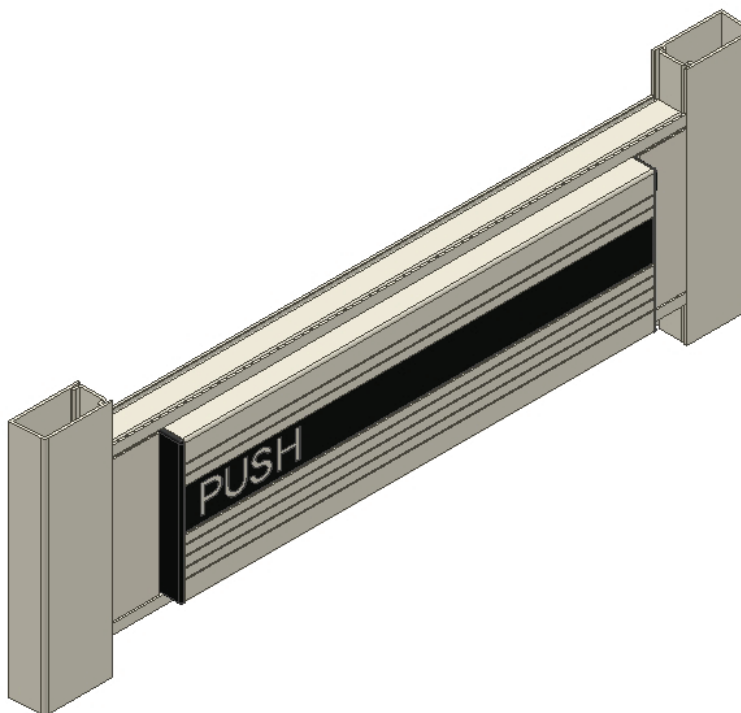


PANELINE® EXIT DEVICE

SERVICE INSTRUCTIONS

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DOGGING INSTRUCTIONS AND LOCK CYLINDER INSTALLATION
DOGGING INSTRUCTIONS

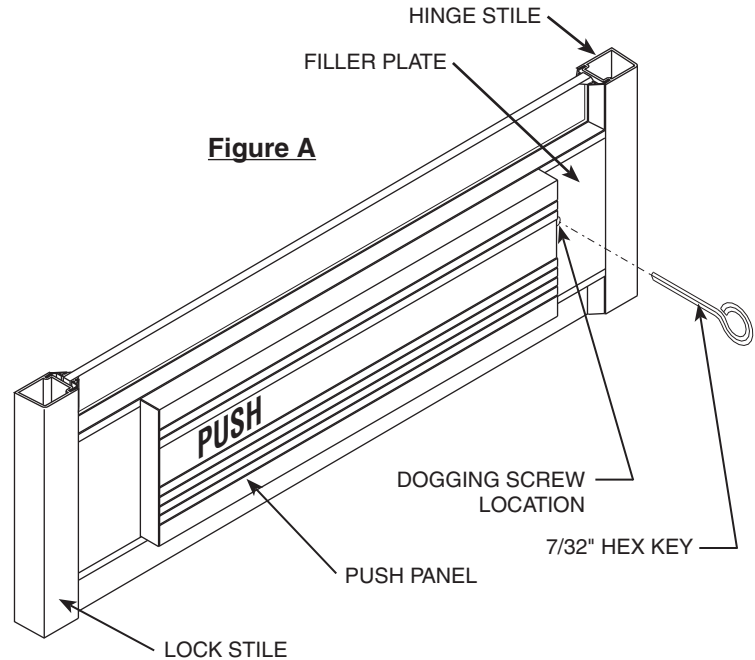
To secure the exit device in the unlocked (dogged) position, follow this sequence:

1. Fully depress push panel.
2. Insert dogging hex key (provided) into the access hole in the middle of the filler plate closest to the hinge stile. (See Figure A)
3. Turn key one-quarter turn clockwise.

UN-DOGGING INSTRUCTIONS

To return the exit device to the normal operation, follow this sequence:

1. Fully depress push panel.
2. Insert dogging hex key (provided) into the access hole in the middle of the filler plate closest to the hinge stile. (See Figure A)
3. Turn key one-quarter turn counterclockwise.
4. Release panel.


INSTALLING CYLINDERS BY OTHERS

THE FOLLOWING CYLINDER BRANDS MAY BE USED WITH KAWNEER'S PANELINE® CR90 EXIT DEVICE:

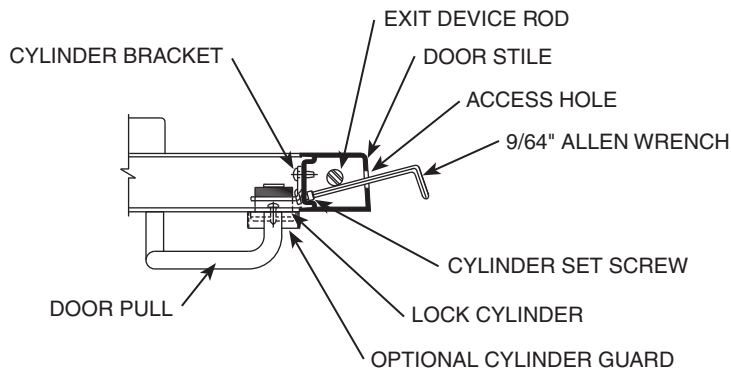
<u>MANUFACTURER</u>	<u>CAM NUMBER</u>
ELKEM-VING	9001
SCOVILL (YALE)	1161
UNICAN (ILCO)	15-L4002-64
SUPERIOR	A
SARGENT	13-0097
BEST	IEC4
SCHLAGE	B502-191
CORBIN / RUSSWIN	A62

NOTE: CYLINDER MUST HAVE 0.950 CAM SWEEP. IF CAM SWEEP IS LONGER IT MUST BE FILED DOWN.

TO REMOVE LOCK CYLINDER

1. Open door and insert 9/64" allen wrench through hole in edge of door stile at an angle that will engage the cylinder set screw.

Figure B



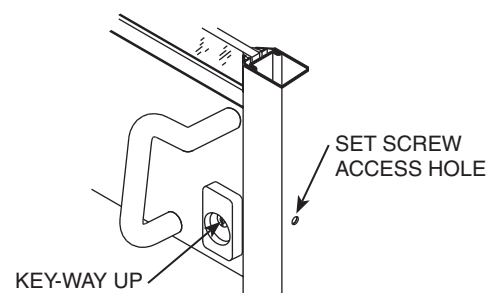
2. Loosen set screw about three full turns. Insert key part way into cylinder key-way and turn to the left to remove lock cylinder.

TO REPLACE CYLINDER

3. Install replacement cylinder with key-way up.

NOTE: Length and tip contour of new cylinder cam must match old cylinder cam. Old cam may be used if necessary.

