

Kit 78501 Chevrolet Camaro 5th GEN Track Pack *Front Application*

INSTALLATION GUIDE

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For maximum effectiveness and safety, please read these instructions completely before proceeding with installation.

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Failure to read these instructions can result in an incorrect installation.

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Introduction

The purpose of this publication is to assist with the installation, maintenance and troubleshooting of this Chevrolet Camaro Performance kit.

It is important to read and understand the entire installation guide before beginning installation or performing any maintenance, service or repair. The information includes a hardware list, step-by-step installation information, maintenance tips, safety information and a troubleshooting guide.

Air Lift Performance reserves the right to make changes and improvements to its products and publications at any time. For the latest version of this manual, contact Air Lift Performance at (800) 248-0892 or visit our website at www.airliftperformance.com.

NOTATION EXPLANATION

Hazard notations appear in various locations in this publication. Information which is highlighted by one of these notations must be observed to help minimize risk of personal injury or possible improper installation, which may render the vehicle unsafe. Notes are used to help emphasize areas of procedural importance and provide helpful suggestions. The following definitions explain the use of these notations as they appear throughout this guide.

DANGER INDICATES IMMEDIATE HAZARDS WHICH WILL RESULT IN SEVERE PERSONAL INJURY OR DEATH.

WARNING INDICATES HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN SEVERE PERSONAL INJURY OR DEATH.

CAUTION INDICATES HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN DAMAGE TO THE MACHINE OR MINOR PERSONAL INJURY.

NOTE

Indicates a procedure, practice or hint which is important to highlight.

IMPORTANT SAFETY NOTICES

The installation of this kit does not alter the Gross Vehicle Weight Rating (GVWR) or payload of the vehicle. Check your vehicle's owner's manual, and do not exceed the maximum load listed for your vehicle.

Gross Vehicle Weight Rating: The maximum allowable weight of the fully loaded vehicle (including passengers and cargo). This number — along with other weight limits, as well as tire, rim size and inflation pressure data — is shown on the vehicle's Safety Compliance Certification Label.

Payload: The combined maximum allowable weight of cargo and passengers that the vehicle is designed to carry. Payload is GVWR minus the Base Curb Weight.

WARNING DO NOT INFLATE AIR SPRINGS WHILE OFF OF THE VEHICLE. DAMAGE TO ASSEMBLY MAY RESULT AND VOID WARRANTY.

A CAUTION

DO NOT WELD TO OR MODIFY PERFORMANCE STRUTS/SHOCKS IN ANY WAY. DAMAGE TO UNIT MAY OCCUR AND WILL VOID WARRANTY.

Installation Diagram



HARDWARE LIST

Item	Part #	DescriptionQ	ty
А	35265	Strut, Chevrolet Camaro Track Pack Front Left	1
В	35266	Strut, Chevrolet Camaro Track Pack Front Right	1
С	20997	Leader Hose, 1/4" ID	2
D	21810	Union, 1/4" FNPT X 1/4" PTC, DOT	2
Е	21987	Union, 1/4" FNPT X 3/8" PTC, DOT	2
F		Spanner Wrench	1

STOP! Missing or damaged parts? Call Air Lift customer service at (800) 248-0892 for a replacement part.

Installing the Air Suspension

PREPARING THE VEHICLE

- 1. Elevate and support the vehicle with a hoist or jack stands.
- 2. Remove the front tire and support the hub assembly.

REMOVING THE FRONT STRUT

1. Disconnect the brake line, stabilizer bar, ABS sensor wire, and knuckle bolts from the strut assembly (Figs. 2 & 3).



2. With the hub supported, remove the strut rod cap (Fig. 4) and unthread the rod nut (Fig. 5). Remove the strut from the vehicle.



PREPARING THE AIR SUSPENSION

1. Begin by installing the leader line into the air spring. Apply thread sealant to the threads of the leader line. Tighten the appropriate fitting to the air line (1 3/4 turns beyond hand-tight). Tighten the leader line into the air spring 1 3/4 turns beyond hand-tight. (Fig. 6)



PREPARING FOR THE CAMBER PLATE

1. Remove the four internal hex head bolts attaching the slotted camber plate from the pillowball bearing (Fig. 7). Remove the studs and nuts if attached already (studs and nuts may be in the supplied bag part).



