

PURPOSE

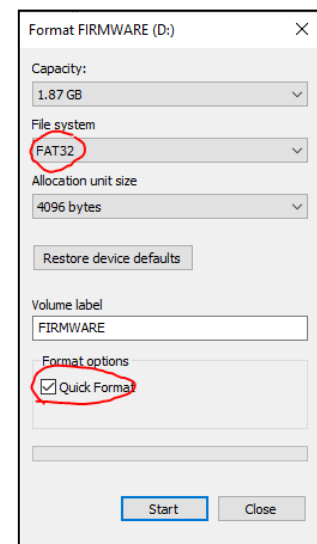
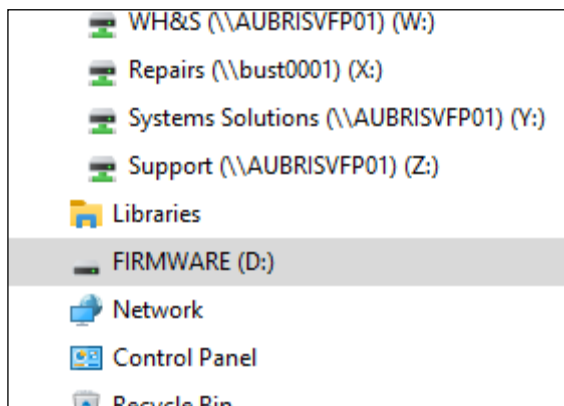
This procedure explains how to perform a firmware upgrade on the 415U-1 Module. Typically upgrades can be performed via USB.

1. Equipment Required

- 415U-1 to be upgraded.
- USB Memory drive.
- Firmware files. – Contact ELPRO Technical Support for these files.
- Windows PC to format and load firmware onto USB Memory drive.
- Terminal software (Tera term, Hyper term, Putty, etc) to confirm upgrade was successful.
- USB type A to type B cable, (to confirm upgrade was successful).

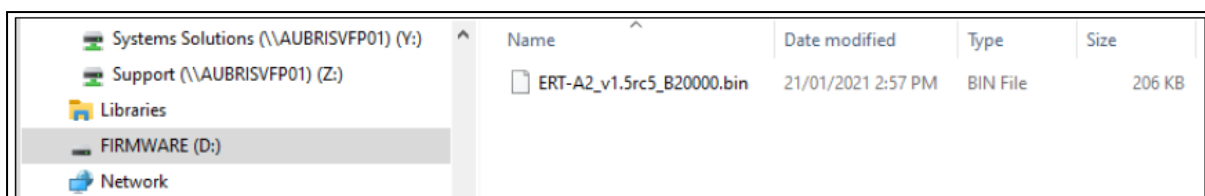
2. Formatting USB Memory Drive

Plug USB Drive into PC and locate using Windows Explorer,



Format USB drive by selecting the USB drive in menu, right click mouse and select Format...

When the format screen pops open ensure that File System is “**FAT32**” and **Quick Format** is deselected as seen in the screenshot then press Start.

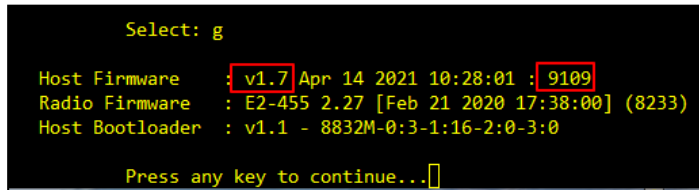


When USB drive is formatted copy supplied firmware files to USB drive. **Do not rename files, do not try to extract or change files.**

When files are copied to the USB drive, remove from PC.

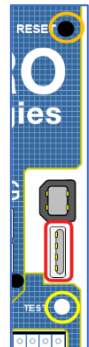
3. Firmware Check

Prior to performing upgrade connect via the modules user interface and note the current firmware version and build number for the 415U-1 (Red boxes). This will allow you to confirm at the end of procedure that the upgrade has been performed successfully.



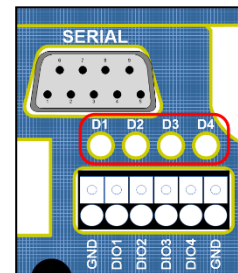
4. Upgrade Procedure

1. Plug in USB stick (formatted as standard FAT32 file system) that contains “CONDOR-415U1Vx.x.bin” firmware file into the USB “A” socket (red indication in diagram).
2. Press and release the “Reset” push button (Orange indication in diagram) and then within 1 second press and hold “Test button” (Yellow indication in diagram) for more than 1 second.
3. Input LED’s D3 & 4 will illuminate briefly then LED 1(D1-Left most) will light to indicated USB has been detected and the firmware update process will begin.



NOTE: DO NOT REMOVE USB stick during writing process as doing so may render the unit inoperable.

4. As the firmware update progresses it will light Input LED 2 (D2), (D3) and finally (D4). Process should only take a few minutes.
5. When all four input LEDs (D1 – D4) are lit then you can safely remove the USB stick and the unit will restart.



If there is a problem with firmware update it will abort the process.

To gain further information on the updating process, connect to the RS232 port at 9600,n,8,1, and you will see descriptive text on the progress and any error conditions that may be reported.

Below is a guide to progress as observed from the Digital Input LEDs.

Digital Input	Debug Digital Input LEDs
D1	Start Header Verification, Product ID Matched, Offset Matched, Entry/Destination Address Matched, Firmware Length Matched, Polynomial Matched, CRC Matched, Signature Length Matched
D2	OK (the signature is valid)
D3	Firmware updating.....100.00%
D4	Firmware update has been successful

REVISION HISTORY

Issue	Date	Details of Amendment	Author	App'd
1.0	27-01-21	Initial issue	SPP	Y
1.1	23/7/24	Update Logo	SPP	Y