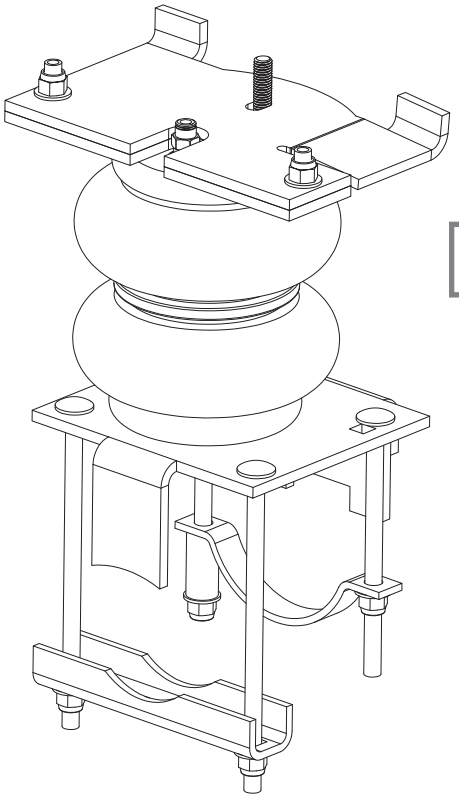
ENGINEERED BY AIR LIFT



Atlus Air A5000

Kit Number: AA25260

Fits:
Ford F-150 4WD

Engineered and Assembled in the USA

Installation Instructions

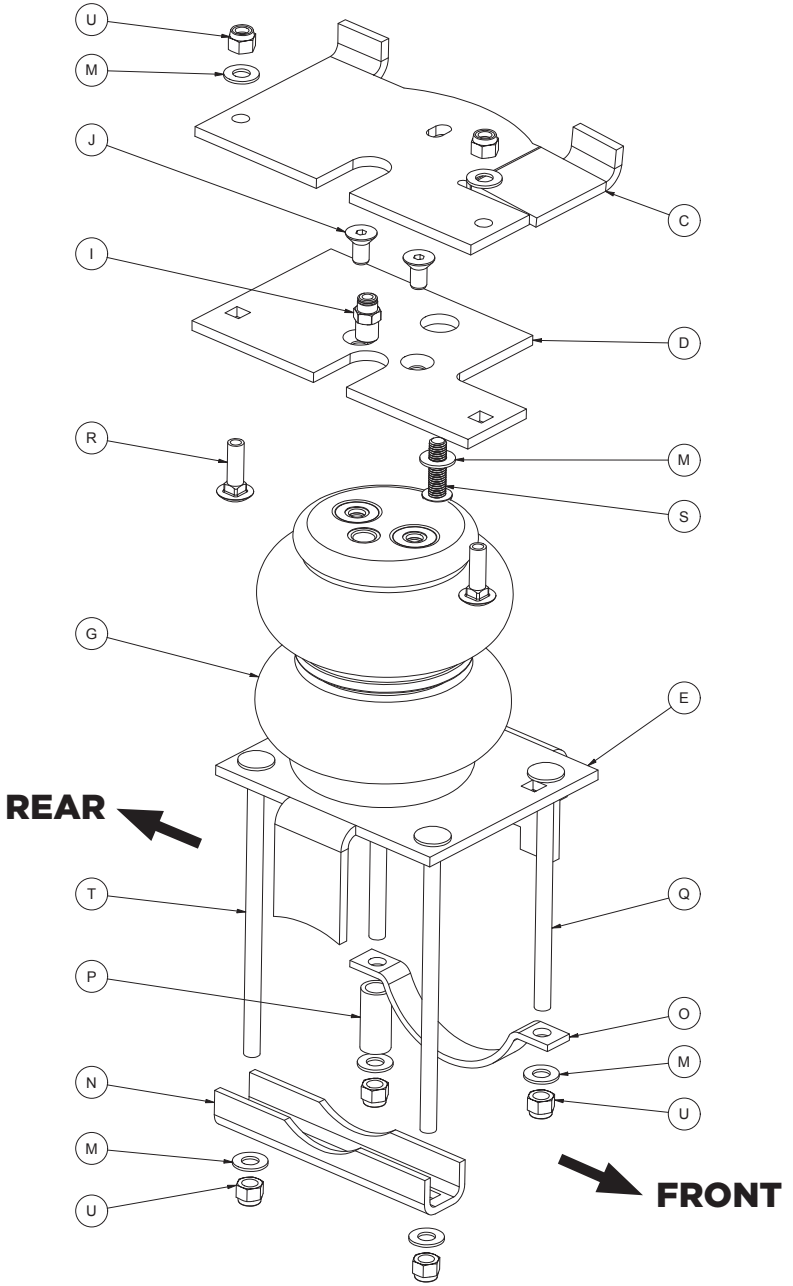
Before Getting Started

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 3/8", 9/16", & 1/2" deep-well sockets
- Standard and metric hex-key wrenches
- 3/8" and 5/16" Drill bits (vert sharp)
- Heavy-duty drill
- 3/8" Nut driver
- Torque wrench
- Adjustable 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

AA25260 Exploded Installation View



Parts List

Part	Part No.	Part Description	QTY
A	07079	LH Upper frame bracket	1
B	11461	LH Upper spring bracket	1
C	07078	RH Upper frame bracket	1
D	11462	RH Upper spring bracket	1
E	03090	Lower bracket	2
F*	11463	Adapter bracket	2
G	58403	Air spring	2
I		Push-to-connect (PTC) fitting	2
J		3/8"-16 x 3/4" Flat-head screw	4
K*		3/8"-16 x 7/8" Hex-head bolt	4
L*		3/8" Lock washer	4
M		3/8" Flat washer	22
N	01531	Clamp bar	3
O	10451	Axle strap	1
P	10673	Sleeve spacer	1
Q		3/8"-16 x 6" Carriage bolt	1
R		3/8"-16 x 1 1/4" Carriage bolt	4
S		M10-1.5 x 35 Button-head screw	2
T		3/8"-16 x 7 1/2" Carriage bolt	7
U		3/8"-16 Nylon lock nut	16
V*		M10-1.5 Universal nut	2
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

***** 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 the Air Fitting

Install the straight fitting (I) into the threaded port on top of the air spring (G). Thread it finger-tight, then tighten an additional 1 1/2 turns. Do not overtighten.

2. Attach the Upper Bracket

