

RVI-ULTRA Series



The RVI-ULTRA is a heavy duty servo controlled durable borescope, with HD camera & HDMI HD video output. It has 100,000 LX super light and large field of view making it great for professionals. Even first time users can get great visual effects and with professional results.



1-902-405-4100



200 Willett St, Suite 300
Halifax, NS B3M 3C5 Canada



info@industrialinspections.ca



www.industrialinspections.ca

Operation Manual

✓ Excellent Performance

Ten Prominent Software Features



Secure Password Protection



Real Time Image Zoom



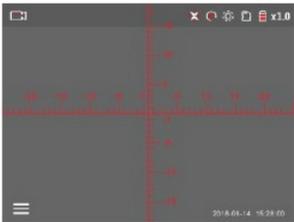
Real Time Video Recording



Video Fast Forward & Rewind



Picture in Picture Navigation Display



Cross Cursor Reference

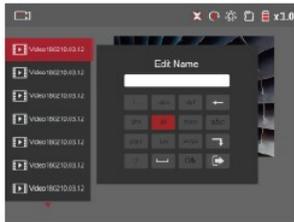


Image File Labelling & Storage



Add Watermark



Real Time detection screen



Classification Picture Storage

Four Prominent Hardware Features



Daylight Display with New Intelligent Software System

The RVI-ULTRA Series features a LCD daylight display that is clearly visible in the sun. The manual interaction with the new software is user friendly, with a scientific component which also assists professional users.

Million Pixels HD Camera

Miniature 720P HD image sensor creates a more vivid picture with true color and powerful detail. With excellent image processing technology, the target image is uncompressed, and the resolution is up to 1280*720, exposing every accurate detail.

HDMI HD Video Output

Equipped with HDMI video output interface, the RVI-ULTRA can be connected to a PC via dedicated data cable. This is suitable for professional consultation, helping to present the data to a broader audience, while also quickly locating the defect of the targeted object on a PC monitor.

100,000 LX Super Light + Large Field of View

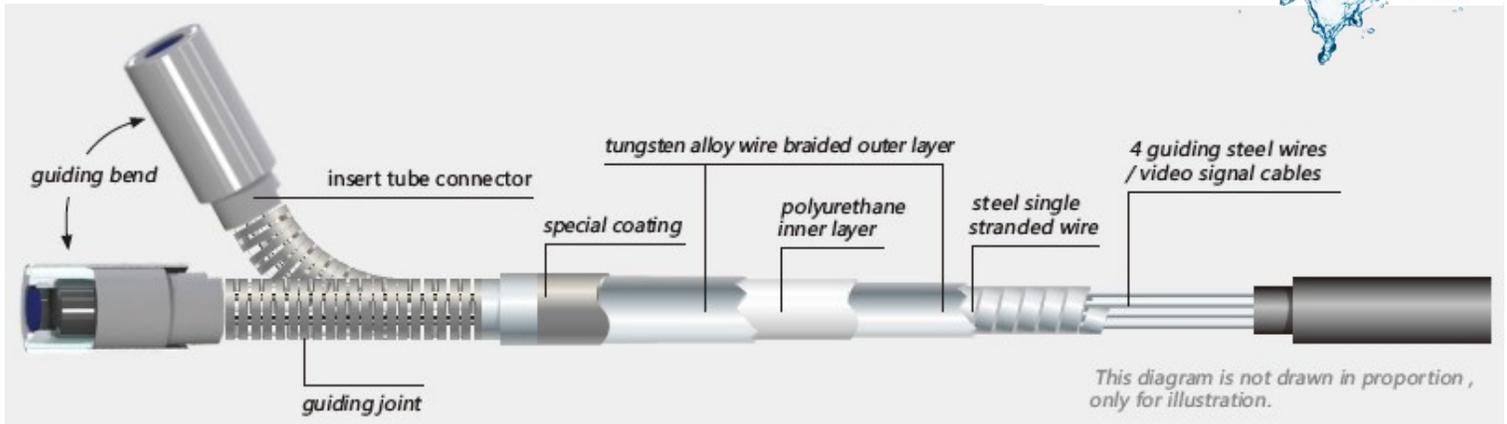
Illumination is 50 times higher than that of an ordinary endoscope. It is suitable for dark and harsh environments, with 8 levels of brightness. The light source can easily be adjusted according to the environment during the testing. With a larger depth of field and a larger angle of view, even first-time users can get great visual effects.

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✓ Excellent Quality

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Double tungsten alloy braided insertion tube with 4 insulating layers certifying the device as oilproof, waterproof, durable and reliable.



The probe portion of the insertion tube is bound by a laser welding process, hitting at least 21 points for reliable and quality manufacturing. Each point requires precise use of professional laser instruments to weld in place. This manufacturing process makes RVI-ULTRA Series more powerful and stable for optimum operating performance.

The insertion tube is woven with tungsten alloy wire, which has a tighter braiding layer than the stainless steel wire. This improves the wear resistance of the insertion tube by 20 times and effectively prolongs its service life. The RVI-ULTRA Series camera also uses sapphire protection lenses, which protect the lenses from being damaged.

✓ Easy Operation

Intelligent Navigation Menu

The navigation menu design is simple and clear, making it easy to understand and use. Even novices can get started without any training.

Support in 12 languages: Simplified English, Japanese, Korean, German, French, Portuguese, Spanish, Russian etc.

0.1 second automatic exposure with real time image capture, giving users accurate details of the targeted object. Immediate feedback through high-definition pictures / video. Automatic noise reduction for video purposes.

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Photo & Video Button

Ergonomic Design & Easy Operation

Operation Manual

Intelligent and Humanized Design Multi-Function Joystick



The unique servo closed-loop control increases the articulation and steering control of the probe, for more precise operation. The multi-function joystick has one-key lock, step-by-step fine adjustment, fast and slow adjustment, automatic reset, OK confirmation and menu navigation function, making inspection work easier.



Compact design, superior product performance, and easy-to-use operation with one hand, giving you an unprecedented ease of use.

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✓ Lightweight and Portable



Accessories & Long Lasting Battery Life

This single hand-held instrument only weighs 1.35kgs with battery. Optional shoulder holster, is also available. Whether it's checking a gearbox fan on a 100-meter tower or a complex large machine, the RVI ULTRA is designed to make it easier to use.

The transport case is made of industrial grade anti-drop material and is light and easy to carry. It can be easily placed in luggage racks such as airplanes, high-speed rail trains and ships for travel purposes. The internal design is compact and sturdy, with insulated and customized protection.

The RVI-ULTRA videoscope uses low-energy technology so inspections can be carried out from multiple angles, without interruption. With a four (4) hour battery life and a set of spare batteries included, lengthy inspections are easily completed.

The World's Leading Industrial Remote Videoscope

Camera	
Probe Diameter	φ4.8mm/φ6mm/φ8mm
Pixels	1,000,000 Pixels
Probe Material	Hard Titanium Alloy Protective Casing
Depth of Field (Direct View)	5-180mm;10-100mm
Depth of Field (Side View)	3-30mm
Field of View (Direct View)	110°/120°Optional
Field of View (Side View)	70°/90°Optional
Visible Direction	Standard Direct View Lens (side view lens optional)

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System	
Integrated design	Probe, Screen, Insertion Tube, Handle, Battery, and other integrated handheld design
Insert Tube	Four-layer tungsten wire wear-resistant braided tube
Effective Working Length	1.5-10m
Bending Control Mode	Electric control (servo)
Probe Articulation	360°all-way
Bending Lock	One-key Lock
Step Regulation	Step regulation between high-speed and low-speed bend
Bending Speed Control	Fast/Slow
Bending Angle	Within 5m \geq 160°, Above 5m \geq 120°
Light Type	Front LED light or Rear-mounted LED Fiber light (t \geq 3w hour)
Illumination	Front LED light with max 20000lx, Rear-mounted LED Fiber light with max 100000lx.
Image Enlargement	Support real-time 4x zoom, 8x partial zoom when the picture is viewed
Bright Adjustment	Manual, 8 levels
Display	5-inch LCD daylight display
Image Resolution	1280*720 / 960*720
Video Resolution	1280*720
Shooting and Recording Function	With camera and video functions, it can be captured during recording
System Security	With power-on password unlock function
Image Mode	Color, black and white, negative
Auxiliary Measurement	Cross cursor
File Editing	File can be renamed and add company logo
File Format	Picture: BMP/JPEG; Video: MP4
Video Playback	Fast forward and rewind functions
Image Flip	180°
Image Preview	Two mode for the list and the nine-square grid, the full-screen viewing / deletion File name editing / adding notes operation, time watermark, and picture-in-picture Guidance function can be performed in the preview mode.
Memory	Standard 8G SD card, Support 32G at maximum
Equipment Durability Protection Device	Buffer protection device for connecting host and insert tube
Emergency Lighting	Glare LED emergency lighting
Insertion Tube	Oil and corrosion resistant

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Host

Host Size	380mm x 135mm x 85mm OR 15" x 5.5" x 3.4"
Host Weight	≤1.35kgs (with batteries), The total weight depends on the length & diameter of the insertion tube
Instrument Case Size	600mm x 395mm x 235mm OR 24" x 15.5" x 9.25"
Output Port	HDMI
Fall-Resistant	1.2m fall-resistant
Insertion Tube Protection Device	130mm wear-resistant tube anti-twist protection tube
Working Time	≥4 hours, endurance to 8 hours with spare batteries

Operation Environment

Host System Working Temperature	-10°C ~ 50°C , when 0°C below, the display needs preheating
Camera Working Temperature	-20°C ~ 75°C , when 0°C below, please reduce oriented operation
Dust /Water/ Oil Proof	Insertion Tube IP67
Store Temperature	-20°C~60°C
Relative Humidity	15~90%

Accessories

Standard Configuration	Instrument Case with Insertion Tube storage, RVI ULTRA Videoscope, 2 sets of batteries, Card Reader, 8G SD Card
	Battery Charger, File Documents
Optional	HDMI Cable and leather shoulder holster

Customized Options:

- ▶ Depth of field can be customized according to user's requirements
- ▶ Insertion Tube and tube diameter can be customized according to user's requirements

If you need to customize, please call: 1-902-405-4100



Energy Industry

For wind power, power plants, electric power construction unit testing equipment, such as turbines, set equipment box, pipe, condenser pipe, pump, boiler, heat exchanger, valves, pressure vessel, defect detection, inspection and maintenance.



Petrochemical Industry

Used for storage tanks, heat exchangers, spherical tanks, cars, chemical industry pipeline facilities, special inspection units and pressure vessel production units, such as containers, cylinders, pipes and other internal defects inspection and inspection.



Aerospace

Used aircraft engine combustion chamber, aircraft and other parts of the turbine blades, regular inspection or maintenance, and other aircraft, rocket, aerospace research and development, mold manufacturing.



Automobile manufacturing

Used to inspect the engine block, cylinder head, turbine, transmission, exhaust pipe, valve body, pump body, control module, oil pressure component, nozzles and other parts of the quality control and vehicle assembly inspection.



Machine Building

Used to inspect the engine block, cylinder head, turbine, transmission, exhaust pipe, valve body, pump body, control module, oil pressure component, nozzles and other parts of the quality control and vehicle assembly inspection.



Special Inspection Industry

Used for boilers, pressure vessels pipes, gas cylinders, petroleum and petrochemical storage tanks, boilers, header, water wall and gas cylinder inspection, pressure pipes on welds, pipe wall cracks, pipes, foreign bodies and so on.



Food medicine machine

Used in the manufacture and installation of food, beverage, biological fermentation, Pharmaceutical industry inspection containers, pipes, welding scars, weld formation and cleanliness, maintenance in installation and use.

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Police Safety

Used in public security, armed forces inspection institutions, fire units and other units to carry out explosion-proof security, city anti-terrorism, customs inspection, life detection, etc.



Military Equipment

For missiles, warships, submarines, aircraft, armored vehicles, diesel engine, barrel and other equipment manufacturing quality control and maintenance.



After Auto Market

For car maintenance, chemical industry, engine combustion chamber, nozzle, valve and pistons.