LGT
SABER STUDIO

XENOPIXEL

INSTRUCTION MANUAL

BASIC INSTRUCTIONS:

- Press and hold the LED button to bring out of sleep mode. You will hear a 'Power On' voice, and the LED button will turn on.
- Press the button once, quickly, to turn the blade on.
- The following controls activate when the blade is on, and are based on the flash of the LED button light:

    1) A quick press will initiate a single blaster deflect effect.

    2) Press and hold the button for ONE flash, then release. This will initiate the drag effect. A quick press will end the drag effect.
    3) Press and hold the button for TWO flashes, then release. This will initiate the color cycle. When the color you want shows, a quick press will end the color cycle.
    4) Continue to hold the button PAST 2 flashes to turn off the blade.

- While the blade is off, the following controls are activated based on the flash of the LED button light:

    1) Press and hold the button for ONE flash, then release. This will change the volume. There are 3 volume settings: Volume High, Volume Low, and Mute.
    2) Press and hold the button for TWO flashes, then release. This will change the blade effect. There are 6 blade effects: Steady, Pulse, Rainbow Blade, Unstable, Cracked Blade and Fire Blade.
    3) Press and hold the button for THREE flashes, then release. This will change the blade mode. There are several blade modes, 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.
    4) Press and hold the button for FOUR flashes, then release. This will change the sound font. The selection of fonts can be customized by the user.

ADVANCED CONTROLS: MOTION

There are several motion or manual controls available on the XenoPixel V2. These are based on control settings in the config.ini:

1) A direct and quick stabbing motion with the hilt level will turn the blade on, or off.

2) A quick twist while the hilt is pointed down will change the font to the next on the list. Either direction will prompt the change as long as the hilt is pointed downward.
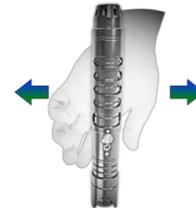
3) A quick twist while the hilt is pointed up will play a music track, if one or more are available in the selected fonts folder. A quick twist again will stop the music.

4) Hold the button and impact the hilt/blade to activate lockup. Release the button to end lockup.

5) While holding the button, a quick twist while the hilt is pointed down will change the selected blade color. Release the button to select the current color.

6) While holding the button, a quick twist while the hilt is pointed up will play a special effect. This will also play a sound if the correct file in included in the font.

UPDATING FIRMWARE:

In order to update effects, fix potential issues, and make Improvements, firmware updates may be released as needed. To make this as easy as possible to update, we currently only Please follow the steps below to upgrade your XenoPixel V2 board to the latest files as they become available:

1) Remove the grip and pommel to access your XenoPixel chassis.

2) Carefully remove the battery. This is most easily done by lightly tapping the end of the chassis against your hand. Remember the chassis is marked to ensure, on reinserting the battery, that the positive and negative ends line up correctly.

3) Locate the micro SD card in the chassis. Be sure to note the orientation to make re-installation easier.
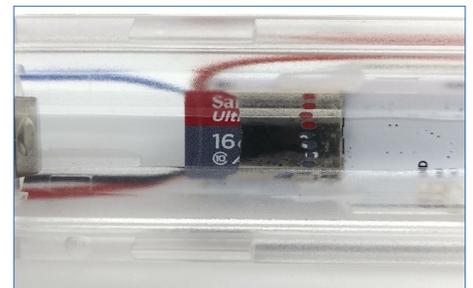
4) Carefully remove the micro SD card. Use your fingers or tweezers. Do not force the card upward or downward, as this could damage the connector.
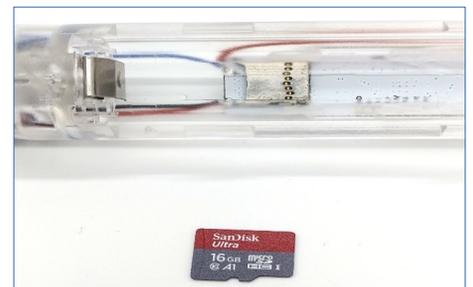
UPDATING FIRMWARE (CONTINUED):

The next set of steps are for the installation of the firmware:

1) Download the 'update.bin' file from your vendor/source. Open the file's location on your PC or Mac.
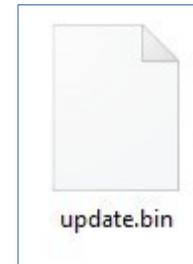
update.bin

