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1.0 WHAT IS WAVES?



1.0.1 WHAT DOES THE RENSON WAVES VENTILATION FAN DO?

The Renson Waves is the ideal solution for ventilating your closet, bathroom, kitchen or laundry area. The smart ventilation fan is fully automatic and removes humidity, odors and any CO₂. This enables you to eliminate humidity and nuisance odors and allows you to enjoy optimum air quality. The Waves ventilation fan constantly makes adjustments according to the measured air quality!



1.0.2 WHERE CAN I USE THE RENSON WAVES VENTILATION FAN?

The smart Waves ventilation fan is the perfect compact solution for existing or new ventilation ducts, in anywhere from your bathroom and closet to your laundry area or kitchen. In addition to humidity and odors, the ventilation fan can also detect CO₂ so that it automatically generates healthy air in your home.



1.0.3 WHAT IS THE DIFFERENCE BETWEEN THE RENSON WAVES VENTILATION FAN AND THE RENSON HEALTHBOX VENTILATION FAN?

Are you planning to renovate your kitchen, bathroom or closet, or would you like to replace your old ventilation fan? In addition to being compact, Waves is also the smart solution for healthy air indoors. The silent Waves ventilation fan by Renson automatically removes contaminated air and is available in 2 versions. There is a basic version equipped with a humidity and VOC sensor (for odors), and a version with a humidity, VOC and CO₂ sensor. The second version also detects the levels of CO₂ in air indoors, even when humidity or odors are not detected.

However, if you would like to ventilate 3 or more rooms and you are able to conceal the piping, it is best to choose the Healthbox ventilation fan. The Healthbox also works automatically and has sensors that continuously measure the CO₂ or humidity and/or VOC levels in indoor air. The difference is that it supplies fresh air via the Invisivent window ventilation in dry rooms. In this way, Healthbox forms a complete system with the window ventilation and it keeps air quality in check throughout the home.



1.0.4 WHAT IS THE HEALTHBOX VENTILATION SYSTEM?

[Healthbox](#) is suitable as a central ventilation system, for both homes and apartments. The ventilation system monitors air quality for CO₂ or humidity and/or VOCs (for odors) in your home 24 hours per day. The Healthbox is fully automatic and adjusts ventilation levels for each room according to the measured air quality. Contaminated indoor air is discharged in the most energy-efficient manner possible while fresh air enters in a controlled manner via the [Invisivent window ventilation](#). This leads to healthy indoor air that is perfectly tuned to the lifestyle and needs of the occupants.



1.0.5 WHERE CAN I FIND MORE BACKGROUND INFORMATION ABOUT THE WAVES EXTRACTION FAN?

Would you like to know more about Renson Waves? When you visit waves.renson.eu you will be redirected to the Waves landing page. Here you can find all information about the smart extraction fan. You can find out more here about the operation and installation of Waves, the Waves app, and also about purchasing the ventilation fan. Are you looking for technical specifications or instruction manuals? You can also request and download these here with no obligation, as well as consult these FAQ.



1.0.6 WHERE DO I POSITION WAVES FOR OPTIMUM VENTILATION AT HOME?

Renson Waves is suitable for ventilating your closet, bathroom, laundry area or kitchen. Installing a ventilation system in your home is extremely important for healthy air indoors. If you do not have any form of ventilation in your home, installing one Waves ventilation fan will make a huge difference. Before you install Waves, think carefully about a strategic place to position it, such as a room that has frequent contact with humidity. Although Waves is relatively silent compared to standard ventilation fans, you should bear in mind that Waves does generate some noise when it detects contamination. Ultimately, noise is something subjective that people notice in different ways. However, the Waves ventilation fan is less suitable for rooms where total silence is required, such as a bedroom or office.

