

Congratulations on the purchase of your new Photon Freedom Fusion! The New Freedom Fusion Flashlight/Headlight is the ultimate in High Power, Multi-Purpose LED lights. This manual will help ensure that you get the maximum use and enjoyment out of your new purchase.



- Included with your Fusion:
- Head Strap • Draw String Bag • Belt Clip
 - 3 Energizer® AA Batteries • Bike Clamp (Available by special order.)

BATTERY INSTALLATION

To install batteries, open battery box and insert 3 AA batteries as shown. The Fusion requires the correct polarity so be sure to insert the batteries according to "+" and "-" on inside lid of battery box.

Note: We suggest using the edge of a coin to release the closure tab when opening the battery case. The battery case is designed with a tight close in order to maintain optimum continuity with the batteries, but if you hold the cover down firmly, the latch will release easier. This action takes the strain off of the latch.



MODE

Brightness Control uses Pulse Width Modulation or PWM. The internal microcircuit pulses the LED's on and off at a variable frequency turning the light on and off so rapidly, it is not visible by the naked eye. This rapid on/off and variable pulse creates the different values of brightness.

6 Primary LED's	2 Secondary LED's
This mode allows you full range brightness control. The full brightness level provides the best power to light output ratio. For energy efficiency, try the lowest brightness level (The lower the lighting level, the longer the battery life). At the minimum brightness, the Fusions pulsed light output is approx. 720 micro-seconds, then it is off, until the next pulse. The repetition rate is about 190 times per second.	Most energy efficient. At the minimum brightness, the Fusions pulsed light output is approx 160 micro-seconds, then it is off until the next pulse. The repetition rate is about 175 times per second.

The following Safety Features can be accessed in either the Primary LED's or the secondary LED's

Slow Beacon Attention Signal Flashes once every 4 seconds - .25 Hz. Will continually flash for days.	Medium Beacon Attention Signal Flashes in an on-off-on beat in one second intervals - 2 Hz.	Fast Beacon Attention Signal A very rapid strobe - 10 Hz. Used for signaling or just for fun.
SOS Beacon International Distress Signal Continuously flashes the International Morse Code for distress (SOS). This is an extremely bright beacon. Visible to planes with altitudes of up to 10,000 feet or more.		Signal / Morse Code The light operates as a squeeze only light. Used for signaling, Morse Code and battery life extension.

Note: For the expert user, SOS can be accessed as the first lighting choice. Once the light blinks at end of the brightness control mode, quickly release hold at the very first beacon flash. To exit, press and release at any time.

Warning Lights

When battery power becomes insufficient, the Fusions Secondary LED's will flicker while the Primary LED's maintain the highest level of brightness allowed by the batteries. You may notice a rapid flicker in the Primary LED's. This is PWM (see Pulse Width Modulation under Brightness Control). This flickering of light is a warning that your batteries are ready to be replaced. In the meantime, you may press and hold to lower your brightness level to get rid of the flickering warning light. When battery power becomes insufficient to maintain that level of brightness, the secondary flashing warning will come back on. This warning is to ensure that you will never be left in the dark. So even if you have close to dead batteries, Freedom Fusion will continue to shine through for you.

Freedom Fusion also comes with a built-in smash protection mode. This will help to ensure that your light won't accidentally turn on and stay on while being transported or stored. Simply press and hold the button for about 45 seconds. You will notice that your light stops cycling through the modes and turns off.
Hint: While your light is in storage, you may want to turn the Fusion head so that the button faces down. This will also help to ensure that the light will not be inadvertently turned on while being stored.

Energy Saver- Secondary Beam Only: This energy saving mode will provide the same quality of brightness as the normal mode, but causes the light to pulse at a rate of 90 cycles per minute, increasing the life of the batteries. To do this, press and hold until the two LED's come on (the lowest brightness level). Press and hold again until the "blink" is reached and release again. The light will now pulse at 90 cycles per minute until the light is either turned off or cycled through the other modes.

RE-CONFIGURATION FOR VERSITILITY

Your Fusion can be quickly converted from headlight to flashlight to table light. To disconnect the head straps, use a coin to pop the lower tab of the head strap mounting block off the battery case. The head may be mounted on the side or the top of the unit. Simply unscrew the head and move to the desired position and reattach.



