

# KLÖZIT® SLIDING GLASS DOOR LATCH by ROLTEC PRODUCTS, INC.

## SLIDING GLASS DOOR LATCH INSTALLATION INSTRUCTIONS

**OVERVIEW:** The KLÖZIT sliding glass door latch allows the door to self-latch with no impediment to the movement of the door. The latch body is mounted on the moving panel. As it passes under the gravity latch mounted on the outside upper door frame, a small brass striker is lifted and then falls after the latch body passes by. The gravity latch prevents the door from re-opening unless the pawl in the latch body is pulled down so that it can pass by the gravity latch striker. The pawl is pulled by a small cable attached to a cable puller inside the latch handle body. When either the interior and exterior handle is moved, the cable puller rotates and pulls the cable and the pawl down. A spring in the latch body returns the handles and the pawl to the locked position when the handle is released. The interior and exterior handles are connected by a square bar. The actuating cable is mounted on the outside of the door and is protected by a self-adhesive plastic extrusion. The handles can be mounted high up on the door, out of the reach of small children. Pool safety codes in Arizona require a self-latching device on all doors with access to the pool. The height of the handles in Arizona must be 54 inches or higher.

### PARTS LIST:

Gravity Latch Mounting Bracket	Handle Assembly (2)
Actuating Cable with eyelet (1)	Latch Body Assembly (1)
Hex Head serrated screws (5)	Gravity Latch
Hex Head Deep Tubular 8 x 32 Nuts	Connector Bar (1)
No. 8 x 32 Black Screws 1" long (2)	Cable Puller (2)
No. 8 x 32 Black Screw 3/4" long (2)	Self-drilling screws (5)
Rubbing alcohol	Paper towel
Self-stick Plastic Cable Cover (Black or White) (1)	

### TOOLS LIST:

5/16" socket driver (if using hex head screws)	Pencil
Phillips screw driver	Hammer
3/8" drill driver (if using self-drilling screws)	Tape measure
Flat blade screwdriver or 3/16" socket driver	Center punch
Needle nose pliers	Cutting pliers
3/8" drill with 3/16", 9/32", and 1/2" drill bits	Adhesive tape
5/64th " Allen wrench	
Bar clamp or C-clamp with soft jaws or protective material with (3-4 inch jaw opening)	

**Terminology:** When viewed from the inside, a left-handed door has the moving panel on the left side and moves from left to right. A right-handed door has the moving panel on the right side when viewed from the inside.

**Precautions:** These instructions serve for the vast majority of sliding glass doors. Before drilling, verify that the door latch will fit your door and that the holes that need to be drilled will not hit any part of the glass panel. Verify that add-on items such as alarm sensors will not be damaged or affected by the latch system.



**Exterior view of door latch system with Latch handle, plastic cable cover, latch body and gravity latch bracket visible.**

## HANDLE INSTALLATION PROCEDURE:

1. Close and latch the door. Make a small horizontal mark on the handle side of the door, 55" above the floor. Then draw a vertical line on the door using the edge of the door frame as a guide, from about 3" above the 55" mark to about 3" below the 55" mark. Then open the door and go outside and make a similar vertical mark along the door frame at the top of the door, extending 4" down. These two marks will be used to make sure that the latch handles and latch body assemblies are mounted with clearance to the door frame so they do not strike the door frame and prevent the door from fully closing and locking. NOTE: Some doors have frames that protrude more on the outside than on the inside. If your frame protrudes more on the outside, you will need to take this extra distance into account and move the vertical pencil line for the handle inward so that it lines up with the outside frame.

2. Select the appropriate template for your door. The template on the left side of the page is for a left-handed door. The template on the right side of the page is for a right-handed door. Verify that the template has printed out to the correct scale by comparing it to a handle assembly. Open the door and align the vertical line of the template with the pencil line on the door. Align the horizontal line on the template with the 55" high horizontal line on the door. Then tape the template to the door.

3. Use the center punch and hammer to mark the centers of the three holes as shown on the template. Then remove the template and drill the middle hole using the 9/32" bit. NOTE: The hole must be perpendicular to the surface of the door. If the door is hollow, first drill the hole on the interior on the side only. Then taking great care to ensure your drill is perpendicular to the door both vertically and horizontally, drill the hole all the way through. Then check your work and verify that you are drilling correctly. Now drill the top and bottom 9/32" holes through the door. Enlarge the middle hole to 1/2".

