



# BASEPLATE KIT INSTALLATION INSTRUCTIONS

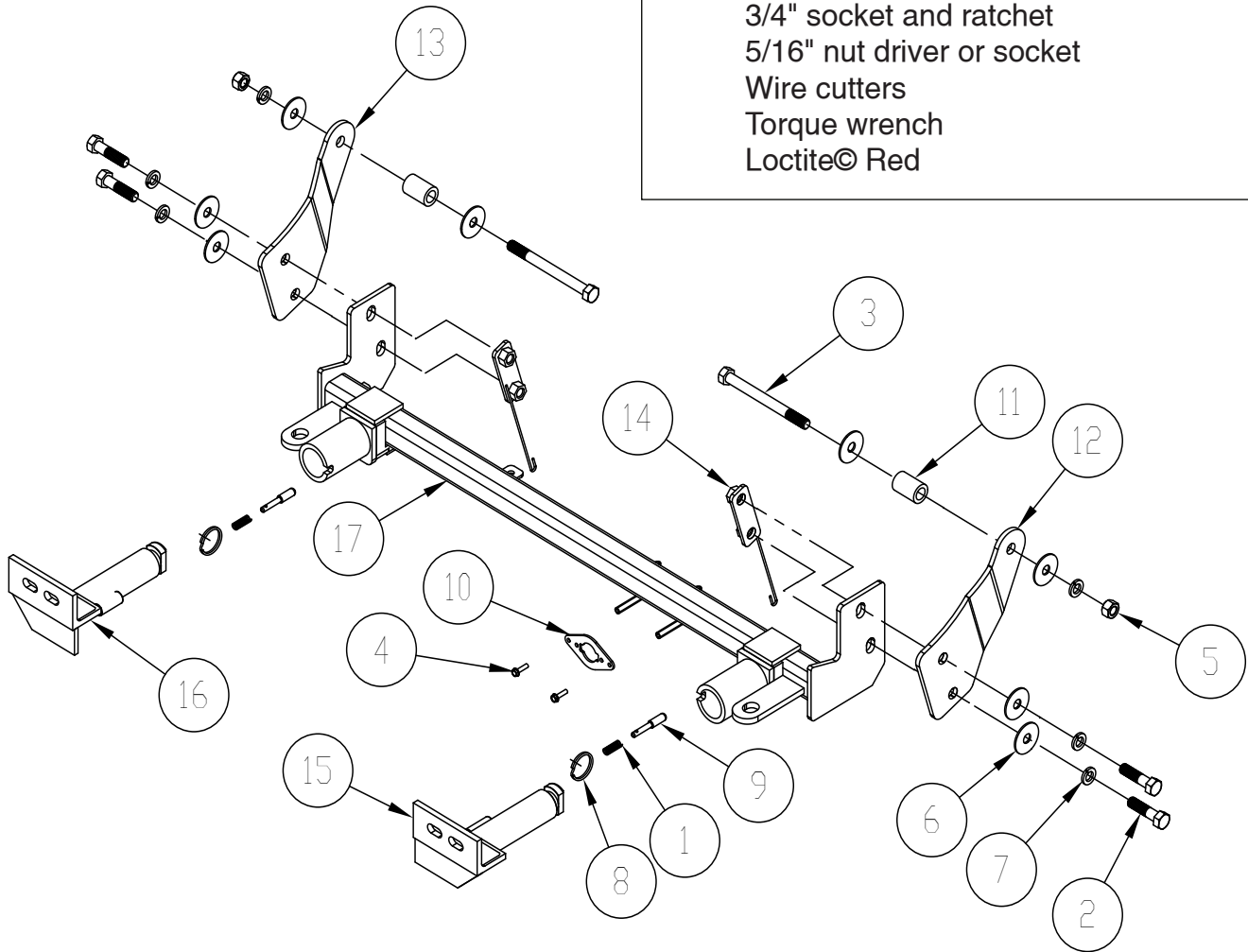
**KIT# 521455-4**

09/18/20  
KS

ROADMASTER, Inc. 6110 NE 127th Ave. Vancouver, WA 98682 360-896-0407 fax 360-735-9300 www.roadmasterinc.com

