

S113 Heavy Duty Floor to Wall/Ceiling Tubestand

User Manual

06977 Rev C

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S113 Heavy Duty Tubestand

Summit Industries LLC

TEXT REVISION HISTORY

REVISION	ECR	Description	Release Date
A	8380	Production Release	June, 2014
B	9290	Updated 1.1 Specification Summary Table, Maximum Total Counterbalanced Load changed from "100 lbs / 45.5 kg" to "75 lbs / 34 kg"	November, 2016
C	9600	Updated address to Niles, IL	June, 2017

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1 Introduction

1.1 Specification Summary Table

SPECIFICATION SUMMARY TABLE	
Electrical Ratings	24VDC, 1A 
Maximum Total Counterbalanced Load	100 lbs / 45.5 kg
Environmental Conditions	Temperature range for: Transport and Storage Use -40° F to +158° F +50° F to +104° F -40° C to +70° C +10° C to +40° C Relative Humidity Limits for: Transport and Storage Use 10% to 100% 30% to 75% Atmospheric pressure range for: Transport and Storage Use 14.67 inHg to 31.30 inHg 20.67 inHg to 31.30 inHg 500 hPa to 1060 hPa 700 hPa to 1060 hPa
Information regarding potential EMC interference and advice for avoidance	<ul style="list-style-type: none"> • Main power quality should be that of a typical commercial or hospital environment • Power frequency magnetic fields should be at levels characteristic of a typical location in a commercial or hospital environment
Degree of protection against harmful ingress of water	IPXO/Ordinary
Degree of protection against electric shock	Class I, Type B Applied Parts 
Equipment is not suitable for use with flammable anesthetic mixture with air or with oxygen or nitrous oxide.	

1.2 Definition of Symbols Used in this Manual



Following this symbol Information will alert the user to situations that could result in damage to the equipment.



Following this symbol information will alert the user to situations that could be hazardous to the health of the patient, operator, maintenance person, or others.

2 Safety

2.1 General

It is the User's responsibility to operate & maintain this equipment in accordance with the information provided in this manual &/or other competent safety authorities (e.g. FDA 21 CFR, Subchapter J, Parts 1000 – 1030)

Address any questions regarding this X-ray equipment to:





Customer Support Department
Summit Industries
2901 W. Lawrence Ave.
Chicago, IL 60625 USA

Phone: 800-729-9729 or 773-588-2444
Fax: 773-588-3424 (Att'n: Customer Support Dept.)

2.2 Installation

The S113 must be installed and serviced by an authorized dealer. All warranties will be void if such installation or service is performed by persons not authorized by your dealer.

2.2 Safety Symbols on the Equipment

	<p>Warning, potential hazard to operators, service personnel. Consult accompanying documents for more detail</p>
	<p>Type B Applied Part</p>
	<p>Protective Earth Termination</p>
	<p>Radiation exposure symbol Radiation exposure symbol used on operator console. Lights to indicate that an exposure is in progress. This is accompanied by an audible tone from the console.</p>

2.3 Operation

Only authorized and properly trained personnel should be allowed to operate this X-ray generator and equipment.

X-ray radiation exposure may be damaging to health, with some effects being cumulative and extending over periods of many months or even years. **X-ray operators should avoid any exposure to the primary beam** and take protective measures to safeguard against scatter radiation. Scatter radiation is caused by any object in the path of the primary beam and may be of equal or less intensity than the primary beam.

Do not connect unauthorized equipment. Incorrect connections or use of unapproved equipment may result in injury or equipment damage.

Never operate this X-ray equipment in areas where there is a risk of explosion. Detergents and disinfectants, including those used on patients, may create explosive mixtures of gases. Please observe the relevant regulations.



Do not exceed the tube maximum operating limits shown in the x-ray tube data. Intended life and reliability will not be obtained unless generators are operated within published specifications.

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Proper use and safe operating practices with respect to x-ray systems are the responsibility of the users of such systems. Summit Industries LLC provides information on its products and associated hazards but assumes no responsibility for after-sale operating and safety practices.

Summit Industries LLC also assumes no responsibility for x-ray radiation overexposure of patients or personnel resulting from poor operating techniques or procedures.

2.4 Repair & Maintenance

For repair or maintenance contact your dealer organization. See section 5 for maintenance items and schedule.

