SAB - MANUAL DE USO
SAB - MANUEL D'UTILISATION
SAB - USER MANUAL

SMART AIR BOX
Sistema de ventilación inteligente

SMART AIR BOX
Système de ventilation intelligent

SMART AIR BOX
Smart ventilation system

FAN4DRY

DEFINITIVE anti-humidity treatments

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The SAB Fan4dry is designed as a “smart ventilation box” that cleans interior air:

- Regulates humidity and eliminates condensation.
- Filters contaminating particles and renews the air.
- Reduces the presence of radon gas.

The SAB interacts with two external probes. They collect data about the temperature and humidity that are then sent to the machine. This way ventilation is regulated smartly according to the needs of each household.

Preface

Congratulations for buying the new SAB Fan4dry!

- Please read this manual carefully before doing anything to the machine.
- Keep this guide in a safe place for future consultation.
- The manufacturer shall not be held responsible for any breakdowns or injuries due to misuse of the apparatus.

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About this manual

This manual has been designed for users without technical knowledge, and so only the processes that do not require the help of qualified personnel are explained.

All our knowledge has gone into this manual to enable you to make use of and enjoy all the functionalities that Fan4dry can offer you. Our continuous research and development processes mean that any improvements shall appear in future editions of this manual.

Contents

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1. INFORMATION ABOUT THIS MANUAL

1.1. Symbols

Important information. Read these contents carefully to prevent any damage to the machine and avoid risks to health.

Action taken only by a specialist technician.

Action can be taken by the user.

Suggested use to ensure maximum performance of the SAB and minimise energy consumption.

1.2. Safety instructions

1.2.1. Installation

- The machine should be installed by an authorised technician.
- The machine should be installed with its weight in mind, using the fixing systems supplied by the manufacturer and fixing it to a suitable wall that has sufficient load bearing capacity to bear the weight of the SAB in the installed position.

1.2.2. Use

- This apparatus has not been designed for use by children or adults with reduced physical, sensory or mental capacities.
- Do not let water get inside the apparatus.
- The air inlets and outlets should be completely free of obstructions.
- Do not put any objects no top of the apparatus.
- Only use filters supplied by the manufacturer.
- Do not insert your fingers or any object inside the SAB when it is switched on.

1.2.3. Disconnection from the mains/switching off

- The SAB should not be switched off or unplugged from the mains, except when carrying out any maintenance operations described in this manual that specify that the device must be unplugged, or when expressly instructed to do so by the technician.
- If it is necessary to disconnect the apparatus, wait at least 20 minutes after disconnection before opening, removing or doing anything else to the machine. Not following these instruction can be dangerous for the person carrying out the operation.

1.2.4. Maintenance

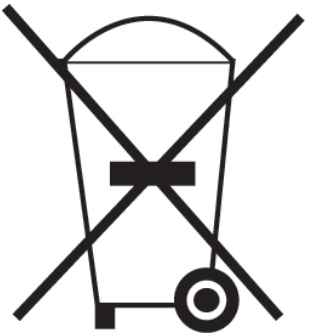
- The only operations that can be carried out by the user are:
  - ► Cleaning or replacing the filter.
  - ► Replacing the probe batteries.
  - ► Cleaning the air inlets and outlets
- The user should follow this instruction manual when carrying them out. Any operation other than the ones shown above should be done by an authorised technician.
- Switch off the electrical power supply to the machine before carrying out any maintenance operation (with the exception of replacing the probe batteries), check that it cannot be accidentally reactivated and wait at least 20 minutes before handling it.
- Users may not repair any breakdowns.

1.2.5. Transformation

- Changing or modifying the machine or any of its components and accessories is prohibited.

- Any repairs or changes of components should be carried out by an authorised technician, using only original manufacturer's spare parts.

1.2.6. End of useful life



- Unplug the device from the mains before disassembling it.
- Do not burn the device. Setting fire to certain components can cause toxic gases to be emitted.
- Take the used batteries to a collection point that is specially prepared to receive this type of component.
- Neither the device nor any of its components should be thrown out with the domestic waste.Take it to a collection point to ensure it is correctly scrapped and recycled.

