# INSPEKTOR® CTC HD Digital Borescope Systems

## Includes Product #:

**INS9905 INSPEKTOR HD Monitor** (15-inch HD monitor)

**INS9901 INSPEKTOR HD Borescope** (1.9mm X 2m HD Borescope

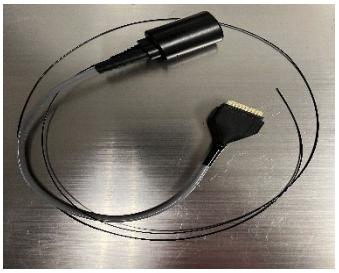
**INS9902 INSPEKTOR HD Borescope** (1mm X 1m HD Borescope.

**INS9903 INSPEKTOR HD Borescope** (1.9mm X 1m HD Borescope)

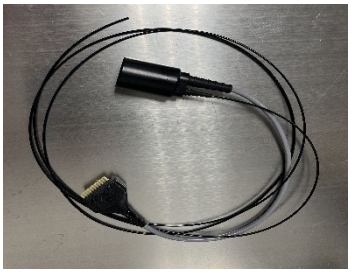



INS9900 Inspektor HD Monitor

INS9901 Inspektor HD Borescope 1.9mm x 2m



INS9902 Inspektor Borescope HD 1mm x 1m



INS9903 Inspektor HD 1.9mm x 1m

## Owners Manual

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The following - Instructions for Use - are applicable to the INSPEKTOR® HD Borescope Systems. Including Model: INS9900

## Intended Use

The INSPEKTOR® HD Digital Borescope Systems are waterproof and are patented and designed to work in wet and dry environments. They are used to provide visualization of working channels and lumens in surgical instruments and endoscopes larger than 1.2 mm. The systems allow the technician to inspect the lumens during and after the cleaning process to visually confirm that they are void of foreign material.

## Indications for Use

Visual Inspection of endoscope working channels and surgical instrument lumens to confirm they are cleaned to the technician's expectations.

## Contraindication Use

The INSPEKTOR® CT Borescopes are not intended for use in human patients.

## GENERAL WARNINGS

1. The INSPEKTOR® HD Borescopes are polymer coated flexible devices. Avoid sharp metal edges when either inserting or retracting the INSPEKTOR® HD Borescope.

2. Follow the cleaning, disinfecting, and sterilization on instructions provided in this manual.

3. Do not autoclave INSPEKTOR® devices.
4. Do not attempt to service any part of this product. **
5. To ensure operator safety, read and understand this manual before using the INSPEKTOR® Borescope and monitor.
6. The INSPEKTOR® Borescopes emit visible light energy from its distal end. Avoid looking directly at this emitted light or directing it toward others.
7. Carefully inspect the external surfaces of the INSPEKTOR® Borescopes to assure they are smooth and free of any protrusions or sharp edges.
8. Do not bend device below a 20 mm radius or to the point of kinking. Excessive bending may cause damage to the device and render the INSPEKTOR® HD Borescope inoperable.
9. Applying excessive force to push an INSPEKTOR® Borescope past an obstacle could result in damage to the device. If the INSPEKTOR® Borescope requires significant push force, observe the monitor and a attempt to avoid the obstacle by manipulating the flexible scope.
10. Avoid rubbing the borescope against sharp edges. This can cause damage to the device.
11. Store between 60º – 90ºF. Keep away from magnetic fields while storing.
12. Do NOT use the INSPEKTOR® Controller Monitors in excessively high temperatures above 120º F, as the materials of construction on are not designed to operate under these conditions.
13. Marginal INSPEKTOR® HD Borescope light Leaks are common and may exist on new scopes. This does not affect the function of the INSPEKTOR® Touch Digital Borescope System.
14. Disinfectants may cloud the monitor screen. Wipe any disinfectant fluid from the screen with damp cloth and water.
15. INSPEKTOR® HD Borescopes should not be exposed to temperatures in excess of 212 degrees F.
16. If the INSPEKTOR® HD is used in a manner not specified in the instructions for use, the protection on provided by the equipment may be impaired.

## Product Description

INSPEKTOR® CTC HD is comprised of two components. The INSPEKTOR® CTC houses the camera control board, in a waterproof (IP65)* compartment and the Inspektor HD borescopes. The INSPEKTOR® HD scopes only work with the Inspektor HD monitor and CTC HD

The INSPEKTOR® CTC HD System are patented and designed to work in wet and dry environments and are used to inspect small lumens and working channels of surgical instruments and endoscopes for foreign matter. This allows the cleaning/sterilization on processing technicians to determine whether their surgical equipment is visually free from foreign matter.