Figure C

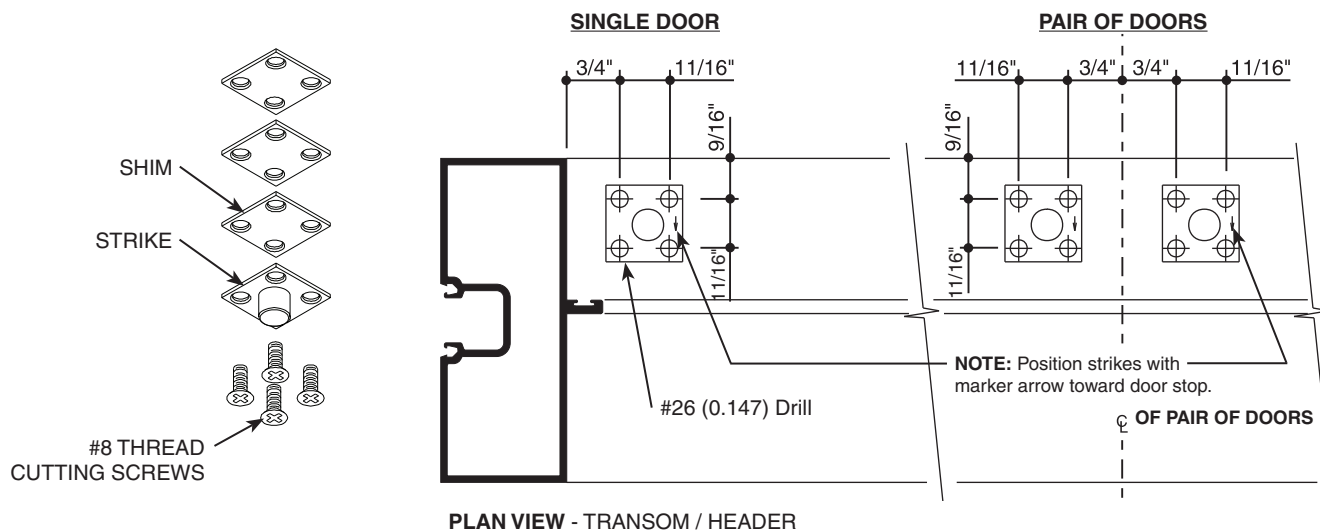


4. Tighten cylinder set screw and check unlocking action with key.

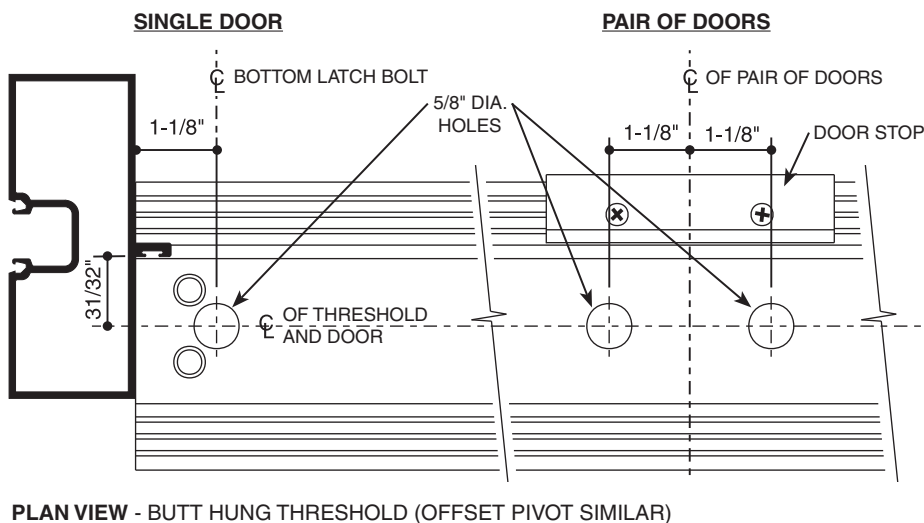
FRAME PREPARATION AND STRIKE ADJUSTMENT

TOP STRIKE INSTALLATION

Install the top strike in the normal position with the marker arrow toward door stop (see sketches below). The strike can be rotated for adjustment purposes, (1) space in and (2) spaces out from normal point. Shim strike to accommodate top door clearance

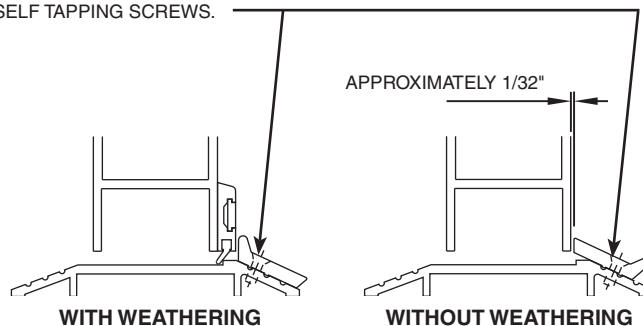


THRESHOLD INSTALLATION



DOOR STOP INSTALLATION

USING 033-981 THRESHOLD STOP PACKAGE AS A TEMPLATE, DRILL (2) 5/32" (0.156) DIAMETER HOLES AND SECURE STOP WITH SELF TAPPING SCREWS.



CHASSIS REMOVAL

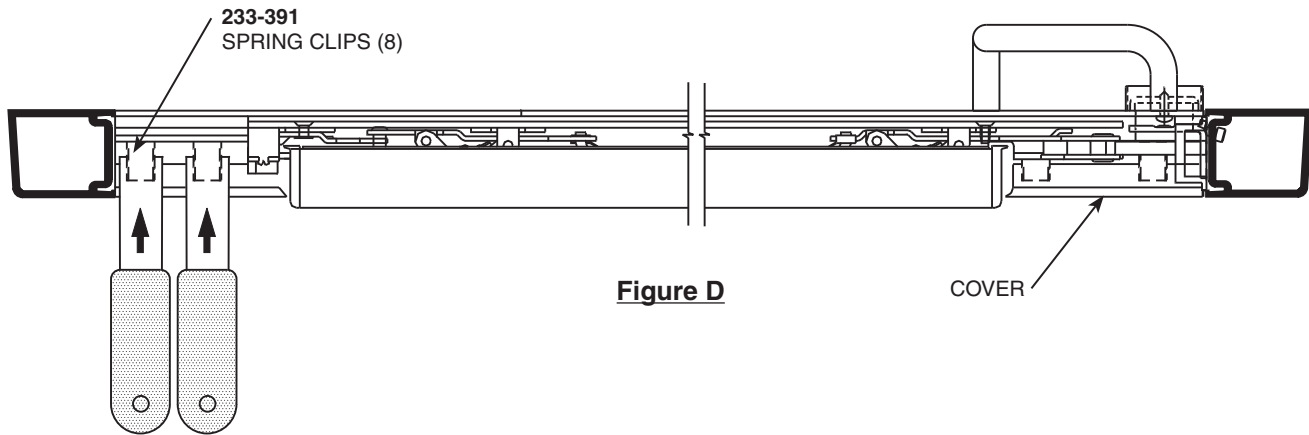


Figure D

1. Dog unit down per instructions on page 2.
2. Being careful not to scratch any finished surfaces, use putty knife at each spring clip location.
3. To remove filler plate, push putty knife in far enough to engage clips and pry away from filler plate (towards vision area).
4. Repeat steps 2 and 3 on the opposite side.

