

Extra Heavy Duty Cremone Bolts

NO. 1028 P320 CREMONE BOLT

No. 1028 P320 Extra Heavy Duty Cremone Bolt

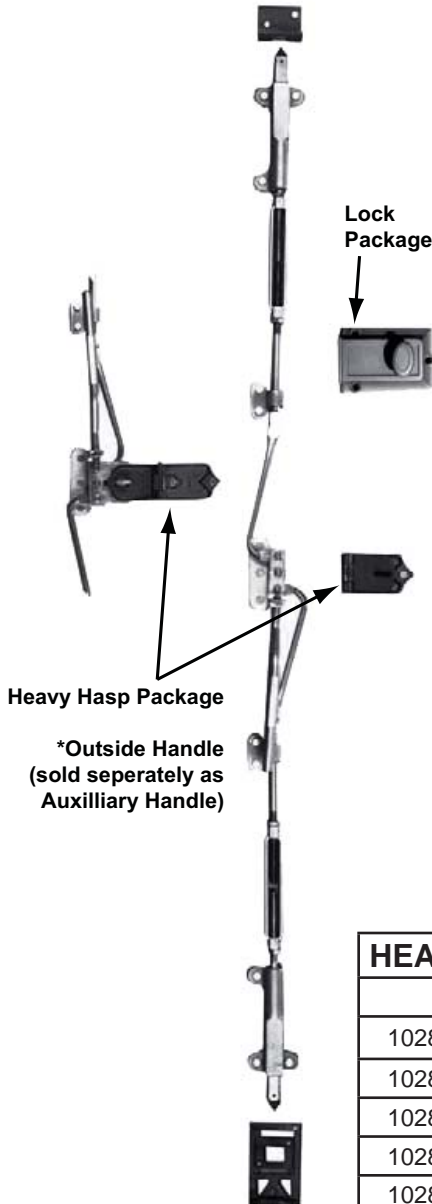
Construction: Guides and handles-malleable iron. Rods-3/4" diameter and bolts 1-1/4" sq. steel.

Application: For securing large sized industrial swing or slide-fold doors at the top and bottom with the movement of one lever handle. Connection of the rods of the lever handle is made with offset arms. The top and bottom bolts can only be retracted by movement of the lever handle. Models with exterior lever handle are designed for doors 2-1/2" to 4" thick.

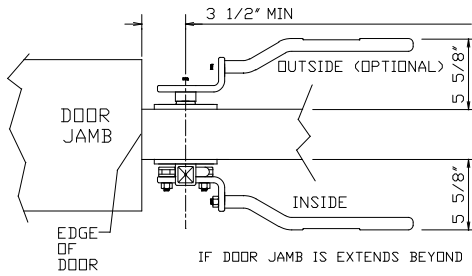
Regular assembly is designed for a 8'-0" and 23'-6" high opening. Additional rod extensions available for maximum 23'-6" high openings (see chart below). For larger openings, consult factory. Lever handle located 48" from floor line, throw of bolt 3", projection from door 2-1/2". Includes keepers to meet most applications. Includes keepers to meet most applications.

Finish: US2C-zinc

Ordering data: Specify cremone bolt assembly based on door height and thickness (for external handle). Specify options if required.



