

## WL002 INSTALLATION INSTRUCTIONS

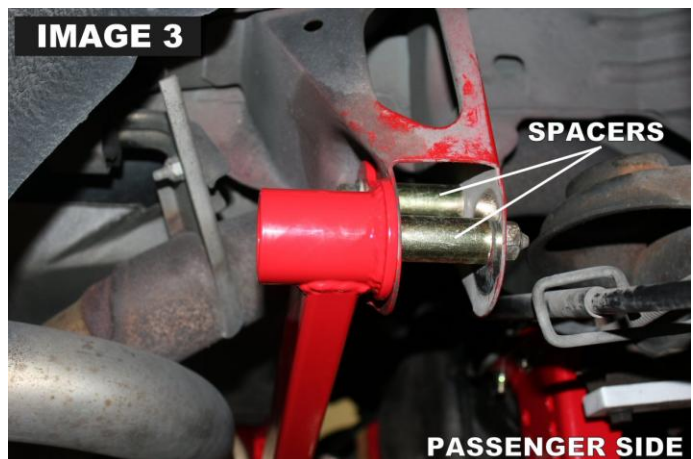
1993-2002 Camaro, Firebird

### TOOLS REQUIRED:

- Hydraulic jack and stands or service lift
- Die grinder with cutoff wheel or similar cutting tool (See Step 12 below)
- Tin snips
- Wrenches and sockets: 7mm, 13mm, 15mm, 18mm, 21mm, 9/16", 3/4", 15/16"

### INSTALLATION:

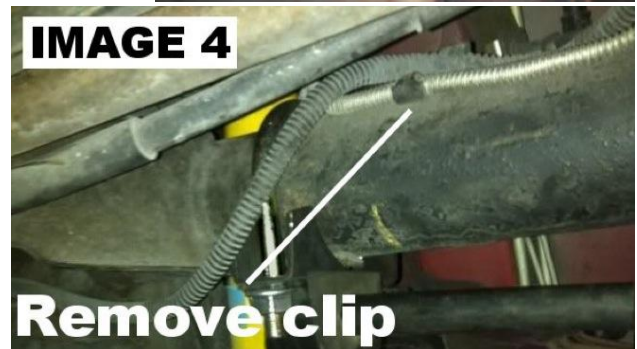
1. Lift vehicle and safely support with jack stands under the frame rails.
2. Position the jack under the center of the axle once the car is secure.
3. Using an 18mm and 21mm wrench, remove the factory panhard rod.
4. Locate the heat shield directly over the muffler. There are two small screws that connect the heat shield to the upper panhard rod support. Using a 7mm wrench or socket, remove these screws as shown in **IMAGE 1**.
5. Remove the upper panhard rod support bolt on the passenger side using an 18mm and 21mm wrench. Due to rearend/spring interference, you may need to lift or lower the rear end in order to get the bolt all the way out. (**IMAGE 2**)
6. Using a 15mm socket, remove the (3) bolts on the drivers' side that connect the upper panhard rod support to the frame rail. Remove the upper panhard rod support.
7. Using the 7mm socket, remove the remaining 3 screws that retain the heat shield to the floor. Remove the heat shield by sliding out the rear.
8. Install the BMR Watts Link cross-member with the supplied spacers installed where the panhard rod and upper panhard rod support was originally bolted. See **IMAGE 3**). Use the factory mounting hardware to install the cross-member. Torque the smaller driver's side bolts to 47 ft/lbs. and the passenger side bolts to 83 ft/lbs.



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9. Trim the factory heat shield as shown in **IMAGE 3B** until it clears the BMR crossmember then re-install it using the original hardware.
10. Loosen the sway-bar mounting brackets using a 13mm deep socket.
11. Position the supplied aluminum sway-bar spacers between the mounting bushing and the clamp then re-tighten the clamps, spacing the sway-bar down ½”.
12. Locate the steel clips that attach the steel brake lines to the top of the rear end. There is one on each side located just inboard of the sway-bar mounting brackets on top of the axle tubes (**IMAGE 4**). These tabs are spot welded to the rear end and need to be cut off in order to attach the Watts Linkage axle clamps. Using a grinder, Dremel, or similar tool, cut the tabs off and grind the area smooth. Paint if desired.
13. In this step we will install the Watts Linkage axle clamps. Referencing **IMAGE 5**, install the axle clamps as shown. Leave the bolts loose enough to allow rotation of the bracket on the axle housing but with enough tension to hold itself in place.