 **1.0.7 WHAT DISTINGUISHES WAVES FROM OTHER VENTILATION FANS?**

Thanks to its unique design, Waves combines silent operation with efficient extraction of contaminated air. Unlike standard ventilation fans that are controlled through a switch, Waves continuously monitors the air and responds where necessary, depending on the measured air quality. Furthermore, Waves ventilator fans can also detect CO₂ in addition to humidity and odors. This means that you will always enjoy optimum and healthy air at home! You will also get a real-time overview of the air quality and you can adjust this where necessary, using the free Waves app.

 **1.0.8 WHAT IS THE DIFFERENCE BETWEEN THE 2 TYPES OF WAVES VENTILATION FANS?**

Both types of Renson Waves ventilation fans are extremely intelligent. The first type has a built-in VOC (for odors) and RH (humidity) sensor. It provides outstanding ventilation for rooms such as your bathroom and/or closet. The second type is a ventilation fan that detects humidity, odors and CO₂. This type can be best deployed in living spaces such as the kitchen, where you tend to spend more time and which are also frequently open plan. You will eliminate humidity and nuisance odors and the CO₂ sensor will keep the ventilation at an optimum level, even in an adjacent living room.

 **1.0.9 WHAT IS A VOC SENSOR?**

VOC stands for volatile organic compounds. These are chemical substances that are often accompanied by an odor and are released, for instance, by cleaning products, air fresheners, furniture, construction materials, etc. Waves has a VOC sensor that detects nuisance odors and volatile organic compounds in the air. Waves will then automatically adjust the ventilation rate on the basis of the nuisance odors and contaminating substances, to achieve optimum air quality in your home.

 **1.0.10 WHAT IS A CO₂ SENSOR?**

Waves CO₂ also has a CO₂ sensor in addition to a humidity and VOC sensor (for odors). This sensor is ideal for measuring the number of people in the room and optimally adjusting the ventilation rate. CO₂ is produced when people inhale and exhale. It should not be confused with CO gas which is lethal. Excess CO₂ in a room can lead to concentration difficulties, headaches, tiredness, etc. If the CO₂ level becomes too high in the house, Waves will automatically adjust its ventilation level, thanks in part to the CO₂ sensor, to bring the indoor air quality from the kitchen, bathroom and/or closet back to its normal level.

 **1.0.11 WHAT IS A RH SENSOR?**

Excess humidity in the air can damage your home over time. It can cause humidity problems such as mold on walls with condensation issues, or mold on furniture. That is why Waves has a RH sensor that measures the amount of humidity in the air. The sensor allows Waves to automatically balance its ventilation flow to sudden increases in humidity and so avoid humidity problems.



 **1.0.12 WHAT IS DEMAND-DRIVEN VENTILATION?**

Waves is a compact and smart solution for eliminating odors and humidity in your home. The system uses demand-controlled ventilation. This means that the system automatically adjusts the ventilation flow to the actual requirements of the home and its occupants. The device has various sensors to do this, such as RH and VOC sensors, and it is also available with a CO₂ sensor. This device allows you to immediately eliminate nuisance odors and humidity in your home!

