

WALLSTAND WITH ELECTRIC LOCKS

INSTALLATION INSTRUCTIONS

MODEL S109

06088 REV K

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INSTALLATION, SERVICE, AND OPERATING MANUAL TEXT REVISION HISTORY

Revision	Description	ECR / Release Date
P	Initial release to separate S109 from S111 manual for UL certification	June 2011
A	Corrections and updates for UL modifications	Oct 2011
B	Updated graphics for Figs 1, 2, 4, 5, and 6; Chgd Sect. 4.0 from Number list to Bullet list; Added Figure 7	Oct 2012
C	P7 added "with cover"; p8 added line: "Install the wall bracket..."; p13 added figure 8	March 2014
D	Changed "Brade" in Figure 3 caption to "Brake" P11- added "about the thickness of a credit card"	June 2014
E	Added Sect 5.0, corrected TOC	June 2015
F	Removed Section 1.2; Replaced Section 1.1 with Symbol Table	November, 2016
G	Updated address to Niles, IL; Added Intended Use, Attenuation, and Cleaning information to page 5.	June, 2017
H	Swapped TB1-1 and TB1-2 in Figure 6 graphic	ECR 9747 / December 2017
J	Removed Part Number Reference table; Updated Figure numbers	ECR 10436 / February, 2020
K	Section 4: Added "Attach the travel stop block..." bullet with location drawing	ECR 10524 / July, 2020

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

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S109 INSTRUCTIONS**1.0 DEFINITIONS AND SPECIFICATIONS****1.1 Definition of symbols used on the equipment**

Symbol Legends	
Symbol	Definition
	Date of manufacture
	Manufacturer
	Serial Number
	Reference Number (Model/Part Number)
	Keep Dry
	NOTE This symbol represents 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	Points out special procedures, or precautions, that personnel must follow to avoid equipment damage.
 WARNING	Identifies situations or actions that may affect patient or user safety. Disregarding a warning could result in patient or user injury.
	TYPE B APPLIED PART This symbol indicates equipment providing a particular degree of protection against electric shock, particularly regarding allowable leakage currents and reliability of the protective earth connection (if present).
	This symbol indicates an Electro Sensitive Device is present which must be carefully handled to prevent damage to the device.
	ELECTRIC SHOCK HAZARD WARNING This symbol indicates an electric shock hazard.
	DANGER VOLTAGE This symbol indicates hazards arising from dangerous voltages.
	DIRECT CURRENT This symbol indicates a direct current source.
	PROTECTIVE EARTH TERMINATIONS This symbol indicates protective earth terminations in device.

1.2 General Precautions



NOTE

The UL Classification does not include X-Ray Generator, Collimator, X-ray Tube, or Image Detector.



WARNING

All of the components used with the Wallstand (generator, bucky, etc.) shall comply with UL 60601 standards.



NOTE

The 24Vdc power shall be provided by a generator certified to UL 60601-1 standards or Summit accessory power supply part no. 05960.

Intended Use

This is an x-ray wallstand, a mechanical device intended to hold and position an X-ray image receptor during a radiographic procedures.




Attenuation

All included components between the patient and image receptor have been certified to comply with 21 CFR Chapter 1 Subchapter J (§1020.30). For any such components added to the system it is the responsibility of the installer to ensure compliance.

Cleaning

The manufacturer recommends disinfection of the equipment between uses for any surfaces that may come in contact with the patient during a radiographic procedure.

