



CNX-P2140

Firmware Upgrade Guide

V1.0

October 19, 2006



1.0 Firmware Upgrade Instructions

The CNX-P2140 includes a “bootloader” which is an embedded firmware application that allows the user to upgrade the P2140 application firmware without the need for a PIC (microprocessor) programmer. The firmware upgrade takes place by using the USB connection to your computer and allows you to download the new firmware from your PC into the P2140. This document describes the steps required to perform the upgrade.

Prerequisite

Before you begin the upgrade process, you must have the PSUmoni2140 software application installed on your PC and working properly (i.e. communicating with the P2140). The firmware upgrade cannot take place without a functional communication path between the PC and the P2140. If you have not yet installed the PSUmoni2140 software, please download the application from our website and install it per the PSUmoni2140 User’s Guide documentation.

The PSUmoni application is available for the PC platform only. There is not a Mac OS version available.

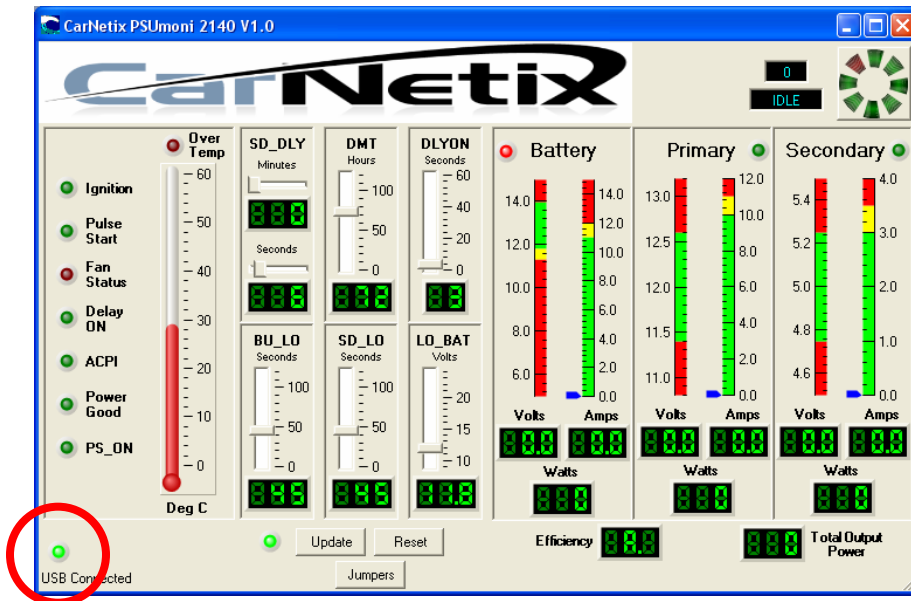
At this point, you should also have downloaded the P2140 firmware (.hex) upgrade file and stored it on your PC’s hard drive.

Disconnect Input & Output Cables

The first step in the upgrade process is to disconnect the input and output power cables from the P2140 (J1 and J2).

Attach the USB cable to the P2140

Next, connect a USB cable from your PC to the P2140 USB port. Verify that the PSUmoni2140 application is communicating with the P2140 by observing the “USB Connected” LED in the lower left corner of the PSUmoni window.



