

**OB-1 SABERS**

**SN V4**

**INSTRUCTION MANUAL**



## SINGLE BUTTON CONTROLS:

**Standby mode** : Usually refers to the state where the button light is on but the blade light effect is not turned on.

**Boot status** : Usually refers to the state where the button light is on and the blade light effect is turned on.

You can switch pixel number Between 82cm and 92cm when powered off by pressing the button 3 times.

Press and hold the power button for two seconds until you hear a power on notification. LED ring will light up. This is standby mode.

Press the button once quickly to activate the blade. This is Boot status mode.

### Standby Mode

- Blaster effect will activate with a quick button press or striking the blade.
- Press and hold the button for 1 flash, then release. This will initiate the drag effect. A quick press will end the drag effect.
- Press and hold the button for 2 flashes, then release. This will initiate the color cycle. When the color you want shows, a quick press will end the color cycle.
- Continue to hold the button past 2 flashes to turn off the blade.

### Controls while the blade is off:

- Press and hold the button for 1 flash then release to change the volume. There are three volume settings: Volume High, Volume Low, and Mute.
- Press and hold the button for 2 flashes then release to change the blade ignition (boot) effect. There are 12 boot effects.
- Press and hold the button for 3 flashes then release to change the blade effect. There are several blade effects, including Some pre-on effects. Blade effects will affect pre-ons but will not have any effect on Blaster Blade and Ghost Blade modes. Only blade color and font selection impact these modes.
- Press and hold the button past 4 flashes, then release. This will change the sound font. The selection of fonts can be customized by the user.
- Power saving mode is activated automatically if there is no operation after 10 minutes.

### Boot Status Mode

- Repeated single button presses will enable blaster deflect.

- Press and hold the button for 1 flash then release will activate blade lock-up (force effect).
- Press and hold the button for 2 flashes then release to switch blade colour.
- Press and hold the button for 3 flashes then release to cycle Flash On Clash on/off.
- Press and hold the button for 4 flashes then release to switch the saber off.

## SINGLE BUTTON GESTURE CONTROLS

There are several motion or manual controls available on the SN V4 board. These are based on control settings in the config.ini file:

### Standby Mode

- A quick twist while the hilt is pointed up will change the font.
- A quick twist will activate the blade.
- A quick twist while the hilt is pointed down will play a music track, if one or more are available in the selected fonts folder. A quick twist again will stop the music.

### Boot Status Mode

- A quick twist will deactivate the blade.
- Hold the button and impact the hilt/blade to activate lockup.
- While holding the button, twisting the hilt while the blade is pointed down will change the selected blade color. Release the button to select the current color.
- While holding the button, twisting the hilt while the blade is pointed up will activate force effect.
- Hitting the blade will activate Flash On Clash.
- Hold the button and thrust the saber forward to activate melt effect.

## TWO BUTTON CONTROLS

When buttons are distributed up and down the upper button is the Main button and the lower button is the AUX. When the buttons are distributed left and right the left button is Main button while the right button is AUX.

### Standby Mode

- Press the Main button once quickly to activate the blade.
- Click Aux button to switch sound fonts.

- To adjust the volume, hold the Main/AUX buttons at the same time, release after hearing the prompt tone to enter the volume adjustment mode, then click the Main button to increase the volume, and click the AUX button to decrease the volume. To exit this mode, press and hold the Main/AUX buttons at the same time then release after hearing the beep.
- Press and hold the main button for 1 second and hear the beep and release it to switch sound fonts.
- Press and hold the AUX button for 1 second and hear the beep and release it to switch blade effect.
- Power saving mode is activated automatically if there is no operation after 10 minutes.
- Click AUX button 3 times to power off the saber.

### Boot Status Mode

- Press the Main button once quickly to deactivate the blade.
- Click AUX button to activate blaster deflect.
- Press and hold the Main button for 1 second and hear the beep and release it to activate lock-up.
- Flash On Clash can be turned on or off by pressing and holding the Main and AUX buttons at the same time.

