

Bedbug Monitor (BBM) Instruction Manual

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1.0 Product Development\3.0 PD - Pest\PDH - 27073 Bed Bug Monitor\04. Product Documents\01. Design Documents\11. Manual _ User Guide

Revision History

Version	Release date	Changes by	Summary of changes
1.0	5/6/2018	M Bailey	Released
1.1	12/6/2018	M Bailey	Updated LED sequence Add Flow Chart
2.0	13/7/2018	M Bailey	Added FCC ID

Approvals

Name of approver	Title of approver	Signature of approver	Date approved	Version approved

Contents

1.	Radio Equipment - FCC Warning Statement	4
2.	Component Parts.....	5
2.1.	Sensor Shoe.....	5
2.2.	Sensor Main Unit	5
2.3.	Sensor Cover.....	5
2.4.	Detector Strip.....	6
2.5.	RI Key.....	6
3.	Detector Strip installation.....	7
3.1.	Decide Location.....	7
3.2.	Confirm length of detector strip	7
3.3.	Fit Shoe to surface	7
3.4.	Fit Detector strip to surface	7
4.	Sensor Installation	8
4.1.	Fit Batteries	8
4.2.	Fit Sensor Cover.....	8
4.3.	Connect to Control Panel	9
4.4.	Display Control Panel Signal Strength	9
4.5.	Attach Sensor to Sensor Shoe (previously fitted to sensor).....	9
4.6.	Confirm Signal Strength	10
4.7.	Unit Self Test and arming.....	10
4.8.	Hide Connection state (Optional)	11
5.	Service Mode	12
5.1.	Enter Service Mode - Check status of device	12
5.2.	Replace battery (if required).....	12
5.3.	Replace detector strip (If required).....	12
5.4.	Exit Service Mode - Unit Self Test and arming	12
5.5.	Hide Connection state	12
6.	Flow Chart	13

1. Radio Equipment - FCC Warning Statement

This equipment contains: FCC ID: 2AK3PGSD-500349 and IC ID: 22407-GSD500349.

- 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.
- This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

The FCC ID is present on the product label, as fitted to the sensor cover. The BBM unit cannot be operated without the sensor cover fitted.



2. Component Parts

2.1. Sensor Shoe



2.2. Sensor Main Unit

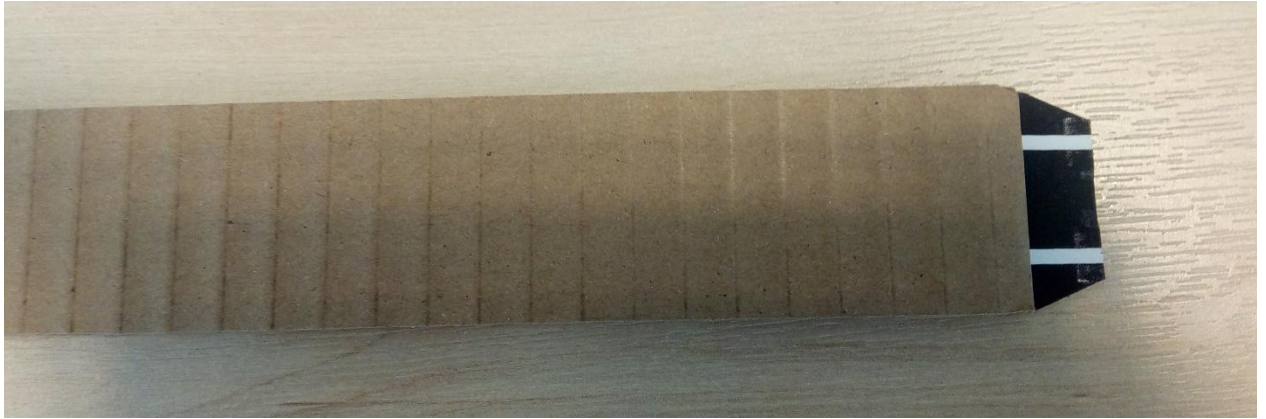


2.3. Sensor Cover



Location to place RI Key (magnet)

2.4. Detector Strip



2.5. RI Key



3. Detector Strip installation

3.1. Decide Location

Decide location for BBM in room

Confirm suitability to attach device to location

3.2. Confirm length of detector strip

Confirm if full detector strip can be used or if needs to be cut down.

3.3. Fit Shoe to surface

Remove tape and fit shoe to required surface.

3.4. Fit Detector strip to surface

Remove tape, align detector strip into shoe (already fitted to surface) and fix tape to surface.

