

7929 Lincoln Ave. Riverside, CA 92504  
Phone: 951.689.ICON Fax: 951.689.1016

PART #	DESCRIPTION
56101	07-09 FJ/03-09 4RUNNER/05-15 TACOMA LCA SKID PLATE KIT

COMPONENTS INCLUDED	
(1) 150104 LCA SKID PLATE TACO/FJ/4RNR (DRVR) (1) 150105 LCA SKID PLATE TACO/ FJ/4RNR (PASS)	(1) 56101H S2 SKID PLATE HARDWARE KIT
HARDWARE INCLUDED	
56101H HARDWARE KIT	
(6) 150109 WASHER 1.25 X .395 X .125 (4) 605122 3/8-16 C-LOCK (2) 605124 3/8-16 NYLOCK THIN (17/64 TALL)	(4) 605133 3/8 SAE FLAT WASHER (2) 605152 3/8-16 X 2.5 CARRIAGE BOLT (2) 605153 3/8-16 X 3.0 CARRIAGE BOLT (2) 605154 3/8-16 X 3.5 CARRIAGE BOLT
TOOLS REQUIRED	
DRILL 1/2" DRILL BIT	9/16" SOCKET / WRENCH TORQUE WRENCH
TECH NOTES	
1. (56101) DOES NOT FIT VEHICLES EQUIPPED WITH KDSS.	



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 INSTALLTION 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. NEVER WORK UNDER AN UNSUPPORTED VEHICLE.

**2.** Locate 3 holes on the bottom side of the lower control arm. Drill hole closest to wheel to 1/2" diameter. (FIGURE 1)

FIG.1



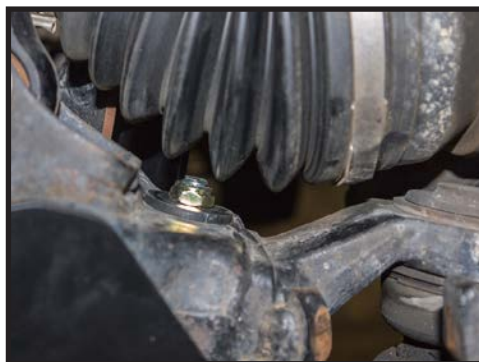
**3.** Use paint to touch up any exposed metal from drilling to avoid corrosion.

**4.** Attach skid plate to lower control arm and insert carriage bolts loosely. Insert the (605152) carriage bolt in the hole near the ball joint. Insert the (605153) carriage bolt in the hole at the front of vehicle. The remaining (605154) carriage bolt goes in the hole toward the rear of vehicle.

**5.** The large washers (150109) go on top of arms first. The two inner bolts use a 3/8" flat washer (605133) and metal locking nut (605122). The outer hole closest to the tire uses a large washer (150109) and a thin nylock nut (605124). [Torque to 26 ft-lbs]

**6.** Depending on the extended shock length and the CV boot, slight sanding may be required on outer bolt (at end of threads) for CV boot clearance at full droop. (FIGURE 2)

