

# **READYLIFT**<sup>®</sup>

**SUSPENSIONS**

## **69-5421 2" Highlander**

**IF your ReadyLIFT<sup>®</sup> product has a damaged or missing part, please contact customer service directly and a new replacement part will be sent to you immediately. For warranty issues, please return to the place of installation and contact ReadyLIFT.**

**(877) 759-9991**

**MON-FRI 7AM-4PM PST**

**OR**

**EMAIL: [support@readylift-ami.COM](mailto:support@readylift-ami.COM)**

**WEBSITE: [ReadyLIFT.COM](http://ReadyLIFT.COM)**

**\*\*Please retain this document in your vehicle at all times.\*\***

### **Limited Lifetime Warranty**

This unique product warranty proves our commitment to the quality and reliability of every product that ReadyLIFT manufactures. The ReadyLIFT product warranty only extends to the original purchaser of any ReadyLIFT product, if it breaks, we will give you a new part. Warranty does not apply to discontinued parts.

Our Limited Lifetime Warranty excludes the following ReadyLIFT items; bushings, bump stops, ball joints, tie rod ends, heim joints and shock absorbers. These parts are subject to wear and are not considered defective when worn. They are warranted for 12 months from the date of purchase for defects in workmanship.

**This product warranty is voided if the vehicle is not aligned after kit installation and proper maintenance is routinely done.**

Product purchased directly from ReadyLIFT has a 90 day return policy on uninstalled products from the date of purchase (may be subject to restocking fee). Uninstalled product returns must be in the original ReadyLIFT packaging. Please call **(877) 759-9991** to get an RGA# for any return. Customer is responsible for shipping costs back to ReadyLIFT. **Returns without RGA# will be refused.** Contact ReadyLIFT directly about any potentially defective parts prior to removal from vehicle.

ReadyLIFT products are **NOT** intended for off-road abuse. Any damage or failure as a result from off-road abuse voids the warranty of the ReadyLIFT product. ReadyLIFT is **NOT** responsible for any subsequent damages to any related vehicle parts due to misuse, abuse, improper installation, or lack of maintenance. Furthermore, ReadyLIFT reserves the right to change, modify or cancel this warranty without prior notice.



**READ INSTRUCTIONS THOROUGHLY AND COMPLETELY BEFORE BEGINNING INSTALLATION.**

**INSTALLATION BY A CERTIFIED PROFESSIONAL MECHANIC IS HIGHLY RECOMMENDED.**

**READYLIFT® IS NOT RESPONSIBLE FOR ANY DAMAGE OR FAILURE RESULTING FROM IMPROPER INSTALLATION.**

### **Safety Warning**

MISUSE OF THIS PRODUCT COULD LEAD TO INJURY OR DEATH.

Suspension systems or components that enhance the on and off-road performance of your vehicle may cause it to handle differently than it did from the factory. Extreme care must be used to prevent loss of control or vehicle rollover during abrupt maneuvers.

Always operate your vehicle at reduced speeds to ensure your ability to control your vehicle under all driving conditions. Failure to drive safely may result in serious injury or death to driver and passengers.

Driver and passengers must ALWAYS wear your seat belts, avoid quick sharp turns and other sudden maneuvers. ReadyLIFT Suspension does not recommend the combined use of suspension lifts, body lifts, or other lifting devices.

You should never operate your vehicle under the influence of alcohol or drugs.

Constant maintenance is required to keep your vehicle safe. Thoroughly inspect your vehicle before and after every off-road use.

It is the responsibility of the retailer and/or the installer to review all state and local laws, with the end user of this product, related to bumper height laws and the lifting of their vehicle before the purchase and installation of any ReadyLIFT products.

It is the responsibility of the driver/s to check their surrounding area for obstructions, people, and animals before moving the vehicle.

All raised vehicles have increased blind spots; damage, injury and/or death can occur if these instructions are not followed.

### **Installation Warning**

All steps and procedures described in these instructions were performed while the vehicle was properly supported on a two post vehicle lift with safety jacks.

Use caution during all disassembly and assembly steps to insure suspension components are not over extended causing damage to any vehicle components and parts included in this kit.

