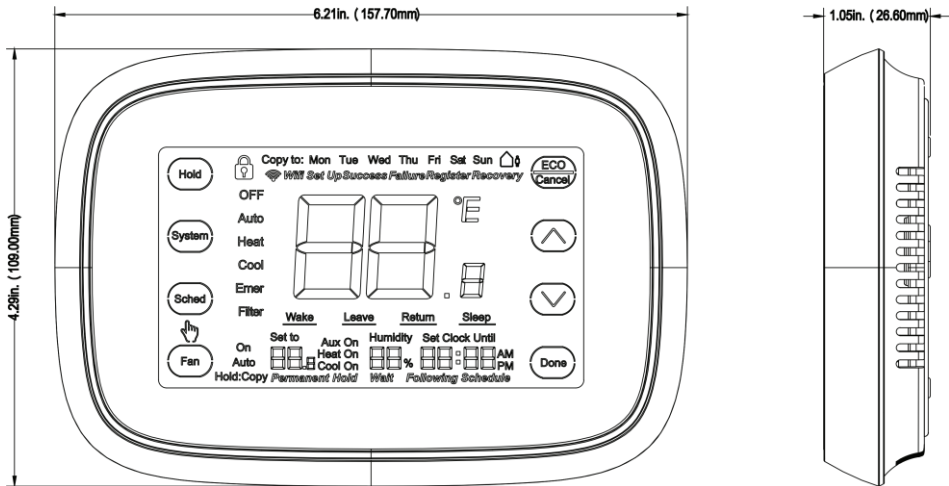


Fig. 1. Thermostat Dimensions in inches. (mm)

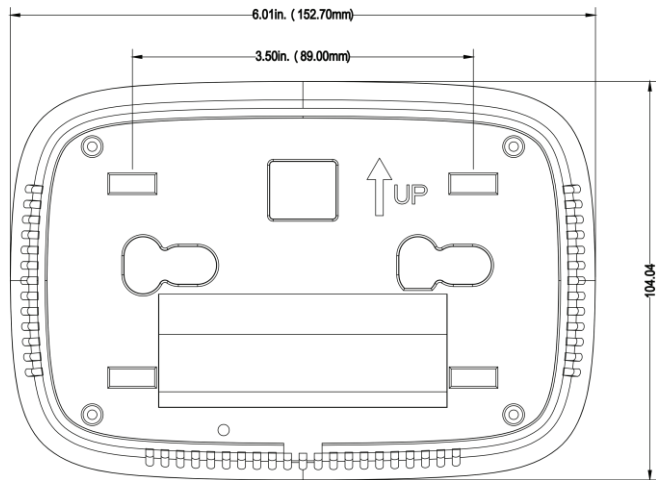


Fig. 2. Thermostat back case dimensions in inches. (mm).

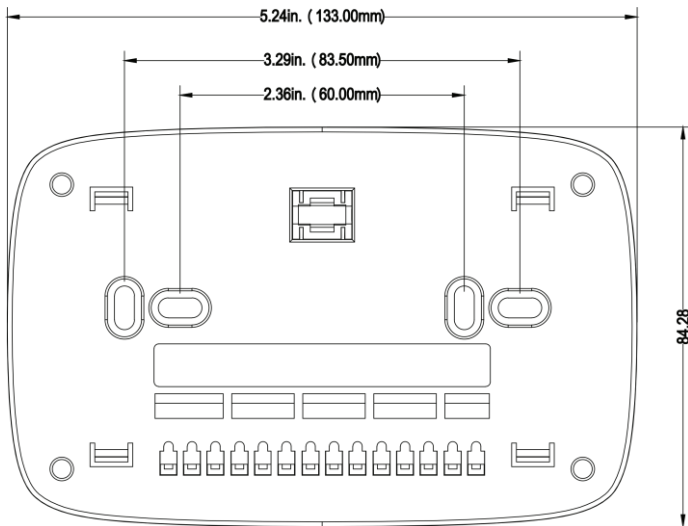


Fig. 3. Thermostat cover plate dimensions in inches. (mm).

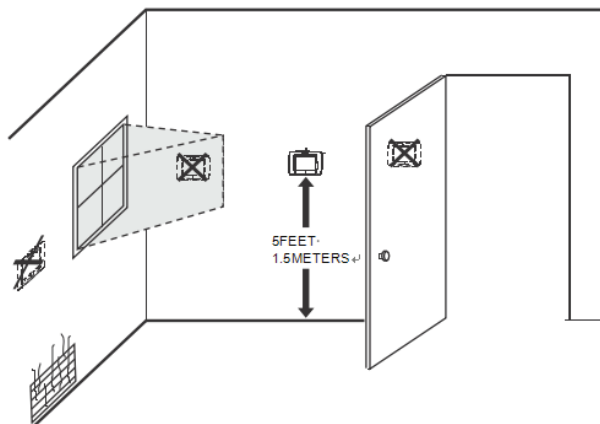


Fig.4. Selecting thermostat location.

## Installing Wall plate



### CAUTION

**Electrical hazard can cause electrical shock or equipment damage.  
Disconnect power before wiring.**

The thermostat can be mounted horizontally on the wall.

1. Position and level the wall plate (for appearance only).
2. Use a pencil to mark the mounting holes.
3. Remove the wall plate from the wall and drill two holes in the wall as marked.  
Gently tap anchors (provided) into the drilled holes until flush with the wall.
4. Position the wall plate over the holes, pulling wires through the wiring opening.  
See **Fig.5**.
5. Insert the mounting screws into the holes and tighten.

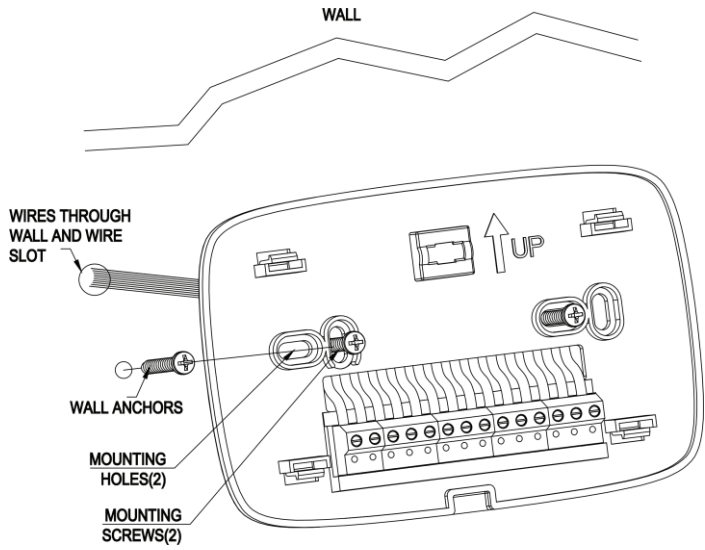


Fig.5. Mounting wall plate.



