Classic Front Lift Kit

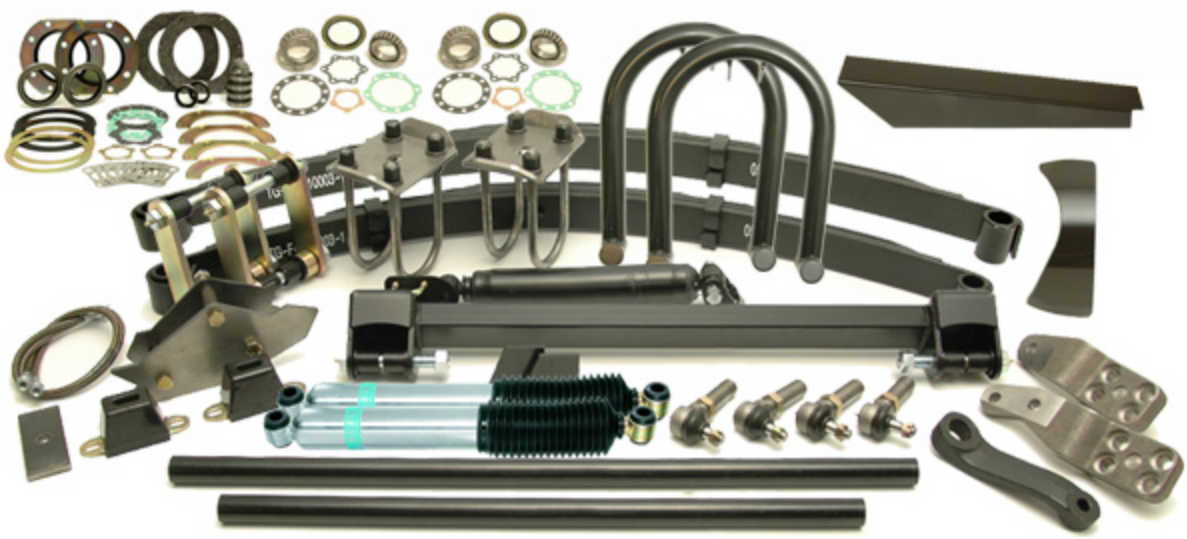
Install Instructions For Kits: 110039-1-Kit, 110040-1-Kit, 110041-1-Kit

Kit Includes:

Front Spring Hanger w/ bolts and bushing	1.0
Front Leaf Springs w/bushings	1.0
Greasable Shackles	1.0
Bilstein Shocks	2.0
Shock Hoops w/gussets	2.0
U Bolt Flip Kit	1.0
Extended Front Brake Lines	2.0
High Steer Crossover Steering	1.0
Steering Stabilizer Kit	1.0
Heavy Duty IFS Mount Kit	1.0
Small Diff Armor	1.0
Gusset, Upper	1.0
Knuckle Rebuild kit	1.0
Wheel Bearing	2.0
Bumpstops	2.0
Spring Pad	1.0

Additional Items Needed:

IFS style steering box can be used with any Toyota 4WD IFS box from 1986-1996. **NOTE:** 2WD boxes cannot be used due to the smaller sector shaft. It is not possible to accurately measure the needed length of a custom drive shaft until after the installation of the lift is complete. Heavy wall drive shaft tubing with minimum wall thickness of .095 is recommended. Front drive shaft with minimum slip joint of 10" is recommended to prevent driveshaft from coming apart under extreme articulation. When installing 4” or 5” springs, we recommend using a high pinion front 3rd member and a dual transfer case to prevent excessive u joint angles.



If you have any questions during the installation of your kit, please call us for assistance at 559-252-4950.

Before Installing Steering Box:
Remove:

Leaf Springs
Axle
Shackles
Front Shocks
Brake Lines
Steering
Push Pull Steering box
Steering Box Mount from frame using a torch or plasma cutter
Remove all parts of the bracket until left w/ a bare frame rail. Use a grinder for smooth finish.

Installing Steering Box:

1) Install pitman arm onto the IFS box including the washer and nut. Install one tire rod end into the pitman arm for position of the IFS box. Center the steering box (left to right) before installing the pitman arm. With the steering box on the frame and centered, the pitman arm should point toward the rear of the truck. The steering box holes might need to be cleaned up to fit a 1/2" bolt.