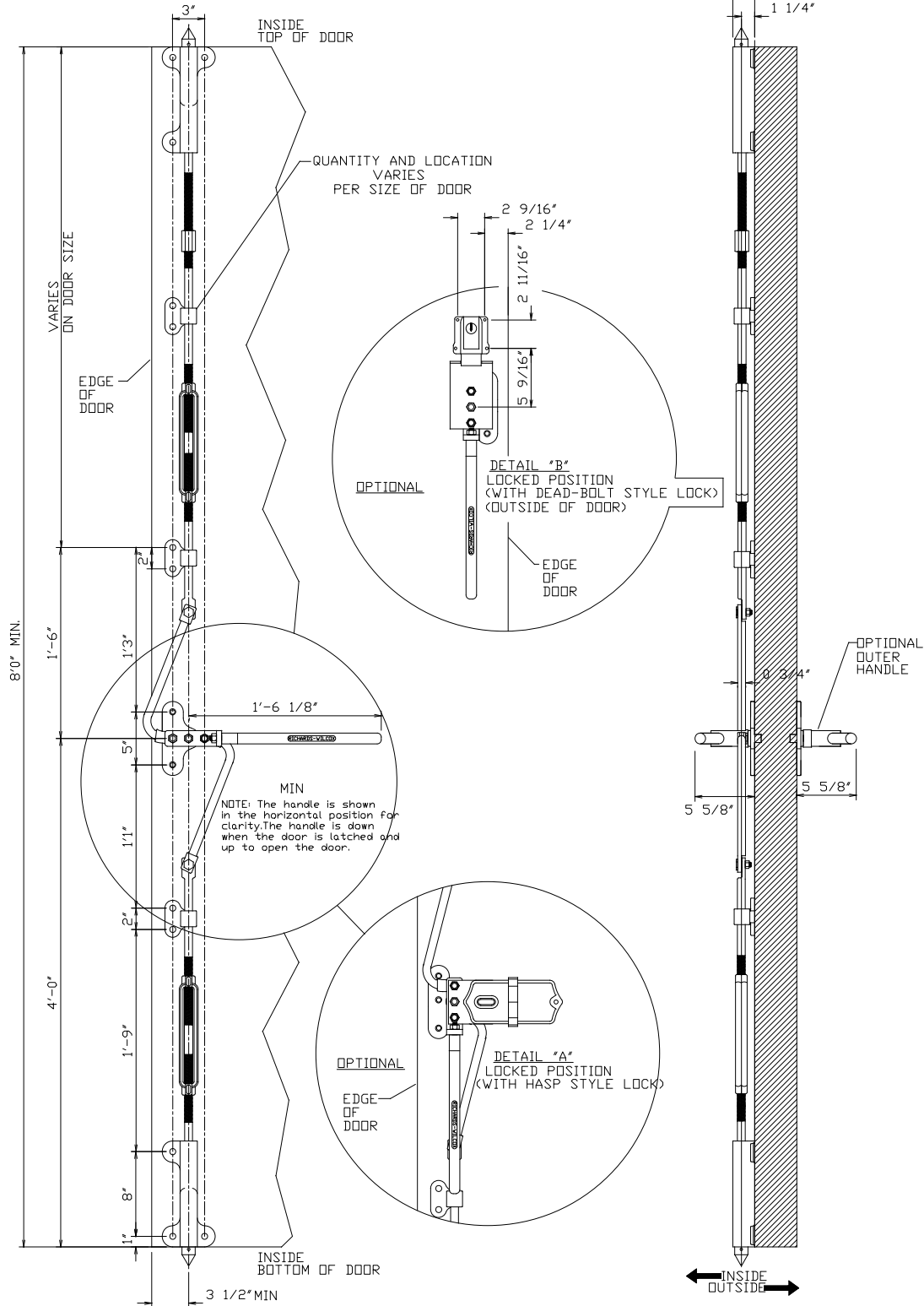
HEAVY DUTY CREMONE BOLTS		Weight Per Unit
Part #	Description	
1028.00320.009	Extra Heavy Duty Cremone Bolt: 8'-0" to 9'-0" Door Height	75 lb.
1028.00320.010	Extra Heavy Duty Cremone Bolt: 9'-0" to 10'-0" Door Height	75 lb.
1028.00320.012	Extra Heavy Duty Cremone Bolt: 10'-0" to 12'-6" Door Height	75 lb.
1028.00320.014	Extra Heavy Duty Cremone Bolt: 12'-6" to 14'-6" Door Height	78 lb.
1028.00320.017	Extra Heavy Duty Cremone Bolt: 14'-6" to 17'-6" Door Height	78 lb.
1028.00320.020	Extra Heavy Duty Cremone Bolt: 17'-6" to 20'-6" Door Height	81 lb.
1028.00320.023	Extra Heavy Duty Cremone Bolt: 20'-6" to 23'-6" Door Height	81 lb.
CREMONE BOLT ACCESSORIES		
1028.00330	Cremone Bolt Auxiliary Handle Package	
1028.00340	Cremone Bolt Key Lock/Knob Package w/ Auxiliary Handle Included	
1028.00350	Cremone Bolt Key Lock Both Sides Package w/ Auxiliary Handle Included	
1028.00360	Cremone Bolt Heavy Hasp Package	
1028.00370	Cremone Bolt 3'-0" Add-On Package	



IF DOOR JAMB IS EXTENDS BEYOND THE DOOR,
 THE MINIMUM CLEARANCE (FROM DOOR JAMB TO CENTER OF ROD)
 ON OUTSIDE IS 3-3/4" IF HASP STYLE LOCK IS USED
 OR 5" IF DEAD BOLT STYLE LOCK IS USED

EXTRA HEAVY DUTY CREMONE BOLT DOOR 8' HIGH AND HIGHER

IF DOOR JAMB IS EXTENDS BEYOND THE DOOR,



8'0" MIN.