## WIRING

All wiring must comply with local electrical codes and ordinances.

1. See **Table 1** and **Fig.6** for terminal designation descriptions. Insert wires in the terminal block under the loosened screw. **See Fig.7.**
2. Securely tighten each screw.
3. Push excess wire back into the hole.
4. Plug the hole with nonflammable insulation to prevent drafts from affecting the thermostat.

**Table 1. Terminal Designation Descriptions.**

<b>Terminal Designation</b>	<b>Description</b>
RC (see Note 1)	Power for cooling--connect to secondary side of cooling system transformer
R (see Note 1)	Power for heating--connect to secondary side of heating system transformer
C (see Note 2)	Common wire from secondary side of cooling system transformer
Y	Compressor contactor
G	Fan relay
Y2	Second stage cooling
O/B/W (see Note 3)	Changeover valve for heat pump systems or heat relay
AUX/W2	Auxiliary heat relay for heat pump systems or second stage heat relay
E	Emergency heat relay for heat pump systems
L (see note 4)	Equipment monitor for heat pump systems

## NOTES:

1. When used in a single-transformer system, leave metal jumper wire in place between RC and R. If used on a two -transformer system, remove metal jumper wire between RC and R.
2. If thermostat is configured for a heat pump system, configure changeover valve for cool or heat.
3. L terminal is an input port as system monitor.

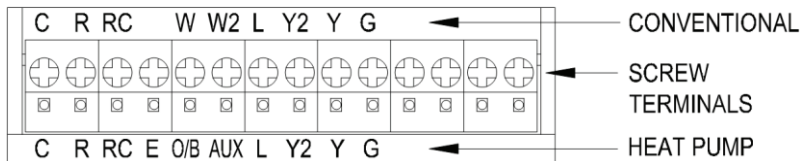


Fig.6.Terminal identifications for system.

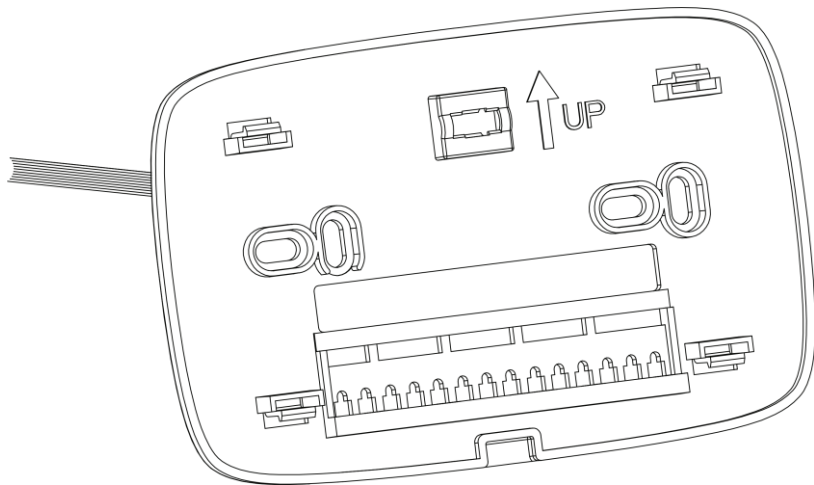
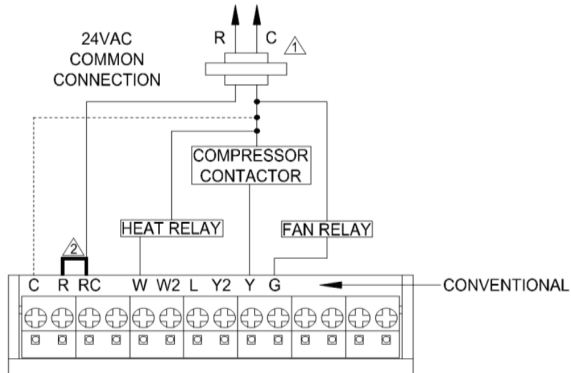


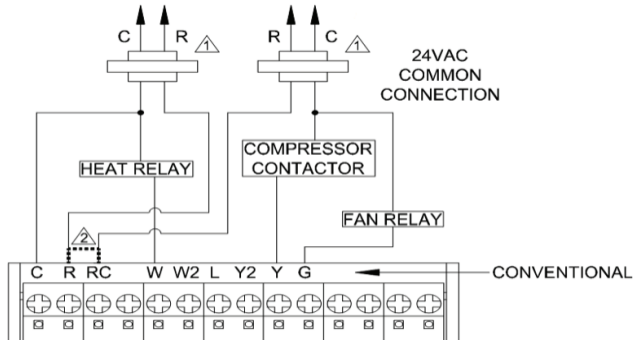
Fig.7. Inserting wires in terminal block.

**IMPORTANT:** Use 18 gauge thermostat wire.



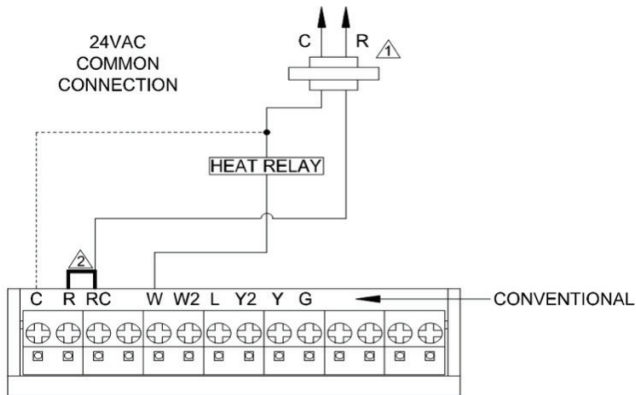
1. POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.
2. FACTORY INSTALLED JUMPER.