INSPEKTOR® CTC HD's waterproof status, as defined by the International Electro Technical Commission is IP65 and INSPEKTOR® HDBorescopes are IP67.

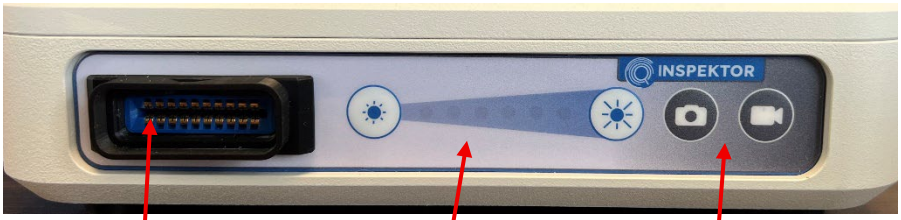
**Caution:**

Turn off the INSPEKTOR CTC HD® when unplugging either INSPEKTOR borescope or when plugging in a borescope. Turn the monitor on again after exchanging the borescope.

**Warning:**

Do not submerse the INSPEKTOR CTC HD® Box in any fluid.

Operation of CTC HD – **No software required** – will work with any free imaging software if needed




(Product# 9901, 9902 & 9903)

It is important to visually inspect INSPEKTOR®

| Borescope Plug | Picture brightness adjustment | Camera and Video Buttons |
|---|---|---|

Borescopes for signs of excessive wear or deterioration. Inspect Borescope Daily. Possible indications of wear that would require replacement would include:

- Unacceptable or poor image quality
- Cracking, tears or degradation of the sheathing or epoxy joints

# INSPEKTOR CTC HD Digital Borescope System Cleaning Instructions

## Cleaning and Disinfection of the INSPEKTOR HD® Monitor

Cleaning and Disinfection – To remove debris, wipe the INSPEKTOR® HD Controller Monitor with a nonabrasive cloth using 70% isopropyl alcohol.

Allow proper contact time. Wipe the screen with an appropriate 70% isopropyl alcohol wipe.

Caution: Do not wipe down the INSPEKTOR® HD Controller Monitor without the INSPEKTOR® Borescope connected.

## Cleaning and Disinfection of the INSPEKTOR® Borescope (Product # 9901, 9902 & 9903)

The INSPEKTOR® HD Digital Borescope is used to inspect surgical instrument lumens and endoscope channels in the sterile processing department or in endoscopy. The inspection of these inner surfaces aids in the visualization of foreign debris and bio-burden and further assures their removal before the sterilization of instruments or high-level disinfection of endoscopes. The INSPEKTOR® Borescopes may be used on either the dirty side or the clean side of the Sterile Processing
Department or in the Endoscopy reprocessing area. The INSPEKTOR® Borescope should be cleaned in the manner described below to prevent cross contamination of instruments or endoscopes with foreign debris or bioburdens.

### Cleaning – Dirty Side

1. Clean and Disinfection – Begin by cleaning the INSPEKTOR HD Borescope fiber. The INSPEKTOR® Touch Borescope may be wiped with a 70% isopropyl alcohol wipe. Follow the manufacturer's cleaning agent's instructions for use. Wipe with water moistened a fiber-free cloth. Follow these processes for all instruments to be cleaned

2. High Level Disinfection

   High level Disinfection on may be achieved by:

   - High level disinfection may be achieved by submersing the INSPEKTOR® Borescope in a Cidex ® OPA solution or like

product and mix according to the manufacturer's Instructions. (Note: The Connector Cap must be securely snapped into place before submersion.) Rinse and wipe with moistened fiber free cloth

* Follow your facilities requirements and steps before submerging your borescope in a Cidex ® OPA solution or like product.

Note: Sterilization of the INSPEKTOR® Borescope is not required if high level disinfection is utilized.

## Cleaning – Clean Side

1. Disinfection - If the INSPEKTOR HD® Borescope encounters any visible foreign matter, it should be cleaned with a hospital approved disinfectant wipe as noted in Cleaning Dirty Side. The scope should then be cleaned using High Level Disinfection, instructions listed above, to prevent any cross contamination prior to reuse on the clean side
2. High Level Disinfection
   • See HD Disinfection Dirty side
   Note: Sterilization of the INSPEKTOR Borescope is not required if high level disinfection is utilized.

## Compatible Sterilization on Methods for the INSPEKTOR® HD Borescopes (Product# 9901, 9902 & 9903)

The Inspektor Borescope may be sterilized once per month. See below for compatible methods

✓ STERIS V-PRO® Low Temperature Sterilization Systems

- STERIS SYSTEM 1E

- V-PRO® 1 Standard Cycle
- V-Pro® 1 Plus Lumen & Non-Lumen Cycles
- V-PRO® max Lumen, Non-Lumen & Flexible Cycles
- V-PRO® 60 Lumen & Non-Lumen Cycle.

