

Preventative Exit Device Maintenance Guide

This guide is designed to help customers, building managers, installers, and end users maintain their exit devices properly, so they continue to operate smoothly and securely. Regular maintenance helps prevent issues such as difficulty operating, misalignment, and premature wear, and ensures the exit devices continue to operate as per their intended function.

General Information

Exit devices are life safety products that operate best when regularly maintained. Because they are installed on doors used for emergency egress and fire-rated applications, their reliable performance is essential. Over time, daily use, environmental factors, and building movement can affect how smoothly the device operates and how effectively the door latches and secures.

Proper door and frame alignment also plays a major role in exit device performance. As buildings settle and hardware loosens, the latch or latch bolt may no longer meet the strike correctly. Misalignment can lead to increased wear on internal components, delayed latching, or failure of the device to operate as intended. Routine inspections and maintenance help prevent these issues, ensuring the exit device continues to function safely and consistently.

Maintenance Checks

Maintenance checks on exit devices can be extensive and, in some cases, complex. Some maintenance checks may be performed by any maintenance technically oriented individual, but some mechanical adjustments may require the use of a qualified door and hardware professional.

- Make sure the door opens and closes smoothly without rubbing or resistance.
- Check for an even gap of at least 1/16" around the edges (1/8" is considered the industry standard).
- Confirm that the latch fully enters the strike plate when the door is closed.
- Exit device latch or latchbolt must not rub on the strike as the door is pushed to open. Ensure the door closer on the door is set to at least 4-5 lbs closing force.
- The latch should be retracted first when the pushpad is pressed, before the door starts moving in the opening direction. This is more critical with mortise lock exit devices.
- The door closer preload must be higher than the force required to depress the pushpad.
- Verify that all screws and hardware components are firmly installed and not interfering with locking movement.
- Check the locking function by ensuring latch or bolt retraction, key operation, and latching or locking are smooth and free of excessive resistance.
- Check the dogging operation with manual key or cylinder key (if applicable)

Maintenance Frequency

Exit devices should be inspected and maintained at least twice per year. However, several factors may require more frequent maintenance, including:

- High traffic or frequently used doors.
- Exterior doors exposed to harsh weather conditions.
- Environments with airborne dust, debris, or moisture.

- Door and frame construction: thin or non-reinforced doors.
- Doors are slamming when closing, due to improperly adjusted door closers

If any looseness or “play” is noticed in the exit device, maintenance should be performed as soon as possible. Continued use in this condition may lead to internal damage, compromised performance, or premature failure of the door locking function, as well as damage to the door and frame.

Applicable Exit Device Types

- Rim exit devices (RIM).
- Surface and concealed vertical exit devices (SVR / CVR).
- Mortise exit devices (MORT).
- 3-Point exit devices (3PT).
- All applicable trims and accessories for the exit devices.

References

Refer to the appropriate installation instructions and templates for the applicable [Exit Devices](#)

Maintenance Steps

Depending on the type of exit device, different maintenance steps will be applied.

Surface mounted rim and vertical exit devices can be maintained by removing only the exit device covers at the main chassis, rail end, top and bottom latches.

Concealed vertical exit devices have limited access for maintenance or adjustment at the main chassis only. To access the top and bottom latches, the door must be dismantled and placed on a flat table or horizontal support frame.

1. Surface Mounted Exit Devices:
 - a. Remove covers at the main chassis, rail end, and top and bottom latches (as applicable)
 - b. Apply a silicone-based lubricant to all moving parts such as the latch, linkage, internal cams, and rod mechanisms. Do not use oil-based products, as they attract dust and cause buildup that can obstruct device operation.
 - c. Confirm that the device, latches, strike, rods, and trim components are correctly aligned before tightening hardware. Proper alignment is essential for optimal latch engagement and smooth operation.
 - d. Tighten all screws and mounting hardware using hand tools only. Ensure the chassis screws, rail mounting screws, end cap screws, rod guides, and strike screws are fully secured.
 - e. Test the exit device multiple times to confirm proper latch retraction, smooth push bar operation, correct trim functionality, and full latch engagement with the strike.
2. Concealed Vertical Exit Devices
 - a. Remove covers at main chassis and rail end
 - b. Proceed with steps 1a to 1e above
 - c. Test the top and bottom latches engagement with strikes on top and bottom.
 - d. Top latches components must clear the door frame and latch smoothly when the door closes.
 - e. The top and bottom latches must remain fully retracted when the door is open. Bottom latchbolt should clear the floor sill or strike when the door closing.
 - f. On some vertical exit devices, it is possible to make some minor rod adjustments from within the main chassis by simply turning the rod(s).

