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### INSTALLATION INSTRUCTIONS

88-98 C1500 Level 2 Front Suspension  
P/N 52612-S550, 52612-D600

### TOOLS AND SUPPLIES REQUIRED

- Floor Jack
- Jack Stands
- Spring Compressor
- Wrench Set
- Socket Set

### PRE-INSTALLATION NOTES:

QA1 does not recommend driving the vehicle until it has been properly aligned due to major changes in suspension geometry that will affect the handling characteristics of the vehicle. *A front end alignment to the QA1 specs at the end of page three should be performed by a qualified alignment shop after installation.*

These control arms are equipped with QA1 Low Friction Ball Joints; please refer to the ball joint instructions on page four for setting the initial preload. Preload is set from the factory, but the ball joint stud should be checked for play before installing the control arms.

To use the factory sway bar with these arms use sway bar end link kit 1681-117.

### LOWER CONTROL ARM DISASSEMBLY-

1. Raise and support the vehicle by the frame with jack stands on a stable surface and remove the front wheels.
2. Remove factory style shock. If using coil-overs do not remove shock/spring until step 7.
3. Remove sway bar end links.
4. Remove the brake calipers and disconnect the tie rods from the spindle.
5. Remove the cotter pin from the lower ball joint and loosen the castle nut. **Do not remove the nut at this time.**
6. Separate the lower ball joint from the spindle using a ball joint separator.
7. Support the lower control arm using a floor jack (or use a spring compressor) to contain the remaining spring energy. **(Figure 1)**
8. For coil-over removal, lower the spring seat all the way down until there is no pressure on the spring.



Figure 1

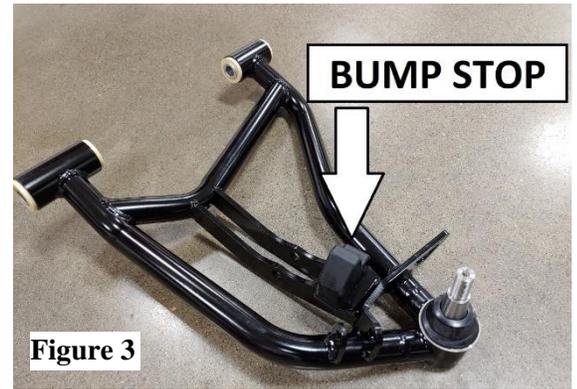


Figure 2

9. Unbolt the lower shock mounting bolts.
10. Remove the ball joint nut and slowly lower the control arm to release all spring pressure. Do not move onto step 9 if the spring still has any load on it.
11. Remove the spring/coil-over
12. With the spring and shock removed, remove the spindle from the upper and lower control arm.
13. Remove the control arm pivot bolts from the existing arms.

### LOWER CONTROL ARM INSTALLATION-

14. Install the included bump stop onto the control arm. The bump stop mounting bolt will go through the bottom of the bump stop and the bump stop will be located on the arm with the locating nub and slot in the arm. **(Figure 3)** Torque to 31 lb. ft.
15. Install the included pivot sleeves into the control arm pivot points. The longer sleeve will be installed into the longer front pivot point of the control arm. The shorter sleeve will be installed into the short pivot point.
16. Install the new QA1 control arm in the frame and insert the included pivot bolts with the threads facing each other. **(Figure 2)** Torque to 90 lb. ft.



