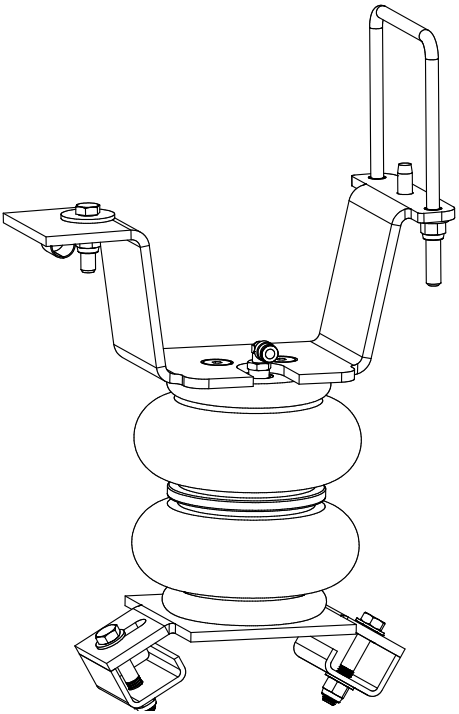


Atlus Air A5000

Kit Number: AA24300

Fits:
Chevrolet Silverado
GMC Sierra

Engineered and Assembled in the USA

Installation Instructions

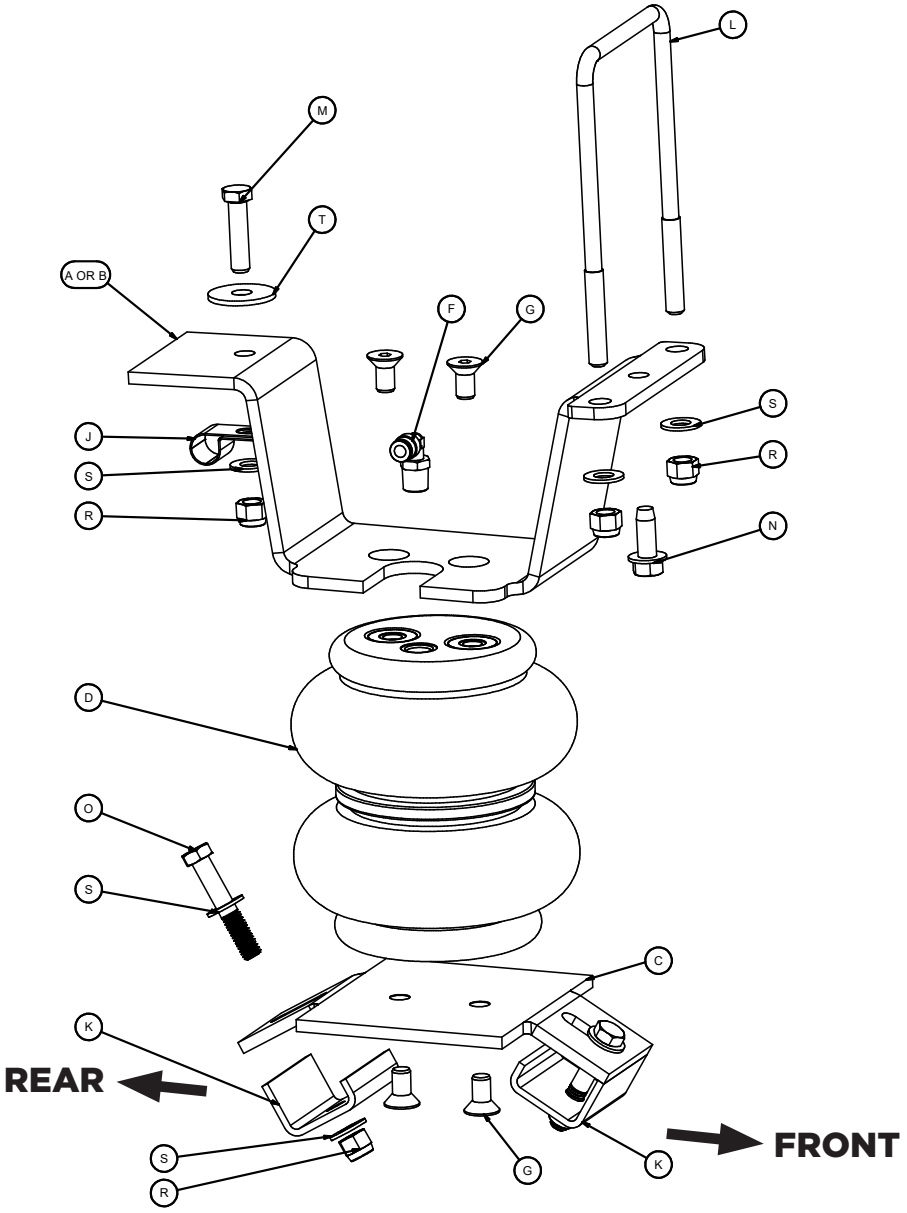
Before Getting Started

For optimal performance and safety, read all instructions thoroughly before beginning the installation. Failure to read and follow these instructions may lead to improper installation and potential safety risks.

