TMC SPECIFICATION

NO. S 1142

REV: B

COMPILED: AD | CHECKED: G. R. Waddles | APPD: [redacted] 9/27/66 | SHEET 1 OF 27

TITLE:

typed by vab 9/13/66

TEST PROCEDURE

FOR THE

CFA-2

A. EQUIPMENT REQUIRED:

1. AF Generator - HP 200 CD or equivalent.
2. VOM - SIMPSON 260 or equivalent.
3. Scope - Tektronix 541A with type "L" lead or equivalent.
4. Frequency Counter - HP5244L or equivalent.
5. AC VTVM - Ballantine 314A or equivalent.
6. VTVM - HP 410B or equivalent.
7. Keyer - Digitech DT108A-1.
8. Analyzer - Digitech DT603.
9. Loop Supply - PSPA-1.
10. Frequency Shift Simulator - TMC FSS.
11. Line Supply - A4347
12. Extender Card - A4348.

B. MAIN CHASSIS AND POWER SUPPLY CARD A4343:

1. Setting of Controls: Function Switch - space; CH1 and 2 gain - maximum CCW rotation; CH1 and 2 ON-OFF in OFF position; Meter Switch line current X5; BIAS - mid-range; POWER - OFF; Speed Switch - slow; Line Supply Switch - internal; Line Current S1001 - 60 ma; S1009, S1010 - 2550 wide; all cards removed.

2. Check the chassis over physically for shorted connections, etc.

3. Place the low voltage power supply card A4343 in the A4348 card extender and then into J1010.

4. Connect the (+) lead of the Simpson 260 to the (+) end of C3. Connect the (-) lead the chassis ground and set the meter to read +DC volts on the 50V scale.

*5. Turn ON power switch S1004. Record the voltage, it should be +12v ±10%.

*6. Using the Simpson 260 measure for +12v at Pin 1 J1002, J1003, J1004, J1007, J1008 and J1009.

7. Set the Simpson 260 to read -DC volts on the 50v scale and connect the (+) lead to the top end of R4.

*8. Adjust R6 so the meter reads the same value as in step B5 only negative. Record voltage.

*9. Using the Simpson 260 measure for -12v at Pin 2 of J1002, J1003, J1004, J1007, J1008 and J1009.

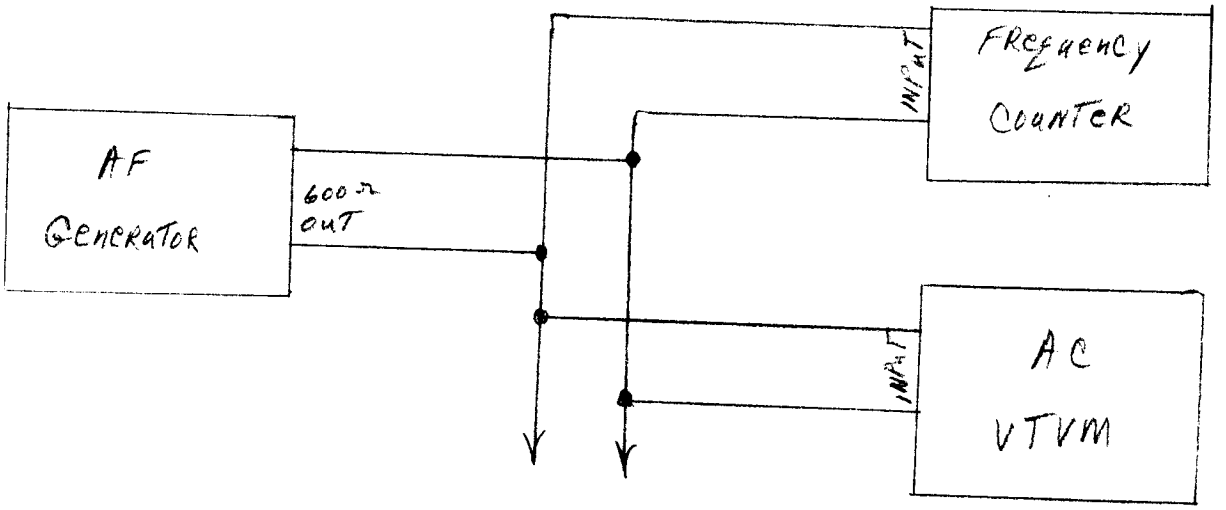
10. Turn the power OFF, remove VOLT-OHM meter, and remove A4343 from the card extender and place directly in J1010.

