

Remote Thermostat Comfort Control

The Remote/Thermostat Comfort Control is a touch screen control that operates either as a remote control or a thermostat to control airflow into a space. The Remote/Thermostat is battery powered and communicates wirelessly to the actuator using the FCC ISM 915MHz band.

The Remote Thermostat can be placed on a table in a space or permanently attached to a wall.

Important!

The Remote/Thermostat Comfort Control does not control the activation of heating or cooling, but only the airflow from the diffuser.

Remote Control or Thermostat Control

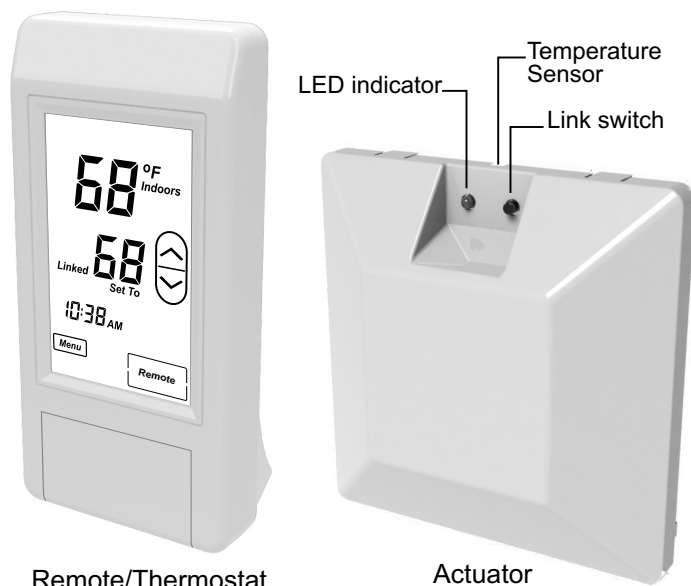
The Remote/Thermostat control can operate in either Remote airflow control or thermostat control selected by the touch key in the lower right corner of the LCD.

In Remote control operation, it controls the airflow by adjusting the damper position using the Up/Down keys.

In thermostat operation, it controls the airflow by adjusting the damper position based on the space temperature, the temperature setting and whether the discharge air temperature is hot or cold indicating a heating or cooling call using the temperature sensor in the actuator. The actuator is periodically adjusted based on the parameters.

Equipment Compatible with Remote Control Operation

All forced air systems are compatible with remote control operation.



Remote/Thermostat

Actuator

Equipment Compatible with Thermostat Operation

In thermostat operation the discharge air temperature is monitored to determine if the airflow is to be increased by opening the damper more or decreased by closing the damper more.

In heating, the discharge air temperature must rise above the temperature set for detecting a heating call. The heating detect temperature is factory set at 95F and can be set from 85 to 120F using Option 3. It is important that between heating calls, the temperature at the actuator's temperature sensor does not drop so low as to be detected as a cooling call.

In cooling, the discharge air temperature must drop below the temperature set for detecting a cooling call. The cooling detect temperature is factory set at 65F and can be adjusted from 60 to 75F using Option 4. And the temperature at the actuator's sensor should not rise above the heating detect temperature between cooling calls.

Important!

1. Read the Installer Manual carefully. Failure to do so could damage the product.
2. Installation should be completed by a trained, experienced technician.
3. Test the product operation as outlined in the manual prior to installation.

LCD Touchscreen

Important!

The remote thermostat has been designed for long battery life and will “sleep” when not in use to maintain battery life. A moderate touch is recommended to “wake up” the remote thermostat. A moderate, steady touch is recommended to operate the keys. Pressing hard will not make the thermostat respond faster and may damage the LCD touchscreen and/or other components.

Installing Batteries

Installing Batteries for the First Time

1. Slide the battery cover down and install two AA batteries being sure to observe the polarity.

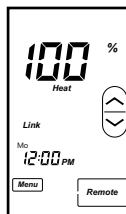
The Remote Thermostat will power up in Remote Control Mode.

Observe the word Link in the display indicating the Remote Thermostat is ready to Link to a wireless actuator.

2. Set the correct time and day.

Replacing Batteries

After replacing the batteries, set the correct time and of day. The remote thermostat retains its link to the actuator. This is indicated by the word Linked in the display.



Wiring the Actuator

⚠ CAUTION

Electrical Shock or Equipment Damage Hazard.

