DENTAL OPERATING LIGHT

L700-LED

Installation, Operation & User Manual

Vivid LED post-mount operating light · Includes replacement parts list and troubleshooting



DOCUMENT

L700-LED Manual · Version 1.0
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CONTENTS

In this manual

01 **General information** 3
Safety symbols · Label symbols · Specifications · Package contents

02 **Installation** 5
Light arm · Bushing ring · Wire harness · Light head · Power

03 **Operation** 7
Proximity and toggle switch · Intensity · Composite mode · Color temperature · Handles

04 **Vertical arm adjustment** 10
Spring tension · Friction screw

05 **Replacement parts** 11
Exploded view · Parts list

06 **Care and warranty** 12
Cleaning and disinfecting · Warranty · Maintenance · Disposal

07 **Troubleshooting** 14
Problems, causes and solutions · Contact

How to read this manual

⚠ **WARNING** Risk of injury or damage to the equipment. Follow exactly.

ⓘ **NOTE** Information that makes the job easier or the result more reliable.

Technical support

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Monday to Friday, 8:00 AM to 5:00 PM Pacific.

SECTION 01

Safety and label symbols

These symbols appear in this manual and on the light's labels.

In this manual

Danger
Instructions that must be followed exactly to avoid harm to the device, the operator or the patient.

Warning
Operate with the utmost care to avoid situations that could damage the device.

Restriction
The correct behavior to avoid damaging the device.

Recommendation
Useful details for using the device effectively.

WARNING No modification of this equipment is allowed.

On the labels

- **Adjustment point**
- **Sensor** · proximity switch location
- SN **Serial number**
- REF **Item code**
- I / O **Switch** · I = on, O = off
- **Relative humidity limits**
- **Temperature limits**
- **Atmospheric pressure limits**
- **Class II device**
- **Refer to the documentation**
- **Separate collection** · dispose of as electrical equipment (WEEE Directive 2012/19/EU)

GENERAL INFORMATION

Specifications and package contents



Specifications

Operating voltage	**24 V AC or DC**
Frequency	**50 / 60 Hz**
Power	**< 15 VA**
Illumination (ISO 9680)	**< 3,000 to > 35,000 lux**
Color temperature	**5,000 K ± 10%**
Controls	**Proximity switch, toggle**
Warranty	**2 years**

Package contents

BOX 1 · LIGHT ARM

- Light arm
- Power supply
- Nylon adaptor bushing, 1⅞" O.D.

BOX 2 · LIGHT HEAD

- Light head
- Light head handles
- Beauty ring
- Allen wrench
- Power switch extension

SECTION 02

Installation

Install the light arm first, then the light head. Keep the power disconnected until step 5.



Fig. 1 Light arm on the light post

Install the light arm

1. **Fit the 1⅞" nylon bushing** into the light post. It is required for a proper fit in a standard 2" post.
2. **Install the light arm** on the light post.



Fig. 2 Cosmetic ring over the mounting stud

Fit the cosmetic ring

3. **Place the cosmetic ring** over the light head mounting stud.



Fig. 3 Arm harness connected to the light head

Connect the wire harness

4. **Connect the wire harness** from the light arm to the light head connector.

INSTALLATION

Secure the head and connect power



Fig. 4 Head secured with the 2.5 mm Allen screw

Secure the light head

5 **Secure the light head** to the arm with the supplied 2.5 mm Allen screw.



Fig. 5 Power supply

Connect main power

6 **Connect the supplied 24 VDC power pack** to the light arm wire harness, using the terminal connector supplied.

ⓘ **NOTE** The light head runs on 24 V AC or DC. The power pack supplied with the light is 24 VDC.

Final check

7 **Check every connection** is secure, then test the light before use (Section 03).

⚠ **CAUTION** Disconnect power before connecting or disconnecting the harness or the light head.

SECTION 03

Switching the light on and off

The light has two control modes, set with the toggle switch under the light head.



Fig. 6 Proximity sensor under the light head

Proximity mode · toggle left

Touchless control for the best hygiene, especially during sterile procedures. The proximity sensor is on the underside of the light head.

- Move the toggle to the **left**.
- Pass your hand under the sensor to turn the light on or off.



Fig. 7 Toggle switch

Manual mode · toggle right

- Make sure the light has power.
- Move the toggle to the **right**. The L700-LED turns on.



