g GE Industrial Systems	**Functional Testing Specification**
Renewal Services ***Louisville,KY***	**LOU–GED-AF200**

Test Procedure for a card or entire AF-200/AF-250Drive

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

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A	Initial release	D. Bush	6/21/02
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PREPARED BY	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL
D. Bush			Robert Duvall
DATE	**DATE**	**DATE**	**DATE**
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Functional test procedure for

1. SCOPE

1.1 This is a functional testing procedure for a card or entire AF-200 / Af-250 drive.

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** GEK-85710A AF-200 Instruction Manual
- **3.1.2** GEK-85711A AF-250 Instruction Manual

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 or cracked
  - **4.2.1.2** Terminal strips / connectors broken or cracked
  - **4.2.1.3** Loose wires
  - **4.2.1.4** Components visually damaged
  - **4.2.1.5** Capacitors leaking
  - **4.2.1.6** Solder joints damaged or cold
  - **4.2.1.7** Circuit board burned or de-laminated
  - **4.2.1.8** Printed wire runs 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		AF-200 test drive (as required)
1		AF-250 test drive (as required)
1		Oscilloscope
1		AF200 Control Box(6V0C23A1)
1		AF250 Control Box

6. TESTING PROCESS

6.1 Setup

6.1.1 Setup jumpers per the appropriate table

Card # C200020ALG04	
Jumper	**Position**
60 HZ	ON
20	LT

6.1.2

6.2 Testing Procedure

6.2.1 AF-200 Main Control Cards

6.2.1.1 Change all opto-couplers prior to testing

6.2.1.2 Install card in test drive. Connect the corresponding connectors to the connectors on the card to be tested.

6.2.1.3 Wire in the AF200 Control Box(6V0C23A1) to the corresponding connections on the terminal strip on the card to be tested.

6.2.1.4 NOTE: at this time make sure the switch on the side of the test drive is OFF---(this removes power to the power blocks)

6.2.1.5 Apply 240ac to the test drive

6.2.1.6 With an oscilloscope check for clean square wave signals at connector CN1---pins 3&4 CN2---pins 3&4 CN3---pins 3&4 and CN4---pins 1&2, 3&4, 5&6. If proper signals are present proceed…..

6.2.1.7 Hook up the small motor to test drive terminals U—V---W

6.2.1.8 Now turn the switch on the side of the test drive to the ON position.

6.2.1.9 Using the control box, run the motor in both Forward and Reverse directions and at varying speeds. Insure smooth operation and verify the drive did not fault during testing.

6.2.1.10 Disconnect power and remove the AF200 Main Control Card from the test drive fixture.

6.2.2 AF-250 Main Control Cards

6.3 ***TEST COMPLETE ***

7. NOTES