Tools Needed

- Standard and metric open-end or box wrenches
- Ratchet with 9/16″ & 1/2″ deep-well sockets
- Standard and metric sockets
- 7/32″ Hex-key wrench (socket if available)
- 5/16″ drill bit (very sharp)
- Heavy-duty drill
- Torque wrench
- Standard and metric hex-key wrenches
- 13mm ratcheting wrench
- Hose cutter, razor blade, or sharp knife
- Hoist or floor jacks
- Safety stands
- Safety glasses
- Air compressor or compressed air source
- Spray bottle w/ dish soap/water solution

AA24300 Exploded Installation View



Parts List

Part	Part No.	Part Description	QTY
A	07194	RH Upper bracket	1
B	07193	LH Upper bracket	1
C	03080	Lower bracket	2
D	58403	Air spring	2
F		Elbow fitting	2
G		3/8"-16 x 3/4" Flat-head screw	8
H*		3/8" Wire leader bolt tool	1
I*		Frame clamp (large)	1
J		Frame clamp (small)	2
K		J-clamp	4
L		U-bolt	2
M		3/8"-16 x 1 1/2" Hex-head bolt	2
N		3/8" x 1" Washer head self-tapping screw	2
O		3/8"-16 x 2 1/4" Hex-head bolt	4
R		3/8" Nylon lock nut	10
S		3/8" Flat washer (small OD)	14
T		3/8" Flat washer (large OD)	2
U*		Air line thermal sleeve	1
V*		3/8"-16 x 1" Hex-head bolt	1
AA*		Air line assembly	1
BB*		Zip ties	6
CC*		Valve cap	2
DD*		Star washer	2
EE*		Rubber washer	2
FF*		M8 Flat washer	2
GG*		5/16" Hex nut	4
HH*	13955	Spacer	1

* These parts are not shown in the Exploded Installation View section

Introduction

This guide is here to walk you through setting up and taking care of your Atlus Air™ A5000 air suspension kit. They are built tough—commercial-grade and reinforced for durability. Think of the air springs like tires: layers of rubber and strong cords work together to manage pressure and maintain shape to help control your ride.

With Atlus Air A5000, you'll get up to 5000 pounds (2268 kg) of support to keep your ride level, and you can fine-tune the pressure anywhere between 5 and 100 PSI (0.34 to 7 BAR). Before diving into the installation or doing any kind of upkeep, make sure to read through the entire manual—it'll save you time and headaches down the road.

Symbols

THIS MEANS THERE'S AN IMMEDIATE AND SERIOUS RISK. IF IGNORED, IT WILL LEAD TO SEVERE INJURY OR EVEN DEATH. ALWAYS TAKE THESE WARNINGS SERIOUSLY.

SIGNALS A DANGEROUS SITUATION OR UNSAFE ACTION THAT COULD CAUSE SEVERE INJURY OR DEATH. IT'S NOT A GUARANTEE, BUT IT'S A BIG RISK—PROCEED CAREFULLY.

These callouts highlight useful advice or important reminders to keep you on track during the process. Don't skip them—they often save time.

Little tricks of the trade to help installation go more smoothly. These tips can make a big difference if you're aiming for a clean, efficient job.

Information

This kit does not increase the Gross Vehicle Weight Rating (GVWR) or payload capacity of your vehicle. Always refer to your vehicle's Safety Compliance Certification Label or owner's manual, and do not exceed the manufacturer's maximum load rating.

- **Gross Vehicle Weight Rating (GVWR):**
  The maximum allowable weight of a fully loaded vehicle, including passengers, cargo, and fluids. This value—along with other important specifications like tire size, rim size, and inflation pressure—is located on the vehicle's Safety Compliance Certification Label.
- **Payload:**
  The maximum combined weight of passengers and cargo your vehicle is designed to carry. Payload is calculated by subtracting the vehicle's base curb weight from its GVWR.

