

Tech Tip: Fan Always On

Audience

Professional Installers and Support Agents




Summary



This behavior can be identified by checking if the fan remains on when the Zen Thermostat is in OFF mode or in AUTO mode and the Zen Thermostat is not active. Some HVAC control boards can be more sensitive to the output circuit of Zen Thermostats with SKU Numbers of Zen 01.06 or lower. This behavior can be corrected by changing the Zen Thermostat to one with a SKU Number of Zen 01.07 or higher.

Problem Identification

The expected scenario is that the customer has called support or while the installer is on site and stated that the fan is always on.

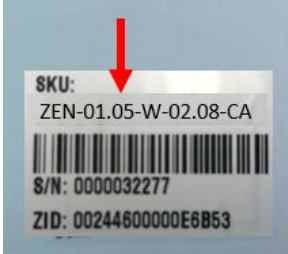
The support person or installer is to perform testing to show that the fan is always ON under the following conditions:

High level instruction	Step by step instruction
Set FAN mode = AUTO	<ol style="list-style-type: none"> 1. With the Zen Thermostat attached to the wallplate, tap the Zen Thermostat display to enter the menu. 2. Scroll left to the FAN menu 3. Scroll up to the AUTO option 4. Center tap to accept. 5. The fan icon should not be illuminated. <div style="display: flex; align-items: center; margin-top: 10px;">  Fan icon </div>
Set thermostat mode = OFF	<ol style="list-style-type: none"> 1. With the Zen Thermostat attached to the wallplate, tap the Zen Thermostat display to enter the menu. 2. Scroll left to the OFF menu 3. Center tap to accept 4. The snowflake (COOL) or flame (HEAT) icons should not be illuminated <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;"> <div style="display: flex; align-items: center;">  Flame icon </div> <div style="display: flex; align-items: center;">  Snowflake icon </div> </div>

<p>After the HVAC safety timeout period, typically 5-10 minutes, the heating/cooling/fan should all be off</p>	<ol style="list-style-type: none"> 1. Tap the Zen Thermostat to view current mode 2. The active icon should not be illuminated indicating heating/cooling is not active  Active icon 3. The fan icon should not be illuminated  Fan icon 4. After the HVAC safety timeout period, typically 5-10 minutes, the system SHOULD NOT be blowing out air.
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At this point it is identified as having the fan always ON when the expected behavior is for the fan to be off then continue to exception and escalations.

The support person or installer should confirm that the fan is off when the Zen Thermostat is removed from the wall and verify the SKU Number.

High level instruction	Step by step instruction
<p>Remove the Zen Thermostat from the wall</p>	<ol style="list-style-type: none"> 1. With the Zen Thermostat still attached to the wallplate, confirm the fan is blowing air 2. Remove the Zen Thermostat from the wallplate 3. With the Zen Thermostat now off the wallplate, wait for a couple of minutes to confirm the fan has stopped blowing air <p>Exception If the HVAC fan remains ON when the Zen Thermostat is removed, this would highlight an HVAC issue</p>
<p>Confirm the device SKU Number</p>	<ol style="list-style-type: none"> 1. At the side of the Zen Thermostat box, confirm the SKU number Example: ZEN 01.05 

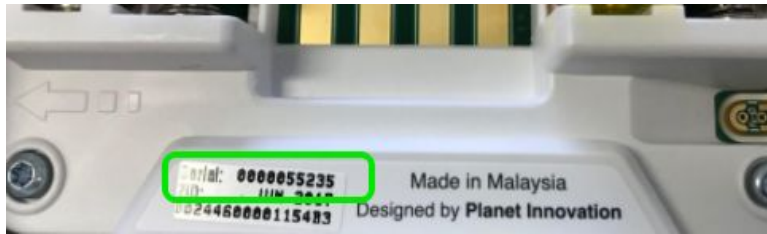
At this point the HVAC unit is identified as having a control board sensitive to the output circuit of Zen Thermostat.

Resolution procedure

The next step is for the Zen Thermostat with SKU Zen-01.06 or below to be substituted with a Zen Thermostat with SKU Zen-01.07 at this installation site.

The service person or installer will record the Zen Thermostat on site.

- Remove the thermostat from the wall and on the back of the thermostat body the serial number is listed on a sticker at the side of the device



The service person or installer will collect the following information related to the installation site

- Customer name
- Customer address
- Customer contact number
- Installer work order number
- Installer badge number
- Installer contact information

This information should be communicated to Comcast support channels for review and a unit with a SKU Number of Zen-01.07 or higher is recommended to be installed as a replacement.





Steps to confirm expected behavior

Before installation of the new Zen Thermostat, the installer should note the substituted device has the corrected SKU Number:

High level instruction	Step by step instruction
Confirm the device SKU at the side of the Zen packaging	1. At the side of the Zen Thermostat box, confirm the SKU number is Zen-01.07 or higher

After configuration and installation of the replacement thermostat, the previous steps should be repeated to confirm the identified fan always on behavior has been resolved and the HVAC system is functioning as expected - that is the fan is always OFF under the following conditions:

High level instruction	Step by step instruction
Set FAN mode = AUTO	1. With the Zen Thermostat attached to the wallplate, tap the Zen Thermostat display to enter the menu.

	<ol style="list-style-type: none"> 2. Scroll left to the FAN menu 3. Scroll up to the AUTO option 4. Center tap to accept. 5. The fan icon should not be illuminated.  Fan icon
<p>Set thermostat mode = OFF</p>	<ol style="list-style-type: none"> 1. With the Zen Thermostat attached to the wallplate, tap the Zen Thermostat display to enter the menu. 2. Scroll left to the OFF menu 3. Center tap to accept 4. The snowflake (COOL) or flame (heat) icons should not be illuminated  Flame icon  Snowflake icon
<p>After the HVAC safety timeout period, typically 5-10 minutes, the heating/cooling/fan should all be off</p>	<ol style="list-style-type: none"> 1. Tap the Zen Thermostat to view current mode 2. The active icon should not be illuminated indicating heating/cooling is not active  Active icon <ol style="list-style-type: none"> 3. The fan icon should not be illuminated 4. After the HVAC safety timeout period, typically 5-10 minutes, the system SHOULD NOT be blowing out air.

At this point the fan is identified as functioning correctly - that is in ON mode the fan is on, in AUTO mode the fan is on when the system is on, and in OFF mode the fan is off.

If the behavior has not changed from being identified as having the fan always ON when the expected behavior is for the fan to be off then continue to exception and escalations.

Exception and Escalations

If the above behavior persists and the items require assistance from support or need to be escalated to Zen support, the service person or installer will collect the following information related to the Zen Thermostat on site.

- Photo of the originally installed thermostat wiring
- Photo of the wiring connected to the wall plate
- Photo of the back of the Zen Thermostat showing the serial number
 - Remove the thermostat from the wall and on the back of the thermostat body the serial number is listed on a sticker at the side of the device

Send the photos to support@zenecosystems.com and continue the escalation with Zen support.