

CHEYENNE 8

ALIGNMENT

IF ALIGNMENT

1. Connect the output of a 455 kHz sweep generator to the base of Q302 (2nd mixer).
2. Connect the vertical input of an oscilloscope to the junction of R324 and R325. Connect the horizontal input of the oscilloscope to the sweep generator.
3. Adjust T303 and T304 for optimum linearity of discriminator curve, and centering of 455 kHz marker.

RF ALIGNMENT

1. Move Priority switches to Off, and set the Squelch control to minimum.
2. Move Scan Control switch to Manual, and select a receive channel near 156 MHz.
3. Connect an oscilloscope or AC VTVM across the speaker coil.
4. Connect an RF signal generator to the antenna terminals. Set the frequency of the RF signal generator to receiver frequency. Set modulation frequency to 1 kHz and deviation to +5 kHz. Keep signal generator output level at minimum level necessary to produce a usable output indication on the oscilloscope or VTVM.
5. Adjust T301, T302, L106 and L107 for maximum output.
6. Adjust L101, L102, L103 and L104 for maximum output, reducing signal level as receiver sensitivity increases.
7. Check receiver sensitivity on highest and lowest frequencies received. Step 6 may be repeated for a more uniform response across the receiver range.

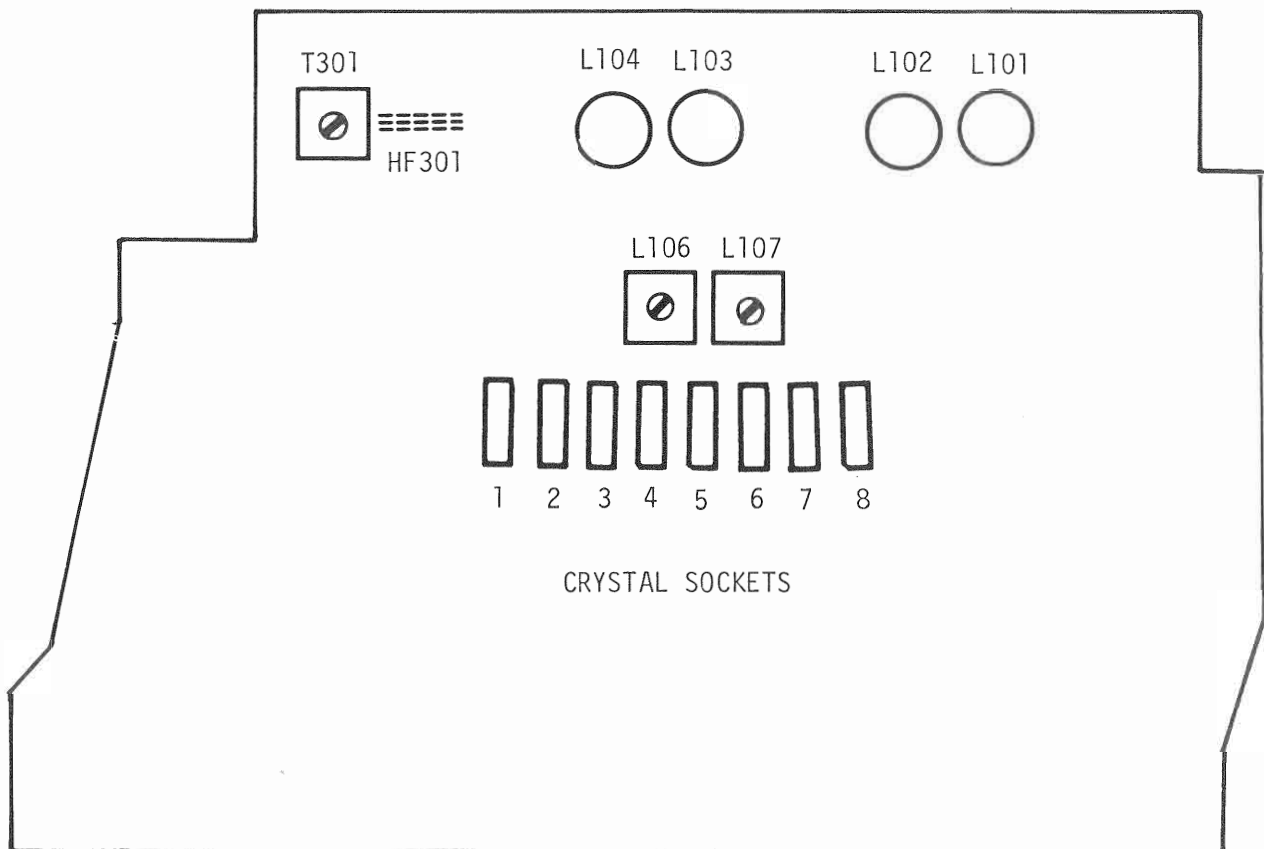
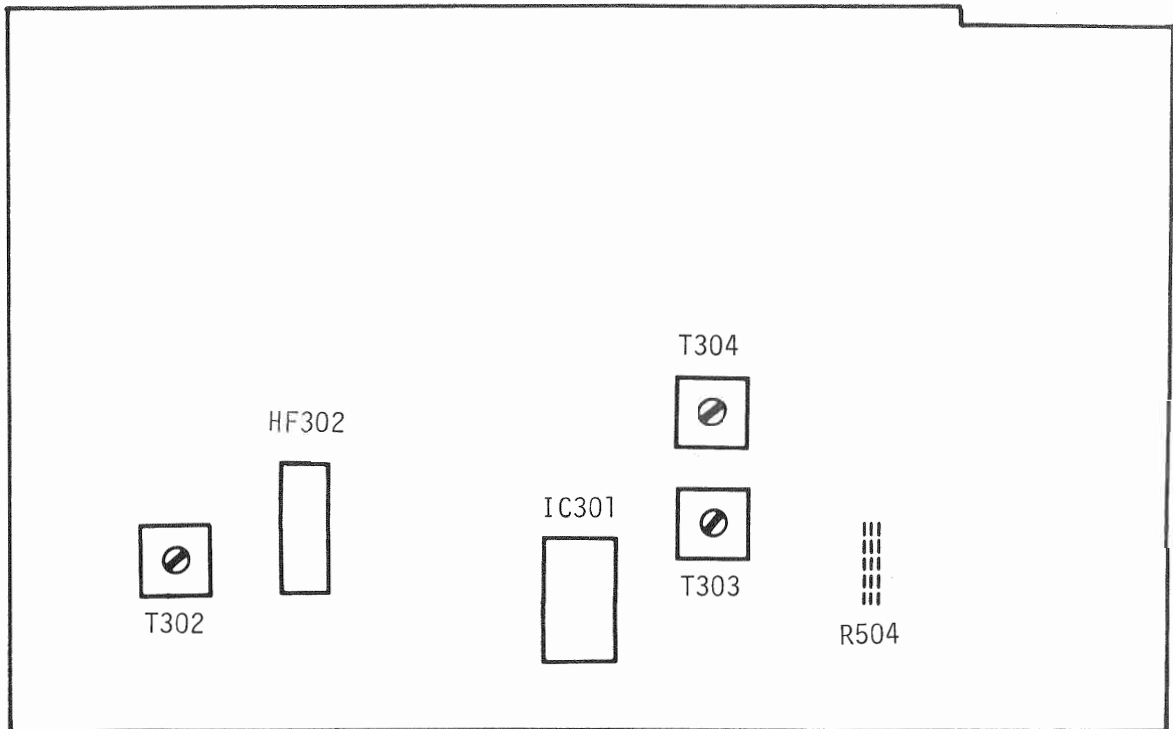
AUDIO ADJUSTMENT

