

UV Flashlight Model V2

Instructions & User Guide



© uvBeast 11923 NE Sumner St • STE 635709 Portland, Oregon 97250 • USA • Tel: 503-568-1586

Email: support@uvbeast.com

WARNING!

DO NOT shine UV in the eyes, nor use irresponsibly. Adult use and supervision only.

Table of Contents

UV Light WARNING	1
Quick Start	
Important Notice [setting your expectations]	
Contact Us	
Battery Installation	3
Features	
Using the Glasses (included in some models)	5
Specifications	6
Care and Maintenance	7
Troubleshooting	7
LEDs are not coming on	7
UV emission appears to be not all that strong (i.e. weak UV)	7
Light getting "dim"	8
I have OTHER issues	
Using UV Light	
Getting Best Results	
What Can the uvBeast Be Used for?	
Technical Section	12
How it all works?	12
What difference does the higher power from uvBeast make?	
Spectral Quality	12

UV Light WARNING

Do NOT shine UV light directly into eyes. Do not use UV light irresponsibly. Adult supervision only.

Quick Start

BATTERY INSTALLATION STEPS









Important Notice [setting your expectations]

As soon as you turn the uvBeast on you may say, "Hey this is not very bright" – but UV can never be described as bright.

Please remember this device emits majority Dark Light (or light that is not visible). So although you can't see the full ultraviolet beam, it is there! Just point it towards your area of interest and you'll begin to see objects fluoresce. As proof that your purchase works as it should and is emitting majority Dark Light, included are spectral graphs that show you how much Dark Light is being emitted – please see the Technical Section if you're interested.

Contact Us

You may contact us at support@uvbeast.com

Battery Installation

PLEASE NOTE: When unscrewing any section please do so carefully and slowly so as to not damage the O-rings. NOTE: Two O-rings are already fitted to the uvBeast at either thread ends. These seal the uvBeast from dust, moisture, and water.

Spare O-rings are inside the internal packaging.

To install, unscrew the bottom section (the section furthest away from the LED head) and take out the two battery holders. Fit six AA size alkaline batteries (not supplied), by carefully fitting the **positive and negative ends of each battery correctly**.

Please make sure that all six batteries are fitted correctly and securely (tightly) in the battery holders otherwise shorting can occur.

Once all batteries are fitted, look for the directional arrows on the holders for correct placement of the holders. (The arrow

signs must be both pointing to the LED head).

Alternatively, fit the holders with the button-end terminals facing the LED head. Batteries last for 8 hours upwards on continuous use, depending upon battery brand.

Features

- Designed for long-range UV and higher power applications
- Flood effect UV (with high radiant intensity)
- Adjusted wavelength (385nm 395nm) specifically optimized for many domestic & commercial applications
- Capable Under Interior/Ambient Lighting

uvBeast is a unique brand, designed by scientists backed with years in industry. With an awesome reputation in both domestic and commercial markets, we don't do "me too" products. Instead we like to innovate and make a genuine difference. We didn't want this to be just another Black Light or UV Flashlight.

uvBeast created the godzilla of UV flashlights. Users got fed up with weaker UV flashlights. They asked for more UV power. So, we got to work, and here it is! With a beast of a UV beam there simply isn't any other contender we've come across.

Using the Glasses (included in some models)

Use the glasses that are included with the uvBeast. They will filter out any unwanted visible purple light and you'll see fluorescence even better! Try it out. These have been color tint optimized to do two things: (1) Prevent eye fatigue (especially in dark conditions), and (2) to enhance the color transmission of objects you're looking at with the uvBeast.

Specifications

Wavelength

385-395nm (Broader

band)

Optical Power/Radiant Intensity

~1400mW

Irradiance (UV power per unit area)

~4500µW/cm²

UV Beam Distance (dark conditions)

40-50ft

UV Beam Distance (ambient room light conditions)

4-6ft

UV Beam Width

4-6ft (15-20inches in ambient room light conditions)

Battery Type

6x Alkaline AA size,

1.5v

Battery Life (Working time)

~8 hours

IP Rating

IP65

(will prevent water ingress from jet sprays), but is NOT submersible

Care and Maintenance

Please lubricate the threads at the tail cap of the flashlight at various intervals. This will preserve and maintain thread integrity.

Please lubricate the O-ring located at the tail cap thread at various intervals. This will prolong the life of the O-ring as well as maintain its function to prevent the ingress of dust and moisture.

