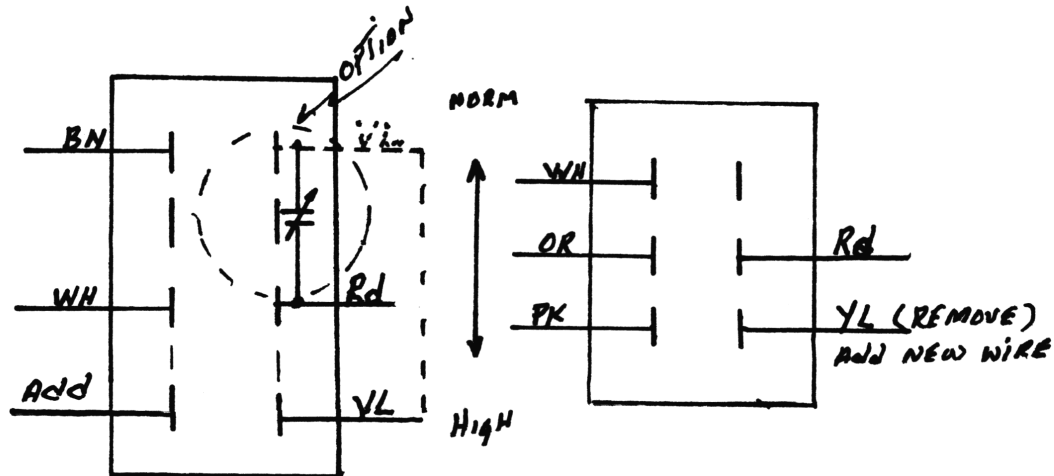


"LTD KIT" UPPER CHANNEL INSTALLATION INSTRUCTIONS
FOR COBRA 29LTD/GTL AND SISTER UNITS

The following switch lay out is for the color code on the COBRA 29LTD. For other sister units or earlier models, note in pencil the color code that exist on those switches and adapt the reading material accordingly.



CLEAR THESE TWO SWITCHES BY:

1. Clipping the white and pink wires just forward of the first zip tie forward of the power plug.
2. Unsolder the orange wire at PC board, and solder the short pink wire in it's place.
3. Unsolder the red wire of the PA/CB switch from the PC board, just forward of VR-1, and unsolder the yellow wire from the switch and solder in it's place.
4. Remove all wires attached to the ANL/NB switch except the red one at the PC board. Remove the red one at the switch.
5. Move the brown wire of the ANL/NB switch to the other throw terminal.

INSTALL THE EPOXY PACK:

1. Pull the chassis grounding tab, located just above the PLL chip, straight out.
2. Mount the epoxy pack against that chassis wall just forward of the pulled out tab, with the variable capacitor up. If CC-1 will not allow the epoxy pack to slide down far enough chip out a "V" just to the rear of the lower tank on the epoxy pack using small dikes.
3. Using silicone sealant, adhere the epoxy pack to the wall.

UPPER CHANNELS FOR COBRA 29LTD AND SISTER UNITS CONTINUED:

REMOVE OR UNSOLDER THE FOLLOWING COMPONENTS:

REMOVE: JP-22, C-1, D-24

REMOVE: TR-2, R-6, C-7, R-5 and save these components to modify 21Ltd,
PC-66, AX-44, ETC.

C-3 - Remove and resolder where R-3 leg & TR-2 base was.

L-1 - Remove and replace with new tank provided.

R-2 - Unsolder the body end and resolder where D-24 cathode was.

1. Solder the red wire removed from the ANL/NB switch to the spare hole in the PC pad where the leg of R-2 is attached.
2. Cut this same pad between the point just soldered and the secondary of L-1.
3. Run a jumper between the other leg of L-1's secondary and ground.
4. Connect the pink wire on the CB/PA switch to this secondary leg just isolated from the PC pad. NOTE: The center leg of the primary does not have to be isolated since there is no connection internally.

CONNECT UP THE REST OF THE CB/PA SWITCH:

1. Pull the white wire out of the zip ties. Measure the distance needed to reach the blue terminal on the epoxy pack. Cut the insulation and pull a bare spot. Now solder it to the hook terminal-blue dot of the epoxy pack.
2. Continue the white wire to the point where JP-22 was removed near L-18 and solder.
3. Pull the orange wire out of the zip ties and run it along the left side of the receiver section to the other point where JP-22 was removed.
4. Connect the red wire to the leg of R-124, just off of pin 11 of the PLL chip component side of board.
5. Connect a new wire to the same pole where the yellow wire was removed.
6. Connect this wire to the red dot terminal on the epoxy pack.
7. Run a jumper wire from the yellow dot terminal on the epoxy pack to where C-1 was removed from the long PC run.
8. Run a grounding wire from the case of L-22 to the top tank (case) of the epoxy pack.

CONNECT UP THE ANL/NB SWITCH:

1. Add a wire to the other throw position of the same pole where the white and brown wires are. Connect to pin 11 of PLL chip.
2. Unsolder and lift the cathode end of D-15.
3. Connect the brown wire where the cathode was lifted from.
4. Connect the white wire to the raised leg of D-15.

UPPER CHANNELS FOR COBRA 29LTD AND SISTER UNITS CONTINUED:

OPTION: If full channels are desired steps 5, 6, 7, & 8 must be accomplished. If half channels are desired omit them.

5. Move the violet wire to the opposite throw.
6. Solder the VC (supplied) across the violet and red wires.
7. Cut the PC trace between the 10.24Mhz Xtal and the input leg of L-24.
8. Solder the violet and red wires across this cut. Now your switches should be down for normal position and up for high channels.

ALIGNMENT TX:

1. Connect power to the unit and load properly with a frequency meter attached.
2. Select channel 26.
3. With both switches down to normal position, key the transmitter. The reading should be 27.265Mhz. If not adjust L-24 to obtain this reading.
4. Now switch both switches up.
5. With a scope and/or counter connected to TP-3, the reading during receive should be 17.025Mhz. Or with the option 27.0283Mhz. If you are using the option and the reading is incorrect, adjust the VC you installed to obtain the correct reading.
6. Now read the signal on the orange wire of the CB/PA switch.
7. Adjust L-1 to maximize this signal. The tanks on the epoxy pack should require very little or no tuning.
8. This 37Mhz signal should read 37.960Mhz or with the option 37.9667Mhz. If not, adjust the VC on the epoxy pack to obtain the desired reading.
9. As a final check of the transmitter, key the mike and read the output frequency. Should be 27.720Mhz or with option 27.725Mhz.

ALIGNMENT RX:

1. Very little tuning should be required. Make a normal alignment and peaking using channel 40.

THIS COMPLETES THE UPPER CHANNEL INSTRUCTIONS FOR COBRA 29 AND OTHER SISTER UNITS.