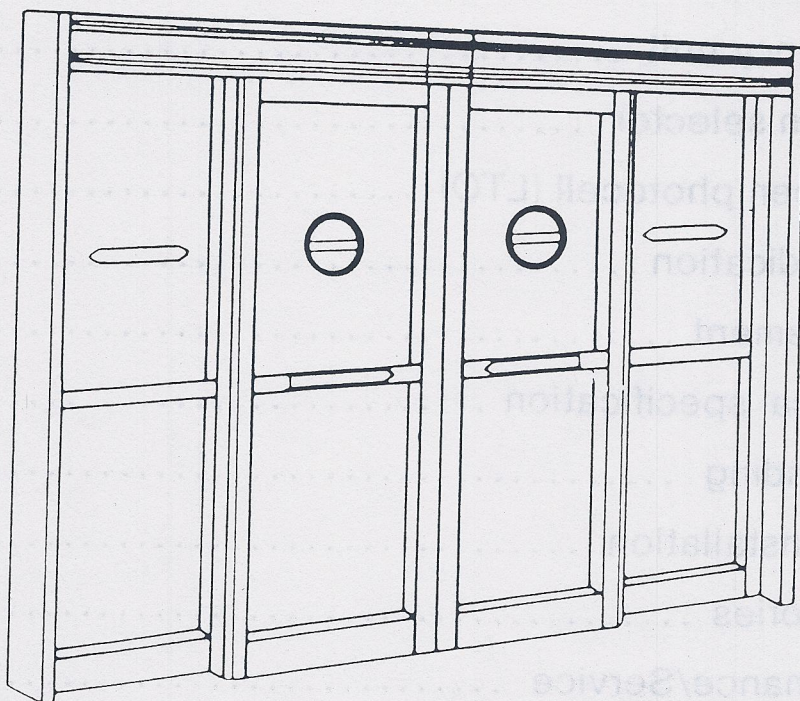


INSTALLATION / OWNERS  
MANUAL  
14-23-003

**besam**<sup>®</sup> 

**POWER GLIDE 4000**<sup>T.M.</sup>  
**EZ FIT 4050**<sup>T.M.</sup>  
**computerized sliding  
door operators**





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The EZFIT 4050 Operator is designed to be surface mounted to walls, above ceilings, and will adapt to a wide range of door requirements. The drive train and controls are both accessible from one side of the operator support beam.

The Power Glide 4000 (over head concealed) operator is designed to be installed between two vertical jambs. The operator supports the active sliding door(s), sidelite(s) and a transom above the operator if required. Both sides of the operator support beam must be accessible because of the drive train and computerized controls, being located on opposite sides of the operator.



# EZFIT 4050

## Space required

## Non Panic

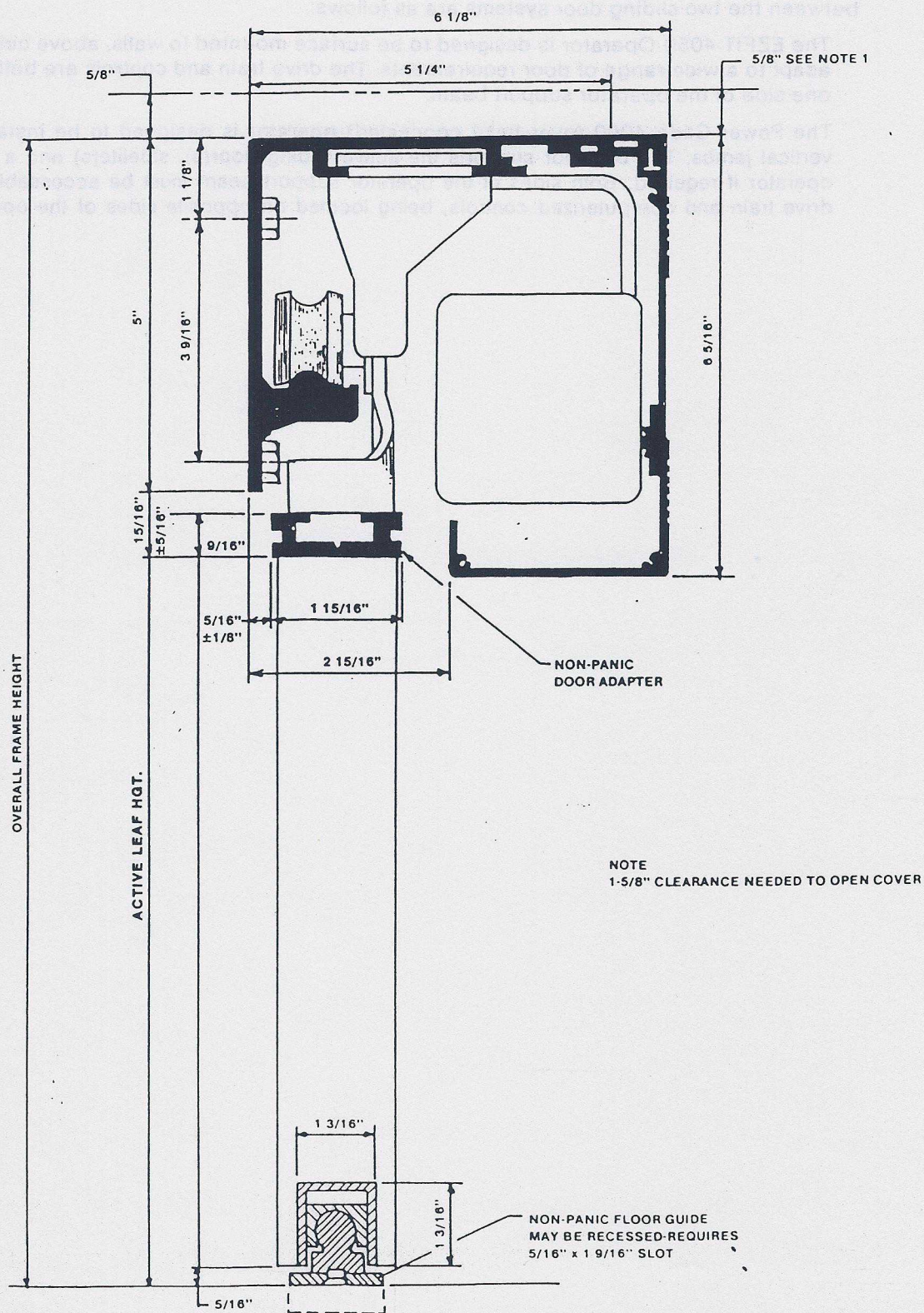


Fig. 1



# EZFIT 4050

## Space required

### Panic (PSA)

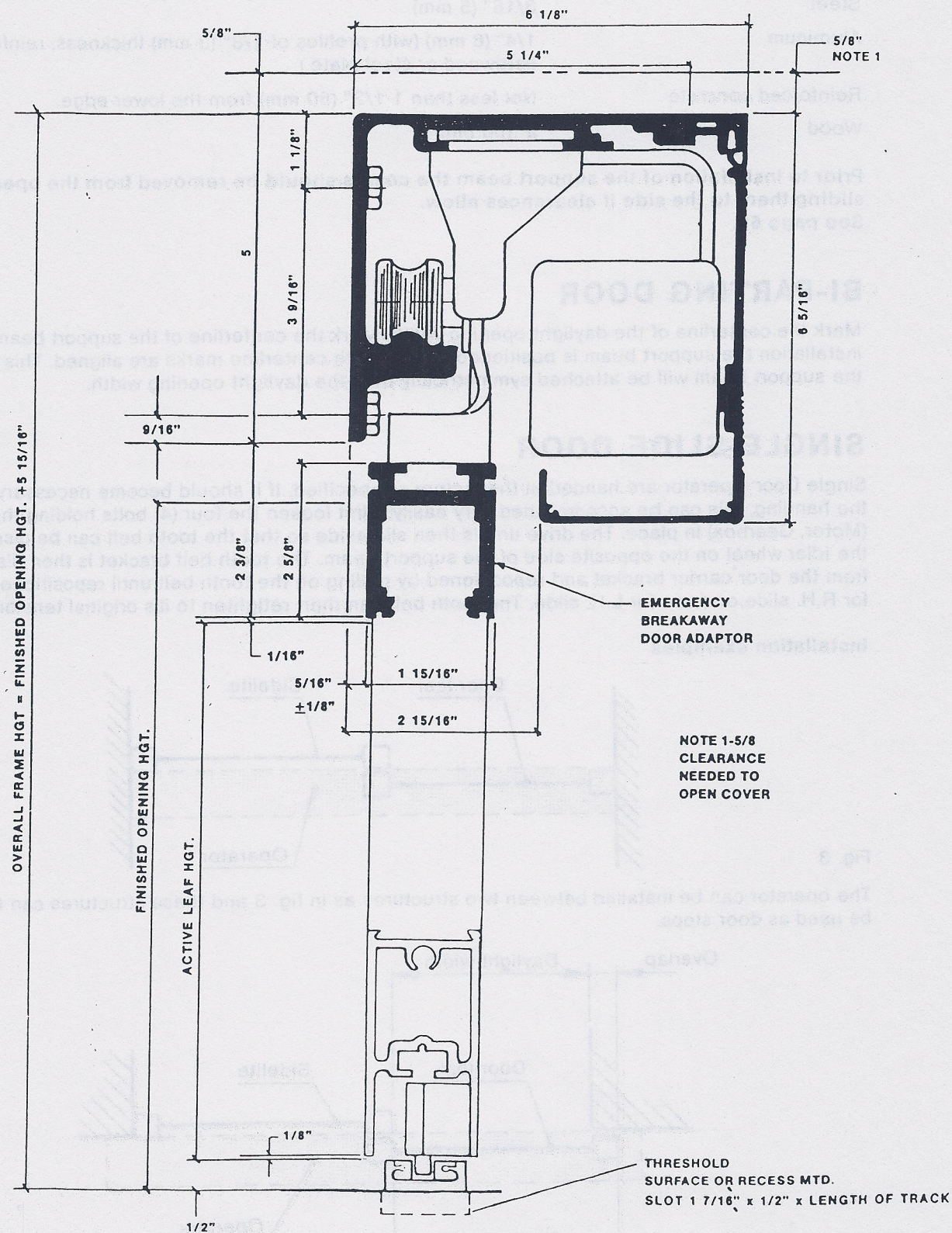


Fig. 2



# EZ 4050

## Installation Non Panic

### LAYOUT

Check that the mounting surface for the operator is adequate and level.

Installation Material	Minimum requirements
Steel	3/16" (5 mm)
Aluminum	1/4" (6 mm) (with profiles of 1/8" (3 mm) thickness, reinforce with hardwood or steel plate.)
Reinforced concrete	Not less than 1 1/2" (50 mm) from the lower edge.
Wood	2" (50 mm)

Prior to installation of the support beam the covers should be removed from the operator by sliding them to the side if clearances allow.  
See page 52.

### BI-PARTING DOOR

Mark the centerline of the daylight opening width. Mark the centerline of the support beam. During the installation the support beam is positioned so that both centerline marks are aligned. This entails that the support beam will be attached symmetrically over the daylight opening width.

### SINGLE-SLIDE DOOR

Single Door Operator are handed at the factory as specified. If it should become necessary to change the handing, this can be accomplished very easily. First loosen the four (4) bolts holding the drive unit (Motor, Gearbox) in place. The drive unit is then slid aside so that the tooth belt can be dismantled from the idler wheel on the opposite side of the support beam. The tooth belt bracket is then disconnected from the door carrier bracket and repositioned by pulling on the tooth belt until repositioned either up for R.H. slide or down for L.H. slide. The tooth belt can then retighten to it's original tension.

#### Installation examples

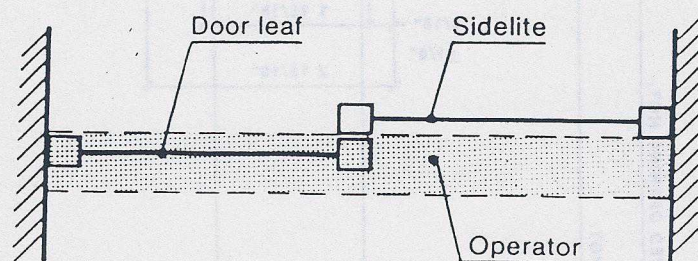


Fig. 3

The operator can be installed between two structures as in fig. 3 and these structures can therefore be used as door stops.

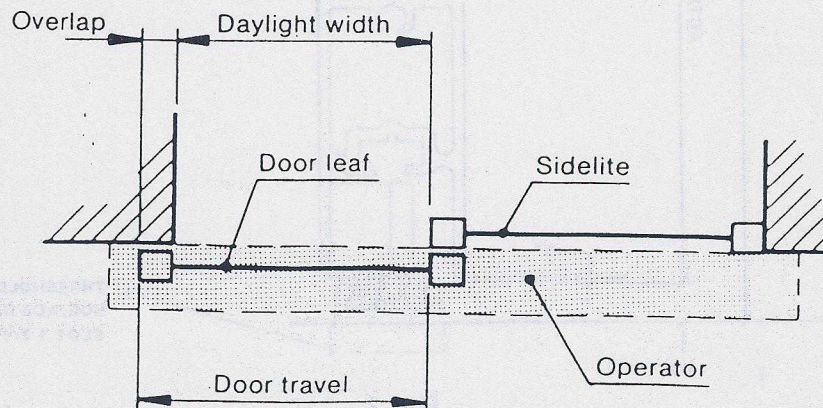


Fig. 4

If the operator is to be installed over an opening as in fig. 4 make sure when ordering, that the door travel equals the daylight width plus a suitable overlap.



## \*INSTALLATION HEIGHT OF SUPPORT BEAM

Some of the components mounted in the support beam will be covering the desired mounting hole locations. These components must be slid aside or removed in order to drill the support beam for the required mounting holes.

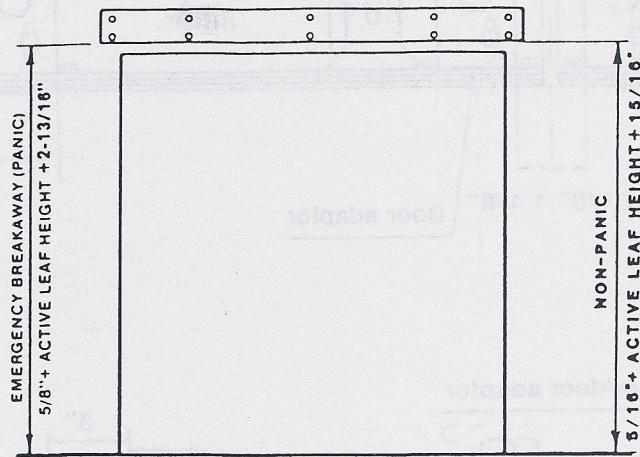


Fig. 5

From the finished floor to the lower edge of the Support beam, the height should be as follows:

Non panic dimensions  $5/16''$  (8.00 mm) Besam (Non-Panic Floor guide) + overall door leaf height +  $15/16''$  door adaptor.

Panic dimensions  $5/8''$  (16 mm) Besam (Panic Floor Guide) + overall door leaf height +  $2\ 13/16''$  Panic door adaptor.

When determining the installation height it is very important to measure from the highest point of the floor in order to prevent the door leaf from binding when opening or closing. Mark the header for the lower edge of the support beam. Make sure the support beam is level. Place the support beam up in the correct position and mark all mounting holes. Drill the holes, thread or plug them, then install the support beam using bolts or screws.

**NOTE:** Carefully clean all dirt and debris from the entire track area in order to protect it from any damage.

## PRE-ADJUSTMENT OF THE CARRIAGE WHEEL

To allow for final depth adjustment of the door leaf by  $\pm 1/8''$ , the carriage wheels should be adjusted to the middle of the tolerance. One complete turn of the depth adjustment screw displaces the wheel approx.  $1/16''$  (see fig. 6) This adjustment will leave a gap of approx.  $5/16''$  between the door adaptor and the back edge of the support beam. (see fig. 7).

To ensure the correct mounting of the door adaptor to the door leaf, measure and note the distance "Y" between the door leaf and the sidelite (see fig. 7).

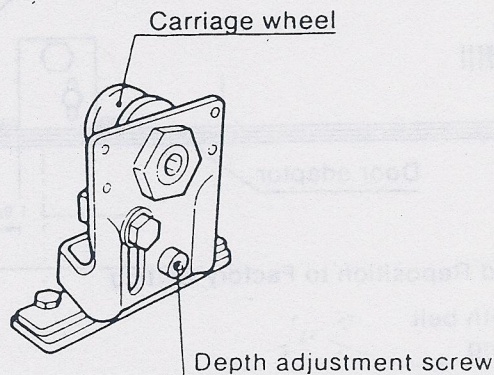


Fig. 6

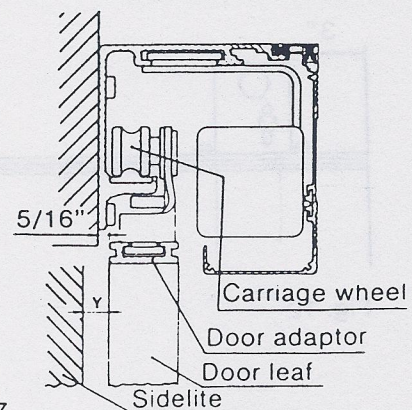


Fig. 7

## MOUNTING THE DOOR ADAPTOR

The Non Panic door adaptor is factory cut for a specific size door. Check first that the top of the door leaf has sufficient reinforcement to support its weight. Mark the position on the door adaptor for the carriage wheels and carrier fitting so that they can be repositioned correctly. Remove the door adaptor from the carriage wheels and carrier fitting and drill and countersink ( $1/4''$  min.) clearance holes (6" on center maximum) for the mounting bolts.

Place door adaptor on the door leaf being certain that distance "Y" measured earlier serves to ensure the carrier installation depth. All weather stripping clearance should be considered at this time. The Figures 8, 9, and 10 on page 6 show how to position the door adaptor on the top of the door. Mark and tap (add thread reinforcement if necessary) for  $1/4'' \times 20$  countersunk (supplied by others) bolts. Secure the adaptor to the top of the door leaf and reinstall the carriage wheels to their marked positions.

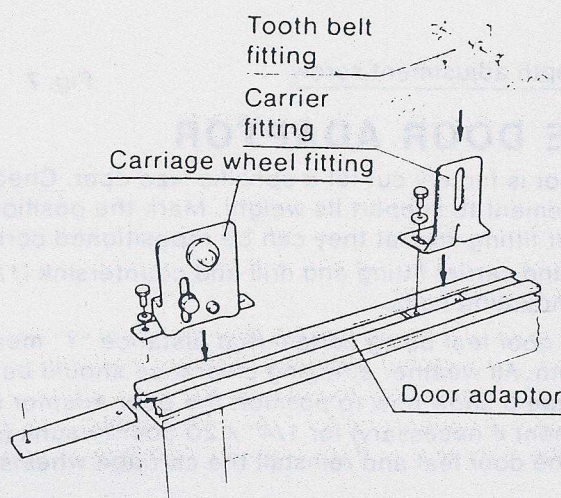


# BI-PARTING



## Fig. 9

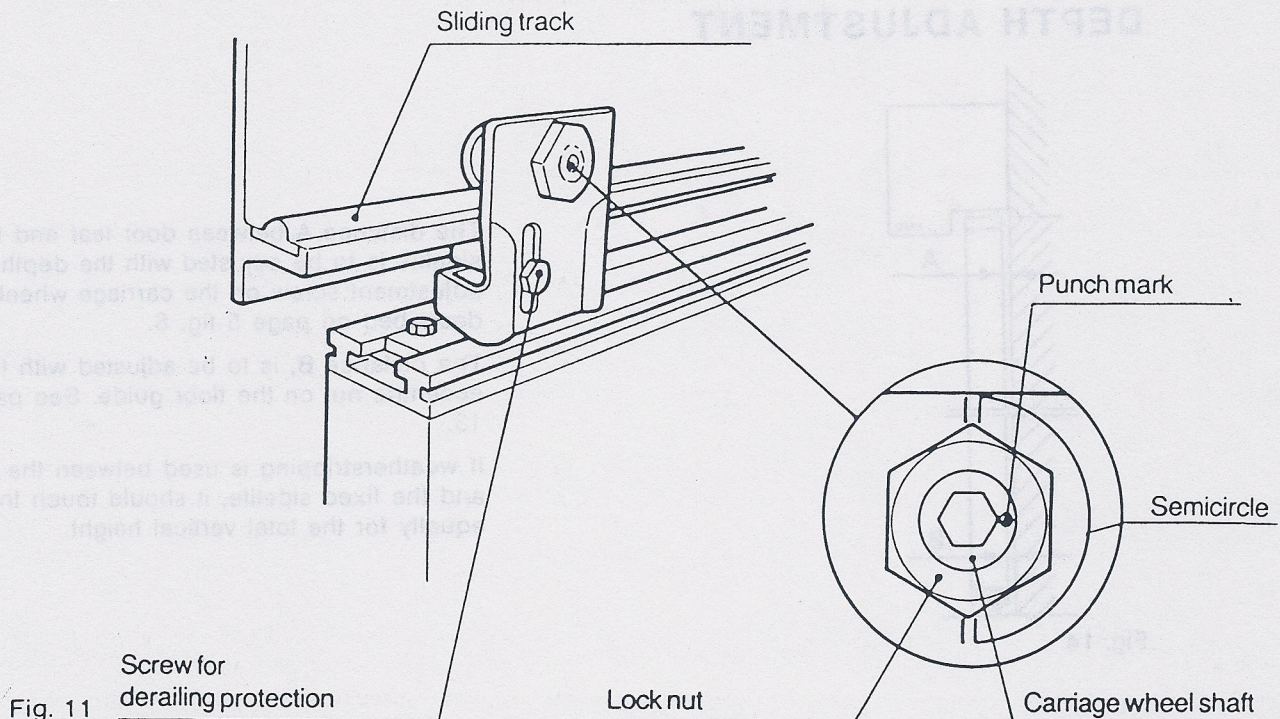
Fig. 10





## HANGING THE DOOR LEAVES (NON PANIC)

Loosen the screw for the derailing protection and slide it to its lowest position. Raise the door leaf and hang it onto the sliding track of the support beam. Check that the wheels fit well on the track. (see Fig. 11)



A rough adjustment of the door height is necessary to facilitate installation of the floor guide. Make sure that the punch marks on the shafts of the carriage wheels are to the right of the shaft center within the semicircle marked on the fitting. A condition necessary for self-locking of the wheels after final adjustment.

The carriage wheel shafts are eccentric and by rotating the shaft half way round, the door leaf can be raised up to 5/8". Insert an 8 mm Allen key in the hexagonal hole and turn the key counter-clockwise until the door leaf is about 3/8" above the floor. Then tighten the lock nut. Both carriage wheels should be adjusted in this way. (see fig. 11).

## INSTALLATION OF FLOOR GUIDES (NON PANIC)

Push the door leaf to clear the space for the floor guide.

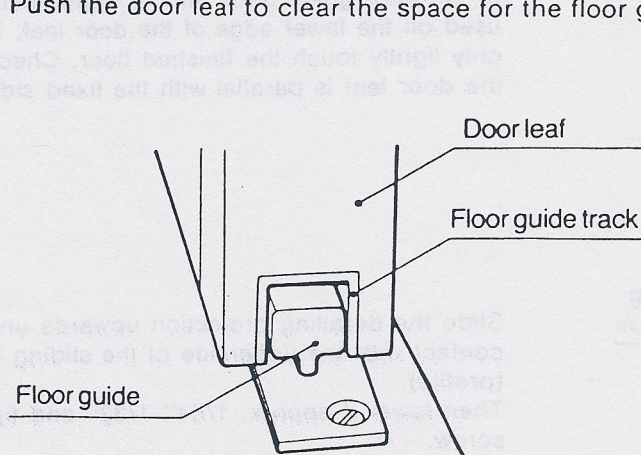


Fig. 12

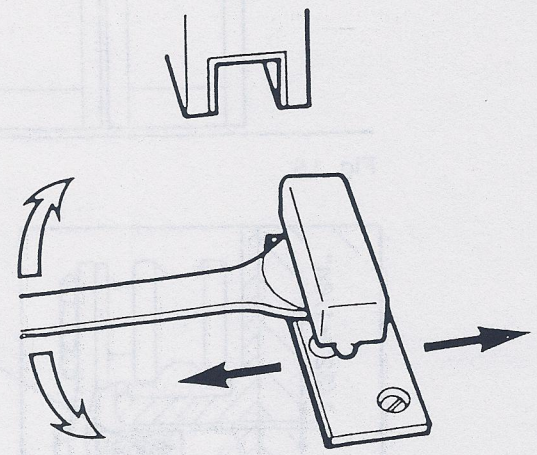


Fig. 13

The BESAM floor guide should be positioned end to end with the back edge of the door leaf in the closed position, see fig. 12. The floor guide should also be positioned to ensure equal distance vertically all the way between the door leaf and the fixed sidelite. The floor guide can be adjusted **horizontally** about  $\pm 3/16"$  after being installed, using the eccentric nut underneath the white plastic block. (see fig. 13)



## FINAL ADJUSTMENT OF DOOR LEAVES

A final adjustment of the door leaves is necessary after installing the floor guides:

### DEPTH ADJUSTMENT

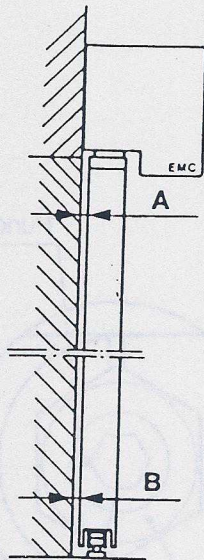


Fig. 14

The distance A between door leaf and fixed sidelite is to be adjusted with the depth adjustment screw on the carriage wheel as described on page 5 fig. 6.

The distance B, is to be adjusted with the eccentric nut on the floor guide. See page 7 fig. 13.

If weatherstripping is used between the door leaf and the fixed sidelite, it should touch them both equally for the total vertical height.

### HEIGHT ADJUSTMENT

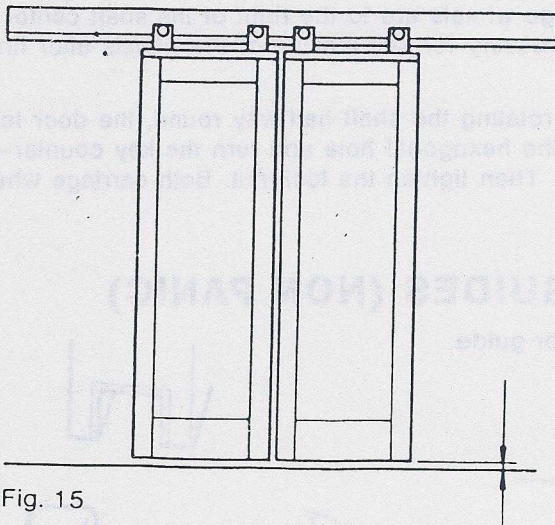


Fig. 15

The height adjustment is to be carried out with the carriage wheel shaft as described on page 7 fig. 11.

It is of great importance that the door leaf after adjustment hangs vertically and that double-leaf doors are parallel when they are closed together.

The floor guide should not touch the upper edge of the floor guide track and, if weatherstripping is used on the lower edge of the door leaf, it should only lightly touch the finished floor. Check that the door leaf is parallel with the fixed sidelite.

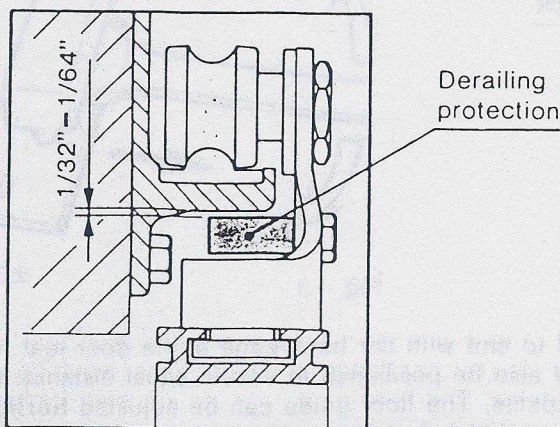


Fig. 16

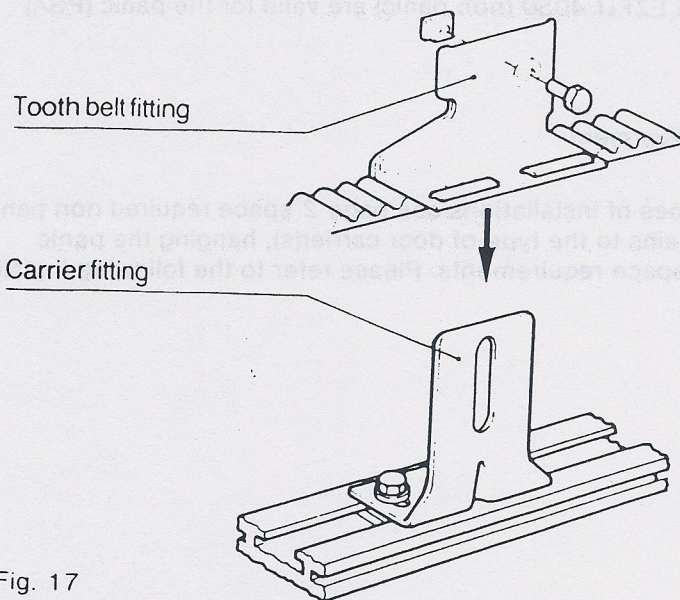
Slide the derailing protection upwards until it is in contact with the underside of the sliding track (profile). Then lower it approx.  $1/64'' - 1/32''$  and tighten the screw.

