LCD Display Anomalies

Overview

The Multilin Universal Relay (UR) family of protection and control products is built on a common modular platform, and is the basis of simplified power management for the protection of critical assets.

This advisory describes the characteristics and the root cause of display anomalies observed on approximately 0.2% of UR front panel LCD displays built between 2006 and 2011. GE has received reports of these display anomalies from UR customers, and has worked closely with the display supplier to root cause the failure and to enhance the manufacturing test of these modules to eliminate the defect. This advisory is intended to create awareness to UR users and provides a solution to customers experiencing the symptoms described below.

Symptoms and Root Cause

Reports of LCD display anomalies include one or more of the following characteristics:

- scrambled characters or incorrect pixels
- random toggling characters or broken letters

Root cause analysis by GE and the display module supplier has shown that these anomalies are a result of a defective microelectronic circuit that is integral to the LCD module.

The microelectronics that control the LCD display is contained within a set of custom integrated circuits (ICs). One of these ICs contains DRAM memory that is used to address the characters that are displayed on the LCD. Bit failures within this DRAM memory have been identified as the cause of the display of incorrect characters.

Note: The cosmetic defect observed on the display is confined to the LCD module hardware only and is unaffected by the firmware version. The core/fundamental protective functionality of the UR relay is unaffected.
Corrective Action/Solution

Enhanced process control and burn-in screening of the DRAM memory has been implemented by the supplier in October 2011 to eliminate the failure mode. GE will replace the UR front panel for customers that experience LCD display anomalies with relays manufactured between 2006 and 2011.

If your LCD display is exhibiting the symptoms described in this advisory, follow the steps below to request a front panel replacement.

1. Contact your respective local GE Energy - Digital Energy office, VAR or distributor to initiate the replacement. Contact the GE Energy - Digital Energy customer service center in North America by:
   - Sending an e-mail to: multilin.tech@ge.com or ge4service@ge.com
   - Calling a toll-free number: 1.800.547.8629 if in the U.S. and Canada Calling + 1 905.294.6222 for International customers
   - Include "Re: UR LCD Display – GER-4431" in the subject line when contacting the GE Energy - Digital Energy customer service and technical support team, via e-mail.
2. Provide the serial number of the UR-relay affected, including your shipping and contact information.
3. As part of the standard RMA process, provide the serial number located on the inside of the front panel door (front panel serial number), a detailed description of the display problem or a picture of the LCD display defect observed.

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