

BRASSELER **VE**TM

VISION ENHANCEMENT

**LED Headlight
User's Manual**

OPERATING INSTRUCTIONS

Brasseler VE Portable LED Light System

Congratulations on your purchase of the Brasseler VE portable light-emitting diode (LED) lighting system. The high-capacity illumination unit, which represents the most modern LED technology, was developed especially for use in dental practices.

Please read these instructions carefully before using the unit. Follow the procedures described in order to optimize the lifespan and functionality of the components of the illumination system.

Table of Contents

| | |
|--|----|
| Components | 4 |
| Controls and Connectors | 5 |
| Charge the Battery | 6 |
| Operate the Brasseler VE Lighting System | 6 |
| Technical Data | 7 |
| Safety Precautions / Warnings | 8 |
| Disposal Instructions | 9 |
| Clean the Headlight | 9 |
| Returns, Exchanges, and Warranty | 10 |

COMPONENTS

Check to see that the following components are included in the packaging:

1. Battery Pack

This unit contains an integrated Lithium Ion battery.



2. LED Light Cable

The four components of the LED light cable are as follows:

- Headlamp (1)
- Mounting Clip (2)
- Gown Clip (3)
- Plug (4)



3. Power Supply/Battery Charger

When plugged into the electrical outlet and the battery pack, the light (5) located on top of the power supply will indicate the charging state of the battery.



OPERATING INSTRUCTIONS

Brasseler VE Portable LED Light System

4. Curing Filter

The curing filter is intended to be used when working with light-cured polymers. When working with these materials, unfiltered light from the headlight could cause premature curing of the polymer. The figure to the right shows the filter installed over a headlight.



CONTROLS AND CONNECTORS

1. On/Off Control Button (1)

Turns the LED on and off.

2. Light Intensity Control Button (2)

Adjusts light output between three intensity settings; LOW (3,000 foot candles), MEDIUM (5,000 foot candles), and HIGH (7,000 foot candles).

3. LED Cable Socket

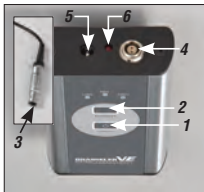
The LED cable plug (4) fits into the battery pack in this socket (3).

4. Battery Charger Connection Port (5)

The battery charger connects to this port. The plug is a concentric design that fits in any orientation.

5. Battery Capacity Monitor (6)

Light will turn on, and a short beep will sound when battery life is down to ten minutes. The beep will reoccur every minute until the battery enters a shut-down mode. During shut-down mode, the light will blink, indicating that the battery has depleted its capacity.



OPERATING INSTRUCTIONS

Brasseler VE Portable LED Light System

CHARGE THE BATTERY

The battery is not completely charged on delivery. The battery must be charged for at least 3 hours before its first use. Beyond the initial charge, no battery conditioning is required.

1. Plug the charger into the battery pack.
2. Plug the charger into the electrical outlet.
3. While charging, the light (1) on the charging unit will show red. When the battery is fully charged, the light will be green and the charger will switch to a maintenance mode.



OPERATING THE BRASSELER VE LIGHTING SYSTEM

1. Mount the headlight to the center of your Brasseler VE loupes, headband, or competitive loupes by using the clip at the base of the headlight's articulating arm.

There are specific clips to interface with various loupe models. Follow the instructions in the separate Loupe Clip Connection Kit included with your light system to determine the most appropriate clip for your specific loupe.



2. Secure the cable to the temple using the supplied temple clips.
4. Put the loupe/light on and adjust it to a comfortable working position.
5. Secure the cable with the gown clip so that the cable does not hinder the view or the work of the user.
6. Connect the cable to the battery pack as previously described.
7. Press the "On" control button on the unit to turn on the light.
8. When using the light, or when storing the unit, never bend the cable tightly to avoid damaging the cable.
9. Install the curing filter (if needed).
 - a) Slide the filter's frame over the outer rib of the headlight so that the hinged frame can flip down in front of the headlight as shown in the figure to the right.
 - b) Use the included screwdriver to tighten the screw and secure the filter to the headlight.
 - c) The filter can now be flipped down in a position in front of the headlight.



OPERATING INSTRUCTIONS

Brasseler VE Portable LED Light System

TECHNICAL DATA

| | |
|---------------------------------------|--|
| Weight of the reflector lamp | Approximately 0.7 ounces (20 grams) |
| Weight of control unit | Approximately 8.5 ounces (240 grams) |
| Diameter of the reflector lamp | Approximately 1.0 inch (26 mm) |
| Dimensions of battery pack | Height approximately 3.8 inches (97 mm) Width approximately 2.5 inches (64 mm) Depth approximately 1.0 inch (26 mm) |
| Equipment class | II  |
| Ingress of water | (ordinary equipment) IXPØ |
| Battery type | Li-Ion battery, 7.4 V/ 2,400 mAh |
| Battery charge time | 3 hours |
| Battery life | Low – approximately 17 hours Medium – approximately 10 hours High – approximately 7 hours |
| Light intensity | Measured at a distance of 12 inches: Low – 3,000 foot candles Medium – 5,000 foot candles High – 7,000 foot candles |
| Operation mode | Continuous |
| EMC | IEC60601-1-2, Class B, EN55011 |
| Safety | IEC 60601-1 |
| Protection from shock | Type BF  Internally powered |
| Temperature for operation and storage | 32° to 95° F (0° to 35° C) |




