



Instructions for Use: EndoInspect® Lumen Inspection System

Safety Visualized™

Product Brand Name(s)	EndoInspect® Monitor Base Unit, EndoInspect® Videoscope & EndoInspect® Fiberscope
Product Number(s)	<p>EP5101- 13" Touch Screen Monitor Base Unit</p> <p>EP5012- 1.9 mm \varnothing x 190 cm L videoscope</p> <p>EP5013- 1.9 mm \varnothing x 100 cm L videoscope</p> <p>EP5014- 1.2 mm \varnothing x 190 cm L videoscope</p> <p>EP5015- 1.2 mm \varnothing x 100 cm L videoscope</p> <p>EP5018- 1.0 mm \varnothing x 190 cm L videoscope</p> <p>EP5019- 1.0 mm \varnothing x 100 cm L videoscope</p> <p>EP5016- .80 mm \varnothing x 80 cm L fiberscope</p> <p>EP5017- .50 mm \varnothing x 80 cm L fiberscope</p> <p>EP5205- Table Top Monitor Stand Kit w/ Scope Shaft Holder</p> <p>EP5206 / EP5208- Wall Mount Monitor Arm Kit w/ Scope Shaft Holder</p> <p>EP5207- Scope Shaft Holder Kit w/ VESA Bracket</p>
Key Features	<p>EndoInspect® Lumen Inspection Videoscope System</p> <ul style="list-style-type: none"> • Clear, Bright Videoscopes w/ 13" Touch Screen Monitor • Smallest Diameter / Longest Length Scopes Available • Automatic Brightness and White Balance Features • IP Rated System / Safe for Use in Wet Environments • Plug-n-Play System / No Computer Req'd to Record Image
Intended Use	<p>The EndoInspect® system is designed for use by SPD / CS Technicians in the visual inspection and documentation of medical device lumens and working channels during reprocessing. Our system aids in the visual detection of lumen damage, bioburden deposits, water / moisture, reprocessing tool debris, rust / staining and other common lumen contaminants.</p>

<p>Range of Applications</p>	<p>Medical instruments and devices that require visual inspection and documentation of space restricted lumens and passages that cannot be illuminated or visualized by the unassisted eye.</p>
<p>Product Specifications</p>	<div style="text-align: right; margin-bottom: 10px;">  </div> <p>EndoInspect® Monitor Base Unit:</p> <p>Part # EP5101</p> <ul style="list-style-type: none"> • 13” Capacitive touch screen video display • IP65 rating / safe for use in decontamination & wet environments • No computer or software needed to save images & videos • All scope models are common to one monitor system • Simple image & video capture to removable USB storage • On screen touch keyboard for image & video annotation • Intuitive file organization w/ image & video file review • Adjustable, flex-n-stay scope shaft holder system • Integrated 100 mm VESA mount system • Tabletop stand & wall arm mount systems available • Remote software update capability via ethernet port <div style="text-align: right; margin-top: 20px;">  </div> <p>EndoInspect® Scope Models:</p> <p>Part #'s EP5012 through EP5019</p> <ul style="list-style-type: none"> • High resolution CMOS videoscopes in 1.9, 1.2 & 1.0 mm ∅ • Industry’s smallest micro-fiberscopes in .8 & .5 mm ∅ • Scope lengths up to 1900 mm for single pass inspections • IP68 rating / can be fully submersed during HLD / soak sterilization • All scope models are common to one monitor system • Ergonomic, light weight scope body design • Each scope model diameter clearly marked for quick user identification • Centimeter marked insertion scale on scope shaft exterior • Automatic image white balance feature • Automatic scope LED light adjustment feature • Automatic, motion detected LED “sleep mode” feature

Monitor Base Unit Diagrams
(Front)



Fig. 1



Fig. 2

Monitor Base Unit Diagrams
(Front cont.)