Fig. 8. Typical hookup of conventional single-stage heat and cool system with single transformer (1H/1C conventional).



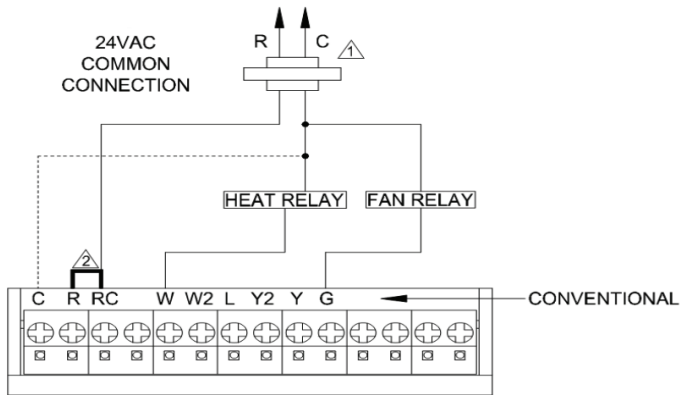
1. POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.
2. FACTORY INSTALLED JUMPER.

Fig. 9. Typical hookup of conventional single -stage heat and cool system with two transformers (1H/1C conventional).



1. POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.
2. FACTORY INSTALLED JUMPER.

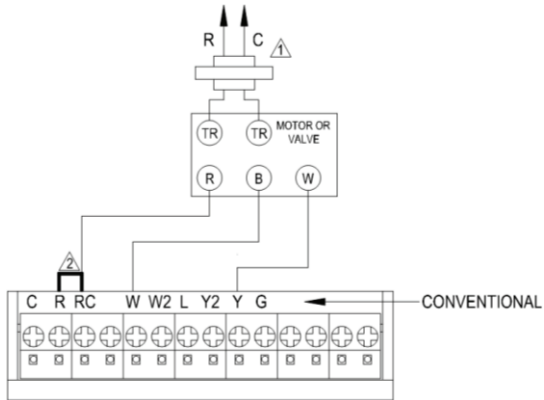
Fig. 10. Typical hookup of heat -only system (1H conventional).



1. POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.
2. FACTORY INSTALLED JUMPER.

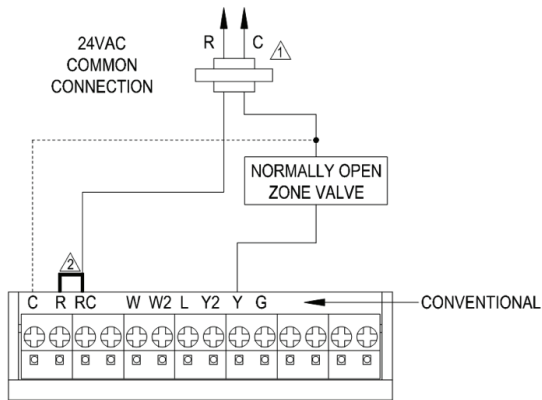
Fig. 11. Typical hookup of heat only system with fan (1H conventional).





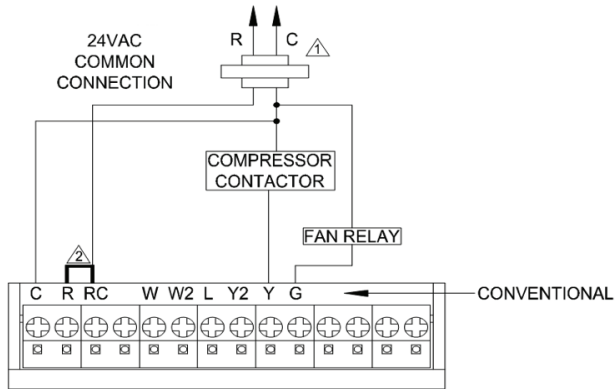
1. POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.
2. FACTORY INSTALLED JUMPER.

Fig. 12. Typical hookup of heat only power to open and power to close zone valve system.



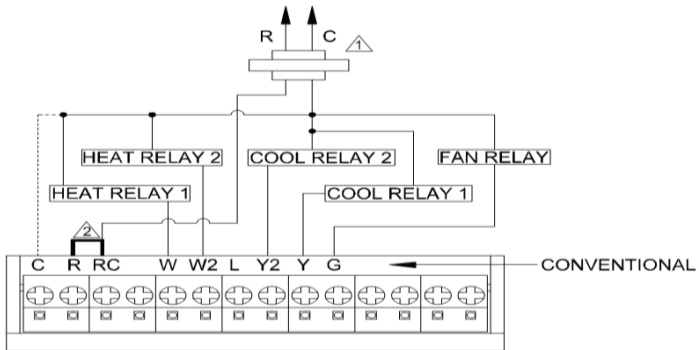
1. POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.
2. FACTORY INSTALLED JUMPER.

Fig. 13. Typical hookup of heat only system with normally open zone valves.



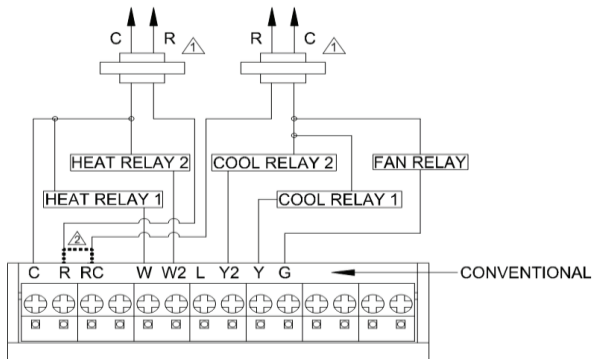
1. POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.
2. FACTORY INSTALLED JUMPER.

Fig. 14. Typical hookup of cool only system (1C conventional).



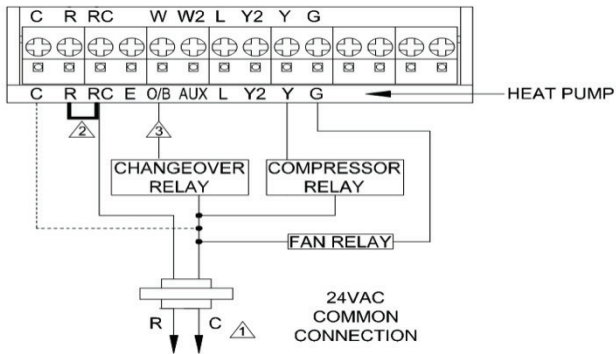
1. POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.
2. FACTORY INSTALLED JUMPER.

