

REV NO. 012

TITLE

P3K-AL-0336-A01

BOARD TEST SPECIFICATION - VOLTAGE SENSOR, 125 VDC
1P2-E007 - SCHEMATIC 117D7368
FIRST MADE FOR

CONT ON SHEET

2

SH NO.

1

17-83

REVISIONS

1. PURPOSE

- A. The purpose of this specification is to convey the proper information needed to test the referenced circuit board for its correct function.
- B. To enable the skilled Test Engineer to produce the detailed Test Procedure for the referenced circuit board.

2. DOCUMENTS PERTAINING TO THIS SPECIFICATION

- A. Voltage Sensor - 125 VDC - 117D8507
- B. AC/DC Power Ground System - 117D7762

BY HL DATE 7/10/97

1 PAUL JAN 15 1981 * Chgs made

2 PAUL MAR 25 1981 no chgs. this sh

3. EQUIPMENT NEEDED TO TEST

- A. DC Power Supply - 24 VDC nominal, 2 ampere rating.
- B. DC Power Supply - 0 to 150 VDC nominal, 1 ampere rating.
- C. 2 switches - SPST - 1 ampere rating, 125 VDC nominal.
- D. 3 Push-button Switches - SPST - 1 ampere rating, 24 VDC nominal each.
- E. 3 Indicating devices - 24 VDC nominal, 80 ma rating each.

4. CIRCUIT DESCRIPTION

* This board consists of a Voltage Sensor and associated components to monitor the output voltage of the 125 VDC Power Supply. The outputs of the board logic are brought out to allow indication and control functions.

5. CIRCUIT INTEGRATION

The voltage sensor continuously monitors the output voltage of the Power Supply. Whenever this voltage exceeds a pre-set limit, a latching relay energizes, sending a signal to an indicator and the Malfunction Bus. If the voltage falls to within the pre-set value, this signal can be overridden.

If the voltage falls below a pre-set limit, a different relay will send a signal to another indicator and the Malfunction Bus. As before, if the voltage rises above the preset value, logic circuitry can be activated to override the signal.

273-221

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PRINTS TO

MADE BY
D. Mone June 11, 1973

APPROVALS

Steam Turbine

DIV OR
DEPT.

P3K-AL-0336-A01

ISSUED

JUN 12 1973

Schenectady, N.Y.

LOCATION

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SH NO.

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REV. NO. *012*

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SH NO.

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P3K-AL-0336-A01

BOARD TEST SPECIFICATION - VOLTAGE SENSOR, 125 VDC
 1P2-E007 - SCHEMATIC 117D7368
 FIRST MADE FOR

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SH NO.

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REVISIONS

6. TEST SPECIFICATION

- A. Connect the board as shown in Figure 1.
- B. With PS1 set at 0 volts and 24 VDC set on PS2, close S1 and S2. Indicators 1 and 2 shall indicate, indicator 3 shall not.
- C. Press in succession PB1, PB2, and PB3. No change shall occur in the indicators. *14 17 22*
- D. Increase the voltage between TP52 and TP53 at a 10 volt per second rate. Stop when the voltage reaches 125 ± 0.5 VDC. There shall be no change in the indicators.
- E. Press and release PB1. Indicator 1 and 2 shall cease indicating. *14*
- F. Reduce the PS1 voltage at a 5 volt per second rate. Indicators 1 and 2 shall indicate where the voltage between TP52 and TP53 is 115.5 ± 2.5 VDC. Increase the voltage to 125 ± 0.5 volts. ****
- G. Press and release PB2. Indicators 1 and 2 shall cease to indicate. *17*
- H. Press and release PB3. There shall be no change in the status of the indicators. *22*
- J. Increase the voltage between TP52 and TP53 at the 5 volt per second rate to 145 ± 0.5 VDC. Indicators 2 and 3 shall indicate when the voltage reads 133 ± 3 VDC. ***
- K. Reduce the voltage between TP52 and TP53 to 125 ± 0.5 VDC. There shall be no changes in the status of the indicators. *22*
- L. Press and release PB3. Indicators 2 and 3 shall cease indicating. *17*
- M. Repeat steps J and K. Press and release PB2. Indicators 2 and 3 shall cease indicating.
- N. Reduce PS1 and PS2 to 0 VDC. Open S1 and S2.

7. REPORT SHEETACTIONREACTIONYESNO

A. Close S1 & S2

Ind. 1, 2 indicate
 Ind. 3 not indicate

PRINTS TO

MADE BY *D. H. M. G. 11/19/73*
 ISSUED *3011 1 2 1973*

APPROVALS

Steam Turbine

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Schenectady, N.Y.

LOCATION

P3K-AL-0336-A01

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SH NO.

