

DEL MEDICAL

Table of
Contents

Safety

3546E

Vertical Wallstand

Installation, Operation & Service Manual



P/N 8000-3546E

Revision: B, July 3, 2012

Introduction

Installation

Operation

Periodic
Maintenance

Calibration &
Adjustment

Component
Replacement

Trouble-
Shooting

Electrical
Schematics

Illustrated
Parts List

Notes

Copyright 2012, **Del Medical, Inc.** All rights reserved.

This document is the property of **Del Medical Inc.** and contains confidential and proprietary information owned by **Del Medical Inc.**. Any unauthorized copying, use or disclosure of it without the prior written permission of **Del Medical Inc.** is strictly prohibited.



Attention: consult accompanying documents - as applicable

Revision: B, July 3, 2012

Del Medical Inc.

50B North Gary Avenue
Roselle, IL 60172
USA
www.delmedical.com

Phone: 1-847-288-7000
Fax: 1-847-288-7011
Toll Free: 1-800-800-6006

Table of Contents

Safety Information

Introduction.....	i-1
Statement of Liability.....	i-2
Definitions.....	i-3
Safety Conventions Used in this Manual.....	i-4
Warning Statements.....	i-4
Caution Statements.....	i-5
Equipment Safety Guidelines.....	i-6
Identification Labels.....	i-8
3546E Label.....	i-8

Record of Revisions

Revision History.....	ii-1
List of Affected Pages.....	ii-1

Chapter 1 — Introduction

1.1 Introduction.....	1-1
1.2 3546E Wallstand Description.....	1-2
1.3 3546E Wallstand Overview.....	1-4
1.4 Dimensions.....	1-5
1.5 Mounting Dimensions.....	1-7
1.6 Specifications.....	1-8
1.7 Abbreviations.....	1-9

Chapter 2 — Installation

2.1 Pre-installation/ Pre-planning.....	2-1
2.1.1 Tools required.....	2-1
2.2 Installation.....	2-4

Chapter 3 — Operation

3.1 Safety Precautions.....	3-1
3.2 Specifications.....	3-2
3.3 Controls.....	3-3
3.3.1 Cassette Handle (regular bucky).....	3-3
3.3.2 Brake Handle (digital receptors and regular bucky).....	3-4
3.4 Operating Instructions (regular bucky).....	3-5
3.5 Completely Removing the Cassette Tray.....	3-8

Chapter 4 — Periodic Maintenance

4.1 Periodic Maintenance Schedule	4-1
4.2 Cleaning External Surfaces	4-2
Tools Required	4-2
4.3 Checking Counterweight Cables	4-3
Tools Required	4-3
4.4 Checking Brake	4-4
Tools Required	4-4
4.5 Checking Fasteners for Tightness.....	4-5
Tools Required	4-5

Chapter 5 — Calibration & Adjustment

5.1 Introduction.....	5-1
5.2 Calibration	5-2
5.3 Converting Left-Right/Right-Left Configurations	5-3

Chapter 6 — Component Replacement

6.1 Introduction.....	6-1
6.2 Replacing Counterweight Cable.....	6-2
Tools Required	6-2
6.3 Replacing Grid.....	6-9
6.4 Replacing PBL Connector	6-13

Chapter 7 — Troubleshooting

7.1 Introduction.....	7-1
7.2 Troubleshooting Index & Charts	7-2
7.3 Schematic Troubleshooting.....	7-6
7.3.1 Ion Chamber Connections	7-7
7.3.2 Bucky Connections	7-8
7.3.3 Cassette Size Sensing Circuit.....	7-9

Chapter 8 — Diagrams & Electrical Schematics

8.1 Electrical Schematics.....	8-1
8.2 Configuration - Schematic Match Table	8-4

Chapter 9 — Illustrated Parts List

9.1 Ordering Parts.....	9-1
9.1.1 To Order	9-1
9.1.2 To Order by Telephone	9-1
9.1.3 To Order by Fax	9-1
9.1.4 To Order by Email	9-1
9.2 How to Use This Parts List	9-2
9.2.1 General Part Numbers	9-2
9.3 Commonly Ordered Parts	9-4
9.4 3546E Column Assembly (5500-2973)	9-5
9.5 Pulley Assembly (5500-2982)	9-10
9.6 Trim Assembly (5500-1743).....	9-12
9.7 Counterweight Assembly (K-771)	9-13
9.8 Brake Cable Harness Assembly (5500-2982)	9-14
9.9 Vertical Slide Assembly (5500-2983)	9-16
9.10 Wallholder Column Assembly (5500-2973)	9-18
 Notes	 n-1

This page is intentionally left blank.

Safety Information



1.1 Introduction

The policy of Del Medical Inc. is to manufacture X-ray equipment that meets high standards of performance and reliability. We enforce strict quality control techniques to eliminate the potential for defects and hazards in our products.

This equipment provides a vertically adjustable film bucky or digital receptor carriage that positions a patient near an X-ray source to acquire X-ray images of the desired parts of a patient's anatomy. Use of this equipment in any other fashion may lead to serious personal injury.

The safety guidelines provided in this section of the manual are intended to educate the operator on all safety issues necessary to operate and maintain the wallstand in a safe manner.

1.2 Statement of Liability

To prevent excess radiation exposure to patient and operator from either primary or secondary radiation, this wallstand must be operated and serviced by trained personnel who are familiar with the safety precautions required. While this wallstand has been designed for safe operation, improper operation or carelessness may result in serious injury or damage to equipment. The manufacturer or its agents and representatives assume no responsibility for the following:

- 1 Injury or danger to any person from X-ray exposure.
- 2 Overexposure due to poor technique selection.
- 3 Injury or danger from improper use of the vertically adjustable carriage.
- 4 Problems or hazards resulting from failure to maintain the equipment as specified in the Periodic Maintenance chapter.
- 5 Equipment which has been tampered with or modified. Del Medical Inc. is not liable for any damage or injury arising from failure to follow the instructions and procedures provided within the manuals or associated informational material, or from user failure to use caution when installing, operating, adjusting, or servicing this equipment. Del Medical Systems Inc. is not liable for damage or injury arising from the use of this product for any other use than that intended by the manufacturer.

1.3 Definitions

The table below defines the meaning of various symbols used on labels on the equipment.






	This warning symbol indicates a potential hazard to operators, service personnel or equipment. It indicates a requirement to refer to the accompanying documentation for details.
	This symbol indicates that there is accessible dangerous voltage.
	This symbol identifies a protective earth terminal, or ground.
	<p>This symbol states that this product is categorized as Type B.</p> <p>Type B is defined as:</p> <p>Equipment providing a particular degree of protection against electric shock, particularly regarding allowable leakage currents and reliability of the protective earth connection (if present).</p>
	<p>This symbol indicates that you must dispose of the 3546E Wallstand properly according to local laws and regulations. Because the 3546E contains electronic components, it must be disposed of separately from household waste. When the 3546E reaches its end of life, contact local authorities to learn about disposal and recycling options.</p> <p>The wallstand has an estimated life of 10 years from point of purchase. This may vary depending on (1) product use, (2) product maintenance, and (3) environmental conditions.</p>

Table i-1: Definition of symbols found on device labels.

1.4 Safety Conventions Used in this Manual

Specific safety information is listed in this manual in the form of WARNING and CAUTION statements. Pay close attention to these statements - they contain important information on avoiding potential hazards to you or the equipment.

1.4.1 Warning Statements:

- Indicate hazards or unsafe practices which **COULD** result in severe personal injury or death.
- Appear in **bold** type.
- Have a triangular symbol with an exclamation point above the text.
- Are followed by the word **Warning**.
- Are always found before the step or piece of information to which they refer.
- Look like the following example:



Warning

This text will describe special safety precautions to follow in order to avoid unsafe practices that COULD result in severe personal injury or death.

1.4.2 Caution Statements:

- Indicate hazards or unsafe practices which could result in minor personal injury or product or property damage.
- Appear in **bold** type.
- Have a triangular symbol with an exclamation point above the text.
- Are followed by the word **Caution**.
- Are always found before the step or piece of information to which they refer.
- Look like the following example:



Caution

This text will describe special safety precautions to follow in order to avoid unsafe practices that could result in personal injury or product or property damage.

1.5 Equipment Safety Guidelines

The following warnings and cautions are specific to the 3546E Wallstand. Read them carefully - some of them **are not obvious** to typical equipment use.



Warning

Turn off all electrical power to the wallstand and all its peripheral equipment (generator, tubestand, etc.) at the power sources before servicing the wallstand. Also, make sure that the power sources are locked out and tagged “Equipment Being Serviced” before servicing the wallstand. The components inside of the wallstand have power sources outside the wallstand, which is why all peripheral equipment must be turned off; you could get seriously injured if you do not.



Warning

Do not operate the wallstand in an explosive atmosphere (such as anesthetic gas). Doing so can cause an explosion or fire hazard causing serious injury.



Warning

All of the movable assemblies and parts of this equipment should be operated with care and routinely inspected in accordance with the manufacturer’s recommendations contained in this manual.

Only properly trained and qualified personnel should be permitted access to any internal parts. Live electrical terminals are deadly; be sure line disconnect switches are opened and other appropriate precautions are taken before opening access doors, removing enclosure panels, or attaching accessories.

Do not remove flexible high tension cables from X-ray tube housing or high-tension generator and/or access covers from X-ray generator until the main and auxiliary power supplies have been disconnected.

For all components of the equipment, protective earthing means must be provided in compliance with the national regulations.



Warning

This wallstand is intended to be used as part of a system for the intended generation of X-rays for medical diagnosis.

X-rays generate a potential risk for both patients and operators. For this reason, the application of X-rays for a given medical purpose must aim at the minimization of radiation exposition to any persons.

Those persons responsible for the application must have the specific knowledge according to legal requirements and regulations and must establish safe exposure procedures for this kind of system.

Those persons responsible for the planning and installation of this equipment must observe the national regulations.

1.6 Identification Labels

The 3546E components have manufacturing and certification information affixed. The manufacturing label contains:

- The full name and address of the manufacturer of the component
- The place, month, and year of manufacture
- The model number and serial number of the component

The certification label also states that the component complies with either “21CFR, Sub chapter J”, or the applicable DHHS standards under the Radiation Control for Health and Safety Act of 1968 (or its equivalent).

A label may combine both manufacturing and certification information.

1.6.1 3546E Label

The location of the 3546E identification label is shown in Figure i-1.



Figure i-1. 3546E Identification Label is located on the lower front of the wallstand.

Record of Revisions



2.1 Revision History

REV	Date	Reason for Change
A	8-2-2012	Original

Table ii-1. Revision History

List of Affected Pages

Page Number	Rev Level	Page Number	Rev Level	Page Number	Rev Level
All	A				

Table ii-2. List of Affected Pages

This page is intentionally left blank.

1.1 Introduction

This manual provides installation, operation, and service information for the 3546E Wallstand equipped with cassette tray.

This manual also includes a spare parts list for the wallstand.

The 3546E Wallstand is designed for general purpose radiography and is ideally suited for modern hospitals, urgent care centers, clinics, and private practices.

The 3546E features a smoothly counterbalanced cassette tray holder (bucky) that can be easily moved and locked into place manually. The 3546E offers a full range of motion - from standing knee exposures to standing head and neck exposures on the tallest of patients.

The 3546E also features a new lock release brake that allows the user to move the receptor vertically in the desired position.

The Model 3546E Cassette Holder is designed to hold 14" x 17" and smaller size cassettes.

1.2 3546E Wallstand Description

The 3546E Wallstand is designed for general purpose radiography and is ideally suited for modern hospitals, urgent care centers, clinics, and private practices.

The 3546E features a smoothly counterbalanced cassette tray holder (bucky) or digital receptor holder that can be easily moved and locked into place manually. The 3546E offers a full range of motion - from standing knee exposures to standing head and neck exposures on the tallest of patients.

Bucky configurations:

- Model 3546-17GC is equipped with a 14 x 17 Grid Cabinet.
- Model 3546-17R is equipped with a 14 x 17 Bucky.
- All units are designed to work with Manual or P.B.L. Collimators.

Features:

- Floor-to-wall mounted counterbalanced column offers superior stability
- Dual counterweight cables for added patient and user safety
- 17" x 17" (43 cm x 43 cm) grid cabinet
- Low absorption front panel with patient centering line
- Standard 103 line, 8:1 fine line grid for superior film quality
- Standard manual cassette tray accepts 14" x 17" (35 cm x 43 cm) and smaller film sizes, in both inches and metric formats
- Electro-mechanical lock maintains cabinet position
- 61.3" (155 cm) vertical travel allows for procedures ranging from the skull to weight bearing studies.
- Vertical travel allows minimum height of 12.25" (31 cm) from the horizontal center line of reception to the floor, allowing weight bearing studies to be accomplished without the aid of a stool.

Options:

- Size sensing cassette tray, for use with PBL collimation
- Ion chamber for AEC operation
- 8:1 or 10:1 or 12:1 ratio grid (standard configuration is 10:1)
- 17" x 17" (43 cm x 43 cm) reciprocating Bucky

1.3 3546E Wallstand Overview

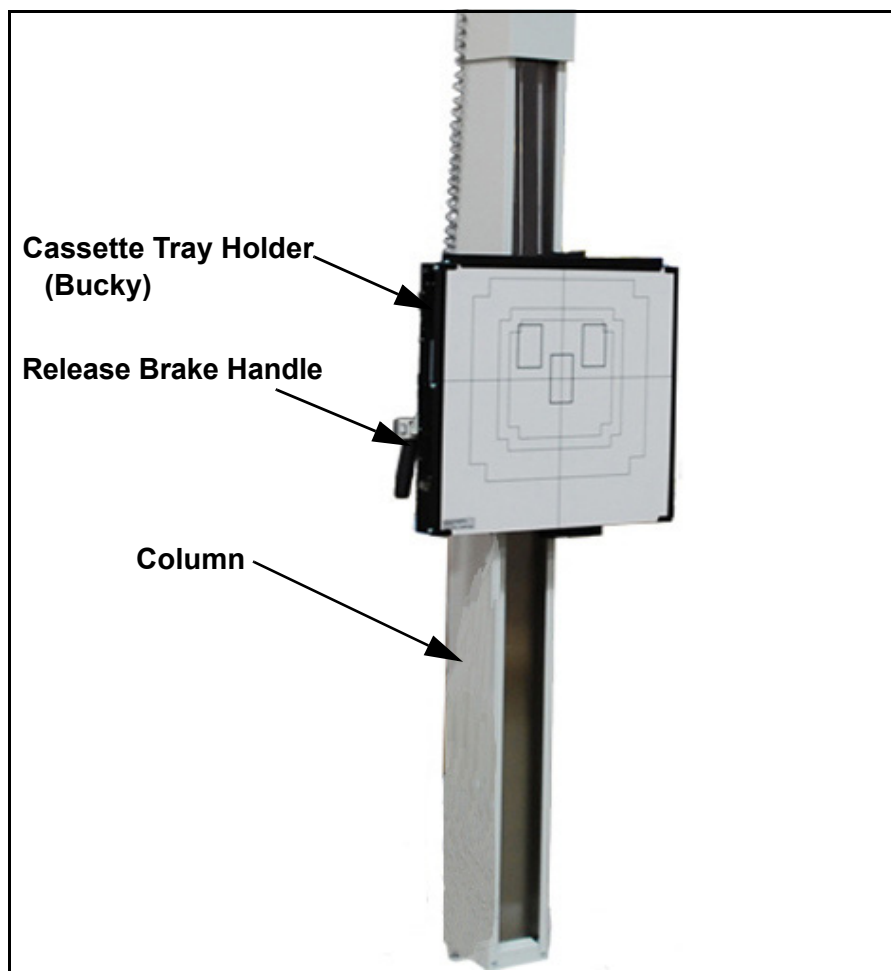


Figure 1-1. 3546E Wallstand

1.4 Dimensions

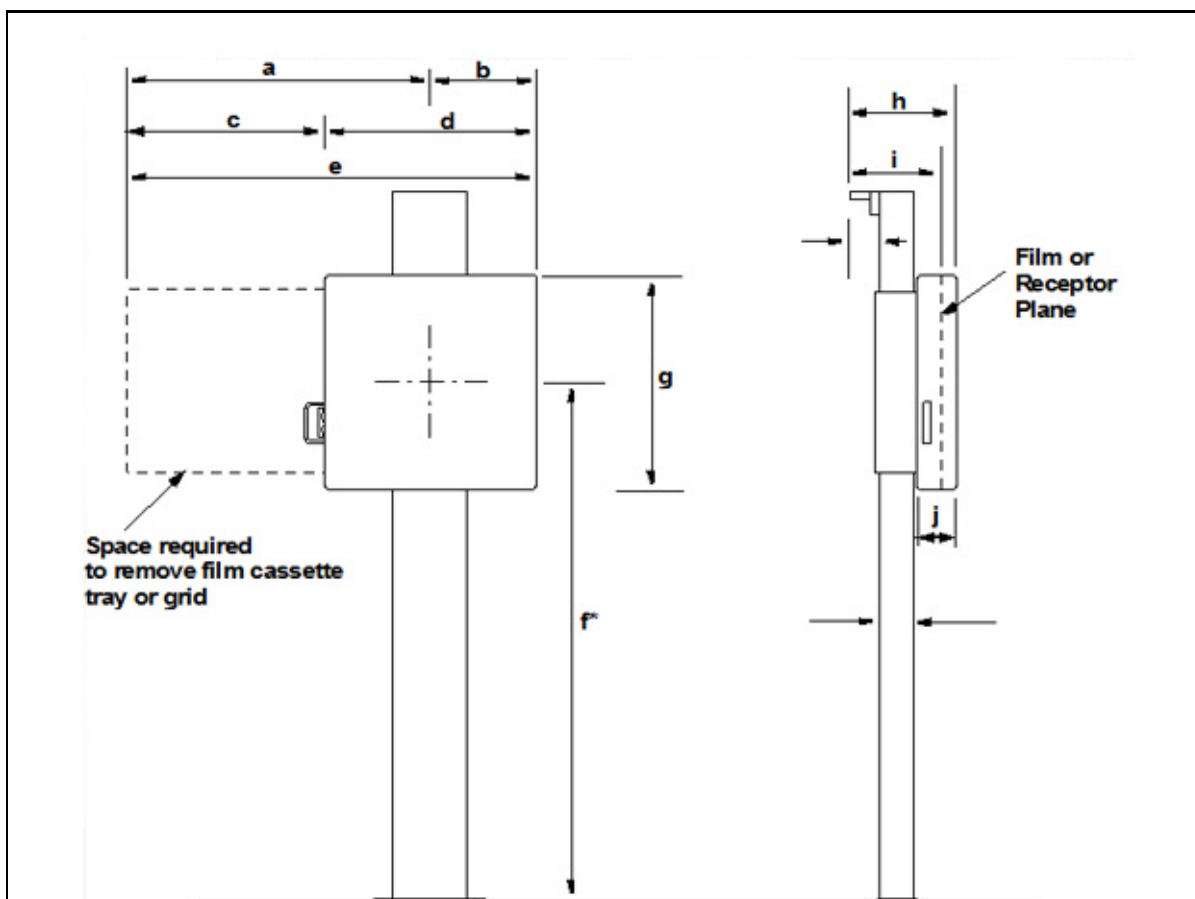


Figure 1-2. Film bucky/Digital receptor Space Requirements

Measure	Film bucky
a	40" (1020 mm)
b	12 3/16" (310 mm)
c	27 1/2" (699 mm)
d	23" (58 cm)
e	51" (1321 mm)
f	12.25"-73 1/2"
*) see next page	(31-187 cm)
g	22.5" (57cm)
h	12.1" (307 cm)
i	11 2/5" (289 mm)
j	5" (127 mm)

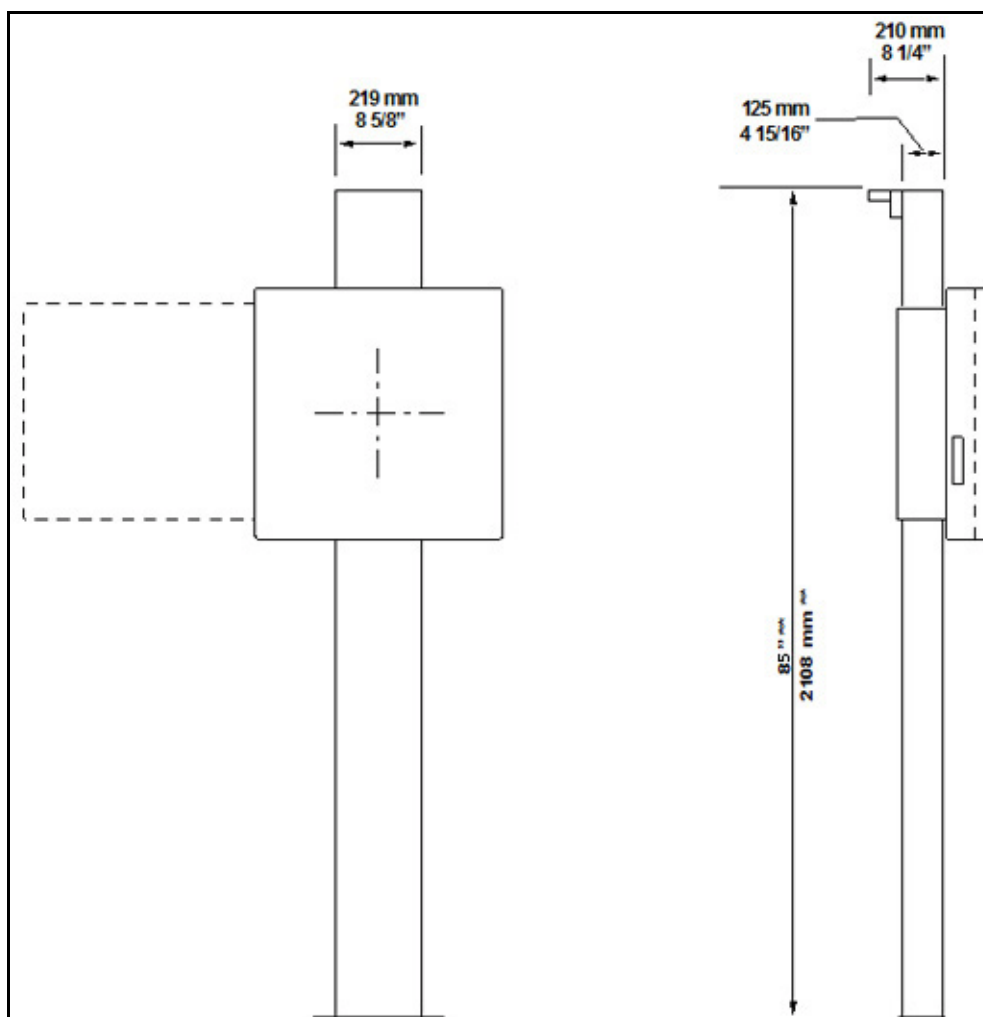


Figure 1-3. Wallstand Dimensions

1.5 Mounting Dimensions

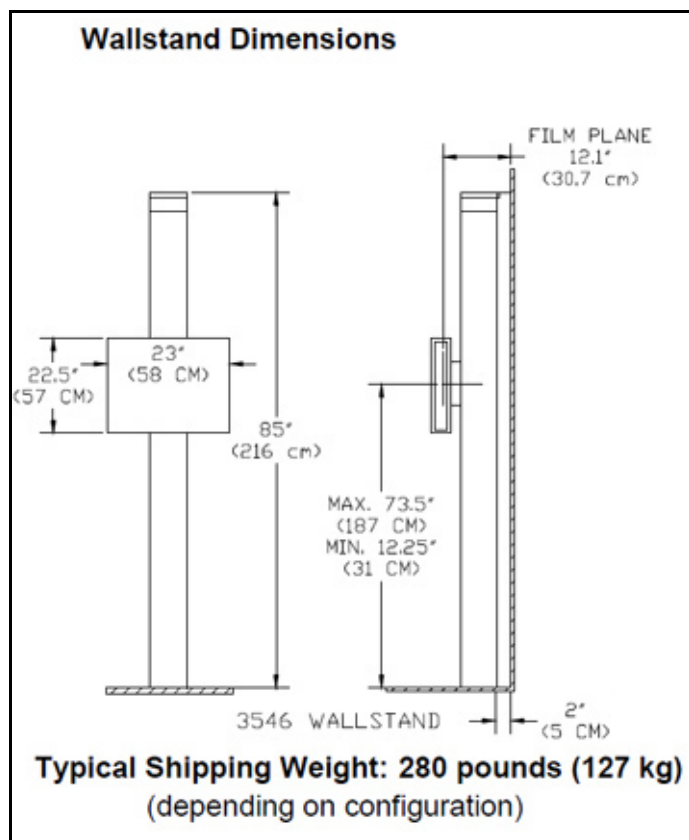


Figure 1-4. Mounting Dimensions

1.6 Specifications


Specifications*							
Compatibility	The 3546E wallstand is compatible with a wide variety of generators and tubestands. It is intended to be used in a stationary diagnostic X-ray configuration.						
External Heat Generation	Minimal						
Classification	Class 1 Type B						
Aluminum Equivalent	Beam Attenuation of the wallstands front panel is 0.7 mm Aluminum Equivalent or Less						
Temperature Limits	<table> <tr> <td>Transit/Storage</td><td>Operating</td></tr> <tr> <td>- 40° F to +158° F</td><td>+50° F to +95° F</td></tr> <tr> <td>- 40° C to +70° C</td><td>+10° C to +35° C</td></tr> </table>	Transit/Storage	Operating	- 40° F to +158° F	+50° F to +95° F	- 40° C to +70° C	+10° C to +35° C
Transit/Storage	Operating						
- 40° F to +158° F	+50° F to +95° F						
- 40° C to +70° C	+10° C to +35° C						
Relative Humidity Limits	Transit/Storage 10% to 100% Operating 10%-80% Non-Condensing						
Atmospheric Limits	14.5 inHg to 30.74 inHg 500 hPa to 1060 hPa						
Weight (wallstand with regular bucky)	280 lbs (127 Kg)						
Degree of protection against the ingress of water:	Ordinary						
Power Requirements	24 V DC at 1.2 Amps						
Minimum Brake Holding Force	20 lbs.						
Certifications:	 Classified To UL 60601-1, IEC60601-1, EN60601-1, IEC 60601-2-32, EN60601-2-32, IEC60601-1-3, EN60601-1-3. Certified To CAN/CSA C22.2 NO. 601.1.						
Equipment not suitable for use in the presence of flammable anesthetic mixtures with air, oxygen or nitrous oxide.							
No user serviceable parts							

Table 1-1: Specifications

1.7 Abbreviations

%	Percent
AWG	American Wire Gauge
Btu	British Thermal Unit
° C	Degree Celsius
CE	Communautés Européennes
cm	Centimeter
C.R.S.	Cold Rolled Steel
° F	Degree Fahrenheit
ga	Gauge
hPa	Hecto Pascal
inHg	Inches Mercury
Kg	Kilogram
Lb	Pound
M	Meter
max.	Maximum
min.	Minimum
mm	Millimeter
PBL	Positive Beam Limitation
Sq/Ft	Square Foot
Sq/M	Square Meter
UL	Underwriters Laboratories

This page is intentionally left blank.

2.1 Installation Instructions

2.1.1 Tools Required:

- 2" x 4" x 2' Stud
- Anchor inserts and bolts (for mounting base to floor) (size determined by installer)
- Medium phillips screwdriver
- Power drill and masonry bit (size determined by installer)
- Set of open ended wrenches
- Double sided tape
- Bubble level
- Tape Measure

Note: This unit is shipped as a left hand load bucky or grid cabinet. If a right hand is desired, follow section 5-3.

2.2 Installation

Note: Two people are required to perform this installation procedure.

Your shipment will arrive in two boxes as shown below. One box will contain the column and accessories, and the other box will contain the mounting rails.



Figure 2-1. Shipping Boxes

- 1 Move column carton box to approximate position where it will be installed.
- 2 Cut the tape on the corners of the box (1 in Figure 2-2). Remove the tape and top cover (2).

