

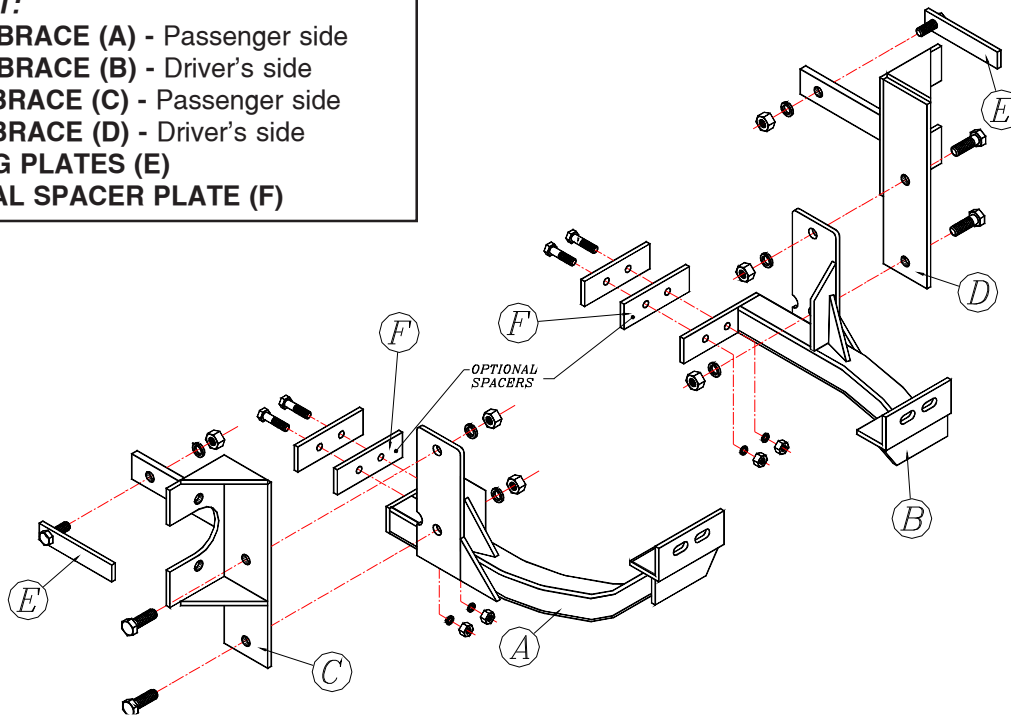
# BASEPLATE KIT INSTALLATION INSTRUCTIONS

ROADMASTER, Inc. 6110 NE 127th Ave. Vancouver, WA 98682 1-800-669-9690 fax 360-735-9300 www.roadmasterinc.com

## PARTS LIST:

- 1- LOWER BRACE (A) - Passenger side
- 1- LOWER BRACE (B) - Driver's side
- 1- UPPER BRACE (C) - Passenger side
- 1- UPPER BRACE (D) - Driver's side
- 2- BACKING PLATES (E)
- 2- OPTIONAL SPACER PLATE (F)

KIT NO. 228-1



051598

**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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**KIT NO. 228-1**

1. **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. Now, begin the installation. Remove the front bumper and the E-A units from each side by unbolting the E-A units from the mounts and unbolting the plastic air dam. Save all bolts and screws.
2. Discard the backing plates that fit between the bumper and the frame.
3. Replace the backing plates with the respective upper braces (C&D) as shown in the attached drawing. Make sure the large plate portion of the bracket fits down and towards the center of the car. If needed, trim the sheet metal between the E-A mount and the wiring access hole in the cowling. This hole will be located between the E-A mounts and the radiator cowling. The bracket (C or D) should fit over the existing E-A mount holes and a hole approximately 5" back in the frame. *Note:* if the rear hole is missing one will have to be made. Use a 1/4" x 1" x 5" backing plate (E) with bolt and insert from the inside of the frame through the 1/2" hole in the bracket back strap. Align the front holes and tighten the bolts finger tight only at this time.
4. Replace the bumper over the upper brackets.
5. Tighten all bolts according to the torque chart shown below.
6. Now, bolt the lower brackets (A&B) into position using 1/2" x 1 1/2" bolts provided and torque these bolts.
7. Mount the tow bar to the brackets (A&B) according to the instructions provided with the tow bar.
8. Now, drill two 3/8" holes per side in the lower cowling lip. Bolt through the bracket cowling and the backing plates (F) provided with 3/8" x 1 1/2" bolts and washers. *Note:* two optional spacer plates are provided in the event shimming is required.

**HARDWARE LIST:**

- 2-7/16" LOCK WASHERS
- 2-7/16" NUTS
- 4-1/2" X 1 1/2" BOLTS
- 4-1/2" NUTS
- 4-1/2" LOCK WASHERS
- 4-3/8" X 1 1/2" BOLTS
- 4-3/8" NUTS
- 4-3/8" LOCK WASHERS
- 2-1/4" X 1" X 5" BACKING PLATES WITH 7/16" X 1 1/2" BOLT
- 2-1/4" X 1 1/2" X 4 1/2" BACKING PLATES
- 2-1/4" X 1 1/2" X 4 1/2" SPACER PLATES

**051598**

**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 |       |             | METRIC BOLTS |       |                       | METRIC BOLTS |       |                        |
|----------------|-------|-------------|--------------|-------|-----------------------|--------------|-------|------------------------|
| Thread Size    | Grade | Torque      | Thread Size  | Grade | Plated/Unplated       | Thread Size  | Grade | Plated/Unplated        |
| 5/16           | 5     | 13 ft./lb.  | 8mm-1.0      | 8.8   | 20 ft./lb. 18 ft./lb. | 12mm-1.25    | 8.8   | 70 ft./lb. 65 ft./lb.  |
| 3/8            | 5     | 23 ft./lb.  | 8mm-1.25     | 8.8   | 19 ft./lb. 18 ft./lb. | 12mm-1.5     | 8.8   | 66 ft./lb. 61 ft./lb.  |
| 7/16           | 5     | 37 ft./lb.  | 10mm-1.25    | 8.8   | 38 ft./lb. 36 ft./lb. | 12mm-1.75    | 8.8   | 65 ft./lb. 60 ft./lb.  |
| 1/2            | 5     | 56 ft./lb.  | 10mm-1.5     | 8.8   | 37 ft./lb. 35 ft./lb. | 14mm-2.0     | 8.8   | 104 ft./lb. 97 ft./lb. |
| 5/8            | 5     | 150 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.