2.0 WHY USE A VENTILATION FAN?

-  **2.0.1 WHY DO I NEED VENTILATION IN MY CLOSET OR BATHROOM?**
- The air inside your home can sometimes be even more contaminated than outdoor air. As a result, the quality of air indoors plays an important role in quality of life. If you do not have closet or bathroom ventilation, contaminated and humid air will quickly build up inside your home, which causes considerable inconvenience and problems. Just think about dampness, musty air, bacteria and pollutants from furniture and paintwork. Ventilation has become particularly important since the widespread use of insulation. Insulation is good at keeping heat inside, but it also keeps inside all of the contaminating substances found in your home.
-  **2.0.2 WHAT HAPPENS IF I DO NOT HAVE ADEQUATE VENTILATION?**
- Good ventilation is necessary first and foremost for yourself and for the health of your family members. If you do not have adequate ventilation, or you do not ventilate your home on a regular basis, you may suffer from asthma, allergies, headaches, nausea, fatigue and eye, nose or throat irritation. Furthermore, adequate ventilation also prevents your home from becoming affected by mold on walls with condensation issues or furniture.
-  **2.0.3 IS IT BAD FOR YOUR HEALTH IF YOUR HOME DOES NOT HAVE A VENTILATION SYSTEM?**
- There are risks to not ventilating your home. That is because a poor indoor environment can cause discomfort over the short and long term. For instance, it can cause eye, nose or throat irritation and contribute to certain diseases such as asthma. By using a good ventilation system you will prevent all manner of ailments, from fatigue and headache to allergies.
-  **2.0.4 WHY DOES RENSON THINK THAT PROPER VENTILATION AND AIR EXTRACTION ARE SO IMPORTANT?**
- Renson is concerned about your health. Continual ventilation is essential if you want to create a healthy living environment at home. After all, you spend 85% (!) of your time indoors. Intelligent ventilation helps avoid unpleasant ailments, allergies and other health issues. Furthermore, it protects your home from condensation problems and mold. Reliable air extraction that does not get in the way of comfort is absolutely essential. Renson is resolutely committed to “no more bad air days”.

2.1 INITIAL PREPARATION

-  **2.1.1 WHAT TOOLS AND MATERIALS DO I NEED TO DISMANTLE MY OLD VENTILATION FAN?**
- In most cases, you will not need many tools to dismantle your old ventilation system in your bathroom, closet or kitchen. The most important thing is a set of flat-head and Phillips screwdrivers in different sizes. If you want to be better equipped and work more efficiently, a hand drill with a set of drill bits are useful to have. Pliers and a wire stripper may also come in handy for connecting the wires in the following steps.
-  **2.1.2 WHICH STEPS DO I NEED TO GO THROUGH TO DISMANTLE MY OLD VENTILATION SYSTEM?**
- Go to the breaker box and turn off the power. This will ensure you are safe when you carry out the work. Then you will probably need to snap off a cover before you can access the screws which are holding your old ventilation fan to the wall. Try to work out what type of ventilation fan you have by finding the manual online if possible.
- You may need a flat-head screwdriver to snap off the cover. Then use a Phillips screwdriver to undo the 4 screws that are securing the ventilation fan to the wall. Carefully remove the ventilation fan and then disconnect the electric wires (2). Make sure that the wires do not touch each other and leave them in a safe place.

**2.1.3 WHAT MATERIALS DO I NEED TO INSTALL THE WAVES?**

Inside the Waves packaging, you will find the ventilation fan mounted to a cylindrical piece of grey foam, in addition to the instruction manual. This foam is an important element when the opening where Waves needs to be installed has a diameter of +/- 125 mm. That is because Waves is suitable for openings with diameters of +/- 100 mm or +/- 125 mm. These are standard dimensions. In an opening with a diameter of 100 mm, you need to remove the foam. When the diameter is 125 mm, you will need this piece of foam as an adaptor when installing the ventilation fan.

**2.1.4 WHAT TOOLS DO I NEED TO INSTALL THE WAVES VENTILATION FAN?**

To install the Waves ventilation fan, the tools you need will depend on the type of screws that you will use to attach Waves. For instance, you may need Phillips screws and an accompanying Phillips screwdriver. Furthermore, a flat-head screwdriver could also come in handy to remove the electric wires from your old ventilation fan. It is also best to have a pair of pliers and a wire stripper nearby to adjust the wires if necessary. If new holes need to be drilled to fit the ventilation fan, a drill with a set of drill bits will be useful.

**2.1.5 WHAT TOOLS DO I NEED TO INSTALL THE WAVES VENTILATION FAN IF THERE IS CURRENTLY NO VENTILATION SYSTEM?**

If you want to install the Waves ventilation fan on a wall that currently does not have a ventilation fan, you will first need to drill a hole in the wall. Consult a professional fitter for this. A professional fitter will have special tools (such as a hole saw) to be able to smoothly make a hole in the wall or ceiling. This hole needs to be large enough to fit a PVC tube with a diameter of 100 mm or 125 mm (external diameter).