**FIG.2**

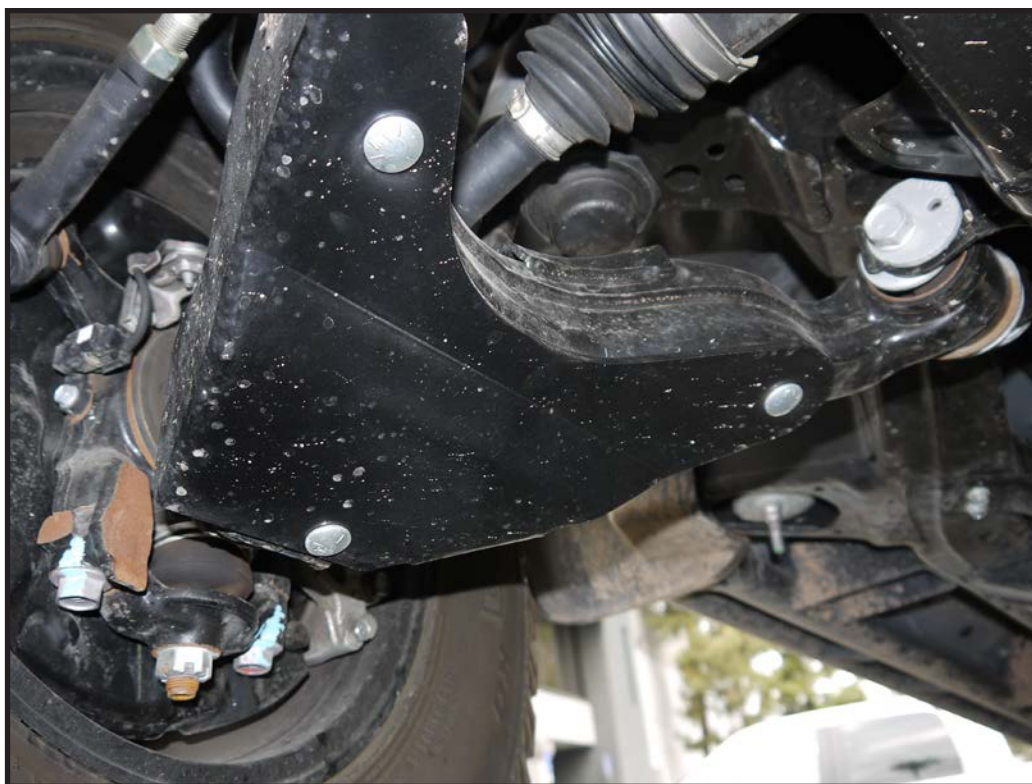


**7.** Repeat steps 2-6 on opposite side.

**8.** Remove jack stands and lower vehicle back to 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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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.

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PERFORMANCE SUSPENSION SYSTEMS AND SHOCK ABSORBERS

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PART #	DESCRIPTION
56102	07-UP FJ/03-UP 4RUNNER/05-UP TACOMA S2 SHOCK HOOP KIT

### COMPONENTS INCLUDED

(1) 150106 S2 TACO/FJ/4RUN DRIVER HOOP (2) 150107 S2 TACO/FJ/4RUN PASS HOOP	(1) 56102H SECONDARY SHOCK HARDWARE KIT FJ/4RUN/TACO
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### HARDWARE INCLUDED

#### 56102H SECONDARY SHOCK HARDWARE KIT

(2) 157014 TACO/FJ/4RUN BILLET PUCK (2) 159008 S2 STEERING STOP (2) 154012 1/2-13 NUT TAB (2) 155517 BRAKE LINE, 4RUN/FJ/TACOMA (1) 159007 SLEEVE .750 X .510 X 1.530 (2) 290010 3/16 TAB 1.250 TALL x .531 HOLE (2) 605012 5/16 SPLIT LOCK WASHER (2) 605077 5/16-18 x .75 SELF TAPPING SCREW	(6) 605131 3/8 SPLIT LOCK WASHER (6) 605133 3/8 FLAT WASHER (6) 605155 3/8-16 X 2.5 HHCS (2) 605300 1/2-13 X 1.000 HHCS (2) 605306 1/2-13 X 2.500 HHCS (2) 605307 1/2-13 X 2.750 HHCS (4) 605322 1/2-13 C-LOCK NUT (10) 605330 1/2 FLAT WASHER
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### TOOLS REQUIRED

JACK JACK STANDS TORQUE WRENCH 3/4" WRENCH 3/4" SOCKET 9/16" WRENCH	10MM WRENCH CENTER PUNCH DRILL 1/2" DRILL BIT 1.25" HOLE SAW SANDER WELDER
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### TECH NOTES

1. ICON COILOVER AND S2 SKID PLATE (PART #56101 OR PART #56106) REQUIRED FOR INSTALLATION.
2. STEERING STOP REQUIRED (SUPPLIED).
3. SKILLED WELDER REQUIRED TO WELD ON LOWER CONTROL ARM SHOCK TAB.
4. SKILLED WELDER REQUIRED TO WELD ON STEERING STOP.
5. FAILURE TO FLIP LOWER COILOVER BOLT DIRECTION BEFORE WELDING WILL REQUIRE CUTTING OFF TO REMOVE COILOVER.
6. RECOMMENDED TIRE SIZE 285/70R17.



