

Vividia™ Ablescope® Digital Articulating Inspection Camera Borescopes

User Manual

Models:

- VA-400 USB Digital Rigid Articulating Borescope
- VA-800 USB Digital Flexible Articulating Borescope
- VA-920 USB Digital Semi-Rigid Short Articulating Borescope
- VA-980 USB Digital Semi-Rigid Articulating Borescope

Optional Accessories:

- VA-B2 Vividia™ Wi-Fi Box for iPhone iPad and Android
- VA-T7 Vividia™ Android Tablet
- VA-T8 Vividia™ Windows Rugged Tablet
- VA-P5 Vividia™ Android Phone
- VA-C1 Vividia™ Rubber Sleeve Changing Tube Tool
- VA-R5 Vividia™ Protective Rubber Sleeve 5pcs



VA-400



VA-800



VA-920



VA-980



VA-C1 Sleeve
Changing Tool



VA-R5 Protective
Rubber Sleeve 5pcs



VA-P5 Android Phone



VA-B2 WiFi Box



VA-T7 Android Tablet



VA-T8 Windows Tablet

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Message from Vividia Technologies and Ablescope:

Dear Customer, thank you for your business. You can find product details, software, APPs, user's guides and more related information on our website, www.vividia-tech.com, and our YouTube videos. Please read the user guide carefully before you use Vividia Ablescope Inspection Camera Borescopes.

1. Vividia™ Ablescope® Models: Comparison Table

There are total 4 models for Vividia Ablescope USB digital articulating borescope inspection cameras

| Models | Cable Cam | Moldable | Length | 180 articulating | Cam Diameter | # of LED lights |
|---------------|------------------|-----------------|---------------|-------------------------|---------------------|------------------------|
| VA-400 | Rigid Stainless | No | 40 cm | Yes | 8.5 mm | 6 |
| VA-800 | Flexible | No | 80 cm | Yes | 8.5 mm | 6 |
| VA-920 | Semi-Rigid | Yes | 35 cm | Yes | 8.5 mm | 6 |
| VA-980 | Semi-Rigid | Yes | 65 cm | Yes | 8.5 mm | 6 |

2. Optional Accessories:

- a) **Wi-Fi Box (model: VA-B2):** With VA-B2 wifi AirBox, one can connect the Vividia Ablescope borescopes to iPhones, iPads, Android phones and tablets wirelessly through WiFi connection. The free APP “AirBox” is provided to preview and take pictures and videos.
- b) **Android Tablet (Model: VA-T7):** Vividia VA-T7 Android Tablet can connect to Vividia Ablescope borescopes and other USB digital microscopes through OTG cable (included in a package). APPs are available for free download online or Google “Play Store”.
- c) **Windows Tablet (Model: VA-T8):** Vividia VA-T8 Windows Tablet is a Windows 10 tablet. It can be connected to Vividia borescopes or microscopes through OTG cable. Vividia VA-T8 tablet is water-proof, rugged heavy-duty tablet.
- d) **Android Phone (Model: VA-P5):** Vividia VA-P5 Android Phone can be connected to Vividia Ablescope borescopes and other microscopes through OTG cable. Free APPs (Such as are available online and Google “Play Store”).
- e) **Protective Rubber Sleeve Changing Tool (Model: VA-C1):** This tube tool is very useful if you need to change the worn or dirty protective sleeve for protecting the articulating assembly. Watch how to videos on YouTube from our company.

3. Package Contents:

Borescope; OTG cable; Protective rubber sleeve changing tube; 5 pcs silicone rubber sleeves; user manual; Aluminum or hard plastic case or cardboard box.

4. Introduction of Vividia™ Ablescope® Digital Articulating Borescopes

Vividia™ Ablescope® USB Digital Articulating Borescope Inspection Camera Videoscopes are designed for visual inspection jobs where the area to be inspected is inaccessible by other means. The borescope uses a miniature video camera at the end of the soft tube. The end of the insertion tube includes 6 high light white LED which makes it possible to get a very clear view and take photos or capture videos deep within equipment, engines and other dark spaces.

There are many applications for Vividia™ Ablescope borescope inspection cameras. Here are some of them:

- Aviation airplane engine maintenance
- Gas cylinder/tank inspection
- Tube and pipe inspection
- Air conditioner and vacuum systems inspection
- Safer and locker inspection
- Instrument, mechanical and equipment repairs
- Automotive, boat, truck, motorcycle engine inspection

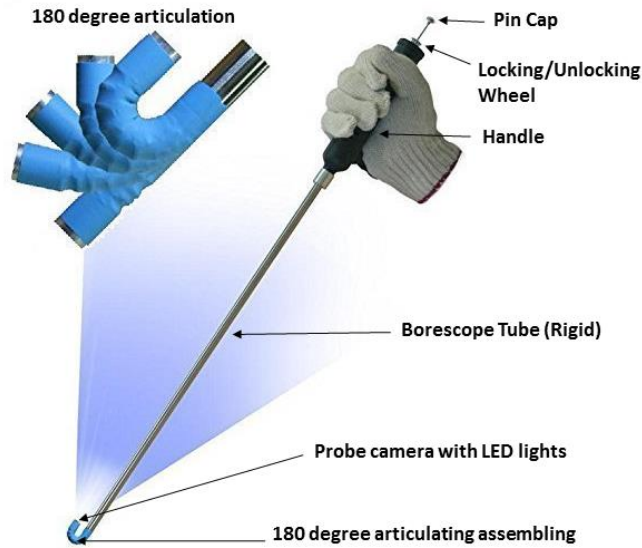
4.1 Specifications

1. Sensor: high-quality CMOS sensor
2. Resolution: 640X480
3. Interface: USB2.0.
4. Frame rate: 30 frames/sec (CIF and VGA).
5. Focal distance: 40mm - 400mm
6. Optical lens view angle: 60°
7. Photo format : JPG
8. Video format: AVI
9. High brightness LED: 6 pcs, white color
10. Brightness at 20cm distance: ~ 200 lumens, adjustable
11. Diameter of insertion: 8.5mm
12. Length of insertion: from 350mm to 800mm depending on models
- 13 Articulation bendable angle: one way 0° to 180° adjustable
14. Angle locker: can be locked/unlocked at any angle
15. Articulation bendable radius: 30mm
16. Water Proof: IP65
16. Working temperature: 0° to 60°

- 17. Storage temperature: 0° to 60°
- 18. Works with systems: Windows XP, 7, 8, 10 and MAC, plug & play, Android; (iOS like iPad/iPhone through WiFi Box)
- 19. Connecting to Android: Yes through OTG cable (APP: CameraFi, Ablescope)

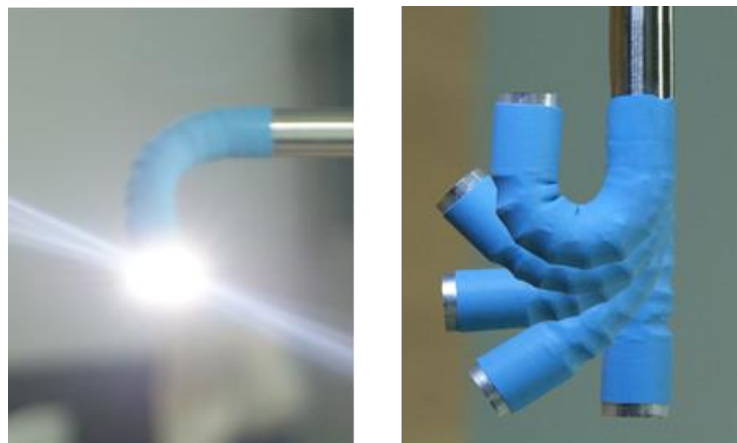
4.2 Structure of Vividia Ablescope Articulating Borescopes

The structure is illustrated with Model VA-400 Rigid. The other models have the similar structure, the differences are the cables (flexible or semi-rigid) and their length.

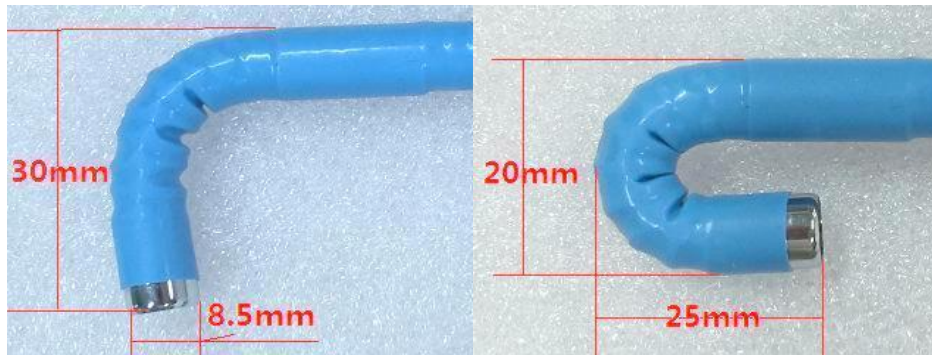


4.3 Features of Vividia Ablescope Digital Articulating Borescopes

1. Articulation bendable angle: 0° to 180° adjustable continuously
2. Very easy operation by one hand hold and just pushing down the release button by bending the thumb to adjust the articulation angle
3. The articulation angle can be locked/unlocked at any degree by open/close the locker
4. Very small bending radius (only 30mm)



