



QA1 UNIVERSAL PANHARD BAR KIT INSTALLATION INSTRUCTIONS: 7838-1135

# WELCOME TO QA1!

## OUR COMMITMENT

Congratulations on your purchase of this high-quality QA1 Panhard bar kit. It is engineered to the highest standards, utilizes the finest materials, and is built with exceptional craftsmanship and attention to detail.

While we understand your eagerness to start your build, please remember that your safety is our utmost priority. Always use an approved and appropriately rated jack, jack stand, or automotive lift, and take all necessary safety precautions to ensure the job is completed safely and correctly.

Before you start, read and understand all instructions thoroughly. With hand tools and essential equipment, you can do the main assembly and setup of your new Panhard bar in your home garage, but if you feel unsure of your abilities during the assembly or installation and need some help or have any uncertainties, please seek the assistance of a qualified mechanic or automotive repair shop.

If you have any product questions or need guidance, please don't hesitate to call and speak with QA1 technical support at 952-985-5675.

Remember, we're here to support you every step of the way and are committed to ensuring your assembly and installation process is successful and enjoyable. We wish you all the best!

## BEFORE INSTALLATION

Before you begin the QA1 Panhard bar installation, read and understand these instructions carefully. If instructions are not correctly followed, personal injury, equipment, or product damage can result.

Products that have been installed are not eligible for returns. To prevent mistakes, thoroughly read these instructions before you start the Panhard bar assembly procedure.

Check your order as soon as possible upon delivery. QA1 has provided parts list tables and images, as shown on pages 4 and 5. Compare your order's contents against the tables. Call your authorized dealer immediately if you discover anything missing from your order.

This kit requires welding to assemble and install. When welding on and around your vehicle, take the necessary precautions. Utilize welding blankets and spark deflection paper to prevent sparks from reaching surrounding painted surfaces, fuel tanks and lines, braking components and lines, rubber hoses, electrical wiring, and other exterior components while welding and grinding.

It is equally important to wear the appropriate personal protective equipment (PPE). However, the responsibility does not end there. Follow the manufacturer's instructions for safe use when working with power tools, and be cautious and responsible in your work. Make sure to ventilate combustible vapors and remove any nearby flammable materials.

# ABOUT THIS MANUAL

## PURPOSE

These instructions outline the QA1 Panhard bar installation. This system is designed to work with a variety of different rear axle housings.

#### **ITS CONTENTS**

The information that follows is described in this instruction set:

- Required tools and supplies.
- Safety, hazard, and warning rules.
- Product overview and included parts.
- Installation and the setup procedures required for use.

Pages with images will have paragraphs and sentences with callout numbers that refer to their respective images, steps, and parts.

Procedures, once described in the text, are generally not repeated. When it is necessary to refer to another procedure, the page and step reference will be given.

## REQUIRED TOOLS AND SUPPLIES

- Floor Jack
- Jack Stands
- SAE Wrench Set
- SAE Socket Set
- Torque Wrench (lb-ft)
- Anti-Seize Lubricant
- Masking Tape
- Cut-Off Wheel
- Angle Grinder or Cut-Off Tool
- Tape Measure
- Mig Welder (minimum of 1/4" penetration)
- Applicable welding equipment

## SAFETY FIRST

- Work on your vehicle in an appropriate location.
- Park your car on a level surface.
- Use wheel chocks to prevent vehicle roll.
- Check your owner's manual for the correct jack lift points.
- Always support your vehicle with jack stands.
- Wear personal protection like safety glasses, gloves, and a fine particle respirator mask.
- Never use compressed air to clean brake or metal grinding dust from the brake, suspension components, frame, or rear axle housing.
- Grind metal only in a well-ventilated area, and wear a respirator until the dust has settled and the work area air has been cleared.
- Dispose of damaged or old parts in accordance with local laws. Do not throw any hazardous waste in the trash.
- Follow the manufacturer's instructions for safe use when working with power tools, and be cautious and responsible in your work.