Air Pressure Guidelines

While Atlus Air A5000 air springs are engineered to handle a **maximum inflation pressure of 100 PSI (7.0 BAR)**, the actual pressure required will vary based on the vehicle's load and total weight. Always adjust air pressure according to your specific load conditions—**not solely based on the maximum pressure limit.**

Ride Height and Suspension Limits

Always maintain the correct ride height by adjusting the air pressure based on your current load. Shock absorbers typically act as the suspension limiters on extension. If they do not, particularly on off-road vehicles, consider using limiting straps to prevent overextension.

Brake System Considerations

Vehicles equipped with a **rear brake proportioning valve** may experience changes in braking performance when using a load-assist product. **Consult your dealer** before installation. If your vehicle **does not** have a proportioning valve or is equipped with an **anti-lock brake system (ABS)**, the installation of an air spring kit **will not affect braking performance.**

System Install

Build Air Springs

1. Install Swivel Fitting

Thread the swivel fitting (F) into the top port of the air spring (D). Tighten finger-tight, then turn an additional 1.5 rotations. Do not overtighten.

2. Attach Upper Bracket

Position the upper brackets (A or B) onto the top of the air springs (D). Secure it using four flat-head screws (G). Torque all fasteners to no more than 20 lb.-ft. (27Nm).

3. Attach Lower Bracket

Secure the lower brackets (C) to the bottom of the air springs using flat-head screws (G). Torque to no more than 20 lb.-ft. (27Nm). Ensure the arrow on the lower bracket points to the opposite side of the fitting, directing it outward toward the tire.

4. Verify Assembly Orientation

The assemblies should mirror each other. With the assemblies placed in front of you with the air fittings pointing at you, the left (driver) assembly upper bracket should have the triple-hole tab on the right, and the right (passenger) assembly upper bracket should have the triple-hole tab on the left, facing the other assembly.

Vehicle Preinstall Steps

1. Support the Vehicle

Raise the vehicle and support the axle with safety stands. Place the stands as wide as possible across the axle to ensure stability.

2. Create Installation Clearance

Lower the axle or raise the vehicle frame to make room for the air spring assemblies to be placed between the frame and the axle.

3. Remove the Driver-Side Line Holder

Remove and discard the line holder on the inside of the driver-side frame rail, just forward of the axle.

4. Remove Upper Frame Pin and Line Holder

Pull up to remove the pin that secures the line holder on top of the frame. Unhook the lines and discard the line holder.

5. Disconnect ABS Line Holders

Detach the ABS line holders from the underside of the frame behind the axle on both the driver and passenger sides.

6. Remove the ABS Clamp

Use a small screwdriver to release the ABS line from the clamp. Discard the clamp.

7. Install Small Frame Clamps

Install the small frame clamps (J) onto the ABS line at the location where the stock holders were previously attached. Position the clamp holes to face forward. Repeat for both sides.

8. Leave ABS Lines Loose for Now

Leave the ABS lines unsecured for now; they will be fastened during later steps.

To prevent chafing or damage to the air springs, the emergency brake cable must be repositioned.

9. Detach Cable from Axle Bracket

Relocate the emergency brake cable currently held by a bracket on top of the axle's center carrier section.

10. Remove the Bracket Bolt

Unbolt the emergency brake cable bracket from the center section of the differential cover.

11. Remove and Discard the Bracket

Detach the bracket from the cable and discard it.

12. Install Large Frame Clamp

Position the large frame clamp (I) over the emergency brake cable, with the hole facing downward and the open end pointed to the rear.

13. Secure the Clamp

Attach the clamp to the rear end using the original bolt removed in Step 10. Slightly bend the clamp if needed to clear the hard brake lines mounted on top of the axle.

14. Remove the Jounce Bumper

Unbolt and remove the jounce bumper from the mounting cup welded to the frame. Once the bolt is removed, use a screwdriver to pull or pry the bumper from the cup.

Air Spring Installation into Vehicle

1. Prepare Mounting Hardware

Place a large flat washer (T) over a hex-head bolt (M), then thread the wire bolt leader tool (H) onto the bolt.

2. Insert Bolt into Frame

Insert the bolt and washer through the side slot of the frame, passing it through the bottom slot where the ABS line holder was previously removed. Repeat this step for the opposite side.

3. Position Air Spring Assemblies

Place the left-hand assembly (marked "L") on the driver's side of the axle and the right-hand assembly on the passenger's side. The air fitting on both springs should point inward toward the centerline of the vehicle.

