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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



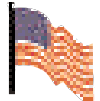
## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





Made in America

# Ground Gard Verifier Operation and Maintenance Instructions



Figure 1. SPI-20780 Ground Gard Verifier

## Description

The SPI-20780 Ground Gard Verifier can be used to verify the test ranges of the Ground Gard 4.5, Ground Gard 5 and Ground Gard 5.5.

## Packaging

- 1 Ground Gard Verifier
- 4 Banana Plug to Banana Plug Cords
- 1 Velcro® Set

## Installation

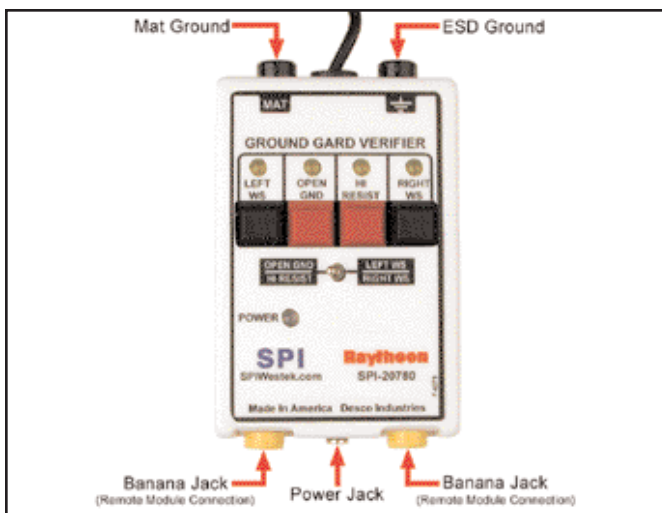


Figure 2. Ground Gard Verifier Features and Components

To connect the Ground Gard Verifier to the Ground Gard 4.5:  
See Figure 3

To connect the Ground Gard Verifier to the Ground Gard 5:  
See Figure 4

To connect the Ground Gard Verifier to the Ground Gard 5.5:  
See Figure 5

Note: A Velcro® Set is included with the Ground Gard Verifier if you wish to mount the unit to a specific location.

