

Thermal Link Hole Size

On early Florida boxes up to at least serial #00300, the rectangular hole in the rear of the cabinet which passes the BeO thermal link from the tube clamp block to the rear heat sink is too small. The hole should measure at least 1" high to properly clear the BeO block and allow it to make full contact with the tube clamp block. In these early boxes, the BeO block was forced upward and the heat transfer capability reduced by about 25%. The hole may be enlarged toward the bottom of the cabinet with a file. Although the hole in later serial numbers is even larger, 1" is just about all that can be easily attained with a neat job on the old boxes.

Thermal Grease

The Dow-Corning #340 silicone grease on the tube and heat sink of CX-7's dries out to a powder after a year or two of operation and should be replaced. The reduced heat transfer accelerates the deterioration of the grease and can result in pitting of the tube clamp block surfaces if you wait too long.

CAUTION

Beryllium Oxide (BeO), that white ceramic like block used as a thermal link in the CX-7, is reported to be a deadly poison in dust or small chip form although safe in solid blocks. While cleaning, do not scrape or chip the block. Dispose of any chips and the wiping material used to remove the silicone grease carefully.

Replacement Tube Size

When replacing the 8072 tube in CX-7's, it was found that new RCA tubes have a larger diameter than the original ones. Several old tubes with the pink ceramic measured 0.804" and several new tubes with the white ceramic measured 0.808". This was enough so that the tube clamp block could not be spread easily with a big screwdriver. It is recommended that a new tube be checked for fit before assembling the mountings after you have taken the assembly apart for greasing. A wedge can be driven in without the danger of breaking the BeO thermal link if an oversize tube is used.

Final Amp Tubes

The CX7 uses an RCA 8072 metal tube as it's final amplifier. If purchased new, these tubes are costly. Fortunately, these tubes were used in commercial VHF & UHF repeaters of the same era and are often available at hamfests. Look for vendors dumping commercial communications equipment. The tubes will likely as not be marked with a Motorola part number 4657 or 65CD3999G01. (KA4GAV)

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Notes on CX7 Tubes, cont.

