Total Animal Pen System Owner's Manual

Stainless Steel Partition
Raised Floor Pen System

Masonry Partition
Raised Floor Pen System

Strong, Durable, Welded Stainless Steel
Unique Modular Components
Custom-designed to fit your facility
Attractive, Efficient, Minimal Maintenance

Form No. 702733
Revised 2/11/13

Care & Cleaning of Stainless Steel Introduction

Stainless steel is steel alloyed with chromium to make it highly resistant to stain, rust and corrosion. **Note:** This does NOT mean that stainless steel will never rust or corrode. Science has not yet developed a steel which is completely stainless or corrosion PROOF. The type of stainless steel and finish selected by SSCI for the Total Animal Pens is the best available for the intended use.

Cleaning & Cleansers

The basic rule of thumb is to use the mildest cleaning procedure that will do the job effectively. Always rinse thoroughly with clear water, and dry completely. Frequent cleaning will prolong the service life of stainless steel equipment and will help maintain a bright, pleasing appearance. Ordinary deposits of waste and fluids can usually be removed with soap and water. More stubborn deposits or tightly adhering debris may require harder scrubbing. They also may possibly require the use of commercial cleaning products acceptable for use on metal surfaces. When using any cleaning agent, rub in the direction of the polish lines or "grain" of the metal. For high luster finishes, clean soft cloths or pads should be used. If especially rough cleaning is necessary, use "stainless steel" wool, nylon or plastic scrubbers. Test these scrubbers in an inconspicuous area first to be sure they do not mark or scratch the stainless steel finish. Minor scale build-up and some hard water spotting may be removed by washing with some vinegar, followed by a neutralizing rinse with clear water. A thorough drying with a soft cloth should follow. For heavy deposits of scale, 5% oxalic acid (use warm), 5-15% sulfuric acid, or 5-10% phosphoric acid may be used. Always follow with a neutralizing rinse of clean water and a thorough drying.

Deodorizing Agents, Disinfectants, & Sanitizers

The large selection of brands and combinations of chemicals available for deodorizing, disinfecting and sanitizing is staggering. Select one or more agents for use in your facility only after weighing in all the benefits claimed by each product. Often this choice is made without adequate consideration of the effects these agents may produce on equipment or furnishings.

Avoid prolonged use of chlorides (such as chlorine bleach), bromides, iodides and thiocyanate on stainless steel surfaces as these chemicals will cause pitting, corrosion and metal discoloration. Allowing salty solutions to evaporate and dry on stainless steel may also contribute to corrosive

> **Caution:** Before selecting a chemical to employ in your facility, review label statements regarding use with metals (stainless steel). Always consult the chemical supplier if there are any doubts.

conditions. In summary, select chemical deodorizers, disinfectants and/or sanitizers only after weighing in all possible outcomes and known adverse effects.

Chapter 1- General Information

Introduction

An animal pen system is an important investment for your facility. Selecting the right pen system can increase your revenue, build equity in your business and attract customers by presenting a product of high quality care and efficiency.

Using our standardized, modular components, SSCI can custom-design the perfect Total Animal Pen System to meet your needs. If the requirements should arise in the future to expand or relocate, SSCI's pen systems are designed to make the task smooth and easy.

The pen's sturdy, durable stainless steel construction guarantees long life and efficient operation with minimal maintenance. Mitered corners and fully heli-arc welded joints provide strength while ensuring positive seals against leakage.

About this Manual

Every attempt has been made to insure that the information in this manual is correct and complete. SSCI, however, always welcomes our customer's suggestions for improvements to our products and associated publications.

Information & Safety Notices

Throughout this manual you will find text under the headings Note:, WARNING: and CAUTION:. The text followed after "Note:" will assist you with additional information about the subject being discussed. The text followed after "CAUTION:" is there to alert you to potentially hazardous conditions which, if ignored or mishandled, could result in minor injury to yourself or minor damage to the equipment.

> **Caution:** Many of the pen components are large and heavy. To reduce the possibility of injury, we recommend that unpacking, assembling, installations and replacement operations involving these components be done by at least two people.

Example:

> Reinstall the latch connector to the two latch brackets and secure with the cap screws and nuts. **Note:** Do not tighten the screws/nuts so tight that the latch connector cannot move up and down freely.

Example:

Models

No model numbers are associated with SSCI Total Animal Pens since each pen is a custom-designed construction of standard modular components. Part numbers are assigned to the individual components only. Pen systems consist of several component parts including some or all of the following:

- Swinging gates
- End and partition panels
- Back panels
- Top panels (for use with climbing animals)
- Accessories (as selected by the customer)
- Floor sections
- Floor supports

If your pen system uses your facility's walls for the back, back panels can be eliminated. If two pens are back-to-back, only one back panel is required between them. If you use facility walls for one or both ends of your pen system, some or all end panels may be eliminated. Our stainless steel modular components are uniquely designed to work just as well with masonry walls (shown below). This system uses four main components: masonry lower partition, end and back walls; stainless steel Swinging Gates; stainless steel upper End/Partition Panels and; stainless steel upper Back Panels. If you use full-height masonry back or end walls, the upper Back Panels and one or both upper End Panels can be eliminated. Refer to Chapter 2 - Description of Components for descriptions and part numbers of the various components of the pen system.

Accessories

SSCI provides a variety of accessories for Total Animal Pen Systems to custom-design them to your requirements. Descriptions, pictures and information on SSCI products can be found in our current product catalog and on our website at www.suburbansurgical.com. To order accessories, refer to Parts Ordering Procedure on Page 37. Available accessories include:

- Fold-up resting shelves
- Back spreader bars
- Food/water bowls
- Food/water bowl holders
- Card holders
- Clipboards
- Medicine bins with clipboards

Warranty

Suburban Surgical Company, Inc. warrants the original purchaser that our products are of the highest standards in material and workmanship. Our stainless steel components are guaranteed to last a lifetime assuming they are used as intended, properly maintained and cared for. Mechanical, electrical, electronic, and hydraulic product's devices carry a one year warranty. Items purchased by Suburban Surgical Company, Inc. from other manufacturers and incorporated into our equipment are covered by the respective manufacturer's warranties. Warranties will not apply if it is determined by Suburban Surgical Company, Inc. that the equipment became defective due to an accident, misuse, abuse, improper maintenance or alteration. Warranty freight charges are covered for the first year only.

Chapter 2- Description of Components

Component Parts

Each SSCI Total Stainless Steel Partition, Raised Floor Pen System and Masonry Raised Floor Pen Systems are tailor-made construction of standardized, modular components. The use of these components creates a seemingly endless variety of possible pen configurations, and enables us to custom-design a pen system that exactly meets your requirements. Each pen system is a specific grouping of standard component parts (Figure 1) including some or all of the following:

- Swinging gates - Page 10
- End and partition panels - Page 12
- Back panels - Page 14
- Floor Supports- Page 17

- Top panels (for use with climbing animals) - Page 16
- Accessories (as selected by the customer) - Page 16
- Floor Sections - Page 17

Top Panel (if used)

Partition Panel (between pens)

Left end Panel

Back Panel (behind)

Swinging Gate

Right End Panel

Latch Mechanism

Floor Sections & Floor Supports

Leg with Leveler

Top Panel (if used)

Masonry Partition Panel (between pens)

Left end Masonry Panel

Masonry Back Panel (behind)

Swinging Gate

Right End Masonry Panel

Latch Mechanism

Floor Sections & Floor Supports

No legs with levelers on Masonry Pen Systems

Figure 1: Basic Components of a Total Animal Pen System

Swinging Gates

Four styles of swinging gates are available for all SSCI Total Pen Systems (Figure 2). All gates measure 78 in. (198.12 cm) high, and include two hinges and a latch mechanism. The styles are:

- Stainless steel grill gates - Page 11
- Stainless steel grill gates with one bowl holder - Page 11
- Stainless steel grill gates with two bowl holders - Page 11
- Observation gates with tempered glass windows - Page 11

A   **B**   **C**   **D**
Figure 2: Styles of Swinging Gates
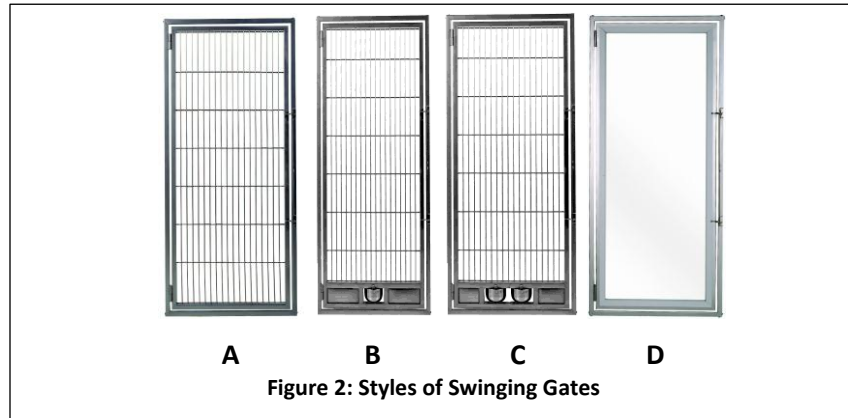
Stainless Steel Grill Gates

These grill-style gates (Figure 2, **A**) have tubular, stainless steel frames. The grill and frame assemblies are welded at all intersections for strength, durability and rattle-free operation. The fully welded design prevents fluids from seeping into the frame, therefore preventing corrosion and the internal accumulation of unsanitary debris. Each gate may be installed to latch left or right.

Stainless Steel Grill with One Bowl Holder

These grill gates (Figure 2, **B**) feature the same superior construction as the stainless steel grill gates, and include a holder for one stainless steel, 1.5 quart (1.42 liter) bowl. Order bowls separately. Each gate is either left or right latching.
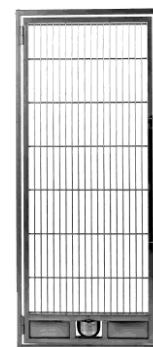
Stainless Steel Grill Gates with Two Bowl Holders

These grill gates (Figure 2, **C**) feature the same superior construction as the stainless steel grill gates and include holders for two stainless steel 1.5 quart (1.42 liter) bowls. Order bowls separately. Each gate is either left or right latching.
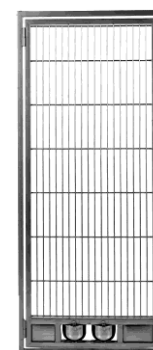
Observation Gates with Tempered Glass Windows

Observation gates (Figure 2, **D**) feature the same superior frame construction as the stainless steel grill gates. Instead of the grills, these gates feature full-height clear, tempered glass windows to allow unobstructed views of the animals. Each gate may be installed to latch left or right.

End & Partition Panel Overall Description

End panels and partition panels are the same (Figure 3). Stainless Steel end and partition panels are composed of upper grills and lower panels. While all upper grills are the same, the lower panels can be one of four possible options. All end and partition panels are 84 in. (213.36 cm) high overall (including legs). All end and partition panels have either floor supports or rings on one or both sides, depending on their role in the pen system. All end and partition panels have two legs, one front and one rear (Figure 3). The legs have adjustable levelers. The front legs are in line with the fronts of the frames, but the rear legs are offset in from the panel rear edges by 14 in. (35.56 cm.). In Masonry Pen Systems, however, the facility's masonry walls act as the lower panels. The upper grill is mounted and fits appropriately on top of the masonry walls between pens.

Figure 3: Typical End/Partition Panel

Upper Grill

The upper portions of all end and partition panels are stainless steel frames and grills, heli-arc welded at all intersections for strength, durability and rattle-free operation (Figure 3). The end/partition panel for Masonry Pen Systems, are also made of high-quality stainless steel welded frames. The standard panel is 28.75 in. (73.06cm) high to work with our standard gates when masonry walls measure 4ft (1.22m) high. Actual height of your pen partitions will depend on the height of your masonry walls.

Lower Panels

The lower panels (Figure 3) are stainless steel frames surrounding one of four optional center sections. All lower panels are 46.5 in. (118.11 cm) high. The four optional center sections are:

- Single-wall stainless steel - Page 13
- Double-wall stainless steel - Page 13
- Fiberglass reinforced plastic – Page 13
- Water-resistant laminate - Page 13

All Stainless Steel Partition Panels can be ordered with either Floor Supports Brackets or Rings- refer to Page 24

For Masonry Pen Systems the Floor Support Brackets or Rings are installed right into the Masonry walls

Figure 4: Styles of Lower Panels for End/Partition Panels

Single-Wall Stainless Steel

These are the most sanitary, longest lasting partition panels we offer (Figure 4, **E**). The single-ply, stainless steel lower panels are welded to the tubular stainless steel frames. They are available as right end panels, left end panels or partition panels. They can be ordered with either floor support brackets or rings.

Double –Wall Stainless Steel

In these panels, sound-deadening insulation is sandwiched between two stainless steel panels (Figure 4, **F**) and welded to the tubular stainless steel frames. They are available as right end panels, left end panels or partition panels. They can be ordered with either floor support brackets or rings.

Fiberglass Reinforced Plastic

These panels (Figure 4, **G**) feature pebble-finish plastic reinforced with fiberglass for exceptional durability. The panels are available in a choice of colors to brighten up your kennel. Refer to your SSCI catalog for color selections. They are available as right end panels, left end panels or partition panels. They can be ordered with either floor support brackets or rings.

Water-Resistant Laminate

These panels (Figure 4, **H**) feature high-pressure laminates over water-resistant materials in a choice of colors to match your facility decor. Refer to your SSCI catalog for color selections. The panels are not guaranteed against delaminating, but can be easily replaced to keep your pen system fresh and attractive. They are available as right end panels, left end panels or partition panels. They can be ordered with either floor support brackets or rings.

Back Panels

General Information

Stainless steel back panels complete your modular pen system when installing free-standing or back-to-back pens. These panels are not necessary if the back of your pen system is a facility wall. If two pens are located back-to-back, only one back panel is required between them. All Stainless Steel Raised Floor Pen System back panels are composed of upper grills and lower panels. While all upper grills are essentially the same, lower panels can be one of eight possible options. All stainless steel pen system panels measure 78 in. (198.12 cm) high overall. Back Panels for Masonry Pen Systems are only composed of the upper grill because the facility masonry walls are acting as the lower panel. Upper Panels for Masonry Pen Facility Floor Systems measure 28.75 in. (73.03cm) high to work with our standard gates when masonry back walls measure 4 ft. (1.22m) high. Actual height of your pen back will depend on the height of your masonry walls.

Upper Grill — Back Panels have no legs, levelers, or floor supports

Lower Panel
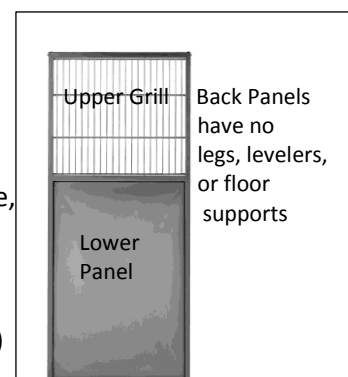
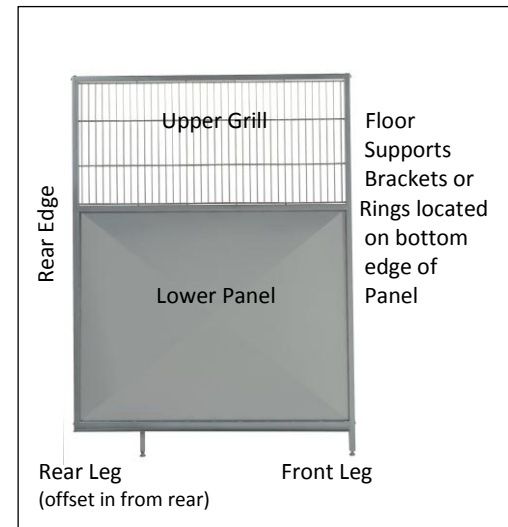**Figure 5: Typical Back Panel**

Upper Grill
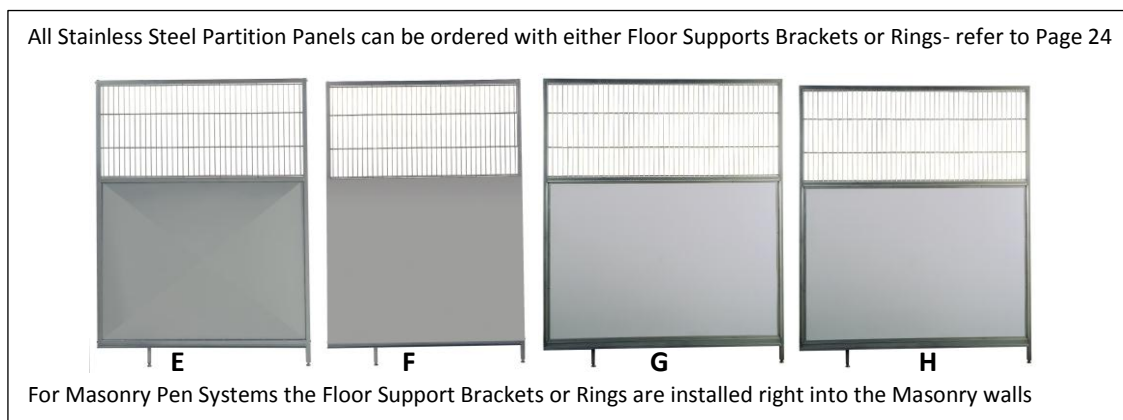
The upper portions of all back panels are stainless steel frames and grills, heli-arc welded at all intersections for strength, durability and rattle-free operation (Figure 5). The back panels for Masonry Pens are also made of stainless steel frames shown below.

Lower Panels

The lower panels (Figure 5) are stainless steel frames with one of eight optional center sections. Lower panels are 46.5 in. (118.11 cm) high. Guillotine door openings are 13.626in W x 24.75in H (34.61 cm W x 62.87 cm H). The eight optional center sections with page numbers are:

Single-Wall Stainless Steel- pg. 15   Single-Wall Stainless Steel & Guillotine Door- pg. 15
Double-Wall Stainless Steel- pg. 15   Double-Wall Stainless Steel & Guillotine Door- pg. 15
Fiberglass Reinforced Plastic- pg. 15   Fiberglass Reinforced Plastic & Guillotine Door- pg. 15
Water-Resistant Laminate- pg. 15   Water-Resistant Laminate & Guillotine Door- pg. 15

Figure 6: Styles of Lower Panels for Back Panels
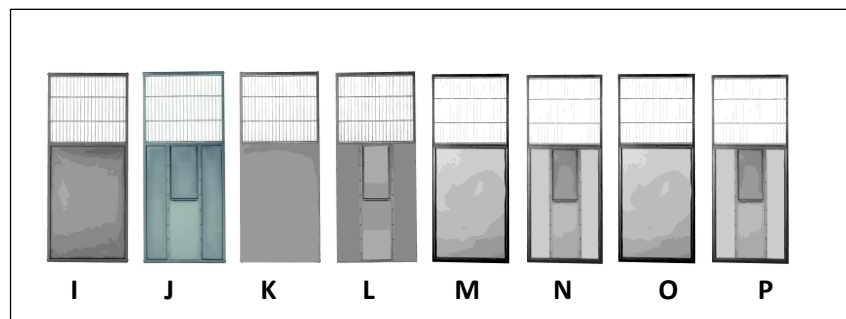
Single-Wall Stainless Steel

These are the most sanitary, longest lasting back panels we offer (Figure 6, **I**). The single-ply stainless steel lower panels are welded to the tubular stainless steel frames.

Single-Wall Stainless Steel with Guillotine Door

These panels are similar to the single-wall stainless steel lower panels above but they include stainless steel guillotine doors. (Figure 6, **J**).

Double-Wall Stainless Steel

In these panels, sound deadening insulation is sandwiched between two stainless steel panels (Figure 6, **K**). Panels are welded to the tubular stainless steel frames.

Double-Wall Stainless Steel with Guillotine Door

These panels are similar to the double-wall stainless steel lower panels but include stainless steel guillotine doors (Figure 6, **L**).

Fiberglass Reinforced Plastic

These corrugated-style panels (Figure 6, **M**) are made of a pebble finish plastic reinforced with fiberglass for exceptional durability.

Fiberglass Reinforced Plastic with Guillotine Door

These panels are similar to the fiberglass reinforced plastic panels above but include stainless steel guillotine doors (Figure 6, **N**).

Water-Resistant Laminate

These panels (Figure 6, **O**) feature high-pressure laminates over water-resistant materials. The panels are not guaranteed against delaminating, but can be easily replaced to keep your pen system fresh and attractive.

Water-Resistant Laminate with Guillotine Door

These panels are similar to the water-resistant laminated panels above but include stainless steel guillotine doors (Figure 6, **P**). The panels are not guaranteed against delaminating, but can be easily replaced to keep your pen system fresh and attractive.

Guillotine Door Kits for Masonry Pen Systems
Add a guillotine door to the back wall of your Masonry Pen System to give animals access to an outside pen or to another inside pen while you clean.

Top Panels
Total Animal Pens are normally open at the top and present potential escape routes for cats or other climbing animals. Optional stainless steel grill top panels (Figure 7) allow you to create fully enclosed pens to securely contain climbing animals. The grill and frame are heli-arc welded at all intersections for strength and durability. Refer to SSCI Catalog for part numbers.

Figure 7: Typical Top Panel

Accessories
SSCI provides a range of optional accessory items to increase the usability, efficiency, and operating convenience of your pen systems. These accessories include:

- Fold-up resting shelves - below
- Back spreader bars - Page 18
- Inside Latch Release Assembly- Page 18
- Floor Sections – Page 17
- Floor Supports – Page 17

Fold-up Resting Shelves
Fold-up resting shelves (Figure 8) provide comfortable places for animals to rest above the floor. The polyethylene shelves are mounted in stainless steel frames with space to allow fluids to drain through to keep the animals drier, cleaner and happier. The shelves attach securely to the pen partitions with pivoting mounting brackets. The shelves fold up to facilitate cleaning the pen and optional shelf latches hold the shelves in the folded position.

**Figure 8: Fold-up Resting Shelves
Left for Masonry Pen
Right for Stainless Steel Pen**

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Floor Sections

These strong, removable, expanded-metal floor sections (Figure 9) have plastisol coatings for greater animal comfort and easier cleaning. Waste fluids fall through the grates to the floor where they can be conveniently hosed away. The floor sections are easy to clean, and their bright orange color makes waste fluids more visible. Floor sections rest in place on floor support brackets or rings (refer to Floor Supports below). Refer to SSCI Catalog for floor section part numbers and the number of sections required for your pen system. Use a bail hook (Figure 10) to easily remove the floor sections for thorough cleaning. The part number of the bail hook is 12400-00-AAAAAA.
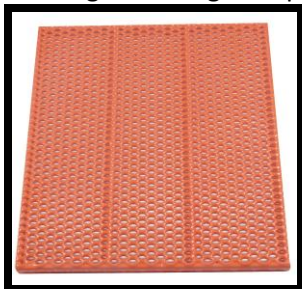
Figure 9: Typical Floor Section
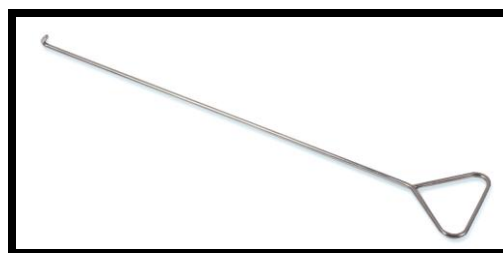
Figure 10: Bail Hook for Removing Floor Sections

Floor Supports

Floor supports carry the floor sections in place above the facility floor. Floor supports can be mounted on end and partition panels or on facility walls. Two types of floor supports are available:

- Floor support brackets
- Floor support rings

Floor support Brackets

Panel-Mounted Floor Support Brackets

Panel-mounted, L-shaped, floor support brackets (Figure 11) come welded in place on end and partition panels. Partition panels have floor support brackets on both sides; end panels have floor support brackets on one side only.

1 Facility wall   1 Partition wall

Floor Support Brackets
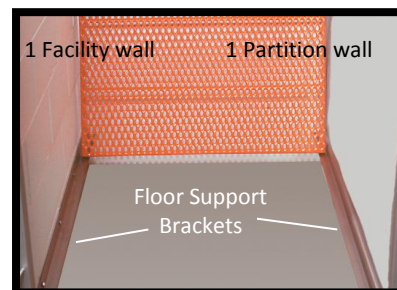
Figure 11: Floor Support Brackets

Wall-Mounted Floor Support Brackets

Wall-mounted, stainless steel floor support brackets mount to masonry end walls in pen systems that use a facility wall for one or both ends of the system. Refer to SSCI Catalog for part numbers.

Floor Support Rings

Panel-Mounted Floor Support Rings

Panel-mounted floor support rings (Figure 12) come welded in place on end and partition panels. Partition panels have floor support rings on both sides; end panels have floor support rings on one side only.
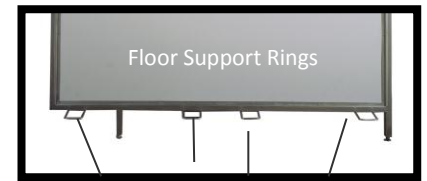
Figure 12: Floor Support Rings

Wall-Mounted Floor Support Rings

In pen systems that use facility walls on one or both ends, wall-mounted floor support rings can be bolted directly to masonry walls (Figure 13). For greater strength, rings may be mounted in mortar joints.The number of rings required for each pen depends on the size of the pen. Refer to SSCI Catalog for part numbers.

213419   560207   Floor Support Rings

560206
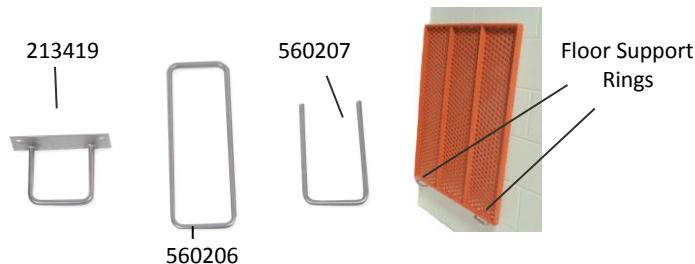
Figure 13: Floor Support Rings for Masonry Walls

Back Spreader Bars

Back spreader bars are used to connect the end/partition panels to each other when no back panels are used, and the panels cannot be attached to the facility wall. The bars add strength to the pen system to keep it rigid and stable. Back spreader bars can be attached to the upper end of the pen, to the lower end of the pen (Figure 14), or in both positions if necessary. Refer to SSCI catalog for part numbers.