VARIES ON DOOR SIZE

EDGE OF DOOR

4'-0"

1'-9"

8"

1'-1"

2"

1'-6"

1'-3"

5"

1'-6 1/8"

1'-6"

3"

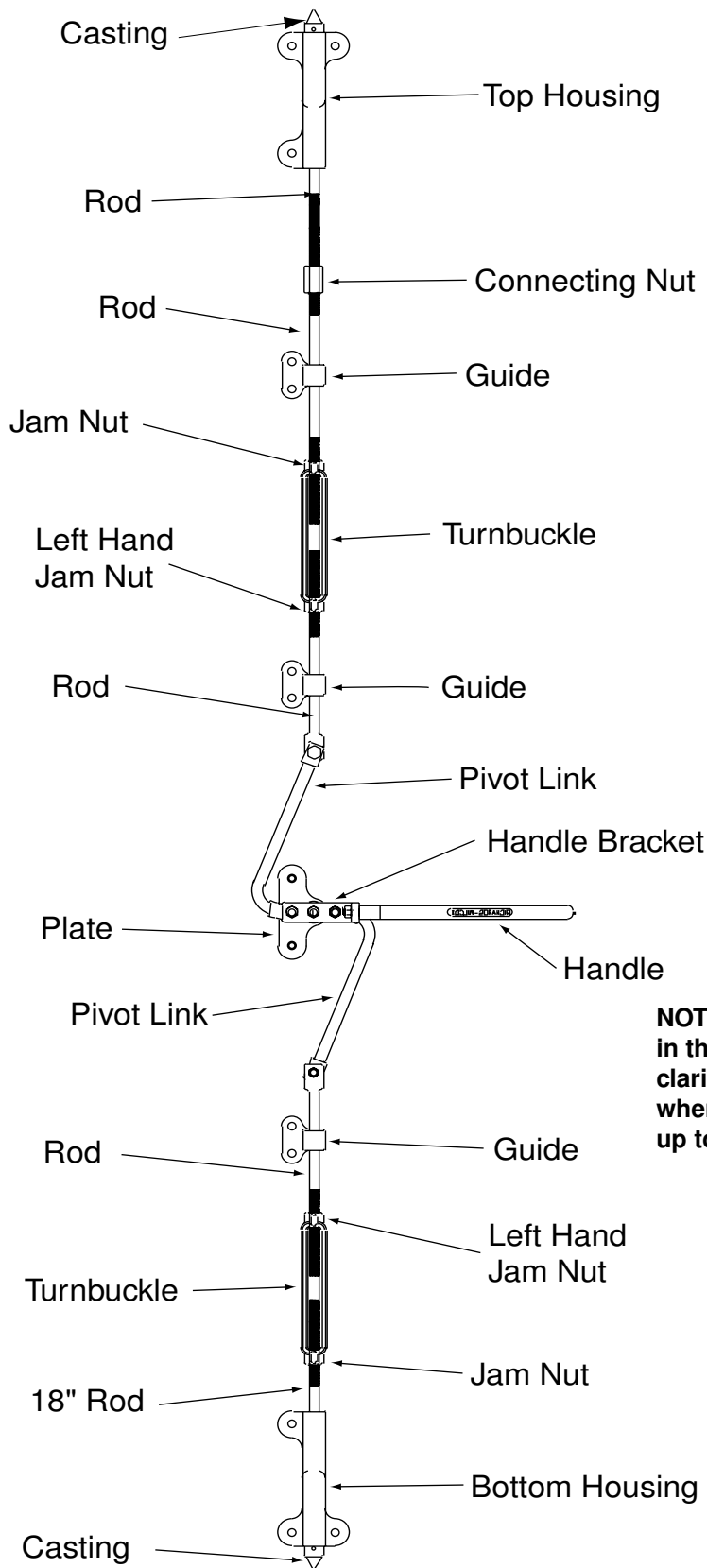
MIN
 NOTE: The handle is shown in the horizontal position for clarity. The handle is down when the door is latched and up to open the door.

OPTIONAL
 EDGE OF DOOR
 DETAIL "A"
 LOCKED POSITION
 (WITH HASP STYLE LOCK)

OPTIONAL
 DETAIL "B"
 LOCKED POSITION
 (WITH DEAD-BOLT STYLE LOCK)
 (OUTSIDE OF DOOR)
 EDGE OF DOOR

OPTIONAL OUTER HANDLE

INSIDE
 OUTSIDE



NOTE: The handle is shown in the horizontal position for clarity. The handle is down when the door is latched and up to open the door.

EXTRA HEAVY DUTY UNIT

Refer to the illustration on the proceeding page as you assemble the unit.

FIRST DETERMINE WHICH UNITS YOU ARE ASSEMBLING:

1. Check to see if you have one or two handles. Refer to Figure 1.
2. Check to see if you have pointed rods or the cremone bolt casting. The pointed rods indicate that you have the HEAVY DUTY UNIT. The cremone bolt castings indicate that you have the EXTRA HEAVY DUTY UNIT. Refer to Figure 2.
3. Check to see if you have the heavy hasp. Refer to Figure 3.
4. Check to see if you have a dead bolt lock. Refer to Figure 3.



