A Modification for the Helper Sinadder Linear 5 (also known as the SL-105)

Supplied by Paul N2XZF

Many more "modern" radios that a technician will service now days have a "floating" audio output (has DC on the output) that can instantly be damaged by grounding one of the speaker leads.

The Sinadder Linear 5 has the "ground" lead of the test input tied to chassis ground, and therefore, through the power cord, to the test bench ground, and finally to the power supply ground.

The fix is relativity simple: lift the test input "ground" and connect it to ground through a 1 uF capacitor. On the SL-105, the test lead "ground" and shield are connected on the circuit board to the rest of the ground plane by a pad that is joined by a rather small trace, making the modification easy. Simply cut the trace, and connect the isolated pad to the chassis ground through a 1 uF capacitor.

In the photo you can see the area where I cut the trace and soldered in the capacitor. I actually used a \sim 0.8 uF cap because that's what I had on hand.



I have made a similar modification to the Sinadder 3 (model S-103) but don't have a photo.

Also important to note is that the 1 kHz output on the Sinadder 5 is transformer isolated; on the Sinadder 3 it is NOT.