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Specification	Description		
Product Model:	TZEMT400AB32MAA		
Product:	Thermostat for Heating and Cooling HVAC System control.		
	Z-Wave <sup>™</sup> RF communications enabled		
Thermostat			
Size:	5.7" wide x 4.0" height x 1.2" depth		
Display:	Graphical LCD, 2.75" x 1.5", 64x128-pixel		
Backlight:	Yes, Blue/white, Controllable, on, off, timeout		
Contrast:	Adjustable on screen		
Buttons:	6		
LEDs:	4 (3 green, 1 red)		
Power:	24VAC from HVAC System		
HVAC System Type Compatible:	Standard (gas/electric) or Heat Pump		
Multistage System Compatible:	Standard HVAC Systems: 2 stage heating, 2-stage cooling		
	Heat Pump Systems: 3 stage heating (2-compressor, 1 aux heat), 2-stage cooling		
Heat Pump change over valve:	Selectable change over with cool or with heat		
Communications:	Z-Wave™ RF		

The model TZEMT400AB32MAA thermostat provides typical thermostat control of a central heating and cooling HVAC system. This thermostat also features a Z-Wave<sup>™</sup> module for remote control.



Function Control Buttons

Normally, the thermostat displays the thermostat control screen as shown above.

Item	Description	Notes
Clock Display	The current time is displayed in the upper left corner of the main screen. The time will blink when the clock has not been set.	See <i>Set Clock</i> on page 7 for more information.
Status Indicator LEDs	The thermostat has four LEDs that display status information. The LEDs have dynamic labels.	See <i>LED Reference</i> on page 25 for more information.
Dynamic Labels and Function Control Buttons	The buttons are defined by the dynamic labels above each button. As you navigate through menus, the labels for the buttons will change.	
Setpoint Display and Setpoint Up/Down Buttons	The current heat and cool setpoints are displayed. These setpoints may be set using the Z-Wave control system, the thermostat's internal schedule, or by pressing the Setpoint Up/Down buttons. In HEAT mode, the Setpoint Up/Down buttons change the heat setpoint. In COOL mode, they change the cooling setpoint. In AUTO mode, the buttons change the last call's heating or cooling setpoint.	The setpoints will push each other if they are adjusted to within the minimum heat/ cool separation setting. This is normally 3 degrees. The internal schedule is disabled by default. See <i>Schedules</i> on page 21 for more information.
Temperature Display	The thermostat displays the current temperature as sensed by the internal temperature sensor.	The internal temperature sensor can be adjusted as necessary. See <i>Sensor</i> <i>Calibration</i> on page 12 for more information.

## **Thermostat Control Screen Function Control Buttons**



Button	Description		
Menu	Other thermostat menus can be accessed by pressing the <b>MENU</b> button.		
System Mode	Used to change the system mode:		
	Off: System off		
	Heating: Heating only on		
	Cooling: Cooling only on		
	Auto: Heating/Cooling on as necessary		
Fan Mode	Used to change the fan mode:		
	Auto: Fan on when cooling/heating is necessary		
	On: Fan constantly on		
Schedule Mode	Used to change the schedule mode:		
	Hold: System maintains the current temperature setpoints. Schedules are disregarded.		
	Run: Run the system schedule (or Z-Wave controlled schedule)		
	Energy Saving Mode: Temperature setpoints in ESM Setpoints are maintained. See <i>ESM Setpoints</i> on page 15 for more information.		

Minimized Display Mode Optionally, you can set the thermostat to show only the temperature in minimized display mode. This mode can be enabled or disabled in the Users Settings screen.

→ See Screen Timeout on page 10 for more information.



The menus are accessed by pressing the MENU button on the main screen.

#### ■ "User Settings"

- Set Clock
- Filter Service
- Maint Service
- Screen Timeout
- F/C Settings
- Sensor Calibration
- Backlite/Display
- "Usage Graph"
- "ESM Setpoints"
- "ZWave Install"
- "Thermostat Info"

#### "Installer Settings" (hidden)

- Display Lock
- System Settings
  Mechanical Settings
  - · Type
  - · Fan Type
  - · C/O Type
  - 2nd Stage Heat
  - Aux Heat
  - 2nd Stage Cool
  - Sched Enable
  - Recovery Enable
  - H/C Delta
  - H Delta Stg1 ON
  - H Delta Stg1 OFF
  - H Delta Stg2 ON
  - H Delta Stg2 OFF
  - H Delta Stg3 ON
  - H Delta Stg3 OFF
    O Delta Stg3 OFF
  - C Delta Stg1 ON
  - C Delta Stg1 OFFC Delta Stg2 ON
  - C Delta Stg2 OFF
- Max Heat SP
- Min Cool SP
- Min Run Time
- Min Off Time
- Fan Cycler
  - Fan ON Time
  - Fan OFF Time
- Restore Defaults

#### "Schedules" (disabled by default)

- Heat and Cool
- Preset:Comfort
- Preset:EnergyStar
- Copy (small c on each schedule screen)

## **Set Clock**

The Set Clock screen allows you to set the thermostat's internal clock.

➔ If the clock has been reset by an extended power outage, the clock display on the thermostat screen will blink. Press the *MENU* button to go directly to the *Set Clock* screen.



#### Set the Clock

- 1. Press the *MENU* button.
- 2. Scroll to User Settings and press the Select button.
- 3. Scroll to Set Clock and press the Select button.
- 4. Scroll to the item you want to change (hour, minute, day part, month, day, year, day of week).
- 5. Press the plus (+) or minus (-) buttons to adjust the item.
- 6. Press the Set button to save the changes.

## **Filter Service**

The Filter Service screen will show the accumulated Filter Runtime hours as well as the Service Interval that will be used to trigger a Filter Message. Any type of HVAC operation that causes the HVAC system fan to run will cause the Filter Runtime value to increase.

When the Runtime hours equals the Service Interval hours, the Red LED will flash along with a "Filter" message to remind you to replace the filter. Once the filter has been replaced, press the Reset button to reset the Filter Runtime value to zero.



#### View/Reset Filter Runtime

- 1. Press the *MENU* button.
- 2. Scroll to *User Settings* and press the *Select* button.
- 3. Scroll to Filter Service and press the Select button. The Filter Runtime is displayed in hours.
- 4. To reset the Filter Runtime counter, press the *Reset* button.
  - → The Filter Runtime counter should be reset each time the filter is changed.

#### Change the Filter Service Interval

- 1. Press the *MENU* button.
- 2. Scroll to User Settings and press the Select button.
- 3. Scroll to Filter Service and press the Select button.
- 4. Press the plus (+) or minus (-) buttons to adjust the service interval.
  - → The service interval can be set between 100 and 4000 hours in 100 hour increments.

#### Disable the Filter Service Interval

When the filter service interval is disabled, the runtime counter will continue to count the runtime, but the filter service indicator will never be displayed.

- 1. Press the *MENU* button.
- 2. Scroll to User Settings and press the Select button.
- 3. Scroll to *Filter Service* and press the *Select* button.
- 4. Press the minus (-) button until Disabled is displayed

## **Maint Service**

The Maintenance Service screen shows the accumulated Heat and Cool Runtime hours as well as the Service Interval that will be used to trigger a Maintenance Message. Any HEAT or COOL type of HVAC operation will cause the respective Runtime values to increase.

When the combined HEAT and COOL Runtime hours equals the Service Interval hours, the Red LED will flash along with a "Maint" message to remind you your HVAC system may require periodic maintenance. Press the *Menu* button to enter the Filter Service screen. The Reset button can be pressed and the HEAT and COOL Runtime values will be reset to zero.



#### Change the Maintenance Service Interval

- 1. Press the *MENU* button.
- 2. Scroll to User Settings and press the Select button.
- 3. Scroll to *Maint Service* and press the *Select* button.
- 4. Press the plus (+) or minus (-) buttons to adjust the service interval.
  - → The service interval can be set between 200 and 4000 hours in 100 hour increments.

#### Disable the Maintenance Service Interval

When the maintenance service interval is disabled, the runtime counter will continue to count the runtime, but the maintenance service indicator will never be displayed.