1.3 Specification Summary Table

SPECIFICATION SUMMARY TABLE																	
Electrical Ratings	24VDC, 1A  (or equivalent)																
Maximum Safe Working Load	50 lbs (22.5 kg)																
Environmental Conditions	<p>Temperature range for:</p> <table border="0"> <tr> <td>Transport and Storage</td> <td>Use</td> </tr> <tr> <td>-40° F to +158° F</td> <td>+50° F to +104° F</td> </tr> <tr> <td>-40° C to +70° C</td> <td>+10° C to +40° C</td> </tr> </table> <p>Relative Humidity Limits for:</p> <table border="0"> <tr> <td>Transport and Storage</td> <td>Use</td> </tr> <tr> <td>10% to 100%</td> <td>30% to 75%</td> </tr> </table> <p>Atmospheric pressure range for:</p> <table border="0"> <tr> <td>Transport and Storage</td> <td>Use</td> </tr> <tr> <td>14.67 inHg to 31.30 inHg</td> <td>20.67 inHg to 31.30 inHg</td> </tr> <tr> <td>500 hPa to 1060 hPa</td> <td>700 hPa to 1060 hPa</td> </tr> </table>	Transport and Storage	Use	-40° F to +158° F	+50° F to +104° F	-40° C to +70° C	+10° C to +40° C	Transport and Storage	Use	10% to 100%	30% to 75%	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
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Information regarding potential EMC interference and advice for avoidance	<ul style="list-style-type: none"> • Mains 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	IPX0/Ordinary																
Degree of protection against electric shock	Class I, Type B Applied Parts 																
Applicable Standards	<p>This X-ray Wallstand complies with the following regulatory and design standards:</p> <ul style="list-style-type: none"> • UL 60601-1 • CAN/CSA C22.2 NO601.1 • IEC60601-2-32:1994 • CSA C22.2 No. 601.2.32-98 																
Safety Label	<div style="border: 1px solid black; padding: 10px;">  <p>MEDICAL EQUIPMENT WITH RESPECT TO ELECTRICAL SHOCK, FIRE AND MECHANICAL HAZARDS ONLY. IN ACCORDANCE WITH UL 60601-1, CAN/CSA-C22.2 No.601.1 IEC 60601-2-32:1994 CSA C22.2 No. 601.2.32-98</p> <p style="text-align: center;">20GP 05616</p> </div>																
<p>Note: The UL Classification does not include the Image Receptor</p>																	
<p>Equipment not suitable for use with flammable anesthetic mixture with air or with oxygen or nitrous oxide.</p>																	

2.0 COMPONENT LIST (as received)

- (1) Column Carton: includes column, counter weight, slide, pulleys
- (1) Accessory Carton:
 - (1) Instruction manual
 - (1) Floor Plate
 - (1) Wall Bracket (Flush or Offset application) with cover
 - (2) Upper and lower mounting channels for film cabinet or bucky
 - (1) Handle assembly (with lock release switch)
 - (1) Electric lock assembly (two locks)
 - (2) Column side covers
 - (1) Column cap
 - (1) Power supply
 - (2) Magnet cover assemblies
 - Trim Weights
 - (1) Chin rest kit
 - Wire ties

3.0 ASSEMBLY NOTES

- 1) Most required fasteners will be found attached to the part they are used on.
- 2) Unpack and inspect all parts prior to assembly.



