Philea 5

User manual



Made in France We use ecofriendly disinfectants

PHILEAS



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Hello,
You have just acquired a
Phileas®Genius and we
thank you for it.

To ensure your satisfaction, we invite you to check:





1. check your delivery

You have just unpacked your package containing:

- The Phileas®Genius with its cover
- One 250 ml container
- One adapter and one power cable

(AC/DC Medical 150 Watts 24V6, 25A, Class II).

- One document pouch containing:



- 1. User manual
- 2. Simplified manual
- 3. Guarantee certificate
- 4. Safety instructions and Precautions for use
- 5. Quality checklist
- 6. Return goods document
- 7. Declaration of Conformity
- 8. Brochure



Optional : Tablet with its power cable.

MyPhileas® application is directly loaded. This application allows the remote piloting and guarantees the traceability of the realised disinfections.

For any questions, contact your distributor. It will help you in starting and using Phileas®Genius.

2. Test Phileas®Genius

To check the operation of Phileas®Genius, we recommend you to realize a water test:

- 1. Fill the container with tap water.
- 2. Start Phileas®Genius (**U**)
- 3. Follow the procedure outlined on page 17.

Connect the battery and check its charge

On leaving the manufacturer, the battery of your Phileas®Genius is charged to 100 % and is not connected for ease of transport. The metal part that encloses the battery compartment is mounted upside down on delivery. To connect the battery, follow the picture instructions next pages.

To check the condition of the battery after the water test:

- \rightarrow Select Disinfection and press the (i) utton on the screen (cf. procedure on p. 15)
- \rightarrow Scroll through the parameters until the 2^{nd} screen to access information.

If the battery has to be charged, go to page 11.



Install the battery:

1/2



Estimated response time :

10 minutes



Difficulty level: easy

However, you can contact your distributor



Install your Phileas®Genius on a stable flat surface
The device is unplugged and the bottle removed.



1 Tool required:

- Allen key No.2,5

Step 1: When you receive the device, the battery is disconnected and the cover is on reverse side.

Remove the foam.



Step 1

Step 2: With the Allen key No.2,5, unscrew these 4 screws which hold the cover.
Keep them for last step..
Take the cover off.



Step 2

Step 3 : Connect the battery.



Step 3

Install the battery:

2/2

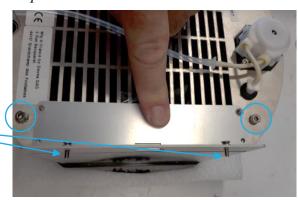
Step 4 : Push wires inside the place.



Step 4

Step 5 : Place the cover on the right side and screw the 2 screws (with blue circle).

If you have forgotten unscrewing the 2 screws here placed, do it now.



Step 5

Step 6: Use these 2 screws to fix the black plate.

Phileas®Genius is ready to be used.

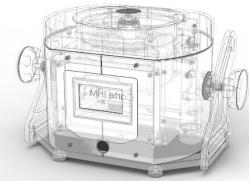


Step 6









?

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Preamble



Disinfection of Surfaces by Airborne Mist or DSAM is a means of disinfecting a space, or premises, by creating a dry fog that spreads in a confined space and ensures effective contact on surfaces.

This « terminal » disinfection comes in after cleaning of sensitive surfaces and in particular enables disinfection of areas normally deemed inaccessible (too high, shielded or even normally closed).

Note that this method is carried out with non human presence (so without risk to the user) and can be achieved in down time (no production time loss).

However, DSAM is not a method of disinfecting the air.

Guarantee

Parts of the machines in the Phileas® range are guaranteed 1 year. However, the battery is not covered by the guarantee.

The DSAM requires a machine / product combination. The efficiency of this process is verified using the French standard NFT 72 281. The DEVEA company ensures that the Phileas® process has been validated with O2SAFE 7.4 and PHILEASAFE disinfectants. You should therefore only use DEVEA disinfectants or those approved by DEVEA.

O2SAFE 7.4: Disinfectant made of 7,4 % hydrogen peroxide (ref p 40) **APASAFE** and **PHILEASAFE**: Disinfectants made of hydrogen peroxide and peracetic acid (ref p 40).

Any change in disinfectant without prior agreement of the DEVEA company voids this validation and voids the unit manufacturer's warranty.

Similarly, you should not, in any circumstances, disassemble the unit without the prior agreement of the relevant maintenance service provider.





Do you want to use your

Phileas®Genius for the

first time?





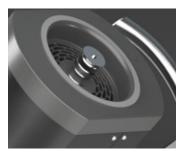


Do you need to prepare your room or your equipment?

« We only disinfect what is clean ».

