GE Canada
Electronic Products Repair

Test Instructions for

4006L6501 G001
Device Number

Drive Interface Card
Description of Device

Originated By: Rogerio Cordeiro
Typed Name

Date: May 6, 2005
mm/dd/yy

Approved By: Dennis
Signature

Approval Date: May 6, 2005
mm/dd/yy

TEST INSTRUCTIONS
PREVIOUS REVISION SHEET

4006L6501 G001
Device Number
Drive Interface Card
Description of Device

Originated By	Date mm/dd/yy	Description of change
Martin Curtis	Unknown	Created new Test Instruction for EPR
Carmine Sebastiani	01/30/95	Modified Test Instruction.
Patti Pucci	09/10/98	Add to Test Instructions
Rogerio Cordeiro	August 11, 2004	Added Upgrade information
Rogerio Cordeiro	May 6, 2005	Modified to new format

TEST INSTRUCTIONS

Drive Interface Card
4006L6501 G001
Date: May 6, 2005

Location: Book or file File

1. PURPOSE:

   a. Static and dynamic test procedures for Drive Interface Card 4006L6501 G001

2. ELEMENTARY:

3. EQUIPMENT:

   a. Fluke 9010A Programmer
   b. Fluke 80188 Pod
   c. Oscilloscope
   d. DVM (Volt Meter)
   e. SP3200 Test Panel
   f. 2 - 50 ribbon cables
   g. Lambda Power Supply
   h. 6501 P.S. Box
   i. JD Connector

4. SET UP:

   a. Connect cables to SP3200 Jig and UUT.
   b. Connect power cables and required tools

5. PROCEDURE:

   a. Setup Fluke Trouble shooter and pod. Load program tape 4006L6501 dated Jan. 25, 1995.
   b. Connect the 50 pin ribbon cables from JR and JS on the SP3200 Test Panel to the JR and JS respectively on the card under test.
   c. Pull switch (+15V) on the Test Panel towards 32pin connector.
   d. Connect the Lambda power supply to 120 VAC.
   e. Connect the Lambda Power Supply to the 6501 P.S. Box and connect the box to the card under test. Connect the +5V and Com to the Test Panel.
   f. Remove CPU (U1) and connect the pod to the U1 CPU Socket. If the socket is the old style, it may need to be shave down in order for the pod to be connected. If it is the CMOS style, and CPU adapter is required.
   g. Once all connections are made, power up the Variac and run Program 10. If an active interrupt @F00064 - Loop? occurs, just press the CONT. key and continue with the program on the tape.
   h. Once all tests are complete. Remove all cable and re-install CPU.
   i. Install card into SP3200 Drive and follow SP3200 Test Instruction in order to setup and run the drive.
   j. If at any time you wish to skip through parts of the program without starting from the beginning, do the following:
      i. Hit Program 10 (to open the program)
      ii. Keep hitting "More", until you come to "Bus Test Complete"
      iii. Hit "Goto" button and enter the letter "E"
      iv. Hit "Program" button (to close the program)
      v. Hit "Execute Program" button and 10 and then enter.

6. UPGRADES: FOR G001 ONLY

a. Rev0 to Rev1
   i. Remove U19=0177A1644 P373=SN74LS373 change quantity of part list to 1.
   ii. Change R45=0177A1460 P029=100Ω ¼W 1% to 0177A1460 P223=10kΩ ¼W 1%.
   iii. Move + marking for C12 to opposite side close to C17.

b. Rev1 to Rev2
   i. Remove U22.
   ii. Add socket for U22 0177A1517 P002.
   iii. Add U22=0239A2506 P001=DS1225AB.
   iv. Move + marking for C12 to Lead hole above J1 (already done in previous revision).
   v. Enlarge mounting holes to 0.25"
   vi. Add Tie rap to hold U22

c. All NEC counters to be replaced with Intel counters.

d. 4006L6501AAG001 Refers to the baseboard, the hardware level.
   i. Rev0 to Rev1 corrects mistake in masking of card.
   ii. Rev1 to Rev2 corrects BRAM problems.
   iii. 4006L6501ABG001 Silpac 3200 drive and high performance drive.
   iv. 4006L6501ADG001 Silpac 3200 12 pulse drive.
   v. 4006L6501AEG001 Silpac 3200 plus drive.

