



Your Performance Partner

Owner's Manual Forte™ Acoustical Shell

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Note: Please read and understand this Owner's Manual before working with or using the Forte Acoustical Shell.

Note: Refer to the illustrations on the following pages. If you need additional information about your Forte Acoustical Shell, write, telephone or email Wenger Corporation at the number below.

Note: It is recommended that two or more people work together when working with Forte Acoustical Shell components..

IMPORTANT USER INFORMATION

GENERAL

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In no event will Wenger Corporation be liable for technical or editorial omissions made herein, nor for direct, indirect, special, incidental, or consequential damages resulting from the use or defect of this manual.

The information in this document is not intended to cover all possible conditions and situations that might occur. The end user must exercise caution and common sense when assembling or installing Wenger Corporation products. If any questions or problems arise, call Wenger Corporation at 800-733-0393.

MANUFACTURER

The Forte Acoustical Shell is manufactured by:

Wenger Corporation
555 Park Drive
Owatonna, MN 55060
1-507-455-4100 • 1-800-733-0393
www.wengercorp.com

INTENDED USE

The Wenger Forte Acoustical Shell is intended for indoor use. The Forte Acoustical Shell is not intended to be used outside or in wet conditions.

- Never expose the Forte Acoustical Shell components to wet, humid, or wet outdoor weather conditions.
- The system is ***not intended to be permanently installed and used*** in outdoor environments.

INSTALLATION

- The Wenger Forte Acoustical Shell installation and use must comply with local regulations and codes.
- All personnel (including all temporary workers) installing or maintaining the Wenger Forte Acoustical Shell must read and understand this entire manual and other related installation instructions.
- Always refer to the information on page 4 and 5, *Electrical Installation and Maintenance*, and page 16, *Ceiling Panel Light Electrical Connection*, when connecting the Wenger Forte Acoustical Shell components to a power source.

WARRANTY

The Forte Acoustical Shell is guaranteed free of defects in materials and workmanship for five full years.

Our guarantee assures you of either a full refund or repair or replacement of the defective materials or workmanship without charge, at the discretion of our Customer Service Department. Just call a Customer Service Representative at 1-800-887-7145 and state the reason you are dissatisfied. If a product return is necessary, your representative will issue a return authorization. This is your sole remedy for breach of this warranty.

Should you have a question or problem with any Wenger product, don't hesitate to call, even if the product is past warranty. It's important to us that all our customers be satisfied.

This is the sole warranty made by Wenger. Wenger disclaims all other warranties, including the warranties of merchantability and fitness for a particular purpose, as well as all liability for incidental, consequential, special, and indirect damage. Wenger liability for direct damages shall be limited to the amount you paid for the product involved. Wenger reserves the right to make product changes without obligation to incorporate such changes into products previously sold.

Some states do not allow the exclusion or limitation of damages or warranties, so the above may not apply to you. This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

SAFETY

GENERAL

Throughout this manual you will find cautions and warnings which are defined as follows.

- **WARNING** means that failure to follow the instruction may result in serious injury or death.
- **CAUTION** means that failure to follow the instruction may result in serious injury or damage to property.

Note: Read all of these safety instructions before installing or using Forte Acoustical Shell components.

Note: Failure to comply with warnings and cautions in this document can result in damage to property, serious injury, death.

Warning! *Always make sure that personnel, including all temporary personnel, working on the Forte Acoustical Shell read and understand this manual, especially the safety information on pages 4, 5, and 6. Failure to observe this warning can result in damage to property, serious injury, or death.*

Warning! *Always wear a hard hat (compliant with ANSI Z89-1997) when installing the Forte Acoustical Shell Ceiling Assemblies. Failure to observe this warning can result in damage to property, serious injury, or death.*

Warning! *Always wear safety glasses and safety shoes and use heavy work gloves when working on the Forte Acoustical Shell. Failure to observe this warning can result in serious injury.*

Warning! *Assembly requires two or more persons work together. Some components are heavy and are difficult to handle alone. Failure to observe this warning can result in damage to property, serious injury, or death.*

INSTALLATION

Warning! *Always wear a hard hat (compliant with ANSI Z89-1997) when installing the Forte Acoustical Shell Assemblies. Failure to observe this warning can result in damage to property, serious injury, or death.*

Warning! *Always wear safety glasses and safety shoes and use heavy work gloves when working on the Forte Acoustical Shell. Failure to observe this warning can result in serious injury.*

Warning! *Always make sure that personnel, including all temporary personnel, working on the Forte Acoustical Shell read and understand this manual. Failure to observe this warning can result in damage to property, serious injury, or death.*

Warning! *Assembly requires two or more persons working together. Some components are heavy and are difficult to handle alone. Failure to observe this warning can result in damage to property, serious injury, or death.*

Warning! *Care must be exercised because a dangerous pinch point develops when lowering a Tower Assembly to the floor after lifting it into a vertical position and when placing Panels onto the floor. Failure to observe this warning can result in serious injury.*

Warning! *Never walk or stand on Panels, suspended Ceiling Panels, or Tower Assemblies. Failure to observe this warning can result in damage to property, serious injury, or death.*

SAFETY CONTINUED

ELECTRICAL INSTALLATION AND MAINTENANCE CONTINUED

Warning! *When assembling Forte Acoustical Shell components always observe the warnings and other information contained in this manual — especially the information on pages 4, 5, and 6. Failure to observe this warning can result in damage to property, serious injury, or death.*

Warning! *Branch circuits that supply power for Ceiling Panel Lights and other accessories must always be designed by an electrical engineer and comply with electrical codes and user requirements. Failure to follow this precaution can result in damage to property, fire, serious injury, or death!*

Warning! *Always disconnect power to the Ceiling Panel Lights before cleaning. Failure to observe this precaution can result in electrical shock or death.*

Warning! *Always disconnect power before changing Ceiling Panel Light bulbs. Failure to observe this precaution can result in electrical shock or death.*

Warning! *Do not alter the Ceiling Panel Light electrical circuits without the expressed permission of Wenger Corporation. Failure to follow this precaution can result in damage to property, fire, serious injury or death!*

Warning! *Replace any broken Ceiling Panel light bulbs immediately. Failure to observe this precaution can result in electrical shock.*

Warning! *Replace any malfunctioning Ceiling Panel electrical components only with components with the same specification. Failure to observe this precaution can result in electrical shock, fire, damage to property, serious injury, or death.*

Warning: *A licensed electrician must perform the Ceiling Panel electrical installation. Failure to observe this precaution can result in serious injury, death, or damage to property.*

Warning: *All Ceiling Panel Light electrical sources must be permanently wired and comply with local electrical codes. Failure to observe this precaution can result in serious injury, death, or damage to property.*

STORAGE AND TRANSPORTATION

Warning! *Never move a Forte Tower on an inclined surface or ramp. Failure to observe this precaution can result in serious injury, death, or damage to property.*

Warning! *Two or more people must work together when moving a Forte Tower. One person must always watch for obstructions on the stage and above the stage while a second person pushes the tower tow bar. Failure to observe this precaution can result in serious injury, death, or damage to property.*

Warning! *Always clear all people and objects from the stage when moving Forte Towers to or from storage or when flying Ceiling Panel to or from storage. Failure to observe this precaution can result in serious injury, death, or damage to property.*

Warning! *Never move a Forte Tower faster than one-foot-per-second when transporting to or from the storage position. Failure to observe this precaution can result in serious injury, death, or damage to property.*

SAFETY CONTINUED

TOWERS

- Warning!** *Only trained and authorized persons should position and adjust Forte Towers. Failure to observe this precaution can result in serious injury, death, or damage to property.*
- Warning!** *Never remove a counterweight from a Tower Base. Failure to observe this precaution can result in serious injury, death, or damage to property.*
- Warning!** *Never climb on a Forte Tower for any reason. Failure to observe this precaution can result in serious injury, death, or damage to property.*
- Warning!** *Never mount or hang other equipment, such as lighting, microphones, speakers, etc., without consulting Wenger Corporation Customer Service. Failure to observe this precaution can result in serious injury, death, or damage to property.*

CEILING PANELS

- Warning!** *Only qualified personnel familiar with rigging systems should set up the rigging, add weights to the Arbor, or fly the Ceiling Panels. Failure to observe this warning can result in death, serious injury, or damage to property.*
- Warning!** *Always wear safety glasses, gloves, and safety shoes when installing the Forte Acoustical Shell Ceiling components. Failure to observe this warning can result in serious injury.*
- Warning!** *Always wear a hard hat (compliant with ANSI Z89-1997) when installing the Forte Acoustical Shell Ceiling components. Failure to observe this warning can result in death or serious injury.*
- Warning!** *All personnel working on the rigging above the floor surface must wear a safety harness. Failure to observe this warning can result in death, serious injury, or damage to property.*
- Warning!** *Make sure that all rigging and rigging hardware is capable of lifting the Ceiling Panel component calculated weight plus a reasonable margin of safety. Always comply with local codes and regulations. Failure to observe this warning can result in damage to property and serious injury.*
- Warning!** *Make sure that all fasteners are tight before adding any weight to the Arbor. Failure to observe this warning can result in serious injury or damage to property.*
- Warning!** *Never climb onto or hang from Ceiling Panels in any position. Failure to comply with this warning can result in death or serious injury.*
- Warning!** *Never mount or hang other equipment such as lights, cameras, microphones, etc. from a Ceiling Panel or Ceiling Panel rigging without consulting with Wenger Corporation Customer Service. Failure to observe this warning can result in death, serious injury, or damage to property.*
- Warning!** *Always clear the stage area of people when moving Ceiling Panel to or from storage. Failure to observe this warning can result in death, serious injury, or damage to property.*
- Warning!** *Always fly the Ceiling Panels slowly and have a spotter watch for obstructions or rigging interference. Failure to observe this warning can result in death, serious injury, or damage to property.*

