EIT
Preventative Controls
& Detection Systems

Bactiscan & BactiscanPRO

USER MANUAL

www.eit-international.com

Thank you for purchasing the EIT Bactiscan™ rechargeable bacteria and biofilm detection lamp, our latest innovation offering an all-in-one solution that combining a high performance lamp in a single lightweight, IP65 rated compact unit.

Important: Please read these instructions carefully to ensure the safe and effective use of this product.

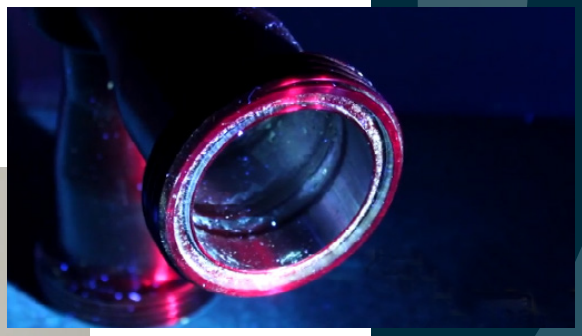
Important: For those who cannot see variations in colour, please seek advice before use.

With Bactiscan's™unique wave alternating UV system, Bactiscan enables food processors to immediately isolate biofilms, mould and bacteria such as salmonella and E.coli and many other contaminants are easily located and identified with Bactiscan which makes the remediation job much faster and therefore more cost effective.
These contaminants are often undetectable using other methods such as white light and simple UV lamps. With Bactiscan you can light up the entire surface and get an immediate result, so within seconds you can pick things up that would take hours with any other method.

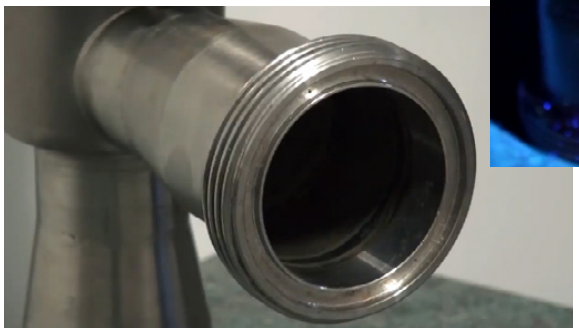
Handheld bacteria and biofilm detection system

Environmentally friendly wave alternating UV to quickly identify areas harbouring bacterialcontaminants such as E.coli, listeria and salmonella which are often missed under standard white light or simple UV lamps.

Think before you print!



Bactiscan™ View
Clearly reveals contamination



Normal View
Item looks clean and normallunder white light or standard UV

Index

What’s In the Box

1 Lens
2 On/Off button
3 Adjustable stand
4 Charging base
5 DC charger

Charging

①

Slide the Bactiscan™ inside the charging base, push until it slots in the back and connects with the charging ports.

②

Connect the charger lead into the input socket at the back of the charging base.

③

Plug the charger into a suitable socket outlet. Turn switch on. The indicator on the charger will illuminate red when charging and green when fully charged.

④

To release the Bactiscan™ from the charging base, hold and push the release levers towards you, use your thumb to push the Bactiscan™ away from the charging slot as shown in the picture.

⑤

Once the Bactiscan™ is released slide the lamp out of the charging base. The Bactiscan™ unit is ready to be used.

Bactiscan™ uses smart battery technology. When the battery is fully charged the battery will fall into sleep mode and will maintain a full charge via trickle charge. It is safe to leave Bactiscan™ plugged in whilst in its cradle.

Please note: The battery will reach optimum performance after 5 complete discharge/charge cycles.

Operating the Bactiscan™

Bactiscan™ illuminates a surface via 4 separate UV lights.
These lights are UV-A type and are safe for short use.
It is always recommended that the user wear eye protection (not supplied) when operating Bactiscan™.

To switch ON, simply hold the gray button and the Bactiscan™ will turn on.
To turn the lamp OFF, release the gray button.

