



# BASEPLATE KIT INSTALLATION INSTRUCTIONS

**KIT# 524481-5**

05/25  
RS

ROADMASTER, Inc.

6110 NE 127th Ave.

Vancouver, WA 98682

360-896-0407

www.RoadmasterInc.com

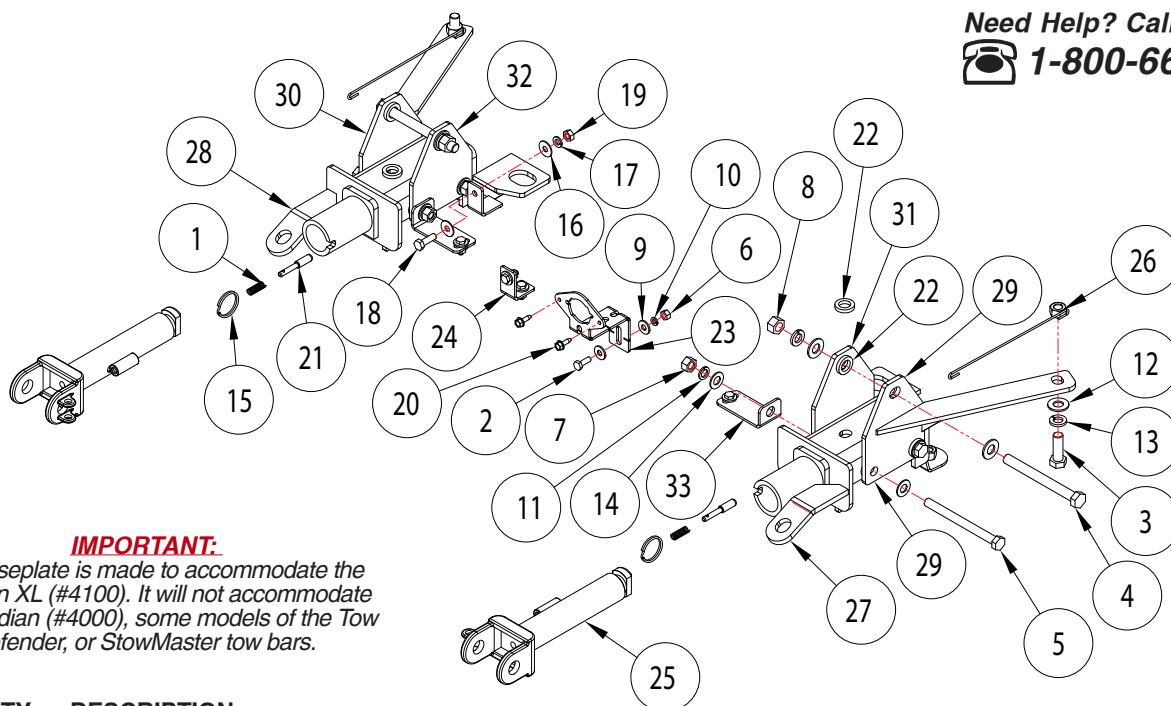
## What You'll Need

A second person to help  
Panel tool  
Reciprocating Saw  
Ratchet

14, 16, 19 mm Wrenches  
10, 14, 16, 19 mm Socket  
Tape Measure  
Torque wrench

Needle Nose Pliers  
3/4 Socket  
Red Threadlocker

Need Help? Call Toll-Free  
 1-800-669-9690



### IMPORTANT:

This baseplate is made to accommodate the Guardian XL (#4100). It will not accommodate the Guardian (#4000), some models of the Tow Defender, or StowMaster tow bars.

| ITEM | QTY. | DESCRIPTION                     | PART      |
|------|------|---------------------------------|-----------|
| 1    | 2    | SPRING                          | 200146-00 |
| 2    | 5    | 1/4" x 3/4" BOLT                | 350003-01 |
| 3    | 2    | 1/2" x 1 1/2" BOLT              | 350095-00 |
| 4    | 2    | 1/2" x 5" BOLT                  | 350107-00 |
| 5    | 4    | 7/16" x 5" BOLT                 | 350214-00 |
| 6    | 5    | 1/4" HEX NUT                    | 350250-00 |
| 7    | 4    | 7/16" HEX NUT                   | 350256-00 |
| 8    | 2    | 1/2" HEX NUT                    | 350258-00 |
| 9    | 10   | 1/4" FLAT WASHER                | 350300-00 |
| 10   | 5    | 1/4" LOCK WASHER                | 350301-00 |
| 11   | 4    | 7/16" LOCK WASHER               | 350307-00 |
| 12   | 6    | 1/2" SAE WASHER                 | 350308-20 |
| 13   | 4    | 1/2" LOCK WASHER                | 350309-00 |
| 14   | 8    | 7/16" SAE WASHER                | 350345-00 |
| 15   | 2    | RING                            | 350520-00 |
| 16   | 4    | M8 FLAT WASHER                  | 355700-00 |
| 17   | 2    | M8 LOCK WASHER                  | 355705-00 |
| 18   | 2    | M8 x 1.25 x 25 mm BOLT          | 356008-00 |
| 19   | 2    | M8 x 1.25 HEX NUT               | 356208-00 |
| 20   | 2    | 1/4" x 3/4" SELF DRILLING SCREW | 357250-00 |
| 21   | 2    | LOCK PIN                        | A000008   |
| 22   | 6    | 1" O.D. x 3/16" SPACER          | A002965   |
| 23   | 1    | WIRE PLUG PLATE                 | A006808   |
| 24   | 1    | BRAKEAWAY TAB                   | B004395   |
| 25   | 2    | ARM                             | C002383   |
| 26   | 2    | 1/2" HEX NUT W/ 8" ROD          | C003670   |
| 27   | 1    | DRIVER SIDE RECEIVER            | C003889   |
| 28   | 1    | PASSENGER SIDE RECEIVER         | C003890   |
| 29   | 1    | DRIVER SIDE OUTER PLATE         | C003891   |
| 30   | 1    | PASSENGER SIDE OUTER PLATE      | C003892   |
| 31   | 1    | DRIVER SIDE INNER PLATE         | C003893   |
| 32   | 1    | PASSENGER SIDE INNER PLATE      | C003894   |
| 33   | 2    | BUMPER BRACKET                  | B004403   |



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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.



Fig.A



Fig.B



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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.

**NOTE:** The first few steps apply to some Ranger models; Raptor models should skip these steps and start at step 7.

1. From the top front of the fascia, remove eleven plastic clips (Circles) and unplug three wire harnesses (Fig.C1,C2,C3) as indicated in Figure C. Then remove two 8mm bolts (Inset – Diamonds).

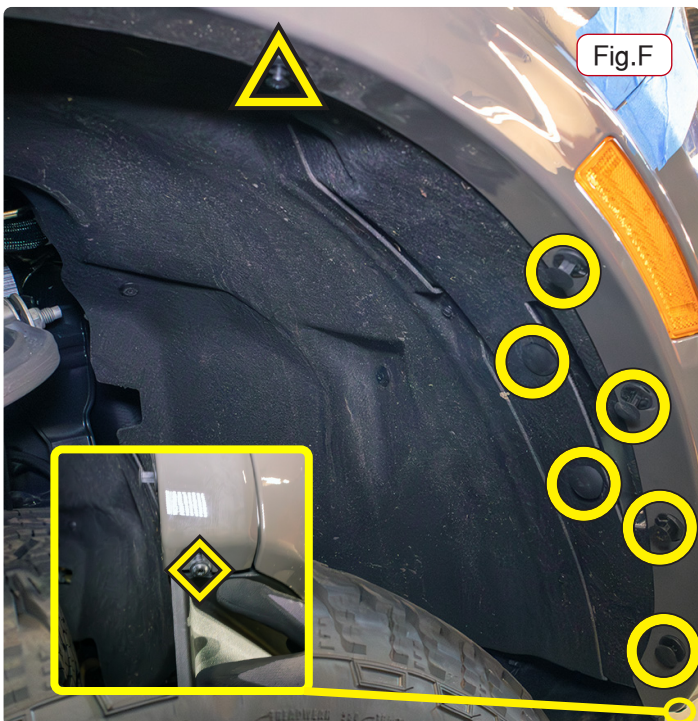
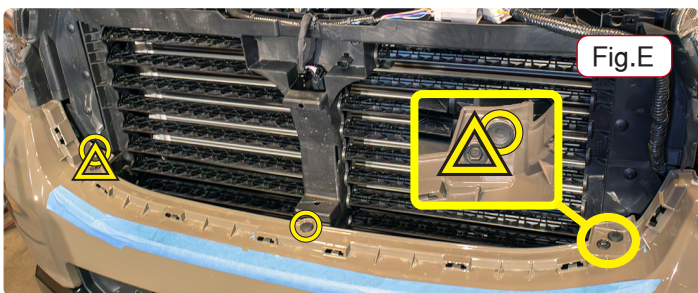
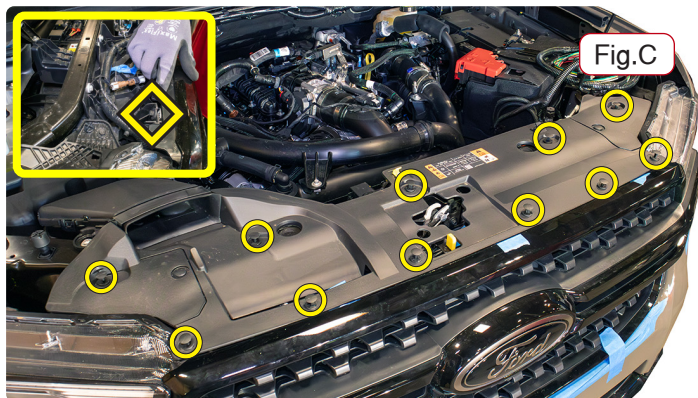
2. Using a flathead screwdriver and plastic prying tool, un-clip the top fascia plate's interior clips, remove and set aside the top fascia plate for now (Fig.D).

3. From the front of the middle fascia remove three plastic clips (Circles) and two 10mm screws (Triangles) (Fig.E).

4. **Starting on one side;** from inside the wheelhouse, remove one phillips screw (Triangle) and one T24 bolt (Diamond). Then remove four plastic clips (Circles) and two larger plastic clips (Circles) from further inside of the wheelhouse (Fig.F).

5. Pry back the wheelhouse trim carefully and hold in place with a soft rag or other soft material, reach in and unplug the blinker wire harness (Fig.G).

6. From inside the wheelhouse; remove three recessed 10mm screws (Fig.H).





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Repeat steps 4, 5, and 6 for the other side.

Raptor Models begin at step 7.

7. Remove four 15mm bolts (Fig.I1 – Diamonds) and remove two 8mm bolts (Fig.I1 – Insets) from the skid plate, remove skid plate and set aside. *For XLT: Do not remove skid plate.*  
**NOTE: The skid plate may vary between trims and models, as seen in Figure I1 and I2. You may need to remove four 15mm bolts and five 10mm bolts for the Raptor models. XLT models do not remove the skid plate.**

8. Remove six bolts from the underside of the plastic bumper (Fig.J). *For XLT models: remove 8 bolts on the bottom plastic trim (Fig.X, last page), this will be trimmed later in the document.*

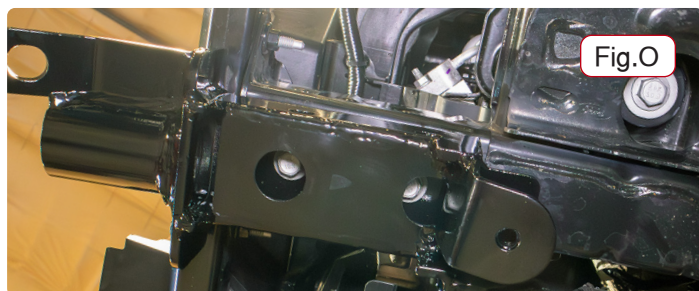
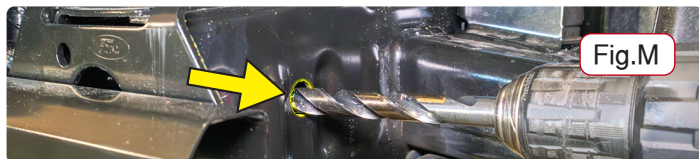
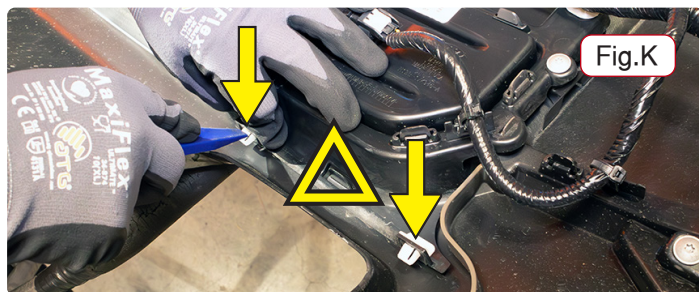
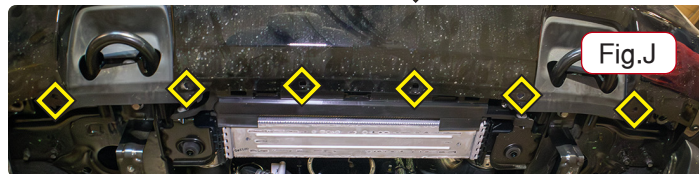
9. Pop out on each side of the middle fascia by pulling forward then remove and setting aside the fascia. *For Raptor Models Only: Before removing the middle fascia, detach the wire harness and pull down the cable through and behind the fascia so it does not get caught (Fig.C3 — Prior page).*

10. Then, from the removed fascia, remove the tow hook covers by removing two 8mm screws (Triangles) on the top-outside of the tow hook's cover then popping four white plastic tabs on the inside (Arrows) (Fig.K). The covers may be discarded or kept for tow hook reinstallation if baseplate is removed.

**11. Starting on the driver's side:** remove one 8mm screw (Triangle) and two 15mm bolts (Diamonds) to detach the towhook, they will not be reused but should be kept for future reinstallation if the baseplate is removed (Fig.L). Keep these removed bolts as they will be reused.

12. Drill out the existing hole on the side of the subframe horn mounts identified in Figure M using a 9/16th bit.

13. Grab the driver side receiver and add, through the bottom in the back slot, a 15mm bolt from the tow hooks onto the receiver and add a spacer onto the front side where the threads emerge (Fig.N). Place the receiver onto the tow hook mount, align with the holes and use the other 15mm bolt to attach the receiver (Fig.O). Apply threadlocker and torque.





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Fig.P

14. On the bottom side of the subframe and receiver area, use a 9/16th drill to enlarge the hole to which we will attach the brace (Fig.P).

15. Grab the driver side outer plate; grab a 1/2" x 5" bolt and attach the top bolt (Red Diamond) and washer into the plate to bolt to the receiver, then place the inner plate on the opposing side hanging from the exposed bolt splines with a spacer, cap with a SAE washer, lock washer, nut. Repeat for the bottom two 7/16 x 5" bolts using a bolt with a washer (Yellow Diamonds), and finished with a SAE washer, lock washer and nut (Fig.Q and Fig.R), apply threadlocker to added bolts and torque. Diagram 2 shows this process.

16. Attach the back support brace of the outer plate onto the subframe using a 1/2" x 1 1/2" bolt, lock washer, SAE washer, and finished hex nut placed into the subframe (Fig.Q and Fig.R – Blue Diamond). *For XLT Models only:* attach onto the side of the inner plate the added small brace, attach with supplied hardware.

### Repeat prior steps for the passenger side.

17. Bend the universal plug at three slots down from the front at roughly a 38 degree angle before mounting onto the frame where desired.

18. Trim the skid plate before reattaching as indicated in Figure S, about two inches. *For Raptor models only: Trim the bumper core as indicated in Figure T, four screws hold these plates together to the core. For XLT models only: Skip this.*

19. *For XLT Models Only:* Trim the bottom plastic trim before reattaching it as indicated in Figure W, next page.

20. Reverse prior instructions as relevant to reassemble.

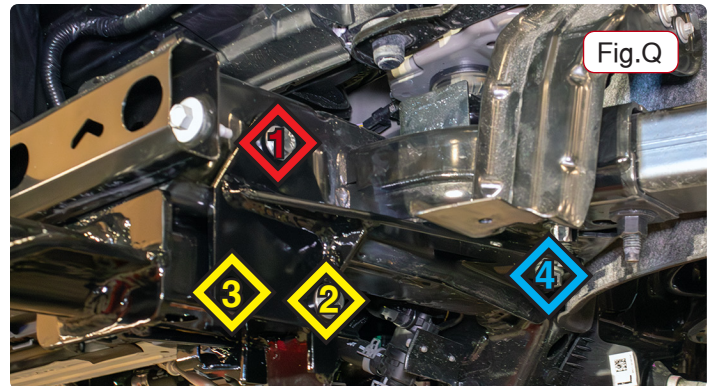


Fig.Q

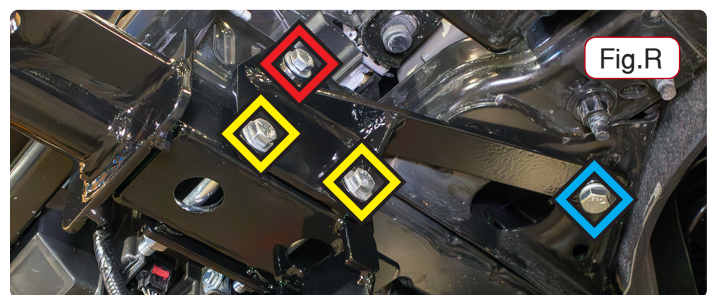


Fig.R

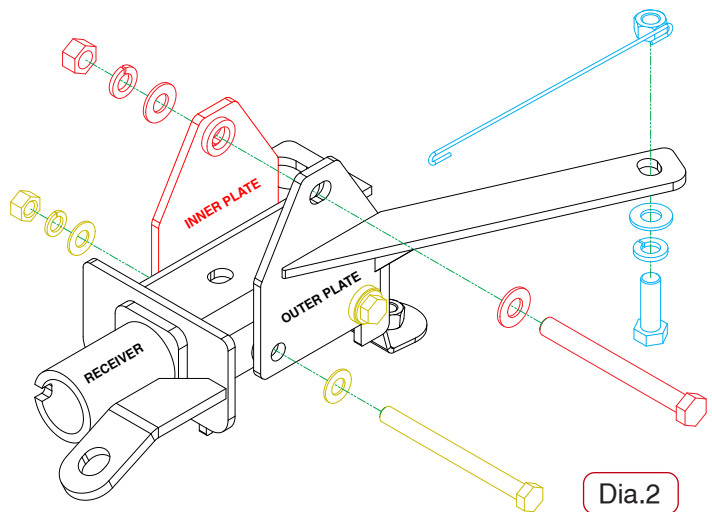


Fig.S



Fig.T

21. Tighten, secure all bolts with threadlocker and torque to specifications at the end of this document.

**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.



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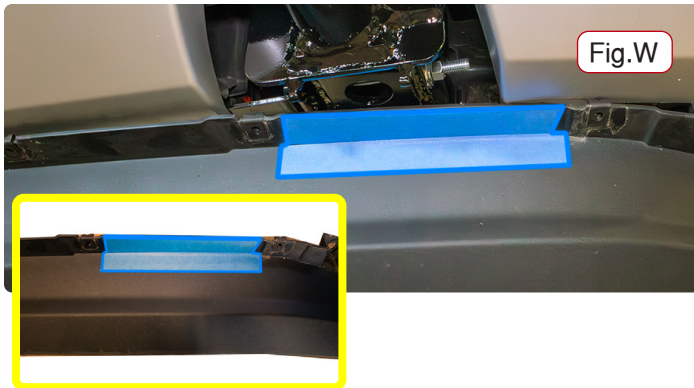


Fig.W

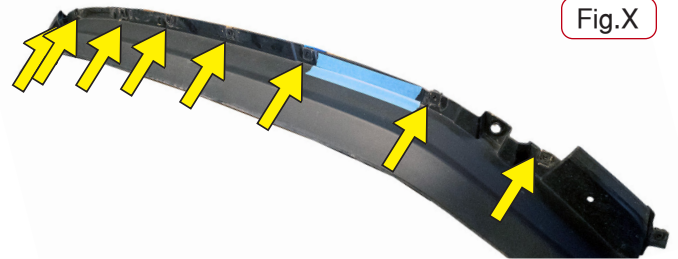


Fig.X

### 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 U. 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.



Fig.U

### 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.V). 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.

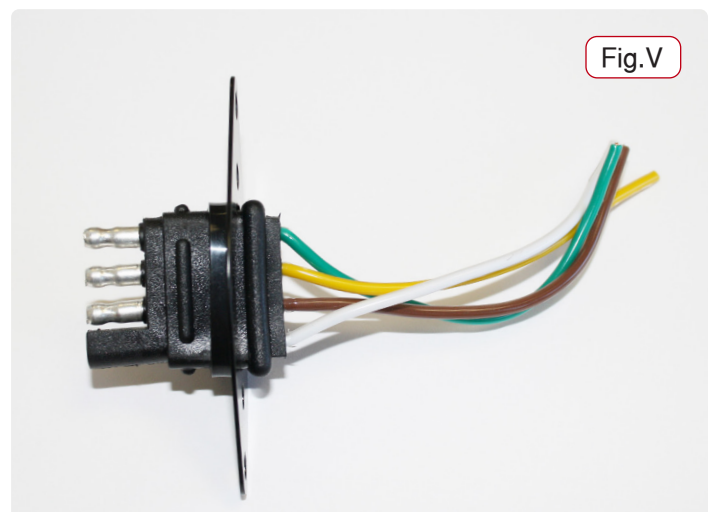


Fig.V