



Understanding Your Rigid Scopes

External Construction of a Rigid Scope

A. Eyepiece

This portion remains outside of the patient's body. Depending on the scope, the physician can either view images of the procedure directly through it or attach a camera to the eyepiece and view the images on a video system monitor.

B. Scope Body

This is the most durable part of a rigid scope. When handling, *a/ways* pick up the scope by this area.

C. Fiber Optic Post / Light Guide Post

The light guide connector attaches here to provide illumination from the light source (via fiber optic bundles).

D. Light Adapter

E. Telescope / Jacket Tube (Insertion Tube)

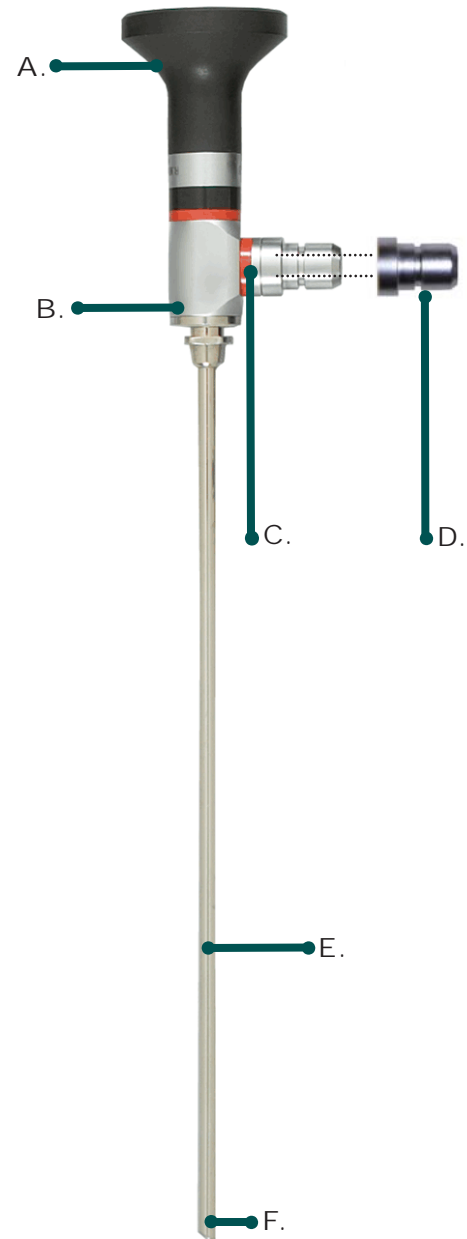
This is the part of the rigid endoscope that is inserted into the patient's body. It is made of a chrome-plated, surgical stainless steel tube that encloses the fiber optics, inner tube and high-quality optical lenses and prisms for the lens train. The telescope and contents are both the most expensive and most fragile part of the endoscope system.

This portion of the rigid scope comes in many different lengths and diameters to meet the needs of the procedure it is being utilized for.

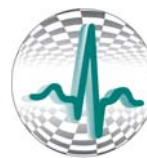
F. Distal Tip

This portion of the rigid endoscope is where the objective lens is located. A fiber optic bundle surrounds the lens to deliver illumination to the procedure area of the patient for viewing.

The angle of the distal tip varies depending upon the scope and field of view needed for the procedure.



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Life Systems, Inc.

515 Trade Center Boulevard

Chesterfield, MO 63005

Phone: 636.787.2100

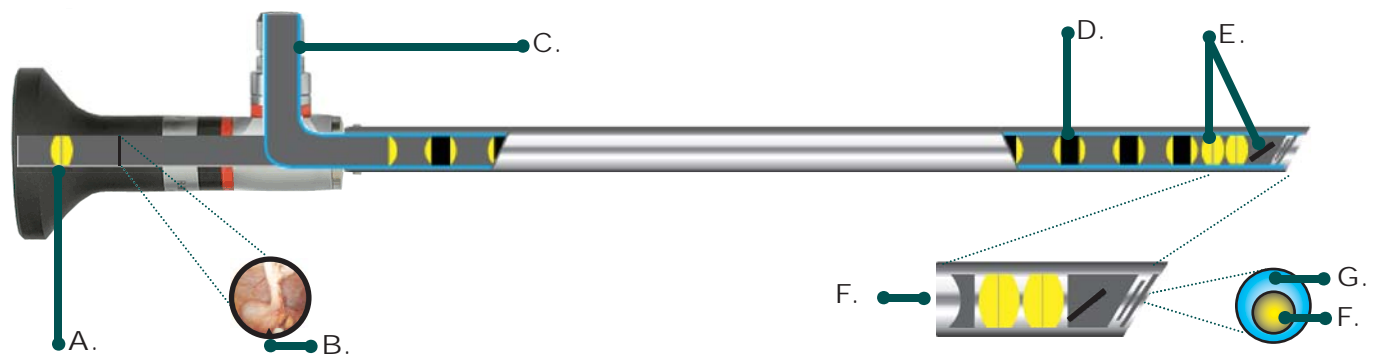
Fax: 636.787.0016

Toll free: 888.LIFE.SYS / 888.543.3797

www.lifesystemsinc.com

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Internal Construction of a Rigid Scope



A. Ocular Lens & Lens Train

In rigid endoscopes, the optical lens train transfers the image to the eye of the user or to a video monitor. The lens train goes down the full length of the telescope and is comprised of precisely aligned lenses, spacers, and mirrors/prisms.

B. Operative / Marker Plate

C. Fiber Optic Bundles

The light guide connector attaches to the light post; and the light source illuminates fiber optic bundles.

Visualization occurs when light is transferred from the light source through the glass fiber optic bundles distributed around the lens train.

D. Spacers in Lens Train System

E. Lenses and Prism in the Lens Train System

F. Objective Lens

Part of the distal tip, the objective lens is the portion of the scope that magnifies the procedure area of the patient. This lens has a viewing angle that can be: forward, oblique, lateral or retrograde

The Objective Lens System includes: field lens, back lens, an objective and two mounts.

Proper Methods to Hold or Carry Rigid Endoscopes:

Rigid endoscopes are very fragile. Please utilize great care when handling them.

Always handle and hold the scope by the eyepiece and scope body area, cradled with your palm and fingers (see photos). Use other hand to support and protect the distal end.



Other Precautions:

- Do not bend the shaft section of the telescope. This causes internal compression on the optical lens system and can result in permanent damage to the lenses.
- Do not drop the endoscope. Impact with any hard surface, such as a table or floor, will result in fractures to the optical glass lens system. Avoid placing rigid scopes near the edge of a counter.
- When not in use, all rigid scopes should be stored in perforated protective cases.

To schedule an educational session on rigid endoscopes, please contact your Life Systems' Director of Business Development.