Do not leave alkaline batteries within the flashlight for a long period of time. Alkaline batteries will leak and damage the internal components. This precaution must be taken if the flashlight will not be used for a long period of time whilst the batteries are left inside.

If the flashlight will not be used for long periods of time, please remove the alkaline batteries from the device. This will prevent damage due to battery leakage

Troubleshooting

LEDs are not coming on

Please take care when fitting the batteries. Each battery must be fitted the right way around, and each of the two holders must also be fitted the right way around. If the LEDs do NOT operate after battery installation please check for correct battery and battery holder polarity – each battery AND each holder must be correctly installed (see earlier instructions). This failure may also be due to a battery with low voltage. Please replace batteries with a new batch – batches – even new ones - are known to sometimes contain low voltage batteries. If this is the case your device will NOT operate.

UV emission appears to be not all that strong (i.e. weak UV)

Firstly, the light output from a (non-visible) UV light will **not** be of comparable brightness to a regular white light flashlight. Carry out a test with objects known to vividly fluoresce such as washed whites (garments), white paper, fluorescent materials, etc. If you

don't see vivid fluorescence in this test, then this is due to one of two things. A defective unit, or more likely, a battery issue. **Before contacting us regarding a defective unit**, please try the following. Replace with a new set of batteries from a different set. Our past experience with the vast majority of our customers is that when the existing batteries have been all replaced with new and unused batteries from a different batch, it has in the vast majority of cases solved the problem. Please try the same, as it will help you to rule out a battery issue as well as save you the time, hassle, and frustration in getting a replacement unit.

Light getting "dim"

If at any point you find the uvBeast getting "dim" after many hours of continuous operation, it's usually because the batteries (one or more of them) are getting low. However, it doesn't necessarily mean that the UV intensity is also getting low, just the visible light portion. Check to see if fluorescence of objects suffers. If so, then it's time to swap the batteries if you'd prefer to continue with maximum beam intensity.

I have OTHER issues

Please check out our Help Center & Knowledge Base on our official website here: https://uvbeast.com/apps/help-center - most likely we've addressed it there since we continually update common issues people run into. (You can also do a search on our website).

Using UV Light

The current uvBeast models emit ultraviolet light in the following wavelengths (measured in nanometers). 385-395nm and 365nm, depending upon your model.

Visible light is at around 400nm and above to the infrared spectrum.

Getting Best Results

Different substances will fluoresce ("shine") at different UV intensities. Whether you had domestic or commercial applications in mind, the principle is "the darker the conditions the better" to unleash the full power of the uvBeast. However, that sometimes isn't always possible nor practical (to achieve darkness) so you'll still get a decent 4-6ft beam range in ambient light conditions.

TIP – Scan a general area first to illuminate, and then shine closer to investigate & spot.

Sometimes, in ambient light, you may need to go closer, depending upon the fluorescence intensity of the substance investigated. (Scorpions are the exception. At night/dull conditions, boy do they glow electric blue/green – except from very young ones and also adults if they just molted their skin.

What Can the uvBeast Be Used for?

Whether your needs are commercial or domestic uvBeast will not disappoint. You'll save time, effort, and money with those sanitization jobs, looking for otherwise invisible fluorescence, or just about any other UV task you have in mind.

As an example of the benefits of UV, rather than clean an entire area "just in case", now you can pin-point and spot-treat the specific area. Without UV light, stains are difficult to spot or are invisible. Now, those stains will glow bright. Among other applications that require UV light, uvBeast is especially designed (but not limited to) to fluoresce or react with the following:

• Gems, Rocks, and Minerals (items such as rubies, diamonds, yooperlite, opal, etc.)

- Cat/Dog urine (Note: urine needs to be dry as wet/fresh urine doesn't fluoresce under UV, but a wet urine stain is easily spotted by the eye anyhow)
- Scorpions and their dens (but the very young, and adults just molted may not glow as much)
- Rat/Mouse urine trails (appear as small dots since they urinate and defecate as they travel and eat)
- Human Body Fluids (urine, semen)
- Unsanitary stains, and the like
- Leak Detection (UV dyes as well as calcium deposits from water leaks)
- Conformal Coating Detection (e.g. poor glue coverage on items, paint anomalies, etc.)
- **UV Curing** (resins and adhesives including LOCA)
- Other VERY handy applications which require 395nm UV light such as UV adhesive curing, Artwork and antique inspection, Fluid leak detection (vehicles and a/c units), Property hygiene appraisal, UV photography, UV paint charging and fluorescence, Charging of fishing lures, Charging of golf discs, Egg inspection, Gemstone identification (rubies, diamonds, etc.), Caterpillar identification (including the Tomato Hornworm crop destroyer), Resin detection (like glue, wall paint, etc.), Fossil detection, Mineral fluorescence (limited under 395nm), Vaseline glass identification, Banana inspection, Ringworm and mold detection (not all species), Crime and forensic investigation, Narcotic detection, PCB conformity checking...and in fact the list goes on (if that wasn't enough).

