

120 CHANNEL MODIFICATION FOR THE COURIER GALAXY V AND VI

(3) Solder a 100 microhenry choke across resistor R505 located next to the 10.24 MHz crystal.

THE CLARIFIER MODIFICATION IS COMPLETED

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• BRONCO CB

(1) This modification consist in mixing the 16 MHz "VCO" output with a 20 MHz crystal oscillator to obtain a new 37-38 Mhz receiver first conversion and transmitter mixer frequency.

(2) The "VCO" output line is open and the new mixer circuit is placed in series with the VCO output, converting the 16Mhz VCO output to the new 37-38 MHz frequency.

(3) Mount the modification PC BOARD switch on the side chassis close to the PLL CHIP.

(4) Locate the four holes, PCB connections between coils L18 and L44. Remove jumper wire connected from hole "B" to hole "D".

(5) Connect and solder the four wires from the modification board to the four pcb holes as follows:

A-RED WIRE TO HOLE "A"; B-BLUE WIRE TO HOLE "B"; C-BLACK WIRE TO HOLE "C"; D-YELLOW WIRE TO HOLE "D"

(6) Remove coils L29 and L30 located in front of coils L27 and L28 connect coil L30 from pin "A" to pin "D" and coil L29 from pins "c" to "D" and coil L29 from pins "C" to "B". (see drawing)

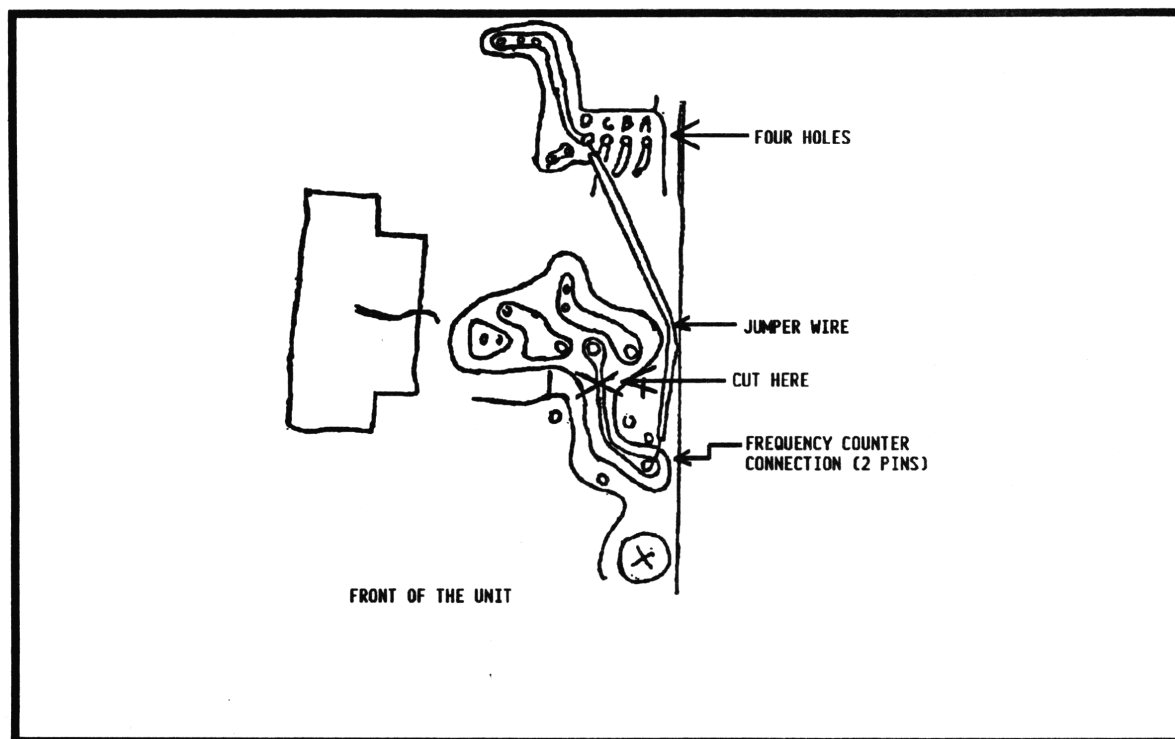
FREQUENCY COUNTER MODIFICATION FOR GALAXY VI ONLY.

(7) Locate the shielded wire coming from the frequency counter module and connected to the main PCB, next to coil L46.

(8) Cut the PCB copper pattern trace connected to point "B" of the two pins "PCB" connector (This is connected to the center conductor of the shielded) and connect a jumper wire from the two pin connector hole "B" to hole "D" of the four hole "PCB" connections. (see drawing)

Locate the 4 pins connector, connected to the frequency counter module and reverse the "RED" and "WHITE" wires. If the "TRUE" USB or LSB is desired on

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FIGURE# 12.....GALAXY FREQ COUNTER MOD

the display. Do not connect the RED or WHITE wires to the module. Tape wires ends.

TEST AND ALIGNMENT FOR GALAXY V AND GALAXY VI

(9) Using a frequency counter with a low capacity probe, check the frequency of crystals located in the modification board. The frequency should be:

21.3900mhz. on "CB"

20.9400MHz. on "LO"

21.8400MHz. on "HI"

Output frequency can be obtained from pin 2 of the IC TA7310 located in the modification board. Adjust TRIMMER capacitors for proper frequency if necessary.

(10) Set the channel selector to channel 20 and using a 10 Megohms low capacity probe Voltmeter, connected to the PIN 17 OF THE PLL CHIP and adjust the "VCO" coil L17 to obtain 3 volts DC.

(11) With the channel selector set to channel 20 of the "CB MODE" adjust the coil located at the new "expander" board to maximum 37 - 38 MHZ "RF" output at the yellow wire. Check the complete operation of the unit.