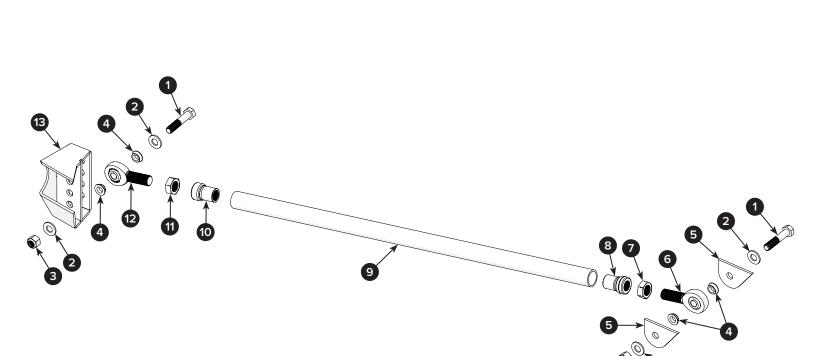


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7838-1135–QA1 PANHARD BAR KIT						
POSITION	PART #	DESCRIPTION	QTY	TORQUE SPECIFICATION		
1	*	BOLT, GRADE 5, STEEL, HEX 1/2-13 X 2.75"	2	75 lb-ft		
2	*	WASHER, FLAT 1/2" SAE	4	—		
3	*	NUT, GRADE 5, NYLOCK 1/2-13	2	_		
4	SG84	SPACER, ROD END, STAINLESS STEEL	4	_		
5	9039-544	PLATE, PANHARD MOUNT, FRAME	2	—		
6	XML8-12	ROD END, ENDURA ALLOY, HT 8-12 LH	1	—		
7	JNL12S	JAM NUT, STEEL 3/4-16 LH	1	_		
8	1844-168	TUBE ADAPTER, 1-1/4" OD, 3/4-16 LH	1	—		
9	9637-385	TUBE, PANHARD BAR	1	_		
10	1844-167	TUBE ADAPTER, 1-1/4" OD, 3/4-16 RH	1	—		
11	JNR12S	JAM NUT, STEEL 3/4-16 RH	1	—		
12	XMR8-12	ROD END, ENDURA ALLOY, HT 8-12 RH	1	_		
13	9637-941	WELDMENT, PANHARD MOUNT, AXLE	1	_		

\*These hardware parts can be found in QA1 hardware kit PN 7039-4420. They are not specific to QA1 and are available locally or online. If replacement hardware is needed outside QA1 Technical Support hours, purchase the hardware required for this application based on the provided description.

**Note:** The part positions listed above will be called out in this installation manual as a visual reference to their respective positions during the installation procedure. Refer to these pages during the installation. Count and compare all parts and fasteners to the list above. If parts are missing, contact QA1 at sales@qa1.net.

## FEATURES AND BENEFITS

#### ADAPTABILITY AND SIMPLICITY

This kit is designed to work seamlessly with QA1 DIY 4-Link systems and can be adapted for any vehicle requiring a Panhard bar. It includes a length of 1-1/4" diameter tubing that can be cut to accommodate most frame rail widths.

An adjustable axle mount allows for precise mounting height and roll center adjustments, while weldable tabs facilitate the installation at the other end of the frame rail. The kit comes with tube adapters, hardware, and QA1 rod ends, providing oncar adjustability for easy tuning.

## • IMPROVED HANDLING

QA1's Universal Panhard Bar Kit provides an effective solution for laterally positioning the rear axle and helps to keep the rear end centered. This results in more predictable and consistent handling and stability, particularly during cornering.

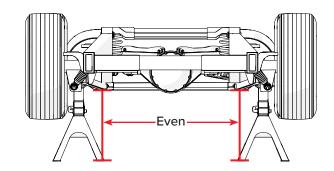


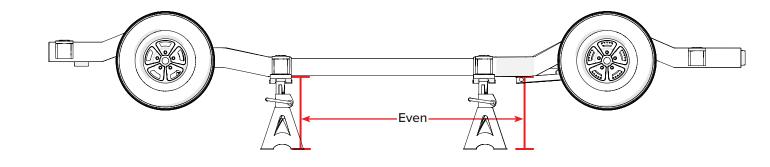
Set the vehicle on jack stands (shown) or a frame table on a flat and true surface.

Make sure the car is set to level. The measurements must be the same from the left to right sides and from the front to rear sides. Measure the drop distance from the bottom of the frame to the floor or frame table.

Adjust the vehicle height using shims between the frame and jack stand saddle until it reaches a true level.

**Note:** For visual clarity, the body is not shown in these instructions.



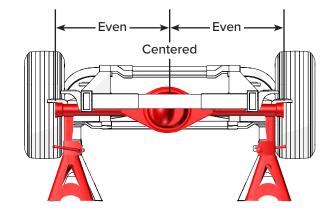


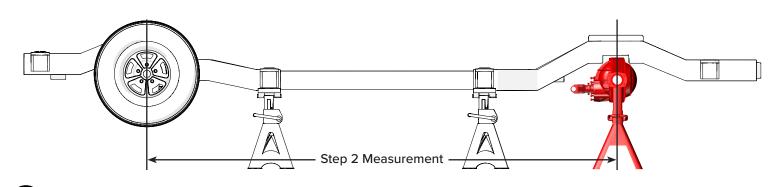
Start the installation with the axle positioned approximately where it will sit at the final ride height. Lift and support the rear axle housing on an axle cradle or stand, or use a floor jack to lift and support the axle with jack stands.

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Evenly center the axle right-to-left under the car.

To have a properly functioning suspension system, the axle and tires must have at least 2" of up travel before contacting the frame, floor, or body. 2.5"-3.00" of compression will provide enough travel to offer good ride quality for most street applications. Less than 2" of compression travel will result in poor ride handling and potential damage.





## ASSEMBLY-PANHARD BAR

# **Q**A1

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Turn the notched LH Jam Nut (7) onto the LH rod end (5) until the nut is approximately 1/4" from the rod end's spherical bearing body.

Then, turn the rod end assembly into the grooved LH tube adapter (8) until the jam nut contacts the adapter.

Next, turn the RH Jam Nut (11) onto the RH rod end (12) until the nut is approximately 1/4" from the rod end's spherical bearing body.

Now, turn the rod end assembly into the RH tube adapter (10) until the jam nut contacts the adapter.

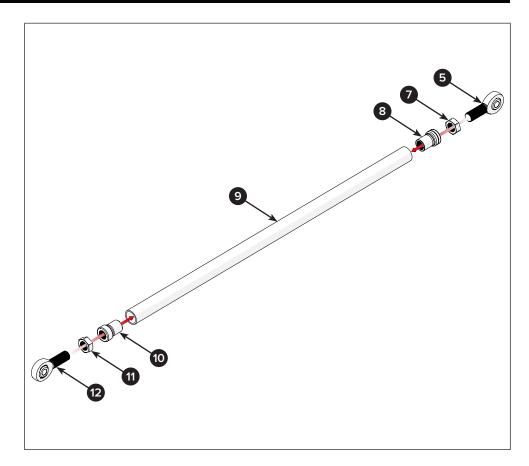
Push the assembled rod ends into the Panhard bar (9).

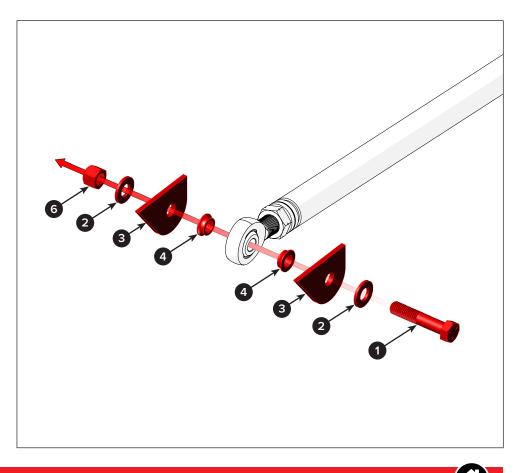
Finally, tape the rod end assemblies to the Panhard bar to temporarily keep the rod ends in place during the mock-up procedure.

**Note:** The position of the LH and RH rod assemblies on the Panhard bar are interchangeable.

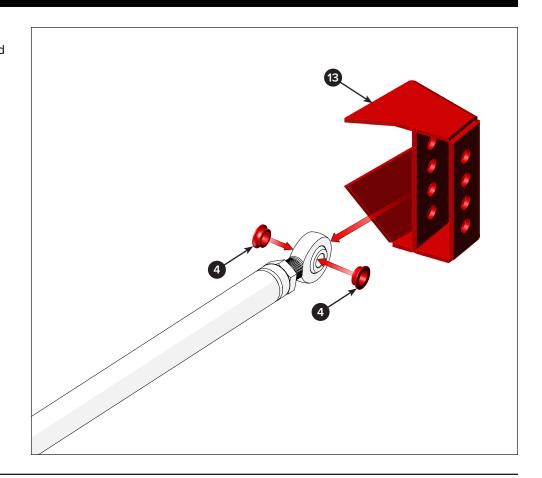
Assemble the Panhard bar frame mounts to a rod end with one bolt (1), two flat washers (2), frame mounts (3), rod end spacers (4), and one Nylock nut (6).

Loosely secure the hardware for now; do not tighten it at this stage.





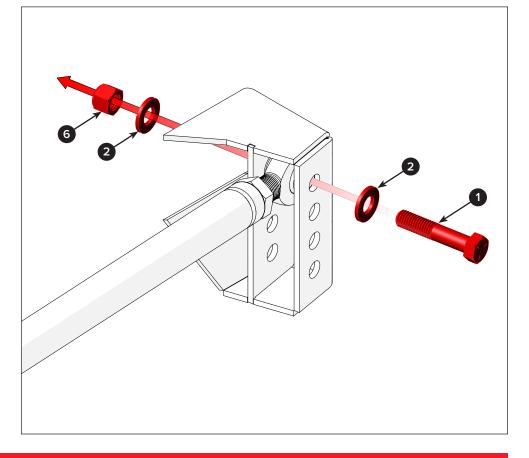
5 Put two rod end spacers (4) against the other rod end, then slide the rod end assembly into the axle mount weldment (13) pocket.

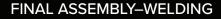


Attach the rod end to the axle mount with one bolt (1), two flat washers (2), and one Nylock nut (6).

6

Loosely secure the hardware for now; do not tighten it at this stage.







**Installer's Note:** The Panhard bar can be mounted on the right-hand frame rail for taller vehicles, with the axle bracket rotated and mounted on the left side of the axle.

Vehicles with a higher center of gravity can mount the Panhard bar higher to help reduce body roll. A raised Panhard bar will also benefit a lowered full-size SUV, Suburban, or pickup truck equipped with a topper or camper.

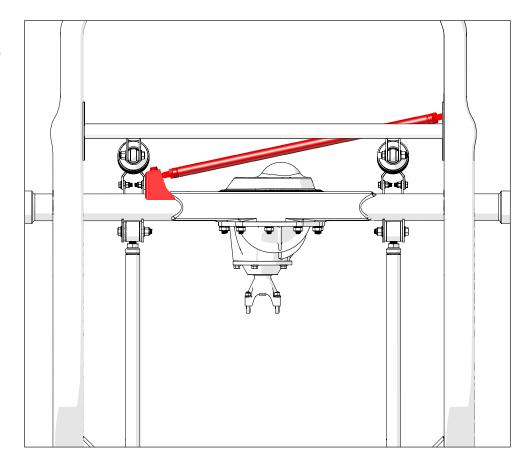
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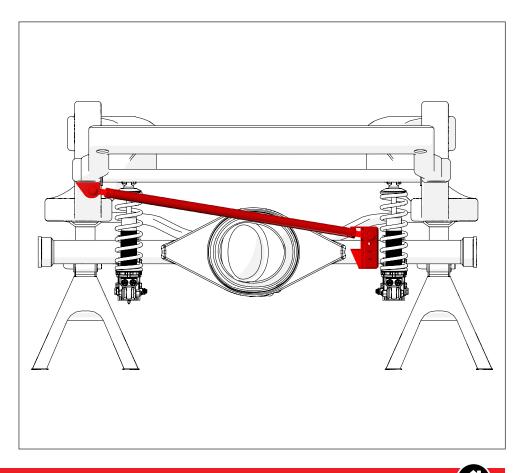
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Determine a suitable location for the Panhard bar's axle and frame mounts. Make sure there is no interference with the coilover shocks as they move through their travel. Now, move the Panhard bar assembly until there is adequate space around the coilovers.

