

WHEELCHAIR DOCKING SYSTEMS

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USER & MAINTENANCE INSTRUCTIONS

Contents

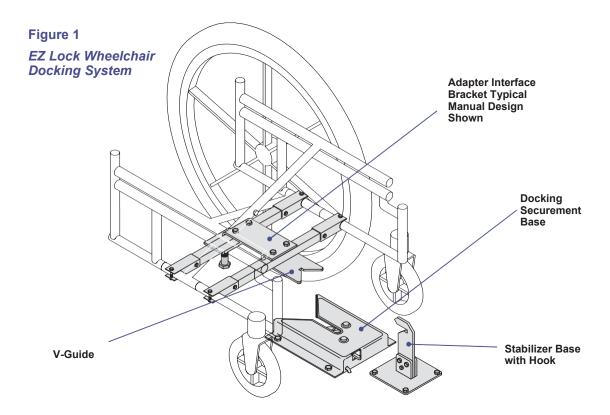
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This guide should be provided to the end user and should remain with the vehicle in which the Wheelchair Docking System is installed.

SYSTEM OVERVIEW

The EZ Lock Wheelchair Docking System allows a wheelchair seated person to drive or ride as a passenger while remaining seated in their wheelchair. The docking securement system consists of four components as shown in **Figure 1**.

Docking securement base, mounted to the vehicle floor Stabilizer base with hook, mounted to the vehicle floor Electronic control module mounted to the vehicle near the wheelchair occupant Wheelchair mounted adapter interface bracket with a docking pin and V-guide



The docking securement base, stabilizer base with hook and electronic control module are common to each installation. The wheelchair mounted adapter bracket is custom designed for use with specific wheelchair models. A list of wheelchair makes and models that are compatible and tested for effective securement with the EZ Lock Wheelchair Docking System, can be found on EZ Lock's website, http://www.ezlock.net/compatibility.php. Wheelchairs on this list have demonstrated geometric and structural ability to transfer crash forces through the wheelchair and EZ Lock Wheelchair Docking System to the vehicle anchorages. Stabilizer base with hook must be used for all driver applications.

When properly installed and used, the EZ Lock Wheelchair Docking System complies with all applicable voluntary and regulatory requirements, including RESNA WC-4 Section 18, ISO 10542-1:2012, CSA Z605-16 and SAE J2249. Compliance with these standards includes successful performance in a 48 kph [30mph] frontal impact test, using a crash-test dummy restrained by both lap and shoulder belts.

A WARNING

Review and comply with the following list of warnings. Failure to do so increases risk of serious or fatal injuries in a crash.

- Carefully read and understand these instructions before using the docking securement system.
- Ensure the wheelchair is properly secured in the docking system any time the vehicle is in motion.
- Only secure one wheelchair and one occupant per Wheelchair Docking System.
- Always secure the wheelchair in a forward-facing position in the vehicle.
- Always wear lap and torso seat belts any time the vehicle is in motion. Use of a lap beltonly
 may compromise effective restraint.
- Use all components of EZ Lock Docking Securement System together. Do not mix docking system components from different manufacturers. Docking system components from different manufacturers are generally not compatible.
- Use only EZ Lock replacement parts with the EZ Lock Wheelchair Docking System. Do not mix docking system replacement components from different manufacturers.
- Seat belt components and subassemblies must only be used with the intended OEM belt restraint system for which they were designed. Mixing seat belt components from different OEM applications may compromise effective restraint.
- Secure auxiliary wheelchair equipment to the wheelchair or elsewhere in the vehicle before driving. Loose equipment can cause injuries to vehicle occupants in a crash.
- Remove and secure wheelchair-mounted rigid mounted trays, and other items in front of the
 occupant, separately in the vehicle before driving. Loose trays can cause injuries to vehicle
 occupants in a crash.
- Replace all EZ Lock Docking Securement System components, including anchorages, if they were in use during a collision in which the vehicle was towed or the airbags deployed.

LOCKING INTO THE DOCKING BASE

Entry into the Wheelchair Docking System is completely mechanical. Align the wheelchair for engagement with the stabilizer hook in front and docking base in the rear. Slowly guide the wheelchair straight into the EZ Lock wheelchair docking base until the docking pin on the adapter interface bracket is captured by a spring- loaded cam. The angled "V" shape on the docking base and adapter base bracket will help guide the wheelchair into the Wheelchair Docking System. A metallic audible "snap" signifies successful locking of the pin in the base. To confirm you are locked in correctly, attempt to exit the docking base without pressing the release switch. Confirm locking before starting the vehicle. Confirm locking in this manner each time the Wheelchair Docking System is used.

The stabilizer hook should engage the central notch in the V-guide on the adapter interface. If the hook and V-guide are not engaged, press the release button and exit the base. Realign the wheelchair and reenter the base. If the user has difficulty negotiating the path in and out of the docking securement base, it may be helpful to outline the path using colored tape until the user gains experience and accuracy.

AWARNING

Ensure that stabilizer hook and the adapter's V-guide are engaged when the lock is secured. Failure to assure proper stabilizer hook engagement reduces effectiveness in a crash, increasing risk of death or serious injury.

ACAUTION

Do not lock the securement base manually. Driving a wheelchair into a manually locked base may damage the unit. If the docking base is not being used, press the deactivate switch on the Electronic Control Module to silence alarm.

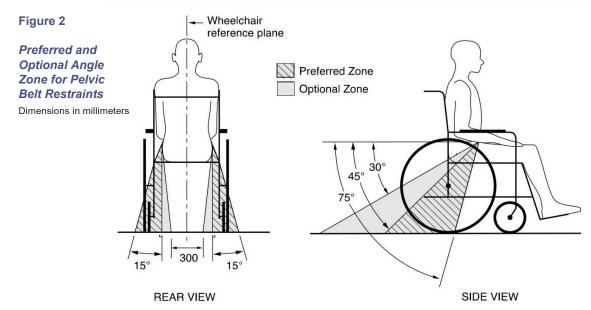
POSITIONING AND FASTENING THE OCCUPANT RESTRAINT

Once the wheelchair is fully locked into the docking base, mount and position the lap and shoulder seat belts according to the restraint manufacturer's directions. Use the following instructions to supplement the restraint manufacturer's directions.

- Position vehicle mounted lap belt at a preferred angle between 45 and 75 to the horizontal. If not possible, lap belts may be positioned between 30 and 45 to the horizontal, as shown in **Figure 2**.
- Position lap belt low across the pelvic bone, where the thighs and pelvis connect. Never position lap belt over the abdomen.
- Adjust belts so that junction between lap and shoulder belts is located near the occupant's hip and away from the occupant's midline.
- Proper belt positioning may require belt webbing and/or hardware to be placed through openings between the wheelchair back support and seat, or through gaps between the wheelchair back and arm supports.
- The extent of head and chest excursion depends on the location of the shoulder belt anchor points, and may increase as anchor point distance above and behind the occupant's shoulder increases.
- Shoulder belt anchors that are adjustable in height should be set at or above the wheelchair occupant's shoulder, so as not to impose downward forces on the spine in a frontal collision.
- Belt restraints should lie directly against the occupant's body and should not be held away from the body by wheelchair components or parts, such as the arm supports or wheels, as shown in **Figures 3 and 4**.
- Position restraint system buckles away from hard wheelchair components that may contact and compromise buckle performance in a crash.
- Be sure that webbing is not routed against any sharp corners or edges.

A WARNING

Improper seat belt positioning can reduce effectiveness in a crash, increasing risk of serious or fatal injuries. Carefully follow all directions for proper seat belt positioning .



Positioning And Fastening The Occupant Restraint (Cont.)

Figure 3

Improper Positioning of Lap Belt Restraint Over Wheelchair Arm Supports

Belt restraints must not be held away from the body by wheelchair components such as arm supports or wheels.



Figure 4

Proper Routing and Positioning of Belt Restraints on Wheelchair Occupant

Pelvic-belt restraints should make good contact with the front and sides of the body near the junctions of the thighs and pelvis and against the hips.





Positioning And Fastening The Occupant Restraint (Cont.)

Fasten seat belt about the wheelchair occupant according to the restraint manufacturer's directions. Use the following instructions to supplement the restraint manufacturer's directions.

- Grasp the latch and steadily pull the lap belt across the occupant's body. Be sure that webbing is not twisted.
- Insert latch into the buckle until you hear a "click."
- Tug on the latch to ensure that the buckle is latched.
- · Adjust lap belt to fit the occupant as snugly as possible, consistent with comfort.
- Grasp fitting on shoulder belt and steadily pull the shoulder belt across the occupant's body. Be sure the webbing is not twisted.
- Place opening of shoulder belt fitting over metal pin on latch. Pull on shoulder belt to snap fitting onto metal pin. Tug on the shoulder belt to ensure the fitting is securely attached.
- Shoulder belt should lay flat, diagonally across torso. Shoulder belt should fit over the middle of the shoulder and should not rub neck or fall off shoulder.
- Adjust the shoulder belt to fit the occupant as snugly as possible, consistent with comfort.

