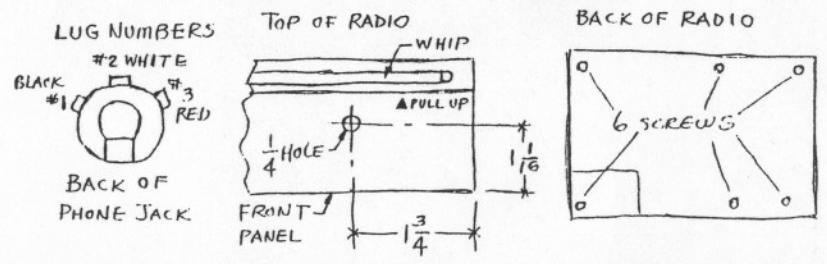


M 58-1-1

DX-440 - SANGAN ATS 803A & OTHERS BCB IMPROVEMENT - RALPH SANSKRINO

As these radios come from the factory the BCB lacks sensitivity. You are going to fix this by adding a plug-in tuned ferrite bar loop antenna. We will add the parts to the radio first. You will need these parts - 1. 1/4 phone jack closed circuit 2 conductor. 2. Wire #22 solid insulated by 2 inches long 3 pieces, 1 used Red, White, & Black. 3. PVC slip cap the 1/2 inch size. 4. Tube of super glue. 5. Solder & Soldering iron. Electric drill with 1/4 & 7/16 diameter drills (a small drill press is preferred). Lets start by drilling a 7/16 hole in the top of the 1/2 inch PVC Slip Cap. Make sure the hole is in the center of the cap. The 7/16 hole will have to be enlarged slightly to fit the boss on the 1/4 phone jack. You can use an exacto knife or rolled up sandpaper. Next you solder the wires to the 1/4 phone jack. The Black wire goes to lug #1, the White wire goes to lug #2, Red wire goes to lug #3. See sketch. Mount the 1/4 phone jack inside the 1/2 PVC slip cap using washer & nut supplied with phone jack. Next you drill a 1/4 hole in top of the radio case near the whip antenna base. See sketch. Be careful when drilling this hole just break thru with the drill because there is a printed circuit board under the area where you are drilling, so be careful. Next you will take the back off of the radio. Lay the radio face down on a soft towel doubled. You have 6 screws to remove. See sketch. Use the correct size phillips head screw driver. These screws might be a little tight so you may need to lean on them a bit. After the screws are loose turn the radio over & shake the 6 screws out of the back cover. Lay radio face down again with whip antenna at the top. Gently as you can lift the back off of the radio, you will note a wire soldered to the whip antenna base, unsolder this wire so the radio will be easier to handle. Next you will glue the PVC slip cap & phone jack assembly to the top of the radio. First you will check the phone jack to see if a phone plug will fit in the assembly ok. And you probably found out the plug will not plug in, right. Now you will take a small pair of needle nose pliers & squeeze the end of the phone jack down slightly be careful do not go to far, just enough so the phone plug will seat all the way. Next try PVC slip cap on the radio to see how it fits. Slip wires thru 1/4 hole in case. Wires from phone jack should be on near side of PC board facing you. Make sure everything is straight because the next time you put the PVC slip cap on the radio it will be glueing and with super glue there is no going back once it dries you have to cut it off. Take the PVC slip cap & turn it upside down, apply super glue to bottom edge of cap then slip wires thru 1/4 hole in case & position as before, do not cover up the arrow head or the words "pull up" on the case & make sure cap is centered on case. Hold cap in place for 5 minutes. Let stand for 1/2 hour before you go on. Soldering of the phone jack wires to the radio will be next. Laying the radio down as before locate the left end of the radios ferrite bar antenna. You will notice 2 very fine litz wires one is red & the other is black coming from the antenna & going to the PC board. First you will position the wires coming from the phone jack, Red left, Black right & white center. Next you will free the Red & Black litz wires from the glue on the PC board. This wire breaks easily so be careful. After getting them loose you are going to cut the Red wire 1 inch above the PC board. Wrap the 1 inch Red wire coming from the PC board around the trimmed & prepared Red wire coming from the phone jack & solder. The other end of the Red wire coming from the ferrite bar you will wrap around the trimmed & prepared White wire & solder. Next comes the Black wire, just wrap a couple of turns around the trimmed & prepared Black wire coming from the phone jack & solder. Make sure none of these wires are touching anything. Resolder whip antenna lead & reinstall back. Thats it for the radio. Next you will tackle the plug-in loop antenna.



DX 440 - SANGAN ATS 803A
 PLUG-IN LOOP

