NOCTIGON

M43 METEOR

Features:

- CNC machined from aircraft-grade aluminium
- Efficient UK made Carclo Triple LED optics.
- Anti-reflective coated glass lens
- Unihead construction with removed anodized surface
- Massive direct thermal path copper MCPCB hosting 12LEDs with wide and thick traces (3Oz)
- Pure copper MCPCB in the tailcap
- Beryllium-Copper springs with 45% IACS superior to stainless steel alloys used for springs with only 2% IACS.
- User programmable output levels and various customization options
- Multi-color battery charge level indicator both on-state and off-state
- Electronic soft touch switch (ALPS SKRBAAE010 with 1,000,000 soft press cycles)
- Runs on 4 paralleled 18650 cells, in case of emergency less cells can be used
- Thermal output regulation
- Constant current output boost driver
- High efficiency high power conversion circuit, low voltage drop
- Made with US, Korean and Japanese electronic components
- Waterproof and dustproof to IP67 standard (up to 1 meter)
- Surface finish: Hard anodizing type III
- Dimensions: 98mm(length) * 63mm(head) * 50mm(body)
- Accessories: Holster, O-ring, Lanyard

Cell Information:

Max input voltage 4.35V, cells rated as fully charged at 4.2V, 4.3V or 4.35V can be used.
All cells are in parallel electrical configuration, all cells are inserted with the negative (-) side in the battery tube, the negative (-) side has to touch the springs for the flashlight to operate.
Mechanical anti reverse polarity protection is present. In case of flashlight not turning on, do not press the switch hard, but unscrew the battery tube and make sure the batteries are inserted properly and they are not absolute flat tops. When you are sure batteries are inserted correctly you may need to screw a bit hard to make sure there is good contact.
For the most performance in Turbo Mode only high drain cells can be recommended.
It is desired to use the cell with the highest voltage on a 7.5A load.

Main User interface

All the UIs offer the user the opportunity to quickly access main modes directly from the OFF-state, essentially eliminating the need to cycle through modes and access directly the mode it is needed for the situation.
Each UI has the same 2 other cluster of options, shown in the graph with 2 different shades of gray. The System cluster it is of rarely used thus number of clicks is high, such chance can be done studying the manual.
The light uses soft start making mode transitions and turn-on more seamless.

9 Fast Clicks and Hold activates **UI1**, which is accompanied by one flash of main LEDs with red backlight flash.
10 Fast Clicks and Hold activates **UI2**, which is accompanied by two flashes of main LEDs with green backlight flash.
11 Fast Clicks and Hold activates **UI3**, which is accompanied by three flashes of main LEDs with blue backlight flash.

UI 1 has 3 main illumination positions: Turbo, Low, High.
Low and High can be programmed each to another level, Moon and Mid.
The programming is done very simple with 2 clicks which makes it essentially able to actually switch between the levels at any time without the need to enter into special submenus.
Turbo is accessible quickly from any mode as momentary-on mode.
Momentary quick access to Turbo is essential so there is no need to cycle through modes when just at a simple press of the button Turbo is available. If the user finds that it needs to press the Turbo for a long time, the driver will adapt and after 6 seconds it will fix the Turbo mode.

Hold - **Turbo**
2 Fast Clicks - **Mid** (or program High)
1 Fast Click - **Moon** (or program Low)

UI 2 has 4 main illumination positions: Turbo, High, Mid, Low.
Except Turbo all of them can be programmed between 2 sublevels as seen in the graph (High1 - Hlgh2, Mid1 - Mid2, Low - Moon) Choosing the sublevel will greatly affect runtime, as the power is doubled or halved.
Double Click to access sublevels of High, Low or Medium.

Hold - **Turbo**, keep holding to cycle through modes
2 Fast Clicks - **High**, Hold the button to cycle through modes
1 Fast Click - **Low**, Hold the button to cycle through modes

UI 3 has 4 main illumination positions. Turbo, Mode1, Mode2, Mode3.
The power level of Mode1 Mode2 Mode3 is defined by the user, essentially setting the exact output level wanted.
Advancing through the 3 custom Modes is it one by Double Clicks, 2 Fast Clicks for one direction and 1 Fast Click + 1 Long Click for the opposite direction.
It is not essential to learn both ways if only one way is preferred.
Turbo is accessible quickly from any Mode as momentary-on, simply Hold the button and Release.

