

User Manual



MINILED ORTHO 2



This document is an English translation of the original French version.
Reference J05220 version V3 and drawing number N005FR010C

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1 Documentation

This document contains the following information:

- Indications for use
- Medical device description
- Installation of the medical device
- Medical device use
- Preparation for cleaning and disinfection of the medical device
- Monitoring and general maintenance of the medical device
- Maintenance to be performed by the user

1.1 Associated documentation

This document must be used in association with the following documents:

Document title	References
Cleaning, disinfection and sterilisation instructions for the MINILED optical guide	J02941
Cleaning and disinfection instructions for the MINILED rigid protection shield	J05541
Cleaning and disinfection instructions for the MINILED flexible protection shield	J05551
General instructions relating to the complete range of table curing lamps	J05102EN
Consulting electronic user instructions	J00007
MINILED ORTHO 2 User manual	J05221

The Quick Start and Quick Clean documents are summaries created for your approval. The only binding instructions are the user manuals and regulatory documentation associated with the medical device.

1.2 Electronic documentation



Electronic User
Information



Refer to
Instruction
Manual/Booklet

The user instructions for your device are available in electronic format on the specified website and not in printed format. If the website is unavailable, try again later. You can also request a free printed copy of the user instructions within seven days via our website, by telephone or in writing.

The electronic user instructions are available in PDF format (Portable Document Format). You will need to have a PDF file reader installed to read the electronic user instructions. It is important for you to have read and understood the content of the user instructions relating to the use of your device and its accessories.

Never use your device without first reading the user instructions.

The device user instructions can be consulted at www.satelec.com/documents

When you receive your device, you are asked to print and/or to download all documents or sections of documents that you may need to refer to in the event of an emergency, if you are unable to connect to the internet or if your electronic display tool is not working (computer, tablet, etc.). We recommend that you visit the website regularly to consult and to download the latest version of your device's user instructions. Users are asked to keep documentation close at hand for reference when necessary.

All paper or electronic documentation relating to your medical device must be kept for the device's entire service life.

Keep the original documentation for your medical device and its accessories for future reference. When loaning out or selling the medical device, the documentation must be provided with it.

2 Required information

2.1 Indication for use

This medical device is designed to cure photosensitive composites and bonding composites used in dentistry. The target clinical uses relate to conservative and restorative dentistry.

This medical device is used with an optical guide and a rigid protection shield.

2.2 Operating principle

Designed to light-cure dental composites, the MINILED is fitted with an electroluminescent diode (LED) that emits a visible blue light in a spectrum of wavelengths between 420 nm - 480 nm.

The wavelength of the light source corresponds to that of the photo-initiators used in dental curing composites.

A removable optical guide is attached to the end of the medical device. The optical guide concentrates and directs the light produced to the clinical site.

2.3 Using accessories not supplied by the manufacturer

The MINILED is designed to be used with SATELEC, a company of Acteon group accessories. The use of optical guides, protection shields or mains adapters made by other manufacturers will damage the MINILED.

2.4 Connecting and disconnecting accessories during use

- Never release the battery when the MINILED is in use. When handling the mains adapter and the battery disconnected from the handpiece, avoid all contact between these parts and the patient or any other party.

- Do not disconnect the optical guide or the rigid protection shield when using your MINILED.

2.5 Repairing or modifying the medical device

Contact the supplier of your device. Using the services of an unapproved repairer could render your device dangerous for you and your patients.

Do not repair or modify the device without seeking the prior permission of SATELEC, a company of Acteon group.

If the device is modified or repaired, specific checks and tests must be carried out to ensure that the medical device is still safe to use.

In the event of doubt, contact an approved dealer or the SATELEC, a company of Acteon group Customer Service team:

www.acteongroup.com

satelec@acteongroup.com

- SATELEC, a company of Acteon group, at the request of technical personnel working for the network of approved dealers, will provide any information required to repair defective parts on which they may perform repairs.

2.6 Warranty

The user must not disassemble the charging base, the battery or the handpiece as this will void the medical device's warranty.

