

# INO *mini* 635 & 638

FM & HD Radio™ SiteStreamers™

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## Firmware Update Instructions



June, 2016 - Rev. 1 Firmware

## Section V

# UPDATING THE SITESTREAMER™

### **The Firmware Updater**

The Sitestreamer™ is host to two operating files that may be updated easily by the user in the field. These files are the primary firmware, which controls the functions, memories and Web interface of the unit, and the individual Web pages that comprise the Web interface screens.

The Sitestreamer™ includes a ‘bootloader’ utility that allows firmware to be updated whenever Inovonics issues changes to add features, to improve performance, or otherwise to expand the usefulness of the product. Inovonics supplies firmware updates free of any additional charges.

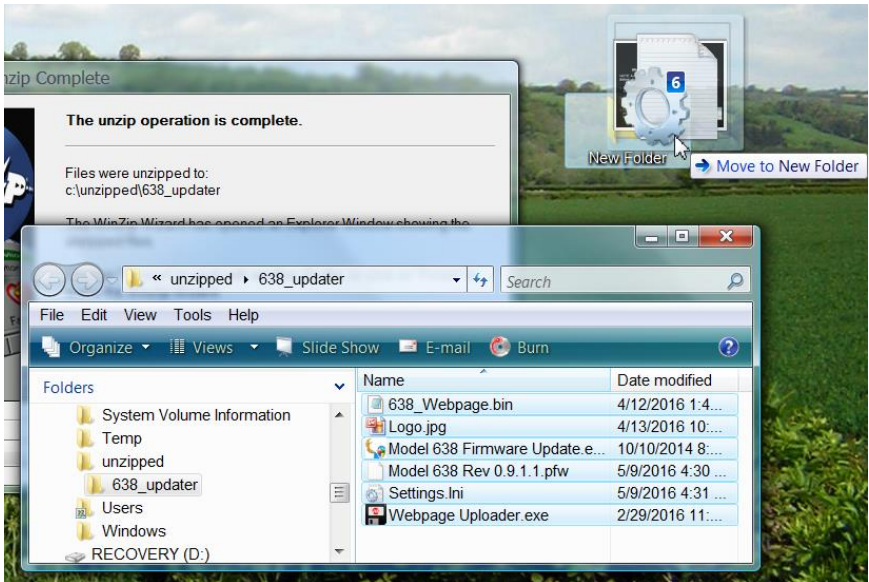
A bootloader is a simple software routine that runs on any PC connected to the same network as the Sitestreamer™. Refer to Page 15 for securing a connection between the SiteStreamer™ and your computer. This *must* be a wired, LAN connection for both the PC and for the Sitestreamer™. Attempting to use a Wi-Fi link will almost always fail.

### **Warning**

A firmware update will restore the SiteStreamer™ to factory defaults. *All settings and presets will be overwritten!* Always save a Hardware Profile (Page 32) before proceeding with an update. This will retain all user setup parameters that can be restored afterward.

### **Update Files**

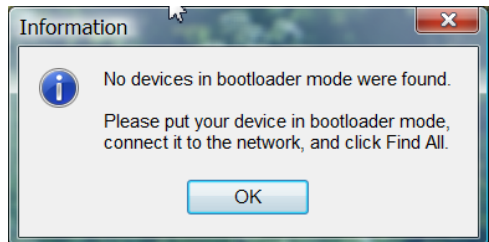
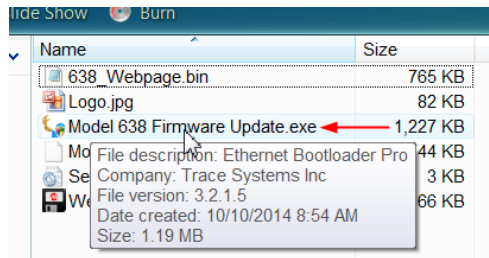
A firmware update will be supplied as a ‘zipped’ folder containing a number of files. Make a temporary New Folder on your PC Desktop and unzip these files to it as shown at the top of the next page.

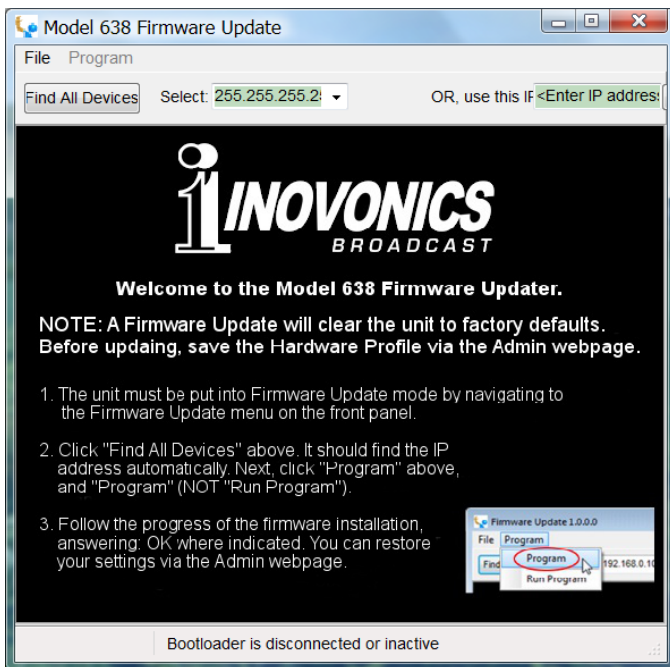


One of the supplied files is the third-party bootloader utility, an 'executable' (.exe) file. Because executables are notorious for propagating viruses, many antivirus programs will not allow .exe files to be downloaded and will urge you not to install them. But we insist that you trust us, glibly throwing caution to the wind.

