Agilent 11899A Probe Power Supply Operating and Service Note

For use with the Agilent Technologies 83400 series lightwave sources and receivers





Agilent Technologies

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This Agilent Technologies instrument product is warranted against defects in material and workmanship for a period of one year from date of shipment. During the warranty period, Agilent Technologies will, at its option, either repair or replace products which prove to be defective. For warranty service or repair. this product must be returned to a service facility designated by Agilent Technologies. Buver shall prepav shipping charges to Agilent Technologies and Agilent Technologies shall pay shipping charges to return the product to Buyer. However, Buyer shall pay all shipping charges, duties, and taxes for products returned to Agilent Technologies from another country.

Agilent Technologies warrants that its software and firmware designated by Agilent Technologies for use with an instrument will execute its programming instructions when properly installed on that instrument. Agilent Technologies does not warrant that the operation of the instrument, or software, or firmware will be uninterrupted or errorfree.

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The foregoing warranty shall not apply to defects resulting from improper or inadequate maintenance by Buyer, Buyersupplied software or interfacing, unauthorized modification or misuse, operation outside of the environmental specifications for the product, or improper site preparation or maintenance.

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The remedies provided herein are buyer's sole and exclusive remedies. Agilent Technologies shall not be liable for any direct, indirect, special, incidental, or consequential damages, whether based on contract, tort, or any other legal theory.

Safety Symbols. CAUTION

The *caution* sign denotes a hazard. It calls attention to a procedure which, if not correctly performed or adhered to, could result in damage to or destruction of the product. Do not proceed beyond a caution sign until the indicated conditions are fully understood and met.

WARNING

The *warning* sign denotes a hazard. It calls attention to a procedure which, if not correctly performed or adhered to, could result in injury or loss of life. Do not proceed beyond a warning sign until the indicated conditions are fully understood and met.



The laser radiation symbol. This warning symbol is marked on products which have a laser output.

 The AC symbol is used to indicate the required nature of the line module input power.

□ | The ON symbols are used to mark the positions of the instrument power line switch. O The OFF symbols are used to mark the positions of the instrument power line switch.

The CE mark is a registered trademark of the European Community.



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the Canadian Standards Association. The C-Tick mark is a

The CSA mark is a reg-

istered trademark of

The C-Tick mark is a registered trademark of the Australian Spectrum Management Agency.

ISM1-A This text denotes the instrument is an Industrial Scientific and Medical Group 1 Class A product.

Typographical Conventions.

The following conventions are used in this book:

Key type for keys or text located on the keyboard or instrument.

Softkey type for key names that are displayed on the instrument's screen.

Display type for words or characters displayed on the computer's screen or instrument's display.

User type for words or characters that you type or enter.

Emphasis type for words or characters that emphasize some point or that are used as place holders for text that you type.

General Safety Considerations

This product has been designed and tested in accordance with IEC Publication 61010-1, Safety Requirements for Electrical Equipment for Measurement, Control and Laboratory Use, and has been supplied in a safe condition. The instruction documentation contains information and warnings that must be followed by the user to ensure safe operation and to maintain the product in a safe condition.

- WARNINGThere are many points in the instrument which can, if contacted, cause
personal injury. Be extremely careful. Any adjustments or service
procedures that require operation of the instrument with protective
covers removed should be performed only by trained service
personnel.
- WARNINGThese servicing instructions are for use by qualified personnel only.
To avoid electrical shock, do not perform any servicing unless you are
qualified to do so.
- WARNINGThe opening of covers or removal of parts is likely to expose
dangerous voltages. Disconnect the Agilent 11899A from all voltage
sources while it is being opened.
- WARNING The power cords on system instruments are connected to internal capacitors that may remain live for five seconds after disconnecting the plug from its power supply.
- WARNINGIf this instrument is not used as specified, the protection provided by
the equipment could be impaired. This instrument must be used in a
normal condition (in which all means for protection are intact) only.
- WARNING To prevent electrical shock, disconnect the Agilent 11899A from mains before cleaning. Use a dry cloth or one slightly dampened with water to clean the external case parts. Do not attempt to clean internally.

