

PTCS Heat Pump Thermostat Support Sheet

Manufacturer: Trane, American Standard

Thermostat Models: XL824, TCONT824, Gold XV, ACONT824, XL850, TCONT850, ACONT850, Platinum 850

To avoid making permanent changes to the system NEVER press "Save" when in Installer set-up mode.

Is a Password Required? NO

1. How to enter installer set-up

- Press "MENU" in the lower left corner of the home screen
- Press "SERVICE" to access the service menu
- Press and hold "TECHNICIAN ACCESS" for 5 seconds followed by "PROCEED"
- Press "INSTALLER SETUP"
- Once in Installer set-up, individual parameters can be configured and modified. Press the up and down arrows to scroll through all available settings
- The screen will automatically default to the home screen after 10 minutes of inactivity



2. Determine system characteristics through T-Stat

- Press "MENU" in the lower left corner of the home screen
- Press "SYSTEM INFO" to display basic system characteristics such as software version

3. Check Compressor Lockout settings

- From the Installer set-up menu accessed in step 1, use the up and down arrows to scroll to Group 7 "Lockout Settings"
- If "Disable" is selected the Compressor Lockout Settings meets PTCS specifications. If "Enable" is selected and lockout setpoint is not shown, continue to next step
- Verify lockout settings by selecting "EDIT", navigating to "Compressor Lockout"
- Press "SET" to view the lockout settings. **Caution: any changes made will be permanent. DO NOT PRESS "SAVE", Press "EXIT" to leave lockout settings menu without making any changes to the settings**
- Compressor Heating Lockout must be set to "Disable" or ≤ 5 degrees to meet PTCS specification
- NOTE- If no outdoor sensor is enabled, lockout settings will not be displayed as selectable options

4. Check Strip Heat settings

- From the Installer set-up menu accessed in step 1, use the up and down arrows to scroll to Group 7 "Lockout Settings"
- Verify "Auxiliary Heat Lockout" is enabled. (If disable is set, the system will default to allowing strip heat to come on regardless of outdoor temperature.)
- If "Enable" is selected and lockout setpoint is not shown, continue to next step
- Verify lockout settings by selecting "EDIT", navigating to "Auxiliary Heat Lockout Setting"
- Press "SET" to view the lockout settings. **Caution: any changes made will be permanent. DO NOT PRESS "SAVE", Press EXIT to leave lockout settings menu without making any changes to the settings**
- Auxiliary Heat Lockout (strip heat lockout) must be set to ≤ 35 degrees to meet PTCS specification
- NOTE- If no outdoor sensor is enabled, lockout settings will not be displayed as selectable options

PTCS Heat Pump Thermostat Support Sheet

Manufacturer: Trane, American Standard

Thermostat Models: XL824, TCONT824, Gold XV, ACONT824, XL850, TCONT850, ACONT850, Platinum 850

5. Access Test Mode for testing system at full capacity – Non-Variable Speed Units

- a. Press "MENU" in the lower left corner of the home screen
- b. Press "SERVICE" to access the service menu
- c. Press "TEST MODE"
- d. Press "SYSTEM" to select the desired system test:
 - A. Cooling mode: Select "TEST COOL" followed by "Next" and choose the highest stage available. Press "TEST" to begin testing in the selected mode
 - B. Heating mode: Select "TEST COMPRESSOR HEAT" followed by "Next" and choose the highest stage available. Press the "TEST" button to begin testing in selected mode
 - C. If the "TEST COMPRESSOR HEAT" option is not displayed, return to the home screen and make a large call for heat of at least 10 degrees. **Please Note: if OAT is less than Auxiliary Heat Lockout temperature setpoint the auxiliary heat may engage**
- e. Each test will run for a maximum of 60 minutes or until manually terminated
- f. Wait at least 10 minutes before taking static pressure readings and inserting flow plate for TrueFlow plate test. Listen to ensure fan has staged up completely
- g. Wait at least 20-25 minutes before doing temp split readings for refrigerant test. The longer the system is allowed to run, the more likely it will reach a steady state

6. Access Test Mode for testing system at full capacity – Variable Speed Units (Only 850 series)

- a. For variable speed systems, this thermostat does not have a test mode that runs compressor and fan at full capacity for PTCS inspection purposes. To test the system, make a big call (at least 10 degrees) for HEATING or COOLING depending on the type of test you wish to perform. **Please Note: if OAT is less than Auxiliary Heat Lockout temperature setpoint the auxiliary heat may engage**
- b. A call for HEATING or COOLING will typically never force the unit into full compressor and fan speed. Use the following steps to determine the percent of compressor speed the system is operating at:
 - A. If the Compressor Speed Widget is enabled, the thermostat will display the percent of compressor speed on the home screen
 - B. If the Compressor Speed Widget is not displayed on the home screen, from the Service Menu (accessed in Step 1a-1c) press "System Report". The percent of compressor speed will be displayed as "% Delivered"
- c. For both methods A and B above, let the system run for at least 20 minutes to reach steady state. Supply static can be monitored for when the fan ramps to maximum speed
- d. Multiply nominal capacity by the Compressor Speed Widget value (%) or "% Delivered" from the "System Report" to estimate current operating capacity. Use this current operating capacity for airflow CFM/ton calculations and subsequently for the temp split table. 76% Compressor Speed is usually the maximum speed achievable
- e. Return temperature settings on the thermostat to where they were when you arrived at the home

7. Exit Test Mode

- a. While in test mode, press and hold the center button, followed by "Cancel"

PTCS Heat Pump Thermostat Support Sheet

Manufacturer: Trane, American Standard

Thermostat Models: XL824, TCONT824, Gold XV, ACONT824, XL850, TCONT850, ACONT850, Platinum 850

8. Exit Set-Up Mode

- a. From Installer set-up, press "Back" followed by "Home" to return to the home screen
- b. If screen is left untouched for 10 minutes it will return to the home screen by default

To avoid making permanent changes to the system NEVER press "Save" when in Installer set-up mode.

Resources: Trane Customer Support: 1-800-945-5884, Technical Support only available to authorized Trane dealers.

Source: <https://www.manualslib.com/manual/1243721/Trane-Tcont824.html>

<https://www.bayareaservice.com/store/TCONT850Install.pdf>