



INSTALLATION GUIDE

PART NUMBER: 6302

FLIP KIT

GM ASTRO / SAFARI 2WD | 1995-2002

3.5" REAR LOWERED RIDE HEIGHT

300 W. PONTIAC WAY. CLOVIS, CA 93612
PHONE: 800-445-3767 | EMAIL: INFO@BELLTECH.COM

THANK YOU

Thank you for choosing our high quality Belltech product. We have spent a great deal of time developing our line of products so that you will receive maximum performance with minimal difficulty during installation. Soon your vehicle will be on the road looking and feeling much improved.

Please take a moment to read all instructions and warnings prior to installation of your new Belltech product and before operating your vehicle. If you have any questions or concerns regarding any step in the installation process, please do not hesitate to call or email our customer support specialists who are trained to help you through any portion of this process.

Before You Begin:

It is of the utmost importance that you confirm all the components listed on the parts list are in the kit. You can find this list located on the last page(s) of your instructions. Do not begin installation if any part is missing. Instead, please call our Belltech customer service specialists.

Belltech Customer Support:

Phone: 1-800-445-3767

Email: info@belltech.com

Safety Information:

Warning: Do not work under a vehicle supported only by a jack. Place support stands securely under the vehicle in the manufacturer's specified locations unless otherwise instructed.

Proper use of safety equipment and eye/face/hand protection is absolutely necessary when performing any of the following instructions.

We strive for an exceptional experience for all our valued customers. If for any reason you need assistance with your Belltech products, please do not return the product to the store you purchased from, but rather call our dedicated customer service experts, from 7am to 5pm PST.

We recommend that a qualified mechanic, at a properly equipped facility, perform this installation.

It is very helpful to have an assistant available during installation.

Before Driving Your Vehicle:

It is important to double check all brake hoses, cables, and other components to be sure there is no interference. You must also check for wheel/tire to chassis/body interference. If any issues are found, review your installation instructions to be sure no steps were missed, and any problems are corrected.

Make sure your vehicle is aligned immediately following installation.

Check all hardware and torque at intervals for the first 10, 100, and 1000 miles.

Some of Belltech's products are designed to improve your vehicle's off-road performance. Leveling/lifting your vehicle may result in an altered center of gravity. It is crucial to use extreme care when operating your vehicle to prevent rollover and/or loss of control.

Any changes in your vehicle's suspension may result in transformed handleability. Please test drive your vehicle in a remote location so you can become accustomed to the revised driving characteristics.

Perform headlight check and adjustment.

Failure to drive any modified vehicle in a safe manner may result in harm or death.

Never operate your modified vehicle under the influence of drugs, alcohol, or lack of adequate sleep.

Always wear your seatbelt.



DIFFICULTY:



INSTALLATION TIME:

3-5 Hours + Alignment

RECOMMENDED TOOLS:

- Properly rated floor jack
- Support stands
- Wheel chocks
- Metric and standard socket wrench set
- Metric and standard wrench set
- Tape measure

SPECIALTY TOOLS:

- Torque wrench up to 150 ft lbs.
- Impact wrench
- Transmission jack

ADDITIONAL PARTS REQUIRED:

To ensure adequate clearance, the original rear anti-sway bar cannot be used with this flip kit. Belltech anti-away bar 5528 must be used.

The OEM shocks will be too long and will not allow proper suspension travel for use with this Belltech flip kit. Please use Belltech Street Performance shocks part number 2210DD or Nitro Drop 2 shocks part number 8532.

INSTALLATION PREPARATION:

Before beginning the installation process, measure the hub to fender heights for your vehicle and record them in the “Before” section. After your vehicle has been modified, record the new measurements in the “After” section. This way, you can compare the resulting height to the original. When taking the measurements, measure vertically from the center of the wheel to the inner edge of the fender.

