

SYSTEM ONE™

MODULAR TRUCK EQUIPMENT

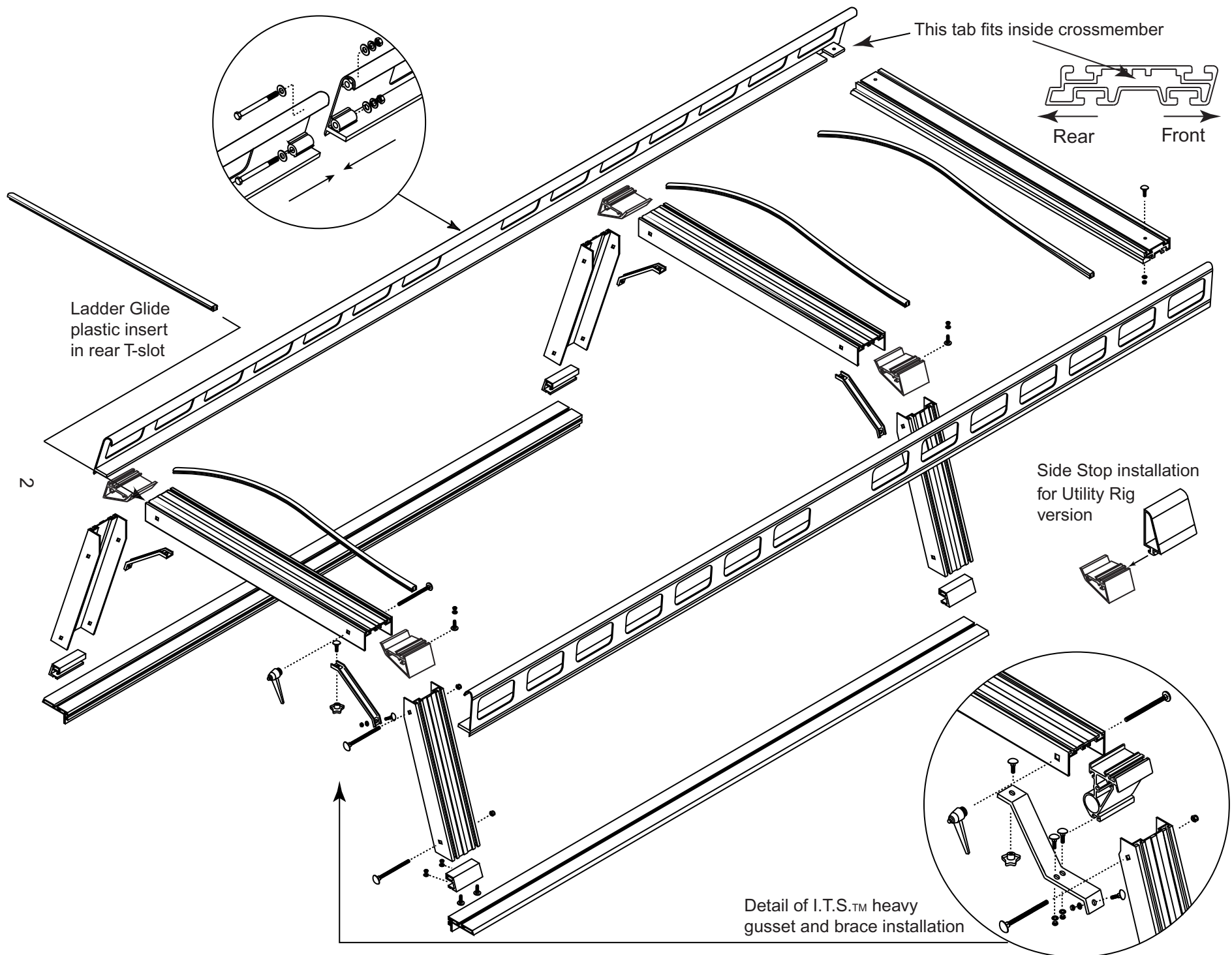
PICK-UP TRUCK

ASSEMBLY and INSTALLATION
INSTRUCTIONS

CONTRACTOR RIG™

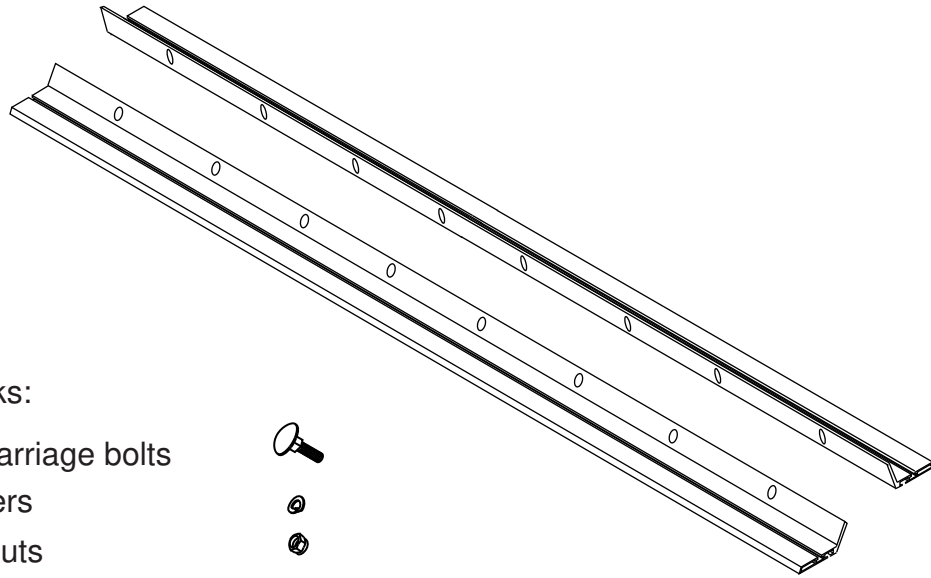
and

UTILITY RIG™



The Utility Trak Box Contains:

2 Utility Traks



If you have 96" long traks:

- 14 1" long x 5/16" carriage bolts
- 14 5/16" lock washers
- 14 5/16" stainless nuts



If you have 106.75" long traks:

- 16 1" long x 5/16" carriage bolts
- 16 5/16" lock washers
- 16 5/16" stainless nuts



If you have 132" long traks:

- 18 1" long x 5/16" carriage bolts
- 18 5/16" lock washers
- 18 5/16" stainless nuts



Also Included:

- 8 3/4" long x 5/16" carriage bolts
- 8 5/16" lock nuts



These 3/4" bolts and lock nuts are to be used to fasten the Truss Mounts to the Utility Trak. They are to be used in place of the 1" bolts, nuts and lock washers supplied in the Leg box and they allow a 1/2" box wrench to be used to tighten the Truss Mount to the Trak.

Tools Needed:

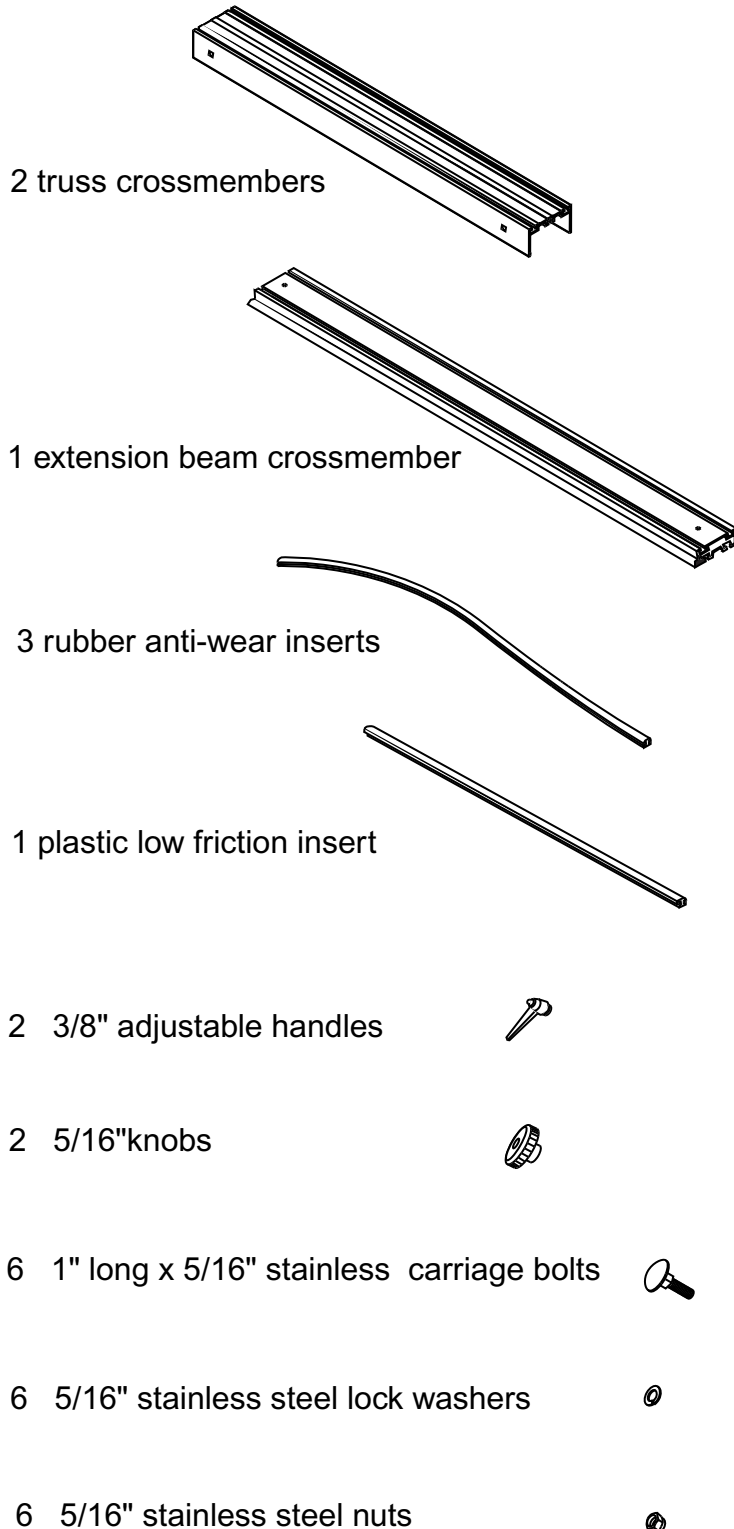
- 1/2" box wrench
- sealant for bolt holes

