



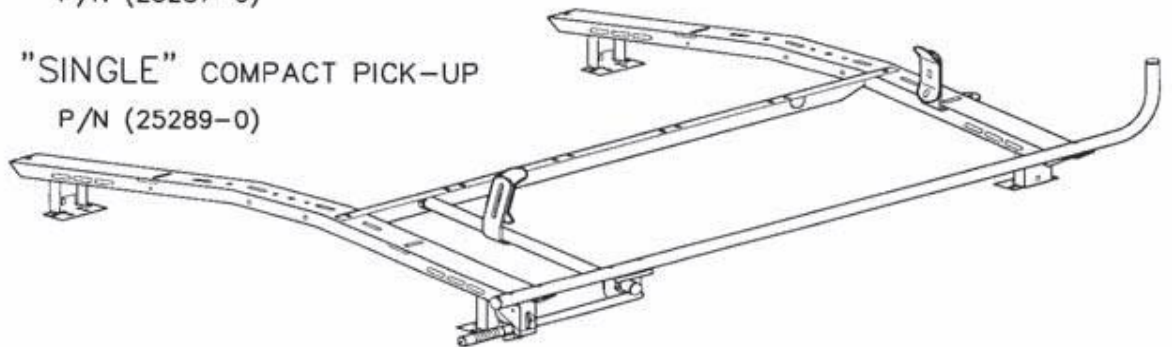
"GRIP LOCK" LADDER RACK INSTRUCTIONS

* ASSEMBLY & INSTALLATION *

5' LADDER RACKS – VENTURE & WINDSTAR MINI VAN and SHORTBED COMPACT PICK-UP

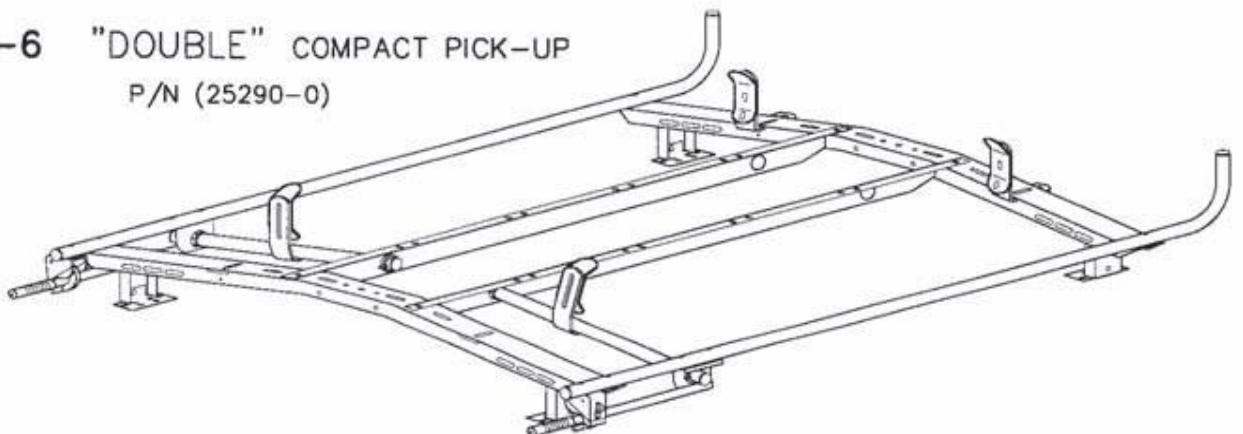
61-5 "SINGLE" VENTURE / WINDSTAR
P/N (25287-0)

61-6 "SINGLE" COMPACT PICK-UP
P/N (25289-0)



63-5 "DOUBLE" VENTURE / WINDSTAR
P/N (25288-0)

63-6 "DOUBLE" COMPACT PICK-UP
P/N (25290-0)



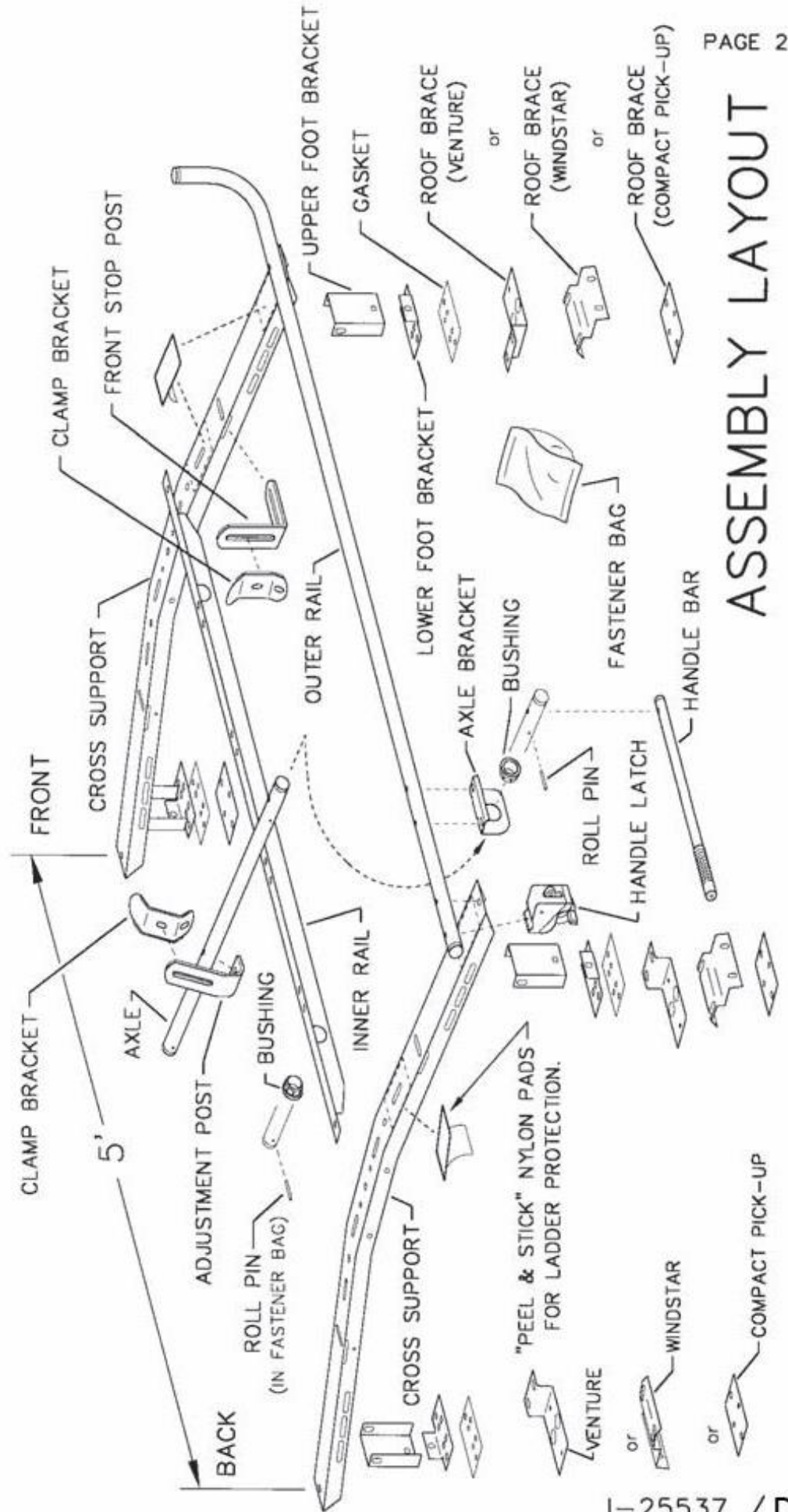
NOTE TO INSTALLER:

* THESE INSTRUCTIONS MUST BE SENT WITH THE LADDER RACK TO THE END USER ! *

BEFORE YOU BEGIN:

REFER TO THE COVER PAGE (PAGE-1), ASSEMBLY LAYOUT (PAGE-2), PARTS LIST (PAGE-3 & 4), & FASTENER TEMPLATE (PAGE-5) TO PROPERLY IDENTIFY THE PARTS IN THE BOX FOR YOUR LADDER RACK. A "SINGLE" IS SHOWN BELOW. SOME PARTS ARE DUPLICATED TO THE OTHER SIDE OF THE LADDER RACK TO MAKE A "DOUBLE" (SEE COVER PAGE).

* PLEASE READ THROUGH & FOLLOW EACH STEP CAREFULLY TO EASE THE ASSEMBLY & INSTALLATION OF YOUR LADDER RACK. * IF YOU HAVE ANY QUESTIONS OR COMMENTS PLEASE CONTACT THE DEALER YOU PURCHASED YOUR LADDER RACK FROM OR CALL US AT ADRIAN STEEL Co. (800) 677-2726 . THANK YOU FOR CHOOSING THE ADRIAN STEEL Co. "GRIP LOCK" LADDER RACK !



ASSEMBLY LAYOUT

PARTS LIST

PAGE 3

61-5 "SINGLE" VENTURE / WINDSTAR		P/N 25287-0
DESCRIPTION	QUANTITY	PART No.
FASTENER BAG (5' SINGLE LADDER RACK-MV)	1	BAGLR005-0
BUSHING (NYLON, 1-1/4" TUBE)	2	09677-0
ADJUSTMENT POST (REAR AXLE)	1	09704-0
GASKET	4	10182-0
LOWER FOOT BRACKET	4	11109-0
ROOF BRACE - WINDSTAR	4	11232-0
ROOF BRACE - VENTURE	4	23977-0
ROOF SHIM - VENTURE	4	24198-0
UPPER FOOT BRACKET	4	25268-0
OUTER RAIL (5' - MV & SBCPU)	1	25331-0
INNER RAIL (5' - MV & SBCPU)	1	25334-0
CROSS SUPPORT (58" LONG - AST, CPU, & MV)	2	25336-0
AXLE (26-3/16" LONG)	1	25337-0
AXLE BRACKET	1	25338-0
HANDLE LATCH	1	25340-0
LADDER PAD (NYLON "STICK-ON")	4	25345-0
CLAMP BRACKET (PLASTISOL COATED)	2	37515-0
HANDLE BAR	1	25410-0
FRONT STOP POST	1	25497-0

63-5 "DOUBLE" VENTURE / WINDSTAR		P/N 25288-0
DESCRIPTION	QUANTITY	PART No.
FASTENER BAG (5' DOUBLE LADDER RACK-MV)	1	BAGLR006-0
BUSHING (NYLON, 1-1/4" TUBE)	4	09677-0
ADJUSTMENT POST (REAR AXLE)	2	09704-0
GASKET	4	10182-0
LOWER FOOT BRACKET	4	11109-0
ROOF BRACE - WINDSTAR	4	11232-0
ROOF BRACE - VENTURE	4	23977-0
ROOF SHIM - VENTURE	4	24198-0
UPPER FOOT BRACKET	4	25268-0
OUTER RAIL (5' - MV & SBCPU)	2	25331-0
INNER RAIL (5' - MV & SBCPU)	2	25334-0
CROSS SUPPORT (58" LONG - AST, CPU, & MV)	2	25336-0
AXLE (26-3/16" LONG)	2	25337-0
AXLE BRACKET	2	25338-0
HANDLE LATCH	2	25340-0
LADDER PAD (NYLON "STICK-ON")	8	25345-0
CLAMP BRACKET (PLASTISOL COATED)	4	37515-0
HANDLE BAR	2	25410-0
FRONT STOP POST	2	25497-0

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PARTS LIST

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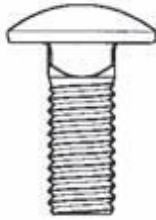
61-6 "SINGLE" SHORTBED COMPACT PICK-UP P/N 25289-0		
DESCRIPTION	QUANTITY	PART No.
FASTENER BAG (5' SINGLE LADDER RACK-CPU)	1	BAGLR007-0
BUSHING (NYLON, 1-1/4" TUBE)	2	09677-0
ADJUSTMENT POST (REAR AXLE)	1	09704-0
ROOF BRACE	4	10181-0
GASKET	4	10182-0
LOWER FOOT BRACKET	4	11109-0
UPPER FOOT BRACKET	4	25268-0
OUTER RAIL (5' - MV & SBCPU)	1	25331-0
INNER RAIL (5' - MV & SBCPU)	1	25334-0
CROSS SUPPORT (58" LONG - AST, CPU, & MV)	2	25336-0
AXLE (26-3/16" LONG)	1	25337-0
AXLE BRACKET	1	25338-0
HANDLE LATCH	1	25340-0
LADDER PAD (NYLON "STICK-ON")	4	25345-0
CLAMP BRACKET (PLASTISOL COATED)	2	37515-0
HANDLE BAR	1	25410-0
FRONT STOP POST	1	25497-0

63-6 "DOUBLE" SHORTBED COMPACT PICK-UP P/N 25290-0		
DESCRIPTION	QUANTITY	PART No.
FASTENER BAG (5' DOUBLE LADDER RACK-CPU)	1	BAGLR008-0
BUSHING (NYLON, 1-1/4" TUBE)	4	09677-0
ADJUSTMENT POST (REAR AXLE)	2	09704-0
ROOF BRACE	4	10181-0
GASKET	4	10182-0
LOWER FOOT BRACKET	4	11109-0
UPPER FOOT BRACKET	4	25268-0
OUTER RAIL (5' - MV & SBCPU)	2	25331-0
INNER RAIL (5' - MV & SBCPU)	2	25334-0
CROSS SUPPORT (58" LONG - AST, CPU, & MV)	2	25336-0
AXLE (26-3/16" LONG)	2	25337-0
AXLE BRACKET	2	25338-0
HANDLE LATCH	2	25340-0
LADDER PAD (NYLON "STICK-ON")	8	25345-0
CLAMP BRACKET (PLASTISOL COATED)	4	37515-0
HANDLE BAR	2	25410-0
FRONT STOP POST	2	25497-0

