



**ICON**  
VEHICLE DYNAMICS®

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## 51200 INSTALLATION INSTRUCTIONS

2-15-2021 REV.E

PART #	DESCRIPTION
51200	07-UP TUNDRA 1.5" LIFT EXPANSION LEAF SPRING PACK

### COMPONENTS INCLUDED

(2) 158510 07+ TUNDRA EXPANSION PACK

(1) 52050 TOYOTA REAR 8" U-BOLT KIT  
(1) 705166 TUNDRA EXPANSION PACK

### HARDWARE INCLUDED

N/A

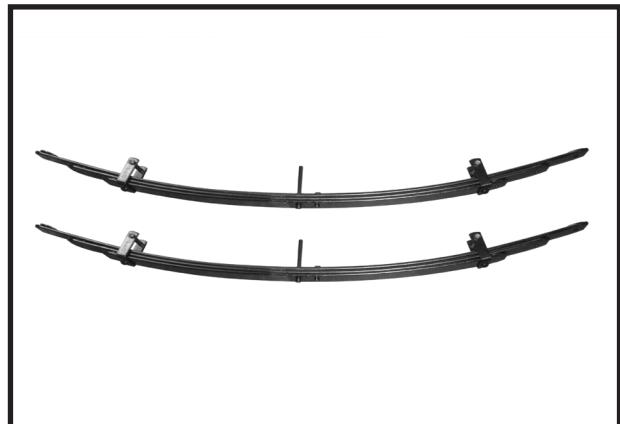
### TOOLS REQUIRED

JACK  
JACK STANDS  
TORQUE WRENCH  
HAMMER

C - CLAMPS  
PRY BAR  
TORQUE WRENCH

### TECH NOTES

1. ICON RECOMMENDS REMOVING THE ENTIRE LEAF PACK FROM THE VEHICLE PRIOR TO INSTALLING THE (51200) EXPANSION LEAF SPRING PACK.



### WARNING!

\*\* READ ALL INSTRUCTIONS THOROUGHLY FROM START TO FINISH BEFORE BEGINNING INSTALLATION! IF THESE INSTRUCTIONS ARE NOT PROPERLY FOLLOWED SEVERE FRAME, SUSPENSION AND TIRE DAMAGE MAY RESULT TO THE VEHICLE!

\*\* ICON VEHICLE DYNAMICS RECOMMENDS THAT YOU EXERCISE EXTREME CAUTION WHEN WORKING UNDER A VEHICLE THAT IS SUPPORTED WITH JACK STANDS.

\*\* ICON VEHICLE DYNAMICS RECOMMENDS ALL INSTALLATION TO BE PERFORMED BY A PROFESSIONAL SHOP/SERVICE TECHNICIAN. PRODUCT FAILURE CAUSED BY IMPROPER INSTALLATION WILL NOT BE COVERED UNDER ICON'S WARRANTY POLICY.\_

## INSTALLATION

1. Using a properly rated jack, raise the rear of the vehicle and support the frame rails with jack stands. Ensure the jack stands are secure and set properly before lowering the jack. NEVER WORK UNDER AN UNSUPPORTED VEHICLE. Remove the rear wheels.
2. Remove the lower rear shock bolts.
3. With a floor jack under the rear end loosen and remove the U-bolts. Make sure the axle is well supported or it could fall when the U-bolts are removed
4. Slowly and carefully lower the axle away from the springs and remove the factory centering pin and factory over-load spring.  
NOTE: You may want to use C-Clamps to secure the pack before you completely remove the center pin.
5. With the new ICON (51200) pack on the ground, C-clamp the leafs together and remove the nuts on the guide pins to expand the pack.
6. Separate the OEM secondary springs from the main leaf spring using a pry bar carefully un-folding each of the collars/spring clips. Remove the (2) OEM secondary leaf springs that are shown. [FIGURE 1 & 2]



FIG.1



FIG.2

7. The reinstallation order should be as follows: OEM main spring, ICON (51200) expansion pack, thick OEM overload.

**8.** Slip in the new spring pack in between the OEM main Spring and the OEM thick overload. The leaf springs will have to be clamped together in order to get the locating pin to slide through and be tightened. [FIGURE 3 AND 4]

FIG.3



FIG.4



**9.** Tighten one side of the C-Clamps and threaded locating pins slightly, then the other side, back and forth till the springs are fully clamped together.

