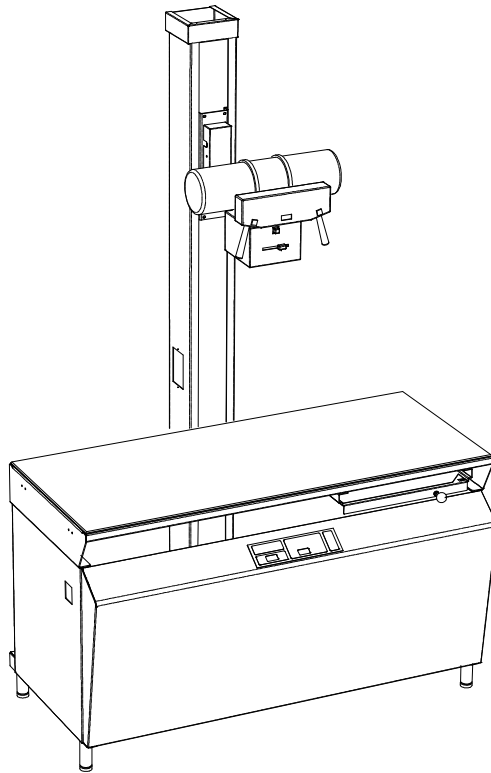


Integrated Veterinary Table/Tubestand MODEL S307

**Installation and Service Manual
P/N # 02149-000
Rev A**



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NOTICE TO INSTALLERS

All freight is shipped FOB from the factory. This means it is the installer's responsibility to inspect the shipment for damage and proper count. Upon receipt of the merchandise, any visible damage to the cartons should immediately be examined while the shipper is present.

If the visible damage to the cartons also includes damage to the merchandise, the installer is responsible for making all claims with the shipping company.

If there is hidden damage to the merchandise, it is the installer's responsibility to discover that damage within a reasonable amount of time and contact the shipping company to make a claim.

To protect your company in the case of hidden damage it is recommended to accept freight "subject to inspection". This makes it easier to make a claim with the freight company in the event of hidden damage.



WARNING

X-RAY EQUIPMENT IS DANGEROUS TO BOTH PATIENT AND OPERATOR UNLESS MEASURES OF PROTECTION ARE STRICTLY OBSERVED

Though this equipment is built to the highest standards of electrical and mechanical safety, the useful X-ray beam becomes a source of danger in the hands of the unauthorized or unqualified operator. Excessive exposure to x-radiation causes damage to human tissue.

Adequate precautions must be taken to prevent unauthorized or unqualified persons from operating this equipment or exposing themselves or others to its radiation. Only qualified personnel should install, set up, maintain, and operate this equipment. Only qualified service personnel should remove electrical covers.

Before operation, persons qualified and authorized to operate this equipment should be familiar with the Recommendations of the International Commission on Radiological Protection, contained in Annals Number 26 of the ICRP, and with the applicable national and local standards.

The equipment described in this manual will perform reliably when installed, maintained, and operated, in accordance with the instructions of this manual by qualified personnel. This equipment is sold with the understanding that the user assumes sole responsibility for radiation safety and that the manufacturer does not accept any responsibility for the following:

- Equipment improperly installed.
- Equipment improperly operated.
- Equipment improperly maintained or repaired.
- Equipment, which has been modified or altered in any way.
- Injury or damage to patient or other personnel for any of the above causes.

We are proud of our products and are confident they will provide many years of useful and enjoyable service.

Summit Industries



CAUTION: THIS MANUAL IS FOR USE BY PERSONNEL QUALIFIED TO INSTALL, CALIBRATE, MAINTAIN AND SERVICE RADIOGRAPHIC EQUIPMENT. HAZARDOUS VOLTAGES AND MECHANICAL PINCH POINTS MAY BE PRESENT. PERSONS UNFAMILIAR WITH SAFE OPERATING PROCEDURES SHOULD NOT ATTEMPT TO PERFORM SERVICE ON THIS DEVICE.

Installation and Service Manual Revisions History


Revision	Pages Affected/Revision Description	Release Date	ECR #
A	Initial Issue	Sept. 2004	4250





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Use of This Manual

Throughout the manual there are indented statements, which are preceded by alert words. These alert words and the following statements may direct the user in the performance of a task, or inform the user of a potentially hazardous situation. Each alert word is always used with only one specific type of information. The alert words and the information they reference are as follows:

 **NOTE:** Information that assists the user of the manual in the performance of a task. It may provide the user with better methods of conducting the task, or it may point out conditions that could cause the system to fail to operate properly.