Fig. 15. Typical hookup of conventional multi-stage two-stage heating and two-stage cooling in a single-transformer system (2H/2C, 2H/1C or 1H/2C conventional).



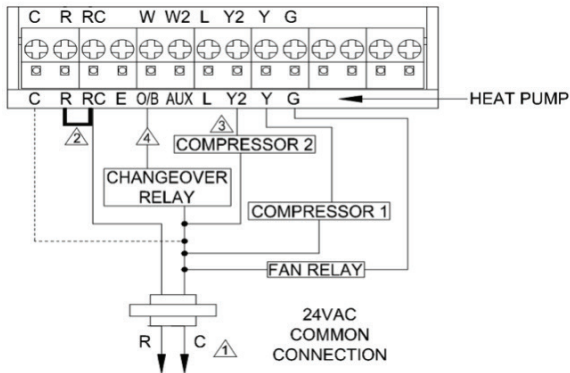
1. POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.
2. FACTORY INSTALLED JUMPER.

Fig. 16. Typical hookup of conventional multi-stage two-stage heating and two-stage cooling in a two-transformer system (2H/2C, 2H/1C or 1H/2C conventional).



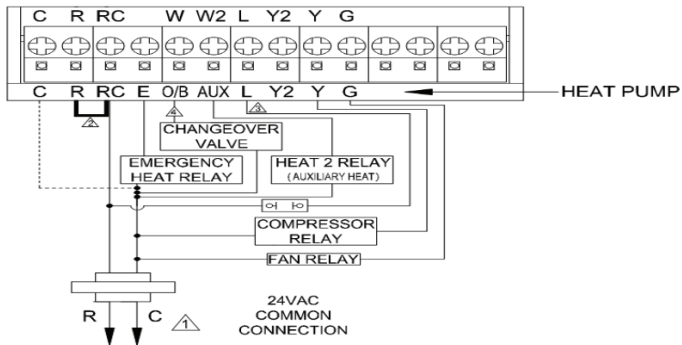
1. POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.
2. FACTORY INSTALLED JUMPER.
3. "O/B" TERMINAL SET TO CONTROL AS EITHER "O" OR "B" IN THE INSTALLER SETUP.

Fig. 17. Typical hookup of single -stage heat pump with no auxiliary/backup heat (1H/1C heat pump).



1. POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.
2. FACTORY INSTALLED JUMPER.
3. MUST CONNECT THE 24VAC COMMON WHEN USING L. THE TERMINAL IS SHOWN AS EQUIPMENT MONITOR
4. "O/B" TERMINAL SET TO CONTROL AS EITHER "O" OR "B" IN THE INSTALLER SETUP.

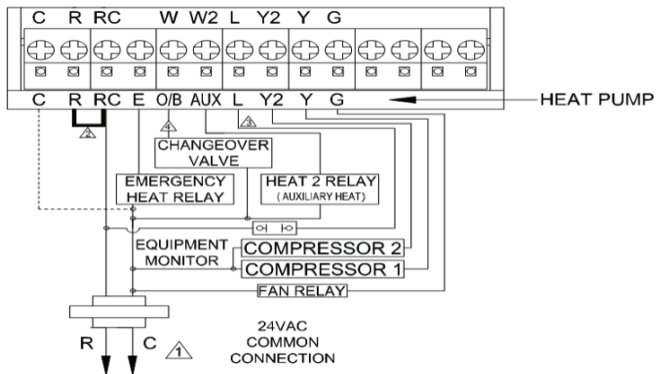
Fig. 18. Typical hookup of multi-stage heat pump with no auxiliary/backup heat (2H/2C heat pump).



1. POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.
2. FACTORY INSTALLED JUMPER.
3. MUST CONNECT THE 24VAC COMMON WHEN USING L. THE TERMINAL IS SHOWN AS EQUIPMENT MONITOR.
- 4."O/B" TERMINAL SET TO CONTROL AS EITHER "O" OR "B" IN THE INSTALLER SETUP.

Fig. 19. Typical hookup of single-stage heat pump with auxiliary/backup heat (2H/1C heat pump).





1. POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.
2. FACTORY INSTALLED JUMPER.
3. MUST CONNECT THE 24VAC COMMON WHEN USING L. THE TERMINAL IS SHOWN AS EQUIPMENT MONITOR.
4. "O/B" TERMINAL SET TO CONTROL AS EITHER "O" OR "B" IN THE INSTALLER SETUP.

Fig. 20. Typical hookup of multi-stage heat pump with auxiliary/back-up heat (3H/2C heat pump).

# POWERING THE THERMOSTAT

## Wiring 24VAC Common

·Single-TransformerSystem:

Connect the common side of the transformer to the C screw terminal of the thermostat wall plate. Leave the metal jumper wire in place between RC and R.

·Two-Transformer System:

Connect the common side of the cooling transformer to the C screw terminal of the thermostat wall plate. Remove the metal jumper wire between RC and R.

## Mount Thermostat to Wall Plate

Align the terminal screw blocks with the pins on the back of the thermostat. Push the thermostat straight onto the wall plate until it snaps into place. See Fig. 21.

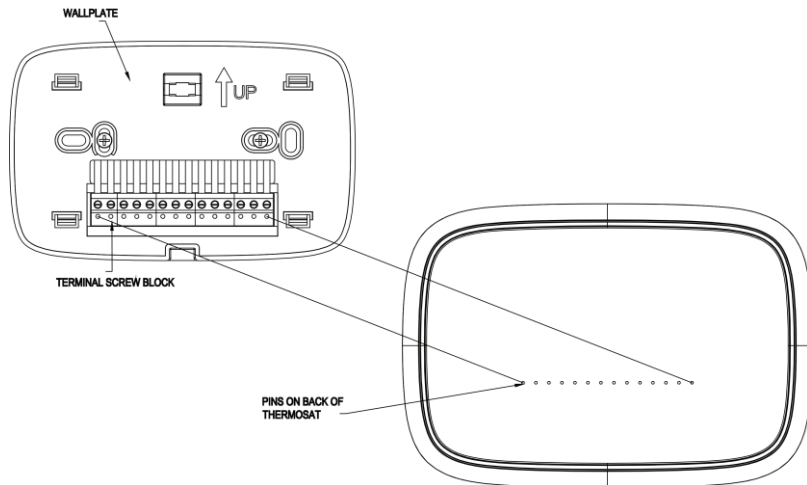


Fig. 21. Mount thermostat to wall plate.