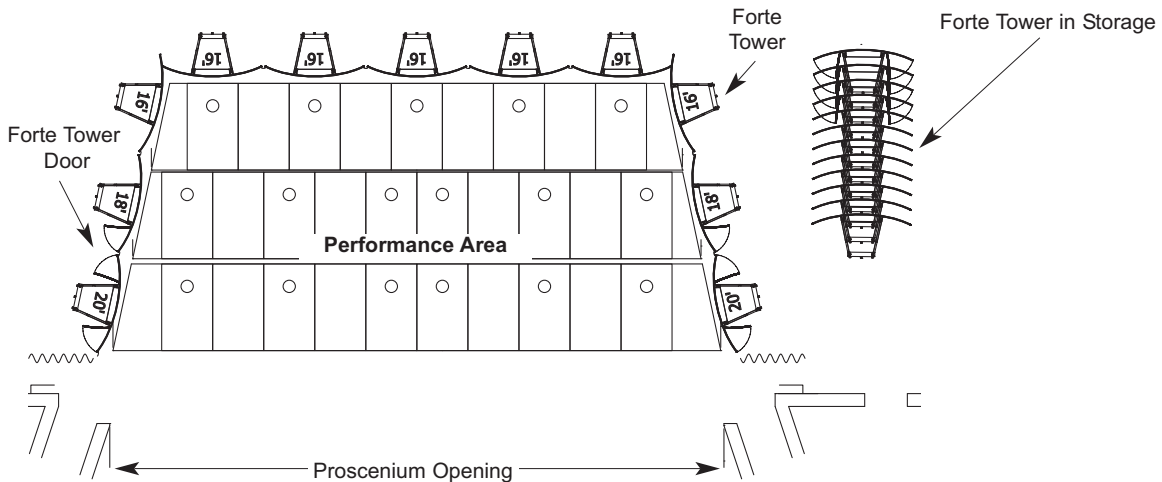
FORTE ACOUSTICAL SHELL SET UP

GENERAL INFORMATION

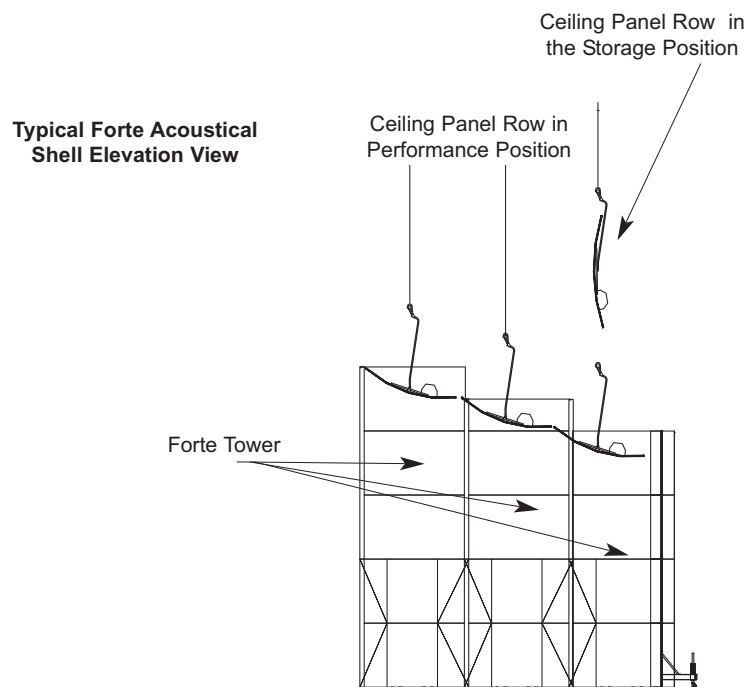
The Forte Acoustical Shell can be used for a variety of performance groups such as orchestra performance, single performance recitals, etc. Tower and Ceiling Panel arrangements can be easily changed.

The number of Towers and Ceiling Panels used, how they overlap, and the performance angles can be adjusted for different effects. Some Towers have one or two doors for easy stage access.

Refer to the Installation Drawings and Installation Instructions for the initial set up.



Typical Forte Acoustical Shell Plan View



FORTE ACOUSTICAL SHELL SET UP CONTINUED

GENERAL INFORMATION CONTINUED

- Towers are stored in a nested position off-stage.
- Ceiling Panels Rows are stored rotated into the vertical position and lifted to the fly loft.

The sequence for setting up the Forte Acoustical Shell is as follows.

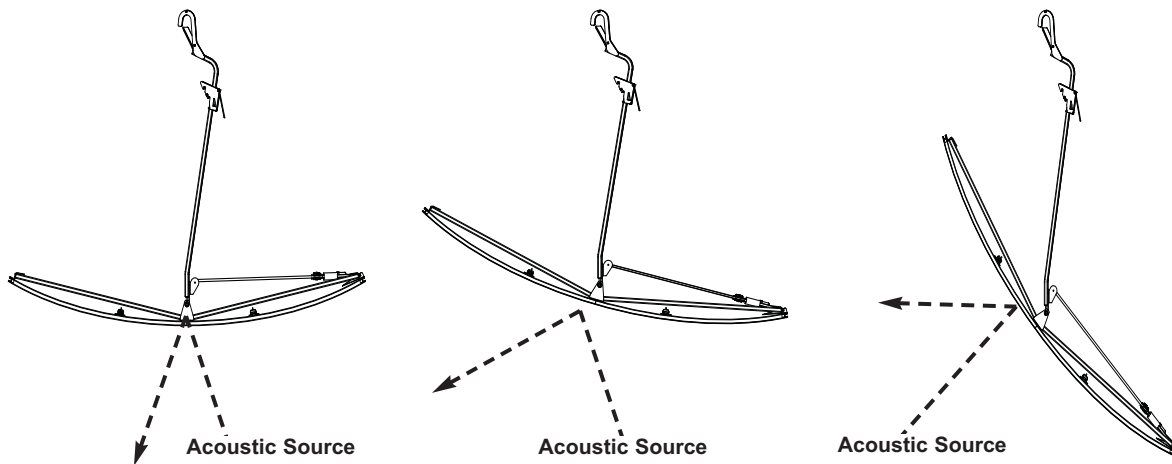
1. Lower the Ceiling Panels first.
 - a. Place the Ceiling Panels in a position where the Panels can be rotated from the Storage Position to the Performance Position, then, lift the Ceiling Panel Rows high enough to move Towers across the stage.

Note: Time can be saved if Tower positions are marked on the stage floor.

- b. Move the Towers into position with the push handle.
- c. If the Ceiling Panel Rows have tapered ends, lower each row to a position slightly below the top of the adjacent Tower on the stage side.

CEILING PANEL PERFORMANCE ANGLES

Ceiling Panel Performance angles can be adjusted to achieve different acoustic effects. Refer to the illustration below.



Performance Angles that are horizontal will return more acoustic energy to the performers on the stage.

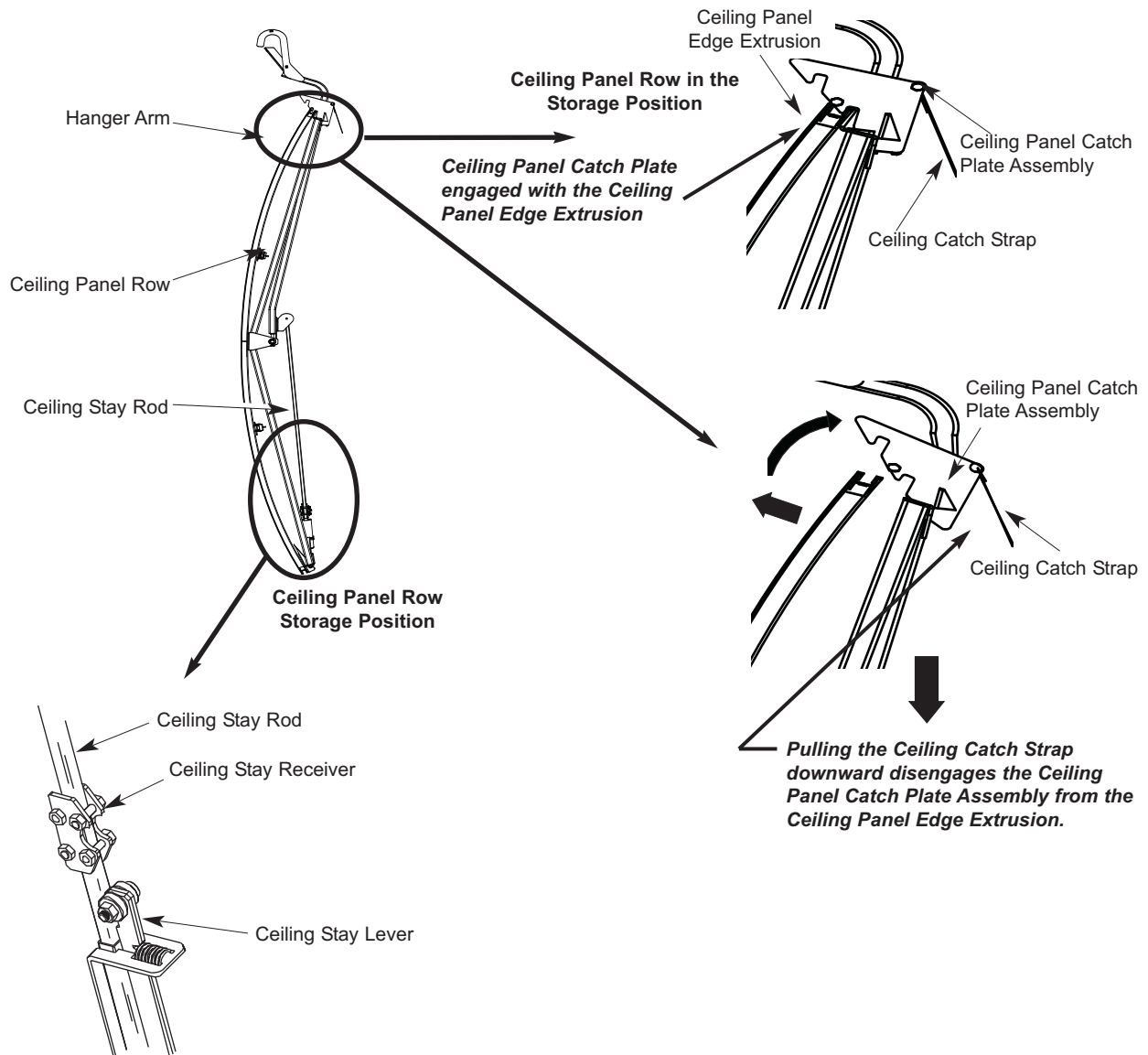
Performance Angles that are steeper will return more acoustic energy toward the auditorium area.

FORTE ACOUSTICAL SHELL SET UP CONTINUED

CEILING PANEL STORAGE POSITION

Ceiling Panels are always stored in a vertical position or are placed into the Performance Position. Refer to the illustrations below.

- **Performance Position** — the Ceiling Panel Row is rotated until the Ceiling Stay Receiver engages the Ceiling Stay Lever (Performance Angle) and is lifted to a position above the stage to reflect acoustic energy into the auditorium area. Refer to the illustrations on page 8.
- **Storage Position**— the Ceiling Panel Row is lifted to the Performance Position, rotated to a vertical angle with the downstage edge of Panel Row of the Ceiling Panel Edge Extrusion engaged with the Ceiling Panel Catch (usually mounted in pairs). Refer to the illustrations on page 7 and below.



In the Storage Position, the Ceiling Stay Receiver is disengaged from the Ceiling Stay Lever.

FORTE ACOUSTICAL SHELL SET UP CONTINUED

PLACING CEILING PANELS INTO PERFORMANCE POSITION

Warning! Always make sure that personnel, including all temporary personnel, working on the Forte Acoustical Shell read and understand this manual, especially the information on pages 4, 5, and 6. Failure to observe this warning can result in damage to property, serious injury, or death.

Warning! Always wear a hard hat (compliant with ANSI Z89-1997), safety glasses and safety shoes and use heavy work gloves when working on the Forte Acoustical Shell. Failure to observe this warning can result in serious injury.

Warning! Always clear all people and objects from the stage when moving Forte Towers to or from storage or when flying Ceiling Panel to or from storage. Failure to observe this precaution can result in serious injury, death, or damage to property.

