

## DEUTERIUM LAMP INTERFACE KIT for the ORIEL SERIES Q HOUSING MODEL 60093

The model 60093 Deuterium lamp Interface Kit allows operation of any of the Oriel 30W Deuterium lamps inside the Oriel Series Q Housing. The model 60093 consists of a model 60090 Interface Plate Kit and a 60023-3100 Deuterium Lamp Mount. The model 70050 cable, part of the model 60090 kit, allows operation with the model 68942 Oriel Deuterium Lamp Power Supply.

### CAUTION:

- Deuterium lamps emit dangerous UV radiation. Wear UV protective goggles or glasses and UV protective clothing.
- Deuterium lamps get very hot. Do not touch during operation and allow time to cool before changing lamps.
- Deuterium lamps operate at hazardous voltage levels. Do not operate without the terminal cover plate in place.

The safety interlock system created when this interface kit is integrated into an Oriel Series Q Housing and used with a model 68942 Oriel Deuterium Lamp Power Supply protects the user from the hazardous voltages and heat (while the lamp is operating).

### SET UP and OPERATION:

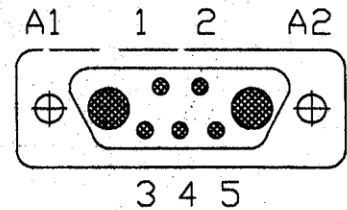
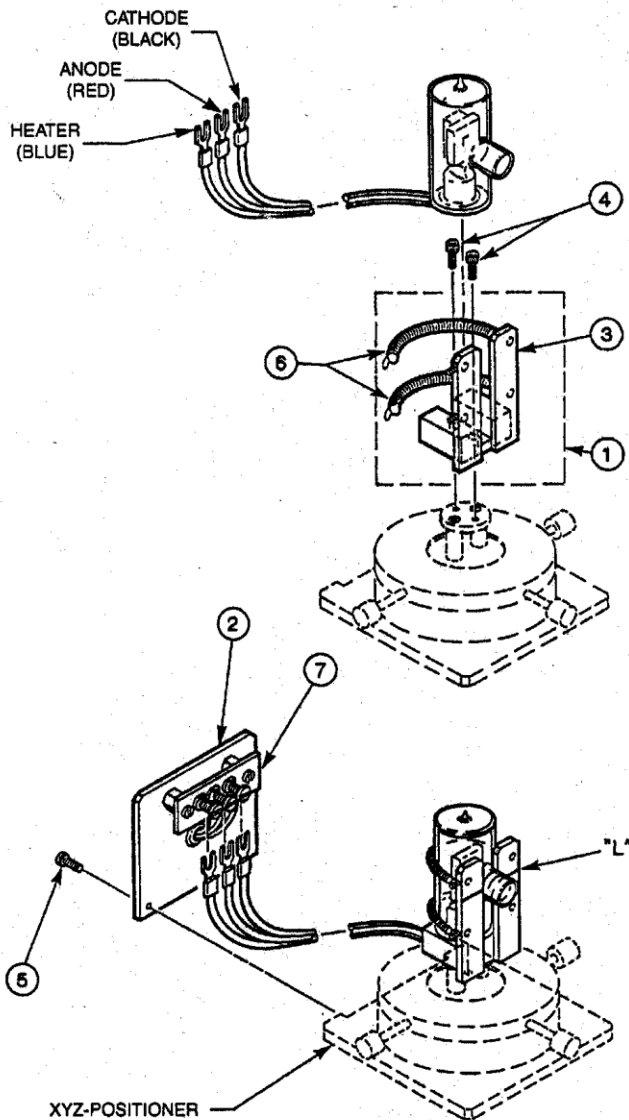
- Remove the shell from the Series Q Housing. (reference the Q Housing manual)
- Install the 60090 Interface Plate using the instructions provided with it. (Reference the 60090 Attach the lamp mount to the XYZ Positioner. (reference the figure on the back of this sheet)
  - Place the lamp mount (item 1) on the platform of the XYZ Positioner so that the guide strips (item 3) are located opposite the Interface Plate (item 2).
  - Secure the lamp mount to the platform using the two 4-40 x 1/2" screws (item 4).
- Install the deuterium lamp.
  - \* **Do not touch the quartz envelope of the lamp with your fingers when unpacking or mounting the lamp.** Use clean room quality gloves when handling the lamp. If necessary, wipe the lamp with alcohol to remove skin oils.
  - Place the deuterium lamp, with the leads facing downward, on the terminal block side of the lamp mount so that the exit hole or snout points through the guide strips and the output beam is perpendicular to the mounting plate. The output beam should be aligned vertically with the scribe line (L) on the guide strips.
  - Secure the lamp in place using the two retaining springs (item 6) by passing the loose end of each spring around the lamp and slipping the end loop of the spring over the setscrew extending from the guide.
- Make the electrical connections.
  - Remove the jumper connecting terminals #2 and #3 of the Interface Plate terminal block.
  - Connect the lamp ANODE lead (red or orange) to terminal #2 (the middle one) of the terminal block on the Interface Plate.
  - Connect the lamp CATHODE/HEATER lead (black) to terminal #3 (on the right).
  - Connect the lamp HEATER (filament) lead (blue) to terminal #1 (the left one).
  - \* **NOTE:** If the lamp CATHODE/HEATER and HEATER leads are the same color, their connections are interchangeable.
- Align and attach the interlock actuator with screws provided as described in the 60090 instructions.
- Reassemble the Series Q Housing Shell.
- Connect the 70050 cable between the Series Q Housing and the 68942 Deuterium Lamp Power Supply.
- Turn on the power supply. The lamp ignition cycle will begin when the power supply is turned on. Allow 30 minutes warm up time if you are doing critical measurements.

