

# TECHNICAL INFORMATION COMMUNICATION



Quality and Continuous Improvement

**Number:** TIC2019-0024

**Date:** 11/18/2019

**Title:** Residential Geothermal

**Product Category:** GC, GZ

## Products Affected:

Communicating only; Application solutions for Undersized Lake / Pond Loops where freeze protection faults occur

## Solution:

The new UI Software update **2.30** has a heat staging override feature for Lake Loop applications.

You may change the software settings to Geo HP Staging Override if freeze protection faults occur on undersized lake plate loop applications. Note: As described below, this will affect operation and efficiency of the system. The preferred solution would be to increase the loop size or add lake plate heat exchangers. This override solution is presented as secondary fix where correction of the installation is not presently an option for the homeowner.

Verify the wall control is version –B, it will be black in color. If version A is installed, and the site has the described problems with lake loops, the wall control would need to be changed to version –B to activate the Staging Override setting for geothermal. The update must be accepted at the idle screen to begin the download and update process, or follow the Install Instructions supplied with the UI or on HVAC Partners.

- The default is System in Control. This should be changed to override **for the problem sites only**. The digital toggle switch will be down, red in color, and say override. Press save to be sure the new setting is saved.
- This setting will use more energy by increasing the number of heat pump starts, and not down-staging the compressor or electric heat with requested demand. The equipment and electric heat will stay active until the demand is near zero, then shut down the entire system allowing the loop to “rest.”
  - ✓ The preferred fix would be to increase the loop size or add lake plate heat exchangers. This option should be presented to the homeowner. If this is done the override setting can then be put back to system in control.

Only trained and qualified personnel should design, install, repair and service HVAC systems and equipment. All national standards and safety codes must be followed when designing, installing, repairing and servicing HVAC systems and equipment. It is the responsibility of the Dealer to ensure local codes, standards, and ordinances are met.

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## NOTE:

If the Heat Source is changed to Electric Heat Only the default down-staging setting will be system in control to save energy. However, if no electric heat is installed and the Geo HP staging is set to Staging Override mode, the system will not down-stage in an attempt to allow “rest” time (as described above). This setting will also use more energy and cause more frequent starts of the equipment (as described above).

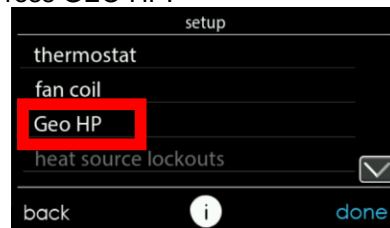
## Field Option:

Utilizing the UI override option by following the instructions below.

1.) Press and hold the service icon.



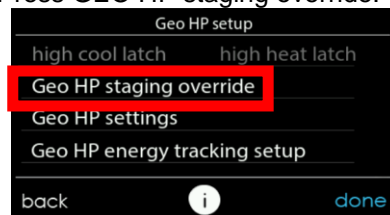
3.) Press GEO HP.



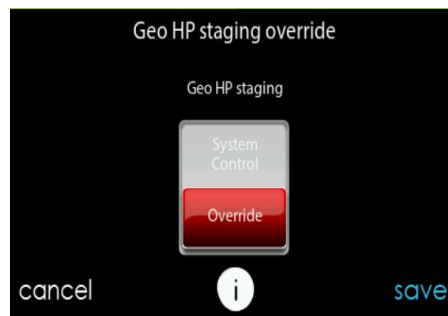
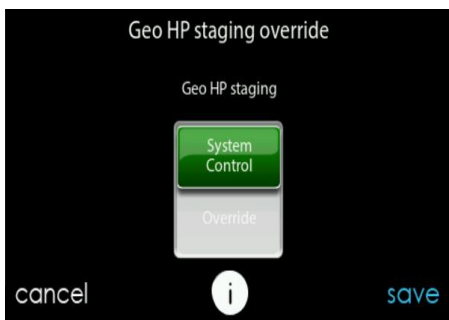
2.) Press setup.



4.) Press GEO HP staging override.



5.) From here you can toggle the staging override option. Press “save” to save your selection. System Control operates the system as before. “Override” enables the Geo HP staging override feature.



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