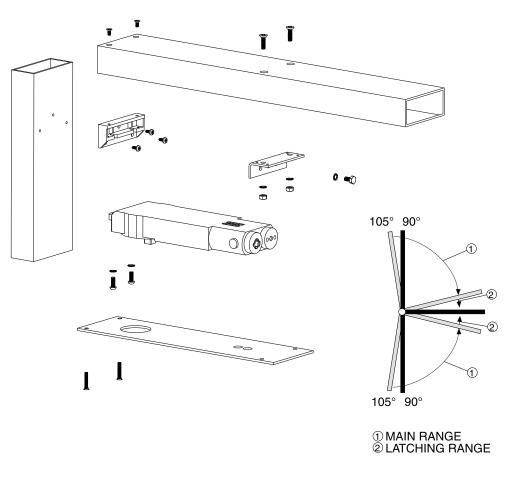
FALCON®

Models: 090, 090H, 105, 105H **POWER ADJUSTABLE**

CONCEALED OVERHEAD DOOR CLOSER INSTALLATION INSTRUCTIONS

FOR 105° OR 90° DOOR OPENING WITH OR WITHOUT HOLD OPEN CENTER HUNG, DOUBLE OR SINGLE ACTION DOORS SIDE LOADING, END LOADING AND OFFSET SLIDE ARM INSTALLATION SEPARATE VALVES FOR MAIN AND LATCH SPEED ADJUSTMENT



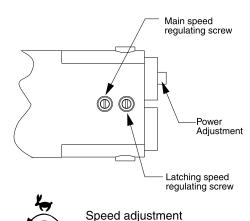
IMPORTANT

To prevent damage to door closer, do not drill into DOOR HEADER after installing closer.

PROPOSAL for DOOR CLEARANCE

both of the door stiles 1/8" (3mm) top door rail 1/8" (3mm) bottom door rail 3/16" (5mm)

SPEED ADJUSTMENT

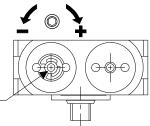


Max. 2 turns in

either direction.

General Notes:

- 1. Offset kits do not include butt hinges, pivots or arm covers.
- 2. Cover plate to be provided by frame manufacturer.



POWER ADJUSTMENT

Use 3/16" allen wrench provided to adjust.

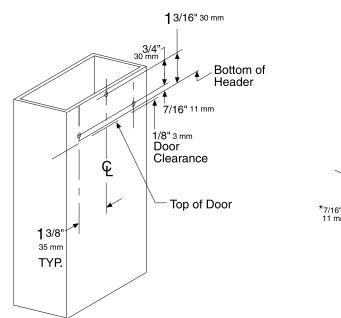
OHC 101 (Size 1-3)			
Size Number of Turns		Direction	
1	-4	Counter Clockwise	
2	0	Factory Setting	
3	+4	Clockwise	

OHC 100 (Size 3-5)		
Size Number of Turns D		Direction
3	-4	Counter Clockwise
4	0	Factory Setting
5	+4	Clockwise

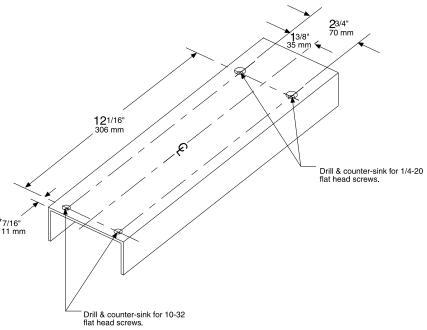




1. Prepare jamb and header for closer installation, as shown.



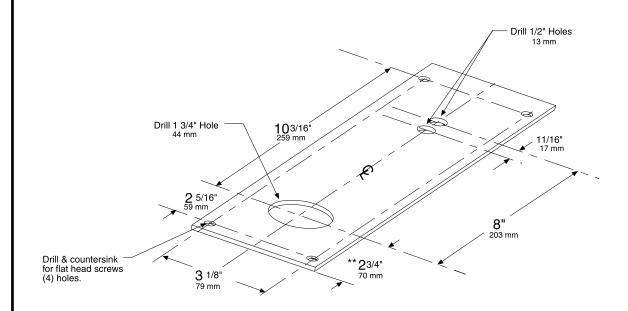
Drill holes in jamb for #10 pan head self-threading screws.



