

# *MJP Extreme III*

## User Interface Guide

### Definitions

#### P1 and P2

P1 and P2 are *specific ranges of rotation* of the flashlight head from the off position. They are *not* specific points. The transition point from P1 to P2 (approximately 180 degrees from "off", where the two dots on the body are) *is a specific point*.

#### P1

*Any* position that the head is in when turned *any* amount from "off" (head screwed tight) to approximately 180 degrees of rotation (one half turn, where the two dots on the body are) where P2 starts.

#### P2

*Any* position that the head is in when turned *beyond* where P1 ends (approximately 180 degrees, where the two dots on the body are, or one half turn from "off"), to approximately 360 degrees (one full turn).

#### SW

An "SW" is a switching procedure, which involves moving the head from P1 to P2 and then back to P1 again or, from P2 to P1 and back to P2 again. Doing this progression twice is 2 SWs, doing it three times is 3 SWs etc. The time between each movement should be less than one half second, in other words, after moving from P1 to P2 you should move back to P1 in less than one half second to complete one SW. This rule applies to successive SWs as well.

It is important to remember that physically, P1 and P2 are ***ranges***, ***not points***. When performing SW operations, you can actually be really sloppy, as long as during your twists the transition point between P1 and P2 (180 degrees, where the two dots on the body are) is crossed in the movement, and you do not accidentally hit "off". See below under ***User adjustable mode*** for more detailed information on performing SWs.

Except where noted, all SW progressions in this guide assume you are starting in P1 (and thus, ending in P1). It is possible to start in P2, but as noted later in this guide, pertaining to programming, the functions of P1 and P2 are different, in that P1 is used to set or stop, whereas P2 is used to increase/decrease, or lengthen/shorten. It is better to stop where you are stopped than to stop where you are moving. Therefore, it is recommended to always start SW procedures in P1 position, unless otherwise noted. Also, before performing any other "twists" after an SW procedure, ***always wait 1 second*** before doing anything else. This allows the instruction to "set".

## Basic Functions

### Turning the light on

Twisting the head ***any*** amount from "off", after a half second or so, will result in activation of the light. Initially (within the first 180 degrees of rotation), the light will be in P1. As the head is turned farther, at approximately the 180 degree point (1/2 turn), where the two dots on the body are, the light will go into P2. Turning farther, at approximately 360 degrees of rotation (one full turn), the light will turn off. In practical use, there is no reason to ***ever*** turn the head much more than 180 degrees. Well, OK, you may want to change the battery someday, in which case you would completely unscrew the head.

### Standard mode

Standard mode is the basic two level mode. It can be activated from

any other mode by one 1 SW. The default output of P1 is 15% and P2 is 50%. The brightness level of both P1 and P2 can be adjusted in **Programming function mode**.

## User adjustable mode

The user adjustable mode is, in essence, a third *adjustable* level. Not as straightforward as the standard mode P1 and P2, but nonetheless a very useable feature of the UI.

***To activate the user adjustable mode***, perform 2 SWs. Turn on the light to the P1 position. Let's say you turned the head 3/8ths of a turn and you are 3/4ths of the way between "off" and the two dots, which is the 180 degree point where P2 actuates. At this point, 2 SWs will place the light in user adjustable mode. To do this, twist the head from your initial 3/8ths turn position to *beyond* the two dots, (to perhaps make it easier, turn the head 1/4 turn farther than where you are, this will move it the remaining 1/8th turn to where P2 activates, plus an additional 1/8th turn into P2) then, turn back to where you started, turn again 1/4 turn (1/8th turn past the two dots,) and then back to where you started, wait one second for it to set. You have now accomplished 2 SWs and the light is in user adjustable mode, P1 position.

The default level is 50%. If you want to ***increase the brightness level***, turn the head to P2 (some point beyond the two dots) and the light will start getting brighter. When the maximum brightness level is reached, the light will flash once. At any point during this sequence, if you turn the head back to your original P1 position, the light will be locked at that level ***and*** remember the level when you turn the light off and back on again (to the P1 position, otherwise, if you go to P2, the light will start getting brighter and you are effectively attempting to reset it).

