

91150V-CBL

Cable – Ref Cell to Keithley



1. Connect the round Amphenol connector of the Reference Cell cable (90021927) into the round Amphenol connector of the 91150V-CBL (Cable - Ref Cell to Keithley).
2. Plug in the Banana Jack marked I / O to the RED and BLACK terminals of the resistor box (90026597) connected to the "INPUT/OUTPUT" in the rear of the Keithley. Make sure that the GND tab on the Banana Jack is connected to the BLACK terminal.
3. Plug in the Banana Jack marked SEN to the RED and BLACK terminals in the rear of the Keithley marked "4-WIRE SENSE". Make sure that the GND tab on the Banana Jack is connected to the BLACK terminal.
4. Newport Oriel PVIV software may be used to measure the I-V characteristic curve. Set the scan parameters to -0.1 V to +0.60 V, 50 points, 1000mA current limiting, Forward → Reverse Bias Direction, 0.5s pre-sweep delay, and 100ms dwell time. The software will measure the relevant parameters: I_{sc} , V_{oc} , Fill Factor, P_{max} , I_{max} , V_{max} , and Efficiency.

At 1.000 SUN Irradiance with an AM1.5G filter, at 25 °C, these parameters should closely match those in the calibration certificate provided with the 91150V. The lamp power should be adjusted such that the measured short-circuit current (I_{sc}) is as close as possible to the certificate value.

At the best setting, the Reference Cell (connected to its matched 91150V Reference Cell Meter) should have a reading as close as possible to 1.000 SUN. This can provide a means of validation of the Meter gain factor calibration, and of the Reference Cell and/or calibration certificate when crosschecked with another Reference Cell system.

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 malfunctions 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.