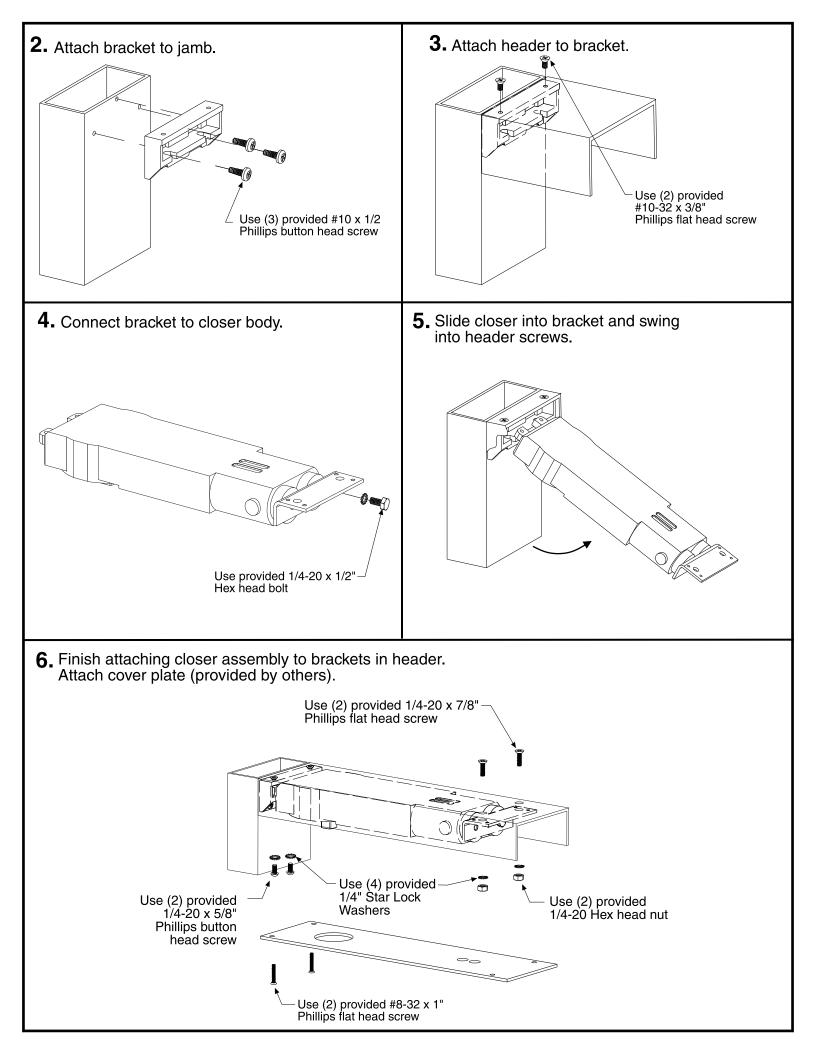
* This dimension may vary for some offset slide arm applications. See offset slide arm installation instruction sheets. Drill and counter-sink outside top surface of header, as shown.

Cover Plate Template

(Cover plate & fasteners to be provided by frame manufacturer.)