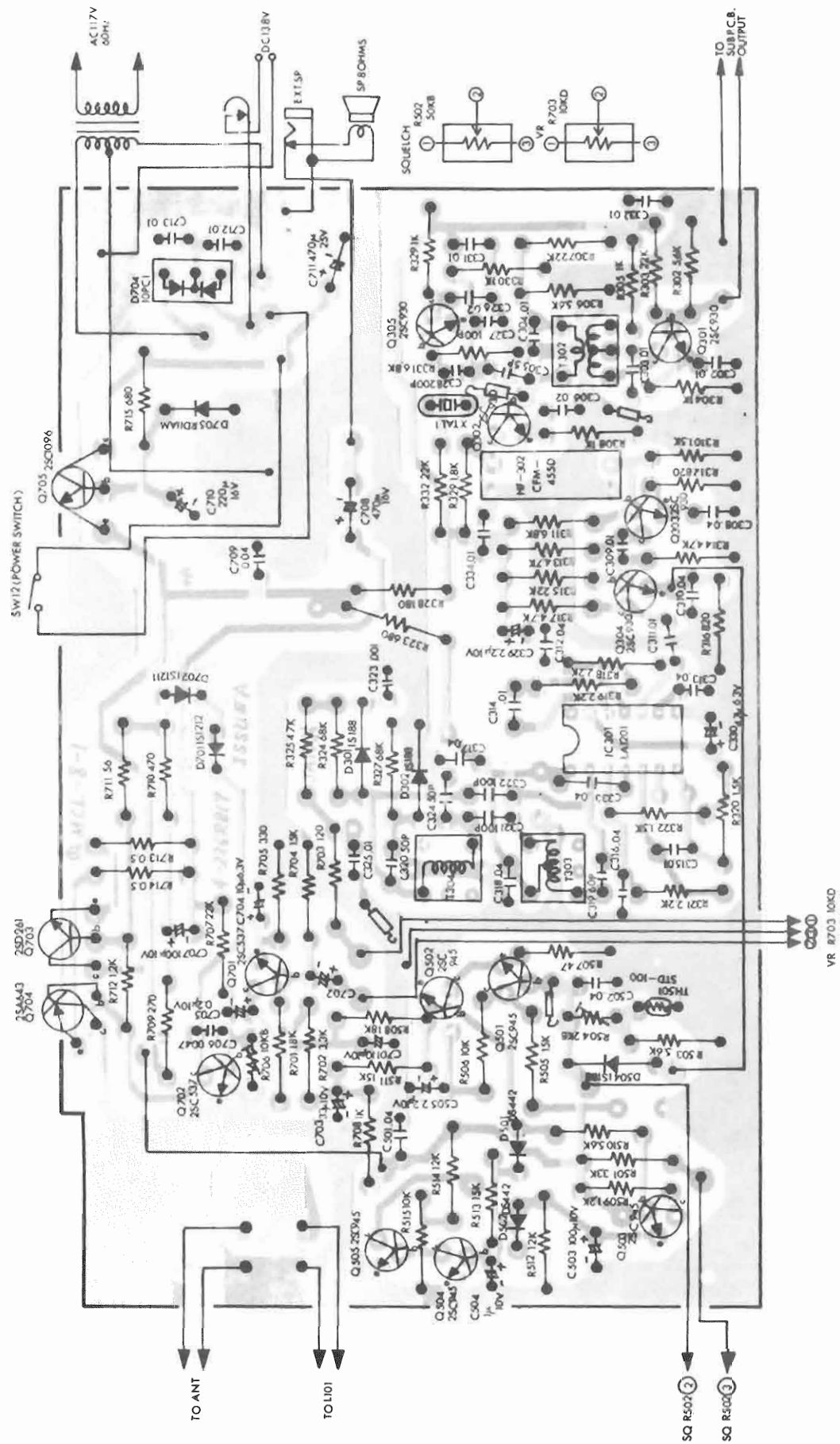
1. Move Priority switches to Off, and set the Squelch control to minimum.
2. Move Scan Control switch to Manual, and select a receive channel near 156 MHz.
3. Connect an oscilloscope or AC VTVM across the speaker coil.
4. Connect an RF signal generator to the antenna terminals. Set the frequency of the RF signal generator to receiver frequency. Set modulation frequency to 1 kHz and deviation to +5 kHz.
5. Set generator output to 10,000 uV.
6. Adjust Volume control toward maximum until audio signal displayed on oscilloscope shows clipping of positive or negative peaks.
7. Adjust R706 for equal clipping of positive and negative peaks.

