Improving µBITX Grounding

Purpose

To ensure common ground shared with the printed circuit board, the case, and the RF output. As delivered, the case is painted and therefore the case is floating and there is no way to connect to a common station ground.

Parts

> ¼ hex bolt, ¾ inch
> ¼ lock washer
> ¼ flat washer
> ¼ hex nut
> ¼ wing nut
> Dremel carbon steel brush, #428--2

> If parts are available (I did not check inventory at the DIY store I used) you can also use #8 hardware.

Procedure:

1. Disassemble the radio, removing as much electronics as possible.
2. Drill a hole to match your hardware in the back panel.
3. Noting the diameter of the flat washer, use the Dremel tool to strip the paint around the hole, at least as wide as the flat washer, on the inside of the back panel.
4. Use the Dremel tool to remove the paint, again on the inside of the back panel, where the RF connector is mounted.
5. Mount the hardware through the hole and re-install the RF connector. Connect the black grounding with from the power printed circuit board under one of the screws holding the RF connector.
6. Strip the paint from the inside of the top and bottom covers around the mounting screw holes.
7. Strip the paint from the sides of the front and back panels around the screw mounts. The mounts should be raised; try not to remove them in the process of stripping the paint off them.
8. On the bottom panel, strip the paint in a small circle around one of the holes used to hold the main printed circuit board stand-offs.
9. Thoroughly clean all parts.
10. As you reassemble the radio, check for continuity between the covers.

Result: