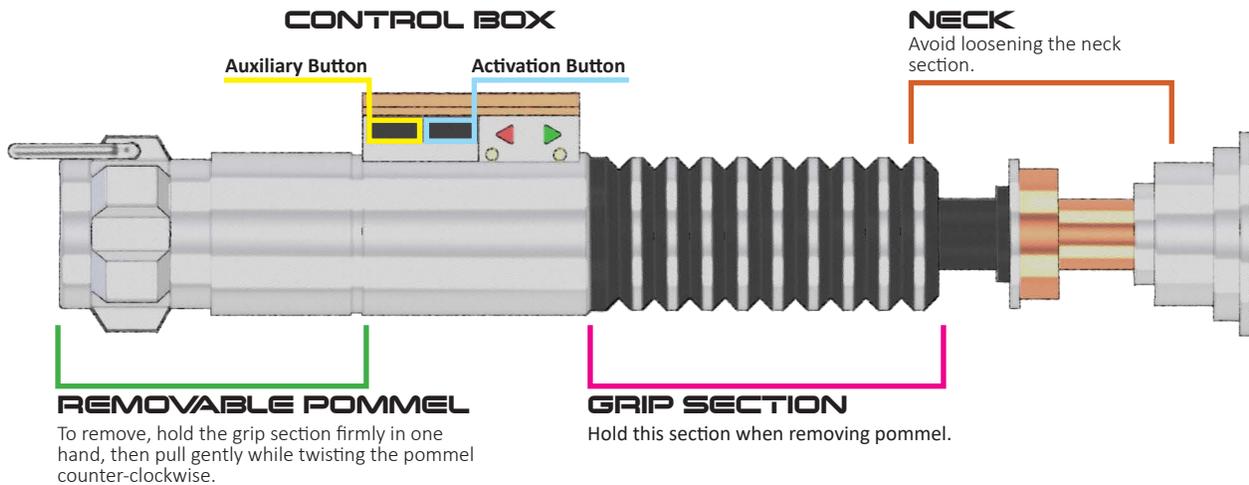




HERO

OPERATION MANUAL
v1.2.0



Congratulations on your purchase of an **EVOLUTION ARMS** Hero Saber. This saber is equipped with a high quality Plecter Labs sound card - the Crystal Focus 8.0, full details of the CF 8.0 functions, check out the documentation at plecterlabs.com

QUICK START:

After unpacking your Hero, it is best to install either a blade or a blade plug before use to avoid shining the extremely bright blade LED directly into anyone's eyes.

To install blade or plug, loosen the blade retention screw with a $\frac{5}{64}$ " hex wrench, insert the blade or plug, then gently tighten the screw until you feel slight resistance.

Warning: Do not over tighten this screw. You could damage the screw, emitter, blade, or blade plug.

To begin using your saber, remove the pommel section as directed in the diagram above. Then, remove the killkey from the charging port. Your Hero should power on.

Press the activation button to ignite the blade, hold the activation button for about $\frac{1}{2}$ of a second to deactivate the saber.

While active, you can use the auxiliary button to make the "blaster block" sound effect by pressing it once, or the "blade lockup" effect by holding it.

FOR RGB EQUIPPED HEROES:

Hero Sabers with color changing RGB LEDs, the blade color can be changed at any time by holding the auxiliary button and pressing the activation button quickly.

SAFETY/DUELING INFORMATION:

The Hero Saber is designed to be durable enough for light or moderate dueling. However, that doesn't mean that this saber is indestructible. Dents and scratches may appear if your saber impacts with hard surfaces such as concrete, gravel, other saber hilts, etc.

While Evolution Arms has designed this saber for moderate dueling, users engage in such activities at their own risk. Proper safety gear is recommended, the chances of injuries such as bruising and broken fingers are fairly high in such contact sports. Avoid overly aggressive striking, this could damage your Hero Saber, or result in personal injury.*

**Evolution Arms is not responsible for any personal injury or damage to property involving the use of our sabers.*

BOX CONTENTS:

- Hero Saber
- Two killkeys, one pre-installed
- Preconfigured Micro SD card for Crystal Focus.
- Automatic voltage-sensing charger
- Vader's Vault Dual Diffused 34" blade
- Belt Clip
- *Blade Plug(s), as ordered*

BASIC OPERATION:

To open your saber, unscrew the removable pommel (see diagram) hold the saber by the upper ribbed grip section with one hand. Then twist the lower pommel counter-clockwise a few turns while gently pulling. The lower section should come away smoothly to reveal the internal chassis.

Note: The threads are greased to ensure smooth operation, do not remove the grease.