Also available as the BactiscanPRO™™

BactiscanPRO™ utilises still photography and video capture to record contaminant clusters on a surface.
These files are uploaded to internal quality system and will form the basis of a documented corrective action.
BactiscanPRO™ is fitted with AKASO V50 4K/30fps and 20MP image action camera to capture every detail of your audit. Built-in Wi-Fi allows you to connect the camera to your phone or tablet, simply download the AKASO GO app.

CAUTION

Modifications not expressly approved by EIT International may void the users authority to operate the equipment. The removal of any panels or components, or to open the sealed Bactiscan™ casing will render the equipment damaged and will void any warranty in place (see Page 15 Warranty). Damaged Bactiscan™ unit through the malice of any third party will render the equipment written-off and the user will be liable for any costs associated for repair or replacement of the unit.

UV Light Bulbs

Bactiscan™ and BactiscanPRO™ utilise UV-A and UV-B light bulbs which are fluorescent tubes with a dark blue or purple filter to remove other parts of the spectrum and leave just UV light.

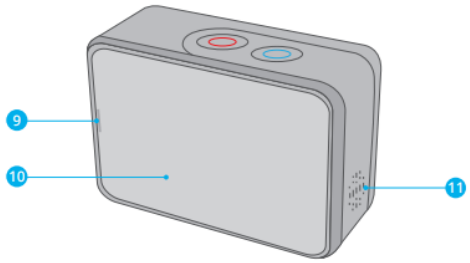
UV (ultraviolet) light bulbs are often referred to as black light bulbs, or BLB (blacklight blue) bulbs. UV lights feature smalllwavelengths that are measured in nanometres (nm). Nanometres often affect the light bulb, with the bulb emitting either UV-A, UV-B or UV-C radiation. None of these bulbs can penetrate human skin and are safe to use.

EIT International consider the health and safety of our customers to be of the utmost importance and as a matter of good practice we suggest that users wear protective eyewear when operating Bactiscan™ and BactiscanPRO™ equipment.

BactiscanPRO - Camera Guide

Contents

Getting Started



1. Power / Mode Button
2. Shutter / Select Button
3. MIC
4. Wifi Indicator
5. Micro HDMI Port
6. MicroSD Slot
7. Mini USB Port
8. Lens
9. Operating Indicator
10. Touch Screen
11. Speaker
12. Tripod Hole
13. Battery Door

Note: Camera does not record sound when it is in the waterproof case.

Camera Mounting

DIRECT TO BACTISCANPRO

The camera can be mounted directly to the BactiscanPRO via the Tripod hole located at point 12

USING SMALLRIG MINI BALL HEAD MOUNT

Attach the SmallRig Mini Ball Head mount to the mounting point in the BactiscanPRO, then attach the camera to the top of the SmallRig Mini Ball Head

The SmallRig Mini Ball Head allows for 360° pan and 135° tilt.
Loosen the wing nut on the SmallRig Mini Ball Head Mount Adjust camera to desired angle and tighten the nut.

MICROSD CARDS

Use brand name memory cards that meet these requirements

- microSD, microSDHC, or microSDXC
- Class 10 or UHS-III rating
- Capacity up to 64GB (FAT32)

Note:

1. Please format the microSD card first in this camera before using. To keep your microSD card in good condition, reformat it on a regular basis. Reformatting erases all of your content, so be sure to offload your photos and videos first.
2. FAT32 format microSD card stops recording when the storage of each file is over 4GB and starts to record again on a new file. POWERING ON + OFF

To Power On:

Press and hold the Mode button for three seconds. The camera beeps while the camera status light is on. When information appears on the LCD display or the camera status screen, your camera is on.

To Power Off:

Press and hold the Mode button for three seconds. The camera beeps while the camera status light is off.

SWITCHING MODE

To Switch Mode:

Turn on the camera, tap Mode Shift icon or press Mode button to switch mode.

