# **SKYJACKER**<sup>2022></sup> Toyota Tundra 2WD\4WD 2" & 2.5" Metal Spacer Lifts - SUSPENSIONS -SKYJACKER.COM

Installation Instructions

#### **Required Tools List:**

- SAE Sockets \ Wrenches (7/16")
- Metric Sockets \ Wrenches (8mm, 10mm, 12mm, 14mm, 15mm, 17mm, 19mm & 22mm)
- Strut Spring Compressor (2" Lift Only)
- Pry Bar
- Safety Glasses
- Jack Stands
- Wheel Chock
- Floor Jack
- Paint Marker
- Measuring Tape
- Torque Wrench

Before beginning installation, read these instructions & enclosed driver's WARNING NOTICE thoroughly & completely. Also affix WARNING decal in passenger compartment in clear view of all occupants. Please refer to Parts List to insure that all parts & hardware are received prior to disassembly of vehicle. If any parts are found to be missing, contact SKYJACKER® Customer Service at 318-388-0816 to obtain needed items. If you have any questions or reservations about installing this product, contact SKYJACKER® Technical Assistance at 318-388-0816.

#### Please Record Important Measurement Information Below for Reference. It Is Very Helpful on Determining an Accurate Achieved Lift Height Measurement.

Make sure you park vehicle on a level concrete or asphalt surface. Many times a vehicle is not level (side-to-side) from factory, but is usually not noticed until a lift kit has been installed which makes difference more visible. Using a measuring tape, measure front & rear (both sides) from ground up to center of fender opening above axle.

Driver Side Front:	//	Passenger Side Front:	/
	BEFORE / AFTER		BEFORE / AFTER
Driver Side Rear:	/	Passenger Side Rear:	/
	BEFORE / AFTER		BEFORE / AFTER

#### **Important Notes:**

- This Suspension Lift is NOT Designed to Fit Following Models:
  - Models Equipped with Adaptive Variable Suspension (AVS) System.
  - Models Equipped with Load-Leveling Rear Height Control Air Suspension.
  - TRD PRO Series Models.
  - XSP-X Models.
- If Larger Tires (10% More Than OEM Diameter) Are Installed, Speedometer Recalibration Will Be Necessary. Contact Your Local TOYOTA Dealer or an Authorized Skyjacker® Dealer for Details.
- After Installation, a Qualified Alignment Facility Is Required to Align Vehicle to OEM Specifications.

Component Box Breakdown:			Component Box Breakdown:				
Part # TU2220MS			Part # TU2210MSR				
Item #	Description	Qty	Item #	Description	Qty		
TU2220FMS-S	STRUT SPACER, FRONT, 2"	2	TU221RMS-S	COIL SPRING SPACER, REAR, 1"	2		
HB-TU760MS	HDWR BAG: 10MM FLANGE NUTS	1	Part # TU2220MSR				
Part # TU2225MS		Item #	Description	Qty			
Item #	Description	Qty	TU222RMS-S	COIL SPRING SPACER, REAR, 2"	2		
TU2225FMS-S	STRUT SPACER, FRONT, 2.5"	2					
HB-TU760MS	HDWR BAG: 10MM FLANGE NUTS	1	Hardware Bag Breakdown:				
Part # TU2225MSP			Part # HB-TU60MS				
Item #	Description	Qty	Item #	Description	Qty		
TU2225FMS-S	STRUT SPACER, FRONT, 2.5"	2	10MMX1.5NFN	10MM X 1.5 N/I FLANGE NUT	8		
TU221RMS-S	COIL SPRING SPACER, REAR	2					
HB-TU760MS	HDWR BAG: 10MM FLANGE NUTS	1					

## **NOTE:** If Only Installing Rear Coil Spring Spacers, Proceed to Page 6.

#### Front Installation: Note: Save all factory components & hardware for reuse, unless noted.

- 1. With vehicle on flat level ground, set emergency brake & chock rear tires \ wheels.
- Raise front of vehicle, support frame rails using jack stands at indicated lift points in OEM service manual.
- Remove front tires \ wheels using a 22mm socket.
- Disconnect OEM lower skid plate by removing two (2) rear bolts using a 12mm socket \ wrench to access sway bar frame mount. (Photo # 1)



#### Note: Perform Steps 5-17 on One Side at a Time.

5. Mark front & back cam bolt positions on both OEM Lower Control Arm (LCA) frame mounts. (Photo # 2)

Loosen, but do not remove two (2) cam bolts using two (2) 22mm sockets \ wrenches. (Photo # 3)



6. Disconnect OEM sway bar from frame mount by removing two (2) OEM bolts per side using a 17mm socket\wrench. (Photo # 4) <u>Tech Note</u>: If wider access to sway bar mount is desired, remove two (2) bolts from center of OEM air dam using a 10mm socket\wrench. Then remove two (2) front bolts of OEM lower skid plate using a 12mm socket\wrench. Roll sway bar down from frame. (Photo # 5)



- Remove OEM lower strut mount hardware from OEM LCA using two (2) 22mm sockets \ wrenches. (Photo # 6)
- Remove two (2) OEM knuckle bolts using a 22mm socket \ wrench. (Photo # 7) Ease LCA away from front strut. <u>CAUTION</u>: Do not let LCA fall to abruptly. Let lower control arm hang. (Photo # 8)



- Disconnect four (4) OEM upper strut mounting nuts from frame mount using a 14mm socket \ wrench. (Photo # 9) <u>Note</u>: Do NOT remove center strut rod nut. Remove strut.
- 10. <u>Note</u>: An Arrow OUT is stamped into OEM upper strut mount. (Photo # 10) Skyjacker strut spacer has an Arrow Cut-Out — to align with OEM. (Photo # 11)



11. **# TU2225MS - 2.5" Front Strut Spacer Kit**: Skyjacker Upper Strut Spacers Are Not Side Specific: # TU2225FMS-S Both Driver & Passenger.

Align Skyjacker # TU2225FMS-S Upper Strut Spacer lower mounting holes on top of OEM strut assembly. **Note**: Align Strut Spacer Cut-Out

Attach with OEM hardware using a 14mm wrench. Start all four (4) OEM flange nuts before beginning tightening sequence. (Photo # 12) **Tech Note:** Use a pry bar or similar tool to keep strut \spacer from turning to tighten. (Photo # 13) Torque 33 ft-lbs. **Proceed to Step 15.** 



12. **# TU2220MS - 2" Front Strut Spacer Kit:** Skyjacker Upper Strut Spacers Are Not Side Specific: # TU2220FMS-S Both Driver & Passenger.

**Note**: For proper reassembly, mark top hat upper strut mounting isolator, rubber isolator & coil spring at top of strut to align with ← OUT on OEM strut. (Photo # 14)

13. Align Skyjacker # TU2220FMS-S Upper Strut Spacer lower mounting holes on top of OEM strut assembly. <u>Note</u>: Align Strut Spacer Cut-Out ← toward ← OUT on OEM strut.

Attach with OEM hardware using a 14mm wrench. Start all four (4) OEM flange nuts before beginning tightening sequence. (Photo # 15)

**Tech Note**: Use a pry bar or similar tool to keep strut \ spacer from turning to tighten. (Photo # 13) Torque 33 ft-lbs.

14. Place Skyjacker\OEM strut assembly into a suitable strut spring compressor. Compress coil spring on strut assembly.

Rotate & align Strut Spacer Cut-Out ← OEM top hat upper strut mounting isolator, rubber isolator with previous marks on coil. (Photo # 16)

Remove strut spring compressor. Proceed to Step 15.



- 15. Connect Skyjacker \OEM strut assembly to upper mount with supplied 10mm Nylon Insert Flange Nuts using a 15mm wrench. (Photo # 17) Secure, but **Do Not Completely Tighten** at this time. To set properly for ride height, these will be tightened once vehicle is on ground with full vehicle weight on tires \wheels.
- 16. Support bottom of OEM LCA with jack. Raise LCA & connect Skyjacker\OEM strut assembly lower strut mount to LCA with OEM hardware using two (2) 22mm sockets\wrenches. (Photo # 18) Secure, but **Do Not Completely Tighten** at this time. <u>Tech Note</u>: You may need to pry upper control arm down to connect. (Photo # 19)



17. While supporting OEM LCA, connect OEM knuckle with two (2) OEM knuckle bolts using a 22mm socket wrench. (Photo # 20) Torque 115 ft-lbs.



**<u>NOTE</u>**: Perform Steps 5-17 on Opposite Side of Vehicle at this Time.

 Realign marks on cam bolt positions on OEM LCA at frame. (Photo # 21)

> Tighten cam bolts on both arms using two (2) 22mm sockets \ wrenches. (Photo # 22) Torque 207 ft-lbs. <u>Note</u>: Final torque will be set by alignment technician.





 Roll OEM sway bar up to frame mounts. <u>Tech Note</u>: A extra set of hands is helpful in this process. Connect OEM sway bar to frame mount with two (2) OEM bolts per side.

**CAUTION:** Start OEM bolts by hand to ensure threads align properly. Install forward bolts on each side first, then install rear bolts. Secure front & rear bolts by hand, then tighten. Tighten using a 17mm socket \ wrench. (Photo # 23) Torque 80 ft-lbs.

20. Install front tires \ wheels using a 22mm socket & lower front of vehicle to ground.



#### **Rear Installation:** Note: Save all factory components & hardware for reuse, unless noted.

- 1. Chock front tires\wheels. Raise rear of vehicle & support frame rails using jack stands at indicated lift points in OEM service manual.
- 2. Remove rear tires\wheels using a 22mm socket.
- 3. Support rear axle with a hydraulic jack. Allow ample room to lower rear axle.
- 4. Disconnect OEM rear brake line bracket on passenger & driver side rear differential using a 12mm socket \ wrench. (Photo # 24)

Disconnect OEM rear brake line bracket on passenger & driver side at frame by link mount using a 12mm socket \ wrench. (Photo # 25)

Disconnect OEM rear brake line bracket on passenger side only at crossmember using a 12mm socket wrench. (Photo # 26)



 5. Disconnect OEM rear shock lower mount using a 17mm socket \ wrench. (Photo # 27) <u>Tech Note</u>: OEM shock perch runs at a downward angle. Lower \ raise axle & compress shock to remove.

Loosen, but do not remove, upper mounting nut using a 19mm wrench for nut & a

8mm wrench to hold shock stud. (Photo # 28)

- Disconnect OEM rear sway bar end link from frame mount using a 17mm socket \wrench. (Photo # 29)
- Disconnect OEM rear track bar on passenger side at rear differential lower mount using a 19mm socket \ wrench. (Photo # 30)











- 8. While checking for appropriate slack in ABS lines, e-brake lines, differential vent hose, & etc. Lower rear differential & remove OEM rear coil spring & isolator. (Photo # 31)
- <u>Note</u>: Skyjacker Coil Spring Spacers Are Not Side Specific. Install Skyjacker Coil Spring Spacer into OEM rear coil spring mount with supplied 1/4" x 3/4" Bolt that is threaded into each Skyjacker spacer using a 7/16" wrench. (Photo # 32)
- Install OEM rear coil spring with coil spring isolator. (Photo # 33)
  <u>Note</u>: It may be necessary to loosen OEM upper & lower rear control arms using a 19mm socket \ wrench in order to gain enough space for OEM rear coil springs to be installed.

Raise rear differential in order to load OEM rear coil spring.



11. Connect OEM rear brake line bracket on passenger & driver side rear differential using a 12mm socket\wrench. (Photo # 24) Torque 20 ft-lbs.

Connect OEM rear brake line bracket on passenger & driver side at frame by link mount using a 12mm socket \ wrench. (Photo # 25) Torque 20 ft-lbs.

Connect OEM rear brake line bracket on passenger side only at crossmember using a 12mm socket \ wrench. (Photo # 26) Torque 20 ft-lbs.

12. Tighten OEM rear shock upper mounting nut using a 19mm wrench for nut & a 8mm wrench to hold shock stud. (Photo # 28) Torque 37 ft-lbs.

Connect OEM rear shock lower mount using a 17mm socket\wrench. (Photo # 27) Secure, but **Do Not Completely Tighten** at this time. <u>Tech Note</u>: Lower\raise axle & compress shock to install it.

- Connect OEM rear sway bar end link to frame mount using a 17mm socket\wrench. (Photo # 34) Torque 60 ft-lbs.
- 14. Install rear tires\wheels using a 22mm socket & lower rear of vehicle to ground.
- 15. Connect OEM track bar to rear differential mount using a 19mm socket \ wrench. (Photo # 30) <u>Note</u>: If OEM upper & lower rear control arms were loosened, tighten with OEM hardware using a 19mm socket \ wrench.



## Final Clearance Check & Torque Steps:

- 1. Start vehicle. Make sure there are no dash lights pertaining to suspension.
- 2. Jounce vehicle a couple of times. This will help suspension settle to new ride height. Cycle steering lock-to-lock & check all components for proper operation & clearances. Pay special attention to clearance between tires\wheels, control arms, brake hoses, ABS wiring, etc.

#### 3. Front Tighten & Torque Sequence.

Front strut assembly upper mount using a 15mm socket\wrench. Torque 48 ft-lbs. Front strut assembly lower mount using two (2) 22mm sockets\wrenches. Torque 122 ft-lbs. Sway bar bracket to frame using a 17mm socket\wrench. Torque 55 ft-lbs. Sway bar end link to lower control arm using a 17mm socket\wrench. Torque 55 ft-lbs. Front lower control arm mounts using two (2) 22mm sockets \ wrenches. Torque 207 ft-lbs.

#### 4. Rear Tighten & Torque Sequence.

Rear shock absorber upper mount using a 8mm & a 19mm socket\wrench. Torque 37 ft-lbs. Rear shock absorber lower mount using a 17mm socket\wrench. Torque 72 ft-lbs. Rear track bar at differential mount using a 19mm socket\wrench. Torque 103 ft-lbs. Rear upper control arm mounts using a 19mm socket\wrench. Torque 100 ft-lbs. Rear lower control arm mounts using a 19mm socket\wrench. Torque 100 ft-lbs.

### Final Notes:

- After installation is complete, double check that all nuts & bolts are tight. Refer to following chart for proper torque specifications. (<u>Note</u>: Do not re-tighten nuts & bolts where thread lock compound was used.)
- With vehicle placed on ground, cycle steering lock to lock & inspect steering, suspension, brake lines, front & rear drivelines, fuel lines & wiring harnesses for proper operation, tightness & adequate clearance.
- Have headlights readjusted to proper settings.
- Have a qualified alignment center align vehicle to OEM specifications.
- After first 100 miles, check all hardware for proper torque & periodically thereafter.

TORQUE SPECIFICATIONS								
INCH SYSTEM			METRIC SYSTEM					
Bolt Size	Grade 5	Grade 8	Bolt Size	Class 8.8	Class 10.9			
5/16	180 in-Ibs	240 in-lbs	6MM	102 in-lbs	108 in-lbs			
3/8	30 ft-lbs	35 ft-lbs	8MM	16 ft-lbs	23 ft-lbs			
7/16	45 ft-lbs	60 ft-lbs	10MM	32 ft-lbs	45 ft-lbs			
1/2	65 ft-lbs	90 ft-lbs	12MM	55 ft-lbs	75 ft-lbs			
9/16	95 ft-lbs	130 ft-lbs	14MM	85 ft-lbs	120 ft-lbs			
5/8	135 ft-lbs	175 ft-lbs	16MM	130 ft-lbs	165 ft-lbs			
3/4	185 ft-lbs	280 ft-lbs	18MM	170 ft-lbs	240 ft-lbs			
Above Specifications Are Not to Be Used When Bolt Is Being Installed With a Bushing.								

## Seat Belts Save Lives, Please Wear Your Seat Belt.