

PHD - TSTAT(Swaps, Setpoints, and Modes)



Standard Operating Procedure (SOP)

Title: PHD - TSTAT(Swaps, Setpoints, and Modes)

Purpose

This SOP outlines the steps and guidelines to ensure thermostat troubleshooting is completed efficiently and consistently.

Scope

This procedure applies to all BSS levels within the refrigeration team.

Procedure

The first challenge with troubleshooting a tstat is locating the device. Some locations have tstats in their associated zones, while some are all in the office area.

Once located, please follow the steps below. Support is available to assist at any point at (617) 340-6582. Service for customers is extension 3. Technicians should use extension 5.

1. Thermostat Swap Test

Perform a swap test when a thermostat has a blank display screen, and another thermostat of the same model is present with a display screen. The swap test determines whether the Blank thermostat is blank because it's not getting power, or because the thermostat itself is inoperable.

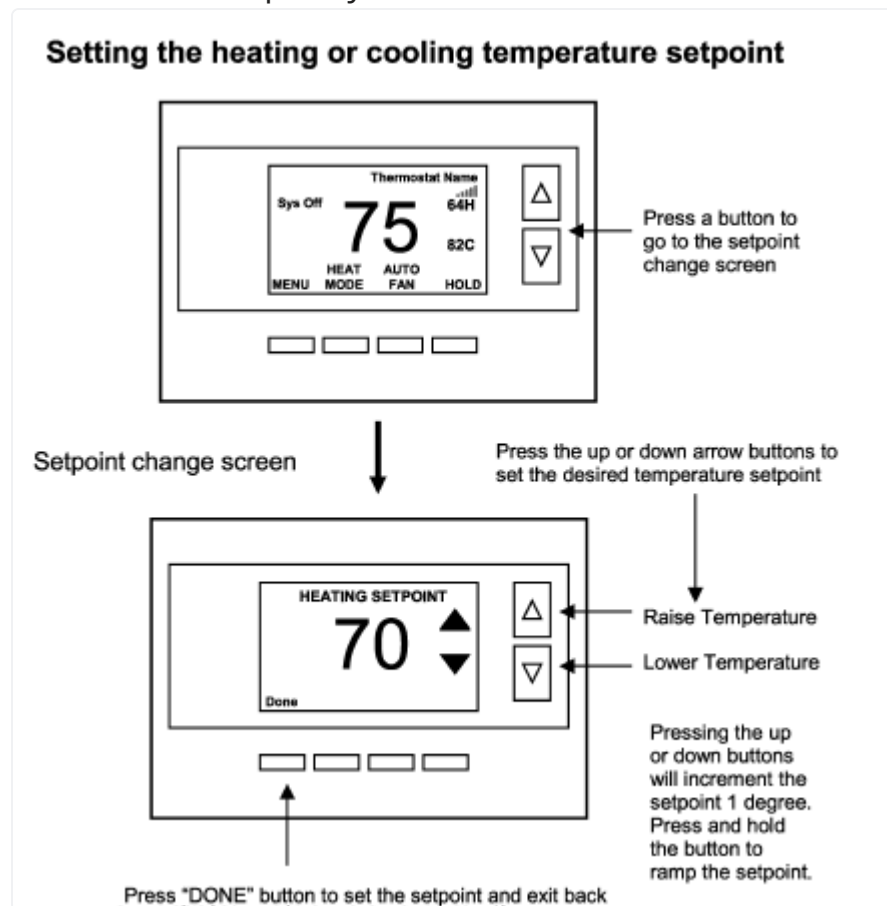
1. Take the front plate of the blank thermostat off the wall.
2. Walk over to a thermostat that does have a display screen.
3. Take the displaying thermostat's front plate off the wall (remember which is which).
4. Put Blank Stat on the back plate of Displaying stat.
5. Put Displaying Stat on the back plate of Blank stat.

If Blank Stat lights up and Displaying Stat stops displaying, then the thermostat isn't receiving 24v power from the RTU. Please reach out to your local HVAC provider.

If Blank stat remains blank and Displaying Stat continues displaying even on the back plate of Blank stat, please contact [Contact Us](#) in order to get a replacement.

2. Changing Thermostat Setpoints

Many corporate offices limit the setpoints of your HVAC units as well as the amount of adjustment that is able to be made. This is often set to +/- 2 degrees but varies by customer. If you find you are hitting lockout limits or are unable to adjust your thermostats, please [contact us](#) so we can verify the lockout settings for your location and assist in temporary overrides.



