

PA601 Commercial Amplifier

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**Atlas
Sound**

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SAFETY INSTRUCTIONS

Please Read Carefully Before Installing Or Operating This Product
Many Safety Messages Are Included In This Manual, Please Be Sure To Observe These As They Are Important
We Recommend That You Keep This Manual Close By For Future Reference

- Do not install this device in dusty or humid locations, or in direct exposure to sunlight. In addition, locations that have steam or sooty conditions are not to be used, as this may result in fire or electric shock.
Prevent the power cord from damage, pinching, or from being walked on, in particular the plug and where the cord attaches to the product.
Do not defeat the polarized or grounding feature of the power cord plug. If the plug will not fit in your outlet, consult a licensed electrician.
Use only the specified accessories and attachments specified in this manual.
Disconnect the power cord during electrical storms or when the product will be unused for long periods.
Have servicing done only by qualified personnel. Servicing will be required when the product is damaged in any way, when the power cord is damaged, when liquid has been spilled or objects have fallen into the device. Servicing will also be required when this device has been exposed to rain, does not operate normally, or has been dropped.

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The lightning flash with arrowhead within a triangle is intended to tell the user that parts inside the product are a risk of electric shock to persons.



The exclamation point within a triangle is intended to tell the user that important operating and servicing instructions are in the papers with the appliance.



INTRODUCTION

Congratulations and thank you for purchasing the Atlas Sound PA601 amplifier. This new and innovative professional grade product has been designed from the ground up to include the important features that professional installation personnel require to meet or exceed their customer's expectations. Small and compact, and engineered for reliability, the Atlas Sound PA601 will provide years of service and flexibility in today's background music and paging applications.

FEATURES

- 1 Channel @60W Into 70.7V, 100V, and 8Ω Loads
- One Balanced Line Input
- 1 Mono Unbalanced RCA Input
- 1 Unbalanced Line Output
- Loudness Contour Switch
- Selectable AC Mains
- IEC AC Mains Power Connect
- Terminal Block Speaker Output

APPLICATIONS

The Atlas Sound PA601 is the perfect choice for distributed business paging and background music (BGM) systems, small to medium speech privacy systems and in applications where additional amplifications is required.

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SAFETY PRECAUTIONS

- Read the instructions very carefully before using this product.
- Observe the instructions in this manual as conventions of safety; symbols and messages regarded as important precautions are included.
- Retain this manual for future reference.

Message Conventions and Safety Symbols

Before installing and operating this product, read this manual so you are fully aware of the potential safety hazards and understand the safety symbols and messages. The safety symbols and messages shown below are used in this manual to prevent bodily injury and property damage from mishandling.



WARNING

Indicates a potentially hazardous situation which, if mishandled, could result in death or serious injury.



CAUTION

Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.



WARNING WHEN INSTALLING THE PRODUCT

- Do not expose the product to rain or in an environment where it may be exposed to water or other liquids, which may result in fire or electric shock.
- Operate the product only with the voltage specified on the unit. Fire and/or electric shock may result if a higher voltage is used.
- Do not modify, kink, or cut the power cord. Do not place the power cord in close proximity to heaters and do not place heavy objects on the power cord, including the product itself, doing so may result in fire or electric shock.
- Replace the protective cover over the speaker terminals after installation. Do not touch the 70V speaker terminals as electric shock may result.
- Ensure that the safety ground terminal is connected to a proper ground. Never connect the ground to a gas pipe as a catastrophic disaster may result.
- Be sure the installation of the product is stable, avoid slanted surfaces as the product may fall and cause injury or property damage.



WARNING WHEN THE DEVICE IS IN USE

- To prevent electric shock, do not remove the product cover as there are high voltage components inside. Refer all servicing to Atlas Sound.
- Should any of the following irregularities occur during use, immediately switch off the power, disconnect the power cord from the AC outlet and contact Atlas Sound. Do not attempt to continue operation with the product as this may cause fire or electric shock:
 - Smoke or strange smell coming from the unit.
 - If the product falls or the case is damaged.

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- If water or any metallic objects falls into the product.
- If the power supply cord is damaged in any way.
- If the unit is malfunctioning.
- Do not insert or drop metallic objects or flammable materials into the ventilation holes of the product's cover, as this may result in electric shock or fire.
- Do not place any containers with liquid or metallic objects on the top of the product. If any liquid spills into the unit, fire or electric shock may result.
- Never operate this product or touch the power supply cord during an electrical storm, electric shock may result.
- Never exceed the wattage on the product when connecting equipment. Fire and/or property damage may result.



CAUTION WHEN INSTALLING THE PRODUCT

- Plugging in or unplugging the power cord with wet hands may result in electric shock.
- Never move the unit with the power cord plugged into the wall, as damage to the power cord may result. When unplugging the cord from the wall, grasp the plug, **NOT** the cord.
- Never block the panel vents in the product's cover. Heat buildup may result inside the unit and fire may result.
- Never install this product in humid or dusty locations, nor in direct sunlight, near sources of heat, or in areas where sooty smoke or steam are present. Fire and electric shock may result.



CAUTION WHEN THE PRODUCT IS IN USE

- When powering the product up for the first time, ensure that the volume controls are turned down. Unexpected high sound pressure levels may be present at the speakers and result in hearing loss.
- Never place heavy objects on the product, causing it to fall and/or break, resulting in personal injury and property damage. In addition, the product itself may fall and cause injury and property damage.
- Never operate the product for extended periods with the sound in a distorted condition. This is an indication of a malfunction, which may result in excessive heat being generated and causing a fire.
- Contact Atlas Sound for instructions on cleaning the inside of the unit. Large accumulations of dust inside the unit may result in heat buildup and fire.
- Ensure that the power supply plug is securely plugged into the wall outlet. Never allow dust to accumulate on the power plug or inside the wall outlet.
- When cleaning the unit or the unit is not to be operated for an extended time period, unplug the power cord from the wall.

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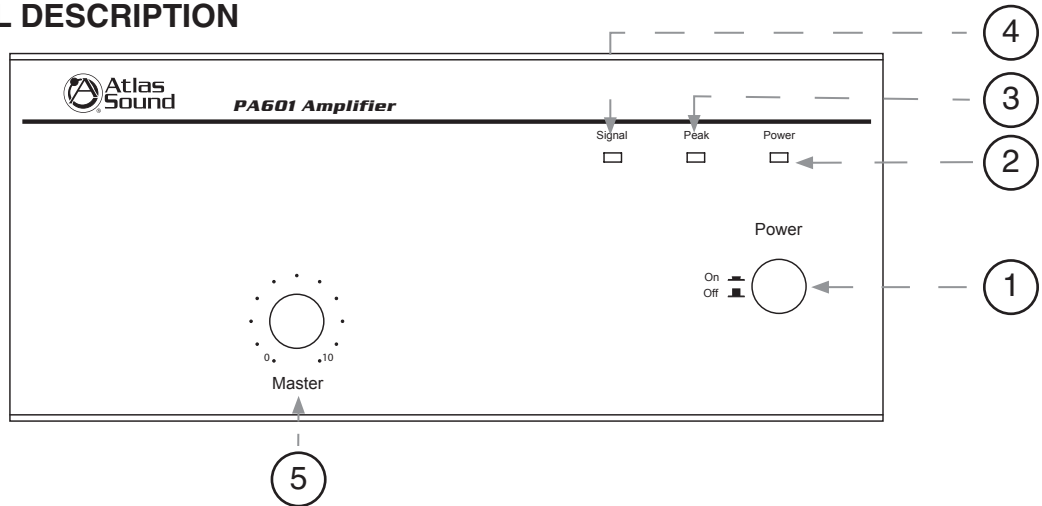
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FRONT PANEL DESCRIPTION



1. Power Switch

This push on/off switch supplies power to the PA601 amplifier.

2. Power LED

This LED illuminates when the power switch is turned on.

3. Peak LED Indicator

The Peak LED will illuminate if the PA601 inputs are being over driven or when the input gain controls are turned up too high. Check that the proper signal level is being fed into the inputs and/or turn the input gain down until the LED is turned off.

4. Signal LED

When the Signal LED illuminates, this indicates that input signals connected to the amplifier are capable of driving the PA601 to full power.

