

# **INSTALLATION INSTRUCTIONS**

# 76-119-001

## OEM SHOCK ABSORBER SPACER KIT TO SUIT TOYOTA TACOMA 4th Gen (2WD & 4WD) 2024+



Lift Height Approx: 3" (76.2mm) Front / 1" (25.4mm) Rear - (No Accessories Fitted)

#### 

Not compatible with TRD Pro, SR Model or other variants with rear leaf spring.

Some images contained in these instructions are generic and are a representation of the actual model and/or parts used. Some steps may also show parts out of sequence to the instructional steps.





IRONMAN 4X4 requires you read and understand the safety and pre-install directions on page 2 and 3 before commencing installation of this product.

Document No: 85-100-028-R01/241024

#### Occupational health and safety procedures must be observed at all times

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### IMPORTANT WARNINGS

BEFORE COMMENCING INSTALLATION OF THIS KIT IT IS MANDATORY THAT YOU READ THE BELOW WARNINGS.



#### SAFETY WARNING

- Read and understand instructions fully.
- Check the hardware supplied against the contents list on the following pages.
- This suspension kit can only be fitted to the vehicles Original Equipment Manufacturer (OEM) suspension components.

Do not combine suspension lifts kits, body lifts, or other lifting devices.

- Do not use this product for any vehicle make or model other than specified in these instructions.
- It is highly recommended that this kit be installed by a certified professional mechanic. IRONMAN 4X4 CANNOT BE HELD RESPONSIBLE FOR ANY DAMAGE OR FAILURE RESULTING FROM IMPROPER INSTALLATION.
- While working on this vehicle, always use appropriate safety equipment.
- This product and or hardware must not be modified in any way. Do not remove labels from this product.
- Some images contained in these instructions are generic and are a representation of the actual model and/or parts used. Some steps may show parts out of sequence to the instructional steps.

- Fitting instructions are correct at the time of publication date and IRONMAN 4X4 cannot be held responsible for any vehicle changes from the manufacturer. It is the responsibility of the installer to ensure correct fitment.
- IRONMAN 4X4 recommends consulting a vehicle specific OEM Service Manual for proper disassembly and reassembly.

Tighten all bolts and fasteners to the torque specifications in the OEM Service Manual unless specified otherwise.

- Generally, altering your suspension system may change the way your vehicle handles. Take care when driving both on and off the road.
- Laws in regards to suspension modification vary from state, retailer and installers must inform end users about local laws and any breaches prior to installation.
- The vehicle must be in optimal operating condition prior to fitting this suspension kit. Repair or replace any worn or damaged components before proceeding.

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- After installation of this product, a wheel alignment MUST be performed
- Read SAEJ2492 warning below.



By installing this product, you acknowledge the suspension of this vehicle has been modified. As a result, this vehicle may handle differently than that of factory equipped vehicles. As with any vehicle, extreme care must be used to prevent loss of control or roll-over during sharp turns or abrupt maneuvers.

Always wear seat belts and drive safely, recognizing that reduced speeds and specialized driving techniques may be required. Failure to drive this vehicle safely may result in serious injury or death. Do not drive this vehicle unless you are familiar with its unique handling characteristics and are confident of your ability to maintain control under all driving conditions.

Some modifications (and combinations of modifications) are not recommended and may not be permitted in your State. Consult your owner's manual, the instructions accompanying this product and State laws before undertaking these modifications. You are responsible for the legality and safety of the vehicle you modify using these components.

Customer Name:	Date:	
Contact:		
Part Number:	Batch Number:	
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### **PRE-INSTALLATION PROCEDURES**

Prior to starting the installation it is mandatory to measure vehicle heights and head light positions.

With the vehicle on a level surface, measure the vertical distance from hub center to fender on each of the four corners and recording the measurements in the below table.

Once the installation is finished, roll the vehicle forward and back to settle the suspension and then remeasure the vehicles hub center to fender values.

After installation, readjust the headlights close as possible to factory heights to prevent safety hazards.

#### VEHICLE HEIGHT MEASUREMENTS

	Left-hand Side Before	Left-hand Side After	Right-hand Side Before	Right-hand Side After
Front				
Rear				

Measurement is to be performed from the center of the hub to fender edge, straight up from the hub.

