



INSTRUCTION MANUAL

3D SpectaSCOPE™ Inspection Scope

Enhanced Reality scope

Version 1.3.3

Serial No. _____

www.wpiinc.com

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CONTENTS

ABOUT THIS MANUAL	1
INTRODUCTION	1
Features.....	2
Notes and Warnings.....	2
Parts List.....	3
Shipping Box #1	3
Shipping Box #2	3
Unpacking.....	3
INSTRUMENT DESCRIPTION	4
Assembly	6
Factory Default Startup/Setup	6
OPERATING INSTRUCTIONS.....	9
Multifunctional Menu/Zoom Knobs	9
Zooming In or Out.....	9
Accessing the Main Menu	10
Capturing Images and Videos.....	11
Image Capture Using Buttons.....	11
Reviewing/Comparing Images.....	11
Video Recording Using Buttons	12
Adjusting the Light.....	12
Adjusting the Working Distance	13
Panning the Field of View.....	14
Setting Up the Camera Options	14
User Settings.....	15
Saving User Settings	16
Loading User Settings	16
SD Card.....	16
MAINTENANCE	18
Cleaning.....	18
ACCESSORIES.....	18
TROUBLESHOOTING	19
FREQUENTLY ASKED QUESTIONS	20
SPECIFICATIONS (SCOPE HEAD ONLY).....	20
RELEASE NOTES.....	22
WARRANTY	23
Claims and Returns	23
Repairs.....	23

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ABOUT THIS MANUAL

The following symbols are used in this guide:



This symbol indicates a CAUTION. Cautions warn against actions that can cause damage to equipment. Please read these carefully.



This symbol indicates a WARNING. Warnings alert you to actions that can cause personal injury or pose a physical threat. Please read these carefully.

NOTES and TIPS contain helpful information.



Fig. 1—WPI's 3D SpectaSCOPE™ Inspection Scope, a true 3D digital stereo optical scope, is sold with one of four stands.

INTRODUCTION

WPI's 3D SpectaSCOPE™ Inspection Scope is a revolutionary advancement for detailed visual inspection. Our 3D SpectaSCOPE™ Inspection Scope is a true 3D digital stereo optical scope with a host of patent-pending features, including:

- A self-zooming scope and ergonomically designed head to offer you faster inspections, less fatigue and greater accuracy.
- Self-focus that employs sophisticated computer algorithms and a large depth of field so your subject remains in focus even when the working distance changes.

It all starts with the fully optical zoom system, which is sending the smallest details to its two powerful HD 5MP cameras. The images are then transmitted at full speed frame rates to the on-board HD Enhanced Reality Screens, giving you a true three-dimensional image. You choose the most comfortable position for the viewer's tilting headset.

Features

- The ONLY self-focusing zoom magnification system available. This is not the same as other manufacturer's auto-focusing.
- True 3D (stereo) viewing by means of two synchronized digital cameras and enhanced reality viewers. The "Virtual Reality" effect results from the use of two separate high-definition cameras with the full-frame rate of the live images viewable on the integrated LCD screens.
- Eyepiece-free for stunning imagery without the eye strain
- 300mm working distance for easy sample manipulation
- 24mm field of view with electronic panning of 43mm x 33mm
- Simple interfaces for intuitive use and 6× optical zoom without the need for focusing
- Multi-processor system integrated into the head for an all-in-one, self-contained solution. No computer or other controls are required.
- Capture both still images and videos using the dual-use buttons on the front of the unit
- SD card for image and video storage and sharing
- Ambidextrous control knob for accessing the menu and zooming
- Integrated lighting system with dimming control

Notes and Warnings



CAUTION: The high definition viewing screens are UV sensitive, and they should never be exposed to direct sunlight. This will void the warranty.



CAUTION: Be sure to use the protective cover over the scope head when it is not in use.



CAUTION: The unit should be powered down or unplugged if not in use for more than four (4) days.



CAUTION: Please take caution when using compressed air to clean the unit. Avoid using compress air around the rotating visor.

Parts List

After unpacking, verify that there is no visible damage to the sensor. Verify that all items are included:

Shipping Box #1

(1) Stand (**505606** Boom Stand, **505607** Articulating Arm Clamp Stand, **505608** Post Stand or **505611** Articulating Arm/Heavy Base Stand)

(1) Focus Mount (**505609** for the Post Stand or **505610** for the other stands)

Shipping Box #2

(1) Scope Head

(1) Power Supply

(1) Cable Management Ties

(1) Dust Cover

(1) SD Card

(1) Lens Cloth

(1) Quick Start Guide

The Instruction Manual may be downloaded from <https://www.wpiinc.com>



Unpacking

Upon receipt of this instrument, make a thorough inspection of the contents and check for possible damage. Missing cartons or obvious damage to cartons should be noted on the delivery receipt before signing. Concealed damage should be reported at once to the carrier and an inspection requested. Please read the section entitled "Claims and Returns" on page 23 of this manual. Please contact WPI Customer Service if any parts are missing at (941) 371-1003 or customerservice@wpiinc.com.