To adjust the setpoints:

1. Press the Up or Down arrow keys
2. Choose the temperature setting you'd like, it will adjust 1 degree at a time.
3. Press the Done button (first from the left)

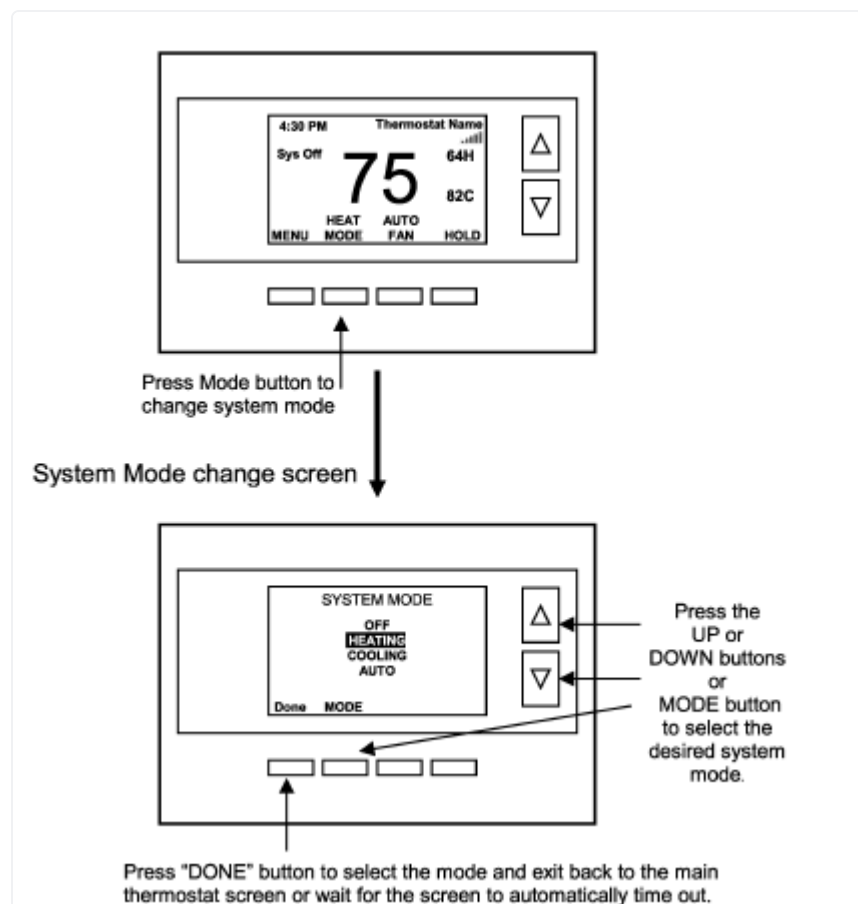
If the System Mode is OFF, pressing either the Up or Down buttons will take you to the System Mode screen. You must first set an operating mode before you can set or change the setpoint

To change the Heat Setpoint you must be in the Heating mode, to change the Cool Setpoint you must be in the Cooling mode. If you are in Auto mode, the mode of the last system call will be the setpoint screen displayed.

Setpoint Push: Note that you cannot lower the cooling setpoint below the heating setpoint. The thermostat will "push" the heating setpoint lower if you try to lower the cooling setpoint below the heating setpoint. It maintains a 3 degree separation between the heating and cooling setpoint. The same is true for raising the heating setpoint above the cooling setpoint. Again the thermostat will "push" the cooling setpoint up to maintain the 3 degree separation.

3. Changing Thermostat Operating Mode (Heat/Cool)

To change the operating mode, press the Mode Button then use the Up and Down arrow keys to select the desired mode. Select Done to set the mode.



System Modes

- OFF: System is off. No heating or cooling will come on. If system was on, it will turn off immediately.
- HEATING: Only heating will occur.
- COOLING: Only cooling will occur.
- AUTO: Heating or cooling will come on according to the heating and cooling setpoints. The system will automatically switch between heating and cooling modes as needed to maintain the setpoints.

Special Heat Pump Mode: Emergency Heat

- EHEAT: An additional system mode, "EHEAT" for Emergency Heat will be displayed if the HVAC system type is set to Heat Pump. If there is a compressor failure with the Heat Pump system, setting the mode to EHEAT will allow the supplemental Aux heat to come on first whenever there is a call for heating. It also disables the compressor output to prevent further damage to the HVAC system.