Attach the upper spring bracket (B or D) to the air spring. Use four flat-head screws (J) to secure the bracket to the top of the air spring. Torque the fasteners to no more than 20 lb.-ft. (27Nm).

3. Differentiate Left and Right Assemblies

Identify the driver's (left) and passenger's (right) side assemblies, as they are side-specific. With the assemblies set in front of you with the air fittings on top facing towards each other, the left (driver side) assembly should have the upper bracket overhang on the upper right side facing away from you and the right (passenger side) will have the bracket overhang on the upper left side facing away from you.

Vehicle Preinstall Steps

1. Raise and Support the Vehicle

Lift the vehicle and support the rear axle with safety stands. Position the stands as wide as possible along the axle to maximize stability.

2. Create Room for Installation

Either lower the axle or raise the frame enough to create adequate space for placing the air spring assemblies between the frame and axle.

3. Remove Jounce Bumpers

Remove both factory jounce bumpers located between the frame and axle. For 2004–2008 models, also remove the stock universal nut that held the bumpers in place.

4. Install Universal Nut (2004–2008 Models Only)

Insert the new universal nut (V) into the large hole so the threaded portion is positioned up inside the frame. This step is not required for 2009–2014 models, which already have appropriate mounting provisions.

5. Modify Emergency Brake Cable Bracket (All Years)

On the passenger's (right) side, locate the emergency brake cable holder secured to a bracket welded to the axle using a self-tapping bolt. To make room for the axle strap, either cut off the bolt or grind it flush with the bracket.

