



Implen **OD600**[®]

User Manual

Version 1.6

Software Version 1.0.5



The end user of the Implen OD600® product ("End User") hereby takes full responsibility for safe storage and backup of all files and/or data that may be created, saved on or transferred from the device. End User acknowledges that it is possible that data and/or files may be lost or damaged, and further acknowledges and agrees that it has sole responsibility to maintain all appropriate backup of files and data. By using the Implen OD600® device, End User hereby agrees to these terms, and agrees that Implen shall not be held liable for any loss, deletion or damage of any data or files for any reason, including any damages attributable thereto.

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Declaration of Conformity

1. *Product model / product:*
Product Implen OD600®
2. *Manufacturer / Authorized Representative:*
Name Implen GmbH
Address Schatzbogen 52, D-81829 Munich, Germany
3. *This declaration of conformity is issued under the sole responsibility of the manufacturer.*
4. *Object of the declaration:*
Product Implen OD600®
5. *The object of the declaration described above is in conformity with the relevant Union harmonization legislation:*
2014/35/EU Low Voltage Directive
2014/53/EU Radio Equipment Directive
2014/30/EU The Electromagnetic Compatibility Directive
2011/65/EU The Restriction of Hazardous Substances Directive
FCC 47 CFR Part15 §15.107 and §15.109
6. *References to the relevant harmonized standards used or references to the other technical specifications in relation to which conformity is declared:*

Reference & Date	Title
ETSI EN 301 489-1 V2.2.3	Radio and ancillary equipment for portable use (portable equipment); EUT Operating frequency range: 2.4 - 2.4835 GHz
ETSI EN 300 328 V2.2.2	Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using wide band modulation techniques; Harmonized EN covering the essential requirements of article 3.2 of the R&TTE Directive
ETSI EN 301 489-17 V3.2.4	Electromagnetic compatibility and Radio Spectrum Matters (ERM)
UN38.3, 2013/56/EU	Battery certification and transport test
IEC 61010-1:2010	Safety requirements for electrical equipment for measurement, control, and laboratory use. General requirements.
EN IEC 61326-1:2021	Electromagnetic compatibility- generic emission standard electrical equipment for measurement, control and laboratory use.
EN 18031-1:2024	Common security requirements for radio equipment
IEC 60529:1989/AMD2:2013	Degrees of protection prohibited by enclosures (IP 20)

The product is SGS certified in accordance with UL 61010-1, 3rd Edition (Rev. July 19, 2019) and CAN/CSA C22.2 No. 61010-1, 3rd Edition (A1:2018).

7. *Additional information:*
The technical documentation for the machinery is available from:

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Address: Schatzbogen 52, D-81829 Munich, Germany
Signed for and behalf of: Implen GmbH
Place of issue: Munich, Germany
Date of issue: 01.08.2025
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Contents

1. Implen OD600® at a glance	8
Overview	8
Compatible sample container types	8
Basic Layout	9
Instrument Rear Panel	9
Instrument Bottom View	10
Accessories	10
Standard Accessories	10
Optional Accessories	10
Connectivity	11
Implen OD600® Specifications	12
2. Getting Started	13
Implen OD600® Installation	13
3. Implen OD600® Basics	15
Applications Overview	15
General Features	17
Sample List	17
Sample Handling Tips	18
Operating Conditions	19
Power Management Features	19
Battery Operation	19
Auto-Shutdown Features	19
4. Implen OD600® Applications	20
OD600 Application	20
Method Overview	20
Measurement Protocol	21
Calculations	22
McFarland	23
Method Overview	23
Container selection & Calibration	23
Measurement Protocol	27
Calculations	29
DiluCell™ Technology	30
Method Overview	30
Built-in Virtual Dilution	30
Operating Instructions	30
Specifications	31
5. Preferences	32
Main Menu Options	32
Settings	32
Storage	41
About	41
Help	41
6. Troubleshooting	42
Self-test	42

7. Important Error Messages	43
8. Important Warning messages	44
System Freeze	44
9. Maintenance	45
Maintenance-free technology	45
Software update	45
Contact Implen	45
Replacement Parts	46
Cleaning and General Care	46
De-contamination Procedure	46
10. Warranty	46
11. Appendix 1 - Instalace Implen OD600®	47
Bezpečnostní informace	47
Vybalení a umístění	47
12. Appendix 2 - Implen OD600® Installatie	48
Veiligheidsinformatie	48
Uitpakken en plaatsen	48
13. Appendix 3 - Implen OD600® Installation	49
Informations de sécurité	49
Déballage et mise en place	50
14. Appendix 4 - Implen OD600® Installation	51
Sicherheitsinformationen	51
Auspacken und Platzieren	51
15. Appendix 5 - Installazione di Implen OD600®	52
Informazioni di sicurezza	52
Disimballaggio e collocazione	52
16. Appendix 6 - Instalacja Implen OD600®	53
Informacje dotyczące bezpieczeństwa	53
Rozpakowywanie i umiejscowienie	54
17. Appendix 7 - Implen OD600® Instalación	55
Información de seguridad	55
Desembalaje y colocación	55
18. Appendix 8 - Implen OD600® Installation	56
Säkerhetsinformation	56
Uppackning och placering	56
19. Appendix 9 - Instalação do Implen OD600®	57
Informações de Segurança	57
Desembalagem e posicionamento	58

20. Appendix 10- Инсталиране на Implen OD600®	59
Информация за безопасност.....	59
Разопаковане и поставяне	59
21. Appendix 11 – Implen OD600® Installation	60
Sikkerhedsinformation	60
Udpakning og placering	60
22. Appendix 12 – Implen OD600® Paigaldus	61
Ohutusala teave.....	61
Pakendi lahtipakkimine ja seadme asukoha määramine	62
23. Appendix 13 – Implen OD600® Asennus	62
Turvaohjeet.....	62
Purkaminen ja sijoittaminen	63
24. Appendix 14 – Εγκατάσταση Implen OD600®.....	64
Πληροφορίες ασφάλειας	64
Αποσυσκευασία και τοποθέτηση.....	64
25. Appendix 15 – Implen OD600® Telepítés.....	65
Biztonsági információk	65
Kicsomagolás és elhelyezés	66
26. Appendix 16 – Implen OD600® Instalēšana	67
Drošības informācija	67
Iepakojuma atvēršana un novietošana	67
27. Appendix 17 – Implen OD600® Diegimas	68
Saugaus Naudojimo Informacija	68
Išpakavimas ir Įrengimas	69
28. Appendix 18 – Implen OD600® Installazzjoni.....	69
Informazzjoni dwar is-Sigurtà.....	69
Ippakkjar u Pożizzjoni	70
29. Appendix 19 – Implen OD600® Instalare	71
Informații de Securitate	71
Despachetare și Poziționare	71
30. Appendix 20 – Implen OD600® Inštalácia.....	72
Bezpečnostné Informácie.....	72
Rozbaľovanie a Umiestnenie	73
31. Appendix 21 – Implen OD600® Namestitev	73
Varnostne Informacije.....	73
Razpakiranje in Postavitev.....	74
32. Appendix 22 – Implen OD600® Instalacija.....	75
Sigurnosne informacije	75
Raspakiranje i postavljanje	75

33. Appendix 23 – Implen Suiteáil Implen OD600®.....	76
Eolas Sábháilteachta	76
Díphacáil agus Suíomh.....	76
34. Appendix 24 – Implen OD600®安装.....	77
安全信息.....	77
•开箱和配置.....	77
35. Appendix 25 – Implen OD600® のインストール.....	78
安全情報.....	78
開梱と配置.....	79

1. Implen OD600® at a glance

Overview

Introducing your Implen OD600®, a small and mobile device designed for ease of use in various laboratory settings. Tailored for measuring growth rates of all types of cell, such as E. coli and yeast, this compact instrument offers unparalleled versatility and precision.

Featuring a glove-compatible touchscreen display, it offers direct access to pre-programmed OD600 and McFarland applications.

The Implen OD600® accommodates a range of sample containers without the need for adapters, including DiluCells™, cuvettes, and test/falcon tubes.

With an integrated battery lasting up to 8 hours, uninterrupted operation is ensured. Data export is simple via USB in .csv and .xls formats, and advanced connectivity options like LAN/Ethernet and Wi-Fi® for seamless LIMS integration and automatic time adaptation.

The system offers lifetime accuracy and precision without the need for maintenance or recalibration.

Compatible sample container types

Please note that the light beam is directed from the front of the instrument to the back (as indicated by the arrows on the device); therefore please ensure the cell is inserted in the correct alignment.

Note: The optical height of the device is 8.5 mm.

Note: Tube Bottom Shape: For accurate readings, it is essential that the tube is stable at the optical height of 8.5 mm. Tubes with a round or flat bottom allow the tube to sit securely at this height, ensuring a stable and correct reading. Conical or pointed-bottom tubes are not suitable because they do not align well with the optical path.

Note: Tube transparency: sample containers must be fully transparent.

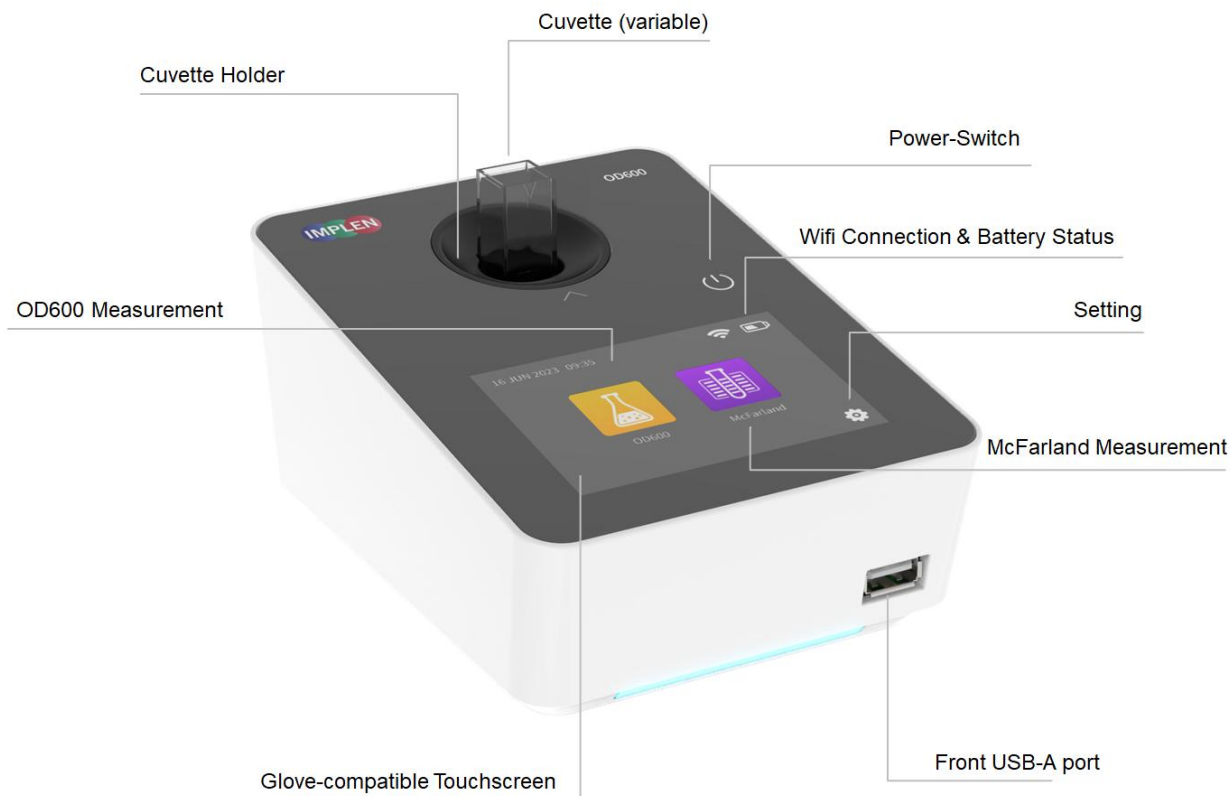
Table 1: The sample compartment is compatible with the following container types.

Container Type	Path length	Min. Volume	Virtual Dilution	Adapter
DiluCell™ 10 (8.5 mm center height)	1 mm	300 µl	1:10	No
Macro cuvette (max fill volume 4.5 ml)	10 mm	1 ml	No	No
Semi-micro cuvette (max fill volume 1.4 ml)	10 mm	0.5 ml	No	No
10 mm diameter tubes	n/a*	0.9 ml	No	No
12 mm diameter tubes	n/a*	1.1 ml	No	No
16 mm diameter tubes	n/a*	1.8 ml	No	No
18 mm diameter tubes	n/a*	2.0 ml	No	No

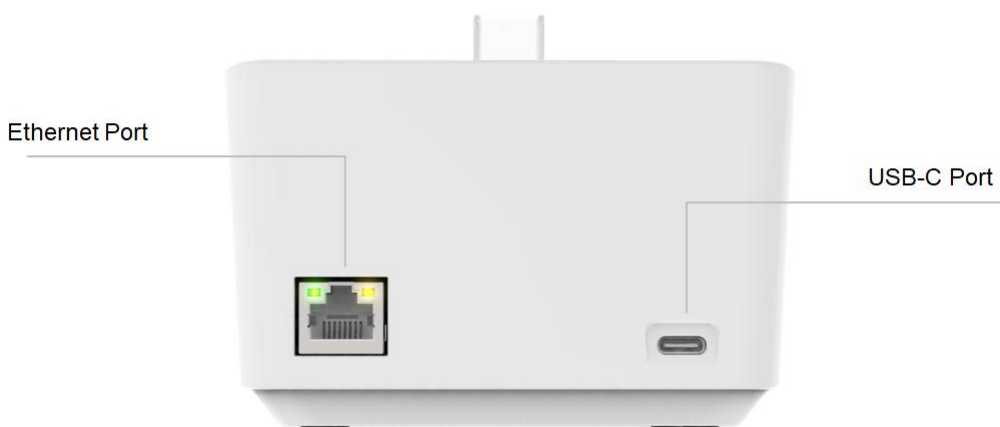
*Depends on tube being used.

IMPORTANT WARNING: Always wear protective clothing when handling bacteria or other cells.

Basic Layout



Instrument Rear Panel



Instrument Bottom View

Model name, device serial number and FCC ID are located on the identification plate on the bottom of the instrument.



Accessories

Standard Accessories

- **Charging Cable with Adapter**

The USB-C cable provided makes it possible to charge the Implen OD600® in a normal power outlet. Use the power adapter to plug in the device for use and/or to charge the battery.

Note: Use only the power adapter, supplied with your instrument or a replacement part from the manufacturer or your supplier.

Optional Accessories

- **Neutral Density Glass Filter**

The Implen OD600® is recalibration free; therefore, it is not necessary to control the photometric accuracy on a regular basis. If the SOPs of a laboratory require a routine control of the photometric accuracy, a certified neutral density glass filter can be used as a control of photometric accuracy for your OD600® applications.

- **DiluCell™**

Description

The DiluCell™ is a disposable cuvette with a shortened path length for virtual dilution of cuvette-based samples.

The DiluCell™ allows an automatic 1/10 dilution of the sample. Bypassing manual sample dilutions reduces dilution errors and cross-contamination, making DiluCell™ ideal for GLP. Combined with small sample volume requirements and bubble-free filling, the DiluCell™ allows for convenient spectrophotometric analysis from 230 - 950 nm (UV-compatible). This feature enables the user to incorporate the DiluCell™ cuvettes for all standard applications in addition to their UV-Vis-based measurements.

Operating instructions can be found in the manual under “*DiluCell™ technology*”.

The DiluCell™ 10 can be ordered at Implen under the article number: DC 10 UV-Vis.

Connectivity

▪ Wi-Fi® (Wifi)

The Implen OD600® is equipped with Wi-Fi®, which can be used as a Wi-Fi® network or as a Wi-Fi® Hotspot. The Wi-Fi® can be used to integrate into a LIMS system via a REST API.

To connect to the LIMS, please contact Implen Support.

To connect to the device's hotspot or to connect your device to Wi-Fi®, please refer to the "*Network*" section in the manual.

▪ USB-A

There is a USB-A port on the front and rear panel of the Implen OD600® which is compatible with standard portable USB 2.0 storage devices for direct data transfer in Excel (.xls) and .csv formats. Encrypted USB flash drives are not compatible.

Note: We recommend using FAT/FAT32 formatted 2.0 USB flash drives.

Note: If the USB stick is not working, please re-format it to FAT32 using a Windows PC.

▪ LAN/Ethernet

There is an Ethernet (LAN) connection port on the rear panel of the instrument which enables the Implen OD600® to integrate with a LIMS system via a REST API.

To connect to the LIMS, please contact Implen Support.

LAN functionality is activated automatically when a LAN cable is connected.

Note: If the LAN-cable was not detected by the device restart the device and plug the calbe in again.

Note: The maximum LAN cable length is 10 meters. Bit rate is 100 Mbit/s.

Implen OD600® Specifications

Specification	Details	
Wavelength	600 nm	
Bandwidth	18 nm	
Photometric Range	OD600: 0 - 4 A	McFarland: 0 - 16 MFU
Accuracy	OD600: @ 1A: < ±0.01 A	McFarland: @ 0 - 8 MFU: ≤ ±0.1 MFU
Reproducibility	OD600: @ 1A: < ±0.002 A	McFarland: @ 0 - 8 MFU: ≤ ±0.05 MFU
Cuvettes/Tubes	DiluCell™, 10mm macro and semi-micro cuvettes; 10, 12, 16, 18 mm glass/falcon tubes - without the need for adapters. Wipeable sample compartment	
Optical height	8.5 mm	
Displayed information	Sample list function: View sample data onboard incl. Abs value, MFU value, sample name, time and date of measurement	
Display size	3,5" glove compatible touchscreen, 480 x 320 pixels	
Memory	4 GB internal memory, access to all previously measured sample data in sample list feature	
Time and date data	Manual or automatic time setting	
Connection capability/output	USB-A port for USB stick data export Wi-Fi® and Ethernet/LAN for LIMS integration; USB-C for Charging	
Battery life	Rechargeable, continuous use for ~8 hours	
Power requirements	External power adaptor and internal rechargeable battery	
Data format	.xls and .csv format exportable; For LIMS: JSON	

General Specifications

Light Source	LED
Detector	Photodiode
Size	140 mm x 110 mm x 70 mm
Weight	0.6 kg
Display	480 x 320 pixels; touchscreen glove compatible
Operating Voltage	100-240 V, 50/60 Hz, 20 W, 0,7 A
Certifications	CE, IEC/EN 61010-1:2010 and EN 61326-1:2021
Battery Pack	Rechargeable lithium ion battery; 3.7V, 4400mAh Operation time: up to 8 h; min. charging cycles: 500
Battery Certification	UN38.3 transport test

Features and specifications are subject to change without notice.

2. Getting Started

Implen OD600® Installation

Note: Translations of the Safety Information and Unpacking and Positioning are available in Appendix 1 (Czech), Appendix 2 (Dutch), Appendix 3 (French), Appendix 4 (German), Appendix 5 (Italian), Appendix 6 (Polish), Appendix 7 (Spanish), Appendix 8 (Swedish), Appendix 9 (Portuguese), Appendix 10 (Bulgarian), Appendix 11 (Croatian), Appendix 12 (Danish), Appendix 13 (Estonian), Appendix 14 (Finnish), Appendix 15 (Greek), Appendix 16 (Hungarian), Appendix 17 (Irish), Appendix 18 (Latvian), Appendix 19 (Lithuanian), Appendix 20 (Maltese), Appendix 21 (Romanian), Appendix 22 (Slovak), Appendix 23 (Slovenian), Appendix 24 (Chinese), and Appendix 25 (Japanese).

▪ Safety Information

Before commencing installation, please take time to familiarize yourself with warning labels and symbols on your instrument and their meaning. These are to inform you where potential danger exists or particular caution is required.

 Direct current

Do not open the instrument as this can expose the operator to electrical power and delicate optical setup or damage the instrument.

Do not use damaged power cords, accessories, and other peripherals with your Implen OD600®. Use only the delivered and specified power supply/charger.


Do not expose the Implen OD600® to strong magnetic, electrical fields, water or any type of liquid as heavy rain or moisture.

Do not put the instrument into fire, as it may swell or explode (battery). Do not store at or use near any type of heat source, especially temperatures above 50°C.

Do not leave your Implen OD600® on your lap or near any part of your body to prevent discomfort or injury from heat exposure.

Do not place objects on top of the Implen OD600®.

The Implen OD600® has to be switched off during transportation.

The symbol  on the product, or on the documents accompanying the product, indicates that this appliance may not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. Disposal must be carried out in accordance with local environmental regulations for waste disposal.

▪ Unpacking and Positioning

Check the contents of the package against the delivery note. If any shortages are discovered, inform your supplier immediately.

Inspect the instrument for any signs of damage caused in transit. If any damage is discovered, inform your supplier immediately.

Ensure your proposed installation site conforms to the environmental conditions for safe operation: indoor use or dry environment.

The Implen OD600® is designed and developed for use in a controlled, secure environment. This is described as a laboratory environment with restricted physical access within a company. The Implen OD600® may only be accessed by qualified users and may only be operated within a local company network. If a secure environment is not ensured, the Implen OD600® does not meet the following requirements of the Radio Equipment Directive (RED DA): ACM, AUM, SUM, SSM, SCM, CCK, GEC.

Note: Do not expose your Implen OD600® to liquids, rain, moisture or dusty environments.

Operational temperature range: 15 - 40°C

Storage temperature range 5-50°C

Transport temperature range: -20°C to 50°C

If the instrument is subjected to extreme temperature changes, it may be necessary to allow the instrument to equilibrate and to turn the instrument off and then on again once thermal equilibrium has been established (~2 - 3 hours).

Maximum relative humidity (non-condensing) of 80% and up to 31°C decreasing linearly to 50% at 40°C.

The instrument must be placed on a stable, level surface that can support 0.6 kg and so that air can circulate freely around the instrument. Ensure while powered on that no materials reduce air circulation.

The equipment should be positioned such that in the event of an emergency the main plug can be easily located and removed.

Carry the instrument always by holding the main corpus of the instrument.

The equipment must be connected to power with the USB-C charger – output: 20W max., input: AC 100-240V, 50/60Hz, 0.7A. The power supply/cord supplied by Implen is a USB-C adapter with 5V. Please charge the battery for at least for 3 hours prior to the first use.

Turn the instrument on using the power button on the touch-panel after it has been plugged in. The instrument will perform a series of self-diagnostic checks.

Please read the complete user manual prior to use.

Please contact original supplier immediately if technical or sample handling difficulties are experienced.

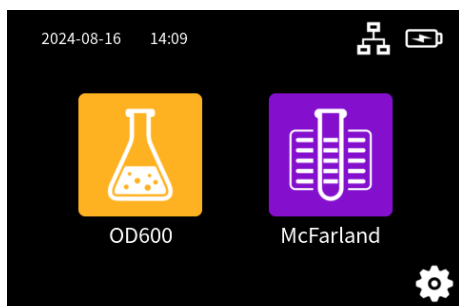
Note: If this equipment is used in a manner not specified or in environmental condition not suitable for safe operation, the protection provided by the equipment may be impaired and the instrument warranty voided.

3. Implen OD600® Basics

The Implen OD600® product offers a complete solution for standard cuvette/test tube applications. Glass or plastic test tubes/falcon tubes (10, 12, 16, 18 mm diameter - no adapters are required) as well as all standard macro or semi-micro cuvettes can be used (quartz, glass, or plastic cuvettes with a center height of 8.5 mm).

Applications Overview

The Implen OD600® is equipped with pre-programmed applications, the OD600 and McFarland methods. To select an application, tap on the corresponding icon and the method will open immediately.



Method Icons

Description



OD600
















Measures cell density at ~600 nm



McFarland

Estimate cell concentration by comparing turbidity to standard solutions

Icons

Icon	Name	Action
	Battery Charging	Battery power plugged and full
	Battery Full	Battery charged 100 %
	Battery Medium Full	Shows the actual battery status
	Battery low	Battery critically low, please re-charge immediately
	Wi-Fi® Network	Wi-Fi® network active
	Wi-Fi® Hotspot	Wi-Fi® Hotspot active
	Wi-Fi® Network & Wi-Fi® Hotspot	Wi-Fi® Network & Wi-Fi® Hotspot active
	LAN	LAN connection active
	Menu	Opens the Menu page
	Settings	Opens the Settings page
	Home Screen	Returns to the home screen with application icons for method selection.
	Back	Returns to the previous page
	Delete Data	Opens a delete dialog pop up
	Tube Selection	Opens a menu of container types from which you can choose your desired container type
	Sample List	Opens a sample list of sets containing all measurement data with further action options including delete and export of data files.

