

Heat Bubble

*The revolutionary heat treatment
against insects*

SAMITECH

INSTRUCTIONS MANUAL



Smart Version

Versión 2. 2002

Heat Bubble

Thank you for purchasing the **SAMITECH Heat Bubble Smart**, the portable and effective heat treatment solution that allows you plenty of space for treating common objects in hotels, homes and offices.

SAMITECH is revolutionizing the pest control sector by improving the classic heat treatments with a new technology based on far infrared waves that penetrate deep into the objects surface eliminating pests by dehydration.

Heat Bubble smart works for bedbugs, worms, moths, termites and other xylophages, mites, fungus... virtually any kind of insects.

Please, read the instructions carefully before using this device.

The operator must always respect the basic security measures as detailed below.

Use this device only as described in the manual; Any other use not recommended by the manufacturer may cause fire, electric shock, or injuries.

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Heat Bubble

1. PRODUCT TECHNOLOGY DESCRIPTION

1.1 Far infrared heating technology

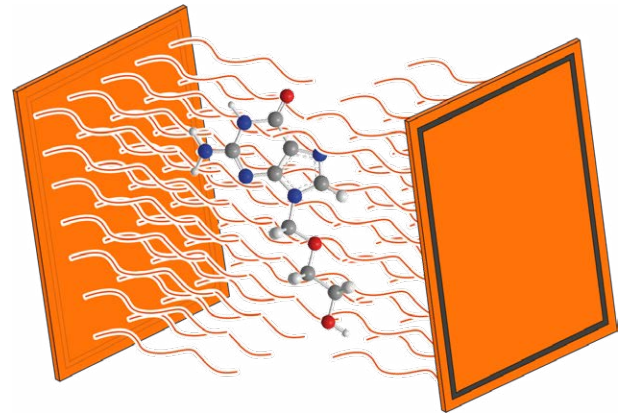
Heat Bubble from Samitech is the effective, practical and portable solution for pests in wood.

Heat Bubble uses the classic heat treatments and enhances them with a technology based on far infrared waves, emitted from heat panels. These waves penetrate deep into the surface of the treated objects, directly attacking the protein cells of the insects or xylophages that inhabit the objects, causing their death due to dehydration.

With Samitech's Heat Bubble, the effectiveness in the elimination of the pest without damaging or altering the state of the treated objects is guaranteed.

Objects in need of treatment are placed inside the bubble, that has an area of 6m^3 , in order to achieve a more productive treatment and allow the possibility of placing more than one object at a time. Inside the bubble the walls are made of a material that works as a reflector of the far infrared waves produced by the six heat panels.

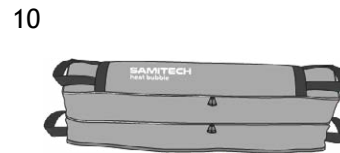
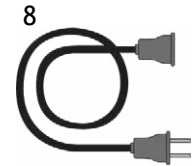
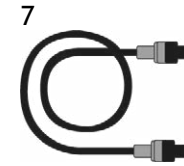
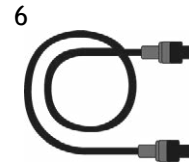
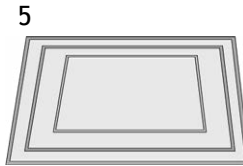
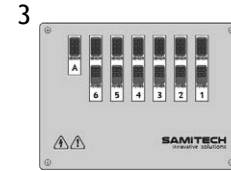
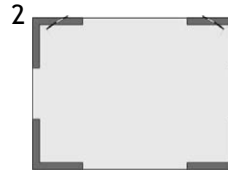
The heat emanated from the far infrared panels is 100% safe for the objects treated, keeping the state and the characteristics of the materials they are made of.



Heat Bubble

1.2 Components and accessories

1. Bubble structure
2. Heating panel
3. Smart control unit
4. Tablet (with user interface)
5. Base
6. Data cables
7. Power cables
8. Power cord
9. Temperature probes
10. Easy transport bag
11. Support poles



All the components of the equipment are carried in an easy transport bag specifically designed for this purpose. Once arrived to the treatment place, open the bag and extract the bubble and the other components. Follow the steps of the *Operation Mode* (page 4).

The bubble must be properly bent and all components carefully introduced in the bag. This saves cost and improves logistics commuting to the place where the treatment is performed.

Note: Keep in mind that the easy transport bag has two compartments.

Heat Bubble

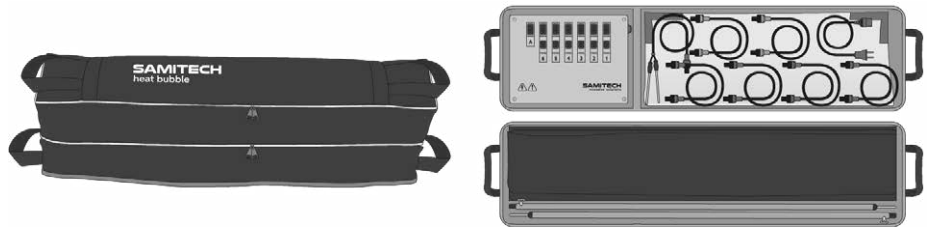
2. OPERATION MODE

This epigraph contains all of the details required to set up the SAMITECH Heat Bubble and get it ready to carry out the treatment. All equipment needed is inside the easy transport bag.

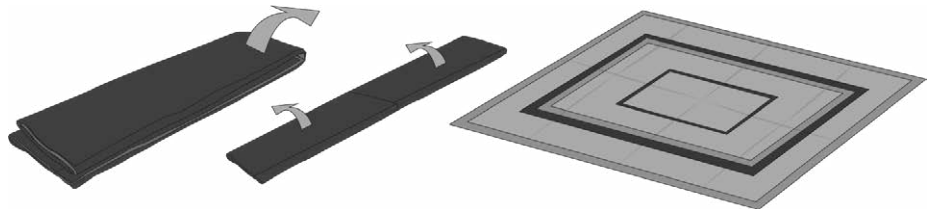
Before plugging in any part of the system ensure you carry out a full check of the cables for any cuts or snags. If you find any then do not proceed with the treatment and inform us immediately. Open the Easy Transport Bag, realize the Bag is composed by two compartments, open each one at once. In the Upper compartment are the Control Box unit, cables and Heating Panels, the lower compartment has the Base, the Bubble and support poles. Take the items out of the bag and place them in a clear zone.

2.1 Assembly

1. Open the easy transport bag, one compartment at once, the upper contains the heating panels, the Unit Control Box, and the cables. The lower compartment contains the Bubble, the Base and the support poles.

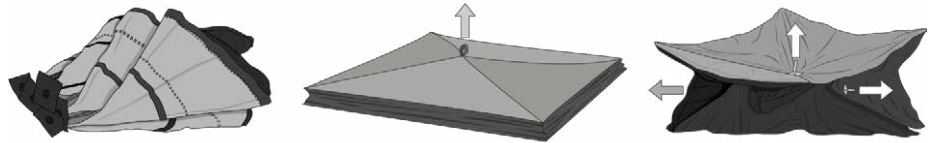


2. Unfold the Base over a clear floor (make sure the black side be down).

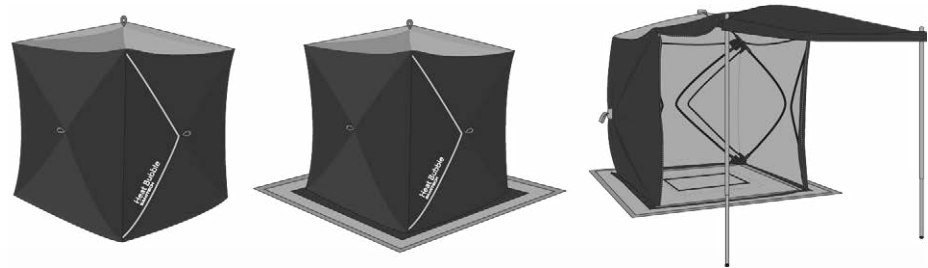


Heat Bubble

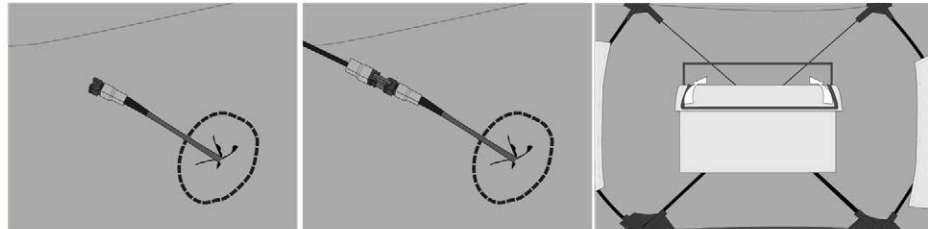
3. Open the Bubble by pulling the red strips.



4. When the Bubble is standing and firm, place it over the base, sticking them with the Velcro tape. Finally, use the support poles to keep the Bubble open.



5. Pass the cables (data and power) through the holes in the Bubble's walls and connect them to the Unit Control box, then stick the heating panels with the Velcro tape, the smallest panel is on the floor.

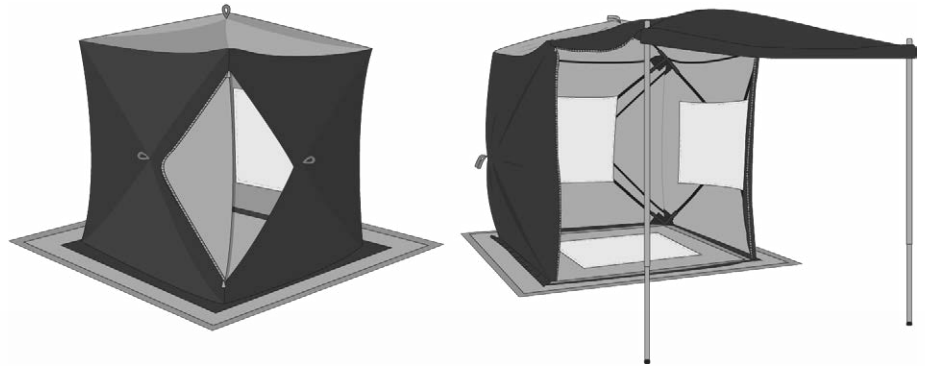


Heat Bubble

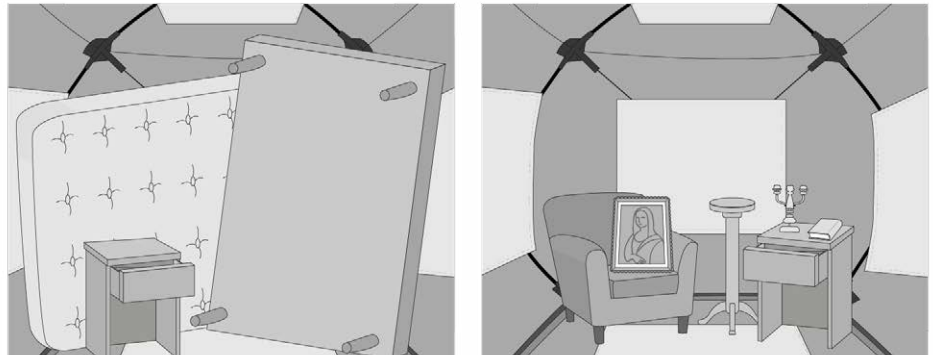
2.2 Operation treatment

It is recommended to place a cotton blanket under the Bubble's base to isolate the heat from the floor and preserve it inside the Bubble.

1. When the Bubble is completely assembled and with the panels in place, insert the objects to be treated. There are two ways to place the objects inside the Bubble: Open a door on the front and back walls, or using the support poles to have a bigger entry.

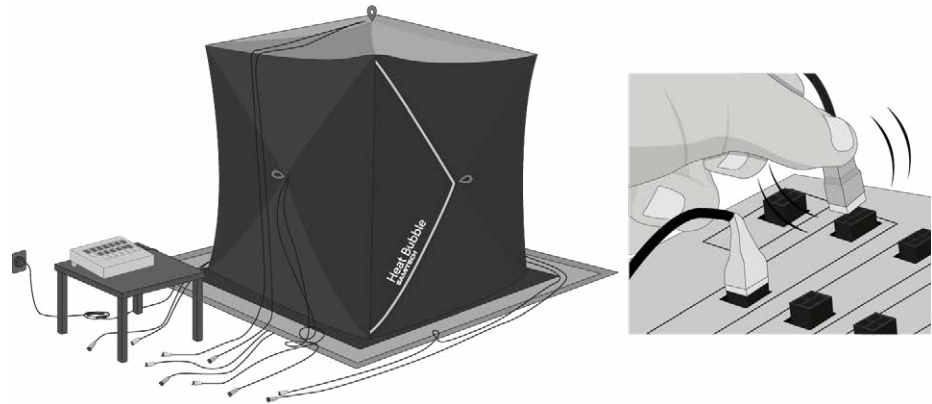


2. If tables or items to be treated have drawers, they must be open, so the treatment affects the entire body of the object to be treated. (It is recommended to locate the small objects about 15-20 cms from the floor.)

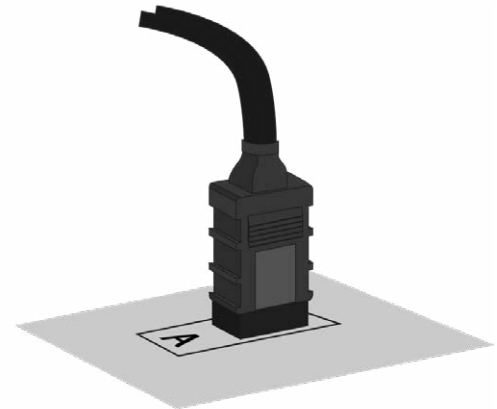


Heat Bubble

3. Place the Control Box Unit close to the Bubble and to a power supply, make sure the cables reach to cover the distance between this, the Bubble, the Control Unit Box and the socket; Connect the data and power cables to the Control Unit Box, each pair of cables must be plugged in the same number. (If it is the first time you connect the cables, you may have to shake them into the connector to adjust the small parts).



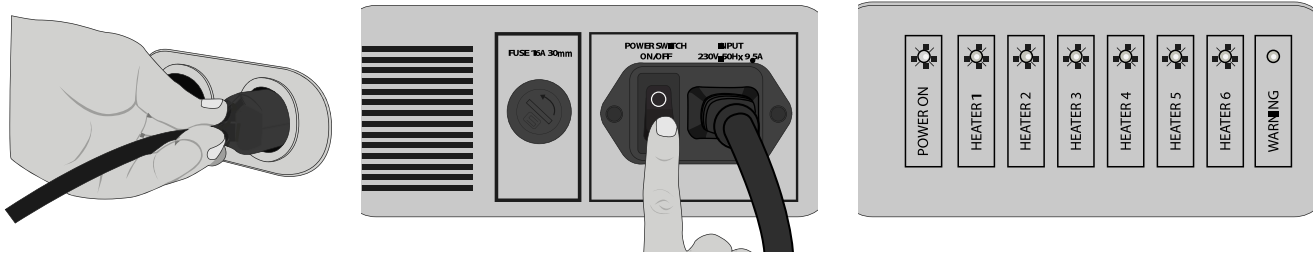
4. Insert the temperature probes into the Bubble trough the holes in the front-wall, connect them to the Control Box Unit into the A-socket.



Heat Bubble

2.3 Set Up

Smart Control Unit: Connect the Smart control Unit to the energy socket and switch the device on. The green LED light will turn ON.



When the treatment starts the red the LED lights will light up indicating the connections status of the Heating Panels.

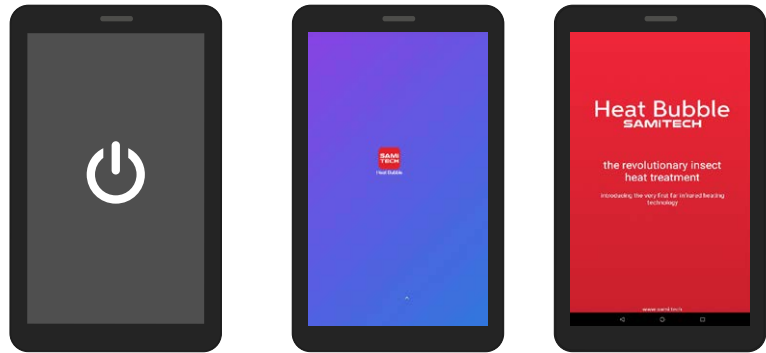
Warning Light: If any connection problem is detected, the 'Warning' light flashes will show the row number with an issue.

WARNING LIGHT	NUMBER OF FLASHES	1	2	3	4	5	6	7
	ROW NUMBER		1	2	3	4	5	6

2.4 Touch-screen tablet


If the product you have purchased does not include an Android device or if you want to use another device, you can download the application from the Google Play service.

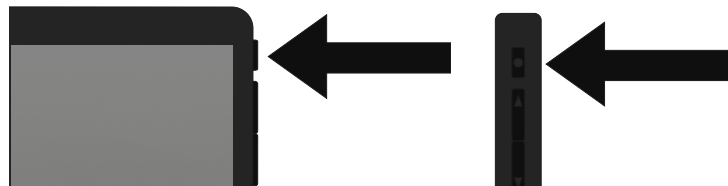
1. Turn on the Touch-screen Tablet and tap the SAMITECH icon.
2. Manage and control all the conditions and treatment settings. Save the report files and treatments pictures.



As for many other personal and industrial devices power saving is a must for extending battery life in our electronic equipment.

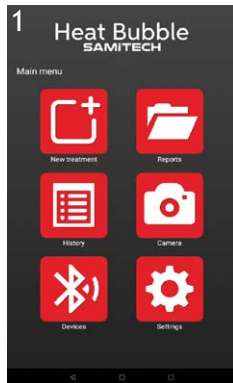
Keeping the tablet screen on during the whole treatment duration will drain the tablet battery too fast. The solution is so simple as keeping the screen off most of the time and turning it on only when it is really needed. The treatment control will continue running in the background.

 In order to avoid the high battery consumption of the tablet, it's very important to turn OFF the screen, and turn it ON for treatment update details.



2.5 User interface

The application is simple and intuitive, it allows the operator to take pictures of the objects that will be treated to guarantee their status before and after the treatment.