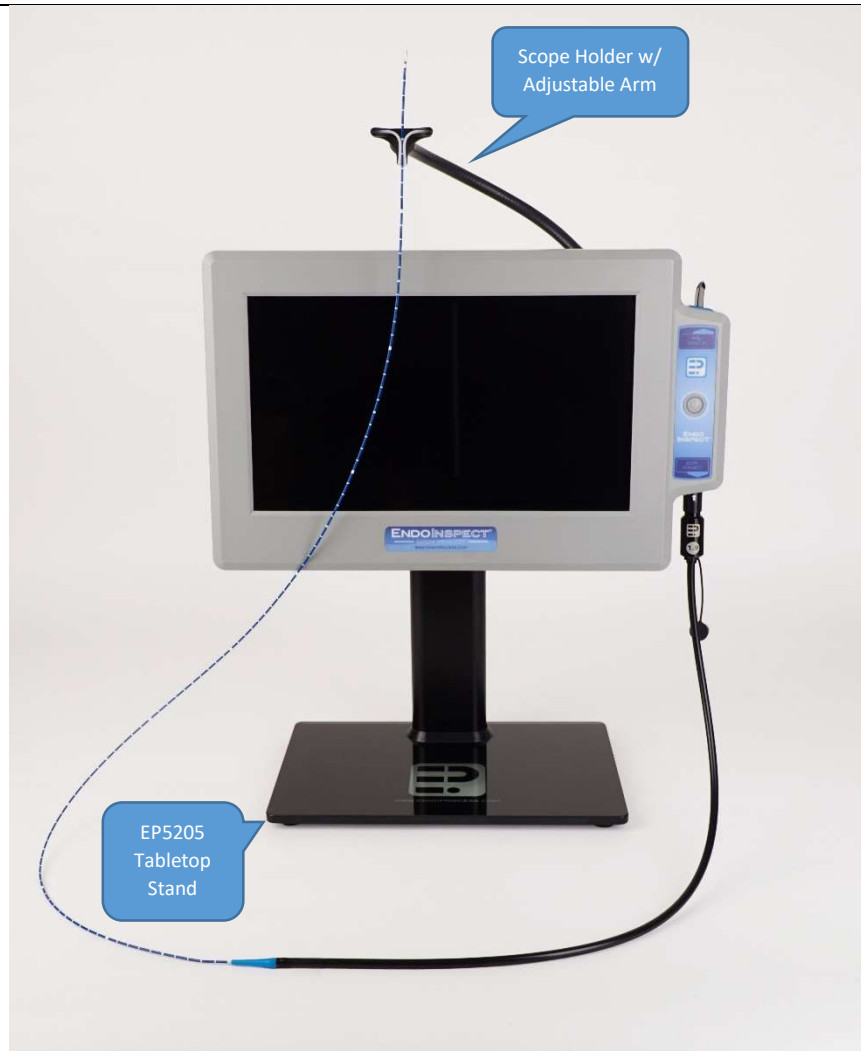


Fig. 3

Monitor Base Unit Diagrams
(Rear)

