

## BoostedNW Flash & Burn

Thank You for purchasing our BoostedNW Burner. We appreciate your interest and support of our products and look forward to providing you with quality products, service, and support in the future!

### Overview

The BoostedNW Flash & Burn allows you to program many chips for most EFI applications. In addition it will read most stock-style READ ONLY chips such as (2732A, 27C128 , 27C256, 27C512, etc.). The BoostedNW Burner is self-powered from the USB port (5 volts) but is still capable of 12-volt erase/write operations for specific chips.

27C32(Read-Only)
2732A(Read-Only)
27C64(Read-Only)
27C128(Read-Only)
27C256(Read-Only)
27C512(Read-Only)
27SF256
27SF512
28C64
28C256
29C256
W27C512
W27E512
DS1230

### Package Contents

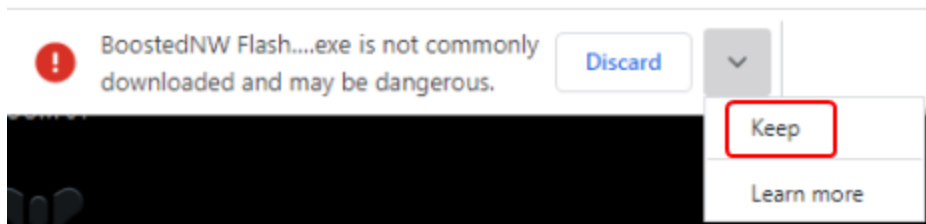
- (1) BoostedNW Burner
- (1) 6-foot USB Cable

### Software Installation

You can download the latest version of BoostedNW Flash & Burn here:

<https://files.boostednw.com/BoostedNW> and click on the “Flash and Burn” Folder.

If you encounter this error when trying to download with Chrome Browser, click the “keep” option (this message is due to this program being so new and “not commonly downloaded”



## Driver Installation

The latest drivers that may be needed if windows does not automatically install (it should unless you have really old version of windows) can be found at:

[https://files.boostednw.com/BoostedNW/BoostedNW\\_Device\\_USB\\_Drivers/](https://files.boostednw.com/BoostedNW/BoostedNW_Device_USB_Drivers/)

## Hardware Preparation

Make sure your BoostedNW burner has the switch on the bottom switched towards the left, like below.



If you do not have the switch in the left position, the burner will not function. Switching the switch to the right allows that left port to be used for Honda Datalogging or other Serial adapter uses.

DO NOT PLUG in anything to port to the left of the switch without verifying the pinout. This WILL likely lead to damage of the burner and will have to be sent back for repair at your expense.

## Using Flash & Burn

Using Flash & Burn for your BoostedNW Burner works by utilizing a buffer, to think about it simply... its just a temporary storage location for the tune that you are either writing to the chip, or reading from the chip. When burning to the a chip you click "Load file to buffer" and that holds it temporarily in the programs memory, you then select "Write Chip" then the program writes the contents of the buffer(the file you loaded) to the chip.

When Reading from a chip and saving to a file is done similarly, You select "Read Chip" and then the program then Reads your chip and holds the contents in the buffer, and when it is done reading you save that contents of the buffer (which is the contents of the chip) to a file by clicking "Save buffer to file" and choosing a location and filename to save the file.

## Chip Orientation

The BoostedNW Burner has a 32-pin ZIF Socket. Pin 1 of your chip should always face towards the handle of the socket, or towards the “Top” of the burner. The burner is labeled “Notch towards handle” and “Chip aligned with bottom” to indicate the direction and placement of the chip. Your chip will not always fit the whole 32 pin socket as there are 24, 28 and 32 pin chips, but what is important to remember is that the chip should always be in the bottom of the socket, with the notch in the chip facing UPWARDS. **Chip orientation is crucial and failure to insert chip in the proper position can result in destroying the chip and or the burner itself.** See figure 1 for an example of 28-pin chip orientation.