FIGURE 1

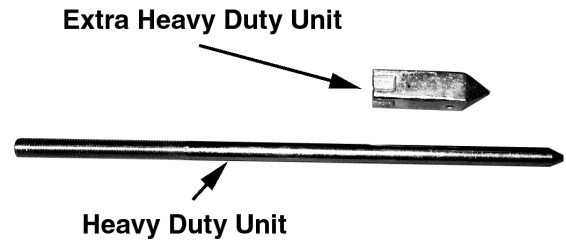


FIGURE 2

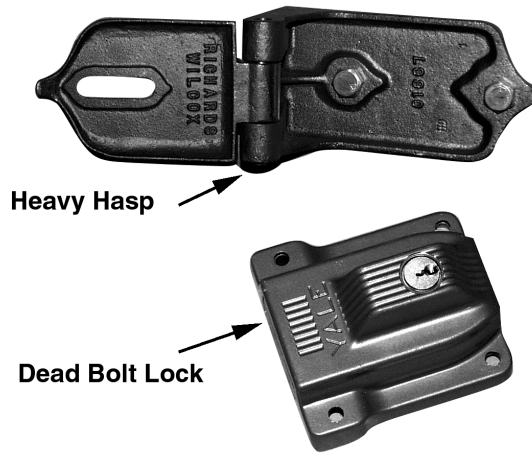


FIGURE 3

**IF YOU DO NOT HAVE A HASP, ASSEMBLE INSIDE HANDLE SECTION AS FOLLOWS:
(Refer to Figure 4.)**

1. Install the handle in the handle bracket as shown using 1/2 - 13 locknut.
2. Attach the pivot links to the bottom of the handle bracket as shown using pivot link studs with 1/2 - 13 thread and locknuts. With the handle pointing down, the curve in the upper pivot link should be toward the edge of the door and the curve in the bottom pivot link should be away from the edge of the door.
3. Install the handle stud through the plate, bushing, and handle bracket as shown and secure with 1/2 - 13 locknut.

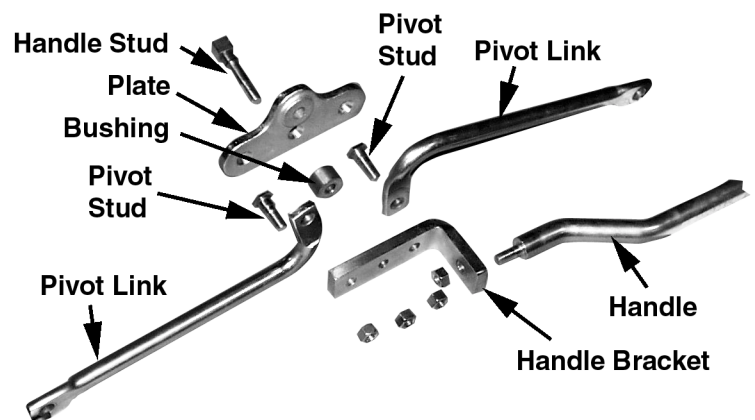


FIGURE 4

IF YOU HAVE A HASP AND ONLY ONE HANDLE OR IF YOU HAVE TWO HANDLES, AND THE HASP IS TO GO ON THE INSIDE, ASSEMBLE THE INSIDE HANDLE SECTION AS FOLLOWS: (Refer to Figure 5)

1. Install the handle in the handle bracket as shown using 1/2 -13 locknut.
2. Attach the pivot links to the bottom and the hasp bracket to the top of the handle bracket as shown using pivot link studs with 1/2 -13 thread and lock-nuts. With the handle pointing down, the curve in the upper pivot link should be toward the edge of the door and the curve in the bottom pivot link should be away from the edge of the door. The hasp bracket must extend away from the edge of the door.
3. Install the handle stud through the plate, bushing, handle bracket, and hasp bracket as shown and secure with 1/2 -13 locknut.

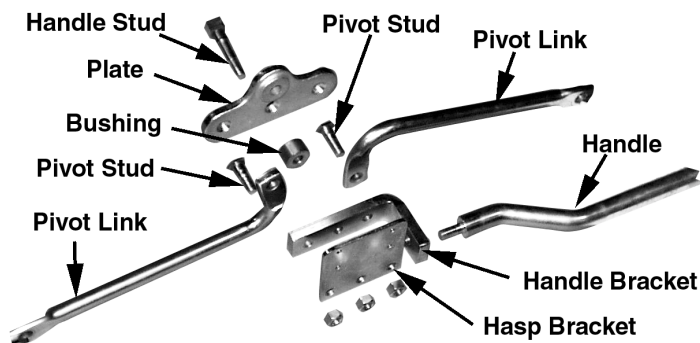


FIGURE 5

IF YOU HAVE TWO HANDLES AND NO LOCK FOR THE OUTSIDE, ASSEMBLE THE OUTSIDE HANDLE SECTION AS FOLLOWS: (Refer to Figure 6)

1. Install the handle in the handle bracket as shown using 1/2 -13 locknut.
2. Install the handle stud through the plate, bushing, and handle bracket as shown and secure with 1/2 -13 locknut.