## Recommended Tools

3/4" wrench  
3/4" socket and ratchet  
5/16" nut driver or socket  
Wire cutters  
Torque wrench  
Loctite® Red



ITEM	QTY.	DESCRIPTION	PART NUMBER
1	2	SPRING	200146-00
2	4	1/2" X 2" BOLT	350097-00
3	2	1/2" X 5 1/2" BOLT	350108-00
4	2	#10 X 3/4" SELF DRILLING SCREW	350247-35
5	2	1/2" HEX NUT	350258-00
6	8	1/2" FLAT WASHER	350308-00
7	6	1/2" LOCK WASHER	350309-00
8	2	RING	350520-00
9	2	LOCK PIN	A000008
10	1	WIRE PLUG PLATE	A003801
11	2	1" O.D. X 0.188" WALL X 1 1/2" TUBE SPACER	A002898
12	1	DRIVER SIDE PLATE	B002160
13	1	PASSENGER SIDE PLATE	B002161
14	2	3/16" X 1 1/8" X 3 9/16" THREADED BACKING PLATE W 5" /ROD	C003559
15	1	DRIVER SIDE ARM	C003560
16	1	PASSENGER SIDE ARM	C003561
17	1	MAIN RECEIVER	C003562



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This is one of our crossbar-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). This kit consists of one main receiver brace, two side-specific braces, two removable front braces, and a hardware pack.

The main receiver brace mounts to the frame and the side-specific brace on each side. The removable front braces install in the main receiver braces.

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 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 Loctite® 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 inches or more. This 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 weight 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 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.



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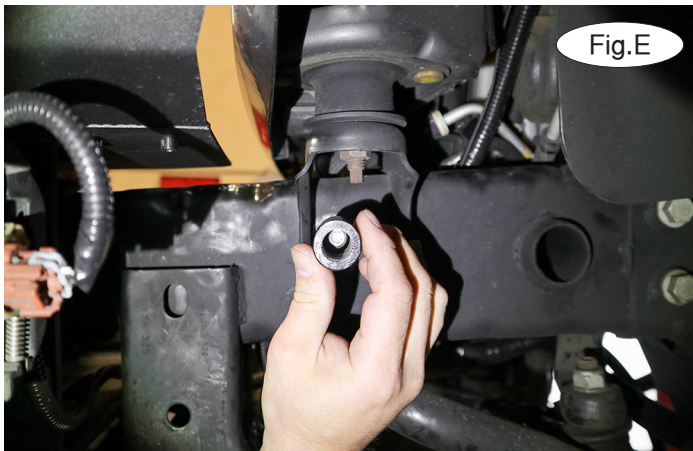
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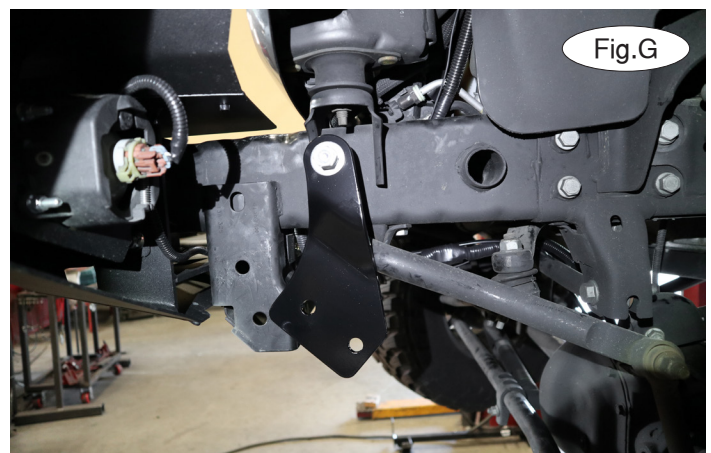


**Important:** please use all supplied bolts and parts and read all instructions carefully before beginning this installation. The majority of questions you may have can be answered within the text, and proper installation will ensure safe and secure travel.

