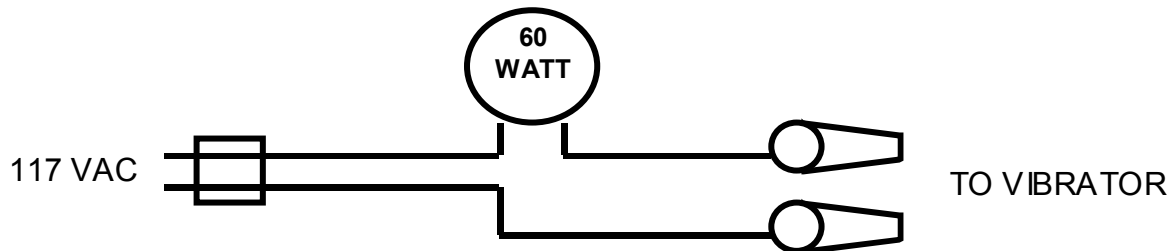


Waking Up Old Radio Vibrators

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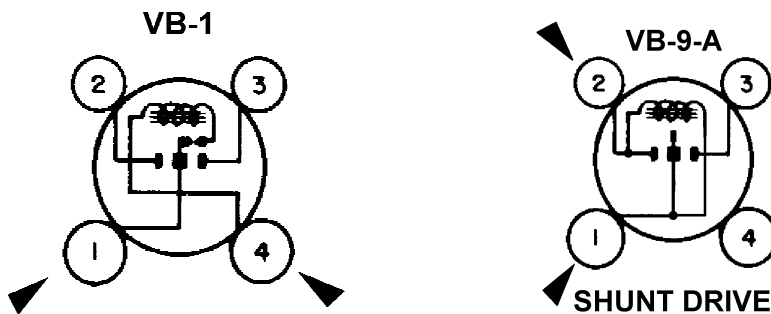
Mechanical vibrators were often used in DC-to-DC converters to power tube electronics from batteries. Vibrators usually have foam rubber padding inside them. After 50 years the sulfur used to vulcanize the rubber has oxidized the contacts to the point where the low voltage contacts won't conduct properly. Even new-old-stock units are subject to this. Consider the following as first aid when your vibrator won't hum.

Arrange a line cord, 40 to 60-watts light bulb and alligator clips as shown below. **(In the interest of safety, you may want to use an isolation transformer between this and the AC line.)**



Remove the vibrator from the radio, and connect the alligator clips as indicated below. Plug the whole mess into an outlet or isolation transformer for 30-60 seconds. The vibrator should hum happily, and burn the sulfide off the contacts. The high voltage is able to break down the barrier, and the light bulb limits the current to a safe value even if things are not connected properly.

There are series fed and shunt fed vibrators. You may need to consult the schematic of your device to determine the appropriate connection. If series fed you want the pin that connects to the normally-closed contact in series with the coil and the other end of the coil. If shunt fed, you want the two pins connected to the ends of the coil.



It's a good idea to replace the "buffer cap", the 1600-volt unit across the transformer secondary. Of course, if the vibrator has a lot of hours on it, or the buffer was shorted the last time the set worked, there may be internal damage that this won't fix. However, I'm about 8 for 8 successful with this method. Because the current is limited to about 500 mA, it's unlikely you'll do any additional damage by trying this procedure.