



F6-AMIX
Multi-Function Analog Mixer Card
Accessory Module for F6-MF



Important: All F6-MF accessory modules must be installed by a qualified technician.



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Important Safety Instructions



The lightning flash with arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.



1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this device near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other device that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the device.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the device. When a cart is used, use caution when moving the cart/device combination to avoid injury from tip-over.
13. Unplug this device during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the device has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled, or objects have fallen into the device, the device has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. **WARNING:** To reduce the risk of fire or electric shock, this device should not be exposed to rain or moisture and objects filled with liquids, such as a vase, should not be placed on this device.
16. To completely disconnect this equipment from the mains, disconnect the power supply cord plug from the receptacle.
17. The mains plug of the power supply cord shall remain readily operable.



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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.
 - 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 power rating on the product when connecting equipment. Fire and/or property damage may result.
- 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 electrical 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.



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 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.
- Keep all sides of the unit at least 3 1/2" away from objects that may obstruct air flow to prevent the unit's internal temperature rise.



**CAUTION: When The Product Is In Use**

- When powering the product up for the first time, ensure that the level control is 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 period, unplug the power cord from the wall.

Introduction

Thank you for purchasing the Atlas Sound F6-AMIX Multi-Function Analog Mixer Card input module for the F6-MF Modular Amplifier. The F6-AMIX module adds increased functionality and value to the F6-MF Multi-Impedance Modular Amplifier, reducing the need for additional external devices for more complex paging and background music systems. The innovative design of the F6-MF allows the amplifier to be configured to suit the individual amplification and sound system requirements for a variety of applications. The F6-AMIX Multi-Function Analog Input Mixer Card is feature loaded with stereo summed and Mic/Line inputs with global assignment, signal mixing and remote level control, and mute priority capabilities.

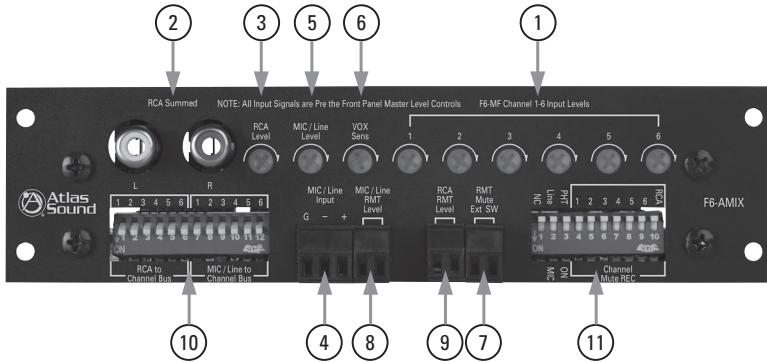
Key Features

- Mic/Line Input with Phantom Power
- Aux Input with Stereo Summing
- Matrix Routing of Mic/Line and Aux Inputs To Any Output
- Separate Remote Level Control of Mic and Aux Inputs
- Mute Bus with VOX and Contact Closure Muting

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Panel Features



- 1. Channel Input Level** - Recessed rotary controls adjust the signal levels of the 6 inputs of the F6 Main Frame and will combine / mix with RCA and Mic/Line inputs if required. These Channel Input Level controls are **PRE** the F6 Main Frame Front Panel Master Level controls. Rotate Clockwise to increase the level, counterclockwise to decrease. **Note:** These individual Channel Input Level controls must be ON for signal to be sent to the Front Panel Level controls.
- 2. RCA Input Left/Right** - Connect unbalanced line level signals to these inputs. Stereo sources are electronically summed.
- 3. RCA Level Control** - Recessed rotary control adjusts the level of the RCA Input signal. Rotate clockwise to increase the level, counterclockwise to decrease the level.
- 4. Mic/Line Input** - Balanced Line or Mic level signals are connected to this input. Your source connections must be mated properly to this connector or signal loss and/or noise may be introduced. For Gain or Source type selection, refer to the Block Diagram on page 10 for the proper input function settings. **Note:** Unbalanced line level inputs can be inserted by using the following wire configuration, connect the (G) and (-) terminals together.
- 5. Mic/Line Level Control** - Recessed rotary control adjusts the level of the Mic/Line input signal. Rotate clockwise to increase the signal, counterclockwise to decrease the level.
- 6. VOX Mute Sensitivity** - Recessed rotary control adjusts the sensitivity of the VOX (Voice Activated) Mute circuit. The channel you want muted must be selected using the Channel Mute Receive Dip Switch. Rotate clockwise to increase the sensitivity, counterclockwise to decrease. It is recommended to try several tests with audio present at the Mic/Line input terminals to determine the best setting for muting. Too sensitive and false muting may occur, not enough and muting may not occur dependably.
- 7. Remote Mute** - Shorting these terminals with a switch will activate the internal mute circuit. Any