C. INPUT CARD A4357:

1. Place input card A4357 in the A4348 card extender and place in J1003.

2. Connect the audio generator to Pins 1 and 3 of TB1001.

3. Connect the AC VTVM and frequency counter across the output of the audio generator and set the output to "0" DBM (.78V RMS) at 2550 cps.

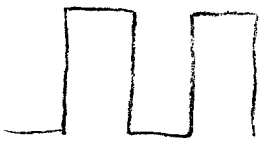


4. Connect the scope to TP-3.

*5. Turn ON the power and record the reading. It should look as shown below.

approx.
1 V P-P 2550 cps.

*6. Connect the scope to TP-2 and record the reading. It should look as shown below:



approx.
5 V P-P 2550 cps.

*7. Connect the scope to TP-4 and record the reading. It should look as shown below:

approx.
18 V P-P 2550 cps.

*8. Lower AF input to -20 DBM (78 MV RMS) waveform in Step 7 should not change.

*9. Raise AF output to +20 DBM (7.8 V RMS) waveform in Step 7 should not change.

10. Remove the input card A4357 from the card extender and place it directly in J1003.

11. Move the AF generator to Pins 4 and 6 of TB1001.

12. Place the second input card A4357 in the A4348 card extender and place in J1008.

13. Repeat Steps C3 through C10 for the second input card A4357 in J1008.

D. DETECTOR AMPLIFIER CARD A4345

1. Place Detector Amplifier Card A4345 in the A4348 card extender and place in J1004.

2. Connect the AF generator to TP-7 through a 10 meg resistor and set the frequency approximately to 2500 cps.

*3. Connect the scope to TP-5 and adjust AF generator output for 100 MV P-P. The signal should be a sine wave.

4. Set R12 and R15 to maximum CW rotation.

*5. Connect scope to TP-3 and measure signal. It should be a sine wave and approximately 4 V P-P.

6. Connect AF generator to TP-8 through a meg resistor and set the frequency approximately to 2500 cps.

*7. Connect scope to TP-6 and measure voltage. It should be a sine wave approximately 100 MV P-P. If not reset AF generator output.

* 8. Connect scope to TP-4 and measure signal. It should be a sine wave and approximately 4 V P-P.

9. Remove scope and connect VTVM to TP-2.

10. Remove the AF generator momentarily and zero the VTVM on the -3V DC scale with it connected to TP-2. (For following steps do not shift meter scale.)

11. Reconnect the AF generator to TP-8 and note the voltage at TP-2. It should be approximately -.75 V DC.

12. Move the AF generator back to TP-7 and note the voltage at TP-2. It should be approximately +.75 V DC.

*13. Balance R12 and R15 so the voltages in steps 11 and 12 are equal and opposite in polarity. This should be done by lowering the higher voltage to a value equal to the lower. When finished one pot. should be maximum CW rotation and the other between mid-range am maximum CW.

NOTE: TP-7 related to R12 and TP8 to R15 and which one is at maximum CW rotation.

14. Remove the AF generator, set R5 to maximum CW rotation, and R3 to mid-range.

*15. Set meter switch to DISC. position and adjust R3 so meter M1001 reads "0". Return R5 to maximum CCW rotation.

16. Connect the AF generator to the test point, in steps 13, related to the pot. left at maximum CW rotation.

17. Adjust the AF generator for .6 V DC on the VTVM at TP-2.

18. Adjust calabration pot. R5 so meter M1001 reads full scale (20).

19. Move AF generator to the other test point and adjust the related pot. for full scale on meter M1001 (20).

*20. Now when the generator is at TP-7 meter M1001 should read +20 and when at TP-8 read -20.

