



**Instructions for Use: Video Inspection Scope with Display**

|  |  |
|--|--|
| <b>Brand Name of Product</b>             | Video Inspection Scope   |
| <b>Generic Name of Product</b>           | Video Inspection Scope   |
| <b>Product Code Number(s)</b>            | FIS-004  |
| <b>Intended Use</b>                      | For visually inspecting instruments.   |
| <b>Range of Applications for Product</b> | Instruments that require visual inspection.  |
| <b>Key Specifications of Product</b>     | <ul style="list-style-type: none"> <li>● Inspection Scope Camera</li> <li>● Resolution: 640x480</li> <li>● Camera outer diameter: 2.4mm</li> <li>● High definition: 720p</li> <li>● Views: Forward View / Side / View</li> <li>● Light environment: Normal / Dark</li> <li>● White light balance: Auto / Mechanical</li> <li>● Field of view: 70° - 80°</li> <li>● Depth of field: 3mm-80mm</li> <li>● View direction: Forward / Side</li> <li>● Tip articulation angle: 4way - &gt;120°</li> <li>● Probe lens length: 9.0mm</li> <li>● Working cable insertion tube: Polyurethane/tungsten mesh</li> <li>● Working cable length: 1.2m</li> <li>● Monitor size: 4.5in. TFT LCD</li> <li>● Control: Mechanical tip bending, brightness adjusting, image processing.</li> <li>● Battery: Lithium battery, length of time &gt;3.5 hours</li> <li>● Illumination light type: High-power LED with fiber light</li> <li>● Illumination: 300 lux (max.)</li> <li>● Maximum visual range (illumination): &gt;300mm</li> <li>● Waterproof standard: IP67</li> <li>● Memory Card: 8GB (standard), it can support 32GB (max)</li> <li>● Camera pixels: 300,000</li> </ul> |

| <b>Shipping &amp; Storage</b>                 |  |
|---|--|
| <b>Shipping Conditions &amp; Requirements</b> |  |
| <b>Storage Conditions</b>                     |  |
| <b>Packaging Conditions</b>                   |  |
| <b>Shelf Life</b>                             |  |

| <b>Instructions for Using Product</b> |  |
|---------------------------------------|--|
| <b>Description of Use (s)</b>         | Use the inspection scope to directly inspect internal channels. The camera will allow you to capture and document internal condition.  |
| <b>Preparation for Use</b>            | <p>Rechargeable battery- Charging time is 7 hours until the indicator light turns off. A fully charged battery can last up to 8 hours.</p> <p>Button Description - 3 basic modes</p> <p>Preview Mode</p> <ul style="list-style-type: none"> <li>● Display summarized optional functions such as: picture taking, video taking, etc.</li> </ul> <p>Button Icons:</p> <ul style="list-style-type: none"> <li>○ ▲ Up ▲ zoom, down ▼ 4x, image can rotate 360°.</li> </ul> |

- Menu- To return to the preview mode.
- -- To take photo.
- -- To start/stop video recording.
- ➤ To enter surfing mode.

#### Surfing Mode

- Survey photos and videos in the memory card.

#### Button Icons:

- ▲ Switch to previous/next photo or video.
- Menu- To return to the preview mode.
- OK- To display or pause.
- ➤ Return to preview mode.

#### Menu Mode

- Includes file maintenance, settings, etc.

#### Button Icons:

- ▲ Select previous/next function or option.
- Menu- To return to the preview mode.
- OK- Confirm selected function or option.
- ➤ Choose camera or maintenance settings.

#### Camera Menu:

- Under the preview mode: Press MENU button to display options as follows

|               |               |
|---------------|---------------|
| <b>Camera</b> | <b>HD&gt;</b> |
| Effect        | Nor           |
| Date Stamp    | Date          |

**OK** Enter      **Menu** Back

- Use ▲OR ▼to select the item, and enter the options displayed:

|            |
|------------|
| <b>VGA</b> |
| <b>HD</b>  |

**OK** Enter      **Menu** Back

- VGA Mode: Image display of 3.5inch
- HD Mode: Full screen image

**Normal**  
B&W

**OK** Enter      **Menu** Back

- Under the Effect selection, you can choose the image with or without color

**Off**  
Date  
Date & Time

**OK** Enter      **Menu** Back

- Under Date and Stamp selection, Date stamp can be added to recording files or not.