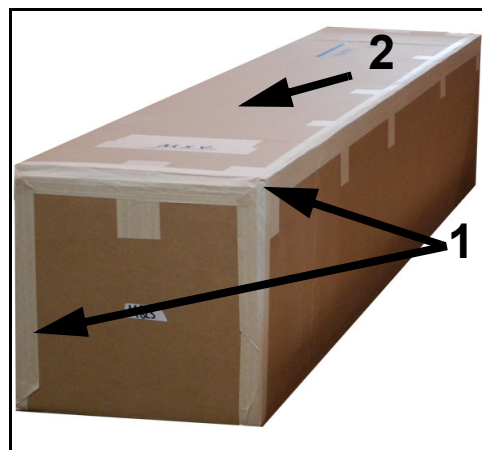


Figure 2-2. Taped Edges

3 Remove the column from the box.



Figure 2-3. Column out of the box



Caution

Counterweight box is heavy - 100 lbs (42 kg.). Use care when moving it.

- 4** The column carton will contain the column assembly and accessories. The accessories are shown in the figures below. Unpack everything but the accessories card; leave the card as it is for now. A counter weight box will also be included.

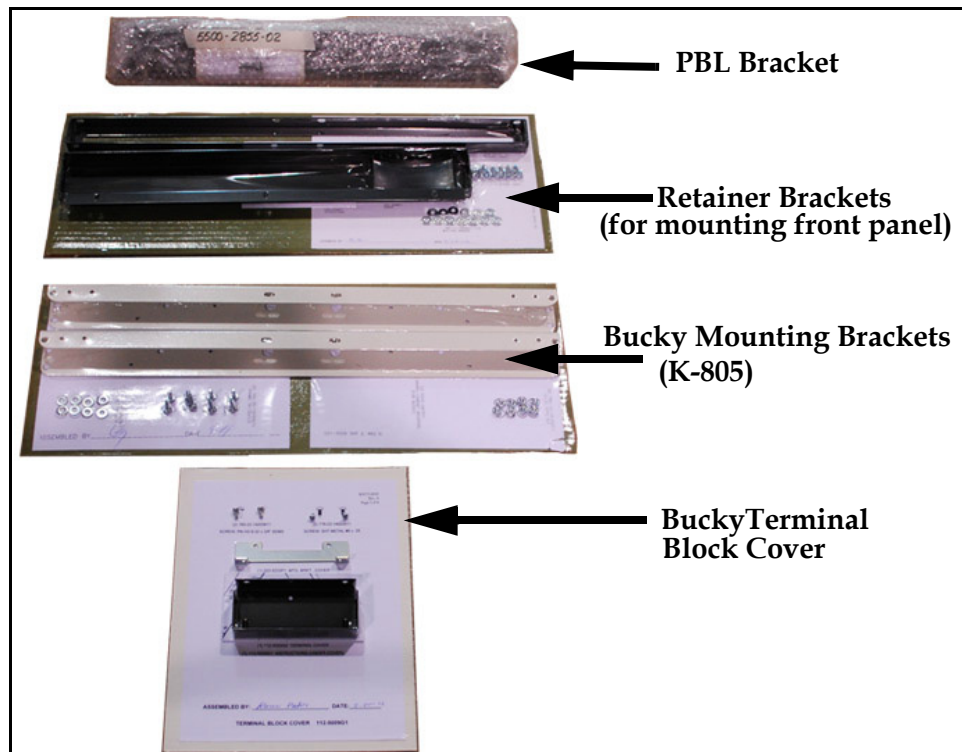


Figure 2-4. Card and Accessories Box

- 5 Lift the vertical column to where it will be situated. Remove the restraining bracket and brake assembly kit. Screw in the mounting screws in the mounting holes.



Caution

Vertical column is heavy - 100 lbs (42 kg.). Use care when lifting it.

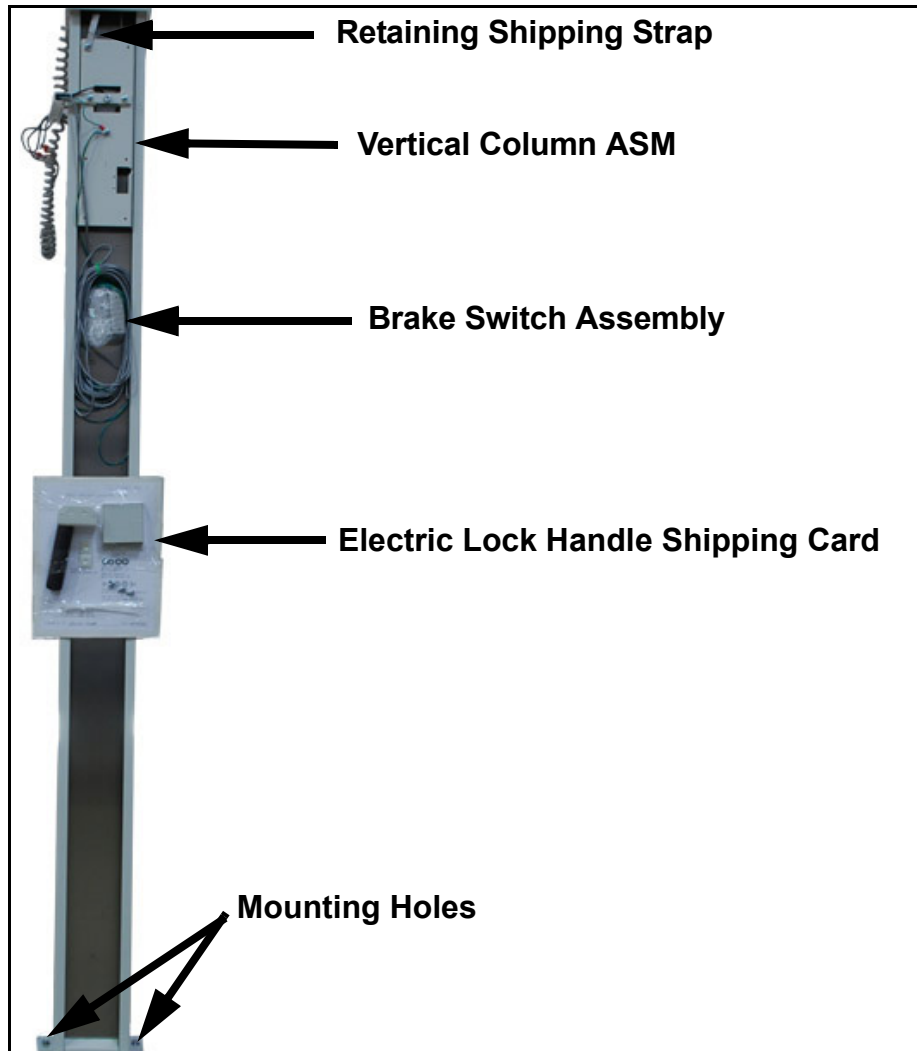


Figure 2-5. Vertical Column

- 6 Remove the Shipping Strap (1 in Figure 2-6). Make sure the “Front Sticker” is facing the front of the column.

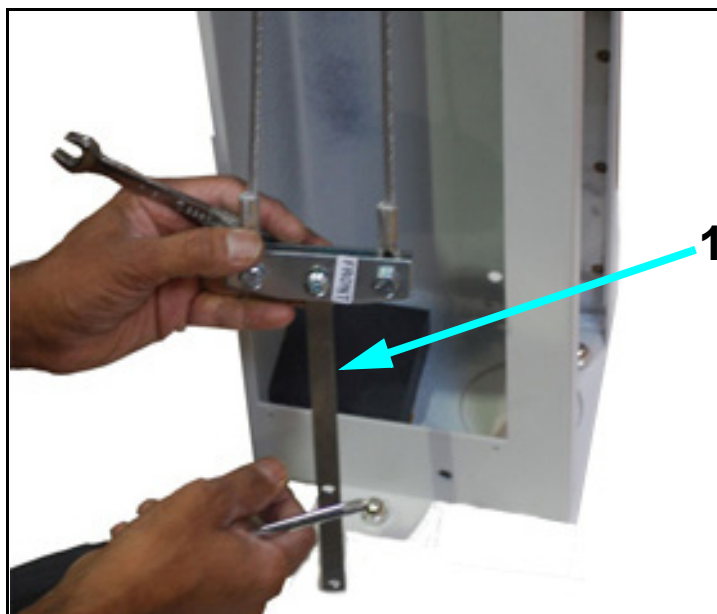


Figure 2-6. Counterweight bracket

- 7 Insert screw (1) into the Clevis Pin (2 in Figure 2-7) and secure properly.

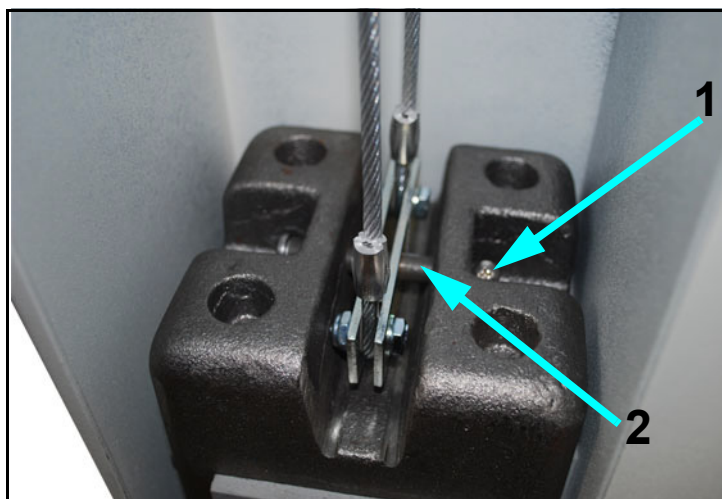


Figure 2-7. Clevis Pin

8 Insert the counter weight (1 in Figure 2-8).

Note: Be careful not to knock off the bumper pads (2 in Figure 2-8) inside the access hole on the left side of the column.

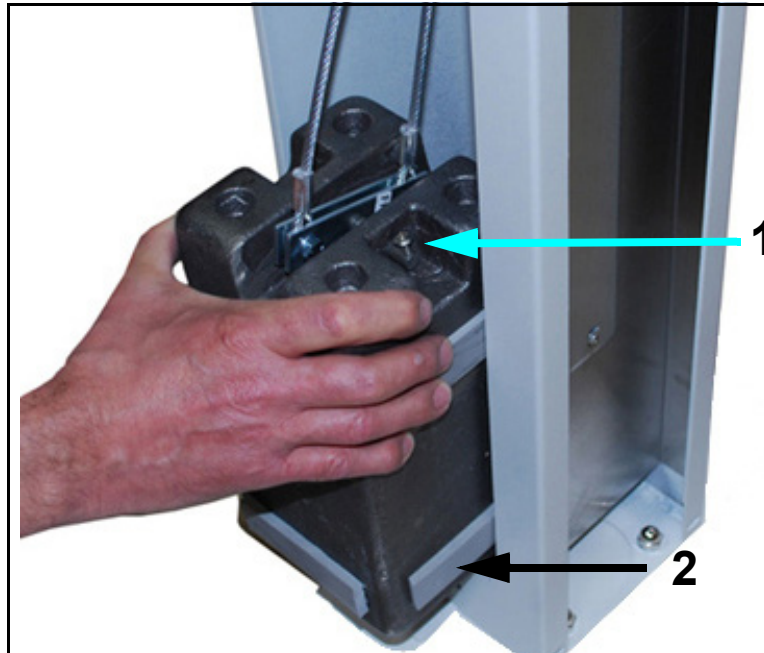


Figure 2-8. Counterweight Assembly

- 9 Pull the counterweight bracket (1 in Figure 2-9). Slide the Clevis Pin through the counter weight and bracket.

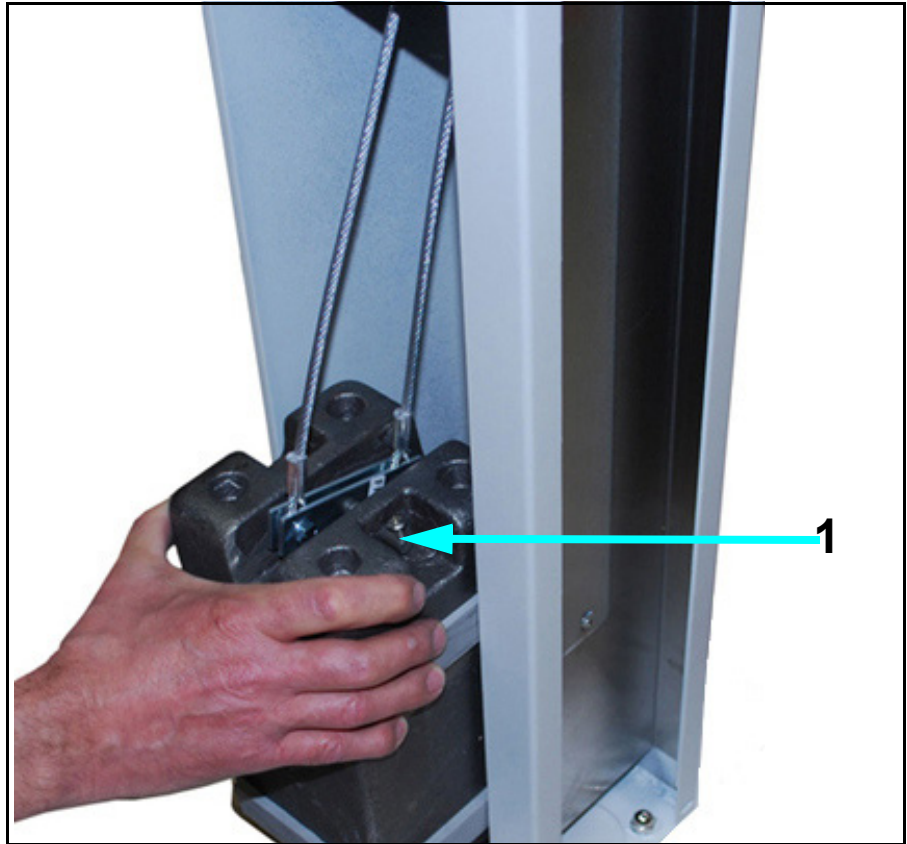


Figure 2-9. Counterweight Rod Removal

- 10** Remove the Counterweight Shipping Strap (1 in Figure 2-10).

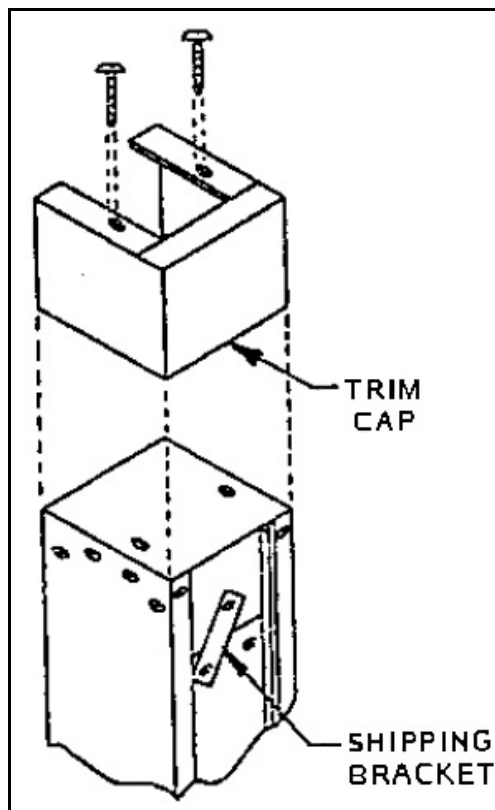
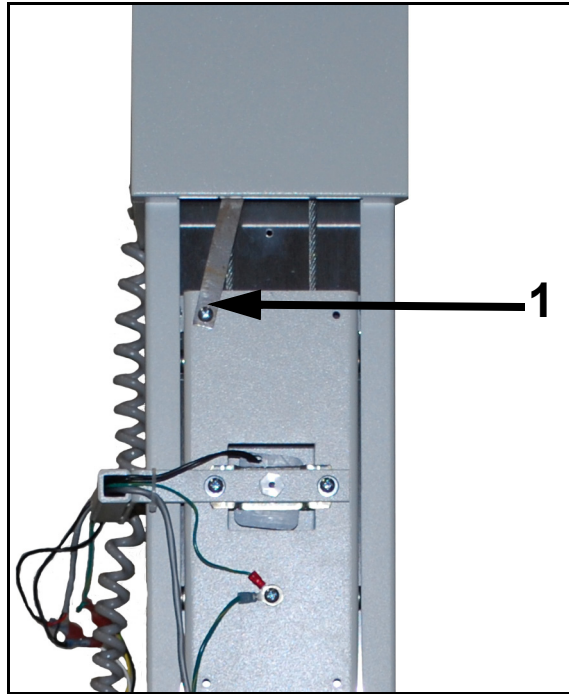


Figure 2-10. Counterweight Bracket

- 11 Attach the bucky mounting bars (1 in Figure 2-11) on the vertical carriage as shown.

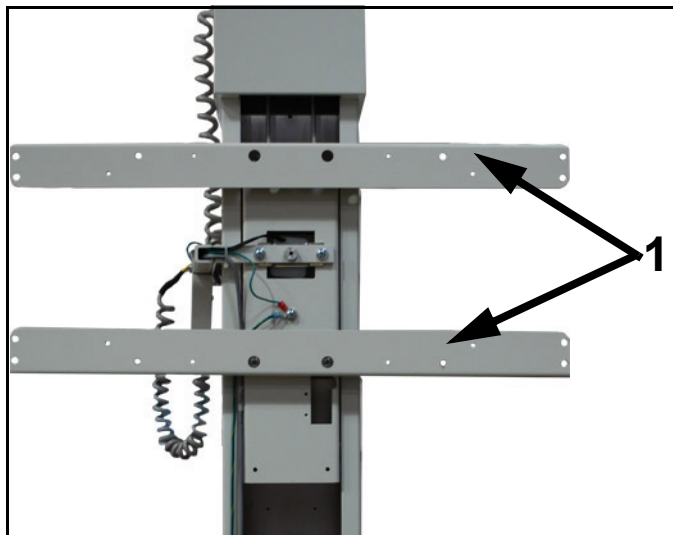


Figure 2-11. Bucky Mounting Bars K-805

- 12 Slide the 2" x 4" x 2' stud (1 in Figure 2-12) inside the column to lower the bucky mounting bars in order to attach the bucky.

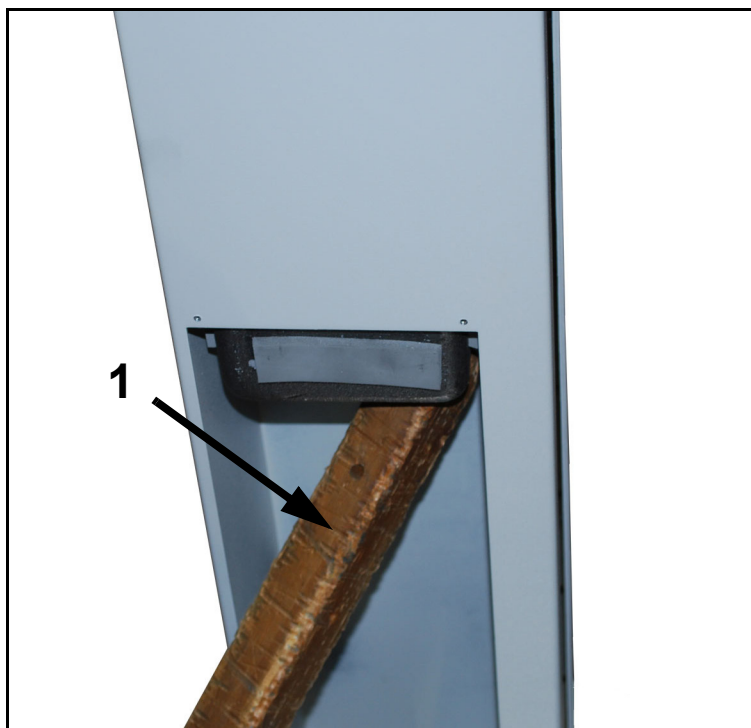


Figure 2-12. 2 x 4

- 13** Align the four screws (1 in Figure 2-13) on the bucky and the bucky mounting bars and screw in the bucky. Mount the bucky or grid cabinet to the mounting bars.

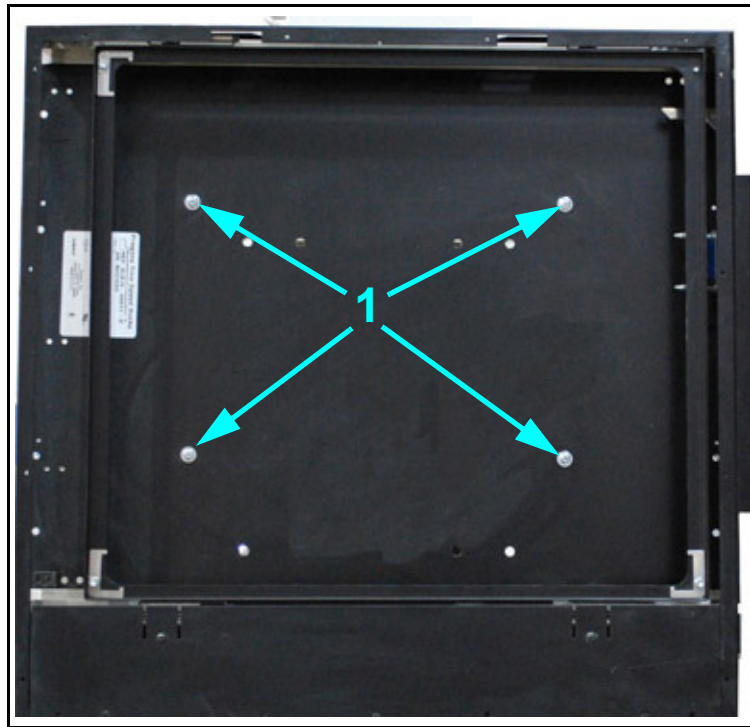


Figure 2-13. Attach Bucky

- 14** Screw the grid clamp screws (1 in Figure 2-14) and clamps (2) and grid (3). Be sure to orient the new grid so that etched center line is vertical.

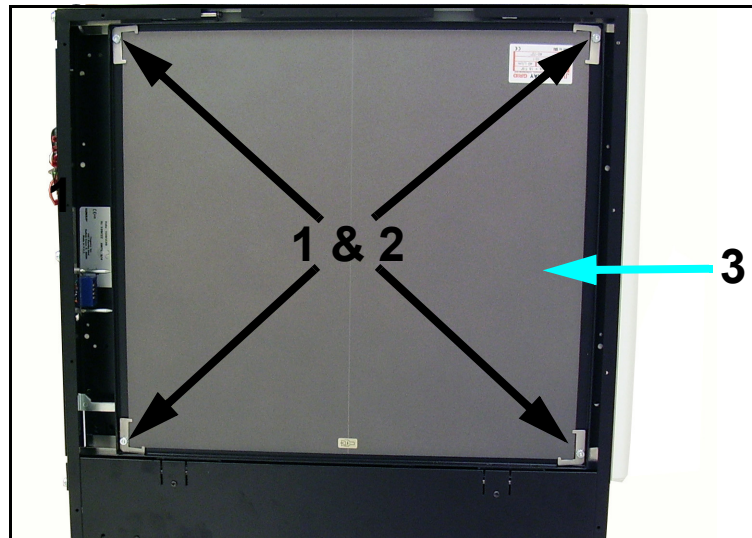


Figure 2-14. Grid

- 15** Follow the directions in Figure 2-15 below to assemble the front panel on the bucky.

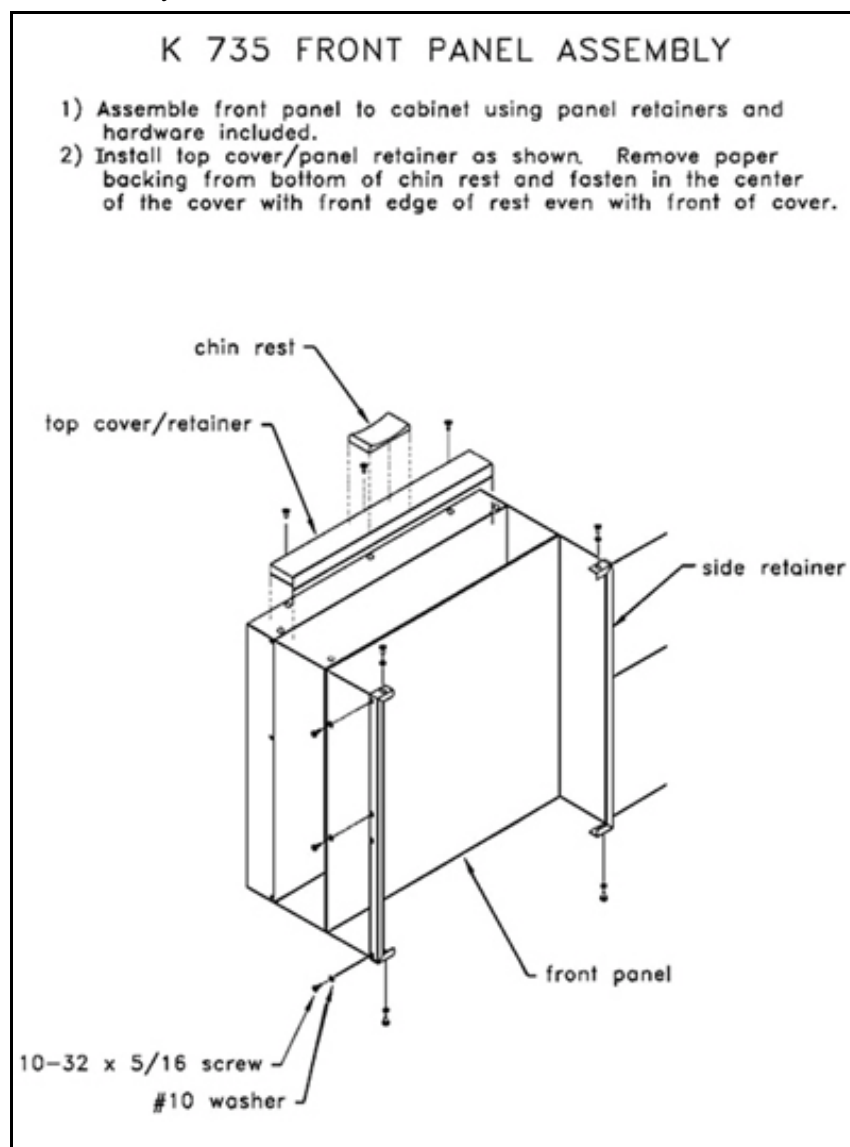


Figure 2-15. Front Panel Assembly

16 Use the chart below when connecting the bucky.

Bucky Connections				
Signal	Progeny, Tru-Speed L/F 8000 L/F 9000	L/F 8000 (older models)	Villa Bucky*	
Wall Select 117VAC (Switched)	3	B3	7	* (Villa Bucky requires a jumper between terminals 1 and 6)
Wall Feedback	2	B2	12	
117 VAC	L	B8	3	
Signal GND	1	B1	11	
117 VAC Return	N	B4	1	
Chassis GND	GND	GND	Chassis GND	

Figure 2-16. Bucky Connections

17 Once the front panel is on the bucky, attach the terminal strip cover at the bottom (1 in Figure 2-17) with screws (2 in Figure 2-18).

