

DATE 9 April 1963

SHEET 1 OF 8

TMC SPECIFICATION NO. S-754

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N.P.
CHECKED

TITLE:

APPROVED *RP*

DDR-9A TEST PROCEDURE

DATE 3 April 1963
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TMC SPECIFICATION NO. S - 754

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 CHECKED

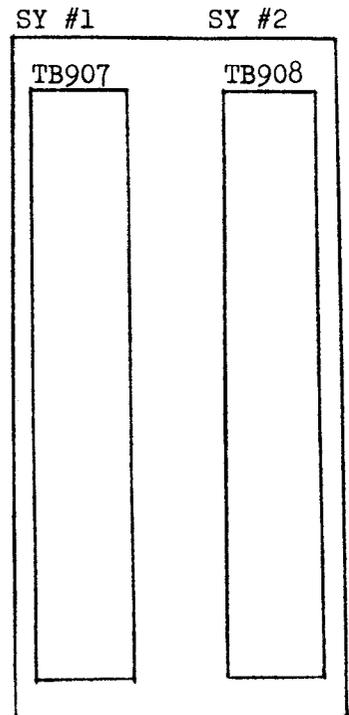
TITLE: DDR-9A TEST PROCEDURE

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DESCRIPTION OF UNITS IN RACK (FRONT VIEW)

SY #1	R390		
SY #1	AFC		
SY #1	SBS		
	R390		SY #2
	AFC		SY #2
	SBS		SY #2
SY #1	SDP-1		SY #2
	Speaker 1	Speaker 2	
SY #1	RMX	RMX	SY #1
	Channel A	Channel B	
SY #2	RMX	RMX	SY #2
	Channel A	Channel B	
DCP-2			
SY #1	BSP-2		SY #2

DESCRIPTION OF INTER-CONNECTING TERMINAL BOARD INSIDE RACK.



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I. TEST EQUIPMENT REQUIRED

- 1 - RF Generator; Measurements Corp. Mo. 82 or equivalent.
- 1 - Counter; Computer Measurements Corp. Mo. 203BN or equivalent.
- 1 - VOM; Simpson Mo. 260 or equivalent.

NOTE: This system should not be tested unless all the units in the rack have been tested individually.

II. PRELIMINARY

- 1. Check rack for mechanical defects.
- 2. Check for wiring defects.
- 3. Connect jumpers on TB907 and TB908 as follows: between terminals 16 and 19, 17 and 20, 18 and 21, 22 and 25, 23 and 26, 24 and 27, 33 and 34.
- 4. Connect A-C line and plug between terminals 1 and 4 of TB1 on the DCP-2 panel. Plug into 115 VAC.
- 5. Switch on all units.
- 6. The fans should start working.
- 7. Adjust the controls on both receivers as follows:
 - FUNCTION switch to AGC BFO switch to OFF
 - LINE GAIN control to 0 RF GAIN control to 6
 - LOCAL GAIN control to 0 BANDWIDTH switch to 8
 - AUDIO RESPONSE switch to WIDE AGC switch to MED.
 - LIMITER control to OFF DIAL LOCK to the left.
 - MEGACYCLE CHANGE for 1 MC
- 8. Adjust BSP-2, INCR controls as needed.

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9. Adjust the controls on both SBS units as follows:
 - AGC SELECTOR switch to CH-A-B.
 - POWER switch to ON. AFC switch to ON.
 - AGC RESPONSE switch to FAST on CHANNEL A and B.
 - DETECTION switch to SSB on CHANNEL A and B.
 - IF BANDWIDTH KC switch to 7.5 KC LSB on CHANNEL A.
 - IF BANDWIDTH KC switch to 7.5 KC USB on CHANNEL B.
10. Adjust the controls on both AFC units as follows:
 - CARRIER SELECTOR switch to OSC.
 - TUNING KCS control to 0.
 - SENSITIVITY control to full CW.
11. Adjust the controls on all DEMUX units as follows:
 - INPUT switch to ON. DIRECT switch to ON.
 - TRANSLATED switch to OFF. Meter switch to DIRECT.
 - OUTPUT LEVEL to CCW.
12. Adjust the controls on the SDP panel as follows:
 - SPEAKER 1 switch to RECEIVER. SPEAKER 2 switch to RECEIVER.
13. Connect VOM between terminals 33 and ground on TB907 SY #1. Adjust R6800 IN LEVEL control on the back of SBS unit of SY #1, for a zero reading on the VOM. Repeat the same procedure for SY #2 SBS on TB908 and remove VOM.

III. PROCEDURE

1. Calibrate RF generator with counter at the following frequencies:
1000 KC, 1001 KC, 1005 KC, 999 KC and 995 KC.
2. Connect RF generator to J103 on SY #1 receiver of the rack.
3. Set RF generator to 1000 KC with 400 cycles modulation and the ATTENUATOR to 10 microvolts.

