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PART #	DESCRIPTION
214205	14-UP RAM 2500 4.5" BOX KIT

COMPONENTS INCLUDED	
(1) 214015 03+ RAM HD SWAY BAR DROP (DRVR) (1) 214016 03+ RAM HD SWAY BAR DROP (PASS) (1) 214103 14+ RAM HD RADIUS ARM DROP (DRVR) (1) 214104 14+ RAM HD RADIUS ARM DROP (PASS)	(2) 214105 14+ RAM 2500 2" REAR COIL SPACER (2) 214112 14+ RAM HD REAR SWAYBAR LINK (2) 217125 14+ RAM 2500 REAR BUMP STOP SPACER (1) 214205H 14+ RAM 2500 4.5" HARDWARE KIT
HARDWARE INCLUDED	
214205H HARDWARE KIT	
(4) 139001 SLEEVE .625 X .508 X 1.625 (2) 214107 14+ RAM HD RADIUS ARM BADGE (2) 217122 14+ RAM HD X MEMBER SHIM (2) 217123 14+ RAM HD TRIPLE NUT TAB (8) 297024 SWAY BAR URETHANE BUSHING (4) 605133 3/8 FLAT WASHER (8) 605203 7/16-14 X 1.000 BOLT (8) 605220 7/16-14 LOCK NUT (16) 605230 7/16 FLAT WASHER	(4) 605312 1/2-13 X 4.500 BOLT (4) 605330 1/2 FLAT WASHER (2) 605814 M18-2.5 X 120MM BOLT (2) 605832 M18 FLAT WASHER (2) 605833 M18 X 2.5 LOCK NUT (4) 605834 M10-1.50 X 70MM BOLT (4) 605835 M12-1.75 X 70MM BUTTON HEAD BOLT (4) 605838 M12-1.75 X FLANGED LOCK NUT
TOOLS REQUIRED	
JACK JACK STANDS TORQUE WRENCH HAMMER DRILL BLACK PAINT 3/8" SOCKET / WRENCH (12PT) 9/16" SOCKET / WRENCH 5/8" SOCKET / WRENCH 3/4" SOCKET / WRENCH	8MM ALLEN WRENCH 8MM SOCKET / WRENCH 10MM SOCKET / WRENCH 12MM SOCKET / WRENCH 13MM SOCKET / WRENCH 15MM SOCKET / WRENCH 16MM SOCKET / WRENCH 17MM SOCKET / WRENCH 18MM SOCKET / WRENCH 21MM SOCKET / WRENCH 24MM SOCKET / WRENCH 27MM SOCKET / WRENCH
TECH NOTES	
<p>1. <b>ICON BOX KIT (214205) MUST BE USED WITH ICON FRONT (214203) TRACK BAR. ICON REAR (214204) TRACK BAR IS RECOMMENDED, BUT NOT REQUIRED.</b></p> <p>2. <b>FRONT BUMP STOPS AND BRAKE LINE RELOCATION BRACKETS ARE INCLUDED IN (214201) COIL SPRING KIT, WHICH ARE REQUIRED FOR INSTALLATION OF (214205) BOX KIT.</b></p> <p>3. <b>FOR REAR AIR RIDE EQUIPPED 2500 VEHICLES: ICON KIT (214210) IS REQUIRED. FAILURE TO USE (214210) CAN CAUSE PERMANENT AIR BAG DAMAGE. MAXIMUM SHOCK LENGTH WITH INCLUDED 2.00" LIFT SPACER IS 25.188".</b></p> <p>4. <b>DO NOT REMOVE REAR SHOCKS FROM AIR RIDE EQUIPPED VEHICLES WITHOUT REMOVING AIR FROM SYSTEM FIRST!</b></p> <p>5. <b>MODELS EQUIPPED WITH 2 PIECE DRIVESHAFTS WILL REQUIRE A (214211) CARRIER BEARING DROP KIT.</b></p>	



WARNING!
<p><b>** 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!</b></p> <p><b>** ICON VEHICLE DYNAMICS RECOMMENDS THAT YOU EXERCISE EXTREME CAUTION WHEN WORKING UNDER A VEHICLE THAT IS SUPPORTED WITH JACK STANDS.</b></p> <p><b>** 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.</b></p>

## INSTALLATION

1. Open the hood and disconnect both negative battery terminals using an 8mm socket/wrench.
2. Remove the sway bar links from the sway bar using an 8mm and 18mm socket/wrench. Leave the links connected to the differential. [FIGURE 1]

FIG.1



FIG.2



3. Remove the sway bar from the frame using a 15mm socket/wrench. Mark the passenger side of the sway bar and take note to prevent the sway bar from being accidentally flipped during reinstallation. [FIGURE 2]

**4.** Remove the upper track bar bolt from the frame using a 27mm socket/wrench. Use caution as the truck may shift when the bolt is removed. [FIGURE 3]

FIG.3



**5.** Using a properly rated jack (or properly rated vehicle lift), raise 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.

**6.** Support the axle housing with a heavy duty jack. With the axle supported, remove the lower shock bolt using a 21mm socket/wrench. The differential is extremely heavy and is limited by the shocks, so make SURE that the differential is securely supported by the jack. [FIGURE 4]

FIG.4



**7.** Slowly lower the jack until the coil springs become loose enough to slide out. Be careful not to damage any brake lines, ABS wires or differential locker wires (Power Wagon only).

**8.** Lift the axle and reconnect the lower shock mounts so that the shocks will hold the weight of the differential.

**9.** Remove the transfer case skid plate using a 13mm socket/wrench. [FIGURE 5]

FIG.5



**10.** Place a jack under one of the radius arms as a safety precaution.

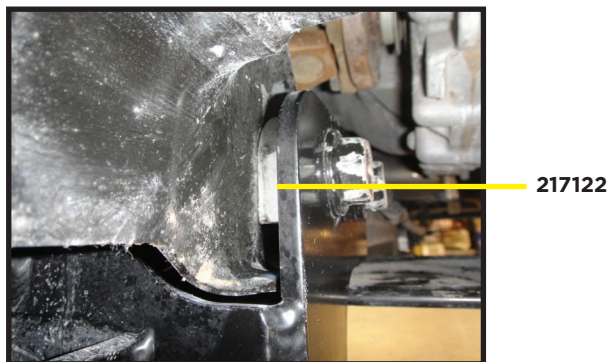
**11.** Remove the bolts connecting the radius arms to the frame using a 27mm socket/wrench. Use caution as the differential may shift. Rotate the differential backward so that the radius arms rotate out of the frame pockets.

**12.** Use a jack to support the transmission crossmember, then remove (2) bolts from the driver side of the crossmember using a 24mm socket/wrench. Do not remove all four bolts (driver and passenger) without a support under the crossmember. ICON recommends installing one side at a time.

**AIR RIDE NOTE:** Discharge the air system via the factory service port (according to the RAM service manual). Remove line from the tank after the system has been discharged. Remove the tank from the frame to allow for installation of the passenger side radius arm bracket. Set tank aside as it will be reinstalled later.

**13.** Slide the driver's side radius arm drop bracket (214103) up into the radius arm pocket in the frame and line up the holes. Slide the crossmember shim (217122) to fill the gap between the bracket and the back of the crossmember. [FIGURE 6]

FIG.6

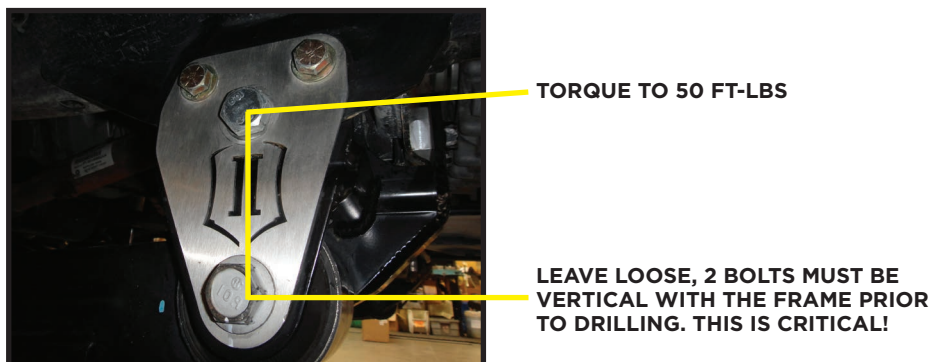


**14.** Slide the factory bolts through the bracket, shim, and crossmember, leave the nut finger tight for now.

**15.** With the bracket (214103) loose, install the drill template (214107) using a (605814) bolt through the template, bracket, and a factory bolt through the radius arm hole. Tighten the transmission crossmember bolts using a 24mm socket/wrench [Torque to factory spec]. Torque the factory frame radius arm bolt to 50 ft-lbs as pictured and leave the factory bolt installed loosely in the drop hole. [FIGURE 7]

**16.** The factory radius arm nut and bolt will be reused to fasten the radius arm. The nut will need the tab ground off so it will fit in the supplied bracket.

FIG.7



**17.** Use a centering punch to mark the (2) upper holes in the frame. Remove the drill template and drill the holes out to 17/32". Make sure the drill is perpendicular to the surface of the frame, then continue drilling the holes through the other side of the frame bracket. If there are any burrs from drilling, remove them with a file or deburring tool. Installation of (217123) will be difficult if any burrs are present where the drill punched through.

**18.** Remove all parts and paint raw surfaces to prevent rust.

**19.** After the paint has dried, reinstall radius arm drop bracket (214103).

**20.** Nut plate (217123) is not symmetrical and has a witness mark to notate which end goes towards the front of the vehicle. Hold the nut plate (217123) up through the narrow opening on the inside, underneath the bracket. Make sure that the nut plate is oriented correctly (holes align properly) before installing. Thread the supplied bolts (605312) into the nut plate. Slide the supplied (605814) bolt through the bracket and thread it into the nut plate. Once all of the bolts have a few threads of engagement. [Torque crossmember hardware to factory spec] [Torque nut plate hardware to 75 ft-lbs] (3/4", 24mm, 27mm sockets/wrenches) [FIGURE 8]

FIG.8



**21.** Repeat steps 12 - 20 on passenger side.

**22.** Reinstall air tank.

**23.** Slide the radius arms into the pockets in the drop brackets and fasten using a 27mm socket/wrench. Do not torque bolts yet.

**24.** Install the transfercase skid plate using a 13mm socket/wrench. [Torque to factory spec]

**25.** Support the axle with a jack and remove the factory shocks using an 18mm and 21mm socket/wrench.

**26.** Slowly lower the axle enough to install the new coil springs.

**27.** Slide the new springs into place. Make sure the coil marked “D” goes on the DRIVER side, and the coil marked “P” goes on the PASSENGER side. This is critical for proper coil fitment. Be sure the coil isolator is installed on the top of the coil with the locator nipple in the frame hole. [FIGURE 9]

FIG.9



**28.** Slowly raise the axle just before the springs start to compress. Make sure the springs are properly seated before compressing them.

**29.** Lift the front axle enough to allow for the installation of the front shocks.

**30.** Install the front shocks using the supplied installation instructions. (217803)

**31.** Remove the factory track bar and replace it with ICON (214203) track bar. Specific installation instructions are included in the (214203) box. [FIGURE 10 AND 11]

FIG.10



FIG.11



**32.** In the (214201) coil spring box you will find front bump stop spacers and hardware.

**33.** Remove the brake line tab from the top of the radius arm, then remove the brake line tab from the brake line using a 10mm socket/wrench.

**34.** Install the supplied brake line tab on the brake line and mount the brake line to the differential using a 10mm socket/wrench. [Torque to factory spec] [FIGURE 12]

FIG.12



**35.** Pull or pry the stock bumpstop out of its pocket.

**36.** Slide the bumpstop retainer plate (214008) up and backwards. It should lock into place and catch the original retaining tabs. [FIGURE 13 AND 14]

FIG.13



FIG.14



**37.** Mount the bumpstop spacer (217124) to the frame threading it into the retainer plate using the supplied 3/8" hardware, tighten using a 9/16" socket/wrench. [Torque to 30 ft-lbs] Lightly grease and press the bumpstop into the pocket. [FIGURE 15 AND 16]

FIG.15



FIG.16



**38.** Install the sway bar drop brackets (214015 & 214016) to the chassis using the factory hardware and tighten using a 15mm socket/wrench. The open side goes toward the center of the truck. [Torque to factory spec] [FIGURE 17]

FIG.17



**39.** Mount the sway bar to the drop bracket using the supplied 7/16" hardware with a 5/8" socket/wrench. [Torque to 50 ft-lbs]

**40.** Connect the sway bar to the stock sway bar links using an 8mm and 18mm socket/wrench. [Torque to factory spec]

**41.** Install front wheels.

**PLACE VEHICLE ON THE GROUND:**

**42.** Tighten the radius arm bolts [Torque to factory spec]. Tightening the radius arm bolts while vehicle is in the air will result in premature bushing wear and will alter ride/handling characteristics.

**43.** With the vehicle on the ground, center the front axle by adjusting the track bar adjusting collar. Once the differential is centered, turn the adjusting collars until the slits in both the collar and the track bar line up. Tighten the adjusting collar pinch bolts using a 3/8" socket/wrench (12pt), alternating between the two bolts, back and forth 2-3 times in order to evenly apply pressure to secure the collar. [Torque to 45 ft-lbs]

**44.** This lift will affect caster and steering wheel alignment. Caster can be adjusted using the factory adjustment cams on the radius arm. Point the tires straight ahead, make sure the steering column is not locked, loosen the clamps on the drag link turn buckle and rotate the turn buckle to center the steering wheel. The steering wheel being off center can affect computer sensor readings which will affect traction control. A full alignment must be performed by a professional technician.

**REAR SUSPENSION:** If not installing ICON (214204) track bar, skip to step 45. If installing on a RAM 2500 equipped with air ride, refer to (214210) instructions.

**45.** With the vehicle on the ground, disconnect and remove the rear track bar using a 21mm socket/wrench.

**46.** Using a properly rated jack (or properly rated vehicle lift), raise 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.

**47.** Disconnect the rear sway bar links from the sway bar and the differential using a 8mm and 18mm socket/wrench, remove links.

**48.** Using a jack, compress the rear suspension slightly.

**49.** Remove the rear shocks using an 18mm and 21mm socket/wrench.

**50.** Lower the differential slowly until the coils become loose.

**51.** Remove the coils and the coil isolators. **[FIGURE 18] NOTE:** Drilling the factory hole to the proper size *may* be required. If applicable, paint to prevent corrosion.

FIG.18



FIG.19



**52.** Set the coil spacers (214105) on the lower coil seats. Bolt them to the seats using the existing holes with the supplied 7/16" hardware. Tighten using a 5/8" socket/wrench. [Torque to 50 ft-lbs] **[FIGURE 19]**

**53.** Set the lower coil isolator on the spacer and set the upper coil spacer on the top of the coil. Then position the coil on the lower coil seat.

**54.** Lift the axle enough to allow for installation of the rear shocks.

**55.** Install the new ICON rear shocks according to the included instructions. **[FIGURE 20]**

FIG.20



**56.** Remove the rear bump stops from the frame using a 16mm socket/wrench.

**57.** Install the bump stop spacer (217125) using the supplied 10mm hardware and a 17mm socket/wrench. [Torque to 40ft-lbs] **[FIGURE 21]**

FIG.21



**58.** Grease the supplied (297024) hat bushings for the sway bar links and slide them in. Slide the (139001) sleeve through the bushings.

**59.** Install the sway bar links with the supplied 12mm hardware using an 8mm allen wrench, and 18mm socket/wrench. [Torque to 65 ft-lbs]

**60.** Install the rear wheels and lower the vehicle back to the ground. [Torque all lugs to factory spec]

**ON THE GROUND:**

**61.** Reinstall factory track bar [Torque to factory spec] Skip to step 62. If you purchased ICON (214204) track bar, skip to step 60.

**NOTE:** Depending on vehicle options/configurations, the axle can be shifted as much as 1/4" when retaining the stock track bar.

**62.** Install the ICON rear adjustable track bar (214204) using the factory hardware. Make sure both rod ends have an equal amount of thread engagement, and adjust the length until the bolts can be installed. Tighten using a 21mm socket/wrench. [Torque to factory spec]

**63.** Center the rear axle by adjusting the rear track bar. Once the differential is centered, check to make sure the rod ends are vertical, then tighten the jam nuts. [Torque to 300 ft-lbs]

**64.** Loosen all rear link bolts to reset the bushings at the new ride height and then retighten [Torque to factory spec]. Failure to do this will result in premature bushing wear and alter the ride/handling characteristics of the vehicle.

**65.** Check the torque on all hardware. Drive the truck 1-2 miles and retorquer all nuts, bolts and lugs.

***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.

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.

## **ICON VEHICLE DYNAMICS**

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