

# BRICS

## RADIO ALIGNMENT FOR PREVENTATIVE MAINTENANCE

### WHAT IS A “PM”?

When BRICS staff “PM” your radio, they’re performing preventative maintenance. One of the most important components of that maintenance is to test and align the radio.

### ALIGNING WHAT?

When you tune your FM radio to 102.7, the screen (or old-school dial, at right) might say you’re listening to 102.7, but it all depends on if your radio is aligned properly. Over time, a radio’s alignment can drift. It might think it’s tuned to 102.7 MHz, but it’s really listening to 102.75. Or worse, 102.8... or 102.9... and so on. The further out of alignment, the poorer your reception will be.



On your portable or mobile BRICS radio, the same can be true. Over time, the internal components of two-way radios (like the reference oscillator crystal) can drift away from proper specifications. Periodic preventative maintenance is necessary to meet FCC and manufacturer requirements for frequency accuracy, but most importantly, to insure your radio works the best it can.

### SYMPTOMS OF A RADIO NEEDING ALIGNMENT

- Your radio goes “out of range” in known good-coverage areas. Especially if you’re with another radio user and their radio is working fine. **There should not be any outdoor “dead spots” in Butler County.**
- You frequently get “bonks” (the talk-prohibit tones) when you try to transmit in known good-coverage areas.
- The transmissions you receive are often garbled. (This could be your issue, or the person transmitting, but if it happens regularly and you’re the only one hearing it, your radio is the issue.)

### WHAT BRICS DOES

If your agency pays into the BRICS maintenance cooperative, we will PM your radios at least once per year as part of that plan. Call us to schedule a time to bring your radios to our office. A portable alignment can take 10 to 15 minutes, and alignment of a mobile radio that has already been removed from a vehicle can take up to 30 minutes.

A Motorola service bulletin recommends that their P25 radios be adjusted when the radio is placed in service, after the first year, and every two years thereafter.

BRICS also has a diagnostic system that monitors radio transmissions over the air, and identifies radios that are significantly out of alignment based on their radio traffic. We may contact your agency to bring in a radio for alignment when you don’t even know there is a problem. It’s important to address those issues, because the problem will worsen with time – and the time you’re not able to transmit may be when you need it most.



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