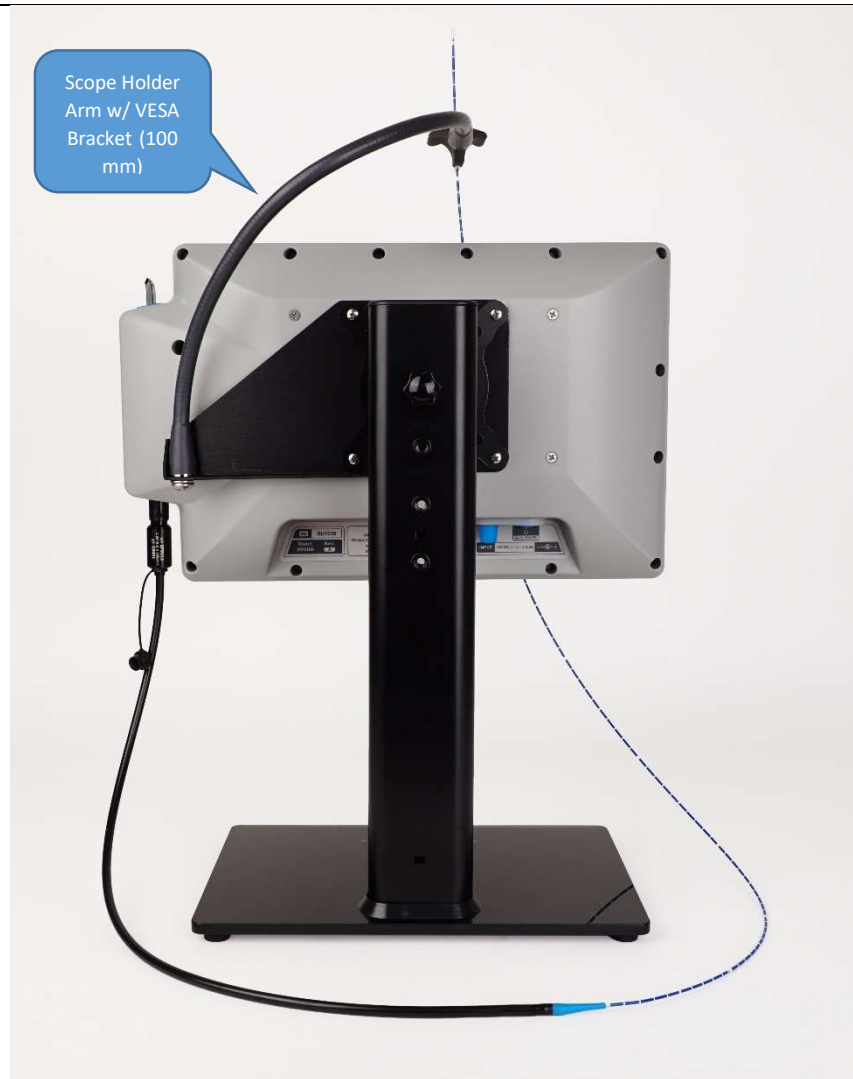


Fig. 4

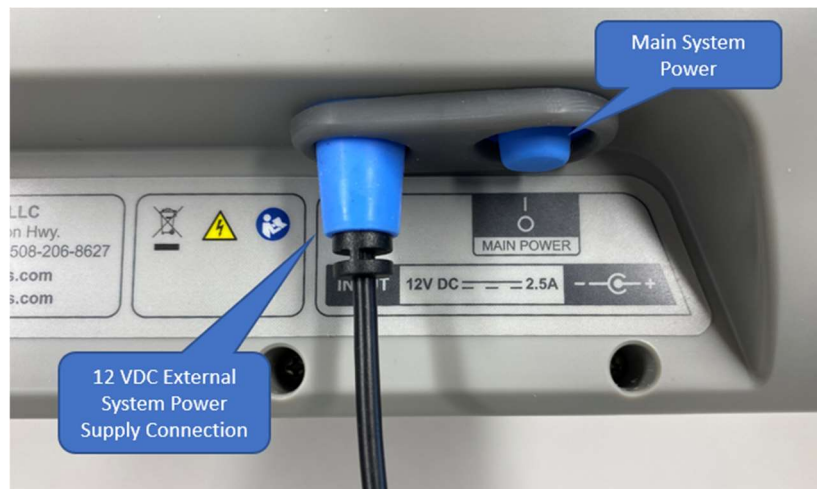


Fig. 5

Scope Diagram

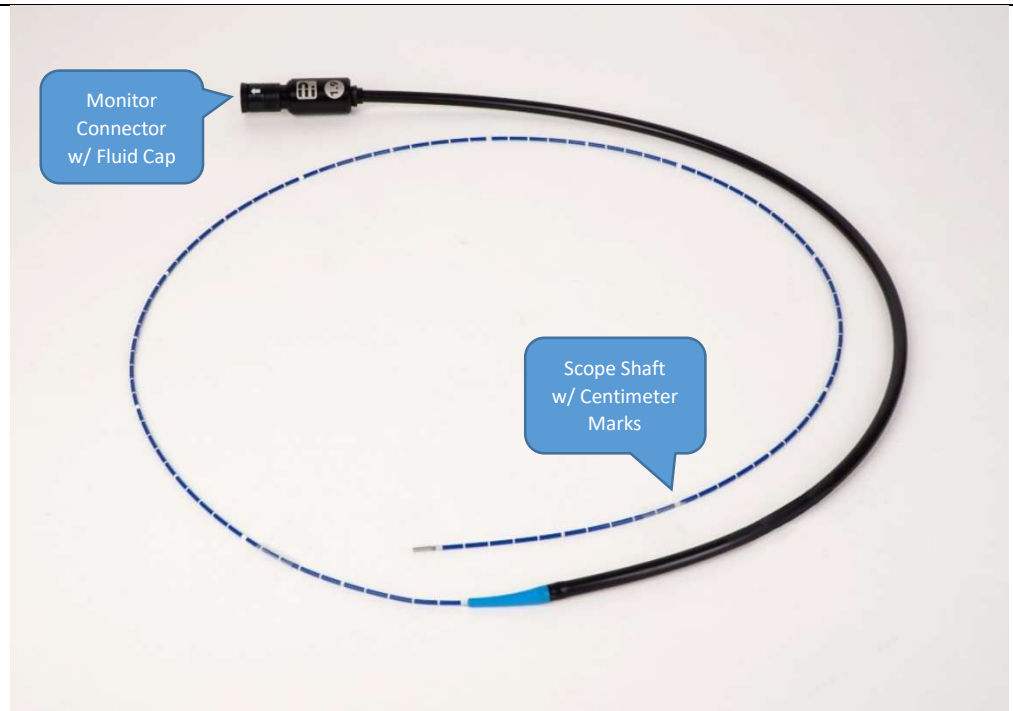


Fig. 6



Fig. 7

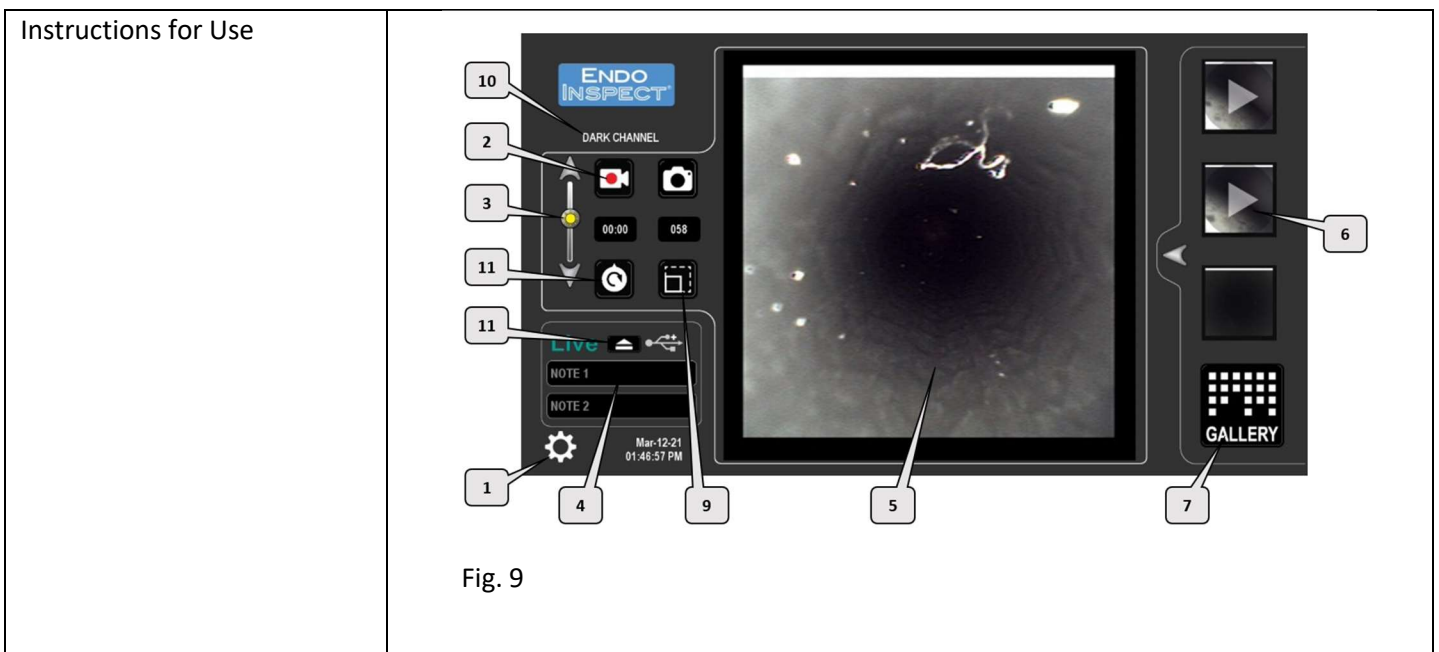


Fig. 8

Shipping & Storage

Scope products to be shipped and stored in their original packaging when not in use.
 Keep product storage temperatures between 60-78 degrees F.
 Keep products free from dust, liquids and strong magnetic fields during storage.