Simply clean the space or equipment to be disinfected and tidy as usual. You can leave your computers, equipments, documents, etc. in the room. They will remain functional and dry. (Cf Safety Instructions and Precautions for use).

Is Phileas®Genius fragile?



Phileas®Genius is a robust and accurate machine that has just one point of vigilance: its spinning disc.

This generates the formation of fine, dry fog ensuring perfect disinfection. **You should never touch it when it is spinning**. It must be protected by its cover when not in use and during the transport.

Any shock may cause deformation of the pin and damage to the motor bearings.

Phileas®Genius is cleaned using a cloth soaked in a detergent Solution that is rubbed over the bodywork.



How does your Phileas®Genius work?

The pump sucks the DEVEA liquid disinfectant from the tank and then feeds it to the disc through the pipes and stainless steel housing. The liquid diffuses on the bottom surface of the spinning disc and is dispersed into fine droplets. The air current created by the fan drives the droplets upwards and allows distribution throughout the space to be treated.

Phileas®Genius runs on one battery or plugged into the power supply. The battery life is based solely on the diffusion time of the unit.





How to charge the battery?

Phileas®Genius is self-contained, designed to perform into the smallest equipments.

This capacity to adapt requires thus **an almost functioning on battery**. This one has been choosen for its big autonomy and longevity.

Battery charging management is automatic: if necessary, it will **always be activated** when the device is plugged into the power supply.

<u>To charge Phileas®Genius</u>: Connect your unit to an electrical installation which complies with safety standards. The cable supplied is standard and meets EU, TUV, ANSI / AAMI CSA, UL and Denan (PSE) standards.

1. Place Phileas®Genius in raised position and rotate it to access easily to the electric connection.

2. Insert the round cable of the power supply into the device by respecting the sense: the planar portion with the arrow is parallel to the serial number's label.







A fully charged battery should be used and recharged within 3 months. Otherwise, it becomes unusable. *If case of low battery*, the diffuser turns off.

Nevertheless, you can run Phileas®Genius with a discharged battery by plugging it into the power supply, but the battery will not be charged during use.

Where should you place Phileas®Genius for maximum efficiency?

It is important to leave clearance of 15 to 20 cm around your Phileas®Genius for correct diffusion.

In areas difficult to access, we recommand you to rotate the head of diffusion of Phileas®Genius. *So, desinfection is optimal.*

To have an continuous and homogeneous arrival of liquid, separate the container from its support. It is designed to stand alone. Then, rotate the module of Phileas®Genius by having the screen in front of you (the side of the container's upport is below).

Your distributor is available to confirm the disinfection protocols you may require to achieve your desired results. Remember to seek his advice.





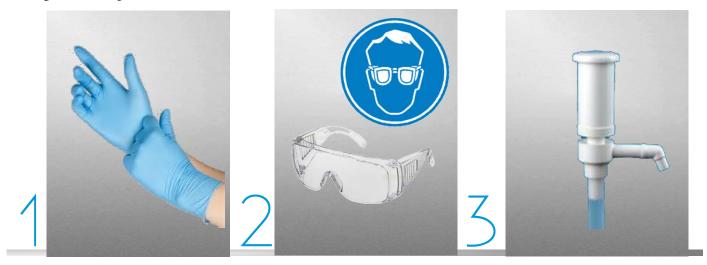
How do you fill the tank with DEVEA disinfectant?

Before starting, fill the bottle with the right quantity of **DEVEA disinfectant**.

The bottle serving as a tank is mounted in a removable support behind the Phileas®Genius.

To remove it, disconnect simply the tube.

- Wear protective gloves and goggles.
- *Open the disinfectant cap.*
- Screw the main pump (ref: MAJ250) on the DEVEA disinfectant container: each press releases 250 ml.
- Fill the container with 250 ml in 1 press.
- *Tighten the cap.*



To fill the 250 ml container from a 1 L bottle of disinfectant, respect only the steps 1 & 2 for the direct decanting.

For more information on **safety instructions and precautions**, a specific card is included in the document pouch.



Do you want to program

your Phileas®Genius?



Programming





Practical information

You can enter up to 19 programs.

The delay time can be adjusted from 1 min minimum to 9 hours 59 minutes maximum.

The diffusion limits of Phileas®Genius?

Diffusion time is limited by the rate of the pump and the volume of the container:

	Phileas®Genius
Maximum number of cycles	20
Maximum time of diffusion	36 minutes



These 2 limits condition totally your diffusion parameters.

By the way, if you exceed these maxima, Phileas®Genius will refuse the validation and ask you to come back and modify your parameters (in particular the number of cycles).



