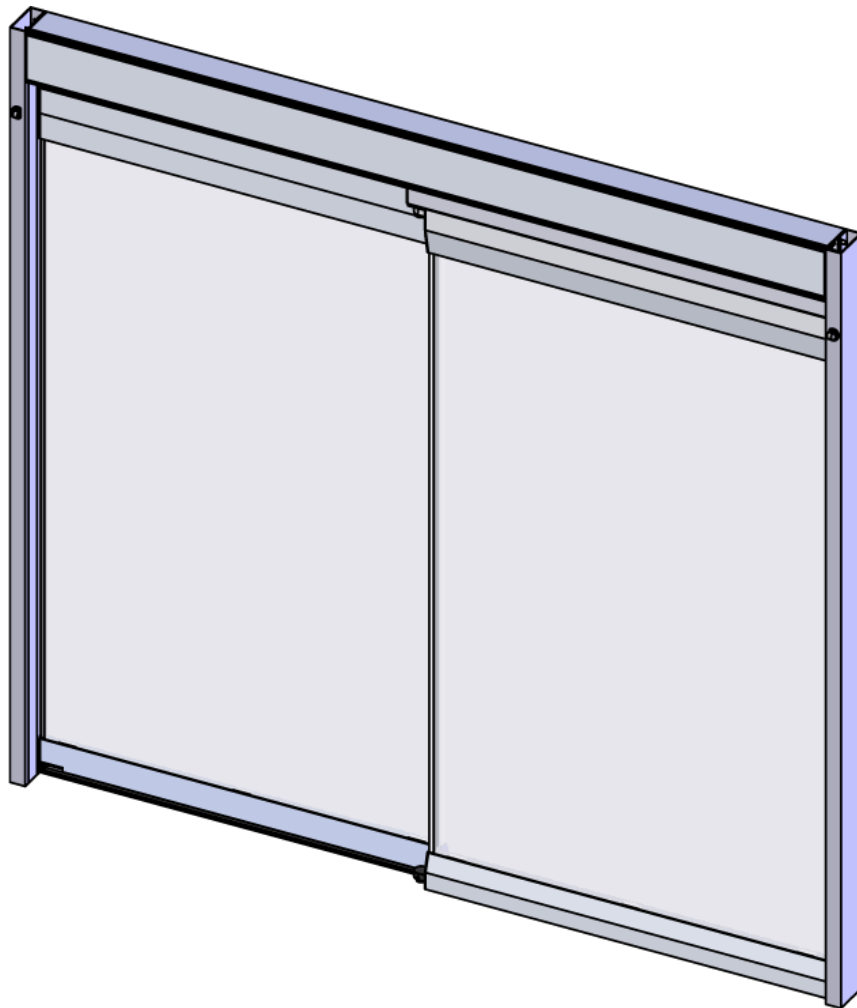


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Revisions

The following pages have been revised:

Page	Revision

Important Information

WARNING



Failure to observe the information in this manual may result in personal injury or damage to equipment.

To reduce the risk of injury of persons - use this operator only with pedestrian doors.

Save these instructions for future reference.

Intended Use

The Ditec DS20 AG is designed for an overhead-concealed installation between two vertical jambs. The header holds the drive and control units and supports the sliding doors, Sidelites and transom above the operator, if required.

A Ditec DS20 AG operator ensures all-around safety. It can be combined with the full range of Ditec safety units, such as presence and motion sensors.

It is easy to install for both new construction and retrofit application and can be adapted to a wide range of overhead concealed applications.

For use see Ditec DS20 Owner's Manual.

Safety Precautions

- Do not climb on door parts
- Do not let children play with the door or the fixed controls.
- Keep remote controls away from children

To avoid bodily injury, material damage and malfunction of the product, the instructions contained in this manual must be strictly observed during installation, adjustment, repairs and service etc. Only Ditec-trained technicians should be allowed to carry out these operations.

Electronic equipment reception interference

The equipment complies with the European EMC directive (US market FCC Part 15), provided installed according to Installation and Service manual.

The equipment may generate and use radio frequency energy and if not installed and used properly, it may cause interference to radio, television reception or other radio frequency type systems.

If other equipment does not fully comply with immunity requirements interference may occur. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient the receiving antenna.
- Relocate the receiver with respect to the equipment.

- Move the receiver away from the equipment.
- Plug the receiver into a different outlet so that equipment and receiver are on different branch circuits.
- Check that protective earth (PE) is connected.

If necessary, the user should consult the dealer or an experienced electronic technician for additional suggestions.