## **Firmware Update**

Navigate to your temporary Desktop folder (New Folder) and double-click the Firmware Update.exe file. This is the file marked with the arrow in the upper snapshot. This will bring up the Information message in the second snapshot, advising that the Firmware Updater does not yet find your SiteStreamer™. Click: OK to start the updating utility anyway and to display its main screen, shown at the top of the next page.



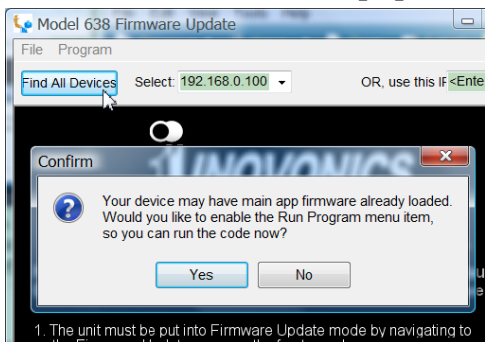


The bootloader window outlines the firmware update process in three easy steps. The first step advises that the SitesStreamer™ must, itself, be in the ‘bootloader’ (Firmware Update) mode.

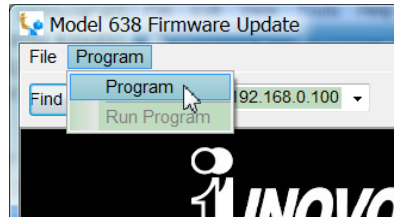
Hold down the front-panel Menu knob until 638 Firmware pops-up on the front-panel LCD. Next, turn the Menu knob to the next screen: Update Firmware:. Push the knob and select YES, and then push the knob again. This will bring up Loading Bootloader on the LCD.

Click: Find All Devices at the top of the Firmware Update window. Look for the SiteStreamer™ IP address to populate the Select: area, and for a Confirm box to pop-up on the screen as well.

The Confirm box is a ‘watchdog’ feature included in the third-party bootloader utility, but it is not pertinent to the SiteStreamer™ update procedure.

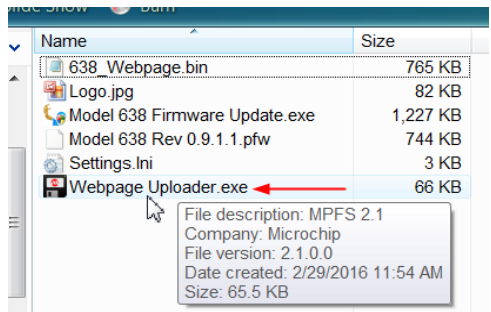


Click: No in the Confirm box to close it, and then click: Program at the top of the window, and finally click: Program, the first item in the drop-down list. The update utility will run and then return the SiteStreamer™ to normal operation with factory-default values. You may then upload a Hardware Profile to reclaim all user setup parameters (Page 32).



### **Updating Web Interface Pages**

If a new version of firmware calls for a Web interface page update, there will be an extra Webpage Uploader.exe file in the Firmware Update folder (New Folder). The arrow in the snapshot at the right points to this file.



Immediately after the firmware update is bootloaded, while the SiteStreamer™ is in communication with your computer, return to the New Folder and double-click the Webpage Uploader.exe file. Click: Update on the screen that appears and the existing Web interface pages will summarily be replaced with the new ones.

## Section VI

# TECHNICAL MATTERS

### **Firmware Version**

With the SiteStreamer™ powered-up, hold the knob down for 5 seconds or so. The menu screen you have been viewing will be replaced by the 638 Firmware screen. This shows the firmware version installed in your unit, information that may prove important when communicating with the factory. Push the knob again to return to the normal menu sequence.

### **'Under the Hood'**

The SiteStreamer™ is compact and sophisticated, utilizing mostly surface-mounted (SMD) components. Many of these are application-specific and/or pre-programmed at the factory, but all of them are impossibly tiny. This makes servicing the unit in the field a difficult proposition at best. For these reasons, and also because of the small format of this manual, we have dispensed with schematic diagrams, servicing instructions and a listing of component parts.

Having said that, our policy has always been one of 'full disclosure.' We feel that, unless we are doing something nefarious (or acting in the interest of national security!), there should never be a reason to hide information from the user. With a clear conscience, and upon request, we will cheerfully provide additional documentation and divulge all but the very darkest secrets concerning any Inovonics product.

Because it is so small and lightweight, returning the SiteStreamer™ for factory servicing, firmware upgrades, etc. is an option that we encourage. Inovonics has never considered factory repair charges a significant source of revenue, and we are confident that you will be astonished at how reasonable our rates actually are!





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