Before:

LF: _____

RF: _____

LR: _____

RR: _____



After:

LF: _____

RF: _____

LR: _____

RR: _____

JACKING, SUPPORTING, AND PREPARING THE VEHICLE

1. Park your vehicle on a smooth, level, concrete or seasoned asphalt surface.
2. Block the front wheels of the vehicle using wheel chocks. Make sure the vehicle's transmission is in "PARK" (automatic) or 1st gear (manual).
3. Activate the parking brake.
4. Break loose, but do not spin the wheel lug nuts to ease in removal when the wheels are in the air.
5. Lift the rear of the vehicle off the ground using a properly rated floor jack. Lift the vehicle so the front tires are approximately 6-8 inches off the ground.
6. Place support stands rated for the vehicle's weight. The stands should be positioned in the factory specified locations (Refer to the owner's manual). Prior to lowering the vehicle onto stands, make sure the support stands will contact the chassis. It is very important that the vehicle is properly supported to prevent any harm to one's self or to the vehicle.
7. Lower the vehicle slowly onto the stands.
8. Remove the rear wheels.



Technician reminder:

Never work under a vehicle supported only by a jack. It is necessary to place support stands securely under the vehicle in the manufacturer's specified locations unless otherwise instructed.

REAR SUSPENSION REMOVAL



Technician note:

Belltech suggests installing this flip kit with the fuel tank near empty. The fuel tank must be lowered to gain access at the front leaf spring bolt on the driver side of the vehicle.

9. Support the axle using a jack or lifting device so that it can be raised and lowered. Additionally, support the rear axle near the U-joint to keep the axle from rotating.
10. Remove the original U-bolt and inner axle tube retaining plate from the vehicle.
11. Detach the ground battery cable bracket from the fuel tank located in front of the driver side leaf spring.
12. Loosen the screw clamp on the fill tube leading into the fuel tank. Pull the protective plastic shroud around the passenger side of the tank away from the body.
13. Support the fuel tank with a transmission jack or other suitable lifting device. Unfasten the four bolts holding the fuel tank support straps in place. Ensure the fill hose will pull away from the tank. Let the tank down slowly to ensure the connecting hoses are not damaged.

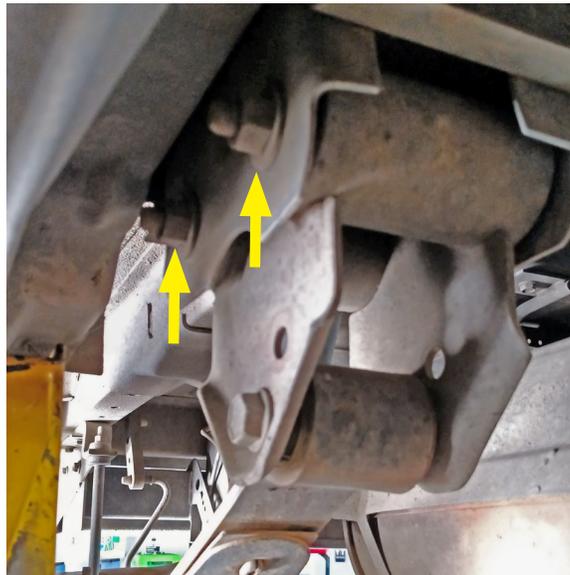


Technician reminder:

Gasoline fumes are extremely flammable; no smoking and extinguish all open flames during the installation.



14. Remove the two 21mm bolts holding the front of the leaf spring bracket into the hanger housing. Save these bolts as they will be reused.



REAR SUSPENSION REMOVAL CONTINUED

15. Remove the lower 21mm bolt at the rear shackle.



Technician reminder:

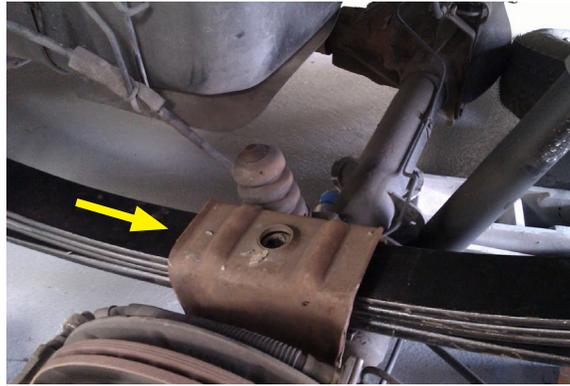
Note the direction of the original shackles as the new shackles will be installed in the same direction.