Turn power off before wiring the transformer or the actuator. Failure to do so could result in personal injury or possible equipment damage.

The actuator requires 24VAC, 4VA for operation. Use a 24VAC, 40VA transformer. Multiple actuators (up to 10) can be powered from the same transformer. After wiring the transformer and actuator, apply power and observe the LED on the actuator is blinking red.

Linking the Remote Thermostat to the Wireless Actuator

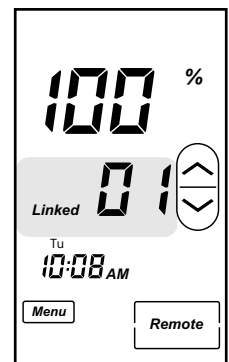
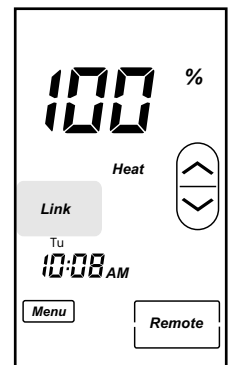
The Remote Thermostat is factory programmed with a unique address. The Remote Thermostat can be linked to one or more actuators using this unique address. Loss of power will not affect the link between the Remote Thermostat and Actuators.

1. With power applied to the actuator and the LED blinking red, press the Link switch on the actuator. The LED rapidly blinks green and is ready to be linked to a Remote Thermostat.
2. Press LINK on the Remote Thermostat (shown in grey) until the LCD backlight comes on, then release.

LINK will change to LINKED and 01 will briefly appear next to LINKED (shown in grey) indicating that the first actuator has been linked.

After a second, 01 will disappear and the Remote Thermostat returns to normal operation and the LED on the actuator is green indicating the actuator is fully open.

After linking a Remote Thermostat to an actuator, place a label on the back of the remote indicating what diffuser is being controlled.



Important!

Only one actuator can be linked at a time.

Linking Two or More Actuators

After linking the first actuator, follow the steps below to link more actuators to the same Remote Thermostat.

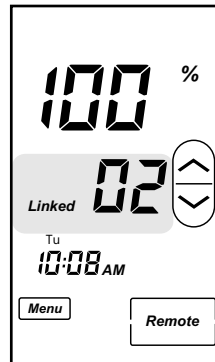
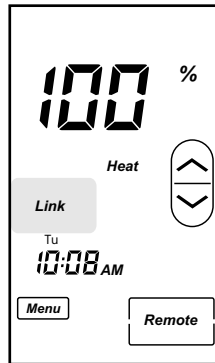
The Remote Thermostat is factory programmed with a unique address. The Remote Thermostat can be linked to one or more actuators using this unique address. Loss of power will not affect the link between the Remote Thermostat and Actuators.

1. With power applied to the actuator and the LED blinking red, press the Link switch on the actuator. The LED rapidly blinks green and is ready to be linked to a Remote Thermostat.
2. Press LINK on the Remote Thermostat (shown in grey) until the LCD backlight comes on, then release.

LINK will change to LINKED and 02 will briefly appear next to LINKED (shown in grey) indicating that a second actuator has been linked.

After a second, 02 will disappear and the Remote Thermostat returns to normal operation and the LED on the actuator is green indicating the actuator is fully open.

After linking a Remote Thermostat to an actuator, place a label on the back of the remote indicating what diffuser is being controlled.



Testing the Link

The Remote Thermostat should be in Remote Control Mode as shown. If the Remote Thermostat is in Thermostat Mode, press and hold THERMOSTAT until REMOTE appears.

The display should indicate 100% airflow and the actuator should be in the open position.

1. Press the DOWN key until 0% is displayed.

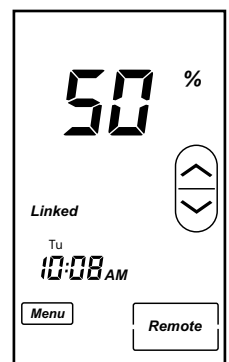
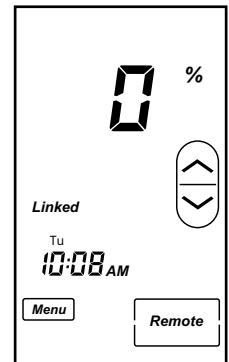
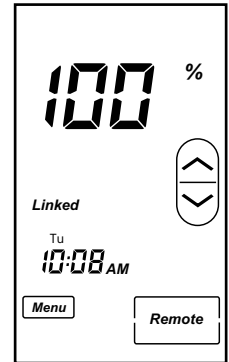
The LED turns red as the actuator adjusts to a closed position and stays red in the fully closed position.

