INNOVATIVE MICROSCOPES

Providing High Quality & Economical Microscope Solutions

IRIS

DIGITAL MICROSCOPE

Models: 15x, 30x and 60x

TOUCHSCREEN

WiFi

OPERATION MANUAL
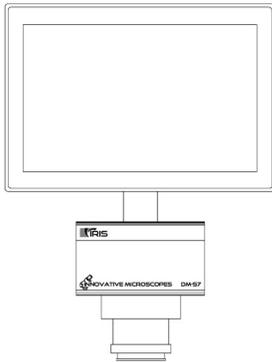
SKU #DM-S7

1. Introduction

Thank you for purchasing the IRIS digital Microscope. Your microscope is a precision optical instrument, made of the highest quality materials to ensure durability and long life.

Before attempting to use your microscope, please read through the instructions and reference the diagrams below.
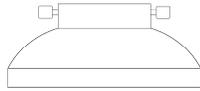
The IRIS DM-S7 Digital microscope provides viewing from 3x to 60x (depending on models) using the built-in software and touchscreen display. This is ideal for all electronic printed circuits board inspections, CNC industrial applications, medical and aerospace. Ideal for FAI (first article inspections). Every aspect of use has been taken into account during the design process providing an effortless user experience across all industries for additional user comfort.

The IRIS digital Microscope does not use an eyepiece like a traditional microscope. Instead, the camera sensor display the 15x magnification on the 720p resolution touchscreen display. This makes viewing and inspection with ease, cuts down on neck and eye strain and allows for inspection with others. The new Digital Microscope IRIS DM-S7 enables users to improve quality and increase output efficiency. Recording still images is simple. Saving, transferring and sharing image files is quick and easy with the included 8 GB USB thumb drive or saving through WiFi/ Etherenet. Additionally, you can view on most TV screens with an HDMI splitter (not Included.)
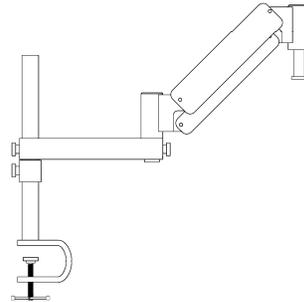
IN THE BOX
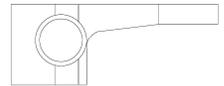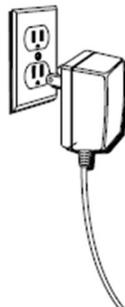

IRIS DM-S7 Microscope (1)   Dome Ring Light (1)   Articulating Arm (1)   Focus Mount (1)

8 GB USB thumb drive   AC adapter (1)

2. PARTS

720p Display

DISPLAY
MOUNTING
BRACKET

MICROSCOPE
HEAD UNIT

IRIS
INNOVATIVE MICROSCOPES   DM-S7

DOME RING
LIGHT

720p Display

DISPLAY MOUNTING
BRACKET

MICROSCOPE
HEAD UNIT

CAMERA LENS
TUBE
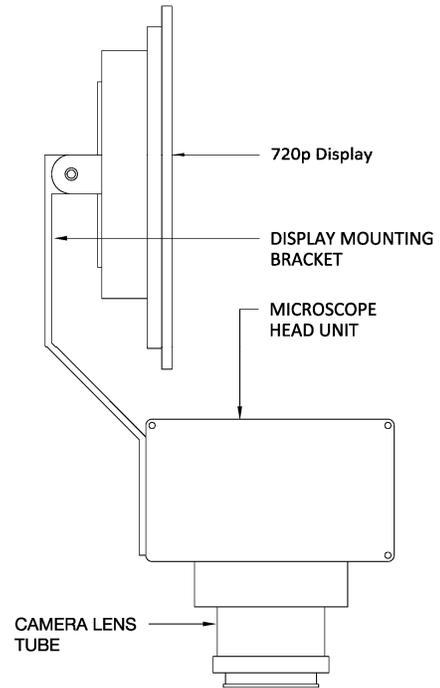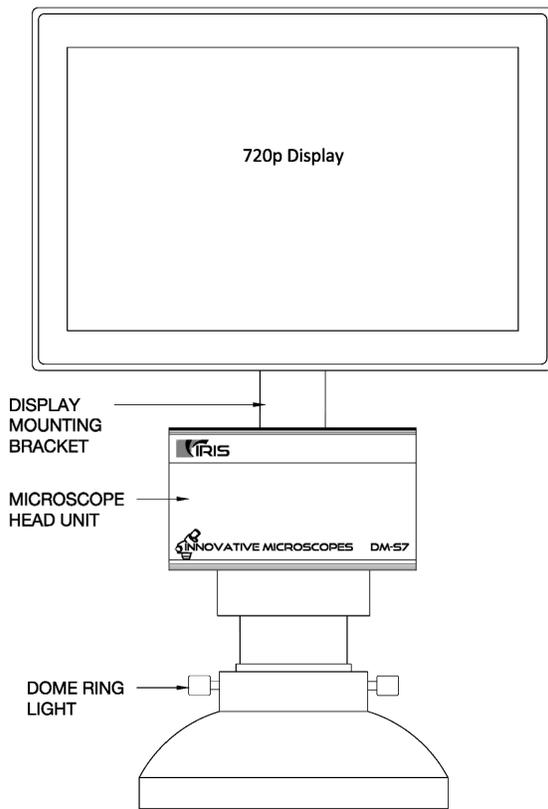
Wiring Diagram (Pre-installed)

MONITOR BOTTOM

NOT USED

USB PORT TO
MONITOR USB

NOT USED

USB THUMB DRIVE
(PHOTO CAPTURE)

MAIN ON
SWITCH

12V 2 AMPS DC IN - CONNECT
TO WALL ADAPTOR

MONITOR POWER
12V 1 AMP DC

PHOTO 1
PHOTO 2

MONITOR
USB

MAIN
PWR

12V
DC IN

MONITOR
PWR

DOME

HDMI OUT

HDMI OUT TO
MONITOR

MINI USB
DOME LIGHT
CONNECTOR

USB   HDMI   DVI   VGA   COMPONENT   POWER
                                                 AUDIO (NOT   CONNECTOR
                                                 USED)

12V 1 AMP DC

MONITOR TOP

12V 1 AMP DC

LED POWER ON
ON/OFF
MENU

UP
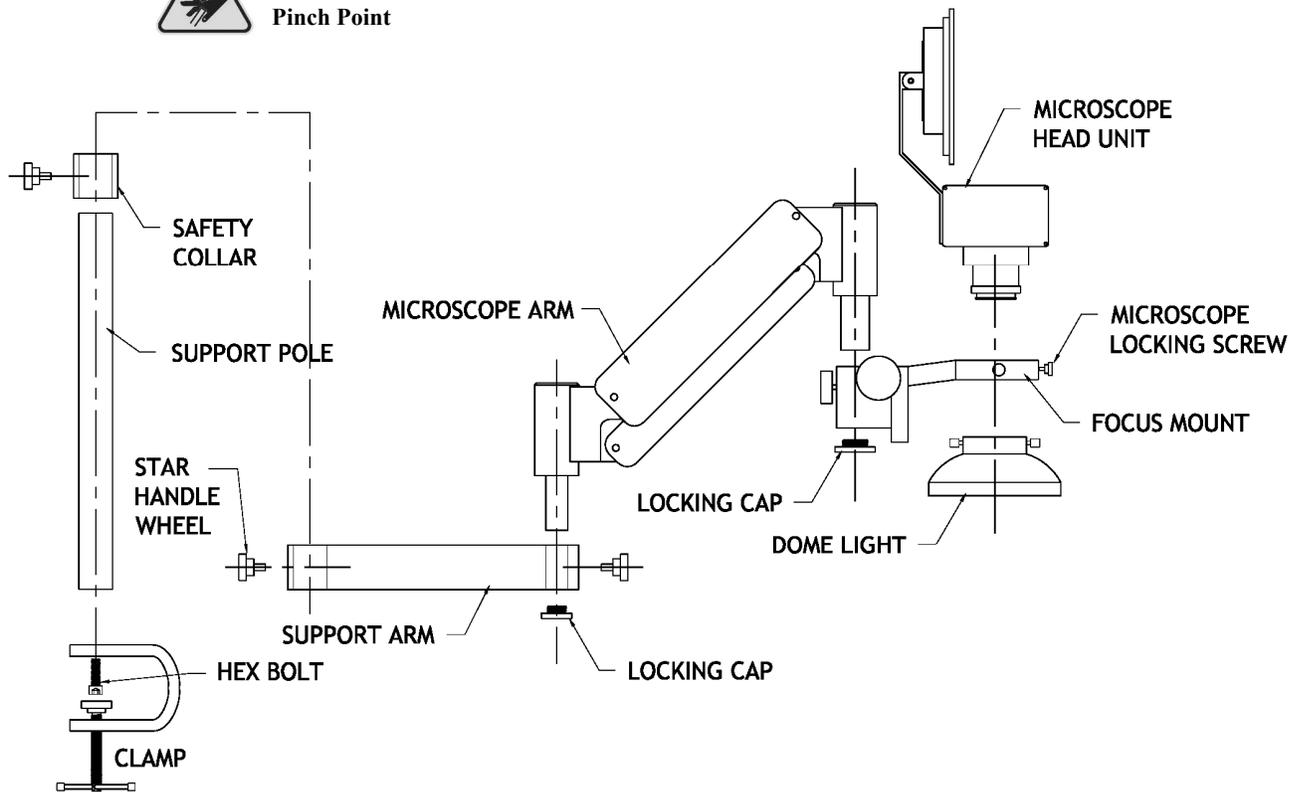
DOWN

EXIT

DOME LIGHT

SPECIFICATIONS

Category	Specifications
SKU	DM-S7
LCD Monitor	10.1" capacitive touchscreen, 1280 x 800 pixels, 16:10 ratio 16.7 million colors, Brightness (cd/m2) 300+, Response time 5 ms Contrast ratio 800:1, Viewing angle 85°/85°/85°/85° (R/L/U/D)
Zoom Presets IRIS 15x	3x, 7x, 10x, 15x
Zoom Presets IRIS 30x	5x, 10x, 15x, 20x, 25x, 30x
Zoom Presets IRIS 60x	10x, 20x, 30x, 40x, 50x, 60x
Illuminator	Selectable 4 segments 6500K LED ring light with adjustable brightness
Image Capture Resolution	1280 x 800
Working Distance 15x	5"
Working Distance 30x	6.5"
Working Distance 60x	5.5"
AC adapter	US Plug 110V
Dimensions	406 x 254 x 203 mm (16" x 10" x 8")
Weight	6 lbs. or 2,722 grams
SAFETY	
	The socket-outlet shall be installed near the equipment and shall be easily
	Do not look directly into LED Dome Light while lights are on.
	Disconnect the LED Dome Light when servicing the microscope.
	Disconnect main power wall adapter when servicing the microscope.

3. SETUP

CAUTION
Pinch Point

SAFETY COLLAR

SUPPORT POLE

STAR HANDLE WHEEL

HEX BOLT

CLAMP

SUPPORT ARM

LOCKING CAP

MICROSCOPE ARM

LOCKING CAP

DOME LIGHT

MICROSCOPE HEAD UNIT

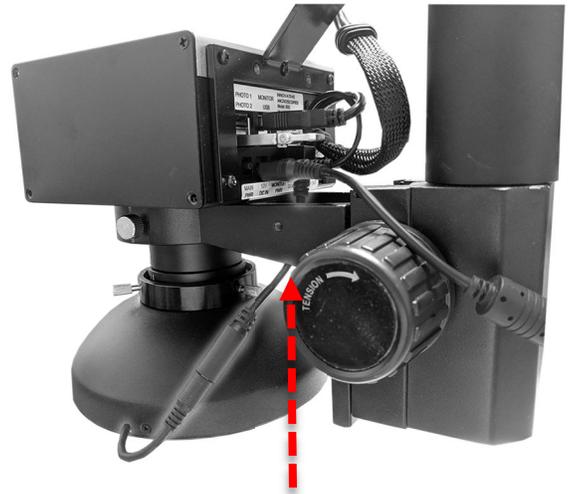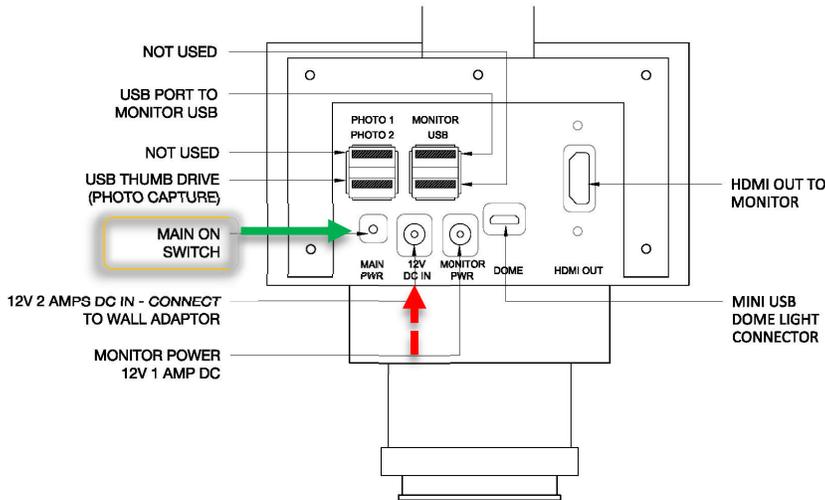MICROSCOPE LOCKING SCREW

FOCUS MOUNT

Power on

Connect AC adapter to wall outlet (see dashed arrow).

Press the POWER button on the back of the Microscope head unit. Allow 30-60 secs for operating system to boot up.

Your microscope is ready to use after splash screen Closes.

Connect the dome ring light pigtail through the focus mount as shown

Power off

To POWER down use the on screen menu.

*Note: Recommend shutting off microscope at the end of each day.

Display Settings

Brightness, contrast, exposure, saturation and **sharpness** should be adjusted to desire settings based on object being viewed.

Display Reset – Resets all display settings to factory default

*Notes:
1. Only main zoom menu screen will auto close after 10 secs. All other menu screens must use RETURN icon to return to the in the main zoom menu.

| MAIN ZOOM SCREEN | DISPLAY SETTING SCREEN | POWER OFF SCREEN |
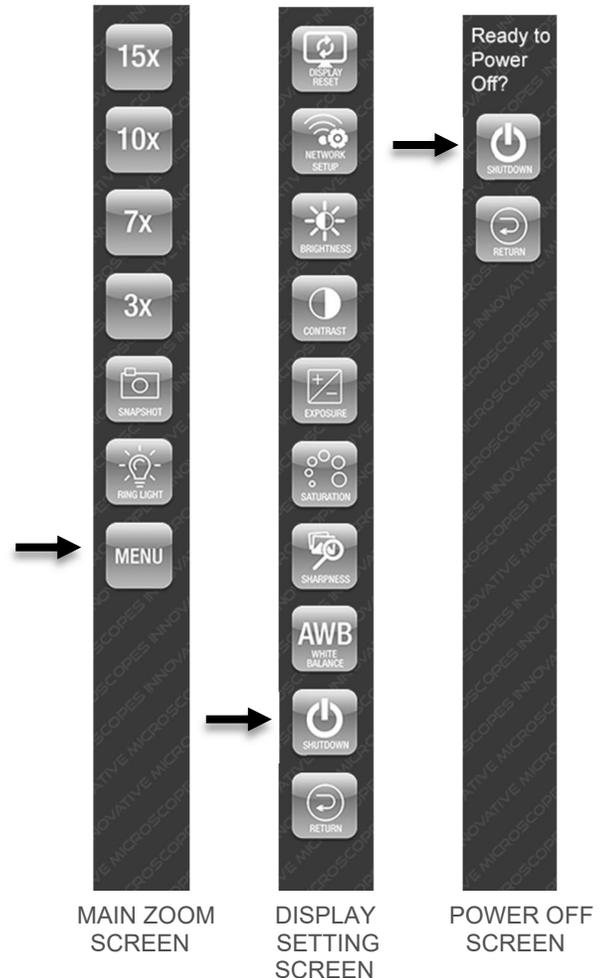
4. ZOOM SELECTION

1. Zoom presets 15x, 30x, and 60x
2. Select the desired zoom magnification
3. Active selection is marked by Green text.

15x Model
Menu

30x Model
Menu

60x Model
Menu

5. LIGHT CONTROLS

The Dome light has an adjustable brightness and selectable
4 segment LED control. Each segment has adjustable brightness.

1. Select the Ring light Icon
2. The ring light menu shows five lighting options.
3. All segment on, rear right side, front right, front left
   and rear left side.
4. Each lighting options will toggle and active selection will be
   display with a green indicator in the center of the icon.

5. Adjust brightness by sliding the intensity bar.

*Note:
1. No Ring Light Icon – The icon will be visible
when the dome ring light pigtail is not fully
connected. See photo on Page 5.
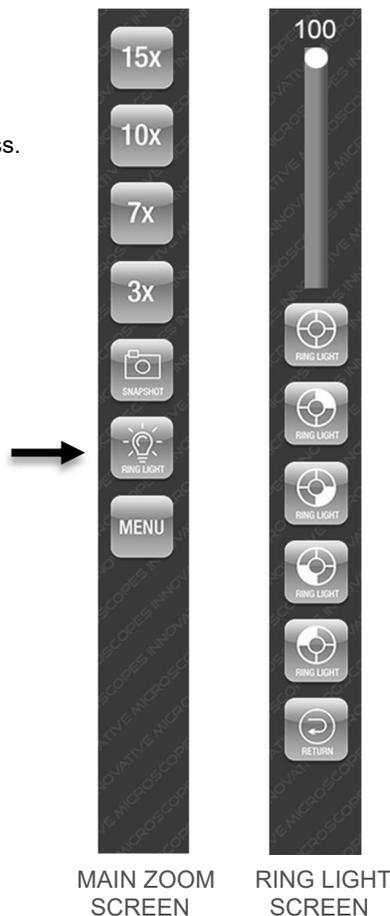
MAIN ZOOM
SCREEN

RING LIGHT
SCREEN

6. CAPTURING IMAGES

1. Make sure your IRIS DM-S7 is powered ON.
2. A USB thumb drive is inserted into USB port (see Pg. 5 for location).
3. Select Snapshot Icon.
4. Select Snapshot Icon on second screen to capture.
5. The screen will display the captured image along with annotation tools at top.
6. The image could now be save or be discarded.
7. If image is discarded, the screen will return to the snapshot screen

CAPTURED IMAGE SCREEN

MAIN ZOOM SCREEN

SNAPSHOT SCREEN
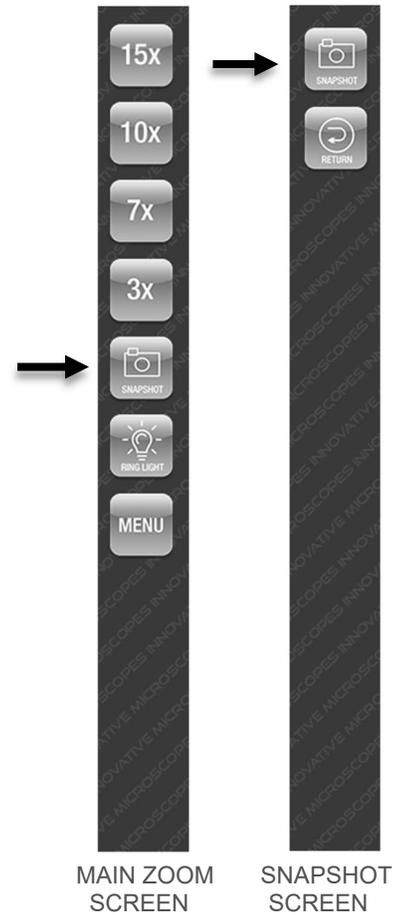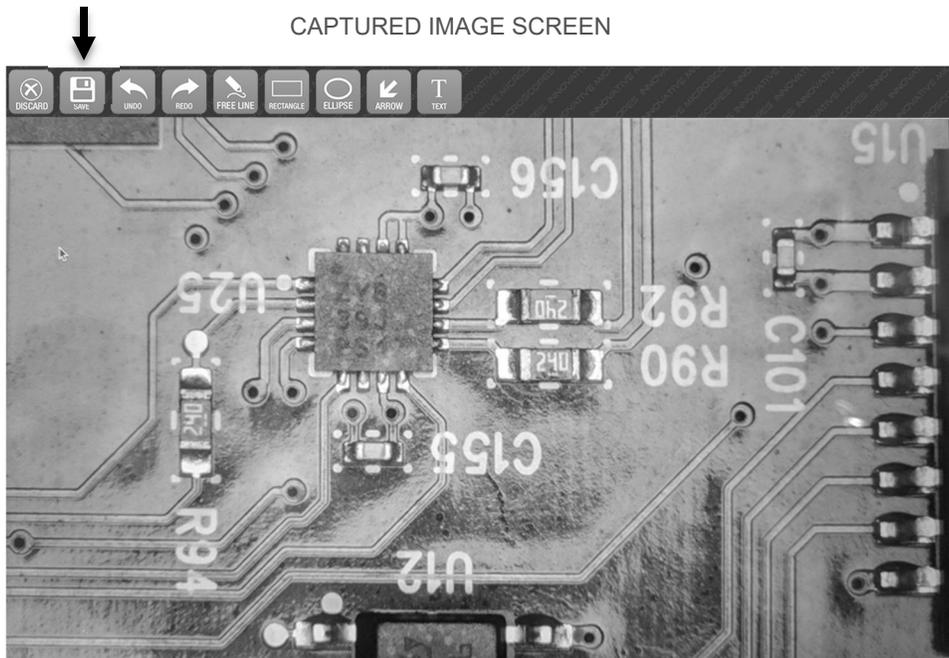
8. Provide a file name to save or select return to annotation editor.
9. There're two options to save; USB thumb drive or network folder (see WiFi setup Pg 10).
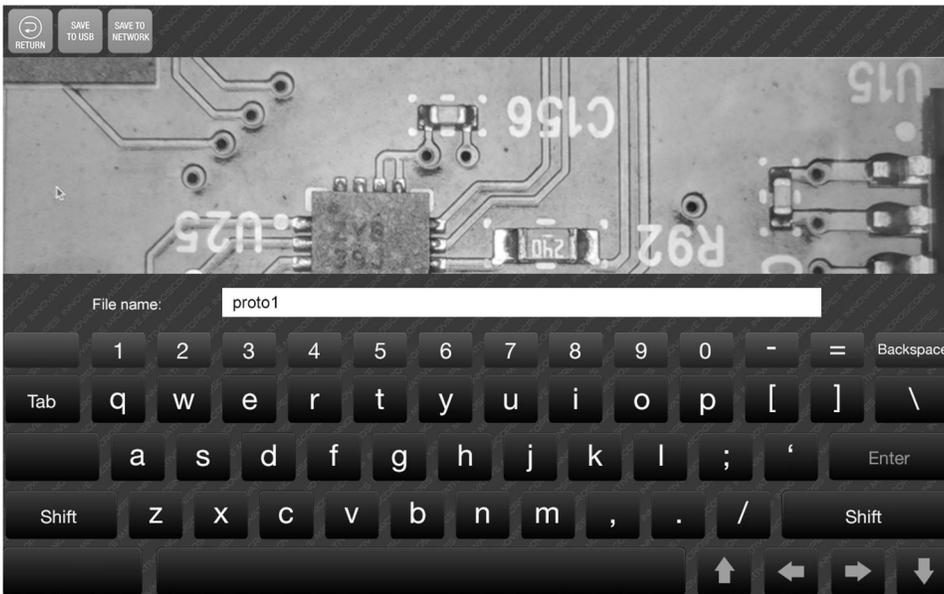
7. ANNOTATION EDITOR

The annotation editor is accessible by pressing the snapshot icon.
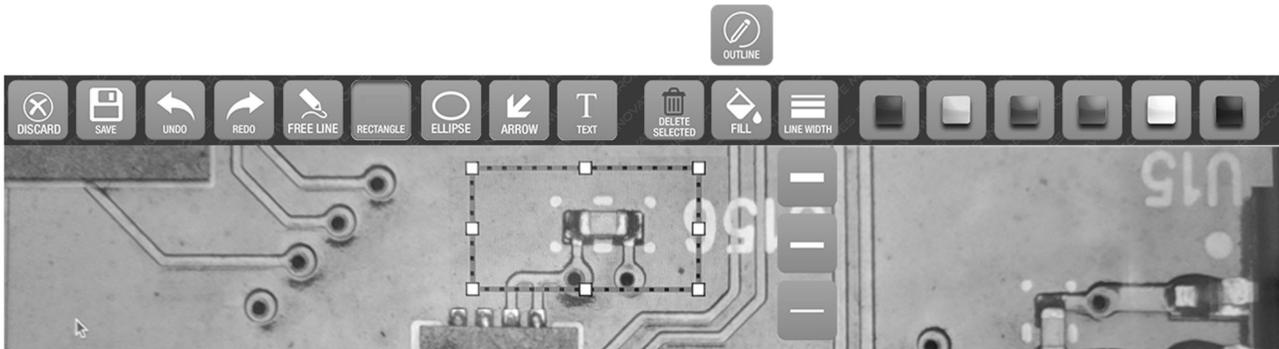
Icon Description