**10.** Raise the axle (reinstall the leaf pack if you chose to remove the full spring assembly) and guide the spring center pin in to the hole on the top of the axle.

**11.** Install new U-bolts, washers and nuts. [Torque to 90ft-lbs]

**12.** Install shocks onto lower factory mount: Compress shock and insert bolt into the factory shock mount. [Torque to factory spec]

**13.** Repeat steps 2-12 for the other side of the vehicle.

**14.** Install wheels and lower vehicle to the ground [Torque lugs to factory spec]. Check U-bolt torque with the vehicle on the ground.

***VERIFY ALL FASTENERS ARE PROPERLY TORQUED BEFORE DRIVING VEHICLE.***

***RETORQUE ALL NUTS, BOLTS AND LUGS AFTER 100 MILES AND PERIODICALLY THEREAFTER.***

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PART #	DESCRIPTION
58655	07-21 TUNDRA FRONT 2.5 EXP COILOVER

**COMPONENTS INCLUDED**

(1) 154879 07-21 TUNDRA FRONT 2.5 IR EXP COILOVER UNPKG (1) 150123 TUNDRA EXP BEAUTY PLATE (1) 154036 07 TUNDRA EXP UPPER MOUNT W/ STUDS	(1) 294060 EXP COIL MOUNT KIT (1) 605968 VIBRATITE BLUE 2ML BULLET
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**HARDWARE INCLUDED**

(2) 290017 WASHER 1.4" X .425" X .25" BLACK ZINC	
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**TOOLS REQUIRED**

JACK HEAVY DUTY JACK STANDS PLIERS PRY BAR TORQUE WRENCH RATCHET	COIL SPRING COMPRESSOR CIRCLIP RETAINING RING PLIERS 18MM SOCKET / WRENCH 22MM SOCKET / WRENCH 24MM SOCKET / WRENCH
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**TECH NOTES**

1. YOUR ICON COILOVER ASSEMBLIES COME FACTORY CHARGED TO 250 PSI. RELEASING NITROGEN PRESSURE MAY LEAD TO SHOCK MALFUNCTION AND REDUCED RIDE QUALITY. FAILURE CAUSED BY LOW NITROGEN PRESSURE IS NOT COVERED UNDER ICON'S WARRANTY POLICY.
2. A GOOD CIRCLIP RING PLIERS WILL MAKE INSTALLATION EASIER AND REDUCE THE CHANCE OF SCRATCHING THE SHOCK BODY. KNIPEX 4521200 CIRCLIP PLIERS HAVE PROVEN TO BE A GOOD FIT.
3. SEE PAGE 6 FOR EXP SHOCK GROOVE SPECS.
4. INSTALL TIME: 3-4 HOURS


**WARNING!**

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\*\* ICON VEHICLE DYNAMICS RECOMMENDS THAT YOU EXERCISE EXTREME CAUTION WHEN WORKING UNDER A VEHICLE THAT IS SUPPORTED WITH JACK STANDS.

\*\* ICON VEHICLE DYNAMICS RECOMMENDS ALL INSTALLATION TO BE PERFORMED BY A PROFESSIONAL SHOP/SERVICE TECHNICIAN. PRODUCT FAILURE CAUSED BY IMPROPER INSTALLATION WILL NOT BE COVERED UNDER ICON'S WARRANTY POLICY.

**INSTALLATION**

1. Using a properly rated jack, raise the front of the vehicle and support the frame rails with jack stands, ensure the jack stands are secure and set properly before lowering the jack. Remove the front wheels and tires. NEVER WORK UNDER AN UNSUPPORTED VEHICLE.
2. Support the lower control arm with a jack. To make room for the coilover to be replaced you will need to separate the lower ball joint from the spindle. It is easier to move the lower control arm if you loosen the inner lower control arm pivots so you don't have to fight the bushing stiffness. Note the position of the alignment cams. [FIGURE 1 & 2]


**FIG.1**

**FIG.2**

**3.** Remove the 4 nuts securing the upper coil seat to the coil bucket using a 14mm. Do not loosen or remove the larger center nut securing the spring seat to the shock shaft. Removal of the nut will cause the stock coilover assembly to come apart violently causing damage to components and possible injury. [FIGURE 3]