# INSTALLER SETUP

Follow these steps to enter the Installer Setup:

1. See Fig. 22-1. Press and release the **System** Key. System mode will blink, then press and hold the **System** key for approximately 5 seconds until the screen changes. Menu numbers will display at bottom right corner. See Fig. 22-2.



Fig.22-1



Fig.22-2.

2. Press  $\uparrow$  or  $\downarrow$  key to cutover submenu, and press  $\text{System}$  key enter submenu. Under submenu use  $\uparrow$  or  $\downarrow$  to set parameters. See Fig. 22-3.

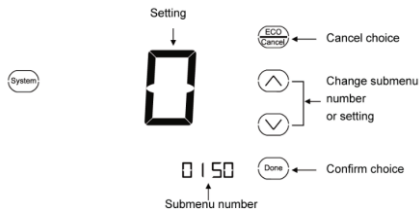


Fig. 22-3.

Note: See Tables 2 for the Installer Setup Numbers and Settings.

3. Press  $\text{Done}$  key to exit and confirm

the installer setup, or press  $\text{ECO Cancel}$  to exit without saving changes.

Table 2.installer Setup Menu.

Number	Name	Settings	Notes
0140	MAC and version	See MAC and firmware version	
0150	Date and time	Set calendar date and time	
0160	Schedule Options	0-non-programmable 1-7 day programmable	The schedule setting will default if changed

Number	Name	Settings	Notes
0170	System Type Selection	1-1heat/1cool conventional (default setting) 2-single-stage heat pump (no auxiliary heat) 3-heat only conventional (no fan) 4-heat only conventional (with fan) 5-heat only (power to open and close zone valves or normally-open zone valves) 6-cool only conventional 7-2heat/1cool heat pump (with auxiliary heat) 8-2heat/2cool multistage conventional 9-2heat/1cool multistage conventional 10-1heat/2cool multistage conventional 11-2heat/2cool heat pump (no auxiliary heat) 12-3heat/2cool heat pump (with auxiliary heat)	Available options and defaults vary by thermostat. System selection automatically modifies some default settings and/or hides other Installer Setup options.

Number	Name	Settings	Notes
0180	Fan Control in Heating	0-gas or oil furnace equipment controls fan in heating (factory setting) 1-electric furnace thermostat controls fan in heating	Only shown if conventional system is selected. If heat pump is chosen, fan defaults to electric.
0190	Changeover Valve O/B Terminal Energized in Heating or Cooling (Heat Pumps Only)	0-changeover valve O/B terminal is energized in cooling 1-changeover valve O/B terminal is energized in heating	Only shown if heat pump system is chosen.



Number	Name	Settings	Notes
0220	Leave mode heating setting temperature	40 °F - 62 °F : leave mode heating, the range of setting temperature (1 °F difference) 4 °C - 16 °C : leave mode heating, the range of setting temperature (0.5 °C difference)	
0230	Leave mode cooling setting temperature	76 °F - 99°F : leave mode cooling, the range of setting temperature (1 °F difference) 24 °C- 37 °C : leave mode cooling, the range of setting temperature (0.5 °C difference)	
0280	Close backlit display	0 - show temperature only 1 - show main menu	

Number	Name	Settings	Notes
0300	Changeover	0-manual changeover (factory setting) 1-auto changeover	
0310	Dead band	2 - 2°F (1.5°C) 3 - 3°F (2°C) 4 - 4°F (2.5°C) 5 - 5°F (3°C) 6 - 6°F (3.5°C) 7 - 7°F (4°C) 8 - 8°F (4.5°C) 9 - 9°F (5°C)	Shown only if 0300 is selected.
0320	Temperature Indication Scale	0 - Fahrenheit (factory setting) 1 - Celsius	When it is changed, the schedule will need to be reprogrammed

Number	Name	Settings	Notes
0330	1stage hysteresis	1 F - 3 F (default 2F)	Fahrenheit value is 2 times of centigrade value
0340	2stage hysteresis	1 F - 3F (default 2F)	Fahrenheit value is 2 times of centigrade value
0350	3stage hysteresis	1 F - 3 F (default 2F)	Fahrenheit value is 2 times of centigrade value
0500	Furnace Change Reminder	0 - furnace filter reminder off 1 - 10 run time days    2 - 30 run time days 3 - 60 run time days    4 - 90 run time days 5 - 120 run time days    6 - 365 run time days	Run time based on call for fan.

Number	Name	Settings	Notes
0530	Adaptive Intelligent Recovery	1 - Adaptive Intelligent Recovery control is activated (system starts early so set point is reached by start of program period). 0 - Conventional Recovery (system starts recovery at programmed time)	
0540	Number of Periods	2 - two periods available (Wake and Sleep) 4 - four periods available (Wake, Leave, Return and Sleep)	Only shown if schedule is enabled. Schedule will default if changed
0580	Minimum Compressor Off Time	5 - five-minute compressor off-time setting (factory setting) 0,2,3,4 - other compressor off-time settings	

Number	Name	Settings	Notes
0600	Heat Temperature Range Stop	40-90 - temperature range (1°F increments) of heating set point.	Shown in 1/2 °C.
0610	Cool Temperature Range Sto p	50-99 - temperature range (1°F increments) of cooling set point.	Shown in 1/2 °C.
0640	Clock Format	12 - 12 hour clock (factory setting) 24 - 24 hour clock	

Number	Name	Settings	Notes
0650	Extended Fan On Time Heat	0 - No extended fan operation aftercall for heat ends. 90 - Fan operation is extended 90 seconds after call for heat ends.	Not shown in Cool Only Systems
0660	Extended Fan On Time Cool	0 - No extended fan operation after call for cool ends 90 - Fan operation is extended 90 seconds after call for cool ends.	Not shown in Heat Only Systems.
0670	Keypad Lockout	0 - unlocked keypad 1 - locked keypad	When key pad is locked only able to enter User Setup to unlock.

