



SurgiTel[®]

SkyLight

LED Curing Light

User's Manual

Please read before installation & use

www.surgitel.com

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GSC proudly manufactures its products in the United States
GSC is an ISO 9001:2000 quality certified company



1. SYMBOLS

Symbols used on main unit



Attention! Refer to the Instruction Manual before use

Applied part type BF
(To EN-60601-1 Standard)

Correspond to EC directive 93/42/EEC
Including IEC 60601-1, IEC 60601-1-2 and
IEC 60601-1-4

Serial No.

L0Xxyzzzz

L01: Skylight

xy: Manufacture Year & Month

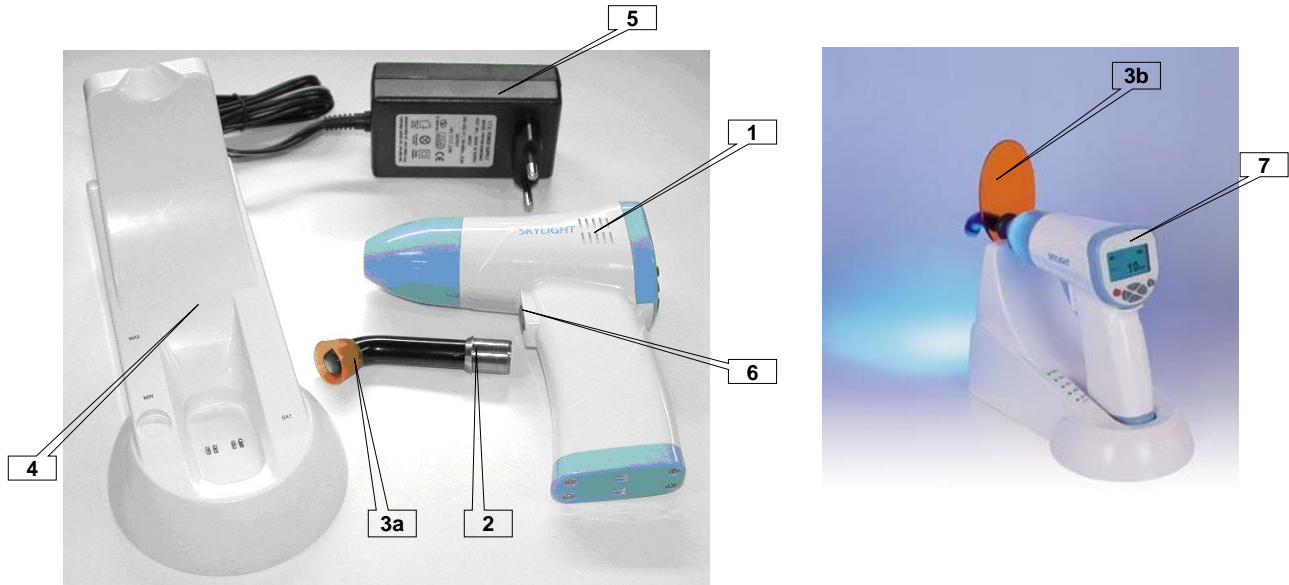
zzzz: Product Numbers

Symbols used on charger



DIRECT CURRENT

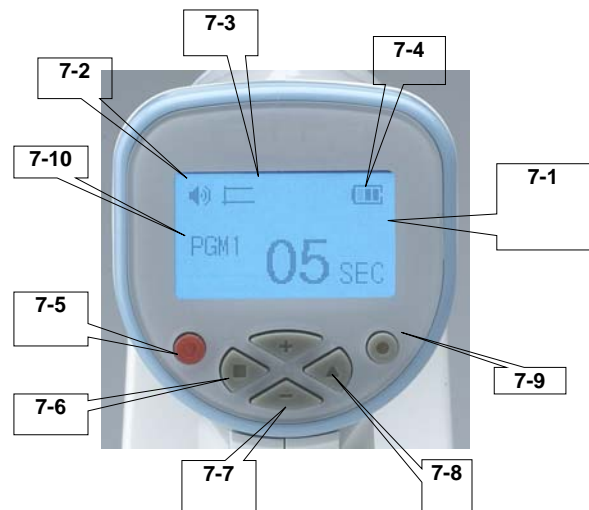
2. PRODUCT DESCRIPTION & PARTS



Reference

- 1 Skylight Gun
- 2 Light Guide Tip
- 3a Small Eye Protector (cone-type)
- 3b Large Eye Protector (disc-type)
- 4 Battery Charger
- 5 Power Supply for Charger AC100-240V, 50/60Hz
- 6 Program Start Switch