Back spreader bar in lower position

Floor section removed for clarity
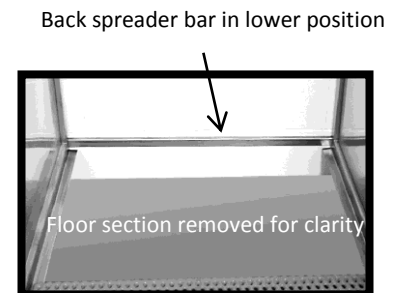
Figure 14: Back Spreader Bar in lower position

Inside Latch Release Assembly

This assembly consist of a small flat piece of steel, that's offset to allow part of it to enter the pen, two ¼-20 truss head screws, and two jam lock nuts with nylon inserts. This is especially handy if you accidently lock yourself inside the pen, the bracket allows you to move the latch connector from inside of the pen and open the gate.

Glass Gate

Inside of Pen
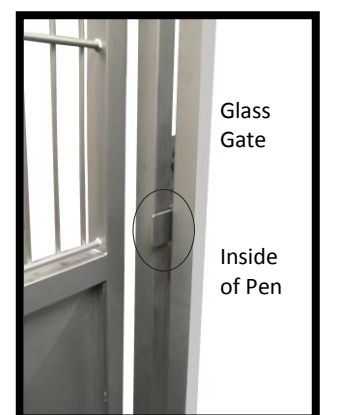
Inside Latch Release Assembly

Chapter- 3 Assembly & Installation

Introduction

This chapter guides you in unpacking, assembling, and installing your SSCI Total Animal Pen System. For identification or detailed information on pen components, refer to Chapter 2- Description of Components. If you have problems or require additional assistance, please feel free to call SSCI Customer Service at (800) 323-7366.

SSCI Total Animal Pen Systems are custom-designed using standard, modular components to create a seemingly endless variety of possible configurations. Each individual system is unique; therefore it is obviously impractical to give detailed assembly instructions here for every possible variation. These instructions give you a general assembly sequence and describe how the various components are assembled to form a pen system. Adapt the information given here as necessary to assemble your particular system.

Site Requirements

The most efficient way to clean the pen system is with water from a hose. Therefore, it is important that the area in which the pen system will be located has convenient access to water faucets, and an adequate drainage system.

General Installation Instruction for All Pen Systems

IMPORTANT: Read this chapter through completely before starting work.

IMPORTANT: When assembling a pen or pen system, loosely assemble all panels with all cap screws finger-tight only. When assembly and leveling are done, go back and tighten all the cap screws.

References

Refer to the system Layout Drawings frequently while assembling your pen system. Refer to Chapter 2 - Description of Components as necessary to identify component parts.

Assembly Sequence - Individual Pens, General

To assemble an individual pen, start with an end or partition panel, then, using the brackets supplied, add the back panel, swinging gate and then the opposite end or partition panel. Refer to Using Brackets to Assemble Pen Components on Page 21.

Assembly Sequence - Pen Systems, General

When installing a pen system, start with an end pen and work pen-by-pen, toward the other end. If one end of the system is against a wall, start with that pen. Refer to Mounting a Pen to a Facility Wall on Page 26. If the system is in a corner and uses two walls as parts of the pen, start with the corner pen.

Installing Back Panels

When installing back panels, make sure that the vertical rods in the upper grill are toward the inside of the pen and the horizontal rods toward the outside.

Installing Back Spreader Bars

If back panels are not being used and the end/partition walls cannot be fastened to a facility wall, install back spreader bars as necessary to maintain the pens' structural integrity. Refer to Installing Back Spreader Bars on Page 27.

Installing Fold-up Resting Shelves

        If fold-up resting shelves are being used, install them as you assemble each pen. Refer to Installing Fold-up Resting Shelves on Page 32.

Installing Top Panels

        If top panels are being used, DO NOT install them until after all other pen assembly except accessories is finished. Refer to Installing Top Panels on Page 29.

Installing Guillotine Doors

        If a back panel with a guillotine door is used, refer to Installing Guillotine Door Cable & Pulley Systems on Page 30.

Pen Alignment

        As you erect the pen system, periodically view the rear of the system and make sure that all pens are aligned with each other. On free-standing pens, if the system is parallel to a facility wall, measure the distance from the pen levelers to the nearest wall; all these distances should be the same.

Installing Floor Sections

        Floor sections can be installed any time after the pen system assembly is complete.

IMPORTANT: When assembly and leveling are done, go back and tighten all the cap screws.

Types of Installations

Pen installation procedures vary, depending on the nature of the system being installed.

- · Free-standing pens (single row) - Page 24
- · Back-to-back pens - Page 24
- · Pens, side-mounted to a facility wall - Page 25
- · Pens, back-mounted to a facility wall - Page 25

Using Brackets to Assemble Pen Components
Brackets

Pen components are assembled using specially-designed brackets (Figure 15). The following hardware items are used in the assembly of the basic pen system including the swinging gate, end/partition panels, back panels and top panels. Obtain standard items such as screws and nuts locally to save time and expense.

- **A** - L-brackets - P/N ACUC002.000 - Page 22
- **B** - U-brackets - P/N ACUC001.175 - Page 22
- **C** - Cross brackets - P/N ACUC038.000 - Page 22
- **D** - Long L-brackets - P/N ACUC006.197 - Page 23
- **E** - Offset brackets - P/N ACUC005.188 - Page 23
- **F** - Half-cross brackets - P/N ACUC019.000 - Page 23
- Cap Screw, .312-18 x ½"- P/N 850205

Figure 15: Brackets for Assembling Total Animal Pen Systems

Bracket Assembly Procedure
IMPORTANT: When assembling a pen or pen system, loosely assemble all panels with all cap screws finger-tight only. When assembly and leveling are done, go back and tighten all the cap screws.

To assemble pen components with the brackets, proceed as follows:
1. With a 1/2 in. wrench, remove the existing cap screws from all components. **Note**: All pen panels come with cap screws present in all installation holes.
2. With the cap screws removed above, mount as many brackets to one of the components as needed.
3. One at a time, hold the additional components against the brackets and secure with the cap screws.

L-Brackets- P/N ACUC002.000

L-brackets (Figure 15, **A**) are used to connect two components together, for example, an end panel and a swinging gate (Figures 16 and 17).

Figure 16: Connecting two components with a L-Bracket

Cap Screws
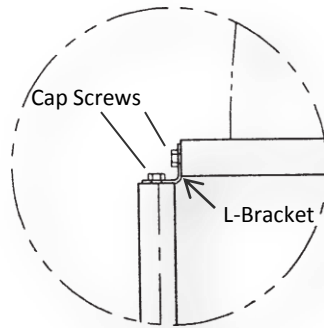
L-Bracket

Figure 17: Typical Completed L-Bracket Assembly

(End panel & Swinging Gate Shown)

Cap Screws
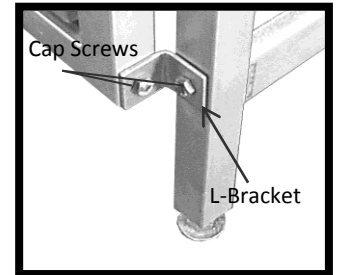
L-Bracket

U-Brackets- P/N ACUC001.175

U-brackets (Figure 15, **B**) are used to connect three components together, for example two swinging gate panels and a partition panel (Figures 18 and 19).

Figure 19: Typical Completed U-Bracket Assembly

(Two Swinging Gates & Partition Panel Shown)

U-Bracket

Cap Screws

Figure 18: Connecting three components with a U-Bracket

Cap Screws
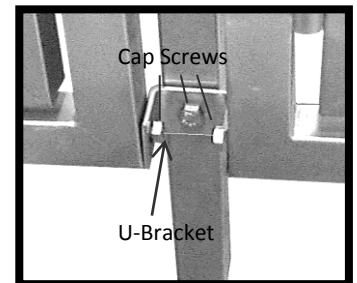
U-Bracket

Cross-Brackets – P/N ACUC038.000

In back-to-back pen systems, cross-brackets (Figure 15, **C**) are used to connect four components together at the TOP of the assembly, for example, a top connection between two partition panels and two back panels (Figures 20 and 21). Refer to Half- Cross Brackets on Page 23 for the connection at the bottom of the assembly.

Figure 21: Typical Completed Cross-Bracket Assembly

Cross-Bracket

Cap Screws

Cap Screws

Cross-Bracket

Figure 20: Connecting four components with a Cross-Bracket
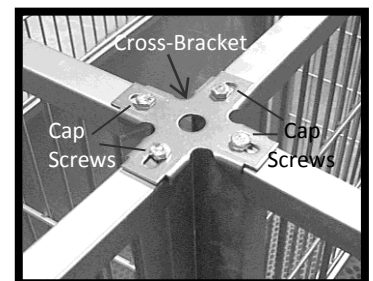
Long L-Bracket- P/N ACUC006.197

Long L-brackets (Figure 15, **D**) are used to connect components to masonry walls, for example, a swinging gate to a facility wall (Figure 22). The elongated hole in the bracket enables you to adjust the bracket in or out as necessary.

Figure 22: Typical Completed Long L-Bracket Assembly
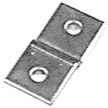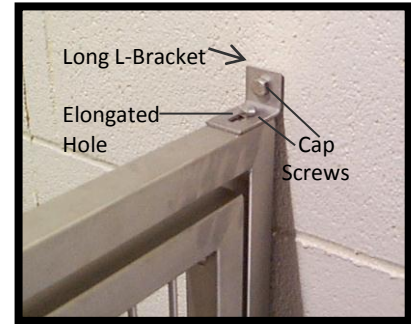
Offset Brackets- P/NACUC005.188

Offset brackets (Figure 15, **E**) are used to connect components to masonry walls, for example, the bottom of a swinging gate to a facility wall (Figure 23). If the wall is not plumb, use shims to adjust the bracket position.

Figure 23: Typical Completed Offset Bracket Assembly
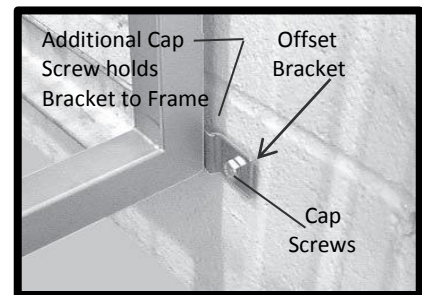
Half-Cross Brackets- P/N ACUC019-000

In back-to-back pen systems, half-cross brackets (Figure 15, **F**) are used to connect four components together on the BOTTOM of the assembly, for example, two partition panels and two back panels (Figure 24). Refer to Cross-Brackets on Page 22 for the connection at the top of the assembly.

Figure 24: Typical Completed Half-Cross Bracket Assembly
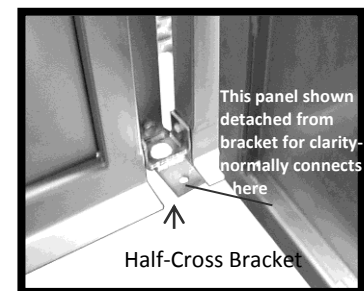
Installing Pens

Pages 24-26 give installation procedures for four common types of pen configurations. Please regard each as a general guide and adapt the information necessary to suit your particular situation. Tools for the first four types of pen configurations are all the same and are as follows:

Tools Required: ·Two 1/2in. open-end wrenches, ·Carpenter's level

Free-Standing Pens (single row)

Procedure

1. If a resting shelf is to be used in this pen, install the shelf brackets to the end and/or partition panels (refer to Installing Fold-up Resting Shelves on Page 32).
2. Using brackets (refer to Using Brackets to Assemble Pen Components on Page 21), take one end/partition panel and attach the swinging gate to it.
3. Mount the back panel to the end/partition panel.
4. Mount the opposite end/partition panel to the assembly.
5. Install the resting shelf (if used).
6. Make sure the pen is aligned with its neighbors (refer to Pen Alignment on Page 20).
7. Level the pen (refer to Leveling the Pen on Page 28).
8. Install the top panel (if used - refer to Installing Top Panels on Page 29).
9. If a back panel with a guillotine door is being used, install the pulley and cable system (refer to Installing Guillotine Door Cable & Pulley Systems on Page 30).
10. Accessories such as card holders or bowl holders can be added now or later, as desired (refer to sub-sections under Installing Accessories on Page 32).
11. Continue on to assemble the next pen.
12. When the system is complete, install the floor sections.

1	2	3	4

Assembly Sequence
(shaded figure represents additional pens)

Back-to-Back Pens

When assembling a back-to-back pen system, loosely assemble one pen, then the pen that backs up to it (refer to diagram at the right). Continue with this sequence for the entire pen system.
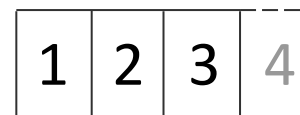
2	4	6	8
1	3	5	7

Assembly Sequence
(shaded figure represents additional pens)

Procedure

1. If a resting shelf is to be used in this pen, install the shelf brackets to the end and/or partition panels (refer to Installing Fold-up Resting Shelves on Page 32).
2. Using brackets (refer to Using Brackets to Assemble Pen Components on Page 21), take one end/partition panel and attach the swinging gate to it.
3. Mount the back panel to the same end panel with a cross-bracket (top) and a half-cross bracket (bottom) since another pen will be mounted to the rear of this one.
4. Mount the second end/partition panel to the assembly.
5. Mount the first end/partition panel of the back-up pen to the back panel of the first pen.
6. Mount the second end/partition panel to the back panel.
7. Install the resting shelves (if used) to both pens.
8. Mount the swinging gate to the back-pen end/partition panels.
9. Make sure the pens are aligned with their neighbors (refer to Pen Alignment on Page 20).
10. Level the pens (refer to Leveling the Pen on Page 28).
11. Install the top panels (if used - refer to Installing Top Panels on Page 29).
12. If a back panel with a guillotine door is being used, install the pulley and cable system (refer to Installing Guillotine Door Cable & Pulley Systems on Page 30).