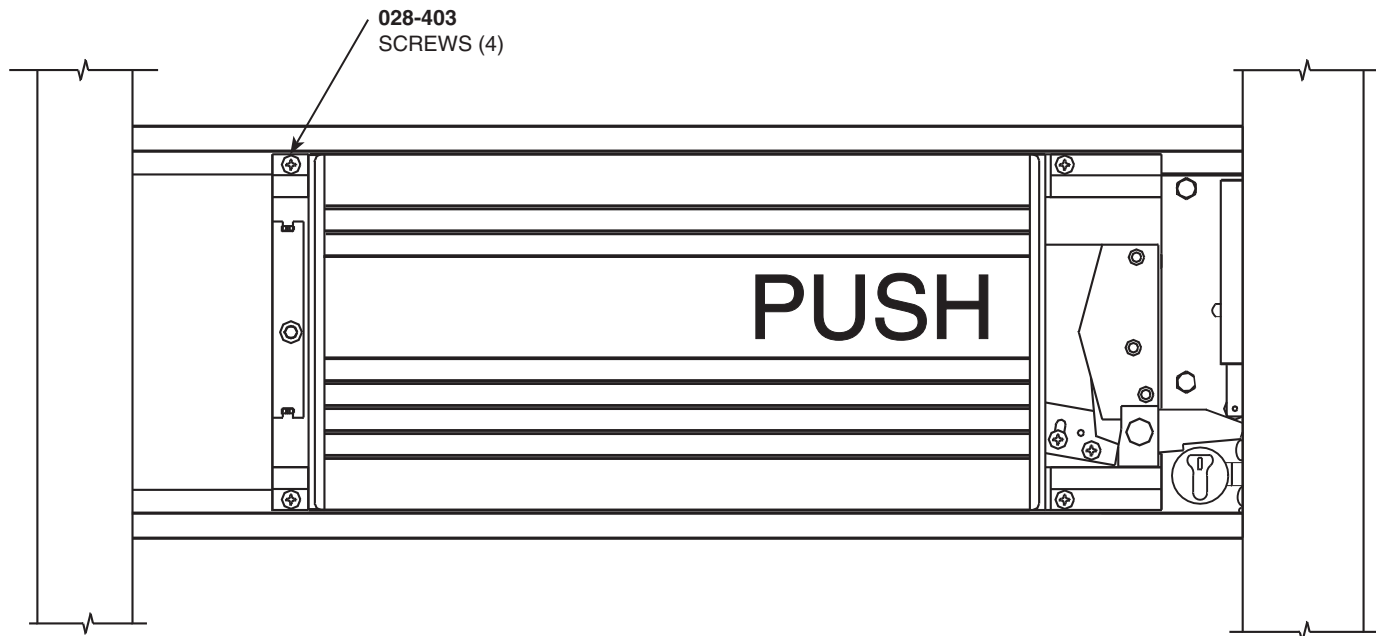


Figure E

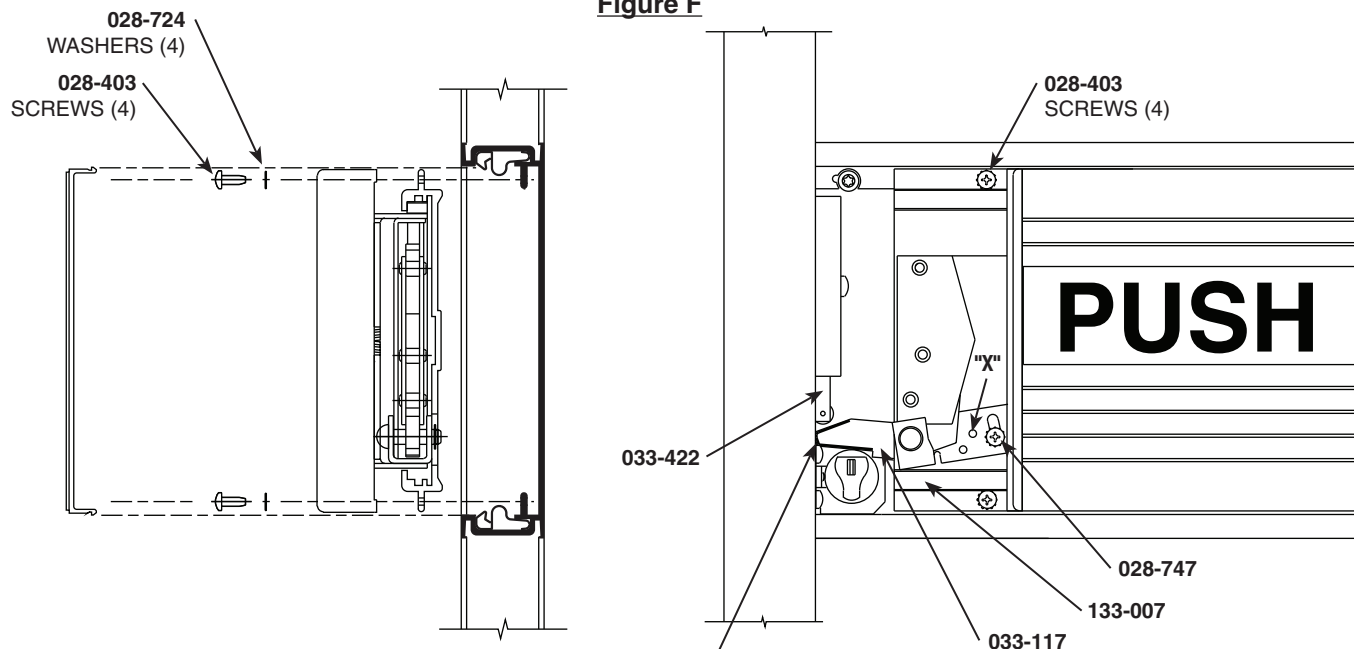
1. Only four mounting screws 028-403 need be removed to take out the chassis assembly.
2. Spring clips may need to be moved over to allow clearance for the chassis removal.

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INSTALLATION OF CHASSIS

Figure F



IMPORTANT:
BRUSH GREASE (033-203) ON ALL
SURFACES AS SHOWN BY THE DARK LINE.

1. Install and grease lever before chassis assembly. **IMPORTANT:** Grease surfaces of lever as shown
2. Install chassis assembly using screws 028-403.

3. Filler Plate Installation:

Equipment needed:

(4) Spring Clips per filler plate

Putty Knife *or* Small Straight Screw Driver

NOTE: Be careful not to scratch any finished surface of the Paneline.

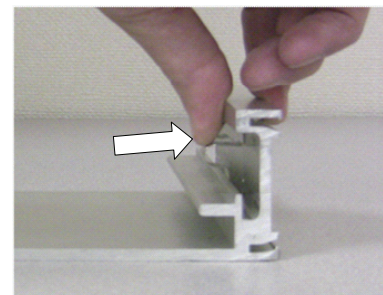
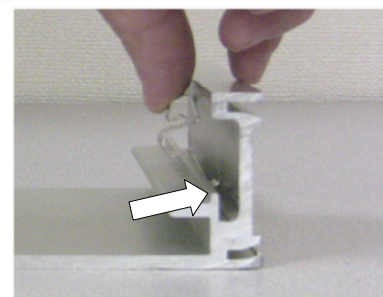


4. Installation Procedure: Dog down the unit!

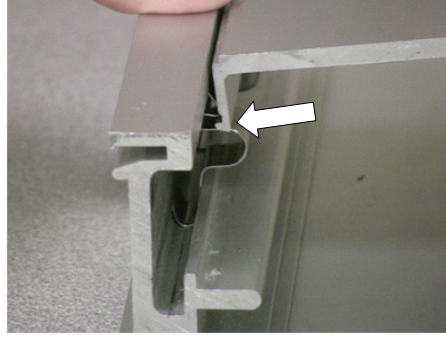
Install the spring clips with the leg of the spring clip inserted into the channel as shown.

Press down with your fingers until the spring clip engages completely.

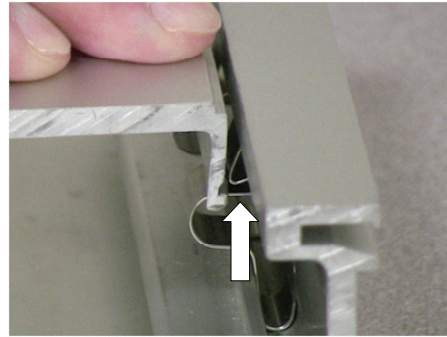
Insert two spring clips at both the top and the bottom.



5. **Position the bottom side of the filler plate** into the exit device, engaging the bottom spring clips.

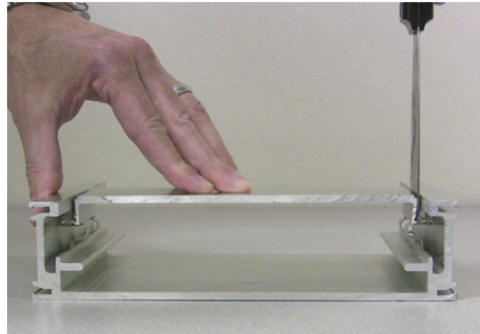


6. **Gently push the filler plate into a closed position**, engaging the top spring clips.



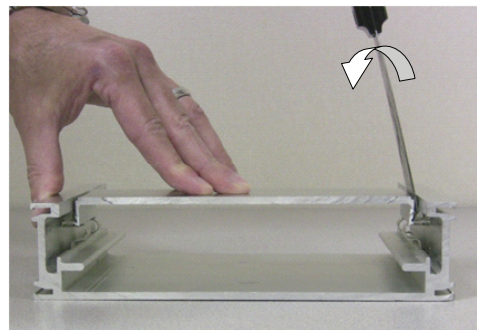
7. Insert a putty knife or small 1/8" straight screw driver (approximately 3/16" deep) between the exit device and filler plate directly above the top spring clip.