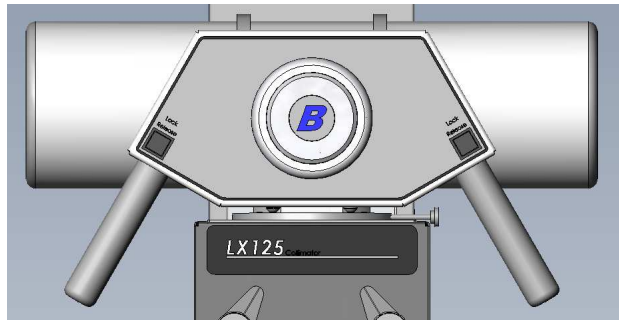
All personnel must be made aware of the inherent dangers associated with the servicing of high voltage equipment. Only properly trained and qualified personnel may remove the covers of the generator or equipment gaining access to internal components. Likewise only properly trained and qualified personnel should be permitted to remove high voltage cables from the x-ray tube housing or generator.

Summit Industries LLC accepts no responsibility for any x-ray equipment not maintained or serviced according to this manual or any equipment that has been modified in any way.

3 Basic Operation

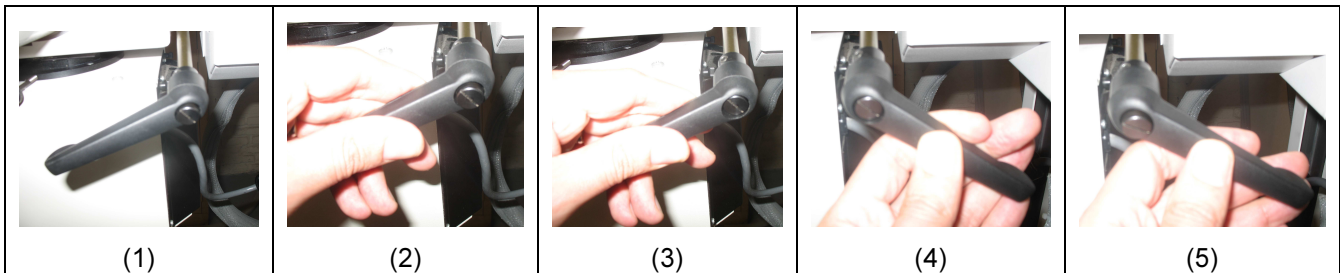
3.1 Lock Release

The S113 features all-lock release only. Depressing either button on the angulation box releases both vertical and horizontal locks simultaneously.



3.2 Using the Angulation Lock Handle

The S113 is equipped with an adjustable-position angulation lock handle. Home position (photo 1). To adjust, grasp handle (2). Pull handle towards you (3). Rotate handle (4, shaft remains stationary). Release, allowing spring-assisted return to home position (5).



4 Cleaning

Never use anything other than mild soap and water to clean plastic surfaces. Other cleaners may damage the plastic. Never use any corrosive, solvent, or abrasive detergents or polishes.

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Ensure that no water or other liquid can enter any equipment. This precaution prevents short circuits and corrosion forming on components.

Methods of disinfecting used must conform to legal regulations and guidelines regarding disinfecting and explosion protection.

If disinfectants are used which form an explosive mixtures of gases, these gases must have evaporated before switching the equipment on again.

Disinfecting by spraying is not recommended because the disinfectant may enter the x-ray equipment.

If room disinfecting is done with an atomizer, it is recommended that the equipment be switched off, allowed to cool down, and covered with a plastic sheet. When the disinfectant mist has subsided the plastic sheet may be removed and the equipment may be disinfected by hand wiping.

5 Scheduled Maintenance

The following schedule of maintenance is required for safety of operation, continued ease of use, and continued long life of the product.

The maintenance program should be performed only by qualified and authorized service personnel. Frequency of the service should be 30 days after installation and annually thereafter unless indicated otherwise by local codes and regulations.

5.1 Tubestand

Check alignment (x-ray beam to film or receptor).

Inspect counterweight cables for fraying, damage, or wear.

Inspect all tubestand movements for binding or interference, check all bearings for proper operation.

Check all fasteners for tightness including the floor rail fasteners, wall/ceiling rail fasteners, and tubearm screws.

Verify the travel stops are in good functional condition.

Verify the locks are working properly.

Check the SID markers as required.

Inspect cabling for damage.

5.2 Collimator

Verify accuracy of field size.

Verify accuracy of light field to x-ray field alignment.

Check lamp on-off switch for proper operation.

Inspect collimator cable for fraying or damage.

5.3 X-Ray Tube

Inspect the housing for possible oil leakage.

Assure that the housing is tightly fastened to the tube mount and collimator.

Inspect stator cable for fraying or damage.

Inspect high voltage cable ends for carbon tracking. Clean and re-grease HV Cable ends annually.