Upgrade Scammer Jammer® Firmware

This procedure will guide you to install new firmware into the microcontroller inside your Scammer Jammer® unit.

Contents

Abbreviated Instructions

If you are familiar with the firmware upgrade process, this is a quick summary of what must be done. If you have never done an upgrade before, follow the Full Instructions.

- Download most recent fwInstall.zip from
  http://scammerjammer.xyz/files/software/SJ%20Firmware/

- Extract contents of that zip file into an empty folder.

- Connect Scammer Jammer®'s USB port to your Windows-based PC. It is recommended that you not remove power from the Scammer Jammer.

- Double click on the fwInstall.bat file to start installation.

- Follow instructions provided by the BAT file.

- Remove the USB cable from Scammer Jammer®.

- Reinstall the power cable, and any other cables you may have removed, being careful to put the Telco line cable back into the proper jack!

- Review the firmware version and build date, if necessary, in your Scammer Jammer®'s Information menu.

- Make a test call to your Scammer Jammer® to verify operation.

Full Instructions

Prior methods of upgrading Scammer Jammer®'s firmware are no longer supported including using the uploadHex script from a Raspberry Pi; however, the uploadHex script still works and may be used to update firmware for Scammer Jammer®'s connected to an SJLT support module.

Figures in this procedure are from a Firefox browser. The procedure may be slightly different if you use a different browser.

Use a Laptop?

If you have a laptop follow this procedure on the laptop so you can take the laptop to the Scammer Jammer® rather than having to fully disconnect the Scammer Jammer® and take it to your PC.

Create Install Directory

●   Right click on your desktop, click on new, then click on folder:
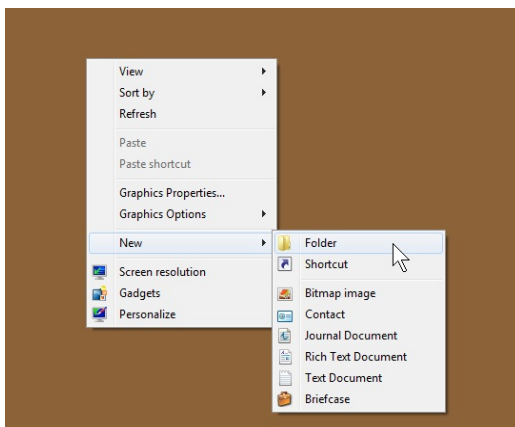
this will create a new, empty, folder on your desktop.

●   Right click on the folder, click on rename, and rename the folder fwInstall.

Download the Firmware

● When you were asked to upgrade firmware, you most likely were given a URL which will download the correct file. If not, enter the following URL into your browser:

http://scammerjammer.xyz/files/software/SJ%20Firmware/

and you will see a list of files much like this:

Name	Last modified	Size	Description
Parent Directory		-	
Teensy.zip	2017-01-29 19:43	2.4M	
firmware-0.10.01.zip	2017-05-05 10:49	478K	
firmware-0.10.zip	2017-04-19 11:22	477K	
firmware-0.11-170721.zip	2017-07-24 15:39	480K	
firmware-0.11.zip	2017-06-09 12:36	479K	
firmware-0.12-171110.zip	2017-11-10 15:16	485K	
firmware-0.12.zip	2017-10-19 17:02	481K	
firmware-1.00.zip	2017-11-20 15:57	485K	
fwInstall.-1.00.zip	2017-11-25 13:39	506K	

● If you were given a URL for a specific version, you will see the next dialog box.

If not given a specific URL, you most likely will want to download the most recent fwInstall-n.nn.zip file.

It is not recommended to load firmware prior to your current version. Best case, when going backwards, EEPROM will be erased and you will need to reconfigure your Scammer Jammer® completely.

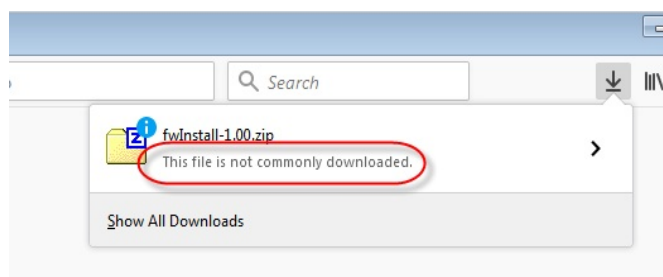Click on the file to download and you will see:
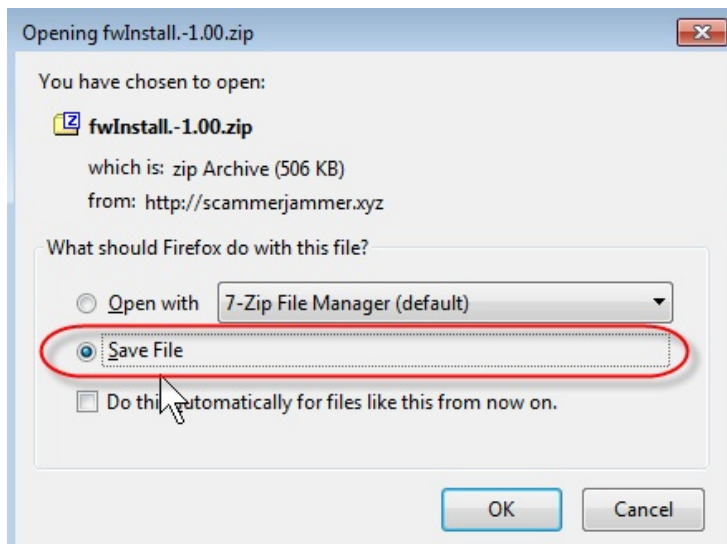
Make sure *Save File* is selected and click on OK. The download should start (see next step regarding ZIP file blocking).

● To make everyone's life more difficult, in the name of adding a tiny bit of additional protection, Firefox may (or may not) block ZIP files from being downloaded. (If I sound bitter, it's only because your instructions are now that much more complicated for no added benefit!)

    ○ If the download is blocked, there will be a dot next to the download button like this:
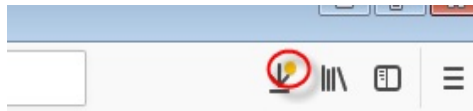
    ○ If you see this dot, you must approve the download. Click on the download button to see:

○ Right click on the filename to see:
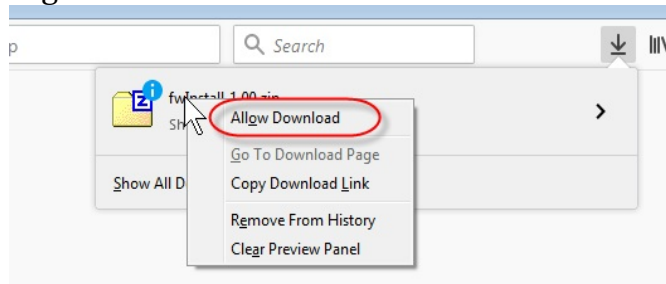
○ Click on *Allow Download* you will get yet another warning:
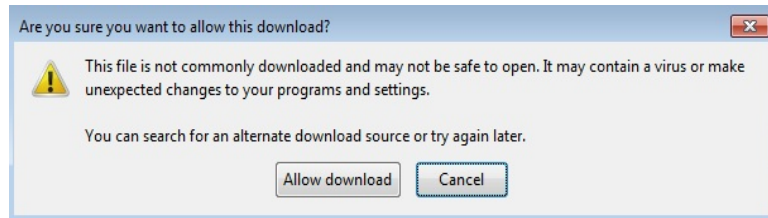
○ Click on Allow Download again and *finally* the download will happen.

● Once the download is done, you will want to click on the download button to review downloads. For Firefox, this button looks like this:

● When you click on the button, it will show recent downloads, with the most recent at the top:
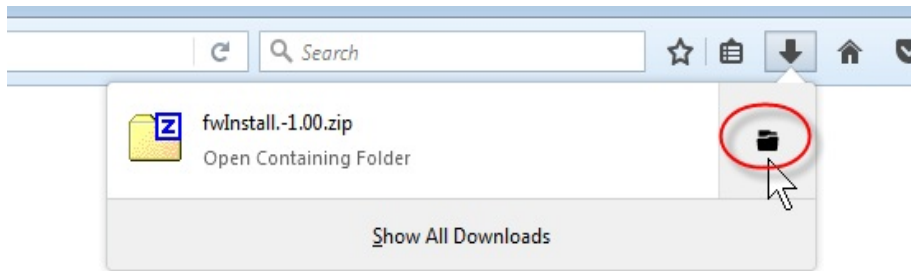
- Click on the folder Icon to open the download folder. You will see something like:

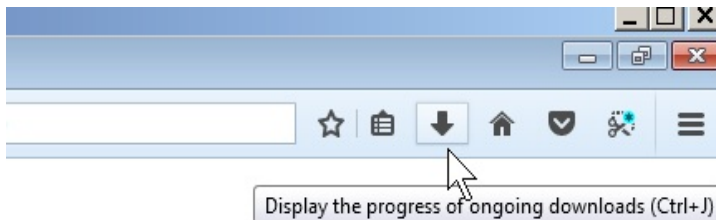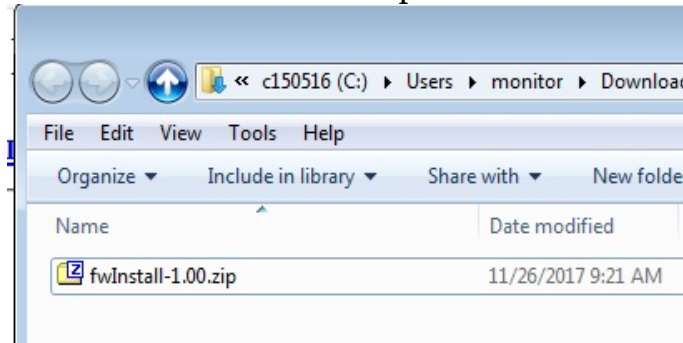- Double click on the file in this folder you just downloaded (fwInstall-n.nn.zip). This will show you the contents of the ZIP file:
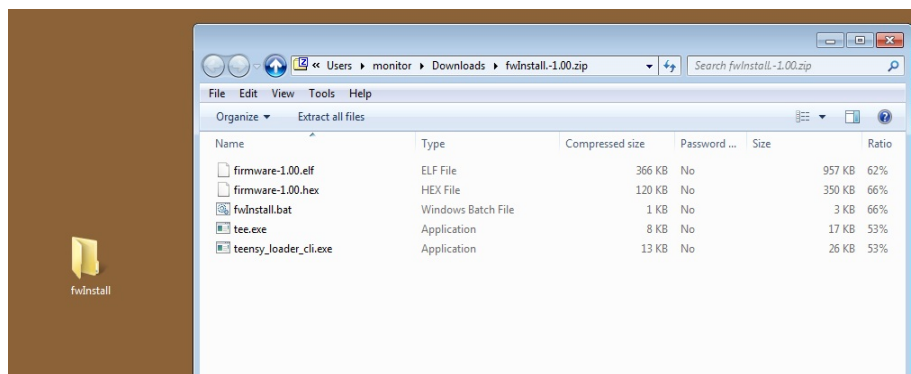
Extract Files from the fwInstall-n.nn.ZIP file into the fwInstall Folder

- To extract and copy the files, select all of the files in the open ZIP folder and drag them to the fwInstall folder on your desktop:
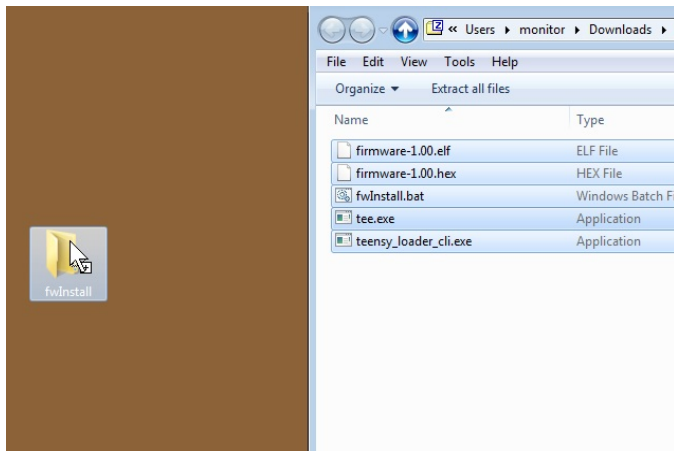
- Now double click on the fwInstall folder on your desktop and it should contain the following files:
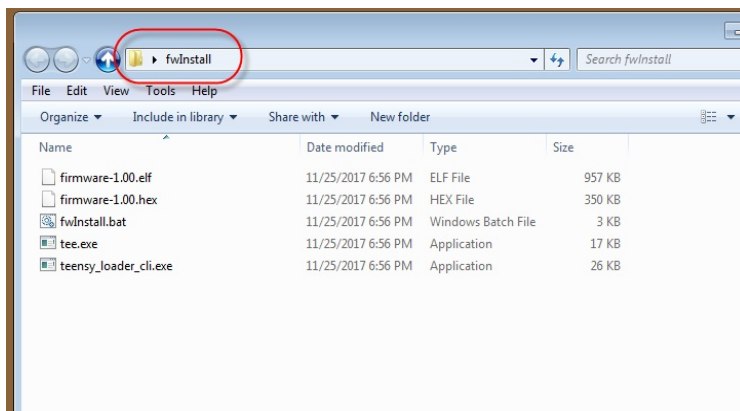
Setup Hardware

- There have been some cases where trying to upgrade firmware with no power to the Scammer Jammer causes the upgrade to fail. The recommendation now is that you do not remove power from the Scammer Jammer.

- Connect the Scammer Jammer® to the PC using a USB cable.

  ○ If you need to disconnect the Scammer Jammer® from the phone cables to move it near your PC, make note of which cable goes into which jack.

  ○ When you connect the Scammer Jammer® to the PC, you may see this message if a drive is installed. If you don't that is OK too.
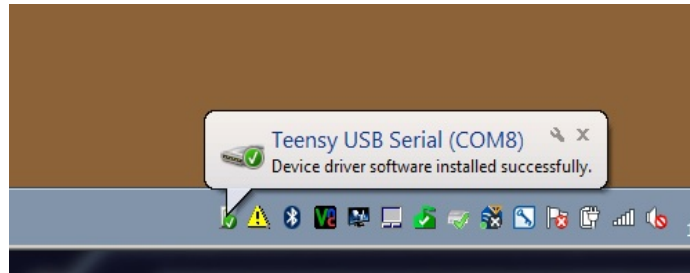
Start the Update Process

At this point, you have the install files in the fwInstall directory and the Scammer Jammer® is connected to your PC. You can now start the update process.

● Open the fwInstall folder and double click on the fwInstall.bat file

  ○ If your PC is configured to NOT show file name extensions, the files will appear like this. The file you want to double click on is called fwInstall and has 2 tiny gears like this:
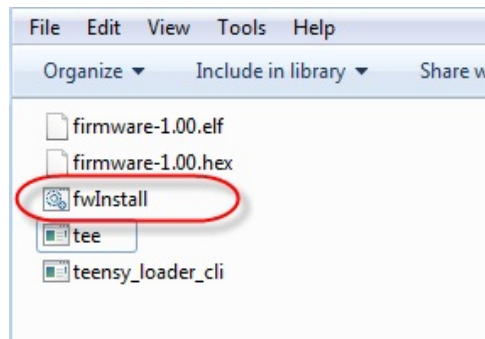
  ○ If your PC is configured to show extensions, then fwInstall.bat is clearly displayed:
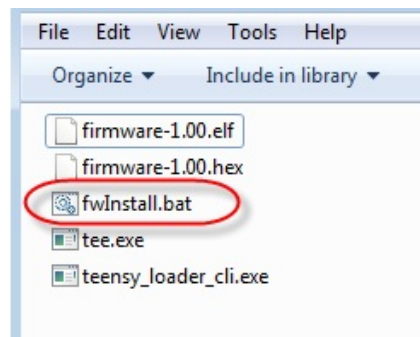
o   Double click on the fwInstall.bat file to start.

●   The update process starts in a "DOS" box. You will first be asked if you really want to do the update:

Press just the Y key and press the ENTER key to proceed.

OR if you don't want to proceed, press the N key and press enter.

●   The process will now show you the name of the file it is going to upload:

VERIFY this is the proper file name - you should have been told which file to expect here.

Press just the Y key and press the ENTER key to proceed.

OR if you don't want to proceed, press the N key and press enter.

●   You will now be asked to press the RESET button inside of the Scammer Jammer®:

```
C:\Windows\system32\cmd.exe                                    [ _ ][ □ ][ X ]
-----------------------------------------------------------------
You will need an unbended paper clip to press Scammer Jammer's reset button.

When instructed below (hint: press the reset buton), insert paper clip into
the tiny hole on the bottom to start the upload. When the reset button is
pressed, the upload will begin.

-----------------------------------------------------------------
Teensy Loader, Command Line, Version 2.1
Read "firmware-1.00.hex": 127140 bytes, 48.5% usage
Waiting for Teensy device...
 (hint: press the reset button)
```

● Using an unbended paper clip, press the RESET button.

It is possible to miss the button with the paper clip. In the figure below, the paper clip is NOT on the white button, so look to see that the button is actually pressed.
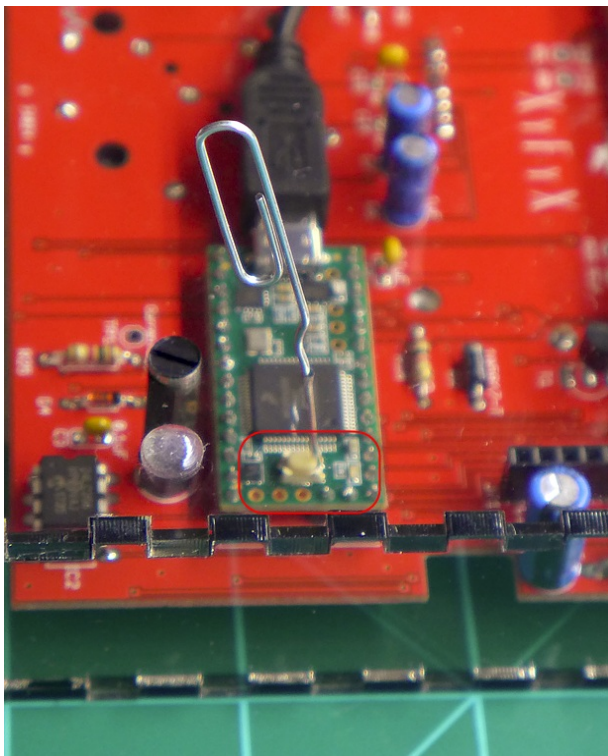
● Once the Scammer Jammer® is reset, it will read the new firmware from the PC:

```
C:\Windows\system32\cmd.exe                                          [ _ ][ □ ]
the tiny hole on the bottom to start the upload. When the reset button is
pressed, the upload will begin.

────────────────────────────────────────────────────────────
Teensy Loader, Command Line, Version 2.1
Read "firmware-1.00.hex": 127140 bytes, 48.5% usage
Waiting for Teensy device...
 (hint: press the reset button)
Found HalfKay Bootloader
Read "firmware-1.00.hex": 127140 bytes, 48.5% usage
Programming...............................................................
......................................................
Booting
────────────────────────────────────────────────────────────

Firmware upload completed.

Scammer Jammer may be waiting for you to press the keypad if it upgraded
EEPROM.

Once Scammer Jammer is operational, you can use Information ¦ Program Version
and Information ¦ Build Date to verify you have the correct firmware version.

Press ENTER key to finish.
```

- Occasionally the programming will fail. If that happens, you will see an error like:

```
Read "firmware-1.00.hex": 127140 bytes, 48.5% usage
Programming........................error writing to Teensy
```

  - If programming fails, try again by double clicking on the fwInstall.bat file again.

  - If programming fails a second time, contact support.

- Press the ENTER key to complete the process.

- If EEPROM is upgraded by this version of the firmware, you will see a message on Scammer Jammer®'s LCD:

```
EEPROM Updated
Any key to continue
```

  Press any button on the keypad to continue, or, after 15 seconds, Scammer Jammer® will continue on its own.

Restore Hardware

- Disconnect the USB cable from the Scammer Jammer®

- Reconnect the power cable to the Scammer Jammer®.

- If you disconnected any other cables from the Scammer Jammer®, reconnect

them now.

- Scammer Jammer® should be showing its status (Scammer Jammer® / On)

    o If you get the message *No Dial Tone* verify the telephone company's line is correctly connected to the Scammer Jammer®'s Line jack.

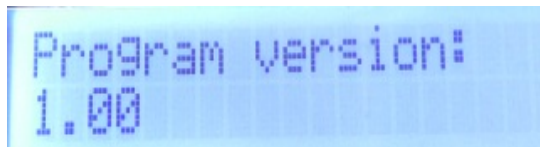   o If you get the message *Network Problem*, verify the network cable is properly installed.

Verify the Update Process

After completing the Update process, it is advised to verify it completed correctly.

If you updated the firmware using fwInstall-1.00, then the version of firmware that was installed should be 1.00 (in this case the build date is unimportant).
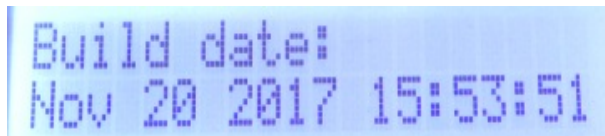
If you updated the firmware using fwInstall-1.00-171120, then you should verify the version AND the build date are correct.

- At your Scammer Jammer®'s top menu (e.g. Scammer Jammer® / On),
    o press the Next button two times to get to the *Information* menu

    o press the Select button

    o press the Next button until you get to the program version and it should match what you are expecting:

```
Program version:
1.00
```

    o If you need to also verify build date, press Next one more time to see the build date:

```
Build date:
Nov 20 2017 15:53:51
```

- If the build date and program version match, proceed to testing the Scammer Jammer®.

- If the build date and program version do not match, you may want to contact support to determine what went wrong.

Place a Test Call

You should place a test call to be sure Scammer Jammer® is working properly. Give it a call from your cell phone or have another person call you so you can verify it is processing calls.