2. Press the UP key until 100% is displayed.

The LED turns green as the actuator adjusts to an open position and stays green in the fully open position.

3. Press the DOWN key until 50% is displayed.

The LED turns red as the actuator adjusts to a closed position and turns yellow when in an intermediate position.



Options and Factory Defaults

Options are set using the Menu key. The MENU key is also used to set the schedule.

Scroll through the options by pressing and holding the MENU. Schedule options are displayed first, then Options. Continue to press and hold until Option 01 is displayed. Continue to press and hold MENU to see all options. Press ENTER to return to normal operation.

The following options are available. Some options should be set by the installer and have been indicated as Installer.

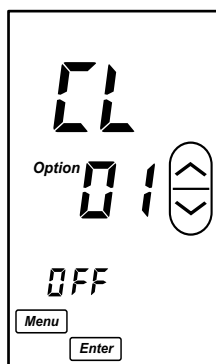
Option 1	Cleaning the touch screen	User	Default = Off	Options = Off or On
Option 2	Changing the LCD contrast	User	Default = 10	Options = 1 - 10
Option 3	Setting discharge air temp to detect heating	Installer	Default = 95°	Options = 85° - 120°
Option 4	Setting discharge air temp to detect cooling	Installer	Default = 65°	Options = 60° - 75°
Option 5	Setting the night time or off airflow	User	Default = 50%	Options = 20% - 100%
Option 6	Set the change in damper position per degree	Installer	Default = 10%	Options = 5% - 25%
Option 7	Turning on temperature in the display in Remote Control Mode	User	Default = Off	Options = Off or On
Option 8	Set the minimum airflow allowed	Installer	Default = 0%	Options = 0% - 50%

Option 1: Cleaning the Touch Screen

This option disables the touchscreen for 30 seconds to enable you to clean the touchscreen

1. Press and hold the MENU key to display Option 01.
2. Press the UP key to select On.
3. Press the ENTER key to start a 30 second count down.

During the 30 second countdown, use a damp, soft cloth to clean the touchscreen. After 30 seconds, the remote thermostat returns to normal operation.

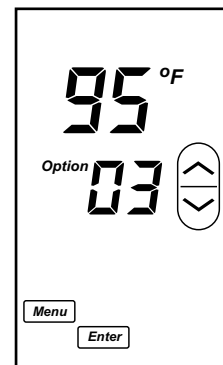


Option 3: Setting discharge air temperature for detecting heating call

Factory Default → 95°

If the discharge air temperature is below the default of 95 degrees, a heating call will not be detected and the thermostat will not control airflow properly. Use this option to lower the temperature setting for discharge air so a heating call will be detected.

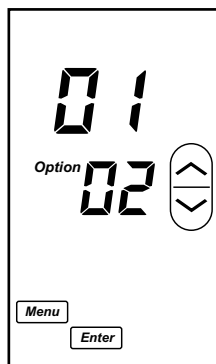
1. Press and hold the MENU key to display Option 03.
2. Use the UP / DOWN keys to change the heating detect setpoint temperature.
3. Press ENTER to save the changes and return to normal operation.
4. Or press and hold MENU to save the changes and display the next option.



Option 2: Changing the LCD Contrast

Factory Default → 1

1. Press and hold the MENU key to display Option 02.
2. Use the UP / DOWN keys to change the LCD contrast.
3. Press ENTER to save the changes and return to normal operation.
4. Or press and hold MENU to save the changes and display the next option.

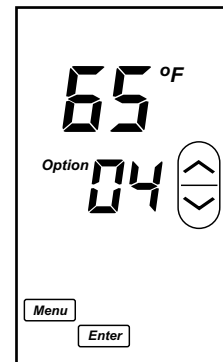


Option 4: Setting discharge air temperature for detecting cooling call

Factory Default → 65°

If the discharge air temperature is above the default of 65 degrees, a cooling call will not be detected and the thermostat will not control airflow properly. Use this option to raise the temperature setting for discharge air so a cooling call will be detected.

1. Press and hold the MENU key to display Option 04.
2. Use the UP / DOWN keys to change the cooling detect setpoint temperature.
3. Press ENTER to save the changes and return to normal operation.
4. Or press and hold MENU to save the changes and display the next option.

