

Bringing "Shape" to the Engineer's Voice.

φ6.9MM
ARTICULATING VIDEO BORESCOPE

VJ

- Industrial Video Borescopes from RF SYSTEM lab. -



Delivering precise articulation control,
portability and ease of use.
All the features you need, at a price you can afford.

Automotive

Engineering / Construction

QA/QC and assembly inspections for engines, frames, sub-assemblies and components.

Internal inspections of walls, ceilings and floors. Structural inspections of bridges, tunnels and foundations.

HVAC

Water Treatment Facilities

Inspection of boiler tubes, heat exchangers, valves, pipe welds and ducts.

Corrosion and condition inspections of pipes, joints, valves and pressure vessels.

Industrial Machinery

Railway / Shipping / Aviation

Inspection and repair of gear boxes, conveyors, hydraulic systems and engines.

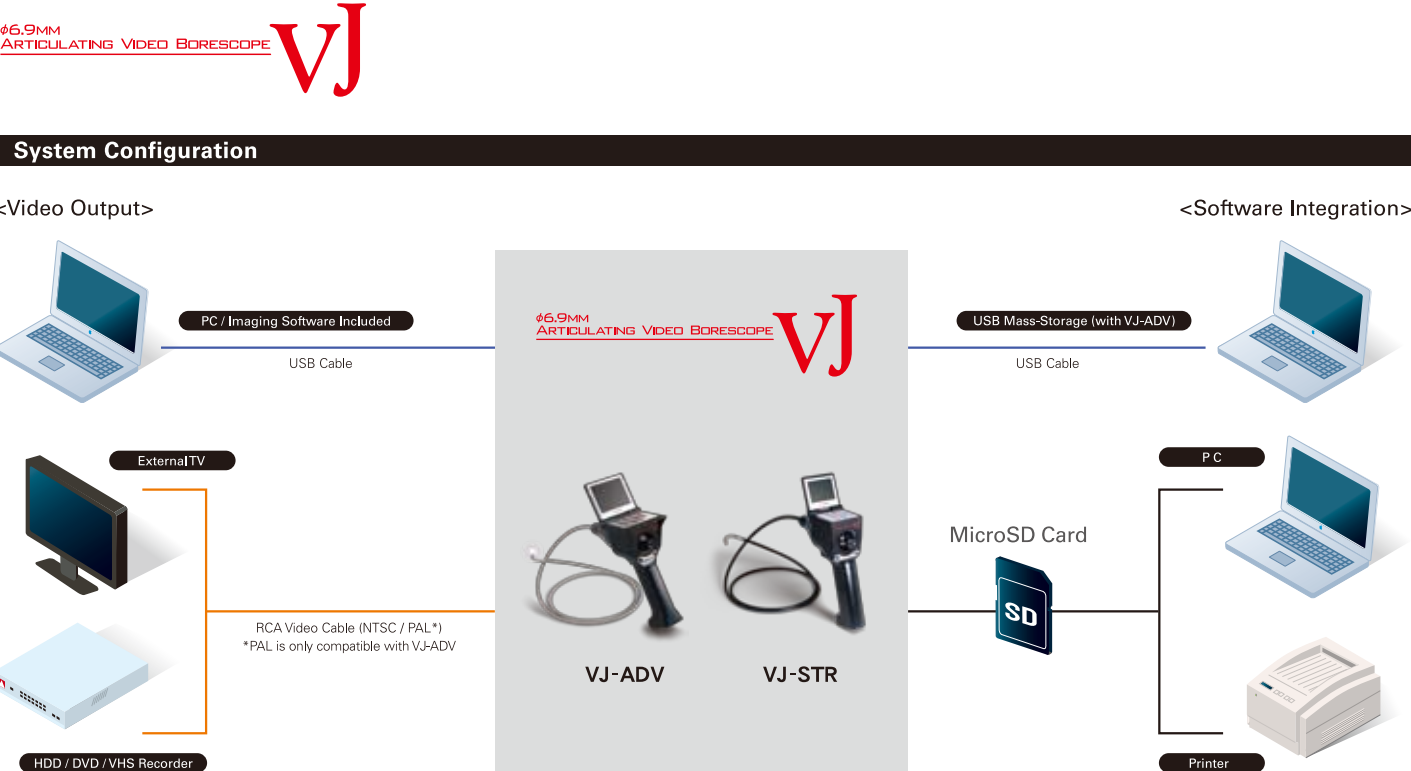
Inspection and repair of turbine, gasoline and diesel engines, along with structural components, airframes and ground support equipment.

Power Generation

Research / Security / Other Fields

Turbine and reciprocating engine inspections, heat exchangers, pipe corrosion, weld integrity inspections.

Police, military, R&D, education, food and chemical processing.



Comparison Chart			
	VJ-ADV	VJ-STR	
Insertion Tube Outer Diameter	φ6.9mm		
Insertion Tube Lengh	1.5m(59") / 3.0m(118") / 5.0m(197")	1.5m (59") / 3.0m (118")	
Insertion Tube Exterior	Steel Braid	Polyurethane	
Articulation	360°(over 90°in every direction)		
Illumination	4 Super High-Intensity White LEDs		
Waterproof	Insertion Tube and Tip		
Chemical Resistance	Machine Oil, Heating Oil, Engine Oil, 3.5% Concentrated Saltwater, Diesel Fuel		
Storage Media	MicroSD Card (Max. 2GB)		
LCD Monitor	3.5inch	2.4 Inch	
Zoom	2x Digital Zoom	NA	
External Temperature Display	●	NA	
Temperature Alarm Display	●	●	
LED Flash Capturing (Still Image)	●	NA	
Time-Lapse Recording (Video)	●	NA	
Video Output	●	●	
USB Output	●	●	
Microphone Input (Microphone Jack)	●	NA	
Audio Output (Earphone Jack)	●	NA	
Still Image Capacity (with 1GB MicroSD Card)	Max. 500 pictures		
Video Recording Capacity (with 1GB MicroSD Card)	Approx. 60 minutes (Nomal Mode) / Approx. 9 hours (Time-lapse Mode)	Approx. 60 minutes	
Image Time and Date Stamp	●	●	
Language (English/Japanese)	●	NA	
AC Power Supply	●	●	
USB Mass Storage Device*	●	NA	
Onboard Power Supply	4 AA batteries		
Battery Run-Time	Max. 1.5 hours	Max. 2.0 hours	
Carrying Case	●	●	
90°Side View Mirror (Optional)	●	●	
Weight	570g / 20 oz (without batteries at 1.5m length)	480g / 17 oz (without batteries at 1.5m length)	

*When connected to a PC via the USB cable, the VJ-ADV is recognized as an external storage device.

Option

90°Side View Mirror

VJ-ADV / VJ-STR

Size: Diameter 8.0 mm x 25.0 mm

Lens Protection Cap (x3)

Size: Diameter 7.0 mm x 13.0 mm

Inspired by dreams.

RF SYSTEM lab.

Manufacturer : RF System lab.

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Description of Business

Medical Field: Direct Digital Radiography Imaging Sensors, Medical Video Scopes

Dental Field: Digital Radiography Sensor, Intraoral Cameras

Industrial Field: Digital Radiography NDT Systems, Industrial Video Borescopes

Development of Capsule Endoscope and Disposable Video Endoscopes

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φ6.9MM
ARTICULATING VIDEO BORESCOPE

VJ



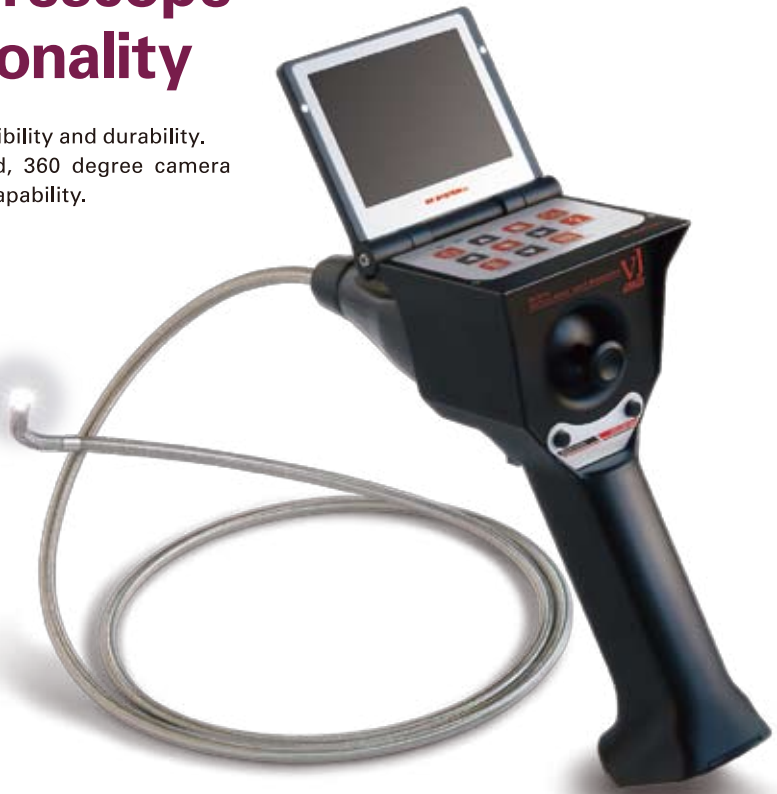
φ6.9mm Articulating Video Borescope VJ-ADV

High-End Video Borescope with Added Functionality

New steel-braided insertion tube delivers greater flexibility and durability. This all-in-one system combines joystick-controlled, 360 degree camera articulation with on-board image and video capture capability.