 **CAUTION:** Information that alerts the user of the manual to situations that could result in damage to the equipment.

 **WARNING:** Information that alerts the user of the manual to situations that could be hazardous to the health of the patient, the operator, the maintenance person, or others.



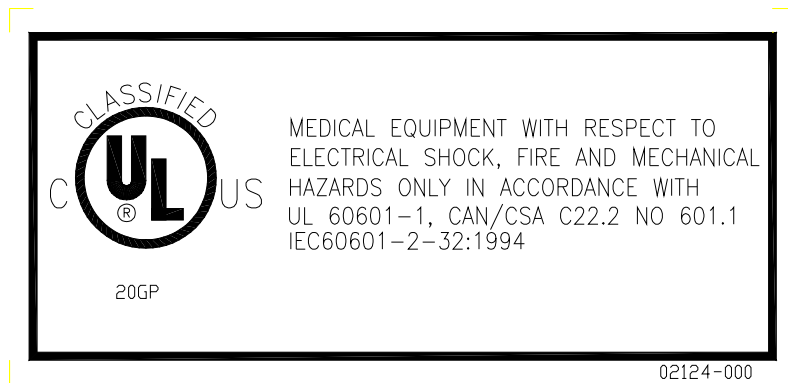
1. APPLICABLE STANDARDS

This Table/Tubestand complies with the following regulatory and design standards.

- UL 60601-1
- CAN/CSA C22.2 NO601.1
- X-RAY EQUIPMENT IEC60601-2-32: 1994
- Classifications:
 - * Degree of protection against harmful ingress of water: IPXO/Ordinary.
 - * Degree of protection against electric shock: Class I
 - * Mode of operation: Continuous operation
 - * Equipment not suitable for use in presence of FLAMMABLE ANESTHETIC MIXTURE WITH AIR OR WITH OXYGEN OR NITROUS OXIDE.



- * Degree of protection against electric shock is Type B.
- * The function and intended application of this equipment is general radiography for veterinary use.



02124-000

Environmental Conditions for Transport and Storage:

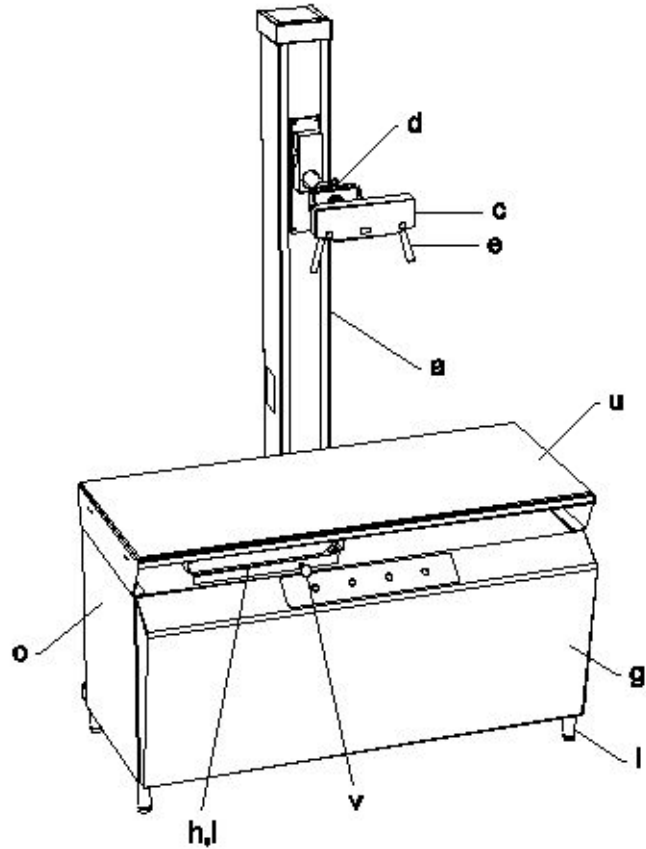
Ambient temperature ranges: -13 to 158 °F

Relative humidity: 5 to 95%, non-condensing

Atmosphere pressure ranges: 500 to 1060 hPa (375 to 795 mm Hg)



2.0 GENERAL PRODUCT OVERVIEW





- A. Tubestand – supports collimator and x-ray tube. Moves both horizontally and vertically with mechanical locks.
- C. Angulation Dial – displays degree of x-ray beam angulation.
- D. Angulation Lock – When loosened allows adjusting angle of x-ray beam.
- E. Angulation handles – Used to move tube vertically or to angle the tube.
- G. Removable front cover.
- H. Grid Cabinet – Lead lined cabinet holds cassette tray and grid.
- I. Grid – Mounted to top of grid cabinet to absorb scatter radiation and improve film clarity.
- L. Leveling Feet
- O. Table Base
- U. Table top – 24” x 56” panel
- V. Tubestand/Grid Cabinet Interlock – When engaged allows tubestand and grid cabinet to move together. Can be disengaged, allowing tubestand and grid cabinet to move independently for angled views.