Returns: Do not return any goods to WPI without obtaining prior approval (RMA # required) and instructions from WPI's Returns Department. Goods returned (unauthorized) by collect freight may be refused. If a return shipment is necessary, use the original container, if possible. If the original container is not available, use a suitable substitute that is rigid and of adequate size. Wrap the instrument in paper or plastic surrounded with at least 100mm (four inches) of shock absorbing material. For further details, please read the section entitled "Claims and Returns" on page 23 of this manual.

INSTRUMENT DESCRIPTION

The 3D SpectaSCOPE™ Inspection Scope may be purchased with one of four stands. Information on setting up the stands is included in the instruction manuals for the stands. Here we will focus on the scope head, which is the same regardless of which stand it is mounted on.



Fig. 2—The knobs and dials on the front face of the scope are labeled. Here the scope is mounted on a Post Stand.

The entire *Scope Head* comes fully assembled. It slides easily on the included *Focus Mount* to attach it to the *scope Stand*. No tools are required for mounting the scope head. The visor on the top of the *Scope Head* replaces the oculars of a traditional microscope and offers a comfortable user experience, which makes long-term use more pleasant. The visor is the ergonomic, rotating face mask with the integrated *Viewer* (LCD screens).

Light Intensity Knob – Use this knob to adjust the brightness of the integrated LED light source.

Menu/Zoom Knob – This multi-function knob lets you quickly navigate the user menus and zoom in or out when using the *Viewer*. Press the knob to activate a menu, and rotate the knob forward or back to scroll down or up through the menu. When

viewing, rotate the knob to zoom in or out of the subject. By turning the knob the subject in view zooms in up to 6 increments. There is no need to focus, because the unit self-focuses during the zoom process. A *Menu/Zoom* knob is located on either side of the *Scope Head* for ambidexterous use. You may use whichever one is comfortable for you. See “Multifunctional Menu/Zoom Knobs” on page 9.

Capture Buttons – Press either one of the *Capture* buttons to take a snapshot or press and hold the button to begin a video capture. When you finish capturing the video, you can press either button to stop the capture. See “Capturing Images and Videos” on page 11.

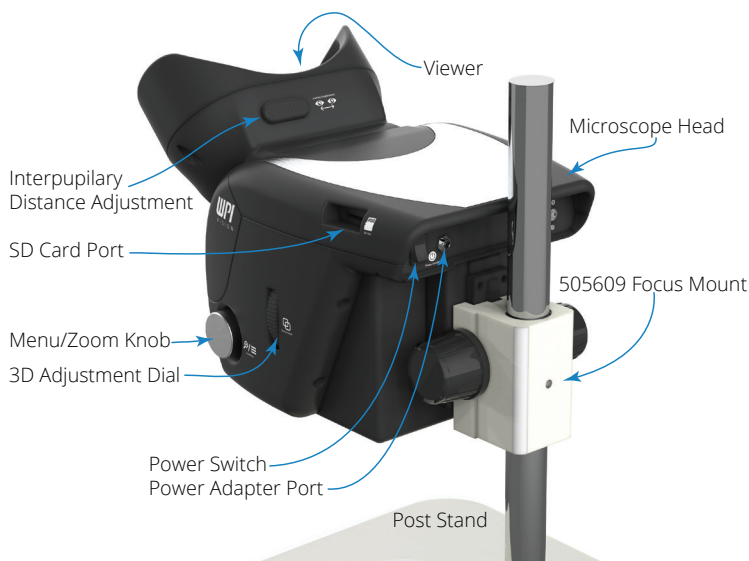


Fig. 3—The rear view of 3D SpectaSCOPE™ Inspection Scope shows the features of interest.

Interpupillary Distance Adjustment – Interpupillary distance is the distance between the pupils of your eyes, and the measurement varies slightly from one person to the next. Use this slide to adjust the distance between the view screens so you can comfortably look through the *Viewer*.

SD Card Port – If you want to capture still images or video, put an SD card into the port. Images and video are stored and automatically numbered when you use one of the capture buttons. See “Panning the Field of View” on page 14.

3D Adjustment Dial – This dial is used to fine tune the 3-dimensional image in the *Viewer*.

Power Switch – This toggle switch powers the unit on or off. When powering it on, allow about a minute for the unit to warm up before you begin viewing.

Power Adapter Port – Plug the *Power Adapter* into this port.

Assembly

The scope head comes fully assembled. To setup your stand, please download the stand instruction manuals from www.wpiinc.com/manuals. The unit has been configured to work out of the box with minimal setup.

NOTE: When using the **505606** Heavy Boom Stand with the scope, the **505610** Focus Mount must be installed in the end of the boom from the top as shown in Fig. 6.

Your system will come with one of two focus mounts (Fig. 4, Fig. 5). The **505609** is for use with a Post Stand, and the **505610** is used with the other three stands. After the stand is assembled and the focus mount is installed, simply slide the rack (sleeve) of the scope head onto the rail of the focus mount. (Fig. 6)



Fig. 4—(Left) 505609 Focus Mount for mounting scope on a Post Stand.

Fig. 5—(Center) 505610 Focus Mount for mounting scope on a Boom Stand or Articulating Arm Stand.

Fig. 6—(Right) To mount the scope head, slide the focus mount rack on the scope head over the slide on the focus mount.

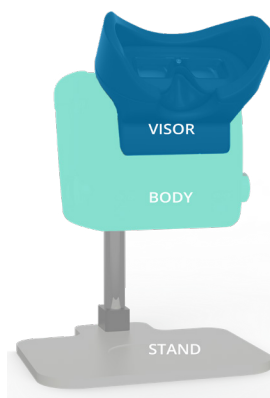
Factory Default Startup/Setup

The unit after assembly has three sections:

- The Stand
- The Body
- The Visor

Fig. 7—(Right) The three sections of the scope are highlighted here.

1. First, adjust the height of the unit to the factory default of 200mm.
2. Next remove the protective cover from the visor area.





CAUTION: The high definition viewing screens are sensitive to sunlight. Do not expose the viewer to direct sunlight.

3. Insert the SD card into the SD card port.



Fig. 8—Insert the SD card into the SD card port on the right side of the scope head.

4. Next plug the power supply into the wall mains outlet and plug the other end with the round barrel connector into the *Power Adapter Port* located on the back of the unit.



Fig. 9—Plug the pin of the power adapter into the power adapter port on the back of the scope head.

5. Using the rocker *Power Switch* located on the back of the unit. Push the upper protruding edge of the rocker switch to power up the unit. Allow about a minute for the unit to fully boot up.
6. Moving to the front of the unit we will begin to adjust the unit. While the unit is booting up, find a comfortable position by adjusting the rotating visor up or down so the viewer screen is comfortably aligned with your eyes. The viewer screen illuminates when the unit is powered up.
7. Look through the unit. You may need to use the height adjustment knob on the focus mount to fine tune the unit and bring in the subject matter to focus.

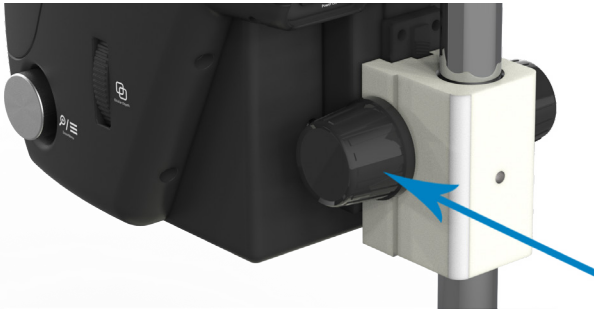


Fig. 10—If necessary to fine tune the focus, use the knob on the focus mount.

8. If necessary, adjust the interpupillary distance using the *Interpupillary Distance Adjustment* slider located on the top of the visor.



Fig. 11—Adjust the interpupillary distance slider to move the eyepieces closer or further apart to match the spacing of your eyes.

9. Your unit is now ready for use.

OPERATING INSTRUCTIONS

Multifunctional Menu/Zoom Knobs

The knobs on the left and the right sides of the scope body are multifunctional, allowing you to zoom in or out of the focus area and to access the unit's menu with configuration settings.

Zooming In or Out

By turning the knob the subject in view zooms in up to six increments. There is no need to focus. The unit automatically self-focuses during the zoom process. Optical zoom and digital zoom can also be adjusted using the main menu.

1. Press the *Menu/Zoom* knob to open the Main Menu.
2. Choose *Zoom* for optical zoom or *Digital Zoom*.
 - An image with the zoom position is displayed in a graphical way. Rotate the knob to zoom in or out, and the slider on the image moves to represent the zoom factor (Fig. 12).
 - The area of interest is noted by a plus sign inside of two squares. When you adjust the digital zoom, the inside square gets larger or smaller to indicate how much of the field of view is displayed (Fig. 13).
 - A camera icon and video icon are each followed by a number. The numbers indicate how many images and videos are stored on the SD card. On the graphics below, we see that we have five stored still images and 6 stored videos.

Main Menu
Zoom
Digital Zoom
Working Dist...
Pan...
Setup...
Eject SD Card...
View Images...
Save User Setting
Load User Setting
Exit Main Menu

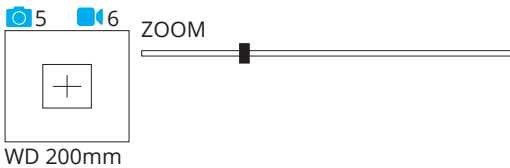


Fig. 12—This image appears in the upper left area of the viewer when you adjust the zoom.

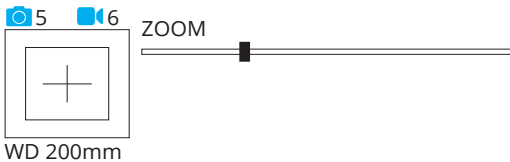


Fig. 13—When using the digital zoom, the inside square gets larger or smaller to represent the field of view in the viewer.

Accessing the Main Menu

By pressing the knob you activate the on board menu, which remains visible for 10 seconds and then closes. Within the 10 seconds, rotate the knob counter-clockwise to access the menu features:

- **Zoom** – Displays the graphical representation of the zoom factor. Rotate the *Menu/Zoom* knob to adjust the optical zooming.
- **Digital Zoom** – Rotate the *Menu/Zoom* knob to adjust the digital zoom factor, utilizing the in-camera HD zooming.
- **Working Distance** – Access this menu option to set the working distance from 120mm – 300mm. See “Adjusting the Working Distance” on page 13.
- **Pan** – Use this option to set the panning speed to Fast, Medium or Slow. Panning the field of view lets you view the area of interest in the display without having to move the subject matter. You can pan on the XY coordinates by rotating either knob.
- **Setup** – This menu lets you configure the camera. See “Setting Up the Camera Options” on page 14.
- **Eject SD Card** – Select this option to safely eject the SD card.
- **View Images** – Review your saved images that are on the SD card.
- **Save User Settings** – The 3D SpectaScope lets you save up to five (5) user profiles. This lets you store the working distance, vertical adjustment, right focus offset, automatic white balance settings, high speed camera settings and high resolution camera settings. See “User Settings” on page 15.
- **Load User Settings** – If you have saved user settings, you may use this option to load a different profile with the previously saved user settings. See “User Settings” on page 15.
- **Exit Main Menu** – Closes the menu.

Main Menu
Zoom
Digital Zoom
Working Distance
Pan
Setup
Eject SD Card
View Images
Save User Setting
Load User Setting
Exit Main Menu

Capturing Images and Videos

The two identical *Capture* buttons are located on the left and right sides on the front of the unit. Either button may be used to capture a still image, or to start or stop video recording. Files are automatically numbered and saved to the SD card. The Main Menu also has options for capturing images and videos.



Fig. 14—The Capture buttons are located on the front of the unit at the bottom.

Image Capture Using Buttons

Press either the left or right *Capture* button to store an image on the SD card. The camera icon in the upper left corner of the viewer displays a number which advances by one after each image is captured.



Fig. 15—The camera counter increments when a snapshot is taken, and the video counter increments when a new video is recorded.

Reviewing/Comparing Images

You can view the images stored on the SD card and use one of them to compare with the live image.

1. Press the *Menu/Zoom* knob to open the Main Menu.
2. Rotate the *Menu/Zoom* knob to highlight the *View Images* option.
3. From the View Images menu, select the appropriate image by highlighting it and pressing the knob. Only three images show in the menu at a time. Select *Prev 3* to view images shot earlier. Select *Next 3* to view images shot later. Press *Exit* to return to the main menu without opening an image.

Main Menu
Zoom
Digital Zoom
Working Dist...
Pan...
Setup...
Eject SD Card...
View Images...
Save User Setting
Load User Setting
Exit Main Menu

View Images
No Image
No Image
No Image
Prev 3
Next 3
Exit

The image selected displays in the left screen only. The live image displays in the right screen. By placing the ideal image on one side, you can make viable comparisons with the live subject.