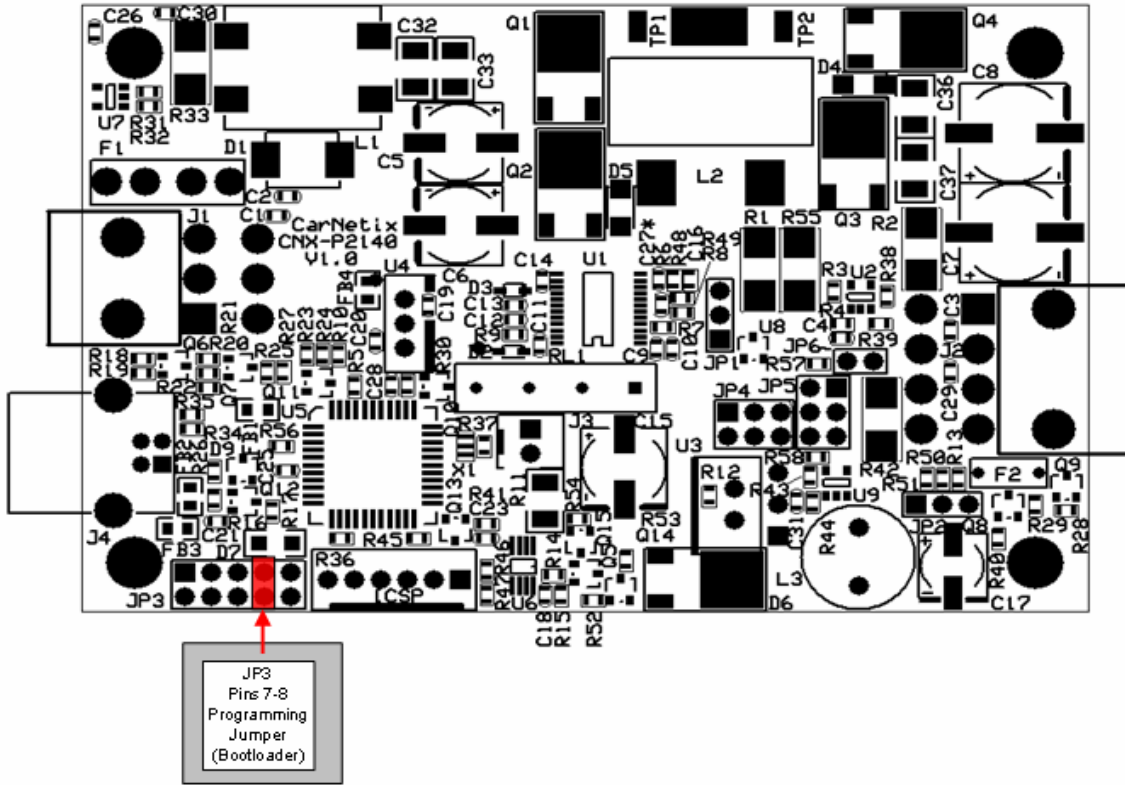
If working properly, this LED will be solid green. If the LED is flashing red, there is a problem with the USB connection that should be resolved before continuing. Refer to the PSUmoni2140 User's Guide for troubleshooting.

Remove the Chassis Lid

Remove the 4 screws that hold the chassis lid in place.

Setting the Programming Jumper

The diagram below shows the location of the "programming jumper" (JP3 Pins 7-8). Move the jumper to the position shown below (connecting pins 7&8).



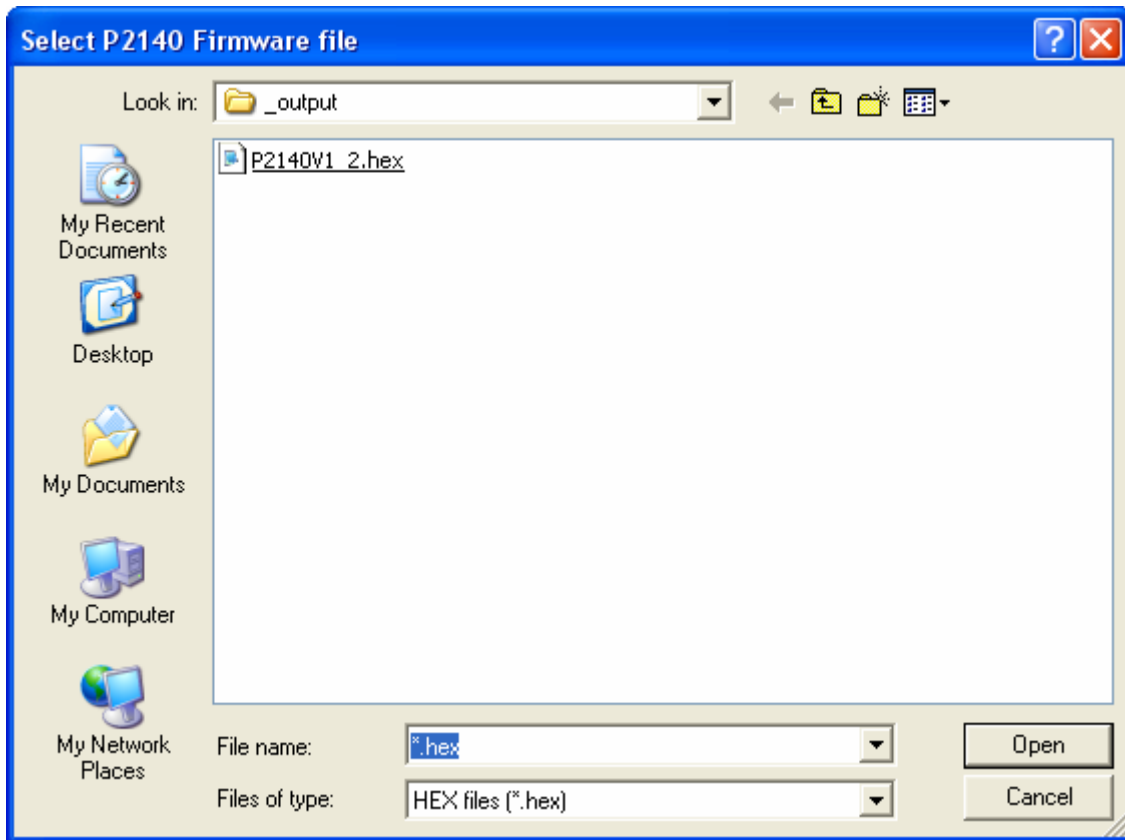
Un-plug and Re-plug the USB Cable

Once you have verified the USB connectivity, un-plug, and then re-plug the USB cable into the P2140. This will cause the USB connection to restart. The PSUmoni2140 will then show the “Firmware Upgrade” wizard screen as shown below.