1. DISCARD: discard the captured image and return to the snapshot menu
2. SAVE: save captured image with a file name
3. UNDO: undo previous edit
4. REDO: redo last edit
5. FREE LINE: draw a free hand line segment
6. RECTANGLE: draw a scalable rectangle
7. ELLIPSE: draw a scalable ellipse
8. ARROW: draw an arrow
9. TEXT: text annotation
10. DELETE SELECTED: delete the selected annotation
11. LINE WIDTH: three selectable line widths for FREE LINE, RECTANGLE, ELLIPSE and ARROW annotation
12. COLOR: color palette for FREE LINE, RECTANGLE, ELLIPSE, ARROW and TEXT annotation
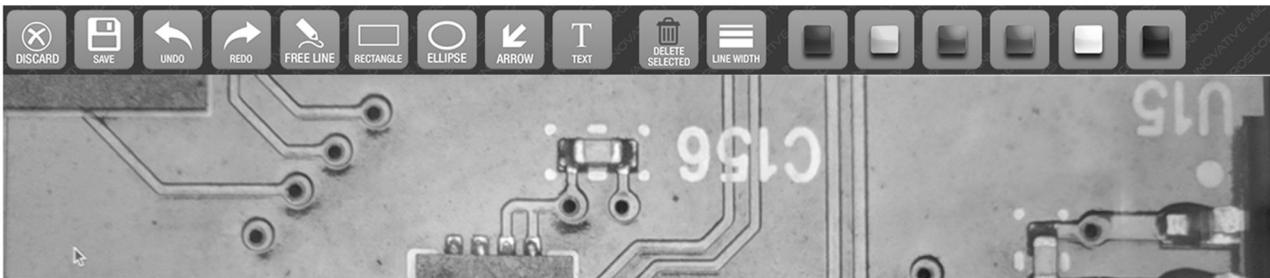
FREE LINE selected menu. There are options to select line weights and color.
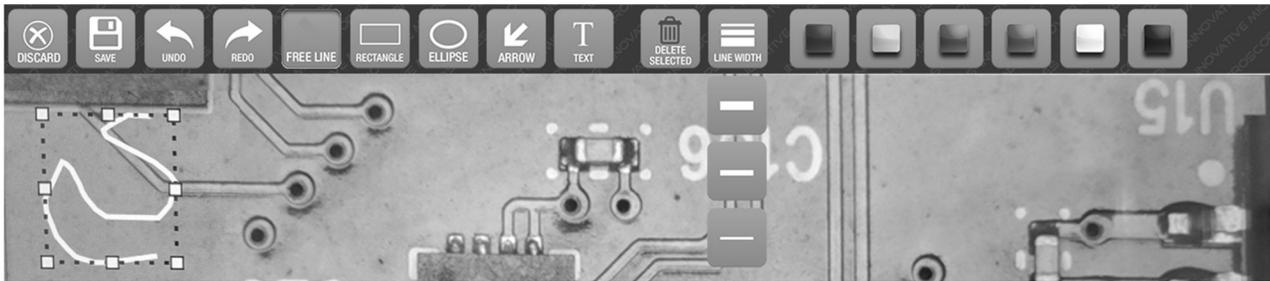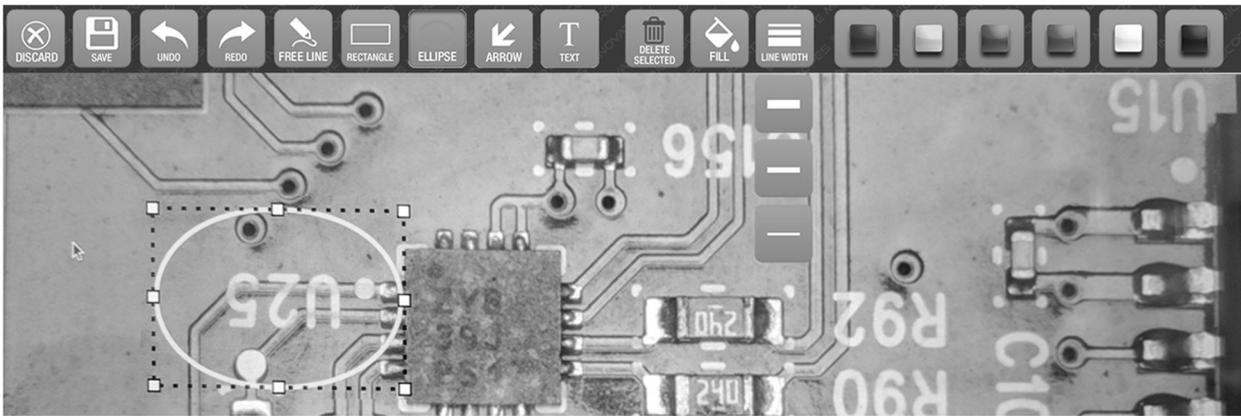

RECTANGLE selected menu. There are options to fill the rectangle and or select the desired line weights with preset color background. Alternately pressing the OUTLINE icon revert back to an outline rectangle.
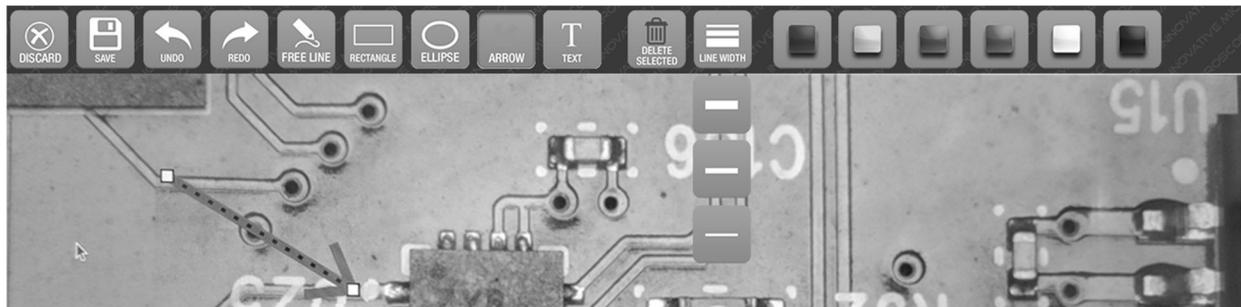
ELLIPSE selected menu. There are options to fill the ellipse and or select the desired line weights with preset color background.