1 Fast Click - Custom **Mode1** (Double Click to cycle, see above)
Click and Hold - Custom **Mode1** (Double Click to cycle, see above)
2 Fast Clicks - Custom **Mode1** (Double Click to cycle, see above)

Hold - Momentary-on **Turbo**
1 Long Click - Constant **Turbo**

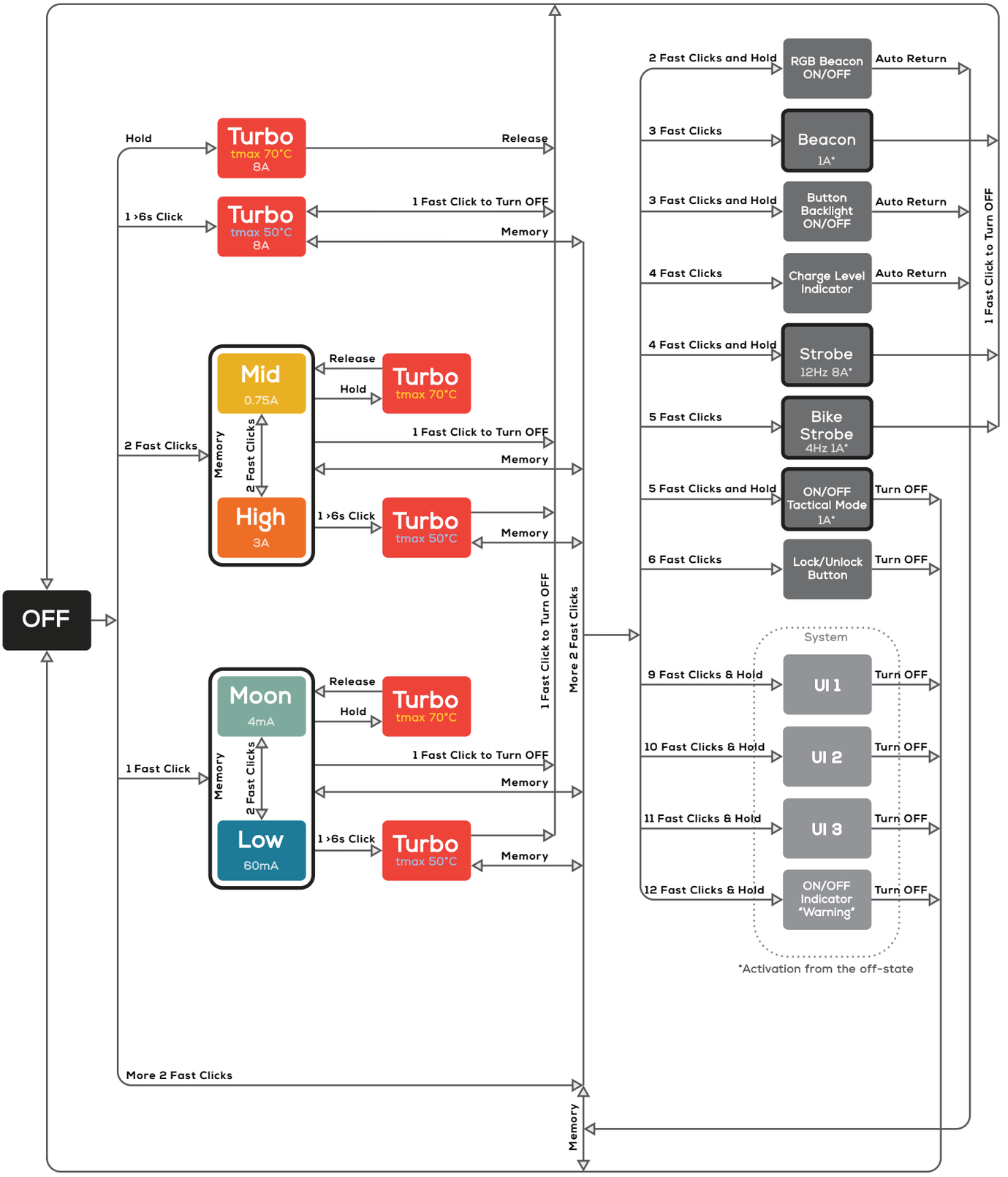
Secondary User Interface

The flashlight can be locked to prevent accidental activation of the button with 6 consecutive clicks.
All flashing modes are hidden and identical in any UI.
3 Clicks - **Beacon**
4 Fast Clicks - **Charge Level Indicator** (blinks as seen in "Backlight and Charge level indicator" lower)
