

# Ra Clicky™ Flashlight Customization Guide

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## Introduction

This document assumes you are familiar with the Ra Clicky Flashlight User's Guide. This document provides detailed information about the internal operation of your flashlight and how to customize your flashlight to best suit your needs.

## Factory Reset

Please feel free to experiment. You can always return to the original factory settings by following these steps:

- Reset your flashlight - i.e., remove the battery for 60 seconds and reinstall. Your flashlight will light dimly for 5 seconds to indicate the reset.
- Press and hold the button before the dim reset indication turns off. The light will become brighter for 10 seconds and then turn off. Release the button when your flashlight turns off.

## Enabling Customization

Customization is disabled by default. Follow these steps to enable Customization:

- Reset your flashlight - i.e., remove the battery for 60 seconds and reinstall. Your flashlight will light dimly for 5 seconds and turn off to indicate the reset has completed. You have 10 seconds following the reset to begin the following step. After 10 seconds, your flashlight will ignore attempts to enable Customization.
- Click the button 20 or more times in rapid succession. After the 20<sup>th</sup> time your flashlight stops turning off with every other click.
- Immediately press and hold the button until your flashlight turns off. Your flashlight will display a dim-to-bright sequence to indicate it is enabling Customization and then turn off. Release the button after your flashlight turns off. Customization mode is now enabled.

We recommend you disable Customization after you finish customizing your flashlight. This allows you to hand your flashlight to anyone without fear that someone will accidentally modify your settings. See the Option Menu item #6.

## Internal Brightness levels

Your flashlight includes 23 regular brightness levels. These brightness levels are visually spaced so that the difference between any two brightness levels will appear

to be a small even change. This visual spacing takes advantage of the logarithmic nature of your eyes to see a huge dynamic range – from very bright summer scenes to dim moonlit scenes. Your flashlight can produce a range of brightness levels that spans over 2000:1. Each brightness level is separated by a ratio of 1.4:1 – enough to provide a small but noticeable difference between brightness levels.

The amount of power your flashlight consumes is related to the amount of light it is generating. The more light generated, the more power consumed. By reducing the light output by a single level at the higher output settings you can dramatically reduce the power consumption and dramatically increase the runtimes. And because of how your eyes perceive light levels, you will barely notice the difference between the two brightness levels.

The maximum brightness level – also referred to as the burst level – trades efficiency and runtime for maximum light output. The burst level is automatically limited to 10 seconds per invocation. The burst level automatically drops to the next lower brightness level after 10 seconds of use. You may return to the burst level as often as you like for another burst of maximum light.

In addition to the regular brightness levels, there are three light shows: tactical strobe, emergency strobe and SOS. These three light shows are treated as if they were additional regular brightness levels.

The following table shows the brightness levels and the corresponding lumen output. The maximum output of your flashlight will determine which row to use. The values in the table are calculated and rounded while values used in the specifications are often truncated. This may result in the numbers in the table being one digit higher than found in the specifications.

Level	23	22	21	20	19	18	17	16	15	14	13
Lumens	141	100	71	50	35	25	18	13	8.8	6.3	4.4
Lumens	170	120	85	60	42	30	21	15	11	7.5	5.3

Level	12	11	10	9	8	7	6	5	4	3
Lumens	3.1	2.2	1.6	1.1	0.78	0.55	0.39	0.28	0.20	0.14
Lumens	3.8	2.7	1.9	1.3	0.94	0.66	0.47	0.33	0.23	0.17

Level	2	1	SOS	Emergency Strobe	Tactical Strobe
Lumens	0.10	0.07	71	100	140
Lumens	0.12	0.08	85	120	170

The brightness levels are arranged in a circular menu to make scrolling through all of the brightness levels easier. The maximum brightness level is followed by tactical strobe, emergency strobe, SOS and then the minimum brightness level.

### Customizing the Brightness Settings

Your flashlight comes with 4 preset brightness settings: High, Primary, Secondary and Low. Each setting may be customized to any brightness level. Don't be fooled by the names we gave each brightness setting – we chose the names based on the factory settings. For instance, you might want to assign the tactical strobe to the High setting, a very dim brightness level to the Primary setting, a medium brightness level to the Secondary setting and the burst level to the Low setting.