Figure 1 – Proper 28 pin Chip Orientation in BoostedNW Burner



## Burning a chip

1. Connect your BoostedNW Burner to the PC via the included USB cable and open the BoostedNW Flash & Burn Software.
2. Select the chip you will be using from the “**Chip Model**” List on the left.
3. If you are unsure of whether your chip is blank, press “**Erase Chip**”. Then you can also verify it is blank by clicking “**Blank Check**” and it will tell you if the chip is blank or not.
4. Load your tune file into the buffer by selecting “**Load file to buffer**”. This will open a browse window on your PC where you will find the location of your tune file and select it.
5. Input the addresses of the buffer you want burned to the chip (**Buffer Addressing**). For example if your burning a tune that is the whole chip your Chip addressing and buffer addressing would both be 0000(start)-FFFF(end).
6. Input the addresses of the chip that you want the buffer data written to (**Chip addressing**).

## Reading a chip

1. Connect your BoostedNW Burner to the PC via the included USB cable and open the BoostedNW Flash & Burn Software.
2. Select the chip you will be reading from the **"Chip Model"** list.
3. Select **"Read Chip"**. This will read the chip into the local buffer.
4. Select **"Save Buffer to File"** and find a location and name the file what you want. That will save whatever the burner read from the chip as a file \_\_\_\_\_.bin on your computer in the location you chose.
5. Press **Save**.

## Using Offsets

You need to understand the offsets section if the chip you are programming is larger capacity than the binary(tune) file that you are trying to write to the chip, otherwise the contents of the file will not go into the correct "location" on the chip and what the ECU/ECM reads could be incorrect. In such cases you need to use an offset with respect to chip addressing. To program a chip with an alternate offset, proceed as follows:

- 1) Connect your BoostedNW Burner via the supplied USB cable.
- 2) Once the unit is connected start up the BoostedNW Flash & Burn program. You should see in the window a message that says "Connected" and other information about the burner version etc. If this is not shown, see the troubleshooting portion of this manual.
- 3) Place a chip in the ZIF socket. See "Chip Orientation" portion of this manual and Figure 1 for clarity.
- 4) Select the type of chip you are using from the "Chip Model" List, Most common is 27SF512.
- 5) Pick the "Load file to buffer" option and find the file you want to load on the chip, select it and it will be loaded into the "Buffer" of the program ready to be written to the chip.
- 6) Take note of the file size listed in the "Buffer(file) Information section of the program



It will likely be one of the four sizes:

4KB, 16KB, 32KB or 64KB.

- 7) Take a look at the top middle part of the BoostedNW Flash & Burn program and you will see the offset values. These will be what needs to be changed to offset your tune to the correct portion of the chip.
- 8) The file size, along with the chip size, will determine what values you need to use. (BoostedNW Flash n Burn usually automatically selects sane offsets based on your chip type and file size in order to place your buffer at the end of the chip, where it usually belongs.) Just make sure that the correct values are filled in for all four boxes before programming the chip. The following table summarizes what offsets you need to use depending on chip used and file size:

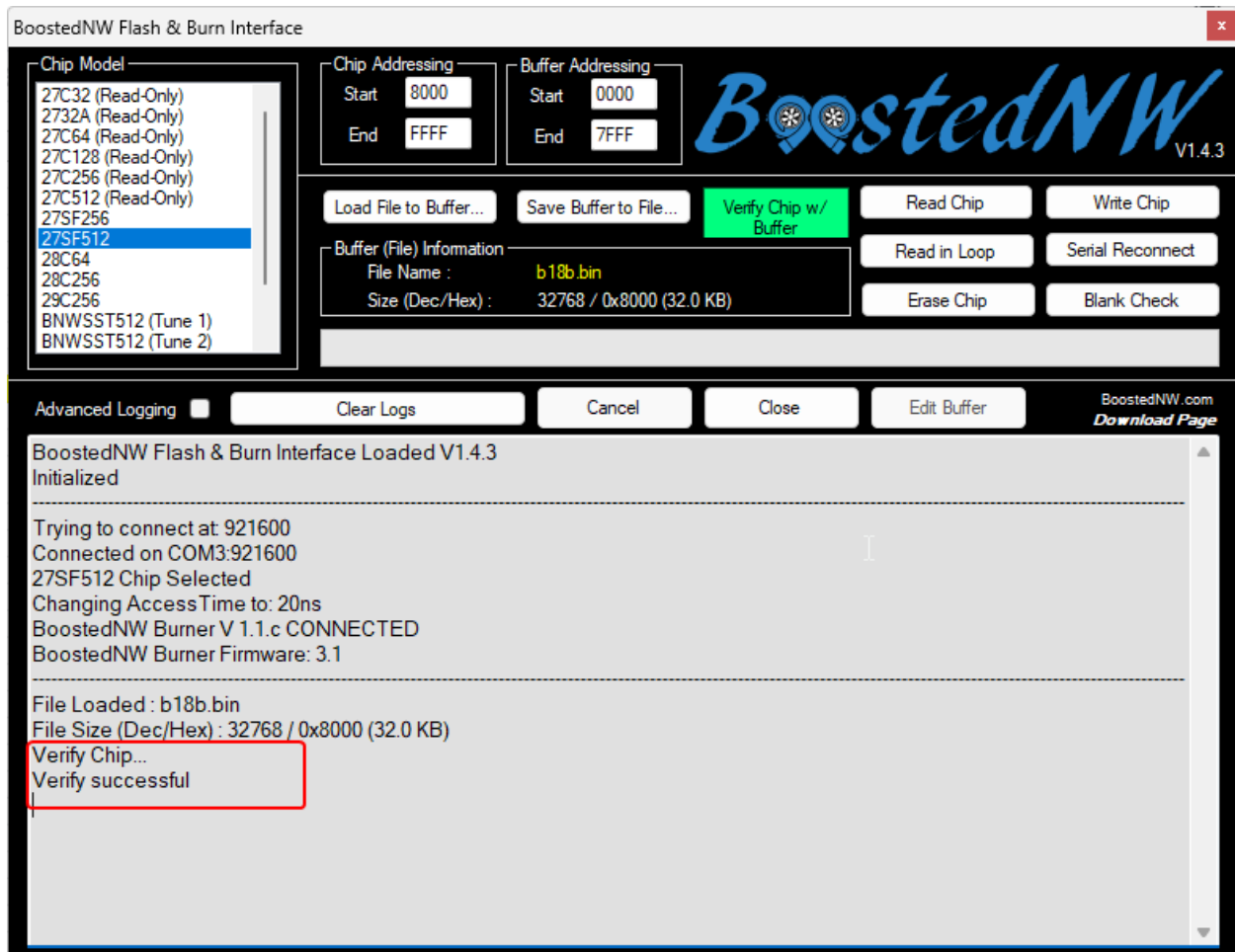
File Size	Chip	Buffer Start -> End	Chip Start -> End
4k (4096)	AT29C256	0000-0FFF	7000-7FFF
16K (16384)	AT29C256	0000-3FFF	4000-7FFF
32K (32768)	AT29C256	0000-7FFF	0000-7FFF
4K (4096)	27SF512	0000-0FFF	F000-FFFF

16K (16384)	27SF512	0000-3FFF	C000-FFFF
32K (32768)	27SF512	0000-7FFF	8000-FFFF
56K (57344)	27SF512	0000-DFFF	2000-FFFF
64K (65536)	27SF512	0000-FFFF	0000-FFFF

While the correct values are often selected, you can manually enter them. For a single-tune single-chip scenario, you generally want the buffer (or file content) to be placed at the 'end' of the chip.

**Table 1 – Offsets**

- 9) Select the "Write Chip" Option. (If you are using a 27SF512 the program is set to automatically erase before a write operation so there is no need to manually erase a 27SF512 chip)
- 10) Use the "Verify Chip w/Buffer" button to make sure everything programmed correctly. You should see "Verify Successful" (example below in Figure 2)



**Figure 2 – The BoostedNW Flash & Burn Interface showing Verify successful after chip write**

## Troubleshooting and Frequently Asked Questions

Problem	Solution
"Program says "retrying" over and over	A) Burner is not connected to PC via USB, Ensure Burner is attached to PC with the supplied USB cable or equivalent. B) Your pc may not have the required drivers installed. <a href="#">Install driver</a>
After burning a chip, the chip will not verify	A) The chip you were using (if not SST chip) may have not been erased before the write cycle (SST chips require this and the software does this automatically) If others require it, erase the chip, then re-burn the file and it should then verify. B) The chip type is not supported (if this may be the case, contact us and we can possibly add the chip type with a software and/or firmware update.

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## Contact and Support

Please ensure you've read through this document and any additional documentation on our website. If you require further assistance, please create a support ticket at <https://support.boostednw.com/>

We will assist via ticket, email and or phone depending on circumstance/issue at hand.

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