DO NOT PRESS DOWN!



8. With the putty knife or screw driver in place, **carefully pull down on the handle while pushing down lightly on the filler plate** to engage with a spring clip.

Note: You will hear and feel a click as the filler plate and the spring clip are engaged!



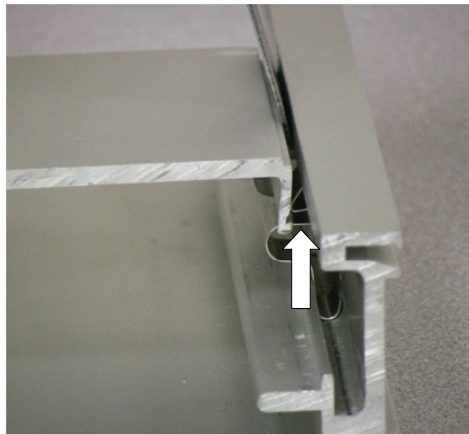
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9. Repeat the above step to engage the filler plate with the other spring clip.

All four (4) spring clips must be engaged with the filler plate.

Install the filler plate on the other side of the Paneline with the same care and attention to engaging the spring clips while avoiding scratching any finished surface.



10. With rods in locked position, rotate lever axle adjusting bracket 133-007 until lever arm 033-117 contacts the bottom of traveler firmly without lifting it. Tighten binder screw 028-747 to hold lever in place for operational testing.
11. Stand door up with 3/4" spacer between door and floor to allow free movement of exit device rods, then check for proper panel and key operation.
- A. Push panel in and bottom bolt should sit flush with bottom of door.
 - B. Trip upper bolt and bottom bolt should fall to approximately 1/2" from bottom of door.
 - C. Key should draw bottom bolt up.
 - D. Using dogging key set panel in dogged position. Bottom bolt should not project below bottom of door more than 1/16". With unit dogged, trip upper bolt. The top latch should pivot freely (See Figure G). If binding occurs the rod will need to be lengthened.

IMPORTANT!

12. After testing unit thoroughly, drill a hole through the chassis, at location "X", using #23 (.154 dia.) drill bit. If an error has been made and more adjustment is required, the extra hole in bracket 133-007 can be used.

WARNING! Use a shop cloth below bracket when drilling to gather chips. DO NOT blow chips into operating mechanism.

13. Lock the adjusting bracket into place with binder screw 028-747.

14. Snap both filler plates into cross rail.

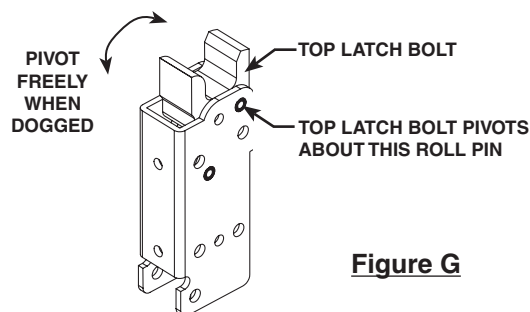
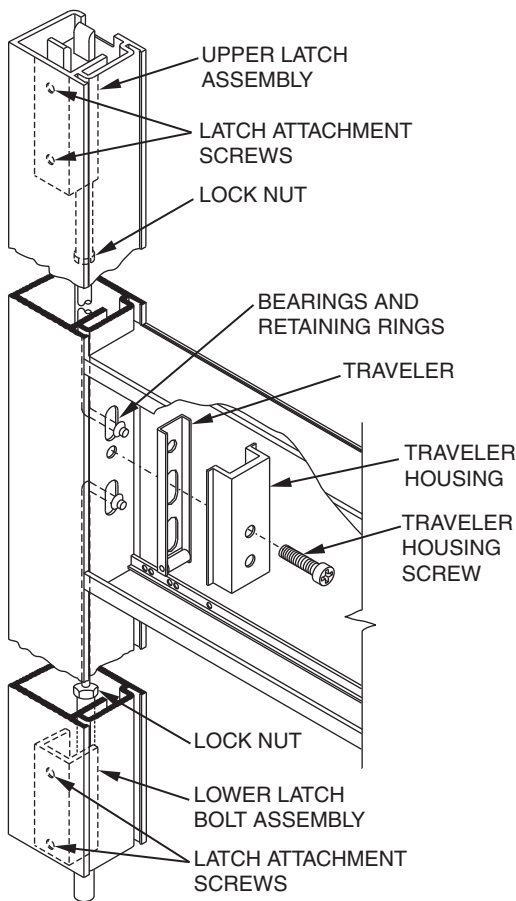
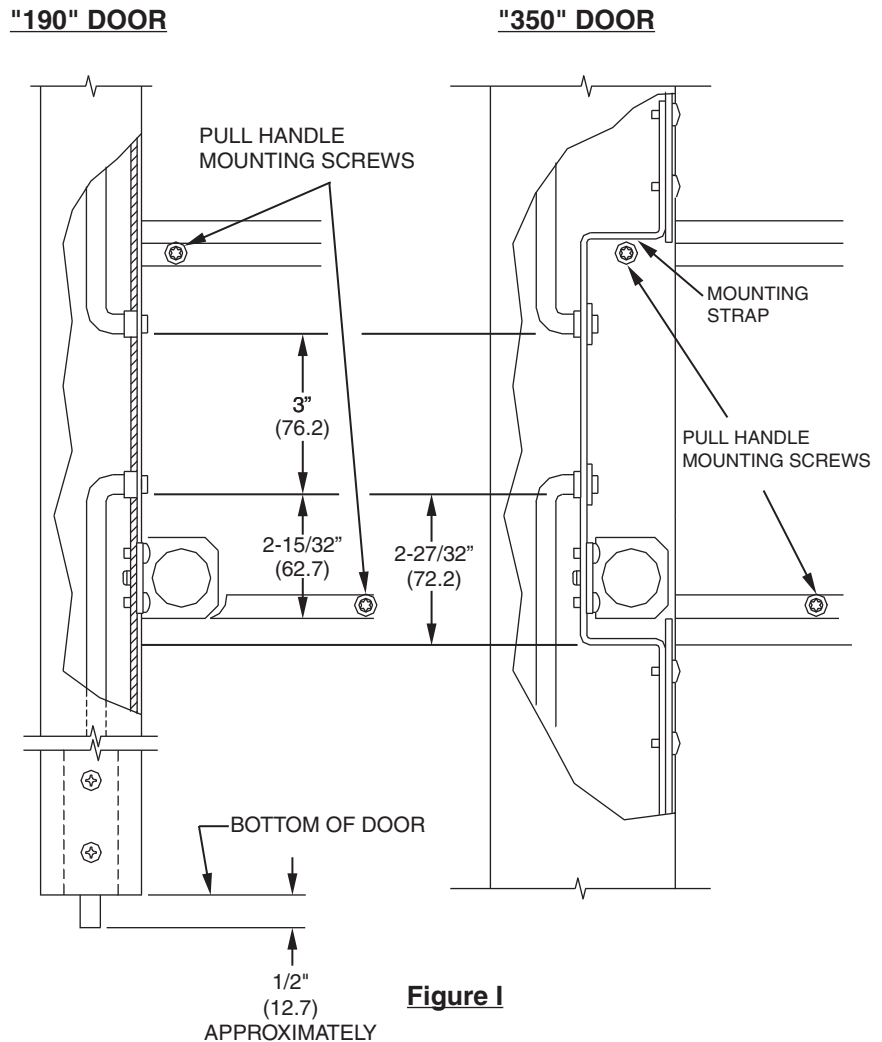


Figure G

ROD ADJUSTMENT


Figure H

Figure I

ROD LENGTH ADJUSTMENT

1. TYPE "190" AND "350" DOORS:
 - a. Remove push panel and chassis assembly and filler plates per instructions on pages 4 and 5.
 - b. Remove traveler housing and traveler to expose rod ends (see Figure H).
 - c. Check rod length dimensions per Figure G on page 5. If rod lengths are not correct, proceed to step "d" below.
 - d. Remove retaining ring and bearing from rod to be adjusted.
 - e. Remove (2) latch attachment screws and slide rod assembly out of door stile.
 - f. Loosen lock nut and turn the threaded rod, clockwise to shorten, counterclockwise to lengthen (one revolution of rod equals $\frac{3}{64}$ " (1.2) of travel). Align rod perpendicular to latch case and tighten lock nut.

