

PART #	DESCRIPTION
56516	22-UP TUNDRA 0-1" REAR 2.0 VS IR

COMPONENTS INCLUDED	
(2) 154930NR 22-UP TUNDRA 0-1" REAR 2.0 IR UPKG	
HARDWARE INCLUDED	
(1) 611007 9/16 MEDIUM DUTY STEM BUSHING KIT	
TOOLS REQUIRED	
JACK JACK STANDS RATCHETS TORQUE WRENCH	8MM SOCKET / WRENCH 17MM SOCKET / WRENCH 19MM SOCKET / WRENCH
TECH NOTES	
<p>1. YOUR ICON SHOCK 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.</p> <p>2. BE CAUTIOUS WHEN LOWERING THE AXLE WITHOUT THE SHOCKS ATTACHED, THE BRAKE LINES CAN BECOME STRETCHED AND CAUSE DAMAGE.</p> <p>3. INSTALL TIME: 30-40 MINUTES</p>	



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. Lift vehicle and securely place heavy duty jack stands under the manufacturer recommended lifting locations for the rear of the vehicle. Take care when lifting the vehicle, and allow 3-4" of ground clearance from the tire. Remove front tires. NEVER WORK UNDER AN UNSUPPORTED VEHICLE. Remove the wheels.
2. Support the rear axle and remove the rear shocks.
3. Remove the upper nut using an 8mm to hold the stud and 19mm to remove the nut. [FIGURE 1]

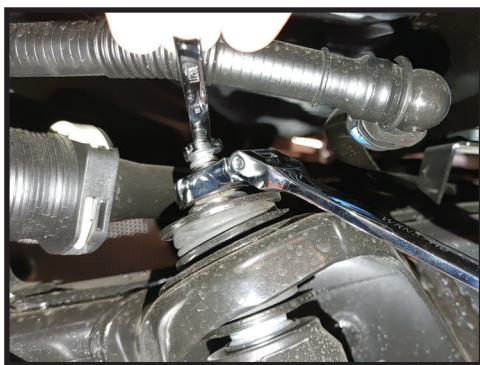


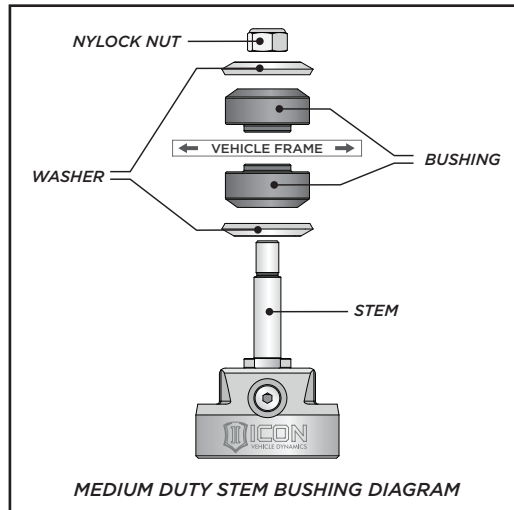
FIG.1

4. Remove the lower bolt using a 17mm. [FIGURE 2]



FIG.2

5. Install the new Icon stem bushings onto the Icon shock. Place the washer with the bigger hole on, then a bushing . Place the stem into the upper shock mount, then another bushing and the washer.



The bushings should center themselves into the factory mount. Thread on the supplied nylock nut until 2-3 threads are showing. **[FIGURE 3]**

FIG.3



6. Install the lower eyelet of the Icon shock onto the axle stud. A deadblow hammer can be used to get the lower eyelet on the stud completely. Use the factory bolt and torque to factory specs. **[FIGURE 4]**

FIG.4



7. With the shocks installed. Reinstall the wheels and tires, lower to the ground and torque the lug nuts to factory spec.

8. Enjoy your new ICON shocks and the improved ride!

VERIFY ALL FASTENERS ARE PROPERLY TORQUED BEFORE DRIVING VEHICLE.

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

2.0 ALUMINUM SERIES 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 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)

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)

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 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 VEHICLE DYNAMICS®
PERFORMANCE SUSPENSION SYSTEMS AND SHOCK ABSORBERS

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



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PART #	DESCRIPTION
58461DJ	22-UP TOYOTA TUNDRA TUBULAR UCA KIT

COMPONENTS INCLUDED

(1) 154162 22-UP TUNDRA DRVR UCA	(1) 154163 22-UP TUNDRA PASS UCA
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HARDWARE INCLUDED

(8) 150026 B WASHER 2.125 X .630 X .188 CZINC	(2) 605800 M6-1.00 FLANGE NUT GR10.9 YZINC
(4) 157560 SLEEVE 1.00 X 16MM X 2.310 CZINC	(2) 605862 M6-1.0 X 25MM SHSS 18-8 RAW
(8) 297034 HAT BUSHING 1.625 X 1.000 X .850	(2) 605890 M14 FENDER WASHER 36MM OD
(4) 297042 POLY RING 1.590 X 1.005 X .250	(1) 605969 VIBRATITE RED 2ML BULLET DUST COVER

TOOLS REQUIRED

JACK JACK STANDS #2 PHILLIPS SCREWDRIVER BODY CLIP REMOVAL TOOL SMALL FLAT BLADE SCREWDRIVER NEEDLE NOSE PLIERS	TORQUE WRENCH 10MM SOCKET / WRENCH 12MM SOCKET / WRENCH 19MM SOCKET / WRENCH 22MM SOCKET / WRENCH
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TECH NOTES

1. ICON DELTA JOINTS ARE PRE-GREASED FROM THE FACTORY. ICON RECOMMENDS GREASING THE DELTA JOINT EVERY 3,000 MILES (OR EVERY OIL CHANGE). ADD NEW GREASE UNTIL ALL OF THE OLD GREASE IS EXPELLED FROM THE BOTTOM OF THE DELTA JOINT ASSEMBLY, WIPE AWAY EXCESS WITH A RAG OR SHOP TOWEL.
2. ALL ICON UPPER CONTROL ARMS HAVE BEEN ENGINEERED TO ALLOW FOR THE MOST POSSIBLE CASTER, WHILE STILL ALLOWING THE VEHICLE TO BE PROPERLY ALIGNED. NOTIFY YOUR PROFESSIONAL ALIGNMENT SHOP OF THIS INFORMATION SO THAT MAXIMUM RIDE QUALITY CAN BE ACHIEVED.
3. ESTIMATED INSTALL TIME: 2.5 HOURS



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INSTALLATION

1. Lift vehicle and securely place heavy duty jack stands under the manufacturer recommended lifting locations for the front of the vehicle. Take care when lifting the vehicle and allow 3-4" of ground clearance from the tire. Remove front tires. NEVER WORK UNDER AN UNSUPPORTED VEHICLE. Remove the wheels.

2. Open the hood and disconnect the negative terminal on the battery using a 12mm and unplug the electrical connector.

3. Unplug the electrical connector on the air intake tube. [FIGURE 1]



FIG.1

4. Remove the airbox. Loosen the hose clamp with a #2 phillips screwdriver or 10mm on the air intake hose located closest to the engine. [FIGURE 2]



FIG.2

5. Lift up on box and remove. The box is only held in place by the intake tube and rubber grommets underneath.

6. With the box removed, remove the wiring clips from the ECU bracket. [FIGURE 3 & 4]

FIG.3

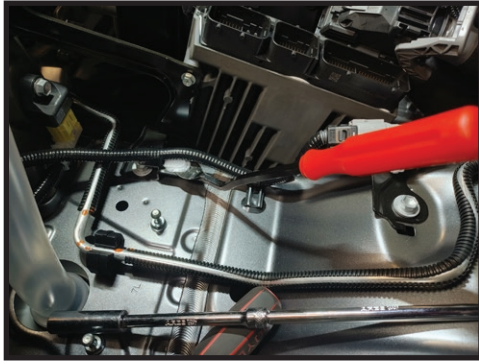


FIG.4



7. Unplug the small grey connector next to the ECU.

8. Unplug the ECU harnesses from the ECU. Push down on the safety latch and push the lever the opposite way. The connector will lift up and you will be able to remove it completely. [FIGURE 5 & 6]

FIG.5

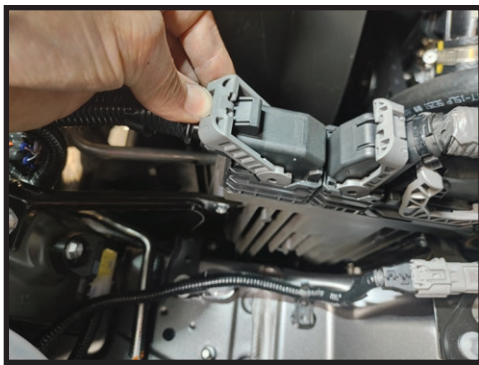


FIG.6



9. Remove the harness clamp from the large wire loom using a small flat blade screwdriver. [FIGURE 7]

FIG.7



10. Remove the large harness from the ECU. Press lock clip and pull up on the grey lever and pulling plug out. [FIGURE 8]

FIG.8



- 11.** Remove three 10mm bolts from the ECU bracket. One on the front core support, two on the fender well. [FIGURE 9 & 10]