Note: If alignment errors are made, all of the holes can be enlarged in order to make up for alignment problems as long as they are not so large that the handle plate doesn't cover them.

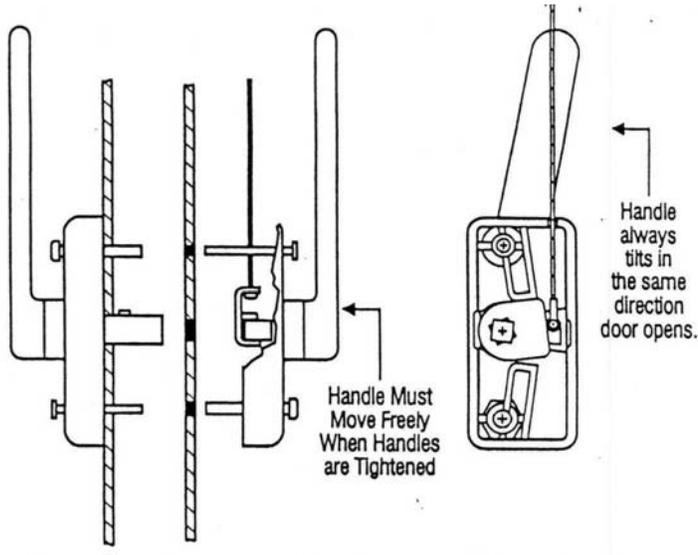
4. Insert the connector bar into one of the handle assemblies. Pass the bar through the 1/2" hole to the other side and into the other handle assembly. Press the assemblies together. Connect the two handle assemblies together with the 8-32 x 1" long black screws and the deep hex nuts. The deep hex nuts go in the larger handle plate holes, one per handle plate. Tighten the screws and verify that the handles swing freely, without restriction or rubbing. If the holes are not properly aligned, rubbing and friction will cause the handles to bind. If so, determine which exterior hole(s) is the problem and enlarge it (them) and reinstall to verify the handles swing freely.



**Exterior handle with cable correctly positioned and cable attached (Step 6)**

5. Remove the handle assemblies from the door and install one cable puller on the handle that retained the connector bar. This will be the exterior handle. Slide one cable puller over the connector bar with the tangs going into the handle plate. The cable puller side tangs go in-between the plastic movement restrictors in the handle body. The correct position of the cable puller will restrict the handle to moving in between the one o'clock and two o'clock positions for a right-handed door or the 10 o'clock and 11 o'clock positions for a left-handed door. The handle always points to the way the door moves.

6. Pull the cable puller away from the exterior handle plate about 1/2' keeping the connector bar in place and hook the eyelet of the cable around the center tang of the cable puller. Position the cable so it comes out of the top of the exterior handle plate. Then push the cable puller back into the handle plate, trapping the cable and eyelet. Position the exterior handle assembly on the door and insert a deep hex nut to keep the handle in place. Place the interior cable puller, tangs away from the door, on the connector bar so that the interior handle will be aligned with the interior handle. Then attach the two plates to the door with the 1" long 8-32 black screws and two deep hex nuts. Verify that the handles still move freely.



NOTE: The interior cable puller does not pull a cable. Its purpose is to limit how much the latch handle can move. It works in conjunction with the exterior cable puller to double the strength of the system against excessive handle movement.

You are now ready to install the upper parts of the latch, the latch body and the gravity latch. The latch body is mounted on the outside of the door with two 8-32 x 3/4" black screws and two deep hex nuts. The gravity latch is typically mounted to the gravity bracket which is then mounted to the underneath side of the door frame. Depending on the door, the gravity latch can be mounted in various configurations, sometimes without the bracket in order to align the latch pawl and striker vertically and horizontally.



Latch body (left) with cable coming from below, concealed by white plastic cable cover. Latch striker in locked position



Gravity latch and mounting bracket mounted to under side of top door frame.