4 Fast Clicks and Hold - **Strobe**
5 Fast Clicks - **Bike Strobe**

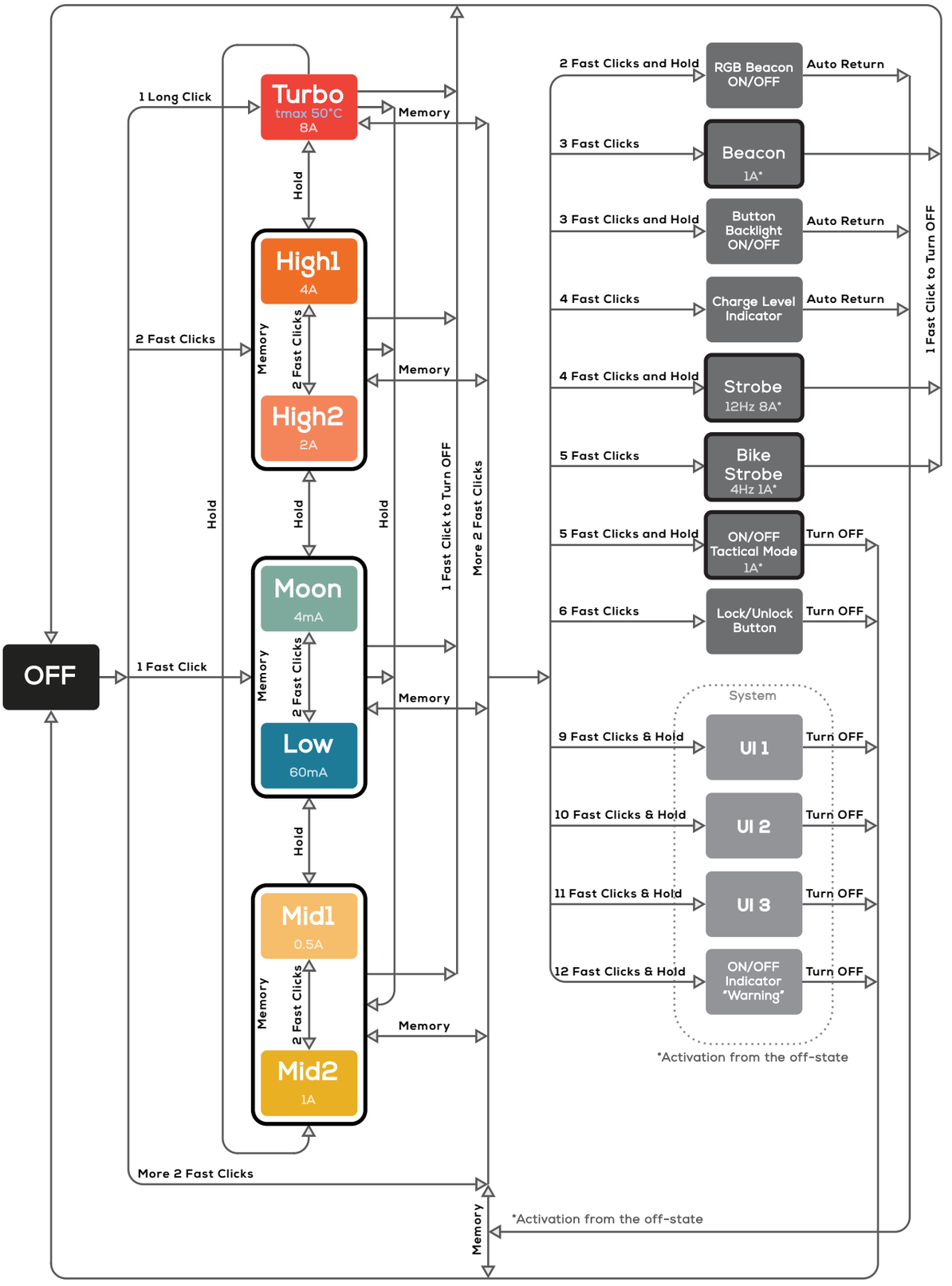
Beacon, Strobe, and Bike Strobe all have default power levels when access from OFF-State as indicated in the UI graph.
If they are accessed from ON-state, the output current value of the flashing modes will be that of the ON-state constant illumination currently used. Thus the Beacon can be in Moon power, Mid power, etc. Essentially you can choose the default power output accessing from OFF-State or intentionally choose another value based on the ON-state illumination mode you are currently using.

5 Fast Clicks and Hold will turn on the **Tactical Mode**. This mode uses the same output power level as described above for the flashing modes. In this mode you have a 1 mode momentary light, press the button the light is on, release the button the light is off. To exit this mode repeat the action that turned it on.

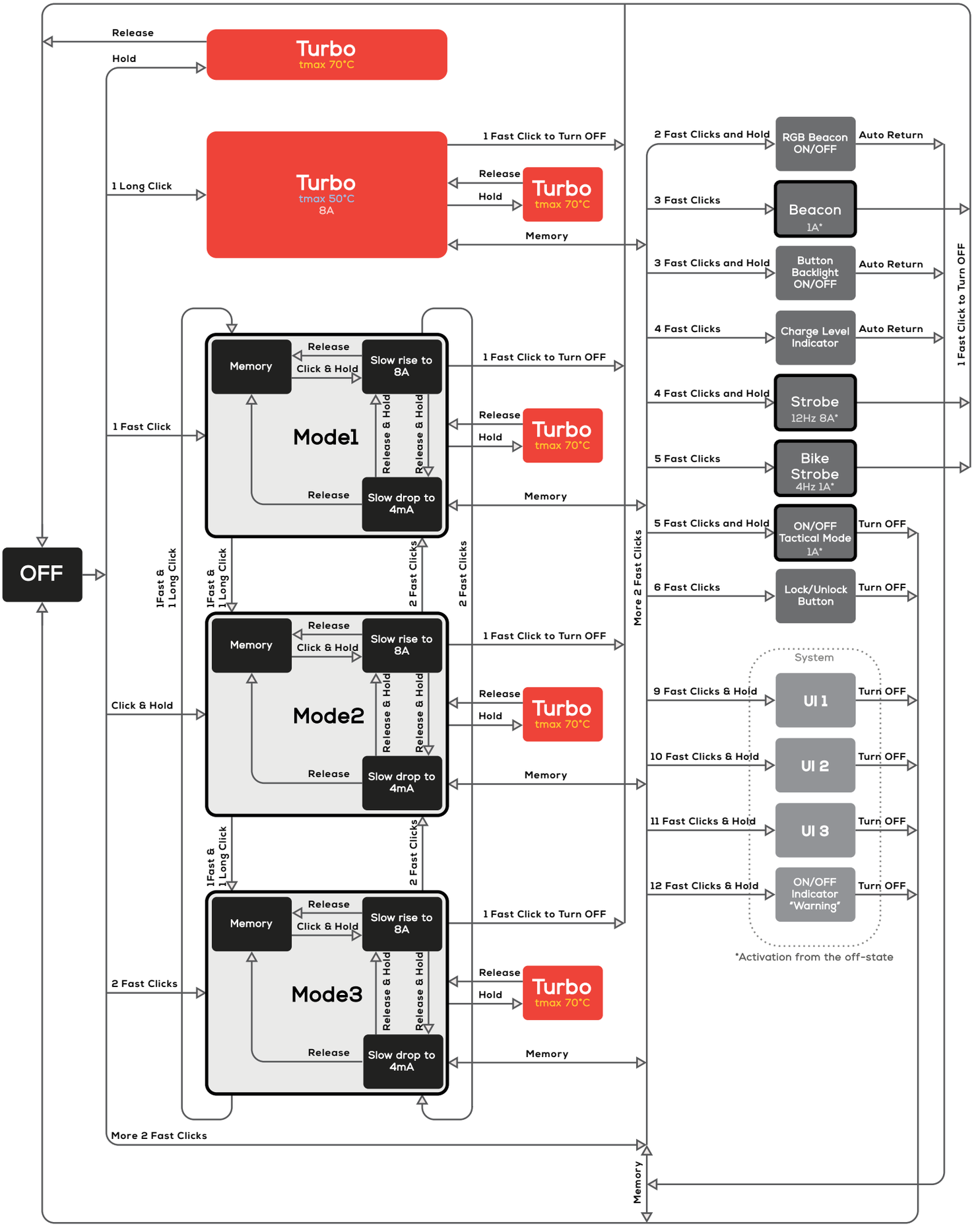
UI 1 - Minimalist



UI 2 - Cycle & Fast Access



UI 3 - Advanced



Backlight and Charge level indicator

There are 4 ways to be aware of the battery charge level.

While modes are **ON**, there is constant charge level indication in Blue Green Red

2 Fast Clicks and Hold - **RGB Beacon**, in OFF-state the beacon will flash according to the graph

3 Fast Clicks and Hold - **Button Backlight**, uses constant charge level indication by Blue Green Red in OFF-state

4 Fast Clicks - **Charge Level Indicator**, main light will flash according to the graph.

When any function is turned on (tactical mode for example, or button backlight in OFF-state)it flashes green once and main LEDs will flash one time, when the function turned off it flashes red and the main LEDs will flash two times.