Buttons

BLANK

Prior to any sample measurement at the start of a new method a blank measurement of either water or the buffer of the samples is required to give the Implen OD600® a reference of what zero should be. It is recommended to re-apply the blank and measure it as a sample to ensure the graph of the blank spectra is a flat line. To ensure accurate measurements, we recommend blanking the device before starting a measurement if 30 minutes or more have passed since the last blanking.

SAMPLE

To initiate the measurement of the sample press the sample button. The data will be stored automatically in the sample list function.

General Features

Sample List

This section will guide you through using the Sample List to view, manage, and export your sample measurement data. All data will be auto-saved to the Sample list.

1. Accessing the Sample List:

From the main OD600 or McFarland Application pages, tap on the Sample List icon.

A new page will open, displaying a list of your previously measured samples.

The Sample List is scrollable for easy navigation.

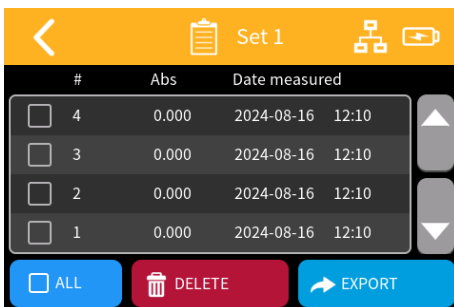
Use arrows next to the table to move through the list.

2. Sample Measurement Sets:

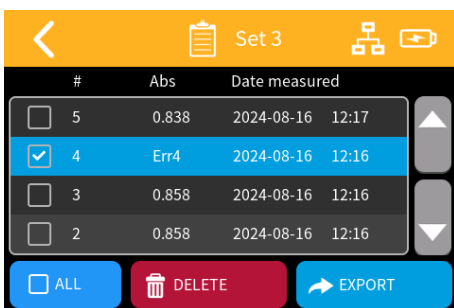
Sets are listed in reverse chronological order, labeled with a Set number and creation date/time.

Measurements are grouped into sets of experiments.

Each set represents a session of using the app, from opening to closing of the application.



To select a sample or set, tap on the corresponding row. Selected items will be highlighted in blue.



When selecting a set, all samples within that set are automatically included.

Four samples/sets can be selected at once. Selected samples can be deleted or exported for further analysis. Use the ALL button to quickly manage selections.

If your device enters deep sleep mode, a new set will be automatically started.

Note: If the data is selected manually, be aware that only the four samples displayed on the screen will be selected. The selection will be lost after scrolling down to the next samples.

3. Exporting Results:

Please insert a USB storage device to proceed with the export.

Select sets/samples to export, then press the EXPORT button.

You can export your data in the following formats: .csv or .xls (default). Once a format is selected, tap the EXPORT button to initiate the export process.

The data will be automatically saved in a new folder created on the USB stick.

Note: When exporting data from the sample list, the Excel format allows for exporting fewer than 200 samples at a time. For larger datasets, the CSV format should be used, as it does not impose any limit on the number of samples that can be exported in a single operation.

Note: If the USB stick is not working, please re-format it to FAT32 using a Windows PC.

Sample Handling Tips

The cuvette holder is compatible with glass or plastic test tubes/falcon tubes (10, 12, 16, 18 mm diameter - no adapters are required) as well as all standard macro or semi-micro cuvettes (quartz, glass and plastic cuvettes with an optical height of 8.5 mm).

It is also possible to use cuvettes with 5 mm, 2 mm or 1 mm path lengths, but there may be an adapter necessary. Please ask your cuvette supplier for suitable adapter.

The minimum volume for accurate measurements depends on the cuvette/tube type used; it is necessary for the light path to pass through the sample for accurate measurements.

Note: Do not overfill the cuvette for risk of spillage.

Note: The cuvette holder is not removable.

Note: Do not use aggressive solvents such as strong acids, bases, or organic solvents. Highly concentrated acids and bases are also not recommended. After each measurement, wipe the sample surface with a lint-free laboratory wipe. For detailed information on compatibility of specific reagents or solvents, please contact Implen support at support@implen.de.

Operating Conditions

When operated under anaerobic (oxygen-free) conditions, the presence of carbon dioxide (CO₂) can cause long-term corrosion of metallic components, particularly carbon or low-alloy steels.

To minimize corrosion risk:

- Use nitrogen (N₂) as the inert cover gas wherever possible.
- Ensure the gas is dry (low humidity) and the system is free of condensate.
- Avoid prolonged exposure to CO₂-containing or acid-forming gases.
- Maintain neutral to mildly alkaline conditions if a liquid phase is present

Power Management Features

Battery Operation

A full battery pack can be operated for approximately 8 hours within normal usage. When the battery is close to empty, a single warning popup will appear 1 minute before shutdown. At this point, it is essential to connect the device to a power source immediately.

The battery pack is designed for at least 500 full charging cycles. Afterwards the capacity and operation time of the battery may vary. A fully charged battery pack will self-discharge (switched off device) over a time of 10 – 14 days. After this time recharging of the battery pack is necessary.

Note: If the battery status has not reached 100% after the maximum charging time, keep the device turned on and connect it to the main power. The battery status should then update.

Auto-Shutdown Features

If the device is not charged and remains idle on a desk without any operation, it will follow a specific power-saving sequence:

- After 10 minutes: The screen will automatically dim to conserve energy.
- After 29.5 minutes: A popup notification will appear, stating that the device is about to shut down.
- After 30 minutes: The device will shut down automatically if no operation has occurred.

However, if the device is connected to a charger while not in use, it will remain powered on indefinitely, without initiating the shutdown sequence.

Note: If the Implen OD600® shuts down during a measurement; the data of this measurement are lost.

4. Implen OD600® Applications

The Implen OD600® comes with two pre-programmed applications, the OD600 application and the McFarland application. Any application method can be selected by tapping the icon once.

OD600 Application



Method Overview

The growth of bacteria in liquid culture media is commonly monitored by measuring the optical density at 600 nm (OD600) in small samples taken from the cultures. OD600 measurements are typically used to determine the stage of growth of the bacterial culture, thereby ensuring that cells are harvested at an optimum point that corresponds to an appropriate density of live cells. Growth of bacterial cells typically progresses through a series of consecutive phases including: lag, log, stationary and decline (see figure 1). In general, cells should be harvested towards the end of the log phase using the optical density of the samples to determine when this point has been reached. Since optical density in the case of OD600 measurements results from light scattering rather than light absorption, this value varies depending on the type of bacterial cells in the culture in terms of size and shape. Cells are routinely grown until the absorbance at 600 nm (known as OD600) reaches approximately 0.4 prior to induction or harvesting. A linear relationship exists between cell number (density) and OD600 up to an absorbance value of 0.6, approximately.

As mentioned above, for turbid samples such as cell cultures, the absorbance measured is due to light scattering, and not the result of molecular absorption. Since the extent of scattering is affected by the optics of the system (distance between the cell holder and instrument exit slit, monochromator optics, slit geometry, etc.), different spectrophotometer types will tend to give different OD600 readings for the same turbid sample. Therefore, if results from different spectrophotometers are to be compared, they must be normalized first using appropriate calibration curves.

A calibration curve can be constructed by comparing measured OD600 to expected OD600. Expected OD600 is determined by counting cell number using an alternative technique (for example microscope slide method) and converting to OD600 using the rule of thumb that $1 \text{ OD600} = 5 \times 10^8 \text{ cells/ml}$ for *E. coli*.

Note: The use of 10 mm path length disposable cells is recommended for optical density measurements of cell culture solutions. To prevent the suspension settling too quickly and giving an OD reading that changes with time, glycerol should be added to the sample.

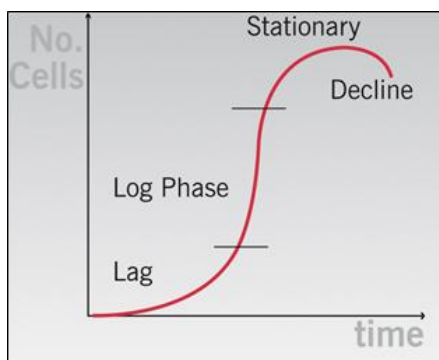


Figure 1: Bacterial growth curve

Measurement Protocol

1. Getting started



To begin using the OD600 application, simply tap on the icon displayed on your device's Home screen.

2. Perform Blank Measurement

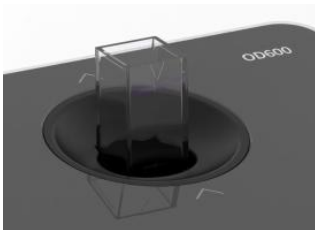
BLANK

Add a blank solution to a cuvette and ensure that the filling volume (8.5 mm optical height) is sufficient to allow light path to pass through the solution.

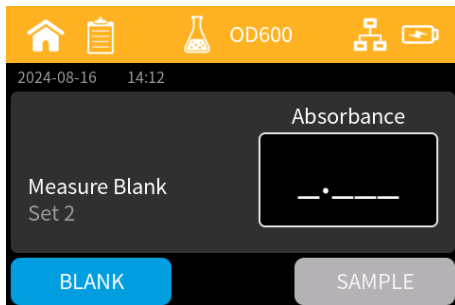
Starting a new measurement will create a new set of data that is automatically saved to the sample list.

Note: The sample button is inactivated until a blank has been measured.

Note: The light path is indicated with two white arrows on the device. Make sure that the cuvette is inserted into the device in the right direction. The arrows on the cuvette should match the arrows on the device.



Initiate a blank measurement with the blank button.



Upon completion of the measurement, remove the cuvette.

Note: To ensure accurate measurements, we recommend blanking the device before starting a measurement if 30 minutes or more have passed since the last blank.

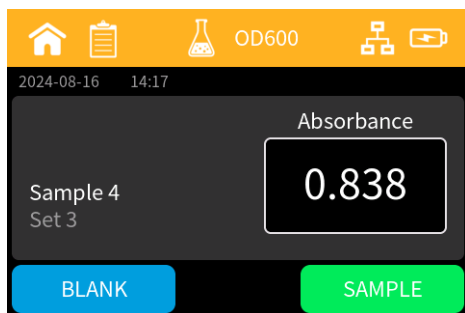
3. Perform a Sample Measurement



Add your sample solution to a new cuvette and ensure that the filling volume (8.5 mm optical height) is sufficient to allow light path to pass through the solution.

Insert cuvette/tube into the cell holder.

Initiate a sample measurement with the sample button. Upon completion of measurement remove the cuvette.



Apply further samples.

Note: Handling Out-of-Range Measurements - If a sample measurement is out of range (>4A), a warning popup will appear, instructing you to repeat the measurement and dilute the sample accordingly.

Note: If the light path is blocked by an obstacle, the error code Err4 will appear - Please remove the obstacle from the light path to proceed with the measurement.

4. Saving and Accessing Measurements

All sample measurements and sets are automatically saved and can be accessed through the Sample List feature in the respective app. Data can be exported through the sample list function using a USB-Stick.

Calculations

$$OD600 = A_{600} * D$$

OD600	Optical density at 600 nm
A ₆₀₀	Absorbance at 600 nm (10 mm path)
D	Dilution factor

$$Cells/ml = A_{600} * D * cf * multiplier$$

A ₆₀₀	Absorbance at 600 nm (10 mm path)
D	Dilution factor
cf	Correction factor for spectrophotometer
multiplier	Multiplier of sample

McFarland



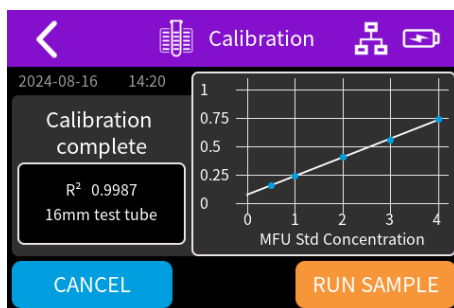
Method Overview

The McFarland standard is a technique used to estimate the density of bacterial suspensions by visual comparison with a series of turbidity standards. This method is particularly useful when direct cell counting is not feasible or practical. The McFarland standard is commonly employed in microbiology laboratories for various applications such as antimicrobial susceptibility testing and bacterial inoculum preparation.

The procedure involves preparing a series of standard turbidity solutions known as McFarland standards. These standards have specific turbidity levels corresponding to different optical densities. The most common McFarland standard is 0.5, which is roughly equivalent to 1.5×10^8 colony-forming units (CFU) per milliliter for most bacterial species.

A sample suspension is compared to the standard curve established using McFarland standard solutions with known turbidity values. This provides an estimate of the cell density in the suspension.

A calibration curve for the 16mm test tube is saved on the device as a standard and can be used as the default setting.



Note: The default 16mm tube calibration curve was generated using the McFarland standards set from Company ProLab, Serial Number 395123, traceable to 260-140 SD2350.

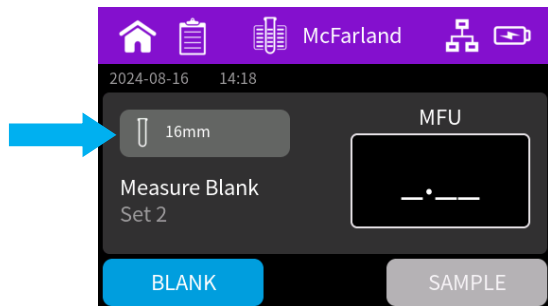
Note: Please be aware that standards can vary between batches and supplier. For optimal accuracy, it is recommended to create your own calibration curve using your own standards, as these can differ and may expire over time.

Container selection & Calibration

This guide provides step-by-step instructions for selecting tubes and calibrating your instrument for accurate measurement of turbidity using McFarland units (MFU). Proper tube selection and calibration are essential for obtaining reliable results.

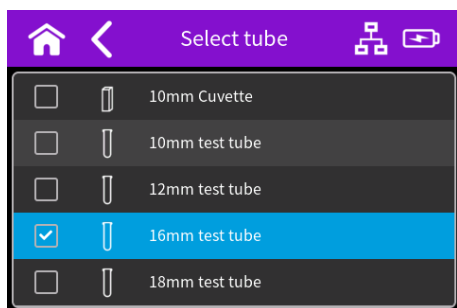
1. Container Selection

Before calibrating your instrument, ensure the correct tube/cuvette type is selected. Press the button indicating the tube that is currently in use.



Note: The tube type selection in the McFarland app is intended solely for labeling purposes and does not dictate the specific tube size required for calibration with the standard curve. It is not mandatory to use the indicated tube type; however, for accurate and reliable results, it is essential to use the same tube type consistently across calibration, blank, and sample measurements.

A menu table will appear with options for tube types, including 10 mm cuvette, 10 mm test tube, 12 mm test tube, 16 mm test tube (default), and 18 mm test tube.



The default tube type for McFarland measurements is the 16 mm test tube. Implen has factory-set a 16mm test tube calibration curve, which can be overwritten, which will be reset after a factory calibration.

The blue-highlighted tube indicates the one currently selected calibration. The tick-box indicates the selected calibration, which will be memorized by the device.

Tap on the corresponding tube type to select a new tube-setting.

If no calibration has been done for the selected tube type, a popup will state "No calibration data available. Start new calibration?"

You can then choose to exit or proceed with calibration.

Note: The default 16mm tube calibration curve was generated using the McFarland standard set from Company ProLab, Serial Number 395123, traceable to 260-140 SD2350.

Note: Please be aware that standards can vary between batches and supplier. For optimal accuracy, it is recommended to create your own calibration curve using your own standards, as these can differ and may expire over time.

2. Calibration Process

After selecting the tube type, a new page will open displaying the date of the previous calibration (if any).

Note: If a tube type with an existing calibration is selected, be aware that a new calibration will override the existing calibration!

Two actions are available: SELECT and CALIBRATE.

Note: If there is an existing calibration available, the options will be: CALIBRATE and EXIT.

SELECT leads you to the measurement window.

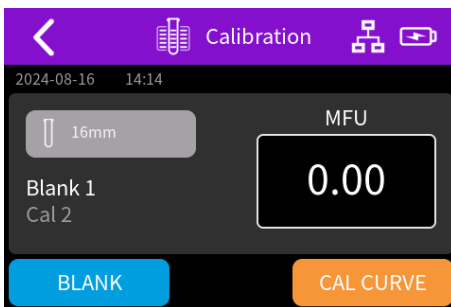
If CALIBRATE is selected, a calibration page is opened. Follow the instructions on the calibration page to perform blank and standard measurements:

Measure the blank solution.

Ideal Case: The 0.00 McFarland standards should be included in the calibration set. It represents the baseline or zero turbidity and helps ensure that the instrument is properly calibrated to detect small differences in turbidity.

Alternative for 0.00 Standard: If a 0.00 McFarland standard is not available, prepare a water blank in a cuvette of the same diameter as those used for measurements. This water blank serves as a substitute for the 0.00 standard and helps in accurately setting the baseline for measurements.

Click on Cal Curve to start with the measurements to create a new standard curve.

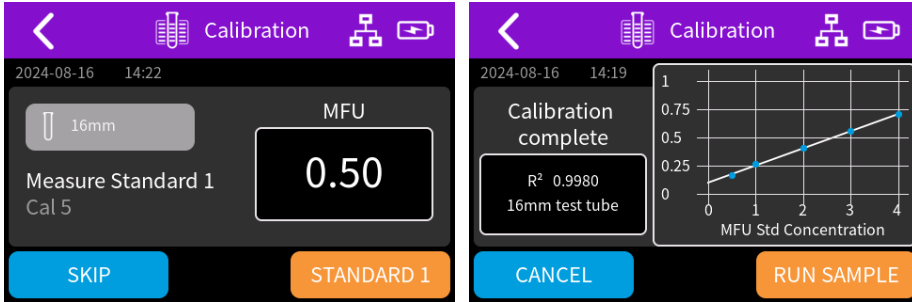


Measure the standard solutions one after the other in ascending order of turbidity i.e. 0.5, 1, 2, 3, and 4.

If you do not have a full set of 5 standards, you can skip some. A minimum of 2 Standards is required.

Note: A minimum of two standards is necessary to create a new calibration curve.

After measuring all standards, the calibration curve will appear. After all measurements are completed, the calibration data will be automatically saved. The R2 value of the curve will be displayed. Click "RUN SAMPLE" to proceed with your measurements.



Note: Ensure all cuvettes and test tubes are clean and free from any residues or scratches that might affect the measurements.

3. Troubleshooting

When troubleshooting calibration issues, please remember that McFarland standards can vary between batches and suppliers. This variability can affect the accuracy of your measurements. For best results, it may be necessary to gently invert the standards before use to ensure they are well-mixed. Additionally, consider creating a new calibration curve using your own standards, as they may differ from the default curve and could expire over time.

If you encounter any other issues during tube selection or calibration, refer to the troubleshooting section of the instrument's manual or contact technical support for assistance.

Measurement Protocol



1. Getting started

To begin using the McFarland application, simply tap on the icon displayed on your device's Home screen.

2. Select a tube type

The default calibration curve provided is for the 16 mm test tube.

If you wish to use a different calibration curve or test tube, click on the button displaying the tube type and select a different one (indicated by yellow arrow).

If no custom calibration curve has been saved previously, you will need to establish a new calibration curve. For instructions on this process, please refer to the manual section *Container Selection & Calibration* above.



Note: The default 16mm tube calibration curve was generated using the McFarland standard set from Company ProLab, Serial Number 395123, traceable to 260-140 SD2350.

Note: Please be aware that standards can vary between batches and supplier. For optimal accuracy, it is recommended to create your own calibration curve using your own standards, as these can differ and may expire over time.

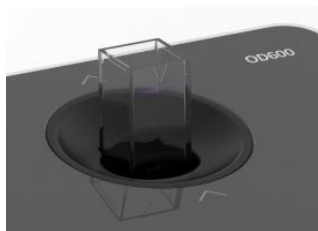
3. Perform Blank Measurement



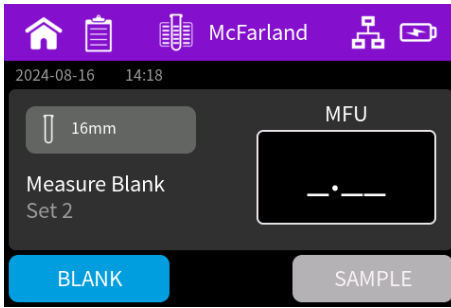
Add a blank solution to a cuvette and ensure that the filling volume (8.5 mm optical height) is sufficient to allow light path to pass through the solution

Note: The light path is indicated with two white arrows on the device. Make sure that the cuvette is inserted into the device in the right direction. The arrows on the cuvette should match the arrows on the device.

Note: The sample button is inactivated until a blank has been measured.



Initiate a blank measurement with the blank button.



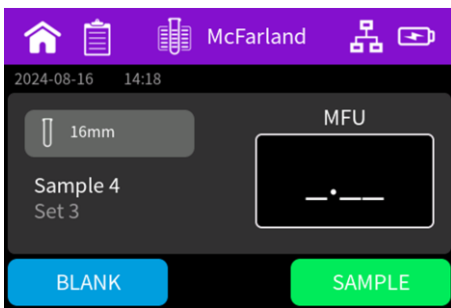
Upon completion of the measurement, remove the cuvette.

4. Perform a Sample Measurement



Add your sample solution to a new cuvette and ensure that the filling volume (8.5 mm optical height) is sufficient to allow light path to pass through the solution.

Insert cuvette/tube into the cell holder.



Initiate a sample measurement with the sample button. Upon completion of measurement remove the cuvette.

Note: Handling Out-of-Range Measurements - If a sample measurement is out of range (too high absorbance or lightpath blocked), a warning popup will appear, instructing you to repeat the measurement and dilute the sample accordingly.

Note: If the light path is blocked by an obstacle, the error code Err4 will appear - Please remove the obstacle from the light path to proceed with the measurement.

5. Saving and Accessing Measurements

All sample measurements and sets are automatically saved and can be accessed through the Sample List feature in the main menu. Data can be exported through the sample list function using a USB-Stick.

Calculations

The McFarland concentration is calculated using a basic linear regression standard curve.

This plot is described by the equation of a line: $y=mx+b$ where:

- y is the response variable (measured response),
- x is the explanatory variable (concentration),
- m is the slope of the line,
- b is the y-intercept.

A line of best-fit is then used for concentration determination. Once the equation/curve is programmed, the unknown concentration/MFU value is calculated based on these values.

DiluCell™ Technology

Method Overview

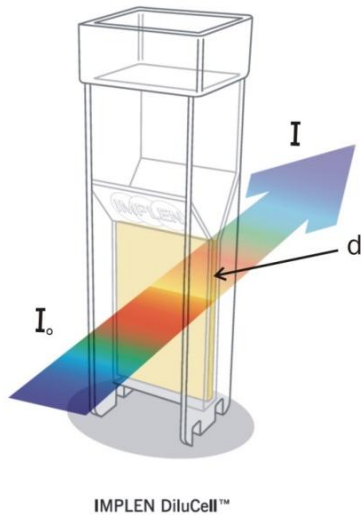
The DiluCell™ is a disposable cuvette designed for virtual dilution of cuvette-based samples, utilizing the principle of the Lambert-Beer law, which empirically relates the absorption of light to the properties of the sample.

Lambert-Beer Law:

$$Abs = \log \frac{I_0}{I} = \epsilon \times c \times d$$

Where:

I_0	=	incoming light
I	=	outgoing light
ϵ	=	extinction coefficient
c	=	concentration
d	=	pathlength (1mm @ 8.5mm center height)

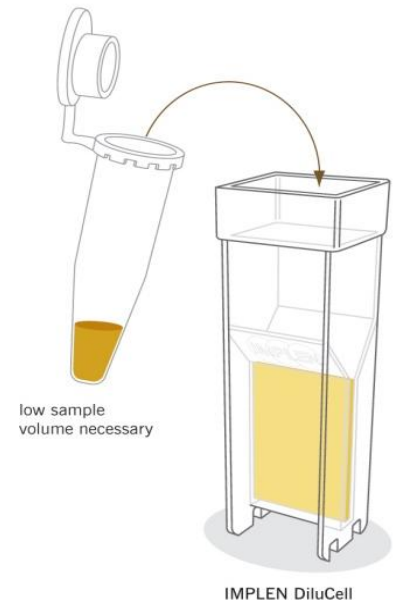


Built-in Virtual Dilution

Traditional cuvettes require manual sample dilution and volumes of at least 1 ml.

