

MESSENGER 125 TEST PROCEDURE

OPERATION

- 10 Coil slugs preset from top of coil forms as follows:
- 11 L3 slug 3/16 inch.
- 12 L4 slug 1/2 inch.
- 13 T3 slug 1/16 inch.
- 14 T8 slug 1/8 inch.
- 15 T9 slug 1/8 inch.
- 101 Key transmitter and adjust L4 for peak R.F. output on channels 1, 11, and 23. If output is between 2.8 and 3.8 watts and on frequency ( $\pm .004\%$ ) go to step 102.
- 102 Check for starting on frequency on channel 1.
- 103 Switch to channel 11 and peak T9. If output is above 3.8 watts detune L3 to 3.8 watts.
- 104 Check modulation with 3:1 VSWR (all phase angles) across antenna. Minimum of 70% modulation with 25 mV of audio at terminal 5 of Z7. Tune out distortion with T8, T9 - Do not detune L3, L4.
- 105 Check for operation at 11 volts, modulating with microphone.
- 201 Adjust T3 for starting on all channels.
- 202 Peak T1, T2, T4, and T5 and check audio gain on channel 11, + 2 db minimum. R2 may be changed from 100 ohm up to 270 ohm maximum, as necessary, if noisy or regenerative. Plus 10 db maximum gain.
- 203 Check S + N/N at 0 db reference, 8 db minimum. If less to to 202.
- 204 Check AVC at +10 db reference, 20 db  $\pm$ 10 db from 1000 microvolts to 1 microvolt.
- 205 Check to see that you can squelch 30 microvolts and tight squelch must open at less than 1000 microvolts.
- 300 Heat run unit in cabinet for 15 minutes with a 30 second duty cycle.
- 301 Check two-way operation.