Ditec products are equipped with electronics and may also be equipped with batteries containing materials which are hazardous to the environment. Disconnect power before removing electronics and battery and make sure it is disposed of properly according to local regulations (how and where) as was done with the packaging material.

Environmental Requirements

Please act according to your local regulations and dispose of your old product(s) and packaging properly. The correct disposal will help prevent potential negative consequences for the environment and human health.

Ditec products are equipped with electronics and may also be equipped with batteries containing materials, which are hazardous to the environment. Remove this material from the operator before it is scrapped and make sure that it is disposed of safely along with the packaging.

According to European Directives and equivalent national legislation outside of the European Union, the following are the responsibility of the owner or caretaker of the equipment - that the equipment operates correctly, that regular inspection and maintenance and service is made, so that it gives sufficient protection in regard to safety and health.

Glazing Materials

The glazing material for sliding doors shall comply with ANSI Z97.1.

Note!

The glazing material of all doors shall comply with the requirements in the American National Standard Performance Specification and Methods of Test for Safety Glazing Material Used in Buildings, Z97.1-1975.

Introduction

This manual, in conjunction with “Sliding Door Operator Ditec DS20 Installation Manual”, contains the necessary details and instructions for the installation, maintenance and service of the sliding door operator, Ditec DS20 AG.

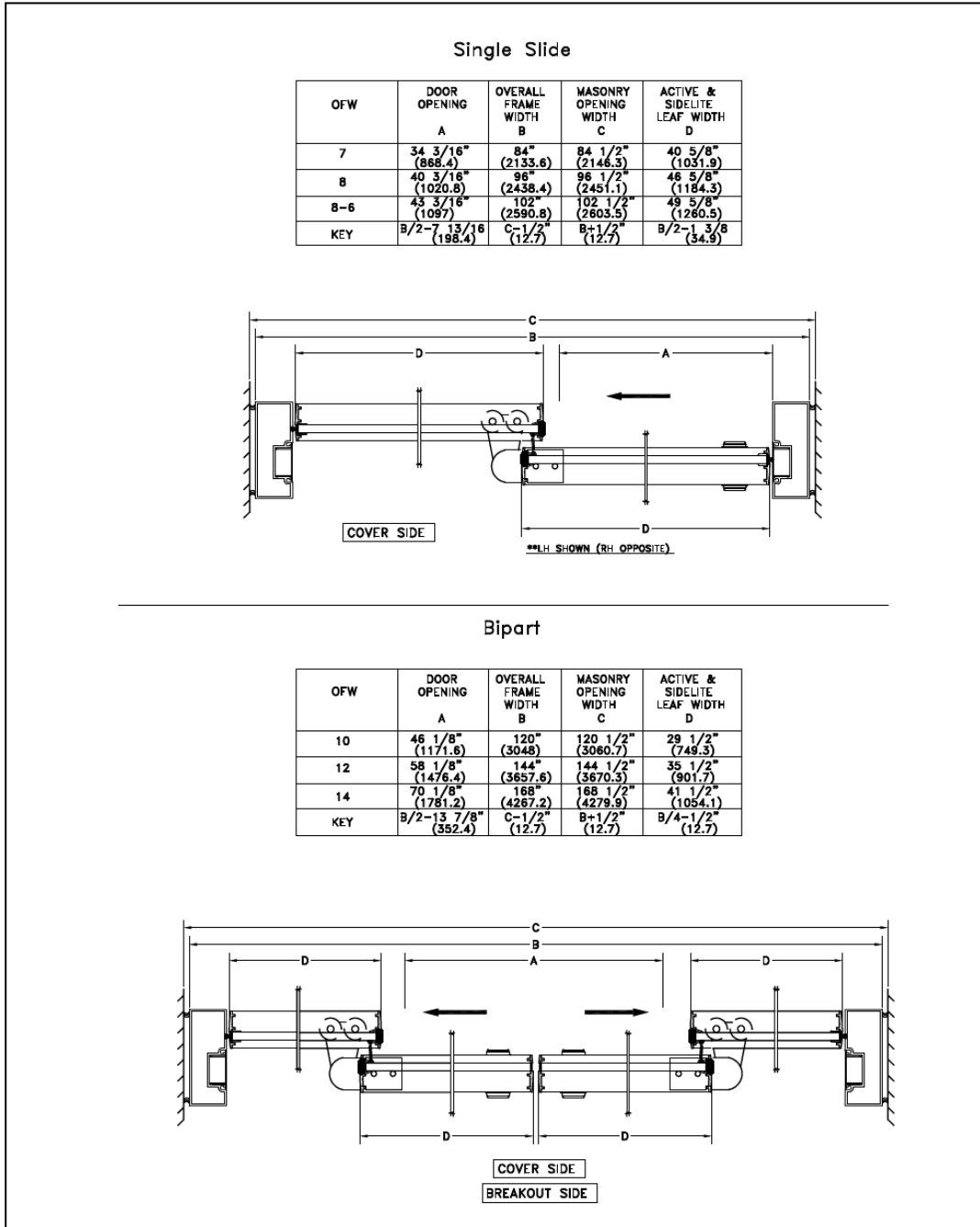
The Ditec DS20 AG is designed for an overhead, concealed installation between two vertical jambs. The header holds the drive and control units and supports the sliding doors, sidelites and transom above the operator, if required.