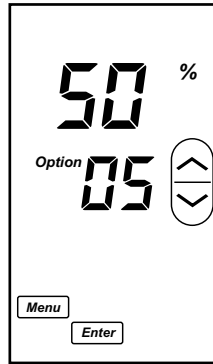


Option 5: Setting the Night or Off Airflow

Factory Default → 50%

This option sets the airflow during night mode or on days off.

1. Press and hold the MENU key to display Option 05.
2. Use the UP / DOWN keys to change the night time / off airflow.
3. Press ENTER to save the changes and return to normal operation.
4. Or press and hold MENU to save the changes and display the next option.

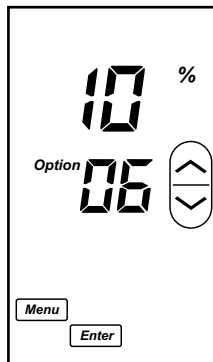


Option 6: Setting the change in damper position per degree

Factory Default → 10%

This option sets how much the damper position will adjust for each degree difference between room temperature and the set point temperature.

1. Press and hold the MENU key to display Option 06.
2. Use the UP / DOWN keys to set the change in damper position for each degree difference between setpoint and room temperature.
3. Press ENTER to save the changes and return to normal operation.
4. Or press and hold MENU to save the changes and display the next option.

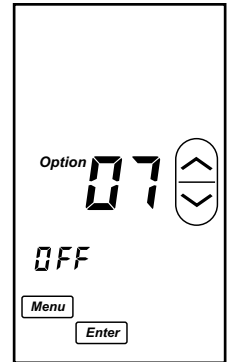


Option 7: Turning on Temperature Display in Remote Control Mode

Factory Default → Off

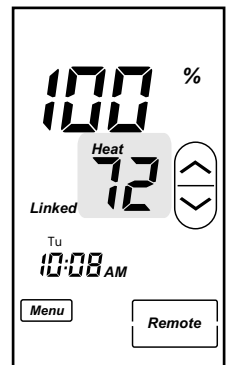
This option displays the room temperature on the display in remote control mode. The UP / DOWN keys are used to adjust airflow.

1. Press and hold the MENU key to display Option 07.
2. Use the UP / DOWN keys to turn the option on or off.
3. Press ENTER to save the changes and return to normal operation.
4. Or press and hold MENU to save the changes and display the next option.



The temperature (shown in grey) is displayed below the airflow %.

After the first command, the remote control will display whether the system is in heating (Heat) or in cooling (Cool). The system mode is determined by a temperature sensor in the actuator measuring the discharge air temperature.

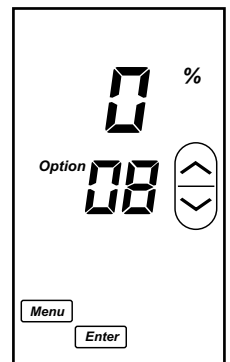


Option 8: Setting the minimum airflow allowed.

Factory Default → 0%

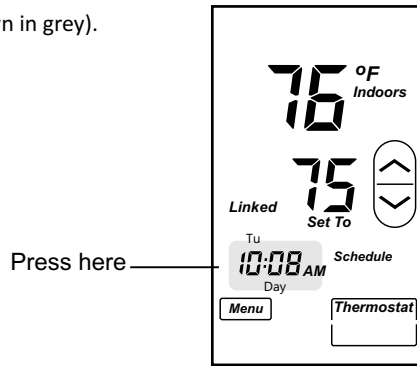
This option sets the minimum airflow allowed and can be used to minimize damper noise.

1. Press and hold the MENU key to display Option 08.
2. Use the UP / DOWN keys to set the minimum airflow allowed.
3. Press ENTER to save the changes and return to normal operation.



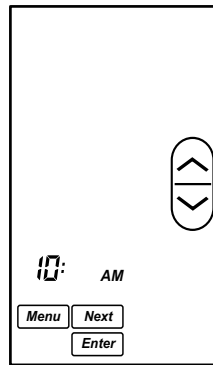
Set the Time of Day

1. Press the Time (shown in grey).



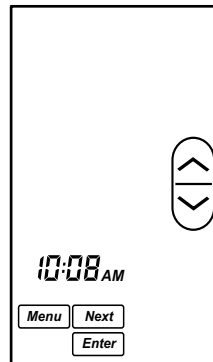
Setting Hour

1. Press the UP / DOWN key to set the hour.
2. Press NEXT to save the changes and to continue on to change the minute.
3. Or, press ENTER to save the time and return to normal operation.



