

TMC SPECIFICATION

NO. S 1204

REV:*

0

COMPILED:

NAB

CHECKED

APPD:

SHEET COVER 1 OF 7

TITLE:

typed by vita

TEST PROCEDURE

FOR THE

STR-2Y

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A. EQUIPMENT REQUIRED:

1. VOM, Simpson Model 260 or equivalent.
2. Audio Signal Generator, H/P Model 200 C/D or equivalent.
3. Loudspeaker, Four (4) ohm.
4. VTVM, H/P Model 410B or equivalent.
5. AC VTVM, Ballantine Model 314 or equivalent.
6. RF Signal Generator, H/P Model 606A or equivalent.
7. Frequency Counter, H/P Model 5244L or equivalent.
8. Step Attenuator, Telonic Model TG950 or equivalent.
9. Resistor, 600 ohm 1 watt.
10. Connector, BNC "T" (UG-274A-U).
11. Three 4' pieces RG58 cable, terminated with male BNC connectors.
12. Schematic Drawings CK1272.

B. PRELIMINARY:

1. All RF modules should be pre-tested per TMC S-808 before being installed into this unit.
2. Inspect the unit for mechanical imperfections such as loose screws, printed circuit boards, cold solder joints, etc.
3. With the ohmmeter set for (+), check for 130 ohms $\pm 10\%$ from Pin 11 on A3190 (Audio Board) to ground. With the ohmmeter set for (-), check for 200 ohms $\pm 10\%$ from Pin 14 on A3190 (Audio Board) to ground.

C. POWER:

1. Connect the unit to an a-c outlet.
2. Set the power switch to ON. The white light should go ON.

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C. POWER - Cont'd

3. With the H/P VTVM, measure +12V +5% from Pin 11 on the audio board to ground, from Pin 7 on the IF board to ground, and from Pin 1 on the RF module to ground. Also measure +12V +5% from Pin 14 on the audio board to ground, and from Pin 8 on the IF board to ground, and from Pin 8 on the RF module to ground.
4. Connect the a-c Ballantine between Pin 11 on the AF board and ground. The a-c noise measured should not exceed 1 mV.
5. Repeat Step 5 for Pin 14 on the audio board.
6. Make sure that the removal of the a-c line fuse, the B+ fuse and the B- fuse will make the respective voltages disappear.
7. Measure 115V a-c with the Simpson between Pin 10 and Pin 9 on the RF module.
8. Connect 600 resistor across terminals 3 and 5 on TB1501.
9. Connect the loudspeaker to terminals 9 and 10 on TB1501.

D. RECEIVER AUDIO CHECK:

1. Set the SQUELCH control R1547 on the rear apron to maximum clockwise.
2. Set the VOLUME control R1546 on the front panel maximum clockwise.
3. Set R1822 maximum clockwise.

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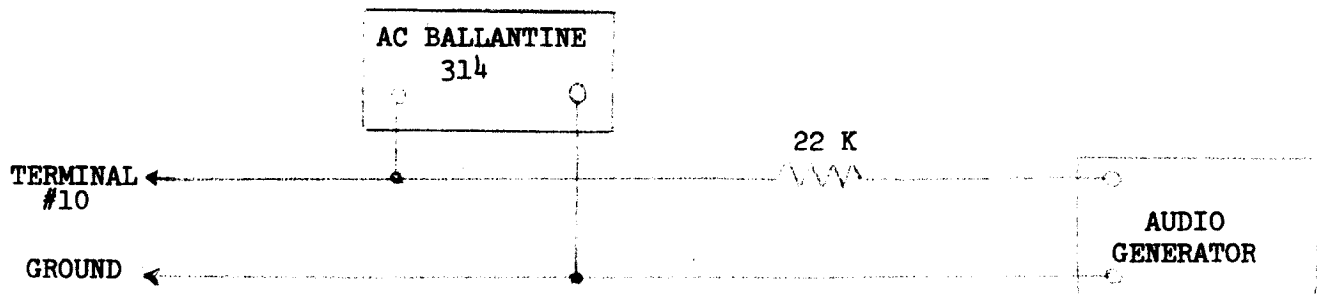
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D. RECEIVER AUDIO CHECK - Cont'd

4. Set the AUDIO SIGNAL GENERATOR at 1 KC and connect to the RECEIVER IF board as shown below with the generator output at zero, and A-C VTVM across input to board.