Select the .hex Firmware File

Browse to the .hex firmware file that you have previously downloaded, and then hit the “Open” button.

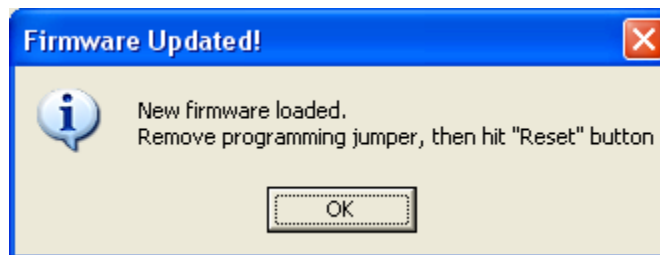


Begin the Programming

Next, hit the “Program” button and wait until the programming process has finished. Do not unplug the USB cable during this process.



If the upgrade was successful you will see the following window.

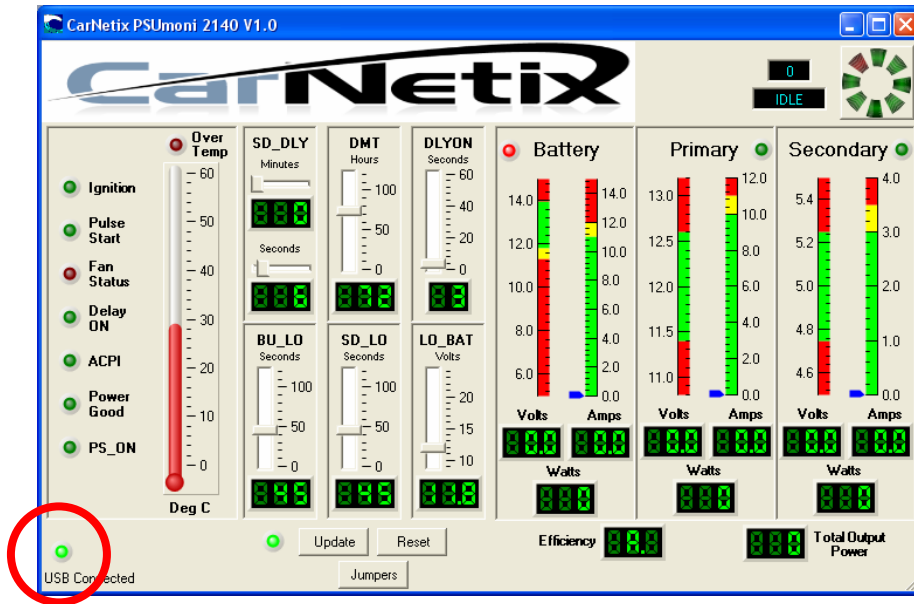
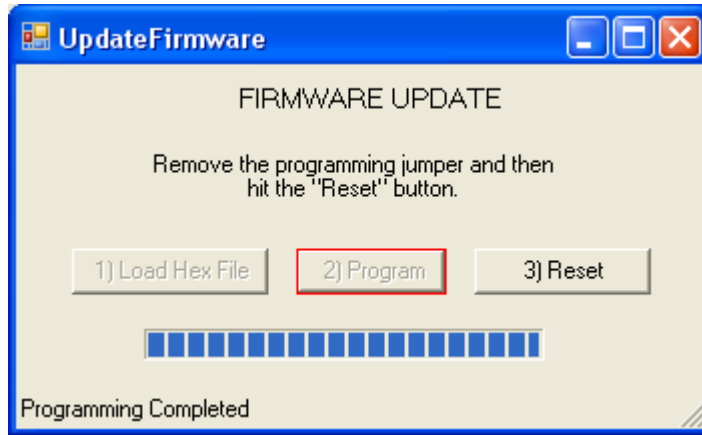


Remove the programming jumper

Remove the programming jumper, and hit the OK button to close this window.

Reset the P2140

Now hit the “Reset” button in the window below to complete the upgrade process. You will hear the USB disconnect and reconnect. The “USB Connected” LED should be solid green and your PSUmoni2140 application should be displaying the P2140 parameters.



Upgrade Process Complete

The firmware upgrade is now complete. To verify the upgraded firmware, check the firmware version shown in the “Jumpers” window.

