PRODUCT WEIGHT

94 lbs



**83X106X18**"

CAPACITY

28 FOOT EXT

color Aluminum / Black

**CATALOG NUMBER** 

**DD63PMH159** 

### **PRODUCT FEATURES**

This drop down rack and roof cross-bow kit is designed to fit the RAM Promaster 159" wheel base. The drop down will carry 20 to 28 foot extension ladders, and 10-12 foot step ladders. Step ladders shorter than 10' require DDLRSLK2 step ladder kit. Step ladders wider than 26" at the base require the wide step ladder add on, part 57107. Ladders with extensive gussets or platform step ladders may not be compatible with the rack.

The cross-bow kit is secured to the RAM Promaster by OEM supplied fastening points.

SEE PAGE 2 FOR APPLICATION NOTES AND ACCESSORIES, OTHER PRODUCTS THAT WORK WITH THIS UNIT.

#### PAGE 1 of 2

## CATALOG NUMBER DD63PMH159

### PRODUCT APPLICATION

This Drop down unit is designed to fit 2016 and newer Dodge Promaster, high roof vehicles.

ACCESSORIES THAT WILL WORK WITH THIS PRODUCT
CATALOG NUMBER DESCRIPTION

DDLRSLKHR STEP LADDER KIT, DDLR HR

57107 DDLR WIDE STEP LADDER KIT-ADD ON PIECE

SPECIAL APPLICATION NOTES

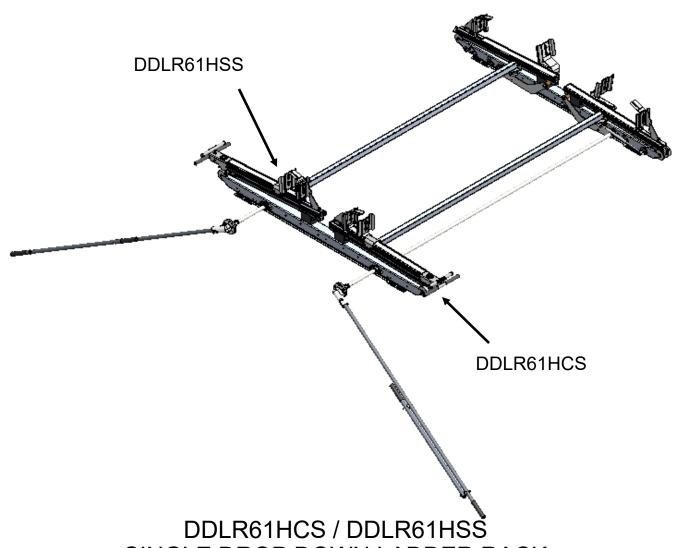


### **Introduction / Comments:**

Installation instructions for DDLR61HCS and DDLR61HSS. NOTE: This is for high roof vehicles only

### Note:

It is advised that all fasteners used in this assembly and installation should be checked for tightness at the following intervals: @ 2-weeks and again @ 6-weeks of operation. This preventive maintenance step must be completed to ensure your Product gives you long service life.



DDLR61HCS / DDLR61HSS SINGLE DROP DOWN LADDER RACK CURB AND STREET SIDE, HIGH ROOF VANS W/ HANDLE EXT.



# - PRECAUTIONS -



CAUTION CAUTION CAUSE FASTENERS AND CAUSE FASTENER FAILURE!





CAUTION ...
ALL INSTALLATION HOLES SHOULD BE SEALED WITH SILICON OR BUTYL SEALANT TO PREVENT EXHAUST FUMES FROM ENTERING THE VEHICLE!





**DANGER** 

INSPECT FOR FUEL TANK, FUEL LINES, BRAKE LINES, HIGH VOLTAGE BATTERIES AND ELECTRICAL LINES PRIOR TO DRILLINGTO AVOID DAMAGING CRITICAL VEHICLE SYSTEMS OR INJURY TO INSTALLER DURING INSTALLATION PROCESS!





CAUTION

TO AVOID DAMÁGING THE VEHICLE ALWAYS USE DRILL STOPS WHEN DRILLING ANY INSTALLATION HOLES! ADRIAN AVAILABLE PART #'S 31119-0 (3/8" X 1/2" DEEP), 31121-0 (1/2" x 1/2" DEEP)



## - IMPORTANT WARRANTY REQUIREMENTS -

- 1. SUBSTITUTING ADRIAN STEEL SPECIFIED FASTENERS FOR ASSEMBLY AND/OR INSTALLATION WILL VOID YOUR PRODUCT WARRANTY.
- 2. ALL HOLES DRILLED INTO VEHICLE SHOULD HAVE THE RAW METAL EDGES SEALED WITH A SELF -ETCHING PRIMER TO RESIST CORROSION AND POTENTIAL FASTENER POINT FAILURE.
- 3. ALL FASTENERS USED IN THE INSTALLATION OF THIS PRODUCT SHOULD BE TIGHTENED TO THE TORQUE(S) SPECIFIED IN THESE INSTRUCTIONS.
- 4. THESE INSTRUCTIONS SHOULD BE KEPT WITH THE VEHICLE.