Number	Name	Settings	Notes
0700	Temperature Display Offset	-9°F ~ 9°F (°F as temperature format) -4.5°C ~ 4.5°C (°C as temperature format) 0°F (0°C) (factory setting)	
0710	Reset Thermostat	0 - No thermostat reset. 1 - Resets all Installer Setup Options to default values and resets schedule to default setting.	Only calendar settings and time are retained.

# OPERATION

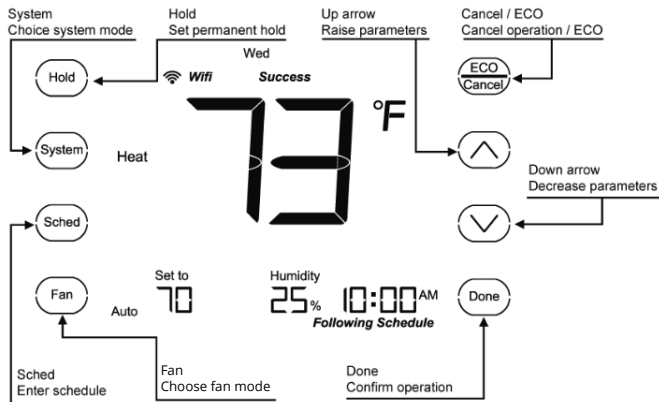


Fig. 23. Thermostat Keys



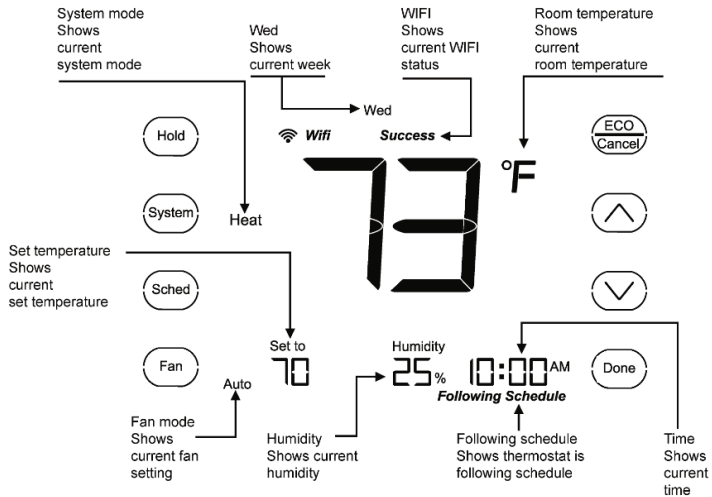










Fig. 24. Thermostat Display

## User Setup

Follow these steps to enter the User Setup:

1. Press and hold the  key for approximately 3 seconds until the screen changes. Menu number will display at bottom right corner.
2. Press  or  key to cutover to submenu, and press  key enter submenu. Under submenu use  or  to set parameters.
3. Press  key to exit and confirm the user setup, or press  to exit without saving changes.

**Note:** See Tables 3 for the User Setup Numbers and Settings, and see chapter INSTALLER SETUP for Operations Reference.

Table 3. User Setup Settings.

Number	Description	Settings
0140	See MAC and Version	
0150	Date and Time	Current calendar date and time
0320	Display temperature in °F or °C	0 - °F setting (factory setting) 1 - °C setting
0640	Clock Format	12 - 12-hour clock(factory setting) 24 - 24-hour clock

Number	Description	Settings
0670	Keypad Lockout	0 - Unlocked keypad 1 - Locked keypad
0700	Temperature Display Offset	-3°F ~ 3°F (°F as temperature format) -1.5°C ~ 1.5°C (°C as temperature format) 0°F (0°C) (factory setting)
0710	Reset Thermostat	0 - No thermostat reset. 1 - Resets all Installer Setup Options to default values and resets schedule to default setting.

## Date/time Setting

1. Consult USER SETUP, choose submenu number 0150 enter date and time setting.
2. Press **System** to switch from date to time in the following order: year, month, day, hour, and minute. Press **▲** or **▼** to adjust the time. (You can advance the time more quickly by holding the **▲** key or **▼** key buttons.)
3. Press **Done** to save changes and exit or press **ECO Cancel** to exit without changing the date and time.

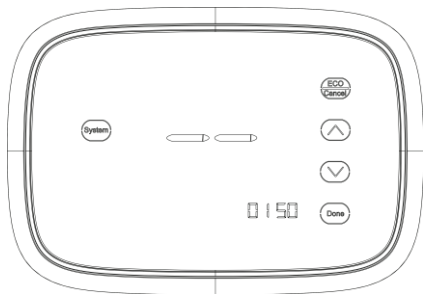


Fig.25

## Setting the fan

1. Press **Fan** to select fan operation.
2. Press **Fan** again to select ON or AUTO (toggle to re-select). The selected option blinks.
4. Press **Done** to save setting or press **ECO Cancel** to exit without saving changes.

**ON:** Fan is always on.

**AUTO:** Fan runs only when the heating or cooling system is on.

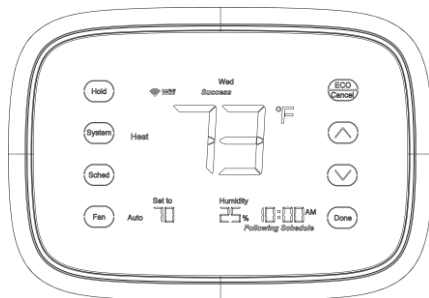


Fig.26

## Selecting system mode

1. Press **System** to display options.
2. Press **System** again to select an option. You may need to press two or three times to make a selection—the selected option blinks.
3. Press **Done** to save setting or press **ECO Cancel** to exit without saving changes.

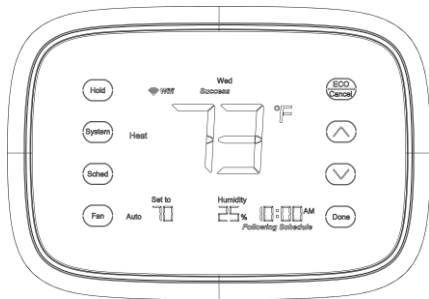


Fig.27

## Possible system modes:

**HEAT:** Controls only the heating system.

**COOL:** Controls only the cooling system.


**OFF:** Heating/cooling systems are off.

**AUTO:** Selects heating or cooling depending on the indoor temperature.

**EMER (heat pumps with aux. heat):**

Controls auxiliary/emergency heat when compressor is locked out.

