

RIGID ENDOSCOPE OPERATING INSTRUCTIONS



Note: Read this manual first. It contains important instructions and warnings concerning the proper assembly, use, and service of your new rigid endoscopy product(s).

Introduction

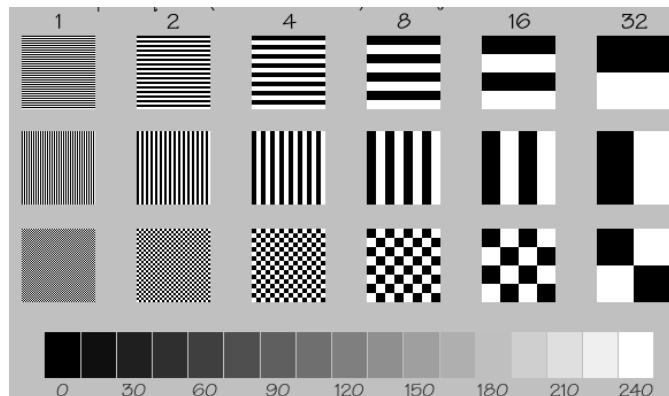
Congratulations and thank you for purchasing our new rigid endoscopy system!

Your new endoscope and surgical instruments was designed and manufactured to the highest quality standards so you may enjoy many years of trouble free service. Each scope was produced using ISO 9002 series standards and is CE 0197 certified.

Endoscope Operating & Maintenance Instructions

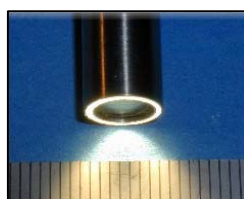
A) Pre-Op Preparation:

1. **Physical Damage** - Examine the endoscope and accessories for physical damage. Cracked or chipped lenses, rough surfaces, sharp edges, bent or loose components should be repaired immediately by a certified factory technician prior to use.
2. **Optics**- Examine the optical system in bright light by looking through the proximal end (eyepiece) at the target illustrated below. Position the distal tip of the scope approximately 10mm from each target.



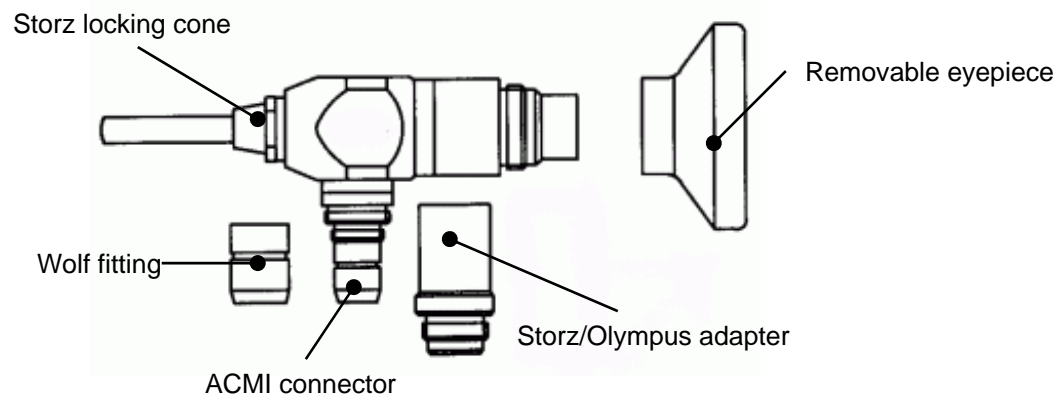
- *All surfaces should appear flat, shiny and without distortion. Moisture inside the optical system can cause a cloudy/opaque image or a complete loss of the image.*

3. **Light Transmission**- Connect the fiber optic cable to the light post of the scope. The light exiting at the distal tip should be evenly distributed without any dark areas, as illustrated below.



B) Accessories:

Your endoscope is compatible with most accessories that use Karl Storz fittings. The light post is equipped with three universal adapters, as illustrated below. Select the proper connector for your fiber optic light cable.



Cautions and Warnings:

ENDOSCOPIC PROCEDURES SHOULD ONLY BE PERFORMED BY PERSONNEL TRAINED AND EXPERIENCED WITH RIGID ENDOSCOPY. THE USE OF ENDOSCOPES BY UNAUTHORIZED PERSONNEL MAY LEAD TO INJURY OR DEATH TO THE PATIENT.

Endoscopes are fragile optomechanical devices that need to be handled with caution.

- Always hold the endoscope at the housing body or eyepiece.
- Do not bend or twist the tubing.
- Avoid shaking, dropping, or denting the endoscope.
- Padded telescope cases and plastic shaft guards provide excellent protection against torsional forces and should always be used during storage or transport.
- Due to the high energy from the illumination fiber, do not leave the distal tip in contact with the patient's tissue. Temperatures may exceed 41degrees C (106 degrees F) within a working distance of 10mm.

Rigid Endoscope Handling and Cleaning

Equipment Handling:

1. Never clean or sterilize the endoscope together with other instruments unless these are packaged separately in another container.

Cleaning Tips:

1. Disconnect the light cable from the light post and remove all cable adapters.
2. Soak telescopes immediately after use in a neutral pH enzymatic solution.
3. Never soak the instrument in any solution for more than 15 minutes.
4. Remove contaminants with a non-abrasive sponge, soft cloth or cotton applicator soaked in a neutral pH enzymatic solution.
5. Remove cleaning solution residue with distilled water and dry with a lint-free cloth.
6. Clean all optical elements with alcohol wipes or cotton applicators soaked in 70% alcohol to remove any film or residue. Do not use acetone or mineral spirits.
7. Inspect the telescope after cleaning for proper cleanliness and any damage. Never clean the endoscope in an ultrasonic cleaner

Disinfecting / Sterilization:

Rigid endoscopes may be disinfected or sterilized using a glutaraldehyde soaking solution of 2.5%. Exposure times should not exceed 15 minutes. After soaking, rinse the telescope well with sterile water and dry with a soft sterile cloth. Pay close attention to the accumulation of residue around the fiber optics at the distal tip and light post. Residue from the disinfectant can form chemical deposits that will decrease light transmission through the fiber optic bundle. Endoscopes **NOT** marked “**autoclave**” cannot to be used in temperatures above 60 degrees C (140 degrees F).

Autoclaving:

Rigid endoscopes bearing the engraving “autoclave” have a duty cycle of 10% and can be steam sterilized up to 134 degrees C (273 degrees F).

1. Clean and dry the telescope
2. Place the scope in a sterilization tray – allow adequate space around the instrument to ensure proper circulation and penetration of the steam.
3. Autoclave at 134 degree C for three minutes at 2.0 atmospheric pressure.
(Do not exceed 5 minutes, 134C at 2.2 bar)
4. After the autoclave cycle is complete, remove the container from the autoclave and allow the endoscopes to cool at room temperature for 1 hour before removing the top of the sterilization tray.

Caution: Repeated autoclaving decreases the life expectancy of the scope due to the stress caused by high heat and pressure. Sudden temperature changes may fracture the optical components. Never cool an endoscope with a sterile liquid or compressed air. Always inspect the instrument after each autoclaving cycle.

Liability Statement – *Please read*

PURCHASER UNDERSTANDS AND AGREES THAT THE MANUFACTURER, DISTRIBUTOR, AND RETAILERS OF YOUR ENDOSCOPY INSTRUMENTS ARE NOT RESPONSIBLE OR LIABLE FOR DAMAGE TO EQUIPMENT CAUSED BY THE USE OF THESE PRODUCTS. PURCHASER ALSO UNDERSTANDS THAT HE/SHE USES OUR PRODUCTS AT HIS/HER OWN RISK AND AGREES TO INDEMNIFY, DEFEND, AND HOLD HARMLESS THE MANUFACTURER, DISTRIBUTOR, AND RETAILER FROM ANY AND ALL CLAIMS ARISING FROM THE USE OF SAID PRODUCTS. THIS INCLUDES INJURY TO PATIENTS CAUSED DURING EXAMINATION OR SURGERY AS WELL AS DAMAGE TO MACHINERY, WHICH OUR PRODUCTS ARE INSTALLED. THE PURCHASER ALSO AGREES THAT THE SUBSTANTIVE AND PROCEDURAL LAW OF THE STATE OF CALIFORNIA SHALL GOVERN ANY AND ALL DISPUTES ARISING OUT OF OR RELATING TO THE USE OF OUR PRODUCTS IN ANY WAY. ALL LITIGATION SHALL BE FILED AND SETTLED IN THE FEDERAL AND STATE COURTS OF SANTA CLARA COUNTY, CALIFORNIA USA.

Warranty

The manufacturer warrants each endoscopy instrument to be free from defective material and workmanship for a period of twelve (12) months subject to the following terms and conditions:

The unit is to be delivered by the owner or authorized distributor to the manufacturer intact for examination, with all transportation charges prepaid to the factory, twelve (12) months from the date of sale to the original purchaser. The manufacturer will solely determine when such defect exists.

This warranty does not extend to any products, which have been subject to misuse, neglect, accident, improper installation, or used in violation of the operating instructions. Examples of misuse would include but are not limited to the following:

- Bent, curved, dented, or snapped optical tubes.
- Scratched or broken lenses.
- Delaminating of optics caused by excessive heat, extended soaking, or improper use of disinfectants.

This warranty does not extend to units that have been repaired, calibrated, or altered in any way by a facility that is not approved, in writing, by the manufacturer to perform such work.

This warranty does not apply to any product in which the seals or serial number thereof has been removed, defaced or changed, or to accessories not of our own manufacture.

This warranty is in lieu of all other warranties expressed or implied and all such other warranties are hereby expressly excluded. No representative or person is authorized to assume for us any other liability or warranty in connection with the sale of the original manufacturer's products.

Additional information with regard to the applications and maintenance of this equipment will be available from time to time. Please check with your sales person.

The manufacturer, distributor, or retailer reserves the right to modify or change the warranty without notice.