



## LBV 200-4

**Benchmark MiniROV system** The **LBV200-4** is designed with features typically found in larger ROVs. With powerful thrusters, high resolution video over the industry leading low drag tether and an extensive list of available options make the **LBV200-4** the perfect inshore/offshore solution.

### **Powerful and maneuverable thruster configuration**

The **LBV200-4** is a highly stable small ROV platform equipped with powerful Brushless DC thrusters. 4-axis control provides the operator with total maneuverability.

### **Industry leading small diameter, low drag tether**

SeaBotix is renowned for its impressive small diameter, low drag umbilical. At 9mm (0.35") in diameter the operator controls the ROV, not the tether. The durable all copper tether comes in a variety of lengths.

**Highly intuitive integrated control console** The SeaBotix operator control unit (OCU) is widely regarded as the most intuitive. All controls at the operators finger tips in an ergonomic and rugged controller.

**High-Quality Video and lighting** The **LBV200-4** systems are supplied with the latest Wide Dynamic Range (WDR) color camera technology. Coupled to the color camera is a high intensity LED array providing bright white light throughout the 270° range of view.

**Stable balanced MiniROV sensor platform** Unique to the LBV vehicles is the balanced nature of the ROV in water. Careful attention to design and layout provide a small yet stable platform for high quality sensor data acquisition.



## Sprzedaż • Instalacja • Serwis • Atestacja • Szkolenia

Sprzęt nurkowy • Pojazdy podwodne ROV • Sprzęt ewakuacyjno-ratunkowy • Kompresory powietrzne  
Aparaty ewakuacyjne • Narzędzia do cięcia i spawania • Sprzęt przeciwpożarowy • Przetłaczarki tlenu

### LBV

<b>Depth Rating</b>	200 Meters Seawater (MSW) - 660 Feet Seawater (FSW)
<b>Length</b>	530 mm - 21 in
<b>Width</b>	245 mm - 9.65 in
<b>Height</b>	254 mm - 10 in
<b>Diagonal</b>	353 mm - 13.9 in
<b>Weight in Air</b>	11 kg - 24.3 lbs
<b>Protection</b>	Protective shell and polyethylene bumper frame

### Thrusters

<b>Thruster configuration</b>	Four (4) Brushless DC thrusters - Two (2) forward, one (1) vertical and one (1) lateral. Each thruster is identical and isolated
<b>Bollard Thrust (forward)</b>	7 kg f - 15.4 pd f
<b>Bollard Thrust (vertical)</b>	3 kg f - 6.6 pd f
<b>Bollard Thrust (lateral)</b>	3 kg f - 6.6 pd f
<b>Speed at surface</b>	3 knots - 3.45 mph - 1.54 m/s
<b>Max Operating Current</b>	2 knots - 2.3 mph - 1.02 m/s

### Cameras & Lighting

<b>Camera Tilt</b>	180 degrees - internal chassis rotates
<b>Range of View</b>	270 degrees - 180 degrees from tilt, 90 degrees from camera lens
<b>Camera - Primary</b>	680 line High resolution color - 0.1 Lux
<b>Focus</b>	Manual focus control via operator control unit. 90mm to infinity
<b>Video Format</b>	NTSC or PAL
<b>Output Signal</b>	Composite
<b>Internal Lighting</b>	700 Lumen LED array. Variable intensity via operator control unit.

### Control System Configuration

Operator control unit, monitor and surface power supply built into protective case

<b>Data Channels</b>	1 RS-232 for LBV controls, 1 RS-232 115k spare
<b>Monitor</b>	38 cm - 15 in color LCD
<b>Sensors</b>	Heading, depth, temperature
<b>Auto Functions</b>	Depth, heading, trim

### Operator Control Unit

<b>Length</b>	210 mm - 8.3 in
<b>Width</b>	160 mm - 6.3 in
<b>Height</b>	75 mm - 3 in
<b>Weight</b>	650 grams - 1.4 lbs
<b>Joystick</b>	Single - forward, reverse, rotate left, rotate right, roll left, roll right
<b>Joystick Steps</b>	32
<b>Vertical Thruster</b>	Proportional control knob
<b>Additional Controls</b>	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>Safety</b>	I.P. 64 - splash proof



### **Integrated Control Console**

<b>Length</b>	452 mm - 17.8 in
<b>Width</b>	328 mm - 12.9 in
<b>Height</b>	173 mm - 6.8 in
<b>Weight</b>	20 kg - 44 lbs
<b>Input Voltage</b>	100-130 VAC or 200-240 VAC
<b>Power Requirement</b>	1,000 Watts maximum
<b>Safety</b>	Isolated input power, circuit breaker, line insulation monitor, leak detector. Meets and exceeds "Code of Practice for the Safe Use of Electricity in Water"
<b>Water Proofing</b>	I.P. 64 - Splash proof

### **Tether & Reel**

<b>Diameter</b>	9 mm - 0.35 in nominal
<b>Length</b>	250 meters - 820 feet
<b>Working Strength</b>	100 kg f - 220 pd f
<b>Breaking Strength</b>	700 kg f - 1,543 pd f
<b>Strength Member</b>	Kevlar
<b>Buoyancy</b>	Neutral in fresh water - slightly positive in Seawater
<b>Conductors</b>	Twisted pair with shield (power, telemetry, serial data), twisted pair (video), twisted pair (Ethernet)
<b>Reel construction</b>	Heavy duty marine grade materials (stainless steel, Starboard PE)
<b>Reel Capacity</b>	250 meters - 820 feet

### **On-Screen Information Display**

<b>Information Displayed</b>	Thruster gain settings, light level, Trim On/Off, heading, depth, turns counter, camera angle, water temperature, time, date, user text
<b>User Text</b>	Up to 28 characters
<b>Positioning</b>	Bottom, top or off
<b>Menus</b>	Quick menu, setup, calibrate, diagnostics, options

### **Spares, Tools and Manuals**

<b>Spares Contents</b>	Fastener kit, seal kit, propellers, gel lube, Kluber grease, acrylic polish, fuse
<b>Tool Contents</b>	1.5, 2, 3, 4, 5 mm hex ball drivers, #1, #2 Phillips screw drivers, 10 mm socket driver, small straight blade screwdriver, 11/16 socket, 19 mm open end, O-ring insertion tool, vacuum pump
<b>Spare Thruster</b>	Brushless DC thruster assembly
<b>Manuals</b>	Operators manual, service and repair CD-ROM