(See also page 7 fig. 11)

**NOTE:** Check clearance for the complete stroke of carrier.



## ATTACHMENT OF TOOTH BELT



Loosen the screw holding the two parts of the tooth belt fitting together. Attach the tooth belt fitting to the carrier fitting without separating the two parts, and screw the fittings together by hand. Adjust the tooth belt fitting so that the upper and lower parts of the tooth belt are parallel, and tighten the screw.

For **double-leaf doors** the tooth belt fitting for each door leaf should be attached in this manner.

Fig. 17

## CENTERING OF THE DOOR LEAVES

Push the doors together and check that they meet exactly at the center of the daylight opening. If they don't, unscrew the tooth belt fitting on the lower part of the tooth belt (left door leaf) from the carrier fitting. Slide the two door leaves until their meeting point is aligned with the center of the daylight opening. Attach the tooth belt fitting to the tooth belt so that it fits as closely as possible to the carrier fitting, and screw the two fittings together. If a fine adjustment is necessary, loosen the screws holding the carrier fitting and slide the carrier fitting in the door adaptor until it fits exactly to the tooth belt fitting.

## ADJUSTING FOR FINGER PROTECTION

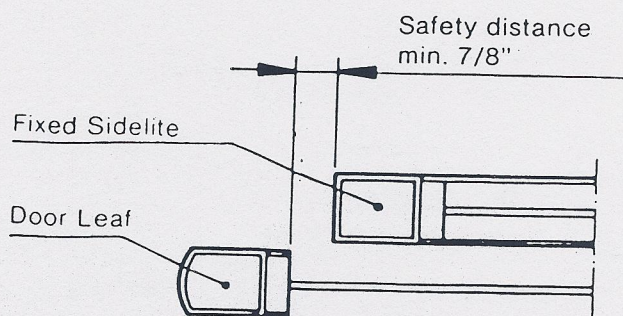


Fig. 18

Manually slide the doors to the desired openings.

**NOTE:** In the case of framed doors the distance between the glass bead and the fixed sidelite door edge (see Fig. 18) must be 7/8" min. This distance provides finger protection. Loosen the door stops, move them in against the carriage wheel fitting and tighten firmly.



The following installation instructions for the EZFIT 4050 (non panic) are valid for the panic (PSA) application and should be followed.

- Pg. 5 --- Installation Height Panic PSA  
Pg. 7 --- Carriage Wheel Adjustments  
Pg. 8 --- Depth Adjustments & Height Adjustment  
Pg. 9 --- Finger Protection Adjustment

The only major changes between the two types of installations see page 2 space required non panic and page 3 space required panic (PSA) pertains to the type of door carrier(s), hanging the panic active leaf(s), bottom guide system and the space requirements. Please refer to the following installation pages.

- Pg. 3 --- Space requirements panic PSA  
Pg. 25 --- Hanging the door leaves  
Pg. 28 --- Installation of door guides



# Powerglide 4000

## GENERAL INFORMATION

Figure 19 shows the different plans that are available from Besam, Inc. for the Power Glide 4000 sliding door system. Operators can have a bi-parting or left and right hand single slide mode of operation and sidelites can be installed fixed on the interior or mounted to swing out to the exterior.

All Power Glide 4000 sliding door systems are ready for installation when delivered. The sidelites and active leaves are fully prepped and all hardware is installed. The operators are supplied with all mounting hardware, and thread reinforcements have been installed in the side jambs.

Before installing the Power Glide 4000 sliding door system, check to see that you have been supplied the correct equipment and that all the tools and hardware needed to complete the installation are on hand. Also check to see that there will be access to both sides of the header assembly when the installation is completed. The covers on both sides of the header assembly must be removable to service the unit.

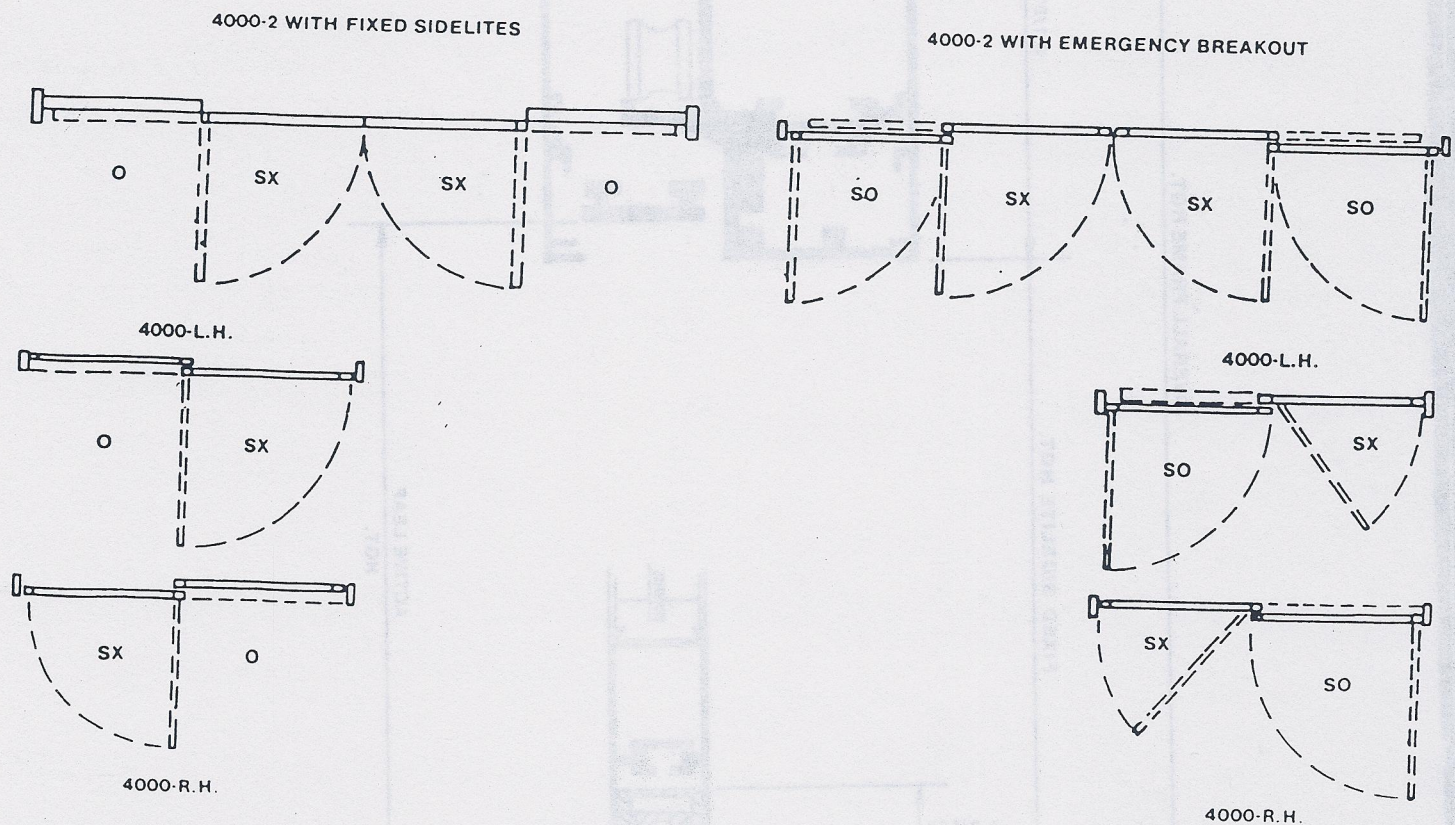


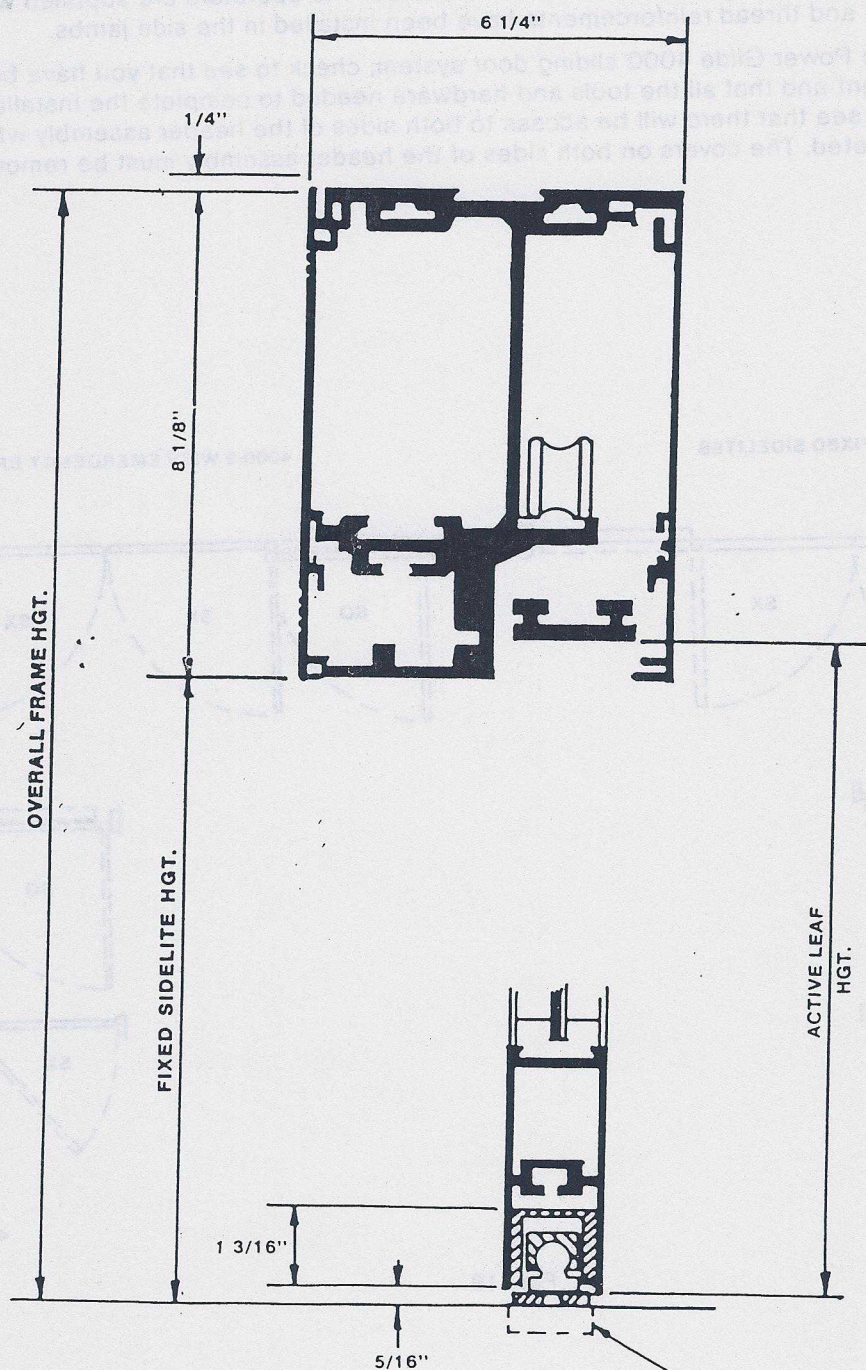
Fig. 19



# Powerglide 4000

## Space required

### Non Panic



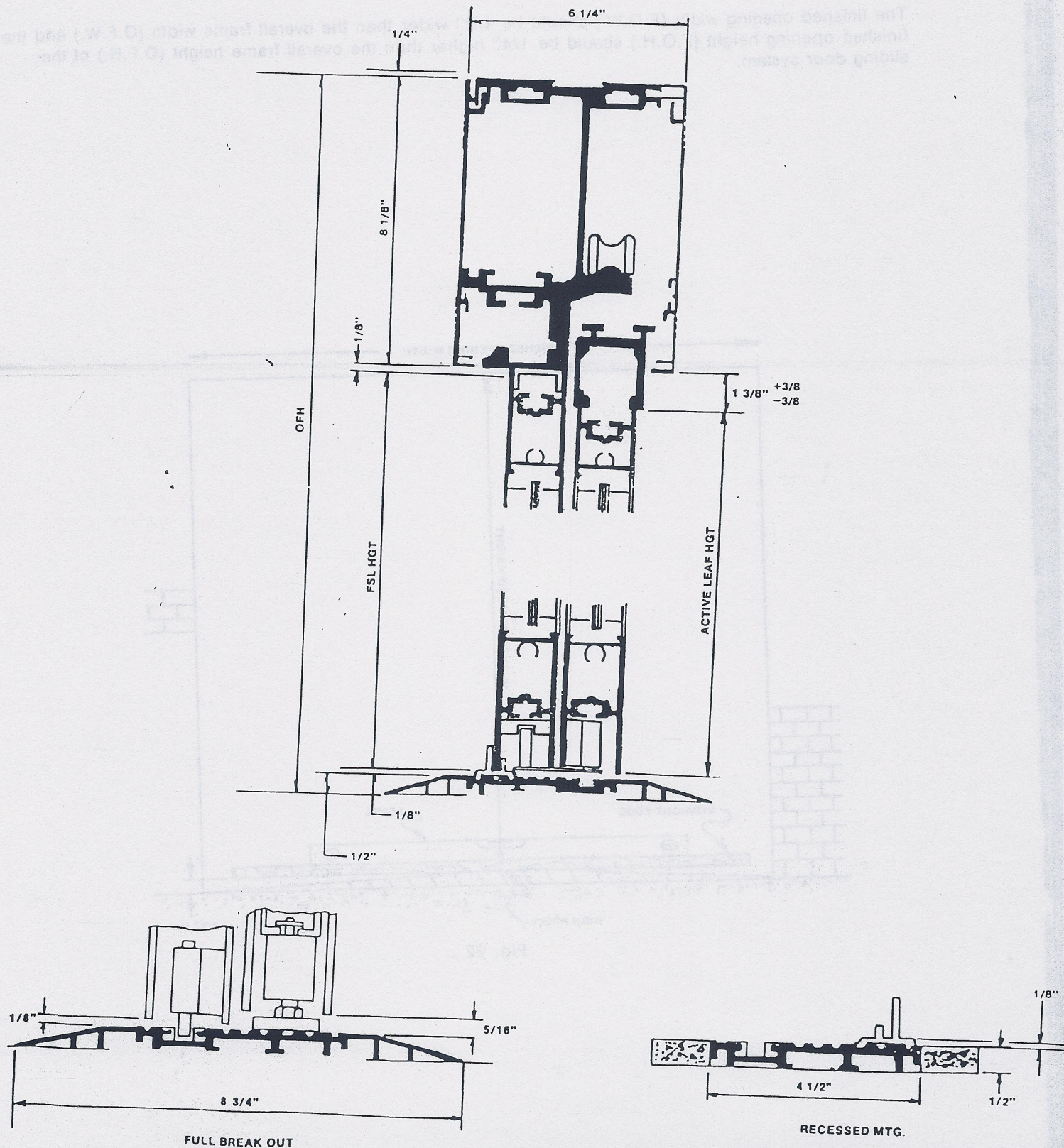
NON PANIC  
FLOOR GUIDE  
MAY BE RECESSED-REQUIRES  
5/16" x 1-9/16" x 4" SLOT



# Powerglide 4000

## Space required

### Panic (PSA)





## SITE PREPARATION

The finished opening must be plumb and square and the finished floor must not vary by more than  $\frac{3}{8}$ " from the highest to the lowest point. If necessary, have the floor leveled before attempting to install the sliding door system.

**CAUTION:** The finished floor height must be determined prior to setting the jambs threshold and support beam. In some cases it can vary from  $\frac{1}{8}$ " to  $\frac{1}{2}$ " or more depending on the type of flooring being installed.

The finished opening width (F.O.W.) should be  $\frac{1}{2}$ " wider than the overall frame width (O.F.W.) and the finished opening height (F.O.H.) should be  $\frac{1}{4}$ " higher than the overall frame height (O.F.H.) of the sliding door system.

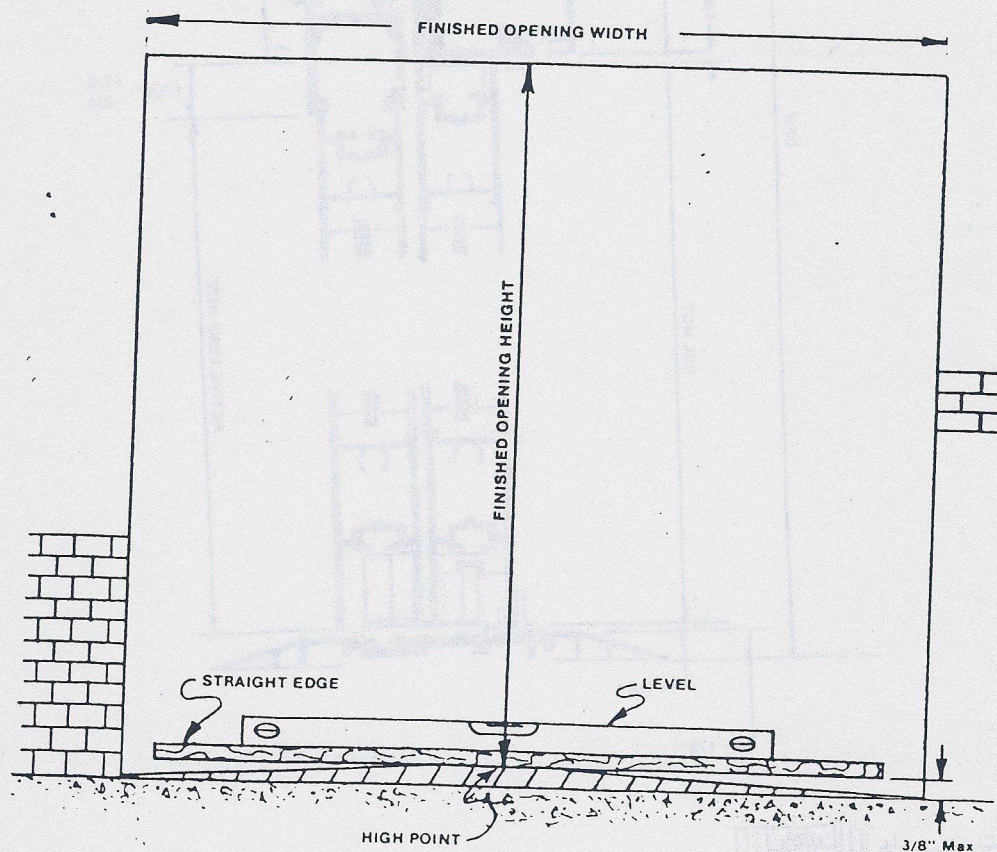


Fig. 22



# Full Breakout/Fixed Sidelite

## INSTALLATION OF OPERATOR TO JAMBS

Slide the door carrier(s) to the half open position. Reach up behind the hinged cover and release the 4 (see fig. 23) cover latches. With a screwdriver turn the 4 fixed cover locks approximately 1/2 turn. (see fig. 24). This will release the covers for removal. Carefully remove the fixed covers only and mark their location on the operator(s). The fixed covers are not equal in length. This allows access to the computer controls without removing cover mounted activating devices.

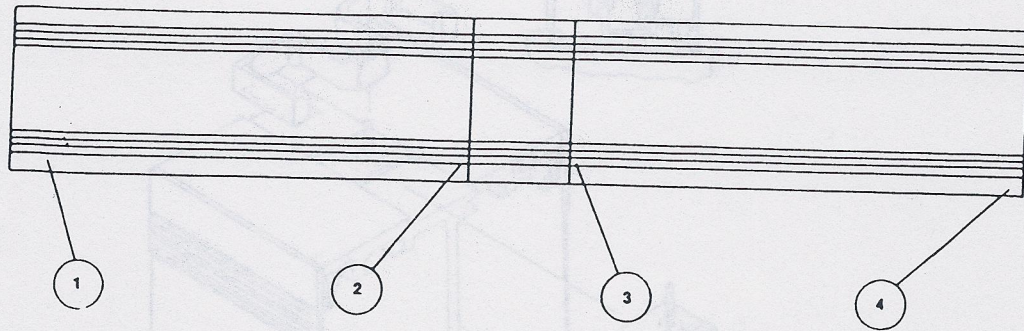


Fig. 23

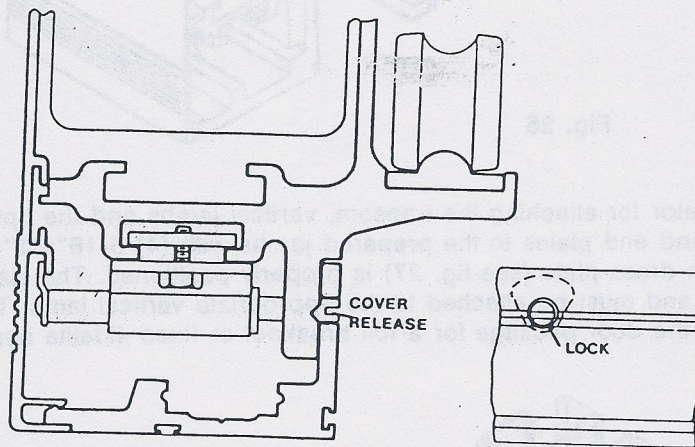
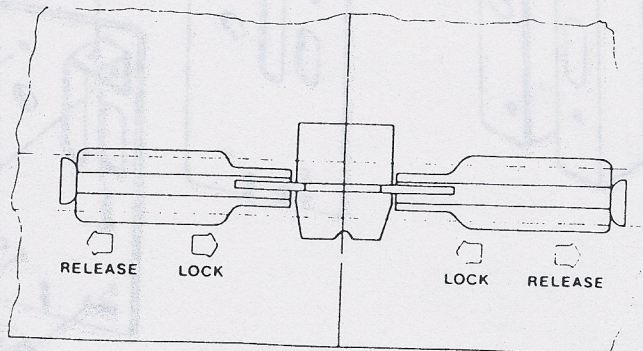


Fig. 24

Fig. 25



COVER LATCH DETAIL



**NOTE:** For application with transoms see page 39.

If the operator is equipped with a transom which requires one or more vertical tubes, the mounting clips (see fig. 26) must be installed at this time into the dovetail slot on top of the support beam.

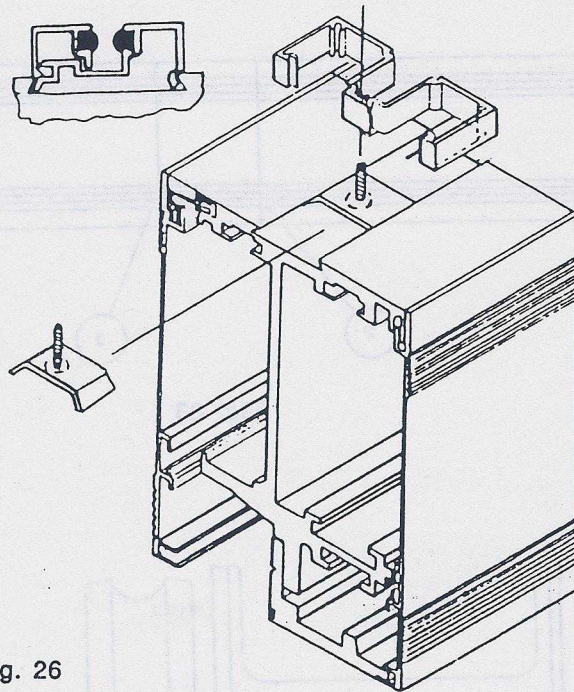


Fig. 26

Position the operator for attaching the transom, vertical jambs and the optional threshold if equipped. Attach the steel and end plates to the prepared jambs with (4) 5/16"x 1" hex head bolts being certain that the aluminum dress plate (see fig. 27) is properly positioned. The steel end plates are handed (see fig. 28) and (29) and must be attached to the appropriate vertical jamb. This is of prime importance since it positions the door package for a full breakout or fixed sidelite application.