5. Input 1 Gain

Input 1 rotary control varies the amplitude of the signal fed into the amplifier. Turn clockwise to increase and counter-clockwise to decrease the signal level.

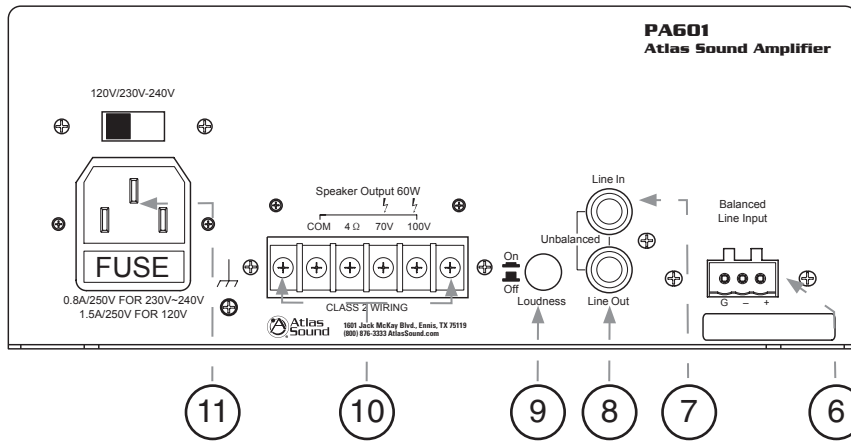
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REAR PANEL DESCRIPTION



6. **Balanced Input**

Balanced line level signals connect to the (+), (-), and (G) terminals. Note if you are connecting an unbalanced line level input, tie (short) the (G) and (-) terminals together with an insulated jumper wire.

7. **Line In**

The Line In connector is useful for receiving a -6dBV mono unbalanced line level signal from a playback system such as a CD player.

8. **Line Out**

Line Out connector is useful for providing unbalanced line level signal to another amplifier or other external device.

9. **Loudness Contour EQ**

This switch, when in the ON position, provides +4dB of boost at 100Hz and 8kHz. Use of this EQ is suggested to enhance music playback at low levels.

10. **Output Terminal Strip**

For loudspeaker connections, connect as follows or proceed to the setup section for typical wiring schemes.

COM - Speaker common or negative connection

4Ω - Connect to direct coupled loudspeakers

70V - Connect to transformer coupled, 70.7V loudspeakers with a total load impedance of 83Ω

100V - Connect to transformer coupled, 100V loudspeakers with a total load impedance of 167Ω

11. **IEC AC Receptacle**

Prior to connecting a grounded power cord the proper selection of the AC Line switch and fuse must be made. For 120VAC use the 1.6A/250V fuse and for 230~240VAC use the 1A250V fuse.

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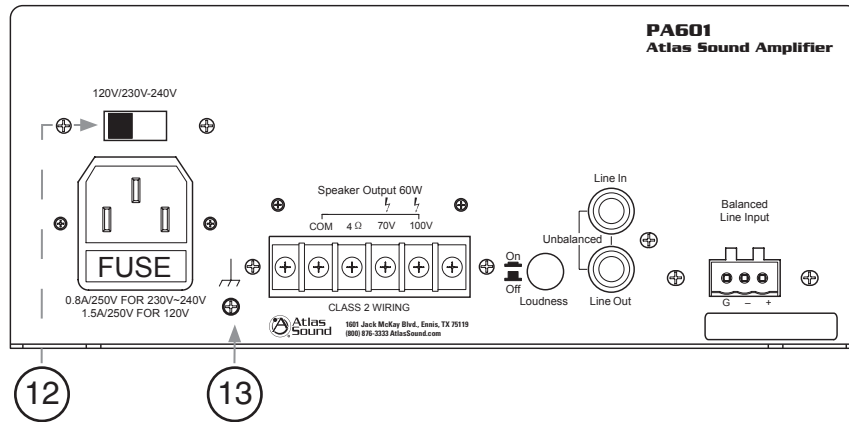
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13. AC Mains Voltage Select

Match the voltage selection to the required voltage.

14. Ground Terminal

Connect this terminal to electrical ground as required by local codes.

