

**SYSTEM ONE™**

**MODULAR TRUCK EQUIPMENT**

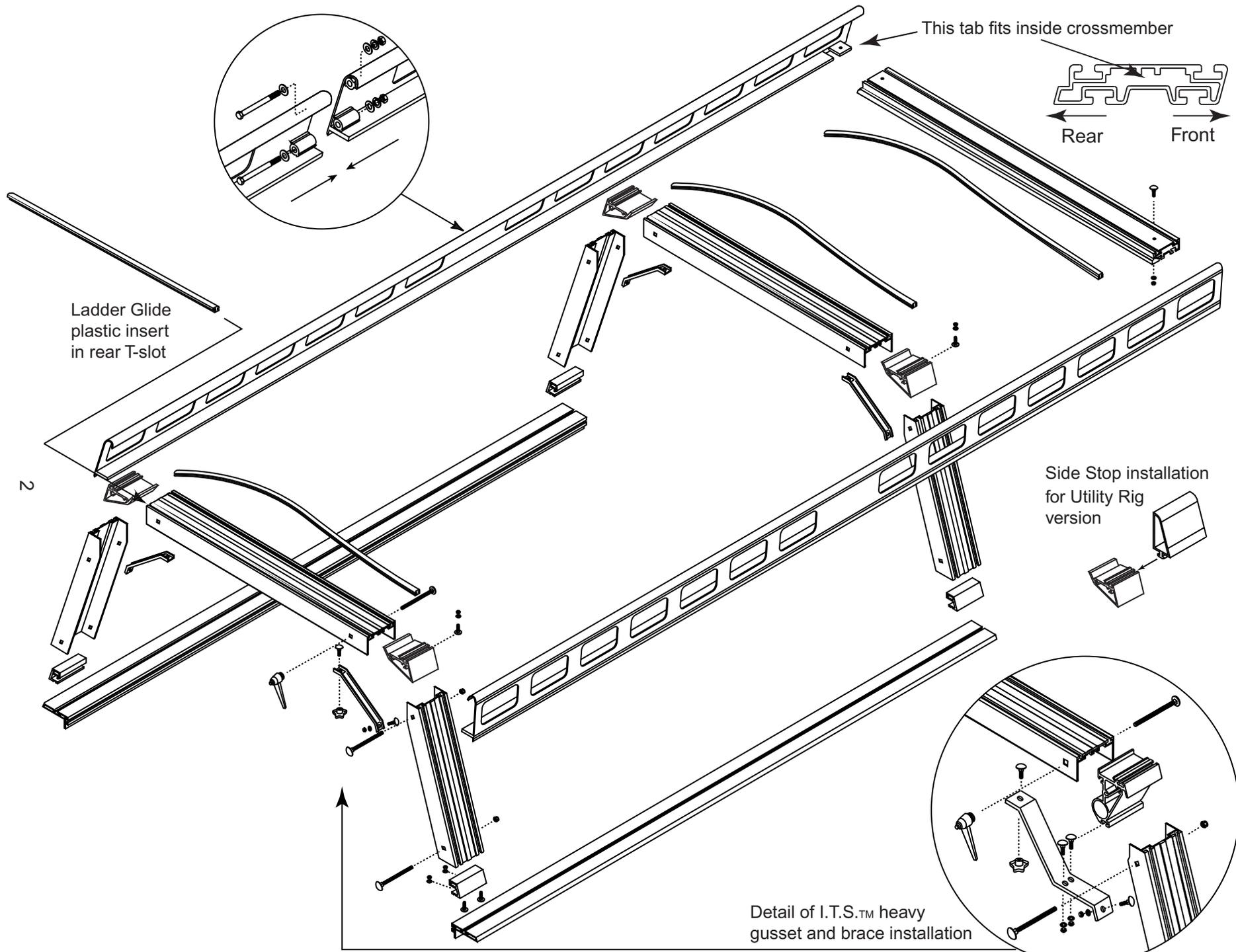
**PICK-UP TRUCK**

**ASSEMBLY and INSTALLATION  
INSTRUCTIONS**

**CONTRACTOR RIG™**

and

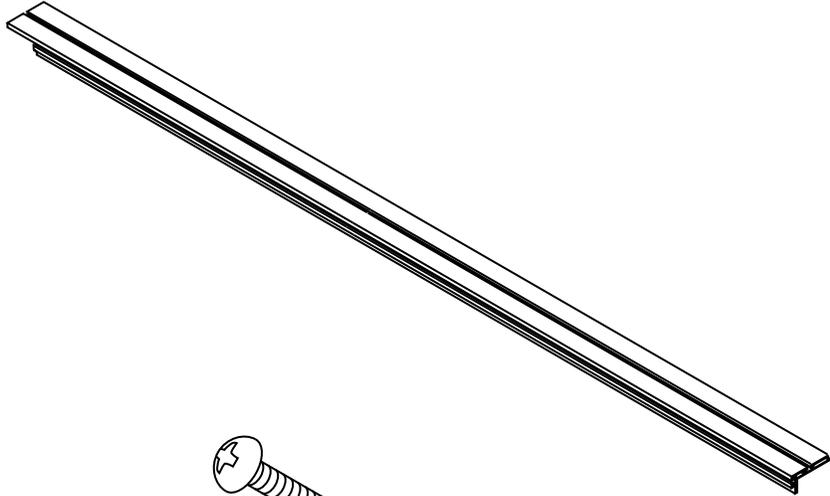
**UTILITY RIG™**



Detail of I.T.S.™ heavy gusset and brace installation

## The PICK-UP TRAK™ Box Contains:

2 PICK-UP TRAKS™



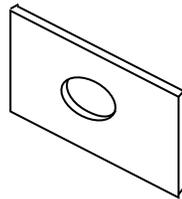
14 1" long Phillip head screws



14 1/4" locknuts



14 spacers (may or may not be used)

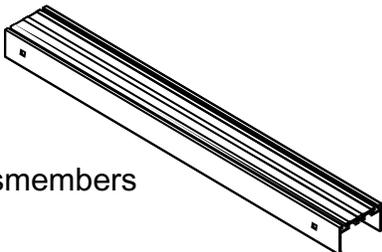
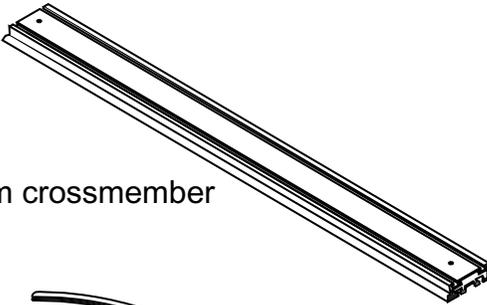
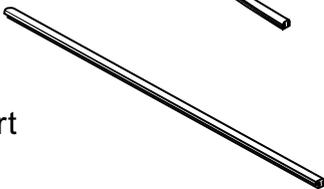


# System One Truss Components come in 2 boxes:

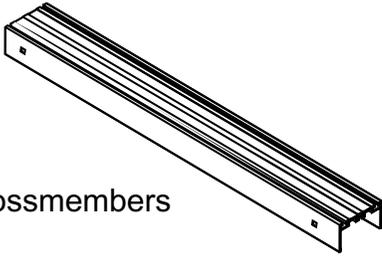
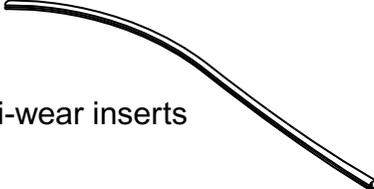
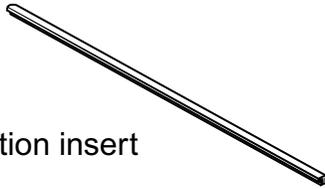
Box 1 - the Crossmember Box, (contents listed below)

Box 2 - the Leg Box (following page)