To ***decrease the brightness level*** from the default or wherever it's presently set, start at P1 then perform 2 SWs (P1/P2/P1/P2/P1) wait one second. Now, turn the head to P2, the light will start getting dimmer. At minimum brightness, the light will stop dimming. Again, when the level reaches the level you desire, turn back to P1 to set it, after which, you can turn it off, and when you turn it back on (to the P1 position), it will remember the level you set. It will also remember this setting if you go to

standard mode, SOS, or strobe mode, when you return to user adjustable mode.

Also, if you are running the brightness up or down while in P2, and go past where you wanted to stop it, you can do two SW's while in P2 (P2/P1/P2/P1/P2) to reverse the direction. Then, when it is at the level you want, turn it to P1 to set it.

Remember, when adjusting levels, P1 is the set or stop position and P2 either increases or decreases.

## **Strobe mode**

Strobe mode is activated by 3 SWs. You can start from either P1 or P2, from any other mode. P1/P2/P1/P2/P1/P2/P1 *or* P2/P1/P2/P1/P2/P1/P2. The default brightness of P1 is 50% and P2 is 100%. The brightness level and interval can be adjusted for both P1 and P2 in **Programming function mode**.

## **SOS mode**

SOS mode is activated by 4 SWs. You can start from either P1 or P2, from any other mode. P1/P2/P1/P2/P1/P2/P1/P2/P1 *or* P2/P1/P2/P1/P2/P1/P2/P1/P2. The default brightness of P1 is 6.5% and P2 50%. The brightness level of both P1 and P2 can be changed in **Programming function mode**. The time interval of SOS can not be changed.

## **Battery voltage**

The battery voltage function is activated by 5 SWs. You can start from either P1 or P2, from any other mode. P1/P2/P1/P2/P1/P2/P1/P2/P1/P2/P1 *or* P2/P1/P2/P1/P2/P1/P2/P1/P2/P1/P2. The readout works like this. It will flash one or more times, then there will be a two second pause, then it will flash again. The first group represents Volts, then after the pause (the decimal point), the tenths of a volt are represented.

One long 1 Hz flash = 1  
Two long 1 Hz flashes = 2  
and so on, through 9  
Two quick flashes@ 2 Hz = zero (0)  
Two second pause = decimal point

A couple of examples:

Three long flashes, a two second pause, then 6 long flashes = 3.6 Volts  
Two short flashes, a two second pause, then 8 long flashes = 0.8 Volts

After the readout, the light will return to the previous mode.

## **Demo function**

The Demo function is activated by 7 SWs. You can start from either P1 or P2, from any other mode. The demo function steps the light through all operation modes. It disables the ability to perform SWs while it is running. You can just turn the light off, if you want to stop it. When the Demo is finished, the light will return to normal operation in whatever mode it was in initially.

## **Rechargeable battery over discharge protection function**

This function is activated by 8 SWs. After performing 8 SWs, the light will indicate which mode it is in.

Disabled/Off = slow flash (1 Hz)  
Enabled/On = fast flash (2Hz)

To change the setting, perform 2 SWs (P1/P2/P1/P2/P1). Repeating the 2 SWs again will revert it back to where it was. In other words, 2 SWs toggle between On and Off. It is not a bad idea to switch it back and forth a couple times, to make sure you recognize one from the other. ***To save the change, perform 3 SWs.***

With this function enabled/ON, the light will flash 3 times every 40 seconds when a NiMH reaches 1.0 Volts or a Li-Ion reaches 3.0 Volts. When a NiMH reaches 0.8 Volts or a Li-Ion 2.8 Volts, the light will flash rapidly for 6 seconds, and then shut off to protect the battery from over discharge. Keep in mind, due to the electronics, there is still a *very* small drain on the battery when the light shuts off. It is recommended to remove or replace the battery.

## Reset function

To reset all the functions and modes of the light to the factory defaults, perform 10 SWs. Remember, *all* programming you have done will be reset to the factory defaults!

# Programming function mode

The Programming function mode is activated by 6 SWs. The programming function mode allows changing the settings of 6 of the basic functions, in this order.

