

INSTALLATION NOTES

PROFESSIONAL INSTALLATION IS STRONGLY RECOMMENDED!

If you intend to do this installation yourself, please use extreme caution when working under a vehicle that is supported with jack stands. Serious injury or death can occur.

Read through entire installation manual to ensure that you understand all of the steps before proceeding with installation. If these instructions are not properly followed, severe frame, suspension, and tire damage may occur. Product failure or vehicle damage caused by improper installation will not be covered under warranty!

Remove all contents from the package and inspect for any damage. Also, verify that all components listed are included before you begin installation. If anything is missing or damaged please contact us at customerservice@cyc-engineering.com - IMPORTANT: DO NOT INSTALL DAMAGED PARTS!

TECH NOTES

RSO Suspension upper control arms have been engineered to allow for the most possible caster, while still allowing for proper alignment of your vehicle. Notify your professional alignment shop of this information so you can achieve the best ride quality.

Do NOT exceed 2 3/8in adjustment from the center of the rod end to the edge of the upper control arm. Failure caused by excessive adjustment will not be covered under warranty!

The upper control arms come with matching dust caps to keep dirt and debris out, but we recommend a visual inspection of the uniball every 10-15K miles to check for any buildup. We also recommend a visual inspection of the rod ends at every oil change to check for any buildup. If you notice dirt accumulation on the uniball or rod ends you may use suspension cleaner to clean and wipe them down, then wait 2-3 days for the solvents to dissolve and then proceed with lubing with a dry lubricant that contains PTFE.

COMPONENTS

Qty: 2 - Upper Control Arms (Driver & Passenger)
Qty: 2 - Billet Dust Caps
Qty: 2 - Uniball Pins
Qty: 8 - High Misalignment Spacers: (4) .625in Wide, (4) .950in Wide
Qty: 4 - 1/4in x 20 Socket Head Cap Screws

TOOLS REQUIRED

Jack
Jack Stands
Small 4lb Hammer
Torque Wrench
15mm Socket
18mm Socket
19mm Socket
21mm Socket

BILLET ALUMINUM UPPER CONTROL ARMS

SKU# 130117-433800

RSO
SUSPENSION

- 1.** Chock your rear tires. Then, using a jack properly rated for your application, raise the front of the vehicle and support the frame rails with jack stands. Ensure that the jack stands are secure and set properly before lowering the jack. NEVER WORK UNDER AN UNSUPPORTED VEHICLE. Remove the front wheels.
- 2.** Remove the coilover/strut to gain access to the upper control arm bolts: Remove the lower coilover bolt and then remove the (3) nuts on top of the coilover (use a 15mm socket for the factory hardware). Removing the lower coilover end out of the pocket in the arm can be difficult because you are fighting the bushing stiffness from the lower control arm and sway bar tension. Disconnect the swaybar links and/or the top of the other coilover to relieve some of the tension.
- 3.** Loosen the taper nut on the upper ball joint and the tie rod end using an 18mm socket/wrench. Use a hammer to separate the upper ball joint taper and tie rod end. Take care not to damage the threads. Support the spindle so that it does not over extend the CV joints when detached.
- 4.** Using a jack, support the lower control arm to prevent the suspension from being at full droop.
- 5.** With the upper control arm detached from the spindle, begin to loosen the upper control arm from its mounts in the frame using a 21mm and 19mm socket/wrench and remove the OEM assembly.
- 6.** Before installing the new upper control arms, make sure that the heim spacers are pointing in the right direction. The shorter spacers go on the inside and the long spacers go on the outside.
- 7.** Place the driver side upper control arm into the mounts on the chassis and loosely fasten the OEM hardware. Reinstall the coilover assembly.
- 8.** Take care when inserting tapered pin into the spindle to not damage the threads. Use a 21mm socket/wrench to fasten the supplied lock nut onto the tapered pin to get it to seat properly. Torque to 110 ft-lbs.
- 9.** Install the upper unibal spacer cap and secure using the M12 Socket Head Cap Screw and torque to 100ft/lbs using a 12mm Hex Head Socket.
- 10.** Tighten the upper control arm bolts using a 21mm socket/wrench. Torque to factory spec.
- 11.** Upper control arms utilize heim joints at each pivot to allow alignment using the adjusters on the upper control arms as well as cam adjusters on the lower control arms. The heims can be extended or contracted by turning the collar. Make sure that the slit in the collar lines up with the slit in the housing and then tighten the pinch bolts in an opposing pattern at least 3 times. Torque to 35 ft-lbs
- 12.** Repeat steps on opposite side of the vehicle.
- 13.** Reinstall wheels and tighten lug nuts. Torque to factory spec
- 14.** Install the dust cover. Make sure that the o-ring is seated in the groove in the cap and apply anti-seize to the (4) allen head screws. DO NOT OVER TIGHTEN. Doing so can cause damage to product.

BILLET ALUMINUM UPPER CONTROL ARMS

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- 15.** It is highly recommended to get a professional alignment at this time. Once aligned, apply red thread locker to the outer pinch bolts located on the sides of the arm. Tighten the pinch bolts in an opposing pattern at least 3 times. Torque to 35 ft-lbs.

REGULAR MAINTENANCE SCHEDULE

Billet upper arms come equipped with matching billet dust caps designed to prevent the ingress of dirt and debris. Nevertheless, it is advisable to conduct a visual inspection of the uniball every 10-15K miles to identify any buildup.

For the rod ends, a visual inspection at every oil change is recommended to detect any accumulation of dirt or debris.

CLEANING & LUBRICATION

Should dirt accumulate on the rod ends and uniballs, utilize WD40 for cleaning purposes. Allow 2-3 days for the solvents to dissolve any residue before applying a Teflon (PTFE) dry lube, such as Tri-Flow Superior Lubricant.

SIGNS OF WEAR

Squeaking often indicates the need for relubrication or the presence of debris within the rod ends and uniballs. To address this, flush out the components with WD40 and reapply a dry lubricant containing Teflon (PTFE).

Excessive back and forth play in the rod ends and uniballs while installed indicates wear. In such instances, it is imperative to replace the affected parts promptly.

TECHNICAL NOTES

RSO Suspension upper control arms are engineered to facilitate maximum caster adjustment while ensuring proper alignment of the vehicle. Professional alignment shops should be informed of this feature to optimize ride quality.

It is crucial not to exceed 2 3/8 inches of adjustment from the center of the rod end to the edge of the upper control arm. Failure to adhere to this limitation may void warranty coverage.