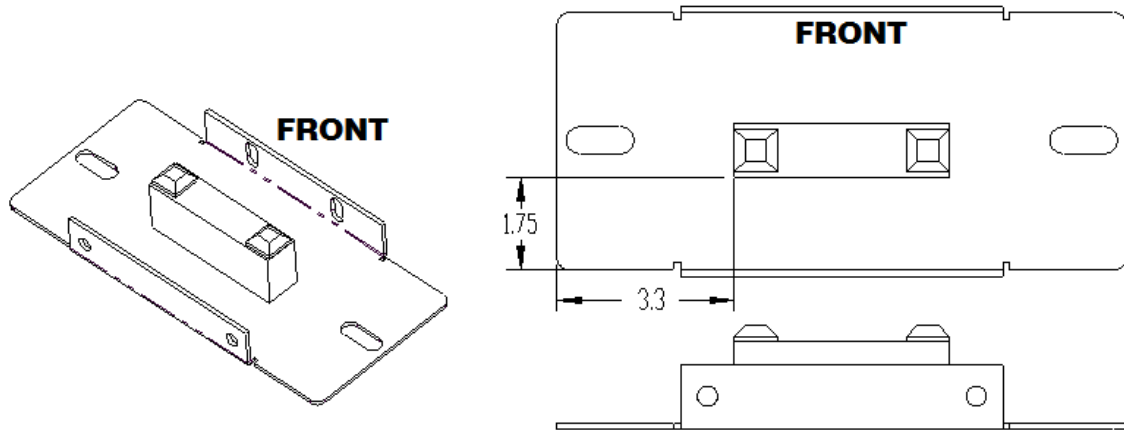
WARNING

- | |
|---|
| <ul style="list-style-type: none">3) To avoid possible injury, do not insert fingers or hands into counter weight access openings on sides of column. |
|---|

4.0 WALLSTAND ASSEMBLY GUIDE

See figures 1 and 2 unless directed elsewhere. The item numbers listed below correspond to balloon numbers in the figures.

- Attach the travel stop block to the floor plate (Item 1)



- Attach the floor plate assembly to the column.
- Attach the ground cable (2) from the lower mounting channel (5a) (shipped factory-connected) to one of two tapped holes (figure 2: 2a) on the rear of column at the base. The other will be occupied by the incoming ground cable (factory-connected). Dress the channel cable straight up the column and secure with a zip tie to the plastic base (figure 2: 2b) provided on the back of the column approximately 3.5 ft up.
- For offset applications, attach the wall bracket (3a) to the back side of the column. For flush applications, the wall bracket (3b) slips into the column from the top.
- Stand the column up and attach it to the wall and floor with appropriate fasteners (not supplied).
- Mount the lower (a) and upper (b) film cabinet mounting channels (5a & 5b).
- Mount the handle assembly (6) to upper mounting channel (5b), routing the switch cable through the center hole. Connect switch cable to lock assembly (7). Select orientation to place the switch on the appropriate side for ease of use (See figures 4 and 5).
- Install locks to slide (7).
- Route the incoming power cable through the opening at the center of the lower film cabinet mounting channel (5a) and connect to the lock assembly (7). Provide power to the locks, test and adjust (See Figures 3, 4, and 5).
- Mount the magnet cover assemblies (9) (one per side) to the lock brackets (7) with the zip tie base facing inward. Before doing so, on one side zip tie the incoming lock power cable to the provided base for strain relief.
- Mount the film cabinet (10).
- Install the wall bracket cover (see figure 7, p.13).