Standard mode P1 brightness level  
Standard mode P2 brightness level  
Strobe mode P1 brightness level and interval  
Strobe mode P2 brightness level and interval  
SOS mode P1 brightness level  
SOS mode P2 brightness level

The programming function progresses in a linear fashion. That is, when you first activate it, it will be at the brightness level setting stage for standard mode P1. After setting *and saving* the P1 brightness level, it will *automatically* advance to the P2 brightness level setting stage. After setting *and saving* P2 brightness level, it will *automatically* advance to the P1 strobe adjustment and so on until finally, you have set SOS mode P2

brightness level (the last setting in programming function mode), then, when you have set and saved it, it will revert to the mode you were in before you initially went into programming function mode.

[**Note:** Once you have set *and saved* the parameters of the function you want to change, if you are not going to change any others, you can just turn the light off. For example, if you just want to change the brightness level of standard mode P2, once you have set *and saved* it, you can just turn the light off. There is no need to step through the remaining function setting stages, however the light may retain the mode of the setting stage it was in before you turned it off, just change it back to the desired mode.]

## **How to proceed through the Programming function sequence**

1. In any mode, turn the light to P1.
2. Perform 6 SWs, wait at least 1 second. You are now in Programming function mode and ready to set the brightness level of standard mode P1.

3. Setting the brightness level for **standard mode P1**.

**Choose a, b, or c.**

(a) If you want to *increase the brightness level* of P1, turn the head to P2. The brightness will start to increase. When the maximum brightness level is reached, the light will flash once and remain at maximum brightness. At any point the level is what you want to save, turn the head back to P1, wait at least one second, then perform 3 SWs. This will save your setting for standard mode P1, and the UI will advance to the brightness level setting stage for standard mode P2.

(b) If you want to *decrease the brightness level* of P1, perform 2 SWs, wait at least 1 second, then turn the head to P2. The light will start decreasing in brightness. At minimum brightness, the light will stop dimming. At any point the level is what you want to save, turn the head

back to P1, wait at least 1 second, then perform 3 SWs. This will save your setting for standard mode P1, and the UI will advance to the brightness level setting stage for standard mode P2.

(c) If you are satisfied with the present level of standard mode P1 and do not want to change it, perform 3 SWs. This will save the existing setting, and the UI will advance to the brightness level setting stage for standard mode P2.

#### 4. Setting the brightness level for **standard mode P2**.

This works just the same as when setting standard mode P1, but remember, because of the linear way in which Programming function mode works, you have to go through each setting from the beginning (in this example, the setting for P1), to arrive at the one you want to change. Also remember, you can effectively skip changing settings by performing 3 SWs, which just saves the existing setting and moves on to the next stage.

#### 5. Setting brightness level and interval for strobe P1 and P2.

These stages actually consist of three separate settings for each, strobe P1 and strobe P2. They are, setting brightness level, setting ON interval, and setting OFF interval. ***When saving settings for either strobe P1 or strobe P2, it will apply to all three settings***, there is no way to save each individual setting, only the three, as a group.

**[NOTE: To effectively skip a setting if you do not wish to change it.** This applies to strobe function settings ***only***. When the UI arrives at strobe P1 settings stage, by default it will be at the **brightness level setting**. ***If you do not want to change any settings for strobe P1*** (brightness level, ON interval or OFF interval), you can perform 3 SWs and this will save ***all*** the existing settings for strobe P1, and the UI will advance to strobe P2 settings. Otherwise, if you do not wish to change the **brightness level setting**, you can toggle to the **ON interval/OFF interval settings** by performing 4 SWs. By default, this brings you to the **ON interval setting** (You can also go back to the brightness level setting by performing 4 SWs again). If you do not want to change this setting, you can perform 1 SW. This will bring the



UI to the **OFF interval setting** (You can also go back to the ON interval setting by performing 1 SW again). When you are finished setting whichever setting(s) you changed, perform 3 SWs, this will save *all three* settings, and the UI will advance to strobe P2 settings. This method will work in the P2 strobe setting stage as well. *Once again, remember to wait at least 1 second after performing SW operations, so the instruction will set.*]

## 6. Setting brightness level and interval of **strobe P1**

The UI by default, will start at the **brightness level adjustment** stage for strobe P1.

