



User Guide

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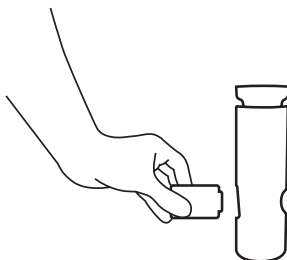
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The Valpas System



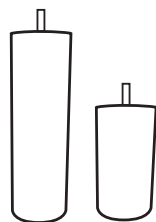
Valpas smart bed leg

The smart leg traps and detects bugs. Sensors and wireless technology are inside the detachable trap module.



Trap module

The trap module is detachable from the smart bed leg and enables quick and easy extermination.



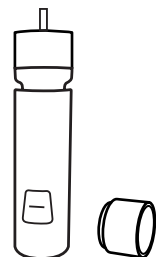
Valpas basic bed leg

The basic leg is unclimbable for bed bugs. The basic leg prevents bed bugs entering or leaving the bed by climbing the bed leg.



IoT gateway

The IoT gateway is connected to the internet. The gateway collects the information from all smart legs in real time and sends it to the dashboard.



Leg extension piece

Bed leg extension for leg lengths other than 12 cm or 20 cm.



Inspection jar

For closer examination of trapped insect/ trap content, empty the module into an inspection jar. You can dispose of any trapped bugs using the jar.



Valpas dashboard

Log in to Valpas dashboard on app.valpas.io. Fill in a contact email in settings to receive notifications. Use dashboard to monitor the system and resolve detections.



Valpas Install app

Download the installation app to your mobile device to pair the installed smart legs to hotel rooms.

You can find Valpas Install in Apple App Store and Google Play Store.

General Description

Valpas system is developed to prevent bed bug infestations. When installed correctly to a bed, Valpas bed legs **attract, trap and detects bugs**. Caught bugs remain trapped inside the bed legs.

Valpas bed legs form an autonomous IoT network that relays the information of caught bugs to the user through an IoT gateway. Valpas system is active 24/7.

The functionality of Valpas bed legs is simple:

A **Valpas smart bed leg** is a beacon for any bed bug that comes near. A specially designed surface coating attracts bugs and drives them in the trap inside the smart leg. The bugs remain trapped inside the leg where sensors detect them and a wireless notification is sent. The trap module is detachable from the bed leg and enables quick and easy extermination.

A **Valpas basic bed leg** is designed to be unclimbable for bed bugs. The basic leg prevents bed bugs entering or leaving the bed by climbing the bed leg.

In some cases bed bugs can hitch a ride with luggage or a piece of clothing placed on the bed directly. Valpas smart legs can trap the bugs when they move around the bed frame trying to find new shelter.

After receiving a detection notification, the user follows the instructions and a step-by-step path about how to proceed. Early detection is key when preventing bed bugs.

The user can live monitor Valpas protected rooms on a smartphone or computer using the **Valpas dashboard**.

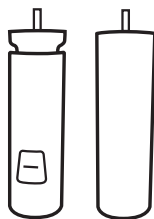


Quick Guide to Get Started

What you'll need



Valpas Install app and dashboard



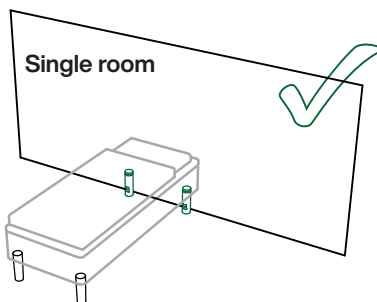
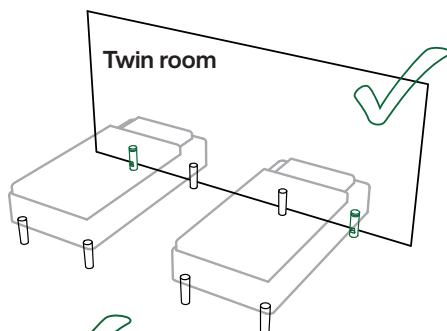
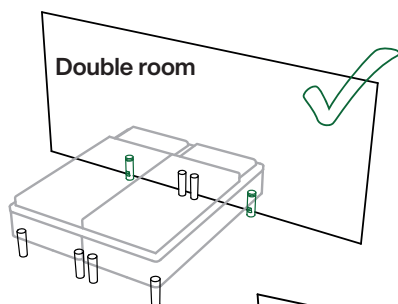
Valpas bed legs



