

REV
NO.

TITLE

P3K-AL-0324-A01

BOARD TEST SPECIFICATION - LOSS OF 22VDC POWER -
1P3-D001 - SCHEMATIC 173B6502

CONT ON SHEET

2

SH NO. 1

FIRST MADE FOR

41, 2

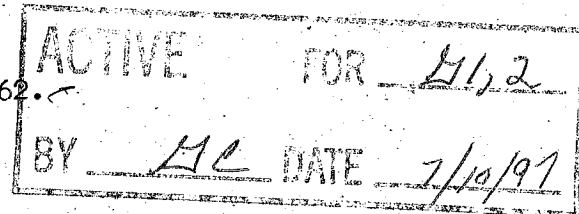
REVISIONS

1. Purpose.

- A. The purpose of this specification is to convey the proper information needed to test the referenced circuit board for its proper 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. Loss of 22VDC Power - 117D9154.
- B. AC/DC Power Ground System - 117D7762.
- C.



3. Equipment needed to test.

- A. DC Power Supply - 24VDC nominal, 1 ampere output.
- B. DC Power Supply - 0 to 28 VDC nominal, 5 ampere output.
- C. DC Voltmeter - 50 \pm 2% VDC, 20,000 Ω /volt
- D. Switch - SPST - 1 ampere break capacity.
- E. Switch - SP3T - 1 ampere break capacity.
- F. 2 indicating devices - 24 VDC nominal, 80 ma current rating each.
- G.

4. Circuit Description.

This circuit consists of two voltage sensors which will energize relays whenever the input voltage connected to them exceeds 22 VDC.

5. Circuit Integration.

The output voltages of the +22VDC and -22 VDC Power Supplies must be monitored and displayed whenever either fails or falters. This card contains the sensors which will detect a staggering system voltage and relay this information to the Malfunction Bus.

ET-275

273-2

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PRINTS TO

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J. NOBE Mar. 20, 1973

APPROVALS

Turbine

DIV Gp

P3K-AL-0324-A01

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11 6 513

Schenectady

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SH NO. 1

P3K-AL-0324-A01

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1P3-D001 - SCHEMATIC 173B6502

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6. Test Specification.

- A. Connect the board as shown in Figure 1.
- B. Energize PS1 and set to 24 ± 1 VDC. Energize PS2 and set to 0 VDC.
- C. Close S1. Indicators 1 and 2 shall indicate. Set S2 ^{37⊕ 39⊖} to position 2.
- D. With the DC Voltmeter connected between TP51 (+) and TP50 (-), increase the voltage output of PS2 at a rate of 1 volt/second.
- E. When the voltage between TP51 and TP50 reads $20 + 1, - 0$ volts, indicator 1 shall not indicate, indicator 2 shall continue to indicate.
- F. When the voltage between TP51 and TP50 reaches 28 VDC, begin to decrease the PS2 voltage toward zero at the rate of 1 volt/second.
- G. When the voltage between TP51 and TP50 reaches $20 + 0, - 1$ volts, indicator 1 shall indicate.
- H. Reduce the voltage of PS2 to zero.
- I. Set S2 to position 3.
- J. Repeat steps A thru H except read indicator 2 for indicator 1, TP53 (+) for TP51 (+).
- K. De-energize PS1 and PS2.

7. Report Sheet.

<u>Indicator</u>	<u>Indicated</u>	<u>Volts</u>
1 up		
1 down		
2 up		
2 down		

8. Notes.

If either of the indicators do not indicate at the voltage specified, the board is to be rejected.

ET-273

273-2

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APPROVALS

Turbine

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Schenectady

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CONT ON SHEET 3

SH NO. 2

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REV NO.	P3K-AL-0324-A01	TITLE	Board Test Specification - Loss of 22 VDC Power 1P3-DOOL
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TEST INSTRUCTIONS 1P3-DOOL

Assembly 117D9154

Schematic 173B6502

PROCEDURE:

1. Refer to Fig. A for test circuit.
2. Refer to Fig. B for equipment list and setup instructions.

NOTE: All settings and specifications are + 1MV unless otherwise specified.

