

# Domestic and Import Vehicle Adjustable Upper Ball Joint Installation Instructions

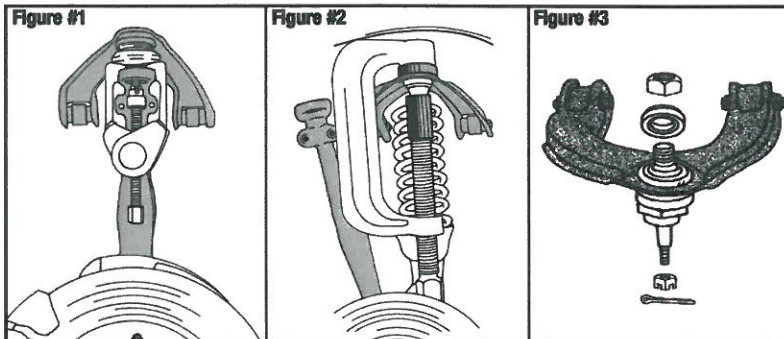
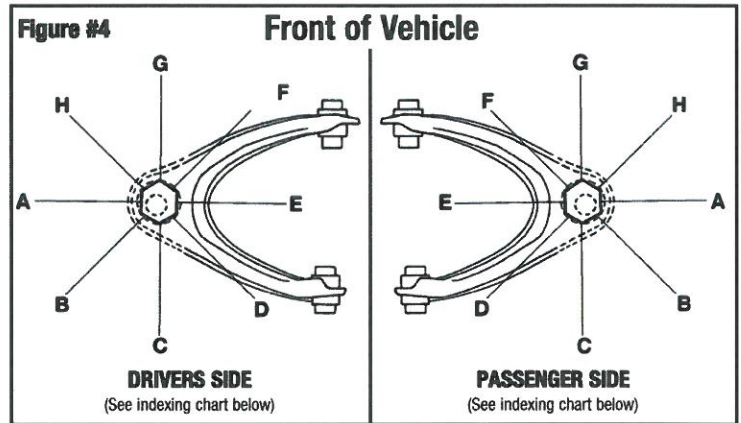
**CAUTION:** A very limited number of Honda Civic/CRX vehicles from 1988-1990 were produced with the upper ball joint welded to the control arm. The adjustable ball joint cannot be used on these vehicles.

**Note:** For camber and/or caster changes of 1/2° or less, use 1/2° adjustable ball joint. For changes greater than 1/2°, use 1° ball joint.

**WARNING:** Honda and Acura ball joints appear similar, but they must not be substituted for each other. They are dimensionally different and will not fit or perform properly. Installing wrong application could cause possible failure.

1. Inspect vehicle for loose or worn parts and odd tire wear patterns. Check tire pressure. Determine amount of camber/caster change needed.
2. Raise and support vehicle securely under lower control arms.
3. Remove wheel assembly. Remove cover, cotter pin and nut from upper ball joint stud.
4. Remove upper ball joint from steering knuckle, using a ball joint separator. **(See Fig. 1)** IMPORTANT- do not allow knuckles to pull out on axle shaft - inner CV joint disassembly may occur.
5. Remove circlip and boot from upper ball joint.
6. Using a ball joint press (with optional extractor stem and receiver tube), press the upper ball joint in an upward direction out of control arm. **(See Fig. 2)** Make sure all components stay in proper alignment during this procedure.
7. Install adjustable ball joint in upper control arm. Install support washer with flat side up. Install lock nut. Snug nut to point where ball joint can just turn in control arm. **(See Fig. 3)**
8. Install ball joint stud into steering knuckle. Install nut and torque to 30-35 ft lbs. (40-48 NM). Install new cotter pin and reinstall cover.
9. Reinstall tire and wheel assembly. Reкомпensate alignment equipment. Recheck camber and caster readings. Proceed to step 10 - be sure to use alignment equipment manufacturer's recommended procedures.
10. Turn ball joint with 1-5/8" open end wrench to desired camber/caster settings. **(See Fig. 4)**
11. Raise vehicle using a suitable body lifting point to allow the control arms to drop. Hold ball joint with 1-5/8" wrench to prevent rotating and torque upper nut to 140-160 ft lbs. (190-217 NM).
12. Lower vehicle and verify proper camber and caster readings. Set toe to specifications and road test vehicle.

**WARNING:** When installing in the maximum negative camber or caster, check for proper clearance.



<b>INDEXING CHART</b>		
Referenced from position of offset stud		
<b>Position</b>	<b>Camber Change</b>	<b>Caster Change</b>
A	+	0
B	+	+
C	0	+
D	-	+
E	-	0
F	-	-
G	0	-
H	+	-