If you would nevertheless like to drill the hole yourself, you can drill smaller holes around the circumference of the hole you want to create. You can then knock out the remaining brickwork using a stonemason's chisel. While doing this, avoid getting any brickwork in the cavity. This can later cause a thermal bridge or cause condensation or mould on the internal wall. You then need to place a PVC tube with a diameter of 100 mm or 125 mm (external diameter) in the hole. Furthermore, you also need to connect Waves to the electricity.

**2.1.6 MY CURRENT VENTILATION FAN IN THE BATHROOM, KITCHEN OR CLOSET IS CONNECTED TO A SWITCH. WHAT SHOULD I DO WHEN I INSTALL WAVES?**

Waves is a demand-controlled ventilation fan and needs constant power. Waves adjusts its speed to the actual requirements and in this way ensures the best quality air with minimum power consumption and noise. To correctly connect the Waves ventilation fan in your bathroom, kitchen or closet, it is important to choose the right wiring. For further details, see [2.1.7](#), [2.1.8](#) or [2.1.9](#).

**2.1.7 MY CURRENT KITCHEN, CLOSET OR BATHROOM VENTILATION FAN IS CONNECTED TO A SEPARATE SWITCH WITHOUT AN ADJUSTABLE TIMER. WHAT SHOULD I DO?**

You will probably discover 2 wires when you dismantle your old ventilation fan. These 2 wires (L1 + N1) are used for supplying power. This means that a single-pole L1 is interrupted by a switch. If a double-pole switch is used, both the L1 (the live wire) and the N1 (neutral wire) will be interrupted.

To correctly connect your new kitchen, closet or bathroom ventilation fan, you need to make sure that L1 and N1 are permanently connected. Then replace the switch or buy a blank cover plate that fits into the switch manufacturer's frame.

**2.1.8 MY CURRENT VENTILATION FAN IS CONNECTED TO THE LIGHTING CIRCUIT. WHAT SHOULD I DO TO INSTALL WAVES?**

When you want to install your ventilation fan, the switch for the lighting circuit will probably interrupt the L1 wire. This will stop the ventilation fan from turning. Depending on the circuit, the N1 and the L1 wires may be simultaneously interrupted. In fact, the wiring will need to be modified so that there is a continuous current in L1 + N1.

 **2.1.9 MY CURRENT VENTILATION FAN IS CONNECTED TO THE LIGHTING CIRCUIT WITH AN ADJUSTABLE TIMER. WHAT SHOULD I DO TO INSTALL THE WAVES VENTILATION SYSTEM?**

You will probably discover 3 wires when you dismantle your old ventilation fan. 2 wires (L1 + N1) are used for providing continuous current, so also for the adjustable timer. A third wire is connected to the lighting circuit (L2) and is connected to the lighting switch. This switch is used as a trigger to start the ventilation fan. You only need L1 + N1 to correctly install the Waves ventilation system. This will allow you to provide continuous current to Waves. Then Waves will be able to do its work automatically.

 **2.1.10 WHERE IS THE BEST PLACE TO INSTALL THE WAVES VENTILATION FAN IN THE BATHROOM?**

The best place to install your ventilation fan in the bathroom depends on several factors. The bathroom is divided into various zones, given the IP rating of the product. Waves can be used safely in zones 2 and 3.

It is also good practice to install Waves near to the shower, because this is where the greatest amount of humidity is produced. If possible, it is advisable to never install the Waves ventilation fan immediately next to the bathroom door to avoid short circuiting the airflow. This will prevent air from the adjacent room being extracted, instead of the contaminated air from the bathroom itself.

 **2.1.11 WHERE SHOULD I CONNECT THE POWER CABLES FROM MY CLOSET, KITCHEN OR BATHROOM VENTILATION FAN?**

If you stand in front of Waves, the power cable from your closet, kitchen or bathroom ventilation fan is connected at around the top left-hand corner of the device. You should take this into account so that the cable can be fitted discretely behind the device.