NEW

φ6.9mm
ARTICULATING VIDEO BORESCOPE
VJ
ADV



Functionality

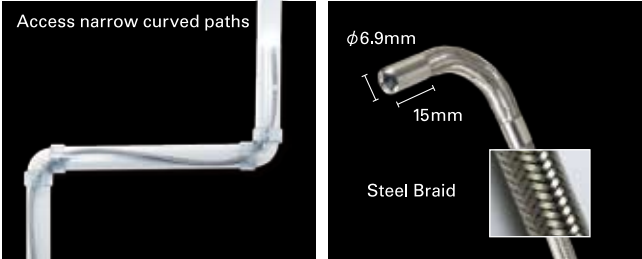
Joystick-Controlled, 360 Degree Articulation

The mechanized joystick uses operator input to directly control camera articulation. The result is smooth and accurate control of the articulating tip, with immediate response to joystick inputs. This allows the camera tip to be steered through narrow bores, channels and complex curves. Additionally, the camera will hold its position even when joystick pressure is released. No other video borescope is easier to use.



Highly Durable and Flexible Insertion Tube

The VJ-ADV comes with a 6.9 mm diameter steel-braided insertion tube and ultra-short, 15 mm rigid tip section. The highly flexible and durable insertion tube can be easily navigated through narrow, curved paths. The steel-braided covering protects the insertion tube from rough or abrasive surfaces without compromising flexibility.

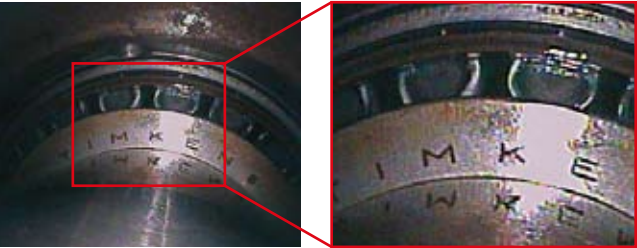


Features

2X Digital Zoom

A single control panel button switches the onboard display to a 2X digital zoom*. This allows detailed observation in situations where the insertion tube can not get any closer to the inspection target,

*Zoom not compatible with external monitor display via USB or RCA output.



Temperature Sensor

A temperature sensor located on the tip of the insertion tube measures and displays the internal temperature of the camera module, and delivers a two-stage visual warning to the user when the temperature approaches a dangerously high level*. This warning systems helps prevent damage to the scope from overheating of the camera and electronics.

*The sensor is not designed to measure the ambient temperature of the area being inspected.

Voice Recording

By connecting the included hands-free-microphone, audio annotation of the inspection can be recorded along with video. This allows the user to further explain the reason for the inspection, findings, and recommended remedial action, if necessary. When still photos alone are not adequate, a video recording with voice overlay provides all the documentation a user could need.



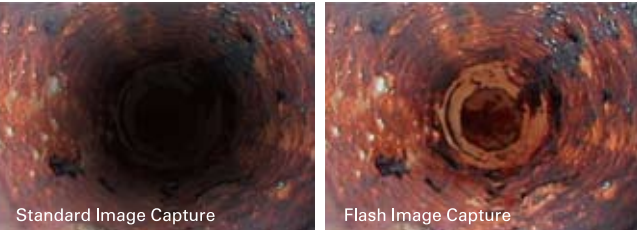
Super High-Intensity LED Illumination

Illumination is provided by four super high-intensity white LEDs located at the tip of the bending section. These LEDs can be adjusted in 5 different levels from OFF to HIGH, to deliver just the right amount of light.



LED Flash Function

The LED Flash function delivers a 0.1 second burst of super high intensity light through the 4 LEDs, allowing you to take a photo of an especially dark area, such as a large diameter pipe. Similar to the flash on a handheld digital camera, it illuminates the inspection target just long enough to capture a clear image.



True Portability in a Compact Package

True portability is made possible through the ergonomic design of the VJ handle and base unit. All key functions, including image capture, video recording, LED brightness control, and camera articulation, can be controlled with one hand. The integrated 3.5 inch monitor allows easy viewing of the inspection target; no external monitor is required. Nothing this portable and compact delivers so many features or is easier to use.



Battery Powered Operation

VJ-ADV is powered by four AA batteries which provide approximately 1.5 hours of run-time. Because off-the-shelf disposable batteries can be used, there is no risk of down time waiting for a recharging cycle. An AC adapter is also included allowing unlimited run-time while plugged into a standard wall outlet.



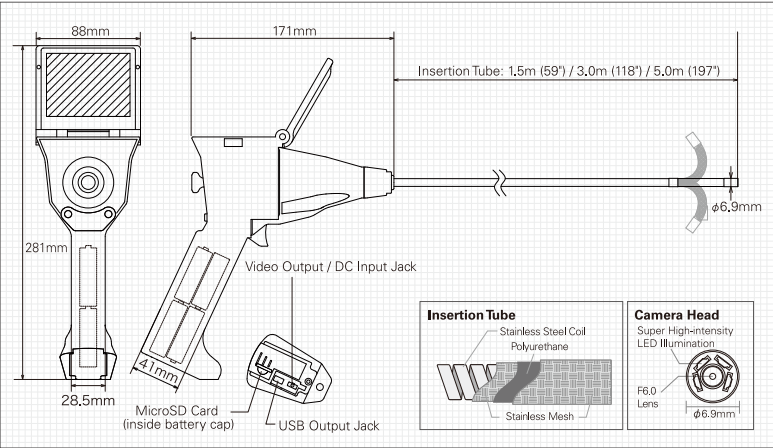
Features / Specifications

Insertion Tube	Outer Diameter	φ 6.9mm
	Length (meter/inch)	1.5m (59") / 3.0m (118") / *5.0m (197")
	Exterior	Stainless Steel Braid
	Waterproof	Insertation Tube and Tip
Optics	Chemical Compatibility	Machine Oil, Heating Oil, Engine Oil, 3.5% Concentrated Saltwater, Diesel Fuel
	Field of View (H/V)	72° / 54°
	F No.	F6.0
	Depth of Field	15mm~∞
Articulation	Illumination Method	4 Super High-Intensity White LEDs
	Articulation Angle	360°(over 90°in every direction)
	Articulation Control	Joystick with "Direct Control" Mechanism
	Rigid Distal End Length	15mm
LCD Monitor		3.5inch Color Digital TFT
Observation Function	2x Digital Zoom	
	External Temperature Display (Celsius/Fahrenheit)	
	Temperature Alarm Display	
LED Output Adjustment		5 Levels
Still Capture / Record Function		LED Flash Capturing (Still image) Time-lapse Recording (Video)
Input/Output Terminal	Video Output	φ2.5m Stereo Mini Jack for RCA Video Output (NTSC/PAL)
	USB Output	Mini B Terminal Ver. 2.0 Video Capture Output (Includes Driver / Viewer Software)
	Audio Output	Monaural Flat Jack for Hands-free Earphone
	Microphone Input	Monaural Flat Jack for Hands-free Microphone
Storage	Storage Media	MicroSD Card (Max. 2GB)
	Still Image	JPEG 640×480 pixels
	Video	Motion JPEG (AVI file extension) 640×480 pixels 15~30fps Voice recording function via the attached microphone
	Storage Capacity (with 1GB MicroSD Card)	Still Image:Max. 500 pictures Movie Recording: Approx.60 minutes(Normal Model / Approx. 9 hours (Time-lapse Model)
Playback Function		Still Image: Thumbnail 9-image Display / Full Screen Display Video: Play, Pause
Menu Operation	Image Adjustment (Brightness, Contrast, Hue, Sharpness)	
	Delete Stored Image	
	Time and Date Setting	
	Language : Japanese / English USB Mass Storage	
Operating Temperature (Insertion Tube)		In Air : -30°C~60°C (-22°F~140°F) In Liquid: 10°C~30°C (50°F~86°F)
Power Supply	DC	DC 6V (four AA alkaline batteries)
	AC	100V~240V
Operating Time		Max. 1.5 hours (with four AA alkaline batteries)
Weight		570g / 20 oz (without batteries at 1.5m length)
Carrying Case		495 x 420 x 145 mm (19 x 17 x 5 inch)

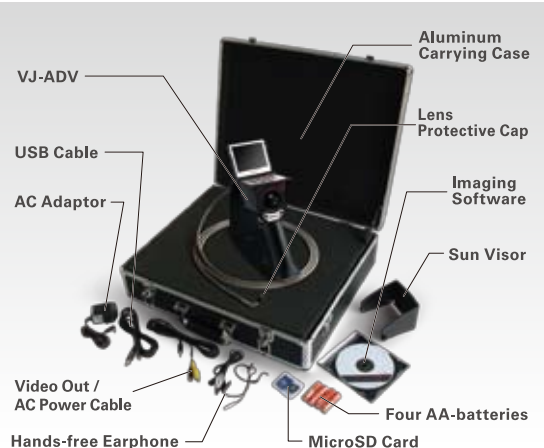
Specifications and design may be changed without prenotice.

*5.0m insertion tube length is available custom order.

Structural Drawing



Packaged Items



φ6.9mm Articulating Video Borescope VJ-STR

Original Model for Basic "Viewing / Capturing / Recording"

The world's lightest and most compact video borescope True portability in an all-in-one imaging system.



Features

Integrated Design, Essential Features

As the world's lightest and most compact video borescope, the VJ-STR brings unrivaled portability and ease of use to engineers, technicians and inspection professionals. Weighing just 480g (17oz), and designed for one-handed operation, the VJ-STR is the ideal tool for field inspections and working in confined spaces.



Easy "Viewing / Capturing / Recording"

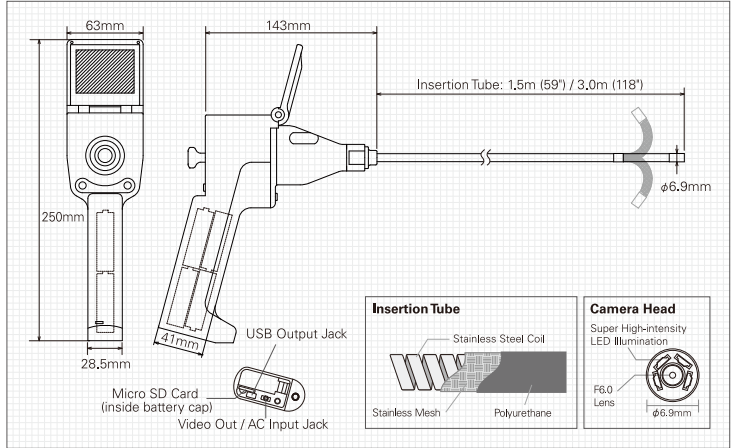
The ergonomic handle design and location of key function controls facilitates one-handed operation. Use a trigger button to capture images, while your thumb controls LED brightness, video recording and camera articulation via the joystick. All images and video are stored on a MicroSD card in the base of the unit.

Features / Specifications

Insertion Tube	Outer Diameter	φ 6.9mm
	Length (meter/inch)	1.5m (59") / 3.0m (118")
	Exterior	Polyurethane
	Waterproof	Insertation Tube and Tip
Optics	Chemical Compatibility	Machine Oil, Heating Oil, Engine Oil, 3.5% Concentrated Saltwater, Diesel Fuel
	Field of View (H/V)	72° / 54°
	F No.	F6.0
	Depth of Field	15mm~∞
Articulation	Illumination Method	4 Super High-Intensity White LEDs
	Articulation Angle	360°(over 90°in every direction)
	Articulation Control	Joystick with "Direct Control" Mechanism
	Rigid Distal End Length	15mm
LCD Monitor		2.4inch Color Digital TFT
Observation Function		Temperature Alarm Display
Input/Output Terminal	Video Output	φ2.5m Stereo Mini Jack for RCA Video Output (NTSC/PAL)
	USB Output	Mini B Terminal Ver. 2.0 Video Capture Output (Includes Driver / Viewer Software)
Storage	Storage Media	MicroSD Card (Max. 2GB)
	Still Image	JPEG 640×480 pixels
	Video	Motion JPEG (AVI file extension) 640×480pixels 15~30fps
	Storage Capacity (with 1GB MicroSD Card)	Still Image : Max. 500 pictures / Movie Recording : Approx. 60 minutes
Playback Function		Still Image : Thumbnail 9-image Display / Full Screen Display Video : Play, Pause
Menu Operation	Image Adjustment (Brightness, Contrast, Hue, Sharpness)	
	Delete Stored Image Time and Date Setting	
Operating Temperature (Insertion Tube)		In air : -30°C~60°C (-22°F~140°F) In Liquid : 10°C~30°C (50°F~86°F)
Power Supply	DC	DC 6V (with four AA alkaline batteries)
	AC	AC Adaptor (6V/0.85A)
Operating Time		Max. 2.0 hours (with four AA alkaline batteries)
Weight		480g / 17 oz (without batteries at 1.5m length)
Carrying Case		470 x 350 x 100 mm (19 x 14 x 4 inch)

Specifications and design may be changed without prenotice.

Structural Drawing



Packaged Item