3.0 UNPACKING and SPACE REQUIREMENTS

1. The *Integrated Vet Table/Tubestand Structure* is delivered in three packages:
 - Table
 - Tubestand.

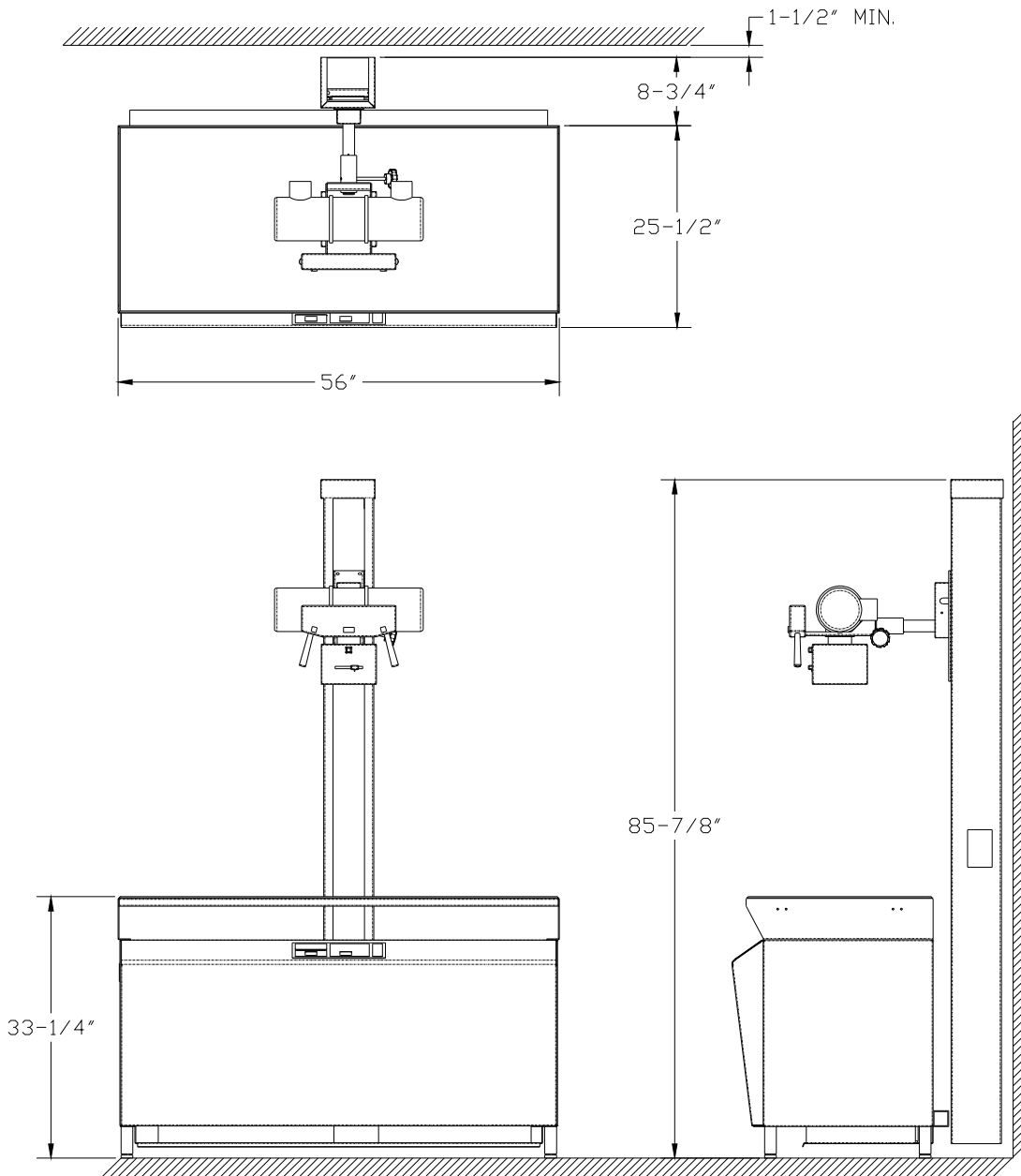
2. **It is the installer's responsibility to inspect the shipment for damage and proper count.** Upon receipt of the merchandise, any visible damage to the cartons should immediately be examined while the shipper is present. If the visible damage to the cartons also includes damage to the merchandise, the installer is responsible for making all claims with the shipping company.