21. Remove AF generator and VTVM.

22. Remove the Detector Amplifier Card A4345 from the card extender and place it directly in J1004.

23. Place the second Detector Amplifier Card A4345 in the A4348 card extender and place in J1007.

24. Repeat steps D2 through D19 for the second Detector Amplifier A4345 in J1007.

E. DISCRIMINATOR CARD A4476

1. The AF generator, AC VTVM, and Frequency Counter should be connected as in C3.

2. Using the AC VTVM set the AF generator output to "0" DBM (.78 V RMS).

3. Connect AF generator to PIN 1 and 3 of TB1001.

4. Place Discriminator Card A4476 in the A4348 card extender and place in J1005.

5. Set R1 through R6 to mid-range.

6. Set AF generator to 2550 cps with counter.

7. Set CH1 gain control R1003 1/4 of the way open and meter switch to disc 1 position.

8. Adjust R1 for "0" on meter M1001.

9. Set AF generator to 2125 cps and set CH1 gain R1003 so meter M1001 reads -15.

10. Set AF generator to 2975 cps and adjust R6 for +15 on meter M1001.

11. Repeat steps E7 through E11 until meter M1001 reads -15 at 2125 cps, "0" at 2550 cps, and +15 at 2975 cps with one setting of CH1 gain control R1003.

*12. Record the readings of meter M1001 at the following frequencies.

a. Reset CH1 gain R1003 for -15 on meter M1001 at the lower frequency everytime you go to the next set of frequencies.

b. Meter M1001 must read within ±3 division of +15 at each of the upper frequencies without resetting CH1 gain control R1003 with the exception of 3050 cps where it must read within ±6 divisions.

	LOWER FREQ.	UPPER FREQ.
SET #1	2050 cps	3050 cps
SET #2	2125 cps	2975 cps
SET #3	2150 cps	2950 cps
SET #4	2200 cps	2900 cps
SET #5	2250 cps	2850 cps
SET #6	2300 cps	2800 cps
SET #7	2350 cps	2750 cps
SET #8	2400 cps	2700 cps
SET #9	2450 cps	2650 cps.

USE FREQUENCY COUNTER TO SET ALL FREQUENCIES.

13. If at any given set of frequencies you can not meet the ±3 division tolerance at the upper end go back and readjust R1 and R6 for this pair of frequencies. Then repeat set E12.

14. Set CH1 Discriminator Switch S1009 to 2000 wide.

15. Set AF generator to 2000 cps with counter.

16. Set CH1 gain control R1003 1/4 of the way open.

17. Adjust R2 for "0" on meter M1001.

18. Set AF generator to 1575 cps and set CH1 gain R1003 so meter M1001 reads -15.

19. Set AF generator to 2425 cps and adjust R5 for +15 on meter M1001.

20. Repeat steps E15 through E19 until meter M1001 reads -15 at 1575 cps and +15 at 2425 cps with one setting of CH1 gain control R1003.

*21. Record the readings of M1001 at the following frequencies.

a. Reset CH1 gain R1003 for -15 on meter M1001 everytime you go to the next set of frequencies.

b. Meter M1001 must read within ±3 division of +15 at each of the upper frequencies without resetting CH1 gain control R1003 with the exception of 2500 cps where it must read within ±6 divisions.

	LOWER FREQ.	UPPER FREQ.
SET #1	1500 cps	2500 cps
SET #2	1575 cps	2425 cps
SET #3	1600 cps	2400 cps ±
SET #4	1650 cps	2350 cps
SET #5	1700 cps	2300 cps
SET #6	1750 cps	2250 cps
SET #7	1800 cps	2200 cps
SET #8	1850 cps	2150 cps
SET #9	1900 cps	2100 cps ±

USE COUNTER TO SET ALL FREQUENCIES

22. If at any given set of frequencies you can not meet the ±3 division tolerance at the upper end go back and readjust R2 and R5 for this pair of frequencies. Then repeat Step E21.

23. Set CH1 Discriminator Switch S1009 to 1000 NARROW.

24. Set AF Generator to 1000 cps with counter.

25. Set CH1 gain control R1003 3/4 of the way open.

26. Adjust R3 for "0" on meter M1001.

27. Set AF generator to 900 cps and set CH1 gain R1003 so meter M1001 reads -15.

28. Set AF generator to 1100 cps and adjust R4 for +15 on meter M1001.

29. Repeat steps E15 through E19 until meter M1001 reads -15 at 900 cps and +15 at 1100 cps with one setting of CH1 gain control R1003.

*30. Record the readings of M1001 at the following frequencies.

a. Reset CH1 gain R1003 for -15 on meter M1001 every time you go to the next set of frequencies.

b. Meter M1001 must read within ±3 division of +15 at each of the upper frequencies without resetting CH1 gain control R1003.

