



A SPARTAN MOTORS COMPANY

Service Guide

Seats and Seat Belts Aeromaster

Overview

Your occupant restraint system has been developed and tested specifically for Utilimaster delivery vehicles. The high usage associated with delivery vehicle application and exposure of this seat belt to severe environmental conditions make it crucial to inspect the seat belt system regularly. ***The seat belt system must be inspected during every routine maintenance.***

A seat belt system should be replaced immediately if it shows any problems, such as cuts; fraying; extreme or unusual wear; significant discoloration due to ultraviolet exposure; significant dirt; abrasion to the seat belt webbing; or damage to the buckle, latch plate, retractor, or hardware.

Replace the seat belt only with a belt recommended by Utilimaster. **If any part of the seat belt requires replacement, the entire belt must be replaced.**

An installation guide is attached to every replacement belt. If the seat belt is replaced, all components ***must*** be mounted back in the same position as the original components. This will maintain the design integrity of the mounting points for the seat belt assembly.

NOTICE

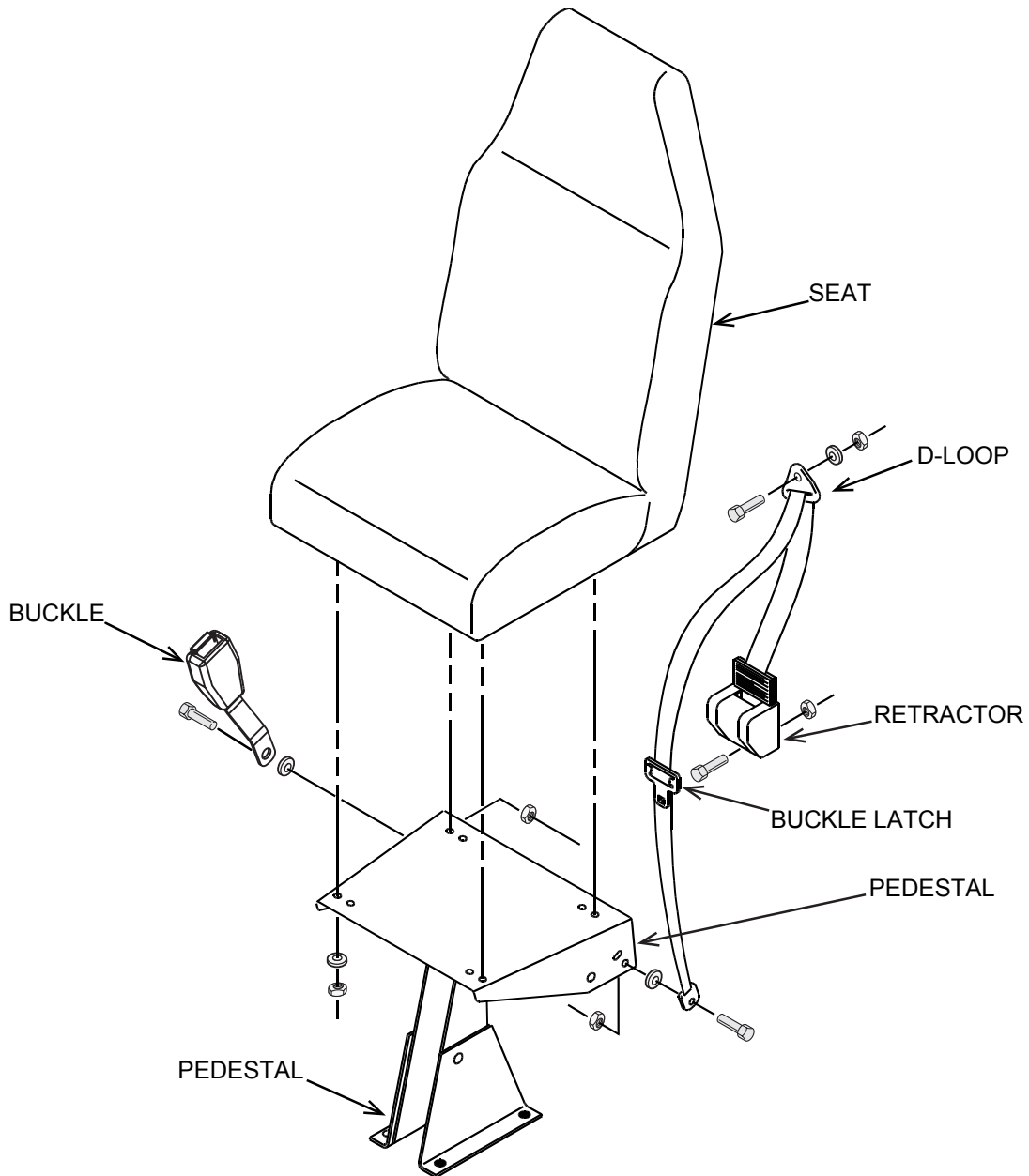
The information in this document is generic. Images and procedures may differ from those for vehicles you are servicing. Because Utilimaster manufactures customized vehicle solutions, this document cannot list and illustrate every possible option for every vehicle. The most common body options are described here. Use this information as a guideline.

! WARNING

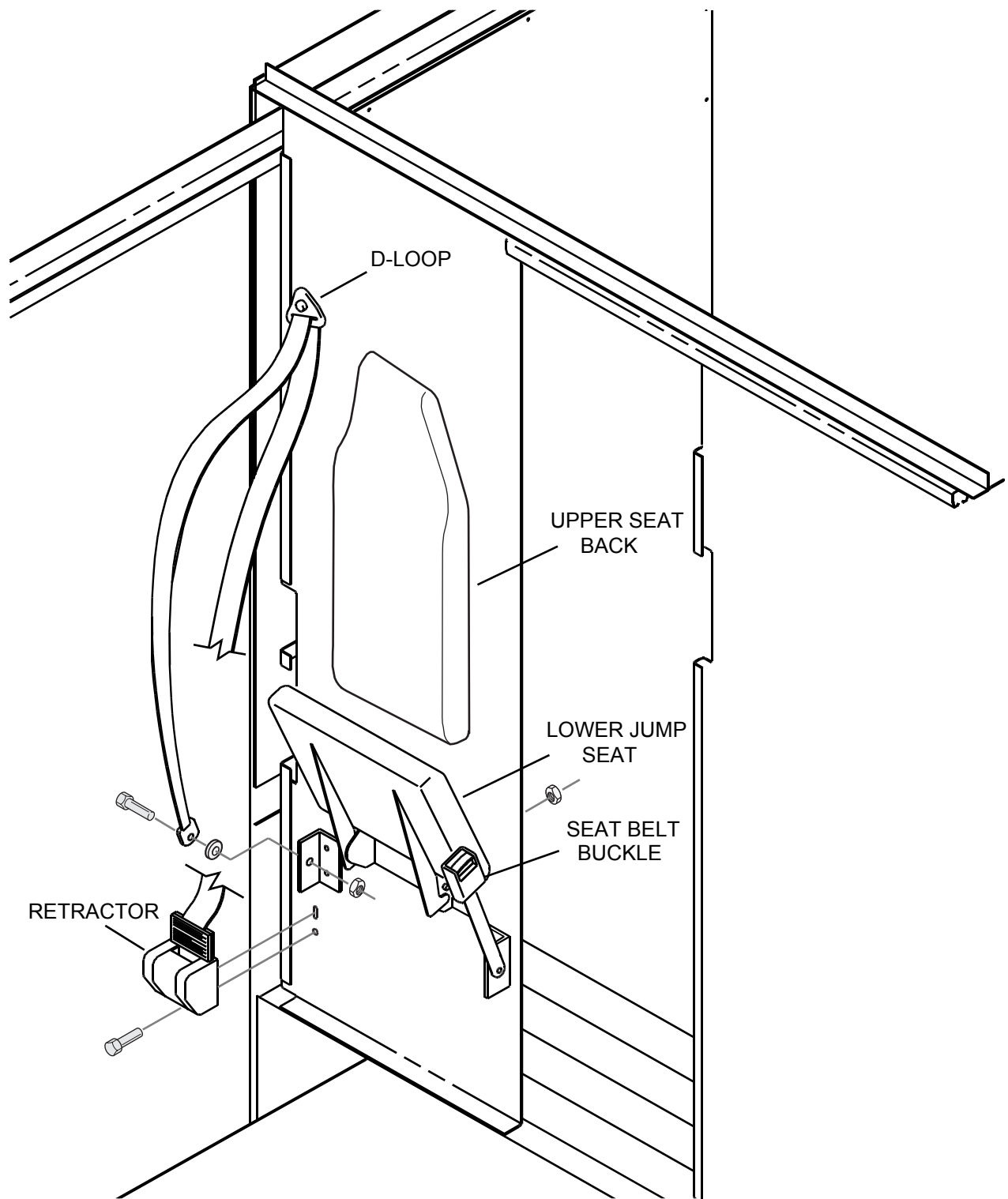
Read vendor instructions carefully. Failure to install and inspect can result in injury or death of user.

! CAUTION

Do NOT remove cardboard spacer until the retractor is mounted. The retractor must be mounted at the proper angle before web will freely extend. Cardboard spacer must be removed after seat belt is fully installed.



Driver's seat overview



Bulkhead-mounted jump seat overview

Maintenance

!WARNING

Belts must be inspected during every routine maintenance. Failure to properly inspect and maintain the seat belts can cause serious injury or loss of life. The seat belt in a delivery vehicle application has a finite life and must be replaced as needed throughout the life of the vehicle.

Whenever a vehicle is involved in an accident, the entire seat belt system must be evaluated for replacement, even if there is no visible wear or damage to the seat belt system.

The following maintenance guidelines detail how to inspect seat belts. If any of these problem conditions are found, the entire seat belt system must be replaced.

Seat Belt Webbing

Examine seat belt webbing in the seat system for cuts, fraying, extreme or unusual wear, significant dirt, or extreme faded color due to exposure to ultraviolet rays.

D-Loop Web Guide

The D-Loop Web Guide is an area where there is a significant amount of webbing movement during the use of the seat belt system. If the web is cut or frayed at the D-Loop Web Guide, the entire belt system must be replaced.

Retractor System

The retractor, the heart of the occupant restraint system, contains a locking mechanism and serves as a storage device for the webbing when not in use. Check the retractor web storage device operation to ensure that it is not locked up. The seat belt webbing must spool out freely and retract properly.

An ELR (Emergency Locking Retractor) belt system is sensitive to sudden decelerations of the vehicle.

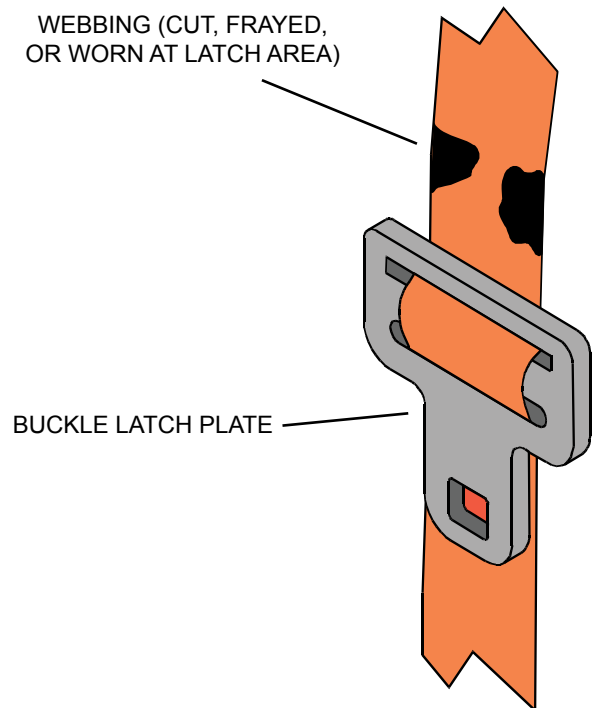
An ALR (Automatic Locking Retractor) system is sensitive to sudden pulls on the belt. If it locks, release the belt, let it retract, and slowly pull it out again.

Seat Belt Buckle

Check the buckle for proper operation by inserting the latch and listening for an audible click. Verify that the buckle is not damaged and that the plastic casing is not broken or cracked. Examine the seat belt buckle cable strap to determine if there is unusual wear, if the cable is damaged, or if the cable is cut or frayed.

Buckle Latch Plate

Check the buckle latch plate for excessive wear. Make sure the buckle latch is neither bent nor deformed. It must latch properly into the buckle.



Webbing or Latch Plate Wear

Pedestal Seat Belt Replacement

NOTICE

The outboard side refers to the side closest to the door. The inboard side is the side toward the center of the vehicle.

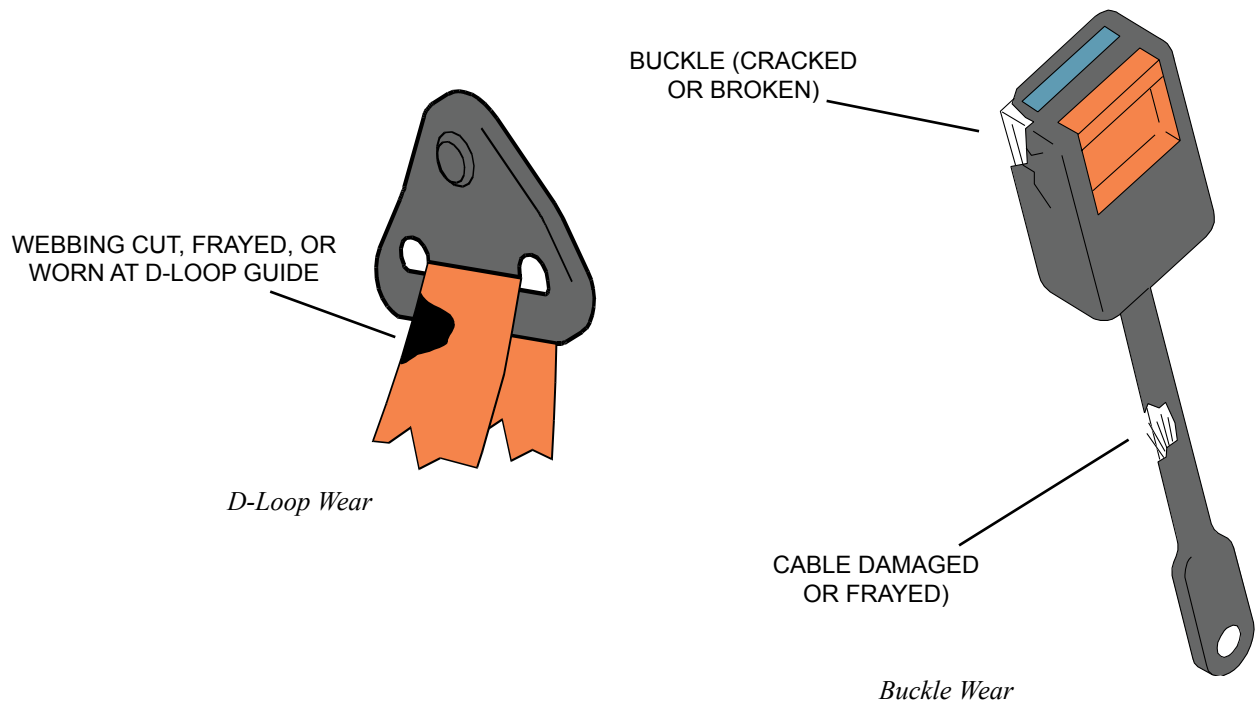
! WARNING

When a seat belt is replaced, both halves must be replaced.

Use the new mounting hardware furnished with the replacement belt. Do NOT use old hardware when installing replacement seat belts.

Seat Belt Removal

1. Remove the bolt attaching the D-Loop to the seat belt mount above the seat on the outboard side.
2. Snap open the retractor cover and remove the bolt.
3. Remove the bolt holding the seat belt end bracket attached to the outboard side of the seat.
4. On the inboard side of the seat, remove the bolt holding the seat belt buckle assembly.



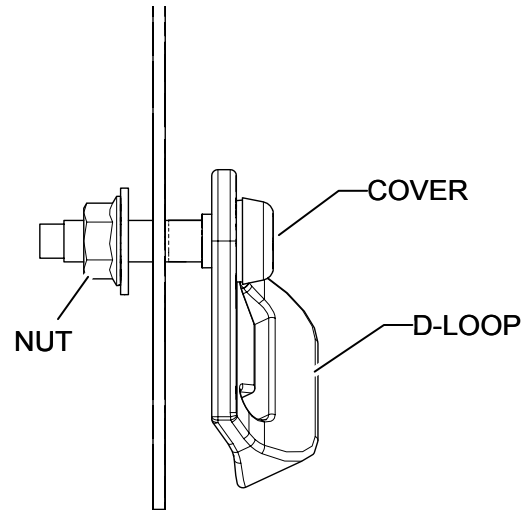
Seat Belt Installation

!WARNING

The retractor must be located in the proper position on the bracket for the seat belt web to extract and function properly.

When a seat belt is replaced, both halves must be replaced.

1. Mount the seat belt D-Loop in the existing hole in the seat belt mounting bracket.
2. Snap open the retractor cover and insert the locating pin at the back of the retractor into the mounting bracket in the bulkhead wall.
3. Insert the retractor mounting bolt and tighten the bolt to 32–49 ft•lb.
4. Snap the retractor cover down into place.
5. Mount the safety belt bracket in the existing hole on the seat pedestal.
6. Mount the seat belt latch on the inboard side of the seat with the release button facing away from the seated driver.



D-loop attached to mount bracket

Jump Seat Belt Replacement

NOTICE

*The outboard side refers to the side closest to the door (jump seat occupant's right-hand side).
The inboard side is the side toward the center of the vehicle.*

Jump Seat Belt Removal

1. Remove the bolt attaching the D-Loop to the bulkhead above the seat on the outboard side.
2. Snap open the retractor cover and remove the bolt.
3. Remove the bolt holding the seat belt bracket to the seat belt mount just below the seat on the outboard side.
4. On the inboard side of the seat, remove the bolt holding the seat belt buckle assembly.



Retractor uncovered

Jump Seat Belt Installation

CAUTION

Do NOT remove the cardboard spacer until the retractor is mounted and seat belt is fully installed; otherwise the belt will retract and bind.

1. Remount the seat belt D-Loop using the existing hole in the bulkhead.
2. Snap open the retractor cover and insert the locating pin at the back of the retractor into the mounting bracket in the bulkhead wall.
3. Insert the mounting bolt and tighten the nut.
4. Snap the retractor cover down into place.
5. Mount the seat belt end bracket to the seat belt mount below the seat on the outboard side.
6. Tighten the nut to 32–49 ft•lb.
7. Mount the seat belt buckle assembly on the inboard side of the seat with the release button facing away from the occupant.
8. Tighten the nut to 32–49 ft•lb.



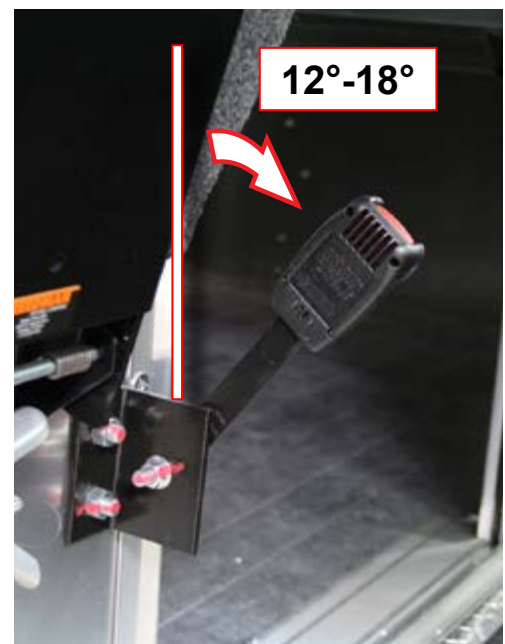
Safety belt end bracket



Seat belt latch



End bracket attached to seat belt mount

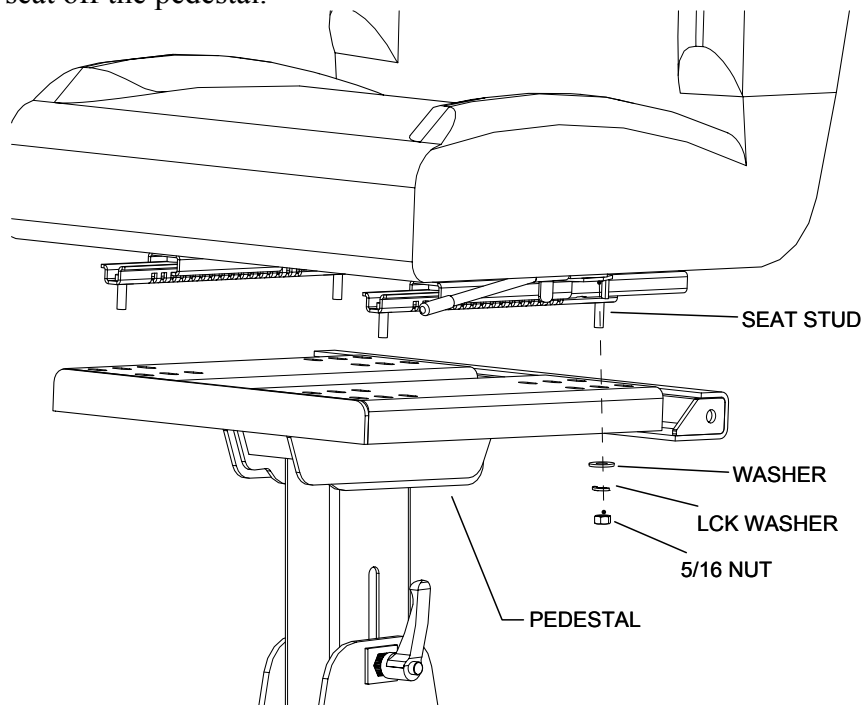


Jump seat belt buckle assembly

Pedestal Seat Replacement

Seat Removal

1. Remove and retain the (4) nuts and washers attaching the seat to the pedestal.
2. Pull the seat off the pedestal.



Seat to pedestal fasteners

Seat Installation

1. Set the replacement seat in place.

NOTICE

Do NOT use locknuts to hold the seat to the pedestal.

2. Fasten the (4) nuts and washers.
3. Torque nuts to 10-12 ft•lb.

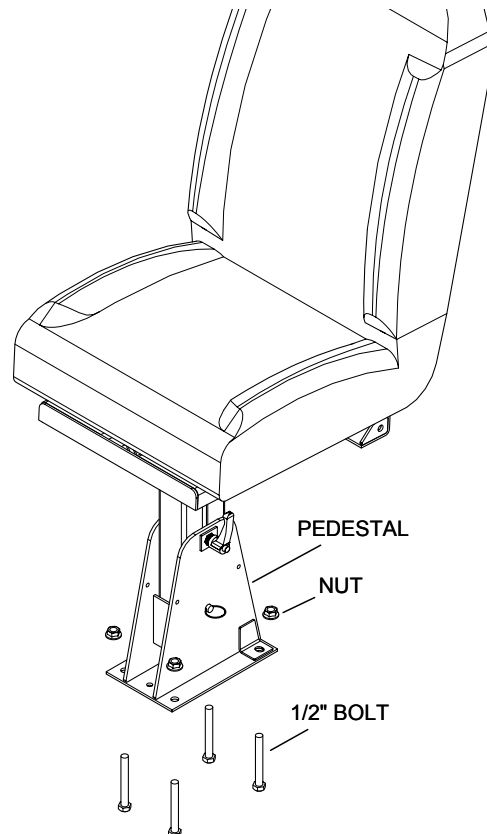
Pedestal Replacement

Pedestal Removal

1. Remove and discard the (4) bolts and nuts attaching the pedestal to the cab floor.
2. Remove the one bolt attaching the seat belt to the pedestal.
3. Pull out the pedestal seat.

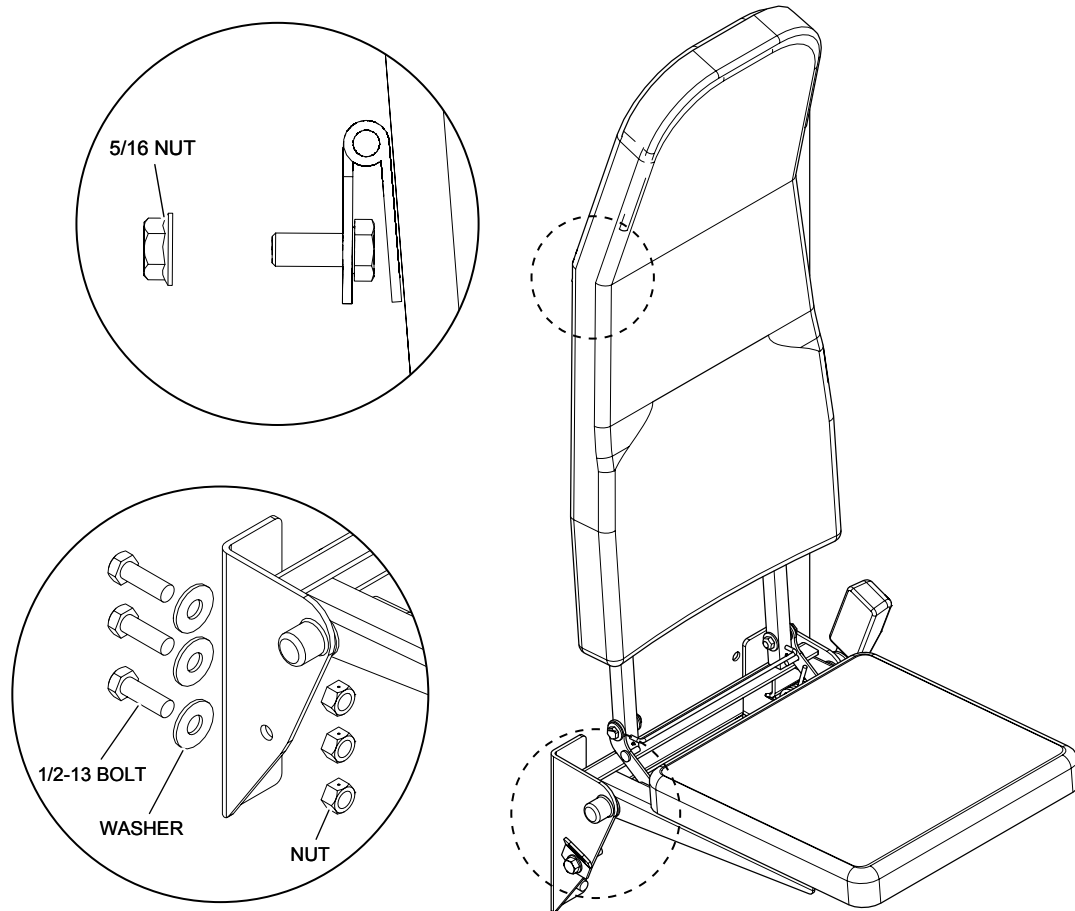
Pedestal Installation

1. Reverse the removal procedure.
2. Replace fasteners with **new** Grade 8 fasteners.
3. Torque to 75-95 ft•lb.



Seat pedestal attached to floor base

Shield Jump Seat Replacement



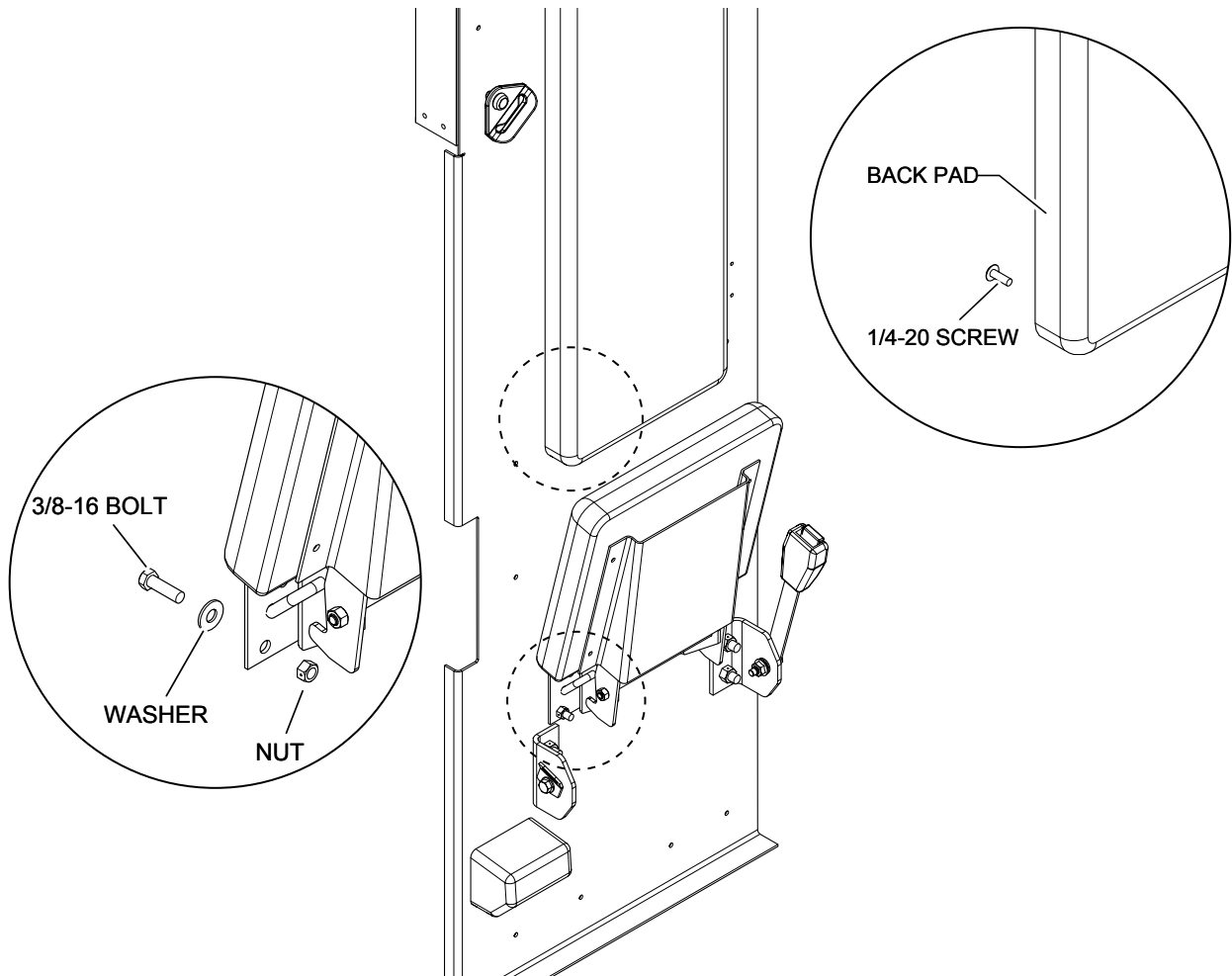
Jump Seat Removal

1. From the cargo area, brace the two-way 5/16 locknuts attaching the jump seat back and remove the bolts attaching the back to the bulkhead. Discard fasteners.
2. Remove the (6) 1/2-13 bolts attaching the seat mount to the bulkhead.
3. Remove and discard the bolts and locknuts attaching the jump seat to the bulkhead.

Jump Seat Installation

1. Align the jump seat back with holes on the bulkhead and attach with Grade 8 5/16-18 fasteners.
2. Torque nuts to 14-18 ft•lb.
3. Align the jump seat with holes on the bulkhead and attach with **new** 1/2-13 fasteners and two-way locknuts.
4. Torque nuts to 67-75 ft•lb.

Jump Seat Replacement



Jump Seat Removal

1. Remove the locknuts attaching the jump seat wall mount and discard the 3/8-16 fasteners.
2. If replacing jump seat back pad, remove 1/4-20 screws from the cargo side.

Jump Seat Installation

1. Align the jump seat wall mount with holes on the bulkhead and attach with **new** 3/8-16 bolts, washers and two-way locknuts.
2. Torque nuts to 26–30 ft•lb.
3. Align the jump seat back pad with holes on the bulkhead and attach with 1/4-20 screws.

Utilimaster Customer Service

574-848-2200

Email: Parts@Utilimaster.com

Seats and Seat Belts, July 2016

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