



GE Energy

Functional Testing Specification

Parts & Repair Services
Louisville, KY

LOU-GED-228B6709

Test Procedure for a BICRON Transformer Test

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	R. Johnson	6/11/2009
B	Rewrite of procedure to accommodate new test fixture	S. Pharris	11/23/2010
C			

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PREPARED BY R. Johnson	REVIEWED BY S. Pharris	REVIEWED BY	QUALITY APPROVAL <i>Charlie Wade</i>
DATE 6/10/2009	DATE 11/23/2010	DATE	DATE 6/11/2009

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1. SCOPE

1.1 This is a functional testing procedure for the BICRON Transformer Test.

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 Check electronic folder for more information.

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	H188703	Sencore LC103
1	H188955	PEG Module Tester
1	H033728	Frequency Generator
1		Oscilloscope

6. TESTING PROCESS

Special Note: Do not skip steps because damage can occur to equipment or personnel.

6.1 Ring Out Test

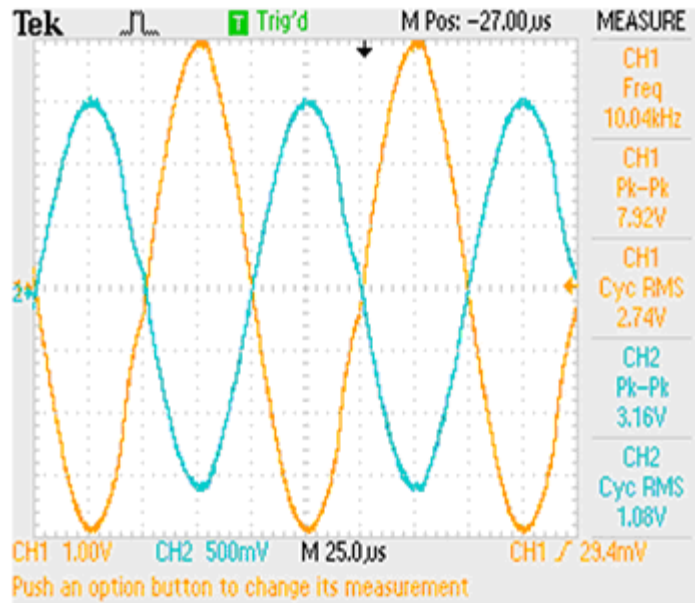
6.1.1 Use the Sencore LC103 to check the primary, secondary coil inductance and ring out test. See table 1 below.

	INDUCTANCE	RINGS
PRIMARY		
Pins 3 to 4	250Uh to 300Uh	20 to 30
SECONDARY		
Pins 1 to 2	40Uh to 50Uh	11 to 16

Table 1

6.1.2 Using the frequency generator apply a 10Khz 8VRMS signal to the primary (pins 3 and 4).

6.1.3 With an oscilloscope verify the input to output resonance frequency ratio is 1.6 to 1 @ 10Khz and 2.5 to 1 @ 20.8Khz.



6.1.4 Verify if frequency is increased the ratio IN to OUT also increases.

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6.1.5 Refer to procedure LOU-GED-DS3800HPTP.

6.1.5.1 Install transformer into PEG test station and make all connections.

6.1.5.2 Complete steps **6.2.1.1** through **6.2.1.5**.

6.1.5.3 Allow unit to run for 60 minutes.

6.2 *TEST COMPLETE *****

7. NOTES

7.1 None at this time.

8. ATTACHMENTS

8.1 None at this time.