	LOWER FREQ.	UPPER FREQ.
SET #1	900 cps	1100 cps
SET #2	910 cps	1090 cps
SET #3	920 cps	1080 cps
SET #4	930 cps	1070 cps
SET #5	940 cps	1060 cps
SET #6	950 cps	1050 cps
SET #7	960 cps	1040 cps
SET #8	970 cps	1030 cps
SET #9	980 cps	1020 cps

USE COUNTER TO SET ALL FREQUENCIES

31. If any given set of frequencies you can not meet the ±3 division tolerance at the upper end, go back and readjust R3 and R4 for this pair of frequencies. Then repeat step E30.

32. Remove discriminator card A4476 from the card extender and place it directly in J1005.

33. Move the AF generator to Pins 4 and 6 of TB1001.

34. Place the second discriminator card A4476 in the A4348 card extender and place in J1006.

* 35. Repeat steps E5 through E32 in J1006.

36. Remove AF generator.

F. DRIVER CARD A4355

1. Place Driver Card A4355 in the A4348 card extender and place in J1009.

2. Set R3 and R4 to maximum CCW position.

*3. Set meter M1001 to the B+ position and adjust R3 so it reads whatever value of voltage you found in step B5.

*4. Set meter M1001 to the B- position and adjust R4 so it reads whatever value of voltage you found in step B8.

5. Connect the PSPA-1, FSS and DT108A-1 keyer as shown in Figure 1

CAUTION: DO NOT USE PSP-1 IN PLACE OF PSPA-1 BECAUSE THE NO LOAD VOLTAGE IS TOO HIGH AND WILL DAMAGE THE DT108A-1.

TITLE: TEST PROCEDURE FOR THE CFA-2

typed by vab 9/13/66

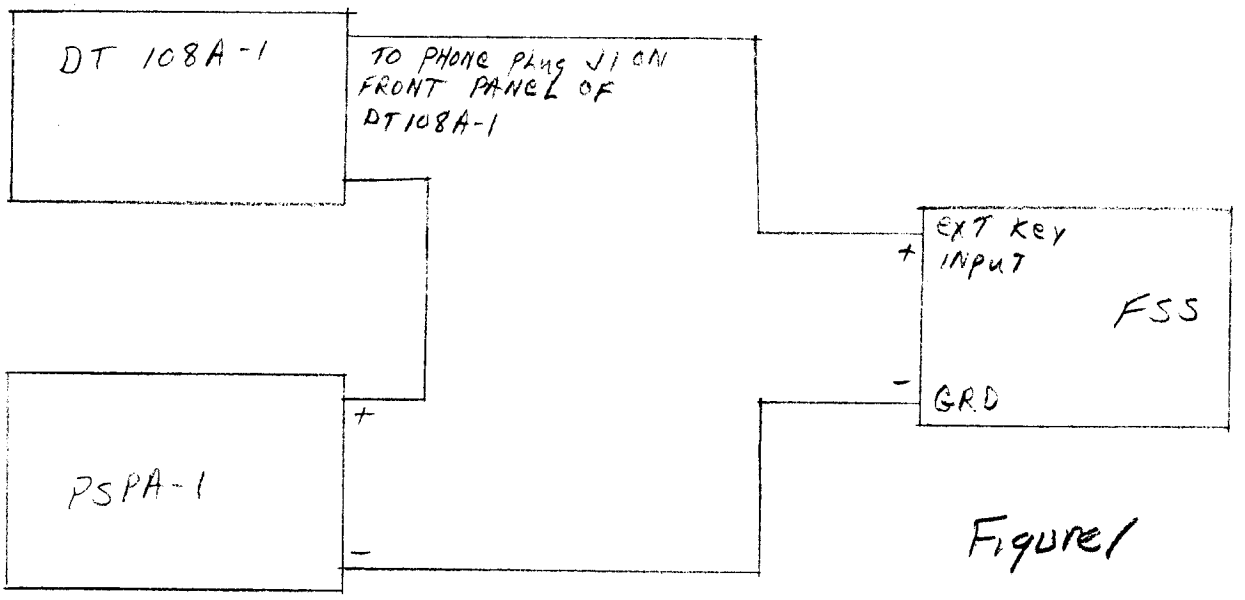


Figure1

6. Set the DT-108A-1 Controls as shown below:

   a. Output selector to - DOT CYCLE

   b. Speed to - 60 W.P.M.