**NOTE:** In order to mount the brackets to the rear end, it is necessary to bend the brake lines up out of the way. Once the installation is complete, the lines can be re-positioned over the axle clamps.

**NOTE:** BMR provides provisions for stock 2.75” diameter and aftermarket 3” axles. If you have the stock axle, use the provided 2.75” ID axle shims inside the axle clamps. If you have an aftermarket 3” diameter axle housing, leave these shims out when installing the axle clamps.





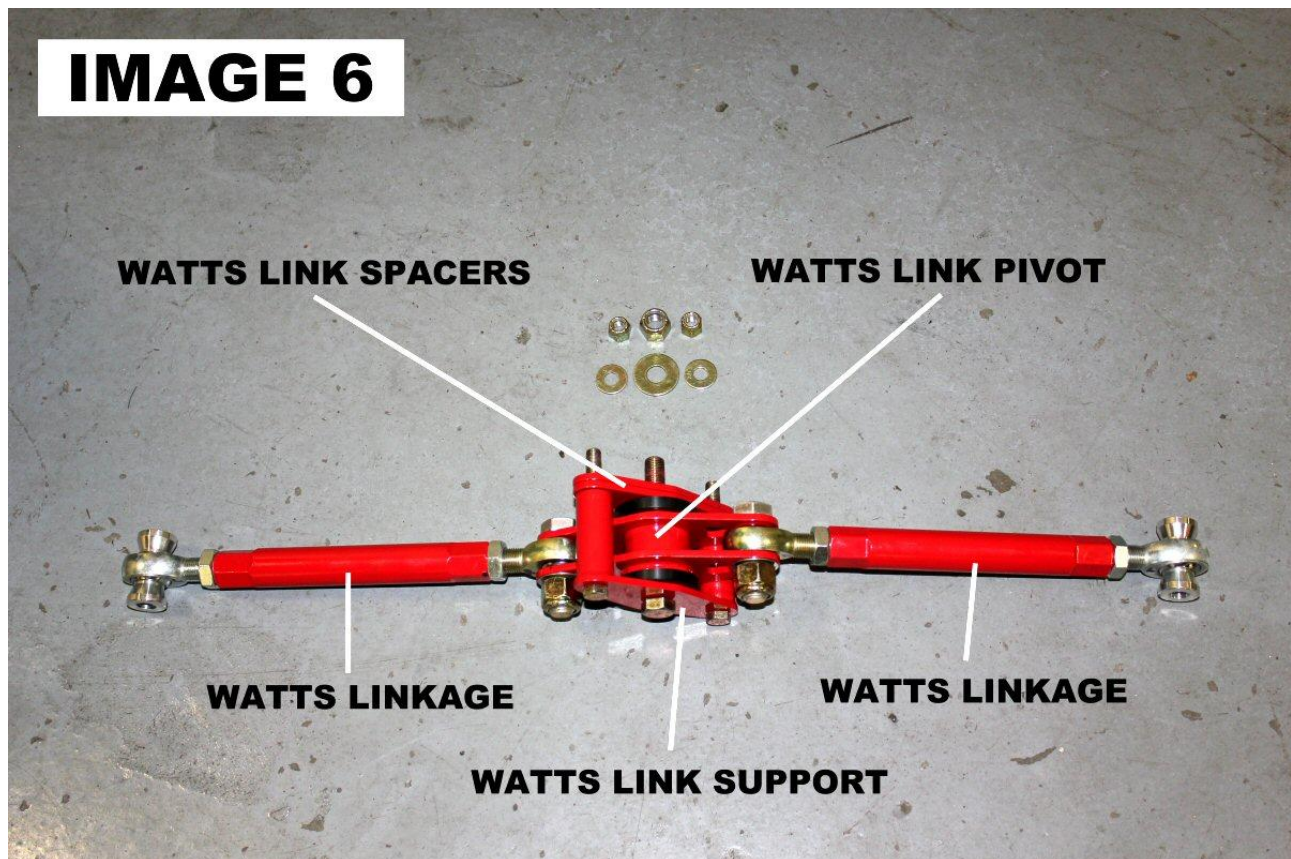
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14. Gather the following components:

- Watts Link Pivot
- Watts Linkages
- Watts Link Support
- Watts Link Spacers (2)
- (2) 5/8" x 2" bolts
- (2) 5/8" poly-lock nuts
- (2) 5/8" finish washers
- (1) 1/2" x 3.5" bolt
- (1) 1/2" poly-lock nut
- (1) 1/2" USS washer (gold)
- (2) 3/8" x 3.25" bolts
- (2) 3/8" poly-lock nuts
- (2) 3/8" SAE washers (gold)

15. Assemble the components as shown in **IMAGE 6**. Tighten the 5/8" x 2" bolts that connect the Watts Linkages to the Pivot.



