

Electronic Fly Killers (EFKs)

flyDetect[®]
IPM Online Monitoring System



FLYDETECT[®] - INSTRUCTIONS FOR USE

For more information please visit
www.flydetect.com



TABLE OF CONTENTS

PRECAUTIONS	1
UNPACKING YOUR flyDetect® TRAP	1
HARDWARE OVERVIEW	1
flyDetect® SYSTEM OVERVIEW	3
ACCOUNT CREATION	4
VIEWING ACCOUNT CREATION	4
flyDetect® SYSTEM CREDITS	5
ALERT SYSTEM	5
ALERT STATUS - TRAFFIC LIGHT PRIORITY SYSTEM & PROGRESS BAR	6
TIME BASED SERVICE NOTIFICATIONS	6
SITING	6
INTERNET CONNECTIVITY	7
CHECKING INTERNET SIGNAL STRENGTH	7
ELECTRICAL SUPPLY	7
INSTALLATION	7
WALL MOUNTING	8
CEILING SUSPENSION	8
INSTALLING TRAPS WITH THE flyDetect® MOBILE APPLICATION	10
CLEANING AND MAINTENANCE	10
SERVICING	10
CHANGING THE STICKY BOARD	11
CHANGING THE UV TUBES	12
CONNECTION PORT COVER PLATE	12
REPLACEMENT PARTS	13
CONNECTIVITY HARDWARE	13
MINIMUM SYSTEM REQUIREMENTS	13
HELP AND TUTORIALS	13

PRECAUTIONS

All PestWest® traps are fully insulated Class I appliances, nevertheless, sensible precautions should be observed:

- **Switch off the machine before changing the UV-A tubes or cleaning.**
- **To maintain the attractive appearance of the units, wipe down and clean as often as required. Use a cloth dampened with water and detergent or a proprietary cleaner. Do not use scouring pads or abrasives.**
- **Do not install where dangerous concentrations of flammable gases or dusts are likely to occur.**
- **Ensure the unit is properly earthed.**
- **Avoid working on the machines whilst they are still connected to the mains.**
- **Ensure that operators have an adequate and secure working platform, when working on the machines.**
- **Do not allow the sticky board to become over-filled with dead insects. Change at regular intervals as required by the catch or at least every 6-8 weeks. Ensure PestWest® flyDetect® yellow sticky boards are fitted as replacement.**
- **The unit is designed for indoor use only and is not waterproof.**
- **Not suitable for use in barns, stables or similar locations.**
- **Maintenance may be carried out by people with reduced physical, sensory or mental capabilities or lack of experience or knowledge if they have been given supervision or instruction.**
- **The appliance is to be kept out of the reach of children.**

UNPACKING YOUR flyDetect® TRAP

Each trap is carefully inspected and packed before leaving our factory. Before discarding the outer carton, examine for obvious evidence of transport damage. Remove the trap and pay particular attention to the removal of all packing materials before installing the trap.

HARDWARE OVERVIEW

All PestWest® fly control traps are made using the highest quality materials. The bodywork of the flyDetect® trap is made from polyester powder coated zintec steel (rust-resistant).

The trap is fitted with Quantum® BL tubes with FEP shatter resistant coating as standard to EN61549. These tubes are powered by a state-of-the-art high frequency electronic ballast that is more energy efficient than traditional magnetic ballasts, as well as being entirely automatic no separate starters are required.

The trap retains a flyDetect® yellow sticky board specifically designed to enable the detection of insects as they are caught. See the diagram overleaf for a full overview of the flyDetect® hardware.

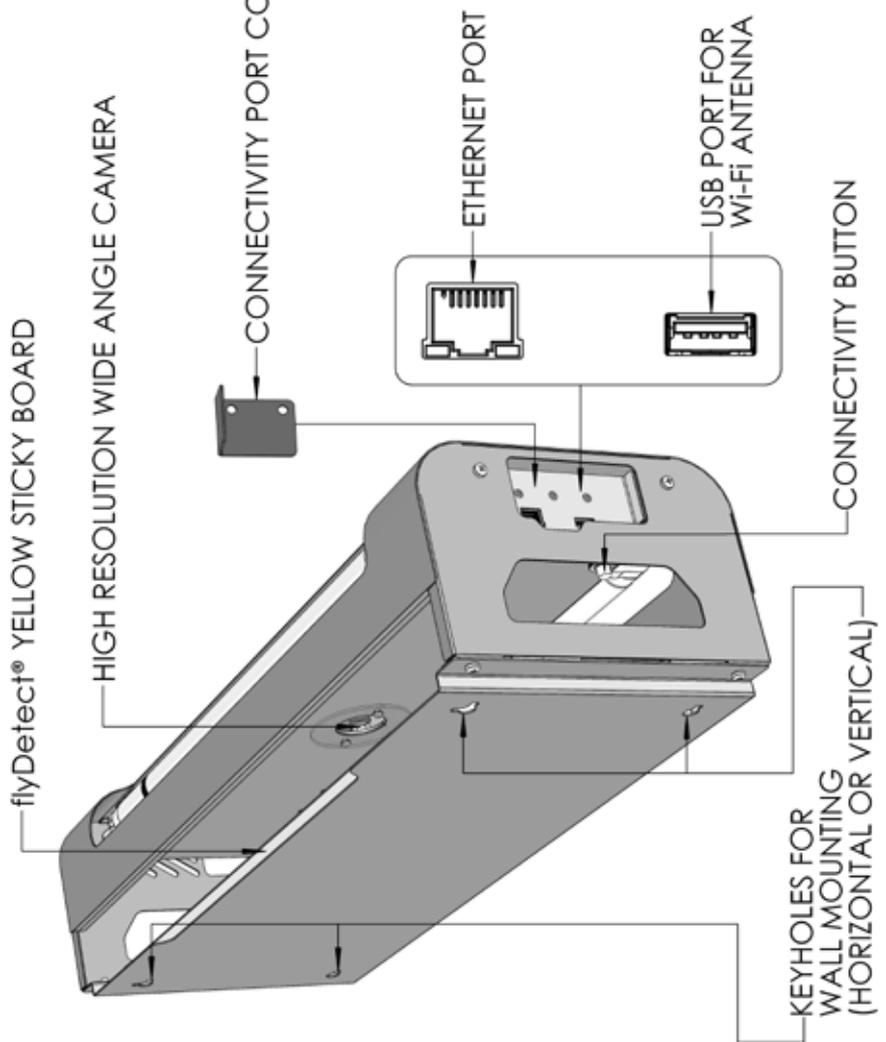
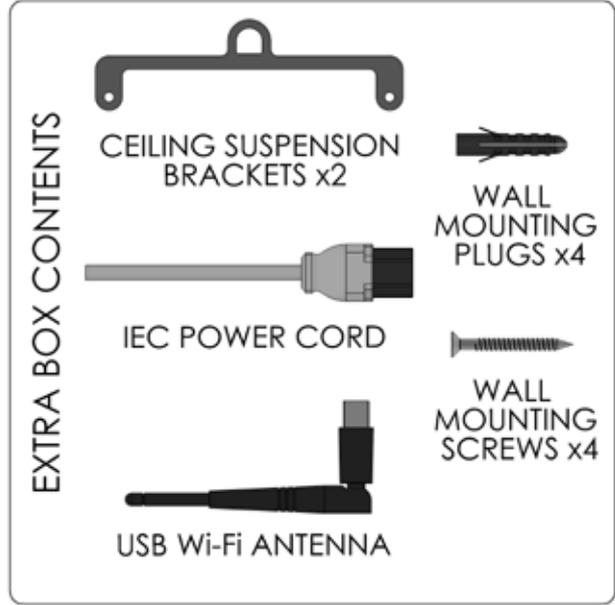
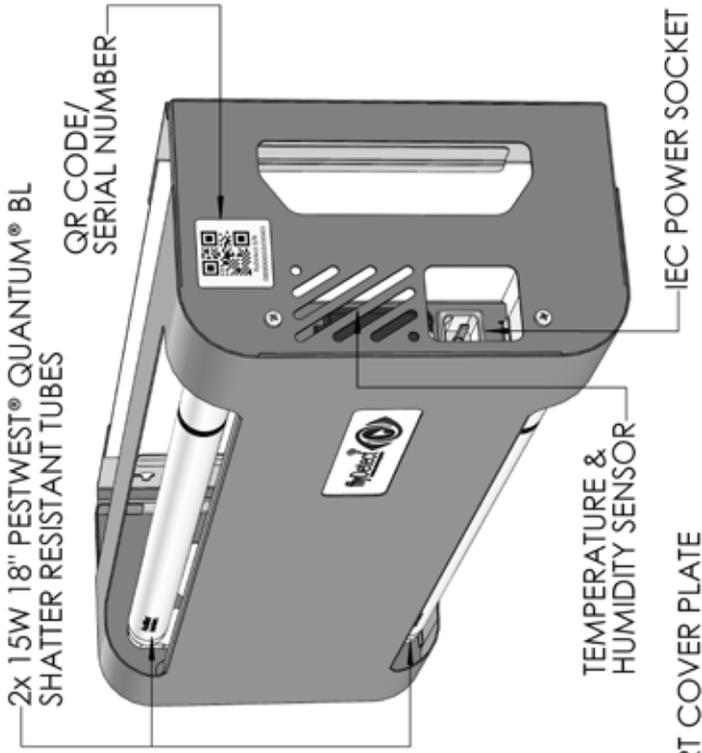