The innovative design of the DiluCell™ reduces the light path from the standard 10mm to just 1mm, thereby enabling a **built-in 1:10 virtual dilution** in accordance with the Lambert-Beer Law.

This allows you to work with smaller sample volumes (only 300 µl), while eliminating manual dilution steps, saving time, and minimizing the risk of dilution/pipetting errors and cross-contamination.



Operating Instructions

1. Correct Insertion

Place the DiluCell™ in the cuvette holder with the wide window facing the light beam. The Implen OD600® features a directional arrow to assist with correct alignment.

2. Sample Loading

The geometry of DiluCell™ supports bubble-free filling. After loading, check visually for air bubbles. If bubbles are present, tap gently to eliminate them.

3. Volume Requirement

Use 300 µl of sample for optimal performance.

4. Data Handling

Simply multiply your absorbance values by 10 post-measurement or set your instrument to apply a 10× dilution factor.

▪ Important Usage Notes

Note: DiluCell™ will not work in any other orientation; do not mix other cuvette types within a DiluCell™ measurement series (for blank, etc.).

Note: Single Use Only. It is not recommended to reuse DiluCell™ due to: high probability of cross contamination and high probability of air bubbles when refilling the cell.

Note: Do not autoclave the DiluCell™.

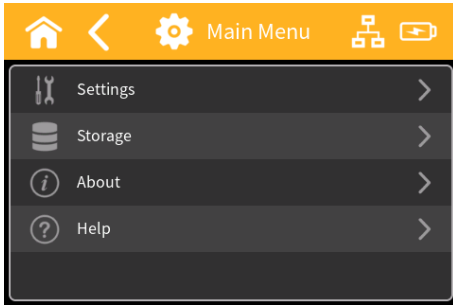
Note: For solvent compatibility please contact your local Implen partner or the Implen Team at www.implen.de.

Specifications

Parameter	DiluCell™ 10
Wavelength Range	340 nm – 950 nm
Optical Pathlength	1 mm (at 8.5 mm center height)
Volume Requirement	300 µl
Tolerance	±10%
Dilution Factor	1:10
Product Code	DC 10
Packaging	96 disposable cuvettes per pack

5. Preferences

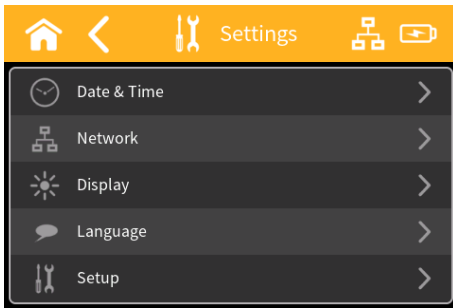
System preferences can be set by selecting preferences (⚙️) on the home screen. The Main Menu includes: Settings, Storage, About and Help.



Main Menu Options

Settings

Upon selecting the "Settings" option from the preferences menu, a submenu will appear with several configuration options. These options include Date and Time, Network, Display, Language, and System setup.

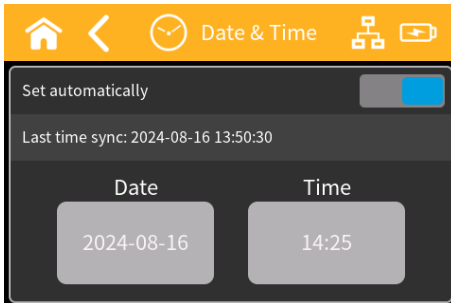


▪ **Date and Time**

Within the Date and Time settings, you can choose between manual and automatic time setting. Manual time setting allows you to adjust the date and time manually using buttons on the screen. Automatic time setting synchronizes the device's time with an external time server when connected to the internet.

A timezone can be selected through the Implen OD600® webpage (see instructions under “Network > Implen OD600®” webpage below)

Note: If your device is not connected to a network, the automatic time zone cannot be activated. To activate the automatic time zone, please connect the device to Wi-Fi® or LAN and change timesetup through your internet browser on the setup webpage.

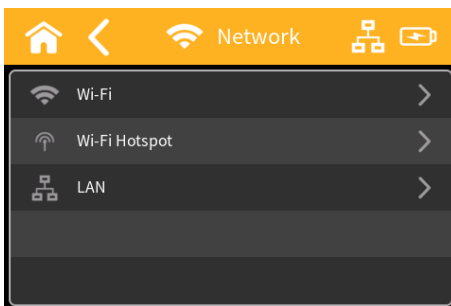


Note: If you want to change the time zone through the webbrowser using the device-hotspot, ensure Wi-Fi® and Wi-Fi® Hotspot are activated before pressing save, otherwise the device will disconnect from the computer before changing the time zone.

Note: If the time zone or date/time is adjusted through the web browser via the Implen OD600 webpage, the changes may take several seconds to take effect, and the updated date/time on the device will be reflected within the next minute.

▪ **Network**

The Network submenu provides options for configuring network settings such as Wi-Fi®, Wi-Fi® Hotspot, and LAN.



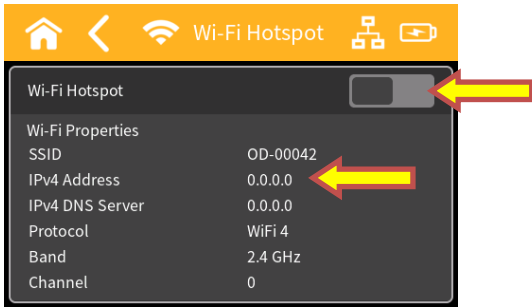
Wi-Fi® Hotspot

Follow these steps to connect your device to the Wi-Fi® Hotspot and configure the Wi-Fi® settings using the Implen OD600® webpage.

▪ **Step 1: Activate Wi-Fi® Hotspot on Implen OD600®**

1. Navigate to the Network Menu on the Implen OD600®:

Go to **Main Menu > Settings > Network > Wi-Fi® Hotspot.**



1. Activate the Wi-Fi® Hotspot.

The SSID and IPv4 Address will be displayed in the Wi-Fi® Hotspot menu.

▪ **Step 2: Connect Your Device to the Wi-Fi® Hotspot**

For Smartphones:

1. Scan the QR-code located on the bottom of the Implen OD600® to connect your smartphone to the device's hotspot.
2. Open a web browser on your smartphone and enter the IPv4 Address: 192.168.4.1.
3. This will open the device's network settings interface.



• **For Computers:**

1. Connect your computer to the Implen OD600® Wi-Fi® Hotspot.
2. Use the password **“Implenuser”** to connect to the hotspot.
3. Open a web browser on your computer and enter the IPv4 Address: e.g. 192.168.4.1.
4. This will open the Implen OD600® webpage to change the device's network settings interface

▪ **Step 3: Configure Network Settings through the Implen OD600® webpage**

Configuration of network settings via the Implen OD600® webpage is explained in the section “Implen OD600® webpage” below.

Wi-Fi® (Wifi)

▪ **Connecting Implen OD600® to Wi-Fi® for the First Time**

1. **Activate the Wi-Fi® Hotspot on the Implen OD600®:**

- Navigate to **Main Menu > Settings > Network > Wi-Fi® Hotspot** and activate the hotspot. Refer to **Step 1 in the Wi-Fi® Hotspot Setup** section.
- The device will display the SSID and IPv4 Address in the Wi-Fi® Hotspot menu.

2. **Connect Your Device to the Wi-Fi® Hotspot:**

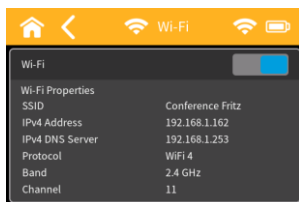
- **For Smartphones:** Scan the QR-code on the bottom of the Implen OD600® device to connect, then open a web browser and enter the IPv4 Address



- **For Computers:** Connect to the hotspot using the password “**Implenuser**”, then enter the IPv4 Address in a web browser on your computer. This will open the Implen OD600® webpage.

3. **Configure Wi-Fi® Network Settings via the Implen OD600® Webpage:**

- Once connected to the hotspot, the Implen OD600® webpage will open.
- Enter the desired Wi-Fi® network’s SSID (Wi-Fi® Name) and password.
- Click **Save** to apply the settings. Refer to the section “Implen OD600® webpage” below for more information.
- Check the configuration on your OD600 device



▪ **Activating Wi-Fi® on Implen OD600® After Initial Setup**

Once the Implen OD600® has been connected to a Wi-Fi® network, you can activate the Wi-Fi® function directly without reconnecting through the hotspot:

1. **Navigate to the Wi-Fi® Menu:**

- Go to **Main Menu > Settings > Network > Wi-Fi®**.

2. **Activate Wi-Fi®:**

- Toggle the Wi-Fi® function to "On."
- The device will automatically connect to the previously configured Wi-Fi® network.

Note: Ensure that only the Wi-Fi® or LAN function is active at any given time to avoid network conflicts. Refer to the Network Overview section for additional guidance.

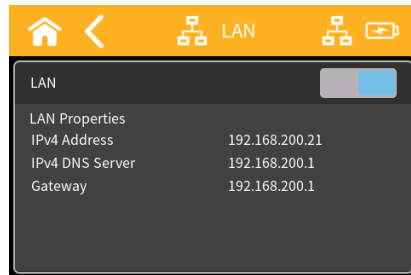
LAN/Ethernet

LAN functionality is activated automatically when a LAN cable is connected.

The Implen OD600® Webpage can be accessed through entering the IPv4 Address.

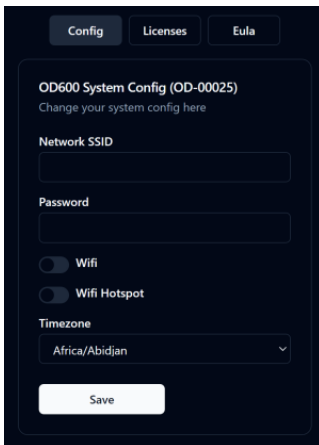
Note: If the LAN-cable was not detected by the device, restart the device and plug the cable in again.

Note: Be cautious not to activate multiple network functions simultaneously to avoid errors.



Implen OD600® Webpage

The Implen OD600® webpage allows you to configure device settings, including date & time, Wi-Fi®, and Wi-Fi® hotspot configurations. Additionally, you can view the End User License Agreement (EULA) and licenses.



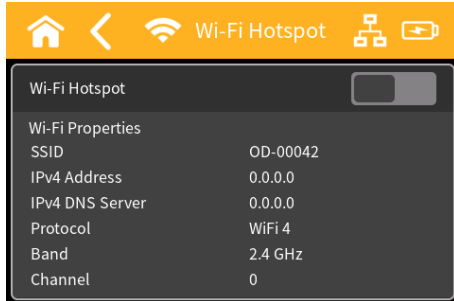
This webpage can be accessed via Wi-Fi® or LAN connections. Follow the steps below to connect and use the Implen OD600® webpage.

Accessing the Implen OD600® Webpage

▪ **Option 1: Connecting via Wi-Fi® Hotspot**

1. **Activate Wi-Fi® Hotspot on Implen OD600®:**

- Navigate to the device's Network Menu:



Go to **Main Menu > Settings > Network > Wi-Fi® Hotspot.**

- Ensure the Wi-Fi® Hotspot is activated.
- The SSID and IPv4 Address will be displayed in the Wi-Fi® Hotspot menu.

2. **Connect a Smartphone:**

- Scan the QR-code located on the bottom of the Implen OD600® to connect your smartphone to the device's hotspot.
- Open a web browser on your smartphone and enter the IPv4 Address: 192.168.4.1.
- This will open the device's network settings interface.

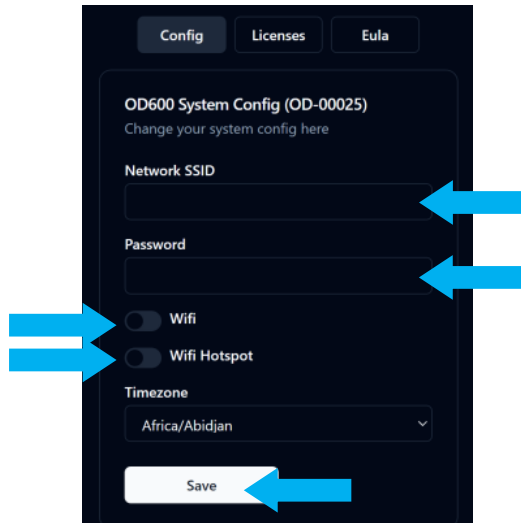


3. **Connect a Computer:**

- Use your computer to connect to the Implen OD600® Wi-Fi® Hotspot.
- Use the password **“Implenuser”** to connect to the hotspot.
- Open a web browser on your computer and enter the IPv4 Address: 192.168.4.1.
- This will open the device's network settings interface.

4. Configure Network Settings:

- In the network settings interface:
 - Enter the Network SSID (Wi-Fi® Name) and password of the desired Wi-Fi® network to connect the Implen OD600®.
 - The Wifi and Wifi Hotspot functions can be activated in this menu.
 - Click **Save** to apply changes.



5. Adjust Date&Time Settings:

- Use the interface to adjust the device's date & time settings. Chose the desired timezone and click **Save**.
- **Option 2: Connecting via LAN**
 1. **Connect via LAN:**
 - Connect the Implen OD600® to LAN.
 - On your device, navigate to the LAN menu and obtain the IPv4 Address.
 - Open a web browser on your computer and enter the IPv4 Address provided in the LAN menu.
 - This will open the device's network settings interface, allowing you to configure settings as needed.

▪ **Display**

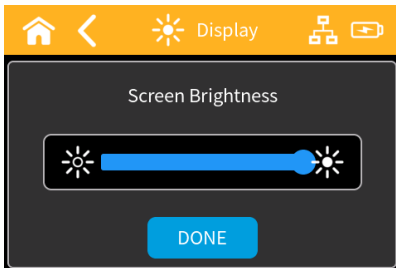
In the Display settings, you can adjust the brightness levels of the device's screen using a slider bar.

The slider bar offers smooth transitions with 10-20 brightness increments.

The default brightness is 50%.

Any changes to the brightness will be saved and set as the new default when the device is turned on and off.

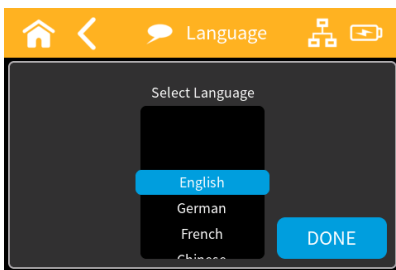
After performing a factory reset, the brightness will revert to the original default of 50%.



▪ **Language**

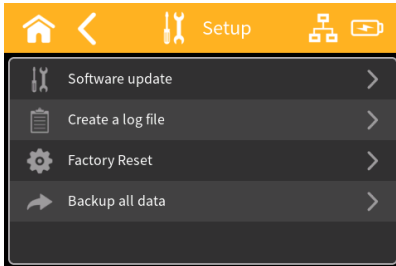
Language settings allow you to select the preferred language from the available options.

After selecting a language, a popup will prompt you to restart the device for the changes to take effect.



▪ System Setup

The System Setup menu includes options for software updates, creating log files, factory reset, and data backup.



Software Update:

Please insert a USB-Stick into the device, containing a software update from the Implen homepage. Software updates can be found here: <https://www.implen.de/downloads/>

Create a log file:

Please insert a USB-Stick into the device. The Log file will be exported to the USB-Stick after confirmation.

Factory Reset:

After the factory reset, all self-acquired data will be lost.

The device will restart and show the license agreement page again.

The Wi-Fi® function of the device will be turned off. To turn it back on, use the Wi-Fi® Hotspot (see “Network”).

If the device is not connected to the Wi-Fi® anymore, time and date need to be adjusted manually.

Backup all data:

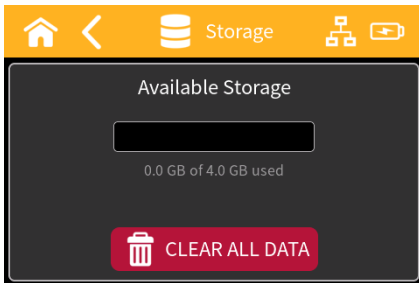
A backup of all data can be done via USB export.

Storage

Access the Storage option from the main menu to view available storage space and usage.

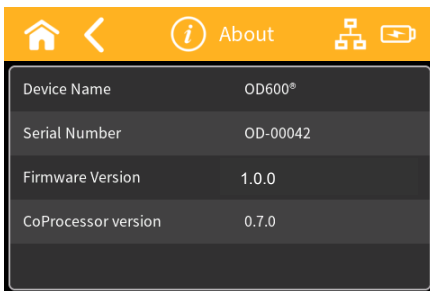
You can clear all measurement data from the device's memory using the Clear All Measurement Data button.

Confirmation popups will appear before clearing data, and warnings will be displayed for low or full storage.



About

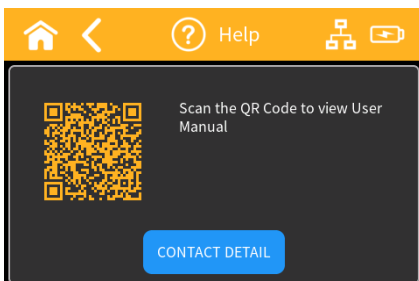
The About section provides device information such as the device name, serial number, and firmware version.



Help

Access helpful resources such as the user manual and contact details for support.

QR codes are provided for accessing the user manual and contacting support.





6. Troubleshooting

Error Indication	Solution
A negative reading is obtained.	In normal measurements the test sample has a positive Absorbance compared to that of the Reference. Negative readings will be obtained if the Reference and Test cuvettes are mixed up.
The OD600 value is different to that obtained on another instrument in the lab.	When you measure turbid solutions you do not measure the absorbance/transmittance of light at the detector, you measure the amount of scattered light that reaches the detector. Thus optical geometry is very important - the further the distance from the sample to the detector, the greater the effect of the scattered light. Thus instead of harvesting at 0.4 OD, for example, you have to do it at 0.8 OD. A simple conversion factor can be calculated from the OD 600 of your existing instrument compared to that of the Implen OD600 instrument. For further information see also Technical Note #8 OD600. Note: the technical notes can be found on implen.de
Device shuts down and restarts after ESD-impulse	If the device shuts down after an ESD-impulse, it will restart and move back into the home screen.
Device shuts down and restarts: Light Path Obstruction Error	If the device crashes and a sample is still inside, the light path for the self-test is blocked. Solution: Remove the sample to clear the light path, then blank again.
The USB Stick is not detected by the device	If the USB stick is not working, please re-format it to FAT32 using a Windows PC.
The selected data was not exported	In the sample list screen, only the four samples in the visible screen can be selected at a time. If you scroll to the next page, the samples from the previous page will be unselected. If you want to export all data, click on <i>ALL</i> .

Note: the technical notes can be found on implen.de

Self-test

The Implen OD600® Self-test is performed automatically every time the instrument is powered on. If the instrument passes the self-test, the home screen will appear after a few seconds.

If the instrument does not pass the test, a window with the message explaining the reason for the failed test along with the recommended solution will be shown. If the OK button is selected, the window is closed and the home screen will be shown with an error message at the top. The error message is also shown on top of all other screen and all performed measurements including the saved files of those measurements. If the self-calibration test fails please contact the Implen Support Team.



7. Important Error Messages

Error	Information	Action
Err1	Blank absorbance to low	Blank absorbance to low. Please contact Implen Support. Err1
Err2	Blank absorbance to high	Blank absorbance to high. Remove the obstacle in the light path! Otherwise contact Implen Support. - Err2
Err3	Sample absorbance to low	Sample absorbance to low. Please contact Implen Support. - Err3
Err4	Sample absorbance to high	Sample absorbance to high. Remove the obstacle in the light path! Otherwise contact Implen Support. - err4
Err5	Hardware Fail	Hardware failed. Contact Implen Support. - Err5
Err6	General Measurement Error	Generic error! Please contact Implen Support. - Err6

8. Important Warning messages

Warning Message	Solutions
No USB device detected. Please connect a USB flash drive to the USB port.	Disconnect and reconnect the USB device. Use a FAT/FAT32 formatted USB 2.0 flash drive. If the USB stick still doesn't work, reformat it to FAT32 using a Windows PC.
Battery cannot be charged. - [number]	Ensure the device is within the required operating temperature. If the issue persists, contact Implen support.
Battery critically low. Please connect the charger.	Connect the device to the charger immediately.
Calibration failed. A minimum of two standard points are required to create calibration curve.	Ensure that standards are significantly different from the blank absorbance value. At least two valid standards are needed to create a calibration curve.
No network connection. Automatic date and time synchronization not possible. Please connect to Wi-Fi® or LAN.	Connect the device to the internet via Wi-Fi® or LAN for automatic date and time synchronization. You can adjust the timezone through the Implen OD600 webpage under the "Network" section.
Generic error! Please contact Implen Support. - [number]	Contact Implen Support for assistance. Contact details can be found in the Main Menu under "Help."
Self-test failed, counts too high. Please contact Implen Support. - [number]	Restart the instrument and ensure the light path is clear. If the issue persists, contact Implen Support.
Self-test failed, counts too low. Remove the obstacle in the light path! Otherwise contact Implen Support. - [number]	Restart the instrument and ensure the light path is clear. If the issue persists, contact Implen Support.
Storage space full. No further measurements possible. Move data to an external storage and delete onboard results to free up space.	Export important data to a USB stick and delete existing data on the device. For full space recovery, perform a factory reset, but note that this will erase all existing data.
Low storage alert: Device performance may be affected. Move data to an external storage and delete onboard results to free up space.	Export important data to a USB stick and delete existing data on the device. If all data is secured, a factory reset will clear space but will delete all existing data.
Failed to write the data to the memory	Try writing the data again. If the issue persists, contact Implen Support.
Power touch timeout error. - [number]	Ensure the device is in the correct working environment. Restart the device. If the issue persists, contact Implen Support.

System Freeze

In case of significant Electrostatic Discharge (ESD) impulses it could happen that the device briefly shuts down and switches on again. The system will recover in the main home screen. However, if there is no reaction, please press the touch power key at the cover glass of the display and restart the system.

9. Maintenance

Maintenance-free technology

The Implen OD600® technology is maintenance-free. Regular maintenance and calibration is not necessary.

For facilities that are working according to national as well as international guidelines and standards including: Good Laboratory Practice (GLP), Good Manufacturing Practice (GMP), or ISO9000-9004; the proper performance of the device has to be tested and proven on a regular basis with individually set intervals. A certified Neutral Density filter can be used as an optional accessory. These filters are suitable for the control and documentation of the photometric accuracy of your system. Please contact your local Implen office or an authorized Implen partner for further information.

Support agreements that help to fulfill the demands of regulatory guidelines concerning GLP/GMP include: calibration certification using filters traceable to international standards (during production and quality control), certified engineers and calibrated test equipment, approved to ISO 9001 standard, automatic self-diagnostic calibration test during start of the Implen OD600®, result is documented in each data output file, and users are given the possibility to save a Implen Document Source (IDS) file (no data manipulation possible).

Software update

There is a button for software update. It is needed to plug in a USB flash drive with the software installation file to the USB port. The software update files are available on the Implen homepage: <https://www.implen.de/downloads/>.

Update procedure:

1. Copy the Software Update file to a USB flash drive
2. Plug in the USB flash drive to the USB port of the Implen OD600® device
3. Go to Settings > Setup > Software Update
4. Press the Update button. The update will start and once finished automatically reboot the device.

Note: Make sure that the OD600 is connected to power and that the power connection is not interrupted during the update.

Note: Make sure you unpack the ZIP file of the Software-download prior to updating your device.

Contact Implen

There is an option to contact Implen for instruments connected to the internet. For any support issues and questions please contact the Implen team directly:

Europe, Asia, South Pacific, Middle East, Africa

Phone: +49 89 72637180
Fax: +49 89 726371854
Email: support@implen.de
Website: www.implen.de

Implen GmbH
Schatzbogen 52
81829 München
Germany

North and South America

Phone: +1 818 748 6400
Fax: +1 818 449-0416
Email: support@implen.com
Website: www.implen.com

Implen, Inc.
Unit 104
31194 La Baya Drive
Westlake Village, CA 91362
USA

Replacement Parts

▪ LED replacement

The Implen OD600® is equipped with a LED and should not need replacement until several years of use. In the unlikely event the lamp does need to be replaced, this should only be done by the manufacturer.

▪ Battery replacement

The battery can only be replaced by the manufacturer.

▪ Touchscreen/glass plate replacement

The touchscreen/glass plate can only be assembled or replaced by the manufacturer.

Cleaning and General Care

Switch off the Implen OD600® and disconnect the power cord prior to external cleaning. Use a soft wet cloth or dry microfiber cloth to clean all external surfaces. A mild liquid detergent may be used to remove stubborn marks.