 **2.1.12 HOW SHOULD I CONNECT THE WAVES VENTILATION FAN TO THE ELECTRICITY SUPPLY?**

The electrical connection to the Waves ventilation fan varies from case to case:

- Current ventilation fan is connected to a switch – see [2.1.7](#).
- Current ventilation fan is connected to a separate switch without an adjustable timer – see [2.1.8](#).
- Current ventilation fan is connected to the lighting circuit – see [2.1.9](#).
- Current ventilation fan is connected to the lighting circuit with an adjustable timer – see [2.1.10](#).

 **2.1.13 WHAT TYPE OF SCREWS DO I NEED TO INSTALL THE WAVES VENTILATION FAN?**







Screws are not supplied for installing the Waves ventilation fan. This is because the length and type of screws depends on the surface. Gyproc, wood or plasterwork surfaces all have their own requirements and need different screws and plugs. The screws can have a maximum diameter of 4 mm.

 **2.1.14 CAN I CONNECT TWO WAVES TO ONE DUCT?**

Yes, this is perfectly possible but depends on a number of things and the specific situation:

- For the acoustics, we recommend using a pipe diameter of 125 mm, but 100 mm also works.
- Also pay attention to the length of the ducts: the longer the ducting going to the roof exhaust, the more effort Waves has to put in and the greater the chance that the other Waves will have the least resistance.
=> Air does not pass along the roof exhaust but along the other Waves.
- The two Waves ideally merge into in a Y-piece instead of a T-piece, thus allowing the airflow from both Waves to go to the roof exhaust and not to each other.
- If necessary, install a non-return valve (Renson type 7007) on both Waves.

2.2 PROBLEMS DURING INSTALLATION

-  **2.2.1 I HAVE INSTALLED MY WAVES AND IT IS NOT OPERATING. WHAT SHOULD I DO NOW?**
- The Waves extraction system in your bathroom, closet or kitchen operates so silently at low speeds that it is not always clear whether it is actually working. To make sure that Waves actually is working, it is best to remove the cover. Hold the cover firmly with both hands and twist it in an anti-clockwise direction. If you see that the air extraction system is not operating after it has been powered on, then you need to search for the cause.
- If you press the control button once, boost mode will be activated and a yellow LED will light up. This lets you see whether your Waves is actually powered on. If you have a multimeter, you can check whether you can measure 230 V across the connection from the power wires. If not, you will have to find the cause in the switches on the wiring. If you have checked everything and established that your Waves is not working, you should return it.
-  **2.2.2 HOW DO I KNOW WHETHER MY WAVES AIR EXTRACTION SYSTEM IS CONNECTED PROPERLY?**
- Waves operates so silently at low speeds that it may not always be clear whether it is working. To be sure that Waves is actually working, remove the cover by holding it firmly with both hands and twist it in an anti-clockwise direction. Now press the control button once. Boost mode will be activated. If a yellow LED lights up, your Waves air extraction system is connected properly.
-  **2.2.3 I CANNOT OPEN THE COVER OF MY WAVES. WHAT SHOULD I DO NOW?**
- To remove the cover of your Waves, hold the cover firmly with both hands and twist it in an anti-clockwise direction. Twist it slowly and carefully and you will see that it comes off effortlessly.
-  **2.2.4 I CANNOT REPLACE THE COVER OF MY WAVES. WHAT SHOULD I DO NOW?**
- To replace the cover of your Waves, hold the cover firmly with both hands and position it above Waves. Then twist it in a clockwise direction. Twist it slowly and carefully and you will see that it goes back on effortlessly. You will hear a click. Now Waves is completely reassembled!
-  **2.2.5 I AM NOT ABLE TO FIT MY WAVES FLUSH AGAINST THE WALL BECAUSE OF THE POWER CABLE. WHAT SHOULD I DO NOW?**
- If the power cable prevents you from fitting your Waves flush against the wall, you will have to remove some plaster or brickwork under Waves. In this way, you can fit Waves flush against the wall using the flange after installation.
-  **2.2.6 MY WAVES HAS COME LOOSE AFTER ATTACHING IT TO THE WALL. WHAT SHOULD I DO NOW?**
- If your Waves comes loose after attaching it to a wall or ceiling, you will have to use longer screws and/or plugs. Ask your dealer for advice on the best screws and/or plugs to use for your specific walls or ceiling.