System One Truss Components come in 2 boxes:

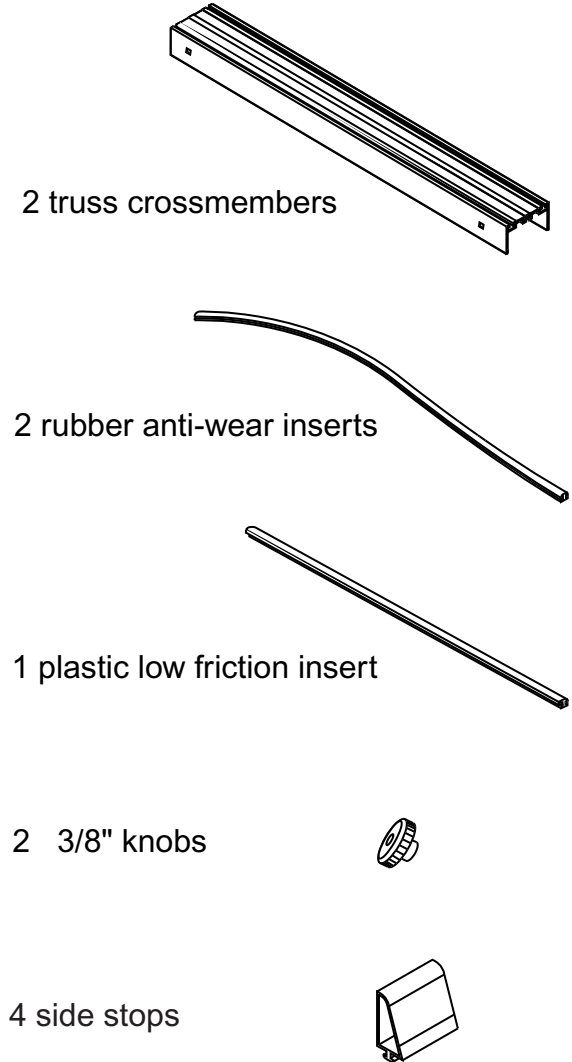
Box 1 - the Crossmember Box, (contents listed below)

Box 2 - the Leg Box (following page)

The Crossmember Box for the Contractor Rig Contains:



The Crossmember Box for the Utility Rig Contains:

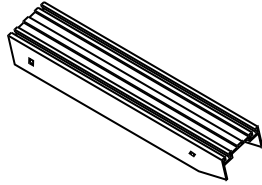


System One Truss Components

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

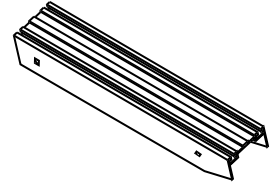


16 5/16" stainless nuts



The Leg Box with the Heavy Work Package Contains:

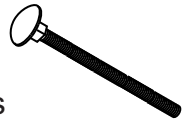
4 legs



4 truss mounts



12 5" long x 3/8" carriage bolts



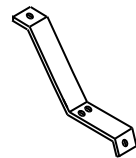
12 3/8" lock nuts



4 I.T.S.TM heavy gussets



4 heavy braces



24 1" long x 5/16" carriage bolts



24 5/16" stainless lock washers

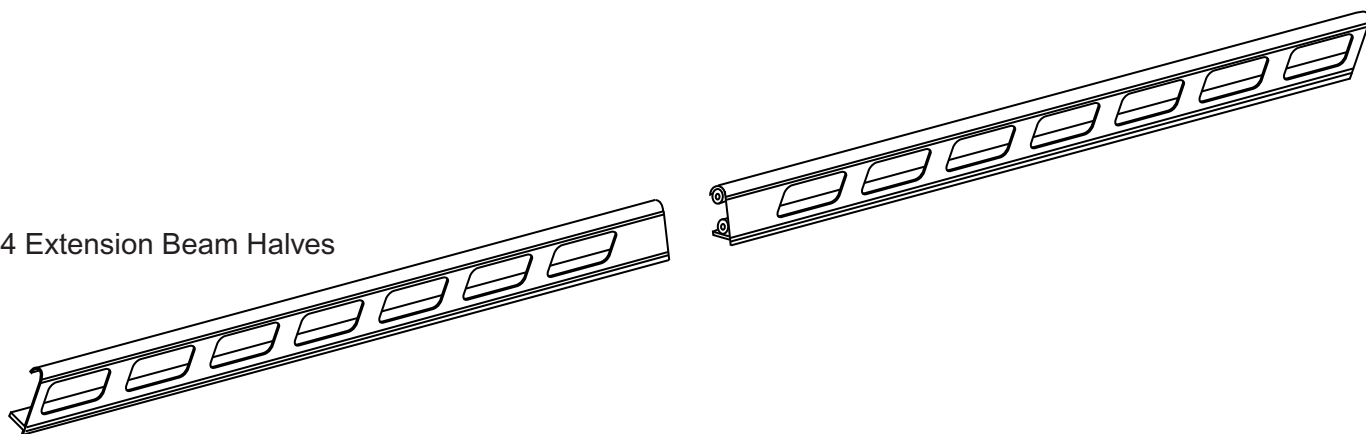


24 5/16" stainless nuts

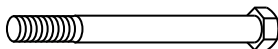


The Extension Beam Box Contains:

4 Extension Beam Halves



4 4" long x 3/8" stainless bolts



4 3/8" stainless nuts



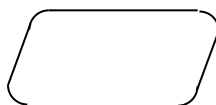
8 3/8" stainless flat washers



4 3/8" stainless lock washers



2 Parallelogram Decals (left and right)



Installation Instructions for Utility Traks

The Utility Trak is intended to be mounted to a flat, horizontal surface. Its function is to distribute the load of a System One rack and its cargo, but it cannot increase the overall load carrying capacity, ie. enclosed body roofs, beyond what the manufacturer intended.

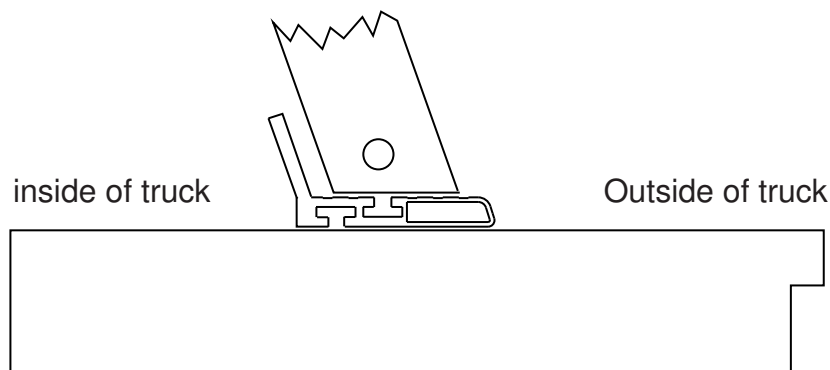
1. Build the System One rack according to the Assembly and Installation Instructions that came with the rack. When mounting the Truss Mounts to the Utility Trak, use the 3/4" carriage bolts and 5/16" lock nuts (provided with the Trak). The 3/4" bolts will allow a box wrench to fit over them to tighten the nut. The best way to install the Truss Mounts is to first assemble the bolts and nuts loosely in the Truss Mount and then slide the bolt heads into the T-slot of the Trak. Position the Truss Mounts 1/8" in from the end of the Trak and tighten with a 1/2" box end wrench. Temporarily mount the rack to the trak (to aid in positioning on truck). For utility body trucks, remember that there is 1/2" of lateral adjustability between the bottom of each leg and the trak, so adjust the traks to the same position front and back.

2. Mark Trak location on truck. For this step at least 2 people are required. Carefully place the rack with its traks on the truck (or trailer) and adjust its position to the desired location. Make a mark on the body in the center of the T-slot (on the underside of the trak) at both ends of the trak. Use a straight edge (possibly the trak itself) and, using a pencil or fine felt tip pen, make a straight line between front and rear T-slot marks.

3. Mark mounting bolt locations. Trak mounting bolts should be located approximately 1" and 6" in from each end. The remaining bolts should be spaced evenly on the line. Make the appropriate marks and drill 5/16 or 21/64 holes accurately on the line.