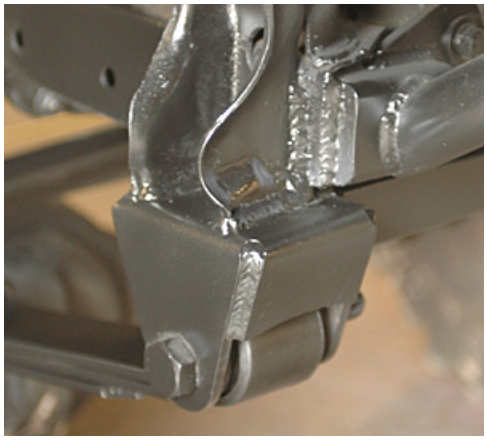
2) Position the IFS steering box on the outside of the frame rail. Slide the box as far forward as possible then Rotate the box so that the pitman arm will clear the frame by 1/2". Now turn the IFS box input from lock to lock and verify the clearance under the frame as the pitman arm moves left to right. Once the proper position is established, mark the position of the two lower holes of the steering box on the frame.

3) Drill the steering box holes (3/4") through the frame. Insert the IFS box mount tubes through the frame. Now place outer IFS plate over the tubes. Weld the outer plate to the three frame tubes using a high heat setting on the welder for good penetration. Use the grinder to grind the outside plate weld so it is completely flush. Slide the inner plate onto the tubes and fully weld around the tubes on the inside. Weld up both the inner and outer plate directly to the frame. Some minor reshaping of the outer plates may be necessary with the grinder, if the plates hang below the frame.

4) Bolt on the steering box. Connect the hydraulic hoses to the power steering system. Toyota uses the same

Installing Leaf Springs:

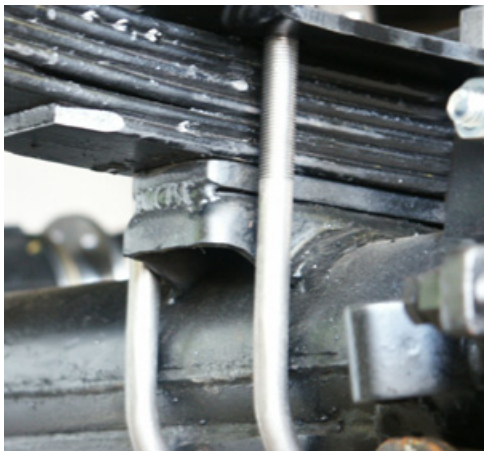
5) Cut off and remove front leaf spring hangers with torch or plasma cutter



Note: On kits with 4" & 5" springs, the spring hanger should be moved more forward than the 3" springs. Tack weld the spring hanger in place & check the shackle angles with the full weight of the truck on the springs before fully welding the spring hanger n place.

6) 1979-1983 trucks have a frame that is 1" shorter then 1984-1985 trucks. On 1979-1983 trucks the hanger should be mounted so that it is 1" in front of the front frame crossmember. On 1984-1985 trucks and 4Runners the crossmember should be mounted flush with the front frame crossmember. Shackles should be at 90 degrees during this test. Later the springs will break in and shackles should be about 20 back. The hanger should be centered left to right and square with the frame.

Installing Leaf Springs Continued:



7) Weld the spring pad onto the left front axle spring perch. Weld across the front and back **Do not weld** the sides so that the pad can be removed in the future if needed. This pad raises up the spring perch to match the taller perch on the passenger side.

8) Install the leaf springs with the military wrap (is considered a double wrap) end forward into the front hanger. Use the shackle kit provided to attach the rear end of the springs to the frame. Apply a small dab of axle grease to the threads of the shackle bolts before installing the Locknut. Grease the shackles with a standard grease gun. The shackles can be installed with the grease fittings facing inside or out.