Press Menu button to return menu mode and press ► to set more options as below:

**Date & Time**  
Language  
TV Out  
Power Save  
Format

**OK** Enter      **Menu** Back

#### **DATE/TIME SETUP**

Press ► to select year/month/day or hour/minute/second, and press the up or down arrow keys to increase or decrease the number.

01/01/2017 00:00

DD/MM/YYYY

**OK** Enter      **Menu** Back

#### **LANGUAGE SETUP**

**English**  
French  
Espanol  
Deutsch

**OK** Enter      **Menu** Back

**TVOUT SETUP** To set up TV output format, plug in video cable to connect external monitor and set up the TV output format

**NTSC**  
PAL

**OK** Enter      **Menu** Back

To set up time for auto power off

.

|   |
|---|
| <b>3Min</b><br>5Min<br>10Min<br>Disable |
|---|

**OK** Enter      **Menu** Back

**FORMAT & RESET ALL** Choose Yes to format storage on media SD card or return to original settings

.

|           |
|-----------|
| No<br>Yes |
|-----------|

**OK** Enter      **Menu** Back

**LOCK OR DELETE FILES** Under Playback mode, press MENU, you can delete one or all files, the file also can be locked to protect from being deleted.

Choose lock- you can lock or unlock one or all files

|                       |
|-----------------------|
| <b>Lock</b><br>Delete |
|-----------------------|

**OK** Enter      **Menu** Back

|   |
|---|
| <b>Lock /Unlock one</b><br>Lock all<br>Unlock all |
|---|

**OK** Enter      **Menu** Back

Choose Delete- to delete one or all files

|                       |
|-----------------------|
| Lock<br><b>Delete</b> |
|-----------------------|

**OK** Enter      **Menu** Back

|                   |
|-------------------|
| <b>ONE</b><br>All |
|-------------------|

**OK** Enter      **Menu** Back

Diagrams (drawings, pictures)



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5



Figure 5



Figure 6



Figure 7



**Operating Camera: Figure 1**



Figure 2



Figure 3



Figure 4

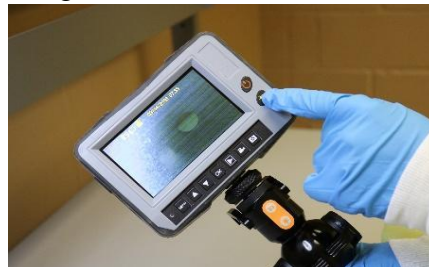


Figure 5



Figure 5



Figure 6

### Steps for Use of Product

Press Power button for 2-3 seconds to turn on, (display in preview mode). Adjust illumination and extend the insertion tube straight out and operate joystick to check for smooth angulation section operation.

**NOTE:** Increasing the bending of the insertion tube decreases the maximum angle for the angulation. Keep the insertion tube as straight as possible in order for it to work correctly.

1. Insert SD card into slot on side of the display unit. If SD card cannot be plugged in smoothly, please check orientation. **Fig. 1**
2. Connect display and articulation unit. Ensure proper alignment of the Key-Slot and then screw in securely. **Fig. 2 and Fig. 3**
3. Check the display by rotating left and right around 160° respectively. **Fig. 4**  
**NOTE:** The display and articulation unit can be connected by soft cable in between. The soft cable is a standard accessory which can be found in the carrying case. **Fig.5**
4. Check the turnaround of the distal end by the movements of the control wheel (2-way) or control stick (4-way).  
**NOTE:** Reduce the angulation when rolling up the cable, or else this can damage the instrument. Keep the insertion tube as straight as possible in order for it to work correctly. **Fig. 6**
5. Press the power on for 3 seconds to open display. **Fig. 7**