The instrument requires little maintenance, but the following are considered good practice:

1. Keep the instrument clean and dry. Wipe off any spilt liquids immediately. Clean with a slightly damp cloth; a non-abrasive water-based soap or detergent may be used. The instrument may be wiped.
2. Remove the cuvettes from the instrument when not in use.
3. Store in a cool place away from corrosive chemicals or fumes.

Approved disinfectant solutions include: Apesin disinfection spray (Tana Chemi GmbH), Dr. Becher disinfection spray (Dr. Becher GmbH), and Lysoformin Spezial (Lysoform Dr. Hans Roseman GmbH).

Optional: The cuvette shaft can be cleaned using a lightly damp cloth or a cotton swab.

Note: Observe all necessary precautions if dealing with hazardous samples or solvents.

De-contamination Procedure

To decontaminate we recommend that the instrument is wiped with ethanol or other antibacterial detergent as required. The instrument can be sterilized using formaldehyde or ethylene oxide, but not with UV light (due to plastic degradation). The cuvette shaft can be cleaned using a lightly damp cloth or cotton swab.


10. Warranty

Implen guarantees that the product supplied has been thoroughly tested to ensure that it meets its published specification. The warranty included in the conditions of supply is valid for 24 months and is valid only if the product has been used according to the instructions supplied. Implen or your supplier can accept no liability of loss or damage arising from the faulty or incorrect use of this product.

11. Appendix 1 - Instalace Implen OD600®

Bezpečnostní informace

Před zahájením instalace věnujte čas seznámení se s výstražnými štítky a symboly na přístroji a jejich významem. Ty vás mají informovat o místech, kde hrozí potenciální nebezpečí nebo kde je třeba dbát zvláštní opatrnosti.

 stejnosměrný proud

Přístroj neotvírejte, protože tím můžete obsluhu vystavit elektrickému proudu a citlivému optickému nastavení nebo přístroj poškodit.

Nepoužívejte s přístrojem Implen OD600® poškozené napájecí kabely, příslušenství a další periferní zařízení. Používejte pouze dodaný a specifikovaný napájecí zdroj/nabíječku.


Nevystavujte Implen OD600® silným magnetickým, elektrickým polím, vodě nebo jakémukoli typu kapaliny jako silnému dešti nebo vlhkosti.

Nevkládejte přístroj do ohně, protože by mohl zpuchřet nebo explodovat (baterie). Přístroj neskladujte u žádného typu zdroje tepla, zejména při teplotách nad 50 °C, ani jej nepoužívejte v jeho blízkosti.

Nenechávejte přístroj Implen OD600® na klíně nebo v blízkosti jakékoli části těla, abyste předešli nepříjemným pocitům nebo zranění způsobeným působením tepla.

Nepokládejte na Implen OD600® žádné předměty.

Během přepravy musí být Implen OD600® vypnutý.

Symbol na  výrobku nebo na dokumentech přiložených k výrobku označuje, že s tímto přístrojem nesmí být nakládáno jako s domovním odpadem. Místo toho musí být odevzdán na příslušném sběrném místě pro recyklaci elektrických a elektronických zařízení. Likvidace musí být provedena v souladu s místními předpisy o ochraně životního prostředí pro likvidaci odpadu.

Vybalení a umístění

Zkontrolujte obsah balení podle dodacího listu. V případě zjištění jakýchkoli nedostatků neprodleně informujte dodavatele.

Zkontrolujte, zda přístroj nevykazuje známky poškození způsobené při přepravě. Pokud zjistíte jakékoli poškození, neprodleně informujte svého dodavatele.

Ujistěte se, že navrhované místo instalace odpovídá podmínkám prostředí pro bezpečný provoz: vnitřní použití nebo suché prostředí.

Implen OD600® je navržen a vyvinut pro použití v kontrolovaném a zabezpečeném prostředí. Jedná se o laboratorní prostředí s omezeným fyzickým přístupem v rámci společnosti. K Implen OD600® mají přístup pouze kvalifikovaní uživatelé a může být provozován pouze v rámci lokální firemní sítě. Pokud není zajištěno bezpečné prostředí, Implen OD600® nespĺňuje následující požadavky Směrnice o rádiových zařízeních (RED DA): ACM, AUM, SUM, SSM, SCM, CCK, GEC.

Poznámka: Nevystavujte přístroj Implen OD600® v blízkosti kapalin, deště, vlhkosti nebo prašného prostředí.

Rozsah provozních teplot: 15 - 40°C

Rozsah skladovacích teplot: 5 - 50 °C

Rozsah přepravních teplot: -20°C až 50°C

Pokud je přístroj vystaven extrémním změnám teploty, může být nutné nechat přístroj vyrovnat a po dosažení tepelné rovnováhy jej vypnout a znovu zapnout (~2 - 3 hodiny).

Maximální relativní vlhkost (nekondenzující) 80 % a do 31 °C lineárně klesá na 50 % při 40 °C.

Přístroj musí být umístěn na stabilním, rovném povrchu, který unese 0,6 kg, a tak, aby kolem přístroje mohl volně cirkulovat vzduch. Při zapnutém napájení zajistěte, aby cirkulaci vzduchu neomezovaly žádné materiály.

Přístroj by měl být umístěn tak, aby bylo možné v případě nouze snadno najít a vyjmout hlavní zástrčku.

Přístroj přenášejte vždy tak, že držíte hlavní těleso přístroje.

Zařízení musí být připojeno k napájení pomocí nabíječky USB-C - výstup: max. 20 W, vstup: AC 100-240V, 50/60Hz, 0,5A. Napájecí zdroj/kabel dodávaný společností Implen je adaptér USB-C s napětím 5V. Před prvním použitím nabíjete baterii alespoň po dobu 3 hodin.

Po zapojení přístroje do sítě jej zapněte pomocí tlačítka napájení na dotykovém panelu. Přístroj provede řadu autodiagnostických kontrol.

Před použitím si přečtěte kompletní uživatelskou příručku.

V případě technických potíží nebo potíží při manipulaci se vzorky se neprodleně obraťte na původního dodavatele.

Poznámka: Pokud je toto zařízení používáno způsobem, který není specifikován, nebo v podmínkách prostředí, které nejsou vhodné pro bezpečný provoz, může dojít k narušení ochrany poskytované zařízením a ke ztrátě záruky na přístroj.

12. Appendix 2 - Implen OD600® Installatie

Veiligheidsinformatie

Neem voordat u met de installatie begint de tijd om vertrouwd te raken met de waarschuwingslabels en symbolen op uw instrument en hun betekenis. Deze zijn bedoeld om u te informeren waar potentieel gevaar bestaat of bijzondere voorzichtigheid geboden is.

=== Gelijkstroom

Open het instrument niet, omdat dit de operator kan blootstellen aan elektrische stroom en delicate optische instellingen of het instrument kan beschadigen.

Gebruik geen beschadigde netsnoeren, accessoires en andere randapparatuur met uw Implen OD600®. Gebruik alleen de bijgeleverde en gespecificeerde voedingseenheid/oplader.


Stel de Implen OD600® niet bloot aan sterke magnetische velden, elektrische velden, water of andere vloeistoffen zoals zware regen of vocht.

Steek het instrument niet in vuur, aangezien het kan opzwellen of exploderen (batterij). Niet bewaren bij of gebruiken in de buurt van een warmtebron, met name temperaturen boven 50°C.

Laat de Implen OD600® niet op uw schoot of in de buurt van een lichaamsdeel liggen om ongemak of letsel door blootstelling aan hitte te voorkomen.

Plaats geen voorwerpen bovenop de Implen OD600®.

De Implen OD600® moet tijdens transport worden uitgeschakeld.

Het symbool  op het product of op de begeleidende documenten geeft aan dat dit apparaat niet als huishoudelijk afval mag worden behandeld. In plaats daarvan moet het worden ingeleverd bij het inzamelpunt voor recycling van elektrische en elektronische apparatuur. De verwijdering moet gebeuren in overeenstemming met de plaatselijke milieuvorschriften voor afvalverwerking.

Uitpakken en plaatsen

Controleer de inhoud van het pakket aan de hand van de afleverbon. Als er tekorten worden ontdekt, breng dan onmiddellijk uw leverancier op de hoogte.

Controleer het instrument op tekenen van transportschade. Als u schade ontdekt, breng dan onmiddellijk uw leverancier op de hoogte.

Controleer of de door u voorgestelde installatielocatie voldoet aan de omgevingscondities voor een veilige werking: gebruik binnenshuis of in een droge omgeving.

De Implen OD600® is ontworpen en ontwikkeld voor gebruik in een gecontroleerde, veilige omgeving. Dit wordt beschreven als een laboratoriumomgeving met beperkte fysieke toegang binnen een bedrijf. De Implen OD600® mag alleen worden gebruikt door gekwalificeerde gebruikers en mag alleen worden bediend binnen een lokaal bedrijfsnetwerk. Indien een veilige omgeving niet is gegarandeerd, voldoet de Implen OD600® niet aan de volgende eisen van de Richtlijn Radioapparatuur (RED DA): ACM, AUM, SUM, SSM, SCM, CCK, GEC.

Opmerking: Stel uw Implén OD600® niet bloot aan vloeistoffen, regen, vocht of stoffige omgevingen.

Bedrijfstemperatuurbereik: 15 - 40°C

Temperatuurbereik bij opslag 5-50°C

Temperatuurbereik tijdens transport: -20°C tot 50°C

Als het instrument aan extreme temperatuurveranderingen wordt blootgesteld, kan het nodig zijn het instrument te laten equilibreren en het instrument uit en weer aan te zetten zodra het thermisch evenwicht is bereikt (~2 - 3 uur).

Maximale relatieve vochtigheid (niet condenserend) van 80% en tot 31°C lineair afnemend tot 50% bij 40°C.

Het instrument moet op een stabiele, vlakke ondergrond worden geplaatst die 0,6 kg kan dragen en zodat de lucht vrij rond het instrument kan circuleren. Zorg ervoor dat er geen materialen de luchtcirculatie belemmeren wanneer het instrument is ingeschakeld.

Het instrument moet zo geplaatst worden dat in geval van nood de hoofdstekker gemakkelijk gevonden en verwijderd kan worden.

Draag het instrument altijd met het hoofddeel van het instrument in de hand.

De apparatuur moet op stroom worden aangesloten met de USB-C lader - output: 20W max., input: AC 100-240V, 50/60Hz, 0,5A. De voeding/snoer die door Implén wordt geleverd is een USB-C adapter met 5V. Laad de batterij minstens 3 uur op voor het eerste gebruik.

Zet het instrument aan met de aan/uit-knop op het touch-panel nadat het is aangesloten. Het instrument voert een reeks zelfdiagnosecontroles uit.

Lees voor gebruik de volledige gebruikershandleiding.

Neem onmiddellijk contact op met de oorspronkelijke leverancier als er technische problemen of problemen met het hanteren van monsters optreden.

Opmerking: Als deze apparatuur wordt gebruikt op een manier die niet gespecificeerd is of in omgevingscondities die niet geschikt zijn voor een veilige werking, kan de bescherming die de apparatuur biedt aangetast worden en vervalt de garantie op het instrument.

13. Appendix 3 - Implén OD600® Installation

Informations de sécurité

Avant de commencer l'installation, prenez le temps de vous familiariser avec les étiquettes d'avertissement et les symboles apposés sur votre instrument, ainsi qu'avec leur signification. Ils ont pour but de vous informer des dangers potentiels et des précautions particulières à prendre.

=== courant continu

N'ouvrez pas l'instrument, car cela pourrait exposer l'opérateur au courant électrique et à des réglages optiques délicats, ou endommager l'instrument.

N'utilisez pas de cordons d'alimentation, d'accessoires et d'autres périphériques endommagés avec votre Implén OD600®. Utilisez uniquement le bloc d'alimentation/chargeur fourni et spécifié.


N'exposez pas l' Implén OD600® à des champs magnétiques ou électriques puissants, à l'eau ou à tout type de liquide tel qu'une forte pluie ou de l'humidité.

Ne mettez pas l'instrument au feu, car il pourrait gonfler ou exploser (batterie). Ne le stockez pas et ne l'utilisez pas à proximité d'une source de chaleur, en particulier à des températures supérieures à 50 °C.

Ne laissez pas votre Implén OD600® sur vos genoux ou près d'une partie de votre corps afin d'éviter toute gêne ou blessure due à l'exposition à la chaleur.

Ne placez pas d'objets sur l'OD600.

L'OD600 doit être éteint pendant le transport.

Le symbole  apposé sur le produit ou sur les documents qui l'accompagnent indique que cet appareil ne doit pas être traité comme un déchet ménager. Il doit être remis au point de collecte approprié pour le recyclage des équipements électriques et électroniques. La mise au rebut doit être effectuée conformément aux réglementations environnementales locales en matière d'élimination des déchets.

Déballage et mise en place

Vérifiez le contenu du colis par rapport au bon de livraison. Si vous constatez des manques, informez-en immédiatement votre fournisseur.

Inspectez l'instrument pour vérifier qu'il n'a pas été endommagé pendant le transport. Si des dommages sont constatés, informez-en immédiatement votre fournisseur.

Assurez-vous que le site d'installation envisagé est conforme aux conditions environnementales requises pour un fonctionnement en toute sécurité : utilisation en intérieur ou environnement sec.

L'Implen OD600® est conçu et développé pour être utilisé dans un environnement contrôlé et sécurisé. Cela correspond à un environnement de laboratoire avec un accès physique restreint au sein d'une entreprise. L'Implen OD600® ne peut être utilisé que par des utilisateurs qualifiés et ne peut être exploité que dans le réseau local de l'entreprise. Si un environnement sécurisé n'est pas garanti, l'Implen OD600® ne répond pas aux exigences suivantes de la Directive sur les équipements radio (RED DA) : ACM, AUM, SUM, SSM, SCM, CCK, GEC.

Remarque: n'exposez pas votre Implen OD600® à proximité de liquides, de pluie, d'humidité ou d'environnements poussiéreux.

Plage de température de fonctionnement : 15 - 40°C

Température de stockage : 5-50°C

Température de transport : -20°C à 50°C

Si l'instrument est soumis à des changements de température extrêmes, il peut être nécessaire de le laisser s'équilibrer et de l'éteindre puis de le rallumer une fois l'équilibre thermique établi (~2 à 3 heures).

Humidité relative maximale (sans condensation) de 80 % jusqu'à 31 °C, diminuant linéairement jusqu'à 50 % à 40 °C.

L'instrument doit être placé sur une surface stable et plane pouvant supporter 0,6 kg et permettant à l'air de circuler librement autour de l'instrument. Veillez à ce qu'aucun matériau n'entrave la circulation de l'air lorsque l'appareil est sous tension.

L'équipement doit être placé de manière à ce qu'en cas d'urgence, la fiche principale puisse être facilement localisée et retirée.

Portez toujours l'instrument en tenant le corps principal de l'instrument.

L'équipement doit être connecté à l'alimentation avec le chargeur USB-C - sortie : 20W max, entrée : AC 100-240V, 50/60Hz, 0,5A. Le bloc d'alimentation/cordon fourni par Implen est un adaptateur USB-C de 5V. Veuillez charger la batterie pendant au moins 3 heures avant la première utilisation.

Allumez l'instrument à l'aide du bouton d'alimentation situé sur l'écran tactile après l'avoir branché. L'instrument effectue une série de vérifications d'autodiagnostic.

Veillez lire l'intégralité du manuel d'utilisation avant d'utiliser l'instrument.

Veillez contacter immédiatement le fournisseur d'origine si vous rencontrez des difficultés techniques ou de manipulation des échantillons.

Note: Si cet équipement est utilisé d'une manière non spécifiée ou dans des conditions environnementales ne permettant pas un fonctionnement sûr, la protection fournie par l'équipement peut être altérée et la garantie de l'instrument annulée.

14. Appendix 4 - Implen OD600® Installation

Sicherheitsinformationen

Bevor Sie mit der Installation beginnen, nehmen Sie sich bitte die Zeit, sich mit den Warnhinweisen und Symbolen auf Ihrem Gerät und deren Bedeutung vertraut zu machen. Sie sollen Sie darüber informieren, wo potenzielle Gefahren bestehen oder besondere Vorsicht geboten ist.

--- Gleichstrom

Öffnen Sie das Gerät nicht, da der Bediener dadurch elektrischem Strom und empfindlichen optischen Einrichtungen ausgesetzt werden oder das Gerät beschädigt werden kann.

Verwenden Sie keine beschädigten Netzkabel, Zubehörteile und andere Peripheriegeräte mit Ihrem Implen OD600®. Verwenden Sie nur das mitgelieferte und spezifizierte Netzteil/Ladegerät.


Setzen Sie das Implen OD600® nicht starken magnetischen oder elektrischen Feldern, Wasser oder Flüssigkeiten jeglicher Art wie starkem Regen oder Feuchtigkeit aus.

Setzen Sie das Gerät nicht ins Feuer, da es anschwellen oder explodieren kann (Batterie). Bewahren Sie das Gerät nicht an einer Wärmequelle auf und verwenden Sie es nicht in der Nähe von Wärmequellen, insbesondere bei Temperaturen über 50°C.

Lassen Sie Ihr Implen OD600® nicht auf Ihrem Schoß oder in der Nähe Ihres Körpers liegen, um Unbehagen oder Verletzungen durch Hitzeeinwirkung zu vermeiden.

Legen Sie keine Gegenstände auf das Implen OD600®.

Das Implen OD600® muss während des Transports ausgeschaltet sein.

Das Symbol  auf dem Produkt oder auf den dem Produkt beiliegenden Unterlagen weist darauf hin, dass dieses Gerät nicht als Hausmüll entsorgt werden darf. Stattdessen ist es bei der zuständigen Sammelstelle für das Recycling von elektrischen und elektronischen Geräten abzugeben. Die Entsorgung muss in Übereinstimmung mit den örtlichen Umweltvorschriften für die Abfallentsorgung erfolgen.

Auspacken und Platzieren

Überprüfen Sie den Inhalt des Pakets anhand des Lieferscheins. Wenn Sie Mängel feststellen, informieren Sie sofort Ihren Lieferanten.

Überprüfen Sie das Gerät auf Anzeichen von Transportschäden. Wenn Sie Schäden entdecken, informieren Sie sofort Ihren Lieferanten.

Vergewissern Sie sich, dass der vorgesehene Aufstellungsort den Umgebungsbedingungen für einen sicheren Betrieb entspricht: Verwendung in Innenräumen oder in trockener Umgebung.

Der Implen OD600® ist für den Einsatz in einer kontrollierten, sicheren Umgebung konzipiert und entwickelt. Dies wird als Laborumgebung mit eingeschränktem physischem Zugang innerhalb eines Unternehmens beschrieben. Auf den Implen OD600® dürfen nur qualifizierte Benutzer zugreifen, und er darf nur innerhalb eines lokalen Firmennetzwerks betrieben werden. Wenn keine sichere Umgebung gewährleistet ist, erfüllt der Implen OD600® nicht die folgenden Anforderungen der Funkanlagenrichtlinie (RED DA): ACM, AUM, SUM, SSM, SCM, CCK, GEC.

Hinweis: Setzen Sie Ihr Implen OD600® nicht in der Nähe von Flüssigkeiten, Regen, Feuchtigkeit oder staubigen Umgebungen aus.

Betriebstemperaturbereich: 15 - 40°C

Lagertemperaturbereich: 5-50°C

Transporttemperaturbereich: -20°C bis 50°C

Wenn das Gerät extremen Temperaturschwankungen ausgesetzt ist, kann es notwendig sein, das Gerät aus- und wieder einzuschalten, sobald das thermische Gleichgewicht hergestellt ist (~2 - 3 Stunden).

Maximale relative Luftfeuchtigkeit (nicht kondensierend) von 80% und bis zu 31°C, linear abnehmend auf 50% bei 40°C.

Das Gerät muss auf einer stabilen, ebenen Oberfläche stehen, die 0,6 kg tragen kann und so beschaffen ist, dass die Luft frei um das Gerät zirkulieren kann. Stellen Sie sicher, dass im eingeschalteten Zustand keine Materialien die Luftzirkulation beeinträchtigen.

Das Gerät sollte so aufgestellt werden, dass Sie im Notfall den Netzstecker leicht finden und herausziehen können.

Tragen Sie das Gerät immer am Hauptkorpus des Geräts.

Das Gerät muss mit dem USB-C-Ladegerät an den Strom angeschlossen werden - Ausgang: 20W max., Eingang: AC 100-240V, 50/60Hz, 0,5A. Das von Implen gelieferte Netzteil/Kabel ist ein USB-C-Adapter mit 5V. Bitte laden Sie den Akku vor dem ersten Gebrauch mindestens 3 Stunden lang auf.

Schalten Sie das Gerät nach dem Einstecken mit der Power-Taste auf dem Touch-Panel ein. Das Gerät führt eine Reihe von Selbstdiagnoseprüfungen durch.

Bitte lesen Sie vor der Benutzung das komplette Benutzerhandbuch.

Wenden Sie sich bei technischen Problemen oder Problemen mit der Probenhandhabung bitte sofort an Ihren Lieferanten.

Hinweis: Wenn dieses Gerät in einer nicht spezifizierten Weise oder unter Umgebungsbedingungen verwendet wird, die für einen sicheren Betrieb nicht geeignet sind, kann der Schutz des Geräts beeinträchtigt werden und die Garantie des Geräts erlischt.

15. Appendix 5 - Installazione di Implen OD600®

Informazioni di sicurezza

Prima di iniziare l'installazione, la invitiamo a familiarizzare con le etichette di avvertimento e i simboli presenti sul suo strumento e il loro significato. Servono ad informarla sui punti in cui esiste un potenziale pericolo o è richiesta una particolare cautela.

== corrente continua

Non apra lo strumento, in quanto ciò potrebbe esporre l'operatore all'energia elettrica e alla delicata configurazione ottica, oppure danneggiare lo strumento.

Non utilizzi cavi di alimentazione, accessori e altre periferiche danneggiate con il suo Implen OD600®. Utilizzi solo l'alimentatore/caricatore fornito e specificato.


Non esponga Implen OD600® a forti campi magnetici ed elettrici, all'acqua o a qualsiasi tipo di liquido come pioggia battente o umidità.

Non metta lo strumento nel fuoco, perché potrebbe gonfiarsi o esplodere (batteria). Non conservi o utilizzi in prossimità di alcun tipo di fonte di calore, in particolare a temperature superiori a 50°C.

Non lasci Implen OD600® sulle ginocchia o vicino a una parte del corpo per evitare disagi o lesioni dovute all'esposizione al calore.

Non collochi oggetti sopra Implen OD600®.

L'OD600 deve essere spento durante il trasporto.

Il simbolo  sul prodotto, o sui documenti che lo accompagnano, indica che questo apparecchio non può essere trattato come rifiuto domestico. Deve invece essere consegnato al punto di raccolta applicabile per il riciclaggio di apparecchiature elettriche ed elettroniche. Lo smaltimento deve essere effettuato in conformità alle normative ambientali locali per lo smaltimento dei rifiuti.

Disimballaggio e collocazione

Controlli il contenuto della confezione rispetto alla bolla di consegna. Se si riscontrano mancanze, informi immediatamente il suo fornitore.

Ispezioni lo strumento per individuare eventuali segni di danni causati dal trasporto. Se vengono riscontrati danni, informi immediatamente il suo fornitore.

Si assicuri che il luogo di installazione proposto sia conforme alle condizioni ambientali per un funzionamento sicuro: uso interno o ambiente asciutto.

L'Implen OD600® è progettato e sviluppato per l'uso in un ambiente controllato e sicuro. Ciò è descritto come un ambiente di laboratorio con accesso fisico limitato all'interno di un'azienda. L'Implen OD600® può essere utilizzato solo da utenti qualificati e può essere operato solo all'interno della rete aziendale locale. Se non viene garantito un ambiente sicuro, l'Implen OD600® non soddisfa i seguenti requisiti della Direttiva sulle apparecchiature radio (RED DA): ACM, AUM, SUM, SSM, SCM, CCK, GEC.

Nota: non esponga il suo Implen OD600® a liquidi, pioggia, umidità o ambienti polverosi.

Intervallo di temperatura operativa: 15 - 40°C

Intervallo di temperatura di stoccaggio: 5-50°C

Intervallo di temperatura di trasporto: da -20°C a 50°C

Se lo strumento è soggetto a variazioni di temperatura estreme, potrebbe essere necessario lasciarlo equilibrare e spegnerlo e riaccenderlo una volta stabilito l'equilibrio termico (~2 - 3 ore).