2.3 SETUP AND CONFIGURATION

2.3.1 MY SILENT WAVES VENTILATION FAN HAS BEEN INSTALLED AND IT IS WORKING. WHAT SHOULD I DO NOW?

Congratulations! You have physically installed Waves. From now on, the silent ventilation fan will be active and thanks to the demand-control it will automatically adjust to the humidity and pollutants in the room. If you chose Waves with a CO₂ sensor, it will automatically start to detect CO₂.

The following step explains how to set up Waves. If you have a smartphone, we recommend that you go through this process by installing the free Waves app. The app is extremely handy since it also lets you activate the silent settings and it gives you a real-time overview of the air quality. The setup can also be installed manually using the Waves control button. The instruction manual explains how to do this.

2.3.2 WHERE CAN I DOWNLOAD THE FREE WAVES APP?

You can download the free Waves app for Android devices from the [Play Store](#). For iOS devices, you can find the app in the [App Store](#).

2.3.3 WHICH VERSION OF ANDROID OR IOS DO I NEED TO INSTALL THE WAVES APP ON MY SMARTPHONE?

Check which version you have. If you have Android 5.0 or a higher version, you can install and use the app. If you have an iOS device, the minimum version required is iOS 9.

2.3.4 DO YOU NEED TO INSTALL THE WAVES APP TO BE ABLE TO VENTILATE A ROOM?

No. You do not need to install the Waves app to ventilate a room. However, it is a very handy tool as it gives you a real-time view of the air quality. The app also simplifies the installation and setup. It also lets you activate the silent setting if required.

2.3.5 HOW CAN I INSTALL THE WAVES VENTILATION FAN WITHOUT THE APP?

Consult the Waves instruction manual to configure the ventilation fan without the app. This describes the steps you need to follow to choose the air flow, calibrate Waves and reset the device if you would like to repeat the process.

2.3.6 HOW DO I CREATE AN ACCOUNT TO USE THE WAVES APP?

After installing the app, you will be asked to log in with your details. If you do not have an account yet, you will be redirected so that you can quickly and easily create one.

2.3.7 WHY DO I NEED TO REGISTER?

Registration allows us to link the captured data to your account. It enables us to guarantee that Waves is personally associated with you. Furthermore, you can always access your data, for instance if you decide to use another smartphone.

2.3.8 WHAT DATA WILL BE STORED?

When Waves is connected to the Internet, the device gathers data through the sensors. Renson may consult this data. However, Renson is committed to treating this data carefully and confidentially. You can find the relevant legal documents at www.renson.eu/privacy.

 **2.3.9 I CANNOT FIND MY WAVES USING THE APP. WHAT SHOULD I DO NOW?**

To be able to connect to Waves, both your smartphone and Waves need to be connected to the same Wi-Fi network:

- Go to the Wi-Fi settings of your smartphone and check whether the local Wi-Fi network is visible. If so, connect your smartphone to this network. If not, activate the local Wi-Fi network of Waves by pressing the blue button until the LED turns purple (approx. two seconds). The name of this network is Waves_warranty number.
- When you have selected the correct Wi-Fi network, go back to the app and tap "connect to device".

DEACTIVATE CELLULAR DATA

To be able to connect to Waves, temporarily deactivate cellular data.

POWER ON?

Make sure your router is turned on. If this is not the case, turn on your router by pressing the ON/OFF button.

