

Installation Instructions



Vehicle Application: 2022+ Toyota Tundra

Thank you for purchasing our KYB 2000 Series Products.
This manual describes how to install the product.
Read this manual thoroughly before installation.

Important Safety Instructions for Installation and Handling

The following signs indicate specific instructions that you should observe for safely installing and handling the product:



Warning Failure to follow these instructions could result in serious personal injury or death.



Caution Failure to follow these instructions could result in moderate or slight personal injury or property damage.



Advice Methods and procedures are provided for efficiently installing and handling the product.

Requests Upon Receipt of the Product



Caution **Check the condition of the product and that all parts are present.**

If you find that the product is defective or faulty upon receipt, or if you have received the wrong product, please contact the store from which you originally purchased the product within a week. If more than a week has passed, your product is outside the scope of our warranty against initial failure.

Before Installing the Product



Warning **Please read these instructions thoroughly before installing the product.**

Do not attempt any procedure on the products that is not specifically described in this manual. Do not attempt to use any part made by other companies, use or modify the part, or install the product on any vehicle other than the supported one.

KYB holds no responsibility for any damage, accident, or casualty caused by failing to observe the instructions described in this manual.



Warning **Carry out a vehicle safety check before installing the product.**

Do not work on the vehicle while the engine is running, while the vehicle is on uneven ground, or in places exposed to chemical products or fire.

Avoid working on the vehicle immediately after it has come to a stop and wait for the engine, muffler and braking system to cool down sufficiently before installing the product.

Make sure to use an automotive lift to raise the vehicle to safely access the underside.

Do not attempt to use an automotive jack for this job as it is dangerous for you and the vehicle.

Safe Installation Recommendations



Advice **For best results, follow the instructions described in your vehicle's repair manual to remove and install original parts.**

Do not remove any part other than the ones specified in the installation instructions.



Caution Handle the Product with Care

Avoid any strong impacts and do not drop the product before or during installation. It may damage the product, making installation difficult.



Caution Perform the repair work wearing the appropriate safety gear.

Perform all tasks wearing protective clothing, safety goggles or glasses, and a pair of work gloves.

Installation Tips and Recommendations



Advice

It's okay if you can compress the shock or bare strut with your hands. The valving is designed to work with the weight of the vehicle and won't engage with such light force.

Some KYB shocks will have different appearing bushings than the original equipment. These bushings have been designed specifically by KYB to perform as well or better than the original design.

Do not use an air ratchet or impact on mounts as you could overtighten the mounts or damage the threads.

On some applications it is necessary to raise the axle or suspension slightly to attach the shock mountings which is also common on many OE components.

Never grip the shock or strut shaft with any kind of tool, especially pliers or vise grips. This can damage the shaft and cause the seal to leak prematurely. Even microscopic imperfections will cause the seal to fail.



Caution

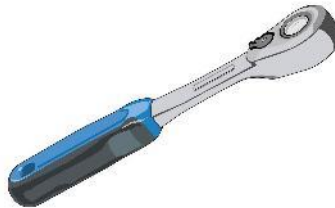
Improper tightening of nuts and bolts during installation can cause noise, and most likely necessitate re-doing the installation properly.

Always use the new hardware provided with the unit. There are specific types of nuts and bolts designed to work best with each vehicle. Sometimes there are flange bolts, nylon lock nuts, jam nuts, crimp nuts or something different.

Always use the proper tools

Required Tools

- 6 mm Allen wrench
- 10mm wrench
- 12mm wrench
- 14mm wrench
- 15mm wrench
- 19mm wrench and socket
- 21 mm socket
- 22mm wrench and socket



Refer to the repair manual for additional tips for installation that could be unique to your vehicle

Measure Ride Height Before Installation



Advice

To ensure you achieve the desired ride height installation, it is extremely important to measure the initial ride height. Park the vehicle on a hard level surface. Measure the front & rear (both sides) from the ground up to the center of the fender opening above the axle, or from the lower edge of the wheel up to the center of the fender opening above the axle. Record this information below for future reference. You will perform this same operation after installation.

BEFORE

BEFORE

Driver Side Front: _____

Passenger Side Front: _____

Driver Side Rear: _____

Passenger Side Rear: _____



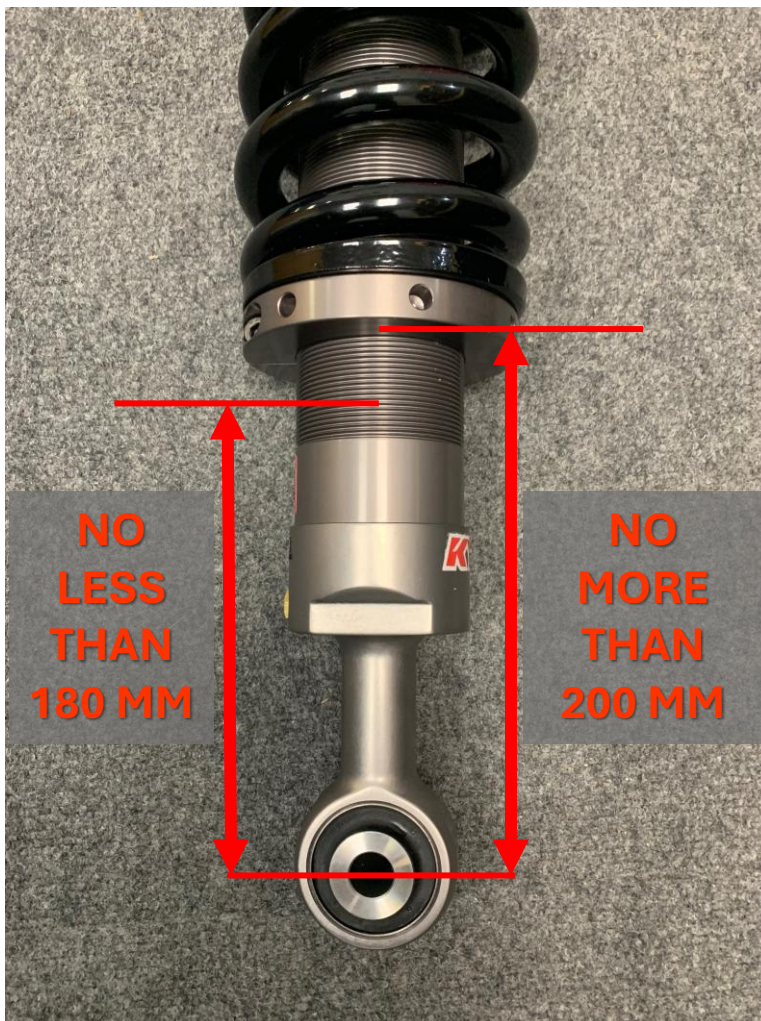
Advice

Strut Assembly

The KYB 2000 Series is pre-set to provide an approximate 2" lift. **DO NOT ADJUST THE THREADED HIGHER SPRING RETAINER ANY THAN 200MM FROM THE CENTER OF THE LOWER MOUNT AS IT MAY CAUSE DAMAGE TO THE STRUT AND YOUR VEHICLE.**



For a lower ride height, place the complete strut assembly into a spring compressor. Compress the spring until the threaded lower spring retainer can be loosened and turned. Loosen the threaded lower spring retainer pinch bolt using a #6 Allen wrench or socket. Turn the threaded lower spring retainer to the left to adjust to the desired height. Tighten the threaded lower spring retainer pinch bolt and torque to 7.5 ft lbs. **DO NOT POSITION THE SPRING RETAINER ANY LOWER THAN 180MM FROM THE CENTER OF THE LOWER MOUNT AS IT MAY CAUSE DAMAGE TO THE STRUT AND YOUR VEHICLE.** Carefully decompress the spring compressor so that the spring sits securely on the lower spring retainer.



Strut Assembly Removal

1. Secure and lift the vehicle. Be sure to take all necessary safety precautions.



Caution

2. Remove the tires and wheels. Use a jack to bring the suspension components to the proper height for removal of the used shock/strut

3. Remove the ABS sensor wire bracket as shown in **Photo 1** using a 12MM wrench. **Take care not to overextend or damage this wire.** Retain the hardware for reuse.

4. Remove the upper strut nuts as shown in **Photo 2** using a 14MM wrench. Retain hardware. **To prevent serious injury or damage to the components, never loosen the strut shaft nut of an assembled strut unit without using the proper tools to support and compress the coil spring.**

5. Remove the sway bar link from the lower control arms using a 19MM wrench. Retain hardware. **See Photo 3.**

6. Remove the brake line bracket from the frame using a 12MM wrench.

7. Loosen the upper ball joint nut and pin using a 19MM wrench as shown in **Photo 4.**

8. Remove the knuckle from the ball joint. **Take care not to overextend or damage the ABS wire or brake line.**



Caution

9. Remove the lower strut bolts as shown in **Photo 5** using a 22MM socket and wrench.

10. Remove the strut from the vehicle.

1



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4



5



Strut Assembly Installation



Advice

1. Always use the new hardware provided with the unit. There are specific types of nuts and bolts designed to work best with each vehicle.

2. Install the new strut into the upper mount on the vehicle. **See Photo 7.**



Warning

3. Install the nuts on top of the strut. Hand tighten. **Do not use an air ratchet or impact on mounts as you could overtighten the mounts or damage the threads. See Photo 8.**



Advice

4. Install the lower strut bolt, washer and nut in the original position from which it was removed. **See Photo 9. This will be tightened when the vehicle is on the ground.**

5. Install the nuts on the top of the strut using a 14mm wrench.

6. Connect the upper ball joint to the knuckle using the retained hardware. Torque to 190 ft. lbs. using a 19mm wrench. Then install the locking pin to lock the nut. **See Photo 10.**

7. Install the ABS sensor wire bracket onto the knuckle and the upper control arm using a 10mm socket. **Photo 11.**

8. Install the sway bar link into the lower control arm using the retained bolt. Tighten to 190 ft. lbs. using a 19mm socket.

9. Install the front wheels and tires and torque to 97 ft. lbs. if using aluminum wheels or 154 ft. lbs. if using steel wheels. **Photo 12.**

10. Lower the vehicle onto the ground. The suspension must be loaded to get the correct pressure needed to torque the top mounting nuts and lower mounting bolt to the correct specifications



Caution

11. Torque the upper strut mount nuts to 42 ft. lbs. and lower strut mounting bolt to 122 ft. lbs.

12. **Take the vehicle for a test drive after installing new suspension components.**

This will ensure that the springs have settled to their correct ride height and that there are no noises or immediate issues with the installation.



Advice

13. Re-torque the upper and lower strut mounting bolts to the proper specifications after the test drive. This will ensure the struts are properly tightened and may prevent and noise from improper tightening.

7



8



9



10



11



12



13



Rear Shock Replacement



Caution

1. Secure and lift the vehicle. Be sure to take all necessary safety precautions.
2. Remove the tires and wheels. Use a jack to bring the suspension components to the proper height for removal of the used shocks. **See Photo 1.**
3. Use 8 mm and 19mm wrenches to remove the top nut from the rear shock stem. **See Photo 2.**
4. Use a 19mm wrench to remove the lower shock mount bolt. Remove the shock. **See Photo 3.**



Advice

5. Install the new KYB 2000 Series shock into the upper mount of the vehicle. Be sure the KYB logo is facing out. Always use the new hardware provided with the unit. There are specific types of nuts and bolts designed to work best with each vehicle.



Warning

6. Hand tighten the top nut on the shock stem. **Do not use an air ratchet or impact as you could overtighten the nut or damage the threads and bushings. See Photo 4.**

7. Insert the existing lower rear shock mount bolt and tighten using a 19mm wrench. Torque the lower shock mount bolt to 72 ft. lbs.

8. Torque the shock stem upper nut using 8mm wrench and 19 mm socket to 37 ft. lbs.

9. Install the rear wheels and tires and torque to 97 ft. lbs. if using aluminum wheels or 154 ft. lbs. if using steel wheels.



Advice

10. **Take the vehicle for a test drive after installing new suspension components.** This will ensure that the springs have settled to their correct ride height and that there are no noises or immediate issues with the installation.



Warning

11. Re-torque the shock stem upper nuts and lower shock mounting bolts to the proper specifications after the test drive. This will ensure the shocks are properly tightened and may prevent and noise from improper tightening.

1



2



3



4



5



6



Installation Instructions

Important Notes:

If larger tires (10% more than the OEM diameter) are installed, speedometer recalibration will be necessary. Contact your local dealer or an authorized dealer for details.

After installation, a qualified alignment facility is required to align the vehicle to the OEM specifications.

Park the vehicle on a level concrete or asphalt surface. Using a measuring tape, re-measure the front & rear (both sides) from the ground up to the center of the fender opening above the axle, or from the lower edge of the wheel up to the center of the fender opening above the axle. Be sure that the left and right ride height measurements match. If they do not, remove the struts and adjust the threaded lower spring seats to achieve the proper matching heights. Reinstall the struts as instructed and follow the ride height measurement process again. Record this information below for future reference.

AFTER

AFTER

Driver Side Front: _____

Passenger Side Front: _____

Driver Side Rear: _____

Passenger Side Rear: _____

IT IS HIGHLY RECOMMENDED TO HAVE A 4 WHEEL ALIGNMENT SERVICE PERFORMED AFTER SHOCK AND STRUT REPLACEMENT



Advice



**Thank you for purchasing these KYB Products.
Please visit KYB.com for additional information.**