13. Accessories such as card holders or bowl holders can be added now or later, as desired (refer to sub-sections under Installing Accessories on Page 32).
14. Continue on to assemble the next pen.
15. When the system is complete, install the floor sections.

Pens, Side-mounted to a Facility Wall

Procedure

1. If a resting shelf is to be used in this pen, install the shelf bracket to the end partition (refer to Installing Fold-up Resting Shelves & on Page 32). **Note:** A resting shelf bracket for attachment to the wall will have to be locally fabricated.
2. Using brackets (refer to Using Brackets to Assemble Pen Components on Page 21), take one end/partition panel and attach the swinging gate to it.
3. Mount the back panel to the end panel.
4. If not a wall-mounted pen, make sure the pen is aligned with its neighbors (refer to Pen Alignment on Page 20).
5. Level the pen (refer to Leveling the Pen on Page 28).
6. With appropriate brackets, mount the pen to the wall, being careful not to disturb the level (refer to Mounting a Pen to a Facility Wall on Page 26).
7. Install the resting shelf (if used).
8. Install the top panel (if used - refer to Installing Top Panels on Page 29).
9. If a back panel with a guillotine door is being used, install the pulley and cable system (refer to Installing Guillotine Door Cable & Pulley Systems on Page 30).
10. Accessories such as card holders or bowl holders can be added now or later, as desired (refer to sub-sections under Installing Accessories on Page 32).
11. Continue on to assemble the next pen.
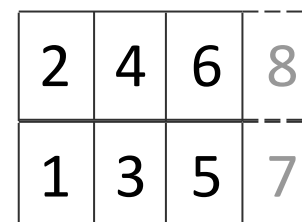12. When the system is complete, install the floor sections.

Pens, Back-mounted to a Facility Wall

Procedure

1. If a resting shelf is to be used in this pen, install the shelf brackets to the back wall (refer to Installing Fold-up Resting Shelves & on Page 32).
2. Using brackets (refer to Using Brackets to Assemble Pen Components on Page 21), take one end/partition panel and attach the swinging gate to it.
3. Mount the opposite end/partition panel to the assembly.

Note: If the end/partition panels cannot be mounted to the wall, use back spreader bars to ensure pen rigidity (refer to Installing Back Spreader Bars on Page 27).

4. Install the resting shelf (if used).
5. Make sure the pen is aligned with its neighbors (refer to Pen Alignment on Page 20).
6. Level the pen (refer to Leveling the Pen on Page 28).
7. With appropriate brackets, mount the pen to the wall, being careful not to disturb the level (refer to Mounting a Pen to a Facility Wall on Page 26).
8. Install the top panel (if used - refer to Installing Top Panels on Page 29).
9. If a back panel with a guillotine door is being used, install the pulley and cable system (refer to Installing Guillotine Door Cable & Pulley Systems on Page 30).
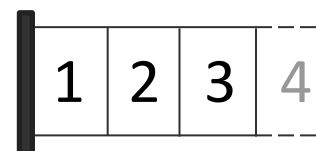10. Accessories such as card holders or bowl holders can be added now or later, as desired (refer to sub sections under Installing Accessories on Page 32).

11. Continue on to assemble the next pen.
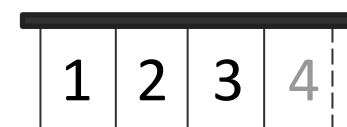12. When the system is complete, install the floor sections.

Mounting a Pen to a Facility Wall

These instructions cover the assembly of a pen against a wall. A pen can be installed with a side against a wall, with the rear against a wall, or with one side and the rear both against walls.

Caution: For all wall-mounted pens, level the pen first, then mount the pen to the wall, being careful not to disturb the level.

Pens with One Side Against a Wall

If a pen is installed with one side against a wall, the end panel is not used (Figure 25). Remaining pens in the system will be assembled as normal pen-to-pen installations. If a pen is installed with one side against the wall, attach the swinging gate and the back panel to the wall using long L-brackets at the top, and offset brackets on the bottom (Figures 25 and 26). Since the pen has been leveled, it may not fit snugly against the wall if the wall is out of plumb. Long L-brackets allow adjustments at the top of the pen. At the bottom, the offset brackets can be shimmed to fit the wall without disturbing the pen level. On a pen installed with one side against a wall, after the pen is assembled, install the floor support brackets or rings on the facility wall at the proper height so that the floor section will be parallel to the floor (Figure 29). If you are using rings refer to SSCI Catalog for the number of rings required for your pen.
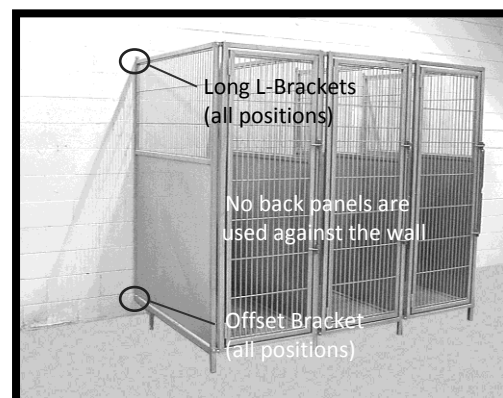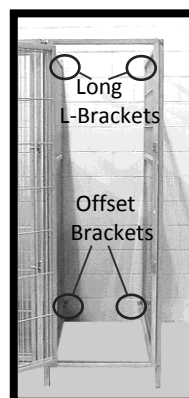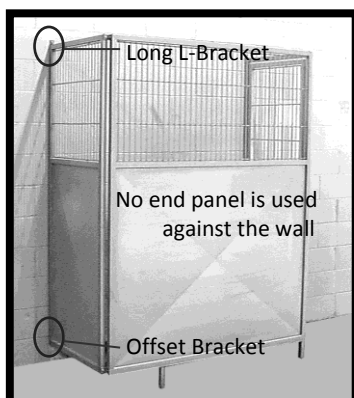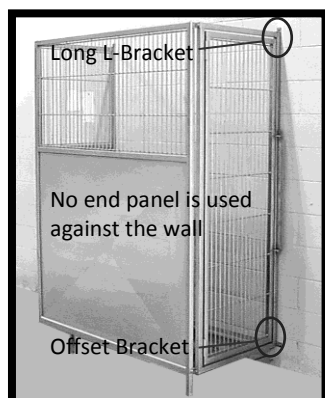
Figures 25 and 26: Pen installed with One side against a Facility Wall (Front and Rear views)

Figures 27 and 28: Pen installed with Rear against a Facility Wall (Front inside view and front view)

Figure 29: Floor Support Bracket on Facility Wall

Pens With the Rear Against the Wall

If a pen is installed with the rear against the wall, the back panel is not used (Figure 28). Mount the end and partition panels to the wall using long L-brackets at the top, and offset brackets on the bottom (Figure 27). Since the pen has been leveled, it may not fit snugly against the wall if the wall is out of plumb. The long L-brackets allow adjustments at the top of the pen. At the bottom of the pen, the offset brackets can be shimmed to fit the wall without disturbing the pen level.

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Installing Back Spreader Bars

Back spreader bars (Figure 31) are used to connect the rear of the end/partition panels to each other when no back panels are used and the panels cannot be attached to a facility wall. The bars add strength to the pen system to keep it rigid and stable. Refer to SSCI Catalog for part numbers. Back spreader bars can be attached to the upper end of the pen, to the lower end of the pen or in both positions (Figure 30). On the upper end, the spreader bar can be mounted to the top or the rear of the end/partition panels; either position is acceptable. On the lower end, the bar can only be attached to the rear of the panels. In Figure 31, notice the 90° flange on the spreader bar. This flange increases the strength and rigidity of the bar. When the bar is mounted, this flange can be oriented in any way that does not interfere with the assembly.

Tool Required: ·1/2 in. wrench

Spreader Bar in Upper Position

Spreader Bar in Lower Position

Figure 30: Back Spreader Bars on Pens

Bar length varies with pen width

90° Flange

Mounting Hole
(1 each end)
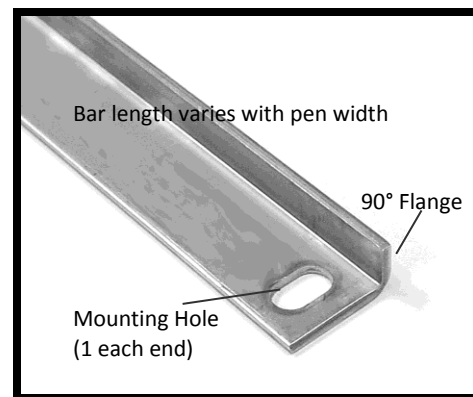
Figure 31: Back Spreader Bar

Procedure

1. With a 1/2 in. wrench, remove the existing cap screws from the end/ partition panels (top, bottom, or both, as necessary - Figure 30).
2. Fasten the back spreader bar to the end/ partition panels with the cap screws removed above. Spreader bars on adjacent pens will overlap at their common mounting point.

Leveling the Pen

The pens must be leveled to insure proper mating of adjacent parts and to provide a professional appearance.

Procedure

Assembly of the basic pen should be complete including end and partition panels, swinging gate, and back panel (if used). If the system is wall-mounted, the pen should be leveled BEFORE being attached to the wall.

1. Place a carpenter's level lengthwise on any end/partition panel horizontal frame member, and check the level of the pen, front-to-rear (Figure 32).
2. Tighten all cap screws on the gate top frame to make sure that a loose cap screw does not distort the level. Place the level crosswise on the gate top frame and check the level of the pen left-to-right (Figure 33).

- If the pen is level or very close, continue on assembling the pen system.
- If the pen is substantially out of level, proceed to Step 3 below.

3. With a 1/2 in. open-end wrench, loosen the jam nuts on all four levelers (Figures 34). **Note:** Two levelers are mounted on each end/partition panel; there are no levelers on back panels or swinging gates.
4. Make sure that all levelers are screwed all the way up.
5. Place a carpenter's level lengthwise on any end/partition panel horizontal frame member, and check the level of the pen, front-to-rear (Figure 32).
6. With a 1/2 in. open-end wrench, turn the levelers (Figure 34) as necessary to level the pen, front-to-rear.
7. Place the level crosswise on the gate top frame and check the level of the pen left-to-right (Figure 33).
8. Turn the levelers as necessary to level the pen, left-to-right.
9. Recheck the level both ways and readjust the levelers until the pen is level, left-to-right and front-to-rear.
10. When the pen is level, make sure that all levelers firmly touch the floor to prevent the pen from rocking.

Note: Check the latch connector. If a latch connector is not working properly, it is often an indication of a pen out-of-level.

11. Hold each leveler steady with a 1/2 in. open-end wrench, and then, with another 1/2 in. open-end wrench, tighten the jam nut firmly up against the bottom of the pen.

Note: If after repeated leveling efforts, a latch connector still does not operate correctly, open the gate a few inches, place a length of 2x4 between the gate and frame on top or bottom, and gently pry up or down as necessary. This will often force the gate into a more cooperative position.

12. After the pen is leveled, continue on with the assembly of the pen system.

Level Placed on End Panel Top Frame
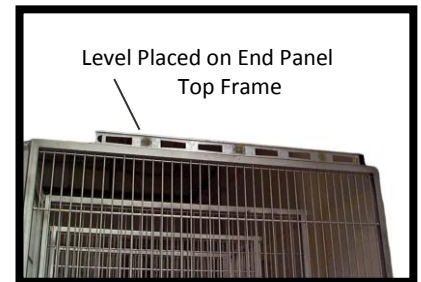
Figure 32: Checking front-to-rear level

Level Placed on Swinging Gate Frame

Figure 33: Checking left-to-right level
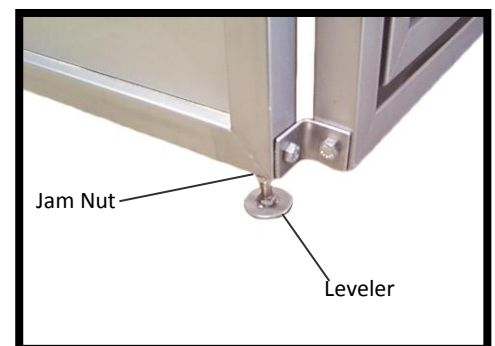
Jam Nut

Leveler

Figure 34: Leveler Leg and Jam Nut

Installing Top Panels

Top Panels are used to cover the normally open tops of the pens to prevent the escape of climbing animals. Refer to SSCI Catalog for part numbers. Install the top panel after leveling the pen and after mounting the pen to the wall if the pen uses a facility wall. Make sure that when you install the top panel you do not disturb the level.