   c. Stop length to - 1.0

   d. Distortion to - "0"

   e. Power to - ON

7. Set the PSPA-1 power switch to ON.

8. Set the FSS controls as shown below.

   a. Shift to -- ±1000 switch position and variable to ±425 cps.

   b. Keying to -- EXT.

   c. Center Frequency to -2550 cps.

   d. Output to -- maximum CW rotation.

   e. Mark Bias to - midrange

   f. Time Base not applicable.

9. Connect the FSS audio output to Pins 1 and 3 of TB1001 of the CFA-2, turn CH1 ON-OFF to ON.

10. Set meter M1001 to Disc. 1 position and adjust the FSS center frequency so the meter reads "0".

a. Check to see that as you adjust the FSS center frequency up slightly in frequency, meter M1001 moves to the right and as you adjust it slightly down in frequency meter M1001 moves to the left.

b. Momentarily set the DT-108A-1 output selector to MARK and set CH1 gain so meter M1001 reads -15. Then repeat step F10a.

*11. Connect the scope to TP1 and record the reading. It should look as shown below. (Connect the ext. sync input of the scope across the keying input of the FSS and use the scope on ext. sync function).

APPROXIMATELY

0.7 V P-P

25 cps

12. Set the function switch S1008 to line +.

*13. Connect the scope to TP2 and record the reading. It should look as shown below.

APPROXIMATELY
0.5 V P-P
25 cps

14. Set the function switch S1008 to line (-).

*15. Record the scope reading at TP2. It should look the same as in step F13 only inverted.

*16. Connect the scope to TP3 and record the reading. It should look as shown below.

APPROXIMATELY
.45 V P-P
25 cps

17. Set Bias Control R1001 to midrange.

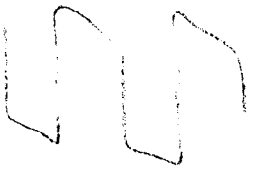
*18. Connect the scope to TP4 and record the reading. It should look as shown below.

APPROXIMATELY

0.24 V P-P

25 cps

*19. Connect the scope to TP5 and record the reading. It should look as shown below.



APPROXIMATELY

.5 V P-P

25 cps

*20. Connect the scope to TP6 and record the reading. It should look as shown below.

APPROXIMATELY

7 V P-P

25 cps

21. Remove the Driver Card A4355 from the card extender and place directly in J1009.

G. OUTPUT CARD A4353

1. Place the output card A4353 in the A4348 card extender and place in J1002.

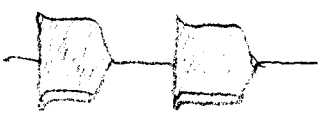
*2. Connect the scope to TP3 and record the reading. It should look as shown below.

APPROXIMATELY
11 V P-P
25 cps

*3. Connect the scope to TP4 and record the reading. It should look as shown below.

APPROXIMATELY
10 V P-P
25 cps

*4. Connect the scope to TP5 and record the reading. It should look as shown below.



APPROXIMATELY
45 V P-P
25 cps

*5. Connect the scope between TP1 and TP2, ground lead to TP1, and record the reading. It should look as shown below.

APPROXIMATELY
1.6 V P-P
25 cps

6. Move the audio output of the FSS to Pins 4 and 6 of TB1001.

7. Turn CH2 ON-OFF to ON and repeat step F10a and b for CH2.

*8. Record the scope reading at TP1 and TP2. It should be the same as in step G5.

*9. Check all four positions of the function switch S1008.

a. The waveform in step G8 should be present at TP1 and TP2 and opposite in polarity for the Line + and Line - positions.

b. With the scope in DC you should have a positive DC voltage present in the Mark position and zero voltage in the space position.

10. Remove the Output Card A4353 from the card extender and place it directly in J1002.

H. LINE SUPPLY CARD A4347

1. Place Line Supply Card A4347 in the A4348 card extender and place in J1001.

2. Connect a jumper between Pins 8 and 9 of TB1001.

3. Connect the VOM between Pins 10 and 11 of TB1001. Set to 100 MA DC scale with (+) lead to Pin 11 and (-) lead to Pin 10.

