

# **Instrument Security Procedures**

#### Models:

Fluke 434-II, 435-II, 437-II, and 438-II (43x-II)

#### **Product Name:**

3-Phase Energy and Power Quality Analyzer

#### Instrument Description:

These Analyzers help you locate, predict, prevent and troubleshoot problems in power distribution systems.

### **Memory Description:**

Fluke 43x-II products have the following memory devices:

- 1. RAM 8M x 16, U901, type: e.g., MT47H64M16HR-25IT:H, contains: temp storage of measuring data
- 2. Video RAM 256k x 16, D1001, type: e.g., CY62146EV30LL, contains: storage of data to be displayed on LCD-screen.
- Flash-ROM 16M x 2, U1100, U1101, type: e.g., MW29W160EB, contains: the embedded software, calibration data, data for the settings (Config, Freq, Vnom, Limits) and Current Clamp data that differ from Factory Default.
- 4. FIFO (First In First Out) RAM 2kB, U801, type: e.g., SN74V235-7PAG, contains: data to be exchanged between DSP and Microcontroller.
- 5. SRAM 16 Mb x 2, D1100, D1103, type: e.g., CY62167DV30LL, contains: temporary data storage for microcontroller.
- 6. SD Memory Card. Contains: all datasets, screens, and logging data.

## Memory Cleaning Instructions:

- Ad 1. Memory contents erased at power-off. No user access.
- Ad 2. Memory contents erased at power-off. No user access.
- Ad 3. Flash memory: contents stay available at power off and disconnection of the Li-ion accumulator (can be loaded/exchanged with dedicated PC software that is exclusively available in manufacturing and Fluke service).

Note

The calibration data is generated when the 43x-II is sent through its calibration process and are fundamental to the meter operation.

To erase 43x-II settings that differ from Factory Default, do the following key operations:

- 1. Go to SETUP.
- 2. F1 USER PREF.
- 3. F1 FACTORY DEFAULTS.
- 4. F5 YES (confirm menu).
- Ad 4. Memory contents erased at power-off. No user access.
- Ad 5. Memory contents erased at power-off. No user access.
- Ad 6. There are two methods to remove measurement data from the 43x-II:
  - 1. Remove the SD Card from the battery-compartment at the rear of the 43x-II:
    - a. Open the compartment with a small screwdriver.
    - b. Push the SD Card in the direction of the arrow and take it out of the 43x-II. All measurement data is removed from the 43x-II.
    - c. Avoid touching the contacts of the Card with hands.
    - d. When reinstalling the Card, take careful notice of the indicator in the battery compartment.
  - 2. Reformat the SD memory card installed in the 43x-II with a confirm menu:
    - a. Go to SETUP.
    - b. F1 USER PREF.
    - c. F4 FORMAT SD CARD.
    - d. F5 YES.