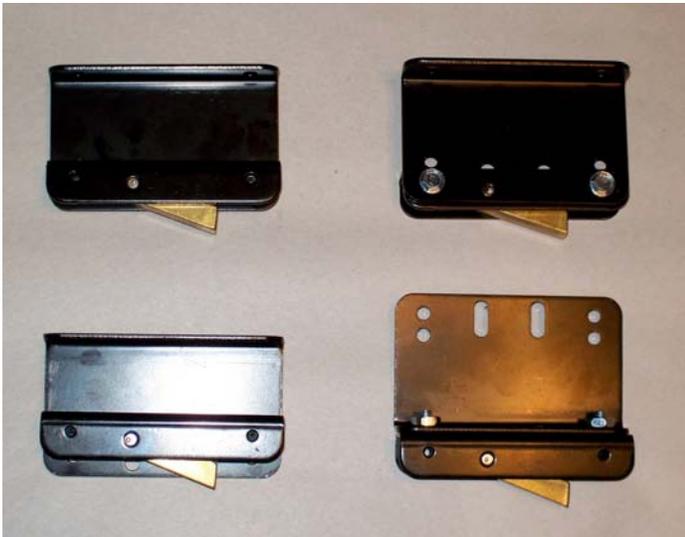
**Latch pawl in locked position.**



**Latch pawl in unlocked position**

**Latch body with cover removed showing metal link secured between latch body and door frame with cable attached with proper tension. Diagonal part of pawl faces away from handles. Diagonal part of striker faces toward handles. Note that latch body is properly placed so that pawl hits striker in the locked position and clears striker in the unlocked position.**

**OVERVIEW:** The installation of the latch body and gravity latch require careful alignment so that the latch pawl and striker mate both vertically and horizontally. The height of the gravity latch striker is adjustable with a small Allen set screw. The position of the latch body and pawl in the horizontal direction perpendicular to the door is fixed since the latch body is attached to the exterior side of the door. The center of the pawl is 0.35" from the surface of the door frame. Thus, placement of the gravity latch and gravity latch bracket controls the alignment of the pawl and striker. The gravity latch can be attached to either side of the mounting bracket or even underneath the bracket. As necessary, the gravity latch and/or the bracket can be mounted with washers or other spacers in order to provide vertical and horizontal alignment.



**Various gravity latch mounting options. From upper left, clockwise: Latch on L-side of bracket, Latch on flat side of bracket (most common), Bracket inverted with latch mounted under bracket with 8-32 screws (rare), Latch on L-side of bracket in upper mounting holes.**

The gravity latch can also be mounted to the underneath part of the door frame directly, without the mounting bracket.

Two types of mounting screws are supplied, a hex head serrated sheet metal screw and a Phillips drive self drilling screw. Either screw can be used to attach the gravity latch to the bracket and the bracket to the door frame. We prefer the hex head for attaching the gravity latch. For attaching the bracket to metal and vinyl door frames use the self drilling screw. For solid wood frames, temporarily install

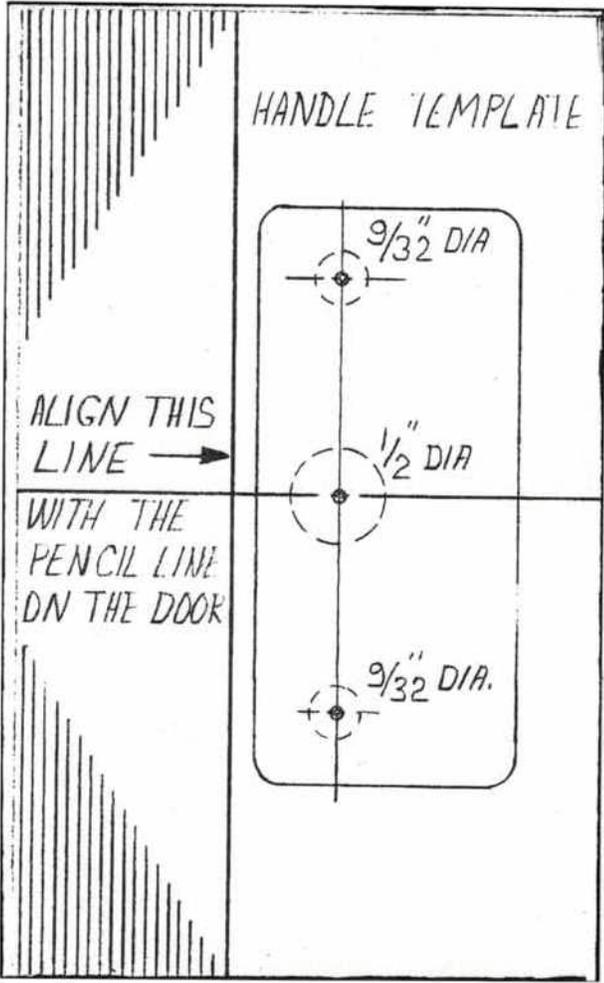
bracket with self drilling screws, then remove and drill deeper and replace with wood screws. (not included).

