



A SPARTAN MOTORS COMPANY

# Fold-Up Shelving

159" Wheelbase

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## Kit 23003562-4200SK

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### Customer Service

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*NOTE: 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.*

**Document Part Number: 03104592-N016EN**

**– Revision C –**

## Introduction

This document provides instructions for the installation six fold-up shelves built by Utilimaster Corporation into the RAM ProMaster™ L4 159" wheelbase cargo van.

*NOTE: Federal Motor Carrier Safety Administration (FMCSA) may require the installation of a bulkhead with the installation of cargo shelving.*

This manual contains drawings and photos to aid in servicing the vehicle. It may include maintenance information on some items installed but not manufactured by Utilimaster Corporation. Items such as drivetrain components and certain interior furnishings may be covered by separate manufacturer-supplied information. Information provided here is intended to assist Utilimaster customers and is in no way meant to replace or supersede instructions provided by other suppliers for their products.



*Fold-up shelving package*

## Notes, Cautions, and Warnings

Reading through the procedures, you will see NOTES, CAUTIONS, and WARNINGS. Each is there for a specific purpose.

**NOTES** give additional information that will help you complete the procedure.

**CAUTIONS** warn against making an error that could damage the vehicle.

**WARNINGS** remind you to be careful when there is risk of personal injury.



***When you see this symbol, read this statement first! This alert highlights information that may reduce the risk of personal injury or vehicle damage.***

Below are some basic WARNINGS that you should heed when you work on the vehicle's body. They are not all-inclusive and common sense must be used when servicing vehicles.

- Always read and understand all instructions before starting.
- Always wear safety glasses and other appropriate protective equipment (gloves, steel-toed shoes, face shields, knee pads, hearing protection).
- Put the transmission in Park, and set the parking brake before working on the vehicle.
- Be sure that the ignition switch is Off unless otherwise required by the procedure.
- Keep your hair, clothing, and body away from all moving parts such as engine pulleys and power tools.
- Always remove rings, watches, hanging jewelry, and loose clothing before working in tight areas.
- Read and understand all warning labels.
- Always use proper ladders or scaffolding to perform required jobs.
- Always make sure tools are in proper working condition and have guards and safety devices in place.
- Use only the recommended tools for a specific job.
- If at any time you lack confidence in performing a specific repair procedure or in operating the tools safely to perform the repair, STOP! Call your local dealer or a Utilimaster representative.

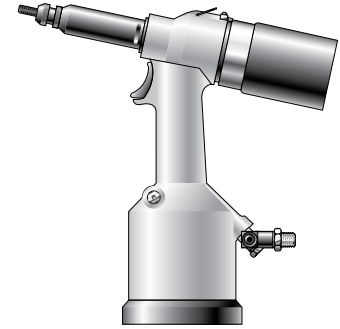
## Recommended Tools



**WARNING:** Always wear safety glasses and other proper protective equipment (gloves, steel-toed shoes, face shields, knee pads, hearing protection) as appropriate to the process.

Below are some tools that you will need for this process. There may be other commonly used hand tools required but not specifically mentioned.

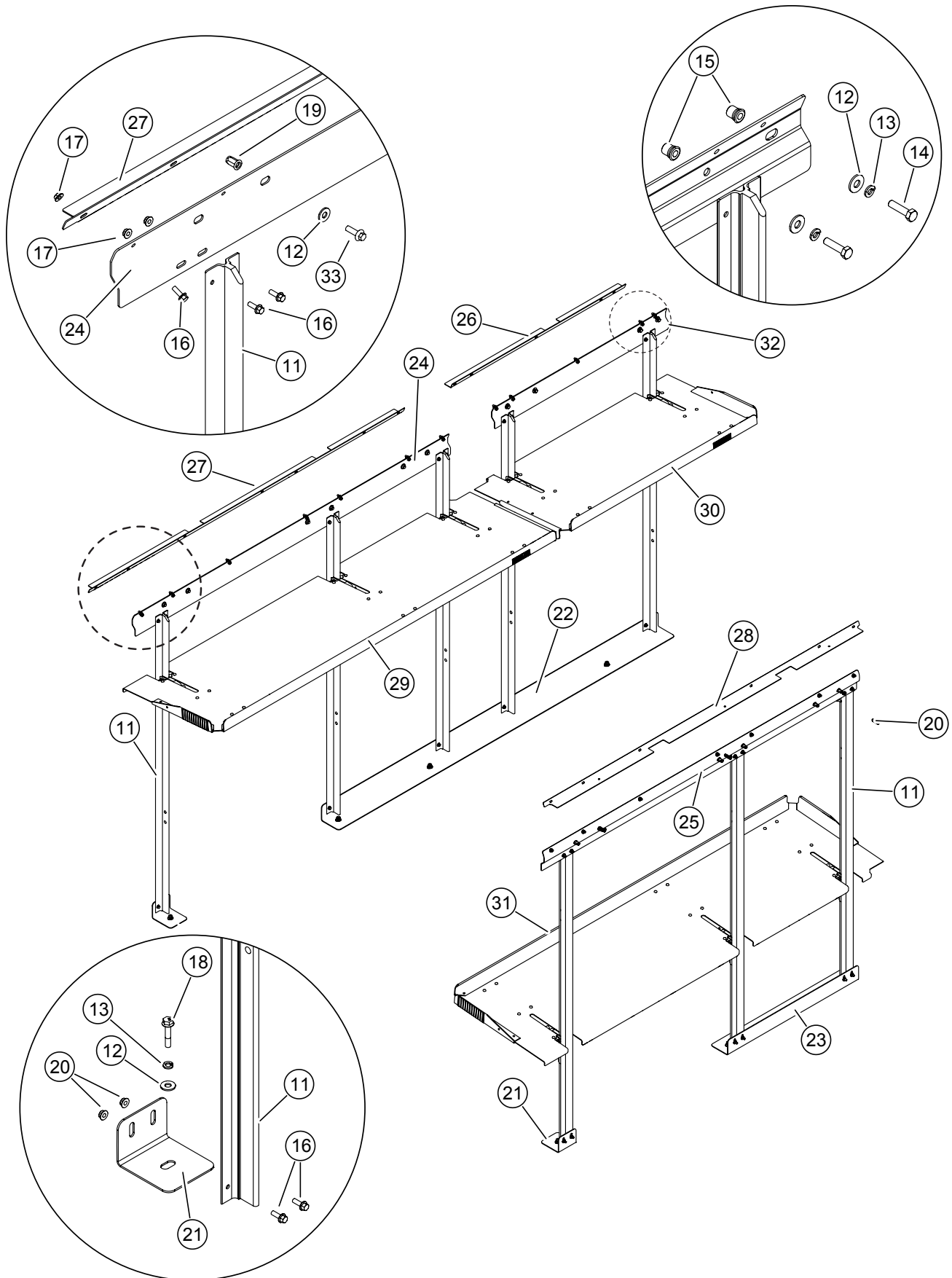
- T40 Torx bit socket
- Drill with F (or 1/4") and 17/32" drill bits with drill stop
- Rubber mallet
- Avdel® 74200 hydro-pneumatic tool for threaded inserts or equivalent with M8 and 5/16 nose piece
- 3/16" Allen wrench
- Standard and metric combination and ratchet wrench sets
- Torque wrenches (quality sets with ft•lb increments)
- Guide pin or center punch
- C-clamps



*Pneumatic insert power tool*

## Kit Parts List

KIT 23003562-4200SK		KIT SHELF FOLD 20" L4 2 ROW FULL PRO	
BOM ID	Part Number	Description	Qty
0	REFERENCE	53239449c SHELF ASSY FOLDUP LH & RH L4 PRMSTR	
11	06935873	T-STUD SHLF PROMASTER 59.00	8
12	11000160	WASHER FLAT 5/16 USS SS	23
13	11002810	WASHER LOCK 5/16	11
14	11004446	BOLT HX 5/16-18 X 1.25	4
15	11600611	NUTSERT OPEN 5/16-18	4
16	11600651	BOLT FLG 1/4-20 X .75 GR5 ZN	51
17	11600674	NUT FLG 1/4-20 PTLK GRD F ZN	51
18	11601148	BOLT FLG M8-1.25 x 40 CLS 8.8 ZN	7
19	11602390	INSERT M8 x 1.25 HEXSERT	12
20	16605698	STRAP WIRE TIE BLACK 8.5"	3
21	22823518	RAIL T-STUD MTG LOWER REAR	2
22	22823519	RAIL T-STUD MTG LOWER LH FRONT	1
23	22823520	RAIL T-STUD MTG LOWER RH FRONT	1
24	22826824	RAIL T-STUD MTG TOP RR LH L4 PRMSTR	1
25	22826825	RAIL T-STUD MTG TOP RR RH L4 PRMSTR	1
26	22826866	BRACE UPPER SHELF PRMSTR LF	1
27	22826979	BRACE UPPER SHELF PRMSTR LR L4	1
28	22826980	BRACE UPPER SHELF PRMSTR RH L4	1
29	53238182	SHELF LH REAR FOLDING ASSY	1
30	53238183	SHELF LH FRONT FOLDING ASSY	1
31	53238184	SHELF FOLDING ASSY RH REAR L4 PRMSTR	1
32	53239449	SHELF ASSY FOLDUP LH & RH L4 PRMSTR	1
33	UT29-BB1-007	BOLT FLG M8-1.25 x 25	12
NS_1	03104592-N016EN	PROMASTER—FOLD-UP SHELVING 159" WB INSTRUCT	1



159" wheelbase shelving kit overview (bottom shelves not shown for clarity)

## Installation Instructions

1. Read and understand all instructions before starting work.
2. Validate the packing slip with the list of parts in the instructions.

*NOTE: Install sidewall liners before installing fold-up shelving kit.*

### T-Stud and Rail Assembly

*NOTE: Keep all hardware and fasteners for reuse unless noted otherwise.*

3. Use a T40 Torx bit to remove cargo floor D-rings and set aside.
4. Secure floor lower rails using M8 fasteners.



*LH floor rear mounting angle*



*D-rings in LH floor mounting rail*

*NOTE: The LH upper front mounting rail is shorter than the LH and RH rear rails.*

5. Align the holes in the sidewall rib to the RH and LH rear rails and LH front rail. Mark the matching holes.
6. Remove wire ties securing the harness in the sidewall channel.

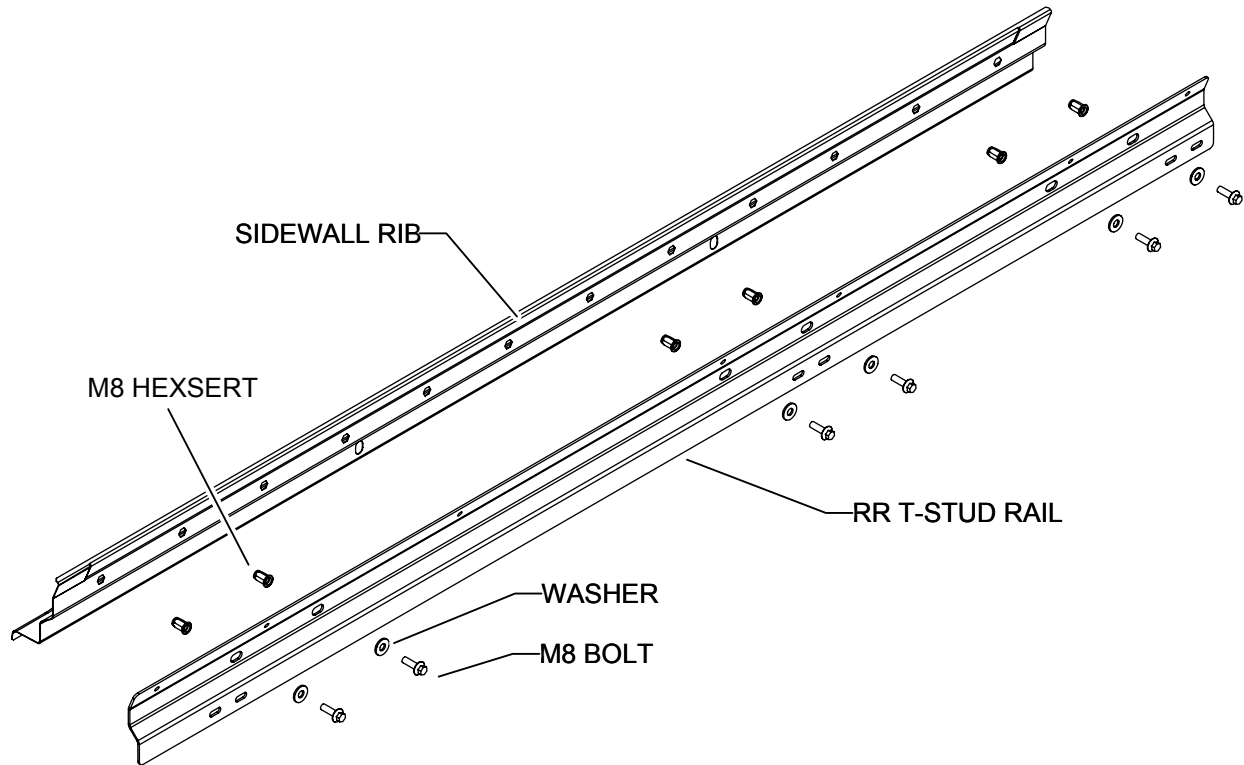


*Align sidewall hex holes with rail holes*



**CAUTION:** Do NOT use thread lock on the threads of a hexsert or nutsert.

7. Use a hydro-pneumatic tool for threaded inserts to install (6) M8 hexsert into LH rear holes. Repeat process on RH sidewall.
8. Install rear rails using (12) M8 bolts and washers.



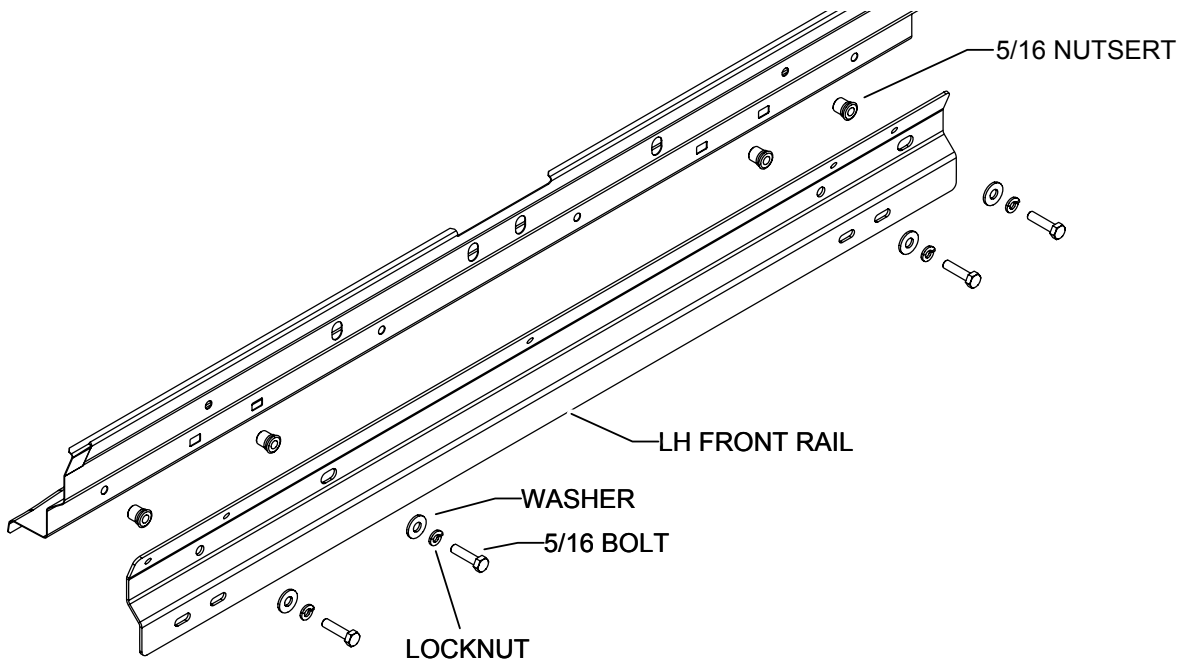
*LH and RH rear T-stud rail mounting (RH side shown)*

9. For the LH front rail, use a 17/32" bit with drill stop to enlarge holes sidewall rib holes.



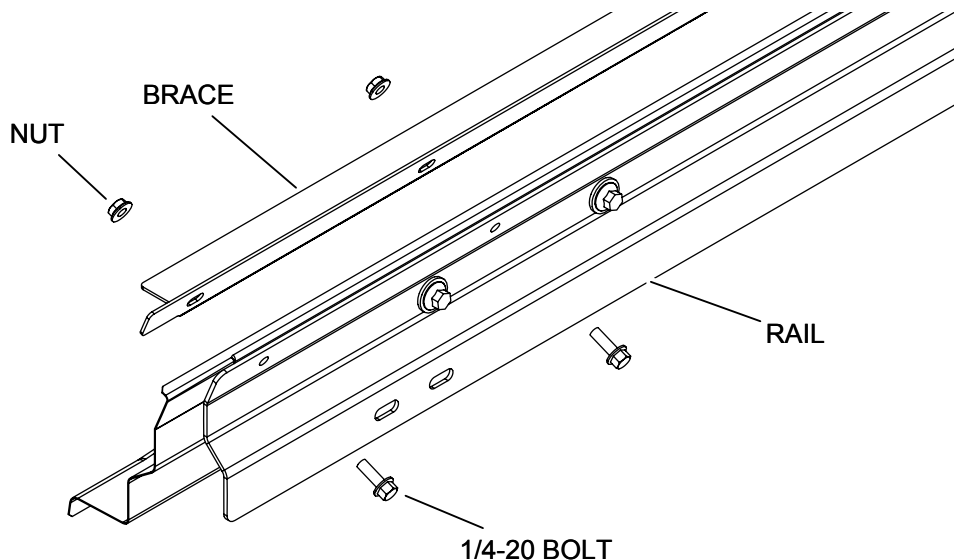
*Enlarge holes in LH front sidewall ribs*





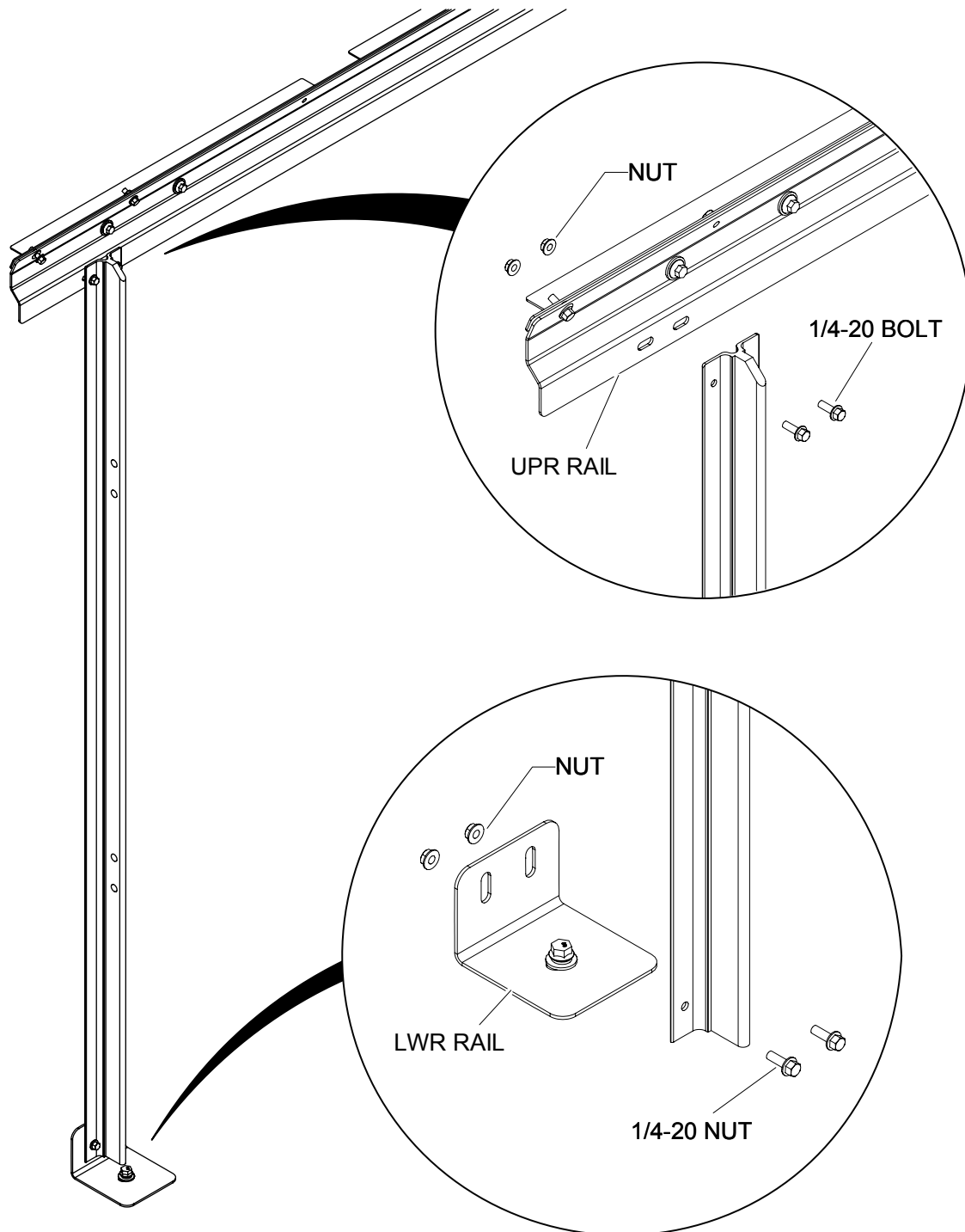
*LH front T-stud rail fasteners*

10. Install (4) 5/16 nutserts into 17/32" holes in the LH front sidewall rib.
11. Install LH front with (4) 5/16-18 bolts and washers.
12. Use an F bit and the LH rear rail as a guide to transfer drill (7) holes in the LH sidewall rib.  
Repeat process for RH sidewalls.
13. Secure sidewall braces with 1/4-20 fasteners.
14. Use an F bit and the LH front rail as a guide to transfer drill (5) holes in the LH sidewall rib.
15. Secure cargo wire harness to brace with wire ties.



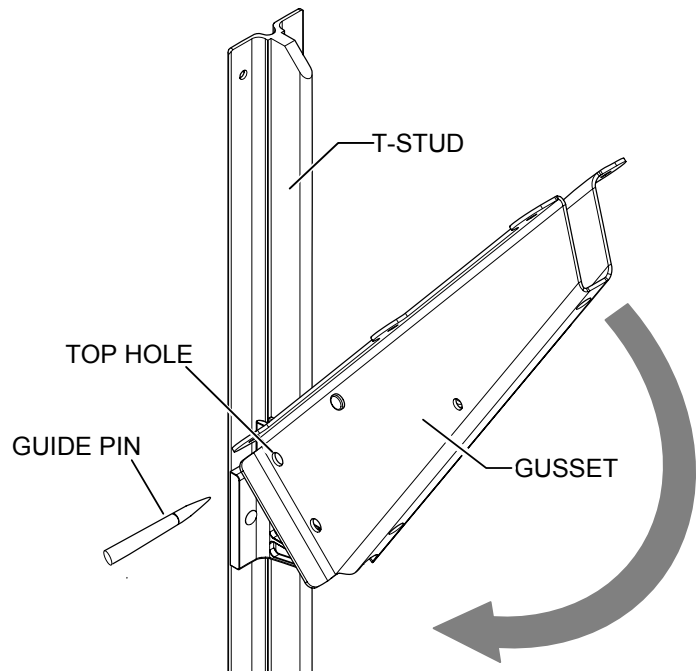
16. Align the T-studs with the upper rails and the floor mounts. The rounded T-stud edge should face up. Loosely install (4) 1/4-20 fasteners for each T-stud.

*NOTE: Do not tighten T-stud fasteners until shelving has been installed.*

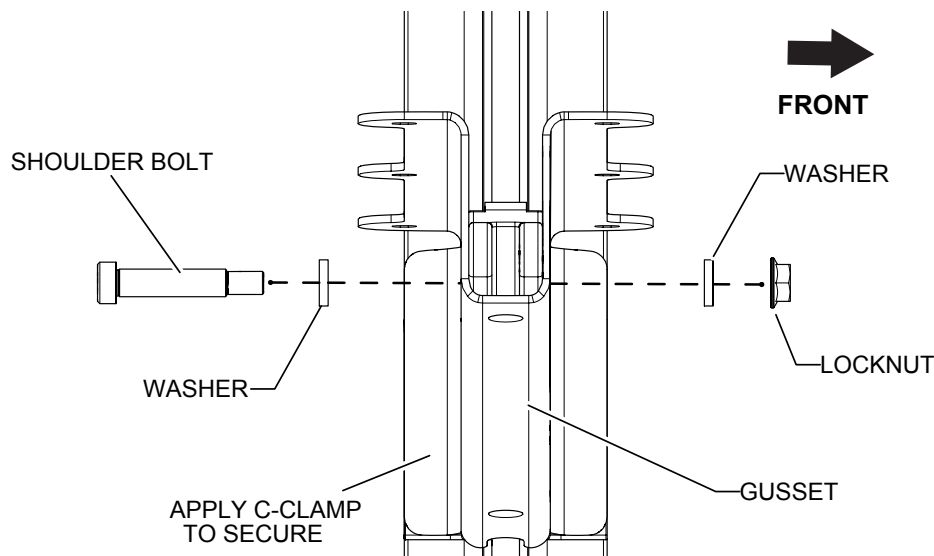


## Shelf Installation

1. Remove the Allen head shoulder bolts and washers from the shelf gussets and set aside.
2. Align shelf gusset assembly on T-studs. Place shelves in the upright position and insert a guide pin through the top gusset hole to align with T-stud holes.
3. Lower shelves into the down position and using a c-clamp secure the gusset to the back of the T-stud.
4. Remove guide pin from top gusset hole. Insert the shoulder bolt with nylon washers on BOTH sides of the gussets and the holes in the T-stud.



*Gusset installation (shelves omitted for clarity)*



*Apply c-clamp and insert fasteners (shelf omitted for clarity)*

5. Torque the shoulder bolt nuts to 4–6 ft•lbs.
6. Cycle the shelf up and down to check for binding and adjust the T-studs on the mounts as needed.
7. Torque 1/4-20 fasteners in T-studs to 9-11 ft•lb.

## Load Carrying Modification Label

*NOTICE: Load Carrying Modification Label may be required to satisfy the statutory requirements for labeling contained in Title 49 of the United States Code, Chapter 5 (Motor Vehicle Safety) and regulatory requirements contained in 49 CFR Parts 567 (Certification) and 568 (Vehicles Manufactured in Two or More Stages). A person who alters a vehicle that previously has been certified in accordance with 49 CFR 571.110 may require an altered certification obligation. Altered certification regulations cover all manufacturing performed after the vehicle has been certified in the final stage and before the first purchase of the vehicle in good faith for purpose other than resale.*

*If you have any questions regarding labeling requirements or need to order labels, call NTEA at 1-800-441-6832.*

1. Fill out and apply the Load Carrying Modification Label as required.

## Revision Control

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February 2015

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March 2014

## Important Notices

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Title: *ProMaster—Fold-Up Shelving 159" WB*

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