TITLE
INSTRUCTION FOR TESTING THE BYPASS VALVE AMPLIFIER CIRCUIT BOARD
FIRST MADE FOR 947D374 G6 AND G7

125D6292G0007 G05

REVISIONS

SCOPE

This process instruction provides a method for performing a functional check with the necessary adjustments for the subject circuit board prior to installation in the EHC cabinet. R1 and R2 will require further trimming when the circuit board is installed in the EHC Cabinet.

TEST PROCEDURE

1. Examine the circuit board to see that the electrical components and printed circuits are not physically damaged.
2. Plug circuit board 947D374 G-6 into the test fixture.
3. Use an ohmmeter to check that there are no short circuits between any combination of pins 17, 19, 21, 38, and 40.
4. Connect a resistor of 2.2K ohms, 1 Watt between pins 23 and 19.
5. Connect an adjustable 1.0K ohm potentiometer between pins 27 and 19. The potentiometer slider should be connected to pin 26. Connect the potentiometer electrically such that the slider is shorted to pin 27 when the potentiometer is in the full clockwise position. This potentiometer will be referred to as R_B.
6. Connect an adjustable 5.0K ohm potentiometer between pins 22 and 19. The potentiometer slider should be connected to pin 25. Connect the potentiometer electrically such that the slider is shorted to pin 22 when the potentiometer is in the full clockwise position. This potentiometer will be referred to as R_J.
7. Connect the input of a high gain DC operational amplifier to pin 39 and the output to pin 41.
8. Connect a well regulated (+) 30.0 volt DC power supply to pins 17 and 38. The negative voltage terminal should be connected to pin 19.
9. Connect a well regulated (-) ~~20.0~~ -22.0 volt DC power supply to pins 21 and 40. The positive voltage terminal should be connected to pin 19.
10. All voltage measurements will be made with respect to test point TP11.
11. Set R_B to full counterclockwise position and connect TP5 and pin 29 to signal ground, pin 19.

273-5
273-314
~~273-273~~
~~273-2~~
273-12
~~273-13~~
273-132
273-71
~~324~~
PRINTS TO

TITLE
INSTRUCTIONS FOR TESTING THE BYPASS VALVE AMPLIFIER CIRCUIT BOARD
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REVISIONS

TEST PROCEDURE (continued)

-5.26 for G6
-1.25 for G7

12. Apply ~~4.75~~ volts to pin 35. The voltage at TP3 and pin 23 should be between +4.9 to +5.1 volts.

13. Remove the ~~4.75~~ -5.26 volt input to pin 35 and the signal ground from pin 29.

-0.580 for G6 + 0.125 for G7

14. Apply -0.475 volts to pin 29 and +5.000 volts to pin 35.

15. Adjust R2 until the voltage at TP3 is 0.000 volts.

16. Remove the -0.475 volts from pin 29 and the +5.000 volts from pin 35.

17. Remove the signal ground from TP5 and connect pins 29 and 35 to signal ground, pin 19.

18. Set R_B to give -0.125 volts at TP3.

19. Connect the input of a second high gain DC operation amplifier to pin 33 and the output to pin 37.

20. Set RJ to the full clockwise position.

21. Adjust R1 to give +5.00 volts at TP3. 5.4V to 5.6V

22. The voltage at TP4 and pin 25 should be between ~~-4.90~~ -5.3 to -5.5 and ~~-5.10~~ volts.

23. Remove the signal ground from pin 29 and apply -06 -G7 volts to pin 29.
-.26 for G6

24. Slowly turn RJ counterclockwise.

25. Observe that the magnitude of the negative voltage at TP4 and the positive voltage at TP3 are reduced. When the voltage at TP3 reaches approximately +2.5 volts, it will become fixed while the voltage at TP4 continues to decrease.

26. Remove all test equipment.

27. Remove the circuit board from the test fixture and identify it with a suitable mark to indicate that it has been tested and adjusted in accordance with this instruction.

5.26 V FOR 5V OUT

KT-273
273-2
273-12
273-13
273-13
273-71
R2A
PRINTS TO

Data Sheet

Job # _____

Serial # _____

Date _____

Burn-in Start _____

Data Sheet for __125D6292G0005_____

Burn-in Stop _____

Test Procedure _P3K-AL-0133-A01_____

Technician _____

Test Procedure Step	Nominal	Lower Limit	Pre-Burn in Results	Post Burn in Results	Upper Limit	Pot Values If applicable CW	CCW	Pass/Fail
8	30VDC							
9	-22VDC							
12	5VDC	4.9V			5.1V			
15	0VDC							
15 -R2								
21	5.5VDC	5.4V			5.6V			
21 - R1								
22	-5.4VDC	-5.3V			-5.5V			
25	TP4							
	TP3							

1/9/2012

cw