



# LIFEINABOX

INSTRUCTIONS  
FOR USE AND  
FREQUENTLY ASKED  
QUESTIONS



**lifeina**



## *LifeinaBox*

*The world's smallest fridge  
for medication transport and storage*

***"It's time to start LIVING  
the life you imagined".***

Henry JAMES



# WELCOME TO THE LIFEINA FAMILY

## FREQUENTLY ASKED QUESTIONS ABOUT LIFEINA

*LifeinaBox is a product of love and happiness. We have really tried to make a device as perfect as possible. And we love to continuously improve our products, so if you have any comments or suggestions, please do not hesitate to contact us on [hello@lifeina.com](mailto:hello@lifeina.com).*

*Please read these instructions carefully before using the device.*

### What is Lifeinabox?

LifeinaBox is a miniature fridge for the safe transport and storage of fragile medication. LifeinaBox has an internal temperature controller that turns the unit on when the internal temperature reaches 8°C (46°F) and turns it off when it falls to 2°C (36°F). LifeinaBox will not prevent medicine from freezing if the ambient temperature falls below 0°C (32°F).

### What is delivered with the LifeinaBox?

Inside the beautiful LifeinaBox box there is :

- A magnificent little portable fridge measuring about 20 x 10 x 10 cm
- An ACDC adaptor 110/220V with 4 different plugs for the USA, China, Europe, Switzerland and the UK

- A cable to plug LifeinaBox in the cigarette lighter of your car

### What is the size of the cavity in LifeinaBox?

The cavity exact measurements are 180 mm wide x 64 mm deep x 40 mm high, so a whopping 468 cm<sup>2</sup>. You should be able to fit 8 standard insulin pens inside.

### What are the outside dimensions of LifeinaBox?

LifeinaBox measures 22cm wide, 10.7cm high and 11cm deep, and weighs about 1.400kg.

### For what medications can I use LifeinaBox?

LifeinaBox is made for any medication that needs to be kept at a temperature between 2 and 8°C (35,6 to 46,4°F). This includes insulins, adrenaline, growth hormones, arthritis medication and many more. The LifeinaBox cavity fits prefilled pens, needles or flacons. We also use it sometimes to keep miniature flasks of whisky... Basically, if it fits in the cavity, it will be kept at the right temperature. Please download our comprehensive medication guide on the website for more information.



# WHAT FITS INSIDE?

## HOW MANY MEDICATION PENS FIT INSIDE



NovoRapid = 8



Victoza = 8



Lantus = 8



Levemir = 8



Insulman = 8



Apidra = 8



Basaglar = 6



Humalog = 6



Omnitrope = 6



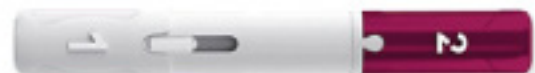
Genotropin = 6



NutropinAQ = 4



Norditropin = 6



Humira = 5



Simponi = 2



Orencia = 2



Cimzia = 2



**KEEP  
CALM  
AND  
TRAVEL WITH  
MEDICATION**

[www.lifeina.com](http://www.lifeina.com)

# USING LIFEINABOX

## DISCOVER FREEDOM

### Using LifeinaBox

LifeinaBox is designed for simple, easy operation. Simply plug the correct power connector (car, mains or battery) into the side of the device, wait for the temperature to settle (about 15 minutes), and place your medication inside.

LifeinaBox is shipped with a 12V DC connector (for the car) and a 110/240V AC adapter (for the house). Separate Lifeina battery packs are also available as independent purchases (LifeinaPower). Modifying the power cable or using a cable that was not supplied with LifeinaBox can damage the unit, jeopardize your medicine's effectiveness and void your guarantee.

If you are using LifeinaBox for glass medicine vials, we recommend that you place padding material between your medicine vials to protect them against accidental breakage.

*YOU'LL NEVER BE AS HAPPY...*





# WHAT ABOUT THE BATTERY?

## How do I check the temperature inside LifeinaBox?

You can download the Lifeina app on Google Play or on iOS or use the Lifeina web app on [www.lifeina.org](http://www.lifeina.org) (Google Chrome only). With the app, you will be able to see the temperature and battery life.

## How to charge the LifeinaBox battery?

The LifeinaBox battery needs to be fully charged before you start using the device.

