



## LBV300S<sup>2</sup>

Taking LBV standards to greater depths with more power, longer umbilical and more.



Now with 24 Month Limited Warranty

### DEEPER SOLUTION

The LBV300S<sup>2</sup> takes the award winning LBV to greater depths offering an outstanding system that is still portable, capable and affordable. With its open frame design Prizm fiber electronics, Brush-Less DC thrusters, LED lighting and more the LBV300S<sup>2</sup> is a great all round solution. The inclusion of the Prizm electronics provides exceptional video and two additional data channels.

### STABILITY CONTROL

What makes the rugged, reliable LBV300S<sup>2</sup> so different than the competition is its exceptional balance between vehicle weight, small diameter umbilical and powerful thrusters. This combination permits the LBV to fight strong currents and maintain a stable position without undue influence from the umbilical.

One of the most important aspects of a small ROV is its umbilical. Often overlooked or misunderstood the umbilical can represent the biggest obstacle in a ROV system - until LBV. The LBV300S<sup>2</sup> is supplied with 350 meters (1,148ft) of the revolutionary small 8.4mm (0.33") diameter umbilical reducing drag. This reduction enables the LBV300S<sup>2</sup> to operate in higher current with the full length of umbilical in the water.



**The LBV is a small ROV controlled by its operator and NOT its umbilical.**

### PERFORMANCE DRIVEN

The LBV300S<sup>2</sup> takes small ROV performance to the next level with four very powerful Brush-Less DC thrusters (2 forward, 1 vertical and 1 lateral). Adding the fourth thruster (lateral) greatly improves control and inspection capabilities. The superior thruster layout enhances exceptional thruster performance. Each thruster has an impressive Bollard thrust of 3.9kgf (8.6lbs). The two forward thrusters provide a combined forward thrust of 7kgf (15lbs) propelling the vehicle along the surface at 3 knots.



### INTUITIVE CONTROL SYSTEM

LBV is widely regarded as the simplest small ROV to operate. This is largely due to the intuitive control system. With all functions in a small hand controller operators quickly become expert LBV operators. Added is the convenience of the integrated control console and power supply.



### SO MUCH MORE...

A long list of standard features further LBV's ability to perform, with ease. Such as the comprehensive video overlay, auto control functions, 270° field of view and 2nd camera. This, however, is only the beginning as LBV has an equally long list of options. Customize LBV to meet your exact requirements.

### STANDARD FEATURES

- 300 MSW Depth Rating
- Brush-Less DC Thrusters
- 4 Thruster Configuration
- Ideal Weight/Mass (13.4kg)
- 8.4mm Diameter Umbilical
- 270° Field of View
- 570 Line Color Camera
- LEDs Tracking Camera
- Ultra Low Light B/W Camera
- Intuitive Control Console
- Auto Heading, Depth & Trim
- Video Overlay
- much more...

### SYSTEM INCLUDES

- LBV300<sup>2</sup> Vehicle
- Protective Bumper Frame
- 4 Brush-Less DC Thrusters
- Prizm MicroMux Electronics
- 570 Line Color Camera
- 480 Lumen LED Array
- Ultra Low Light B/W Camera
- 350m/1,148ft Umbilical
- Umbilical reel with slip ring
- Integrated Control Console
- Hand Controller
- Monitor with Sunshade
- Basic Spares Kit
- Spare Thruster
- Protective Cases
- Manuals and CD-ROM
- 24 Month Limited Warranty

LBV	LBV300S <sup>2</sup>	
Depth Rating	300 Meters Seawater (MSW) - 1,000 Feet Seawater (FSW)	
Length	530 mm - 21 in	
Width	245 mm - 9.65 in	
Height	254 mm - 10 in	
Diagonal	353 mm - 13.9 in	
Weight in Air	13.4 kg - 29.5 lbs	
<b>Thrusters</b>		
Thruster configuration	Four (4) thrusters - Two (2) forward, one (1) vertical and one (1) lateral. Each thruster is identical & isolated	
Motor Type:	Brush-Less DC - Oil-Compensated	
Bollard Thrust (forward)	7 kgf - 15.43 lbs	
Bollard Thrust (vertical)	3 kgf - 6.61 lbs	
Bollard Thrust (lateral)	3.2 kgf - 7.05 lbs	
Speed at surface	3.0 knots - 3.45 mph - 1.54 m/s (forward)	
Max Operating Current:	2.0 knots - 2.31 mph - 1.03 m/s (forward)	
<b>Cameras &amp; Lighting</b>		
Camera Tilt	180 degrees - internal chassis rotates	
Range of View	270 degrees per camera	
Camera - Primary	570 line Ex-View HAD color - 0.2 Lux	
Camera - Secondary	430 line - 0.03 Lux B/W	
Focus	Manual focus control via hand controller. 90mm to infinity	
Video Format	NTSC or PAL	
Output Signal	Composite	
Transmission Type	Fiber optic electronics	
Internal Lighting	480 Lumen LED, pure white light - variable intensity & tracking primary camera	
<b>Integrated Control Console, Surface Power Supply and Monitor</b>		
Length	444.5 mm - 17.5 in	
Width	297 mm - 11.7 in	
Height	180 mm - 7.1 in	
Weight	12 kg - 26.46 lbs	
Data Channels	3 x RS-232 (1 for LBV controls, 2 spare up to 115K baud)	
Output Connections	BNC (video), Switchcraft connector for spare RS232 channels and software update	
Sensors	Heading, depth, temperature	
Auto Functions	Depth, heading, trim	
Input Voltage	100-130 VAC or 200-240 VAC	
Power Requirement	1,000 Watts maximum	
Safety	Isolated input power, circuit breaker, line insulation monitor, leak detector. Meets and exceeds "Code of Practice for the Safe Use of Electricity in Water"	
Water Proofing	I.P. 64 - Splash proof	
Monitor	38 cm - 15 in color LCD monitor mounted in lid	
Sunshade	Crush texture hood for monitor	
<b>Hand Controller - Built into Integrated Control Console</b>		
Length	195 mm - 7.68 in	
Width	135 mm - 5.3 in	
Height	140 mm - 5.5 in	
Weight	625 grams - 1.38 lbs	
Joystick	Single - forward, reverse, rotate left, rotate right, lateral left, lateral right	
Number of Steps (joystick)	32	
Vertical Thruster	Proportional control knob	
Additional Controls	Membrane keypad - thruster gain control, trim, auto depth, auto heading, camera tilt, camera focus, camera switch, light On/Off, light intensity, accessories, video overlay position, power On/Off, programming keypad	
<b>Umbilical</b>		
Diameter	8.4 mm - 0.33 in nominal	
Length	350 meters - 1,082 feet	
Reel	350 meter capacity with slip ring	
Working Strength	45 kgf - 100 lbs	
Breaking Strength	318 kgf - 700 lbs	
Buoyancy	Neutral in fresh water - slightly positive in Seawater	
Conductors	Twisted pair with shield & optical fiber	
<b>Video Overlay</b>		
Information Displayed	Thruster gain settings, light level, Trim On/Off, heading, depth, turns counter, camera angle, water temperature, time, date, user text	
User Text	Up to 28 Characters	
Positioning (on screen)	Bottom, top or off	
Menus	Quick menu, setup, calibrate, diagnostics, options	
SeaBotix Inc. • 1425 Russ Blvd, T112D • San Diego • CA • 92101 • USA • Tel: +1 619 239 5959 • Fax: +1 877 349 7074		