Instrument Security Procedures

Model:

Fluke NetDAQ® 2640A

Product Name:

Networked Data Acquisition Unit

Instrument Description:

The 2640A is a Data Acquisition Unit that measures DC and AC RMS voltage, temperature, resistance, and frequency, as well as other types of measurements derived using computed channels. It communicates via Ethernet to provide data logging to and control from a host computer.

Memory Description:

The Fluke NetDAQ model 2640A Data Acquisition Unit has the following memory on three Printed Circuit Assemblies:

Main (A1) PCA –

- The Flash Memory is an electrically erasable and programmable 512K byte memory that stores instruction code for the microprocessor, measurement calibration data and Communication configuration. The instruction code is loaded at the factory or in Service and is not user accessible. Measurement calibration data is stored during calibration at the factory or in a Service facility, and is not user accessible. The Communication configuration is set by the user, and can be cleared with the procedure below.
- The Static RAM (SRAM) provides 512K bytes of data storage for the instrument using four 128K byte SRAM devices. This includes operating memory for the microprocessor and temporary storage of measurement data. The SRAM is volatile memory that clears when power is removed from the instrument.
- The microprocessor also has an internal 4K bytes of RAM. This volatile memory clears when power is removed.

Display (A2) PCA –

- The Display Controller is a single-chip microcomputer with 24K bytes of Flash memory for instruction code and < 1K byte of RAM used for operating memory. The instruction code is loaded only at the factory and is not user accessible. The internal RAM is volatile memory that clears when power is removed from the instrument.
  Early versions of the Display assembly had mask ROM or One-Time-Programmable EPROM instead of Flash memory for the instruction code; in

either of these cases, this memory was programmed in the factory and not user accessible.

A/D Converter (A3) PCA –

- The Flash ROM is 128K byte of memory that contains the internal A/D Inguard microcontroller instruction code. The instruction code is loaded at the factory or in Service and is not user accessible.
- The RAM is 128K byte operating memory for the Inguard microcontroller. The RAM is volatile memory that clears when power is removed from the instrument.

Memory Cleaning Instructions:

Use the following procedure to clear the NetDAQ model 2640A Communications configuration memory:

- Turn off the power switch on the instrument's rear panel.
- Hold down the 'COMM' key on the instrument front panel and turn on power to the instrument.
- Continue to hold the COMM key until the instrument beeps and momentarily displays "**rESEt**" (Reset)
- Release the COMM key.

The Communications configuration is now reset.

The Communications configuration Reset sets the instrument to factory default parameters: BCN = 1, Line Frequency = 60, Baud Rate = 38400, and Isolated Network mode; this also resets the instrument's TCP Socket Port and Subnet Mask, disables the Default Gateway, and clears the IP Address and Default Gateway Address. (This information is taken from the NetDAQ Service Manual pages 4-6 and 5-9.)