FIG.9

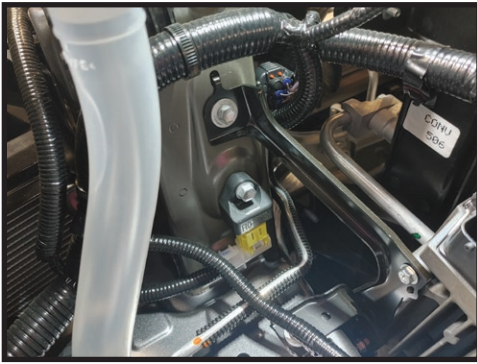
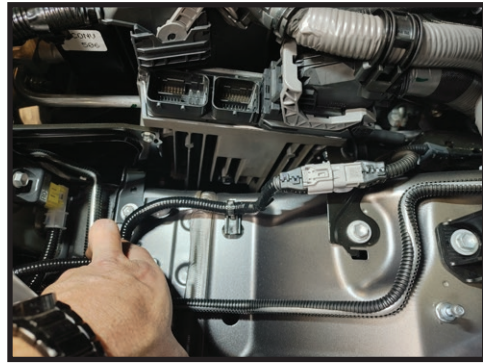


FIG.10



- 12.** Remove the 12mm bolt from the top of the UCA that holds the ABS wire. [FIGURE 11]

FIG.11



- 13.** Remove the cotter pin from the UCA balljoint using a small screwdriver or pick to pry over the safety clip, and pull out the pin using a needle nose pliers. Loosen the 19mm nut on the balljoint. [FIGURE 12 & 13]

FIG.12



FIG.13



- 14.** Use a hammer or balljoint separator to loosen the balljoint taper from the spindle. [FIGURE 14]

FIG.14



15. Loosen and remove the UCA pivot bolt from the frame using a 22mm. [FIGURE 15]

FIG.15

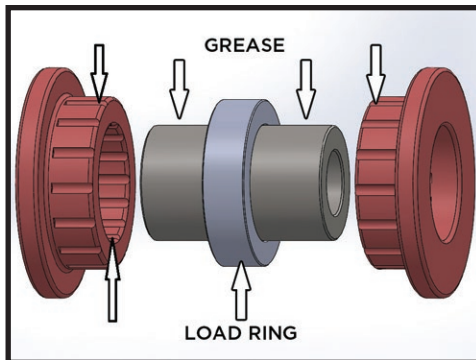


16. Remove the factory UCA. [FIGURE 16]

FIG.16



17. Install the new bushings into the ICON tubular UCA as indicated by the drawing below. Grease before install.



18. Install the ICON UCA into position and slide the factory mounting bolt through the bushings and frame. Apply thread locker to the threads of the bolt and install the nut (passenger side shown). [FIGURE 17 & 18]

FIG.17



FIG.18



19. Install the Delta Joint Pro into the spindle, apply included blue thread locker to threads on flange nut and thread on to Delta Joint Pro with washer (605890) between the flange nut and spindle [Torque the nut to 70 ft-lbs]. [FIGURE 19]

FIG.19



20. Torque the long pivot bolt to factory spec.

21. Install the brake line bracket onto the UCA with the supplied M6 stud and nut. Tighten to 35 in-lbs. [FIGURE 20]

FIG.20



22. Reinstall the ECU and airbox in reverse order of removal.

23. Repeat steps 12-21 on passenger side.

***VERIFY ALL FASTENERS ARE PROPERLY TORQUED BEFORE DRIVING VEHICLE.
RETORQUE ALL NUTS, BOLTS AND LUGS AFTER 100 MILES AND PERIODICALLY THEREAFTER.***

ICON VEHICLE DYNAMICS LIMITED LIFETIME WARRANTY

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.

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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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www.iconvehicledynamics.com



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PART #	DESCRIPTION
58671	22-UP TUNDRA 2.5 EXP

COMPONENTS INCLUDED	
(2) 150123 TUNDRA EXP BEAUTY PLATE (2) 154869 22-UP TUNDRA FRONT 2.5 EXP COILOVER	(2) 158011 22-UP TUNDRA EXP COIL SEAT (2) 294060 EXP COIL MOUNT KIT
HARDWARE INCLUDED	
N/A	
TOOLS REQUIRED	
HAMMER TORQUE WRENCH COIL SPRING COMPRESSOR 10MM SOCKET / WRENCH 14MM SOCKET / WRENCH	18MM SOCKET / WRENCH 19MM SOCKET / WRENCH 21MM SOCKET / WRENCH 22MM SOCKET / WRENCH 24MM SOCKET / WRENCH
TECH NOTES	
<p>1. YOUR ICON SHOCK 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.</p> <p>2. ICON DOES NOT RECOMMEND LIFTING APPROXIMATELY 2.25" OF LIFT WITHOUT AN ICON UPPER CONTROL ARM (PN: 58461DJ OR 58561DJ). FAILURE TO DO SO CAN CAUSE DAMAGE TO AXLES.</p> <p>3. FOR NON TRD MODELS, ICON RECOMMENDS USING ICON DIFF DROP (PN: 55156) OR USING TOYOTA TRD AXLES (PN: 434200C020-DRIVER, PN: 434100C020-PASSENGER). FAILURE TO DO SO COULD RESULT IN AXLE DAMAGE.</p> <p>4. SWAY BAR DROP KIT (PN: 55154) REQUIRED FOR THIS INSTALLATION.</p> <p>5. SEE PAGE 7 FOR EXP SHOCK GROOVE SPECS.</p>	