4. Press the *Menu/Zoom* knob to clear the image from the screen and return to the live display on both screens.

Video Recording Using Buttons

To begin recording video, press and hold either *Capture* button until you see “RECORDING” displayed in the viewer (Fig. 16). Press either *Capture* button to stop the recording. A WAIT notification displays briefly while the file is written to the SD card (Fig. 17).

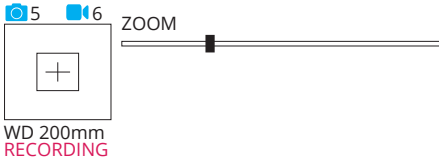


Fig. 16—In the viewer, “RECORDING” appears in red in the upper left corner of the display to indicate that video recording is in progress.

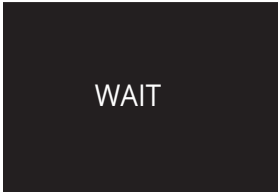


Fig. 17—When you stop the video recording, the WAIT screen displays briefly.

NOTE: At this time the 3D SpectaSCOPE™ does not support video playback on the unit. To view the videos stored on your SD card, please use a computer.

Adjusting the Light

The 3D SpectaSCOPE™ **Inspection Scope** has an integrated, low profile, LED light source that can be adjusted using the *Light Intensity* knob. It is a single knob located on the left hand side of the unit.



Fig. 18—The *Light Intensity* knob is located on the left side of the unit in the back.

- Rotate the knob counter-clockwise to increase the light intensity.
- Rotate the knob clockwise to decrease the light intensity.

Adjusting the Working Distance

If you want to change the working distance, begin by determining which preset distance is best suited for your subject.

1. Press the *Menu/Zoom* knob and select the *Working Distance* option.
2. Rotate the *Menu/Zoom* knob to select the appropriate working distance (120, 150, 200, 250, 300mm).
3. While supporting the weight of the scope head with one hand, carefully loosen the focus mount and move the unit to the desired distance from the subject matter. A scale (ruler) should be used so that the bottom of the unit is the correct distance in millimeters from the subject matter. The actual working distance should match preset increment set on the *Working Distance* menu.
3. After the scope head is repositioned, make sure to tighten all adjustment knobs on the base to secure the position of the head.
4. You may need to use the height adjustment knob on the focus mount to maximize the depth of field and 3-dimensional effect of the image.

Main Menu	
Zoom	
Digital Zoom	
Working Dist...	
Pan...	
Setup...	
Eject SD Card...	
View Images...	
Save User Setting	
Load User Setting	
Exit Main Menu	

Working Distance
WD 120mm
WD 150mm
WD 200mm
WD 250mm
WD 300mm
Back

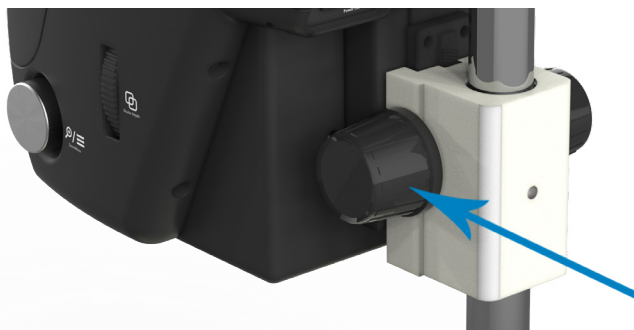


Fig. 19—If necessary to fine tune the focus, use the knob on the focus mount.

5. If necessary, rotate the *3D Adjustment* dial (labeled *Ocular Depth*) located on the right hand side of the scope head to align the left and right cameras producing the ideal 3D image.



Fig. 20—Use the 3D Adjustment dial to fine tune the depth of field.

- Move the adjustment dial up when the working distance is increased.
- Move the adjustment dial down when the working distance is decreased.

NOTE: The ideal image for stress-free long term user experience is achieved if you can see the same image when opening and closing a single eye a few time.

Panning the Field of View

Once the zoom factor is set, you can pan around to view the area of interest.

1. Press the *Menu/Zoom* knob and select the *Pan* option.
2. Rotate the *Menu/Zoom* knob to select the panning speed (Fast, Medium or Slow).
3. Use the *Menu/Zoom* knobs the way you would use the knobs on an Etch A Sketch to pan around the field of view to select the area of interest.