Always install PestWest® flyDetect® yellow sticky boards to ensure peak efficiency and performance of the detection system. This sticky board has been developed in conjunction with the flyDetect® trap to provide the most accurate results possible. Using any other sticky board will have a negative impact on the detection system and cause inaccurate results.





- Wi-Fi, CELLULAR AND ETHERNET CONNECTIVITY
- SUPPORTING MOBILE SERVICING AND WEB BASED MANAGEMENT APPLICATIONS



flyDetect® SYSTEM OVERVIEW

Each flyDetect® trap houses a camera module which will record one high resolution image of the entire sticky board per day, at a time selected by you. In addition to this, further images can be manually requested at any time, as frequently as is required, using either the web or mobile applications. Traps must be continuously connected to the internet, and can connect via Wi-Fi, cellular (3G/4G) or ethernet.

Each time a new sticky board is inserted into a flyDetect® trap, the mobile phone application will guide you through taking an initial image of the empty sticky board. All subsequent images will then be compared to the initial image, until a pre-selected threshold level is reached, and the sticky board is replaced. It is important that the sticky board is inserted properly, and the in-app video instructions are followed, to achieve the most accurate results possible. See the **CHANGING THE STICKY BOARD** section for full instructions.

Once an image has been taken, it is then sent over the internet to the flyDetect® server, where it will be analysed against a pre-selected alert level chosen by you. Once your selected threshold has been exceeded, the system will send out an alert to the designated servicing technician via email, with the associated image of the sticky board attached for further analysis.

All recorded images are stamped with temperature and humidity readings which were taken at the time of image capture and stored permanently in a secure searchable archive.

Insect activity alerts can be customised on a per-trap basis, giving the ability to have different levels of control over a single site for areas of different sensitivity. Time based service notifications can also be scheduled for when UV-A tubes or sticky boards which have not reached their alert level need to be replaced.

When a trap is serviced, the user can add notes and additional photographs using their smart phones camera to generate a service visit report. These will be stored alongside the sticky board image which triggered the alert in the searchable archive.

The flyDetect® mobile application is designed to be used as a servicing tool whilst in the field and features trap installation and servicing, along with alert and notification management.

The full flyDetect® web application can be accessed at **www.flydetect.net** and is available on desktop computers and laptops. It features system administration tools such as creating and managing clients and technician accounts, viewing archived sticky board images and service visit notes, and provides greater levels of customisation to your flyDetect® network.

See the **MINIMUM SYSTEM REQUIREMENTS** section for a list of compatible device specifications.

ACCOUNT CREATION

Before installing your first physical flyDetect® trap at a site, you must create an account on the flyDetect® web application by visiting the link below. This can only be accessed from a desktop computer, or laptop.

<https://flydetect.net/register>

NOTE: You must have a valid flyDetect® serial number available, which is not currently registered on the system in order to validate your account. The serial number is printed underneath the QR code located on the right-hand side of your new flyDetect® trap.



Once your account has been created you can then set up clients/sites including sub-divisional areas and assign servicing technicians to manage these accounts. The chosen technicians can then visit the site to install and maintain the traps using the flyDetect® app on their mobile device.

VIEWING ACCOUNT CREATION

Viewing access can be granted to each of your clients/sites if desired. This will provide viewing access to all archived images, along with showing the current alert status of all traps at their location.

If a viewing account is created, then ownership of all images taken by traps at that location will belong to the viewing account.

This means that even if the client switches to a different pest controller, then the client will retain ownership of all the images captured. The traps themselves, if owned by the client, will stay installed and running on their site, ready for a new pest controller to take over servicing.

If the traps are owned by the pest controller, then the history will remain with the client, but the traps can then be reinstalled elsewhere, with their new images being the property of the new client.