2. DESCRIPTION OF THE MACHINE

2.1. Working principle of the SAB

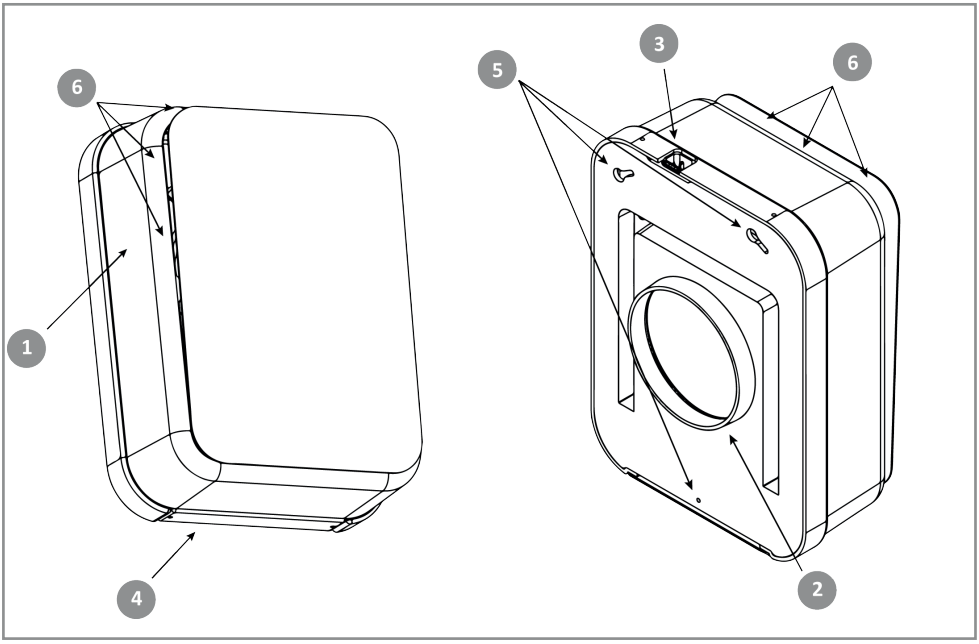
La SAB -Smart Air Box- Fan4Dry is a smart ventilation system for interior spaces that performs the following functions:

- Renews interior air.
- Regulates humidity levels.
- Removes contaminating substances such as CO2 or COV.
- Eliminates allergens such as pollen, mould and dust mites.
- Uniform distribution of heat throughout the building.
- Blocks presence of radon gas.

To enable you to enjoy all these benefits, the SAB Fan4dry uses the principle of mechanical ventilation by blowing. The process is as follows:

1. Air enters from the exterior.
2. Obstacles stop contaminants from entering (fine particles, pollen, etc.) thanks to a G4 or higher category filter.
3. The filtered air is pre-heated.
4. The air is blown around the interior of the building. Most of the air is directed upwards so as not to be a nuisance to people inside.

2.2. Overview and parts of the machine



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1. ABS casing
2. Ring / air inlet
3. IEC C14 connector/230V AC 50Hz power supply
4. Filter holder
5. Holes for fixing to wall
6. Air outlet

2.3. Technical features

2.3.1. Operation

- Single-phase power supply, 230V AC, 50 Hz
- Average consumption without pre-heating: 10 W
- Maximum power: 950 W
- Electrical protection rating: IP XX
- Ambient operating temperature: -10ºC/50ºC
- External probe radio frequency for communication: 433.92 Mhz

2.3.2. Dimensions:

- Unit weight: 4.3 Kg.
- Maximum dimensions of unit: 396 x 288 x 166 mm
- Minimum dimensions of area for installed device: 680 x 288 x 166 mm
- High-density polymer casing (ABS + PMMA)
- 1.5 mm carbon steel filter holders, with gloss black lacquering
- 4.0 mm carbon steel structure lacquered in gloss black
- G4 or higher class particle filter
- IEC C14 plug

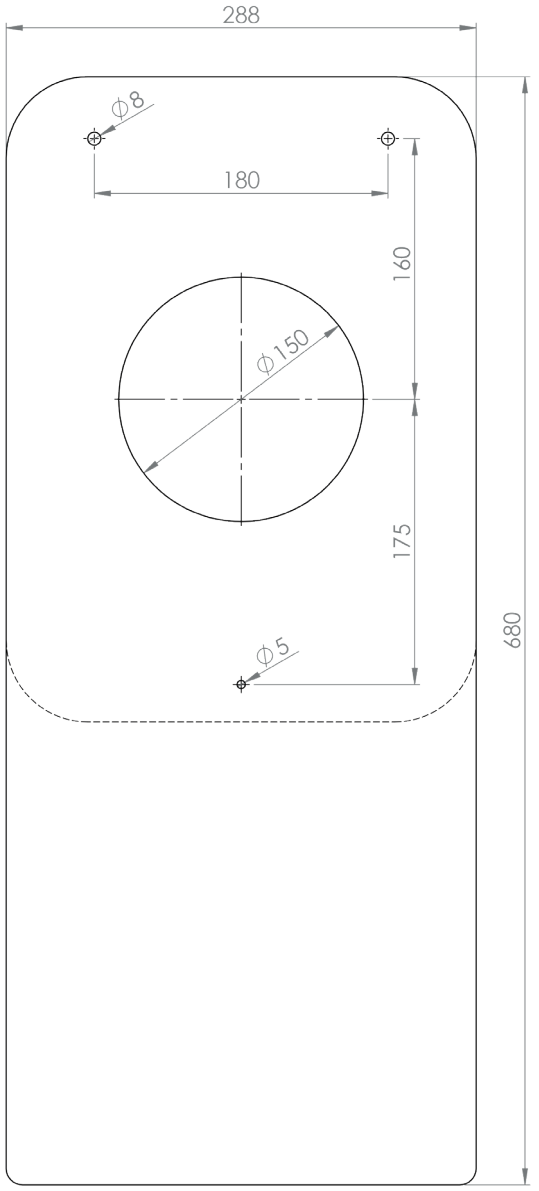
2.3.3. Performance and efficiency

- Smart regulation of ventilation level thanks to external probes and micro-controllers connected to the SAB
- Bluetooth 4.2 and Wi-Fi 802.11 b/g/n wireless connectivity

2.4. Proposed dimensions for installing the SAB

The graph below shows the minimum specified dimensions of the space for installing the device, along with the position and the distance between the fixing elements.

The following measurements are expressed in millimetres (mm).



3. Normal use of the machine

3.1. Connectivity

This SAB can interact with other devices (smartphones, tablets, temperature and humidity probes) to enable it to operate better and more efficiently. Thanks to this feature, you can control and personalise the operating mode according to your preferences using a simple mobile application for data control and collection.

3.1.1. Bluetooth

The SAB uses low consumption Bluetooth 4.2 connectivity, compatible with Android 4.3 or higher and Iphone 4S or higher.

If you cannot connect the mobile device to the SAB:

- Check that your device is compatible with Bluetooth 4.2 and make sure you have the latest software updates.
- Check that the Bluetooth connectivity on your device is activated.
- Also activate the "Location" function to see nearby Bluetooth devices.
- Bluetooth 4.2 modules have a reduced range in order to decrease consumption. Try to connect to the SAB from a location close to the machine (<5 metres).

3.1.2. Radio frequency

To improve the way the SAB operates and provide efficient ventilation, the SAB (according to the version) may have one or more external probes that continuously measures the temperature and humidity of the locations where they are installed. The probes communicate with the SAB using radio-frequencies on the free band 433.92 Mhz.

To ensure that the probes work correctly:

- Place the probes in the areas of the house that are most problematic or that require a greater level of comfort.
- Do not place the probes at more than 60 metres from the SAB.
- Do not place any probe near a source of heat or cold temperatures.
- Some obstacles (walls, metal objects, floors, etc.) can reduce the range of the probes. Place the probes in such a way so that there are the fewest possible obstacles between them and the SAB.

If the app does not correctly receive data from the external probes:

1. Check that the probe's LED indicator flashes at least once every 60 seconds. If the LED does not flash, that means that the battery has run out. If so, replace the AAA (1.5V) batteries of the probe with new ones (see section 4.4.)
2. Make sure that the probes are no more than 60 metres from the SAB. This distance may need to be reduced if there are barriers such as walls or furniture, or because power is lost in the batteries. If the batteries have been recently replaced and there is still no signal from the probe, try putting it somewhere closer to the SAB; the situation in your home may have changed and the signal no longer reaches the SAB.
3. Unpair the probes (Settings > Advanced settings > Unpair probes) to ensure that a previous pairing is not saved. Remember that with each battery change the probes must be re-paired if they have been paired in the past.

3.2. Operating modes:

3.2.1. Automatic Mode

In this mode the SAB automatically regulates the level of ventilation according to the household's requirements. To do this it uses the exterior humidity and temperature data and information taken from the probes in the building. The powerfull microcontroller in the SAB also calculate the ideal ventilation flow at each moment.

3.2.2. Manual Mode

In Manual Mode, users set a constant ventilation level according to their needs. This manual ventilation level can only be configured at levels equal to or higher than the pre-set air flow for your home.

3.2.3. Holiday Mode

Only use this mode if you are not going to be at home for some time. This configuration sets a minimum ventilation and deactivates the pre-heating.

3.2.4. Summer Mode

This mode is automatically activated to prevent the entry of excessively hot air that makes the home uncomfortable. The SAB goes back to the previously established operating mode when it detects that the exterior temperature has dropped to comfortable levels.

3.2.5. Turbo Mode

This mode enables users to increase the ventilation in their home for a set time period. When this period has ended, the SAB automatically returns to the previously set operating mode.

3.2.6. Pause Mode

This mode enables users to reduce the ventilation in their home to a minimum level for a set time period. When this period has ended, the SAB automatically returns to the previously set operating mode. This mode can only be used for a maximum time period per day.

3.2.7. Winter Mode

Automatically activated when the level of exterior humidity is higher than inside the building. Stops air that is too damp from entering the home.

3.2.8. Fault Mode

Automatically activated when a failure is detected in any of the components. The SAB stops running to prevent further damage, while the components required to enable the SAB to monitor the progress of the failure and inform the user continue to run.

3.3. Use of the app

3.3.1. First steps

1. Activate the Bluetooth and Location functions in your mobile device.
2. Open the application provided by your official distributor.
3. A new screen is opened with the Bluetooth devices available, select your SAB, its default name is “Smart Air Box”.
4. Wait at least 10 seconds for the app to gather data sent from the SAB.

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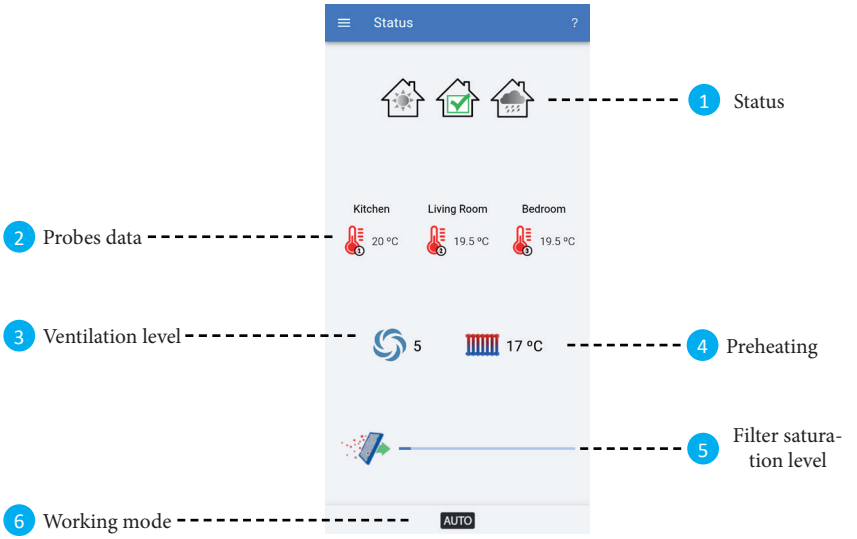
Always use the apps provided by your supplier to control the machine. The manufacturer is not responsible for use of the SAB under software other than that provided by an authorized manufacturer/distributor.

3.3.2. Main screen

The main screen shows the following data.



1. Status		The enviromental conditions are suitable
		Ambient humidity is excessive
		Humidity is too low
2. Probe data		Temperature data taken from different locations
3. Ventilarion level		Current ventilation level
4. Pre-heating		Pre-heating enabled/disabled
5. Filter saturation		Filter saturation
6. Operating mode		Automatic mode
		Manual mode
		Pause mode
		Boost mode
		Winter mode
		Summer mode
		Fault mode

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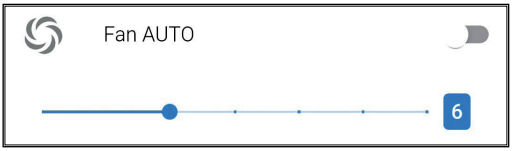
3.3.3. Select mode and ventilation level

You can use the app to select the SAB's operating mode, from Automatic, Manual or Holiday.

- Set Automatic mode: go to "Settings" and move the tab next to "Automatic Ventilation" to the right.

- Set Manual mode: go to "Settings" and move the "Automatic Ventilation" tab to the left; when automatic ventilation is deactivated, move bar under the fan-shaped icon to select the desired ventilation level.



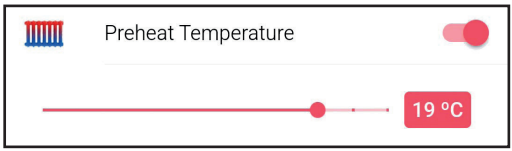
- Set Holiday mode: go to "Settings" and move the tab next to the suitcase-shaped icon. When you return home, move the tab in the opposite direction to deactivate this mode.

ECO **Setting the device in Automatic mode is recommended to enable smart functioning of the SAB, thereby maximising comfort and minimising consumption.**

ECO **Setting the device in HOLIDAY mode when your home is unoccupied can mean considerable energy savings.**

3.3.4. Set pre-heating and outlet temperature

To activate pre-heating, press "Settings" and move the tab on the right of "Pre-Heating Temperature" to the right, then set the desired degrees by moving the bar that accompanies the radiator-shaped pictogram. Move the red tab to the left to deactivate the pre-heating.

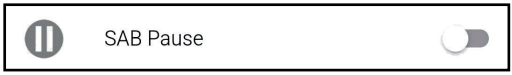


Pre-heating is the function that consumes most electricity. Do not activate pre-heating unless you think it is really necessary.

A pre-set temperature of 15 to 17 ºC is recommended, which is enough to reach a decent level of comfort while keeping energy consumption to a minimum.

3.3.5. Set special modes

- **Pause:** move the tab next to "Pause Mode" to activate the minimum ventilation level, then when it is activated, set the desired time period for this mode by moving the bar next to the pause symbol.



- **Turbo:** move the tab next to "Turbo Mode" to the right to activate the turbo mode. When the tab changes to blue, move the lower bar to set the time you want this mode to be active.

3.4. Recommendations for efficient use

Some suggestions are provided below to help you to improve how the SAB runs and to reduce energy consumption:

- Regularly check the status of the filter (visually or via the app) and replace it when necessary (from 6 to 12 months depending on the level of saturation). A dirty filter makes it difficult for air to enter, causing the ventilator to overwork and increasing electricity consumption.
- Use the automatic operating mode for reduced consumption; it constantly adapts the ventilation level to the minimum necessary to maintain comfort in the home, which also makes for greater energy efficiency.
- Select the lowest temperature within your range of comfort when setting the air outlet temperature. A temperature between 15 and 17ºC is usually enough in most cases. Pre-heating is the function that consumes most electricity, and so reducing or deactivating the outlet temperature can save a lot of electricity.
- Activate the holiday made if your home is going to be unoccupied for a long time (several hours or days).

4. Maintenance

4.1. Maintenance periods

- The maintenance periods established here must be complied with to ensure that the SAB runs correctly and to maintain the manufacturer's warranty.
- This warranty does not cover damage or problems caused by incorrect maintenance of the SAB.
- Only use filters supplied by your official distributor.
- This warranty does not cover damage caused by not replacing the filter with a genuine manufacturer's filter at the right time.

  - ► **Filter:** clean every 2 months**, mandatory replacement** between 6 and 12 months with a **standard one..**
  - ► **Clean air inlets/outlets:** every 6 months**.**
  - ► **Replace probe batteries:** approximately every 8 months**.**

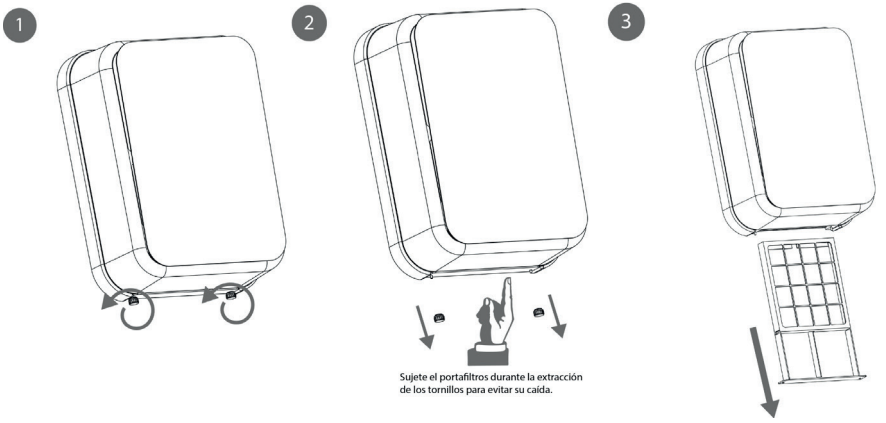
At the end of this manual you can see a table with the maintenance data of the device to ensure that you carry out all the maintenance operations at the right time.

4.2. Filter

1. Order a new standard filter from your supplier.
2. Unplug the machine.
3. Remove the manual lock nuts located at the bottom of the machine and extract the filter holder. Hold the filter holder while you loosen the nuts to stop it from falling suddenly.
4. Extract the filter and carry out the maintenance task:
   - ► When cleaning it, repeatedly shake the filter outdoors.
   - ► If you are going to replace it, dispose of the old filter and insert the new one with the white side resting on the filter holder mesh..
5. Reinsert the filter holder in the machine, making sure that it is correctly inserted, with the open part facing the wall.
6. Fix the filter holder to the casing once again by inserting and tightening the manual lock nuts.
7. Plug in the machine.
8. Connect to the app, go to "Advanced settings" and press on the option "Replace filter".

4.3. Air inlets and outlets

1. Unplug the SAB and wait 20 minutes before starting maintenance work.
2. Remove the manual lock nuts of the filter holder and then extract it.
3. Use a 7 mm bihexagonal ratchet spanner to loosen and remove the hexagonal bolt located in the space left by the filter holder.
4. After removing the hexagonal bolt, turn the machine anti-clockwise and pull it away from the wall.



5. Use a damp cloth the clean the wall air pipe and the machine air inlet.
6. Follow the above process in reverse to put the SAB back in place. Don't forget to fix the SAB to the wall with the hexagonal bolt located in the filter holder space.

4.4. Probe

The probe has an autonomy of approximately 8 months (with the use of alkaline AAA batteries).

How do I change the external probe batteries?

1. Buy 2 new AAA (1.5V) batteries.
2. Use your thumbs and slide the cover downwards to open it.
3. Remove the spent batteries and insert the new ones.
4. Slide the cover upwards to close it.
5. Connect to the SAB via the app. Wait 1 minute and check that it receives the Temperature and Relative Humidity data from the probe where you changed the batteries.

6. Never throw the batteries into the domestic waste bin. To dispose of them suitably, take them to a specialist collection point.

4.5. Advanced cleaning

Advanced cleaning of the SAB is necessary every 12 months to ensure ideal functioning and maximum duration.

Contact your authorised distributor or the contracted maintenance service to carry out this maintenance task.

5. Breakdowns and technical support

5.1. Diagnosis/Test

The SAB has a Diagnosis/Test function that lets you know about the status of all its components. You can run the test using the app to check if any of the components has broken down.