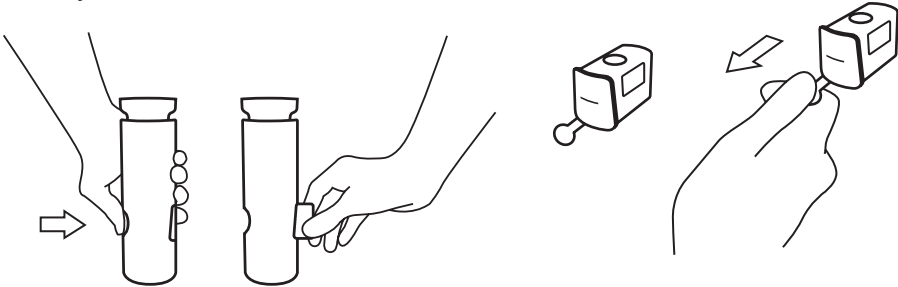
IoT gateway

1. Plug in the IoT gateway to setup a network for Valpas bed legs. Connect the gateway to the ethernet or hotel wifi. Make sure the gateway is in the proximity of your hotel rooms.

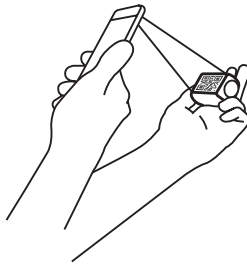
2. Go through available rooms replacing all bed legs with Valpas legs. Make sure to screw in your Valpas bed legs firmly. A set of Valpas bed legs comprises of smart legs and basic legs. The needed amount of Valpas smart legs per room is one smart leg per sleeper, with a minimum of two smart bed legs per room. Smart legs are installed in the pillow end of the bed and basic legs as the remaining bed legs. See the pictures below for correct placement.



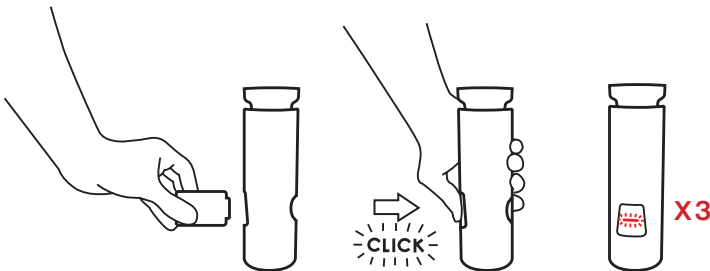
3. Eject the trap module by pushing the round end of the module and pull out the battery seal tab.



4. Download and open the Valpas Install app with your mobile device and login with the credentials. Follow the step-by-step instructions. Scanning the QR-codes pairs the modules to the assigned hotel room.



5. Insert trap modules in the smart bed legs. Make sure the sensor trap is clean of any dust or extra particles before inserting the trap module. A red light flashing three times after inserting the trap module indicates that the Valpas smart leg is ready and rigged.



5. Log in to Valpas dashboard on app.valpas.io. Fill in a contact email in settings to receive notifications. Use the dashboard to monitor the system and resolve detections.

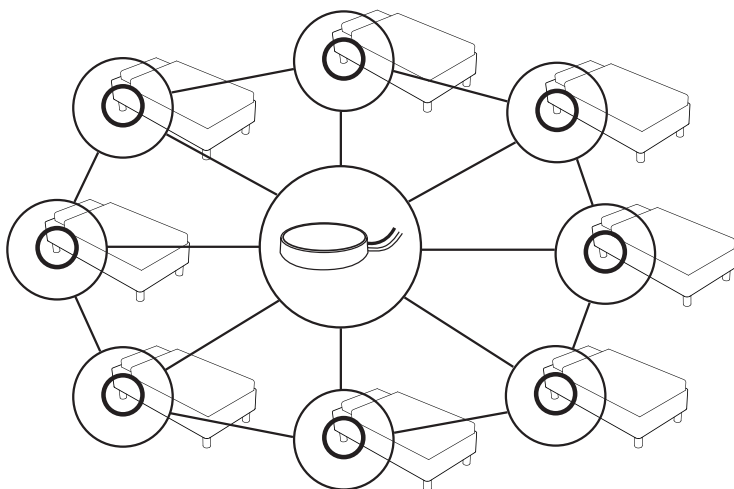
Installing the Gateway

About the Valpas network



Valpas smart legs form an independent wireless Bluetooth mesh network operating at 2.4 GHz bandwidth. The network is invisible to other Bluetooth devices.

The IoT gateway is connected to the internet. Only one IoT gateway is needed to relay the information from the network.



1. Find a place where you can plug in the gateway. A ground rule for placing the gateway is to have no more than one inner wall between the gateway and its nearest Valpas smart bed leg, e.g. in adjacent rooms. It needs a nearby power supply, and optionally an open ethernet port. It is recommended to place it in a place hidden from guests and others who might mistakenly shut it down.

2. Decide on the internet connectivity for the gateway. The gateway should ideally be connected to the internet with an ethernet cable. Make sure the ethernet port is working properly before installation. Wifi can be used, if the box cannot be placed near an ethernet port. Make sure the gateway's MAC address has been whitelisted in your network. You can find the MAC address in your email with your login credentials. Contact your IT personnel for support in these tasks.

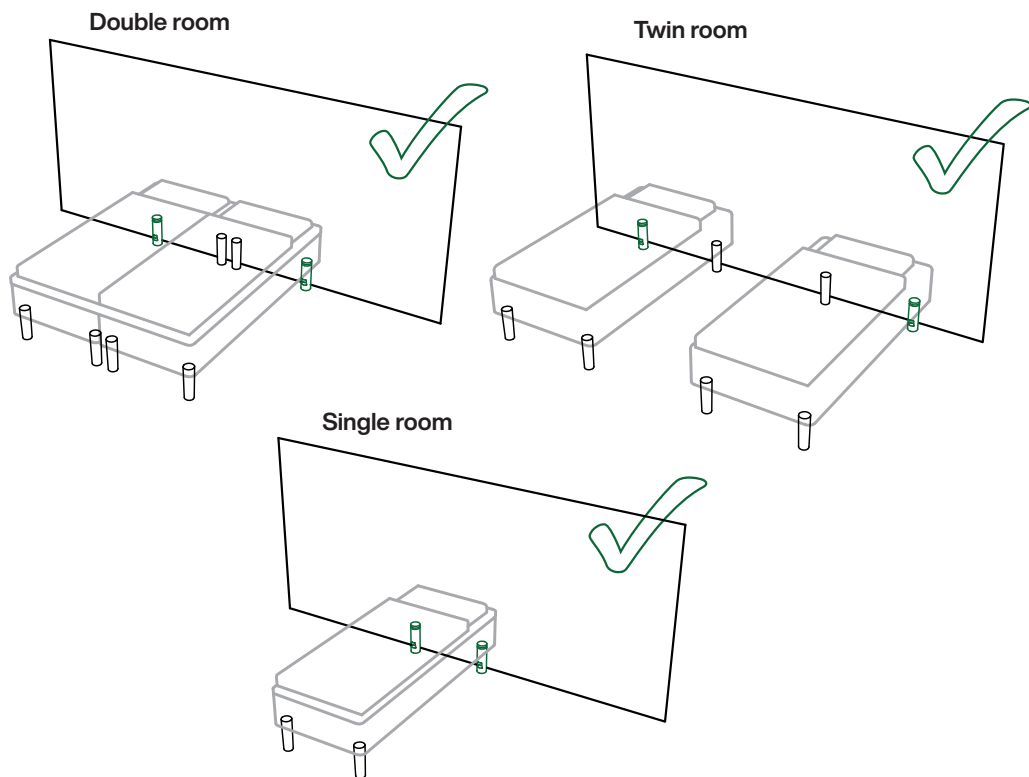


Placing the Smart Legs

A set of Valpas bed legs comprises of smart legs and basic legs. Smart legs are installed in the pillow end of the bed and basic legs as the remaining bed legs. See the pictures below for correct placement.

Make sure you have an easy access to inspect the smart leg trap. In a case when the bed is in the room corner with two sides against the wall, install the smart leg in the corner facing the room and not in the corner against the wall for easier access.

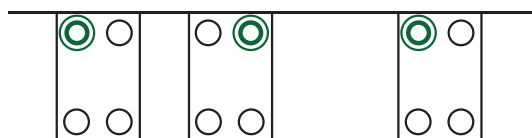
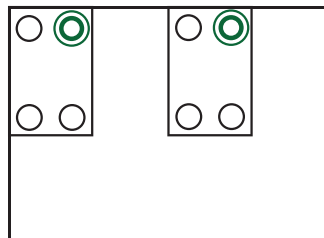
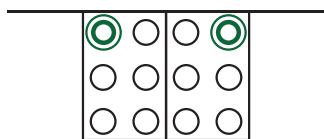
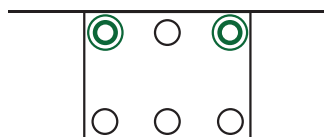
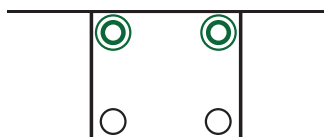
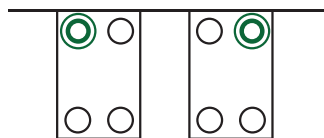
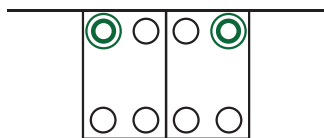
The needed amount of Valpas smart legs per room is one smart leg per sleeper, with a minimum of two smart bed legs per room.



Examples

 - Smart leg

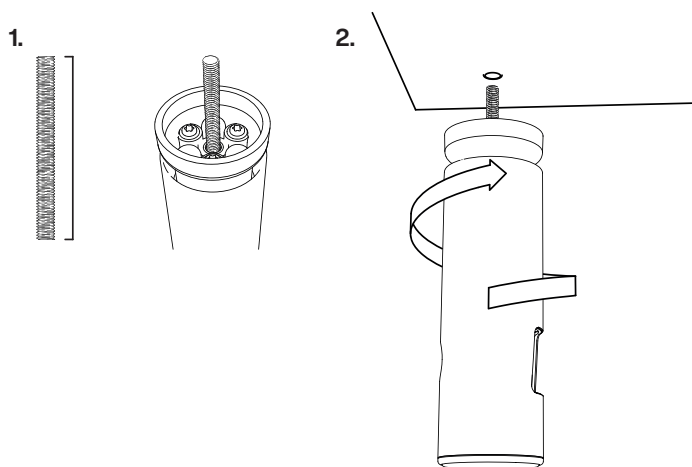
 - Basic leg



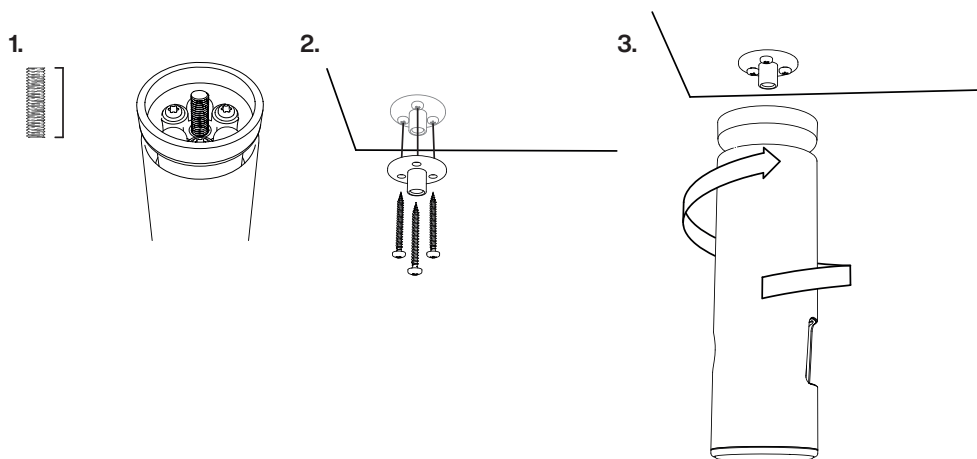
Attaching Valpas Bed Legs

Attach the Valpas bed legs by screwing them into existing threaded sockets on the bed frame or use the provided adapter base plate. The adapter base plate mounts directly onto the bed frame using the supplied screws and a power screw driver. Make sure you screw in the bed legs tightly.

With existing threaded sockets:



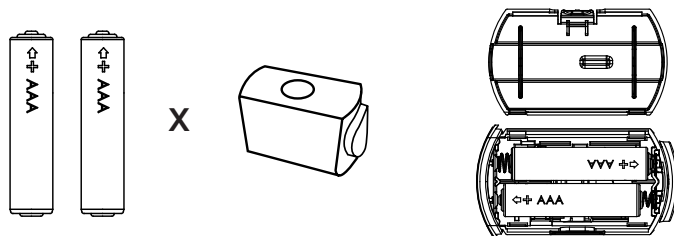
With adapter base plate:



Changing the Batteries

The trap module uses two AAA batteries. When replacing batteries remember to recycle the used batteries.

To check battery levels of your Valpas smart legs go to the dashboard rooms tab.

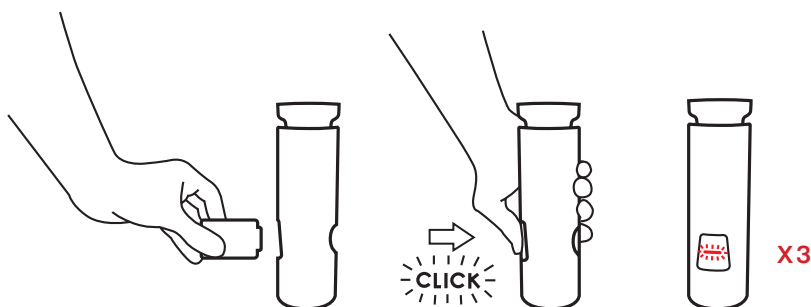


1. Eject the trap module.

2. Install 2 x AAA batteries in each trap module. To install batteries in trap module open the battery lid by pushing the button on the side. Make sure the batteries are in the right position before closing the lid: the negative pins are facing the springs. Remember to recycle the used batteries.



3. When reinserting the module inside the smart leg make sure the sensor trap is clean of any dust or extra particles before inserting the trap module. A red light flashing three times after inserting the trap module indicates that the Valpas smart leg is ready and rigged.



Valpas Dashboard

Login to Valpas dashboard on app.valpas.io



Feed – Notification feed. Check and resolve ongoing notifications.



Rooms – Room list. View your room statuses and room information in real time.



Guides – Basic information about your Valpas system as well as guides to help inspecting rooms and solving customer reports.



Settings – Fill in a contact email in settings to receive notifications. Set system report and notification reminder intervals.



Profile – Logout.



Online



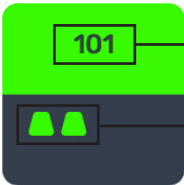
Offline



Detection



Module out of leg



Room number

Number of Valpas smart legs in the room

Examples



Detection in room 101 in one smart leg. Go to feed and resolve.

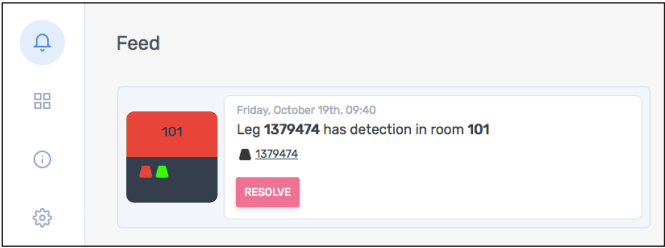


One of the smart legs in room 101 is offline.



