TEST INSTRUCTIONS FOR LOAD LIMIT POSITIONING CIRCUIT

DOCUMENT REVISION STATUS: DETERMINED BY THE LAST ENTRY IN THE "REV" AND "DATE" COLUMN

REV.	AN NO.	DESCRIPTION	SIGNATURE	REV. DATE
A	YA00096	SPECIFICATION LISTED IN STEAM TURBINE/GENERATOR INDEX AS "INACTIVE" HAS BEEN FORMALLY REVISED AS "INACTIVE FOR NEW DESIGN". (PR BUDKA)	C.R. Trippi	DEC 0 2 1991

INACTIVE FOR NEW DESIGN

AS OF ___12/02/91___

PREPARED BY: P.R. BUDKA

ORIG. ISSUE DATE: --

DT-3C

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TITLE

TEST INSTRUCTIONS FOR LOAD LIMIT POSITIONING CIRCUIT 1L2-J001

P3K-AL-0443-A01

CONT ON SHEET 3   SH NO. 2

FIRST MADE FOR   EHC MARK II (ASSEMBLY DRAWING 118D1335 G1)

REVISIONS

I. SCOPE

This instruction outlines the test specification for circuit board 1L2-J001. Reference Board Assembly 118D1335 G1; Schematic 125D5345.

II. CIRCUIT DESCRIPTION

This circuit accepts and combines input switching signals from load control and other units of the control system and provides accordingly 115V AC to the load limit set motor drive.

The board contains 24 VDC circuits (TB1, all 5 relay coils and associated circuitry) and 115V 60 HZ AC circuits (TB2, TP3, and 3 transformers, the 2 thyrectors, all relay contacts and associated circuitry). TB3 supplies +125 VDC to K6.

The circuit provides 115V to TB2-21 to increase the load limit set and to TB2-22 to decrease it.

These outputs are determined by two methods of operation involving different inputs:

a. MANUAL OPERATION

By applying 24V (through control panel pushbuttons) to relay K1 (decrease) or relay K2 (increase). Manual operation is permitted only when K5 is de-energized or K6 energized, which disables the remote operation.

b. REMOTE OPERATION

By applying 115V AC from Plant Communications to TB3-24 (decrease) or TB3-25 (increase). The isolation transformers permit this to be done either by using external source or the 115V provided to Plant Communications through TB3-23 for this purpose.

III. CIRCUIT SPECIFICATIONS

1. Before coating the board the eight diodes CR1 – CR8 should be checked, one by one to insure redundancy is effective.

2. Isolation between circuits.

   Resistance between TB1-1 and TB1-2 should be $>$ 1M Ohm
   Resistance between TB1-1 and TB2-19 should be $>$ 1M Ohm
   Resistance between TB1-2 and TB2-19 should be $>$ 1M Ohm
   Resistance between TB3-26 and TB2-19 should be $>$ 1M Ohm
   Resistance between TB2-18 and TB2-19 should be $<$ .1 Ohm

273-314
273-5
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273-12
273-71
273-13
~~273-22~~
~~273-22~~

PRINTS TO

MADE BY
POLACIR SEP 21 1977

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APPROVALS

Steam Turbine _ _ _ _ _ _ _ _ _ _ DIV OR DEPT.

Schenectady, N.Y.   LOCATION

P3K-AL-0443-A01

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CODE IDENT N
6T0

FF-803-WA (2-75)
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TITLE

TEST INSTRUCTIONS FOR LOAD LIMIT POSITIONING CIRCUIT 1L2-J001

FIRST MADE FOR   EHC MARK II (ASSEMBLY DRAWING 118D1335 G1)

REVISIONS

III. CIRCUIT SPECIFICATIONS (continued)

3. Thyrectors

Resistance between TB2-16 and TB2-18 should be > 100K Ohms
Resistance between TB2-17 and TB2-18 should be > 100K Ohms

(These measurements must be done by using a multimeter or other low voltage instrument and testing both polarities).

4. Transformers

Apply 115V 60 HZ between TB2-20 and TB2-19 and measure the voltage between TB3-23 and TB3-26. It should be 115V ± 1.5V.

Connect TB3-24 and TB3-25 together and apply 115V 60 HZ between these two points and TB3-26. Measure voltages to ground (TB2-19) of TP4 and TP5. Both should be 115V ± 1.5V.

5. Logic and Path Continuity

Connect TB3-23, TB3-24, and TB3-25 together.
Connect two 115V minature lamps to TB2-21 and 22 (other ends of lamps to 115V common).
Connect TB1-1 to 24 VDC and TB1-2 to 24 VDC common.
Connect TB2-19 to 115V 60 HZ common and TB2-20 to 115V 60 HZ.
Check the logic and path continuity by using the table on page 3.

PRINTS T

REV NO. 0A

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TITLE

TEST INSTRUCTIONS FOR LOAD LIMIT POSITIONING CIRCUIT 112-J001
FIRST MADE FOR   EHC MARK II (ASSEMBLY DRAWING 118D1335 G1)

REVISIONS

(SEE NOTES BELOW)

APPLY +24 VDC AT TB1							OUTPUT AT TB2		OUTPUT AT TB1					OUTPUT AT TEST POINTS						
3	4	6	7	13	14	15	21	22	5	7	13	14	15	TP1	TP2	TP3	TP4	TP5	TP6	TP7
0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	2	0	0	0	0
0	1	0	0	0	0	0	2	0	0	0	0	1	0	0	2	2	0	0	2	2
0	0	1	0	0	0	0	2	2	1	1	1	0	0	1	0	0	2	2	0	0

Jumper TB3-30 to TB3-31, and apply +125 VDC to TP3-29 (HI) and TB3-28 (LO).

3	4	6	7	13	14	15	21	22	5	7	13	14	15	TP1	TP2	TP3	TP4	TP5	TP6	TP7
0	0	0	1	0	0	0	2	2	1	1	0	0	0	1	0	0	2	2	0	0
0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0

Remove +24 VDC from TB1-1 and +125 VDC from TB3-29.

3	4	6	7	13	14	15	21	22	5	7	13	14	15	TP1	TP2	TP3	TP4	TP5	TP6	TP7
0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	1	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0

NOTE:
0: 0V
1: 24 VDC
2: 115VAC or lamp on

The table is sequential, therefore, the sequence of stages is essential. Care has been taken so that only one input transition occurs at a time; it is understood that this is a constraint of the available set-up.

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APPROVALS

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Schenectady, N.Y.

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REV NO. 0A

P3K-AL-0443-A01

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TITLE

TEST INSTRUCTIONS FOR LOAD LIMIT POSITIONING CIRCUIT
1L2-J001

FIRST MADE FOR   EHC MARK II (ASSEMBLY DRAWING 118D1335 G1)

REVISIONS

PREPARED BY *J. Dombrosky*   DATE 7-28-75
J. Dombrosky
EHC DESIGN ENGINEERING

APPROVED BY *P C Callan*   DATE 9-12-77
P.C. Callan - MANAGER
EHC DESIGN ENGINEERING

TEST PROCEDURE
REVIEWED BY *R. W. Debertolis*   DATE 9-9-77
R. Debertolis
EHC TEST ENGINEER

PRINTS TO

MADE BY *Polacer* SEP 21 1977

ISSUED SEP 22 1977

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CODE IDENT N(

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