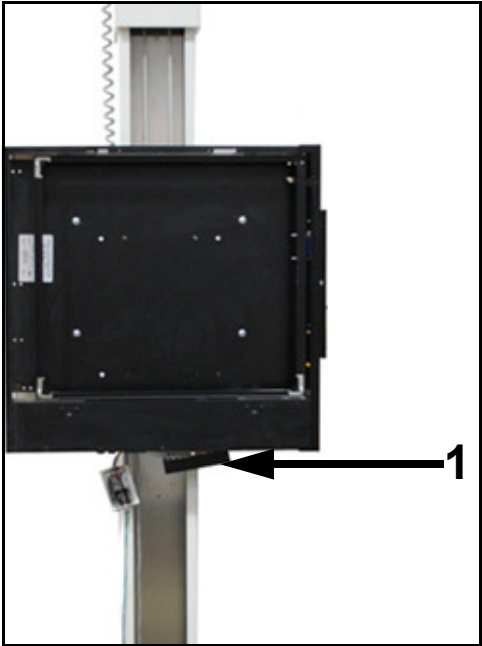


Figure 2-17. Bottom Cover

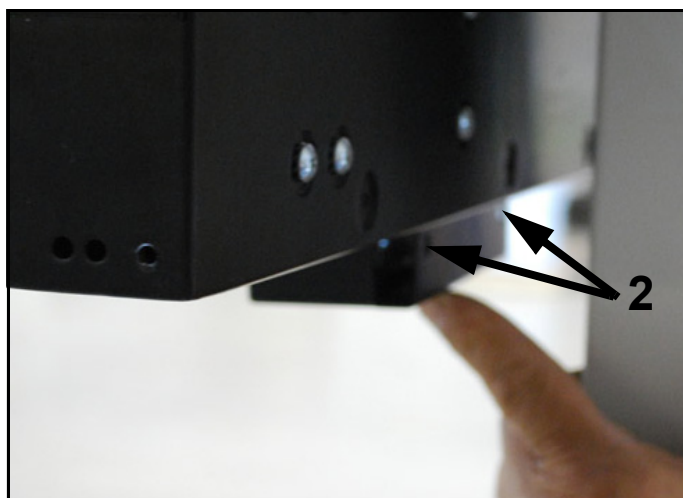


Figure 2-18. Terminal Strip

- 18** Attach faceplate (Use K-735 hardware card item) (Figure 2-19).

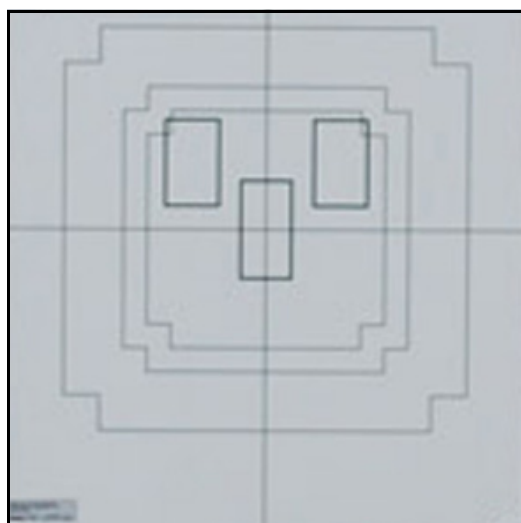


Figure 2-19. Faceplate

- 19** Fasten the 3 screws (1 in Figure 2-20) that hold the chin rest (2) in place.

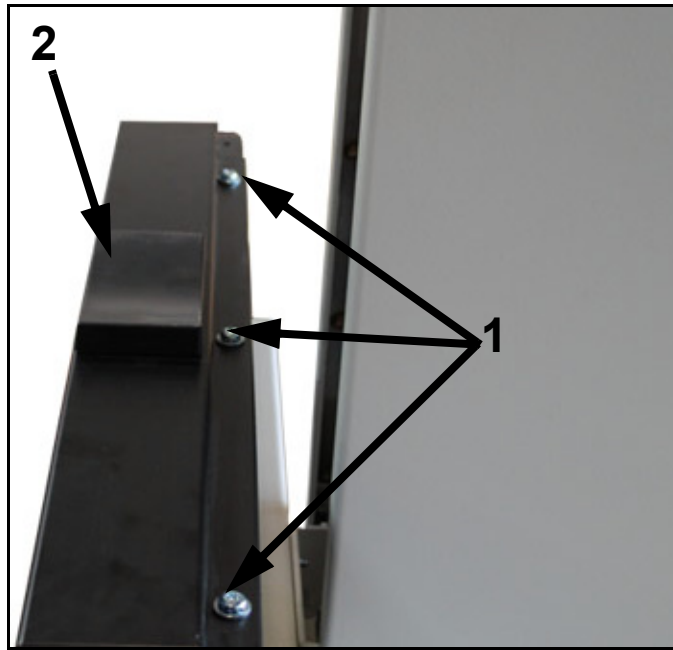


Figure 2-20. Upper Bracket Screws

- 20** To attach the brake handle (1 in Figure 2-21), screw in the handle to the back of the bottom bucky bar.

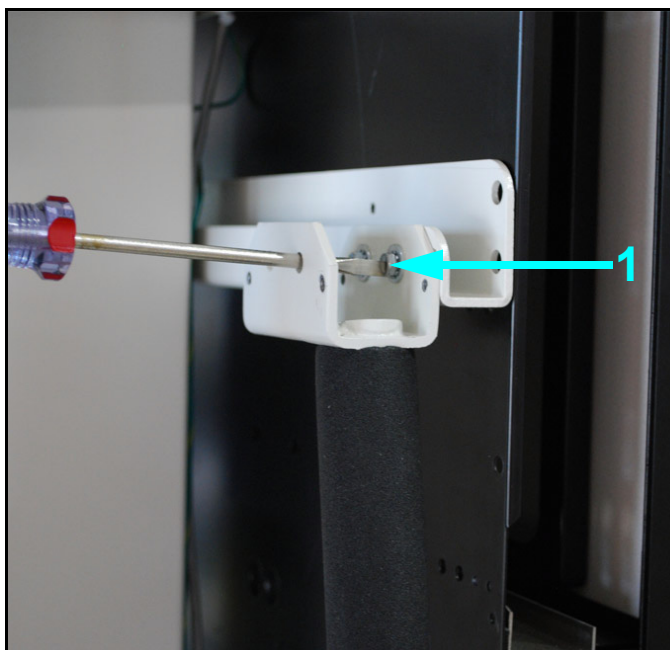


Figure 2-21. Brake Handle

- 21** Attach the bucky switch cover to the brake handle assembly (1 in Figure 2-22).

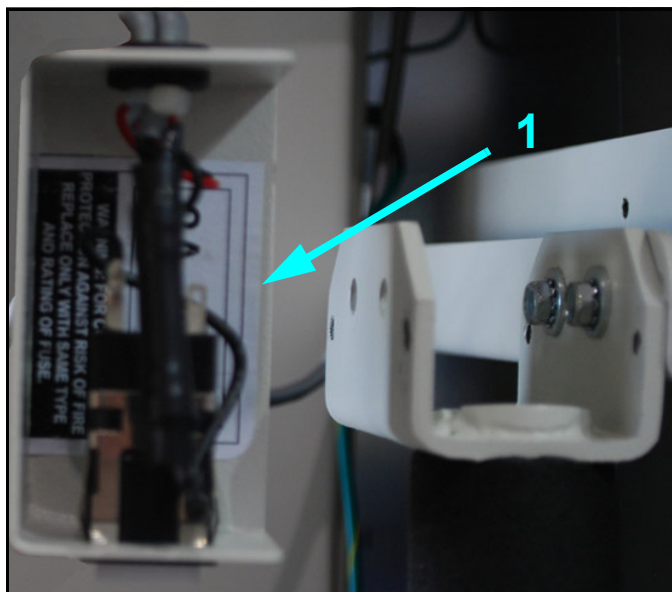


Figure 2-22. Brake Lock on Column

- 22** Attach the bucky switch cover mechanism (1 in Figure 2-23) to the handle.

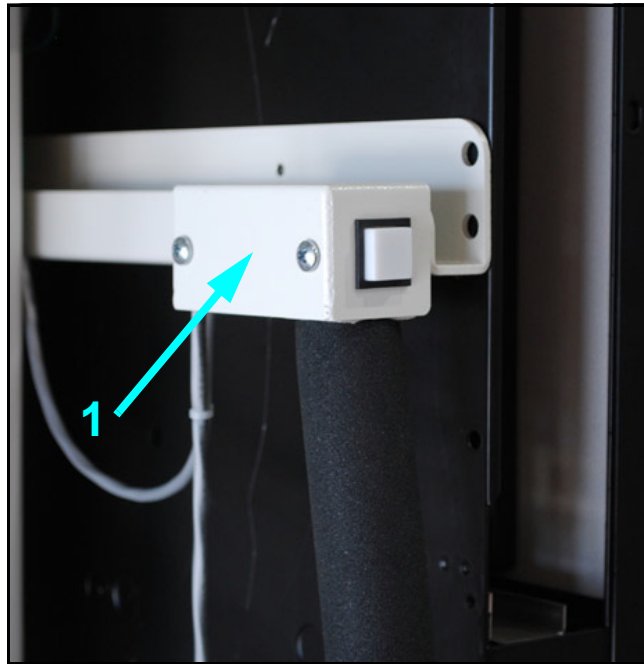


Figure 2-23. Locking Mechanism

- 23** Connect the brake lock to the vertical lock connectors (1 in Figure 2-24).

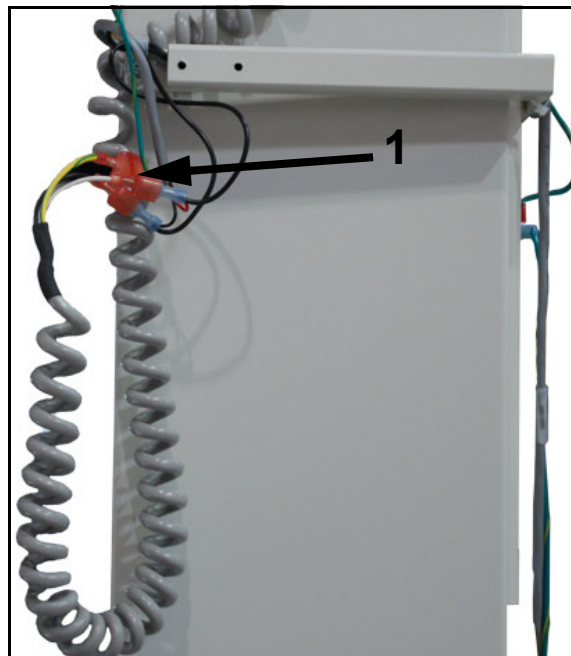


Figure 2-24. Vertical Lock Connectors

24 Install cover over wires.



Figure 2-25. Wire Covers

Installation Completed.

This page is intentionally left blank.

3.1 Safety Precautions



Warning

No foreign objects which can attenuate or scatter the X-ray beam are allowed between X-ray tube and wallstand during exposure. Failure to follow this may result in serious injury.



Warning

This wallstand is intended to be used as part of a system for the intended generation of X-rays for medical diagnosis.

X-rays generate a potential risk for both patients and operators. For this reason, the application of X-rays for a given medical purpose must aim at the minimization of radiation exposition to any persons.

Those persons responsible for the application must have the specific knowledge according to legal requirements and regulations and must establish safe exposure procedures for this kind of systems.

Those persons responsible for the planning and installation of this equipment must observe the national regulations.

Note: If the wallstand is equipped with one of the optional digital receptors, refer to the corresponding documentation for controls and operation information on that part of the system.

3.2 Specifications



Specifications*							
Compatibility	The 3546E wallstand is compatible with a wide variety of generators and tubestands. It is intended to be used in a stationary diagnostic X-ray configuration.						
External Heat Generation	Minimal						
Classification	Class 1 Type I 						
Aluminum Equivalent	Beam Attenuation of the wallstands front panel is 0.7 mm Aluminum Equivalent or Less						
Temperature Limits	<table> <tr> <td>Transit/Storage</td><td>Operating</td></tr> <tr> <td>- 40° F to +158° F</td><td>+50° F to +95° F</td></tr> <tr> <td>- 40° C to +70° C</td><td>+10° C to +35° C</td></tr> </table>	Transit/Storage	Operating	- 40° F to +158° F	+50° F to +95° F	- 40° C to +70° C	+10° C to +35° C
Transit/Storage	Operating						
- 40° F to +158° F	+50° F to +95° F						
- 40° C to +70° C	+10° C to +35° C						
Relative Humidity Limits	Transit/Storage 10% to 100% Operating 10%-80% Non-Condensing						
Atmospheric Limits	14.5 inHg to 30.74 inHg 500 hPa to 1060 hPa						
Weight (wallstand with regular bucky)	280 lbs (127 Kg)						
Degree of protection against the ingress of water:	Ordinary						
Power Requirements	24 V DC at 1.2 Amps						
Max Brake Holding Force	20 lbs.						
Certifications:	 Classified To UL 60601-1, IEC60601-1, EN60601-1, IEC 60601-2-32, EN60601-2-32, IEC60601-1-3, EN60601-1-3. Certified To CAN/CSA C22.2 NO. 601.1.						
Equipment not suitable for use in the presence of flammable anesthetic mixtures with air, oxygen or nitrous oxide.							
No user serviceable parts							

Table 3-1: Specifications

3.3 Controls

This section describes the controls of the wallstand with regular bucky. Figure 3-1 below shows the controls of the wallstand.

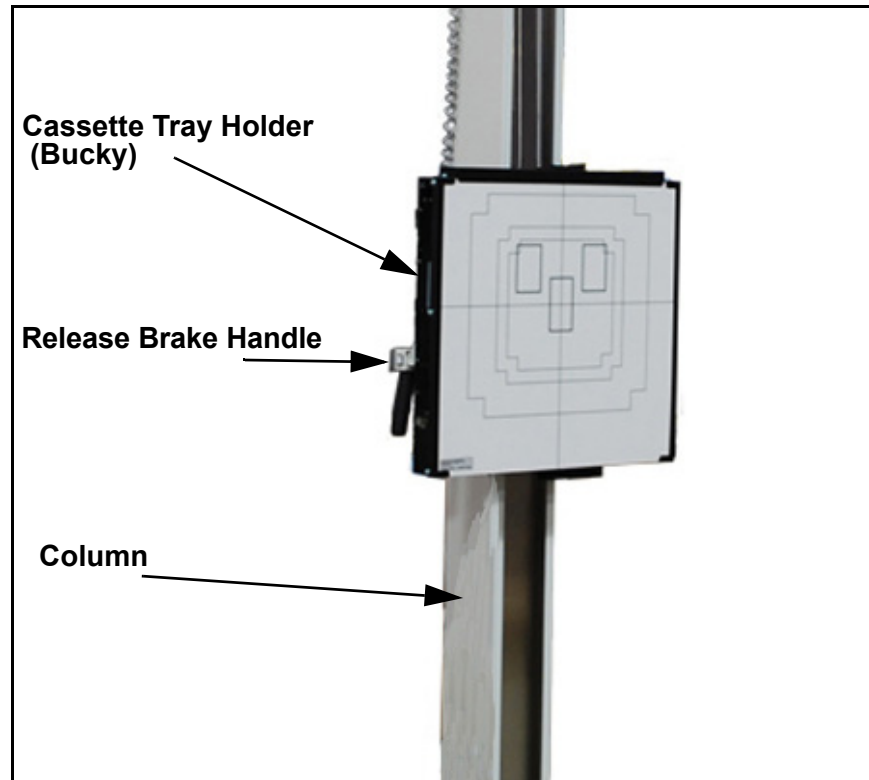


Figure 3-1. Wallstand Controls

3.3.1 Cassette Tray Handle (regular bucky)

Pull the cassette tray handle to pull the film cassette tray out of its holder. For safety reasons, the cassette tray will not come completely out.

3.3.2 Release Brake Handle (digital receptors and regular bucky)

Push the release brake switch to release the brake. This will allow you to move the cassette tray holder to the desired position.

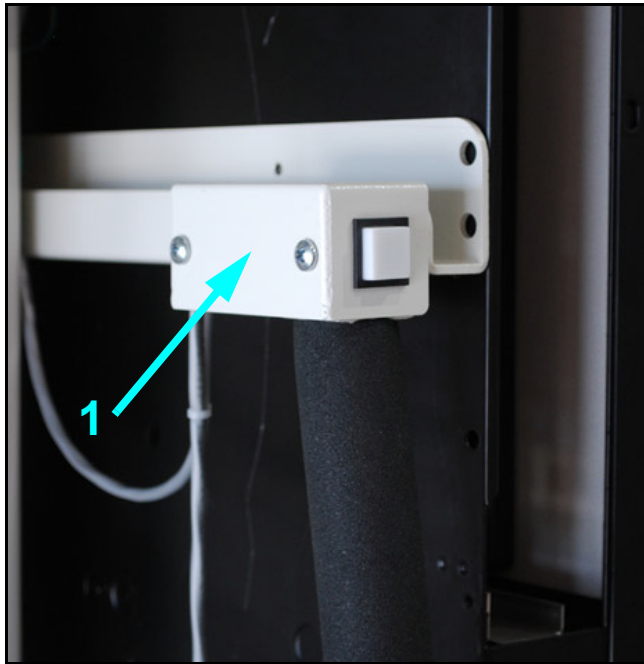


Figure 3-2. Locking Mechanism

3.4 Operating Instructions (regular bucky)

Operate the Wallstand as follows:

- 1 Manually pull cassette tray (1 in Figure 3-3) out as far as it will go.

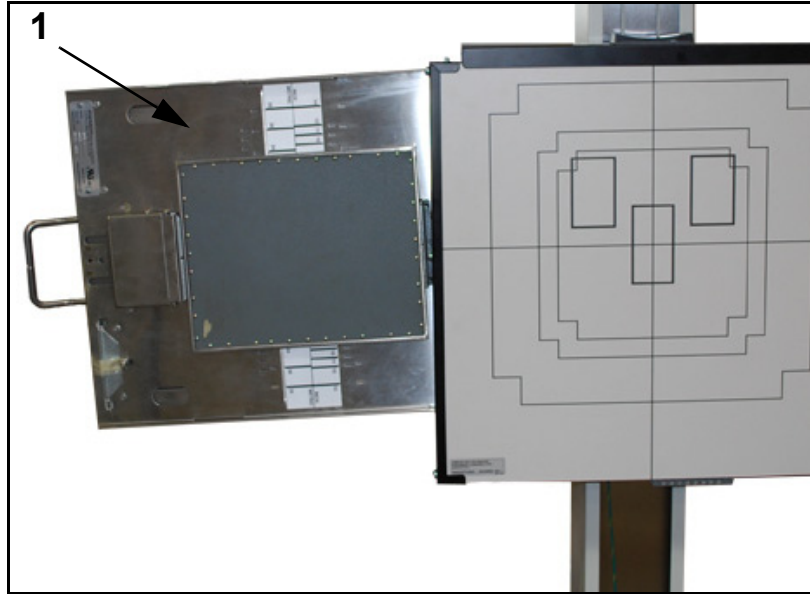


Figure 3-3. Cassette Tray

- 2 Lift clamp (1 in Figure 3-4) up.
- 3 If necessary, move the platform bracket (2) to the position that matches the size of your cassette.

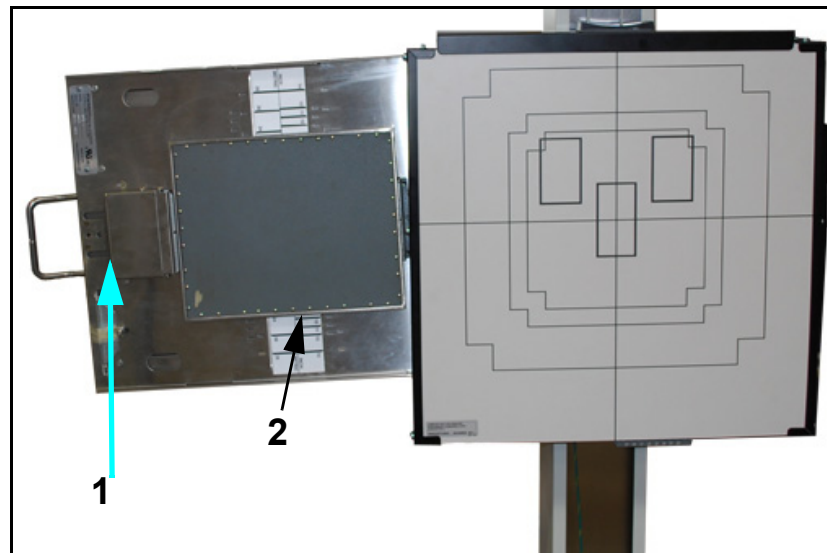


Figure 3-4. Clamp & Bracket

- 4 Insert cassette (1 in Figure 3-5) into tray.
- 5 Slide clamp (2) up to cassette and close clamp.

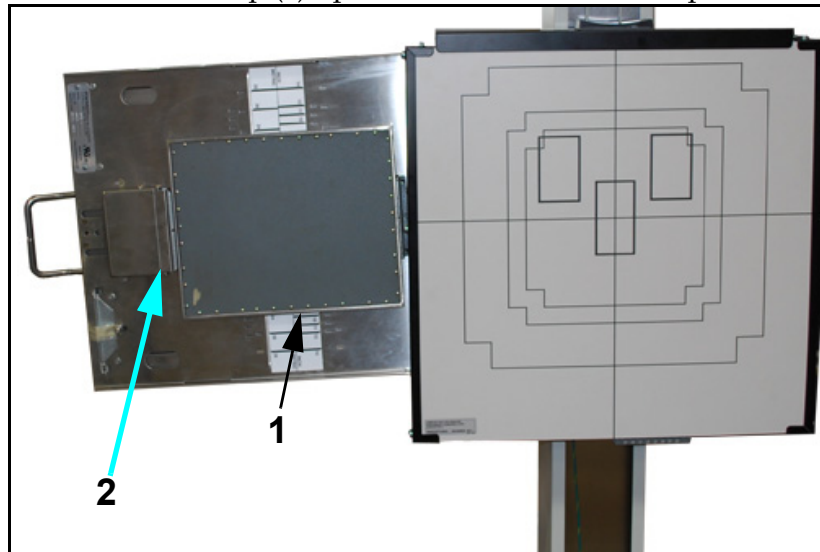


Figure 3-5. Cassette & Clamp

- 6 Push cassette tray all the way in.

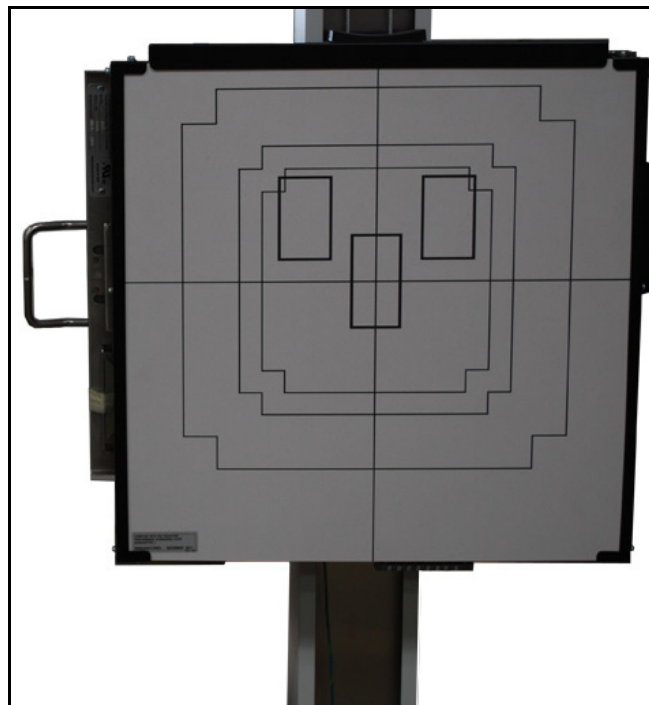


Figure 3-6. Cassette Tray In

- 7 Push the release brake switch to release the brake. (1 in Figure 3-7).
- 8 Move cassette holder to desired position and let go of the release brake handle.
- 9 Make exposure and remove cassette.



Figure 3-7. Release Brake Handle and Switch Assembly

3.5 Completely Removing the Cassette Tray

To completely remove cassette tray, do the following:

- 1 Manually pull cassette tray out as far as it will go.



Caution

Cassette tray is heavier than it looks (15 lbs)[7 kg]. Use care when removing it.

- 2 While firmly pressing the cassette tray release latch (1 in Figure 3-8), pull the cassette tray completely out of the bucky.

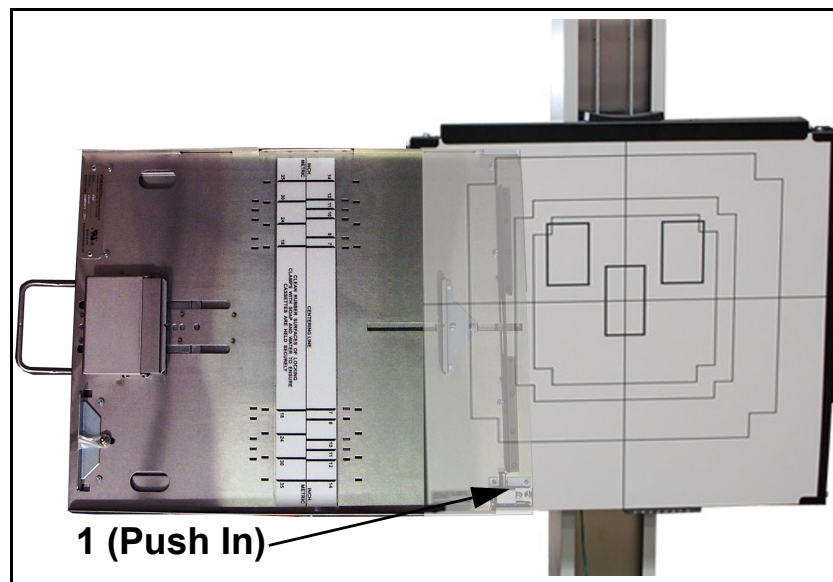


Figure 3-8. Cassette Tray Removal

Periodic Maintenance

4

4.1 Periodic Maintenance Schedule

Refer to the schedule below for information on when to perform periodic maintenance on the wallstand. If the wallstand is equipped with one of the optional digital receptors, also refer to the corresponding documentation for maintenance information on that part of the system.

Note: Due to varying operating conditions, the procedures listed below may have to be performed at greater or lesser intervals. You may have to adjust intervals according to your wallstand's performance.

What to Do	When to Do It	Refer to Section
Clean External Surfaces	Every Week or as Required	"Cleaning External Surfaces" on page 4-2
Inspect Counterweight Cable	Every 6 Months	"Checking Counterweight Cables" on page 4-3
Checking Brake Performance	Every 6 Months	"Checking Brake Performance" on page 4-4
Check Fasteners for Tightness	Every 6 Months	"Checking Fasteners for Tightness" on page 4-5

Table 4-1: Periodic Maintenance Schedule

4.2 Cleaning External Surfaces

Tools Required

- Cleaning wipes
- Non-abrasive, hospital-grade cleaner



Warning

If the wallstand is equipped with a bucky, AEC, PBL or digital receptor make sure that the power source to these components is locked out and tagged “Wallstand Being Serviced” before servicing the wallstand; you could get seriously injured if you do not.

Use cleaning wipes and non-abrasive, hospital-grade cleaner to clean external surfaces of wallstand.

4.3 Checking Counterweight Cables

Tools Required

- Cotton balls

- 1 Move the cassette tray holder (1 in Figure 4-1) to its lowest position.



Warning

If the wallstand is equipped with a bucky, AEC, PBL or digital receptor make sure that the power source to these components is locked out and tagged "Wallstand Being Serviced" before servicing wallstand; you could get seriously injured if you do not.

- 2 Run a cotton ball up and down the length of the counterweight cable (2).
- 3 If the cable is frayed or damaged, fibers from the cotton ball will stick to the damaged part of the cable. If you see any presence of fibers on the cable, replace the affected cable according to Section "Replacing Counterweight Cable" on page 6-2.

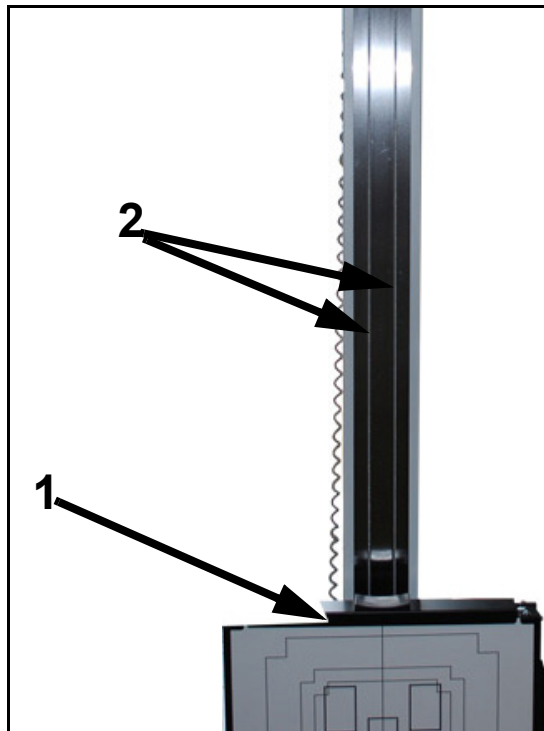


Figure 4-1. Counterweight Cable (Typical)

4.4 Checking Brake Performance

Tools Required:

- None

- 1 Press the lock release button (1 in Figure 4-2) to release the brake. This will allow the user to move the receptor vertically to the desired position.

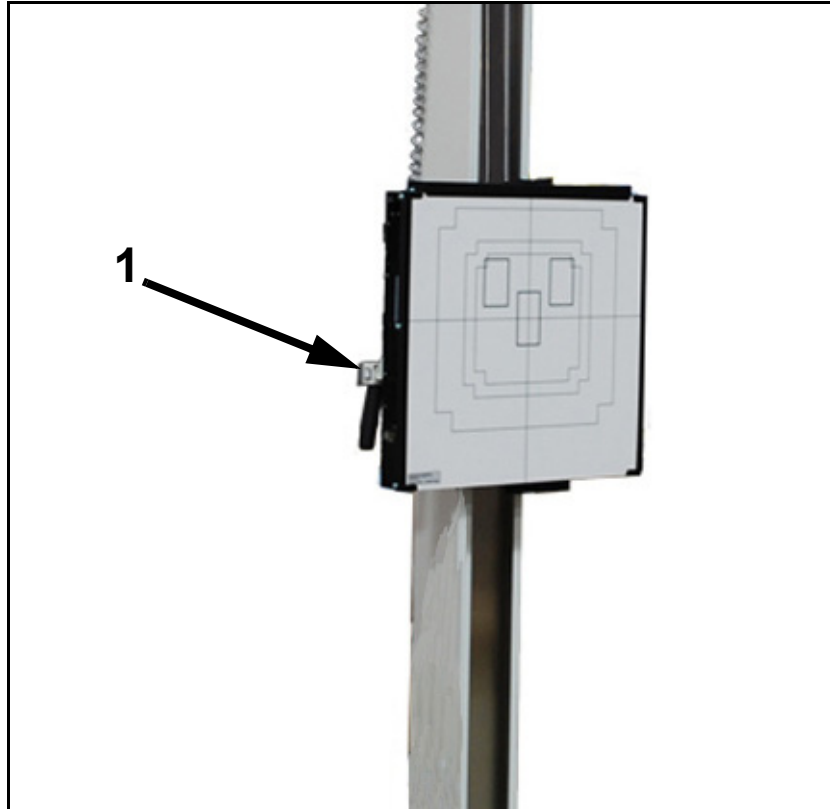


Figure 4-2. Lock Release Button

4.5 Checking Fasteners for Tightness

Tools Required

- Phillips screw driver
- Set of open end-wrenches

- 1 Check each exposed fastener for tightness and tighten accordingly.

This page is intentionally left blank.

Calibration & Adjustment

5

5.1 Introduction

This chapter provides maintenance and adjustment procedures for the wallstand.

5.2 Calibration

Calibration not applicable for this product.

5.3 Converting Left-Right/Right-Left Configurations

The 3546E wallstand vertical carriage and frame assembly rear panels are designed symmetrically-mirrored, to allow reversal of left-right orientation of the cassette holder.

For wallstands with digital receptor, refer to the manufacturer's specifications and installation manuals for instructions on how to reverse receptor door and grid positions (if possible).

Tools Required:

- 3/8" nut driver
- Diagonal cutters
- Medium phillips head screwdriver
- Rug or soft surface to lay wallstand down
- Set of open ended wrenches
- Small flat-tip screwdriver



Warning

Turn off all electrical power to the wallstand and all its peripheral equipment (generator, tubestand, etc.) at the power sources before servicing the wallstand. Also, make sure that the power sources are locked out and tagged "Equipment Being Serviced" before servicing the wallstand. The components inside of the wallstand have power sources outside the wallstand, which is why all peripheral equipment must be turned off; you could get seriously injured if you do not.

- 1 Manually pull cassette tray out as far as it will go.



Caution

Cassette tray is heavier than it looks (15 lbs)[7 kg]. Use care when removing it.

- 2 While firmly pressing the cassette tray release latch (1 in Figure 5-1), pull the cassette tray completely out of the bucky.

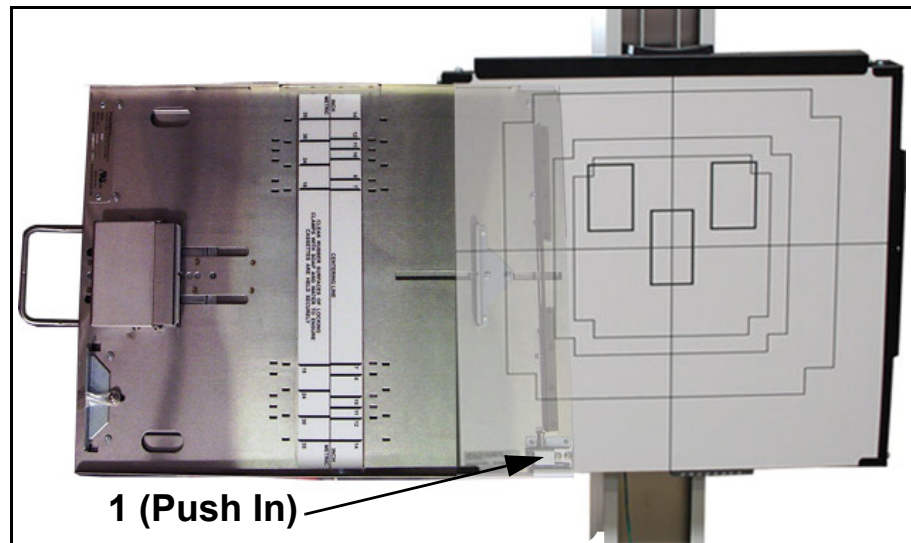


Figure 5-1. Cassette Tray Removal

- 1 Unscrew the wiring cover (1 in Figure 5-2).



Figure 5-2. Wiring Cover

- 2 Remove wire cover.

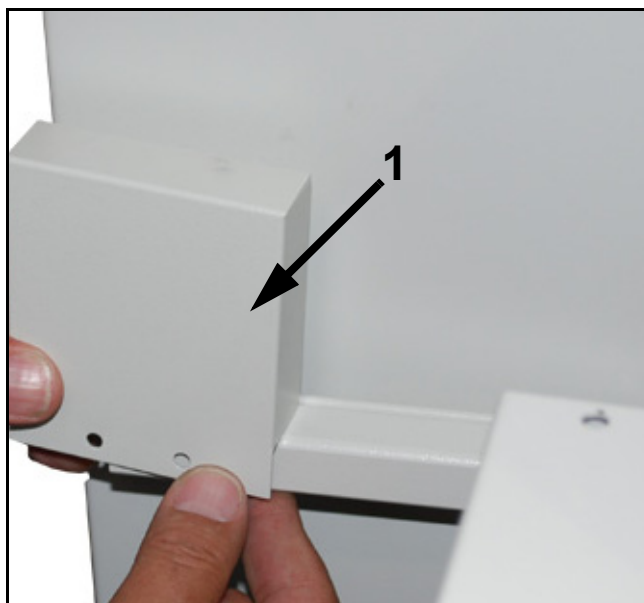


Figure 5-3. Wire Cover Removal

- 3 Disconnect the brake lock to the vertical lock connectors (1 in Figure 5-4).

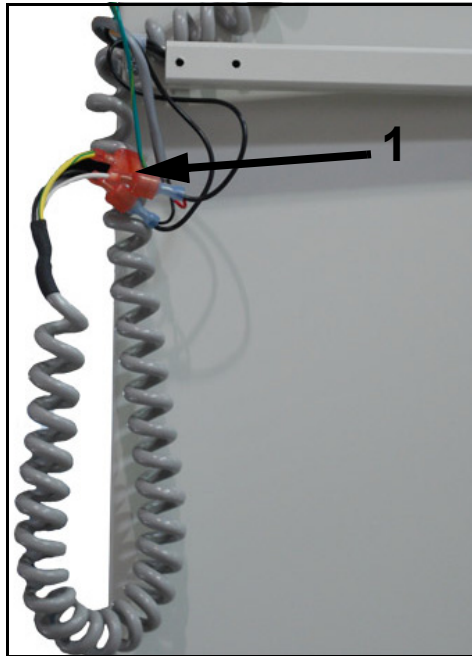


Figure 5-4. Vertical Lock Connectors

- 4 Unscrew the locking mechanism(1 in Figure 5-5) to the handle.

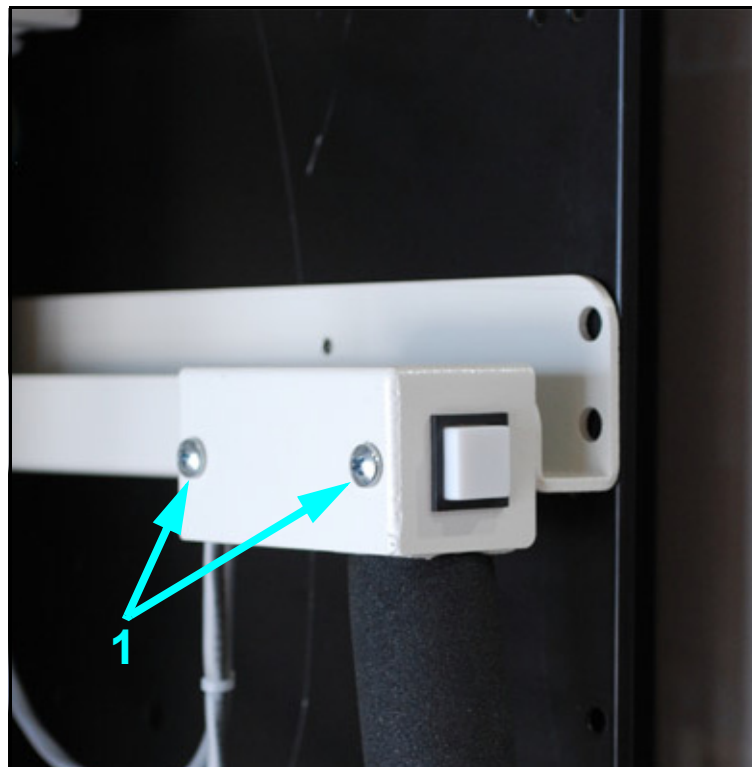


Figure 5-5. Locking Mechanism

- 5 Unscrew the brake handle (1 in Figure 5-6), remove the handle to the back of the bottom bucky bracket and put it aside.

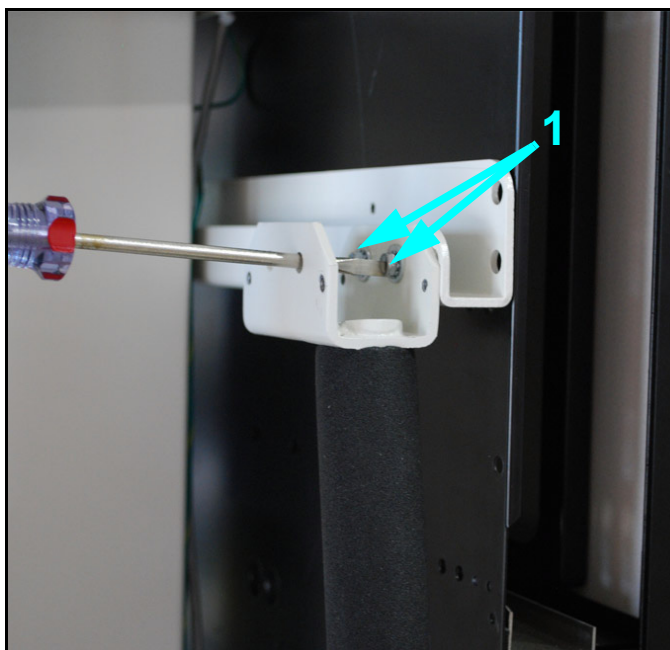


Figure 5-6. Brake Handle

- 6** Unfasten the 3 screws (1 in Figure 5-7) that hold the chin rest (2) in place.

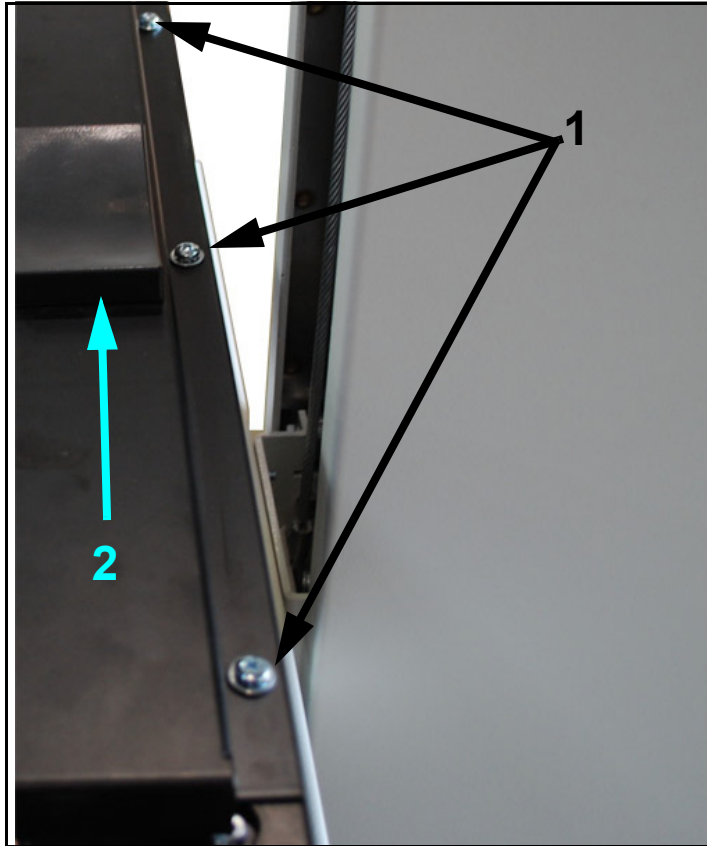


Figure 5-7. Upper Bracket Screws

- 7 Remove the five screws (1 in Figure 5-8) on the left face plate holder.

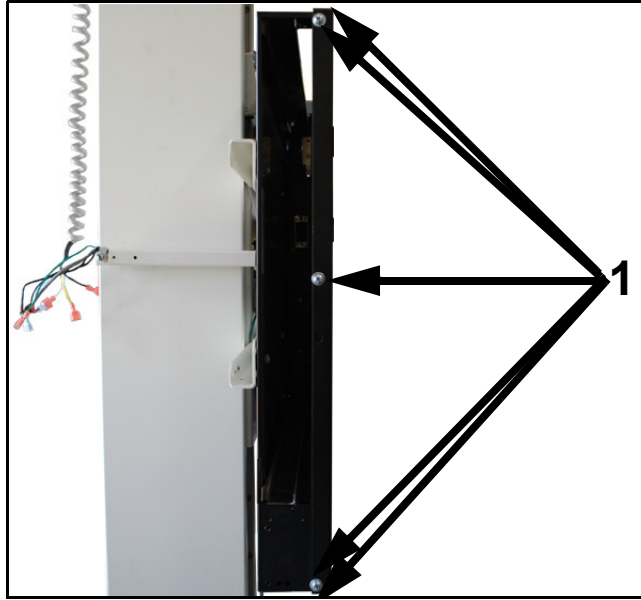


Figure 5-8. Left Face Plate Screws

- 8 Remove the five screws (1 in Figure 5-9) on the right face plate holder.

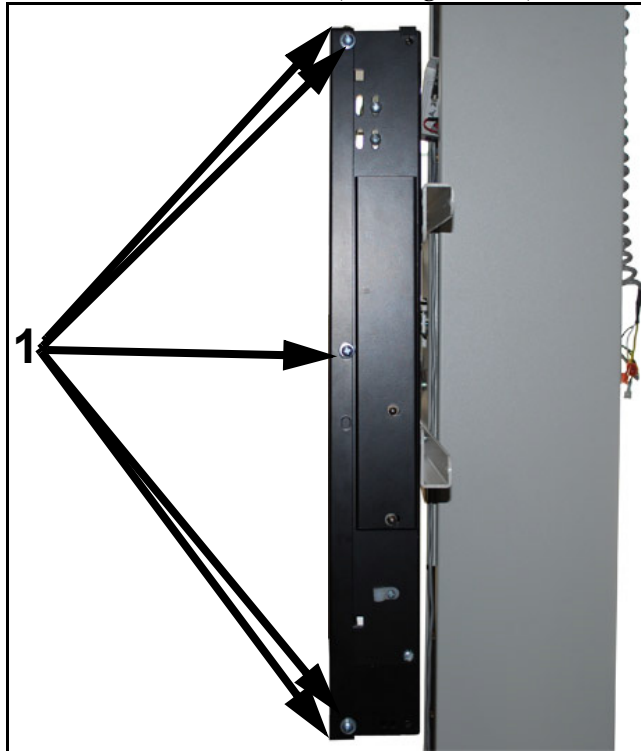


Figure 5-9. Right Face Plate Screws

- 9** Remove faceplate and put it to the side.

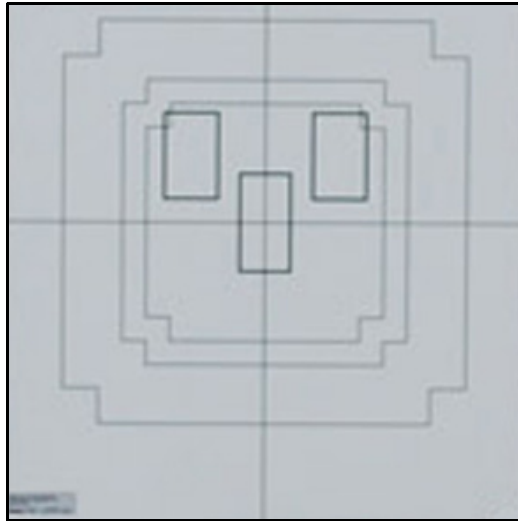


Figure 5-10. Faceplate

- 10** Unscrew the four screws (1 in Figure 5-11) on the bucky and move to the side.

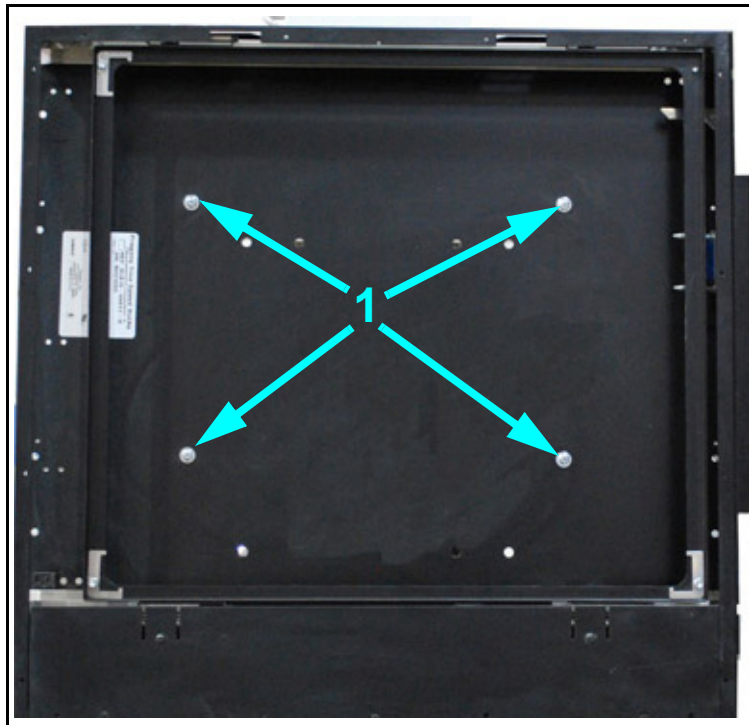


Figure 5-11. Remove bucky

- 11 Unscrew the two bolts and grounding screw (1 in Figure 5-12) and move the cable routing bracket (2) to the right.

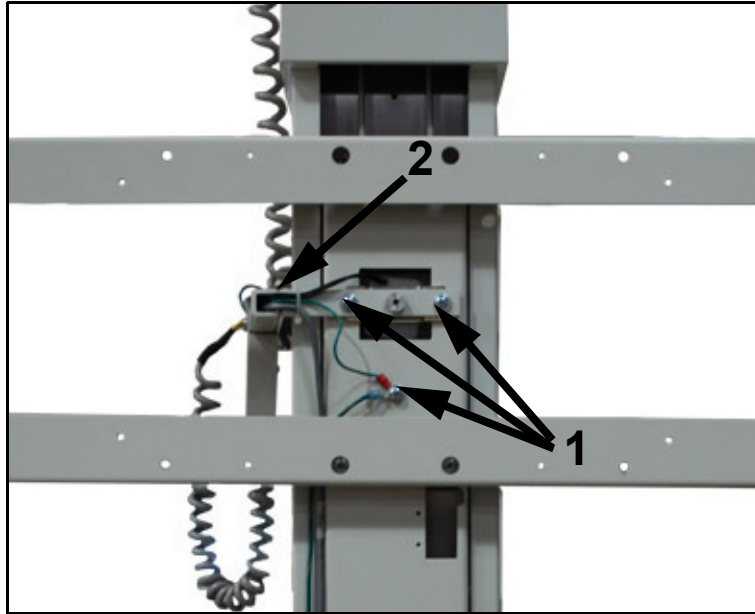


Figure 5-12. Cable Mounting Bracket

- 12 Re-tighten the bolts on the cable routing bracket (1 in Figure 5-13) after it is moved to the right.

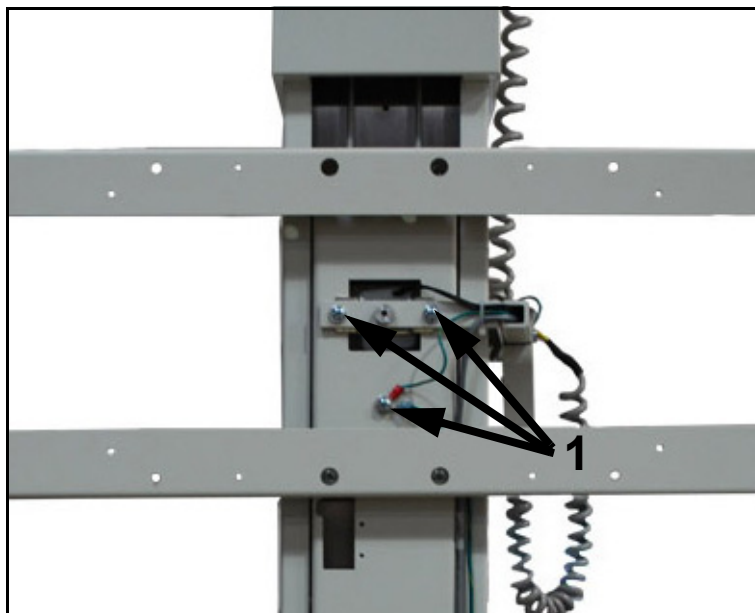


Figure 5-13. Moved Cable Mounting Bracket

- 13** After the cable mounting bracket has been moved to the other side, rescrew the four screws that hold the bucky to the brackets.

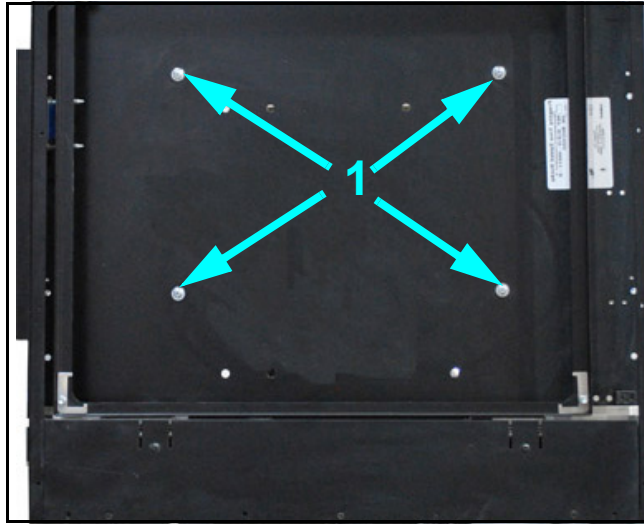


Figure 5-14. Reattach Bucky

- 14** Reattach the left face plate holder with the five screws (1 in Figure 5-15).

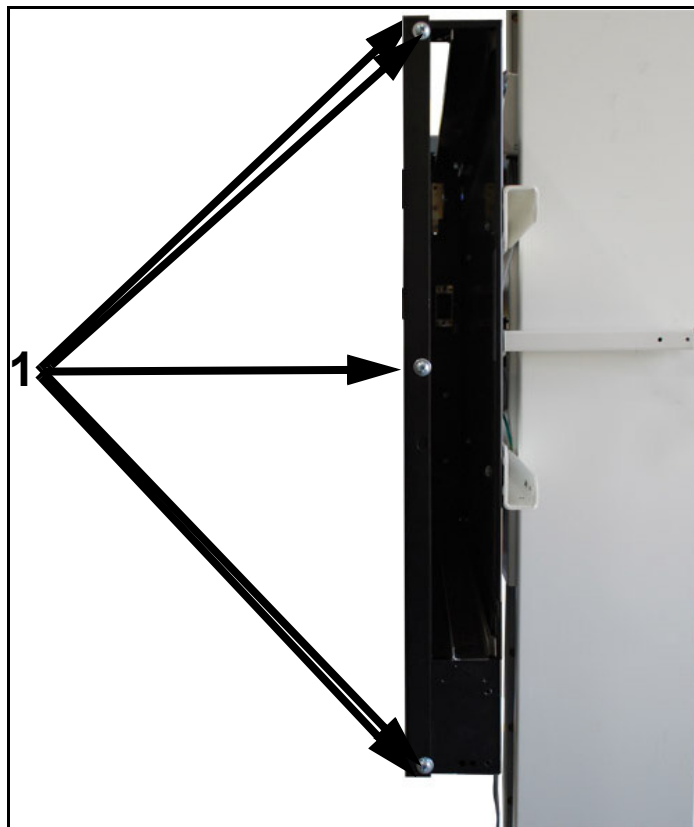


Figure 5-15. PBL Bracket Screws

- 15** Reattach the faceplate by placing the left side in the of the bracket.

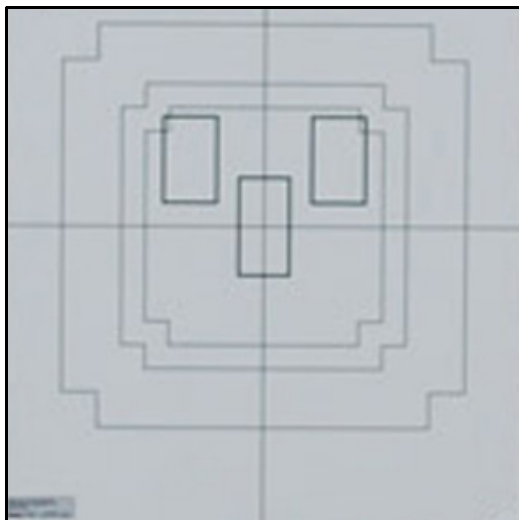


Figure 5-16. Faceplate

- 16** Reattach the right face plate holder with the five screws (1 in Figure 5-17).

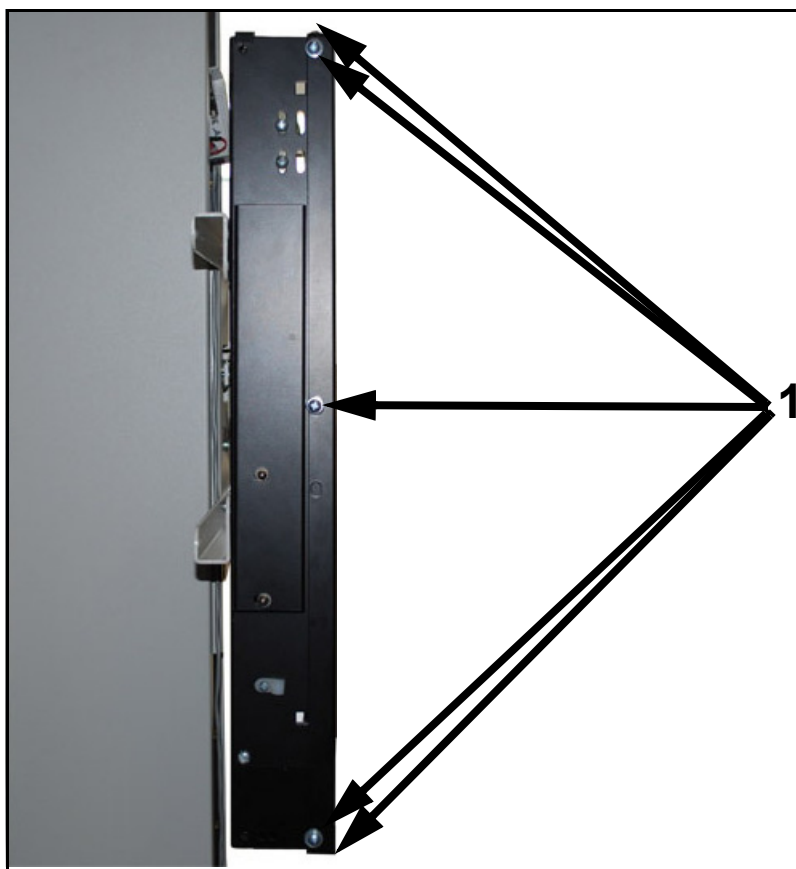


Figure 5-17. ION Chamber Cover Screws

- 17** Fasten the 3 screws (1 in Figure 5-18) that hold the chin rest (2) in place.

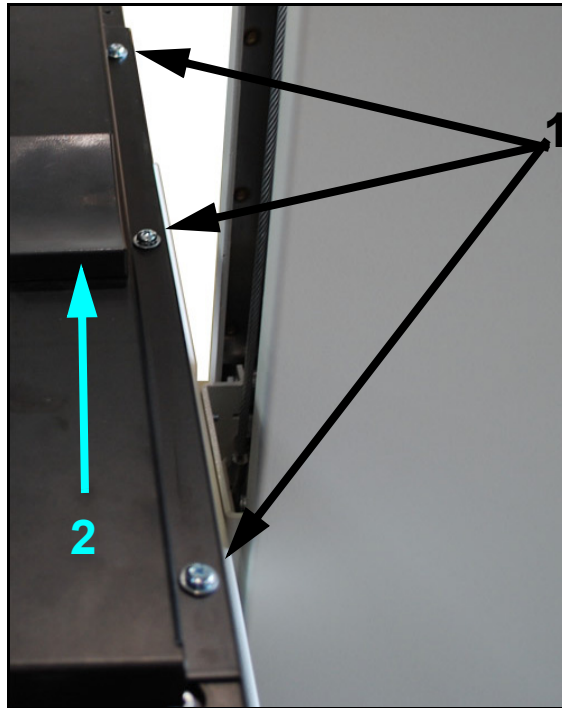


Figure 5-18. Upper Bracket Screws

- 18** Screw the brake handle (1 in Figure 5-19) to the right side of the back of the bottom bucky bracket and put it aside.

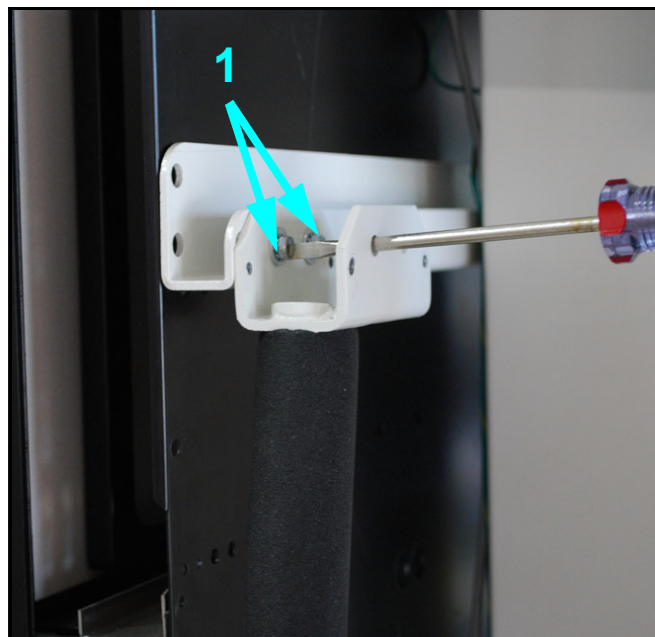


Figure 5-19. Brake Handle

- 19** Attach the brake lock to the brake handle (1 in Figure 5-20).

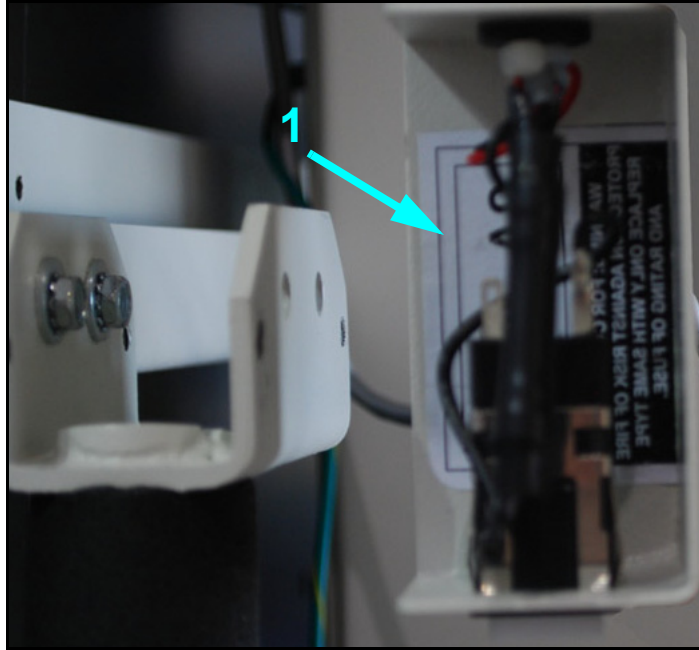


Figure 5-20. Brake Lock on Column

- 20** Attach the switch cover (1 in Figure 5-21) to the handle.

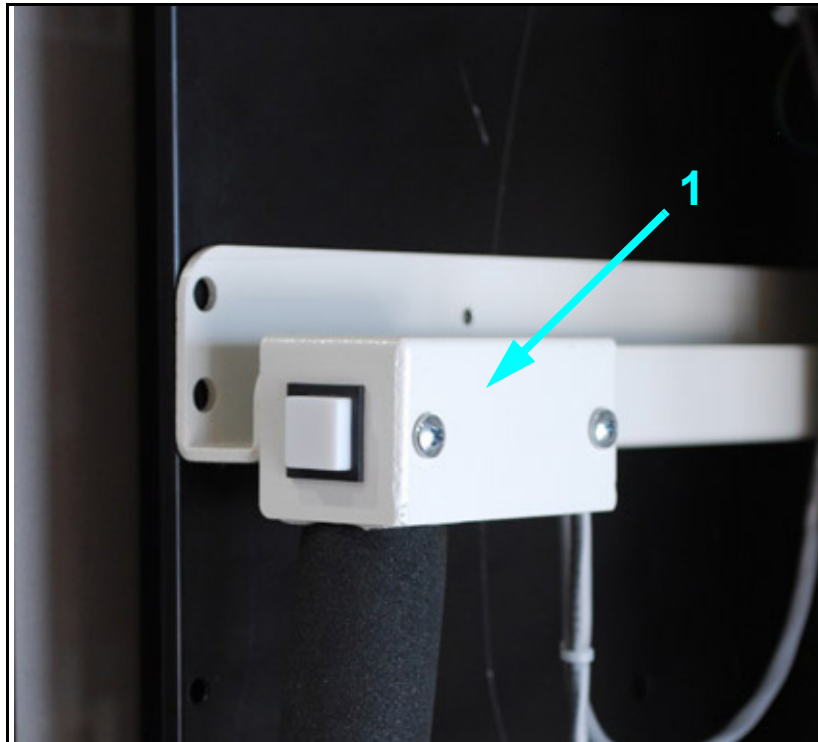


Figure 5-21. Switch Cover

- 21** Slide the cassette tray (1 in Figure 5-21) back into the bucky.

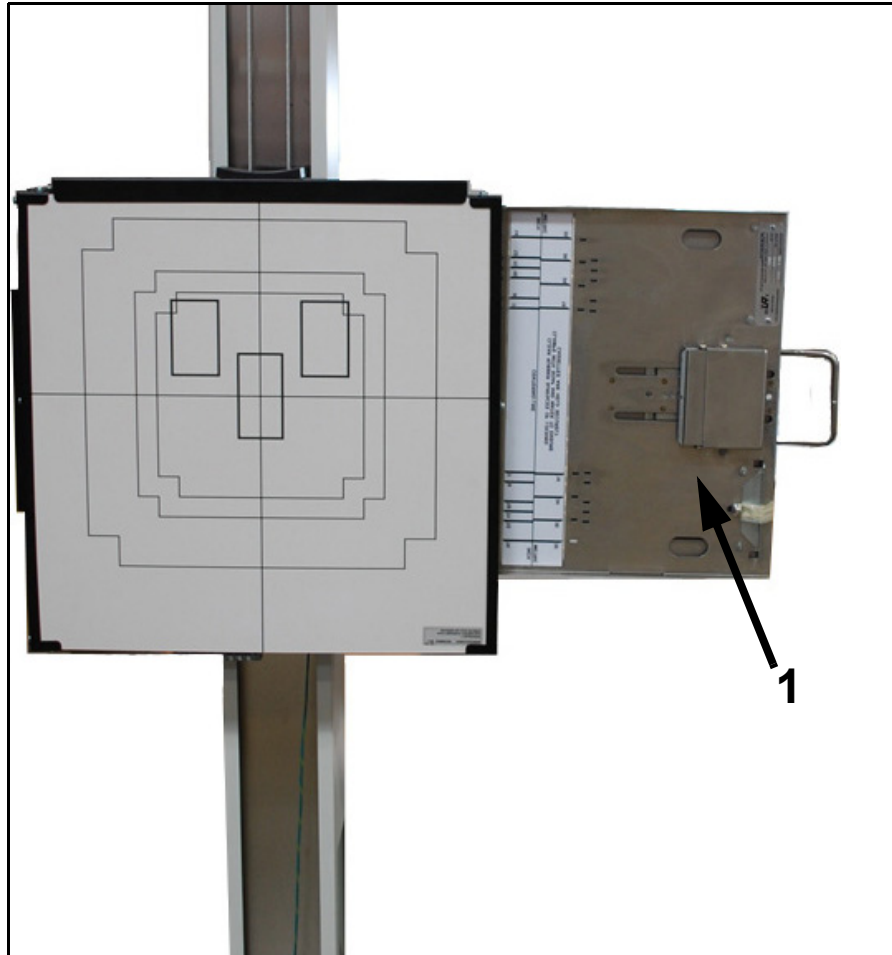


Figure 5-22. Locking Mechanism

Component Replacement

6

6.1 Introduction

This chapter provides instructions for replacing components on the wallstand.

6.2 Replacing Counterweight Cable

Tools Required

- Broom stick [min 4', (1.5 M)]
- Medium Phillips screwdriver
- Retaining ring pliers
- Rug or soft surface to lay wallstand down
- Set of nut drivers
- Set of open-end wrenches
- Work gloves



Warning

Turn off all electrical power to the wallstand and all its peripheral equipment (generator, tubestand, etc.) at the power sources before servicing the wallstand. Also, make sure that the power sources are locked out and tagged "Equipment Being Serviced" before servicing the wallstand. The components inside the wallstand have power sources outside the wallstand, which is why all peripheral equipment must be turned off; you could get seriously injured if you do not.

Because of the sturdiness of the cables in the column, it is unlikely that you would ever need to change the cables. However, if you ever need to change a cable, follow the instructions below.

- 1 Remove the wallstand's wall and floor mounting screws.
- 2 Carefully lay wallstand face down on a soft rug or other soft surface.
- 3 Unscrew the eight top cover screws (1 in Figure 6-1) and remove top cover (2).

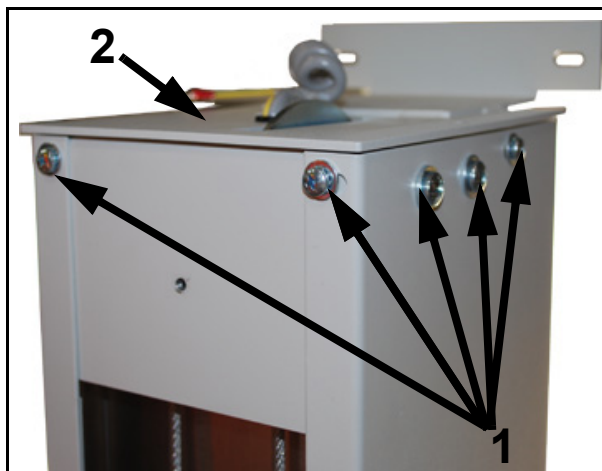


Figure 6-1. Top Cover Screws

- 4 Remove the top cover (1 in Figure 6-2).

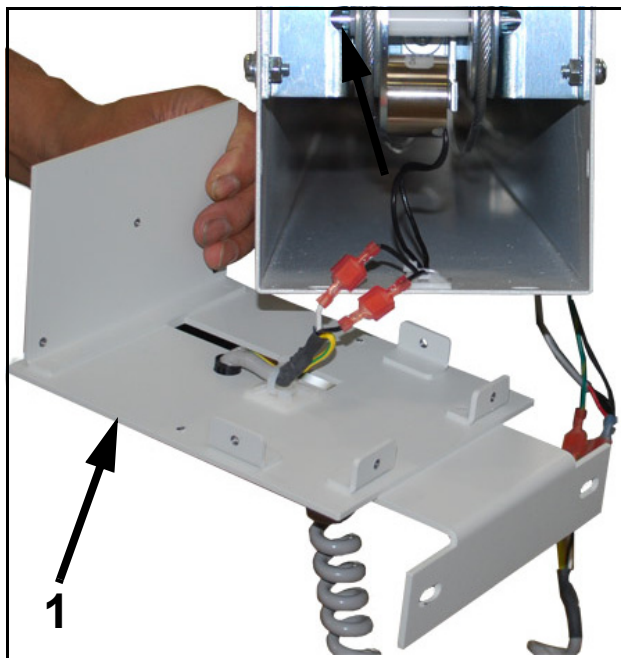


Figure 6-2. Top Cover

- 5 Remove the four panel screws and then remove panel door. Set them to the side for later use.

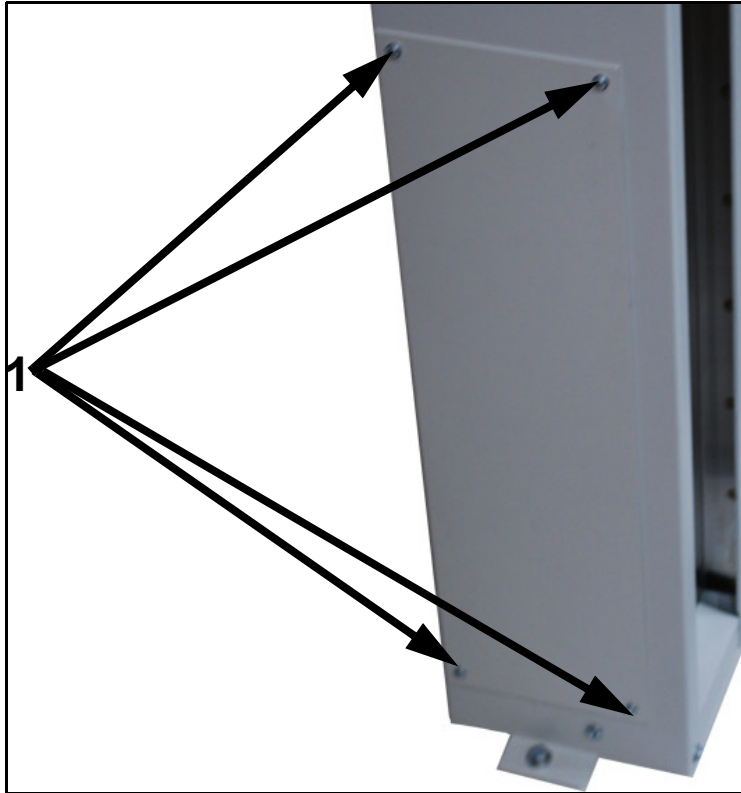


Figure 6-3. Column door

- 6 Remove the counterweight block from the column.

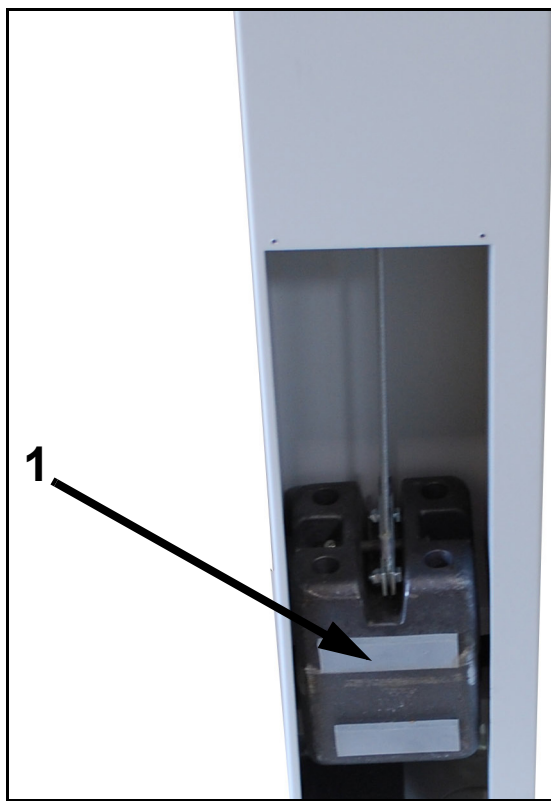


Figure 6-4. Counterweight block

- 7 Unscrew and remove the Clevis pin (1 in Figure 6-5) from the counterweight block.

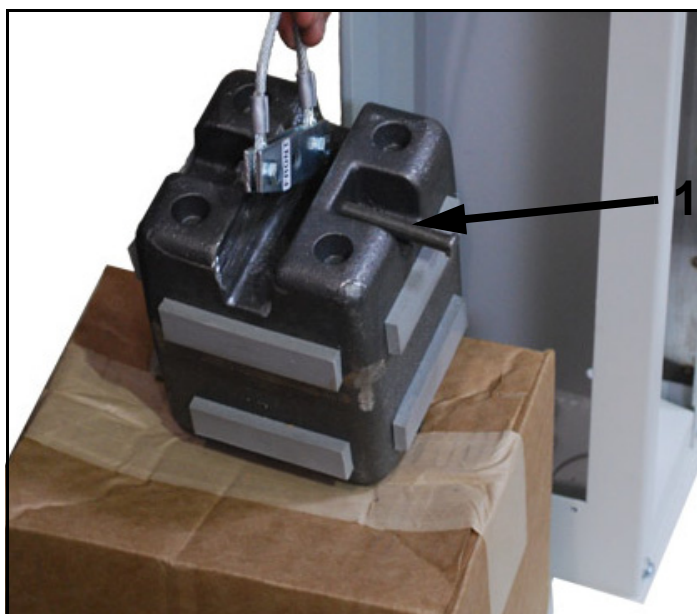


Figure 6-5. Clevis Pin

- 8 Discard old cable.
- 9 Connect new cable to the counterweight.

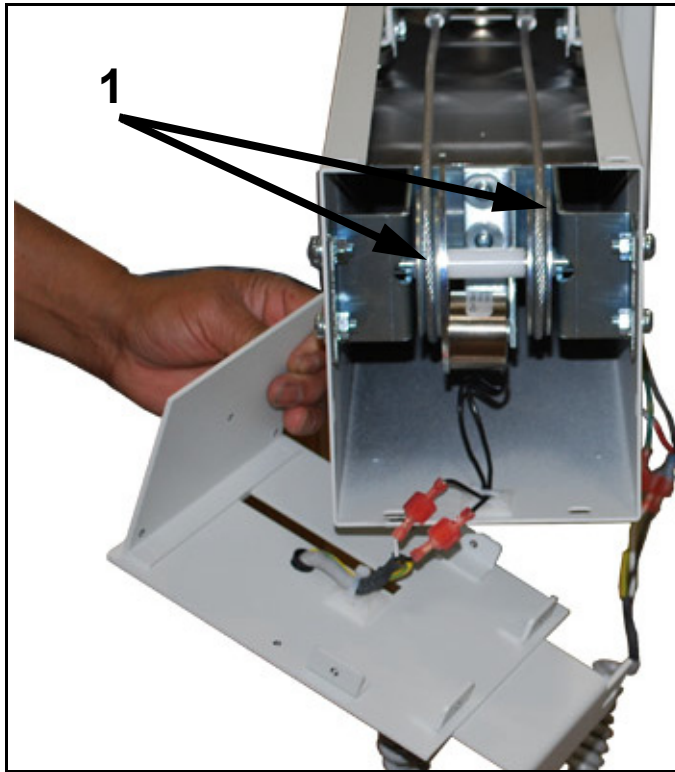


Figure 6-6. Counterweight Cables

- 10 Put on work gloves.



Caution

Wear work gloves when pulling cable. You may injure your hands on a frayed cable if you do not.

- 11 Push counterweight about 3' (1000 mm) back into column with a broom stick or similar tool.

- 12 Reverse steps to reassemble. Make sure that cable stays uncrossed and aligned with pulley. Also, make sure you insert cable between pulley and bracket *before* reinstalling pulley. There is not enough clearance to insert the cable when the pulley is installed.

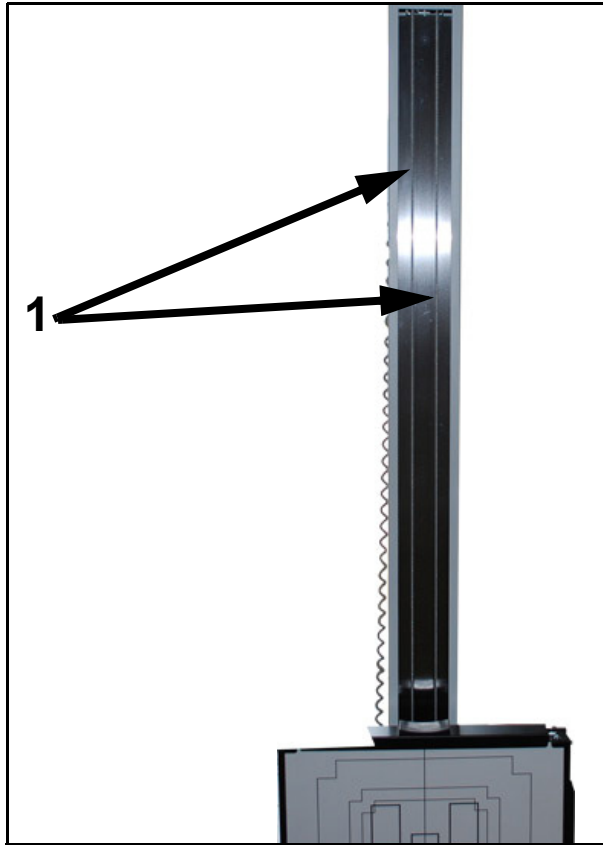


Figure 6-7. Counterweight Positioning (Typical)

6.3 Replacing Grid

Refer to the following instructions for information on how to replace the grid for the regular bucky. If the wallstand is equipped with one of the optional digital receptors with grid, refer to the corresponding documentation for instructions on how to replace the grid (if applicable).

Tools Required

- 11/32" nut driver
- Medium phillips head screwdriver

Replacing of grid for digital imaging receptors may require tools not listed here. See the digital receptor documentation for tools and materials not listed here.



Warning

Turn off all electrical power to wallstand and all its peripheral equipment (generator, tubestand, etc.) at power sources before servicing wallstand. Also, make sure that power sources are locked out and tagged "Equipment Being Serviced" before servicing wallstand. The components inside of wallstand have power sources outside the wallstand. That's why all peripheral equipment must be turned off. You could get seriously injured if you do not.

- 1 Unfasten the 3 screws (1 in Figure 6-9) that hold the chin rest (2) in place.

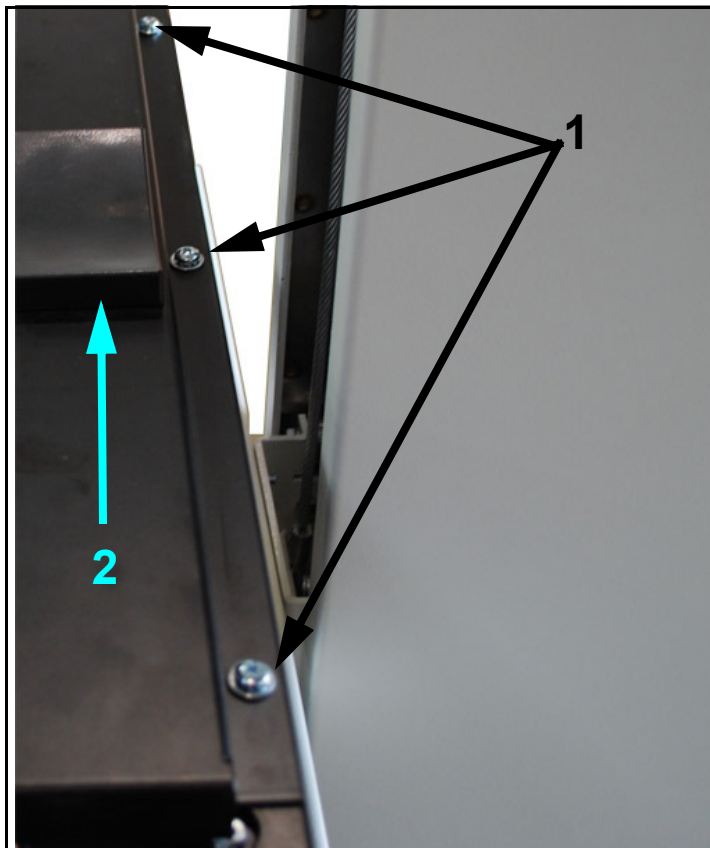


Figure 6-8. Upper Bracket Screws

- 2** Remove the five screws (1 in Figure 6-9) on the left face plate holder.

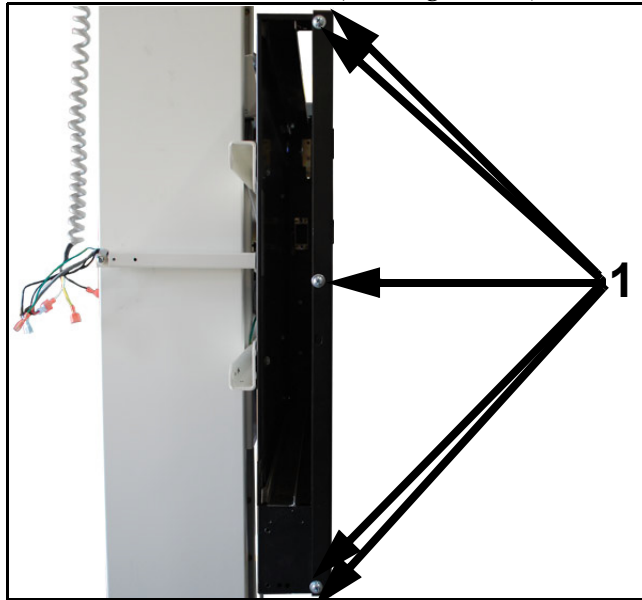


Figure 6-9. Top Cover Screws

- 3** Remove the five screws (1 in Figure 6-10) on the right face plate holder.

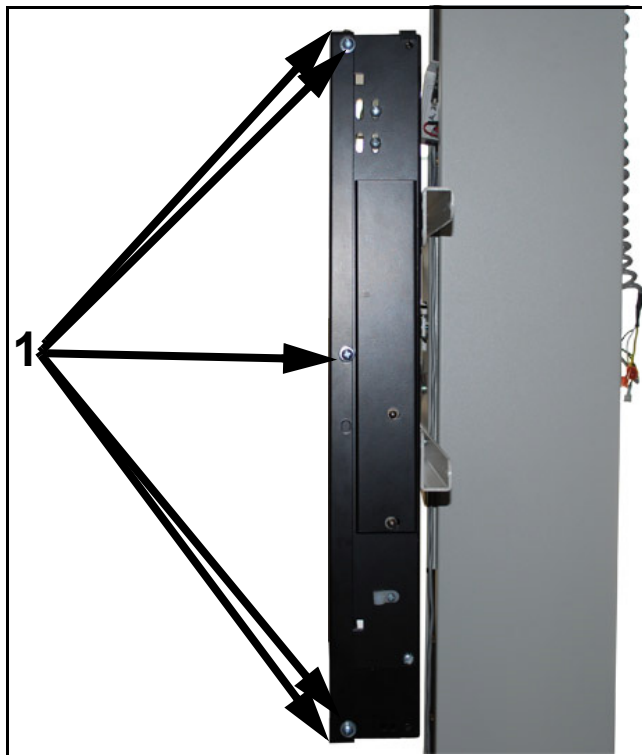


Figure 6-10. Top Cover Screws

- 4 Remove faceplate and put it to the side.

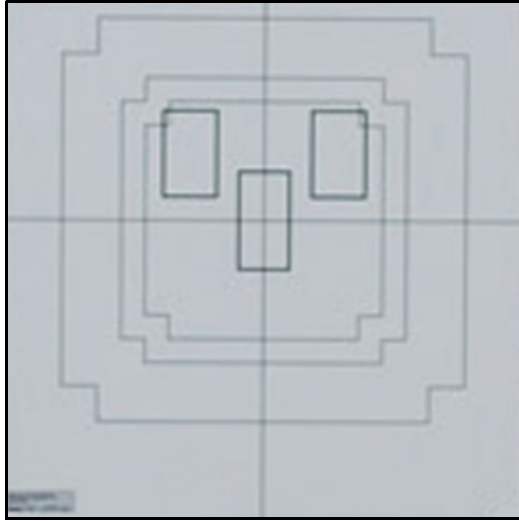


Figure 6-11. Faceplate

- 5 Unscrew grid clamp screws (1 in Figure 6-12) and remove clamps (2) and grid (3).
- 6 Reverse steps to reassemble. Be sure to orient new grid so that etched center line is vertical.

Note: Label on the grid "Tube Side" should be shown in front.

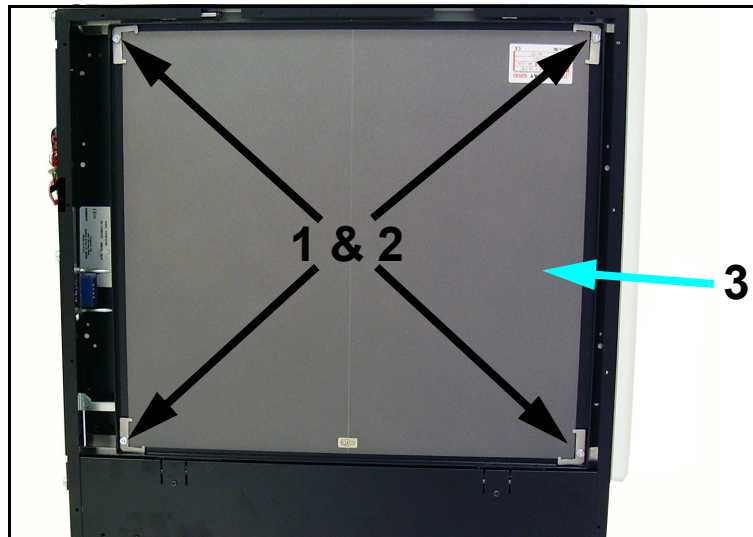


Figure 6-12. Grid

6.4 Replacing PBL Connector

Tools Required

- 11/32" nut driver
- Medium phillips head screwdriver
- Small flat-tip screwdriver



Warning

Turn off all electrical power to the wallstand and all its peripheral equipment (generator, tubestand, etc.) at the power sources before servicing the wallstand. Also, make sure that the power sources are locked out and tagged "Equipment Being Serviced" before servicing the wallstand. The components inside the wallstand have power sources outside the wallstand, which is why all peripheral equipment must be turned off; you could get seriously injured if you do not.

- 1 To remove the PBL connector, unscrew the top screw (1 in Figure 6-13), handle screws (2), bottom screw (3), and lift handle.



Figure 6-13. Bucky Terminal Strip

- 2 Unscrew the two screws on terminal strip cover on PBL Bracket (1 in Figure 6-14) and remove cover (2).

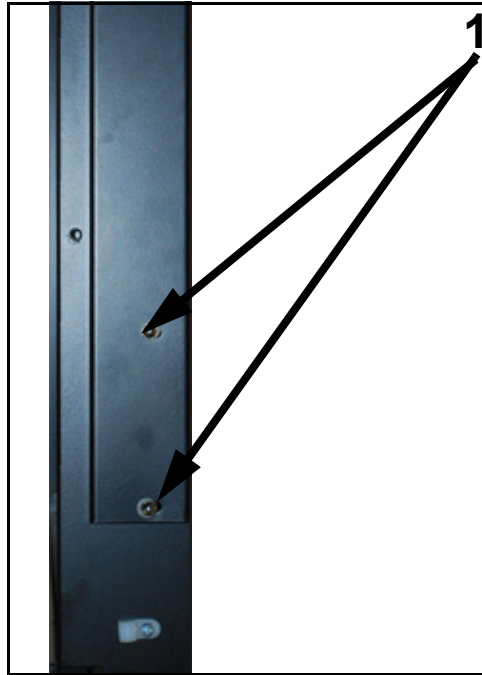


Figure 6-14. Top Cover Screws

- 3 Disconnect wires (1 in Figure 6-16) from the terminal (2).

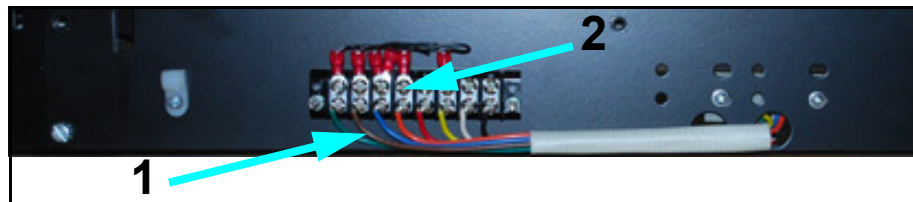


Figure 6-15. Terminal Wires

- 4 Pull connector and harness (1 in Figure 6-16) out of bracket (2).

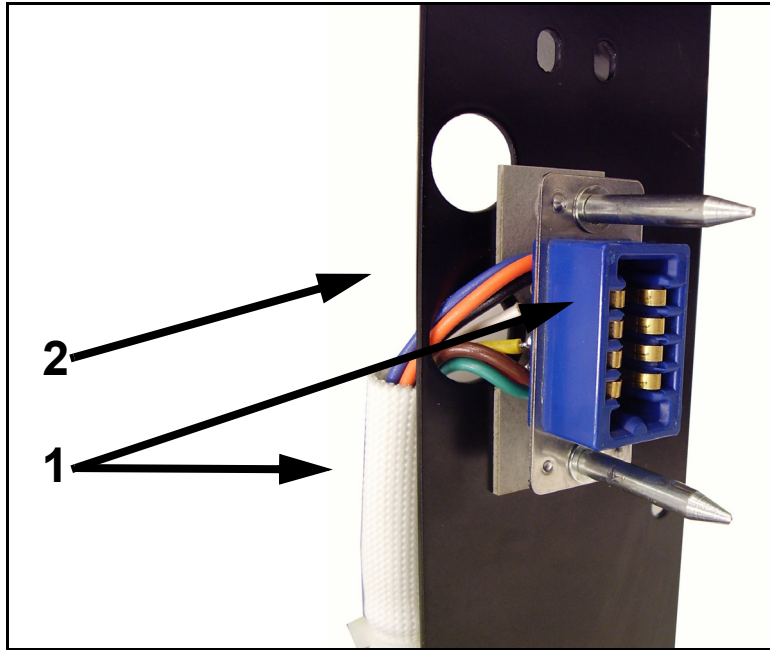


Figure 6-16. Harness

- 5 Reverse steps to reassemble. Use Figure 6-17 as a wiring guide.

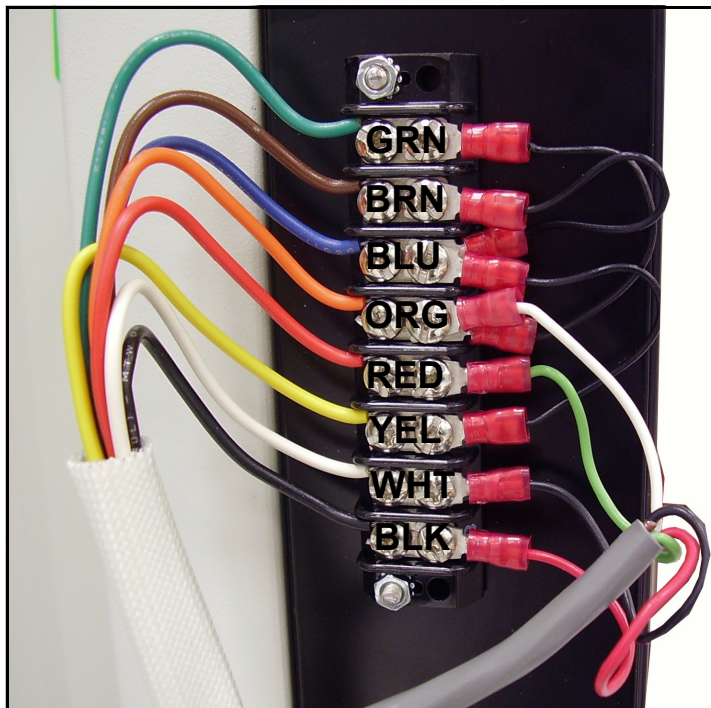


Figure 6-17. PBL Wiring Diagram

This page is intentionally left blank.

7.1 Introduction

This chapter is divided into two sections.

The first section is a group of troubleshooting charts that will guide you through most of the problems that may occur with the wallstand.

The second section is made up of an overall schematic of the wallstand and a group of illustrations and photos that show the actual parts depicted on the schematic and their location on the wallstand.

7.2 Troubleshooting Index & Charts

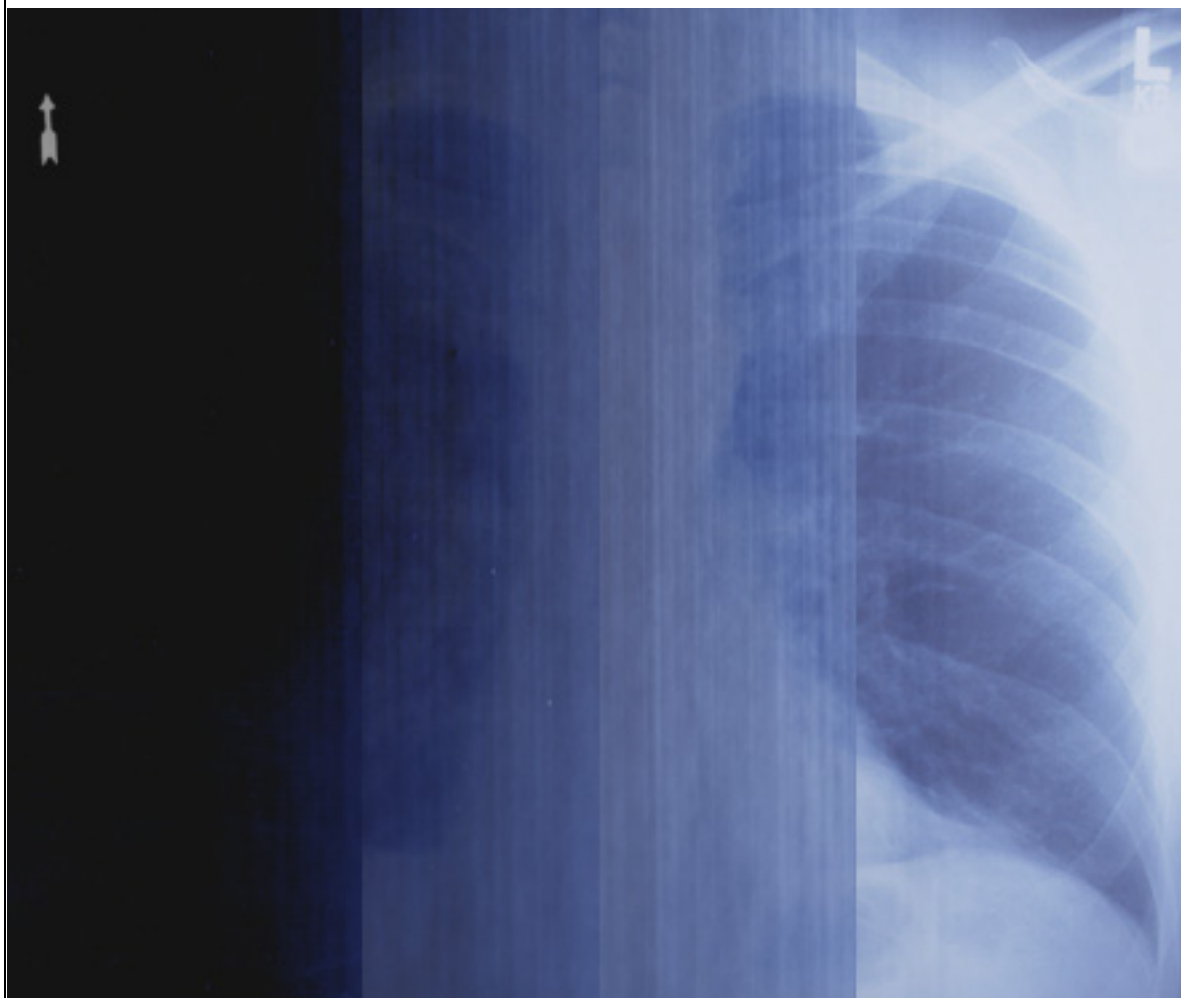
Use the following troubleshooting index and troubleshooting charts as an aid in solving your wallstand's malfunction.

For troubleshooting on optional digital receptor, refer to troubleshooting section in the digital receptor documentation.

Problem	Refer to Page:
Brake does not hold well or at all.	7-2
Up and down movement of cassette holder is difficult.	7-3
Cannot fully remove cassette tray.	7-3
Dark bands on film.	7-3
Bucky does not work.	7-4
Cassette size sensing does not work.	7-5
Exposure very light, very dark or intermittently poor.	7-6

Problem	Possible Cause	Remedy
Brake does not hold well or at all.	Loss of 24 VDC Power	Check voltage. It should be 24 VDC. Check Switch.
Up and down movement of cassette hold is difficult.	Bearing tracks inside of column are dirty or blocked by obstruction. Counterweight cable is frayed.	Inspect and clean tracks. Inspect cable according to Section "Checking Counterweight Cables" on page 4-3. If necessary, replace cable according to Section "Replacing Counterweight Cable" on page 6-2.
Cannot fully remove cassette.	Cassette restricted by safety latch.	Completely remove cassette according to Section "Completely Removing the Cassette Tray" on page 3-8.

Problem	Possible Cause	Remedy
Darks bands on film after exposure.	Wallstand is not aligned perpendicularly to x-ray source. Grid is bad.	Make sure that wallstand is aligned properly according to Chapter 2 - Installation Instructions. Replace grid according to Section "Replacing Grid" on page 6-9.



Exposure Bands

Problem	Possible Cause	Remedy
Bucky does not work.	Bucky fuse is blown.	Check and, if necessary, replace fuse.
	Bucky cable is bad or not connected securely.	Make sure that bucky cable is securely connected to wallstand and generator. Check for voltage presence at bucky terminals and ground. Refer to Figure 7-3 on page 7-8. If necessary, replace cable.
	Other	Consult the bucky manual for further troubleshooting instructions.
Cassette size sensing does not work.	Cassette is not fully inserted into holder/tray.	Make sure cassette is fully inserted into the cassette tray.
	Collimator not properly calibrated.	Make sure that collimator is calibrated according to its manual.
	PBL cable is bad or not connected securely.	Make sure that PBL cable is securely connected to wallstand and generator.
	PBL connector is bad.	Make sure that cassette is fully inserted into wallstand. Then, disconnect PBL cable from wall stand. Then on PBL cable to wallstand, test for and open circuit across the following wires: BLK - WHT RED - WHT GRN - WHT If an open circuit is found, replace connector on PBL bracket according to Section "Replacing PBL Connector" on page 6-13.
	Cassette is bad.	Replace cassette.

Problem	Possible Cause	Remedy
Exposure very light, very dark or intermittently poor.	Technique not set up correctly.	Make sure that technique is setup correctly and that proper AEC field is selected.
	ION chamber cable is not connected securely.	Make sure that Ion chamber cable is securely connected to wallstand and generator.
	Ion chamber not properly adjusted.	Check for proper voltages at the ION chamber. Refer to the Ion chamber manual. Also make sure that field selection on control panel matches field actuation on chamber. If it doesn't, reconfigure the switches on the Ion chamber board according to the Ion Chamber manual. If voltage is absent, check the cables between the generator and the ION chamber for continuity. The pin numbers on each end of each cable match. Jump two pins on the female end of each cable and test corresponding pins on the other end to check continuity.
		Troubleshoot according to the generator manual.

7.3.1 Ion Chamber Connections

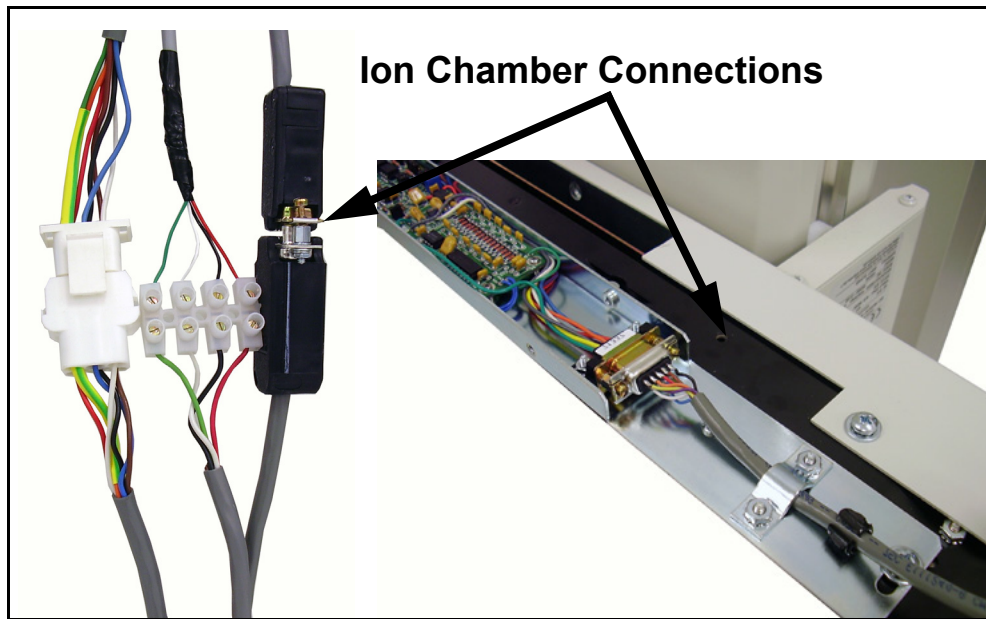


Figure 7-2. Ion Chamber Connections

Pin #	Color	Function
1	BLK	None
2	BRN	Field 2 Select
3	RED	Field 1 Select
4	ORG	Reset
5	YEL	Output
6	GRN	Field 3 Select
7	BLU	Negative Supply
8	VIO	Positive Supply
9	WHT	Ground

Table 7-1: Pin Definitions

7.3.2 Bucky Connections

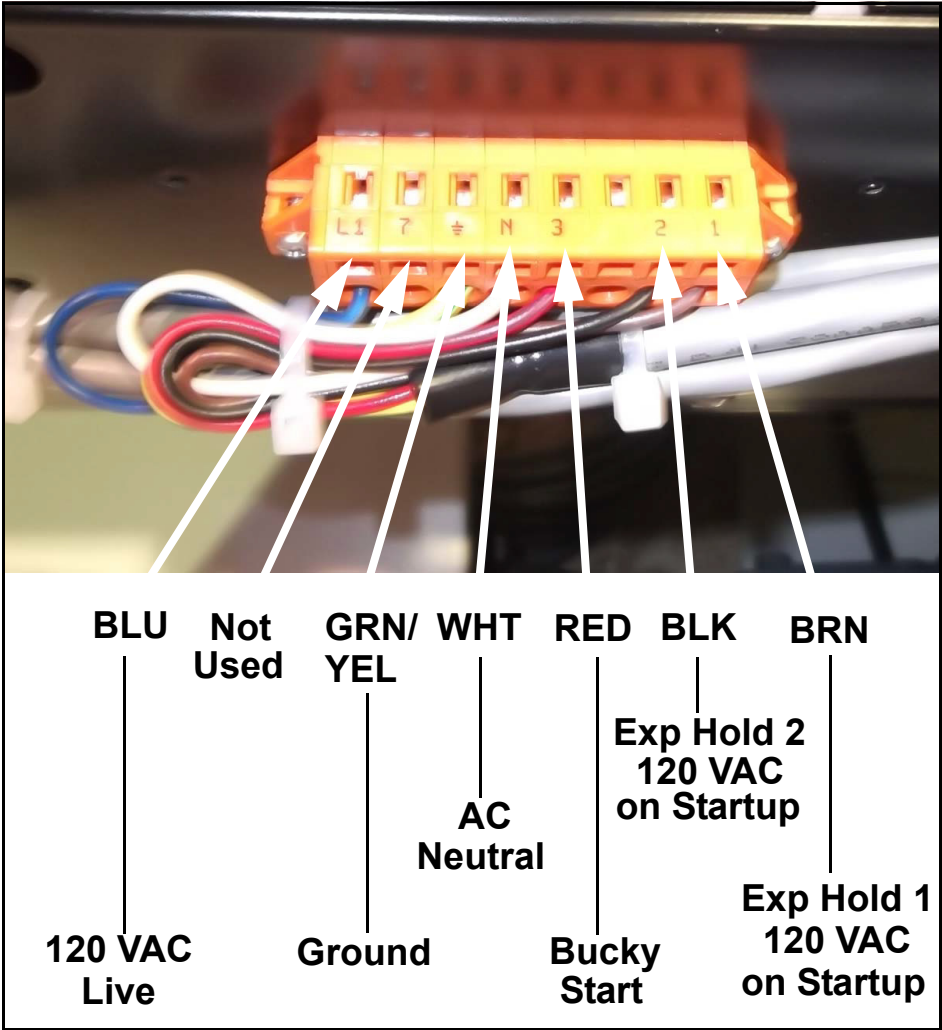
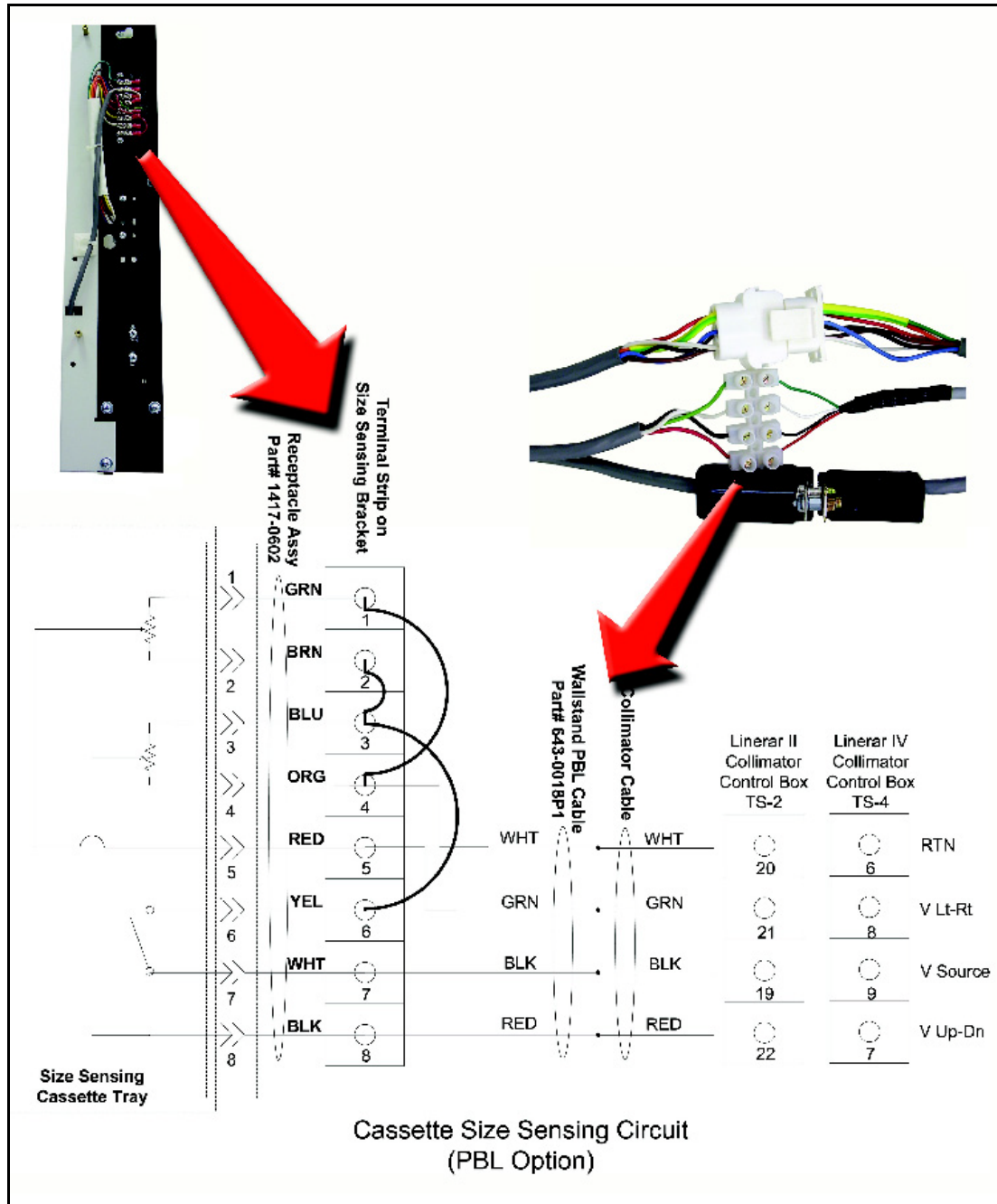


Figure 7-3. Bucky Connections

7.3.3 Cassette Size Sensing Circuit



This page is intentionally left blank.

Diagrams & Electrical Schematics

8

8.1 Electrical Schematics

This chapter contains the electrical diagrams and schematics for the wallstand.