It is important to note that if a viewing account is not created prior to deleting traps from a customer's site, then their history will be permanently deleted and cannot be recovered.

flyDetect® SYSTEM CREDITS

Your flyDetect® account must be in positive credit for it to be fully operational. Credits are not trap specific but are added to an overall account balance which all your installed flyDetect® traps draw from.

Each new flyDetect® trap comes pre-loaded with one years' worth of credit (365 credits), which is activated at the point of initial installation onto the flyDetect® system and added to your account balance.

Each flyDetect® trap uses 1 credit per day. For example:

- If you had 365 credits with 1 flyDetect® trap connected, you would have 365 days of credit remaining.
- If you had 365 credits with 10 flyDetect® traps connected, then you would have 36 days of credit remaining.

If your balance drops to zero credits or below, then all active flyDetect® traps will cease displaying new images until the account returns to positive credit. Photographs will still be taken and archived but can only be viewed when the account returns to positive credit. Whilst the account is in negative credit, the alert and notifications systems will also be unavailable.

The credit balance of your account is displayed at the top of every screen on the web based flyDetect® application, with a breakdown of the credit balance, number of traps connected, and days of access to the system remaining.

Credits: 365	Traps: 10	Days remaining: 36
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Credit vouchers are available to purchase for 1 year (365 credits) or 10 years (3,650 credits) and get added to the whole account balance. To purchase additional credit vouchers, please contact your supplier.

To add new credits to your account, log onto the web based flyDetect® application, navigate to the 'Credits' tab on the left-hand side menu, then click 'Add Credits' and enter the 10-digit voucher code. Credits will be added to your balance instantly.

If a trap is deleted from your account, it will stop drawing credits from your balance.

ALERT SYSTEM

When installing a trap using the flyDetect® mobile app, you will be given the option of selecting between five predefined alert levels as detailed below. This is a threshold number of insects of which you will be notified once the trap has exceeded.

- Level 1: approx. 50 flies
- Level 2: approx. 100 flies
- Level 3: approx. 150 flies
- Level 4: approx. 200 flies
- Level 5: approx. 250 flies

Once an alert is triggered, the identified trap will then remain in alert status until serviced, or the alert level can be temporarily increased if desired, to allow for a greater catch quantity. Alert levels can be adjusted after installation using the flyDetect® web and mobile applications.

ALERT STATUS - TRAFFIC LIGHT PRIORITY SYSTEM & PROGRESS BAR

Each active flyDetect® trap will display a coloured progress bar, showing progress towards the selected alert level mentioned above. The bar will pass through green, amber and finally red, at which point an alert will be activated and the servicing technician notified by email.

Where the trap is viewed in a list format, a circle marker will be displayed next to the trap's name or number reflecting the colour of the progress bar for that trap, at that point in time.

If a trap loses internet connection, it will go into offline status, and display a black circle marker. When a trap is in offline status, it will be unable to take and transmit images, and a list of troubleshooting information will be displayed, giving you the option to either reconnect or change to an alternative connection method.

These coloured markers will also feature on the map, which is located on the dashboard of both the mobile and web applications.

The most severe flyDetect® trap status at a given site will be displayed, based on the following scale of severity (with black being the most severe and green being the least severe):

- Black: Offline status / lost connection
- Red: Alert level reached / action required
- Amber: Nearing alert level / action imminent
- Green: No action required

TIME BASED SERVICE NOTIFICATIONS

Time based service notifications can also be scheduled on a per-trap basis, for when UV-A tubes or sticky boards which have not reached their alert level within a set time need to be replaced. When a service notification is reached, an alarm clock symbol will be displayed within the coloured circle marker which depicts the current alert status of that trap. An email will also be sent to the servicing technician alerting them that a service is due.

Once the trap has been serviced, the alarm clock symbol will disappear, and the servicing dates recorded on the trap information page.

SITING

Electrical fly traps operate on the principle that most flying insects are attracted to light, particularly to the ultraviolet (UV) end of the light spectrum.

The efficiency of the trap can be affected by the intensity of other light sources, for example daylight or other general lighting fixtures. Therefore, mount the trap where competition from other light sources is minimised.

In food areas, mount close to, but not directly above, exposed food or preparation surfaces to attract flies away from sensitive areas rather than attract towards them. Observe where the flies tend to congregate and if possible, put your fly trap in or close to that area.

Site the trap near where flies are likely to gain access, e.g. doors and windows opening to the outside, especially areas where waste bins are located.

Position the trap where it can be easily reached, ideally around head height for ease of servicing. Do not position the trap directly over working machinery, where access may be difficult or dangerous.

INTERNET CONNECTIVITY

flyDetect® traps must be sited in areas where there is continuous internet connectivity and should be left switched on and connected to the internet 24 hours a day. Traps can connect via Wi-Fi, cellular (3G/4G) or ethernet. The preferred internet connection method should be established and tested for signal strength and stability prior to trap installation as part of a site survey.

Each flyDetect® trap comes with a Wi-Fi antenna included in the box, ideal for connecting to existing Wi-Fi networks.

If you require cellular connectivity then traps can be connected via Wi-Fi using the provided antenna, to a 3G/4G cellular router, mobile hotspot, or other similar device, which will need to be purchased independently. This method gives the potential to connect multiple traps to a single router, providing they are all within signal range, meaning only one 3G/4G data SIM card is required to run multiple traps. If selecting this method, you will need to purchase a data SIM card independently which provides coverage in your desired location. The average data consumption of a single flyDetect® trap, based on the default settings of taking one daily image is 150 MB per month.

CHECKING INTERNET SIGNAL STRENGTH

For Wi-Fi and cellular (3G/4G) connectivity, it is recommended that you position yourself in the proposed location where the trap will be mounted and use your mobile phone to check that you can receive the desired signal in that location. Signal strength should be at least 50% and stable for a reliable connection.

If connecting to a cellular (3G/4G) network and following the above method, you should then purchase the required quantity of SIM cards from the same network provider as the one in your mobile phone, which you have tested to guarantee signal coverage. Prior to trap installation, you should obtain the SSID and password for the desired Wi-Fi or cellular router you wish to connect to.

ELECTRICAL SUPPLY

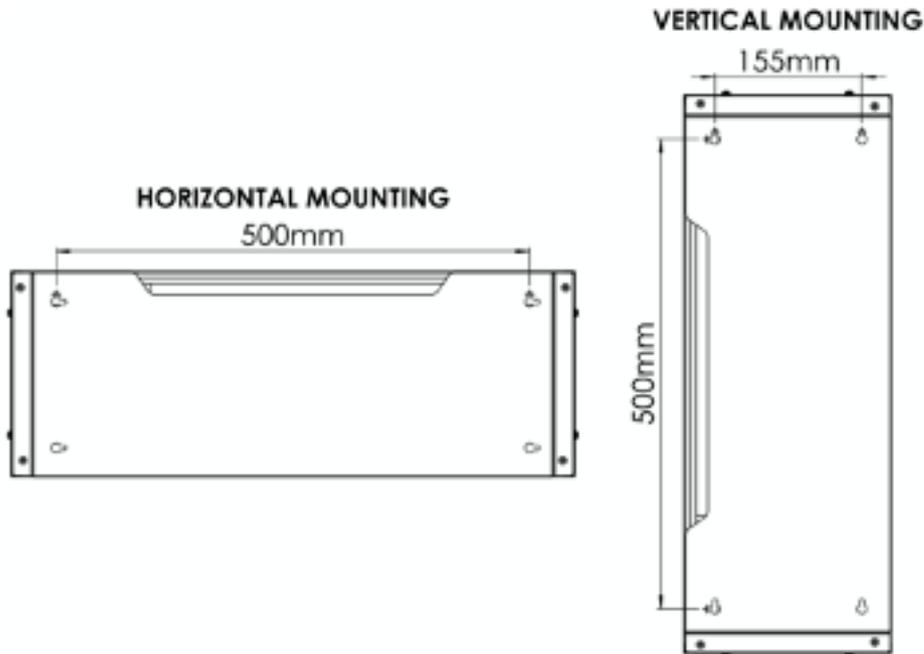
The trap is supplied with a removable 2 metre power cord, terminated in a plug to suit local outlets, and operates from a 220-240V 50-60Hz supply. If it is necessary to extend the power cord, a competent electrician must do this. Ensure that once installed, the cord is adequately secured.

INSTALLATION

Select the optimum position for the flyDetect® trap using the guidelines given previously.

WALL MOUNTING

The flyDetect® trap has 4 keyhole slots on the rear panel to permit wall mounting, using the screws and masonry plugs provided. The trap can be mounted either horizontally or vertically. Only 2 keyholes should be used for horizontal mounting, whilst 4 keyholes should be used in vertical mounting for added stability.



Mark off the necessary fixing points onto the mounting surface using the paper mounting template provided. Drill holes to a depth of 40mm using a 5.5mm drill bit. Place the plastic plugs into the wall, then screw the screws into the plugs leaving the head of the screw approximately 10mm from the wall. The trap will now hook over the screws using the keyhole feature.

If the wall is plasterboard, stud partition etc. suitable fixings should be used to ensure the trap will be securely mounted.

CEILING SUSPENSION

The flyDetect® trap has the option of being ceiling suspended using the two brackets provided. These brackets can accept a variety of mounting hardware such as suspension wire, or chains with spring release clips and will provide a secure fixing point.

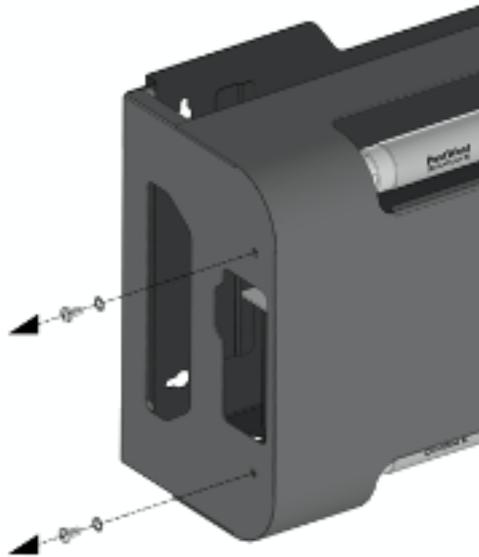


No ceiling suspension hardware is provided with this trap. The selected hardware should be capable of supporting a minimum of 15kg and should be made from a non-corroding material. If spring release clips are used, these should also be capable of supporting 15kg each.



The ceiling suspension brackets should be attached one end at a time following the steps below.

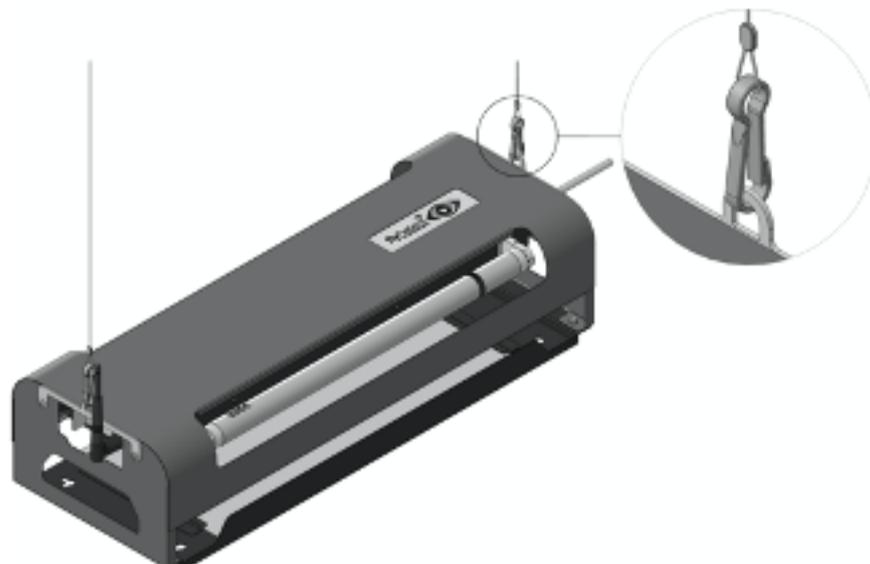
1. Place the trap face down on a soft, debris free surface to avoid scratching the paint.
2. Using a pozi-drive screwdriver, remove the two screws and shakeproof washers holding the main cover and internal chassis tray together, from one end of the trap only.



3. Align the ceiling suspension bracket with the screw holes and reinsert the screws and washers using a pozi-drive screwdriver. Ensure the screws are tightened securely.



4. Repeat steps 1-3 for the opposite end of the trap.
5. Attach desired ceiling suspension hardware such as hooks and chains, or wire cable.



INSTALLING TRAPS WITH THE flyDetect® MOBILE APPLICATION

Before installing your first physical flyDetect® trap at a site, you must create an account on the flyDetect® web application, create at least one client/site and create sub divisional areas, See the **ACCOUNT CREATION** section for more details.

The flyDetect® mobile application can be downloaded from either the Play Store (Android devices), or the App Store (iOS devices). Once downloaded and installed, sign into the application using your log in details.

Using the flyDetect® mobile application, on the main dashboard press the 'New flyDetect' icon and follow the onscreen instructions and videos to install your trap at the desired client/site.

The app will guide you through connecting the trap to the internet and taking an initial image of the empty sticky board. All subsequent images will then be compared to the initial image, until the alert level is reached, and the sticky board is replaced. It is important that the sticky board is inserted properly, and the on-screen instructions are followed, to achieve the most accurate results possible.

CLEANING AND MAINTENANCE

Always switch off the machine before cleaning. 

To maintain the attractive appearance of the traps, wipe down and clean as often as required. Use a cloth dampened with water and detergent or a proprietary cleaner. Do not use scouring pads or abrasives.

It will be necessary to occasionally wipe clean the clear camera lens protector. Use a microfibre cloth and ensure that no lint or debris is left behind on the lens protector as this could adversely affect the accuracy of the detection system.

The UV-A tubes in electric fly traps should be changed at least once a year. To maintain maximum efficiency replace with Quantum® BL tubes. Tubes are most attractive to the target flying insects when less than one year old. This is because the UV light emitted by the tubes at a wavelength of 350-375 nanometres diminishes with use. Light of this wavelength is invisible to the human eye. Daily switching on and off the tubes results in an even faster loss of the effective UV emission. Therefore, leave the tubes switched on continuously and change them at least once per year (preferably at the onset of increased fly activity after the winter).

PestWest® offer both standard and shatter resistant (coated) Quantum® BL tubes. The shatter resistant tube is intended for use in glass exclusion zones. The coating on tubes supplied by PestWest® is of the highest quality available, using a material, FEP that is both UV and operating temperature tolerant, whilst allowing high emissions of the critical UV-A light. Replacements should be of similar performance.

SERVICING

All sticky board and UV tube changes which are registered via the flyDetect® mobile application are recorded. Time based service notifications can be set for both sticky board and UV tube changes.



Failure to register the sticky board or UV tube change on the flyDetect® mobile application will mean that the servicing visit is not recorded. This will result in the associated time-based servicing notifications not being reset and will also cause inaccurate performance of the insect detection system.



The following servicing options can be selected as individual operations, or simultaneously. The flyDetect® mobile application will guide the user through how to carry out their selected servicing options, as detailed below.

CHANGING THE STICKY BOARD

Using the flyDetect® mobile application, on the main dashboard press the 'Service' icon and using your mobile phone's camera, scan the QR code located on the right-hand side of the flyDetect® trap. Scroll to the 'servicing' section and check the box for 'Change the sticky board' and then press 'SERVICE'.



Always install PestWest® flyDetect® yellow sticky boards to ensure peak efficiency and performance of the detection system. This sticky board has been developed in conjunction with the flyDetect® trap to provide the most accurate results possible. Using any other sticky board will have a negative impact on the detection system and cause inaccurate results.



Whenever a new sticky board is inserted into the trap, the mobile phone application will guide you through taking an initial image of the newly inserted empty board. This initial image will then be used to compare all future images against, until the next sticky board replacement. It is important that the sticky board is inserted properly, and the on-screen instructions followed.



1. The sticky board has a pre-formed crease 30mm from the bottom edge. Fold the board 90 degrees along this crease line.
2. Carefully remove the release paper from the front face of the board to reveal the glue surface.
3. Ensuring the glue surface is facing towards the UV tubes, and the folded tab is at the bottom, slot the sticky board between the two board guides on the back panel of the trap and slide down until it reaches the bottom.



4. Make sure that the folded section bends down to a right angle at the bottom of the channels, and the top edge of the sticky board is level with the top edge of the metalwork, and not protruding beyond it.
5. Once complete, press 'NEW INITIAL IMAGE'. Once successfully updated, a new initial image of the sticky board will be displayed on your handset.
6. Press 'DONE' to complete this process.