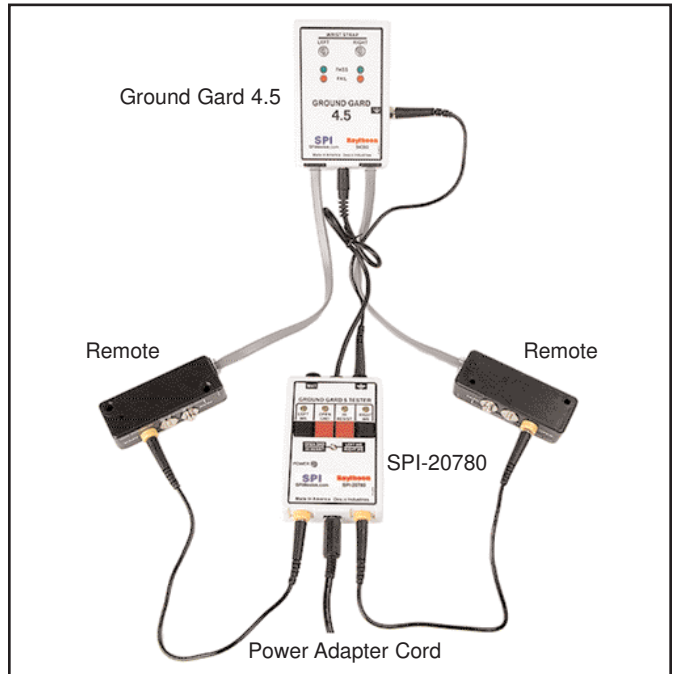


Figure 3. Connecting the Ground Gard Verifier to the Ground Gard 4.5

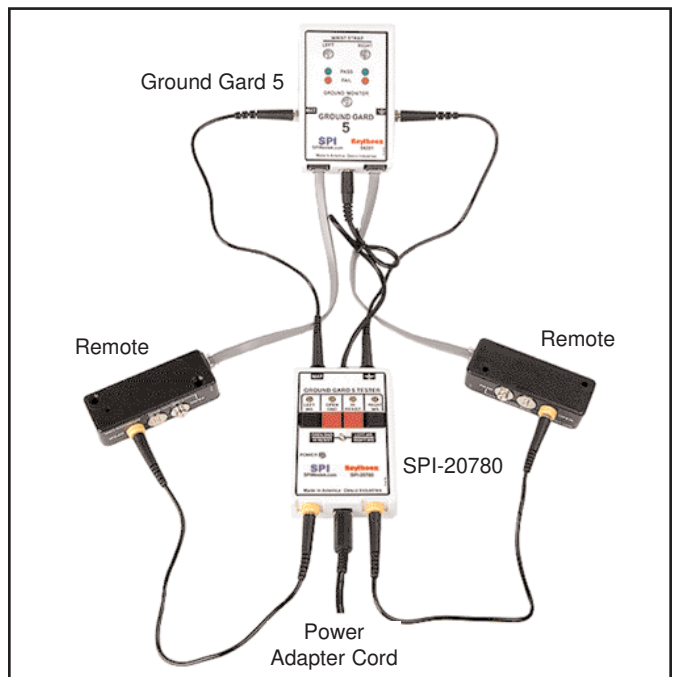


Figure 4. Connecting the Ground Gard Verifier to the Ground Gard 5

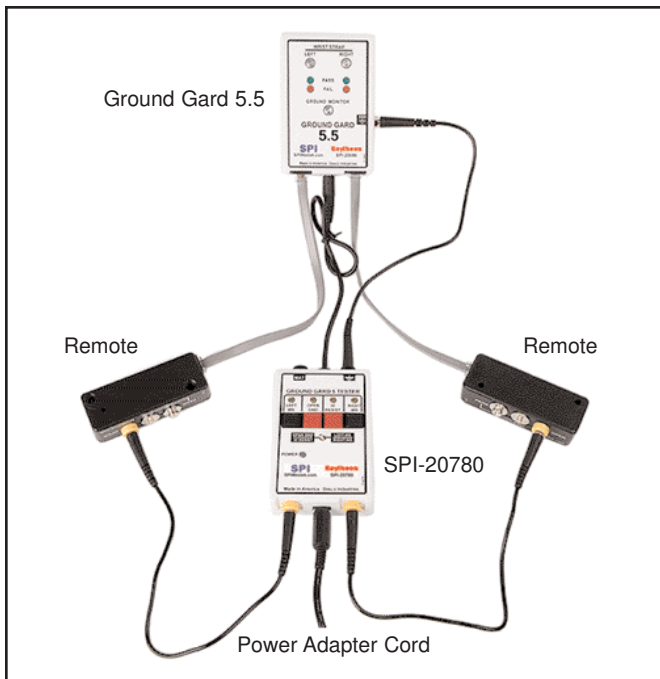


Figure 5. Connecting the Ground Gard Verifier to the Ground Gard 5.5

## Operation

### Testing the Remote Modules

Connect the power adapter to an appropriate power source. Make sure that the switch located on the face of the verifier is toggled to LEFT WS / RIGHT WS. If connected properly, all the LEDs on the Ground Gard Monitor should be illuminated green.

To test the resistance of the left remote module, press the black button labeled LEFT WS on the verifier. If the remote module is properly calibrated, the monitor's audible alarm will sound and the LEFT WRIST STRAP LED will illuminate red. If the LED remains green, locate the trim pot underneath the respective remote module. Hold down the verifier's LEFT WS button and carefully adjust the trim pot in a counter-clockwise direction until the monitor indicates a FAIL condition. If properly calibrated, the monitor should now indicate a FAIL condition when the verifier's LEFT WS button is pressed.

To test the resistance of the right remote module, press the black button labeled RIGHT WS on the verifier. If the remote module is properly calibrated, the monitor's audible alarm will sound and the RIGHT WRIST STRAP LED will illuminate red. If the LED remains green, locate the trim pot underneath the respective remote module. Hold down the verifier's RIGHT WS button and carefully adjust the trim pot in a counter-clockwise direction until the monitor indicates a FAIL condition. If properly calibrated, the monitor should now indicate a FAIL condition when the verifier's RIGHT WS button is pressed.

### Testing the Ground Monitor (Ground Gard 5 / 5.5 only)

Make sure that the switch located on the face of the verifier is toggled to LEFT WS / RIGHT WS. If connected properly, all three LEDs on the Ground Gard Monitor should be illuminated green.

Disconnect the cords from the banana jacks on both remote modules. Next, toggle the switch located on the face of the verifier to OPEN GND / HI RESIST. Press the red button labeled OPEN GND on the tester, and if the monitor is functioning properly, its audible alarm should sound and the GROUND MONITOR LED should illuminate red.

Press the red button labeled HI RESIST on the tester, and the monitor's audible alarm should sound and the GROUND MONITOR LED should illuminate amber.

If any of these conditions are not met, contact the manufacturer for repair.

### Limited Warranty

SPI expressly warrants that for a period of one (1) year from the date of purchase, SPI Ground Gard Verifiers will be free of defects in material (parts) and workmanship (labor). Within the warranty period, the product will be tested, repaired, or replaced at our option, free of charge. Call our Customer Service Department at 909-664-9986 for a Return Material Authorization (RMA) and proper shipping instructions and address. Include a copy of your original packing slip, invoice, or other proof of purchase date. Any unit under warranty should be shipped prepaid to the SPI factory. Warranty repairs will take approximately two weeks.

If your unit is out of warranty, call Customer Service at 909-664-9986 for a Return Material Authorization (RMA) and proper shipping instructions and address. SPI will quote repair charges necessary to bring your unit up to factory standards.

### Warranty Exclusions

THE FOREGOING EXPRESS WARRANTY IS MADE IN LIEU OF ALL OTHER PRODUCT WARRANTIES, EXPRESSED AND IMPLIED, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH ARE SPECIFICALLY DISCLAIMED. The express warranty will not apply to defects or damage due to accidents, neglect, misuse, alterations, operator error, or failure to properly maintain, clean or repair products.

### Limit of Liability

In no event will SPI or any seller be responsible or liable for any injury, loss or damage, direct or consequential, arising out of the use of or the inability to use the product. Before using, users shall determine the suitability of the product for their intended use, and users assume all risk and liability whatsoever in connection therewith.