Inside of the pommel you will find the killkey inserted in the recharging port just below the SD slot of the Crystal Focus sound board. To begin using your saber, remove the killkey. Avoid losing the kill key, as it is needed to keep the saber "off" and avoid the battery drain while not in use. A spare killkey is included with every Hero Saber.

When the killkey is removed from the charging port, the saber will power on and enter "standby" mode. When not in use, replace the killkey to fully deactivate your saber.

If the killkey is removed while the Auxiliary Button (see diagram) is pressed, the saber will boot into the sound bank selection.

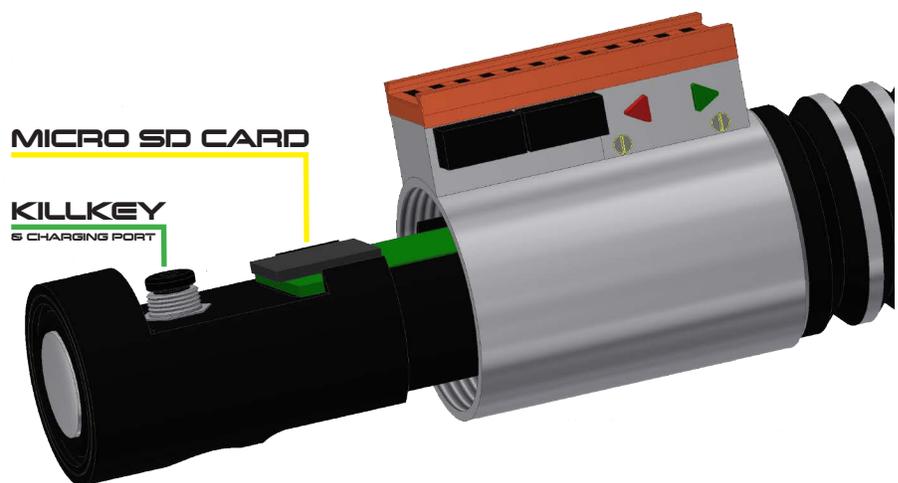
The killkey resides inside of the charging port. To charge your Hero Saber, remove the killkey and connect the included automatic voltage-sensing charger. The charger can be connected to a standard 120-240V wall outlet. Charging should take approximately 3.5 hours. The light on the

charger will turn green when your saber is fully charged.

Note: The included charger is most likely the fastest, however if you have another charger you would like to use, your Hero has a 2.1mm jack, and operates at 7.4v.

Above the killkey, you will see the end of the Crystal Focus sound board, with the included Micro SD card inserted.

Note: Always insert the killkey into the charging port before removing the Micro SD card.



See documentation for the Crystal Focus 8.0 for details on how to configure your saber via the SD card. Be sure to make a backup of the files on your card before making changes.

Changes to the configuration file, or to file names, do not require that you format the SD card. Any other changes require that the SD card be formatted first, and all files be copied back onto it. See the CF 8.0 documentation for more details.

The iSaber media player can be accessed via the sound bank selection, you should hear "audio player" when this option is selected. When using the iSaber feature, be sure to put all audio files in WAV format at 22050Hz in 16bit mono.

The Hero Saber has two buttons on the control box (see diagram) the top button is the main "activation" while the lower is the

“auxiliary” button.

Note: Some specifics listed below are configurable options on the Crystal Focus 8.0, the behaviors detailed here apply to the default configuration of the Hero Saber.

Your saber will power on when the activation button has been pressed and then released. This will ignite the blade and enable sound effects. Holding the button while the saber is active for 300ms (Approximately $\frac{1}{3}$ of a second. This timing is configurable, more on that in the Advanced Operation section.) will power it off, returning it to standby mode. In Hero Saber models equipped with control box LEDs, the LEDs will continue to blink or glow while in standby mode.

The auxiliary button provides a variety of special functions dependent on context. While the blade is ignited pressing the auxiliary button will cause the “blaster block” sound effect. Holding the aux button will cause the “blade lockup” effect.

When in standby mode, the auxiliary button can be used to enter the sound bank selection menu. You must hold the button until the saber beeps, then release and press again quickly. Once the sound bank selection menu has been entered, pressing the aux button will cycle through your options, a long press will select the current option.

Some Hero Sabers were purchased with one or more blade plugs. Blade plugs should be inserted into the emitter when there is no blade - such as when the saber is on display - to cover the bright LED.

Your blade or blade plug is kept snugly in the emitter by means of a retention screw. The blade retention screw can be adjusted with a $\frac{5}{64}$ ” hex wrench.