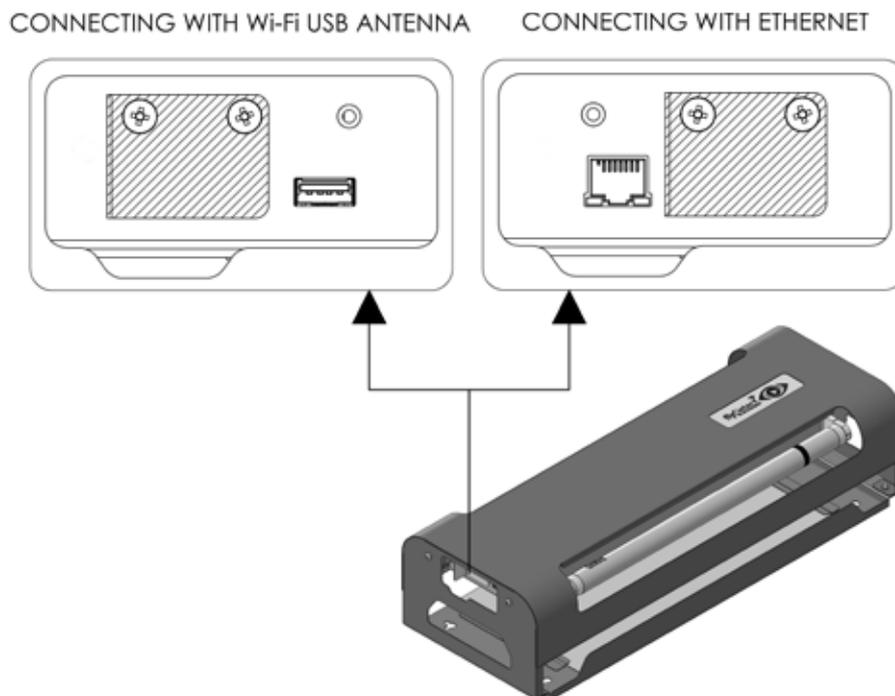
CHANGING THE UV TUBES

Using the flyDetect® mobile application, on the main dashboard press the 'Service' icon and using your mobile phone's camera, scan the QR code located on the right-hand side of the flyDetect® trap. Scroll to the 'servicing' section and check the box for 'Change UV tubes' and then press 'SERVICE'.

1. Switch off the power to the flyDetect® trap.
2. Grasp and rotate each tube 90° in either direction until 2 clicks are heard.
3. The UV tubes may then be withdrawn by sliding them out of the lamp holders.
4. Installation is the opposite procedure to removal.
5. Switch on the power to the flyDetect® trap.
6. Press 'DONE' to complete this process.

CONNECTION PORT COVER PLATE

The connection port cover plate should be installed at all times over whichever internet connection port is not in use (USB or Ethernet). The plate will prevent the ingress of dirt into the port which could otherwise cause problems in the future if the connection method of the flyDetect® trap needs to be changed.



To reposition the connection port cover plate, follow the steps below.

1. Switch off the power to the flyDetect® trap.
2. Using a pozi-drive screwdriver, remove the two screws holding the port cover plate in place.
3. Place the port cover plate over the connection port not in use. Align the two holes in the plate with the related screw holes in the chassis and reinsert the screws using a pozi-drive screwdriver. Ensure the screws are tightened securely.
4. Switch on the power to the flyDetect® trap.

REPLACEMENT PARTS

Part Description	PestWest® Part Number
Sticky board type - PestWest® flyDetect® yellow sticky board (6 pack)	135-000209
UV-A Tube type - PestWest® Quantum® BL 15W 18" shatter resistant:	130-000171

CONNECTIVITY HARDWARE

Wi-Fi Antenna (Supplied):	811-000006
Wireless 3G/4G cellular router, or mobile hotspot (Not supplied): Share a cellular connection with multiple devices at the same time Data enabled SIM card to be purchased independently	Not available to purchase from PestWest

MINIMUM SYSTEM REQUIREMENTS

flyDetect® Web Application

Supported web browsers
Google Chrome
Mozilla Firefox

flyDetect® Mobile Phone Application

PestWest have tested flyDetect on the Android and iOS mobile phones listed below.

Android	iOS
Samsung S6 (and above)	iPhone 6 (and above)
Huawei P20 Pro (and above)	
Google Pixel 2 (and above)	

Customers are not prohibited from using flyDetect® on untested devices, but PestWest® cannot guarantee that such devices will work as intended. This list of devices is subject to change without advance notice.

All PestWest® traps are guaranteed for 3 years (excluding UV-A tubes and sticky boards).

*Manufacturer reserves the right to vary model specifications without notice.

For additional help and tutorials please visit
<https://support.pestwest.com>



FLYDETECT[®] - INSTRUCTIONS FOR USE

For more information please visit
www.flydetect.com