2.7 Latest document update

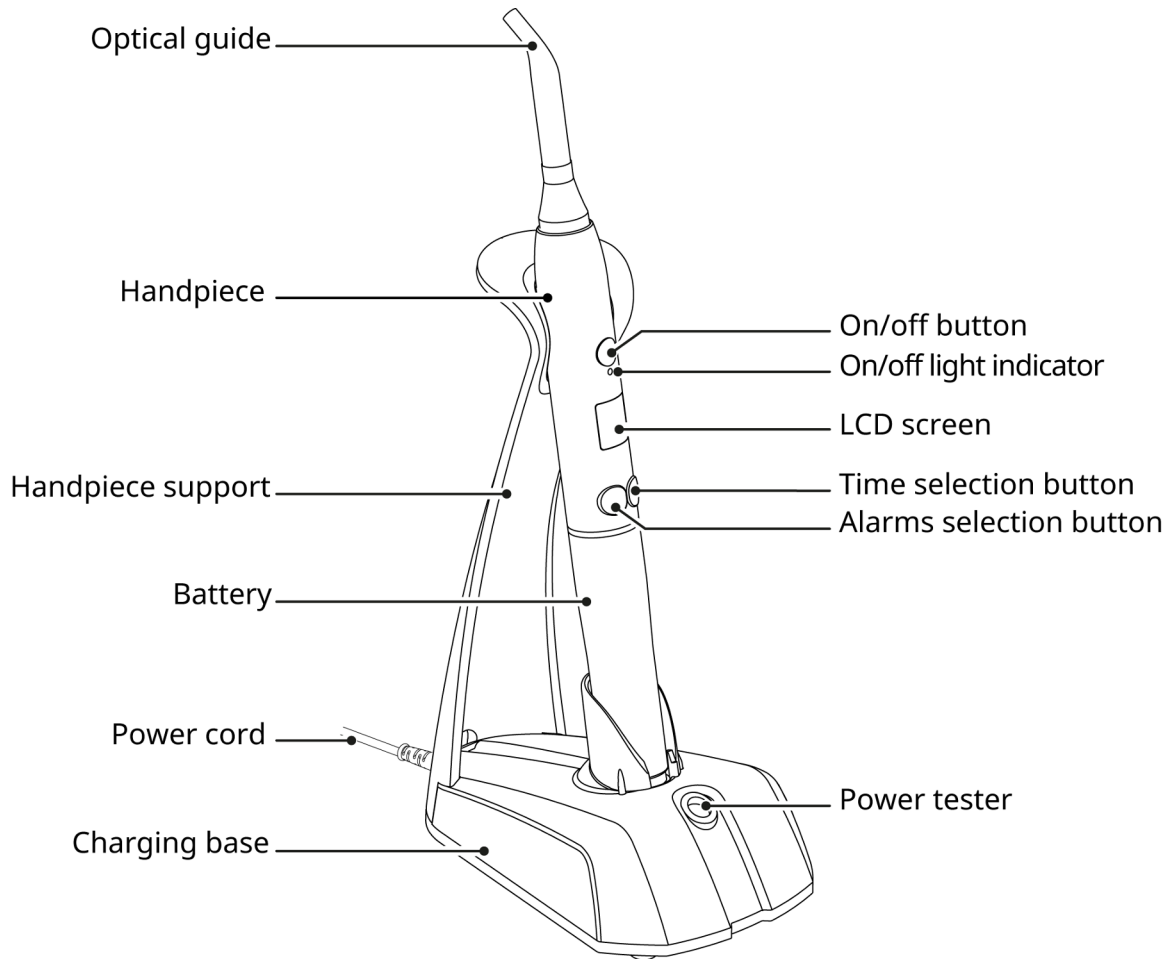
02/2022

2.8 Date of first CE marking

2009

3 Unpacking the medical device

When you receive your medical device, check for any damage that may have occurred during transportation. If you have received this medical device by mistake, please contact the supplier to arrange for it to be collected. If you have any questions or requirements, contact your supplier.



The MINILED ORTHO 2 includes the following items:

- A 5.5 mm-diameter, 45° curve, multi-fibre black optical guide with its ferrule;
- A MINILED ORTHO 2 handpiece
- A protection plug for the handpiece
- A charging base with an integrated power tester
- A Lithium-ion battery
- A mains adapter
- an insulating ring to be removed before first use. See Quick Start J02532
- a MINILED ORTHO 2 Quick Start;
- a MINILED ORTHO 2 Quick Clean;
- A rigid protection shield

3.1 Precautions for use

| Never point the medical device directly at the eyes even when it is not in use.

