

## Introduction

Thanks for your purchase of LF2 flashlight. A new designed 2-stage switch mechanism and MCU control circuit are included. LF2 supports 4 operation modes and 5 useful functions. You can access any operation mode by few times of switching action, didn't need to pass through the useless mode. You can adjust intensity from very dim to brightest easily by using **user adjusted** mode. All the intensity of operation modes can be adjusted and stored settings into **EEPROM** in **MCU** (Standard, Strobe and SOS mode only). Strobe mode can be adjusted into many kinds of strobe format by setting ON and OFF periods to meet what you want further. You will find that LF2 is powerful and useful to meet any application.

## Battery Replacement

1. Remove the head cap by completely unscrewing it counter-clockwise.
2. Install AAA battery with the positive (+) end up, toward the head cap.
3. Replace the head cap and turn clockwise to secure.

## Definition

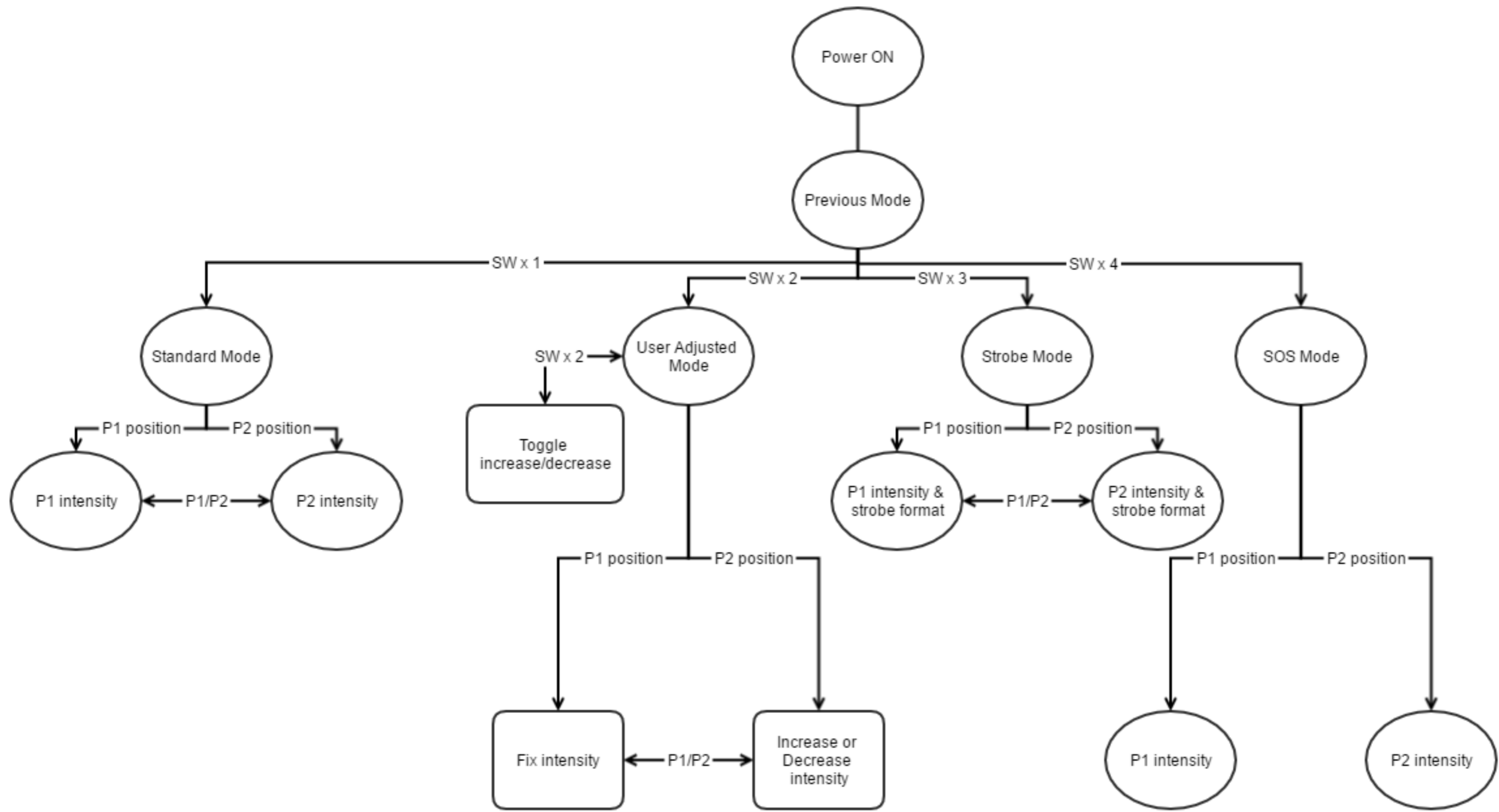
1. Shut down position: Turn head cap clockwise or tube body anti-clockwise to secure.
2. Position 1 (abbreviation: **P1**): 1/4 turn from shut down position to loosen.
3. Position 2 (abbreviation: **P2**): More 1/4 turn from Position 1 to loosen.
4. Switch cycle (appreviation: **SW**):
  - (1) From P1 to P2 and back to P1, all the periods must less than 1 second.
  - (2) From P2 to P1 and back to P2, all the periods must less than 1 second.