To run the test:

1. Open the app provided by the manufacturer or distributor.
2. Connect to the SAB via Bluetooth.
3. Go to Settings > Advanced settings >Run Test; and wait for the process to end. The diagnosis process can last for 1 to 5 minutes.
4. When the process has ended, a screen appears with the results. If a fault is detected, consult section "5.3. Common failures and solutions"; if the error cannot be solved by a user, contact your distributor.
5. Your supplier may ask you to report the test data via the app in order to analyse the results and solve your problem as soon as possible. If this is the case, consult "5.2. Reporting data to the supplier".

5.2. Reporting data to the supplier

This SAB has an internal memory where it save information about the use and functioning of the machine solely to improve how it works and also to detect and solve any operational problems.

To report the data of your SAB to the supplier, follow the steps elow:

1. Open the app provided by the manufacturer or distributor.
2. Connect to the SAB via Bluetooth.
3. Go to Settings>Advanced settings>Report data.
4. The supplier shall contact you as soon as possible to inform you about the solution to your problem.
5. Running a "Diagnosis/test" is recommended before reporting the data to ensure that the supplier receives information about the current status of all the SAB components. Consult section "5.1 Diagnosis/test".
6. Never report your data without an express request from your supplier and always do so via the official app they supplied you with.
7. The reported data shall only be used for technical purposes, never for commercial ones.

5.3. Fallos comunes y soluciones

Common failures and solutions.

Poor maintenance of the machine can cause the ventilator to overwork, this may be due to obstructions in the filter or ventilation pipes. To solve the problem, check that the filter is in good working order and change it if necessary. Also check that the machine has been maintained at least once in the last 12 months, and if not, call the technician.

My SAB does not appear to be working and it emits a regular bleeping sound.

This SAB is provided with a safety system that stops ventilation when there is a major obstruction in the air inlet pipe. At the same time, the SAB emits a bleep every 20 minutes to warn that there is a problem that should be solved. Unplug the SAB and consult a technician as soon as possible to solve the problem

5.4. Warranty and after-sales service

This machine is guaranteed for 5 years from when it was purchased against any manufacturing defect. Acuasec guarantees that it shall supply or replace parts recognised as defective after an expert analysis by the after-sales service. The warranty shall not under any circumstances cover additional costs such as labour, displacement or compensation, regardless of their nature. The warranty does not cover damage caused by installation that does not comply with the terms of this manual, misuse, incorrect maintenance, attempts at repair by unqualified staff or those caused by stopping the SAB for more than 60 days. In the event of a problem, contact your installer.

6. Declaration of conformity

Fan4dry declares that the SMART AIR BOX (Fan4dry) – Smart Ventilation System complies with the following European directives:

- Directive 2014/30/CE on electromagnetic compatibility.
- Directive 2014/53/EU (RED) on radio equipment.
- Directive 2014/35/EC on low voltage equipment.
- Directive 2011/65/CE (RoHS) on the restriction of hazardous substances.

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It also complies with the following harmonised standards:

- UNE-EN 60950-1:2007 + A11:2009 + COrr:2007 + A1:2011 + A12:2011/AC2012 + A2:2015
- UNE-EN61000-3-2:2014
- UNE-EN61000-3-2:2013
- UNE-EN 55014-1:2008+E2009/A1:2009+A2:2012 (EN5514-1:2006)
- UNE-EN 55014-2:20015
- UNE-EN 55022:2011 +/AC:2012
- UNE-EN 55024:2011 + /AC:2012
- UNE-EN 55032:2016 +/AC:2016-07
- UNEEN 301489-1 V2.2.0
- UNE-EN 301489-3 V1.6.1
- UNE-EN 60335-1:2002 + A2010+A15:2011.
- UNE-EN 60335-2-65:2003 + A1:2008

DATE	OPERATION	NEXT DATE	CARRIED OUT BY

DATE	OPERATION	NEXT DATE	CARRIED OUT BY

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CERTIFICADO DE GARANTÍA / CERTIFICAT DE GARANTIE / WARRANTY CERTIFICATE:

Usuario / Utilisateur / User	Nombre / Nom / Name: _____ Dirección / Adresse / Address: _____ _____	Validación del instalador / Validation de l'installateur / Installer certification:
Instalado el / Installé le / Installed on	__/__/_____	
Garantía hasta / Garantie jusqu'au / Warranty valid until	__/__/_____	

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