2) Open the micro SD card, and open the 'set' folder shown below:

16	7/13/2021 1:53 PM	File folder
17	7/13/2021 1:53 PM	File folder
18	7/13/2021 1:53 PM	File folder
set	7/13/2021 1:50 PM	File folder

3) Drop the 'update.bin' in the 'set' folder, as shown:

steady.wav	12/21/2020 8:45 AM	Microsoft Wave S...	75 KB
unstable.wav	12/21/2020 8:47 AM	Microsoft Wave S...	108 KB
update.bin	8/2/2021 11:54 AM	BIN File	323 KB

4) Once the .bin file is in the 'set' folder, safely eject your micro SD card, and install it back into your chassis.

5) Install the battery, but do not turn the hilt on; wait for sound confirmations, once the battery is installed, indicating that the update has begun, followed by one that indicates it has been completed. Please listen carefully as the sound may be difficult to make out. Normal updates should take only a few seconds. Do not turn on the saber at this time.

UPDATING FIRMWARE (CONTINUED):

The next set of steps are for the installation of additional files:

1) Access your micro SD card once again. Open the 'set' folder from your firmware update.

2): Copy and replace the files in your micro SD card's 'set' folder with the files from the firmware update's 'set' folder.
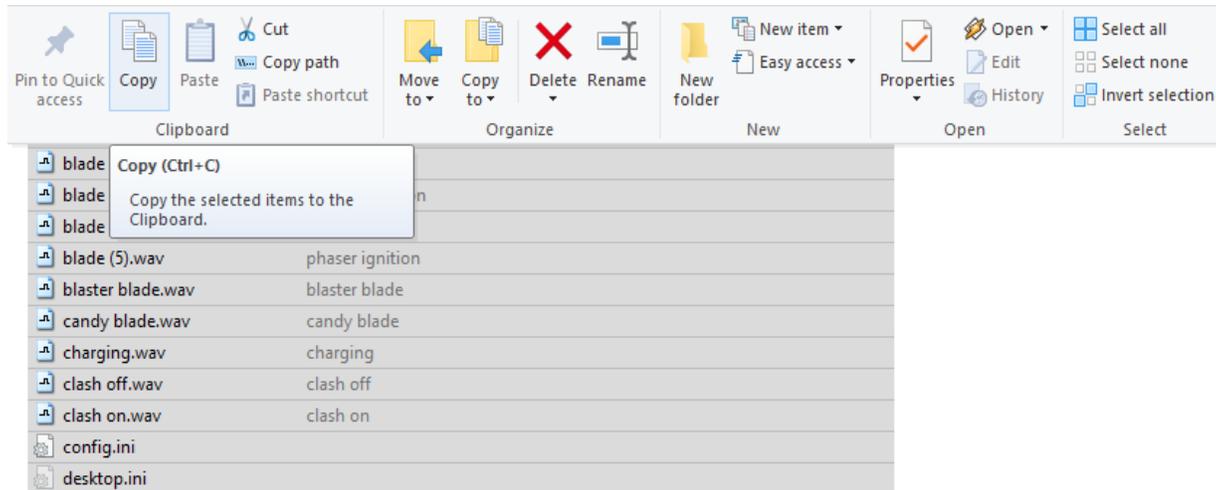
3) In cases where you are replacing a font folder as well (for example, the firmware has a folder labeled "3"), be sure to do your 'update.bin' update first, then delete the individual 'config' file (shown below) located in the font folder. After you have done this, you can copy the updated files from your firmware update's font folder. Make sure you have completed all the above steps before turning on the saber; any step missed will result in mismatched settings.
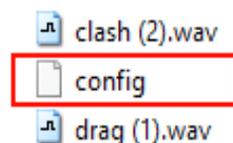
PLEASE NOTE: Any change you make to the settings on the config.ini that apply to a particular font, will require you to delete the 'config' file in the font folder first. Failure to do so will result in your settings not changing.

We STRONGLY recommend backing up your config.ini in another location, as firmware updates will reset your original settings to the XenoPixel default settings!