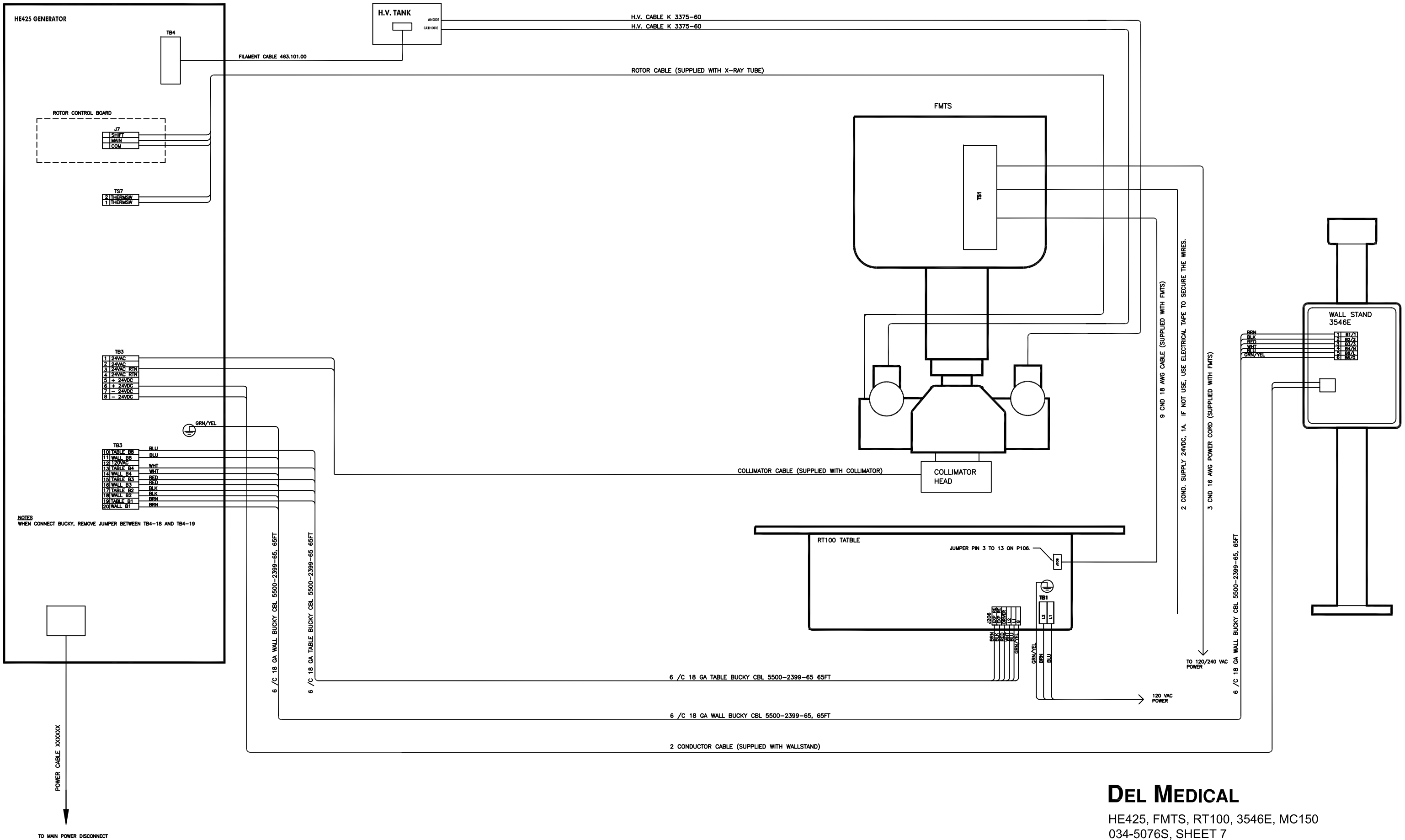
Drawing Number	Drawing Description	# Sheets	Current Rev. Level
034-5076	Interconnect Diagrams for the 3546E Wallstand and various tables and tubestands.	7, 11, 12	See Table 8-2 on page 8-2
034-5077	Interconnect Diagrams for the 3546E Wallstand and various tables and tubestands.	2, 5, 12, 23, 24	See Table 8-2 on page 8-2
-	Progeny Bucky Connection Diagram 120/240 V Models	1	B
10-108000	Progeny Bucky Control Assy. Drawing	2	F

Table 8-1: List of Diagrams and Schematics

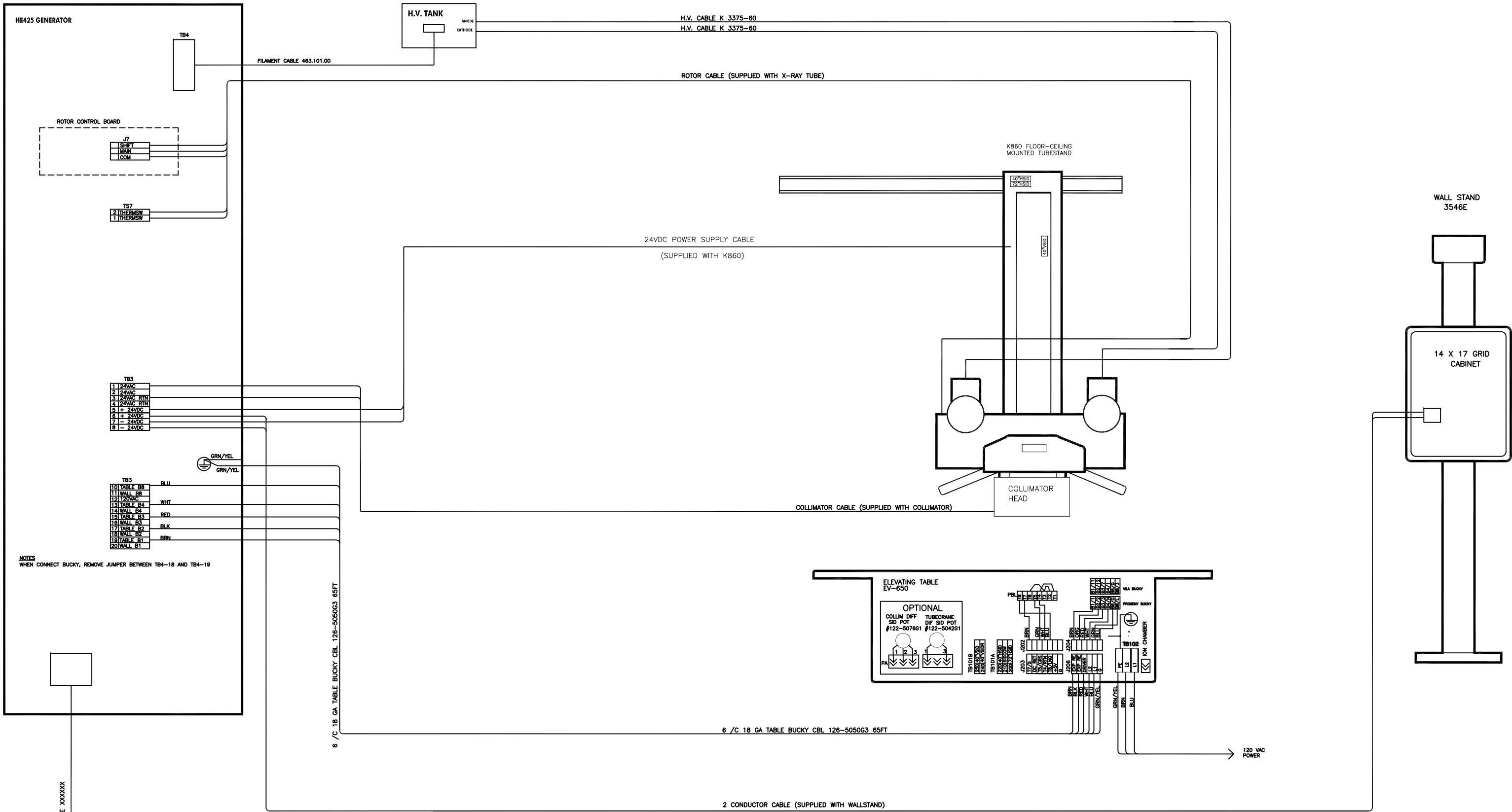
8.2 Configuration - Schematic Match Table

Generator Model	Tube Stand/ Crane Model	Collimator Model	Wall Stand Model	Refer to Drawing #	Current Rev. Level
Anthem	K860 Floor-Ceiling Mounted Tubes- tand	Eureka Linear II	3546E		0
CM Series	DFMT Tubestand	Eureka Linear IV	3546E	034-5076S2	3
Anthem	DFTS Tubestand	Eureka MC 150	3546E		0
Sedecal	K860 Floor-Ceiling Mounted Tubes- tand	MC series	3546E	034-5076S8	1
CM Series	FMTS Tubestand	Eureka Linear II	3546E	034-5076S9	1
CM Series	OTC-12	Ralco M	3546E		0
CM Series	OTC-12	Ralco Auto	3546E		0
CM Series	OTC-12	Ralco Auto	3546E		0
IN Series	OTC-12	Ralco M	3546E		0
IN Series	OTC-12	Ralco Auto	3546E		0
IN Series	3D Top CTM	Siemens	3546E	034-5077S14	3
Anthem	OTC-12	Eureka MC 150	3546E		0
IN Series	OTC-12	Eureka Linear II	3546E	034-5077S17	3
CM Series	OTC-12	Ralco Auto	3546E		0
CM Series	FMTS Tubestand	Eureka Linear IV	3546E	034-5076S19	0
IN Series	OTC-12	Ralco Auto	3546E		0
IN Series	OTC-12	Ralco M	3546E		0

Table 8-2: Configuration - Schematic Match Table



DEL MEDICAL
HE425, FMTS, RT100, 3546E, MC150
034-5076S, SHEET 7
REVISION: 2, ECN 8003 10-29-07



DEL MEDICAL
HE425, EV650, K860, 3546E, MC150
034-5076S, SHT. 11
REVISION 1, ECN 8003 - 10-29-07

APX 525/625/DXR-30
X-RAY GENERATOR

H.V. TANK

CATHODE
ANODE

H.V. CABLE K 3375-60
H.V. CABLE K 3375-60

ROTOR CABLE (SUPPLIED WITH X-RAY TUBE)

INTERFACE TABLE			
ROTOR CABLE	GENERATOR	CONNECT TO TOSHIBA TUBE	CONNECT TO VARIAN TUBE.
BLK	COM	TS1-1	WHT LEAD
RED	MAIN	TS1-2	BLK LEAD
ORG	PHASE	TS1-3	RED LEAD
YEL	THERMAL SWITCH	TS1-5	QC TERM.
BLU	THERMAL SWITCH	TS1-6	QC TERM.
BRN	GROUND	GND	GND
SHIELD	---	GND	GND

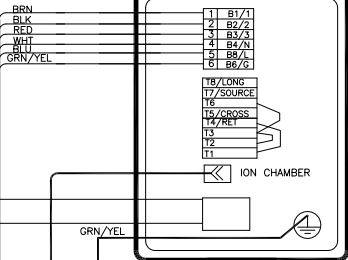
24 VAC
TS1
TS1-10
TS1-7
TS1-11
TS1-12

COLLIMATOR CABLE (SUPPLIED WITH COLLIMATOR)

COLLIMATOR HEAD
(MANUAL COL)

TO 120/240 VAC
POWER

WALL STAND
3546E



6 /C 18 GA WALL BUCKY CBL 5500-2399-65, 65FT

9 CND SHLD ION CHAMBER CABLE 75035-45

#14 GREEN/YELLOW WIRE 122-5075G1 (FROM WALLSTAND)

120 VAC
POWER

6 /C 18 GA TABLE BUCKY CBL 126-5050G3 65FT

9 CND SHLD ION CHAMBER CABLE 75035-45

6 /C 18 GA WALL BUCKY CBL 5500-2399-65, 65FT

9 CND SHLD ION CHAMBER CABLE 75035-45

9 CND SHLD ION CHAMBER CABLE 75035-45

9 CND SHLD ION CHAMBER CABLE 75035-45

6/C 18 GA WALL BUCKY CBL 5500-2399-65, 65FT

6/C 18 GA TABLE BUCKY CBL 126-5050G3 65FT

126-5178G1 45 FT

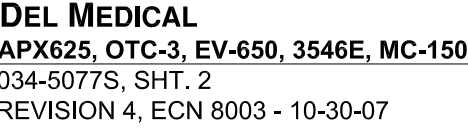
126-5174G1 45FT

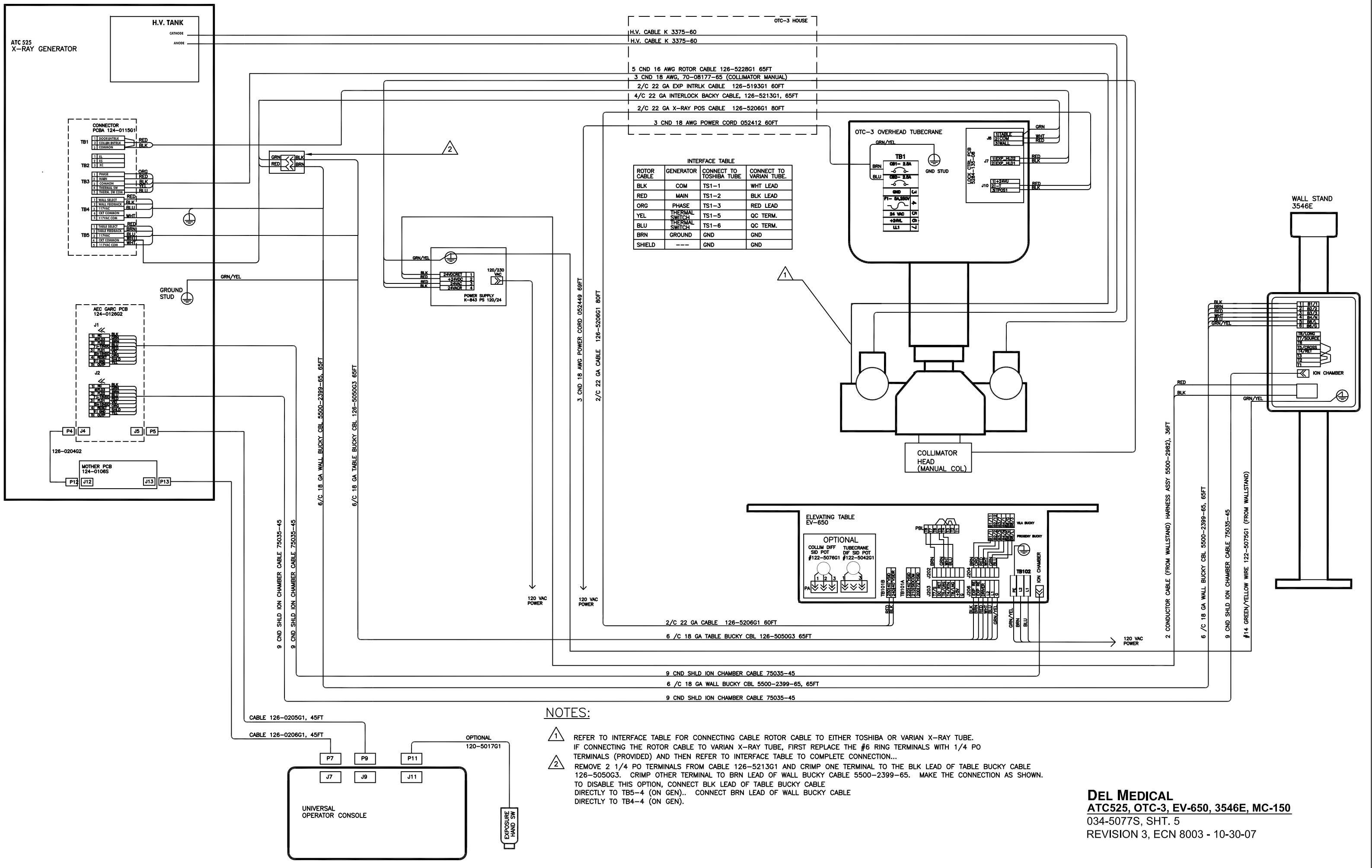
OPTIONAL
120-5017G1

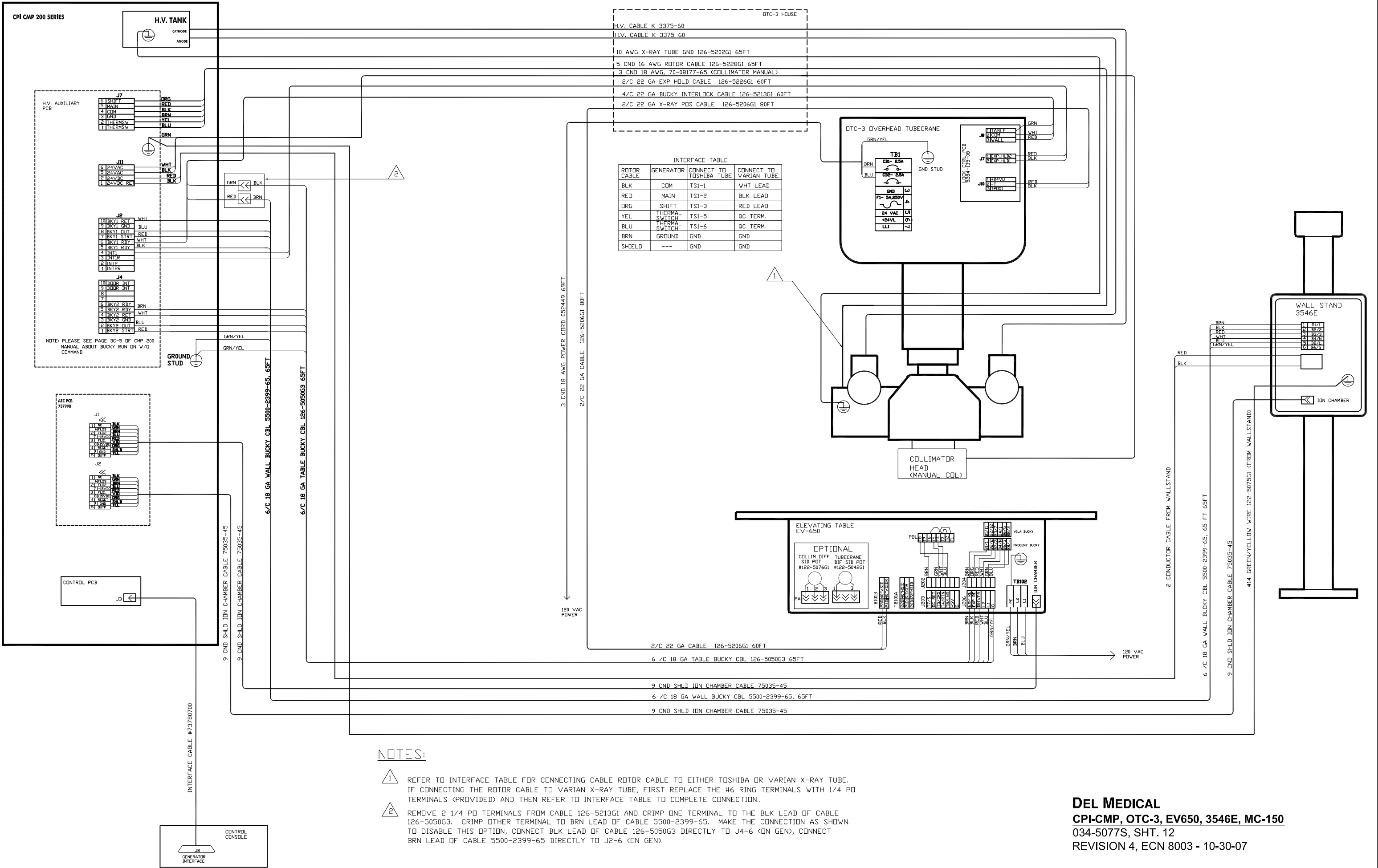
UNIVERSAL
OPERATOR CONSOLE

EXPOSURE
HAND SW

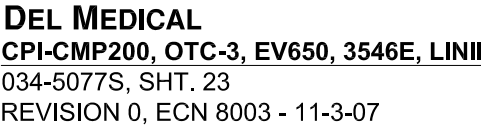
DEL MEDICAL
APX625-FMTS-EV650-3546E-MC150
034-5076S, SHT. 12
REVISION 1, ECN 8003 - 10-29-07







DEL MEDICAL
CPI-CMP, OTC-3, EV650, 3546E, MC-150
034-5077S, SHT. 12
REVISION 4, ECN 8003 - 10-30-07



APX 525/625/DXR-30
X-RAY GENERATOR

H.V. TANK

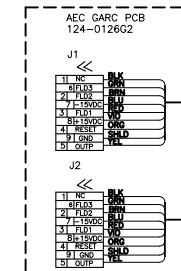
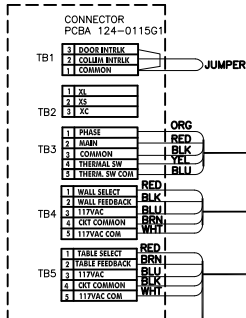
CATHODE

ANODE

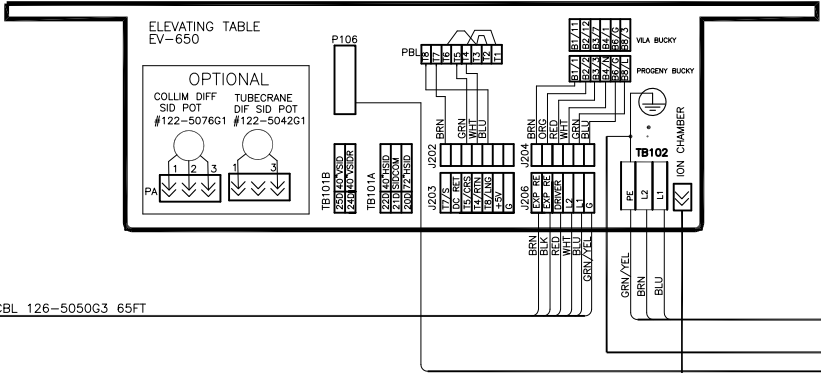
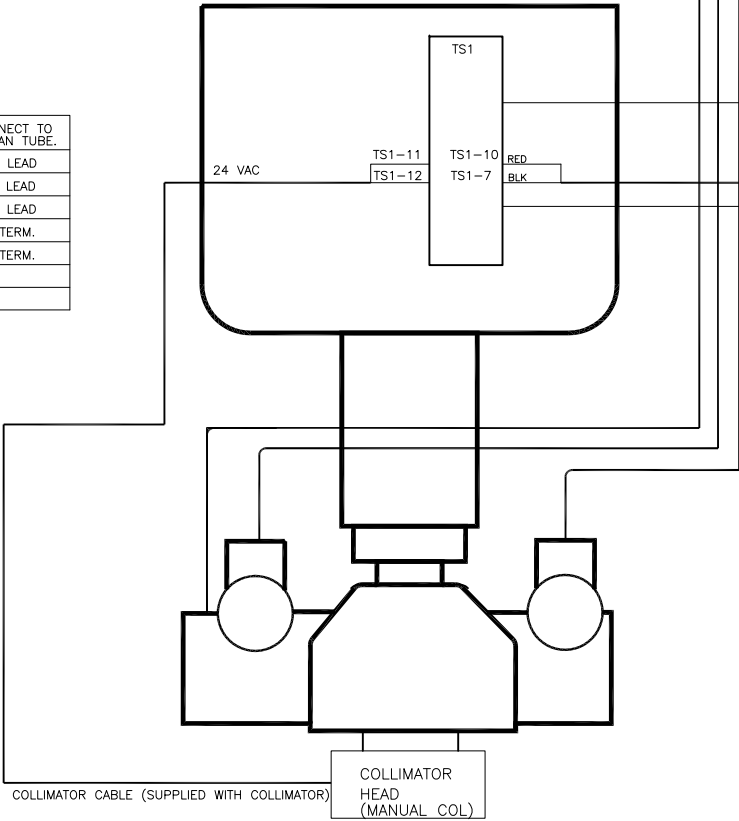
H.V. CABLE K 3375-60

H.V. CABLE K 3375-60

ROTOR CABLE (SUPPLIED WITH X-RAY TUBE)



ROTOR CABLE	GENERATOR	CONNECT TO TOSHIBA TUBE	CONNECT TO VARIAN TUBE.
BLK	COM	TS1-1	WHT LEAD
RED	MAIN	TS1-2	BLK LEAD
ORG	PHASE	TS1-3	RED LEAD
YEL	THERMAL SWITCH	TS1-5	QC TERM.
BLU	THERMAL SWITCH	TS1-6	QC TERM.
BRN	GROUND	GND	GND
SHIELD	---	GND	GND



9.1 Ordering Parts

9.1.1 To Order

For your convenience, replacement parts and accessories can be ordered from Del Medical Inc. 24 hours a day. Please have the following information available to ensure quick, easy, and accurate service.

- Your name and telephone number
- Your P.O. (Purchase Order) number
- Your preferred method of delivery
- The part number and quantity of all items required
- If you need additional assistance, please call Del Medical Inc. at 1-800-800-6006 and speak to one of our Customer Service Representatives. Telephone hours are 8:00 a.m. to 5:00 p.m., Monday through Friday (Central Standard or Daylight Time).

9.1.2 To Order by Telephone

Call Del Medical Inc. at 1-800-800-6006 and speak to one of our Customer Service Representatives. Telephone hours are 8:00 a.m. to 5:00 p.m., Monday through Friday (Central Standard or Daylight Time).

9.1.3 To Order by Fax

Fax your order to Del Medical Inc. at 1-800-288-7011. Fax orders can be sent 24 hours a day, 7 days a week.

9.1.4 To Order by Email

Email your order to Del Medical Inc. at orders@delmedical.com. Email orders can be sent 24 hours a day, 7 days a week.

9.2 How to Use This Parts List

9.2.1 General Part Numbers

This chapter contains all part numbers necessary to order wallstand replacement parts and assemblies.

This illustrated parts breakdown is presented in disassembled order. Detail parts are shown below their respective upper level assemblies whenever possible.

The parts lists follow the illustration for a particular assembly and represent components of that assembly. The number listed in the quantity column is the number of the specific part required to complete the assembly and may not reflect the quantity needed for the entire system.

The lists are divided into four columns. The figure reference numbers refer to the identification number located on the drawing. The part number is the Del Medical part number, which is used to identify the part for ordering. The part description column lists each part name, and the quantity column lists the quantity of that part used in that particular assembly.

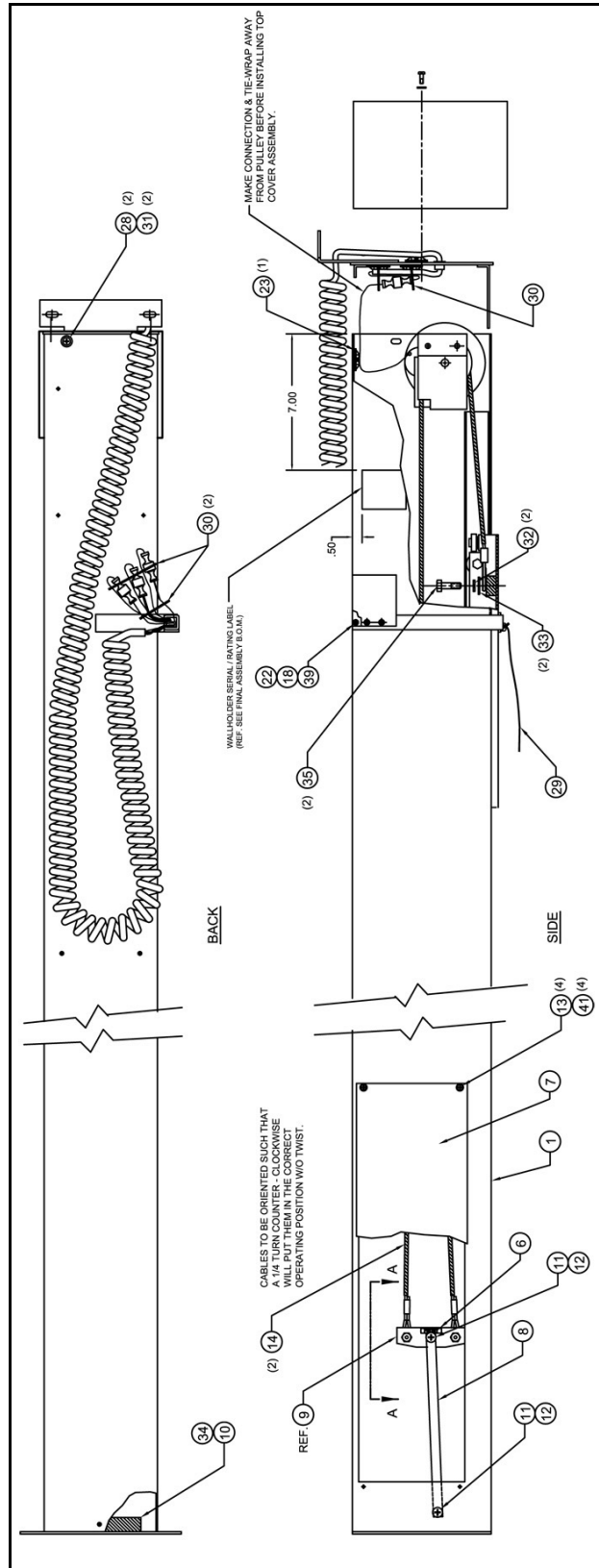
Illustrations are shown before the parts list for each assembly. Some assembly illustrations require more than one page.