4. Set Line Current Switch S1001 to 60 MA position and adjust R1 for 60 MA on VOM. Be sure Function Switch S1008 is in the Mark position.

*5. Set Line Current Switch S1001 to 10 MA position and VOM should read 10 MA ±10%. Record reading.

*6. Set Line Current Switch S1001 to 20 MA position and VOM should read 20 MA ±10%. Record reading.

*7. Connect the VOM across C1 on the Line Supply card A4347 and record the voltage. Voltage should be approximately 350 V DC with the VOM on the 1000 V DC scale.

8. Set Meter Switch S1006 to Line Voltage X20 position and adjust R3 so meter M1001 reads the same voltage as the VOM in step H7. The meter should be deflecting to the right.

9. Reconnect the VOM between Pins 10 and 11 of TB1001 as in step H3.

10. Remove the Line Supply Card A4347 from the card extender and place directly in J1001.

I. FINAL CHECKS

1. Place the Output Card A4353 in the A4348 card extender and place in J1002.

2. Set the meter switch S1006 to Line Current X5 and adjust R4 for 60 MA. The meter should be deflecting to the left. Be sure Line Current Switch S1001 is in the 60 MA position and function switch S1008 in Mark position.

3. Remove the Output Card A4353 from the card extender and place directly in J1002.

4. Replace the VOM with a 2K 10W resistor between Pins 10 and 11 of TB1001.

*5. Meter M1001 should still read 60 MA ±10% in the Line Current X5 position. Record the reading.

6. Place the Driver Card A4355 in the A4348 card extender and place in J1009.

7. Set the function switch to Line + position.

8. Connect the DT603 to the CFA-2 by connecting a 2 wire cable with a phone plug on each end between the CFA-2 TTY monitor jack and the front panel input jack on the DT603.

a. Set the DT603 controls to: Speed -- 45.5 Bauds, Input -- 60N, Function -- Average Bias, Transition Select -- ALL, Power -- ON.

9. With the PSPA-1, FSS and DT108A-1 still connected as in Step F5 through F9 and adjusted as in step F10 the signal indicator light on the DT603 should be flashing. If it isn't reverse the DT603 input polarity switch.

10. Adjust R8 on A4355 so the meter on the DT603 reads minimum Bias. Record the reading. (Be sure the Bias pot R1001 is set to midrange.)

*11. Set the DT603 function switch to Average END distortion. If any distortion is present optimize the setting of R8 for minimum distortion in both the Bias and END distortion positions of DT603 function switch. (The BIAS or END distortion should not exceed 3%.)

12. Remove the A4355 card from the card extender and place it directly in J1009.

*13. Set the DT603 function switch to Total Peak distortion. It should not exceed 5%. Record the reading.

*14. Set the CFA-2 function switch S1008 to Line -, reverse the input polarity switch on the DT603, and repeat steps I9 through I13. Bias control R1001 can be slightly readjusted if necessary but do not readjust R8.

*15. The scope should show a clean square wave with the pulses very close to being equal in width.

*16. Set the DT108A-1 output selector switch to the Selected Character position and set the character switches as shown below for "LTRS" code.

MARK	1	MARK	Switch the DT108A-1 from selected character to
MARK	2	MARK	
MARK	3	MARK	RY and optimize the setting of bias pot. R1001
MARK	4	MARK	
MARK	5	MARK	for minimum distortion. When R1001 is set
	6		
NOT	7	NOT	correctly the distortion should not exceed 10%.
USED	8	USED	

17. Set the DT108A-1 selected character switches as shown below for "FIGURES" code.

MARK	1	MARK	Do not reset bias control R1001. Distortion should
MARK	2	MARK	
SPACE	3	SPACE	be less than 20%.
MARK	4	MARK	
MARK	5	MARK	
	6	NOT	
NOT	7	USED	
USED	8		

18. Set the CFA-2 speed switch S1003 to the fast position.

*19. Set the DT108A-1 and DT603 speed to 74.2 Bauds and repeat steps I16 through I17 and record the readings.

20. Set the CH2 DISC switch S1009 to 2000 wide.

21. Set the FSS center frequency to 2000 cps and adjust it as in F10.

*22. Repeat steps I16 through I19.