The MINILED is powered by a built-in battery. Take the following precautions to protect your own safety:

- Do not remove, open or tear any parts of the MINILED.
- Do not expose the MINILED to sunlight, heat or fire.
- Never short-circuit your MINILED.
- Do not store your MINILED in a box or a drawer, where it could be short-circuited by other metal objects.
- If the battery of the MINILED leaks, avoid contact between the fluid and the skin or eyes. In the event of contact, rinse thoroughly and refer to a doctor.
- Regularly wipe the power supply connector with a soft and dry cloth.
- After lengthy storage, charge and discharge the MINILED several times in order to achieve maximum performance.

4 Installing the medical device

Place the medical device in the position that is suitable for your activity.

The medical device must be placed on a secure and flat surface or a surface with a maximum slope of five degrees.

Check that the cords do not hinder the movement or free circulation of anyone.

Adjust the position of your medical device to correspond to your angle of vision and the characteristics of your workstation, e.g. lighting or distance between the user and the medical device.

Do not install your medical device near or on another device.

4.1 Fixing the medical device to a non-removable support

After its initial installation, the medical device is not designed to be moved. The medical device must be fixed to ensure that it cannot be removed or moved without the use of a tool.

5 Connect the medical device

5.1 Connecting the medical device to the electrical network

| Have your medical device connected to the mains power by an approved dental installation technician.

A different voltage would cause damage to the medical device and could injure the patient and the user. Any variation in the electrical network voltage or electromagnetic field that is non-compliant with the limits in force, could interfere with the medical device's operation.

Medical devices equipped with a protective earth must be connected to a supply network equipped with a protective earth.

| Do not plug the medical device into an extension lead and do not put the mains cord in a cable cover or cable tray.

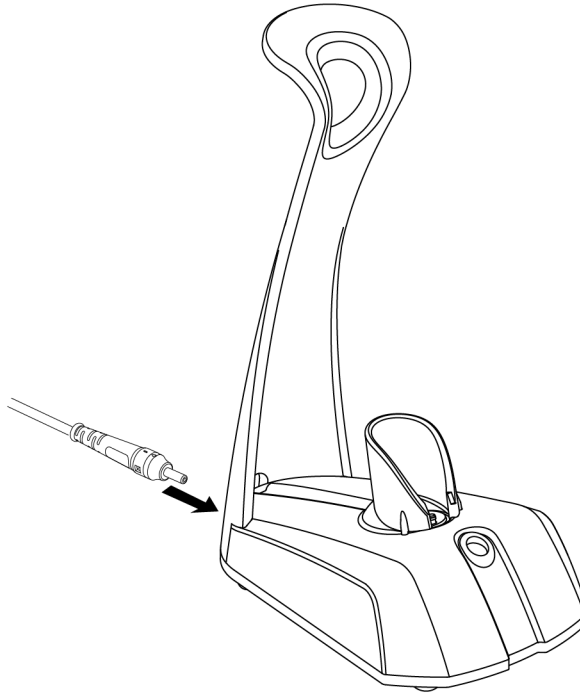
5.2 Mains adapter

The medical device is designed to be connected to a separate power source that is considered to be an integral part of the medical device. The device's power supply plug serves as the disconnect device. The electrical socket must be installed near the device and must be readily accessible.

| Do not touch the accessible charging base and battery connections.

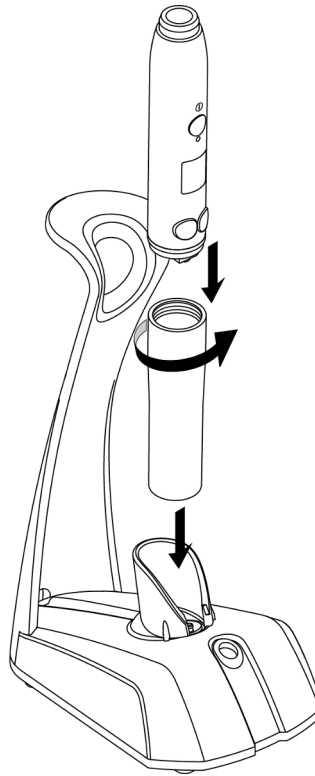
| The mains adapter and its cord are only designed to charge the MINILED.

Check that the cord does not hinder the movement or free circulation of anyone whilst the MINILED is charging. Make sure that it is not possible to wheel over or walk on the cord. Plug the mains adapter plug into the MINILED.



5.3 Charge the battery

The MINILED operates with a Lithium-Ion battery. To guarantee optimum use, this battery must be fully charged before use but must never be flat.



Check the contact between the charging base connectors and the battery connectors.

The MINILED is placed securely on the charging base when a double beep sounds and the handpiece support light flashes blue.

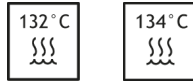
It takes about 3 hours to charge the battery.

- | Replace the MINILED on the charging base after each use for optimised battery efficiency.

6 Dispensing a treatment

6.1 Accessory usage conditions

The optical guide must be cleaned and sterilised prior to use. The rigid protection shield must be cleaned and disinfected prior to use.



The MINILED ORTHO 2 accessories include:

- a charging base;
- an optical guide;
- a rigid protection shield.

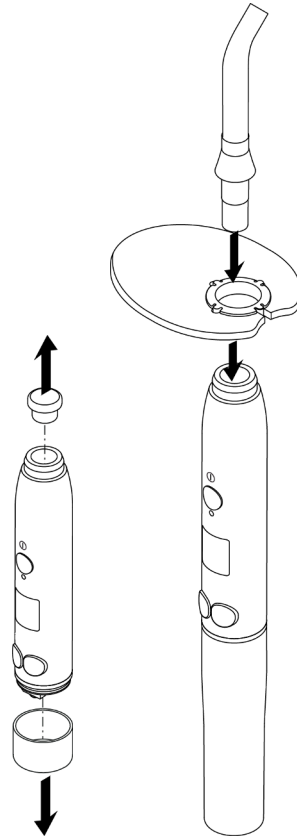
Refer to the cleaning, disinfection and sterilisation protocols for accessories listed in the chapter *Associated documentation page 3*.

6.2 Preparation for use

To prepare your MINILED, follow the steps below:

- Clean and disinfect the rigid protection shield with an alcohol wipe.
- Clean and disinfect the handpiece with an alcohol wipe.
- Sterilise the optical guide.
- Plug the charging base into the mains.
- Check that the translucent handpiece support flashes three times (red, green, blue) and that a beep sounds when it is switched on.
- Remove the insulating ring located between the battery and the MINILED and screw the battery onto the handpiece.
- Place the MINILED on its charging base.
- The MINILED ORTHO 2 is correctly installed when two beeps are heard and the translucent support base lights up in blue and starts flashing.
- Leave the MINILED to fully charge.
- The MINILED ORTHO 2 is charged when the translucent support base stops flashing and remains lit up in blue.
- Install the rigid protection shield.
- Wear safety goggles and protective gloves.
- Provide your patient with safety goggles.

6.3 Connect the accessories.



You will hear a click when the optical guide is correctly inserted.

6.4 Using the medical device

| The medical device must be disconnected from its power supply during dental treatments.


| Before each use, check that the light intensity is compliant using a purpose-designed testing means or by making a test on a small piece of light-curing composite, or, depending on the configuration, the power tester built into the charging base.

Prior to the day of use, check that you have enough sterilised optical guides and check the power output as indicated in the chapter *page 21*.

| The patient and the practitioner must wear class II safety goggles when the MINILED is in operation.

6.4.1 Switching on the medical device




Press the  button to switch on the MINILED.

If the MINILED has switched to standby, press one of buttons to exit standby mode.

6.4.2 Configuring the medical device





6.4.2.1 Selecting the exposure time



Press the  button to select the required exposure time:

- 4 seconds
- 8 seconds
- 12 seconds
- 32 seconds

Available alarms

Alarm	LCD display
Beep sound	
Micro-flash lasting 250 ms	
Beep sound and micro-flash lasting 250 ms	
None	

The indicators appear every 5 seconds, with a countdown that is displayed on the screen.

6.4.3 Performing a cure cycle

1. Position the end of the optical guide 2 mm from the surface of the composite to be cured. Do not touch it.



2. Press the button to start the cure cycle.

A beep sound confirms start of the cycle. During the cycle, the remaining cycle time counts down on the MINILED LCD screen.

Depending on the cure composite used, repeat the cure cycle as required.

6.5 Switching off the medical device



1. Press the button to stop a cure cycle.
2. Replace the MINILED on the charging base after each use for optimised battery efficiency.

After 5 minutes of inactivity, the MINILED switches to standby and the on/off light indicator goes off.

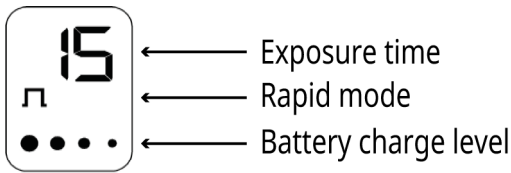
6.6 Disconnecting the medical device

Before a long absence or when not in use, the medical device must be cleaned, its battery must be removed and the charging base must be disconnected from the mains power.

7 Medical device description

7.1 Screen of the medical device

The MINILED ORTHO 2 has a backlit LCD screen which displays information about the device condition for the user:



Four battery charge level indicators ● ● ● ● are shown to signal that the battery is fully charged.

When the last battery charge level indicator ● is shown and two beeps sound, charge the battery. About 500 seconds of polymerisation remaining.

When the battery is completely flat, the LCD screen displays the message “Lb” (Low battery) and no longer displays any round pictograms, the handpiece beeps four times and the light indicator turns red.

7.2 Light indicator

Charging base light indicator

Colour	Meaning
Flashing blue	The battery is charging
Fixed blue	Charge fully completed
Red	Power measured is insufficient for required operation
Green	Power measured is sufficient

7.3 MINILED ORTHO 2

The MINILED can only be used with the following accessories:

- Opalescent optical guide, 45° curve, 7.5 mm
- Opalescent optical guide, 45° curve, 5.5 mm
- Protection plug
- Rigid protection shield
- Charging base and mains adapter

The protection plug is designed to prevent any products from infiltrating the handpiece that may damage its electronics, the connector or the LEDs. The protection plug must be installed when the handpiece is being cleaned. An insulating ring protects the battery connectors.

7.4 Base

The MINILED charging base comprises a power tester. This is used to test correct operation of the MINILED.

The charging base comprises a handpiece holder on which the handpiece can be placed before and after use.

7.5 Operating mode

Rapid mode activates maximum power of the MINILED for the selected exposure time. When the micro-flash is activated, a rest time of 250 ms is observed every three or five seconds depending on the selected exposure time range.

7.6 Buttons

The MINILED has three buttons.



located between the LCD screen and the optical guide used to start up the MINILED and to start or stop the cure cycle.



used to select the alarms.



used to select the exposure time.

7.7 Wave peak

	5.5 mm-diameter opalescent optical guide
Centre wavelength	455 nm - 465 nm
Maximum irradiance at 2 mm	3000 mW/cm ² standard \pm 10%

7.8 Mains adapter

The mains adapter is part of the medical device and helps to ensure its electrical safety. It must be installed near the medical device and must be readily accessible.

The mains cord connects the mains adapter to the medical device

- | Only use the mains adapter supplied with your medical device.

8 Disinfection and sterilising

The instructions relating to cleaning, disinfection and sterilisation protocols for accessories supplied by SATELEC, a company of Acteon group have been approved for each medical device and accessory. The applicable guides are listed in the chapter *Associated documentation page 3*.

They can be downloaded at the following address: www.satelec.com/documents.

Download



Instructions For Use

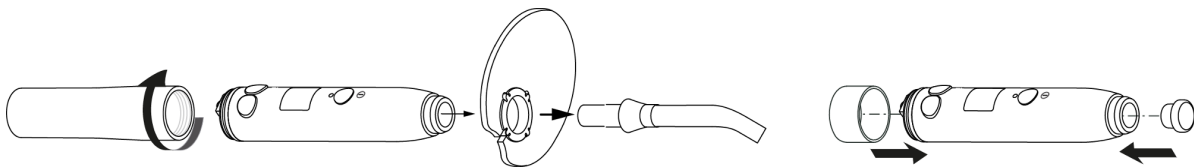
In all cases, the local regulations in force relating to the cleaning, disinfection and sterilisation protocols for accessories take precedence over the information provided by SATELEC, a company of Acteon group.

8.1 Clean and disinfect the medical device

The MINILED must be OFF during cleaning and disinfecting procedures. It must also be disconnected from its electricity supply.

