

# Vividia® GB-460/GB-430 USB Digital Gun Barrel Inspection Camera Borescopes

## User Manual

### Models:

GB-460 USB Digital Gun Borescope with 4mm Diameter and 24" Long Tube

GB-430 USB Digital Gun Borescope with 4mm Diameter 12" Long Tube

GB-460-W Wireless 24" Gun Borescope Bundle for iPhone/iPad

GB-430-W Wireless 12" Rigid USB Borescope Bundle for iPhone/iPad

GB-460-M Bundle 24" Gun Borescope and 4.3" LCD Display Screen

GB-430-M Bundle 12" Rigid USB Borescope and 4.3" LCD Monitor

### Optional Accessories:

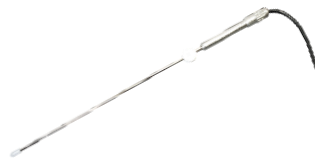
VA-B2 Vividia® WiFi Wireless Converter Box for iPhone iPad and Android

M-43 Vividia 4.3" LCD Monitor for USB Borescopes, Microscopes, Cameras

SM-02 Vividia 4mm Side View Mirror



GB-460 Gun Borescope



GB-430 Gun Borescope



GB-8556 Gun Borescope



AC-28 Aluminum Carry Case



SM-2 Side-Viewing Mirror Set



VA-B2 Wireless AirBox Converter

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## Message from Vividia Technologies & Oasis Scientific Inc:

Dear Customer, thank you for your business. You can find product details, software, APPs, user's guides, how-to videos and more related information on our website, [www.vividia-tech.com](http://www.vividia-tech.com), and our YouTube channel. Please read this user guide carefully before you use Vividia Ablescope Inspection Camera Borescopes Videoscopes Endoscopes. We highly recommend you watch our short how-to videos on **YouTube** before you use these carefully crafted borescopes. You can call us to get technical support. We also offer custom design and manufacturing for borescopes. Please contact us if you have special needs or unique requirements for inspection cameras.

\*Some details of products may be changed slightly without notice.



## 1. Vividia® Gun Borescope Models: Comparison Table

There are total 3 models for Vividia USB digital manual focus gun borescope inspection cameras. We can also make custom borescopes based on our technologies. If you need different length, different focus range or different tube/cable materials.

<b>Models</b>	<b>Tube</b>	<b>Moldable</b>	<b>Tube Length</b>	<b>Resolution (CMOS)</b>	<b>Probe Diameter</b>	<b># of LED lights</b>
<b>GB-460</b>	Rigid	No	24"	1280x720	4 mm	4
<b>GB-430</b>	Rigid	No	12"	1280x720	4 mm	4
<b>GB-8556</b>	Semi-Rigid	Yes	22"	640 x 480	8.5 mm	4

## 2. Optional Accessories:

- a) **Wi-Fi Box (model: VA-B2 AirBox):** With VA-B2 wifi AirBox, one can connect 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. "AirBox" app can be downloaded from app store and play store.
- 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 industrial tablet.
- d) **Side-Viewing Mirror Set (Model: SM-02):** This set include 2 pcs extras side-viewing mirrors. The high quality 45 degree mirror is used as attachment to the end of GB-460 and GB-430 gun borescopes for end users to observe 90 degree direction. Watch our how-to videos on YouTube "Vividia gun borescope".

## 3. Package Contents:

Borescope; OTG cable; side-viewing mirrors; user manual; Aluminum or hard plastic case or cardboard box, software and apps free to download.

#### 4. Introduction of Vividia® Digital USB Gun Borescopes

**Vividia®** USB Digital Gun Borescope Inspection Camera Videoscopes are designed for visual inspection jobs where the area to be inspected is inaccessible by other means, especially gun barrel, rifle barrel, tube, pipe and machined parts. The borescope uses a miniature video camera at the end of long tube. The end of the probe camera has bright white LED lights which makes it possible to get a very clear view, take good quality photos or capture videos deep within equipment, engines, cylinders or other dark inside spaces. USB digital output can be connected to PC such as Windows, Mac, Chromebook, Android phones and tablets, Windows tablets. With wireless converter, such as Vividia VA-B2 AirBox, The USB borescopes can be used with iPhone and iPad.

There are many applications for Vividia® USB borescope inspection cameras. Here are some of them:

- Rifle, handgun, firearm barrel
- Machining parts for cross drilled holes
- Aviation airplane engine maintenance/inspection
- 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
- Music instrument inspection and repair, like violin, cello, piano, horn etc.
- Electronics and electric equipment inspection and repairs

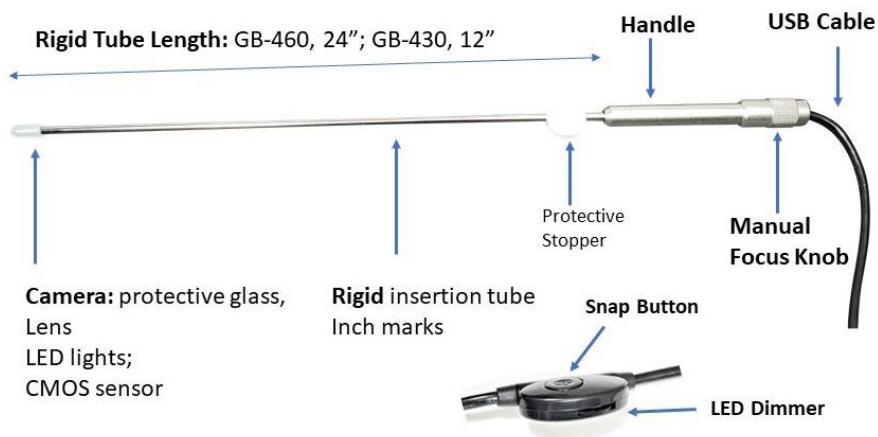
#### 4.1 Specifications\*

1. Sensor:	high-quality CMOS sensor
2. Resolution:	1280X720 (640 x 480 for <b>GB-8556 Borescope</b> )
3. Interface:	USB2.0.
4. Frame rate:	30 frames/sec (CIF and VGA).
5. Focal distance:	Manual focus, 1mm to 1000mm
6. Optical lens view angle:	60°
7. Photo format:	JPG
8. Video format:	AVI
9. High brightness LED:	4 pcs, white color
10. Brightness at 20cm distance:	~ 200 lumens, adjustable
11. Diameter of insertion:	4mm for GB-460 & GB-430; 8.5mm for GB-8556

- 12. Length of tube: from 12" to 24" depending on models
- 13. Waterproof: IP65
- 14. Working temperature: 0° to 60°
- 15. Storage temperature: 0° to 60°
- 16. Works with systems: Windows XP, 7, 8, 10 and MAC, plug & play, Android; (iOS like iPad/iPhone with VA-B2 WiFi Box)
- 17. Connecting to Android: Yes, through OTG cable or VA-B2 WiFi Airbox
- 18. Connecting to iPad/iPhone: Yes, through WiFi Airbox

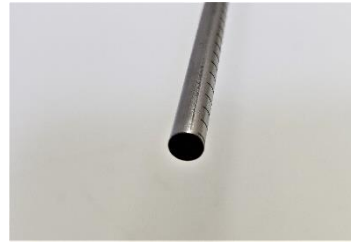
#### 4.2 Structure of Vividia USB Gun Barrel Borescopes

The structure is illustrated with Model GB-430 Rigid. The other models have the similar structure, the differences are the insertion tube (rigid or semi-rigid) and their length of the tube.



#### 4.3 Features of Vividia USB Digital Gun Borescopes

1. Manual focus to see clearly from very close (less than 2mm) to far away
2. Can see both forward and side with side-viewing mirror
3. Easy operation with USB connection to different OS devices
4. Very small diameter camera and insertion tube to fit 17 caliber and higher



5. Dimmable LED illumination
6. Work with Windows XP, 7, 8, 10, MAC, Linux, Android and Chromebook OS, plug & play
7. With Wi-Fi box (model: VA-B2), one can connect the borescopes to iPhone, iPad, Android devices.

#### 4.4 Manual Focus Operations

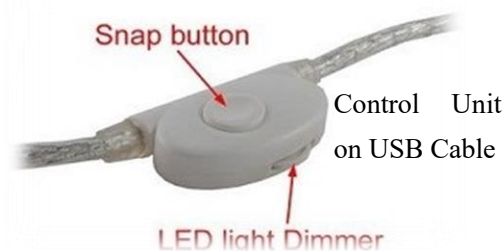
Watch our how-to videos on YouTube by searching "Vividia Gun Borescope"

1. The focus ring can be turned to adjust focus area
2. Focus range is broad, from very close less than 2mm to far around 1 meter away.
3. At the end of the borescope there are 4 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.



#### 4.5 Take pictures, videos and control the LED lights brightness

After connecting a Vividia USB Borescope to a PC or suitable Android or Windows tablet, you can pre-view videos and do inspection. The brightness of 4 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 Use side-viewing mirror on Vividia GB-460 & GB-430 gun borescopes

The side-view mirror is very important to observe gun barrel walls. The included side-

view mirror can be tightly attached to the end of GB-460/GB-430 gun borescope. Make sure the mirror surface is clean. One can use soft fabric, Q-tip and lens cleaning solution to clean side-viewing mirror. Extra sets of side-viewing mirror can be purchased from our website if needed.