**Note:** The AUTO and EMER system settings may not appear, depending on how your thermostat was installed.

Note: When under auto mode press  key to switch temperature settings between heating and cooling.








## Set Temperature Overrides

Lake has two temperature override options: **Override Until** and **Permanent Override**.

### Override Until





Holds temperature temporarily until the next scheduled period time.

1. Press  or  key to adjust temperature you want, the icon Until appears above Time, and the Time becomes next scheduled period time.
2. Press  key to exit and confirm the changes, or press  to exit without saving changes.
3. If you want to exit Override Until, please press  key. Override Until will be exited until the next scheduled period time is reached.

**Note:** The current day of the week should already be set correctly. If not, see User Setup to set the date and time setting.


## Permanent override

Keep user settings permanently.

1. Press  key once. Screen shows Permanent Hold.
2. Press  or  key to adjust temperature you want.
3. If you want to exit, please press  key again.

## Cleaning Thermostat Screen

The thermostat has touch screen interaction. Follow these steps to clean the screen without making thermostat changes:

1. Press and hold the  key for approximately 3 seconds until the screen changes. Thermostat locks out all touch keys for 30 seconds to allow for cleaning. See Fig. 2 8.
2. Use damp cloth slightly moistened with water or house-hold glass cleaner to dean the screen.

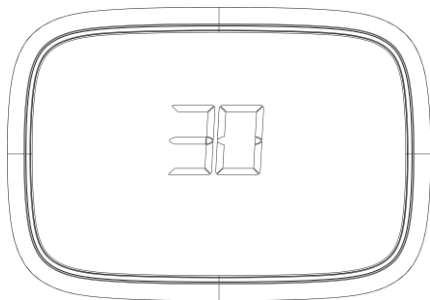



Fig.2 8.

When finished, press  key to return to the Home Screen and normal operation. See Fig.2 9.

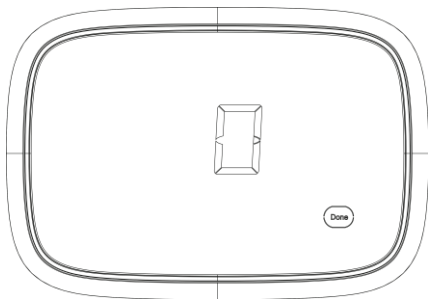



Fig.29.

### **IMPORTANT:**


Do not spray any type of liquid directly on the thermostat itself. If using household glass cleaner, spray cleaner on cloth. Then use the cloth to clean the thermostat screen.






## **Screen Locks**

In User or Installer Setup, menu 0670 allows you to prevent changes to all of the touchscreen functions. In this case, all keys are locked and not functional, the screen displays a lock icon  continuously. User setup can also be used to unlock keys and restore the touchscreen functions .

## Setting Filter Reminder Intervals

If activated during installation, the filter reminder alerts you by flashing **Filter** on screen above the time when it is time to replace your filter.

Press  after changing the filter, to restart the timer. To change the reminder interval:

1. Press and hold the  about 3 seconds until screen changes.
2. Press  or  to select the desired interval (in days), then press  to save and exit, or press  to exit without saving.

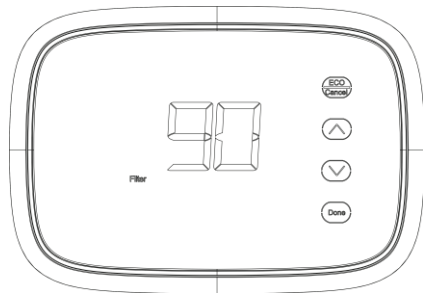


Fig.30

### Note:

1. System setting function 0500 governs the filter interval maximum.
2. The days are counted as fan run time, so anytime the fan is running, the reminder is counting that time against the number of days selected.

## Connecting to your Wi-Fi network

To complete this process, you must have a smart phone connected to your home wireless network. Please scan the following code to download “MRCOOL Universal”App.



iPhone



Android

### If you get stuck...

At any point in this procedure, restart the thermostat by removing the thermostat from the wall plate, wait a few seconds, and snap it back onto the wall plate. Return to Step 1 in this procedure, which starts on the next page.


1. Please be sure your phone has connected WiFi (don't connect the hidden internet), download "MRCOOL Universal!"
2. Open App and register.



Fig. 31.



Fig. 32.

3. After login, press top left corne , choose WiFi connection and input the WiFi password, DON'T press the "connect" and continue next step first.

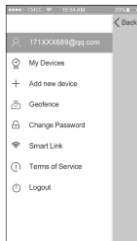


Fig. 33.



Fig. 34

4. Press the key Done on thermostat screen until the **'Wifi Set Up'** flash.



Fig. 35



5. Now you can press the “connect” on app, app will show processing and after seconds it will show a successful connection.

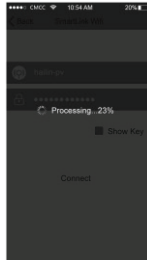


Fig. 36.

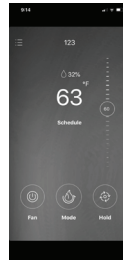





Fig. 37.

## Note:

1. If connected WiFi successfully, it will show  **Wifi Success** on the thermostat, otherwise it will show **Wifi Failure**.
2. Each configuration needs to be finished within 5 minutes, otherwise the thermostat will quit configuring.

## Leave mode

Press the  on homepage and the Universal Thermostat will switch to leave mode. (You can set the temperature you need under leave mode. See the following programming to set the temperature.) If the Universal Thermostat has been under leave mode, press  on homepage to quit the mode and recover the previous status

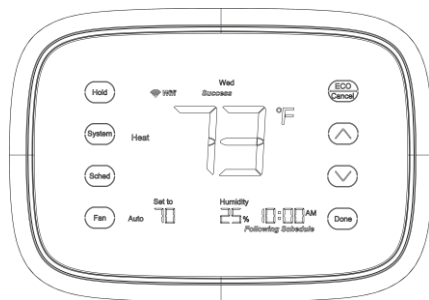


Fig. 38.

# PROGRAMMING

Table 4. Schedule Default Program Settings.