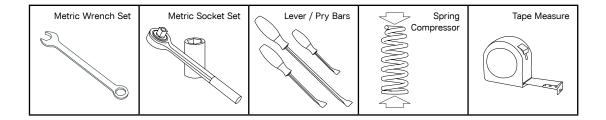
#### HEADLIGHT MEASUREMENTS

Left-hand Side	Left-hand Side	Right-hand Side	Right-hand Side
Before	After	Before	After

We strongly recommend using a Factory Service Manual for the specific Year / Make / Model as reference while installing.

- Before proceeding with this installation, the vehicle should be in optimal operating condition, and any worn or damaged components replaced first.
- All lifted vehicles may require additional driveline modifications and / or balancing.
- After installation of this product, a wheel alignment MUST be performed.
- If changing +/- 10% from OEM tire diameter, a Speedometer / Computer recalibration is required.

#### TOOLS REQUIRED



Any damage or loss caused by improper installation, application or failure to observe and follow our recommendations, goes beyond our quality warranty.

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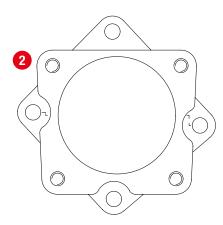
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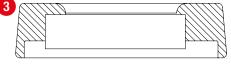
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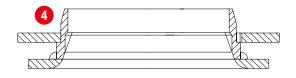
### 76-119-001 KIT PARTS LIST

### SPACER KIT TO SUIT OEM SHOCK ABSORBERS

No.	Description	Qty		No.	Description	Qty
	Front Lift Kit				Rear Coil Spacer Kit	
1.	Nut - Hex Flange Nyloc (M10 x 1.25)	8		4.	Spacer - Coil Steel	2
2.	Spacer - Shock Coilover Steel	2				
3.	Spacer - Coil Alloy	2				
		]	3			







Any damage or loss caused by improper installation, application or failure to observe and follow our recommendations, goes beyond our quality warranty.

### **PRE-INSTALLATION**

**1.** Before installing, ensure spacer kit application is compatible with the vehicle.

Unwrap all components taking care not to damage or scratch in the process. Inspect for any damage.



Retain all OEM (factory) hardware and components unless advised to discard.



It is good practice to lay out all parts to cross-reference against the parts list and record Batch Numbers.

**2.** All of the following steps should be repeated on the opposite side of the vehicle, unless otherwise specified.

#### **REMOVAL AND INSTALLATION PROCEDURES - FRONT**

**3.** Set the vehicle on a clean, level area and block the rear wheels for safety.

Engage parking brake.

Disconnect the vehicle power by removing the ground cable from the battery.

Fix the steering wheel in a straight position using a steering or column lock.

Lift the front of the vehicle and support it with jack stands under each frame rail.

Remove the front wheels and use a suitable workshop stand to support the front axle.



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We suggest using a two (2) post vehicle lift if available, to lift and support the vehicle while completing the front and rear installation simultaneously.











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**4.** Using a 19mm socket, loosen and remove the swaybar link bolt and lever the link end from the lower control arm.



Remove right and left-hand side bolts and lever both out at the same time.

**5.** Locate the upper control arm pivot bolt and using a 22mm socket and wrench, loosen but do not remove the upper control arm bolt.

**6.** Using a 22mm socket, loosen and remove the two (2) lower bolts securing the lower ball joint housing to the upright.

**7.** Using a 22mm socket, remove the lower strut bolt.

Use a pry bar to pry the lower control arm down, freeing the struts lower eye.







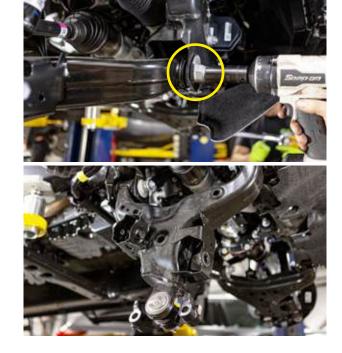




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**B.** Using a 24mm socket, loosen the inner control arm nuts without completely removing them.

Allow the lower control arm to swing out of the way.



**9.** Using a 14mm socket, take out the four upper strut bolts and then detach the strut from the vehicle.

**10.** Replace the nuts back on each of the studs. Mark 3/8" from the top of each stud on the

After studs are cut, remove the nuts to chase the threads.

exposed threads and trim with angle grinder.



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#### 76-1<u>19-001 KIT</u>

**11.** Place the front strut spacer on top of the strut and reinstall the OEM nuts to secure it. Torgue to 40lb.ft (54Nm).



12. Position the strut assembly in an applicable spring compressor, ensuring the lower bushing hole is right angled to you.