When appropriate, use of wheelchair-anchored postural belts is recommended during travel to help keep the occupant in their wheelchair during emergency maneuvers such as sudden braking. Postural belts help maintain an upright seated position during travel, so that occupant restraint lap and shoulder belts will fit properly on the body.

A WARNING

Always use lap-shoulder seat belts in addition to wheelchair-anchored postural belts. Postural belts alone provide ineffective restraint in a crash, increasing risk of serious or fatal injuries.

SYSTEM STATUS INDICATORS

System status is displayed on the electronic control module touchpad shown in **Figure 5**, located in the vehicle interior for convenient access. System status is indicated by both LED indicator lamps and audible signals when the vehicle ignition is switched ON, as indicated below.



STATUS	INDICATOR NAME	LAMP COLOR	AUDIBLE SIGNAL
Wheelchair secured in docking base.	Ready	Green	None
System Deactivated Do Not Use	Warning	Yellow	None
Wheelchair not fully secured in docking base.	Stop	Red	Steady Alarm Buzzer

Once the vehicle's ignition is switched ON, the driver must ensure that electronic control module for each Wheelchair Docking System indicates "Ready" status before moving the vehicle.

EXITING THE DOCKING SYSTEM

To exit the EZ Locking Wheelchair Docking System, the vehicle's ignition must be switched to the **OFF** position. Unlock the docking securement base by pressing the lighted release button on the electronic control module touchpad. Depressing the release button opens the locking mechanism for approximately 5 seconds. While the mechanism is unlocked, maneuver the wheelchair straight and away from the docking base to disengage the locking pin. Once the system is unlocked, it automatically resets for the next use.

Heavy wheelchairs may apply rearward pressure on the locking mechanism of the docking base when accelerating or driving up a steep incline. This may put an excessive demand on the release solenoid when exiting the system. If this situation occurs, gently bump the wheelchair forward after pressing the release switch to enable normal release.

VOICE FEEDBACK NOTIFICATION AND BLUETOOTH APP

VOICE FEEDBACK NOTIFICATION:

The voice feedback notification system alerts the user of the base lock system status. The voice notifications activate in unison with the standard visual indicators on the touchpad.

"Voice Feedback Notification"	Status of Base Lock	Touchpad Light Indicators
"READY	Safe to drive vehicle	GREEN
Chair LOCKED"		
"STOP	DO NOT drive	RED
Chair NOT LOCKED"		
"WARNING	System buzzer deactivated	YELLOW
Lock Deactivated"		
"CHAIR UNLOCKED	Base lock unlocked,	Release Flashes 10X
Please Roll Back"	wheelchair can exit	
"LOCK RE-ACTIVATED"	System Ready	GREEN
"SOLENOID MALFUNCTION	Service Required for the base lock,	Flashes RED & YELLOW
Service Required"	Please see your dealer	
"CHAIR NOT RELEASED,	Press Release button again to	Release Flashes 1x
Please Try Again"	release	
"PLEASE TURN OFF IGNITION	Base lock is still locked,	GREEN
TO UNLOCK CHAIR"	turn off ignition	

BLUETOOTH EZ LOCK APP:



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When the vehicle's ignition is turned on, a light will flash on the EZL-BT1 Bluetooth module indicating it is ready to pair with the EZ Lock App.

Download the EZ Lock interface and monitoring app from the apple app store, android play store or at www.ezlock.net under the electronics header on the main page.

With the vehicle's ignition on, pair the intended device with the EZ Lock App.

Enter the security code 123456 to complete the pairing process.

The docking base can now be controlled and monitored with the paired device.

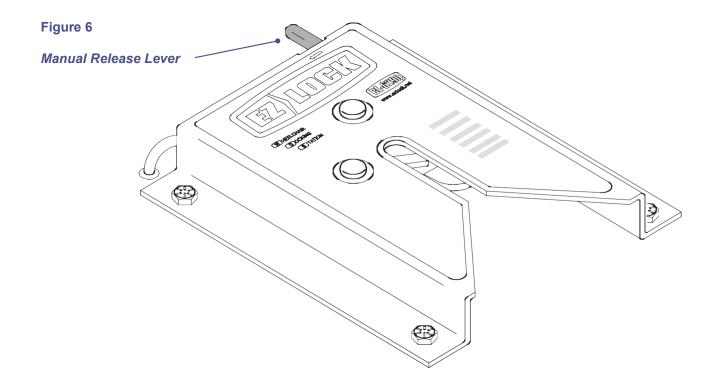
EMERGENCY RELEASE

In the event of vehicle electrical system malfunction, each EZ Lock Wheelchair Docking System includes a red manual release lever in the docking base. See **Figure 6**. To unlock, reach underneath the wheelchair and press the red manual release lever towards the centerline of the docking base. Maneuver the wheelchair straight and away from the docking base to disengage the locking pin.

