GE Electronic Services	OPERATING PROCEDURE	
	REVISION: A DATE: 12-31-92	PAGE 1 OF 11
MGR: MB	QUALITY R.D.	
09J-GEF-IC600THerm-A		

TABLE OF CONTENTS:

SECTION 1 -- INTRODUCTORY DESCRIPTION

AND PERFORMANCE REQUIREMENTS

1.1 This procedure establishes the methods for testing a

IC600BF813 Thermocouple Input Type J

IC600BF814 Thermocouple Input Type K

IC600BF815 Thermocouple Input Type S

IC600BF816 Thermocouple Input Type T

IC600BF817 Thermocouple Input Type B

IC600BF818 Thermocouple Input Type E

IC600BF819 Thermocouple Input Type R

IC600YB813 Thermocouple Input Type J

IC600YB814 Thermocouple Input Type K

IC600YB815 Thermocouple Input Type S

IC600YB816 Thermocouple Input Type T

IC600YB817 Thermocouple Input Type B

IC600YB818 Thermocouple Input Type E

IC600YB819 Thermocouple Input Type R

Hereinafter, the unit being tested will be referred to as the UUT (Unit Under Test).

UUT environmental ranges: Temp. 72 degrees +- 5%

RH 20-80 %

UUT warm-up/stabilization period requirements:

1 - 2 hours

It is advised that the schematics or operational instructions be available for reference in conjuction with this procedure.

(A copy of the schematic or operating instructions is located in the libary)

Personnel using this procedure are expected to have a high degree of confidence and expertise in related testing and calibration procedures. Procedures not explained here are considered to be understood as common practice.

SECTION 2 -- MEASUREMENT STANDARDS AND EQUIPMENT REQUIREMENTS

2.1 All measurement standards used in this procedure shall be traceable and shall have the accuracy, stability, range and resolution required for the intended use. Unless otherwise specified; the collective uncertainty of the measurement standards shall not exceed 25 percent of the acceptable tolerance for each characteristic being calibrated. All deviations shall be documented.

2.2 Series Six Test System w/Analog Test Rack & Data Logger

Fluke 5100B or Equivelent

4 1/2 Digit DMM

System Information Manual

GEK - 84867

Calibration Interface Box

Data Logger Connector

Appropriate Connecting Cables

SECTION 3 -- PRELIMINARY OPERATIONS & THEORY OF OPERATION

3.1 Read the entire testing and calibration procedure before beginning the testing and calibration process.

3.2 Verify accuracy of the standard(s) evidence of recent careful calibration.

3.3 Insure that the calibration environment is within the requirements of the published specifications, if any, for the UUT and the calibration standard(s). If no special conditions are required, the calibration procedure shall take place in an environment controlled to the extent necessary to assure continued measurements of required accuracy, giving due consideration to temperatute, humidity, vibration, cleanliness, and other controllable factors.

When applicable, compensating corrections shall be applied to calibration results obtained in an environment which departs from acceptable conditions.

3.4 Visually inspect the UUT.

3.5 Theory of operation:

The Thermocouple Input Module provides eight, Electrically - Isolated Inputs for the detection of Low - Level, Analog signals. Developed by Thermocouple Devices. The Input channels are sampled at a rate of 15 - 30 readings per second and converted into a Digital Format available to the Series Six I/O Buss.

SECTION 4 -- TESTING AND CALIBRATION PROCESS

4.1 Identify card type via Model # and verify Dip Switch settings. (Set for 8 channels & degrees F)

4.2 Move the Run/Cal Jumper to the Calibrate position.

4.3 Insert UUT into the appropriately addressed slot of the Analog Test Rack. (According to the System Information Manual)

4.4 Attach the Thermocouple Card Calibration Connector from the Calibration Interface Box (CIB) to the UUT.

4.5 Connect the DMM to the Meter output of the C.I.B.

4.6 Connect the Fluke 5100 to the source Input of the C.I.B.

4.7 Set SW1 on the C.I.B. to position #1 to read the UUT Reference Voltage.

4.8 Verify that the DMM is set to read DCV on the 20V range.

4.9 Cycle power to the Analog Test Rack and wait for DMM to stabilize.

4.10 Verify that the DMM reads 2.048 DCV and that the board O.K. Led is illuminated.

4.11 Set SW1 to Position #2 to read Output from UUT.

4.12 Set the Voltage Source (Fluke 5100) to Output 0.0000 volts.

4.13 By turning SW3 step through channels 1 - 4 and observe output from each channel on the DMM.

4.14 Select the channel that was closest to 0.0000 volts on DMM.

4.15 Adjust the output offset pot (R11) until the DMM reads 0.0000 volts.

4.16 Repeat steps 13 - 15 for channels 5 - 8 using R12.

4.17 Set SW3 for the channel to be calibrated.

4.18 Adjust the appropriate offset pot to obtain a reading of 0.0000 volts on the DMM.

4.19 Repeat steps 17 & 18 until each channel has been zeroed.

4.20 Set the voltage source per the card type as

follows.

For Type: J & K set for .050 volts

For Type: S,T,B,R set for .025 volts

For Type: E & K+ set for .100 volts

4.21 Set SW3 for the channel to be calibrated.

4.22 Adjust the appropriate gain pot to obtain a reading of 4.000 volts on the DMM.

4.23 Repeat steps 21 & 22 until each channel has been calibrated.

4.24 Turn off power to the test rack, disconnect Calibration Connector, and remove (UUT) card from rack.

4.25 Move the Run/Cal Jumper to the Run position (1 to 2).

4.26 Insert UUT into the appropriately addressed slot for the Data Logger Operation. (according to the System Info Manual).

4.27 Attach the Data Logger Connector and turn on power

to the rack.

4.28 Reset the Data Logger via the Reset Button on the System Operator Panel.

4.29 Select the Data Logger Operation via the Operator Interface Terminal.

4.30 Verify that each of the channels are within 4 degrees of each other and are noted as acceptable.

4.31 If step #30 is not true then Reset Data Logger again and proceed when true.

4.32 Let card run in Data Logger Mode for at least 24 hours.

4.33 Verify that all channels are still noted as acceptable.

4.34 Turn OFF power to Test Rack and remove UUT.

4.35 Turn on Power to Test Rack.

4.36 Remove Data Logger Connector from UUT.

4.37 Label UUT with Configuration Data.

4.38 Testing is complete.

SECTION 5 -- CHECKLIST / DATA SHEET