3. All switches down. L1 and L2 are ON.
4. S1 and S2 up. Measure voltage from TP⁵⁰~~51~~ to TP⁵²~~53~~.
5. Increase the output of voltage source until VS1 picks up (indicated by L1) the pickup and dropout voltage must lie in the range +20.00 to 21.00 VDC.

NOTE: During this test, it is important that the voltage source be ramped slowly. ($< .1V/s$)

6. S1 and S2 down.
S3 and S4 up. ⁵¹
Measure voltage from TP53 to TP⁵⁰.
7. Increase the output of the voltage source until VS2 picks up (indicated by L2). The pickup and dropout voltage must lie in the range of +20.00 to +21.00 VDC.
8. End of test.

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ISSUED		LOCATION	CONT ON SHEET 5 SH NO. 4
		Steam Turbine	
		Schneectady	

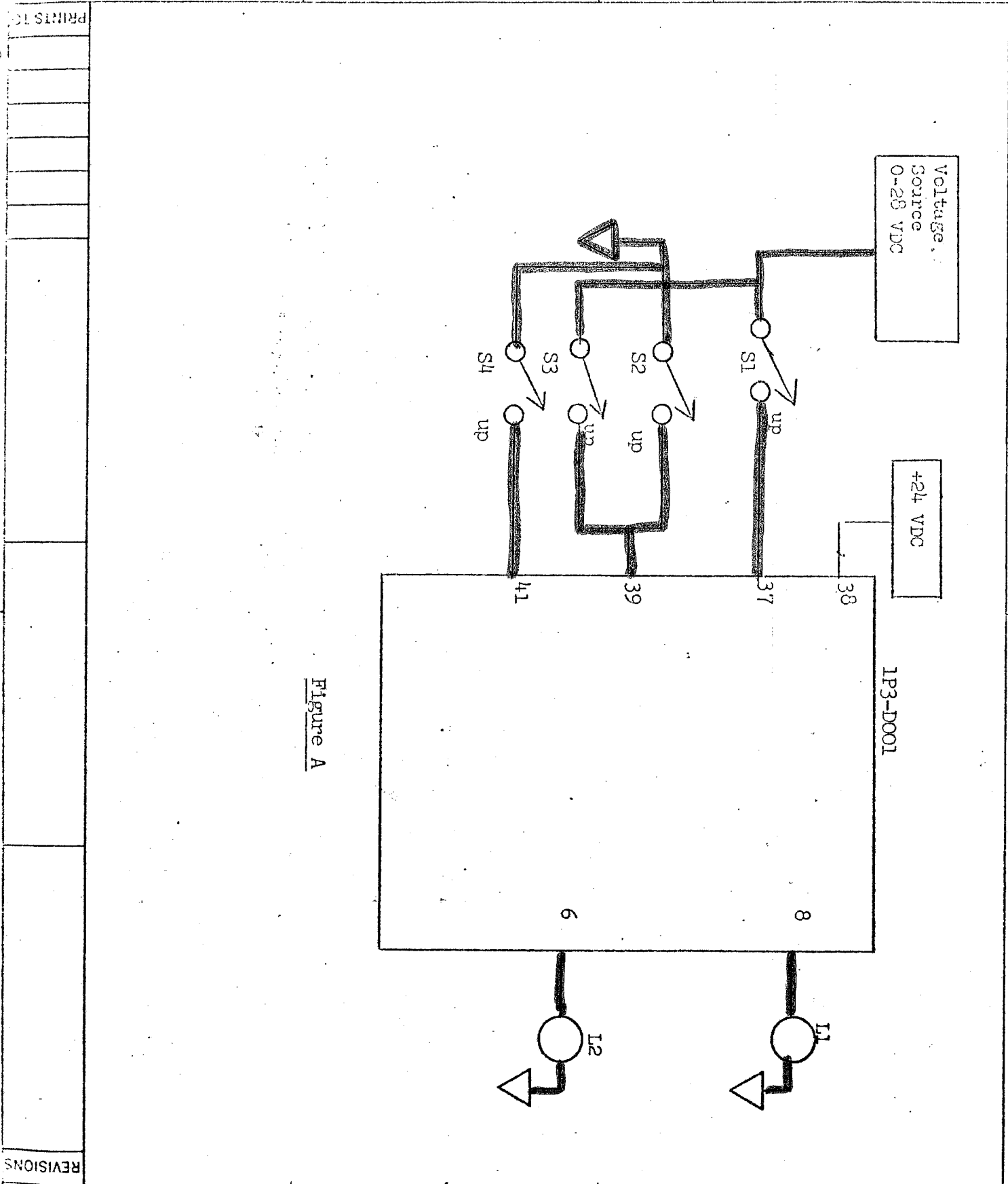


Figure A

P3K-AL-0324-A01

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BOARD TEST SPECIFICATION - LOSS OF 22VDC POWER -
1P3-D001 - SCHEMATIC 173B6502

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SH NO.

