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44C372626-G01

372626G01.1A TEST INSTRUCTIONS

I. SCOPE

This document describes the setup and test procedure for the PWB 44C372626G01

II. SPECIAL TEST EQUIPMENT

NONE

III. POWER SUPPLY REQUIREMENTS

SUPPLY	NOM.	TOL.	PINS
P15	+15.00V	+/- 5%	10TP
N15	-15.00V	+/- 5%	12TP
ACOM (P15,N15 COM)			11TP

IV. INITIAL SETUP AND CHECK

1. Verify the following resistors are the proper value.

- 5R = 1.91k
- 9R = 165k
- 18R = 8.25k
- 24R = 4.99k
- 13R = 8.25k
- 27R = 4.99k

2. Verify 0 ohms between each of the following sets of points.

- 1 pin 1 to 10TP
- 3 pin 2 to 11TP
- 5 pin 3 to 12TP

3. Connect a 1k test pot. as follows:

- a. Connect point one of pot. to 10TP(+15v).
- b. Connect other end of pot. to 11TP(acom).
- c. Connect wiper to a test switch (TS1) with other end connected to pin 13.(Be sure TS1 is open)

4. Connect a -50v voltage source from pin 11 to pin 3(ACOM).

5. Connect a 7.5v voltage source from pin 15 to pin 3(ACOM).

V. TEST DEFINITIONS AND SPECIAL NOTES

1. Unless otherwise specified, the following conditions apply through-out the test procedure:
 - a. Voltages are positive DC.
 - b. Any negative DC voltages are preceeded with a "-".
 - c. Any AC voltages are RMS (.707 X peak).
 - d. DC inputs should be within 2 millivolts of nominal.
 - e. AC inputs should be within 10 millivolts of nominal.
 - f. Inputs are to be floating unless a signal is specifically applied.
 - g. Once an input is applied it should be left applied until specifically told to remove it.
 - h. Any pot settings should be adjusted as close to nominal as possible. Not just to within tolerance.
 - i. All voltages referenced to 11TP and/or PIN 3 unless otherwise noted.

VI. TEST PROCEDURE

1. Verify voltage at pin 25(+) to pin 3(-) = 14.2v +/- 0.5vdc.
2. Apply - 50v source from pin 11(-) to pin 3(+).
3. Apply +7.5v source from pin 15(+) to pin 3(-).
4. Adjust PWB pot. 2P fully CCW.
5. Adjust PWB pot. 1P for the following output voltages from 6TP(+) to 11TP(-):
 - a. Fully CCW, voltage output = -6.7v +/- 0.3vdc.
 - b. Fully CW, voltage output = +4.1v +/- 0.3vdc.
 - c. Set output voltage for 0v +/- 0.05vdc.
6. Increase +7.5 voltage source from pin 15 to pin 3(-) to +15v +/- 0.005vdc.
7. Decrease -50 voltage source from pin 11 to pin 3(-) to -55v +/- 0.05vdc.
8. Adjust PWB pot. 2P for the following output voltages from 6TP(+) to 11TP(-):
 - a. Fully CCW, voltage output = -0.5v +/- 0.1vdc.
 - b. Fully CW, voltage output = +1.95v +/- 0.3vdc.
 - c. Set output voltage for 0v +/- 0.05vdc.
9. Decrease +15 voltage source from pin 15 to pin 3(-) to +7.5v +/- 0.005vdc.
10. Increase -55 voltage source from pin 11 to pin 3(-) to -50v +/- 0.05vdc.