FIG.3

**4.** Remove the bolt holding the lower shock eye to the lower control arm using a 22mm. Note orientation, this bolt will be reused. [FIGURE 4]



FIG.4

**5.** Remove the stock coilover assembly. Due to bushing stiffness, you may need to push down on the suspension.

**6.** Use a spring compressor to compress the spring enough to loosen and remove the 17mm nut on top of the coilover assembly that holds the spring and upper mount in place. The nut, bushings and washers will be reused. [FIGURE 5 & 6]



FIG.5



FIG.6

**7.** Use a tube or socket of the correct size to press the stock bushing out of the stock upper mount. Take that bushing and press it into the new ICON upper mount. [FIGURE 7, 8, 9]

FIG.7



FIG.8



FIG.9

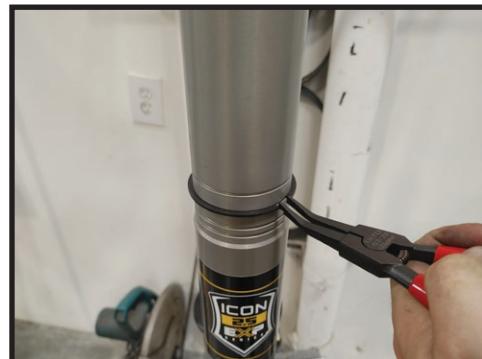


**8.** Grab the ICON shock, using your circlip retaining ring pliers and spread the supplied circlip. Slide it down the shock body, being sure not to scratch the body. Slide it down to the clip groove of your choice. Please see page 9 for Groove Specs [FIGURE 10 & 11]

FIG.10



FIG.11



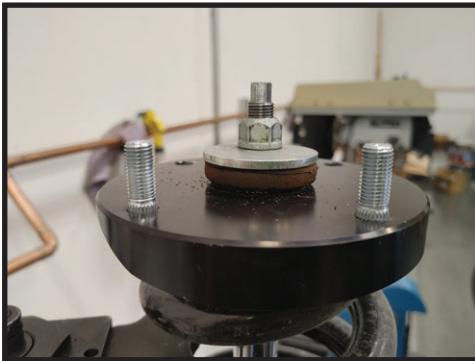
**9.** Slide the ICON coil seat and slide down the body. Then take the factory rubber isolator and slip it over the coil seat. [FIGURE 12]

FIG.12



**10.** Place the factory coil spring over the ICON shock, the flat side towards the rubber isolator. Compress it far enough so the ICON upper mount can go on with the factory washers and top bushing. Make sure the coil spring pigtail is lined up and set into the ICON upper mount correctly. [FIGURE 13]

FIG.13



**11.** Place the beauty plate onto the upper mount. With the plate on, line up the lower eyelet with the center of the beauty plate. This will help with installation.

**12.** Before installing the new coilover, you will need to grind out the lower control arm to help clear the larger diameter shock. Use a silver sharpie to roughly mark out where to grind. Grind out the mount. [FIGURE 14]

FIG.14



**13.** Install the new ICON coilover into place. Install the upper mount and the 4 studs first, then swing the lower eyelet into the lower control arm. The spacers are different sizes, the larger spacer goes towards the front of the truck. Tighten the nuts and bolt to factory spec. [FIGURE 15 & 16]

FIG.15



FIG.16



**14.** Remove factory bump stop from the frame and install the supplied 5/16" thick washer between the bump stop and frame. Apply thread locker to the threads of the bump stop and tighten back onto the frame. [FIGURE 17]

FIG.17



**15.** Repeat steps on opposite side.

**16.** Be sure to tighten all bolts and nuts.

**17.** Reinstall wheels and tires. Torque lug nuts to factory specs.



**VERIFY ALL FASTENERS ARE PROPERLY TORQUED BEFORE DRIVING VEHICLE.**

**RETORQUE ALL NUTS, BOLTS AND LUGS AFTER 100 MILES AND PERIODICALLY THEREAFTER.**

## 2.5 VS SERIES SHOCK & COILOVER TECHNICAL INFORMATION

### MAINTENANCE

ICON shock absorbers are a high quality rebuildable race style shock absorber designed for optimal performance. With a unit of this caliber on your vehicle, routine maintenance is required to keep them looking and operating in like new condition. Residual oil and assembly lube may be present at all seal paths from the factory out of the box and is considered normal. Pooling of oil however is not acceptable at any time and one should contact the ICON dealer where purchased.