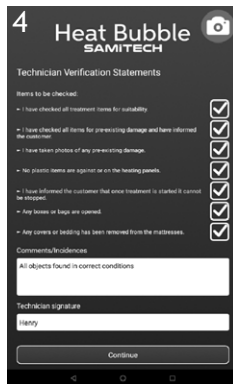
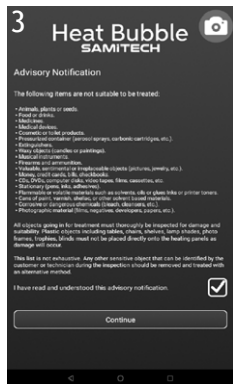


Img. 1

- New Treatment: Initiate a new treatment.
- Reports: File containing reports generated by the application.
- History: History of the treatments carried out by this device.
- Camera: Access to the camera.
- Devices: List of devices paired with this tablet.
- Settings: Application settings.

Img. 2

Form to fulfill with basic treatment, client and operator data; these data will appear exactly as they are typed in the final report.



Img.3

Security warnings previous to the start of the treatment, the client must read this information and accept the conditions.

Img. 4

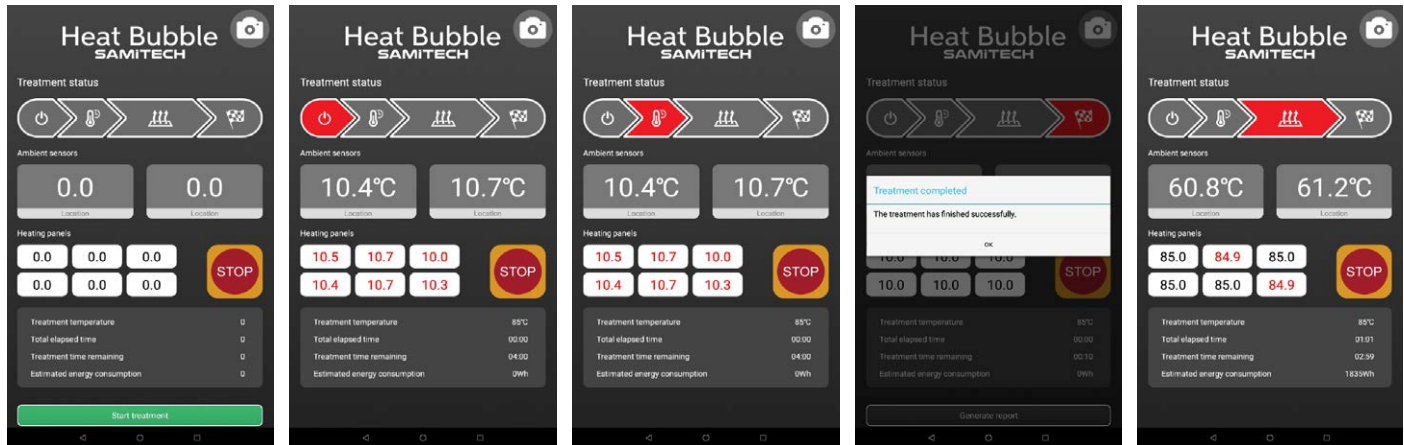
The Heat Bubble operator checks and accepts the elements to be treated. Similarly, he makes observations on the conditions of the state of the objects previous to the start of the treatment.

By signing the form, the operator officially acknowledges that security conditions are in order for the start of the treatment. At any time of the treatment, the operator can take pictures of the objects being treated, or abort the treatment.

Heat Bubble

The program performs a revision of the state of the heating panels, the connections and the basic conditions of the treatment. The panels initiate their heating process: the treatment does not start until all the panels reach the sufficient temperature to start the treatment.

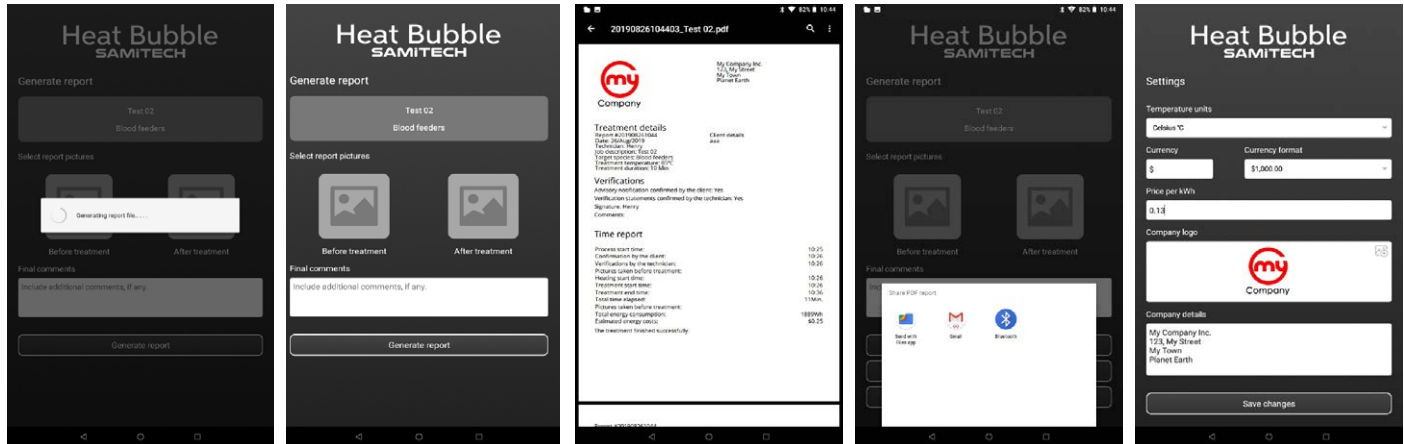
At this point, the treatment times indicated by the operator, the time that the treatment has been running and the time left till the end of the treatment are shown. At the end of the treatment, the app will give you an estimation of the energy consumed during the process.



