

Affected Items:

DSOscope Analog Board Rev. A03
DSOscope Analog Board Rev. A02
DSOscope Analog Board Rev. A01

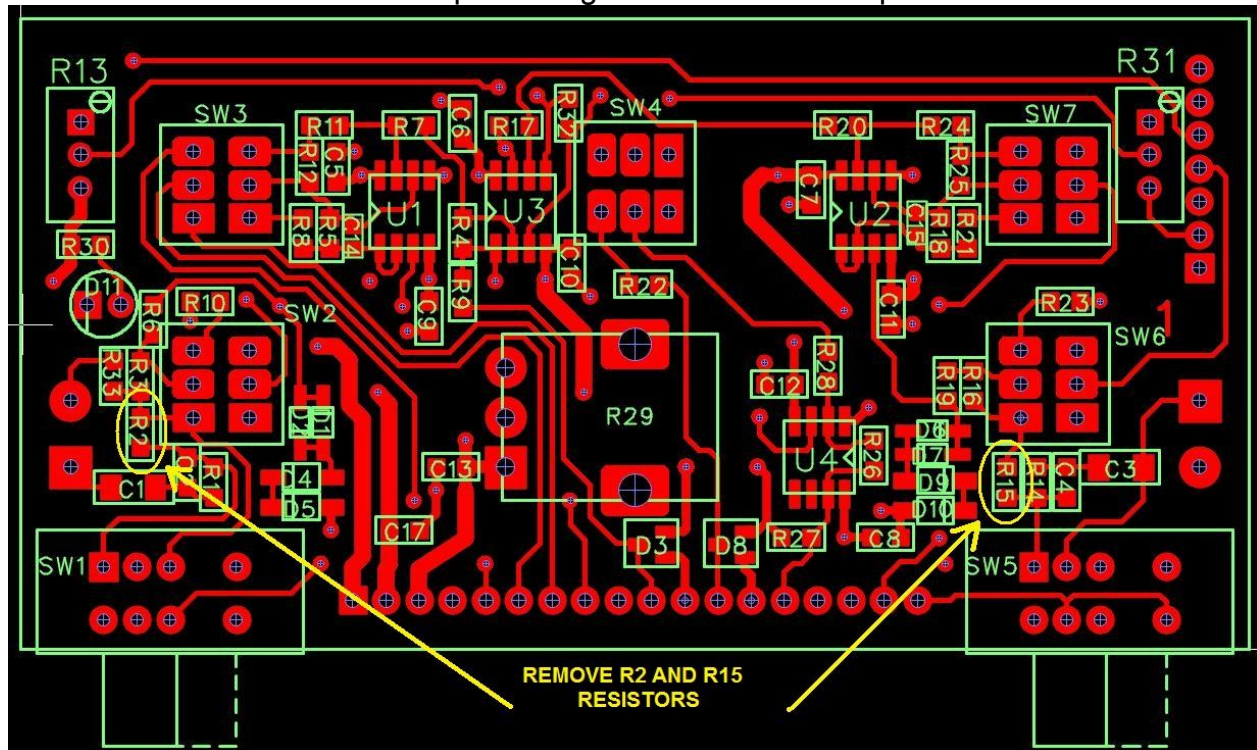
Statement of Problem:

The coupling mode slide switches used on the DSOscope Analog Board exhibit “*Make before Break*” switching action. This results in a brief direct-to-ground short of the DSOscope’s CH1 or CH2 input(s) when the coupling mode switch (either SW1 or SW5) is moved from the “DC” position to the “GND” position.