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INSTALLATION

1. Disconnect the ABS line bracket from the UCA using a 10mm. [FIGURE 1]

FIG.1



2. Loosen the nut connecting the UCA to the steering knuckle. Separate the UCA taper from the steering knuckle using a hammer or ball joint separator. Keep the nut connected, but loose. This will allow additional freedom of movement for later steps. [FIGURE 2]

FIG.2



3. Remove the sway bar link from the sway bar using a 19mm.

4. Use a 14mm to remove the nuts connecting the factory coil over to the frame. Leave 1 nut loosely threaded on the upper mount. Use a 22mm to disconnect the factory coilover from the LCA. [FIGURE 3 & 4]

FIG.3



FIG.4



5. Support the steering knuckle using a floor jack. [FIGURE 5]

FIG.5



6. Mark the alignment cams on both the cam and the frame. Remove the alignment cam bolts using a 24mm. [FIGURE 6 & 7]

FIG.6



FIG.7



7. Swing the lower control arm out from the frame pockets and let it hang from the steering knuckle.

8. Slowly remove the coilover assembly from the truck.

9. Grind/cut the lower shock pocket on the control arm to add clearance for the new ICON coilover assembly. Removing the control arm can help make this easier, if removed, be sure the bolts go back into the same place and orientation. After cutting is complete, paint over the raw metal to prevent rust. [FIGURE 8 & 9]

FIG.8

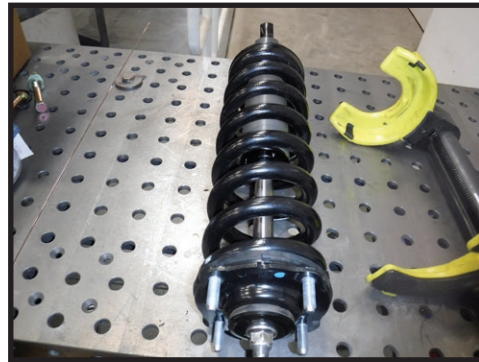


FIG.9



10. Mark the upper mount of the shock assembly in line with the rod end of the shock. This will be referenced when putting it back together. [FIGURE 10]

FIG.10

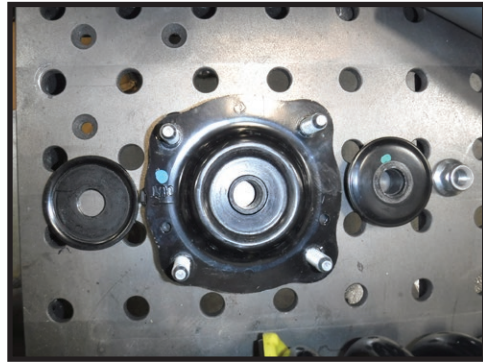


11. Use a sturdy coil spring compressor to compress the coil spring of the factory coilover assembly. Once the coil is free from it's seats, remove the shaft nut and upper coil seat/upper mount. [FIGURE 11 & 12]

