



• SHOCKS • STRUTS • SPRINGS • ROD ENDS •
• RELATED COMPONENTS •

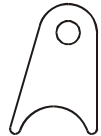
Tech Line: (952) 985-5675 • Fax:985-5679

ASSEMBLY INSTRUCTIONS • PRO STREET SYSTEM

• • READ INSTRUCTIONS COMPLETELY BEFORE STARTING THIS PROJECT • •



(1) 40" TUBING

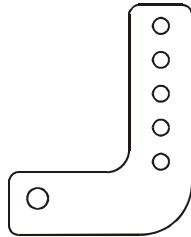


(4) TAB-103

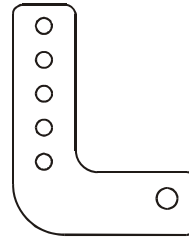


(4) 5/8" X 1/2" SLEEVE

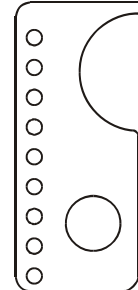
(4) 1" X 1/2" BEARING
(if applicable)



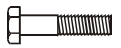
(2) LEFT L-BRACKET



(2) RIGHT L-BRACKET



HOUSING BRACKET



(4) 1/2 X 2-1/2 BOLT
(4) 1/2 X 20 NUT



(4) 3/8 X 24 BOLT
(4) 3/8 X 24 NUT

• DISCLAIMER / WARRANTY •

SELLER DISCLAIMS ANY WARRANTY, EXPRESSED OR IMPLIED, WITH RESPECT TO THE PARTS SOLD HEREBY AS TO MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, OR ANY OTHER MATTER.

PRODUCTS MANUFACTURED BY QA1 MOTORSPORTS, AND/OR CONTAINED HERE ARE DESIGNED FOR COMPETITION PURPOSES. ACCORDINGLY, USE OF SAID PRODUCTS, OR MODIFICATION TO OR CONSTRUCTION OF A VEHICLE FOR THOSE PURPOSES MAY CREATE DANGEROUS CONDITIONS WHICH COULD CAUSE BODILY INJURY, AND THE BUYER HEREBY ASSUMES ALL RISKS ASSOCIATED WITH ANY SAID PRODUCTS.

THANK YOU FOR SELECTING QA1 MOTORSPORTS AS YOUR COIL OVER SHOCK OF CHOICE.

- Start your QA1 coil over conversion by inspecting your chassis. What your looking for are reference points for taking measurements. Most manufacturers stamp holes in the frame rails to establish pick up points for collision repair. These stamped holes are the best place to indicate all of your measurements for the new cross member.
- The best jig for the installation of your adjustable shock mount brackets is the rear end housing with all of the original components (trailing arms, coil springs/ leaf springs) still in place.
- Get started by taking a ride height measurement from a good reference point on the rear end housing to frame rail. Write it down for later reference. This measurement should be taken with the car on the ground or set up as if it were on the ground. This gives you the actual ride height of the cars chassis (chassis ride height).
- If you do not have the use of a lift, you will need to put the car on four jack stands. Make sure that the car is level, both front to rear and side to side. Being as level as possible is important because through out the installation you will be using levels and plumb bobs.
- Remove the gas tank, all fuel and brake lines off the frame and rear end hosing. Remove anything else that may cause interference or a fire hazard during the installation procedure.