Avoid using cleaning and disinfection products that contain flammable agents. Otherwise, ensure that the product has completely evaporated or that there is no fuel left on the medical device and its accessories before switching it on.

- | Do not use an abrasive product to clean the medical device.
- | Never apply sprays directly to the medical device to clean it. Always spray the product onto a wipe, then clean the medical device.
- | Use alcohol disinfectant wipes.



8.2 Cleaning, disinfecting and sterilising accessories

The MINILED ORTHO 2 accessories include:

- a charging base;
- an optical guide;
- a rigid protection shield.

The optical guide must be cleaned and sterilised prior to use. The rigid protection shield must be cleaned and disinfected prior to use.



9 Monitoring and routine maintenance

The only preventive maintenance the medical device requires is:

- Monitoring of accessories
- Routine cleaning, disinfection and sterilisation
- Cleaning

Check the cleanliness of the handpiece nosepiece. It must be clean, smooth and corrosion-free. The optical guide must fit easily and firmly inside it.

Before and after use, check the medical device and its accessories entirely for any problems. This is necessary to detect any electrical isolation fault or damage. If necessary, replace damaged parts.

9.1 Check the power

It is important to regularly check that the lamp is working correctly.

This can be done using a purpose-designed tester.

To do this, proceed as follows:

1. Check that the optical guide is intact and has no composite residues.
2. Place the optical guide flat on the power tester.
3. Switch on the MINILED.

The power tester may yield the following results:

Colour	Result
Green	The lamp is working correctly
Red	The lamp is not working correctly. Please read the chapter <i>page 23</i>

10 Identifying incorrect operation

In the event of incorrect operation, refer to the tables below to quickly identify and repair the non-complex parts of the medical device.

If the incorrect operation is not described in the tables below, please contact your supplier or the customer service team at SATELEC, a company of Acteon group.

Do not use the medical device if it appears to be damaged or faulty. Isolate the medical device and make sure that it cannot be used.

| The medical device will need to be sent away for repair.

10.1 Not working

Possible causes	Solutions
The on/off button is set to off	Press the on/off button to switch on the MINILED
The battery is flat	Charge the battery

Symptoms: The MINILED does not switch on and does not emit blue light but the LCD screen is on.

Possible causes	Solutions
The MINILED ORTHO 2 is defective	Send the MINILED to Acteon's Customer Services team.
The MINILED controls are blocked	Disconnect and reconnect the battery.

10.2 Charging base not working

Possible causes	Solutions
The wall socket is defective	Contact your electrician.
The mains adapter is defective	Send the MINILED to Acteon's Customer Services team.
The light indicators and/or beep sounds are defective	Send the MINILED to Acteon's Customer Services team.
There is a contact fault at the jack connector	Send the MINILED to Acteon's Customer Services team.
The fuse is defective	Send the MINILED to Acteon's Customer Services team.

10.3 Optical Guide

Possible causes	Solutions
Cure composite residue remains on the optical guide	<ul style="list-style-type: none"> Remove the residue. Check that the surface of the optical guide is intact. Change the optical guide if necessary.
The optical guide is damaged or is not clean	Clean the optical guide with an alcohol wipe. Clean the optical guide using the multi-purpose syringe air function. Change the optical guide if necessary.

10.4 The power is not as expected

Symptoms: The composite does not cure.

Possible causes	Solutions
The composite is too old or has been poorly preserved	Use a new composite
The MINILED does not produce enough power	Check the power. Please read the chapter <i>Check the power page 21</i>
The end of the optical guide is too far from the cure site	Place the end of the optical guide at 2 mm from the cure site

10.5 Malfunction of the power tester

Possible causes	Solutions
Defective light indicator	Send the MINILED to Acteon's Customer Services team.

Possible causes	Solutions
The optical guide is defective, damaged or dirty	Clean the optical guide using the multi-purpose syringe air function and/or return the MINILED to Acteon's Customer Service team
The reflector is defective or dirty	Clean the reflector using the multi-purpose syringe air function and/or return the MINILED to Acteon's Customer Service team
The power tester window is defective or dirty	Clean the power tester window and/or return the MINILED to Acteon's Customer Service team

10.6 Other malfunctions

If the MINILED is not working for any other reason, contact the Acteon Customer Services Team.

If you need to return your MINILED, please ensure the optical guide and battery are suitably packed to prevent any impact damage during transportation.