11. Verify output voltage at 6TP(+) to 11TP(-) = $0v \pm 0.005vdc$.
(Note if voltage output at 6TP is not within spec., adjust 1p and verify output is $0v \pm 0.05vdc$ with inputs as specified in steps 7 & 8. Then as specified in steps 10 & 11.) Procedure may have to be repeated several times to meet spec..
12. Connect jumper 1SW on PWB between terminal 1 & 2.
13. Adjust PWB 4P pot. fully CCW.
14. Adjust voltage source at pin 15 until voltage from 4TP(+) = $2.0v \pm 0.005vdc$. 10.0v
15. Adjust PWB pot. 6P for the following output voltages from 2TP(+) to 11TP(-):
 - a. Fully CCW, voltage output = $-13v \pm 1.0vdc$.
 - b. Fully CW, voltage output = $-2v \pm 0.2vdc$.
 - c. Set pot. for $\frac{2TP}{3TP} = 5 \pm 0.005(\text{ratio})$.
16. Adjust voltage source at pin 15 until voltage from 4TP(+) = $4.0v \pm 0.005vdc$. 13.4v
17. Adjust PWB pot. 3P for an output of $7TP/6TP = 0.5 \pm 0.005(\text{ratio})$.
18. Adjust PWB pot. 4P for an output of $5TP/4TP = 0.1 \pm 0.005(\text{ratio})$.
19. Adjust voltage source at pin 15 until voltage from pin 20(+) to pin 3(-) = $0.0v \pm 0.01vdc$. (Note there is a time delay in output voltage response.) 2.5v
20. Adjust test pot. to $+2v \pm 0.005vdc$ from pin 13(+) to pin 3(-).
21. Close TS1. (connect 2v to pin 13)
22. Using an oscilloscope verify the following from pin 20(+) to pin 3(-) after closing TS1:
 - a. Increases to $2.5v \pm .2vdc$ immediately.
 - b. Increases from $2.5v$ to $5v$ within a 1 ± 0.2 second time constant.
23. Adjust voltage source at pin 15 until voltage from 2TP(+) = $0v \pm 0.005vdc$. 6.0v
24. Connect jumper 2SW on PWB between terminal 1 & 2.
25. Apply $1v \pm 0.005vdc$ from pin 17(+) to pin 3(-).
26. Adjust PWB pot. 5P for the following output voltages from 13TP(+) to 11TP(-):
 - a. Fully CCW, voltage output = $-0.9v \pm 0.02vdc$.
 - b. Fully CW, voltage output = $-1v \pm 0.05vdc$.
 - c. Set output voltage for $-1v \pm 0.005vdc$.

27. Verify the voltage from 2TP(+) to 11TP(-) = $5\text{v} \pm 0.05\text{vdc}$.
28. Adjust PWB pot. 7P for $10\text{v} \pm 0.01\text{vdc}$ from 14TP(+) to 11TP(-).
29. Remove the voltage source from pin 17.
30. Adjust voltage source at pin 15 until voltage from pin 20(+) to pin 3(-)
= $-5.0\text{v} \pm 0.01\text{vdc}$. (Note there is a time delay in output voltage response.)
31. Adjust PWB pot. 7P for $0\text{v} \pm 0.005\text{vdc}$ from pin 20(+) to pin 3(-).
32. Adjust PWB pot. 7P for $-5.0\text{v} \pm 0.01\text{vdc}$ from pin 20(+) to pin 3(-).
33. Adjust voltage source at pin 15 until voltage from pin 20(+) to pin 3(-)
= $1.0\text{v} \pm 0.01\text{vdc}$. (Note there is a time delay in output voltage response.)
34. Adjust voltage source at pin 15 until voltage from 6TP(+) to pin 3(-)
= $.5\text{v} \pm 0.01\text{vdc}$. 3.3 v
35. Adjust PWB pot. 3P for a ratio of $7\text{TP}/6\text{TP} = 1$ (ratio). (MAKE = TO ONE ANOTHER WITH THE RES.)
36. Adjust PWB pot. 4P for a ratio of $5\text{TP}/4\text{TP} = 1$ (ratio).
37. Adjust voltage source at pin 15 until voltage from pin 20(+) to pin 3(-) 9.0
= $10.0\text{v} \pm 0.02\text{vdc}$. (Note there is a time delay in output voltage response.)
38. Verify the voltage output from pin 29 to pin 3(-) 9.29
= $9.15\text{v} \pm 0.2\text{vdc}$.
39. Adjust voltage source at pin 15 until voltage from pin 20(+) to pin 3(-) 7.59
= $5.0\text{v} \pm 0.02\text{vdc}$. (Note there is a time delay in output voltage response.)
40. Verify the voltage output from pin 29 to pin 3(-) 4.36
= $4.22\text{v} \pm 0.2\text{vdc}$.

41. Remove all power to PWB.

SEAL ALL POTS

END OF TEST

TEST INSTRUCTION REVISION STATUS

<u>REV</u>	<u>INIT</u>	<u>DESCRIPTION OF CHANGE</u>	<u>DATE COMPLETE</u>
0	SAJ	First made for 44C308755G01	01/15/85
1	SAJ	CORRECTED ERRORS IN INITIAL TI	02/01/85
2	awe	Updated from VAX (.txt) to WORD (.doc) format	08/10/98