Some EZ Lock wheelchair docking systems include a manual release cable (MRC-51T). The manual release cable is recommended for **all driver applications**. To use the manual release cable, pull the lanyard to remove the detent pin. Then, pull handle away from mount and maneuver wheelchair straight and away from the docking base to disengage the locking pin. Once used, the manual release cable must be reset by an authorized EZ Lock technician. The manual release cable is intended for emergency use only. It should not be used for daily operation.

A WARNING

Do not use the wheelchair securement system once the lanyard/detent pin has been pulled from the handle guard. The system may release unintentionally, causing serious or fatal injuries in a crash. Take system to authorized EZ Lock technician to reset the remote cable release.



SYSTEM MAINTENANCE

Because the environmental conditions and frequency of usage vary from vehicle to vehicle, it is important to regularly inspect, clean and maintain the EZ Lock Docking Securement System. EZ Lock recommends that the system be inspected at least every 5,000 miles / 6 months or more often if exposed to harsh environmental conditions or frequent usage.

Inspect attachment fasteners on all components and verify they remain tight. Inspect docking securement base for smooth operation. If necessary, lubricate the locking levers in the docking securement base using a small amount of white lithium grease. Avoid getting grease on switches, solenoids and other electrical components when lubricating the docking base. Consult an authorized EZ Lock technician to replace any worn or damaged parts.

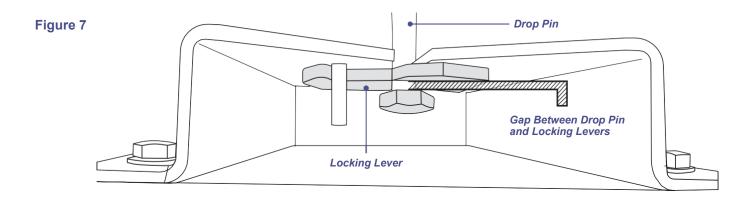
Inspect the height of the drop pin on the wheelchair adapter interface for proper height adjustment. With the manufacturer's recommended pressure in pneumatic tires and with an occupant positioned in the wheelchair, verify there is a 1/16" to 3/16" gap between the bottom of the locking levers and the top of the bolt head on the drop pin assembly. Ensure that the threads of the drop pin and/or the jam nut do not contact the docking base. See **Figure 7**.

To clean the EZ Lock Docking Securement System, use a damp cloth with mild soap and warm water. Do not use harsh cleaners or bleach and do not flood the components with water. Avoid contamination with polishes, oils, chemicals and battery acid.

Replace all EZ Lock Docking Securement System components, including anchorages, if they were in use during a collision from which the vehicle was towed or if the airbags deployed.

Follow seat belt restraint system manufacturer's recommendations for inspection, cleaning, maintenance and replacement.

The EZ Lock Wheelchair Docking Securement System does not require that any spare parts be kept in the vehicle.



Use of two different wheelchairs with a particular installation of docking base and stabilizer hook is only possible if the two wheelchairs are nearly identical and EZ Lock specifies use of the same adapter interface. Users with different kinds of wheelchairs should choose and equip one for driving and riding in vehicles. Transferring adapter interfaces from one wheelchair to another may be possible if both wheelchairs are specified by EZ Lock to use the same adapter interface. Consult an authorized EZ Lock technician to transfer adapter interfaces between wheelchairs.

TROUBLESHOOTING

A common mistake for new users is to attempt release of the Wheelchair Docking System when the vehicle ignition switch is ON. The vehicle's ignition switch must be OFF for the docking base to release.

If the docking base closes immediately after activation, or if the docking base locking levers open and close repeatedly (chatter), this may indicate low battery voltage. Charge or replace the vehicle's battery.

If any condition prevents proper operation of the wheelchair docking securement system, take it to your authorized EZ Lock technician for service or possible replacement. A notice should be posted in the vehicle at the wheelchair location, indicating proper use and operation of the Wheelchair Docking System, and the emergency release procedures. If this notice is missing, please contact EZ Lock.

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For additional assistance contact EZ Lock.

EZ Lock

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