



amesys
BEN

R.O.V. GUARDIAN 2.0



PRINCIPAL CHARACTERISTICS

- **Dimensions**
 - 45 cm (L) x 24.5 cm (H) x 16.2 cm (l)
 - L 17.7 x W 9.8 x H 6.7 inches
- **Depth rating**
 - 150 meters (500 feet)
- **Weight**
 - 4.5 kg (9.9 lbs.)
- **Maximum speed**
 - 5 knots
- **Umbilical length**
 - 100 meters (50, 150, 200m options)
- **Vision**
 - 2 high resolution (530 lines)/high sensitivity (0.002 lux) **color cameras**
 - **Pan & tilt** unit on front camera
 - **4x900 lumen** LED lights, variable intensity
- **Navigation**
 - Auto heading, auto depth, auto speed, auto up, auto down
- **Sensors**
 - Compass, depth, temperature

Operated on external supply (110-220 V)

DESCRIPTION

Guardian 2.0 is a **high speed** hand portable **observation vehicle**. Specially designed for surveillance missions, it can reach a speed of 5 knots almost instantaneously, thanks to a reduced inertia and 4 powerful horizontal thrusters.

Packaged in **one single transport case**, with a total weight of **30kg**, including umbilical and control console, it is a highly portable system.

Equipped in its standard version with **two high quality color cameras** it can also carry a micro sonar, a 3 axis manipulator and many other sensors and tools thanks to a user friendly **ancillary plug** (power/data/control) on vehicle external hull.

The control console is contained in a waterproof case and includes a **8.1" LCD video display**, an **integrated digital recorder** (on USB key), 3 video outputs (for external display or recorder), audio in/out for communication with vehicle, 2x3 axis joysticks (navigation and camera pan & tilt) and a 30 keys soft pad for the multiple automatic or on/off functions of the system.

OPTIONS

- Search sonar (Micron DST),
- 2 functions manipulator,
- Water / sediment sampler,
- Integrated acoustic positioning.

TECHNICAL SPECIFICATIONS

Main Features		
Rated Depth	150 m (500 feet)	
Dimensions	Length x Width x Height : 450 mm x 245 mm x 162 mm - 17.7 in x 9.6 in x 6.4 in	
Weight	In air: 4.5 kg (10 lbs) In water: neutral, adjustable by clump weights on bottom cylinders	
Speed	5 knots	
Propulsion and Energy		
Thrusters	5 thrusters: 4 longitudinal (forward/backward), 1 vertical (up/down)	
Propellers	5 x 3 blades propellers with funnels	
External power	AC 110-220 V	
Control System		
Console	Integrated in a 14"x11" waterproof case: Video screen and digital recorder in the lid, joystick, keypad and connectors in the base.	
Video display	8.1" Color LCD screen, with parameters adjustment menu and remote control	
Display options	Front or Rear camera, time, depth, heading, temperature overlay, cameras parameters adjustment menu	
Position display	Acoustic positioning device display: heading and distance	option
Digital recorder	"One touch" Integrated digital recorder, 3 levels of compression, data storage on USB key	
Keypad	30 keys soft pad, with back light, for auto functions and configuration switches	
Auto functions	Auto depth, auto heading, auto up/down, auto speed	
	Auto altitude	option
Outputs	3 BNC connectors for video display/recorder, 1 audio (mic/headphones)	
Video cameras and lighting		
Front camera	Color camera, 530 lines, 0.002 lux, adjustable parameters through screen menu	
Rear camera	Color camera, 530 lines, 0.002 lux, adjustable parameters through screen menu	option
Lighting (front)	4 x 900 lumen LEDs, with variable control, each side of front camera	
Lighting (rear)	1x50 lumen LEDs, inside rear camera bulb	option
Pan & tilt	Pan & tilt unit for front camera, option for rear camera	option
Sensors and tools		
On board sensors	Compass, pressure, temperature	
Sonar	Tritech Micron DST sonar or equivalent	option
Acoustic posit.	Mini USBL (with console integrated display) or GIB Lite™ ("Underwater GPS")	option
Sampling	Water and/or sediment sampling tool	option
Manipulator	2 functions (wrist rotation, grabbing) manipulator. Non parallel jaws, maximum opening: 75 mm. Larger jaws on request.	option
Audio comm.	2 ways audio communication with vehicle (listening/speaking mode)	option
Umbilical		
Standard	100 m umbilical, 5.2 mm diameter with Kevlar braid (100 kgf breaking load)	
Extensions	50 or 100 m umbilical extensions (up to 200 m)	option
Packaging and documentation		
Shipping container	"All in one case". Water proof Storm case, lifetime guarantee, with pressure valve, wheels and handle. Total weight : 30 kg (67 lbs), including vehicle, control console and umbilical	
Operator/maintenance manual	Detailed operator/maintenance manual, printed + electronic version	
Warranty	One year warranty parts and labor.	
Support contract	Annual maintenance and reconditioning contract, with free upgrades	option

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