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FASTENER TEMPLATE



1" CARRIAGE BOLT
P/N FAS0102
(ASSEMBLY/INSTALLATION)



2" CARRIAGE BOLT
P/N FAS0184
(AXLE)



1-3/4" CARRIAGE BOLT
P/N FAS0204
(OUTER RAIL)



1" HEX HEAD BOLT
P/N FAS0078
(INSTALLATION)
"WINDSTAR ONLY"



2" HEX HEAD BOLT
P/N FAS0080
(TO SET PLUSNUT)
"WINDSTAR ONLY"

HANDLE BAR FASTENERS

2-1/4" SHOULDER BOLT
P/N 17976-0

1/4" FLAT WASHER
P/N FAS0124

NYLON WASHER
P/N 10103-0

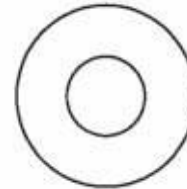
1/4" LOCK NUT
P/N FAS0058



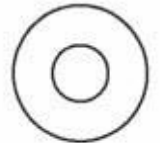
3/8" LOCK NUT
P/N FAS0110
(ASSEMBLY)



1-7/8" CARRIAGE BOLT
P/N FAS0239
(OUTER RAIL-HANDLE LATCH)



3/8" WASHER
P/N FAS0104
(TYPICAL ASSEMBLY)



1/4" WASHER
P/N FAS0067
(INSTALLATION)
"WINDSTAR ONLY"



3/8" FLANGE NUT
P/N FAS0100
(TYPICAL ASSEMBLY)



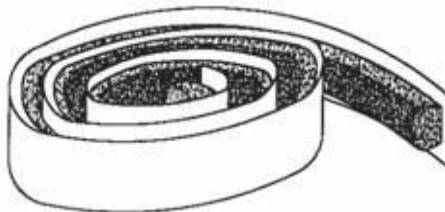
1/4" PLUSNUT
P/N FAS0052
(INSTALLATION)
"WINDSTAR ONLY"



3/4" SCREW
P/N FAS0041
(INSTALLATION)
"VENTURE ONLY"



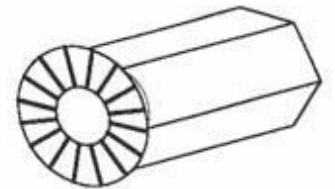
1/4" LOCK WASHER
P/N FAS0060
(INSTALLATION)
"VENTURE and WINDSTAR ONLY"



BUTYLE TAPE - BLACK
P/N 05586-0
(BOLT HEAD)



ROLL PIN 1-3/4"
P/N FAS0212
(AXLE)



PLUSNUT SETTING TOOL
P/N 22200-0
(INSTALLATION)
"WINDSTAR ONLY"

ASSEMBLY

TOOLS NEEDED:

- 9/16 WRENCH or 9/16 DEEPWELL SOCKET with RATCHET
- 7/16 WRENCH or 7/16 DEEPWELL SOCKET with RATCHET
- 1/8 ALLEN WRENCH
- HAMMER
- PHILLIPS HEAD SCREW DRIVER (for VENTURE vans only)
- 90° ANGLE or SQUARE
- TAPE MEASURE
- DRILL
- 13/32 DRILL BIT (for WINDSTAR vans only)
- 3/8 DRILL BIT

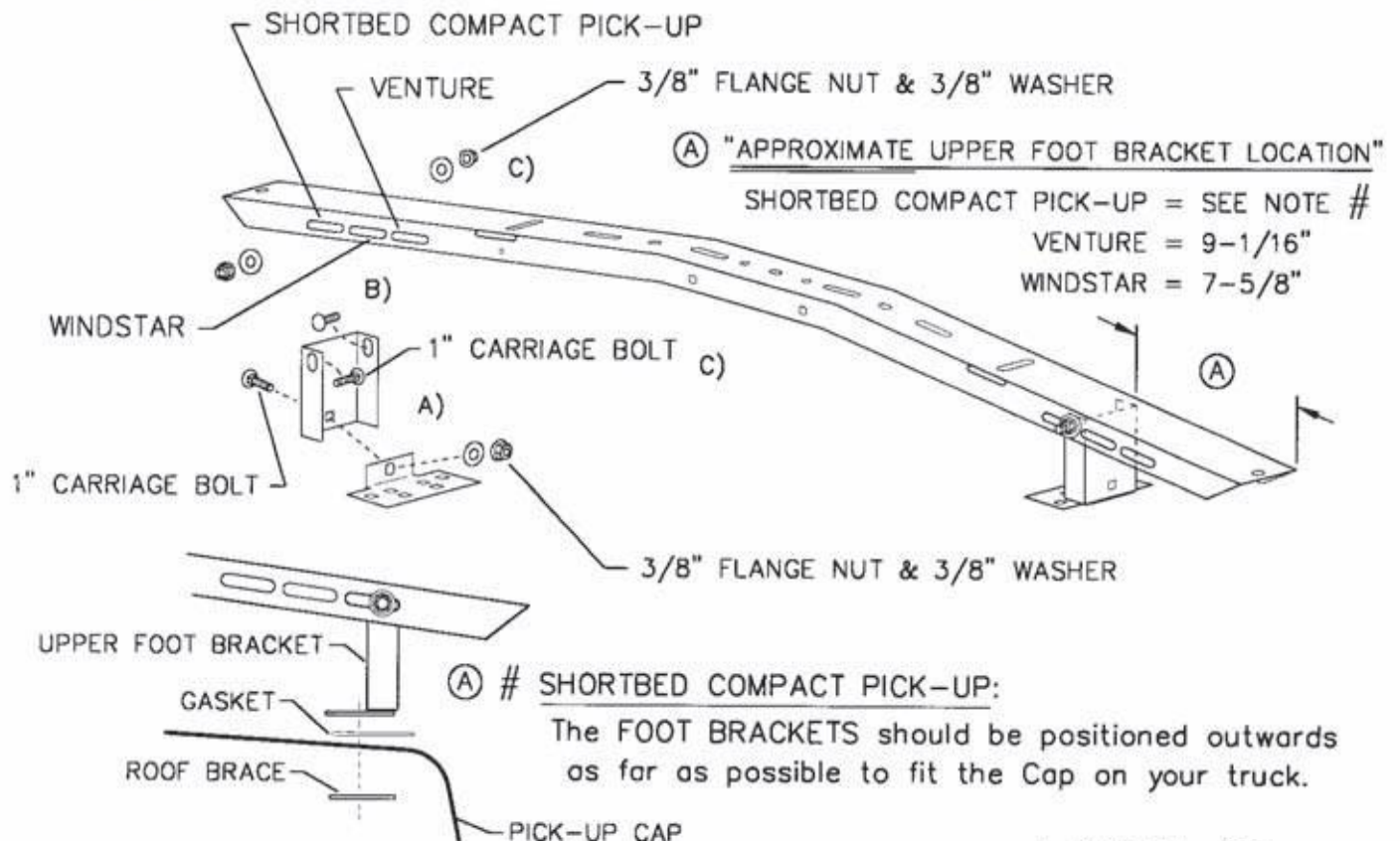
*** USE THE "ASSEMBLY LAYOUT" ON PAGE-2 AS A GUIDE TO HELP IDENTIFY AND PLACE PARTS THROUGHOUT THE ASSEMBLY.**

STEP-1 (TOOLS: 9/16 wrench or deepwell socket & ratchet, tape measure.)

- A) Attach the LOWER FOOT BRACKET to the UPPER FOOT BRACKET with a 1" CARRIAGE BOLT, 3/8" WASHER, & 3/8" FLANGE NUT and tighten firmly. "Do this with all the foot brackets."
SEE ILLUSTRATION BELOW.
- B) Layout both CROSS SUPPORTS approximately 5 feet apart & insert the FOOT BRACKETS into them.
- C) Next attach the UPPER FOOT BRACKETS using 1" CARRIAGE BOLT, 3/8" WASHER, & 3/8" FLANGE NUT for each slot in the UPPER FOOT BRACKETS. (FINGER TIGHTEN ONLY !)

*** REFER TO THE "FASTENER TEMPLATE" ON PAGE-5 TO MATCH UP FASTENERS.**

"DO NOT TIGHTEN UPPER FOOT BRACKET FASTENERS YET !"



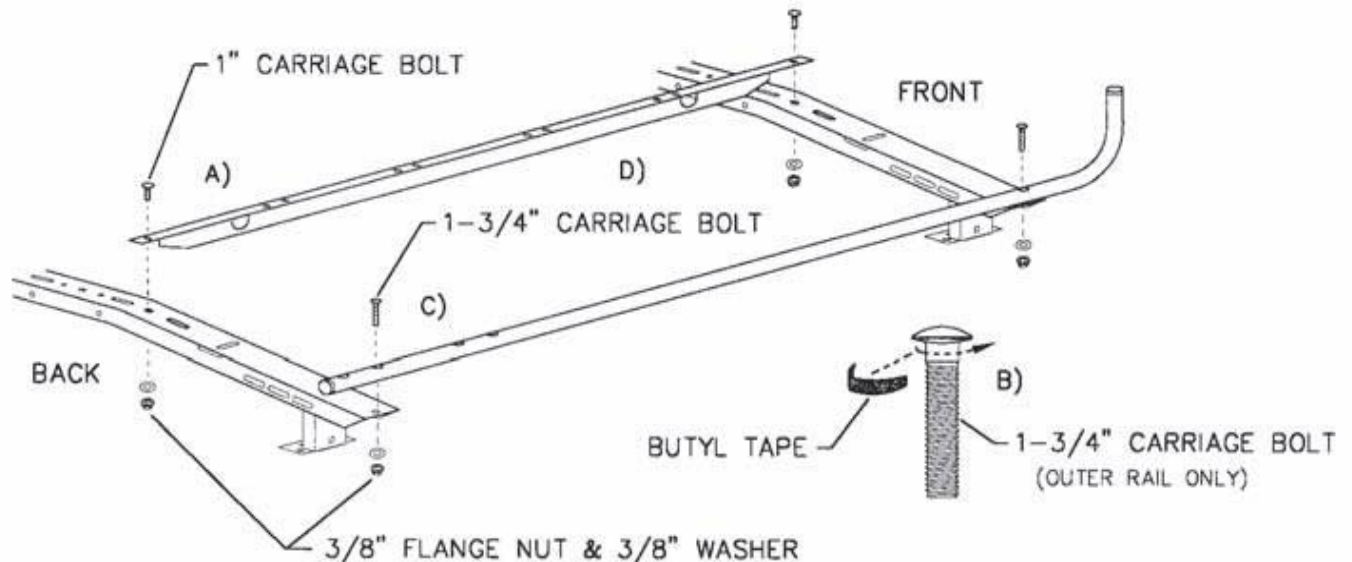
ASSEMBLY

STEP-2 (TOOLS: 9/16 wrench or deepwell socket & ratchet, 90° angle or square.)

- A) Attach the INNER RAIL to the front and back CROSS SUPPORTS using 1" CARRIAGE BOLT, 3/8" WASHER, & 3/8" FLANGE NUT (FINGER TIGHTEN ONLY). SEE ILLUSTRATION BELOW.
- B) Next peel off approximately 1/4" of BUTYL TAPE (see "FASTENER TEMPLATE") and evenly wrap it around the bottom side of each 1-3/4" CARRIAGE BOLT head to seal holes in the OUTER RAIL.
- C) Next attach the OUTER RAIL to the front and rear CROSS SUPPORTS using 1-3/4" CARRIAGE BOLT, 3/8" WASHER, & 3/8" FLANGE NUT (FINGER TIGHTEN ONLY).

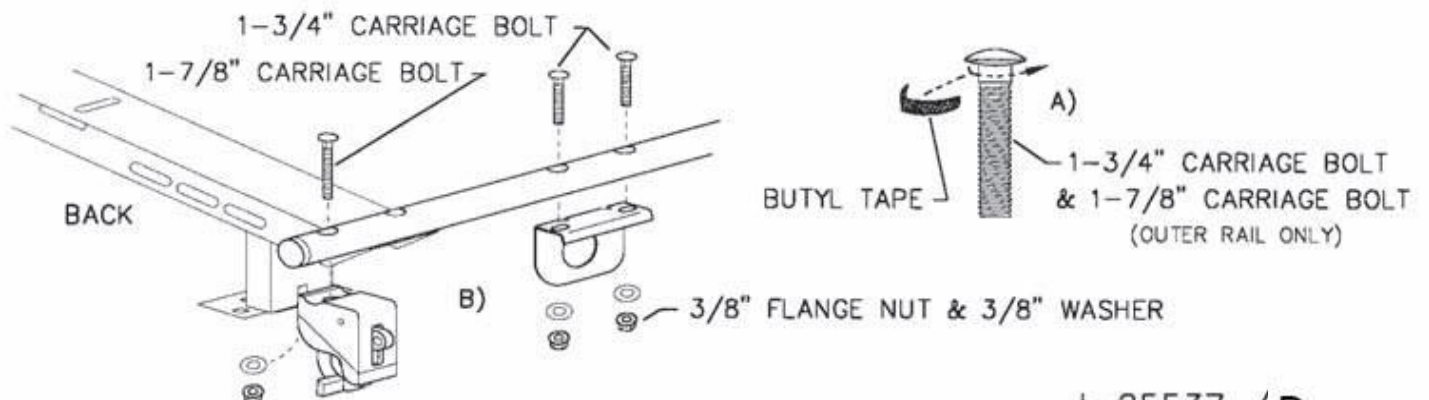
* REFER TO THE "FASTENER TEMPLATE" ON PAGE-5 TO MATCH UP FASTENERS.

- D) Now square the assembly (INNER RAIL to CROSS SUPPORTS & OUTER RAIL to CROSS SUPPORTS) with a 90° angle or square and firmly tighten the OUTER RAIL & INNER RAIL fasteners.



