

Book 5

GENERAL ELECTRIC

P3K-AL-0445-A01

REV
NO. 0

TITLE

CONT ON SHEET

2

SH NO. 1

P3K-AL-0445-A01

TEST INSTRUCTIONS FOR STANDBY CONTROL AND INTERCEPT
VALVE CIRCUIT BOARDS
FIRST MADE FOR EHC MARK II

CONT ON SHEET

2

SH NO.

1

SCOPE

This test procedure detailed below covers the checkout of circuit board SB CV
IV CONT. (Assembly 125D4325) (Schematic 125D3269)

REVISIONS

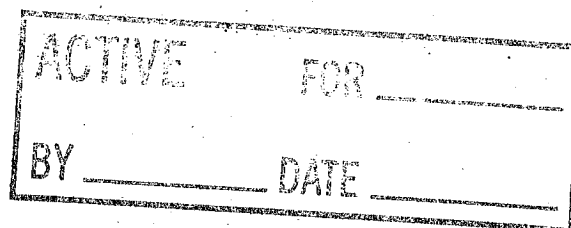
EQUIPMENT REQUIREDEquipment TypeQuantity

1. DC Power Supply (0-25V)
2. Digital Voltmeter (DVM)
3. Ohmmeter

3

1

1

PROCEDURE

A. Internal Power Supply

1. Connect terminal 39 to high quality ground.
2. Connect terminal 37 to $+22.000 \pm .002$ VDC relative to terminal 39.
3. Connect terminal 41 to $-22.000 \pm .002$ VDC relative to terminal 39.
4. Measure voltage between TP1 and TP11 with DVM. It must be $+15.7 \pm 1.0$ VDC.
5. Measure voltage between TP2 and TP11 with DVM. It must be -15.7 ± 1.0 VDC.
6. Leave +22 VDC, -22 VDC and high quality ground connected as above during rest of tests.

B. ICI

1. Connect a 4.5K resistor load from terminal 19 to terminal 39. Connect terminals 2 and 3 together. Connect TP6 and TP5 to terminal 39 and measuring voltage between TP3 and TP11 with DVM, adjust VR50 for null (0.000 VDC). Tolerance ± 1 mv.
2. Connect TP5 to terminal 39 and connect TP6 to -10 VDC relative to terminal 39. Connect terminals 2 and 3 together.

Measuring voltage between TP3 and TP11 with DVM, adjust VR4 first full clockwise and then full counterclockwise. Voltage must be adjustable between +6.0 and +11.0 VDC. If range is acceptable, set to +10.20 VDC.

MADE BY
J. Polacek Sept. 26, 1977

APPROVALS

Steam Turbine

DIV OR

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P3K-AL-0445-A01

ISSUED

SEP 26 1977

Schenectady, N.Y.

LOCATION

CONT ON SHEET

2

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TITLE

CONT ON SHEET

3

SH NO. 2

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TEST INSTRUCTIONS FOR STANDBY CONTROL AND INTERCEPT
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CONT ON SHEET

3

SH NO. 2

FIRST MADE FOR

PROCEDURE (continued)

B. (continued)

3. Connect TP5 to terminal 39. Connect TP6 to -1.00 VDC relative to terminal 39. Measure voltage between TP3 and TP11 with DVM. It must be $+2.00 \pm .04$ VDC.
4. Connect TP6 to terminal 39 and connect TP5 to -1.00 VDC relative to terminal 39. Measure voltage between TP3 and TP11 with DVM. It must be $+1.00 \pm .02$ VDC.

C. IC2

1. Connect TP6, TP5 and TP3 to terminal 39. Measuring voltage between TP7 and TP11 with DVM, adjust VR51 for null (0.000 VDC). Tolerance ± 1 mv.
Remove TP3 from com
2. Connect TP6 to terminal 39 and connect TP5 to -1.00 VDC relative to terminal 39. Measure voltage between TP7 and TP11 with DVM. It must be $+1.00 \pm .02$ VDC.

D. IC3

1. Connect terminal 27 to terminal 39. Measuring voltage between TP8 and TP11 with DVM, adjust VR52 for null (0.000 VDC). Tolerance ± 1 mv.
2. Connect terminal 27 to +10.00 VDC relative to terminal 39. Measure voltage between TP8 and TP11 with DVM. It must be +10.000 VDC. Tolerance ± 1 mv.

E. Voltage References

1. Measuring voltage with DVM between terminal 26 and terminal 39. Connect terminal 5 to terminal 6. Connect 6.0K load from terminal 26 to terminal 39. Adjust VR1 first full clockwise and then full counterclockwise. Range must vary between $+11.65V \pm 0.1$ and $+7.20V \pm 0.2$ VDC. Set it to +10.00 VDC.
2. Measure voltage with DVM between terminal 36 and terminal 39. Voltage must be $+10.2 \pm .2$ VDC.
3. Measure voltage with DVM between terminal 31 and terminal 39. Voltage must be $-0.91 \pm .02$ VDC.
4. Connect a 1000 OHM resistor across terminals 11 and 39. Measure voltage between terminal 11 and TP11 with DVM as VR5 is rotated from full clockwise to full counterclockwise. Voltage must vary from $-3.69V \pm .31V$ to $-21.9V \pm .102V$.

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CONT ON SHEET

3

SH NO. 2

PRINTS TO

P3K-AL-0445-A01

CONT ON SHEET 4 SH NO. 3

TEST INSTRUCTIONS FOR STANDBY CONTROL AND INTERCEPT
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PROCEDURE (continued)

E. (continued)

5. Connect a 1000 OHM resistor across terminals 12 and 39. Measure voltage between terminal 12 and TP11 with DVM as VR2 is rotated from full clockwise to full counterclockwise. Voltage must vary from $+2.02 \pm .19V$ to $+21.9V \pm .102V$.

F. Resistance Tests

1. Measure, resistance between terminals 32 and 35 with ohmmeter as VR3 is rotated from full clockwise to full counterclockwise. Resistance must vary between $20,000 \pm 10\%$ and 0 ohms.
2. Measure resistance between terminals 23 and 25 with ohmmeter as VR6 is rotated from full clockwise to full counterclockwise. Resistance must vary between 0 and $20,000 \text{ ohms} \pm 10\%$.
3. Measure resistance between terminals 2 and 3 with ohmmeter as VR10 is rotated from full clockwise to full counterclockwise. Resistance must vary between 0 and $500 \text{ OHMS} \pm 10\%$.
4. Measure resistance between terminals 5 and 6 with ohmmeter as VR11 is rotated from full clockwise to full counterclockwise. Resistance must vary between 0 and $500 \text{ OHMS} \pm 10\%$.

G. Continuity Tests

1. Measure resistance between the terminals indicated with the ohmmeter to verify continuity:

Terminal 1	and	Terminal 39
Terminal 17	and	Terminal 39
Terminal 19	and	Terminal 20
Terminal 20	and	Terminal 21
Terminal 21	and	Terminal 22
Terminal 24	and	Terminal 39
Terminal 27	and	Terminal 28
Terminal 28	and	Terminal 29
Terminal 29	and	Terminal 30
Terminal 34	and	Terminal 39
TP3	and	Terminal 22

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CONT ON SHEET --- SH NO. 4

REVISIONS

PREPARED BY

*R.E. Squillace*DATE 4-10-75R.E. Squillace
EHC DESIGN ENGINEERING

APPROVED BY

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EHC DESIGN ENGINEERING

REVIEWED BY

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

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J. Polacek Sept. 26, 1977

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