

38124

**LEVEL TECH**

BY



## 2007-2013 4WD TAHOE SUBURBAN AVALANCHE 4" LEVELING KIT



### **BASIC KIT INCLUDES:**

- |   |                                  |
|---|----------------------------------|
| 1) Left Upper Control arm w/ Ball Joint                 | 2) M12 Nylock Nut                |
| 1) Right Upper Control arm w/ Ball Joint                | 1) M12 x 35mm Socket Cap         |
| 2) Ball Joint Zerk Fitting                              | 1) M12 x 45mm Socket Cap         |
| 2) Cotter Pin   | 2) Large Fender Washer           |
| 2) Castle Nut   | 1) M12-1.75 x 40mm Hex Head Bolt |
| 2) 1/4 NY lock Nuts                                     | 2) M12 Flat Washer               |
| 2) 1/4 Washers  | 1) Skid Plate                    |
| 8) UCA Bushings MO3013                                  | 2) 3" Tapered Block              |
| 4) UCA Sleeve   | 4) 9/16 x 11" Square U-bolt      |
| 4) UCA Zerk Fittings                                    | 8) 9/16 U Bolt Nuts              |
| 2) Strut Extension                                      | 8) 9/16 Washers                  |
| 6) 7/16" Nuts   | 2) Rear Shock Extension          |
| 6) 7/16" Washers  | 2) 9/16 x 3 1/2 Bolts            |
| 1) Differential Relocation Bracket 1" Wide- Driver Side | 4) 9/16 Washers                  |
| 1) Differential Relocation Bracket 2" - Passenger Side  | 2) 9/16" Nylock Nuts             |
| 2) M12 x 70mm Socket Cap                                |                                  |

### **Disassembly**

1) Prior to lifting the vehicle it is recommended that you measure the stock height so that you have a base line measurement. Measure from the bottom of the wheel to the lip of the fender, Position truck on a flat surface and lift vehicle by the frame so that the front wheels are off the ground. Use a floor jack and jack stands or a (2) two post lift if available.

**NEVER WORK UNDER AN UNSUPPORTED VEHICLE**

2) Remove the front wheels. Unbolt the five 15mm bolts that hold the plastic air dam on. Set aside.

3) Unclip the ABS line at the upper control arm pocket on both sides.

4) Unclip the ABS line at the upper control arm and unbolt the brake line retention bracket on both sides



5) Remove the sway bar end link bolt using a 15mm socket and a 15mm open end wrench. Do this on both sides



6) Remove the brake caliper using an 18mm socket. Secure the caliper so that the brake line does not get stretched or damaged. Repeat on opposite side.



7) Unbolt the tie rod end using a 21mm socket. An additional wrench may be needed to keep the ball joint from spinning. Repeat on opposite side



8) Remove the six 15mm axle shaft bolts. Set the hardware aside as it will be reused. Repeat on opposite side



9) Separate the upper ball joint from the steering knuckle. Repeat on opposite side.

10) Remove the three 18mm upper strut mounting nuts

11) Remove the two 15mm lower strut mounting bolts.



12) Remove the strut from the vehicle. Repeat on opposite side

13) Mark the position of the alignment cams. Remove the 21mm UCA nuts, cams, and bolts.

14) Remove the upper control arm. Repeat on other side

15) Remove the four 11mm driveshaft bolts.



16) Set the straps and bolts aside. Slide the driveshaft back off the yoke.

17) Remove the four rear cross member nuts and bolts.

18) Remove the rear cross member and set aside.



19) Disconnect the blue electrical plug from the front differential. Support the front differential with a transmission jack



20) Unplug the breather hose. Remove the driver side mounting bolts. Make sure the differential is secured with the transmission jack.

21) Remove the two passenger side mounting nuts.