To move a Ceiling Panel Row into the Performance Position, do as follows. Work from the Downstage side to the Upstage side. Refer to the illustrations below.

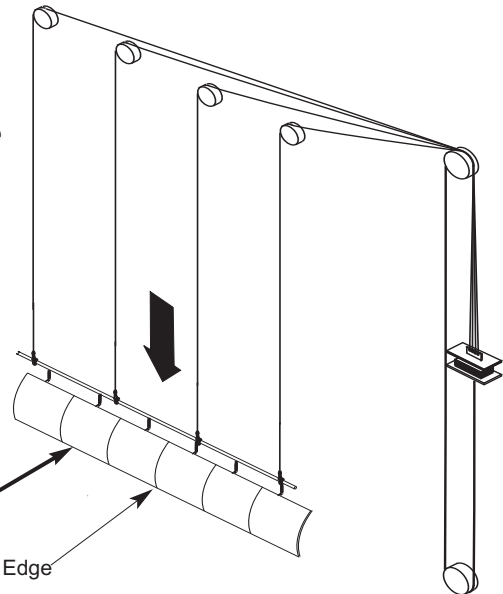
1. Clear the stage of all people and objects that might interfere with lowering Ceiling Panels.

Caution! Never allow a Ceiling Panel Row Upstage Edge to touch or strike the stage floor. Failure to observe this precaution can result in damage.

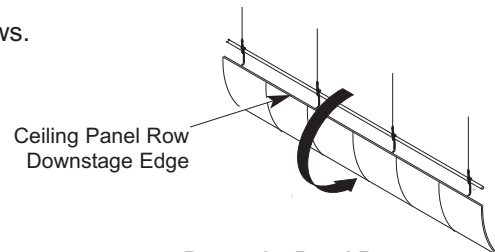
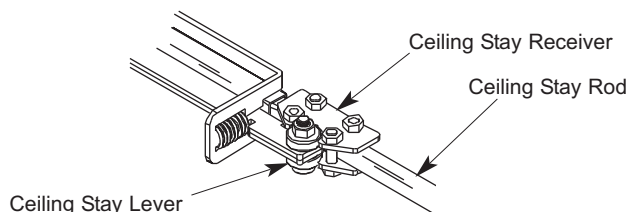
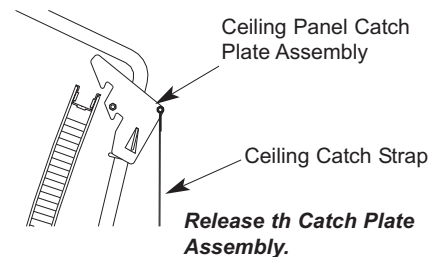
2. Lower a Ceiling Panel Row until the Upstage Edge nearly touches, **but does not touch**, the stage floor (not less than 6-inches of clearance).
3. Mark this position (Low Trim Position) on the hand line at the lock rail.

The Ceiling Panel Row is shown in the Storage Position and lowered to Low Trim, not less than one-half-foot from the Stage Floor.

Ceiling Panel Row Upstage Edge



4. Move the Ceiling Panels into the Performance Angle.
 - a. Pull the Ceiling Catches downward and release the Panel from the Ceiling Panel Catch Plate Assembly.
 - b. Rotate the Downstage Edge of the Panel Row downward until the Ceiling Stay Receiver engages the Ceiling Stay Lever.
5. Clear the stage and lift the Ceiling Panel Row to the Performance Position. Make sure that the Ceiling Panel Row does not swing while lifting it.
6. Repeat steps 1 through 5 for the other Ceiling Panel Rows.



Rotate the Panel Row to the Performance Position.

FORTE ACOUSTICAL SHELL SET UP CONTINUED

CHANGING THE CEILING PANEL PERFORMANCE ANGLE

To change a Ceiling Panel Row Performance Angle, do as follows. Refer to the illustrations below.

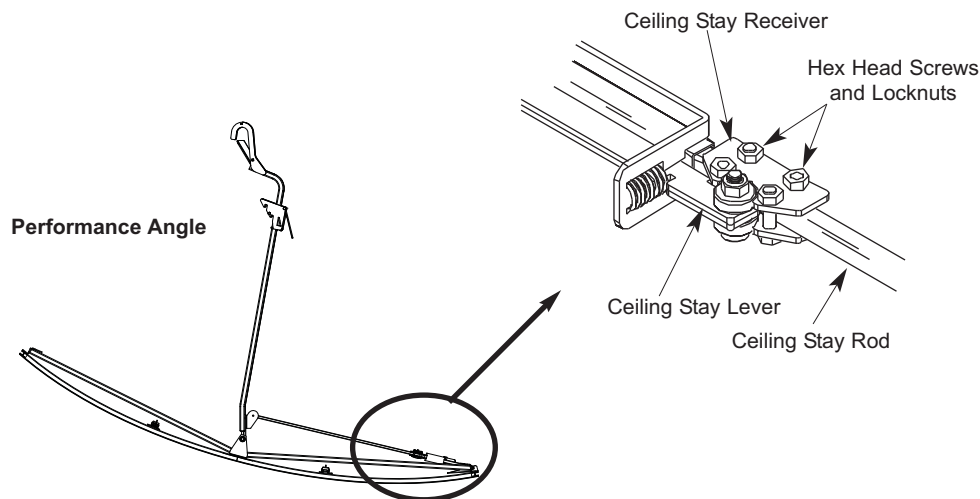
1. Clear the stage of all people and objects that might interfere with lowering Ceiling Panels.

Caution! *Never allow a Ceiling Panel Row Upstage Edge to touch or strike the stage floor. Failure to observe this precaution can result in damage.*

2. Lower a Ceiling Panel Row to the Lower Trim Position (**make sure that the Upstage Edge does not touch the stage floor has not less than 6" of clearance tot he stage floor**).
3. With two or more people working together, rotate the Ceiling Panel into the current Performance Position.
 - a. Pull the Ceiling Catch downward and release the Panel from the Ceiling Panel Catch Plate Assembly.
 - b. Rotate the Downstage Edge of the Panel Row downward until the Ceiling Stay Receiver engages the Ceiling Stay Lever.
4. Use a pair of $7/16$ " combination wrenches to loosen all of the Hex Head Screws (four) and Locknuts on the Ceiling Stay Receiver while two people hold the Ceiling Panel Upstage Edge.
5. With two people working together grasping the Upstage Edge, rotate the Ceiling Panel Row slightly above the new Performance Angle (perhaps five to ten-degrees) making sure that the Ceiling Stay Receiver remains engaged with the Ceiling Stay Lever. Ceiling Panel Rows are heavier on the Upstage Side.
6. Use the pair of $7/16$ " combination wrenches and tighten all of the Hex Head Screws (four) and Locknuts on the Ceiling Stay Receiver while two people hold the Ceiling Panel Upstage Edge.
7. Check the Performance Angel and make any necessary adjustments.

Note: If the Performance Angle is changed often, mark the positions on the Ceiling Stay Rod.

8. Lift the Ceiling Panel Row to the Performance Position. Make sure that the Ceiling Panel Row does not swing while lifting it.



TOWER SET UP CONTINUED

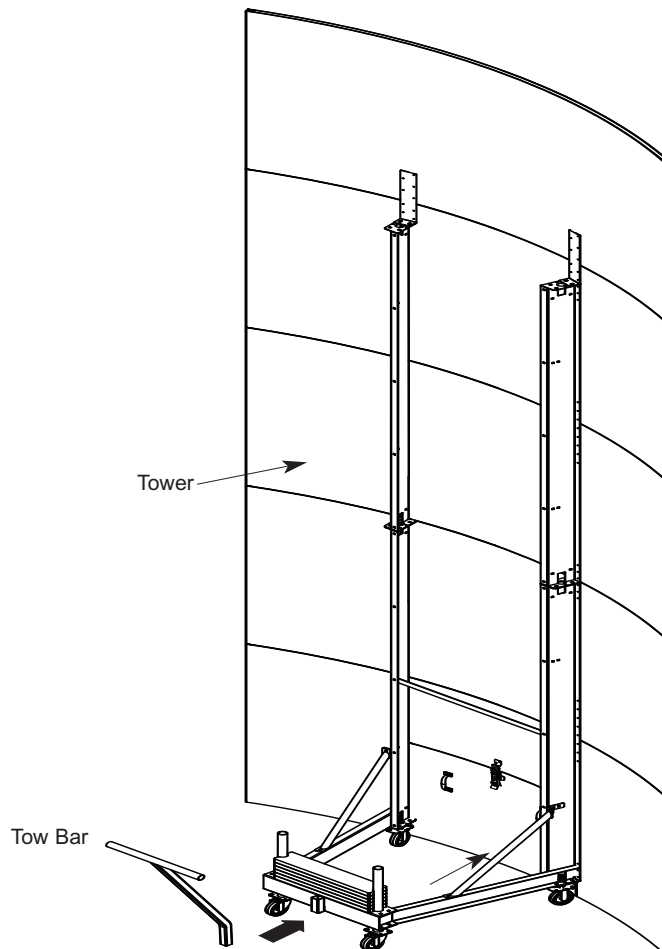
MOVING TOWERS FROM STORAGE CONTINUED

Warning! *Never move and position the towers without using at least to two people, so there is someone to watch for obstructions on and above the stage.*

8. With one person watching the tower and a second person guiding with tow bar, slowly move (***no faster than one-foot-per-second***) the Tower to a performance position. Be careful to not push the Tower into any obstructions on the stage floor or above the stage floor (such as Ceiling Panels, etc.).

Note: It is best to create permanent marks for the performance positions for all Towers before moving the Towers from Storage.

