

Zero Air Generators

Frequently Asked Questions

Q: Where are Zero Air Generators typically used?

A:

- Gas Chromatographs with following detectors, FID, FPD, PFPD and NPD
- Vehicle Emissions Analyzers, FID & Chemiluminescent
- Continuous Emissions Analyzers, Dilution and Cal-Gases
- Source Gas to LC/MS Exhaust Pump, Heated Nebulizer and Ion Spray

Q: How to select Zero Air Generators for Gas Chromatography?

A:

Summate the total zero air need for all detectors that require support air and match to generator capacity. Parker suggests adding 20% to account for any error and to offer padding for future expansion.

- Select model 75-83 for up to 2 FIDs.
- Select explosion-proof model 75-82S for up to 2 FIDs.
- Select model HPZA-3500 for up to 8 FIDs.
- Select model HPZA-7000 for up to 16 FIDs.
- Select model HPZA-1800 for up to 40 FIDs.
- Select model HPZA-30000 for up to 67 FIDs.

Q: Can the Zero Air Generators be installed outdoors?

A: No, indoor areas only and not subject to freezing temperatures.

Q: Can the Zero Air Generators be installed outside the lab?

A:

- Preference is in the same lab at the instruments.
- Yes, installer will have to account for pressure drop, piping impurities, and piping costs.
- Long runs of piping can take time to fill with generated zero air, expect an initial overflow condition.

Q: What is needed to install Zero Air Generators properly?

A:

- **A compressed air supply, relatively free of oil and water.**
- **Inlet isolation valve to turn compressed air supply on and off.**
- **Inlet pressure regulator, refer to model 72-130-V883.**
- **Outlet pressure regulator, refer to Parker 405 series.**
- **Outlet flow meter, refer to series Parker WFM series.**
- **Appropriate length of 1/4" refrigeration grade copper.**
- **Bench or Wall Space for Mounting**
- **Electricity**

Q: What are the maintenance requirements for Zero Air Generators?

A:

- **Replace inlet & outlet filter cartridges annually, refer to MK maintenance kit.**
- **Replace the catalyst/heater module every 3-5 years.**

Q: How do Zero Air Generators remove all hydrocarbons to <0.05 ppm as methane?

A: A proprietary blend of catalyst material combined with a balance of platinum is heated to oxidize all hydrocarbons (methane and non-methane) into carbon dioxide and water vapor.

Q: What does it mean when the red "check system" light is blinking?

A: It is time to replace the internal heater/catalyst module, call Parker technical services at 800-343-4048

- **This is also an ideal time to service filter cartridges.**

Q: What should I do if the Zero Air Generators indicate "overflow" fault?

A:

- **Check to make sure that actual flow of zero air needed is within the rated output capacity of generator.**
- **Snoop all tubing connection points from the outlet of the generator to the inlet of each instrument. A tiny leak is enough to cause overflow fault.**
- **Install properly sized WFM series flow meter off the outlet of the generator.**



- **Open right side-panel door and look / listen for air leak.**
- **Call Parker technical services at 800-343-4048.**
- **What to do if Zero Air Generators will not warm up (LED stays orange on front purity graph).**
- **Perform same steps as listed for “overflow” fault indication.**
- **Inspect inlet filters for leaks.**

Q: What do I do if Zero Air Generators provides no flow or pressure?

A:

- **Open compressed air inlet ball valve to supply compressed air to generator.**
- **Inspect compressed air supply, make sure pressure is above 40 psig.**
- **Verify generator not installed backward; check port labeling and compressed air supply tubing.**
- **Remove generator cover, look for green residue on brass fittings, and if present call technical support department.**
- **Replace all filter cartridges, purchase and install MK style maintenance kit.**

Q: What should I do if the baseline exhibits a spike at exact same time interval on chromatogram?

A:

- **Inspect inlet compressed air at generator inlet for pressure fluctuations.**
- **Verify that a pressure regulator is installed on the inlet and outlet of the generator.**
- **Install purified 72-007 zero air buffer tank.**

Q: What should I do if the moisture trap or scrubber after zero air generators gets spent in a very short time?

A:

- **Remove scrubber from generator output line.**
- **If unwilling to remove scrubber, install model 64-01 membrane air dryer at the inlet of the zero air generator.**