STEP-3 (TOOLS: 9/16 wrench.)

- A) Peel off approximately 1/4" of BUTYL TAPE (see "FASTENER TEMPLATE") and evenly wrap it around the bottom side of each 1-3/4" & 1-7/8" CARRIAGE BOLT head to seal holes in the OUTER RAIL.
- B) Attach the HANDLE LATCH and the AXLE BRACKET to the OUTER RAIL using 1-3/4" & 1-7/8" CARRIAGE BOLT, 3/8" WASHER, & 3/8" FLANGE NUT (FIRMLY TIGHTEN). SEE ILLUSTRATION BELOW.

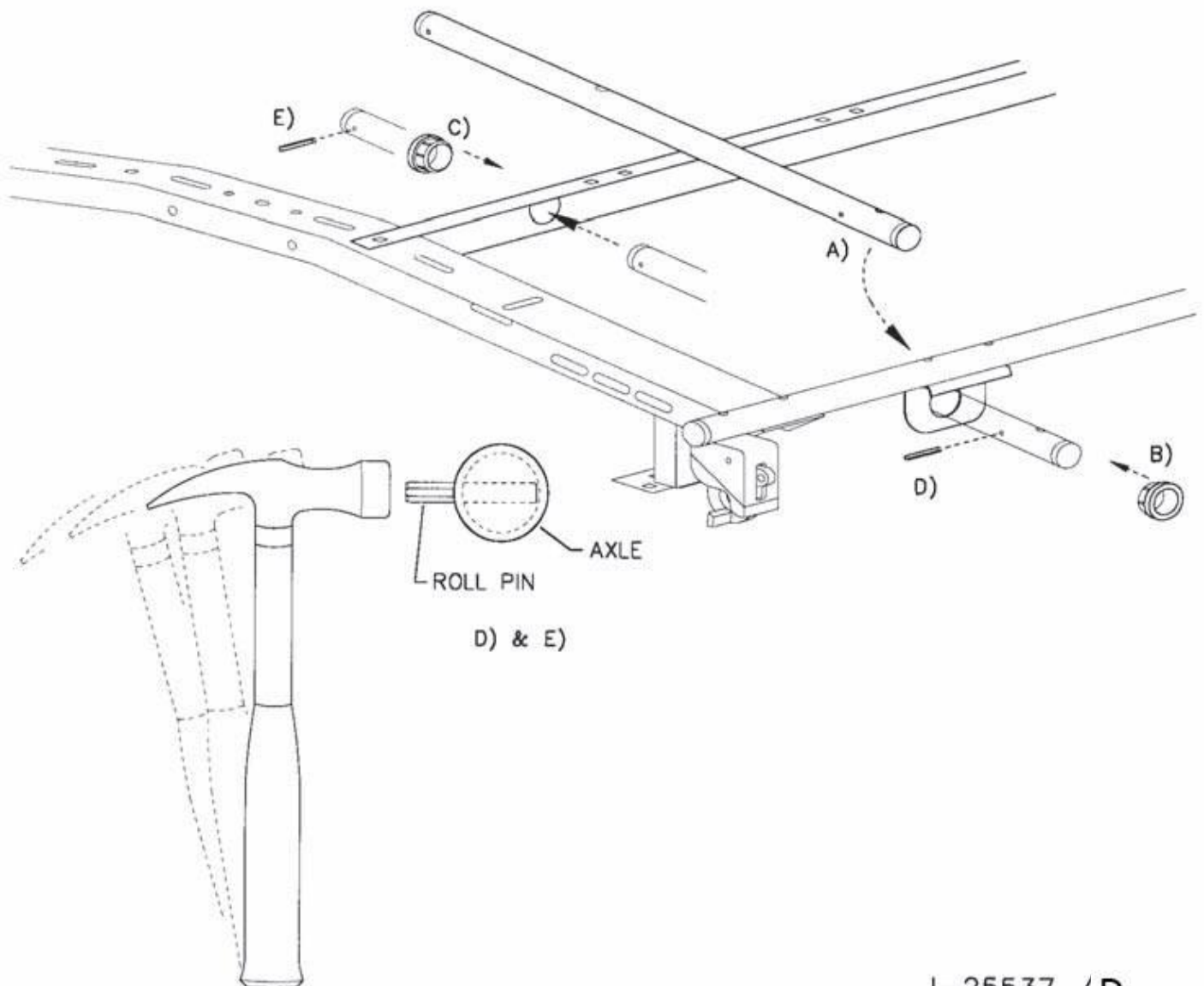


ASSEMBLY

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STEP-4 (TOOLS: Hammer.)

- A) Insert the AXLE through the hole in the AXLE BRACKET. ****IMPORTANT:** this end of the AXLE should have 3 holes in it ! ****** SEE ILLUSTRATION BELOW.
- B) Next slide a BUSHING over the end of the AXLE and press the BUSHING flush into the hole in the AXLE BRACKET.
- C) Now press the other BUSHING into the adjacent hole in the INNER RAIL and slide the other end of the AXLE through that BUSHING. SEE ILLUSTRATION BELOW.
- D) Firmly tap a ROLL PIN into the smaller hole at the end of the AXLE that is in the AXLE BRACKET until the ROLL PIN stops inside of the AXLE. ****TIP:** partially slide the AXLE back out to allow enough clearance to safely swing hammer and prevent damage to parts. ******
- E) Now slide the AXLE all the way back in and tap the other ROLL PIN into the opposite end of the AXLE that goes through the INNER RAIL until the ROLL PIN stops inside of the AXLE. ****TIP:** rotate the axle around to provide better access to the roll pin hole. ******

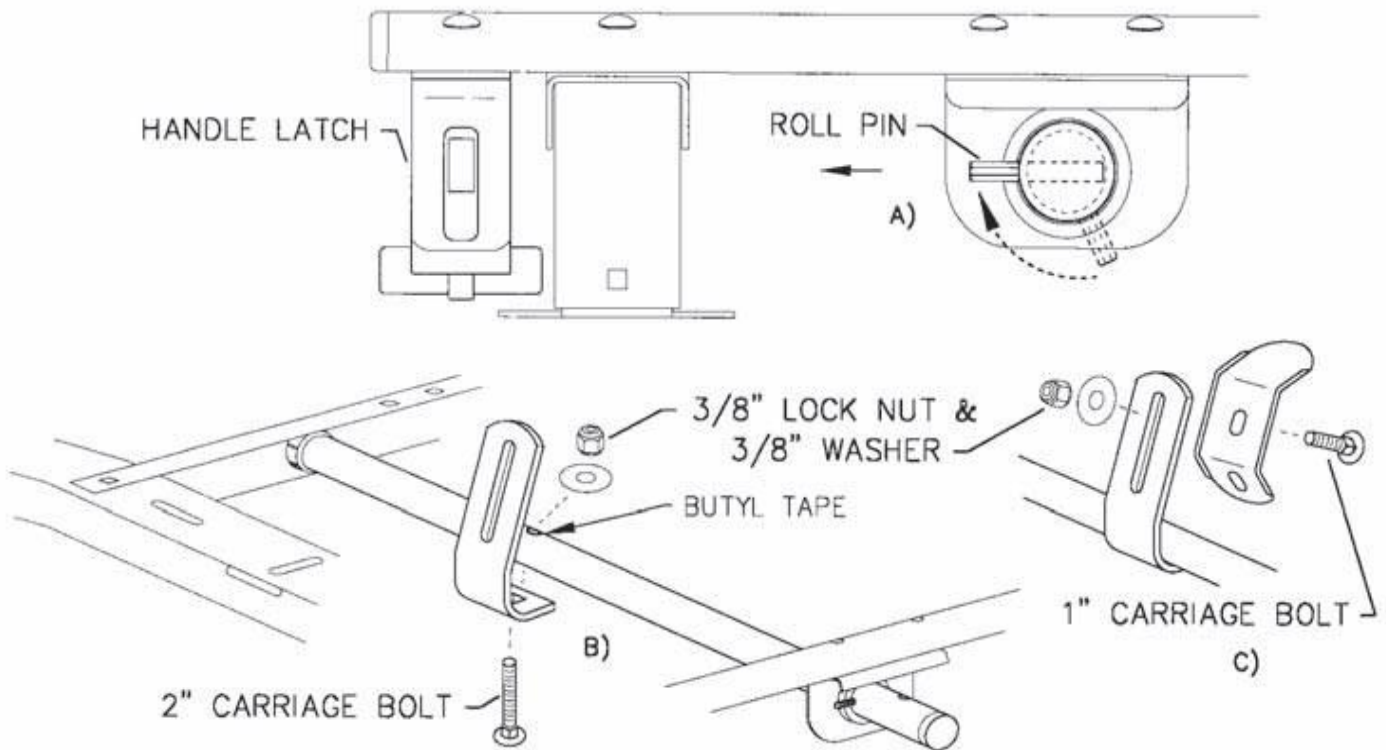


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ASSEMBLY

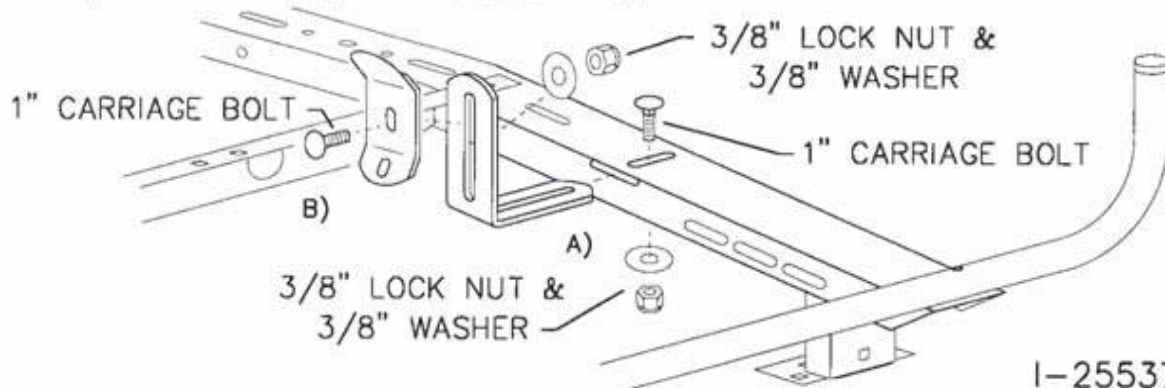
STEP-5 (TOOLS: 9/16 wrench or deepwell socket & ratchet.)

- A) Rotate the AXLE until the ROLL PIN points towards the HANDLE LATCH. SEE ILLUSTRATION BELOW.
- B) Keeping the AXLE rotated this way attach the ADJUSTMENT POST to the AXLE using a 2" CARRIAGE BOLT, 3/8" WASHER, & 3/8" LOCK NUT. ****NOTE:** once the 2" CARRIAGE BOLT is inserted through the ADJUSTMENT POST and the AXLE seal the hole in the AXLE around the bolt with BUTYLE TAPE before putting the 3/8" WASHER & 3/8" LOCKNUT on. **** (TIGHTEN FIRMLY).**
- C) Next attach a CLAMP BRACKET to the ADJUSTMENT POST using 1" CARRIAGE BOLT, 3/8" WASHER, & 3/8" LOCK NUT. (DO NOT TIGHTEN YET !) SEE ILLUSTRATION BELOW.



STEP-6 (TOOLS: 9/16 wrench or deepwell socket & ratchet.)

- A) Insert the FRONT STOP POST into the front CROSS SUPPORT and attach with 1" CARRIAGE BOLT, 3/8" WASHER, & 3/8" LOCK NUT. (DO NOT TIGHTEN YET !) SEE ILLUSTRATION BELOW.
- B) Attach a CLAMP BRACKET to the FRONT STOP POST using 1" CARRIAGE BOLT, 3/8" WASHER, & 3/8" LOCK NUT. (DO NOT TIGHTEN YET !)



ASSEMBLY

STEP-7 (TOOLS: 1/8 allen wrench, 7/16 wrench or deepwell socket & ratchet.)