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REV. NO. 042
 P3K-AL-0336-A01
 CONT ON SHEET 5 SH NO. 4

TITLE
 BOARD TEST SPECIFICATION - VOLTAGE SENSOR, 125 VDC
 1P2-EO07 - SCHEMATIC 117D7368
 FIRST MADE FOR

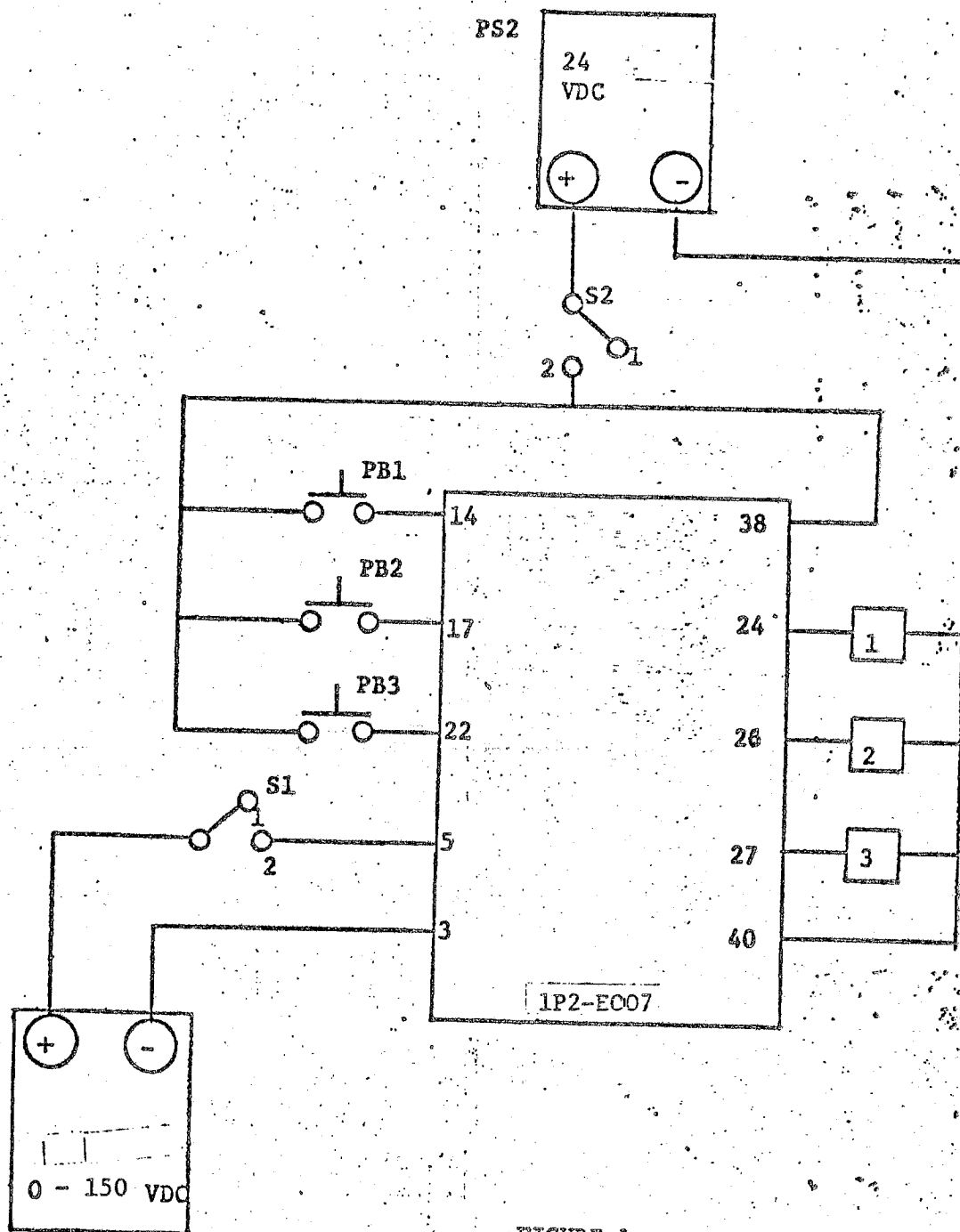


FIGURE 1

REVISION	
1	1P2-EO07 JAN 15 1981
2	1P2-EO07 MAR 25 1981
3	1P2-EO07
4	1P2-EO07
5	1P2-EO07
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28	1P2-EO07
29	1P2-EO07
30	1P2-EO07

MADE BY <u>D. J. Kline</u>	APPROVALS <u>11/19/73</u>	DIV OR DEPT. <u>Steam Turbine</u>	P3K-AL-0336-A01
ISSUED <u>JUN 1 2 1973</u>		LOCATION <u>Schenectady, N.Y.</u>	CONT ON SHEET <u>5</u> SH NO. <u>4</u>

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P3K-AL-0336-A01		Board Test Specification-Voltage Sensor, 125 VDC		
CONT ON SHEET 6		SH NO. 5	FIRST MADE FOR MARK II	

TEST INSTRUCTIONS 1P3-

Assembly 117D8507

Schematic 117D7368

The 125 VDC sensor monitors the output voltage level of its specific power supply. If the voltage level falls below 113 VDC, ** K1 de-energizes, contact K1-1 closes to apply a signal to pins 24 and 26. *

If the voltage level rises above 135 VDC, K1 energizes, contact K1-1 closes to apply a signal to pins 27 and 26. A reset signal applied to pins 14 or 17 will pick up K2 allowing K1-1 to latch in. Similarly, a reset signal applied to pins 22 or 17 will pick up K1-R.

