

Industrial Magnetron, 3kW, 2450 MHz

GERLING

Model GA8002

The model GA8002 Industrial Magnetron manufactured by GAE, Inc. is designed for use in a family of microwave generators originally designed and manufactured by Gerling Laboratories and its successor company, AGL, Inc. (a.k.a. ASTeX/Gerling Labs). It is identical to the AGL model AG9131 magnetron in all respects to form, fit and function and will operate in any microwave generator configured to use the AG9131.

The origins of the GA8002 magnetron began with Gerling Labs and its development of the model GL131 magnetron for use in industrial microwave generators. The GL131 was, as is now the GA8002, a water-cooled conversion of the popular air-cooled Hitachi model 2M131 magnetron. The design of the 2M131 was later changed by Hitachi, rendering it incompatible for conversion to the GL131. Consequently, the GL131 is no longer available while the GA8002 (and AG9131) is a conversion of the newer 2M131.

NOTE: Model GA8002 is used in microwave generators designed for non-semiconductor processing applications. GAE offers a similar magnetron, part number 910904-1, that is used in generators designed for semiconductor fab tools. For more information on this magnetron, contact GAE and ask for Technical Product Specification 900026.

Specifications (Typical Operation)

Magnetron Type	Water-cooled Hitachi 2M131-04A
Output Frequency	2450 MHz +/- 30 MHz
Output Power	3.0 kW
Duty Cycle	Continuous
Peak Anode Voltage	-6.4 kVDC (single-phase full-wave bridge, unfiltered)
Average Anode Current	0.62 A
Filament Voltage	Standby: 4.6 VAC Half Power: 3.8 VAC Full Power: 3.2 VAC
Filament Current	19 A
Water Flow Rate	1.0 gpm nominal (0.5 gpm min)
Water Inlet Temp	Minimum: Ambient dew point Maximum: 104° F (40° C)

Socket Conversion

Generators originally designed for use with the GL131 magnetron must be converted before they can use the GA8002. GAE offers the following three conversion options. Contact GAE directly for assistance in determining which conversion, if any, is required for your equipment.

- *Model GA8101 Standard Retrofit Kit* converts generators configured to use the latest version of the GL131 series magnetron, the GL131C.
- *Model GA8102 Enhanced Retrofit Kit* converts generators designed to use the original GL131 magnetron and not yet converted to use the GL131C.
- *Model GA8104 Socket Upgrade* converts older GM/Thermex generators originally designed to use the Litton model L-3858 magnetron and not yet converted to use a GL131.



Warranty

The GA8002 is warranted for 500 hours of continuous operation or three months from the date of shipment from the factory, whichever occurs first. In the event of failure within this period, GAE will deliver a replacement magnetron without charge. Failures due to damage caused by improper handling, faulty equipment or poor operating conditions are not covered. Failed magnetrons must be returned to GAE who reserves the right to determine the cause of failure and applicability of the warranty.

In addition, GAE offers a prorated warranty based on 5000 hours of continuous operation. This coverage is only offered to customers meeting strict guidelines for equipment usage and maintenance. Contact GAE for more information on prorated warranty coverage.



GERLING APPLIED
ENGINEERING, INC.

© 2005-2008 Gerling Applied Engineering, Inc.
PO Box 580816 ▪ Modesto, CA 95358 ▪ USA
Phone: +1-209-527-8960 ▪ Fax: +1-209-527-5385
E-mail: sales@2450MHz.com ▪ Web: www.2450MHz.com