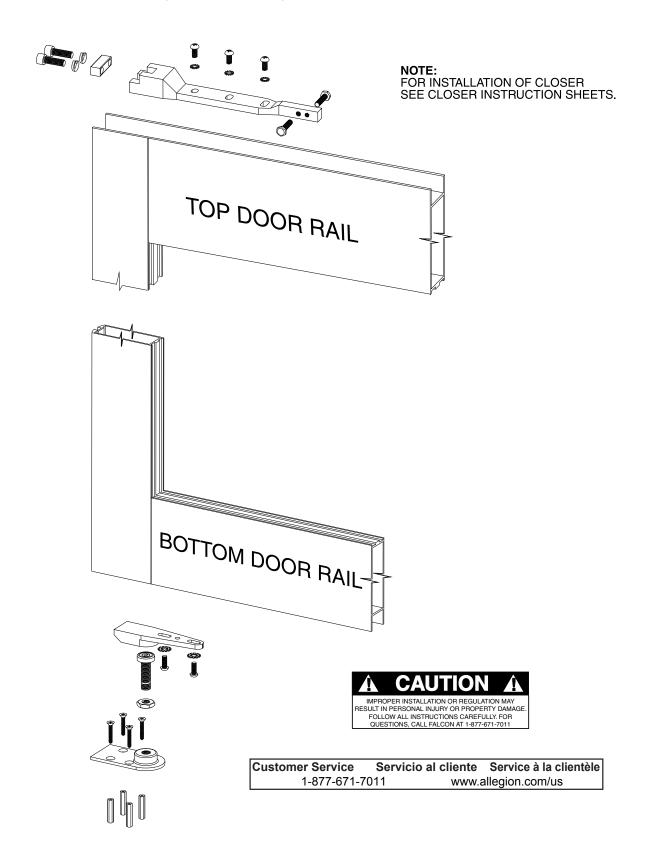


** This dimension may vary for some offset slide arm applications. See dimension "A" in charts located within offset arm instructions.



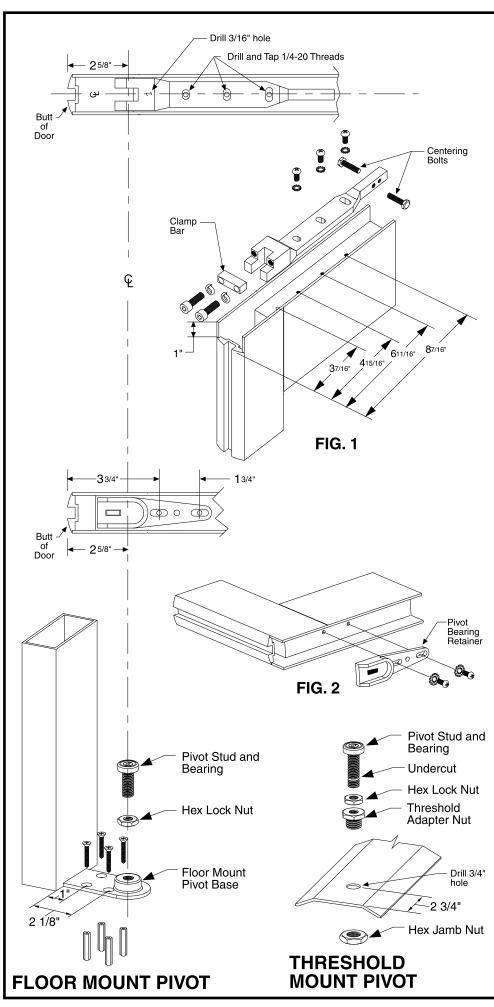
"A" TYPE END LOAD ARM INSTALLATION INSTRUCTIONS

CENTER HUNG, DOUBLE OR SINGLE ACTION DOORS
FOR 1" DEPTH TOP RAIL









TOP DOOR RAIL

"A" Type End Loading Arm for 1" depth Top Rail

Steps for Installation:

- 1. Make a 1" deep cut-out in butt of door (see Fig. 1).
- 2. Drill or drill and tap holes in top of door, as shown.
- 3. Position arm in door by placing arm pin in 3/16" hole.
- 4. Install arm using three 1/4-20 x 5/8" pan head machine screws and lock washers. Center arm in the top rail by adjusting the two 1/4 -20 x 1" hex head

Note: After door is installed, secure with clamp bar and the two 1/4-20 x 1" socket head clamp bar cap screws with locking washers. These must be tightened securely.