If there is hidden damage to the merchandise, it is the installer's responsibility to discover that damage within a reasonable amount of time and contact the shipping company.



3. Space Requirements - Figure 1

Room Layout Specifications



**WARNING**

Particular care should be taken when servicing the inside of the tubestand. There is an extreme threat of mechanical pinching between the vertical slide and counterweight due to their close proximity and opposite directions of motion.

The control is secured to the table with an air cylinder, hinge pin and Truarc retaining ring. Once the ring and hinge pin are removed, care must be taken to insure that the control does not swing forward in an uncontrolled manner.

All of the movable assemblies and parts of x-ray equipment should be operated with care. Only properly trained and qualified personnel should be permitted access to any internal parts of the x-ray system.

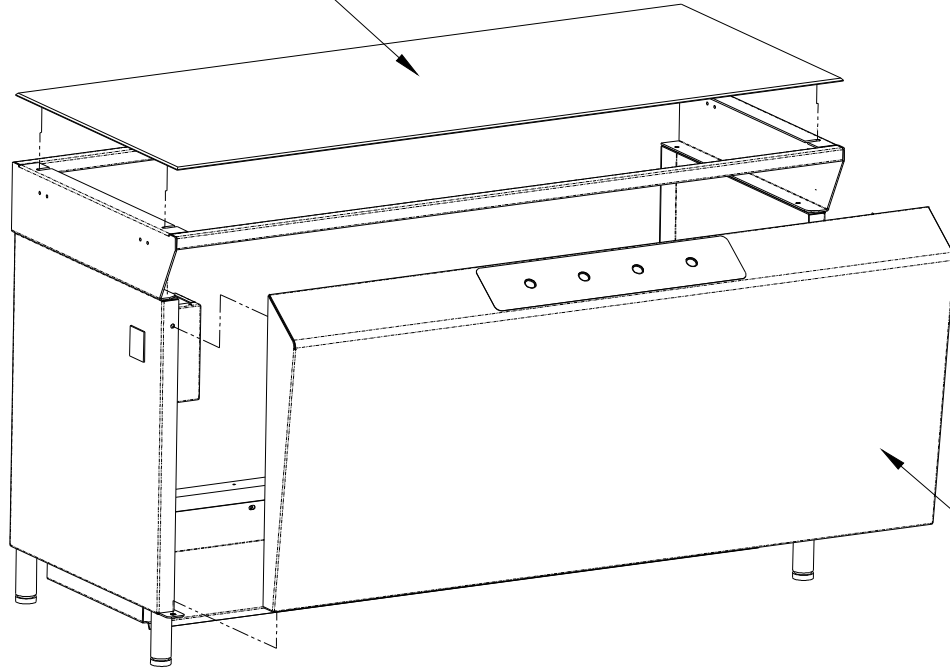
4.0 MECHANICAL ASSEMBLY

4.1 Radiographic Table

1. During shipment, the tabletop is banded to the table base. Cut loose the banding and set the table top aside for assembly later.
2. Unpack and place on floor. Position table in desired location. Remove Table Top Panel and Table Base Front Cover as shown below.
3. Position the table close to its final location, using the leveling feet and spacers to bring the table close to level at this time. Final leveling can be done at end of assembly. When leveling the table, fully tighten the foot until the shoulder of the foot is firmly against either these spacers or the bottom of the table/back rail). Use of the spacers makes the table base/leveling feet union a solid "one piece" structure, minimizing any wobble or table base motion. Many alignment and force of motion issues can be resolved by table leveling.



TABLE TOP PANEL

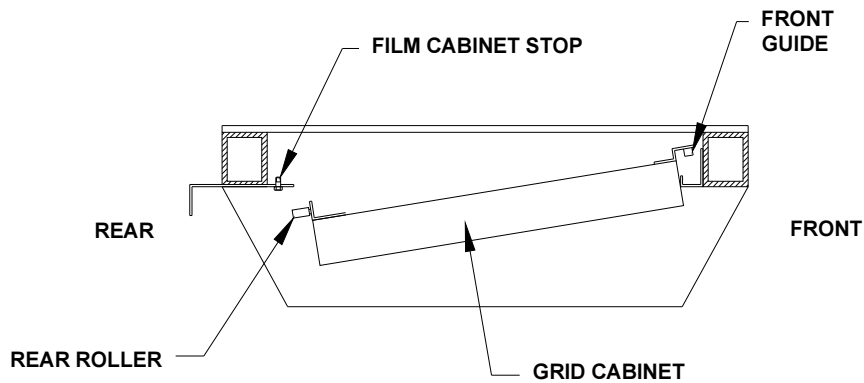


FRONT COVER



4.2 Grid Cabinet installation

Install grid cabinet by removing the stop on the rear roller track. Position cabinet under table top from front, place front guides in front track. Lift up back of cabinet and guide rear roller on the rear track. Replace stop.