1. On each side, place a 1/2" flat washer over a 1/2" x 5/2" bolt and pass it from the inside of the frame to the outside, through the existing holes in the frame just below the forwardmost body mount (Fig.C) *Note:* If the hole is not drilled on both sides of the frame already, use a 9/16" bit and drill through the inner wall of the frame rail (Fig.D).



2. On each side, place a 1" O.D. x .188 wall x 1 1/2" pipe spacer over the bolt installed in the previous step (Fig.E). Use the drawing on page 1 to locate the side-specific rear brace and place it over the end of the bolt and pipe spacer. Loosely finish each bolt with a 1/2" flat washer, 1/2" lock washer and a 1/2" nut (Fig.F). Only turn a few threads on the nut and allow the brace to hang down for now (Fig.G).





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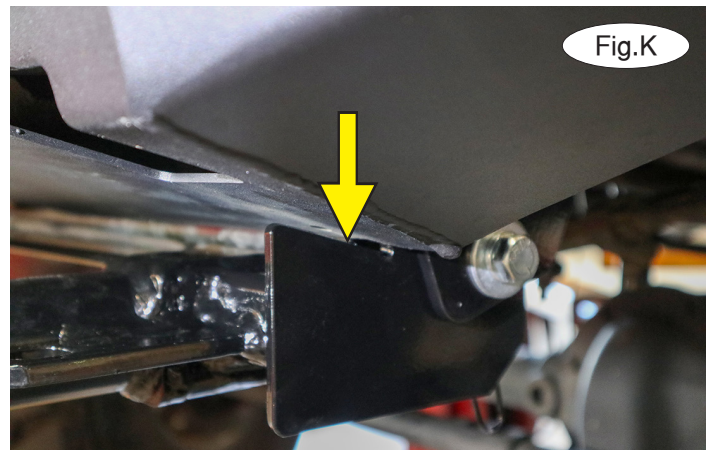
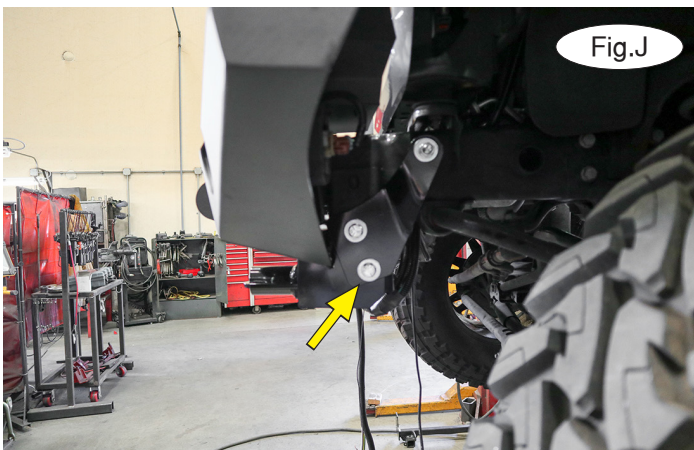
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3. Place  $\frac{1}{2}$ " lock washers and flat washers over the four supplied  $\frac{1}{2}$ " x 2" bolts. Then, with one person on each side of the vehicle, hold the main receiver brace so that the holes in it align with the existing holes in the frame horn. Swing the rear brace forward, and pass one of the bolts through the uppermost mount of the side-specific rear brace, frame horn and the main receiver brace (Fig.H).