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4. Adjust receiver for 1000 KC, (use CARRIER LEVEL meter as indicator).
5. Adjust LOCAL and LINE GAIN controls as needed. The 400 cycle modulation should be heard from SY #1 speaker.
6. Adjust SPEAKER 1 switch on SDP panel to EXTERNAL.
7. On TB907 connect jumpers between terminals 1 and 28, 3 and 30. The 400 cycle modulation should be heard from SY #1 speaker. Remove jumpers.
8. Adjust SPEAKER 1 switch on SDP panel to DEMUX A1.
9. Turn the 400 cycle modulation off on the RF generator. Repeat 1000 KC on receiver if necessary.
10. Connect the VOM between terminals 31 and 32 on TB907 and switch to ohms scale.
11. Depress and hold down the RESET button on the SY #1 AFC unit, adjust TUNING KCS control for maximum indication on the CARRIER LEVEL meter, and zero center scale on the DRIFT METER. The CARRIER LEVEL meter should read in the green scale, Release RESET button. The FADE and DRIFT ALARM lamps should be off.
12. Place the CARRIER SELECTOR switch to RCC. There should be no change in indications. Turn SENSITIVITY control full CCW. The FADE indicator will light up and the VOM will indicate a closed circuit. Turn SENSITIVITY control full CW and the CARRIER SELECTOR switch to OSC.
13. Slowly turn the RF generator past 1001 KC. The DRIFT ALARM indicator will light up. Continue in the same direction. The FADE indicator will light up and the VOM will indicate a closed circuit. Adjust RF generator for 999 KC and remove VOM.
14. Turn AFC switch to OFF on the SY #1 SBS unit.
15. Turn LEVEL ADJUST control on CHANNEL A for an indication of 100 on the meter.

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16. Turn OUTPUT LEVEL control on SY #1 CHANNEL A DEMUX unit until an audio tone is heard on SY #1 speaker.

17. Turn IF BANDWIDTH KC switch to 3.5 KC LSB on CHANNEL A of SY #1 SBS unit. The audio tone should be heard on SY #1 speaker. Return IF BANDWIDTH KC switch to 7.5 KC LSB on CHANNEL A of the same unit.

18. Adjust SPEAKER 1 switch on SDP panel to DEMUX A2.

19. Adjust the controls on SY #1 CHANNEL A DEMUX unit as follows:

TRANSLATED switch to ON. DIRECT switch to OFF.

Meter switch to TRANS.

20. Adjust RF generator to ~~995~~ KC. An audio tone should be heard on SY #1 speaker.

21. Adjust SPEAKER 1 switch on SDP panel to DEMUX B1.

22. Adjust RF generator to 1001KC.

23. Turn LEVEL ADJUST control on CHANNEL B of the SY #1 SBS unit for an indication of 100 on the meter.

24. Turn OUTPUT LEVEL control on SY #1 CHANNEL B DEMUX unit until an audio tone is heard on SY #1 speaker.

25. Turn IF BANDWIDTH KC switch to 3.5 KC USB on CHANNEL B of SY #1 SBS unit. The audio tone should be heard on SY #1 speaker. Return IF BANDWIDTH KC switch to 7.5 KC USB on CHANNEL B of the same unit.

26. Adjust SPEAKER 1 switch on SDP panel to DEMUX B2.

27. Adjust the controls on SY #1 CHANNEL B DEMUX unit as follows:

TRANSLATED switch to ON. DIRECT switch to OFF.

Meter switch to TRANS.

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28. Adjust RF generator to **1005KC**. An audio tone should be heard on SY #1 speaker.

29. Repeat section III steps 2 to 28 for SY #2 units.

30. Remove jumpers from TB907 and TB908.

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THE TECHNICAL MATERIEL CORP.
 MAMARONECK, N.Y.

DDR-9A TEST DATA SHEET

SERIAL NO. _____

MFG. NO. _____

Mechanical Check _____ OK

Wiring Check _____ OK

	SY #1	SY #2	
BSP-2 Loudspeaker Panel _____			OK
R390 Receiver _____			OK
AFC-2 Automatic Frequency Control _____			OK
SBS-1 Sideband Selector _____			OK
SDP-1 Signal Distribution Panel _____			OK
RMX-1 CHANNEL A Demultiplexer _____			OK
RMX-1 CHANNEL B Demultiplexer _____			OK
DCP-2 Diversity Control Panel _____			OK

R390 SER.# _____ SER.# _____

AFC-2 SER.# _____ SER.# _____

SBS-1 SER.# _____ SER.# _____

BSP-2 SER.# _____ SDP-1 SER.# _____

RMX-1 SER.# _____ SER.# _____ SER.# _____ SER.# _____

DCP-2 SER.# _____

DATE: _____

TESTER: _____