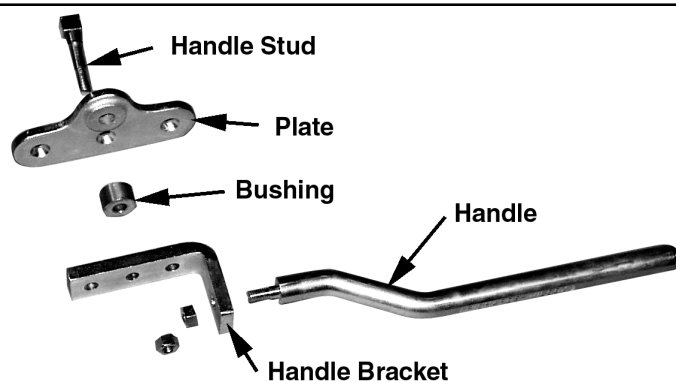


FIGURE 6

IF YOU HAVE TWO HANDLES AND A HASP ON THE OUTSIDE, ASSEMBLE THE OUTSIDE HANDLE SECTION AS FOLLOWS: (Refer to Figure 7)

1. Install the handle in the handle bracket as shown using 1/2 -13 locknut.
2. Attach the hasp bracket to the top of the handle bracket as shown using 1/2 -13 X 1-1/4 screws and lock nuts. The hasp bracket must extend away from the edge of the door when the handle is in the down position.
3. Install the handle stud through the plate, bushing, handle bracket, and hasp bracket as shown and secure with 1/2 -13 locknut.

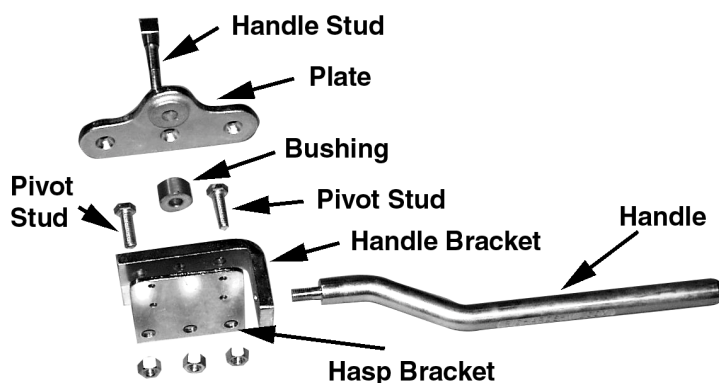


FIGURE 7

IF YOU HAVE A DEAD BOLT, ASSEMBLE THE OUTSIDE HANDLE SECTION AS FOLLOWS: (Refer to Figure 8)

1. Install the handle in the handle bracket as shown using 1/2 -13 locknut.
2. Attach the dead bolt bracket to the top of the handle bracket as shown using 1/2 -13 X 1-1/4 screws and lock nuts. The dead bolt bracket must extend upward when the handle is in the down position. The fingers must extend toward the door.
3. Install the handle stud through the plate, bushing, handle bracket, and dead bolt bracket as shown and secure with 1/2 -13 locknut.

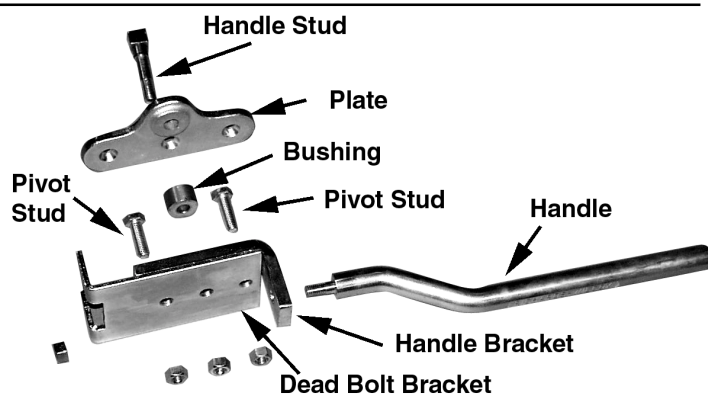


FIGURE 8

IF YOU HAVE THE HEAVY DUTY UNIT, ASSEMBLE THE HEAVY DUTY LOWER ROD SECTION AS FOLLOWS: (Refer to Figure 9)

1. Turn a jam nut onto the threaded end of a 21" (14" for doors under 8') pointed rod.
2. Slip a Guide assembly over the center link as shown. Note that the bolt holes must be toward the edge of the door.
3. Turn a left-hand jam nut onto the center link.
4. Turn a turnbuckle onto both rods until the distance between the ends of the rods is 2-1/2".