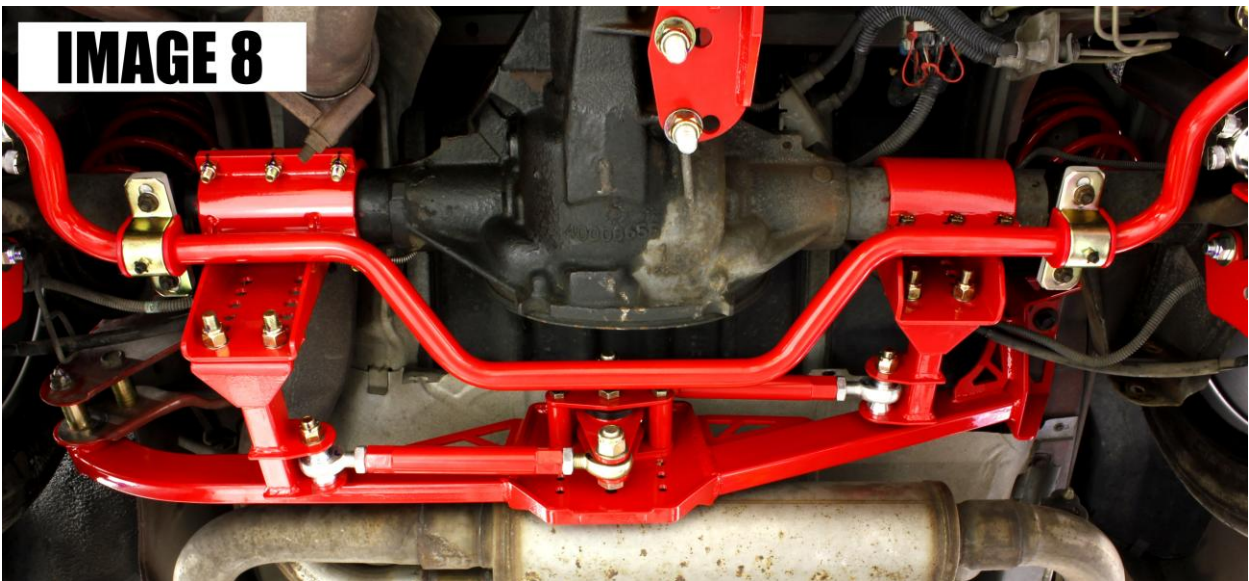
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16. Now mount the Watts Link Pivot to one of the holes on the mounting plate. Ride height and various other factors will determine the optimal mounting position but a good place to start on a lowered car is close to the middle. See **IMAGE 7** for reference.



17. It is not necessary to torque this hardware. To prevent pre-load on the bushing, tighten the bolts until the pivot just begins to bind the bushing. As the bushings wear in, these bolts can be tightened further.



18. Lift the rear end up to the vehicles standard ride height. Mount the top Watts linkage to the drivers' side stand using the provided 1/2" x 3" bolt, nut, and stainless finish washer (under the nut). Bolt the stand to the axle clamp using (2) of the provided 1/2" x 1.25" bolts, nuts, and stainless finish washers. Rotate the axle clamp until the Watts Linkage is approximately horizontal then adjust the Watts Linkage (by turning the center tube of the linkage clockwise or counter-clockwise) until the center Watts Link pivot is approximately vertical. (**IMAGE 8**) Note: Leave Linkage jam nuts loose until final adjustment step.

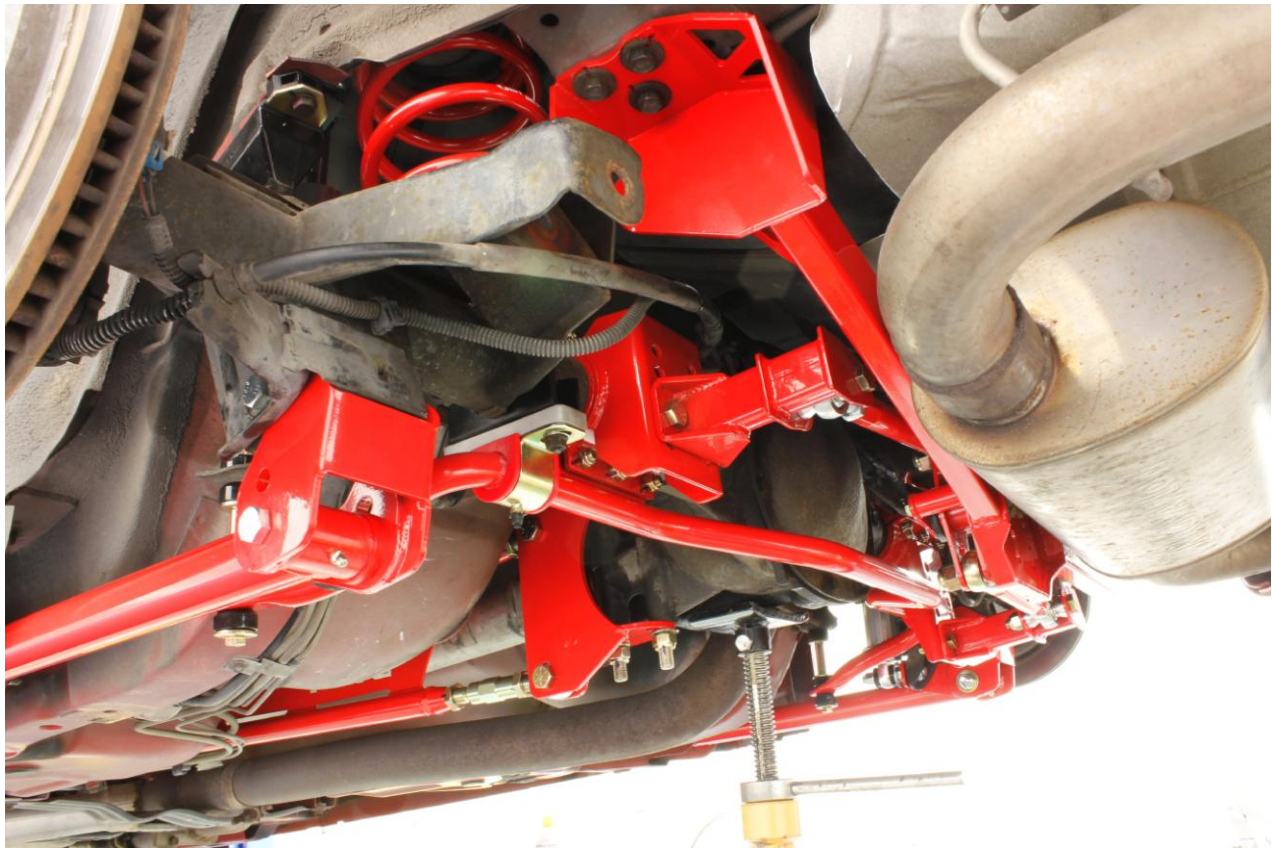
19. Tighten the axle clamp until all 6 bolts are tight.



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20. Mount the other passenger Watts linkage to the remaining stand. Mount the stand to the Passenger axle clamp in the hole that puts the Linkage as horizontal as possible, adjusting the linkage as necessary.
21. Before tightening the jam nuts on the linkages, use a plumb bob or level to verify that the rear end is centered in the body. This may be accomplished by measuring the wheel's position in reference to the wheel-well and comparing sides. If the rear-end is not centered, adjust the links to shift the body in the direction needed. For instance, if the rear-end is offset towards the drivers' side  $\frac{1}{4}$ ", shorten the drivers' side link  $\frac{1}{8}$ " and lengthen the passenger side  $\frac{1}{8}$ ".
22. Once centered, tighten the jam nuts on the linkages using a  $\frac{15}{16}$ " wrench.
23. Double-check all hardware to make sure everything is tight.
24. Bend the brake lines back down and secure them to the axles with zip ties.
25. Use a grease gun to lube the center Watts pivot. Re-lube after a few hundred miles and then every other oil change.
26. Lower vehicle. An alignment is typically not necessary after this installation.



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