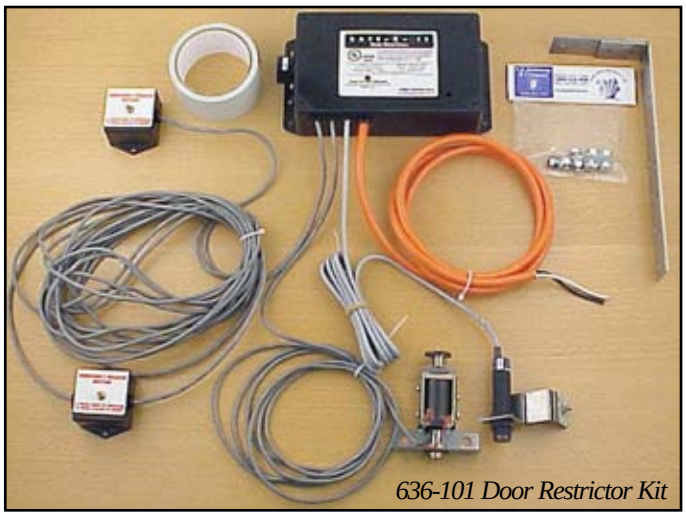
Door Restrictor

Keep Those Doors Shut!



636-101 Door Restrictor Kit

SAFE-X-IT™ Door Restrictor

The C.J. Anderson SAFE-X-IT™ Door Restrictor is designed to stop the opening of passenger elevator car doors when the elevator is outside of the unlocking zone. This meets the requirements of ASME A17.1.

In addition SAFE-X-IT™ provides advanced features not found on other restrictors on the market. It is these unique features which make this door restrictor comply with other requirements of A 17.1 as well as solving problems not now addressed by A17.1.
Some of the operating features and special functions of this Door Restrictor are below.

Emergency Release Buttons

This unique feature is designed to allow retraction of the door restrictor from outside the elevator in the event of an emergency. Emergency Release Buttons can be mounted on the side, top, or bottom of the cab, or in a remote location. This eliminates the necessity of gaining access to the top of the car and allows authorized emergency personnel entry to the cab.

Fire Service Override

This innovation disables the restrictor when Phase II is activated. This allows firefighters to do their job safely without fear of being locked in the elevator. Note that this feature is not required by code but your local firefighter authority might require it.

One Sensor Only

This sensor is used to activate the solenoid plunger when the elevator cab is in the safe unlocking zone. To insure positive reception the sensor holder allows for full horizontal and vertical adjustment. Pressure sensitive tape on the base of the sensor holder eliminates the necessity of mounting holes and hardware. For ease of installation and certain operation the unit comes with 2 inch wide reflector tape. For optimum placement the solenoid plunger mounting bracket is designed to be top or side mounted.

Failure Design

This restrictor, as any electrical mechanical device, requires routine inspections to insure it is operating and aligned properly, that the backup battery is fully charged, etc. However, should the unit for some reason fail, the solenoid plunger will retract, releasing the door restriction. This design is deliberate, as the circumstances which cause a failure could be of a disastrous nature. Releasing the door restriction permits the doors to operate normally. This prevents passengers from being trapped in the car and costly problems such as a door motor burn out from trying to open a locked door.

The above highlights are in addition to other features such as a 5 year battery with test button, 5 yards of two inch wide tape and flame retardant ABS enclosure. Also note that the unit is prewired as shown. The only wiring required is to a constant 110vac power source. This makes installation even easier.

MODELS AVAILABLE

636-101	SAFE-X-IT Door Restrictor Kit 2 - 5 Landings of Tape Supplied
636-101-PO	SAFE-X-IT Door Restrictor Kit With Pre Opening Module - No Tape Required

ACCESSORIES/REPLACEMENT COMPONENTS

636-109	Roll of Reflective Tape - 5 Feet
636-102	Control Box Assembly - Battery Not Included
636-103	Battery - 12VDC
636-104	Sensor
636-105	Solenoid Assembly
636-106	Side Solenoid Mounting Bracket
636-107	Emergency Release Buttons - 2 per Package
636-108-DB	Door Bracket

Step 1. Control Box

The door restrictor control box is heavy duty ABS plastic which will withstand most abuse, including accidentally stepping on it. However, to prevent a tripping hazard, it is recommended that the door restrictor control box be located under the cross head or other out of the way area.

Note that the only thing you have to wire is the 110VAC power feed. Everything else is prewired.

