6U8A substitution for the 7199

Since all worldwide 7199 tube production has ceased and is not expected to return, the availability of this tube has begun to dwindle and subsequently the cost is quickly becoming prohibitive.

Thankfully, there is a solution by implementing a simple wiring change and substituting the plentiful (for now) and otherwise identical sounding NOS 6U8A tube in place of the 7199.

Due to the extremely high voltages present in tube electronic equipment, all modifications should be performed by a qualified technician.

Note: The below descriptions apply to chassis mounted tube sockets. For printed circuit board (PCB) mounted tube sockets, the pin to pin changes would be the same however, the actual traces on the board would have to be cut and re-routed which is beyond the scope of this discussion.

Note: Wire color displayed here is for identification of wire relocation and not representative of the actual color of wire used in your situation.

7199 (before)
6U8A (after)

Image: Comparison of the second sec

Step 1. Remove wire from pin 2 (blue) and relocate it to pin 6 Step 2. Remove wire from pin 6 (yellow) and relocate it to pin 7 Step 3. Remove wire from pin 7 (orange) and relocate it to pin 2

You should find the tone of the NOS 6U8 equal to if not better that the 7199.

Final note, before closing everything up, please make it a point to label the socket and tube complement chart (if applicable) to indicate that this tube position has been modified to use a 6U8A tube only.

Enjoy the music.

Any questions or comments can be directed to: Robert Hull tech@tubedepot.com *all drawings are (c) copyrighted property of TubeDepot.com*