Umidità relativa massima (non condensante) dell'80% e fino a 31°C, che diminuisce linearmente al 50% a 40°C.

Lo strumento deve essere collocato su una superficie stabile e piana che possa sostenere 0,6 kg e in modo che l'aria possa circolare liberamente intorno allo strumento. Assicurarsi che, mentre è acceso, nessun materiale riduca la circolazione dell'aria.

L'apparecchiatura deve essere posizionata in modo tale che, in caso di emergenza, la spina principale possa essere facilmente individuata e rimossa.

Trasportare lo strumento tenendo sempre il corpo principale dello strumento.

L'apparecchiatura deve essere collegata all'alimentazione con il caricatore USB-C - uscita: 20W max., ingresso: AC 100-240V, 50/60Hz, 0,5A. L'alimentatore/cordone fornito da Implen è un adattatore USB-C da 5V. Si prega di caricare la batteria per almeno 3 ore prima del primo utilizzo.

Accendere lo strumento utilizzando il pulsante di accensione sul pannello a sfioramento dopo averlo collegato. Lo strumento eseguirà una serie di controlli di autodiagnosi.

Prima dell'uso, legga il manuale d'uso completo.

Si rivolga immediatamente al fornitore originale in caso di difficoltà tecniche o di manipolazione dei campioni.

Nota: se questa apparecchiatura viene utilizzata in un modo non specificato o in condizioni ambientali non adatte a un funzionamento sicuro, la protezione fornita dall'apparecchiatura potrebbe essere compromessa e la garanzia dello strumento annullata.

16. Appendix 6 - Instalacja Implen OD600®

Informacje dotyczące bezpieczeństwa

Przed rozpoczęciem instalacji proszę poświęcić trochę czasu na zapoznanie się z etykietami ostrzegawczymi i symbolami na urządzeniu oraz ich znaczeniem. Mają one na celu poinformowanie Państwa o potencjalnym niebezpieczeństwie lub konieczności zachowania szczególnej ostrożności.

--- prąd stały

Proszę nie otwierać urządzenia, ponieważ może to narazić operatora na kontakt z prądem elektrycznym i delikatną konfiguracją optyczną lub uszkodzić urządzenie.

Proszę nie używać uszkodzonych przewodów zasilających, akcesoriów i innych urządzeń peryferyjnych z Implen OD600®. Należy używać wyłącznie dostarczonego i określonego zasilacza/ladowarki.


Nie należy wystawiać Implen OD600® na działanie silnych pól magnetycznych, elektrycznych, wody lub jakiegokolwiek rodzaju cieczy, takich jak ulewny deszcz lub wilgoć.

Nie wkładać urządzenia do ognia, ponieważ może ono spuchnąć lub eksplodować (bateria). Nie przechowywać ani nie używać w pobliżu jakichkolwiek źródeł ciepła, zwłaszcza w temperaturach powyżej 50°C.

Nie pozostawiać Implen OD600® na kolanach lub w pobliżu jakiegokolwiek części ciała, aby uniknąć dyskomfortu lub obrażeń spowodowanych ekspozycją na ciepło.

Nie należy umieszczać żadnych przedmiotów na Implen OD600®.

Implen OD600® musi być wyłączony podczas transportu.

Symbol na  produkcie lub na dokumentach dołączonych do produktu wskazuje, że urządzenie to nie może być traktowane jako odpad domowy. Zamiast tego należy je przekazać do odpowiedniego punktu zbiórki w celu recyklingu sprzętu elektrycznego i elektronicznego. Utylizację należy przeprowadzić zgodnie z lokalnymi przepisami ochrony środowiska dotyczącymi utylizacji odpadów.

Rozpakowywanie i umiejscowienie

Proszę sprawdzić zawartość opakowania zgodnie z dowodem dostawy. W przypadku wykrycia jakichkolwiek braków, należy natychmiast poinformować dostawcę.

Sprawdzić, czy urządzenie nie nosi śladów uszkodzeń powstałych podczas transportu. W przypadku wykrycia jakichkolwiek uszkodzeń, proszę natychmiast poinformować dostawcę.

Upewnić się, że proponowane miejsce instalacji jest zgodne z warunkami środowiskowymi zapewniającymi bezpieczną pracę: użytkowanie w pomieszczeniach lub suchym środowisku.

Implen OD600® został zaprojektowany i opracowany do użytku w kontrolowanym, bezpiecznym środowisku. Oznacza to środowisko laboratoryjne z ograniczonym dostępem fizycznym w firmie. Do Implen OD600® mają dostęp wyłącznie wykwalifikowani użytkownicy i może on być obsługiwany jedynie w ramach lokalnej sieci firmowej. Jeśli nie zapewniono bezpiecznego środowiska, Implen OD600® nie spełnia następujących wymagań Dyrektywy w sprawie urządzeń radiowych (RED DA): ACM, AUM, SUM, SSM, SCM, CCK, GEC.

Uwaga: Nie należy wystawiać Implen OD600® w pobliżu cieczy, deszczu, wilgoci lub zapyłonego środowiska.

Zakres temperatur roboczych: 15 - 40°C

Zakres temperatur przechowywania: 5-50°C

Zakres temperatur transportu: -20°C do 50°C

Jeśli urządzenie jest narażone na ekstremalne zmiany temperatury, może być konieczne pozostawienie urządzenia do wyrównania temperatury i wyłączenie go, a następnie ponowne włączenie po osiągnięciu równowagi termicznej (~ 2-3 godziny).

Maksymalna wilgotność względna (bez kondensacji) 80% i do 31°C spada liniowo do 50% przy 40°C.

Urządzenie musi być umieszczone na stabilnej, równej powierzchni, która może utrzymać 0,6 kg i tak, aby powietrze mogło swobodnie krążyć wokół urządzenia. Należy upewnić się, że przy włączonym zasilaniu żadne materiały nie ograniczają cyrkulacji powietrza.

Urządzenie powinno być umieszczone w taki sposób, aby w sytuacji awaryjnej można było łatwo zlokalizować i wyjąć główną wtyczkę.

Urządzenie należy zawsze przenosić trzymając je za główny korpus.

Urządzenie musi być podłączone do zasilania za pomocą ładowarki USB-C - wyjście: 20W maks., wejście: AC 100-240V, 50/60Hz, 0,5A. Zasilacz/kabel dostarczany przez Implen to adapter USB-C o napięciu 5V. Proszę ładować baterię przez co najmniej 3 godziny przed pierwszym użyciem.

Proszę włączyć urządzenie za pomocą przycisku zasilania na panelu dotykowym po jego podłączeniu. Urządzenie wykona serię testów autodiagnostycznych.

Proszę przeczytać całą instrukcję obsługi przed użyciem.

Proszę natychmiast skontaktować się z oryginalnym dostawcą, jeśli wystąpią trudności techniczne lub związane z obsługą próbki.

Uwaga: Jeśli urządzenie jest używane w sposób niezgodny ze specyfikacją lub w warunkach środowiskowych nieodpowiednich do bezpiecznej pracy, ochrona zapewniana przez urządzenie może zostać osłabiona, a gwarancja na urządzenie unieważniona.

17. Appendix 7 - Implen OD600® Instalación

Información de seguridad

Antes de comenzar la instalación, tómese su tiempo para familiarizarse con las etiquetas y símbolos de advertencia de su instrumento y su significado. Sirven para informarle de dónde existe un peligro potencial o se requiere una precaución especial.

--- corriente continua

No abra el instrumento, ya que puede exponer al operador a la corriente eléctrica y a la delicada configuración óptica o dañar el instrumento.

No utilice cables de alimentación, accesorios y otros periféricos dañados con su Implen OD600®. Utilice únicamente la fuente de alimentación/cargador suministrado y especificado.


No exponga el Implen OD600® a fuertes campos magnéticos, eléctricos, agua o cualquier tipo de líquido como lluvia intensa o humedad.

No ponga el instrumento al fuego, ya que podría hincharse o explotar (batería). No lo guarde ni lo utilice cerca de ningún tipo de fuente de calor, especialmente a temperaturas superiores a 50°C.

No deje el Implen OD600® sobre el regazo ni cerca de ninguna parte del cuerpo para evitar molestias o lesiones por exposición al calor.

No coloque objetos encima del Implen OD600®.

El Implen OD600® debe estar apagado durante el transporte.

El símbolo  en el producto, o en los documentos que lo acompañan, indica que este aparato no puede ser tratado como residuo doméstico. En su lugar, deberá entregarse en el punto de recogida correspondiente para el reciclado de aparatos eléctricos y electrónicos. La eliminación debe llevarse a cabo de acuerdo con la normativa medioambiental local para la eliminación de residuos.

Desembalaje y colocación

Compruebe el contenido del paquete con el albarán de entrega. Si descubre alguna falta, informe inmediatamente a su proveedor.

Inspeccione el aparato para detectar cualquier signo de daño causado durante el transporte. Si descubre algún daño, informe inmediatamente a su proveedor.

Asegúrese de que el lugar de instalación propuesto se ajusta a las condiciones ambientales para un funcionamiento seguro: uso en interiores o ambiente seco.

El Implen OD600® está diseñado y desarrollado para su uso en un entorno controlado y seguro. Esto se describe como un entorno de laboratorio con acceso físico restringido dentro de una empresa. El Implen OD600® solo puede ser utilizado por usuarios cualificados y solo puede operar dentro de la red local de la empresa. Si no se garantiza un entorno seguro, el Implen OD600® no cumple con los siguientes requisitos de la Directiva de Equipos de Radio (RED DA): ACM, AUM, SUM, SSM, SCM, CCK, GEC.

Nota: No exponga su Implen OD600® cerca de líquidos, lluvia, humedad o ambientes polvorientos.

Rango de temperatura de funcionamiento: 15 - 40°C

Rango de temperatura de almacenamiento: 5-50°C

Gama de temperaturas de transporte: -20°C a 50°C

Si el instrumento está sometido a cambios extremos de temperatura, puede ser necesario dejar que se equilibre y apagarlo y volverlo a encender una vez que se haya establecido el equilibrio térmico (~2 - 3 horas).

Humedad relativa máxima (sin condensación) del 80% y hasta 31°C disminuyendo linealmente hasta el 50% a 40°C.

El aparato debe colocarse sobre una superficie estable y nivelada que pueda soportar 0,6 kg y de modo que el aire pueda circular libremente alrededor del aparato. Asegúrese mientras esté encendido de que ningún material reduzca la circulación del aire.

El aparato debe colocarse de forma que, en caso de emergencia, el enchufe principal pueda localizarse y extraerse fácilmente.

Transporte el aparato sujetándolo siempre por el cuerpo principal del mismo.

El equipo debe conectarse a la corriente con el cargador USB-C - salida: 20W máx., entrada AC 100-240V, 50/60Hz, 0,5A. El cable de alimentación suministrado por Implen es un adaptador USB-C de 5V. Cargue la batería durante al menos 3 horas antes del primer uso.

Encienda el instrumento con el botón de encendido del panel táctil una vez enchufado. El instrumento realizará una serie de comprobaciones de autodiagnóstico.

Lea el manual de usuario completo antes de utilizarlo.

Póngase en contacto inmediatamente con el proveedor original si experimenta dificultades técnicas o de manipulación de las muestras.

Nota: Si este equipo se utiliza de un modo no especificado o en condiciones ambientales no adecuadas para un funcionamiento seguro, la protección proporcionada por el equipo puede verse afectada y la garantía del instrumento anulada.

18. Appendix 8 - Implen OD600® Installation

Säkerhetsinformation

Innan du påbörjar installationen bör du bekanta dig med varningstexterna och symbolerna på instrumentet och deras betydelse. Dessa är till för att informera dig om var det finns en potentiell fara eller om särskild försiktighet krävs.

--- Likström

Öppna inte instrumentet eftersom detta kan utsätta operatören för elektrisk ström och ömtålig optisk utrustning eller skada instrumentet.

Använd inte skadade nätsladdar, tillbehör och annan kringutrustning med din Implen OD600®. Använd endast den medföljande och specificerade strömförsörjningen/laddaren.


Utsätt inte Implen OD600® för starka magnetiska eller elektriska fält, vatten eller någon typ av vätska som kraftigt regn eller fukt.

Placera inte instrumentet i eld eftersom det kan svälla eller explodera (batteri). Förvara inte eller använd inte i närheten av någon typ av värmekälla, särskilt inte vid temperaturer över 50°C.

Lämna inte Implen OD600® i knät eller i närheten av någon kroppsdel för att undvika obehag eller skador på grund av värmeexponering.

Placera inte föremål ovanpå Implen OD600®.

Implen OD600® måste vara avstängd under transport.

Symbolen på  produkten, eller på de dokument som medföljer produkten, anger att denna apparat inte får hanteras som hushållsavfall. Istället ska den lämnas till en lämplig samlingsplats för återvinning av elektrisk och elektronisk utrustning. Avfallshantering måste ske i enlighet med lokala miljöbestämmelser för avfallshantering.

Uppackning och placering

Kontrollera innehållet i paketet mot följesedeln. Om du upptäcker några brister ska du omedelbart informera din leverantör.

Inspektera instrumentet för tecken på skador som orsakats under transporten. Om några skador upptäcks ska du omedelbart informera din leverantör.

Se till att den föreslagna installationsplatsen uppfyller miljövillkoren för säker drift: inomhusbruk eller torr miljö.

Implen OD600® är designad och utvecklad för användning i en kontrollerad, säker miljö. Detta beskrivs som en laboratoriemiljö med begränsad fysisk åtkomst inom ett företag. Implen OD600® får endast användas av kvalificerade användare och får endast driftas inom ett lokalt företagsnätverk. Om en säker miljö inte säkerställs uppfyller Implen OD600® inte följande krav enligt Radio Equipment Directive (RED DA): ACM, AUM, SUM, SSM, SCM, CCK, GEC.

Obs: Utsätt inte Implen OD600® för vätskor, regn, fukt eller dammiga miljöer.

Operativt temperaturområde: 15 - 40°C

Temperaturområde för förvaring: 5-50°C

Temperaturområde för transport: -20°C till 50°C

Om instrumentet utsätts för extrema temperaturförändringar kan det vara nödvändigt att låta instrumentet jämnas ut sig och stänga av och sedan sätta på instrumentet igen när termisk jämvikt har uppnåtts (~2 - 3 timmar).

Maximal relativ luftfuktighet (icke-kondenserande) på 80% och upp till 31°C minskar linjärt till 50% vid 40°C.

Instrumentet måste placeras på en stabil, plan yta som kan bära 0,6 kg och så att luften kan cirkulera fritt runt instrumentet. Se till att inga material minskar luftcirkulationen när instrumentet är påslaget.

Utrustningen ska placeras så att huvudkontakten är lätt att hitta och dra ut i händelse av en nödsituation.

Bär alltid instrumentet genom att hålla i instrumentets huvuddel.

Utrustningen måste anslutas till strömförsörjningen med USB-C-laddaren - utgång: max 20 W, ingång: AC 100-240V, 50/60Hz, 0,5A. Strömförsörjningen/sladden som levereras av Implen är en USB-C adapter med 5V. Ladda batteriet i minst 3 timmar före första användningstillfället.

Slå på instrumentet med strömbrytaren på pekskärmen efter att det har anslutits. Instrumentet kommer att utföra en serie självdiagnostiska kontroller.

Läs igenom hela användarhandboken före användning.

Kontakta omedelbart originalleverantören om tekniska problem eller problem med provhanteringen uppstår.

Obs: Om denna utrustning används på ett sätt som inte specificerats eller i miljöförhållanden som inte är lämpliga för säker drift, kan det skydd som utrustningen ger försämrats och instrumentets garanti ogiltigförklaras.

19. Appendix 9 - Instalação do Implen OD600®

Informações de Segurança

Antes de iniciar a instalação, por favor, dedique algum tempo a familiarizar-se com as etiquetas e símbolos de aviso no seu instrumento e o seu significado. Estes servem para o informar onde existe um perigo potencial ou onde é necessário um cuidado especial.

== correntes contínuas

Não abra o instrumento, pois pode expor o operador a energia eléctrica e a uma configuração óptica delicada ou danificar o instrumento.

Não use cabos de alimentação, acessórios e outros periféricos danificados com o seu Implen OD600®. Use apenas a fonte de alimentação/carregador fornecida e especificada.


Não exponha o Implen OD600® a fortes campos magnéticos, eléctricos, água ou qualquer tipo de líquido como chuva forte ou humidade.

Não coloque o instrumento no fogo, pois ele pode inchar ou explodir (bateria). Não guarde ou use perto de qualquer tipo de fonte de calor, especialmente temperaturas acima de 50°C.

Não deixe o seu Implén OD600® no seu colo ou perto de qualquer parte do seu corpo para evitar desconforto ou ferimentos causados pela exposição ao calor.

Não coloque objectos em cima do Implén OD600®.

O Implén OD600® tem de ser desligado durante o transporte.

O símbolo  no produto, ou nos documentos que acompanham o produto, indica que este aparelho não pode ser tratado como lixo doméstico. Em vez disso, deve ser entregue ao ponto de recolha aplicável para a reciclagem de equipamento elétrico e eletrónico. A eliminação deve ser efectuada de acordo com os regulamentos ambientais locais relativos à eliminação de resíduos.

Desembalagem e posicionamento

Verifique o conteúdo da embalagem com base na nota de entrega. Se for detectada alguma falta, informe imediatamente o seu fornecedor.

Inspecione o instrumento para verificar se existem sinais de danos causados durante o transporte. Se for detectado algum dano, informe imediatamente o seu fornecedor.

Certifique-se de que o local de instalação proposto está em conformidade com as condições ambientais para um funcionamento seguro: utilização em interiores ou ambiente seco.

O Implén OD600® foi concebido e desenvolvido para uso num ambiente controlado e seguro. Isto é descrito como um ambiente de laboratório com acesso físico restrito dentro de uma empresa. O Implén OD600® só pode ser acedido por utilizadores qualificados e só pode ser operado dentro de uma rede local da empresa. Se não for garantido um ambiente seguro, o Implén OD600® não cumpre os seguintes requisitos da Diretiva de Equipamentos de Rádio (RED DA): ACM, AUM, SUM, SSM, SCM, CCK, GEC.

Nota: Não exponha o seu Implén OD600® perto de líquidos, chuva, humidade ou ambientes poeirentos.

Faixa de temperatura operacional: 15 - 40°C

Gama de temperaturas de armazenamento: 5-50°C

Gama de temperaturas de transporte: -20°C a 50°C

Se o instrumento for sujeito a mudanças extremas de temperatura, pode ser necessário deixar o instrumento equilibrar-se e desligá-lo e ligá-lo novamente quando o equilíbrio térmico tiver sido estabelecido (~2 - 3 horas).

Humidade relativa máxima (sem condensação) de 80% e até 31°C, diminuindo linearmente para 50% a 40°C.

O instrumento deve ser colocado numa superfície estável e nivelada que possa suportar 0,6 kg e de modo a que o ar possa circular livremente à volta do instrumento. Enquanto estiver ligado, certifique-se de que nenhum material reduz a circulação do ar.

O equipamento deve ser posicionado de forma a que, em caso de emergência, a ficha principal possa ser facilmente localizada e retirada.

Transporte o instrumento sempre segurando o corpo principal do instrumento.

O equipamento deve ser ligado à alimentação com o carregador USB-C - saída: 20 W máx., entrada: AC 100-240V, 50/60Hz, 0,5A. A fonte/cabo de alimentação fornecida pela Implén é um adaptador USB-C com 5V. Carregue a bateria durante pelo menos 3 horas antes da primeira utilização.

Ligue o instrumento utilizando o botão de alimentação no painel tátil depois de ter sido ligado à corrente. O instrumento efectuará uma série de verificações de autodiagnóstico.

Leia o manual do utilizador completo antes da utilização.

Contacte imediatamente o fornecedor original se tiver dificuldades técnicas ou de manuseamento de amostras.

Nota: Se este equipamento for utilizado de uma forma não especificada ou em condições ambientais não adequadas para um funcionamento seguro, a protecção fornecida pelo equipamento pode ser prejudicada e a garantia do instrumento anulada.

20. Appendix 10- Инсталиране на Implen OD600®

Информация за безопасност

Преди да започнете инсталацията, отделете време да се запознаете с предупредителните знаци и символи на вашето устройство и тяхното значение. Те трябва да ви информират за потенциални опасности или къде е необходима специална предпазливост.

==> Постоянен ток

Не отваряйте устройството, тъй като това може да изложи оператора на електрически ток и чувствителни оптични елементи или да повреди устройството.

Не използвайте повредени захранващи кабели, аксесоари и други периферни устройства с вашето Implen OD600®. Използвайте само предоставеното и специфицирано захранване/зарядно устройство.


Не излагайте Implen OD600® на силни магнитни или електрически полета, вода или течности от всякакъв вид, като силен дъжд или влага.

Не поставяйте устройството в огън, тъй като може да набъбне или да експлодира (батерия). Не съхранявайте устройството на източник на топлина и не го използвайте в близост до топлинни източници, особено при температури над 50°C.

Не оставяйте вашето Implen OD600® на скута си или в близост до тялото си, за да избегнете дискомфорт или нараняване от излагане на топлина.

Не поставяйте предмети върху Implen OD600®.

Implen OD600® трябва да бъде изключен по време на транспортиране.

Символът върху  продукта или върху съпровождащите го документи показва, че това устройство не трябва да се изхвърля като битови отпадъци. Вместо това, то трябва да се предаде на съответното събирателно място за рециклиране на електрическо и електронно оборудване. Изхвърлянето трябва да се извърши в съответствие с местните разпоредби за опазване на околната среда.

Разопаковане и поставяне

Проверете съдържанието на пакета според товарителницата. Ако откриете липси, незабавно уведомете вашия доставчик.

Проверете устройството за признаци на транспортни повреди. Ако откриете повреди, незабавно уведомете вашия доставчик.

Уверете се, че предвиденото място за инсталиране отговаря на условията на околната среда за безопасна работа: използване в закрити помещения или на сухо място.

Implen OD600® е проектиран и разработен за използване в контролирана и сигурна среда. Това се описва като лабораторна среда с ограничен физически достъп в рамките на компанията. До Implen OD600® имат достъп само квалифицирани потребители и може да се използва само в рамките на локалната фирмена мрежа. Ако не се гарантира сигурна среда, Implen OD600® не отговаря на следните изисквания на Директивата за радиоустройства (RED DA): ACM, AUM, SUM, SSM, SCM, CCK, GEC.

Забележка: Не излагайте вашето Implen OD600® в близост до течности, дъжд, влага или прашна среда.

Работен температурен диапазон: 15 - 40°C

Температурен диапазон за съхранение: 5-50°C

Температурен диапазон за транспорт: -20°C до 50°C

Ако устройството е изложено на екстремни температурни колебания, може да се наложи да изключите и включите устройството, след като се постигне термично равновесие (~2 - 3 часа).

Максимална относителна влажност на въздуха (без кондензация) от 80% и до 31°C, линейно намаляваща до 50% при 40°C.

Устройството трябва да стои на стабилна, равна повърхност, която може да издържи 0,6 кг и е такава, че въздухът може свободно да циркулира около устройството. Уверете се, че при включено състояние никакви материали не възпрепятстват въздушната циркулация.

Устройството трябва да бъде поставено така, че при спешен случай лесно да намерите и извадите щепсела от контакта.

Винаги носете устройството за основното тяло на устройството.

Устройството трябва да бъде свързано към захранването с USB-C зарядното устройство - Изход: макс. 20W, Вход: AC 100-240V, 50/60Hz, 0,5A. Захранването/кабелът, доставени от Implen, е USB-C адаптер с 5V. Моля, заредете батерията поне 3 часа преди първата употреба.

Включете устройството, като натиснете бутона за захранване на сензорния панел след свързването му към контакта. Устройството ще извърши серия от самодиагностични проверки.

Моля, прочетете цялото ръководство за потребителя преди употреба.

При технически проблеми или проблеми с пробите незабавно се свържете с вашия доставчик.

Забележка: Ако това устройство се използва по начин, който не е специфициран, или при условия на околната среда, които не са подходящи за безопасна работа, защитата на устройството може да бъде компрометирана и гаранцията на устройството да отпадне.

21. Appendix 11 – Implen OD600® Installation

Sikkerhedsinformation

Før du begynder installationen, skal du tage dig tid til at sætte dig ind i advarselsskiltene og symbolerne på din enhed og deres betydning. De informerer dig om potentielle farer eller hvor særlig forsigtighed er påkrævet.