**Note:** The Panhard bar can be trimmed to fit to gain added clearance, but it is best to have it as long as possible for improved driving dynamics and to prevent excessive lateral movement of the rear axle. The Panhard bar must also be as level as possible at ride height.

Once the Panhard bar assembly has been mocked up and the fitment is verified for clearance, the threaded tube adapters, frame, and axle mounts can be tack-welded into position.



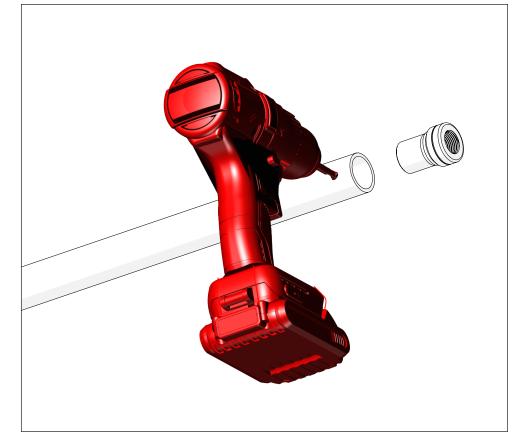


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To begin, remove the tube adapters from the ends of the Panhard bar. Measure 0.5 to 0.625 inches from each bar end and mark the distance.

Next, drill several holes through the Panhard bar at the marked locations, and be sure to deburr the inside of the bar.



Once that is done, insert the tube adapters into the ends of the Panhard bar and plug-weld the adapters to the Panhard bar.

After that, a perimeter weld (indicated in red) is applied to the threaded tube adapters on the Panhard bar. Clean up any weld spatter that may occur during this process.

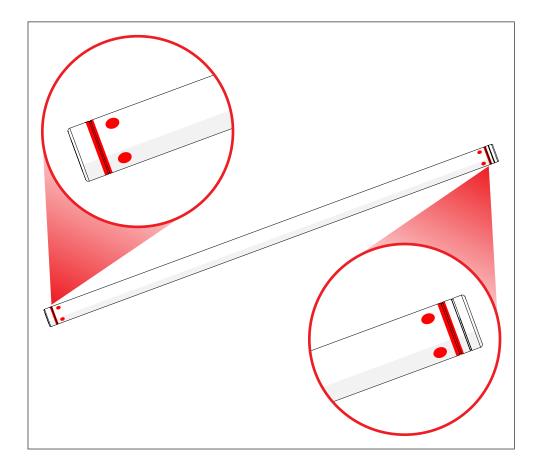
Then, prime and either paint or powder coat the Panhard bar.

With the Panhard bar kit installation complete, make sure that all parts removed for welding or coating are reinstalled.

Finally, make the necessary adjustments and set the lateral axle location.

Torque all fasteners to 75 lb-ft.

**Note:** Before driving the vehicle, ensure it is professionally aligned.





# **DISCLAIMER / WARRANTY**

QA1 warrants that the products will be free from defects in material and workmanship for one year from the date of sale to the original purchaser. QA1 makes no other warranty of any kind, expressed or implied.

QA1 shall have no obligation under the preceding warranty where the defect results from improper or abnormal use, your negligence, vehicle accident, inappropriate or incorrect installation or maintenance, nor when the product has been repaired or altered in any way. QA1's liability in the case of defective products subject to the preceding warranty shall be limited to the repair or replacement of the defective products at QA1's option.

The user understands and recognizes that racing parts, specialized street rod equipment, and all parts and services sold by QA1 are exposed to many varied conditions due to the manner in which they are installed and used. It is the user's responsibility to determine the proper use or application of QA1 products.

QA1 shall bear no liability for any loss, damage, or injury, either to a person or to property, resulting from the installation, direct or indirect use of any QA1 products, or inability by the buyer to determine proper use or application of QA1 products. With the exception of the limited liability warranty set forth above, QA1 shall not be liable for any claims, demands, injuries, damages, actions, or causes of action to the buyer arising out of or connected with using any QA1 products.

Motorsports are inherently risky; therefore, no warranty or representation is made as to the product's ability to protect the user from injury or death. The user is fully aware and assumes that risk.

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