NOTE: If one rod is adjusted, the other rod will probably require adjustment to maintain the 3" (76.2) separation (see Figure I).

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ROD ADJUSTMENT

"500" DOOR

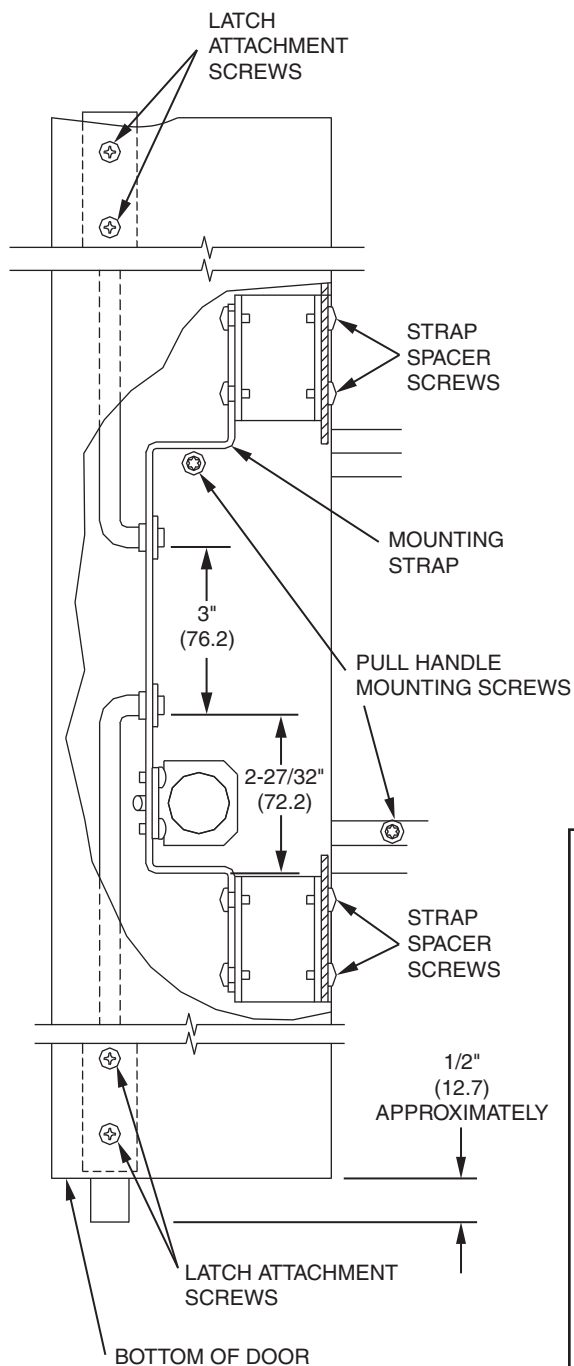


Figure J

ROD LENGTH ADJUSTMENT

2. TYPE "500" DOORS:

- Remove push panel and chassis assembly and filler plates per instructions on pages 4 and 5.
- Remove traveler housing and traveler to expose rod ends (see Figure H on page 6).
- Check rod length dimensions per Figure J. If rod lengths are not correct, proceed to step "d" below.
- Remove (4) mounting strap spacer screws, (4) latch attachment screws, (2) at top and (2) at bottom of door and lock cylinder, if so equipped, then slide complete rod assembly out of door stile.
- Loosen lock nut and turn the threaded rod, clockwise to shorten, counterclockwise to lengthen (one revolution of rod equals $\frac{3}{64}$ " (1.2) of travel).

NOTE:

If one rod is adjusted, the other rod will probably require adjustment to maintain the 3" (76.2) separation (see Figure J).

WHERE TO MEASURE WHEN ORDERING VARIABLE PARTS FROM PAGES 8 AND 9.

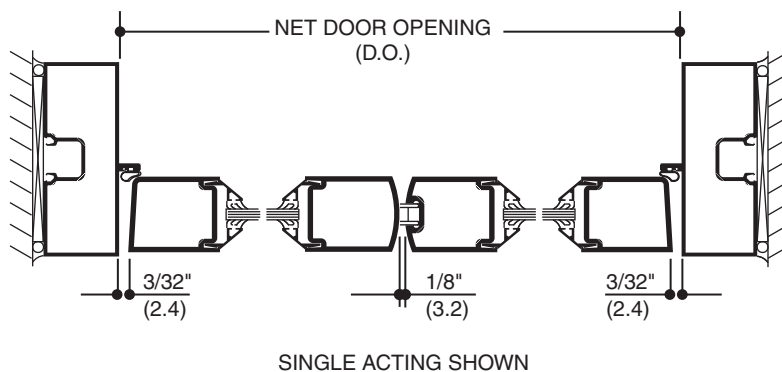
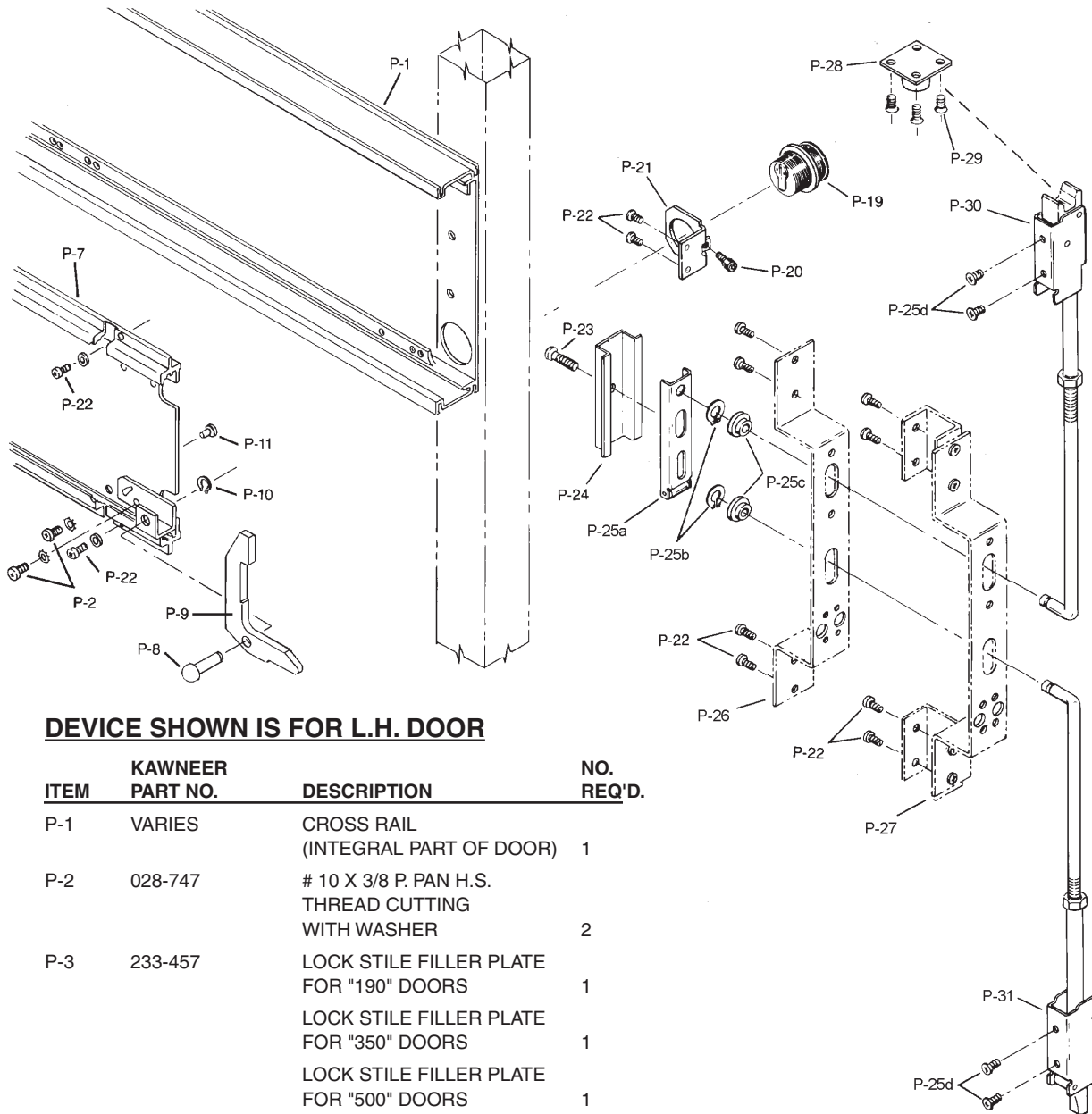