ARROW selected menu. There are options to fill the arrow and or select the desired line weights with preset color background

TEXT ANNOTATION BOX menu. There are options to select the desired text size and color. The text box background fill is also available.
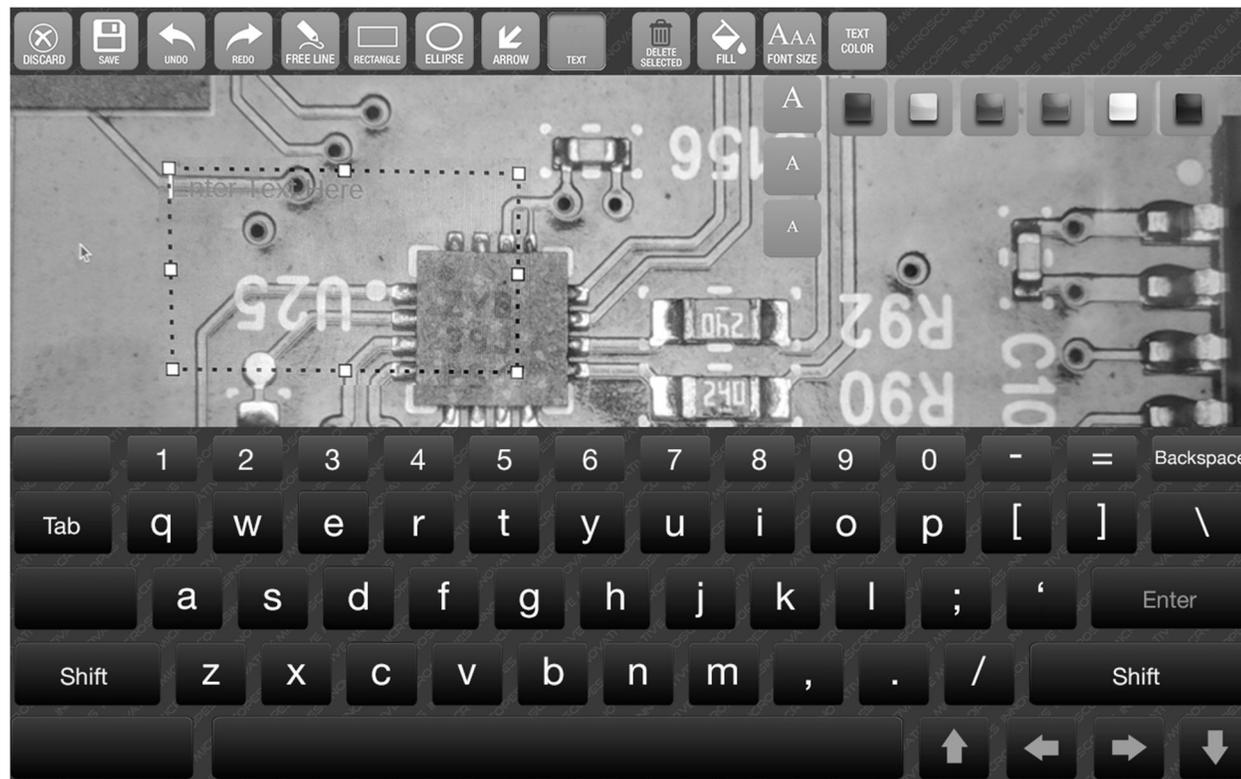
8. NETWORK ETHERNET & WiFi SETUP

Before Continuing contact company IT Administrator. Have the following info ready:
1. **Company WiFi name**
2. **Company WiFi Password**
3. **Shared network folder path i.e \\PC-Name\iris**
4. **Windows server PC Username and Password.**

The network setup screen is accessible by pressing the MENU icon and NETWORK SETUP icon.

1. For Ethernet cable setup see page 12.
2. Network setup require admin password (Default "**innoscopes**").
3. To change Admin password see Page 12.
4. Input the password and select the CONTINUE icon.

NETWORK ADMIN PASSWORD SCREEN
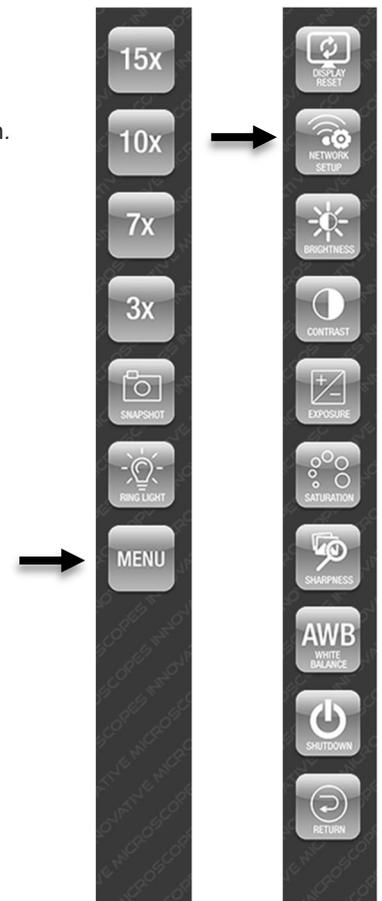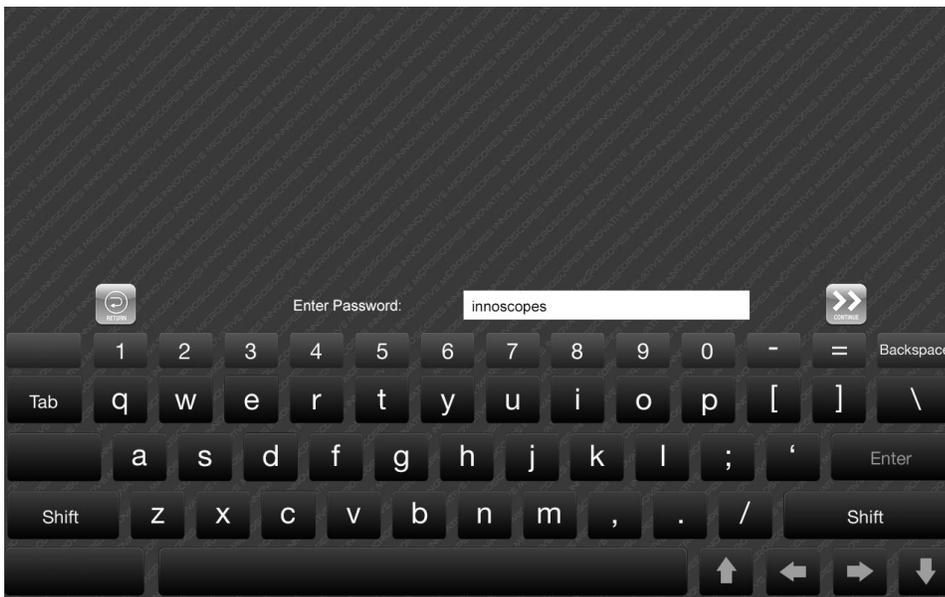
MAIN ZOOM
SCREEN