⚡ Jævnstrøm

Åbn ikke enheden, da dette kan udsætte operatøren for elektrisk stød og følsomme optiske elementer eller beskadige enheden.

Brug ikke beskadigede strømledninger, tilbehør og andre eksterne enheder med din Implen OD600®. Brug kun den medfølgende og specificerede strømforsyning/oplader.


Udsæt ikke Implen OD600® for stærke magnetiske eller elektriske felter, vand eller væsker af enhver art, som kraftig regn eller fugt.

Placér ikke enheden i ild, da den kan svulme op eller eksplodere (batteri). Opbevar ikke enheden i nærheden af en varmekilde eller brug den i nærheden af varmekilder, især ved temperaturer over 50°C.

Lad ikke Implen OD600® ligge på skødet eller i nærheden af kroppen for at undgå ubehag eller skade fra varmeeksponering.

Placér ikke genstande på Implen OD600®.

Implen OD600® skal slukkes under transport.

Symbolet på  produktet eller i den medfølgende dokumentation angiver, at denne enhed ikke må bortskaffes som husholdningsaffald. I stedet skal det afleveres til et passende indsamlingssted til genbrug af elektrisk og elektronisk udstyr. Bortskaffelse skal ske i overensstemmelse med lokale miljøbeskyttelsesbestemmelser.

Udpakning og placering

Kontroller pakkens indhold i overensstemmelse med fragtbrevet. Hvis du finder mangler, skal du straks informere din leverandør.

Undersøg enheden for tegn på transportskader. Hvis du opdager skader, skal du straks informere din leverandør.

Sørg for, at det planlagte installationssted opfylder miljøkravene til sikker drift: brug indendørs eller på et tørt sted.

Implen OD600® er designet og udviklet til brug i et kontrolleret, sikkert miljø. Dette beskrives som et laboratoriemiljø med begrænset fysisk adgang inden for en virksomhed. Implen OD600® må kun tilgås af kvalificerede brugere og må kun betjenes inden for et lokalt virksomhedsnetværk. Hvis et sikkert miljø ikke sikres, opfylder Implen OD600® ikke følgende krav i Radio Equipment Directive (RED DA): ACM, AUM, SUM, SSM, SCM, CCK, GEC.

Bemærk: Udsæt ikke din Implen OD600® i nærheden af væsker, regn, fugt eller støvede miljøer.

Arbejdstemperaturinterval: 15 - 40°C

Opbevaringstemperaturområde: 5-50°C

Transporttemperaturområde: -20°C til 50°C

Hvis enheden er blevet udsat for ekstreme temperaturudsving, kan det være nødvendigt at slukke og tænde enheden, når termisk ligevægt er opnået (~2 - 3 timer).

Maksimal relativ luftfugtighed (uden kondensation) på 80 % op til 31°C, lineært faldende til 50 % ved 40°C.

Enheden skal stå på en stabil, flad overflade, der kan bære 0,6 kg og som gør det muligt for luft at cirkulere frit omkring enheden. Sørg for, at ingen materialer hindrer luftcirkulationen, når den er tændt.

Enheden skal placeres, så du nemt kan finde og trække stikket ud i tilfælde af en nødsituation.

Bær altid enheden i hoveddelen af enheden.

Enheden skal tilsluttes strømmen ved hjælp af en USB-C oplader - Output: maks. 20W, Input: AC 100-240V, 50/60Hz, 0,5A. Strømforsyningen/kablet leveret med Implen-enheden er en USB-C adapter med 5V. Oplad batteriet i mindst 3 timer før første brug.

Tænd enheden ved at trykke på tænd/sluk-knappen på berøringspanelet, efter at du har tilsluttet den til stikkontakten. Enheden vil udføre en række selvdiagnostiske tests.

Læs venligst hele brugermanualen før brug.

Ved tekniske problemer eller problemer med prøverne skal du straks kontakte din leverandør.

Bemærk: Hvis denne enhed bruges på en måde, der ikke er specificeret, eller under miljøforhold, der ikke er sikre for drift, kan enhedens beskyttelse blive kompromitteret, og enhedens garanti kan blive ugyldig.

22. Appendix 12 – Implen OD600® Paigaldus

Ohutuslained

Enne paigaldamist alustamist võtke aega, et tutvuda oma seadme hoiatusmärkide ja sümbolitega ning nende tähendusega. Need informeerivad teid võimalikest ohtudest või kohtadest, kus on vaja erilist ettevaatust.

== Alalisvool

Ärge avage seadet, kuna see võib paljastada operaatori elektrilöögi ja tundlike optiliste elementide eest või kahjustada seadet.

Ärge kasutage kahjustatud toitekaableid, tarvikuid ja muid perifeerseid seadmeid oma Implen OD600®-ga. Kasutage ainult kaasasolevat ja määratud toiteadapterit/laadijat.


Ärge paljastage Implen OD600® tugeva magnetvälja, elektrivälja, vee või vedelike mõjule, näiteks tugeva vihma või niiskuse eest.

Ärge pange seadet tulle, kuna see võib paisuda või plahvatada (aku). Ärge hoidke seadet soojusallika lähedal ega kasutage seda soojusallikate läheduses, eriti temperatuuridel üle 50°C.

Ärge jätke Implen OD600® oma sülle ega keha lähedale, et vältida ebamugavust või vigastusi kuumuse tõttu.

Ärge asetage esemeid Implen OD600® peale.

Implen OD600® tuleb transpordi ajal välja lülitada.

Tootel või  kaasasoleval dokumentatsioonil olev sümbol näitab, et seda seadet ei tohi käidelda olmejäätmetena. Selle asemel tuleb see viia sobivasse elektri- ja elektroonikaseadmete taaskasutuskohta. Utiliseerimine peab toimuma vastavalt kohalikele keskkonnakaitse eeskirjadele.

Pakendi lahtipakkimine ja seadme asukoha määramine

Kontrollige pakendi sisu vastavalt saatelehele. Kui leiata puudusi, teatage sellest kohe oma tarnijale.

Kontrollige seadet transpordikahjustuste suhtes. Kui leiata kahjustusi, teatage sellest kohe oma tarnijale.

Veenduge, et planeeritud paigalduskoht vastaks ohutuks kasutamiseks vajalikele keskkonnatingimustele: kasutamine siseruumides või kuivas kohas.

Implen OD600® on loodud ja arendatud kasutamiseks kontrollitud ja turvalises keskkonnas. See on kirjeldatud kui laborikeskkond, kus ettevõttes on piiratud füüsiline juurdepääs. Impleni OD600®-ile pääsevad juurde ainult kvalifitseeritud kasutajad ning seda tohib kasutada ainult ettevõtte kohaliku võrgu piires. Kui turvalist keskkonda ei tagata, ei vasta Impleni OD600® järgmistele Raadioseadmete direktiivi (RED DA) nõuetele: ACM, AUM, SUM, SSM, SCM, CCK, GEC.

Märkus: Ärge jätke oma Impleni OD600® vedelike, vihma, niiskuse või tolmuste keskkondade lähedusse.

Töökeskkonna temperatuurivahemik: 15 - 40°C

Ladustamistemperatuuri vahemik: 5-50°C

Transportimistemperatuuri vahemik: -20°C kuni 50°C

Kui seadet on eksponeeritud äärmuslikele temperatuurimuutustele, võib olla vajalik seadme välja- ja sisselülitamine, kui temperatuur on saavutanud tasakaalu (~2 - 3 tundi).

Maksimaalne suhteline õhuniiskus (ilma kondensatsioonita) 80% ja kuni 31°C, lineaarne langus 50%-ni temperatuuril 40°C.

Seade tuleb paigutada stabiilsele, tasasele pinnale, mis talub 0,6 kg ja võimaldab õhu vaba tsirkulatsiooni seadme ümber. Veenduge, et seade oleks töötamise ajal vaba kõigist õhuvoolu takistavatest materjalidest.

Seade tuleb paigutada nii, et hädaolukorras oleks võimalik leida ja eemaldada toitejuhe kiiresti.

Kandke seadet alati põhiseadme korpusest.

Seade tuleb ühendada toiteallikaga USB-C laadijaga - Väljund: max. 20W, Sisend: AC 100-240V, 50/60Hz, 0,5A. Impleni seadmega kaasas olev toiteadapter/kaabel on 5V USB-C adapter. Laadige akut enne esmakasutust vähemalt 3 tundi.

Lülitage seade sisse, vajutades toitenupule puutepaneelil pärast seadme ühendamist pistikupessa. Seade viib läbi mitmeid isediagnostilisi teste.

Palun lugege enne kasutamist kogu kasutusjuhend läbi.

Tehniliste probleemide või proovidega seotud probleemide korral võtke kohe ühendust oma tarnijaga.

Märkus: Kui seadet kasutatakse viisil, mis ei ole määratletud, või keskkonnatingimustes, mis ei ole ohutuks kasutamiseks sobivad, võib seadme kaitse olla ohustatud ja seadme garantii kehtetuks muutuda.

23. Appendix 13 – Implen OD600® Asennus

Turvaohjeet

Ennen asennuksen aloittamista tutustu varoitusmerkkeihin ja symboleihin laitteessasi sekä niiden merkitykseen. Ne varoittavat mahdollisista vaaroista tai erityistä varovaisuutta vaativista paikoista.

== Tasavirta

Älä avaa laitetta, sillä se voi altistaa käyttäjän sähköiskulle ja herkille optisille osille tai vaurioittaa laitetta.

Älä käytä vaurioituneita virtajohtoja, lisälaitteita tai muita oheislaitteita Implen OD600®

kanssa. Käytä vain mukana toimitettua ja määriteltyä virtalähdettä/laturia.

Älä altista Implen OD600®

voimakkaille magneettikentille, sähkökentille, vedelle tai minkäänlaisille nesteille, kuten rankkasateelle tai kosteudelle.

Älä aseta laitetta tuleen, sillä se voi turvota tai räjähtää (akku). Älä säilytä laitetta lämmönlähteen läheisyydessä äläkä käytä sitä lämmönlähteiden läheisyydessä, erityisesti yli 50°C lämpötiloissa.


Älä jätä Implen OD600®

syliisi tai kehosi lähelle, jotta välttyä epämukavuudelta tai lämpöön liittyviltä vammoilta.

Älä aseta esineitä Implen OD600®

päälle.

Implen OD600® tulee kytkeä pois päältä kuljetuksen ajaksi.

Tuotteessa tai  siihen liittyvässä dokumentaatiossa oleva symboli osoittaa, että tätä laitetta ei saa hävittää kotitalousjätteen mukana. Sen sijaan se tulee viedä asianmukaiseen sähkö- ja elektroniikkalaitteiden kierrätyspisteeseen. Hävitys tulee suorittaa paikallisten ympäristönsuojelumääräysten mukaisesti.

Purkamisen ja sijoittaminen

Tarkista pakkauksen sisältö rahtikirjan mukaisesti. Jos havaitset puutteita, ilmoita asiasta välittömästi toimittajallesi.

Tarkasta laite kuljetusvaurioiden varalta. Jos havaitset vaurioita, ilmoita asiasta välittömästi toimittajallesi.

Varmista, että suunniteltu asennuspaikka täyttää turvallisen käytön ympäristövaatimukset: käyttö sisätiloissa tai kuivassa paikassa.

Implen OD600® on suunniteltu ja kehitetty käytettäväksi kontrolloidussa ja turvallisessa ympäristössä. Tämä kuvataan laboratorioympäristöksi, jossa fyysinen pääsy yrityksen sisällä on rajoitettu. Implen OD600®:iin voivat käyttää vain pätevät käyttäjät, ja sitä saa käyttää vain yrityksen paikallisessa verkossa. Jos turvallista ympäristöä ei taata, Implen OD600® ei täytä seuraavia Radio Equipment Directive (RED DA) -direktiivin vaatimuksia: ACM, AUM, SUM, SSM, SCM, CCK, GEC.

Huomio: Älä sijoita Implen OD600®

nesteiden, sateen, kosteuden tai pölyisten ympäristöjen läheisyyteen.

Käyttölämpötila-alue: 15 - 40°C

Säilytyslämpötila-alue: 5-50°C

Kuljetuslämpötila-alue: -20°C - 50°C

Jos laite on altistunut äärimmäisille lämpötilan vaihteluille, saatat joutua sammuttamaan ja käynnistämään laitteen uudelleen, kunnes lämpötila on tasaantunut (~2 - 3 tuntia).

Maksimissaan 80 % suhteellinen ilmankosteus (ei kondensaatiota) 31°C asti, joka lineaarisesti laskee 50 %

40°C

Laite tulee sijoittaa vakaalle, tasaiselle alustalle, joka kestää 0,6 kg painon ja joka mahdollistaa vapaan ilman kiertämisen laitteen ympärillä. Varmista, että mikään materiaali ei estä ilmankiertoa laitteen ollessa päällä.

Laite tulee sijoittaa niin, että hätätilanteessa on helppo löytää ja irrottaa virtajohto.

Kanna laitetta aina sen pääosasta.

Laite tulee liittää virtalähteeseen USB-C-laturilla - Ulostulo: max. 20W, Tulo: AC 100-240V, 50/60Hz, 0,5A. Implen laitteen mukana toimitettu virtalähde/kaapeli on 5V USB-C-sovitin. Lataa akkua vähintään 3 tuntia ennen ensimmäistä käyttöä.

Käynnistä laite painamalla virtapainiketta kosketuspaneelilla sen jälkeen, kun olet liittänyt sen pistorasiaan. Laite suorittaa useita itse-diagnostiikkatestejä.

Lue käyttöopas kokonaisuudessaan ennen käyttöä.

Jos sinulla on teknisiä ongelmia tai ongelmia näytteiden kanssa, ota välittömästi yhteyttä toimittajaasi.

Huomio: Jos tätä laitetta käytetään tavalla, jota ei ole määritelty, tai ympäristöolosuhteissa, jotka eivät ole turvallisia, laitteen suojaus voi vaarantua ja laitteen takuu mitätöityy.

24. Appendix 14 – Εγκατάσταση Implen OD600®

Πληροφορίες ασφάλειας

Πριν ξεκινήσετε την εγκατάσταση, αφιερώστε χρόνο για να εξοικειωθείτε με τις προειδοποιήσεις και τα σύμβολα στη συσκευή σας και τη σημασία τους. Αυτά σας ενημερώνουν για πιθανούς κινδύνους ή για σημεία όπου απαιτείται ιδιαίτερη προσοχή.

=== Συνεχές ρεύμα

Μην ανοίγετε τη συσκευή, καθώς αυτό μπορεί να εκθέσει τον χρήστη σε ηλεκτροπληξία και ευαίσθητα οπτικά στοιχεία ή να προκαλέσει βλάβη στη συσκευή.

Μην χρησιμοποιείτε κατεστραμμένα καλώδια τροφοδοσίας, αξεσουάρ και άλλες περιφερειακές συσκευές με το Implen OD600®. Χρησιμοποιείτε μόνο την παρεχόμενη και καθορισμένη τροφοδοσία/φορτιστή.


Μην εκθέτετε το Implen OD600® σε ισχυρά μαγνητικά ή ηλεκτρικά πεδία, νερό ή υγρά οποιοδήποτε είδους, όπως ισχυρή βροχή ή υγρασία.

Μην τοποθετείτε τη συσκευή στη φωτιά, καθώς μπορεί να διογκωθεί ή να εκραγεί (μπαταρία). Μην αποθηκεύετε τη συσκευή κοντά σε πηγή θερμότητας και μην τη χρησιμοποιείτε κοντά σε πηγές θερμότητας, ιδιαίτερα σε θερμοκρασίες άνω των 50°C.

Μην αφήνετε το Implen OD600® στην αγκαλιά σας ή κοντά στο σώμα σας για να αποφύγετε δυσφορία ή τραυματισμό από την έκθεση στη θερμότητα.

Μην τοποθετείτε αντικείμενα πάνω στο Implen OD600®.

Το Implen OD600® πρέπει να είναι απενεργοποιημένο κατά τη διάρκεια της μεταφοράς.

Το σύμβολο  στο προϊόν ή στα συνοδευτικά έγγραφα υποδεικνύει ότι αυτή η συσκευή δεν πρέπει να απορρίπτεται ως οικιακά απορρίμματα. Αντίθετα, θα πρέπει να παραδίδεται σε κατάλληλο σημείο συλλογής για την ανακύκλωση ηλεκτρικού και ηλεκτρονικού εξοπλισμού. Η απόρριψη πρέπει να γίνεται σύμφωνα με τους τοπικούς κανονισμούς προστασίας του περιβάλλοντος.

Αποσυσκευασία και τοποθέτηση

Ελέγξτε το περιεχόμενο της συσκευασίας σύμφωνα με το δελτίο αποστολής. Εάν διαπιστώσετε ελλείψεις, ενημερώστε αμέσως τον προμηθευτή σας.

Ελέγξτε τη συσκευή για σημάδια ζημιών κατά τη μεταφορά. Εάν διαπιστώσετε ζημιές, ενημερώστε αμέσως τον προμηθευτή σας.

Βεβαιωθείτε ότι η προβλεπόμενη τοποθεσία εγκατάστασης πληροί τις περιβαλλοντικές προϋποθέσεις για ασφαλή λειτουργία: χρήση σε εσωτερικούς χώρους ή σε ξηρό μέρος.

Το Implen OD600® έχει σχεδιαστεί και αναπτυχθεί για χρήση σε ελεγχόμενο και ασφαλές περιβάλλον. Αυτό περιγράφεται ως εργαστηριακό περιβάλλον με περιορισμένη φυσική πρόσβαση εντός μιας εταιρείας. Στο Implen OD600® μπορούν να έχουν πρόσβαση μόνο εξειδικευμένοι χρήστες και μπορεί να λειτουργεί μόνο εντός τοπικού εταιρικού δικτύου. Εάν δεν εξασφαλιστεί ασφαλές περιβάλλον, το Implen OD600® δεν πληροί τις ακόλουθες απαιτήσεις της Οδηγίας Ραδιοεξοπλισμού (RED DA): ACM, AUM, SUM, SSM, SCM, CCK, GEC.

Σημείωση: Μην αφήνετε το Implen OD600® κοντά σε υγρά, βροχή, υγρασία ή σκονισμένα περιβάλλοντα.

Εύρος θερμοκρασίας λειτουργίας: 15 - 40°C

Εύρος θερμοκρασίας αποθήκευσης: 5-50°C

Εύρος θερμοκρασίας μεταφοράς: -20°C έως 50°C

Εάν η συσκευή έχει εκτεθεί σε ακραίες θερμοκρασίες, μπορεί να χρειαστεί να απενεργοποιήσετε και να ενεργοποιήσετε τη συσκευή όταν επιτευχθεί θερμική ισορροπία (~2 - 3 ώρες).

Μέγιστη σχετική υγρασία (χωρίς συμπύκνωση) 80 % στους 31°C, γραμμική μείωση στο 50 % στους 40°C.

Η συσκευή πρέπει να τοποθετηθεί σε μια σταθερή, επίπεδη επιφάνεια που να αντέχει 0,6 kg και να επιτρέπει την ελεύθερη κυκλοφορία του αέρα γύρω από τη συσκευή. Βεβαιωθείτε ότι κανένα υλικό δεν εμποδίζει την κυκλοφορία του αέρα όταν είναι ενεργοποιημένη.

Η συσκευή πρέπει να τοποθετείται έτσι ώστε να μπορείτε εύκολα να εντοπίσετε και να αποσυνδέσετε το βύσμα σε περίπτωση έκτακτης ανάγκης.

Μεταφέρετε πάντα τη συσκευή από το κύριο τμήμα της συσκευής.

Η συσκευή πρέπει να συνδεθεί σε παροχή ρεύματος χρησιμοποιώντας φορτιστή USB-C - Έξοδος: max. 20W, Είσοδος: AC 100-240V, 50/60Hz, 0,5A. Η τροφοδοσία/καλώδιο που παρέχεται με τη συσκευή Implen είναι ένας προσαρμογέας USB-C 5V. Φορτίστε την μπαταρία για τουλάχιστον 3 ώρες πριν από την πρώτη χρήση.

Ενεργοποιήστε τη συσκευή πατώντας το κουμπί λειτουργίας στον πίνακα αφής αφού τη συνδέσετε στο ρεύμα. Η συσκευή θα εκτελέσει μια σειρά αυτοδιαγνωστικών δοκιμών.

Διαβάστε ολόκληρο το εγχειρίδιο χρήσης πριν από τη χρήση.

Εάν παρουσιαστούν τεχνικά προβλήματα ή προβλήματα με τα δείγματα, επικοινωνήστε αμέσως με τον προμηθευτή σας.

Σημείωση: Εάν αυτή η συσκευή χρησιμοποιείται με τρόπο που δεν καθορίζεται ή σε περιβαλλοντικές συνθήκες που δεν είναι κατάλληλες για ασφαλή λειτουργία, η προστασία της συσκευής ενδέχεται να τεθεί σε κίνδυνο και η εγγύηση της συσκευής ενδέχεται να καταστεί άκυρη.

25. Appendix 15 – Implen OD600® Telepítés

Biztonsági információk

Mielőtt elkezdené a telepítést, szánjon időt arra, hogy megismerje a készülék figyelmeztetéseit és szimbólumait, valamint azok jelentését. Ezek a potenciális veszélyekre vagy a fokozott óvatosságot igénylő területekre figyelmeztetnek.

--- Egyenáram

Ne nyissa ki a készüléket, mert az áramütést okozhat, valamint károsíthatja az érzékeny optikai alkatrészeket, vagy sérülést okozhat a készülékben.

Ne használjon sérült tápkábeleket, kiegészítőket és egyéb perifériás eszközöket az Implen OD600® készülékkel. Csak a mellékelt és meghatározott tápegységet/töltőt használja.


Ne tegye ki az Implen OD600® készüléket erős mágneses vagy elektromos mezőknek, víznek vagy bármilyen folyadéknak, például heves esőnek vagy nedvességnek.

Ne tegye a készüléket tűzbe, mivel az felpuffadhat vagy felrobbanhat (akkumulátor). Ne tárolja a készüléket hőforrás közelében, és ne használja hőforrás közelében, különösen 50°C feletti hőmérsékleten.

Ne hagyja az Implen OD600® készüléket az ölében vagy a test közelében, hogy elkerülje a kényelmetlenséget vagy a hőhatás miatti sérüléseket.

Ne helyezzen tárgyakat az Implen OD600® készülék tetejére.

Az Implen OD600® készüléket szállítás közben ki kell kapcsolni.

A terméken  vagy annak dokumentációjában szereplő szimbólum azt jelzi, hogy ezt a készüléket nem szabad a háztartási hulladékkal együtt eldobni. Ehelyett egy megfelelő elektromos és elektronikai hulladékgyűjtő helyre kell leadni. Az ártalmatlanítást a helyi környezetvédelmi előírásoknak megfelelően kell elvégezni.

Kicsomagolás és elhelyezés

Ellenőrizze a csomag tartalmát a szállítólevél szerint. Ha hiányosságokat tapasztal, azonnal értesítse a beszállítóját.

Ellenőrizze a készüléket szállítási sérülésekre vonatkozóan. Ha sérülést talál, azonnal értesítse a beszállítóját.

Győződjön meg arról, hogy a tervezett telepítési hely megfelel a biztonságos üzemeltetés környezeti követelményeinek: beltéri vagy száraz helyen történő használat.

Az Implen OD600® úgy lett tervezve és kifejlesztve, hogy ellenőrzött, biztonságos környezetben használható legyen. Ez egy laboratóriumi környezetet jelent, ahol a fizikai hozzáférés korlátozott a vállalaton belül. Az Implen OD600®-hez csak képzett felhasználók férhetnek hozzá, és csak a helyi vállalati hálózaton működtethető. Ha a biztonságos környezet nem biztosított, az Implen OD600® nem felel meg a Rádióberendezés-irányelv (RED DA) következő követelményeinek: ACM, AUM, SUM, SSM, SCM, CCK, GEC.

Megjegyzés: Ne helyezze az Implen OD600® készüléket folyadékok, eső, nedvesség vagy poros környezet közelébe.

Üzemi hőmérséklet-tartomány: 15 - 40°C

Tárolási hőmérséklet-tartomány: 5-50°C

Szállítási hőmérséklet-tartomány: -20°C - 50°C

Ha a készüléket szélsőséges hőmérséklet-ingadozások érték, előfordulhat, hogy ki kell kapcsolnia, majd újra kell kapcsolnia a készüléket, miután a hőmérséklet stabilizálódott (~2 - 3 óra).