## The Crossmember Box for the Contractor Rig Contains:

- 2 truss crossmembers 
- 1 extension beam crossmember 
- 3 rubber anti-wear inserts 
- 1 plastic low friction insert 
- 2 3/8" adjustable handles 
- 2 5/16" knobs 
- 6 1" long x 5/16" stainless carriage bolts 
- 6 5/16" stainless steel lock washers 
- 6 5/16" stainless steel nuts 

## The Crossmember Box for the Utility Rig Contains:

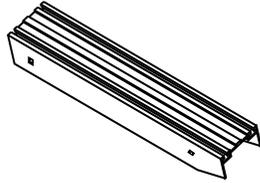
- 2 truss crossmembers 
- 2 rubber anti-wear inserts 
- 1 plastic low friction insert 
- 2 3/8" knobs 
- 4 side stops 

# System One Truss Components

## Leg Box

The Standard Leg Box Contains:

4 legs



4 truss mounts



12 5" long x 3/8" carriage bolts



12 3/8" lock nuts



4 gussets



4 braces



16 1" long x 5/16" carriage bolts



16 5/16" stainless lock washers

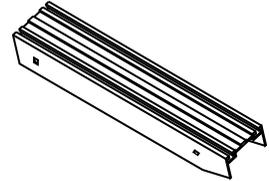


16 5/16" stainless nuts



The Leg Box with the Heavy Work Package Contains:

4 legs



4 truss mounts



12 5" long x 3/8" carriage bolts



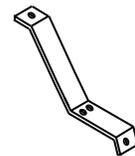
12 3/8" lock nuts



4 I.T.S.<sup>TM</sup> heavy gussets



4 heavy braces



24 1" long x 5/16" carriage bolts



24 5/16" stainless lock washers

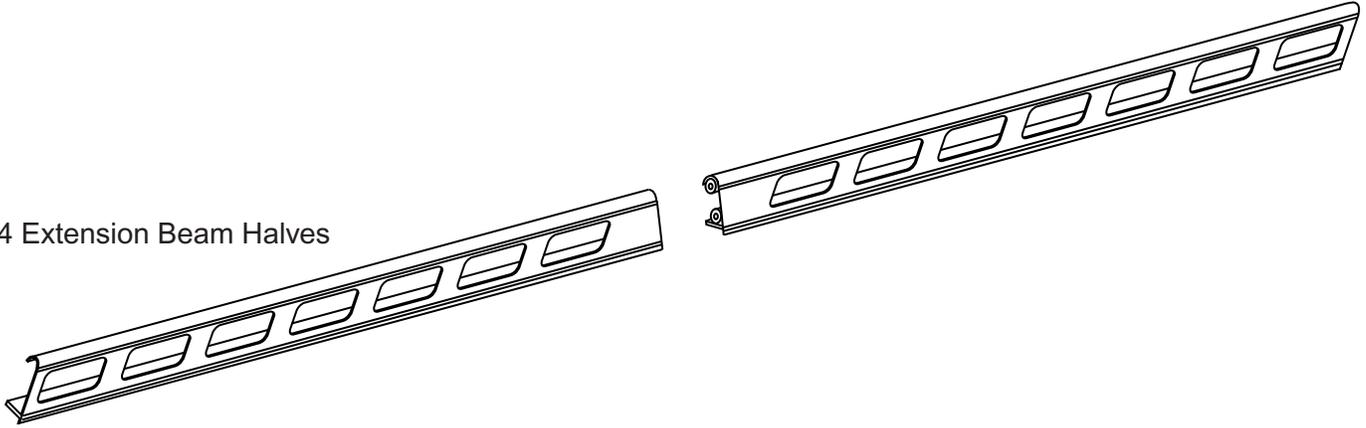


24 5/16" stainless nuts

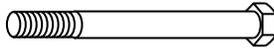


## The Extension Beam Box Contains:

4 Extension Beam Halves



4 4" long x 3/8" stainless bolts



4 3/8" stainless nuts



8 3/8" stainless flat washers



4 3/8" stainless lock washers



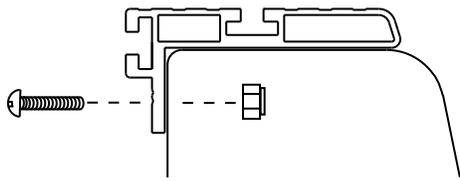
2 Parallelogram Decals (left and right)



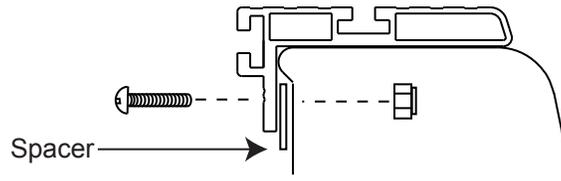
# Installation Instructions for PICK-UP TRAK™ Mounting Rails

1. The PICK-UP TRAK™ mounting rails are mounted through the side, not the top. Position the rails on the truck body with the notched area facing front. The top of the rail must be flat, not tilted, so that the rack will fit squarely on the rails. While holding the rail down firmly, (clamps help) drill a 1/4" hole horizontally through both the mounting flange on the rail and through the lip of the truck body at approximately the midpoint between front and rear. V-grooves are provided in the mounting flange to aid in locating the drill bit.

As soon as this first hole is drilled, insert a screw, a spacer if needed (see drawing), and install locknut. Tighten the locknut with a 7/16" wrench while holding the screw in place with a #3 Phillip screwdriver.

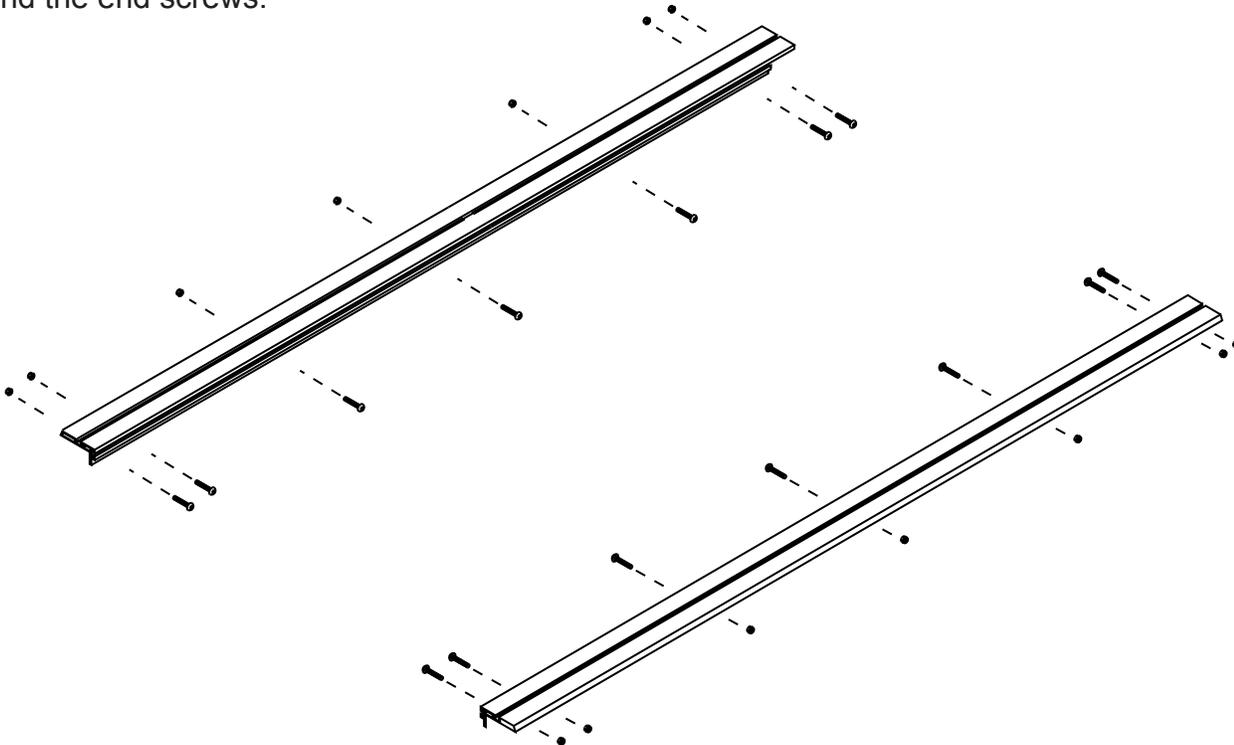


If bedrail has this profile a spacer is not necessary



If bedrail has this profile a spacer is necessary

2. Mark (don't drill yet) a pair of holes approx. 3" apart from each other and as close to each end of the mounting rail as possible. Make sure you have good access behind the lip of the bedrail for the nuts. Mark two more hole locations at points halfway between the center screw and the end screws.



3. While applying downward and outward pressure on the rail to ensure there is no gap between it and the truck body, drill a 1/4" hole on each mark closest to the ends. As soon as these holes are drilled install a screw in each hole, a spacer (if applicable), and a locknut. The two remaining hole locations can now be drilled and fasteners installed and tightened. This method ensures good alignment of holes and a good fit of the PICK-UP TRAK™ mounting rail. The same procedure is used for the opposite side.

# ASSEMBLY and INSTALLATION INSTRUCTIONS for TRUSSES

A general note on assembly:

These parts have been precision cut to tolerances as close as one thousandth of an inch in many cases. Some fits are designed to be press fits, others are designed to be sliding fits; but nowhere should the use of great force be required to assemble. As with any piece of machined equipment, if a part is not fitting as it should, don't use excessive force, identify the problem and correct it. An initial misalignment of two parts can cause a burr on one of them and make smooth assembly difficult.

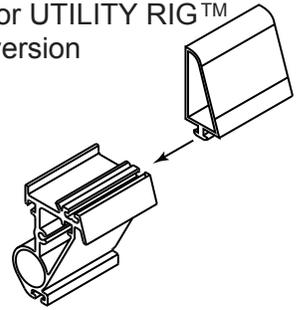
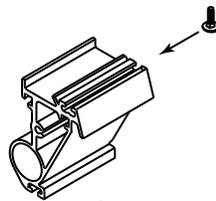
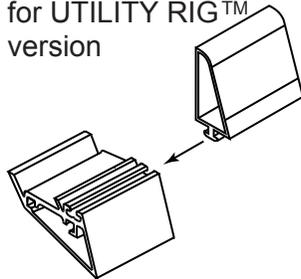
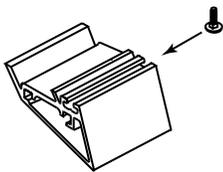
## 1. Install Extension Beam mounting bolts (CONTRACTOR RIG™) or Side Stops (UTILITY RIG™)

Bolt installation for  
CONTRACTOR RIG™  
version

Side Stop installation  
for UTILITY RIG™  
version

Bolt installation for  
CONTRACTOR RIG™  
version

Side Stop installation  
for UTILITY RIG™  
version



Standard Gussets

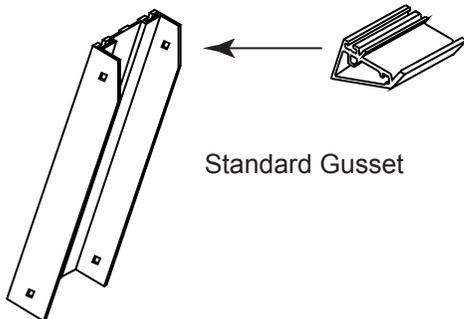
I.T.S.™ Heavy Gussets

Note for UTILITY RIG™ versions: To prevent Side Stops from the possibility of rattling, inject some silicone sealant into the T-slot of the gusset before inserting Side Stop.

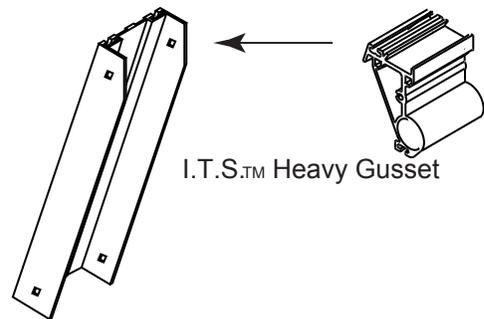
## 2. Assemble Legs and Gussets

(If you have color inserts you may wish to install them on the legs at this time)

Install gussets into legs as shown until holes align, then slide the 5" carriage bolts through the holes. Install the 3/8" lock nuts on the 5" carriage bolts and tighten with a 9/16" wrench until they bear lightly (do not tighten yet) on the aluminum surface.



Standard Gusset

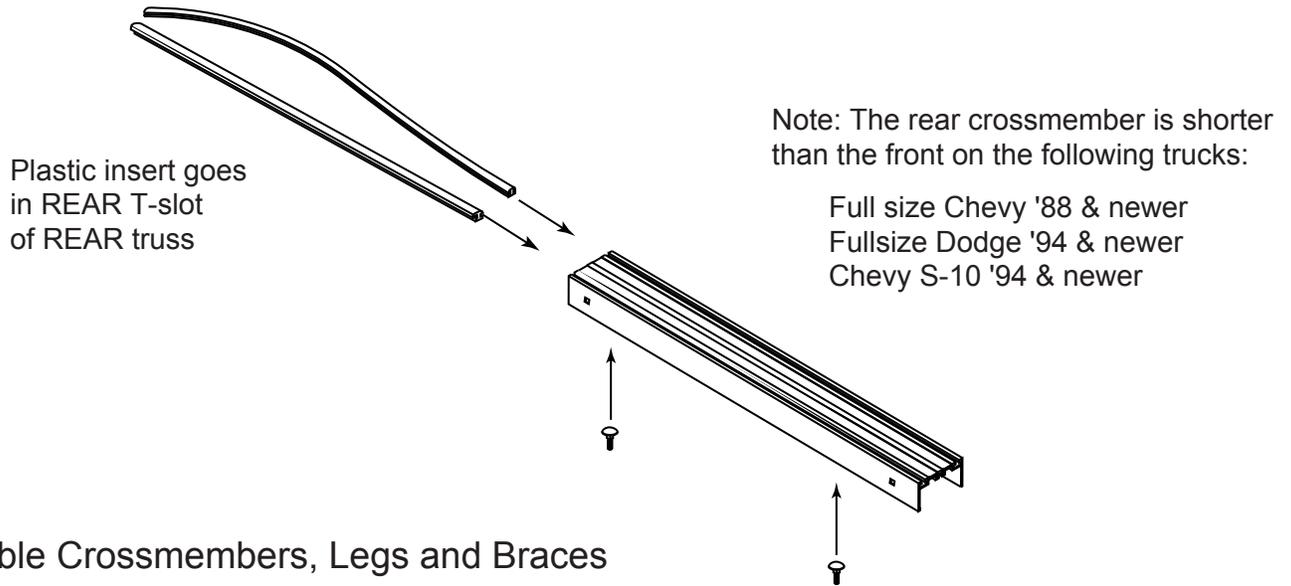


I.T.S.™ Heavy Gusset

## 3. Assemble Crossmembers (illustration following page)

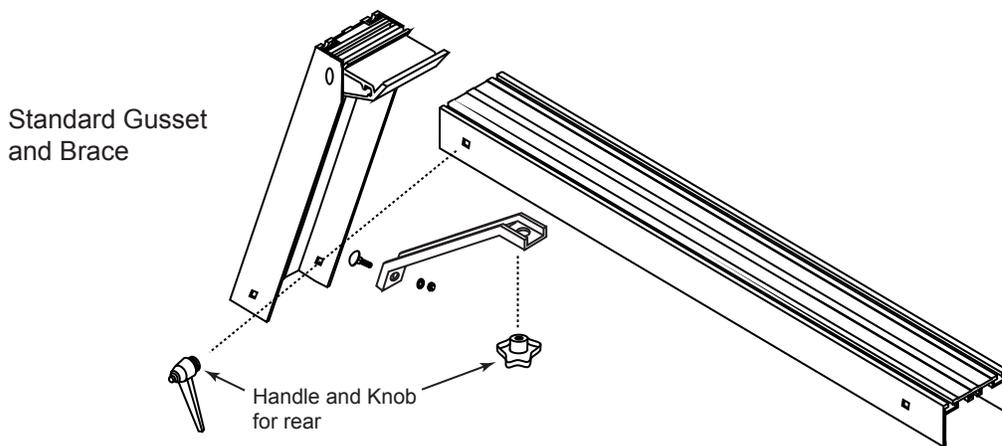
Slide a rubber anti-wear insert into the forward T-slot of each crossmember and slide a plastic low friction insert into the rear T-slot on the rear crossmember. Mount any accessories such as ladder side stops at this time. Slide 2 small carriage bolts (to be used for braces) into the T-slot on the underside of each crossmember. Depending on the truck being outfitted, some rear crossmembers are shorter than front crossmembers. If you have one shorter crossmember, it belongs in the rear. If accessories are installed on the rear crossmember the rubber insert should be cut to allow space.

Note: If you will be installing a cab window guard, omit the 2 small carriage bolts on the underside of the front crossmember

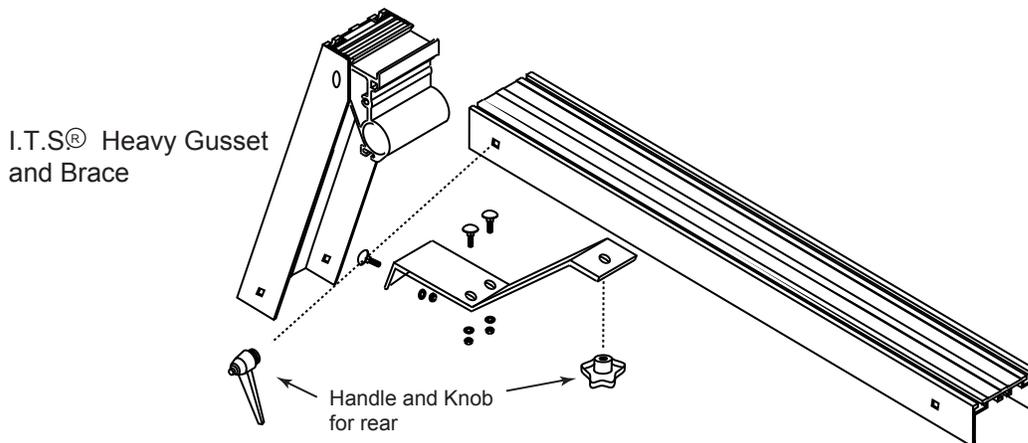


#### 4. Assemble Crossmembers, Legs and Braces

Install crossmember on gusset as shown, and fasten loosely with 5" long carriage bolts and 3/8" locknuts. For the rear crossmember of CONTRACTOR RIG™ versions use the 2 adjustable handles provided in the crossmember box in place of the 3/8" nuts.



Standard Gussets: Slide a small carriage bolt into the inside T-slot of the leg and install the brace between the leg and the crossmember using nuts and lockwashers. For CONTRACTOR RIG™ versions use the 5/16" knob to fasten the brace under the rear crossmember.



I.T.S.® Heavy Gussets: Slide 2 small carriage bolts into the T-slot at the bottom of the gusset and slide 1 carriage bolt into the inside T-slot of the leg and install the brace between the leg and the crossmember using nuts and lockwashers. For CONTRACTOR RIG™ versions use the 5/16" knob to fasten the brace under the rear crossmember.

## 6. Install Truss Mounts on PICK-UP TRAK™ Mounting Rails

Note: The PICK-UP TRAK™ Mounting Rails can be installed on the truck first, or the entire rack can be built first and then moved over to the truck. If installing the mounting rails first, make sure they are installed in a level position (in the same plane). Use a straight edge such as a 2"x4" to check alignment.

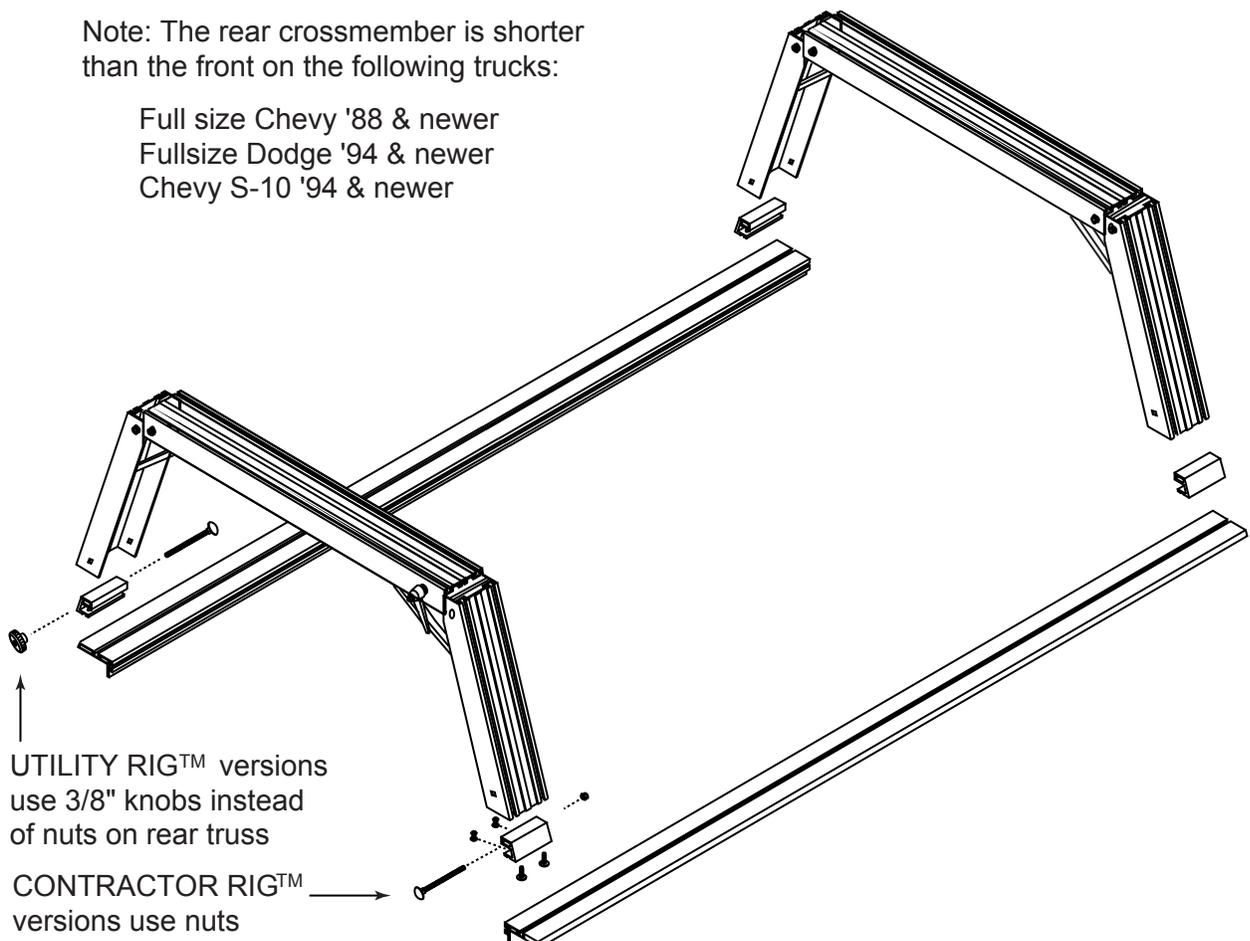
Slide two 1" carriage bolts into the upper T-slots on each end of both mounting rails. If tool boxes are to be installed slide their carriage bolts in place before installing the last truss mount. Place a truss mount on each of the bolt pairs (truss mount should be leaning inward as shown), positioning the mounts 1/8" in from the ends of the rail. Install lock washers and nuts and tighten with a 1/2" open end wrench.

## 7. Install Pick-Up Trusses on Truss Mounts

If a Cab Window Guard is being installed, assemble and install it LOOSELY on the front truss (the window guard takes the place of the braces in the front truss).

Note: Make sure any accessories such as Inside Hook/Anchors are installed now.

Lower the truss onto the truss mounts and slide the 5" long carriage bolts through the leg and mount. Install nuts and tighten with a 9/16" wrench until they bear LIGHTLY on the aluminum surface. Make sure that the truss is centered on the mounting rails and that the visible joint between the leg and crossmember is as tight as possible, then tighten all 5" carriage bolts firmly. Note that the truss mount has an elongated hole for side to side adjustment of the truss legs. Tighten the nuts and knobs that secure the braces as well as cab window guard bolts if used.



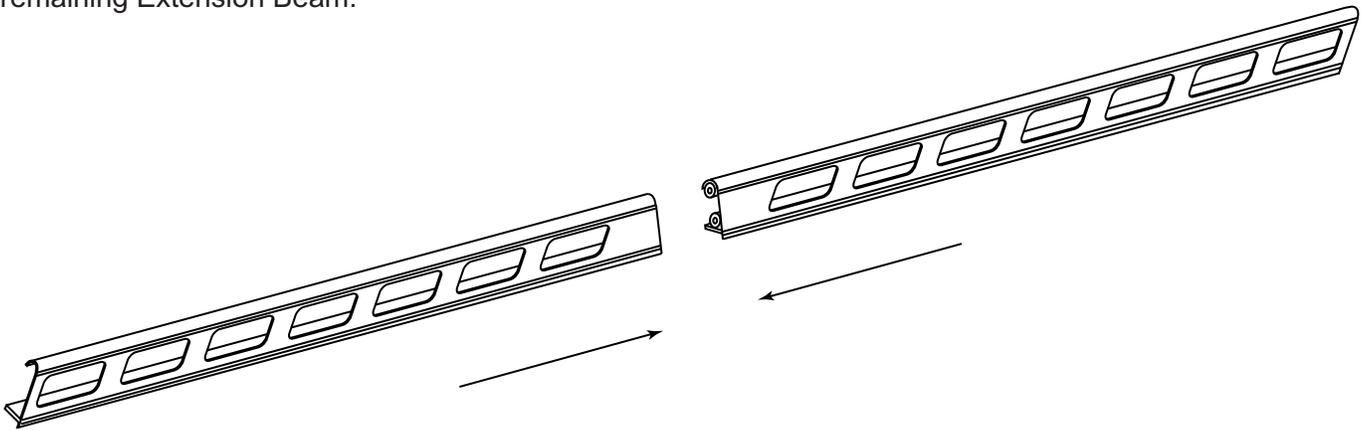
# ASSEMBLY and INSTALLATION INSTRUCTIONS

for

## EXTENSION BEAMS

### 1. Assemble Extension Beam Halves

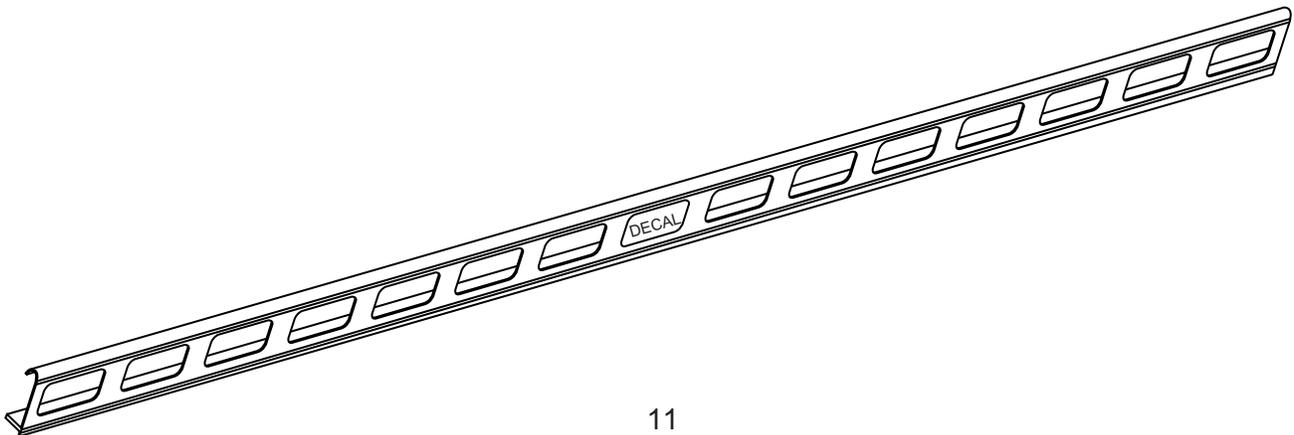
You will need a smooth clean surface where you can bolt together the halves of the Extension Beams (ie. cardboard, paper, plastic). Locate a matching pair of Extension Beams (all holes leaning the same way) and place them end to end so that the welded-in splice blocks touch each other and the holes in the splice blocks align. Slide a 3/8" flat washer on the 4" bolt and insert the bolt through the splice blocks, then install a flat washer, then lock washer, then nut, in that order. Repeat the procedure for the other hole, align Extension Beam halves so that the outside surfaces meet smoothly, and then tighten nuts. Repeat the procedure for the remaining Extension Beam.



### 2. Install Decal Over Splice Joint

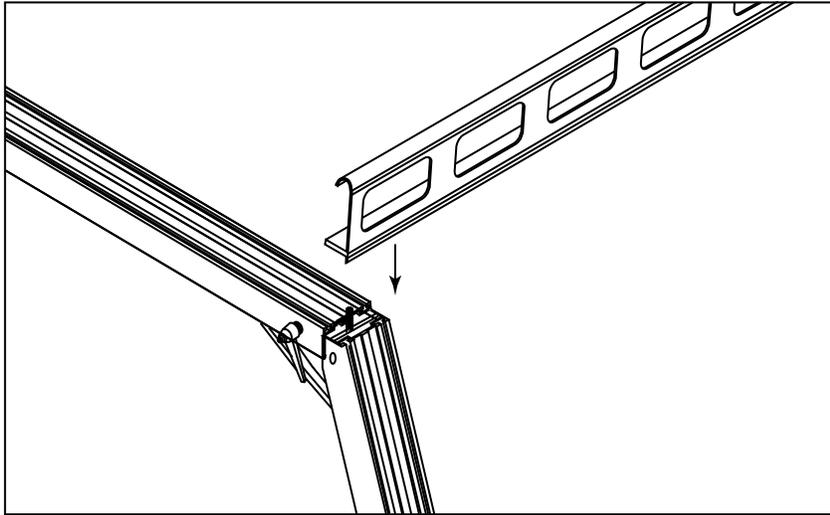
Important! There are left and right decals! Decal must lean forward just like Extension Beam holes do!

Position the decal accurately so that it repeats the punched hole pattern. Although the decal can be installed dry, the "wet method" makes the job much easier. Just add 10 or 12 drops of dish washing liquid to a glass of water, pull off the decal backing, wet the decal and the Extension Beam and apply the decal centered between holes over the splice joint. This wet method allows you to slide the decal around to position it correctly. When correctly positioned, force out excess water with fingers or a sponge. The decal will ultimately adhere with just as much "grip" as the dry method would but without the risk of misalignment, bubbles, creases etc.



### 3. Install Extension Beams on Trusses

Mount one Extension Beam on the Trusses (notched end goes in front) aligning the end of the beam with the rear surface of the rear Truss. Install lock washers and nuts and tighten these two Extension Beam mounting bolts. Set the other Extension Beam on the opposite side and install a lock washer and nut loosely on the rear Truss only as you will need to lift the forward end slightly off the front truss to assemble the crossmember.



### 4. Install Crossmember

Install the rubber wear strip and any accessories needed in the crossmember. With the aid of another person on the opposite side of the truck, hand the correct end of the crossmember over (see drawing) and insert the tab of the Extension Beam inside the crossmember (lifting unbolted end of the Extension Beam is helpful in crossmember assembly). Make sure the Extension Beam and the crossmember are seated and install a 1" carriage bolt downward through each end of the crossmember, then install lock washers & nuts and tighten. Complete the installation of the Extension Beam which was left loose. It is normal to experience some degree of effort installing the Extension Beam over the bolt on the front truss on some models due to a tapering truck body.

Note: Due to the varying aerodynamics of different trucks, you may experience a vibration in the roof of the