Install High Steer:

9) Remove the nuts and cone washers from both stock steering arms. Remove the stock steering arms from the knuckles. It may be necessary to use a hammer to tap arms out of position. Retain the stock knuckle shims for each side. Remove the stock knuckle studs and clean knuckle studs and threads. Apply Lock-Tite™ and reinstall the knuckle studs into the axle. Install the new steering arms using the original shims. Knuckle preloaded with the tie rod removed should be approximately 15 lbs. If it is over or under you may wish to re-shim the knuckle. See factory service manual for procedure. Additional shims are provided with the knuckle rebuild kit. Install the steering arm with *two holes* on the *right side* of the truck. Install the steering arm with *one hole* on the *left side* of the truck Torque the knuckle studs to 80 ft lbs.

Install Front Flip Kit:

10) Using the front U bolt flip kit, install the front axle under the springs. Weld the bumpstops to the top center of the U-bolt plates. The U-bolt plate is installed on top of the leaf spring. Tighten the U-bolts to 100lbs. Cut off the excess U-bolt threads just above the nuts so that 3-5 threads are exposed.

Install Tie Rod and Drag Link:

11) Each rod has one left handed thread and one right handed thread. The longer rod is the tie rod and the shorter rod is the drag link. Take the tie rod and install it in the one hole of the left steering arm. Then take the other end and install it in the rear hole of the arm on the right side of the truck. Install the right side of the drag link in the forward hole of the right side steering arm. The left end of the drag link should be installed in the pitman arm. Tighten the castle nuts to 65 lbs and install the 4 cotter pins.

Shocks and Shock Hoops:

12) To install shock hoops, it may be necessary to cut open the inner fender. If the 14" shocks are used you will most likely need to bring the shock hoop up through the fenders. This may require relocating some items directly above the shocks. If your using 12" shocks and short style hoops, there is no need to cut the fenders open.

13) Install the shocks and hoops so approximately 60% of the shock is in the tube and 40% is out or as close as possible. Exact positioning will depend on the spring height, vehicle weight, and the shock choice. The shocks should be mounted vertically with the "Can" or body of the shock in the up position.

14) Test fit the shocks before making any permanent welds. Do not weld near the shocks unless the chrome plating of the shock rod is covered. **If weld splatter attaches to the shock rod, it will damage the shock seal and destroy the shock. This type of shock failure is not covered by warrantee.**

15) After the hoops are installed, install two gussets on each shock hoop. The gussets (1" round tubing) will need to be finish trimmed to fit before welding in position. Shock sleeves should be installed in the top and bottom of each shock before installation.

Steering Stabilizer:

16) The steering stabilizer included in the kit is designed to help reduce steering wheel vibrations at higher speeds. To install, weld the notched end to the passenger side of the frame rail. Pull the shock out half of it's length. Using provided U-Bolts attach the stabilizer to the upper steering rod (draglink).

Front End Alignment:

17) Alignment of the solid front axle is very easy. With the adjuster nuts loose simply turn the tie rod to change the tow setting. The tow should be set so it is 1/16" to 1/8" tow in. The drag link can also be adjusted in the same way. Most of the tie rod end should be threaded into the tie rods. Once the rods are set, the nuts can be locked down.

Notes:

After driving truck 100 miles re-torque U-bolts to 100 ft/lbs

Recheck U-bolts and knuckle stud nuts at each oil change or 5,000 miles

These instructions are designed as a general installation guide. Installation of many Trail-Gear Products require specialized skills such as metal fabrication, welding and mechanical trouble shooting. If you have any questions or are unsure about how to proceed, please contact our shop at 559-252-4950 or seek help from a competent fabricator. Using fabrication tools such as welders, torches and grinders can cause serious bodily harm and death. Please operate equipment carefully and observe proper safety procedures.

Rock crawling and off-road driving are inherently dangerous activities. Some modifications will adversely affect the on-road handling characteristics of your vehicle. All products sold by Trail-Gear Inc are sold for off road use only. Any other use or application is the responsibility of the purchaser and/or user. Some modifications and installation of certain aftermarket parts may under certain circumstances void your original dealer warranty. Modification of your vehicle may create dangerous conditions, which could cause roll-overs resulting in serious bodily injury or death. Buyers and users of these products hereby expressly assume all risks associated with any such modifications and use.

