

## **BY JANUS INTERNATIONAL**



# SAFETY INFORMATION OVERVIEW OF POTENTIAL HAZARDS

Counter Shutters are large, heavy objects that move with the help of springs under high tension and electric motors. Since moving objects, springs under tension, and electric motors can cause injuries, your safety and the safety of others depend on you reading the information in this manual. If you have questions or do not understand the information presented, call your nearest service representative.

In this section, and those that follow, the words "Danger", "Warning", and "Caution" are used to emphasize important safety information. For example:



**DANGER:** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING: Indicates a potentially hazardous

situation which, if not avoided, could result in death or



A Counter Shutter is a large heavy object that moves with the help of springs under extreme tension and electric motors. Moving objects and springs under tension and electric motors can cause serious injuries or death. For your safety and the safety of others, follow these instructions.



serious inury.

**CAUTION:** Indicates a potentially hazardous situation which, if not avoided, may result in injury or property damage.



Use proper lifting equipment and correct lifting procedures to avoid damage or injury.

POTENTIAL HAZARD	EFFECT	PREVENTION
MEVING SHUTTER	Could result in death or serious injury	Keep people clear of opening while Counter Shutter is moving. DO NOT allow children to play with the Operator. DO NOT operate a Shutter that jams or one that has a broken spring.
	Could result in death or serious injury	Turn off power before removing operator cover. When replacing operator cover, make sure wires are not pinched or near moving parts. Operator must be properly grounded.
HIGH SPRING TENSION	Could result in death or serious injury	DO NOT try to remove, repair or adjust springs or anything to which Shutter spring parts are fastened, such as steel brackets or other like items. Repairs and adjustments must be made by a trained shutter system technician using proper tools and instructions.
Dime	Could result in death or serious injury	Counter Shutter must be fully opened when making adjustments. Repairs and adjustments must be made by a trained rolling shutter systems technician using proper tools and instructions.





#### **FASTENER CHART**

JAMB	FASTENER	DRILL SIZE	NOTES	
	3/8-16 X 1-1/4" TYPE 23 THD CUT SCREW	11/32"		
STEEL	3/8-16 X 1-1/4" HEX BOLT AND NUT	7/16"	3/16" THICK STEEL JAMB MINIMUM	
	3/8 LAG SCREW	1/8"		
CONCRETE OR	3/8" X 1-7/8" SLEEVE ANCHOR	3/8"	CLEAR HOLES OF CONCRETE DUST BEFORE INSTALLING FASTENER	
FILLED BLOCK				
UNFILLED BLOCK	3/8" THREADED ROD & NUTS	7/16"	INSTALL CRUSH PLATES ON	
OR SOFT BRICK	1/2" THREADED ROD & NUTS	9/16"	OPPOSITE SIDE OF WALL	
NON MASONRY	3/8 X 3 LAG BOLT	7/16"	14 GAUGE STEEL STUD MINIMUM WOOD STUD	
	3/8 X 3 LAG BOLT	1/4"		

FIGURE 3

#### 1. Pre-Installation Evaluation

- a. Verify that your measurements match the opening width, height, headroom, sideroom and backroom dimensions shown on shop drawing.
- b. Verify that jamb construction is the same as shown in shop drawing and that construction is suitable for mounting guides.
- c. Verify that guides can be mounted plumb.
- d. Verify that all shutter parts are available.
- 2. Procedure for laying out guides
  - a. Find and mark centerline of opening and mark as shown in Figure 5.
  - b. Determine "W" dimension from the shop drawing.
  - c. Center "W" dimension on sill using center line of opening and clearly mark at each jamb.
  - d. Sill marks should precisely equal "W" dimension and reflect the location of the wall angle's perpendicular leg as shown in Figure 5.





- 3. Procedure for shooting level reference marks
- a. Create level elevation marks at left and right jamb faces using a level reference device or survey instrument as shown in Figure 6.



✓ Be positive about the accuracy of your level elevation reference marks!

FIGURE 6

- b. Measure the distance from each level reference mark to the sill to determine if the sill is level.
  - ✓ If there is a difference in measurements from the marks to the sill, the sill is not level. You must shim the wall angle with the longest reference measurement to verify that both wall guides are mounted to the same elevation.
- 4. Procedure for installing wall angles
- a. Use a plumb bob or similar device to establish a true plumb reference.
- b. Install first wall angle plumb vertically at the correct elevation, and at the correct "W" dimension sill mark.
- c. Install second wall angle by placing it at the "W" dimension marked on the sill at the second jamb as shown in Figure 7. Shim if necessary.