- 1. Press the *MENU* button.
- 2. Scroll to User Settings and press the Select button.
- 3. Scroll to *Maint Service* and press the *Select* button.
- 4. Press the minus (-) button until Disabled is displayed

## **Screen Timeout**

This is the time before any screen reverts to the Minimized Screen (temperature display only), after you stop pushing buttons. Minimized Screen feature is disabled by setting this time to "0".



#### Change the Screen Timeout

- 1. Press the *MENU* button.
- 2. Scroll to User Settings and press the Select button.
- 3. Scroll to Screen Timeout
- 4. Press the plus (+) or minus (-) buttons to adjust the time (in seconds).
  - → The screen time-out can be set between 0 and 120 seconds. Zero (0) is the default setting. When set to Zero (0), the minimized screen feature is disabled.

#### Disable the Minimized Display

- 1. Press the *MENU* button.
- 2. Scroll to User Settings and press the Select button.
- 3. Scroll to Screen Timeout
- 4. Press the minus (-) button until zero (0) is displayed.

## **F/C Settings**

The F/C Settings screen is use to select the temperature display mode. Fahrenheit (F) or Celsius (C) are the two available modes.



### Change the Temperature Mode

- 1. Press the *MENU* button.
- 2. Scroll to User Settings and press the Select button.
- 3. Scroll to *F/C Settings* and press the *Select* button.
- 4. Press the plus (+) or minus (-) buttons to change the temperature mode. Select F for Fahrenheit or C for Celsius.

## **Sensor Calibration**

The Sensor Calibration screen is used to change the temperature calibration of the internal temperature sensor. The temperature calibration can be changed by +/- 7 degrees.

When the Sensor Calibration screen is selected, the current temperature calibration is displayed. In the example screen, the calibrated temperature is 77 and the number of degrees of offset being applied is 1.



#### Change the Sensor Calibration

- 1. Press the *MENU* button.
- 2. Scroll to User Settings and press the Select button.
- 3. Scroll to Sensor Calibration and press the Select button.
- 4. Press the plus (+) or minus (-) buttons to change the sensor calibration.
  - ➔ After this screen is closed, it may take a few seconds for the temperature displayed on the main thermostat screen to update to the new temperature.

## **Backlite/Display**

The Backlite/Display screen is used to set the backlight time-out and contrast.

Backlite Timeout is the time (in seconds) from the last button press to the backlight going out. The time-out can be set between zero (0) and one hundred and twenty (120) seconds. Thirty (30) is the default setting. When set to zero (0), the backlight will remain always on.

Contrast sets the contrast level of the LCD display. The contrast can be set between zero (0) and twenty (20). Ten (10) is the default setting. If the display is too light, using a higher number. If dark lines appear in the display, use a lower number.



#### Adjust the Backlight

- 1. Press the *MENU* button.
- 2. Scroll to User Settings and press the Select button.
- 3. Scroll to Backlite/Display and press the Select button.
- 4. Scroll to Backlite Timeout.
- 5. Press the plus (+) or minus (-) buttons to change the number of seconds.
  - The backlight time-out can be set between 0 and 120 seconds. Thirty (30) is the default setting. When set to Zero (0), the backlight will remain always on.

#### Adjust the Contrast

- 1. Press the *MENU* button.
- 2. Scroll to User Settings and press the Select button.
- 3. Scroll to Backlite/Display and press the Select button.
- 4. Scroll to *Contrast*.
- 5. Press the plus (+) or minus (-) buttons to change the contrast value.
  - → The contrast can be set between 0 and 20. Ten (10) is the default setting.



The Usage Graph shows daily heating and cooling runtime hours for a week.

The button in the lower right corner will change depending on what is being displayed. When the heating time is displayed, the button will read *Cool*. When the cooling time is displayed, the button will read *Heat*. Press the *Heat/Cool* button to display the heating/cooling time.

Energy Saving Mode (ESM) Setpoints are the setpoints used when the *Energy Saving Mode* schedule is selected in the *Schedule Mode* screen.



