g GE Industrial Systems	**Functional Testing Specification**
Renewal Services ***Louisville,KY***	**LOU–GED-193X711xx**

Test Procedure for a Power Amplifier Card

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	Dan Laemmle	07/31/02
B			
C			

PREPARED BY	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL
Dan Laemmle			Robert Dwall
DATE	**DATE**	**DATE**	**DATE**
07/31/02			08/09/02

Functional test procedure for a Power Amplifier Card

1. SCOPE

1.1 This is a functional testing procedure for a 193X711 Power Amplifier 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 Documentation Folder

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		Fluke 85 DMM (or Equivalent)
1	H033527	193X711 Test Fixture
1		2 Lamp 300 Watt Load

6. TESTING PROCESS

6.1 Setup

6.1.1

Note:

6.2 Testing Procedure

6.2.1 See Attached

FOR REFERENCE ONLY

LOU-GED-193X711 -1

TEST PROCEDURE 193X711 AND 193X805
FOR ~~193X803B~~ 193X711/193X805
POWER AMPLIFIER-POWER SUPPLY

EQUIPMENT NEEDED:

1) 193X~~803B~~ 711/805 TEST FIXTURE - H03352 7
~~2) POWER CORD (TERMINAL TYPE)~~
3) DIGITAL MULTIMETER
4) LOAD (2 300W LIGHT BULBS IN PARALLEL)

PROCEDURE

NOTE: IT IS RECOMENDED TO STATIC CHECK THE SCR AND DIODE MOUNTED ON HEAT SINK UNDERNEATH BD....ALSO MAKE SURE YOUR BD. IS DEFINATELY A 193X805 SH./711 THERE ARE SEVERAL OTHER BOARDS THAT LOOK IDENTICAL AND CAN CAUSE SERIOUS DAMAGE TO FIXTURE !!!

1 ATTACH 600W LOAD TO BANANA JACKS ON BACK OF FIXTURE...
2 SET MULTIMETER FOR DC AND CONNECT TO ~~SIDE OF FIXTURE (OBSERVE POLARITY)~~ SAME BANANA JACKS...
3 PLUG BOARD INTO FIXTURE ...
~~4 SET CONTROL WINDINGS SELECTOR ON FIXTURE TO AUX 1...~~
4 SET OUTPUT ADJUST POT ON FIXTURE TO ZERO...
5 APPLY POWER. VIA POWER SWITCH ON FIXTURE
~~7 MAKE SURE 6.3VAC SECONDARY LAMP ON FIXTURE IS LIT...(NOT ON 711 OR 712)~~
6 8 ADJUST P606 ON BD. TO PROVIDE ZERO VOLTS OUT....
7 9 TURN OUTPUT ADJUST POT ALL THE WAY UP TO PROVIDE MAX OUTPUT (APPROX 52VDC).
8 ~~10~~ MAKE SURE OF SMOOTH RESPONSE FROM ZERO TO MAX OUTPUT...
~~11 SET CONTROL WINDINGS SELECTOR ON FIXTURE TO AUX 2...~~
~~12 REPEAT STEPS 9 AND 10...~~
~~13 SET CONTROL WINDINGS SELECTOR ON FIXTURE TO ERROR 1...~~
~~NOTE: THE ERROR WINDINGS DO NOT PROVIDE AS MUCH GAIN AS THE AUX WINDINGS.~~
~~14 TURN OUTPUT ADJUST POT TO MAX AND YOU SHOULD GET AT LEAST 12VDC OUT...~~ 12
~~15 AGAIN MAKE SURE OF SMOOTH RESPONSE FROM ZERO TO MAX OUTPUT...~~
~~16 SET CONTROL WINDINGS SELECTOR ON FIXTURE TO ERROR 2...~~
~~REPEAT STEPS 14 AND 15...~~
~~17 IF YOU MADE IT TO HERE YOU ARE FINISHED...~~
~~WITH OHMMETER, CHECK AUX AND ERROR WINDINGS, NOTING THE PRESENCE OF R205 AND R206.~~ PER ELEMENTARY DRAWING

9. CHECK CONTINUITY OF ERROR AND AUXILIARY WINDINGS PER ELEMENTARY, NOTING THE PRESENCE OF R205 AND R206.

CHANGES REVIEWED BY DAN LAEMMLE 7-31-02

6.3 ***TEST COMPLETE ***

7. NOTES

8. Oscilloscope Verification Examples:

Fig. 1

Fig. 2