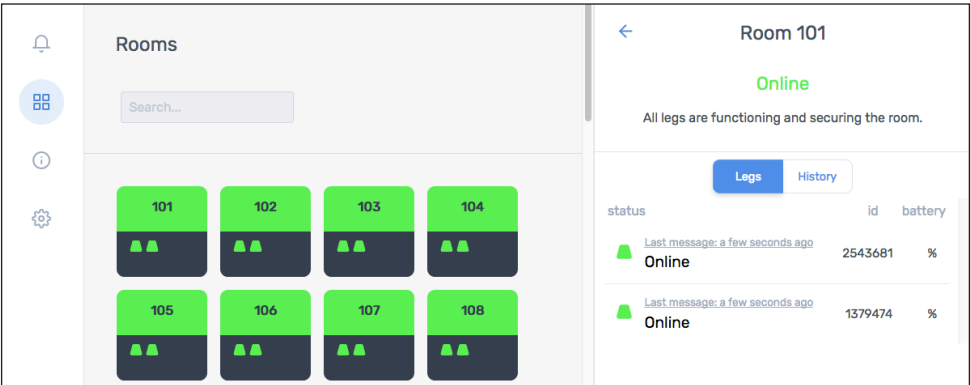
Resolving notifications in feed

The feed lists pending notifications from your Valpas system. Press resolve to address detection notifications and fill in the detection form.



Room information

Open the rooms tab to view the room list. Press the icon for the room to access room information and notification history.



Email Notifications

Detection notification

First, make sure that you have set a contact email or emails in Valpas dashboard. You will receive notifications and reports to the set email accounts.

When receiving a detection notification to your email, click the link to go to Valpas dashboard feed and choose to resolve the detection. You will receive instructions for how to proceed in case of a bed bug detection.

 **valpas**

Possible detection
Room 101

Go to the room and investigate as soon as it is possible. Inspect the Valpas trap leg with the pulsating signal light on. The detection can be caused by bed bugs or something else inside the Valpas trap leg. Resolving the detection should be done by qualified personnel for reliable bed bug identification.

Select resolve and follow the instructions.

resolve

Press resolve or go to this address:

<https://demo.valpas.io/#/feed>

[Valpas](#) | [Notification settings](#)



Monthly or weekly reports

Valpas will send an email report of the status your system and past detections.

The report is sent monthly by default, but you can choose if you want to receive a report weekly or monthly. Go to dashboard settings to change the report interval.

 **valpas**

Rooms report

01.05.2018 - 30.05.2018

66 Valpas rooms
5 rooms with detections

Room	Date	Result	Comments
106	10.05. 07:51	insect	
206	24.05. 09:06		
310	14.05. 08:22		
408	03.05. 12:03	insect	
504	24.05. 05:34	object	

[Valpas](#) | [Notification settings](#)

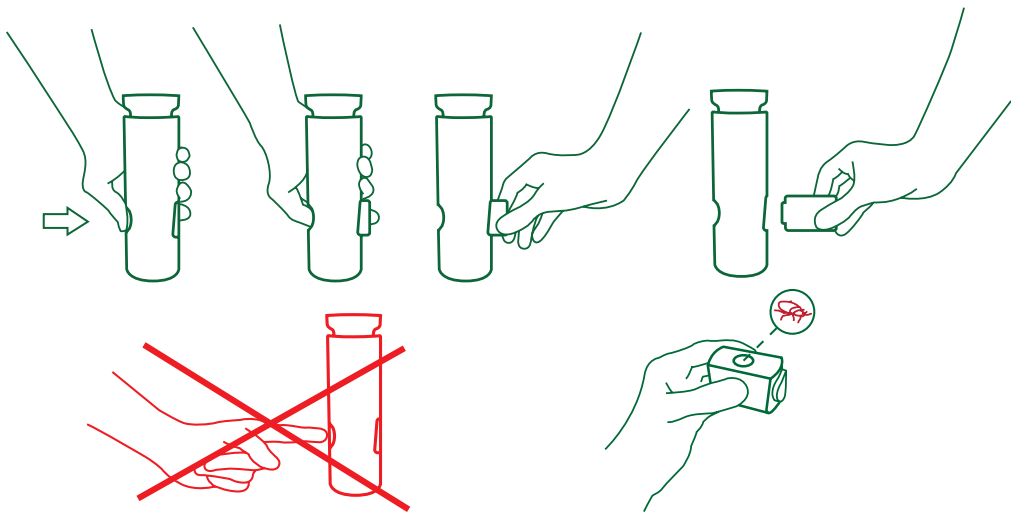


Resolving a Detection

Detection notifications are sent to your contact email address set in the dashboard.

