Latest Revision: 3/30/2022



SDHQ Motorsports 190 S McQueen Rd Ste 109 Gilbert, AZ 85233 Phone: 480-633-2929

# **Product Packing List**

<u>Product:</u> <u>SDHQ-54-9201-65</u>

Description: 2010+ Toyota 4Runner and Lexus GX 460 Billet Power Steering Reservoir

(1) Universal Billet Power Steering Reservoir	SDHQ-00-9201-U1	
(1) SDHQ Power Steering Reservoir Mount	SDHQ-54-9202-G5	
(1) GX 460 AC Relocation Mount	SDHQ-56-9202-150	
(1) Hardware Package	SDHQ-54-9201-65-A	
(1) Quart of Power Steering Fluid		
(1) 13" Power Steering Hose with 90° Fitting		
(1) 15" Power Steering Hose		
(2) 7" Power Steering Hose		
(1) 5/16" - 18 x 1 ¼" Grade 8 Hex Head Bolt		
(2) 5/16" Grade 8 Washers		
(1) 5/16" – 18 Grade 8 Locknut		
(1) -10 ORB to AN-10 Flare Fitting		
(1) AN-10 Push Lok 90° Fitting		

Inspected and Packaged By:	Date:	
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#### Included in SDHQ-00-9201-U1:

- (1) SDHQ Power Steering Reservoir Cap
- (1) SDHQ Power Steering Reservoir Body
- (1) Hardware Package
  - (1) AN-6 Anti-Cavitation Fitting
  - (1) SDHQ 3D Printed Baffle

SDHQ-00-9201-U1-B SDHQ-00-9201-U1-C



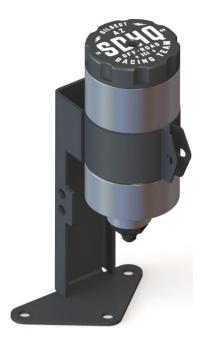
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## **INSTALLATION INSTRUCTIONS**

<u>Product:</u> <u>SDHQ-54-9201-65</u>

Description: 2010+ Toyota 4Runner and Lexus GX 460

Billet Power Steering Reservoir





#### Parts List

- (1) Universal Power Steering Reservoir **SDHQ**-00-9201-U1
- (1) SDHQ Power Steering Mount SDHQ-54-9202-G5
- (1) GX460 AC Relocation Mount **SDHQ**-56-9202-150
- (1) Hard-ware Package SDHQ-54-9201-G5-A

## Hardware List

- (1) Quart of Power Steering Fluid
- (1) 13" Power Steering Hose with 90° Fitting
- (1) 15" Power Steering Hose
- (2) 7" Power Steering Hose
- (1) 5/16" 18 x 1 1/4" Grade 8 Hex Head Bolt
- (2) 5/16" Grade 8 Washers
- (1) 5/16" 18 Grade 8 Locknut
- (1) AN-10 Flare Fitting
- (1) AN-10 Push Lok 90° Fitting

## Required Tools

**Hand Pump Siphon** Oil Catch Container Shop Rags

10mm, 12mm socket Ratchet

3", 6" Extension

**Bent/Straight Needle Nose** Pliers

#6, #10 and adjustable AN Wrenches

or 11/16", 1" and 1 1/4" Wrenches

#### Tech Notes

Exercise extreme caution when working on a vehicle's power steering system. Fluids can be hot and/or pressurized. Check the reservoir fluid levels at operating temperatures after 25 – 50 miles of driving. AN Wrenches are highly recommended for install, the equivalent standard wrenches would work also. Power Steering Filter (SDHQ-00-9204-U1) is an optional upgrade.

Approx. Install Time: 3+ Hours

For 4Runner install, trim the 13" and 15" supplied hoses to match factory length.

\*\*\*READ ALL INSTRUCTIONS THOROUGHLY FROM START
TO FINISH BEFORE BEGINNING INSTALLATION! \*\*\*

#### Installation Instructions:

1. Unbox all parts and verify all parts are accounted for. Familiarize yourself with the parts.

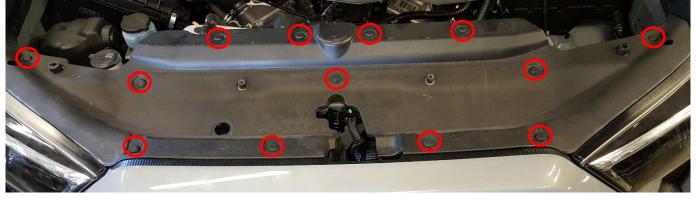


4Runner Hoses with factory clamps installed.

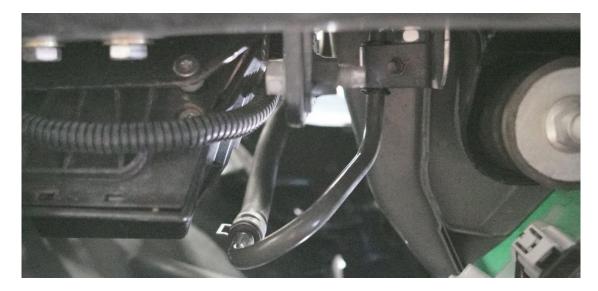
2. Preparing your truck. Locate the power steering reservoir near the intake on the front passenger side of your engine bay. Remove the power steering fluid from the reservoir using a hand pump siphon. Remove the air pump hose clamp and hose from the air pump. Remove the skid plate.



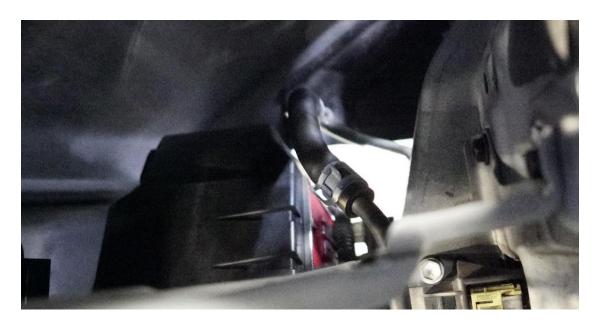
**3.** Remove the plastic cover shown below. Remove all of the plastic clips by pressing the center button. This will release the clip so it can be pulled out.



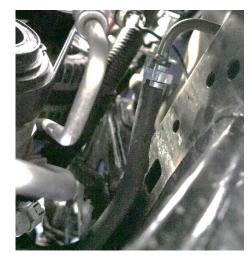
4. Installing new power steering hoses. There are (4) factory hoses that will be replaced. The first hose that will need to be removed is located in front of the passenger tire, behind the bumper skin and shown in the first picture below. Move the bottom hose clamp off the factory hard line. With your oil catch container below the hose, remove the hose from the hard line. Once the fluid has drained, move the top hose clamp off the factory hard line by accessing it behind the passenger headlight as shown in the second picture below. Remove the factory hose entirely now. Remove the (2) hose clamps from the old power steering hose and place them on (1) 7" power steering hose. Lube the ends of the new power steering hose with power steering fluid and install it in place of the factory hose. Place the factory clamps back over the hard lines to secure the hose.



FRONT OF VEHICLE



- **5.** The second power steering hose to be replaced is in the same location as Step 4, just on the driver side. Follow the same procedure as Step 4.
- 6. The third power steering hose to be replaced is on the inside of the driver side frame, right above the front cross member as shown below, left. Move the hose clamp and with your catch container ready, remove the factory hose off the hard line. Follow the hose back towards the power steering rack. With needle nose pliers, remove the hose clamp and hose from the steering rack. Remove both hose clamps from the power steering hose. Place the hose clamps onto the 15" power steering hose. Lube one end of the power steering hose and install it onto the steering rack. Secure it with a hose clamp. Install the hose over the hard line and secure the hose with a hose clamp. The final power steering hose will be removed in Step 14.



For **GX 460**s the hardline attached to this hose will need to be unbolted from the chassis for extra maneuverability. **Pro Tip**: Removing the fitting connecting the hose to the steering rack with the power steering hose can help with removal and installation of the new hose (shown in Step 1). Use a 17mm stubby wrench to loosen and remove the fitting. Replace the fitting on the new hose and install back on the vehicle, being sure the O-ring on the fitting is still attached.

- 7. Removing the factory power steering reservoir. Take note of the orientation of the power steering hoses. The larger diameter hose will be installed on the new power steering reservoir in the same orientation. The smaller hose will be removed in Step 8. Move the hose clamps down the power steering hoses. Remove the hoses from the factory reservoir. Remove the (3) 10mm bolts securing the reservoir mount. Remove the power steering reservoir and mount from the vehicle.
- 8. Assembling the SDHQ Power Steering Reservoir. The SDHQ Power Steering Reservoir and fittings need to be assembled before installing into the mount. Locate the SDHQ 3D Printed Baffle, the SDHQ Power Steering Cap and the SDHQ Power Steering Body as pictured right. Verify the o-ring on the SDHQ Power Steering Body and Cap. Place the 3D Printed Baffle in the Body and tighten the Cap onto the Body.



9. Locate the AN-6 Anti-Cavitation Fitting and the AN-10 Flare Fitting. Check for the O-rings on these fittings, arrowed in red below. Lube the threads of the AN-6 Anti-Cavitation Fitting with assembly lube. Thread this fitting into the left hole on the bottom of the Power Steering Reservoir where the SDHQ Logo is legible on the Cap. Lube the threads on the AN-10 Flare and thread this fitting into the other threaded hole. Tighten both fittings. See photos below.



- **10.** Install the SDHQ Power Steering Reservoir and Cap onto the Reservoir Mount. Secure the Reservoir using the 5/16" hardware.
- **11.** Lube the bottom of the AN-6 Anti-Cavitation Fitting and AN-10 Fitting. Install the AN-10 Push Lok 90° Fitting onto the AN-10 Flare. Position this fitting as necessary for your vehicle.

- **12.** If the optional Power Steering Filter (**SDHQ**-00-9204-U1) was purchased, begin those installation instructions now.
- **13.** Install the 13" Power Steering Hose with 90° fitting to the smaller AN-6 Fitting on the billet reservoir or Power Steering Filter if applicable. Position this fitting as necessary for your vehicle. Secure all fittings before installing into your vehicle.
- 14. In your vehicle's engine bay, follow the smaller power steering hose from Step 7 down to the hard line near the frame. Move the hose clamp and remove the hose from the hard line. Remove the hose clamps from the factory hose and place one on the supplied 13" Power Steering Hose connected to the Power Steering Assembly.

Installing the Power Steering Reservoir. For GX 460s remove the factory AC mount in front of the power steering reservoir location and replace with the supplied relocation mount as shown, then install the power steering mount. Install the power steering reservoir and mount into the factory position and tighten the (3) 10mm bolts.

- 15. Connecting the power steering hoses. Remove the hose clamp from the larger diameter factory hose. Lube and slip this factory hose onto the AN-10 Push Lok fitting on the bottom of the power steering reservoir.
- **16.** Lube and slip the 13" Power Steering Hose over the hard line near the frame from Step 14. Secure it onto the hard line with the hose clamp.









- **17.** Using the supplied power steering fluid, fill up the power steering reservoir to the internal fill line (machined ridge). With the power steering cap off, start your vehicle for
  - (2) seconds and then turn off. Refill the reservoir. Repeat one more time. Start your vehicle and cycle the steering 3 5 times to get the air out of the lines and check for leaks. Refill the reservoir. Clean up any spilt fluid.
- **18.** Install the plastic cover from **Step 3** and secure it with the plastic clips. For **GX 460**s some slight trimming/shaping of this cover is needed to clear the power steering reservoir, shown to the right. Install the air pump hose and secure it with the hose clamp. Install the skid plate.



19. Take your truck out for a drive to get it up to operating temperatures and to finish removing the air out of the power steering lines. The Reservoir Body and Cap will be EXTREMELY hot at operating temperatures. Refill the reservoir if needed. The fluid should be at the fill line at operating temperature. Check the reservoir after 50 miles. Enjoy your new SDHQ Power Steering Reservoir!

\*\*\*Double check all hardware is installed correctly and tight\*\*\*

\*\*\*Re-torque ALL bolts after 100 miles\*\*\*



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