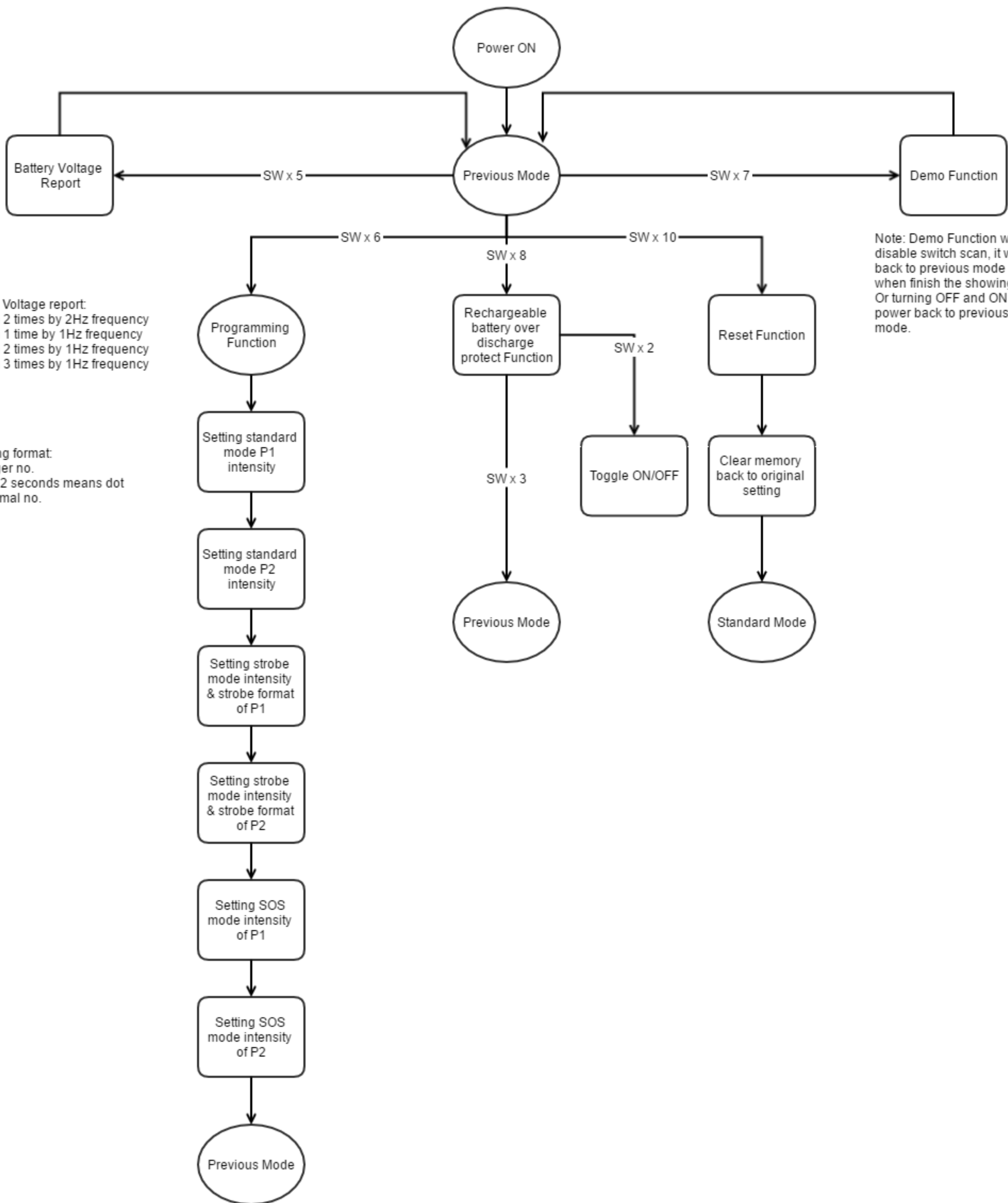
## Operation modes exchange and description

