

Packard Zero Air Generator

Product Specification



994-0071

A Hazard-Free Source of UHP Air for Improved FID Performance

The Packard Zero Air Generators produce ultra-high-purity (UHP) grade, hydrocarbon-free air using a standard compressed air supply. Models 2500 and 2501 produce UHP air at continuous flow rates up to 2500cc/min, at pressures up to 125psig, with less than 0.1ppm total hydrocarbons. Models 1000 and 1001 are smaller, lighter and less expensive versions of Models 2500 and 2501. The maximum flow is 1000mL/min and the quality of the finished gas is equal to that of the Model 2500/2501.

Impurities in fuel gases used with flame ionization detectors (FID) affect the performance of the detector, particularly when operating at high sensitivity. The Packard Zero Air Generators are recommended for use with FID detectors because the improved signal to noise ratio and baseline stability allow lower detection limits, making more sensitive analyses possible.

The system consists of three stages: a 0.5 μ m coalescing inlet filter that removes particles, oil, and water, a heated catalyst that removes hydrocarbons, and a 0.01 μ m cellulose fiber outlet filter that removes any residual particulate material from the finished air stream. Minimal maintenance is required. Inlet and outlet filters should be cleaned twice per year and should be changed every two years.

Features

- Requires only house compressed air and a standard electrical outlet to produce UHP zero air.
- Provides lower signal to noise ratio and greater baseline stability.
- Produces continuous flow rates from 0 - 2500cc/min
- Reduces total hydrocarbons to less than 0.1ppm.
- Meets IEC 1010 standards.
- UL and CSA listed.

Specifications

Physical Characteristics

	Model 2500/2501	Model 1000/1001
height:	12" (29.2cm)	9.75" (25cm)
width:	6.75" (17.8cm)	5.75" (14.7cm)
depth:	15" (39.4cm)	12" (30.8cm)
weight:	20lbs (9.1kg)	11lbs (5kg)
outlet:	1/8" Swagelok®	1/8" Swagelok

Electrical Requirements

	60Hz (Models 2500 & 1000)	50Hz (Models 2501 & 1001)
Voltage (VAC)	100 - 125	200 - 250
Current (Amps)	1.0	0.5
Fuse (Amps)	1.5	0.8
Power (Watts)	100	100

Performance Characteristics

Outlet gas:	total hydrocarbons as methane <0.1ppm
Maximum inlet total hydrocarbons:	200ppm
Maximum inlet air temperature:	40°C
Overheat shutdown:	yes
Initial startup time for maximum purity:	30 min (without air flow) 45 min (with air flow)
Delivery pressure:	125psig
Inlet air pressure:	2 - 125psig
Pressure drop at maximum flow rate:	5psig
Flow rate pressure stabilization:	<2 min
Maximum air flow rate:	2500 cc/min for Model 2500/2501 1000 cc/min for Model 1000/1001

Activated Charcoal Trap

If compounds that contain sulfur or halocarbons are present in the source air, a charcoal trap should be used to avoid contaminating the air generator catalyst. The Supelpure™-HC trap contains activated charcoal that adsorbs hydrocarbons and other contaminants from air, carrier gases, and hydrogen. Operates efficiently for approximately six months when total hydrocarbons in the incoming gas average 10ppm.

Supelpure-HC Trap, 1/8" fitting	22445
Replacement Charcoal, 400cc	22451

Trademarks

Supelpure — Supelco, Inc.

Swagelok — Crawford Fitting Co.

Ordering Information:

Zero Air Generator

Model 2500 (100-125 VAC)	22812
Model 2501 (200-250 VAC)	22814
Model 1000 (100-124VAC)	22824
Model 1001 (200-250VAC)	22830

Replacement Parts

Outlet filter for Models 2500 and 2501	22817
Inlet filter for Models 2500 and 2501	22818
Inlet/Outlet filter for Models 1000 and 1001	22817

Contact our Technical Service Department
(phone 800-359-3041 or 814-359-3041, FAX 814-359-5468)
for expert answers to your questions.

For more information, or current prices, contact your nearest Supelco subsidiary listed below. To obtain further contact information, visit our website (www.sigma-aldrich.com), see the Supelco catalog, or contact Supelco, Bellefonte, PA 16823-0048 USA.

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