

## Method to locate wire breakage in Radio Collar Dog Fence System:

This method can pin-point the location of a **break** in the boundary wire. It will not detect a corroded joint or a kink where the copper is broken inside the insulation.

### You will need:

1/ A portable transistor radio that can be tuned to the AM band. (Use an older style radio. Newer digital designed radios may not be sensitive enough.)

2/ A short piece of boundary wire, say 30cm (12") long with the copper exposed at either end.

### Step 1 - Transmitter self-test:

Your boundary wire transmitter will only function while it has an intact electrical connection between the two output terminals. So, with the transmitter OFF, connect the short piece of boundary wire between the two terminals. Switch the transmitter ON. If the transmitter indicates a fault, then your transmitter has an internal fault. Call Sureguard technical support for further assistance.

### Step 2 - Check the collar:

Switch ON the transmitter. Bring the Radio Collar over to the short piece of wire connected to the transmitter. The Collar should pick up the transmission. If not, you have a problem with the collar. Try another collar.

### Step 3 - Special boundary wire connection:

Switch OFF the transmitter. Connect one end of the boundary that you want to troubleshoot to one terminal of the transmitter. Leave the short piece of wire in place (from step 1). Switch ON the transmitter.

### Step 4 - How to use the AM radio:

Tune the transistor radio to a position off a station so you only hear static. The lower end of the band is best at around 500~800kHz. Increase the volume to maximum. Move at least 4m or 12 ft away from the transmitter, and place this transistor radio directly onto the boundary wire that you want to test. You should hear a regular clicking noise (5 clicks per second). Now try the transistor radio on the other end of the boundary wire (the one not connected to the transmitter). You should NOT hear any clicking sound coming off this end of the wire until the break in the boundary is fixed. If you do, you may have the boundary wire leading out too close to the boundary wire leading back. For example, you have the twisted dual-wire in the circuit somewhere. You'll need to separate these wires so they are not running closely in parallel. Actually, the signal may be jumping between these parallel wires. It may be more convenient to cut the boundary wire somewhere to achieve this. If you find the radio emits the clicking noise along the full length of the boundary, then you likely have a corroded joint or a kink in the wire. These faults must be located visually.

### Step 5 - Locating the fault:

Proceed around the boundary, periodically placing the transistor radio next to the connected end of boundary wire. You should hear the clicking noise until you go past the break in the boundary wire. Repair this break. Continue the test around the rest of the boundary checking for additional breaks. Repair all breaks.

### Step 6 - Re-establish the boundary transmission:

Once all breaks have been repaired, remove the short piece of wire from between the terminals of the transmitter. (switch transmitter off first). Connect each end of boundary wire to the terminals of the transmitter. Switch the transmitter ON. Your transmitter and collar should now be operating properly.