|  |  |
|--|--|
|  | <p><b>Operating camera:</b></p> <ol style="list-style-type: none"> <li>1. Press camera icon to take picture, then automatically switch back to preview mode. <b>Fig. 1</b></li> <li>2. To record- Press record icon to video record, the record icon is in the lower left corner to indicate it is recording. <b>Fig. 2</b></li> <li>3. Press record icon to stop recording. The icon then disappears to indicate recording has stopped. <b>Fig. 3</b></li> <li>4. To zoom- In the preview mode, press the up arrow key to enlarge object from 1x to 4x the size of the object. <b>Fig. 4</b><br/><b>NOTE:</b> For illumination press the illumination button on the display unit or on the control handle. <b>Fig. 5</b></li> <li>5. Rotate object- Press the down arrow key in preview mode to get image upside down or mirror image. <b>Fig. 6</b></li> </ol>   |
| <b>Contraindications of Test Results</b> |  |
| <b>Documentation</b>                     |  |
| <b>Special Warnings and Cautions</b>     | <ul style="list-style-type: none"> <li>• Do not modify or disassemble the unit.</li> <li>• Do not subject the insertion tube or other cables to strong pulling. Also, do not remove the main unit around by holding the cables; this may cause the insertion tube or cables to become damaged.</li> <li>• Do not subject the distal end to severe impact or pulling, do not expose the angulation section to severe impact or bending- this may cause damage to the precision components that make up the distal end and the angulation section.</li> <li>• Do not allow and liquids other than water to come into contact the with insertion tube- this may cause damage to the insertion tube.</li> <li>• Only the insertion tube may come into contact with water. The parts of the instrument are not water tight and water creates the risk of electric shock.</li> <li>• Should not be used or stored where it is submerged in water or can become wet.</li> </ul> |
| <b>Disposal</b>                          |  |

| <b>Reprocessing Instructions</b>            |  |
|---|--|
| <b>Point of Use</b>                         |  |
| <b>Preparation for Decontamination</b>      |  |
| <b>Disassembly Instructions</b>             |  |
| <b>Cleaning – Manual</b>                    | <p><b>Cleaning Insertion Tube</b></p> <ul style="list-style-type: none"> <li>• Wipe thoroughly with low linting wipe and moistened with facility approved neutral detergent, clean with low linting wipe moistened with AAMI Utility Water, then wipe the insertion tube to dry.</li> </ul> <p><b>NOTE: Clean the insertion tube immediately after removing it from the device to avoid corrosion.</b></p> <p><b>Cleaning Distal End</b></p> <ul style="list-style-type: none"> <li>• Grasping the rigid portion of the distal end, use clean low linting wipe to wipe clean. Best results may be obtained using facility approved Isopropyl alcohol.</li> </ul> <p><b>Cleaning Unit Body</b></p> <ul style="list-style-type: none"> <li>• Wipe with low linting wipe dampened with AAMI Utility Water, and then wipe dry with clean dry low linting cloth.</li> </ul> |
| <b>Cleaning – Automated</b>                 |  |
| <b>Disinfection</b>                         | Use facility approved Isopropyl Alcohol wipes or hydrogen peroxide wipes according to the OEM IFU for contact time.  |
| <b>Drying</b>                               | <ul style="list-style-type: none"> <li>• Wipe the insertion tube dry with a clean, soft dry low linting wipe.</li> <li>• Wipe unit body dry with clean, low linting wipe.</li> </ul>   |
| <b>Maintenance, Inspection, and Testing</b> | Recharge battery for 7 hours until the indicator light turns off.  |
| <b>Reassembly Instructions</b>              |  |
| <b>Packaging</b>                            |  |
| <b>Sterilization</b>                        |  |
| <b>Storage</b>                              | <ul style="list-style-type: none"> <li>• Store the instrument no higher than 60°C or lower than -20°C.</li> </ul>  |

|                               |   |
|-------------------------------|---|
|                               | <ul style="list-style-type: none"> <li>• Store the equipment in a clean, dry and ventilated location.</li> <li>• Remove the battery and straighten angulation section while laying into the carrying case.</li> </ul> |
| <b>Additional Information</b> | If upon inspecting an item it is determined not to be clean, reprocess according to the manufacturer's instruction for use.   |

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|--|---|
| <b>Related Healthmark Products</b>     | USB Microscope, optical inspection products   |
| <b>Other Product Support Documents</b> | ProSys™ Brochure, ProSys™ Pricelist   |
| <b>Reference Documents</b>             | ISO 9001 / ISO 14001 certified  |
| <b>Customer Service Contact</b>        | Healthmark Industries Company, Inc<br>33671 Doreka<br>Fraser, MI 48026<br>1-586-774-7600<br><a href="mailto:healthmark@hmark.com">healthmark@hmark.com</a><br>hmark.com |

2017-12-06 Suzanne Latta