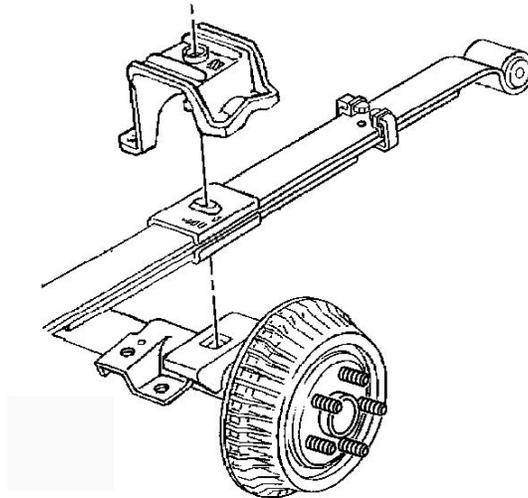
16. Lower the floor jack that is supporting the axle so the front leaf spring bracket will slide out of the hanger housing and the rear of the leaf spring will slide out of the shackle.

17. Remove the upper 21mm bolt holding the shackle to the frame. Detach the original shackle and save bolts for reuse later.

18. Pry the spring saddle off to detach it from the leaf spring. Remove the upper or lower rubber cushion from the spring assembly.

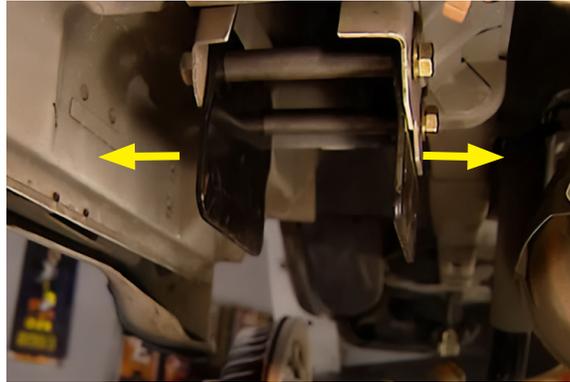


19. Detach the leaf spring assembly from the vehicle. Ensure the leaf spring assembly is marked left and right, front and rear.

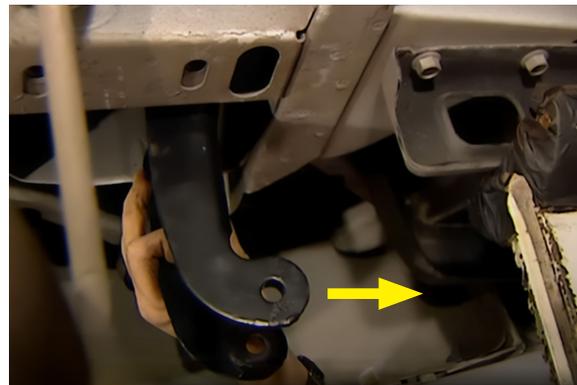


BELLTECH FLIP KIT INSTALLATION

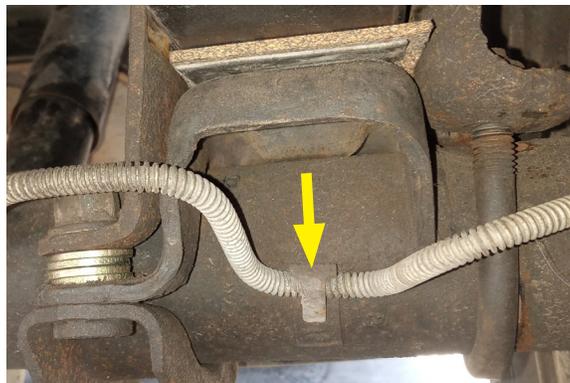
20. Attach the front joggle spacers into the spring hanger housing. The joggle spacers must face outward with the slots facing up. Slide the 4.37" round spacer tubes between the joggle spacers; use the 9/16"-18 x 6.0" bolts, 9/16"-18 nuts, and washers to fasten the assembly together. Hand tighten only, torque will be completed later.