3

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DCVM

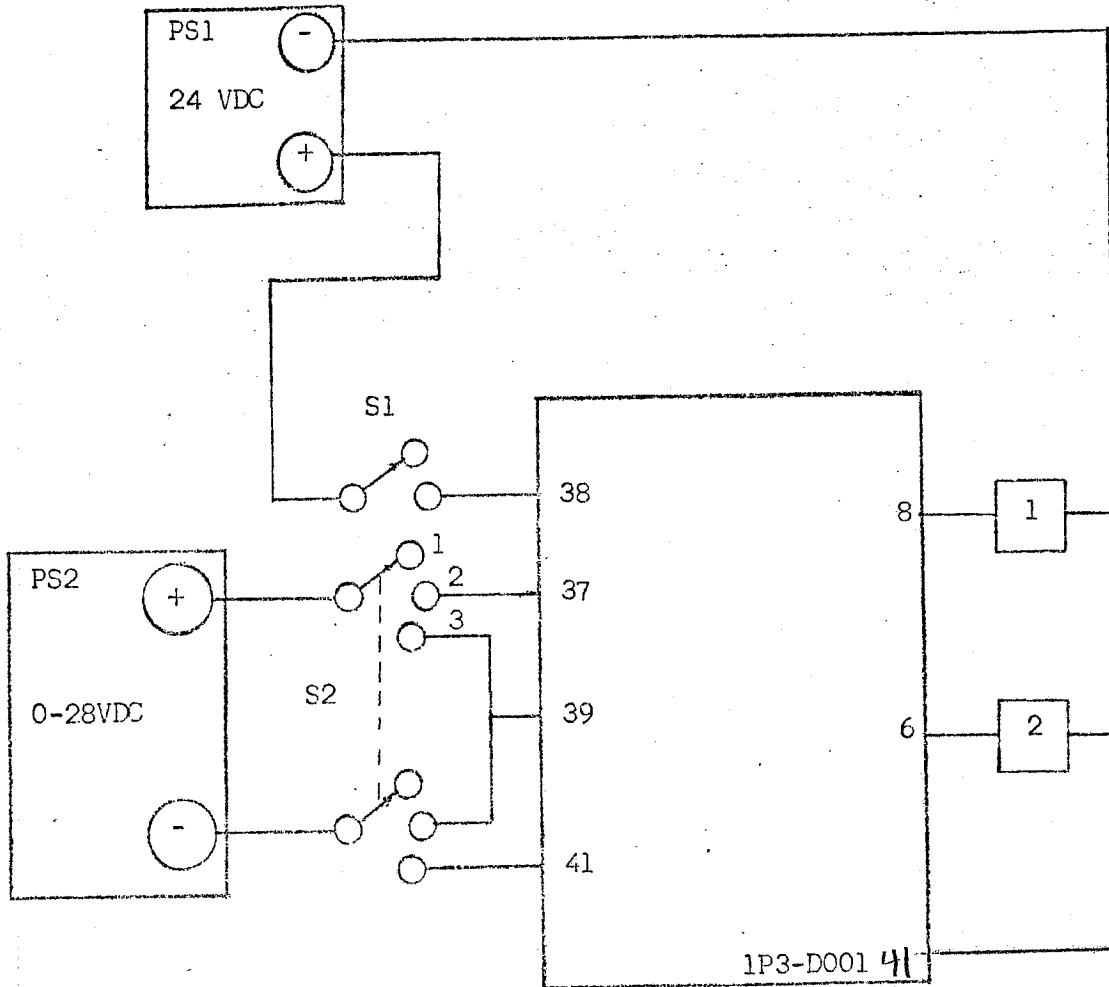


FIGURE 1

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SH NO. 3

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