Tool Required: ·1/2 in. wrench

Procedure
1. With a 1/2 in. wrench, remove the four cap screws from the tops of the end and partition panels (Figure 35). There are no cap screws in the swinging gate and back panel.
2. Place the top panel in position on top the pen.
3. Secure the top panel in place with the four cap screws removed above.
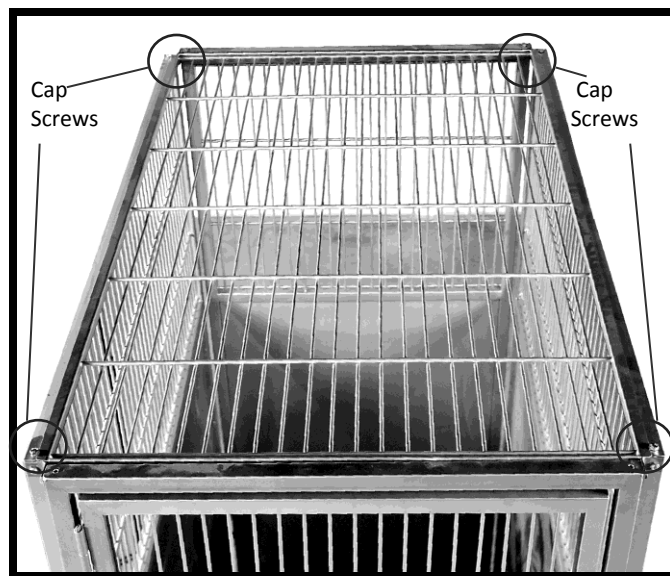
Figure 35: Installing the Top Panel

Installing Guillotine Door Cable & Pulley Systems

Some pen back panels include a guillotine-type door to allow animals into and out of the pen (Figures 36 and 37). Each guillotine door has a cable and pulley system which allows you to open and close the door from the front of the pen. Install the cable and pulley system for each pen after that pen is assembled, and before starting assembly of the next pen.

Figure 36: Guillotine Door Open

Figure 37: Guillotine Door Closed

Tools Required: ·Flat-blade screwdriver, ·1/2 in. wrench (2), ·13/32 in. wrench

Procedure

Mounting the Rear Pulley Note: Two pulley assemblies are supplied with the guillotine door. They are identical and either can be used in either position.

1. With two 1/2 in. wrenches, remove the cap screw and locknut from the U-bracket on the pulley assembly (Figure 38).
2. Engage the U-bracket on the pulley assembly onto the top frame piece of the back panel, and secure it with the cap screw and locknut removed above. The pulley must be centered on the back panel and angled slightly toward the hinge side of the gate so that the cable will run straight toward the front pulley.
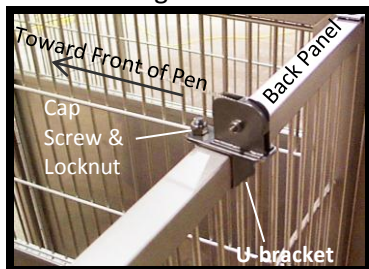
Figure 38: Rear Pulley Assembly in place on back panel

Figure 39: Front Pulley Assembly in place on swinging gate
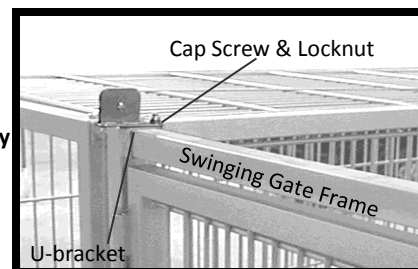
Mounting the front Pulley

1. With two 1/2 in. wrenches, remove the cap screw and nut from the U-bracket on the pulley assembly (Figure 39).
2. Engage the U-bracket on the pulley assembly onto the top frame piece of the swinging gate, and secure it with the cap screw and locknut removed above. The pulley must be as far to the left as possible so that the cable will run straight down to the handle holder. Angle the pulley slightly toward the rear pulley so that the cable will run straight between the two pulleys.

Installing the Handle Holder

1. With a flat-blade screwdriver, remove the screw from the U-bracket on the handle holder (Figure 40).
2. Engage the U-bracket on the handle holder onto the left frame piece of the swinging gate, and secure it with the screw removed above. The handle holder should be about 34 in. down from the top of the swinging gate frame. After the cable is installed, the handle holder may require some adjustment up or down.
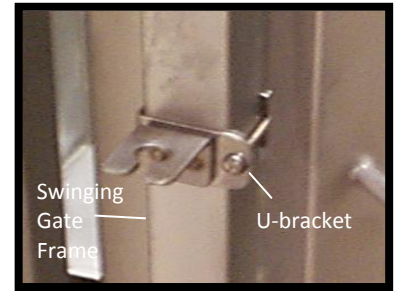
Figure 40: Handle holder in Place on Swinging Gate

Installing the Cable

1. Pass the empty end of the cable up through the front pulley assembly, over the pulley wheel, and back toward the rear pulley. Make sure that the cable rides smoothly on the wheel.
2. Pass the cable back, through the rear pulley and down toward the guillotine door, again making sure that it rides smoothly on the pulley wheel.
3. Pass the end of the cable down through the hole in the center of the door top flange (Figure 41).
4. With a 13/32 in. wrench, remove the two clamp screws in the cable stop and remove the stop clamp.
5. Form the bottom end of the cable into a "U" shape and place it into the cable stop so that the two screws will be inside the "U".
6. Replace the stop clamp over the cable and fasten the two screws down tightly.
7. Place the cable handle in the handle holder (Figure 42).
8. Adjust the position of the holder up or down as needed so that when the cable is taut, the door is at the top of its travel.
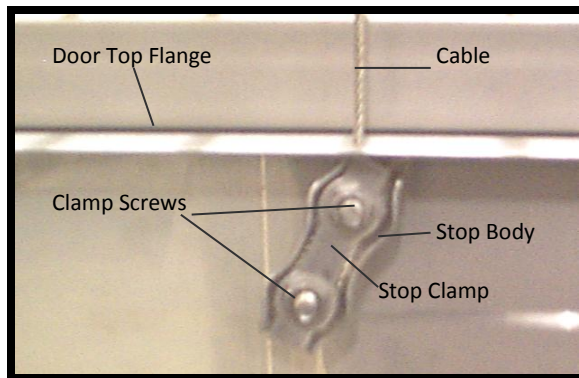
Figure 41: Cable Stop
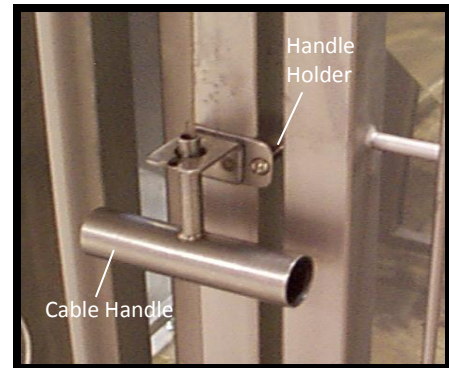
Figure 42: Cable Handle on Handle Holder

Installing Accessories

SSCI provides a variety of accessories for Total Animal Pen Systems to custom-fit them to your requirements. The following sub-sections guide you in installing these accessories. Available accessories include.

- Fold-up resting shelves - below
- Inside Latch Release Assembly- Page 42

Installing Fold-up Resting Shelves

Fold-up resting shelves provide comfortable places for animals to rest above the floor. The shelves attach securely to the pen partitions with pivoting mounting brackets. Attachment can be directly to the pen partitions or to a masonry wall at the back of the pen. The shelves fold up to facilitate cleaning the pen, and optional shelf latches (sold separately) hold the shelves in the folded position. Refer to SSCI catalog for part and shelf hardware part numbers.

Note: No brackets are available for side-mounting resting shelves to masonry walls. Resting shelves should not normally be used on pens with a masonry side wall. If a resting shelf must be used in this position, a special bracket must be custom fabricated to mount the shelf to the wall.

Resting Shelf Mounting Bracketry

Several brackets are used for mounting fold-up resting shelves (Figure 43).

- Right end panel bracket (**H**) -   P/N ACUC041.000
- Left end panel bracket (**G**) -   P/N ACUC040.000
- Partition panel bracket (**I**) -   P/N ACUC039.000
- Left back masonry wall bracket (**J**) - P/N 614164
- Right back masonry wall bracket (**K**) - P/N 614165

Tools Required: ·Tape Measure, ·Electric Drill, ·3/16 in. & 5/16 in. drill bits, ·7/16 in. wrench, ·1/2 in. wrench (2)
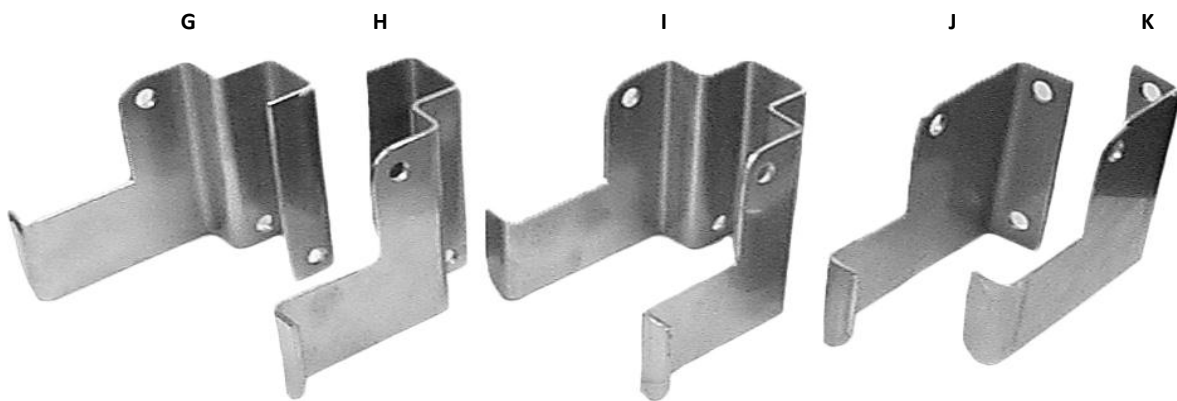
G   H   I   J   K

Figure 43: Resting Shelf Mounting Brackets

Attaching Mounting Brackets to End/Partition Panels

Resting shelf brackets must be mounted to the end/partition panels before assembling the pen. The shelf is then mounted after the pen is assembled.

1. Drill a 5/16 in. hole completely through the rear vertical frame of the end or partition panel about 15-5/8 in. up from the bottom of the panel (Figure 44). **Note:** This will result in top of the resting shelf being approx. 18 in. above the bottom of the panel. You may mount the shelf higher or lower if preferred.
2. With two 1/2 in. wrenches, mount a left, right, or partition (as appropriate) panel bracket to the end or partition panel with a 2 in. cap screw and lock nut (supplied).
3. Repeat Steps 1 and 2 to mount the appropriate bracket to the end/partition panel on the opposite side of the pen. **Note**: Make sure that both brackets are the same height above the frame bottoms.
4. After the pen is assembled, mount the resting shelf. Refer to Mounting the resting Shelf to the Brackets below.
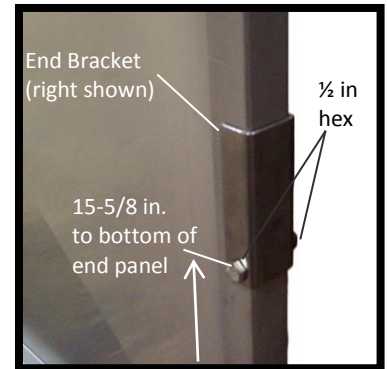
Figure 44: Mounting an end panel shelf mounting bracket

Attaching Mounting Brackets to a Masonry Wall

1. Drill suitable holes in the masonry wall located to position the brackets so that the shelf will be at an appropriate height from the floor.
2. Mount the left and right brackets (refer to Resting Shelf Mounting Bracketry on Page 32) to the masonry back wall with suitable hardware.
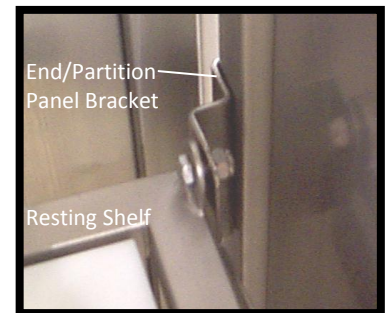
Figure 45: Mounting the resting shelf to the end/partition brackets

Mounting the Resting Shelf to the Brackets

Mount the resting shelf to the end/partition panels after the pen is assembled.

1. With two 1/2 in. wrenches, mount the resting shelf to the end/partition panel or masonry brackets with the 5/8 in. cap screws and lock nuts (supplied). Leave the screws/nuts slightly loose so that the shelf can move up and down.
2. Pivot the shelf up and down several times to make sure it operates smoothly.

Installing the Latch (optional)

1. Drill a 5/16 in. hole in the inside surface of the rear vertical frame of the end or partition panel about 18-3/8 in. up from the center of the panel bracket screw (Figure 46).
2. With a 7/16 in. wrench, fasten the latch to the panel frame with the cap screws (supplied). Leave the cap screw slightly loose so that the latch can move freely.

Figure 46: Mounting the resting shelf latch

Chapter-4 Use & Care
Using Your Total Animal Pen System
Opening/Closing and Latching the Gate
        To open the gate, lift up on the latch connector (Figure 47) and pull the gate open. Each gate is held closed by a self-actuating latch connector (Figure 47). When you close the gate, the latch connector rides up and over the latch pins and then drops down, automatically latching the gate.

Locking the Gate
        Provision is made to allow you to secure the gate with a padlock, if necessary. A hole in the latch connector (Figure 48) accepts a padlock with a hasp of 3/8 in. (9.5 mm) diameter or less. Merely close and latch the gate, place the hasp of the lock through the hole then snap the lock closed.