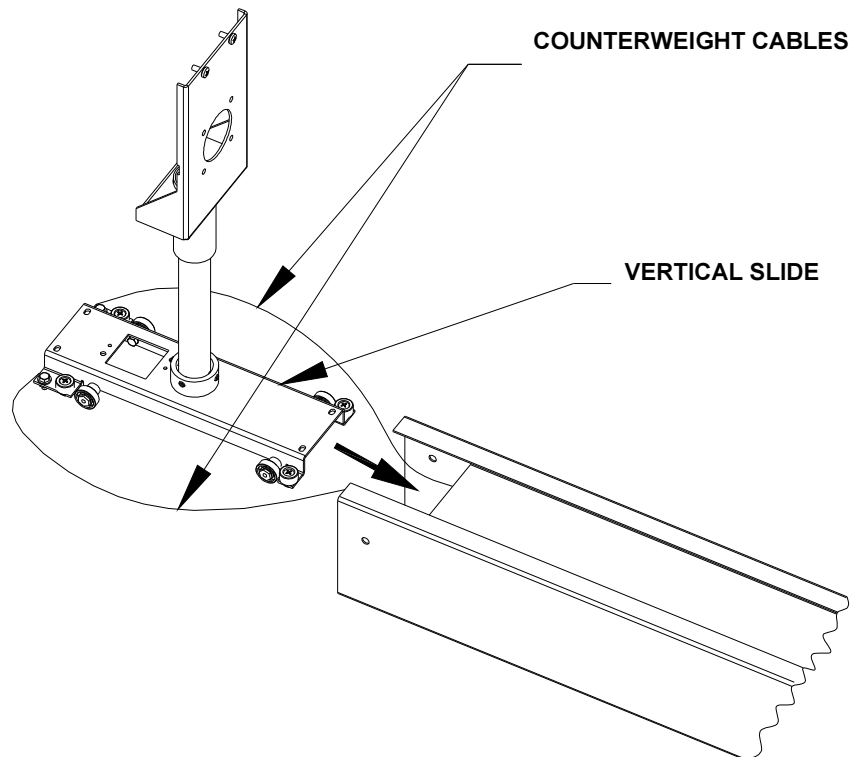


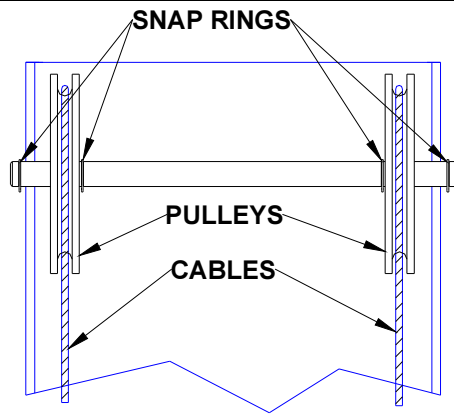
4.3 Tubestand Assemblies and Mounting

1. Before assembly of tubestand, removal of wood insert inside of tubestand is necessary. To do this, remove bottom plate, slide out wood insert and then replace plate.
2. Attach support plate to tubestand using hardware provided.

☞ NOTE: Nylon rollers must face upward.