You can see more details/instructions on these and more on our website (uvbeast.com) by doing a search. If you have any other uses let us know and we'll include it!

Domestic applications

Identifying vermin activity, treating areas where pets foul, finding hidden scorpions (especially the Bark Scorpion) and their dens, and checking sanitization levels all over the house. So whether you're monitoring or discouraging your pets' unsanitary practices, keeping scorpions at bay, or checking up

on sanitization levels before/after cleaning, uvBeast will be your useful assistant.

Commercial applications

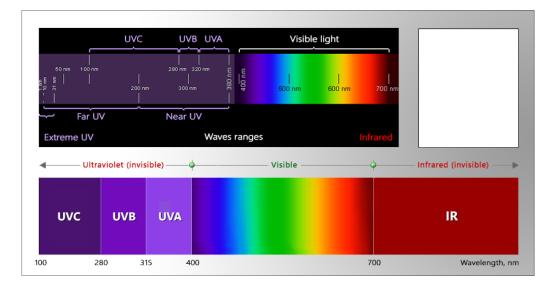
Verifying sanitizations levels in properties, restaurants, hotels, kitchens, pest control efforts, and cleaning services, giving you before and after evidence-based verification as proof that you can show your clients, tenants, guests, customers, or contracted services.

You'll benefit greatly from this type of oversight, making you and your staff more productive, do more in less time, and save wasted effort and money. Cleaning or inspecting? Pin-point stains and substances accurately and instantly without wasting time, effort, and missing hard-to-spot substances.

Same applies to all other UV applications such as identifying leaks from devices/machinery. The UV intensity will accelerate your ability to identify most if not all hidden leaks and anomalies thus greatly reducing and effectively addressing operational risks.

Technical Section

The Electromagnetic Spectrum and UV



Depending upon which uvBeast model you have the device will emit UV at 385-395nm or 365nm.

How it all works?

uvBeast emits 385nm-395nm (at 82% of total radiant intensity) wavelength of light in the invisible light spectrum, which is below visible light that we can see. Past the violet at the end of a rainbow. Light (or photons) at this wavelength when making contact with types of substances, causes excitation. The excited substance then emits light back in the visible spectrum (fluorescence), which we can thus observe with the naked eye.

What difference does the higher power from uvBeast make?

Following from the logic above, weaker UV LED flashlights although at the same wavelength (395nm) emit less photon energy. That amount of energy just doesn't get the target substance all that excited, so in return the substance doesn't emit (fluoresce) that much back to us. So, you'll have to shut out light, create dark conditions, and be inconveniently close to the subject to really see anything.

Typically, most UV flashlights have not been designed to emit high intensity UV. The higher the intensity, the greater the excitation. The greater the excitation, the better the results.

Spectral Quality

The accompanying graph below, illustrate the very high UV capability of your purchase. Anyone can say, "Our manufactured UV light is "super bright", "high flux", "super high flux", or even "the best in the universe".

But, how would you, the consumer really know? After all with a regular "visible light" flashlight that's easy to determine. But remember, this is Dark Light (invisible light) that you can't see. At uvBeast we get that, so we have provided spectral proof of the UV light emitting capabilities of your purchase.

The graphs show the UV flux range. You'll see that the uvBeast peaks at ~393nm at 100% output (relative radiant intensity), but still at 82% output you're getting quality ~382nm, while even at 60% of total output you're getting ~373nm. By the way, against industry benchmarks those figures are awesome because it means that you can consider the uvBeast as emitting UV in the range of 385nm to 395nm – most other decent UV flashlights are only capable of 390nm to 395nm at 63%, whilst the not-so-good quality are even worse at wavelengths of 395-410nm+.

uvBeast.com

Peak wavelength of the uvBeast is at 393nm.

82% of the flux is at 385nm wavelength

