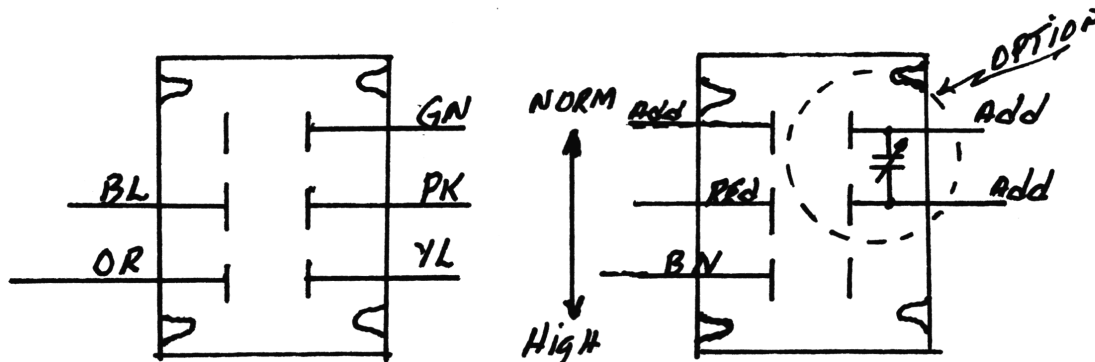


"LTD KIT" UPPER CHANNEL INSTALLATION INSTRUCTIONS FOR  
COBRA 25LTD/GTL, AR/AX 711, AND SISTER UNITS

The following switch lay-out is for the color code on the COBRA 25LTD. For other sister units or earlier models, note in pencil the color code that exist on those switches and adapt the reading material accordingly.



USE THE CB/ANL/PA AND THE NB SWITCHES FOR THIS MOD:

1. Clip the yellow, also the orange wire coming from the transmitter section, just forward of the first zip tie, just forward of the power plug.
2. In this same area, unsolder the pink and green wires.
3. Use the short piece of yellow wire and solder it where you unsoldered the pink wire.
4. Just forward of the audio transformer and directly center from the audio chip, unsolder the blue wire. Solder in it's place the piece of orange wire that runs from the transmitter section.
5. To clear the NB switch, clip the red wire attached at W-27 about 1½ inches long. Unsolder the brown wire at W-26 and solder the 1½ inch wire in it's place

INSTALLING THE EPOXY PACK:

1. Pull the chassis grounding tab, located just above the PLL chip, straight out.
2. Stand the wire tape up against the selector.
3. Using silicone sealant, adhere the epoxy pack to the chassis wall just forward of the pulled out tab, with the VC upward.

REMOVE THE FOLLOWING COMPONENTS:

REMOVE: R-105, R-106, C-137, TR-21, TR-22, C-12, R-104, C-15  
D-3. Remove L-19 and replace with the tank supplied.

UPPER CHANNELS FOR COBRA 25LTD AND SISTER UNITS CONTINUED:

1. Solder a 220 ohm resistor from the leg of R-105 to the C-137 leg nearest L-19.
2. Solder a jumper from ground to the rear leg of the secondary of L-19.
3. On the PC side of the board, solder a 470 ohm resistor to the remaining secondary leg of L-19 with it's other leg run through and soldered where the body of R-104 was. Now pull the yellow wire out of the zip ties and solder it to this end of the resistor on the component side of the board, or through another hole in that same PC pad.

CONNECTING UP THE REST OF THE CB/ANL/PA SWITCH:

1. Pull the green wire out of the zip ties. Measure the distance needed to reach the blue dot terminal on the epoxy pack. Cut the insulation and pull a bare spot. Now solder it to the blue hook terminal on the epoxy pack.
2. Remove JP-14, now continue with the green wire and solder it to the point where JP-14 was connected to L-16.
3. Pull the pink wire out of the zip ties and solder it to the other point JP-14 was connected.
4. Pull the orange wire out of the zip ties and solder it to the red dot terminal on the epoxy pack.
5. Pull the blue wire out of the zip ties and solder it to pin 1 of the PLL chip on the PC side of board.

NOW CONNECT UP THE NB SWITCH:

1. Unsolder R-58, turn it around and leave the leg unsoldered and lifted.
2. Connect a wire to the unused terminal on the same pole where the brown and red wires are. Solder the other end of it to the other point R-58 was soldered.
3. Pull the red wire out of the zip ties and solder it to the raised leg of R-58.
4. Pull the brown wire out of the zip ties and solder it to pin 1 of the PLL Chip on PC side.

NOTE: If you wish to have half channels instead of full channels omit steps 5 & 6 below.\*

- 5.\* Solder the VC (supplied) across the two terminals opposite the new wire and the red wire, also attach wires to these terminals.
- 6.\* Cut the PC trace between the 10.24Mhz Xtal and C-111. Solder these two wires across the cut.

UPPER CHANNELS FOR COBRA 25LTD AND SISTER UNITS CONTINUED:

7. Run a wire from the yellow dot terminal of the epoxy pack to the leg of C-12 nearest R-101.
8. Run a ground wire from the shield (case) of L-5 to the shield (case) of the upper tuning tank of the epoxy pack.

ALIGNMENT TX:

1. Connect power to the unit and load properly with a freq. counter attached.
2. Select channel 26.
3. With both switches in normal position (down), key the transmitter. The reading should be 27.265Mhz. If not, adjust VC-1 to obtain this reading. If you find you must back off too far on VC-1 to obtain this reading, remove C-111 and re-adjust.
4. Now switch both switches up. Read the frequency of the 10.24Mhz Xtal at the forward end of R-69. Adjust the VC on the NB switch to obtain a frequency of 10.2417Mhz.
5. Using a scope, maximize the signal on the center terminal (pink wire) of the CB/ANL/PA switch, by tuning L-19. The tanks on the epoxy pack should require very little or no adjustment.
6. Now key the transmitter again. The reading should be 27.725Mhz. If not adjust the VC on the epoxy pack to obtain it.

NOTE: For those wishing half channels, of course, the 10.24 Xtal would remain just that and the reading in step 6 should be adjusted to read 27.720Mhz.

ALIGNMENT RX:

1. Check the receiver and make your normal alignments and peaking on normal channels. Both switches down.
2. Now check your receiver with both switches up, while applying a 27.725MHz signal. The sensitivity should be approximately the same. If not, a little balancing of L-1 and L-2 should accomplish this.

The zero beat signal you will hear while applying a small signal comes from the fact that two of the signals in use are equal to the frequency you are receiving.

THIS COMPLETES UPPER CHANNEL INSTRUCTIONS FOR COBRA 25LTD AND SISTER UNITS.