- 7 LCD Display
 - 7-1 LCD
 - 7-2 Beep On/Off
 - 7-3 Program Mode
 - 7-4 Battery Indicator
 - 7-5 On/Off Switch
 - 7-6 Mode Switch
 - 7-7 Time setting Switch (+, -)
 - 7-8 Program Select Switch
 - 7-9 Program Storage Switch
 - 7-10 Program (P1~P5)



3. INSTALLATION

Proper Use:

The Skylight is intended for polymerization of light-cured dental materials in the mouth, such as adhesives and filling materials.

***Caution – Do not use except for the intended purpose.**

***Caution – This device may cause different medical devices to malfunction due to potential electromagnetic radiation.**

Skylight

Use Skylight Charger connected to the provided power supply (AC100-240V, 50/60Hz)

***Caution – Use only original power supply**

4. CLEANING & MAINTENANCE

Skylight body

Clean with a soft cloth and any alcohol based, non-abrasive, mild cleaning liquid.

Light Guide

Sterilize the Light Guide & Eye-Protector in an autoclave at 135°C for 5 minutes before use.

When the end of the Light Guide is stained, clean it with a soft cloth and any alcohol based, non-abrasive, mild cleaning liquid.

***Caution - Be careful when handling the light guide as it can be damaged if dropped.**

Do not sterilize in an ultrasonic cleaner

Do not use chemical solvents or abrasive composite

If the ends of the light guide are dirty, power output can be affected.

Charger

Clean with a soft cloth and any alcohol based, non-abrasive, mild cleaning liquid.

***Caution – Do not push the Power ON/OFF switch or Program Start switch while charging.**

Battery

Battery life is not affected by recharging at any point in the discharge cycle because of the use of a lithium-ion battery (No memory effect).

If the battery is not holding its charge, a new one can be purchased.

***Caution- Battery Pack cannot be changed by the user. Please contact SurgiTel to change the battery pack.**

***Caution- Power output can be affected slightly by battery condition.**

***Warning- Never use the Skylight in or near fire or a wet location. IT IS NOT WATERPROOF.**

Be careful not to connect the metal contacts of the battery to other metal items.

IF THEY ARE CONNECTED, THE BATTERY CAN EXPLODE.

5. Usage

Prior to use, follow all of the setup instructions in Section 3.
Sterilize the Light Guide & Eye-protector in the autoclave at 135°C for 5 minutes before use.

Adjustment before use

- 1) Press on On/Off switch on LCD side (press for one second).
- 2) Set the proper Mode and Time or select your program setting.
- 3) The light turns on when you push the program start switch.

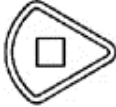
Function switch guide

- Power ON/OFF



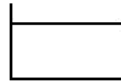
Power ON/OFF by pressing button for approx. one second

- Mode Setting

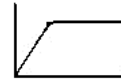


Select mode (three types; General, Soft-Start and Pulse)

Mode type



General Mode: General curing



Soft-Start Mode: Mode for long curing of thick resin



Pulse Mode: Wide curing for cavity resin

- Program Setting and Storage



Setting Mode and Time to program 1 to 5 by user.

- Time Setting



Time Increase



Time Decrease

- Storage



Confirmation

*Example of program setting and storage



Press and select program 1.



Press and select mode.



Press and set time of 5 second.



Press



go to "PGM Save".