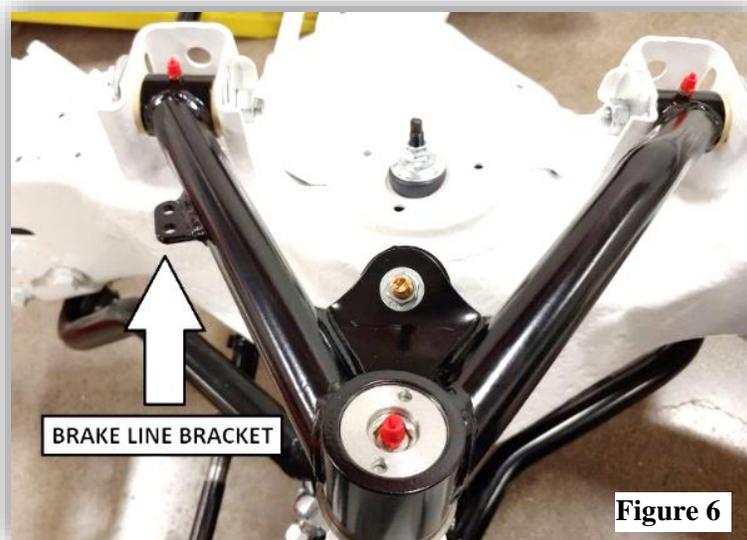
### UPPER CONTROL ARM DISASSEMBLY-

1. Remove the brake line hose from the upper control arm.
2. Locate and note the orientation of the factory cam adjuster bolts on the upper control arms.
3. Make an alignment mark on the eccentric washer and control arm mount with a marker or punch.
4. Unbolt the upper control arm mounting bolts and remove the arm.



### UPPER CONTROL ARM ASSEMBLY-

5. Install the aluminum sleeves into the control arm pivot points. The two sleeves are different widths and should match the width of the control arm pivot point. See **Figure 4**
6. Install the droop stop onto the control arm using 3/8" washer and nut. Torque to 30 lb. ft. See **Figure 5**
7. Re-using the original hardware, set the new QA1 upper control arm in place and insert the camber bolts in the same orientation they were removed. Torque to 129 lb. ft.
8. Connect and tighten the upper ball joint to the spindle. Torque to 65 lb. ft. and insert a new cotter pin.
9. Attach the brake line to the brake line bracket on the new control arm using 1/4" button head bolts and nylock nuts. See **Figure 6**



## COIL-OVER INSTALLATION-

1. Refer to coil-over shock instructions for coil-over assembly.

**NOTE:** The lower coil-over mount will need to have a spherical bearing style mount to install onto the control arm. If your coil-over has a poly bushing lower mount you will need to remove the bushing and install the COM8T-102PK spherical bearing into the shock eyelet.



2. Install the coil-over shocks. Torque the lower shock mounting bolt to 70 lb. ft.
3. Connect the lower ball joint to the spindle. Torque the castle nut to 75 lb. ft. and continue tightening until the cotter pin can be installed.
4. Re-install the brake calipers followed by the wheels.

**Note:**

***A front wheel alignment should be performed by a qualified alignment shop after any changes to the suspension system.***

### ***Recommended Alignment Specs***

Camber:	-.5 (+/- .5degree)
Caster:	4 to 7 degrees
Cross Caster:	.5 degrees
Toe	.20 degrees toe in (+/- .100 degrees)
Toe:	1/16" to 1/8" toe in



### **Maintenance of QA1 Ultimate Ball Joints**

**Grease using high quality lithium grease and check preload on a regular basis. Check and set ball joint preload at least annually or every 3,000 miles, whichever comes first.** NOTE: Preload on the ball stud can be set with the ball joint attached to the control arm if the spring is unloaded and the ball joint taper is free from the spindle. Preload can also be set prior to installing the ball joint.

1. Using the QA1 spanner socket from Ball Joint Tool Kit (p/n 1891-106) loosen the lock nut by turning counter clockwise.
2. Using the QA1 hex key, torque the torque nut to 25-30 in. lbs. and then back off 90°.
3. Using the QA1 hex key, a ½" open-ended wrench or socket, and the QA1 spanner wrench, tighten the lock nut while holding the torque nut, locking them together to 25 ft. lbs.
4. Re-check the lash on the ball stud and adjust as needed. The ball stud should not have any axial lash.
5. Using a grease gun, lubricate and rotate the ball stud by hand until the grease is visible on the bottom of the ball. If the ball joint is on the car, move the suspension up and down to get the same effect. Note: Excessive grease may result in hydraulic lock. If this occurs, move the ball stud until pressure is relieved and the ball stud freely rotates.



READ ALL INSTRUCTIONS CAREFULLY AND THOROUGHLY PRIOR TO STARTING INSTALLATION. PRODUCTS THAT HAVE BEEN INSTALLED ARE NOT ELIGIBLE FOR RETURN. USE THE PROPER JACKING LOCATIONS. DEATH OR SERIOUS INJURY CAN RESULT IF INSTRUCTIONS ARE NOT CORRECTLY FOLLOWED. A GOOD CHASSIS MANUAL, AVAILABLE AT YOUR LOCAL PARTS STORE, MAY ALSO AID IN YOUR INSTALLATION.

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