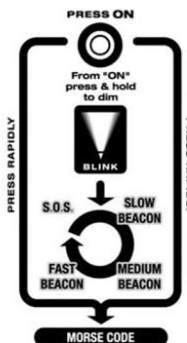
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EASY OPERATION GUIDE

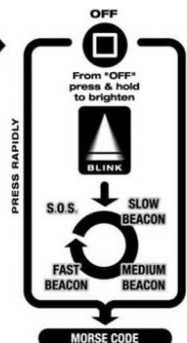
SINGLE BUTTON OPERATION - QUICK REFERENCE GUIDE



Primary Beam 6 LED's



Secondary Beam 2 LED's



Press Button for Instant On or Off.
Brightness Control - 6 Primary LED's
- Press and Release to turn on.
- Press and hold for a dimmer white beam.
- Release hold at desired brightness.
(There will be a "blink" when Fusion has reached the lowest lighting level.)

Brightness Control - 2 Secondary LED's
- Press - Hold - Release to turn on.
- Press and hold for a brighter red beam.
- Release hold at desired brightness.
(There will be a "blink" when Fusion has reached the brightest lighting level.)

Safety Beacons - Primary or Secondary LED's
- Press and Hold past Brightness Control "blink".
Fusion will begin cycling through the Safety Beacons:
- Slow Beacon
- Medium Beacon
- Fast Flash or S.O.S.
- Release hold at desired beacon.

Signal / Morse Code - Squeeze Only Light
- Press button rapidly until light will not stay on.
- To exit, press and hold until light turns off.

OPERATION OF YOUR NEW FREEDOM

ON / OFF

6 Primary LED's On - press and release. Off - press and release again.	2 Secondary LED's On - press - hold - release. Off - press and release. Note: The hold is just long enough to access the 2 secondary LED's. It is about a 1 second hold.
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BRIGHTNESS CONTROL

Primary LED's Press / release to turn on. This is the maximum brightness. To achieve a dimmer light, press and hold until the desired brightness is reached, then release. Press and hold again if you would like a dimmer light beam.	Secondary LED's Press / hold / release to turn on. This is the lowest brightness. To achieve a brighter light, press and hold until the desired brightness is reached, then release. Press and hold again if you would like a brighter light beam.
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Note: You will notice a "blink" at the end of the brightness control function. This indicates the brightest setting for the Secondary LED's and the dimmest setting for the Primary LED's. If you continue to hold past the "blink", Fusion Freedom will continue through to the Safety Features.

SAFETY FEATURES

Slow Beacon - Medium Beacon - Fast Beacon - SOS
The above Safety Features can be accessed in the Primary or Secondary LED's by continuing hold past Brightness Control. Continue to hold past the "blink" when in the Primary LED Brightness Control, this will access the Primary LED Safety Features. Continue hold past the "blink" when in the secondary LED Brightness Control, this will access the Secondary LED Safety Features. Release hold at desired feature. The features cycle circularly and will repeat if you continue hold.

SIGNAL / MORSE CODE

Primary LED's Rapidly turn on and off the light until the light will not stay on when hold is released (4 times). To exit, press and hold until the light will not stay on (approx 3 seconds).	Secondary LED's (For the expert user) A little tricky, but try it! Rapidly turn on and off the light 4 times or until the light will not stay on. - Press and hold until secondary lights barely come on. - Quickly turn off. - Repeat 4 times. The light will provide full brightness in squeeze only mode.
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TIPS / TROUBLESHOOTING

- Light only dims from the primary LED's and brightens from the secondary LED's.
- If your light will not turn on, check that the batteries are inserted properly. See polarity on reverse side.
- If the light doesn't seem to be getting as bright as it used to, it may be time to change the batteries.
- If your Fusion will only stay on for a few seconds then turns off, simply open the battery case, and then re-close it. (The Fusion's circuitry is designed with a Point of Purchase demonstration mode and is a true function of the light. If you wish this to be an option as part of your lighting modes, first you must open the battery case. Then press and hold the button down while you re-close the case. Your light will now be in the POP mode and will only stay on for 6 seconds. You will have access to the brightness control modes for both Red and White beams, however you will not be able to activate the Safety Features. To exit the POP mode, press and hold the button down until the light turns off.



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