TEST PROCEDURE:

1. Refer to Fig. A for test circuit.
2. All switches down.
3. Read voltage of VSI from TP53 to TP52.
4. Adj. VSI for 0 VDC.
5. The chart which follows outlines the procedure for testing the relay logic of this circuit.

REVISION

1 JAN 15 1981

2 MAR 25 1981

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June 12, 1973				

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PRINTS TO

SK NO. 6

REV NO. 12

P3K-AL-0336-A01

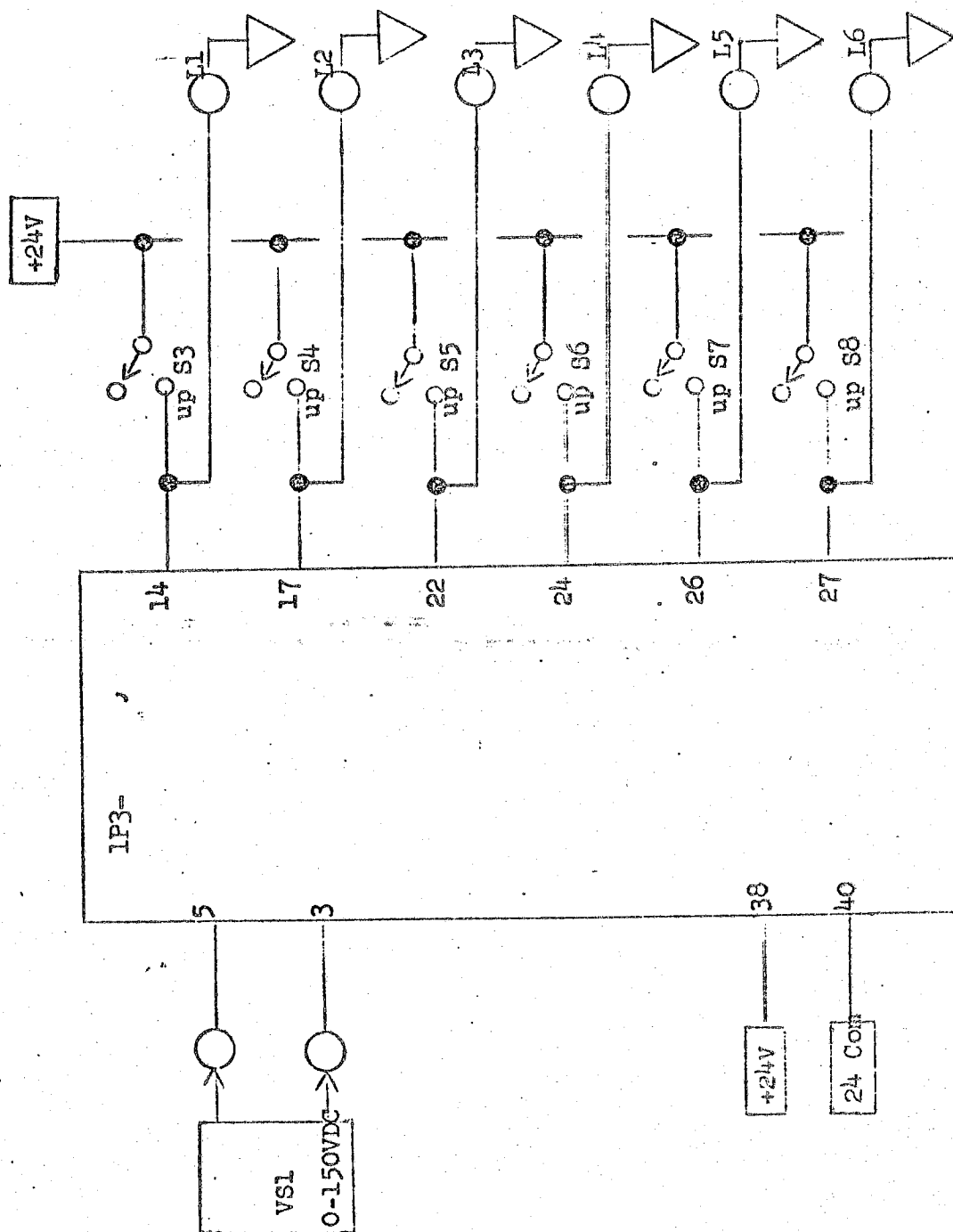
TITLE

BOARD TEST SPECIFICATION - VOLTAGE SENSOR, 125 VDC
 IP3- SCHEMATIC 117D7368
 FIRST MADE FOR

CONT ON SHEET 9

SH NO. 8

Figure A



REVISIONS

2 PAUL MAR 25 1974 PAUL JAN 15 1981
 NO CHA mis sh NO CHA mis sh

PRINTS

MADE BY D.Mone June 11, 1973
 ISSUED June 12, 1973

APPROVALS

Steve Forbine

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P3K-AL-0336-A01

Schematic

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SH NO. 8