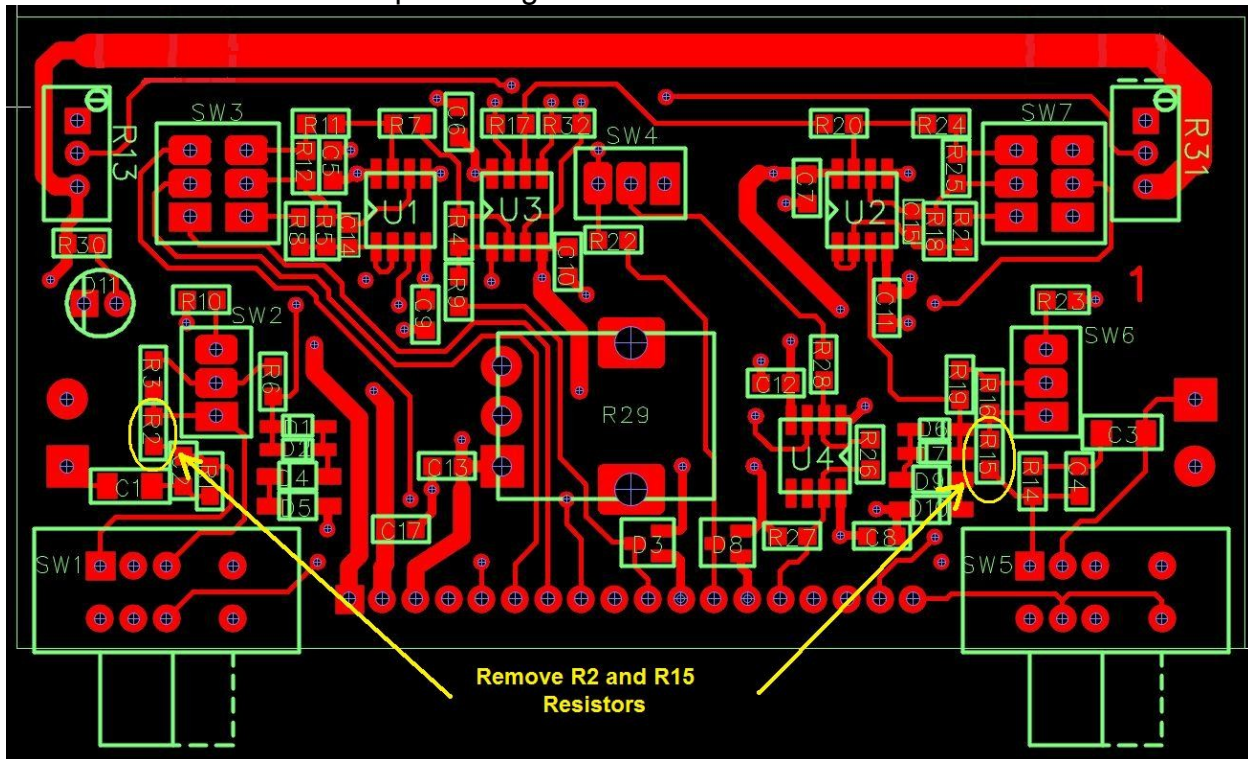
Circuit Board Modification Steps:

1. Remove R2 (1.00M ohm) from the top side of the DSOscope Analog Board.
2. Remove R15 (1.00M ohm) from the top side of the DSOscope Analog Board

