

TROUBLESHOOTING GUIDE

For All Models

Your starting point in this guide depends on your CosaTron system(s) failure level. This guide applies to all CosaTron models. *This guide is intended for systems that were operating correctly and have developed a fault.*



With the CosaTron system power turned off, attach Model 7300, 7600 or 7700 Test Kit, or acceptable device to the appropriate braid or screen grids and determine:

- A. If no HV and HF start at TEST A
- B. If low HV and HF start at TEST AA
- C. If no HV and HF is Ok, start at TEST B
- D. If low HV and HF is Ok, start at TEST BB
- E. If no HF and HV is OK, start at TEST C
- F. If low HF and HV is OK, start at TEST CC

At this point remove Power Generator (CU-650) cover and temporarily disable the cover safety switch by using electrical tape to hold the cover safety switch in the depressed position. Turn the CosaTron Power Generator on/off switch to the "ON" position.



TEST A: Is AC power present on the generator PCB?

If Yes:

1. Check HV and HF grids in the plenum for isolation from their surroundings. Only CosaTron accessories should be installed, such as the bleed resistor.
2. Check to see if any accessories are causing the failure of the system. Disconnect these accessories.
3. Check HV and HF cables for leakage, continuity and mechanical connection integrity, from the generator to the grids.
4. Check ground continuity from the Power Generator to the grid frame in the plenum.
5. Check for PVC track and insulator contamination at the grid assemblies.
6. If you have been instructed to complete TEST A numbers 1 - 5 as part of another level of instruction, you should now return to that section and continue.
7. If not, continue with Item 7, below:
8. Check generator enclosure AC circuit breaker and circuit fuses for continuity.
9. Check to see if all AC power interlocks are engaged.
10. Check the plenum door switch(s) wiring for integrity.
11. Check for proper plenum door switch mechanical activation.
12. Check for interruption of AC power from customer-supplied controls (ON/OFF switches, AIR PRESSURE switches, AIR VELOCITY switches, etc).
13. If normal operation of your system has not been restored contact the factory.



TEST AA : Assume AC power is present on the PCB. If HV and HF levels are low:

1. Check to see if the incoming AC power is low. If so, proceed when AC power is restored to normal.

Note: If system is equipped with a bleed resistor on the HV grid, disconnect it from the grid before testing for HV output.

- While monitoring your Test Kit with the system on, adjust the appropriate output control for either, HV or HF Circuits until acceptable levels are reached as shown below:

HF ranges 500-800Vac/rms.	650VAC/rms. Normal	Mesh Screen
HV ranges 22-28 KVDC	25 KVDC Normal	Mesh Screen
HV ranges 22-28 KVDC	24 KVDC Normal	Braid Screen

- If HV and/or HF levels can't be adjusted up, go to Section A, perform No's 1 - 5, then return to this point.
- Call 704.785.8145 CosaTron if levels can't be restored.



TEST B: At this level, assume HF is good, AC power to system is good, and HV level is 0 (zero).

- Go to section A and perform No's 1 - 5.
- Check HV fusing circuit, if any (older models).
- If HV has not been restored, call CosaTron for help or replacement of HV section.



TEST BB: At this point, assume HF is good, AC power to system is good, and HV is operating, but levels are low.

- While monitoring your Test Kit adjust the HV output control located on top of the HV module.
- If HV levels cannot be adjusted to desired levels, go to Section A and perform steps 1 - 5.
- If HV has not been restored call CosaTron for help or replacement of HV section.



TEST C: At this point, assume HV is good, AC power to system is good, and HF is 0(zero).

- Check HF circuits fuse for continuity.
- Locate the HF output control on the generator PCB and adjust it clockwise to increase the HF level.
- Go to section A and perform steps 1 - 5.
- If HF has not been restored, call the factory for help or replacement of the HF section.



TEST CC: At this point, assume HV is good, AC power to system is good, and HF is operating, but at low levels.

- Locate HF output controls on the generator PCB and adjust it clockwise to increase the HF level.
- Go to section A and perform steps 1 - 5.
- If HF has not been restored call the factory for help or replacement of HF section.

For more information
www.cosatron.com/start-up/
A Video tutorial is now available at
youtube.com/CosaTronAirPurifier



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