21. Insert two urethane bushings and a 4.37" round spacer tube to assemble the upper shackle mount. Attach the new Belltech rear shackle to the frame using the original upper bolt. Ensure the ears on the lower shackle point toward the rear of the vehicle. Hand tighten but do not torque yet.



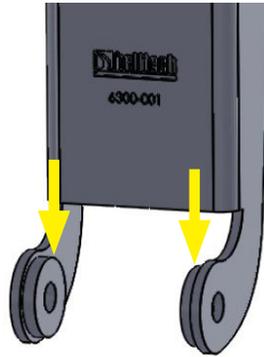
22. Open the brake line clamp on the axle and reposition the steel line out of the clamp to keep it from getting pinched when the U-bolts are attached.



23. Use the floor jack to raise the axle up to the body of the vehicle. Ensure there is clearance for the leaf spring to be attached at the front and rear. Position the leaf spring assembly under the axle.

BELLTECH FLIP KIT INSTALLATION CONTINUED

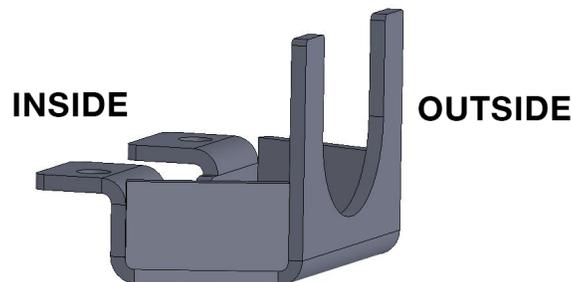
24. Lift the rear leaf spring and attach it to the bottom of the Belltech shackle. Ensure the supplied shackle washers are placed on both sides of the leaf spring. Fasten it with the original bolt. Hand tighten but do not torque yet.



25. Lift the front of the spring and position the leaf spring bracket between the new joggle spacer assembly. Slide the original hanger bolts through the front hole of the spacer and spring bracket. Lift the rear of the spring higher to line up the rear hole; slide the rear bolt through. Hand tighten but do not torque yet.



26. Place the Belltech axle saddle under the original spring pad. Line up the inside bolt hole tabs on the saddle with the bolt hole tabs on the axle. The side with the recess for the axle tube faces out toward the wheel. Line up the vertical tabs under the spring pad. Part number 6302-015 is for the driver side and 6302-017 is for the passenger side.



BELLTECH FLIP KIT INSTALLATION CONTINUED

27. To help restore the pinion angle, place the supplied Belltech pinion shim on the leaf spring, positioned over the spring center bolt. Ensure the thicker end of the shim sits toward the rear of the vehicle. Lower the axle assembly onto the leaf spring. Ensure the steel brake lines are cleared and vertical tabs on the saddle are positioned in the spring pad on the axle when the axle is at rest.



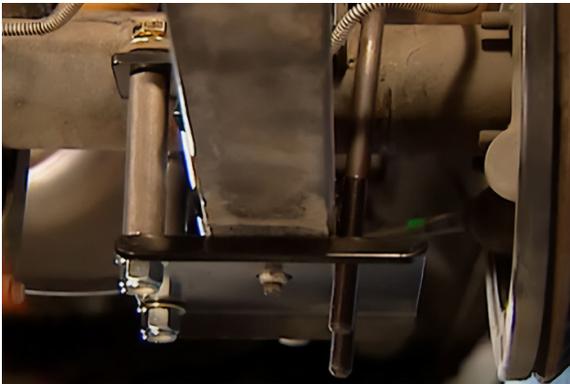
28. Place a new U-bolt over the axle and through the new lower U-bolt plate. Loosely fasten both with 1/2"-20 nuts and washers.



Technician note:

The lower U-bolt plates are side specific. 6302-010 is for the driver side and 6302-012 is for the passenger side. Ensure angled ends of the U-bolt plate point downward.

