g GE Industrial Systems	Test and Operating Procedure	
	DATE : 3/17/202	PAGE 1 OF 5
	QUALITY REP: Robert Dunn	
TITLE: IOS Display Card Test Instructions		PROCEDURE: LOU-GED-531X211KLDA-C

1. INTRODUCTORY DESCRIPTION

A. This procedure establishes the methods for testing a 531X211KLDA IOS Display Card.
B. Environmental ranges: 70 +/- 10 Deg. F. with 20-75% R.H.
C. Unit warm-up/stabilization period requirement:
D. Personnel using this procedure are expected to have a high degree of confidence and expertise in related testing and calibration procedures.
E. Procedures not explained here are considered to be understood as common practice.

2. TEST EQUIPMENT VERIFICATION

A. Verify the accuracy of the standard(s) used in the repair/calibration process by evidence of recent calibration labeling affixed to the test equipment.
B. All measurement standards used in this procedure shall be traceable to the NATIONAL INSTITUTE of STANDARDS and TECHNOLOGY (N.I.S.T.) and shall have the accuracy, stability, range and resolution required for the intended use.
C. Unless otherwise specified, the collective uncertainty of the Measurement Standard(s) shall not exceed twenty five percent of the acceptable tolerance for each characteristic being calibrated.
D. All deviations shall be documented.

3. EQUIPMENT CLEANING

A. All equipment clean will be performed as instructed in the GEES SOP Sec. 14.0

4. EQUIPMENT INSPECTION

A. The following criteria should be used as a guideline or basis for the inspection process of the this unit:
    1. Wires broken or cracked.
    2. Terminal strips / connectors broken or cracked.
    3. Loose wires.
    4. Components visually damaged.
    5. Capacitors leaking.
    6. Solder joint, cold.
    7. Circuit board discolored or burned.
    8. Printed wire runs burned or damaged.

5. REVISION HISTORY

Revision	Date	Initials	Reason for Revision
A	08/18/97	RKD	Initial Procedure – After Verification
B	06/07/02	RKD	Added section 5 & 6, Changed procedure number
C	1/27/05	JLM	Added keystrokes to section 7 to get test to perform as needed, and verified test
D			
E			
F			
G			
H			
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J			
K			

6. REFERENCE DOCUMENTATION

- Reference: GEK
- Factory Procedure #

7. THEORY OF OPERATION

This Card is used as the interface between the user and the IOS processor card. The card is made up of 3 segments: The Vacuum Fluorescent Displays which display text to the user, the LED Displays which notify the user of an On/Off condition, and finally the Keypad Section which interfaces the front panel keypad to the IOS system.