## TWO BUTTON GESTURE CONTROLS

### Standby Mode

- A quick twist while the hilt is pointed up will change the font.
- A quick twist will activate the blade.
- A quick twist while the hilt is pointed down will play a music track, if one or more are available in the selected fonts folder. A quick twist again will stop the music.

### Boot Status Mode

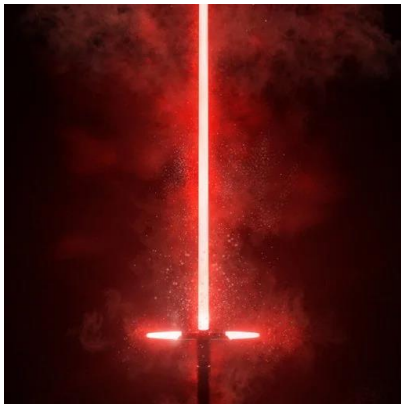
- A quick twist will deactivate the blade.
- Hold the button and impact the hilt/blade to activate lockup.
- While holding the button, twisting the hilt while the blade is pointed down will change the selected blade color. Release the button to select the current color.
- While holding the button, twisting the hilt while the blade is pointed up will activate force effect.
- Hitting the blade will activate Flash On Clash.
- Hold the button and thrust the saber forward to activate melt effect.

## CONNECTING TO THE APP

Scan the QR code at below then download and install the APP. The app is only available for Android. Please note the APP is confirmed safe to download. The complete app guide is available on the site: <https://ob1sabers.ca/wp-content/uploads/2024/05/SNv4-APP-Operation-Guide.pdf>



The app icon currently sports this image:



Turn on Bluetooth on your phone and enter the APP for operation. Click on the Bluetooth icon and click the Scan button.

You will hear a beep when you successfully connect to Bluetooth then you are ready to control the lightsaber and adjust the lightsaber parameters. **The blade must be installed before using the Bluetooth function.**

## FIRMWARE UPDATE

Remove/Backup SD Card

1. Remove the electronics core from your saber. Refer to other videos for your particular model.

2. Remove the battery from the electronics core.
3. Remove the SD card from the electronics core of your saber.
4. Insert the SD card into the USB adapter, then insert the adapter into your computer. Open File Explorer to view the files.
5. Create a copy of the SD card and save to a folder. This is to restore your card if something goes wrong.
6. Follow the instructions to update the firmware.

#### Update Firmware Step 1

1. Download the zipped folders. Extract them to your desktop or other folder so you know where it is. You can create a new folder, name it SNV4 Updates and extract there if you choose.
2. In the root folder on the SD card, delete the ota.snv4 file.
3. Replace this file with the new ota file.
4. Properly eject the SD card from the computer (right click, Eject from the file explorer window or the up arrow/Safely Remove Hardware and Eject Media in the bottom right of the task bar).
5. Insert the SD card back into the SNV4 board. Insert the electronics core back into your saber.
6. Insert the battery, wait for the “upgrade success” sound notification.

## UNDERSTANDING THE config.ini FILE

Pixel numbers for common blade lengths are as follows, adjustments can be made:

40" / 102cm – 144  
36" / 92cm – 132  
32" / 82cm – 116  
28" / 72cm – 104  
24" / 61cm - 96  
16" / 41cm – 58  
7" / 18cm - 25

#### **Config.ini:**

Before you change the data below, please save the original data first to avoid bugs. This is very important. Please report any bugs to your vendor.

Open the set folder in the SD card and find the config file to edit. There should be only one set folder.

Pixel number setting for main blade.