Included instructions are guidelines only for recommended procedures and are not meant to be definitive. Installer is responsible to insure a safe and controllable vehicle after performing modifications.

ReadyLIFT Suspension recommends the use of an OE Service Manual for model/year of vehicle when disassembly and assembly of factory and related components.

Unless otherwise specified, tighten all bolts and fasteners to standard torque specifications listed within the OE Service Manual.

Suspension components that use rubber or urethane bushings should be tightened with the vehicle at normal ride height. This will prevent premature wear or failure of the bushing and maintain ride comfort.

Larger tire and wheel combinations may increase leverage on suspension, steering, and related components.

Due to payload options and initial ride height variances, the amount of lift is a base figure. Final ride height dimensions may vary in accordance to original vehicle ride height. Always measure the vehicle ride height prior to beginning installation.

This suspension system was developed using a 255-65R17" tire with 17" x 8" wheel and a offset of +38. If wider tires are used, offset wheels may be necessary and trimming may be required. Factory wheels can be used but are not recommended with tires over 11.5" wide.

The stock spare rim can be run in an emergency - exercise extreme caution under stock spare tire operating conditions. Please note that, if running the spare factory tire, it is done for short distances and a speed not to exceed 45mph or damage to differentials may occur.

## **IMPORTANT NOTE:**

Front camber / caster and rear camber / caster are not adjustable. Alignment will be a toe only alignment. Special camber bolts can be purchased for the front, but should not be necessary for proper alignment.

### **VEHICLE HEIGHT MEASUREMENTS**

	<b>Driver Before</b>	<b>Driver After</b>	<b>Passenger Before</b>	<b>Passenger After</b>
<b>Front</b>				
<b>Rear</b>				

## **BILL OF MATERIALS**

<b>Front Strut Spacer</b>	<b>2</b>
<b>Rear Spring Spacer</b>	<b>2</b>
<b>Front Sway Bar Bracket</b>	<b>2</b>
<b>Rear Sway Bar Bracket</b>	<b>2</b>
<b>Driver Rear Shock Extension</b>	<b>2</b>
<b>Pass Rear Shock Extension</b>	<b>2</b>
<b>Laser Cut Washer</b>	<b>2</b>
<b>M12 Bolt</b>	<b>4</b>
<b>M12 C-Lock Nut</b>	<b>4</b>
<b>M12 Washer</b>	<b>6</b>
<b>M10 Flange Nut</b>	<b>4</b>

### **WARNING**

***Before starting installation:*** ReadyLIFT Suspension highly recommends that the installation of this product be performed by a professional mechanic with experience working on and installing suspension products. Professional knowledge and skill will typically yield the best installation results. If you need an installer in your area, please contact ReadyLIFT Suspension Customer Service to find one of our "Pro-Grade" Dealers.

#### **INSTALLATION BY A PROFESSIONAL IS HIGHLY RECOMMENDED.**

- A Factory Service Manual for your specific Year / Make / Model is highly recommended for reference during installation.
- All lifted vehicles may require additional driveline modifications and / or balancing.
- A vehicle alignment is REQUIRED after installation of this product.
- Speedometer / Computer recalibration is required if changing +/- 10% from factory tire diameter.
- A vehicle lift or hoist greatly reduces installation time. Installation time estimates are based on an available vehicle hoist.
- Vehicle must be in excellent operating condition. Repair or replace any and all worn or damaged components prior to installation.

**\*\*\*Parts shown in red for picture clarification only\*\*\***

ReadyLIFT recommends all steps and procedures described in these instructions be performed while the vehicle is properly supported on a two post vehicle lift with safety jacks.

Otherwise, park vehicle on a clean flat surface and block the rear wheels for safety. Engage the parking brake.

Disconnect the vehicle power source at the ground terminal on the battery.

Lock the steering wheel in the straight forward position with the column lock or steering wheel locking device.

Raise the front of the vehicle and support with safety jack stands at each jack point indicated by the service manual. Remove the front wheels.