A Ditec DS20 AG operator ensures all-around safety. It can be combined with the full range of Ditec safety units, such as Optex presence and motion detector, or optional BEA Wizard. It is easy to install for both new construction and retrofit applications and can be adapted to a wide range of overhead concealed installations.

Models

Ditec provides several layouts for the DS20 AG FSL sliding door system. Operators can be bi-parting or single slide (left or right handed).

Before installing the DS20 AG system, check to see that the correct equipment and all necessary tools and hardware are at hand (reference Installation Requirements Section in the DS20 Installation Manual). Also, check the installation site for any factors that might interfere with proper installation (reference Site Inspection Section in the DS20 Installation Manual).

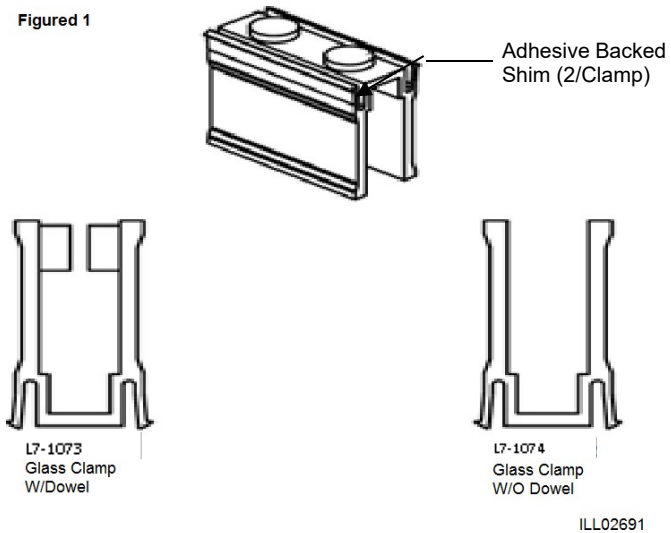


Installation

Glazing

1. Set glass onto a level surface in which the ends and the center are supported.
2. Apply two blue adhesive shims to each glass clamp. See Figure 1 (No blue adhesive shims are required for the 4" bottom rail.)

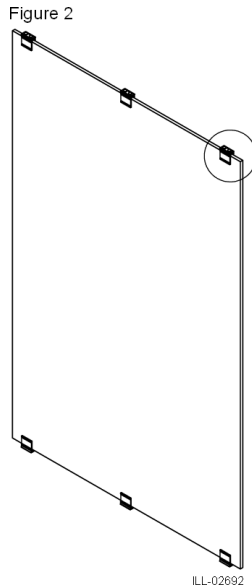
Figure 1



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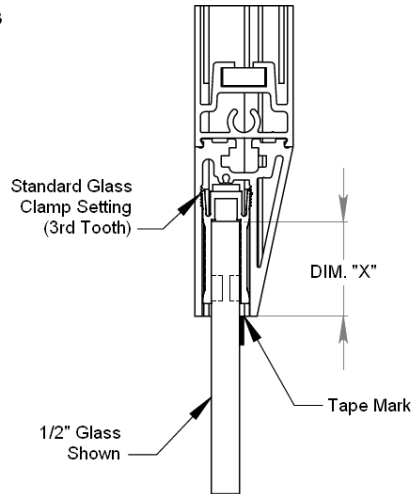
3. Install glass clamps onto glass. Active leaf glass requires the glass clamps that have an integrated dowel pin to be installed on the top and bottom edge of the glass. For the sidelite leaf glass, use the glass clamps that do not have the dowel pin. Since the sidelite leaf glass is not prepped with holes, the glass clamps need to be spaced approximately 3-1/2"-4" (83 to 102 mm) from each end and one in the center across both the top and bottom of the glass. See Figure 2.

Figure 2



4. Apply a strip of tape along the width of the glass at the specified distance as shown in Figure 3. (Notice the distance is different depending on glass thickness. This visual makes it easier to determine the depth once the silicone is added.)

Figure 3

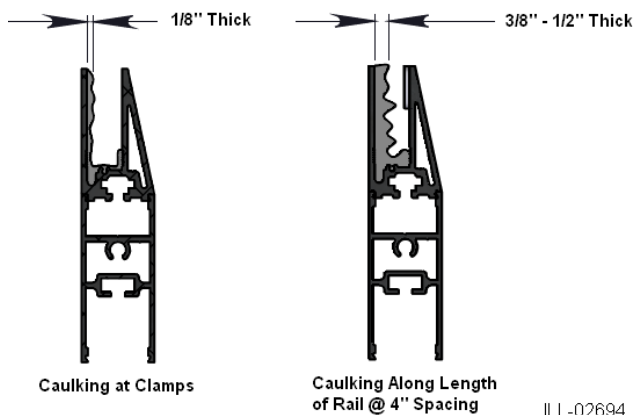


TAPE DISTANCE		
	3/8" GLASS	1/2" GLASS
DIM. "X"	2-1/16"	1-11/16"

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5. Clean (prepare) the inside of the shoe and the glass according to the manufacturer's recommendations for DOW 995 structural silicone.
6. Take a shoe and set upright.
7. Apply silicone to the shoe. We recommend using only Dow 995 silicone. Mark the centerlines where the glass clamps will fall. Build up the silicone along the inside (flat) walls as shown in Fig. 4 on each side of the centerline at a distance of 5/8" (16 mm).

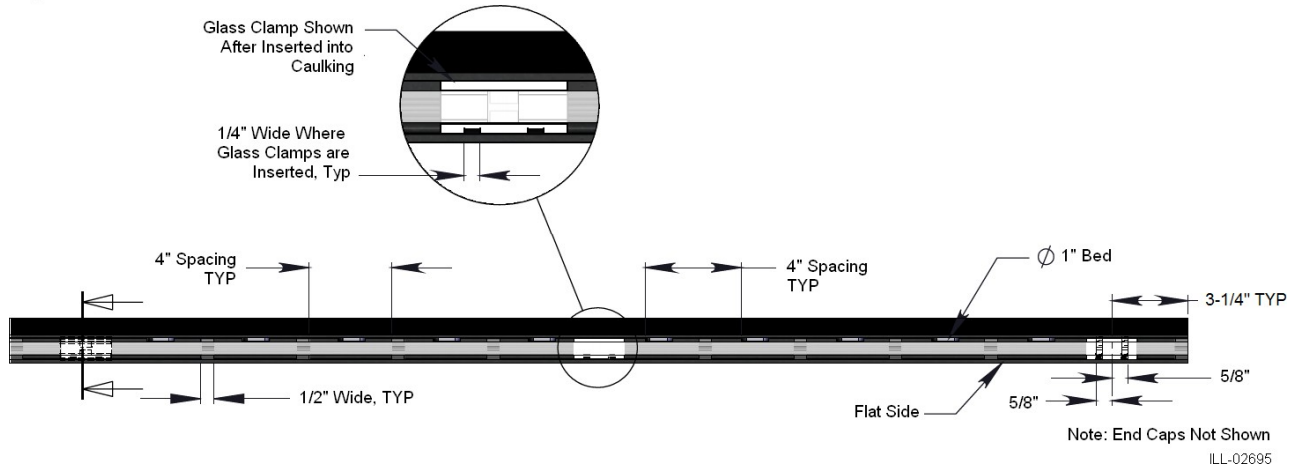
Figure 4



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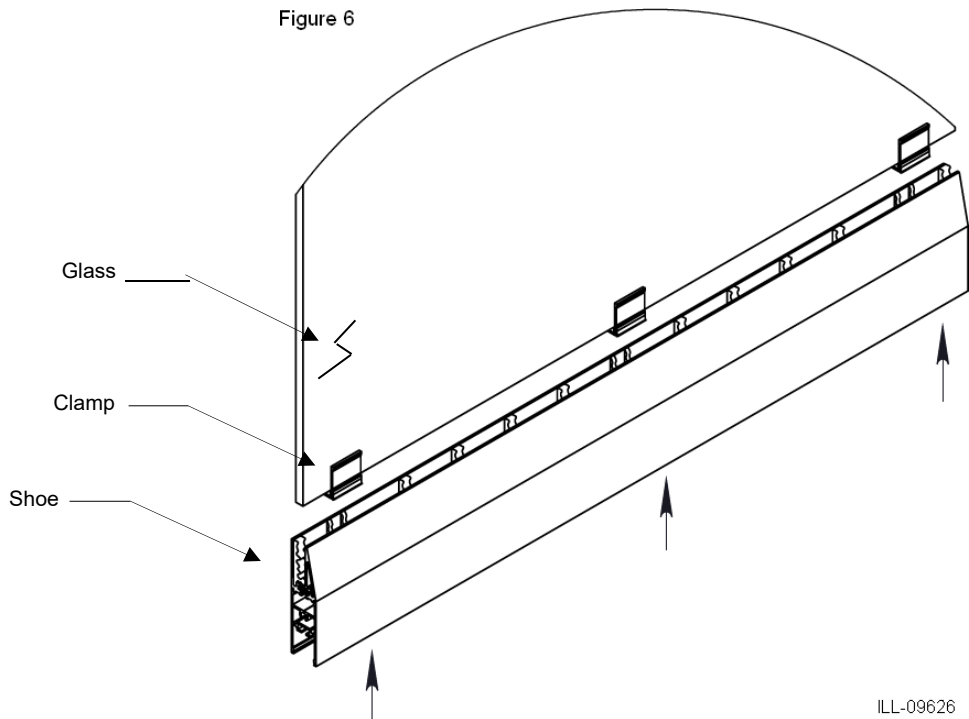
- Mark for a spacing approximately every 4" (102 mm) in between each glass clamp. Build up the silicone along the inside (flat) walls as shown in Figure 5.

Figure 5



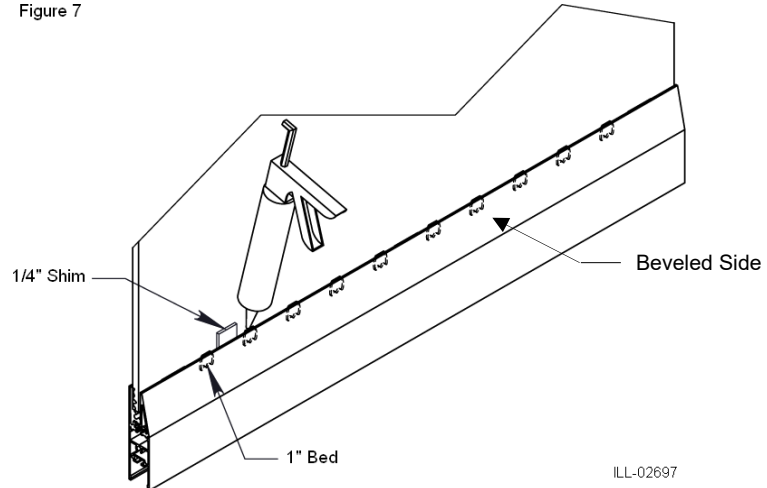
- Pinch the legs of the glass clamps and push the shoe onto the glass until the edge of the shoe meets the edge of the tapeline. See Figure 6. Slightly rotate the shoe on the glass or push the flat side of the shoe against the glass to ensure the silicone adheres to the glass. Looking down the flat side of the rail and the glass, inspect and confirm that the structural silicone is making contact between the shoe and glass.

Figure 6



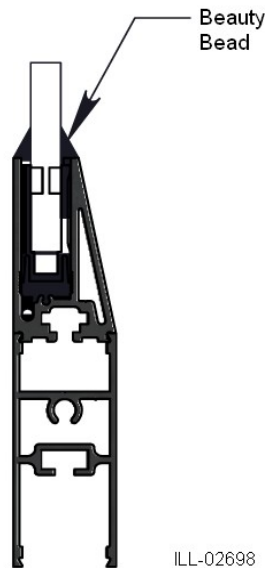
10. Next, wedge a 1/4" (6 mm) plastic shim between the glass and beveled side of the shoe enough to insert the tip of the caulk gun and build up an approximate 1" (25 mm) bed of silicone. (The beds should be spaced approximately 4" (102 mm) apart and staggered with the previous pattern. See Figure 7, and also refer to shim table, see Figure 9. Ensure that silicon makes full contact between the shoe and glass. Remove wedge.)

Figure 7



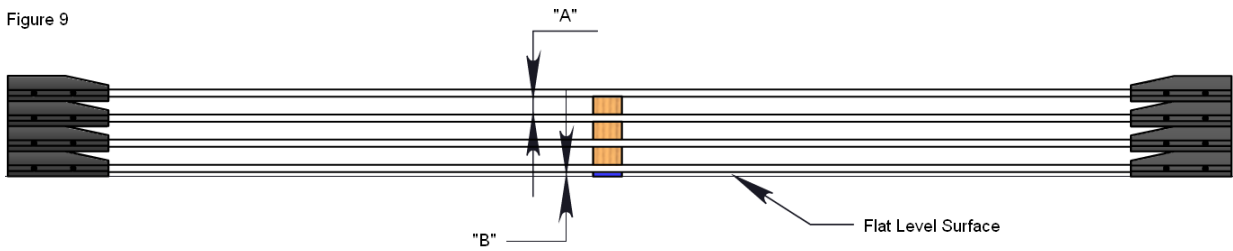
11. Using the DOW 995 silicone place a surface bead (beauty bead) across the length of the rail and the glass to finish off the process. See Figure 8.

Figure 8



12. Make sure that the shoes and glass are parallel and flat and stored in a secure place before allowing to cure. See Figure 9 for proper storage while curing.

Figure 9



WOOD BLOCK/SHIM THICKNESS		
DIM. "X"	3/8" GLASS	1/2" GLASS
A	1 3/8"	1 1/4"
B	3/8"	5/16"

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Note!

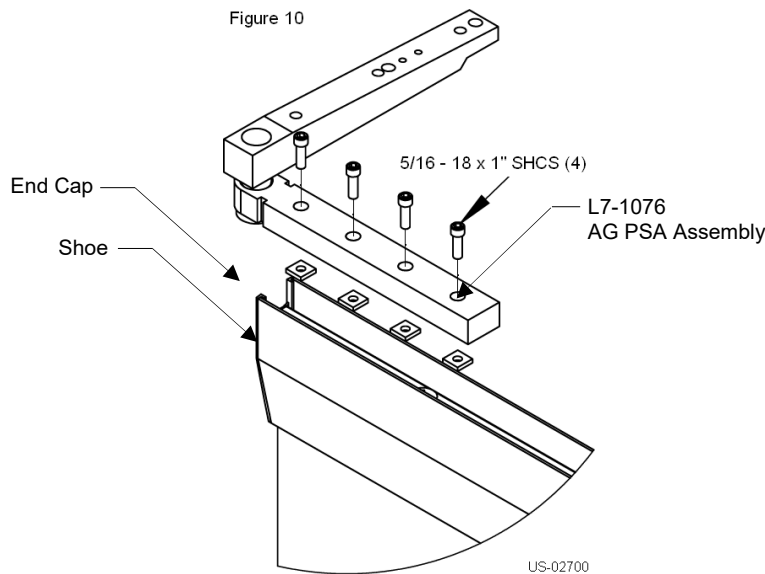
Cure time is a total of 14 days and the doors must not be moved during this time.

PSA Installation

CAUTION!

Prior to installing the door panels, the horizontal shoes must be permanently attached to the glass using the appropriate sealer compound per the manufacturer's recommended application of use and set-up cure time. The sealer compound must be completely cured solid or dry all the way through before installing any door panel. This can be checked by removing the end caps at each end of the horizontal rails and inspecting the sealer compound.

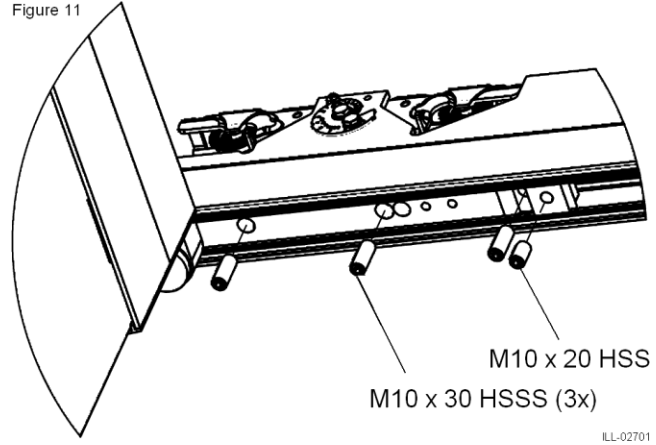
1. Locate the top active leaf shoe. The PSA arm installs on the side of the shoe in which the end cap is cut out.
2. Remove PSA arm side end cap.
3. Insert two of the four square nuts into the nut track from the end and the other two through the access hole on the nut track.
4. Attach the end cap back onto the shoe.
5. Line the base of the PSA arm where the notches are located with the arms extending from the end cap. See Figure 10.
6. Insert the four cap head screws through the PSA arm base into the square nuts and tighten. See Figure 10.



7. Remove end caps from carrier.
8. Orient the carrier so that the wheel bracket is on the opposite side from the beveled shoe side and slide onto the PSA arm.
9. Position the carrier until it is flush with the lead edge of the shoe. When correctly positioned, the carrier should extend approximately 1/2" (13 mm) beyond the PSA arm.

10. Insert the set screws thru the bottom of the upper arm of the PSA and temporarily tighten. See Figure 11.

Figure 11



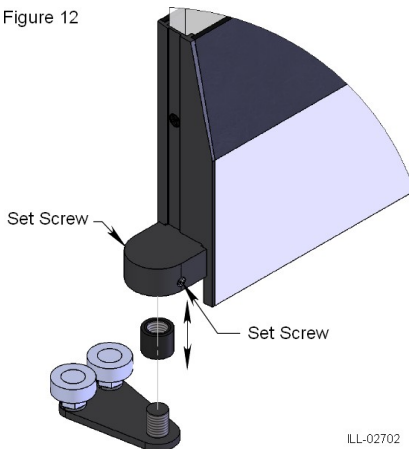
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Foot Guide Adjustment

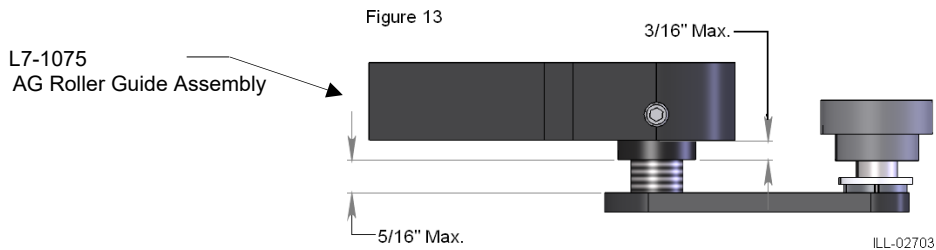
The foot guide will need to be initially adjusted approximately 1/8" (3 mm) before installing the active leaf. Once the active leaf is installed, further adjustment may be necessary.

1. Loosen both set screws located on each side of the housing.
2. Adjust the guide to desired height. (The collar can be adjusted downward a maximum of 3/16" (5 mm). See Figure 12. Any greater collar adjustment is unacceptable.)

Figure 12



3. Re-tighten set screws.
4. If more adjustment is needed, simply rotate the roller base about the collar. The roller base will thread in or out of the collar. The roller base has a maximum downward adjustment of 5/16" (8 mm). Any greater base adjustment is unacceptable. See Figure 13.



Note!

Once the height is determined, make sure the foot guide slides freely inside the guide track without binding.

Active Leaf and Sidelite Installation

Refer to Ditec DS20 Installation Manual for header, jamb, FSL floor track and leaf installation and adjustment instructions.

Weather Strip Installation

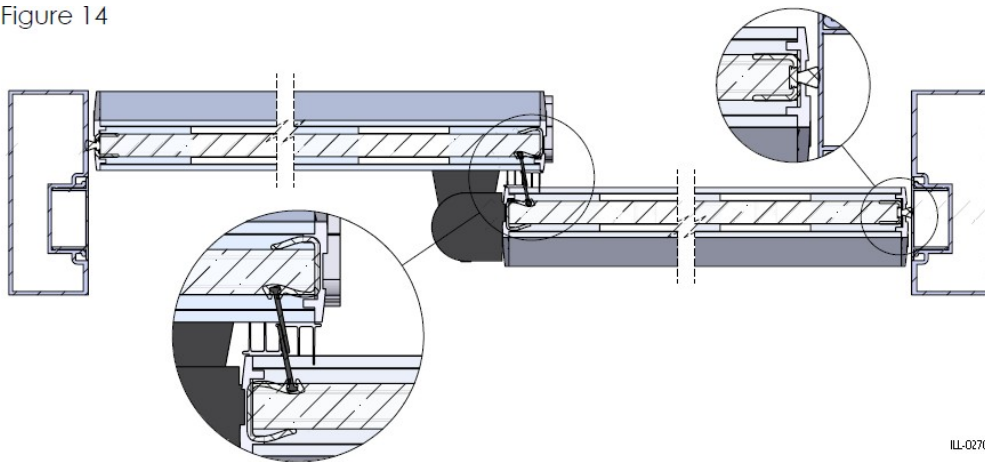
Weather-strip is provided, to be field applied to the doors. There are two types of weather-strip for the glass:

- a glass clip and brush assembly to be applied where doors meet the jambs
- a glass clip and rubber seal assembly to be applied where the doors overlap

Note the differences in the two types and their locations in Figure 14 prior to trimming.

1. Before installing the sidelite, measure the door height and trim the glass clip and brush assembly to this length.
2. Measure the top and bottom shoes.
3. Cut the glass clip to remove this amount but do not cut the brush.
4. Remove the backing on the tape on the inside face of the clip and apply clip and brush assembly to the glass on the jamb side of the sidelite.
5. Insert the extra length of brush through the slots in the top and bottom end caps.
6. Repeat this process for the leading edge of the active leaf glass.
7. Where the sidelite and active leaf overlap, measure the length of the glass between the top and bottom shoes.
8. Trim the clip and rubber seal to this dimension.
9. Remove the backing on the tape on the inside face of the clip and apply the clip to the glass. (Do this for the leading edge of the sidelite and the trailing edge of the active leaf.)
10. Insert the rubber seal down the length of the clip.

Figure 14

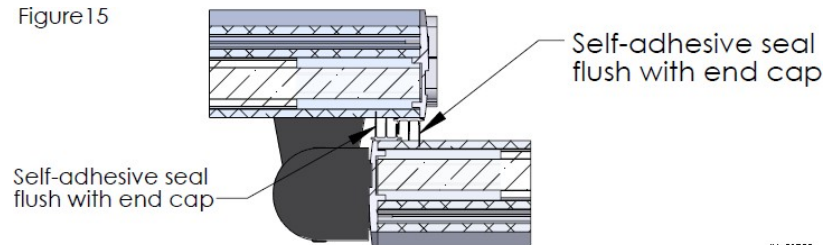


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Note, where the glass clip and rubber seals end, (referencing the above step) self adhesive seals will be needed to fill the gaps between the end caps.

11. Take the self adhesive seal and trim to the height of the end caps of both the top and bottom rails. See Figure 15.
12. Apply the edge of the seals flush with the end caps and orient as shown such that they are opposing. (Seals should touch each other when the doors are in the closed position.)

Figure 15



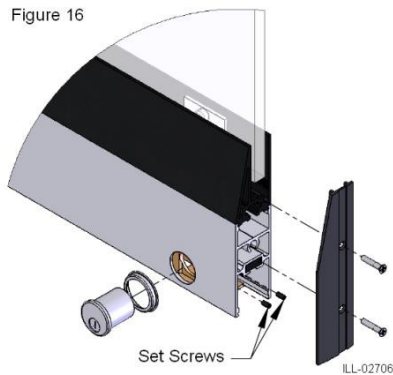
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PSA Adjustment

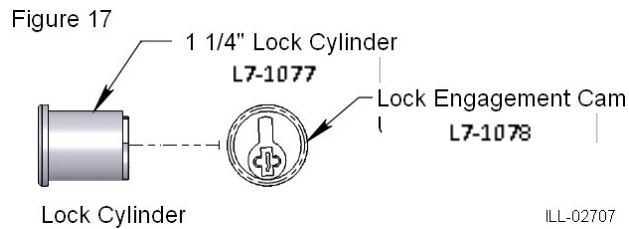
Once the active leaf has been installed, the PSA arm will need to be adjusted to raise the lead edge of the door. Refer to Ditec DS20 Installation Manual.

Mechanical Lock Cylinder Replacement (if equipped)

The lock cylinder can be removed before or after the leaf has been installed. See Figure 16.



1. Remove end cap.
2. Locate the two set screws on the lock body and loosen.
3. Remove existing cylinder. See Figure 17.
4. If replacing with a similar type cylinder, remove cam from existing cylinder and attach to desired cylinder.



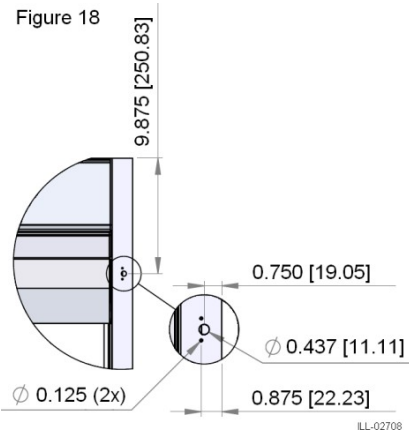
5. Install new cylinder.
6. Tighten the two set screws.
7. Ensure that the lock works properly.
8. Re-install the end cap.

Note!

The lock cylinder has a longer engagement cam on the back of the lockset.

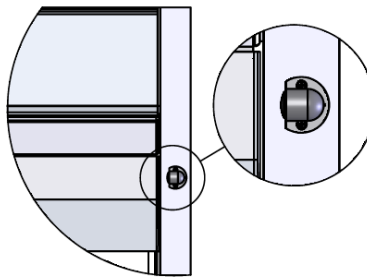
Breakout Beam Installation

1. Prep the breakout side of each jamb for the breakout beams. See Figure 18.



2. Install beams to jambs using the hardware provided in the Breakout Beam Kit. See Figure 19.
3. Connect and wire the beams per the instructions found in the Breakout Beam Kit.

Figure 19



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