#### Adjust ESM Setpoints

- 1. Press the *MENU* button.
- 2. Scroll to ESM Setpoints and press the Select button.
- 3. To adjust the heat setpoint, scroll to ESM Heat. Press the plus (+) or minus (-) buttons to adjust the setpoint.
- 4. To adjust the cool setpoint, scroll to ESM Cool. Press the plus (+) or minus (-) buttons to adjust the setpoint.

Z-Wave<sup>™</sup> controllers from various manufacturers may support the Z-Wave<sup>™</sup> Thermostat General V2 Device class used by the Trane Z-Wave<sup>™</sup> Thermostat. The following procedure will allow the thermostat to be added to a Z-Wave<sup>™</sup> network.

➔ If you are using a controller that is not a Schlage bridge, consult the instructions that came with the controller to find out how to enroll a new device.

## Inclusion

- 1. Install a new, high-quality 9-volt battery into the bridge.
- 2. Hold the bridge within 6 feet (1.8 meters) of the thermostat throughout the entire inclusion process.
  - → After you begin the inclusion process, you have 30 seconds to complete the remainder of the steps. Study the steps below before beginning.
- 3. Press and release the plus (+) button on the bridge.
- 4. Press the *MENU* button on the thermostat.
- 5. Scroll to ZWave Install. Then press the Select button.
- 6. Press the Yes button.
- 7. Observe the lights on the bridge. The orange light will blink while enrollment is taking place. Enrollment is complete when the orange light becomes solid.

## Exclusion

- 1. Install a new, high-quality 9-volt battery into the bridge.
- 2. Hold the bridge within 6 feet (1.8 meters) of the thermostat throughout the entire exclusion process.
  - → Note: After you begin the enrollment process, you have 30 seconds to complete the remainder of the steps. Study the steps below before beginning.
- 3. Press and release the minus (-) button on the bridge.
- 4. Press the *MENU* button on the thermostat.
- 5. Scroll down to Z-Wave Install and press the Select button.
- 6. Press the Yes button to exclude the thermostat.
- 7. Observe the lights on the bridge. The orange light will blink while exclusion is taking place. Exclusion is complete when the orange light becomes solid.

## **Inclusion and Exclusion**

Inclusion or exclusion is started by putting the controller into add node or remove node state and performing the procedure outlined above. As part of the process, the thermostat sends a node information frame at normal power. Low power inclusion or low power exclusion is not possible.

## **Thermostat Info**

The Thermostat Info screen displays information about the thermostat and the system the thermostat controls. This information will be helpful if you need to contact customer support.



Item	Description
TZEMT400AB32	Model Number
Ver: 01.00.10	Firmware version → This number may vary.
ZVER: 02.00.9	Z-Wave version → This number may vary.
ZNID: 004	Z-Wave node ID This number may vary.
ZHID: 01.07.37.bd	Z-Wave Home ID This number may vary.
System Type: Standard	System type may be Standard or Heatpump
Fan Type: Gas	Fan type may be Gas or Elect (electric)

➔ The Installer Settings screen is a hidden screen designed for installer use only. Do not change any settings in this screen unless you are a qualified service technician.



#### → Changing these settings will affect the operation of the heating/cooling system.

To view and edit these settings:

- 1. Press the *MENU* button.
- 2. Press and hold the two middle buttons simultaneously until the *Installer Settings* menu is displayed.
- 3. Scroll to the setting you want to change. Press the plus (+) or minus (-) button to adjust the setting.
- 4. Press the *Done* button when you are finished.

Setting	Range	Default	Description
Display Lock	Y or N	Ν	Locks or unlocks the thermostat buttons. When the buttons are locked, the main menu can still be accessed, but no menu options may be selected. The Installer Settings hidden button operation is always operational, allowing Display Lock to be turned off.
Max Heat SP	55F to 90F (12C-32C)	90F (32C)	Sets the maximum heating setpoint value. Will not ramp or accept setpoints higher than this maximum.
Min Cool SP	60F to 99F (15C-37C)	60F (15C)	Sets the minimum cooling setpoint value. Will not ramp or accept setpoints lower than this minimum.
Minimum Run Time (MRT)	1-9 Minutes	6	Sets the minimum run time before a heating/cooling cycle can turn off to prevent rapid cycling. Thermostat screen will display <i>Cool ON</i> or <i>Heat ON</i> while the minimum run time is being enforced.
Minimum Off Time (MOT)	5-9 Minutes	5	Sets the minimum off time before another heating/cooling cycle can begin to provide compressor short cycle protection. Thermostat screen will display <b>WAIT</b> when minimum off time is being enforced.
Restore Defaults	n/a	n/a	Sets all of the thermostat settings back to the factory defaults.

