

PHILEAS

BY DEVEA

User manual



Made in France

We use ecofriendly disinfectants

PHILEAS



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Hello,

*You have just acquired a
Phileas[®]75 and we
thank you for it.*

*To ensure your
satisfaction, we invite
you to check :*

Phileas² key points
BY DEVEA

1. Check your delivery

You have just unpacked your package containing :

- The Phileas®75 with its cover
- One 2 L container
- One complete power supply that includes a cable with EU standards. Check if it conforms for your country otherwise, obtain a compatible cable.
- 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.



This device is equipped with a gauge bridge (or balance) to regulate potential variations of the peristaltic pump. This gauge bridge and the pump are calibrated at the time of manufacture of the device.



Advices to move Phileas®75 :

- Before moving Phileas®75, take the container off to avoid spillage of the liquid product, which could infiltrate the control part and damage the electronic board.
- Use the two side handles to carry Phileas®75.
- If you prefer to roll it : use its retractable handle and avoid impacts when moving the device (doorsteps, stairs, steps etc.) so as not to alter the calibration. Each time the device is moved, wait at least 2 minutes before switching it back on again so that all parameters stabilise.

Any change to the HMI board requires re-calibrating of the machine.

For any questions, contact your distributor. It will help you in starting and using Phileas®75.

2. Test Phileas®75

To check the operation of Phileas®75, we recommend you to realize a water test :

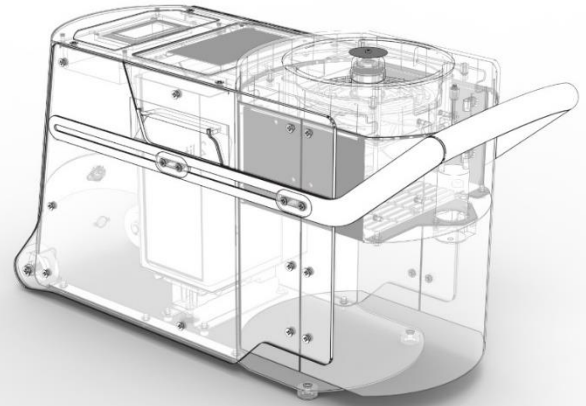
1. Connect your unit to an electrical installation which complies with safety standards. The cable supplied is standard and meets EU, TUV, ANSI / AAMI CSA, UL and Denan (PSE) standards.

➔ 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 base.



2. Fill the container with tap water.
3. Start Phileas®75 
4. Follow the procedure outlined on page 15

Phileas⁴ Summary



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*You must always fill the tank sufficiently
because the bottom of the bottle is difficult to use*

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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.

*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 36)

PHILEASAFE[®] : Disinfectants made of hydrogen peroxide and peracetic acid. (ref p 36)

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[®]75 for the first
time ?*

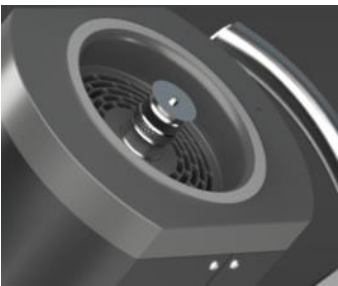
Phileas⁷
BY DEVEA  First time

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[®]75 fragile ?

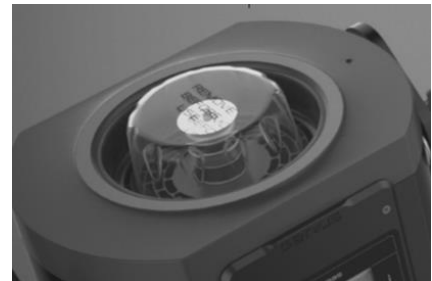


Phileas[®]75 is a robust and accurate machine that has just one **point of vigilance** : its **spinning disc**.

*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[®]75 is cleaned using a cloth soaked in a detergent solution that is rubbed over the bodywork.



*Phileas[®]75 is also provided with a **balance** which allows to maintain a constant flow of the device and to verify the quantity of used product.*

*Think of removing the container during the transport to avoid that the weight of this one damages the **balance**. Pay attention by crossing the doorsteps.*

How does your Phileas[®]75 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.

How to plug Phileas[®]75 ?

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.

➔ 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 base.



Where should you place Phileas[®]75 for maximum efficiency ?

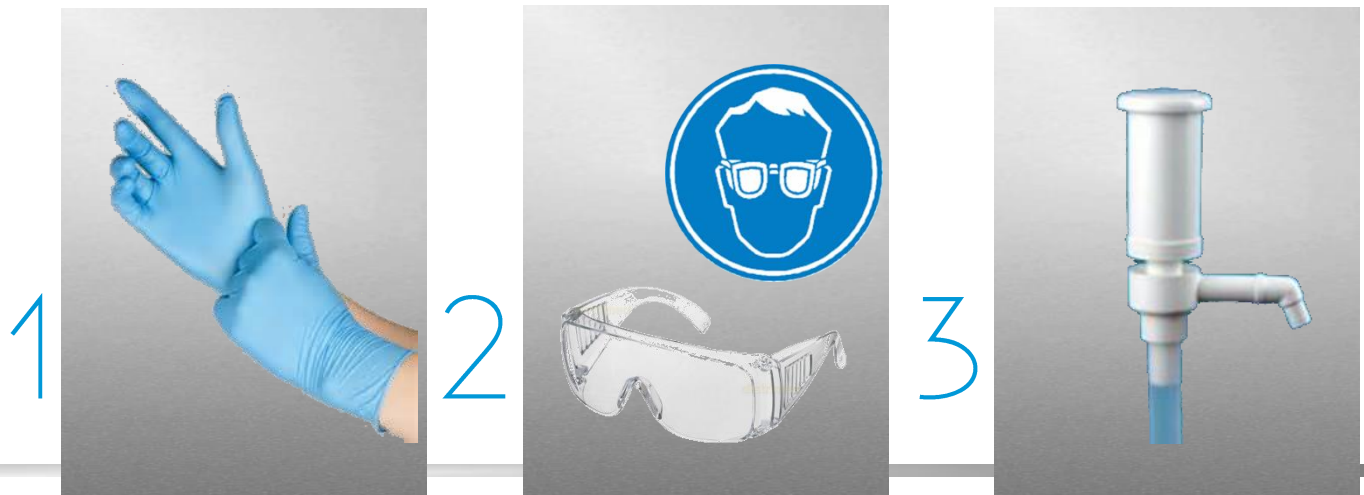
It is important to leave **clearance of 15 to 20 cm around** your Phileas[®]75 for correct diffusion. Your distributor is available to confirm the disinfection protocols you may require to achieve your desired results.

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 housed in the central part of the Phileas®75.
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 2L mL in 8 presses.
- Tighten the cap.



To fill the 2 L container with 2 bottles of 1 liter of disinfectant (only for Phileasafe), 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[®]75?*

Phileas^{BY DEVEA}  Using

 Programming

What are the diffusion limits of Phileas[®]75 ?

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

Phileas [®] 75	
<i>Maximum number of cycles</i>	5
<i>Maximal time of diffusion</i>	1h37



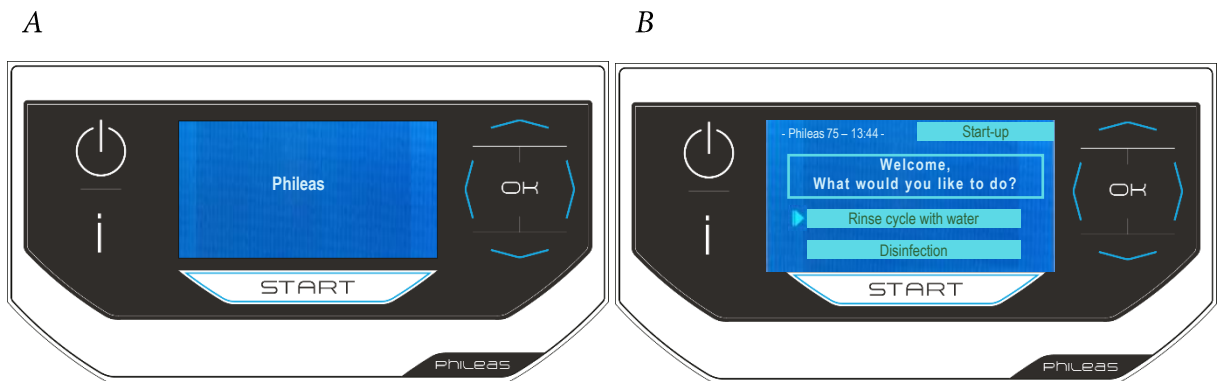
These 2 limits condition totally your diffusion parameters.

*By the way, if you exceed these maxima, Phileas[®]75 **will refuse the validation and ask you to come back and modify your parameters** (in particular the number of cycles).*

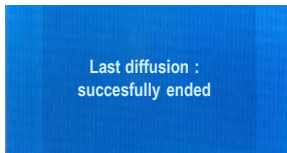
Check out the home screen

Start Phileas®75

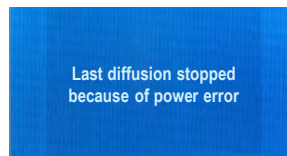
The home screen occupies 2 screens :




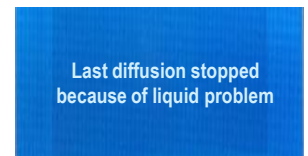
You may see the following screens :




Press  to get back to screen B.

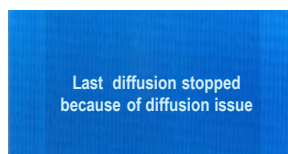
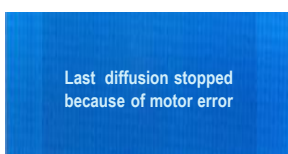




This message indicates that a power failure occurred. Press  to get back to screen B and begin again the programming.

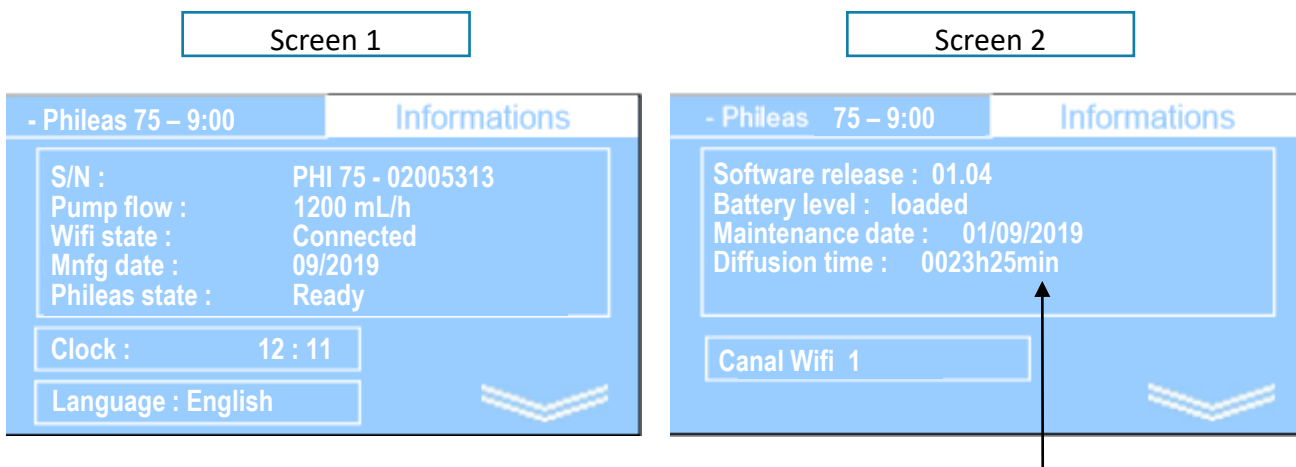


This message indicates the disinfectant tank emptied itself during the last diffusion. Fill it again, press  to get back to screen B and begin again the programming.


If you see these messages below, contact your distributor :









To access functionalities of the  key, select Disinfection and then press 



Please note that diffusion time information is the total time of diffusion after the 1st use of Phileas®75.

 : When you want to remotely pilot your disinfection programs with your device is connecting automatically with the tablet.

To modify the Wifi channel of your device : use the  arrow to access to the choice of the channel's number, then click on  and select a channel between  and 10 with the  arrow (for information, channels 11-12- 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.

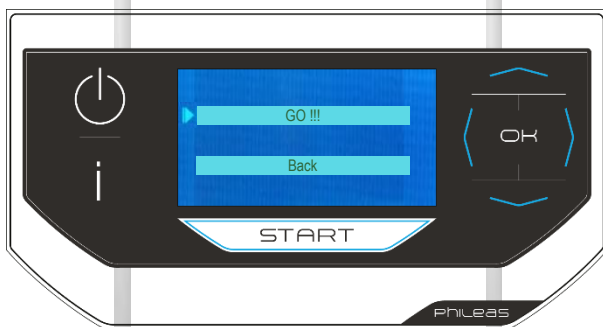


Here you are in **START** mode (top right of the screen). The cursor is directly placed on **Rinse cycle with water**.

Check the container is full of water.

Press **OK**.

The test takes about 2 minutes.



Press **OK** 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 **OK** to stop the cycle :



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.

2nd 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 .



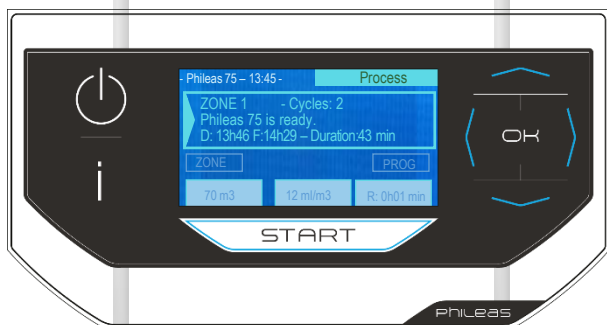
You move to the home screen in PROCESS mode.

It presents the parameters of the last diffusion program used. Here, the diffusion for a zone of 70 m³, disinfected at a rate of 12 ml/m³ for a total time of 43 min. This period includes 2 cycles and the delay time which occurs between each cycle is 2 times in this example.


If this program is appropriate for you, press .




Searching for another preset program ?



Scroll down to ZONE with the down arrow .


Press  to access the various existing programmed diffusion zones.

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



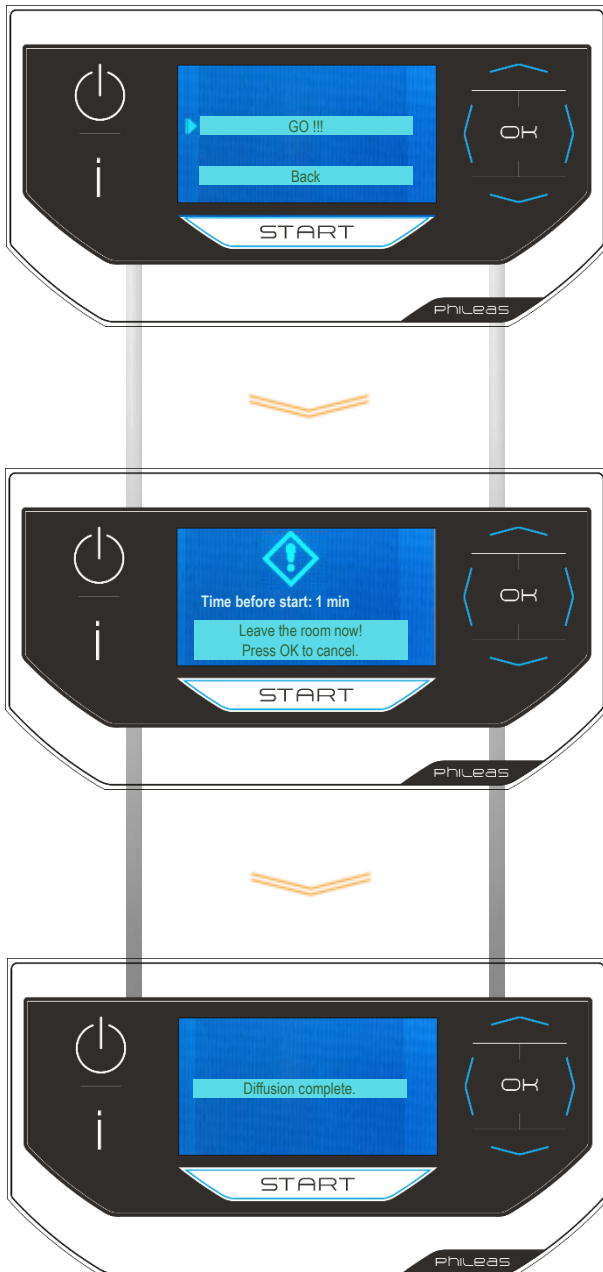
In the example, the cursor points to ZONE 2 whose diffusion parameters are :

- Volume of 80 m³
- Disinfectant dose of 8 ml/m³
- Diffusion program in 2 cycles
- Total diffusion duration of 1h06 min
- Delay time of 1 min

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



2nd 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:

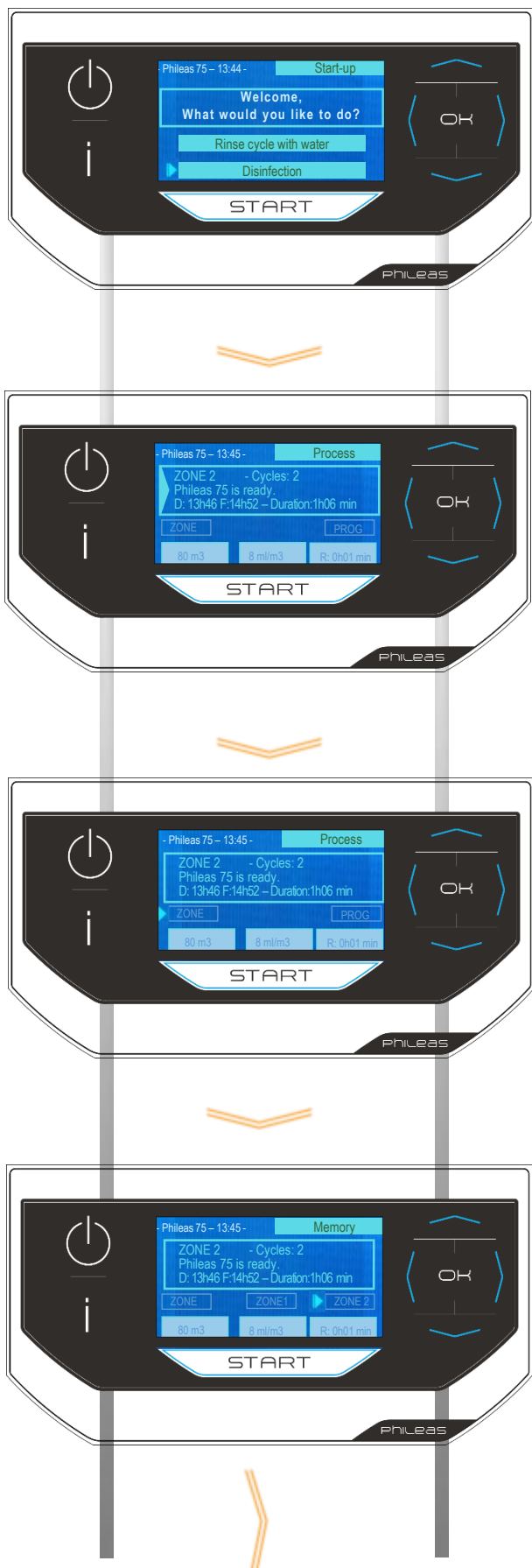


When the program is completed, the **Diffusion complete** message appears.

The unit has completed treatment and is emptied automatically.

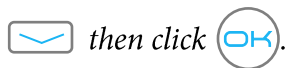
3rd case : You want to change a recorded program (1/3)

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



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 move sideways to the right using the right  arrow until reaching the zone to change.

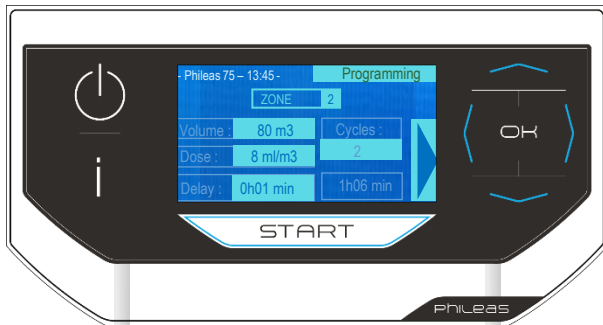
In the example, the cursor points to ZONE 2 whose diffusion parameters are displayed :

- Volume of 80 m³
- Disinfectant dose of 8 ml/m³
- Diffusion program in 2 cycles
- Total diffusion duration of 1h06 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.

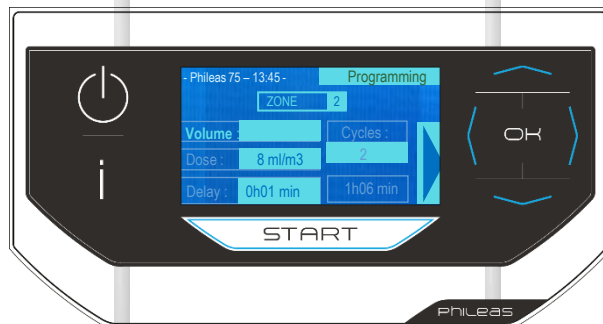
Press .

For each parameter to be entered:

- You position yourself using the down arrow
- Press : the box is highlighted
- You enter the data using the and arrows.
- You confirm the information with and move to the next parameter.

If parameters exceed the limits of diffusion (see p 12), review your programming.

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

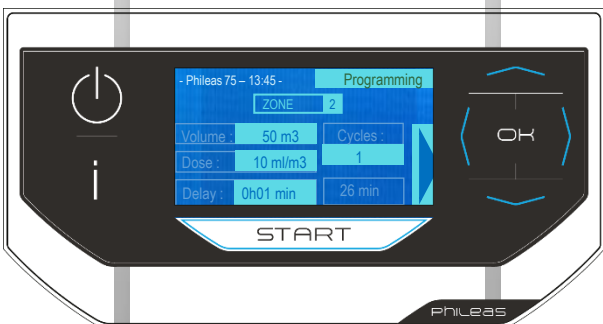


Move from parameter to parameter with the arrow.

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.

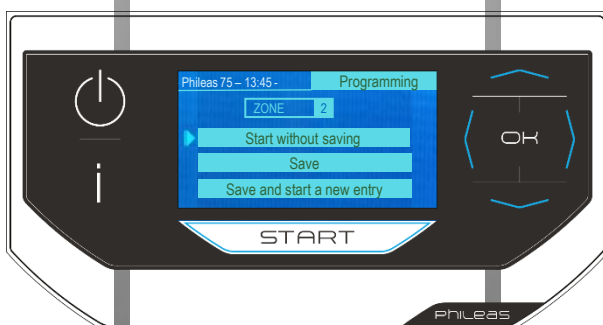


Press to accept your changes.

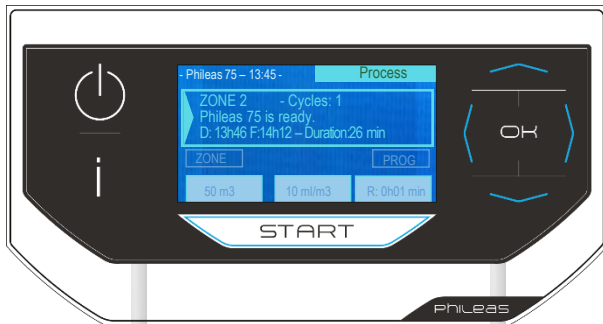
You are offered 3 choices.

➔ 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 20).

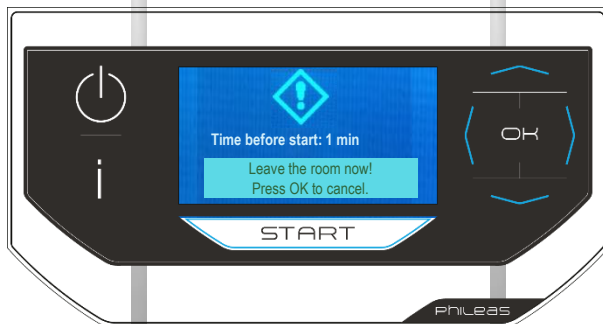


3rd case : You want to change a recorded program (3/3)



Summary screen of your change.

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

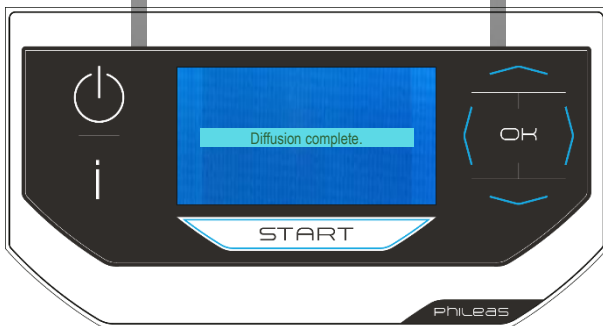


The selected program has a time delay of 1 min, so you have this time to leave locked room.

Check the container is full of DEVEA disinfectant.

To cancel this programming, press **OK**

The following screen appears :



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



The unit has completed treatment and is emptied automatically.

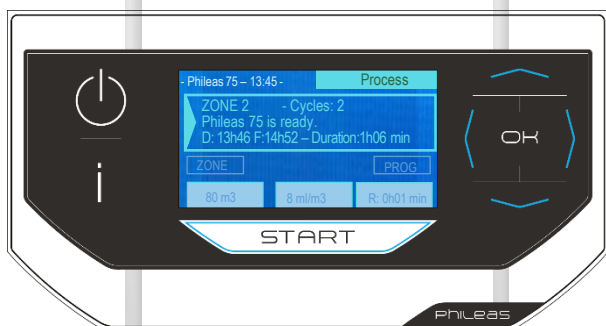
4th case : You want to create a new ZONE program (1/3)

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





You are on the home screen in START mode.

Select DISINFECTION by pressing the down arrow  then click .



You move to the home screen in PROCESS mode.

Place yourself on PROG with the right arrow  then click .










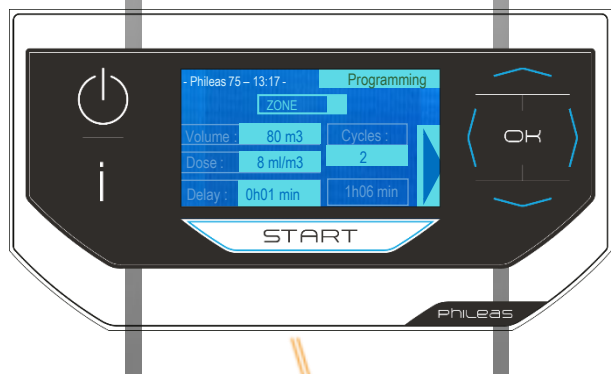
Select ADD AN AREA and press .

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  data using the  and  arrows.
- Confirm the information   move to the next parameter. .



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...

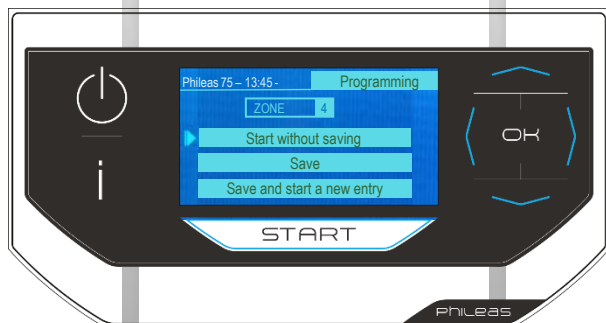
You continue with DOSE, DELAY time and the number of CYCLES. The total diffusion time is calculated automatically.

If parameters exceed the limits of diffusion (see p 12), review your programming.



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

Confirm the creation of Zone 4 by pressing



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 :



Press 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



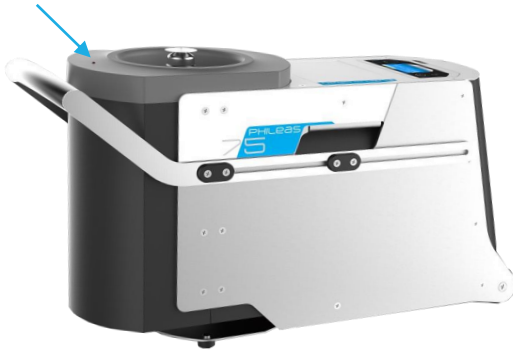
The following screen appears :



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  to 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.

Unplug/plug Phileas[®]75 and start again the program.

When can you 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.

How to maintain your

Phileas[®]75 ?

Phileas^{BY DEVEA}  Maintaining

How to clean your Phileas[®]75 ?

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[®]75 for future use ?

Only one precaution is 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 15.

Phileas²⁸
BY DEVEA

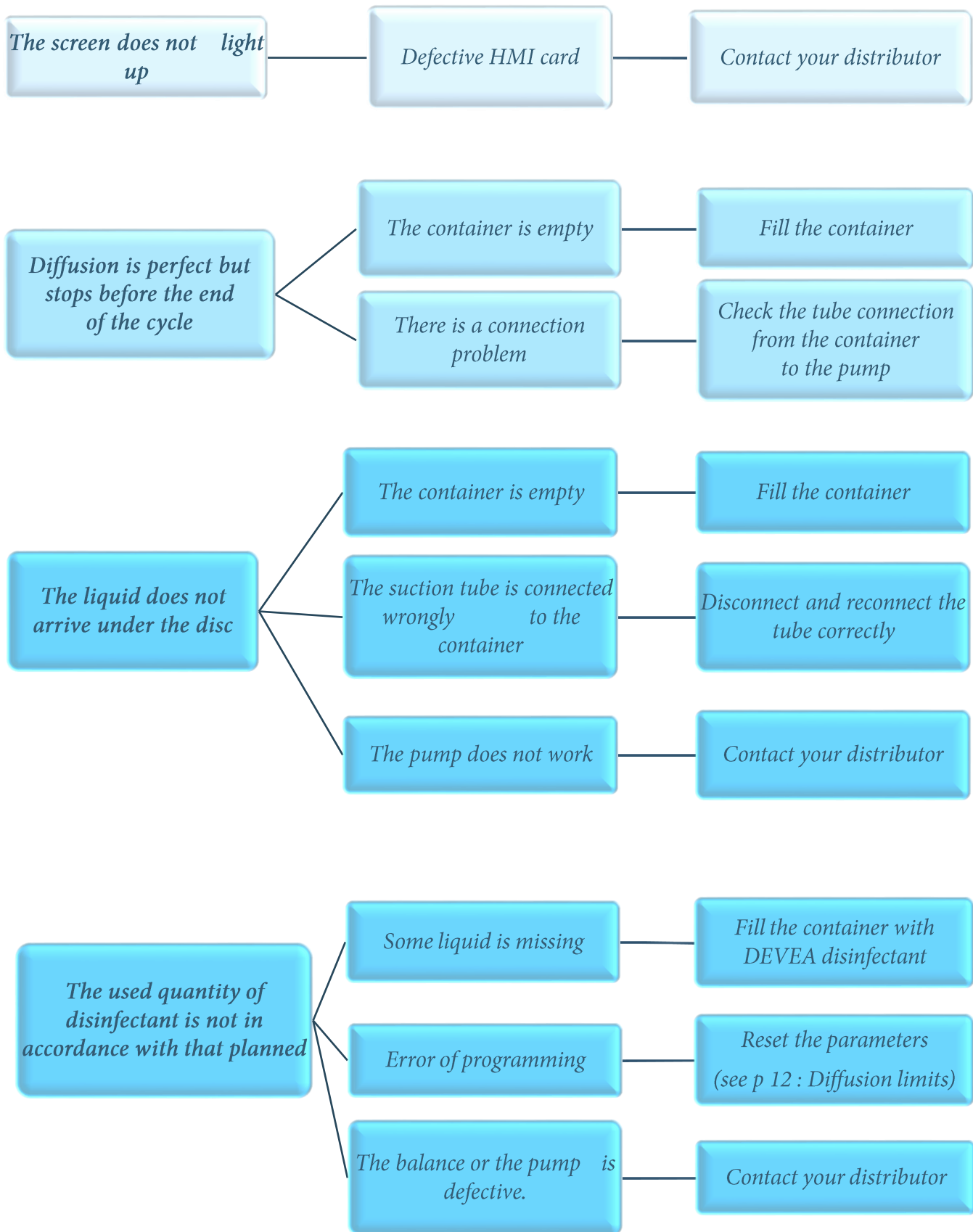
Glossary
Codes

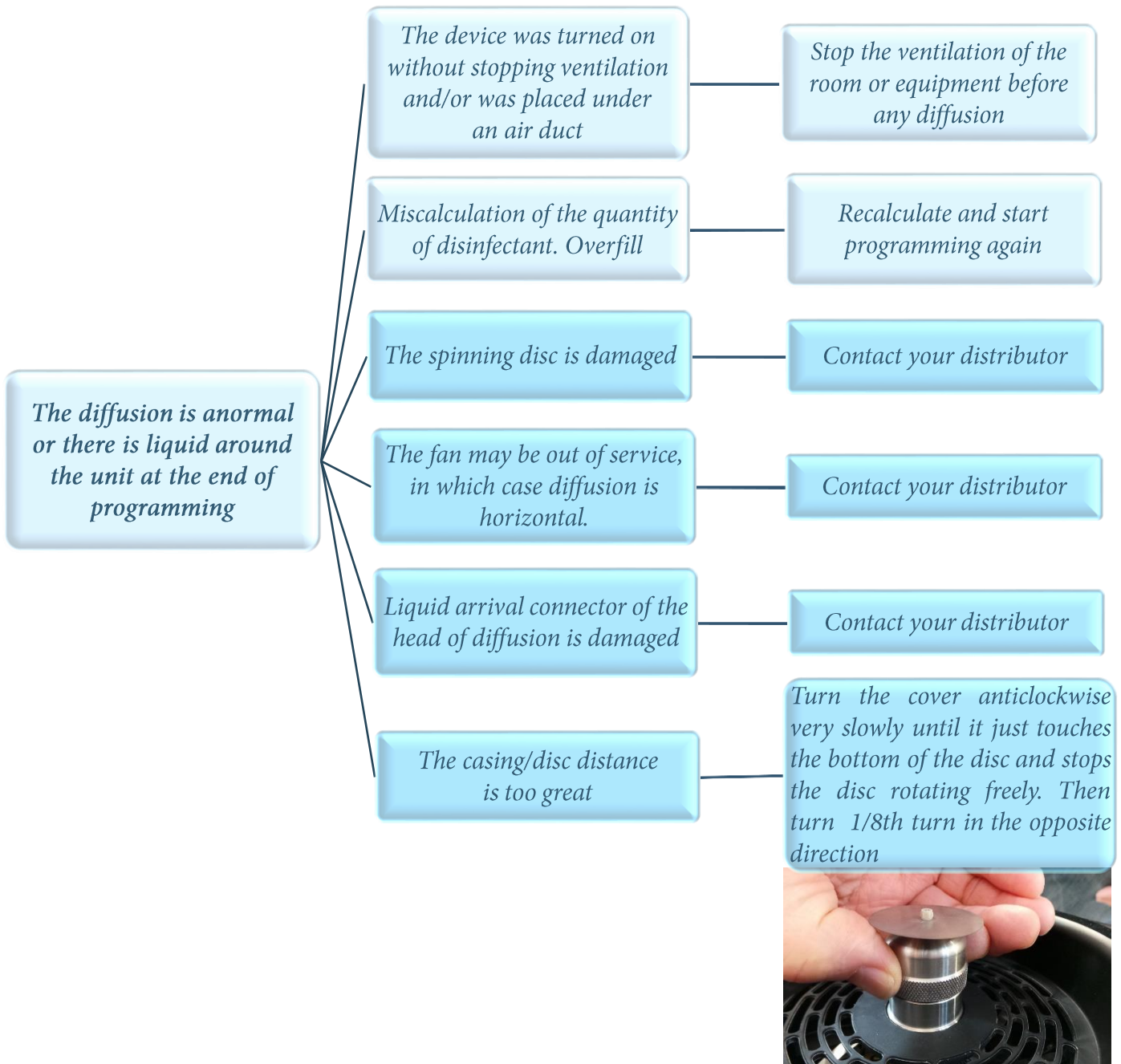
Glossary of different Phileas[®]75 messages and codes

Messages/Codes	Meaning
<i>Liquid inlet error!</i>	<i>The liquid does not arrive under the disc.</i>
<i>ERROR : Memory corrupted!</i>	<i>Communication problem between defective motor and control circuit board.</i>
<i>ERROR : Module communication is missing!</i>	<i>Problem on control circuit board.</i>
<i>ERROR : Module is on stand by!</i>	<i>Problem on control circuit board or on HMI card.</i>
<i>ERROR : Disc Motor !</i>	<i>Problem on disc motor of the diffusion head.</i>
<i>ERROR : Fan !</i>	<i>Problem on the fan.</i>
<i>ERROR : No balance available !</i>	<i>Problem on the balance.</i>
<i>Not enough liquid</i>	<i>The bottle is empty or not enough filled. Fill it.</i>
<i>ERROR : Alimentation !</i>	<i>A power failure occurred during the diffusion or there is a power issue (the green led of the transformer is off or flickers).</i>

*How do you fix common
malfunctions ?*

Phileas BY DEVEA  Fixing









For any other situation, contact your distributor. If you have to return Phileas[®]75 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.

Changing the rotating disc : 1/2

	<p><i>Estimated response time :</i> 5 minutes</p>		<p><i>Difficulty level :</i> easy and delicate</p>
	<p><i>Install your Phileas® on a stable flat surface.</i></p>		<p><i>2 tools required :</i></p> <ul style="list-style-type: none"> - Screwdriver DEVEA (ref: AR00780) - Spanner DEVEA (ref: AR00275)
<p><i>The device is unplugged and the bottle removed.</i></p>			

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.

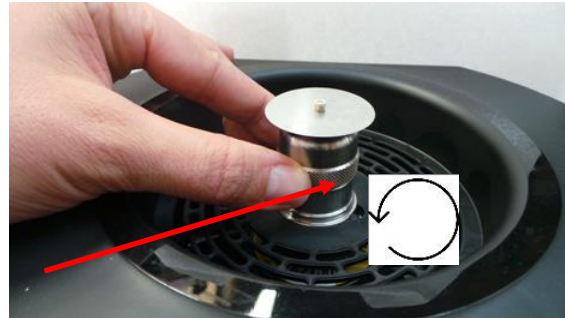
Position the nut and tighten with spanner and the screwdriver turning them anticlockwise.

*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 adjustment 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.*

Phileas BY DEVEA References

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
 Designed telescopic handle and 2 wheels
 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 : 150 m³
 Flow rate : 1200 ml/h
 Granulometry : 5 -> 10 microns
 Container : 2 L
 Materials compatibles with H₂O₂
 Dimensions (L x l x h) : 586 x 210 x 324 mm
 Weight : 8 Kg
 Power : 45 W

Risks associated with the use :

Our devices have to be used with non human presence 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	Establishment	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 a non-original one.

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

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.