Air Spring Installation into Vehicle

1. Install Frame Brackets

For early model vehicles, use the provided universal nut in the frame. For late-model vehicles, no modification is necessary. Attach the left frame mount bracket (A) using a flat washer (M) and button-head screw (S). Ensure the flanges of the upper bracket are on the outside of the frame rail facing upward, and the bracket is tight against the frame. Torque to 38 lb.-ft. (52Nm). Repeat for the right frame mount bracket (C).

2. Attach Air Spring Assemblies to Frame Brackets

Secure the left and right air spring assemblies to the installed frame brackets using carriage bolts (R), flat washers (M), and nylon lock nuts (U). Torque to 31 lb.-ft. (42Nm).

Lower Bracket Installation – 2004–08 Models (skip to step 9 for 2009-14 Models)

3. Position Lower Brackets

Place the lower bracket onto the axle and jounce bumper strike plate, and position it so the lower bracket leg with rounded bottom rests on top of the axle. Ensure the bracket is centered between the stock U-bolts that hold the leaf spring to the axle. Push the bracket firmly against the leaf spring.

4. Install Driver's Side Carriage Bolts

Insert long carriage bolts (T) into the inside square holes of the driver's side lower bracket.

5. Install Clamp Bars and Torque

Place the clamp bars (N) over the previously installed carriage bolts. Secure with flat washers (M) and nylon lock nuts (U). Torque evenly to 10 lb.-ft. (14Nm). Ensure the bracket remains flush against the leaf spring.

6. Install Passenger's Side Lower Bracket

Insert two long carriage bolts (T) into the innermost square holes of the passenger-side bracket. Set the axle strap (O) under the axle between the emergency brake cable bracket and the leaf spring retainer. The flange must rest above the spring retainer and ahead of the axle.

7. Secure Passenger-Side Bracket

Insert the final carriage bolt (T) through the outer square holes into the axle strap. Cap with a sleeve spacer (P), flat washer (M), and nylon lock nut (U).

8. Torque and Finalize Passenger Side

On the rear side of the axle, secure the axle strap with a flat washer (M) and nylon lock nut (U). Install the final clamp bar (N) over the remaining carriage bolts and cap with washers and lock nuts. Torque all hardware evenly to 10 lb.-ft. (14Nm). Jump to step 13.

Use a screwdriver to adjust the carriage bolts if access to the nuts is restricted. Maintain proper bracket alignment between U-bolts during tightening.

Lower Bracket Installation – 2009–14 Models

9. Install Adapter Bracket

Place the adapter bracket (F) over the existing lower bracket studs. Secure using flat washers (M) and nylon lock nuts (U). Torque to 20 lb.-ft. (27Nm).

10. Install Driver's Side Lower Bracket

Position the lower bracket on the axle with the inner leg placed outboard of the ABS line bracket. Angle the bracket if needed. Ensure it sits firmly between the U-bolts and against the leaf spring.

11. Install Carriage Bolts and Clamp Bars

Insert carriage bolts (T) into the inside square holes of the bracket. Install clamp bars (N), then secure with flat washers (M) and nylon lock nuts (U). Torque evenly to 10 lb.-ft. (14Nm).

12. Install Passenger's Side Lower Bracket

Repeat the same procedure from the 2004–08 installation. Secure the bracket and torque hardware evenly to 10 lb.-ft. (14Nm).

13. Secure Air Spring to Lower Bracket (All Models)

From beneath the bracket, attach the air spring using 3/8″ hex-head bolts (K), lock washers (L), and flat washers (M). Tighten bolts securely to a maximum of 20 lb.-ft. (27Nm). Repeat for the other side.

14. Secure ABS Line (Late Models Only)

Use a zip tie (BB) to secure the ABS line above the bracket to prevent contact with the air spring.

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

Document No. AM-1230
Revision (022510)
ECR 10488