

USA2000J **PORTABLE JOYSTICK** **ARTICULATING VIDEOSCOPE**

USA Borescopes

2055 Bearden Road | Clarksville, TN 37043
931-362-3304 | sales@USABorescopes.com | www.USABorescopes.com

Best Image Viewing Experience

The X2000 features a 7" LCD touchscreen that delivers not only crisp and clear images but also features a manual exposure which works very similar to that of a smartphone. This makes it not only very helpful but also very convenient to use.



Wide view angle 7" IPS TFT-LCD



Manual exposure by fingertip

Advanced File Management

Never get lost again in the countless numbers of images and videos you take. The X2000 HD offers a file management system which allows you sort your footage into folders, to tag them and to add notes or annotations. This makes keeping track of all your inspections easy and convenient.



Custom build file folder by 'SESSION'



Custom photo overlay text by 'TAG'

Versatile Output Connectivity

HDMI port to TV/monitor for HD quality image viewing

USB type C port to PC as Web-Cam or SD card reader

Wi-Fi connect to mobile devices to view and share pictures. Dedicated APP download (VideoscopeNOW)



Excellent User Interface

A vast range of different functions ensure the best user experience, catering all your individual needs for your next inspection.



Front /side Dual view at once (with mirror)



Supports image sharpness fine tuning



Rotate the live view clockwise to get the best visual angle



3 stage temperature warning & auto shut down function



Patented particle free effect (with mirror)



Editable image annotation

Use Case: Combustion Chamber & Turbine inspection in the aviation industry

The X2000 HD videoscope is a perfect companion for this challenging task. In this case the X2000 system was used in combination with one of our articulation probes. Not only does this combination provide high quality videos but also outstanding image quality of 1600*1600 pixels.

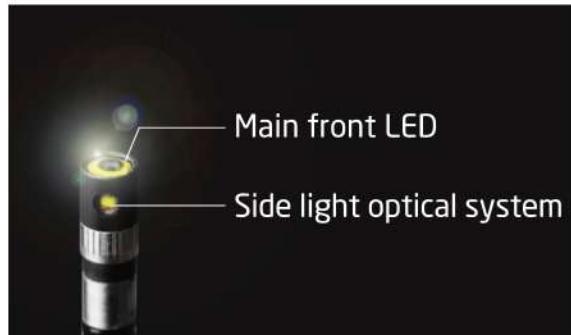
The small diameter of 3.9mm and the 120° field of view as well as the 140° bending angle allow the technician to move the probe freely within the area to be inspected.



New HD Probes



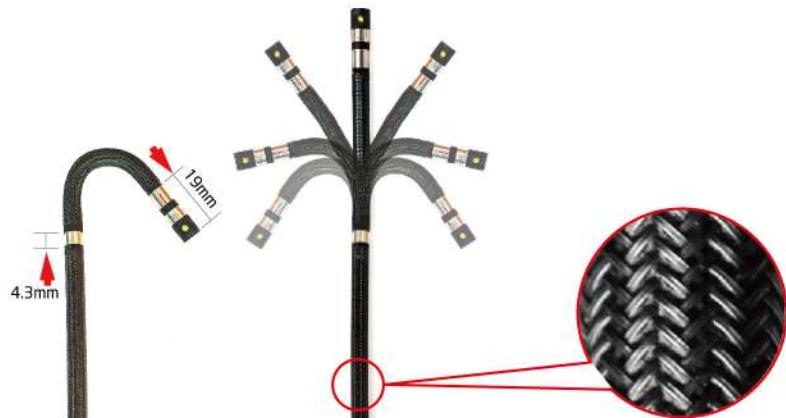
Smooth mechanic articulation control system
Move & lock joystick



- 100°C resistance camera tip (6.0mm tube)
- Ultra-luminance front LED
- Patented side-luminance optical system



High rigidity tube (35cm)



Shorter distal end & bending radius

Scratch resistance tungsten braids

HD Image Quality

Stunning video quality and crisp images, all without compromising probe size or maneuverability. Our new 3.9mm inspection probes are the combination of a small, flexible design and flawless image quality. The comprehensive features of our X2000 System in combination with our new HD probes will definitely elevate your inspections.



FOV: Wider Than Ever Before

- The enhanced field of view (FOV) of our new 3.9mm HD lenses allows you to see in a wider angle than ever before. Especially in combination with the shorter probe tip and the large articulation angle of our probes, it allows for a comprehensive inspection during which no flaw will remain undetected.



2560*1440 output by 6.0mm HD probe
(30mm distance)



1600*1600 output by 3.9mm HD probe
(30mm distance)

DOF (Depth of Field)

The depth of field (DOF) needed for an inspection, can vary depending on the application field for your videoscope. Airplane turbines for example need a different focal length than the engine block of an automotive. Mitcorp offers a variety of different focal lengths to fit your needs.



2560*1440 output by 6.0mm HD probe
(10mm distance)



1600*1600 output by 3.9mm HD probe
(5mm distance)

X2000 System Technical Specifications

X2000



* High temperature during charging/operation may cause degradation of battery performance and life.

