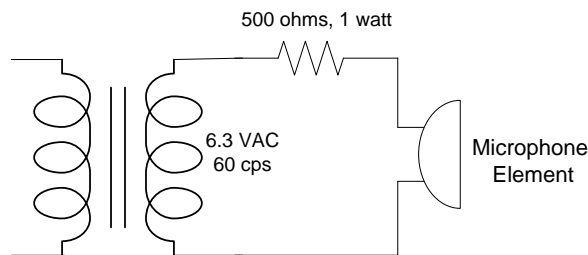


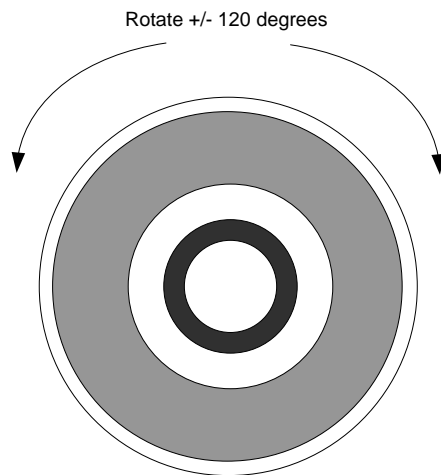
Western-Electric Approved Method for Rejuvenation of Carbon Microphone Elements

Over time and with exposure to humidity, the carbon granules in carbon microphone elements may become compacted into a near-solid mass, severely reducing output level and increasing distortion. A typical remedy is to sharply strike the microphone against a solid surface in an attempt to break up the carbon granules. Though this may temporarily improve performance, this practice causes long-term damage to the microphone, and should be avoided.

The following procedure is the standard Western Electric factory-approved method developed for rejuvenating carbon-button type microphones. Though this procedure was originally intended for application to carbon elements of the type used in Western Electric Model 500, 2500, and similar telephone sets, it has been applied successfully to numerous types of communications type carbon microphones.



1. Apply AC bias current as shown.



2. With AC bias applied and microphone element held in vertical plane, repeatedly rotate element back and forth +/- 120 degrees around its horizontal axis for approximately one minute to loosen carbon granules. **Do not strike or tap microphone. Do not allow microphone to overheat.**

3. Maintaining AC bias and with microphone element held vertically, "blast" microphone diaphragm with acoustic white noise for 1-2 minutes to further loosen carbon granules. Receiver noise from handheld radio transceiver speaker closely coupled to diaphragm may be used as a noise source. If audio noise source is unavailable, blowing against microphone diaphragm may be used as an expedient.

Procedure may be repeated 2-3 times, if necessary. Microphone elements which still exhibit low output, excessive distortion, or "popcorn noise" after several attempts at rejuvenation may have chemically contaminated carbon granules, and should generally be discarded.