READ ALL INSTRUCTIONS COMPLETELY AND THOROUGHLY UNDERSTAND THEM BEFORE DOING ANYTHING. CALL CHASSISWORKS TECH SUPPORT (916) 388-0288 IF YOU NEED ASSISTANCE.

INSTALLATION GUIDE

CHRIS ALSTON'S Chassisworks
THE HOME OF HIGHER TECHNOLOGY

300-2013

FAB9™ HOUSING HARDWARE SET
SPHERICAL BEARING UPPER CONTROL ARMS
1979-2004 Mustang

Description: Housing hardware includes: upper arm spherical bearings, hardware, shock mounts, third-member mounting studs, o-ringed filler cap, magnetic drain plug

PARTS LIST

300-2013 FAB9™ Upper Control Arm Hardware (Spherical Bearing)

90300-2013.12 Hardware Bag for FAB9™ Spherical Bearing UCA (1 of 2)

Item	Qty	Part Number	Description
1	2	3100-050F4.00Y	Bolt 1/2-20 x 4” Hex Head Cap Screw, Grade 8
2	2	3101-050-20C	Locknut 1/2-20 Nylon Insert, Plated
3	4	3120-050S-Y	Washer 1/2” Hardened Flat SAE
4	4	3135-1628-049	Reducer Spacer 1/2” Bore x .766” Long for 3/4” Bore
5	2	3175-12-W-14-T	Spherical Bearing 1-3/8” OD x 3/4” Bore x 7/8” Ball, Teflon Lined
6	2	3183-RR-1.442	Spirolox Retaining Ring 1.442” OD x .043” Thick x .095” Radial Wall

90300-2013.22 - Hardware Bag for FAB9™ Spherical Bearing UCA (2 of 2)

Item	Qty	Part Number	Description
7	2	230189	Lower Shock Mount Folded Clevis 79-04 Mustang FAB9™
8	4	3100-038F1.00Y	Bolt 3/8-24 x 1” Hex Head Cap Screw, Grade 8
9	4	3101-038-24C	Locknut 3/8-24 Nylon Insert, Plated
10	4	3120-038S-Y	Washer 3/8” Hardened Flat SAE

908203 - Hardware Bag for FAB9™ Housing

Item	Qty	Part Number	Description
11	1	1242	Stud 3/8-24 x 2.10” Long
12	1	1301	Housing Filler Cap
13	11	3101-038-24C	Locknut 3/8-24 Nylon Insert, Plated
14	11	3109-038-S-2-Y	Aircraft Washer 3/8” Small OD
15	9	3130-038F1.50B	Bolt 12-point Flange Screw 3/8-24 x 1-1/2”
16	1	3503	O-Ring for Filler Assembly
17	1	3566	Magnetic Drain Plug 1/2-20 (3/4” Hex)
18	1	3567	Copper Gasket for 1/2” Drain Plug

INSTRUCTIONS

Loose Housing Ends (option)

If your housing was purchased with the housing ends uninstalled they will need to be installed before proceeding. A high quality rear end narrowing jig (P/N 6708) is available for purchase to accurately position the housing ends in relation to the carrier bearings.

All housings are pressure tested during assembly to ensure there are no leaks. The housing will need to be retested after welding the housing end joints. Begin by pressure washing the housing to remove any grease or contaminants. Seal all openings with duct tape, then lightly pressurize the housing (2-5 psi). Using a squirt bottle with soapy water, spray all welded joints while checking for air bubbles. Any leaks will need to be fixed before proceeding.

Painting/Powder-Coating

Housings must be sand-blasted and painted or powder-coated prior to installation of the spherical bearings. Housing end faces and bores, anti-roll bar bearing bores, as well as internal and external threads must be plugged or masked to prevent coating build-up in critical areas. Machined face of housing can be coated. Silicone will be used when mounting the third member to seal any inconsistencies of the coating.

1. **Housing Hardware Installation** - Use the contents of hardware bag 908203. Refer to installation guide 918203 for additional instructions.

2. HOUSING STUD – From front side of housing face, screw the longest end of the double-ended stud (1242) into the faceplate mounting hole closest to the drain hole. The stud should extend outward from the housing face approximately 1-1/8". Secure the stud from inside the housing with a 3/8" washer and locknut.

3. The nine 3/8 x 1-1/2", 12-point bolts screw into the faceplate from inside the housing. Use Loctite™ to secure them in place. They will act as studs to secure the third member housing.

4. The remaining 10 washers and locknuts are used to secure the third-member to the housing.

5. Stretch o-ring over threads and seat in groove under head of cap. Apply anti-seize or similar lubricant to threads and screw cap on to housing filler/inspection hole hand-tight.

6. Place the copper gasket over the magnetic drain plug. Apply anti-sieze to threads and screw drain plug into bottom of housing.

7. **Spherical Bearing Installation** - Use the contents of hardware bag 300-2013.12.

8. Apply Loctite™ or similar thread locking material to inside of bearing housing bore.

9. Insert bearing into bearing housing. A 1" hex x 1/2" drive socket or piece of tubing should be used to press against the outer race of the bearing. Applying pressure directly to the ball may damage the bearing. This will be a tight slip fit and should not require excessive force provided the bearing is straight in its bore. Do NOT force bearing into place. If necessary, clean housing bore with flap wheel. Verify that retaining ring groove is exposed and bearing race is completely seated at rear of bore.

10. Install sprial retaining ring. Separate coils and insert end of ring into groove. Wind ring into groove, then verify that ring has seated properly in the groove.

11. The remaining hardware (1/2-20 x 4" Bolt, 1/2" Flat Washers, 1/2-20 Locknuts) will be used to secure the upper control arm at the housing mounts. Do NOT use the stock size 12mm bolts.
    Note: Upper control arms with 12mm holes will need to be drilled out to 1/2".

12. **Control Arm Installation** - Follow instructions provided by your upper and lower control arm manufacturer.

13. **Shock Mount Installation** - Use the contents of hardware bag 300-2013.22.

14. Install the shock mount clevis onto the backside of the housing's axle mount. Clevis should be angled upward and installed in the lower set of holes at the axle bracket. Use a flat washer under bolt head and insert hardware from clevis side of mounting bracket. Thread locknut onto bolt.

15. Temporarily install shock absorbers to verify the suspension travel range is correct. The lower shock mount can be moved to the upper position to increase ride height if necessary. Once ride height range has been established, remove shocks and torque shock mount hardware to 35-40 lb ft.

16. Verify all components have been correctly installed and correctly torqued.

WARRANTY NOTICE:
There are NO WARRANTIES, either expressed or implied. Neither the seller nor manufacturer will be liable for any loss, damage or injury, direct or indirect, arising from the use or inability to determine the appropriate use of any products. Before any attempt at installation, all drawings and/or instruction sheets should be completely reviewed to determine the suitability of the product for its intended use. In this connection, the user assumes all responsibility and risk. We reserve the right to change specification without notice. Further, Chris Alston's Chassisworks, Inc., makes **NO GUARANTEE** in reference to any specific class legality of any component. **ALL PRODUCTS ARE INTENDED FOR RACING AND OFF-ROAD USE AND MAY NOT BE LEGALLY USED ON THE HIGHWAY**. The products offered for sale are true race-car components and, in all cases, require some fabrication skill. **NO PRODUCT OR SERVICE IS DESIGNED OR INTENDED TO PREVENT INJURY OR DEATH**.

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