8. TEST EQUIPMENT TO BE USED

IOS Test Station

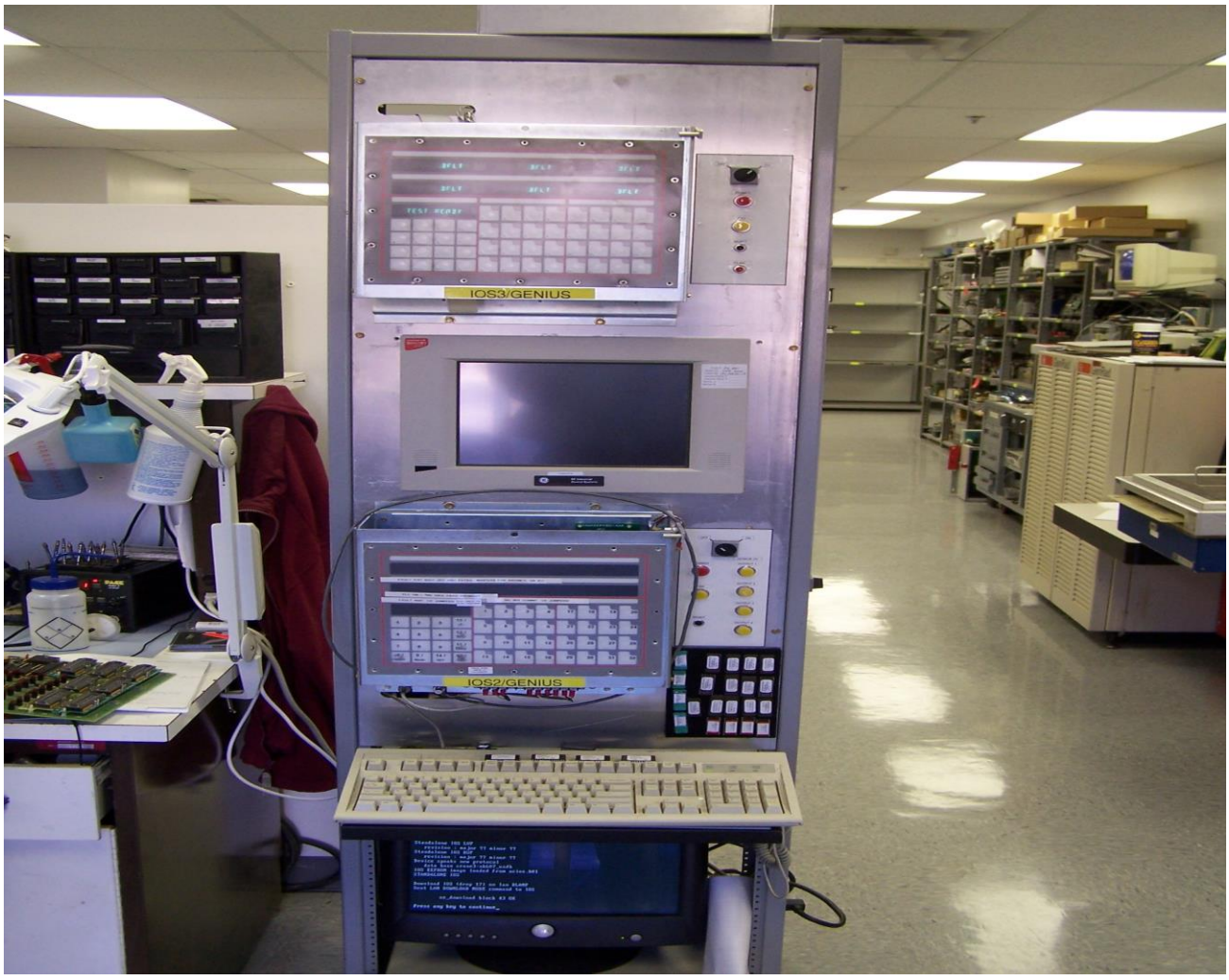
9. FINAL TEST AND OPERATION PROCESS

- Verify that power is off to the test unit (SW1 above the unit).
- Install card to be tested into the test unit, & apply power to the IOS.
- Press the following buttons in order: [SET], [MODE], [8], [4], [ENTER]. Next: [SET], [MODE], [8], [5], [ENTER]. Finally, press the [SET] button once again on the keypad and verify that the unit displays “LOCAL MODE ACTIVE” in displays 1,2,& 3.
- Press the following buttons: [SET], [MODE], [5], [ENTER] and verify the following:

Displays 1 thru 6 are alternating between 0000000000 and **********.
Display 7 reads {KY/LED/DSP}.
All 32 LEDs are flashing on and off in sequence with the changing displays.

- Press each of the buttons that have an LED behind them and verify that the LED stays lit while the button is pressed.
- To test the diagnostic keypad under display 7, perform the following steps: Press the [ESCAPE/CLEAR] button and verify that the display test stops.
- Press the [UP] and [DOWN] arrow buttons and verify that display 7 increments and decrements respectfully.
- Press the [+/-] button and verify that the + sign appears and disappears on display 7.
- Press the following button sequence: [SET], [MODE], [1], and verify that display 7 reads {CHG= 00000}
- Press each of the numeric buttons (1-9 & 0) and verify that they display correctly on display 7.
- Press the [ESCAPE/CLEAR] button and verify that display 7 reads {SET DIAG}.
- Turn off power to unit and remove card from unit and replace with shop test card.
- Test Complete

10. SPECIAL INFORMATION



TEST WRITTEN BY: Robert Duvall **DATE:** 18 Aug, 1997

TEST VERIFIED BY: John Madden **DATE:** 27 Jan, 2005