Keep the original packaging of the medical device and use it to return the device for servicing, maintenance or repair.

11 Technical specifications of the medical device

11.1 Identification

Manufacturer	SATELEC, a company of Acteon group
Name of the medical device	MINILED ORTHO 2

11.2 Mains Adapter

Model 1

Manufacturer	Friwo
Model	FW8000M/12
Supply voltage	100 - 240 VAC \pm 10%
Power supply frequency	50 / 60 Hz
Drawn current	300 - 150 mA
Output voltage	12 V DC
Output current	1,000 mA
Power output	12 W
Electrical rating	II

Model 2

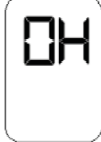
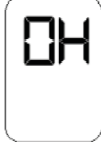
Manufacturer	XP Power
Model	ACM12US12
Supply voltage	90 - 264 VAC
Power supply frequency	47 / 63 Hz
Drawn current	500 mA at 230 VAC
Output voltage	12 VDC
Output current	1,000 mA
Power output	12 W
Electrical rating	II

11.3 Optical Guide

Weight	22 g
Length	94 mm
Diameter of the glass section	9.5 mm
Diameter of the ferrule	15 mm
Diameter at the end of the distal	5.5 mm
Diameter active	4.8 mm
Optical cross-section	0.181 cm ²

11.4 Handpiece

Distance with user	0 cm - 70 cm
Estimated service life	10 years
Length	120 mm without optical guide
Diameter maximum outer	24 mm
Weight	80 g

Number of LED lights	1
Wavelength range	420 nm - 480 nm
Centre wavelength	455 nm - 465 nm
Irradiance with 7.5 mm-diameter, 45° curve, multi-fibre opalescent optical guide	2,000 mW/cm ²
Irradiance with 5.5 mm-diameter, 45° curve, multi-fibre opalescent optical guide	3000 mW/cm ²
Operating mode	Continuous
Type	B
Safety	<p>Thermal safety of the handpiece - The medical device stops if the internal temperature of the handpiece reaches 70 °C (± 5 °C):</p>  <ul style="list-style-type: none"> •  appears on the LCD screen. • Four beeps sound. • The light indicator turns red. • Leave the handpiece to cool for a few minutes, until the light indicator turns green and the screen again displays the selected time cycle.
Ingress protection rating	IPX0

11.5 Battery

Type	Lithium-ion
Capacity	2500 mAh
Output voltage	3.7 V
Charging time	3 hours
Life when fully charged	350 cycles of 10 s (28 days at standby)
Diameter	22 to 24 mm
Length	88 mm
Weight	75 g

11.6 Base

Supply voltage	12 V DC
Protection	3 AT fuse inaccessible, cannot be replaced
Ingress protection rating	IPX0

11.7 Environmental characteristics

Ambient operating temperature	+10°C to +30°C
Operating RH	30% to 75 %
Atmospheric operating pressure	Between 800 hPa and 1060 hPa
Maximum operating altitude	Equal to or less than 2000 metres
Storage temperature	0°C to +50°C
Storage RH	10% to 95%, including condensation
Atmospheric storage pressure	Between 500 hPa and 1060 hPa

11.8 Environmental restrictions

Usage premises	Usable in all medical premises. The medical device must not be used in an operating theatre or outdoors.
Use in gas-filled atmosphere	The medical device is not designed for use in a type AP or APG gas-filled atmosphere or in the presence of anaesthetic gases.

11.9 Main performance characteristics

Wavelength between 420 nm and 480 nm, plus or minus 20 nm, depending on the batch of LEDs.

Irradiance of 3,000 mW/cm², calculated on the active diameter of 4.8 mm with the opalescent optical guide.

12 Regulations and standards











12.1 Applicable standards and regulations
















This medical device complies with the essential requirements of European Directive 93/42/EEC. It was designed and manufactured in accordance with an EN ISO 13485-certified quality assurance system.