2. Place and center the camber plate on top of the strut tower with the slots directed perpendicular to centerline of vehicle, toward the engine compartment, and one hole on the outboard side. It may be useful to place a string from strut tower to strut tower through the centers and tape in place to help reference the center of the tower (Fig. 8). Place the camber plate with hole and slot centers on top of the string (Fig. 9).





3. Mark the hole centers on the strut tower (Fig. 10), center punch each hole location and drill an 11/32" hole at each point (Fig. 11).





4. Take the supplied studs and assemble into the camber plate (Fig. 12). Using the supplied washer and nut, thread the nut onto the stud until finger tight against the washer and camber plate (Figs. 13 & 14). Now torque the nut between 1 and 1 1/2 turns beyond hand tight (Fig. 15). Remove the nut and washer.



5. Reassemble the camber plate to the strut assembly (Fig. 16). Torque the bolts to 15Nm (10 lb.-ft.).



6. Insert the strut into the strut pocket while aligning the camber plate studs with the newly drilled holes (Fig. 17) and attach the camber plate to the chassis with the supplied washer and nut (Fig. 18). Torque the camber plate nuts to 20Nm (15 lb.-ft.).





- 7. Lift the hub assembly and attach the assembly to the new strut. Torque the lower mount bolts to 80Nm + 180° (59 lb.-ft. + 180°).
- Attach the stabilizer end link to the strut (Fig. 19). Torque the nut to 50Nm (37 lb.-ft.) (Fig. 20).



- 9. Attach the brake line and ABS sensor wire to the strut (Fig. 20). Torque the brake line bracket bolt to 9Nm (80 lbs.-in.).
- 10. Fully compress the suspension using a jack. With the suspension compressed, review the best routing for the leader hose that is clear of all suspension components. Routing should also allow for the suspension to extend and steer without kinking the line or rubbing on other components. Check clearances to all other components.
- With the suspension fully compressed, take a measurement from the fender to some reference point – typically the center of the hub bearing. Record this measurement as Max Compression.
- 12. Cycle the suspension to Max Extension and record the measurement from the same reference points.
- 13. Take the difference between the two numbers and divide by two. Add that value to the original Max Compression number. Set the suspension to this point. This position will give 50% stroke in either direction and is a starting point for ride height (Fig. 21).
- 14. With the suspension at this position, torque the lower shock bolt and upper and lower control arm bolts to manufacturer's specifications (Table 1).

Formula for calculating ride height (Fig. 21):



ADJUSTING EXTENDED OR DROP HEIGHT USING LOWER MOUNT

Your struts have been pre-set at the factory to provide maximum drop height while maintaining adequate tire clearance to the air spring. If you wish to gain more extended height (lift), which is the same as reducing drop height or want to lower the chassis further and there is still adjustment available at the lower mount, please use the following procedure:

- 1. Support the vehicle with jack stands or a hoist at approved lifting points.
- 2. Remove the wheel.
- 3. Using the supplied spanner wrench, loosen the lower locking collar (Fig. 22).



- 4. Deflate the air spring to 0 PSI on the corner you are adjusting.
- 5. Disconnect lower mount from suspension.
- 6. Spin the lower mount to the desired location.

Not all models will have further drop height available.

- 7. Re-install lower mount to suspension and torque fasteners.
- 8. Tighten the lower locking collar to the lower mount using significant force.

WHEN ADJUSTING HEIGHT UPWARDS, MAKE SURE THAT THE STRUT BODY ENGAGES ALL THE THREADS OF THE LOWER MOUNT (FIG. 23). WHEN ADJUSTING DOWNWARDS, MAKE SURE THERE IS ADEQUATE AIR SPRING CLEARANCE TO THE TIRE/WHEEL ASSEMBLY. CLEARANCE MUST BE CHECKED WITH SYSTEM FULLY DEFLATED AS WELL AS FULLY INFLATED TO ENSURE THAT NO RUBBING

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NOTE

CAUTION

OCCURS. FAILURE TO MAINTAIN ADEQUATE CLEARANCE CAN RESULT IN AIR SPRING FAILURE AND WILL NOT BE COVERED UNDER WARRANTY.

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A CAUTION

DO NOT ADJUST HEIGHT BY SPINNING AIR SPRING ON STRUT! DOING SO MAY CAUSE AN AIR LEAK AND COMPROMISE THE ASSEMBLY.

FOR STRUTS: FOR SHOCKS: 0 0 Thread MUST be showing in 1 window. θ fig. 23 OK, no threads Not OK, threads showing. are showing.

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BEFORE OPERATING

SETTING THE RIDE HEIGHT

Please refer to the User Guide supplied with this kit to set up the suspension.

Torque Specifications					
Location	Nm	Lbft.			
Camber plate to chassis	24	18			
Lower strut mount to knuckle	80 + 180°	59 + 180°			
Stabilizer link nut	50	37			
Control arm to chassis	50 + 120°	37 +120°			
Brake line bracket bolt	9	-			
Wheels	190	140			
Braided air line threads	1 3/4 turns beyond hand-tight				

Table 1

Suggested Driving Air Pressure	Maximum Air Pressure			
45 PSI (3.1BAR)	125 PSI (8.62BAR)			
FAILURE TO MAINTAIN ADEQUATE MINIMUM PRESSURE (OR PRESSURE PROPORTIONAL TO LOAD) MAY RESULT IN EXCESSIVE BOTTOMING OUT AND WILL VOID THE WARRANTY .				

Table 2



MAKE SURE THE FRONT WHEELS ARE STRAIGHT WHEN DEFLATING AND REINFLATING AIR BAGS.

CHECK FOR BINDING

- 1. Inflate and deflate the system (do not exceed 125 PSI [8.62BAR]) to check for clearance or binding issues. With the air springs deflated, check clearances on everything so as not to pinch brake lines, vent tubes, etc. Clear lines if necessary.
- 2. Inflate the air springs to 75-90 PSI (5.2-6.2BAR) and check all connections for leaks.

INSTALLATION CHECKLIST

- □ **Clearance** Inflate the air springs to 75-90 PSI (5.2-6.2BAR) and make sure there is at least 1/2" (13mm) clearance from anything that might rub against the air spring. This should be checked with the air spring fully inflated and fully deflated.
- □ Leak Inflate the air springs to 75-90 PSI (5.2-6.2BAR) and check all connections for leaks. All leaks must be eliminated before the vehicle is road-tested.
- □ **Heat** Be sure there is sufficient clearance from heat sources, at least 6" (152mm) from air springs and air lines. If a heat shield was included in the kit, install it. If there is no heat shield, but one is required, call Air Lift customer service at **(800) 248-0892**.
- □ **Fastener** Recheck all bolts for proper torque.
- □ **Road** Inflate the air springs to recommended driving pressures (Table 2). Drive the vehicle 10 miles (16km) and recheck for clearance, loose fasteners and air leaks.
- □ **Operating instructions** If professionally installed, the installer should review the operating instructions with the owner. Be sure to provide the owner with all paperwork that came with the kit.

DAMPING ADJUSTMENT

The struts in this kit have 30 settings, or "clicks," of adjustable compression and rebound damping characteristics. Damping is changed through the strut rod using the supplied adjuster (Figs. 24 & 25) or a 3mm hex wrench.

Turn the adjuster clockwise, and the damping settings are hardened. Turn the adjuster counterclockwise, and the damping is softened.

Each strut is preset to "-15 clicks." This means that the strut is adjusted 15 clicks away from full stiff. Counting down from full stiff is the preferred method of keeping track of, or setting, damping. This setting was developed on a 2010 Chevrolet Camaro SS and may need to be adjusted to different vehicles and driving characteristics.



ALIGNING THE VEHICLE

- 1. Using the control system, set the vehicle height to the new custom ride height.
- If the custom ride height is lower than stock, we recommend loosening all pivot points (bolts, nuts) on any control arm, strut arm or radius rod that contains bushings. Once they have been loosened, re-torque to stock specifications.

It may be necessary to cycle the suspension to loosen the bushing up from its mount. This will help re-orient the bushing at its new position based on the custom ride height.

Limited Warranty and Return Policy

Air Lift Company provides a 1-year limited warranty^{*} to the original purchaser of Air Lift Performance damper kits from the date of original purchase, that the products will be free from defects in workmanship and materials when used on cars and trucks as specified by Air Lift Company and under normal operating conditions, subject to the requirements and exclusions set forth in the full Limited Warranty and Return Policy.

* Full Limited Warranty and Return Policy are available at www.airliftperformance.com/warranty and are subject to change.

WARRANTY REGISTRATION & CLAIMS

- To register your warranty, please visit https://www.airliftperformance.com/support/warranty-registration/
- To submit a warranty claim, please visit https://www.airliftperformance.com/support/submit-warranty-claim/

NEED HELP?

Contact Air Lift Company customer service department by calling (800) 248-0892. For calls from outside the USA or Canada, dial +1 (517) 322-2144.

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