- Make sure the device is connected to the mains power by plugging in the AC adaptor
- Put the O/I switch under the device to the ON position
- Press the button on the side of the device for 5 seconds to switch it off (this will turn off the logo in front of the device)
- Leave it to charge for two hours or more

## Using LifeinaBox

- Connect it to the power and fully charge the battery (see above)
- Switch on LifeinaBox by pressing the button on side of device

- Wait for LifeinaBox to reach a stable temperature (about 15 minutes)
- Place your medication inside
- To use the Lifeina application, simply download the app and turn it on within distance of your LifeinaBox

## What is the temperature inside LifeinaBox?

The environment where LifeinaBox is used has some influence on how much cooling it will do. Just like the refrigerator in your house, it will be less efficient when exposed to extreme conditions. However, LifeinaBox will always ensure that your medications is kept between the temperatures of 2 and 8°C (35,6 to 46,4°F).

## How long does the battery last inside LifeinaBox?

LifeinaBox comes equipped with a 6-hour internal battery, which will give you ample time to get from your house to your car (unless you walk really really really slowly).

We have also developed separate battery packs (LifeinaPower) of 6 hours each. These batteries will give you more flexibility and can be recharged with your mobile phone cables.



Generally, we think that our isothermal bags (LifeinaBag12 and LifeinaBag24) are easier to use when taking a plane, but there is really no problem at all if you want to use LifeinaBox on a plane.

## NOTES ON BATTERIES

- If you are planning on using LifeinaBox at home, switch off the battery (under the device ) so that it lasts longer. But don't forget to fully charge it before a trip
- If you want to use the battery mode, put the O/I switch under the device to the "ON" position

## At what temperature can I use LifeinaBox?

We tested LifeinaBox up to an ambient temperature of 32°C. At this temperature, everything in LifeinaBox stays between 2 and 8°C. On the other hand, if you use LifeinaBox at this temperature, the batteries will not last as long. But anyway, most people do not stay permanently at a temperature of 32°C and have access to air conditioning, whether in a house or in the car.

## Is it possible to switch off the logo in front of LifeinaBox?

You might find that the logo in front of LifeinaBox is a bit bright, especially if you are in a hotel room. You can switch off the logo by switching the battery on (O/I under the device) and

then simply double-clicking the O/I button on right of device.

## Can I use LifeinaBox in a car?

Yes absolutely. LifeinaBox is delivered with a cable connector for the cigarette lighter of your car.

## Can I use LifeinaBox in an airplane?

Yes you can, but it wasn't really designed for that. It was really designed more for hotels, cars, office, and home. Although in theory you can take the plane with LifeinaBox we don't really like the idea of people walking around with a fridge under their arm. It is much easier to use our specially made LifeinaBags, which are just so much simpler and can slip into your hand luggage.

## Where should I keep my LifeinaBox when I fly?

You should anyway keep your medicine with you at all times, whatever the means of transport; NEVER STORE YOUR MEDICINES IN LUGGAGE THAT WILL BE CHECKED INTO THE AIRPLANE CARGO STORAGE! If your baggage is lost, or your flight is delayed, it might ruin your holiday.

Even if it is possible to use LifeinaBox in an airplane, we generally think that it is easier for plane travel to use one of our isothermal bags (LifeinaBag12





DISCOVER FREEDOM...

Available on  
[www.lifeina.com](http://www.lifeina.com)



# WHAT ABOUT AIRPLANES?

or LifeinaBag 24, that will also keep your medication between 2 and 8°C). The bags are just easier to stick in your handbag than a portable fridge. We tend to use LifeinaBox more in a car, hotel, home than on a plane.

But if you want to take your LifeinaBox on a trip with you on the plane, there is really no problem at all to do this. However, you will need the LifeinaTravel bag to transport your fridge, and you might want to get an extra battery (LifeinaPower) as well.

**Can I put LifeinaBox in my hand carry luggage when I take the plane?**

No. The reason for this is that LifeinaBox is a fridge and requires ventilation (under and on the side of the device). If you place it in a closed suitcase and the power is on, the LifeinaBox will overheat. If you really want to take the plane using LifeinaBox, then you need to use LifeinaTravel, a special carry bag that we developed with openings for ventilation.

When we developed LifeinaBox, it was not really designed as a device for airplanes. It was rather developed for use in hotels, the office, home or in the car. Although it is in theory possible to use it in airplanes, it is not very practical to do so. It is much easier to simply use one of our isothermal



bags (LifeinaBag), which will keep your medication between 2 and 8°C for 12 or 24 hours and can simply be slipped in your hand luggage.

### Can I put my LifeinaBox in a cupboard or in a suitcase

It really just depends on the size of the cupboard. Just like a normal refrigerator, LifeinaBox cools by removing heat. Heat needs to dissipate. So do not use LifeinaBox in an area where there is little or no air exchange as there will be nowhere for the heat to go.

### Can I use LifeinaBox in an upright position

No, unfortunately if you use it in horizontal position you will block the air vents and the device will overheat.

### Will LifeinaBox protect my medicine from freezing?

A pre-setting of the device stops your medication from going below 2°C to ensure that your medication never gets frozen. However, the LifeinaBox must be used in "normal" temperatures. If you keep your LifeinaBox at sub-zero degree temperatures it will not stop your medication from freezing.

### Alarm function

An alarm will start to beep when the battery is down to a 20% charge. To turn off this alarm, simply click the

O/I button on the right of the device. Please plug your LifeinaBox to the mains as soon as possible to avoid an interruption of the cold supply.

### Downloading the Lifeina App

When we created the Lifeina application we thought we were doing the right thing by creating a super complete application. But user feedback was that it was way too complicated, so we completely redid it, as simple as possible, to give only temperature and battery life.

The most complete application is the Web application, which you can use on any computer or mobile phone. Just open [www.lifeina.org](http://www.lifeina.org) from Google Chrome. You can then control LifeinaBox directly from the site.

**In Android:** We are continuously updating the Android app, so it might appear and disappear periodically from the Play store. You can always download the latest version on the front page of the [www.lifeina.com](http://www.lifeina.com) website.

**In iOS (Apple):** Go to the App store, and simply look for the Lifeina app. It is available everywhere.

- 1) Switch on the Bluetooth on your smartphone
- 2) Switch on LifeinaBox
- 3) Open the Lifeina app on your smartphone and follow the instructions.





# TECHNICAL QUESTIONS

## Why is there a flashing red/blue light on the side of my LifeinaBox?

The little light on the side of LifeinaBox (next to the O/I button) will be a steady blue when the LifeinaBox is connected to your phone or computer via Bluetooth. When it flashes alternatively between red and blue, it means that your device is not connected to anything.

## Is LifeinaBox waterproof?

No, LifeinaBox is like any electrical device. If you throw it in the bath water with your husband inside, you will probably just short your electricity and burn a fuse, but it might (actually probably) be super dangerous (for your husband). So no, LifeinaBox is not waterproof and should be kept in a dry environment.

## How does LifeinaBox work?

LifeinaBox uses a technology called the Peltier Effect (thermo-electric cooling). This was originally discovered by a French man with the wonderfully arcane name of Jean Atanase Peltier in 1834. He discovered that if you

weld together many cubes of different metals and then pass an electrical current through them, the friction caused by the different metal densities causes super-heat on one side, and super-cold on the other.

So we get rid of the heat using fans, and have attached the cold part of the Peltier directly under an aluminum sink to spread the cold evenly. And presto, it's magic...

We have stabilised the Peltier Effect by producing it under vacuum to give it more stability, and are now at over 9700 hours of continuous use of this technology.

## How much power does LifeinaBox use? Will it drain my car battery?

LifeinaBox uses 4.5 amperes of 12V DC, just about the same as a single headlight. LifeinaBox should not drain or damage a fully charged battery when used while the engine is running. Each vehicle and each battery is unique. Ask your dealer or mechanic to check the quality of your battery before plugging in a device that may drain it.