To Exit Mode:

Press Mode button to exit mode.

TURNING ON / OFF Wi-Fi

To turn on Wi-Fi

Turn on camera, swipe down from the top of the screen with your finger or tap shortcut key to access to menu. Then tap Wi-Fi icon to turn on Wi-Fi. You can also enter General Setting to turn on Wi-Fi.

To turn off Wi-Fi

Press and hold Shutter button for 5 seconds to turn off Wi-Fi.

SET TIME AND DATE

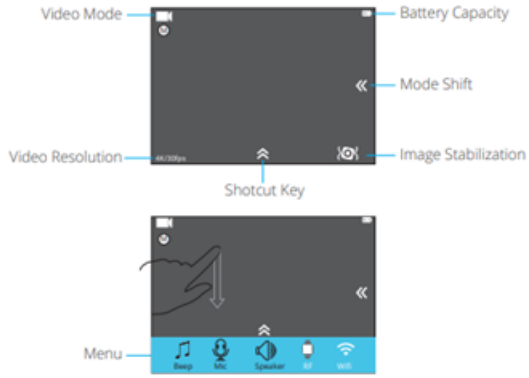
Tap right hand arrow. Go to Setup. Go to General. Scroll down to Date & Time. Adjust Date and tap Done. Adjust Time and tap Done.

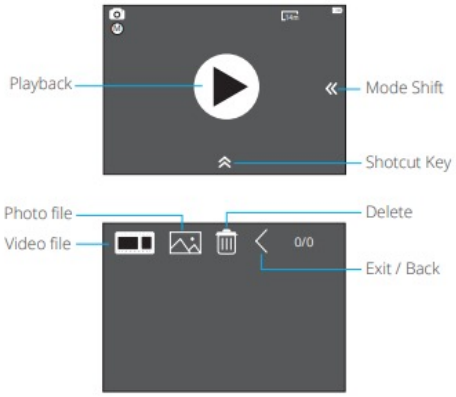
CAMERA MODES

There are four modes:
Video, Photo, Playback and Setting.

VIDEO MODE

Video Mode is the default mode when you turn on the camera.
In Video Mode, press Shutter button, the camera starts recording video.
Press Shutter button to stop recording video.



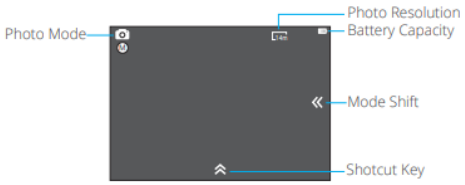


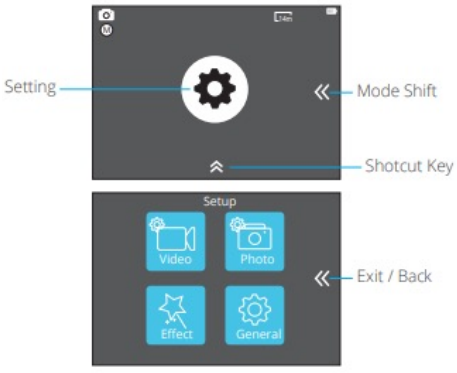
PLAYBACK MODE

Press Mode button twice to switch to Playback Mode.

PHOTO MODE

Press Mode button once to switch to Photo Mode after you turn on camera.
In Photo Mode, press Shutter button, the camera takes a photo.





SETTING MODE

Press Mode button three times to switch to Setting Mode.

Connecting to the APP

Please download and install the AKASO GO app on the App Store or Google Play first. The AKASO GO app lets you control your camera remotely using a smartphone or tablet. Features include camera control, live preview, playback, download and settings.

1. Turn on the camera, press the Up button to turn on the Wi-Fi. The Wi-Fi name and password are shown on the camera screen.
2. Connect the Wi-Fi “V50 PRO” and enter the password on your smartphone WLAN setting.
3. Open the AKASO GO app, tap “+” icon on the upper right corner. Add “V50 Pro” and click the “Live Preview”.
4. Your camera will be connected with the AKASO GO app

Viewing your Content

You can play back your content on the camera's LCD display, your computer, TV, or smartphone/tablet.