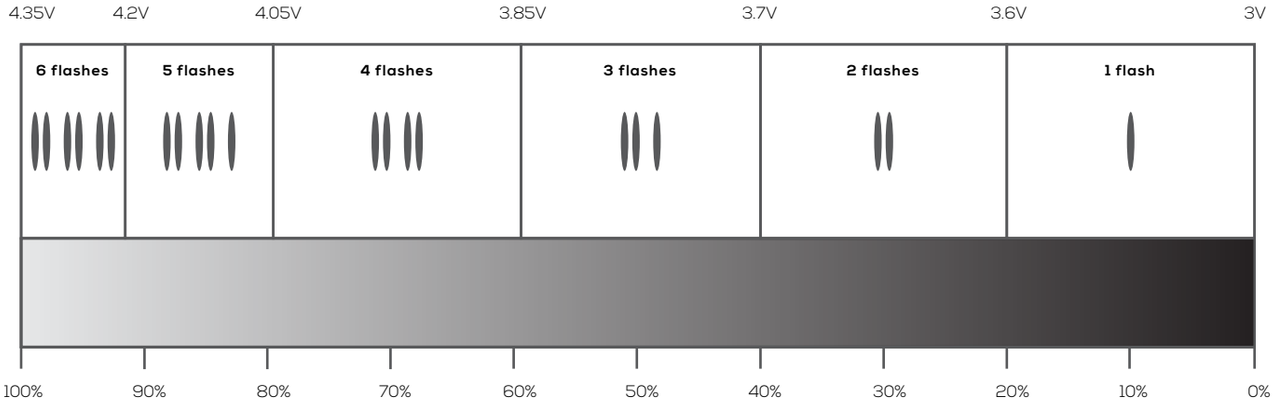
When brightness decreases due to lack of power (weak or discharged battery) main light will flash 2 times to pay attention to the button backlight indicator. Brigthness it is also reduced due to overheating, by reducing output power in half.

Brightness threshold is 50C for every mode, except for the Holding of the button for Turbo where the thresold is 70C.

If the button backligh flashes slowly and smoothly both in ON-state and OFF-state means there is moisture inside the button switch area of the flashlight and it needs to be dried.

If the program notes a potentially dangerous system behavior (open load, extra high energy losses etc.) indicator will flash red every every second for 5 seconds and after that the flashlight will turn off.

Flashing charge level indicator - Accesible by 4 Fast Clicks



Color charge level indicator - Available in ON-state, as OFF-state Beacon or OFF-state Backlight