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WIRING THE PA601

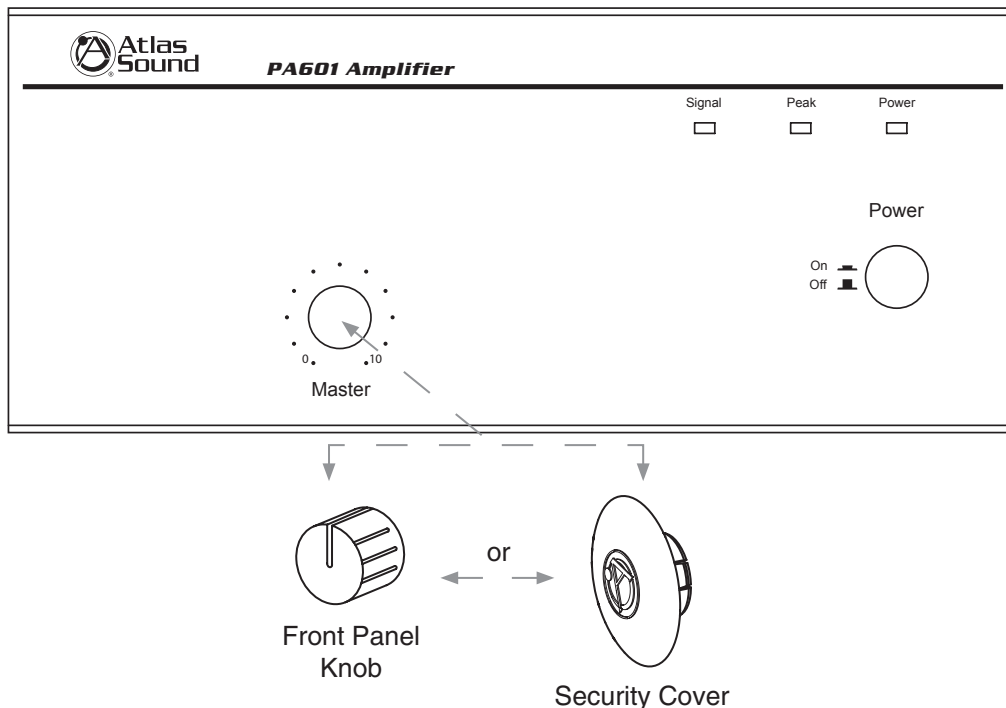
Speaker Outputs - Use 2 conductor unshielded wire of the appropriate gauge. If you are unsure about this, contact Atlas Sound Tech Support at 1-800-876-3333. Make sure you know how many speakers you need and what tap value you intend to use.

Balanced Input - Use 2 conductor w/shield for low level signals (20-22 gauge is best). Maintain the proper polarity, + to +, - to -, and shield to ground.

Unbalanced Inputs and Outputs - Pre-made RCA cables can be purchased from vendors to simplify interconnection to external devices.

SECURITY COVER OPTION

In order to prevent unauthorized operation of the PA601, optional security covers are available which take the place of the front panel knob. After the PA601 has been installed and is operating as desired, grasp the front panel knob and pull straight out from the front panel. Replace the knob with a security cover, Atlas part number AAVCC-5.



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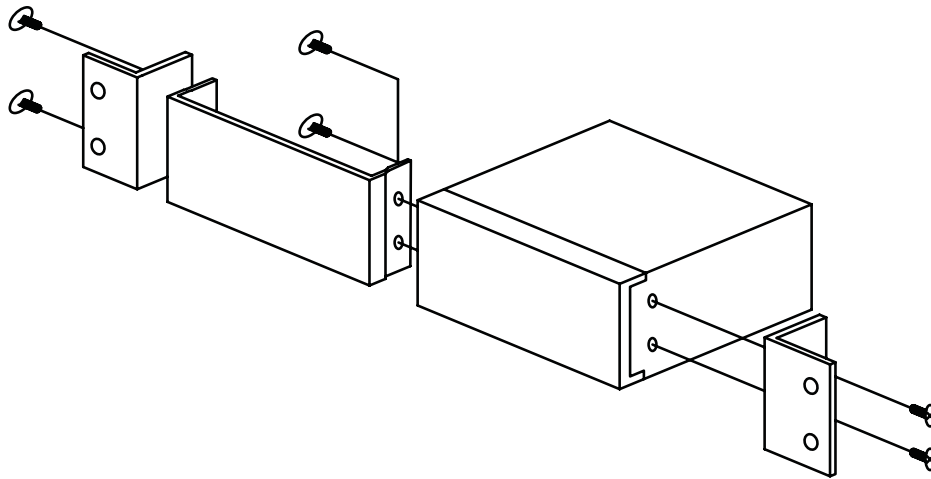