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(12) Set channel selector to CH1, "CB BAND" AM. Check the frequency at the output of yellow wire. Frequency should be:

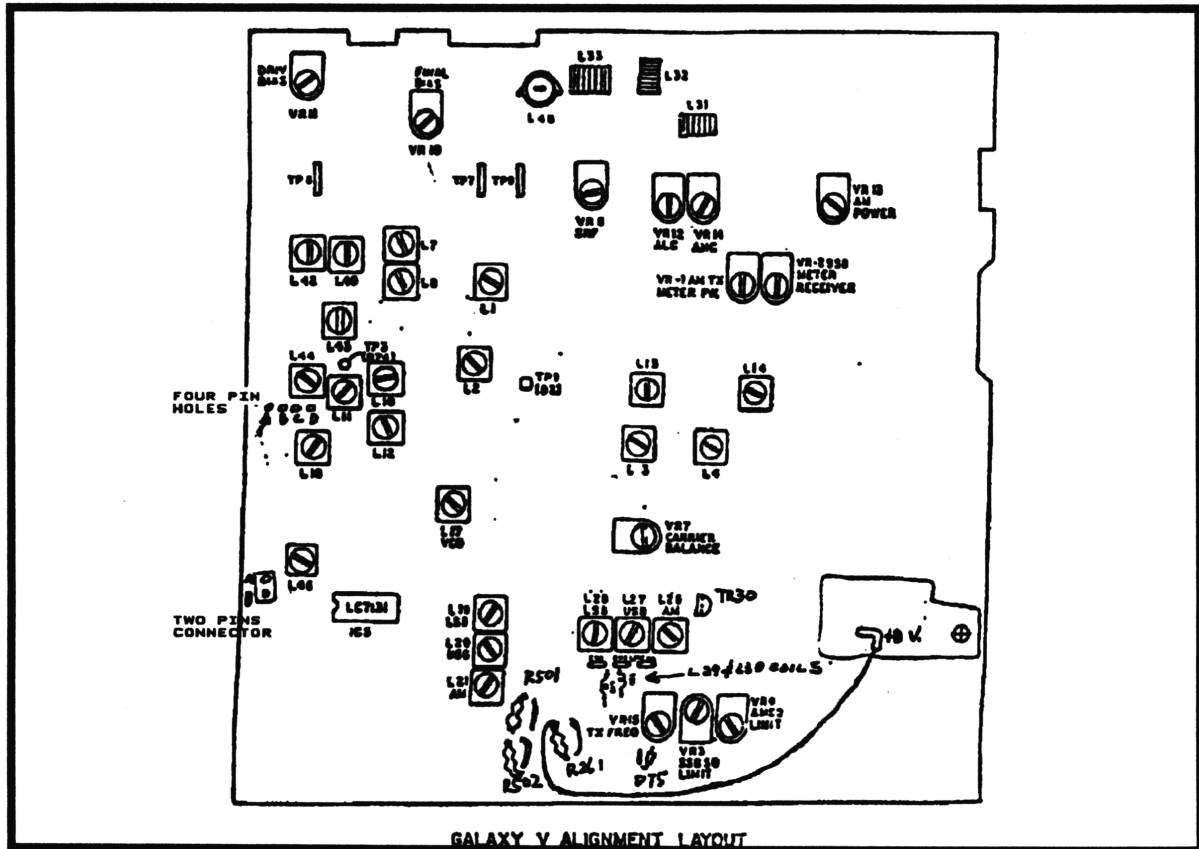
37.66000MHZ at CH1

38.10000MHz. at CH40

Adjust trimmer at modification board if necessary.

(13) Set "BAND" selector switch to "HI" mode and check the frequency at the output of yellow wire. Frequency should be:

38.11000MHz. at CH1



FIGURE# 13.....GALAXY V&VI

38.55000Mhz. AT CH40

adjust trimmer at modification board if necessary.

(14) Set "band" selector switch to "LO" mode and check the frequency at the output of yellow wire. Frequency should be:

37.21000MHz. at CH1

37.65000MHz. at CH40

(15) Check the operation of the unit.

EASY 10 METER VOICE CONVERSION FOR GALAXY II

(16) Check transmitter power output on ALL BANDS, ADJUST COILS L44, L43, L42, AND L40 if necessary.

(17) Connect frequency counter to pin 11 of the PLL CHIP and Check the frequency. On receive mode the Frequency should be:

10.2380MHz. for "LSB" (L19)

10.24000MHz. for "AM" (L21)

10.24155MHz. for "USB" (L20)

Adjust coils for the proper frequency if required.

(18). Connect the frequency counter to the emitter of TR30 and check the frequency. In transmit mode the Frequency should be:

10.69250MHz. for "LSB" (L27)

10.69500MHz. for "AM" (L26)

10.69750MHz. for "USB" (L28)

(19) Check full operation of the receiver and transmitter.

THE 120 CHANNELS MODIFICATION IS COMPLETED.

CLARIFIER MODIFICATION FOR "10KHz" SLIDER

(1) Remove or cut R501, R502 and D75. (Located in the PCB near the front panel and next to coil L21)

(2) Cut lead on top of resistor R261 and solder a 4 inch long wire to the free end of the resistor, then connect the free end of the wire to the 8 VDC PCB connection located in the microphone preamplifier board attached to the side panel.

THE CLARIFIER MODIFICATION IS COMPLETE

EASY 10 METER VOICE CONVERSION FOR GALAXY II

● Terry Shelly

A switch between Pin 15 and 16 of 1C7 Bit adder will give 28.245 through 28.685 on "C" Band.

SUPER GALAXY ALIGNMENT PROCEDURES

● TERRY DAVIS

NOTE: Before any alignment all test equipment and radio are to be warmed-up for at least 30 minutes.