1. Standard mode: In any operation mode **SW** x 1 will change to standard mode. There are two positions indicated two different intensity output (**P1** & **P2**). Both of the intensity can be set by using programming function.
2. User adjusted mode: In any operation mode **SW** x 2 will change to user adjusted mode. In user adjusted mode, **P1** position means fixed intensity and **P2** means a changing intensity position. In **P2** position will increase or decrease intensity. Inc or Dec are depend on the setting flag which is Inc initially and can be toggle to Dec by **SW** x 2.
3. Strobe mode: In any operation mode **SW** x 3 will change to strobe mode. There are two positions indicated two different intensity and strobe format output (**P1** & **P2**). Intensity and strobe format can be set by using programming function.
4. SOS mode: In any operation mode **SW** x 4 will change to SOS mode. There are two positions indicated two different intensity output (**P1** & **P2**). Both of the intensity can be set by using programming function.

## Function description and operation

1. Battery voltage report: In any operation mode **SW** x 5 will go into battery voltage report function. On the beginning turn off output and measure the voltage of battery after that begin to flash indicated voltage in format – integer no. – blank 2 seconds – decimal no. When finish showing will back previous operation mode.
2. Programming function: In any operation mode **SW** x 6 will go into programming function, there are 6 parameter needing to set (standard mode P1 - standard mode P2 - strobe mode P1 - strobe mode P2 - SOS mode P1 - SOS mode P2 in serials).
  - (1) Standard mode P1: Setting the intensity of standard mode P1 position, method is similar to user adjusted mode. **SW** x 2 toggle Inc/Dec (default is Inc), in **P2** position Inc or Dec intensity and in **P1** position fix the intensity. After setting the intensity what you want **SW** x 3 will save the setting and go next setting.
  - (2) Standard mode P2: Setting the intensity of standard mode P2 position, method is the same as (1).
  - (3) Strobe mode P1: Setting intensity and strobe format of strobe mode P1 position.
    - (I) In the beginning is set intensity, method is similar to (1).
    - (II) **SW** x 4 will toggle intensity or strobe format setting.
    - (III) In strobe format setting **SW** x 1 toggle ON period or OFF period. **SW** x 2 toggle Inc/Dec period (default is Inc). **P1** means fix period position and **P2** means changing period position (Inc or Dec).
    - (IV) After set the intensity and strobe format **SW** x 3 will save it and go next.
  - (4) Strobe mode P2: Setting intensity and strobe format of strobe mode P2 position. Method is the same as (3).
  - (5) SOS mode P1: Setting intensity and strobe format of strobe mode P2 position. Method is the same as (1).
  - (6) SOS mode P2: Setting intensity of SOS mode P2 position. Method is the same as (1). **SW** x 3 will save the setting and go back to previous operation mode.
3. Demo function: In any operation mode **SW** x 7 will go into demo function. Demo function will disable **SW** detection and show all operation modes once. After finish showing modes will back to previous operation mode or you can turn OFF and ON to back to previous mode.
4. Rechargeable battery over discharge protect function: In any operation mode **SW** x 8 will go into this function. **SW** x 2 toggle ON/OFF, ON enable rechargeable battery over discharge protect function and indicated flash by 2 Hz frequency, OFF disable this function and indicated flash by 1 Hz frequency. **SW** x 3 save setting and back to previous operation mode.
5. Reset function: In any operation mode **SW** x 10 will go into reset function, and will clear data in EEPROM to original setting. After that will back to standard mode.





Battery Voltage report:  
 0: flash 2 times by 2Hz frequency  
 1: flash 1 time by 1Hz frequency  
 2: flash 2 times by 1Hz frequency  
 3: flash 3 times by 1Hz frequency  
 .  
 .  
 .

Showing format:  
 1. Integer no.  
 2. OFF 2 seconds means dot  
 3. Decimal no.

Note: Demo Function will disable switch scan, it will back to previous mode when finish the showing. Or turning OFF and ON the power back to previous mode.

