# Air sterilization
# O³ free

## GermiTube

Application:
- Hospitals
- Surgeries
- Schools, nurseries
- Offices
- Waiting rooms
- Authority offices
- Households
and many others

# Futuro
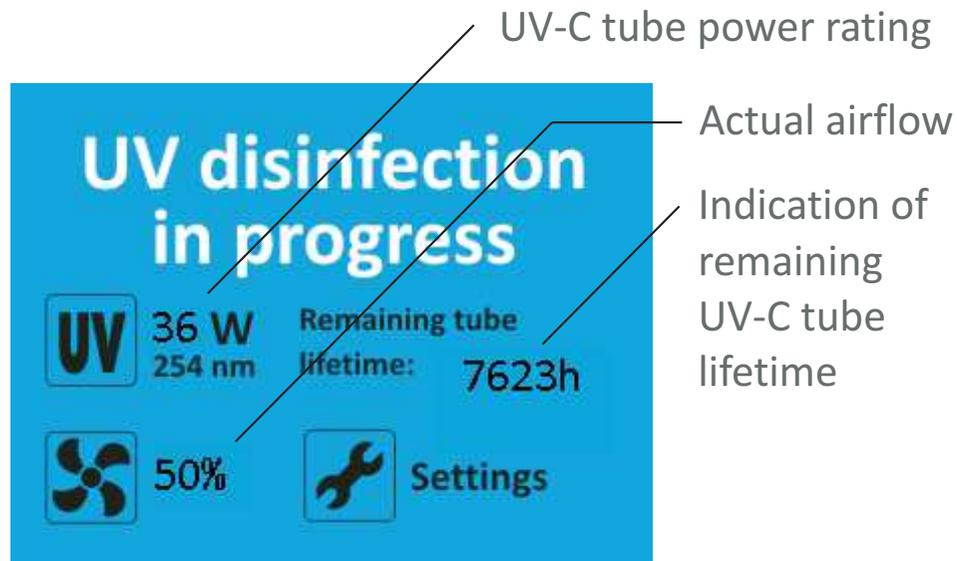# Lighting
# *design*

# Operational manual

Rev.0.7E
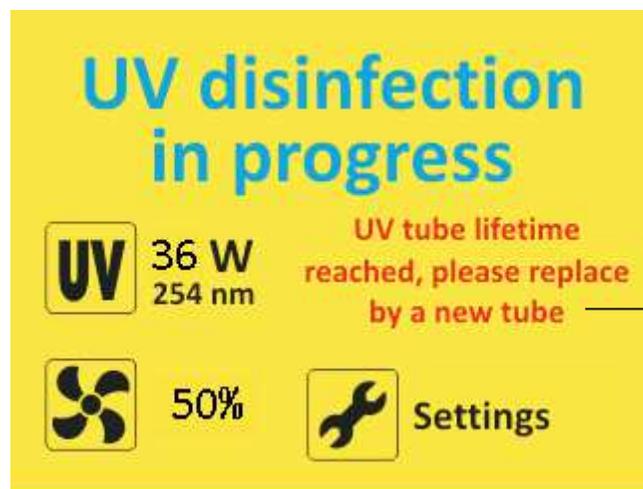
**2018** Rev.0.7E

# GermiTube

## Introduction

GermiTube involves novel techniques to operate and monitor disinfection process. It is is equipped with color 2.4" LCD touch display for comfort adjustment and operation monitoring. This short manual will guide you through intuitive menu of this product. Please note most of symbols are explained under „I" icon for individual items electronically.

UV-C tube power rating

Actual airflow

Indication of remaining UV-C tube lifetime



## Startup procedure

After powering ON GermiTube, LCD display shows product identification screen for a few seconds and starts disinfection, indicated by screen shown on the let side, for a time defined in „Activation menu" under „ON delay" option. If „Presence Detection" is enabled in "Activation" menu and movement is detected GermiTube will continue disinfection till „PIR delay" expires from last movement detection.
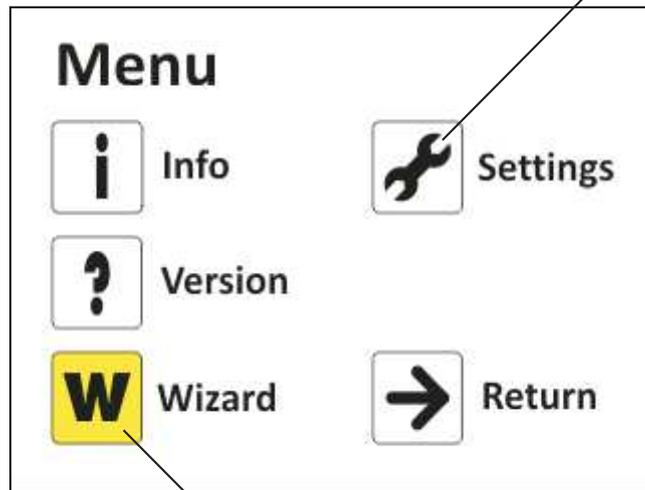
Note: PIR represents pyro-electric infrared sensor, that is used for movement detection.
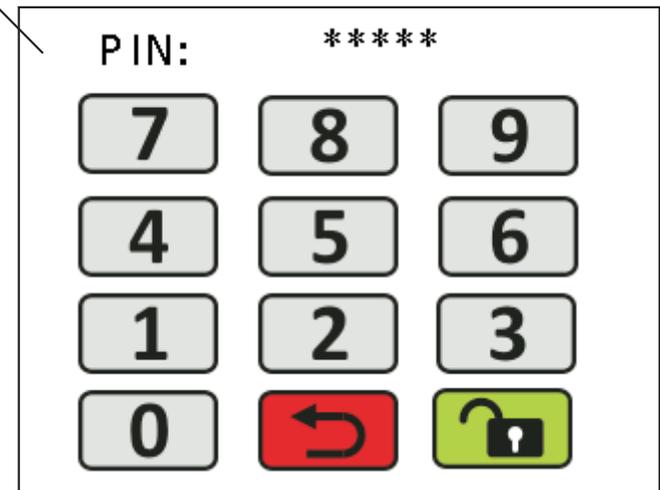