FIGURE 7

- d. Use a tape measure while attaching the second wall angle to maintain a consistent "W" dimension all the way to the top as shown in Figure 7.
  - ✓ Verify that the low side wall angle is shimmed to the correct height before permanent attachment to the jamb.
  - ✓ Top two holes where wall guide fastens to jamb above header; fasteners to be installed through headplate slots, through wall guide into jamb as shown in figure 10 on page 9.

<u>NOTE:</u> Use only fasteners provided and approved by ASTA Door Corporation. Reference Figure 3 to determine correct jamb fastener type for your application, and for drill bit size, etc.

- 5. Procedure for assembling barrel and headplate assemblies.
- a. Proceed at ground level and identify components as shown in Figures 8, 9 and 10.



- FIGURE 9
- b. Install tension wheel and tension headplate. Tension detail shown in Figure 9.
- c. Install drive side headplate as shown in Figure 9 for manual operation.
- d. Install drive side headplate as shown in Figure 15 on Page 12 for optional hand crank operation.

- 6. Procedure for installing barrel and headplates to guide assembly
- a. Carefully secure barrel to hoisting equipment and raise into position at top of wall angles. Attach headplate brackets to wall angles as shown in Figure 10.
- b. VERIFY THAT BARREL IS DEAD LEVEL BEFORE INSTALLING WALL & HEADPLATE FASTENERS.
- c. Headplate should be flush with top of wall angle.
- d. Set spacing between headplates adequate for later hood installation.
- e. Verify that barrel is unrestricted and free to rotate before proceeding.



FIGURE 10

SLINGING: IMPORTANT SAFETY PRECAUTIONS

<u>Use only straight-eye choker style slings with a minimum 5,000 lb weight rating.</u> Use slings of a length that keeps the factory rolled curtain as close to the barrel assembly as possible. Close and secure sling ends with a clevis or chain shackle of adequate size that features a SCREW-IN STYLE PIN ONLY. DO NOT USE A CLIP RETAINED SHACKLE OR CLEVIS PIN!!

- 7. Procedure for slinging curtain to barrel
- a. Using hoisting equipment, suspend the curtain assembly below the barrel on two or more slings.
- b. Center the factory rolled curtain assembly between the guides as shown in Figure 11.
- c. Use locking pliers to temporarily fasten two or more segmented starter slats to slings.
- d. Roll curtain, slings and barrel as one unit in order to pull the starter slats and curtain over the top of the barrel.
- e. Attach segmented starter slats to barrel using ASTA supplied button head screws and remove locking pliers.



- ✓ It may be necessary to use the hoisting equipment to lift the weight of the curtain enough to allow rotation of the barrel to bring the attachment lugs into position with segmented starter slats.
- ✓ When starter slats are attached to the barrel lugs, you may lower the hoisting equipment and proceed with the next step.
- f. Center curtain slats individually between the wall angles as you slowly rotate the barrel and roll the curtain onto the barrel.
- g. Install front guide angles as shown in Figure 12 using supplied fasteners.
- h. Tighten guide assembly fasteners securely.
- i. Snap front bellmouth in place and secure to headplate with supplied fastener.



- 8. Procedure for applying preload to barrel assembly
- a. Roll curtain to fully closed position.
- b. Apply tension from the top, downward, as shown in Figure 13 to the preload amount shown on tension headplate label, barrel sticker, or shop drawing.
- c. Raise curtain and check balance.



FIGURE 13

- 9. Procedure for installing hood flange, hood and endcovers.
- a. Attach top hood flange securely to the wall with installer supplied fasteners.
- b. Insert end covers underneath hood and fasten hood to headplate hood bands with self drilling fasteners.



Appendix "A"

- 9. Procedure for Installing (optional) Awning Crank
- a. Insert 1/4" x 1" key stock into key seat on drive shaft.
- b. Align bevel gear key way with key stock and slide awning crank onto drive shaft until awning crank back is seated against head plate.
- c. Align mounting holes in awning crank with mounting holes in head plate. Insert (3) 1/4" x 1-1/4" carriage bolts from inner side of head plate through holes in head plate and awning crank.
- d. Using the (3) supplied 1/4" lock washers and hex nuts securely tighten nuts to attach awing crank to head plate.



FIGURE A-1

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