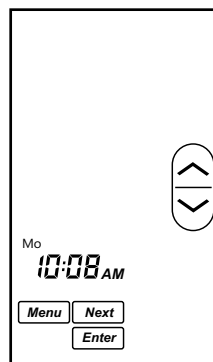
Setting the Minute

1. Press the UP / DOWN key to set the minute.
2. Press NEXT to save the changes and to continue on to change the day of the week.
3. Or, press ENTER to save the time and return to normal operation.



Setting the Day

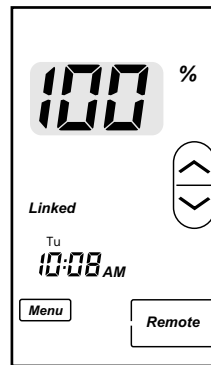
1. Press the UP / DOWN key to set the day.
2. Press ENTER to save the change and return to normal operation.



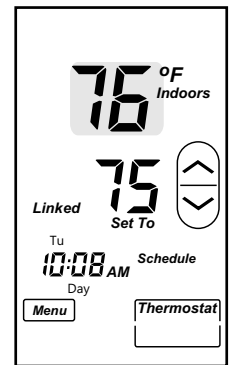
Calibrating the Temp Sensor

1. Press AIRFLOW or INDOOR TEMPERATURE (shown in grey).

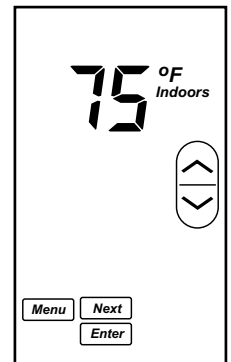
Remote Control Mode



Thermostat Mode



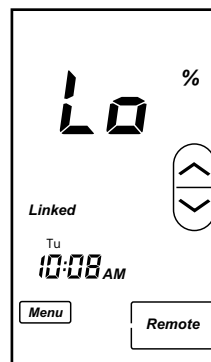
2. Use the UP / DOWN keys to set the Indoor Temperature to the calibrated value.
3. Press ENTER to save the change and return to normal operation.



Low Battery Indicator

When the battery voltage drops down, the LCD will display "Lo" indicating that the batteries need to be changed. Low battery voltage may reduce range. Batteries should be replaced with AA alkaline. Refer to Installing Batteries in manual.

Remote Control Mode



Thermostat Mode

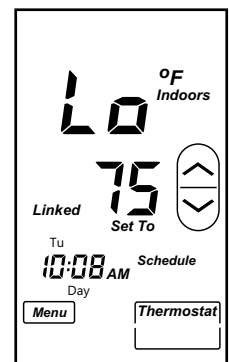


Table Top and Wall Mounts

The Remote Thermostat is shipped with a foot for table top use and a sub-base for wall mounting.

Important!

The sub-base snaps are not designed for repeatedly removing and installing the Remote Thermostat on the sub-base.

Attach the foot to the back of the Remote Thermostat by snapping it into place.



Table Foot

Or, install the sub-base on an interior wall about 5 feet above the floor and out of sunlight using two screws as shown. The Remote Thermostat snaps onto the sub-base.



Quick Tips and Trouble Shooting

Touchscreen

The remote thermostat has been designed for long battery life and will “sleep” when not in use to maintain battery life. A moderate touch is recommended to “wake up” the remote thermostat. A moderate, steady touch is recommended to operate the keys. Pressing hard will not make the thermostat respond faster and may damage the touchscreen.

Which Mode - Remote or Thermostat?

Operating the remote thermostat in Remote Mode is the easiest operating mode and gives the user direct control over the amount of airflow. The user can select 0% airflow up to 100% airflow.

In Thermostat Mode, the airflow will adjust depending on the indoor temperature, set point and whether the system is in heating or cooling. The user can choose to run the thermostat in Hold mode or Schedule mode. In Schedule mode the thermostat controls airflow and switches between day or night mode depending on the schedule and the time of day.