Heat Bubble

Once the treatment is over, a report is generated that can be completed by the operator with pictures of the objects before and after the treatment. The operator can also include comments and final observations on the treatment, with any details that he considers important.

The Heat Bubble app gives you the possibility to share the final PDF report (email, Bluetooth, etc.). The app also allows for the modification of certain parameters, like the units of temperature, the symbol and format of the coin, the kWh cost, and the logotype and the company's contact info. All this information is included in the generated PDF file.

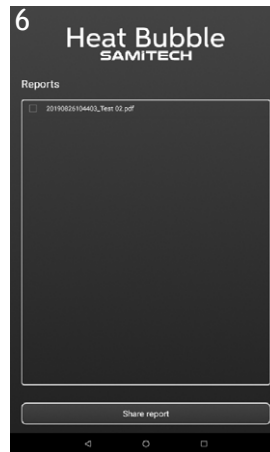


Heat Bubble



Img. 5

It shows the history of the past treatments carried out by the device and whether they were completed (SUCCESS) or aborted (ABORTED).



Img. 6

It shows a complete history of all the PDF reports generated and allows you to share them again.

Note: The default language is English. If you want another language, change it on the Android settings.

3. SAFETY INSTRUCTIONS

Please read these instructions carefully before using this equipment.

PCO should at all times comply with all safety measures described below. PCO will be entirely responsible for any inadequate use of this equipment.

Use this device only as described in this manual. Any other use could result in fire, explosion, electric hazard, damage the device, treated objects or persons.

Never leave equipment in operation without supervision.

Warnings about fire hazard

Do not treat objects that are composed of combustible, flammable or explosive materials nor objects that could become combustible, flammable or explosive by raising their temperature. Keep any combustible, flammable or explosive material away from the equipment.

Do not treat objects if you ignore their composition or if you have doubts about how they will react when exposed to an increase in temperature.

Do not put at risk the safety of objects, equipment or the place where you plan to do the treatment.

Make sure you have adequate fire detection and extinguishing equipment before you start any treatment.

Warnings about electrical hazard

This equipment is not designed to be used in bathrooms, laundry areas or similar rooms where it can get in contact with water or high humidity. Never place the equipment anywhere where it could get in contact with water or any other liquid.

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Do not place wet or humid objects on the equipment.

Do not use this equipment in the open air.

Do not use this equipment in any place where inflammable products such as petrol, dissolvent, paint or other inflammable liquids are stored.

Do not insert nor allow any object into the ventilation opening of the control unit as it may cause an electric shock, fire or harm the unit.

Do not use this equipment with a damaged cable, plug it into a damaged socket, after it has malfunctioned, has fallen or is damaged in any way. Take the unit to an authorised repair centre for revision, repair or adjustment.

Do not place the cable under rugs, carpets or similar covers. Try to place cables away from areas where someone is likely to stumble.

Do not squeeze nor bend the cable nor use it if harmed.

This device has an overheating protection system that will turn off the heating units in case of overheating or abnormal conditions. If this happens, turn off the device, disconnect it and let it cool down for a few minutes. After you have done this, you can reconnect it and start using it again.

Do not try to open or repair this equipment yourself. By doing so, it could cause you personal harm or damage.

When you finish each treatment, turn off the unit and disconnect the cables. Wait for about 10-15 minutes before you open the enclosure to remove treated objects. Never let heating panels touch your skin immediately after treatments.

Heat Bubble

After your last treatment carefully clean with a dry cloth those parts of the equipment that have been in direct contact with the floor. After doing so, fold the equipment carefully and put everything back into its carrying bag.

Do not allow children or animals to get in contact with this equipment.

Children under 8 should be kept away from equipment and should be kept under eye. Do not operate equipment if there are children under 8 around that can access the area where device is operating.