Note: Avoid over tightening the retention screw, as this could damage your blade, or cause it to sit insecurely.

ADVANCED OPERATION:

The Hero Saber has battery level indication available when the saber is in lockup. In this

mode, the green LED will flicker to indicate a low battery.

Motion detection is covered in the Crystal Focus 8.0 documentation. If your Hero needs to be more sensitive to swings, the “gate” parameter can be decreased in the override.txt file.

All Hero models are equipped with Bluetooth RICE hardware. This feature has fairly short range, which can be improved by removing the pommel section.

Note: The default Bluetooth pin is: 1138 For all sabers.

Your Hero will display as “HERO ##” on any connecting device. The “##” is your Hero’s production number.

You can use this feature to connect to your Hero with the RICE app for Windows or Mac OSX. RICE apps are available from plecterlabs.com.

Note: Further details on using Bluetooth RICE will be made available at a future date.

For sabers equipped with RGB color changing LEDs the blade color can be changed at any time by holding the auxiliary button and pressing the activation button quickly.

On the CF 8.0 there is generally no reason to control volume individually for each bank, however if you do choose this kind of configuration, be sure to remove the volume setting from the override.txt file. The setting will then need to go into the config.txt of all sound banks and the “tracks” folder.

All settings in the override.txt file (such as volume and motion sensing) can also be configured individually for each sound bank.

Note: Volume can be set as a whole number from 0 to 4. A setting of 0 (zero) is silent, while a setting of 4 is maximum volume.

By default, all Hero Sabers have a power off delay of 300ms requiring the activation button



to be held down for this duration to confirm powering off. This duration can easily be adjusted by modifying the `override.txt` file. Change the value of the “`offd`” parameter to half the number of milliseconds you want the delay to last. The default value is 150, which represents 300ms. If you would prefer a delay of 200ms, change the setting to 100, for a delay of 250ms, 125. For no delay, use a setting of 0 (zero).

For increased power off protection, the “`offp`” parameter can also be set to 1. With this enabled, not only will you need to hold the activation for the configured duration, you will also need to press the auxiliary button to confirm the power off.

There is also an Anti Power On Protection option, which will prevent unintended activation. This can be enabled by setting the “`onp`” parameter to 1.

Note: When this option is enabled, Mute On The Go will be disabled.

Mute on the go allows the saber to be activated with no audio. This can be done by holding the auxiliary button before activating (however, too long a hold will enter the menu). All blade effects will still function, but until deactivation the saber will be muted. When the saber is deactivated the deactivation sound will still play to indicate that mute mode has been disabled.

Your saber also supports an optional Mute on Boot feature, which can be enabled by setting the “`muteb`” parameter to 1. Mute on Boot allows the volume level of menu sounds and beeps to be selected on the fly based on the angle at which the saber is held when the killkey is removed.

DUELING:

Hero Sabers with Emitter Extensions are rated for light to moderate contact dueling. They are not indestructible, heavy contact is not recommended. Moderate safety gear, such as gloves, is always recommended.

We do not recommend using your Hero If you engage in duels that would require heavy safety gear like fencing pads and helmets.

Hero models without Emitter Extensions are no less durable, however the blade may become loose more easily when dueling.

Note: Do not attempt to compensate for a loosening blade by over tightening the setscrew.

The blade setscrew should only ever be finger tight. Over tightening will not improve blade retention, but it may damage your emitter. When the blade becomes use, simply loosen the screw, re-seat the blade, and tighten the screw “finger tight” (no tighter than you can get it easily with bare fingers).

The blade tip is the most likely part of the saber to be damaged through dueling. Nothing will prevent the tip from coming loose if it gets hit too hard. However, clear packaging tape can be used to keep the tip from flying off in the event that it does break loose.

Aside from direct hits to the tip of the blade, or overtightened setscrews, the blade should last a relatively long time. However, blades are considered a consumable part of the saber, they will wear out eventually when used for dueling. As such, the blade is never covered under the warranty.

Note: Spare and replacement blades can be purchased from our affiliate vadersvault.com.