Fig. 8 Turning the light off

Turning the light off

- **Proximity mode:** pass your hand under the sensor.
- **Manual mode:** move the toggle to the off position.

OPERATION

Control panel

Four buttons on top of the light head set intensity, mode and color temperature. Switch the light on first.



Fig. 9 Control panel on top of the light head

+ Brighter
Each press raises intensity one step, up to maximum.

– Dimmer
Each press lowers intensity one step, down to minimum. The last setting is saved for normal mode.

M Mode
Switches to composite mode, which filters the light so composite does not cure early. Press again to return to normal mode.

K Color temperature
Each press steps through three color settings. Press M to return to normal mode.

NOTE Composite mode is the PoliBlock filter mode described in the TPC catalog.

OPERATION

Removing and refitting the handles

Remove the handles for cleaning and disinfecting (page 12).

⚠ **WARNING** Switch the light off before removing or refitting the handles.



Fig. 10 Press the button and slide the handle off



Fig. 11 Push the handle back until it clicks

Remove

1. Press the button on the upper side of the handle.
2. Slide the handle cover off.

Refit

3. Push the handle back into position **without** pressing the button.
4. You will feel and hear a click when it locks in place.

SECTION 04

Vertical arm adjustment

Adjust the vertical arm if it drifts down or up on its own.



Fig. 12 Remove the screw



Fig. 13 Remove the end cap



Fig. 14 Spring tension nut



Fig. 15 Friction screw

1. **Remove the end cap** at the light head end of the vertical arm, using a small Phillips screwdriver.
2. **Slide the outer arm cover off** to reach the adjustments.
3. **Arm drifts down:** turn the tension nut at the end of the arm **clockwise** to increase spring tension (counterclockwise decreases it).
4. **Arm drifts up:** tighten the friction screw, a quarter turn at a time.
5. **Refit the cover and end cap,** then check the arm holds position.

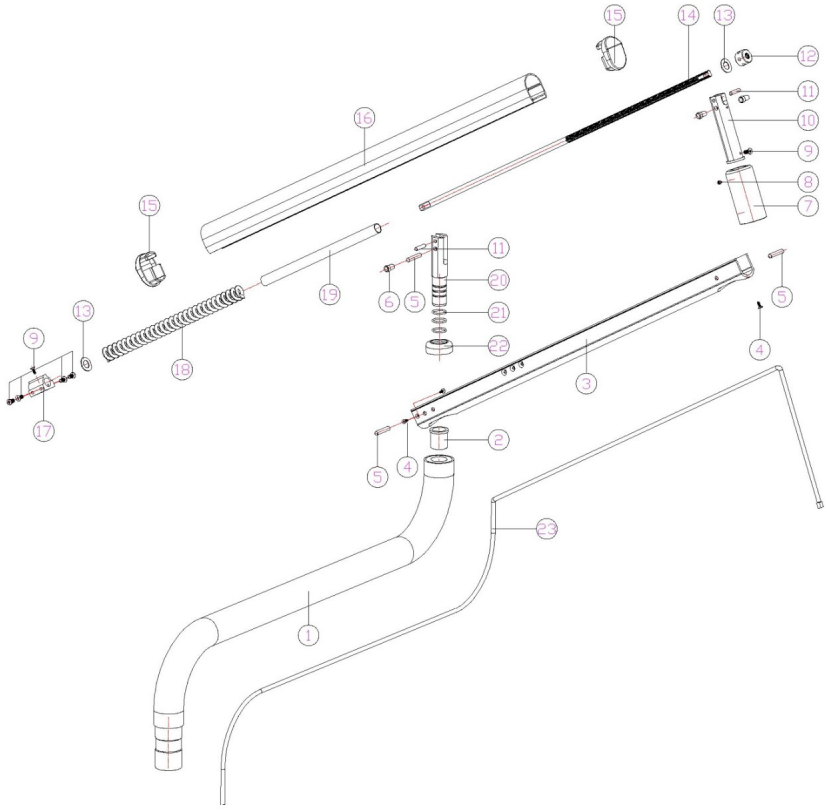


Fig. 16 Spring arm cover

NOTE If the light drifts left or right, the light post is not level. Level the unit or post rather than adjusting the arm.

