9.0 TEST SPECIFICATIONS

9.0.1 INPUT VOLATGE AND CONNECTIONS (CB1 MUST BE "OFF").

9.0.1.1 CONNECT TB2-6 TO TB2-7. CONNECT TB2-3 TO TB2-5 AND TB2-4 TO TB2-5. CONNECT TB1-4,5,6 TOGETHER.

9.0.1.2 CONNECT A O TO 132VRMS AC INPUT, 47-63 HZ, RATED AT 8AMPS BETWEEN TB1-1 AND TB1-2. ADJUST TO ZERO VOLTS.

9.0.1.3 CONNECT RESISTIVE LOADS PER THE FOLLOWING TABLE.

VOLTS	RESISTOR	CONNECT RESISTOR(S) BETWEEN
+5	.66Ω, 37.5W, 3 EACH	ONE RESISTOR BETWEEN J1-5 TO J1-6, J1-9 TO J1-7 AND J2-5 TO J2-6.
+28	28Ω, 28W	J1-8 AND J1-6
+15	7.5Ω, 30W	J2-10 AND J2-12
-15	7.5Ω, 30W	J1-11 AND J1-12

9.0.1.4 CONNECT R5H (J1-3) TO ONE OF THE P5 LOAD RESISTORS.

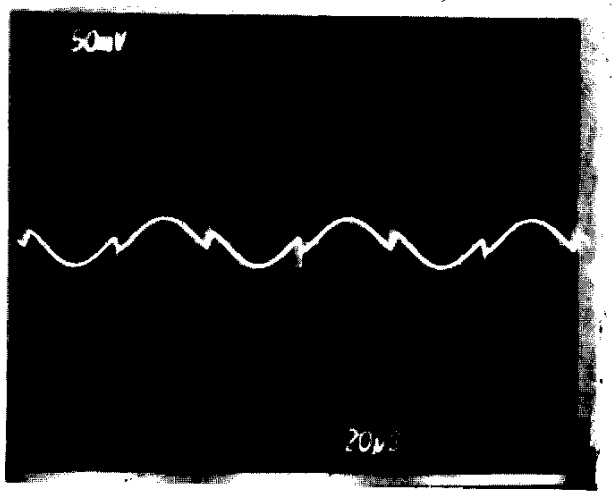
9.0.1.5 ON THE NPSC CONTROL CARD, CONNECT +15VDC BETWEEN TA-1 AND TA-24 (COM) AND +15VDC BETWEEN TA-2 AND TA-24 (COM). CONNECT NEGATIVE SUPPLY FIRST. EACH SUPPLY RATED AT 200 M.A. MIN.

9.0.1.6 HAVE AVAILABLE A 1K, ±5% 1/2W RESISTOR.

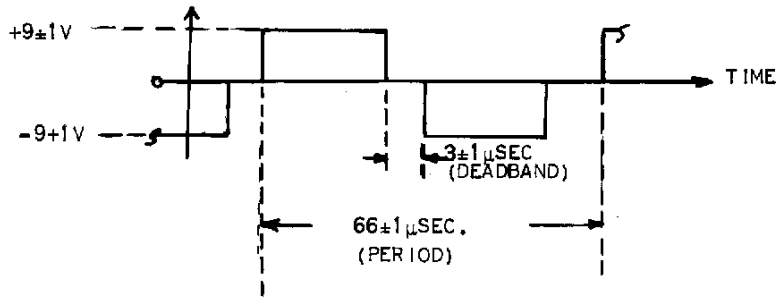
9.0.2.2 POWER TEST

9.0.2.1 DO NOT APPLY POWER (CB1 MUST BE OFF).

9.0.2.2 WITH AN OCILLOSCOPE, OBSERVE THE VOLTAGE FROM TB2-7 TO J5 (LOCATED ON THE NPDA CARD) IT SHOULD BE AS SHOWN BELOW. THE AMPLITUDE MUST BE LESS THAN 200MV P-P AND THE SHAPE OFTHE WAVE FORM MUST BE AS DEPICTED.



9.0.2.3 TURN ON CB1, WHILE OBSERVING THE OSCILLOSCOPE, INCREASE THE VOLTAGE OF THE 0 TO 132 VAC POWER SUPPLY TO 30V RMS.



9.0.2.4 LOOK AT THE WAVEFORM ON THE OSCILLOSCOPE. THE PERIOD SHOULD READ TO 66± 1μ SEC THE DEADBAND (SEE DIAGRAM) READS TO 3± 1μ SEC.

