- **NOTE:** The Omnia I (8100) series is discontinued and replaced by Omnia II (8200) series.

4.3.1. Cables and Connections Description

A number of hardware and interconnect cables are included with the SC6540 Scanner depending on its configuration and the number of modules. The following hardware and interconnect cables are included with each of the following items:

DESCRIPTION	AR PART NUMBER
SC6540 SECONDARY AND OMNIA 8200 INTERCONNECT CABLES	
1 – 25-Pin Scanner Bus Cable	38592
1 – High Voltage Cable	HS-8-12
1 – Ground Bond Output Cable	38555
1 – Ground Bond Return Cable	38556
2 – Probe HI/LO to Current/Return Cables	38879[1]
SC6540 MAIN AND OMNIA 8200 INTERCONNECT CABLES	
1 – High Voltage Cable	HS-8-12
1 – Ground Bond Output Cable	38555
1 – Ground Bond Return Cable	38556
2 – Probe HI/LO to Current/Return Cables	38879[1]
SC6540 SECONDARY AND OMNIA 8100 INTERCONNECT CABLES	
1 – 25-Pin Scanner Bus Cable	38592
1 – High Voltage Cable	HS-8-12
1 – Ground Bond Output Cable	38555
1 – Ground Bond Return Cable	38556
SC6540 MAIN AND OMNIA 8100 INTERCONNECT CABLES	
1 – High Voltage Cable	HS-8-12
1 – Ground Bond Output Cable	38555
1 – Ground Bond Return Cable	38556
SC6540 HIGH VOLTAGE MODULE	
8 – High Voltage Connectors and Assembly Instructions	HS-8-13
1 – 100 ft. (48.75 m) Reel of High Voltage Cable	37534
SC6540 GROUND BOND MODULE	
20 – Hook-style Crimp Lugs	38599

[1] Included with Omnia 8206, 8256, 8207 and 8257 only.

High Voltage Connections

- The 25-pin control cable (p/n 38592) connects between the rear panel SCANNER 1 or SCANNER 2 connector of OMNIA and the rear panel SCANNER BUS INPUT connector of the SC6540.
- The high voltage cable (p/n HS-8-12) is used to connect from the high voltage rear output connector of OMNIA to the rear high voltage input of the SC6540
- The Ground Bond return cable (p/n 38556 for the 8100/8200) is used to connect from the return rear connector OMNIA to the rear panel return connection of the SC6540.
- The red Ground Bond output cable (p/n 38555 for the 8100/8200) is used to connect between the rear panel current output of OMNIA and the rear panel current input of the SC6540.
- The high voltage to banana style connection cable (p/n 38879) is used to connect between the rear panel probe hi and probe lo terminals on the 8200 series and the rear panel current and return of the SC6540. NOTE: these connections are utilized for the 8206, 8256, 8207 and 8257 only.
- Eight high voltage connectors (p/n HS-8-13) are provided with a reel of cable and assembly instructions so that each user can assemble the lengths of the high voltage cable to meet their specific needs.

WARNING

Under certain conditions high voltage can appear on the cabinet of the SC6540. The ground terminal on the rear panel of the SC6540 must be connected to a good earth ground to ensure operator safety.

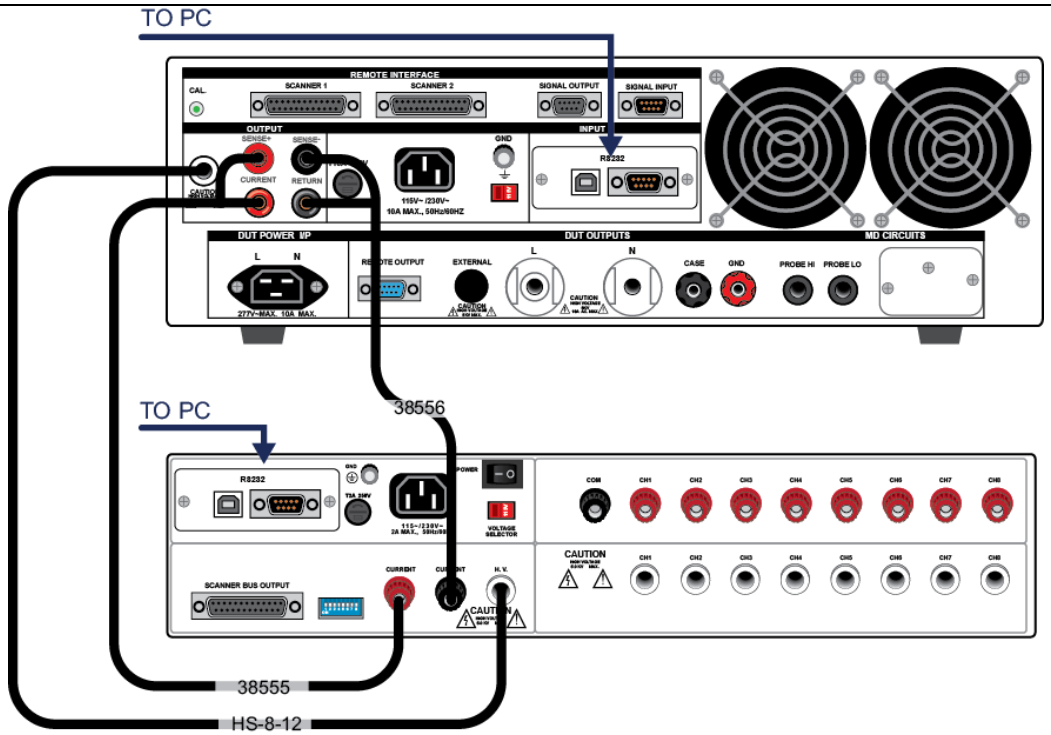
Ground Bond Connections

The rear panel of the SC6540 can include up to sixteen output terminals for Ground Bond testing if this configuration is selected at the time of purchase.

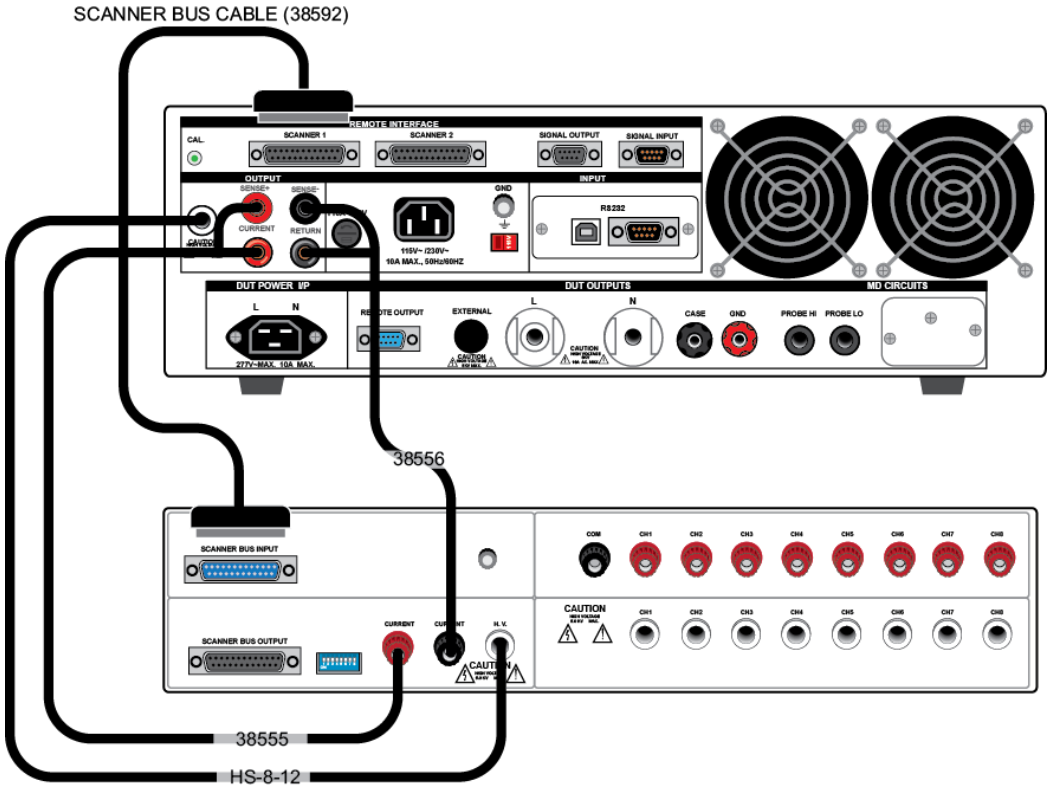
- We recommend using standard 12 gauge wire for operation at 30 amps and 10 gauge wire for 40 amps.