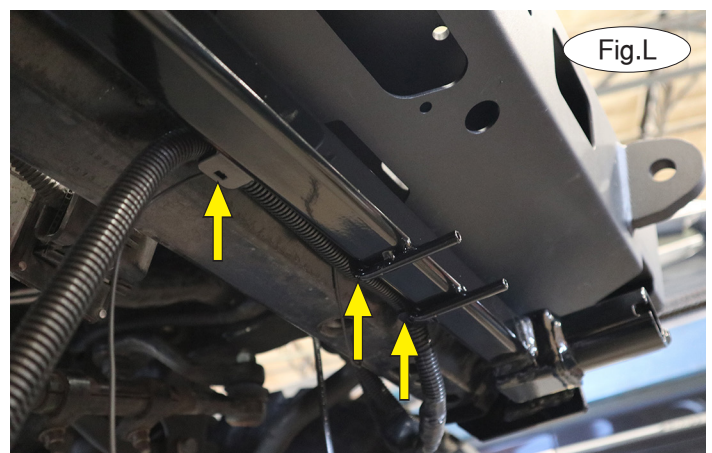


4. On each side, insert one of the two-holed nutted backing plates with rod up through the access hole, threading the bolt you installed in the previous step into the top nut (Fig.I). Then, install the lower bolt (Fig.J).

5. On each side, apply upward pressure on the main receiver until there is about  $\frac{1}{8}$ " inch clearance between the main receiver and the bumper (Fig.K). Torque the 2" bolts and then torque the  $5\frac{1}{2}$ " bolts to the requirements found at the end of these instructions.

6. If desired, use the baseplate's welded wire attachment points to keep the wiring tidy (Fig.L).

7. Bend the rods on the nutted backing plates out of the way, or cut them off.





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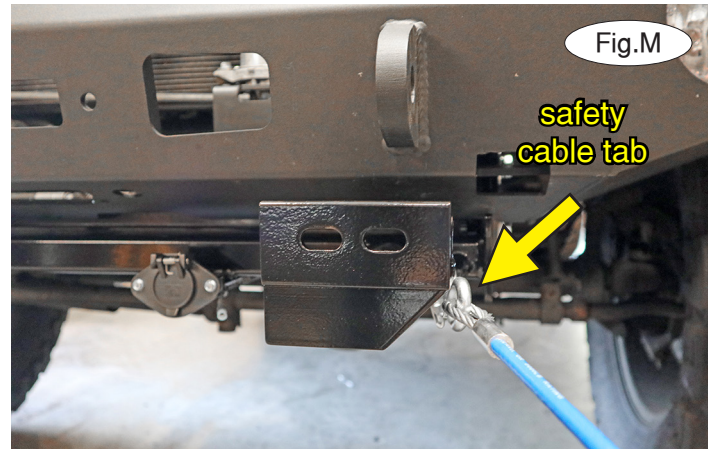
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8. On each side, insert the removable front arm into the front receiver 90 degrees from its final towing position, depressing the spring-loaded pin against the receiver. Twist back 90 degrees until the spring-loaded pin snaps into place in the notch on the receiver, locking the arm into place in its final towing position. **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.**

9. Install the tow bar to the mounting bracket according to the manufacturer's instructions.



### IMPORTANT!

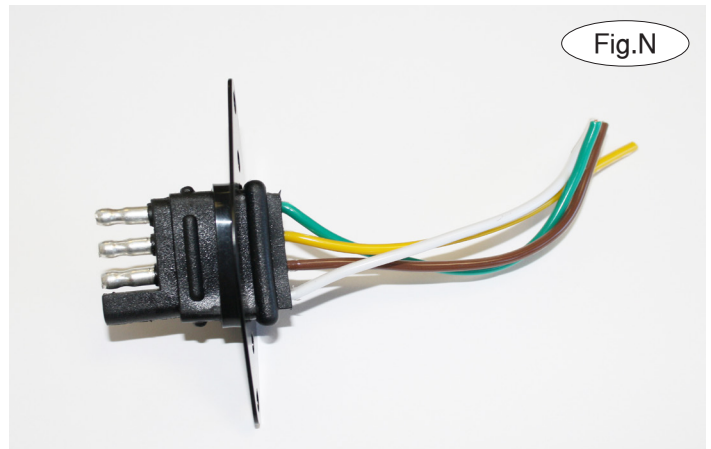
**Safety cables are required by law. When towing, connect safety cables to the safety cable tabs illustrated on the first page and in Figure M. Make certain there is adequate slack in the cables to allow a full turning radius; otherwise, damage will result. If necessary, longer cables or cable extensions are available.**

### 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.N). 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.



### 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.

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.