You can also play back content by inserting the microSD card directly into a device, such as a computer or compatible TV. With this method, playback resolution depends on the resolution of the device and its ability to play back that resolution.

VIEWING VIDEOS AND PHOTOS ON YOUR V50 PRO

1. Enter Playback mode. If your microSD card contains a lot of content, it might take a minute for it to load.
2. Tap video or photo file icon.
3. Tap any video or photo file.
4. Tap Forward or Backward icon to playback video or photo files.

Deleting Videos and Photos form your Camera

1. Enter playback mode. If your microSD card contains a lot of content, it might take a minute for it to load.
2. Tap the video or photo file icon.
3. Tap the video or photo file you want to delete.
4. Tap 🗑. The selected file will be deleted.

You can also try the following steps to delete video and photo on your Camera.

1. Enter playback mode.
2. Tap the video or photo file icon.
3. Tap 🗑.
4. Tap the file you want to delete.
5. Tap 🗑 again. The screen shows "Delete This File? Yes/No".
6. Tap "Yes". The selected file will be deleted.

Downloading Content

OFFLOADING YOUR CONTENT TO A COMPUTER

To play back your video and photos on a computer, you must first transfer these files to a computer. Transferring also frees up space on your microSD card for new content. To offload files to a computer using a card reader(sold separately) and your computer's file explorer, connect the card reader to the computer, then insert the microSD card. You can then transfer files to your computer or delete selected files on your card. Note that you must use a card reader to offload photos or audio files.

OFFLOADING YOUR CONTENT TO SMARTPHONE

Open the AKASO GO App. Connect the camera with the App.

Tap Playback icon to see all the videos and photos.

Select the photo or video you want to download and then tap the More icon at the right upper corner and choose Download.

Note:

1. If you cannot offload videos or photos to iPhone or iPad, please enter Setting → Privacy → Photos, find "AKASO GO" and select "Read and Write"".
2. iPhone and iPad do not allow you to download 4K or 2.7K video via App, please offload 4K or 2.7K videos via card reader.

Mounting the charging base

The Bactiscan™ lamp is supplied with a charging base, providing a convenient way to charge it. The base can be used flat on a desk, or fixed on a wall or a vehicle. The charging base has four mounting holes, measurements are shown in Figure 1. Make sure the M5 fixings screws used to mount the charging base, are strong enough to support the weight of the Bactiscan™. Take care not to over tighten the fixings and mount on a flat/level surface, so the charge base isn't distorted or damaged.

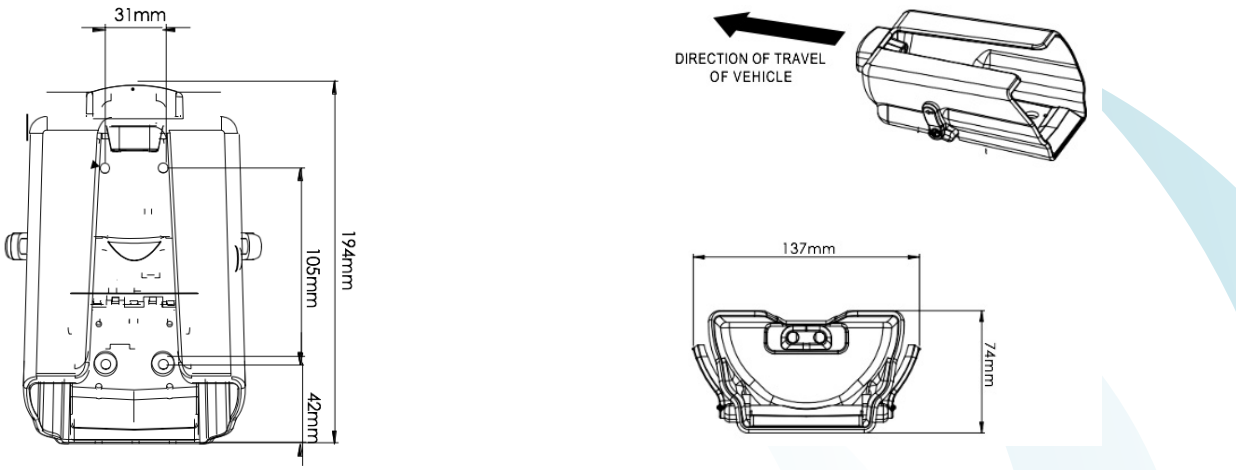


Figure 1

Holder may be mounted on either a horizontal or vertical panels. Mount using four M5 fixing screws

Important Warnings

- Read manual before use
- Always use the charger supplied, never use a damaged charger or alternative charger
- Disconnect from any power sources and switch off, before performing any routine cleaning
- Leave servicing to a qualified person. In case of any problems or questions please contact your local Authorised Bactiscan Reseller or contact EIT direct at: support@eit-international.com
- Do not shine the light directly into people's eyes, as it may damage their eyesight
- Keep out of reach of children

Frequently Asked Questions

Q Why should we test our surface areas after CIP?

A In order to comply with HACCP requirements, processors need to identify CCPs (Critical Control Points), and/or areas within their production plant that may cause product contamination/ failure. Examination of surface areas after CIP (Clean in Place) is now possible using the unique Bactiscan™ system, allowing the processor to comply with due diligence.

Q How often should we examine the surface areas?

A Stainless steel surfaces, some of which are positioned within the production area should be examined regularly, searching for areas of biofilm and bacterial growth caused by poor cleaning systems, spray ball faults for example, defects may occur at any time during production, or when the item is CIP cleaned, these areas may cause product contamination at any time, so examination as frequently as possible is recommended.

Q I have used traditional methods for validating my CIP, what is the best methodology now?

A Scanning in real time using EIT International's Bactiscan™. This equipment enables the processor to clearly see the biofilms in real time, enabling them to take swabs of the area to identify bacteria numbers.

Q We have seen people using U.V. to try to look for biofilms, why not use U.V. instead of Bactiscan™?

A Bactiscan™ works on the fringes of the UV spectrum, it is a system that is designed to detect protein shell around the bacteria and isolate biofilms that are not visible with U.V. and this is proven with validation documentation provided by Campden BRI.

Q Is it correct that biofilms become hardened on the surface and cannot be washed off by CIP?

A It is our experience that some biofilms are hidden behind a glass-like surface caused through continuous washing and chemical hardening and when swabs are taken, they are not detected with the swabbing technique. Bactiscan™ can highlight these regions and abrasive work is needed to remove the film in order to measure bacteria numbers. The danger for processors is that these films may become loose during production and release the biofilm into the product.

Q What are the environmental issues with testing using Bactiscan™?

A EIT International's Bactiscan™ system has electronic sensors that can be used for many years without any consumables, so extremely environmentally friendly and cost effective.

Q How safe is the equipment that you will use for the tests?

A Bactiscan™ uses lightweight battery operated electronic sensors and transmitters to illuminate a surface.

Q What safety steps should I take whilst using Bactiscan™?

A We recommend that the inspector wear adequate eye protection in the form of protective glasses whilst using Bactiscan™. Most production facilities will have safety glasses in situ. Safety glass lenses made of polycarbonate will naturally block 99.9% of UV light. So, even clear safety glasses will provide excellent protection. However should you require specific UV protection, a simple on-line search will provide a list of suppliers in their area.

Q How much downtime is needed for the Bactiscan™ test?

A In most instances downtime is not required as long as the surface can be illuminated by Bactiscan™. Bactiscan™ is able to examine an empty silo for example in approximately 30 minutes.