4. Setting the Thermostat Fan Mode

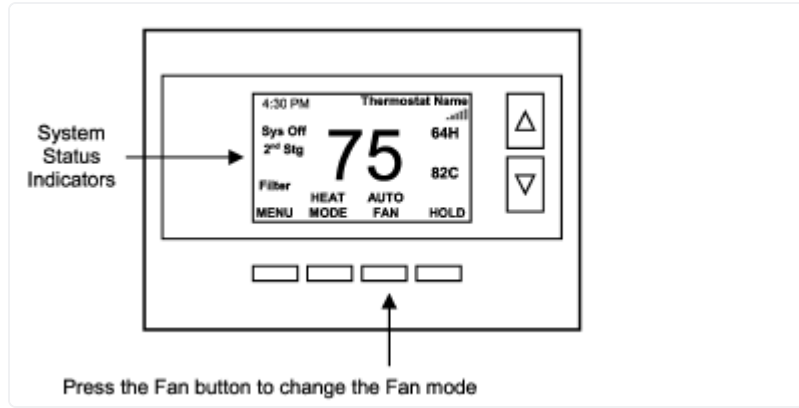
AUTO FAN: Fan automatically operated by the HVAC system.

- FAN ON: Manual Fan mode. Fan stays on until mode is changed back to Auto.

Optional Fan Mode

Fan Cycler. If the Fan Cycler feature is enabled in the Installer Setup, the additional fan mode "Cycle" will be shown in the Fan Mode menu. This mode cycles the fan on and off

continuously for fresh air ventilation according to the settings in the Installer Setup.



5. Thermostat System Status Indicators

System Status Indicators

When the main thermostat screen is displayed, the on-screen labels indicate the following.

System Operation mode indicator

"SYS OFF" displayed > System is OFF

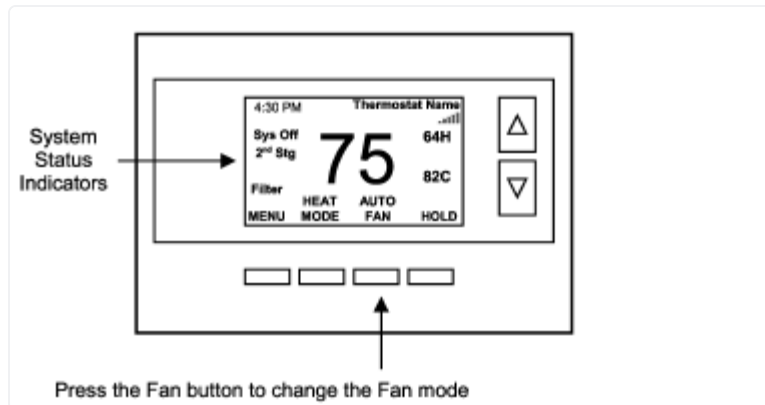
"SYS MOT"1 displayed > System is OFF and Minimum Off Time (MOT) delay On is active

"HEAT ON" displayed> System is ON and heating

"COOL ON" displayed > System is ON and cooling

"HEAT MRT"2 displayed> System is ON and heating. Minimum Run Time (MRT) delay off is active.

"COOL MRT" displayed > System is ON and cooling. Minimum Run Time (MRT) delay off is active.



Staging display

"2nd Stg" displayed > Stage 2 heating or cooling is ON

"Aux Heat" displayed> Stage 3 heating is ON

For Heat Pump systems only: "EHEAT" > emergency heat mode active

Home/Away display

Home mode is active (current setpoints are being used)

Away setback mode is active (setback setpoints are being used)

System Alerts

Alert Text displayed> Specific alert text (Filter or Maintenance Timer)

Troubleshooting

Use the below list to troubleshoot the hardware. Copy/Paste the steps into Salesforce feed. Answer each line one at a time and move to next steps as needed.