Follow these steps to customize the brightness level for one of the brightness settings:

- Select the brightness setting you want to customize.
- Double-click, press and hold. Your flashlight will pause at the current brightness level for 1 second and then begin to scroll up through the brightness levels pausing two seconds at every level. When your flashlight reaches the maximum brightness level, it will double blink and pause for 3 seconds. Each light show level is then displayed for 4 seconds. Upon reaching the minimum brightness level, your flashlight will again double-blink and pause for 3 seconds before continuing through the regular brightness levels.
- **Note:** the scrolling direction reverses each time you invoke the double-click, press and hold command. If the scrolling direction is not the desired direction, release the button and repeat the double-click, press and hold command to scroll in the opposite direction.
- Release the button when you reach the brightness level you want.
- Turn off your flashlight to save the customized setting.
- **Note:** switch to a different setting prior to turning off your flashlight to undo the customization. For example, press-hold-release will momentarily switch to the High setting and then back to your selected setting and undo your customization.
- **Note:** your flashlight will turn off with 10 very rapid flashes if there is insufficient power to remember the setting.

### Customizing Features Using the Option Menu

Your flashlight offers the following features through the Option Menu:

1. Force Setting: indicated by a long flash
2. Button Lock: indicated by three rapid flashes

3. Automatic Turn Off: indicated by a bright-to-dim sequence
4. Locator Flash: indicated by a dim flash
5. Momentary: indicated by a long-short flash sequence
6. Customization: indicated by a dim-to-bright sequence

Follow these steps to customize your flashlight using a feature from the Option Menu:

- Triple-click, press-hold-release. Your flashlight will display the indication for the first menu item (Force Setting).
- Click to move to the next menu item. Double-click to reverse direction and move to the previous menu item. The menu is circular – the last item is followed by the first and the first is preceded by the last.
- Press and hold the button to select the current menu item. Your flashlight will display a dim-to-bright sequence to indicate you are enabling the feature. Your flashlight will display a bright-to-dim sequence to indicate you are disabling the feature. Release the button after your flashlight turns off.
- **Note:** your flashlight will exit the Option Menu with 5 rapid flashes if an error is detected. No settings will be changed. Possible errors include failure to hold the button down until your flashlight turns off, not pressing the button for 10 seconds or entering an unknown command.
- **Note:** your flashlight will exit the Option Menu with 10 very rapid flashes if there is insufficient power to remember the setting.

#### Option Menu Item #1: Force Setting - <long flash>

The Force Setting feature allows you to select the brightness setting used when you turn on your flashlight. Force Setting is enabled and set to Primary by default.

Disable Force Setting to allow your flashlight to remember the last setting used and to use that setting when your flashlight is turned on the next time.

Follow these steps to select one of the four brightness settings to use when your flashlight is turned on:

- Disable Force Setting.
- Select the desired brightness setting.
- Enable Force Setting.

### **Option Menu Item #2: Button Lock - <three rapid flashes>**

The Button Lock feature allows you to lock the button on your flashlight to prevent it from accidentally turning on. When the Button Lock feature is enabled and your flashlight is turned off, a triple-click will toggle the button lock – i.e., unlocking the button if it is locked or locking the button if it is unlocked. Button Lock is disabled by default.

Your flashlight will turn off when you lock the button and will turn on when you unlock the button. When the button is locked and you press on the button, your flashlight will blink 3 times to indicate the button is locked and then turn off.

### **Option Menu Item #3: Automatic Turn Off - <bright-to-dim>**

The Automatic Turn Off feature allows your flashlight to turn itself off after 10 minutes of inactivity. This can be handy if you carry your flashlight in your pocket and it gets accidentally turned on or if you fall asleep with your flashlight turned on. Automatic Turn Off is disabled by default.

Your flashlight will turn off gradually, dimming one brightness level each second. When the minimum brightness level has been reached, your flashlight will blink slowly 10 times and then turn off. You can click the button at any time during the sequence to return your flashlight to the original brightness level and to reset the Automatic Turn Off timer for another 10 minutes.

### **Option Menu Item #4: Locator Flash - <dim flash>**

The Locator Flash feature allows your flashlight to emit a brief flash of dim light every three seconds when turned off. The periodic brief flash makes it easier to find your flashlight in the dark. The Locator Flash is disabled by default.

### **Option Menu Item #5: Momentary - <long-short flash>**

The Momentary feature allows your flashlight to differentiate between a click and a press-hold-release when your flashlight is turned off. A press-hold-release will act in a momentary fashion when Momentary is enabled – i.e., turning off your flashlight when the button is released. A press-hold-release acts like a click when Momentary is disabled. Momentary is disabled by default.

### **Option Menu Item #6: Customization - <dim-to-bright>**

The Customization feature allows you to control access to the brightness menu and Option Menu controls. This menu item can only be used to disable Customization. See Enabling Customization, above, to enable Customization. Customization is disabled by default.