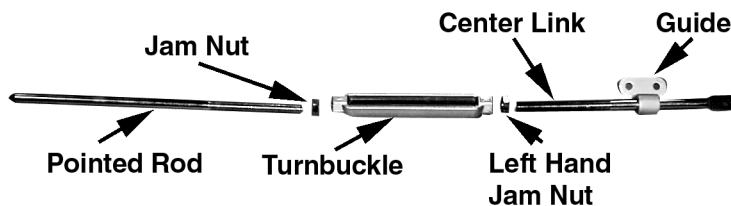


FIGURE 9

IF YOU HAVE THE EXTRA HEAVY DUTY UNIT, ASSEMBLE THE EXTRA HEAVY DUTY LOWER ROD SECTION AS FOLLOWS: (Refer to Figure 10)

1. Install an 18" rod in the cremone bolt casting, turning the short thread into it as far as it will go.
2. Insert the rod through the bottom housing. Note that the bottom housing will have two ears toward the edge of the door and only one ear away from the edge of the door. Also note that the cremone bolt casting is not square. The holes in the cremone bolt casting must be as shown.
3. Turn a jam nut onto the other end of the rod.
4. Slip a Guide assembly over the center link as shown. Note that the bolt holes must be toward the edge of the door.
5. Turn a left-hand jam nut onto the center link.
6. Turn a turnbuckle onto both rods until the distance between the ends of the rods is 2-1/2".

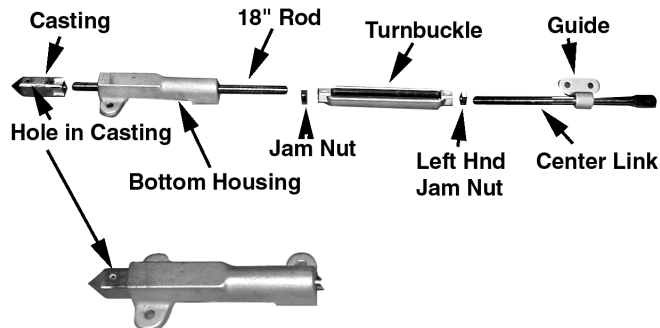


FIGURE 10

ASSEMBLE THE UPPER ROD SECTION AS FOLLOWS: (Refer to Figure 11)

1. Measure the overall height of the door.
2. Determine from table which rods are needed for the upper rod section.
3. Construct an upper rod section using the same procedure as above except that if extra straight rods are required, assemble them end to end using a connecting nut as shown before installing the turnbuckle. Note that a guide must be installed on each extra rod.

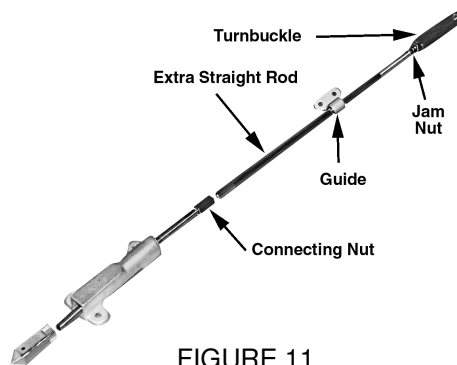


FIGURE 11

IF YOU HAVE ONLY ONE HANDLE, INSTALL HANDLE ASSEMBLY ON THE DOOR AS FOLLOWS: (Refer to Figure 12)

1. Determine the location of the center line of the rod. The minimum distance from the edge of the door to the center of the rod is 3-1/4 inch. Check this location for clearances for installing the top and bottom keeper on the door jamb or floor. Also, 4-1/4" clearance is needed from the center of the rod to any obstructions beyond the front

face of the door. The minimum clearance on the other side of the door is 5" if a dead bolt is used and 3-3/4" if a hasp is used.

2. At the center line of the rod and 48" from the bottom of the door, drill a 1-1/4" hole **3/4" deep** in the door.
3. Position the plate with the handle stud at the center of the 1-1/4" hole and drill three 3/8" holes in the door to attach the plate.
4. Using three 3/8" X 4-1/4" flat head screws nuts and washers, attach the plate to the door. These screws must be cut off to match the thickness of the door.

IF YOU HAVE TWO HANDLES, INSTALL HANDLES ON DOOR AS FOLLOWS:

1. Determine the location of the center line of the rod. The minimum distance from the edge of the door to the center of the rod is 3-1/4 inch. Check this location for clearances for installing the top and bottom keeper on the door jamb or floor. Also, 4-1/4" clearance is needed from the center of the rod to any obstructions beyond the front face of the door.
2. At the center line of the rod and 48" from the bottom of the door, drill a 1-1/4" hole through the door.
3. Position the plate with the handle stud at the center of the 1-1/4" hole and drill three 3/8" holes in the door to attach the plates.
4. Measure the thickness of the door at the hole and cut the 7/8" x 3.5 square spindle tube to that length.
5. With both handles in the down position, hold one plate in position, slip the spindle tube over the head of the handle stud and then position other handle with the spindle tube over the head of the second handle stud.
6. Using three 3/8" X 4-1/4" flat head screws nuts and washers, attach the plate onto the door. These screws must be cut off to match the thickness of the door.

