

# VALIDATED PERFORMANCE

Independently Certified for Primary Disinfection

If you are looking for an independently validated UV system for PRIMARY disinfection of a water source, a LUMINOR "NSF 55 CLASS A" UV system is your solution.

The system includes a 254nm Teflon® based UV sensor to continuously monitor the UV intensity of the system and displays it as a percentage on the colour screen.

The BLACKCOMB colour screen controller has a user interface with screens displaying diagnostics, status, warnings and QR codes for a link back to LUMINOR's website.

### **Conditions For Use**

Your system will provide years of use provided the system is maintained on a regular basis as per the specifications outlined in the Owner's Manual. For the system to perform as tested, the following water quality parameters must be met.

Parameter	Level				
Hardness	< 120 mg/L (7 gpg)				
Iron (Fe)	< 0.3 mg/L (ppm)				
Manganese (Mn)	< 0.05 mg/L (ppm)				
Tannins	< 0.1 mg/L (ppm)				
Turbidity	< 1 NTU				
Transmittance	> 75% UVT				

For levels outside those specified in the table above, please contact the factory for further technical assistance.

## Sample Screens

С

US

**Product Features** 

replacement

Simple lamp changes

phone number, QR codes, etc.



BLACKCOMB

NSF

System Tested and Certified by

for Disinfection Performance, Class A

True 254nm Teflon® based UV sensor measures continuously, displaying UV intensity as a % – standard on LB6 / LBH6 units ONLY

Colour screen controller with Lightlock<sup>™</sup> for protected lamp

Expandability port for future upgrades and options

manufactured to ASME pressure vessel standards

with ceramic bases for durability and long life

Axial flow, stainless steel polished reactors, designed &

Reliable, industry proven, proprietary low pressure coated UV lamps

Constant current electronic controller in a splash proof case Full customization available as an option – language, home screen,

NSF International against CSA

B483.1 and NSF/ANSI 55

## Manufacturer's Warranty

REACTORS—Ten (10) year Limited Warranty ELECTRONICS—Three (3) year Limited Warranty UV LAMPS—One (1) year Limited Warranty QUARTZ SLEEVES—One (1) year Limited Warranty

#### See **luminoruv.com** for complete warranty document, including conditions and exclusions.

BLACKCOMB

NSE



## Illuminating technologies for life

### **BLACKCOMB NSF STANDARD 55, Class A - Equipment Specifications**

	BLACKCOMB (Standard-output)					BLACKCOMB-HO (High-output, compact design)					
Model	LB6-02XA LB6-02A-12V	LB6-03XA LB6-03A-12V	LB6-06XA LB6-06A-12V	LB6-10XA	LB6-15XA	LBH6-05XA	LBH6-10XA	LBH6-15XA	LBH6-25XA	LBH6-40XA	
NSF Class A Flow Rate (40mJ/cm² @ 70% UVT)	1.6 GPM	2.2 GPM	3.4 GPM	6.3 GPM	7.9 GPM	2.2 GPM	4.0 GPM	5.4 GPM	7.9 GPM	18.0 GPM	
	6.1 lpm	8.3 lpm	12.9 lpm	23.8 lpm	29.9 lpm	8.3 lpm	15.1 lpm	20.4 lpm	29.9 lpm	68.1 lpm	
	0.36 m <sup>3</sup> /hr	0.5 m³/hr	0.77 m³/hr	1.43 m <sup>3</sup> /hr	1.79 m³/hr	0.5 m³/hr	0.91 m³/hr	1.23 m3/hr	1.79 m³/hr	4.08 m3/hr.	
Flow Restrictor	Integral										
Port Size	½″FNPT	½″MNPT	¾"MNPT	¾"MNPT	1"MNPT	½″MNPT	¾"MNPT	1"MNPT	1"MNPT	1 ½"MNPT	
Electrical	90-265V/50-60Hz. / 12VDC as indicated										
Plug Type	American, Nema 5/15, 3 wire for all 110V systems, replace "X" with "1" suffix (i.e. LB6-101A) European, CEE 7/7, 3 wire for all 230V systems, replace "X" with "2" suffix (i.e. LB6-102A) British Standard, BS 1363, 3 wire for all 230V systems, replace "X" with "3" suffix (i.e. LB6-103A) Australian/New Zealand, AS/NZ 3112, 3 wire for all 230V systems, replace "X" with "4" suffix (i.e. LB6-104A)										
Lamp Watts	8	15	22	39	50	18	34	45	67	101	
Power (Watts)	14	20	30	49	62	20 (19 @ 230V.)	38 (36 @ 230V.)	57 (48 @ 230V.)	73 (72 @ 230V.)	115 (108 @ 230V.)	
Maximum Current (amps)	1	1	1	1	1	1	1	1	1	1	
Replacement Lamp	RL-210	RL-290	RL-470	RL-820	RL-999	RL-210H0	RL-330H0	RL-420H0	RL-600HO	RL-950H0	
Replacement Sleeve	RQ-210	RQ-290	RQ-470	RQ-820	RQ-999	RQ-210	RQ-330	RQ-420	RQ-600	RQ-950	
Replacement UV Sensor	RS-B2.5V	RS-B2.5V	RS-B2.5V	RS-B2.5V	RS-B2.5V	RSHO-B3.5V	RSHO-B3.5V	RSHO-B3.5V	RSHO-B3.5V	RSHO-B3.5V	
Chamber Material	Polished 304 stainless steel, A249 pressure rated tubing					Polished 316L stainless steel, A249 pressure rated tubing					
Reactor Dimensions	2.5 x 10.3" (6.4 x 26.2cm)	2.5 x 14.3" (6.4 x 36.4cm)	2.5 x 21.3" (6.4 x 54.2cm)	2.5 x 35.2" (6.4 x 89.5cm)	2.5 x 40.0" (6.4 x 101.6cm)	3.5 x 11.7" (8.9 x 29.8cm)	3.5 x 16.5" (8.9 x 41.8cm)	3.5 x 20.0" (8.9 x 50.8cm)	3.5 x 26.9" (8.9 x 68.3cm)	3.5 x 40.7" (8.9 x 103.4cm)	
Controller Dimensions	6.8 x 3.6 x 4" (17.2 x 9.2 x 10.2 cm) 8.6 x 4.2 x 4" (21.8 x 10.7 x 10.2 cm)										
Operating Pressure	0.7-10.3 bar (10-150 psi)										
Operating Water Temp.	2-40° C (36 - 104°F)										
UV Monitor	YES										
Solenoid Output	YES (but requires optional solenoid module) (MOD-SOL)										
Dry Contacts	YES (but requires optional remote alarm module) (MOD-RAM)										
4-20mA Output	YES (but requires optional 4-20mA module) (MOD-420)										
Lamp Change Reminder	YES (both audible and visual (full colour graphic))										
Lamp Out Indicator	YES (both audible and visual (full colour graphic))										
Shipping Weight	3.0 kg (6.6 lbs) 3.3 kg (7.3 lbs) 4.2 kg (9.3 lbs) 6.8 kg (15.0 lbs) 8.0 kg (17.6 lbs) 4.5 kg (9.9 lbs) 5.4 kg (11.9 lbs) 6.0 kg (13.2 lbs) 7.3 kg (16.1 lbs) 9.8 kg (21.6 lbs)										