UV-C tube has defined lifetime, once lifetime is reached GermiTube will change screen from blue to yellow, flash it and shows the tube replacement message.

Futuro Lighting design

# GermiTube

Entering settings menu
(PIN protected)

### Menu

| | |
|---|---|
| **i** Info | **🔧** Settings |
| **?** Version | **→** Return |
| **W** Wizard | |

Wizard, that helps to set-up
disinfection parameters for discrete area

**PIN:** *****

| 7 | 8 | 9 |
|---|---|---|
| 4 | 5 | 6 |
| 1 | 2 | 3 |
| 0 | ↩ | 🔓 |

In case you forget PIT, it is recorded
above LCD display after you open
GermiTube

Info:

## GermiTube

Disinfects the air from bacteria
and micro-organisms, in the presence
of people in the room. It works on
the principle of air disinfection by
UV-C radiation with a wavelength of
254 nm, without generation of ozone.

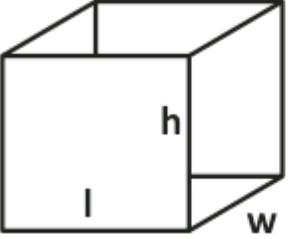Designed by FuturoLighting
www.fulit.eu

**Futuro Lighting**

**Futuro Lighting** *design*

# GermiTube

100cm = 1m

## Wizard

Helps to estimate and set parameters for GermiTube for specified area. Estimation is based on worst case, where whole entered volume of an air should be disinfected at specified air flow. Please note, this calculation is approximate.

[ Back ]   [ Next ]

## Area volume  W

l= 500cm
w= 400cm
h= 250cm

Objem=50 m3

[ Next ]

## Dust filter  W

Filter throughput : 80%

Filter decreases air flow, through GermiTube. Filter throughput value is marked filter pack.

Filter ✓   [ Next ]

## Airflow (vent)  W

recommended disinfection time: 129 min

noise 🔊

max airflow:45m3/h   [ Next ]

## Recommended settings  W

V=50 m3

Filter — 80%   Time 🕐 129 min   Vent ✹ 64%

[ Decline ]   [ Accept ]

## PIN:  *****

| 7 | 8 | 9 |
| 4 | 5 | 6 |
| 1 | 2 | 3 |
| 0 | ↩ | 🔓 |

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# GermiTube

## Settings
air flow

64 %

[i]

→ Return

---

## Air flow settings [i]

Air flow affects disinfection dose, where required dose equals:

= exposition time x UV-C intensity

**Note**: higher air flow leads to higher disinfection dose (higher efficiency), but increases of GermiTube noise level.

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## Brightness
operating

50 %

→ Return

---

## UV tube [i]

**W** Enter tube power

🔧 Enter tube lifetime

**i** Replace tube

P= 36 W

lifetime
8000 hod

remain
7623 hod

→ Return

---

## Settings

🌀 Air flow

**UV** UV tube replace

☑ Activation timer

☀ Brightness operating

🌙 Brightness LCD standby

→ Return

---

## Brightness
standby

10 %

→ Return

---

## Activation [i]

ON delay : 5 min

**Presence Detection**

PIR delay
129 min

→ Return

---

## Activation [i]

**ON delay** - during this time GermiTube run disinfection after powering on ( this delay is not dependent on PIR)

**Presence Detection** - GermiTube activates automatically at people presence

**PIR delay** - time, when GermiTube continue in disinfection after last detection of people presence in monitored area (after cleaning)

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In case of GermiTube installation in a sleeping room you can adjust standby LCD brightness to exclude sleep disturbing.

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# GermiTube

UV tube failure
please replace UV tube,

if the failure still persists,
please contact
FuturoLighting
www.fulit.eu



Fan failure
please clean Germitube or
try to replace Fan,

if the failure still persists,
please contact
FuturoLighting
www.fulit.eu

UV-C tube functionality is continually monitored during operation.
If you see this screen, please try first to replace UV-C tube, if there is no change you will need come back to us to fix it.

Similarly, Fan functionality is monitored as well. In case of FAN failure occurs you will notice it by this screen. In this case please disconnect GermiTube from electrical network, unscrew two screws (from top side), bent front cover and clean inner surface of the air tunnel and fan, by help of vacuum cleaner. After assembling GermiTube back, and stil seeing this screen, please replace Fan, if it does not help you will need come back to us to fix it.

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End of document