Schedule Period	Time	Set points		Fan Setting
		Heat	Cool	
Wake	6:00AM	68°F (20°C)	78°F (26°C)	Auto
Leave	8:00AM	60°F (16°C)	85°F (29°C)	Auto
Return	4:00PM	68°F (20°C)	78°F (26°C)	Auto
Sleep	10:00PM	60°F (16°C)	82°F (28°C)	Auto

## **Program Heating and Cooling Schedule**

Your thermostat can control up to four different schedule periods per day:

**Wake** - Period when you awaken and want your home at a comfortable temperature.

**Leave** - Period when you are away from home and want an energy-saving temperature.

**Return** - Period when you return home and want your home back to a comfortable temperature.

**Sleep** - Period when you are asleep and want an energy-saving temperature.

**NOTE:** Schedule times are in 15-minute intervals.

## Edit Schedule

1. Press **Sched**, the screen will change. See Fig. 39 and 40.

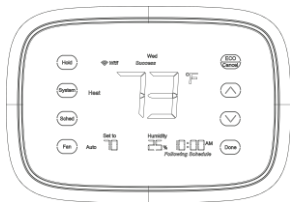





Fig. 39.

2. In this case, the time will blink, press **^** or **v** to adjust the time. Press **Sched** to turn to next setting.
3. Then, the temperature will start to blink, press **^** or **v** to

adjust the temperature. Press **Sched** to turn to next time period.









Fig. 40

4. Repeat the above steps until completing the setting of four time periods. Then, press  to turn to next day, until completing the setting of a week.
5. To end program setting, press  key to exit and confirm the program setting, or press  to exit without saving changes.

**NOTE:** The Fan setting is auto as default and cannot be programmed.

## Copy One Day Program



After entering a day program you can copy this into another day to save time when creating a weekly program: for example, if you want to copy the program of Monday to Thursday, the methods are as follows:

1. Select the program for Monday complete the setting of Monday and press , the icon **Copy to:** appears on the screen, and the icon **Tue** Will blink, that indicates waiting to be selected or skipped. Press  to select, press  to skip.
2. Copy to Thursday: press  or  to select Thursday, then press  to finish the copying and the icon **Copy to:** disappears.
3. Copying for other days, please repeat from the Step 1 to 2. You can copy to one day or many days.



## Reset Schedule

Your thermostat can reset schedule setup option to default setting.

Press and hold  key for approximately 3 seconds until the screen changes as Fig.41, then release  key. Now the setting of schedule resets to default setting as table 4.

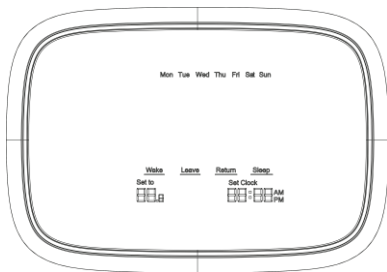


Fig. 41.

## FCC Note

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a

particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## TROUBLESHOOTING

Symptom	Possible Cause	Action
No LCD display	Thermostat is not being powered.	Check 24VAC between C and R.
Temperature settings do not change.	The upper or lower temperature limits were reached.	Check temperature set-points. Check Installer Setup Numbers 0600 or 0610, modify as needed.
	The keypad is fully locked.	Check Installer Setup Number 0670 to change keypad locked options.

<b>Symptom</b>	<b>Possible Cause</b>	<b>Action</b>
Heating or cooling does not come on.	Thermostat minimum off-time is activated.	Wait up to five minutes for the system to respond.
	System selection is not set to Heat or Cool.	Set system selection to correct position.
	System type selection is incorrect.	Check Installer Setup Number 0170 and make sure correct system type is chosen.

<b>Symptom</b>	<b>Possible Cause</b>	<b>Action</b>
<p>Thermostat is calling for Heat (Heat on) or Cool (Cool on) but no heating or cooling is running.</p>	<p>Heating or cooling equipment is not operating.</p>	<p>Check wiring. Check Installer Setup Number 0170 and make sure correct system type is chosen. Verify operation of equipment in System Test mode.</p>
<p>Fan does not turn on in a call for heat (electric furnace).</p>	<p>Fan Control in Heating is set to Gas or Oil Furnace (Setting 0180).</p>	<p>Set Fan Control in Heating to Electric Furnace (Setting 0180).</p>

<b>Symptom</b>	<b>Possible Cause</b>	<b>Action</b>
Heat pump puts out cool air in the heat mode and warm air in the cool mode.	Changeover Valve is not configured to match the changeover required by the installed heat pump.	Set Changeover Valve (Installer Setup Number 0190) to match the changeover required by the installed heat pump.
Both the heating and cooling equipment are running at the same time.	The heating equipment is not a heat pump but the System Type is set to Heat Pump.	Set System Type (Installer Setup Number 0170) to match the installed heating and/or cooling equipment.
	Heating and cooling wires are shorted together.	Separate the shorted heating and cooling wires.

<b>Symptom</b>	<b>Possible Cause</b>	<b>Action</b>
Heating equipment is running in the cool mode.	Heating equipment is not a heat pump but System Type (Installer Setup Number 0170) is set to Heat Pump.	Set System Type (Installer Setup Number 0170) to match the installed heating and/or cooling equipment.
Heating equipment does not turn off and heat temperature setting is set below room temperature	Heating equipment is not a heat pump but System Type (Installer Setup Number 0170) is set to Heat Pump.	Set System Type (Installer Setup Number 0170) to match the installed heating and/or cooling equipment.



<b>Symptom</b>	<b>Possible Cause</b>	<b>Action</b>
Cannot set the system setting to Heat or Cool.	System Type is set to Cool Only or Heat Only or Heat Only with Fan.	Set System Type (Installer Setup Number 0170) to match the installed equipment.
Heat On is not in the display.	System is not set to Heat and/or temperature is not above room temperature.	Set the system setting to Heat and set the temperature setting above the room temperature.
Cool On is not in the display.	System is not set to Cool and/or temperature is not below room temperature.	Set the system setting to Cool and set the temperature setting below the room temperature.

<b>Symptom</b>	<b>Possible Cause</b>	<b>Action</b>
Wait is in the display.	Compressor minimum off timer is active.	Wait up to five minutes for the cooling or heating (heat pump) equipment to turn on.
Screen Locked appears on the screen and the keys do not respond.	The keypad is locked.	Check Installer Setup Number 0670 to change keypad locked options.