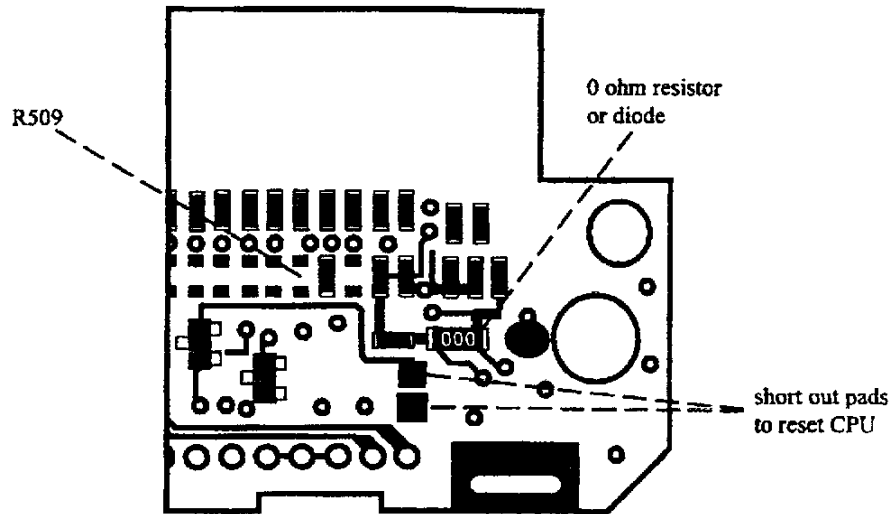


Visible Corner of Front Panel Circuit Board by Frequency Control Switch
(Inside of Radio)



To have expanded frequency only.

1. Hook up radio to power and turn on for a minimum of 10 seconds.
2. Turn off radio and disconnect from all power sources.
3. Remove cabinets.
4. Add a 47K ohm resistor (either chip resistor or 1/8 watt resistor) to the empty R509 pads on the front panel circuit board.
5. Remove frequency control knob on front panel.
6. Remove (unsolder or cut out) the diode on D555. This diode is located directly above the frequency control switch. It is the only visible component when the frequency control knob is removed.
7. Reset the radio CPU by temporarily shorting the two front panel circuit board pads located near the 0 ohm resistor or diode.
8. Hook the radio back up to power and turn on the radio. The radio will come up with expanded frequency and band indicator.
9. Use the CALL button to select bands.
10. To switch between channel and frequency display, press the FUNC button and press the CALL button.

To have either 10 meter only or expanded operation.

1. Hook up radio to power and turn on for a minimum of 10 seconds.
2. Turn off radio and disconnect from all power sources.
3. Remove cabinets.
4. Remove (unsolder) the 0 ohm surface mount resistor (marked "000"), or surface mount diode, on vertical front panel circuit board. This resistor, or diode, is located by the frequency control switch, in the lower, visible corner of the front panel circuit board.
5. Remove frequency control knob on front panel.
6. Remove (unsolder or cut out) the diode on D555. This diode is located directly above the frequency control switch. It is the only visible component when the frequency control knob is removed.
7. Reset the radio CPU by temporarily shorting the two front panel circuit board pads located near the 0 ohm resistor or diode.
8. Hook the radio back up to power and turn on the radio.
9. Press the FUNC button, then press and hold the CALL button for approx. 3 seconds. The band indicator will appear on LCD.
10. Use the CALL button to select bands.
11. To switch between channel and frequency display, press the FUNC button and press the CALL button.
12. **When turned off and on again, the radio will always default to original 10 meter settings. To automatically return to last used frequency and mode, press the FUNC button and then press and hold the CALL button for approx. 3 seconds.**

To unlock the clarifier so that it controls both transmitter and receive.

1. Turn off radio and disconnect from power.
2. Remove D176.
3. Remove R244 and save.
4. Remove R306 and replace it with a jumper wire.
5. Cut the leg of RV108 closest to R244.
6. Install the resistor removed in step 3. Put the radio face toward you and the solder side of the main circuit board up. Find the R244 pad closest to the front of the radio. Follow the trace to the pin (white edge connector). Solder one side of the removed R244 resistor to this pin. Count over 2 pins to the right - this pin should be +8 volts. Solder the other side of the removed R244 resistor to this pin.
7. Turn the radio over and follow the gray wire from the clarifier control potentiometer to the 12 pin connector and cut it by this connector.
8. Connect the gray wire to the junction of RV108 and D176 through the hole where D176 was removed.
9. Put the clarifier control in the 12 o'clock, or centered, position and adjust RV108 for center frequency.

To lower the AM carrier power, solder a 220 ohm resistor across the 470 ohm resistor on the PWR/CAL potentiometer.

The following is a list of power and modulation adjustments.

1. RV116 is the ALC
2. RV117 is the AM low power adjustment. Turn the PWR control fully counter-clockwise and adjust for desired minimum AM carrier.
3. RV118 is the AM high power adjustment. Turn the PWR control fully clockwise and adjust for desired maximum AM carrier, but do not exceed 10 watts carrier.
4. RV119 is the AMC

The modulation limiting transistor is Q142. Removal of this transistor will possibly increase output swing, but will also increase distortion (just as with other 10 meter radios).

If the echo audio is distorted check the solder side of the echo board at J1. J1 is the connector that has an audio line coming from the AMT board. Check the gray coax line going to J1 - if the shield is connected to J1, cut it at the board and insulate it so it does not touch any circuits. Removing the shield and insulating it should correct any audio distortion.

The echo volume trim pot is located on the solder side of the echo board and is used to increase or decrease the echo volume limit this could be considered a "coarse" control for the echo volume. Use this pot to adjust for the type of echo range you want To get maximum echo delay and effect, do the following.

1. Turn the E-VOL fully clockwise and the E-DEL full counter-clockwise.
2. Temporarily jumper pin 3 to pin 5 on the microphone jack.
3. Adjust echo trim pot (on solder side of echo board) until a slight feedback sound is achieved.
4. Remove the jumper from the microphone jack.
5. Turn the E-DEL fully clockwise and check for desired echo.

For lower output microphones, such as the Astatic 636L and the RK56, the microphone preamplifier gain can be adjusted as follows:

1. Remove the 2 screws holding the echo board to the chassis. Note that the sheet metal screw is used in the hole closest to the front
2. of the radio and the machine screw is in the hole to the rear of the radio.
3. Care fully turn the echo board over and locate SVR 1 on the echo board itself
4. Adjust SVR 1 to the desired gain level.