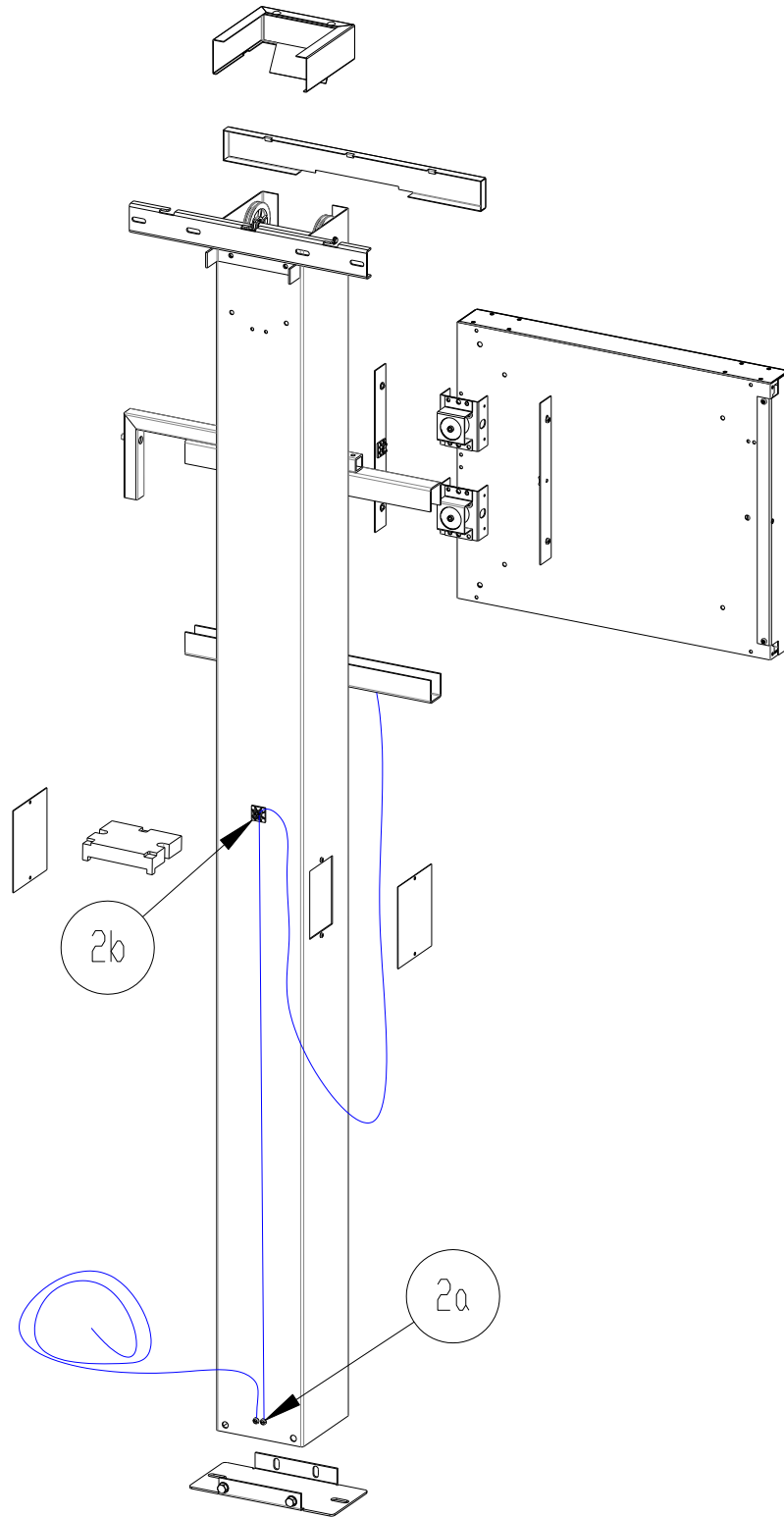


Figure 2

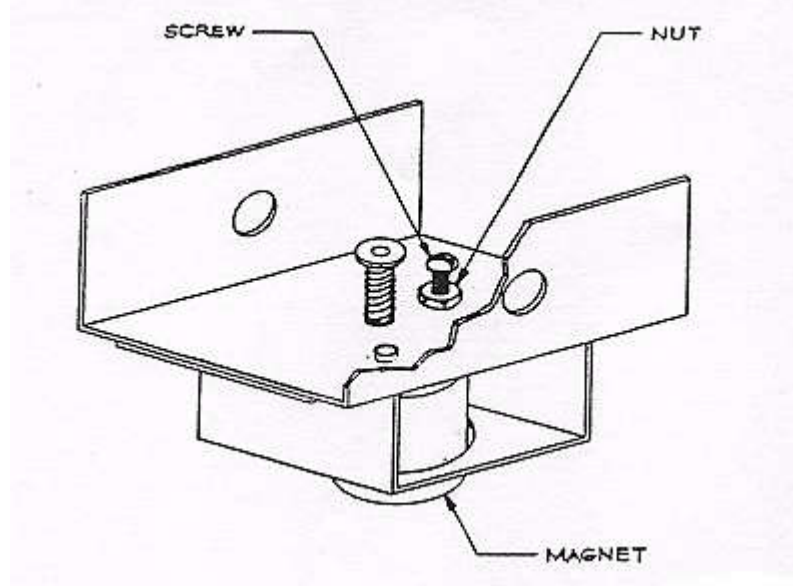


Figure 3: Electric Brake Adjustment

- 1) Loosen the nut.
- 2) Turn the screw clockwise to move the magnet closer to, or counter clockwise to move away from brake strip of tubestand and tighten nut.
- 3) Magnet should be adjusted so that it is as close as possible to brake strip without dragging (approximately 1/32" gap - about the thickness of a credit card).

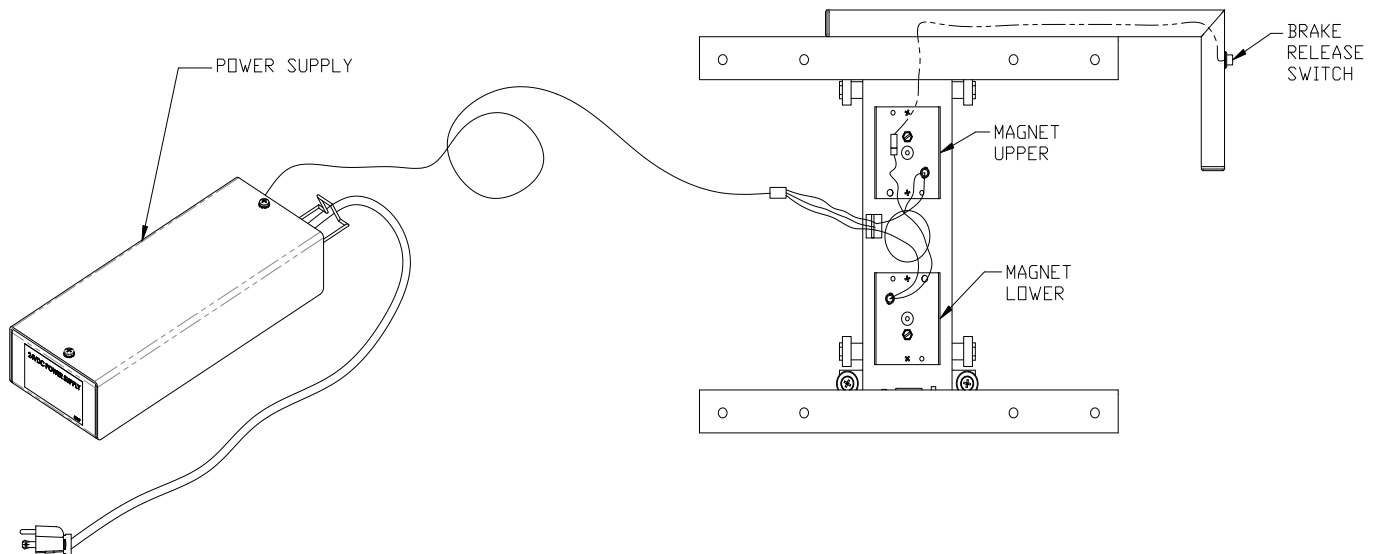


Figure 4: Electrical Connections

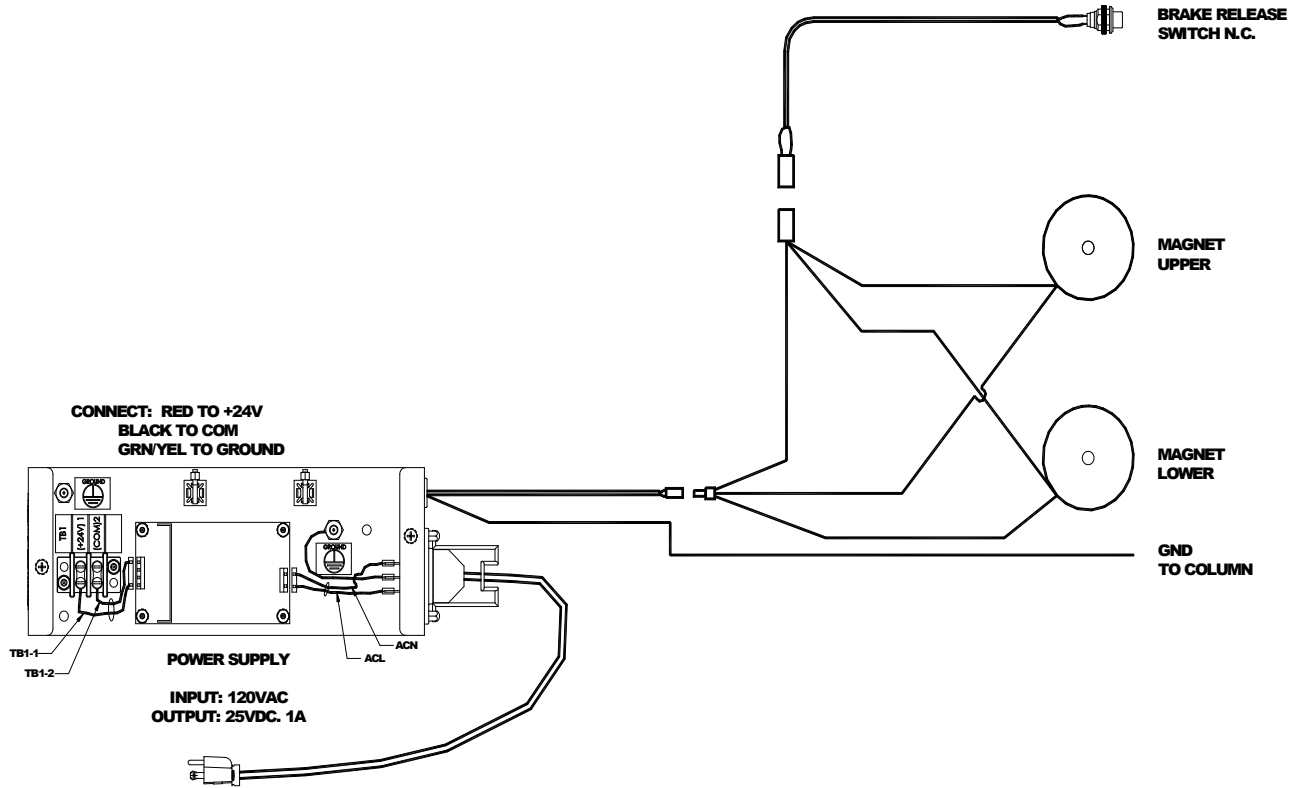


Figure 5: Detailed Electrical Connections

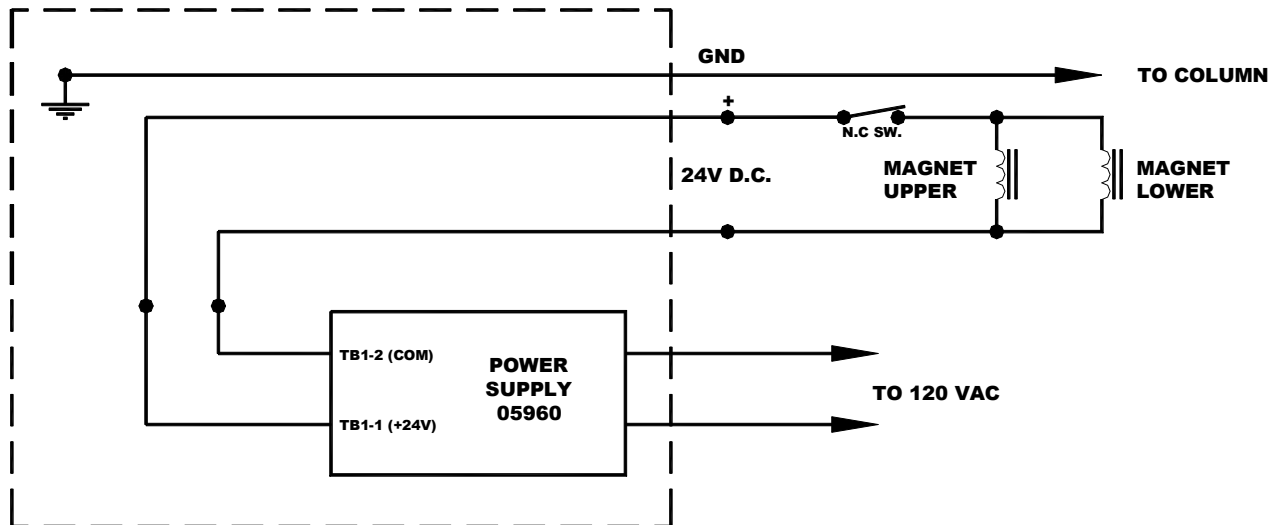


Figure 6: Electrical Schematic

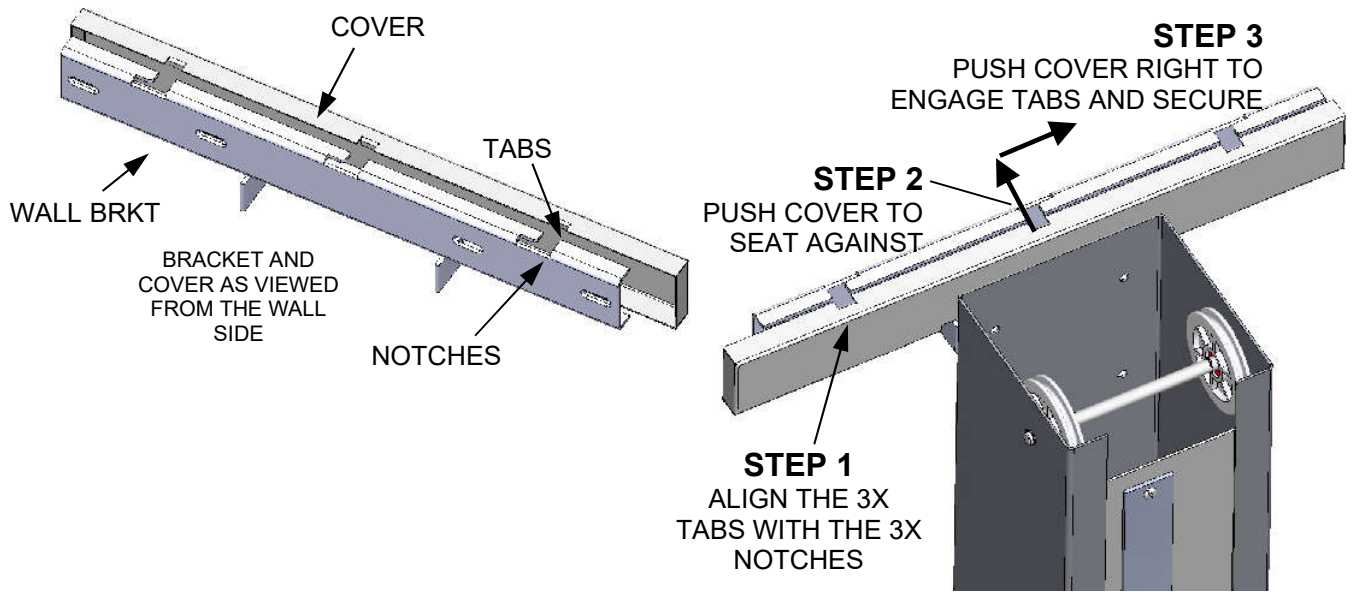


Figure 7: Installing the Wall Bracket Cover

5.0 BASIC MAINTENANCE

The following maintenance items are required for safety of operation, continued ease of use, and 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.

Maintenance Items:

Clean exterior of the assembly, inspecting for damage and missing hardware.

Verify smooth vertical travel along the entire vertical range; check all bearings for proper operation.

Check all fasteners for tightness including the floor and wall mounts.

Verify proper operation of the lock release switch and handle and proper function of the locks.

Inspect all cable connections and cable strain reliefs. All connections should be tight and secure. Inspect exposed cabling for damage.

Inspect counterweight cables for fraying, damage, or wear.

Verify counterweight access covers are secure.