



Hallicrafters SX-62

The SX-62 is a single conversion general coverage receiver for AM, CW and FM. It fully covers 540 KHz to 110MHz in six bands. Introduced in 1948, it has 15 tubes. It was primarily intended for the serious shortwave listener who also wanted FM and excellent sound. It is essentially an SX-42 with a nice large slide rule style dial but without bandspread or S-meter.

Like the SX-42, the IF section is automatically switched using 455 KHz for the lower four bands and 10.7 MHz for the upper two bands. Both it and the SX-42 are erroneously listed as a double conversion receiver in several references. It has only converter for either of two IF frequencies, one for AM broadcast and most shortwave and the other for the upper two bands primarily for VHF and FM. Using a pair of 6V6 for 8 watts of push-pull audio output, the set is designed for high fidelity when listening to FM but offers six bandwidth selections for various communication needs.

Like all other Hallicrafters with the "X" in the model name, the SX-62 is equipped with a crystal filter. It also has a crystal calibrator which the SX-42 does not have. The knob to the left of the dial allows repositioning of the dial pointer to an accurate setting as indicated by the calibrator signal.

The six bands on the dial are individually highlighted using a separate pair of dial lamps for each

band.

Like the SX-42, the SX-62 was known for excellent sound quality. Its output transformer has 500 and 5000 ohm impedance connections. A bass-reflex R-42 speaker came with this receiver and matches any 500-600 ohm output.

Repair progress

The set was purchased at auction and was rather filthy. I started with a thorough cleaning inside and out with white waterless hand cleaner. The cabinet was also cleaned but will need a re-paint after the weather allows it. As usual, I sprayed deoxit on all accessible switch contacts and tube sockets after pulling the chassis. I replaced the missing line cord. I restrung the dial cord according to the diagram in the partial manual available on line. This was not a simple task. I ended up putting the tension spring on the back side of the pulley. Works fine that way and is easier to get to.

I found that a former owner had replaced practically every capacitor with quality Sprague caps. The quality of soldering and wiring the replacements was just fair. In checking the cap connections, I found and corrected several bad solder joints.

The R-42 speaker did not function at all. That turned out to be the Hi-fi - Communications switch on the speaker. With the speaker on its back and the bat handle of the switch pointing up, I sprayed a bit of deoxit at the base of the bat handle and worked the switch. The deoxit went into the switch, cleaned the contacts, and solved the problem.

After electrical safety tests and reforming the electrolytics, I powered the set, but it barely picked up a local AM station. Tube tests revealed a weak 6SG7 and a very worn 6SK7, both in the IF chain. Replacing those and touching up the 455 KHz IF alignment (matching the crystal filter frequency) brought the AM and shortwave bands to life. In fact, the AM broadcast band reception sensitivity and selectivity rivaled that of my excellent and modern portable solid state Grundig Yacht Boy 400 with, of course, much better sound by way of that R-42 bass-reflex speaker. The sound from that speaker with the SX-62 on Hi-Fi or Bass settings when tuned to area AM oldies stations reminded me of my favorite 1950's jukebox. Great sound. Shortwave reception was also very good. FM reception barely worked however. The crystal calibrator also did not work.

The FM section

Found that the FM front end section was totally in need of realignment. It had likely never been aligned after the caps were replaced. I also tweaked the FM limiter and discriminator adjustments. After the alignment and attaching a proper antenna, the FM section came to life, performing reasonably well for the era, again with that great "jukebox" sound by way of the push-pull 6V6 tubes and the R-42 bass-reflex speaker.

Crystal calibrator

The crystal caibrator did not work at all. My frequency counter with a loop of pickup wire did not detect any oscillation at all. The circuit is very simple using a 6C4 triode and a crystal soldered into the circuit right at the cathode and grid tube-socket connections. Its output is coupled to the antenna terminal lead by a "gimmick", about a quarter inch of insulated wire wrapped around the antenna terminal wire. The gimmick acts as a capacitor of a picofarad or two.

After tests, I concluded the crystal was bad. Clipped in a replacement which worked properly according to both my frequency counter and the dial settings. Took the original crystal apart and, sure enough, the tiny crystal was loose inside the mount. Could not repair it so soldered in the replacement for the fix.

Overall I consider the SX-62 to be a very good and sensitive high-end SWL radio. I love the big dial with separately-lighted bands and the adjustable tuning pointer. For ham bands, the lack of bandspread capability makes use difficult. However, the quality of the sound and the ease of short wave and broadcast band cruising make it a desirable set.