Main Menu
Zoom
Digital Zoom
Working Dist...
Pan...
Setup...
Eject SD Card...
View Images...
Save User Setting
Load User Setting
Exit Main Menu

Pan
Fast
Medium
Slow
Back

Setting Up the Camera Options

From the *Main Menu*, you may select the *Setup* option to access the *Setup* menu. This menu lets you configure the camera with these options:

- The *Vertical Adj* adjusts the image up and down to maximize the 3D aspect. Vertical adjust moves the right viewer screen up or down to better align the subject matter for 3D viewing. This is NOT required for most users. To make an adjustment, select the *Vertical Adj* menu option from the *Setup* menu. Then use the scroll feature to move the image up or down to fine tune the alignment of the right viewer.

Main Menu
Zoom
Digital Zoom
Working Dist...
Pan...
Setup...
Eject SD Card...
View Images...
Save User Setting
Load User Setting
Exit Main Menu

Setup
Vertical Adjustment
Rt Focus Offset
AWB Auto
Factory Reset
High Speed Camera
High Res Camera
Back

- The *Rt Focus Offset* option is a digital diopter for lens corrections from left eye to right eye. Right focus offset adjusts the right viewer's focus by tweaking the lens focus system. This is NOT required for most users. To make an adjustment, select *Rt Focus Offset* from the *Setup* menu. Then, you must bring the subject matter into focus. Fine tune the left viewer using the focus knobs located on the mount/stand. Next, select the *Rt Focus Offset* and rotate either *Menu/Zoom* knob to adjust the focus of the right eyepiece.
- The *AWB Auto* (Auto White Balance) automatically adjusts the white balance of the camera. If you are using diverse colors as a subject matter or have excessive lighting external to the 3D SpectaSCOPE, WPI recommends using this option. Place a white sheet of paper in the viewing field of the unit. Then, select *AWB Auto* from the *Setup* menu to correct the white balance.
- *Factory Reset* lets you clear any user-defined parameters and returns the unit to the factory default settings. From the *Setup* menu, select *Factory Reset*.
- The *High Speed Camera* setting reduces the resolution and increases the frames per second. Use this setting if you are observing any motion with the subject matter. From the *Setup* menu, select *High Speed Camera*.
- The *High Res Camera* setting selects the highest resolution of 5 MP, and it is ideal for still subject examinations with minimal motion. From the *Setup* menu, select *High Res Camera*.

User Settings

The 3D SpectaScope lets you save up to five (5) user profiles, which may be recalled at anytime. This is useful when you have multiple people using the 3D SpectaScope or multiple applications for which you use it. This option lets you store:

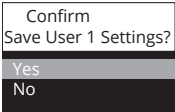
- Working distance
- Vertical adjustment
- Right focus offset
- Automatic white balance settings
- High speed camera settings
- High resolution camera settings.

Main Menu	Main Menu
Zoom	Zoom
Digital Zoom	Digital Zoom
Working Dist...	Working Dist...
Pan...	Pan...
Setup...	Setup...
Eject SD Card...	Eject SD Card...
View Images...	View Images...
Save User Setting	Save User Setting
Load User Setting	Load User Setting
Exit Main Menu	Exit Main Menu

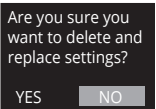
Saving User Settings

After you define your camera settings using the *Setup* menu (See “Setting Up the Camera Options” on page 14), you may save the profile to recall it at a later time.

- 1. To save your settings, select *Save User Setting* from the *Main Menu*.
- 2. Select one of five locations to store your settings.
- 3. A confirmation appears. Select Yes to save the user settings or no to cancel.



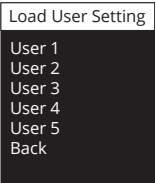
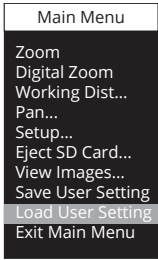
- 4. If you choose to replace an existing user profile with the current settings, you will get a warning message asking if you wish to delete the existing profile and replace it with the current settings. Select *YES* to replace the profile or *NO* to keep the existing user profile.



Loading User Settings

You may load a user setting profile at anytime.

- 1. To load a user setting profile, select *Load User Setting* from the *Main Menu*. The Load User Setting menu appears.
- 2. Use the knob to scroll through the profiles and select the profile you wish to load.
- 3. The existing camera settings are replaced by those of the selected profile.



SD Card

The SD card included with your purchase is the memory storage for the images and recordings you take. You may remove the SD card at anytime, unless you are recording. To remove the card, simply pull the SD card out of the slot. You may insert an SD card at any time. The unit does NOT need to be turned off.

- The SD card may be used as a storage library or as a transport method to download the captured data into a computer.
- The SD card may also be used for “comparison” by loading the ideal image onto the SD card. Then, you can reference the stored image, comparing it with a live image.