WARNING	This is a Safety Class 1 product (provided with a protective earthing ground incorporated in the power cord). The mains plug shall only be inserted in a socket outlet provided with a protective earth contact. Any interruption of the protective conductor inside or outside of the product is likely to make the product dangerous. Intentional interruption is prohibited.			
WARNING	No operator serviceable parts inside. Refer servicing to qualified personnel. To prevent electrical shock, do not remove covers.			
WARNING	For continued protection against fire hazard, replace line fuse only with same type and ratings, (type T 0.315A/250V for 100/120V operation and 0.16A/250V for 220/240V operation). The use of other fuses or materials is prohibited. Verify that the value of the line- voltage fuse is correct.			
	• For 100/120V operation, use an IEC 127 5×20 mm, 0.315 A, 250 V, Agilent part number 2110-0449.			
	• For 220/240V operation, use an IEC 127 5×20 mm, 0.16 A, 250 V, Agilent Technologies part number 2110-0448.			
CAUTION	Before switching on this instrument, make sure that the line voltage selector switch is set to the line voltage of the power supply and the correct fuse is installed. Assure the supply voltage is in the specified range.			
CAUTION	This product is designed for use in Installation Category II and Pollution Degree 2 per IEC 1010 and 664 respectively.			
CAUTION	VENTILATION REQUIREMENTS: When installing the product in a cabinet, the convection into and out of the product must not be restricted. The ambient temperature (outside the cabinet) must be less than the maximum operating temperature of the product by 4°C for every 100 watts dissipated in the cabinet. If the total power dissipated in the cabinet is greater than 800 watts, then forced convection must be used.			
CAUTION	Always use the three-prong ac power cord supplied with this instrument. Failure to ensure adequate earth grounding by not using this cord may cause instrument damage.			
CAUTION	Do not connect ac power until you have verified the line voltage is correct. Damage to the equipment could result.			

CAUTION This instrument has autoranging line voltage input. Be sure the supply voltage is within the specified range.

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The Agilent 11899A Probe Power Supply— At a Glance

PROBE POWER SUPPLY



The Agilent 11899A probe power supply provides regulated DC power at the front panel receptacles for operation of one or two probes. The following products are compatible with the power supply:

- Agilent 85024A High Frequency Probe
- Agilent 41800A Active Probe
- Agilent 834XX family of lightwave sources and receivers

One of the following options is required for operation in a particular country:

- Option 100 for 100 volt operation
- Option 120 for 120 volt operation
- Option 220 for 220 volt operation
- Option 240 for 240 volt operation

The Agilent 11899A Probe Power Supply— At a Glance

An extender cord (Agilent 10131B) can also be ordered to increase the length between the power supply and the probe.

This manual provides operating and service information for the probe power supply. Perform all work at a static-safe workstation. Failure to protect against electrostatic discharge could result in damage to the instrument. For information on static-safe workstations and protection against electrostatic discharge, refer to the *User's Guide* for your Agilent Technologies 83400 series product.

Performance Characteristics

The following table contains performance characteristics for the Agilent 11899A probe power supply. These are not specifications, but are provided as information useful in operating the power supply.

Probe Driving Capability	1 or 2 probes
Power Output	-12.6 volts 350 mA; and +15 volts 500 mA (male connectors)
Power Input	88–112 volts, 50/60 Hz (option 100)
	105–135 volts, 50/60 Hz (option 120)
	193–247 volts, 50/60 Hz (option 220)
	211–269 volts, 50/60 Hz (option 240)
Dimensions	81 mm wide, 65 mm high, 121 mm long (3.2 in × 2.6 in × 4.8 in)
Weight	net 0.9 kg (2 lb); shipping 1.8 kg (4 lb)

Power Cords

Plug Type	Cable Part No.	Plug Description	Length (in/cm)	Color	Country
250V	8120-1351	Straight *BS1363A	90/228	Gray	United Kingdom,
	8120-1703	90°	90/228	Mint Gray	Cyprus, Nigeria, Zimbabwe, Singapore
250V	8120-1369	Straight *NZSS198/ASC	79/200	Gray	Australia, New
$\overline{\sim}$		90°			Zealand
	8120-0696		87/221	Mint Gray	
250V	8120-1689	Straight *CEE7-Y11	79/200	Mint Gray	East and West
	8120-1692	90°	79/200	Mint Gray	Europe, Saudi Arabia So Africa
	8120-2857p	Straight (Shielded)	79/200	Coco Brown	India (unpolarized in many nations)
125V	8120-1378	Straight *NEMA5-15P	90/228	Jade Gray	United States,
	8120-1521	90°	90/228	Jade Gray	Canada, Mexico, Philippines
	8120-1992	Straight (Medical) UL544	96/244	Black	Taiwan
250V	8120-2104	Straight *SEV1011	79/200	Mint Gray	Switzerland
	8120-2296	1959-24507	79/200	Mint Gray	
l'and the second se		Type 12 90°			

* Part number shown for plug is the industry identifier for the plug only. Number shown for cable is the Agilent Technologies part number for the complete cable including the plug.

