DATE March, 66 SH. 1 OF 7 COMPILED BY C.A.	TMC SPECIFICATION NO. S 10100	
	TITLE: COMPLETE INSTRUCTIONS FOR THE PRODUCTION TESTING OF THE MODEL PSP-500	JOB 028/66
APPROVED (RY)		

COMPLETE INSTRUCTIONS FOR THE PRODUCTION TESTING OF THE MODEL PSP-500

DATE	TMC SPECIFICATION NO. S 10100	
SH. 2 OF 7		
COMPILED BY C.A.	TITLE: COMPLETE INSTRUCTIONS FOR THE PRODUCTION	JOB 028/66
APPROVED	TESTING OF THE MODEL PSP-500	

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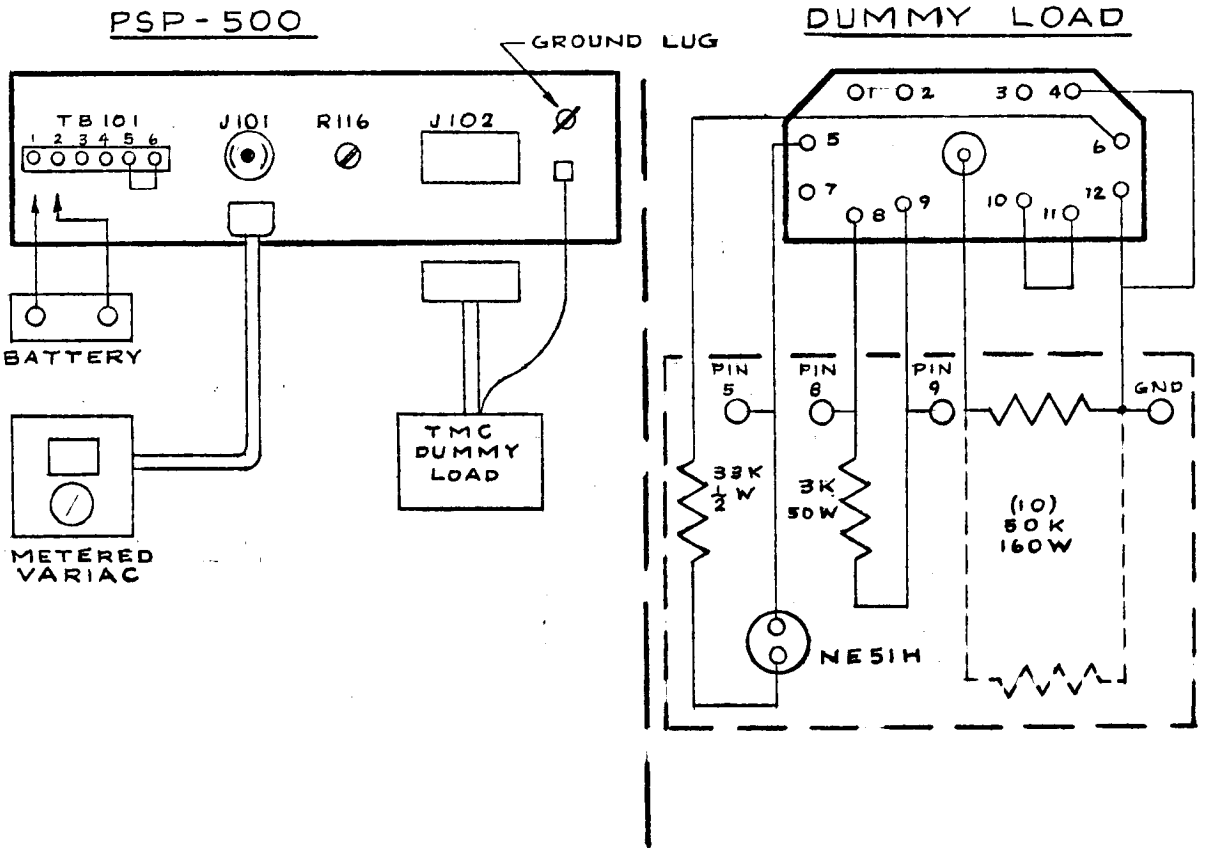
1. See Instruction Manual

2. TEST EQUIPMENT REQUIRED

(1) Voltohmeter, Simpson Model 260
(2) Metered Variac, General Radio Co. Model W10MT3W or equivalent.
(3) Battery, 20 to 24 VDC, with leads and test prods.
(4) Power Cord, CA555-3, or equivalent.
(5) Test Plug and Load Assembly, consisting of:

(a) PL160-P
(b) Resistor, WW, 3K ohms, 50W
(c) 10 each, Resistor, WW, 50K ohms, 160W
(d) Lamp Socket, miniature bayonet, TS10007-9-5
(e) Lamp, Neon, NE51H
(f) Resistor, 33K ohms, 1/2W
(g) 4 each, Insulated Binding Posts, (one Black).

3. GENERAL INSTRUMENT LAYOUT



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4. TEST INSTRUCTIONS:

a. Proceed as outlined in Test Sequence and procedure paragraph 5 to follow.

b. Fill in blanks on report sheet, rejecting these units which do not meet the specifications stated herein.

c. Sign report sheet and submit it to your supervisor.

