

X-Series HeadLight

ADJUSTABLE SURGICAL QUALITY LED HeadLight

Technical Manual

VOROTEK

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Cleaning

- Unplug the VorOtek Scope or Light from power source prior to cleaning.
- Visually inspect the VorOtek Scope or Light for soiling.
- Remove all visible soiling by first wiping external surfaces & cables with a soft cloth slightly dampened with mild detergent and water (mixed to the manufacturer's instructions).
- Wipe all external surfaces, including Headband model leather covers & velcro straps using a soft cloth slightly dampened with 70% isopropyl Alcohol (IPA). Allow all surfaces to air dry for at least 60 seconds.
- Re-wipe all surfaces with a lint free soft cloth to remove any residue from cleaning products.
- Ensure all surfaces & cables are dry before operating the VorOtek Scope or Light.
- Caution: Do not immerse or saturate any component of the VorOtek Scope or Light in a cleaning solution.
- Caution: Do not autoclave any component of the VorOtek Scope or Light.

Maintenance

- Before every procedure, carefully inspect the VorOtek Scope or Light to ensure it is fully functional. DO NOT use if inspection reveals any damage.
- The VorOtek Scope & Light Range does not require any other routine maintenance.
- For repair or warranty, refer to the support & repair page on VorOtek's website.

Warranty

- **Scopes & Lights** - 3 years for any component defect or manufacturing failure.
- **Power Pack** - 18 months for any component defect or manufacturing failure.
- Warranty does not cover abuse, misuse or transit damage.
- Please contact VorOtek prior to sending for repair.

Notices & Precautions

- Should a serious incident occur while using the device please report the incident to the manufacturer (VorOtek) and the competent authority of the Member State in which the user and /or patient is established.
- Only to be used by qualified health professionals.
- Do not use in the presence of flammable anaesthetics
- Do not expose electrical equipment to liquids or excessive moisture.



VOROTEK

23 Point Henry Road
MOOLAP VIC 3224, Australia
T +61 3 5248 5809
E office@VorOtek.com.au
www.VorOtek.com



EMERGO EUROPE
Prinsessegracht 20
2514 AP The Hague
The Netherlands



IFU-006-Xseries HeadLight TechMan-R5

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Dynamic Illumination System

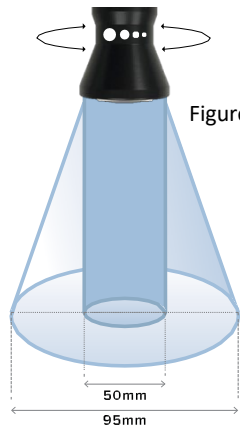
VorOtek's Dynamic Illumination System allows the user to adjust both the spot size and illumination intensity by simply rotating the lens housing. The result is a dramatic increase in light intensity at the smallest spot size.

Spot Size Adjustment

The spot size can be adjusted infinitely between 50mm and 95mm at a distance of 400mm from the front lens.

The spot diameter is adjusted by rotating the lens housing left or right.

- Rotate right to increase spot size to a maximum of 95mm
- Rotate left to reduce spot size to a minimum of 50mm (Refer Figure 1)



LED Illumination

- High efficiency LED (Light Emitting Diodes) rated at 50,000 hours operating life.
- Light Intensity: 90,000 Lux up to 150,000 Lux.
- Colour Temperature: 5,700 Degrees Kelvin
- Colour Rendering Index: CRI 75.
- Caution: Hot surface. Avoid direct skin contact with aluminium heat sink during extended periods of use.
- Caution: Do not look directly into the LED Light.

Dimmable Illumination

The dimmer switch is located on the wiring lead near the Power Pack Plug (Refer figure 2) The dimmer function provides 8 levels of illumination with "H" being the highest .

Dimming: Press the "+" or "-" button on the dimmer switch to select the preferred level of illumination.

ON/OFF function: Click & hold either button on the dimmer switch for 2 seconds to turn illumination "on" or "off" at the selected level.

Figure 2. Dimmer Switch

LCD Display

Increase Illumination

Decrease Illumination



Power Pack

- Power Pack is Lithium Ion: 11.1 Volts, 2,900 mAh.
- The Power Pack delivers 7hrs to >20hrs "on time" depending on illumination level.
- The Power Pack features short circuit protection and charging control circuitry.
- Caution: Do not expose the Power Pack to heat, fire or mechanical shock.
- Caution: Do not open or dismantle the Power Pack.
- Caution: Only use approved Power Pack supplied by VorOtek.

- Two position switch - ON/OFF.
- Designed to be worn in the breast pocket or to be clipped to a belt. It can also be clipped to the back of a surgical gown.

Charger - Charging Power Pack

- Connect Power Pack to Charger.
- The Power Pack can be charged in either the ON or OFF position.
- RED INDICATORS – Charging (takes up to 5 hours).
- GREEN INDICATORS – 100% Charged.
- Charging is best done overnight, frequently and before the Power Pack runs flat.
- Caution: Use the supplied 12.6V Charger only.
- Caution: Do not attempt to operate the charger if the cord and/or plug appear to be damaged.
- Caution: Do not use charger in the patient vicinity.

HeadBand Bracket Adjustment

The HeadBand mounting bracket has 3 adjustable links allowing a full range of adjustment i.e. the angle of declination and forward position of the illumination system.

Troubleshooting

LED illumination cuts out and resets repeatedly

- The LED illumination does not fade, but the protective circuit breaker keeps switching off (and resetting) when the Power Pack requires recharging. See section on 'Charger'.
- LED's rarely need replacing, but if this is necessary it must be done by VorOtek.

Power Pack will not charge

- See section on 'Charger'.

For all other questions contact VorOtek