

From The Workbench

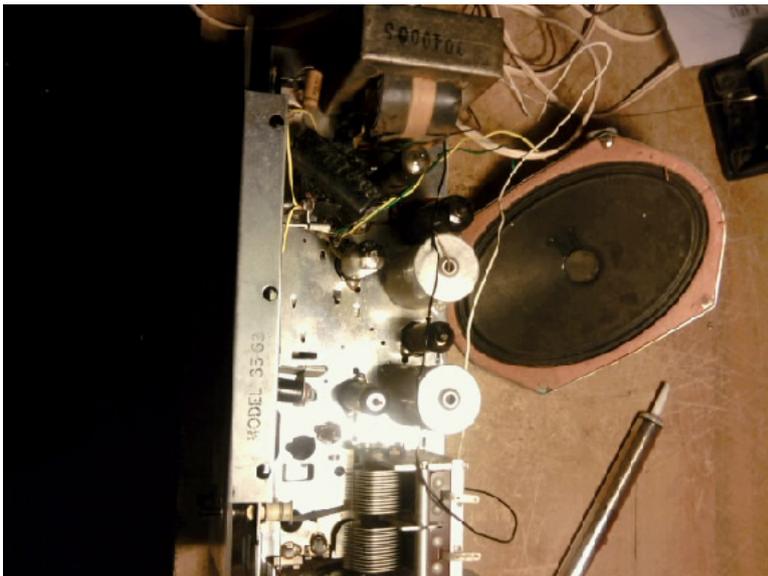
Servicing the H.M.V. "Nippergram" – Series 31, 33, 35 and U63C

Apart for minor items, all of these models are the same.

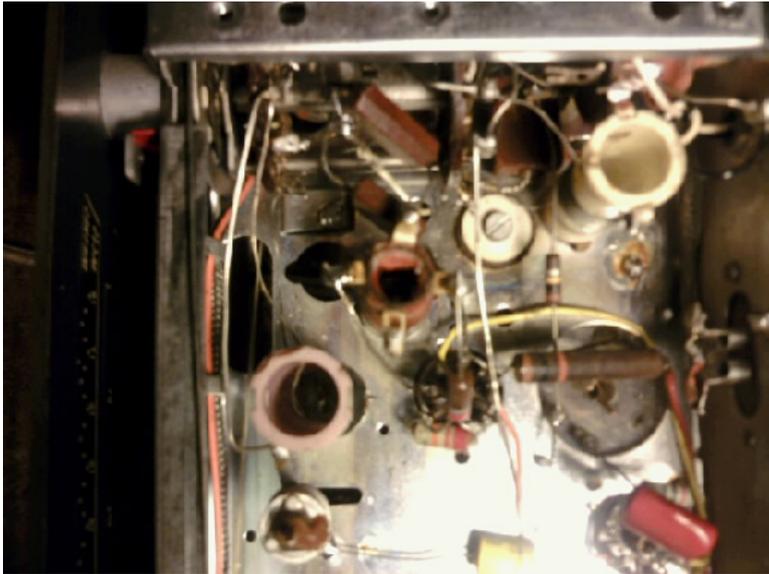
Step 1: I replaced all the paper/wax capacitors and all the electrolytic capacitors.

Step 2: I checked the resistors. R9 the 6AV6 Anode load had gone very high, so it was replaced. Importantly it pays to check the cathode resistors R5 & R13. Be critical of their values. Otherwise the gain on V2 will alter due to R5. This sets the Maximum gain of V2 at Minimum, or No Signal. But R13 sets the bias of a high-gain output valve (a 6M5). If R13 goes low, it will damage the 6M5. A 180 x 22 Ohm resistor will do.

Step 3: On "switch on", the set was losing R.F. (Radio Frequency) signal. By disconnecting L1 from L3 and connecting the aerial to the top of L3. Also connect C4 to the bottom of L3 and disconnect the bottom of L3 totally from S2. Connect the top of L3 to V1. Remove S2 totally electrically from the R.F. circuit. Disconnect L6 from L5. Disconnect V1 cathode (V1k) from L6 and reconnect V1k to the tapping on L5. It is now a Broadcast receiver and not Shortwave.



Step 4: Turn on the radio again. Much improved sound output now, but of course, no short-wave signal will be heard. The Paxelin switch wafers for some strange reason appear to be shorting out the RF signal. The AM band was loud and clear.



Step 5: All went well then for a time, then silence, apart for a hum from the speaker. With VR1 (volume control) set about half-way, I placed my finger on the wiper of VR1, plenty of noise. Same finger test on the wiper of S2 which connects to the live end of VR1, via a shielded cable. Nothing could be heard!!

Step 6: I disconnected S2's wiper from the shielded cable and then, by touching the centre conductor, noise was heard from the speaker.

Step 7: I then disconnecting the unit from the mains, and put my Omh's meter between chassis and that wiper and it registered a dead short.

Step 8: Using a can of CRC 226 and a tooth scraper and brush, I cleaned between the shaft of S2 & its wiper. I am assuming that over time, metal fragments or metal whiskers had grown across the paxillin surfaces. Once removed, the short was gone and all was well again.

This completes the repairs to the Nippergram.

HIS MASTER'S VOICE "NIPPERGRAM" U63C

