

Crossbow Extreme LED's

This decodes the meaning of the LEDs on a VLS Device. The Device can have up to two LEDs (a red LED and a green LED). A device may also only have one or have no LEDs.

In Normal Operation, the Red LED should not blink except for the first minute or so after powering up a module while the device is trying to acquire a lock on the communication or location network signal.

The blinking of the LEDs is highly impacted by the [Device Power State](#).

LEDs not blinking

Green LED	Red LED	Meaning
N/A	Off	There are no errors.
Off	On	Configuration Mode (If it occurs after powering up the communication module, then it is a device-lock failure). Either: <ul style="list-style-type: none">• The SIM card does not match the IMSI that the device was locked to.• The APN name does not match the APN that the device was locked to.• The APN User ID does not match the user ID that the device was locked to.• Device was placed into configuration mode by a local serial command.
On	On	Firmware Updating -- Device is busy updating its firmware, or is awaiting a firmware update or (possibly) is in a configuration override mode.
Off	Off	Either: <ul style="list-style-type: none">• Power Failure -- Either the device is not powered or there is no firmware in the device.• Power Mode is not Full-ON and no Power Overrides are active. (You can jiggle the device for 5+ seconds to trigger a Motion Override and cause blinking).

Green LED Blinking

The Green LED displays the device functionality, including the power mode the device is operating in and whether it is transmitting or receiving messages. Unless you are in Full-On Power Mode, the Green LED only blinks when an Override condition is present (either Motion or Transmit)

On Time (seconds)	Off Time (seconds)	Meaning
0.5	0.5	Full-On Power Mode
0.5	1.5	Standby Power Mode
0.5	2.5	GPS-OFF Power Mode
0.5	3.5	Full-Off Power Mode
3+ seconds	N/A	Transmitting or Receiving Over-The-Air

Red LED Blinking

The Red LED displays possible device problems. If the Device is fully-operational, the red LED should not blink. Otherwise, the on-time indicates the communications status, and the off-time indicates the location status. The Red LED, like the Green LED, only blinks in Full-On Power Mode, or when a Power Override condition is present (Motion or Transmit).

On Time (seconds)	Off Time (seconds)	Meaning
0.5	N/A	There are no communication errors.
1	N/A	Communications Module is activated and has signal, but is not locked (certain communications may still be possible)
2	N/A	Communications Module is activated but has no signal
4	N/A	Communications Module is activated but not responsive
N/A	0.5	There are no location errors.
N/A	1	Locations Module is activated and has signal, but is not locked (location determination is not possible)
N/A	2	Locations Module is activated but has no signal (satellites not found)
N/A	4	Locations Module is activated but not responsive