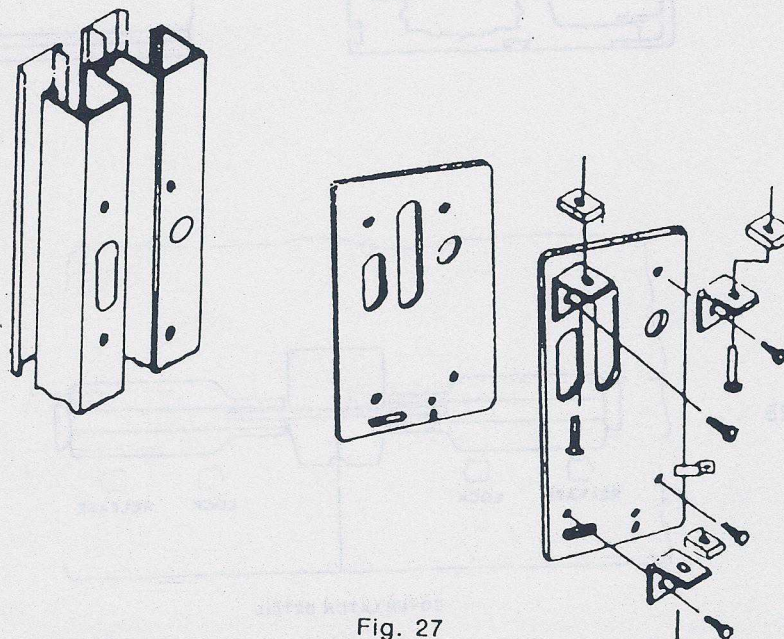
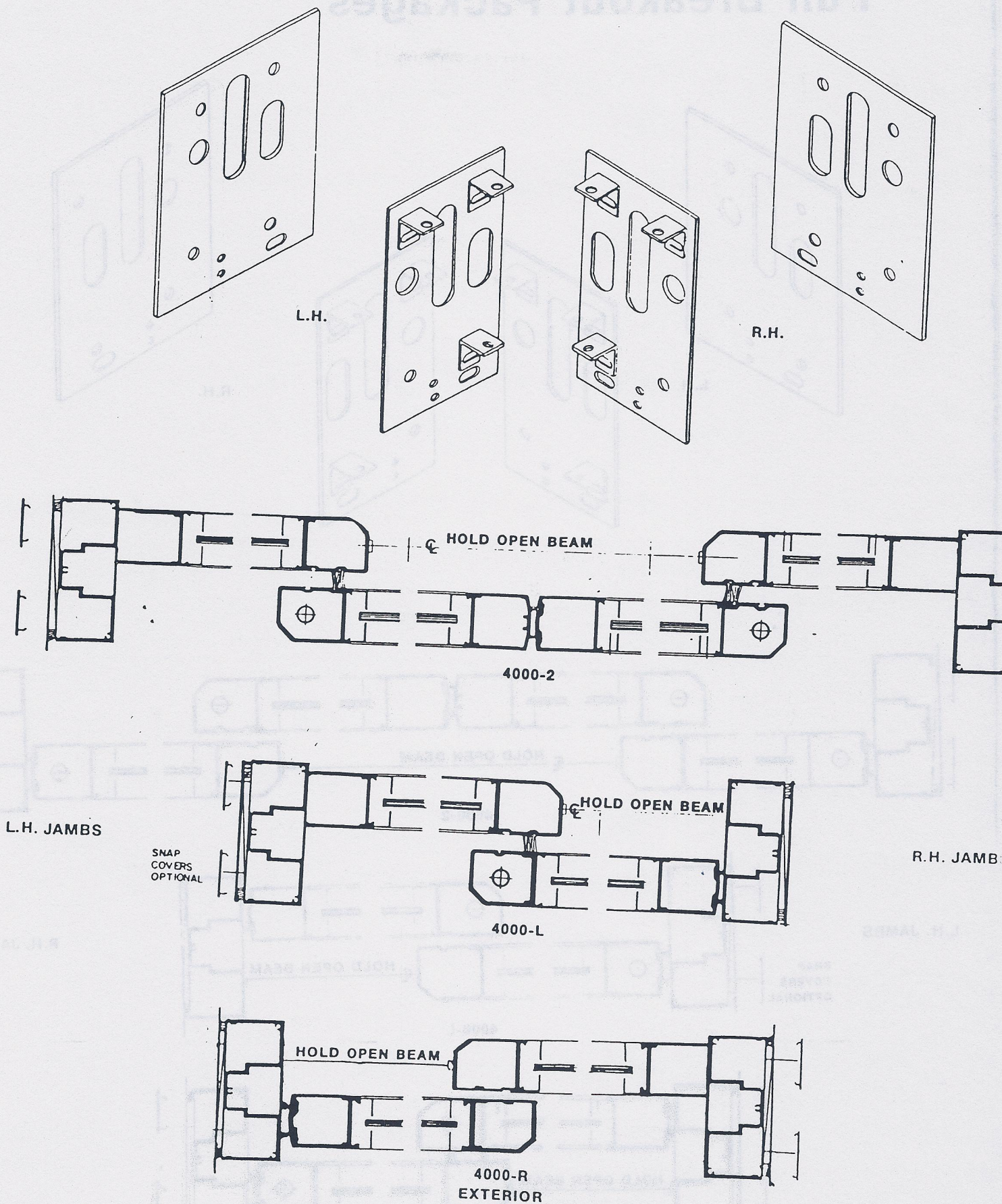


Fig. 27

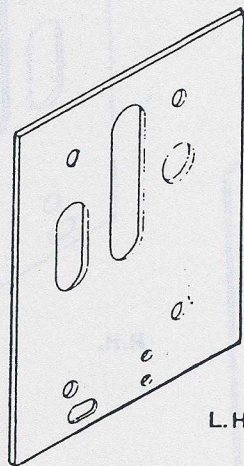


# Fixed Sidelite Packages

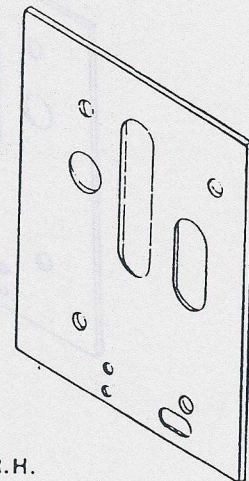
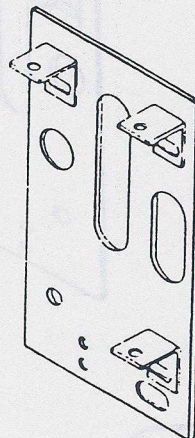
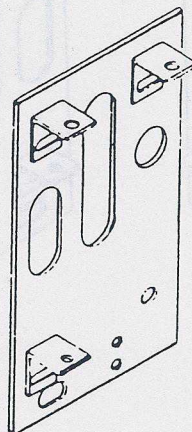




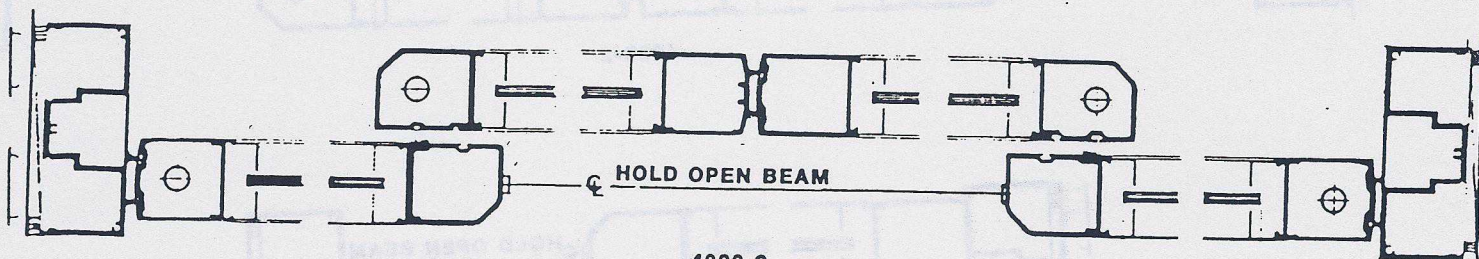
# Full Breakout Packages



L.H.



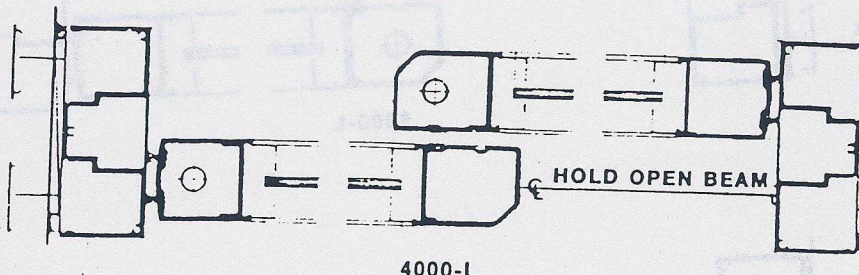
R.H.



4000-2

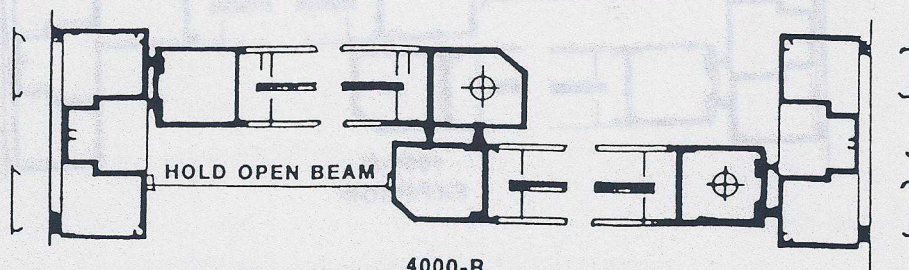
L.H. JAMBS

SNAP  
COVERS  
OPTIONAL



4000-L

R.H. JAMBS



4000-R  
EXTERIOR



# Full Breakout

## THRESHOLD AND GUIDE SYSTEM

Optional Threshold - Install the factory prepared full length threshold/guide between the two vertical jambs. Position the threshold guide area (see fig. 30) directly under the operator door carrier.

Prepare the transom, verticals, horizontals, floor clips or threshold for anchoring to the finished opening. Position the assembly into the opening and install the lead up moulding strips (see fig. 30) under each side of the threshold. Secure the package (see Fig. 29) into the opening.

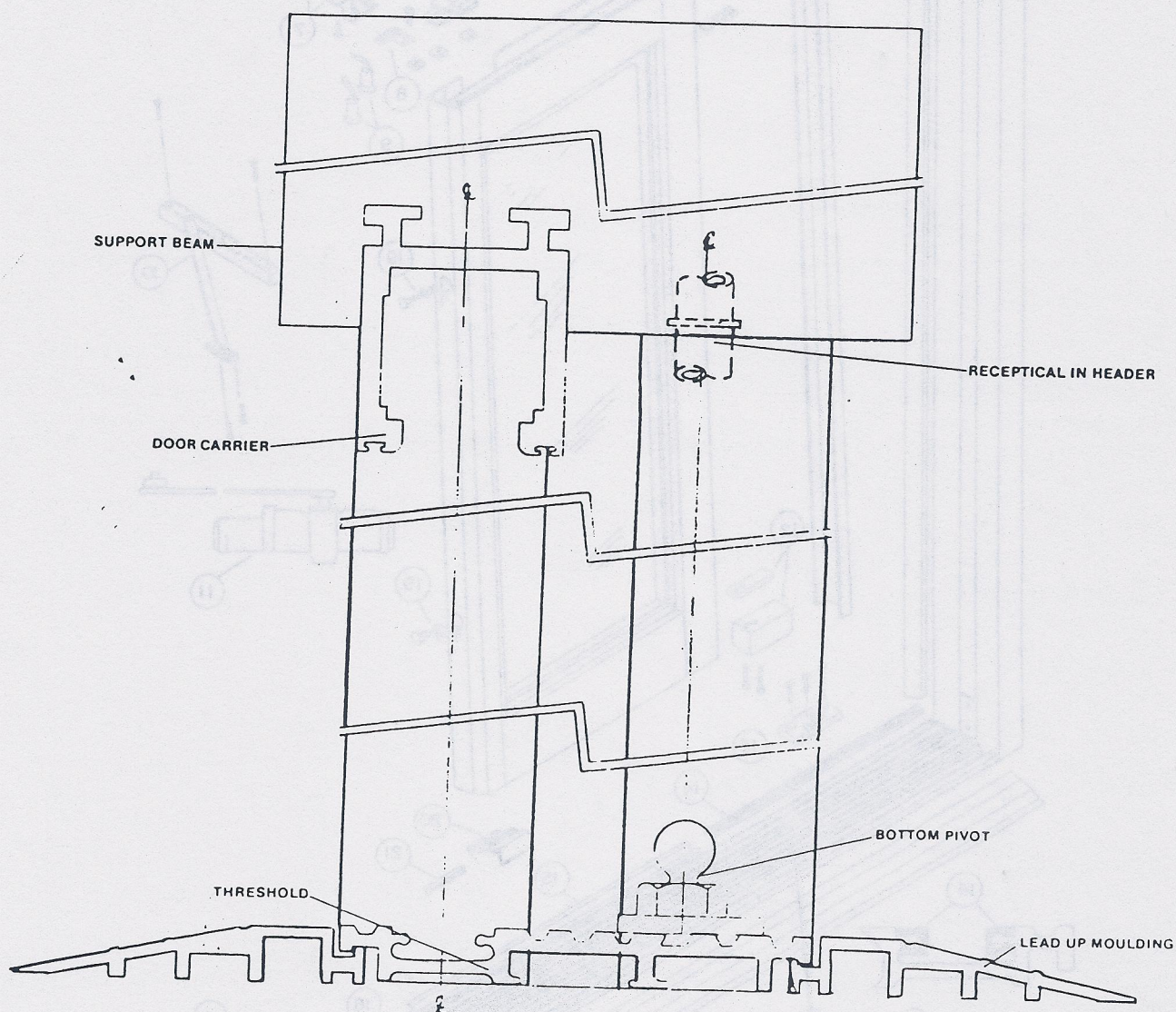
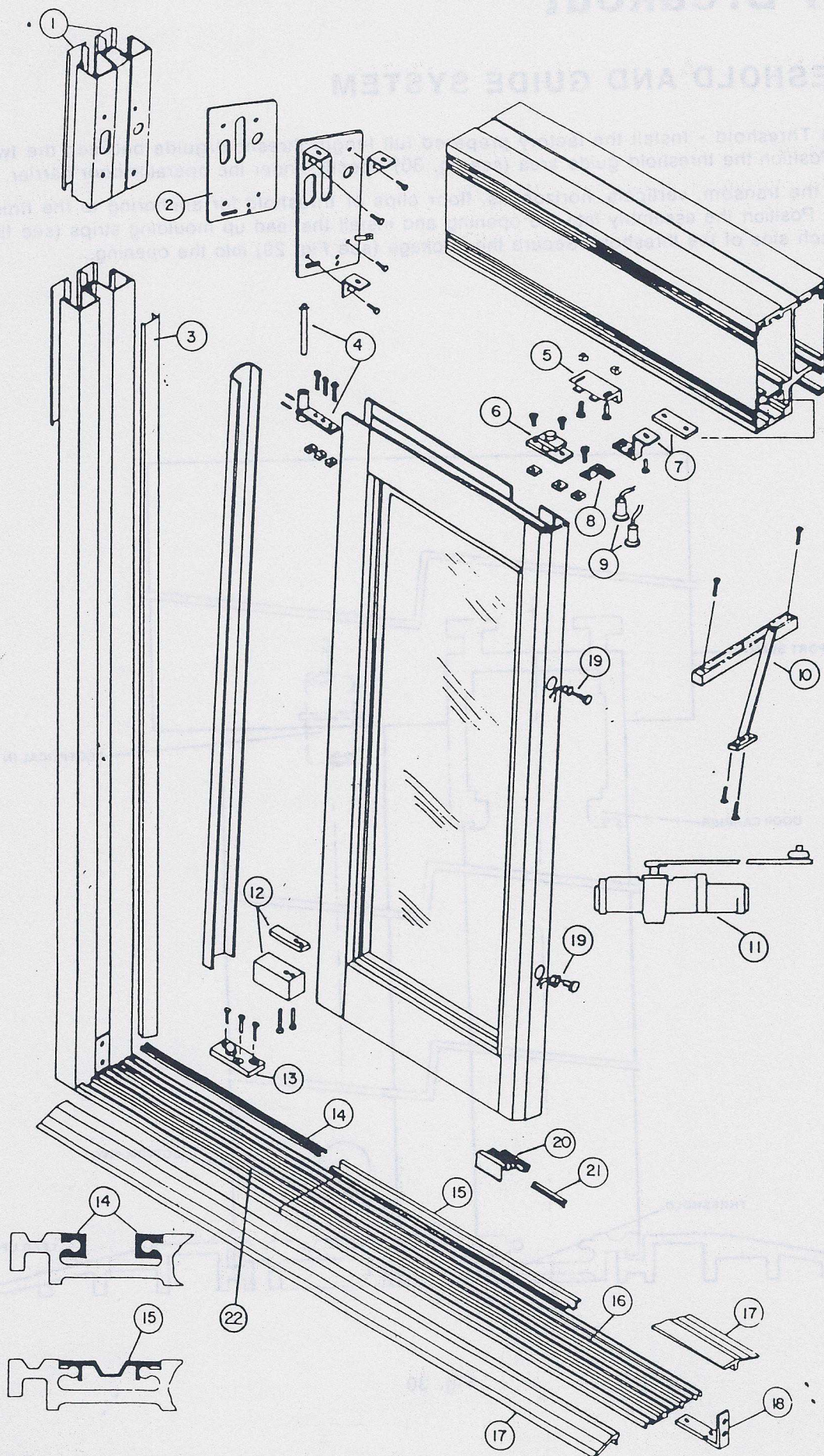


Fig. 30







# Breakaway Sidelite

Figure 31 shows the sidelite and support beam with all the cutouts, standard and optional hardware. Check to see that the sidelite hardware is complete. Install the bottom pivot assembly (13) to the threshold being certain that it is plumb with the upper pivot receptacle located on the bottom of the support beam (see fig. 30).

## JAMB CLOSURES

Install the lower Jamb (see Fig. 32) closure which fits between the threshold/floor and the underside of the operator steel end plate.

**NOTE:** Other optional jamb (see Fig. 33) closures are available and can be installed as shown.

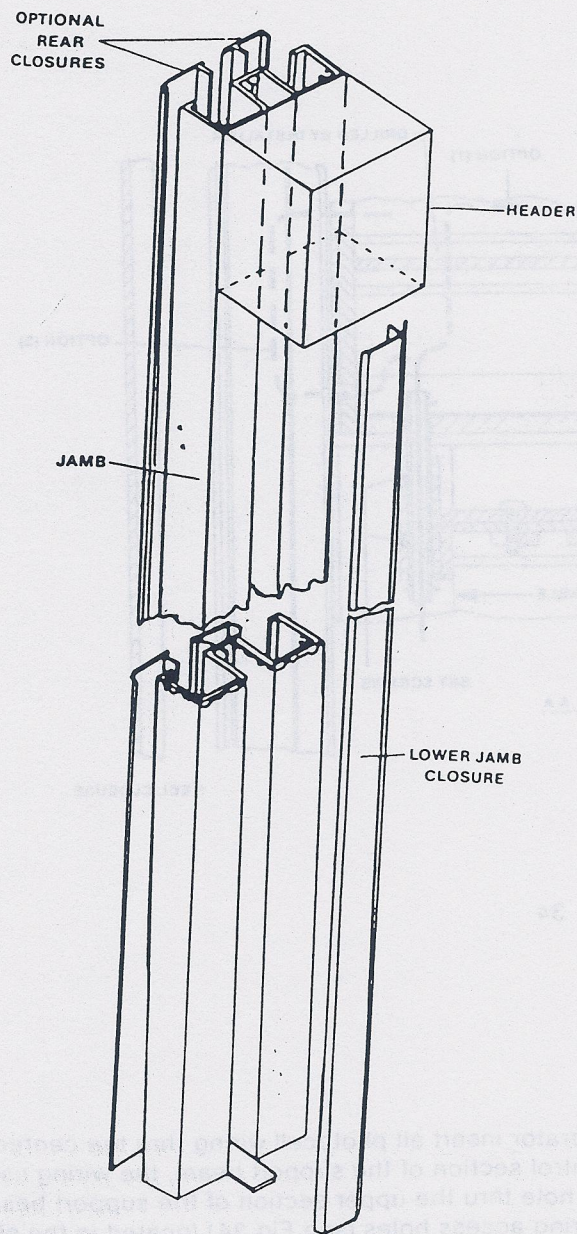


Fig. 32

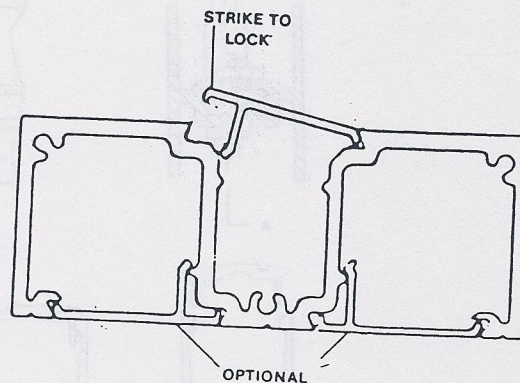


Fig. 33



## INSTALLATION SIDELITE

Carefully remove the sidelite heel rail closure (see Fig. 34) which will access the top pivot (4) for installation and expose all photo cell wiring. Remove the E clip from the upper portion of the top pivot. Install the sidelite onto the bottom pivot while positioning it at 90 degrees to the operator. Carefully shim up the underside of the leading edge until the top pivot pin is aligned with its receptacle in the support beam.

Release the two (2) top pivot set screws (see Fig. 34) while inserting the pivot pin into the support beam. Resecure the set screws and check all sidelite clearances. All adjustments (see Fig. 32) to the top or bottom pivots should be performed at this time. Reinstall the E clip on to the pivot pin and retighten the two (2) set screws.

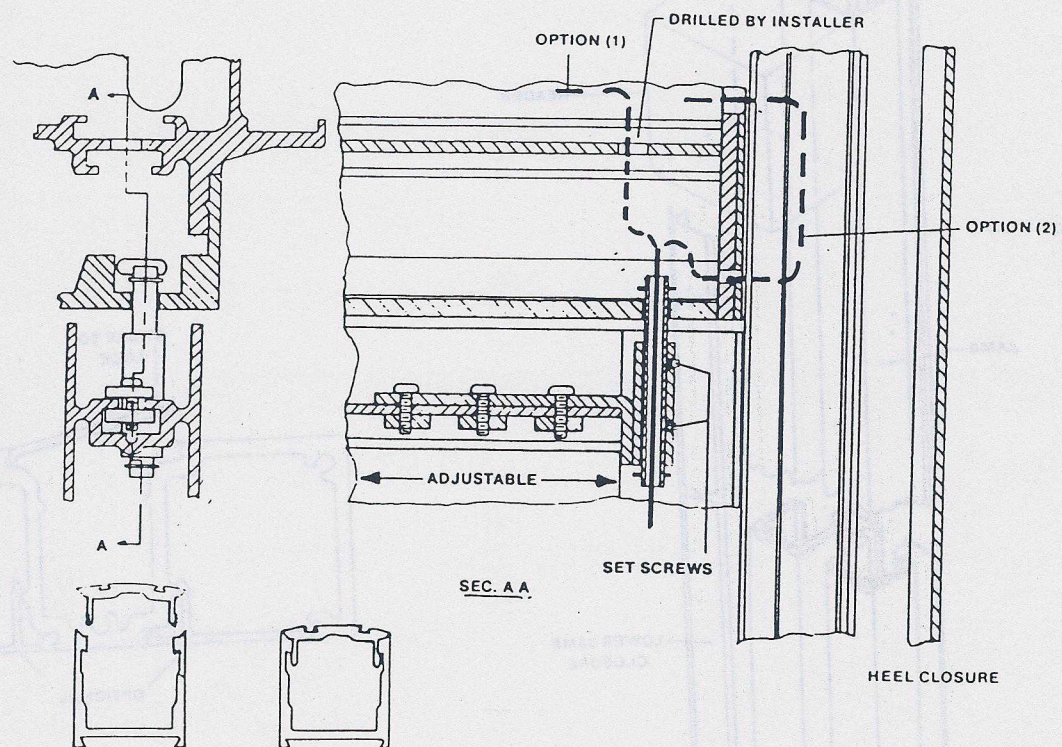


Fig. 34

## PHOTO CELL WIRING

With the sidelite positioned at 90 degrees to the operator insert all photocell wiring thru the center hole of the top pivot pin. In order to access the upper control section of the support beam, the wiring can be run in two directions. (1) By drilling a 5/16" diameter hole thru the upper section of the support beam. (2) By running the wiring from the lower to the upper wiring access holes (see Fig. 34) located in the steel end plate. Wire photo cells (see Fig. 69) and reinstall the sidelite heel rail closure.



## SIDELITE BALL CATCH/PANIC SWITCH ADJUSTMENTS

Check to see that the sidelite portion of the ball catch (6) assembly engages properly with the support beam (5) portion. The sidelite and support beam portions can be repositioned slightly if necessary. Adjust the tension (see Fig. 35) on the ball catch as required by local egress codes. This is accomplished by turning the adjustment screw located in the center of the sidelite portion of the ball catch.

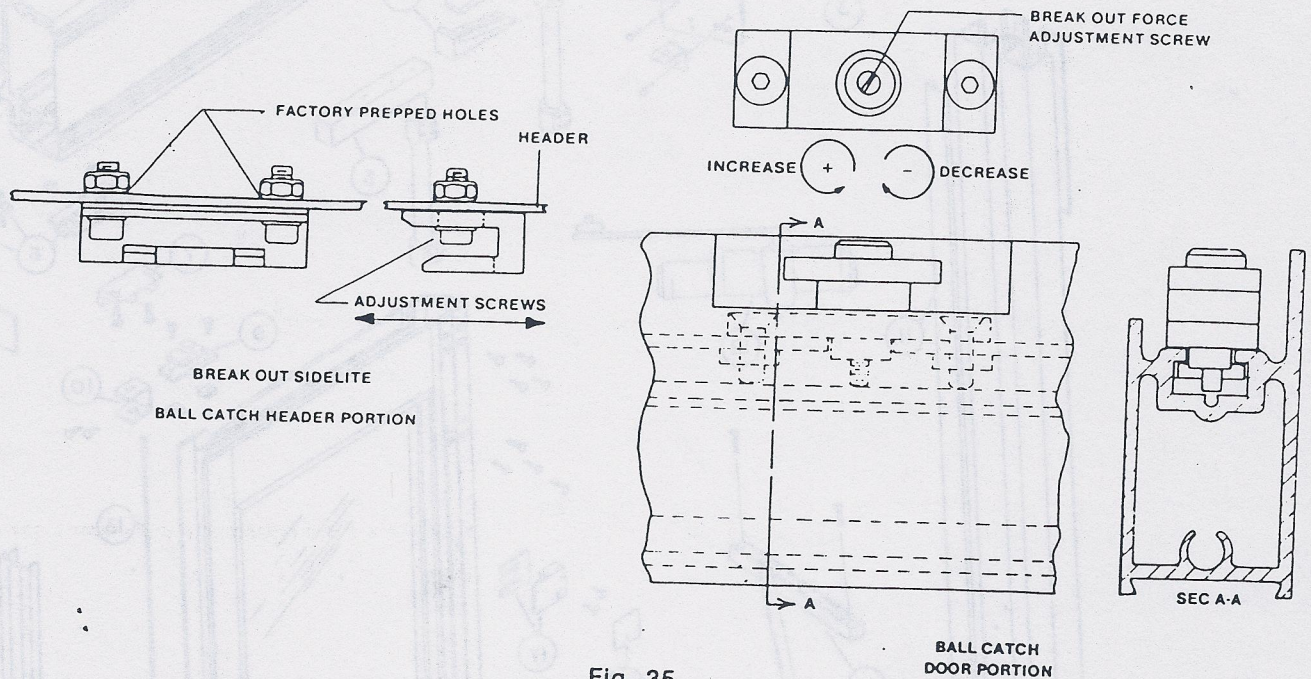


Fig. 35

The Powerglide 4000 is equipped with a magnetic panic breakout switch (9) assembly (bi-parting packages have two) which shuts the operator off whenever the sidelite is open. A ceramic magnet is located in the upper leading edge vertical rail of the sidelite. The switch(s) (see Fig. 36) is positioned (directly over the magnet) in the lower section of the support beam. The switch function is factory set but can be field adjusted (see Fig. 36) if necessary.

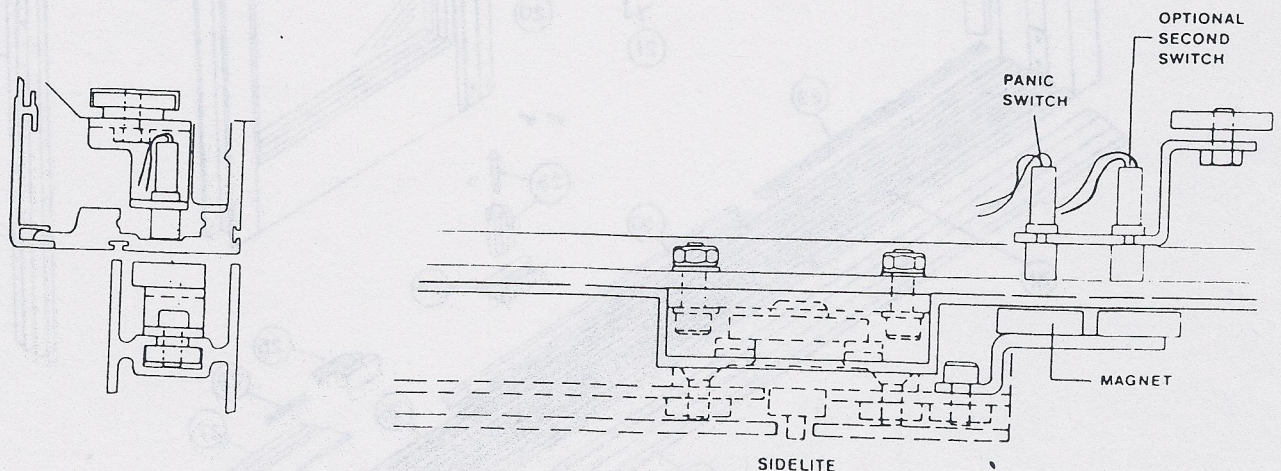
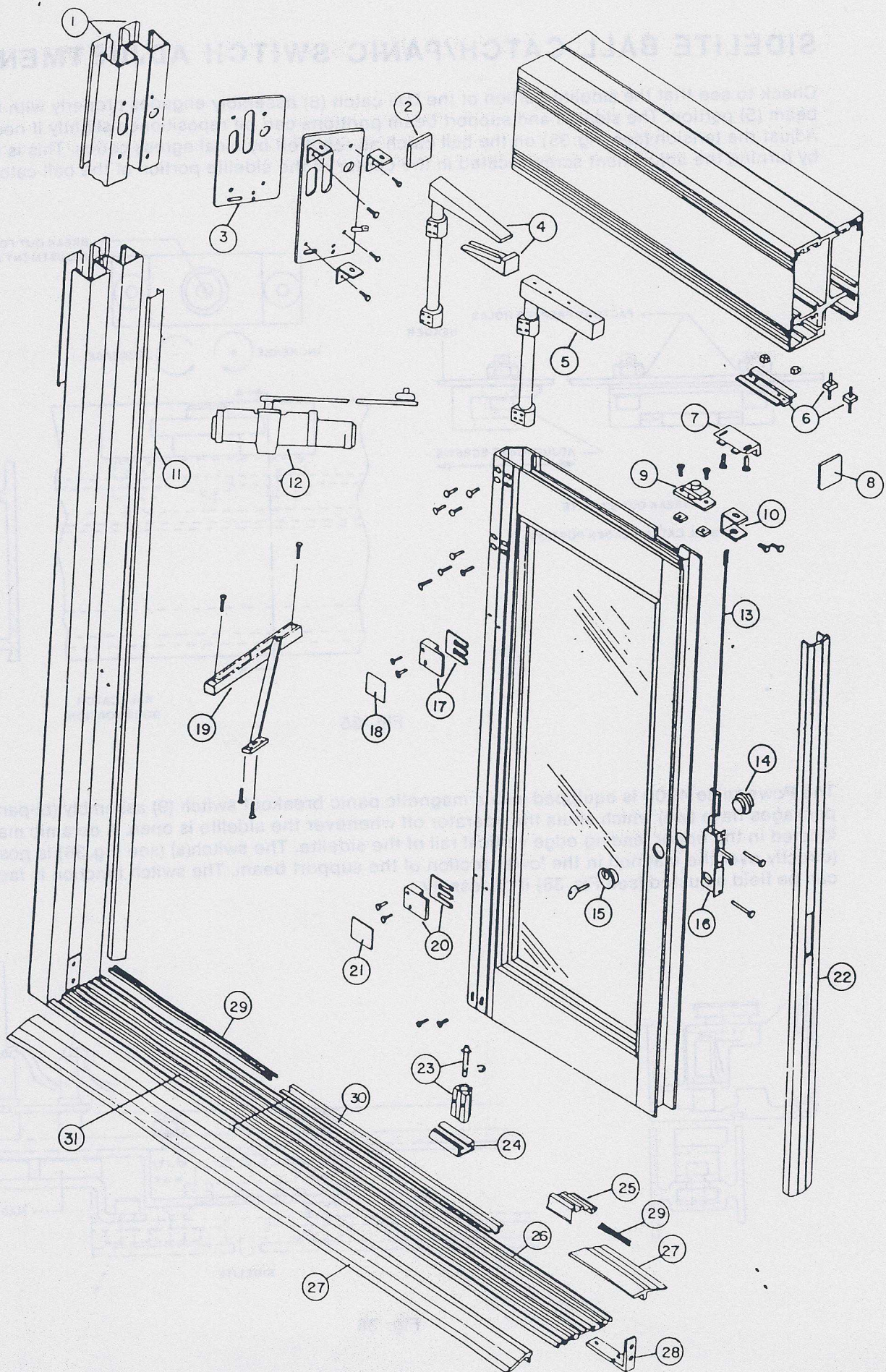


Fig. 36







## INSTALLATION ACTIVE LEAF

Figure 37 shows the Full Breakout active leaf with all cutouts, accessories and standard hardware. Check to see that the active leaf(s) supplied with the sliding door system is complete and all mounting hardware is secured.