23. Set the CH2 DISC switch S1009 to 1000 NARROW.

24. Set the FSS center frequency to 1000 cps and the shift to ±20 cps and adjust as in F10.

*25. Repeat steps I16 through I19.

*26. Move the FSS to Pins 1 and 3 of TB1001 and repeat steps I16 through I25 for CH1.

TEST DATA SHEET

PRODUCTION TEST -- CFA-2

SERIAL NO. _____

MFG. NO. _____

B2	Physical Check	_____ OK
B5	C3 Voltage (+12V ±10%)	_____
B6	Pin 1 Voltage J1002, J1003, J1004, J1007, J1008, J1009	_____
B8	R4 Voltage (-12V ±10%)	_____
B9	Pin 2 Voltage J1002, J1003, J1004, J1007, J1008, J1009	_____
C5	TP-3 2550 cps voltage, peak-peak (Approx. 1 V)	_____
C6	TP-2 2550 cps voltage, peak-peak (Approx. 5 V)	_____
C7	TP-4 2550 cps voltage, peak-peak (Approx. 18 V)	_____
C8	TP-4 Waveform at -20 DBM	_____ OK
C9	TP-4 Waveform at +20 DBM	_____ OK
D3	TP-5 Signal (Sine Wave)	_____ OK
D5	TP-3 Signal (Sine Wave)	_____ OK
	peak-peak voltage (Approx. 4 V)	_____
D7	TP-7 Signal (Sine Wave)	_____ OK
	peak-peak voltage (Approx. 100 mv)	_____
D8	TP-4 Signal (Sine Wave)	_____ OK
	p-p voltage (Approx. 4 V)	_____
D13	TP-3 Voltages Balanced	_____ OK
D15	Meter Setting (zero)	_____ OK
D20	Meter Readings TP-7: +20	_____ OK
	TP-8: -20	_____ OK

TEST DATA SHEET - Cont'd

E12 Meter Readings J1005 Disc

UPPER FREQ.

3050	(+15 ±6)	_____
2975	(+15 ±3)	_____
2950	(+15 ±3)	_____
2900	(+15 ±3)	_____
2850	(+15 ±3)	_____
2800	(+15 ±3)	_____
2750	(+15 ±3)	_____
2700	(+15 ±3)	_____
2650	(+15 ±3)	_____

E21 Meter Readings J1005 Disc

UPPER FREQ.

2500	(+15 ±6)	_____
2425	(+15 ±3)	_____
2400	(+15 ±3)	_____
2350	(+15 ±3)	_____
2300	(+15 ±3)	_____
2250	(+15 ±3)	_____
2200	(+15 ±3)	_____
2150	(+15 ±3)	_____
2100	(+15 ±3)	_____

E30 Meter Readings J1005 Disc (+15 ±3V)

UPPER FREQ.

1100	_____
1090	_____
1080	_____
1070	_____
1060	_____
1050	_____
1040	_____
1030	_____
1020	_____

TEST DATA SHEET - Cont'd

E35 Meter Readings J1006 Disc.

(E12)
UPPER FREQ.

3050	(+15V ±6)	_____
2975	(+15V ±3)	_____
3950	(+15V ±3)	_____
2900	(+15V ±3)	_____
2850	(+15V ±3)	_____
2800	(+15V ±3)	_____
2750	(+15V ±3)	_____
2650	(+15V ±3)	_____

(E21)
UPPER FREQ.

2500	(+15V ±6)	_____
2425	(+15V ±3)	_____
2400	(+15V ±3)	_____
2350	(+15V ±3)	_____
2300	(+15V ±3)	_____
2250	(+15V ±3)	_____
2200	(+15V ±3)	_____
2150	(+15V ±3)	_____
2100	(+15V ±3)	_____

(E30)
UPPER FREQ.