#### 4.7 Software download, Installation, and Use

Vividia® USB Digital Borescopes can be used on Windows, Mac, Linux, Chromebook 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](http://www.vividia-tech.com); and/or [www.oasisscientific.com/downloads](http://www.oasisscientific.com/downloads) to download the software and menu: Many other USB camera software can be used.

Software for Windows PC: **Vividia Ablescope** (with measurement), **Digital viewer**

Menu: Quick use guide of ehe1.exe or oasis.exe

Menu: User Guide Vividia™ Ablescope® Articulating Borescope

**Note:** Vividia USB Borescopes are open UVC cameras and can be used by many other software of UVC digital cameras.

##### 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](http://www.vividia-tech.com) and [www.oasisscientific.com](http://www.oasisscientific.com) to download related software.

##### 4.7.3 APPs for Android devices connected with OTG cable:

Download and install **OTG View**, **CameraFi**, or **UsbWebCamera**, or **MScopes for USB Camera / Webcam** from Google Play Store or [www.pureapk.com](http://www.pureapk.com).

Note: Some new models of Android phones need **MScopes app**.

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, 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](http://www.vividia-tech.com) and [www.oasisscientific.com](http://www.oasisscientific.com).

**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, UV-400, VA-800, VA-920, VA-980 and VA-9150), Digital Gun Borescopes (Models: GB-460, GB-430, GB-8556) 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	<a href="#">AirBox.apk</a>	Google Play Store
iPhone, iPad	<a href="#">AirBox - Vividia AbleScope</a>	Apple App Store

Menu: User Guide for Vivida AbleScope VA-B2 WiFi Airbox

**4.8 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 to avoid damage of lens and camera.
4. Clean the lens with clean soft fabric and/or Q-tips with alcohol. Dirty lens glass can greatly affect image quality.
5. 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.
6. A phone/tablet case could affect OTG cable connection in some cases. Please remove the case if needed.
7. Do not disassemble the borescope, especially the camera, articulation assembly and handle.
8. Avoid moisty environment, temperature shock and extreme temperatures. Dry surroundings help the life of the products.
9. Avoid dropping, violent vibrations, strong collision or distortion.
10. Keep the device away from chemicals, explosive substances, and fire hazards.

## 5. Troubleshooting & FAQ

### **Question 1: "I cannot see anything inside gun barrel, it is dark and image is grainy. What should I do?"**

Answer: Please adjust the LED lights brightness to maximum. You simply need to adjust the dimmer wheel on the control units on the USB cable. Watch our YouTube videos on this by search "Vividia borescope" 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 "Vividia Ablescope Viewer" , "ehe1.exe" or "oasis.exe" . You can download the software from our website, [www.vividia-tech.com](http://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/downloads](http://www.oasisscientific.com/downloads).

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

Answer: No. The Vividia USB 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 Digital Borescopes for high temperature applications?"**

Answer: The working temperature of Vividia USB 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 USB borescopes through OTG cable connection?”**

Answer: Not all Android phones and tablets can be used with Vividia USB borescopes with OTG cable connection. You can find a list of compatible and non-compatible devices on our website [www.vividia-tech.com](http://www.vividia-tech.com). (We cannot guarantee the Android devices will work with our borescopes since they are many models, and each model can have internal changes very quickly by manufacturers. We found that many cheap small tablets do not work with USB borescopes due to lacking OTG video function). We can guarantee that the Phone and Tablets (**Model VA-T7** and **VA-T8**) we supply 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 digital borescopes with my iPhone and iPad?”**

Answer: No and yes. One cannot directly connect Vividia digital Inspection Cameras to an iPhone or iPad through a cable. But with our WiFi box (Model: **VA-B2 AirBox**), you can link Vividia digital USB 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](http://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 digital borescopes. Usually when you move borescope close to an abject, 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](http://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 Borescopes, Microscopes and Ablescope**

Vividia Technologies and Ablescope are dedicated to developing and marketing innovative, affordable products to meet the needs of our customers. We specialize on visual inspection cameras, equipment and devices such as digital microscopes, borescopes, videoscopes and inspection cameras.

### **Vividia Technologies**

info@oasisscientific.com

[www.vividia-tech.com](http://www.vividia-tech.com)

Greenville, SC

USA

## **8. Distributor Information:**

Distributor Name:

Distributor Contact information:

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