7. END:

NOTE: - LATEST IS A 4006L6501AAG002 REV 1
-- NO UPDATES REQUIRED

LJSx Data Map

ID - 230	RUN_PB	49	INSTRL.	19+
ID - 212	16K_PB	50	CLIF	19+1
215	12K_PB	51		19+1
231	5K_PB	52	MST	19+
211	JOGR_PB	53	TGL	19+1
214	JOGF_PB	54	STOP	19+1
232	STOP_PB	55	EXIMIL.	19+1
		56		19+1
		57		19+1
		58		19+1
		59		19+1
		60	- TSHD	19+17
		61		19+17
		62		19+17
		63	- M1	19+17
		64		19+17

2.2 INTERPRETING CARD-MOUNTED LEDs (continued)

LED	DESCRIPTION	RECOMMENDED ACTION
1	80188 MICROPROCESSOR TEST FAILED	REPLACE DCC
2	STATIC RAM TEST FAILED	" "
3	EPROM CHECKSUM TEST FAILED	REPLACE EPROMS or DCC
4	NON-VOLATILE RAM TEST FAILED	REPLACE DCC
5	80188 TIMER TEST FAILED	" "
6	8254 TIMER TEST FAILED	" "
7	INTERRUPT CONTROLLER TEST FAILED	" "
8	DUAL PORT RAM TEST FAILED	SEE TABLE 1.4: "DUAL PORT COMM. BAD"

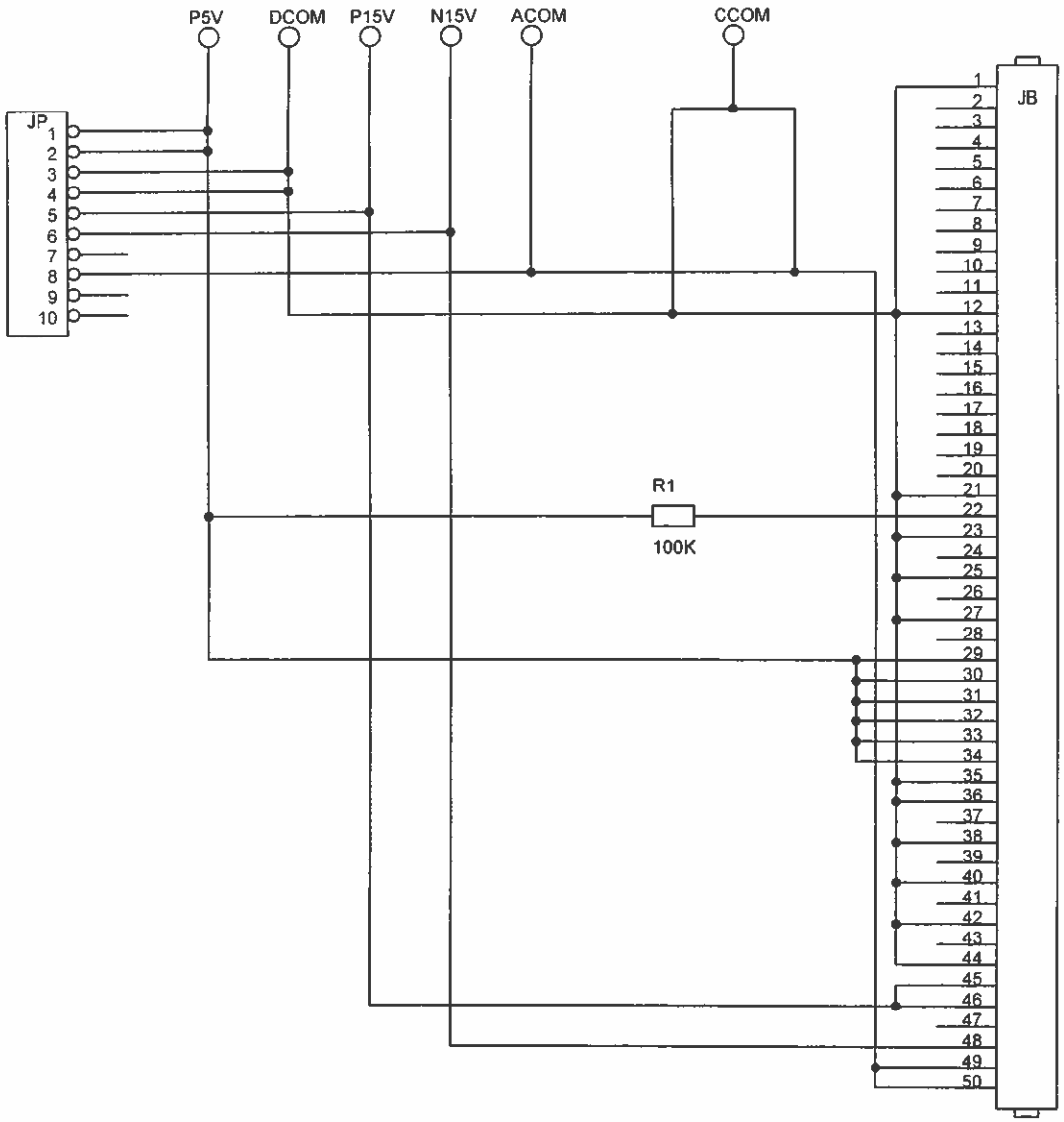
TABLE 2.1 - DRIVE CONTROL CARD LED DIAGNOSTIC REPORTING

LED	DESCRIPTION	RECOMMENDED ACTION
1	80188 MICROPROCESSOR TEST FAILED	REPLACE DIC
2	STATIC RAM TEST FAILED	" "
3	EPROM CHECKSUM TEST FAILED	REPLACE EPROMS or DIC
4	LCD DISPLAY TEST FAILED	REPLACE RIBBON CABLE,
	(Note: LED on steady, not flashing for LCD test only)	LCD DISPLAY MODULE, or DIC

TABLE 2.2 - DRIVE INTERFACE CARD LED DIAGNOSTIC REPORTING

LED	DESCRIPTION	RECOMMENDED ACTION
1	80188 MICROPROCESSOR TEST FAILED	REPLACE HCC
2	STATIC RAM TEST FAILED	" "
3	EPROM CHECKSUM TEST FAILED	REPLACE EPROMS or HCC
4	LCD DISPLAY TEST FAILED	REPLACE RIBBON CABLE,
	(Note: LED on steady, not flashing for LCD test only)	LCD DISPLAY MODULE, or HCC
5	BATTERY-BACKED RAM TEST FAILED	REPLACE HCC
6	80188 TIMER TEST FAILED	" "
7	8254 TIMER TEST FAILED	" "
8	INTERRUPT CONTROLLER TEST FAILED	" "

TABLE 2.3 - HELPER CONTROL CARD LED DIAGNOSTIC REPORTING



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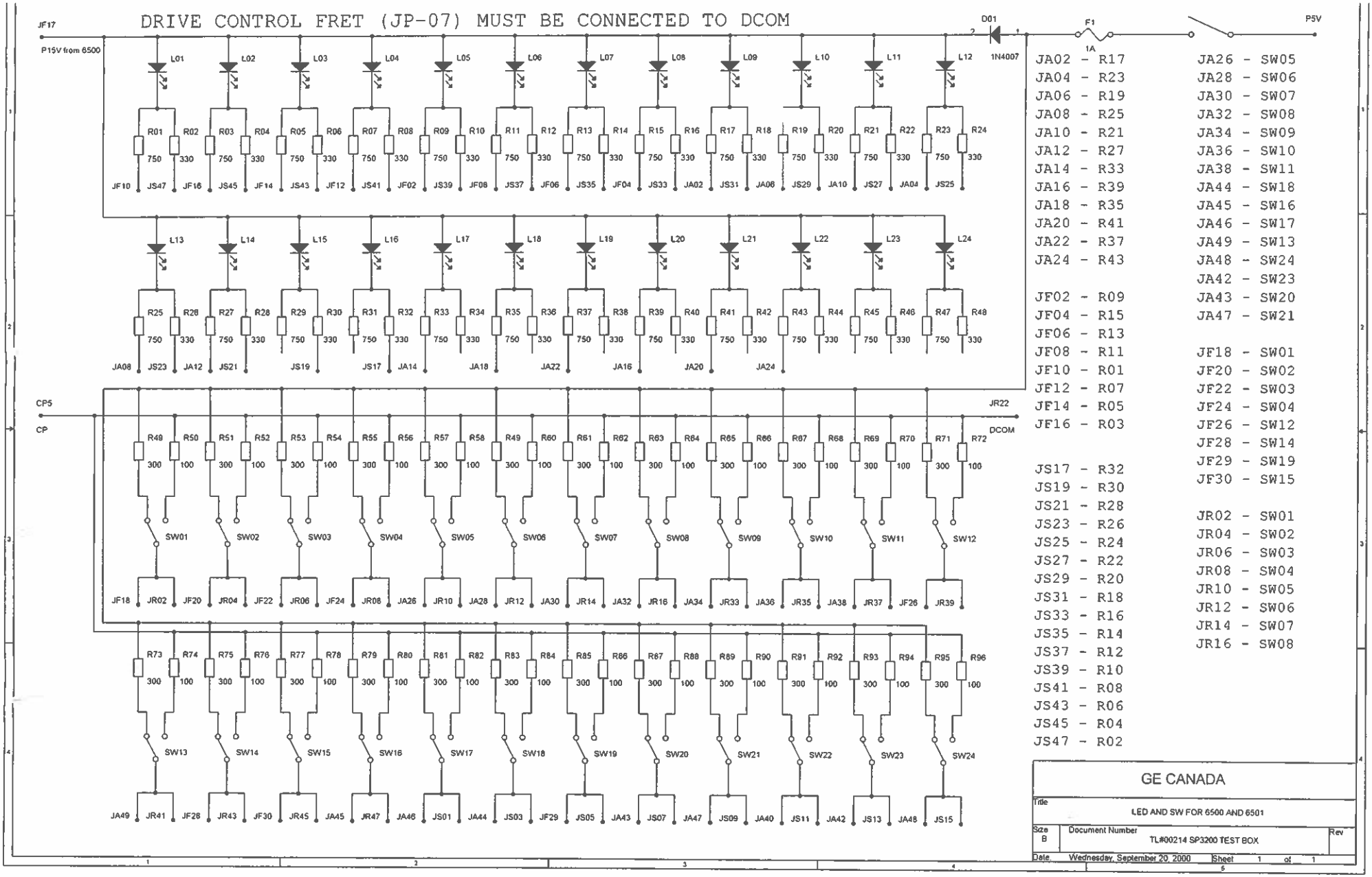
Date: Friday, January 06, 2006		Sheet 1 of 1	



JA02 - R17
JA04 - R23
JA06 - R19
JA08 - R25
JA10 - R21
JA12 - R27
JA14 - R33
JA16 - R39
JA18 - R35
JA20 - R41
JA22 - R37
JA24 - R43

JF02 - R09
JF04 - R15
JF06 - R13
JF08 - R11
JF10 - R01
JF12 - R07
JF14 - R05
JF16 - R03

JS17 - R32
JS19 - R30
JS21 - R28
JS23 - R26
JS25 - R24
JS27 - R22
JS29 - R20
JS31 - R18
JS33 - R16
JS35 - R14
JS37 - R12
JS39 - R10
JS41 - R08
JS43 - R06
JS45 - R04
JS47 - R02

JA26 - SW05
JA28 - SW06
JA30 - SW07
JA32 - SW08
JA34 - SW09
JA36 - SW10
JA38 - SW11
JA44 - SW18
JA45 - SW16
JA46 - SW17
JA49 - SW13
JA48 - SW24
JA42 - SW23
JA43 - SW20
JA47 - SW21

JF18 - SW01
JF20 - SW02
JF22 - SW03
JF24 - SW04
JF26 - SW12
JF28 - SW14
JF29 - SW19
JF30 - SW15

JR02 - SW01
JR04 - SW02
JR06 - SW03
JR08 - SW04
JR10 - SW05
JR12 - SW06
JR14 - SW07
JR16 - SW08

GE CANADA

Title	LED AND SW FOR 6500 AND 6501	
Size B	Document Number TL#00214 SP3200 TEST BOX	Rev
Date Wednesday, September 20, 2000	Sheet 1 of 1	