9. When the Tower is in the performance position, remove the tow bar from the tower.



11. Move other Towers to performance positions by repeating steps 3 to 10.

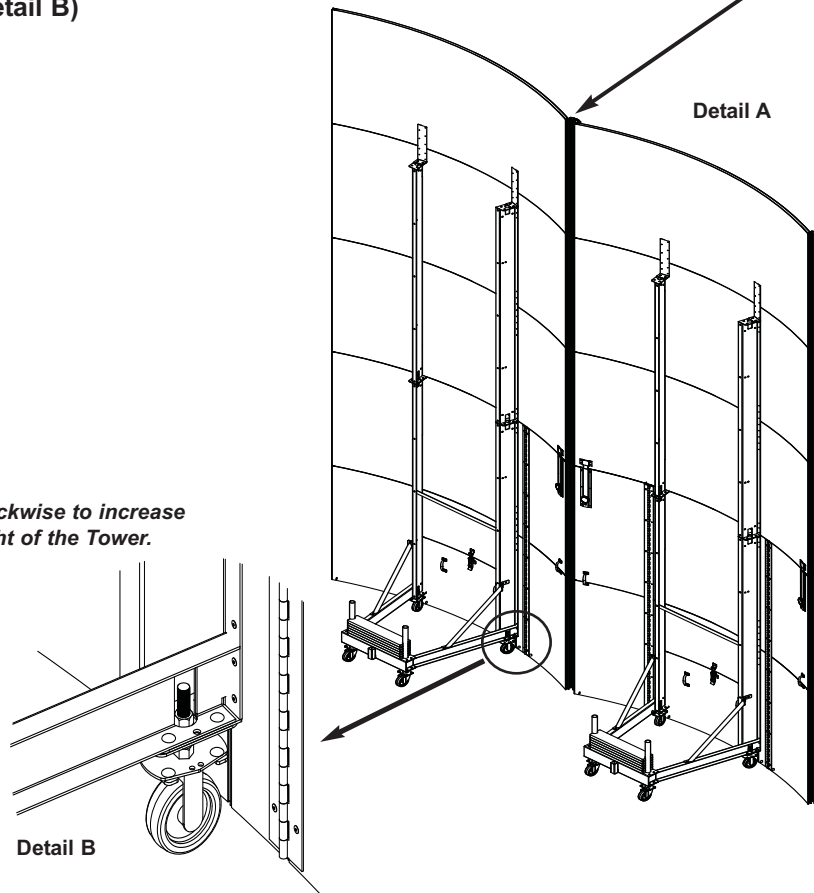
TOWER SET UP CONTINUED

TOWER PERFORMANCE POSITION SETUP

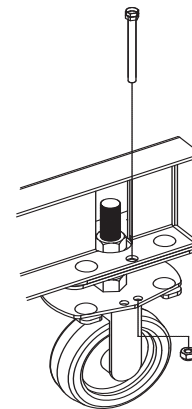
2. Level the Towers as follows. Towers should be level and adjacent Panels should be even.
 - a. Use a 48" box level or similar tool and check the level of each Tower. **(Detail A)**
 - b. Adjust the casters Tower as necessary to level the Tower. Turning the casters clockwise increases the height of the Tower. **(Detail B)**

Use a box level or similar tool and make sure that the each Tower is level and that the adjacent Wing Panels are even.

Turn clockwise to increase the height of the Tower.



3. After leveling the Tower, secure the casters.
 - a. To lock the caster, insert the two 1/4-20 x 3" full thread screws through the tower frame and caster assembly and secure with the nut. **(Detail C)**

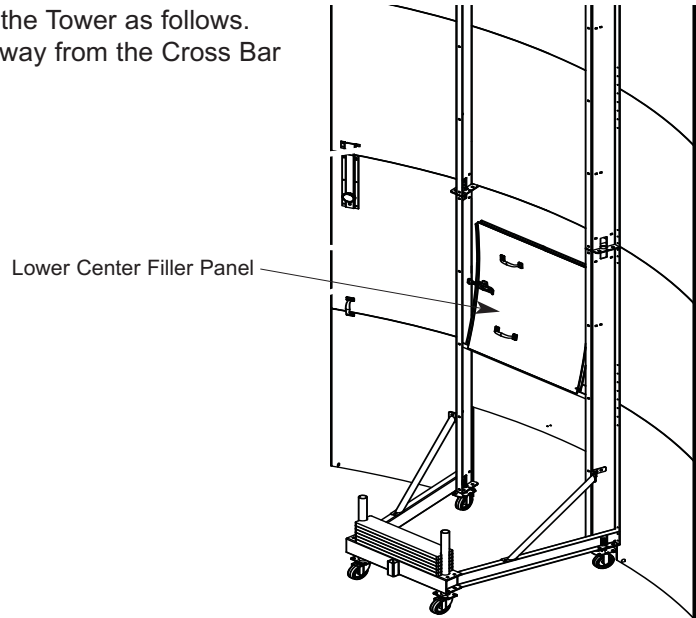


Detail C

TOWER SET UP CONTINUED

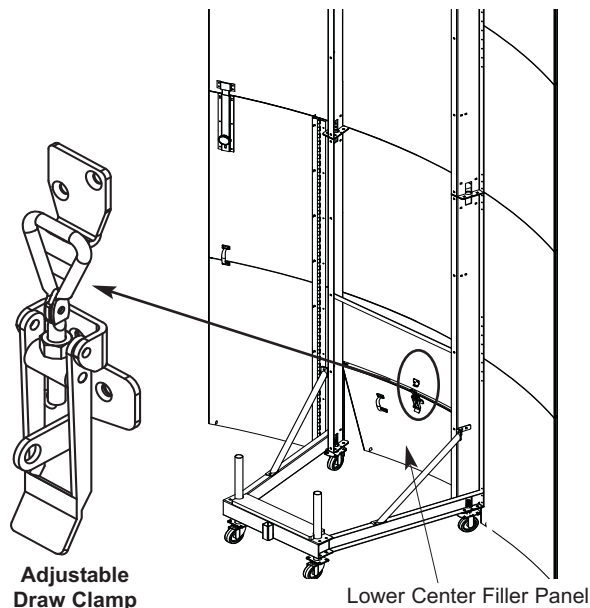
TOWER PERFORMANCE POSITION SETUP CONTINUED

3. Install the Lower Center Panel Filler to the Tower as follows.
 - a. Lift the Lower Center Filler Panel away from the Cross Bar Brace storage area.



- b. Align the Filler Panel just below the Lower Center Panel. It may be necessary to fit the Panel through the opening from the outside.
 - c. Holding the Panel Handles, place the Lower Filler Panel into position below the Lower Center Panel.
 - d. Lock the Lower Center Filler Panel to the Lower Center Panel with one person holding the Filler Panel in place and a second person engaging the Striker with the Adjustable Draw Clamp. See the illustration below.

Holding the Lower Center Filler Panel in place, lock the Panel to the Lower Center Panel with the Adjustable Draw Clamp.



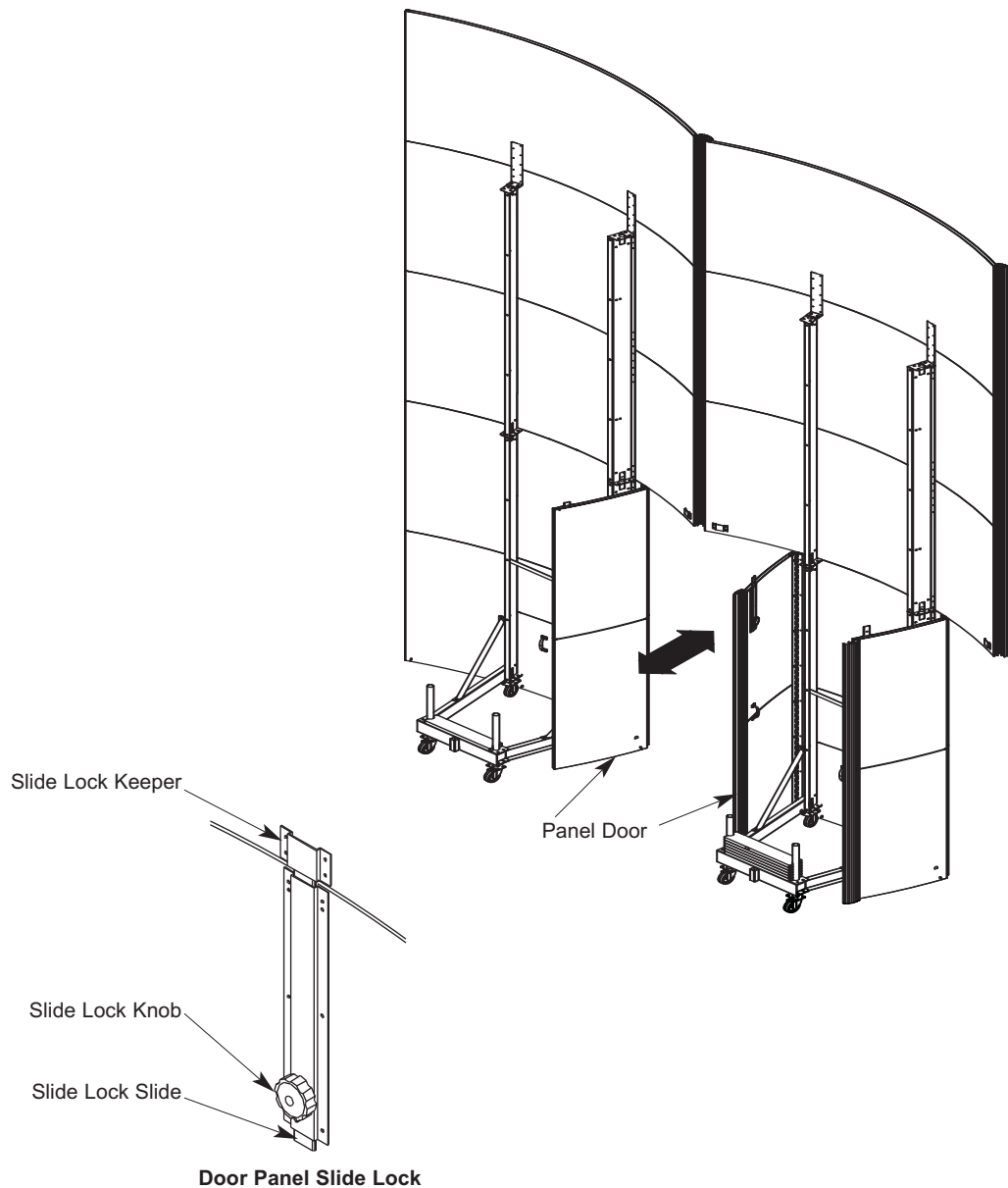
TOWER SET UP CONTINUED

TOWER DOORS -

Door open as follows.

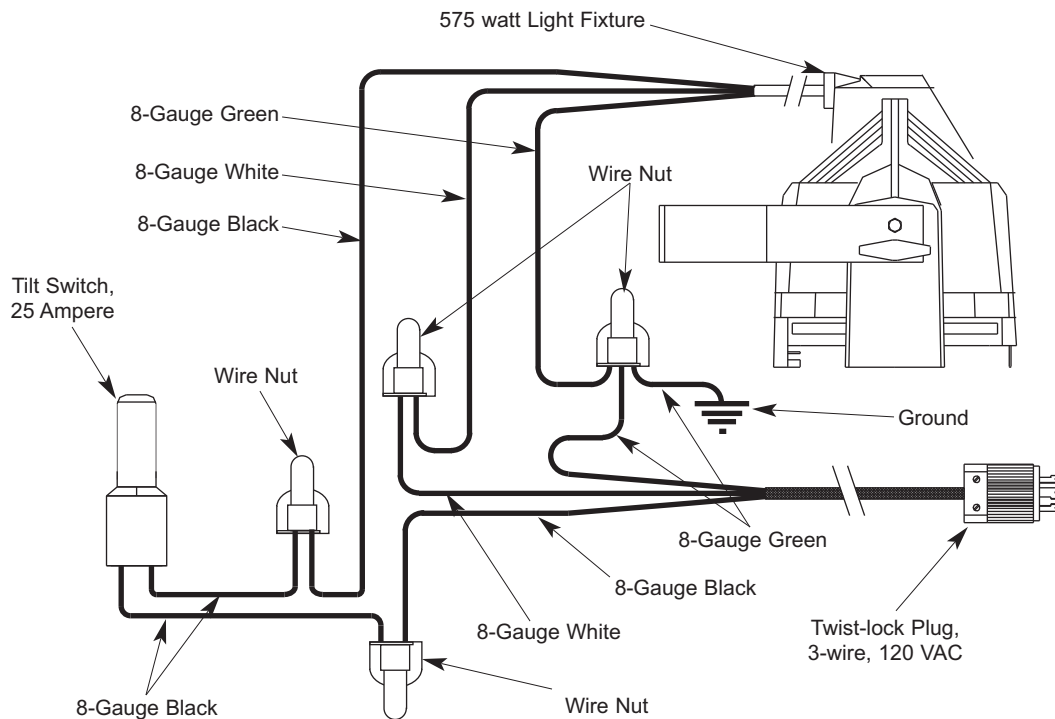
Note: When two Doors are adjacent, always open the the Door without Edge Trim first.

1. Turn the Slide Lock Knob counterclockwise to release the Slide Lock Slide.
2. Pull the Slide Lock Slide downward to clear the Slide Lock Keeper and turn the Slide Lock Knob clockwise until it is snug.
3. Open the Door.



CEILING PANEL LIGHTS

CEILING LIGHT ELECTRICAL SCHEMATIC



CEILING LIGHT ELECTRICAL CONNECTION

Warning! Branch circuits that supply power to the Ceiling Light must always be designed by an electrical engineer, permanently wired, and comply with electrical codes and user requirements. Failure to follow this precaution can result in damage to property, serious injury or death!

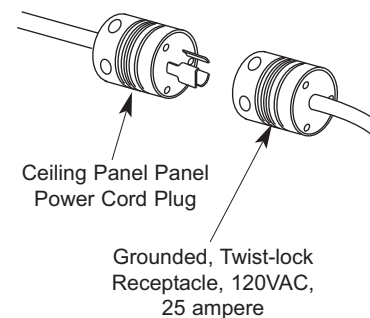
Warning! Always disconnect power to the Ceiling Panel Lights before cleaning. Failure to observe this precaution can result in electrical shock or death.

Warning! Always disconnect power to the light switch before changing Ceiling Panel Light bulbs. Failure to observe this precaution can result in electrical shock or death.

Warning: A licensed electrician must perform the Ceiling Panel electrical installation. Failure to observe this precaution can result in serious injury, death, or damage to property.

Connect the Ceiling Panel Light Power Cord to a grounded, fused, three-wire, 120VAC, 25 ampere power source with a twist-lock receptacle.

The power source must comply with local electrical codes.



MAINTENANCE

TOWERS

1. Clean surfaces with a mild, non-abrasive detergent when soiled.
2. Make sure that all fasteners are tight.
3. Replace any damaged part immediately.
4. Lubricate any Leveler parts that do not move freely with a general purpose grease.
5. Immediately replace any missing counterweights with a Wenger Corporation replacement part.
6. Make sure that all hinges move freely. If necessary, replace worn or damaged hinges.
7. Replace any damaged rear frame casters.

CEILING PANELS

1. Clean surfaces with a mild, non-abrasive detergent when soiled.
2. Make sure that all fasteners are tight.
3. Inspect rigging before flying or storing Ceiling Panels.
4. Make sure that all hanger brackets turn freely on truss assemblies. Replace parts as necessary.
5. Check Ceiling Panel Performance Angles and adjust when necessary. Make sure that the Ceiling Panel Ceiling Stay Levers work and move easily.

CEILING LIGHTS

Warning! *Always disconnect power to the Ceiling Panel Lights before cleaning. Failure to observe this precaution can result in electrical shock or death.*

Warning! *Always disconnect power to the light switch off before changing Ceiling Panel Light bulbs. Failure to observe this precaution can result in electrical shock or death.*

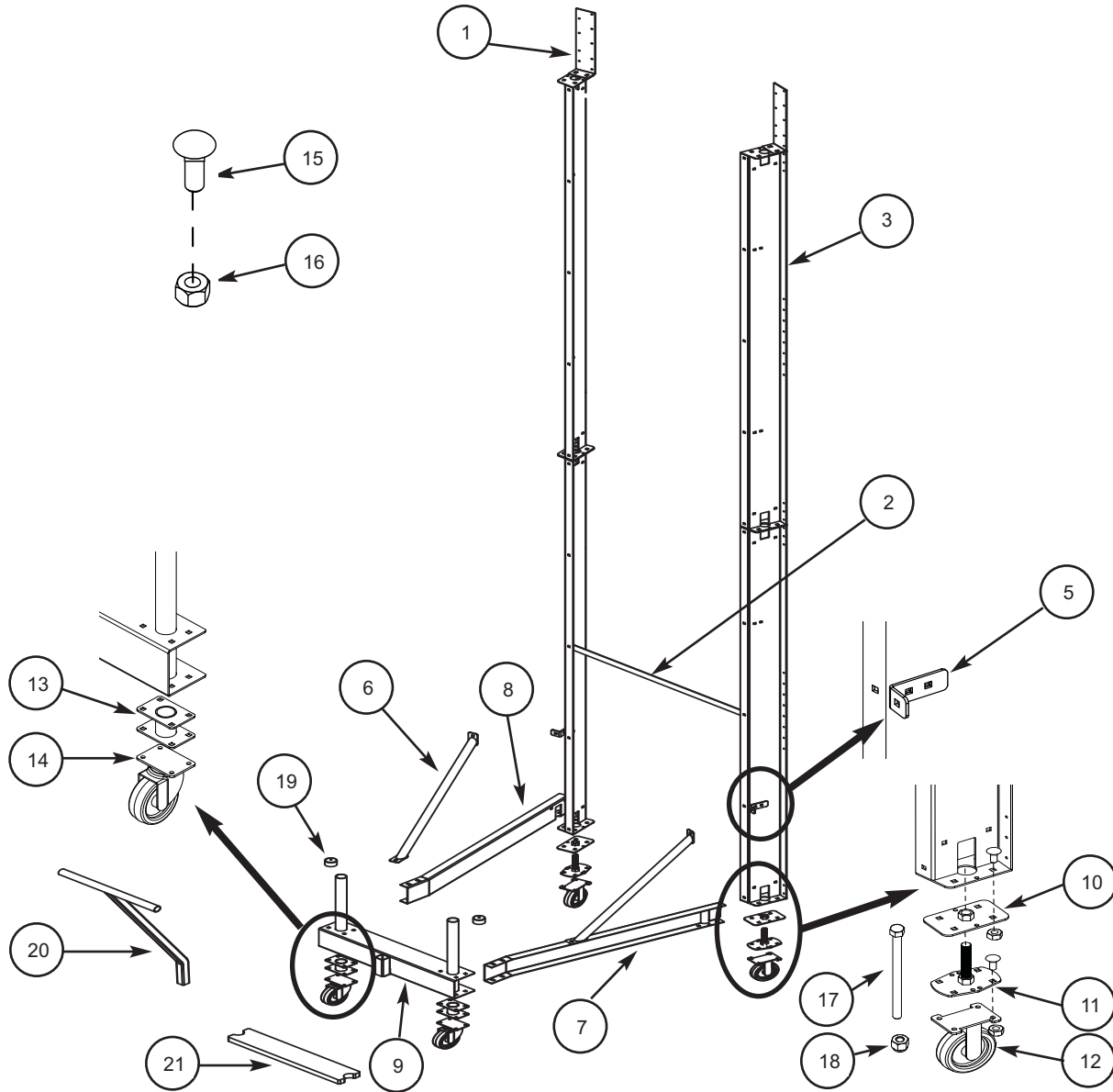
Warning! *Replace any broken Ceiling Panel light bulbs immediately. Failure to observe this precaution can result in electrical shock.*

Warning! *Replace any malfunctioning Ceiling Panel electrical components only with components with the same specification. Failure to observe this precaution can result in electrical shock, fire, damage to property, serious injury, or death.*

1. Replace burned out lamps with a 120 VAC, 575 watt flood lamp.
2. Make sure that all Ceiling Light Power Cord Plugs are connected to grounded, twist-lock receptacles in a locked position.
3. Make sure that all power cords are not frayed or under tension when the Ceiling Panels are deployed or stored.
4. Make sure that each Ceiling Light Tilt Switch works correctly before the Ceiling Panel is moved to a performance position.

TOWER REPLACEMENT PARTS CONTINUED

FRAME ASSEMBLY



Item Description

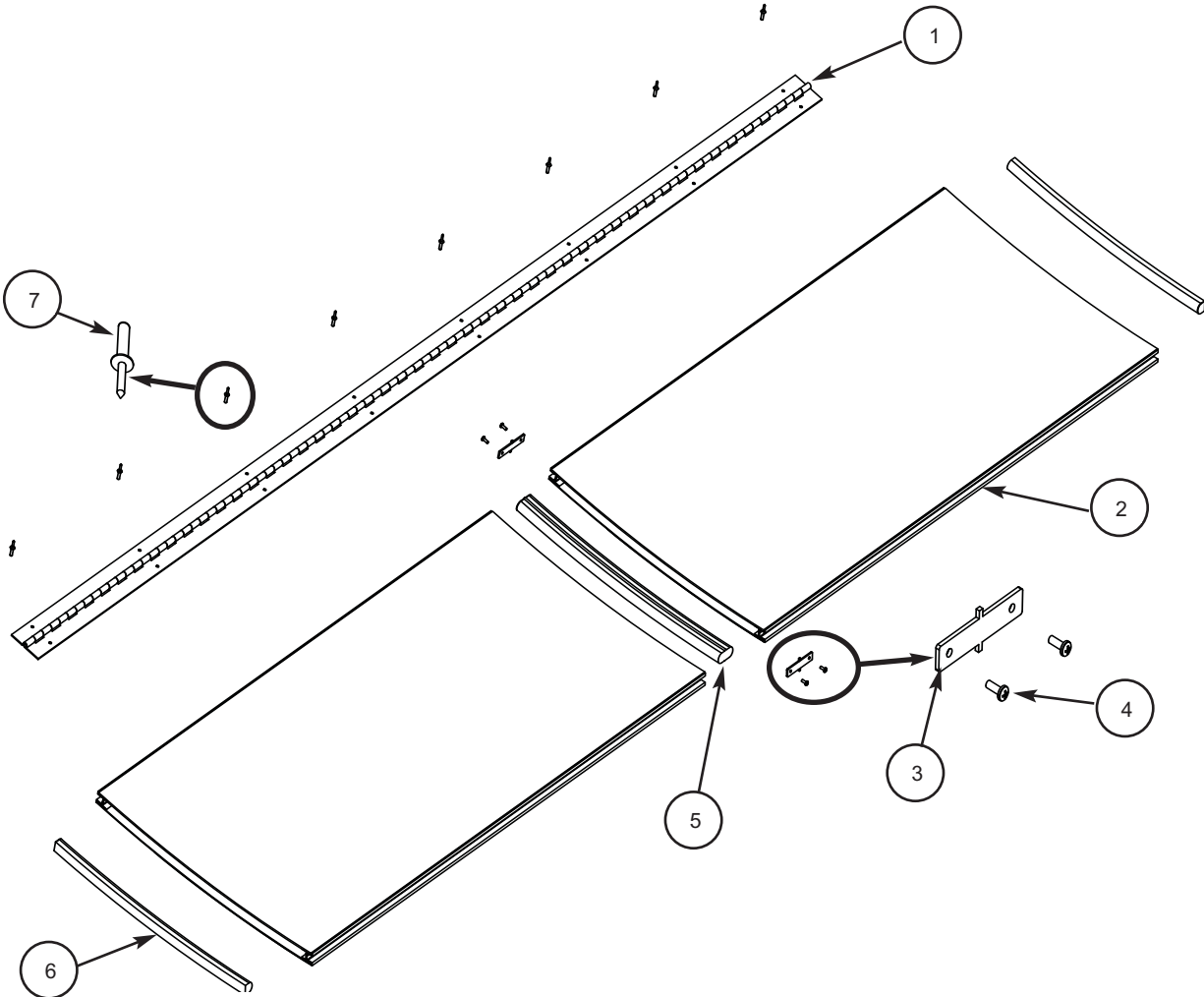
- 1 Frame Extension Bracket
- 2 Short Cross Bar Brace
- 3 Upright Frame
- 5 Upright Frame Brace Bracket
- 6 Upright Frame Brace
- 7 Base Frame Side Rail - RH
- 8 Base Frame Side Rail - LH
- 9 Rear Base Frame
- 10 Front Caster Mount Upper Bracket
- 11 Front Caster Mount Lower Bracket

