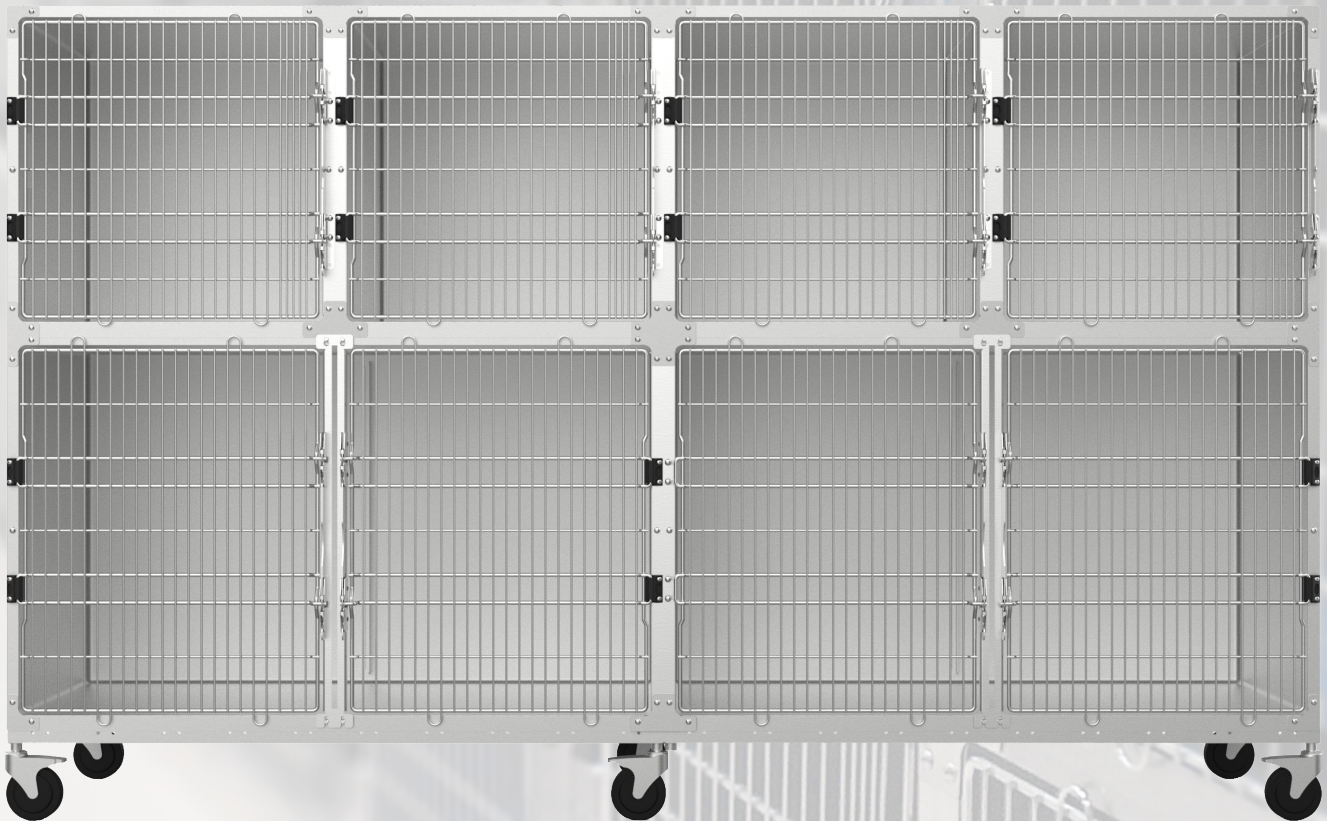


# SHOR-LINE

now a part of midmark

# Stainless Steel Cage Bank

## ASSEMBLY GUIDE



10' Stainless Steel Cage Assembly  
Option-A Shown (Models Vary)

# Introduction

Thank you for purchasing Shor-Line products.

This Guide provides information regarding the installation, use, and care of your Shor-Line product. Keep this Guide in a safe and convenient place for reference.

For further questions, to purchase additional products, or to replace a lost or damaged Guide, please feel free to contact Shor-Line:

### SHOR-LINE

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Kansas City, Kansas 66105, USA

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LOCAL: 913.281.1500

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WEB ADDRESS: SHOR-LINE.co.uk

Shor-Line may provide instructions that supplement or supersede this Guide at any time. Contact Shor-Line to ensure the Guide is the latest version.

During installation, if a contradiction between this Guide, existing conditions, or local regulations arise, contact a Shor-Line representative before proceeding with installation.

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**DANGER**

**READ THIS GUIDE COMPLETELY BEFORE INSTALLATION AND USE AND THOROUGHLY UNDERSTAND AND FOLLOW ALL SAFETY INSTRUCTIONS.**



**WARNING**

**WEAR PERSONAL PROTECTIVE EQUIPMENT, such as, but not limited to, eye protection, back support brace, and gloves during installation. Failure to do so could result in SERIOUS INJURY.**



**CAUTION**

**This product is intended to be used for animals only. Do not use for anything other than the intended purpose.**

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## General information

Refer to the Guide, images and content to assist with the installation of the product. Throughout the Guide, safety notices provide help for a successful installation.

### SAFETY FIRST!

Shor-Line uses the following symbols and signal words to identify potential hazards or unsafe practices:

#### Safety Alert Symbol



*Indicates a potential personal injury hazard exists. It is important to heed any safety warning information associated with this alert symbol.*

#### Signal Words for Hazard Alerting Safety Messages



*Indicates a hazardous situation which, if not avoided, WILL result in serious injury or death.*



*Indicates a hazardous situation which, if not avoided, COULD result in serious injury or death.*



*Indicates a hazardous situation which, if not avoided, COULD result in minor or moderate injury.*

#### Important Information Symbol

**NOTICE**

*Indicates information considered important but not directly hazard related.*

#### Personal Protective Equipment (PPE)

PPE refers to protective clothing or other equipment designed to protect against injury. It is the responsibility of the client/installer to ensure all local and federal codes are adhered to during the installation and assembly of this product. Included is a list of PPE items suggested, but not limited to, protective equipment to help complete the installation safely.

- Eye protection
- Gloves
- Metatarsal, foot protection
- Back Support Brace

SHOR-LINE makes no guarantee, implied or otherwise, that the information included in this Guide will be complete or failsafe, or that the information will prevent an injury from occurring. Standard measures described may not reflect the full extent of all steps that may need to be taken in any given emergency instance.



#### **California Proposition 65 Warning**

*This product can expose you to chemicals including nickel (metallic), which are known to the state of California to cause cancer.*

*For more information go to: [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)*

## Safety Warnings Included In This Guide



**READ THIS GUIDE COMPLETELY BEFORE INSTALLATION AND USE AND THOROUGHLY UNDERSTAND AND FOLLOW ALL SAFETY INSTRUCTIONS.**



**WEAR PERSONAL PROTECTIVE EQUIPMENT (PPE), such as, but not limited to, eye protection, ear protection, protective gloves and Metatarsal/foot protection during installation. Failure to do so could result in SERIOUS INJURY.**

**Enlist help and USE SAFE LIFTING PRACTICES during assembly, installation and moving equipment.**

**Ensure the cage bank is level during assembly to prevent possible tipping, which if not avoided, could result in MINOR to MODERATE INJURY.**

**Stainless steel cages have sharp edges, stay clear of and DO NOT TOUCH exposed steel which, if not avoided, could result in SERIOUS INJURY OR DEATH.**



**This product is intended to be used for animals only. Do not use for anything other than the intended purpose.**

**Keep hands clear of possible pinch areas when assembling parts, which if not avoided, could result in MINOR to MODERATE INJURY.**

# SECTION ONE

## Shipment Inventory And Inspection

### Shipment Inventory

Upon arrival, unpack and inspect the shipment to ensure it is complete and free of any damages that may have occurred during shipping. Compare the packing list with the shipment to ensure all parts/components have been received.

#### NOTICE

*This Guide can be used to identify parts and their associated parts numbers listed on the packing slip. See FIGURE 1.1, 1.2 and 1.3*

### Shipment Inspection

While verifying the shipment contents, take a moment to inspect each component for damage. This should be done before the shipment is signed received and accepted.

If damaged components are apparent, follow the claim procedures set forth by the carrier.

### Damage Reporting

Follow the instructions within Shor-Line's Damage and Freight Procedures.

Contact Shor-Line (800.444.1579) immediately to expedite replacements or repairs.

### Type III Cages

Type III Cages are available in many sizes and cage bank configurations to best serve a variety of space conditions and facility requirements. The shipping box and each cage have printed labels with a description, to include cage sizes to help organize and stage cage bank components during the assembly process. Cage bank configurations vary, contact a Shor-Line sales representative for cage bank configuration drawings to aid in the assembly process. See FIGURE 1.1

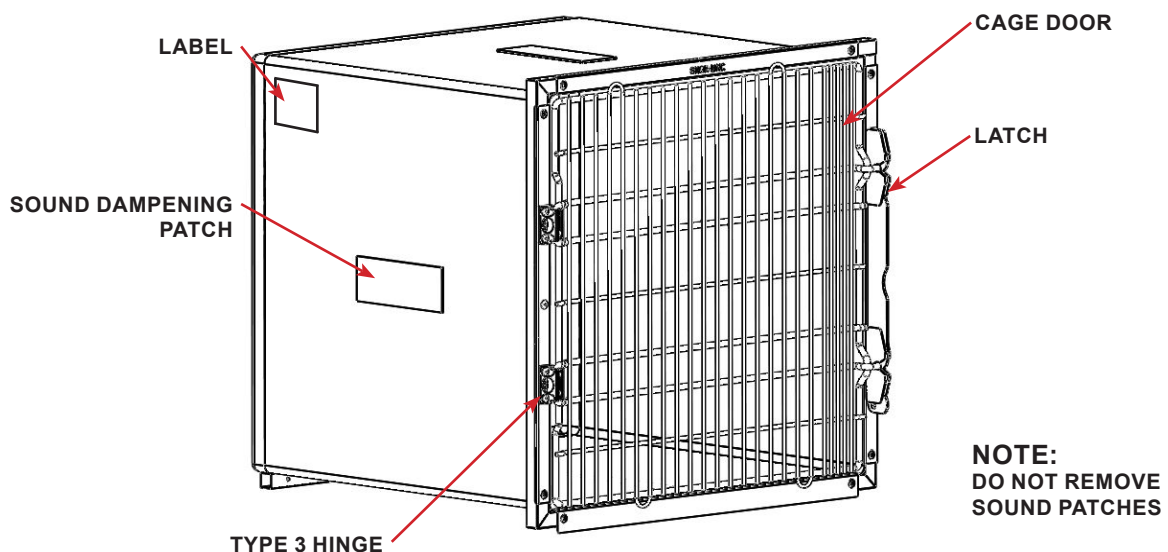
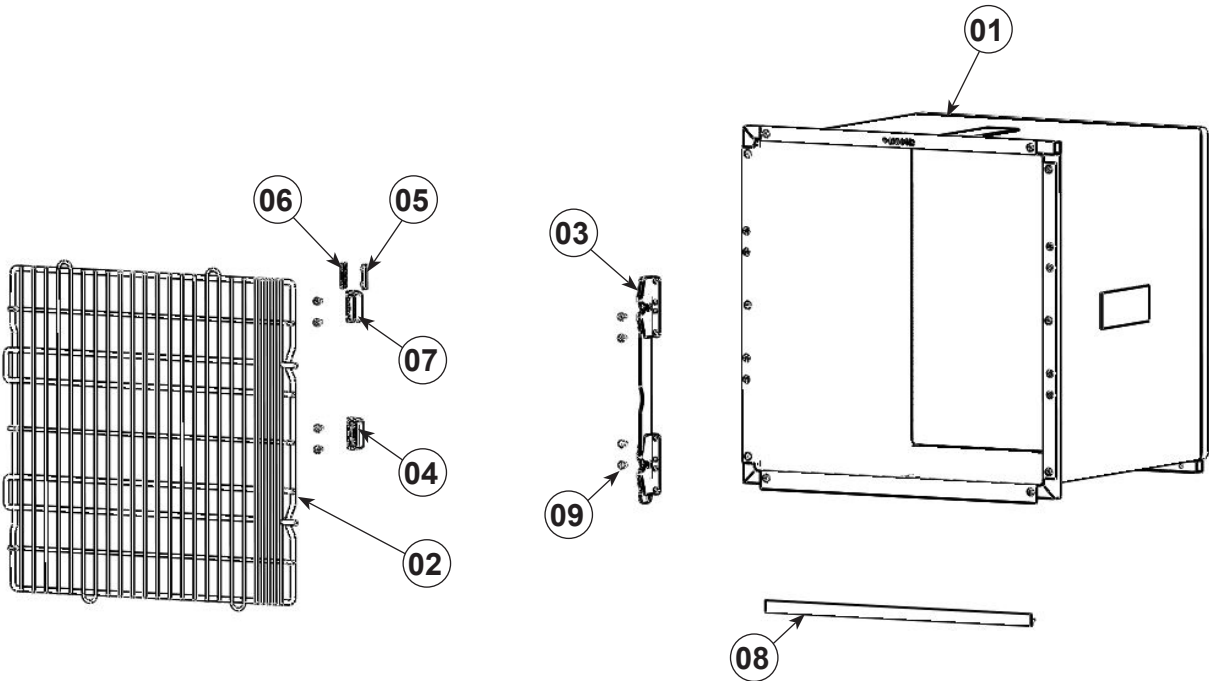


FIGURE 1.1 - Typical Stainless Steel Cage

**Cage Parts List**



**FIGURE 1.2 - Stainless Steel Cage Parts List (Typical Cage Assembly)**

Stainless Steel Cage Parts List (NS=Not Shown)			
Item	Part #	Description	Qty
01		Stainless Steel Cage (Example)	1
02		Stainless Steel Cage - Grill Door (Types Vary)	1
03		Latch Assembly (Type and Lengths Vary, See Table C)	1
04	181.0066.02	Hinge Assembly (Type III)	2
05	• 181.0063.00	• Male Hinge Bushing	1
06	• 181.0063.01	• Female Hinge Bushing	1
07	• 181.0066.01	• Stainless Steel Plate Reinforced Nylon Hinge Mount	1
08		Edge Protection Strip	1
09	060.2507.01	1/4x3/4" Truss HD, HI-LO Stainless Steel Screw	
NS	060.2506.00	1/4-20x5/8" Truss HD, Phillips Stainless Steel Screw*	

\* Used on cages 36" wide and wider

# SECTION ONE

## Cage Bank Parts List

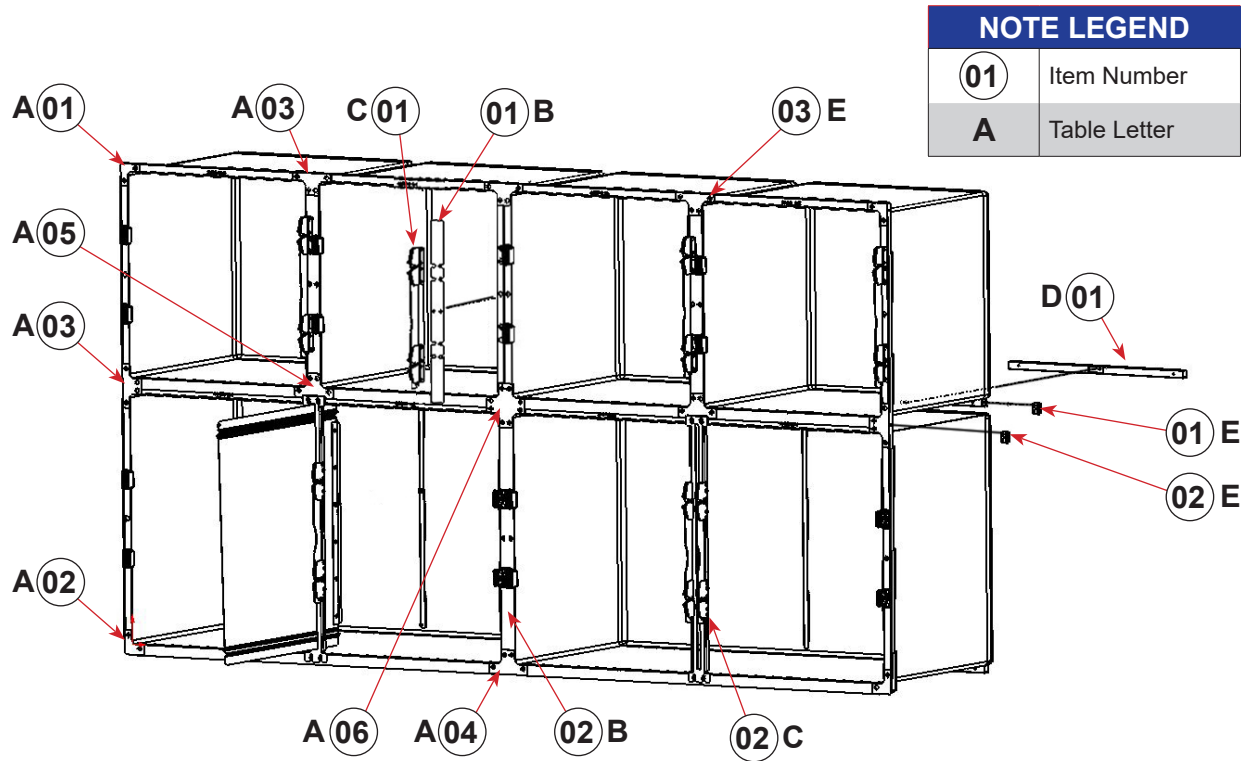


FIGURE 1.3 - Stainless Steel Cage Bank Assembly Trim/Parts List

**TABLE A - Cage Bank Assembly Trim Plates Parts List (NS=Not Shown)**

Item	Part No	Description
01	322.0151.11*	#11 Top Corner Trim Plate (3x3")
02	322.0151.12*	#12 Bottom Corner Trim Plate (6x3 5/16")
03	322.0151.22*	#22 Trim Plate (6x3")
04	322.0151.23	#22A Bottom Trim Plate (6x3 5/16")
05	322.0151.33	#33 Notched Divider Trim Plate (6x3 5/16")
06	322.0151.44	#44 Cross Trim Plate (6x6")
NS	322.0151.55	#55 Base Attachment Bottom Trim Plate (6x4 1/16")
NS	322.0151.66	#66 Base Attachment Corner Trim Plate (3x4 1/16")

\* Trim Plate is also used at opposite locations

**TABLE B - Cage Bank Assembly Trim Strips Part List (NS=Not Shown)**

Item	Part No	Cage Height	Description
NS	300.1350.18	18"	12-5/8" Trim Strip
NS	300.1350.24	24"	18-5/8" Trim Strip
NS	300.1350.28	28"	22-5/8" Trim Strip
01	300.1350.30	30"	24-5/8" Trim Strip
02	300.1350.36	36"	30-5/8" Trim Strip

TABLE C - Cage Latch Parts List (NS=Not Shown)

Item	Part No	Cage Height	Description
NS	702.0018.07	18"	Stainless Steel Latch Assembly
NS	702.0018.10	18"	HDPE Latch Assembly (Quiet Closure)
NS	702.0024.07	24"	Stainless Steel Latch Assembly
NS	702.0024.10	24"	HDPE Latch Assembly (Quiet Closure)
NS	702.0024.50	24"	Stainless Steel Double Door Latch Assembly
NS	702.0024.51	24"	HDPE Double Door Latch Assembly (Quiet Closure)
01	702.0030.07	30"-36"	Stainless Steel Latch Assembly
NS	702.0030.52	30"-36"	HDPE Latch Assembly (Quiet Closure)
NS	702.0030.50	30"	Stainless Steel Double Door Latch Assembly
NS	702.0030.51	30"	HDPE Double Door Latch Assembly (Quiet Closure)
02	702.0036.50	36"	Stainless Steel Double Door Latch Assembly
NS	702.0036.51	36"	HDPE Double Door Latch Assembly (Quiet Closure)

TABLE D - Cage Bank Assembly Rear Tube Spacer Parts List (NS=Not Shown)

Item	Part No	Cage Width	Description
NS	300.2116.18	18"	15-1/4" Rear Spacer Tube
NS	300.2116.24	24"	21-1/4" Rear Spacer Tube
01	300.2116.30	30"	27-1/4" Rear Spacer Tube
NS	300.2116.36	36"	33-1/4" Rear Spacer Tube
NS	300.2116.48	48"	45-1/4" Rear Spacer Tube
NS	300.2116.60	60"	57-1/4" Rear Spacer Tube
NS	300.2116.72	72"	69-1/4" Rear Spacer Tube

TABLE E - Cage Bank Assembly Miscellaneous Parts List

Item	Part No	Description
01	300.0170.00	#5 Rear Spacer Tube Clip
02	300.1698.00	#30 Front Clip
03	060.2507.01*	1/4" x 3/4" Truss HD, Hi-Lo, Stainless Steel Screw

\* Cages manufactured prior to 1992 use 1/4-28 screws (Not Shown). Cages manufactured between 1992 and 2009 use 1/4-20 screws. Cage attachment hardware is NOT interchangeable between older and newer cage types, using the incorrect hardware can damage the equipment. Contact Shor-Line Technical Service Department at 800.444.1579 (Europe +44 0 1446 77 20 41) for help distinguishing cage types and to ensure the correct hardware is used when reconfiguring older model cage assemblies.

## Assembly Procedures

### Cage Bank Configurations

Stainless steel cages are available in several sizes and can be used as a single unit and combined with other cages to create a variety of cage bank configurations with multiple size cages.



**WEAR PERSONAL PROTECTIVE EQUIPMENT (PPE), such as, but not limited to, eye protection, ear protection, protective gloves and Metatarsal/foot protection during installation. Failure to do so could result in SERIOUS INJURY.**

**Stainless steel cages are heavy. Enlist help and USE SAFE LIFTING PRACTICES during assembly, installation and moving equipment.**

### Assembly Tools

- #3 Phillips Head Screwdriver
- 1/2" wrench (or crescent wrench)
- Rubber Mallet

### NOTICE

**Do NOT use power tools for any procedures listed in this manual. Doing so can scratch product surfaces and/or cause hardware to fail. Do NOT over-tighten hardware.**

### Cage Platforms

Whether a single cage or multiple cage configuration, a platform base is required. There are three platform base options; stationary and mobile steel platforms, and custom built platforms can be constructed and used as a cage bank platform.

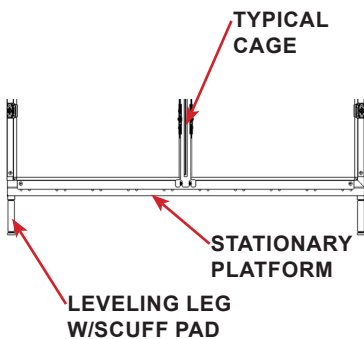


FIGURE 2.1 - Stationary Base

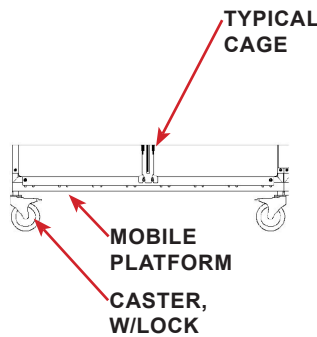


FIGURE 2.2 - Caster Base

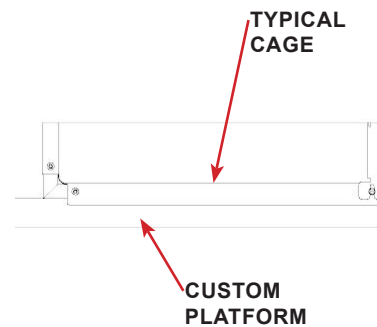


FIGURE 2.3 - Custom Base

Shor-Line offers several standard platform sizes. When combined, a stationary or mobile platform assembly can be constructed to hold most cage bank lengths.

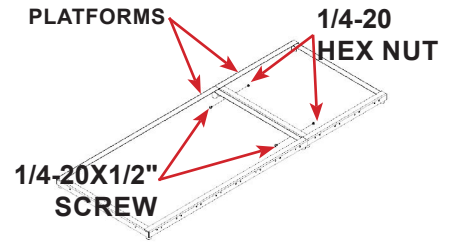
During planning, it is important to keep in mind operable height requirements and safe cage bank configuration lengths. U.S. National accessibility standards stipulate a 48" AFF (Above Finished Floor) height requirement for any operable controls (latches, handles, etc.). Cage bank configurations should be kept to a length and height to be able to safely assemble.

If a mobile bank is desired, keep the cage bank at a manageable length that when moved will safely navigate uneven flooring, which could result in tipping. Stationary platforms should be assembled at the proposed final location.

### Cage Bank Platform Assembly

For Cage Banks, platforms must be connected together to span the length of the proposed cage bank length.

- STEP 1:** To attach the platforms together, flip the platform frames on their top.
- STEP 2:** Align two platforms in-line with each other.
- STEP 3:** Secure the platforms using 1/4-20x1/2" screw and 1/4-20 Hex Nut. See FIGURE 2.4



**FIGURE 2.4 - Platform Attachment**

- STEP 4:** Ensure the two platforms are flush with each other before fully tightening the hardware.



**Keep hands clear of possible pinch areas when assembling parts, which if not avoided, could result in MINOR to MODERATE INJURY.**

Cage Platform				
Part No	Description	Leveling Leg	Standard Caster	Low Profile Caster
702.1800.07	18x28.25" Cage Platform w/Post Mount	X	X	
702.2400.07	24x28.25" Cage Platform w/Post Mount	X	X	
702.3000.07	30x28.25" Cage Platform w/Post Mount	X	X	
702.3600.07	36x28.25" Cage Platform w/Post Mount	X	X	
702.4200.07	42x28.25" Cage Platform w/Post Mount	X	X	
702.4800.07	48x28.25" Cage Platform w/Post Mount	X	X	
702.5400.07	54x28.25" Cage Platform w/Post Mount	X	X	
702.6000.07	60x28.25" Cage Platform w/Post Mount	X	X	
702.7200.07	72x28.25" Cage Platform w/Post Mount	X	X	
702.1800.50	18x28.25" Low Profile Cage Platform w/Plate Mount			X
702.2400.50	24x28.25" Low Profile Cage Platform w/Plate Mount			X
702.3000.50	30x28.25" Low Profile Cage Platform w/Plate Mount			X
702.3600.50	36x28.25" Low Profile Cage Platform w/Plate Mount			X
702.4200.50	42x28.25" Low Profile Cage Platform w/Plate Mount			X
702.4800.50	48x28.25" Low Profile Cage Platform w/Plate Mount			X
702.5400.50	54x28.25" Low Profile Cage Platform w/Plate Mount			X
702.6000.50	60x28.25" Low Profile Cage Platform w/Plate Mount			X
702.7200.50	72x28.25" Low Profile Cage Platform w/Plate Mount			X

Cage Bank Platform Hardware Parts List	
Item	Description
086.5012.11	Cage Platform Caster, with Lock
702.0004.00	Cage Platform Leg, with Leveling Foot and Scuff Pad
062.2505.01	1/4-20 x 1/2" Screw
064.2500.00	1/4-20 Hex Nut

## SECTION TWO

### Stationary Platform Assembly

Stationary platforms use a leg with an adjustable foot and scuff pad. The leg raises the platform 8-9.25" AFF. To install the stationary platform legs, flip the assembled platform frame on its top to expose the post sockets.

**STEP 1:** Before installing the leg into the platform socket, ensure the leveling foot is fully threaded into the leg by turning the foot clockwise into the leg tube.

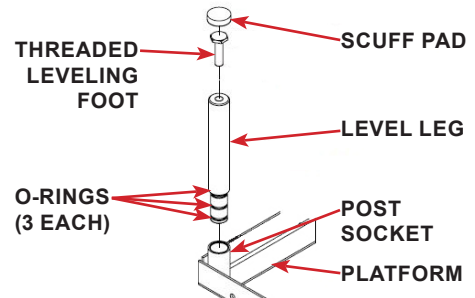


FIGURE 2.5 - Leveling Leg

**WARNING** Enlist help and USE SAFE LIFTING PRACTICES during assembly, installation and moving equipment.

**CAUTION** Keep hands clear of possible pinch areas when assembling parts, which if not avoided, could result in MINOR to MODERATE INJURY.

**NOTICE** Remove the scuff pad and lightly tap the leg with a rubber mallet if too much resistance is experienced during the installation process.

**STEP 2:** For single cage platforms, insert a leg into each of the post sockets. See FIGURE 2.6

**STEP 3:** For cage bank platforms (attached in series), insert a leg into each of the four end corners. See FIGURE 2.7

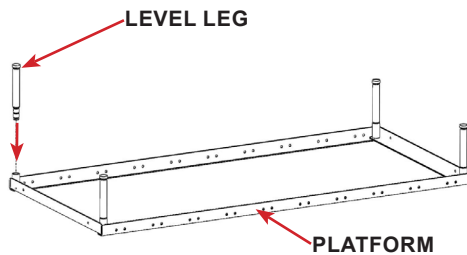


FIGURE 2.6 - Single Cage Platform

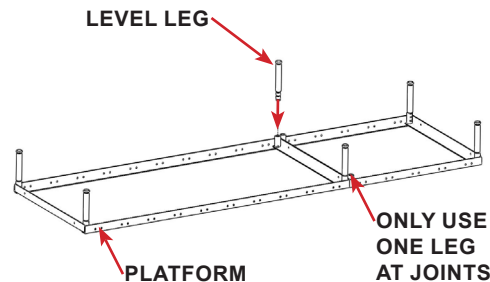


FIGURE 2.7 - Cage Bank Platform

**STEP 4:** Insert one leg in the front and back where the platforms are joined together. There are two sockets where the platforms join, only one leg at the front and back is required at the platform joints. See FIGURE 2.7

**STEP 5:** Move the assembled platform to the proposed location, adjust the leveling feet as required to ensure the platform is level front-to-back and left-to-right.

**WARNING** Ensure the cage bank is level during assembly to prevent possible tipping, which if not avoided, could result in MINOR to MODERATE INJURY.

### Mobile Platform Assembly

Mobile platforms use casters with a foot operated brake. There are two types of mobile platforms, standard and low profile. See FIGURE 2.8

Standard mobile platforms use the same post socket mounts as the stationary platform which raises the cage bank 8.5" AFF. The low profile mobile platform utilizes a recessed plate mounted caster which only raises the platform 7" AFF. See FIGURE 2.9 and 2.10

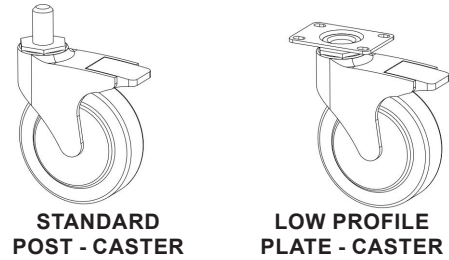


FIGURE 2.8 - Casters

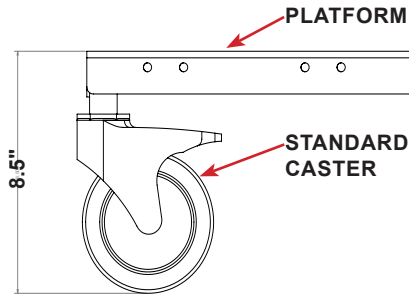


FIGURE 2.9 - Standard Caster

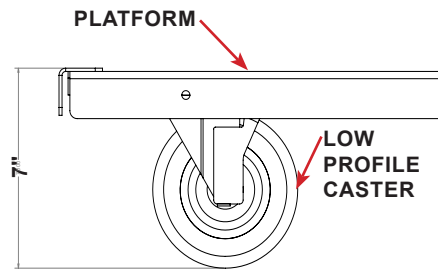


FIGURE 2.10 - Low Profile Caster

### Standard Mobile Platform Installation

To install the standard mobile platform casters, flip the assembled platform frame on its top to expose the post sockets.



**WARNING** Enlist help and USE SAFE LIFTING PRACTICES during assembly, installation and moving equipment.



**CAUTION** Keep hands clear of possible pinch areas when assembling parts, which if not avoided, could result in MINOR to MODERATE INJURY.

**STEP 1:** For single platform assemblies, insert a caster into each of the corner post sockets. See FIGURE 2.11

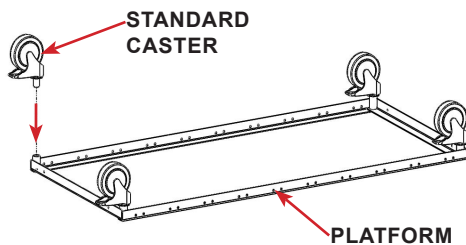


FIGURE 2.11 - Single Cage Platform

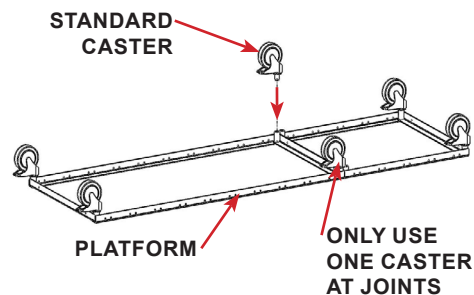


FIGURE 2.12 - Cage Bank Platform

**STEP 2:** For multiple platform assemblies (attached in series), insert a caster into each of the four end corners. See FIGURE 2.12

**STEP 3:** Insert one caster in the front and back where the platforms are joined together. There are two sockets where the platforms join, only one caster is required at the platform joints. See FIGURE 2.12

## SECTION TWO

### NOTICE

**Do NOT install two casters at the platform joints on cage bank assemblies. The casters will interfere with each other, preventing movement.**

**Lightly tap the caster with a rubber mallet if too much resistance is experienced during the installation process.**

**STEP 4:** Move the assembled platform to its proposed location. Ensure the platform is located on a flat surface and that the platform is level front-to-back and left-to-right. Lock casters to stabilize the platform during the cage bank assembly.

### WARNING

**Ensure the cage bank is level during assembly to prevent possible tipping, which if not avoided, could result in MINOR to MODERATE INJURY.**

### Low Profile Platform Installation

To install the low profile mobile platform casters, flip the assembled platform frame on its top to expose the caster mount channels.

### WARNING

**Enlist help and USE SAFE LIFTING PRACTICES during assembly, installation and moving equipment.**

### CAUTION

**Keep hands clear of possible pinch areas when assembling parts, which if not avoided, could result in MINOR to MODERATE INJURY.**

**STEP 1:** For single cage platforms, align the plate caster with the platform framing. See FIGURE 2.13

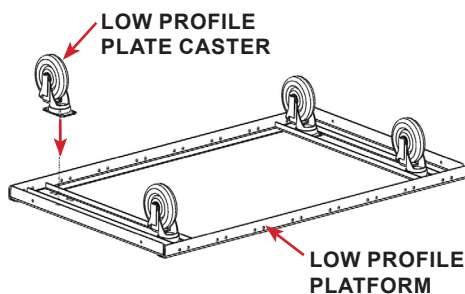


FIGURE 2.13 - Single Cage Platform

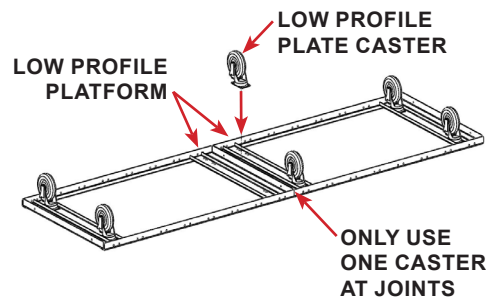


FIGURE 2.14 - Cage Bank Platform

**STEP 2:** For multiple platform assemblies (attached in series), install a plate caster at each of the four end corners. See FIGURE 2.14

**STEP 3:** Install one plate caster in the front and back where the platforms are joined together. There are two mounting plates where the platforms join, only one caster at the front and back is required at the platform joints. See FIGURE 2.14

### NOTICE

**Do NOT install two casters at the platform joints on cage bank assemblies.**

**STEP 4:** Move the assembled platform to its proposed location. Ensure the platform is located on a flat surface and that the platform is level front-to-back and left-to-right. Lock casters to stabilize the platform during the cage bank assembly.

### WARNING

**Ensure the cage bank is level during assembly to prevent possible tipping, which if not avoided, could result in MINOR to MODERATE INJURY.**

## Cage Bank Custom Platform

Custom cage bank platforms can be constructed to match finishes within the space of the proposed cage bank location. Raised platforms and inset wall casements can be designed and built (by other) to hold cage bank assemblies. See FIGURE 2.15 and 2.16

### NOTICE

*During the design of any custom built cage bank platform, verify the actual finished dimensions of the completed cage bank assembly. Cage bank widths vary, depending on the amount of cages included. Verify all proposed openings and height requirements before construction.*

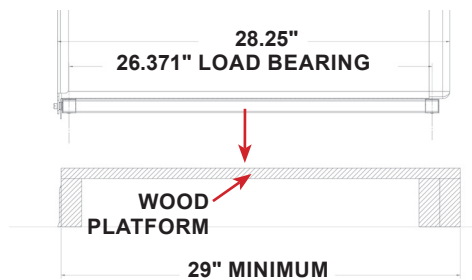


FIGURE 2.15 - Wood Platform

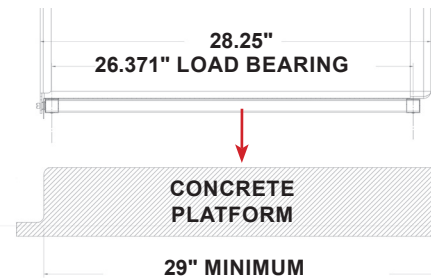


FIGURE 2.16 - Concrete Platform

### Design Considerations:

- Cages are 28.25" deep, load bearing is 26.371" on center.
- Cage bank widths vary. To calculate the actual width of a cage bank assembly, count the row that has the most cages, add 1/16" for each cage included in the row. (EXAMPLE: A row of four-24" wide cages require an overall clearance of 8'-0 1/4")
- Provide blocking at load bearing points.
- Cages are equipped with a fluid-retaining lip. The lip must rest against the front face of the platform, which provides bracing to hold the cage bank secure. Do not use trim moulding, the front edge of the platform must be clear of obstruction. Trim plates are available to secure the cage bank to a wooden platform, anchor hardware by other.
- Ensure base molding does not interfere with the cage front drain lip.
- Concrete platforms should not have rounded edges greater than .5" radius or the cage front lip could slide over the front edge of the platform.
- Cage bank platforms must be level front-to-back and left-to-right.

## SECTION TWO

### Cage Bank Assembly

Stainless steel cages are available in several sizes and can be used as a single unit and combined to create a variety of configurations with multiple size cages.



**WEAR PERSONAL PROTECTIVE EQUIPMENT (PPE), such as, but not limited to, eye protection, ear protection, protective gloves and Metatarsal/foot protection during installation. Failure to do so could result in SERIOUS INJURY.**

**Stainless steel cages are heavy. Enlist help and USE SAFE LIFTING PRACTICES during assembly, installation and moving equipment.**

Each individual cage has an identification label on the packaging and the component itself. Utilize cage bank configuration drawings to sort and organize the cages.

Contact Shor-Line Technical Service Department if cage bank configuration drawings are needed (1.800.444.1579).

Cage bank assembly procedures are phased in three categories, each with similar procedures but contain unique steps within each phase: Bottom Row procedures provide installation steps for single row and multi-row configurations mounted to a steel platform. Middle Row procedures are to be repeated for each row between the bottom and top rows. Top row assembly procedures include steps that are required whether the cage bank is one or multiple row configurations.

The following instructions provide direction for a 10' stainless steel cage bank assembly mounted to a Shor-Line stainless steel stationary platform. Noting is provided describing alternative trim plates for the various cage bank configurations, conditions vary.

Single Door (SD) and Double Door (DD) cages require different installation procedures. Look for the initials to distinguish between steps required to complete the proposed cage bank assembly.

#### NOTICE

**For single row configurations, ensure to follow the steps in both Phase I-Bottom Row and Phase III-Top Row.**

**Door hinges may vary depending on the release model of the cages used in the cage bank configuration if older cages are being combined with newer. Type III cages are used for these procedures. Contact Shor-Line for door removal procedures and hardware requirements for older model cages.**

#### Assembly Tools

- #3 Phillips Head Screwdriver
- 1/2" wrench (or crescent wrench)
- Rubber Mallet

#### NOTICE

**Do NOT use power tools for any procedures listed in this manual. Doing so can scratch product surfaces and/or cause hardware to fail. Do NOT over-tighten hardware.**

#### Cage Bank Assembly Phase I - Bottom Row

The cage bank platform should be assembled and level at its proposed final location. The platform must be level before beginning the cage bank assembly. Leveling of the cage bank rows is required during each assembly phase. Cage bank assemblies are very heavy, minimize moving a fully assembled cage bank.

If equipped, lock all casters on mobile platforms once the platform is located and level.

## Bottom Row, Cage One

**STEP 1:** Using the ID Tag on the shipping box and by using the configuration layout drawing, locate the first (bottom left) cage to start the bottom row. Remove shipping materials.

### NOTICE

Do **NOT** remove the sound dampening patches.

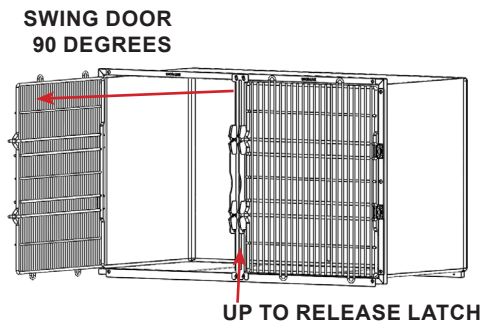


FIGURE 2.17 - Open Door



FIGURE 2.18 - Door Removal

**STEP 2:** Remove the door from the cage:

- A:** Slide the latch bar up and swing the door to the open position (90° to cage face). See FIGURE 2.17
- B:** Lift the door up, sliding the bushings out of the hinge assembly. Set away from the assembly area. See FIGURE 2.18

### WARNING

Enlist help and **USE SAFE LIFTING PRACTICES** during assembly, installation and moving equipment.

### CAUTION

Keep hands clear of possible pinch areas when assembling parts, which if not avoided, could result in **MINOR to MODERATE INJURY**.

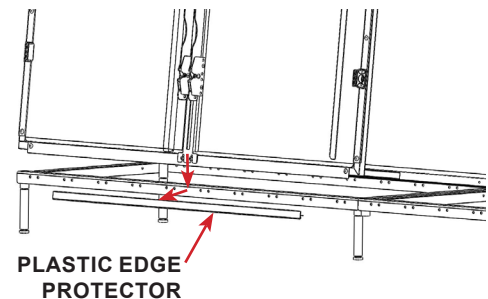


FIGURE 2.19 - Front Edge Guard

**STEP 3:** Lift and set the first cage into place on the platform.

**STEP 4:** Lift the front of the cage to remove the red plastic edge guard. Slide the cage back against the front edge lip. See FIGURE 2.19

**STEP 5:** Remove the screws (2 ea) from the bottom left corner of the cage.

**STEP 6:** Install, but do NOT fully tighten screws, the bottom-left trim plate (#66) using the screws removed in the previous step. The bottom hole requires a 1/4-20 screw and nut, which secures the cage to the platform. See FIGURE 2.20

**NOTE: Alternative Platform Installation- Use trim plate (#11A) for cage bank assemblies NOT mounted to a Shor-Line mobile or stationary stainless steel platform.**

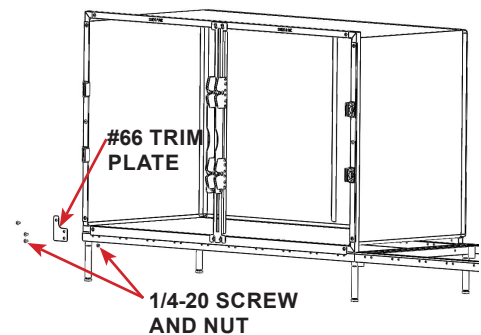


FIGURE 2.20 - Trim Plate #66

## SECTION TWO

### Bottom Row, Cage Two

**STEP 7:** Using the ID Tag on the shipping box and by using the configuration layout drawing, locate the second (from bottom left) cage to add to the row. Remove shipping materials.

#### NOTICE

*Do NOT remove the sound dampening patches.*

**STEP 8:** Remove the door from the cage by following STEP 2 procedures.

#### WARNING

*Enlist help and USE SAFE LIFTING PRACTICES during assembly, installation and moving equipment.*

#### CAUTION

*Keep hands clear of possible pinch areas when assembling parts, which if not avoided, could result in MINOR to MODERATE INJURY.*

**STEP 9:** Lift and set the second cage into place on the platform. See FIGURE 2.21

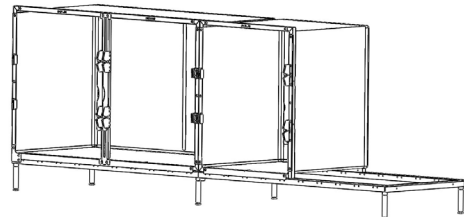


FIGURE 2.21 - Row 1, Cage 2

**STEP 10:** Lift the front of the cage to remove the red plastic edge guard. Slide the cage back against the front edge lip.

**STEP 11:** DD Cage - Remove the screws (4 ea) holding the hinges, and the center frame screw between the hinges from the previous set cage. See FIGURE 2.22

**STEP 12:** SD Cage - Remove the screws (4 ea) holding the latch assembly, and the center frame screw from the previous set cage. See FIGURE 2.23

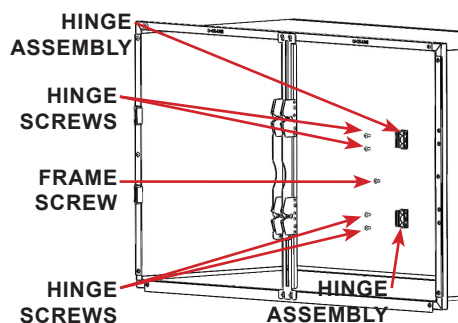


FIGURE 2.22 - Double Door Cage

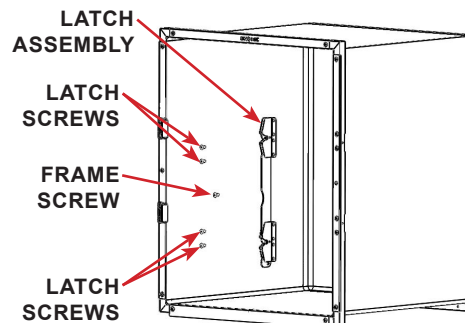


FIGURE 2.23 - Single Door Cage

#### NOTICE

*DD Cage latches (FIGURE 2.22) share a center latch plate, it is NOT necessary to remove the latch assembly on a double door cage.*

**STEP 13:** Remove the screws (4 ea) holding the hinges and the center frame screw between the hinge assemblies on the cage 2.

**STEP 14:** Install the trim strip underneath the hinge assemblies and thread the center frame screws, do NOT fully tighten. See FIGURE 2.24

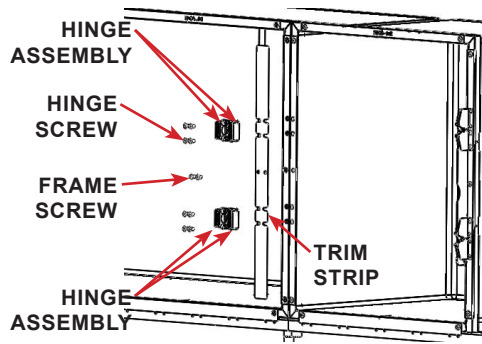


FIGURE 2.24 - Trim Strip Installation

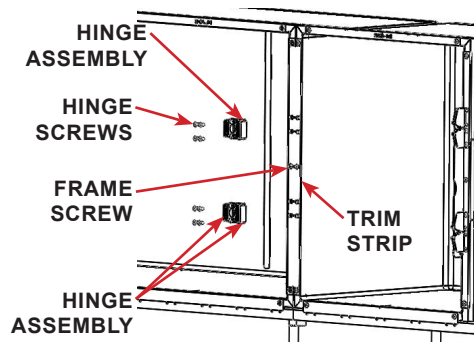


FIGURE 2.25 - Hinge Installation

**STEP 15:** Reinstall the hinges on both cages, but do NOT fully tighten screws. See FIGURE 2.25

**STEP 16:** Remove the bottom trim plate screws (4 each) from both cages to be attached.

**STEP 17:** Install, but do NOT fully tighten screws, trim plate (#55) using the screws removed in the previous step. The bottom holes require two 1/4-20 screws and nuts to secure the cage to the platform frame. See FIGURE 2.26

**NOTE: Alternative Platform Installation - Use trim plate (#22A) for cage bank assemblies NOT mounted to a Shor-Line mobile or stationary stainless steel platform.**

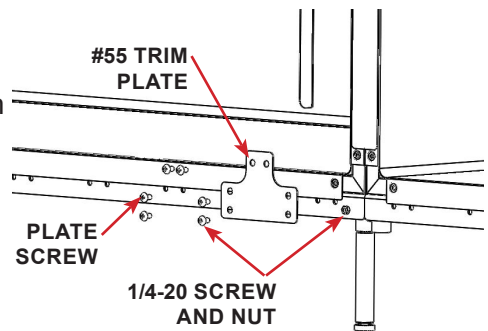


FIGURE 2.26 - Trim Plate #55

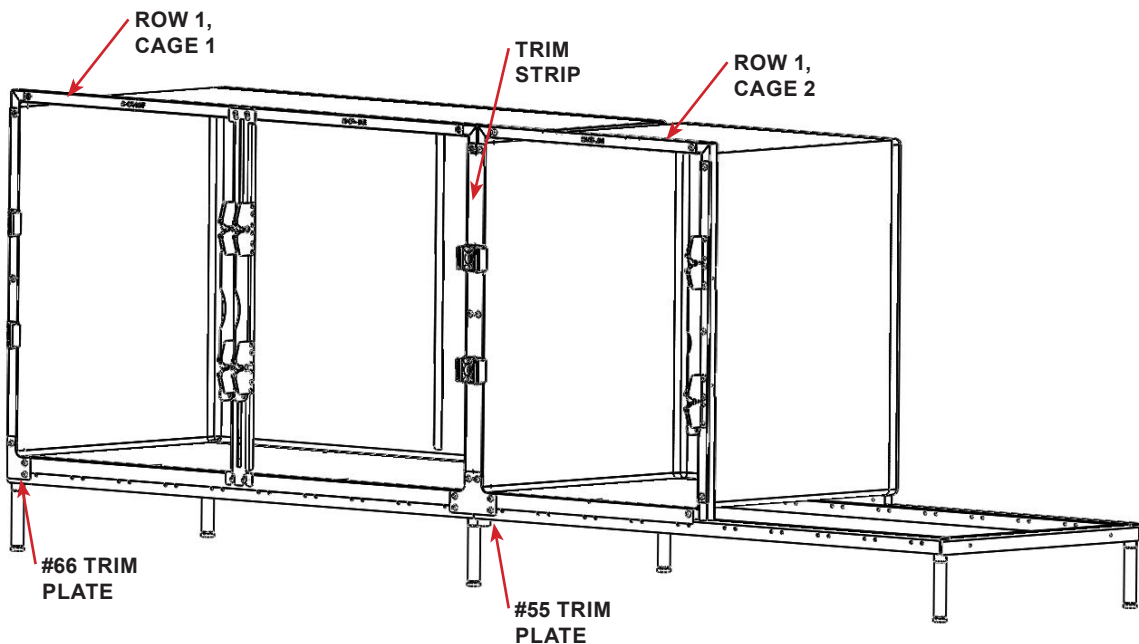


FIGURE 2.27 - Phase I Assembly Progress Illustration, Configurations Vary

## SECTION TWO

### Bottom Row, Remaining Cages

Repeat STEP 7 thru 10 for each additional cage required to complete the cage bank bottom row. Once a cage is added to the row continue to STEP 18 for hardware installation.

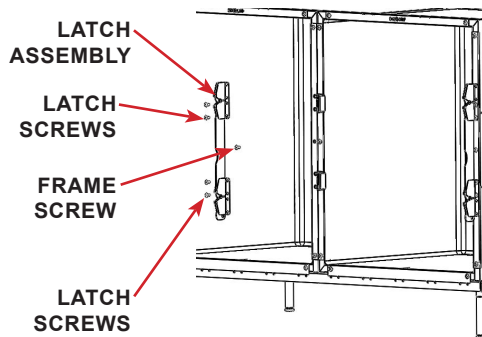


FIGURE 2.28 - Latch Removal

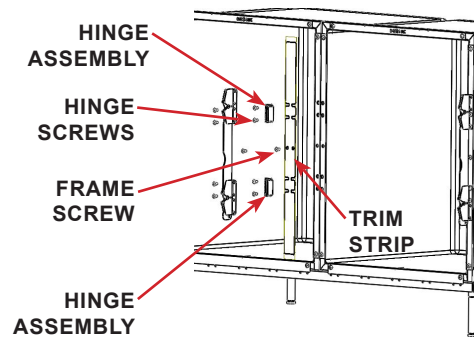


FIGURE 2.29 - Hinge Removal

**STEP 18:** Remove the screws (4 ea) holding the latch assembly and the center frame screw from the previous set cage. See FIGURE 2.28

**STEP 19:** Remove the screws holding the hinges and the center frame screw between the hinge assemblies from the recently added cage. See FIGURE 2.29

**STEP 20:** Install the trim strip underneath the hinge assemblies and thread the center frame screws, do NOT fully tighten. See FIGURE 2.29

**STEP 21:** Remove the bottom trim plate screws (4 each) from both cages to be attached.

**STEP 22:** Install, but do NOT fully tighten screws, trim plate (#55) using the screws removed in the previous step. The bottom holes require 1/4-20 screws and nuts to secure the cage to the platform frame. Repeat this step for each cage added to the row. See FIGURE 2.30

**NOTE: Alternative Platform Installation - Use trim plate (#22A) for cage bank assemblies NOT mounted to a Shor-Line mobile or stationary stainless steel platform.**

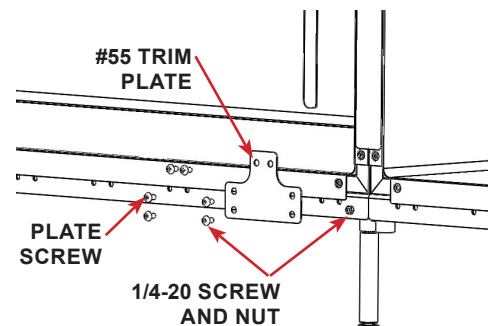


FIGURE 2.30 - Trim Plate #55

**STEP 23:** Remove the bottom right trim plate screws (2 each) from the last cage in the row. See FIGURE 2.31

**STEP 24:** Install, but do NOT fully tighten screws, trim plate (#66) using the screws removed in the previous step. The bottom hole requires 1/4-20 screw and nut to secure the cage to the platform frame. See FIGURE 2.31

**NOTE: Alternative Platform Installation - Use trim plate (#11A) for cage bank assemblies NOT mounted to a Shor-Line mobile or stationary stainless steel platform.**

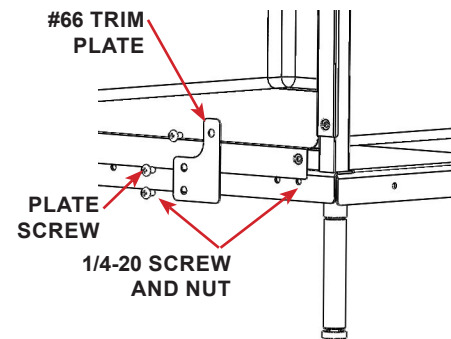


FIGURE 2.31 - Trim Plate #66

**STEP 25:** Level the cage bank row front-to-back and top-to-bottom directions beginning with the first cage installed, tightening the trim plates and strips as each cage is leveled.

**STEP 26:** Reinstall the cage doors in the bottom row, refer to STEP 2 (A & B) in reverse order to reinstall the cage doors.

**STEP 27:** Close the door, check latch operation and adjust alignment to ensure the door latches correctly.

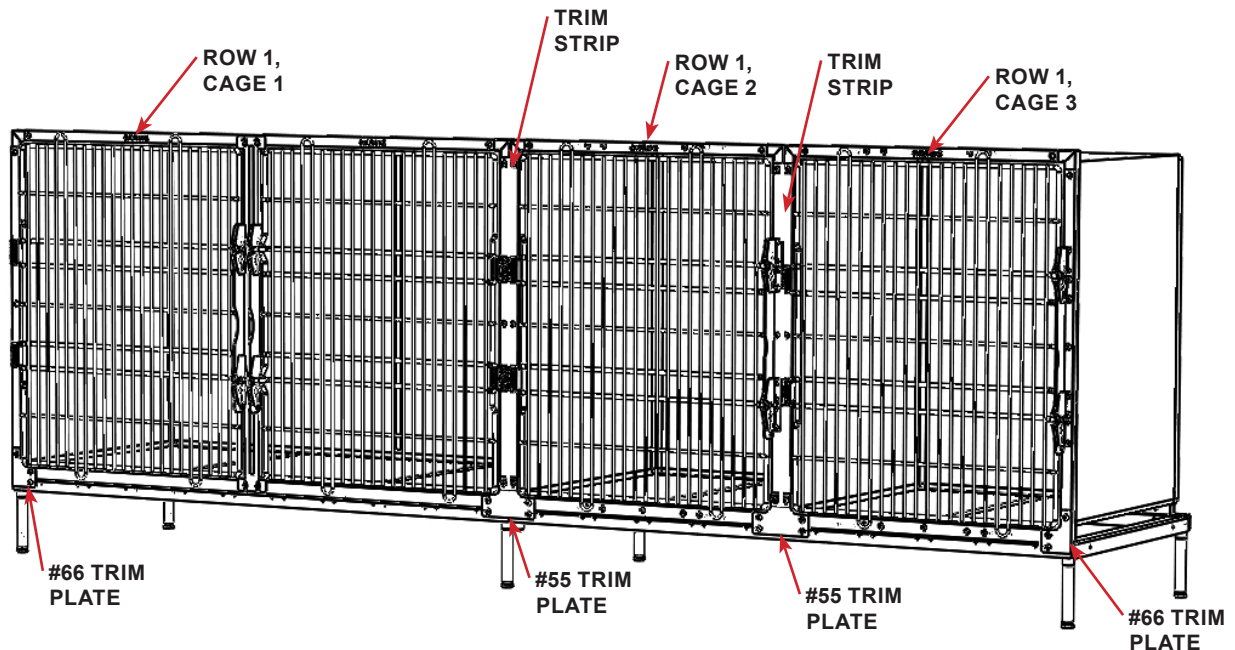


FIGURE 2.32 - Phase I Assembly Progress Illustration, Configurations Vary

### Cage Bank Assembly Phase II - Middle Row(s)

The following instructions for middle row cage installation is to be repeated for each row between the bottom and top rows in the proposed cage bank.

Different size cages may align with the cage joint below or may not. There are different trim plates for each configuration condition. Ensure to follow the steps/instruction that resembles the conditions for the cage bank to be assembled. Refer to the cage bank assembly drawing to verify cage size, location and hardware requirements.



**WARNING** Enlist help and USE SAFE LIFTING PRACTICES during assembly, installation and moving equipment.



**CAUTION** Keep hands clear of possible pinch areas when assembling parts, which if not avoided, could result in MINOR to MODERATE INJURY.

#### Middle Row, Cage One

**STEP 1:** Using the ID Tag on the shipping box and by using the configuration layout drawing, locate the first (from left) cage to start the next row. Remove shipping materials.

#### NOTICE

Do NOT remove the sound dampening patches.

**STEP 2:** Remove the door from the cage by following Phase I-STEP 2 procedures.

**STEP 3:** Lift and set the first cage into place. Stack from left to right on top of the cage bank bottom row.

## SECTION TWO

**STEP 4:** Locate the rear spacer tube with a length that matches the cage width.

### NOTICE

*Rear Spacer Tubes vary in length. See TABLE D (Page 6) to verify cage width and corresponding rear spacer tube length.*

**STEP 5:** Utilize help to tilt the back of the cage up while supporting the front, align a spacer tube under the rear tube of the cage. Use the spacer tube rear clips to secure the tube in place, each end of tube. See FIGURE 2.33 and 2.34

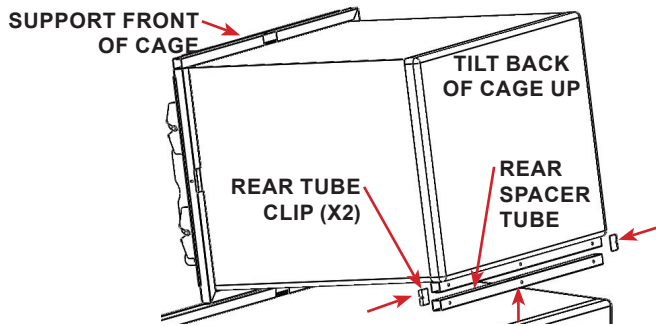


FIGURE 2.33 - Rear Spacer Tube

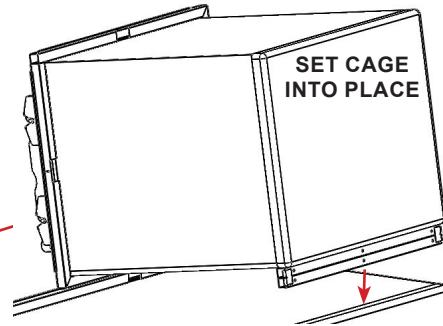


FIGURE 2.34 - Rear Clip Installation

**STEP 6:** Lift the front of the cage to remove the red plastic edge guard. Slide the cage back against the front edge lip.

**STEP 7:** Remove the bottom-right trim plate screws. See FIGURE 2.35

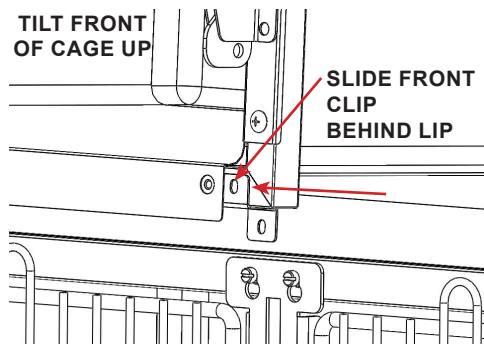


FIGURE 2.35 - Front Clip Installation

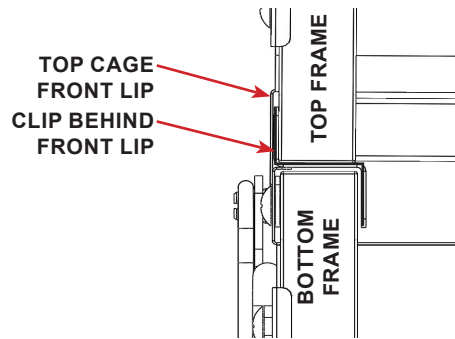


FIGURE 2.36 - Front Clip, Side View

**STEP 8:** Utilize help to slightly tilt the front of the cage up and slide a front clip under the front tube (right-side) and behind the front lip of the cage, align with the screw hole.

NOTE: A trim plate to be added in a later step will secure the clip in place, which prevents the cage from sliding forward. See FIGURE 2.35 and 2.36

**STEP 9:** Remove the screws (4 ea) from the bottom left corner of the new cage and the top left corner of the cage below. See FIGURE 2.37

**STEP 10:** Install, but do NOT fully tighten screws, the middle-left trim plate (#22) using the screws removed in the previous step. See FIGURE 2.37

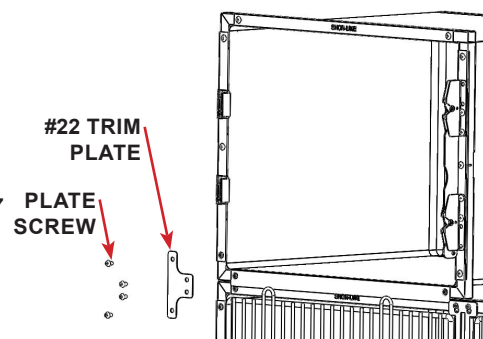


FIGURE 2.37 - Trim Plate #22

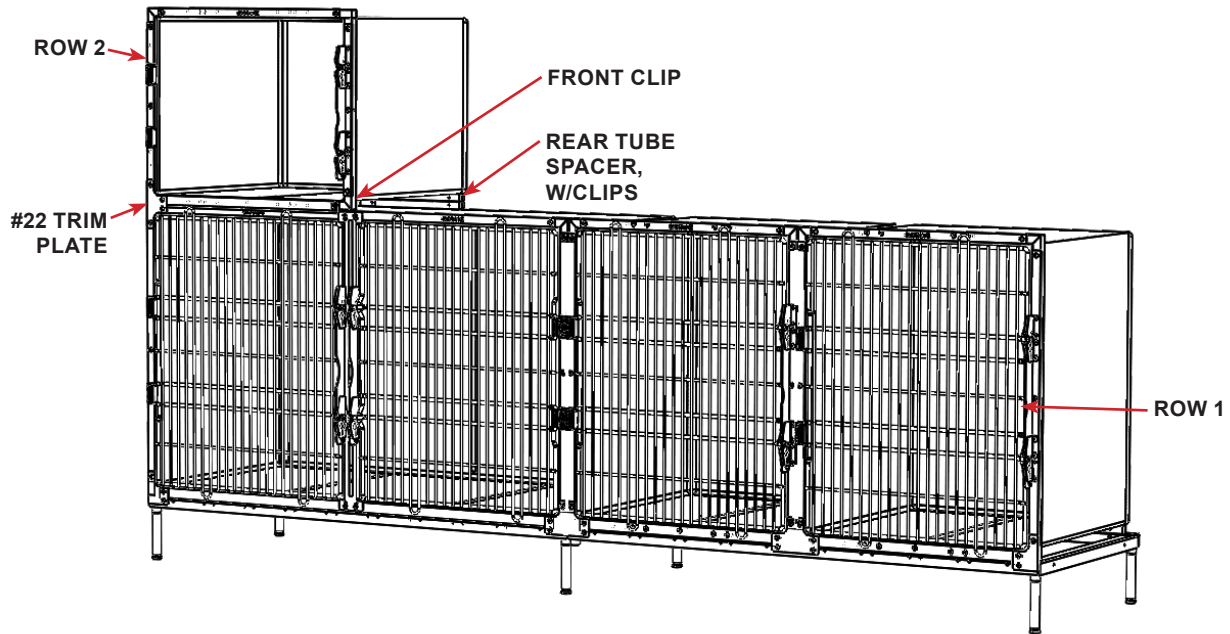


FIGURE 2.38 - Phase II Assembly Progress Illustration, Configurations Vary

### Middle Row, Cage Two

**STEP 11:** Using the ID Tag on the shipping box and by using the configuration layout drawing, locate the second (from left) cage to add to the row. Remove shipping materials.

#### NOTICE

*Do NOT remove the sound dampening patches.*

**STEP 12:** Remove the door from the cage by following Phase I-STEP 2 procedures.

#### WARNING

*Enlist help and USE SAFE LIFTING PRACTICES during assembly, installation and moving equipment.*

#### CAUTION

*Keep hands clear of possible pinch areas when assembling parts, which if not avoided, could result in MINOR to MODERATE INJURY.*

**STEP 13:** Lift and set the second cage into place on the platform. See FIGURE 2.39

**STEP 14:** Install a rear spacer tube and secure with clips by following Phase II-STEP 4 and 5 for installation procedures and illustrations.

**STEP 15:** Lift the front of the cage to remove the red plastic edge guard. Slide the cage back against the front edge lip.

**STEP 16:** Install the front clip on the right side of the new cage by following Phase II-STEP 6 procedures.

#### NOTICE

*Remove the front lip guard before installing the trim plates.*

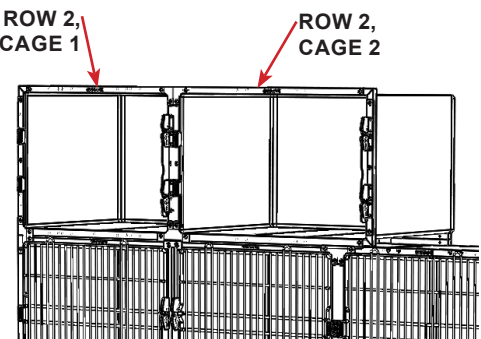


FIGURE 2.39 - Cage Installation

## SECTION TWO

**STEP 17:** Remove the latch, hinges and center frame screws to install a trim strip by following Phase I-STEP 18-20. See FIGURE 2.40

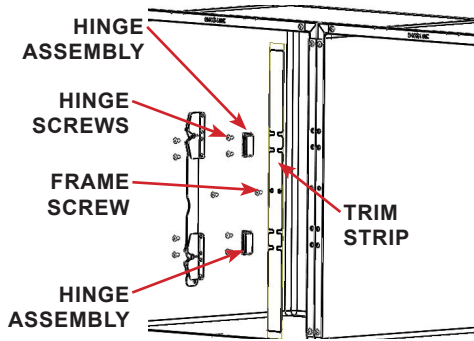


FIGURE 2.40 - Trim Strip Installation

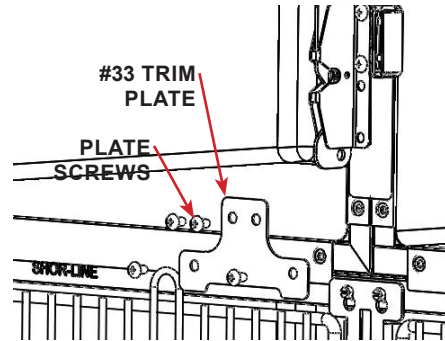


FIGURE 2.41 - Trim Plate #33

**STEP 18:** Remove the bottom trim plate screws (4 each) from both cages to be attached. See FIGURE 2.41

**STEP 19:** Install, but do NOT fully tighten screws, trim plate (#33) using the screws removed in the previous step. Trim plate (#33) is notched to compensate for a double door latch assembly on the cage below. See FIGURE 2.41

**NOTE: Alternative Installation - Use trim plate (#22) for cage bank assemblies where the cage joints don't align with the bottom cage joints. See FIGURE 2.42**

**- Use trim plate (#44) for cage bank assemblies where the cage joints align with the bottom joints. See FIGURE 2.42**

TRIM PLATE #22

TRIM PLATE #44

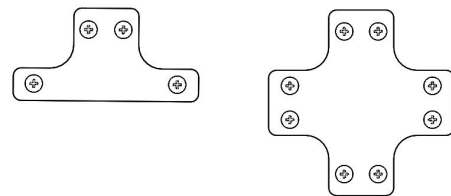


FIGURE 2.42 - Trim Plates

### NOTICE

**Not all cage joints align with cages above/below. For these procedures the bottom row cages do not align with the cages above, add trim plates as required. See FIGURE 2.43**

**STEP 20:** Remove the top trim plate screws (4 each) from both bottom cages that do not align with the cages above. See FIGURE 2.43

**STEP 21:** Install, but do NOT fully tighten screws, trim plate (#22) using the screws removed in the previous step. See FIGURE 2.44

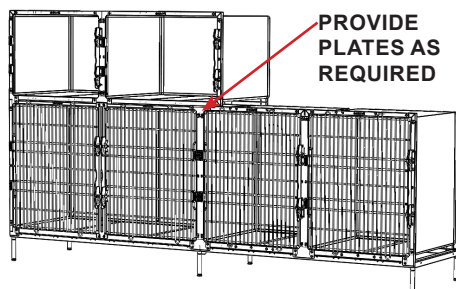


FIGURE 2.43 - Trim Plate #22

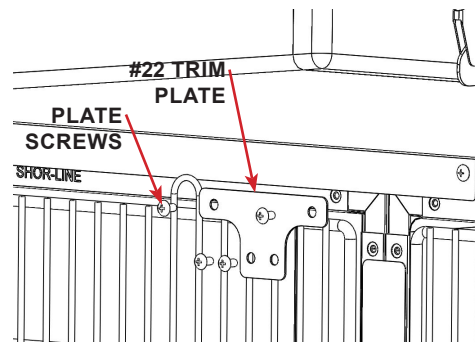


FIGURE 2.44 - Trim Plate #22

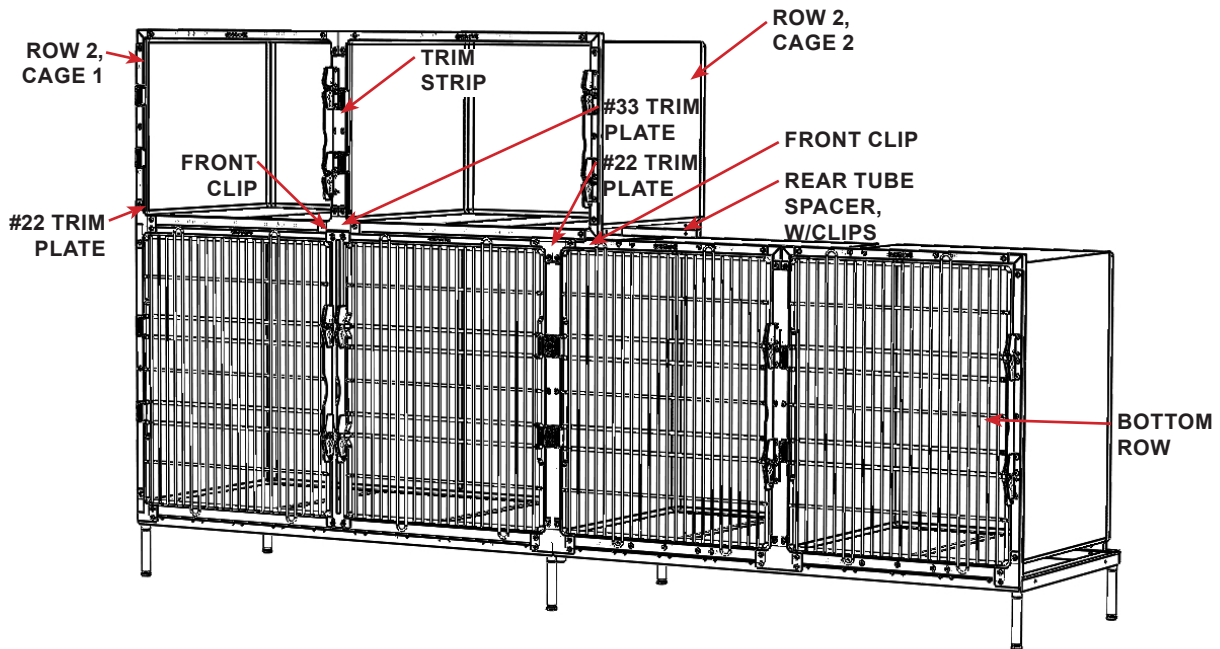


FIGURE 2.45 - Phase II Assembly Progress Illustration, Configurations Vary

### Middle Row, Remaining Cages

Repeat Phase II-STEP 11 thru 16 to add the remaining cages required to complete the cage bank row. Depending on the cage bank assembly, configurations and trim plate requirements may vary. Once a cage is added to the row, continue to STEP 21.

#### NOTICE

*Provide front clips on the same (right) side of each cage except the last cage in the row. The last cage in a row does not require a front clip.*

As with the previous phase procedures, once a cage is added to the cage bank row, take the time to remove the trim plate screws and install the corresponding trim plate as required.

The following steps describe the trim plates required for the example cage bank configuration.

**STEP 22:** Remove the trim plate screws where cages meet in the row, note that the new cage row may not align with the cage joints below. See FIGURE 2.45

**STEP 23:** Install, but do NOT fully tighten screws, trim plate (#22A) using the screws removed in the previous step. See FIGURE 2.45

**STEP 24:** Remove the bottom right trim plate screws from the next cage in the row and the cage below. See FIGURE 2.46

**STEP 25:** Install, but do NOT fully tighten screws, trim plate (#44) using the screws removed in the previous step. See FIGURE 2.46

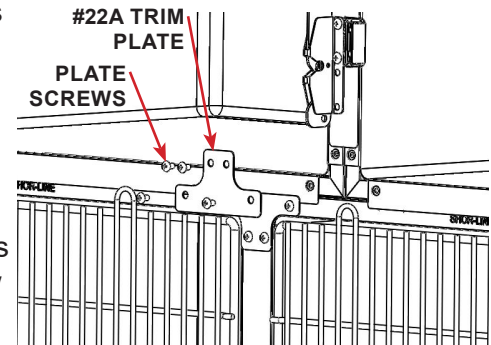


FIGURE 2.45 - Trim Plate #22A

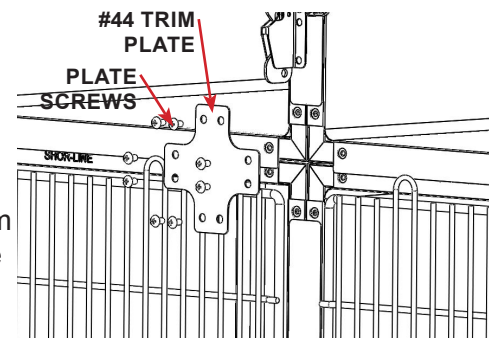


FIGURE 2.46 - Trim Plate #44

## SECTION TWO

**STEP 26:** Remove the bottom right trim plate screws (4 each) from the last cage in the row and the last cage in the row below. See FIGURE 2.47

**STEP 27:** Install, but do NOT fully tighten screws, trim plate (#22) using the screws removed in the previous step. See FIGURE 2.47

**STEP 28:** Level the cage bank row front-to-back and top-to-bottom, tightening the trim plates and strips as each cage in the row is leveled.

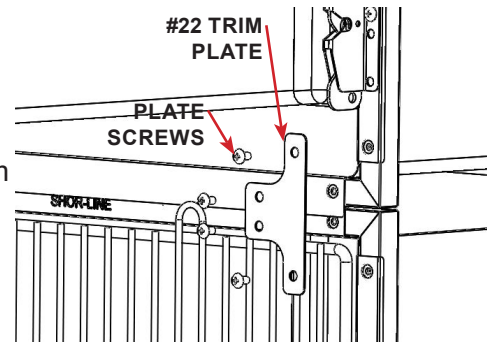


FIGURE 2.47 - Trim Plate #22

**STEP 29:** Reinstall the cage doors in the middle row, refer to Phase I-STEP 2 (A & B) in reverse order to reinstall cage doors.

**STEP 30:** Close the door, check latch operation and adjust alignment to ensure the door latches correctly.

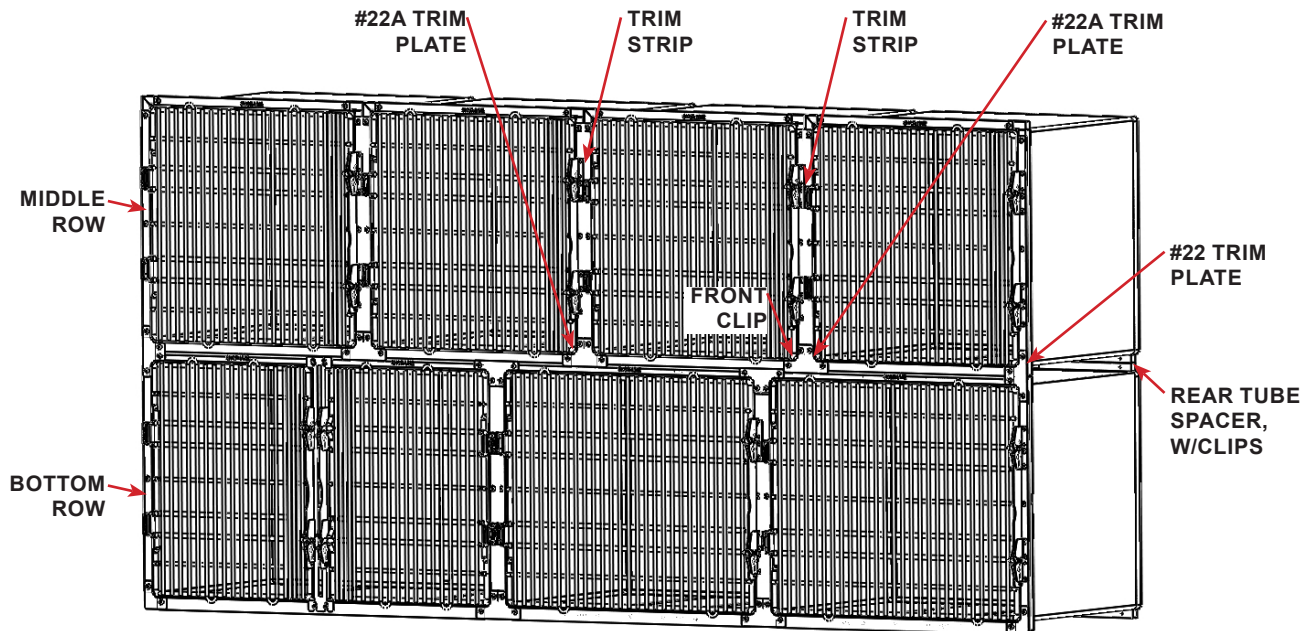


FIGURE 2.48 - Phase II Assembly Progress Illustration, Configurations Vary

### Cage Bank Assembly Phase III - Top Row

The following instructions for Top Row cage installation is for the top row whether the proposed configuration is a single or several row cage bank assembly. Different size cages may align with the cage joint below or may not. There are different trim plates for each configuration condition.

Ensure to follow steps/instruction that resembles the conditions for the cage bank to be assembled.

## Top Row, Cage Installation

Follow the same procedures used to add cages to the middle row to install the top row cages. The following steps provide an assembly order for spacers, clips, trim strips and plates for the top row of cages.

**WARNING** *Enlist help and USE SAFE LIFTING PRACTICES during assembly, installation and moving equipment.*

**CAUTION** *Keep hands clear of possible pinch areas when assembling parts, which if not avoided, could result in MINOR to MODERATE INJURY.*

**STEP 1:** Using the ID Tag on the shipping box and by using the configuration layout drawing, locate the first (from left) cage to start the top row. Remove shipping materials.

**NOTICE** *Do NOT remove the sound dampening patches.*

**STEP 2:** Remove the door from the cage by following Phase I-STEP 2 procedures.

**STEP 3:** Lift and set the first cage into place. Stack from left to right.

**STEP 4:** Install the rear spacer by following Phase II-STEP 5 procedures.

**STEP 5:** Lift the front of the cage to remove the red plastic edge guard. Slide the cage back against the front edge lip.

**STEP 6:** Install the front clip by following Phase II-STEP 6 procedures. Front clips should be used on the same side (right) on each cage added to the row, excluding the last cage in the row.

**STEP 7:** Remove the screws and install, but do NOT fully tighten screws, the trim strips connecting the cage row together, as each cage is added to the row. See FIGURE 2.49

**STEP 8:** Remove the screws and install, but do NOT fully tighten screws, the trim plates connecting the top row to the row below. See FIGURE 2.49

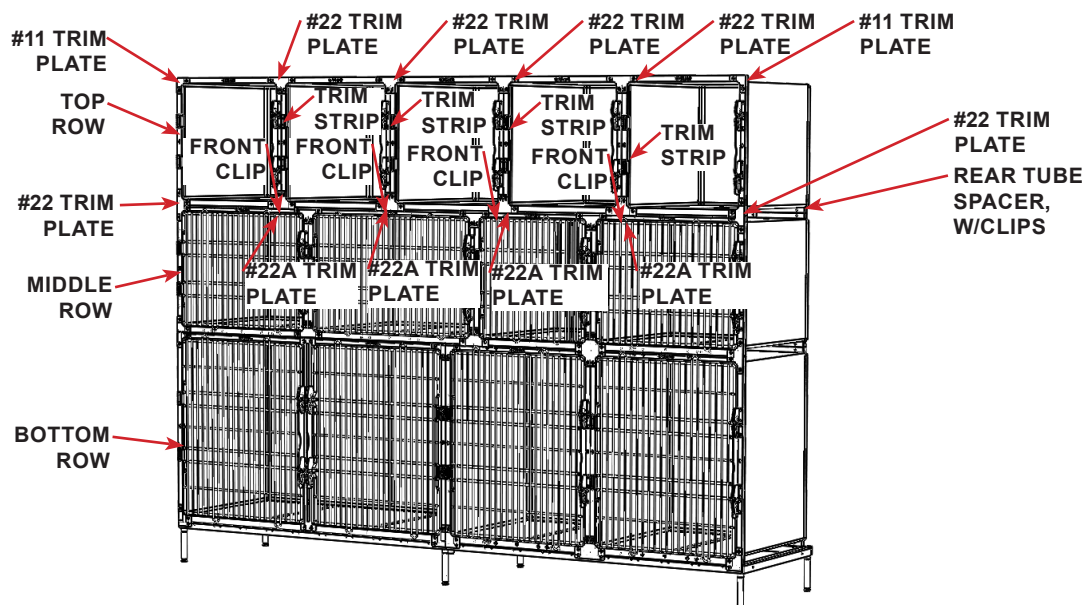


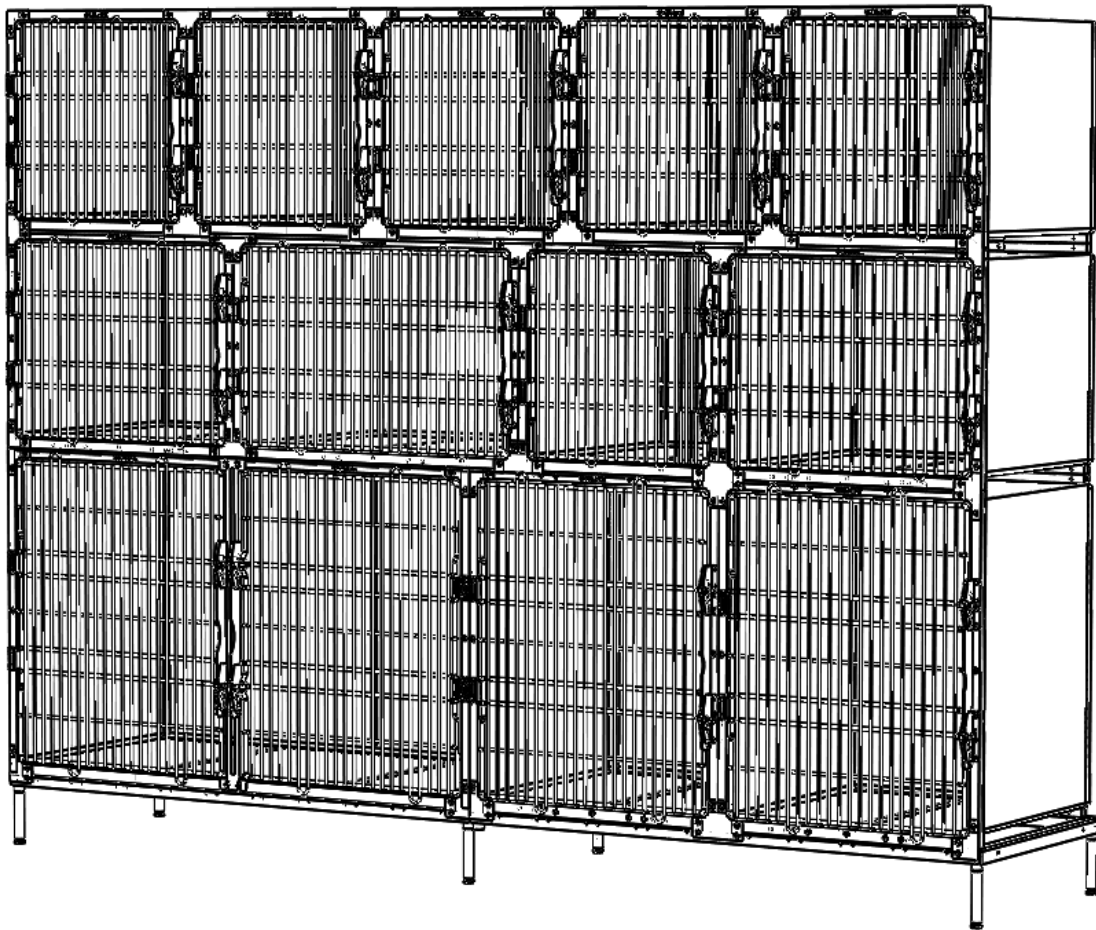
FIGURE 2.49 - Phase III Assembly Progress Illustration, Configurations Vary

## SECTION TWO

### NOTICE

*The example cage bank uses five 24" wide cages for the top row. Cage bank configurations vary, ensure the correct trim plates are used to complete the assembly. Refer to the cage bank assembly drawings to verify cage size, cage location and hardware requirements. Contact Shor-Line Technical Service Department if cage bank configuration drawings are needed (1.800.444.1579).*

- STEP 9:** Level the cage bank row front-to-back and top-to-bottom, tightening the trim plates and strips as each cage in the row is leveled.
- STEP 10:** Reinstall the cage doors in the top row, refer to Phase I-STEP 2 (A & B) in reverse order to reinstall the cage doors.
- STEP 11:** Close the door, check latch operation and adjust alignment to ensure the door latches correctly.



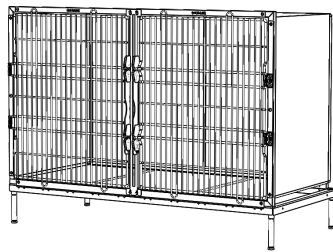
*FIGURE 2.50 - Completed Cage Bank Assembly, Configurations Vary*

## Cage Bank End & Top Panels

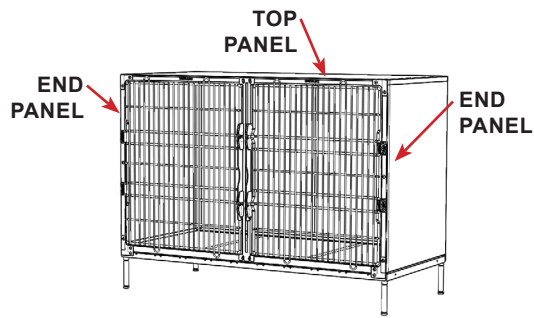
End and Top panels are available in standard sizes that correspond with the standard cage sizes. The following instructions provide direction for the installation of standard end and top panels on a single (double door) cage mounted to a stationary platform.

Cage bank assemblies that have stacked rows of cages with varying lengths use the same standard panels and are attached to the same size cage. However, custom end and top panels can be designed to fit and provide a clean/finished (seamless) look for most cage bank configurations.

The cage bank platform should be assembled and level at its proposed final location. Cage bank assemblies are very heavy, minimize moving the cage bank. It is easier to manipulate the hinge and latch assemblies if the cage door is removed during the end and top panel installation process.



**FIGURE 2.51 - No Panels**



**FIGURE 2.52 - End & Top Panels**

Standard Stainless Steel Cage End & Top Panels (Custom Sizes Available)	
Part No	Description
802.0018.51	End Panel - 18" Tall (1 ea)
802.0024.51	End Panel - 24" Tall (1 ea)
802.0030.51	End Panel - 30" Tall (1 ea)
802.0036.51	End Panel - 36" Tall (1 ea)
802.1800.00	Top Panel - 18" Length (1 ea)
802.2400.00	Top Panel - 24" Length (1 ea)
802.3000.00	Top Panel - 30" Length (1 ea)
802.3600.00*	Top Panel - 36" Length (1 ea)
802.4800.00*	Top Panel - 48" Length (1 ea)
802.6000.00*	Top Panel - 60" Length (1 ea)
802.7200.00*	Top Panel - 72" Length (1 ea)

\* Panel can be used to span connected cages.

Contact Shor-Line to order standard panels or to have custom size panels designed and made to fit cage bank configurations (1.800.444.1579).



**WEAR PERSONAL PROTECTIVE EQUIPMENT (PPE), such as, but not limited to, eye protection, ear protection, protective gloves and Metatarsal/foot protection during installation. Failure to do so could result in SERIOUS INJURY.**

## SECTION TWO

### End Panel Installation

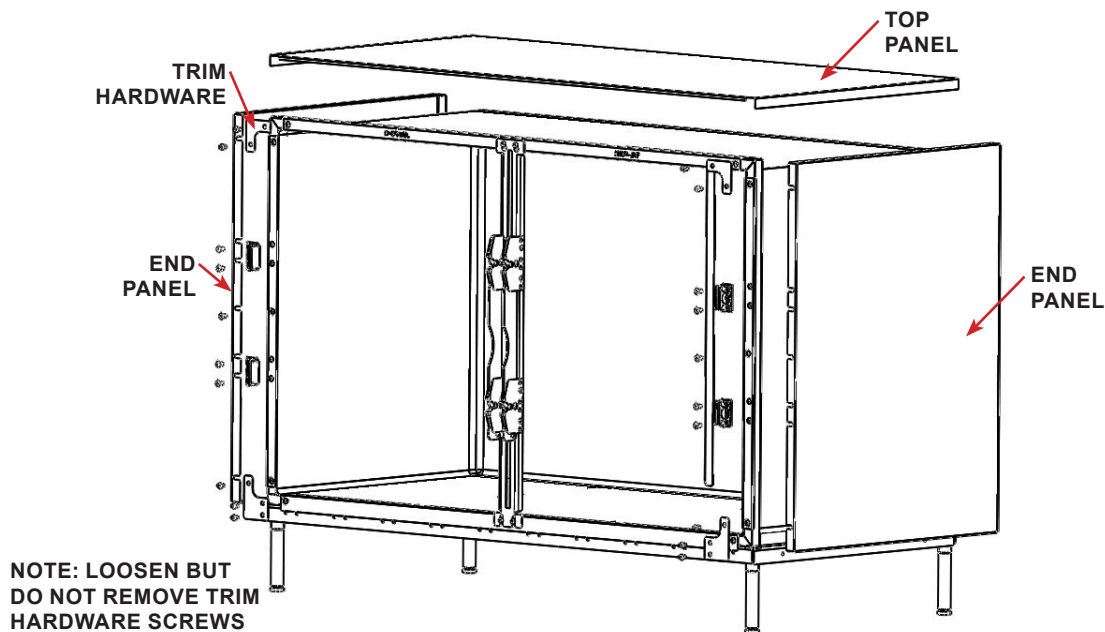


FIGURE 2.53 - Assembly Exploded View (Configurations Vary)

Stainless Steel end panels are available in several standard sizes. Each panel includes sound dampening patches that are adhered to the inside face of the panel. The outside face of the panels are protected during shipping with a vinyl film.

End panels are sized to fit the standard size cages. For cage banks, one end panel can be used to span cages that are connected together. Verify end panels ordered and the cage bank configuration to determine the correct end panel to be installed.

Remove the door from any cage to receive an end panel before continuing with the installation procedures.

#### NOTICE

*End Panels are designed to fit on the left or right side of a cage/bank with slots cut into the panel that align with the hardware and frame screws located on the front side of the cage.*

#### WARNING

*Stainless steel cages have sharp edges, stay clear of and DO NOT TOUCH exposed steel which, if not avoided, could result in SERIOUS INJURY OR DEATH.*

**STEP 1:** Using the ID Tag on the shipping box locate the end panel (by size) to be installed. Remove shipping materials.

#### NOTICE

*Do NOT remove the sound dampening patches.*

*When removing vinyl film, Use consistent pressure to avoid creasing or bending the panel.*

**STEP 2:** Enlist help to hold the panel in place while carefully peeling the protective vinyl film from the outside face of the panel.

**STEP 3:** Loosen, but do NOT remove the screws along the side of the cage holding the trim plates and door hardware. See FIGURE 2.54

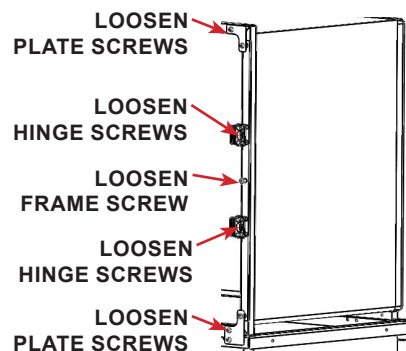


FIGURE 2.54 - Loosen Hardware

- STEP 4:** Thoroughly clean the cage with alcohol wipes to remove grease, oil and dirt. The two-sided tape will not adhere to surfaces if not clean and clear of dirt and oils. Refer to "Use and Care" section for safe cleaning recommendations. See FIGURE 2.55

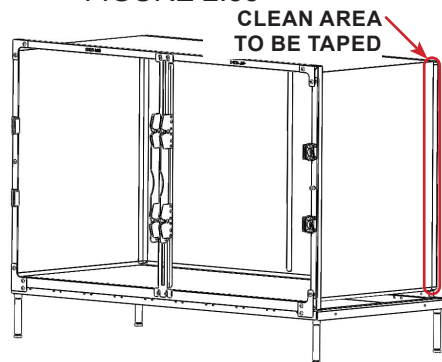


FIGURE 2.55 - Cage Surface Prep

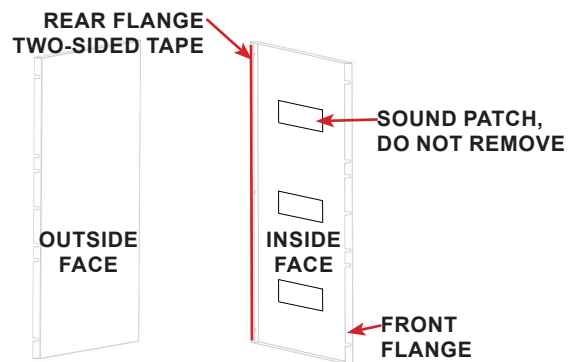


FIGURE 2.56 - End Panel Tape

- STEP 5:** Remove two-sided tape paper strip to expose the adhesive side of the tape. See FIGURE 2.56



**WARNING** Enlist help and **USE SAFE LIFTING PRACTICES** during assembly, installation and moving equipment.



**CAUTION** Keep hands clear of possible pinch areas when assembling parts, which if not avoided, could result in **MINOR to MODERATE INJURY**.

- STEP 6:** Align the front flange slots with the screws in the cage frame, behind the trim plates and hinge/latch hardware. Lift cage to slide the panel under the front cage frame. Push the end panel against the side of the cage and push the front flange against the cage frame. See FIGURE 2.57

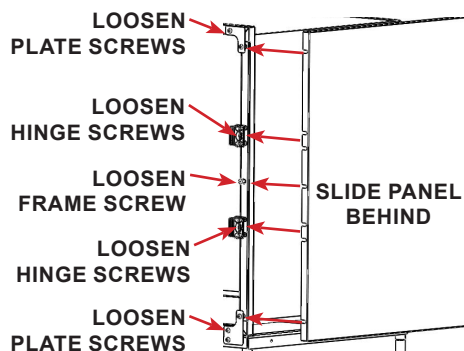


FIGURE 2.57 - End Panel Tape

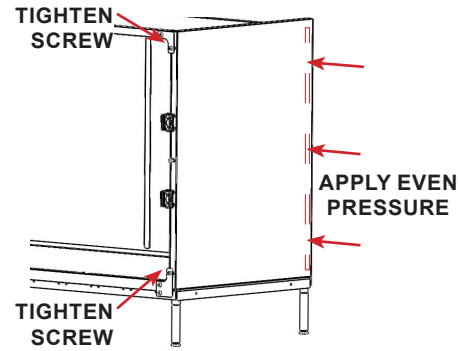


FIGURE 2.58 - End Panel Installation

- STEP 7:** Tighten the top and bottom screws along the side of the cage frame to hold the end panel against the cage frame. See FIGURE 2.58

- STEP 8:** Apply even firm pressure for 60 seconds (minimum) to the end panel to adhere the end panel to the back of the cage. See FIGURE 2.58

### NOTICE

*Excessive pressure on the panel could bend or crease the panel. Apply even pressure along the taped area, hold in place.*

- STEP 9:** Repeat STEP 1 thru 8 to install additional end panels per cage bank configuration and to install the opposite side end panel.

- STEP 10:** See STEP-11 if top panel(s) are included in cage configuration. If no top panels are required, then tighten all the trim and hardware screws to secure the end panels in place.

## SECTION TWO

### Top Panel Installation

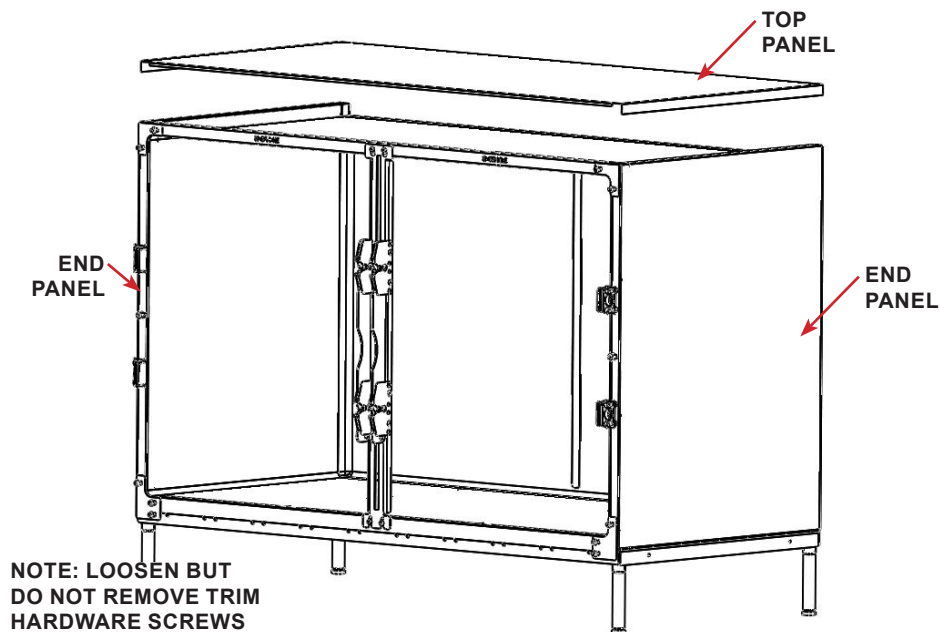


FIGURE 2.59 - Assembly Exploded View (Configurations Vary)

Stainless steel top panels are available in several standard sizes. Each panel includes foam panel supports that are adhered to the inside face of the panel. The outside face of the panels are protected during shipping with a vinyl film.

Top panels are sized to fit the standard size cages. For cage banks, one top panel can be used to span cages that are connected together. Verify top panels ordered and the cage bank configuration to determine the correct top panel to be installed.

**NOTICE** *Top Panels are designed to fit on top of the end panels and along the front cage frame. The rear flange has a strip of two-sided tape that adheres the top panel to the back/top portion of the cage(s).*

**STEP 11:** Using the ID Tag on the shipping box locate the top panel (by size) to be installed. Remove shipping materials.

**NOTICE** *Do NOT remove the foam panel supports.*

**NOTICE** *When removing vinyl film, Use consistent pressure to avoid creasing or bending the panel.*

**STEP 12:** Enlist help to hold the panel in place while carefully peeling the protective vinyl film from the outside face of the panel.

**STEP 13:** The trim and cage hardware should be loose, but not removed, from the previous end panel installation procedures. If not, loosen the trim and hardware screws, do NOT remove. See FIGURE 2.60

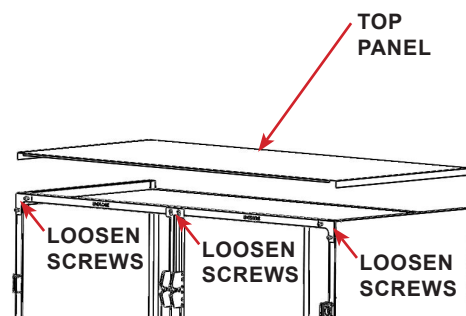


FIGURE 2.60 - Loosen Hardware

**STEP 14:** Thoroughly clean the top of the cage(s) with alcohol wipes to remove grease, oil and dirt. The two-sided tape will not adhere to surfaces if not clean and clear of dirt and oils. Refer to "Use and Care" section for safe cleaning recommendations. See FIGURE 2.61

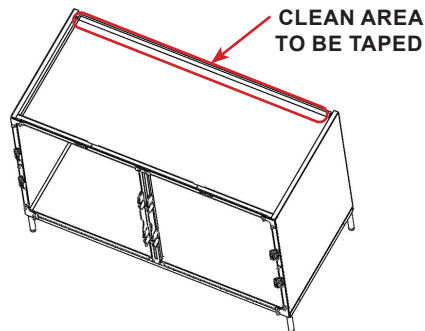


FIGURE 2.61 - Cage Surface Prep

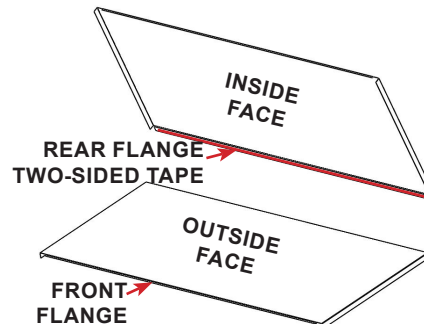


FIGURE 2.62 - Top Panel Tape

**STEP 15:** Remove two-sided tape paper strip to expose the adhesive side of the tape. See FIGURE 2.62



**WARNING**

*Enlist help and USE SAFE LIFTING PRACTICES during assembly, installation and moving equipment.*



**CAUTION**

*Keep hands clear of possible pinch areas when assembling parts, which if not avoided, could result in MINOR to MODERATE INJURY.*

**STEP 16:** Align the front flange with the face of the cage frame, behind the trim plates and hardware. Set the top panel down onto the cage and push the front flange against the cage frame. See FIGURE 2.63

**STEP 17:** Tighten the screws along the top of the cage frame to hold the end panel against the cage frame.

**STEP 18:** Once the top panel is secure against the cage, apply even firm pressure for 60 seconds (minimum) to the top panel to adhere the panel to the back of the cage. See FIGURE 2.64

**NOTICE**

*Excessive pressure on the panel could bend or crease the panel. Apply even pressure along the taped area, hold in place.*

**STEP 19:** Repeat steps 1 thru 8 to install additional top panels per cage bank configuration.

**STEP 20:** Tighten all the trim and hardware screws to secure the panels in place.

**STEP 21:** Re-install cage doors as required to complete the installation.

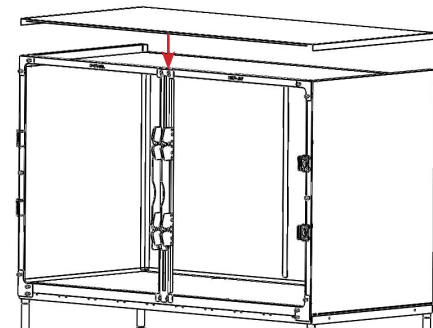


FIGURE 2.63 - Top Panel Installation

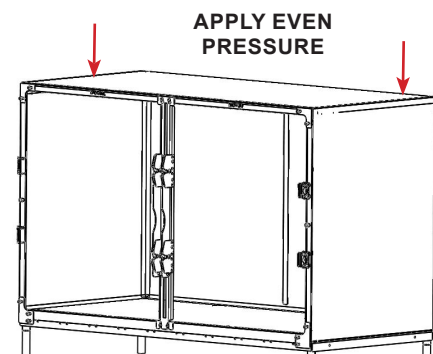


FIGURE 2.64 - Top Panel Installation

# SECTION THREE

## Cage Bank Use And Care

### Cage Bank Safe Use Practices

Always use safe practices during loading and unloading patients from cages. All procedures for cage use should be created by the facility owner and followed. Common sense and being aware of safety concerns should always drive procedures. Below is a list of recommendations and situational conditions that require attention, heed all warnings.

- Do NOT move a cage or cage bank while occupied with animals.
- Do NOT move a stationary cage bank, disassemble before relocation.
- Do NOT force the cage door closed. Verify alignment issues and correct as required. See Cage Door Realignment for more information.
- Do NOT move a mobile cage bank over uneven flooring. Avoid floor transition strips and electrical cords, obstructions.
- Do NOT move cages with the doors in the open position. Ensure the cage doors are closed and secure before attempting to relocate.

### Cage Door Removal

#### Type III Hinge Door Removal

Door hinges may vary depending on the release model of the cages. Type III cages are used for this procedure. Contact Shor-Line for door removal procedures for older model cages as required.

**STEP 1:** Type III hinge cage door removal procedure:

- A:** Slide the latch bar up and swing the door to the open position (90° to cage face). See FIGURE 3.1
- B:** Lift the door up, sliding the bushings out of the hinge assembly. Set away from the assembly area. See FIGURE 3.2

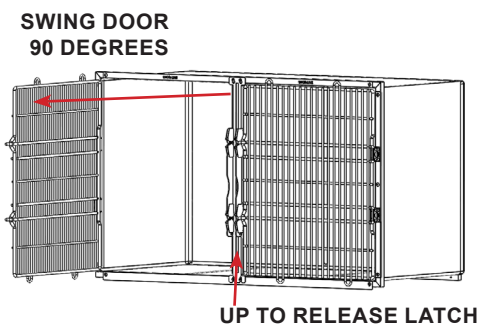


FIGURE 3.1 - Open Door

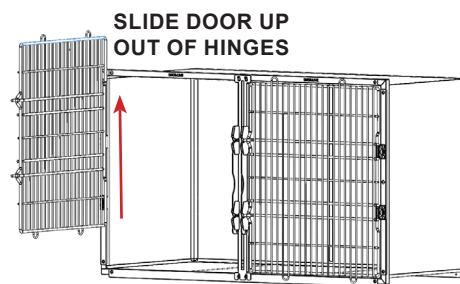


FIGURE 3.2 - Door Removal



**WARNING** Enlist help and USE SAFE LIFTING PRACTICES during assembly, installation and moving equipment.



**CAUTION** Keep hands clear of possible pinch areas when assembling parts, which if not avoided, could result in MINOR to MODERATE INJURY.

**STEP 2:** Reverse the steps to reinstall the cage door. NOTE: The hinge bushings must completely be seated into the hinge assemblies for proper operation.

## Reversing Cage Door Swing

### Type III Door

The standard door swing is a right-hand pull, with hinges located on the left and a latch on the right. Double door cages have hinges on both left and right side of the cage, sharing a center removable latch bar. See Double Door Cage Use for operation procedures.

Cage doors can be flipped to swing with a left-hand pull by relocating the hinges, latch assembly and rotating the door.

Door hinges may vary depending on the release model of the cages. Type III cages are used for this procedure. Contact Shor-Line for door removal procedures for older model cages as required.



Click [HERE](#) to view a short Shor-Line video explaining the process to reverse a cage door swing. Please follow along with the manual steps and heed all warnings and safety precautions as written.

**STEP 1:** Remove the cage door by following the Type III hinge cage door removal procedure.

**STEP 2:** Remove the hinge assemblies from the left side of the cage frame by removing the screws. See FIGURE 3.3

**STEP 3:** Remove the latch assembly from the right side of the cage frame by removing the screws. See FIGURE 3.4

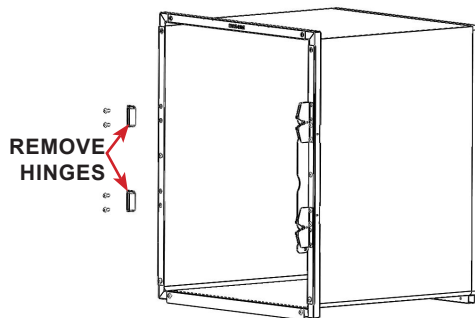


FIGURE 3.3 - Hinge Assembly Removal

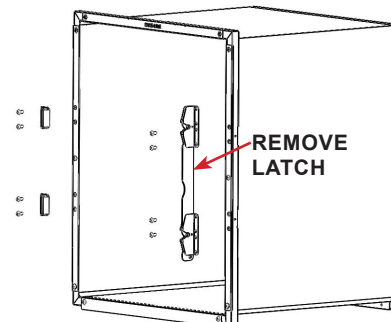


FIGURE 3.4 - Latch Assembly Removal

**STEP 4:** Flip, rotate the latch assembly so the latch bar is on the inside of the cage frame and that both latch guides are in the top position. Hold the latch guides while sliding the latch bar down to the lowest position on both guides. See FIGURE 3.5

**STEP 5:** Install the latch assembly to the cage frame, tighten screws to secure the latch to the frame. See FIGURE 3.6

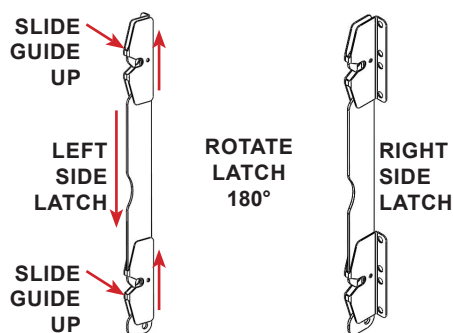


FIGURE 3.5 - Latch Assembly Rotate

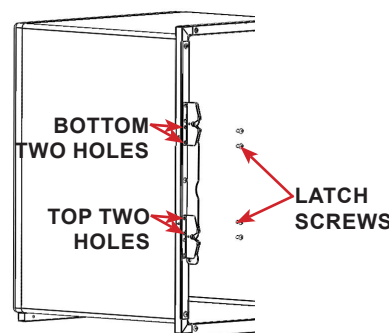


FIGURE 3.6 - Latch Assembly Installation

## SECTION THREE

**STEP 6:** Flip, rotate the hinge assembly to the right side of the cage frame so that the hinge bushing guide is located on the inside of the cage frame. See FIGURE 3.7

**STEP 7:** Install the hinge assemblies to the cage frame, tighten screws to secure the hinges to the frame. See FIGURE 3.8

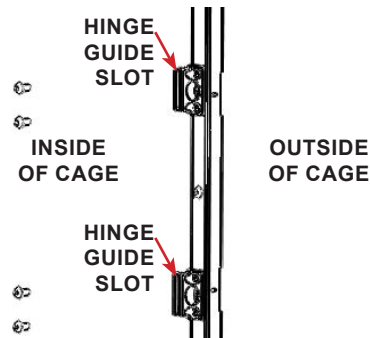


FIGURE 3.7 - Hinge Assembly Rotate

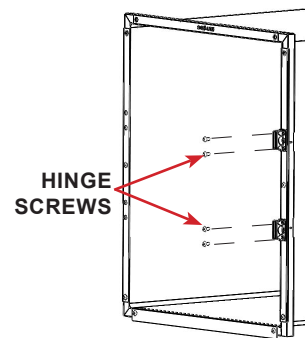


FIGURE 3.8- Hinge Assembly Installation

**STEP 8:** Rotate the door 180° about the face so that the hinge bushings are located on the right hand side of the door. The door has been rotated correctly if the vertical wires are in front of the horizontal wires. See FIGURE 3.9 & 3.10

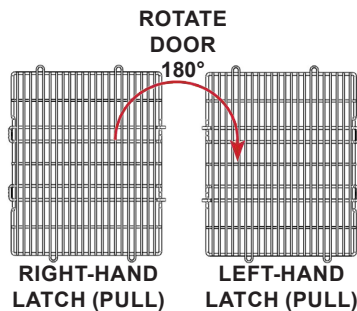


FIGURE 3.9 - Rotate Door

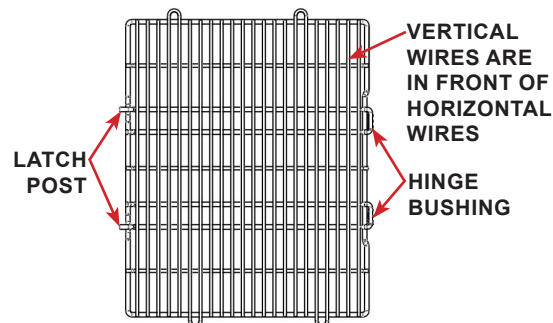


FIGURE 3.10 - Rotated Door

The Type III hinge is designed for left or right hand latches. To reverse the door swing on a cage, the hinge bushings must be removed from the door and rotated. The hinge bushing has a larger diameter top than the bottom. The bushings (door) must be installed into the hinge guide slot from the top. There is a flat side on the bushing that slides through the hinge guide. Do NOT force the hinge bushing into the guide slot.

**STEP 9:** Use a flathead screwdriver to pry, separate the two hinge bushing halves. See FIGURE 3.11 & 3.12

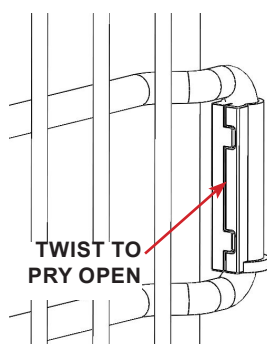


FIGURE 3.11 - Remove Hinge Bushing

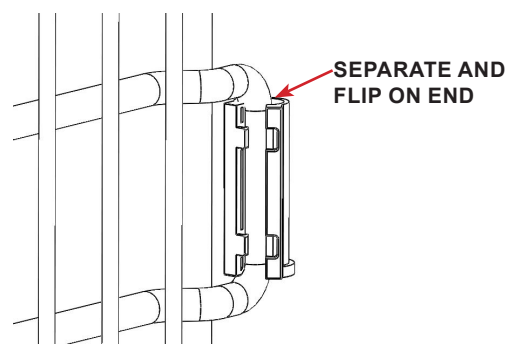


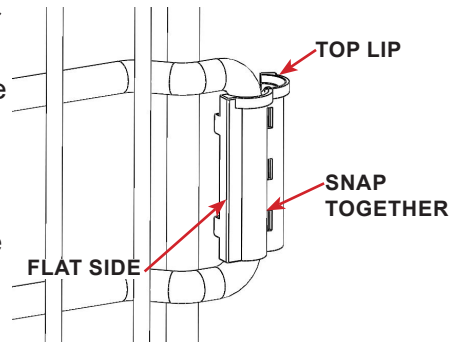
FIGURE 3.12 - Remove Hinge Bushing

**STEP 10:** Reinstall the hinge bushings with the larger end at the top. The top lip prevents the hinge bushing from sliding through the hinge assembly. Snap the two pieces together with the flat side of the bushings facing the cage door. See FIGURE 3.13

**STEP 11:** Reverse STEP-1 procedures to reinstall the cage door.

**NOTICE**

*The hinge bushings must completely be seated into the hinge assemblies for proper operation.*



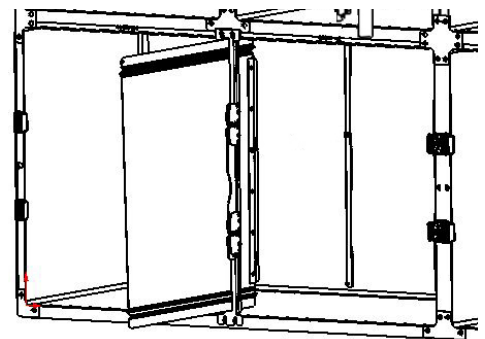
**FIGURE 3.13 - Hinge Bushing Installation**

**Type III Double Door**

Shor-Line's double door cages share a center latch bar that can be easily removed for greater access when transferring a patient into or taking out of the cage comfortably.

The center latch bar is also used for the divider panel. The larger, double door cages can be split into two cages by inserting the divider panel. Divider panels are sold separately, contact Shor-Line for size availability.

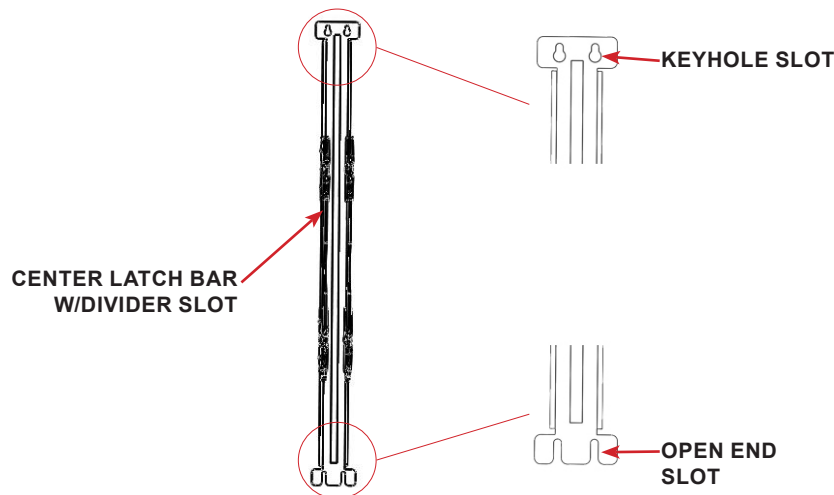
**STEP 1:** Open both doors.



**FIGURE 3.14 - Center Latch w/Divider**

**NOTICE**

*The center latch bar has keyed (hole with a smaller slot) top holes. And the bottom of the center latch bar uses open end slots at the end of the bar, enabling the bar to be slid out from behind the center latch bar retaining pins. See FIGURE 3.15*



**FIGURE 3.15 - Cage With End and Top Panels**

## SECTION THREE

**STEP 2:** Lift the center latch bar upward to clear the keyhole slots located at the top of the center latch bar. See FIGURE 3.16

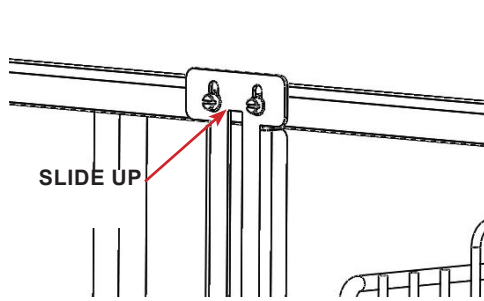


FIGURE 3.16 - Latch Top Keyhole Slot

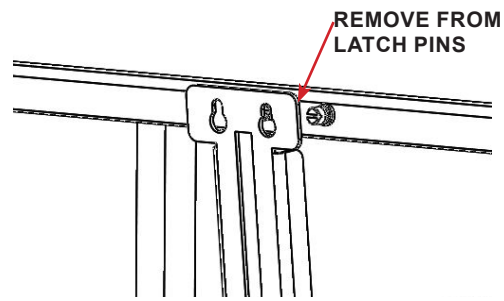


FIGURE 3.17 - Remove Latch Top

**STEP 3:** Once clear of the keyhole slot, pull the top of the latch bar clear of the center latch upper pins. See FIGURE 3.17

**STEP 4:** Lift the center latch bar upward to clear the center latch pins located at the bottom.  
NOTE: The bottom of the center latch bar has open end slots at the end of the bar to easily slide out from behind the center latch lower pins. See FIGURE 3.18

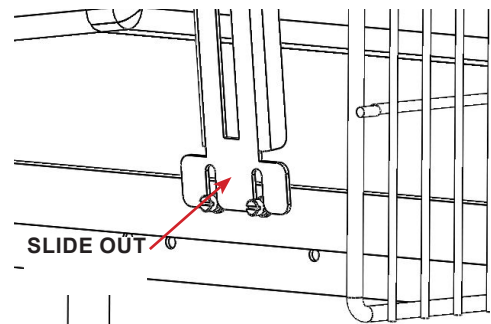


FIGURE 3.18 - Remove Latch Bottom

**STEP 5:** Reverse STEP 2-4 to reinstall the center latch bar.

### Door Realignment

The cage door, after shipment/movement and through regular use can become askew and require minor adjustments from time to time. If weight is applied to an open door it may cause the latch pins to come into contact with the latch guides either too high or too low to properly slide into the latch assembly.

While the cage door is shut and latched, loosen but do not remove the hinge assembly screws.

With one hand holding the door on the latch-side, align the latch pin within the optimal range while tightening the hinge screws to hold the door in place.

Close the door, check latch operation and make adjustments to ensure the door latches correctly.

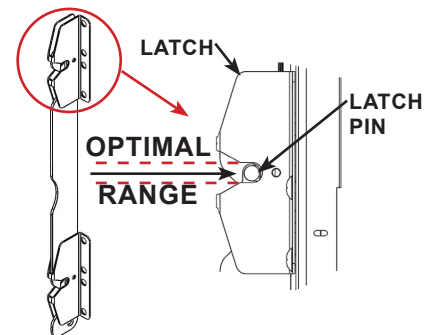


FIGURE 3.19 - Latch Alignment

## General Maintenance & Care

### Maintenance Recommendations

**NOTICE** *Routine maintenance will extend the quality and life of Shor-Line products.*

It is the owners responsibility to set-up scheduled maintenance programs, depending on use of the equipment. Scheduled preventive maintenance should include, but not limited to daily or weekly inspections and maintenance of products to prolong its longevity and to help maintain proper product functions.

- Follow manufacturers cleaning and maintenance recommendations outlined in product literature provided for components not included in these recommendations. Configurations/component parts may vary.
- Check alignment of operable panels, doors and components to ensure operation is free of obstructions. Adjust as required.
- Check any battery compartments to ensure the batteries are not failing, corroding the contacts or damaging the equipment. A pencil eraser can be used to clean electrical contacts in battery compartments.
- Check any wiring for kinks or exposed inner wiring. If damage exist, stop equipment use and contact Shor-Line Technical Services for direction.
- Check any hydraulic lift components for leaking fluid. If fluid is present, stop equipment use and contact Shor-Line Technical Services for direction. Do NOT attempt to repair hydraulic leaks.

### Care Recommendations

**NOTICE** *Routine product care will extend the quality and life of Shor-Line products and aids in protecting animals from transmittable diseases and infections.*

It is the owners responsibility to set-up scheduled cleaning programs, depending on use of the equipment. Scheduled preventive cleaning should include, but not limited to daily or weekly inspections and cleaning of products to prolong its longevity and to help maintain finishes.

### Safe Cleaning Practices

- Use the mildest cleaning procedure that will complete the job effectively. Ordinary waste deposits and fluids can usually be removed with soap and water, using a soft cloth or sponge. Rinse thoroughly with clear water and dry completely with a soft cloth to discourage hard-water spotting.
- Minor scale build up and some hard water spotting can be removed by washing with a vinegar diluted mixture followed by a clear water rinse and thorough drying.
- Bleach, deodorizing agents, disinfectants, and sanitizers can corrode stainless steel, thoroughly rinse all surfaces treated with these chemicals with a clear water rinse and dry with a soft cloth.
- If scrubbing is required, use only polymer or nylon fiber products made for use with polymer or nylon materials.
- Always rinse with clear water and dry of all surfaces treated with cleaning, sterilization solutions.

### Unsafe Cleaning Practices (NOT Recommended)

- Do NOT use a dry cloth or wipe clear polymer surfaces which can scratch if dust/dirt is wiped with the hand or dry cloth.
- Polymer materials can discolor if exposed to sunlight, ultraviolet rays. Avoid direct sun exposure.
- Do NOT use ammonia or bleaches to clean polymer surfaces.
- Do NOT allow fluids to accumulate, puddle without removing and completely drying the surfaces and components. Standing water/fluids are a hazard and can cause damage to component materials.
- Do NOT use scouring powders that will scratch polymer finishes.

**NOTICE** *Steel wool or steel brushes should never be used to clean stainless steel or polymer surfaces, avoid abrasive cleaning techniques/supplies.*

SECTION **FOUR**

## Terms And Conditions

<https://www.midmark.com/service-support/terms-conditions>





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