IF YOU HAVE THE HEAVY DUTY UNIT, INSTALL LOWER ROD SECTION ON DOOR AS FOLLOWS:
(Refer to Figure 13)

1. Attach the center link to the pivot link using the stud with 7/16-14 thread and lock nut.
2. Position two guides on the pointed rod. One is to be as close to the bottom of the door as possible. Drill two 1/2" holes in the door and bolt the guide on using 1/2-13 screws, nuts, and washers. Two lengths of screws are provided, use the shortest possible one.
3. Adjust the turnbuckle to give the proper extension of the pointed rod and tighten the jam nuts.
4. With the handle in the down position, locate the two remaining guides as high as possible for free movement and remaining on smooth portions of the rods and drill holes in the door and bolt the guides to door.

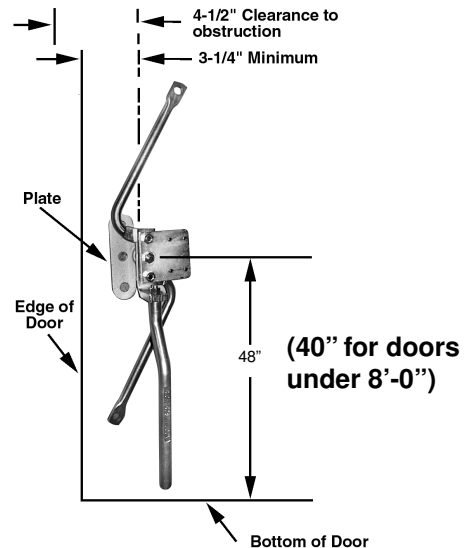


FIGURE 12



FIGURE 13

IF YOU HAVE THE EXTRA HEAVY DUTY UNIT,
INSTALL LOWER ROD SECTION ON DOOR AS
FOLLOWS: (Refer to Figure 14)

1. Attach the center link to the pivot link using the stud with 7/16-14 thread and lock nut.
2. Position the lower housing on the door as close to the bottom as possible, drill 1/2" holes in the door and bolt on using 1/2-13 screws, nuts, and washers. Two lengths of screws are provided, use the shortest possible one.
3. Adjust the turnbuckle to give the proper extension of the cremone bolt casting and tighten the jam nuts.
4. With the handle in the down position, locate the guide as high as possible for free movement, drill holes in the door and bolt the guide to door.



FIGURE 14

INSTALL UPPER ROD SECTION ON DOOR AS FOL-
LOWS:

1. Attach the center link to the pivot link using the stud with 7/16-14 thread and nut.
2. Position the upper housing or guide on the door as close to the top as possible, drill 1/2" holes in the door and bolt on using 1/2-13 screws, nuts, and washers. Two lengths of screws are provided, use the shortest possible one.
3. Adjust the turnbuckle to give the proper extension and tighten the jamb nuts.
4. With the handle in the down position, locate the guides as low as possible for free movement and remaining on smooth portions of the rods, drill holes in the door and bolt the guides to door.

IF YOU HAVE THE HEAVY HASP, INSTALL THE HEAVY
HASP ON THE DOOR AS FOLLOWS:
(Refer to Figure 15)

1. Attach the hasp staple to hasp bracket using 1/4-20 X 3/4 flat head screws and nuts.
2. Position hasp hinge over staple and drill 1/2" holes in door to attach hasp.
3. Attach hasp to door using the shortest 1/2" screws that will fit the door with lock nuts and flat washers.

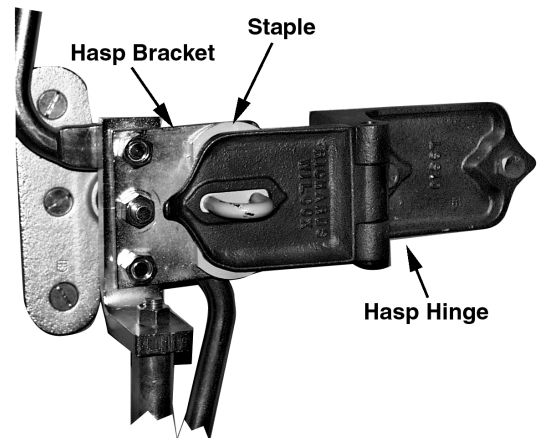


FIGURE 15

IF YOU HAVE A DEAD BOLT, INSTALL THE DEAD BOLT AS FOLLOWS: **(Auxillary Handle Only)**
(Refer to Figure 16)

1. Position the dead bolt so that the bolt fits between the fingers of the dead bolt bracket. Check operation of door in unlocked position before drilling holes.
2. Follow the dead bolt mounting instructions. Longer screws and lock extension is provided for thicker doors.

