

R-390 R-389 & R-391 /URR Solid State Regulator Replacement

Kitparts LLC – 2021

The regulator substitution is simple and reversible moving much of the heat generated by the 2, 8062 regulator tubes to the side of the radio. It goes without saying, unplug the radio when working on it there are dangerous voltages within in it.

Step 1; As a precaution remove the AF deck from the radio and check the 47 ohm resistors tied to pin 3 and 6 on V605 and V606, many times after years of operation these deteriorate. If they are burned or the value has changed, replace them. Once complete, remove V605, V606, V608 and V609.

Step 2; Install the 7 pin jumper connection in the socket of V608, this replaces an internal jumper contained in the VR tube.

Step 3; Reinstall the AF deck in the radio.

Step 4; Remove the screw holding the 3 disks to the regulator board. Using a small amount heat sink compound coat each of the bare aluminum sides as well as the regulator board.

Step 5; Using the supplied 4/40 screw stack the 3 disks with the colored side toward the head of the screw, largest disk first. These will provide a spacer and filler to mount the regulator board.

Step 6; Insert the octal plug into the socket of V605

Step 7; Carefully insert the 3 stacked disks on the 4/40 screw onto the hole above V605 closest to the bottom of the radio. While holding the disks in the hole lift the regulator board and place it over the screw protruding into the chassis. Use the washer and lock washer to secure the board to the chassis.

Step 8; Rock the board back and forth around the mounting screw to assure the heat sink compound is distributed on the aluminum back.

Step 9; Tighten the screw snugly, but do not overtighten, overtightening will warp the aluminum and keep it from making good contact with the side panel.

The side of the radio will get very warm, the 390 sides are aluminum and will act as a large heatsink. This model improves on my original model by incorporating a regulator rather than Zener diodes.

If you have questions, feel free to contact me at n3lll@kitparts.com

