

SR560 OFFSET ADJUSTMENT PROCEDURE

Required equipment:

Digital volt meter

Oscilloscope

4 BNC cables

1 BNC tee

Function generator

Small slotted screwdriver

Phillips screwdriver

Remove the bottom cover of SR560 to expose the component side of pc board.

1. Turn off the SR560. Hold down the "Reset" button, and turn the unit back on (this sets the unit back to the default settings).
2. Using a Digital Volt Meter, adjust the front panel offset pot (located between "A" and "B" input BNC's on front panel) to read zero volts between pin 14 of U407 and ground (output BNC shield). Do not use the chassis as ground.

There are 4 potentiometers located on the bottom right side of the pc board (Viewed from the component side, with front panel facing forward). These are:

P101 = low gain CMRR adjust

P102 = high gain CMRR adjust

P103 = high gain offset adjust

P104 = low gain offset adjust

3. Set the SR560 coupling to "GND", and the gain = 50,000.
4. Connect the oscilloscope to the 50 Ohm output on the SR560.
5. Adjust P103 for zero volts on the 50 ohm output, using the oscilloscope.
6. Set the SR560 gain = 1000 and Source to "A-B".
7. Set the function generator to square wave, Freq = 1 KHz, amplitude = 500mV pp.
8. Using a BNC tee, and 3 BNC cables, put the square wave into channels A and B.
9. Set the SR560 coupling to "DC".
10. Adjust P102 to null the square wave on the oscilloscope.
11. Set the coupling to "GND" and gain = 50,000
12. Readjust P103 for zero volts on the oscilloscope.
13. Set SR560 gain = 50 and coupling to "DC".
14. Set the oscilloscope to AC coupling.
15. Using the digital volt meter, measure the voltage from pin 6 of U105 to ground (output BNC shield).
16. Adjust P104 for zero volts on the meter.
17. Adjust P101 to null the square wave on the oscilloscope.

You might have to readjust P104 and P101 several times. The end result should be zero volts on pin 6 of U105, with the smallest amplitude square wave that you can achieve on the oscilloscope.