DISPLAY
SETTING
SCREEN

5. The Network setup menu will appear.
6. Select WIFI SETUP button.
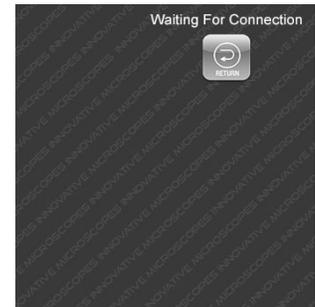7. Select the company wifi network from the available list.

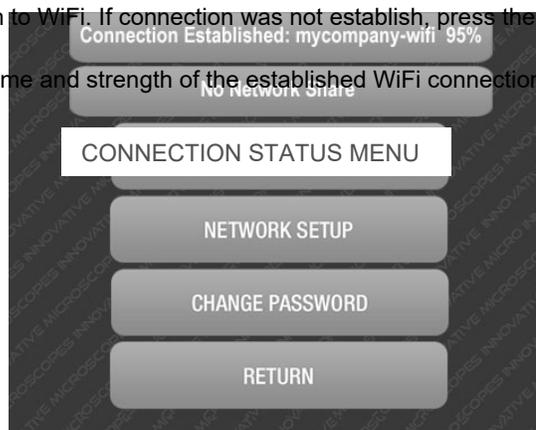NETWORK SETUP MENU   AVAILABLE NETWORK SCREEN

8. Enter the wifi password provided by your company IT administrator.
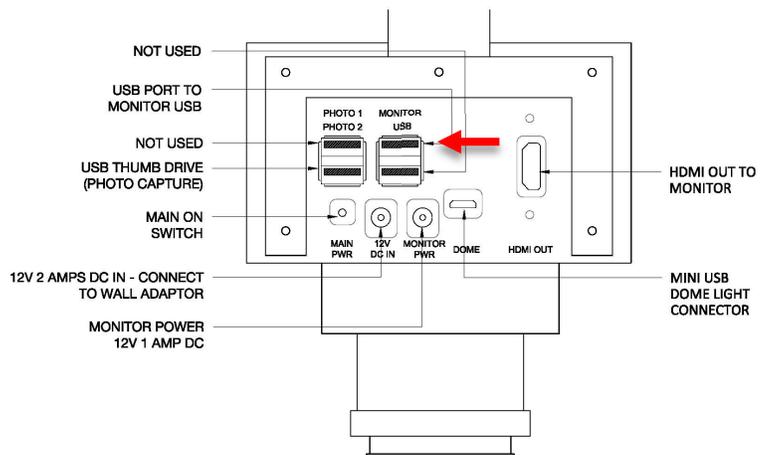9. Wait for the WIFI to establish a connection.

WIFI CONNECTION SCREEN

10. ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~nection to WiFi. If connection was not establish, press the RETURN icon and try

11. ~~~~~~~~~~~~~~~~~~~~~~~~~ the name and strength of the established WiFi connection.

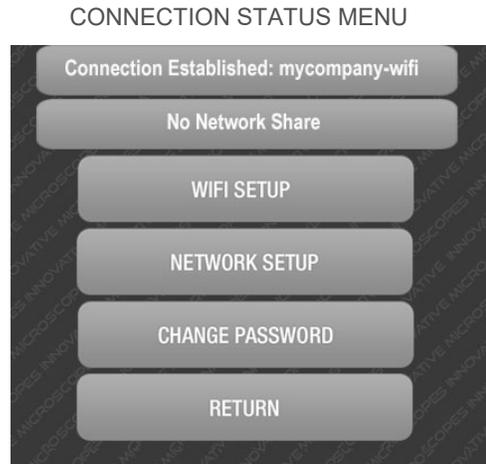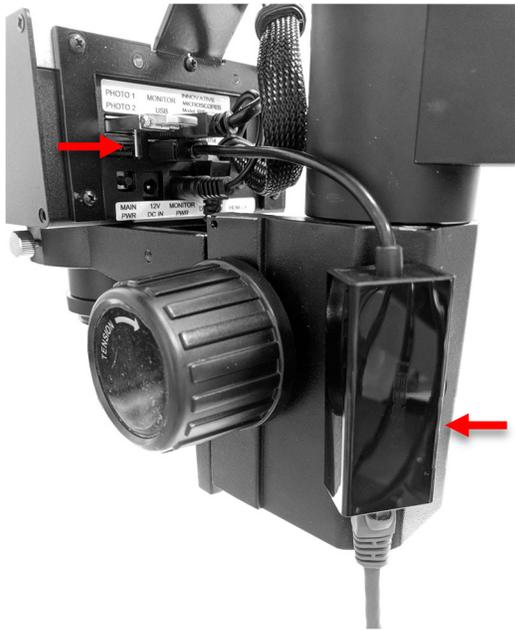

Ethernet cable setup

1. An Ethernet Adapter USB 2.0 to 10/100 Network RJ45 Lan Wired Adapter is required (Not included).
2. Connect the Ethernet adapter to the USB port (see diagram).
3. Connect the Network RJ45 to the Ethernet adapter.

Ethernet adapter to USB (Not Included)

Ethernet Setup continue

4. The IRIS DM-S7 will take approximately 1 minute to search and connect to the company network.
5. The screen will display the successful connection.
6. Press the CONTINUE icon.
7. The connection status menu will display the established connection.