Check out the home screen

Start Phileas®Genius 🛈

The home screen occupies 2 screens:





You may see the following screens:

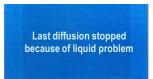


Press to get back to screen B.



This message indicates that the battery unloaded during diffusion or that a power failure occured, if the unit was plugged on.

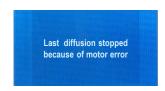
Load again the battery if necessary, press open of get back to screen B and begin again the programming.



This message indicates the disinfectant tank emptied itself during the last diffusion.

Fill it again, press to get back to screen B and gin again the programming.

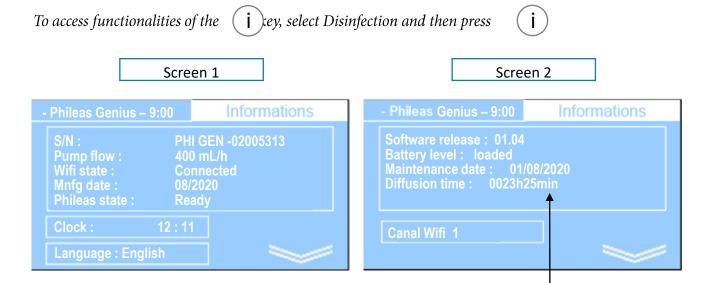
If you see these messages below, contact your distributor:











Please note that diffusion time information is the total time of diffusion after the 1st use of Phileas®Genius.

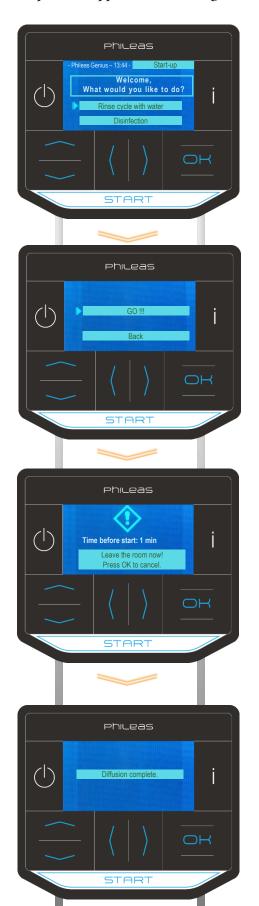
: When you want to remotely pilot your desinfection programs with MyPhyleas application, your device is connecting automatically with the tablet.

To modify the Wifi channel of your device: use the rrow to access to the choice of the channel's number, then click on and a channel between 1 and 10 with the arrow (for information, channels 11-12-13 are dedicated to other connections for the maintenance).



1st case: You want to perform a rinse cycle with water

As soon as you turn the device on, the option Rinse cycle with water displays on home screen. Once achieved, the option disappears. To make again the test, switch off the device then turn it on.



Here you are in START mode (top right of the screen). The cursor is directly placed on Rinse cycle with water. Check the container is full of water.

Press OH

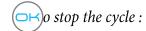
The test takes about 2 minutes.

Press (to confirm diffusion.

During a rinse cycle performed after diffusion with disinfectant, it is recommended not to stay in a stuffy place or too close to the device.

In the case of a water test, you can stay close to the device without touching the disc. Rinsing starts within 1 minute.

To cancel the procedure, press





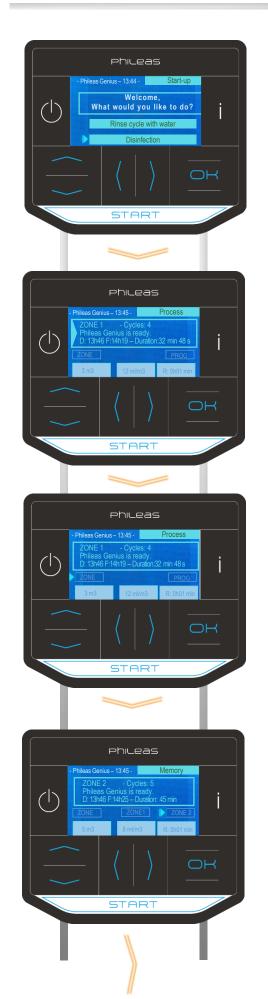
When the program is completed, the **Diffusion complete** message appears.

The unit has completed treatment and is emptied automatically.

You are on main screen: the last realized program of diffusion is displayed.



2^{nd} case : You want to use a recorded program (1/2)



You are on the home screen in START mode.

Select DISINFECTION by pressing the down arrow then click (OH).

You move to the home screen in PROCESS mode.

It presents the parameters of the last diffusion program used. Here, the diffusion for a zone of 3 m^3 disinfected at a rate of 12 ml/m^3 for a total time of 32 min 48 sec. This period includes 4 cycles and the delay time which occurs between each cycle is 4 times in this example.

If this program is appropriate for you, press

START

Searching for another preset program?

Scroll down to ZONE with the down arrow

Press to access the various existing prog ned diffus ness.

Move sideways to the right by using the right arrow until reaching the desired zone. \bigcirc

In the example, the cursor points to ZONE 2 whose diffusion parameters are :

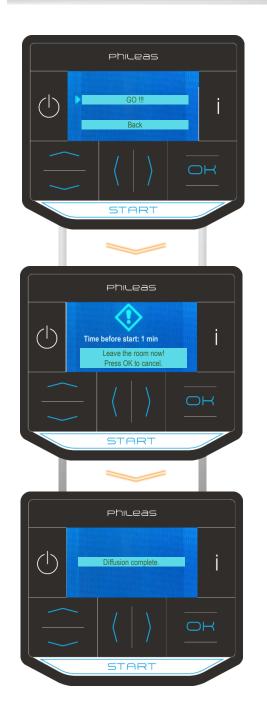
- *Volume of 5 m^3*
- Disinfectant dose of 8 ml/m³
- diffusion program in 5 cycles
- Total diffusion duration of 45 min
- *Delay time of 1 min*

Is this zone right for you? Press to validate the diffusion program.





2^{nd} case : You want to use a recorded program (2/2)



For safety, you must confirm diffusion by pressing



The selected program has a time delay of 1 min, so you have this time to stop the equipment or leave the airlock.

Check the container is full of DEVEA disinfectant.

To cancel the programming, press The following screen appears:





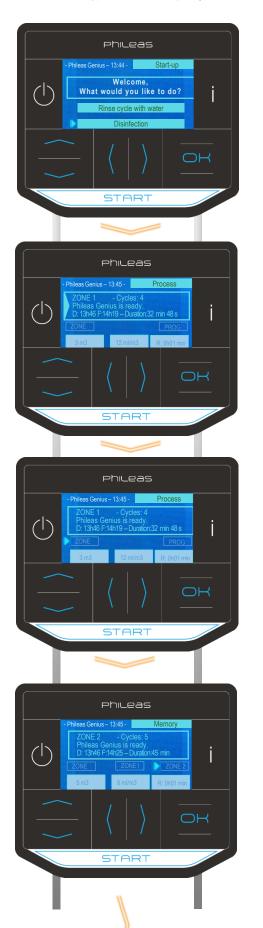
When the program is completed, the **Diffusion complete** message appears.

The unit has completed treatment and is emptied automatically.



3rd case: You want to change a recorded program (1/3)

You can modify a recorded program but you can not delete it.



You are on the home screen in START mode.

Select DISINFECTION by pressing the down arrow [click CHAPT MODE | Click CHAPT MODE



You move to the home screen in PROCESS mode.

It presents the parameters of the last diffusion program used.

Scroll down to ZONE with the arrow



Press to access the various programmed diffusion zones and notified ways to the right using the right arrow until reaching the zone to change.

In the example, the cursor points to ZONE 2 whose diffusion parameters are displayed:

- Volume of 5 m³
- Disinfectant dose of 8 ml/ m³
- Diffusion program in 5 cycles
- Total diffusion duration of 45 min
- *Delay time of 1 min*

Do you want to change the program of Zone 2?

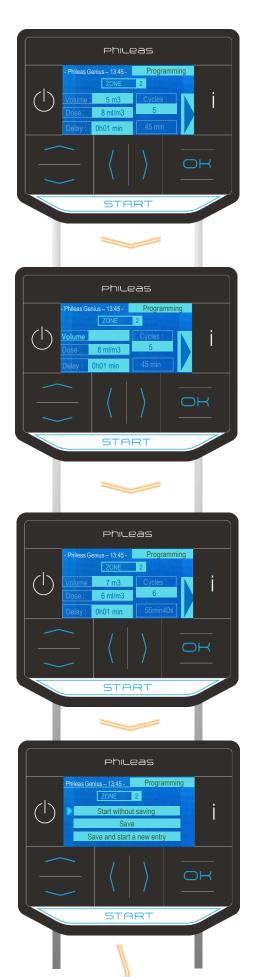
Press twice.







3rd case: You want to change a recorded program (2/3)



You move to PROGRAMMING mode.

The programming parameters of Zone 2 appear.

The cursor flashes on the zone number.

Press OH

For each parameter to be entered:

- You position yourself using the down arrow
 - wn arrow
- Press : the box is highlighted
- You enter the data using the _____and ____arrows.
- You confirm the information with next parameter.

If parameters exceed the limits of diffusion (see p 14), review your programmation.

In the example, you enter a new zone volume to be disinfected.

Move from parameter to parameter with the arrow. When finished, your cursor is on the right arrow on the screen.

You will notice that by changing the settings, the diffusion time is recalculated automatically.

When you program several cycles, a minimal and systematical delay time of 1 minute is planned between each cycle and before the starting up.

Press to accept your changes.

You are offered 3 choices.

→ START WITHOUT SAVING: by pressing the unit invites you to leave the room and start diffusion.

→ SAVE : by pressing (□) the following summary screen appears (continued on page 22).





3rd case: You want to change a recorded program (3/3)



Summary screen of your change.

Press **START** *to activate the program and press*



The selected program has a time delay of 1 min, so you have this time to leave locked room.

Check the container is full of DEVEA disinfectant.

To cancel this programming, press



The following screen appears:



When the program is completed, the Diffusion complete message appears.

The unit has completed treatment and is emptied automatically.



4th case : You want to create a new ZONE program (1/3)

You can create or modify a program but you can not delete it.

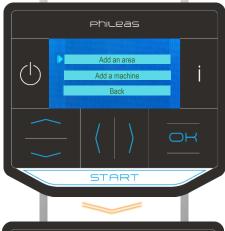






You move to the home screen in PROCESS mode.

Place yourself on PROG with the right arrow hen click



Select ADD AN AREA and press You move to PROGRAMMING mode.

Now enter the desired diffusion parameters one after the other. For each parameter:

• Place the cursor using the down arrow

• Press : the box is highlighted

• Enter ◯ Klata using the and arrows.

• Confirm the information nove to the next parameter.

Phileas Genius - 13:17 - Programming

ZONE

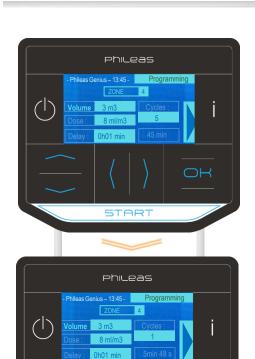
Volume: 5 m3
Dose: 8 ml/m3
Delay: 0h01 min 45 min

Start with the number of the zone ... (highlighted here). Nota: When you program several cycles, a minimal and systematical delay time of 1 minute is planned between each cycle and before the starting up.





4th case: You want to create a new ZONE program (2/3)



Go to volume...

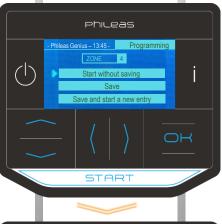
You continue with DOSE, DELAY time and the number of CYCLES. The total diffusion time is calculated automatically.

If parameters exceed the limits of diffusion (see p 14), review your programmation.

When finished, your cursor is on the right arrow on the screen

Confirm the creation of Zone 4 by pressing

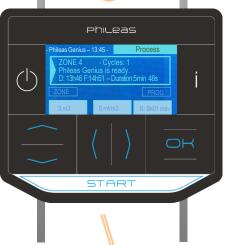




OH

You are offered 3 choices.

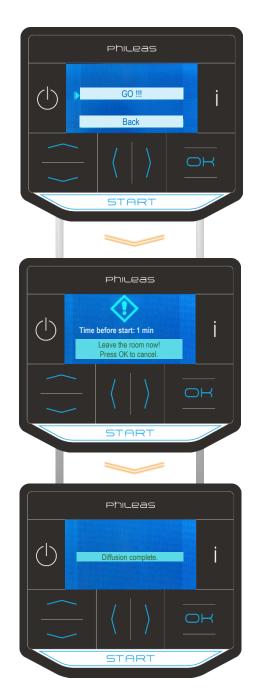
→ START WITHOUT SAVING: by pressing the unit invites you to leave the room and start diffusion.



Press **START** *to activate the program.*



4th case: You want to create a new ZONE program (3/3)



For safety, you must confirm diffusion by pressing



The selected program has a time delay of 1 min, so you have this time to leave locked room.

Check the container is full of DEVEA disinfectant.

To cancel programming, press (The following screen appears:





When the program is completed, the Diffusion complete message appears.

The unit has completed treatment and is emptied automatically.



Operating check by LED



The diffuser has a LED display on the top, enabling you to monitor what stage it is at from a distance.

- → Starting phase :
 - The LED flashes GREEN slowly: programming is underway but without diffusion (initial delay time phase)
- → Diffusion phase :
 - The LED lights in **GREEN without flashing**: diffusion is on the way.
- → End of diffusion :
 - The LED flashes **GREEN quickly**: the program is completed and diffusion was achieved without a hitch. The digital display shows the message « Diffusion complete ».
- → Reporting a problem
 - The LED flashes in **RED**: the diffusion is not realised correctly.

Press on move to home screen. LED still flashes red.

Start a new program to check if the detected problem persists:

→ LED lights in green

There are 2 situations:

- no more problem (eg: you have refilled the can), LED stays green
- the detected problem persists: LED flashes red
- The LED is **RED without flashing**: there is a communication problem between the tablet and the device. The battery has to be totally discharged before starting again the device and running a new program. If you do not want to wait, you can unplug the battery (see p 35: Changing the battery).





When can you reuse Phileas®Genius or enter an airlock that is being treated?

The usual contact time is about 2 hours.

After this time, we recommend that you ventilate the treated area for 30 to 60 minutes depending on the speed of air renewal in your installation. A renewal of 20 volumes of fresh air is necessary. If the treated zone is not ventilated, wait a night before entering.

→ For small volumes, it is possible to open the door after contact time.





How to maintain your

Phileas®Genius?





How to clean your Phileas®Genius?

The bodywork of the unit must be cleaned regularly by simply using a cloth soaked in a detergent solution.

Do you want to store your Phileas® Genius for future use?

A few precautions are necessary ...

Make sure you rinse the machine's liquid circuit with tap water after the last use before storage. When in doubt, you can do the following:

- Fill your container with water.
- Check the correct positioning of the suction tube.
- Start the machine and choose the Rinse cycle with water. You can stay in the room during the water test. If the device is already switched on, you must switch off then turn it on access the menu Rinse cycle with water.

Note: the rinsing procedure is described in detail on page 17.

If you feel you will not have to use your machine with three months, remember to charge the battery regularly.

Remember, an unused battery or one that is not charged within 3 months becomes unusable. When using Phileas° after this storage time, remember to check the correct functionality of the battery by turning the unit on : Choose Disinfection and press . i

If the holding charge is below 50%, the message "Low Battery" appears on the diffusion validation screen.









Codes





Glossary of differents Phileas®Genius messages and codes

Messages/Codes	Meaning
Liquid inlet error!	The liquid does not arrive under the disc.
ERROR : Memory corrupted!	Communication problem between defective motor and control circuit board.
ERROR : Module communication is missing!	Problem on control circuit board.
ERROR : Module is on stand by!	Problem on control circuit board or on HMI card.
ERROR : Disc Motor!	Problem on disc motor of the diffusion head.
ERROR : Fan !	Problem on the fan.
ERROR : Alimentation!	Batterie is empty or a power failure occured during the diffusion or there is a power issue (the green led of the transformer is off or flickers).
Low battery	Holding charge of the battery is below 50%.



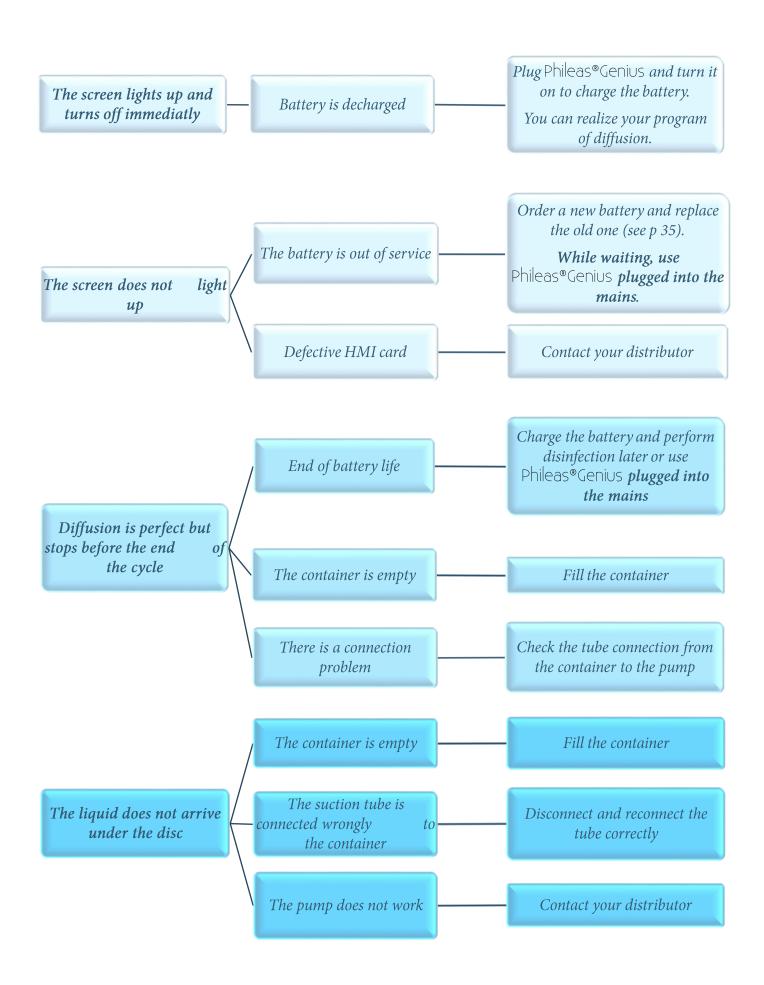


How do you fix common

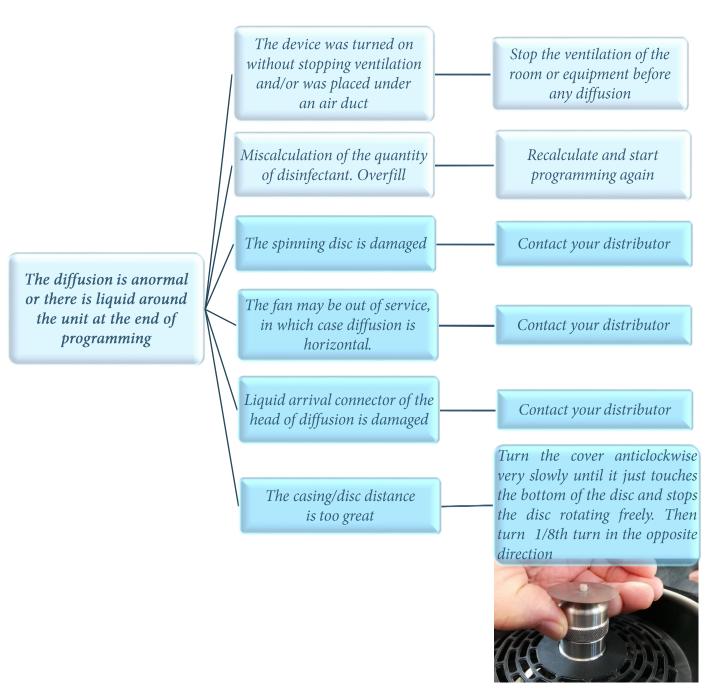
malfunctions?











For any other situation, contact your distributor. If you have to return Phileas®Genius to your distributor, protect it with the original packaging or use a suitable packaging.

Send the following elements:

- the unit **with its cover**
- power supply
- **EMPTY** container

The distribution head must be protected. To do this, reuse the original packaging or, if not, use suitable packaging.





Phileas®Genius : changing the battery 1/2



Estimated response time: **10 minutes**



Difficulty level: easy



Install your Phileas® on a stable flat surface.

The device is unplugged and the bottle removed.



3 tools required:

- Allen key 2,5
- Allen key 2
- 5.5 mm wrench

Using the Allen key n°2, unscrew the 2 screws on the front of the device to remove the metallic support.

Turn the Phileas®Genius *and unscrew the 4 screws on the back face.*



Position the 6 screws in the cover.



Using the same Allen key no.2, unscrew the <u>2</u> <u>screws at the bottom</u> of the metal plate.





Phileas®Genius : changing the battery 2/2

Using a 5.5 mm wrench, unscrew the 2 nuts from the aluminium bracket on the same side.

Lift the bracket, the battery is located underneath.







Pull the tab to release it.

- Disconnect-it.
- *Take the new battery and connect it.*
- *Proceed to the reassembly.*

Turn Phileas®Genius on and verify the charge of the battery.

If necessary, plug the device into the mains to charge the battery. The total charge time is 5 hours.





Changing the rotating disc: 1/2



Estimated response time : **5 minutes**



Difficulty level: easy and delicate



Install youre Phileas® on a stable flat surface.



2 tools required:

The device is unplugged and the bottle removed.

- Screwdriver DEVEA (ref : AR00780)
- Spanner DEVEA (ref: AR00275)

Remove the protective cover from the diffusion head.

Use the spanner to hold the nut fastened around the disc shaft. Place the screwdriver on the head of the shaft and turn it clockwise to unscrew the nut. Position the screw in the cover.



Carrefully remove the disc.

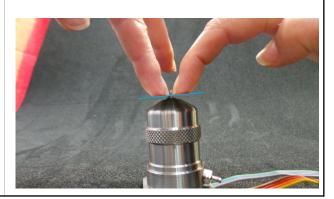
Take the new stainless steel disc and slide it along the axis of rotation. (The two sides of the disc are identical.)

With your fingertips, push down to the last edge at the bottom of the thread.

Position the nut and tighten with spanner and the screwdriver turning them anticlockwise.

The screw is self-fastening, there is no need to tighten it too hard.
Gently rotate the disc with a finger.









Changing the rotating disc: 2/2

Turn the cover anticlockwise very slowly until it just touches the bottom of the disc and stops the disc rotating freely.



Then, turn the cover 1/8 turn in the opposite direction and then run a rinse cycle to check the adjustement is correct and fog is correctly produced.

Try this new disc:

- Fill the container with tap water and install it
- *Switch* Phileas® *on and run a water test to confirm the formation of fog.*









Consumables

References	Description					
O2S 7,4 10	10 L can of O2SAFE 7.4+° Liquid disinfectant composed of 7,4% hydrogen peroxide					
PHISAF 10	10 L can of PHILEASAFE* Liquid disinfectant composed of 7,3% hydrogen peroxide and 0,15% peracetic acide					
PHISAF 6	6 x 1 L bottles of PHILEASAFE® Liquid disinfectant composed of 7,3% hydrogen peroxide and 0,15% peracetic acide					



Technical specificities of the device

Characteristics

LCD screen

Foot 3 positions

Programming number of cycles, delay time and

volume of diffusion.

Automatic calculation of diffusion time

Number of head diffusion: 1

Sense of disc's rotation: anticlockwise

Liquid missing security

Maximal volume of treatment: 5 m³

Flow rate: 400 ml/h

Granulometry: $5 \rightarrow 10$ *microns*

Container: 250 ml

Materials compatibles with H_2O_2

Dimensions (L x l x h) : 280 x 255 x 226 mm

Weight: 7 Kg Power: 45 W

Risks associated with the use

<u>Our devices have to be used with non human presence</u> because they diffuse hydrogen peroxyde during the operation. In the water test, the user does not have to touch the rotating (risk of accidental cut).

Here is the risk analysis user:

Assessment of the risk						Risk management						
Dangerous phenomenon	Cause, origin	Associated risks	S	P	R	Means to control	S	P	R	Audit of efficiency	Establishm ent	Induced hazards
1.Rotating disc	Technology of diffusion	Cut finger	4	1	1	Comply with any prescribed security measures	4	1	1	Programming the device with a delay time	Training	No
2.Filling the container	Transfer disinfectant from container to the tank	Spatters in eyes and on hands	3	2	2	Use equipments of individual protections (gloves and goggles, use a Major pump)	3	1	1	Purchase of the pump	Technical notice	no

S: indicates the Seriousness

P: indicates the Probability

R: indicates the category of the Risk

Probability	Cotation	Seriousness	Cotation
Frequent	5	Catastrophic	4
Probable	4	Serious	3
Possible	3	Middle	2
Rare	2	Minor	1
Improbable	1		

The device has to be exclusively used inside closed areas (animal facilities, laboratories...) or placed into equipments like microbiological safety cabinets...

In addition, it has to be exclusively used with DEVEA disinfectants or those approved by DEVEA. The manufacturer DEVEA SAS assumes no liability if the user:

- Uses other products than those recommended. They could damage the device or threaten the safety of the user or be harmful for the alive and non-alive environment.
- Uses the device in other situations than those described above. Any exceptional use has to be controlled and validated or not by DEVEA SAS.





Technical specificities of the device

Conformity:

Any change in equipment on the initiative of the distributor or the user (that might affect security conditions) causes the cancellation of the statement of conformity CE completed by the manufacturer and disclaims all liability. This is also true for the change of an original part by an non-original one.

Nota: The manufacturor or its representative are the only ones authorized to examine or deliver the diffusion head.

Technical data of the battery

NiMh category (Nickel-Metal Hybride Battery) – Norma : IEC 62133

Fatigue life: 500 discharge cycles at 0,8V/element

Any device with battery has to be stored in a temperate environment.

A storage in very low or high temperatures reduces the battery longevity.



The element HR4/3FAU of the battery accomodates lead current from C/10 (450 MA pendant 16h) to $\sim C$ (3000 MA pendant 1h40).

Minimum required for the charge: 450 mA.

Minimal threshold voltage for charged use: 0,8 V/element.

No electrical risk in normal use (be careful to not create a short circuit with the battery).

No pollution risk (no heavy metal like Lead, Cadmium and Mercury).

Technical date of Power supply



Extern power supply class II

Power connection directly in the socket of the device.

To disconnect the device: unplug the power supply.