



FORD RANGER BODY LIFT KIT INSTALLATION INSTRUCTIONS

1993-1994 2" KIT# 812
1993-1994 3" KIT# 813

⚠ WARNING

Installation of a Performance Automotive Group body lift kit will change the vehicle's center of gravity and handling characteristics both on- and off-road. You must drive the vehicle safely! Extreme care must be taken to prevent vehicle rollover or loss of control, which could result in serious injury or death. Avoid sudden sharp turns or abrupt maneuvers and always make sure all vehicle occupants have their seat belts fastened.

⚠ WARNING

Before you install this kit, read and understand all instructions, warnings, cautions, and notes in this instruction sheet and in the vehicle owner's manual.

⚠ CAUTION

Proper installation of this kit requires knowledge of the factory recommended procedures for removal and installation of original equipment components. We recommend that the factory shop manual and any special tools needed to service your vehicle be on hand during the installation. Installation of this kit without proper knowledge of the factory recommended procedures may affect the performance of these components and the safety of the vehicle. We strongly recommend that a certified mechanic familiar with the installation of similar components install this kit.

⚠ WARNING

DO NOT combine suspension, body, or other lift devices. Use of vehicle with combined lifts may result in unsafe and/or unexpected handling characteristics.

⚠ WARNING

This kit should only be installed on a vehicle that is in good working condition. Before you install the kit, thoroughly inspect the vehicle for corrosion or deformation of the sheet metal around the factory body mounts. If the vehicle is suspected to have been in a collision or misused, do not install this kit. Off-road use of your vehicle with this kit installed may increase the stress applied to the factory body mounts. We do not recommend that any vehicle with a body lift kit installed be involved in any extreme off-road maneuvers such as jumping. Failure to observe this warning may result in serious personal injury and/or severe damage to your vehicle.

⚠ WARNING

Many states and municipalities have laws restricting bumper heights and vehicle lifts. Consult state and local laws to determine if the changes you intend to make to the vehicle comply with the law.

⚠ WARNING

The installation of larger tires may reduce the effectiveness of the braking system.

⚠ WARNING

Always wear eye protection when operating power tools.

⚠ WARNING

Before you install this kit, block the vehicle tires to prevent the vehicle from rolling.

⚠ WARNING

Accidental deployment of the air bag can result in serious personal injury or death. To avoid accidental deployment during installation of the kit, the Supplemental Restraint System (SRS, or airbag) must remain deactivated. Do not allow anyone near the airbag during installation. Refer to the factory service manual or owner's manual for the recommended procedure to disable the SRS. After you install the kit, reactivate the SRS before driving the vehicle.

⚠ NOTE

Performance Automotive Group recommends using the Loctite® supplied in the kit on the threads of all kit nuts and bolts unless specified otherwise in these instructions.

Before Starting Installation

NOTE

This kit does not include rear bumper brackets and they are NOT available from Performance Automotive Group.

NOTE

Kit parts are prefaced by the word kit and appear in **bold** print.

1. Carefully read all warnings and instructions completely before beginning.
2. Verify all parts have been received in this kit by checking the parts list at the end of this document.

NOTE

If parts are missing from kit, please be prepared to provide the following information:

1. **Name** of purchase location
2. **Bar Code** on side of box
3. **Date** above bar code
4. **Date** inside box cover
5. **Inspector #** from inside box cover

3. **Only install this kit on the vehicle for which it is specified.**

4. Special tools needed:
 - a. Die grinder or similar tool capable of cutting metal.
5. Park vehicle on a clean, dry, flat, level surface and block tires so vehicle cannot roll in either direction.

Engine Compartment

1. Disconnect both battery cables. Disconnect negative cable first, then positive cable.

Prepare to Install Kit

Measurements

1. Measure and record distance between front bumper and fenders.

Driver Side _____ Passenger Side _____

2. Measure and record distance between rear bumper and bed

Driver Side _____ Passenger Side _____

3. Measure and record distance between cab and bed.

Driver Side _____ Passenger Side _____

Front of Vehicle

1. Front Bumper
 - a. Remove lower valence from front bumper.
 - b. Remove bolts and front bumper from frame.

Engine Compartment

1. Remove positive battery cable from clamp located on frame.
2. Remove engine ground strap from firewall.
3. Remove wiring harness from driver side fender well clips.
4. Remove two bolts and fan shroud from top of radiator and bottom radiator clips.
5. Drill out rivets and remove exhaust manifold air ducts from passenger side fender well.
6. Radiator
 - a. Drain coolant from radiator into drain pan. Save for refilling radiator.
 - b. Disconnect clamp and water pump heater hose from firewall heater core neck.
 - c. Install **kit hose** (5/8" x 6") onto firewall heater core neck with **kit clamp** (#10 hose).
 - d. Install **kit extension** (heater, steel) between **kit hose** (5/8" x 6") and water pump heater hose with **kit clamp** (#10 hose) and water pump heater hose clamp.
 - e. Fill radiator with previously drained coolant and check level. Add additional coolant, if necessary.

7. Steering Shaft

⚠ CAUTION

Do not turn the steering wheel while the steering shaft is disconnected.

- a. Strap steering wheel to prevent accidental movement.
- b. Mark upper steering shaft in relation to lower steering shaft.
- c. Remove bolt and lower steering shaft from upper steering shaft.

Inside of Vehicle

1. Remove driver and passenger screws, door jamb scuff plates, and scuff pads.
2. Remove front driver and passenger plastic tabs and kick panels.
3. Remove rear driver and passenger plastic tabs and kick panels.
4. Pull carpet up and remove cab mount access covers.

Underside of Vehicle

1. Parking brake cable
 - a. Disconnect front parking brake cable from rear parking brake cable at clip.
 - b. Squeeze mounting tabs together and remove front parking brake cable from frame bracket.

Rear of Vehicle

1. Fuel filler

⚠ WARNING

Use extreme caution when lifting the bed from the frame. To prevent serious personal injury, ensure the lifting device is securely placed. Keep your hands out from between the bed and frame.

- a. Ensure proper slack of fuel filler hose. If additional slack is required, remove fuel filler neck from body, loosen clamp on each end of fuel filler hose, and adjust fuel filler hose. DO NOT TIGHTEN.

Install Kit

Cab

1. Prepare to lift cab from frame.
 - a. Loosen, but DO NOT REMOVE, cab mounting bolts on driver side.

NOTE:

The number of cab mounting bolts may vary with the length of the cab.

- b. Remove bolt and lower bushing from each cab mount on passenger side.

⚠ WARNING

Use extreme caution when lifting body from frame. To prevent serious personal injury, ensure the lifting device is securely placed. Keep your hands out from between the body and frame.

⚠ CAUTION

Continually check hoses, wires, lines, etc. to be sure that everything is flexing properly and not binding, or damage to the vehicle could result. Be especially careful of the a/c hoses at the fire wall, the belt pulley, and at the core support. Ensure brake lines stretch while lifting. Bending the lines to gain ample slack may be necessary. Be extremely careful not to kink the lines.

2. Cab passenger side
 - a. Position a hydraulic jack and a wood block under passenger side of cab (under the body seam). Slowly lift cab just enough to install a *kit block* on top of factory upper bushing and remove front bushing from frame mount.
 - b. Using 1/2" drill bit, drill threads out of metal sleeve in front bushing.
 - c. Install front bushing onto frame mount.

⚠ WARNING

The **kit blocks** must be installed in addition to the factory upper and lower bushings. Installing the **kit blocks** without the factory upper and lower bushings could result in damage to the vehicle or serious personal injury.

- d. Install **kit block** onto upper bushing at each cab mount.
- e. Lower cab onto **kit blocks**.
- f. Install lower bushing and **kit bolt** (12mm-1.75 x 160mm, 2" kit; 180mm, 3" kit) onto each cab mount. DO NOT TIGHTEN.

3. Cab driver side

- a. Repeat previous steps on driver side of cab.
- b. Set cab-to-bed spacing according to previous measurement.
- c. Remove each **kit bolt**, one at a time, and apply a few drops of **kit Loctite®** onto threads. Install **kit bolt**, **kit washer** (7/16" USS), lower bushing, and factory washer onto each cab mount. TORQUE each **kit bolt** to 55 ft. lbs.

Bed

1. Prepare to lift bed from frame

- a. Loosen, but DO NOT REMOVE, bed mounting bolts on driver side.

NOTE:

The number of bed mounting bolts may vary with the length of the bed.

2. Remove bolt from each bed mount on passenger side.

⚠ WARNING

Use extreme caution when lifting the bed from the frame. To prevent serious personal injury, ensure the lifting device is securely placed. Keep your hands out from between the bed and frame.

⚠ CAUTION

To prevent damage to the vehicle while lifting the bed, continually check hoses, wires, brake lines, etc. to ensure everything is flexing properly and not binding. Ensure clearance between bed and cab is maintained.

3. Bed passenger side

- a. Using a hydraulic jack and a wood block, slowly lift passenger side of bed just enough to install a **kit block** on top of factory mounts.
- b. Install **kit block** onto frame at each bed mount.
- c. Lower bed onto **kit blocks**.
- d. Install **kit bolt** (12mm x 180mm, 2" kit, 200mm, 3" kit) on front passenger side bed mount. DO NOT TIGHTEN.
- e. Install three (two if short bed) **kit bolts** (12mm x 160mm, 2" kit, 180mm, 3" kit) on remaining passenger side bed mounts. DO NOT TIGHTEN.

4. Bed driver side

- a. Repeat previous steps on driver side of bed.
- b. Set bed-to-cab spacing according to previous measurement.
- c. Remove each **kit bolt**, one at a time, and apply a few drops of **kit Loctite®** onto threads. Install **kit bolt** with **kit washer** (7/16" USS). TORQUE each **kit bolt** to 55 ft. lbs.

Rear of Vehicle

1. Fuel filler

⚠ WARNING

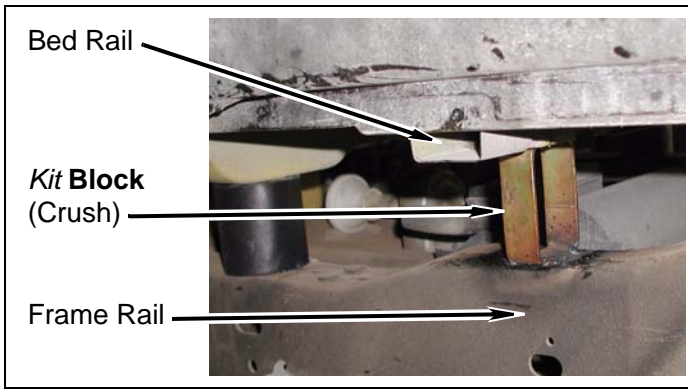
Use extreme caution when working near the fuel lines and the fuel tank. Clean up spilled fuel immediately. A spark could cause an explosion or fire resulting in serious personal injury and property damage.

- a. Install fuel filler neck onto body, if necessary, and adjust fuel filler hose. TIGHTEN fuel filler hose clamps.

⚠ WARNING

Welding should be performed by a certified welder or welding facility.

- Weld four **kit blocks** (crush) onto driver and passenger side frame as shown.

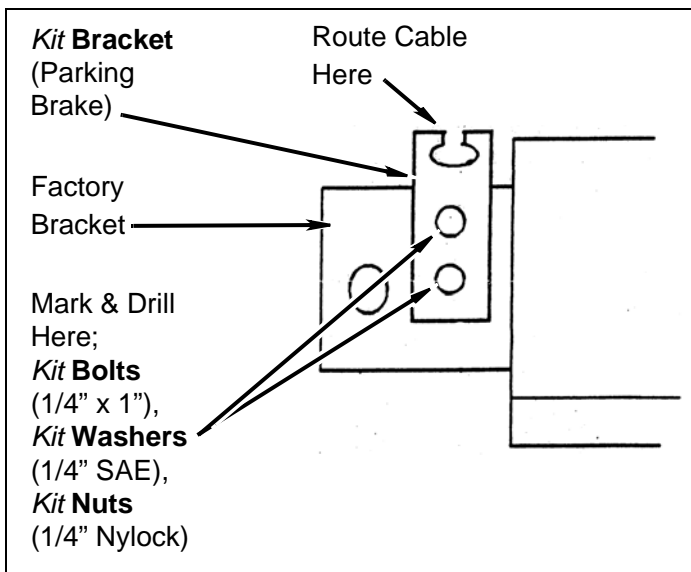


NOTE

Some models require four **kit blocks** (crush) and other models may only require two **kit blocks** (crush).

Underside of Vehicle

- Parking brake cable
 - Using **kit bracket** (parking brake) as a template, mark and drill two 5/16" holes into stock parking brake bracket, corresponding to holes in **kit bracket** (parking brake).



- Install **kit bracket** (parking brake) onto stock parking brake bracket with two **kit bolts** (1/4" x 1"), four **kit washers** (1/4" SAE), and two **kit nuts** (1/4" Nylock).
- Route front parking brake cable through hole in **kit bracket** (parking brake) and connect front parking brake cable to rear parking brake cable with clip.

Inside of Vehicle

- Install cab mount access covers and lay carpet down in original position.
- Install driver and passenger rear kick panels onto vehicle with plastic clips.
- Install driver and passenger front kick panels onto vehicle with plastic clips.
- Install driver and passenger scuff pads and scuff plates onto door jambs with screws.
- Automatic transmission equipped models require no modification to automatic transmission shift linkage.
- Manual transmission
 - Ensure engagement of all transmission gears.
 - If transmission does not engage in all gears, remove screws and transmission shifter boot from floor. Check engagement of all transmission gears.
 - If necessary, notch floor to allow for proper engagement of all transmission gears.
 - Install transmission shifter boot onto floor with screws.
- Electronic transfer case equipped models require no modification to electronic transfer case mechanism.
- Manual transfer case
 - Ensure engagement of all transfer case gears.
 - If transfer case does not engage in all gears, remove screws and transfer case shifter boot from floor. Check engagement of all transfer case gears.
 - If necessary, notch floor to allow for proper engagement of all transfer case gears.
 - Install transfer case shifter boot onto floor with screws.

Engine Compartment

1. Steering shaft



⚠ WARNING

Verify the steering extension is securely installed as specified in the instructions. Failure to do so may cause steering malfunction, resulting in property damage and/or serious personal injury.

- Apply a few drops of *kit* **Loctite**[®] to factory bolt and *kit* **bolt** (3/8" x 1-1/2").
- Install *kit* **extension** (steering) onto upper steering shaft with *kit* **bolt** (3/8" x 1-1/2"), two *kit* **washers** (3/8" USS), and *kit* **nut** (3/8" Nylock). DO NOT TIGHTEN.
- Install *kit* **extension** (steering) onto lower steering shaft with factory bolt and nut, ensuring previously-made marks on upper and lower steering shaft are aligned. DO NOT TIGHTEN.
- TORQUE factory bolt and *kit* **bolt** (3/8" x 1-1/2") to 33 lb.-ft.

NOTE

If steering binds during operation, perform the following procedures:

- Locate mounting flange for steering column under dashboard.
- Unbolt flange from firewall.
- Drill out holes in top of flange as far as possible.
- Pull steering column down as far as possible.
- Install factory bolts and tighten.

2. Exhaust manifold air duct

- Rotate exhaust manifold air duct toward firewall approximately 1".

- Drill new hole into exhaust manifold air duct and install exhaust manifold air duct with *kit* **rivet**.

- Reconnect all exhaust manifold air duct sections.

3. Fan shroud

- Carefully pull transmission cooling lines down for fan shroud clearance.

- Install two *kit* **brackets** (radiator) onto core support fan shroud mounting holes with factory hardware.

- Install fan shroud onto *kit* **brackets** (radiator) with two *kit* **washers** (1/4" SAE) and two *kit* **nuts** (1/4" Nylock). DO NOT TIGHTEN.

- Install two *kit* **brackets** (radiator) onto bottom radiator flange with two *kit* **bolts** (1/4" x 1"), four *kit* **washers** (1/4" SAE), and two *kit* **nuts** (1/4" Nylock). DO NOT TIGHTEN.

- Drill two 5/16" holes into lower fan shroud flange corresponding to threads on *kit* **brackets** (radiator).

- Install fan shroud onto *kit* **brackets** (radiator) with two *kit* **washers** (1/4" SAE) and two *kit* **nuts** (1/4" Nylock). Adjust fan shroud and ensure ample fan-to-fan shroud clearance. TIGHTEN all hardware.

4. Ground strap

- Install *kit* **bracket** (ground strap) onto firewall with factory hardware.

- Install ground strap onto *kit* **bracket** (ground strap) with *kit* **bolt** (1/4" x 1"), two *kit* **washers** (1/4" SAE), and *kit* **nut** (1/4" Nylock).

- Install wiring harness onto driver side fender well clips, if possible.

- Install positive battery cable into clamp on frame, if possible.

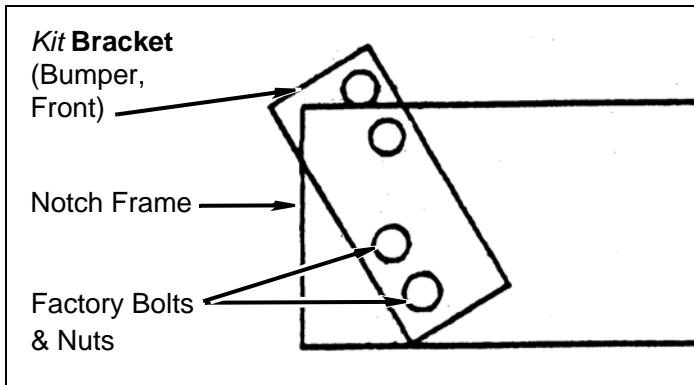
Front of Vehicle

1. Front bumper

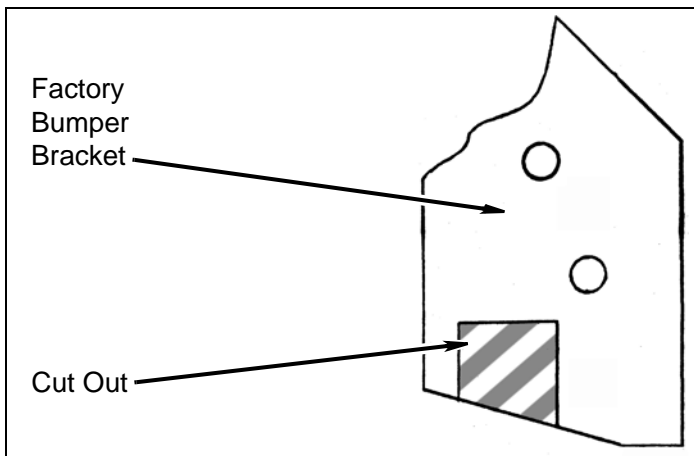
- a. Apply a small amount of *kit* **Loctite**® onto threads of factory bumper bolts and install two *kit* **brackets** (bumper, front) onto frame bumper mounts with factory bumper hardware. DO NOT TIGHTEN.

NOTE

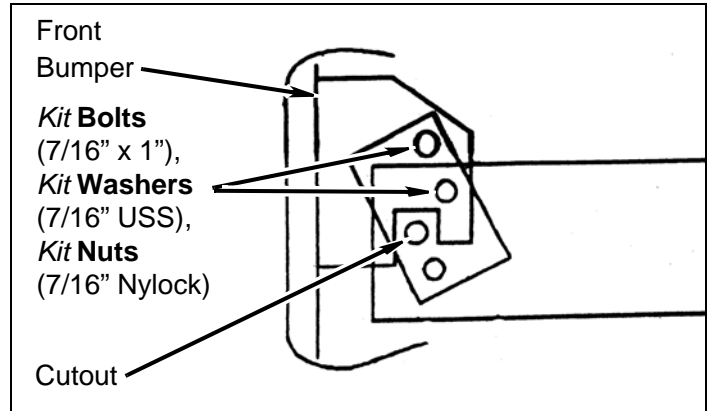
It may be necessary to notch the frame for bumper clearance and installation.



- b. Cut two front factory bumper brackets for clearance with frame and factory bumper hardware as shown.



- c. Apply a small amount of *kit* **Loctite**® onto threads of four *kit* **bolts** (7/16" x 1") and install front bumper onto two *kit* **brackets** (bumper, front) with four *kit* **bolts** (7/16" x 1"), eight *kit* **washers** (7/16" USS), and four *kit* **nuts** (7/16" Nylock). DO NOT TIGHTEN.



NOTE

The bumper is only being raised 2-1/2". The bumper-to-body spacing will be 1/2" greater than the previously-made measurement.

- d. Adjust bumper-to-body spacing according to previously-made measurement.
- e. TIGHTEN all bumper hardware.

After Completing Installation

Engine Compartment

1. Connect both battery cables. Connect positive cable first, then negative cable.

Miscellaneous

1. Apply *kit* **label** (warning) to dashboard in plain sight of all vehicle occupants.
2. Check all fasteners to ensure they are tight.
3. Adjust headlights.

4. Ensure all wires, hoses, cables, etc. are properly connected and there is ample slack.

⚠WARNING

If the engine cooling system is hot, the coolant will be HOT and UNDER PRESSURE. To prevent serious personal injury, wait until the cooling system is completely cool before removing the cap from the radiator.

5. Start engine and top off cooling system. Purge air from cooling system according to manufacturer's instructions. Install radiator cap.

Dynamic Vehicle Check

1. Check steering in both directions to ensure that there is no bind. Check operation of clutch, brake system, and parking brake. Check operation of transmission and transfer case. Ensure there is full engagement in all gears and 4WD ranges. Check battery connections and electrical component operations. Test-drive vehicle.

⚠WARNING

Retorque all fasteners after 500 miles and after off road use. All body lift components should be visually inspected and fasteners retorqued during routine vehicle servicing.

⚠CAUTION

Performance Automotive Group does not recommend any particular wheel and tire combinations for use with its body lifts and cannot assume responsibility for the customer's choice of wheels and tires. Refer to your owner's manual for recommended tire sizes and warnings related to the use of oversized tires. Larger wheel and tire combinations increase stress and wear on steering and suspension components, which leads to increased maintenance and higher risk for component failure. Larger wheel and tire combinations also alter speedometer calibration, braking effectiveness, center of gravity, and handling characteristics. Consult an experienced local off road shop to find what wheel and tire combinations work best with your vehicle.

NOTE

All warranty information, instruction sheets, and other documents regarding the installation of this product must be retained by the vehicle owner. Information contained in the instructions and on the warranty card will be required for any warranty claims. The vehicle owner needs to understand the modifications made to the vehicle and how they affect vehicle handling and performance. Failure to provide the customer with this information can result in damage to the vehicle and severe personal injury.

Kit Parts List

Qty. Description

Kit 812 & 813

14	Block
4	Block (crush)
3	Bolt (1/4" x 1")
1	Bolt (3/8" x 1-1/2")
2	Bolt (5/16" x 1")
4	Bolt (7/16" x 1")
4	Bracket (radiator)
2	Bracket (bumper, front)
1	Bracket (ground strap)
1	Bracket (parking brake)
2	Clamp (#10 hose)
1	Extension (heater, steel)
1	Extension (steering)
1	Hose (5/8" x 6")
1	Instruction sheet
1	Label (logo)
1	Label (warning)
1	Loctite® (6mL bottle)
7	Nut (1/4" Nylock)
1	Nut (3/8" Nylock)
2	Nut (5/16" Nylock)
4	Nut (7/16" Nylock)
1	Rivet
1	Tie (zip)
10	Washer (1/4" SAE)
2	Washer (3/8" USS)
4	Washer (5/16" USS)
22	Washer (7/16" USS)

Kit 812

12	Bolt (12mm x 160mm)
2	Bolt (12mm x 180mm)

Kit 813

12	Bolt (12mm x 180mm)
2	Bolt (12mm x 200mm)

NOTE

Depending on the vehicle configuration (automatic or manual transmission, 2WD or 4WD, cab length, bed length, etc.), some parts may not be used.