Ethernet adapter connected to USB port (Not Included)
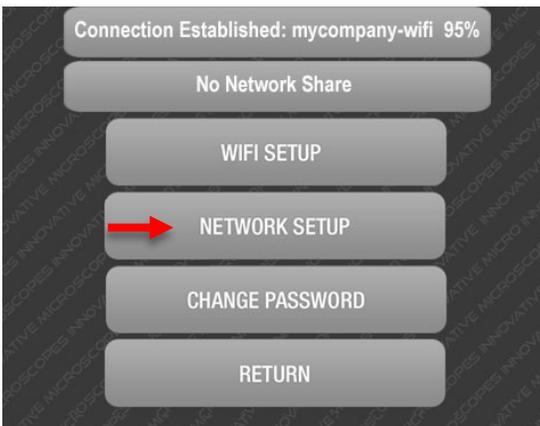
CONNECTION STATUS MENU

Mapping the shared folder on the IRIS DM-S7

1. To Map the previously shared folder on the PC. Press the MENU icon on the IRIS DM-S7, then the NETWORK SETUP icon. Enter Admin password
2. The NETWORK SETUP MENU will appear.
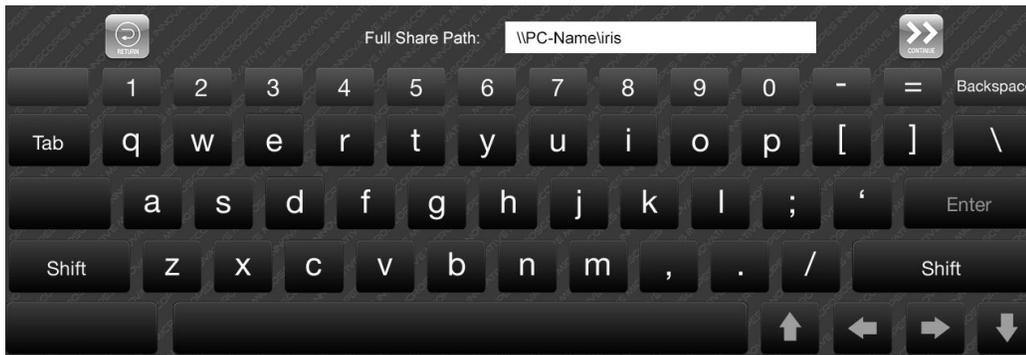3. Press the NETWORK SETUP icon.

NETWORK SETUP MENU

Mapping shared folder continue

4. Enter the share network path address previously made on the Server/ PC (**\\PC-Name\iris**).
5. Press CONTINUE icon.

6. Provide the Server/ PC Windows **Username**.
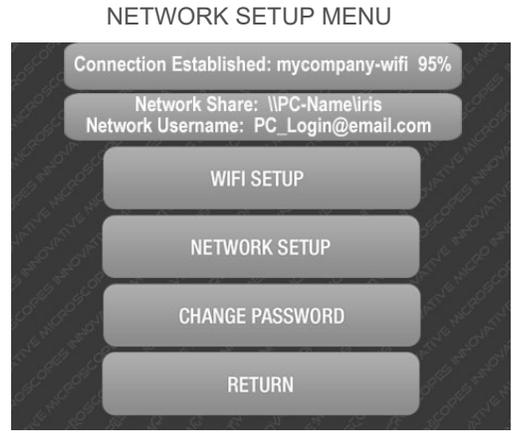7. Press CONTINUE icon.

8. Enter the Server/ PC Windows **Password.** Contact your company IT administrator if the shared folder is on your company server.
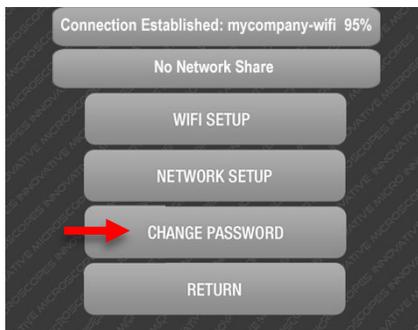9. Press CONTINUE icon.

Mapping shared folder continue

10. The screen will confirm the network share connection.
11. Press CONTINUE icon.
12. The screen Network setup is now complete.

Changing the IRIS DM-S7 Admin Password

13. Press Return Icon.
14. The network setup menu will list the connected share folder and username.

1. Network setup admin password (Default "**innoscopes**").

15. Press RETURN icon.

2. Click the CHANGE PASSWORD icon.

16. The IRIS DM-S7 is now set to save onto the network folder over WiFi.

3. Enter the new password.

17. The IRIS DM-S7 will store in memory the WiFi settings and Network share folder.

4. Click CONTINUE icon.

NETWORK SETUP MENU

NETWORK SETUP MENU

9. CARE AND MAINTENANCE

Your digital microscope is a precision optical instrument and should be treated with care at all times. Follow these care and suggestions and your microscope will need very little maintenance throughout its lifetime.

+ Store your microscope in a dry, clean place.

+ Never use your microscope where operation of such devices is restricted. Improper use creates the risk of serious accident.

+ do not try to access the internal components of your microscope or attempt to modify it in any way. Only authorized technicians should perform maintenance or repairs.

+ Keep your microscope away from water and other liquids. Never use it in the rain or snow. Moisture creates the danger of fire and electric shock.

+ To clean dust or smudges from the LCD screen or other optical component, first blow the dust off with air blower.

+ If the exterior surfaces of your microscope need cleaning, wipe with a moist cloth.

10. TROUBLESHOOTING

Problems	Solution
The unit does not turn on.	+ Wait 30-60 secs for the operating system to boot up
The screen is blank.	+ ensure that the power is on. + Wait 30-60 secs for the operating system to boot up + Verify that the object you want to magnify is positioned correctly under the lens. + check the monitor LED light is on + ensure the monitor power connector is secured to the microscope head unit (see pg. 3)
There are smudges or blemishes on the screen.	Clean the screen and lens carefully with a cloth.
USB error	Ensure a USB thumb drive has been inserted into the USB port

11. WARRANTY

Your IRIS DM-S7 Digital Microscope has a One year limited warranty. Please visit the Innovative Microscopes website for detailed information on all microscopes: WWW.INNOSCOPES.COM

INNOVATIVE MICROSCOPES