The position of the gravity latch left-to-right, determines how far the door can be opened before it is stopped by the latch. The building code in Arizona requires that the door open no more than 4 inches unless the latch has been actuated. We typically position the gravity latch for 1/2 to 1" of opening.

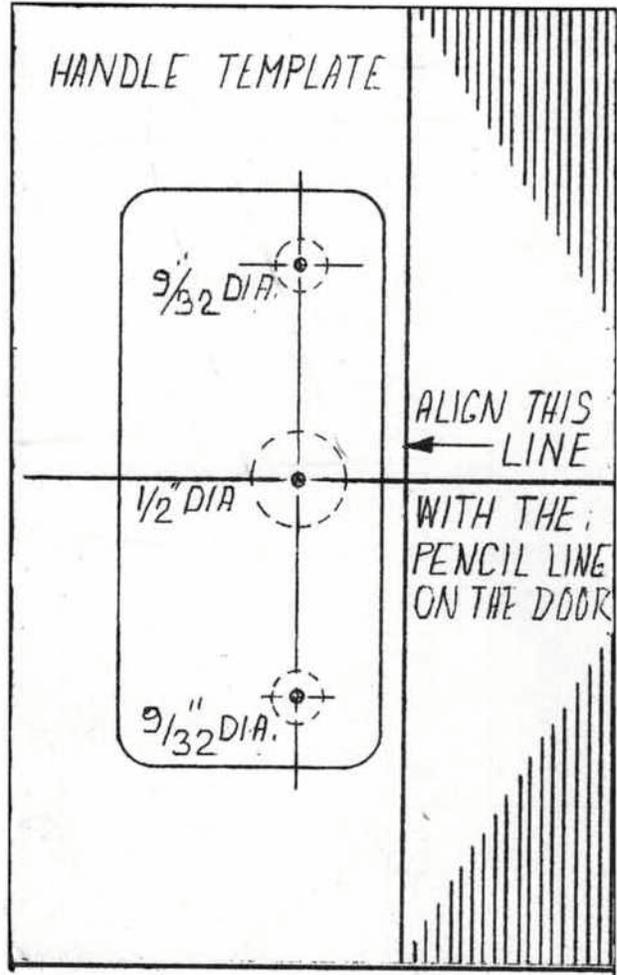
### **LATCH BODY AND GRAVITY LATCH INSTALLATION PROCEDURE:**

1. Determine how and where you will mount the gravity latch and bracket so that the latch pawl lines up with the latch striker. If the mounting bracket will be used, attach the gravity latch to the bracket. Remove the latch body cover and the metal link. Clamp the latch body to the exterior of the door 1/8" from the vertical pencil line and high enough so that the pawl will be close to the striker for visual alignment. Determine the depth for mounting the gravity latch so that it lines up with the latch pawl (Horizontal alignment, not vertical) and measure or mark this. Close the door and mark the left-to-right position for the gravity latch bracket that will allow 1/2" to 1" of door opening before the pawl hits the striker. The striker points toward the handle, the pawl points away from the handle. Remove the latch body and clamp and re-install the gravity latch bracket. Depending on configuration, you may need to remove the gravity latch from the bracket in order to install the bracket. Ensure that the bracket is sturdily attached. If the bracket is not firmly attached, you will need to determine why. Common problems are vinyl frames that are not reinforced with metal and frames that have a non-structural decorative cover. It may be necessary to obtain longer screws in order to reach the frame header. (These problems are not common). If the gravity latch was removed from the bracket, reattach it.
2. Using a 5/64th" hex key wrench, backout the set screw on the striker so that it is in the fully down position. The gravity latch is usually shipped with the screw backed out so you may not notice any movement in the striker. The screw is installed with lock tite and will be hard to turn at first.
3. Open the door until the location where the latch body will be installed is under the gravity latch and hold the latch body vertically and position the latch body 1/4" below the bottom of the gravity latch body (the steel body, not the striker). Mark a line on the door at the top of the latch body. Position the latch body so that it is 1/8" away from the vertical line and the top is even with the line you just made. Mark the top hole of the latch body on the door using the pencil.
4. Drill a 3/16" hole through both sides of the door, ensuring that the hole is perpendicular both vertically and horizontally.
5. Change to the 9/32" bit and enlarge the hole on the outside only. If the door is solid, you will need to carefully make the enlarged hole 3/4" deep from the exterior side of the door.
6. Insert a deep hex nut into the top hole of the latch body and attach the latch body to the door with the 8-32 x 3/4" screw. (The screw is inserted on the interior side). Align the latch body vertically. Verify that the latch body is at the right height. Low enough to not hit the bracket, high enough that the pawl will engage the striker. If alignment is good, use the pencil to mark the lower hole. Then remove the latch body and drill the lower hole the same way as before, 3/16" all the way through, 9/32 through the exterior side only. (If alignment is not correct, slight errors can be corrected by enlarging the 9/32" hole slightly. For large errors, the position and configuration of the mounting bracket we need to be modified).

7. Place the metal link behind the latch body so that the hole in the link engages the roll pin and the flat side of the link will be against the door. Then attach the latch body with the 8-32 x 3/4" black screws and the deep hex nuts, trapping the link between the door and the latch body.
8. Clean the exterior door frame between the handle assembly and the latch body with alcohol.
9. Install the latch body cover.
10. Measure the distance from the top of the plastic handle plate to the bottom of the latch body cover and cut the plastic cable cover 1/4" shorter than this distance.
11. Position the cable cover between the handle and the latch body, almost touching the handle plate. Verify that there is clearance between the cable cover and the latch body cover.
12. Remove the cover plate and once the alcohol is dry, remove the adhesive backing and apply the cable cover to the door frame so that the cover is almost touching the handle plate and so that the center of the cable cover is aligned with the cable exiting the exterior handle and with the center of the metal link of the latch body. Pull the cable tight from the handle to the link and verify that the cable is over the center of the cable cover. Snap the cable cover closed with the cable inside it.
13. Backout the small screw on the metal link. Then thread the cable between the plastic cable cover and the metal link. Move the door so that the latch pawl is under the gravity latch body and place an object between the bottom of the gravity latch and the latch pawl so that the latch pawl is held in a horizontal position.
14. Using the needle nose pliers, grasp the cable close to the plastic cable anchor and tightly loop the cable twice around the anchor screw in a clockwise direction. This should cause the handles to rise up to the 1 o'clock/ 11 o'clock positions. Then tighten the screw.
15. Remove the blocking object and test the latch function. The handles should be held tightly up. When they are moved toward the opening direction, the cable should pull down the latch pawl to nearly horizontal. It is very important that handle movement is limited in the handle assembly by the cable pullers. If the handle movement is limited by the latch pawl going all the way to its bottom limit, there will be too much tension on the cable and it will break.
16. Open the door without depressing the handles and verify that it will not open. Then using the handles, verify that the door will open. If the door will not open or has very little clearance between the pawl and striker, raise the striker up some using the 5/64" hex key wrench.
17. After you have determined the latch is working and properly installed, cut the excess cable off, leaving about 1 inch extra. Install the latch body cover, ensuring that the excess cable does not get trapped between the cover and the latch body.



**Left handed door**



**Right handed door**

VERIFY TEMPLATE HAS PRINTED TO SCALE. CHECK TEMPLATE AGAINST HANDLE PLATE TO ENSURE HOLES IN HANDLE PLATE MATCH TEMPLATE.



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