Figure K

ILLUSTRATED PARTS BREAKDOWN

DEVICE SHOWN IS FOR L.H. DOOR

ITEM	KAWNEER PART NO.	DESCRIPTION	NO. REQ'D.
P-1	VARIES	CROSS RAIL (INTEGRAL PART OF DOOR)	1
P-2	028-747	# 10 X 3/8 P. PAN H.S. THREAD CUTTING WITH WASHER	2
P-3	233-457	LOCK STILE FILLER PLATE FOR "190" DOORS	1
		LOCK STILE FILLER PLATE FOR "350" DOORS	1
		LOCK STILE FILLER PLATE FOR "500" DOORS	1
P-4	233-494	PIVOT STILE FILLER PLATE FOR 3'-0" "190" DOORS	1
		PIVOT STILE FILLER PLATE FOR 3'-0" "350" DOORS	1
		PIVOT STILE FILLER PLATE FOR 3'-0" "500" DOORS	1
		PIVOT STILE FILLER PLATE FOR 3'-6" "190" DOORS	1
		PIVOT STILE FILLER PLATE FOR 3'-6" "350" DOORS	1
		PIVOT STILE FILLER PLATE FOR 3'-6" "500" DOORS	1
		PIVOT STILE FILLER PLATE (VARIABLE) SPECIFY NET DOOR OPENING WIDTH*	1

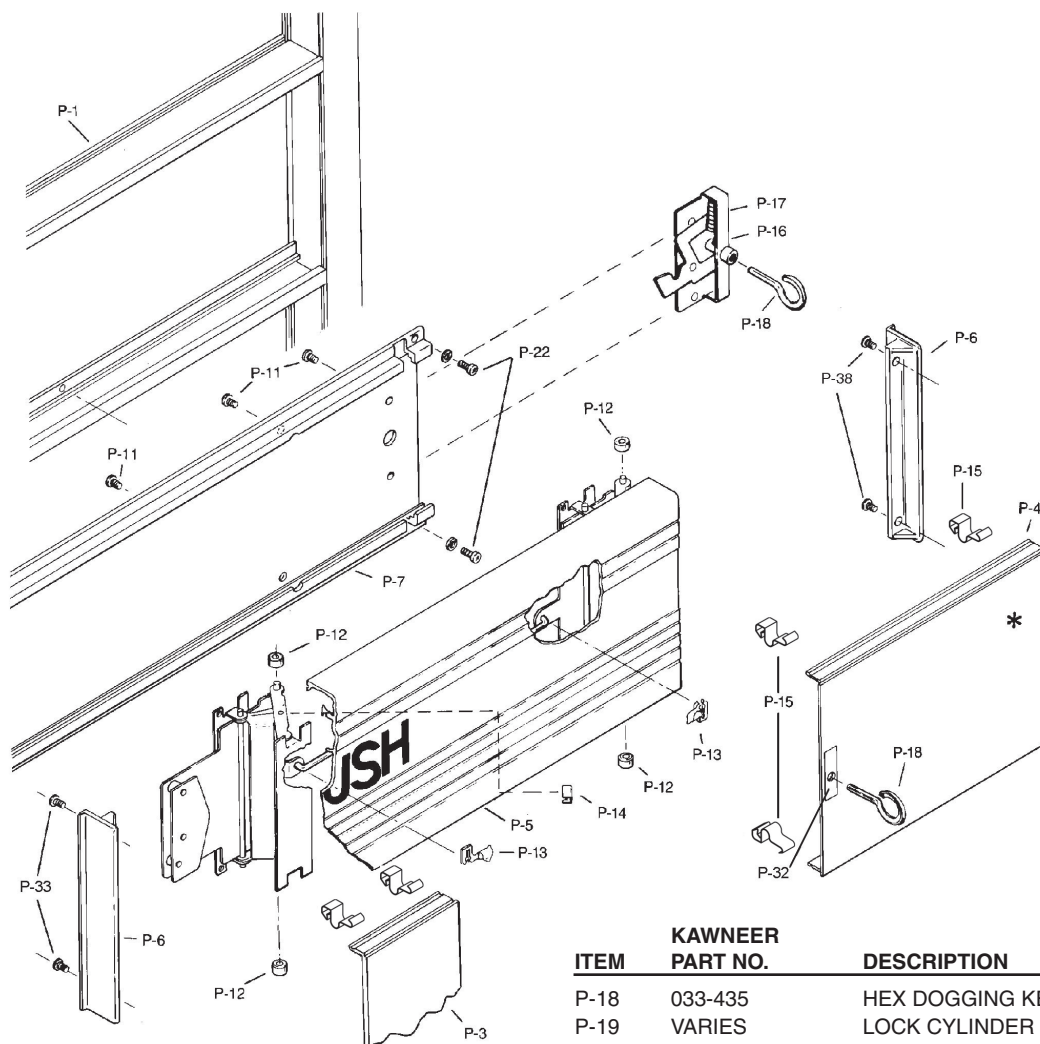
* Part of P-25 package.
NOT SOLD SEPARATELY

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ILLUSTRATED PARTS BREAKDOWN



ITEM	KAWNEER PART NO.	DESCRIPTION	NO. REQ'D.
P-5	233-530	PUSH PANEL ASS'Y R.H.	1
	233-531	PUSH PANEL ASS'Y L.H.	1
P-6	033-118	PUSH PANEL DRESS CAP	2
P-7	233-497	CHASSIS	1
P-11	028-352	#10 x 7/16" P.F.H. U'CUT	6
‡ P-12	033-124	SCREW THREAD FORMING	4
		TOGGLE WHEEL	4
P-13	033-129	CONNECTING ROD CLIP	2
P-14	033-128	SAFETY CLIP	4
P-15	233-391	COVER SPRING CLIP	8
P-16	033-093	SLIDE ACTUATING PIN	1
P-17	033-091	DOGGING ASS'Y (INCLUDES SLIDE ACTUATING PIN)	1
P-8	233-448	LEVER AXLE	1
P-9	033-117	LEVER	1
P-10	033-136	RETAINING RING	1

‡ INCLUDED WITH PUSH PANEL ASSEMBLY P-5

ITEM	KAWNEER PART NO.	DESCRIPTION	NO. REQ'D.
P-18	033-435	HEX DOGGING KEY	1
P-19	VARIES	LOCK CYLINDER	1
P-20	028-408	#8-32 x 1/2 S.H.C.S.	1
P-21	033-208	LOCK CYL. NUT BRACKET	1
P-22	028-403	#10-24 x 1/2 P.PAN H.S. THREAD CUTTING	6
		"190" DOORS	10
		"350" DOORS	14
		"500" DOORS	14
P-23	028-751	#12 x 1 P.PAN H.S. THREAD FORMING	1
P-24	233-498	TRAVELER HOUSING	1
P-25	033-215	SHIP LOOSE PARTS PKG.	1
a	—	TRAVELER	(1)
b	—	RETAINING RING	(2)
c	—	BEARING	(2)
d	—	#10-32 x 1/4 P.F.H.S.	(4)
P-26	033-209	MOUNTING STRAP	1
		"350" DOOR ONLY	1
P-27	033-211	MOUNTING STRAP	1
		"500" DOOR ONLY	1
P-28	033-920	STRIKE PACKAGE	1
P-30	033-466	UPPER LATCH ASSEMBLY	1
P-31	033-530	LOWER LATCH BOLT ASS'Y	1
P-32	133-173	DOGGING INSTRUC. LABEL	1
P-33	028-352	#10 x 1/2 P.P.H. THREAD CUTTING	4