- Remove the coil springs. If you are working with a leaf spring car, leave them in place. They are what locates the rear from side to side and front to rear. Use a floor jack to jack the rear back up to the chassis ride height measurement that was taken earlier. It is recommended to tack weld a piece of scrap steel to the reared housing and the frame rail. This jigs the rear end housing into the proper chassis ride height.
- If you are working with the factory frame rails, it is recommended that you double plate the frame rails (plate around the frame rail) in the area that the cross member is to be welded. Keep in mind that your upper and lower mounting points should be as perpendicular to each other as possible (see Fig. 1). Measure the distance from frame rail to frame rail and cut the tubing supplied to length. Lightly tack weld the tubing into place. Double check all your measurements.
- Now, with the cross member located you will need to locate the positions of the upper shock mount tabs and the housing brackets. An easy way of accomplishing this is to use a plumb bob (a nut tied to a piece of string will also work). Assemble both sets of the upper mounts(2 tabs, 1 - 1/2" id. x 1-1/4 in. sleeve or 1" wide bearing (if applicable), 1 - 1/2 x 2-1/2 in. bolt and 1 - 1/2" nut). Assemble both of the adjustable mounts (1-left L-bracket, 1 - right L-bracket, 1 - housing bracket, 2 - 3/8 x 1-1/4 in. bolts, 2 - 3/8 in. nuts). When assembling the adjustable shock mount brackets, the housing bracket is to be sandwiched in between the two L-brackets. Align the L-brackets so that the shock mount hole is approximately half way down the housing bracket (Fig. 2). This allows plenty of ride height adjustment, both up and down. It is suggested that for the installation process that you substitute the nylock nuts with standard nuts for ease of use.
- Wrap the string around the center of the sleeve between the two tabs, from that point let the end of the plumb bob extend to around 14 - 14-1/2 inches. Hold the upper shock mount assembly against the upper cross member and move it from side to side to find the best location for it and the adjustable shock mount on the rear end housing. Once you have the best left to right position for both, rotate the upper mount up and down until the plumb bob pointer lines up with shock bolt in the adjustable mount. This will provide you the proper shock ride height distance. Once you have found that location tack weld the upper mount to the cross member. Tack the adjustable mount in to place on the rear end housing. Repeat the procedure for the other side. Make sure that both housing brackets are set in from the frame rail or housing ends as close to the same distance as possible. Make sure to double check all of your measurements so that everything is square.
- Grind or break the tack welds on the cross member at the frame rails and remove from the car. Finishing welding the tab assemblies into place. It is only necessary to weld on the outsides of the tabs. Welding both sides may cause weakness from imbrittlement. Tie your plumb bobs back onto the upper shock mount sleeves as before. Put the cross member back up under the car and realign your plumb bobs over the lower shock mounts. Weld all the way around both ends of the cross member. Remove the L-brackets from the housing brackets. Make sure the housing brackets are straight and square with the housing. Finish welding the brackets to the housing.
- If you are working with a leaf spring car you must install a housing locator. There are several types available, such as Panhard Bars, Track locators, and Wish Bones, from many quality companies.
- Remove the nuts, bolts and sleeves from the upper mounts. Put the L-brackets back onto the housing brackets in the original position. If not already installed, push all four sleeves into the bushings at the ends of each shock. This can be accomplished with a vice or channel lock style pliers. Next install the springs on the shocks as instructed in your Alumina Matic instructions. Place the floor jack under the rear end housing, just touching it. Remove the scrap piece being used as your ride height jig. Leaf spring cars - remove the springs at this time. Lower the rear end housing so that you can install the shocks, top and bottom.
- It will be necessary to adjust the spring platform up or down to get to the proper shock ride height. The shock ride height is measured from the center of the upper mounting bolt to center of the lower mounting bolt with car sitting on the ground (see Fig. 1). That distance for this application is 14 - 14-1/2 inches. If the chassis ride height is off some, don't be concerned at this point. That can be changed later. If the shock ride height is not correct, jack the car up and place on jack stands. Let the rear end housing hang and adjust the spring seat as needed. Put the car back on the ground and recheck the shock ride height. If that measures out O.K., then check your chassis ride height. If the chassis ride height is off, then jack the car back up and put it back on jack stands. Loosen the two nuts and bolts on both of the housing brackets. Let the rear end down until the bolts are loose in the brackets. With the jack still supporting the rear end remove the nuts and bolts and raise or lower the rear end to the point that gets your chassis ride height right. Reinstall all your nuts and bolts and tighten properly. Be sure to use the nylock nuts upon your final adjustment. Put the car back on the ground and recheck your chassis ride height. Reinstall gas tank, fuel and brake lines. Check for any interference before taking your first drive.

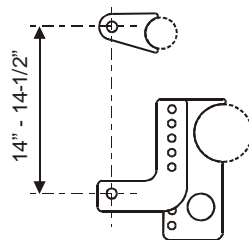


Fig. 1

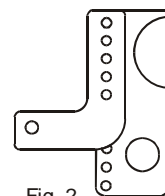


Fig. 2