4. Install Rear Mounting Bolt and ABS Holder

While raising the assembly into place, align the bolt with the rear hole in the upper bracket. Set the new ABS line holder over the bolt, then cap it with a flat washer (S) and a nylon lock nut (R). Leave this hardware loose for now.

5. Vehicles Without a Fifth-Wheel Bracket

a. **Remove Heat Shield Bolt (If Present)**

If your late-model vehicle has a heat shield located forward of the axle above the frame on the passenger side, use a ratcheting wrench to remove the mounting bolt. Use caution—heat shield edges can be sharp. Set the bolt aside for reuse.

b. **Install U-Bolt with Heat Shield Spacer**

Place a U-bolt (L) around the frame and insert it through the upper bracket. If a heat shield was removed, install the provided spacer (HH) between the frame and shield. Reinstall the heat shield using the original bolt.

c. **Install U-Bolt Without Heat Shield**

For models without a heat shield, insert the U-bolt (L) through the forward holes of the upper bracket. Take care not to pinch any brake or ABS lines on the driver-side frame rail.

d. **Secure Front of Upper Bracket**

Cap the U-bolt with flat washers (S) and nylon lock nuts (R). Ensure the upper bracket is centered on the frame and verify clearance between the fitting and the jounce bumper cup.

e. **Torque U-Bolt Hardware**

Torque the U-bolt nuts to 10 lb.-ft. (14Nm). Repeat for the other side.

f. Verify Heat Shield U-Bolt Setup

On vehicles with a heat shield and spacer installed, verify that the U-bolt is positioned correctly. Proceed to the "Lower Bracket Installation" section.

6. Vehicles With a Fifth-Wheel Hitch Bracket

a. Drill and Secure Front of Upper Bracket

Center the upper bracket on the frame rail. Drill a 5/16" hole through the frame using the front hole in the bracket as a guide. Install a washer-head self-tapping screw (N) and torque to 15 lb.-ft. (20Nm). Repeat on the other side.

b. Torque Rear Mounting Bolt

Torque the previously installed rear bolt to 15 lb.-ft. (20Nm). Use a 1/4" drive ratchet with a long 9/16" socket through the frame's side access hole. On long-box models (kits 57211 and 88211), a short extension may be required. The wire leader tool (H) can help retrieve the extension and socket if needed.

Once air line has been routed, on the driver's (left) side, secure the air line using a zip tie (BB). Attach it either through the front hole of the upper bracket or to the U-bolt, depending on your mounting configuration. This helps keep the air line safely away from the exhaust and other moving components.

Lower Bracket Installation

1. Position Lower Bracket and Install J-Clamps

Center the lower bracket (C) over the jounce bumper strike plate. Insert a hex-head bolt (O) through a flat washer (S) and a J-clamp (K). Hook the short end of the J-clamp under the jounce bumper strike plate with the other end pushed up against the bottom of the lower bracket. Then, pass the bolt through the lower bracket, and cap with a flat washer and nylon lock nut (R).

2. Torque Lower Bracket Hardware

Install J-clamps at the front and rear of each bracket. Evenly torque all fasteners to 10 lb.-ft. (14Nm), keeping the lower bracket centered on the axle.

On some models, gently pull down the rear hard brake line on the passenger side to make room for the lower bracket hardware.

Air Lines Installation

1. Select Schrader Valve Locations

Choose suitable locations for the Schrader valves. If necessary, drill a 5/16″ (8 mm) hole at each selected location. Common locations for mounting are inside fuel tank filler door, inside rear wheel wells, or by the license plate mount or rear bumper area.

2. Measure and Cut the Air Line

Measure the length of air line needed to reach your intended Schrader valve locations. Cut the air line (AA) using a sharp razor blade or hose cutter to make clean, square cuts. Do not use scissors or wire cutters, as these can deform the tubing and compromise the seal.

3. Route and Secure the Air Line

Route the air line (AA) from each air spring to the chosen Schrader valve locations. Plan the route to avoid sharp edges, moving parts, and heat sources. Once routed, use zip ties (BB) to secure the air line to stable points along the vehicle chassis. Do not pinch or kink the line. Leave at least 2″ (51 mm) of slack to accommodate movement. The air line's minimum bend radius is 1″ (25 mm).

Maintain a minimum of 5 1/2" (140 mm) clearance between all air lines and any part of the exhaust system. Avoid routing air lines over sharp edges or making tight bends.

4. Install Schrader Valves

Install the Schrader valves into the selected locations.

