

Ballast Tubes for the R-390A MS1-1-1

Several receivers, including the R-390A, have ballast tubes in their power supplies. Like many tubes these days, replacements or substitutes for the ballast tubes can be hard to find. This information may be helpful for those needing one.

First of all, in several publications, including IRCA Reprint M32, it is stated that the Amperite ballast tube 3HTF4 is a direct replacement for the Amperite 3TF7. According to Mr. Frank M. Kretkowski, chief engineer and principal ballast tube designer for the Amperite Co., there is no direct replacement for the 3TF7 in the R-390A, except the 3TF7A and the 3TF11. Various publications have made reference to interchanging the 3TF4, 3HTF4, 3TFV4 and 3TF4A, all of which are incorrect.

Ballast tube voltage and current ratings received from Mr. Kretkowski are as follows:

3TF7	8.6-16.6 volts	.290-.330 amps
3TF7A	7.0-14.0	.280-.310
3TF11	8.0-17.0	.280-.320
3TF4	4.3-8.3	.280-.320
3TF4A	5.6-8.4	.270-.300
3HTF4	4.3-8.3	.340-.370
3TFV4	4.0-8.5	.280-.320

The voltage drop across the 3TF7 in the R-390A is approximately 12.3 volts AC. This is considerably outside the operating range of all except the first three tubes. There would be no regulating capability and a resulting shortened ballast tube life if one of the others were used. (Information via Joe Bunyard)