

## Tech Tip: HVAC Cycle Delays

## Audience

Professional Installers and Support Agents

## Summary

The Zen Thermostat has pre-set default HVAC cycle delays to avoid excessive wear and tear on your HVAC unit. It is possible to change the time of the delays via the "Advanced Configuration Settings" of the Zen Thermostat.

## Default Settings

The default settings for the maximum cycles per hour will vary depending on the HVAC system type. Please refer to the following table which shows the default HVAC cycling delay times on the Zen Thermostat corresponding to the HVAC system types.

<b>HVAC system type</b>	<b>Default maximum cycles per hour</b>	<b>Maximum cycle delay</b>
Electric	12 cycles	5 minutes
Fuel	6 cycles	10 minutes
Heat pump	3 cycles	20 minutes
Hydronic	3 cycles	20 minutes

## Advanced Configuration Settings

To access detailed codes required to change the "Advanced Configuration Settings" follow the steps below:

- Go to the online install guide at [www.zen thermostat.com/install/install.php](http://www.zen thermostat.com/install/install.php)
- Follow the steps on the install guide
- Reach the last section of the page, select the link "Advanced settings". This navigates to the "Advanced Configuration Settings" page

\*NOTE: the "Advanced Configuration Settings" page corresponds to the HVAC system type entered from the online installation guide.

The default HVAC cycle delay times can be changed in the Advanced Configuration Settings. Any changes made in the Advanced Configuration Settings will override the default settings. It is recommended that only a knowledgeable HVAC installer change any Advanced Configuration Settings.

The following table provides steps to change the maximum cycles per hour in the Advanced Configuration Settings.

High level instructions	Step by step instructions
Change maximum cycles per hour	<ol style="list-style-type: none"> <li>1. With the Zen Thermostat off the wallplate, press the CONFIG button on the back of the thermostat 5 times, the display will show "ADV"</li> <li>2. Tap the center of the display to enter the Advanced Configuration Settings</li> <li>3. Tap the right arrow until you reach B"#", F"#", K"#", and/or M"#"</li> </ol> <p>Note: B"# is for Heating Stage 1                      F"# is for Heating Stage 2                      K"# is for Cooling Stage 1                      M"# is for Cooling Stage 2</p> <p>"#" will show as 12, 6, or 3 based on the default settings</p> <ol style="list-style-type: none"> <li>4. Tap the up or down arrow to show the desired maximum cycles per hour</li> <li>5. Tap the center of the display to select the desired maximum cycles per hour</li> <li>6. Place the Zen Thermostat back on the wallplate</li> </ol>

The maximum cycles per hour selected in the Advanced Configuration Settings will determine the maximum minutes it will take to cycle the HVAC system. For example, choosing 10 cycles per hour will cause the HVAC system to have a maximum cycle delay of 6 minutes.

Maximum cycles per hour	Maximum cycle time
1 cycle	60 minutes
2 cycles	30 minutes
3 cycles	20 minutes
4 cycles	15 minutes
5 cycles	12 minutes

6 cycles	10 minutes
7 cycles	About 8.5 minutes
8 cycles	7.5 minutes
9 cycles	About 6.5 minutes
10 cycles	6 minutes
11 cycles	About 5.5 minutes
12 cycles	5 minutes

For further assistance, please do not hesitate to call us at 949-359-8208 or email us at [support@zenecosystems.com](mailto:support@zenecosystems.com).