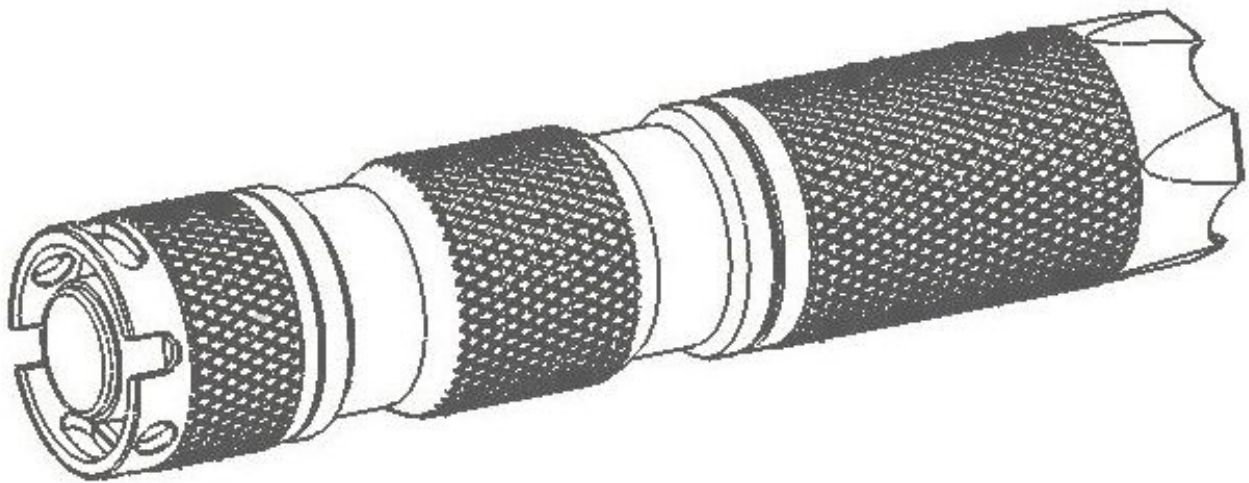


LF5XT 操作手冊

Operation Manual



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Introduction :

LF5X is a tactical flashlight with MCU through a single push-button switch to control the operation modes . There are five operation mode maximum and can be user defined down to single mode . Every operation mode can be set to one of the following output type – Brightness output , Strobe , Beacon flash and SOS . By using setting mode user can program their personal wanted style . LF5XT provides four further function modes – Momentary function switch , Rechargeable battery over-discharge protection , Mode number setting and Reset -- that user can define and set to meet all operated situation .

Definition :

- **Click** (shorten : C) : Press the push-button switch quickly and release , the timing must less than 0.4 second . That is similar to operate a mouse of computer .
- **Press & Hold** (shorten : PH) : Press the push-button switch and hold more than 1 second .
- **Muti-click or plus PH command** : The interval of every click or press & hold must be less than 0.4 second . Ex: command

3xC will be click , release switch for less than 0.4 second ,
click , release switch for less than 0.4 second , click and release
switch for more than 0.4 second as an end of command .

Power Off Mode :

● Momentary function switch Off :

1. **1xC** : Power on and load saved mode .
2. **PH** : 100% brightness output and turn off when release push-button switch .
3. **1xC + PH** : 100% brightness random strobe and turn off when release push-button switch .

● Momentary function switch On :

1. Any press of push-button switch shows the saved mode momentary and turn off when release the switch .
2. **1xC** : Power on and load saved mode .

Main Operation Mode (Power On Mode) :

There are five operation modes maximum , user can define it by using function mode 3 to set the operation mode number . Default setting is five operation modes : Mode 1 , Mode 2 Mode 5 . If

the operation number set to three then the modes are Mode 1 , Mode 2 and Mode 3 .

Every operation mode can be defined to one of the four output style – Brightness output , Strobe , Beacon flash and SOS .

- Strobe : 8 kinds of frequency output and a random strobe
- Beacon flash : Both of Single flash and Double flash with 8 kinds of frequency output .

Command :

1. **1xC** : Power off . Before turn off the power will save current operation mode to memory . Next power on will into this mode directly .
2. **2xC** : Next operation mode . Mode 1 -> Mode 2 -> Mode 3 ... Mode 5 -> Mode 1 in serial . If the mode number is 3 then : Mode 1 -> Mode 2 -> Mode 3 -> Mode 1 in serial .
3. **5xC** : Battery voltage report . First shows the integer number , one second blank , and decimal number finally . Double flash quickly means 0 .
4. **PH** : In any operation mode PH command shows 100% brightness output and back to previous operation mode when push-button switch released .

5. **1xC + PH** : In any operation mode 1xC + PH command shows 100% brightness random strobe and back to previous operation mode when push-button switch released .
6. **3xC + PH** : Setting mode entry . Set current operation mode only . Ex : Now is Mode 2 , 3xC + PH will go into Mode 2 setting mode .
7. **4xC + PH** : Function setting mode entry . There are four function modes can be set – Momentary , Over-discharge protection , Mode number and Reset .

Function Setting Mode :

1. **Indicated Signal** : Every time into function setting mode will be always in first mode (Momentary function setting mode) .
 - Momentary : flash 1 time , 2 seconds blank and repeat .
 - Rechargeable battery over-discharge protection : flash 2 times , 2 seconds blank and repeat .
 - Mode number setting : flash 3 times , 2 seconds blank and repeat .
 - Reset function : flash 4 times , 2 seconds blank and repeat .

- Memory function : flash 5 times , 2 seconds blank and repeat .
- 2. **1xC** : Next function mode .
- 3. **2xC** : Previous function mode .
- 4. **3xC** : Exit & back to Main operation mode without saving .
- 5. **3xC + PH** : Current function mode entry .

Momentary function setting mode :

1. **1xC** : Toggle On/Off momentary function , On : 2 Hz flash signal , Off : 1 Hz flash signal .
2. **3xC** : Exit & back to Main operation mode without saving .
3. **3xC + PH** : Save setting & exit and back to Function setting mode .

Rechargeable battery over-discharge protection mode :

LF5XT measures voltage of battery every 32 mS (mini-second) , there are two levels : low battery warning level and shutdown level . Low battery warning level : flash 3 times every 25 seconds . Low battery shutdown level : flash quickly and turn off the power . The flash signals donot turn LED on /

off , but using different brightness output to indicate the signal .

- NiMH : warning level – 1.0 V , shutdown level – 0.8 V .
 - 14500 Li-Ion : warning level – 3.0 V , shutdown level – 2.8 V .
1. **1xC** : Toggle On/Off momentary function , On : 2 Hz flash signal , Off : 1 Hz flash signal .
 2. **3xC** : Exit & back to Main operation mode without saving .
 3. **3xC + PH** : Save setting & exit and back to Function setting mode .

Operation mode number setting :

1. Indicated signal :

- Mode No. = 1 : flash 1 time , 1 second blank and repeat .
 - Mode No. = 2 : flash 2 times , 1 second blank and repeat .
 - Mode No. = 3 : flash 3 times , 1 second blank and repeat .
 - Mode No. = 4 : flash 4 times , 1 second blank and repeat .
 - Mode No. = 5 : flash 5 times , 1 second blank and repeat .
2. **1xC** : Mode No. increase , 5 is the maximum .
 3. **2xC** : Mode No. decrease , 1 is the minimum .
 4. **3xC** : Exit & back to Main operation mode without saving .
 5. **3xC + PH** : Save setting & exit and back to Function setting

mode .

Reset function :

After you input command 3xC + PH to access reset function , LF5XT will finish the follow works :

- Restore the factory default setting to memory .
- Exit and back to Main operation mode 1 .

Memory function setting mode :

1. **1xC** : Toggle On/Off memory function , On : 2 Hz flash signal , Off : 1 Hz flash signal .
2. **3xC** : Exit & back to Main operation mode without saving .
3. **3xC + PH** : Save setting & exit and back to Function setting mode .

Setting Mode :

1. **1xC** : Logarithm increase brightness by the factor 1.5 , or next frequency when toggle to frequency setting (command 4xC) .
2. **2xC** : Logarithm decrease brightness by the factor 1.5 , or previous frequency when toggle to frequency setting

(command 4xC) .

3. **3xC** : Exit & back to Main operation mode without saving .
4. **4xC** : Toggle brightness / frequency setting , only Strobe and Beacon flash are available .
5. **5xC** : Setting brightness report , first shows the ten number , 1 second blank and shows the unit number . (exception : 100% -- flash 1 time , 1 second blank , flash 2 times quickly , 1 second blank and flash 2 times quickly)
6. **PH** : Next output style , there are four different styles can be chosen . Brightness -> Strobe -> Beacon -> SOS -> Brightness in serial .
7. **1xC + PH** : Increase brightness linear and slowly , this command is for fine adjustment of brightness .
8. **2xC + PH** : Decrease brightness linear and slowly , this command is for fine adjustment of brightness .
9. **3xC + PH** : Save setting & exit and back to Main operation mode .

Factory Default Setting :

Operation mode number : 5

Momentary function : Off

Rechargeable battery over-discharge protection : Off

Mode 1 : 50% brightness output .

Mode 2 : 15% brightness output .

Mode 3 : 2% brightness output .

Mode 4 : 50% brightness double flash Beacon .

Mode 5 : 15% brightness SOS .

Note