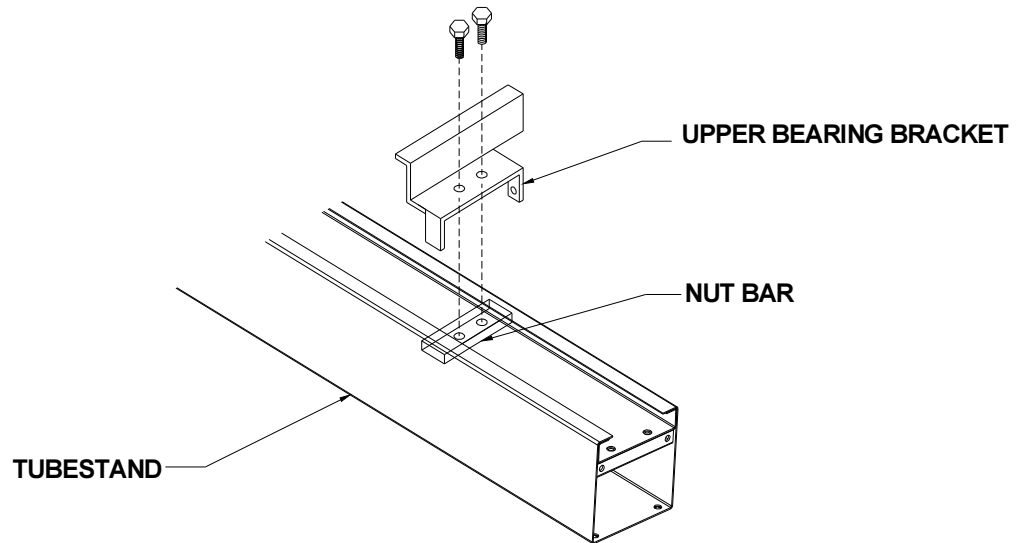
3. ☞ Attach counterweight cables to slide being sure that cables are not crossed. Then install slide, spread pulleys and snap rings.



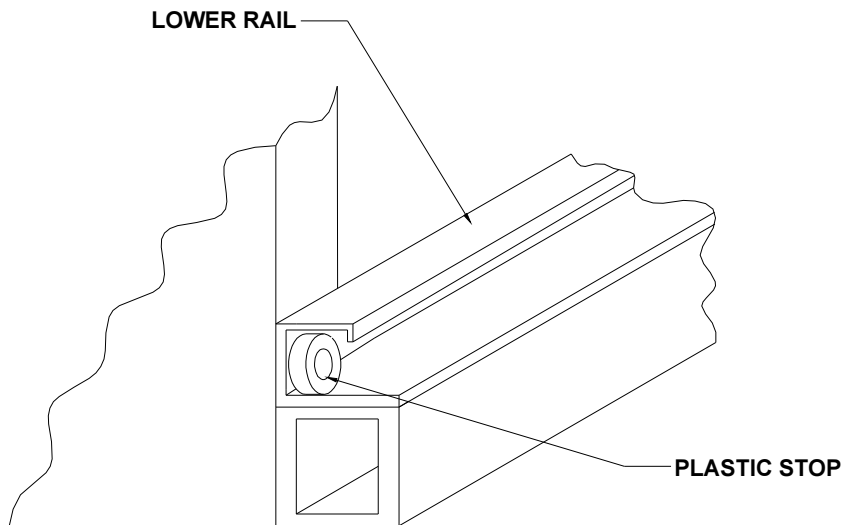


VERIFY THAT CABLES ARE WITHIN PULLEY GROOVES, AND ARE TAUT, WHILE ERECTING THE COLUMN.

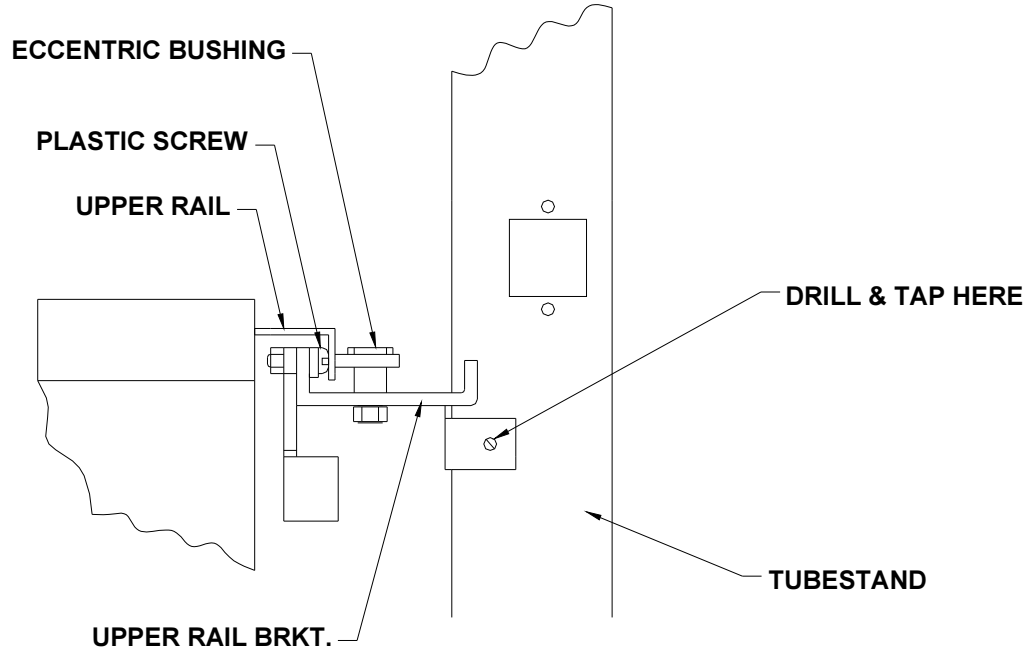
4. Install upper bearing bracket. DO NOT TIGHTEN.