## HANGING THE DOOR LEAVES

Before installing the active leaf(s), swing the sidelite(s) to the full open position and secure so that it is not free swinging. Remove all shipping tape from the P.S.A. door carrier (5) and preadjust all set screws down flush within the carrier. **NOTE:** See page 40 for bottom weatherstripping details. Position the door carrier 90 degrees to the door (see Fig. 38) and insert it into the rear of the support beam carrier until it is recessed by 1/8". Secure all set screws.

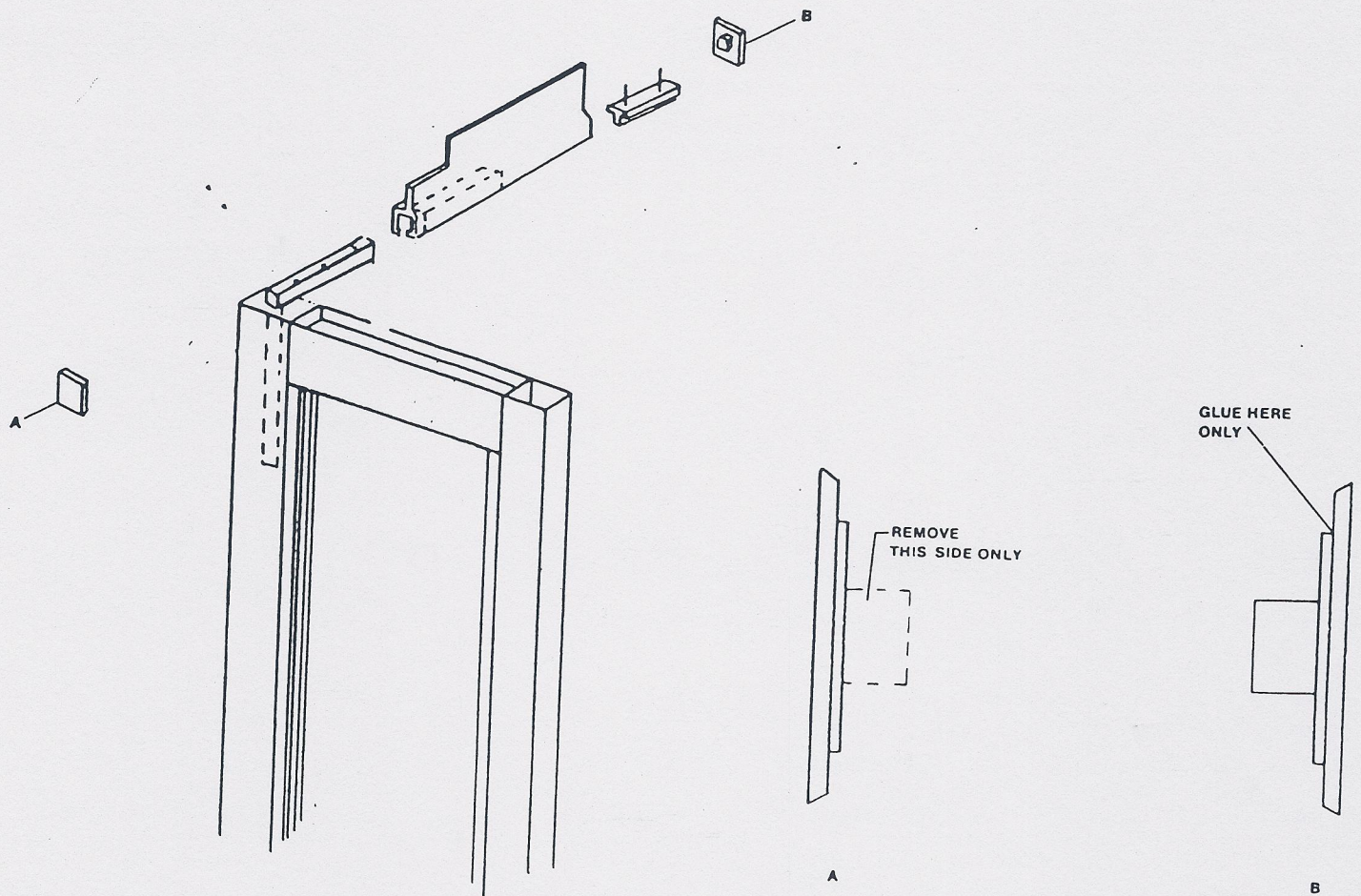


Fig. 38







At the opposite end of the upper door carrier install the ball catch (7) assembly so that it aligns with the active leaf ball catch cutout. Secure the set screws in the upper carrier ball catch portion and latch the active leaf(s) closed. NOTE: It may be necessary (because of inadequate vertical door clearance) to adjust (see page 5) the carriage wheels prior to hanging the door(s). Position the active leaf(s) for leveling. Release the bottom guide pin(s) (see Fig. 40) into the threshold/guide track.

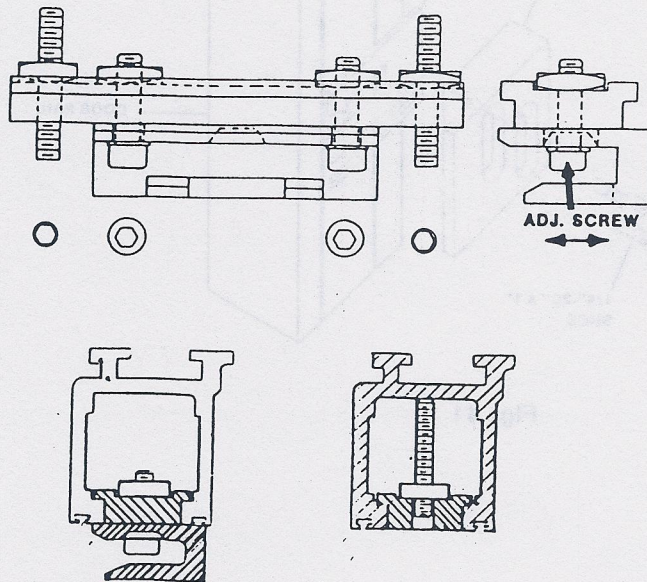


Fig. 39 BALL CATCH  
ACTIVE LEAF PORTION

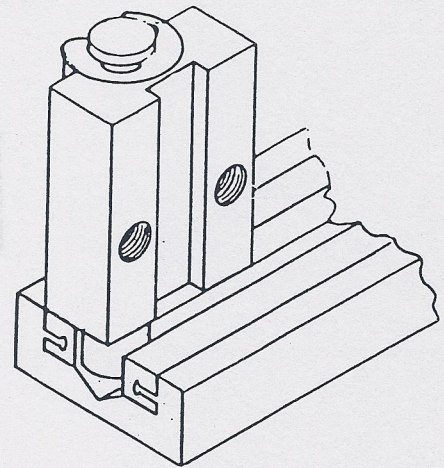


Fig. 40

Adjust the eccentric carriage wheels, derailing guide (see page 7) and carrier hardware. Adjust the height of the active leaf (see Fig. 15) until the proper clearance is obtained. The carriage wheels must be adjusted equally so that the door will line up plumb with the jamb (or opposite active leaf on bi-parters) in the closed position.



Adjust and secure the active leaf(s) bottom guide (23) pin so there is no binding on the threshold/guide track screws. This should be checked for the full stroke of the door(s). Panic the active leaf(s) out and adjust the ball catch tension (see Fig. 35) as required by local egress codes. Install the sidelite interlocks (17) onto the active leaf(s). Slide the active leaf(s) to the open position and close the sidelite(s). Slowly slide the active leaf(s) into the closed position while checking to see that the interlock hardware engages the sidelite(s) cutouts. Adjust (see fig. 41) and shim (supplied) if necessary for proper alignment. For applications utilizing the optional threshold, the snap in closure (30) (see Fig. 42) can be installed into the unused track area completely across the door opening.

INTERLOCK DETAIL WITH SHIM

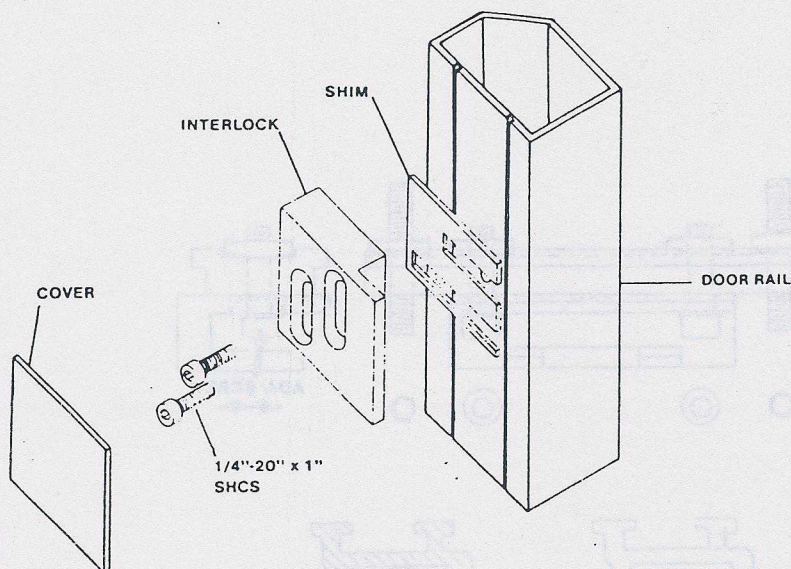


Fig. 41

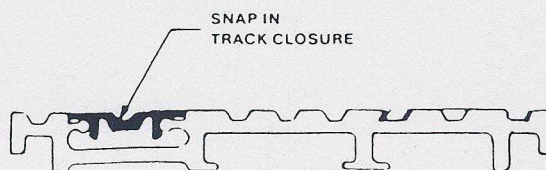
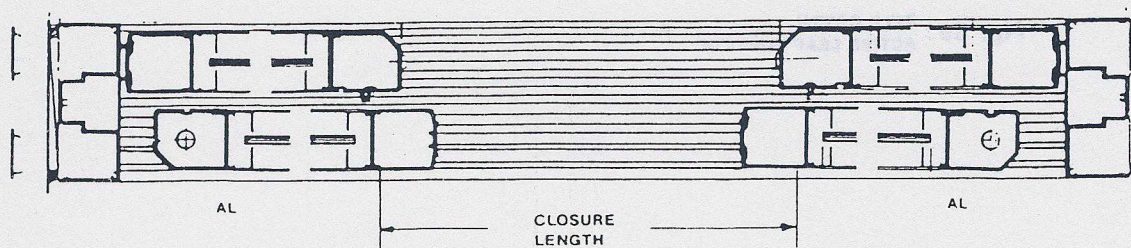


Fig. 42



## FIXED SIDELITE INSTALLATION

Figure 44 shows the fixed sidelite and support beam with all cut outs, standard and optional hardware. Check to see that the fixed sidelite(s) hardware is complete.

## BOTTOM GUIDE SYSTEMS

There are two types of bottom guide systems available (see fig. 43) for the fixed sidelite active leaf(s).

1. Standard pin guide system (with fixed sidelite adapter)
2. Optional roller guide system (with guide track)

Established the type of bottom guide system which is being installed and follow the appropriate instructions.

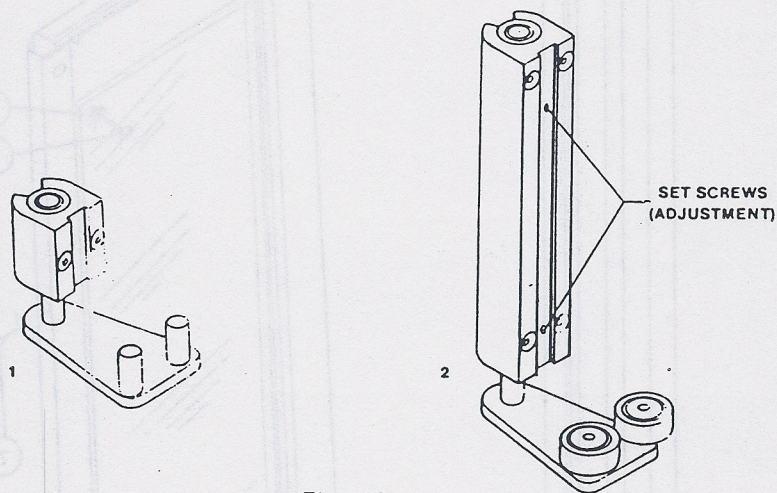


Fig. 43

## OPTIONAL THRESHOLD

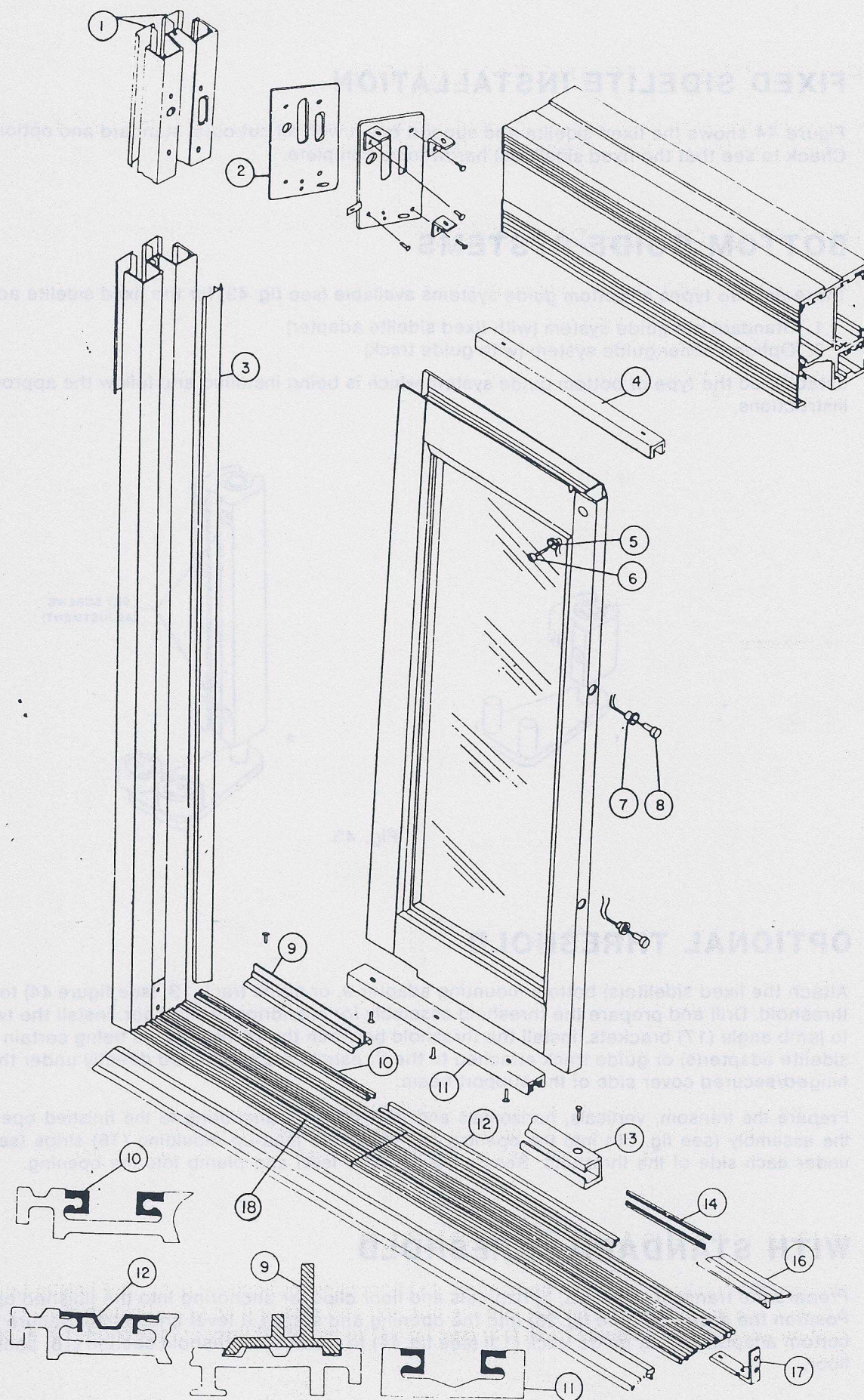
Attach the fixed sidelite(s) bottom mounting adapter 9, or guide track 13. (see figure 44) to the prepared threshold. Drill and prepare the threshold assembly for anchoring to the floor. Install the two thresholds to jamb angle (17) brackets. Install the threshold between the vertical jambs being certain that the sidelite adapter(s) or guide track attached to the threshold are positioned directly under the non-hinged/secured cover side of the support beam.

Prepare the transom, verticals, horizontals and floor clips for anchoring to the finished opening. Position the assembly (see fig. 28) into the opening and install the lead-up moulding (16) strips (see fig. 30) under each side of the threshold. Secure the package level and plumb into the opening.

## WITH STANDARD THRESHOLD

Prepare the transom, verticals, horizontals and floor clips for anchoring into the finished opening. Position the assembly (see fig. 28) into the opening and secure it level and plumb. Secure the sidelite bottom adapter (10) or guide track (13) (see fig. 44) to the short threshold section (18) anchor it to the floor.







## JAMB CLOSURES

Install the lower jamb (see fig. 32) closure (3) which fits between the threshold and the underside of the operator steel end plate. **NOTE:** Other optional jamb (see fig. 33) closures (1) are available and can be installed as shown.

## SIDELITE INSTALLATION PIN GUIDE

Check to see that the distance between the bottom of the support beam and the sidelite threshold adapter is sufficient enough (see fig. 45) to accept the sidelite height. Make adjustments to the adapter if necessary. Check the guide track (located in the bottom horizontal web) to make sure it is secure. Check to see that the aluminum channel (4) which secures the top of the sidelite (located in the top of the sidelite) to the bottom of the support beam is installed.

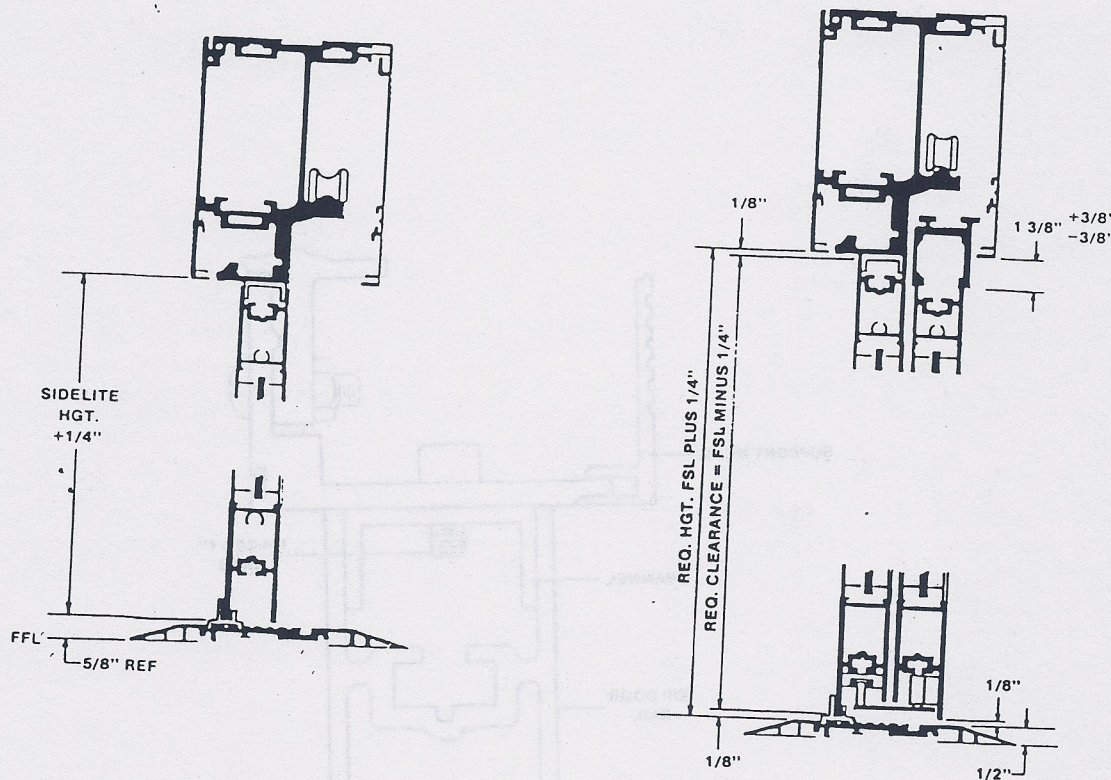


Fig. 45

Remove all photo cell and panic indicator wiring from the leading edge vertical rail (see fig. 46) and position them into the notched area as shown. A 3/8" diameter access hole is required in the bottom of the support beam for the running of these wires.





Position the bottom of the fixed sidelite (with guide cutout towards the active leaf), parallel to the threshold adapter while inserting it into the adapter. Position the top of the sidelite plumb under the support beam and butt the open back sidelite rail tight to the vertical jamb. Secure the top of the sidelite with screws down thru the support beam (see fig. 47) into the aluminum channel (4) located in the top of the sidelite. The wiring is installed up thru the 3/8" access hole and can be run in two directions.

- (1) By drilling a 3/8" diameter hole thru the upper section of the support beam.
- (2) By running the wiring from the lower to the upper wiring access holes (see fig. 34) located in the steel end plate. Wire photocell and panic breakout indicator according to the installation wiring diagram (see pages 22, 43 and 44).

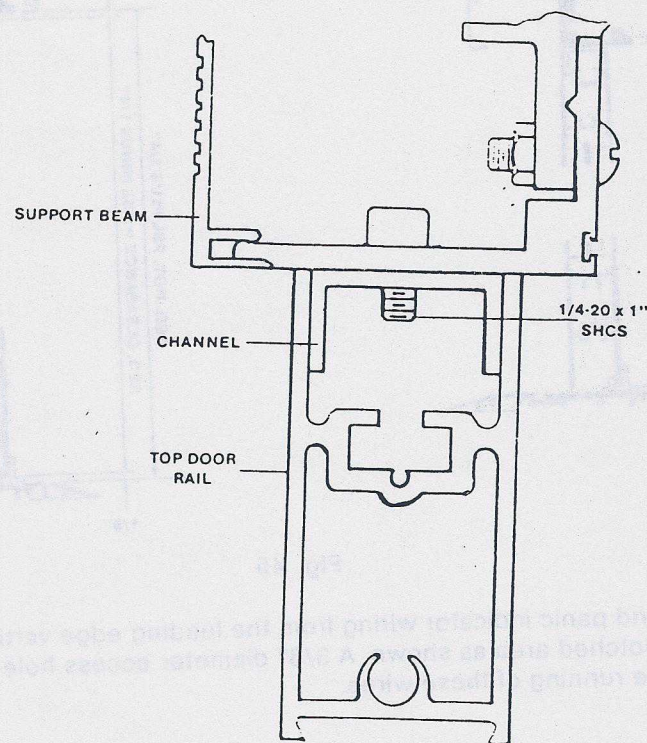


Fig. 47



## SIDELITE INSTALLATION ROLLER GUIDE

Check to see that the distance between the bottom of the support beam and the guide track is sufficient enough (see fig. 48) to accept the sidelite height, make adjustments to the guide track if necessary. Check to see that the aluminum channel (4) (located in the top web of the sidelite) which secures the top of the sidelite to the bottom of the support beam is installed. Remove all photo cell and panic indicator wiring from the leading edge vertical rail (see fig. 46) and position them into the notched area as shown. A  $\frac{3}{8}$ " diameter access hole is required in the bottom of the support beam for the running of these wires. Position the bottom heel of the fixed sidelite, with guide cutout towards active leaf, onto the guide track and slide it onto the track until the sidelite open back vertical rail is tight to the vertical jamb. Plumb the top of the sidelite and secure with screws down thru the support beam (see fig. 47) into the aluminum channel located in the top of the sidelite. The wiring is installed up thru the  $\frac{3}{8}$ " access hole and can be run in two directions.

- (1) By drilling a  $\frac{3}{8}$ " diameter hole thru the upper section of the support beam.
- (2) By running the wiring from the lower to the upper wiring access holes (see fig. 34) located in the steel end plate. Wire photocell and panic breakout indicator according to the installation wiring diagram (see pages 22, 43 and 44)

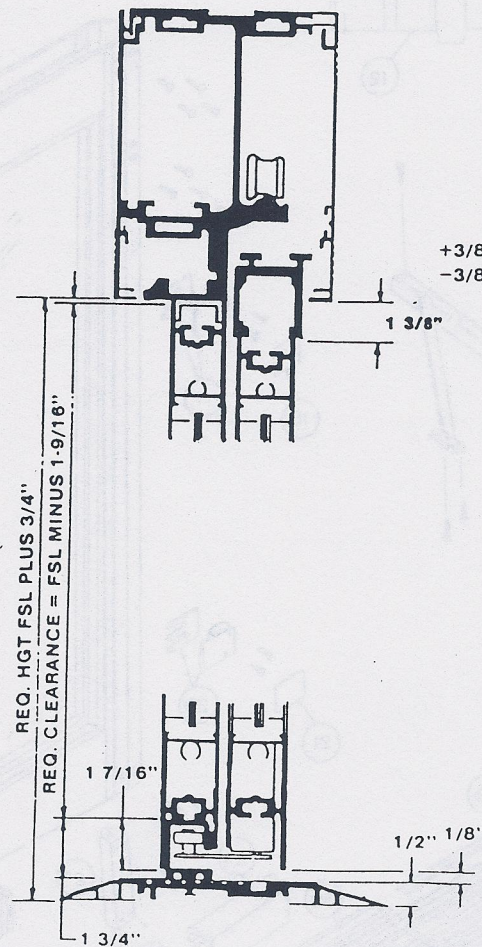


Fig. 48

## INSTALLATION ACTIVE LEAF

Figure (49) shows the active leaf for a fixed sidelite application with all cutouts, accessories and standard hardware. Check to see that the active leaf(s) supplied with the sliding door system is complete and all mounting hardware is secured.



