REV NO. A

68A999197
CONT ON SHEET 2 SH NO. 1

TITLE

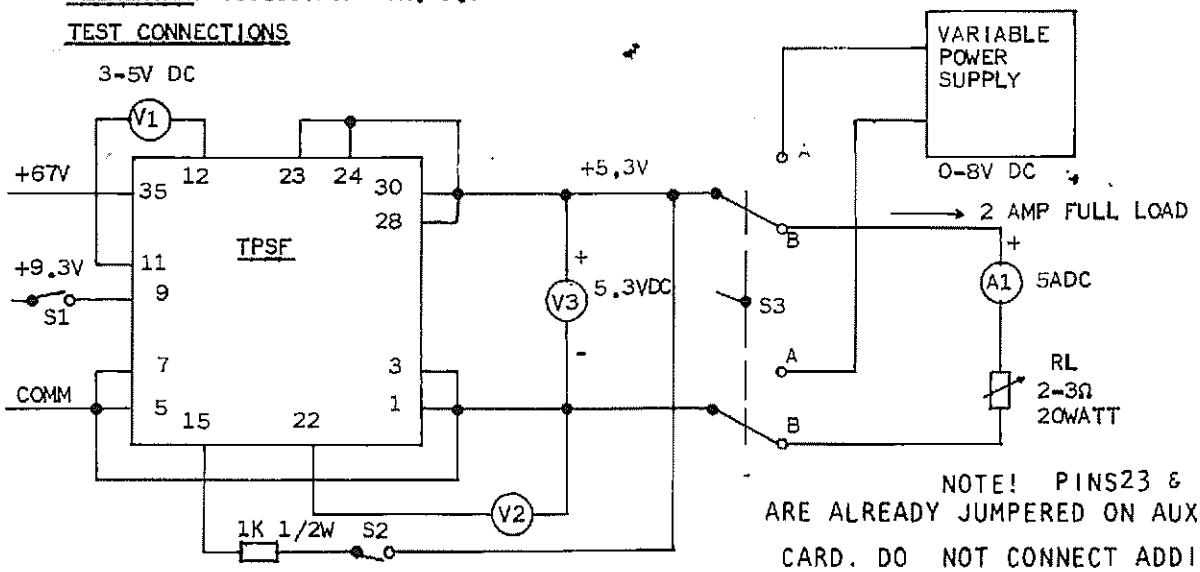
TEST INSTRUCTIONS
9/5.3 VOLT, 2 AMP REGULATOR CARD
FIRST MADE FOR IC3600TPSF-

REV

Rev. L ACW 10-28-69

ELEMENTARY IC3600TPSF SH. 3.0

TEST CONNECTIONS




NOTE! PINS23 & 30 ARE ALREADY JUMPERED ON AUX. CARD. DO NOT CONNECT ADDITIONAL JUMPER. WILL CAUSE STEP 3 TO FAIL.

1) JUMPER PINS 1-3-5 TO 7, 23-24 TO 30.

2) CONNECT THREE ADJUSTABLE DC POWER SOURCES AS SHOWN.
   A) +67V DC (APPROX 100 M.A. CAPACITY) AT PIN 35.
   B) +9.3V DC (2 AMP CAPACITY) AT PIN 9, 11.
   C) 0-8V DC (APPROX 100 M.A. CAPACITY) AT SWITCH S3-AA

3) CONNECT ALL OTHER INSTRUMENTS, SWITCHES AND RESISTORS AS SHOWN ABOVE.

TEST PROCEDURE

1) CLOSE S1, OPEN S2, PLACE S3 IN POSITION B-B.

2) WITH THE LOAD ADJUSTED FOR 2 AMPS (2.65 OHMS $R_L$), APPLY THE +67 AND +9.3 VOLTS DC.

3) ADJUST POTENTIOMETER R25 ON THE CARD TO GIVE 5.3 VOLTS OUTPUT (V3). TRIM $R_L$ FOR 2 AMPS, THEN IF NECESSARY READJUST R25 FOR 5.3 VOLTS.

   UNDER THESE CONDITIONS AND WITH A 9.37 VOLT INPUT, THE DISSIPATION VOLTAGE OF Q1 AS MEASURED BY $V_1$ SHOULD BE 3.64 VOLTS $\pm$ .05.

4) LOAD REGULATION FROM 2 AMP TO NO LOAD SHOULD BE A MAXIMUM OF 40 MV.

5) LINE REGULATION FROM 10.8 TO 8.5 VOLTS (PIN 9-11 INPUT) SHOULD BE A MAXIMUM OF 40 MV WITH A 2 AMP LOAD.

6) SHORT CIRCUIT TEST - WITH 2 AMP LOAD FLOWING, SHORT THE OUTPUT. THE LOAD CURRENT SHOULD CUT BACK TO LESS THAN 1.7 AMPS AND THE OUTPUT VOLTAGE SHOULD FALL TO LESS THAN 0.5 VOLTS.

   REMOVE THE SHORT AND THE REGULATOR SHOULD IMMEDIATELY RECOVER.

7) REMOTE SHUTDOWN - WITH THE REGULATOR OPERATING NORMALLY AT 2 AMPS - CLOSE S2. A1 SHOULD READ LESS THAN 0.5A, V3 LESS THAN 1.5V DC.

   OPEN S2 AND LEAVE OPEN.

8) OVERVOLTAGE SHUTDOWN TEST -

WITH S1 AND S2 OPEN, SET THE VARIABLE 0-8V DC SUPPLY SET AT ZERO VOLTS, CHANGE S3 TO POSITION A-A. PERFORM THE FOLLOWING CHECK ON THE OVERVOLTAGE SHUTDOWN SECTION OF THE REGULATOR CARD.

A) INCREASE THE VARIABLE 0-8V SUPPLY (V3) UNTIL V2 CHANGES FROM ZERO VOLTS TO APPROXIMATELY 4V DC. V3 SHOULD BE LESS THAN 7.5 VOLTS - DO NOT EXCEED 8 VOLTS.

B) TO RESET V2 TO ZERO VOLTS, DECREASE V3 TO LESS THAN 6.5 VOLTS, THEN INTERRUPT THE +67V FOR AN INSTANT. RECOVERY SHOULD OCCUR QUICKLY.

9) TRANSFER S3 BACK TO POSITION B-B, OPEN S2 AND RECLOSE S1.

NOW ADJUST THE REGULATOR TO 5.4 VOLTS OUTPUT (V3). THIS IS DONE BY SLIGHTLY RAISING THE 9.37 VOLT INPUT SO THAT IT IS POSSIBLE TO ADJUST R25 TO 5.40 AND READ 3.51 VOLTS ON V1.

LEAVE THE CARD SET AT 5.40 VOLTS AS THIS WILL COMPENSATE DOWNWARD DRIFT IN FINAL USE.