POOR OR NO WI-FI CONNECTION

This may result from a poor or no Wi-Fi signal. There may be several reasons for this:

- No Wi-Fi connection will be established between Waves and your router when Waves is set up too far away from your router. This will prevent the signal from reaching your device.
- Obstacles (such as concrete walls, aluminium foil insulation etc.) may hamper data transmission.

POSSIBLE SOLUTIONS

- Make sure the antenna points to Waves. Reorient the Wi-Fi dongle antenna and/or router antenna if necessary.
- If possible, move your router or Waves.
- Install a Wi-Fi repeater to enhance the signal intensity.

 **2.3.10 I AM UNABLE TO AUTHORIZE ACCESS TO WAVES BY PRESSING THE CONTROL BUTTON. WHAT SHOULD I DO NOW?**

There is a sticker containing important information at the back of the instruction manual. Make sure that you keep this manual safely! The API code is shown on this sticker. If you are unable to authorize access to Waves by pressing the control button (for instance, if you are unable to reach it or for any other reason), you can always authorize access using this API code. This tells the app that the Waves device belongs to you. The app will then show you the various steps that you need to go through.

 **2.3.11 I AM UNABLE TO CALIBRATE WAVES. WHAT SHOULD I DO NOW?**

Check whether the path between Waves and the extraction outlet does not provide excessive resistance.

Are there any elements blocking this path?

The exhaust grille should not be fitted with an insect mesh. If this is the case, ensure that the mesh remains free of dirt.

Also check whether the silicone tube (inside the Waves) is still properly attached. If the tube is loose, connect it to the nipple most towards the centre of the device. The nipple towards the corner remains open.

If you are sure that everything is as it should, carry out the calibration procedure once again. See also 2.3.12.

 **2.3.12 WHAT SHOULD I PAY ATTENTION TO DURING CALIBRATION?**

Make sure that your windows and doors are not wide open. Open doors to their usual positions and open any ventilation grilles so you can calibrate Waves properly. The more accurate the calibration, the more correctly the device will function. Calibration is an essential step and is fully automatic.

 **2.3.13 WAVES IS UNABLE TO CONNECT TO THE WI-FI NETWORK. WHAT SHOULD I DO NOW?**

One possible problem is a weak or intermittent Wi-Fi signal. This is often caused because the broadcast power of a standard Wi-Fi modem or router is too low, or because the room where you have installed the Waves is too far away from that router. Obstacles such as concrete walls and thermal insulation with aluminum foil can also have a negative effect.

If possible, change the position of your router. You can also change the direction of your router antenna to the place where the Waves is installed.

Please note! Not all routers have a moveable antenna. If none of the above solutions work, install a Wi-Fi repeater, also called a range extender, to strengthen your Wi-Fi signal.

 **2.3.14 HOW DO I PUT THE WAVES IN C-MODE TO BE ABLE TO MEASURE THE ADJUSTED FLOW RATES?**

You have 2 options for this: via the app or manually.

Manual: Press the Waves control button once. This button can be found under the lid of Waves. The light turns yellow. Waves is now activated for 30 minutes in boost mode (= c mode).

Do you want to return to automatic control more quickly? Then briefly press the button again to deactivate the boost mode.

2.4 USAGE

2.4.1 HOW DO I SET MY WAVES TO BOOST MODE?

In principle, you do not need to put Waves in a higher setting, since it will automatically choose the right flow rate to keep the air quality in check. Would you like to manually select a higher flow rate at a certain moment? Naturally, you can do this. You can do this in two ways, by either using the app or manually. Press the control button on Waves once. You can find this button under the cover of Waves. The light will turn yellow. Now Waves will be activated in boost mode for 30 minutes. If you would like to return to automatic control more quickly, press and release the button again to deactivate boost mode.

2.4.2 HOW DO I TAKE MY WAVES OUT OF BOOST MODE?

To manually put your Waves into boost mode, you need to press the control button once. If you would like to deactivate boost mode again, press and release the button again.