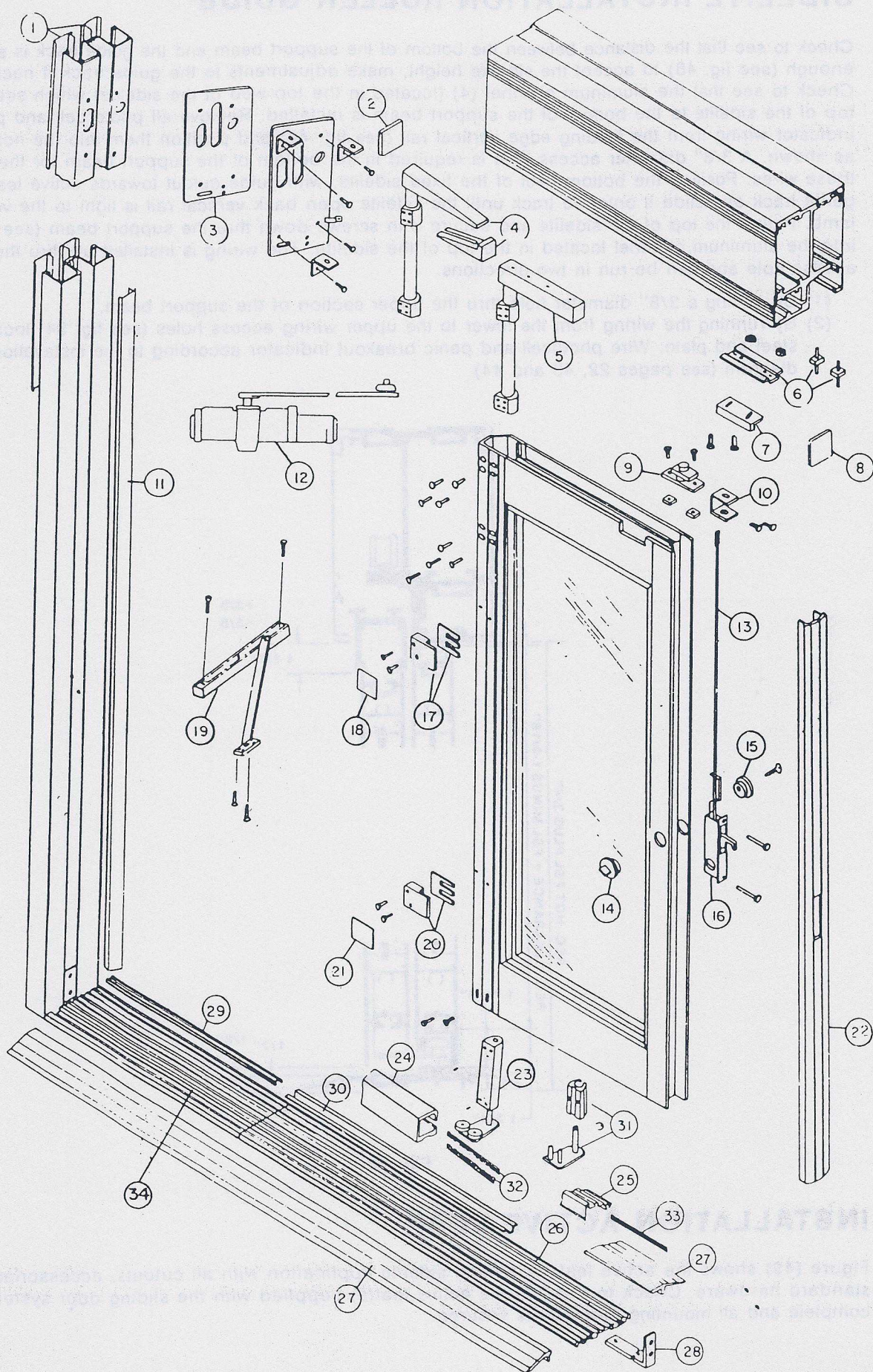


Fig. 49



## HANGING THE ACTIVE LEAVES PIN GUIDE

Remove all shipping tape from the PSA door carrier (5) and pre-adjust all set screws down flush within the carrier. **Note:** see page (40) for bottom weatherstripping details. Position the support beam carrier(s) to the closed position. Release the two height adjustment screws (see fig. 50) securing the bottom pin guide assembly. Position the active leaf approximately 45 degrees to the fixed sidelite and carefully insert the pin guide assembly into the large cut out located at the bottom heel of the fixed sidelite. Carefully slide the active leaf closed while inserting the upper door carrier PSA (see fig. 38) into the support beam carrier until it is recessed by 1/8". Secure all set screws. At the opposite side of the upper door carrier (see fig. 39) install the ball catch (6) assembly so that it aligns with the active leaf ball catch portion and latch the active leaf(s) closed. **NOTE:** It may be necessary (because of inadequate vertical door clearances) to adjust (see page 5) the carriage wheels prior to hanging the door(s). Position the active leaf(s) for leveling. Adjust the eccentric carriage wheels, derailing guide (see pg. 8) and carrier hardware. Adjust the height of the active leaf (see fig. 15) until the proper clearance is obtained. The carriage wheels must be adjusted equally so that the door(s) will line up plumb with the jamb (or opposite active leaf on bi-parters) in the closed position. Open the active leaf(s) and adjust the height of the bottom guide (31) pins (see fig. 50) up into the track area and secure. Slowly slide the active leaf(s) open while checking for any binding of the guide assembly. Readjust until there is no binding for the full stroke of the active leaf(s). Panic the active leaf(s) out and adjust the ball catch (9) tension (see fig. 35) as required by local egress codes. A caulk bead if necessary can now be applied where the fixed sidelite butts to the jamb also at the bottom of the fixed sidelite. Install the rubber carrier (see fig. 38) bumpers. Adjust the active leaf(s) for the finger protection (see pg. 9) Manual Locks (see pg. 36) and proceed with all wiring and operator adjustments.

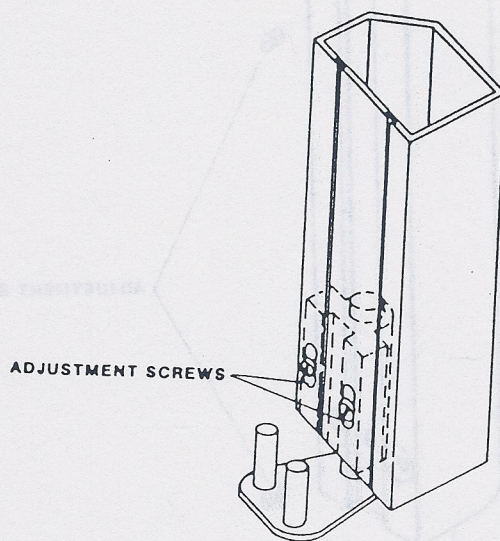


Fig. 50



## HANGING THE ACTIVE LEAVES ROLLER GUIDE

Remove all shipping tape from the PSA door carrier (s) and preadjust all set screws down flush within the carrier. **NOTE:** See page (40) for bottom weatherstripping details. Install the roller guide (23) assembly (shipped separately) into the bottom of the active leaf(s), and secure with 4 mounting screws. Release both upper and lower allen set screws (see fig. 51) and preadjust the roller assembly to the desired height. Position the active leaf approximately 45 degrees to the sidelite. Carefully slide the active leaf closed while inserting the upper door carrier PSA (see fig. 38) into the support beam carrier until it is recessed by 1/8". Secure all carrier set screws. At the opposite side of the upper door carrier (see fig. 39) install the ball catch (6) assembly so that it aligns with the active leaf ball catch cut out. Secure the set screws in the upper ball catch portion and latch the active leaf(s) closed. **NOTE:** It may be necessary (because of inadequate vertical door clearances) to adjust (see page 5) the carriage wheels prior to hanging the door(s). Position the active leaf(s) for leveling. Adjust the eccentric carriage wheels, derailing guide (see pg. 8) and carrier hardware, adjust the height of the active leaf (see fig. 15) until the proper clearance is obtained. The carriage wheels must be adjusted equally so that the door(s) will line up plumb with the jamb (or opposite active leaf on bi-parters) in the closed position. Slowly slide the active leaf(s) open for their full stroke while checking to see that the roller guide mounting plate is properly centered in the floor guide opening. Also check that there is no binding of the rollers in the guide track. Opening the active leaf(s) and tightly secure both upper and lower (see fig. 39) allen set screws. A caulk bead if necessary, can now be applied where the fixed sidelite butts to the jamb, also the bottom of the fixed sidelite. Install the rubber carrier (see fig. 38) bumpers. Adjust the active leaf(s) for the finger protection (see pg. 9) Manual Locks (see pg. 36) and proceed with all wiring and operator adjustments.

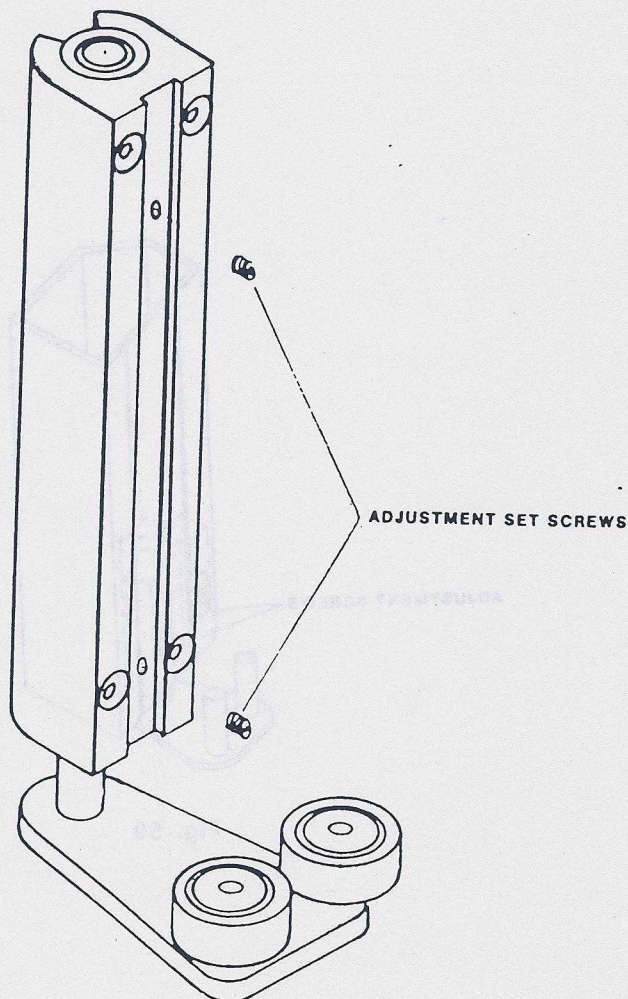


Fig. 51



## • MANUAL LOCKING DEVICE (STANDARD)

If the active leaf is equipped with a maximum security locking device it should be checked for proper function. Single sliding applications are provided with a hook bolt deadlock (16) which secures into the vertical jamb. Biparting doors have a hook bolt deadlock with a second point (13) deadbolt (see fig. 52) which secures into a special bracket located in the upper door carrier. The second point dead bolt height can be adjusted by removing the bolt guide (located in the top vertical rail) and rotating the 3/8" hexagonal deadbolt up or down to the desired projection.

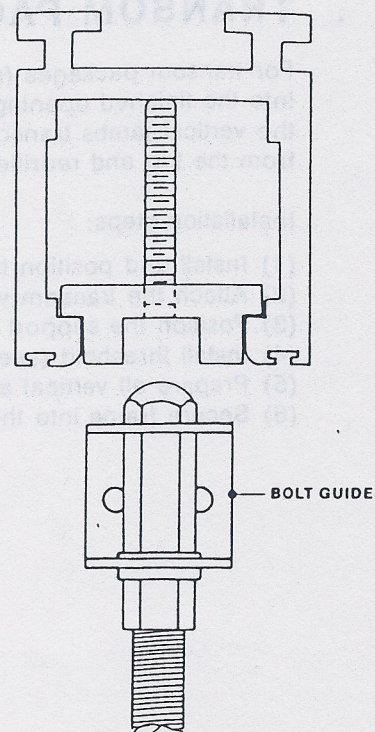


Fig. 52

A mortise key (15) cylinder (exterior side and a mortise thumb (14) turn (interior-emergency egress) are supplied as standard.

For cylinder replacement, two set screw access holes are located under the vertical brush pile. These holes can be exposed (see fig. 53) by pushing up on the upper half of the vertical brush pile.

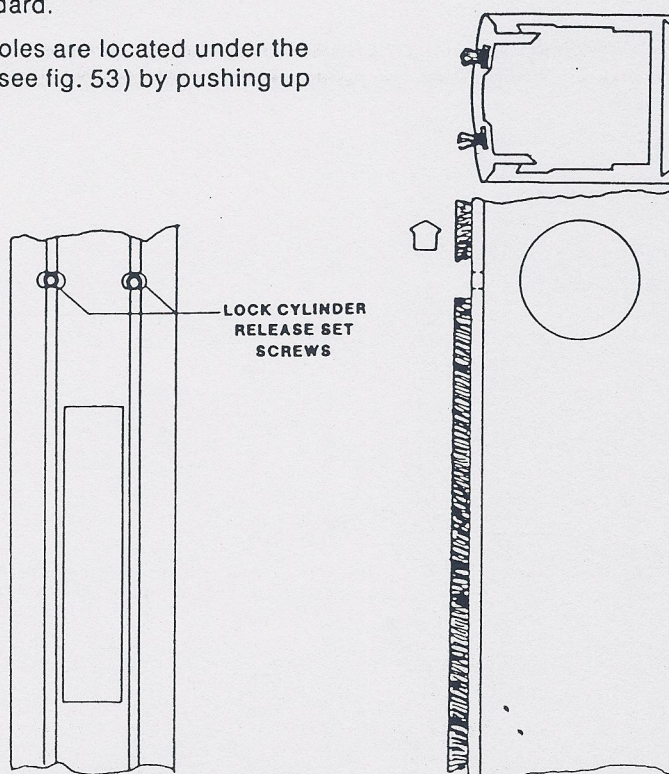


Fig. 53

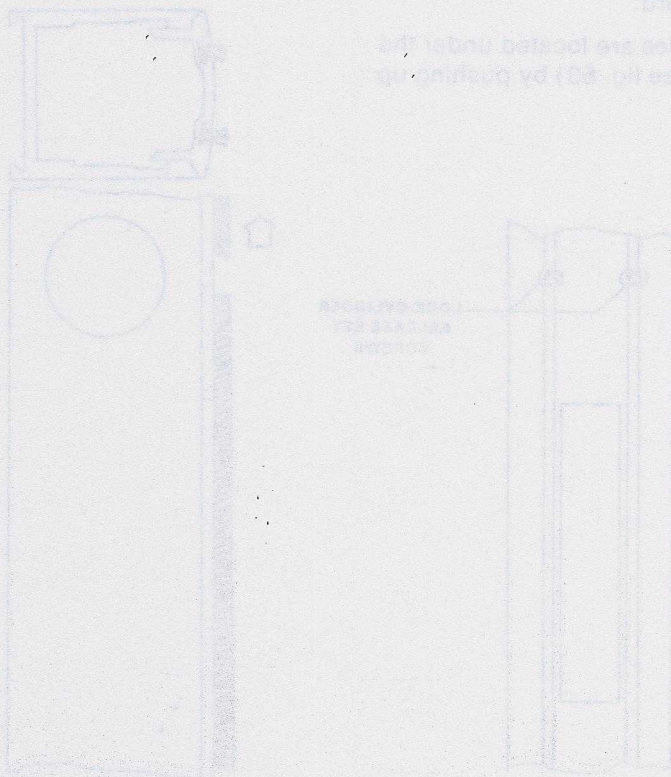


## TRANSOM PACKAGE (OPTIONAL)

For transom packages (see fig. 54) the overall frame heights (O.F.H.) should be checked for a proper fit into the finished opening heights (F.O.H.) (see page 14 fig. 22). If the O.F.H. is too large for the F.O.H. the vertical jambs transom vertical tube(s) and glass bead members must be cut to the correct length from the top and redrilled for attaching to the horizontal transome tube.

### Installation steps:

- (1) Install and position the transom vertical clip(s) (see fig. E) into the top support beam dovetail slot.
- (2) Attach the transom vertical(s) (see fig. D) and the jambs to the horizontal transom (see fig. A) tube.
- (3) Position the support beam between the jambs (see Fig. B) and secure all vertical tubes.
- (4) Install threshold (see Fig. C) if equipped.
- (5) Prepare all vertical and horizontal tubes for attaching to the opening.
- (6) Secure frame into the opening and install all snap-in glass bead gutter members.





# Installation Power-Glide 4000 (Non Panic)

For installation instructions for the Power-Glide 4000 Non Panic door adapter and bottom door guide system please refer to the following pages:

Page ( 5 ) --- Pre-adjustment of Carriage Wheels

Page ( 5 ) --- Mounting the Door Adaptor

Page ( 6 ) --- Mounting the Non-Panic Adapter

Page ( 7 ) --- Hanging the Door Leaves

Page ( 7 ) --- Installation of Floor Guides

Page ( 8 ) --- Depth Adjustment

Page ( 8 ) --- Height Adjustment

Page ( 9 ) --- Centering of the Door Leaves

Page ( 9 ) --- Attachment of Tooth Belt

Page ( 9 ) --- Adjusting for Finger Protection



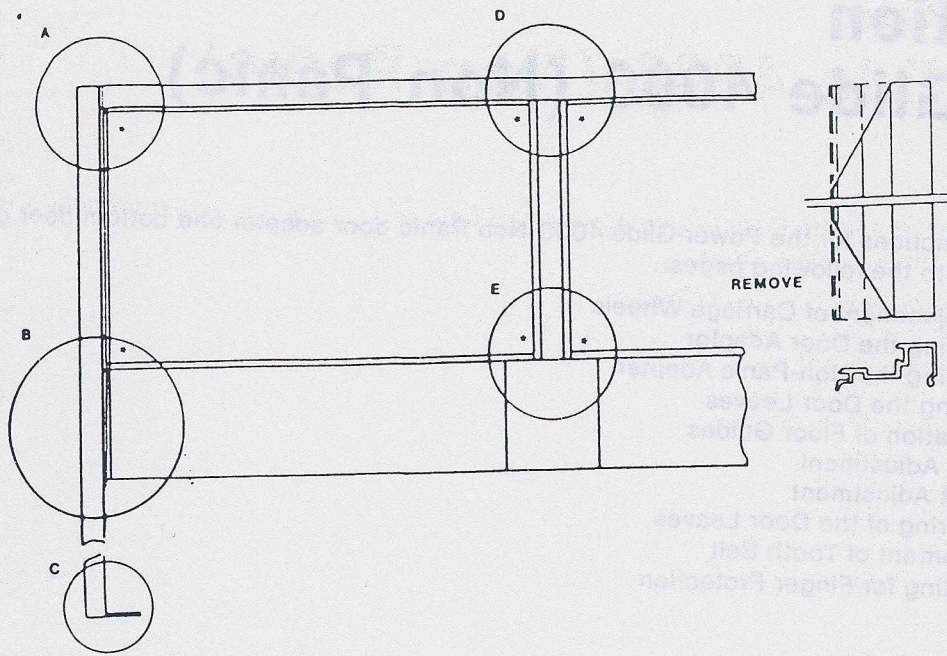


Fig. 54

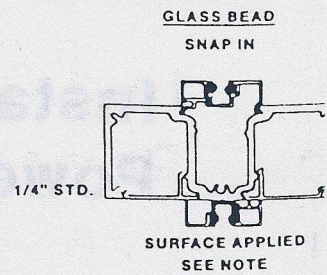


Fig. F

NOTE-ALSO AVAILABLE 5/

A-(TOP RAIL)

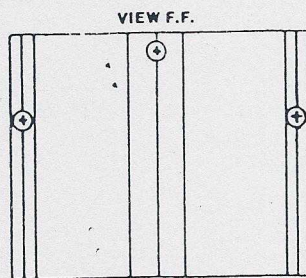


Fig. A

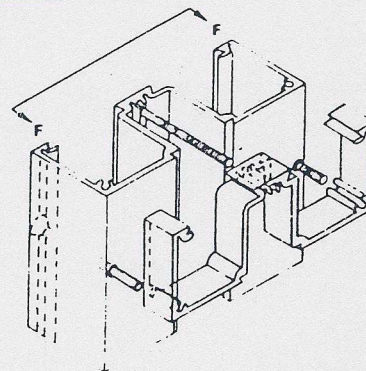
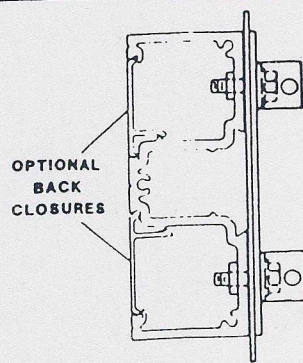


Fig. D

D-(TOP-VERTICAL TUBE)



B-(HEADER MTG.)

C-(THRESHOLD-JAMB BRKT)

Fig. B

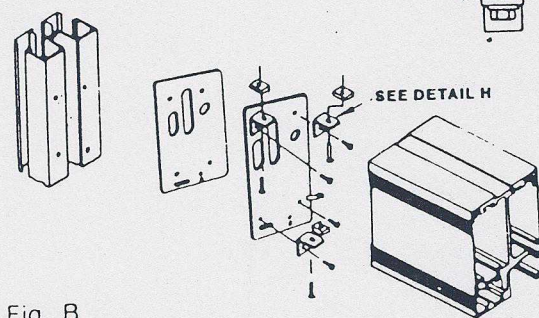
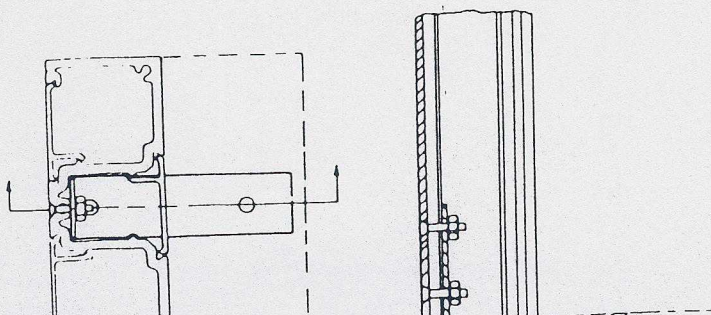


Fig. E

E-(VERTICAL TUBE MTG. CLI



TRANSOME DETAILS



## BOTTOM WEATHERSTRIPPING (OPTIONAL)

Bottom weatherstripping is supplied as an optional accessory and can be installed on all active and breakout sidelite leaf(s). A snap in track member (see fig. 55) with multi-level slots (for thermal brush) is inserted into the bottom web of the door leaf(s) prior to their installation. The slot Level A for most applications is always positioned to the exterior (see fig. 55) and the thermal brush 1 or 2 inserted into the appropriate slot according to the type of guide system supplied.

### GUIDE TYPE

Pin Guide Track  
(Surface/recessed)

Pin Guide Full Threshold

Fixed Sidelite (All)

### ACTIVE LEAF

Slot B Brush 2

Slot A Brush 1

Slot B Brush 2

### SIDELITE

Slot A Brush 1

Slot A Brush 1

N/A

**NOTE:** C Slot Utilized for special floor conditions.

### 1/2" Brush

A=1/8"

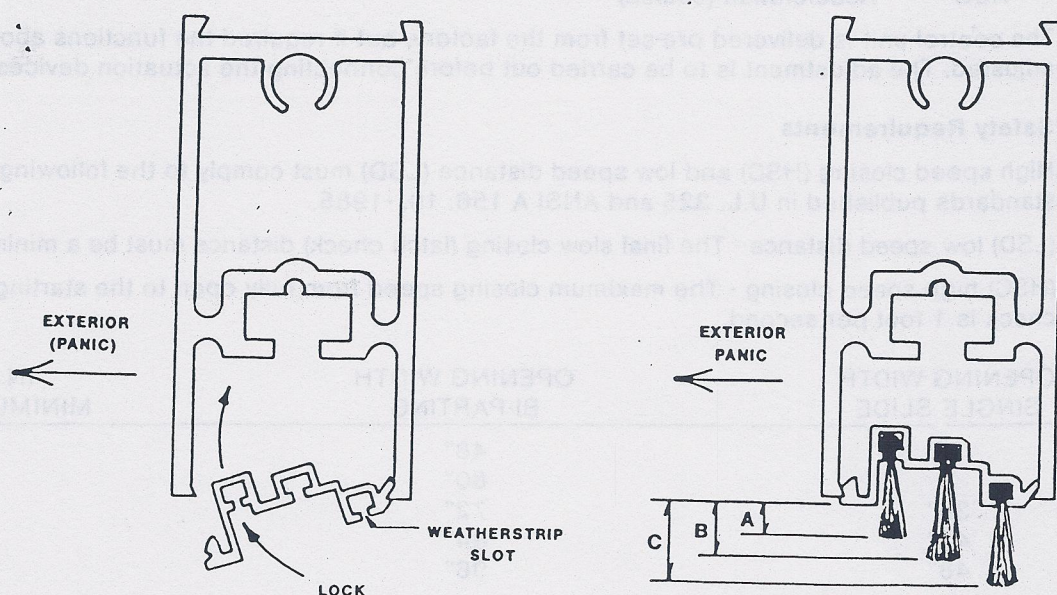
B=1/4"

C=1/2"

A=1/2"

B=5/8"

C=7/8"



MULTI LEVEL WEATHERSTRIP DETAIL

Fig. 55



# Electrical connections

Install the necessary cables for the main power and actuation devices. The plug-in contacts are connected at the factory as shown on page 43-44. The actuation devices are not to be connected until the adjustment of speeds etc. has been performed.

## Adjustment instructions

The computerized control unit is equipped with:

- Push button marked "IMP" used to give impulse when adjusting the door speeds etc.
- Push-button marked "RES" used to reset the computer if a new registration of the daylight width is to be made.
- Red light emitting diode marked "MON" illuminated when voltage is applied to the motor.
- Red light emitting diode marked "ERR" for error indication.
- Contact marked "TEST" for field test instrument FTI. To be used for limited fault finding in the field. See application instruction 91-23-1002.
- Function selector marked "FS" equipped with 7 switches with different functions explained on page 47-48.
- Potentiometers
  - HSO High speed opening
  - \*HSC High speed closing
  - LS Low speed, opening and closing
  - \*LSD Low speed distances
  - PO Partial opening
  - TD Opening hold time
  - ACC Acceleration (sealed)

The control unit is delivered pre-set from the factory, but if required the functions above can be adjusted. The adjustment is to be carried out before connecting the actuation devices.

### \*Safety Requirements

High speed closing (HSC) and low speed distance (LSD) must comply to the following entrapment standards published in U.L. 325 and ANSI A 156. 10. -1985.

(LSD) low speed distance - The final slow closing (latch check) distance must be a minimum of 2" in width.

(HSC) high speed closing - The maximum closing speed from fully open to the starting point of latch check is 1 foot per second.

OPENING WIDTH SINGLE SLIDE	OPENING WIDTH BI-PARTING	IN COMPLIANCE MINIMUM CLOSING TIME
	48"	2.0 sec.
	60"	2.5 sec.
36"	72"	3.0 sec.
42"	84"	3.5 sec.
48"	96"	4.0 sec.

### Adjustment

1. Set the position switch (if equipped) to position "Aut".
2. Set the mains switch to position "1". The door now carries out a cycle, open/close, at low speed independent of the setting of the potentiometers. The computer notes (searches) the width of the opening. The speeds are not adjustable during this cycle.
3. Press "IMP". The door now carries out a cycle, open/close, with factory pre-set speeds for "HSO", "\*HSC" and "\*LS".
4. Press "IMP" and adjust "HSO", "\*HSC" and "\*LS" to the values wanted. Clockwise turning increases the speeds.
5. "LSD" is factory pre-set to the longest low speed distances possible (max. clockwise turning). Turn counter-clockwise until the distances wanted are obtained.