Instructions for Using Product(s)	
Description of Use	Carefully insert the correct sized EndoInspect® visual inspection scope into the channel or lumen to be inspected. Do not force the scope shaft into your device... scope insertion into lumen or channel should be smooth and easy.
Preparations for Use	<ol style="list-style-type: none"> 1. Carefully unpack and set up equipment in desired location. 2. Assemble tabletop stand or install wall mount arm in desired location. 3. Install system scope holder bracket assembly as shown in Figure 4. The bracket assembly is positioned between the #EP5101 Monitor Base Unit and the 100 mm VESA mount plate of either the desk top stand or wall mount arm. Use the qty (4) M4 x 16 mm stainless steel Phillips pan head washers and screws provided. 4. Plug 12VDC base unit external power supply into #EP5101 monitor base unit back panel (see Figure 5) and then into grounded 120 VAC wall power outlet. 5. Insert removable USB storage drive (see Fig. 8). 6. Push main system power button to ON position (see Figure 5). The illuminated ring around the front panel System Standby Power Button (see Figure 1) will turn orange indicating that the system is in standby mode. 7. Push the System Standby Power Button on the front panel of the #EP5101 base unit... the illuminated ring will now turn red. Power up cycle time is approximately 30 seconds... Illuminated ring then turns solid green or yellow when a scope is plugged in. The on-screen image normal condition without a scope plugged in displays the EndoInspect “Please Connect Scope” screen. 8. Choose the correct configuration EndoInspect® inspection scope, remove connector soaking cap and plug connector into the #EP5101 base unit. Align white arrows and insert connector upwards until locked (see Fig. 7). 9. Your EndoInspect® visual inspection system is now ready to use.



On Screen Display Component Identification (ref. Fig. 9 above)

1. Channel Settings Button- This touch button allows system users easily choose optimized image settings based on the general color of the channel / lumen they are inspecting. Options include Light Channel, Dark Channel and Metal Channel... touch to select the best choice for your current inspection. Your settings choice will be displayed live on-screen (see Fig. 9 / Area 10).



Fig. 10

2. Video Record & Image Record Buttons- Touch buttons to initiate a video recording (tap to start video recording *audible beep* – tap again to end video recording *dual audible beeps*). Touch button to capture still image *audible camera click*. A still image will be captured with every button touch.
3. Brightness Boost- Touch / hold to slide this button up or down to tailor the systems automatic brightness response based on particular device inspection requirements (This is an optional adjustment).
4. Note Fields- Users can tap either of these two note fields to bring up an on-screen touch keyboard. Notes typed into these fields will become part of the corresponding saved image and video files. They will also be visible when any image or video is reviewed on the monitor screen.



Fig. 11

5. Live Image Area- This is the area where your EndoInspect® inspection scopes live image will be displayed.
6. Image / Video Capture Preview- This area displays the users three most recent image / video captures. Users can touch any file to review. The saved image or video will then display in its own window... users can return to the live image screen by touching the "LIVE" button. Users can return to the main gallery by touching the gallery button (See Fig. 12 below).



Fig. 12

7. Image / Video Capture Gallery- This area displays the complete image / video capture contents stored on the USB drive. The file system is intuitive and organizes saved content in dated folders. Users can touch any folder / file to review. The saved image or video will then display in its own window... users can return to the live image screen by touching the “LIVE” button (See Fig. 13 below).

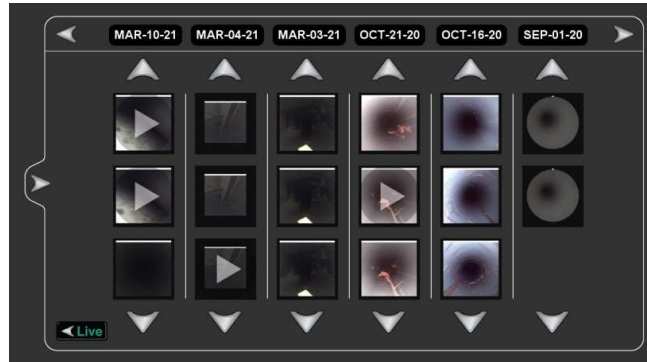


Fig. 13

8. Image Rotate- Users can tap this button to rotate their live image. The image rotates clockwise in 90-degree increments. The white bar / white arrow indicates the image position normal to the horizon.
9. Image Zoom- Users can tap this button to choose between 1x or 2x (recommended) digital zoom settings for their live scope image.
10. Channel Setting ID- See comment #1 above.
11. USB Eject Button- Tap this button prior to removing USB drive from system.