BOTTOM DOOR RAIL

End Loading

Steps for Installation:

- Make cut out in butt of door equal to depth of the bottom rail (see Fig. 2).
- 2. Drill and tap 1/4-20 holes in bottom rail of door,
- Install pivot bearing retainer in bottom of door using two 1/4-20 x 5/8" pan head machine screws and lock
- 4. Laterally adjust center of pivot bearing retainer 2 5/8" from butt of door (not including weatherstripping) and tighten screws securely.

NOTE: For shallow bottom rail depth, the pivot bearing stud may be shortened by sawing off at undercut 1/2" from bottom.

FLOOR MOUNT PIVOT

- Steps for Installation:
 1. Position pivot base against door jamb on hinge side.
 Mark and drill 1/4" holes 1 1/2" deep in floor for plastic expansion plugs.
- 2. Mount base using #12 x 1 1/4" plastic expansion plugs and #12 x 1 1/4" flat head wood screws.
- 3. Install pivot stud and bearing with 1/2-20 hex lock nut, as shown and adjust bearing height for proper door clearance and firmly tighten lock nut.
- 4. When using threshold, drill 1 1/4" hole for clearance of pivot base on center line 2 3/4" from hinge end of threshold.

NOTE: When threshold is not used, pivot bearing stud must be shortened by sawing off at undercut 1/2" from bottom.

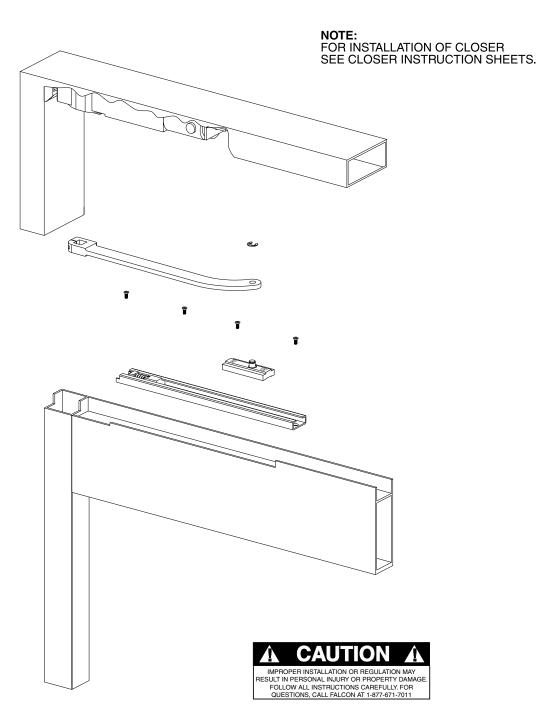
THRESHOLD MOUNT PIVOT

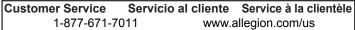
Steps to Installation:

- 1. Drill 3/4" hole in threshold, as shown.
- 2. Install threshold adapter nut from top and secure with 3/4-16 hex jamb nut underneath.
- 3. Install pivot stud and bearing with 1/2-20 hex lock nut, as shown and adjust bearing height for proper door clearance and firmly tighten lock nut.