## **System Settings**

→ Changing these settings will affect the operation of the heating/cooling system.

To view and edit these settings:

- 1. Press the *MENU* button.
- 2. Press and hold the two middle buttons simultaneously until the Installer Settings menu is displayed.
- 3. Scroll to System Settings and press the Select button.
- 4. Scroll to the setting you want to change. Press the plus (+) or minus (-) button to adjust the setting.
- 5. Press the *Done* button when you are finished.
- → Note on Delta Settings: The Delta T Setting is the delta, or difference between, the setpoint and current temp for determining when a heat or cool call comes on. The "delta" is the number of degrees away from setpoint.

Setting	Range	Default	Description
Schedule Enable	Y or N	Ν	When enabled, the local thermostats scheduler function is enabled.
Recovery Enable	Y or N	Ν	
H/C Delta	3 - 15 degrees	3	Sets the minimum separation between heating and cooling setpoints. Attempts to lower the cooling below the heating setpoint by this amount will PUSH the heating setpoint down to maintain this separation. Same for setting the heating setpoint above the cooling setpoint, it will PUSH the cooling setpoint up to maintain this separation.
Heating Delta Stage 1 ON	1 to 8 degrees	1	Sets the delta from setpoint that stage 1 heating starts.
Heating Delta Stage 1 OFF	0 to 8 degrees	0	Sets the delta from setpoint that stage 1 heating stops. Stage 1 turns off at setpoint minus (-) Delta Stage 1.
Heating Delta Stage 2 ON	1 to 8 degrees	2	Sets the delta from setpoint that stage 2 heating starts.
Heating Delta Stage 2 OFF	0 to 8 degrees	0	Sets the delta from setpoint that stage 2 heating stops. Stage 2 turns off at setpoint minus (-) Delta Stage 2.
Heating Delta Stage 3 ON	1 to 8 degrees	3	Sets the delta from setpoint that stage 3 heating starts.
Heating Delta Stage 3 OFF	0 to 8 degrees	0	Sets the delta from setpoint that stage 1 heating stops. Stage 3 turns off at setpoint minus (-) Delta Stage 3.
Cooling Delta Stage 1 ON	1 to 8 degrees	1	Sets the delta from setpoint that stage 1 cooling starts.
Cooling Delta Stage 1 OFF	0 to 8 degrees	0	Sets the delta from setpoint that stage 1 Cooling stops. Stage 1 turns off at setpoint plus (+) Delta Stage 1.
Cooling Delta Stage 2 ON	1 to 8 degrees	2	Sets the delta from setpoint that stage 2 cooling starts.
Cooling Delta Stage 2 OFF	0 to 8 degrees	0	Sets the delta from setpoint that stage 2 Cooling stops. Stage 2 turns off at setpoint plus (+) Delta Stage 2.

## **Mechanical Settings**

→ Changing these settings will affect the operation of the heating/cooling system.

To view and edit these settings:

- 1. Press the *MENU* button.
- 2. Press and hold the two middle buttons simultaneously until the Installer Settings menu is displayed.
- 3. Scroll to System Settings and press the Select button.
- 4. Scroll to *Mechanical Settings* and press the *Select* button.
- 5. Scroll to the setting you want to change. Press the plus (+) or minus (-) button to adjust the setting.
- 6. Press the *Done* button when you are finished.

Setting	Range	Default	Description
Туре	Gas/Elec or Heatpump	Gas/Elec	Selects HVAC type, Gas/Electric or Heatpump
Fan Type	Gas or Elec	Gas	Selects the Fan type if system is Gas or Electric
C/O Type	w/Cool or w/ Heat	w/Cool	Set the Heat pump Changeover type
2nd Stage Heat	Y or N	Ν	Enables the 2nd Stage Heat operation
Aux Heat (HP)	Y or N	Y	Enables the Auxiliary Heat operation. Typically the Aux Heat will be heat-strips in a Heatpump system
2nd Stage Cool	Y or N	N	Enables the 2nd Stage Cool operation

## **Fan Cycler Settings**

→ Changing these settings will affect the operation of the heating/cooling system.

