

CRYSTALFONTZ USB MODULE FIRMWARE UPDATE INSTRUCTIONS

These instructions apply to:

- CFA10052 hardware version v1.0 and above.**
 - this includes CFA735 and CFA835 of hardware version v1.0 and above.
- CFA635 hardware version v1.4 and above.**

There are three methods for updating the firmware:

- 1 - Using a USB or Serial connection to a Windows PC (keypad reset)
- 2 - Using a USB or Serial connection to a Windows PC (software reset)
- 3 - Using a microSD card

Method 1 - Using a USB or Serial connection to a Windows PC (keypad reset)

1. Make sure the appropriate CrystalFontz Windows USB drivers are installed (available from the CrystalFontz website).
2. While holding the UP & DOWN keys on the module, power-on the module by plugging it into a USB port, or supplying it power (if using serial connection). The module should display a firmware update screen. If not, try this step again.
Note: if this step is difficult due to physical module installation, please see update Method 2.
3. On the PC, run "fw_send.exe" (CrystalFontz Module Firmware Update Utility).
4. In the utility, select the new firmware file (BLF file extension).
Firmware file version information should be shown in the "information" box.
5. In the communications box, select the module. It should be listed as "CFA10052-USB Bootloader" or "CFA635-USB Bootloader".
If the module is listed as it's normal type (ie "CrystalFontz CFA835-USB"), then it is not in bootloader mode. Repeat Step 2, or try one of the other update methods.
6. Click the "Update Firmware" button.
Note: If you're updating to a previous version, or to a special version of the firmware, you may need to select the "forced update" checkbox before clicking the update button.
7. Both the status box on the PC, and the screen on the module will show updating progress.
8. When complete, the module will reset itself.

Method 2 - Using a USB or Serial connection to a Windows PC (software reset)

1. Make sure the appropriate CrystalFontz Windows USB drivers are installed (available from the CrystalFontz website).
2. Make sure the module is plugged into the PC, powered on, and no other software is currently using the display.



3. On the PC, run "fw_send.exe" (CrystalFontz Module Firmware Update Utility).
4. In the utility, select the new firmware file (BLF file extension).
Firmware version information should be shown in the "information" box.
5. In the communications box, select the module you wish to update.
6. Click the "Rest Module into Bootloader Mode".
After a few seconds, the module should reboot itself and display the firmware update screen.
7. In the communications box, re-select the module. It should now be listed as "CFA10052-USB Bootloader" or "CFA635-USB Bootloader".
8. Click the "Update Firmware" button.
Note: if you're updating to a previous version, or to a special version of the firmware, you may need to select the "forced update" checkbox before clicking the update button.
9. Both the status box on the PC, and the screen on the module will show updating progress.
10. When complete, the module will reset itself.

Method 3 - Using a microSD card

1. Prepare the microSD card by formatting the microSD card to the FAT32 filesystem on a Windows PC.
2. Copy the firmware file (BLF file extension) on to the microSD card.
3. Rename the BLF file to match the module type, ie "cfa635.blf", "cfa735.blf", "cfa835.blf".
4. With the module turned off (USB cable disconnected, or un-powered), insert the microSD card into the back of the module.
5. While holding the UP & DOWN keys on the module, power-on the module by plugging it into a USB port, or supplying it power (if using serial connection).
6. The firmware updater should now be displayed on the module, and ask if you wish to flash the new firmware. To confirm, press the TICK (center green) button.
7. The module will now update its firmware, and reboot itself when complete.

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