5. High brightness LED illumination

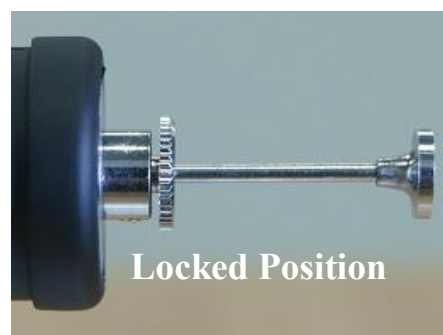
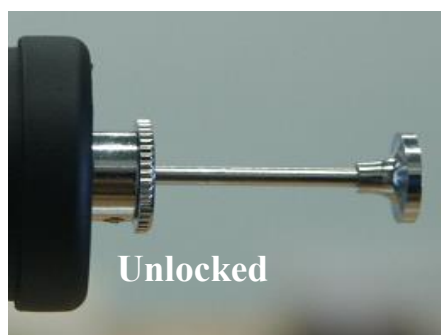


6. Long depth of field from 40mm to 4000mm
7. Work with: Windows XP, 7, 8, 10 and MAC, plug & play
8. Connect to Android devices through OTG cable
9. With Wi-Fi box (model: VA-B2), one can connect the borescopes to iPhone, iPad, Android devices.

4.4 Bendable Articulation Operations

Watch our how-to videos on YouTube by searching "Vividia Ablescope"

1. How to bend the articulation see right photo: The release button and the locker are worked together. Just push down the release button by the thumb to bend the articulation to a proper angle from 0° to the 180° back and forth.
2. How to lock the articulation angle: There is a locker at the down place of the release button you can see the knurling on the round edge. Turn the locker anticlockwise to open the function. Push down the locker and turn the locker clockwise to close the function.
3. Portrait of the image: The direction of the USB cable indicates the portrait



position of the image

- At the end of the borescope there are 6 high light white LED around the lens to provide illumination. To adjust the light user can turn the wheel on the dimmer on USB cable. The LED lights will be hot after a while. Please do not touch the camera end by fingers.




4.5 Take pictures, videos and control the LED lights brightness






After connecting a Vividia Ablescope Borescope to a PC or suitable tablet, you can pre-view videos and do inspection. The brightness of 6 LED lights is controlled by turning the LED wheel dimmer on the control unit installed on USB cable. One can take pictures either by using software/APP or by pressing the snap button on the control unit. One needs to use software or APP to record videos.



4.6 Replacing worn protective rubber sleeve with the tube changing tool

The worn or dirty protective rubber sleeve for the articulating assembling could be replaced easily with the metal tube changing tool. You can watch our video on YouTube by search "Vividia Ablescope Sleeve" . Here is the how:

| STEPS | PHOTOS | DESCRIPTION |
|-------|---|---|
| 1 |  | Remove the worn or dirty protective rubber sleeve from borescope |
| 2 |  | Take out one new rubber sleeve and get the changing tool ready |
| 3 |  | Insert a new rubber sleeve onto the small end of the tube changing tool |

| | | |
|---|--|---|
| 4 |  | Roll up the rubber sleeve on the tube |
| 5 |  | Roll the rubber sleeve to the larger end of the tool |
| 6 |  | Place the larger end of the tube onto the end of Vividia Ablescope camera probe |
| 7 |  | Roll the rubber sleeve to the upside of the articulating assembly and take away the changing tool |
| 8 |  | Roll the rubber sleeve over the articulation assembly and pass to the other side of the articulating assembly |

4.7 Software download, Installation, and Use

Vividia™ Ablescope® USB Articulating Borescopes can be used on Windows, Mac, Linux computers, also can be used on Android devices through OTG connection.

4.7.1 For Windows (XP/Vista/7/8/10) Users:

Visit our web pages, www.vividia-tech.com; and/or www.oasisscientific.com to download the software and menu: Many other USB camera software can be used.

App software for PC: **ehe1.exe; oasis.exe; and digital viewer**

Menu: Quick use guide of **ehe1.exe**

Menu: User Guide Vividia™ Ablescope® Articulating Borescope

Note: Vividia Ablescope Borescopes are UVC cameras and can be opened by any other software of UVC camera

4.7.2 For Mac Users:

You can use **Photo Booth** or other Mac USB webcam software, such as “**digital viewer**” for Mac, “**miXscope**” (free to try). Find more information from our website www.vividia-tech.com and www.oasisscientific.com to download related software.



