

THE TECH'S CHOICE DX (TC-DX) and the "D" kit.

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These kits are designed for the side-band units having a 7.8mhz, 1st I-F. The Cobra 140, 142, 148, and 2000GTL. The President and Uniden, Madison, Grant, and Washington, and sister units.

Modifying the Cobra 148GTL, using the TC-DX kit.

1. Before removing the cover, locate and mark a point on the lower cover, (opposite side from the mike) 2 1/4" to the rear and 9/16" down from the edge (where the clam covers meet).
2. Drill a locator hole at this point (approx. 1/8") through both the cover and the chassis.
3. Remove covers.
4. Place the round decal on the cover, centered on the 1/8" hole. Punch a 13/32" hole in the cover and the chassis, using the 1/8" hole as a guide. Mount the crystals on the switch PC.
5. Using a 1/4" punch, nibble down the edge of the chassis, directly in-line with the center of the 13/32" hole, to fit the key on the switch.
6. Using a filler board supplied, mount the group selector switch.
7. Using plastic adhesive such as 3m 4475, mount the epoxy pack just to the rear of the rear most bracket mounting hole, with the orange dot up and forward.

Step Two

1. Solder the black wire from the group selector switch to the upper tank's shield on the epoxy pack. Then run it to the shield of L-45.
2. Connect the white wire to the orange dot terminal on the epoxy pack.

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3. Locate the output of L-47. Cut it and TP-1 away from the rest of the PC pad.
4. Connect a wire from TP-1 to the blue dot terminal on the epoxy pack.
5. Connect a wire from the yellow dot terminal on the epoxy pack to the other open hole on the pad you cut.
6. There are two tanks feeding the mixer chip. One has blue markings and the other has black. Find the resistor feeding the black tank from this PC pad. Replace it with the .01uf capacitor supplied.
7. Connect the red dot terminal on the epoxy pack to pin 8 on the UHIC 007 chip, or to any open hole on that same PC run.
8. Connect the 150pf capacitor supplied, across the outside legs on the three leg side of the black tank feeding the mixer chip.
- *9. Under the epoxy pack there is a 2pf capacitor (C-163) between the output of L-46 and the three leg side of L-45. On the PC side of the board parallel it with the 18pf capacitor supplied.
- *10. Just to the rear of L-25 find C-161. Remove it.
- *11. Just to the rear of the C-160 there is a 330 ohm resistor. Change it to a 470 ohm.
- *12. In the receiver section, find L-5 and L-6. There is a 2 pf capacitor coupling these two tanks. On the PC side of the board, bridge these two points.
- *13. Beside TR-14 you will find R-48 sitting in an angle. On the PC side of the board, parallel this resistor with a 1.5k resistor.
14. On the front edge of the PC board find JP-17 and JP-18.
Remove these two jumpers and cross wire them.

MODIFYING THE COBRA 148GTL Using The "D" Kit.

Alignment

With a counter connected to read the transmitter frequency, apply power.

1. Connect a scope to the yellow dot terminal of the epoxy pack. Adjust the tanks on the epoxy pack and the black tank on the input to the mixer for the best and most clean signal. Adjust too, for the same amplitude of signal at each end of the frequencies you have installed crystals for.
2. Select channel 1 and adjust each capacitor of each group frequency crystal. The frequency it should read is stamped in black on the side of the crystal.
3. Do a normal transmitter-receiver alignment using center frequency. If everything has been broad-banded properly, the extreme ends of the frequencies should be about half power points.

MODIFYING THE COBRA 148GTL Using The "D" Kit.

Make up your switch or switches as previously outlined for the "C" kit. The hook-up procedure is the same except: if your frequencies do not exceed 120khz. You can omit those steps marked with an (*). Broad-banding should not be needed modifying the Cobra 142GTL, using the TC-DX kit.

1. Remove covers.
2. Remove Dynamike control and secure it to the mike plug and power switch wires. Note: Leave the control fully cw.
3. Enlarge the hole where the Dynamike control was removed to 3/8".
4. Mount all crystals in the switch PC board on the printed circuit side, leaving them standing about 1/4".
5. Change the white and black leads, for wires of about 10" long each.