Apply light pressure, not to damage detector strip.



4. Sensor Installation

4.1. Fit Batteries

Fit 2 AA batteries in the Sensor main unit as shown below. Battery orientation is shown on the main board.

If a low battery (less an 2.2v) is detected, the Red LED will light and the nothing further will happen.



4.2. Fit Sensor Cover

Fit the Sensor Cover to Sensor main unit.



4.3. Connect to Control Panel

The BBM will attempt to connect to a control panel. The following LED sequences are used:

- 1) Red Flash – Searching for network
- 2) Purple Flash – Network found, attempting to connect
- 3) Blue Flash – Indicates successful connection

The unit will search for the network for a timeout of 15 minutes. After this period, the searching will continue, but the LED's will not be flashed until a connection is made.

4.4. Display Control Panel Signal Strength

Once connected to the network, the BBM will indicate signal strength of the connection:

- 1) Blue Solid – Strong Connection
- 2) Yellow Solid – Low Signal
- 3) Red Solid – Very low/No Signal

The signal strength will be shown for 1 hour, after this time will automatically start the Self Test, shown in the sections below.



Note: When performing a site survey prior to installation, the BBM can be left in this mode to review the signal strength as you move around the build.

4.5. Attach Sensor to Sensor Shoe (previously fitted to sensor)

Slot sensor into sensor shoe on surface.

4.6. Confirm Signal Strength

With the Sensor in its final position, confirm signal strength is still ok.

- 1) Blue Solid – Strong Connection
- 2) Yellow Solid – Low Signal
- 3) Red Solid – Very Low/ No Signal

It is preferred that the unit is left with a blue solid (strong connection). In exceptional cases a unit can be left with a yellow solid, but there is a risk of connection issues in the future. A unit should NOT be left if the red solid is shown.

The signal strength will be shown for 1 hour, after this time will automatically start the Self Test, shown in the sections below if the technician has started it already with the RI Key.



4.7. Unit Self Test and arming

The location of the magnet is shown in Section “2.3 Sensor Cover” above.

Swipe a magnet over the unit and the self test will start. The following LED sequence will be shown:

- 1) Red Rapid Flash – Detector strip failure.
- 2) Yellow Rapid Flash – HW failure on sensor
- 3) Red Solid – Low Battery
- 4) Blue Double Flash (every 4 seconds) – Unit passed Self test and network connection OK
- 5) Red Flash (every 4 seconds) – Unit passed Self test, but network connection Not OK

If the self test has passed, the unit will now be armed and can be left.

4.8. Hide Connection state (Optional)

The Blue Double flash (every 4 seconds) will continue for 1 hour and then stop.

It is possible to stop the flashing by using the RI Key. The LED will initially show green and then turn off.



5. Service Mode

5.1. Enter Service Mode - Check status of device

When in sensing mode, the magnet can be used to show current status of the device. The following LED sequence are used:

- 1) Yellow Solid – Device triggered
- 2) Red Solid – Indicate low battery
- 3) Red Rapid Flash – Sensor malfunction
- 4) Red Flash – Indicate no network
- 5) Blue Solid – Device sensing – no activations, no other issues detected.

The unit will timeout after 10 minutes

5.2. Replace battery (if required)

If the battery needs to be replaced, follow sequence below:

- 1) Remove Sensor unit from the Sensor shoe, using RI Key
- 2) Remove Sensor Cover
- 3) Remove both batteries
- 4) Continue with process from “4 Sensor Installation” above

5.3. Replace detector strip (If required)

If required, the detector strip is replaced.

- 1) Remove Sensor housing from the Sensor shoe with the RI Key
- 2) Remove Detector strip from surface
- 3) Fit new detector strip
- 4) Replace sensor housing into shoe

5.4. Exit Service Mode - Unit Self Test and arming

Swipe a magnet over the unit and the self test will start. The following LED sequence will be shown:

- 1) Red Rapid Flash – Detector strip failure.
- 2) Yellow Rapid Flash – HW failure on sensor
- 3) Red Solid – Low Battery
- 4) Blue Double Flash (every 4 seconds) – Unit passed Self test and network connection OK
- 5) Red Flash (every 4 seconds) – Unit passed Self test, but network connection Not OK

If the self test has passed, the unit will now be armed.

5.5. Hide Connection state

The Blue Double flash (every 4 seconds) will continue for 1 hour and then stop.

It is possible to stop the flashing by using the RI Key. The LED will initially show green and then turn off.

6. Flow Chart