Remove the nut covers from the windshield wipers. Use a small flat head screwdriver or other flat pry tool to pop the covers off. Removal of the wiper arms is necessary to remove the cowl plastic for access to the upper strut hardware.



Mark the wiper arm and the shaft with a mark for reinstallation later. Remove the mounting nut. Remove the wiper arm by pushing gently down on the pivot point and pulling up on the mounting arm. These should pop off, though if your having a difficult time you can give the arm a little twist to help dislodge the taper. Set aside for reinstallation later.



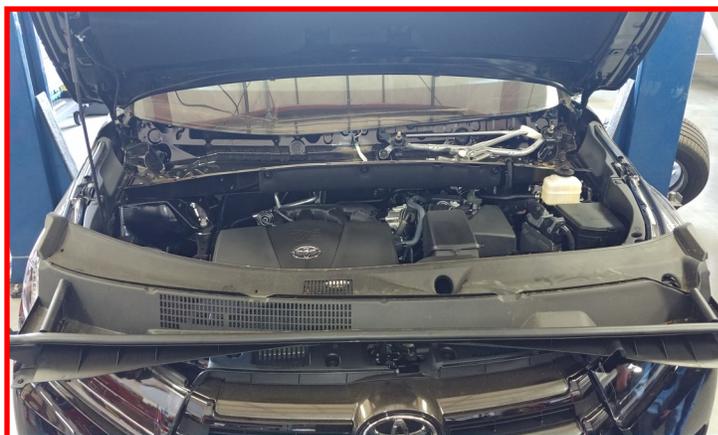
Locate the plastic rivets on both sides of the cowl plastic. There is one at both the driver and passenger sides on the outer edge closest to the engine bay. (Driver side shown)



Pry these up and out of the vehicle. Once removed. (Passenger side shown)



Once the rivets are removed, gently pull up on the leading edge closest to the engine bay. The clips holding the cowl plastic in place should release. Move the cowl out of the way.



Remove the **brake line and ABS brackets** on the strut body. Let hang out of the way. Remove the **ABS harness bracket** on the knuckle by pulling out on both clips to release the tabs.



Locate the ABS wire bracket bolted to the inner fender well. Open the clamp that is holding the wire.



Remove the ABS wire from the bracket and let hang out of the way.



Remove the sway bar end link from the strut body. Let hang out of the way.



Remove the two bolts holding the strut to the knuckle.



A helper is recommended for this step: Remove the 3 upper strut mounting nuts. Note the location of these nuts as 1 is different (**outside most nut circled in red**). This nut must be reinstalled in this location later. Remove the strut from the vehicle.



Install the ReadyLIFT strut extensions to the strut top hat using the provided **M10 flange nuts**. Torque to **30 ft-lbs**.



Install the completed strut assemblies back into the vehicle using the factory hardware. Only start the nuts by hand to allow movement when installing the knuckle. Make sure to install the hardware in the same locations as previously removed (**outer nut circled in red**).



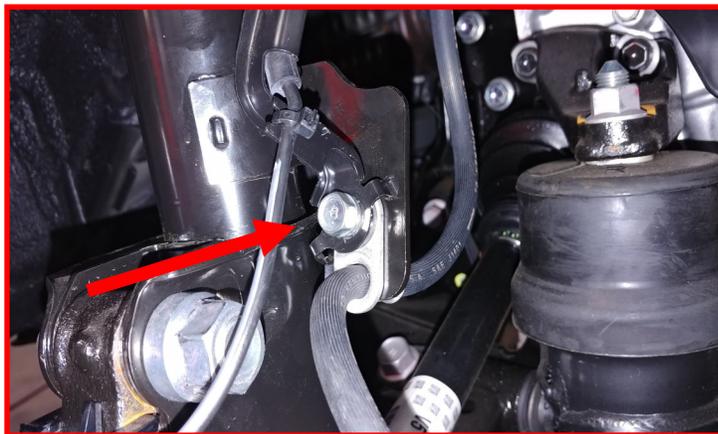
Install the knuckle to the strut using the **factory hardware**. Torque to **110 ft-lbs**. Install the ABS harness clip to the knuckle making sure the locking tabs clip into the holes on the knuckle.