Software Update Procedure

1. Please contact your local sales representative for guidance on current software release version **prior to** attempting a software update on your EP5101 monitor system. If advised to proceed with an update...
2. Locate the ethernet port on the underside of the back panel. (See Fig. #15 below)...




Fig. 15

3. Plug in ethernet cable and wait ~1 minute for network connection to occur.

	<p>4. Press the gear wheel on the Main Video Screen </p> <p>5. Locate and press the UPDATE button on the Channel Menu Screen</p>  <p>6. The system will now check your internet connection and, if connected, will look for a software update in the following sequence...</p>   <p>7. If your monitor already has the latest software installed, then you will receive the following message...</p>  <p>8. If a new software update is available, your monitor will automatically download and install it. When prompted, please fully power down and restart your monitor.</p> <p>9. Your EP5101 monitor system is now ready to use.</p>
<p>Contradictions for Use</p>	<p>The EndoInspect® visual inspection system is not a medical product and is not intended or rated for patient contact.</p>
<p>Documentation</p>	
<p>Warranty Statement</p>	<p>EndoProcess LLC certifies that all our factory borescopes and accessories will be free of defects in materials and workmanship for one year from the date of first retail purchase. NO WARRANTY COVERAGE AGAINST USER DAMAGE / WEAR CAUSED BY USAGE / HANDLING / INCORRECT CLEANING.</p>
<p>Warnings / Cautions</p>	
<p>General Warnings</p>	<ol style="list-style-type: none"> 1. Training is required to successfully use the EndoInspect® visual inspection system. Please consult AIT Medical for system training and support (contact information below). 2. Do not force any EndoInspect® scope product into any area where resistance or scraping is felt above normal friction... choose a smaller diameter EndoInspect® inspection probe for use. 3. Do not kink or bend any EndoInspect® product scope shaft into an area with a bend radius that is smaller than recommended below (date is product specific– based on diameter of scope shaft) or scope failure could occur.

		Scope Shaft Minimum Bend Radius Chart	EP Part #
		1.9 mm scope models= 35 mm min. bend R.	EP5012 & EP5013
		1.2 / 1.0 mm scope models= 25 mm min. bend R.	EP5014, EP5015, EP5018, EP5019
		.8 mm scope model= 17 mm min. bend R.	EP5016
		.5 mm scope model= 10 mm min. bend R.	EP5017
		<ol style="list-style-type: none"> 4. Do not expose any EndoInspect® products to temperatures above 120 degrees F. 5. In the event of suspected equipment damage or failure, do not operate or attempt to service the equipment. Return equipment for inspection & service. Please contact AIT Medical for a return authorization number prior to shipment. 6. Do not attempt to disassemble or repair any EndoInspect® products yourself. Doing so voids the limited warranty and could cause harm to the user and /or the equipment. 7. The EndoInspect® system does not require a PC / computer interface... do not plug any cables from EndoInspect® system into a computer unless updating the system. 8. It is normal / expected that the system components will get warm to the touch. 9. Due to the specific nature of materials required for scope construction, it is common / normal to observe a small number of areas where light is emitting along the scope shaft length due to broken illumination fibers. This is not a defect and does not affect the general functionality of new or used scopes. 10. Powering the system standby power to OFF is recommended if not used for ~1 hour. 	
Component Cleaning Instructions			
General Warnings / Cautions	<p>THE EndoInspect® SYSTEM IS NOT REPRESENTED OR IMPLIED AS BEING WATERPROOF.</p> <p>THE EP5101 MONITOR SYSTEM IS IP65 CERTIFIED AND IS WATER RESISTANT / SAFE FOR USE IN WET ENVIRONMENTS.</p> <p>ALL EP SCOPE MODELS ARE IP68 CERTIFIED AND CAN BE FULLY SUBMERGED IN LIQUID FOR OPTIONAL FOR HLD / SOAK STERILIZATION.</p>		