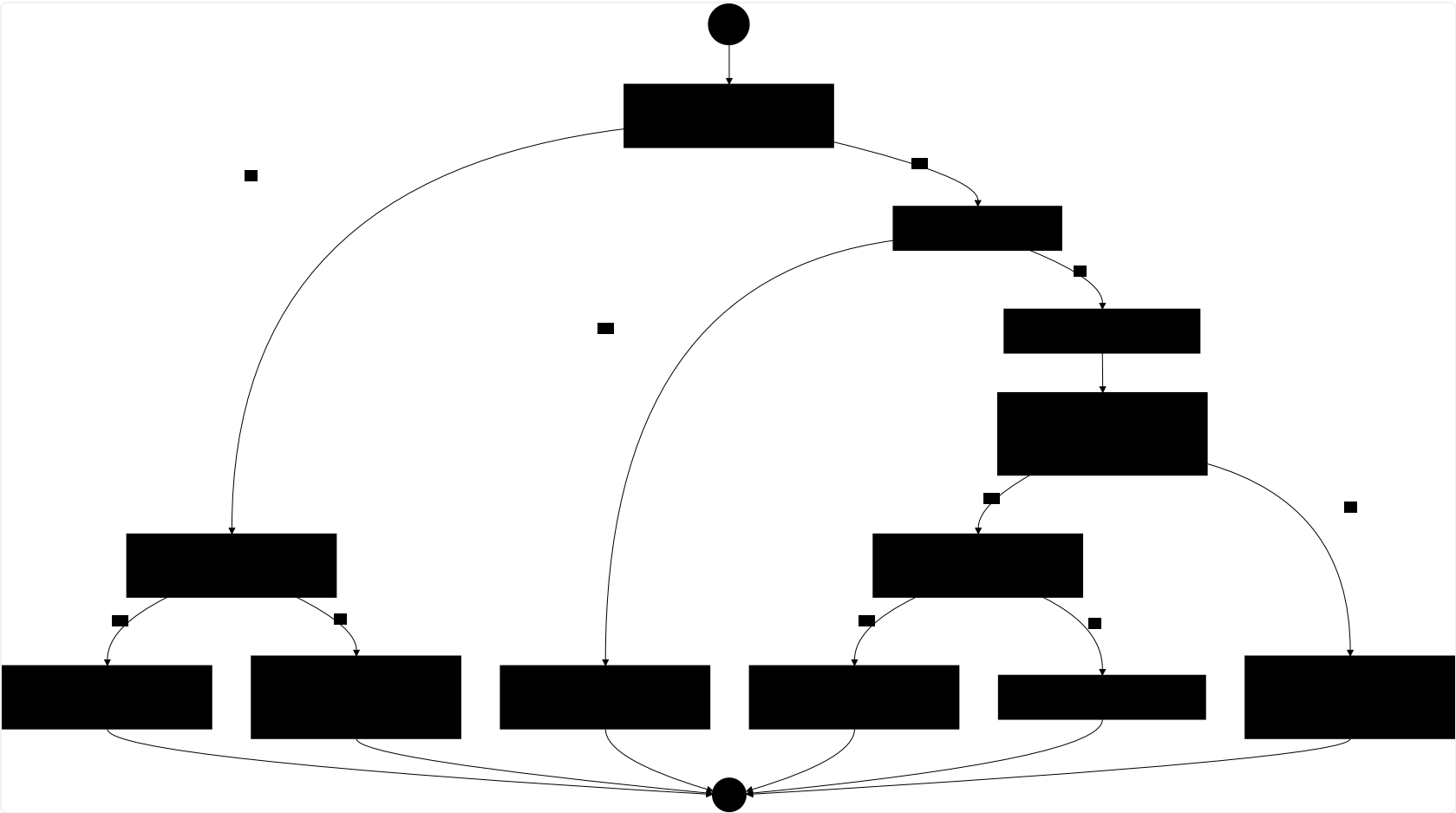
- Does the screen have power?
 - If no, does another thermostat power up on that spot?
 - Does this thermostat power up on another spot?
 - If yes to first but not second, escalate to t2 for replacement
 - If yes to second but not first, refer to HVAC and close case
 - If yes to both, refer to HVAC and close case
 - If no to both, escalate to T2 for possible replacement and refer to HVAC
 - If it is already HVAC on site, have them check the Common Wire for power
 - If screen is on and unit is not working properly, is tstat making calls?
 - If yes, have them check for voltage on the cooling/heating wires
 - If no, try swapping tstats as above
 - Does this thermostat control the unit on another spot?
 - Does another thermostat control this unit?
 - If yes to the second but not the first, send to t2 for replacement
 - If yes to first but not second, refer to HVAC and have them check the board on the unit, close case
 - If yes to both, refer to HVAC to check board, close case
 - If no to both, escalate to T2 for possible replacement and refer to HVAC
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Documentation and Reporting

- Record notes in Salesforce. Resolve or escalate ticket when complete. Ensure you also put the same notes into another ticket made in the platform.

Process Map

undefined



undefined

Editable Mermaid Diagram

Revision History

Version	Date	Author	Changes Made
1.0	3/1/26	David Dillard	Initial draft
1.1	[MM/DD/YY]	[Author Name]	[Description of changes]

Approval

Approved by: [Name and Title]

Date: [MM/DD/YY]