g GE Electronic Services	TEST and OPERATING PROCEDURE	
	DATE : 10/04/94	PAGE 1 OF 2
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TITLE: VC MONITOR BOARD TEST PROCEDURE		PROCEDURE: 09J-ENERGIZER-VC-A

1. INTRODUCTORY DESCRIPTION

A. This procedure establishes the methods for testing a .VC MONITOR BOARD.
B. Environmental ranges: 70 +/- 10 Deg. F. with 20-75% R.H.
C. Unit warm-up/stabilization period requirement: NONE
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 cleaning 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. THEORY OF OPERATION

This board is used to control the monitoring of a bank of batteries during final testing.

Communications:

Each board is a drop in a multi-drop RS-232 system. The request for data will come into the card from a vax computer via the RS-232 primary port. If the request carries the request that the card is set for it will respond with the data that it has aquired.

Control & Data Acquisition:

The VC board acts as a link between the host system (VAX) and the automated testing equipment (controlled by a TI PLC). When required the VC board will instruct the TI to setup the equipment for testing a bank of batteries. When the TI has completed this function it will respond to the VC board and it will aquire the required data through its analog ports and store it until requested..

6. TEST EQUIPMENT TO BE USED

- Fluke 9010 Microsystem Troubleshooter
- Fluke 8085 Microprocessor Interface Pod
- Digital Multimeter (Fluke 8842 or equivelant)
- VC monitor board test interface # H033504
- VC monitor board test software # SW _____
- DC voltage source with .0001 volt accuracy

7. FINAL TEST AND OPERATION PROCESS

- Inspect the 5 ILQ-74 chips in the digital I/O section and verify that their date codes are no more that 2 years old. If so, replace them with new.
- Connect UUT to test interface per Figure 1.0
- Remove the processor and insert the interface pod in its place.
- Connect the voltage source to the test interface
- Load and run the test software (program # 20)
- Follow the instructions given by the Fluke
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8. SPECIAL INFORMATION

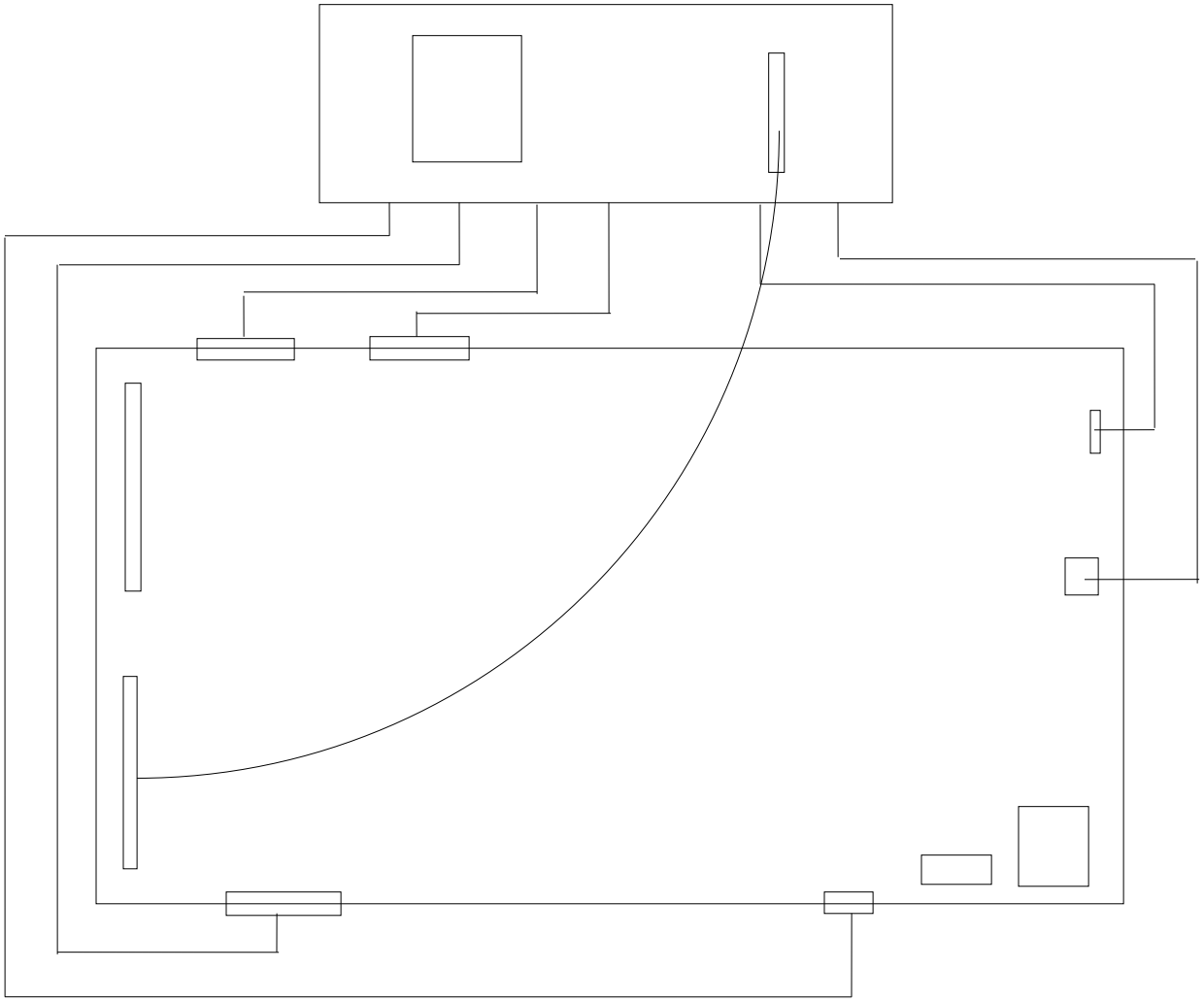

Figure 1

TEST WRITTEN BY: _____ **DATE:** _____

TEST VERIFIED BY: _____ **DATE:** _____