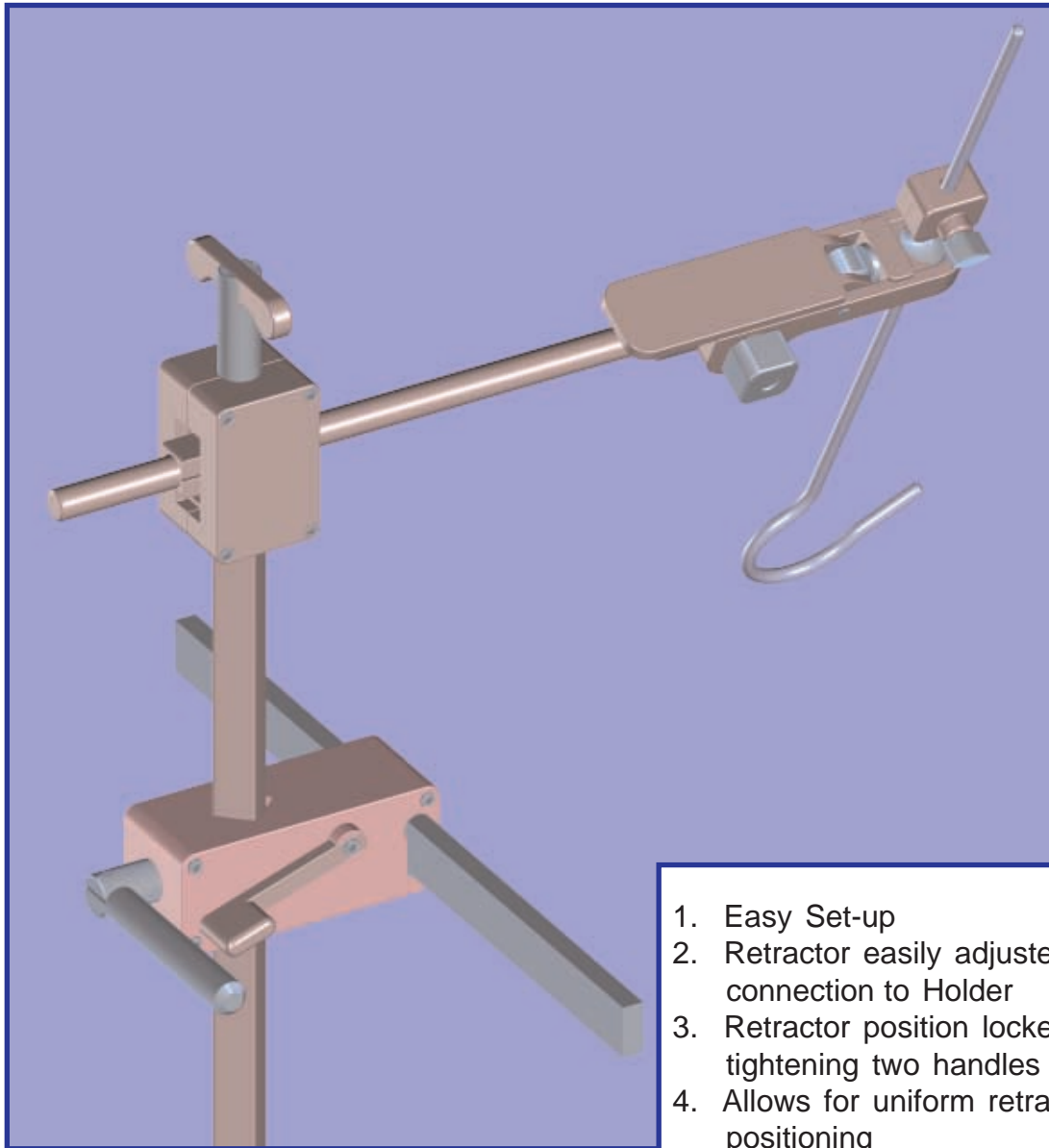


Kronner

**Instructions for
set-up and use**

Instrument Holder

for holding laparoscopes and other endoscopes



1. Easy Set-up
2. Retractor easily adjusted after connection to Holder
3. Retractor position locked by tightening two handles
4. Allows for uniform retractor positioning
5. Retractor depth easily set

Kronner Medical Mfg., 1443 Upper Cleveland Rapids Road, Roseburg, OR 97471
Phone: 800-706-3533 / 541-672-2543 Fax: 541-672-1074
E-mail: kronner@kronner.com Website: <http://www.kronner.com>

The Kronner Instrument Holder

for holding instruments with 5 millimeter shafts for endoscopic or open surgery, 10 mm instruments can be held with a provided accessory

The Kronner Instrument Holder is used for a variety of instruments for laparoscopic and open surgery. The Holder allows the attached instrument to be positioned in a uniform manner, rigidly holds the instrument and prevents it from drifting during use.

Two articulating joints control the instrument. Releasing these two joints allows the instrument to be positioned in the desired location, including instrument rotation.

A wide variety of instruments with five (5) millimeter shafts can be used with the Holder. The instrument can be joined to the Holder after it has been inserted into the patient or, if necessary, passed through the Holder connection before patient insertion.

The Holder attaches to the side rail of the operating table and can be located so it does not interfere with other operating instruments.

The rail grip handle that secures the upright assembly to the rail also sets the height of the cross arm. This height remains constant while position changes are made. However, it can be changed if necessary.

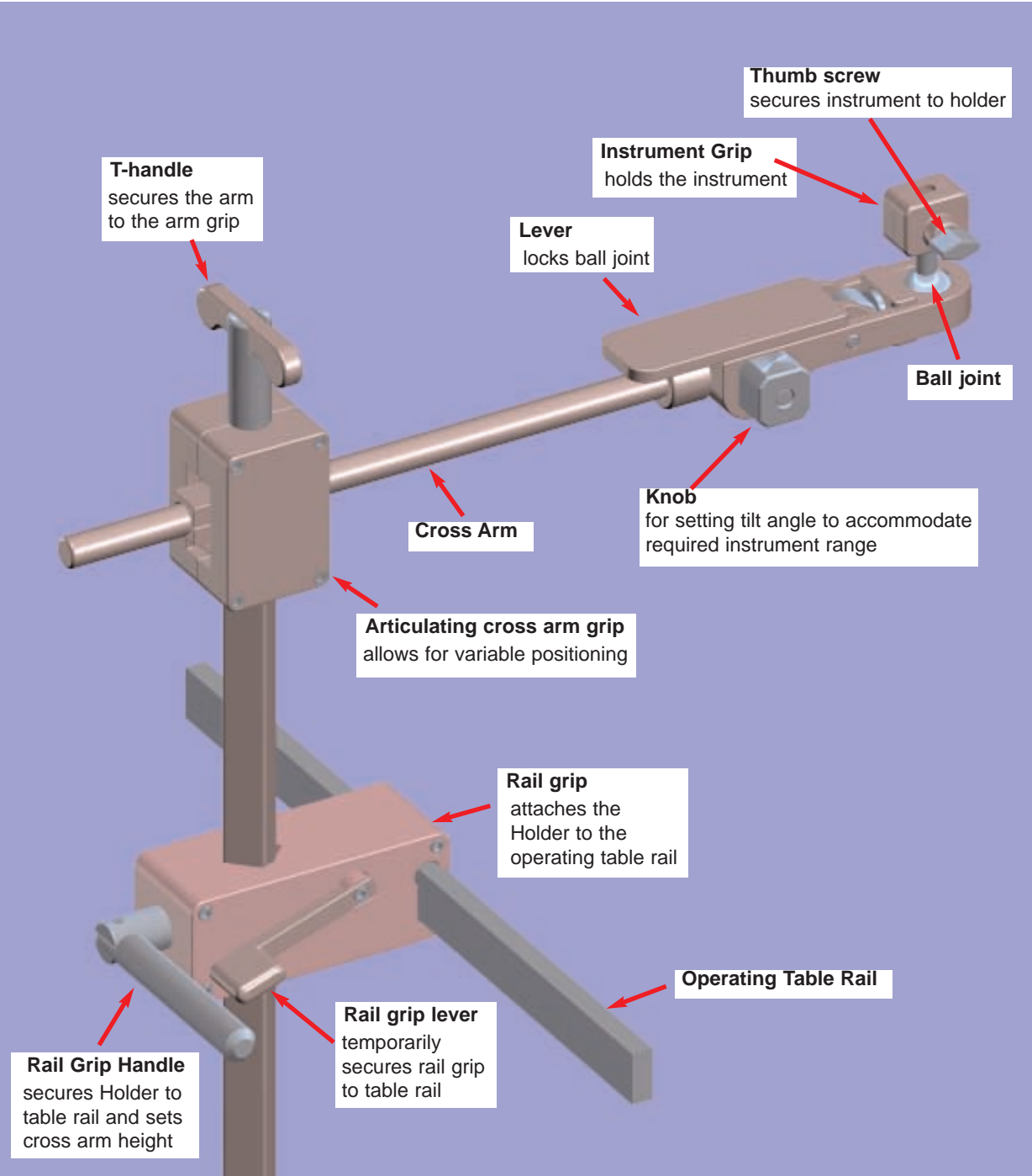
The T-handle located on top of the long upright assembly tightens a two-axis joint and the cross arm. The lever on the instrument grip assembly tightens a ball joint that holds the instruments' position. These two joints allow the instrument to be uniformly positioned. Tightening the T-handle and depressing the lever locks the instrument in position. The joints lock with more than required torque.

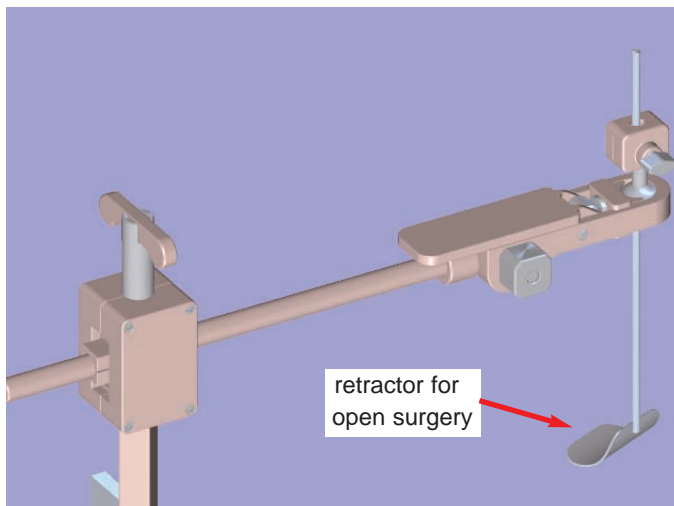
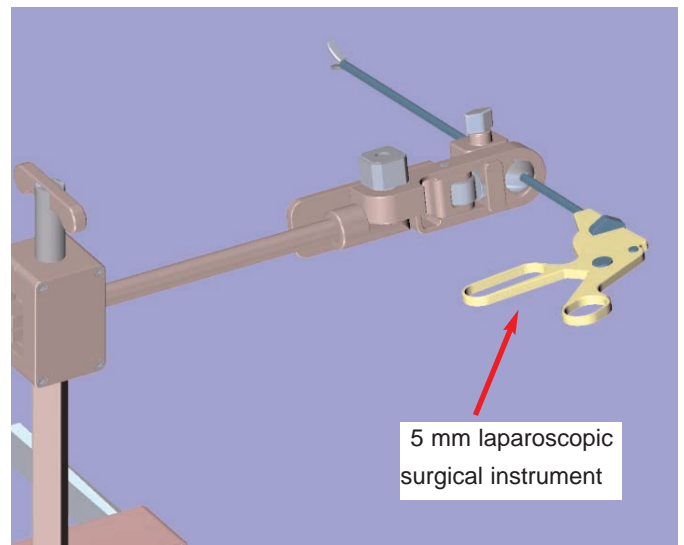
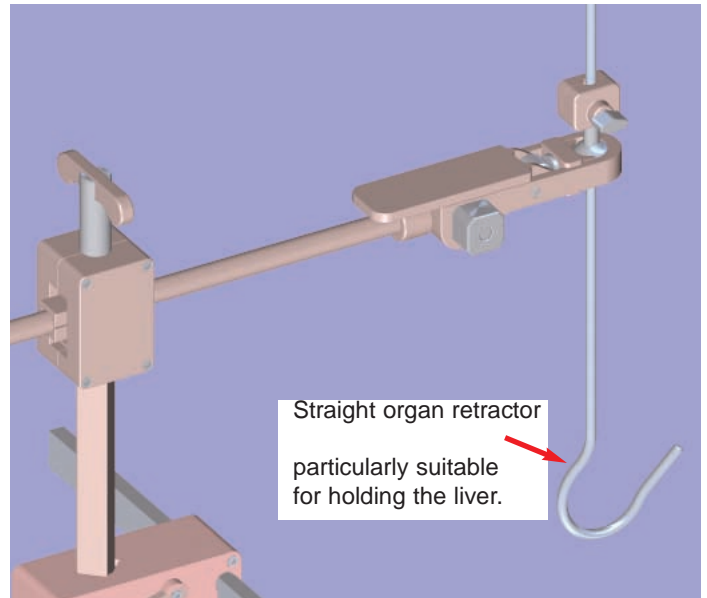
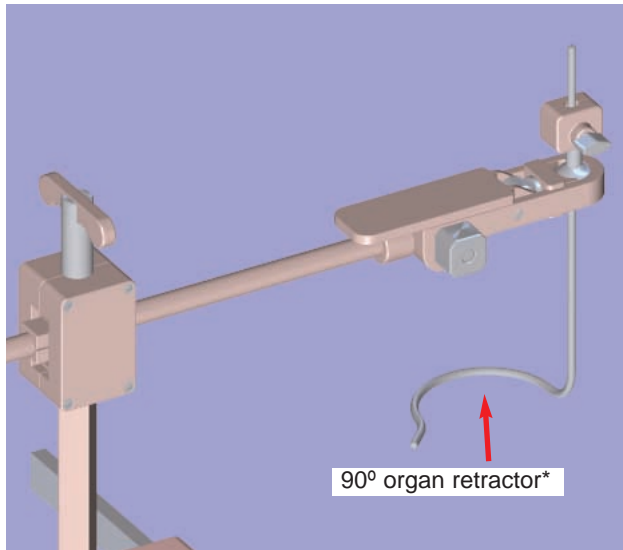
The knob between the arm and the instrument grip assembly allows it to be tilted at any angle from 0 - 90 degrees to the arm. This allows for greater variability in instrument positioning.

A thumb screw secures the instrument to the Holder. Once the instrument is secured the thumb screw does not have to be re-set during the procedure.

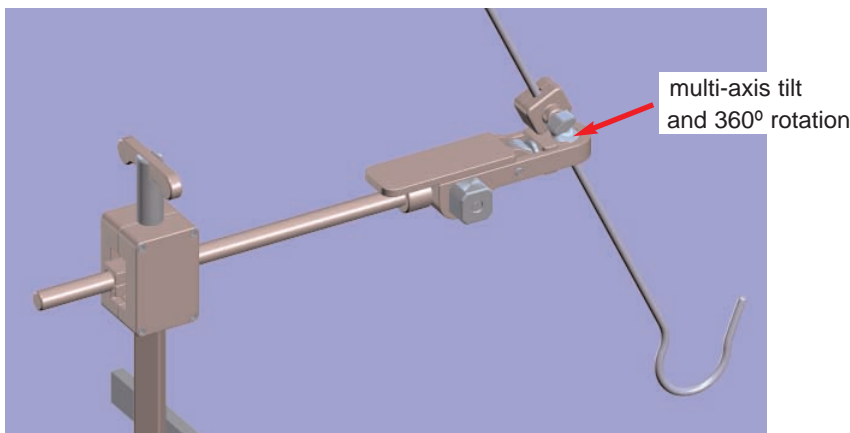
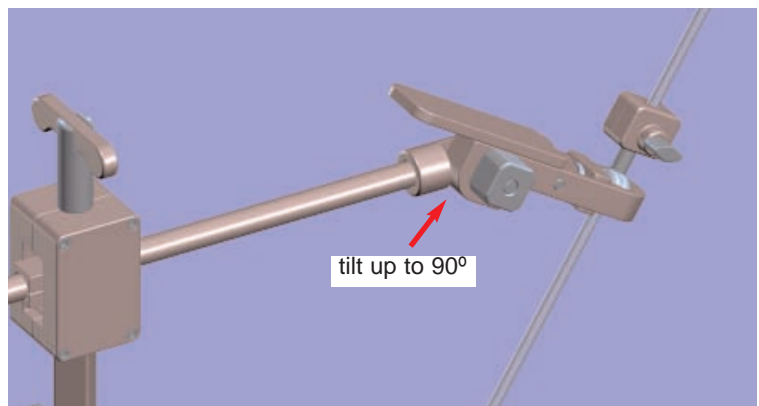
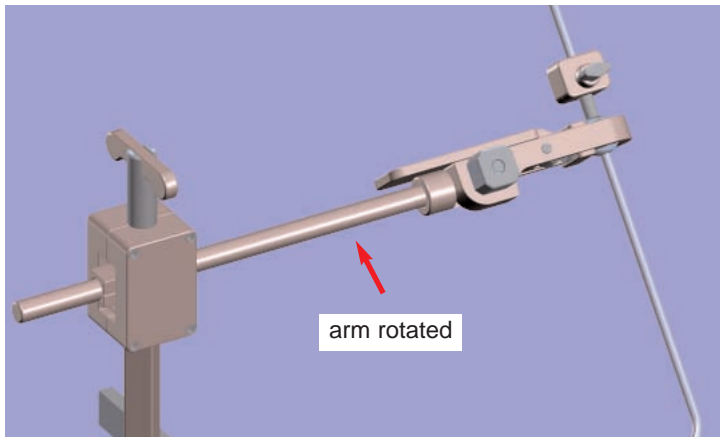
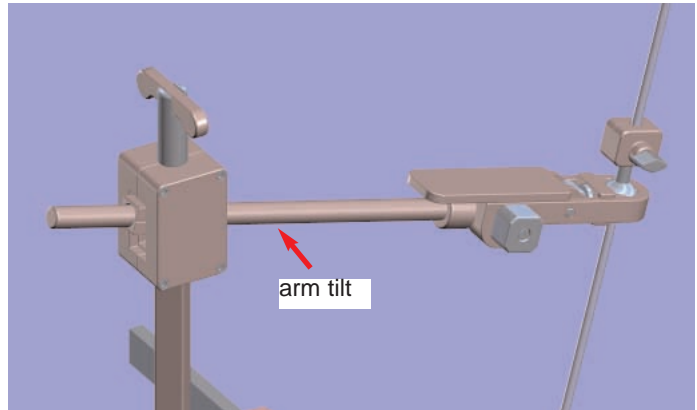
A ten (10) millimeter holder accessory can be attached to hold 10 millimeter instruments.

Assembled Holder Components

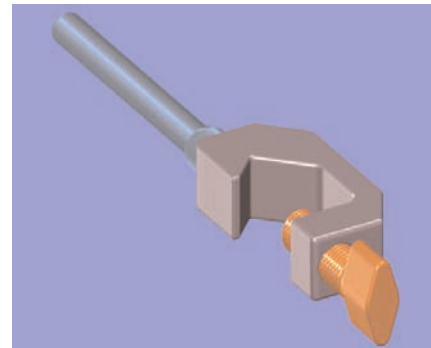
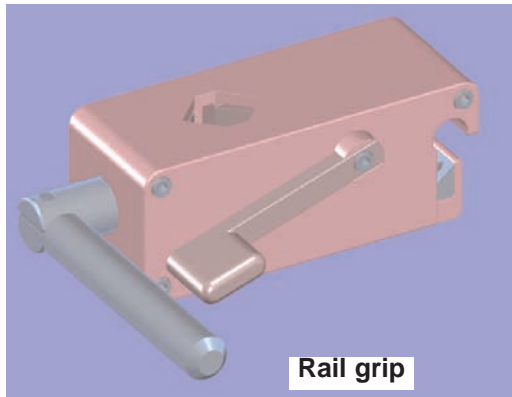




Adjustability

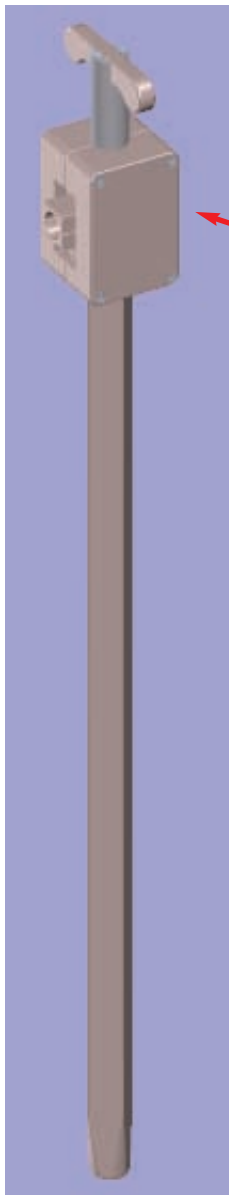


Components



10 mm holder accessory

this accessory can also be used to hold 5 mm instruments with handles



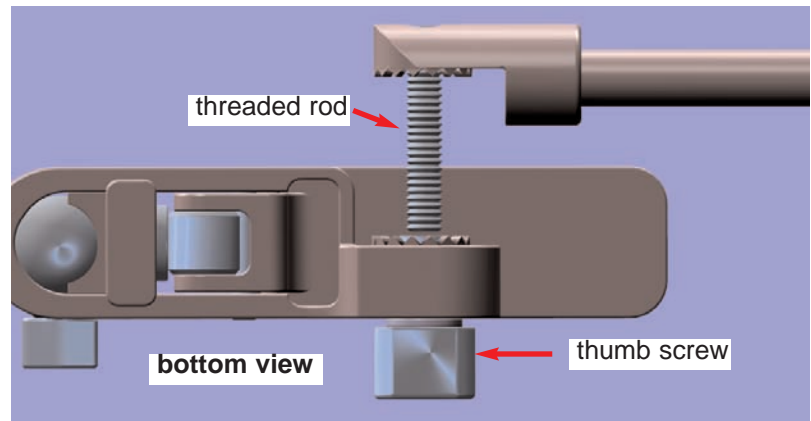
Upright assembly with articulating cross arm grip
allows for two axis pivot

Cross arm assembly, two views



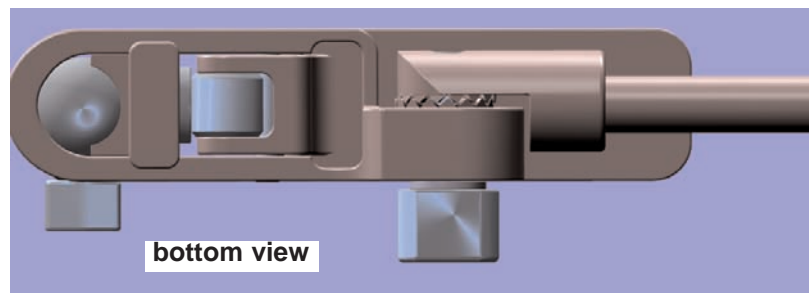
Assembling and disassembling the arm

1. Insert the threaded rod of the cross arm into the thumb screw recess as far as possible.



2. Rotate the thumb screw until the teeth of the two components are engaged.

Tighten firmly.



Cleaning and Sterilizing Components

Cleaning the components:

1. **Use enzymatic detergent**, which is protein solubilizing, safe for use with metal instruments, and prepared according to the manufactures' recommendations.
2. **Soak the arm assembly, upright assembly and retractors** for five minutes.
3. **Agitate, and scrub the submerged components** with a soft bristled brush. Scrub internal channels (especially the channel through which the instrument passes) with a small cytology brush and flush with warm tap water. Maneuver movable parts to loosen trapped soil.

Sterilizing components:

Steam autoclave all components at 270° F at 30 psi for at least 10 minutes.

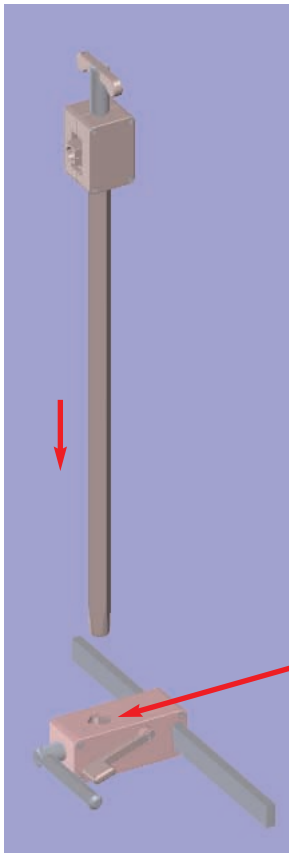
4. **Rinse the components** with warm tap water at 38-49° C.
5. **Agitate the components by hand** for at least one minute in a bath of warm water at 38-49° C.
6. **Repeat steps 4 and 5 two additional times.**
7. **Rinse the components** with clean tap water for at least one minute.
8. **Dry the exterior of the components** with a clean, lint free cloth.

To shorten the arm to fit into the sterilizer tray.

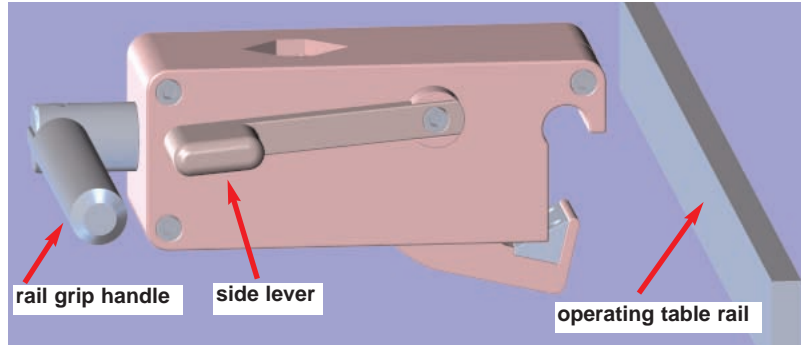
If necessary, in order to fit the arm into the sterilizer tray, release the arm knob to separate the grip with teeth and rotate the instrument grip end 90 degrees.

It is not necessary to sterilize the rail grip if it will be applied to the rail by an ungowned person. It can be steam autoclaved if necessary.

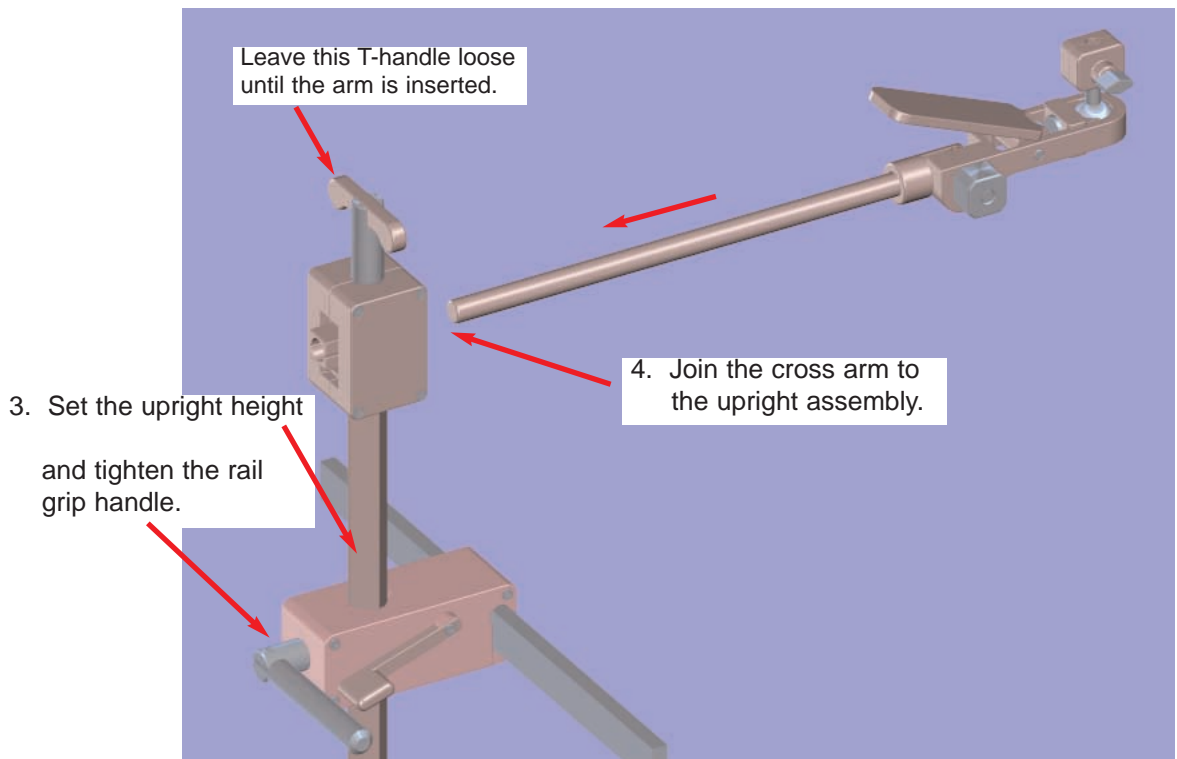
Setting up the Holder



1. Raise the side lever and attach the rail grip to the operating table rail.



2. Join the upright assembly to the rail grip.



5. Insert the instrument into the patient using standard technique.

6. Attach the instrument to the instrument holder through the ball joint.

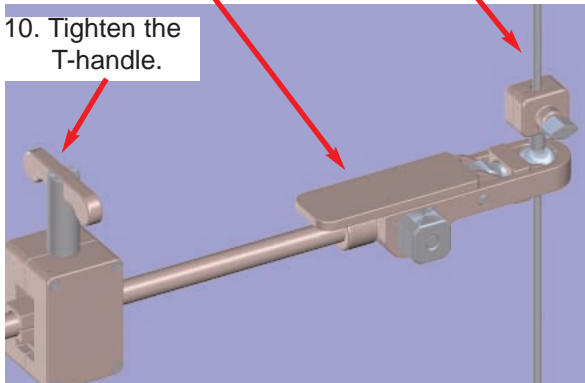
7. Securely tighten the thumb screw.

Note: The instrument position does not have to be set prior to this step.

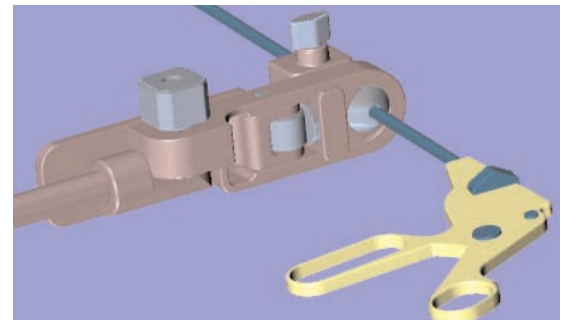
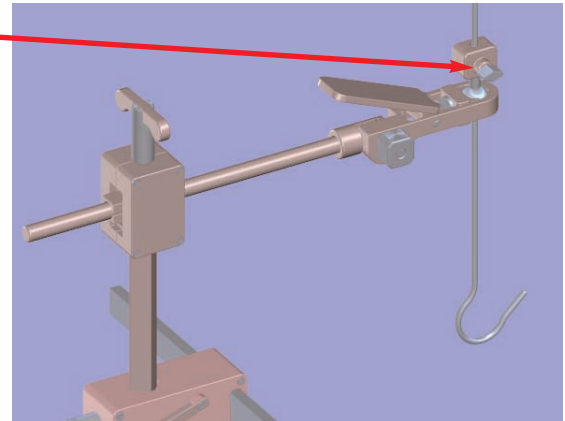
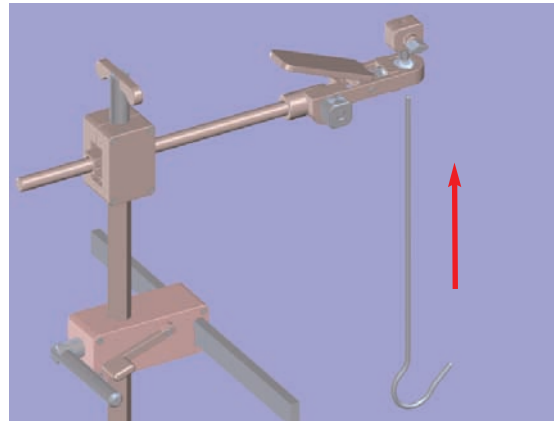
8. Support the arm and position the instrument.

9. Close the locking lever.

10. Tighten the T-handle.

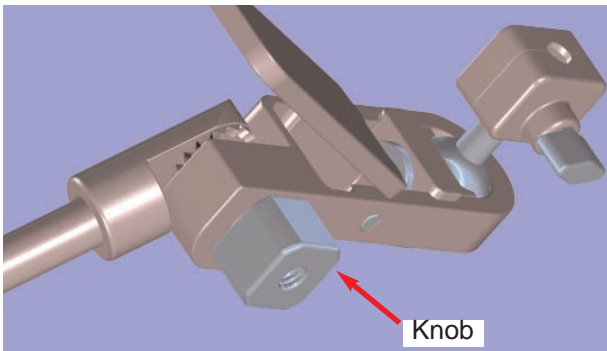


Note: To make position changes release the T-handle and the locking lever. Re-position the instrument and re-tighten.



Instruments with handles must first be inserted through the instrument grip.

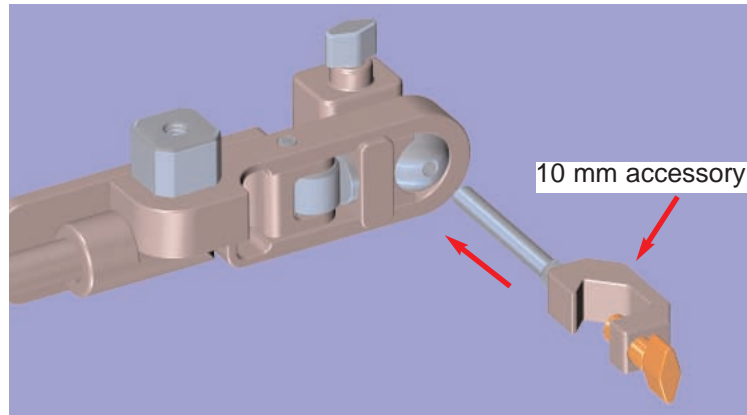
Setting the angle for the instrument grip assembly



To set an angle other than straight, release the knob until the teeth disengage. Set the angle and re-tighten. Angles between 0 and 90 degrees can be set.

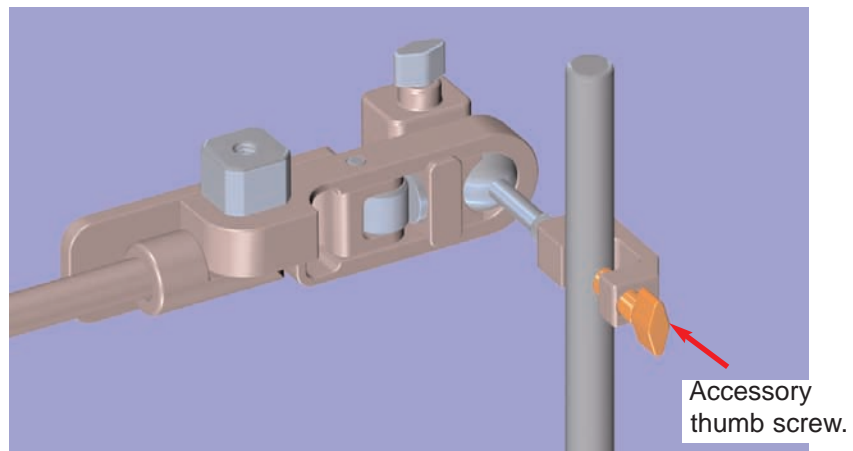
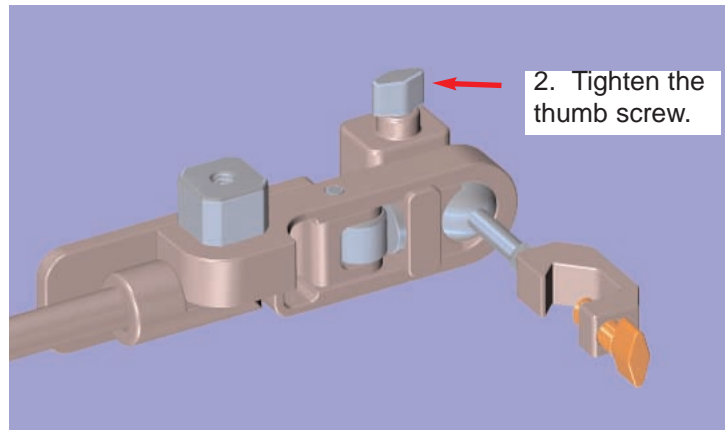
This adjustment increases the angular range between the arm and the instrument. It can be set prior or during the procedure.

Accessory for Holding 10 mm or larger instruments

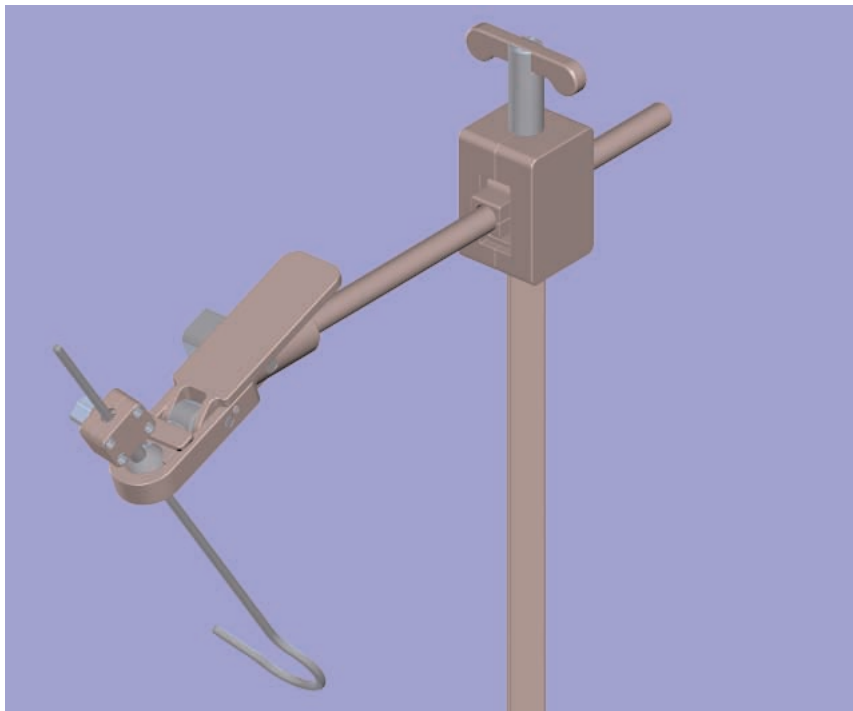


The 10 mm accessory is attached to the Holder in the same way as an instrument. It can be attached either first through the grip or through the ball.

1. Rotate the arm to the desired angle. Insert the Accessory through the ball as far as possible.

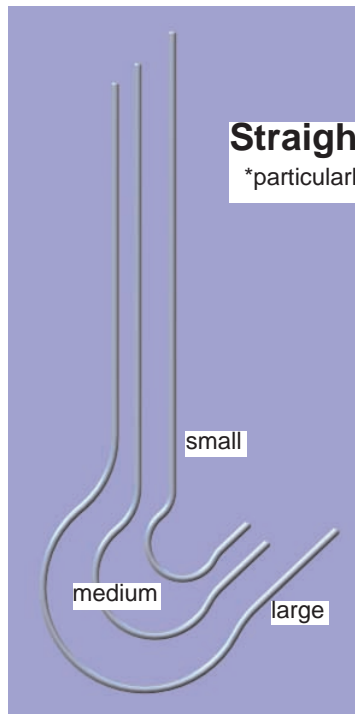


3. Slide the instrument into the accessory and tighten the accessory thumb screw. Avoid undue pressure on weak instruments.



Straight retractor setup for holding the liver.

This setup allows the retractor to be positioned under the liver and over the esophageal gastric junction. The upright can be located cephalad to the patients left shoulder to avoid interference with surgical instruments. The retractor can be advanced as deep as necessary to expose the esophageal gastric junction.



Straight organ retractors•

*particularly suitable for holding the liver

To Order:

1. **KIH-6000 Kronner Instrument Holder**

for holding instruments with 5 mm shafts for laparoscopic or open surgery,
and holds 10 mm instruments with the included accessory

Includes:

1. Rail grip
2. Upright assembly
3. Arm, other length arms available on request
4. 10 mm instrument holder accessory

2. **EOR-ST-3, Endoscopic straight organ retractors***

1. EOR-ST-S, small
2. EOR-ST-M, medium
3. EOR-ST-L, large

3. **EOR-90-3, Endoscopic 90° organ retractors***

1. EOR-45-S, small
2. EOR-45-M, medium
3. EOR-45-L, large

4. **EOR-90-3, Endoscopic 90° organ retractors***

1. EOR-90-S, small
2. EOR-90-M, medium
3. EOR-90-L, large

4. **KIH-6000 ST-1 Sterilizer tray**

5. **OOR-A, Open organ retractor "A"**

*Particularly suitable for holding the liver

Other retractors for open and laparoscopic surgery available on request

Warranty: Two years parts and labor

Caution: Federal law restricts this device to sale by or on the order of a physician.

Kronner Medical Mfg.

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Roseburg, OR 97471

Phone: 800-706-3533 / 541-672-2543

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E-mail: kronner@kronner.com Website: <http://www.kronner.com>