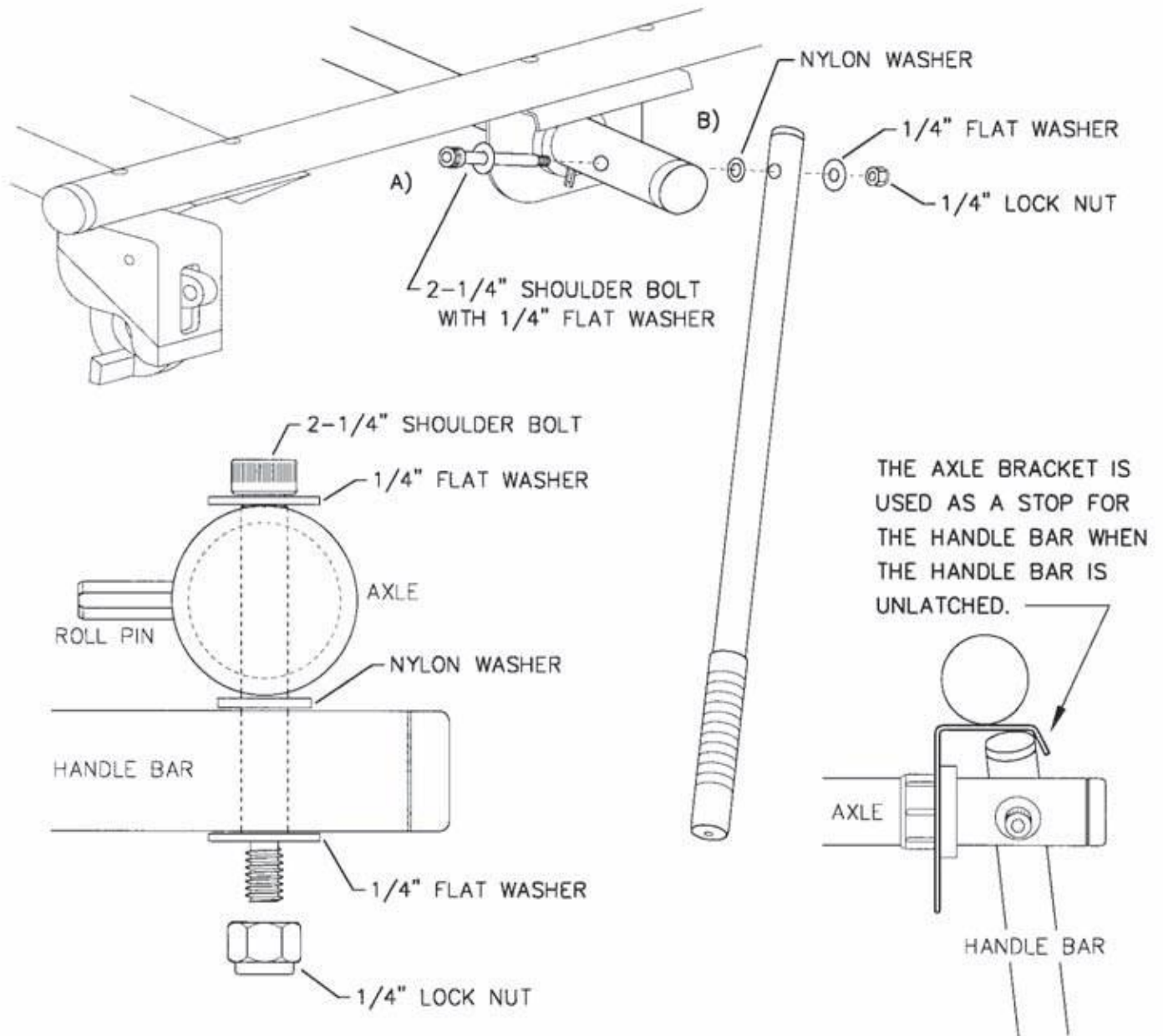
A) Insert the 2-1/4" SHOULDER BOLT through a 1/4" FLAT WASHER and then through the AXLE. SEE ILLUSTRATION BELOW.

NOTE: the head of the SHOULDER BOLT should face up once the HANDLE BAR is attached.

* REFER TO THE "FASTENER TEMPLATE" ON PAGE-5 TO MATCH UP FASTENERS.

B) Next insert a NYLON WASHER over the SHOULDER BOLT and then attach the HANDLE BAR to the AXLE followed with another 1/4" FLAT WASHER and a 1/4" LOCK NUT. (TIGHTEN SNUG ONLY).

NOTE: The NYLON WASHER should be between the AXLE and the HANDLE BAR.



NOW YOU SHOULD BE READY TO INSTALL YOUR LADDER RACK ON YOUR VEHICLE.

INSTALLATION

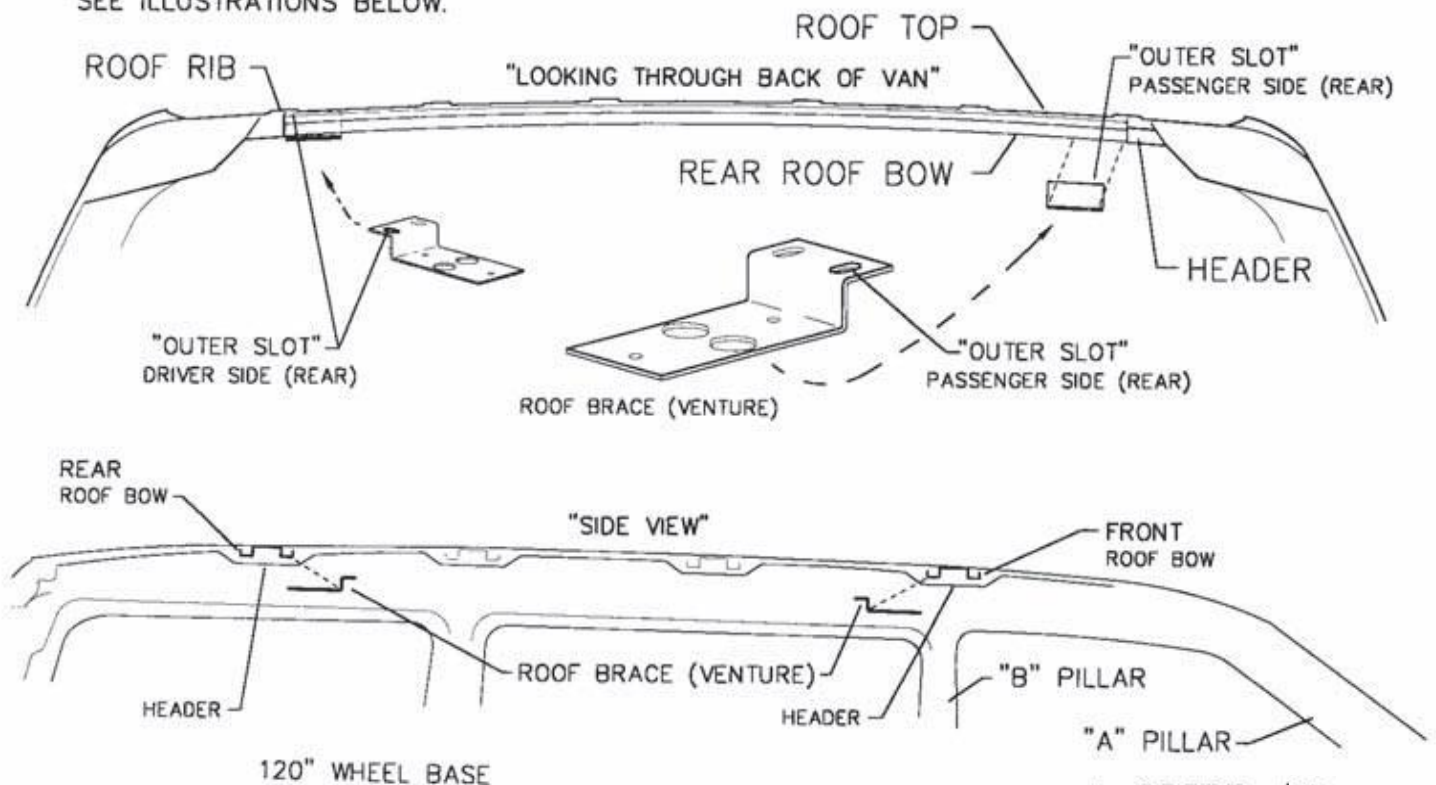
VENTURE MINI VANS

STEP-1

- A) To provide access to the "roof bow" you will be working with you must take down the headliner in your van. First remove the "A" and "B" pillar trim pieces then the upper sliding door track trim. SEE BOTTOM ILLUSTRATION BELOW.
- B) Next disconnect the dome light wires located on the lower half of the "B" pillar on the passenger side.
- C) Next remove the sun viser brackets, all coat hooks, and the grab handle (if present) in the headliner.
- D) Next carefully remove the plastic push plugs (to be put back in later) in the back portion of the headliner.
- E) Now up by the dome light hole carefully pull the headliner down until the fastening clip is detached from the overhead brace above the headliner.
- F) Now carefully remove the headliner from the van through the rear hatch door.

STEP-2

- A) Working from inside the van place a ROOF BRACE (VENTURE) flush up against the front and rear roof bows & flush side to side against the header in the van and mark the "outer slots".
- NOTE: ROOF BRACES must face each other from front to back as shown in the bottom illustration. ••
SEE ILLUSTRATIONS BELOW.

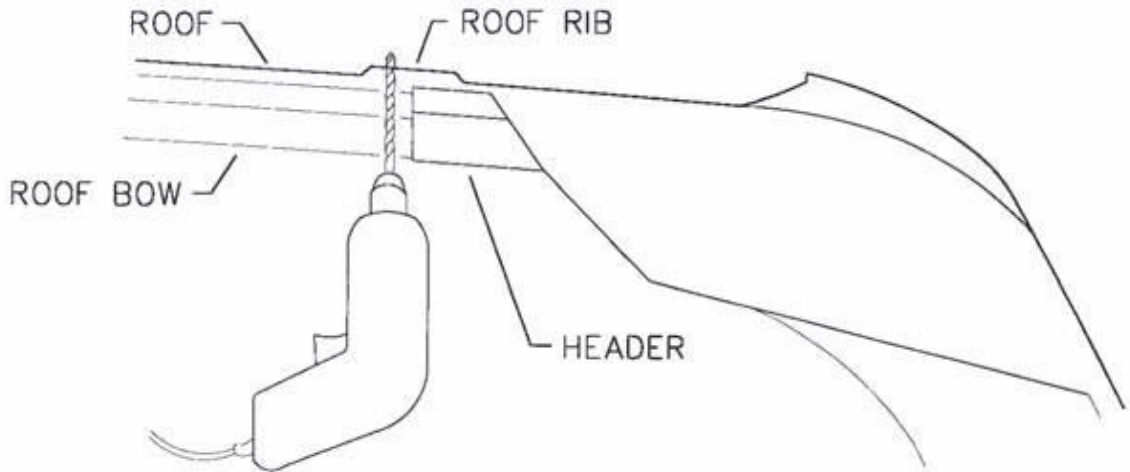


INSTALLATION

VENTURE MINI VANS

STEP-3 (TOOLS: Safety glasses, drill, 3/8 drill bit.)

- A) Working from inside the van drill a 3/8" diameter hole through the roof at each place you just marked. The holes you drill should go through a "roof rib" in the roof. SEE ILLUSTRATION BELOW.
- ** TIP: Use the ROOF BRACE as a template to drill holes as used to mark holes in STEP-2. **
 - * Clean up any burrs from the holes you drill & any shavings from the interior & roof of the van. *



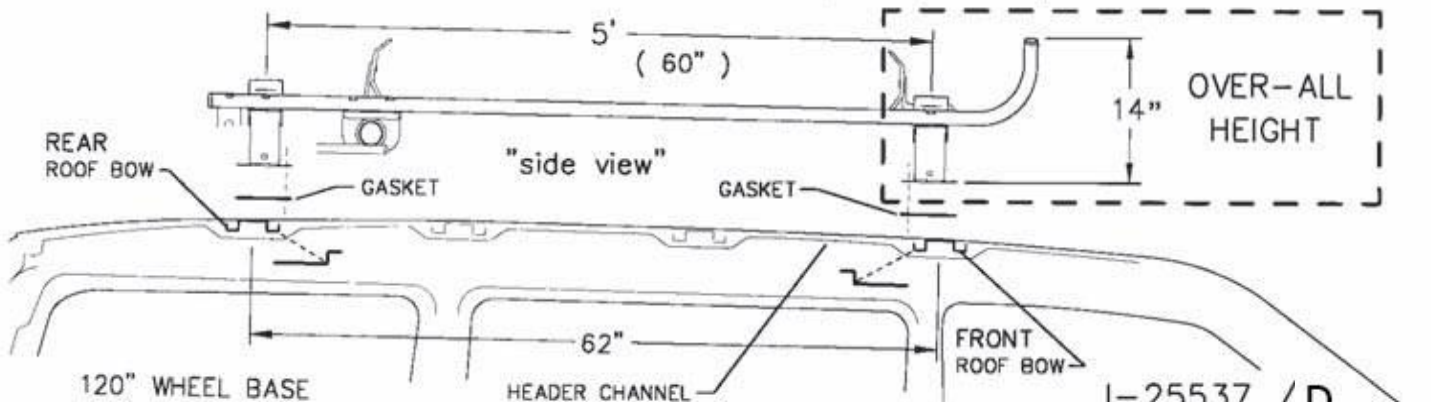
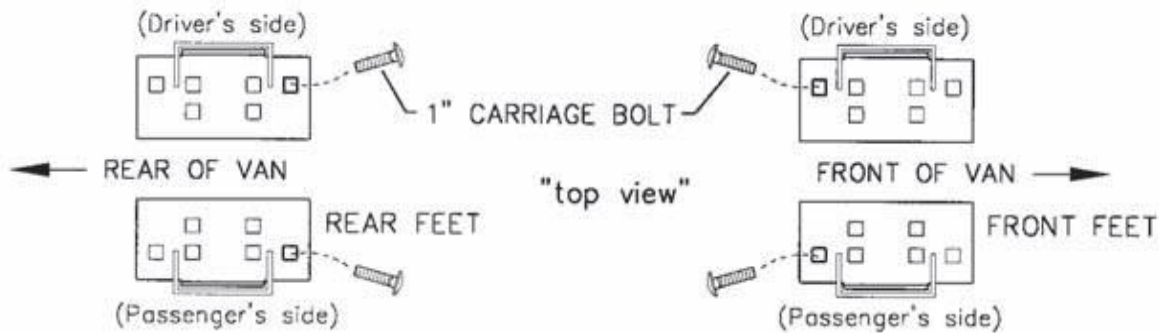
STEP-4

- A) Carefully set the ladder rack on top of your van with a GASKET under each foot and align the "highlighted holes" in the feet & gaskets with the holes you just drilled, and then insert a 1" CARRIAGE BOLT into each hole to position the ladder rack on top of the van.

* REFER TO THE "FASTENER TEMPLATE" ON PAGE-5 TO MATCH UP FASTENERS.

SEE THE ILLUSTRATIONS BELOW.

