

## UPGRADING EL731 FLASH MEMORY

### 1. GENERAL

The EL731 has an optional Firmware Upgrade Module (AC700-CUA-00) with two communication ports: a TIA-232 port and a mini-USB port. Both ports are designed for use with SE-Flash (version 2.1 or higher).

The SE-Flash software is required for upgrading the EL731 firmware. The file containing the firmware is in Motorola S-Record format and has the “s19” file extension.

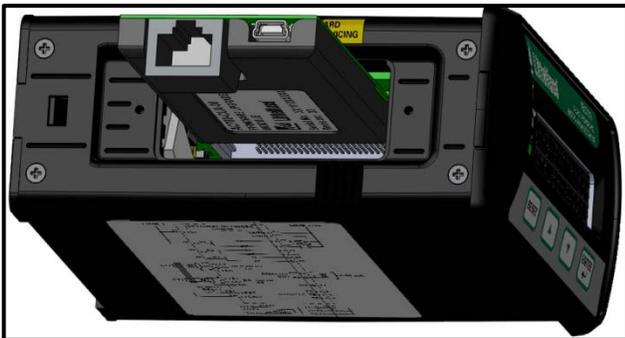


Figure 1. EL731 with AC700-CUA-00.

### 2. PROCEDURE

Install SE-Flash.

Connect either the TIA-232 communications cable or the included mini-USB cable to the computer. Windows 7/8 should automatically install the necessary driver when using the USB connection. In some cases, it may be necessary to manually install the driver. The driver can be found on the SE-Flash help page.

Locate the correct firmware file with the “s19” extension.

#### 2.1 INITIATING EL731 FLASH UPGRADE

Follow these instructions:

1. Run SE-Flash.
2. Select the EL731 from the list.
3. Select the correct firmware file.
4. Select the COM port you intend to use.
5. If you are satisfied with the summary and your choices, select “Begin”.
6. The message “Please set unit to UPGRADE mode now” will appear.
7. Remove supply voltage to EL731.
8. Carefully insert the Firmware Upgrade Module (AC700-CUA-00). See Fig. 1.

9. Connect the communications cable to the Firmware Upgrade Module (AC700-CUA-00).
10. Apply supply voltage. The Trip, Alarm and CT LEDs will be on and the display will be blank.
11. Press “OK” to start the upgrade. Wait until complete.
12. Remove supply voltage.
13. Remove Firmware Upgrade Module (AC700-CUA-00) and reinstall the cover.
14. Apply supply voltage.

### 3. SE-FLASH ERRORS

The following is a list of possible errors and a summary of how to correct them:

1. **The selected COM port is not available. Please try another COM port.**  
 Click 'Back' and select another COM port. You must have a free COM port to use SE-Flash.
2. **The selected file could not be found. Please select another file.**  
 The \*.s19 filename you previously selected has moved or changed. Click 'Back' and select a new \*.s19 filename.
3. **Could not establish communication with the unit. Please check all connections and try again, or consult the help file.**  
 This indicates that SE-Flash has tried to send information to the unit, but there was no response. Verify that all connections between the computer, converter, and the unit are correct..
4. **Failure erasing Flash. Please try again, or consult the help file.**  
 The unit has attempted to erase the flash memory, but an error occurred. Try the process again; if the error continues to occur, the flash memory may be damaged.

5. **Undefined error returned from units. Please try again or consult help file.**  
 This can be caused by an electrically noisy environment. Check for damaged connections and retry.
6. **The S-Record file (.S19) is damaged or is in the wrong format. Please locate the correct file from [www.littelfuse.com](http://www.littelfuse.com). No changes were made to the unit. (OR) The update file selected is in the wrong format. Please try again, or consult the help file. (OR) Detected a problem with the S-Record file (DATA beyond FFFF). Programming not complete.**

The upgrade file (S19) is verified for the correct format before SE-Flash attempts the upgrade. If SE-Flash detects an error or an incorrect format, it will not proceed with the upgrade. If the file is damaged after the upgrade is started, the upgrade will halt. Since the programming is not complete, THE UNIT WILL NOT OPERATE until the correct upgrade file is obtained from [www.littelfuse.com/relayscontrols](http://www.littelfuse.com/relayscontrols) and the upgrade process is successfully performed.

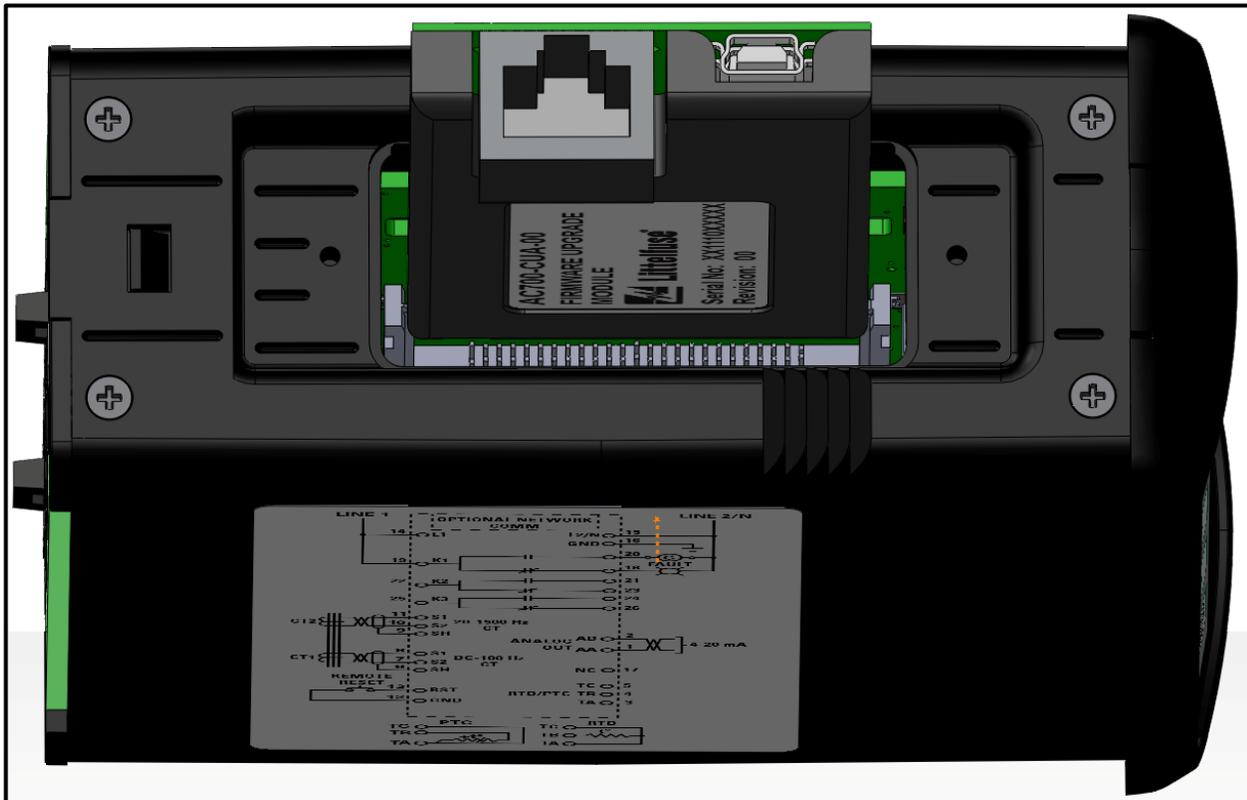


Figure 2. EL731 with AC700-CUA-00.