Install the ReadyLIFT sway bar bracket to the strut body using the provided **M12 bolt, washers, and nuts**. Install the sway bar end link to the bracket using the **factory hardware**. Torque all to **45 ft-lbs**.



Install the brake line bracket and ABS bracket to the knuckle using the **factory hardware**. Torque to **5 ft-lbs**.



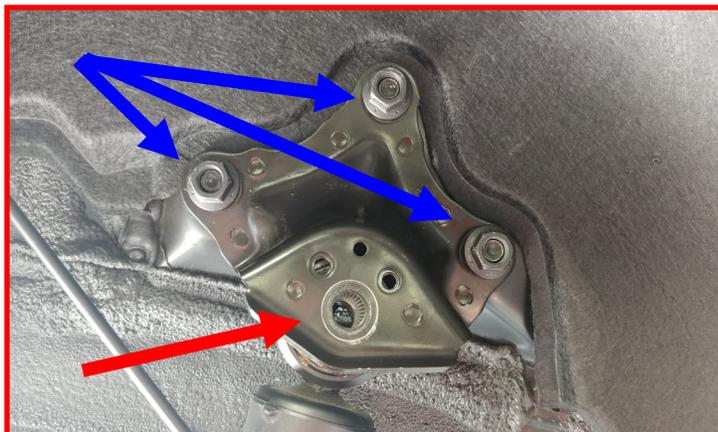
Install the ABS wire to the factory clip upside down from the direction it was previously. Pinch the clamp back to hold the ABS wire. Do not crush the wire.



Install the wheels and lower the vehicle to the ground. Torque the lug nuts to the wheel manufacturer's specs. Jounce the suspension a few times to get it to settle to the new ride height.

Torque the **upper strut hardware** to **30 ft-lbs**. Install the plastic cowl piece by sliding it back over the windshield wiper studs and clipping into place on the body. Install the two plastic rivets. Install the wiper arms using the **factory hardware** while lining up the previously made marks. Do not use an impact, only hand tools. Torque to **5 ft-lbs**. Install the plastic covers.

Raise the rear of the vehicle and support with safety jack stands at each jack point indicated by the service manual. Remove the rear wheels. Support the lower control arm with a suitable jack. Locate the upper shock mount in the wheel well. Remove the **shock hardware**. Remove the **upper shock mount** from the frame. Loosen but do not remove the lower shock mount.



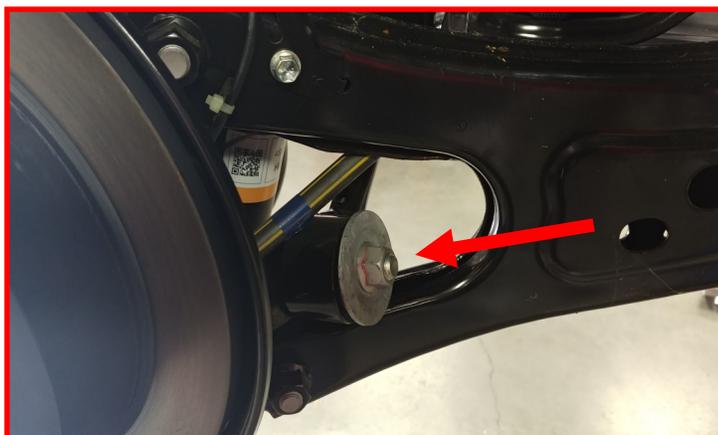
Remove the lower sway bar end link mounting bracket from the lower control arm. Rotate the sway bar up and then rotate the end link towards the back of the vehicle.