Using a paint marker, mark a vertical line from the spring to the upper rubber mount with strut top. Draw a second line from the spring to the lower mount.

Using a 19mm socket, compress the spring sufficiently to detach the strut top hat.



**13.** Carefully remove the spring isolator from the strut top, taking care not to remove the dust boot.

#### WARNING

Ensure the sure the foam bump stop remains attached to the strut top and is not removed from the top hat assembly during this process.

Vehicle damage can occur if this step is not followed.





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**14.** Place the spring spacer in between the strut top and the spring isolator.

Ensure the IRONMAN 4X4 logo is facing outwards (see image) and the spacer lip is facing away from the strut top.

**15.** Install the spring isolator into the assembly.

**16.** Reattach the strut top along with the spring spacer, isolator, and dust boot, using the OEM strut nut.

> Tighen the strut nut OEM to specifications, ensuring the strut is free-moving when tight

Ensure the mark on the strut top is aligned with the mark on the coil made earlier, and aligns with the mark on the spring.

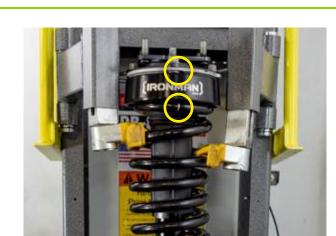
- **17.** Confirm strut nut is tightened, then slowly and carefully release the spring compressor tension.
  - NOTE

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During this process, ensure the spring does not rotate relative to the lower spring perch.

WARNING

Compressed springs contain a huge amount of energy and injury can occur if the nut is not tightened securely.



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76-119-001 KIT



**18.** Using a 15mm socket and supplied M10 nuts, reinstall the strut assembly into the vehicle.

Do not tighten at this time.

- Do not tighten, this will be completed once the
- **20.** Re-install the two (2) lower bolts securing the lower ball joint housing to the upright, using a 22mm socket and OEM fasteners.

Torque to 250lb.ft (339Nm).

**19.** Reinstall the lower strut bolt and nut.

Torque strut nuts 50lb.ft (68Nm).

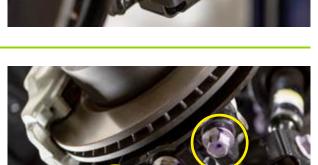
vehicle is on the ground.

**21.** Reinstall the sway bar end links, then fasten the clevis on the lower arm, tighten the OEM bolt.

Torque to 80lb.ft (109Nm).

TIP

Install the left and right-hand side links at the same time.





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22. Refit the wheels and lower the vehicle to the ground.

Torque lug nuts to manufacturer specification.

Bounce the vehicle a few times to settle the suspension to the new ride height.

#### NOTE

Skip this step if you are using a hoist to lift the vehicle and complete the install.

### **REMOVAL AND INSTALLATION PROCEDURES - REAR**

**23.** Block the front wheels and raise the rear of the vehicle using a suitable jack and support with jack stands at each frame rail.

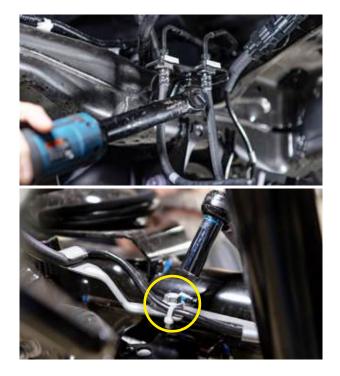
#### NOTE

Skip the above if you are using a hoist to lift the vehicle and complete the install.

Support the axle with a suitable jack stand.

**24.** Using a 12mm socket, remove the bolt securing the ABS wire bracket.





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INSTALLATION INSTRUCTIONS

**25.** Using a 19mm socket, loosen but do not remove the nut and bolt of the lower control arms.

Loosen, but do not remove the panhard bar bolt on the axle.



**26.** Using a 17mm socket, disconnect the sway bar end link from the chassis.

- **27.** Using a 17mm socket, remove the lower shock bolt and disconnect the shock from the axle.
- **28.** Remove the bolt securing the brake line bracket to the axle.



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PAGE 12 OF 16 ©Copyright 2024 IRONMAN 4X4 Pty Ltd. No part of this publication may be reproduced or replicated without the prior written consent of IRONMAN 4X4 Pty Ltd **29.** Carefully lower the axle. This will allow for easier removal of the coil springs.

Attach the isolator to the spring spacer. Install both isolator and spacer on top of the OEM spring.