5. Increase the AUDIO GENERATOR output until a 1 KC tone is heard through the speaker. Insert the phones into J1516. The 1 KC tone should disappear from the speaker and should be heard on the phones. Remove the phones.
6. Rotate the SQUELCH control maximum counter-clockwise. The tone should abruptly disappear.
7. Set the AUDIO GENERATOR output for a 10 mV reading on the Ballantine A-C VTVM. Remove meter.
8. Connect the Ballantine across terminals 3 and 5 on TB1501. The meter should read approximately 780 mV.
9. Connect the Ballantine across terminals 3 and 4 on TB1501. The meter should read exactly half the voltage obtained in Step 8. Remove the meter.
10. Connect the Ballantine across R1660 on the RCVR AF printed circuit board. The meter should read approximately 1.4 volts. Leave meter connected.

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11. Rotate the VOLUME control counter-clockwise. The voltage across R1660 should drop proportionately with rotation of the VOLUME control knob. Reset the VOLUME control maximum clockwise, and remove the Ballantine A-C VTVM.

E. RECEIVER IF ALIGNMENT

1. Set the RCVR sideband switch to LSB and turn R1554 and R1555 fully clockwise.
2. Connect the counter to emitter lead of Q1802 and adjust C1832 for a frequency of 1.5 Mcs. ± 2 cps as registered on the counter. Leave counter connected.
3. Set the RCVR sideband switch to USB/REMOTE.
4. Adjust C1834 for a frequency of 2.0 mc ± 2 cps as registered on the counter. Remove the counter.
5. Set the RCVR sideband switch to LSB and remove the 1.5 mc crystal Y1801.
6. Connect the Ballantine between the base of Q1802 and GND.
7. Connect the HP 606A RF GENERATOR between terminals 1 and 2 on the RCVR IF Board with the generator's output control at zero.
8. Set the generator frequency at 1.75 mc ± 50 cps using the frequency counter, and increase the generator output to approximately 1.0 mV. The Ballantine should indicate some voltage present at the base of Q1802.
9. Adjust C1804 and C1802 for a peak indication on the Ballantine Meter. Peak reading should be 10 mV minimum.
10. Reduce generator output to zero and remove m ter.

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11. Remove signal generator.
12. Replace crystal Y1801.
13. Connect AC VTVM across terminals 3 and 5 on TB1501.
14. Set volume control (R1546) maximum counter clockwise and SQUELCH control R1547 to mid-position.
15. Turn power switch OFF, insert TTRR-module and turn power switch ON. Allow 10 minutes warm up time.
16. Connect RF signal generator through a step attenuator to antenna input jack (J1502).
17. Set RF signal generator to 100 mV at appropriate frequency 30% modulated at 1 kHz.
18. Insert 80 db of attenuation in step attenuator. Retune C1802 and C1804 for peak.
19. Remove signal source.
20. Monitor terminal 9 on A4020 with a d-c VTVM. Adjust R1834 for an indication of +1.4V d+c.
21. Insert signal source with 40 db of attenuation. While observing the a-c VTVM carefully adjust R1841 until the meter peaks, then continue adjustment until the meter reduces by .5V from peak.
22. Adjust RF signal generator for 30 mV output, step attenuator for 86 db of attenuation, adjust R1557 until K1601 just de-energizes.
23. Remove 6 db of attenuation, adjust R1547 until K1601 just energizes.

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24. Repeat Steps 21 and 22 until K1601 energizes with -80 db, and de-energizes with -86 db. (All in reference to 30 mV source).
25. Set RF signal generator for 100 mV output. Set 90 db of attenuation into step attenuator.
26. Observe a-c VTVM. Insure that at least .78 volts is indicated. Reduce output. Adjust R1822 for a 10 db reading on the 1V scale.
27. Remove the 90 db of attenuation. Insure that output does not rise more than 8 db.
28. Repeat Steps 21, 22 and 23 using 70 db and 76 db vice 80 db and 86 db.