4. Mount traks to body. Since the body has been penetrated, a sealant is needed at each mounting bolt. Silicone is a good sealant, but many others work well also. At this point, remove the traks from the rack (it's easier) and place the traks on the truck alongside the mounting holes. Slide the carriage bolts into the T-slot and space the bolts as accurately as possible (nearest their mounting holes) along the trak. Rotate the trak upside down and apply a liberal amount of sealant to the threads of each bolt. Slowly rotate the trak back over, aligning each bolt in its hole (a screwdriver works well). Some excess sealant will have wiped off the bolts and stayed on the top surface under the trak and more sealant will be driven upward by the nut. Install lock washers and nuts on each mounting bolt. The sealant on the threads will be forced up through the hole, forming a water-tight seal.

Note: 1" carriage bolts are supplied, but if necessary longer carriage bolts, available at any hardware store, can be substituted. This may be desirable if mounting to cross ribs of some enclosed bodies.



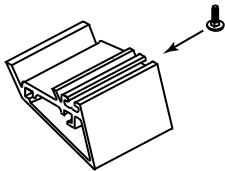
ASSEMBLY and INSTALLATION INSTRUCTIONS for TRUSSES

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.

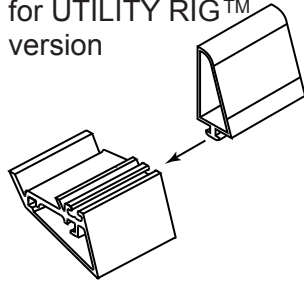
1. Install Extension Beam mounting bolts (CONTRACTOR RIG™) or Side Stops (UTILITY RIG™)

Bolt installation for
CONTRACTOR RIG™
version

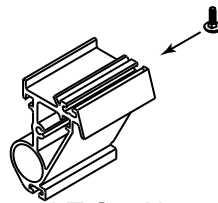


Standard Gussets

Side Stop installation
for UTILITY RIG™
version

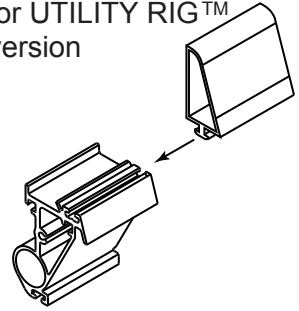


Bolt installation for
CONTRACTOR RIG™
version



I.T.S.™ Heavy Gussets

Side Stop installation
for UTILITY RIG™
version

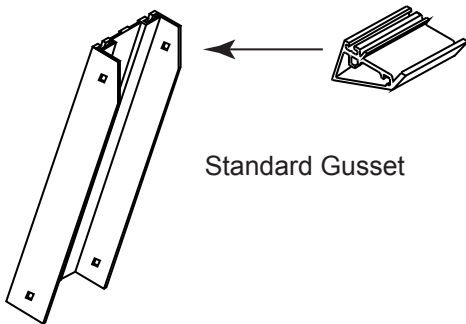


Note for UTILITY RIG™ versions: To prevent Side Stops from the possibility of rattling, inject some silicone sealant into the T-slot of the gusset before inserting Side Stop.

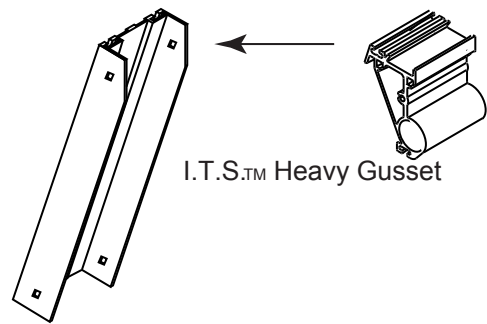
2. Assemble Legs and Gussets

(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

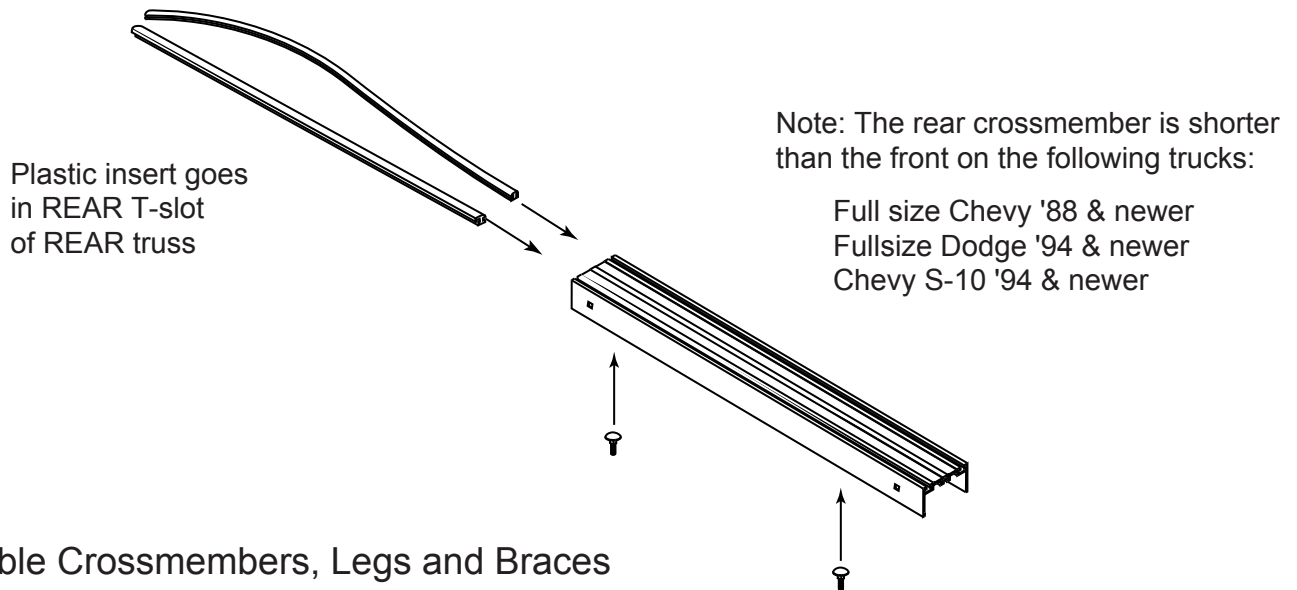


I.T.S.™ Heavy Gusset

3. Assemble Crossmembers (illustration following page)

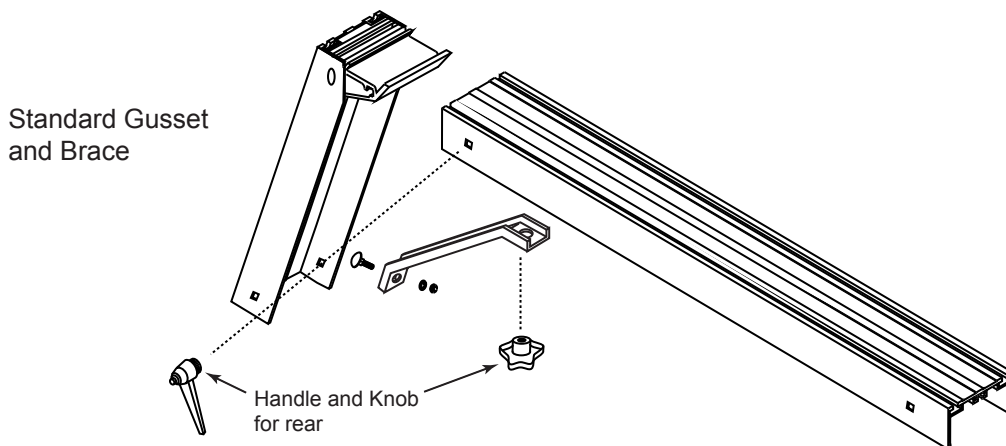
Slide a rubber anti-wear insert into the forward T-slot of each crossmember and slide a plastic low friction insert into the rear T-slot on the rear crossmember. Mount any accessories such as ladder side stops at this time. Slide 2 small carriage bolts (to be used for braces) into the T-slot on the underside 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

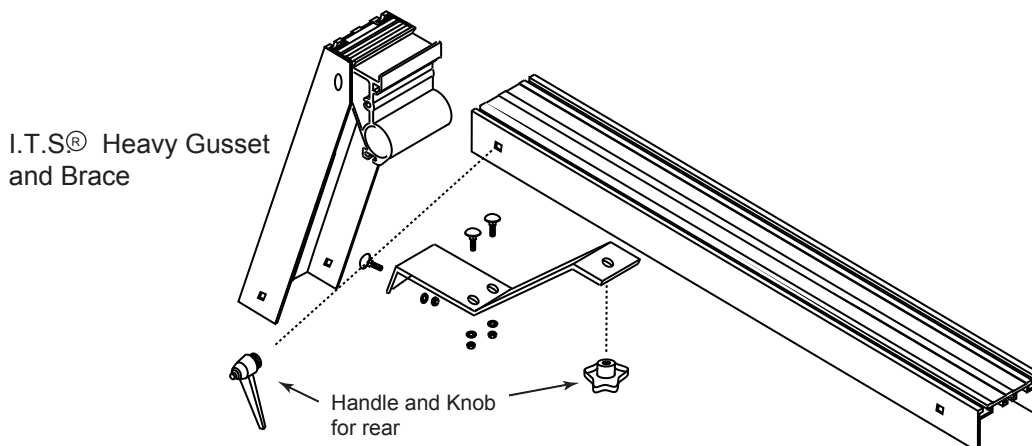


4. Assemble Crossmembers, Legs and Braces

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.

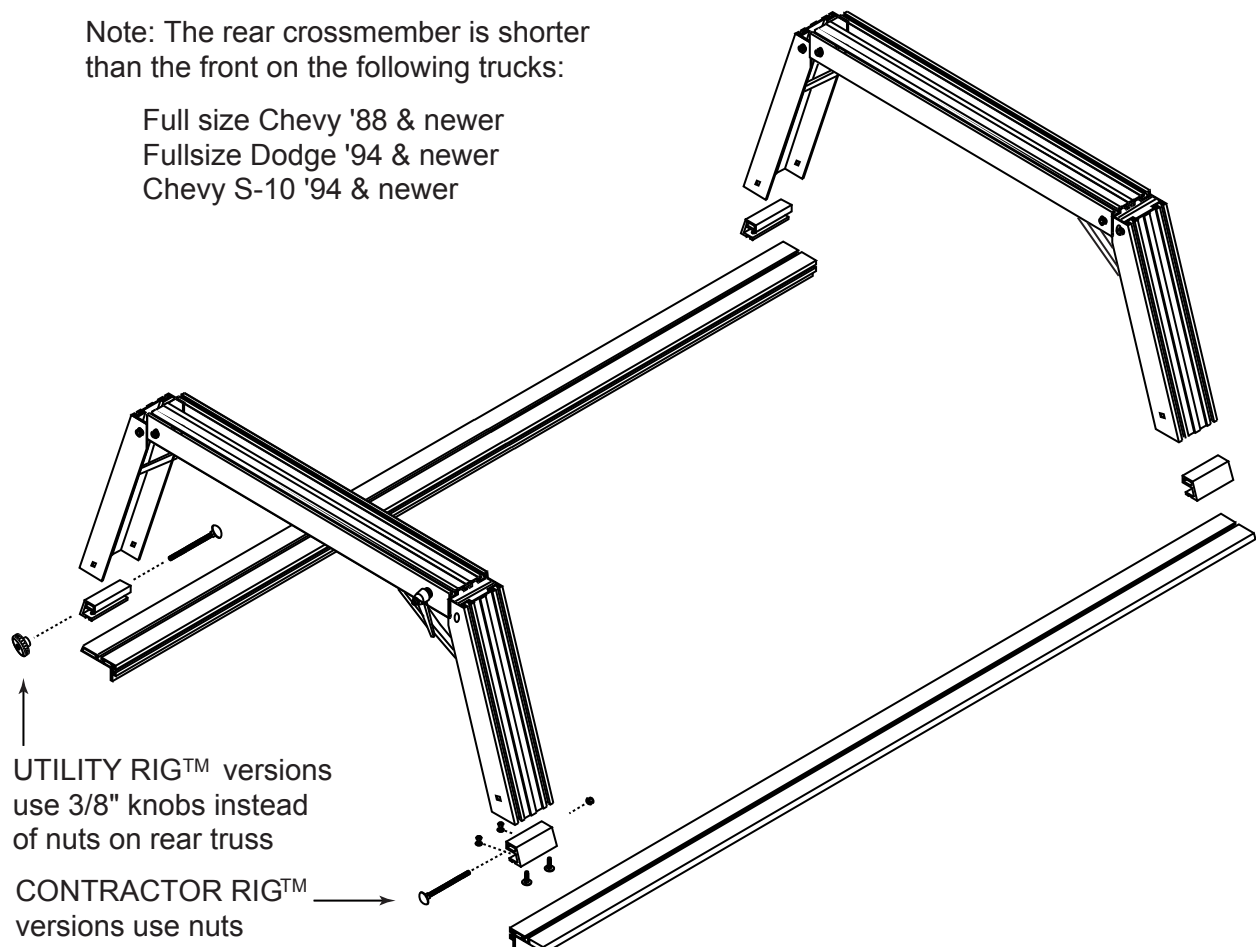
Slide two 1" carriage bolts into the upper T-slots on each end of both mounting rails. If tool boxes are to be installed slide their carriage bolts in place before installing the last truss mount. Place a truss mount on each of the bolt pairs (truss mount should be leaning inward as shown), positioning 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.



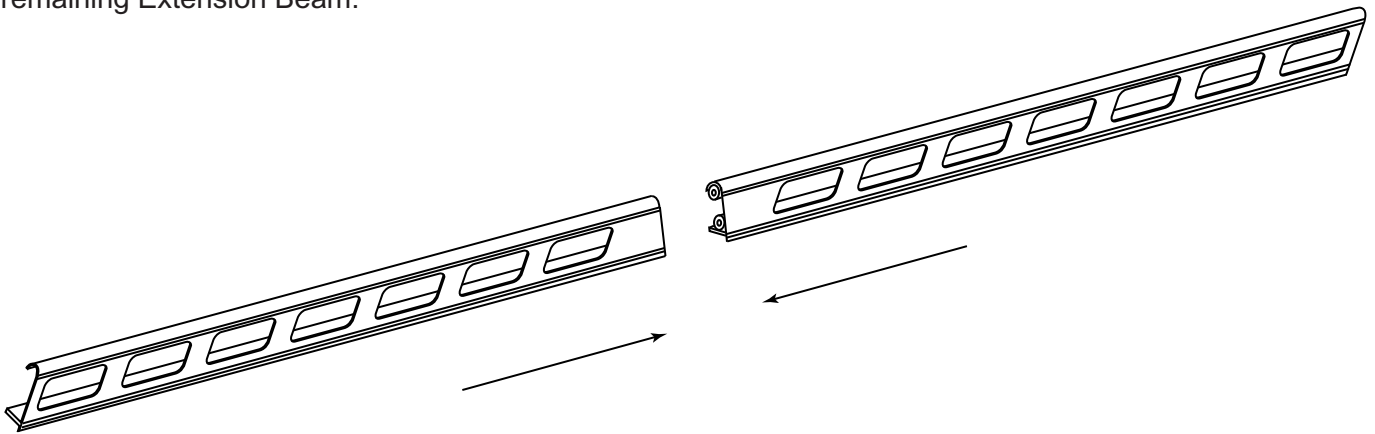
ASSEMBLY and INSTALLATION INSTRUCTIONS

for

EXTENSION BEAMS

1. Assemble Extension Beam Halves

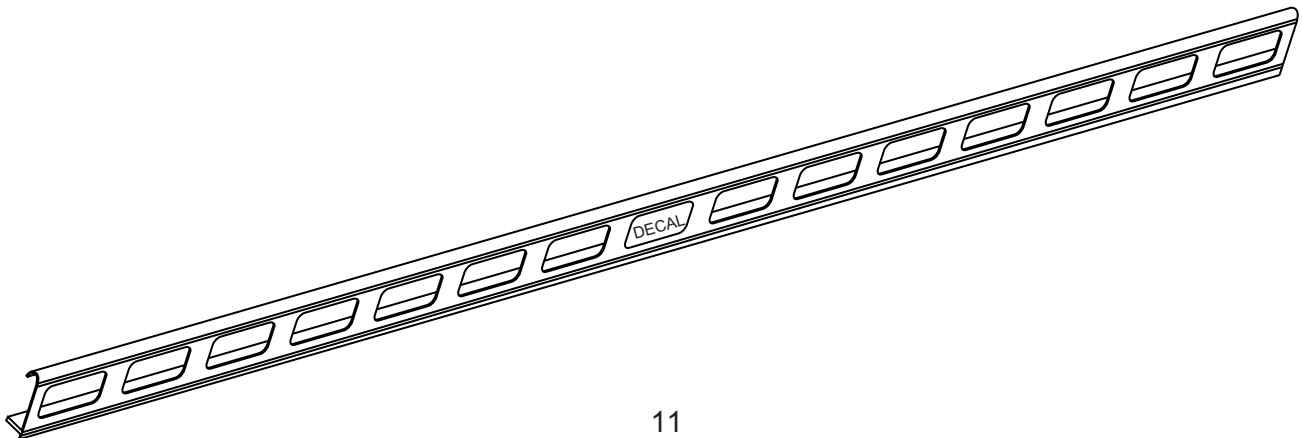
You will need a smooth clean surface where you can bolt together the halves of the Extension Beams (ie. cardboard, paper, plastic). Locate a matching pair of Extension Beams (all holes leaning the same way) and place them end to end so that the welded-in splice blocks touch each other and the holes in 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

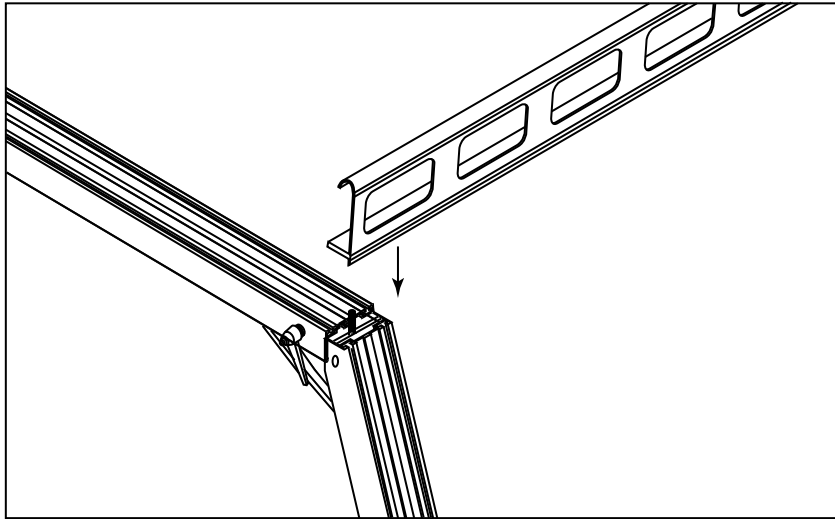
Important! There are left and right decals! Decal must lean forward just like Extension Beam holes do!

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