SECTION 05

Arm replacement parts



NO.	DESCRIPTION	PART NO.
1	Rigid arm	L600N-ARM-RP-1
2	Nylon hub	L600N-ARM-RP-2
3	Spring arm base	L600N-ARM-RP-3
4	Phillips screw	L600N-ARM-RP-4
5	Pin	L600N-ARM-RP-5
6	Bushing	L600N-ARM-RP-6
7	Bell assembly	L600N-ARM-RP-7
8	Set screw	L600N-ARM-RP-8
9	Phillips screw	L600N-ARM-RP-9
10	Upper knuckle	L600N-ARM-RP-10
11	Pin	L600N-ARM-RP-11
12	Tension nut	L600N-ARM-RP-12

NO.	DESCRIPTION	PART NO.
13	Washer	L600N-ARM-RP-13
14	Spring	L600N-ARM-RP-14
15	End cap cover	L600N-ARM-RP-15
16	Spring arm top cover	L600N-ARM-RP-16
17	Tension block	L600N-ARM-RP-17
18	Spring	L600N-ARM-RP-18
19	Spring sleeve guard	L600N-ARM-RP-19
20	Connecting hub	L600N-ARM-RP-20
21	O-ring	L600N-ARM-RP-21
22	Bezel cover	L600N-ARM-RP-22
23	2-conductor wire harness	L600N-ARM-RP-23
24	Nylon light post bushing *	L600N-ARM-RP-24

* Not shown on the diagram. The L700, L600 and L550 use the same L600N light arm.

SECTION 06

Cleaning and disinfecting

⚠ **IMPORTANT** TPC makes no representation about the efficacy of these disinfectants and no warranty, expressed or implied, that they will not damage surface finishes. Damage and discoloration of surface finishes are not covered by the warranty.

Not acceptable

These harm the surface finishes of dental equipment. Using them voids the warranty.

Strong phenols	Lysol, Lysol 2, Lysol Professional, Coe Foam, Coe Spray, Pump, Vitaphene, Omni II
Phenol / alcohol combinations	Same as strong phenols
Sodium hypochlorite (bleach)	Clorox, Ajax, Purex
Alcohol	—
Household cleaners	—

Conditionally acceptable

The least harmful to equipment surfaces in TPC testing.

Iodophors	Biocide, Aseptic IDC, Wescodyne, SD5, Promedyne, Iodo Five
Mild phenols	Procide ES, Asepti Steryl Aerosol
Glutaraldehyde / phenol sprays	Sterall Spray, Coldspor
Synergized quats	Super Discide, Cavicide, Kleenaseptic
Phenol / water sprays	Top Cide, Sporicidin Pump Spray
Other	Birex SE

ⓘ **NOTE** Iodophor disinfectants leave yellow stains on many surfaces. Regular washing with soap and water keeps staining down, and iodophor neutralizers such as Promedyne are available.

CARE

Warranty, maintenance and disposal

2 year limited warranty

LED operating lights are guaranteed free from defects in workmanship and materials for 2 years from the date of purchase, unless otherwise stated.

Covered

TPC will repair or replace any defective part at no charge.

Not covered

- Labor, and shipping to and from TPC
- Normal wear or stains on the surface finish
- Damage from improper installation, misuse or accidents
- Damage in shipping and handling

Claims against the freight carrier must be started when the damaged items are received; filing the claim is the customer's responsibility. TPC improves its products continuously and may modify them without notice, without obligation to modify items already made.

⚠ **IMPORTANT** Only authorized service technicians should service TPC equipment. Service by an unauthorized technician may void the warranty.

Maintenance

Maintain the light at scheduled intervals to keep it reliable and to protect patients, users and others. The owner is responsible for making sure maintenance is done. TPC is responsible for the unit's safety only when maintenance and repairs are carried out by TPC or an agency it has authorized, using original spare parts.

Recycling and disposal

Dispose of used equipment according to the rules of your country, and make sure it is not contaminated during disposal. All packaging is recyclable; send it to the relevant collection system.

SECTION 07

Troubleshooting

	PROBLEM	CAUSE	SOLUTION
01	**Light does not come on**	No power to the light	**Check the power supply and connections**
		LED has failed	**Replace the LED**
		Power supply has failed	**Replace the power supply**
02	**Light turns on and off when the head is moved**	Open in-line power connector	**Check the light head to rigid arm connector, and inspect the arm wire**
03	**Vertical arm drifts down**	Spring tension too low	**Increase the arm tension (page 10)**
04	**Vertical arm drifts up**	Friction screw loose	**Tighten the friction screw (page 10)**
05	**Light drifts left or right**	Light post not level	**Level the unit or light post**

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