

Modifying Keithley Interlock Cable Model 236-ILC-3 for Use with Cascade 12000 Series Semiautomatic Probers

1. Disassemble one end of the 236-ILC-3 interlock cable by untwisting the back part of the connector.
2. Note (or label) the lead designation before disconnecting the leads. Leads corresponding to pins 1 and 2 are connected, while pin 3 is not used. Note also that neither pin 1 nor pin 2 is connected to the ground (shield) of the connector.
3. Disconnect the leads from the connector by cutting or unsoldering. Prepare the freed ends by stripping the insulation about one-half inch.
4. Obtain a coax-to-coax cable. Cut the cable at any point, depending on the length desired, but no shorter than three inches from the coaxial connector.
5. Strip the end of the cable and prepare the ends for soldering, as shown in **Figure 1**.
6. Connect and solder the interlock cable and the coaxial cable as shown in **Figure 2**. Maintaining correct pin designation on the interlock cable is crucial (see Step 2). If lead designation is lost, it can be restored by testing lead-to-pin correlation using an ohmmeter.
7. Insulate each lead using appropriate size shrink tubing or electrical tape or both. After each lead is individually insulated, add some strain relief to the connection by wrapping the cable with electrical tape or using oversize shrink tubing.
8. Test the cable to make sure that connections correspond to **Figure 2**, and that NO PIN of the interlock cable is conducting to the ground (metal body of the Keithley 3-pin interlock connector). Interlock leads carry +12V DC from the 4200-SCS power supply, and a short to ground will damage the instrument. Also, refer to **Figure 3** (taken from **Figure 4-14** in the 4200-SCS Semiconductor Characterization System Reference Manual). Note that both the shield and core of the coax connector on the Cascade 12000 Prober are insulated from the ground.

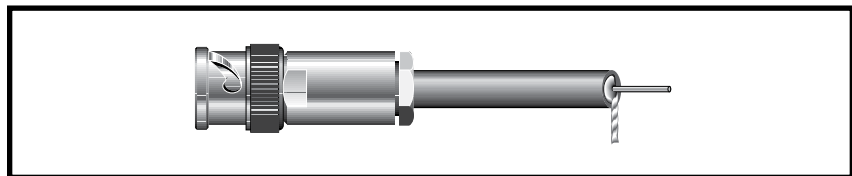


Figure 1

Modifying Keithley Interlock Cable Model 236-ILC-3 for Use with Cascade 12000 Series Semiautomatic Probers

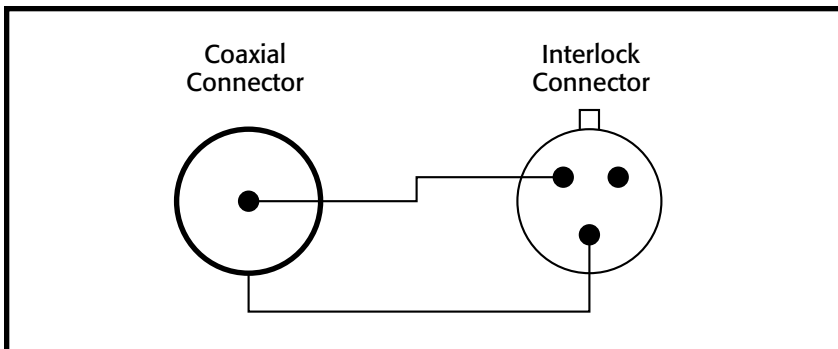


Figure 2

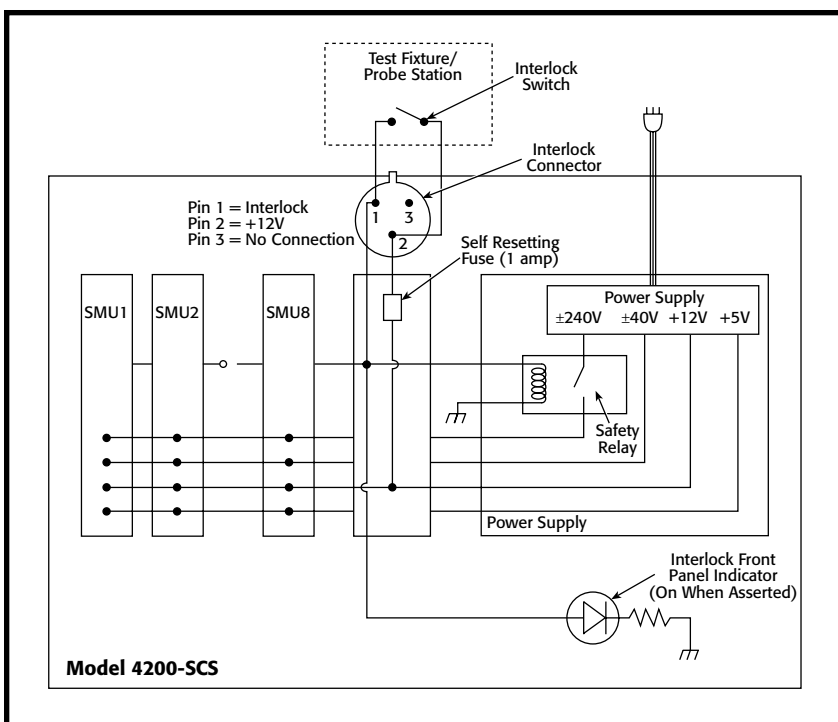


Figure 3

Specifications are subject to change without notice.

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