4.7.3 APPs for Android devices connected with OTG cable:

Download and install **CameraFi**, or **UsbWebCamera**, or **mScope** from Google Play Store or www.pureapk.com. You can also download **AbleScope.apk** from our website;

Menu: Connecting to Android Devices through OTG Cable



4.7.4 For iPad, iPhone and Android phones and tablets users through WiFi AirBox (Sold separately, VA-B2 AirBox WiFi Converter)

Download and install “AirBox -Vividia Ablescope” from Apple’s APP Store. For Android devices, download the same APP from Google Play Store or our website www.vividia-tech.com and www.oasisscientific.com.

QUICK USE of software:

For Windows users :

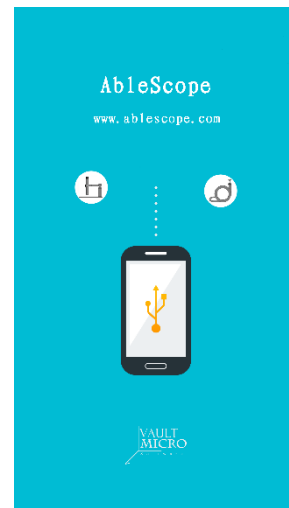
- 1, Plug in the borescope into the USB port
- 2, Download the software ehe1.exe from our web page: www.vividia-tech.com or www.oasisscientific.com.
- 3, Double click on the icon of ehe1.exe to open the image windows
If the image came from your built-in camera, please click on the devices in the navigation bar and then click on the USB camera to change image to the borescope
- 4, Quick use of the function keys:

| KEY | FUNCTION |
|-----------|-----------------------|
| SPACE BAR | IMAGE FREEZE |
| RETURN | SNAP |
| ↑ & ↓ | ZOOM IN / OUT |
| F5 | DELAY 10 SECONDS SNAP |

For Mac users:

Users may use the **Photo Booth** to observe the image.

If the image came from your built-in camera, please click on the cameras in the navigation bar and then click on the USB camera to change image to the borescope. One can also download "Digital Viewer" from our websites.



Connect Android devices through OTG cable:

Please visit our website: www.vividia-tech.com and www.oasisscientific.com.

To download below APP and user guide:

1, App: ablescope.apk

2, Menu: Menu: Connecting to Android



Using an OTG cable provided to connect on Android devices and follow the instruction from the screen. **Note:** Not all Android devices can work with our products. And we can't guarantee the performance too. AbleScope.apk is mainly developed for the Android devices that carrying Qualcomm chips as the CPU in the smart phones and tablets.

Connect iPad iPhone through WiFi AirBox:

Vividia Ablescope VA-B2 AirBox WiFi Converter for iPads and iPhones is designed for customers who want to use our Vividia™ Ablescope® articulating borescopes (Models: VA-400, VA-800, VA-920 and VA-980) and microscopes (Model: V1-PS, V2, and V2-S) with their iPhone and or iPad. It works with UVC (USB Video Camera) that has MJPEG format output. **VA-B2 AirBox** convert the USB camera signals into a WiFi hot point, and iPad, iPhone or Android devices with WiFi functions can connect to and one can use our free APPs (AirBox -Vividia Ablescope) to see preview live images, take pictures and record videos.



The Apps for **Vividia™ VA-B2 WiFi AirBox** : First download our APP and install on your devices:

| Devices | App Name | Download Address |
|--------------|--|------------------|
| Android | AirBox.apk | vividia-tech.com |
| iPhone, iPad | AirBox - Vividia AbleScope | App Store |

Menu: User Guide for VA-B2 WiFi Airbox

4.8 Very Important Notice

Warning: The borescope maybe is locked. Please do not bend the camera tip by force. Just unlock the borescope tip by press the steel wheel under the Pin Cap and turn the wheel clockwise.

When a user finishes the inspection and take the bended borescope out from a small opening, user must remember to unlock the articulation and let it go back to the straight position. DO NOT take the scope out by force and it would damage the articulation assembly.



You can watch the application video on Youtube, search "Vividia Ablescope" .