# QUICK USERS GUIDE

## CHARGING THE BATTERY

The LifeinaBox battery needs to be fully charged before you start using the device

- 1) Make sure the device is connected to the power ①
- 2) Flick the O/I switch **under the device** to the ON position ②
- 3) Press the button **on the side** of the device ③ for 5 seconds until the logo switches off.
- 4) Leave it to charge for two hours
- 5) Switch the device on by pressing the button on the side of device ③ and check that it is fully charged using the Lifeina application

## USING LIFEINABOX

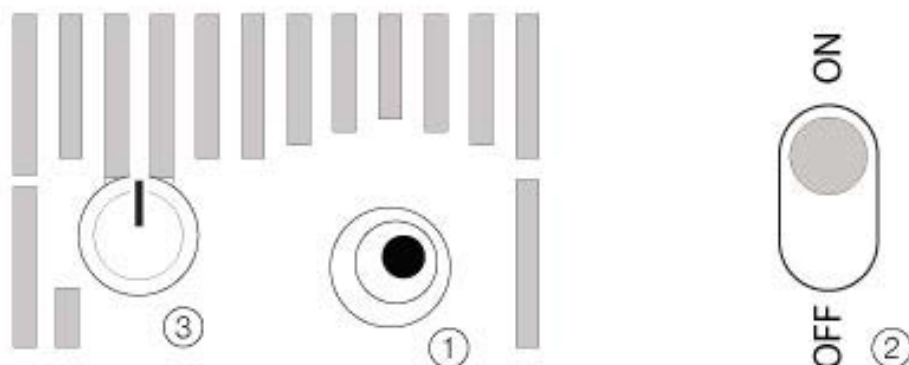
- Connect it to the power and fully charge the battery (see above)
- Switch on LifeinaBox by pressing the button **on the side** of device once ③
- Wait for LifeinaBox to reach a stable temperature (about 15 minutes)
- Place your medication inside
- To use the Lifeina application, simply download the app and turn it on within distance of your LifeinaBox
- To switch off the logo on front of device, switch on the battery (under the device) and then click the button on the side twice rapidly ③

## NOTES

- If you are planning on using LifeinaBox at home, switch off the battery (under the device ②) so that it lasts longer. But don't forget to fully charge it before a trip
- If you want to use the battery mode, flick the O/I switch under the device to the "ON" position

*Please do not block the air vents on the side and under the device*

## DIAGRAMS



# LifeinaBox



*For the optimum storage  
of fragile medication*

## THE FREEDOM TO TRAVEL

Designed for the safe storage of fragile medication at an optimum temperature (2 - 8°C). Keeps your medication cool and at a constant temperature at work, at home or in your car.

## CONSTANT TEMPERATURE

Refrigerates up to 8 standard injectable medicine pens or vials\*. Includes both a universal 110-240V power cord and a 12V DC power adapter for your car.

## BETTER CONTROL

The Lifeina app will monitor the temperature of your medication in real time and will send you automatic reminders when it is time for you to take your medication.

## BUILT-IN BATTERY

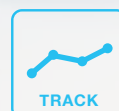
A 6-hour battery is included inside LifeinaBox, and separate plug-in battery packs are available.

## RECOMMENDED USES

Insulin, growth hormones, adrenalin, monoclonal antibodies, vaccines, interferons\*

[www.lifeina.com](http://www.lifeina.com)

\*For a comprehensive list of compatible pens and medications, log-on to [www.lifeina.com](http://www.lifeina.com)





*"It's time to start living the life you've imagined"*

Henry James

- ▶ *Compact and portable*
- ▶ *Connected to the Lifeina app for real-time monitoring of temperature*
- ▶ *Automatic medication reminders*
- ▶ *Low-noise fan for quiet operation*
- ▶ *Built-in battery*
- ▶ *Useable in car (12V) or home (110-240V)*

Did you know? The LifeinaBox mini-refrigerator uses thermoelectric technology. Thermoelectrics convert thermal energy into electrical energy to produce cold.

Thermoelectric refrigeration uses a principle called the "Peltier" effect to pump heat electronically. The Peltier effect is named after Jean Charles Athanase Peltier, a French scientist who discovered it in 1834.

*Live your life*



COMPACT DESIGN

CONNECTED

TRACK TEMPERATURES

6-HOUR BATTERY

USEABLE ANYWHERE

## Specifications

Dimensions:	220 x 107 x 110mm
Cavity size:	180mm wide x 65mm deep x 40mm high (468cm <sup>2</sup> )
Capacity:	8 prefilled insulin pens
Net Weight:	1350gm
Voltage:	12V DC auto socket cord or 110-240V AC domestic power cord, UL approved
Battery	2 x 3.7V Li-ion 5200mAh
Average power consumption:	25 watts max
Temperature range:	2°C to 8°C, +/- 1°C.
Insulation:	CFC-free polyurethane foam
System:	Wear-free thermoelectric technology with interior semiconductor fan
Material:	ABS and brushed aluminum
Reference:	LifeinaBox

*Specifications are subject to technical improvement, changes or modifications without notice*



# THE LIFEINA GENESIS

## THE INCREDIBLE LIFEINA ADVENTURE

### How was the LifeinaBox project created?

The greatest inventions are often born out of simple necessity. Who would have an idea as absurd as making a fridge just to carry medication? It took a particular set of circumstances, linking technical knowhow, a personal need, and a heat wave to make it possible.

Everything begins in France in 2008. It is a particularly hot summer. Mr. Uwe DIEGEL, managing director of a medical business in Paris is expecting the visit from New Zealand of his diabetic brother, Dr. Olaf Diegel. The two men have already built strong international reputations in the field of industrial design and healthcare and quite often work together on new research projects. Olaf, diabetic since the age of 17, is professor of industrial design at the Auckland Technology University. His job forces him to travel a lot to take part in international congresses. He is a well-versed traveler and is used to travelling with his insulin and keeping it cool using iceboxes and cooler bags (insulin, like many other medications, is sensitive to heat and should be stored at a temperature between 2 and 8°C).

Olaf books himself into a small hotel

near Auxerre in France. When he arrives at the hotel, he notices that there is no fridge in his hotel room (even though he had particularly insisted on this when making his booking). He needs a fridge to store his insulin. So, he arranges with the clerk at the entrance desk to keep his insulin in the fridge in the kitchen.

Olaf does not speak French, coming from New Zealand. A few hours later, Olaf needs his insulin and goes down to reception to ask for it, only to discover that it was placed in the freezer by accident by someone in the kitchen. He is thus obliged to have the night pharmacy opened just to get some fresh insulin. Luckily, the problem is resolved easily enough thanks to the wonderful efficiency of the French pharmacy system.

### A technology driven by a personal need

Back in Paris, Olaf meets his brother, and they discuss the events. They decide to design the idea of a portable fridge that would use a Peltier Effect to create cold without gas or moving parts. On paper, the idea should in theory work, so they decide to make a rough prototype using whatever they had available at the time (the battery was stolen from Uwe's video camera).

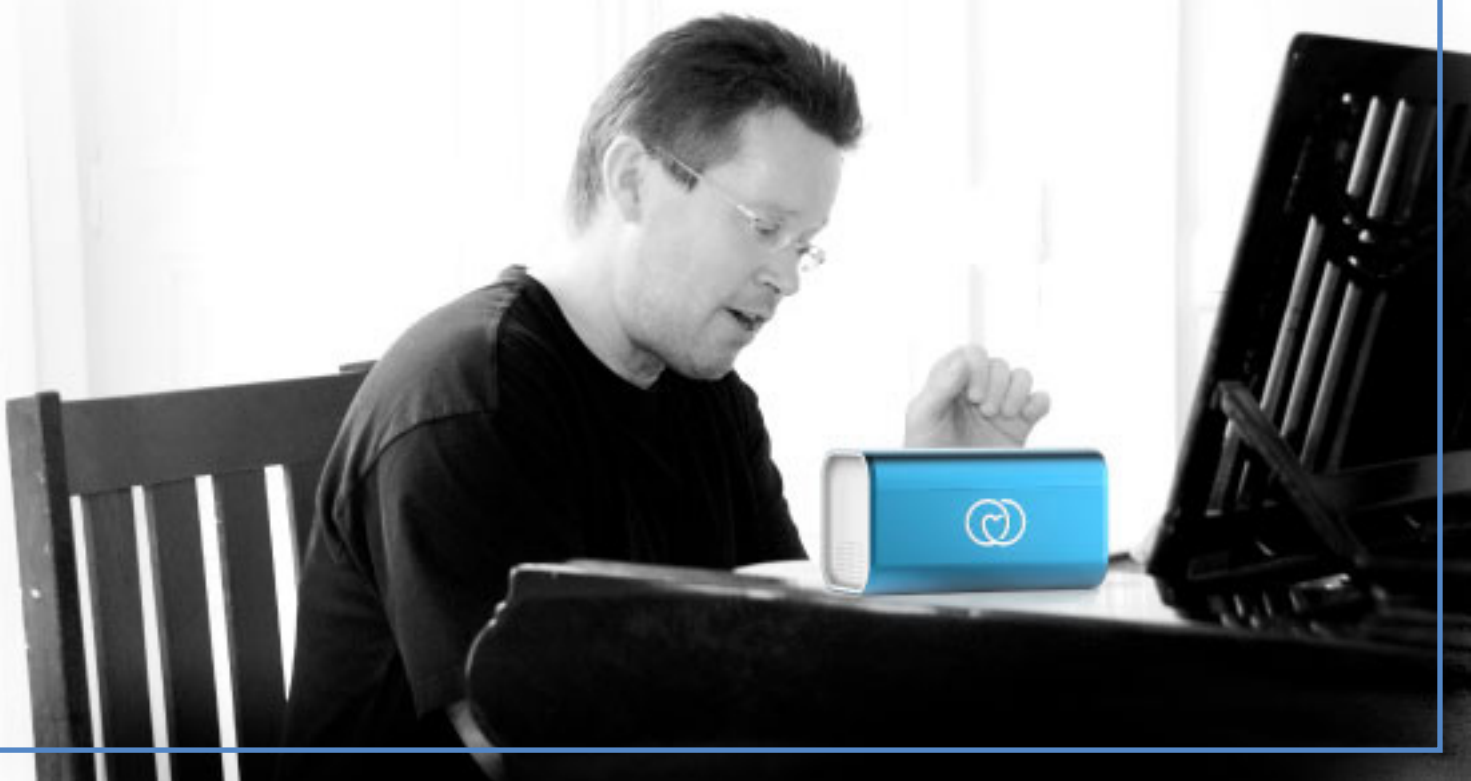




reddot winner 2020



*Instantaneously, Uwe went from a boring old fart to **THE** guy who has a LifeinaBox on his piano...*



# THE FUTURE IS FRIENDLY...

The prototype works quite well, so the two brothers send the prototype to a design competition run by NASA and start winning various prizes, including a Gold Medal at the prestigious Concours Lepine.

## A new industry is born...

Following the success of the portable fridge prototype, Uwe Diegel creates [HealthWorks](#), which has over the last 10 years become the worldwide leader in the transport and storage of fragile medication.

The two brothers continue working in this field, developing various solutions to facilitate the lives of people suffering from chronic diseases.

About 5% of the worldwide population suffers from a disease that necessitates medication that must be kept in a refrigerator (diabetes, multiple sclerosis, arthritis, and many others). These people are prisoners of their medication and have great difficulty in traveling with their medication. A major side effect of this is that people who use these medications do not take them to work as they are often afraid of the social stigma attached to them putting their medication in the common fridge. This causes a grave non-

compliance to medication schedules. Non-compliance to medication costs over 350 billion dollars in the USA alone.

Lifeina, the spin-off company created by HealthWorks to develop this miniature fridge, was recently voted as Best Startup in the World and in December 2018 received the coveted Galien Prize, considered to be the Nobel Prize of the pharmaceutical industry.

For Olaf Diegel, creator of the original concept of the world's smallest fridge, LifeinaBox is the ultimate expression of technology to the service of users: *"In 2008, I almost died following an incident where my medication was accidentally frozen in a hotel. I have always wanted to do something about this. There are today over 5 million people in France who are prisoners of their medication. We started this company because of reasons that are more of a personal nature than just business. Lifeina is for me the ultimate expression of innovation at the service of healthcare. With Lifeina we intend to make products that are designed by patients for patients so that we can give them the freedom to travel where and when they want, knowing that their medication is kept at exactly the right temperature".*





# THE LIFEINA TEAM

## What do the Lifeina people do in their spare time?

We are a wonderfully eclectic and eccentric bunch of people.



**Uwe** (born 1965 in New Zealand) is a specialist in various forms of medical diagnostics such as blood pressure, temperature, asthma and diabetes. He is the holder of several patents relating to temperature and blood pressure measurement. Until the age of 26 he was a concert pianist. Following an accident that partially restricted movement in his right arm, he started a new career in medical diagnostics.