**BELOW ARE GUIDELINES BASED ON HOW YOU USE YOUR VEHICLE BUT YOUR MILEAGE MAY VARY:**

#### **STREET USE:**

- Send in for factory servicing every 40,000 miles or if a leak develops, ride quality decreases, or they begin to make excessive noise.
- Remove any buildup of road salt, mud, or debris from shocks and coil springs anytime accrued
- Clean with mild soap and water with each oil change or anytime you notice build up.
- Wax the cylinders yearly with automotive wax to prevent corrosion.
- Check nitrogen pressure yearly. (252004 charge needle assembly available at any ICON distributor)
- Check bearings for excessive wear yearly.
- DO NOT apply any type of lube to the upper and lower bearings.

#### **STREET/DIRT:**

- Send in for factory servicing every 15,000 miles or if a leak develops, ride quality decreases, or they begin to make excessive noise.
- Clean with mild soap and water with each oil change, offroad trip, or anytime you notice build up.
- Wax the cylinders yearly with automotive wax to prevent corrosion.
- Check nitrogen pressure each dirt outing. (252004 charge needle assembly available at any ICON distributor)
- Check bearings for excessive wear yearly.
- DO NOT apply any type of lube to the upper and lower bearings.

#### **DIRT USE:**

- Send in for factory servicing every 1,000 miles.
- Check nitrogen pressure each outing. (252004 charge needle assembly available at any ICON distributor)
- Remove any buildup of mud or debris from shocks and coil springs after every outing.

#### **SELF-SERVICE:**

- Contact ICON for service kits & tools at (951) 689-4266.

### PRODUCT REGISTRATION

Please visit: <http://www.iconvehicledynamics.com/tech-support/registration/> to register your product.

### ICON VEHICLE DYNAMICS SHOCK ABSORBER WARRANTY

This shock absorber has a 1 year warranty against any manufacturer's defects. If a shock fails within the initial year of ownership, the shock must be shipped to ICON Vehicle Dynamics for inspection and service. If a shock is inspected and it has been determined the shock failed due to neglect, damage caused by improper installation or any other reason besides "normal wear and tear", the owner of said shock is responsible for all service costs. This includes labor, parts, and shipping.

ICON Vehicle Dynamics warrants to the original retail purchaser who owns the vehicle on which the product was originally installed. ICON Vehicle Dynamics does not warrant the product for finish, alterations, modifications and/or installation contrary to ICON Vehicle Dynamics instructions. ICON Vehicle Dynamics products are not designed, nor are they intended to be installed on vehicles used in race applications, for racing purposes or for similar activities. (A "race" is defined as any contest between two or more vehicles, or a contest of one or more vehicles against the clock, whether or not such contest is for a prize). This warranty does not include coverage for police or taxi vehicles, race vehicles, or vehicles used for government or commercial purposes. Also excluded from this warranty are sales outside of the United States of America and Canada.

ICON Vehicle Dynamics' obligation under this warranty is limited to the repair or replacement, at ICON Vehicle Dynamics' discretion, of the defective product. Any and all costs of removal, installation or re-installation, freight charges and incidental or consequential damages are expressly excluded from this warranty. Items that are subject to wear are not considered defective when worn and are not covered.

ICON Vehicle Dynamics components must be installed as a complete kit as shown in our current application guide. Any substitutions or exemptions of required components will immediately void the warranty. Some finish damage may happen to parts during shipping and is not covered under warranty.

This warranty is expressly in lieu of all other warranties expressed or implied. This warranty shall not apply to any product that has been improperly installed, modified or customized subject to accident, negligence, abuse or misuse.

To send a shock in for warranty please visit our website <http://www.iconvehicledynamics.com/tech-support/shock-service/>

# ICON TUNDRA FRONT EXP GROOVE SPECS

## FENDER TO HUB MEASUREMENT