Follow the instructions provided with the STERIS equipment for sterilization processing.

- STERRAD®

  - 100S,
  - 50
  - 200
  - NX, and 100NX systems.

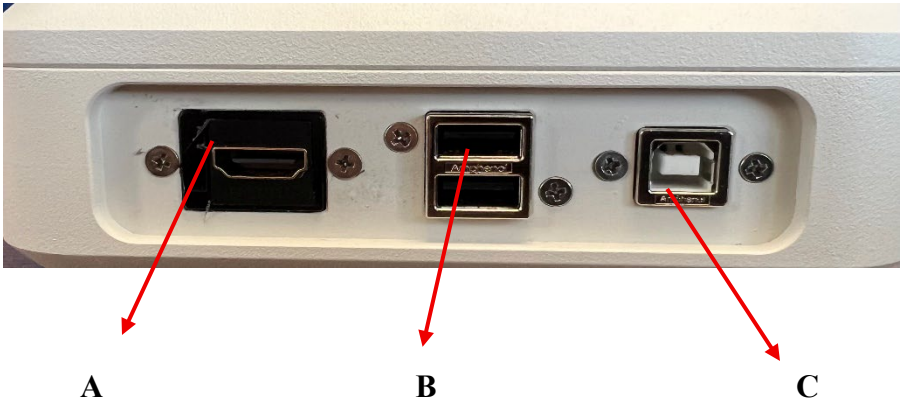
Follow instructions provided with STERRAD® equipment for sterilization processing.

WARNING: Do not reprocess the INSPEKTOR® HD Borescope using steam sterilization, autoclave, or dry heat. Do not place the INSPEKTOR Borescope into an automatic washer disinfector. Use of these processes will result in damage to the instrument and void its warranty.

## INSPEKTOR HD System Set Up

When using the INSPEKTOR® Systems around a wet field, the INSPEKTOR® CTC HD Monitor must be plugged into a Ground Fault Interrupter (GFI electrical outlet)

**Back of CTC HD**




Bottom of INSPEKTOR HD® Monitor

| | | |
|---|---|---|
| A | HDMI | Waterproof HDMI for Video Feed |
| B | Waterproof USB type A Port | Waterproof |
| C | Waterproof USB B Port | USB Thumb drive must be inserted for user to take pictures and record video |

## Mounting Instructions

Mounting the INSPEKTOR® CTC HD (product INS9905)

Wall Mount: INS6005

Tabletop Stand: INS6008

Ergo Flex Arm: INS6007

Mobile Cart: INSCRT1000

- Remove the four screws on the posterior of the INSPEKTOR® HD Monitors
- Place the Vesa mount on the back and secure it to the INSPEKTOR® HD Monitor with the four screws in their respective screw holes (follow Mounting Instructions).

- Confirm that all four of the screws are ght
- Confirm the INSPEKTOR® HD Monitor's power adapter is accessible when it is connected and disconnected.)

## INSPEKTOR® Touch Environmental Condition & Power Requirements:

- Indoor use only
- Power requirements: 100-240V~, 1.0A, 50/60Hz
- Maximum altitude up to 2000 m
- Temperature range 5°C to 40°C
- Maximum relative humidity 80% for temperatures up to 31°C decreasing linearly to 50% relative humidity at 40°C

## Warranty

The INSPEKTOR® HD Digital Borescope System is warranted, when new, to be free of defects in material and workmanship and to perform in accordance with the manufacture's specifications when subject to normal use and service for a period of one year from the date of purchase. Thomas Scientific. at its op on, will either repair or replace any components found to be defective or at variance from manufacturer's specifications within this me at no cost to the purchaser. It shall be the purchaser's responsibility to return the device directly to Thomas Scientific. a er receiving a Returned Material Authorization Number from Thomas Scientific. Customer Service Department. Prior to returning the device, it shall be the purchaser's responsibility to clean and disinfect the device and to package it in a manner that minimizes the possibility of shipping damage. Repair or replacement of the device as provided above shall be the sole and exclusive remedy for any breach of the warranty.

**Opening or servicing of the INSPECTOR® HD Monitor and CTC HD by anyone other than the manufacturer affects the water-resistant nature of the monitor and will void the warranty. If any component of the INSPEKTOR HD Monitor or CTC HD needs service, obtain a Return Authorization Number by calling: 7634272907.

The INSPEKTOR® HD is manufactured by Thomas Scientific. exclusive specifications by:

Myriad Fiber Imaging Tech,
Inc. 56 Southbridge Road

Dudley MA 01571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