Heat Shield Installation (if provided in kit)

1. Position the Heat Shield

Place the heat shield over the exhaust pipe near the air spring. Maintain at least 1/2″ (13 mm) of clearance between the shield and the exhaust surface. Depending on the design of the heat shield included in your kit, you may need to bend the tabs or the shield itself to achieve proper fitment and spacing.

2. Install the Air Line Thermal Sleeve (if included)

If your kit includes a thermal sleeve, slide it over the section of air line that runs closest to the exhaust. This sleeve helps protect the line from excessive heat exposure.

3. Secure Components with Hose Clamps

Use hose clamps to secure the heat shield and thermal sleeve (if used). Apply double clamps where needed for added security. Make final adjustments to ensure all components are properly spaced and firmly in place.

Checklist

Ensure the air suspension system is correctly installed and safe for operation by completing the following checks:

1. Clearance Verification

Inflate the air springs to 50 PSI (3.45 BAR). Confirm a minimum clearance of 1/2″ (13 mm) between the air springs and any adjacent components, including tires, brake assemblies, the vehicle frame, shock absorbers, and brake lines. Adjust as needed to prevent contact during operation.

2. Heat Clearance Check

Verify that all air springs and air lines are positioned at least 5 1/2″ (140 mm) away from any heat sources.

3. Leak Inspection

With the system pressurized to 50 PSI (3.45 BAR) inspect all fittings, air lines, and connections for leaks. All leaks must be fully resolved prior to road testing.

4. Road Test Procedure

Inflate the air springs to the recommended operating pressure and conduct a 10-mile (16 km) road test. Upon completion, re-inspect for adequate clearance, air leaks, and secure fasteners.

5. Torque Confirmation

After 500 miles (800 km) of driving, recheck and torque all hardware to the specified values to ensure long-term stability and safety.

Adjusting Air Pressure

Stability

Properly adjusting air pressure is key to achieving both vehicle stability and correct ride height. Begin by increasing pressure until the suspension feels firm and controlled—without exceeding the maximum of 100 PSI (7 BAR). Ensure the vehicle sits level across all four corners. Uneven loads may require redistributing cargo or adjusting air pressure side to side.

Comfort

Ride quality is also influenced by air pressure. Too much or too little can cause harshness or instability. As a general rule:

- If the vehicle frequently bottoms out on the frame, increase air pressure.
- If the ride feels overly stiff or harsh, reduce air pressure slightly.

Adjust gradually to find the best balance between comfort and control.

Guidelines

1. ***Check System Pressure Weekly***

Inspect the air pressure in the system at least once a week to ensure consistent performance and ride quality.

2. ***Maintain Proper Ride Height***

Always operate the vehicle at the recommended ride height. Do not exceed 100 PSI (7.0 BAR) under any circumstances.

3. ***Inspect for Air Leaks as Needed***

   If you suspect a leak, follow these steps to identify and address the issue:

   a. Inflate the air springs to 50 PSI (3.45 BAR).

   b. Spray all air line connections and the inflation valve with a mild solution of liquid dish soap and water.

   c. Wait 30 seconds and observe for any bubbles, which indicate a leak.

   d. Recheck the system pressure after 24 hours. A pressure loss of 2–4 PSI (0.14–0.28 BAR) is normal after initial installation. If the pressure drops by more than 5 PSI (0.34 BAR), recheck for leaks.

   e. Once testing is complete, adjust the air spring to the minimum pressure required for proper ride height.

4. ***Inspect Hardware and Component Alignment***

Periodically check that all fasteners are properly torqued. Also, check for signs of rubbing or misalignment, and realign components as needed.

5. ***Clean the Air Springs***

Occasionally, spray the air springs with clean water to remove mud, dirt, or debris that may collect during use.

6. ***Lift the Vehicle with Care***

If lifting the vehicle by the frame, reduce system pressure to 5 PSI (0.34 BAR) to relieve tension on the air springs and mounting hardware.

Repair Guide

Fixing Leaks on Barbed Fittings

1. Cut the air line 1 1/2″ (38 mm) behind the existing fitting.
2. Use pliers or locking pliers to twist and pull the air line off the fitting.

Do not cut lengthwise, as this may damage the barbs and lead to future leaks.

3. Reinstall the air line and clamp (if applicable), making sure the air line fully covers all barbs for a proper seal.

Fixing Leaks on Push-to-Connect (PTC) Fittings

To Disconnect:

1. Release all air pressure from the system.
2. Push the air line inward toward the fitting.
3. While holding the air line in, press the collar inward toward the fitting.
4. With the collar depressed, pull the air line out.