1100	(+15V ±3)	_____
1090	(+15V ±3)	_____
1080	(+15V ±3)	_____
1070	(+15V ±3)	_____
1060	(+15V ±3)	_____
1050	(+15V ±3)	_____
1040	(+15V ±3)	_____
1030	(+15V ±3)	_____
1020	(+15V ±3)	_____

F3 DRIVER B+ Meter Reading _____
(Same as B5)

F4 DRIVER B-1 Meter Reading _____
(Same as B8)

F11 TP-1 Wave Form, 25 cps _____ OK
p-p voltage (Approx. 0.7V) _____

TEST DATA SHEET - Cont'd

F13	TP2 Wave Form, 25 cps (Line +)	_____OK
	p-p voltage (Approx. 0.5V)	_____
F15	TP2 Wave Form, 25 cps, (Line -)	_____OK
	p-p voltage (Approx. 0.5V)	_____
F16	TP3 Wave Form, 25 cps	_____OK
	p-p voltage (Approx. 0.45V)	_____
F18	TP4 Wave Form, 25 cps	_____OK
	p-p voltage (Approx. 0.24V)	_____
F19	TP5 Wave Form, 25 cps	_____OK
	p-p voltage (Approx. 0.5V)	_____
F20	TP6 Wave Form, 25 cps	_____OK
	p-p voltage (Approx. 7V)	_____
G2	TP3 Wave Form, 25 cps	_____OK
	p-p voltage (Approx. 11V)	_____
G3	TP4 Wave Form, 25 cps	_____OK
	p-p voltage (Approx. 10V)	_____
G4	TP5 Wave Form, 25 cps	_____OK
	p-p voltage (Approx. 45V)	_____
G5	Channel 1 TO1 to TP2 Wave Form, 25 cps	_____OK
	p-p voltage (Approx. 1.6V)	_____
G8	Channel 2, TP1 to TP2 Wave Form, 25 cps	_____OK
	p-p voltage (Approx. 1.6V)	_____
G9	Function Switch Positions	
	Wave Form (See G8)	_____OK
	Polarity	_____OK
	Mark, Positive Voltage	_____OK
	Space, Zero Voltage	_____OK
H5	10MA Line Current, (10MA ±10%)	_____
H6	20MA Line Current (20MA ±10%)	_____
H7	DC Voltage (250V Approx.)	_____
I5	60MA Line Current (60MA ±10%)	_____

typed by vab 9/13/66

TEST DATA SHEET - Cont'd

I11 Line (+) BIAS and END DISTORTION (≤ 3%) _____

I13 Line (+) Total Peak Distortion (≤ 5%) _____

I14 Line (-) BIAS and END DISTORTION (3%) _____
Line (-) Peak Distortion (≤ 5%) _____

I15 Pulse Wave Form _____ OK

I16 Channel 2, Center Frequency 2550 cps
Slow LTRS distortion (≤ 10%) _____

I17 Channel 2 Center Frequency 2550 cps
Slow "FIGURES" distortion (≤ 20%) _____

I19 Channel 2, Center Frequency 2550 cps
Fast LTRS distortion (≤ 10%) _____
Channel 2, Center Frequency 2550 cps
Fast "FIGURES" distortion (≤ 20%) _____

I22 Channel 2, Center Frequency 2000 cps
Slow "LTRS" distortion (≤ 10%) _____
Slow "FIGURES" distortion (≤ 20%) _____
Fast "LTRS" distrotion (≤ 10%) _____
Fast "FIGURES" distortion (≤ 20%) _____

I25 Channel 2, Center Frequency 1000 cps
Slow "LTRS" distortion (≤ 10%) _____
Slow "FIGURES" distortion (≤ 20%) _____
Fast "LTRS" distortion (≤ 10%) _____
Fast "FIGURES" distortion (≤ 20%) _____

I26 Channel 1
Center Frequency 2550 cps
Slow "LTRS" distortion (≤ 10%) _____
Slow "FIGURES" distortion (20%) _____
Fast "LTRS" distortion (≤ 10%) _____
Fast "FIGURES" distortion (≤ 20%) _____

Center Frequency 2000 cps
Slow "LTRS" distortion (≤ 10%) _____
Slow "FIGURES" distortion (≤ 20%) _____
Fast "LTRS" distortion (≤ 10%) _____
Fast "FIGURES" distortion (≤ 20%) _____

TEST DATA SHEET - Cont'd

I26 Continued

Center Frequency 1000 cps

Slow "LTRS" distortion (≤ 10%)	_____
Slow "FIGURES" distortion (≤ 20%)	_____
Fast "LTRS" distortion (≤ 10%)	_____
Fast "FIGURES" distortion (≤ 20%)	_____

DATE: _____

TESTER: _____

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