2005-15 Nissan Frontier/Xterra 2WD/4WD
2.5" Leveling Strut Extensions

Parts:

2 - Front Strut Extenstions	6 - 3/8" Studs
6 - 3/8" Nuts	6 - 3/8" Lock Washers
4 - Shackle Plates	2 - 1/2" x 5.5" Bolts
4 - Sleeves (2 Frame, 2 Spring)	8 - 1/2" Washers
2 - 1/2" x 4.5" Bolts	4 - 1/2" Lock Nuts

PRE-INSTALLATION

Professional installation by a certified technician is strongly recommended.

Not responsible for altered products. No claims are made regarding any lifting devices. Any and all claims implied in this document excluded.

NOTES:

The following instructions assume the use of factory wheels with size 35x12.50x18 tires. The use of wider tires will require trimming and offset wheels.

REQUIRED TOOLS:

14mm Socket	22mm Socket	13/16" Socket
19mm Socket	17mm Wrench	19mm Wrench
9/16" Socket	Hammer	Floor Jack & Stands

Torque Specs:

Size	Grade 5	Grade 8
3/8"	30 ft/lbs	35 ft/lbs
7/16"	45 ft/lbs	60 ft/lbs
1/2"	65 ft/lbs	90 ft/lbs
9/16"	95 ft/lbs	130 ft/lbs
5/8"	135 ft/lbs	175 ft/lbs
3/4"	185 ft/lbs	280 ft/lbs

Size	Class 8.8	Class 10.9
8MM	18ft/lbs	23ft/lbs
10MM	32ft/lbs	45ft/lbs
12MM	55ft/lbs	75ft/lbs
14MM	85ft/lbs	120ft/lbs
16MM	130ft/lbs	165ft/lbs

INSTALLATION INSTRUCTIONS *Front*

STEP 1: Jack up front of vehicle so that front wheels are off the ground. Support vehicle with jack stands.
STEP 2: Remove front wheels. (13/16" socket)
STEP 3: Remove cotter pin from upper control arm ball joint nut. Support knuckle with jack stand and remove upper ball joint nut. (22mm socket - save factory hardware) Hit the knuckle with hammer on the side to separate the ball joint from the knuckle.
STEP 4: Remove nuts on upper strut tower that holds assembly in place. (19mm socket)
STEP 5: Remove sway bar bolts and allow sway bar to drop. (17mm wrench - Save factory hardware)
STEP 6: Remove strut bolt from lower control arm. Remove strut assembly from vehicle. (19mm socket and 19mm wrench)
STEP 7: Insert included 3/8" studs into top of strut spacers and tighten until snug. (9/16" socket - Torque to 35-45 ft/lbs)
STEP 9: Install new strut spacer on strut using factory hardware. (14mm wrench)
STEP 10: Install strut strut assembly into strut tower. Secure with included 3/8" nuts and lock washers. (9/16" wrench)
STEP 11: Install lower strut bolt . (19mm socket and 19mm wrench - Torque to factory specs)
STEP 12: Reinstall sway bar bushings and nut. (17mm wrench and factory hardware) Torque to factory specs.
STEP 13: Raise lower control arm, connect upper ball joint on upper control arm to spindle and torque to factory specs. (22mm socket) Use wrench to keep ball joint from turning while tightening,
STEP 14: Repeat steps 3-13 on opposite side of vehicle
STEP 16: Reinstall front wheels. (13/16" socket)
STEP 17: Jack up vehicle and remove jack stands. Lower vehicle to floor. Torque all bolts to factory specs.
STEP 18: Have alignment done by a certified alignment professional.

INSTALLATION INSTRUCTIONS *Rear*

STEP 1: Chock front weels and jack up rear of vehicle. Place jack stands under frame rails.
STEP 2: Support rear axle with jack. Work on one side of vehicle at a time.
STEP 3: Remove shackle bolts and shackle from rear of leaf spring. (17mm socket)
STEP 4: Grease outside of sleeves and insert into frame and spring.
STEP 5: Install new shackle - flat part on outside, offset on inside. Use 5.5" bolt in frame and 4.5" bolt in spring with washers and nuts - hand tighten only.
STEP 6: Repeat steps 3-5 on opposite side of vehicle.
STEP 7: Remove jack stands and lower vehicle to ground.
STEP 8: Tighten all shackle bolts. (3/4" socket and wrench)

POST-INSTALLATION

STEP 1: Check for proper torque on all fasteners. Check steering for proper working order and check for interference. Test brake system. Check clearance between all rotating, mobile, fixed and hot parts.
STEP 2: Check distance between tire sidewall and the brake hose during full–turn to full-turn steering sweep. Do not skip this step! Any contact may result in component failure.
STEP 3: Adjust headlights to proper alignment.

MAINTENANCE: After 500 miles, re-torque all fasteners. (Recommended every 1000 miles thereafter) Have all suspension, driveline and steering components inspected buy a certified technician durning routine maintenance (Recommended every 3000 miles)