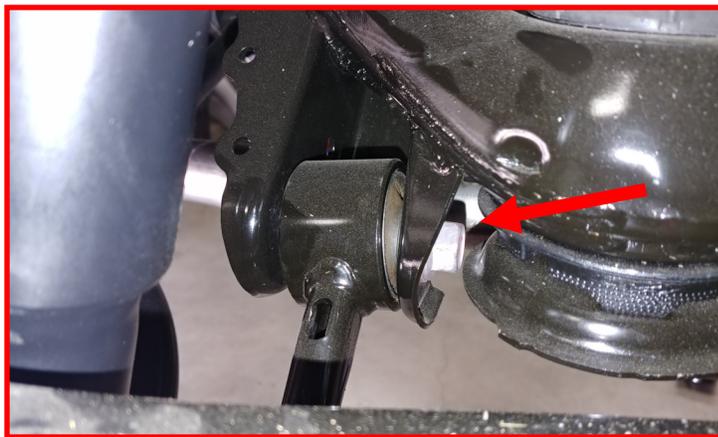
Loosen but do not remove the lower control arm cam bolt at the subframe.



Loosen but do not remove the front lower control arm mount.



Loosen but do not remove the front lower control arm at the subframe.



While supporting the lower control arm, remove the control arm to knuckle bolt.



Lower the control arm down enough to remove the spring.



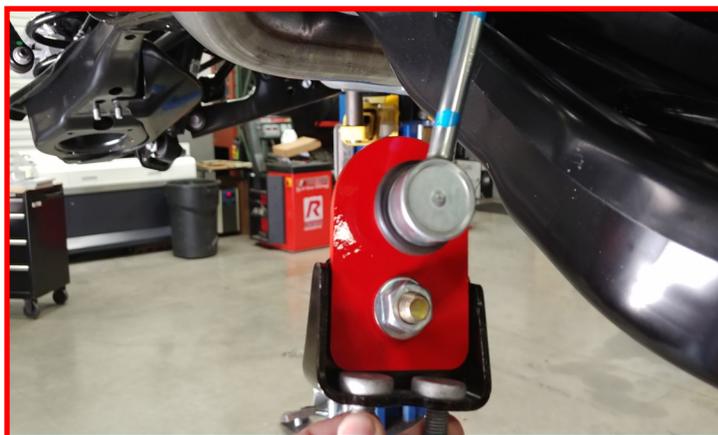
Install the ReadyLIFT spring spacer onto the spring keeping the factory isolator on top of the spring. Install the completed assembly into the subframe while raising the lower control arm into place.



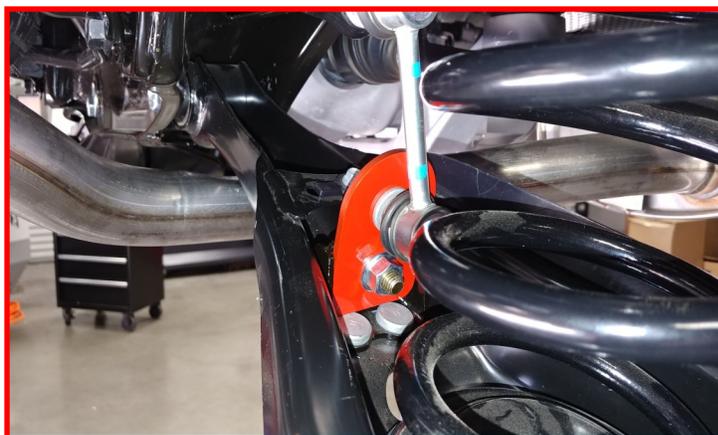
Remove the sway bar bracket from the end link.



Install the ReadyLIFT sway bar bracket to the factory bracket using the provided **M12 bolts, washers, and nuts** and the end link to the bracket using the **factory hardware**. Torque all to **45 ft-lbs**.



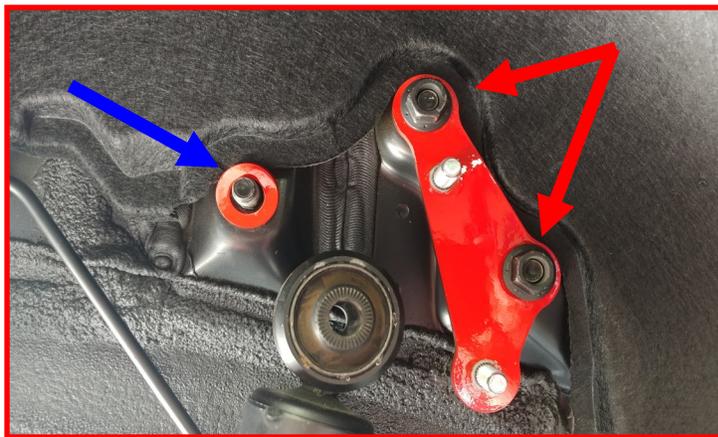
Install the completed end link and bracket assemblies to the lower control arm by rotating the sway bar up and end link into the bucket. Install using the factory hardware. Torque to 35 ft-lbs.



Attach the knuckle using the **factory hardware**. Torque to **110 ft-lbs**.



Install the ReadyLIFT shock extension bracket to the frame rail. These are driver and passenger side specific (passenger side shown) using the **factory hardware**. Do not tighten at this time. Install the provided **laser cut washer** to the rear most stud. Do not install any hardware to this stud.



Install the factory shock mount to the ReadyLIFT mount using the provided **M10 flange nuts** and the back stud using the **factory hardware**. Torque the factory nuts to **45 ft-lbs**, and the M10 nuts to **30 ft-lbs**. Install the upper **shock hardware**. Do not tighten at this time.



Using the jack, jack up the lower control arm on one side at a time to compress the suspension to ride height. This may take another jack at the opposite front corner under the subframe to stop weight transfer.

Once the suspension is compressed, torque the lower front control arm to **110 ft-lbs**, the rear lower control arm cam to **100 ft-lbs** (final torque to be set by alignment tech), the upper and lower shock hardware to **45 ft-lbs**.

Install the wheels and lower the vehicle to the ground. Torque the lug nuts to the wheel manufacturer's specs.

Have the alignment set to the recommended specs on the last page of this booklet by a reputable shop. The front camber / caster and rear camber / caster are not adjustable from the factory. You may purchase an upper camber bolt for the front if necessary, but the vehicle should be within spec's without it. This alignment is a toe only alignment.



**FAILURE TO PERFORM THE POST INSPECTION CHECKS MAY RESULT IN VEHICLE COMPONENT DAMAGE AND/OR PERSONAL INJURY OR DEATH TO THE DRIVER AND/OR OTHERS.**

### **Final Checks & Adjustments**

Once the vehicle is lowered to the ground, check all parts which have rubber or urethane components to ensure proper torque. Torque lug nuts to the wheel manufacturer specs. Move vehicle backwards and forwards a short distance to allow suspension components to adjust. Turn the front wheels completely left then right and verify adequate tire, wheel, brake line, and ABS wire clearance. Test and inspect steering, brake and suspension components for tightness and proper operation. Inspect brakes hoses and ABS lines for adequate slack at full extension, adjust as necessary.

**RECHECK ALL HARDWARE FOR PROPER TORQUE VALUES AFTER 500 MILES, AND THEN PERIODICALLY AT EACH SERVICE INTERVAL THERAFTER.**

### **Vehicle Handling Warning**

Increasing the height of your vehicle raises the center of gravity and can affect stability and control. Use caution on turns and when making steering corrections.

Vehicles with larger tires and wheels will handle differently than stock vehicles. Take time to familiarize yourself with the handling of your vehicle.

### **Wheel Alignment/Headlamp Adjustment**

It is necessary to have a proper and professional wheel alignment performed by a certified alignment technician. Align the vehicle to factory specifications. It is recommended that your vehicle alignment be checked after any off-road driving.

In addition to your vehicle alignment, for your safety and others, it is necessary to check and adjust your vehicle headlamps for proper aim and alignment. If the vehicle is equipped with active or passive safety/collision monitoring and/or avoidance systems including, but not limited to, camera- or radar-based systems, check and adjust your vehicle's systems for proper aim and function.

## **RECOMMENDED ALIGNMENT SPECS**

Front	Driver	Passenger	Tolerance	Total / Split
Camber	-0.3	-0.3	+/- 0.5	+0.0
Toe	+0.3	+0.3	+/- 0.5	+0.6
Rear	Driver	Passenger	Tolerance	Total / Split
Camber	+.3	+.3	+/- 0.5	+0.0
Toe	-.07	-.07	+/-0.05	-.14