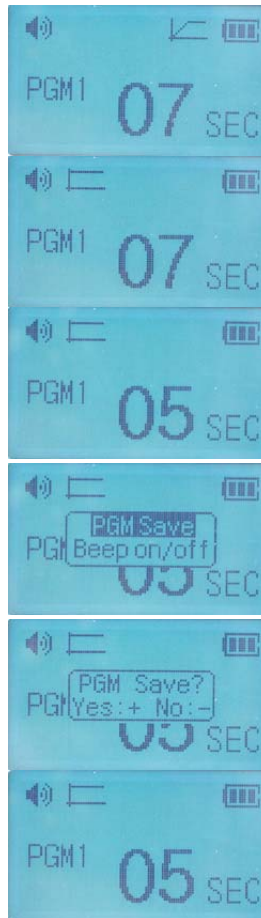


Press if you want to save program.



Press and confirm program save.

The LCD display will show Program 1, General Mode and 5 second-curing that is saved.



Example of other menu setting

*Beep On/Off



Press



select for Beep on/off



Press for save



Press to confirm "beep on"



Press to confirm "beep off"

This LCD display will show beep off function is set (no symbol).



Power Save Functions

Auto Shutdown

If not used for 2 minutes, the power will turn off automatically to save battery life.

Back-Light Off

If not used for 30 seconds, the LCD Back-Light will automatically turn off.

6. TECHNICAL SPECIFICATION

Classification

EN 60601-1:	Type of protection against electric shock: Degree of protection against electric shock: Method of sterilization or disinfection: Degree of safety of application in presence of a flammable anesthetic mixture:	Class 2(charger) Applied part type BF Refer to 4.Cleaning & Maintenance Unit unsuitable for use in presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide. Continuous operation Risk class 2
Mode of operation: CSA S. No. 125 93/42/EEC		

Conditions for use

+10° to +40° Celsius
30% to 75% relative humidity
500hPa ~ 1060hPa

Storage and transport conditions

+10° to +45° Celsius
10% to 95% relative humidity
500hPa ~ 1060hPa

Specifications of unit:

Model:	Skylight,
Supply voltage:	DC 7.4V
Output characteristics (output intensity, wavelength):	Output intensity: 1,000mW/cm ² MAX. Wavelength: 440 – 490nm
Internally Powered Equipment	

Specification of charger

Output characteristics of transformer:

CLASS 2 EQUIPMENT (including Class 2 AC/DC Adaptor)

Specification of Adaptor

AC/DC Adaptor:	Ault Inc., Model MW117KA0903N01
INPUT:	AC 100-240 V, 50/60Hz, 0.5A
OUTPUT:	DC 9 V, 1.12A

Specification of battery

Battery Pack:	GPB, Model 1865L200 2S1PMXV1Z
Type:	Lithium-ion
Voltage & Capacity:	DC 7.4V 2,000mAh

Dimensions / Weight:

Skylight

Light gun:	Weight:	300g	
	Dimensions:	height:	145mm
		width:	52mm
		depth:	196mm
	Length without tip:	125mm	
	Weight without tip	254g	

Charger:	Weight:	202g	
	Dimensions:	height:	120mm
		width:	100mm
		depth:	190mm

Transformer:	Weight:	212g	
	Dimensions:	height:	41mm
		width:	66mm
		depth:	100mm

7.TROUBLE SHOOTING

- LCD display does not work when power is on

Possible Cause: No or low power in battery.

Solution: Check battery state. Place main body on charger for 60 minutes and try again.

- No battery light (or red light) on charger when light gun is placed on charger

*There are three colors of battery light on charger: Green (full charge), Orange (charging) and Red (error).

Possible Cause: Improper connection between body, charger or adapter.

Solution: Check connecting parts on body, charger and adapter.

- Low LED light power

*Check light intensity on radiometer at charger.

Please contact SurgiTel if signal light is below 4 points with a full charge.

Possible Cause: No or low power in battery.

Solution: Check battery state. Place main body on charger for 60 minutes and try again.

Possible Cause: Soft start curing mode in use.

Solution: Check mode type referring to "5. Usage". If in soft start, change to general mode.

Possible Cause: Ends of light guide tip is dirty.

Solution: Please clean light guide tip according to "4. Cleaning & Maintenance" in Instruction Manual.

- LCD display is on, but not working properly

Possible Cause: No or low power in battery.

Solution: Check battery state. Place main body on charger for 60 minutes and try again.

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