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GLAZING INSTRUCTIONS

* PARTS INCLUDED IN DOUBLE
GLAZING ACCESSORY PACKAGE

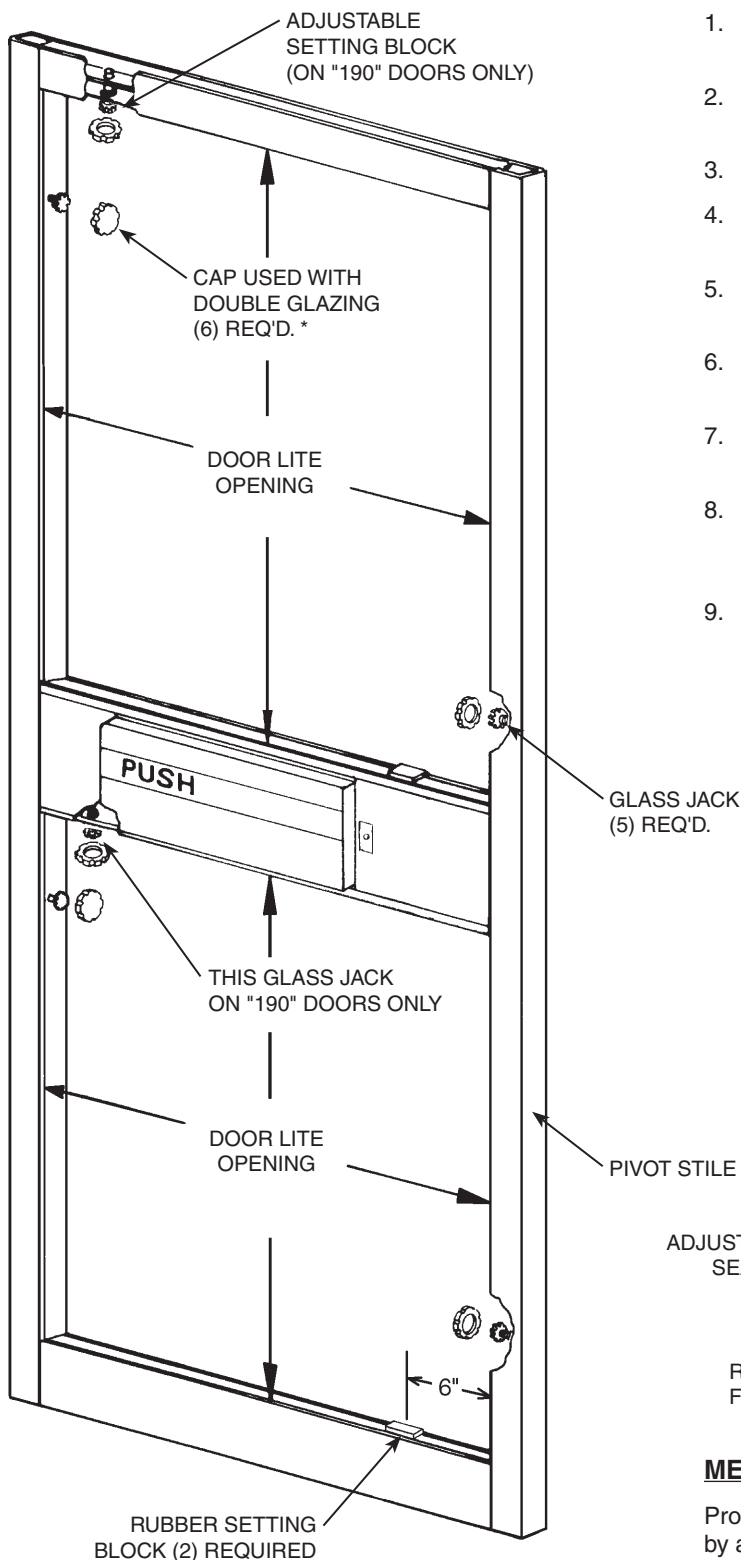
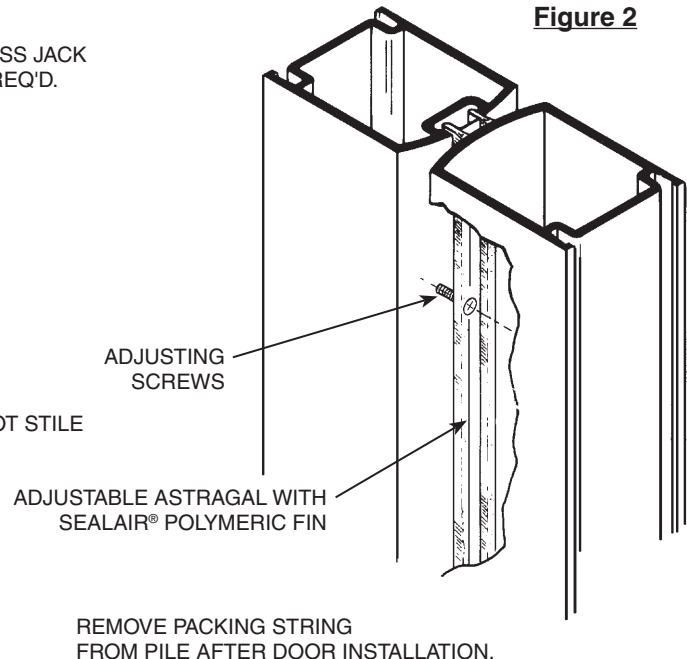


Figure 1

AFTER INSTALLING DOOR IN NORMAL MANNER REQUIRED BY METHOD OF PIVOTING:

1. Raise adjustable setting block to maximum retracted position.
2. Install vertical glass stops first, then horizontals on one side of door.
3. Install rubber setting blocks (Figure 1).
4. Cut glass 3/8" (9.5) less than door lite opening width and height for all types of glazing.
5. Install glass, centered between stiles and tight against bottom rubber setting blocks (Figure 1).
6. Using thumb or tool, rotate glass jacks counterclockwise to set against glass.
7. Install remaining vertical glass stops first, then horizontals.
8. Turn the adjustable setting block screw clockwise and adjust for uniform clearance between top edge of door and frame.
9. On pairs of doors, adjust astragal (Figure 2).