Display	7" LCD, Resolution 1024x600	Weight	1480g
Power Supply	AC adapter	100V~240V, 12V 2.5A. 50-60Hz	
	BATTERY	Rechargeable Li Battery 3.6V 9800 mAh, approximately operation time: 5hrs, charging time: 4hrs	
Video Output	HDMI	TYPE D; HDMI 1.4 transmitter with 3D format and CEC support	
	USB	USB TYPE C, supporting USB full-speed and high-speed data transmission	
	Wi-Fi	IEEE802.11B/G	
Operating temperature ^(*)	In air 0~45°C, with AC power adapter: 0~40°C, charging temp: 0~35°C		
Storage temperature	-10°C~70°C		
Drop resistance	1m		
Relative humidity	Max 95% non-condensing		
Dust and waterproof	IP 57		
Insert Tubes interchangeability	6.0mm HD series; 3.9mm series; 2.8 mm		
Software features		Recording management	
Image features	Digital zoom 3X, 10 steps brightness control	Storage media	SDHC up to 32G
Image effect	Clarity-on / off	Overlay	YY/MM/DD h:m, battery capacity
Annotation	10 text annotation (24 characters)	Thumbnail image display	9 grids album mode
Timestamp / watermark	For snapshot / video recording (on / off)	Still image	2560x1440 (S-HD); 1280x720 (HD)
Image management	User define pic / video folder available		Recording format .jpg
Image display functions	Light boost, light off, mirror, grid, compare, wireless, particle free, dual view, light direction, negative, auto white balance	Resolution	1920x1080
		Video	Recording format .mov / H.264
			Audio input Built-in microphone (on/off)
White balance	Manual adjustable (default, calibration, custom)	Frame Rate	30FPS
Accessories			
HDMI cable (AV-out)	1.8m, HDMI 1.4a, D TYPE		
USB cable (data transfer)	1m. type C to standard type A		
USB charging cable	1m, USB-DC jack (for power bank) It is recommended to use a 5V~12V, 2A mobile power bank. An output under 2A will not charge the battery and only provide operation power supply		
SD card	32G		
DC power adapter	100V~240V, 12V 2.5A 50~60 Hz		
Shoulder strap	Polyester		
Hand strap	Polyester		
Sun visor	Steel / Plastic		
Insulation cap	Ø20mm, 90mm rubber		
Trolley case	HDPE EVA		

MIL-STD compliance

Item	Standard (Method)
Vibration Test (Packaged)	MIL-STD-810G-CHG-1 Method 514.7
Transit Drop Test (Packaged)	MIL-STD-810G-CHG-1 Method 516.7
Salt Fog Test	MIL-STD-810G-CHG-1 Method 509.6
Humidity Test	MIL-STD-810G-CHG-1 Method 507.6
Explosive Atmosphere	MIL-STD-810G-CHG-1 Method 511.6

Options	6.0 Forward	3.9 Forward	3.9 Dual	2.8 Forward
Probe head diameter	6.0 mm	3.9 mm	3.9 mm	2.8 mm
Probe head length	19.3 mm	13 mm	21.6 mm	10.1 mm
Mirror Adaptor	Side / Dual view		n.a	
Direction of View	Front view	Front	Front + Side 90°	Front
Illumination	Front / Side LEDs	Front LED	Front + Side LED	Front LED
Field of View (FOV)	90°		120°	
Depth of Field (DOF)	25 mm~∞	5 mm~100 mm	5 mm~100 mm	3 mm~infinite
Still image resolution (.jpg)	2560*1440 (S-HD)	1600*1600	(Dual)1600*1600	800*800
Video resolution (.mov)	1920*1080	800*800	(Dual)800*800	400*400
Articulation angle	2 m, 3 m full ways ≥ 120° ; 5 m, 7 m full ways ≥ 80°	Full way >140°	Full way >120°	Full way >110°
Probe length	2 m / 3 m / 5 m / 7 m	1.5 m / 3 m	1.5 m	1.5 m
Operating temperature	In air: -10~-100°C ; In water: 10~30°C			In air : -10~80°C ; In water: 10~30°C
Probe head material	Stainless Steel			
Probe material	Tungsten braid			
Joystick console dimensions	(WxDxH) 139.4x193x84.2 mm (w/o SR and insert tubes)			
Joystick console buttons	Brightness+, Brightness-, snapshot / record			
Lock and move	Joystick / Unlock switch on console			
Dust and water proof	joystick console: IP54 ; Insert Tube: under water 1m for 30 minutes			
Relative humidity	Max 95% non-condensing			
Liquid resistance	Operable when exposed to machine oil, light oil or 5% saline solution			
Storage temperature	10°C~70°C			
Rigid sleeve	for 6.0 mm probe		for 3.9 mm probe / 2.8 mm	
	OD: 8 mm / ID: 7 mm Protection: OD: 10 mm Extension joint ring: OD: 11.2 mm		OD: 6 mm / ID: 5 mm Protection: OD: 8 mm Extension joint ring: OD: 10 mm	
Trolley case	Grip material: Rubber / Aluminum / Plastic ; Tube material: Stainless steel HDPE EVA with storage reel			

Trolley Case & Accessories

Ruggedized Storage



Built-in storage reel for tube



IP67 trolley case with extendable handle

Accessories



Rigid sleeve



For 6mm tube.
Max 4 extensions

For 3.9mm tube.
Max 3 extensions



Rigid sleeve



6.0mm
dual view mirror



6.0mm
side view mirror



6.0mm
pin



Insulation cap



TYPE-C



HDMI



Trolley case



Shoulder strap



Hand strap



Power adaptor



USB charging cable



Sun visor

* also includes: cleaning set, SD card, user manual



USA Borescopes

2055 Bearden Road | Clarksville, TN 37043
931-362-3304 | sales@USABorescopes.com | www.USABorescopes.com