29. At the front bolt hole of the saddle, place the 2.87" spacer tube and fasten with a 1/2"-20 x 4-1/2" bolt, 1/2"-20 nut, and washers.
30. At the rear bolt hole of the saddle, place the 3.25" spacer tube and fasten with a 1/2"-20 x 5.0" bolt, 1/2"-20 nut, and washers. Hand tighten the U-bolt and saddle bolts but do not torque yet.



31. Remove the original rear bump stop at the axle and attach the new Belltech bump stop using the supplied nut.



BELLTECH FLIP KIT INSTALLATION CONTINUED

32. Lift the fuel tank and fasten the tank with the four support strap bolts. Ensure the fuel lines are not crushed or damaged as the fuel tank is repositioned in the body of the vehicle. Torque the strap bolts to 26 ft lbs.
33. Attach the fill tube to the fuel tank with the screw clamp and attach the plastic shroud to the fuel tank. Attach the battery cable bracket on the fuel tank.
34. Torque the joggle spacer and leaf spring bracket bolts to 74 ft lbs.



35. Torque the upper and lower rear shackle bolts to 74 ft lbs.



36. For the axle saddle and U-bolt nuts, begin with the hardware on the inner side, gradually tighten the four nuts to ensure the flip kit assembly is tightened uniformly. Torque to 41 ft lbs.



Technician note:

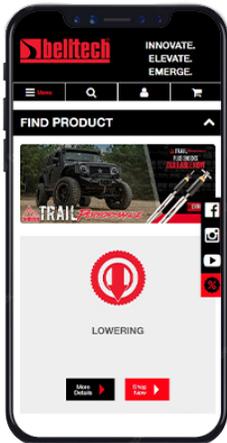
The axle adapter saddles and 4-degree pinion shims have been combined to properly position the rear axle pinion shaft relative to the driveline to eliminate vibration. If driveline vibrations are experienced, take the vehicle to a driveline service shop immediately for driveline angle inspection and for the necessary adjustments to be performed. Do not drive the vehicle if it exhibits extreme driveline vibrations, as U-joint wear could occur prematurely.

FINALIZING THE INSTALLATION

37. Mount the wheels and tighten the lug nuts.
38. Lift the vehicle and remove the support stands.
39. Carefully lower the vehicle onto the flat ground.
40. Torque the lug nuts to 100 ft lbs.
41. Check that all components and fasteners have been properly installed and torqued.
42. Read and perform all tasks in the “Before Driving Your Vehicle” section of page 1 of your instructions.

THANK YOU FOR CHOOSING BELLTECH.

You are now a part of the Belltech family and we are eager to catch a glimpse of your newly modified vehicle. Give us a shout out and let us know how much you love our product. Don't forget, we offer other Belltech related merchandise for you and your vehicle on our website www.belltech.com



belltechsuspension



Belltech Suspension



@belltechsuspension

If you have any questions, concerns, or warranty related issues regarding your Belltech product, please call or email our experienced customer service specialists.

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KIT CONTENTS



6302		
Part number	Description	Qty
6302-001-99	SHACKLE WITH SPACER	2
6302-010-99	U-BOLT PLATE LH	1
6302-012-99	U-BOLT PLATE RH	1
6000-003	1/2 X 3" X 7" U-BOLT	2
6302-015-99	AXLE SADDLE LH	1
6302-017-99	AXLE SADDLE RH	1
6300-005-99	JOGGLE SPACER	4
6302-777	HARDWARE KIT	1

6302-777		
Part number	Description	Qty
5922-001	BUMP STOP	2
6300-020	URETHANE BUSHING	4
110660	1/2" FLAT WASHER	12
110427	1/2"-20 X 4-1/2" HEX HEAD BOLT	2
110430	1/2"-20 X 5.0" HEX HEAD BOLT	2
110451	9/16-18 X 6.0" HEX HEAD BOLT	4
4977-001	4 DEGREE PINION SHIM	2
110403	1/2"-20 NYLOC NUT	8
110453	9/16"-18 STOVER LOCK NUT	4
110670	9/16" FLAT WASHER	8
6300-027-95	4.37" SPACER TUBE	6
6302-019-95	3.25" SPACER TUBE	2
6302-021-95	2.87" SPACER TUBE	2