**30.** Take the isolator off the spring.

**31.** Install spring assembly together with spacer back into the vehicle..

**32.** Lift the axle to locate springs within their seat in the vehicle.

Lift the axle only enough to allow for reinstallation of the lower shock bolt.

Torque to 65lb.ft (88Nm).

### **WARNING**

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Do not overlift the axle, as this may result in the vehicle lifting off the hoist pads.

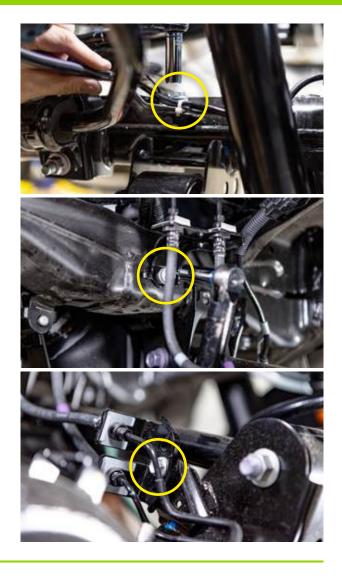








**33.** Install the bolt into the brake line brackets. Torque to 65lb.ft (88Nm).



- **34.** Install sway bar end link into chassis. Torque to 50lb.ft (68Nm).

35. Reinstall the wheels and lower the vehicle to the ground.

Torque the lug nuts to wheel manufacturer specifications once vehicle is lowered.







**36.** Bounce the vehicle to get the suspension to settle to the new ride height.

On the front, torque the lower strut bolts to 115lb.ft (156Nm) and the front upper control arm to 150lb.ft (203Nm.

On the rear, torque lower control arm forward bolts to 150lb.ft (203Nm).

**36.** Reconnect the battery ground terminal.

With the steering wheel centered, turn the tie rod ends until the tires are straight. If the steering wheel is not centered properly, the ABS/traction control lights may activate.

Turn the wheels from lock to lock and to ensure brake lines and ABS routing clear all suspension components adequately and reposition if necessary.

Measure and record ride height after initial test drive and record these on the table on page 3.

**37.** Ensure a mandatory wheel alignment is performed by a qualified technician and the alignment is set to the recommended specs following.

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On completion of the installation, have the suspension and headlights realigned.

After 310 miles (500km) recheck for proper torque on all newly installed hardware. Recheck all hardware for tightness after off road use.

Make sure to have any, and all electronic systems calibrated as indicated by the manufacturer for the features of your vehicle.

This includes but not limited to the steering wheel angle sensors, yaw sensors, cruise control, lane departure, etc.

#### WHEEL ALIGNMENT

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#### Professional wheel alignment is required.

A strong understanding of wheel alignment procedure is required. IRONMAN 4X4 recommends wheel alignment be carried out by a trained alignment professional only.

Adjustments to Camber, Caster and Toe will be required.

Using the lower control arm, in most instances set alignment within the following range, or according to OEM specification.

Front	Driver	Passenger	Tolerance	Total / Split
Camber	+0.4	+0.4	±0.5	+0.0
Caster	+2.5	+2.5	±0.5	+0.0
Тое	+0.05	+0.05	±0.05	+0.24

Always set wheel alignment settings in relation to tire wear for each individual vehicle.

#### **ONCE INSTALLED...**

### POST-INSTALLATION WARNINGS

It is mandatory to perform post-installation checks after installing suspension components.

Failure to do so can lead to dangerous consequences, including vehicle damage, personal injury, or even death, therefore, post-installation safety checks are essential before driving the vehicle.

#### POST-INSTALL INSPECTION AND REFINEMENT

- Torque wheel lug nuts to manufacturer specifications.
- Inspect and test all steering, brake and suspension components for tightness and proper operation.
- Inspect wheels, brake lines/hoses and ABS lines, ensure adequate tire clearance and adequate looseness at full extension by turning the steering wheel completely to the left and then to the right.
- Inspect all rubber parts ensuring correct torque at ride height.
- Seat suspension components correctly by rocking the vehicle back and forth.
- A full professional wheel alignment to OEM specifications is mandatory and must be performed by a certified alignment technician.
- Inspect and adjust vehicle headlights to ensure correct aim and alignment.
- If vehicle is fitted with active or passive safety/collision monitoring and/or avoidance systems, these should be professionally checked and adjusted to ensure correct aim and function.
- Recheck all bolts and suspension components for correct torque values after two weeks or at 310 miles (500km).



Any damage or loss caused by improper installation, application or failure to observe and follow our recommendations, goes beyond our quality warranty.