1. When receiving a detection notification via email click the link and login to Valpas dashboard at app.valpas.io to see in which room the detection happened. If the room is currently occupied, you can set an email reminder for the inspection in the Valpas dashboard settings.
2. Go to the room and take the Valpas inspection jar with you. Detach the module with a blinking signal light.

Important: Detach the module carefully and keep it upright at all times.



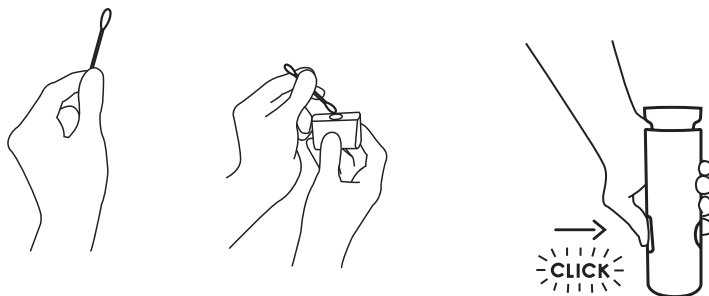
What to look for



3. Inspect the trap module. For closer examination of the trapped insect/trap content, empty the module into an inspection jar. You can dispose of any trapped bugs using the jar. To kill any bugs, pour them in the sink under running hot water. Make sure the tap is running on its hottest temperature.



4. Reinsert the trap module before leaving the room. If the trap cup is visibly dusty, wipe the trap cup with a swab.



5. Go to Valpas dashboard feed and choose to resolve the detection. You will receive instructions for how to proceed in case of a bed bug detection.

RESOLVE

Precautions

- The Valpas System is intended for indoor use only and shall not be exposed to rain. The operating temperature range for the device is -10°C– +55 °C.
- Remove the batteries from the trap module device if you are taking it inside an aeroplane, unless you have the pre-installed pull-out tape still in place. The device has a Bluetooth LE receiver and transmitter which must not be operational during a flight.
- Please take care that the used batteries are recycled by taking them to appropriate collection point.
- When changing batteries, replace both of them at the same time using identical brand and type.
- Do not swallow batteries.
- Do not throw batteries into water or fire.
- Do not short-circuit batteries.
- Do not try to charge primary batteries.
- Do not open or disassemble batteries.
- Batteries should be stored in a dry place and at room temperature. Avoid large temperature changes and direct sunlight. At higher temperature the electrical performance of the batteries may be reduced.
- Keep batteries away from children.
- Do not try to disassemble the radio module.

Legal notices

Hereby, Valpas Oy declares that the radio equipment type PST is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.valpas.io

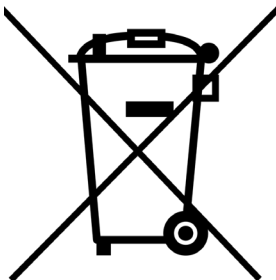
PST operates at Bluetooth® 2.4 GHz frequency band. Maximum radio-frequency power transmitted is +4.0 dBm

Manufacturer name and address:

Valpas Enterprises Oy

Katariinankatu 1 A

00180 Helsinki



FCC REQUIREMENTS FOR OPERATION IN THE UNITED STATES

FCC Information for the User

This product does not contain any user serviceable components and is to be used with approved, internal antennas only. Any product changes or modifications will invalidate all applicable regulatory certifications and approvals.

FCC Guidelines for human Exposure

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 5 mm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Federal Communications Commission Statement

This device complies with Part 15 Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

FCC Radio Frequency Interference Warnings & Instructions

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following methods:

- Increase the separation between the equipment and the receiver.
- Connect the equipment into an electrical outlet on a circuit different from that which the radio receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

FCC Caution

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1) This device may not cause harmful interference, and
- 2) this device must accept any interference received, including interference that may cause undesired operation.

INDUSTRY CANADA

This device complies with RSS-247 of the Industry Canada Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Ce dispositif est conforme à la norme RSS-247 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux deux conditions suivantes: (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable

Radiation Exposure Statement:

This device complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator and your body.

NOTE IMPORTANTE: Déclaration d'exposition aux radiations:

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec une distance minimale de 20 cm entre le radiateur et votre corps.

FCC ID: 2A36RVLPLEG

IC ID: 28100-VLPLEG