Plug Type	Cable Part No.	Plug Description	Length (in/cm)	Color	Country
220V	8120-2956	Straight *DHCK107	79/200	Mint Gray	Denmark
	8120-2957	90°	79/200	Mint Gray	
250V	8120-4211	Straight SABS164	79/200	Jade Gray	Republic of South
	8120-4600	90°	79/200		Africa
					India
100V	8120-4753	Straight MITI	90/230	Dark Gray	Japan
	8120-4754	90°	90/230		

* Part number shown for plug is the industry identifier for the plug only. Number shown for cable is the Agilent Technologies part number for the complete cable including the plug.

Returning the Instrument for Service

The instructions in this section show you how to properly return the instrument for repair or calibration. Always call the Agilent Technologies Instrument Support Center first to initiate service *before* returning your instrument to a service office. This ensures that the repair (or calibration) can be properly tracked and that your instrument will be returned to you as quickly as possible. Call this number regardless of where you are located. Refer to "Agilent Technologies Service Offices" on page 15 for a list of service offices.

If the instrument is still under warranty or is covered by an Agilent Technologies maintenance contract, it will be repaired under the terms of the warranty or contract (the warranty is at the front of this manual). If the instrument is no longer under warranty or is not covered by an Agilent Technologies maintenance plan, Agilent Technologies will notify you of the cost of the repair after examining the unit.

When an instrument is returned to a Agilent Technologies service office for servicing, it must be adequately packaged and have a complete description of the failure symptoms attached. When describing the failure, please be as specific as possible about the nature of the problem. Include copies of additional failure information (such as the instrument failure settings, data related to instrument failure, and error messages) along with the instrument being returned.

Preparing the instrument for shipping

1 Write a complete description of the failure and attach it to the instrument. Include any specific performance details related to the problem. The following information should be returned with the instrument.

- Type of service required.
- Date instrument was returned for repair.
- Description of the problem:
 - Whether problem is constant or intermittent.
 - Whether instrument is temperature-sensitive.
 - Whether instrument is vibration-sensitive.
 - Instrument settings required to reproduce the problem.
 - Performance data.
- Company name and return address.
- Name and phone number of technical contact person.
- Model number of returned instrument.
- Full serial number of returned instrument.
- List of any accessories returned with instrument.
- **2** Cover all front or rear-panel connectors that were originally covered when you first received the instrument.

CAUTION Cover electrical connectors to protect sensitive components from electrostatic damage. Cover optical connectors to protect them from damage due to physical contact or dust.

CAUTION

Instrument damage can result from using packaging materials other than the original materials. Never use styrene pellets as packaging material. They do not adequately cushion the instrument or prevent it from shifting in the carton. They may also cause instrument damage by generating static electricity.

- **3** Pack the instrument in the original shipping containers. Original materials are available through any Agilent Technologies office. Or, use the following guidelines:
 - Wrap the instrument in antistatic plastic to reduce the possibility of damage caused by electrostatic discharge.
 - For instruments weighing less than 54 kg (120 lb), use a double-walled, corrugated cardboard carton of 159 kg (350 lb) test strength.
 - The carton must be large enough to allow approximately 7 cm (3 inches) on all sides of the instrument for packing material, and strong enough to accommodate the weight of the instrument.
 - Surround the equipment with approximately 7 cm (3 inches) of packing material, to protect the instrument and prevent it from moving in the carton. If packing foam is not available, the best alternative is S.D-240 Air Cap[™] from

Returning the Instrument for Service

Sealed Air Corporation (Commerce, California 90001). Air Cap looks like a plastic sheet filled with air bubbles. Use the pink (antistatic) Air CapTM to reduce static electricity. Wrapping the instrument several times in this material will protect the instrument and prevent it from moving in the carton.

- 4 Seal the carton with strong nylon adhesive tape.
- 5 Mark the carton "FRAGILE, HANDLE WITH CARE".
- **6** Retain copies of all shipping papers.

Agilent Technologies Service Offices

Before returning an instrument for service, call the Agilent Technologies Instrument Support Center at (800) 403-0801, visit the Test and Measurement Web Sites by Country page at http://www.tm.agilent.com/tmo/country/English/ index.html, or call one of the numbers listed below.

Austria	01/25125-7171
Belgium	32-2-778.37.71
Brazil	(11) 7297-8600
China	86 10 6261 3819
Denmark	45 99 12 88
Finland	358-10-855-2360
France	01 69 82 66 66
Germany	0180/524-6330
India	080-34 35788
Italy	+39 02 9212 2701
Ireland	01 615 8222
Japan	(81)-426-56-7832
Korea	82/2-3770-0419
Mexico	(5) 258-4826
Netherlands	020-547 6463
Norway	22 73 57 59
Bussia	+7-095-797-3930
Snain	(34/91) 631 1213
Sweden	08-5064 8700
Switzerland	(01) 735 7200
United Kingdom	01 344 366666
United States and Canada	(800) 403-0801
United States and Canada	(800) 403-0801

Agilent Technologies Service Numbers