5. TEST SEQUENCY AND PROCEDURE:

A. General Inspection

a. Inspect the unit for obvious mechanical and electrical imperfections.

b. Inspect the high voltage wiring at J-102, C-106, C-105, C-104, L-104, L-103, T-101, T-102. It must be in accordance with the schematic.

c. Inspect Values and Tolerances of:

R-109, R-110, R-111, R-112, R-113-----20 meg. 5%
R-114-----220K 5%.

B. Resistance Check

a.

J-102	to	R lies between the values of
PIN 1	ground	190K----250K
2	ground	open
3	ground	18K---- 22K
4	ground	50----62 ohms
5	ground	85K----125K
6	ground	Short
7	ground	open
8	ground	open
9	ground	open
10	ground	10----15K (Interlocks pulled OUT)
11	ground	.5K---S103 closed
12	ground	short
A-1	ground	80 ---- 140K

b.

TB-101	to	R
1	ground	open
2	ground	open
2	1	2500 ohms
3	Pin 3 of T-102	short (S103 ON)
4	Pin 1 of T-102	Short
5	N.C.)-Jumper	
6	N.C.) "	

C. Initial Power Check

NOTE: Be certain that the H.V. Breaker (CB102) is OFF.

(a) (Insert the test plug (with loads) into J102).

(b) Connect the power, 115 V at 60 cps (or 230 V if the unit is wired for 230 V), to J101.

(c) Turn on CB101, Main Line, and see if only pilot lamp DS101 lights.

(d) Pull out plungers of Interlock switches S101 and S102.

(e) Turn ON S103 (Transmitter Plates). The Interlock Relay K102 must go to the energized position and overload (Breaker OFF) indicator DS103 must light.

(f) Check S101 by drepressing the plunger all the way. Overload indicator DS103 must light.

(g) Release the plunger of S101, DS103 must go off.

(h) Pull out the plunger of S101 into the test position and repeat steps h and i but with S102. Then pull out the plunger of S102 into the test position.

(i) Using metered variac, reduce the input voltage until relay K102 falls out. Fallout point should be less than 75 volts. Return line voltage to 115 V.

D. Low Voltage Test

(a) Turn the MAIN LINE switch CB101 to "ON" position. (Leave the high voltage breaker in OFF position).

(b) Turn TRANSMITTER PLATES switch, S-103 to ON.

(c) Measure following voltages at J-102.

Pin	to	volts
5	ground	-145 to -155
8	ground	-145 to -155
9	ground	120 to 160
5	8	5 to 6

(d) With AC VTVM measure pin 9 to ground. RMS voltage must not exceed 0.8 volt.

(e) Switch TRANSMITTER PLATES switch to STANDBY-REMOTE, Apply 20 to 24 VDC to terminals 1 and 2 of TB101. Lamp on Dummy Load must light.

E. H.V. Test WARNING - Extremely high voltages (up to 3000V) exist. OBSERVE ALL STANDARD SAFETY PROCEDURES

(a) Set Simpson Model 260 voltmeter on 5000 VDC range and connect it from C106 (+) to ground.

(b) Set R116 (OVERLOAD ADJUST) to mid range.

(c) Turn on Transmitter Plate switch.

(d) Turn H.V. Overload Breaker CB-102 to ON position. The indicator overload "Breaker OFF" I-103 (DS103) must go off.

(e) The DC voltmeter must now read 1800 to 2300 volts.

(f) Turn OFF H.V. Overload Breaker and S103. Move positive meter lead to J102, pin 3 or C109 (+).

(g) Turn ON S103 and the H.V. Overload Breaker. Meter must read + 340 to +380 volts. The indicator Lamp DS104 must light and terminals 3 and 4 of TB101 must have 115 VAC across them.

(h) Turn OFF all the power.

Units which have met the specifications above are acceptable for shipment. One copy of Test Report Sheet must accompany each Model PSP-500.

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TEST REPORT SHEET

MODEL PSP-500

		ACCEPT	REJECT
TEST A	GENERAL INSPECTION	_____	_____
TEST B	RESISTANCE CHECK	_____	_____
TEST C	INITIAL POWER CHECK	_____	_____
TEST D	VOLTAGE TEST	_____	_____
TEST E	H. V. TEST	_____	_____

H.V. _____ VOLTS

MFG NUMBER _____

DATE _____ TESTED BY _____

REVISION SHEET

T. M. C. (Canada) LIMITED
OTTAWA ONTARIO S10100

MODEL PSP-500 PROJECT NO 028/66

DATE	REV.	PAGE	ITEM	DESCRIPTION	MOD. CHK. NO.	APP.
May 2/66	0	—	—	RELEASED FOR PRODUCTION	—	
25/5/73	A	4,5,6,7		REVISED BY CEMN 1237		

FORM 71

TMC (CANADA) LIMITED

TEST REPORT SHEET

MODEL PSP-500

		ACCEPT
TEST A	GENERAL INSPECTION	_____
TEST B	RESISTANCE CHECK	_____
TEST C	INITIAL POWER CHECK	_____
TEST D	VOLTAGE TEST	_____
TEST E	H.V. TEST	_____

H.V._____VOLTS

CANADIAN MFG. NAMEPLATE _____

MFG. NO. _____

SERIAL NO. _____

DATE _____ TESTED BY _____