

Installation Instructions (Page 1)

2019+ Mercedes Sprinter 2500/3500 4WD 2.5 Front Coilover

King Shocks 12472 Edison Way Garden Grove, CA 92841 714-530-8701 <u>www.kingshocks.com</u>

Front Parts List:

2-2.5 Front Coilovers (25001-299A)

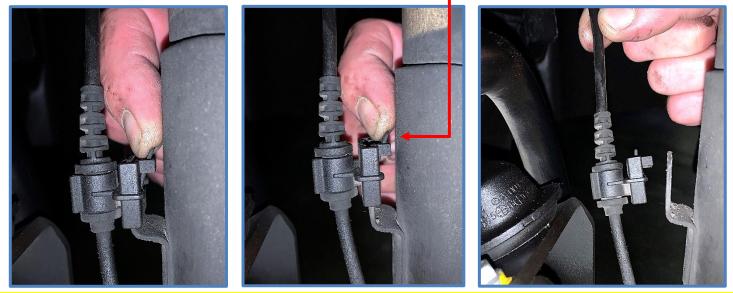
Mercedes Sprinter 4WD DEM PERFORMANCE SERIES



WARNING! – WHEEL & TIRE FITMENT! Please be aware of potential fitment issues BEFORE installing kit. Wheel spacers or aftermarket wheels may be required. If your wheel offset is greater than 30mm, a spacer kit may be required for the tire to clear the coilover. (Depending on tire size) Sprinter 2500 - Fits 275/70R17 on ET30 Wheel. Fits 275/70R17 on ET50 Wheel with 20mm Wheel Spacers. Sprinter 3500 requires 16mm Wheel Spacers to work with stock wheel and tire. Larger tires may require more spacer or aftermarket wheels.

FRONT: With the vehicle on level ground, set the emergency brake and block the rear tires. Using a floor jack, raise the front end and support the frame rails with jack stands for safety. Remove front tires. **NOTE: Never work under an unsupported vehicle.**

1. Remove the ABS line from the shocks on both sides of vehicle. Push the tab on the ABS line holder to release the clip, then pull up and remove from shock.



IMPORTANT: Read all instructions thoroughly from start to finish before beginning the install. Check parts list and make sure all parts are included in the kit. If the instructions are not properly followed severe frame, driveline and/or suspension damage may result. Check for frame and suspension damage prior to installation.

This kit does not require welding. Do not weld on any component. Welding may void the warranty and/or cause the product to fail. If any parts are missing, or for tech assistance; Contact King Off Road Racing Shocks: 714-530-8701 Most important after the install, Feel the difference and have fun.

Tools Required:

Floor Jack/Jack Stands Metric Wrench/Socket Set



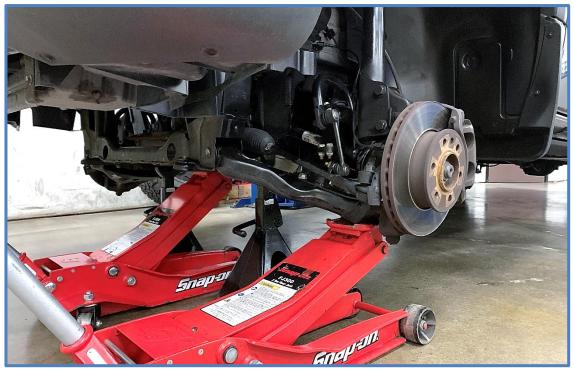


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2. Keep a jack under the lower control arm while removing and installing shocks.



3. Remove the nuts from the lower mounting bolts using a 21mm wrench and socket. Remove the nuts but leave the bolts in place for now to hold shock.



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4. Upper mounting bolts are located inside cab. <u>Left side</u> – Remove the two screws from the floor trim using a #25 Torx bit. (Some models may have three screws) Set trim piece aside.









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5. Pull the floormat up to access the upper mounting bolts.



6. Remove upper mounting bolts using a 13mm socket. Save hardware, you will reuse hardware and steel plate to install King shocks.



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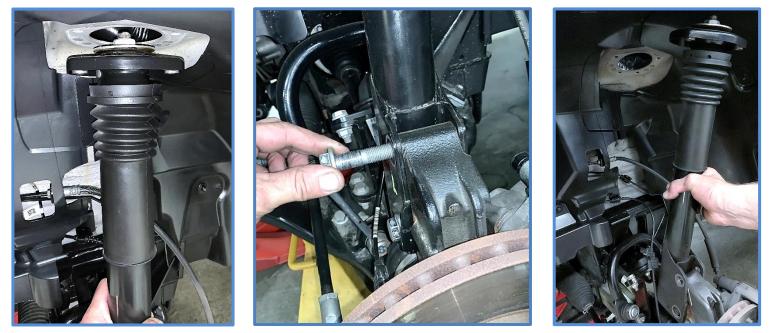


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7. Once the upper mounting bolts have been removed you can lower the jack, remove the lower mounting bolts and remove shock from vehicle.



8. <u>**Right side**</u> – Remove the floor mat/tool tray cover piece under the dash by turning the two fasteners 90 degrees using a flat screwdriver, then pull the cover out and set aside.





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9. Pull the floor mat back and remove the tool tray to access the upper mounting bolts for the right side. Remove upper mounting bolts, lower jack, remove lower mounting bolts, then remove shock from vehicle.







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10. <u>Prepare shocks for installation</u> – Install King Shocks Coilover Kit reusing the factory upper mount from the factory shocks. Inspect your upper mounts and replace them if necessary. When replacing upper mounts we recommend using only Mercedes-Benz genuine OEM parts. Remove upper mount from the factory shock by holding the shaft with a 7mm hex key and remove the nut using a 24mm wrench. Remove nut, washer, upper mount, and dust cover.



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11. Remove washer from dust cover. You will reuse the washer to assemble the King Coilovers.



12. Assemble King coilovers using the OEM parts as shown in the following steps –
First remove the nut, cardboard sleeve and washer from the King Shock assembly. Save the nut, you will use the new nut to assemble upper mount. (*Discard the cardboard sleeve and washer, those are for shipping purposes only*) Place the large washer from the dust cover onto the shaft with flat side facing up as shown below.



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13. Place the upper mount on the shaft as shown below.







14. Place the upper washer on top of the upper mount with the flat side facing down.



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15. Use the new nut that is provided with the shock to secure the upper mount. Hold shaft using a 7/16 wrench or socket and tighten nut using a 24mm wrench.





16. <u>Adjust preload and tighten coil nut</u> – Loosen the pinch bolt on the coil nut using a 3/16 hex key and spin the coil nut up until the spring measures 9.75". This will set up most vehicles to be at stock ride height to about a 1/2" of lift. Ride height will vary from vehicle to vehicle depending on different configurations and overall weight. Install shocks and check ride height, then make final adjustments on the vehicle to dial in desired ride height. Make sure to tighten the coil nut pinch bolt when you are done making adjustments.



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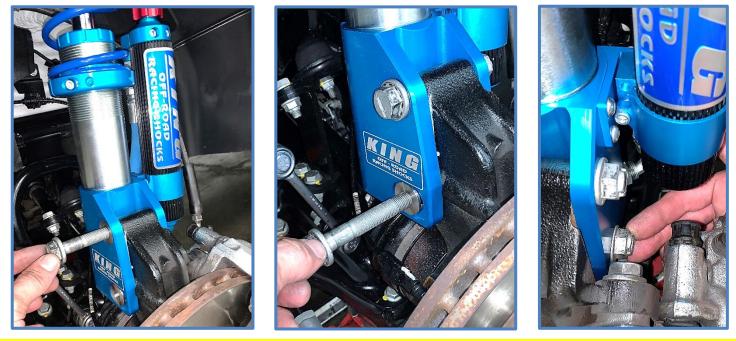
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17. <u>Install shocks</u> – Shocks are side specific, make sure you are installing shocks on the correct side, see final install pics for reference. Place shock on knuckle with reservoir facing towards the rear of vehicle.



18. Make sure the steel inserts are in place and install the factory bolts through the lower mount. Thread nuts on but do not tighten yet.



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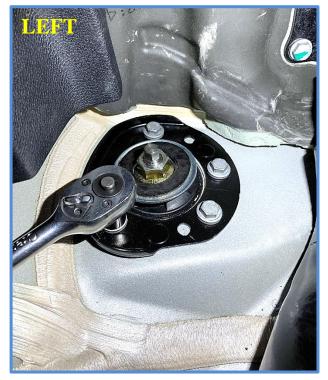
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19. Jack the lower control arm up while maneuvering the upper mount into position.





20. Reuse the factory upper mount plate inside the cab and the factory bolts to attach the upper mount. Install bolts and tighten to factory specs. When you are finished tightening upper mounts, replace tool tray, floor mats and trim pieces.



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21. <u>**Tighten lower mount**</u> – Push top of knuckle inward so the bottom bolt in the slotted hole is to the outside of the slotted hole (towards tire). Tighten lower bolt first, then tighten upper bolt. Torque both bolts to factory specs. You will need to get a professional alignment after this installation. This will get you to the alignment shop but do not drive at highway speeds until the vehicle has been properly aligned.





22. Attach ABS line to the left shock – Slide ABS line holder onto tab on back side of shock until it clips in.



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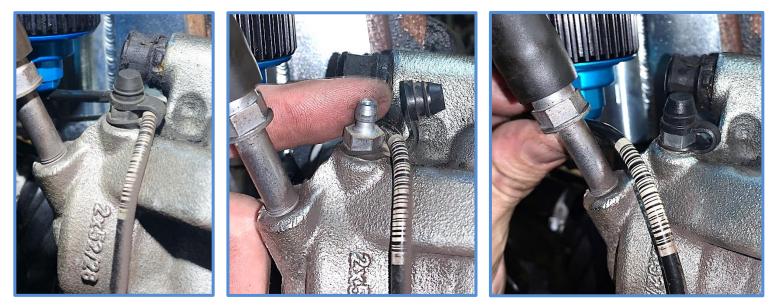
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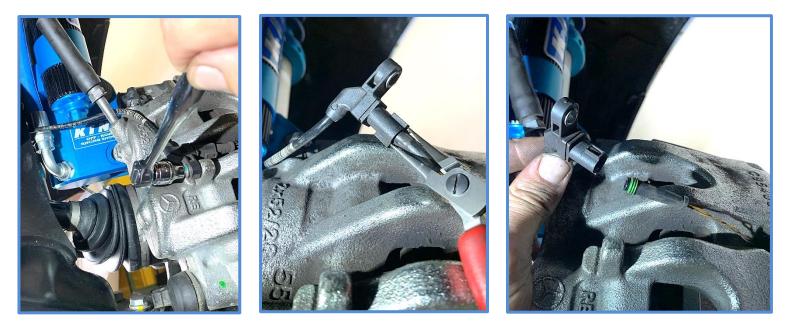
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23. <u>Attach ABS line to the right shock</u> – You will need to disconnect the brake wear sensor going to the brake and reroute the line between the shock and the reservoir hose.

First remove the brake sensor line from where it's being held by the brake bleeder cover.



Unbolt the sensor from the caliper and disconnect sensor.



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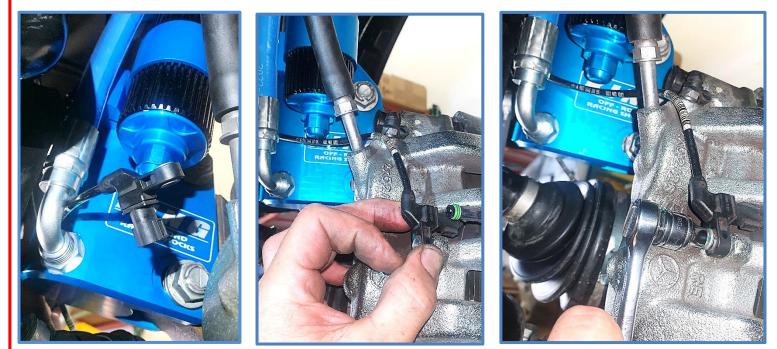


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23. <u>Attach ABS line to the right shock continued</u>... reroute brake wear sensor line between shock and hose as shown and reconnect the sensor. Reattach sensor to caliper. After rerouting brake sensor line, slide the line
 holder onto the tab on back side of shock until it clips in.



The rerouted brake sensor line should look like photos below.



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DOUBLE CHECK ALL HARDWARE:

Make sure everything is installed correctly and all hardware is tight before reinstalling tires. Install tires, remove jack stands and lower vehicle to the ground. Recheck all hardware and lug nuts after 100 miles and periodically after that as part of routine maintenance.

Alignment is critical:

A professional alignment must be performed before driving this vehicle at highway speeds. Do not attempt to drive your vehicle after this install without having the alignment readjusted to factory specs!



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