

# RUGGED OFF ROAD

## Step by step instructions and checklist:

Use the proper tools and safety equipment to perform all work. Torque all fasteners to proper specifications and double check work. Align your vehicle after installation.

PN: 55-23005, 55-23015, 55-23025



FIG 1

Remove the brake line brackets from the knuckle and frame. Remove the ABS line from the knuckle. Disconnect the clips on the inside of the wheel well to gain slack in the ABS line.



FIG 2

Disconnect the vacuum line from the actuator on the backside of the knuckle.



FIG 3

Remove the outer tie rod end from the knuckle. Strike the tie rod boss on the knuckle with a dead blow hammer to dislodge the taper from the knuckle.



FIG 4

Remove the axle nut cover, and then axle nut. Remove the lower strut and sway bar end link from the lower control arm. Place a suitable jack under the lower control.

Loosen but do not remove the upper and lower control arm bolts.



FIG 5

Remove the upper ball joint from the knuckle. Strike the ball joint boss on the knuckle with a dead blow hammer to dislodge the taper from the knuckle. Take care to watch the brake lines and ABS for over extension through the following steps.



FIG 6

Lower the control arm down slowly while holding the top of the knuckle. Slide the axle out of the hub and actuator being careful not to damage the actuator.



FIG 7

Lower the control arm enough to remove the strut. Remove the strut assembly from the vehicle.



FIG 8

Mark the top of the strut in correlation to the lower mount. Using a spring compressor, release the pressure from the top hat of the strut.



FIG 9

Remove the top hat and place the preload spacer into the top hat. Make sure to place between the top hat and rubber isolator. Reinstall the top hat with spacer in the same orientation as previously removed. Torque to **30 ft-lbs**



FIG 10

Install the strut spacer onto the strut using the provided hardware. Torque to **30 ft-lbs**. 2009 - 2013 use spacer that says Right Only on the passenger strut. 2014 and up are the same spacer for left and right struts.





FIG 11

Making sure not to damage the studs, put the lower strut studs into a suitable vice and rotate the lower sleeve in the strut by pressing on the top of the strut the opposite direction of the original lean. Install this strut assembly back into the vehicle 180 degrees from the original orientation and will need the studs on the bottom of the strut to lean the opposite direction.



FIG 12

Remove the upper control arm from the frame.



FIG 13

Grease the bushings and sleeves and install into the Ready-LIFT control arms using the provided grease pack. This is a one time grease install. Install the control arms into the frame using the factory hardware. Do not tighten at this time.



FIG 14

Install the completed strut assembly into the frame 180 degrees from the original orientation making sure that the offset of the top spacer is going in towards the frame and that the stamped word OUT on the spacer is going towards the outside of the vehicle, using the factory hardware. Do not tighten at this time.



FIG 15

Raise the lower control arm and guide the lower strut studs into place. Continue to raise the lower control arm while guiding the axle shaft through the actuator and hub bearing. Do not to damage the vacuum actuator, the internal ring is made of plastic and if broken will need to be replaced.



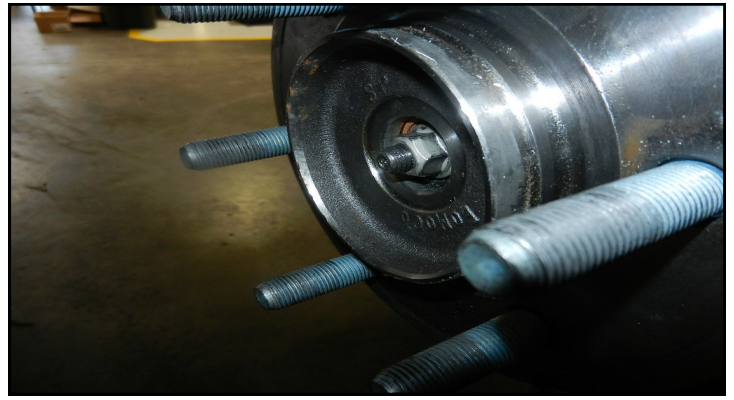
FIG 16

Once the knuckle is high enough, install the boot spacer onto the upper ball joint and attach to the knuckle. Use supplied heavy washer and castle nut for the ball joint. Do not tighten at this time.





