

Locating wire breaks in Radio Fence Containment Systems

If the radio containment system's operation seems diminished, or is not functioning properly, there may be several causes for this.

- a low battery in the receiver (#1 reason)
- Moisture in a spliced wire
- a broken connection somewhere in the wire
- a nick or crack in the wire's insulation covering (can also be caused by squirrels or rodents chewing through the plastic insulation.)

If the battery is good in the receiver, then generally, the problems are caused by moisture in a splice along the wire, a nick or crack in the wire's insulation covering, or an actual break in the wire.

Using this step-by-step guide, you can easily find and fix the problem.

You will use a simple battery powered AM/FM Radio and an RF Choke available from [Radio Shack \(Part #273-102\)](#). You can order the radio and RF Choke online or visit your local Radio Shack dealer.



Once you have the AM/FM Radio and RF Choke, follow these next steps to locate any breaks or bad connections in your boundary wire.

1. Power down the radio fence transmitter by unplugging the power supply.
2. Remove the two boundary wire leads from the transmitter.
3. Wrap the boundary wire lead ends around each of the RF Choke leads.
4. Connect the RF Choke leads up to the transmitter.

5. Power up the transmitter.
6. Tune the radio to the AM Band to 600mhz or 1600mhz to receive only static. If the radio is picking up a broadcast station, turn the dial slowly in either direction until all you hear is static.
7. Starting from where the transmitter is mounted, hold the AM radio about 3-4 feet above the ground and slowly wave it from side to side as you follow the path of the boundary wire. You should be hearing a constant or slightly pulsating signal tone coming from the radio.

NOTE-If you are following the path of twisted wire (some installations start with using twisted wire before connecting to the single wire boundary loop), you should not hear a signal tone. That's because the twisted wire pair cancels out the RF signal.

8. As you walk along the path of the boundary wire, observe that the signal tone coming from the AM radio remains constant.
9. If the signal tone volume fades, changes pitch or becomes weaker, stop and mark that spot with a marker (boundary flag). This is an indication that either the insulation coating on the wire is cracked, nicked or exposed to ground moisture.
10. If the signal disappears or stops completely, that is an indication of a complete break in the wire. Mark the spot so you can return to it for repairs.
11. Continue following the entire path of the boundary wire until you return to the beginning of the loop, or transmitter.
12. Return to the marked areas along the boundary wire, examine the wiring for several feet in both directions from your marker and make the necessary repairs.

In some cases, it may be difficult find the problem after examining the wire (very small cracks or nicks in the insulation are hard to see sometimes). It may be necessary to cut out an entire section 3-4 feet wide and splice in a new piece of wire. If so, waterproof the connections with silicone or caulking after splicing in the new wire.