



BASEPLATE KIT INSTALLATION INSTRUCTIONS

KIT# 521466-5

07/25
RS

ROADMASTER, Inc.

6110 NE 127th Ave.

Vancouver, WA 98682

360-896-0407

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IMPORTANT: All baseplates **must** be assembled with all the bolts left loose for final adjustment and positioning (before tightening) unless otherwise instructed. All bolts **must** be torqued for proper strength. If more than one bolt is used per fastening point, the diagram may only show one. Use flat washers over all slotted holes and lock washers on all fasteners.

WARNING

Failure to heed these warnings or follow the installation instructions may result in a voided warranty, loss of towed vehicle, personal injury or death.

- Do not weld or modify this baseplate or its components. Welding or modification will void the warranty.
- Do not use this document as a basis to design/fabricate a baseplate, as it may not show all parts or structural components.
- We strongly recommend professional installation.
- If the towed vehicle has been in an accident, it must be properly repaired before attaching the baseplate. Do not install the baseplate if any structural frame damage is found.
- The installer must use all bolts and parts supplied. If running changes were made by the vehicle manufacturer after this kit was designed, some bolts or other fasteners may no longer be the correct size. It is the installer's responsibility to verify this kit is securely fastened to the vehicle.
- Use Threadlocker Red on all bolts used to secure this baseplate. Torque all bolts to the specifications found at the end of these instructions. Do not over-torque the bolts or failure may occur.
- The installer must inspect the baseplate to ensure adequate clearance, particularly around hoses, air conditioner lines, radiators, etc. or non-warranty failure may result.
- Roadmaster manufactures many styles of baseplates. If your baseplate has removable arms, they must be removed before driving the vehicle, unless the arms can be pinned or padlocked in place. If not secured, the arms could vibrate out.
- Some motorhome chassis have such a tight turning radius that you can damage your motorhome, towed vehicle, tow bar or baseplate while turning sharply. Before getting on the road, test your turning radius in an empty parking lot. Turning too sharply could

result in non-warranty damage to your towing system, motorhome and/or towed vehicle.

- Do not back up with the towed vehicle attached or non-warranty damage will occur to your towing system or vehicles.
- The safety cables must connect the towing vehicle to the towed vehicle frame to frame, with the cables crossed, with enough slack for sharp turns. See cable instructions for proper routing. Failure to do so will result in non-warranty damage and/or the loss of the towed vehicle.
- This kit is designed for use with ROADMASTER tow bars and ROADMASTER adapters only. Using this kit with other brands, without an approved ROADMASTER adapter, may result in non-warranty damage or injury.
- Receiver extensions and out-of-level towing situations of 3" or more can cause the system to swing much higher and lower, causing excessive strain on the tow bar, baseplate and frame. That can cause the towing system to fail, causing property damage, personal injury or even death. If you must use a receiver extension or drop hitch to tow, it will reduce your receiver's the towing system's capacity by 1/3 to avoid damaging your system. Never use more than one extension and/or drop hitch, as this will void your warranty.
- Every 3,000 miles, the owner must inspect all mounting points for cracks or fatigue, and check the fasteners for proper torque, according to the bolt torque requirements chart on the last page of these instructions.
- The owner must check and follow the vehicle manufacturer's instructions to prepare the vehicle for towing. Failure to do so may cause severe damage to the vehicle.
- This baseplate is only warranted for the original installation. Installing a used baseplate on another vehicle is not recommended and will void the warranty.

About this kit:






This is one of our direct connect-style series, which allows the visible front portion of the baseplate to be easily removed from the front of the vehicle (Fig.A and Fig.B).

Before starting the installation, lay out the kit components in order, as they will be used. This will give you a visual idea of how the components work, and will also confirm that everything is present and accounted for.

IMPORTANT: All illustrations and specifications contained herein are based on the latest information available at the time of publication approval. ROADMASTER, INC. reserves the right to make changes at any time without notice in material, specification and models or to discontinue models.



Symbol Key:

-  - Clips
-  - Bolts
-  - Screws
-  - Nuts
-  - Unplugs

(Arrow denotes location and which direction to pull)



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IMPORTANT: Please use all supplied hardware and read through these instructions carefully before beginning this installation. The majority of questions you may have can be answered within the text, and proper installation will ensure safe and secure travel.

1. On each side, pop out a plastic clip (two total) securing the front plastic frame cover (Fig.C). Remove and set the frame cover aside. You may need to use a plastic prying tool to pop the clips.

NOTE: If you have a vehicle equipped with a winch, see supplemental at the end of this document before proceeding!

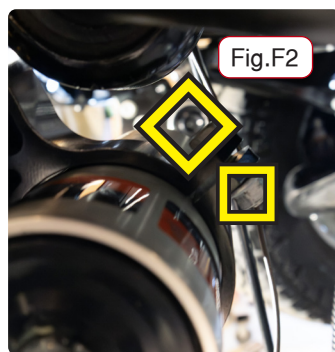
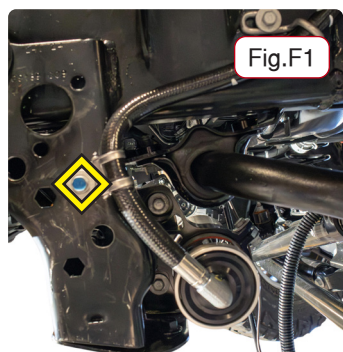
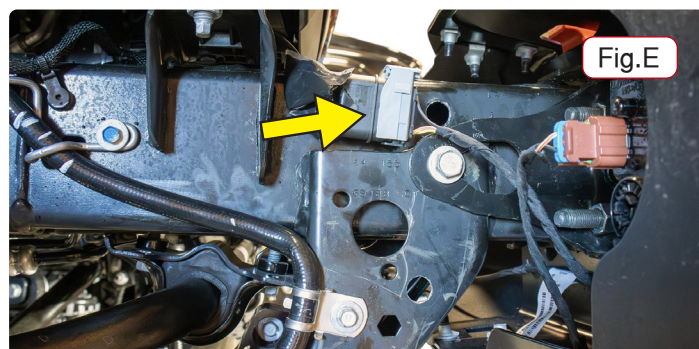
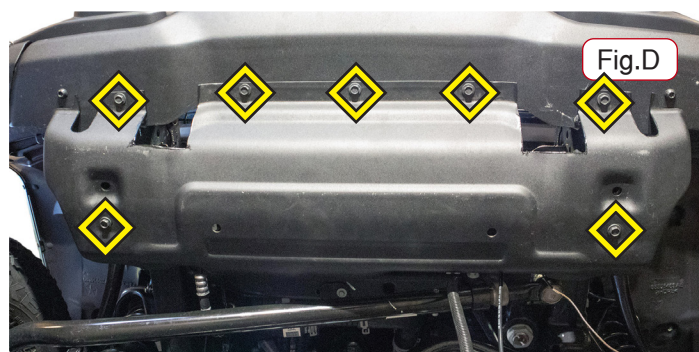
2. Remove seven bolts from the lower skid plate (Fig.D). Remove and set aside the metal skid plate. These bolts will not be reused but should be kept in case the baseplate is ever removed.

3. On the passenger side, disconnect the gray wire harness (Fig.E).

4. On the driver side, remove the bolt securing the shock reservoir hose and loosen the clamp bolt attached to the shock reservoir (Fig.F1 & F2).

5. Carefully pull out the shock reservoir and let it hang freely (Fig.G).

6. Open the hose clamp with a screw driver and needle nose



pliers carefully to not damage the line. Leave the clamp loose for now to allow for adjustment later (Fig.H, shown removed).

7. Repeat this steps 4, 5, and 6 on the opposite side.

8. On each side; on the inside of the horn remove two 16mm bolts securing the shock reservoir (Fig.I, next page). Discard the bolts but retain the brackets.

9. On each side; remove both the inner and outer bolts securing the bumper brace to the subframe (Fig.J, next page). Retain the hardware.



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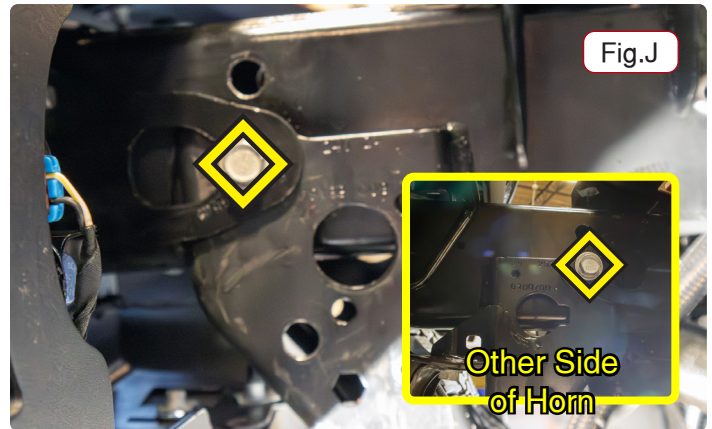
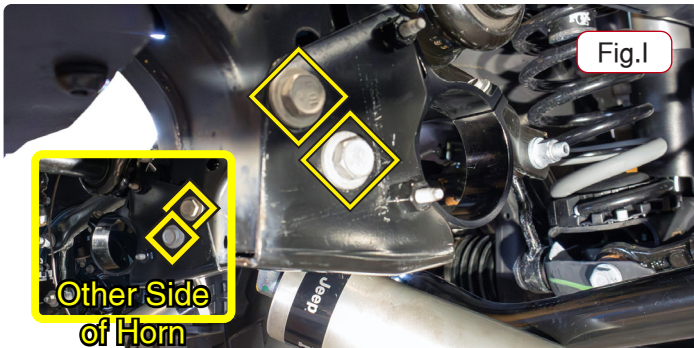
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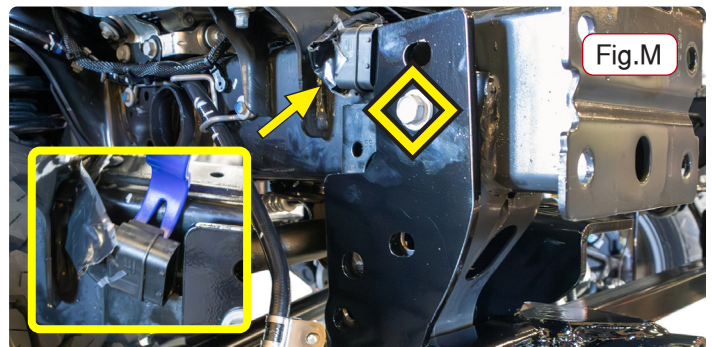
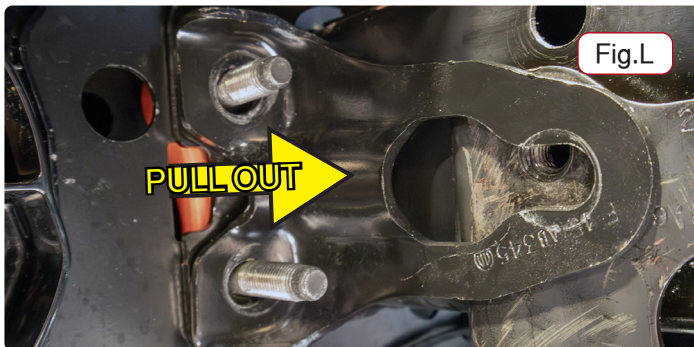
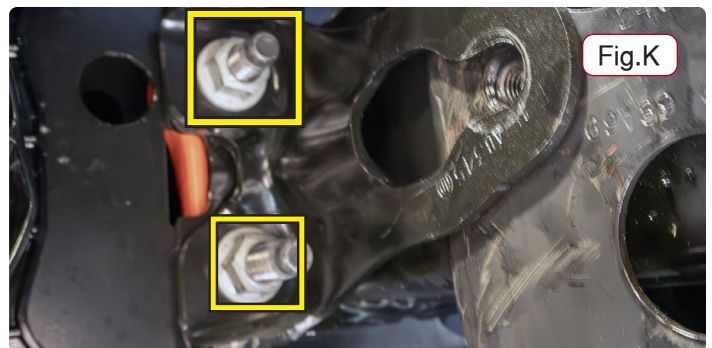
10. On each side; remove the nuts from the four bumper studs to allow the bumper to be slid forward (Fig.K).

11. Detach the brackets connecting the frame to the bumper—inner and outer on both driver and passenger sides—for a total of four brackets (Fig.L).

12. Carefully remove and set aside the bumper.

13. With assistance, lift and hold the baseplate up to the frame horns.

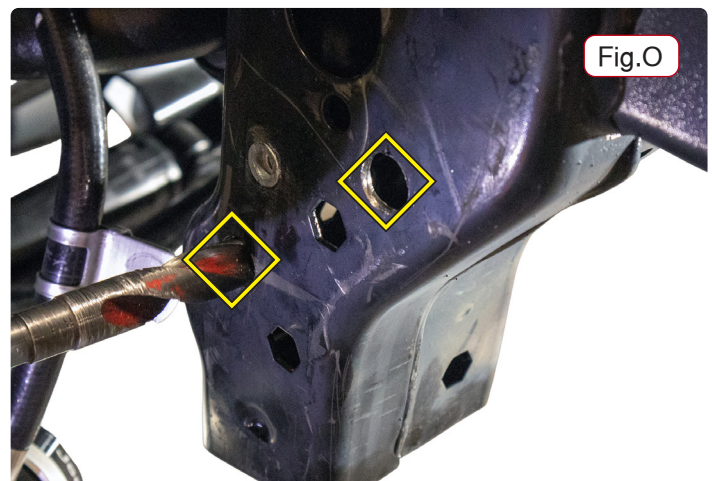
14. On each side; insert one OEM bolt loosely into the second hole from the top to hold the baseplate in place for now (Fig.M).



15. On the passenger side, pop out the wire plug to ensure proper alignment of the baseplate (Fig.M arrow & inset).

16. On the passenger side, using the topmost hole of the baseplate, mark the hole then remove the baseplate and drill all the way through the frame to create a bolt hole (Fig.N).

17. On both sides; enlarge the two marked holes, using 9/16" bit, as shown in the reference photos (Fig.O).





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18. On the driver side of the frame, enlarge the forward top most existing hole with a 9/16" drill bit to make a bolt hole On both sides of the horn and both sides of the vehicle; enlarge the forward top most hole in the horn as indicated in photos (Fig.P1 & 2, outside side of horn shown).

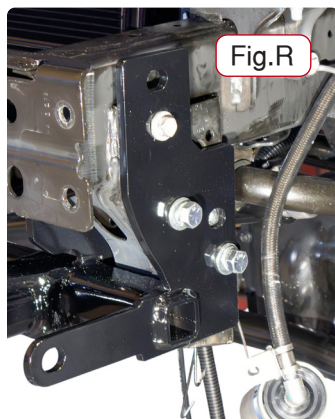
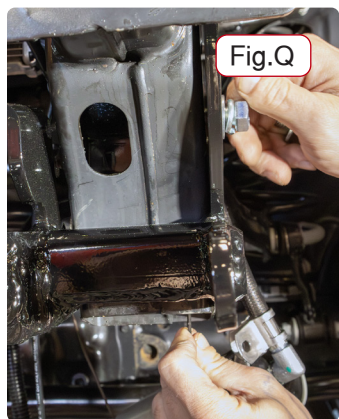
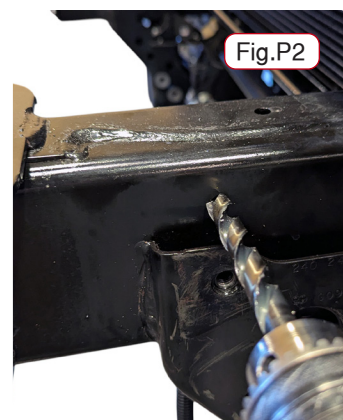
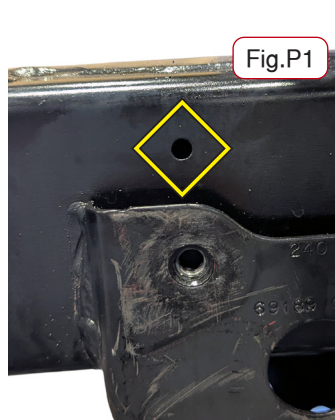
19. Reattach the baseplate using the second-from-top bolts once again, reusing OEM hardware, apply threadlocker. Keep bolts finger-tight.

20. From the bottom, insert a tabbed backing plate into the frame horn. Then pass a 1/2" bolt (with lock washer and flat washer under head) through the baseplate and subframe horn into the backing plate (Fig.Q). Insert the other tabbed backing plate and install the other bolt, on each side (Fig.R).

21. On both sides of the vehicle; attach the spacer between the frame and baseplate (Fig.S), then attach the provided 2-1/2" x 1-1/2" washer plate into the top most drilled holes using a 1/2" x 4-1/2" bolt capped off with a washer, lockwasher, and nut (Fig.T & Inset).

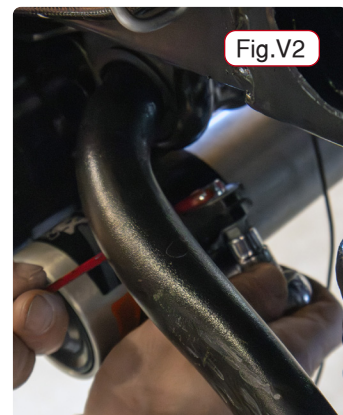
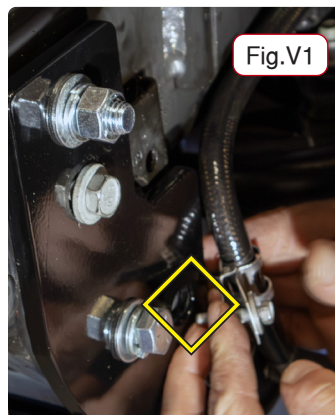
22. Leave the baseplate hardware loose at this stage to allow final alignment once clamps are installed. The backing plate tabs may be broken off or bent, but they cannot stick out.

23. Reinstall the shock reservoir holder between the



baseplate tab and frame horn using supplied M10x35mm bolts, lock washers and flat washer (Fig.U).

24. Reinstall the lower hardware removed previously, including the shock reservoir holder, on both sides of the vehicle; Attach the shock hose to the original location with the original bolt using the hole in the baseplate, reinstall the shock reservoir into the holder and tighten the bolt (Fig.V1 & V2).





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25. Apply threadlocker and torque all baseplate and clamp hardware at this stage, making sure they are secured

26. If you are using a winch, reinstall it now based on the supplemental at the end of this document and the contents of the winch's installation manual.

27. Place the removed bumper back onto the frame horns and baseplate, then reinstall the brackets removed in Step 9 onto the inner frame horns and baseplate (Fig.W).

28. Reinstall the retained nuts over the brackets and into the bumper's mounting bolts.

29. If reinstalling the skid plate, note that trimming is required to clear the baseplate. Mark and trim as needed as shown in Figure X1, X2, and X3. Trim both sides of the skid plate to make proper clearance for the baseplate.

30. Reattach the skid plate using new provided hardware using a bolt with lockwasher and washer under head inserted through the skidplate, a spacer, and into the frame from three points (Fig.Y).

31. Reverse prior steps to complete reinstallation, make sure to reattach all disconnected wire harnesses and the plastic frame cover.

32. Mount the wire plug, into skid plate hole, as shown in the diagram. Pre-bend the mounting tab if necessary. Use spacer and included hardware to secure (Fig.Z).

33. Mount the breakaway switch as shown into skid plate hole. Drill hole to size and use provided spacer and hardware (Fig.Z).

IMPORTANT: Please note, it is the owner's responsibility to ensure the locking of the pins before towing. Otherwise, failure of the towing system will result.



Fig.W



Fig.X1



Fig.X2



Fig.X3



Fig.Y

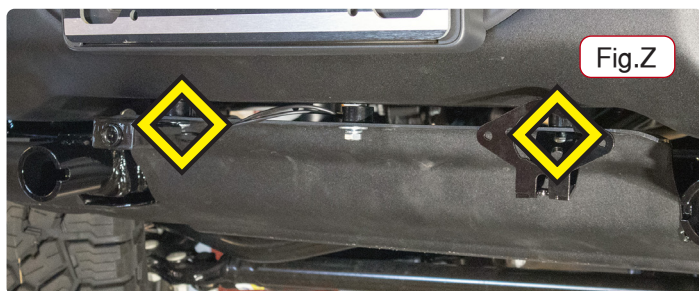


Fig.Z



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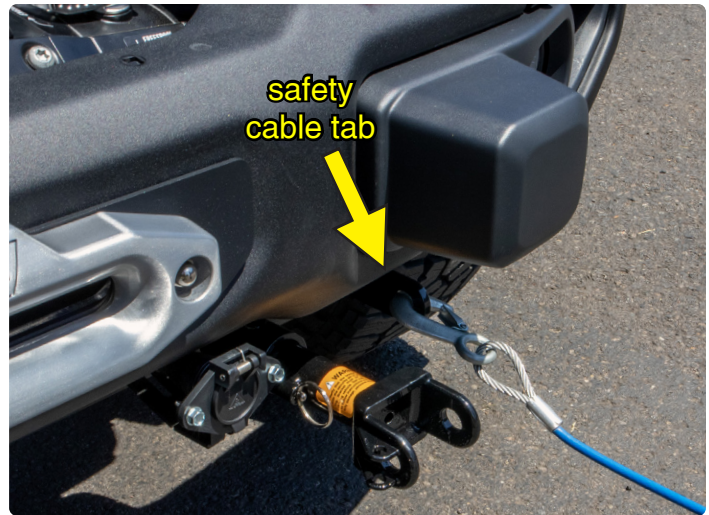
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IMPORTANT!

Safety cables are required by law. When towing, connect safety cables to the safety cable tabs illustrated on the separate insert with the drawing and parts list and in Figure Y. Make certain there is adequate slack in the cables to allow a full turning radius; otherwise, damage will result. If necessary, longer cables or cable extensions are available.

WARNING!

If you do not use Threadlocker Red on all bolts in this kit and torque to the specified values, it could cause failure of the towing system.



BOLT TORQUE REQUIREMENTS

Note: The torque values represented below are intended as general guidelines. Torque requirements for specific applications may vary. Roadmaster does not warrant this information to be accurate for all applications and disclaims all liability for any claims or damages which may result from its use.

STANDARD BOLTS

Thread Size	Grade	Torque
5/16-18	5	13 ft./lb.
3/8-16	5	23 ft./lb.
7/16-14	5	37 ft./lb.
1/2-13	5	57 ft./lb.
5/8-11	5	112 ft./lb.

METRIC BOLTS

Thread Size	Grade	Torque
6mm-1.0	8.8	6 ft./lb.
8mm-1.0	8.8	18 ft./lb.
8mm-1.25	8.8	16 ft./lb.
10mm-1.25	8.8	36 ft./lb.
10mm-1.5	8.8	31 ft./lb.

METRIC BOLTS

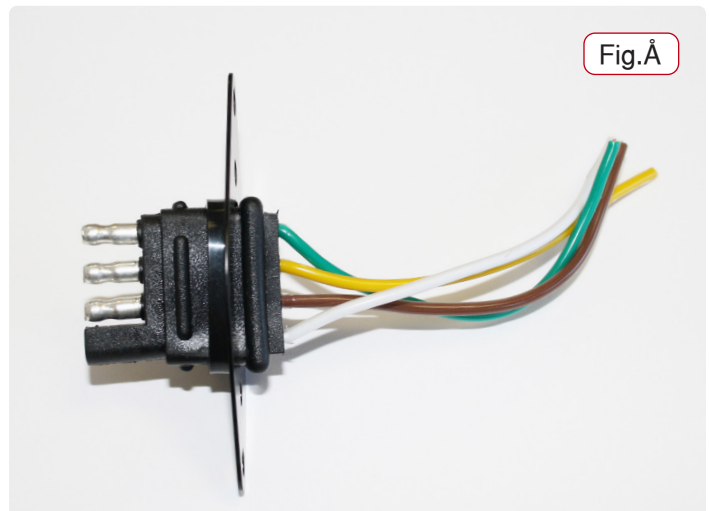
Thread Size	Grade	Torque
12mm-1.25	8.8	64 ft./lb.
12mm-1.5	8.8	60 ft./lb.
12mm-1.75	8.8	55 ft./lb.
14mm-2.0	8.8	88 ft./lb.

Three options for attaching the wiring plug to the main receiver brace:

For six-wire plugs: Use the two supplied 3/4" self-tapping screws to attach the electrical plug directly to the rods on the front of the main receiver brace.

For four-wire round plugs: Attach to the plug mounting plate and then use the two supplied 3/4" self-tapping screws to attach the mounting plate to the rods on the front of the main receiver brace.

For four-wire flat plugs: Place the plug through the mounting plug plate, and then secure it using the supplied zip tie on the front of the plug (Fig.Å). Use the two supplied 3/4" self-tapping screws to attach the mounting plate to the rods on the front of the main receiver brace.





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Winch-Equipped Vehicle Supplemental

IMPORTANT!

This supplemental set of instructions only applies to vehicles that are equipped with a front-mounted winch, it can be ignored otherwise!

NOTE: How to use this supplemental; It is recommended that you detach this supplemental from the rest of the document and consult it alongside the normal installation instructions to make sure all steps are followed. Some of these steps differ and some compliment or follow steps from the normal installation instructions. *Refer to the winches' user and installation manual for important safety and other information.*

1. Disconnect the electrical cables that lead to the winch by unbolting them from the battery (Fig.AA), make note were they connect to reconnect them properly later. Retain hardware.

2. Remove three bolts from the inner fender trim to allow access for routing the winch electrical cables out of the vehicle (Fig.AB). Retain hardware.

3. Pull back the plastic fender lining trim to guide the winch electrical cables downward and out of the vehicle (Fig.AC), you may wish to use some sort of bungee cable, another person, or other method to hold back the trim.

4. Let the wires hang for now.

5. Unbolt and remove the OEM tow hook from the winch, set aside for now.

6. Remove the skid plate as in Page 1: Step 2. Set it aside—do not reuse the original hardware, as it will be replaced.

7. Unbolt and remove the front winch panel (Fig. AD). You may need to hold the rear nuts in place with a wrench. Retain the hardware. Then, tuck the winch cable into it's origin slot.

8. Complete steps on Page 1 & 2: Steps 3 to 12. Concluding with removal of the bumper bolts.

Note: It may be more difficult with the winch installed due to clearances to reach some bolts and nuts.

9. Remove the four bottom bolts securing the winch plate to the winch. Retain the bolts for reinstallation (Fig.AE).



Fig.AA

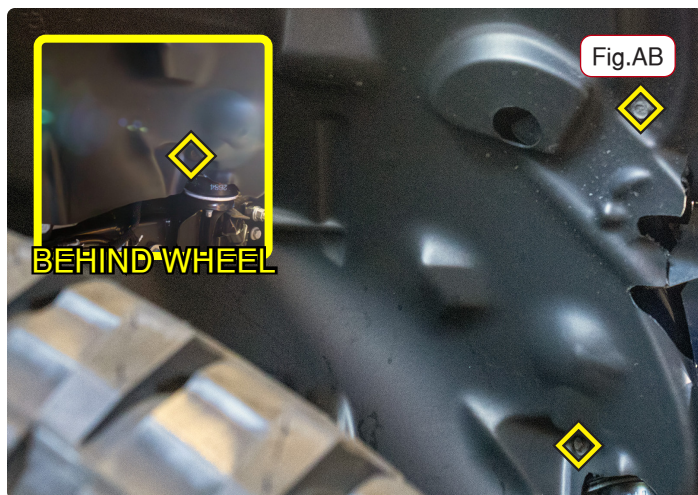


Fig.AB

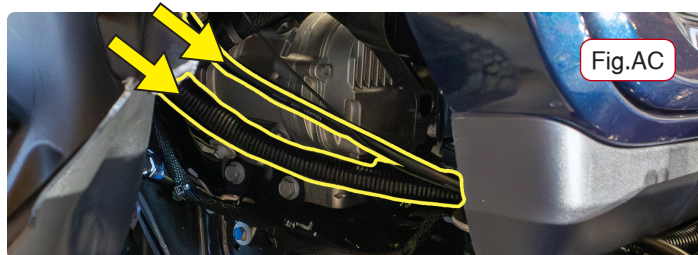


Fig.AC



Fig.AD

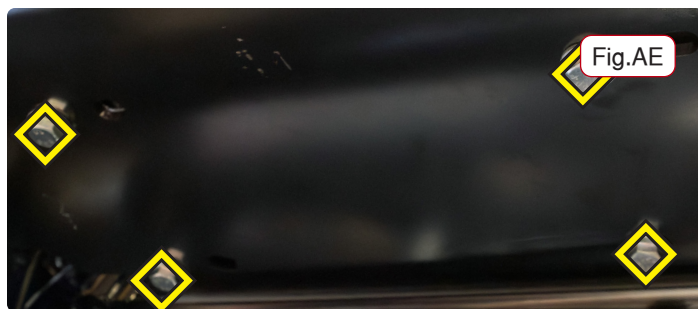


Fig.AE



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10. Pull the winch cabling forward to prevent it from snagging, then remove the winch from the plate.

11. Remove the four bolts attaching the winch plate to the frame (Fig.AF). Retain this hardware.

12. On each side, unbolt and remove the side brackets that supported the winch plate (Fig.AG). These will be replaced by the baseplate.

13. Proceed with the rest of the instructions in the main document starting at Page 2: Step 13.



To reinstall the winch:

1. Replace the winch mounting plate onto the baseplate and subframe, replace the four bolts showing in Figure AF but keep them loose for now.

2. Temporarily reinstall the bumper and attach a nut to the lower mount point where the baseplate contacts the bumper mounting threads, on both sides (Fig.AG).

3. Insert temporary bolts (with washers under the nuts) into the front two middle slots from the winch plate side (Fig.AH).

4. Once the plate is secured to the bumper, align and tighten the four lower bolts on the winch plate, making sure it is properly aligned, as these will be inaccessible once the winch is reinstalled.

5. Remove the bumper once more.

6. Reinstall the winch by reversing prior steps in the prior section, reroute the wires back up, and reconnect them to the battery before proceeding with the rest of the instructions on page 6.