Changing Batteries or Loss of Battery Power in the Remote Thermostat

Changing batteries or loss of battery power will not affect the link between the remote thermostat and the actuator, or reset Options or Schedule. The Time of Day will need to be reset. After inserting batteries, the remote thermostat powers up in Remote Control mode. Press the DOWN key to change the airflow and initiate the actuator.

Quick Tips and Trouble Shooting

Loss of Power to Actuator

A loss of power to the actuator will not affect the link between the actuator and the remote thermostat. The actuator will retain its unique link, very similar to a garage door opener.

When the actuator is powered back up, the actuator will go to the fully open position, indicated by a solid green LED. The actuator will respond immediately if the user adjusts airflow or after a period of time when the remote thermostat routinely communicates to the actuator.

Indoor Air Temperature Isn't Changing

Make sure the HVAC system is on and in a heating or cooling call. The remote thermostat adjusts the airflow to the space. It does not control the HVAC system and therefore will not call for heating or cooling.

Remote Thermostat / Actuator Doesn't Seem To Be Responding

Ensure the actuator has power. You may be able to observe the LED light on the actuator through the diffuser. The LED light will either be green, red or yellow. No light indicates that the actuator is not powered.

Ensure that the HVAC system is on. If the HVAC system is not on, the actuator is not going to detect a heating or cooling call and therefore will not respond.

If the thermostat is in Schedule Mode, the thermostat may be following a schedule and gone into Night / Off Mode. In Night / Off Mode, airflow will adjust to the setting set in Option 5. Or, if a day off has been set in the schedule, the thermostat may have gone into Night / Off mode.

Can the Remote Thermostat and Actuator be unlinked?

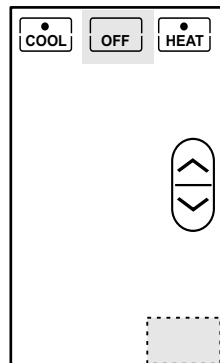
The Remote Thermostat and Actuator can be unlinked and restored to factory defaults. However, this should only be done by the installer. See Factory Restore on page 8.

CAUTION

Factory restore will unlink the remote thermostat and actuator and restore ALL factory defaults including options and schedule, and should only be performed by a qualified installer.

Factory Restore - Remote Thermostat

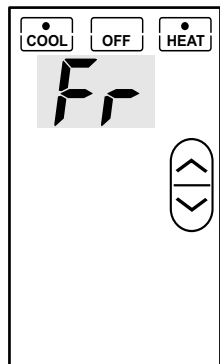
1. Remove one of the AA batteries from the thermostat. Wait at least 15 seconds.
2. Press and hold in the lower right corner of the LCD (shown in grey) and re-install the battery.
3. Immediately press the OFF key (shown in grey).



Press here before re-installing battery.

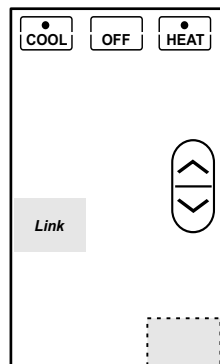
The LCD will display Fr (shown in grey) for a second and continue to normal operation.

When the remote thermostat returns to normal operation, observe that the display shows Link instead of Linked.



Setting the Unique Address

1. Remove one of the AA batteries from the thermostat. Wait at least 15 seconds
2. Press and hold in the lower right corner of the LCD (shown in grey) and re-install the battery.
3. Immediately press LINK (shown in grey).

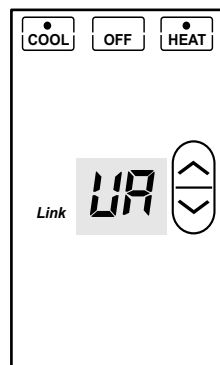


Press here before re-installing battery.

The LCD will display UA (shown in grey) while it generates a unique address.

4. Wait 5-30 seconds and press UA to set the unique address.

The remote thermostat is ready to link to an actuator. See page 2, Linking the Remote Thermostat to the Wireless Actuator



Factory Restore - Actuator

1. Remove 24VAC power from the actuator.
2. Press and hold the switch on the actuator and then apply power to the actuator. Release the switch.

The LED turns yellow then will blink red, indicating that the actuator is ready to start the linking process.. The actuator will fully open.

To re-link the actuator to a Remote Thermostat, follow the steps in Linking to an Actuator.

5-Year Limited Warranty

The 5-year warranty is limited to the repair or replacement of defective product due to parts failure or defective workmanship.

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