UPDATING CONFIG.INI:

The instructions for updating the config.ini are included in the file itself. We recommend a text editor, like Notepad ++, to help keep you organized while making changes. Although most settings are as written, additional details are below:

```
#Main blade length(Default 92cm blade,if
PixelNumber=132
#Side blade length(This for cross guard
SubPixelNumber=132
```

Pixel numbers for common blade lengths are as follows:

40" / 102cm – 146
36" / 92cm – 132
32" / 82cm – 118
28" / 72cm – 104
16" / 41cm – 58
7" / 18cm – 25

Please note that these are estimates – you may need to increase or decrease the number slightly to ensure correct lighting for drag mode and complete illumination.

Clash Sensitivity is a range from 0.1 (extremely sensitive) to 3.0 (barely sensitive). 1.5 is the median.

```
#Sensitivity of clash, smaller more sensitive
ClashSensitivity=1.5
```

PreoffOverride is currently not in use. We will update when this setting is available, and provide details on it's use.

```
#Preoff replace in sound number 1,2,3(Three preoff blade style)
PreoffOverride=
```

Any change you make to the settings on the config.ini that apply to a particular font, will require you to delete the 'config' file in the font folder first. Failure to do so will result in your settings not changing. If you are changing more than one font, delete the 'config' file in each folder before saving your config.ini!

How to change the color, effects and style of the blade per font:

`Color-1 = (255,0,0), 0, 200, 800, 0`

■ The red area indicates the font number affected.

■ The orange area 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

■ The yellow area indicates the light effect of the font:

Fire Blade = 0
Steady Blade = 1
Pulse Blade = 2
Rainbow Blade = 3
Candy Blade = 4
Unstable Blade = 5
Cracked Blade = 6

■ The green area indicates the extension speed of the blade. Common speeds are 200-300.

■ The blue area indicates the retraction speed of the blade. Common speeds are 500-800.

■ The purple area indicates the mode of the font:

Standard Blade = 0
Blaster Blade = 1
Ghost Blade = 2
Broken Ignition = 3
Warp Ignition = 4
Stack Ignition = 5
Phaser Ignition = 6
Photon Ignition = 7
Scavenger Ignition = 8
Hunter Ignition = 9

CONVERTING SOUNDFONTS:

Converting sounds over to work with XenoPixel can take some patience, but is not a difficult process. At this time, conversion must be done manually.

The font folder must be numbered sequentially; XenoPixel will not read folders with names. You won't likely have to edit any sound files from existing popular soundfont formats, such as Proffie or CFX, but you will have to remove some files, and rename others.

blaster (1).wav	2020-03-25 11:59 AM	Microsoft Wave S...	127 KB
blaster (2).wav	2020-03-25 11:59 AM	Microsoft Wave S...	127 KB
clash (1).wav	2020-03-25 11:59 AM	Microsoft Wave S...	59 KB
clash (2).wav	2020-03-25 11:59 AM	Microsoft Wave S...	51 KB
drag (1).wav	2020-03-25 11:59 AM	Microsoft Wave S...	680 KB
font (1).wav	2020-03-25 11:59 AM	Microsoft Wave S...	202 KB
font (2).wav	2020-03-25 11:59 AM	Microsoft Wave S...	414 KB
hum (1).wav	2020-03-25 11:59 AM	Microsoft Wave S...	1,379 KB
in (1).wav	2020-03-25 11:59 AM	Microsoft Wave S...	59 KB
in (2).wav	2020-03-25 11:59 AM	Microsoft Wave S...	59 KB
lock (1).wav	2020-03-25 11:59 AM	Microsoft Wave S...	1,536 KB
out (1).wav	2020-03-25 11:59 AM	Microsoft Wave S...	101 KB
out (2).wav	2020-03-25 11:59 AM	Microsoft Wave S...	114 KB
swingh (1).wav	2020-03-25 11:59 AM	Microsoft Wave S...	1,322 KB
swingh (2).wav	2020-03-25 11:59 AM	Microsoft Wave S...	1,322 KB
swingl (1).wav	2020-03-25 11:59 AM	Microsoft Wave S...	1,322 KB
swingl (2).wav	2020-03-25 11:59 AM	Microsoft Wave S...	1,322 KB
track (1).wav	2020-03-25 11:59 AM	Microsoft Wave S...	5,273 KB
track (2).wav	2020-03-25 11:59 AM	Microsoft Wave S...	8,310 KB

The above example shows XenoPixel accepted sound file types. Although the example only shows a maximum of 2 for each sound, you can add many more (tested up to 16). Windows 10 will automatically number renamed files of the same name, making converting multiple files of the same sound type much easier.