To operate with a different power supply, the combo D-sub can be removed from the end of the cable or an adapter cable may be built. The ITT Cannon part numbers for the mating connectors are DAM7W2SA197 (body including pins 1-5) and DM 53744-1 (pins for A1 and A2). A standard 15-pin D-SUB backshell can be used.

**NOTE:**


Both INTERLOCK (+) and INTERLOCK (-) must be satisfied for the model 68942 Oriel Deuterium Lamp Power Supply to function.

PIN	SIGNAL	DESCRIPTION
A1	CATHODE/HEATER	connection to lamp negative terminal
A2	HEATER	connection to lamp heater terminal
1	GROUND	ground for interlock
2	INTERLOCK (+)	connected to +5V to satisfy interlock
3	+5V	dc voltage for interlock
4	ANODE	connection to lamp positive terminal
5	INTERLOCK (-)	connected to GROUND to satisfy interlock



Deuterium adapter pinout at housing and power supply end of 70050 cable

## EC DECLARATION OF CONFORMITY

<b>Manufacturer's name:</b>	Newport Corporation
<b>Manufacturer's address:</b>	150 Long Beach Boulevard Stratford, CT 06615 USA
<b>Declares that the product:</b>	
<b>Product Name:</b>	ORIEL® Interface Kits
<b>Model Numbers:</b>	60090, 60093
<b>Type of equipment:</b>	Electrical equipment for measurement, control and laboratory use in industrial locations
<b>conforms to the following Product Specifications:</b>	
<b>Safety:</b>	EN 61010-1:2010
<b>EMC:</b>	EN 61326-1:2006+cor:2008+cor:2010
<b>complies with the following Directives:</b>	
	2004/108/EC EMC Directive 2006/95/EC Low Voltage Directive
<b>and accordingly, carries the CE mark</b>	
<b>CE mark affixed:</b>	Beaune; May 26, 2011
	
Domenic Assalone	Bruno Rety Authorized to compile technical documentation
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## **Warranty and Returns**

Newport warrants that all goods described in this manual (except consumables such as lamps, bulbs, filters, ellipses, etc.) shall be free from defects in material and workmanship. Such defects become apparent within the following period:

1. All products described here, except spare parts: one (1) year or 3000 hours of operation, whichever comes first, after delivery of the goods to the buyer.
2. Spare parts: ninety (90) days after delivery of goods to the buyer.

Newport's liability under this warranty is limited to the adjustment, repair and/or replacement of the defective part(s). During the above listed warranty period, Newport shall provide all materials to accomplish the repaired adjustment, repair or replacement. Newport shall provide the labor required during the above listed warranty period to adjust, repair and/or replace the defective goods at no cost to the buyer ONLY IF the defective goods are returned, freight prepaid, to a Newport designated facility. If goods are not returned to Newport, and the user chooses to have repairs made at their premises, Newport shall provide labor for field adjustment, repair and/or replacement at prevailing rates for field service, on a portal-to-portal basis.

Newport shall be relieved of all obligations and liability under this warranty of:

1. The user operates the device with any accessory, equipment or part not specifically approved or manufactured or specified by Newport unless buyer furnishes reasonable evidence that such installations were not the cause of the defect. This provision shall not apply to any accessory, equipment or part which does not affect the safe operation of the device.
2. The goods are not operated or maintained in accordance with Newport's instructions and specifications.
3. The goods have been repaired, altered or modified by other than authorized Newport personnel.
4. Buyer does not return the defective goods, freight prepaid, to a Newport facility within the applicable warranty period.

IT IS EXPRESSLY AGREED THAT THIS WARRANTY SHALL REPLACE ALL WARRANTIES OF FITNESS AND MERCHANTABILITY. BUYER HEREBY WAIVES ALL OTHER WARRANTIES, GUARANTEES, CONDITIONS OR LIABILITIES, EXPRESSED OR IMPLIED, ARISING BY LAW OR OTHERWISE, WHETHER OR NOT OCCASIONED BY NEWPORT'S NEGLIGENCE.

This warranty shall not be extended, altered or varied except by a written document signed by both parties. If any portion of this agreement is invalidated, the remainder of the agreement shall remain in full force and effect.

### **CONSEQUENTIAL DAMAGES**

Newport shall not be responsible for consequential damages resulting from misfunctions or malfunctions of the goods described in this manual. Newport's total responsibility is limited to repairing or replacing the malfunctioning or malfunctioning goods under the terms and conditions of the above described warranty.

### **INSURANCE**

Persons receiving goods for demonstrations, demo loan, temporary use or in any manner in which title is not transferred from Newport, shall assume full responsibility for any and all damage while in their care, custody and control. If damage occurs, unrelated to the proper and warranted use and performance of the goods, recipient of the goods accepts full responsibility for restoring the goods to their condition upon original delivery, and for assuming all costs and charges.

### **RETURNS**

Before returning equipment to Newport for repair, please call the Customer Service Department at (203) 377-8282. Have your purchase order number available before calling Newport. The Customer Service Representative will give you a Return Material Authorization number (RMA). Having an RMA will shorten the time required for repair, because it ensures that your equipment will be properly processed. Write the RMA on the returned equipment's box. Equipment returned without a RMA may be rejected by the Newport Receiving Department. Equipment returned under warranty will be returned with no charge for the repair or shipping. Newport will notify you of any repairs not covered by the warranty, with the cost of the repair, before starting the work.

Please return equipment in the original (or equivalent) packaging. You will be responsible for damage incurred from inadequate packaging, if the original packaging is not used.

Include the cables, connector caps and antistatic materials sent and/or used with the equipment, so that Newport can verify correct operation of these accessories.