* **CAUTION:** AT LEAST TWO OR MORE PEOPLE ARE RECOMMENDED TO SET THE LADDER RACK ON TOP OF THE VEHICLE FOR SAFETY AND TO PROTECT VEHICLE ROOF. *



INSTALLATION

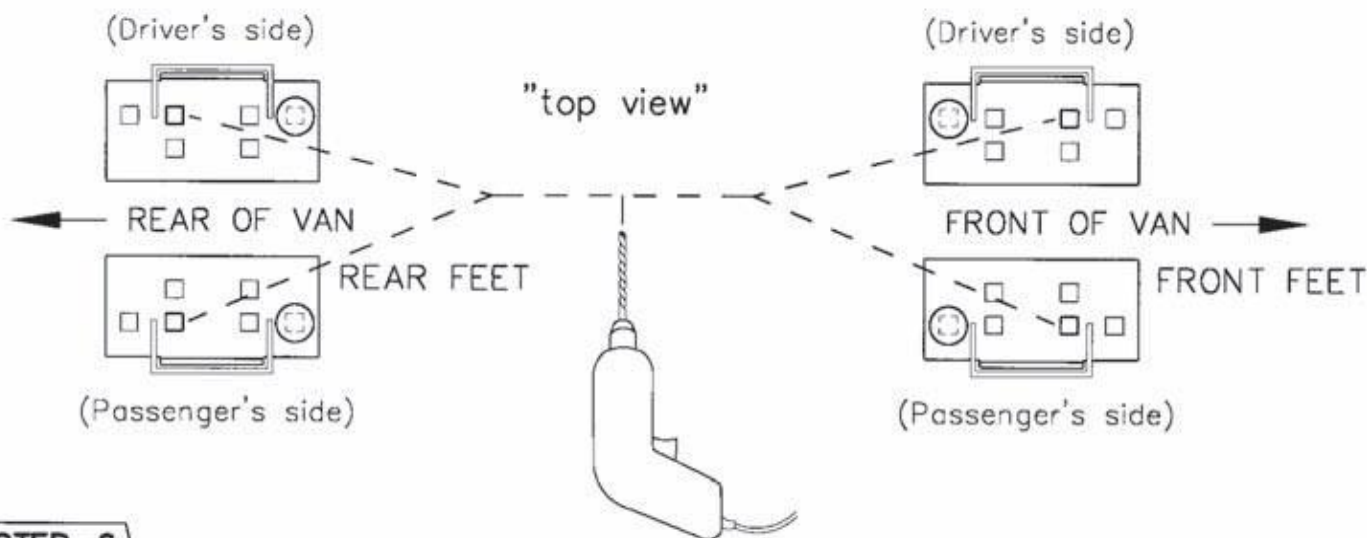
VENTURE MINI VANS

STEP-5 (TOOLS: Safety glasses, drill, 3/8 drill bit.)

A) With the ladder rack now positioned mark the "highlighted holes" shown below, then remove the 1" CARRIAGE BOLTS and carefully move the ladder rack with the GASKETS out of the way just enough to allow you room to drill the holes you just marked. SEE ILLUSTRATION BELOW.

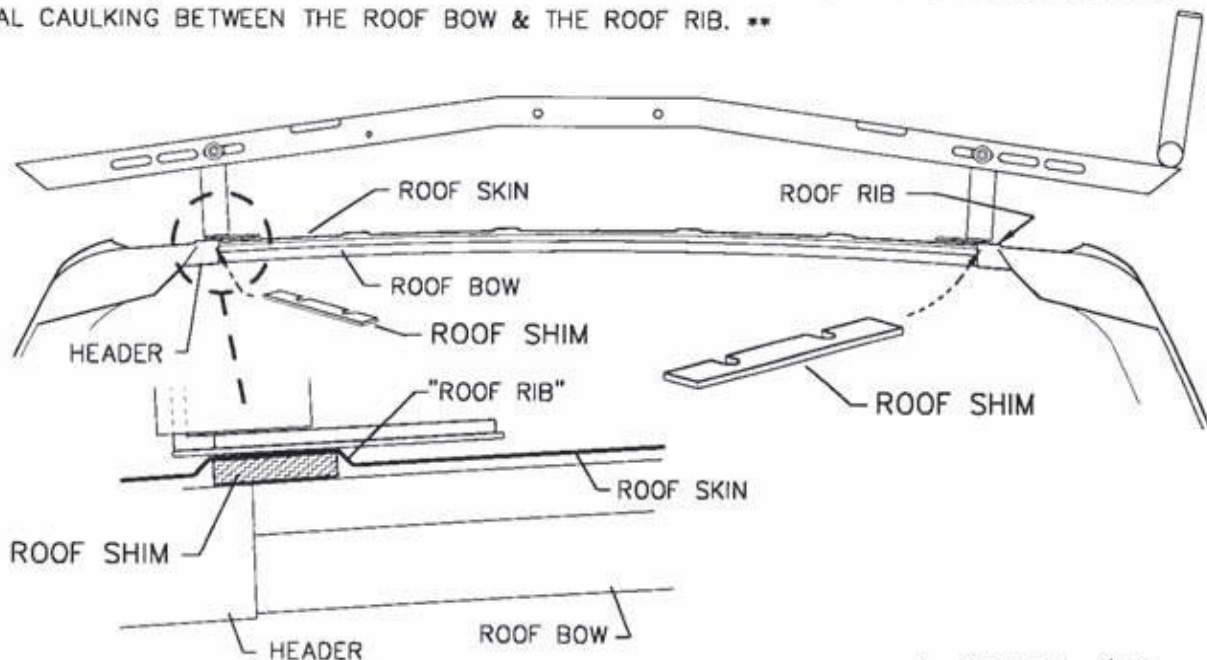
B) Now drill a 3/8" diameter hole at the marks you just made.

* Clean up any burrs from the holes you drill & any shavings from the interior & roof of the van. *



STEP-6

A) From inside of the van insert a ROOF SHIM (VENTURE) up into the "roof ribs" where you drilled and align the slots in the ROOF SHIM with those holes. (The open end of the slots should face the center of the van.) ** YOU MAY NEED TO FIRMLY TAP THE ROOF SHIM INTO PLACE REMOVING ANY SEAL CAULKING BETWEEN THE ROOF BOW & THE ROOF RIB. **



INSTALLATION

VENTURE MINI VANS

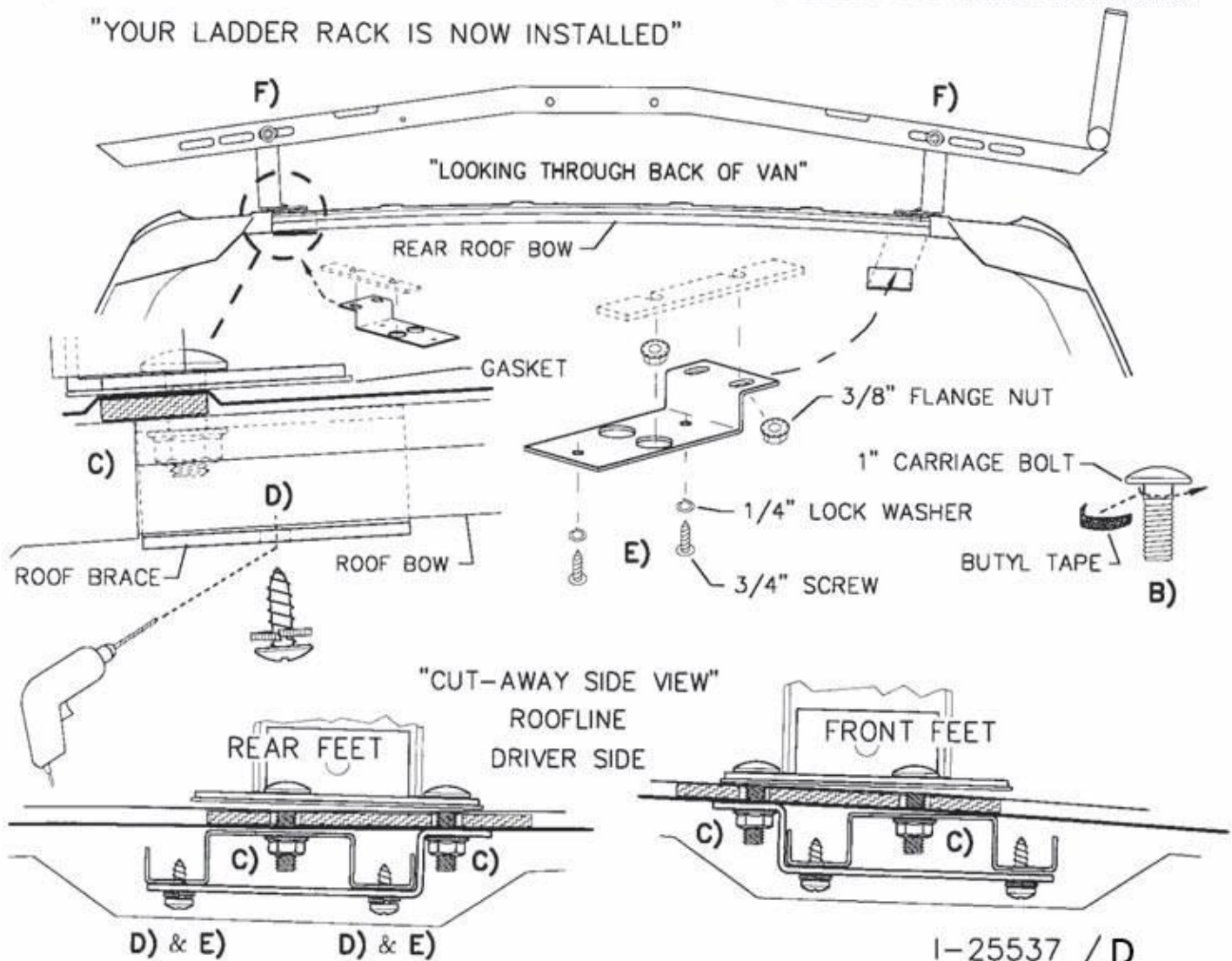
STEP-7 (TOOLS: 9/16 deepwell socket & ratchet, safety glasses, drill, 3/16 drill bit, & phillips head screw driver.)

- A) Reposition the ladder rack over the holes you drilled aligning the foot holes with the gasket holes and the holes in the roof. • **NOTE:** The GASKETS should lie under the feet and on top of the roof. •
- B) Wrap a 1/2" piece of BUTYL TAPE around the bottom of the head of each 1" CARRIAGE BOLT used in the feet and then insert these bolts into each hole in the feet that are aligned with the holes drilled in the roof.

* REFER TO THE "FASTENER TEMPLATE" ON PAGE-5 TO MATCH UP FASTENERS.

- C) Now from the inside of the van attach a ROOF BRACE to each location using a 3/8" FLANGE NUT to each bolt inserted through the roof. "TIGHTEN FIRMLY".
- D) Next using the small holes in the ROOF BRACE as a guide drill a 3/16" hole through the lower flange of the roof bow. CAUTION: "DRILL THROUGH THIS FLANGE ONLY, DO NOT DRILL THROUGH ROOF !" • Clean up any burrs from the holes you drill & any shavings from the interior & roof of the van. •
- E) Next install the 3/4" SCREWS to each of the small holes in the ROOF BRACE. "TIGHTEN FIRMLY".
- F) Now "FIRMLY TIGHTEN" all the UPPER FOOT fasteners on the CROSSBOW and reinstall the headliner.

"YOUR LADDER RACK IS NOW INSTALLED"



INSTALLATION

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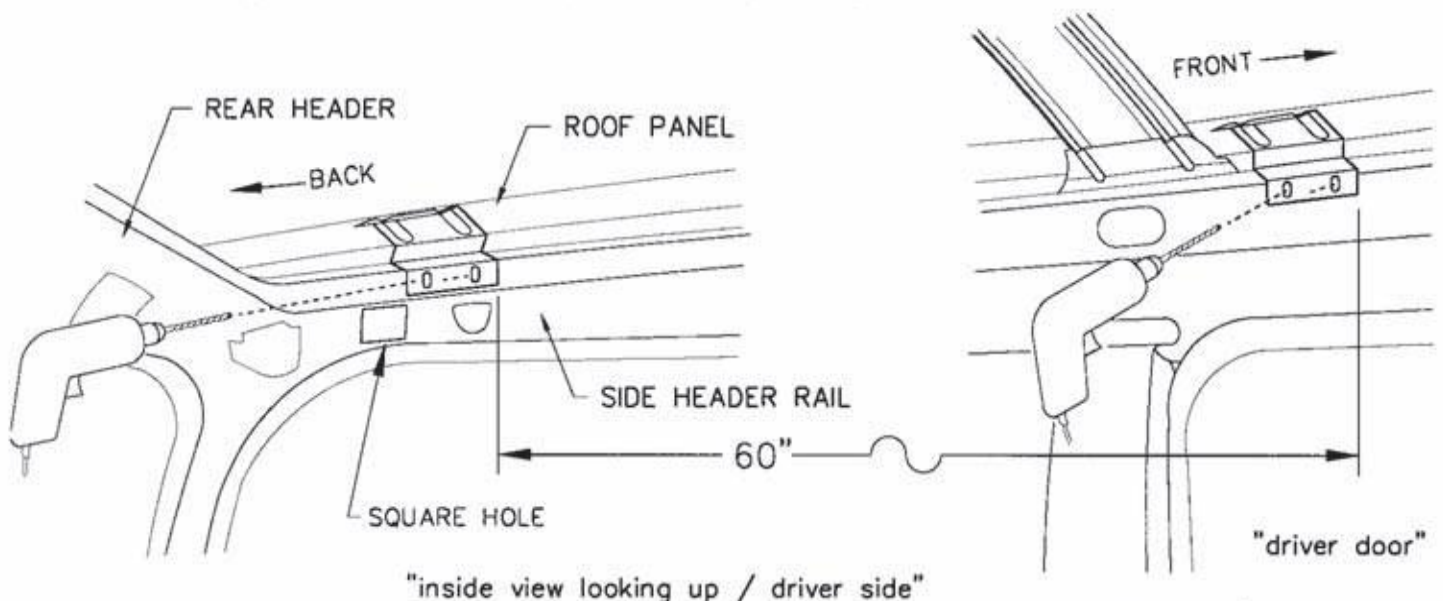
WINDSTAR MINI VANS

STEP-1 (TOOLS: Phillips screw driver.)

- A) To provide complete access to the roof header & roof panel you will be working with you must take down the headliner in the cab area of your van. First remove the dome light fixture.
 - B) Next remove the plastic trim at the rear corners of the headliner.
 - C) Now loosen the driver & passenger door trim up on the header by "popping" it off the door header.
 - D) Next remove the four screws that attach the headliner to the roof bow by the door pillars.
 - E) Now carefully remove the headliner from your van.
- "Now you should be ready to install your ladder rack."

STEP-2 (TOOLS: Safety glasses, drill, 13/32 drill bit.)

- A) From inside of the van align the back edge of a ROOF BRACE (WINDSTAR) to the forward edge of the "square hole" found in the the side header rail at the back of the van. Now place the ROOF BRACE (WINDSTAR) "flush" against the side header rail & the roof panel.
- B) Next mark the side header rail using the small slots in ROOF BRACE (WINDSTAR) as a "template". Now measure from the forward edge of the ROOF BRACE (WINDSTAR) 60" toward the front of the van and place the forward edge of another ROOF BRACE (WINDSTAR) at the 60" mark and mark the side header rail the same way as you did with the ROOF BRACE (WINDSTAR) at the back of the van. Do this for both sides of the van.
•• **NOTE:** Make sure the roof braces are positioned correctly as shown in the illustration below ! ••
SEE ILLUSTRATION BELOW WITH DRILL.
- C) Next drill a 13/32" diameter hole into the side header rail for each small slot you just marked.
CAUTION: DRILL THROUGH THE SIDE HEADER RAIL ONLY ! BE CAREFULL NOT TO DENT OR DRILL THROUGH THE OUTSIDE SKIN OF THE VAN.
• Clean up any burrs from the holes you drill & any shavings from the interior & roof of the van. •



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INSTALLATION

WINDSTAR MINI VANS

STEP-3 (TOOLS: 7/16 wrench or deepwell socket with ratchet, 9/16 open end wrench.)

A) From inside of the van set the roof braces aside and insert a 1/4" PLUSNUT into every hole you just drilled.

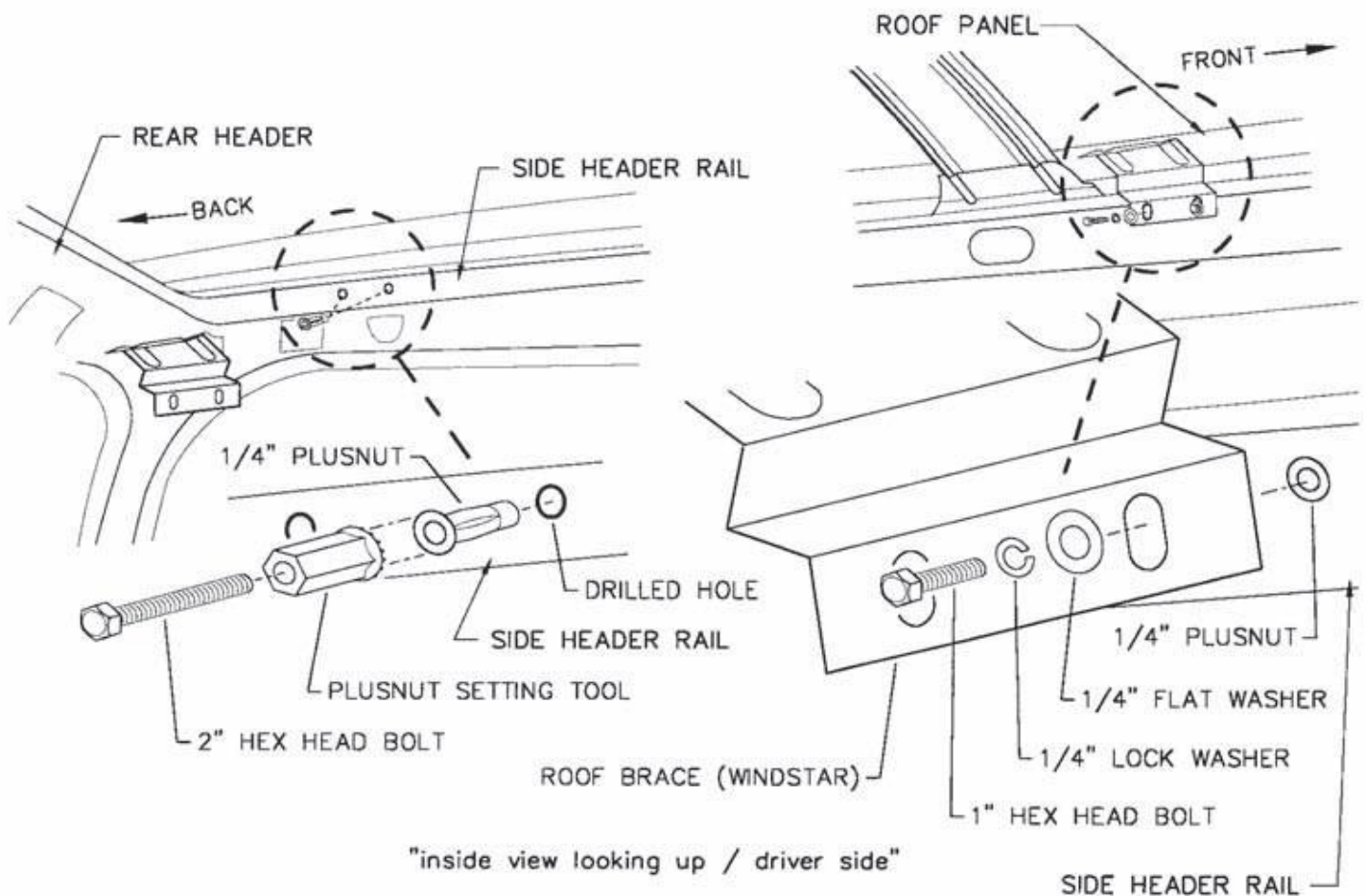
* REFER TO THE "FASTENER TEMPLATE" ON PAGE-5 TO MATCH UP FASTENERS.

B) Next insert the 2" HEX HEAD BOLT through the PLUSNUT SETTING TOOL & thread into the 1/4" PLUSNUT. Now hold the PLUSNUT SETTING TOOL in place with a 9/16" open end wrench and turn the 2" HEX HEAD BOLT with a 7/16" wrench or socket with ratchet clockwise to draw up the 1/4" PLUSNUT. Once the 1/4" PLUSNUT is drawn up tight then loosen and remove the 2" HEX HEAD BOLT & PLUSNUT SETTING TOOL and repeat for all the plusnut locations.

SEE THE NEXT PAGE FOR PLUSNUT INSTALLATION & REFER TO THE ILLUSTRATION BELOW.

C) Once all the 1/4" PLUSNUTS are all properly set then attach a ROOF BRACE (WINDSTAR) to every location using 1" HEX HEAD BOLT, 1/4" LOCK WASHER, and 1/4" WASHER. Slide each ROOF BRACE (WINDSTAR) upwards until it is "flush" to the roof panel before tightening each 1" HEX HEAD BOLT ! Now TIGHTEN FIRMLY.

** NOTE: Make sure the roof braces are positioned correctly as shown in the illustration below ! **



INSTALLATION

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WINDSTAR MINI VANS

ADRIAN STEEL COMPANY



906 JAMES STREET, ADRIAN MICHIGAN 49221, PHONE 517-265-6194
VAN/TRUCK VEHICLE INTERIOR AND FASTENER INSTALLATION PROCEDURE

A. FASTENER APPLICATION STANDARD

The proper fastening method in all cases should be good metal to metal contact, using the fasteners supplied with Adrian's prepackaged arrangements.

1. Use nut and bolt through in all locations where possible.
2. Use a plusnut in all blind locations where nut and bolt is not possible.
3. The use of sheet metal screws is discouraged, except when nut & bolt or plusnuts can not be applied, and when this type of fastener can be applied in such a manner that places it in shear, or allows for several in close formation.

B. GENERAL INTERIOR ASSEMBLY AND INSTALLATION PROCEDURE

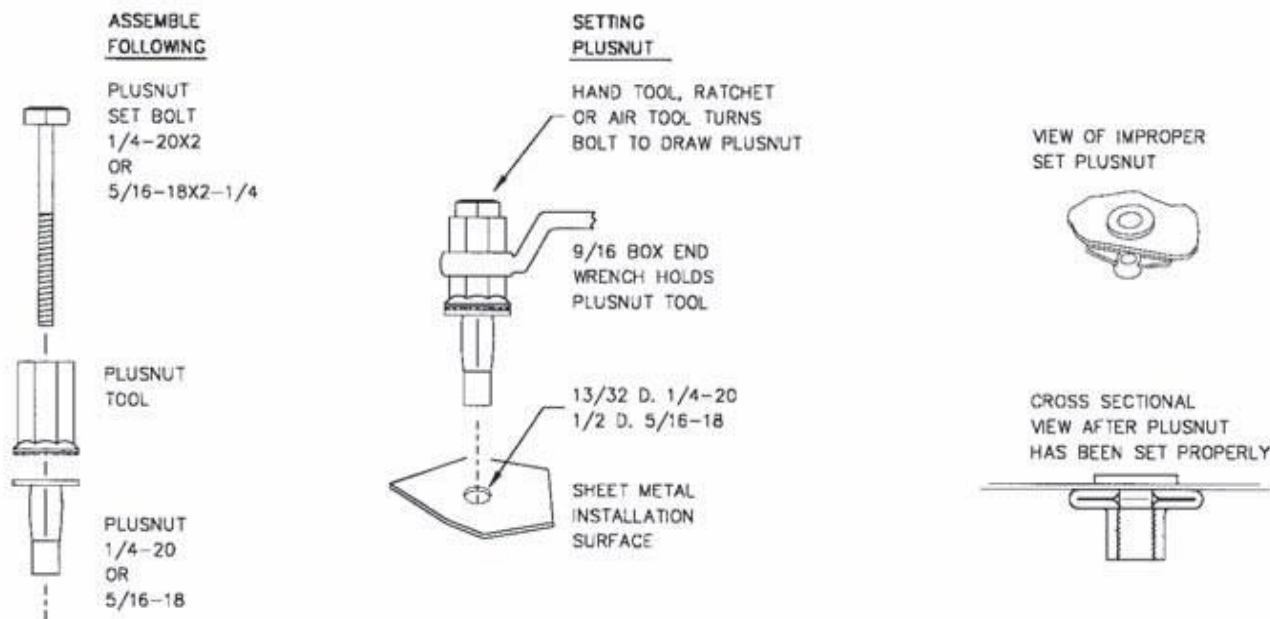
Adrian Steel interior arrangements are usually illustrated on a product data sheet which shows the correct orientation of all components in your vehicle.

1. Use the assembly instructions sent with the components to pre-assemble any that may require it, ladder racks, cab/cargo partition, knock-down units, and modules.
2. All Adrian prepackaged interiors, except those for pickup bed boxes, include a cab/cargo partition. The partition should be installed first, using the instructions packed with it.
3. Next install the street side components. If the spare is being relocated to the panel behind the drivers seat, leave at least 10" between the partition and the first component on that side. Always set all the components in place before drilling to install. This allows you to check for obstructions on the vehicle that might require adjustments to the component positioning.
4. Next install the curb side components. Relocate the spare tire, if present, to the panel behind the driver or passenger seats.

C. SPECIAL INSTRUCTIONS FOR ADRIAN STEEL PROVIDED FASTENERS

1. All holes drilled in the vehicle should have their raw metal edges sealed to resist corrosion. When and if the drilled hole could allow the entry of exhaust gases into the cab area, it should be sealed at the time the fastener is installed with Butyl or silastic material which will remain flexible for an extended period of time.
2. The blind fastener of choice is the plusnut. Adrian supplies two thread sizes, 1/4-20 and 5/16-18. The 5/16-18 is only used with mini-van polyguard partitions, floor only. After locating all positions that will need the plusnut, drill the proper size hole for the plusnut to be used. 1/4-20 uses 3/8" dia. (all locations) 5/16-18 uses 1/2 dia. (floor only). The illustration below shows the sequence used to set a plusnut.

Plusnut Use and Installation



Hand operated and pneumatic tools are available to set plusnuts. Refer to Mc Masters Carr or similar industrial catalog under rivet nut insert tools, or call Adrian Steel Co. for more information.

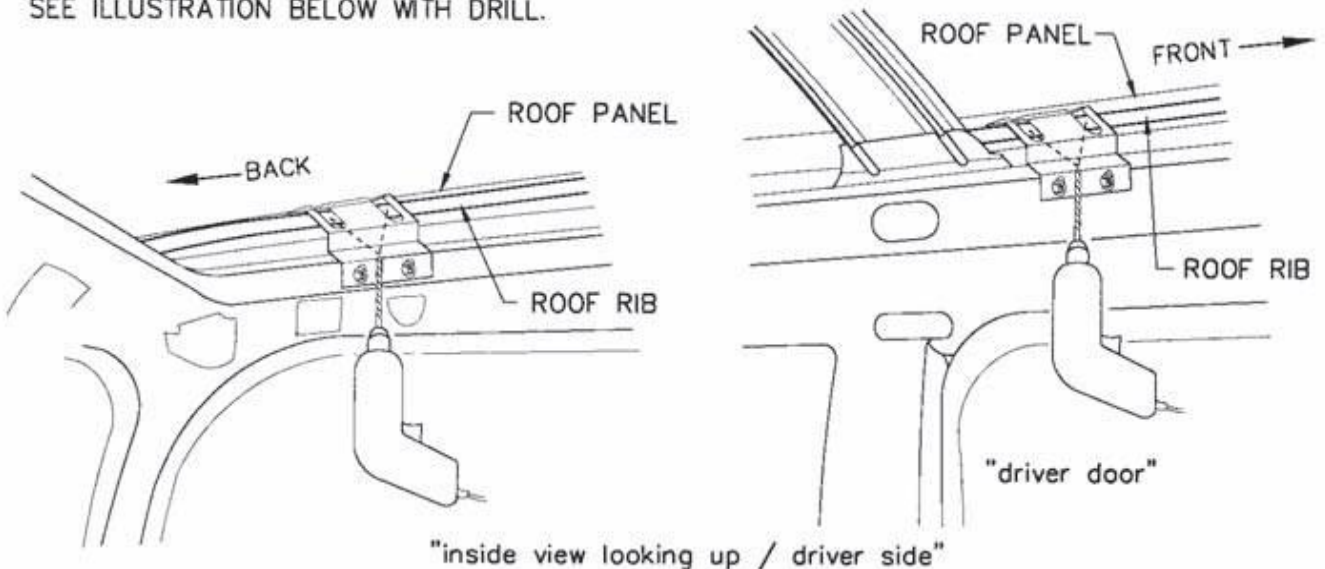
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INSTALLATION

WINDSTAR MINI VANS

STEP-4 (TOOLS: Safety glasses, drill, 3/8 drill bit.)

- A) From inside of the van use the big slots in each ROOF BRACE (WINDSTAR) as a "guide" to drill 3/8" diameter holes through the center of the "roof ribs" in the roof panel that cross over those slots.
- Clean up any burrs from the holes you drill & any shavings from the interior & roof of the van. *
- SEE ILLUSTRATION BELOW WITH DRILL.



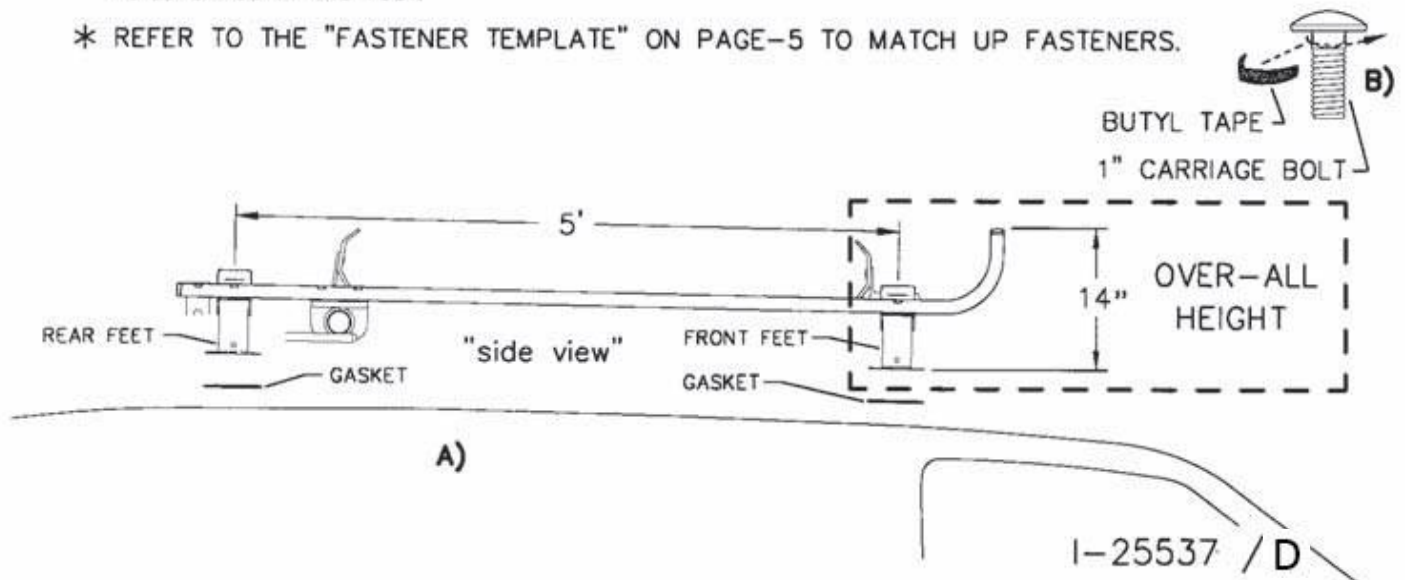
STEP-5

- A) Carefully set your ladder rack on top of the van with a GASKET under each foot and align the holes in the feet & gaskets with the holes you just drilled.

* **CAUTION:** AT LEAST TWO OR MORE PEOPLE ARE RECOMMENDED TO SET THE LADDER RACK ON TOP OF THE VEHICLE FOR SAFETY AND TO PROTECT VEHICLE ROOF. *

- B) Wrap a 1/2" piece of BUTYL TAPE around the bottom of the head of each 1" CARRIAGE BOLT used in the feet and then insert these bolts into each hole in the feet that are aligned with the holes drilled in the roof.

* REFER TO THE "FASTENER TEMPLATE" ON PAGE-5 TO MATCH UP FASTENERS.



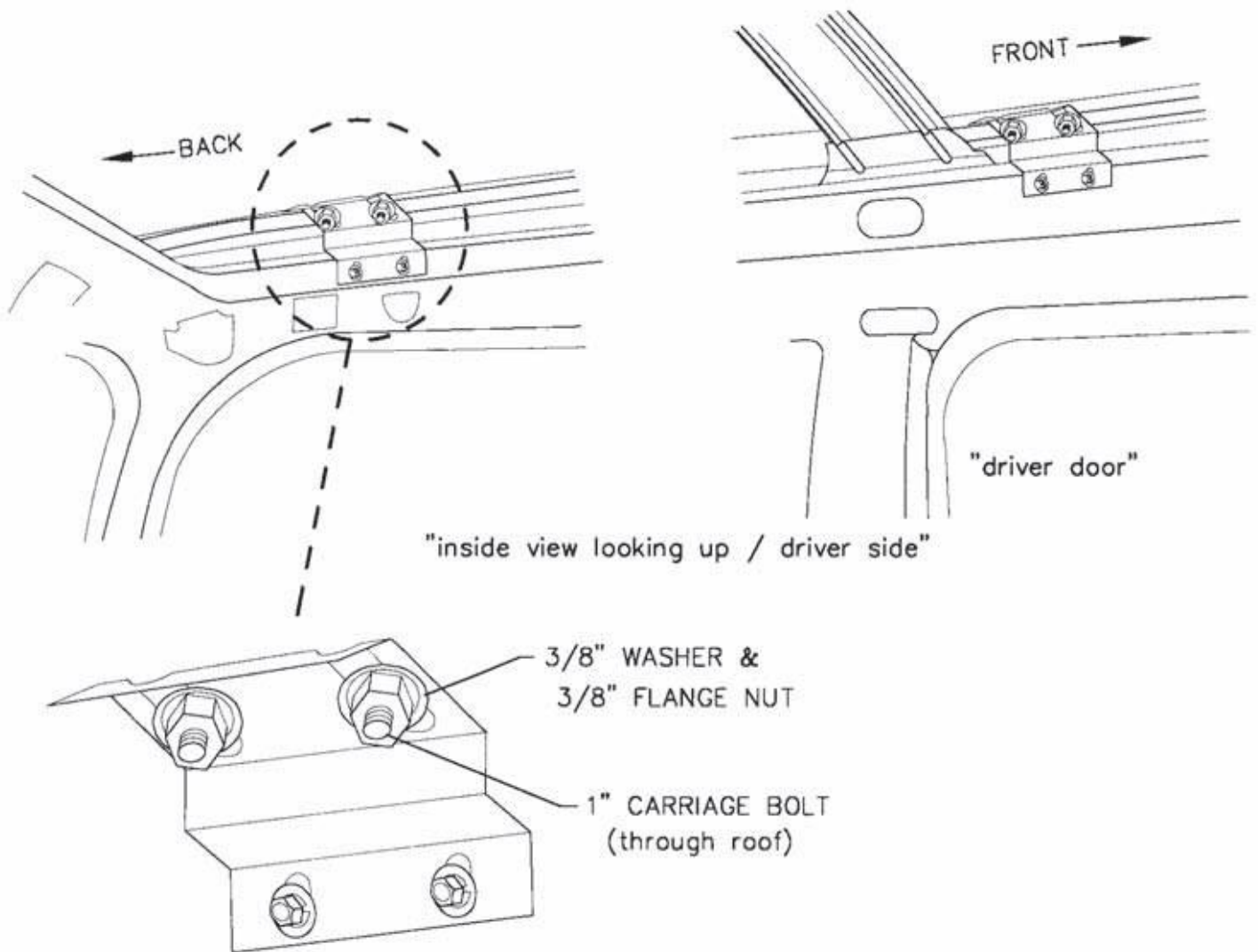
INSTALLATION

WINDSTAR MINI VANS

STEP-6 (TOOLS: 9/16 deepwell socket with ratchet or 9/16 wrench.)

A) From inside of the van secure the ladder rack to the roof with a 3/8" WASHER & 3/8" FLANGE NUT on each 1" CARRIAGE BOLT that you installed through the roof. "TIGHTEN FIRMLY." SEE ILLUSTRATION BELOW.

B) Now "FIRMLY TIGHTEN" all the UPPER FOOT fasteners on the CROSSBOWS and reinstall the headliner.



"YOUR LADDER RACK IS NOW INSTALLED"

INSTALLATION

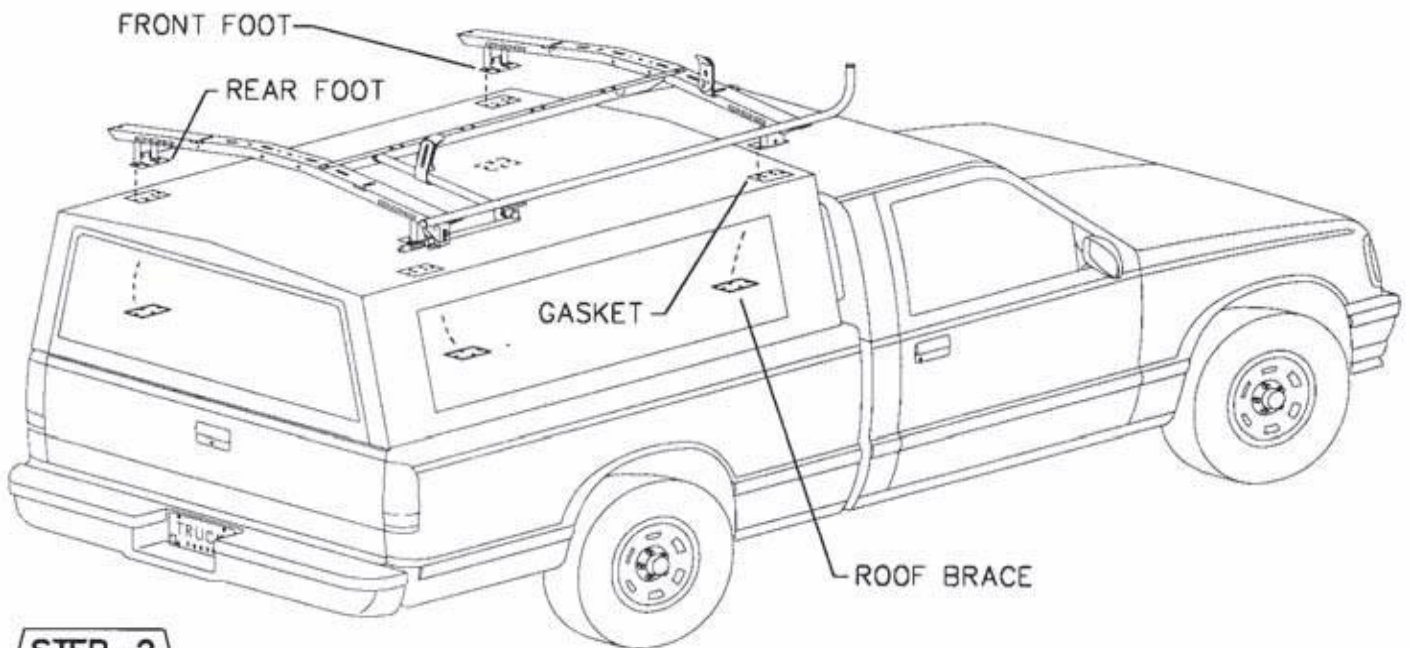
STEP-1

SHORTBED COMPACT PICK-UPS

A) Carefully set your ladder rack on top of the truck cap as far forward as possible while still allowing enough clearance under the truck cap for installation fasteners to be used. Then "center" your ladder rack from side to side.

** NOTE: Some truck caps have built in reinforcement braces. Use these to guide you to where to position your ladder rack. With these truck caps you won't need the ROOF BRACES supplied with your ladder rack. Remember to "center" your ladder rack from side to side. **

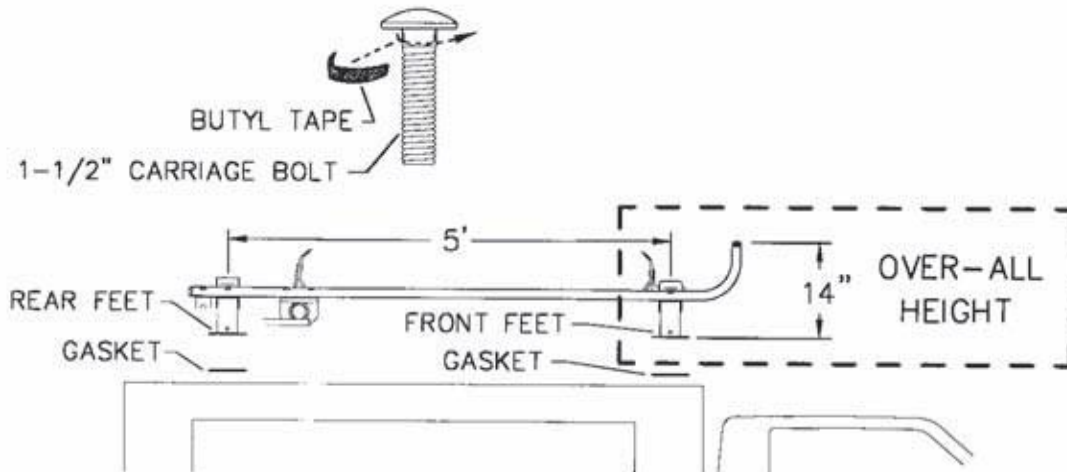
* CAUTION: AT LEAST TWO OR MORE PEOPLE ARE RECOMMENDED TO SET THE LADDER RACK ON TOP OF THE VEHICLE FOR SAFETY AND TO PROTECT VEHICLE ROOF. *



STEP-2

A) Peel off approximately 1/2" of BUTYL TAPE and evenly wrap it around the bottom side of each CARRIAGE BOLT head used to mount the ladder rack to seal holes in the FEET.

* REFER TO THE "FASTENER TEMPLATE" ON PAGE-5 TO MATCH UP FASTENERS.



INSTALLATION

SHORTBED COMPACT PICK-UPS

STEP-3 (TOOLS: Safety glasses, drill, 3/8" drill bit, 9/16" wrench or deepwell socket & ratchet.)

A) With the ladder rack properly positioned carefully drill through the truck cap using the ladder rack FEET as a "template". ** USE ONLY the outer holes in each FOOT ! **

SEE THE HIGHLIGHTED HOLES IN THE ILLUSTRATION BELOW.

* Clean up any burrs from the holes you drill & any shavings from the truck bed & roof of the cap. *

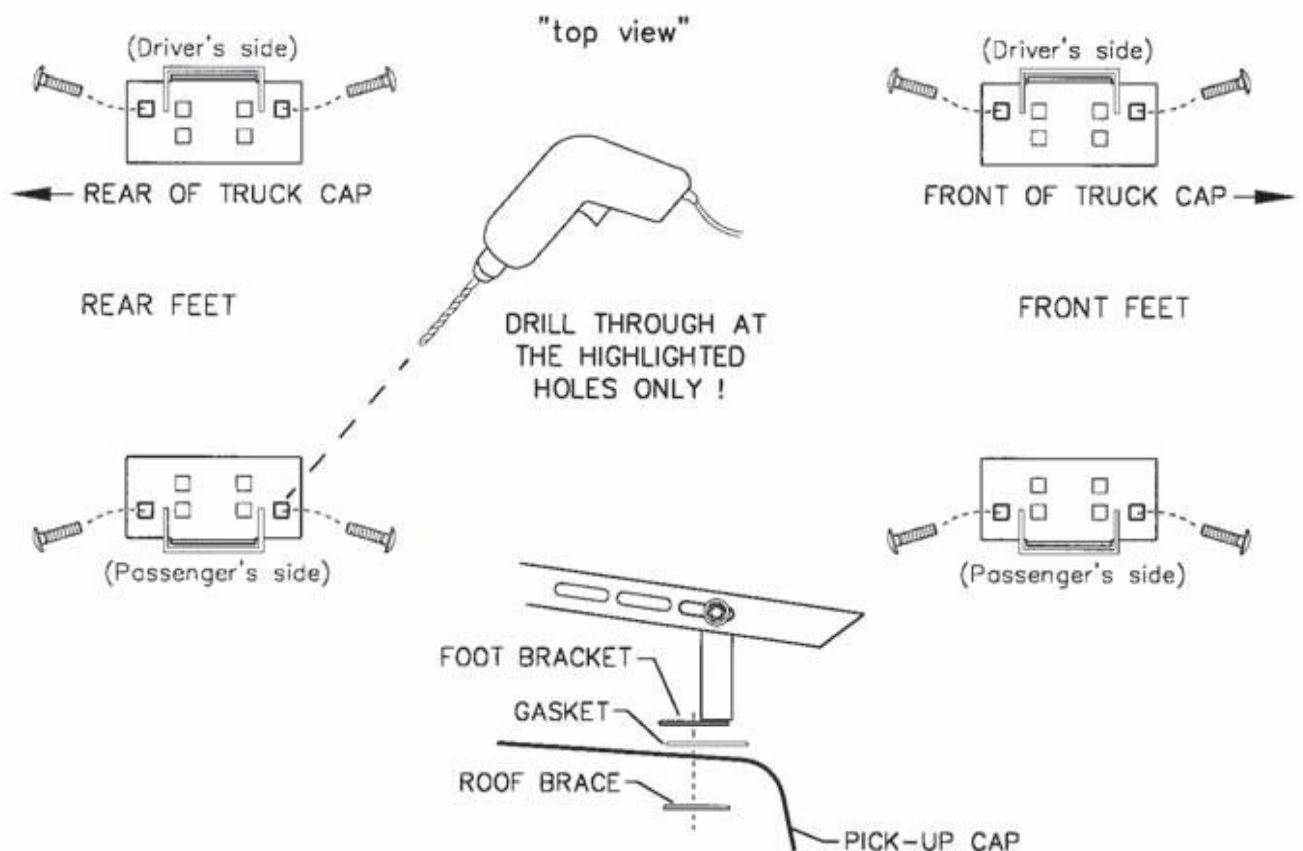
B) Once you have drilled the holes through the truck cap then place a GASKET under each FOOT and align the holes in the GASKET with the holes in the FOOT. Then insert a 1-1/2" CARRIAGE BOLT (make sure BUTYL TAPE is applied under each bolt head) through each hole in the FEET you drilled through.

* REFER TO THE "FASTENER TEMPLATE" ON PAGE-5 TO MATCH UP FASTENERS.

C) Now from under the truck cap attach a ROOF BRACE for each foot location, then a 3/8" WASHER, and then a 3/8" FLANGE NUT to each 1-1/2" CARRIAGE BOLT sticking through the truck cap and TIGHTEN FIRMLY.

** FIRMLY TIGHTEN all the remaining fasteners on the FOOT BRACKETS. **

"YOUR LADDER RACK IS NOW INSTALLED"

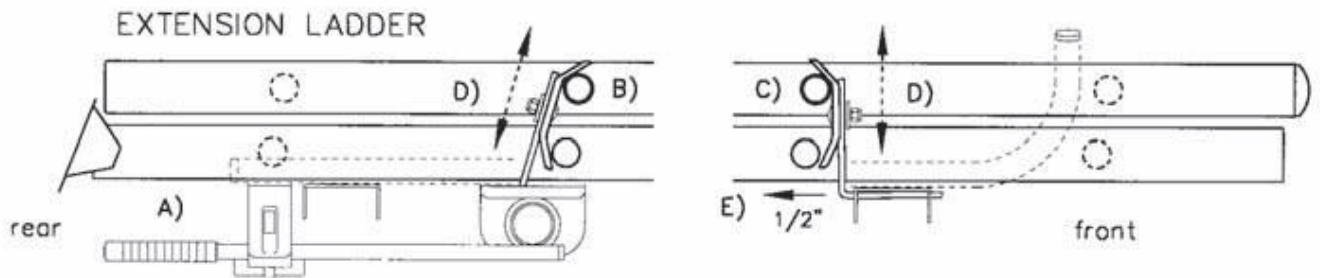


ADJUSTMENT

STEP-1 (TOOLS: 9/16 wrench or deepwell socket & ratchet.)

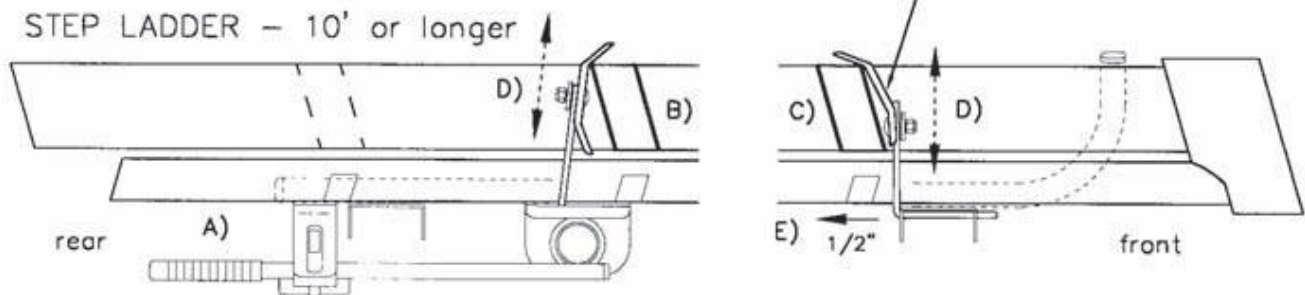
- A) Load your ladder onto the ladder rack (see page 19) and latch the HANDLE BAR into the HANDLE LATCH.
- B) Now slide the ladder back towards the rear of the vehicle and slide the rear CLAMP BRACKET to fit snug over and against the top ladder rung. ** See bottom illustration for STEP LADDERS ! **
SEE ILLUSTRATION BELOW.
- C) Next slide the FRONT STOP POST at the front of the ladder rack back towards the rear of the vehicle and fit the front CLAMP BRACKET to the top ladder rung the same as the rear.
- D) Firmly tighten both front and rear CLAMP BRACKETS to their posts and tighten snug the FRONT STOP POST to the front CROSS SUPPORT.
- E) Now unlatch the HANDLE BAR and unload your ladder. Next loosen the FRONT STOP POST and slide it out towards the rear of the vehicle 1/2" and FIRMLY RETIGHTEN !
YOUR LADDER RACK SHOULD NOW BE ADJUSTED FOR YOUR LADDER.

** CAUTION: Never carry your ladder to extend past the rear bumper. **



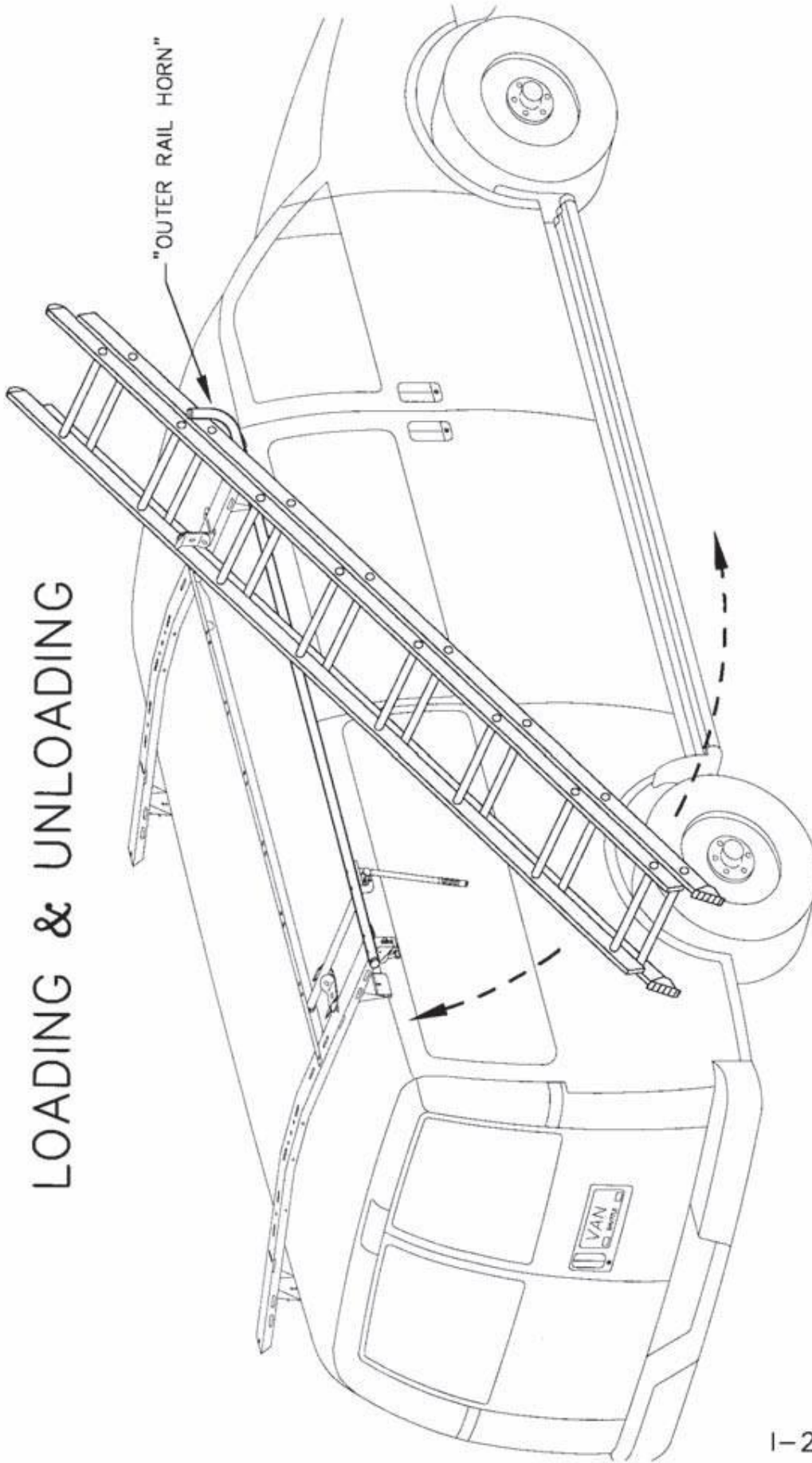
CAUTION: Never clamp up the first step and the head of the STEP LADDER !

Front CLAMP BRACKET must be attached like this !



NOTE: For STEP LADDERS UNDER 10' order a "68-3 Step Ladder Kit".

LOADING & UNLOADING



TO SAFELY LOAD & UNLOAD YOUR LADDER USE THE "OUTER RAIL HORN" AS
A PIVOT POINT TO SUPPORT THE FRONT OF THE LADDER.
THIS WILL MAKE LOADING & UNLOADING YOUR LADDER A LOT EASIER AND SAFER !