4.9 General Notes & Safety Precaution

1. The borescope should be used under 60°C (140°F). High temperature can

- increase video noise, even damage the camera sensors and electronics.
2. Do not immerse the cable camera in oils, water, gasoline or other fluids.
 3. Pull out the borescope slowly and carefully, remember to unlock the cable camera first. Brunt force can break the bending camera.
 4. Clean the lens with clean soft fabric and/or Q-tips with alcohol.
 5. Caution: Never use force to bend the articulating camera. Unlock the articulating camera by pressing the locking wheel and turn clockwise.
 6. Use high quality OTG cable and USB extension cable when needed. And make sure the connection is tight and secure. This will affect the image quality.
 7. A phone/tablet case could affect OTG cable connection in some cases. Please remove the case if needed.
 8. Do not disassemble the borescope, especially the camera, articulation assembly and handle.
 9. Avoid moisty environment, temperature shock and extreme temperatures. Dry surroundings help the life of the products.
 10. Avoid dropping, violent vibrations, strong collision or distortion.
 11. Keep the device away from chemicals, explosive substances, and fire hazards.

5. Troubleshooting & FAQ

Question 1: "The borescope is locked; I cannot bend the camera. What should I do?"

Answer: Please do not use force to bend or articulate the camera. There is locking/unlocking mechanism for Vividia Ablescope Inspection Camera Borescopes. You simply need to unlocking the camera probe by pressing down the locking wheel under the shutter release cable pin can. Watch our YouTube videos on this by search "Vividia Ablescope" on YouTube website.

Question 2: "What software should I use with Windows system (Windows 7/8/10 etc.)?"

Answer: For Windows system, we have free software "ehe1.exe" or "oasis.exe" . You can download the software from our website, www.vividia-tech.com. You can also use other free USB webcam software, like "Digital Viewer" , "Smart Camera" etc. You can find more information from www.oasisscientific.com/download.

Question 3: "Can I use Vividia Ablescope borescopes in water, oil or gasoline?"

Answer: No. The Vividia Ablescope borescopes are not designed to be immersed in water, oil, gasoline or other liquids or mixtures of fluids. The camera could be damaged.

Question 4: "Can I use Vividia Ablescope Borescopes for high temperature applications?"

Answer: The working temperature of Vividia Ablescope borescopes is from 0°C to 60°C. Please do not use the borescope to hot engines or other high temperature environments. The high temperature can increase video noise, and damage the camera sensor and electronics.

Question 5: “Is my Android phone or tablet compatible with Vividia Ablescope borescopes through OTG cable connection?”

Answer: Not all Android phones and tablets can be used with Vividia Ablescope borescopes with OTG cable connection. You can find a list of compatible and non-compatible devices on our website www.vividia-tech.com. (We cannot guarantee the Android devices will work with our borescopes since they are many models, and each model is making internal changes very quickly by manufacturers). We can guarantee that the Phone (**Model: VA-P5**) and Tablets (**Model VA-T6 and VA-T8**) we carry will work with Vividia Ablescope borescopes. With WiFi box (Model: **VA-B2**), you can connect Vividia Ablescope borescopes to more smart phones and tablets, including both Android and iOS (iPhones, iPads) systems.

Question 6: “Can I use Vividia Ablescope borescopes on my iPhone and iPad?”

Answer: No and yes. One cannot directly connect Vividia Ablescope Inspection Cameras to an iPhone or iPad through a cable. But with our WiFi box (Model: **VA-B2**), you can link Vividia Ablescope borescopes to iOS devices, like iPhones and iPad. You need to download free APP “AirBox” from Apple’ s app store. Visit our website www.vividia-tech to find out details. One potential issue with WiFi connection is that the video data transfer rate is limited depending on the wireless environments, which may cause slow video refresh rate.

Question 7: “Can I zoom in on my subject?”

Answer: Depending on the software or APPs you use, you can digitally zoom in. There is no optical zoom for Vividia Ablescope borescopes. Usually when you move borescope close to an object, you will see larger and clearer image in certain focus range.

Question 8: “How do I clean my scope?”

Answer: Use clean and soft fabric with alcohol or lens cleaning fluid. The protective rubber sleeve can be changed if it is dirty or broken.

Question 9: “Does this work on Amazon Kindle Fire or other types of non-Android tablets?”

Answer: Vividia Ablescope borescopes do not work on Amazon Kindle Fire. Borescopes work on Windows tablets. Please visit our website, www.vividia-tech.com, for more information.

6. Warranty

There is limited product quality warranty of one year since the purchase date from the manufacturer. Product accessories and spare parts are not in warranty.

7. About Vividia Tech and Ablescope

Vividia Technologies and Ablescope are dedicated to developing and marketing innovative, affordable products to meet the needs of our customers.

Vividia Technologies

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USA

8. Distributor Information:

Distributor Name:

Distributor' s Contact information:
