

Agilent Technologies

6890 Power Related Information

This document provides basic power related information for the 6890 Gas Chromatograph. This document covers:

- Grounding the GC
- Line voltage requirements
- Canadian installation
- Voltages and Line Cord Termination
- Parts needed to convert to the USA fast heating oven.

Further information can be obtained by contacting Agilent Technical Service.

This document is believed to be accurate and up-to-date. However, Agilent Technologies, Inc. cannot assume responsibility for the use of this material.
The information contained herein is intended for use by informed individuals who can and must determine its fitness for their purpose.

530 Power

Grounding

Caution	A proper earth ground is required for GC operations.
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To protect users, the metal instrument panels and cabinet are grounded through the three-conductor power line cord in accordance with International Electrotechnical Commission (IEC) requirements.

The three-conductor power line cord, when plugged into a properly grounded receptacle, grounds the instrument and minimizes shock hazard. A properly grounded receptacle is one that is connected to a suitable earth ground. Proper receptacle grounding should be verified.

Make sure the GC is connected to a dedicated receptacle. Use of a dedicator receptacle reduces interference.

Caution	Any interruption of the grounding conductor or disconnection of the power cord could cause a shock that could result in personal injury.
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Line voltage

The GC operates from one of the AC voltage supplies listed in Table 530-1, depending on the standard voltage of the country from which it was ordered. GCs are designed to work with a specific voltage; make sure your GC voltage option is appropriate for your lab. The voltage requirements for your GC are printed near the power cord attachment.

Table 530-1 Line Voltage Requirements

Voltage	Maximum power consumption (VA)	Power line requirement	Oven type
120 V ($\pm 5\%$)	2,250	20-amp dedicated	Slow-heating
200 V ($\pm 5\%$)	2,950	15-amp dedicated	Fast-heating
220 V ($\pm 5\%$)	2,950	15-amp dedicated	Fast-heating
230 V ($\pm 5\%$)	2,950	16-amp dedicated	Fast-heating
230 V ($\pm 5\%$)	2,250	10-amp dedicated	Slow-heating
(Switzerland or Denmark with 10-amp maximum service)			
240 V ($\pm 5\%$)	2,950	13- or 16-amp dedicated	Fast-heating

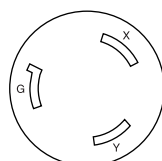
Frequency range for all voltages is 48 to 66 Hz.

The fast-heating oven requires at least 200 V. Most countries' standard voltage meets this requirement. GCs for use in the USA, Denmark, and Switzerland will be equipped with a slow-heating oven unless they are ordered with power option 002, which specifies a fast-heating oven.

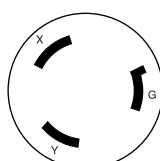
Although your GC should arrive ready for operation in your country, compare its voltage requirements with those listed in Table 530-2. If the voltage option you ordered is not suitable for your installation, contact Agilent Technologies.

USA fast heating oven

The fast heating oven requires 240 V/15A power. Do not use 208 V power. Lower voltage causes slow oven ramps and prevents proper temperature control. The power cord supplied with your GC is rated for 250 V/15A, and is a two pole, three wire cord with grounding (type L6-15R/L6-15P).



Receptacle
L6-15R



Plug
L6-15P

The fast-heating oven requires at least 200 V. Most countries' standard voltage meets this requirement. GCs intended for use in the USA, Denmark and Switzerland will be equipped with a slow-heating oven unless they are ordered with power option 002, which equips the GC with a fast-heating oven.

Canadian installation

When installing a GC in Canada, make sure your GC's power supply circuit meets the following additional requirements:

- The circuit breaker for the branch circuit, which is dedicated to the instrument, must be rated for continuous operation.
- The service box branch circuit must be marked as a "Dedicated Circuit."

Table 530-2 Voltages and Line Cord Terminations by Country

Country	Power cord termination	Voltage	Oven type
Australia, 10 amp		240 V	Regular
Australia, 15 amp		240 V	Fast
China, 10 amp		220 V	Regular
China, 16 amp		220 V	Fast
Continental Europe		220 V	Fast
Continental Europe		230 V	Fast
Denmark, 10 amp		230 V	Regular
Denmark and Switzerland, 16 amp		230 V	Fast
Switzerland, 10 amp		230 V	Regular
Hong Kong		220 V	Fast
India, South Africa		240 V	Fast
Israel		230 V	Fast
Japan		200 V	Fast

United Kingdom		240 V	Fast
USA		120 V	Regular
USA		240 V	Fast

HP 6890 GC Power Information

	Standard	Fast Oven
Voltage (+5/-10)	120VAC	240VAC
Amperage	20A	15A
Volt-Amps	2250	2950
		
Plug (NEMA)	5-20P	L6-15P
Heat Dissipation-max (BTU/Hour)	7500	10,700

Note-208VAC mains cannot power the 240VAC 6890 directly. A buck/boost transformer rated at 0.50KVA (ex. Grainger stock#6P270) can be employed.

Oven Insert for Fast Heating Capability – G2646-60500

Oven Ramp Rates

Temp Range	Regular Oven	Fast Ramp Oven
50-70	75	120
70-115	45	95
115-175	40	65
175-300	30	45
300-450	20	35

Parts to convert a 120VAC unit to 240VAC:

2110-0054 qty. 2	20A fuses
G1530-60730	240V Configuration plug
G1530-61640	240V Oven Heater Shroud
8121-0075	Detachable power cord (If the GC s/n is less than US00030800, non-detachable power cord p/n G1530-60900 is required)

Parts to convert a 240VAC unit to 120VAC:

2110-0098 qty. 2	15A fuses
G1530-60690	120V Configuration plug
G1530-61610	120V Oven Heater Shroud
8120-6894	Detachable power cord (If the GC s/n is less than US00030800, non-detachable power cord p/n G1530-60870 and coverplate p/n G1530-00960 is required)