Before Reconnecting:

5. Cut off the end of the air line just beyond the witness mark to ensure a clean, undamaged sealing surface.
6. If the fitting leaks at the threads, remove it, apply fresh thread sealant, and reinstall it 1 1/2 turns beyond finger-tight.

To Reconnect:

7. Push the air line into the fitting until fully seated.
8. Gently pull back on the air line to verify a secure connection.

Warranty

What this warranty covers

Atlus Products Company provides a warranty to the original purchaser of its Load Support Products, for the periods of time listed at AtlusProducts.com, by product line, 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 Atlus Products Company and under normal operating conditions, subject to the requirements and exclusions set forth below.

What this warranty does not cover

The warranty does not apply to products that have been improperly applied, improperly installed, or that have not been maintained in accordance with the installation instructions furnished with all products. This warranty does not apply and is void if damage or failure is caused by: accident, abuse, misuse (including but not limited to racing or off-road activities or commercial use), abnormal use, faulty installation, liquid contact, fire, earthquake or other external cause; operating the product outside Atlus Products Company's instructions, specifications or guidelines; or service, alteration, maintenance or repairs performed by anyone other than Atlus Products Company to the product from its purchased condition. This warranty also does not apply to: consumable parts, such as batteries, cosmetic damage, including but not limited to scratches or dents; defects caused by normal wear and tear or otherwise due to the normal aging of the product, or if any serial or identification number has been removed or defaced from the product. Atlus Products Company reserves the right to change the design of any product without assuming any obligation to modify any product previously manufactured.

Limitation of liability

To the extent permitted by law, this warranty and the remedies set forth herein are exclusive and in lieu of all other warranties, remedies and conditions, whether oral, written, statutory, express or implied. ATLUS PRODUCTS COMPANY DISCLAIMS ALL STATUTORY AND IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND WARRANTIES AGAINST HIDDEN OR LATENT DEFECTS TO THE EXTENT PERMITTED BY LAW. To the extent such warranties cannot be disclaimed, such implied warranties shall apply only for the warranty period specified above. Please note that some states do not allow limitation on how long an implied warranty (or condition) lasts. So the above limitation may not apply to you.

Except as provided in this warranty and to the extent permitted by law, Atlus Products Company shall not be liable for any direct, special, incidental or consequential damages resulting from any breach of warranty or condition, or arising in connection with the sale, use or repair of Atlus products, or under any other legal theory, including but not limited to loss of use, loss of revenue, loss of actual or anticipated profits, loss of the use of money, loss of business, loss of opportunity, loss of goodwill, and loss of reputation. Atlus Products Company's maximum liability shall not in any case exceed the purchase price paid by you for the Atlus product. Please note that some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

How to get service

If a defect in workmanship or materials causes your Atlus product to become inoperable within the warranty period, before returning any defective product, email Atlus Products Company at support@atlusproducts.com. The consumer shall be responsible for removing the defective product from the vehicle (including any labor charges) and returning it, shipping costs prepaid, to Atlus Products Company for verification. You must prove to the satisfaction of Atlus Products Company the date of original purchase of your Atlus product. A minimum $10 shipping and handling charge (plus applicable sales tax) will apply to all warranty claims. You must also pack the product to minimize the risk of it being damaged in transit. If we receive a product in damaged condition as the result of shipping, we will notify you, and you must seek a claim with the shipper.

What Atlus Products Company will do

If you submit a valid claim to Atlus Products Company during the warranty period, and Atlus determines that the product was defective, Atlus Products Company will, at its option, repair your Atlus product or furnish you with a new or rebuilt product. Atlus Products Company will not reimburse you for repairs or replacement parts provided by other parties. Your repaired or replacement Atlus product will be returned to you (subject to payment of the required warranty claim shipping and handling charge), and it will be covered under the warranty for the balance of the warranty period, if any. When a product or part is replaced, any replacement item becomes your property, and the replaced item becomes the property of Atlus Products Company. You are responsible for the installation/reinstallation (including any labor charges) of the product.

How the law relates to this warranty

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. By this warranty, Atlus Products Company does not limit or exclude your rights except as allowed by law. To fully understand your rights, you should consult the laws of your state.

Customer Support

For Customer Service support, please contact us at:
support@atlusproducts.com

Atlus Products Company reserves the right to make changes and improvements to its products and publications at any time.

Engineered and Assembled in the USA

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California: ⚠WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov