TROUBLESHOOTING GUIDE

DO YOU HAVE A PROBLEM WITH YOUR GROZONE CONTROLLER ?
DO YOU NEED ANY TECHNICAL SUPPORT ?
ARE YOU AWARE OF THE WARRANTY COVERAGE ?

PLEASE READ THESE INSTRUCTIONS CAREFULLY AND SAVE THEM FOR FUTURE REFERENCE

QUESTION #1: I think my controller is damaged, or it simply does not work as indicated in the user guide, what should I do ?

- Please refer to the troubleshooting steps. Follow these instructions carefully, step by step. The Controller should work as described in the "Expected Result" section.
- Do you need assistance in executing the Troubleshooting steps ?
  1. **Please contact your RETAILER or**
  2. **Send us an EMAIL at support@grozonecontrol.com or**
  3. **VISIT our Technical Support Center at www.grozonecontrol.com/techsupport.html or place your Smartphone to capture the QR Code shown here. (QR-code Reader application required).**

CAPTURE THIS QR CODE WITH YOUR SMARTPHONE !

Technical Support is available Monday through Friday, from 8:00 AM to 5:00 PM, Eastern Time. **You want us to contact you ?** Do not hesitate to leave your phone number, we should be able to call you back within minutes during business hours.

QUESTION #2: I've been through the troubleshooting steps, what do I do if I meet a problem at any of these steps ? Is my product covered by the WARRANTY ?

- Grozone controllers are covered by a 3-year warranty. We will replace any DAMAGED PRODUCT WITH A BRAND NEW PRODUCT.
- Covered or not covered ? We do not authorize the replacement of fully working products nor altered (tampered) products. The Troubleshooting steps on reverse will help you identify a damaged product. Do not hesitate to contact us or contact your retailer to make sure the controller is not fully working or damaged before returning it to the store.
- My product is not fully working or damaged, I want a replacement unit: in order to get a replacement product, **you MUST return all modules and applicable accessories to the retailer** – controller, output boxes, remote sensors, cables, power cord or power supply. We've observed that many problems often originate from seemingly insignificant components the user forgets to return, so we are unable to identify the problem and thus authorize the return under warranty. To avoid being charged for the accessories, be sure to include all pieces. Thanks for your cooperation.

PRODUCT _____ DATE OF PURCHASE _____ SERIAL NUMBER_____

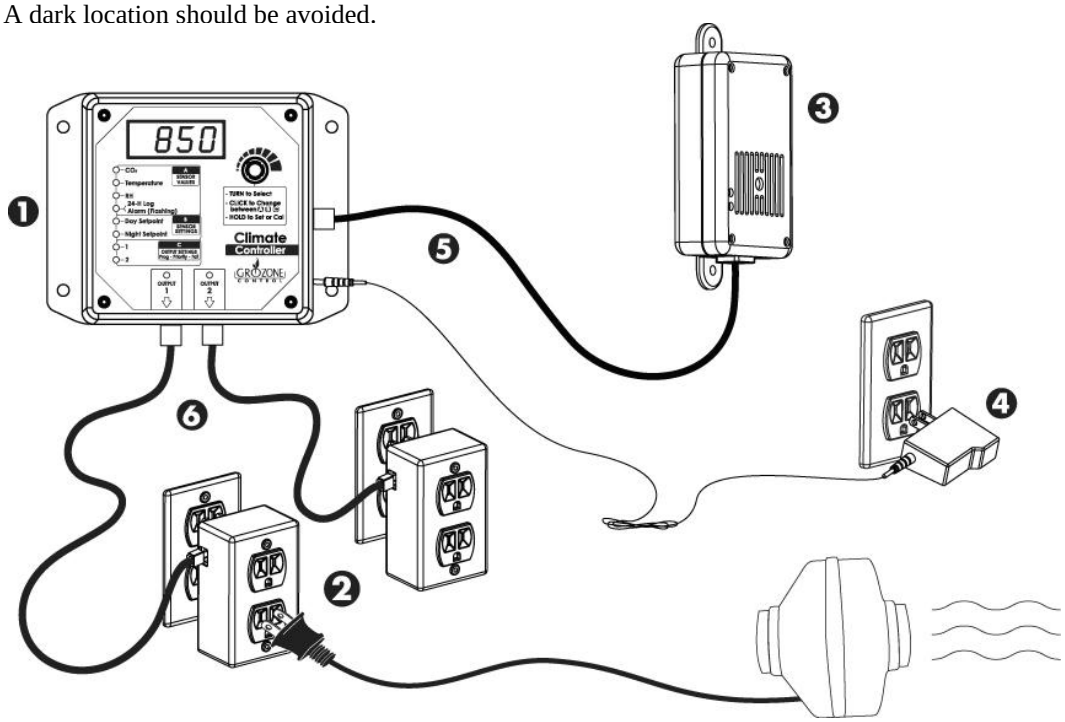
TROUBLESHOOTING THE HTC GROZONE CLIMATE CONTROLLER

Procedure Name : HTC-V1

1 – BEFORE STARTING

******* CAUTION : MAKE SURE TO READ AND FOLLOW THESE INSTRUCTIONS BEFORE STARTING THE TEST.**

- PLUG both output boxes (**OUTPUT 1** and **OUTPUT 2**) to the main module using the 2 telephone cables (included, 7-ft).
- PLUG the remote sensor to the main module using the "Network – CAT5" cable (included, 25-ft).
- CONNECT A LOAD (lamp or fan…) into the output box of OUTPUT 1 (**NOT** in the output box of OUTPUT 2).
- LIGHTING CONDITION: make sure to perform this test in a room with enough light for the controller to detect a DAY condition. A dark location should be avoided.



2 –TEST

STEP	HANDLING AND TEST DESCRIPTION	EXPECTED RESULTS
1	• Plug the external supply into any 120V outlet or power bar, and plug the power supply connector on the right side of the module.	The screen shows a 30-second countdown after a short introduction displaying the name of the product and the revision number. Wait until the countdown ends.
2	• Turn KNOB in both directions to see the **CO2 PPM** Level, the **temperature**, the **RH** (**relative humidity)** in your room, as well as the **time**.	**CO2, Temperature** and **RH** indicators turn ON according to the information on controller screen. y. When these 3 indicators are OFF, the controller shows the time: the time can be any value if it has not been set previously. A « normal » **CO2** value should stand between 400 and 1000 PPM. It might be higher if your room is not ventilated enough or many people are present or you are blowing directly toward the module. The **temperature** unit can be either °C or °F as set by user. The temperature shown on screen should correspond with the temperature felt in your room. The humidity value in « percentage » (**RH**) should also correspond to conditions felt in the room. **Make sure to view CO2 PPM value while ending this step (CO2 indicator is ON).** **CO2 CALIBRATION will be checked at step 10.**

3	• CLICK KNOB twice until **Day Setpoint** indicator turns ON. • Press KNOB and maintain pressed until value on screen starts to blink. • Turn KNOB both ways, and set value to 4500 PPM. To save this value and continue, press KNOB and maintain pressed until « Good » appears on screen; then let KNOB go.	**24-H Log** and **Day Setpoint** Indicators will turn on in this order; make sure to stop when **Day Setpoint** is on. Value on screen is the DAY SETPOINT (default value : 1500 ppm). When blinking, value on screen goes up or down according to knob rotation direction. To complete this step, set the value to **4500 PPM**, getting ready for step 5. It is very important to maintain pressed until « Good » shows up on screen; if not, the value WILL NOT be saved.
4	• TURN KNOB until **Night Setpoint** indicator turns ON.. • Press KNOB and maintain pressed until value on screen starts to blink. • Turn KNOB to set value to **400 PPM**. To save this value and continue, press KNOB and maintain pressed until « Good » appears on screen; then let KNOB go.	**Night Setpoint** and **Day Setpoint** Indicators will turn on alternately, make sure to stop when **Night Setpoint** is on. Value on screen is the NIGHT SETPOINT (default value : 1500 ppm). When blinking, value on screen goes up or down according to knob rotation direction. To complete this step, set the value to **400 PPM**, getting ready for step 5. It is very important to maintain pressed until « Good » shows up on screen; if not, the value WILL NOT be saved.
5	• Click KNOB once. • Press KNOB and maintain pressed until value on screen starts to blink. • Turn KNOB to set value to **F13** (day enrichment). To save this value and continue, press KNOB and maintain pressed until « Good » appears on screen; then let KNOB go. • Click KNOB 2 or 3 times until **F13** shows up on screen again.	Indicator **« 1 »** in the zone identified as **« C - Output Settings »** will turn ON; make sure indicator**« 2 »** is NOT ON! **OUTPUT 1 Indicator will be ON** at the end of the handling steps described on the left; the load plugged to the output box of OUTPUT 1 will be ON at the same time. This step works only if the **Day Setpoint CO2** has been set to 4500 PPM at step 3.
6	• Press KNOB and maintain pressed until value on screen starts to blink. • Turn KNOB to set value to **F16** (day exhausting). To save this value and continue, press KNOB and maintain pressed until « Good » appears on screen; then let KNOB go. • Click KNOB 2 or 3 times until **F16** shows up on screen again.	Indicator **« 1 »** in the zone identified as **« C - Output Settings »** remains ON. **OUTPUT 1 Indicator will turn OFF** at the end of the handling steps described on the left; the load plugged to the output box of OUTPUT 1 will turn OFF at the same time.
7	• TURN KNOB until **« 2 »** indicator turns ON. • UNPLUG the LOAD (lamp or fan...) from the output box of OUTPUT1 and plug it back to the output box of OUTPUT 2.	Indicator **« 2 »** in the zone identified as **« C - Output Settings »** will turn ON; make sure indicator**« 1 »** is NOT ON!
8	• Press KNOB and maintain pressed until value on screen starts to blink. • Turn KNOB to set value to **F13** (day enrichment). To save this value and continue, press KNOB and maintain pressed until « Good » appears on screen; then let KNOB go. • Click KNOB 2 or 3 times until **F13** shows up on screen again.	**OUTPUT 2 Indicator will be ON** at the end of the handling steps described on the left; the load plugged to the output box of OUTPUT 2 will be ON at the same time.
9	• Place the remote sensor flat on your desk and cover it up entirely with a DARK FABRIC (coat, sweather…). **WARNING**: the sensor has two day-night detectors, one on EACH SIDE of the enclosure. ******* IMPORTANT :** **keep sensor covered until step 11.**	**OUTPUT 2 Indicator** must be ON before hiding the sensor, and it will **TURN OFF** 6 to 8 seconds after covering it, as soon as the night condition is detected.

10	• Press KNOB and maintain pressed until value on screen starts to blink. • Turn KNOB to set value to **F16** (day exhausting). To save this value and continue, press KNOB and maintain pressed until « Good » appears on screen; then let KNOB go. • Click KNOB 2 or 3 times until **F16** shows up on screen again.	**OUTPUT 2 Indicator will turn ON** at the end of the handling steps described on the left; the load plugged to the output box of OUTPUT 2 will turn ON at the same time.
11	• Remove the fabric covering the remote sensor and wait 6-8 seconds.	**OUTPUT 2 Indicator will turn OFF** as soon as the day condition is detected.
12	• Click KNOB until the **Day Setpoint**, **Night Setpoint**, **1** and **2** indicators turn OFF. • Turn KNOB to view the **CO2** value on screen. • Blow softly on the remote sensor.	You will see the CO2 PPM level on screen going up to a value up to 5000 PPM and above. The screen will show « **OVER** » and « **5000** » alternately (blinking). If needed, blow closer to the module or stronger : your breath contains a lot of CO2.
The basic test is now complete. The CO2 SENSOR (SNIFFER) CALIBRATION instructions follow.		
13	• Check the CO2 Controller calibration to confirm whether calibration is required or not. • IF REQUIRED, you will find the calibration procedure below.	You must bring the sensor close to an open door or window or simply outside. Wait 1-2 minutes to get a stable value and AVOID breathing near the sensor. **The CO2 PPM value on controller screen should be between 350 and 450 PPM, sometimes up to 500 in urban surroundings. In this case, your module DOES NOT NEED calibration**. Note : The CO2 sensor (*sniffer*) is **precise to +/- 75 PPM** (industry standard) meaning that two or more modules in the same room are likely to indicate different ppm values, showing variation between them of up to 150 ppm. THIS IS NORMAL and no action is required. If the variation between readings is beyond 150-200 ppm, one of them is likely to require a calibration. **Be aware that a difference of 100 PPM has insignificant effect on plants.**

Step	**HTC 2010, REMOTE SENSOR CALIBRATION (beige enclosure)** **>>>>>> IMPORTANT <<<<<<** Expose your sensors to outdoor air for a minimum of 1-2 minutes, fresh air being used as a reference. If the value on screen is around 350 to 450 PPM, YOU DO NOT NEED TO RECALIBRATE YOUR UNIT.
1	Turn knob to view the CO2 PPM level in your room (only the CO2 Indicator will be ON)
2	Press knob and keep it pressed for about 5 seconds, until « **CAL** » appears on screen.
3	Let button go, « **CO2** » and « **CAL** » appear on screen alternately (blinking).
4	Click knob again, then « **CAL** » and « **400** » appear on screen alternately (blinking). **>>> IMPORTANT : if the value shown IS NOT 400, turn the knob to set value to 400.**
5	TO CALIBRATE : press knob and keep it pressed for at least 5 seconds, until « **CAL** » shows up on screen (not blinking), then let button go. **>>> IMPORTANT : if you "click" the knob instead of "pressing and maintaining the knob pressed", you will exit WITHOUT calibrating.**
6	The automatic calibration takes just seconds. When completed, « **CAL** » et « **GOOD** » appear on screen alternately (blinking) for 5 seconds, then the controller returns to normal operation. **>>> IMPORTANT : You MUST see « GOOD » on screen at the end of the calibration process. If not, the calibration has FAILED. Then go back to step 1.**