OPERATING INSTRUCTIONS

Brasseler VE Portable LED Light System

TECHNICAL DATA (continued)

| | |
|----------------------|--|
| Relative Humidity: | 10% to 85% (non-condensing) |
| Atmospheric Pressure | 0.5atm to 1.0atm (500-hPa to 1060-hPa) |

Symbols Key:

| | |
|--|---|
| The Waste Electrical and Electronic Equipment (WEEE) Directive symbol. Do not dispose of this product as normal trash. |  |
| Equipment class 1 | II  |
| Electric shock class | Type BF  |
| Alternating current | ~ |
| Direct current | - - - |



SAFETY PRECAUTIONS/WARNINGS

1. Only Brasseler-supplied power supplies are to be used to power the LED battery.
2. In order to avoid the risk of permanent eye damage, do not look directly into the headlight or aim the headlight directly into someone's eyes. Consider providing patients with protective eyewear.
3. The control unit and the battery must be used exclusively for the purpose described.
4. Under no circumstances should you open the housing of the charger or the control unit. Never take the devices apart or undertake modifications.

Misuse of the battery can cause the battery to become hot, explode, or ignite and may cause serious injury. Make sure that the following safety precautions are expressly followed:

- Never open the battery charger or control unit.
- Never make any changes/modifications to the battery charger or control unit.
- Do not bring the battery charger or control unit into contact with fire or severe heat (over 158°F or 70°C).
- Do not use outside.
- Do not short circuit (do not connect via a conductor or reverse polarity).
- Protect from fluids and damp environments.
- Do not use a damaged device.
- Maintain storage and operational temperature of 32°F to 95°F (0° to 35°C).

OPERATING INSTRUCTIONS

Brasseler VE Portable LED Light System

- Never try to use non-Brasseler-supplied charger units or control units.
- The charger must never be used outside.
- Do not use the control or charger units if the housing or plugs are damaged.
- If you determine that the charger or control unit is hot, emits an odor, or changes color or shape, turn it off immediately and disconnect from the power network. The device may not be used again and must be immediately returned to Brasseler.
- Do not store within reach of children.

DISPOSAL INSTRUCTIONS



The Waste Electrical and Electronic Equipment (WEEE) Directive forbids the disposal of waste electrical and electronic equipment as unsorted municipal waste and requires that they should be collected and recycled or disposed of separately. Hazardous substances are present in electrical and electronic equipment and present potential risks to human health and the environment if disposed of in municipal landfills that are not designed to prevent migration of substances into the soil and groundwater. By properly disposing of this waste, you will be contributing to the advancement of reuse, recycling and other forms of recovery, as well as the prevention of pollution at a very local level. Contact your local recycling center for location of appropriate recycling facility for electronic equipment.

CLEAN THE HEADLIGHT

The headlight is manufactured using only high-quality components. This is an optical precision instrument that must be cleaned and handled with the greatest care. Basic contaminations may only be removed with a soft, clean, dry cloth in order to avoid scratching the lenses.

- Do not immerse the headlight in water, sterilization fluid or ultrasound cleaning solutions. The product is not waterproof.
- Only use disinfection cloths for severe contamination. Disinfection spray must not be used under any circumstances to avoid severely damaging the light.
- Only clean the headlight with a sanitizing cloth, such as CaviWipes®*.
- Do not use gasoline, cleaning solutions or aggressive solvents for cleaning.
- Make absolutely sure that your sanitation cloth:
 - is suitable for alcohol-sensitive surfaces and for medical facilities, such as a dentist's chair.
 - contains no type of 1-propanol, Aldehyde, phenol or a quaternary ammonium bond.
 - has a broad-spectrum effect against bacteria, fungi and viruses.
- Disinfection is not to be done with an autoclave or the following chemicals: glutaraldehyde or agents containing iodine. To avoid damaging the headlight, do not use cleaning methods other than those prescribed.

DO NOT PULL ON THE CABLE DURING CLEANING!

OPERATING INSTRUCTIONS

Brasseler VE Portable LED Light System

RETURNS AND EXCHANGES

Brasseler USA guarantees our products, their performance and customer satisfaction. If the light is not satisfactory to the end user, it can be returned for any reason within 30 days of date of purchase. Items returned showing signs of use, abuse, or neglect will not be credited.

LIGHT SYSTEM WARRANTY

Brasseler USA will provide a 1-year limited warranty against manufacturing defect on the battery pack and a 4-year limited warranty on the headlight and cable.

NOTE: The battery pack will need to be replaced periodically as it reaches its maximum number of charging cycles and is not covered under warranty.

For returns or exchanges, please contact **Brasseler USA's Customer Support Department at 800.841.4522** for a Return Materials Authorization (RMA#) and return label. When product is returned, the Brasseler USA-assigned RMA# must accompany the product. Brasseler USA is not responsible for any returned product without as assigned RMA#.

CONTACT

For replacement parts or to reorder battery supplies, contact your local Brasseler USA representative or call toll free: **800.841.4522**

Distributed by:



BRASSELER USA[®]
DENTAL INSTRUMENTATION

1-800-841-4522

www.BrasselerUSA.com

One Brasseler Boulevard, Savannah, GA 31419