Item Description

- 12 Rigid Caster Plate
- 13 Rear Caster Mounting Bracket
- 14 Swivel Caster with Brake
- 15 Carriage Bolt, $\frac{5}{16}$ -18 x $\frac{3}{4}$ "
- 16 Nylon Lock Nut, $\frac{5}{16}$ -18
- 17 Cap-Screw, $\frac{1}{4}$ -20 x 3", Full Thread
- 18 Nylon Lock Nut, $\frac{1}{4}$ -20
- 19 Cap
- 20 Tow Bar Handle
- 21 Counterweight

TOWER REPLACEMENT PARTS CONTINUED

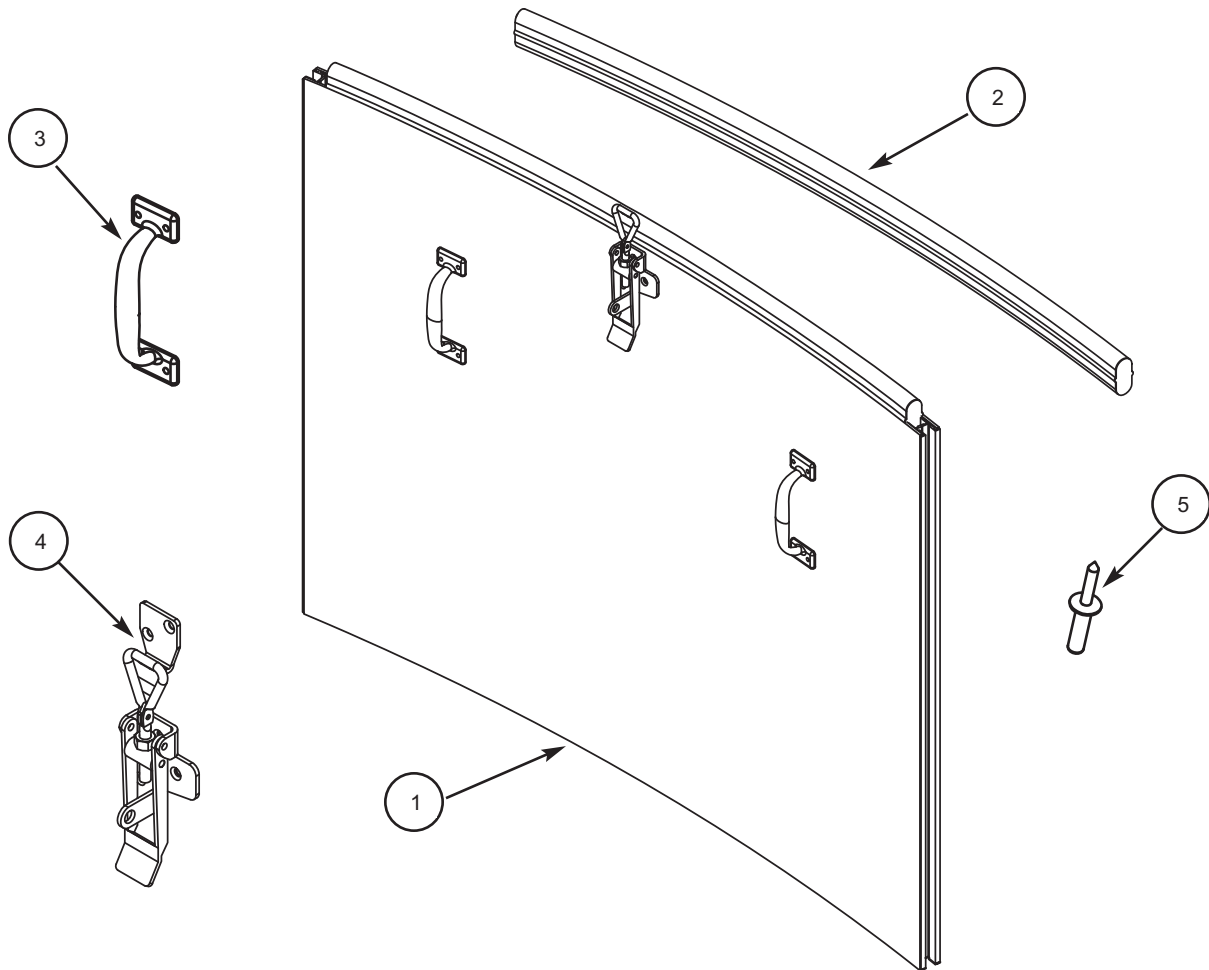
TOWER DOOR-CENTER PANEL



Item	Description
1	Door Hinge
2	Tower Panel
3	Panel Edge Strap
4	Self-drill Screw, 8-18 x 1/2
5	Polyethylene Full Panel Extrusion
6	Polyethylene Half Panel Extrusion
7	Blind Rivet, 3/16

TOWER REPLACEMENT PARTS CONTINUED

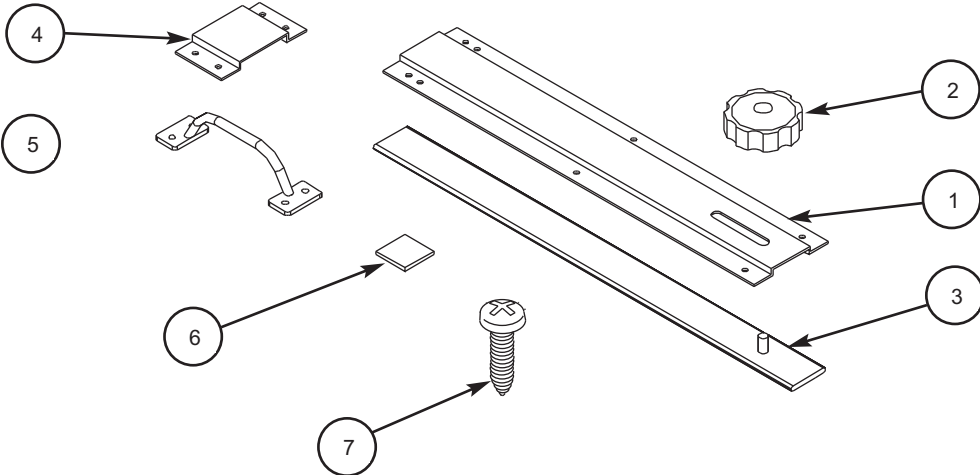
LOWER FILLER PANEL



Item	Description
1	Lower Filler Panel
2	Polyethylene Extrusion
3	Door Handle
4	Adjustable Draw Clamp with Striker
5	Blind Rivet, 19 dia. .08/.38

TOWER REPLACEMENT PARTS CONTINUED

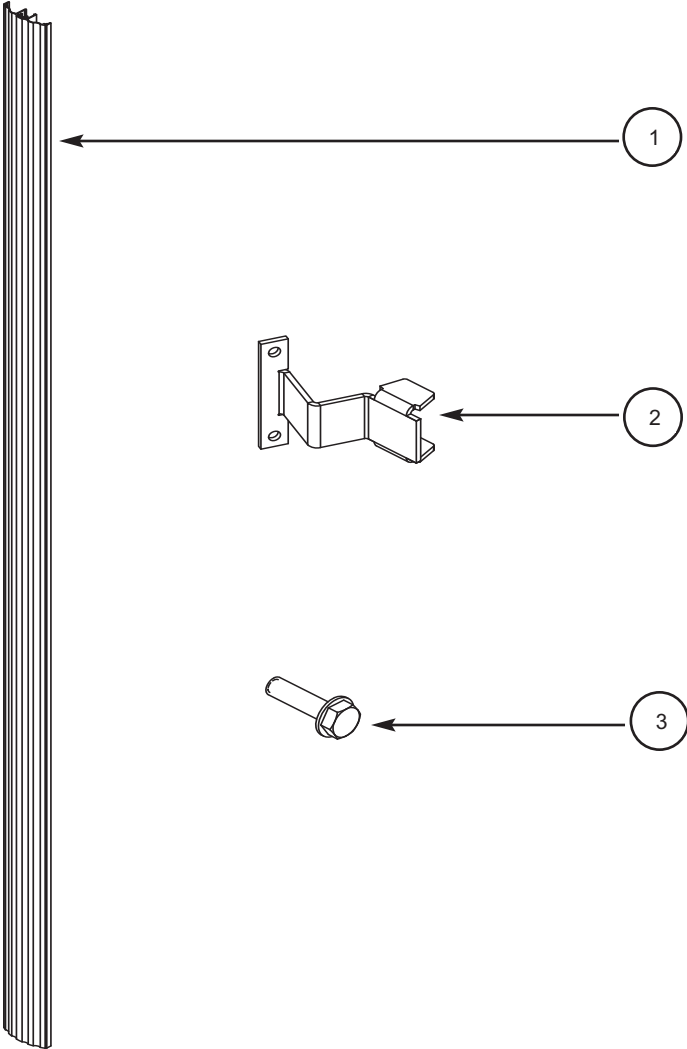
SLIDE LOCK ASSEMBLY



Item	Description
1	Slide Lock Housing
2	Slide Lock Knob
3	Slide Lock Slide
4	Slide Lock Keeper
5	Door Handle
6	Slide Lock Cushion
7	Phillips Pan Head Screw, 1/4-20 x 5/8"