The wires should be attached using the hook-style crimp lugs provided, to minimize connection resistance. The Kelvin connection of an Associated Research ground bond tester will end at the ground bond input terminals of the SC6540 scanner. For this reason, the wire lengths going from the SC6540 high current outputs and the high current return should be kept as short as possible to limit the effect of test lead resistance.

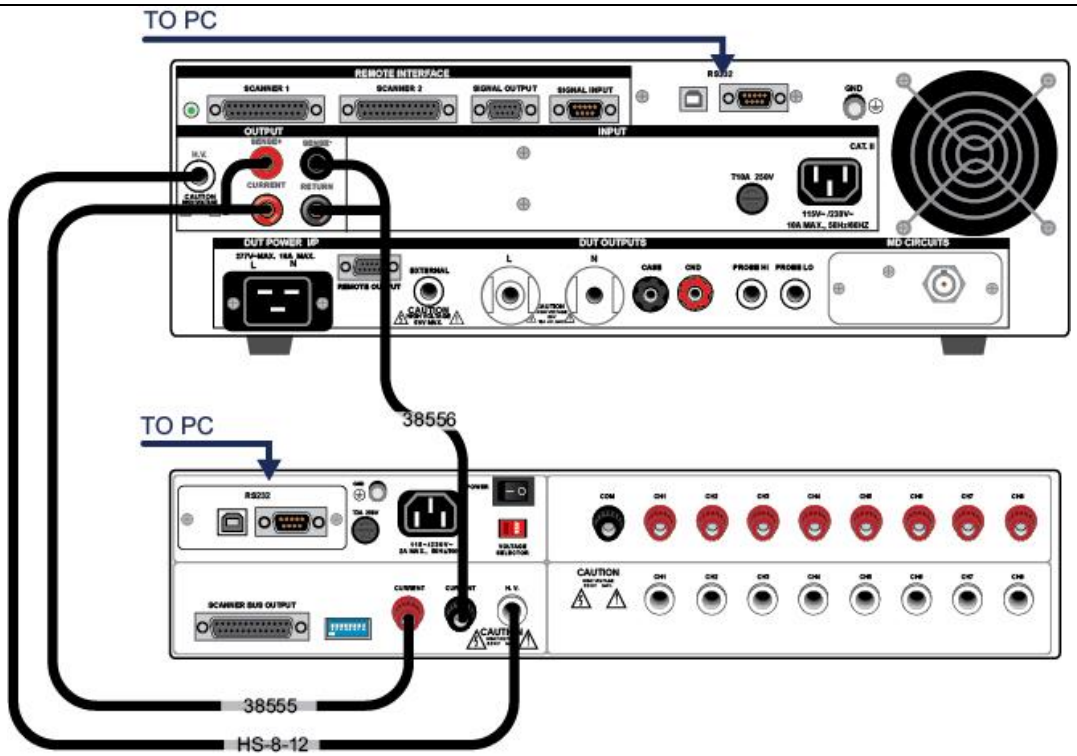
4.3.2. Connection Diagrams



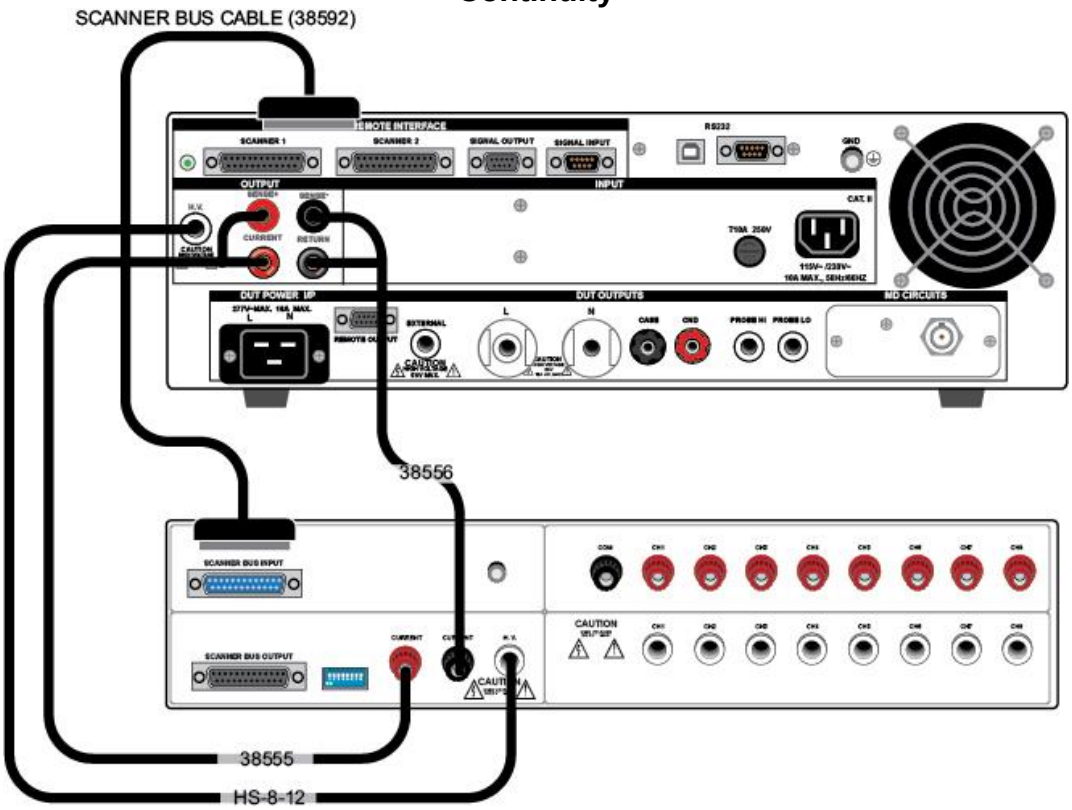
OMNIA 8100 Series and SC6540 Main



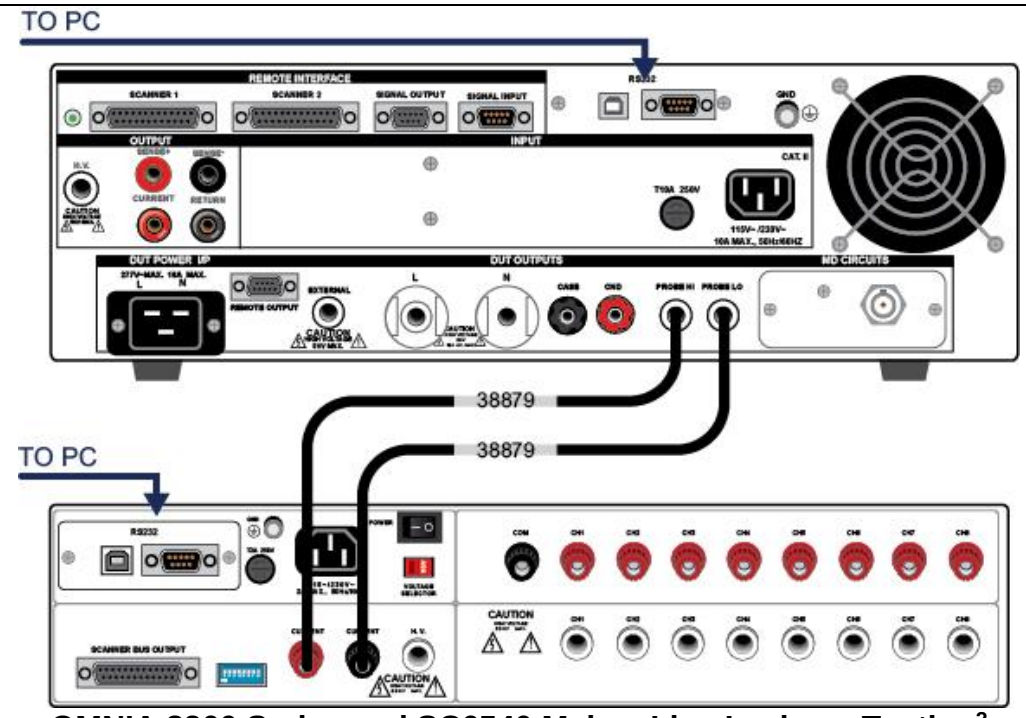
OMNIA 8100 Series and SC6540 Secondary



OMNIA 8200 Series and SC6540 Main – ACW, DCW, IR, GND Bond and Continuity