2.4.3 THE SPEED OF WAVES IS INCREASING AND DECREASING. WHY IS THAT HAPPENING?

It is perfectly normal to hear your Waves working at different speeds. That is because the device automatically chooses the right speed based on the measured air quality. This is easy, because you do not have to think about the speed setting of the device. At the same time, you can also be sure that all of the bad components in the air are ventilated away to create a healthy living environment.

2.4.4 HOW CAN I SET MY WAVES TO RUN AT A LOWER SPEED AT NIGHT?

If you would like to reduce the speed of your Waves at certain times, get the free Waves app. The app has a 'silent settings' function. You can use this function, for instance, to set your Waves to a lower speed at night and to avoid any disturbing noise.

2.4.5 I CAN'T FIND THE CONTROL BUTTON ON MY WAVES DEVICE. WHAT SHOULD I DO?

When facing your Waves ventilation fan you will see the word 'Renson' on the underside of the cover. Now look (or feel) under the cover to the right and you will see (feel) a blue button. There is a light next to this button. These have both been positioned discretely to give Waves the sleekest possible design that perfectly matches your interior.

2.4.6 CAN MORE THAN 1 PERSON CONTROL WAVES USING A SMARTPHONE?

Waves can be controlled by multiple persons without any problems. All you need to do is to install the Waves app on various smartphones so that you can monitor the ventilation fan at any time of the day. In this way, everyone can benefit from connectivity with Waves.

2.4.7 I AM GOING TO A HOUSE WHERE WAVES IS INSTALLED. HOW CAN I CONTROL WAVES USING THE APP?

If you are only going to be in this house for a short time, you do not need to install the Waves app. Waves is fully automatic and adjusts its speed according to the measured air quality. If you are moving to a home or flat with a Waves ventilation fan, you can connect to Waves using the free app. You can find more about this from [2.3.1](#) onwards.

2.4.8 WHAT TO DO IN CASE OF POWER FAILURE?

When power is turned on again, Waves will automatically connect to the local network. After the power failure, all prior settings remain stored and you don't have to do anything else.

2.5 MAINTENANCE AND DEFECTS

2.5.1 MY WAVES HAS STOPPED WORKING. WHAT SHOULD I NOW?

Was your Waves working and it has now stopped functioning? First check whether your Waves is still powered on. Look in the breaker box to see whether the fuse has tripped. Did you do this and is Waves still not working? Check whether you can measure 230 V where the wires connect to Waves. If you cannot measure 230 V, and you have confirmed that Waves is still not working, you should return it.

2.5.2 HOW SHOULD I CARE FOR WAVES?

You should follow this procedure. Switch off Waves at the breaker box so that the device is now longer powered on. Remove the covering plate from the ventilation unit. Clean the fan and the housing of Waves by carefully removing any dirt with a damp cloth and a small amount of detergent-free soap. Never immerse Waves in water or any other cleaning agent. Then power up Waves again. The system will start automatically.

2.5.3 WHICH RESOURCES OR TOOLS DO I NEED TO CARE FOR WAVES?

Never use sprays, abrasive products, detergents, solvents or cleaning products that contain chlorine. These can damage the device. Clean Waves using a damp cloth and a small amount of detergent-free soap.

2.5.4 HOW OFTEN SHOULD I CLEAN MY WAVES?

Waves is fitted with maintenance-free bearings and can operate without issues for a long time. In general, the Waves ventilation fan should be cleaned every two years. If your Waves is located in the kitchen or another enclosed space near a cooker, then it is best to clean your Waves every year.

2.5.5 WHAT IS AN API CODE AND WHEN DO I NEED TO USE IT?

The API code is a unique code that ensures that only you can connect to your device. In principle, you do not need the code because Waves knows that it is your device when you press the control button. This means only you will be able to access your Waves. If you are unable to access the control button for whatever reason, you can still connect to your Waves using the API code.

2.5.6 WHERE CAN I FIND THE API CODE FOR MY WAVES?

You can find the API code for your Waves on the rear of the device, and also on the final page of the instruction manual. If your device is installed and you would like more information, consult the instruction manual.