TOWER REPLACEMENT PARTS CONTINUED

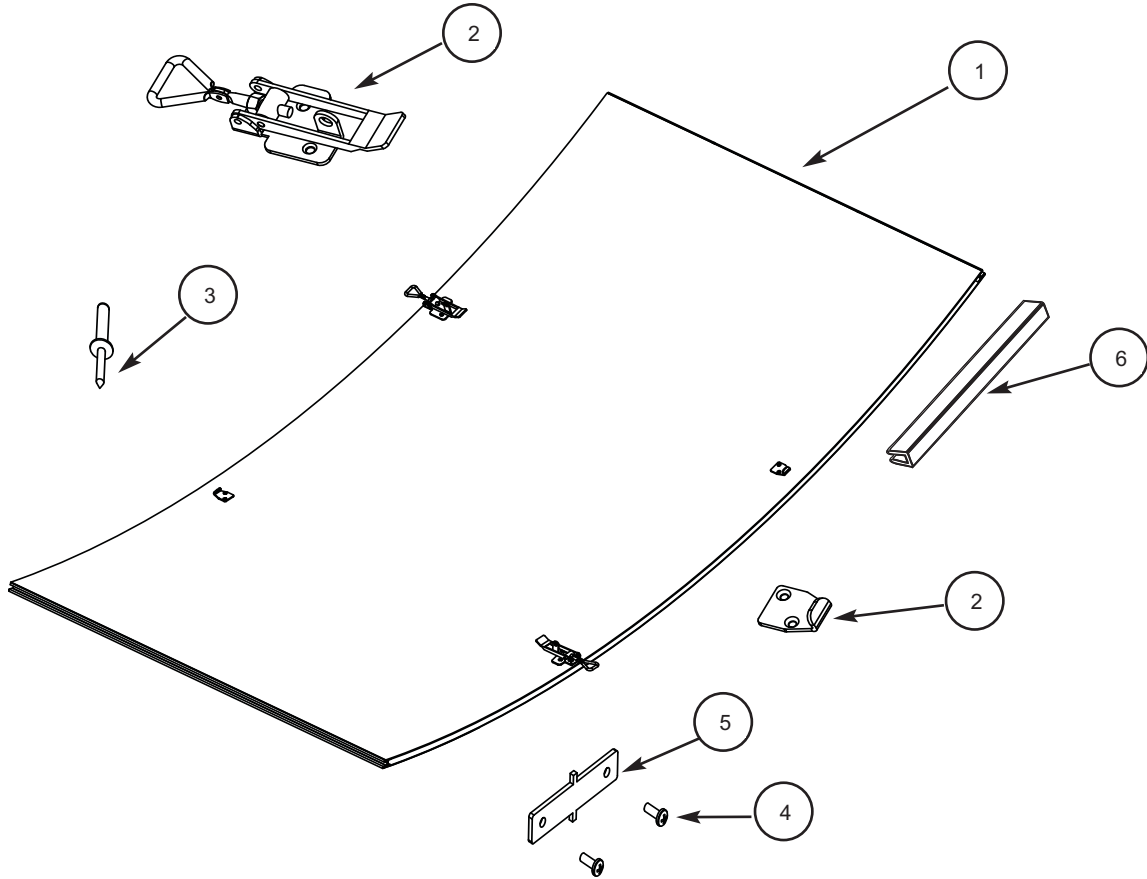
TOWER TRIM KIT



- | Item | Description |
|------|---|
| 1 | Panel Trim Strip (specify length — 96" to 237") |
| 2 | Edge Clip |
| 3 | Self-drill screw 10-16, 3/4" |

CEILING PANEL REPLACEMENT PARTS

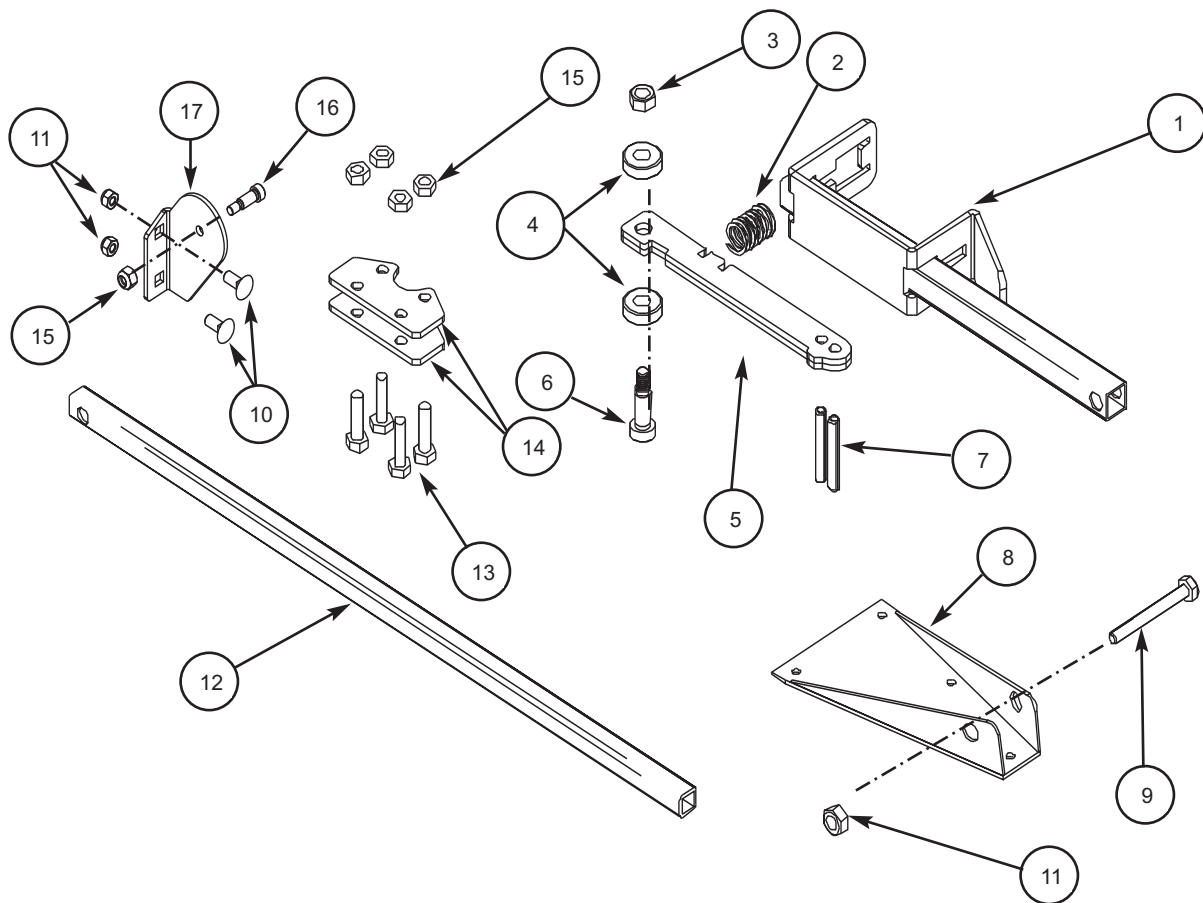
CEILING PANEL



Item	Description
1	Ceiling Panel (specify size)
2	Adjustable Draw Clamp with Striker
3	Blind Rivet, 19 dia. .08/.38
4	Self-drill Screw, 8-18 x 1/2"
5	Panel Edge Strap
6	Edge Trim

CEILING PANEL REPLACEMENT PARTS CONTINUED

CEILING PANEL STAY ASSEMBLY

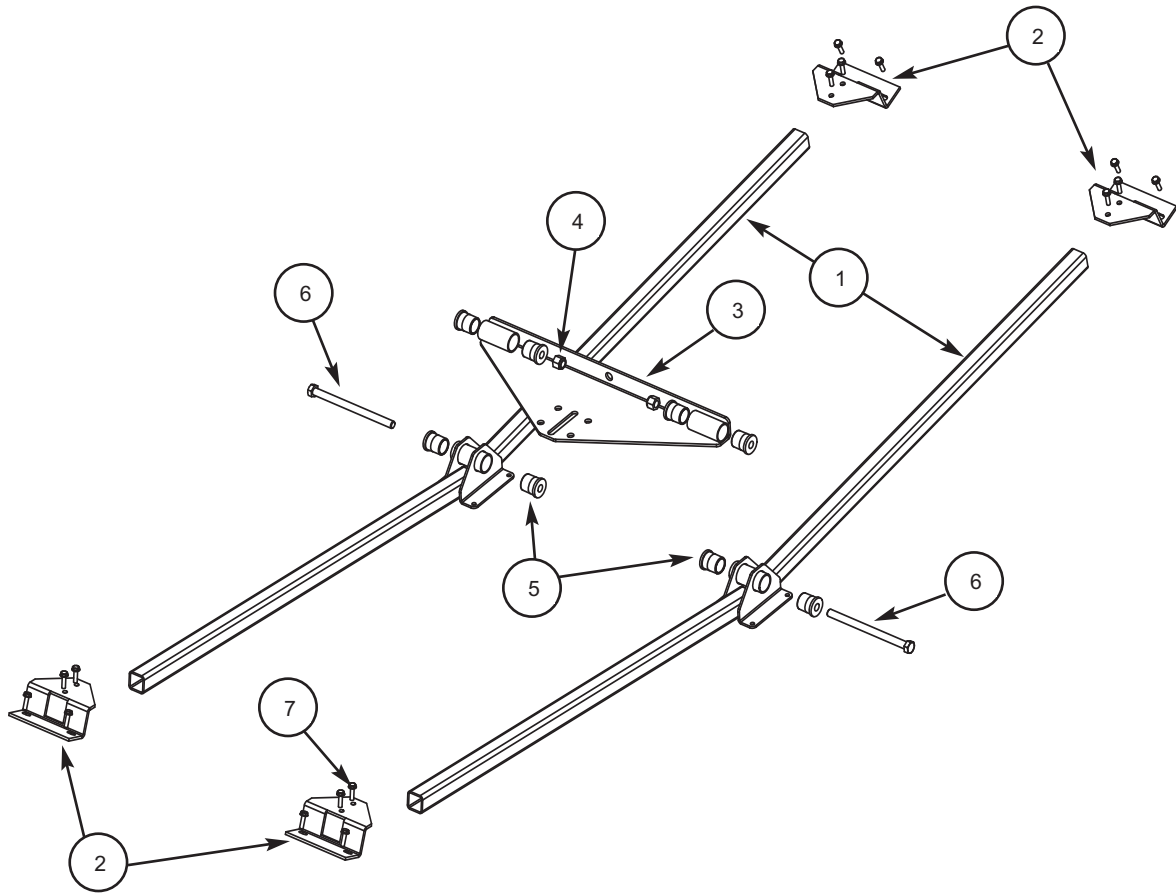


Item	Description
1	Ceiling Panel Stay Tube and Bracket
2	Compression Spring, .720" diameter
3	Locknut, $\frac{5}{16}$ -18
4	Bearing, $\frac{3}{8}$ " inside diameter
5	Latch Bar
6	Hex Socket Shoulder Bolt, $\frac{3}{8}$ " x $\frac{7}{8}$ "
7	Spring Pin, $\frac{1}{4}$ " x $1\frac{5}{8}$ "
8	End Bracket
9	Hex Head Capscrew, $\frac{3}{8}$ -16 x $2\frac{1}{4}$ "

