TMC SPECIFICATION			NO. S 1271
REV:			
COMPILED:	CHECKED:	APPD: W. Mair	SHEET OF
TITLE:			

Test Procedure

for

RTTD-4

TITLE: Test Procedure for RTTD-4

I. Equipment Required:

A. VOM, Simpson Model 260, or equivalent.
B. Oscilloscope, Tektronix (dual trace), or equivalent.
C. Electronic Counter, Hewlett-Packard 5244, or equivalent.

II. Preliminary Electrical Tests:

CAUTION: Be sure AC power is removed from RTTD.

A. Connect ohmmeter across AC input of unit. Be sure fuses F1 and F2 are in place.
B. Set AC switch S2 to ON. Continuity should exist across the AC input (approximately 4 ohms). Removing either F1 or F2, or setting S2 to OFF will break continuity.
C. Continuity should not exist between AC leads and ground. Set S2 to OFF and remove ohmmeter from unit.

III. Power Supply Voltage Checks:

A. Insert PC376/A4599 into A14 and set AC power switch ON. Power light DS2 will light. Removing either fuse will cause the power light to go out.
B. Meter the voltage levels at test points +5V and +28V DC. Voltages should be as indicated. +5V $\pm$.5V and +28V $\pm$2V.
C. Monitor TP +5V and jumper TP+5 to ground. Remove ground. Voltage level should return to +5V DC. Repeat for test point to +28V DC.
D. Monitor TP +5 with the high gain scope. The ripple present on TP +5 should be no more than 20 millivolts peak-to-peak. Repeat for test point +28V DC.
E. Set AC power switch S2 to OFF. Insert PC378/A4601 into A13 and set AC power to ON.
F. Meter the voltage levels at test points +12V and -12V DC. Voltages should be as indicated, $\pm$ 1V DC.

G. Monitor TP +12 and jumper TP +12 to ground. Remove ground. Voltage level should return to +12V DC. Repeat for test point -12V DC.

H. Monitor TP +12 with the high gain scope. The ripple present on TP +12 should be no more than 20 millivolts peak-to-peak. Repeat for test point -12V DC.

I. Set AC power switch S2 to OFF. Insert PC379/A4602 into A12 and set AC power switch to ON.

J. Monitor TP -30V DC. Voltages should be as indicated ±2V DC.

K. Monitor TP-30V with the high gain scope. The ripple present on TP-30 should be no more than 20 millivolts peak-to-peak.

L. Power distribution checks:

Measure the following points for voltages and grounds:

CONNECTOR	PIN					
	+5V DC	+12V DC	-12V DC	+28V DC	-30V DC	GND
A1			4			1,22,A,Z
A2		20	4			1,22,A,Z
A3		20	4			1,22,A,Z
A4		20	4			1,22,A,Z
A5		20	4			1,22,A,Z
A6	11					1,22,A,Z
A7	11					1,22,A,Z
A8	11					1,22,A,Z
A9	11		21			1,22,A,Z
A10		20	4			1,22,A,Z
A11		20	4			1,22,A,Z
A12					5,6	1,22,A,Z
A13		F,H,J,K	V,W,X,Y			1,22,A,Z
A14	8			Y		1,22,A,Z

IV. Input Timing:

A. Set AC power switch to OFF. Insert PC333/A4518 into A3 and set AC power switch to ON.
B. Monitor TP3 with scope and observe free running "clock".
C. Connect frequency counter to TP8 and adjust R1 for 27.00 msec. (100 wpm) or 44.00 msec. (60 wpm) $\pm$ 0.05 milliseconds.

V. Delay Circuit:

A. Set AC power switch to OFF. Insert PC363/A4571 into A4 and PC364/A4572 into A5. Set AC power switch to ON. Wait for Fault Light to light. Press Fault Light and light should extinguish. Adjust R1 on PC364/A4572 for a 20 second delay for Fault Light to come on again.

NOTE: Due to the complexity of the circuits involved, the above procedure is not a complete check. The final check is made when the RTTD is installed in a receiver system.

Test Data Sheet For RTTD-4

I. Power Supply Checks:

A. Voltage:

1. TP + 5 _____ VDC
2. TP + 28 _____ VDC
3. TP + 12 _____ VDC
4. TP - 12 _____ VDC
5. TP - 30 _____ VDC

B. Ripple:

1. TP + 5 _____ Millivolts
2. TP + 28 _____ Millivolts
3. TP + 12 _____ Millivolts
4. TP - 12 _____ Millivolts
5. TP - 30 _____ Millivolts

C. Shorting:

1. TP + 5 _____ OK
2. TP + 28 _____ OK
3. TP + 12 _____ OK
4. TP - 12 _____ OK

II. PC Cards:

A1	PC331/A4516	_____ OK
A2	PC332/A4517	_____ OK
A3	PC333/A4518	_____ OK
A4	PC363/A4571	_____ OK
A5	PC364/A4572	_____ OK
A6, A7, A8	PC367/A4580	_____ OK
A9	PC368/A4582	_____ OK
A10	PC386/A4613	_____ OK
A11	PC387/A4614	_____ OK
A12	PC379/A4602	_____ OK
A13	PC378/A4601	_____ OK
A14	PC376/A4599	_____ OK
A15	PC311/A4485	_____ OK

III. Clock Period adjusted to _____ milliseconds.

IV. Delay Circuit adjusted _____ OK.

Tested By _____ Date _____

REVISION SHEET

THE TECHNICAL MATERIEL CORP.
MAMARONECK NEW YORK

S 1271
LIST NO.

DATE	REV.	SHEET	EMN #	DESCRIPTION	APP.
3/23/71	0			ORIGINAL RELEASE FOR PRODUCTION	