### **Optional Equipment Modules**

#### UV Concierge

Available for WEB, iOS, and Android platforms providing live, dynamic feedback on all features and functions of your UV system.

SHERPA Series Water Quality Monitor Allows for remote monitoring of all major and minor alarms that take place on the UV system. Three LED's visually display system functionality from up to 150' (46m) away.

#### **Custom Dealer Programmer**

Customize your UV controller with your own company name, logo, website, QR code and contact information. Capture the lucrative replacement lamp market by creating a direct link back to your own website.

#### Solenoid Module

Used to power a remote normally closed solenoid valve (not included). Solenoid will close on lamp failure or when low UV conditions are detected by the sensor. Available in 110V. (MOD-SOL1) or 230V. (MOD-SOL2)

## TRV (temperature management relief valve)

TRV allows for a small amount of water to be physically released (dumped) from the UV unit to allow for cooling of the water. Used in applications of extended "no flow" conditions, or when the temperature of the treated water is of a critical nature.

#### Cooling Fan

To reduce water temperature inside the reactor through mechanics and convection without wasting any water. Runs independently and continuously. Comes with a compact modular power adapter that operates from 90-264V (47-63Hz.)

#### 4-20mA Module

Used for signal transfer to a remote device such as a data logger or computer. Order MOD-420.

#### Remote Alarm (Dry Contact) Module

Used for signal transfer to a remote alarm or dry contacts. Order MOD-RAM.

Lamp Life: UV lamps are rated for 9000 hours (10000 hours for all LBH6 systems) of continuous use (one-year of operation).

General Operation and Maintenance: UV lamps are to be replaced on an annual basis (9000 hours for LB6 systems and 10000 hours for LBH6 systems). Quartz sleeves and UV sensors are to be cleaned every 6-12 months and replaced every 5 years.

This Class A system conforms to NSF/ANSI 55 for the disinfection of microbiologically contaminated water that meets all other public health standards. The system is not intended to convert wastewater or raw sewage to drinking water. The system is intended to be installed on visually clear water.

NSF/ANSI 55 defines wastewater to include human and/ or animal body waste, toilet paper, and any other material intended to be deposited in a receptacle designed to receive urine and/or feces (blackwaste), and other waste materials deposited in plumbing fixtures (greywaste).

If this system is used for the treatment of untreated surface waters or ground water under the direct influence of surface water, a device found to be in conformance for cyst reduction under the appropriate NSF/ANSI standard shall be installed upstream of the system.

While testing was performed under standard laboratory conditions, actual performance may vary.

The systems and installation shall comply with applicable provincial/state and local regulations.









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