Item	Description
10	Carriage Bolt, $\frac{5}{16}$ -16 x $\frac{3}{4}$ "
11	Nylon Locknut, $\frac{5}{8}$ -16
12	Ceiling Stay Rod
13	Hex Head Capscrew, $\frac{1}{4}$ -20 x $1\frac{1}{4}$ "
14	Latch Receiver Plate
15	Locknut, $\frac{1}{4}$ -20
16	Shoulder Screw $\frac{5}{16}$ x $\frac{5}{8}$
17	Hanger Arm Stay Bracket

CEILING PANEL REPLACEMENT PARTS CONTINUED

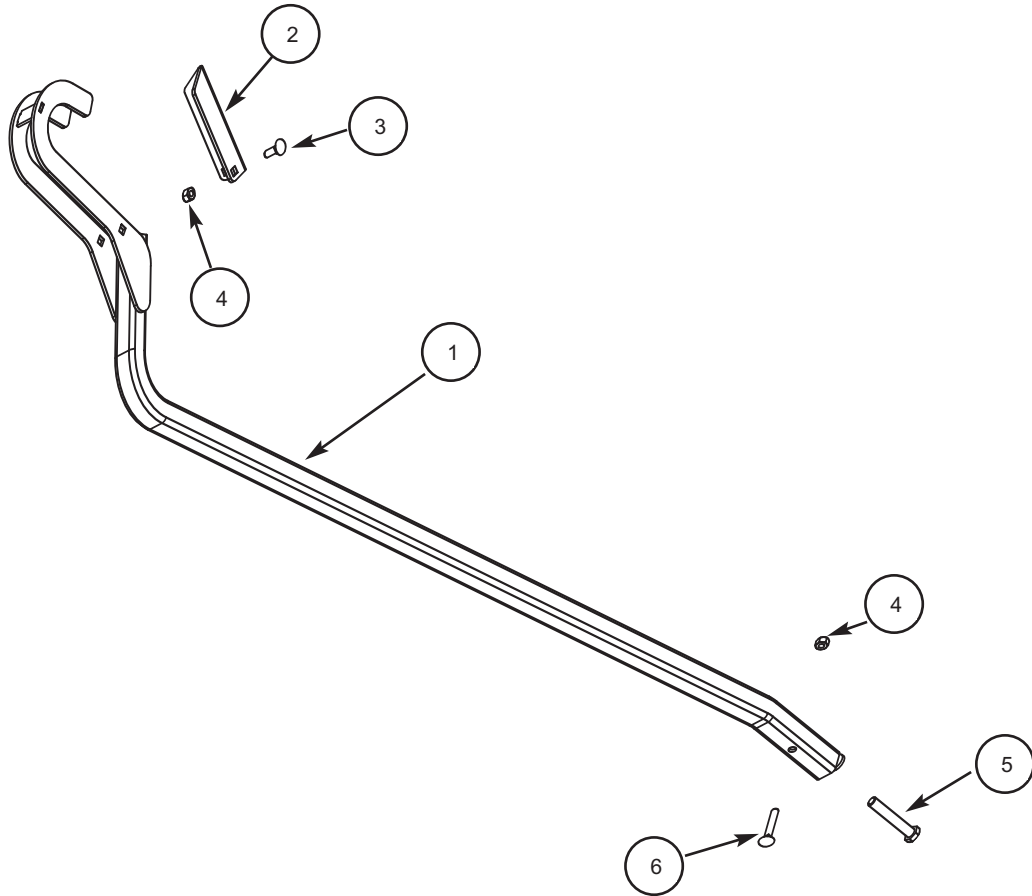
BOWSTRING ASSEMBLY



Item	Description
1	Bowstring (specify size and length)
2	Ceiling Clip
3	Hanger Arm Pivot Bracket
4	Nylon Locknut, $\frac{3}{8}$ -16
5	Panel Pivot Bearing
6	Cap Screw, $\frac{3}{8}$ -16 x $5\frac{1}{4}$
7	Self-drill Screw, 10-16 x $\frac{3}{4}$

CEILING PANEL REPLACEMENT PARTS CONTINUED

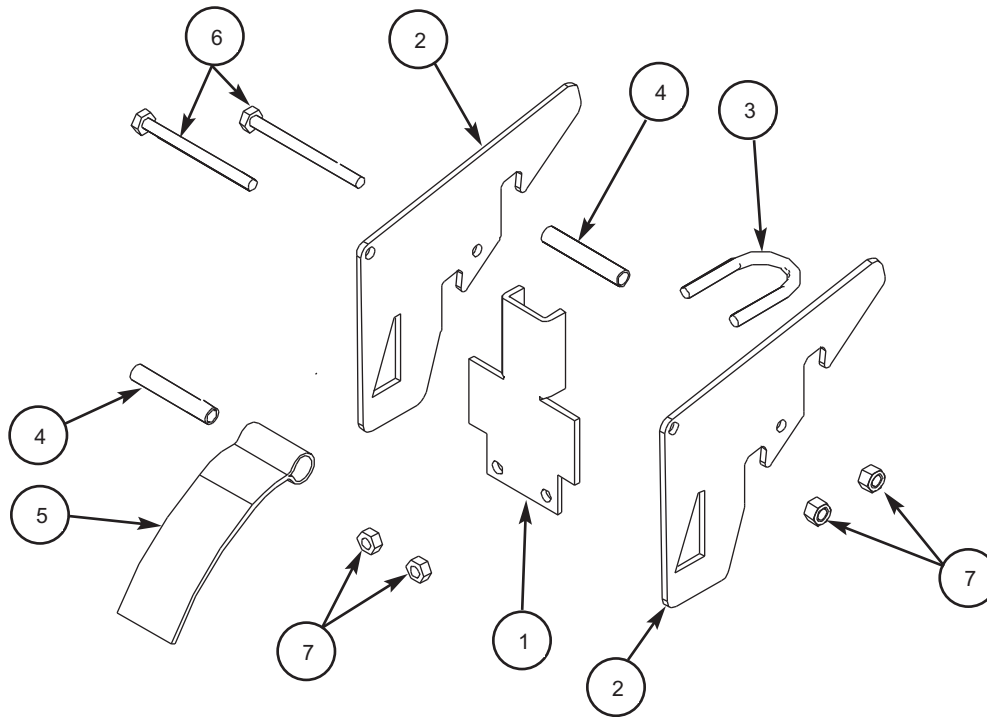
HANGER ARM ASSEMBLY



Item	Description
1	Hanger Arm
2	Arm Hook Hanger Latch
3	Carriage Bolt, Hex Head Screw, $\frac{5}{16}$ -18, Full Thread
4	Nylon Locknut, $\frac{5}{16}$ -18
5	Cap Screw, $\frac{3}{8}$ -16 x 3
6	Carriage Bolt, Hex Head Screw, $\frac{5}{16}$ -18 x 1 1/2

CEILING PANEL REPLACEMENT PARTS CONTINUED

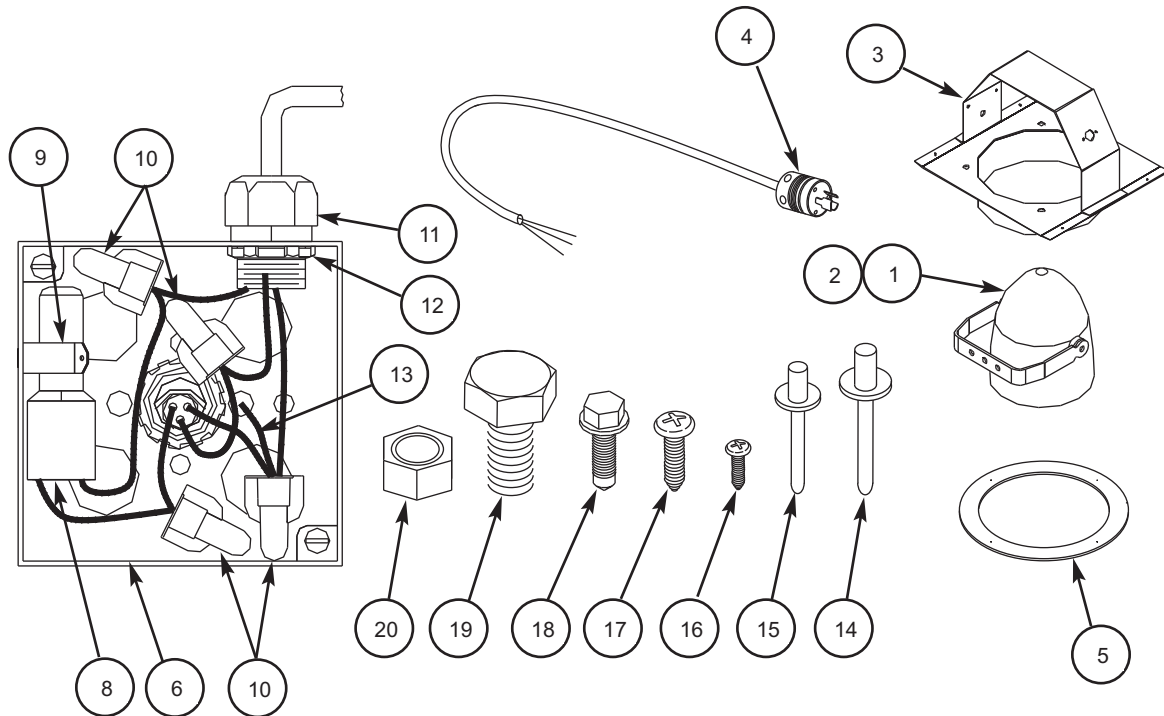
CEILING PANEL CATCH ASSEMBLY



Item	Description
1	Pivot Plate
2	Catch Plate
3	U-Bolt, 1/4-20 x 2" inside
4	Spacer, Tube
5	Ceiling Catch Strap
6	Hex Head Screw, 1/4-20 x 3"
7	Locknut, 1/4-20

CEILING PANEL REPLACEMENT PARTS CONTINUED

CEILING PANEL LIGHT ASSEMBLY



Item Description

- 1 Flood Light Fixture, 575 watt
- 2 Lamp, 575 watt, 120VAC, 2000 Hour
- 3 Light Mount Assembly
- 4 Light Power Cord, 3 wire, twist-lock
- 5 Light Trim Ring
- 6 Electrical Junction Box, 4" x 4" x 1 1/2"
- 7 Flat Cover, 4" x 4" (not shown)
- 8 Switch, tilt, 25 ampere, cotton lead
- 9 Tilt Switch Mounting Clip
- 10 Wire Nut, wing, yellow

Item Description

- 11 Cable Strain Relief, Liquid Proof
- 12 Conduit Locknut, 1/2" NPT
- 13 Ground Wire, R-98-8, Green
- 14 Blind Rivet, 3/16" x 1/4"
- 15 Blind Rivet, 1/8" x 1/8"
- 16 Truss Head Screw, 8-18 x 3/8"
- 17 Pan Head Screw, 10-18 x 3/4"
- 18 Self-drill Screw, 1/4-20 x 1"
- 19 Hex Head Screw, 1/2-13 x 1"
- 20 Locknut, 1/2-13