- g. The door bottom must not touch the door sill when the door is closing.
 - h. If there is an issue with the door closing due to door interference with the frame at the top of the door sill at the bottom, or latch bolts do not fully retract, the door must be removed to provide the following maintenance steps. **For the following steps, contact a qualified door and hardware professional:**
 - i. To access the top and bottom latches extension or retraction by adjusting the top and/or bottom rod.
 - ii. To adjust the door top and bottom edges or locking edge, to eliminate interference with the frame or floor sill and strike.
 - iii. Verify if the door is sagging due to worn-out hinges or a frame that has been distorted. Since the frame is difficult to re-adjust, the door will have to be adjusted.
 - iv. To adjust the bottom rods connected to the bottom latch, the door may need to be removed from the frame and placed on a table or supports to access the rods.
 - v. Remove main chassis cover. Depending on which top or bottom latch may not be retracting or extending properly, remove the latch, adjust the connecting rod and secure the rod.
 - vi. Adjust top and or bottom door edges (grinding) to provide the required clearance and eliminate any interference.
 - vii. Replace door hinges (if required) or tighten all hinge screws and re-install the door.
 - viii. Verify that the door opens and closes properly without any interference.
3. Exterior Trims
- a. Test the trim function and ensure it operates the exit device door locking and unlocking function as per the appropriate trim function.
 - b. Depending on the trim type, there are various maintenance steps. Here are the most common steps:
 - i. Ensure the trim retracts the exit device latch fully when operated. If the trim operates normally, ensure that all mounting screws are tightened properly.
 - ii. If the key becomes difficult to turn, debris may be present inside the cylinder's keyway. For trims exposed to cold weather or outdoor conditions, lubrication may be required more often. Use compressed air to clear the cylinder, then apply a small amount of graphite powder or silicone-based lubricant. These lubricants help internal pins move freely without attracting dirt. Do not use oil-based lubricants or penetrating oils inside the keyed cylinder. Oil can attract dirt and debris, causing buildup that may gum up the internal components and impair the proper operation of the cylinder.
 - iii. Keys should always be inserted and withdrawn smoothly—replace any bent or worn keys.
 - iv. Most sectional lever trims and thumbpiece or gripset trims do not require any lubrication. The Escutcheon trims have more moving mechanisms, and some minor lubrication is beneficial
 - v. If an exterior trim must be removed and checked, ensure that the exit device chassis is temporarily attached to the door.
 - 1. Note that some trim mounting screws use the same mounting screws as the exit device chassis.

- vi. Reinstall the exit device and trim onto the door, following the original installation instructions.
4. Dogging Feature:
 - a. Using a hex key: push the pushpad fully and turn the hex key 90° to lock the pushpad retracted and keep all latches retracted. If dogging does not function, the exit device has to be removed and serviced by a qualified door and hardware professional.
 - b. Using a cylinder key: Push the pushpad fully and turn the cylinder key to lock the pushpad retracted and keep all latches retracted. If dogging does not function, the exit device has to be removed and serviced by a qualified door and hardware professional
 5. Pushpad Alarm Panel
 - a. Verify operation by pressing on the pushpad. The alarm will be activated, emitting a sound when the cylinder key is placed in the ON position. Alarm service must be done by a qualified door and hardware professional.
 - b. If the alarm sound is not present, remove the exit device rail end cover and slide out the alarm panel. Verify the alarm contact microswitch and battery (9V)
 - c. If the microswitch is not activating, the panel must be replaced.
 - d. Replace battery at least once per year.

Testing the Exit Device

- Confirm that the door closes securely with no interference and that the latch fully engages the strikes. Proper latch engagement ensures the exit device locks and secures the opening as intended.
- Operate the push bar multiple times to verify smooth latch retraction and consistent mechanical operation. This includes confirming that the device does not bind, stick, or hesitate during use.
- Test the keyed trim function (if applicable) to ensure the key rotates smoothly, retracts the latch, and returns to the neutral position without resistance.
- Check external trim operation (lever, knob, or pull) to ensure it retracts the latch properly and does not feel loose or overly tight.
- Verify vertical rod engagement (for surface or concealed vertical rod devices). Ensure the top and bottom bolts engage correctly and retract fully when the push bar is pressed.
- If any issues persist, such as difficulty retracting the latch, misalignment with the strike, or continued operational resistance, contact a qualified door and hardware professional, as continued operation in this condition can damage the exit device, door, or frame.

Cleaning the Exit Device

Surface finishes such as chrome, clear coated, satin nickel, powder coated, and antique brass should be cleaned regularly using a soft cloth and a mild soap and water solution. Rinse with clean water and dry immediately. Avoid abrasive cloths or cleaners, as they can damage the finish.

For stainless steel hardware, refer to the [DOREX Stainless Steel Care & Maintenance Guide](#).

When cleaning, ensure that no liquids or cleaning solutions enter the cylinder plug, as this may impact the internal components.