

PART #	DESCRIPTION
77830CP	11-UP GM HD 0-1" FRONT 2.5 VS RR CDCV

### COMPONENTS INCLUDED

(2) 174940RC 11-UP GM HD 0-1" 2.5 VS RR CDCV	(2) 611006 9/16 HD STEM BUSHING KIT
(2) 150014 80 SERIES LC NUT TAB ASSEMBLY	(1) 611051 HOSE CLAMP KIT
(2) 605929 11 X 0.178 NYLON CABLE TIE BLACK	(2) 611055 11+ GM HD STEM ADAPTER KIT
	(2) 250002 UNIVERSAL RESI BRACKET

### HARDWARE INCLUDED

(2) 605101 3/8-16 X 1.000 BOLT	
611006 HARDWARE KIT	
(2) 254200 9/16 STEM WASHER	(1) 605809 M12-1.25 JAM NUT THIN
(2) 255200 9/16 ID STEM BUSHING	(1) 605810 M12-1.25 NUT 19MM W X 10MM H
611051 HARDWARE KIT	
(4) STAINLESS STEEL HOSE CLAMP	
611055 HARDWARE KIT	
(1) 174037 11+ GM HD 2.5 STEM TOP ADAPTER	(2) 605450 9/16-12 LOCK NUT
(2) 605444 9/16-12 X 1.500 BOLT	(4) 605455 9/16 FLAT WASHER

### TOOLS REQUIRED

JACK	3/4" SOCKET / WRENCH
JACK STANDS	13/16" SOCKET / WRENCH
TORQUE WRENCH	7/8" SOCKET / WRENCH
5/16" SOCKET / WRENCH	19MM SOCKET / WRENCH
9/16" SOCKET / WRENCH	21MM SOCKET / WRENCH

### TECH NOTES

1. THESE SHOCKS ARE INTENDED FOR A MAX FENDER TO HUB CENTERLINE MEASUREMENT OF 25.13". EXCEEDING THAT MEASUREMENT WILL DIMINISH RIDE QUALITY AND CAN POTENTIALLY DAMAGE SHOCKS. DAMAGE CAUSED BY TOO MUCH PRELOAD WILL NOT BE COVERED UNDER ICON'S WARRANTY POLICY.

2. ICON DOES NOT RECOMMEND AN AFTERMARKET TORSION KEY ON 2011-UP 2500 AND 3500 TRUCKS AS THEY OVER-LIFT THE VEHICLE AND CANNOT BE ADJUSTED PROPERLY. THERE IS MORE THAN ENOUGH RANGE ON THE STOCK TORSION KEY TO ACHIEVE THE MAXIMUM LIFT HEIGHT RECOMMENDED.

3. 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.

4. A LEVEL STANCE IS NOT ACHIEVABLE WITHOUT LOWERING THE REAR OF THE VEHICLE. RAISING THE FRONT BEYOND THE RECOMMENDED LIFT HEIGHT WILL VOID THE ICON WARRANTY.



### 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. Remove the front wheels.
2. Using a jack, slightly lift the lower control arm to prevent the suspension from being at full droop.
3. Loosen the OEM bar pin nuts on the top shock mount. The fender well can be folded back for easier access to the top of the bolt heads.
4. Use a 21mm socket/wrench to loosen the lower shock mount.
5. Once the lower shock mount is removed, the shock can carefully be slid out from under the upper control arm.

**6.** Remove the ABS connector from the front side of the shock bucket as shown. [FIGURE 1]

FIG.1

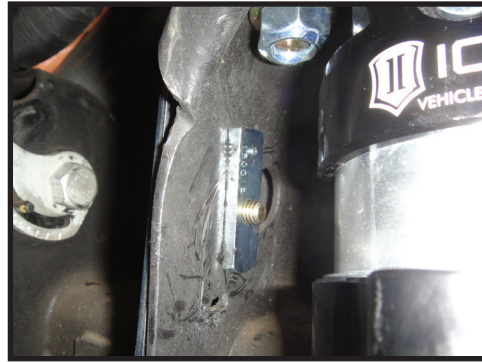


**7.** The supplied (250002) reservoir bracket will be installed into the large hole where the ABS clip was removed. Use the supplied (150014) nut tab and 3/8" bolt to fasten the reservoir bracket to the bucket as shown. [Torque to 45 ft-lbs] [FIGURE 2 & 3]

FIG.2



FIG.3



**8.** Using the supplied nut zip tie, loop it through the hole and back onto itself to fasten the ABS connector as shown. [FIGURE 4 & 5]

FIG.4

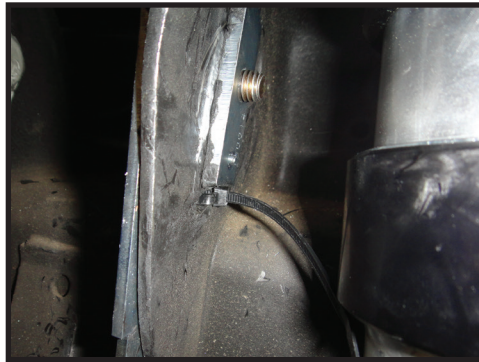
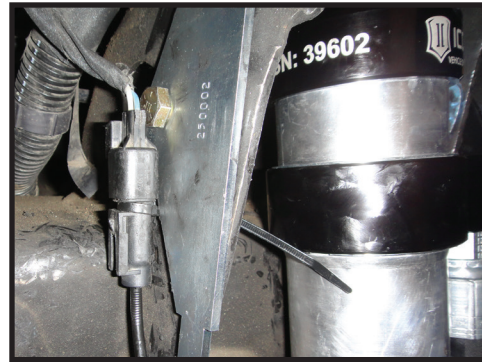


FIG.5



**9.** Install the supplied (174037) stem top adapter on top of the shock bucket, taking care to note that the middle hole is offset to bring the shock outward for clearance. Using the supplied 9/16" hardware, fasten the adapter mount using a 13/16" wrench and 7/8" socket. [FIGURE 6 & 7]

FIG.6



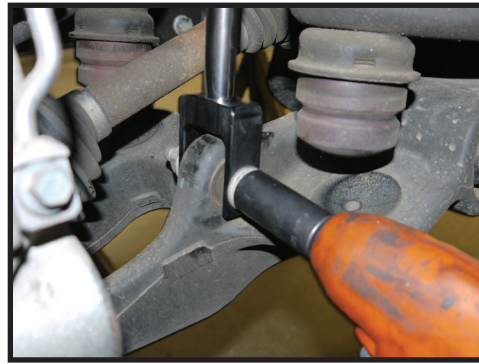
FIG.7



**10.** Slide the shock into the shock mount making sure to have the bushings on prior to final installation.

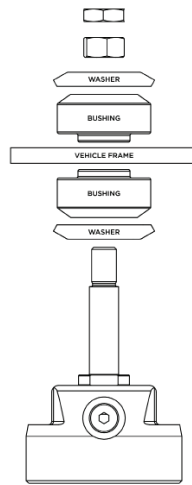
**11.** Attach the shock to the lower shock mount. Fasten using the factory hardware and 21mm socket/wrench. [Torque to factory spec]  
**[FIGURE 8]**

**FIG.8**



**12.** Route the remote reservoir forward by rotating the manifold in the proper direction.

**13.** Install stem hardware as seen in diagram. Install (605810) tall nut and fasten bushing assembly until 3-4 threads are exposed for the (605809) jam nut. Install (605809) nut and torque to 50 ft-lbs while holding (605810) with a 19mm wrench. Do not overtighten bushing assembly as this can lead to premature bushing wear. Failure caused by incorrect installation of bushings is not covered under ICON's warranty policy.



**14.** With the shock mounted on the lower control arm, the upper mount tightened to the shock bucket, and the shock stem tightened to the mount, slowly lower the jack to check for any interference with the ABS line.

**15.** Route the shock reservoir up under the control arm and against the bracket. Fasten using the supplied hose clamps and a 5/16" nut driver.

**16.** Repeat steps 2-15 on the opposite side.

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

**18.** Have the vehicle 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/>

## ICON VEHICLE DYNAMICS

PERFORMANCE SUSPENSION SYSTEMS AND SHOCK ABSORBERS

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