To view and edit these settings:

- 1. Press the *MENU* button.
- 2. Press and hold the two middle buttons simultaneously until the *Installer Settings* menu is displayed.
- 3. Scroll to Fan Cycler and press the Select button.
- 4. Scroll to the setting you want to change. Press the plus (+) or minus (-) button to adjust the setting.
- 5. Press the *Done* button when you are finished.

Setting	Range	Default	Description
Fan ON Time	0-120 minutes	0 (=OFF)	The fan cycler function cycles the HVAC system fan for an ON period followed by an Off period continuously. Used to provide minimum
Fan OFF Time	10-120 minutes	10	air ventilation requirements. When the Fan ON time is set to a value greater than 0, an additional Cycler FAN mode is present when pressing the FAN button.

Scheduling is usually controlled by your Z-Wave system. See the instructions that came with your Z-Wave system for more information. However, scheduling may also be controlled by the thermostat.

→ The Schedules menu is hidden by default, but may be enabled in the Installer Settings. See *Enable/Disable the Schedules Menu* on page 21 for more information.

The thermostat has a 4 x 7 schedule, meaning the setpoints can be changed up to four times a day each day. Each day has a separate schedule. Schedules may be copied from one day to another day or group of days. See *Copy a Day Schedule* on page 23 for more information.



#### Enable/Disable the Schedules Menu

Because the Schedules menu is disabled by default, you must first enable it before any scheduling can be done at the thermostat. If you want to use your Z-Wave system for scheduling, scheduling must be disabled in the thermostat.

- 1. Press the *MENU* button.
- 2. Press and hold the two middle buttons simultaneously until the Installer Settings menu is displayed.
- 3. Scroll to Systems Settings and press the Select button.
- Scroll to Sched Enable and press the *plus (+)* button to enable scheduling or the *minus (-)* button to disable scheduling.
- → When scheduling is enabled in the thermostat, a Y will be displayed next to Sched Enable. When scheduling is disabled in the thermostat, an N will be displayed next to Sched Enable.

#### Load a Preset Schedule

There are two possible schedules that may be loaded: Preset Comfort and Preset Energy Star. These schedules may not be changed. When a schedule is loaded, it changes the current Heat and Cool schedule settings. You can then edit the Heat and Cool schedule, if necessary.

- → Selecting Preset Comfort or Preset Energy Star schedules will overwrite the current Heat and Cool schedule.
- 1. Press the *MENU* button.
- 2. Scroll to Schedules and press the Select button.
- 3. Scroll to the schedule you want to load and press the Select button.
- 4. Press the Yes button.



<b>Preset Schedule</b>	Description
Preset: Comfort	This is a preset schedule with mild setbacks, designed to maintain a comfortable temperature.
Preset: Energy Star	This is a preset schedule with deeper setbacks, designed to conserve energy.

#### View the Current Schedule

- 1. Press the *MENU* button.
- 2. Scroll to Schedules and press the Select button.
- 3. Scroll to *Heat and Cool* and press the *Select* button.
- 4. The schedule for the current day will be displayed. To view other days, press the Next button.

#### Set a Heat and Cool Schedule

- 1. Press the *MENU* button.
- 2. Scroll to *Schedules* and press the *Select* button.
- 3. Scroll to *Heat and Cool* and press the *Select* button.
- 4. The schedule for the current day will be displayed. To view other days, press the Next button
- 5. To change a setting (hour, minute, day part, heat setpoint or cool setpoint), scroll to that setting using the left (◀) or right (▶) arrow buttons. Then press the plus (+) or minus (-) buttons as necessary.
  - $\rightarrow$  Continue pressing the left ( $\triangleleft$ ) or right ( $\triangleright$ ) arrow buttons to move to the next line.

