

Replacing C-549 and C-553

Imagine turning your receiver on one day and nothing comes out of the speaker. After checking the connections, you select another bandwidth filter. The receiver comes alive for about 5 seconds then goes dead again. Selecting another filter causes the same result. What could be wrong?

You have just experienced a failure of C-553, the blocking capacitor located between the plate of V-501 and the mechanical filters. Unfortunately, all of the mechanical filters that were selected are now also ruined and must be replaced. That is best avoided by a simple procedure to replace the C-553 which is originally a 300V Sprague "Vitamin Q" capacitor. Besides the capacitor simply being old, today's increased line voltages in turn cause an increase in receiver B+ values that run this capacitor even closer to failure.

Replacing the capacitor is easy. It is located in the IF deck and is easily accessible. To remove the IF deck:

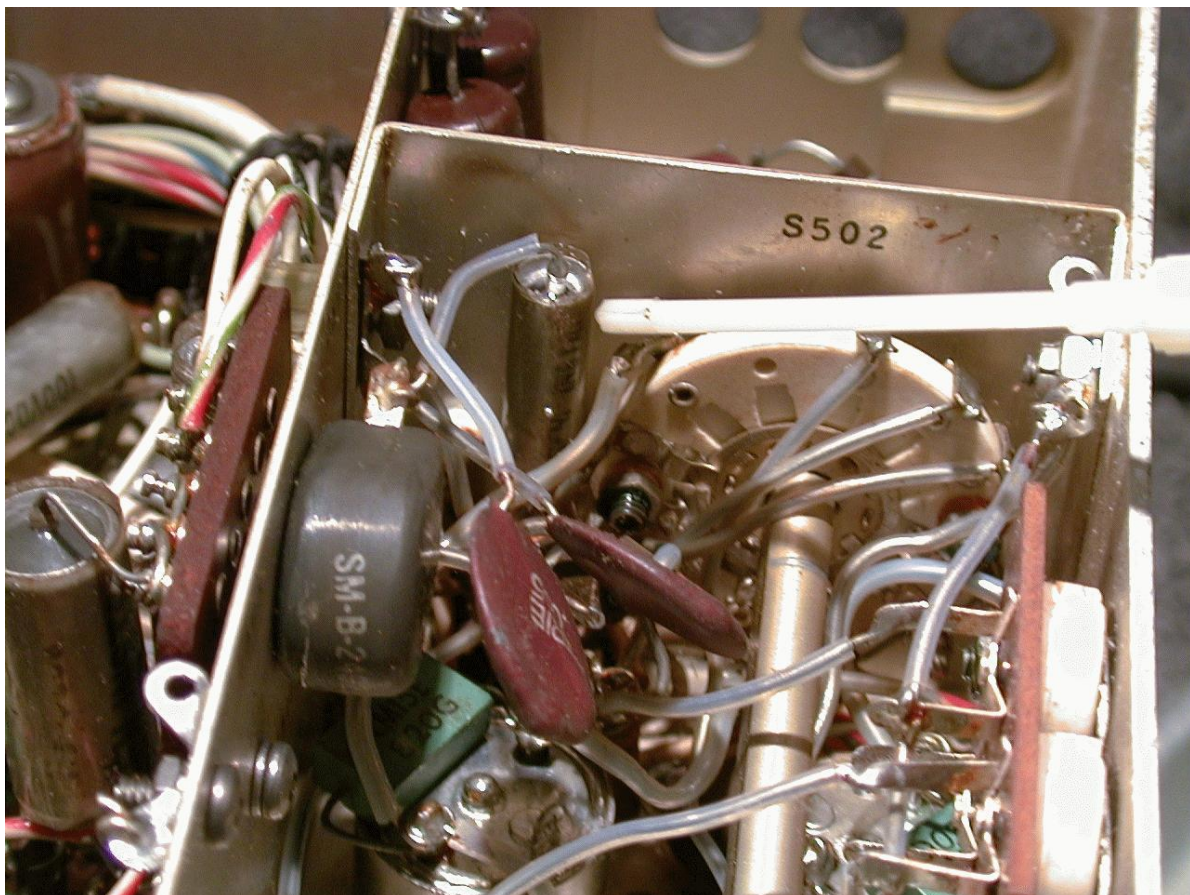
Loosen the clamps with a bristol spline wrench on the Bandwidth and BFO Pitch controls. Note the position of the BFO indicator so you can align the shaft to its original position. Also, be careful not to move that portion of the BFO shaft where it enters the IF deck.

Remove the 3 cables at the rear of the IF deck, P213, P218 and P114.

Unplug the large multi-connector, P112

Loosen the 3 green headed captive screws holding the IF deck into the main chassis and lift it clear to an uncluttered work space.

Looking at the bottom of the IF deck, locate C-553. Its location will appear like this;



Remove the old C-553 and install a .01ufd, 600V Sprague Orangedrop capacitor in its place. Try and nest it vertically in the chassis as original. Because B+ is involved, be sure to use shrink tubing fully covering any exposed leads on the new capacitor.

While the deck is out, its a good idea to also replace C-549. This is a blocking capacitor for the output of the limiter, V-507A. Leakage here will change the bias on the grid of the first audio amplifier, V601A causing low audio levels, distortion or complete audio shutdown. Again, replacement with a .01uf 600V Orangedrop is the solution. The location of C-549 appears as below:

