

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

## **INSTRUCTIONS for CABLE ACUATED DOOR CLOSER**

**OVERVIEW:** The KLÖZIT sliding glass door closer stores energy in a gas spring that is compressed when the sliding glass door is opened. When the door is released, the closer uses the energy stored in the gas spring to close the door. Because of the need to store this energy when the door is opened, all doors will require more opening force than without a door closer. Two closer designs are available, a cable actuated closer and a strap actuated closer. The Strap door closer is more energy efficient and thus allows for an easier to open door while the cable door closer is smaller and more concealed but less efficient. Regardless of what closing system is used, properly functioning door rollers are critical to the operation of all door closers. If the sliding glass door does not roll easily, the rollers and track must be cleaned and/or repaired.

**THESE INSTRUCTIONS ARE FOR THE CABLE ACTUATED CLOSER ONLY.**

**MECHANISM:** The body of the door closer is a 1" x 2" aluminum extrusion. The closing mechanism consists of a gas spring (piston) with a single output pulley mounted on a 1" long axle pin at the top of the extrusion and a block-and-tackle assembly consisting of a gas spring (piston) with two pulleys mounted to the top of the piston and two pulleys mounted to the bottom of the piston.

The top of the piston and the two top pulleys are mounted to the extrusion just below the output pulley by a 1" long pin to the bottom of the piston. The top of the piston is held inside of the extrusion by a 1" long pin. A wire cable is strung over the five pulleys and then comes out of the closer at the top.

When the cable is pulled out of the closer (such as when the door is opened), the block-and-tackle assembly compresses the piston, storing energy in the piston that will later be used to close the door. When the cable is released, the piston and block-and-tackle assembly expand, pulling the cable back into the closer and closing the door. The exterior end of the cable is attached to the top of the door frame, passing over the door. This connection to the door frame is what enables the closer to pull the door shut.



**Internal parts of cable door closer- gas piston, 5 pulleys, top and bottom axles, cable**

## REMOVING CABLE CLOSER

**CAUTION: If the cable is frayed, the cable wires are very sharp. Only handle it with gloves. There can also be sharp cable fragments protruding from the eyelet or loop at the end of the cable where the cable is attached to the door frame.**

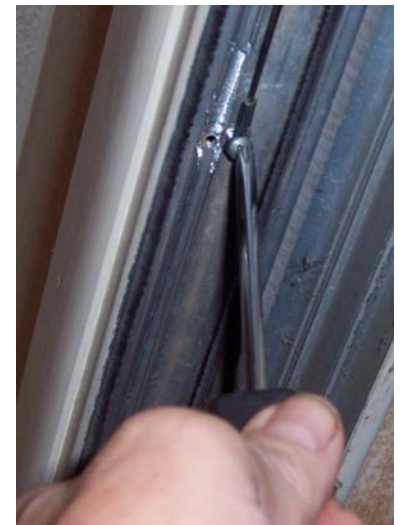
The cable closer is held in place at the top by a pin that comes out of the closer and sticks into the door frame and by the force exerted by the closer as it tries to pull the door shut. The closer is held in place at the bottom by a single screw, screwed into the door frame.

When the closer is installed, extra cable is pulled out so that even when the door is closed, the closer is pulling against the door. This force keeps the closer tight against the door at the top. We refer to this as "pre-load".

To remove the closer, get an allen wrench, short punch or a short screwdriver with a diameter of about 1/4". You will also need a phillips screwdriver, medium size.

1. Open the door almost completely, leaving about 6" left to open and insert the pin, allen wrench, etc. into the hole on the side of the closer away from the moving door pane. The hole is 6" up from the bottom of the closer.
2. Release the door, allowing it to begin to close. If necessary, slowly help the closer close the door. Do not close the door too fast or the cable will bunch up above the moving pane.

The piston inside the closer will bottom out against the object you have placed in the hole and the cable will go slack. The cable closer can now be removed from the door.



**Disconnecting cable from door frame**

3. Remove the screw holding the cable to the underside of the door frame (caution, cable end may be sharp).
4. Remove the bottom mounting screw, accessing the screw through the 3/8" hole at the bottom of the closer. Finally, pull on the top of the closer to pull the pin from the hole in the door.



**Removing bottom mounting screw**



**Pulling roll pin out of hole in door frame**

## DISASSEMBLY OF CABLE CLOSER

### CAUTION:

**Frayed cable, sharp cable ends:** The cable strands are very sharp. Also, with enough force, the cable can cut your hand if you pass along it too quickly while holding it under pressure. This could happen if you are pulling on the cable against the force of the closer and then the cable slips and your hand passes along it quickly with pressure. Only handle the cable with gloves. There can also be sharp cable fragments protruding from the eyelet or loop at the end of the cable where the cable is attached to the door frame.

**Compressed piston, stored closing force:** If you followed the previous removal procedure, the door closer's piston is compressed. If suddenly is released, it could pull the cable through your hand or pinch a finger. The spring could also be compressed if the closer has failed because a damaged cable or roller is jammed inside the extrusion, preventing the spring from decompressing.

1. Remove the bottom plastic cap from the extrusion. It is held in place by the bottom mounting screw. Make sure that the screw has been completely backed out and is loose in the cap. Remove the cap. Usually it is finger-tight but sometimes it must be pried out with a screw driver stuck into the cap through the 3/8" hole in the extrusion.
2. Release piston tension. Clamp the eyelet at the end of the cable in a vise and then pull on the closer and remove the blocking object. Then, slowly allow the cable to be pulled back into the closer, decompressing the spring. If you do not have a vise, a hook through the eyelet can be used instead or an assistant can hold the eyelet tightly with pliers.
3. Check for piston tension: It is important to verify that the piston is fully extended. If the piston is fully extended and not under tension, the bottom pulleys will be 1" from the end of the extrusion. If they are farther inside, the piston is still compressed. If the piston is still compressed, extra caution needs to be taken during disassembly to make sure you are not caught off-guard if the piston suddenly decompresses and pulls the cable.



**Rollers 1" from Bottom  
of closer extrusion**

4. There are two pins at the top of the closer. Place the closer on a flat surface so that the large ends of the pins are facing down. Support the closer on two similar length sockets, one at the bottom of the closer and one at the top. The socket at the top should be directly below the top axle that supports the single output pulley.



**Punching out the top axle, closer supported by sockets**



**Punching out the lower pin, closer supported on sockets (output axle and pulley removed)**

5. Using a punch, tap out the top axle. If too much force is required, verify that the axle is not hitting the socket. Also check to make sure you have the small end of the axle facing up.

6. The pin will loosen and can be pushed the rest of the way with the punch, freeing the axle from the extrusion and the pulley will be free.

7. Remove the plastic top cap. It may be finger tight or you may need to use a flat blade screwdriver.

7. Now, position the socket under the lower pin and punch this pin out. The block-and-tackle assembly, consisting of the piston, 4 pulleys and the cable, can now be removed through the bottom of the extrusion. As the assembly is pulled out, be prepared to grab the pulleys because they are loose on the axles and will fall off as soon as they clear the extrusion.

**\*\*NOTE:** If the roll pin on the side of the extrusion has been pushed in too far, it may prevent the removal of the block-and-tackle assembly. If the assembly is hanging up on the pin, try pushing the assembly past the pin with a large diameter punch. If necessary, the pin must be pulled out some in order for the assembly to be removed. The roll pin is difficult to back out. The best way is with some large, high leverage pliers such as channel locks. Protect the side of the closer with a small piece of wood or metal and grasp the roll pin with the pliers and pry up with a twisting motion and back the roll pin out until the assembly clears.



**Pulling roll pin from extrusion**