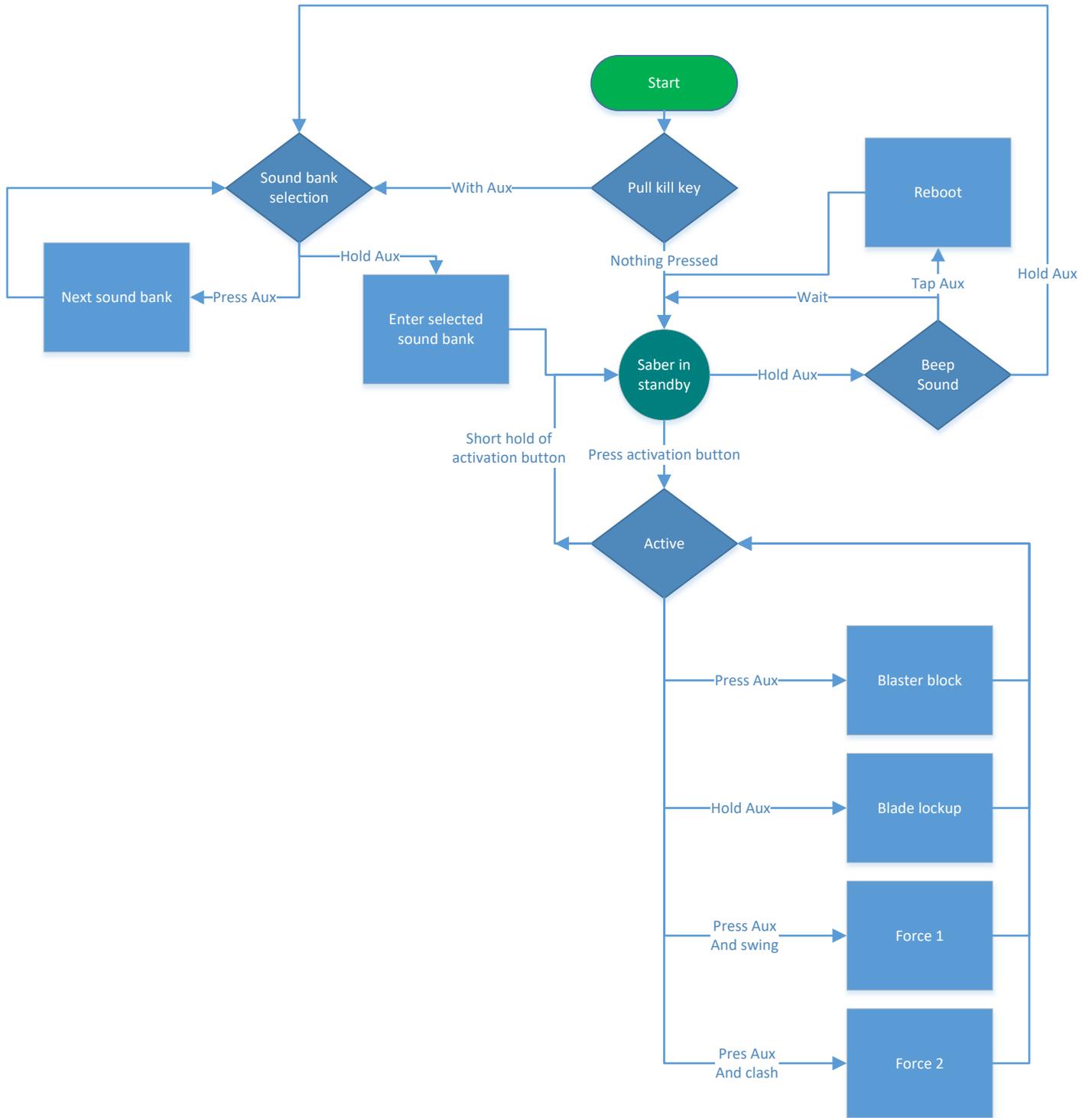
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BATTERY SAFETY WARNING:

All Hero Sabers are powered by Lithium Polymer batteries. This kind of battery is used in most consumer electronics from laptops to cell phones.

Lithium batteries do present a slight fire hazard, never charge your saber unattended. If the battery becomes hot, cease charging/use immediately. Do not attempt to replace or service your battery. This will void your warranty and could start a fire.



LIMITED WARRANTY:

This Limited Warranty covers defects in workmanship for 180 days from receipt of product.

This warranty does not cover any kind of damage due to shipping, accidents, misuse, abuse, negligence, improper handling, wear and tear, commercial use, modification, or acts of god.

This warranty does not cover damage incurred by improper maintenance or attempted repairs by parties other than Evolution Arms.

This warranty is honored at the sole discretion of Evolution Arms. Repairs for defects and damages not covered by this warranty may be repaired at Evolution Arms' discretion, and at the owner's expense.

Electronics, such as soundboards, speakers, batteries, and LEDs are not covered under this warranty. Such items are manufactured by third parties.

Electronics failures resulting from operator error are not covered under this warranty.

Plecter Labs sound boards must be repaired by Plecter Labs or an authorized service provider. You will be responsible for any and all fees this incurs.

This warranty is non-transferable.