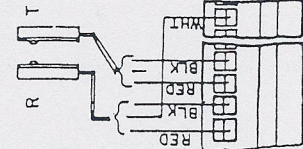
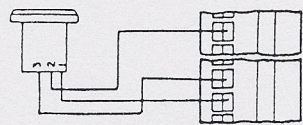
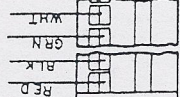
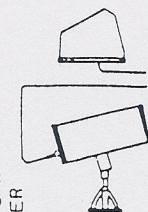


COMMANDER I (RBI)  
SELECTSCAN  
PATHFINDER  
(IRD)  
ROC18 II

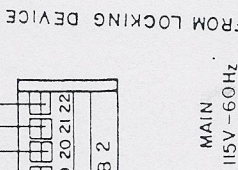
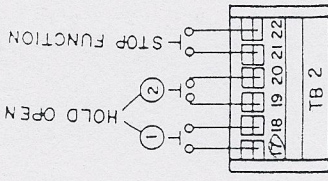
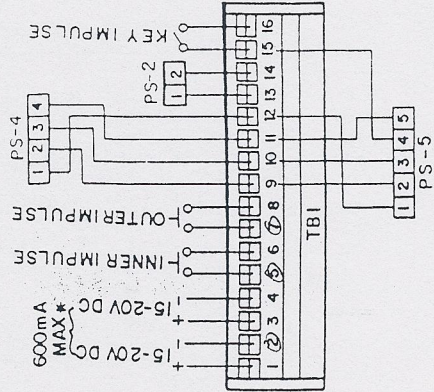
PHC  
FS NO 2 OFF

PHM  
FS NO 2 OFF

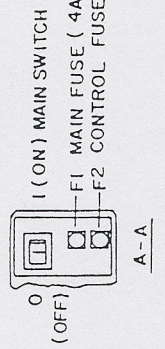
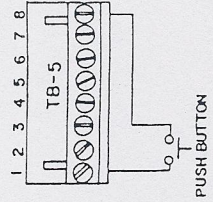
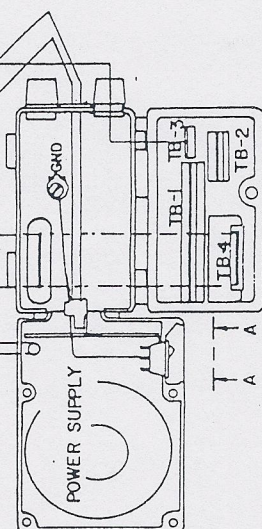
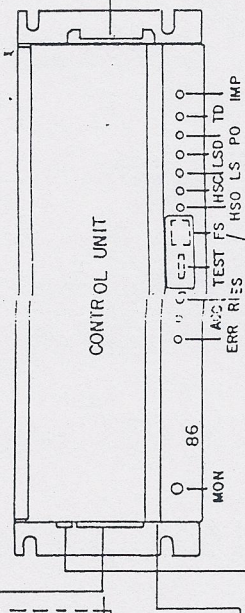
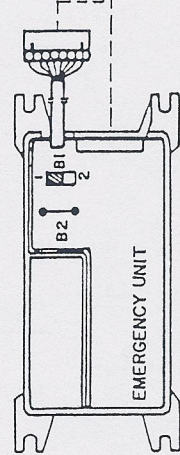
PHO  
FS NO 2 ON



\* ONLY 1 (IR) PHOTOCELLS  
TRANSMITTERS  
■ JUMPF S REQ ON TB-2  
SEE MANUAL FS NO.2



1 2 5 6	1 2 5	1 2 3 4 5	INNER IMPULSE
1 2 7 8	1 2 7	1 2 3 4 7	OUTER IMPULSE
1 2 17 19	1 2 3 4 17 19	1 2 3 4 17 19	HOLD OPEN
1 2 21	1 2 3 4 21	1 2 3 4 21	STOP FUNCTION



Auto Reverse (Non-Adj. - Set by Factory)  
MON - LIGHT EMITTING DIODE ILLUMINATED WHEN  
VOLTAGE IS APPLIED TO THE MOTOR  
ERR - LED FOR ERROR INDICATION  
ACC - ACCELERATION  
RES - RESET OF THE COMPUTER

HSD - HIGH SPEED OPENING  
HSC - HIGH SPEED CLOSING  
LS - LOW SPEED OPENING AND CLOSING  
LSD - LOW SPEED DISTANCE  
PO - PARTIAL OPENING  
TA - OPENING HOLD TIME

CONNECTION DWG  
86

**besam**  
1711 TWIN RIVERS DRIVE  
EAST WINDSOR, N.J.  
609-443-3800 08520







6. "TD" is factory pre-set to the shortest opening hold time possible (max. counter-clockwise turning). Turning clockwise increases the opening hold time (max. 40 s).
7. "PO" is factory pre-set to the widest opening possible (max. clockwise turning). To be adjusted only if the position switch "PS-2" is installed and is set to position 1, or if "PS-5" is installed and is set to position "Auto width". Counter-clockwise turning decreases the opening width.
8. "ACC" is factory pre-set to a standard value and sealed. To be adjusted only when necessary, e.g. when the door is extremely heavy or light. Clockwise turning gives a harder retardation.

## Position switches

- PS-4** This standard switch is used to obtain the necessary functions of the operator.
- "Off" — Operator disconnected.
  - "Exit" — Passage through doorway from inside only. The door can only be opened with the inner impulse device.
  - "Aut" — Normal position. The door can be opened with inner and outer impulse devices.
  - "Open" — Door permanently open.
- PS-5** This position switch has the same functions as PS-4, plus an additional setting, marked:
- "Auto width" — In this setting the operator is programmed to select full or partial opening, depending on the volume of traffic.
    - If the door is closed for more than 3 s the next opening will be partial.
    - If the door remains partially open more than 10 s it will then automatically select full opening.
    - Permanent partial opening can not be selected with this switch.
- The width of the partial opening is set by the potentiometer marked PO on the control unit.
- PS-2** This position switch has two settings, 1 and 0. It is necessary to install this switch if permanent partial opening, independent of the volume of traffic, is required. With PS-2 in position 1 the opening set by the potentiometer marked PO is always obtained.

## Electro-mechanical locking device

- EL-1/EL-2**—for single-/double-leaf door—locked without power. (Fail Secure).  
**ELP-1/ELP-2**—for single-/double-leaf door—locked with power. (Fail Safe).

An electro-mechanical locking device can be installed if the door is to be locked in the closed position, (see separate installation drawing). The electro-mechanical locking device is controlled by the position switch and the door is locked with the position switch in EXIT or OFF. In the other positions, the door is unlocked. In position EXIT the outer impulse device is disconnected. The inner impulse device, however, can still be used and opens lock and door when impulsed. In position OFF both inner and outer impulse devices are disconnected, and the door cannot be opened. If a key switch contact is installed, the door can always be opened with the position switch in EXIT and OFF. The electro-mechanical locking device can, depending on the installation, be locked either with or without power. See FS No. 7.



# Emergency Unit—EU

## AUTOMATIC EMERGENCY OPENING OR EMERGENCY CLOSING

The operator can be equipped with an electronic emergency unit EU, which in case of a power failure automatically opens or closes the door, by means of a rechargeable battery unit. The door remains in this position until the power is restored. The operator will then resume the function set by the position switch.

## AUTOMATIC SUPERVISION OF THE EMERGENCY UNIT

The function of the emergency unit is supervised by the control unit if the function selector FS No. 5 is set to ON position. See page 48. This supervision means that the door opens or closes and remains in this position if a proper emergency opening or closing no longer can be achieved.

## MANUAL EMERGENCY OPENING OR EMERGENCY CLOSING

When required that the emergency opening or closing should not be carried out automatically in case of a power failure, a non-locking emergency push button for manual control of the door can be connected. Then the door will not open or close (by means of the battery unit of the emergency unit) until the non-locking emergency push button is being pressed manually. In order to obtain this function, the jumpers marked B1 and B2 on the PC-board of the emergency unit have to be changed. B1 is to be moved from position 1 to position 2. B2 is to be cut open. The non-locking emergency push button is to be connected to the terminals 1 and 8 on the contact TB5.

## ERROR INDICATION OF EMERGENCY UNIT FUNCTION

Error indication is internally obtained on the light emitting diode, marked "ERR", on the control unit. It can also be externally obtained if a lamp or a buzzer is connected to TB2 on the connection unit. See FS No. 3 and 4, "External error indication" page 48 and "Error indication" page 49.

# Control measures and functions of the function selector FS

If there are adjustment difficulties or a requirement to change the factory pre-set functions, the following control measures can be taken.

## FUNCTION SELECTOR, FS

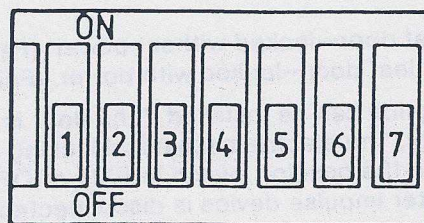


Fig. 56

This selector, placed under the rubber protector on the control unit, has 7 switches, FS No. 1–FS No. 7 with different functions.

### FS No. 1 Emergency function

This switch is used if emergency unit EU is installed.

FS No. 1 in position    OFF= Emergency opening  
                                  ON = Emergency closing



## \*FS No. 2 Hold Open and Panic Stop functions

In certain cases it is required that the door operator should be equipped with HOLD OPEN and PANIC STOP functions. HOLD OPEN function means that a photocell is installed in the door opening. If the beam of the photocell is broken when the door is opening or closing, the door will stay open or revert to open position as long as the beam of the photocell is broken. STOP function is also obtained by means of a photocell. If the beam of the photocell is broken the door will immediately stop.

The STOP function is used when the door is fitted with a Break-Out Panic unit.

The HOLD OPEN and STOP impulse devices are connected to the terminals on the connection block TB2. See page 43-44. The impulse signal given is either closed or open, depending on the design of the impulse device. The control unit is designed to receive both types of signals.

FS No. 2 in position OFF = The terminals on TB2 are only receiving closing impulse signals.  
ON = The terminals on TB2 are only receiving opening impulse signals.

If FS No. 2 is set to position ON and one or more of the HOLD OPEN and STOP impulse devices are not used, they have to be jumped to terminal No. 4 on the connection block TB1 at follows:

If the HOLD OPEN (1) function is not used, terminal No. 17 on TB2 is to be jumped to terminal No. 4 on TB1.

If the HOLD OPEN (2) function is not used, terminal No. 19 on TB2 is to be jumped to terminal No. 4 on TB1.

If the STOP function is not used, terminal No. 21 on TB2 is to be jumped to terminal No. 4 on TB1.

If none of the terminals on TB2 is used, jumping is not necessary. Then FS No. 2 is to be set to position OFF.

If FS No. 2 is set to position ON, all connected HOLD OPEN and STOP functions are supervised in all the position switch (PS) settings except OFF. This means that the microprocessor checks the function of the impulse devices before each closing. If any of them is not working, the door remains open.

\*Hold open photocells are required on all pedestrian sliding door(s) applications.

\*Panic Stop is required on all panic breakout applications.

## FS No. 3,4 External error indication

These switches are used if external error indication is required.

FS No. 3 and FS. No. 4 in position OFF = External error indication with potential free contact is obtained on the terminals No. 20 and 22 on TB2. Connections for Hold Open and/or for Stop impulse made to terminals No. 20 and 22 are to be connected to terminal No. 18 on TB2.

FS No. 3 and FS No. 4 in position ON = Factory setting. No external error indication is obtained.

See also Error Indication/Emergency Unit, page 47 and Error Indication, page 49.

## FS No. 5 Automatic supervision of the emergency unit

FS No. 5 in position ON = Automatic supervision of the function of the emergency unit

FS No. 5 in position OFF = No automatic supervision of the function of the emergency unit, or emergency unit is not installed.

## FS No. 6 Emergency function/position switch (PS)

This switch is used if emergency unit EU is installed and emergency function (opening or closing) is required although the position switch is in OFF Position.

FS No. 6 in position OFF = Emergency function with the position switch in OFF position

ON = No emergency function with the position switch in OFF position

## FS No. 7 Locking Function

The electro-mechanical locking device can with this switch be selected to lock with or without power.

FS No. 7 in position ON = Locked with power (Fail Safe).

OFF = Locked without power (Fail Secure).

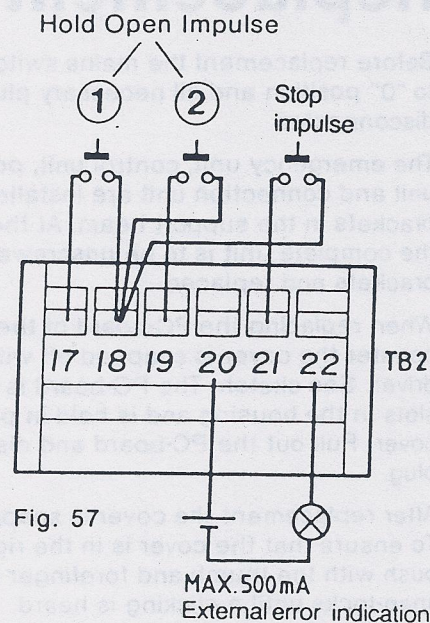


Fig. 57



# Error indication

The microprocessor in the control unit is programmed to check the internal circuits of the control unit and the emergency unit.

The result of this control is indicated with a red light emitting diode marked "ERR" on the control unit.

If the check shows a proper function of the internal circuits of the control and emergency unit, the ERR is extinguished.

Following signals on "ERR" inform on what's wrong and how to remedy this defect.

ERR-Signals	What's wrong	Remedies
Flashing light	Control unit defective	Replace control unit
Fixed light	Emergency unit defective	Replace emergency unit

If the operator does not function though the "ERR" is extinguished and all recommended measures have been taken in accordance with the Fault Finding procedure on page 50, a special instrument must be used to locate the defective unit.

By using the Field Test Instrument "FTI" following functions can be tested:

- All input terminals except "EXIT" and "PARTIAL OPENING"
- Lock output terminal
- Power supply for photocells
- Motor
- Motor control
- Revolution counter

See separate application instructions 91-23-1002 for FTI.

## Replacement

Before replacement the mains switch is to be set to "0" position and all necessary plugs are to be disconnected.

The emergency unit, control unit, power supply unit and connection unit are installed with brackets in the support beam. At the replacement the complete unit is to be unscrewed from the brackets and replaced.

When replacing the PC-board of the revolution counter the cover is snapped off with a screw driver. See sketch. The PC-board is slid into two slots in the housing and is held in position by the cover. Pull out the PC-board and disconnect the plug.

After replacement the cover is snapped on again. To ensure that the cover is in the right position, push with the thumb and forefinger on the two snap-locks until a clicking is heard.

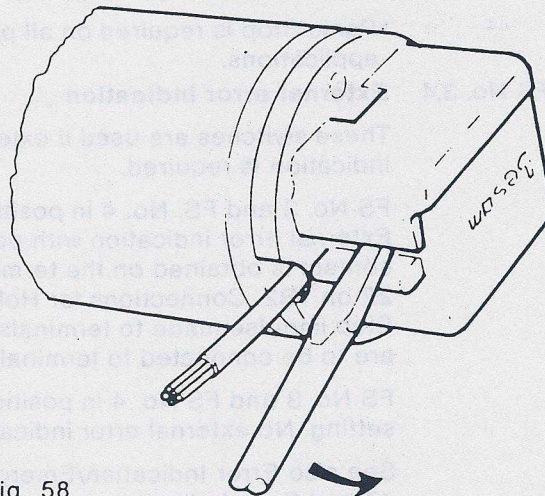


Fig. 58

## Technical specifications

Power supply:	110V, 60Hz, 10A	Door travel:	(1 leaf) 35"-70" (2 leaves) 39"-78 3/4"
Power Consumption:	max. 200W	Opening and closing speed:	Variable up to approx. 39"/sec. (2-leaves)
Control voltage:	15—20 V DC	Low speed:	Variable up to approx. 12"/Sec. (2-leaves)
Mains fuse:F1	4A slow (110V)	Opening hold time:	0-40 s
Control fuse:F2	1.5A		
Recommended max door weight:	(2 leaves) 175 lb./door leaf (1 leaf) 200 lb./door leaf		
		Temperature range:	10°F (-20°C) to 120°F (50°C)



# Fault finding

(See also error indication page 49 and drawing page 43-44)

## WHAT'S WRONG

## POSSIBLE REASONS WHY

## REMEDIES

### THE DOOR DOES NOT OPEN

*The motor does not start*

The position switch is set to "OFF"

Change the setting of the position switch

The mains switch is set to "0"

Set the mains switch to the "1" position

There is no supply voltage

Open the connection unit cover and check that the supply voltage cables are correctly connected.

A fuse has blown

Check all fuses and replace if necessary, see page 43-44.

The inner or outer actuation devices are short-circuited.

The door will open only if the position switch is set "OPEN". Check the inner and outer impulse supply by using a jumper between terminals 5—6 and 7—8 respectively.

The "stop function" is actuated

Disconnect the terminals 21 and 22. If FS no. 2 is in position ON, connect a jumper between the terminals 21 and 22.

*The motor starts but stops immediately*

Stones, sand, rubbish etc. stop the door leaf movement

Clean the floor guide

The door leaf is jamming on the floor and/or on the weather strips

Adjust the door height, and/or distance to weather strips, see "Installation"

### THE DOOR DOES NOT CLOSE

*The motor does not start*

The position switch is set to "OPEN"

Change the setting of the position switch

The mains switch is set to "0"

Set the mains switch to the "1"-position

There is no supply voltage

Open the connection unit cover and check that the supply voltage cables are correctly connected.

A fuse has blown

Replace the defective fuse, see page 43-44.

The inner or outer actuation devices are short-circuited

The door closes only if the position switch is set to "OFF". Disconnect the actuation devices from the terminals (5—6 and 7—8 respectively)

The "stop function" or the "hold open" function" is actuated

Disconnect the terminals 17, 18, 19, 20, and 22. If FS No. 2 is in position ON connect a jumper between 17 and 18, between 19 and 20, and between 21 and 22.

*The motor starts but stops immediately*

Stones, sand, rubbish etc. stop the door leaf movement

Clean the floor guide

The door leaf is jamming on the floor and/or on the weather strips

Adjust the door height and/or distance to weather strips, see "Installation"

*The door is reversing during high speed closing*

Too much friction in the floor guides and/or weather strips. Tooth belt tension too tight

Adjust tooth belt floor, guides and/or weather strips and if necessary high speed closing, HSC, clockwise turning.

*The door is reversing during low speed closing*

Low speed, LS, is set too low, and/or the acceleration ACC is set too high

Increase low speed, LS, clockwise turning, and/or decrease the acceleration, ACC, counter-clockwise turning.

### THE DOOR HITS THE DOOR STOPS TOO HARD

Low speed distances, LDS, is set too small  
Low speed, LS, is set too high.  
Acceleration, ACC, is set too low

Adjust the potentiometers in the following order: 1) LSD, turn clockwise  
2) LS, turn counter-clockwise  
3) ACC, turn clockwise

### THE DOOR OPERATES CONTINUOUSLY WITH LOW SPEED

*The door is prevented from closing by a high volume of traffic (repeated opening impulses)*

1. The door has been obstructed during low speed closing.
2. The power has been restored after a power failure
3. The door has been stopped with a stop impulse

Set the position switch PS to position "OFF" and let the door close. Then set the position switch to the setting wanted.



# Power Glide 4000 Cover installation

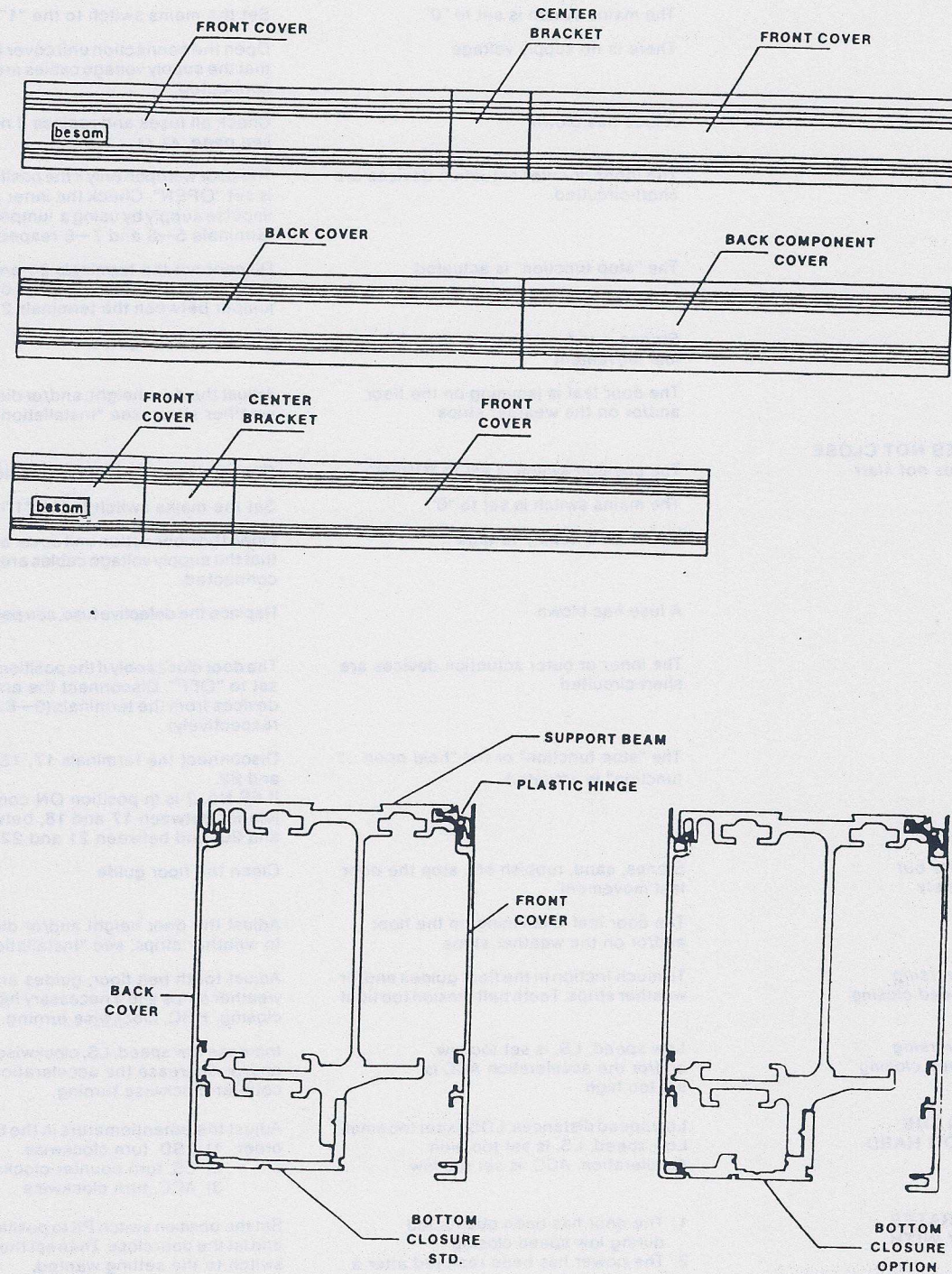


Fig. 59



# EZFIT 4050

## Cover installations

### BI-PARTING OPERATOR

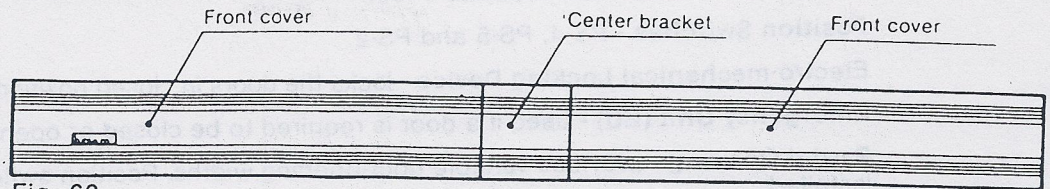


Fig. 60

### SINGLE OPERATOR

(operator for right  
hand showed)

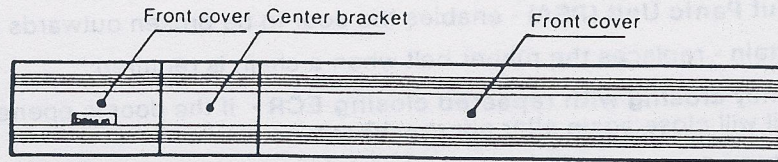


Fig. 61

A complete cover consists of two front covers and one center bracket. The center bracket is used for securing the front covers and for mounting of radar or other automatic actuators.

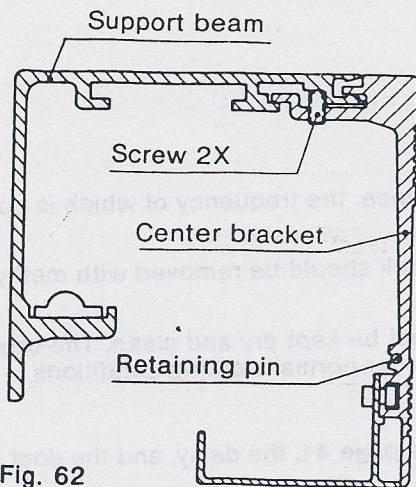


Fig. 62

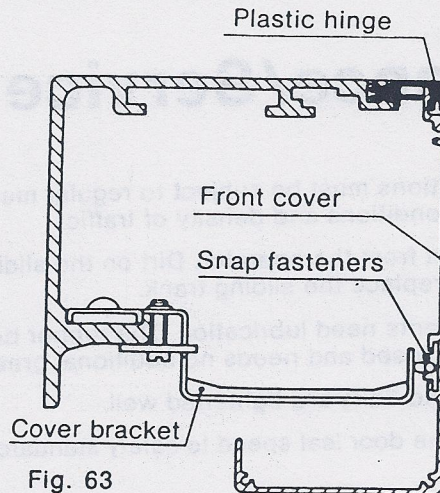


Fig. 63

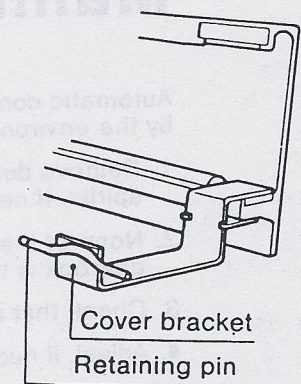


Fig. 64

The center bracket is to be mounted on the center of the door opening. It is installed into slots in the upper edge of the support beam and fastened with two screws. See fig. 62.

The two front covers are installed to the upper part of the support beam by means of plastic hinges which are snapped or slid into correct position.

The lower part of the front covers is installed by means of latch-fasteners which are slid into a special slot in the cover. The latch-fasteners are pushed over retaining pins in the center bracket and in the cover brackets on both sides of support beam. See fig. 63 and 64.

The operator is delivered with the cover installed. Prior to installation, the front covers are to be pulled open from the snap-fasteners and slid off from the support beam together with the plastic hinge.

After installation of the support beam, the covers can be reinstalled in two ways:

- The front cover with plastic hinge is slid into the support beam in the same way as it was removed. This installation is possible only if there is space enough on the side of the operator.
- The front cover with plastic hinge is pushed or struck with a rubber hammer into correct position from the front. This installation is facilitated if a special cover assembly tool is used, see fig 65. The door carriers must be slid open in order to release/secure the cover latches.

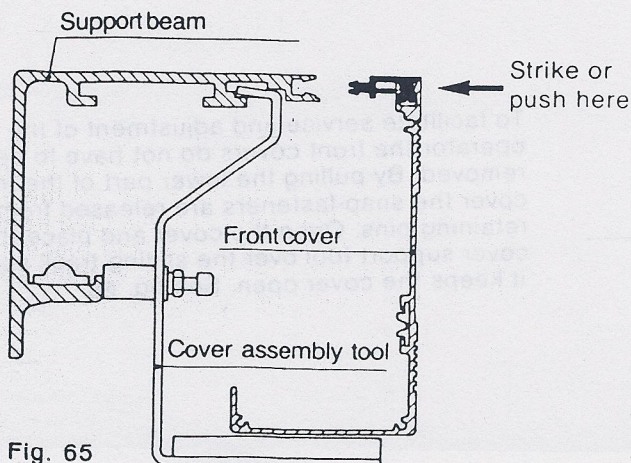


Fig. 65

After the installation of the front covers in the upper part, the lower part is pushed into the retaining pins in the center bracket and in the two cover brackets. Be certain that the snap-fasteners grip around the retaining pins.



# Accessories

**Actuation Devices** - see separate sheet.

**Position Switches** - PS-4, PS-5 and PS-2.

**Electro-mechanical Locking Device** - locks the doors in closed position. Actuated by the position switch.

**Emergency Unit (EU)** - used if a door is required to be closed or opened in the event of power failure.

**Partial Opening** - provides variable door-opening widths. Position switch PS-2 and/or PS-5 must be installed.

**Break-out Panic Unit (PSA)** - enables the door to be broken outwards in case of emergency.

**Drive Chain** - replaces the rubber belt when a chain is required.

**Emergency closing with repeated closing ECR** - if the door is opened by hand after an emergency closing, it will close again after approx. 10 sec.

**Interlocking CUIL** - used for internal locking between two operators, i.e. when one operator is open, the other cannot be actuated.

**Manual open - close function CUM** - to be used only together with manual actuating devices. The first push opens the door, the second push closes the door.

## Maintenance/Service

Automatic door installations must be subject to regular maintenance, the frequency of which is governed by the environmental conditions and density of traffic.

1. Remove dust and dirt from the operator. Dirt on the sliding track should be removed with methylated spirits. If necessary replace the sliding track.
2. None of the components need lubrication. The rubber belt must be kept dry and clean. The operator gearbox is totally enclosed and needs no additional grease under normal working conditions.
3. Check that all nuts and bolts are tightened well.
4. Adjust, if necessary, the door leaf speed to safety standards, see page 41, the delay, and the door leaf.

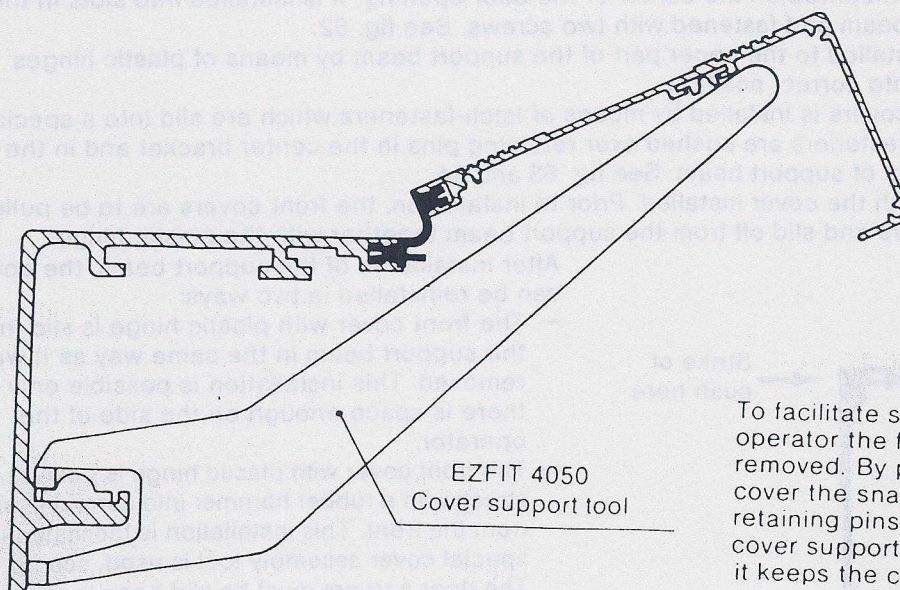


Fig. 66

To facilitate service and adjustment of the operator the front covers do not have to be removed. By pulling the lower part of the front cover the snap-fasteners are released from the retaining pins. Open the cover and place the cover support tool over the sliding track so that it keeps the cover open. See fig. 66.



# Identification

## Powerglide 4000

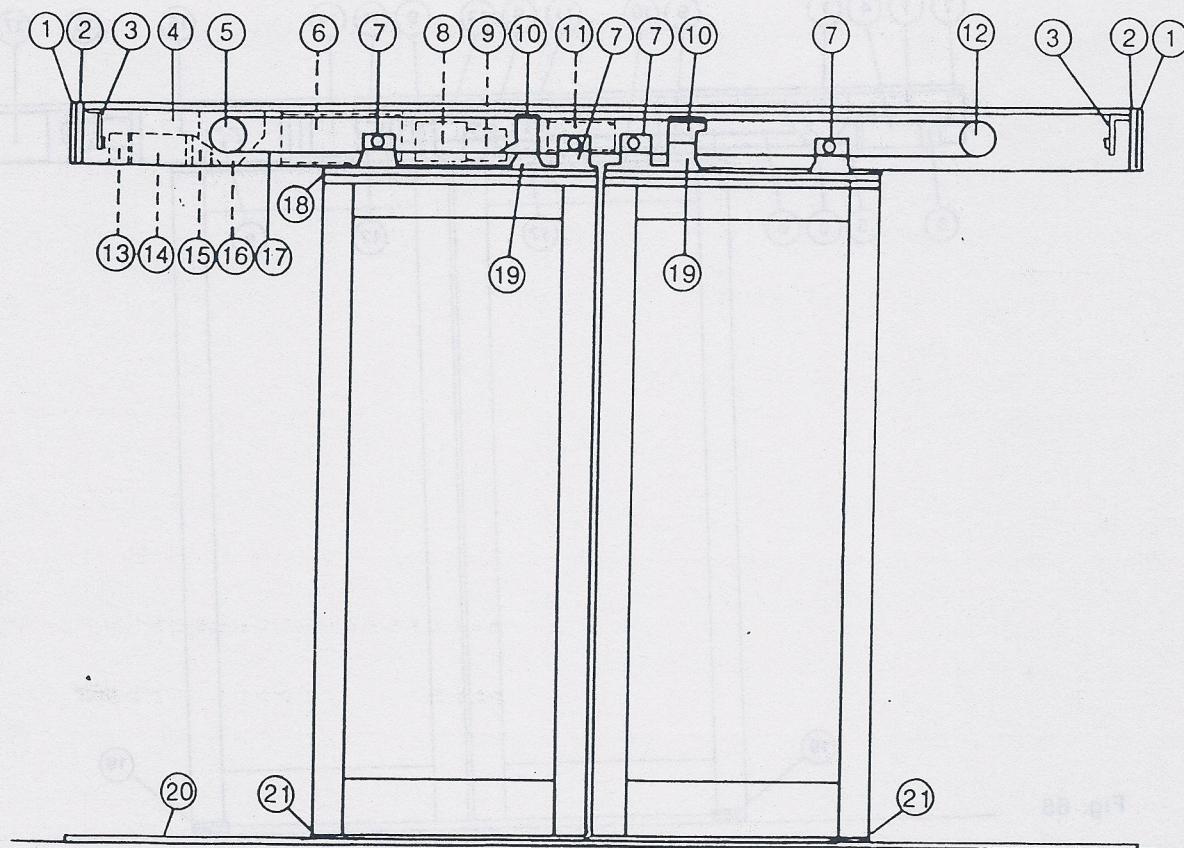


Fig. 67

- |                           |                          |
|---------------------------|--------------------------|
| 1. End Cap Cover          | 12. Tension Wheel        |
| 2. End Cap                | 13. Revolution Counter   |
| 3. Door Stop              | 14. Motor                |
| 4. Support Beam           | 15. Coupling             |
| 5. Drive Wheel            | 16. Gear Box             |
| 6. Control Unit           | 17. Tooth Belt           |
| 7. Carriage Wheel Fitting | 18. Door Carrier         |
| 8. Power Supply Unit      | 19. Carrier Fitting      |
| 9. Connection Unit        | 20. Threshold (Optional) |
| 10. Tooth Belt Fitting    | full length shown        |
| 11. Emergency Unit        | 21. Floor Guide          |



# EZFIT 4050

## Identification

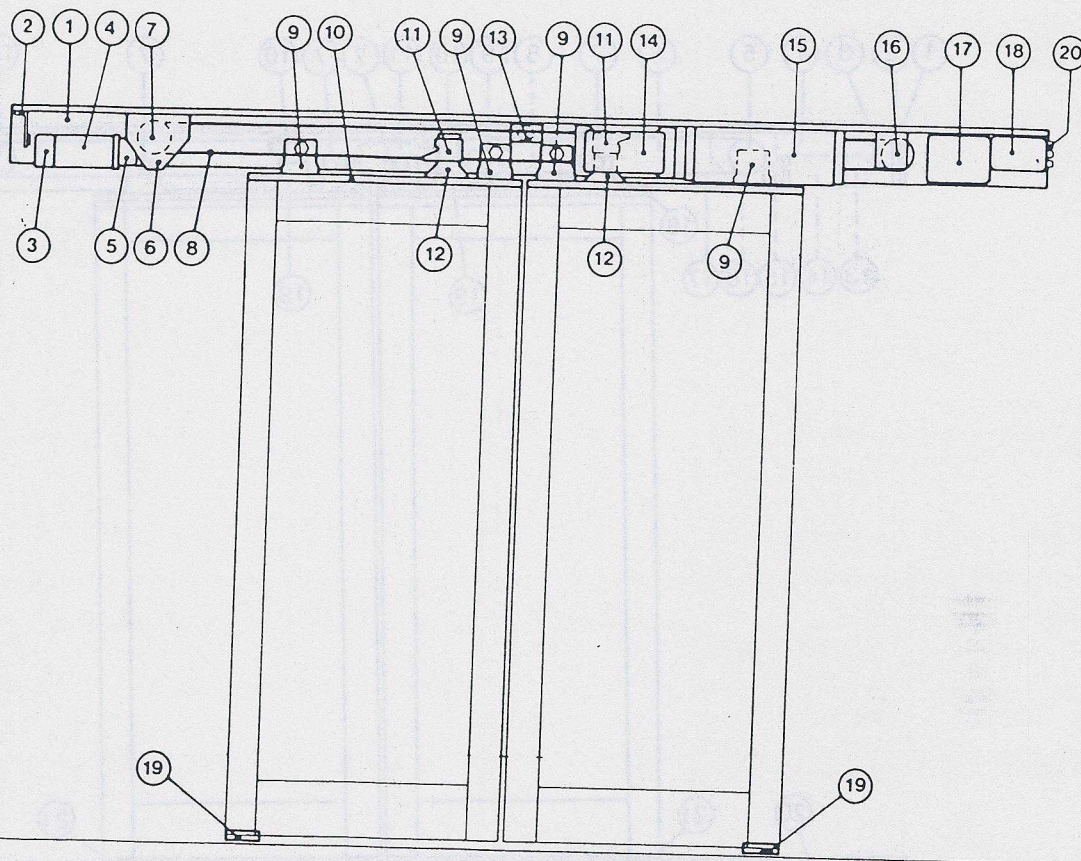


Fig. 68

- |                           |                                       |
|---------------------------|---------------------------------------|
| 1. Support Beam           | 11. Tooth Belt Fitting                |
| 2. Door Stop              | 12. Carrier Fitting                   |
| 3. Revolution Counter     | 13. Electro-mechanical Locking Device |
| 4. Motor                  | 14. Emergency Unit                    |
| 5. Coupling               | 15. Control Unit                      |
| 6. Gearbox                | 16. Tension Wheel                     |
| 7. Drive Wheel            | 17. Power Supply Unit                 |
| 8. Tooth Belt             | 18. Connection Unit                   |
| 9. Carriage Wheel Fitting | 19. Floor Guide                       |
| 10. Door Adaptor          | 20. Cable inlets                      |



# L TO 2 CH PHOTOCELL SYSTEM FOR EX-FIT 8 POWER-GLIDE

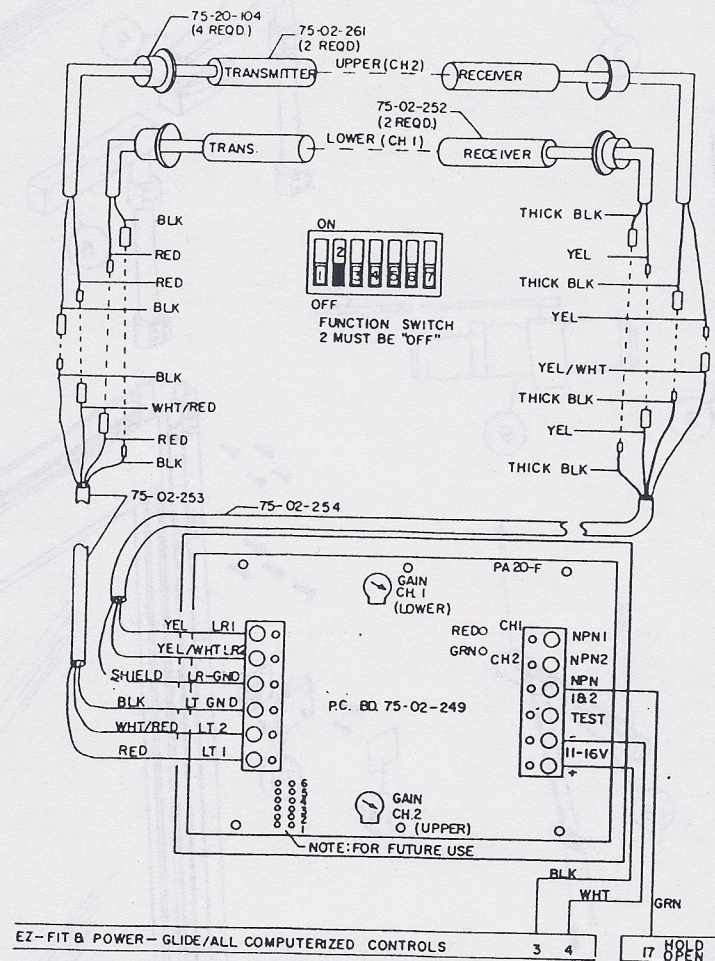


Fig. 69

## INSTRUCTIONS-HOOK-UP

1. CONNECT TRANSMITTERS & RECEIVERS TO THE PHOTOCELL P.C. BOARD ACCORDING TO CONNECTION DIAGRAM. (PHOTOCELLS WITH WHITE STRIPE ARE THE UPPER SET (CHANNEL 2). THOSE WITH SOLID COLORS ARE THE LOWER SET (CHANNEL 1).
2. CONNECT POWER TO UNIT ACCORDING TO CHART GIVEN WITH CONNECTION DIAGRAM.
3. CONNECT NPN 1 & 2 TO HOLD OPEN BEAM INPUT AS SHOWN ON CONNECTION DIAGRAM.
4. WHEN RED AND GREEN LIGHTS ARE LIT, BEAMS ARE WIRED CORRECTLY AND OPERATING.
5. THE REMAINING GOOD CHANNEL'S LIGHT WILL REMAIN ON AND WILL GO OFF WHEN THE BEAM IS BROKEN.
6. TO CORRECT MALFUNCTION REMOVE OUTPUT WIRE FROM NPN 1 & 2 AND CONNECT TO CHANNEL WHOSE LIGHT IS STILL ON.
7. THE DOOR WILL NOW CLOSE AND ONLY ONE SET OF PHOTOCELLS WILL BE OPERATIONAL.
8. WHEN DEFECTIVE PHOTOCELL HAS BEEN REPLACED, RETURN OUTPUT WIRE TO NPN 1 & 2 BOTH LIGHTS SHOULD BE ON AND THE SYSTEM WILL FUNCTION NORMALLY.

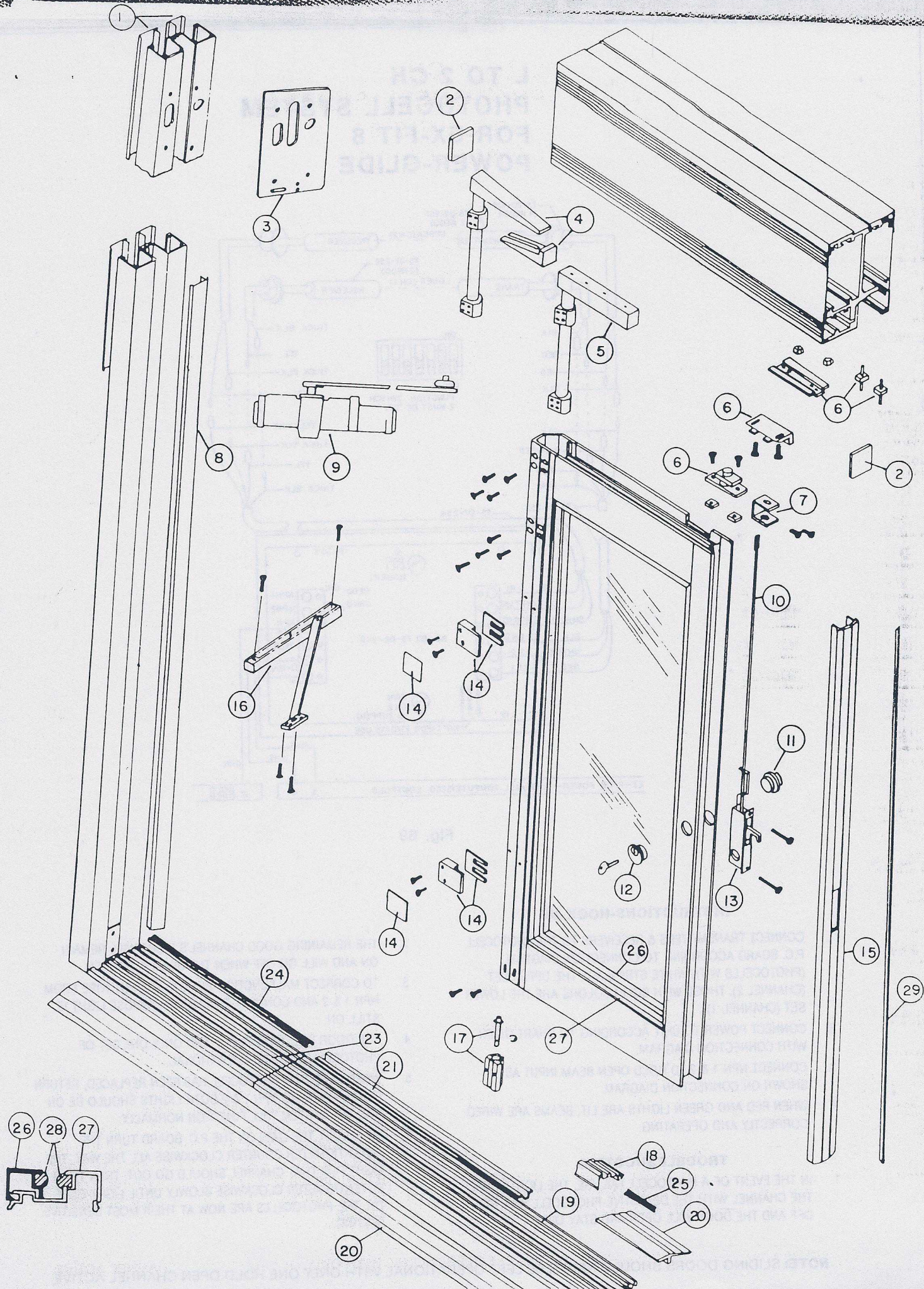
## TROUBLESHOOTING

1. IN THE EVENT OF A PHOTOCELL FAILURE, THE LIGHT FROM THE CHANNEL WITH THE DEFECTIVE-PHOTOCELL WILL GO OFF AND THE DOOR WILL OPEN AND STAY OPEN.

2. TO ADJUST THE GAIN ON THE P.C. BOARD TURN THE POTENTIOMETER COUNTER CLOCKWISE ALL THE WAY. THE LIGHT FOR THAT CHANNEL SHOULD GO OUT. THEN TURN POTENTIOMETER CLOCKWISE SLOWLY UNTIL LIGHT GOES ON. THE PHOTOCELLS ARE NOW AT THEIR MOST SENSITIVE SETTING.

**NOTE:** SLIDING DOORS SHOULD NEVER BE LEFT OPERATIONAL WITH ONLY ONE HOLD OPEN CHANNEL ACTIVE.



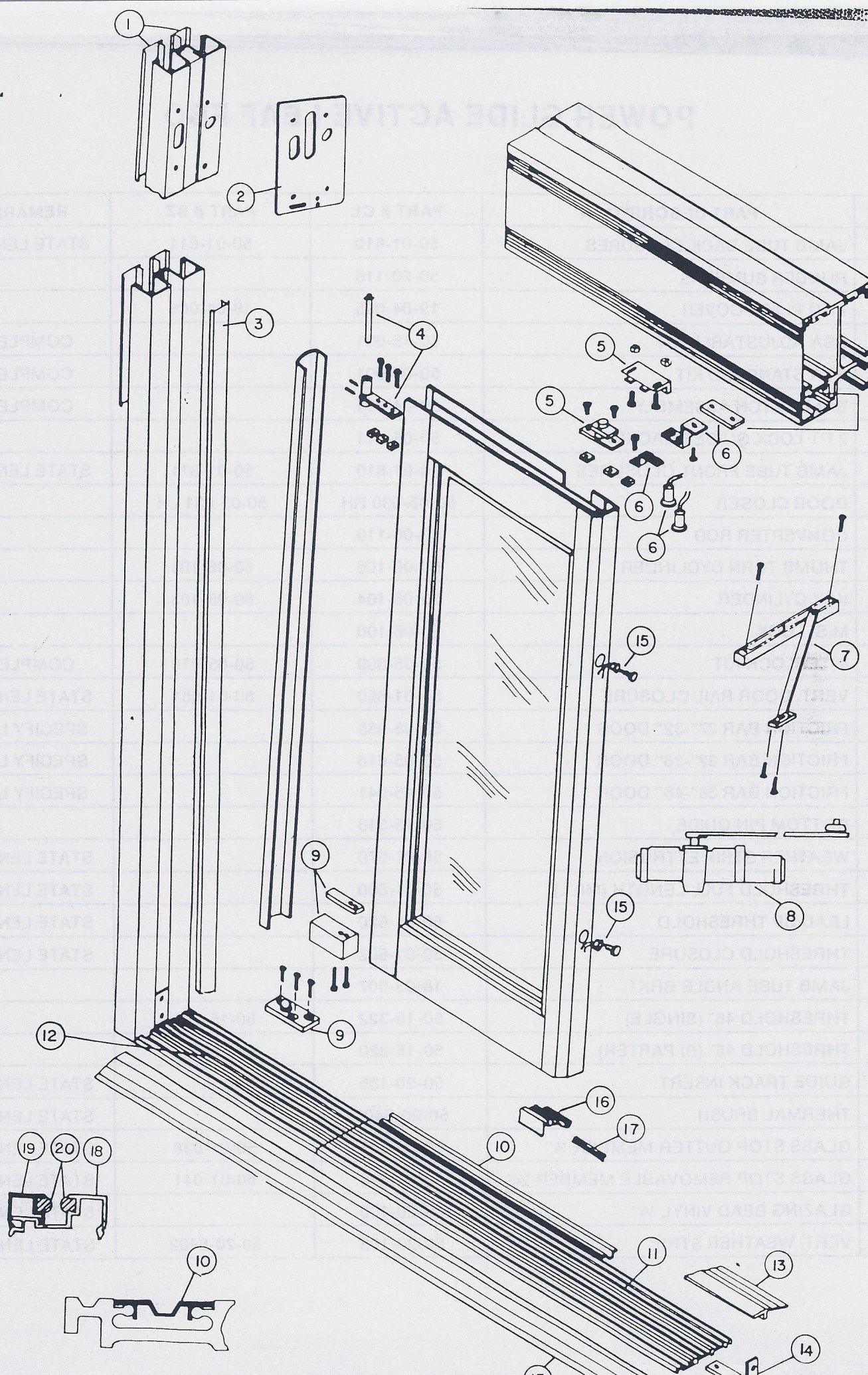




## POWER GLIDE ACTIVE LEAF FBO

ITEM	PART DESCRIPTION	PART # CL	PART # BZ	REMARKS
1	JAMB TUBE BACK CLOSURES	50-01-610	50-01-611	STATE LENGTH
2	RUBBER BUMPERS	50-20-116		
3	END PLATE COVER	19-04-005	19-04-006	
4	PSA ADJUSTABLE KIT	50-15-001		COMPLETE
5	PSA STANDARD KIT	50-05-001		COMPLETE
6	BALL CATCH ASSEMBLY	50-04-204		COMPLETE
7	2 PT LOCK GUIDE BRACKET	50-06-111		
8	JAMB TUBE FRONT CLOSURES	50-01-610	50-01-611	STATE LENGTH
9	DOOR CLOSER	50-05-030 RH	50-05-031 LH	
10	CONVERTER ROD	50-06-110		
11	THUMB TURN CYCLINDER	50-06-106	50-06-105	
12	KEY CYLINDER	50-06-104	50-06-103	
13	M.S. LOCK	50-06-100		
14	INTERLOCK KIT	50-05-009	50-05-010	COMPLETE
15	VERT. DOOR RAIL CLOSURE	50-01-650	50-01-651	STATE LENGTH
16	FRICTION BAR 27"-32" DOOR	50-05-055		SPECIFY LEAF
	FRICTION BAR 32"-38" DOOR	50-05-016		SPECIFY LEAF
	FRICTION BAR 38"-45" DOOR	50-15-041		SPECIFY LEAF
17	BOTTOM PIN GUIDE	50-15-315		
18	WEATHER STRIP EXTRUSION	50-01-670		STATE LENGTH
19	THRESHOLD FULL LENGTH (MILL)	50-01-600		STATE LENGTH
20	LEAD UP THRESHOLD	50-01-620		STATE LENGTH
21	THRESHOLD CLOSURE	50-01-602		STATE LENGTH
22	JAMB TUBE ANGLE BRKT.	18-03-007		
23	THRESHOLD 48" (SINGLE)	50-15-322	50-15-326	
	THRESHOLD 48" (BI PARTER)	50-15-320	50-15-324	
24	GUIDE TRACK INSERT.	50-20-135		STATE LENGTH
25	THERMAL BRUSH	50-20-6401		STATE LENGTH
26	GLASS STOP GUTTER MEMBER 1/4"	50-01-037	50-01-038	STATE LENGTH
27	GLASS STOP REMOVABLE MEMBER 1/4"	50-01-040	50-01-041	STATE LENGTH
28	GLAZING BEAD VINYL 1/4"	50-20-100		STATE LENGTH
29	VERT. WEATHER STRIP	50-20-103	50-20-6402	STATE LENGTH



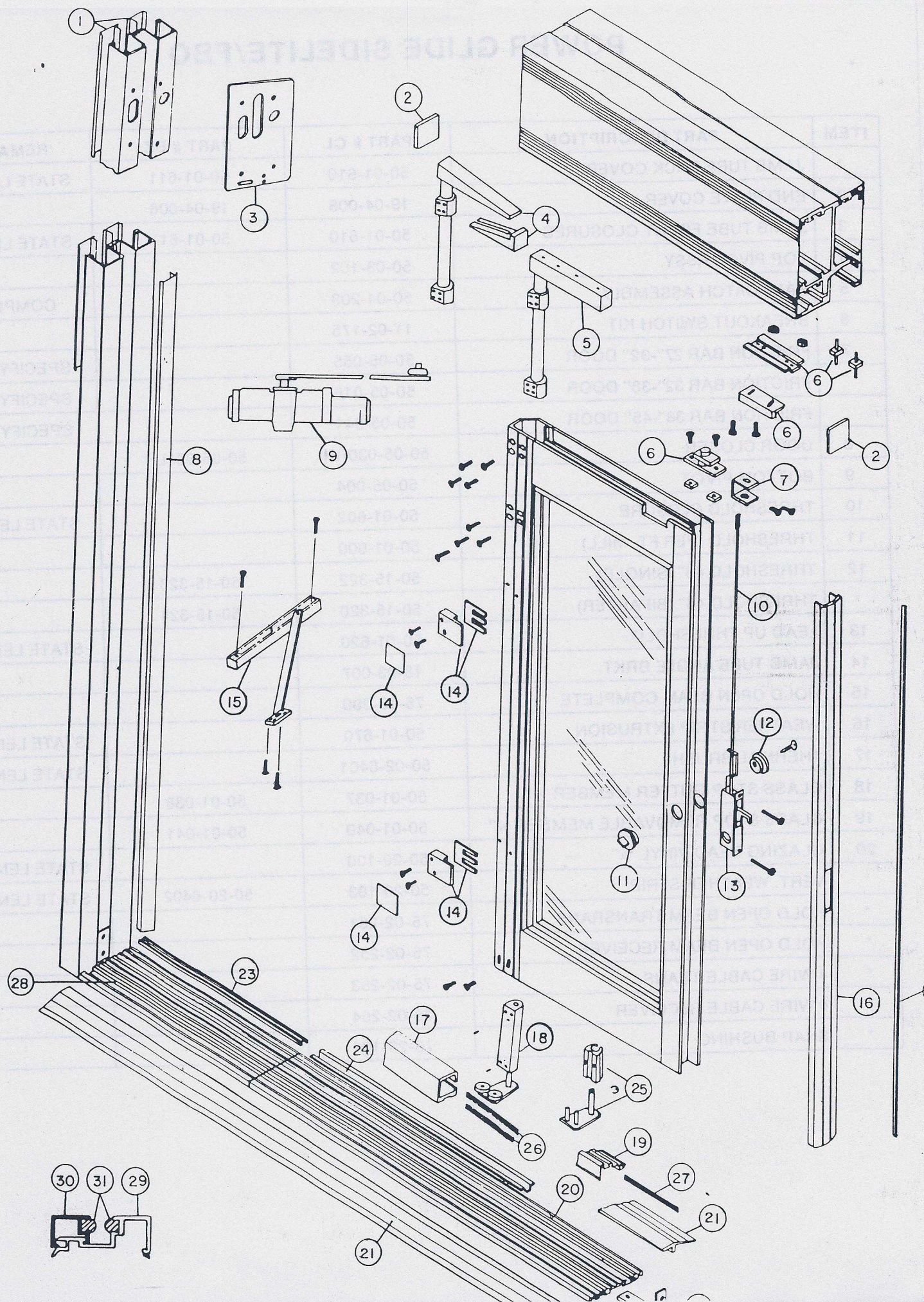




# POWER GLIDE SIDELITE/FBO

ITEM	PART DESCRIPTION	PART # CL	PART # BZ	REMARKS
1	JAMB TUBE BACK COVER	50-01-610	50-01-611	STATE LENGTH
2	END PLATE COVER	19-04-005	19-04-006	
3	JAMB TUBE FRONT CLOSURES	50-01-610	50-01-611	STATE LENGTH
4	TOP PIVOT ASSY.	50-03-102		
5	BALL CATCH ASSEMBLY	50-04-203		COMPLETE
6	BREAKOUT SWITCH KIT	11-02-175		
7	FRICTION BAR 27"-32" DOOR	50-05-055		SPECIFY LEAF
	FRICTION BAR 32"-38" DOOR	50-05-016		SPECIFY LEAF
	FRICTION BAR 38"-45" DOOR	50-05-041		SPECIFY LEAF
8	DOOR CLOSER	50-05-030RH	50-05-031LH	
9	BOTTOM PIVOT	50-05-004		
10	THRESHOLD CLOSURE	50-01-602		STATE LENGTH
11	THRESHOLD (PER FT. MILL)	50-01-600		
12	THRESHOLD 48" (SINGLE)	50-15-322	50-15-326	
	THRESHOLD 48" (BIPARTER)	50-15-320	50-15-324	
13	LEAD UP THRESHOLD	50-01-620		STATE LENGTH
14	JAMB TUBE ANGLE BRKT.	18-03-007		
15	HOLD OPEN BEAM COMPLETE	75-15-300		
16	WEATHER STRIP EXTRUSION	50-01-670		STATE LENGTH
17	THERMAL BRUSH	50-02-6401		STATE LENGTH
18	GLASS STOP GUTTER MEMBER ¼"	50-01-037	50-01-038	
19	GLASS STOP REMOVABLE MEMBER ¼"	50-01-040	50-01-041	
20	GLAZING BEAD VINYL ¼"	50-20-100		STATE LENGTH
*	VERT. WEATHER STRIP	50-20-103	50-20-6402	STATE LENGTH
*	HOLD OPEN BEAM TRANSRANS.	75-02-251		
*	HOLD OPEN BEAM RECEIVER	75-02-252		
*	4 WIRE CABLE TRANS.	75-02-253		
*	4 WIRE CABLE RECEIVER	75-02-254		
*	SNAP BUSHING	75-20-104		





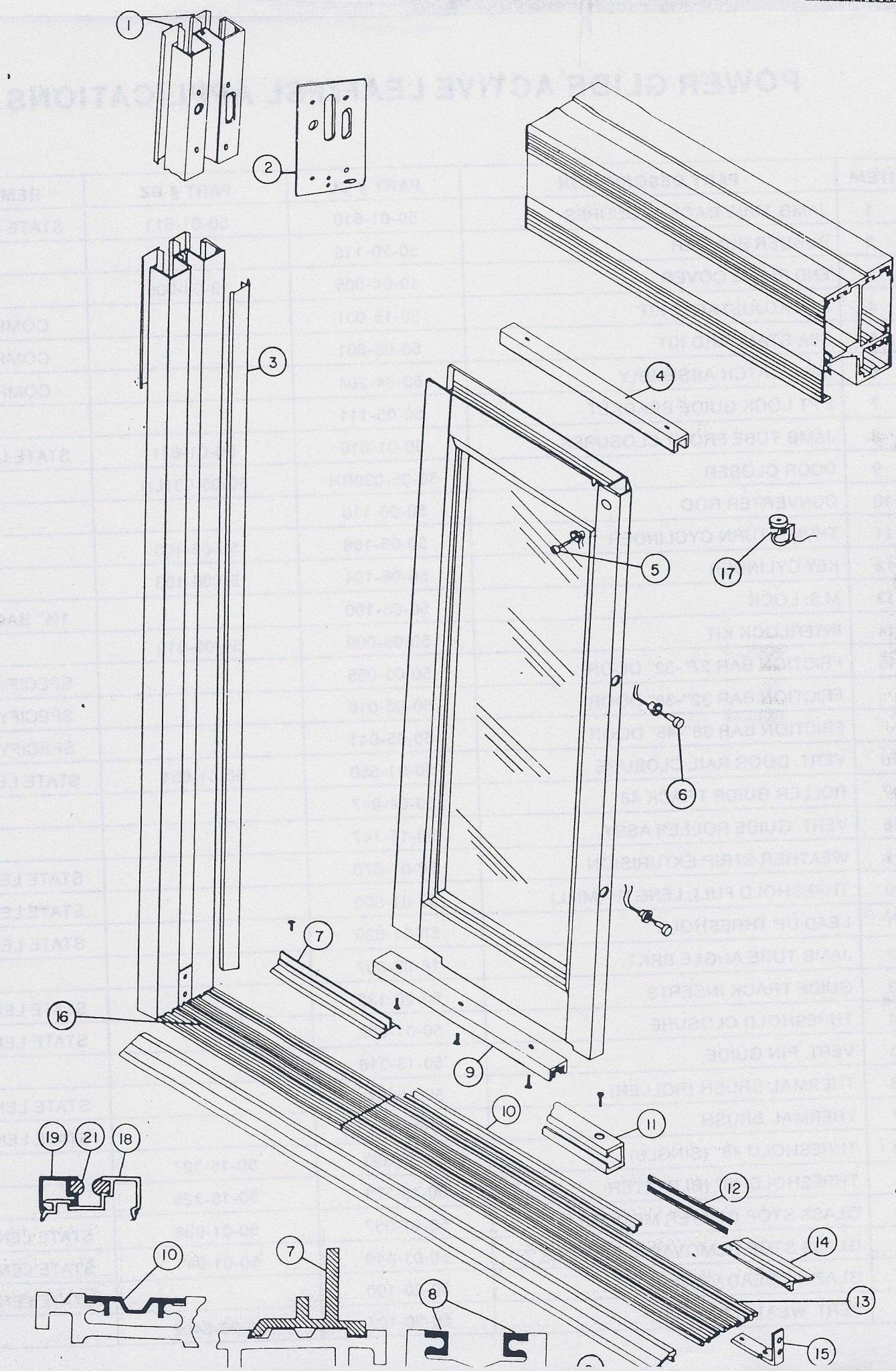


# POWER GLIDE ACTIVE LEAF/FSL APPLICATIONS

ITEM	PART DESCRIPTION	PART # CL	PART # BZ	REMARKS
1	JAMB TUBE BACK CLOSURES	50-01-610	50-01-611	STATE LENGTH
2	RUBBER BUMPER	50-20-116		
3	END PLATE COVER	19-04-005	19-04-006	
4	PSA ADJUSTABLE KIT	50-15-001		COMPLETE
5	PSA STANDARD KIT	50-05-001		COMPLETE
6	BALL CATCH ASSEMBLY	50-04-204		COMPLETE
7	2 PT LOCK GUIDE BRACKET	50-06-111		
8	JAMB TUBE FRONT CLOSURES	50-01-610	50-01-611	STATE LENGTH
9	DOOR CLOSER	50-05-030RH	50-05-031LH	
10	CONVERTER ROD	50-06-110		
11	THUMB TURN CYCLINDER	50-06-106	50-06-105	
12	KEY CYLINDER	50-06-104	50-06-103	
13	M.S. LOCK	50-06-100		1 1/8" BACKSET
14	INTERLOCK KIT	50-05-009	50-05-010	
15	FRICTION BAR 27"-32" DOOR	50-05-055		SPECIFY LEAF
	FRICTION BAR 32"-38" DOOR	50-05-016		SPECIFY LEAF
	FRICTION BAR 38"-45" DOOR	50-05-041		SPECIFY LEAF
16	VERT. DOOR RAIL CLOSURE	50-01-650	50-01-651	STATE LENGTH
17	ROLLER GUIDE TRACK 48"	50-04-047		
18	VERT. GUIDE ROLLER ASSY.	50-15-147		
19	WEATHER STRIP EXTURISION	50-01-670		STATE LENGTH
20	THRESHOLD FULL LENGTH (MILL)	50-01-600		STATE LENGTH
21	LEAD UP THRESHOLD	50-01-620		STATE LENGTH
22	JAMB TUBE ANGLE BRKT.	18-03-007		
23	GUIDE TRACK INSERTS	50-20-135		STATE LENGTH
24	THRESHOLD CLOSURE	50-01-602		STATE LENGTH
25	VERT. PIN GUIDE	50-15-318		
26	THERMAL BRUSH (ROLLER)	50-20-131		STATE LENGTH
27	THERMAL BRUSH	50-20-6401		STATE LENGTH
28	THRESHOLD 48" (SINGLE)	50-15-323	50-15-327	
	THRESHOLD 48" (BI PARTER)	50-15-321	50-15-325	
29	GLASS STOP GUTTER MEMBER 1/4"	50-01-037	50-01-038	STATE LENGTH
30	GLASS STOP REMOVABLE MEMBER 1/4"	50-01-040	50-01-041	STATE LENGTH
31	GLAZING BEAD VINYL 1/4"	50-20-100		STATE LENGTH
32	VERT. WEATHER STRIP.	50-20-103	50-20-6402	

4000 - ACTIVE LEAF FOR  
FIXED SIDELITE APPLICATION



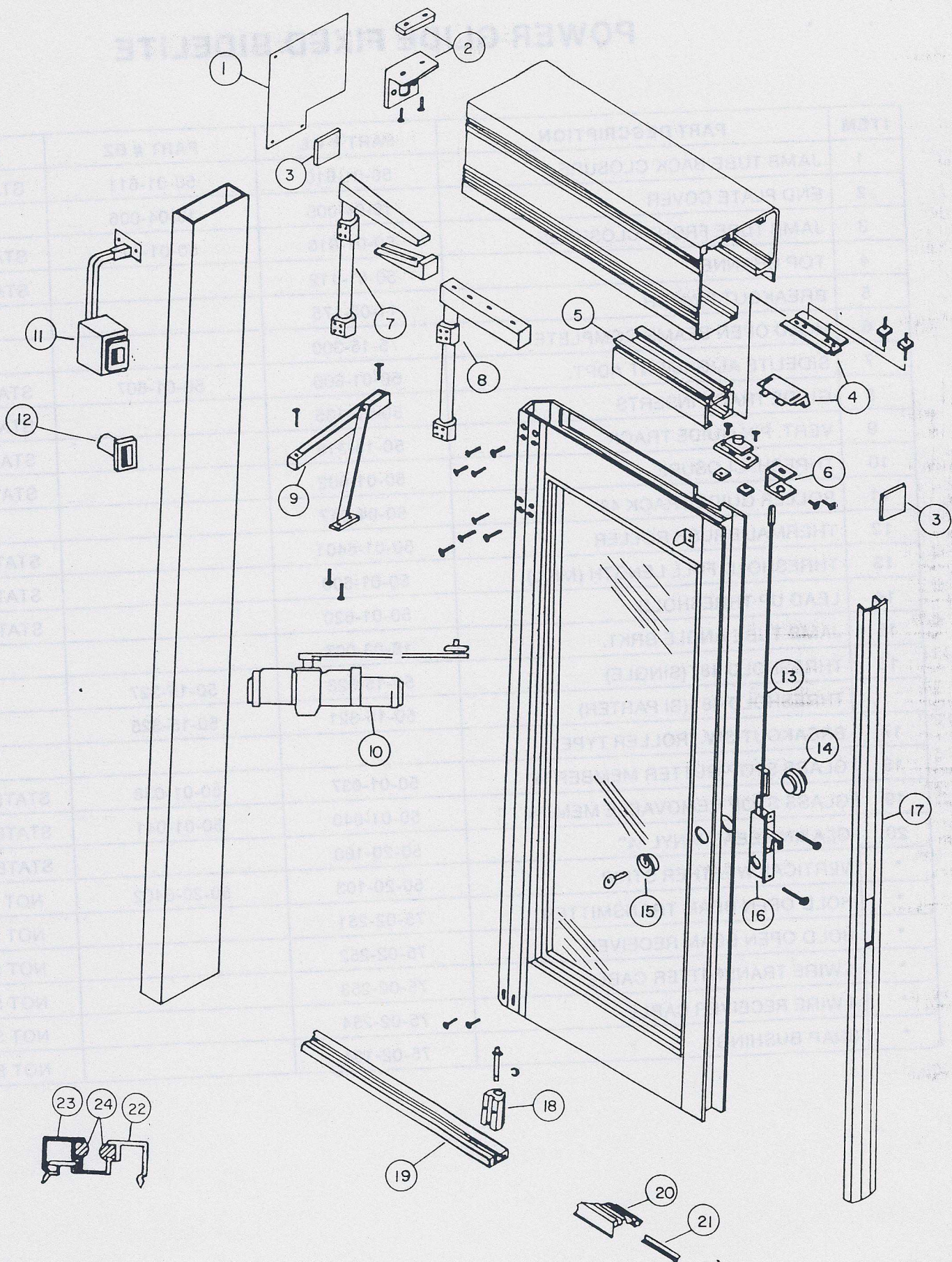




# POWER GLIDE FIXED SIDELITE

ITEM	PART DESCRIPTION	PART # CL	PART # BZ	REMARKS
1	JAMB TUBE BACK CLOSURE	50-01-610	50-01-611	STATE LENGTH
2	END PLATE COVER	19-04-005	19-04-006	
3	JAMB TUBE FRONT CLOSURES	50-01-610	50-01-611	STATE LENGTH
4	TOP CHANNEL	50-01-112		STATE LENGTH
5	BREAKOUT SWITCH	11-02-175		
6	HOLD OPEN BEAMS COMPLETE	75-15-300		
7	SIDELITE ALIGNMENT ADPT.	50-01-606	50-01-607	STATE LENGTH
8	GUIDE TRACK INSERTS	50-20-135		STATE LENGTH
9	VERT. PIN GUIDE TRACK	50-15-318		STATE LENGTH
10	THRESH. CLOSURE	50-01-602		STATE LENGTH
11	ROLLER GUIDE TRACK 48"	50-04-047		
12	THERMAL BRUSH ROLLER	50-01-6401		STATE LENGTH
13	THRESHOLD FULL LENGTH (MILL)	50-01-600		STATE LENGTH
14	LEAD UP THRESHOLD	50-01-620		STATE LENGTH
15	JAMB TUBE ANGLE BRKT.	18-03-007		
16	THRESHOLD 48" (SINGLE)	50-15-323	50-15-327	
	THRESHOLD 48" (BI PARTER)	50-15-321	50-15-325	
17	BREAKOUT SW. (ROLLER TYPE)			
18	GLASS STOP GUTTER MEMBER 1/4"	50-01-037	50-01-038	STATE LENGTH
19	GLASS STOP REMOVABLE MEM. 1/4"	50-01-040	50-01-041	STATE LENGTH
20	GLAZING BEAD VINYL 1/4"	50-20-100		STATE LENGTH
*	VERTICAL WEATHER STRIP	50-20-103	50-20-6402	NOT SHOWN
*	HOLD OPEN BEAM TRANSMITTER	75-02-251		NOT SHOWN
*	HOLD OPEN BEAM RECEIVER	75-02-252		NOT SHOWN
*	4 WIRE TRANSMITTER CABLE	75-02-253		NOT SHOWN
*	4 WIRE RECEIVER CABLE	75-02-254		NOT SHOWN
*	SNAP BUSHING	75-02-104		NOT SHOWN





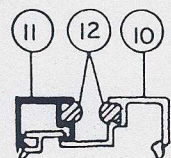
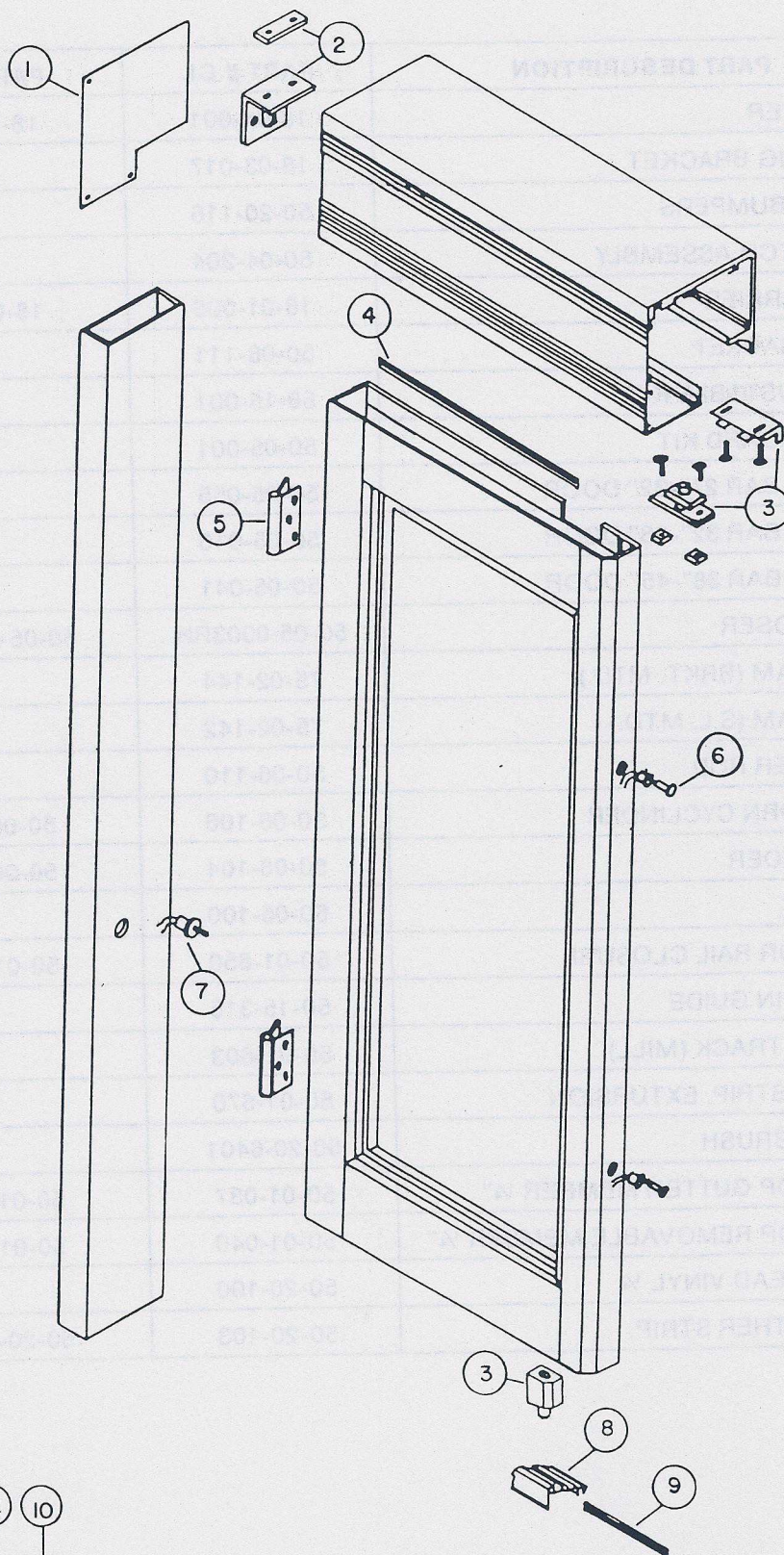


## EZ FIT ACTIVE LEAF/FBO APPLICATIONS

ITEM	PART DESCRIPTION	PART # CL	PART # BZ	REMARKS
1	END COVER	18-04-001	18-04-002	
2	MOUNTING BRACKET	18-03-017		
3	RUBBER BUMPERS	50-20-116		
4	BALL CATCH ASSEMBLY	50-04-204		COMPLETE
5	PANIC CARRIER	18-01-008	18-01-009	STATE LENGTH
6	GUIDE BRACKET	50-06-111		
7	PSA ADJUSTABLE KIT	50-15-001		COMPLETE
8	PSA STANDARD KIT	50-05-001		COMPLETE
9	FRICTION BAR 27"-32" DOOR	50-05-055		SPECIFY LEAF
	FRICTION BAR 32"-38" DOOR	50-05-016		SPECIFY LEAF
	FRICTION BAR 38"-45" DOOR	50-05-041		SPECIFY LEAF
10	DOOR CLOSER	50-05-0003RH	50-05-0004LH	
11	PANIC BEAM (BRKT. MTD.)	75-02-144		
12	PANIC BEAM (S.L. MTD.)	75-02-142		
13	CONVERTER ROD	50-06-110		
14	THUMB TURN CYCLINDER	50-06-106	50-06-105	
15	KEY CYLINDER	50-06-104	50-06-103	
16	M.S. LOCK	50-06-100		
17	VERT. DOOR RAIL CLOSURE	50-01-650	50-01-651	STATE LENGTH
18	BOTTOM PIN GUIDE	50-15-315		
19	PIN GUIDE TRACK (MILL)	50-01-603		STATE LENGTH
20	WEATHER STRIP. EXTURSION	50-01-670		STATE LENGTH
21	THERMAL BRUSH	50-20-6401		STATE LENGTH
22	GLASS STOP GUTTER MEMBER 1/4"	50-01-037	50-01-038	STATE LENGTH
23	GLASS STOP REMOVABLE MEMBER 1/4"	50-01-040	50-01-041	STATE LENGTH
24	GLAZING BEAD VINYL 1/4	50-20-100		STATE LENGTH
25	VERT. WEATHER STRIP.	50-20-103	50-20-6402	STATE LENGTH



# ES FIT ACTIVE LEAFYRBO APPLICATIONS

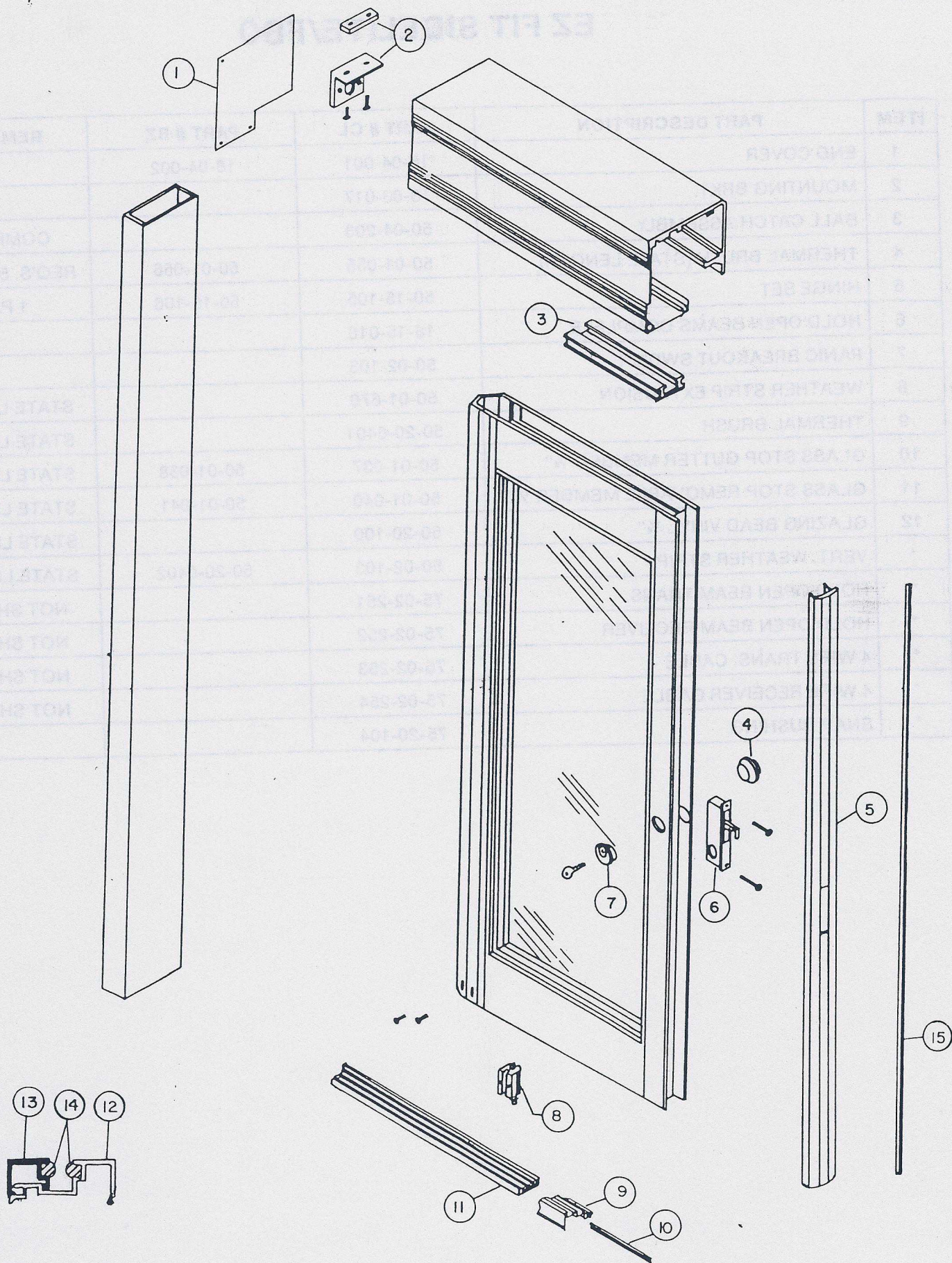




## EZ FIT SIDELITE/FBO

ITEM	PART DESCRIPTION	PART # CL	PART # BZ	REMARKS
1	END COVER	18-04-001	18-04-002	
2	MOUNTING BRKT.	18-03-017		
3	BALL CATCH ASSEMBLY	50-04-203		COMPLETE
4	THERMAL BRUSH (STATE LENGTH)	50-01-055	50-01-056	REQ'S. 50-20-105
5	HINGE SET	50-15-105	50-15-106	1 PAIR
6	HOLD OPEN BEAMS COMPLETE	18-15-010		
7	PANIC BREAKOUT SWITCH	50-02-103		
8	WEATHER STRIP EXTRUSION	50-01-670		STATE LENGTH
9	THERMAL BRUSH	50-20-6401		STATE LENGTH
10	GLASS STOP GUTTER MEMBER 1/4"	50-01-037	50-01-038	STATE LENGTH
11	GLASS STOP REMOVABLE MEMBER 1/4"	50-01-040	50-01-041	STATE LENGTH
12	GLAZING BEAD VINYL 1/4"	50-20-100		STATE LENGTH
*	VERT. WEATHER STRIP.	50-02-103	50-20-6402	STATE LENGTH
*	HOLD OPEN BEAM TRANS.	75-02-251		NOT SHOWN
*	HOLD OPEN BEAM RECEIVER	75-02-252		NOT SHOWN
*	4 WIRE TRANS. CABLE	75-02-253		NOT SHOWN
*	4 WIRE RECEIVER CABLE	75-02-254		NOT SHOWN
*	SNAP BUSHING	75-20-104		







## EZ FIT NON PANIC ACTIVE LEAF

ITEM	PART DESCRIPTION	PART # CL	PART # BZ	REMARKS
1	END COVER	18-04-001	18-04-002	
2	MOUNTING BRACKET	18-03-017		
3	CARRIER NON PANIC	18-01-012	18-01-013	STATE LENGTH
4	THUMB TURN CYCLINDER	50-06-106	50-06-105	
5	VERT. DOOR RAIL CLOSURE	50-01-650	50-01-651	STATE LENGTH
6	M.S. LOCK	50-06-100		
7	KEY CYLINDER	50-06-104	50-06-103	
8	BOTTOM PIN GUIDE	50-15-315		
9	WEATHERSTRIP EXTRUSION	50-01-670		STATE LENGTH
10	THERMAL BRUSH	50-20-6401		STATE LENGTH
11	PIN GUIDE TRACK	50-01-603		STATE LENGTH
12	GLASS STOP GUTTER MEMBER 1/4"	50-01-037	50-01-038	STATE LENGTH
13	GLASS STOP REMOVABLE MEMBER 1/4"	50-01-040	50-01-041	STATE LENGTH
14	GLAZING BEAD VINYL 1/4"	50-20-100		STATE LENGTH
15	VERT. WEATHER STRIP	50-20-103	50-20-6402	STATE LENGTH



# ES FITTING PANINO ACTIVE LEAF

ITEM	PART DESCRIPTION	PART # CL	PART # BS	REMARKS
1	END COVER	18-04-001	18-04-002	
2	MOUNTING BRACKET	18-03-011		
3	CARRIER NON PANIC	18-01-012	18-01-013	STATE LENGTH
4	THUMB TURN CYLINDER	50-08-108	50-08-109	
5	VERT DOOR RAIL CLOSURE	50-01-050	50-01-051	STATE LENGTH
6	M.S. LOCK	50-08-100		
7	KEY CYLINDER	50-08-104	50-08-105	
8	BOTTOM PIN GUIDE	50-12-815		
9	WEATHERSTRIP EXTRUSION	50-01-050		STATE LENGTH
10	THERMAL BRUSH	50-50-8401		STATE LENGTH
11	PIN GUIDE TRACK	50-01-001		STATE LENGTH
12	GLASS STOP OUTER MEMBER "A"	50-01-007	50-01-008	STATE LENGTH
13	GLASS STOP REMOVABLE MEMBER "B"	50-01-048	50-01-011	STATE LENGTH
14	GLAZING BEAD VINYL "A"	50-50-100		STATE LENGTH
15	VERT WEATHER STRIP	50-50-103	50-50-0402	STATE LENGTH