12.2 Medical class of the device

Class of medical device: I according to 93/42/EEC directive

12.3 Symbols

Symbol	Meaning
	On/off button
	Alarms selection button
	Exposure time selection button
	Always wear safety goggles
	Always wear protective gloves
 Refer to Instruction Manual/Booklet	Refer to the supporting documentation
 Consult Instructions for Use	Consult the User Manual
 Electronic User Information	The accompanying documentation is available in electronic format
	Pressure limit
	Temperature limit

Symbol	Meaning
	Humidity limit
	Packaging unit
	Fragile, handle with care
	Store in a dry place
	Biohazard
	Sterilisation at 134°C in an autoclave
	Sterilisation at 132°C in an autoclave
	Washer-disinfector for thermal disinfection
	Ultrasonic bath
	Type B part in contact
	Direct current
	Direct current supply connector
	Electromagnetic interference
	CE marking
	Year of manufacture

Symbol	Meaning
	Manufacturer
 Do not dispose of as household waste	Do not dispose of as household waste
	Recycle your lamps and professional electrical equipment with Réylum
Rx Only	Under the United States Federal Law, this medical device must only be sold by or under the orders of a qualified doctor.
IPX0	IP: ingress protection ratings procured by a range X: no ingress of protection rating claim against the penetration of solids 0: no protection against the penetration of liquids
	Serial Number
	Packaging Number

12.4 Manufacturer identification



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E-mail: satelec@acteongroup.com
www.acteongroup.com



12.5 Manufacturer responsibility

The manufacturer shall under no circumstances be liable in the following cases:

- Non-compliance with manufacturer recommendations
- Maintenance or repair procedures performed by people who are unauthorised by the manufacturer.
- Use of the device for purposes other than those specified in this manual.
- The use of accessories or handpieces other than those supplied by SATELEC, a company of Acteon group.
- Non-compliance with the instructions contained in this document.

| Note: the manufacturer reserves the right to modify the medical device and any documentation without notice.

12.6 Branch addresses

AUSTRALIA/NEW ZEALAND

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12.7 Disposal and recycling

As an item of Electrical and Electronic Equipment, the medical device must be disposed of via a specialist collection, removal, recycling or destruction channel. This applies in particular to the European market, with reference to Directive no. 2012/19/EC of July 2012.

When your medical device has reached the end of its service life, contact your nearest dental equipment dealer, or the Acteon head office or one of the company branches to find out how to proceed. The relevant contact details are given in the chapter *Branch addresses* page 32.



| The indication below applies to France only.

In compliance with the provisions of the French Environment Code relating to the disposal of electronic and electrical equipment waste or WEEE (Decree no. 2012-617 dated 2 May 2012), our Company fulfils its obligations to reclaim and dispose of its electrical and electronic equipment through the means established by the approved organisation Réylum, NOR approval: DEVP1427651A.

As a manufacturer, our Company is listed in the National Register of Producers kept by the ADEME (French Environment and Energy Management Agency). Professionals buying our products directly from the distribution chain are responsible for passing on this information about our established recycling methods to the end user.

In addition, the buyer agrees to take back our brand's devices at the end of their service life and to transfer them to one of the collection centres set up by Réylum for recycling (see list of collection centres on the site <http://www.reylum.com/>).

If necessary, Réylum can come and collect these devices from you free of charge once the quantity of devices has reached a certain level in the pallets-containers with which you are provided to store this waste.

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14 Glossary

A

Active diameter

area of the effective optical cross-section of the LED light beam at the optical guide tip

F

Ferrule

metal ring placed on the end of the optical guide. Makes it easier to insert the optical guide into the handpiece nozzle and prevents the optical guide from rotating.

Flexible protection shield

available in 5.5 mm-diameter and 7.5 mm-diameter sizes. In contact with the patient, it must be sterilised by autoclave before and after each use. Previously called the cup

I

Irradiance

term used in radiometry to quantify the power of an electromagnetic radiation per unit area. It is expressed in watts per square metre. Often confused with the power of a light source

L

LED

electroluminescent diode, more commonly known as Led (light-emitting diode). Designates an optoelectronic component that allows the emission of monochromatic light

O

Optical guide

light conductor fitted to the handpiece nosepiece and transmitting light to the cure site. Is cleaned, disinfected and sterilised in an autoclave.

P

Protection plug

two plastic plugs used to protect the handpiece connectors and electronics during cleaning. One fits to the nosepiece and the other fits to the handpiece's electrical connectors

R

Rigid protection shield

removable oval shield forming an integral part of the handpiece once in place. Is cleaned with wipes. Not suitable for autoclaving

W

Wavelength peak

maximum amplitude of a wavelength spectrum

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