This page is intentionally blank.

9.3 Commonly Ordered Parts

Fig ref.	Part number	Description
1	5500-1743	2 1/2LB TRIM WIEGHT ASM
2	5500-1483-2	5LB. TRIM WEIGHT
3	5500-0494P1	BUCKY FRONT PANEL (NOT SILK SCREENED)
4	5500-0494P2	BUCKY FRONT PANEL (SILK SCREENED)
5	5500-2399	BUCKY INTERCONNECT CABLE 38' LONG STANDARD
6	KIT 805	BUCKY MOUNTING BARS
7	112-5009G1	BUCKY TERMINAL STRIP COVER (PROGENY BUCKYS)
8	5500-0771	COLUMN TOP TRIM CAP
9	5500-2468	COUNTERWEIGHT CABLE
10	5500-0505	ELECTRIC LOCK (VERTICAL CARRIAGE)
11	5500-0505	ELECTRIC LOCK (COLUMN TOP)
12	KIT 735	FRONT PANEL RETAINER MOUNTING BRACKET KIT
13	632-5013P1	LOCK RELEASE SWITCH
14	4463-0116	LUBRICATE GREASE
15	500-5037P1	PROGENY AEC BUCKY
16	500-5036P1	PROGENY NON-AEC BUCKY
17	112-5507G1	PULLEY WHEEL ASM
18	5500-2972	PULLEY ASM COMPLETE w/ MAGNET & PULLEYS
19	112-5507G2	PULLEY ASM BRAKE DISC SIDE
20	1417-0460	SIZE SENSING KIT FOR KIT 495 GRID CABINET
21	5500-2855-01	SIZE SENSING KIT FOR LEFT HAND LOAD, AEC BUCKY
22	1417-0600-01	SIZE SENSING FOR LEFT HAND LOAD, NON-AEC BUCKY
23	5500-2855-02	SIZE SENSING KIT FOR RIGHT HAND LOAD, AEC BUCKY
24	1471-0600-02	SIZE SENSING KIT FOR RIGHT HAND LOAD, NON-AEC BUCKY

9.4 3546E Column Assembly (5500-2973)



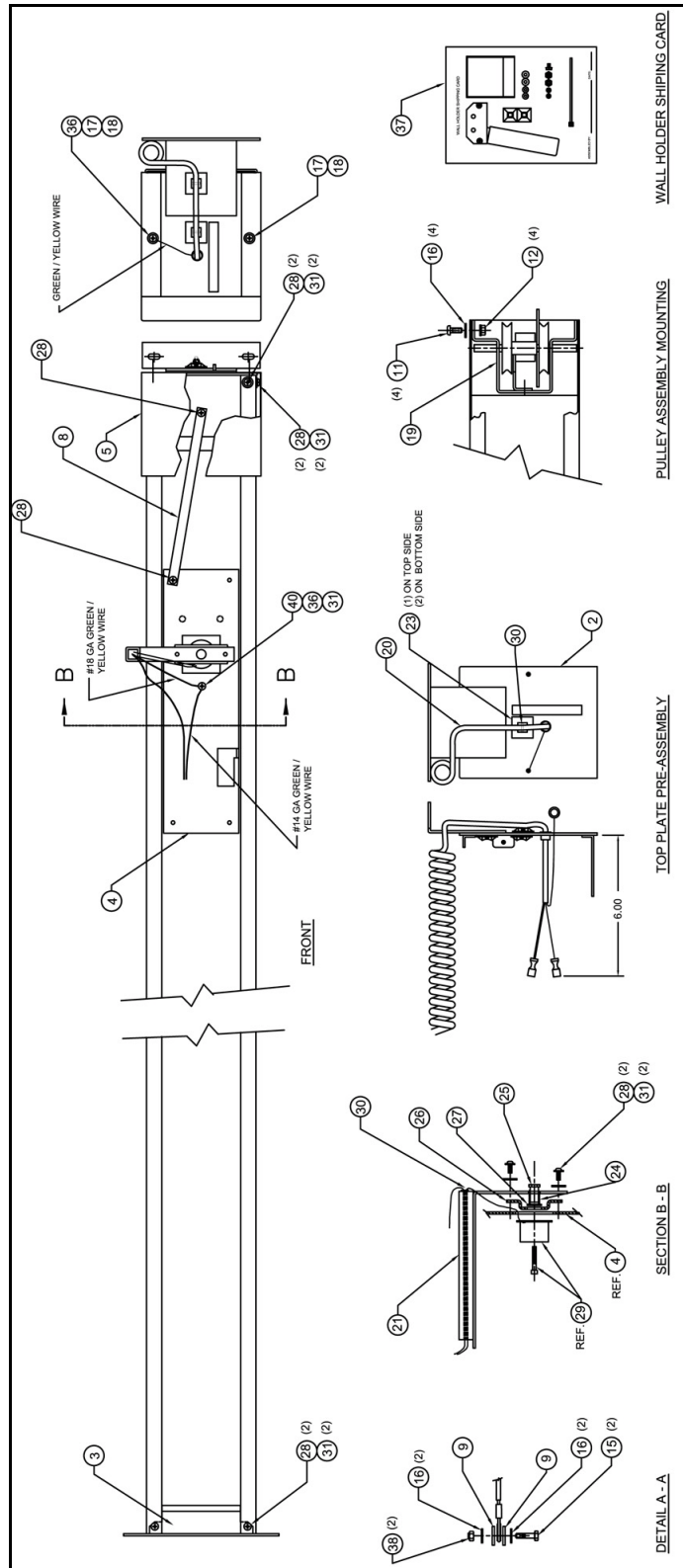


Figure 9-1. 3546E Column Assembly

Fig ref.	Part number	Description	Qty
1	5500-1292	TUBESTAND (MEDICAL WHITE)	1
2	5500-2964	TOP PLATE (MEDICAL WHITE)	1
3	5500-1442	BOTTOM COVER (MEDICAL WHITE)	1
4	5500-2983	ASSY., VERTICAL SLIDE	1
5	5500-0771	TRIM CAP	1
6	5500-2312	LABEL	1
7	550-2807	ACCESS PANEL	1
8	5500-2313	BRACKET, SHIPPING	2
9	5500-0714	PLATE, LOAD BALANCER	2
10	5500-0863	PAD, TUBESTAND	1
11	760-20-25206311	SCREW, #1/4-20 x 5/8" LG. PPHM	6
12	784-12-25200011	NUT, HEX KEPS #1/4-20	6
13	4450-0148	SCR.,PPHM TYPE B #7 x 1/4"	4
14	5500-2468	COUNTERWEIGHT CABLE	2
15	751-00-25207511	SCREW, HHM #1/4-20 x 3/4"	2
16	785-11-25000011	WASHER, FLAT #1/4 NARROW	8
17	785-11-16000011	WASHER, FLAT #8 NARROW	2
18	760-22-16203111	SCR., PPNHM #8-32 x 5/16" LG. SEMS	3
19	5500-2972	ASSEMBLY, PULLEY	1
20	5500-3000	COIL CORD ASSEMBLE	1
21	5500-3093	CABLE ROUTE (MEDICAL WHITE)	1
22	46-2203360P3	CABLE CLAMP, 1/4" DIA.	1
23	4455-0995	1" SQ. BASE CABLE TIE MOUNT	4
24	4450-0944	COMPRESS, SPRING 1/2 x 1/4	1
25	5500-0511	SHAFT, MAGNET GUIDE	1
26	5500-1382	BRAKE BRACKET	1
27	4450-0389	WASHER, FLAT 27/64 x 3/4 x .022	1
28	760-22-19105011	SCREW,PHM SEMS #10-32 x 1/2" LG.	12
29	5500-2982	BRAKE, CABLE HARNESS	1
30	46-208761P1	CABLE TIE, .09"W x 3.875"	8

Fig ref.	Part number	Description	Qty
31	785-11-19000011	WASHER, FLAT #10 NARROW	11
32	756-50-31000011	WASHER, SPLITLK-STD 5/16	2
33	4450-0319	WASHER, FLAT 5/16 x .735 x .056	2
34	4463-0103	ADHESIVE #847 3M	.0001
35	751-00-31207511	SCREW, HHM #5/16-18 x 3/4" LG.	2
36	786-20-19000011	WASHER, INT-LK #10	2
37	112-5218G1	WALL HOLDER SHIP CARD	1
38	784-44-25200011	NUT, HEX NYLOK #1/4-20 LOW	2
39	4450-0376	WASHER, FLAT #6	1
40	760-22-19103811	SCREW, PPNHMS #10-32 x 3/8" LG.	1
41	785-11-14000011	WASHER, FLAT #6 NARROW	4

This page is intentionally left blank.

9.5 Pulley Assembly (5500-2982)

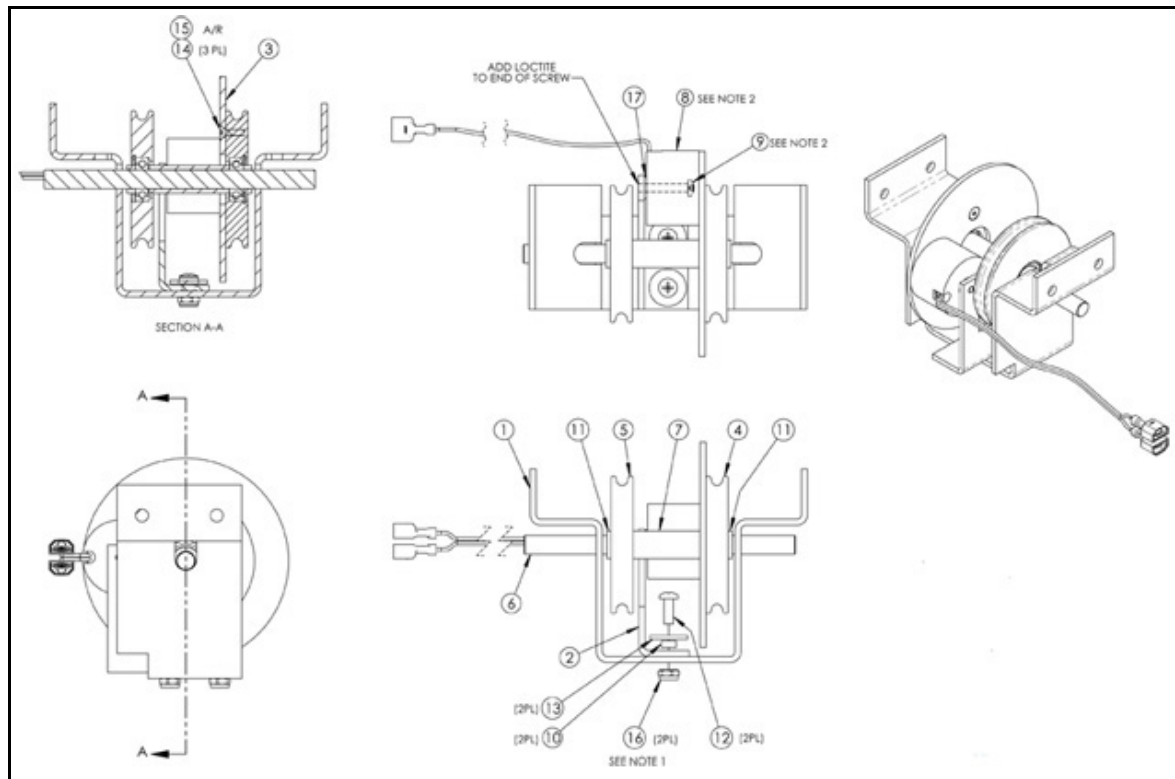


Figure 9-2. Pulley Assembly

Fig ref.	Part number	Description	Qty
1	5500-0705	BRACKET, PULLEY SUPPORT	1
2	5500-2953	BRACKET	1
3	5500-2954	DISK, BRAKE	1
4	112-5507G2	ASM. CTWT PULLEY, BRAKE SIDE	1
5	112-5507G1	ASM, CTWT PULLEY	1
6	5500-0704	SHAFT, PULLEY	1
7	250-5028P2	SPACER, PULLEY, LONG	1
8	5500-3001	ASSEMBLY, MAGNET	1
9	4450-0153	SCREW, PRHMS 8-32 x 1" LG	1
10	5500-1819	SPACER, BRAKE LEVER	2
11	250-5028P1	SPACER, PULLEY, SHORT	2
12	760-20-19105011	SCREW, PPNHMS 10-32 x 1/2	2
13	4450-0306	WASHER, FLAT #10 I.D. x 3/4" O.D.	2
14	756-40-14205011	SCREW, HSFHMS #6-32 x 1/2" LG	3
15	410-5005P1	THREADLOCKER, #242 BLUE	A/R
16	423-0007P1	NUT, SELF-LOCKING, 10-32	2
17	785-11-16000011	WASHER, FLAT #8 NARROW	1

Table 9-1: Pulley Assembly

9.6 Trim Weight Assembly (5500-1743)

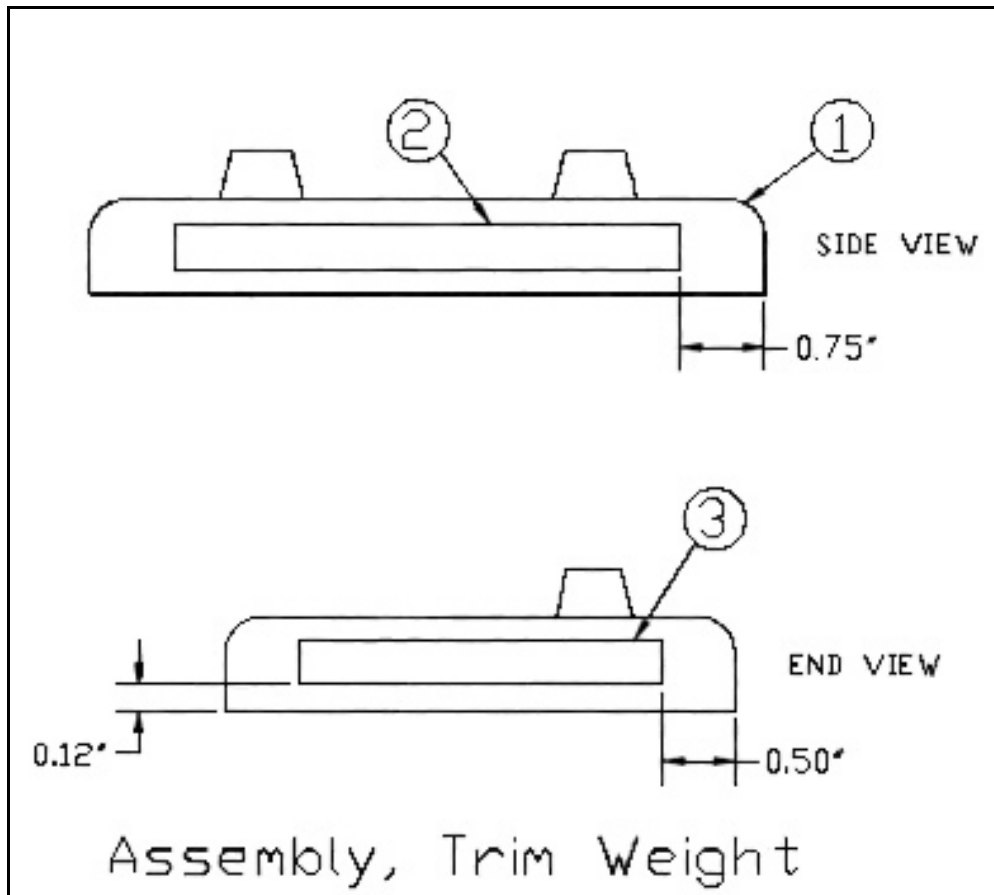


Figure 9-3. Trim Weight Assembly

Fig ref.	Part number	Description
1	5500-1483-1	TRIM WEIGHT
2	5500-1297	BUMPER STRIP
3	5500-1742	BUMPER STRIP

Table 9-2: Trim Weight Assembly

9.7 Counterweight Assembly (K-771)

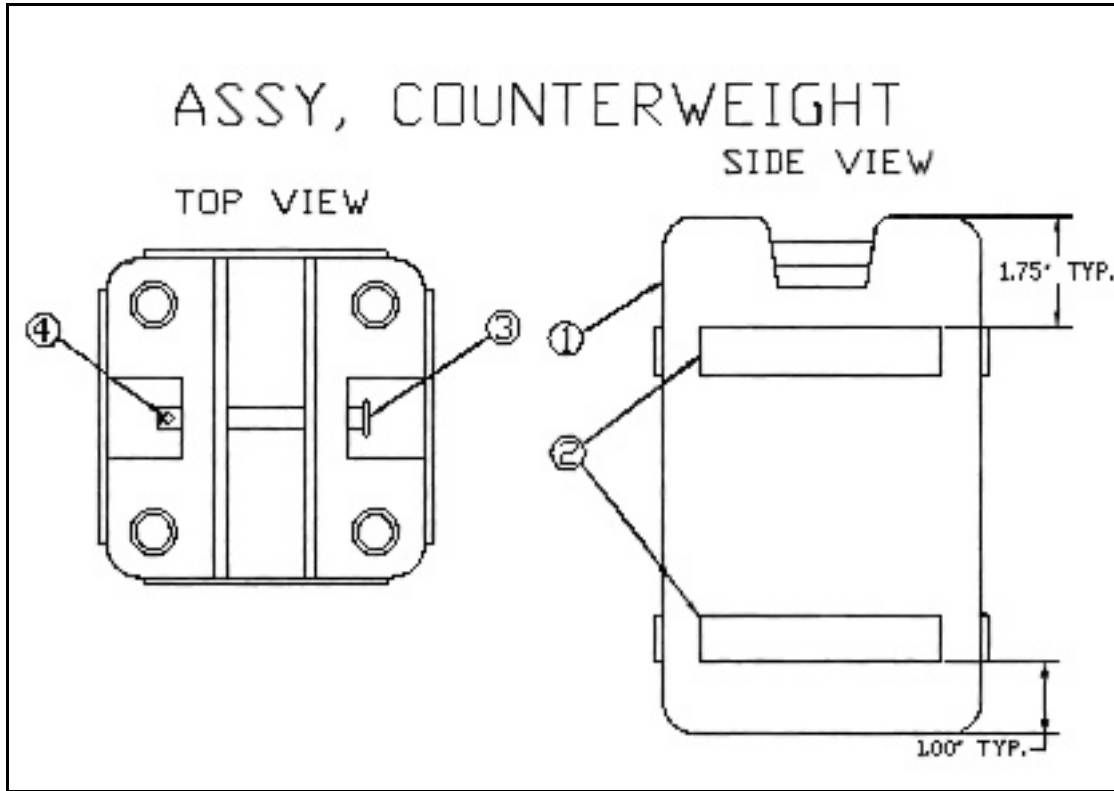


Figure 9-4. Counterweight Assembly

Fig ref.	Part number	Description
1	5500-1484-1	COUNTERWEIGHT 40#
2	5500-1297	BUMPER STRIP
3	4450-0735	CLEVIS PIN
4	4450-1037	#8 x 1/2 SHEET METAL SCREW

Fig ref.	Part number	Description
0	5500-2982	HARNESS, BRAKE CABLE (COMPLETE)
1	5500-2963	COVER, SWITCH
2	5500-0505	ELECTRO-MAGNET HOLDING FORCE
3	4465-0120	CABLE 2 CONDUCTOR
4	632-5012P1	SWITCH, PUSHBUTTON
5	5500-0761	STRAIN RELIEF
6	4450-0911	5/8 x 5/16 x 11/92 GROMMET
7	4455-8006	TERM., 1/4 FEM. PUSH-ON BLUE
8	4455-0603	5-1/2" CABLE TIE
9	4455-0614	CABLE STRAIN RELIEF
10	4455-0104	#10 RED SPADE TONGUE 22-18
15	4455-3010	CAP, CERAMIC, RADIAL, 100 VDC, 1 MFD
16	4455-0405	TUBING, SHRINK, CLEAR
17	46-170021P81	FUSE, 2AMP, 250 V AXIAL
18	46-136323P35	TUBING SHRINK BLACK, 3/8
19	408-0036P1	LABEL-FUSE WARNING
20	408-0082P1	LABEL-FUSE RATING

Table 9-3: Brake Cable Harness Assembly

9.9 Vertical Slide Assembly (5500-2983)

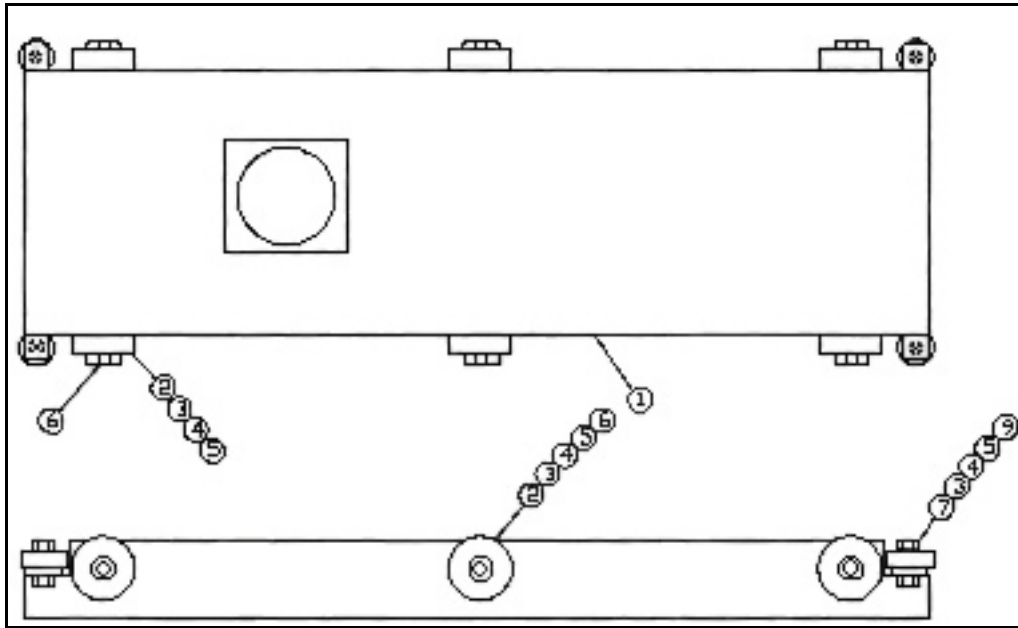


Figure 9-6. Vertical Slide Assembly

Fig ref.	Part number	Description
1	5500-2980	WELDMENT, VERTICAL SLIDE
2	3920-0911	BEARING
3	751-00-25206311	SCREW 1/4-20 x 5/8
4	786-50-25000011	LOCK WASHER 1/4"
5	4450-0357	WASHER, FLAT
6	5500-2442-1	BUSHING - CON
7	5500-1444	BUSHING
8	5500-2442-2	BUSHING - ECCENTRIC
9	400-0001P1	BEARING 7/8" DIAMETER

Table 9-4: Vertical Slide Assembly

This page is intentionally left blank.

9.10 Wallholder Column Assembly (5500-2973)

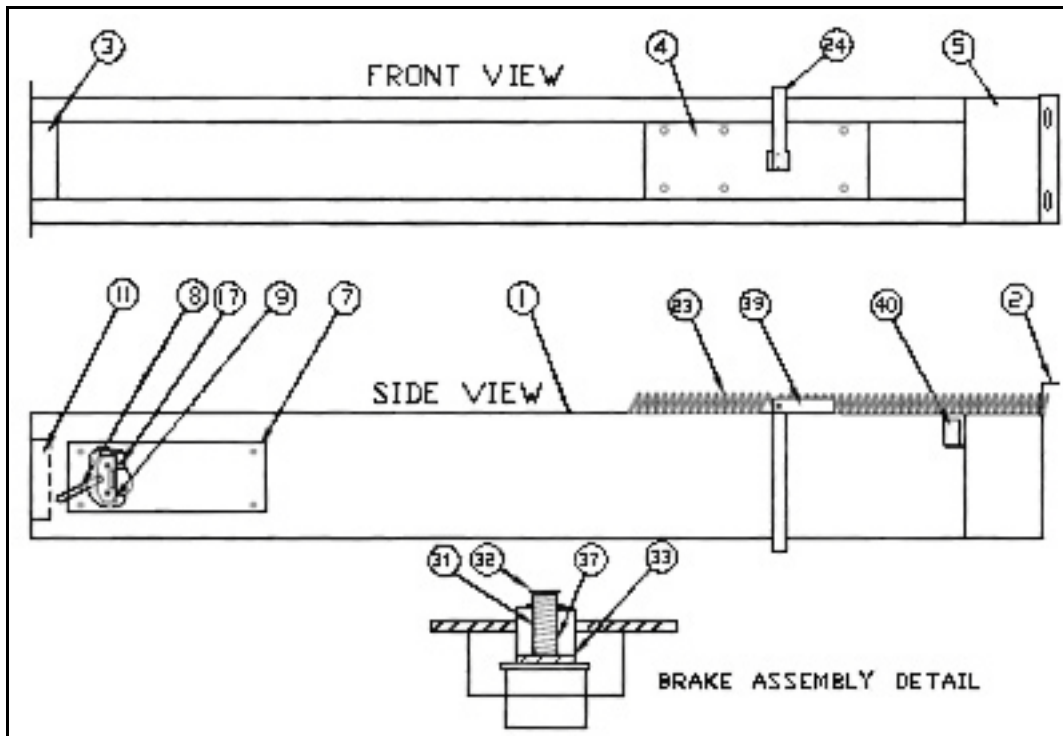


Figure 9-7. Counterweight Assembly

Fig ref.	Part number	Description
1	5500-1292	WELDMENT, TUBESTAND
2	5500-2964	WELDMENT, TOP PLATE ASSEMBLY
3	5500-1442	COVER, COLUMN BOTTOM
4	5500-2983	ASSEMBLY, VERTICAL SLIDE
5	5500-0771	CAP, TRIM
7	5500-2807	PANEL WELDMENT, ACCESS
8	5500-2313	BRACKET, SHIPPING
9	5500-0714	PLATE, LOAD BALANCER
11	5500-0863	PAD, TUBESTAND
17	5500-2468	COUNTERWEIGHT CABLE
22	5500-2972	ASSEMBLY, PULLEY (NOT SHOWN)
23	5500-3000	COIL CORD ASSEMBLY
24	5500-3093	WELDMENT, CABLE ROUTING
31	4450-0944	COMPRESSION SPRING 1/2 x 1-1/4
32	5500-0511	SHAFT, MAGNET GUIDE
33	5500-1382	BRACKET, BRAKE ROTATE TUBES- TAND
37	4450-0389	WASHER, STAINLESS
39	5500-3095	WELDMENT COVER
40	408-0081P1	LABEL, NAMEPLATE

Table 9-5: Counterweight Assembly

This page is intentionally left blank.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Notes

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

[illegible]

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.