ALL56366
SPRING STYLE PULL BAR (TORQUE LINK)
TUNING AND MAINTENANCE

This torque link uses a combination of coil spring and poly bushings to absorb engine torque and increase traction to rear tires. As engine torque is applied, the coil spring compresses until bushings contact the adjustable stop, then working together, the spring and bushings absorb energy applied to rear tires. Understanding the various adjustments which can be made is crucial to torque link performance.

1. Spring Selection – A 5" O.D. x 6-5/8" or 7" tall spring is needed. Torque link works with a wide variety of springs from 600# straight rate to 1600# progressive rate. A 1050# or 1200# spring is a good starting point. When traction conditions are good use a stiffer spring, as the track becomes dry/slick, soften the spring rate.

2. Spring Preload – Preload spring by adjusting the three 5/16" locking nuts (A). Preloading spring 1/8" to 1/4" is a good starting point. Be careful to adjust the nuts evenly. If more than 1/4" of preload is ran, preload should be reduced as the track gets slicks. Spring can also be preloaded by adjusting the 3/4" nyloc nut (B) on the shaft. Keep in mind, when adjusting spring preload, brake bushing preload is also adjusted. If spring preload is increased, preload on the brake bushing is increased. This may effect corner entry (brakes) and corner exit (traction) of car.

3. Engine Torque Bushing – Torque link comes standard with two yellow (75 durometer) poly bushings on the engine torque side. This durometer works well for a majority of racers, especially those running open class mods such as UMP and USMTS cars. IMCA mods, or cars with less spoiler or motor may need softer bushings.
Note: Bushings with a lower durometer rating are softer, higher durometer rating bushings are harder.

4. Adjustment Of Engine Bushing Engagement – The point at which the poly bushings engage can be adjusted by turning the internal adjuster nut (E) in or out. To determine the point of bushing engagement, push the bushings and washers against the spring plate (F) so there is a gap (G) between the internal adjuster nut and the bushing washer. ***Note: washers and bushings remain loose until spring is compressed.*** For an open class modified, a 1/2" to 5/8" gap is a good starting point. For an IMCA modified, a 3/4" to 1" gap is a good starting point. Increase the gap if the tires break loose during acceleration or when the track becomes dry/slick. Reduce the gap to bring the car out of the corners harder or when traction conditions are good. Adjustments as small as 1/8" will effect performance.

5. Brake Bushing – A single red (87 durometer) poly bushing is standard with this unit but other bushings may be substituted. This unit also has a solid spacer (D) that can be removed to add an additional brake bushing and washer. Harder brake bushing(s) or more pre-load will tighten the car on corner entry, softer brake bushing(s) will loosen or free the car on corner entry.
Note: Bushings with a lower durometer rating are softer, higher durometer rating bushings are harder.

6. Torque Link Maintenance – Periodically lube torque link at the grease fittings. Only a few pumps are needed. Check the 1/2" bolt holding the shaft in place to make sure it doesn't come loose. Periodically check torque of the three 5/16" cap screws (H). Each screw should be torqued to 29ft/lb. with a torque wrench. Over tightening of cap screws can stretch and damage them. The three 5/16" studs are made from special chrome-moly material. If a stud is damaged, do not replace it with threaded rod from a hardware store. Poly bushings should be replaced annually or when they lose static height.

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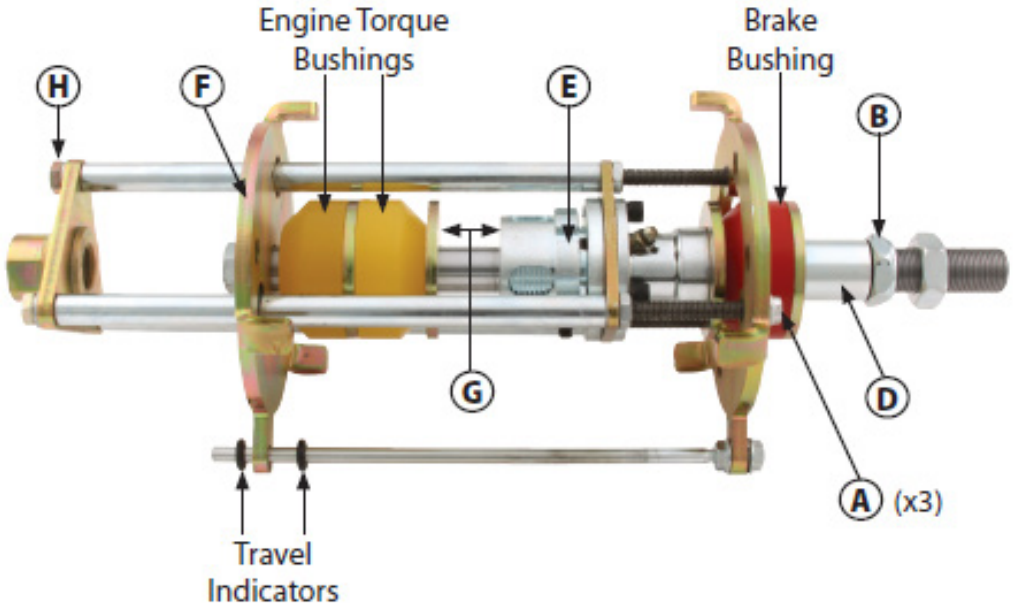
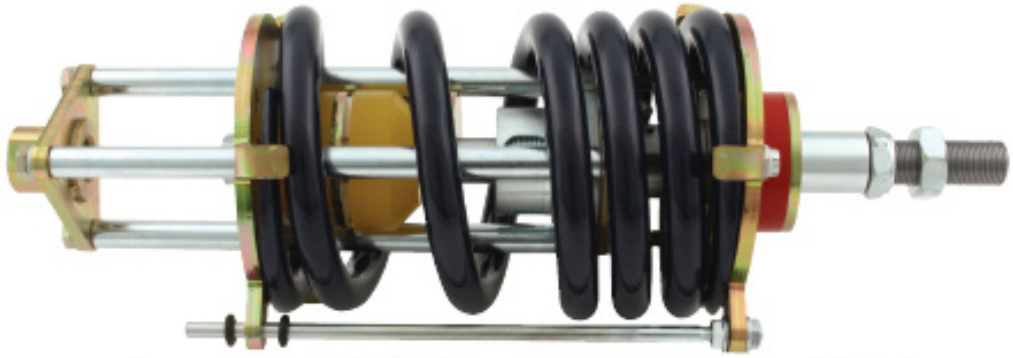
Optional Poly Bushings

Part No:	Color	Hardness	O.D."	I.D."	Height"
ALL56369	Green	50	2.25	.75	1.06
ALL56370	Purple	60	2.25	.75	1.06
ALL56372	Yellow	75	2.25	.75	1.06
ALL56373	Blue	80	2.25	.75	1.06
ALL56374	Red	87	2.25	.75	1.06

Bushing Washer - Required between bushings when stacking poly bushings for optimum performance.
ALL99178 .....Steel Washer
ALL99179 .....Aluminum Washer





Shown Assembled With Spring - Spring Not Included

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