### **Choose a or b**

(a) If you want to *increase the brightness level* of strobe P1, turn the head to P2. The brightness will start to increase. When the maximum brightness level is reached, the light will flash (out of sequence with the strobe). At any point the level is what you want to save, turn the head back to P1, wait at least one second before going on.

(b) If you want to *decrease the brightness level* of strobe P1, perform 2 SWs, wait at least one second, then turn the head to P2 position. The brightness will now start decreasing. At minimum brightness, the light will stop dimming. At any point the level is what you want to save, turn the head back to P1, wait at least 1 second before going on.

Now, *to adjust the ON/OFF interval*. Perform 4 SWs, which will place the UI in the ON/OFF interval adjustment stage.

**[NOTE:** It is important to realize that the time it takes to span the entire range of ON and OFF intervals when adjusting, is **2 minutes**! Particularly, at the longer end, it's hard to tell it is changing at all. At the short end it changes very quickly.]

Initially, the UI will be at the adjustment stage for **setting the ON interval** of the strobe. This is the amount of time the light is on during the strobe.

**Choose a, or b.**

(a) To *increase* the ON interval, turn the head of the flashlight to P2. The time period the light is on will increase. When the maximum interval is reached, the light will blink once (out of sequence with the strobe). At any point the interval is what you want to save, switch back to P1. Wait at least 1 second before going on.

(b) To *decrease* the ON interval, perform 2 SWs, wait at least 1 second, then turn the head to P2. The time period the light is on will decrease. When the minimum interval is reached, the light will blink once (out of sequence with the strobe). At any point the interval is what you want to save, switch back to P1. Wait at least 1 second before going on.

Now, **to adjust the Off interval.** Perform 1 SW. This will place the UI in the Off interval setting stage. This is the amount of time the light is off during the strobe.

**Choose a, or b**

(a) To *increase* the OFF interval, turn the head of the flashlight to P2. The time period the light is off will increase. When the maximum interval is reached, the light will blink once (out of sequence with the strobe). At any point the interval is what you want to save, switch back to P1. Wait at least 1 second before going on.

(b) To *decrease* the OFF interval, perform 2 SWs, wait at least 1 second, then turn the head to P2. The time period the light is OFF will decrease. When the minimum interval is reached, the light will blink once (out of sequence with the strobe). At any point the interval is what you want to save, switch back to P1. Wait at least 1 second before going on.

**When you have completed the setting of P1 strobe's brightness level, ON interval and OFF interval, perform 3 SWs to save the settings.** The UI will then advance to the strobe P2 setting stage.

## 7. Setting brightness level and interval of **strobe P2.**

Setting strobe P2 parameters is the same as setting strobe P1 parameters. **After setting brightness level, ON interval, and OFF interval, do not forget to perform 3 SWs to save the settings for strobe P2.** Then the UI will advance to the SOS P1 setting stage.

#### 8. Setting the brightness level of **SOS P1**.

**Choose a,b, or c.**

(a) If you want to *increase the brightness level* of SOS P1, turn the head to P2. The brightness will start to increase. When the maximum brightness level is reached, the light will flash (out of sequence with the SOS) and remain at maximum brightness. At any point the level is what you want to save, turn the head back to P1, wait at least one second, then perform 3 SWs. This will save your setting for SOS P1, and the UI will advance to the brightness level setting for SOS P2.

(b) If you want to *decrease the brightness level* of SOS P1, perform 2 SWs, wait at least one second, then turn the head to P2. The light will start decreasing in brightness. At minimum brightness, the light will stop dimming. At any point the level is what you want to save, turn the head back to P1, wait at least 1 second, then perform 3 SWs. This will save your setting for SOS P1, and the UI will advance to the brightness level setting for SOS P2.

(c) If you are satisfied with the present level of SOS P1 and do not want to change it, perform 3 SWs. This will save the existing setting and the UI will advance to the brightness level setting for SOS P2.

#### 9. Setting the brightness level of **SOS P2**.

This works the same as for setting the brightness level for SOS P1.

10. After setting and saving the brightness level for SOS P2, the UI will return to the mode the light was originally in.