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## INSTALLATION

1. Disconnect the negative battery terminal.
2. 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. NEVER WORK UNDER AN UNSUPPORTED VEHICLE. Remove the front wheels.
3. Remove the (3) upper coilover bolts from driver side coilover using a 9/16" wrench (these will not be used with S2 hoop kit). ICON coilover and S2 LCA skid plate (#56101, #56106, or #56107) required for installation.
4. Locate driver side hoop, spacer, and 3/8" X 2.50" bolts, washers, and lock washers. (FIGURE 1)

FIG.1



FIG.2



5. Some fender liners have a sheet metal tab that has to be removed and two screws protruding that need to be sanded flat to get the hoop to locate properly on the frame. (FIGURE 2)

**6.** Loosely assemble hoop on top of bucket with supplied spacer and 3/8" hardware. Use of anti-seize is recommended. (FIGURE 3)



FIG.3

**7.** Hold hoop firmly against raised portion of frame at top, snug the 3, 3/8" mounting bolts on top of coilover and mark center hole on frame. Drill frame at mark with 1/2" drill bit. (FIGURE 4 - FIGURE 6)



FIG.4



FIG.5

**8.** Using supplied nut tab, assemble hoop to frame with 1/2" hardware. [Torque to 120 ft-lbs] (FIGURE 7)



FIG.6



FIG.7

**9.** Tighten the (3) coilover bolts [Torque to 40 ft-lbs]. At this time, flip the factory bolt in the lower coilover mount so that the head of the bolt is facing the front of the vehicle and the nut is facing the rear. If this is skipped, you will be required to cut the bolt to remove it after the tab is welded in Step 15.

**10.** On 2016-UP models the factory bump stop must be clearanced with a 1.25" holesaw (as shown) so that it will not make contact with the shock. (FIGURE 8 & 9)

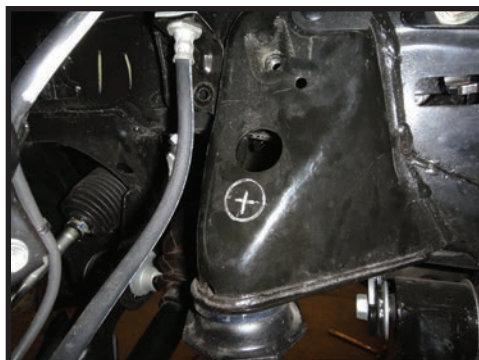


FIG.8



FIG.9

**11.** Notch the bump stop as shown. (FIGURE 10)

FIG.10



**12.** The S2 LCA skid plate should be loosened so ideal weld on tab location is used. Using the supplied raw sleeve (#159007) in the hardware kit, assemble the raw tab (#290010) to the S2 LCA skid plate locating tab and fasten together with the supplied 1/2" hardware. Outline the weld on tab with a marker or scribe on the lower control arm.

**NOTE:** The tab has a notch to fit multiple lower control arm contours. Late model SUV arms will locate the notch on the welded bump stop pad, while every other model will locate the notch to account for the bend in the arm where the tab locates.

**13.** Be sure that the S2 LCA skid plate is positioned so that the weld on tab and rod end will clear the CV boot at full steering lock (FIGURE 11 & 12). There are multiple CV boot revisions used by Toyota and the larger CV boot will come very close at full droop to the rod end with the extended travel shock (picture is with largest CV boot). Failure to locate the tab properly will result in CV boot damage. The S2 skid mounting holes in the LCA can be drilled larger to allow for adequate orientation to clear the CV boot if needed.

**NOTE:** If unsure of tab locating procedure, contact ICON Vehicle Dynamics tech support immediately at (951) 689-4266. Normal business hours are Mon - Fri, 8AM - 5PM (PST). This step is extremely critical, do not hesitate to call if you have any questions.

FIG.11



FIG.12



**14.** Remove sleeve, tab, and hardware.

**15.** Sand outlined area.

**16.** Reassemble the sleeve and tab to the S2 LCA skid plate tab locator.

**17.** Weld the lower supplied tab to the factory control arm. This step is to be performed by a professional welder. Proper penetration is critical to avoid failure. (FIGURE 13)

**NOTE:** If this tab is not welded on properly the system will fail.

FIG.13



**18.** Remove hardware and sleeve and weld inside of tab then spray paint to avoid corrosion.

**19.** Remove the factory steel brake line at the caliper and replace with the supplied brake line and route as pictured (FIGURE 14 & 15). Late model FJ / 4Runners with the taller LCA do not require the brake line.

**NOTE:** Failure to install the supplied brake line properly will lead to catastrophic failure of brake system.

FIG.14



FIG.15



**20.** Remove the factory brake line routing bracket from frame and relocate it as pictured using a 1/4" drill bit and supplied 5/16" self-tapping screw. [Torque to 25 ft-lbs] (FIGURE 16)

FIG.16



FIG.17



**21.** Install the ICON S2 specific shock with the wider high misalign hardware at the bottom, and the narrow non high misalign at the top with the supplied 1/2" hardware [Torque to 120 ft-lbs]. Use of anti-seize is recommended on these bolts.

**22.** Route the reservoir hose up and along the hoop to the front of the fender well. Use the supplied zip ties (supplied with S2 shock) to secure it to the hoop.

**23.** Use ICON reservoir mount and mount as pictured (mount and hardware supplied with S2 specific shock). (FIGURE 17)

**24.** If using a reservoir coilover with the S2 secondary shock, make sure the reservoirs do not touch as the frame-mounted reservoir will damage the body-mounted reservoir from rubbing during heavy off-road use.

**25.** Secure reservoir to supplied mounting bracket using the supplied hose clamps.

**26.** Weld on the supplied steering stop as pictured and paint to prevent corrosion. (FIGURE 18, FIGURE 19)

FIG.18



FIG.19



**27.** Steer vehicle from left to right to make sure nothing binds up and brake line is routed correctly.

**28.** Repeat steps 3-27 on passenger side.

**29.** Bleed the brakes.

**30.** Install wheels, torque lug nuts to factory specifications.

**31.** Reconnect negative terminal on battery.

**32.** If using a coilover other than ICON or modified A-arm bump stops any implied warranty is void.

**33.** Install wheels and lower vehicle to the ground. [Torque lugs to factory spec]

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

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PART #	DESCRIPTION
59706CP	TOYOTA S2 SECONDARY 2.5 VS RR CDCV PAIR

COMPONENTS INCLUDED	
(1) 154962CD TOYOTA S2 RR CDCV SECONDARY (DRVR) (1) 154962CP TOYOTA S2 RR CDCV SECONDARY (PASS)	(1) 59706H TOYOTA S2 HARDWARE KIT
HARDWARE INCLUDED	
59706H HARDWARE KIT	
(2) 250002 7.50 UNIVERSAL RESI MT PLATE (2) 605101 3/8-16 X 1.000 BOLT (2) 605122 3/8-16 C-LOCK NUT	(4) 605133 3/8 SAE FLAT WASHER (4) 605926-BLK 5-1/2 X 0.14 NYLON CABLE TIE (1) 611051 #40 2 1/16-3" HOSE CLAMP KIT
611051 HARDWARE KIT	
(4) 605931 1/2 X 2 1/16 - 3" ID #40 SS HOSE CLAMP	
TOOLS REQUIRED	
3/4" SOCKET / WRENCH	9/16" SOCKET / WRENCH
TECH NOTES	
<p>1. REQUIRES USE OF ICON S2 SHOCK HOOP KIT (56102).</p> <p>2. YOUR ICON SHOCK ASSEMBLIES COME FACTORY CHARGED TO 150 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.</p>	



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## INSTALLATION

REFER TO ICON (56102) 07-UP FJ/03-UP 4RUNNER/05-UP TACOMA S2 SHOCK HOOP KIT FOR FULL INSTALLATION INSTRUCTIONS.



## 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.

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

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