Maximális relatív páratartalom (kondenzáció nélkül) 80 % 31°C-on, amely lineárisan csökken 50 %-ra 40°C-on.

A készüléket stabil, sík felületre kell helyezni, amely elbírja a 0,6 kg-os súlyt, és lehetővé teszi a szabad légáramlást a készülék körül. Győződjön meg arról, hogy semmi sem akadályozza a légáramlást a készülék működése közben.

A készüléket úgy kell elhelyezni, hogy vészhelyzet esetén könnyen megtalálható és kihúzható legyen a tápkábel.

A készüléket mindig a fő részénél fogva szállítsa.

A készüléket USB-C töltővel kell csatlakoztatni a hálózati áramforráshoz - Kimenet: max. 20W, Bemenet: AC 100-240V, 50/60Hz, 0,5A. Az Implen készülékhez mellékelt tápegység/kábel egy 5V USB-C adapter. Kérjük, töltsse fel az akkumulátort legalább 3 órán keresztül az első használat előtt.

Kapcsolja be a készüléket a bekapcsológomb megnyomásával az érintőpanelen, miután csatlakoztatta azt a hálózathoz. A készülék több öndiagnosztikai tesztet fog végrehajtani.

Kérjük, olvassa el a teljes használati útmutatót a használat előtt.

Ha műszaki problémák vagy minta-kezelési problémák merülnek fel, azonnal lépjen kapcsolatba a beszállítójával.

Megjegyzés: Ha ezt a készüléket nem megfelelő módon vagy nem biztonságos környezeti feltételek mellett használják, a készülék védelme veszélybe kerülhet, és a készülék garanciája érvényét veszítheti.

26. Appendix 16 – Implen OD600® Instalēšana

Drošības informācija

Pirms sākat instalēšanu, veltiet laiku, lai iepazītos ar ierīces brīdinājumiem un simboliem, kā arī to nozīmi. Tie informē jūs par iespējamajiem apdraudējumiem vai vietām, kur nepieciešama īpaša uzmanība.

== Līdzstrāva

Neatveriet ierīci, jo tas var izraisīt elektriskās strāvas triecienu lietotājam un sabojāt jutīgus optiskos komponentus vai bojāt ierīci.

Nelietojiet bojātus strāvas vadus, piederumus un citas perifērijas ierīces ar savu Implen OD600® ierīci. Izmantojiet tikai norādīto strāvas padevi/uzlādes ierīci, kas ir piegādāta komplektā.


Nelaujiet Implen OD600® nonākt saskarē ar spēcīgiem magnētiskiem vai elektriskiem laukiem, ūdeni vai jebkāda veida šķidrums, piemēram, stipru lietu vai mitrumu.

Neovietojiet ierīci ugunī, jo tā var uzsprāgt vai eksplodēt (akumulators). Neuzglabājiet ierīci siltuma avotu tuvumā un nelietojiet to siltuma avotu tuvumā, it īpaši temperatūrā virs 50°C.

Neatstājiet Implen OD600® klēpī vai tuvu ķermenim, lai izvairītos no diskomforta vai traumām, ko var izraisīt saskare ar karstumu.

Neuzlieciet priekšmetus uz Implen OD600® virsmas.

Implen OD600® jāizslēdz transportēšanas laikā.

Uz produkta  vai pievienotās dokumentācijas esošais simbols norāda, ka šo ierīci nedrīkst izmest kopā ar sadzīves atkritumiem. Tā vietā tā jānogādā atbilstošā savākšanas punktā, lai pārstrādātu elektriskās un elektroniskās iekārtas. Ierīces utilizācija jāveic saskaņā ar vietējiem vides aizsardzības pasākumiem.

Iepakojuma atvēršana un novietošana

Pārbaudiet iepakojuma saturu saskaņā ar pavadzīmi. Ja konstatējat trūkumus, nekavējoties informējiet piegādātāju.

Pārbaudiet ierīci, vai nav radušies bojājumi transportēšanas laikā. Ja pamanāt bojājumus, nekavējoties sazinieties ar piegādātāju.

Pārliecinieties, ka paredzētā uzstādīšanas vieta atbilst drošai darbībai nepieciešamajiem vides nosacījumiem: lietošana iekštelpās vai sausā vietā.

Implen OD600® ir izstrādāts un izveidots lietošanai kontrolētā, drošā vidē. Tas tiek aprakstīts kā laboratorijas vide ar ierobežotu fizisku piekļuvi uzņēmuma ietvaros. Implen OD600® var piekļūt tikai kvalificēti lietotāji, un tas drīkst darboties tikai uzņēmuma lokālajā tīklā. Ja netiek nodrošināta droša vide, Implen OD600® neatbilst Radioiekārtu direktīvas (RED DA) šādajām prasībām: ACM, AUM, SUM, SSM, SCM, CCK, GEC.

Piezīme: Neatstājiet Implen OD600® tuvu šķidrums, lietus, mitrumam vai putekļainai videi.

Darbības temperatūras diapazons: 15 - 40°C

Uzglabāšanas temperatūras diapazons: 5-50°C

Transportēšanas temperatūras diapazons: -20°C līdz 50°C

Ja ierīce ir pakļauta ekstrēmām temperatūrām, iespējams, ka ierīci būs jāizslēdz un jāieslēdz pēc tam, kad būs sasniegts termiskais līdzsvars (~2 - 3 stundas).

Maksimālais relatīvais mitrums (bez kondensācijas) 80 % pie 31°C, lineāri samazinoties līdz 50 % pie 40°C.

Ierīce jānovieto uz stabilas, līdzenas virsmas, kas spēj izturēt 0,6 kg, un jānodrošina brīva gaisa plūsma ap ierīci. Pārlicinieties, ka nekādi materiāli netraucē gaisa plūsmu, kad ierīce ir ieslēgta.

Ierīcei jābūt novietotai tā, lai ārkārtas situācijā to varētu viegli atrast un atvienot strāvas vadu.

Vienmēr pārnēsājiet ierīci, turot to pie galvenā korpusa.

Ierīce jāpieslēdz strāvas padevei, izmantojot USB-C lādētāju - Izeja: max. 20W, Ieeja: AC 100-240V, 50/60Hz, 0,5A. Implen ierīcei pievienotā strāvas padeve/vads ir 5V USB-C adapteris. Pirms pirmās lietošanas, lūdzu, uzlādējiet akumulatoru vismaz 3 stundas.

Ieslēdziet ierīci, piespiežot barošanas pogu uz skārienpaneļa pēc tās pieslēgšanas pie strāvas avota. Ierīce veiks vairākus pašdiagnostikas testus.

Izlasiet visu lietotāja rokasgrāmatu pirms lietošanas.

Ja rodas tehniskas problēmas vai problēmas ar paraugiem, nekavējoties sazinieties ar piegādātāju.

Piezīme: Ja šo ierīci izmanto veidā, kas nav noteikts, vai apstākļos, kas nav droši darbībai, ierīces aizsardzība var tikt apdraudēta, un ierīces garantija var kļūt spēkā neesoša.

27. Appendix 17 – Implen OD600® Diegimas

Saugaus Naudojimo Informacija

Priekš pradēdant diegimā, skirkite laiko susipažinti su prietaiso īspējimais ir simboliais bei jū reikšmēmīs. Jie informuoja apie galimas grēsmes arba vietas, kur reikalingas ypatingas atsargumas.

☰ Nuolatinė Srovė

Nelaikykite prietaiso atidaryto, nes tai gali sukelti elektros smūgį vartotojui ir pažeisti jautrius optinius komponentus arba sugadinti prietaisą.

Nenaudokite sugadintų maitinimo laidų, priedų ir kitų periferinių įrenginių su savo Implen OD600® prietaisu. Naudokite tik nurodytą maitinimo šaltinį/įkroviklį, kuris pateikiamas kartu su prietaisu.


Nelaikykite Implen OD600® būti veikiamam stiprių magnetinių ar elektrinių laukų, vandens ar bet kokio tipo skysčių, tokių kaip stipri lietus ar drėgmė.

Nedėkite prietaiso į ugnį, nes jis gali išsipūsti arba sprogti (baterija). Nedėkite prietaiso šilumos šaltinių šalia ir nenaudokite jo šilumos šaltinių šalia, ypač esant temperatūrai virš 50°C.

Nelaikykite Implen OD600® savo glėbyje ar šalia kūno, kad išvengtumėte diskomforto ar sužalojimų, kurie gali atsirasti dėl šilumos poveikio.

Nedėkite daiktų ant Implen OD600® viršaus.

Implen OD600® turi būti išjungtas transportavimo metu.

Simbolis ant  produkto arba pridedamose dokumentacijose rodo, kad šio prietaiso negalima išmesti su namų atliekomis. Vietoj to, jį reikia pristatyti į tinkamą surinkimo vietą, kad būtų perdirbamas elektros ir elektronikos įrenginių atliekas. Atliekų šalinimas turi būti atliekamas pagal vietinius aplinkos apsaugos reikalavimus.

Išpakavimas ir Įrengimas

Patikrinkite pakuotės turinį pagal siuntimo dokumentą. Jei randate trūkumų, nedelsdami informuokite tiekėją.

Patikrinkite prietaisą dėl transportavimo pažeidimų. Jei pastebite pažeidimus, nedelsdami susisieki su tiekėju.

Įsitinkite, kad numatyta diegimo vieta atitinka aplinkos sąlygas saugiam veikimui: naudokite viduje arba sausoje vietoje.

Implen OD600® sukurtas ir pritaikytas naudoti kontroliuojamoje, saugioje aplinkoje. Tai apibūdinama kaip laboratorinė aplinka su ribota fizine prieiga įmonės viduje. Implēn OD600® gali naudotis tik kvalifikuoti vartotojai ir jį galima eksploatuoti tik vietiniame įmonės tinkle. Jei saugi aplinka nėra užtikrinta, Implēn OD600® neatitinka šių Radijo įrangos direktyvos (RED DA) reikalavimų: ACM, AUM, SUM, SSM, SCM, CCK, GEC.

Pastaba: Nelaikykite Implēn OD600® šalia skysčių, lietaus, drėgmės ar dulkėto aplinkos.

Veikimo temperatūros diapazonas: 15 - 40°C

Sandėliavimo temperatūros diapazonas: 5-50°C

Transportavimo temperatūros diapazonas: -20°C iki 50°C

Jei prietaisas buvo veikiamas ekstremalių temperatūrų, gali prireikti išjungti ir vėl įjungti prietaisą, kai temperatūra stabilizuosis (~2 - 3 valandos).

Maksimalus santykinis drėgnumas (be kondensacijos) 80 % esant 31°C, linijinis sumažėjimas iki 50 % esant 40°C.

Prietaisas turi būti dedamas ant stabilaus, lygaus paviršiaus, galinčio atlaikyti 0,6 kg svorį ir leisti laisvai cirkuliuoti orui aplink prietaisą. Įsitinkite, kad niekas netrukdo oro srautui, kai prietaisas yra įjungtas.

Prietaisas turi būti įrengtas taip, kad būtų lengva surasti ir atjungti maitinimo kabelį nelaimės atveju.

Visada perkeltkite prietaisą laikydami jį pagrindinėje korpuso dalyje.

Prietaisas turi būti prijungtas prie maitinimo šaltinio naudojant USB-C įkroviklį - Išėjimas: max. 20W, Įėjimas: AC 100-240V, 50/60Hz, 0,5A. Implēn prietaiso komplekte esantis maitinimo šaltinis/laidas yra 5V USB-C adapteris. Įkraukite akumuliatorių bent 3 valandas prieš pirmą naudojimą.

Įjunkite prietaisą, paspausdami maitinimo mygtuką ant jutiklinio ekrano, kai jį prijungiate prie maitinimo tinklo. Prietaisas atliks keletą savidiagnostikos testų.

Perskaitykite visą vartotojo vadovą prieš naudodami prietaisą.

Jei kyla techninių problemų arba problemų su mėginiais, nedelsdami kreipkitės į tiekėją.

Pastaba: Jei šis prietaisas naudojamas netinkamai arba aplinkos sąlygose, kurios nėra saugios veikimui, prietaiso apsauga gali būti pažeista, o prietaiso garantija gali būti laikoma negaliojančia.

28. Appendix 18 – Implēn OD600® Installazzjoni

Informazzjoni dwar is-Sigurtà

Qabel tibda l-installazzjoni, agħti ħin biex tifhem l-avviżi u s-simboli fuq il-apparat u x'jiffissru. Dawn jinformawlek dwar perikli potenzjali jew żoni li jeħtieġu attenzjoni speċjali.

== Kurrent Dirrett

Ma tiftaħx l-apparat, għax dan jista' jikkawża xokk elettriku għall-utent u ħsara lill-komponenti ottiċi sensitivi jew ħsara lill-apparat.

Ma tużax kabli ta' enerġija, aċċessorji jew apparat periferiku oħra li huma skartati ma' Implēn OD600®. Uża biss l-enerġija / l-ikkompatta speċifikata li tkun magħmula flimkien mal-apparat.


Tallix lil Implen OD600® tkun esposta għal kampijiet maġnetiċi jew elettrici qawwija, ilma jew xi likwidi bħall-borża qawwija jew umdità.

Ma poġġix l-apparat f'fejn hemm nar, għax dan jista' jixwex jew jisplodi (batterija). Ma tżinx l-apparat fil-vicinanza ta' sorsi ta' sħana u ma użaxh fil-vicinanza ta' sorsi ta' sħana, speċjalment f'temperaturi ogħla minn 50°C.

Ma ħallix Implen OD600® fuq il-ġenbejk jew qrib il-ġisem biex tevita d-discomfort jew ħsarat minhabba s-sħana.

Ma poġġix affarijiet fuq il-wiċċ ta' Implen OD600®.

Implen OD600® għandu jiġi mitfi waqt it-trasport.

Is-simbolu fuq  il-prodott jew fil-kotba addizzjonali jindika li dan l-apparat ma jistax jiġi skartat flimkien ma' skart domestiku. Minflok, għandu jitlesta f'punt ta' jiġbor addattat għat-tibdil tal-wajer u l-apparat elettroniku. Il-ħasil għandu jsir skond ir-rekwiżiti ambjentali lokali.

Ippakkjar u Pożizzjoni

l-ċekkja l-kontenut tal-pakkett skont il-fattura ta' konsenja. Jekk issib nuqqasijiet, informi lis-suppljer immedjatament.

l-ċekkja l-apparat għal danni li jstgħu jinqalghu waqt it-trasport. Jekk tara danni, ikkuntattja lis-suppljer tiegħek immedjatament.

Kun żgur li l-post imwiegħed għall-installazzjoni jissodisfa r-rekwiżiti ambjentali għall-operazzjoni sikura: użu ġewwa jew f'post niexef.

In-Implen OD600® ġie ddisinjat u żviluppat biex jintuza f'ambjent kontrollat u sigur. Dan huwa deskritt bħala ambjent laboratorju b'access fiżiku limitat ġewwa kumpanija. In-Implen OD600® jista' jintuza biss minn utenti kwalifikati u jista' joperah biss ġewwa netwerk lokali tal-kumpanija. Jekk ma tiġix assicurata ambjent sigur, in-Implen OD600® ma jissodisfax ir-rekwiżiti li ġejjin tad-Direttiva dwar l-Apparati tar-Radio (RED DA): ACM, AUM, SUM, SSM, SCM, CCK, GEC.

Nota: Ma tżinx Implen OD600® viċin likwidi, xita, umdità jew ambjenti imdaddja.

Rana tat-Temperatura għall-Operazzjoni: 15 - 40°C

Rana tat-Temperatura għall-Ħażna: 5-50°C

Rana tat-Temperatura tat-Trasport: -20°C sa 50°C

Jekk l-apparat ikun espost għal temperaturi estremi, jista' jkun meħtieġ li tfiħ u terġa' oġġibu lura fil-ħajja meta t-temperatura tkun stabbilita (~2 - 3 sigħat).

L-ogħla umdità relattiva (mingħajr kondensazzjoni) 80% f'31°C, li tnaqqas linearment sa 50% f'40°C.

L-apparat għandu jiġi pożizzjonat fuq ġebla b'saħħitha, livell li jiflaħ 0.6 kg u li jippermetti fluss ħieles ta' arja madwar l-apparat. Kun żgur li xejn ma jinterferixxi mal-fluss tal-arja waqt li l-apparat ikun fuq.

L-apparat għandu jiġi pożizzjonat b'tali mod li jkun faċli biex isibu u jinqata' l-kejbil ta' enerġija f'każ ta' emerġenza.

Deher il-apparat dejjem mill-parti prinċipali tal-korp tiegħu.

L-apparat għandu jiġi konness ma' sors ta' enerġija billi tuża l-ikkompatta USB-C - F'ruġ: max. 20W, Dhul: AC 100-240V, 50/60Hz, 0,5A. L-enerġija / il-kablu mogħti ma' Implen huwa adattatur USB-C ta' 5V. Jekk jogħġbok, iċċarġja l-batterija għal mill-inqas 3 sigħat qabel tużah għall-ewwel darba.

l-ċekkja l-apparat billi tagħfas il-buttuna ta' enerġija fuq il-panel tat-tatbiċ wara li tkun konnessa mal-istampa ta' enerġija. L-apparat se jwettaq diversi t-testijiet ta' awtodijanjsi.

Aqra l-manwal tal-utent sħiħ qabel tuża l-apparat.

Jekk għandek problemi tekniki jew problemi ta' kampjun, ikkuntattja lis-suppljer tiegħek immedjatament.

Nota: Jekk dan l-apparat jintuza b'mod mhux ippjanat jew f'kundizzjonijiet ambjentali li mhumiex sikuri għall-operazzjoni, il-protezzjoni tal-apparat jista' jkun miċħud, u l-garanzija tal-apparat tista' tiġi annullata.

29. Appendix 19 – Implen OD600® Instalare

Informații de Securitate

Înainte de a începe instalarea, alocați timp pentru a vă familiariza cu avertismentele și simbolurile de pe dispozitiv și cu semnificația acestora. Acestea vă informează despre posibilele pericole sau zone care necesită atenție deosebită.

== Curent Continuu

Nu deschideți dispozitivul, deoarece acest lucru poate provoca un șoc electric utilizatorului și poate deteriora componentele optice sensibile sau poate deteriora dispozitivul.

Nu utilizați cabluri de alimentare, accesorii sau echipamente periferice deteriorate cu dispozitivul dvs. Implen OD600®. Utilizați numai sursa de alimentare/încărcătorul specificat care este furnizat împreună cu dispozitivul.


Nu expuneți Implen OD600® la câmpuri magnetice sau electrice puternice, apă sau orice alt tip de lichid, cum ar fi ploaia abundentă sau umiditatea.

Nu plasați dispozitivul aproape de foc, deoarece acest lucru poate duce la explozie sau ardere (baterie). Nu depozitați dispozitivul lângă surse de căldură și nu utilizați-l lângă surse de căldură, în special la temperaturi mai mari de 50°C.

Nu lăsați Implen OD600® pe genunchi sau aproape de corp pentru a evita disconfortul sau leziunile cauzate de căldură.

Nu plasați obiecte pe suprafața Implen OD600®.

Implen OD600® trebuie să fie oprit în timpul transportului.

Simbolul de  pe produs sau din documentele furnizate indică faptul că acest dispozitiv nu trebuie să fie eliminat împreună cu deșeurile menajere. În schimb, acesta trebuie să fie dus la un punct de colectare adecvat pentru reciclarea echipamentelor electrice și electronice. Eliminarea trebuie efectuată conform cerințelor locale de protecție a mediului.

Despachetare și Poziționare

Verificați conținutul pachetului conform notei de livrare. Dacă găsiți defecte, informați imediat furnizorul.

Verificați dispozitivul pentru daune cauzate în timpul transportului. Dacă observați daune, contactați imediat furnizorul.

Asigurați-vă că locația de instalare planificată respectă condițiile de mediu necesare pentru operarea în siguranță: utilizare în interior sau într-o zonă uscată.

Implen OD600® este proiectat și dezvoltat pentru utilizare într-un mediu controlat și sigur. Acesta este descris ca un mediu de laborator cu acces fizic restricționat în cadrul unei companii. Implen OD600® poate fi accesat doar de utilizatori calificați și poate fi operat doar în cadrul rețelei locale a companiei. Dacă nu este asigurat un mediu sigur, Implen OD600® nu îndeplinește următoarele cerințe ale Directivei privind echipamentele radio (RED DA): ACM, AUM, SUM, SSM, SCM, CCK, GEC.

Notă: Nu lăsați Implen OD600® în apropierea lichidelor, ploilor, umidității sau a mediilor prăfuite.

Interval de temperatură de funcționare: 15 - 40°C

Interval de temperatură de depozitare: 5-50°C

Interval de temperatură pentru transport: -20°C până la 50°C

Dacă dispozitivul a fost expus la temperaturi extreme, poate fi necesar să opriți și să reporniți dispozitivul după ce temperatura s-a stabilizat (~2 - 3 ore).

Umiditate relativă maximă (fără condensare) 80% la 31°C, scăzând linear la 50% la 40°C.

Dispozitivul trebuie să fie așezat pe o suprafață stabilă, plană care poate suporta 0,6 kg și să permită circulația liberă a aerului în jurul dispozitivului. Asigurați-vă că nimic nu împiedică fluxul de aer în timp ce dispozitivul este în funcțiune.

Dispozitivul trebuie să fie poziționat astfel încât să fie ușor accesibil pentru a deconecta cablul de alimentare în caz de urgență.

Transportați întotdeauna dispozitivul prin ținerea părții principale a corpului.

Dispozitivul trebuie conectat la o sursă de alimentare folosind încărcătorul USB-C - Ieșire: max. 20W, Intrare: AC 100-240V, 50/60Hz, 0,5A. Sursa de alimentare/cablul furnizat cu Implen este un adaptor USB-C de 5V. Vă rugăm să încărcați bateria timp de cel puțin 3 ore înainte de prima utilizare.

Porniți dispozitivul apăsând butonul de alimentare de pe panoul tactil după ce a fost conectat la sursa de alimentare. Dispozitivul va efectua mai multe teste de auto-diagnosticare.

Citiți manualul complet al utilizatorului înainte de a utiliza dispozitivul.

Dacă apar probleme tehnice sau probleme cu probele, contactați imediat furnizorul.

Notă: Dacă acest dispozitiv este utilizat într-un mod neprevăzut sau în condiții de mediu nesigure pentru operare, protecția dispozitivului poate fi compromisă și garanția dispozitivului poate deveni nulă.

30. Appendix 20 – Implen OD600® Inștalácia

Bezpečnostné Informácie

Pred začatím inštalácie si nájdite čas na oboznámenie sa s varovaniami a symbolmi na zariadení a ich významom. Informujú vás o možných nebezpečenstvách alebo miestach, kde je potrebná osobitná pozornosť.

=== Trvalý Prúd

Neotvárajte zariadenie, pretože to môže spôsobiť elektrický šok používateľovi a poškodiť citlivé optické komponenty alebo zariadenie.

Nepoužívajte poškodené napájacie káble, príslušenstvo alebo iné periférne zariadenia so zariadením Implen OD600®. Používajte iba špecifikovaný napájací zdroj/napájací adaptér, ktorý je dodávaný so zariadením.


Nezariaďujte Implen OD600® tak, aby bol vystavený silným magnetickým alebo elektrickým poliám, vode alebo akýmkoľvek tekutinám, ako sú silné dažde alebo vlhkosť.

Neumiestňujte zariadenie do ohňa, pretože môže dôjsť k jeho explózií alebo vzplanutiu (batéria). Neuchovávajte zariadenie v blízkosti zdrojov tepla a nepoužívajte ho v blízkosti zdrojov tepla, najmä pri teplotách nad 50°C.

Nenechávajte Implen OD600® na kolenách alebo blízko tela, aby ste sa vyhlí diskomfortu alebo zraneniam spôsobeným teplom.

Nedávajte predmety na povrch Implen OD600®.

Implen OD600® by mal byť vypnutý počas prepravy.

Symbol na  produkte alebo na priložených dokumentoch naznačuje, že tento prístroj nesmie byť likvidovaný spolu s domácim odpadom. Namiesto toho by mal byť odovzdaný na príslušné zberné miesto na recykláciu elektrických a elektronických zariadení. Likvidácia musí byť vykonaná v súlade s miestnymi predpismi o ochrane životného prostredia.

Rozbaľovanie a Umiestnenie

Skontrolujte obsah balenia podľa dodacieho listu. Ak zistíte nedostatky, okamžite informujte dodávateľa.

Skontrolujte zariadenie na poškodenia spôsobené počas prepravy. Ak si všimnete poškodenia, okamžite kontaktujte dodávateľa.