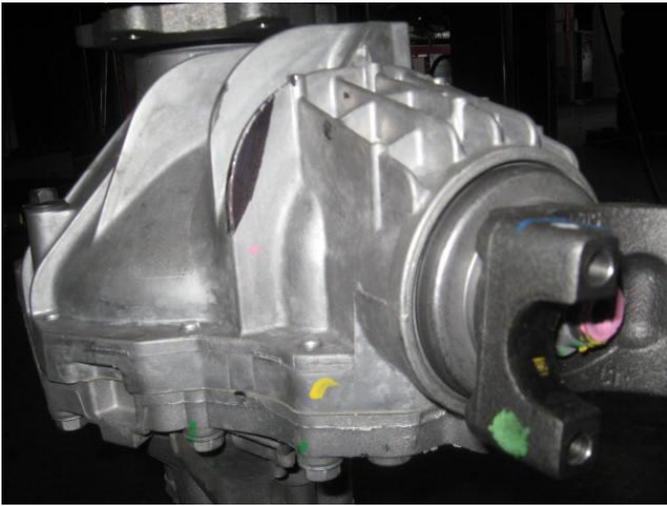
22) Remove driver side mounting hardware.



23) Carefully lower the front differential down to the floor.

24) Use a permanent marker to mark the material to be removed. This will be on the driver side of the differential.





25) Grind off the marked section so that it is flush with the case.



26) Remove the passenger side torque arm using a 15mm socket and 18mm socket. Remove the two M12 press in studs.



27) Bolt the 2" wide diff drop bracket (narrow taper facing the rear) to the torque arm using 2 M12x70 socket cap bolts and M12 flange nuts. 75 ft.-lb.



27) Reinstall the torque arm to the frame mount. Torque the factory hardware to 75ft.-lb.

28) Install the driver side differential drop bracket using the M12x35 and M12x45 socket cap bolts. Tighten to 75ft.-lb



29) Raise the differential back up into its mounting location. Take care not to pinch the electrical line.



30) Loosely install two M12x35 bolts, washers, and fender washers on the passenger side mount. Install two M12x35 bolts, split lock washer and flat washer on driver side mount. Tighten to 85 lb-ft

31) Reconnect the tabs from the wiring harness and plug the connector back in.

32) Re-attach the differential breather hose.

33) Put the cross member back in place. Use of a rubber mallet may be needed to help persuade the cross member mounting holes to line up.

34) Install the factory hardware, the head of the bolt should face the rear and the nut should face the front. Tighten to 75 ft-lb.

35) Install the FTS Strut Extension on top of the strut using the factory hardware. Tighten to 45 lb-ft.



36) Install the FTS upper control arm. The upper ball joint will be angled towards the rear of the vehicle. Install the cam bolts and cams. Line up your markings

**Passenger side shown below**



37) Re-install the strut into its stock location. Loosely install the M10 flange nuts on the upper mount.



38) Raise the lower control arm and line up the lower mounts. Install the M10x55 bolts, washers, and nyloc nuts. Tighten to 45 ft-lb.

39) Tighten the three upper strut mounting nuts to 45 ft-lb. Install the upper ball joint to the knuckle. Tighten to 45 ft-lb. Install the supplied cotter pin.

40) Re-install the tie rod. Tighten to 100 ft-lb

41) Install the front brake calipers using the factory hardware and 18mm socket. Tighten to 146 ft-lbs.

42) Re-install the front driveshaft using the factory hardware and clamps. Tighten to 30 ft-lb.

43) Reconnect the inner CV shaft using the factory hardware. Tighten to 45 ft-lb.

44) Reconnect the ABS line and place back in factory location. Reinstall the sway bar end links on both sides. Tighten to 45 lb-ft.

45) Install the brake line support bracket onto upper control arm using the 1/4" nuts and washers provided. Tighten to 7 lb.-ft.

46) Install the FTS skid plate using the Factory bolts into the existing holes in the front and rear cross members



## Rear Installation:

- 1) Jack up the rear of the vehicle and support the frame rails with jack stands.
- 2) Remove the rear wheels and tires.
- 3) Disconnect brake lines at top of differential and unbolt the driver and passenger brake lines from the axle housing.
- 4) With the rear axle Supported disconnect sway bar end links.  
**Skip Step 5 If Your Vehicle Is Not Auto ride Auto Ride Models Only**
- 5) Disconnect the air ride sensor bracket from the upper rear trailing arm.
- 6) Unclip ABS lines at upper trailing arm then up at the frame to allow enough slack for when you lower the axle down.
- 7) With the rear axle supported by the jack, remove the lower shock mounting hardware.



## Product Warranty and Warnings-

FTS provides a Limited Lifetime Warranty to the original retail purchaser who owns the vehicle, on which the product was originally installed, for defects in workmanship and materials.

The Limited Lifetime Warranty excludes the following FTS items; bushings, bump stops, ball joints, tie rod ends, limiting straps, cross shafts, heim joints. These parts are subject to wear and are not considered defective when worn. They are warranted for 60 days from the date of purchase for defects in workmanship.

Reservoir shocks are considered a serviceable shock with a one year warranty

- 8) Slowly lower axle and remove coil springs and rubber isolators.
- 9) Install the FTS 1.5" billet spacer on the axle, Install OEM rubber isolator on top of billet spacer.
- 10) Reinstall rear coil spring in the same orientation it was removed.
- 11) Jack axle up and reconnect lower shock mounting hardware and sway bar end links.
- 12) Reattach ABS lines, brake line and emergency brake cables back in there original locations.
- 13) Reinstall wheels/tires and torque to spec.
- 14) Recheck all hardware, cables and brake line, Rear installation is now complete.

## LEVELING KITS

on leakage only. Service seal kits are available separately for future maintenance. All other shocks are covered under our Limited Warranty. FTS does not warrant any product for finish, alterations, modifications and/or installation contrary to FTS instructions. Alterations to the finish of the parts including but not limited to painting, powder coating, plating and/or welding will void all warranties. Some finish damage may occur to parts during shipping which is considered normal and is not covered under warranty. FTS products are not intended to be installed on vehicles used in race applications or for racing purposes or for similar activities. (A "RACE" is defined as any contest between two or more vehicles, or any contest of one or more vehicle against the clock, whether or not such contest is for a prize). This warranty does not include coverage for police or taxi vehicles, race vehicles, or vehicles used for government or commercial purposes. Also excluded from this warranty are sales outside of the United States of America. Installation of most suspension products will raise the center of gravity of the vehicle and will cause the vehicle to handle differently than stock. It may increase the vehicle's susceptibility to a rollover, on road and off road, at all speeds. Extreme care should be taken to operate the vehicle safely at all times to prevent rollover or loss of control resulting in serious injury or death. FTS makes every effort to ensure suspension product compatibility with all vehicles listed in the catalog, but due to unknown auto manufacturer's production changes and/or inconsistencies by the auto manufacturer, FTS cannot be responsible for 100% compatibility, including the fitment of tire and wheel sizes listed. The Tire and Wheel sizes listed in FTS's catalog are only a guideline for street driving with noted fender trimming. FTS is not responsible for damages to the vehicle's body or tires. FTS's obligation under this warranty is limited to the repair or replacement, at FTS option, of the defective product only. All costs of removal, installation or re-installation, freight charges, incidental or consequential damages are expressly excluded from this warranty. FTS is not responsible for damages and/or warranty of other vehicle parts related or non-related to the installed FTS product. This warranty is expressly in lieu of all other warranties expressed or implied. This warranty shall not apply to any product that has been subject to accident, negligence, alteration, abuse or misuse as determined by FTS.

FTS suspension components must be installed as a complete system including shocks as shown on our current website. All warranties will become void if FTS parts are combined and/or substituted with other aftermarket suspension products. Combination and/or substitution of other aftermarket suspension parts may cause premature wear and/or product failure resulting in an accident causing injury or death. FTS does not warrant products not manufactured by FTS.

Installation of FTS product may void the vehicles factory warranty; it is the consumer's responsibility to check with their local vehicle's dealer for warranty disposition before the installation of the product.

It is the responsibility of the distributor and/or the retailer to review all warranties and warnings of FTS products with the consumer prior to purchase. FTS reserves the right to supersede, discontinue, change the design, finish, part number and, or application of parts when deemed necessary without written notice. FTS is not responsible for misprints or typographical errors within the catalog or price sheet.

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