FIG.11



FIG.12



12. Slide the snap ring to the desired lift height and set the coil seat in place. [FIGURE 13, 14, 15, 16]

FIG.13

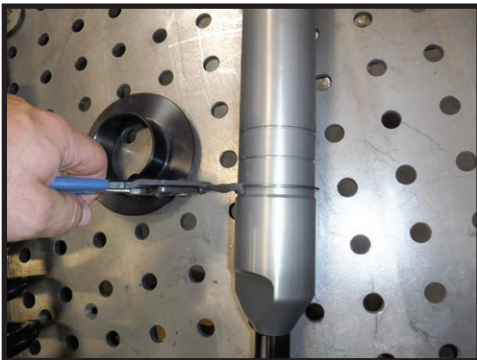


FIG.14

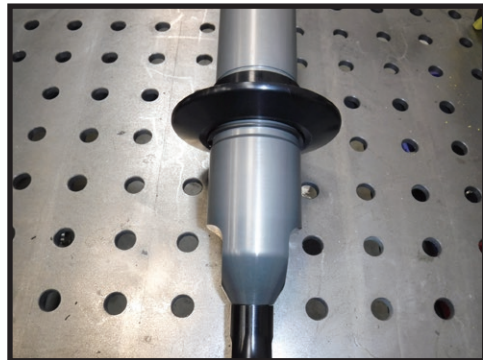


FIG.15

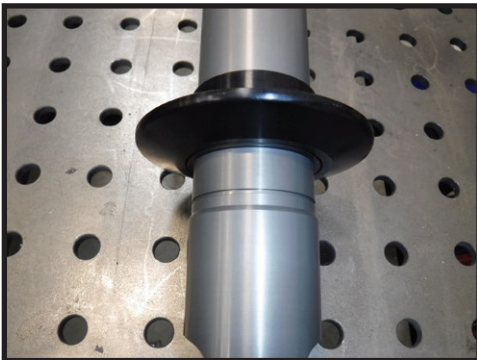
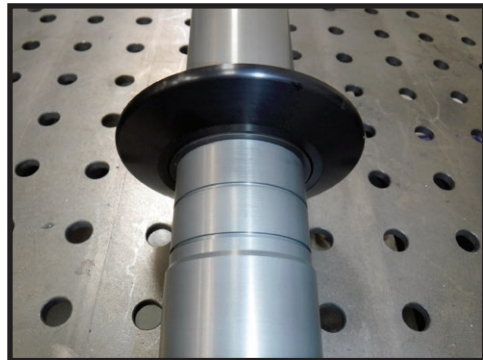


FIG.16



13. Carefully remove the shock assembly from the coil. Slide the new EXP shock assembly into place. Install the upper coil seat/upper mount and factory nut. Torque to factory spec using an 18mm. Be sure to clock the upper and lower coil seats to match the coil ends. The mark on the upper mount needs to line up with the line on the shock. [FIGURE 17 & 18]

FIG.17

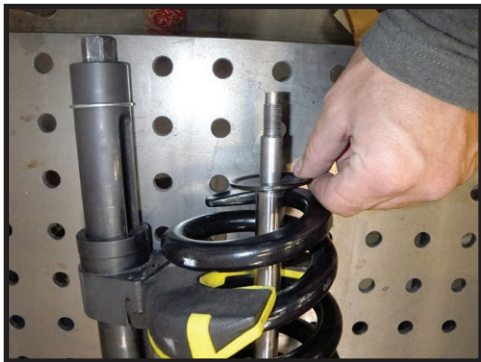
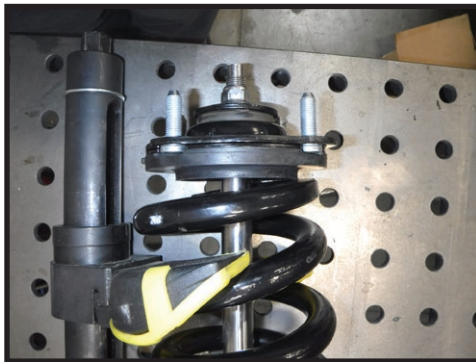


FIG.18



14. Release the coil spring compressor while ensuring proper alignment of you mark with the rod end.

15. The "OUT" arrow should be pointing 180 degrees away from the charge port of the shock. [FIGURE 19]

FIG.19



16. Place the supplied beauty plate (PN 150123) over the studs of the upper mount (optional).

17. Lift the coilover assembly up into the frame mount and fasten using the factory nuts. Torque to factory spec using a 14mm.

18. Lift the lower control arm into the frame pockets while guiding the coilover into the shock mount. Put the cam bolts in the same place and orientation as they came out. Adjust the cam bolts of the lower arms to line up the marks. Torque the bolts to factory spec using a 24mm. [FIGURE 20 & 21]

FIG.20



FIG.21



19. Install the lower shock bolt and torque to factory spec using a 22mm. [FIGURE 22]

FIG.22



20. Connect the ABS bracket to the UCA using a 10mm. [Torque to factory spec]

21. Connect the UCA to the steering knuckle using factory hardware and torque to factory spec using a 21mm.

22. When lifting above 2.25" install (PN: 55154, sold separately). Remove the sway bar mounting bracket from the frame using a 17mm and install the new drop spacers between the bracket and frame. Reinstall with the new bolts and torque to factory spec. [FIGURE 23 & 24]

FIG.23



FIG.24



23. Install the wheels and set the truck on the ground. Have the truck professionally aligned.



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

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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.
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- Remove any buildup of mud or debris from shocks and coil springs after every outing.

SELF-SERVICE:

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



ICON VEHICLE DYNAMICS®
PERFORMANCE SUSPENSION SYSTEMS AND SHOCK ABSORBERS

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www.iconvehicledynamics.com



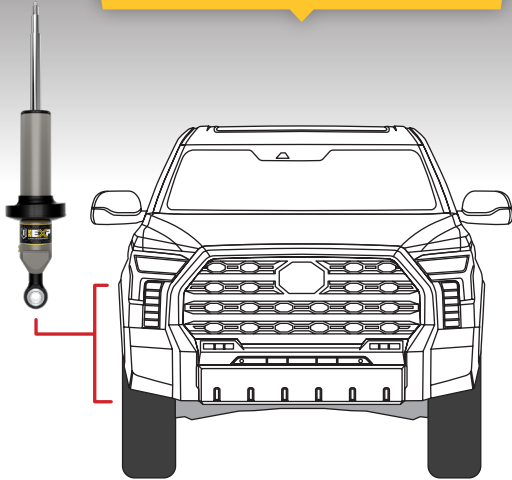
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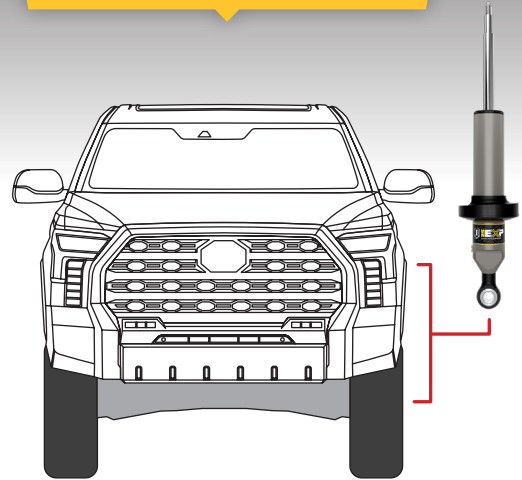
ICON TUNDRA FRONT EXP GROOVE SPECS

FENDER TO HUB MEASUREMENT

FACTORY
RIDE HEIGHT: 21.5"

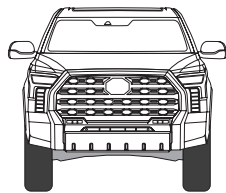


MAXIMUM
RIDE HEIGHT: 24.5"

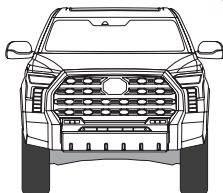


GROOVE 1:

GROOVE 2:



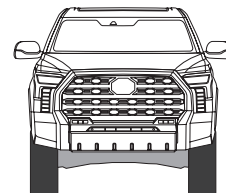
Stock Height



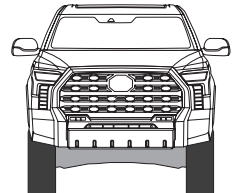
2.25" LIFT

GROOVE 3:

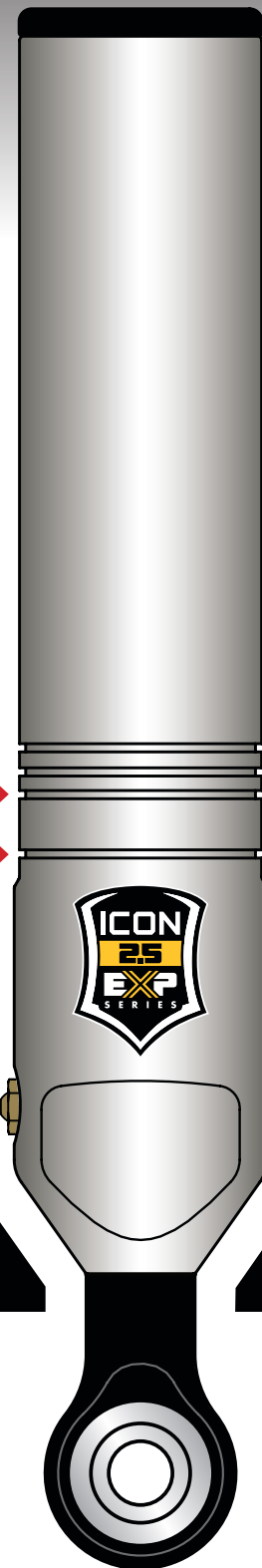
GROOVE 4:



2.5" LIFT



3" LIFT



PART #	DESCRIPTION
58671	22-UP TUNDRA 2.5 EXP

COMPONENTS INCLUDED

(2) 150123 TUNDRA EXP BEAUTY PLATE (2) 154869 22-UP TUNDRA FRONT 2.5 EXP COILOVER	(2) 158011 22-UP TUNDRA EXP COIL SEAT (2) 294060 EXP COIL MOUNT KIT
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HARDWARE INCLUDED

(1) 150122 5/16 BUMP STOP SPACER	(1) 605968 VIBRATITE BLUE 2ML BULLET
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TOOLS REQUIRED

HAMMER TORQUE WRENCH COIL SPRING COMPRESSOR 10MM SOCKET / WRENCH 14MM SOCKET / WRENCH	18MM SOCKET / WRENCH 19MM SOCKET / WRENCH 21MM SOCKET / WRENCH 22MM SOCKET / WRENCH 24MM SOCKET / WRENCH
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TECH NOTES

1. YOUR ICON SHOCK 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. ICON DOES NOT RECOMMEND LIFTING APPROXIMATELY 2.25" OF LIFT WITHOUT AN ICON UPPER CONTROL ARM (PN: 58461DJ OR 58561DJ). FAILURE TO DO SO CAN CAUSE DAMAGE TO AXLES.
3. FOR NON TRD MODELS, ICON RECOMMENDS USING ICON DIFF DROP (PN: 55156) OR USING TOYOTA TRD AXLES (PN: 434200C020-DRIVER, PN: 434100C020-PASSENGER). FAILURE TO DO SO COULD RESULT IN AXLE DAMAGE.
4. SWAY BAR DROP KIT (PN: 55154) REQUIRED FOR THIS INSTALLATION.
5. SEE PAGE 7 FOR EXP SHOCK GROOVE SPECS.



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. Disconnect the ABS line bracket from the UCA using a 10mm. [FIGURE 1]

FIG.1



2. Loosen the nut connecting the UCA to the steering knuckle. Separate the UCA taper from the steering knuckle using a hammer or ball joint separator. Keep the nut connected, but loose. This will allow additional freedom of movement for later steps. [FIGURE 2]

FIG.2



3. Remove the sway bar link from the sway bar using a 19mm.

4. Use a 14mm to remove the nuts connecting the factory coil over to the frame. Leave 1 nut loosely threaded on the upper mount. Use a 22mm to disconnect the factory coilover from the LCA. [FIGURE 3 & 4]

FIG.3



FIG.4



5. Support the steering knuckle using a floor jack. [FIGURE 5]

FIG.5



6. Mark the alignment cams on both the cam and the frame. Remove the alignment cam bolts using a 24mm. [FIGURE 6 & 7]

FIG.6



FIG.7



7. Swing the lower control arm out from the frame pockets and let it hang from the steering knuckle.

8. Slowly remove the coilover assembly from the truck.

9. Grind/cut the lower shock pocket on the control arm to add clearance for the new ICON coilover assembly. Removing the control arm can help make this easier, if removed, be sure the bolts go back into the same place and orientation. After cutting is complete, paint over the raw metal to prevent rust. [FIGURE 8 & 9]

FIG.8

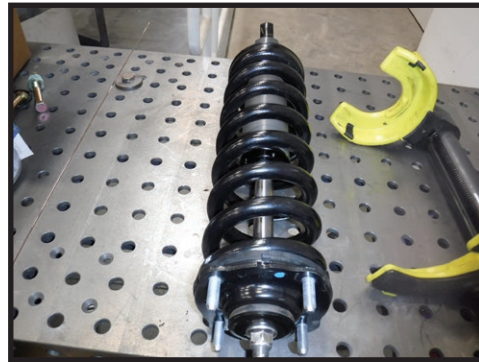


FIG.9



10. Mark the upper mount of the shock assembly in line with the rod end of the shock. This will be referenced when putting it back together. [FIGURE 10]

FIG.10

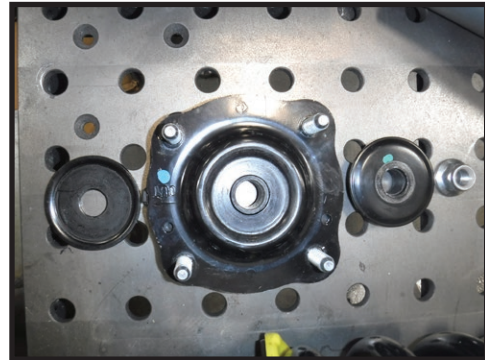


11. Use a sturdy coil spring compressor to compress the coil spring of the factory coilover assembly. Once the coil is free from it's seats, remove the shaft nut and upper coil seat/upper mount. [FIGURE 11 & 12]

FIG.11



FIG.12



12. Slide the snap ring to the desired lift height and set the coil seat in place. [FIGURE 13, 14, 15, 16]

FIG.13

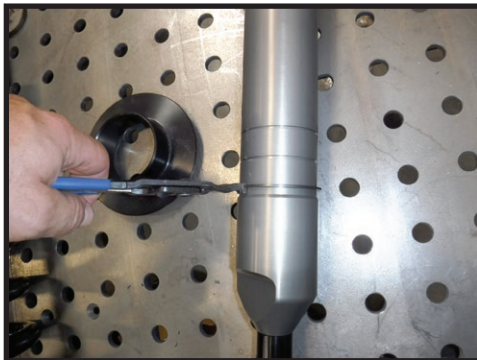


FIG.14

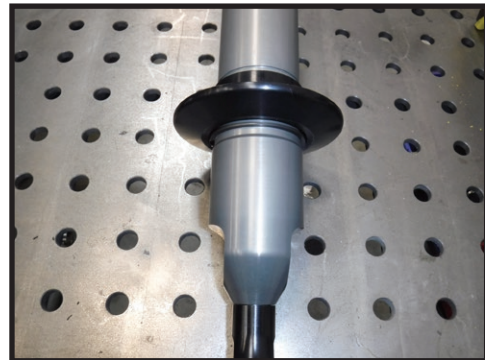


FIG.15

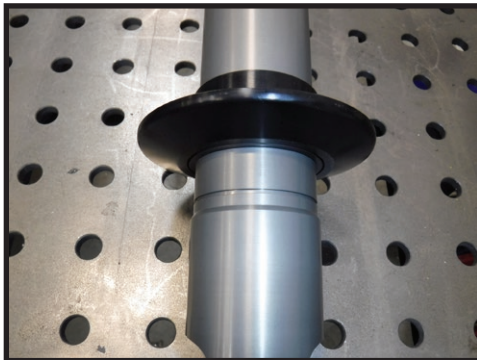
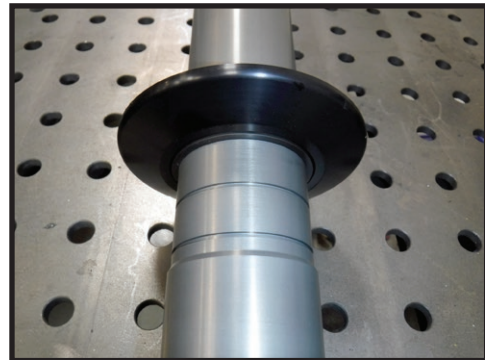


FIG.16



13. Carefully remove the shock assembly from the coil. Slide the new EXP shock assembly into place. Install the upper coil seat/upper mount and factory nut. Torque to factory spec using an 18mm. Be sure to clock the upper and lower coil seats to match the coil ends. The mark on the upper mount needs to line up with the line on the shock. [FIGURE 17 & 18]

FIG.17

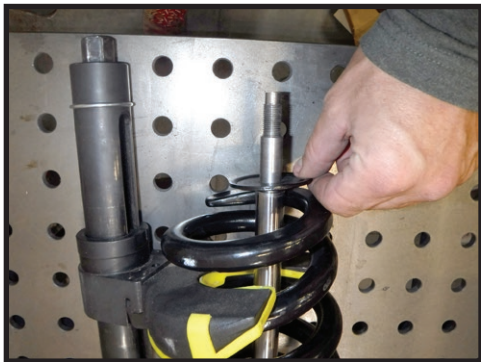
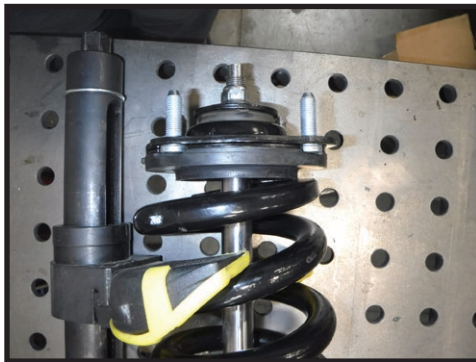


FIG.18



14. Release the coil spring compressor while ensuring proper alignment of you mark with the rod end.

15. The “OUT” arrow should be pointing 180 degrees away from the charge port of the shock. [FIGURE 19]

FIG.19



16. Place the supplied beauty plate (PN 150123) over the studs of the upper mount (optional).

17. Lift the coilover assembly up into the frame mount and fasten using the factory nuts. Torque to factory spec using a 14mm.

18. Lift the lower control arm into the frame pockets while guiding the coilover into the shock mount. Put the cam bolts in the same place and orientation as they came out. Adjust the cam bolts of the lower arms to line up the marks. Torque the bolts to factory spec using a 24mm. [FIGURE 20 & 21]

FIG.20



FIG.21



19. Install the lower shock bolt and torque to factory spec using a 22mm. [FIGURE 22]

FIG.22



20. Connect the ABS bracket to the UCA using a 10mm. [Torque to factory spec]

21. Connect the UCA to the steering knuckle using factory hardware and torque to factory spec using a 21mm.

22. To avoid damage to the coilover and mounts. It is advised to install the supplied 5/16" washer between the stock bump stop and frame. Use a large pliers to remove the stock bump stop, install the washer and blue thread locker to the threads and reinstall. [FIGURE 23]

FIG.23



23. When lifting above 2.25" install (PN: 55154, sold separately). Remove the sway bar mounting bracket from the frame using a 17mm and install the new drop spacers between the bracket and frame. Reinstall with the new bolts and torque to factory spec. [FIGURE 24 & 25]

FIG.24



FIG.25



24. Install the wheels and set the truck on the ground. Have the truck professionally aligned.



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/>



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