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GE Energy

Functional Testing Specification*Parts & Repair Operations
Louisville, KY***LOU-GEF-IC600-115-IO**

**Test Procedure for the following boards,
IC600BF (YB) 804x, IC600BF (YB) 904x, IC600BF (YB) 810x,
IC600BF (YB) 910x, IC600BF (YB) 912x, and IC600BF (YB) 914x.**

DOCUMENT REVISION STATUS: Determined by the last entry in the "REV" and "DATE" column

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	Cristyn Edlin	06/08/09
B	Adapted procedure to include 230VAC cards.	Cristyn Edlin	01/13/10
C			

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DATE 06/08/09	DATE	DATE	DATE 6/8/2009

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1. SCOPE

1.1 This is a functional testing procedure for a Series Six 115V I/O card.

2. STANDARDS OF QUALITY

2.1 Refer to the current revision of the IPC-A-610 standard for workmanship standards.

3. APPLICABLE DOCUMENTS

3.1 The following document(s) shall form part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue shall apply.

3.1.1 None at this time

4. ENGINEERING REQUIREMENTS

4.1 Equipment Cleaning

4.1.1 Equipment should be clean and free of debris prior to applying power unless performing an initial check. Refer to the local documented procedures for cleaning guidelines.

4.2 Equipment Inspection

4.2.1 Equipment should be visually inspected for any defects prior to applying power. This inspection should include the following as a minimum:

4.2.1.1 Wires: broken, cracked, or loosely connected

4.2.1.2 Terminal strips / connectors: broken or cracked

4.2.1.3 Components: visually damaged

4.2.1.4 Capacitors: bloated or leaking

4.2.1.5 Solder joints: damaged or cold

4.2.1.6 Circuit board: burned or de-laminated

4.2.1.7 Printed wire runs / Traces: burned or damaged

5. EQUIPMENT REQUIRED

5.1 The following equipment is required to perform the process requirements. Equipment may be substituted provided that all accuracy's and test ratios are equivalent or better.

Qty	Reference #	Description
1	CPU-3-LR1	Series Six CPU-3 Local Rack 1
1	CPU-3-LR2	Series Six CPU-3 Local Rack 2
1	CPU-5-LR1	Series Six CPU-5 Local Rack 1

6. TESTING

6.1 SETUP

- 6.1.1 The YB within the model # indicates that the card was originally sold with a faceplate.
The BF indicates that the card was originally sold without a faceplate.
- 6.1.2 For the purposes of this procedure, the BF/YB portions of the model #'s do not apply.
- 6.1.3 For simplicities sake, all model #s including BF or YB will be listed as BF.
- 6.1.4 This procedure applies to five main card types.
 - 6.1.4.1 Please note the following.
 - 6.1.4.2 Input cards are NOT interchangeable with Isolated-Input cards.
 - 6.1.4.3 Output cards are NOT interchangeable with Isolated-Output cards.
 - 6.1.4.4 Attempting to interchange non-isolated cards with isolated cards will likely result in damage to multiple cards and/or the rack itself.
- 6.1.5 When looking for the rack slot #, count the rack slots from left to right.
- 6.1.6 To identify which rack slot is required for the card to be tested, refer to the following chart.

Rack #	Slot #	Model #	Card Type
Local Rack 1	8	IC600BF804x	Input
Local Rack 1	9	IC600BF904x	Output
Local Rack 1	10	IC600BF810x	Isolated-Input
Local Rack 1	11	IC600BF914x	Reed-Relay Output
Local Rack 2	5	IC600BF804x	Input
Local Rack 2	6	IC600BF904x	Output
Local Rack 2	9	IC600BF804x	Input
Local Rack 2	11	IC600BF910x	Isolated-Output
Local Rack 5	2	IC600BF912x	230VAC Isolated-Output

- 6.1.7 Turn off the power to the corresponding rack.
- 6.1.8 Identify which rack slot is required.
- 6.1.9 Remove the shop card from the required rack slot.
- 6.1.10 Install the customer's card into the slot.

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6.2 TEST PROCESS

- 6.2.1** Turn on the power to the rack.
- 6.2.2** Ensure that the I/O indicator LEDs light up in a scrolling fashion and within Input/Output pairs.
- 6.2.3** If the I/O indicator LEDs light up in the appropriate fashion, allow the card to burn in for at least 15 minutes.
- 6.2.4** Once the card has passed the 15-minute burn in, turn off the power to the rack.
- 6.2.5** Remove the customer's card from the rack.
- 6.2.6** Reinstall the shop card into the rack slot accordingly.
- 6.2.7** Turn on the power to the rack.

6.3 *END OF TEST*****

7. NOTES

- 7.1** None at this time.

8. Attachments

- 8.1** None at this time.