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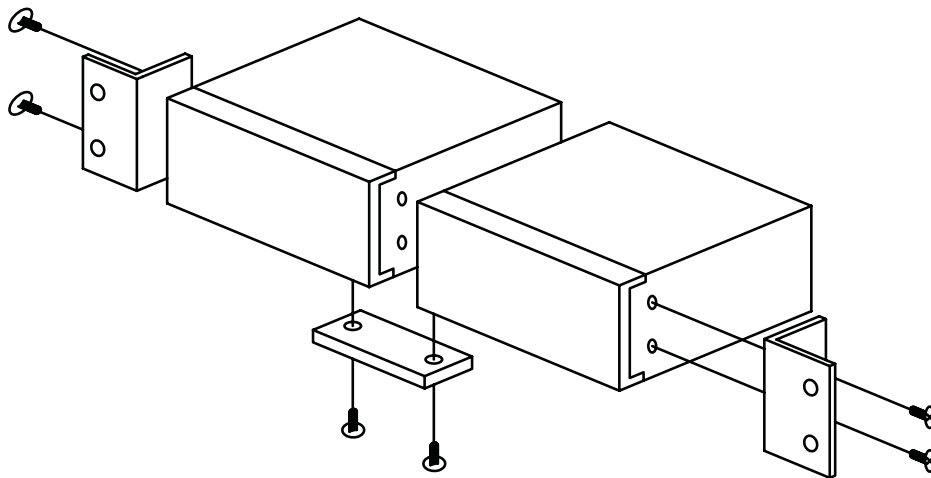


RACK MOUNTING OPTION

Rack mount ears are available through Atlas for installing the PA601 into equipment racks. If multiple units are being rack mounted, install Atlas 1RU (SVP19-1-052) vented panels between amplifiers, in order to aid cooling.



Rack Mount for Single Amplifier



Rack Mount for Two Amplifiers

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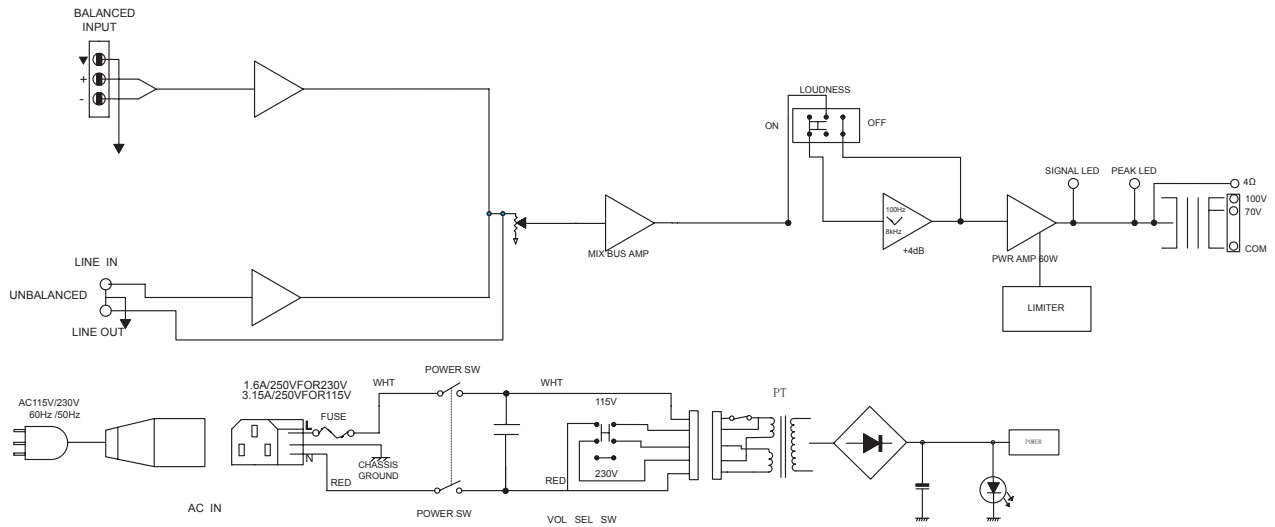
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BLOCK DIAGRAM



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SPECIFICATIONS

POWER OUTPUT	
Max. Average Power @ 50Hz-20kHz with .5% THD (10-80kHz filter) 8Ω, 1kHz, 0.5% THD 60W RMS	
TRANSFORMER OUTPUTS	
4Ω	60W RMS
70V	60W RMS
100V	60W RMS
FREQUENCY RESPONSE	
50Hz-20kHz	
THD+N	
.5% or less, at 1kHz, rated output .1% or less, at 1kHz, 5W output	
SENSITIVITY	
Balanced Line (Phoenix)	500mV (-6dBV) 20kΩ
Unbalanced (RCA)	500mV (-6dBV) 20kΩ
OUTPUTS	
Main Line Out	Transformer coupled, balanced, 4Ω, 70.7V, and 100V Unbalanced 600Ω
OUTPUT REGULATION	
Less than 2dB, no load to full load	
SIGNAL TO NOISE RATIO	
Balanced Line	>55dB
Unbalanced	>75dB
EQ LOUDNESS CONTOUR	
Bass	≥ +4dB @ 100Hz
Treble	≥ +4dB @ 8kHz
INDICATORS	
Power, signal, peak	
POWER CONSUMPTION	
120VA	
DIMENSIONS	
8.27" x 3.66" x 14" (210mm x 93mm x 357mm)	
WEIGHT	
14 lbs (6.58kg)	

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Limited Warranty

All products manufactured by Atlas Sound are warranted to the original dealer/installer, industrial or commercial purchaser to be free from defects in material and workmanship and to be in compliance with our published specifications, if any. This warranty shall extend from the date of purchase for a period of three years on all Atlas Sound products, including SOUNDOLIER brand, and ATLAS SOUND brand products except as follows: one year on electronics and control systems; one year on replacement parts; and one year on Musician Series stands and related accessories. Additionally, fuses and lamps carry no warranty. Atlas Sound will solely at its discretion, replace at no charge or repair free of charge defective parts or products when the product has been applied and used in accordance with our published operation and installation instructions. We will not be responsible for defects caused by improper storage, misuse (including failure to provide reasonable and necessary maintenance), accident, abnormal atmospheres, water immersion, lightning discharge, or malfunctions when products have been modified or operated in excess of rated power, altered, serviced or installed in other than a workman like manner. The original sales invoice should be retained as evidence of purchase under the terms of this warranty. All warranty returns must comply with our returns policy set forth below. When products returned to Atlas Sound do not qualify for repair or replacement under our warranty, repairs may be performed at prevailing costs for material and labor unless there is included with the returned product(s) a written request for an estimate of repair costs before any nonwarranty work is performed. In the event of replacement or upon completion of repairs, return shipment will be made with the transportation charges collect.

EXCEPT TO THE EXTENT THAT APPLICABLE LAW PREVENTS THE LIMITATION OF CONSEQUENTIAL DAMAGES FOR PERSONAL INJURY, ATLAS SOUND SHALL NOT BE LIABLE IN TORT OR CONTRACT FOR ANY DIRECT, CONSEQUENTIAL OR INCIDENTAL LOSS OR DAMAGE ARISING OUT OF THE INSTALLATION, USE OR INABILITY TO USE THE PRODUCTS. THE ABOVE WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES INCLUDING BUT NOT LIMITED TO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Atlas Sound does not assume, or does it authorize any other person to assume or extend on its behalf, any other warranty, obligation, or liability. This warranty gives you specific legal rights and you may have other rights which vary from state to state.

SERVICE

Should your PA601 amplifier require service, please contact the Atlas Sound warranty department at 1-877-689-8055, ext. 277 to obtain an RA number.

Atlas Sound Tech Support can be reached at 1-800-876-3333.

Visit our website at www.AtlasSound.com to see other Atlas products.

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