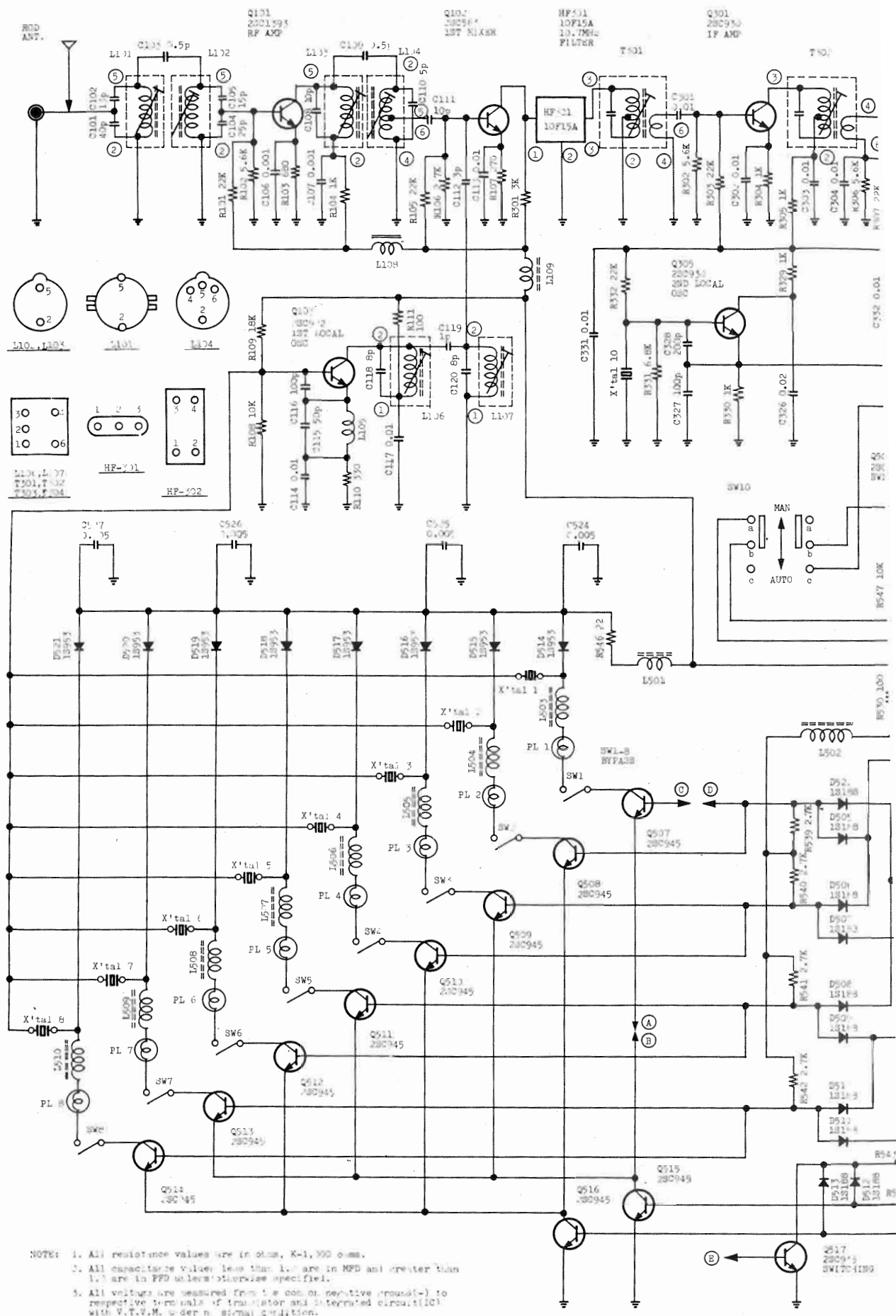
SQUELCH ADJUSTMENT

1. Move Priority switches to Off, and set the Squelch control to minimum.
2. Move Scan Control switch to Manual, and select a receive channel near 156 MHz.
3. Connect an oscilloscope or AC VTVM across the speaker coil.
4. Connect an RF signal generator to the antenna terminals. Set the frequency of the RF signal generator to receiver frequency. Set modulation frequency to 1 kHz and deviation to +5 kHz.
5. Set generator output to 2 uV.
6. Move Squelch control to maximum clockwise position.
7. Adjust R504 to point where squelch begins to open.

ALIGNMENT PARTS LOCATION







NOTE: 1. All resistance values are in ohms, K=1,000 ohms.
 2. All capacitance values less than 1.0 are in PFD and greater than 1.0 are in PFD unless otherwise specified.
 3. All voltages are measured from 1.5 sec. or negative (ground-) to respective terminals of transmitter and integrated circuit(IC) with V.T.V.M. under normal condition.