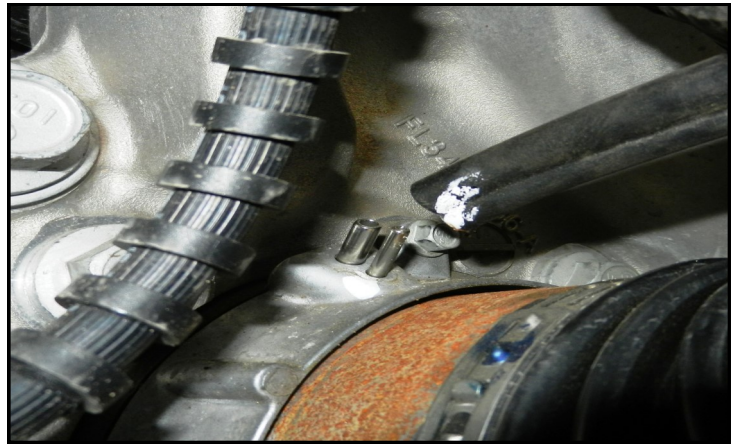
To avoid damage to the vacuum actuator, proceed with **caution**. Hold the axle and rotate the hub assembly while pulling outwards on the axle to engage the splines in the actuator to the splines on the axle. Once the splines are engaged, the axle will “pop” through the hub assembly.



When the axle is seated you will be able to see the shoulder of the axle through the hub. If this shoulder is not visible, keep rotating the hub until it is. The shoulder will be 2mm under the mounting surface of the nut in the hub when properly seated. Install the axle using the **factory hardware**. Torque the axle nut to **20 ft-lbs**, and the upper ball joint to **65 ft-lbs**.



Install the tie rod end to the knuckle using factory hardware. Torque to **85ft-lbs**.



Install the vacuum lines, ABS, and brake line brackets into their locations on the frame using the factory hardware. You will leave the ABS lines loose from the inner wheel well. Torque brackets to **10 ft-lbs**.

Install the wheels and lower the vehicle to the ground. Torque the lug nuts to the manufactures specifications.

Reconnect the vehicles negative lead at the power source and the EPAS module.

Jounce the front suspension to get the vehicle to settle to ride height. Torque the upper and lower control arms to **120 ft-lbs**.

### ...on to the Rear Install

Block the front wheels and raise the rear of the vehicle. Place jack stands under the frame rails ahead of the spring hanger.

Place a suitable jack under the rear end for support.



Slightly loosen but do not remove the driver side u-bolts. Remove the passenger side u-bolts completely and discard. Lower the axle just enough to remove the factory block.



Install the lift block. Locate the passenger side lift block, making sure the tapered end points to the front if installing on a 1 piece drive line. If installing on a 2 piece drive line, the blocks are universal. Install the lift block on the axle pad aligning the pins.



Raise the axle and the block up to the spring while aligning the center pins. Install the provided **u-bolts, washers and nuts**. Snug the u-bolt nuts but do not fully tighten at this time. Repeat steps for driver side.

Lower the vehicle to the ground and jounce the suspension.

Torque the u-bolts to **110 ft-lbs**.



Install carrier bearing drop if on a 2 piece drive line. Torque to **40 ft-lbs**.

### **Final Checks & Adjustments**

**Post Installation Warnings:** Once the vehicle is lowered to the ground, check all parts which have rubber or urethane components to ensure proper torque. Torque wheels to the manufacturers specs. Move the vehicle backwards and forwards a short distance to allow suspension components to adjust. Turn the front wheels from lock to lock and verify adequate tire, wheel, brake line, and ABS wire clearances. Test and inspect steering, brake and suspension components for tightness and proper operation. Inspect brake hoses and ABS lines for adequate slack at full extension. Failure to perform the post inspection checks may result in vehicle component damage and/or personal injury or death to driver and/or passengers. Test drive vehicle and re-check the torque of all fasteners.

### **Wheel Alignment/Headlamp Adjustment**

It is necessary to have a proper and professional wheel alignment performed by a certified alignment technician. Align the vehicle to factory or provided specifications. It is recommended that your vehicle alignment be checked after any off-road driving. In addition to your vehicle alignment, for your safety and others, it is necessary to check and adjust your vehicle headlamps for proper aim and alignment.

### **Vehicle Re-Torque and Safety Inspection**

Upon completion of all services and adjustments performed on your vehicle, and within 50 miles of driving, check to ensure that all fasteners and hardware are properly torqued to specification as noted in the vehicles factory service manual.

Learn more about performance suspension parts we have.