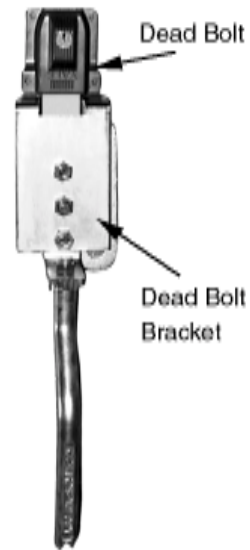


FIGURE 16

INSTALL KEEPERS AS FOLLOWS:

1. Measure the distance from the outside of the door to the outside of the bolt rod or bolt proper. Position the keeper slide in the keeper base keeping the distance "A" (the distance from the backstop to the far side of the target hole) at the above measurement or greater. Bolt the keeper in place using two 1/4 x 1/2 machine screws with the heavy duty unit and 5/16 x 3/8 machine screws with the extra heavy duty units. Refer to Figure 17
2. Position the keeper on the floor and the top keeper on the door jamb to hold the door in place when the cremone bolt is in the locked position. Fasteners for anchoring the keepers are by others. Refer to Figure 18



FIGURE 17

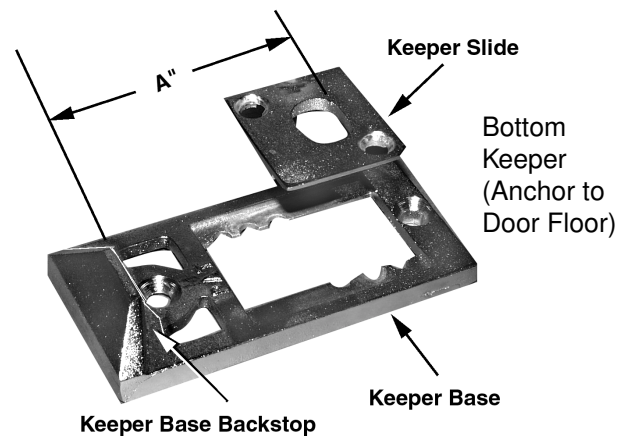


FIGURE 18

NUMBER OF EACH SIZE ROD TO USE IN TOP SECTION										
DOOR HEIGHT	HEAVY DUTY						EXTRA HEAVY DUTY			
	ROD LENGTH						ROD LENGTH			
	POINTED				THREADED		THREADED			
	14"	21"	27"	33"	18"	36"	18"	24"	30"	36"
6'-8" TO 7'-4"	1									
7'-4" TO 8'-0"		1								
8'-0" TO 8'-6"		1					1			
8'-6" TO 9'-0"			1					1		
9'-0" TO 9'-6"				1					1	
9'-6" TO 10'-0"		1			1					1
10'-0" TO 10'-6"			1		1		1	1		
10'-6" TO 11'-0"				1	1		1		1	
11'-0" TO 11'-6"		1				1	1			1
11'-6" TO 12'-0"			1			1		1		1
12'-0" TO 12'-6"				1		1			1	1
12'-6" TO 13'-0"		1			1	1	1	1	1	
13'-0" TO 13'-6"			1		1	1	1	1		1
13'-6" TO 14'-0"				1	1	1	1		1	1
14'-0" TO 14'-6"		1				2		1	1	1
14'-6" TO 15'-0"			1			2		1		2
15'-0" TO 15'-6"				1		2			1	2
15'-6" TO 16'-0"		1			1	2	1	1	1	1
16'-0" TO 16'-6"			1		1	2	1	1		2
16'-6" TO 17'-0"				1	1	2	1		1	2
17'-0" TO 17'-6"		1				3		1	1	2
17'-6" TO 18'-0"			1			3		1		3
18'-0" TO 18'-6"				1		3			1	3
18'-6" TO 19'-0"		1			1	3	1	1	1	2
19'-0" TO 19'-6"			1		1	3	1	1		3
19'-6" TO 20'-0"				1	1	3	1		1	3
20'-0" TO 20'-6"		1				4		1	1	3
20'-6" TO 21'-0"			1			4		1		4
21'-0" TO 21'-6"				1		4			1	4
21'-6" TO 22'-0"		1			1	4	1	1	1	3
22'-0" TO 22'-6"			1		1	4	1	1		4
22'-6" TO 23'-0"				1	1	4	1		1	4
23'-0" TO 23'-6"				1	1	4		1	1	4