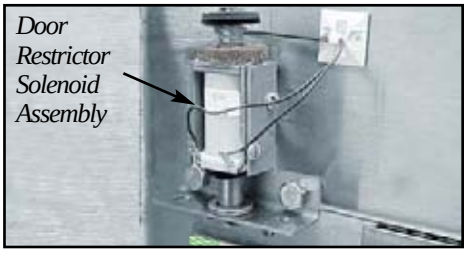
The door restrictor control box is furnished with a 6 foot long, 3 wire, 120 VAC power cord. Connect the power cord to any convenient 120 VAC power source on the car top. ***NOTE: BEFORE CONNECTING THE POWER CORD BE SURE THAT THE PLUS (+) TERMINAL OF THE BACK-UP BATTERY IS CONNECTED.*** Cut the power cord to size, or coil and tape down any excess cord to the prevent a tripping hazard.

Step 2. Solenoid Assembly

The solenoid plunger assembly comes with the top mounting bracket attached. The normal mounting is on the cab header; however a side mounting bracket is also furnished should side mounting be more advantageous.

In selecting the position for the solenoid plunger remember that the plunger and door restrictor bracket must be positioned so that the doors can be opened not more that 4" from inside the car. (Some local codes may be more restrictive.)

Once the position has been selected, using the mounting bracket as a template drill two 3/8" holes for the mounting bolts. One inch between these holes drill a 5/8" hole for the plunger. Bolt the solenoid plunger assembly to the car.

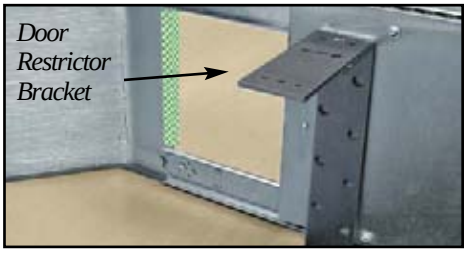


Step 3. Door Restrictor Bracket

The door restrictor bracket is mounted to the car door with two 5/16" cap screws. The bracket is adjustable up and down. Mount the bracket to the door in a location which will prevent the doors from being opened not more that 4".

Using the up and down adjustment, position the bracket so that the part with the 90 degree bend is approximately 1/2" from the bottom of the retracted plunger.

Once positioned horizontally and vertically, firmly secure the bracket to the door. Push the plunger down to insure that the bracket will make positive contact with the extended plunger in the allowable distance.

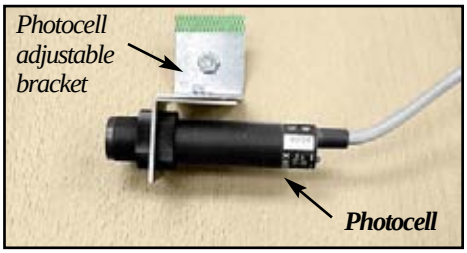


Step 4. Photo Electric Sensor

The retro reflective photoelectric sensor has an infrared, modulated LED light source. It senses by detecting the presence or absence of the transmitted beam of light after it reflects from the tape provided.

After determining where the reflector tape is to be attached (guide rail, hoistway wall, etc.), select an area for mounting the sensor. This area should be as out of the way as possible to prevent accidental contact with the sensor. For optimum dependability It is recommended that the sensor be mounted somewhere between 4 - 20 inches from the reflective tape.

Position the sensor so that the light beam will strike the reflector tape at an angle. This improves reliability. Lightly tighten the vertical mounting bolt.



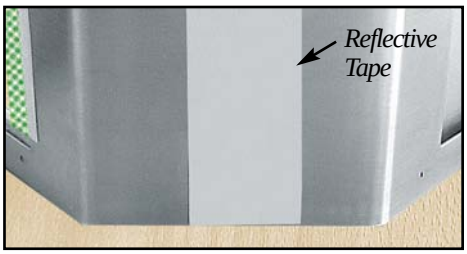
Step 5. Reflector Tape

Five yards of reflector tape comes with the unit. This is enough tape for a 5 stop elevator if the full 36" unlocking zone configuration is utilized.

Cut the reflector tape in strips of 36" or less. Attach these strips so that the sensor is pointed at the midpoint of the tape when the elevator is stopped at the landing.

Note: It may not be possible to run a full 18" above or below terminal floors. In these cases position the sensor to the actual unlocking area.

Prior to affixing the tape clean all grease and dirt from the mounting surface. Remove the tape backing and attach the tape vertically. The 2" wide tape will compensate for minor vertical misalignment.



Step 6. Emergency Release Buttons

The emergency release buttons are intended to be used by authorized personnel assisting in the evacuation of trapped passengers. Be sure that these release buttons are mounted in locations that can be easily reached while standing in the hallway with the hoistway doors open.

The emergency release buttons are prewired to the door restrictor control box. The one for mounting on the car top has a 6 foot cable and the one to be located near the car bottom has a 10 foot cable. These also come with pressure sensitive tape for ease of mounting, or they can be fastened with sheet metal screws.

After mounting the buttons in the selected locations, test each button to insure that the door restrictor retracts and the buzzer sounds when the button is depressed. The buzzer signifies that the door restrictor is disabled and it will continue to buzz until the release button is depressed again, reactivating the door restrictor.