OFFSET SLIDE ARM INSTALLATION INSTRUCTIONS

FOR OFFSET PIVOT OR BUTT HINGED DOORS FOR 7/8" DEPTH TOP RAIL

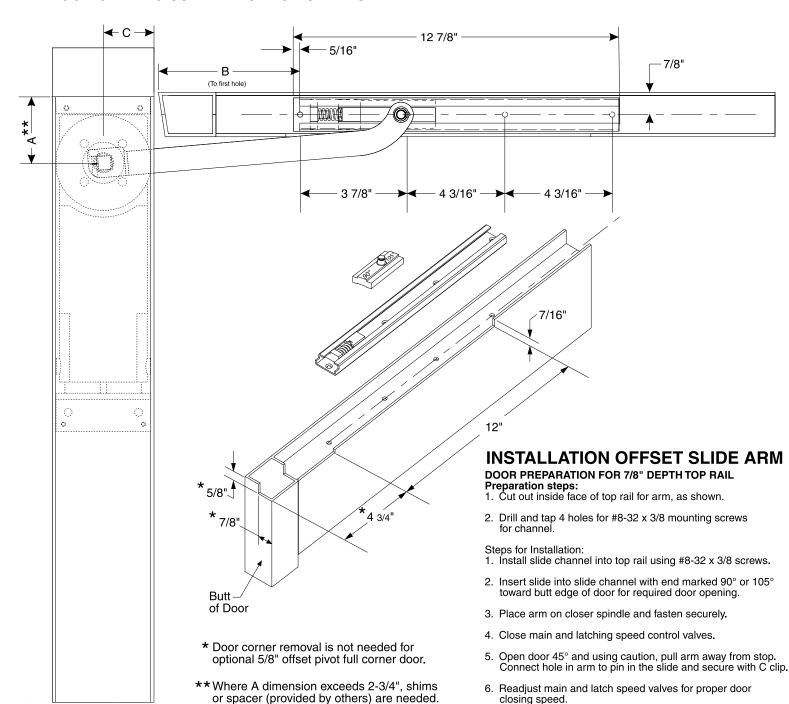








TO DETERMINE HOW THE DOOR IS HUNG AND DOOR OPENING USE APPLICATION CHARTS.



NOMINAL OPENING	3/4" OFFSET PIVOT FLUSH DOOR		
	A**	В	С
105°	3 3/4"	5 5/8"	2"
90°	3"	5 5/8"	2"

NOMINAL OPENING	5/8" OFFSET PIVOT 1/8 RECESSED DOOR		
	A**	В	С
105°	3 3/4"	5 21/32"	2"
90°	3"	5 11/16"	2"
30	S	3 11/16	

Note: For mounting other than those listed in charts, contact FALCON at 1-800-815-1517.

NOMINAL OPENING	7/16" BUTT HINGES FLUSH DOOR		
	Α	В	С
105°	2 3/4"	5 5/32"	2"
90°	2 3/4"	5 5/16"	2"

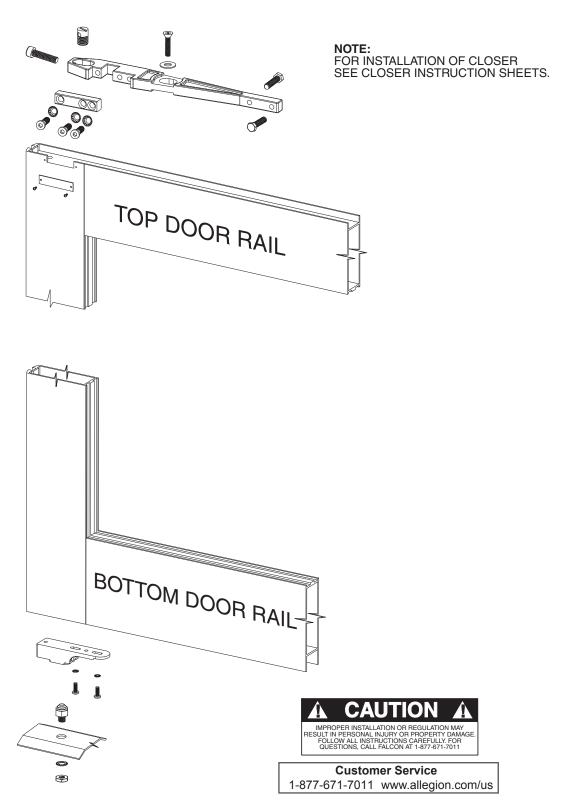
NOMINAL OPENING	7/16" BUTT HINGES 1/8 RECESSED DOOR		
	Α	В	С
105°	2 3/4"	5 5/32"	2"
90°	2 3/4"	5 1/4"	2"