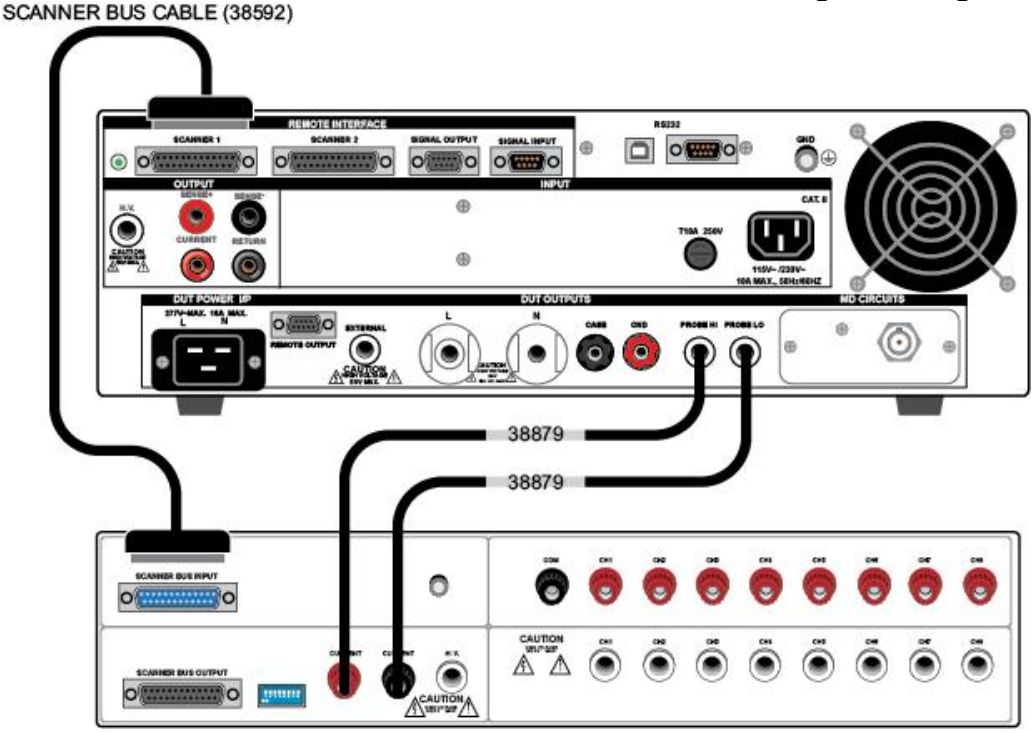


OMNIA 8200 Series and SC6540 Secondary - ACW, DCW, IR, GND Bond and Continuity



OMNIA 8200 Series and SC6540 Main – Line Leakage Testing[2]

SCANNER BUS CABLE (38592)



OMNIA 8200 Series and SC6540 Secondary – Line Leakage Testing[2]

[2] Line leakage testing only available on 8206, 8256, 8207 and 8257

4.3.3. Setup