#### Copy a Day Schedule

- 1. Press the *MENU* button.
- 2. Scroll to *Schedules* and press the *Select* button.
- 3. Scroll to *Heat and Cool* and press the *Select* button.
- 4. The day of the week is displayed at the top of the screen. Press the Next button until the day you want to copy is displayed.
- 5. Highlight the small *c* in the lower right corner by pressing the left arrow (◀) button once. The *Next* button will change to *Copy*.
- 6. Press the *Copy* button.
- 7. For each day to which you want to copy the day schedule, change the *N* (no) to *Y* (yes). Use the left (◀) or right (▶) arrow buttons to scroll to the day and the use the *Yes* or *No* buttons on the side of the screen.
- 8. Press the *Copy* button.

For complete installation instructions, browse to *part2.schlage.com* and download *Trane Thermostat Installation Instructions*.

# **LED Reference**

The LEDs on the thermostat may have several different meanings, depending on system, setup and operation.



LED	On/Off	Text	Description
LED 1 (Green)	Off	Sys Off	HVAC system is OFF
System Operation display	Off	WAIT	Minimum Off Time (MOT) delay is active
			See <i>Minimum Off Time (MOT)</i> on page 34 for more information.
	On	Cool On	Cooling system is running
	On	Cool On	Cooling Min Run Time (MRT)
			See <i>Minimum Run Time (MRT)</i> on page 34 for more information.
	On	Heat On	Heating system is running
	On	Heat On	Heating Minimum Run Time (MRT)
			See <i>Minimum Run Time (MRT)</i> on page 34 for more information.
LED 2 (Green)	Off	None	1st stage heating or cooling.
System Stage display	On	2nd Stg	Stage 2 heating or cooling is active
	On	Aux Heat	Stage 3 heating is active
LED 3 (Green)	Off	Run	Schedule mode is active
Run/Hold/ESM display	On	Hold	Temperature hold is active
	On	ESM	(Energy Savings Mode) temperature preset is active
LED 4 (Red)	Off	None	No alerts or messages
System Alert display	On	Filter	Filter run timer reached
			See Filter Service on page 8 for more information.
	On	Maint	Maintenance run timer reached
			See Maint Service on page 9 for more information.

## Trane Remote Energy Management Thermostat Limited One (1)-Year Electronics and Mechanical Warranty

#### U.S.A. and Canada Only

Subject to the terms and conditions of this Limited One (1)-Year Electronics and Mechanical Warranty, Trane warrants that, if within one (1) year from Original Date of Purchase, the Purchased Product fails due to defect in manufacture, material or workmanship, Trane will provide a replacement for the Purchased Product or refund the Original Purchase Price, at its sole option, to the Original Purchaser occupying the premises in which the Purchased Product was originally installed. This warranty applies to the Original Purchaser only and is non-transferable. The one (1)-year limited warranty period begins from Original Date of Purchase, confirmed by sales receipt or other dated proof of purchase.

Exclusions: The following costs, expenses and damages are not covered by the terms and conditions of this One(1)-Year Limited Electronics and Mechanical Warranty: (i) labor and costs including, but not limited to, original initial installation, removal and reinstallation of Purchased Product; (ii) shipping and freight expenses for any required return of Purchased Product; (iii) failures, defects, or damages (including, but not limited to, any security failure or loss of data) caused by any third party product, service, or system connected or used in conjunction with the Purchased Product; and (iv) any other incidental, consequential, indirect, special and/or punitive damages, whether based on contract, warranty (express or implied), tort (including, but not limited to, strict liability or negligence), patent infringement, or otherwise, even if advised of the possibility of such damages. Additionally, this limited warranty does not cover scratches, abrasions, or deterioration due to the use of paints, solvents or other chemicals.

Further, the terms and conditions of this One (1)-Year Limited Electronics and Mechanical Warranty do not apply to Purchased Product when: (1) used in common area applications (2) used for purposes for which it was not designed or intended; (3) subjected to alteration, modification, abuse, misuse, negligence or accident, improper storage, improper installation or maintenance or operation or unauthorized repair; (4) used in violation of written instructions provided for Purchased Product; (5) subjected to improper temperature, humidity or other environmental conditions; or (6) damaged as a result of acts of God.

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