9.0.2.5 REMOVE THE +15 AND -15VDC POWER SUPPLIES CONNECTED TO TA-1, TA-2 AND TA-24 ON THE CONTROL CARD. CONTINUE TO OBSERVE THE WAVEFORM PER 9.0.2.3 AND INCREASE THE 0 TO 132VAC INPUT TO 30VRMS.

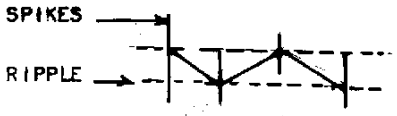
9.0.2.6 MEASURE THE FOLLOWING OUTPUT VOLTAGES AND ADJUST POTS ON THE NPSC CONTROL CARD PER THE TABLE BELOW:

VOLTAGE	FROM	TO	ADJUSTMENT POT
+5.1 ±.1VDC	TP2	TP3	R1
+15.1 ±.1VDC	TP4	TP6	R9
* 27.25 ±.75VDC	TP1	TP3	R8
-15.1 ±.1VDC	TP5	TP6	R10

9.0.2.7 OBSERVE THAT STATUS LIGHT GLOWS ON THE NPSC CONTROL CARD.

9.0.2.8 MEASURE THE OUTPUT RIPPLE PER THE FOLLOWING TABLE:

FROM	TO	SUPPLY	RIPPLE VOLTS (MAX)	SPIKES P-P (MAX)
J1-5	J1-6	P5	50MV P-P	150MV
J1-8	J1-6	P28	150MV P-P	600MV
J2-10	J2-12	P15	50MV P-P	180MV
J1-11	J1-12	N15	50MV P-P	180MV



VERIFY VOLTAGES ARE PRESENT ON FOLLOWING OUTPUTS.

FROM	TO
P5V J2-5	J2-6
P28V J2-8	J2-6
P15V J1-10	J1-12
N15V J2-11	J2-12

* = SET AS CLOSE TO +27VDC AS POSSIBLE

3 OFC 11-28-77 PJR

REV. 1 OEO 6/22/78 FORD | REV. 2 OFC 8-29-77 BXW | APPROVALS | GENERAL ELECTRIC | TEST SPECIFICATIONS

ISSUED 10/13/77 | PRINTS TO 2520 | FIRST MADE FOR REQ. | SALEM, VA. U.S.A. | DS382OPS3 | SH. NO. 9BA

MADE BY M. SMITH | DL119 | I.C. NO. | NEW SH. 9CA

CARD

FORM IC 2219 (10-72)

9.0.2.9 INCREASE THE AC INPUT VOLTAGE TO 132 VRMS AND ASCERTAIN THAT THE CHANGES IN OUTPUT VOLTAGES PER THE FOLLOWING TABLE ARE MAINTAINED, AND THE ± EXCURSIONS OF THE WAVEFORM SHOWN IN 9.0.2.3 ARE WITHIN ±10 VOLTS OF EACH OTHER.

MAX. CHANGE IN OUTPUT VOLTS FROM 80 TO 132VRMS		FROM	TO
(+5)	50MV MAX	TP2	TP3
(+15)	150MV MAX	TP4	TP6
(+28)	280MV MAX	TP1	TP3
(-15)	150MV MAX	TP5	TP6

( ) = VOLTAGE TO BE MEASURED.

9.0.2.10 TURN CB1 "OFF".

9.0.2.11 REMOVE THE JUMPERS FROM TB2-3 TO TB2-5 AND TB2-4 TO TB2-5.

9.0.2.12 WAIT 5 SECONDS. TURN CB1 "ON". VOLTAGES MUST BE PER 9.0.2.6. ADJUST THE AC INPUT VOLTAGE TO 80 VRMS.

9.0.3 SHORT CIRCUIT TEST

9.0.3.1 JUMPERS J1-5 TO J1-6. THE POWER SUPPLY MUST SHUT DOWN. REMOVE THE JUMPER FROM J1-5 TO J1-6. TURN CB1 OFF AND WAIT 15 SECONDS.

9.0.3.2 TURN CB-1 ON. JUMPER J1-8 TO J1-6. THE POWER SUPPLY MUST SHUT DOWN. REMOVE THE JUMPER FROM J1-8 TO J1-6. TURN CB1 OFF AND WAIT 30 SECONDS.

9.0.3.3 TURN CB1 ON. JUMPER J2-10 TO J2-12. POWER SUPPLY MUST SHUT DOWN. REMOVE THE JUMPER FROM J2-10 TO J2-12. TURN CB1 OFF AND WAIT 30 SECONDS.

9.0.3.4 TURN CB-1 ON. JUMPER J1-11 TO J1-12. POWER SUPPLY MUST SHUT DOWN. REMOVE THE JUMPER FROM J1-11 TO J1-12. TURN CB1 OFF AND WAIT 30 SECONDS.

9.0.4 OVERVOLTAGE TRIP LEVELS

9.0.4.1 REMOVE J1 AND J2. TURN CB1 ON.

9.0.4.2 OBSERVE THE VOLTAGE FROM TP2 TO TP3 WHILE ADJUSTING R1 CW (ON THE CONTROL CARD). THE POWER SUPPLY MUST SHUT DOWN BEFORE THE VOLTAGE BETWEEN TP2 AND TP3 EQUALS + 7VDC. TURN CB1 OFF.

9.0.4.3 WAIT 30 SECONDS, ADJUST R1 CCW TWO TURNS. TURN CB1 ON.

9.0.4.4 OBSERVE THE VOLTAGE FROM TP4 TO TP6. ADJUST R9 CW (ON THE CONTROL CARD) UNTIL THE POWER SUPPLY SHUTS DOWN. THE VOLTAGE BETWEEN TP4 AND TP6 MUST BE LESS THAN +18VDC. TURN CB1 OFF.

9.0.4.5 WAIT 30 SECONDS, ADJUST R9 CCW ONE TURN. TURN CB1 ON.

9.0.4.6 OBSERVE THE VOLTAGE BETWEEN TP5 AND TP6. ADJUST R10 CW UNTIL THE POWER SUPPLY SHUTS DOWN. THE VOLTAGE BETWEEN TP5 AND TP6 MUST BE LESS THAN -18VDC. TURN CB1 OFF.

9.0.4.7 WAIT 30 SECONDS, ADJUST R10 TWO TURNS CCW AND RECONNECT J1 AND J2. TURN CB1 ON.

9.0.5 RESET OUTPUT VOLTAGE PER STEP 9.0.2.6. MEASURE THE AC INPUT CURRENT. IT MUST BE LESS THAN 6 AMPS RMS.

9.0.6. UNDER VOLTAGE SENSOR

9.0.6.1 ADJUST R1 SLOWLY CCW UNTIL THE STATUS LIGHT GOES OUT. MEASURE THE VOLTAGE FROM TP2 TO TP3. IT MUST BE +4.75 ±.05VDC. MEASURE THE VOLTAGE FORM J1-1 TO TB1-5. IT MUST BE .1 ±.1VDC. CONNECT A 1K RESISTOR FROM J1-5 TO J1-2. MEASURE THE VOLTAGE FROM J1-2, J2-2 TO TB1-5. IT MUST BE 4.75± .5VDC.

9.0.6.2 READJUST R1 FOR + 5.1 ±.1VDC BETWEEN TP2 AND TP3. MEASURE THE VOLTAGE BETWEEN J2-1, J1-1 TO TB1-5. IT MUST BE + 4.6 ±.4VDC. MEASURE THE VOLTAGE FROM J1-2, J2-2 TO TB1-5. IT MUST BE +.1 ±.1VDC.

9.0.7 D.C. INPUT VOLTS OPERATION

REMOVE THE AC INPUT VOLTAGE CONNECTED BETWEEN TB1-1 AND TB1-2. REMOVE JUMPER FROM TB2-6 TO TB2-7 AND CONNECT TB2-7 TO TB2-8. CONNECT 0-140VDC AT 6 AMPS BETWEEN TB1-1 AND TB1-2 (POS. TO TB1-1). MONITOR THE VOLTAGE BETWEEN TP2 AND TP3 (ON THE NPSC) AS THE D.C. INPUT VOLTAGE IS INCREASED FROM ZERO TO +140VDC. THE VOLTAGE FROM TP2 TO TP3 MUST BE +5 ±.1VDC FOR D.C. INPUT VOLTAGES GREATER THAN +70VDC AND LESS THAN +140VDC.

9.0.8 REMOVE JUMPERS FROM TB1-4,5,6.

9.0.9 END TEST.