(OPTION FOR FULL CORNER DOOR)

NOMINAL OPENING	5/8" OFFSET PIVOT 1/8 RECESSED DOOR		
	A**	В	С
105°	4 1/2"	6 3/8"	2 1/8"
90°	3 3/4"	5 11/16"	2 1/8"

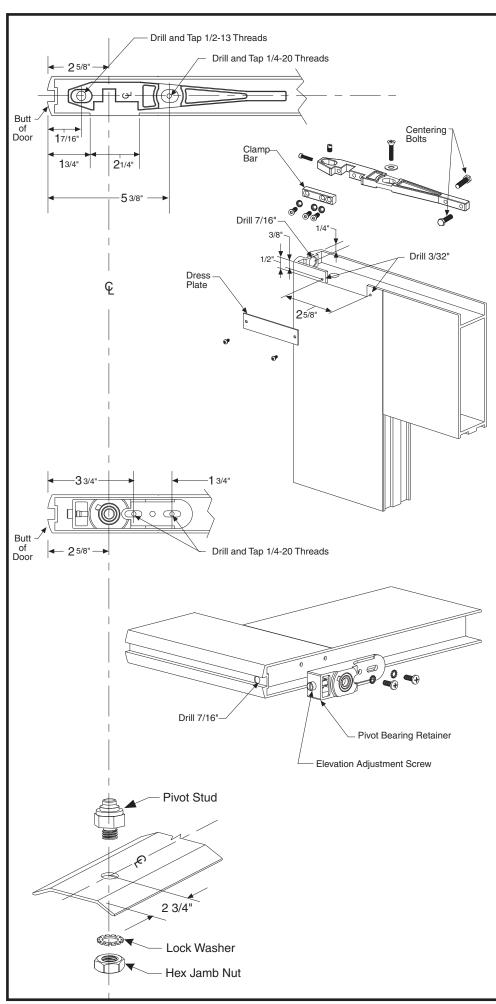
"S" TYPE SIDE LOAD ARM INSTALLATION INSTRUCTIONS

CENTER HUNG, DOUBLE OR SINGLE ACTION DOORS FOR 1/2" DEPTH TOP RAIL









TOP DOOR RAIL

"S" Type Side Loading Arm

Steps for Installation:

- 1. Drill and tap holes in top of door, as shown.
- 2. Make 2 1/4" x 1/2" cut-out in top of door, as shown. **Note**: Cut-out must be on the inside of the door.
- 3. Drill 7/16" door adjustment hole.
- 4. Install arm using 1/4" -20 x 1 1/4" flat head machine screw and 7/8" washer.
- Install 1/2-13 x 3/4" arm stud and 1/4-20x 1 1/8" dome head arm adjustment screw. Laterally adjust center of the arm spindle retainer 2 5/8" from butt of door (not including weatherstripping). Center arm in the top rail by adjusting the two 1/4-20 x 1" hex head centering holts
- Install door and secure using arm clamp bar and three 1/4-20 x 7/8" socket head screws with lock washers. Tighten fasteners securely.
- After installation of door, attach dress plate with self-threading screws.

BOTTOM DOOR RAIL

"GE" Side Loading Pivot

Steps for Installation:

- Drill and tap 1/4-20 holes in bottom rail of door, as shown.
- 2. Drill 7/16" door adjustment hole 1/2" from inside of bottom door rail.
- Install pivot bearing retainer in bottom of door using two 1/4-20 x 5/8" pan head machine screws and lock washers.
- 4. Laterally adjust center of pivot bearing retainer 2 5/8" from butt of door (not including weather stripping) and tighten screws securely.

THRESHOLD

Steps for Installation:

- 1. Drill 1/2" hole in threshold, as shown.
- 2. Install pivot stud from top and secure hex jamb nut & lock washer underneath, as shown.

Note: For 3/16" height adjustment, loosen arm clamp bar screws before adjusting elevation of door. Retighten screws securely after adjustment.