Uistite sa, že plánované miesto inštalácie spĺňa environmentálne podmienky potrebné na bezpečnú prevádzku: používanie vnútri alebo na suchom mieste.

Implen OD600® je navrhnutý a vyvinutý na použitie v kontrolovanom, zabezpečenom prostredí. Ide o laboratórne prostredie s obmedzeným fyzickým prístupom v rámci spoločnosti. K Implenu OD600® majú prístup iba kvalifikovaní používatelia a môže byť prevádzkovaný iba v rámci lokálnej firemnej siete. Ak nie je zabezpečené bezpečné prostredie, Implen OD600® nespĺňa nasledujúce požiadavky Smernice o rádiových zariadeniach (RED DA): ACM, AUM, SUM, SSM, SCM, CCK, GEC.

Poznámka: Nezanedbávajte Implen OD600® v blízkosti tekutín, dažďa, vlhkosti alebo prášneho prostredia.

Rozsah teplôt pri prevádzke: 15 - 40°C

Rozsah teplôt pri skladovaní: 5-50°C

Rozsah teplôt pri preprave: -20°C až 50°C

Ak bolo zariadenie vystavené extrémnym teplotám, môže byť potrebné ho vypnúť a znova zapnúť, keď sa teplota stabilizuje (~2 - 3 hodiny).

Maximálna relatívna vlhkosť (bez kondenzácie) 80% pri 31°C, klesajúca lineárne na 50% pri 40°C.

Zariadenie by malo byť umiestnené na stabilnom, rovnom povrchu, ktorý vydrží 0,6 kg, a malo by umožniť voľný prietok vzduchu okolo zariadenia. Uistite sa, že nič nebráni prúdeniu vzduchu, keď je zariadenie zapnuté.

Zariadenie by malo byť umiestnené tak, aby bolo ľahko prístupné na odpojenie napájacieho kábla v prípade núdze.

Pri prenášaní zariadenia vždy držte hlavnú časť tela.

Zariadenie by malo byť pripojené k zdroju napájania pomocou USB-C nabíjačky - Výstup: max. 20W, Vstup: AC 100-240V, 50/60Hz, 0,5A. Napájací zdroj/kábel dodávaný s Implen je 5V USB-C adaptér. Pred prvým použitím nabíjajte batériu najmenej 3 hodiny.

Zariadenie zapnete stlačením tlačidla napájania na dotykovom paneli po jeho pripojení k napájacemu zdroju. Zariadenie vykoná viacero diagnostických testov.

Pred použitím si prečítajte celý používateľský manuál.

Ak sa vyskytnú technické problémy alebo problémy s vzorkami, okamžite kontaktujte dodávateľa.

Poznámka: Ak je tento prístroj používaný spôsobom, ktorý nie je predpokladaný, alebo v podmienkach, ktoré nie sú bezpečné na prevádzku, môže byť ochrana prístroja ohrozená a záruka na prístroj môže byť neplatná.

31. Appendix 21 – Implen OD600® Namestitev

Varnostne Informacije

Pred začatkom namestitve si vzemite čas za seznanitev z opozorili in simboli na napravi ter njihovim pomenom. Ti vas obveščajo o možnih nevarnostih ali področjih, kjer je potrebna posebna previdnost.

== Stalni Tok

Ne odpirajte naprave, saj lahko to povzroči električni udar uporabniku in poškoduje občutljive optične komponente ali napravo.

Ne uporabljajte poškodovanih napajalnih kablov, dodatkov ali drugih perifernih naprav z vašo napravo Implen OD600®. Uporabljajte samo določen napajalnik/adapter, ki je priložen napravi.


Ne izpostavljajte Implen OD600® močnim magnetnim ali električnim poljem, vodi ali kakršnim koli tekočinam, kot so močni dež ali vlaga.

Ne postavljajte naprave v bližino ognja, saj lahko to povzroči njeno eksplozijo ali goreče (baterija). Naprave ne shranjujte v bližini virov toplote in je ne uporabljajte v bližini virov toplote, še posebej pri temperaturah nad 50°C.

Ne pustite Implen OD600® na kolenih ali blizu telesa, da se izognete nelagodju ali poškodbam zaradi toplote.

Ne postavljajte predmetov na površino Implen OD600®.

Implen OD600® mora biti med prevozom izklopljen.

Simbol na  izdelku ali v priloženih dokumentih kaže, da tega naprava ni mogoče odložiti skupaj z gospodinjstvom odpadkom. Namesto tega jo je treba odložiti na ustrezno zbirno mesto za recikliranje električnih in elektronskih naprav. Odstranjevanje mora biti izvedeno v skladu z lokalnimi predpisi o varstvu okolja.

Razpakiranje in Postavitev

Preverite vsebino paketa v skladu z dobavnico. Če ugotovite pomanjkljivosti, takoj obvestite dobavitelja.

Preverite napravo zaradi poškodb med prevozom. Če opazite poškodbe, takoj stopite v stik z dobaviteljem.

Prepričajte se, da načrtovana lokacija za namestitev ustreza okoljskim pogojem za varno delovanje: uporaba v notranjosti ali na suhem mestu.

Implen OD600® je zasnovan in razvit za uporabo v nadzorovanem, varnem okolju. To je opisano kot laboratorijsko okolje z omejenim fizičnim dostopom znotraj podjetja. Do Implen OD600® imajo dostop samo usposobljeni uporabniki in ga je mogoče upravljati samo v lokalnem omrežju podjetja. Če varnega okolja ni zagotovljenega, Implen OD600® ne izpolnjuje naslednjih zahtev Direktive o radijski opreми (RED DA): ACM, AUM, SUM, SSM, SCM, CCK, GEC.

Opomba: Ne puščajte Implen OD600® blizu tekočin, dežja, vlage ali prašnih okolij.

Temperaturni razpon delovanja: 15 - 40°C

Temperaturni razpon shranjevanja: 5-50°C

Temperaturni razpon prevoza: -20°C do 50°C

Če je naprava izpostavljena ekstremnim temperaturam, bo morda treba napravo izklopiti in ponovno vklopiti, ko se temperatura stabilizira (~2 - 3 ure).

Maksimalna relativna vlažnost (brez kondenzacije) 80% pri 31°C, linearno padajoča na 50% pri 40°C.

Naprava mora biti postavljena na stabilno, ravno površino, ki prenese 0,6 kg in omogoča prost pretok zraka okoli naprave. Prepričajte se, da nič ne ovira pretoka zraka, ko je naprava vklopljena.

Naprava mora biti postavljena tako, da je enostavno dostopna za odklop napajalnega kabla v primeru nujnosti.

Pri prenašanju naprave vedno držite glavni del ohišja.

Napravo priključite na napajanje z uporabo USB-C polnilnika - Izhod: max. 20W, Vhod: AC 100-240V, 50/60Hz, 0,5A. Napajalni vir/kabel, priložen Implenu, je 5V USB-C adapter. Napolnite baterijo vsaj 3 ure pred prvo uporabo.

Napravo vklopite z dotikom gumba za napajanje na zaslonu na dotik, ko jo priključite na napajanje. Naprava bo izvedla več samodiagnostičnih testov.

Preberite celoten uporabniški priročnik pred uporabo naprave.

Če se pojavijo tehnične težave ali težave s vzorci, takoj stopite v stik z dobaviteljem.

Opomba: Če se ta naprava uporablja na nepredviden način ali v okolju, ki ni varno za delovanje, je lahko zaščita naprave ogrožena in garancija naprave lahko postane neveljavna.

32. Appendix 22 – Implen OD600® Instalacija

Sigurnosne informacije

Prije nego što započnete s instalacijom, odvojite vrijeme da se upoznate s upozorenjima i simbolima na vašem uređaju i njihovim značenjem. Oni vas informiraju o potencijalnim opasnostima ili situacijama u kojima je potrebna posebna pažnja.

⚡ Istosmjerni tok

Ne otvarajte uređaj, jer time možete biti izloženi električnom toku ili osjetljivim optičkim komponentama, što može dovesti do oštećenja uređaja.

Nemojte koristiti oštećene kabele za napajanje, dodatke ili druge periferne uređaje sa svojim Implen OD600®. Koristite samo priloženi i specificirani adapter/punjač.

Nemojte izlagati Implen OD600® jakim magnetskim ili električnim poljima, vodi ili tekućinama bilo koje vrste, poput jakih kiša ili vlage.

Ne izlažite uređaj vatri jer može doći do širenja ili eksplozije (baterija). Nemojte skladištiti uređaj blizu izvora topline i nemojte ga koristiti u blizini izvora topline, osobito na temperaturama iznad 50°C.

Nemojte ostavljati svoj Implen OD600® na krilu ili blizu tijela kako biste izbjegli nelagodu ili ozljede od topline.

Nemojte stavljati predmete na Implen OD600®.

Implen OD600® mora biti isključen tijekom transporta.

Simbol na proizvodu ili pratećim dokumentima označava da se ovaj uređaj ne smije odlagati kao kućni otpad. Umjesto toga, odložite ga na odgovarajuće mjesto za reciklažu električnih i elektroničkih uređaja. Odlaganje mora biti u skladu s lokalnim propisima o zaštiti okoliša.

Raspakiranje i postavljanje

Provjerite sadržaj paketa prema popisu za isporuku. Ako primijetite nedostatke, odmah obavijestite svog dobavljača.

Provjerite uređaj na znakove oštećenja tijekom transporta. Ako primijetite oštećenja, odmah obavijestite svog dobavljača.

Uvjerite se da je predviđeno mjesto za postavljanje u skladu s uvjetima okoline za siguran rad: korištenje u zatvorenom prostoru ili suhom okruženju.

Implen OD600® je dizajniran i razvijen za uporabu u kontroliranom i sigurnom okruženju. To se opisuje kao laboratorijsko okruženje s ograničenim fizičkim pristupom unutar tvrtke. Implen OD600® mogu koristiti samo kvalificirani korisnici i može se koristiti samo unutar lokalne mreže tvrtke. Ako se ne osigura sigurno okruženje, Implen OD600® ne udovoljava sljedećim zahtjevima Direktive o radioopremi (RED DA): ACM, AUM, SUM, SSM, SCM, CCK, GEC.

Napomena: Nemojte izlagati svoj Implen OD600® u blizini tekućina, kiše, vlage ili prašnjavih okruženja.

Radni temperaturni raspon: 15 - 40°C

Raspon temperature skladištenja: 5 - 50°C

Raspon temperature transporta: -20°C do 50°C

Ako je uređaj izložen velikim temperaturnim promjenama, možda će biti potrebno isključiti i ponovno uključiti uređaj nakon što se uspostavi toplinska ravnoteža (~2 - 3 sata).

Maksimalna relativna vlažnost zraka (bez kondenzacije) je 80% do 31°C, s linearnim padom na 50% pri 40°C.

Uređaj mora stajati na stabilnoj, ravnoj površini koja može nositi 0,6 kg i koja omogućuje slobodnu cirkulaciju zraka oko uređaja. Provjerite da nikakvi materijali ne ometaju cirkulaciju zraka dok je uređaj uključen.

Uređaj treba postaviti tako da u hitnom slučaju lako možete pronaći i izvući utikač iz struje.

Uvijek nosite uređaj držeći ga za glavni dio uređaja.

Uređaj mora biti priključen na napajanje pomoću USB-C punjača – izlaz: 20W max., ulaz: AC 100-240V, 50/60Hz, 0,5A. Adapter/kabel isporučen od strane Implena je USB-C adapter s 5V. Punite bateriju najmanje 3 sata prije prve uporabe.

Uključite uređaj nakon što priključite kabel pomoću tipke za uključivanje na dodirnom panelu. Uređaj će provesti niz samodijagnostičkih testova.

Molimo pročitajte cijeli korisnički priručnik prije uporabe.

Ako imate tehničkih problema ili problema s rukovanjem uzorcima, odmah se obratite svom dobavljaču.

Napomena: Ako se ovaj uređaj koristi na nespacificirani način ili u uvjetima koji nisu prikladni za siguran rad, zaštita uređaja može biti ugrožena, a jamstvo uređaja poništeno.

33. Appendix 23 – Implen Suiteáil Implen OD600®

Eolas Sábháilteachta

Sula dtosaíonn tú ar an tsuiteáil, tóg am chun eolas a chur ar na rabhaidh agus na siombailí atá ar do ghléas agus a mbrí. Tá siad ann chun tú a chur ar an eolas faoi chontúirtí féideartha nó áiteanna a dteastaíonn aire ar leith iontu.

Sruth

Díreach

Ná hoscail an gléas, mar d'fhéadfadh sé sin an t-oibreoir a chur faoi léictreachas nó d'fhéadfadh sé damáiste a dhéanamh do chomhpháirteanna optúla íogaire nó don ghléas féin. Ná húsáid cordaí cumhachta, gabhálaís nó feistí forimeallacha damáisteacha le do Implen OD600®. Bain úsáid as an soláthar cumhachta/charger sonraíthe a thagann leis an aonad amháin.

Ná cuir do Implen OD600® faoi réimsí láidre maighnéadacha nó leictreacha, faoi uisce, ná faoi leachtanna ar bith, amhail báisteach throm nó taise.

Ná caith an gléas isteach sa tine, mar d'fhéadfadh sé sin é a dhéanamh bolgach nó pléascadh (ceallraí). Ná fág an gléas in aice le foinsé teasa ná bain úsáid as in aice le foinsí teasa, go háirithe ag teocht os cionn 50°C.

Ná cuir do Implen OD600® ar do ghlúine ná in aice le do chorp chun míchompord nó gortuithe de bharr teasa a sheachaint. Ná cuir aon earraí ar bharr do Implen OD600®. Ba chóir an Implen OD600® a mhúchadh le linn iompair.

Tugann an siombail ar an táirge nó sna doiciméid a ghabhann leis le fios nach féidir an gléas seo a dhiúscairt mar dhramhaíl tí. Ina ionad sin, ba chóir é a thabhairt chuig ionad bailithe oiriúnach chun athchúrsáil a dhéanamh ar threalamh leictreach agus leictreonach. Ní mór diúscairt a dhéanamh de réir na rialachán áitiúil maidir le cosaint an chomhshaoil.

Díphacáil agus Suíomh

Déan seiceáil ar ábhar an phacáiste i gcoinne an doiciméid seachadta. Má thugann tú faoi deara aon lochtanna, cuir in iúl do do sholáthraí láithreach.

Déan iniúchadh ar an aonad le haghaidh aon damáiste iompair. Má aimsíonn tú aon damáiste, cuir in iúl do do sholáthraí gan mhoill.

Cinntigh go bhfuil an suíomh suiteála beartaithe oiriúnach do na coinníollacha timpeallachta chun oibriú sábháilte a chinntiú: úsáid laistigh nó in áit thirim.

Tá Implen OD600® deartha agus forbartha le húsáid i dtimpeallacht rialaithe agus shlán. Déantar cur síos air seo mar thimpeallacht saotharlainne le rochtain fhisiciúil teoranta laistigh de chomhlacht. Ní féidir ach le húsáideoirí cáilithe rochtain a fháil ar Implen OD600®, agus ní féidir é a oibriú ach laistigh de líonra áitiúil an chomhlachta. Mura gcinntítear timpeallacht shlán, ní chomhlíonann Implen OD600® na riachtanais seo a leanas den Treoir um Threalamh Raidió (RED DA): ACM, AUM, SUM, SSM, SCM, CCK, GEC.

Nóta: Ná húsáid do Implen OD600® in aice le leachtanna, báisteach, taise, nó in áiteanna deannaí.

Raon Teochta Oibríochta: 15 - 40°C

Raon Teochta Stórála: 5 - 50°C

Raon Teochta Iompair: -20°C go 50°C

Má bhíonn an gléas faoi athruithe tobanna teochta, b'fhéidir go mbeidh ort fanacht 2-3 uair an chloig chun cothromaíocht theirmeach a bhaint amach sula n-úsáidtear arís é.

Uas-taiseachas coibhneasta (gan comhdhlúthú): 80% suas le 31°C, laghdú líneach go 50% ag 40°C.

Ní mór an gléas a chur ar dhromchla cothrom, cobhsaí a fhéadann 0.6 kg a iompar, le dóthain spáis thart air chun aer a scaipeadh.

Cinntigh nach bhfuil aon ábhair ag cur bac ar scaipeadh an aeir nuair atá an gléas ar siúl.

Ba cheart an gléas a shuíomh ionas go mbeidh an breiseán cumhachta inrochtana i gcás éigeandála.

Iompair an gléas i gcónaí ag príomhchorp an aonáin. Ba chóir an gléas a nascadh leis an charger USB-C - **Aschur:** 20W max., **Ionchur:** AC 100-240V, 50/60Hz, 0.5A. Is USB-C adapter 5V an soláthar cumhachta/cábala a sholáthraíonn Implén. Luchtaigh an ceallraí ar feadh **3 uair an chloig ar a laghad** sula n-úsáidtear é don chéad uair.

Tar éis an gléas a nascadh, cuir ar siúl é leis an **cnaipe cumhachta ar an bpainéal tadhaill**. Rachaidh an gléas trí sheicliosta diagnóiseach uathoibríoch.

Léigh an lámhleabhar úsáideora iomlán sula n-úsáidtear an gléas. Má bhíonn aon fhadhbanna teicniúla agat nó fadhbanna le láimhseáil samplaí, déan teagmháil le do sholáthraí láithreach.

Nóta: Má úsáidtear an gléas ar bhealach nach bhfuil sonraithe nó i dtimpeallacht nach bhfuil oiriúnach d'oibriú sábháilte, féadfaidh sé cosaint an ghléis a chur i gcontúirt agus cuirfear deireadh leis an bharántas.

34. Appendix 24 – Implén OD600® 安装

安全信息

在开始安装之前，请花时间了解仪器上的警告标签和符号及其含义。这些是为了通知您潜在的危险或需要特别注意的地方。

⚡ 直流电

不要打开仪器，因为这会使操作人员接触到电力和精密的光学装置或损坏仪器。

请勿将损坏的电源线、附件和其他外设与 Implén OD600® 一起使用。请使用随附的指定电源/充电器。

请勿将 Implén OD600® 暴露在强磁场、电场、水或任何类型的液体(如大雨或潮湿)环境中。

不要将仪器放入火中，因为它可能膨胀或爆炸(电池)。不要储存在任何热源处或在任何热源附近使用，特别是温度高于 50°C。

请勿将您的 Implén OD600® 放在膝盖上或靠近身体的任何部位，以防止因热暴露而产生不适或伤害。

请勿在 Implén OD600® 上放置任何物体。

Implén OD600® 在运输过程中必须关闭电源。

✂ 产品上或随附文件上的符号表明，本设备不得作为生活垃圾处理。相反，应将其移交给适用的收集点进行电气和电子设备的回收。处置必须按照当地有关废物处置的环境法规进行。

• 开箱和配置

对照送货单检查包裹，如果发现有任何内容缺少，请及时联系您的供应商。

检查仪器在运输过程中是否有损坏的迹象。如果发现任何损坏，立即通知您的供应商。

确认设备预期安装地点符合安全操作环境条件，如室内或干燥环境使用。

Implen OD600® 设计并开发用于受控、安全的环境中使用。这被描述为公司内部具有物理访问限制的实验室环境。Implen OD600® 仅限合格用户访问，并且只能在公司本地网络内操作。如果无法保证安全环境，Implen OD600® 不符合无线设备指令（RED DA）的以下要求：ACM、AUM、SUM、SSM、SCM、CCK、GEC。

注意:不要将您的 Implen OD600®暴露在液体，雨水，潮湿或灰尘的环境中。

工作温度范围:15 - 40°C

储存温度范围 5-50°C

运输温度范围:-20°C~ 50°C

如果仪器受到极端温度变化，可能需要让仪器达到平衡。关闭仪器，并在建立热平衡（约 2-3 小时）后开机。

在 31°C时最大相对湿度（非冷凝）为 80%，在 40°C时线性降至 50%。

仪器必须放置在可以支撑 0.6 kg 的稳定、水平表面上，以便空气可以在仪器周围自由流通。确保仪器通电使用时，没有障碍物会影响空气流通。

设备的位置应在紧急情况下可以方便定位和取下主插头。

移动设备时，请始终握住设备主体部分。

设备必须通过 USB-C 充电器连接电源-输出:最大 20W，输入:AC 100-240V, 50/60Hz, 0.5A。Implen 提供的电源/电源线是 5V 的 USB-C 适配器。首次使用前，请至少充电 3 小时。

插入电源后，使用触摸屏上的电源按钮打开仪器。该仪器将执行一系列自动诊断检查。

请在使用前阅读完整的用户手册。

如果遇到技术或样品处理问题，请立即与原始供应商联系。

注: 如果以未指定的方式使用本设备或在不适合安全操作的环境条件下使用本设备，则设备提供的保护可能会受损，仪器保修失效。

35. Appendix 25 – Implen OD600® のインストール

安全情報

設置を開始する前に、機器に貼付されている警告ラベルと記号とその意味をよく理解してください。これらは、潜在的な危険が存在する場所や特別な注意が必要な場所を知らせるためのものです。

=== 直流

機器を開けないでください。操作者が電力や繊細な光学装置にさらされたり、機器が損傷したりする恐れがあります。

Implen OD600 ®には、損傷した電源コード、アクセサリ、その他の周辺機器を使用しないでください。指定された電源/充電器のみを使用してください。


Implen OD600 ®を強力な磁場、電界、水、または大雨や湿気などのあらゆる種類の液体にさらさないでください。

膨張または爆発する恐れがあるため、機器を火の中に入れてください (バッテリー)。特に 50°C を超える温度の熱源の近くに保管したり、使用したりしないでください。

Implen OD600 ® を膝の上や体の近くに置かないでください。

Implen OD600 ®の上に物を置かないでください。

Implen OD600 ® は輸送中は電源をオフにする必要があります。

 シンボルは、この機器を家庭ごみとして処理できないことを示しています。代わりに、電気電子機器のリサイクルのために適切な収集場所に引き渡す必要があります。廃棄は、廃棄物に関する現地の環境規制に従って行う必要があります。

開梱と配置

配送書と照らし合わせてパッケージの内容を確認してください。不足品が見つかった場合は、すぐにサプライヤーに連絡してください。

輸送中に生じた損傷の兆候がないか機器を検査してください。損傷が見つかった場合は、すぐにサプライヤーに連絡してください。

設置場所が、安全な操作のための環境条件（屋内使用または乾燥した環境）に適合していることを確認してください。

Implen OD600® は、管理された安全な環境での使用を目的として設計・開発されています。これは、社内で物理的アクセスが制限された実験室環境として説明されます。Implen OD600® へのアクセスは資格を有するユーザーに限られ、社内ローカルネットワーク内でのみ操作可能です。安全な環境が確保されない場合、Implen OD600® は無線機器指令（RED DA）の以下の要件を満たしません：ACM、AUM、SUM、SSM、SCM、CCK、GEC。

注意: Implen OD600®を屋外に放置しないでください。液体、雨、湿気、ほこりの多い環境に耐えます。

動作温度範囲: 15 - 40°C

保管温度範囲 5~50°C

輸送温度範囲: -20°C~50°C

機器が極端な温度変化にさらされる場合は、機器を平衡状態にし、熱平衡が確立されたら（約 2 ~ 3 時間）、機器の電源をオフにして再度オンにする必要がある場合があります。

最大相対湿度（結露なし）は 80% で、最高 31°C で、40°C で 50% まで直線的に減少します。

機器は、0.6 kg の重量に耐えることができ、機器の周囲に空気が自由に循環できる安定した水平な面に設置する必要があります。電源が入っている間は、空気の循環を妨げる物質がないことを確認してください。

緊急時にメインプラグを簡単に見つけて取り外せるように機器を配置する必要があります。

機器を持ち運ぶ際は必ず機器本体を持ってください。

機器は USB-C 充電器で電源に接続する必要があります。出力: 最大 20W、入力: AC 100-240V、50/60Hz、0.5A。Implen が提供する電源/コードは、5V の USB-C アダプターです。初めて使用する前に、バッテリーを少なくとも 3 時間充電してください。

プラグを差し込んだ後、タッチパネルの電源ボタンを使用して機器の電源をオンにします。機器は一連の自己診断チェックを実行します。

ご使用前にユーザーマニュアル全体をお読みください。

技術的な問題やサンプルの取り扱い上の問題が発生した場合には、直ちに元の供給元にご連絡ください。

注意: この機器を指定以外の方法で使用したり、安全な操作に適さない環境条件で使用した場合、機器が提供する保護が損なわれ、機器の保証が無効になる可能性があります。