Inside Latch Release Assembly
        This assembly comes ready to install to your latch connector (Figure 48). Insert the bracket towards the inside of the pen, and line up the holes on the bracket with the holes on the latch connector; then tighten with the screws and jam nuts.
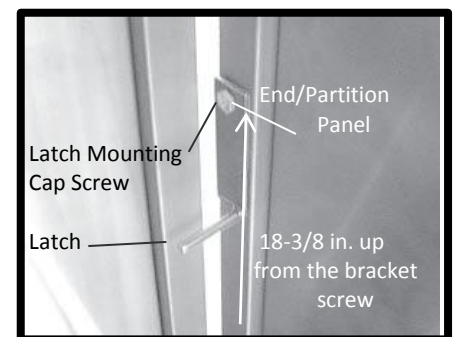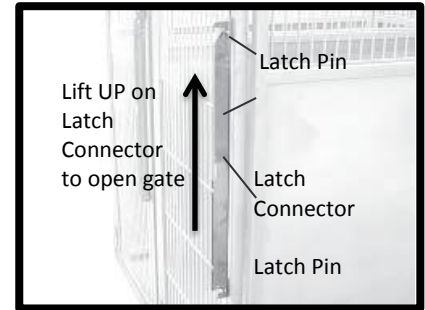

Figure 47: Latch Connector
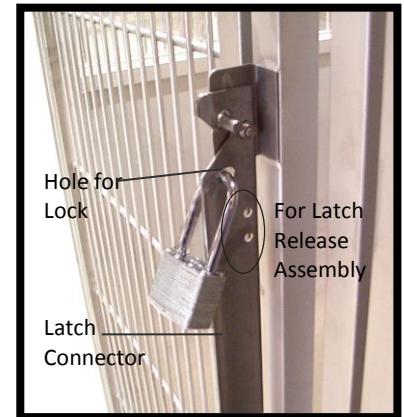
Figure 48: Locking the Gate

Using the Guillotine Door
(Pens with Guillotine Door Back Panels Only)
        Some pen back panels include a guillotine-type door to allow animals in and out of the pen (Figure 49). Each guillotine door has a cable and pulley system which allows you to open and close the door from the front of the pen.
Opening/Closing the Guillotine Door
        To open the guillotine door, pull down on the cable handle. To hold the door open, engage the handle in the handle holder (Figure 50). To close the guillotine door, disengage the cable handle from the handle holder (Figure 50), and gently allow the door to close. When the door is closed, the cable handle hangs loosely on the swinging gate.

Figure 49: Guillotine Door Open and Closed
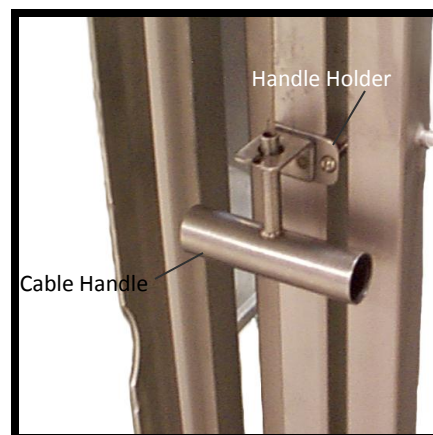
Figure 50: Cable Handle in Handle Holder

Using the Fold-up Resting Shelf (optional)

Fold-up resting shelves provide comfortable places for animals to rest above the floor. The polyethylene shelves are mounted in stainless steel frames with spaces in between to allow fluids to drain through to keep the animals drier, cleaner and happier. The shelves fold up to facilitate cleaning the pen, and optional shelf latches (sold separately) hold the shelves in the folded position (Figure 51).

Figure 51: Resting Shelf and Latch

Keeping Your Total Animal Pen System Clean

You will no doubt want to clean your Total Animal Pen System frequently. Maintaining high standards of sanitation is most likely an importance to your facility.

Your pen system should be cleaned daily to ensure the timely removal of animal waste, food scraps, etc. Use water from a hose and nozzle to rinse these materials away. If necessary, use a long-handled brush (not a wire brush) and the mildest detergent that will effectively clean the area. For more information on cleaning your Total Animal Pen System and using the correct cleaners/ detergents, refer to Care & Cleaning of Stainless Steel on the back side of the cover page on this manual.

CAUTION: The warranty for this product is void if the care and cleaning instructions provided in this manual are not followed.

Chapter 5- Maintenance & Repairs

Replacement Parts

Table 1 lists the replacement parts available for Total Animal Stainless Steel Partition, Facility Floor Pen Systems. For parts not listed, contact SSCI Customer Service at (800) 323-7366. Refer to Parts Ordering Procedure on Page 37.

Part Name	SSCI Part Number	Quantity	Replacement Instructions
All Pens			
Hinge Pin, Swinging Gate	450006	2/Gate	Page 38
Swinging Gate Assembly, Complete	Refer to Catalog	1	Page 38
Swinging Gate, Gate Only	Refer to Catalog	1	Page 39
Latch Connector	601602	1	Page 39
End Panel	Refer to Catalog	1 each end	Page 40
Partition Panel	Refer to Catalog	Varies	Page 40
Back Panel	Refer to Catalog	Varies	Page 41
Bolt-on Floor Support Bracket	Refer to Catalog	Varies	Page 41
Bolt-on Floor Support Rings	Refer to Catalog	Varies	Page 42
Top Panel (optional)	Refer to Catalog	Varies	Page 42
Inside Latch Release Assembly	102536	1	Page 42
For Pens Having Guillotine Doors			
Guillotine Door Track	617958	2	Page 43
Guillotine Door	617959	1	Page 43
Guillotine Door Cable	211759	1	Page 44
Guillotine Door Cable Handle	209411	1	Page 44
Guillotine Door Pulley Assembly	210041	2	Page 45
Guillotine Door Pulley Wheel	853537	1/Pulley	Page 45
Guillotine Door Handle Holder	210057	1	Page 46
For Pens Having Optional Fold-up Resting Shelves			
Fold-up Resting Shelf (optional)	Refer to Catalog	1	Page 46
Resting Shelf End Panel Bracket	Left- ACUC040.000 Right- ACUC041.000	1 each end	Page 46
Resting Shelf Latch (optional)	212581	Varies	Page 47
Resting Shelf Partition Panel Bracket	ACUC039.000	Varies	Page 47

Table 1: Replacement Parts Available for Total Animal Stainless Steel Partition, Facility Floor Pen Systems

General Information

Many of the threaded fasteners used on SSCI products are secured with thread adhesive to insure structural integrity. Removing any screw or bolt may be difficult at first. During disassembly, retain all hardware items such as screws, nuts, lockwashers, etc. for reassembly. If you have any problems with any procedure, please feel free to call SSCI Customer Service at 800-323-7366.

Parts Ordering Procedure

Order new equipment, accessories, and/or replacement parts directly through SSCI Customer Service. You can order by mail, telephone or fax. Refer to SSCI Contact Information on the cover of this manual. When ordering, please provide the following information:

- Your name
- Company name
- Telephone number
- Fax number
- E-mail address
- Shipping address
- Billing address (if different from shipping address)
- Names, part numbers and quantities of items being ordered
- Credit card number and expiration date, or other payment information
- Preferred method of shipment
- Information on whether the items are required on a normal or urgent basis

Returning Pen Components for Repairs

RMA Numbers

If components of your pen systems should require a return to SSCI for repairs, discuss the problem with one of our Customer Service Representatives. Obtain a RMA number (Return Merchandise Authorization) from them before shipping the unit back. **Note:** SSCI will not accept merchandise returned without a RMA number.

Packing & Shipment

Package the component securely in a suitable container. Ship the following required documentation with the component:

- Destination
- RMA number
- Your name, company and address
- Your telephone number
- A description of the reason for returning the component

Parts Replacement Procedures

The following sub-sections guide you in replacing worn. damaged or missing parts on your SSCI Total Animal Pen System.

Hinge Pin, Swinging Gate- P/N 450006

Two hinge pins hold each swinging gate to its frame. The instructions in this sub-section apply to the hinge pins on any size or style Total Animal Pen Gate.

Tools Required: ·Punch (1/4in. dia. max.), ·Small hammer or mallet

Procedure

1. Use a punch and a small hammer to drive the existing pin upward, and out of the hinge (Figure 52).
2. Place the new hinge pin into the top of the hinge, flat end up, and gently drive it downward until it seats.
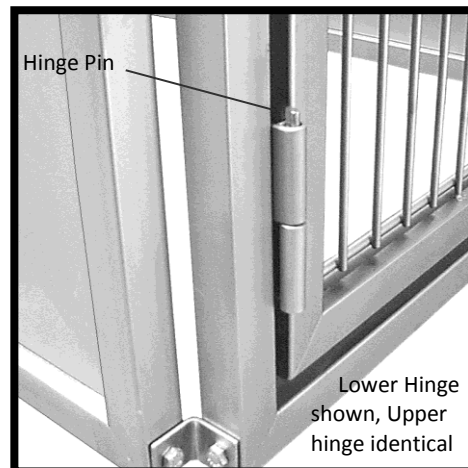3. Open and close the gate several times to make sure it swings and latches easily.

Hinge Pin

Lower Hinge shown, Upper hinge identical

Figure 52: Swinging Gate Hinge Pin

Swinging Gate Assembly, Complete
For Part Numbers, refer to SSCI Catalog
(depending on gate style)

CAUTION: Many of the pen components are large and heavy. To reduce the possibility of injury, we recommend that replacement operations involving these components be done by two or more people.

Tool Required: ·1/2in. wrench

Gate Mounting Brackets

Figure 53: Swinging Gate Mounting Brackets

Procedure

1. If there are any accessories on the gate that you wish to reuse (card holders, food/water bowls, etc.), remove them from the gate.
2. Make sure the gate is latched. (It will be easier to work with the gate if it is not swinging open.)
3. With a 1/2 in. wrench, remove the cap screws that hold the swinging gate assembly to the brackets on the pen system (Figure 53).
4. Remove the complete swinging gate assembly from the pen system.
5. Mount the new gate assembly to the brackets on the pen system and secure with the cap screws removed earlier.
6. Open and close the gate several times to make sure it swings and latches easily.
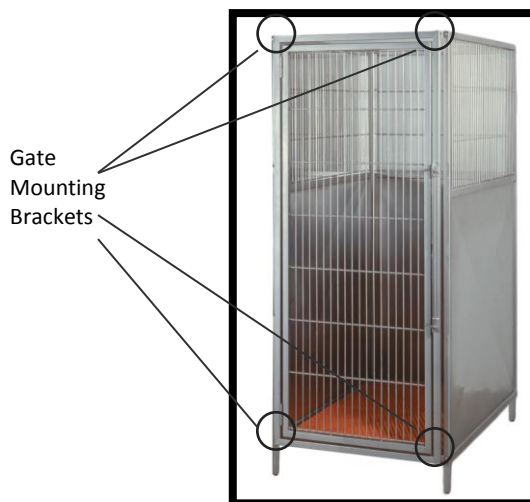7. Replace any needed accessories on the gate.

Swinging Gate (gate only)
For Part Numbers, refer to SSCI Catalog
(depending on gate style)

These instructions cover the replacement of only the swinging portion of the gate assembly, not the frame.

CAUTION: Many of the pen components are large and heavy. To reduce the possibility of injury, we recommend that replacement operations involving these components be done by two or more people.

Tool Required: ·Punch (1/4in. dia. max.), ·Small hammer or mallet

Hinges

Figure 54: Swinging Gate Hinges

Procedure

1. If there are any accessories on the gate that you wish to reuse (card holders, food/water bowls, etc.), remove them from the gate.
2. Make sure the gate is not latched.
3. With a punch and a small hammer, drive both hinge pins upward, and out of the hinges (Figures 52 and 54).
4. Remove the gate from the pen.
5. Place the new gate in position on both hinges.
6. Place the hinge pins into the tops of the hinges, flat end up, and gently drive them downward until they seat.
7. Open and close the gate several times to make sure it swings and latches easily.
8. Replace any needed accessories on the gate.

Latch Connector- P/N 601602

The instructions in this sub-section apply to the latch connectors on an size or style Total Animal Pen Gate.

Tools Required: ·Phillips screwdriver, ·7/16 in. wrench

Latch Connector Bracket

cap screw/nut

Latch Connector

Top section shown, bottom similar

Figure 55: Removing the Latch Connector

Procedure

1. Unlatch and open the pen gate
2. With a Phillips screwdriver and a 7/16 in. wrench, remove the two cap screws and nuts that hold the latch connector to the two latch brackets (Figure 55) and remove the old latch connector.
3. Make sure the new latch connector is right side up (Figure 56).
4. Install the new latch connector to the two latch brackets and secure with the cap screws and nuts. The latch connector should be attached to the sides of the brackets AWAY from the gate. **Note:** Leave the screws/nuts slightly loose so that the latch connector can move up and down freely.
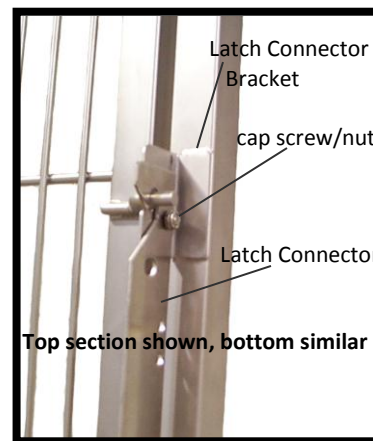5. Open and close the gate several times to make sure it swings and latches easily.