### THE BASIC TOOLS NEEDED FOR MOST INSTALLATIONS











DRILL

DRILL BIT WITH

RATCHET, SOCKETS AND/OR WRENCHES

S MEASURING TAPE

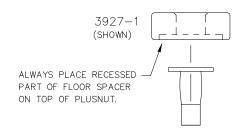
ADDITIONAL TOOLS MAY BE NEEDED FOR THIS INSTALLATION AND THEY WILL BE IDENTIFIED IN THE STEPS THAT FOLLOW.

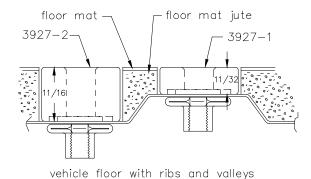


If your vehicle contains carpet or a rubber floor mat you will need to prepare the mounting location. Position the product to be installed into the vehicle and once your are satisfied with the mounting locations, mark the mounting locations. Using a 1-3/16" diameter carpet cutter (P/N: 31183-0). Select the appropriate floor spacers as shown in the illustration. Set those aside for use later into the installation process. Using the correct drill bit size for the selected plusnut, drill the mounting holes in the vehicle sheet metal to prepare for installing the plusnuts.

If you are thru-bolting at any of the locations simply drill a hole that is 1/16" larger than the bolt size(s) for those locations.

Once you have drilled the holes into the vehicle, the raw metal edges should be sealed using a self-etching primer to resist corrosion and potential fastener point failure.

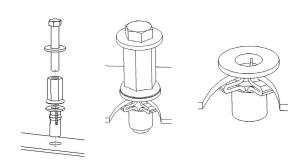




A PLUSNUT (RIVNUT) SETTING TOOL IS REQUIRED FOR PLUSNUT (RIVNUT) INSTALLATION. PLUS NUT SETTING TOOL CAN BE ORDERED THROUGH ADRIAN STEEL, OR USE AN AIR POWERED PLUSNUT SETTING GUN.

1/4-20UNC Plusnut (FAS0052) Use 3/8" dia. drill w/stop FAS0080 SCREW, HXHD, 1/4-20UNCx2.00", G8 FAS0067 WASHER, FLAT, 1/4"ID 22200-0 PLUSNUT TOOL

5/16-18UNC Plusnut (FAS0091) Use 1/2" dia. drill w/stop FAS0095 SCREW, HXHD, 5/16-18UNCx2.00", G8 FAS0086 WASHER, FLAT, 5/16"ID 22200-0 PLUSNUT TOOL



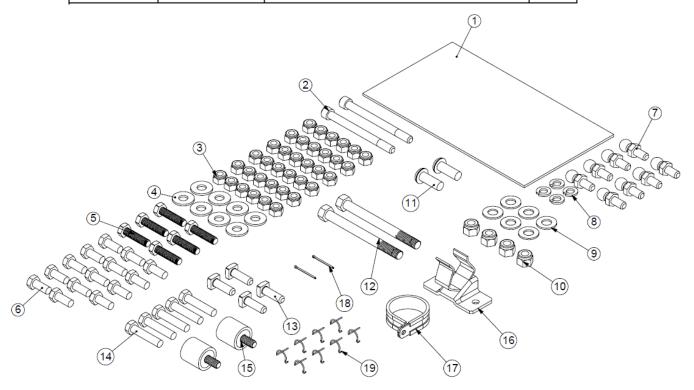
Place barrel of the plusnut body in sheet metal thru hole until flange is flush with sheet metal.

Using a 9/16" combination wrench of plusnut tool body and a second hand wrench, ratchet, or air tool, rotate the hex bolt head CW to draw plus nut flanges up (set the plusnut).



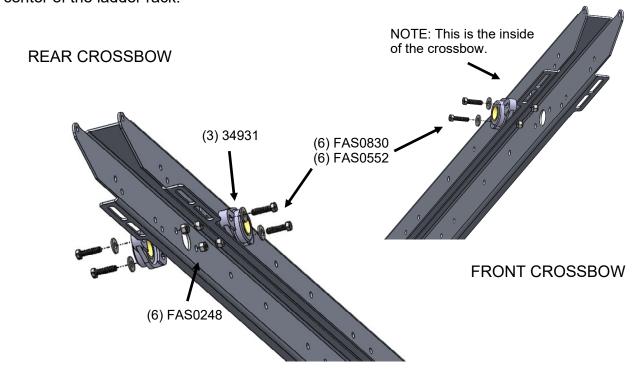
### BAG56325 FASTENER BAG FOR DDLR HIGH ROOF

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	BAG0509-A	5"X10" 4MIL AUTOBAG	1
2	FAS0811	SCREW,CAP, 5/16-18X3.20 SS	2
3	FAS0248	Nut, Nylon Insert Lock, 5/16-18 SST	36
4	FAS0552	Washer, Flat, 5/16, SST	8
5	FAS0830	Screw, Hex Hd, 5/16-18 X 1.25 SS	6
6	FAS0799	Screw, Hex Hd, 5/16-18x0.75 SS	14
7	34927-0	Ball Stud, Damper	8
8	FAS0588	Washer, Lock, Split, 5/16, SS	4
9	FAS0246	Washer, Flat, 3/8, HRD, ZN	6
10	FAS0110	Nut,Hex Nylk 3/8-16 SS W	4
11	FAS0572	Screw, Button Hd Hex Soc, 3/8- 16x1.00 NI-ZN	2
12	FAS0286	SCREW, HHCS, 3/8-16x4, SS	2
13	FAS0035	BOLT,SQ HD,5/16-18X1.0 SS	4
14	FAS0242	Screw, Hex Hd, 5/16-18x1.50 Stainless Steel	5
15	56098	BUMPER STUD, 1" X 1", HR	2
16	34922-0	HOLDER, TOOL, LOAD RATED	1
17	34921-0	CLAMP, CABLE, LOOP, 1.5" ID	1
18	FAS0287	COTTER PIN, 1/16DIA X 1"LG, SS	2
19	34928-0	CLIP, SPRING, RETAINER, 13mm	8

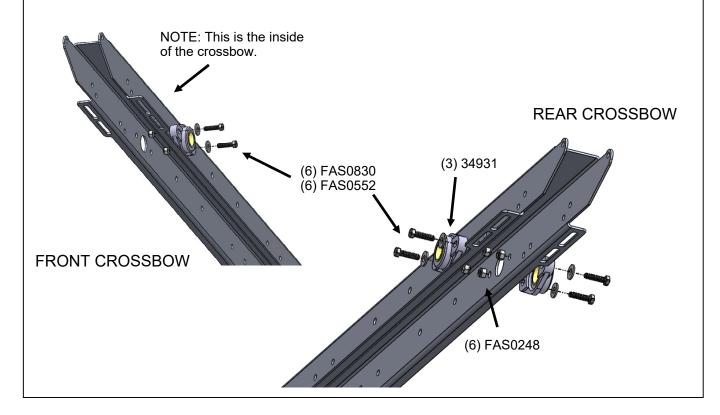




**Step 1CS** Fasten driveline bearings to crossbows. Rear crossbow should have bearings on inside and outside of crossbow. The front crossbow should have one bearing facing the center of the ladder rack.



**Step 1SS** To mount to the streetside you follow the same rules as with the curbside; two bearings on the rear crossbow and one on the front, facing the inside of the ladder rack.

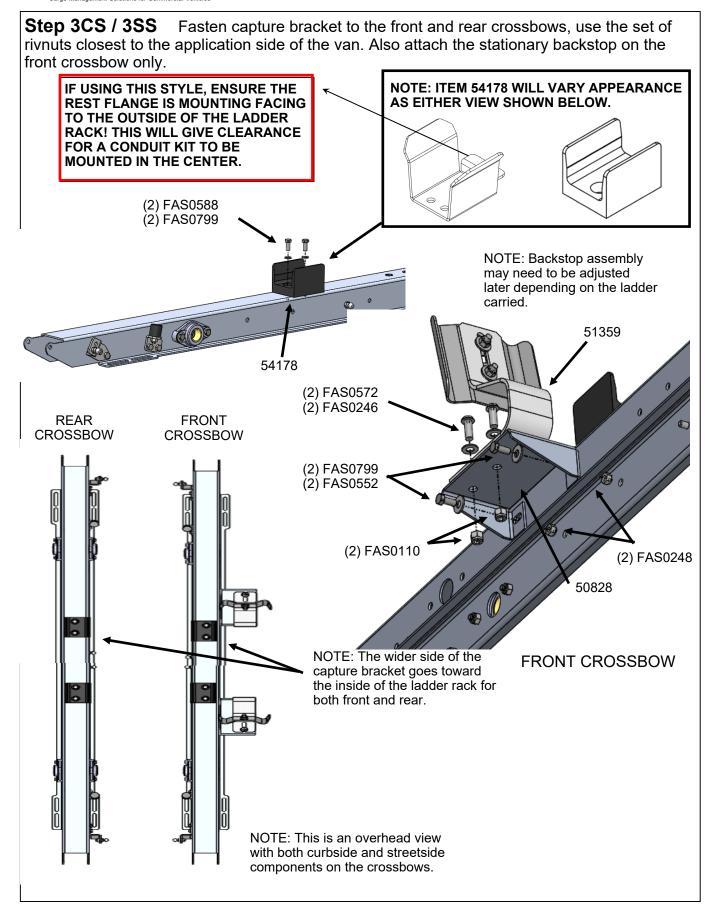




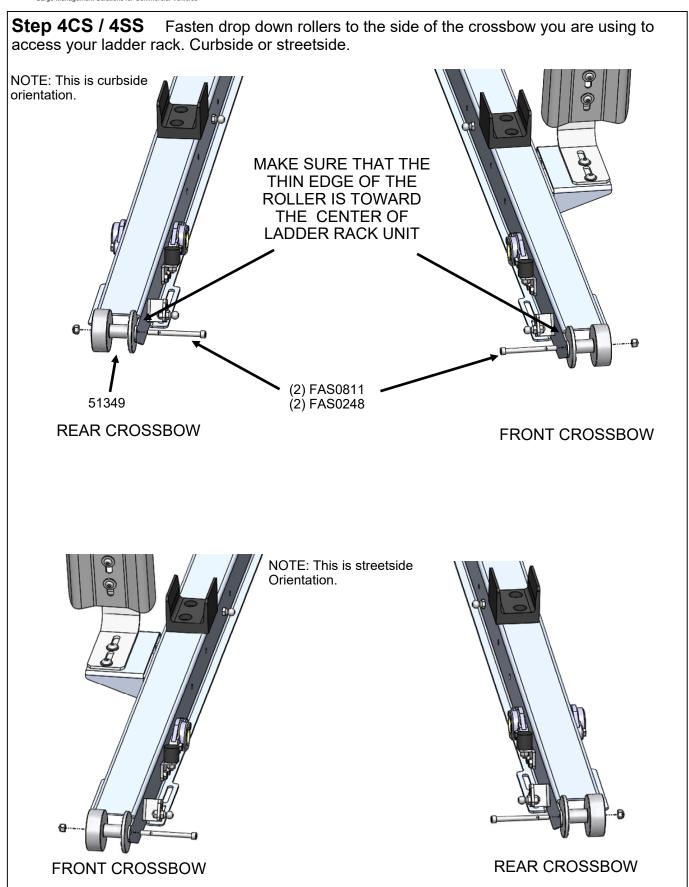
Step 2CS / 2SS Attach damper brackets and bumper to the inside of the front and rear crossbows. This step is the same for a curbside and streetside facing drop down. (1) 56098 (1) FAS0248 (2) FAS0799 (1) 34927 (2) FAS0248 (1) FAS0248 (2) FAS0799 (1) 34927 (2) FAS0248 (1) FAS0248 Sécure to lower bracket hole **REAR CROSSBOW BRACKET BRACKET** 56113 56099 THIS STEP IS MIRRORED FOR FRONT AND REAR CROSSBOWS 0 FRONT CROSSBOW

Publication Number: 63163 Revision Level: E ECN Release: 25574



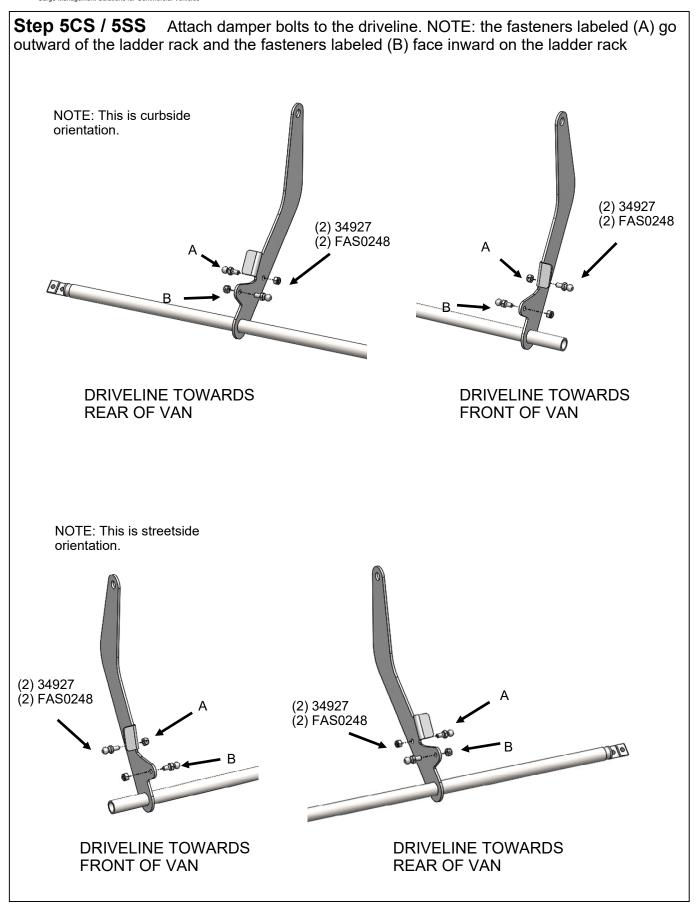






Publication Number: 63163 Revision Level: E ECN Release: 25574

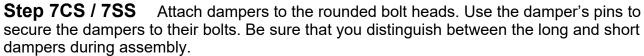


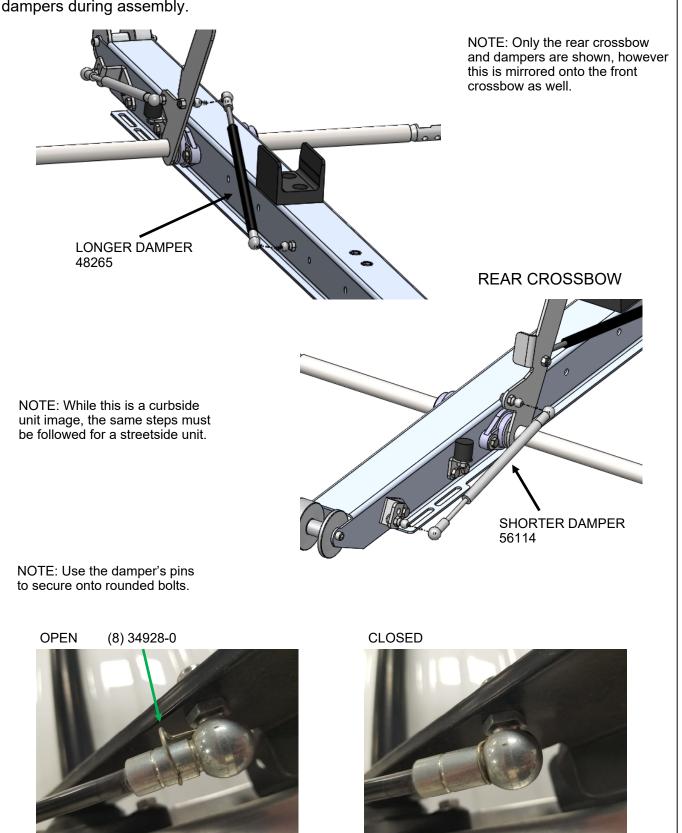




Step 6CS / 6SS First, fasten the rear crossbow to the roof rails on the van (a) and slide the driveline through the rear crossbow bearings (b). Then, set the front driveline into the bearing on the front crossbow (c) and attach the front crossbow to the van's roof rails (d). If you are assembling a double DDLR unit, these steps MUST be done at the same time. REAR CROSSBOW 7a 7b 4) FAS0830 8) FAS0552 (4) FAS0248 NOTE: This is a Ford Transit rail kit depicted. If your van is not a Ford Transit you will have a different rail kit. Refer to your rail kit instructions for crossbow NOTE: The longer, notched end of the placement, fasteners and fastening holes. driveline must go into the rear crossbow for both curbside and streetside units. This is for the handle to be used. **7c** NOTE: These pictures are for a curbside assembly, but the steps are simply mirrored for a streetside one. FRONT CROSSBOW 7d (4) FAS0830 (8) FAS0552 (4) FAS0248









**REAR CROSSBOW** 

Step 8CS / 8SS Fasten drop down assemblies to the driveline and set them into the rollers on the end of each crossbow. Be sure that the primary drop down unit (with handle) is towards the rear of the van, in both streetside and curbside assemblies. NOTE: This is curbside orientation. (1) FAS0282 (1) FAS0246 (2) FAS0110 (2) FAS0246 (1) FAS0282 (1) FAS0246 (2) 51034 LÌPS INTO **DRIVELINE** FRONT CROSSBOW **REAR CROSSBOW** NOTE: This is streetside orientation.

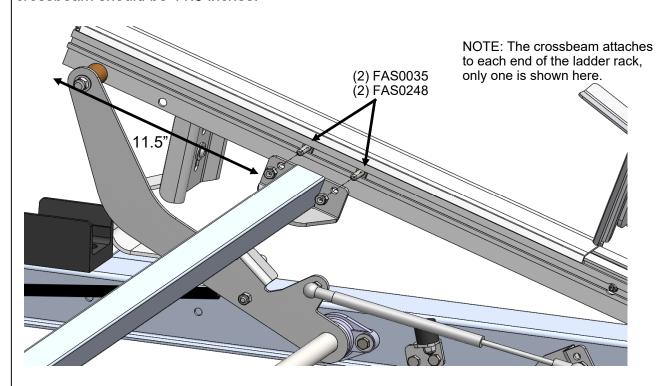
ADRIAN STEEL COMPANY ● WWW.ADRIANSTEEL.COM ● 906 JAMES STREET ● ADRIAN, MI 49221 ● 800-677-2726

FRONT CROSSBOW

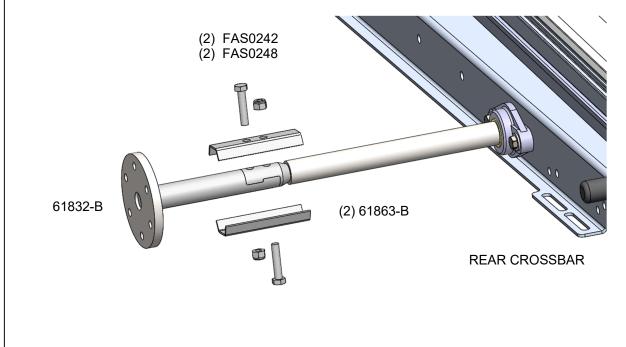
Publication Number: 63163 Revision Level: E ECN Release: 25574



**Step 9CS / 9SS** Attach crossbeam to each drop down slide. The FAS0035 go into grooves on the drop down extensions. NOTE: The distance from the top of the slide to the crossbeam should be 11.5 inches.

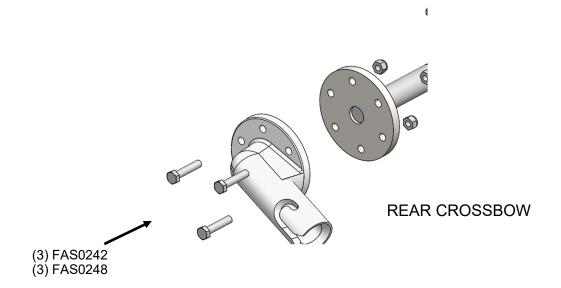


**Step 10CS / 10SS** Fasten circular handle connector to the driveline. There will be one of these connections for both curbside and streetside units.

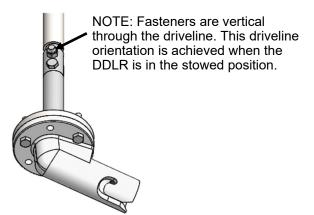




**Step 11CS / 11SS** Attach handle casting to the driveline. This orientation will be affected by a curbside and streetside unit.

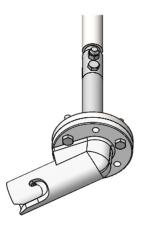


### CS VIEW



NOTE: This is the orientation required for the driveline handle to be properly positioned. The newly attached casting should be one hole off of vertical with the driveline in the counter-clockwise direction.

### SS VIEW



NOTE: This is the orientation required for the driveline handle to be properly positioned. The newly attached casting should be one hole off of vertical with the driveline in the clockwise direction.





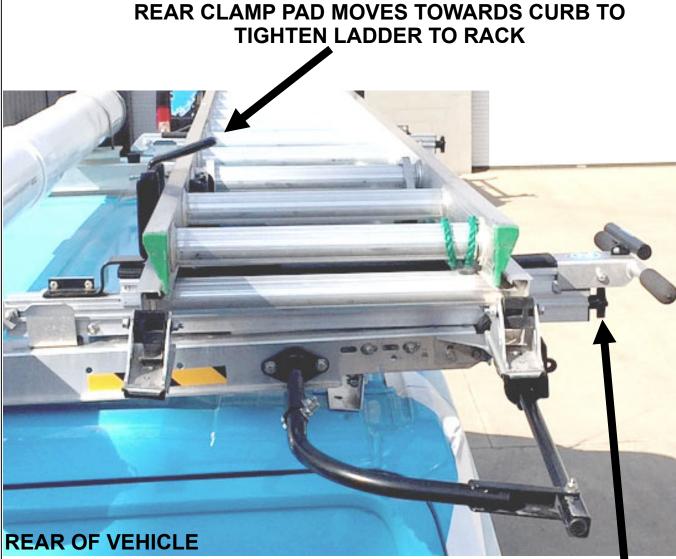
Publication Number: 63163 Revision Level: E ECN Release: 25574





DOUBLE CHECK ALL FASTENERS LOCATIONS TO BE SURE THAT ALL FASTENERS ARE TIGHTENED TO SPECIFICATIONS.
YOUR INSTALLATION IS NOW COMPLETE!
STOW THIS COPY IN THE VEHICLE FOR FUTURE REFERENCES!







TURN KNOB TO ADJUST TO YOUR LADDER.

DO NOT OVER TIGHTEN! CLAMP PAD SHOULD JUST TOUCH THE LADDER.



# FRONT CLAMP PAD MOVES TOWARDS STREET TO TIGHTEN LADDER TO RACK



FRONT OF VEHICLE

TURN KNOB TO ADJUST TO YOUR LADDER.

DO NOT OVER TIGHTEN! CLAMP PAD SHOULD JUST TOUCH THE LADDER.



# **DDLR Series Final Adjustment Instruction**

DOUBLE CHECK ALL FASTENERS LOCATIONS TO BE SURE THAT ALL FASTENERS ARE TIGHTENED TO SPECIFICATIONS.

YOUR INSTALLATION IS NOW COMPLETE!

STOW THIS COPY IN THE VEHICLE FOR FUTURE REFERENCES!



### **Introduction / Comments:**

This instruction is for all Promaster High Roof Rail Kits. Instructions explain installation for the 136, 159 and 159 extended wheelbases.

### Note:

It is advised that all fasteners used in this assembly and installation should be checked for tightness at the following intervals: @ 2-weeks and again @ 6-weeks of operation. This preventive maintenance step must be completed to ensure your Product gives you long service life.



# RRKPMH136 / RRKPMH159 / RRKPMHEXT PROMASTER HIGH ROOF RAIL KITS



# - PRECAUTIONS -



CAUTION THE USE OF AIR IMPACT TOOLS CAN OVER-TORQUE FASTENERS AND CAUSE FASTENER FAILURE!





CAUTION ALL INSTALLATION HOLES SHOULD BE SEALED WITH SILICON OR BUTYL SEALANT TO PREVENT EXHAUST FUMES FROM ENTERING THE VEHICLE!





DANGER
INSPECT FOR FUEL TANK, FUEL LINES, BRAKE LINES, HIGH
VOLTAGE BATTERIES AND ELECTRICAL LINES PRIOR TO
DRILLINGTO AVOID DAMAGING CRITICAL VEHICLE SYSTEMS
OR INJURY TO INSTALLER DURING INSTALLATION PROCESS!





**CAUTION** 

TO AVOID DAMÁGING THE VEHICLE ALWAYS USE DRILL STOPS WHEN DRILLING ANY INSTALLATION HOLES! ADRIAN AVAILABLE PART #'S 31119-0 (3/8" X 1/2" DEEP), 31121-0 (1/2" x 1/2" DEEP)



## - IMPORTANT WARRANTY REQUIREMENTS -

- 1. SUBSTITUTING ADRIAN STEEL SPECIFIED FASTENERS FOR ASSEMBLY AND/OR INSTALLATION WILL VOID YOUR PRODUCT WARRANTY.
- 2. ALL HOLES DRILLED INTO VEHICLE SHOULD HAVE THE RAW METAL EDGES SEALED WITH A SELF -ETCHING PRIMER TO RESIST CORROSION AND POTENTIAL FASTENER POINT FAILURE.
- 3. ALL FASTENERS USED IN THE INSTALLATION OF THIS PRODUCT SHOULD BE TIGHTENED TO THE TORQUE(S) SPECIFIED IN THESE INSTRUCTIONS.
- 4. THESE INSTRUCTIONS SHOULD BE KEPT WITH THE VEHICLE.

### THE BASIC TOOLS NEEDED FOR MOST INSTALLATIONS



3/8" DIA.







DRILL

DRILL BIT WITH

RATCHET, SOCKETS AND/OR WRENCHES

REWDRIVERS MEASURING TAPE

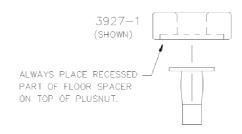
ADDITIONAL TOOLS MAY BE NEEDED FOR THIS INSTALLATION AND THEY WILL BE IDENTIFIED IN THE STEPS THAT FOLLOW.

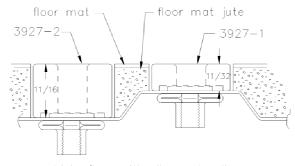


If your vehicle contains carpet or a rubber floor mat you will need to prepare the mounting location. Position the product to be installed into the vehicle and once your are satisfied with the mounting locations, mark the mounting locations. Using a 1-3/16" diameter carpet cutter (P/N: 31183-0). Select the appropriate floor spacers as shown in the illustration. Set those aside for use later into the installation process. Using the correct drill bit size for the selected plusnut, drill the mounting holes in the vehicle sheet metal to prepare for installing the plusnuts.

If you are thru-bolting at any of the locations simply drill a hole that is 1/16" larger than the bolt size(s) for those locations.

Once you have drilled the holes into the vehicle, the raw metal edges should be sealed using a self-etching primer to resist corrosion and potential fastener point failure.





vehicle floor with ribs and valleys

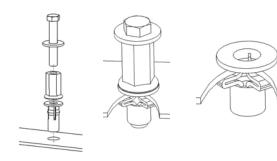
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FAS0067 WASHER, FLAT, 1/4"ID 22200-0 PLUSNUT TOOL

# 5/16-18UNC Plusnut (FAS0091) Use 1/2" dia. drill w/stop

FAS0095 SCREW, HXHD, 5/16-18UNCx2.00", G8 FAS0086 WASHER, FLAT, 5/16"ID 22200-0 PLUSNUT TOOL



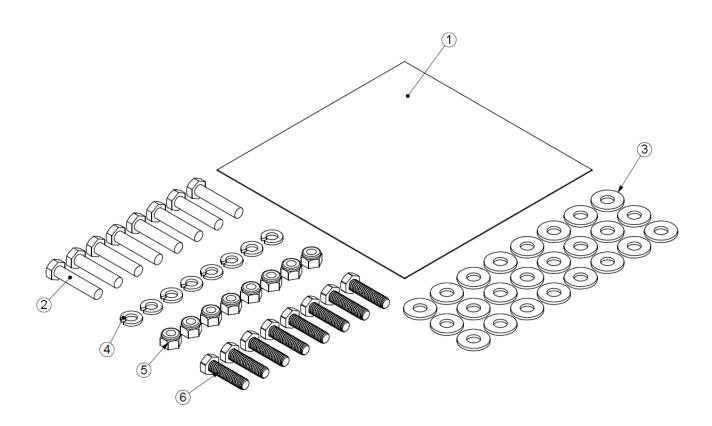
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Using a 9/16" combination wrench of plusnut tool body and a second hand wrench, ratchet, or air tool, rotate the hex bolt head CW to draw plus nut flanges up (set the plusnut).



### Installation and/or Assembly Fasteners BAG56417

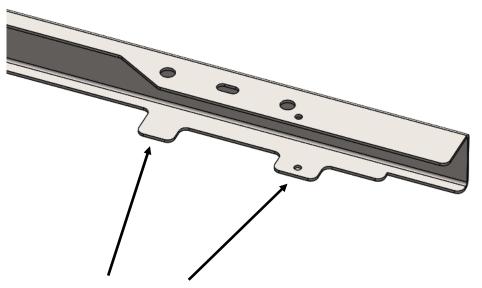
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	BAG0505-A	BAG0507-A	1
2	FAS0242	Screw, Hex Hd, 5/16-18x1.50 Stainless Steel	8
3	FAS0552	Washer, Flat, 5/16, SST	24
4	FAS0588	Washer, Lock, Split, 5/16, SS	8
5	FAS0248	Nut, Nylon Insert Lock, 5/16-18 SST	8
6	FAS0830	Screw, Hex Hd, 5/16-18 X 1.25 SS	8





### **Step 01** ADD TEFLON TAPE TO ROOF RAILS.

NOTE: THIS ROOF RAIL IS FOR RRKPMH136. YOUR ROOF RAIL MAY LOOK SLIGHTLY DIFFERENT.



CUT TEFLON TAPE (39317) TO LENGTH FOR ALL TABS ON THE UNDERSIDE OF THE ROOF RAILS. THIS PREVENTS THE OUTER EDGES OF THE TABS FROM CONTACTING THE ROOF SURFACE AND WEARING THROUGH THE PAINT. THERE ARE 2 TABS AT EACH MOUNTING POINT PER ROOF RAIL.

NUMBER OF STRIPS PER RAIL IS DEPENDENT ON THE WHEELBASE OF YOUR VAN.

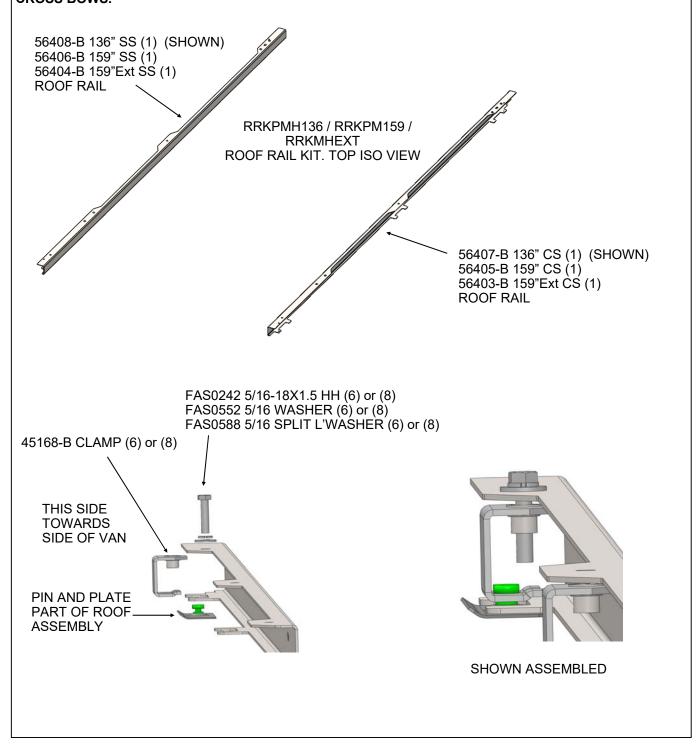
136" VANS NEED (6) STRIPS PER RAIL 159" VANS NEED (6) STRIPS PER RAIL 159"Ext VANS NEED (8) STRIPS PER RAIL



**Step 02** ATTACH ROOF RAILS TO VAN AS SHOWN, 45168-B FOOT CLAMP SLIPS UNDER THE HEAD OF THE ROOF PIN AND THEN THE LIP SLIDES OVER THE ROOF RAIL. A SCREW IS INSTALLED INTO THE RIVNUT THROUGH THE TOP SURFACE OF THE RAIL.

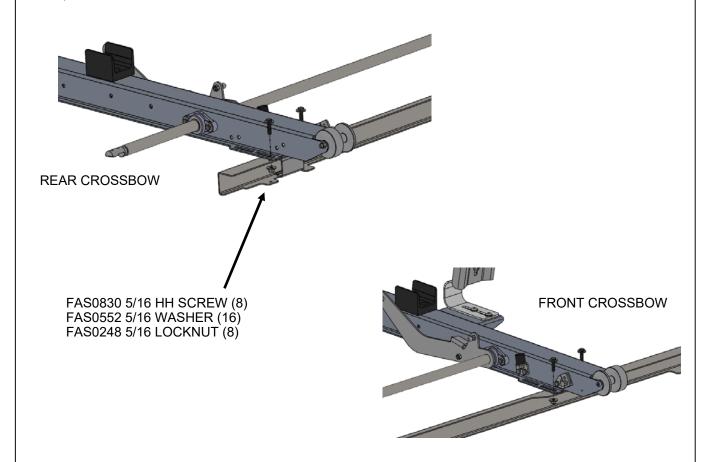
IMPORTANT!! THE HEAD OF THE PIN MUST LAY BETWEEN THE VERTICAL WALL AND THE FOOT CLAMP LIP AS SHOWN.

REPEAT AT ALL ATTACHMENT POINTS. TORQUE FASTENERS TO 12-15 FT LBS. **AFTER INSTALLILING CROSS BOWS.** 





**Step 03** ATTACH THE FRONT AND REAR CROSSBOWS TO THE ROOF RAILS. THIS NEEDS TO BE DONE AS A STEP OF THE DDLR HIGH ROOF UNIT ASSEMBLY. NOTE: IF YOUR DRIVELINE IS NOT INSTALLED BETWEEN THE CROSSBOWS PRIOR TO FASTENING YOU WILL HAVE TO REMOVE THEM FROM THE ROOF RAILS AND DO SO. TORQUE FASTENERS TO 12-15 FT.LBS.



# ATTENTION! LADDER RACK PURCHASER

IT IS ADVISED THAT <u>ALL FASTENERS</u> THAT ASSEMBLE AND INSTALL YOUR LADDER RACK ARE CHECKED FOR TIGHTNESS AT 2 WEEKS OF OPERATION AND THEN RECHECKED AGAIN AT 6 WEEKS OF OPERATION.

ASSEMBLY FASTENERS COULD LOOSEN DURING USE DUE TO VIBRATION THROUGH YOUR VEHICLE WHILE ON THE ROAD OR IN AND OUT OF CONSTRUCTION SITES.

THIS IS A PREVENTATIVE MAINTENANCE STEP TO INSURE YOUR LADDER RACK GIVES YOU A <u>LONG SERVICE LIFE</u>.

\*\*INSTALLER: PLEASE PRESENT THIS STATEMENT TO THE END USER WHEN DELIVERING THE INSTALLED PRODUCT!



YOUR ROOF RAIL KIT IS NOW COMPLETELY INSTALLED. THIS IS WHAT YOUR LADDER RACK SHOULD LOOK LIKE AT THIS TIME. REFER BACK TO THE DDLR INSTALL INSTRUCTOINS TO COMPLETE YOUR LADDER RACK ASSEMBLY.



NOTE: THIS IS A PICTURE OF THE RRKPMH136 INSTALLED. IF YOU HAVE A 159 OR 159Ext VAN THEN YOUR INSTALLATION WILL LOOK SLIGHTLY DIFFERENT.

THE FOLLOWING VIEWS ARE OF COMPLETED 61 AND 63 LADDER RACK UNITS USING THIS ROOF RAIL KIT.