Be specially careful when operating device having around children of any age, disabled people of any kind or people that cannot be held responsible for their misuse. This device is not a toy and its cleaning and maintenance should not be done by children with no supervision.

CAUTION: Some parts of this equipment can get very hot and cause skin burns. Be specially careful if children or other vulnerable persons are around.

WARNING: To prevent overheating do not cover device. This device should not be placed below a power socket.

Treatment Recommendations

Do not treat objects inside containers, paper, cardbox, foam or plastic enclosures as these materials can act as insulators preventing any insect inside from reaching lethal temperature.

Do not place objects in direct contact with heating panels because this could cause damage. Plastic objects should be placed away from the heating panels to prevent damage or deformation.

Avoid overlapping when placing the heating panels because this could cause overheating and cause damages. This equipment is not recommended to treat electronic appliances such as computers, TV sets or any other devices with screens, cameras, etc.

Heat Bubble

These objects should not be treated:

Animals, plants or seeds.

Food and beverages

Medicines

Electronic, medical or lab appliances

Cosmetics and toiletries

Pressurised containers (aerosols, sprays, carbonic cartridges, fire extinguishers, etc.).

Waxy objects (candles, paintings, etc.).

Fire arms and ammunitions.

Musical instruments.

Valuable and irreplaceable objects (photos, jewels, etc.)

Documents, money

Magnetic, optical, solid and mechanical media and storage devices (hard drives, SSD, USB pendrives, video tapes, cassettes, etc.).

Stationery items (notebooks, pens, stickers, etc.)

Flammable or combustible materials (solvents, oils, glues, paints, lacquers, varnishes, etc.).

Printer toner or inks

Photographic materials (films, negatives, paper, developers, etc.).

Corrosive or hazardous chemicals (bleach, cleaning chemicals, etc.).

Plastic objects such as tables, chairs, shelves, lampshades, photo frames, trophies, blinds, etc.).

Any type of objects that can be damaged or deteriorated by heat.

Note: Some objects are particularly sensitive to heat and could be damaged if exposed to the temperatures reached during treatments. To minimise risk of any damage, these objects should not be treated and should be kept apart during the duration of any treatment.

This list of objects is not exhaustive. All objects to be treated should be thoroughly inspected to confirm

that they are suitable.

Any other sensitive object that can be identified by the operator or the client during the inspection must be removed. In case of doubt with any object, do not treat it.

Objects removed should be visually inspected for evidence of infestation. If they are infested, and those objects are not suitable for heat treatment, a convenient alternative method should be used to treat them before returning them to their place.

List of necessary checks prior to treatment:

Thoroughly inspect and confirm that all objects are safe and suitable to be treated.

Move away any object that may be in direct contact with the heating panels, especially plastic, textile or heat sensitive objects.

Review the objects and identify any existing damage and duly inform the client. It is recommended to take photographs as proof of preexisting damage before starting any treatment.

All packaging, boxes, containers and bags should be placed open to minimise their insulating effect.

Covers and any bed linen should be removed from mattresses, cushions and pillows.

The client has been informed of any preexisting anomaly or damage to the objects and that the treatment cannot be stopped once initiated.

4. REFERENCES FOR THE TREATMENTS DURATION

The recommended parameters for a typical treatment of mattresses, textiles and furniture in general are 90°C (194°F) 5 hours.

To deal with other objects (custom treatments) the parameters may vary according to the user experience (operator) with these objects.

5. WARRANTY CERTIFICATES

5.1 Two years of warranty due to defects in materials or manufacturing

Sami Technologies Int. S.L., engineering, development, manufactory and supply business, with registered office at Business Park Mapfre-La Garena, 6-C, Charles Darwin, St. 28806, Alcalá de Henares, Madrid, will grant two years of standard warranty, established by the manufacturer of SAMITECH® Heat Bubble.

Nothing in the limited product warranty affects your consumer rights by law. The customer is bound, by the terms and conditions specified in the manufacturer's warranties of the products being purchased, through its local authorized Distributor. The warranty applies as long as the product is used under normal operating conditions, as determined by manufacturers. The warranties included in this Certificate will be provided by your authorized dealer. Subject to the following general terms and conditions stated below:

5.2 Warranties exclusions and limitations

a) The warranty rights may be claimed, during the period in force established in each case and immediately upon their notice, except in the case of visible defects, in which case, the claim must be made within the limit of two months counting from the date of delivery, and always before the set up/operation.

b) Exemptions from the warranty rights here established, any harm or malfunctions that have beEN originated by:

1. Accidents, negligent, improper use.
2. Fail to respect the setup, use and maintenance instructions established in the instructions manual corresponding to the model of the object in claim, and in force on the date of shipment.
3. Modifications or repair attempts not performed by the authorized personnel (authorized by the After-Sales Service from your Authorized Distributor).
4. Actions of third parties or any other reason other than the normal operating conditions of SAMITECH®

systems and that are outside the control of your Authorized Distributor such as fires, floods, earthquakes, atmospheric shocks (storms), etc.