Round Cutout should face outward

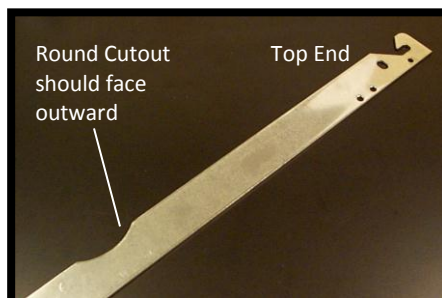Top End

Figure 56: Latch Connector

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End Panel
For Part Numbers, refer to SSCI Catalog
(depending on panel style)

The instructions in this sub-section apply to both left and right end panels regardless of size or style. Replacing an end panel does not require disassembly of the pen system.

CAUTION: Many of the pen components are large and heavy. To reduce the possibility of injury, we recommend that replacement operations involving these components be done by two or more people.

Tool Required: ·1/2in. wrench

Figure 57: Brackets Holding the End Panel to the Pen System

Procedure

1. With a 1/2in. wrench, remove the cap screws that hold the end panel to the brackets on the pen system (Figure 57). **Note:** If the pen system is back-mounted to a facility wall, disconnect the panel from the brackets to the wall.
2. Remove the end panel from the pen system.
3. Mount the new end panel to the brackets on the pen system and secure with the cap screws removed earlier.
4. Level the pen (refer to Leveling the Pen on Page 28).

Partition Panel
For Part Numbers, refer to SSCI Catalog
(depending on panel style)

The instructions in this sub-section apply to all partition panels regardless of size or style. **Note: Replacing a partition panel requires extensive disassembly of the pen system.**

CAUTION: Many of the pen components are large and heavy. To reduce the possibility of injury, we recommend that replacement operations involving these components be done by two or more people.

CAUTION: Before starting work, examine the pen system carefully and try to determine the most efficient way to approach the panel to be replaced. Try to disassemble as few pens as possible.

Tool Required: ·1/in. wrench

Figure 58: Brackets Holding the Partition Panel to the Pen System

Procedure

1. Disassemble the pens in the system necessary to access the panel needed to be replaced.
2. With a 1/2in. wrench, remove the cap screws that hold the partition panel to the brackets on the pen system (Figure 58). **Note**: If the pen system is back-mounted to a facility wall, disconnect the panel from the brackets on the wall.
3. Remove the partition panel from the pen system.
4. Mount the new partition panel to the brackets on the pen system and secure it with the cap screws removed earlier.
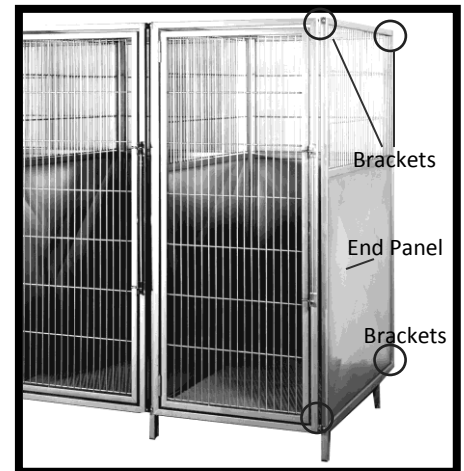5. Level the pen (refer to Leveling the Pen on Page 28).
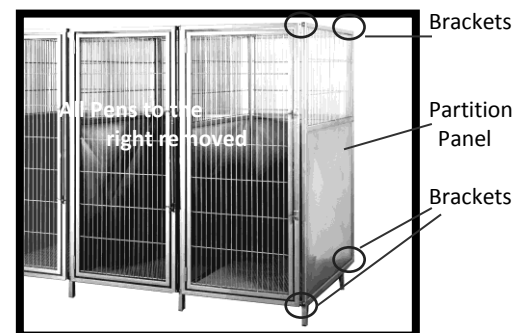6. Reassemble the pen system.

Back Panel
For Part Numbers, refer to SSCI Catalog
(depending on panel style)

The instructions in this sub-section apply to all back panels regardless of size or style. Replacing a back panel does not require disassembly of the pen system unless the panel is part of a back-to-back pen system.

CAUTION: Many of the pen components are large and heavy. To reduce the possibility of injury, we recommend that replacement operations involving these components be done by two or more people.

CAUTION: If the back panel is part of a back-to-back pen system, before starting work, examine the pen system carefully and try to determine the most efficient way to approach the panel to be replaced. Try to disassemble as few pens as possible.

Tool Required:·1/2in. wrench

Procedure
1. If the panel is part of a back-to-back system, disassemble the pen system as necessary to access the panel to be replaced.
2. With a 1/2 in. wrench, remove the cap screws that hold the back panel to the brackets on the pen system. **Note:** If the panel is side-mounted to a facility wall, disconnect the panel from the brackets on the wall.
3. Remove the back panel from the pen system.
4. Mount the new back panel to the brackets on the pen system and secure with the cap screws removed earlier.
5. Level the pen (refer to Leveling the Pen on Page 28).
6. Reassemble the pen system, if necessary.

Bolt-on Floor Support Bracket
For Part Numbers, refer to SSCI Catalog

The instructions in this sub-section apply to all bolt-on floor support brackets regardless of size.

Tool Required: ·1/2in. wrench

Procedure
1. Remove all floor sections from the concerned pen.
2. With a ½ in. wrench, remove the cap screws that hold the support bracket to the facility wall (Figure 59).
3. Remove the support bracket from the wall.
4. Mount the new support bracket to the wall and secure with the cap screws removed earlier.
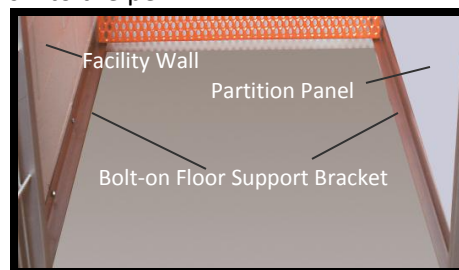5. Replace the floor sections into the pen.

Figure 59: Bolt-on Floor Support Bracket

Bolt-on Floor Support Ring- P/N 213419
The instructions in this sub-section apply to all bolt-on floor support rings.
Tool Required: ·1/2in. wrench

Procedure
1. Remove all floor sections from the concerned pen.
2. With a ½ in. wrench, remove the cap screws that hold the support ring to the facility wall.
3. Mount the new support ring to the wall and secure with the cap screws removed earlier.
4. Replace the floor sections into the pen.

Top Panel
For Part Numbers, refer to SSCI Catalog
(for pens with optional top panels only)
The instructions in this sub-section apply to all top panels regardless of size. Replacing a top panel does not require disassembly of the pen system.
CAUTION: Many of the pen components are large and heavy. To reduce the possibility of injury, we recommend that replacement operations involving these components be done by two or more people.
Tool Required: ·1/2in. wrench

Figure 60: Replacing the Top Panel

Procedure
1. With a 1/2in. wrench, remove the four cap screws from the tops of the end and partition panels (Figure 60). There are no cap screws in the swinging gate and back panel.
2. Remove the top panel from the pen system.
3. Mount the new top panel to the brackets on the pen system and secure with the cap screws removed earlier.
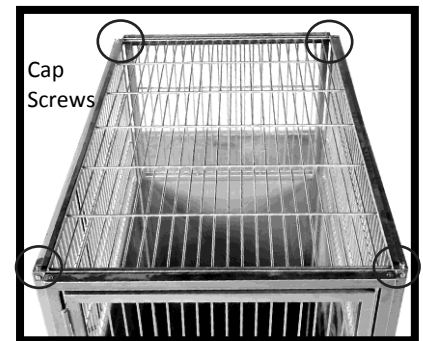
Inside Latch Release Assembly- P/N 102536
The instructions in this sub-section apply to all gates. **Note:** To check if properly installed, one would need to be inside the pen with the gate latched. We recommend you do this installation with at least one other person to assist in opening the gate from the outside so as to not stay locked in.
Tools Required: ·Phillips screwdriver
Procedure
1. Hold the bracket with the holes on it and the holes on the latch connector aligned.
2. Screw the bracket to the latch connector finger tight only and make sure its facing properly.
3. Close the gate and check to see if you can open the gate from inside of the pen.
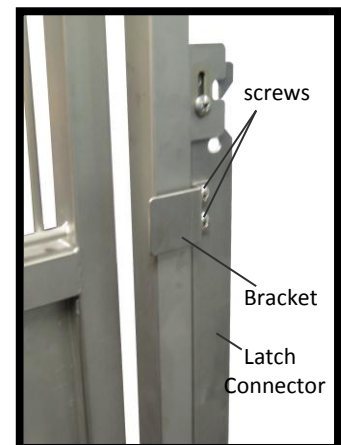4. If the latch works properly, go back and retighten the screws.

Figure 61: Inside Latch Release Assembly

Guillotine Door Track- P/N 617958
(for pens with guillotine doors only)

The instructions in this sub-section apply to all guillotine door panels. There are two tracks for each guillotine door. The tracks can be replaced individually, or both at the same time.

Tool Required: ·Phillips screwdriver

Procedure

1. Lower the guillotine door as far as it will go.
2. With a Phillips screwdriver, remove the eight screws holding the door track to the back panel (Figure 62).
3. Remove the door track from the back panel.
4. Replace the door track, making sure that the door is trapped between the track and the back panel, and secure the track with the screws removed earlier.
5. Open and close the door to ensure that it can move up and down freely.

Figure 62: Guillotine Door tracks and screws

Guillotine Door- P/N 617959
(for pens with guillotine doors only)

The instructions in this sub-section apply to all guillotine doors.

Tools Required: ·Phillips screwdriver, ·13/32in. wrench

Removal

1. Lower the guillotine door as far as it will go.
2. With a 13/32 in. wrench, loosen the two clamp screws on the cable stop (Figure 63) and open the clamp.
3. Remove the cable from the stop.
4. Pull the cable up and out of the flange on top the door.
5. With a Phillips screwdriver, remove all the screws holding both door tracks to the back panel (Figure 62), and remove the door tracks.
6. Remove the door from the back panel.

Installation

1. Place the new door in position on the back panel.
2. Replace both door tracks and secure them with the screws removed earlier.
3. Make sure the door can move up and down freely.
4. Slide the end of the cable down through the hole in the upper door flange.
5. Form the end of the cable into a "U" shape and place it into the cable stop so that the two screws will be inside the "U".
6. Replace the stop clamp over the cable and fasten the two screws down tightly.
7. Test the door again and, if necessary, adjust the position of the handle holder up or down as needed so that when the cable is taut, the door is at the top of its travel.
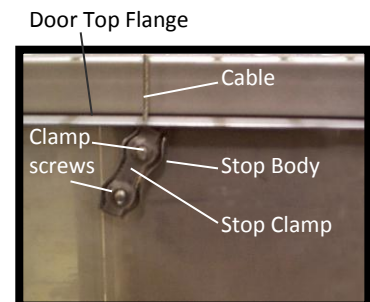
Figure 63: Cable Stop

Guillotine Door Cable- P/N 211759
Guillotine Door Cable Handle- P/N 209411
(for pens with guillotine doors only)
The instructions in this sub-section guide you in replacing the door cable or handle.
Tool Required: ·13/32 in. wrench

Removal

1. Lower the guillotine door as far as it will go.
2. With a 13/32 in. wrench, loosen the two clamp screws on the cable stop (Figure 63) and open the clamp.
3. Remove the cable from the stop.
4. Pull the cable up and out of the flange on top the door.
5. Pull the cable out of both pulley assemblies.
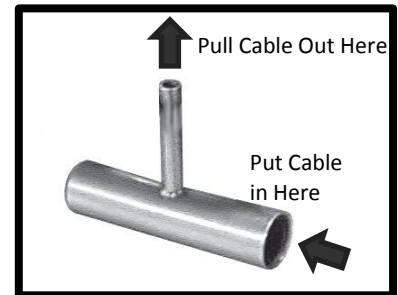6. Remove the cable from the handle.

Figure 64: Placing Cable through Handle

Installation

1. Pass the empty end of the cable into either side hole on the cable handle and out the center hole (Figure 64).
2. Pull the entire cable through the handle until the cable stop catches inside.
3. Pass the empty end of the cable up through the front pulley assembly, over the pulley wheel, and back toward the rear pulley. Make sure that the cable rides smoothly on the wheel.
4. Pass the cable back, through the rear pulley and down toward the guillotine door, again making sure that it rides smoothly on the pulley wheel.
5. Pass the end of the cable down through the hole in the center of the upper door flange (Figure 63).
6. Form the bottom end of the cable into a "U" shape and place it into the cable stop so that the two screws will be inside the "U".
7. Replace the stop clamp over the cable and fasten the two screws down tightly.
8. Place the cable handle in the handle holder (Figure 65).
9. Adjust the position of the holder up or down as needed so that when the cable is taut, the door is at the top of its travel.
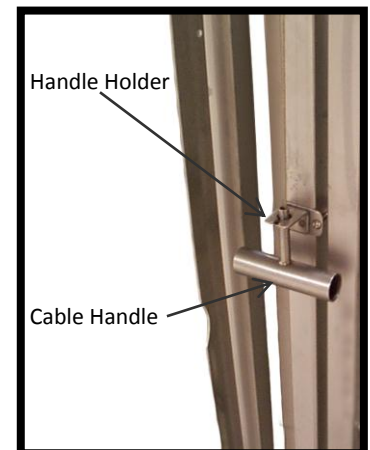

Figure 65: Cable Handle in Handle Holder

Guillotine Door Pulley Assembly- P/N 210041
(for pens with guillotine doors only)

The instructions in this sub-section guide you in replacing either the front or rear pulley assembly.

Tools Required: ·1/2 in. wrench (2)

Procedure

1. Disengage the door cable from the pulley assembly - refer to Guillotine Door Cable - Removal - Steps 1 through 5 on Page 54. **Note:** If you are replacing the rear pulley assembly, it is not necessary to pull the cable out of the front pulley. Do not remove the cable from the cable handle.
2. With two 1/2 in. wrenches, remove the cap screw and locknut on the pulley assembly U-bracket (Figures 66 and 67).
3. Remove the pulley assembly from the pen frame.
4. Engage the U-bracket on the new pulley assembly onto the pen frame, and secure it with the cap screw and locknut removed above. Make sure that the new pulley assembly is in the exact same location as the original. The pulleys should be angled toward each other to insure a straight cable run.
5. Reinstall the cable - refer to Guillotine Door Cable - Installation - Steps 3 through 7 on Page 44.
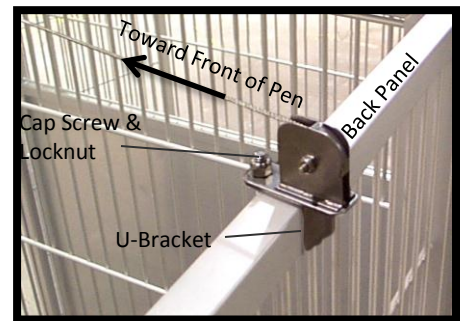

Figure 66: Rear Pulley Assembly on Back Panel

Figure 67: Front Pulley Assembly on Swinging Gates

Guillotine Door Pulley Wheel- P/N 853537
(for pens with guillotine doors only)

The instructions in this sub-section guide you in replacing the wheel in either the front or rear pulley assembly. It is not necessary to remove the pulley assembly from the pen to replace the pulley wheel.

Tools Required: ·Flat-blade screwdriver, ·3/8 in. wrench

Procedure

1. Disengage the door cable from the pulley assembly - refer to Guillotine Door Cable - Removal - Steps 1 through 5 on Page 44. **Note:** If you are replacing the rear pulley assembly wheel, it is not necessary to pull the cable out of the front pulley. Do not remove the cable from the cable handle.
2. With a flat-blade screwdriver and a 3/8 in. wrench, remove the cap screw and locknut holding the wheel in the pulley assembly (Figure 68).
3. Remove the wheel from the pulley.
4. Remove the bushing from the center of the wheel.
5. Place the bushing into the new wheel.
6. Mount the new wheel into the pulley assembly and secure with the cap screw and locknut removed earlier.
7. Reinstall the cable - refer to Guillotine Door Cable - Installation - Steps 3 through 7 on Page 44.
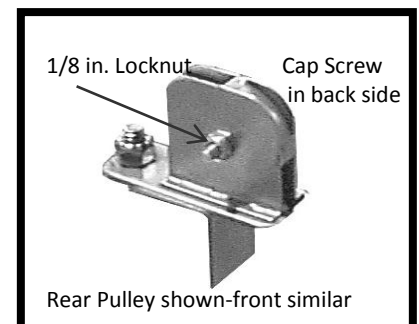

Figure 68: Pulley Assembly

Guillotine Door Handle Holder- P/N 210057
(for pens with guillotine doors only)

Tool Required: ·Flat-blade screwdriver

Procedure
1. Open the pen swinging gate.
2. Make sure the cable handle is disengaged from the handle holder.
3. With a flat-blade screwdriver, remove the cap screw that secures the handle holder in place (Figure 69).
4. Remove the handle holder from the gate frame.
5. Hold the new handle holder in place on the gate frame.
6. Secure the holder in place with the cap screw removed earlier.
7. Engage the handle into the new handle holder and adjust the position of the holder up or down as needed so that when the cable is taut, the door is at the top of its travel.
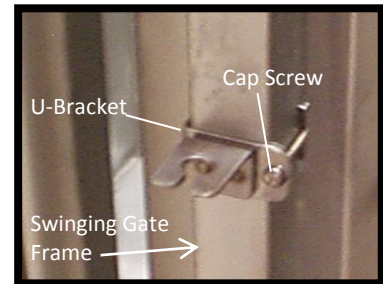
Figure 69: Handle Holder in Place on Swinging Gate

Fold-up Resting Shelf
For Part Numbers, refer to SSCI Catalog

The instructions in this sub-section apply to all fold-up resting shelves regardless of size.

Tools Required: ·1/2 in. wrench (2)

Procedure
1. With two 1/2 in. wrenches, remove the two cap screws and locknuts that hold the resting shelf to the end/ partition panel brackets (Figure 70).
2. Lift the resting shelf out of the pen.
3. Hold the new resting shelf between the end/partition panel brackets and secure with the cap screws and locknuts removed earlier. Leave the screw/nuts slightly loose so that the shelf can move up and down.

Figure 70: Fold-up Resting Shelf

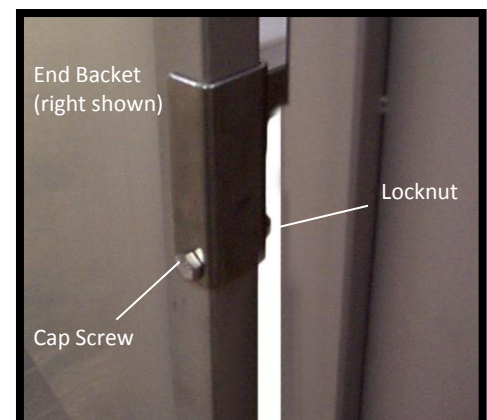## Resting Shelf End Panel Bracket (optional)
Left-P/N ACUC040.000
Right-P/N ACUC041.000

The instructions in this sub-section apply to end panel resting shelf brackets only; to replace a partition panel resting shelf bracket refer to Page 47. Replacing an end panel resting shelf bracket does not require disassembly of the pen system.

Tools Required: ·1/2 in. wrench (2)

Procedure
1. With two 1/2 in. wrenches, remove the two cap screws and locknuts that hold the resting shelf to the end/partition panel brackets (Figure 71).
2. Lift the resting shelf out of the pen.
3. With two 1/2 in. wrenches, remove the cap screw and locknut that secure the bracket to the end panel (Figure 71), and remove the bracket.

Figure 71: End Panel Resting Shelf Bracket

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4. Hold the new bracket in place, and secure it to the panel with the cap screw and locknut removed earlier.
5. Hold the resting shelf between the end/partition panel brackets and secure with the cap screws and locknuts removed earlier. Leave the screw/nuts slightly loose so that the shelf can move up and down.

Resting Shelf Latch (optional)-P/N 212581

The instructions in this sub-section apply to all fold-up resting shelves regardless of size.

Tool Required: ·7/16 in. wrench

Procedure

1. With a 7/16 in. wrench, remove the latch mounting cap screw (Figure 72), and remove the latch.
2. Mount the new latch to the panel with the cap screw removed earlier. Leave the cap screw slightly loose so that the latch can move freely.
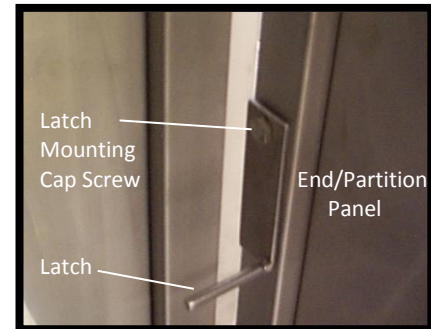

Figure 72: Resting Shelf Latch

Resting Shelf Partition Panel Bracket (optional)-P/N ACUC039.000

The instructions in this sub-section apply to partition panel resting shelf brackets only; to replace an end panel resting shelf bracket, refer to page 46. **Note:** If this is a back-to-back pen system, or a pen system back-mounted to a facility wall, replacing a partition panel resting shelf bracket requires extensive disassembly of the pen system.

CAUTION: Many of the pen components are large and heavy. To reduce the possibility of injury, we recommend that replacement operations involving these components be done by two or more people.

CAUTION: If the back panel is part of a back-to-back pen system, before starting work, examine the pen system carefully and try to determine the most efficient way to approach the panel to be replaced. Try to disassemble as few pens as possible.

Tools Required: ·1/2 in. wrench (2)

Procedure

1. Disassemble the pens in the system as necessary to access the panel bracket to be replaced.
2. With two 1/2 in. wrenches, remove the two cap screws and locknuts that hold the resting shelf to the end/partition panel brackets (Figure 70).
3. Lift the resting shelf out of the pen.
4. With two 1/2 in. wrenches, remove the cap screw and locknut that secure the bracket to the partition panel, and remove the bracket.
5. Hold the new bracket in place, and secure it to the panel with the cap screw and locknut removed earlier.
6. Hold the resting shelf between the end/partition panel brackets and secure with the cap screws and locknuts removed earlier. Leave the screw/nuts slightly loose so that the shelf can move up and down.
7. Reassemble the pen system.

Reversing the Gate to Latch on the Opposite Side
(stainless steel grill gates & observation gates only)

Most Total Animal Pen gates come from the factory hinged on the left and latched on the right. **Note**: The above DOES NOT apply to gates with built-in bowl holders. Gates with built-in bowl holders can be ordered as either left or right-latching and CANNOT be reversed to latch from the other side. If opposite-latching bowl holder gates are required, order them from SSCI - refer to SSCI catalog for part numbers.

Reversing the gate involves removing the complete swinging gate assembly (including gate and frame) from the pen assembly, inverting it, and remounting it to the pen. The latch connector must be removed from the gate frame and remounted to work correctly.

CAUTION: Many of the pen components are large and heavy. To reduce the possibility of injury, we recommend that replacement operations involving these components be done by two or more people.

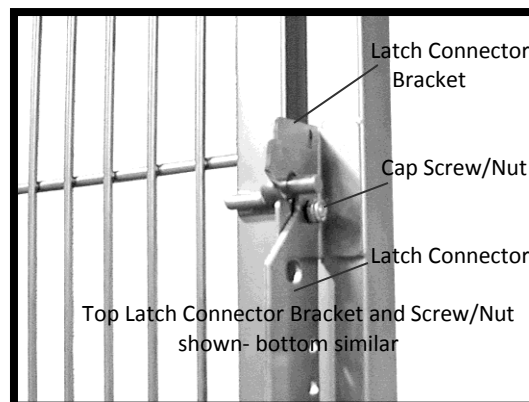**Tools Required**: ·Phillips screwdriver, ·1/2 in. wrench, ·7/16 in. wrench

Latch Connector Bracket

Cap Screw/Nut

Latch Connector

Top Latch Connector Bracket and Screw/Nut shown- bottom similar

Figure 73: Removing Latch Connector

Removal
1. If there are any accessories on the gate that you wish to reuse (card holders, food/water bowls, etc.), remove them from the gate.
2. With a Phillips screwdriver and a 7/16 in. wrench, remove the two cap screws and nuts that hold the latch connector to the two latch brackets (Figure 73), and remove the latch connector.
3. With a 1/2 in. wrench, remove the cap screws that hold the swinging gate assembly to the brackets on the pen system (Figure 74).
4. Remove the complete swinging gate assembly from the pen system.

Installation
1. Turn the complete swinging gate assembly over 180° (top-to-bottom).
2. Remount the gate assembly to the brackets on the pen system and secure with the cap screws removed earlier.
3. Make sure the latch connector is right side- up (Figure 75).
4. Install the new latch connector to the two latch brackets and secure with the cap screws and nuts. The latch connector should be attached to the sides of the brackets AWAY from the gate. **Note:** Leave the screws/nuts slightly loose so that the latch connector can move up and down freely.
5. Open and close the gate several times to make sure it swings and latches easily.
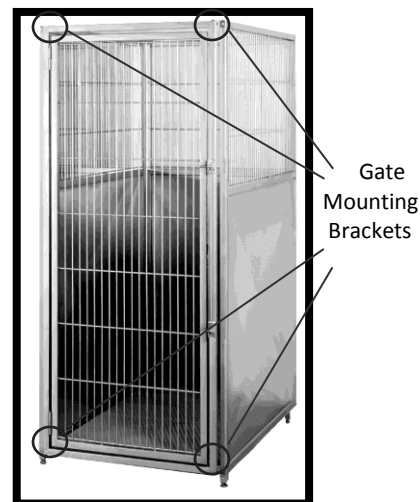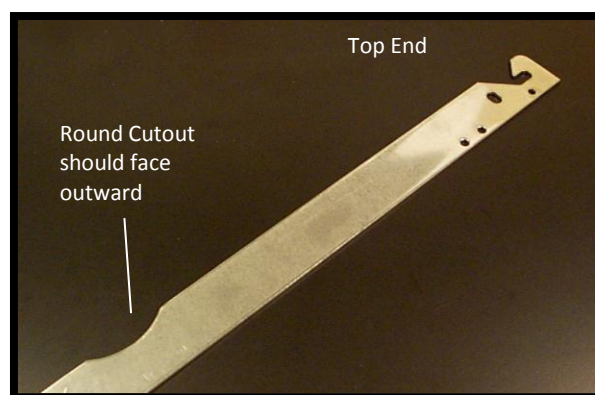6. Replace any needed accessories on the gate.

Gate Mounting Brackets

Figure 74: Swinging Gate Mounting Brackets

Top End

Round Cutout should face outward

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Figure 75: Latch Connector