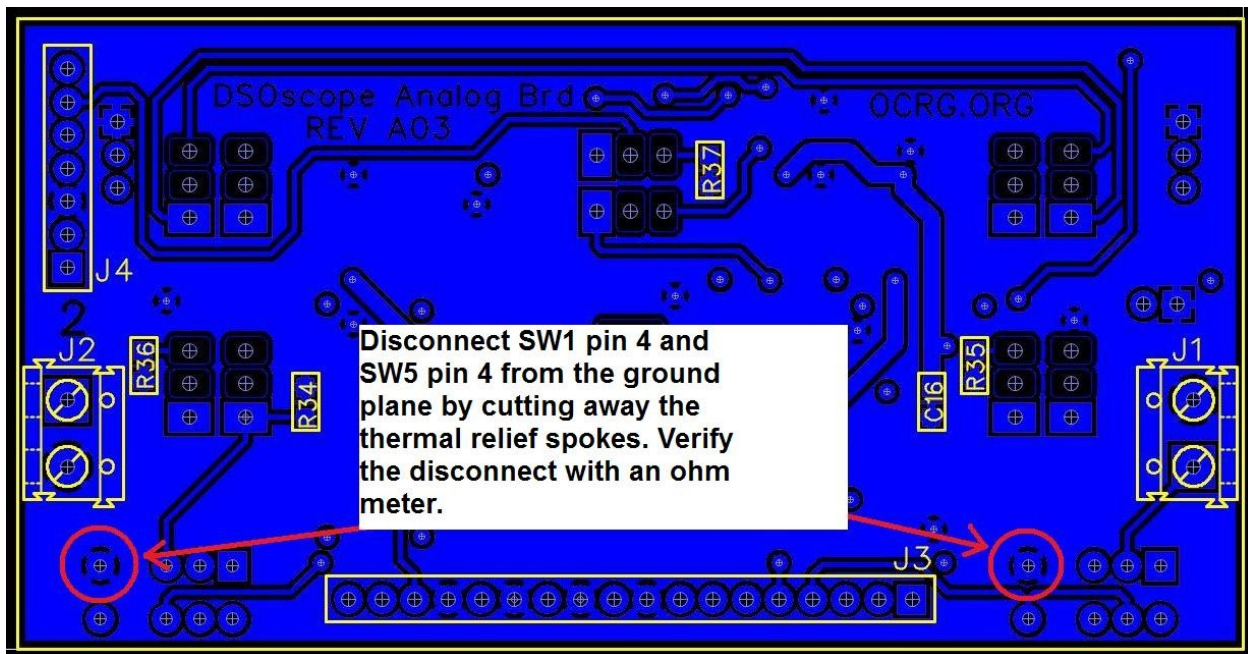
DSOscope Analog Board Rev. A03 Top Side

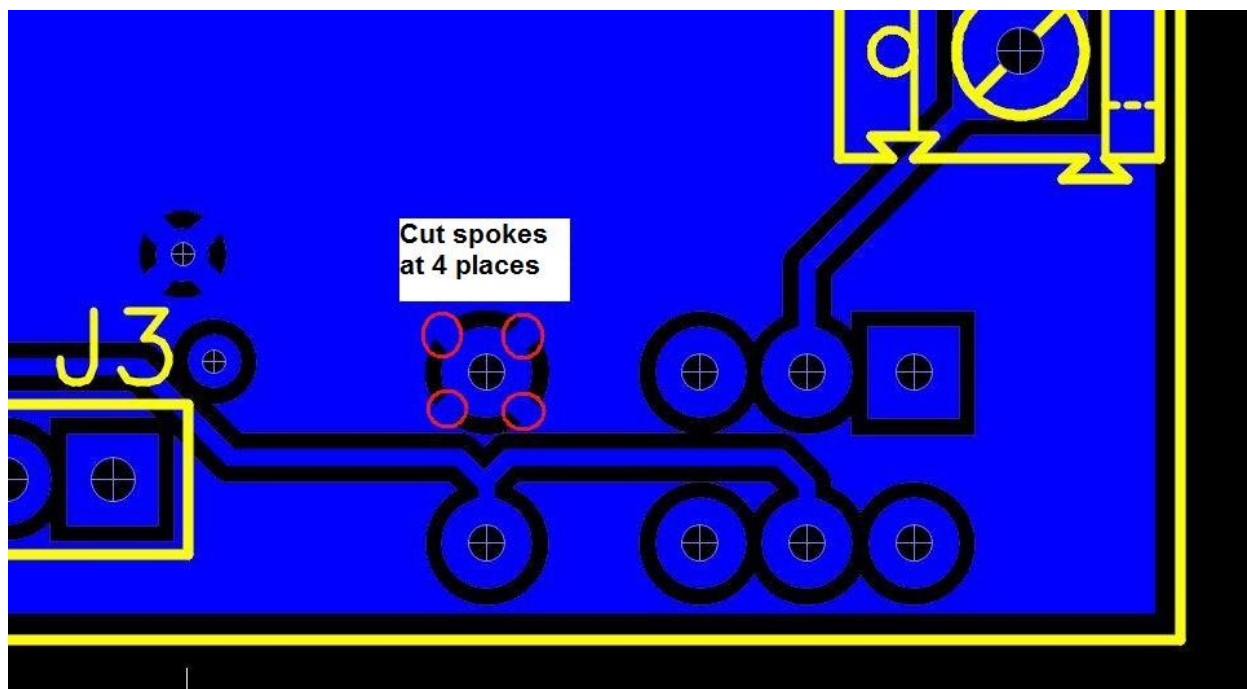


DSOscope Analog Board Rev. A02 and Rev. A01



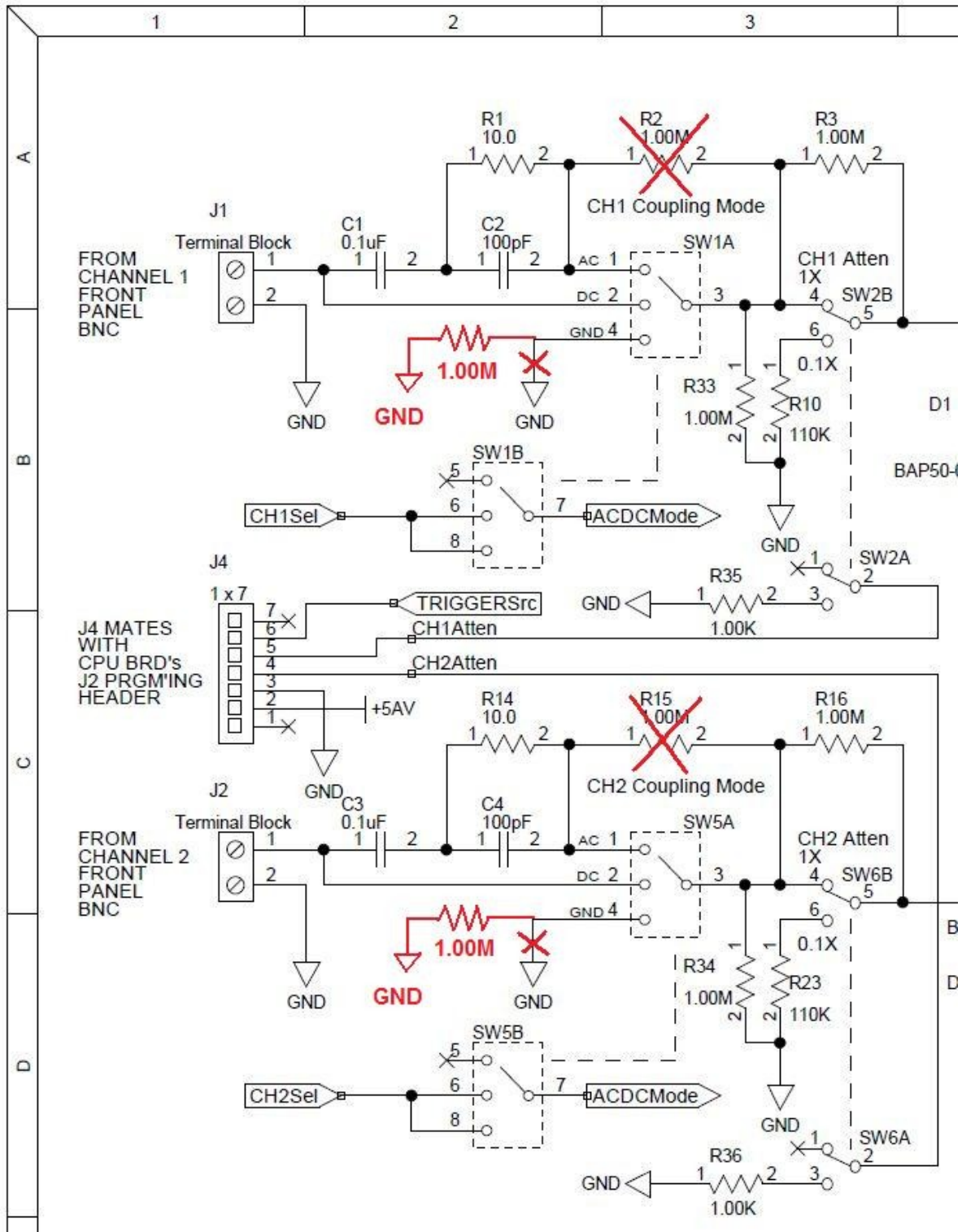
3. Cut the thermal relief ground spokes around SW1 pin 4, on the bottom side of the circuit board, to isolate the switch pin from the ground plane.
4. Cut the thermal relief ground spokes around SW5 pin 4, on the bottom side of the circuit board, to isolate the switch pin from the ground plane





5. Solder a 1.00M ohm resistor from the SW1 pin 4 to the ground plane.
6. Solder a 1.00M ohm resistor from the SW5 pin 4 to the ground plane.
7. Apply a "MOD #1" label to the DSOscope cabinet rear.

Schematic Modification:



Functional Changes Resulting from Change Notice Implementation:

1. The brief direct-to-ground short of the DSOscope's CH1 or CH2 input(s), when the coupling mode switch (either SW1 or SW5) is moved from the "DC" position to the "GND" position, will now appear as 1.00M ohm impedance.
2. When the coupling mode switch(s) is set to the "GND" position, the input impedance of the CH1 or CH2 BNC scope input(s) will be "*infinite*" instead of 1.00M ohm.

Future Implementations:

Locate a footprint compatible, or physically similar, slide switch that specifies, and guarantees, "*Break before Make*" switching action.

Acknowledgements:

Thanks to Jonathan Weaver for the discovery of this issue.

***** END OF CHANGE NOTICE 20140204.1 *****