5. Damage due to over voltages caused by improper use of power supply.

6. Improper handling and transportation.

7. There will be no warranty of those SAMI TECH® systems which have been manipulated in the serial number and cannot be checked.

6.3 Rights of warranty claims:

Any client or user of SAMITECH® systems, which is considered with justified reasons to claim the warranty rights established in this document, should proceed as follows:

a) Immediately inform the authorized distributor company, who will give written notice simultaneously to:

- After-sales department of your authorized distributor company, with copy to info@sami.tech.
- Technical department of your authorized distributor company, with copy to info@sami.tech.

To do so, the Model Claim Form (Consult at <http://www.sami.tech>) will be used, which must be duly completed, with special attention to the serial number, purchase invoice, detailed description of the incidence, and the shipping address of the material to be repaired.

b) The SAMI Technologies Int., SL company will receive this claim, the technical department will proceed to its analysis, resolving its origin or not, justifiably under the provisions of this limited warranty document, and informing the Department of Post-Sale of the authorized territorial distribution company, and to the person designated as responsible for the company, who reported the incidence.

c) The return of the SAMITECH® systems subject to claim, cannot be made without the prior written authorization of the technical department of the authorized distributor company. The return must be

made in an appropriate packaging, which warrants the maximum safety conditions in the transport of the equipment. Damage caused by poor packaging will not be covered by the warranty.

d) Your authorized distributor company will try to repair the damages within a maximum period of 15 working days, from the receipt of the material in your warehouse. If this procedure is not possible, it will be communicated to you 5 days before the agreed deadline, to indicate the period necessary for the repair.

6.4 Responsibility Limitations

a) Sami Technologies Int., S.L. and THE DISTRIBUTOR COMPANY shall not be responsible to the client, directly or indirectly, for any breach or delay in the application of their warranty obligations, which may be caused by force majeure or any other unforeseen incident and not at will of SAMITECH®.

b) The responsibility of Sami Technologies Int., S.L. derived from this Warranty Certificate, will be limited to the obligations expressed previously and, quantitatively, to the amount of the invoice paid by the customer for the purchase of the equipment that is object of claim, being expressly excluded any responsibility for indirect damages, such as income loss or operating profits, etc.

c) SAMITECH®, will only be responsible for the lack of conformity of the equipment or element / components (system) with the characteristics indicated in this Warranty, when they result from an incorrect set up / operation, when the set up is included in the Contract of sale and has been made by SAMI TECH or under its responsibility.

d) The aforementioned warranty limitations will apply provided they do not contravene the applicable legal provisions in each country, regarding responsibility for the product. Should this circumstance of cancellation of any of the above provisions be invalid, it will only affect that particular provision, with

the rest remaining in force. Specifically, any provisions reflected in this warranty that contravene the provisions of Law 23/2003 of July 10, transposing Community Directive 1999/44/EC and affecting those Regulations acquired for Be used in the territory of the European Union.

e) Any other warranty right that its not mentioned is therefore excluded in the present certificate.

6.5 Establishment, application and validity of the Certificate

This Warranty Certificate is valid from the date of purchase and for a period of 2 years, in accordance with the terms and conditions of this document.

DECLARATION OF CONFORMITY

SAMI TECHNOLOGIES INT. S.L.
C/ Charles Darwin, 6 - Nave C
Alcalá de Henares
28806 Madrid
Spain



Declare under our sole responsibility that the product:

SAMITECH HEAT BUBBLE
Pest Control Heating Treatment

Is in compliance with the requirements of the European Directives RED 2014/53/EU, EMC 2014/30/EU, LVD 2014/35/EU and RoHS 2011/65/EU Annex II.

The conformity has been verified against the following harmonised standards:

EN 301 489-1 V2.2.0 EMC
EN 301 489-17 V3.2.0 EMC
EN 300 328 V2.1.1 RF
EN 62233:2008 + AC:2008 Human Exposure
EN 60335-1:2012 + AC:2014 + A11:2014 + A1: 2008 Safety
EN 60335-2-30:2009 + A11:2012 Safety
EN 60950-1:2006 + A11:2009 + A12:2011 + A1:2010 + AC:2011 + A2:2013 Safety

All technical documentation relevant to the product will be held at:

SAMI TECHNOLOGIES INT. S.L.
C/ Charles Darwin, 6 - Nave C
Alcalá de Henares
28806 Madrid
Spain

Alcalá de Henares, February the 1st, 2018