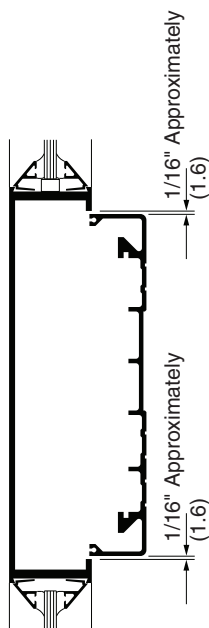
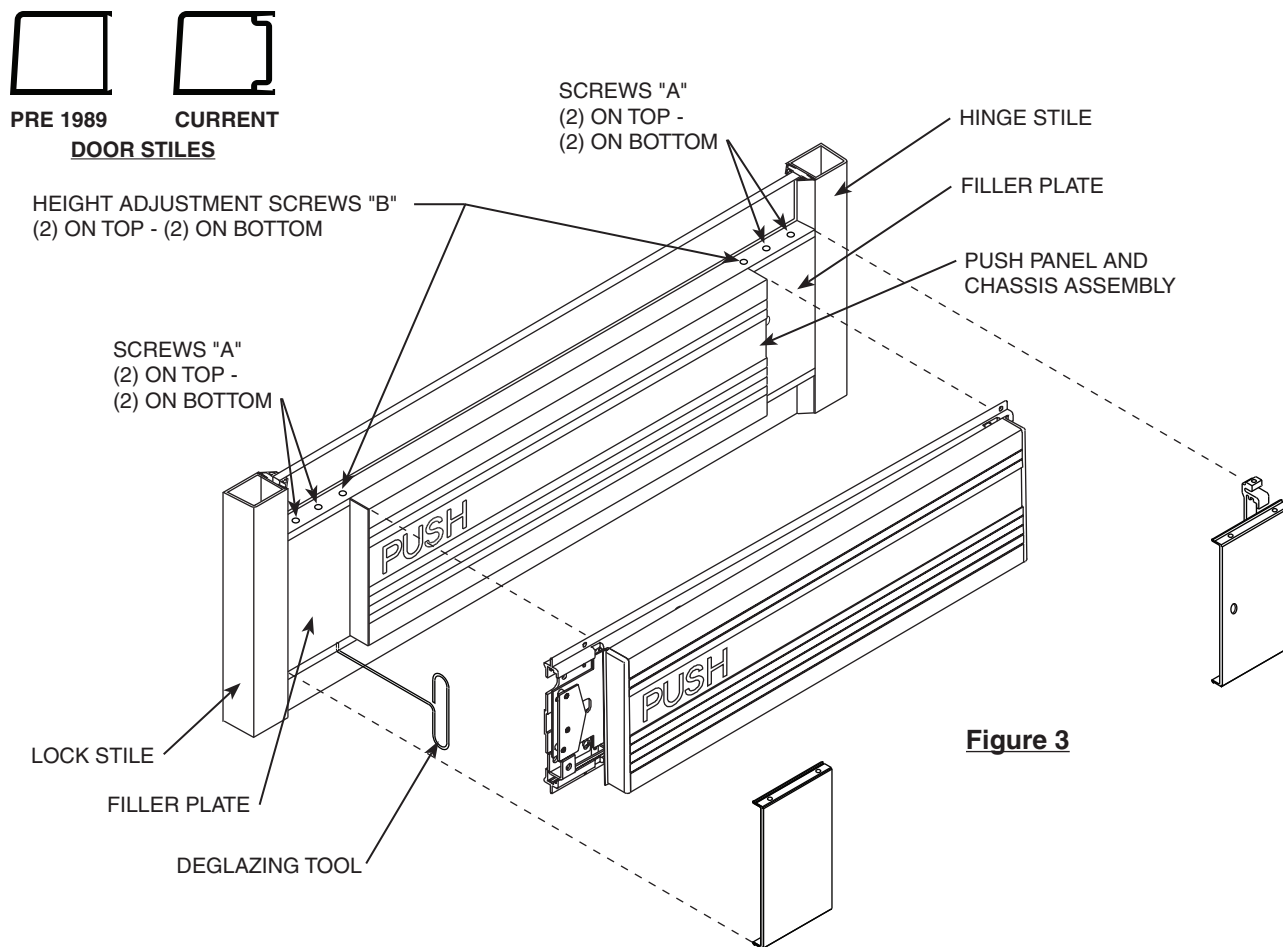


MEETING STILES OF A PAIR OF DOORS

Proper clearance for pairs of doors is maintained by adjusting the weathered astragal. Turn screws clockwise to allow more clearance and counterclockwise to allow less clearance.

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INSTRUCTIONS FOR ADJUSTING PRE-1989 PUSH PANEL ASSEMBLY

Figure 4
NOTE:

ALL SERVICE WORK STARTS WITH THE TURNING OR REMOVAL OF THE (12) SCREWS MARKED "A" AND "B" ABOVE. THEY ARE LOCATED UNDER THE **OUTSIDE** HORIZONTAL GLASS STOPS. DOORS WITH GLASS THICKNESS OF 3/8" (9.5) OR LESS **DO NOT** HAVE TO BE DEGLAZED FOR ACCESS TO THE SCREWS. THICKER INFILLS **DO** HAVE TO BE DEGLAZED.

NOTE:

UNITS WITH FILLER PLATES LESS THAN 1-1/2" (38.1) WIDE HAVE ONLY (1) SCREW "A" TOP AND BOTTOM ON EACH END.

INSTRUCTIONS FOR ADJUSTING PRE-1989 PUSH PANEL ASSEMBLY**PUSH PANEL HEIGHT ADJUSTMENT (Figure 4)****1. TO RAISE PUSH PANEL:**

- a. Loosen (6) screws "A" and "B" on bottom of cross rail (See Figure 3).
- b. Tighten top screws "B" closest to center of push panel on each end until proper clearance is obtained between the push panel and cross rail.
- c. Re-tighten (6) screws on bottom of cross rail.
- d. Tighten remaining (4) screws on top of cross rail.

2. TO LOWER PUSH PANEL:

- a. Loosen (6) screws "A" and "B" on top of cross rail (See Figure 3).
- b. Tighten bottom screws "B" closest to center of push panel on each end until proper clearance is obtained between the push panel and cross rail.
- c. Re-tighten (6) screws on top of cross rail.
- d. Tighten remaining (4) screws on bottom of cross rail.

**FOR PULL HANDLE SCREW ACCESS, TRAVELER ACCESS, DOGGING ASSEMBLY ACCESS
AND ROD LENGTH ADJUSTMENT, PROCEED PER INSTRUCTIONS BELOW.****FILLER PLATE REMOVAL (Figure 3):**

1. Remove (2) screws "A" (one screw when filler plate is less than 1-1/2" (38.1) wide) from top and bottom of cross rail closest to each door stile.
2. Use deglazing tool or similar device to hook filler plate and pull out (See Figure 3).

PUSH PANEL AND CHASSIS ASSEMBLY REMOVAL (Figure 3):

1. Remove (6) screws "A" and "B" from top and bottom of cross rail (See Figure 3).
2. Remove filler plates per instructions above.
3. Grasp push panel and chassis assembly and pull out (See Figure 3).

NOTE: FOR ROD LENGTH ADJUSTMENT SEE PAGE 6 & 7.

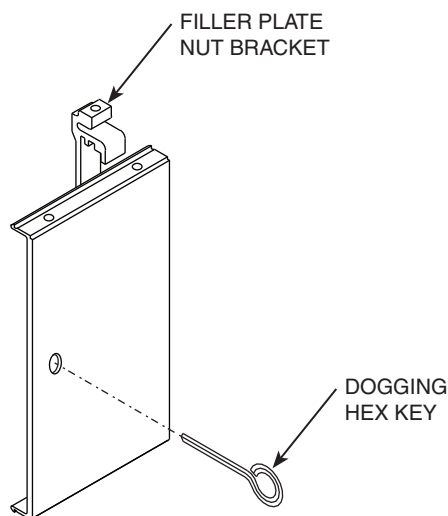
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INSTRUCTIONS FOR ADJUSTING PRE-1989 PUSH PANEL ASSEMBLY

RE-INSTALLATION OF UNIT

1. Door should be open and the exit device rods should be in the raised position (unlocked).
2. Place push panel assembly into door rail (panel assembly can either be dogged or un-dogged as long as the exit device rods are raised).
3. Insert screws "B" in top and bottom of cross rail and level and space panel per Figure 3 on page 12.
NOTE: The four screws should be snug but do not overtighten and distort the door rail.
4. Install lock stile filler plate and tighten top and bottom screws. Filler plate can be wedged tight against the lock stile with a tapered wood or plastic stick placed between the filler plate and push panel to align screw holes.
5. Operate unit checking for push panel binding and correct rod lift.
6. Install filler plate nut bracket on the pivot stile filler plate, centering it over the top and bottom holes closest to the pivot stile. Filler plates less than 1-1/2" (38.1) wide do not require use of nut bracket.
7. Install pivot stile filler plate and tighten top and bottom screws. Wedge filler, if necessary, per Step 4 above.
8. Re-check all screws top and bottom for snugness.
9. Operate unit checking for push panel binding and correct dogging/un-dogging action.





Kawneer Company, Inc.
Technology Park/Atlanta
555 Guthridge Court
Norcross, GA 30092-3503