g GE Industrial Systems	**Functional Testing Specification**
Renewal Services ***Louisville,KY***	**LOU–GED-IC3600VMPA-A**

Test Procedure for a IC3600VMPA1Card

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	D. Laemmle	5/30/03
B			
C			

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DATE	**DATE**	**DATE**	**DATE**
5/30/2003			6/27/03

Functional test procedure for IC3600VMPA

1. SCOPE

1.1 This is a functional testing procedure for a IC3600VMPA 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.
2.1.1

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 equiv

6. TESTING PROCESS

6.1 Setup

6.1.1 Connect Pin 22 to Pin 1. Apply +12vdc to Pin 27, com to Pin 1. Apply +5vdc to Pin 28, com to Pin 1.

6.1.2 Connect Pins 39 & 39 to +5v through 1K resistors.

6.1.3 Connect the input Pins and measure the outputs per the tables below. After completing Table 1 and Table 2, remove all inputs. Leave Table 3 connected through remainder of test.

6.2 Testing Procedure

6.2.1

	Inputs					Output
Pin #	**23**	**24**	**43**	**44**	**45**	**25**
	H	H	H	H	H	H
	L	H	H	H	H	H
	H	L	H	H	H	H
	L	L	X	X	X	L
	H	H	L	H	H	H
	H	H	H	L	H	H
	H	H	H	H	L	H
	X	X	L	L	H	L
	X	X	H	L	L	L
	X	X	L	H	L	L

Table 1

6.2.2 .

	Inputs						Output	
Pin #	**30**	**29**	**33**	**34**	**35**	**48**	**42**	**LED #1**
	L	L	L	L	H	L	H	ON
	L	L	H	L	L	L	H	ON
	L	L	L	H	L	L	H	ON
	H	X	X	X	X	X	L	OFF
	X	H	X	X	X	X	L	OFF
	X	X	X	X	X	H	L	OFF
	X	X	L	H	H	X	L	OFF
	X	X	H	L	H	X	L	OFF
	X	X	H	H	L	X	L	OFF

Table 2

6.2.3 .

	Inputs																	
Pin #	**14**	**13**	**15**	**16**	**7**	**6**	**5**	**4**	**8**	**9**	**10**	**11**	**18**	**19**	**2**	**12**	**20**
	L	L	L	L	L	L	L	L	L	L	L	L	H	L	L	L	H

Table 3

Results: Turns on LED # 2 # 3 Low, 1 Second Delay

Leave Previous test connected so Pin 9 of IC4 stays low

6.2.4 .

6.2.5 Additional Connections:

6.2.5.1 Pin # 38 is pulled up to 5 Volts through a resistor.

6.2.5.2 Pin # 39 is pulled up to 5 Volts through a resistor.

6.2.6 .

Add to Operate 38

	Inputs					Output
Pin #	**31**	**36**	**48**	**17**	**23**	**38**
	L	L	L	L	L	L
	H	L	L	L	L	H
	L	H	L	L	L	H

Table 4

6.2.7 .

6.2.8 Leave previous test connected

6.2.9 Add to Operate 39,40,41,26

Pin #	**40**	**39**	**41**	**26**
Read:	**H**	**L**	**L**	**L**
Remove power to card to unlatch IC8. Remove L from Pin 23. Restore power and read.				
	L	**H**	**H**	**H**
Reapply L to Pin 23 and read.				
	H	**L**	**L**	**L**

Table 5

6.2.10 .

Add to operate 47

	Inputs		Output
Pin #	**48**	**20**	**47**
	L	H	L
	H	H	L
	H	L	H
	L	L	H

Pin 47 has a 50ms Delay
.5 Sec -20% / +80% Delay

Table 6

6.2.11

6.3 ***TEST COMPLETE ***

7. NOTES