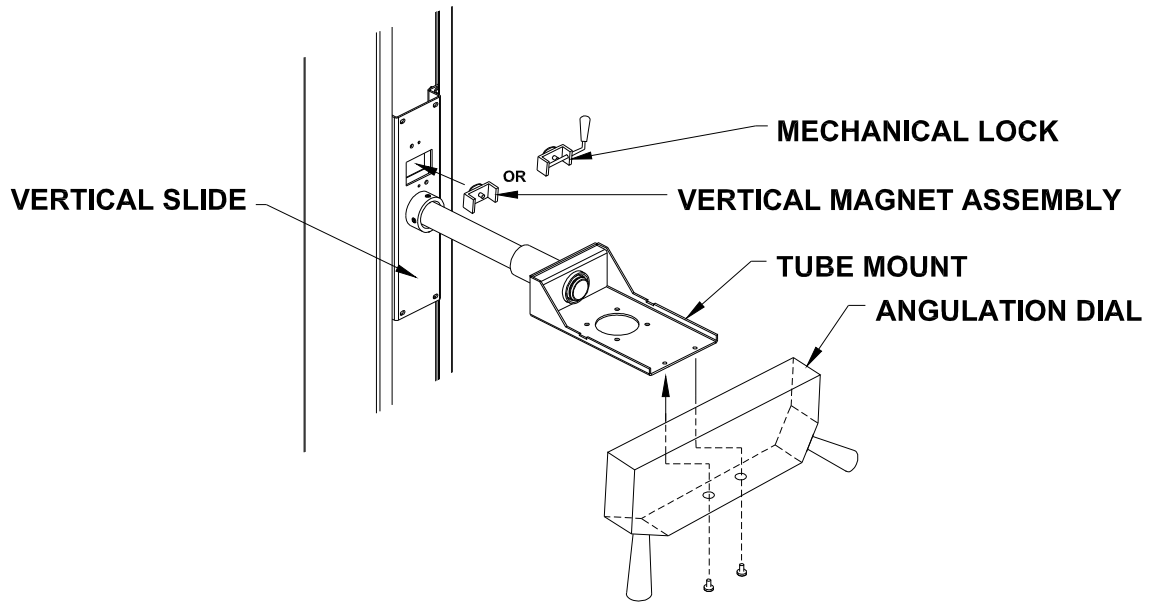


5. Remove plastic stop from either end of lower rail.



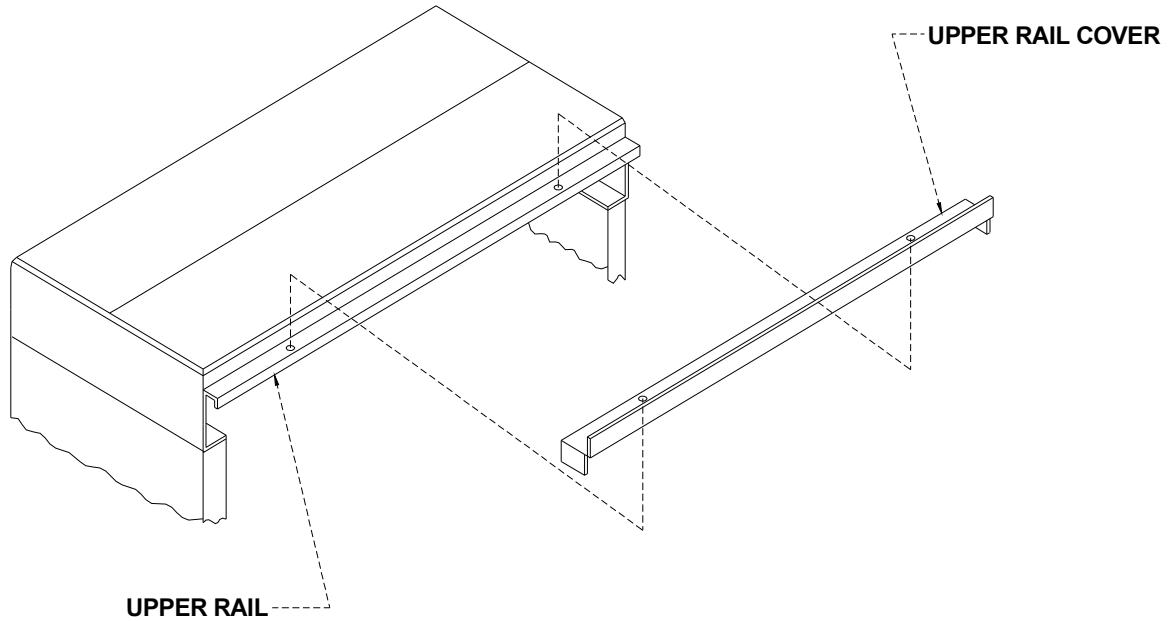
6. Engage support plate bearings into lower rail of table, position upper bearing bracket, being sure that plastic screw heads and bearing engage upper rail.
7. Secure upper bearing bracket to tubestand by tightening hex bolts. Drill and tap (2) #10-32 holes concentric with the flanges on the upper bearing bracket. Install (2) #10-32 x 1/2 " pan head screws.
8. Replace stop.



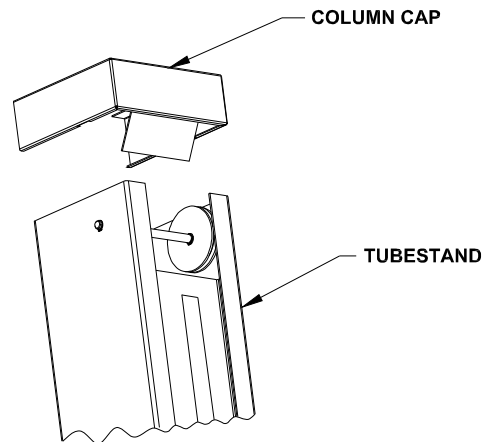




10. Assemble upper rail cover as shown.



11. Slide column cap into place.



12. Add trim weights as needed and install access covers.



5.0 FINAL MECHANICAL ADJUSTMENTS

5.1 X-ray field to grid cabinet centering

- a) Left to right: Adjust the interlock bracket between the grid cabinet and the tubestand.
- b) Front to back: Raise or lower the tube arm via the adjustment bolts of the vertical slide at the tube arm collar. Raising the arm will move the x-ray field forward.

5.2 Final Leveling of Table.

When leveling the table fully tighten the foot until the shoulder of the foot is firmly against either spacers or the bottom of the table/back rail. In the accessory bag there are six blue and six red "U" shaped plastic spacers. Use of the spacers makes the table base/leveling feet union a solid "one piece" structure, minimizing any wobble or table base motion. Many alignment and force of motion issues can be resolved by table leveling.

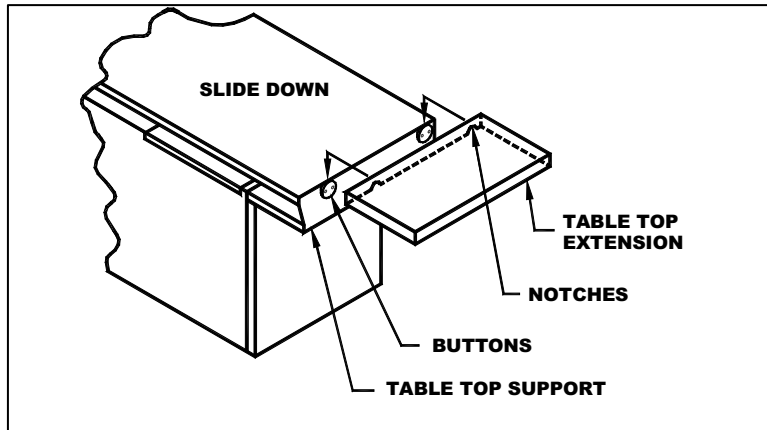
5.3 Securing Table to Floor

Once final leveling has been achieved use the floor mounting brackets provided to secure the table to the floor. Floor mounting bolts are not provided; obtain hardware appropriate to the floor material.

6.0 OPTIONS

6.1 Table top extension

Mounting buttons screw to the ends of the table, and the extension is installed or removed by sliding it over the buttons as shown below.



7.0 MAINTENANCE

To assure proper operation of this table the following items should be checked and corrected annually:

1. Check alignments (x-ray to light field, x-ray beam to film).
2. Level table top.
3. Verify free travel of film cabinet and tubestand interlock function.
4. Check all table features for tightness, including floor anchor bolts.
5. Ensure tubestand rolls freely without binding, and that the tubestand locks are operational.
6. Inspect counterweight, collimator, stator and high voltage cables for signs of binding or abrasion. Replace or repair as needed.