Fig. 21—The SD card slot is located in the top back corner on the right side of the scope head.

NOTE: Your 3D SpectaScope is equipped with a hot swappable SD card, but in some operating systems, an error may display if you remove the card without ejecting it. To avoid the error use the *Eject SD Card* option on the *Main Menu* to dismount the SD card before you remove it.

Main Menu
Zoom
Digital Zoom
Working Dist...
Pan...
Setup...
Eject SD Card...
View Images...
Save User Setting
Load User Setting
Exit Main Menu

MAINTENANCE



CAUTION: The high definition viewing screens are UV sensitive, and they should never be exposed to direct sunlight. This will void the warranty.



CAUTION: Be sure to use the protective cover over the scope head when it is not in use.



CAUTION: The unit should be powered down or unplugged if not in use for more than four (4) days.

Cleaning

Wipe down the outside of the unit with a soft towel.

The sealed glass area under the scope head may be cleaned with a lens cleaning solution since it is optical glass.

The visor's lens may be cleaned with a lens cleaning solution, because they are also optical glass.



CAUTION: Please take caution when using compressed air to clean the unit. Avoid using compress air around the rotating visor.

ACCESSORIES

Part Number	Description
505606	Scope Heavy Boom Stand
505607	Scope Articulating Arm Stand with Table Clamp
505608	Scope Post Stand
505609	Scope Focus Mount for Post Stand
505610	Scope Focus Mount for Boom Stand and Articulating Arm Stand
505611	Scope Boom Clamp Stand

TROUBLESHOOTING

Issue	Possible Cause	Solution
Unit turned off unexpectedly	Interruption when the power cord become unplugged	Move the power switch to the OFF position, remove the power supply for 60 seconds and then plug it back into the unit, and turn the power switch to ON.
I'm a new user, and I can't adjust it	The previous user set up very specific setting in Advanced, Pan or Working Distance.	Open the main menu, select <i>Working Distance</i> , and choose <i>Reset WD xmm</i> . Your unit will be reset to the factory setting of 200mm and centered.
The unit won't power on	This is a digital operating system. It requires up to 1 minute to completely boot up.	Please allow time for the screens to illuminate and an image to display.
Image won't come into focus	The WD setting does not match the physical setting of the unit.	Adjust the WD in the <i>Working Distance</i> menu (accessed from the main menu) to match the physical distance of the unit's position.
SD card can't be read on my computer	You receive a warning message when the SD card is placed in a reader of a Microsoft OS computer. This may occurs so that the SD card can be "hot-swappable" in the unit.	Please accept the <i>Repair Drive</i> option and open the drive to view your images.
Can't play Video on my computer	You are not able to launch Window media player to playback the video you have recorded.	You will need to download the correct codec to play the video: https://codecguide.com/download_kl.htm Install from "Download Standard."
		You can download our recommend viewer VLC – here: https://portableapps.com/apps/music_video/vlc_portable

NOTE: If you have a problem/issue that falls outside the definitions of this troubleshooting section, contact the WPI Technical Support team at (941) 371-1003 or technicalsupport@wpiinc.com.

FREQUENTLY ASKED QUESTIONS

We don't believe frequently asked questions should exist. If a question has been asked more than once, then we need to fix it so it's not a question. If you've got questions, we want to get you answers. Let us know through:

- Chat at www.wpiinc.com.
- Email us at wpi@wpiinc.com.
- Call us at (866) 606-1974 Toll Free in the USA
- Schedule a video conference at www.wpiinc.com/video-chat.

SPECIFICATIONS (SCOPE HEAD ONLY)

This unit conforms to the following specifications:

Display	Oculars.....2
	Ergonomic Tilt15 to 55 degrees
	Display.....1440 x 1440
	Field of View.....38 degrees
	Pupillary Distance61 to 68mm
	3 Dimensional2 Independent coordinated Camera Systems with 2 independent coordinated viewers
Body	Material.....Urethane
	Power5V --- 4A center pin positive
	Illumination80 LEDs / 630lm / 5,000 lux @ 200mm WD
	On Board memory 32GB removable SD Card Included. MAX supported 32GB
	Save Video.....2 interface buttons
	Save Image.....2 interface buttons
	ZoomExternal Mounted control knob
	FocusSystem focus through proprietary algorithm
	InputsSD Card
	Outputs.....SD Card
Onboard software	Save Image.....Access through control knob
	Save Video.....Access through control knob
	Play back imageAccess through control knob
	Play back video.....Access through control knob
	Pan AdjustmentAccess through control knob
	Zoom1× - 6× 1:6
	Magnification8×-46×
	Resolution8MP, 5MP stills
	Frames per second.....28
Optics	Working DistanceWD 300mm – 120mm
	Working Distance Adjustment3D adjustment knob
	Depth of Field.....Up to 25mm
	Field of View130mm × 130mm @ 300mm Working Distance
	Area of Interest65mm × 65mm@ 300mm Working Distance
Operation	Setup time.....3 minutes
	Training Time.....2 minutes
	Power up1 minute
	Maintenance.....Dust off only -- no maintenance required

Packing	Boxing	Double Wall, foam-lined
	Protective Cover	Custom poly-vinyl
	Quick Start Guide	Easy step process
	SD Card	32GB removable SD Card. MAX supported 32GB UHS-I rated
	Weight	5.45 kg (12 lbs.)
Certificates	Dimensions	30.5×30.5×46 cm (12" ×12" × 18")
	Patents	Patents Pending
	Quality Certificates	ISO-9001-2015
	Warranty Guarantee	1-year WPI warranty

NOTE: Specifications are subject to change without notice.

RELEASE NOTES

(Version 1.3.1 • June 2022)

- Factory reset functionality added.
- Removed *Save WD/Reset WD* from the menu.
- Take Picture/Video removed from the menu.
- Removed *AWB Fluorescent* and *AWB Tungsten* menu options.
- Renamed *Advanced* menu to *Setup*
- Added SD card eject functionality.
- Added *High Speed/High Res* mode selections.
- Fixed internal thread errors and improved performance.
- Corrected various issues with Right-Hand side imaging.
- Corrected issues with image gallery not advancing properly.
- Leaving the controls idle for 5-seconds returns to the zoom mode.

WARRANTY

WPI (World Precision Instruments) warrants to the original purchaser that this equipment, including its components and parts, shall be free from defects in material and workmanship for a period of one year* from the date of receipt. WPI's obligation under this warranty shall be limited to repair or replacement, at WPI's option, of the equipment or defective components or parts upon receipt thereof f.o.b. WPI, Sarasota, Florida U.S.A. Return of a repaired instrument shall be f.o.b. Sarasota.

The above warranty is contingent upon normal usage and does not cover products which have been modified without WPI's approval or which have been subjected to unusual physical or electrical stress or on which the original identification marks have been removed or altered. The above warranty will not apply if adjustment, repair or parts replacement is required because of accident, neglect, misuse, failure of electric power, air conditioning, humidity control, or causes other than normal and ordinary usage.

To the extent that any of its equipment is furnished by a manufacturer other than WPI, the foregoing warranty shall be applicable only to the extent of the warranty furnished by such other manufacturer. This warranty will not apply to appearance terms, such as knobs, handles, dials or the like.

WPI makes no warranty of any kind, express or implied or statutory, including without limitation any warranties of merchantability and/or fitness for a particular purpose. WPI shall not be liable for any damages, whether direct, indirect, special or consequential arising from a failure of this product to operate in the manner desired by the user. WPI shall not be liable for any damage to data or property that may be caused directly or indirectly by use of this product.

Claims and Returns

Inspect all shipments upon receipt. Missing cartons or obvious damage to cartons should be noted on the delivery receipt before signing. Concealed loss or damage should be reported at once to the carrier and an inspection requested. All claims for shortage or damage must be made within ten (10) days after receipt of shipment. Claims for lost shipments must be made within thirty (30) days of receipt of invoice or other notification of shipment. Please save damaged or pilfered cartons until claim is settled. In some instances, photographic documentation may be required. Some items are time-sensitive; WPI assumes no extended warranty or any liability for use beyond the date specified on the container

Do not return any goods to us without obtaining prior approval and instructions from our Returns Department. Goods returned (unauthorized) by collect freight may be refused. Goods accepted for restocking will be exchanged or credited to your WPI account. Goods returned which were ordered by customers in error are subject to a 25% restocking charge. Equipment which was built as a special order cannot be returned.

Repairs

Contact our Customer Service Department for assistance in the repair of apparatus. Do not return goods until instructions have been received. Returned items must be securely packed to prevent further damage in transit. The Customer is responsible for paying shipping expenses, including adequate insurance on all items returned for repairs. Identification of the item(s) by model number, name, as well as complete description of the difficulties experienced should be written on the repair purchase order and on a tag attached to the item.

** Electrodes, batteries and other consumable parts are warranted for 30 days only from the date on which the customer receives these items.*



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