8. **Mic/Line VCA** - Connect an external 10K Ω potentiometer (Atlas AAVC-10K) to these two terminals

to remotely control the level of the Mic/Line input signal. **Note:** This feature operates as an attenuator only. It is recommended that prior to installing the external pot, set the maximum levels first. Placement of remote level can be up to 200ft away from the F6 amplifier. Suggested wire size is 20-22 gauge. Audio is present on these wires.

9. **Aux VCA** - Connect an external 10K Ω potentiometer (Atlas AAVC-10K) to these two terminals to remotely control the level of the RCA input signal. **Note:** This feature operates as an attenuator only.

It is recommended that prior to installing the external pot, set the maximum levels first. Placement of remote level can be up to 200ft away from the F6 amplifier. Suggested wire size is 20-22 gauge. Audio is not present on these wires.

10. **Dip Switch One Function Selection**

- Switch 1 RCA to Channel One Bus
- Switch 2 RCA to Channel Two Bus
- Switch 3 RCA to Channel Three Bus
- Switch 4 RCA to Channel Four Bus
- Switch 5 RCA to Channel Five Bus
- Switch 6 RCA to Channel Six Bus
- Switch 7 Mic/Line to Channel One Bus
- Switch 8 Mic/Line to Channel Two Bus
- Switch 9 Mic/Line to Channel Three Bus
- Switch 10 Mic/Line to Channel Four Bus
- Switch 11 Mic/Line to Channel Five Bus
- Switch 12 Mic/Line to Channel Six Bus

11. **Dip Switch Two Function Selection**

- Switch 1 NC (Not Used)
- Switch 2 Line (Up Position) Mic (Down Position)
- Switch 3 Mic Phantom 15VDC (Down Position is ON)
- Switch 4 Mute Receive Channel One
- Switch 5 Mute Receive Channel Two
- Switch 6 Mute Receive Channel Three
- Switch 7 Mute Receive Channel Four
- Switch 8 Mute Receive Channel Five
- Switch 9 Mute Receive Channel Six
- Switch 10 Mute Receive RCA Input



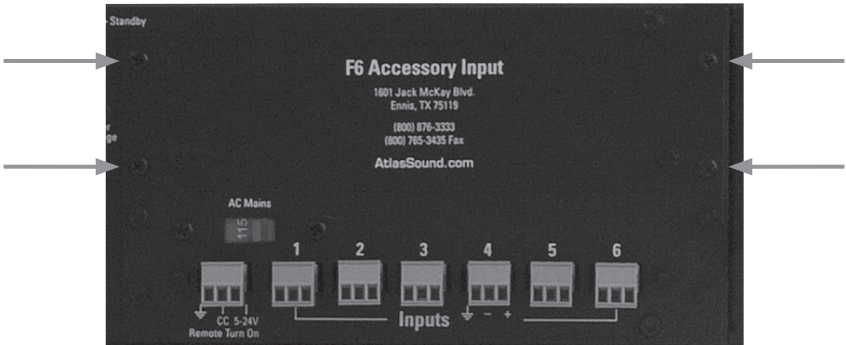
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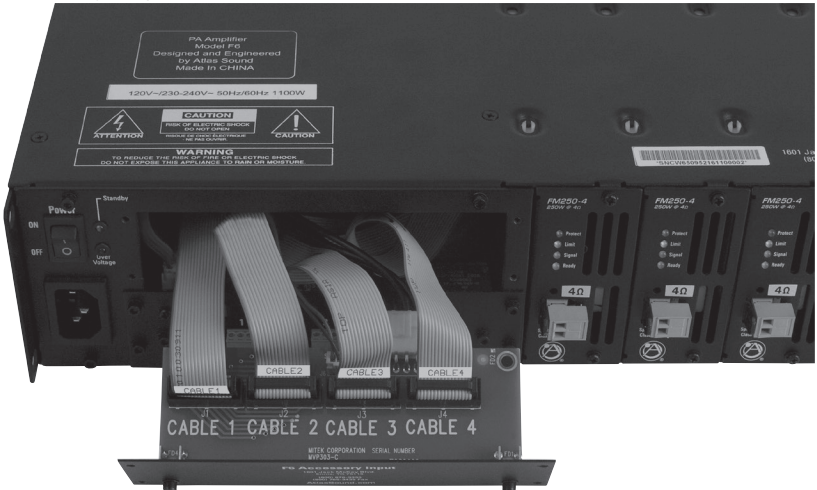
Installation

Important: All F6-MF accessory modules must be installed by a qualified technician.

1. Set the AC Mains Power Switch of the F6-MF to the OFF position.
2. Unplug the F6-MF AC Mains power cord from the AC source.
3. Wait 10 minutes before installing the module.
4. Remove the four screws holding the F6 Accessory Input plate. **Note:** Do not lose the screws, they will be needed again.

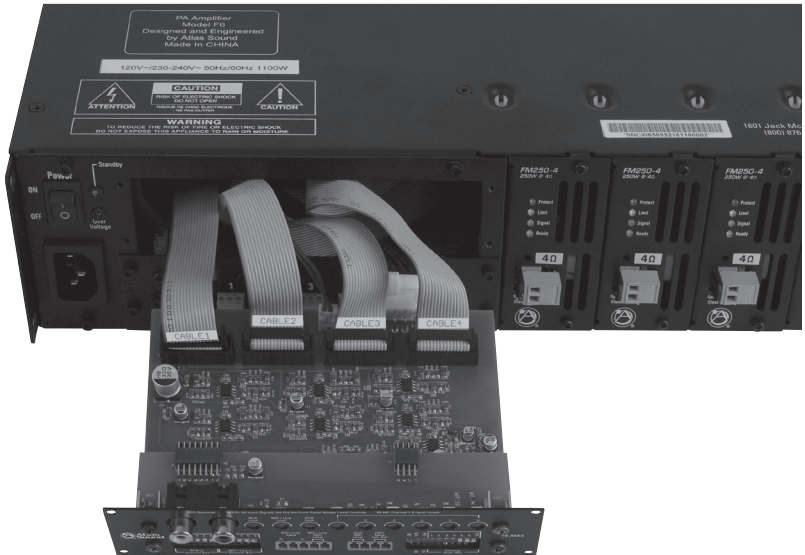
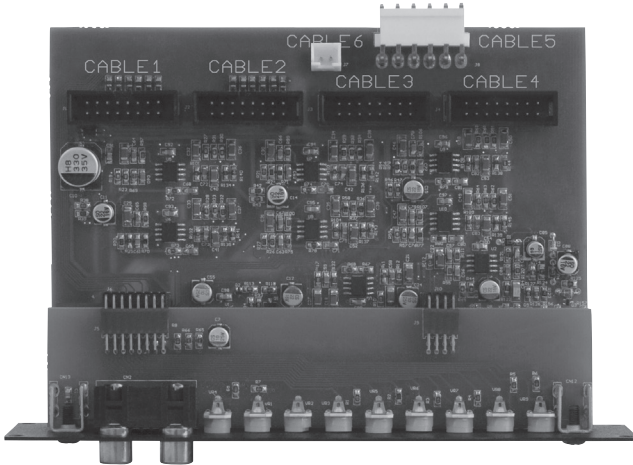


5. Carefully pull the panel assembly 4" to 5" away from the main chassis. Carefully remove the six cables from the PCB headers. **Note:** Do not pull on the cable wire. Only pull on the connector itself or damage may occur.





6. Set the F6 Accessory Input plate aside. It will not be needed again unless returning the F6-MF back to the original factory setting is desired.
7. Connect the cables to the F6-AMIX PCB following the pictures below. There are six cables that need to be connected. **Note:** Be careful not to miss-pin a cable connector or header pin or damage may occur.



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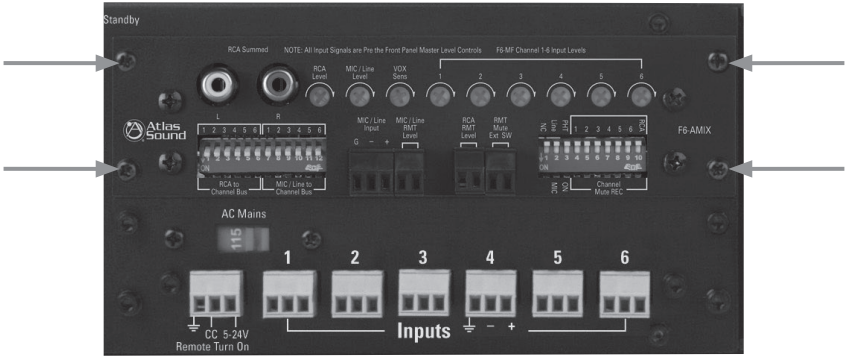
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F6-AMIX Multi-Function Analog Mixer Card

Owner's Manual

8. Place the F6-AMIX card back in the F6-MF. Do not force the F6-AMIX into the card slot. Secure with four screws.



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Using the F6-AMIX

Follow these steps before turning on the F6-MF.

1. Turn all six level controls on the front panel of the F6-MF down.
2. Turn all six Channel Input level controls on the F6-AMIX down.
3. Turn the RCA & Mic/Line level controls down.
4. Decide if you are using a single music source into various channels of the F6-MF. If so, insert connection from the source output into the RCA summed input jacks. Select the Channels of the F6-MF you want the signal routed to via the RCA to Channel Bus Dip Switches.
5. Decide if you are using a single Mic or Line source into various channels of the F6-MF.

Example: Paging Mic or a global announcement playback.

- A. Wire the cable into the Mic/Line Input. If using an unbalanced Line source you must connect the (G) and (-) pins together.
 - B. Assign the input to be either Line or Mic via the labeled dip switch.
 - C. If assigned to Mic, then decide if you need Phantom Power. If so, select the DP SW ON.
 - D. Select the Channels of the F6-MF you want the signal routed to via the Mic/Line to Channel Bus Dip Switches.
6. Muting Input channels can be done by either VOX (Voice Operated Mute) or by an external Hard Switch Contact Closure (RMT Mute Ext SW).
 - A. Select the Input signal you want to be muted via the Channel Mute REC (Receive) DP SW.
 - B. Using an external switch to activate the mute circuit is done by shorting the two RMT Mute Ext SW pins together.
 - C. For voice activated mute, talk into the Mic and it will automatically activate the VOX circuitry. If more sensitivity is needed to activate the mute, increase the VOX Sens until the desired trigger point is achieved.
 7. Remote Level can be applied to either or both the RCA input and the MIC/Line input.

Note: Separate pots for each control port will be required. Do not combine the ports.

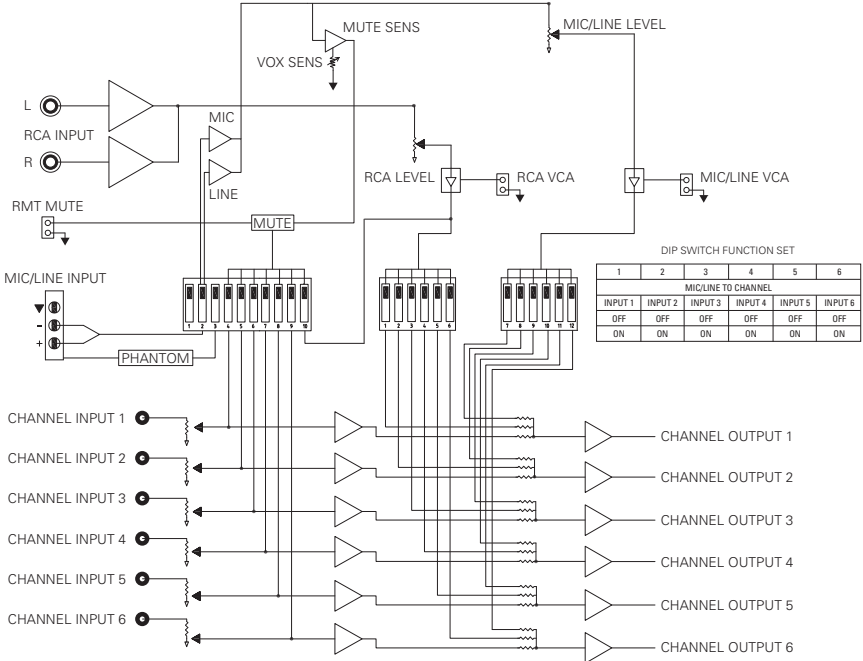
 - A. Use a 10K Pot, only two leads/wires are needed. We suggest using Atlas AAVC-10K kit.
 - B. Insert the wires into the port, only part of the pot is needed. You may need to reverse the wires on the pot leads for the correct level rotation.
 8. Turn the F6-MF level controls to 50%. **Note:** The F6-MF levels are post or after all F6-AMIX input signals. If these pots are turned down no signal will be sent to the amp channels.
 9. Increase the level on Input Channels 1 - 6. Confirm the signal LED on the corresponding amp channel is illuminated. Adjust the level as needed.
 10. Adjust the RCA and Mic/Line levels as needed.



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Block Diagram



DIP SWITCH FUNCTION SET

1	2	3	4	5	6	7	8	9	10
MIC/LINE		PHANTOM		CHANNEL MUTE REC					
		INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6	RCA	
	MIC	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
	LINE	ON	ON	ON	ON	ON	ON	ON	ON

DIP SWITCH FUNCTION SET

1	2	3	4	5	6
RCA TO CHANNEL					
INPUT 1	INPUT 2	INPUT 3	INPUT 4	INPUT 5	INPUT 6
OFF	OFF	OFF	OFF	OFF	OFF
ON	ON	ON	ON	ON	ON



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**Specifications**

Description	8 In x 6 Out Analog Mixer Card for F6-MF
Chassis Color	Black
Chassis Material	Steel

Inputs

Type	Qty 1, Unbalanced
Connection	RCA Left and Right Actively Summed
Impedance	10K Ω
Input Level	316mV (-10dBV)
Type	Qty 1, Balanced Mic or Line Selectable
Connection	Removable 3 Position Captive Screw 3.5mm Spacing
Impedance	1.2K Ω Balanced, 600 Ω Unbalanced
Line Input Level	1V Balanced
Mic Input Level	40dB Gain
Type	Qty 6, Balanced from F6-MF Input
Connection	Removable 3 Position Captive Screw 3.5mm Spacing
Impedance	10K Ω
Line Input Level	1V Balanced

Controls

Input Level Control	Channels 1 - 6, Mic/Line, RCA Summed
Remote Level Control Port	Mic/Line and RCA, Qty 2 Removable 2 Position Captive Screw 3.5mm spacing for Each Port
VOX Sens	Sensitivity Range 2mV - 20mV
Phantom Power	15VDC

Dip Switch Functions

RCA to Channel Bus Qty 6
Mic/Line to Channel Bus Qty 6
Channel Mute Receive Assign Qty 7
Phantom On/Off Qty 1
Mic / Line Selection Qty 1

Electrical

Frequency Response	20Hz - 20KHz \pm 1dB
THD	.06% at 1KHz average

Mechanical

Dimensions	H 1.55" (40mm) x W 6.125" (156mm) x D 5.34" (135mm)
Weight	5.6 oz, .16g

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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 F6-AMIX require service, please contact the Atlas Sound warranty department at 1-877-689-8055, ext. 1274 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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