Serial entrepreneur, he entered the world of medical diagnostics in 1992, quickly developing a particular interest in cardiovascular diagnostics. His intense scientific curiosity has led him

not only to develop new technologies in this field, but also to interest himself in the field of medical manufacturing, industrial design and problems faced by Chinese manufacturing concerns.

Uwe lives in Paris, France, where he runs HealthWorks Global and does fundamental research in blood pressure diagnostics. He is today considered to be a foremost expert in the field of blood pressure management and in the manufacturing of medical diagnostics devices.

Uwe Diegel has been at the forefront of international changes in healthcare technology for the last 30 years. His drive and passion for innovative technology have driven major changes in perception about healthcare. He has driven the manufacturing of medical devices to new horizons by forcing new practices in manufacturing and innovation. An internationally recognised expert in the management of cardiovascular disease and diabetes, he is continuously looking for better solutions to improve outcomes for patients. He has for the last few years spearheaded the dissemination and acceptance of connected health as a tool for providing better solutions for patients.







**Lily** is originally from Taiwan and is a chef of note. She has been working in healthcare logistics and finance through a career spanning 20+ years. She has worked as CFO for some of the world's largest medical diagnostics companies.



**Olaf** prints guitars in 3D ([www.oddguitars.com](http://www.oddguitars.com)) and is constantly designing cool new stuff. Professor of Additive Manufacturing at the University of Auckland in New Zealand, Olaf is internationally known as an authority in 3D printing and is involved in the development of dozens of healthcare products.



**Chloe** is a master's graduate in Fine Arts in Paris after completing a Fine Arts degree in the UK. She is an avid reader and connoisseur of art history and is preparing a successful career as an arts appraiser.



# CARE AND MAINTENANCE

- Do not drop, modify or disassemble the device.
- Do not bend or twist the power cables.
- There are air vents on the sides and under the device. These vents must be kept free for air to circulate. Do not connect LifeinaBox to a power source when it is in a closed area such as packed luggage or a desk drawer.
- LifeinaBox should never be submerged in liquid or exposed to excessive moisture. Use a cloth moistened with water or neutral detergent to clean the device.
- Avoid high temperatures, direct sunlight, high moisture or dust.

## The Lifeina Quality Guarantee

We guarantee LifeinaBox for one year from date of purchase by the customer. During this period, Lifeina assures free repair of internal faults or manufacturing errors. Unfortunately, our guarantee does not cover damage caused by dropping or impacts, by faulty handling or the intervention of a third party, by natural disasters, or by water.

## Technical Specifications

Dimensions:	22 (W) x 10,7 (D) x 11 (H) cm
Capacity:	468cm <sup>3</sup> (6,5 x 18 x 4cm)
Net Weight:	1400 gm
Voltage:	12V DC (car) or 110-240V AC
Power consumption:	25 watts max
Temperature range:	2°C to 8°C, +/- 1°C
Insulation:	CFC-free polyurethane foam
System:	Wear-free thermoelectric technology with interior semiconductor fan
Material:	ABS

*Specifications are subject to technical improvement, changes or modifications without notice.*



# ABOUT LIFEINA

Lifeina is a global leader in the development of transport and storage solutions for sensitive medication and develops innovative diagnostics solutions. Our products are designed to give users the freedom to live their life knowing that they can understand the signals of their body and travel with their medication at a safe temperature.

Our team of experts includes physicians, patients and engineers who are dedicated to finding better solutions for the transport and storage of sensitive medication.

## EXCEEDING YOUR EXPECTATIONS FOR THE TRANSPORT AND STORAGE OF MEDICATIONS

For Uwe DIEGEL, creator of Lifeina, the company represents a personal investment. *"In 2003, my brother almost died following an incident where his medication was accidentally frozen in a hotel. So I started this company because of reasons that are more of a personal nature than just business. Lifeina is for me the ultimate expression of innovation at the service of healthcare. If the Lifeina products are so popular, it is because they are designed by patients for patients and because we speak directly with users of the medications to really understand their needs. "*

## THE LIFEINA MISSION

Lifeina challenges benchmarks in the thermo-sensitive medication and diagnostics sectors.

## THE LIFEINA VISION

A future where users of medication are not hampered by intrinsic limitations dictated by their health condition. A future where users are allowed the freedom to take responsibility for their health by using the correct tools for health management.

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**BON  
VOYAGE !**