PixelNumber=132 (The value ranges from 0 to 144, 132=92cm/36inch blade, 116=82cm/32inch blade)

Pixel number setting for side blade (if using a cross guard or dual blade hilt)

SubPixelNumber=132 (The value ranges from 0 to 144, 132=92cm/36inch blade, 116=82cm/32inch blade)

Side blade delay time setting (if using a cross guard or dual blade hilt)

SubBladeDelay=200 (200 is 200ms, you can set it at any value) - [volume setting](#)

MixerVolumeMax=4500 (It can be set to a value between 0 and 4500) - [clash sensitivity setting](#)

ClashSensitivity=10 (Can be set to a value between 0 and 10) - [gesture mode setting](#)

TwistPwrOn=1 (1 means on, and 0 means off)

TwistPwrOff=1 (1 means on, and 0 means off) - [twist sensitivity setting](#)

TwistSensitivity=5 (Can be set to a value between 0 and 10) - [swing on setting](#)

SwingPwrOn=1 (1 means on, and 0 means off) - [swing on sensitivity setting](#)

SwingPwrOnSensitivity=6 (Can be set to a value between 0 and 10)

Combine with sound font and default blade color, blade effect and boot ignition effect

Blade colour and effects guide:

**Color-1=(255,0,0),1,6,300,800**

The red text indicates the font number affected.

The orange numbers indicates the color, in RGB, with minimums of 0 and maximums of 255.

You can find colors at [https://www.rapidtables.com/web/color/RGB\\_Color.html](https://www.rapidtables.com/web/color/RGB_Color.html)

The yellow number indicates the blade effect.

The purple number indicates the ignition effect.

The blue numbers indicate the speed of the blade on/off.

## CHANGING FONTS

You will notice all the folders on the SD card are numbered sequentially. This is to match the font settings in the config.ini file starting with Color-1=. Inside each folder is the wav file for each type of sound and they are also numbered sequentially.

You can use any sound you like as long as it is a .wav file and is named accordingly. You can also use as many as you like as long as they are numbered sequentially: font01 font02... etc. The SN board will cycle through them.

It is best to back up your SD card first in case anything goes wrong so you can restore it if necessary. Create a folder on your computer to build your font files then copy them over to your SD card.

Make sure the replaced or added sound folder is in the following format : xxx (x).wav

**Blast:** blst (x).wav  
**Clash:** clsh (x).wav  
**Drag:** drag (x).wav  
**Font name display:** font (x).wav  
**Hum:** hum (x).wav  
**Font boot music:** in (x).wav  
**Lock up music:** lock (x).wav  
**Font off music:** out (x).wav  
**Swing sound:** swingh (\*).wav swingl (\*).wav  
**Bgm:** track (\*).wav

The process is the same as updating the firmware. Remove the battery, remove the SD card. Plug the SD card into the computer and make the changes. You will find a config file inside every font folder, this must be deleted before the card is replaced into the board.

If you wish to have a limited number of fonts on the SD card, such as a single font for a character saber, make the changes to the font folder (which will be named 1) then make your adjustments in the config file in the set folder for Color-1 then you can delete the rest.

## TROUBLESHOOTING

Saber doesn't start after charging.

Remove the battery and check the battery contact plates to ensure they are making contact. Gently bend them out if they are not making contact. Reinsert the battery, turn on the saber. If it still does not start, try charging the battery again.

### **Batter won't charge.**

Try a different cable, some generic brands of cables and charging blocks won't work.

### **Saber has no sounds.**

This is usually from low battery power. Sound is the first to go when the battery is running out. Also check that the files on the SD card are set up correctly if any customization was done and the card is seated properly.

### **Saber suddenly stops working.**



Remove the battery and check contact plates. Check the soundboard for damage or overheating.

**Saber makes sounds but no light.**

Check that the blade is fully seated on the pogo. Check the pogo pins are not missing or damaged. Cycle the blade styles, the saber may be on ghost or blaster blade.

**Saber is hot near the emitter.**

It is normal for some heat to build up here but the emitter chassis will diffuse most of it. If heat builds up around the battery and board, check for damage, there may be a faulty battery or charge port. Only use the 5W phone chargers not the 10W ipad style chargers as this will cause overheating.

OB-1 Sabers is dedicated to making sure you have the best, affordable saber experience possible. Please be safe while you are strengthening your saber skills and check the website often as new products, information and goodies are always being added.

[www.ob1sabers.ca](http://www.ob1sabers.ca)

If you have any feedback, questions, concerns or you would just like to leave a comment about your experience with us, send us an email.

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