GE Power Generation Engineering

Materials and Processes Engineering
Schenectady, NY 12345

PROCESS SPECIFICATION

P24B-AL-4913

INSTRUCTIONS FOR TESTING THE BYPASS VALVE AMPLIFIER CIRCUIT BOARD

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. Tripepi	DEC 0 2 199

INACTIVE FOR NEW DESIGN

AS OF 12/02/91

PREPARED BY: P.R. BUDKA

ORIG. ISSUE DATE: --

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 G4 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 de power supply to pins 17 and 38. The negative voltage terminal should be connected to pin 19.

(9) Connect a well regulated (-) 20.0 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 testpoint TP11.

(11) Set R_B to full counterclockwise position and connect TP5 and pin 29 to signal ground, pin 19.

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(12) Apply -1.25 volts to pin 35. The voltage at TP3 and pin 23 should be between +4.9 to +5.1 volts.

(13) Remove the -1.25 volt input to pin 35 and the signal ground from pin 29.

(14) Apply -0.470 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 .470 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 high gain dc operational amplifier to pin 33 and the output to pin 37.

(20) Set R_J to the full clockwise position.

(21) Adjust R1 to give +5.00 volts at TP3.

(22) The voltage at TP4 and pin 25 should be between -4.90 and -5.10 volts.

(23) Remove the signal ground from pin 29 and apply -.06 volts to pin 29.

(24) Slowly turn R_J 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.

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TITLE
INSTRUCTIONS FOR TESTING THE BYPASS VALVE AMPLIFIER CIRCUIT BOARD
FIRST MADE FOR Drwg. 947D374 G4

REVISIONS

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MADE BY H. Keller Jan. 24 '69
ISSUED FEB 3 1969

APPROVALS

Steam Turbine DIV OR DEPT.
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