	<ol style="list-style-type: none"> 1. EndoInspect® system components are not represented as being sterile and carry no sterilization efficacy rating. 2. EndoInspect® system components are not compatible with autoclave / steam / high temperature thermal disinfection or sterilization methods of any type.
<p>Preparation for Use</p>	<ol style="list-style-type: none"> 1. Inspect each system component daily before use to look for any debris, damage, or wear. 2. Wipe scope shaft using a 70% IPA (isopropyl alcohol) moistened wipe.
<p>Scope Cleaning:</p>	<ol style="list-style-type: none"> 1. All EndoInspect® scope models are IP68 rated for full submersion in liquids and can be submersed for cleaning and High-Level Disinfection (HLD). Full cleaning should be performed if scope becomes visibly soiled, otherwise daily preparation with 70% IPA (isopropyl alcohol) moistened wipe is sufficient prior to each use. High-Level Disinfection is OPTIONAL. <p style="color: red;">***You must install rubber cap on scope connector before liquid submersion and / or sterilization***</p> <p style="color: red;">Align white arrows and push rubber cap firmly into place (see Fig. 14 below).</p>  <p style="text-align: right;">Fig. 14</p> <p><u>SCOPE CLEANING:</u></p> <p>Cleaning should be performed if the scope becomes visibly soiled after use. All EndoInspect® scope models can be cleaned with the following list of products:</p> <ol style="list-style-type: none"> a. 70% IPA (isopropyl alcohol) moistened wipe b. Neutral detergents / solutions c. OxyCide®, Oxivir®, SaniCloth® wipes (or hospital approved low level disinfectant) <ol style="list-style-type: none"> 1. Follow the manufacturer’s guidelines for use of the above cleaning products. 2. After cleaning, rinse complete EndoInspect® scope assembly in clean water and wipe down with lint free cloth. <p><u>HIGH-LEVEL DISINFECTION (OPTIONAL)</u></p> <p>The following list of products can be used for High-Level Disinfection (HLD).</p> <ol style="list-style-type: none"> a. Cidex® OPA (preferred) b. Glutaraldehyde <ol style="list-style-type: none"> 1. Follow the manufacturer’s recommended guidelines for mixing instructions and soak time.

	2. After HLD is complete, rinse complete EndoInspect® scope assembly in clean water and wipe down with a lint free wipe.
Scope Cleaning- Automated:	1. EndoInspect® system components ARE NOT COMPATIBLE with any automated scope cleaning / reprocessing systems.
Scope Sterilization:	1. All EndoInspect® inspection scope models are compatible with the following sterilization systems. <ul style="list-style-type: none"> a. STERRAD® (ASP.com) 100S, 50, NX, and 100NX systems b. STERIS V-PRO® Low Temperature Sterilizer systems
Monitor Base Unit Cleaning	<p>1. The EndoInspect® monitor base unit assembly can be cleaned (wipe down) with the following list of products (please follow the manufacturers recommended guidelines)... DO NOT SUBMERGE MONITOR ASSEMBLY</p> <ul style="list-style-type: none"> c. 70% IPA (isopropyl alcohol) moistened wipe d. Neutral detergents / solutions e. OxyCide®, Oxivir®, SaniCloth® wipes (or hospital approved low level disinfectant) <p>2. After cleaning is complete, wipe down EndoInspect® monitor base unit assembly with a lint free wipe moistened with water. Disinfectants and other cleaning chemicals should not be left to dry on monitor screen. Wipe down monitor screen after cleaning with a lint free wipe moistened w/ 70% IPA for best results.</p>
Customer Service Contact	
Contact Information	<p>AIT Medical</p> <p>2020 W. Eau Gallie Blvd.</p> <p>Sutie 101</p> <p>Melbourne, FL 32935</p> <p>support@aitmedical.com</p> <p>+1 (321) 610-8977</p>
Trademarks	<p>EndoInspect® is a registered trademark of EndoProcess LLC</p> <p>Oxivir® is a registered trademark of JohnsonDiversey Inc.</p> <p>Cidex® is a registered trademark of Advanced Sterilization Products (J&J)</p> <p>OxyCide® is a registered trademark of Ecolab</p> <p>Sani Cloth® is a registered trademark of PDI, Inc.</p> <p>STERRAD® is a registered trademark of Advanced Sterilization Products (J&J)</p> <p>V-PRO® is a registered trademark of STERIS</p>