



# AMF-100

Audio DA  
Mounting Frame

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## **Statement of Warranty**

Simlatus Corporation warrants its products for a period of three (3) years from the date of shipment to be free from defects in materials and workmanship and meets applicable published specifications. Equipment which has been operated within its ratings and has not been subjected to mechanical or other abuse or modification by the purchaser, its agents, and/or employees, will, at the option of Simlatus, be replaced or repaired if it is returned, freight prepaid, to Simlatus. Equipment that fails under conditions other than described herein will be repaired at the price of components and labor in affect at the time of repair.

This warranty is in lieu of all other warranties, expressed or implied, with respect to the condition or performance of any Simlatus product, its merchantability or fitness for a particular purpose. Simlatus is not liable for any consequential damages.

## **FCC Compliance**

This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area could cause harmful interference in which case the user will be required to correct the interference at his own expense.

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# Table of Contents

## Introduction

Important Safeguards and Notices .....	i
Important Warnings and Cautions .....	ii
Warnings .....	ii
Cautions .....	iii
North American Power Supply Cords .....	iv

## Section I

AMF-100 General Description .....	1
-----------------------------------	---

## Section II

AMF-100 Specifications .....	2
------------------------------	---

## Section III

AMF-100 Installation .....	3
----------------------------	---

## Section IV

PS-102 General Description .....	4
----------------------------------	---

## Section V

PS-102 Specifications .....	5
-----------------------------	---

## Section VI

Diagrams.....	6
---------------	---

# *Important Safeguards and Notices*

Information on the following pages provides important safety guidelines for both Operator and Service personnel. Specific warnings and cautions will be found throughout the manual where they apply, but may not appear here. Please read and follow the important safety information, noting especially those instructions related to risk of fire, electric shock or injury to persons.

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## **WARNING**



*Any instructions in this manual that require opening the equipment cover or enclosure are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.*

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## **Symbols and Their Meaning in This Manual**



The lightning flash with arrowhead symbol, within an equilateral triangle, alerts the user to the presence of “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 alerts the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



This symbol represents a protective grounding terminal. Such a terminal must be connected to earth ground prior to making any other connections to the equipment.



The fuse symbol indicates that the fuse referenced in text must be replaced with one having the ratings indicated.

# *Important Warnings and Cautions*

## **Warnings**

- Heed all warnings on the unit and in the operating instructions.
- Do not use this product in or near water.
- Disconnect ac power before installing any options.
- This product is grounded through the grounding conductor of the power cord. To avoid electrical shock, plug the power cord into a properly wired receptacle before connecting the product inputs or outputs.
- Route power cords and other cables so that they are not likely to be damaged.
- Disconnect power before cleaning. Do not use liquid or aerosol cleaners; use only a damp cloth.
- Dangerous voltages exist at several points in this product. To avoid personal injury, do not touch exposed connections and components while power is on.
- Do not wear hand jewelry or watches when troubleshooting high current circuits, such as the power supplies.
- During installation, do not use the door handles or front panels to lift the equipment as they may open abruptly and injure you.
- To avoid fire hazard, use only the specified correct type, voltage and current rating as referenced in the appropriate parts list for this product. Always refer fuse replacements to qualified service personnel.
- To avoid explosion, do not operate this product in an explosive atmosphere unless it has been specifically certified for such operation.
- Have qualified personnel perform safety checks after any completed service.

## Warnings (continued)

- If equipped with redundant power, this unit has two power cords. To reduce the risk of electrical shock, disconnect both power supply cords before servicing.
- This equipment may employ laser(s). If it does, they comply with the current construction requirements of the code of Federal regulations, title 21, chapter I, subchapter J, sections 1010.2 and 1010.3 and sections 1040.10 and 1040.11.
- Do not attempt to view light output of the laser transmitter, eye damage may result. Always use an optical power meter to verify laser output.
- To prevent injury:
  - Never install telephone wiring during a lightning storm.
  - Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
  - Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
  - Use caution when installing or modifying telephone lines.

## Cautions

- When installing this equipment, do not attach power cord to building surfaces.
- To prevent damage to equipment when replacing fuses, locate and correct the trouble that caused the fuse to blow before applying power.
- Verify that all power supply lights are off before removing power supply or servicing equipment.
- Use only specified replacement parts.
- Follow static precautions at all times when handling this equipment.

## Cautions (continued)

- Leave the back of the frame clear for air exhaust cooling and to allow room for cabling. Slots and openings in the cabinet are provided for ventilation. Do not block them.
- Front door is part of fire enclosure and should be kept closed during normal operation.
- This product should be powered on as described in the manual. To prevent equipment damage select the proper line voltage at the ac input connector as described in the Installation documentation.
- To prevent damage to this equipment read the instructions in this document for proper input voltage range selection.
- To reduce the risk of electric shock, ensure that the two power supply cords are each plugged into a separate branch circuit.
- Circuit boards in this product are densely populated with surface mount and ASIC components. Special tools and techniques are required to safely and effectively troubleshoot and repair modules that use SMT or ASIC components. For this reason, service and repair of RJM products incorporating surface mount technology are supported only on a module exchange basis. Customers should not attempt to troubleshoot or repair modules that contain SMT components. RJM assumes no liability for damage caused by unauthorized repairs. This applies to both in- and out-of-warranty products.

## North American Power Supply Cords

This equipment is supplied with molded grounding plug (NEMA 5-15P) at one end and molded grounding connector (IEC 320-C13) at the other end. Conductors are CEE color coded, light blue (neutral), brown (line) and green/yellow (ground).

Operation of this equipment at voltages exceeding 130 VAC will require power supply cords which comply with NEMA configurations.

**Note:**

This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference, in which case the user will be required to correct the interference at his own expense.



# SECTION I

## AMF-100

### General Description

The AMF-100 Audio frame is a rack mounting frame capable of housing a maximum of twelve Simlatus analog audio modules, including the ADA-101 and ADA-101/R. It is also pin-compatible with most of the Leitch\* 800-series of audio modules.

The frame is 3.50" high (2RU) by 19" wide and is 12.5" deep. Additional space behind the frame should be planned for audio wiring. Input and output signal connections and remote gain controls are provided with removable clamp-type barrier connectors.

The frame provides mounting space for a maximum of two PS-102 power supplies. They are auto-sensing, and will accept any AC voltage from 90 to 240 volts at 50 or 60Hz. Each power supply has a separate AC input connector and should be connected to a power source capable of supplying a minimum of 75 Watts. The actual power drawn from the AC supply will depend on how many amplifiers, and of what type, are in the frame. It is recommended that dual supplies be used to improve efficiency and reliability. It may be necessary to use dual supplies if the frame is fully loaded with higher current options (see relevant amplifier manual).

A 3-pin Molex connector is provided on the rear of the frame. It is connected to the plus and minus output DC rails of the power supply, and can be wired to another Simlatus frame. This will provide power redundancy for the second frame without the need to purchase a redundant supply for that frame.

\*Leitch is a trademark of Leitch Technology International, Inc.

**SECTION II**  
**AMF-100**  
**Specifications**

**Electrical:**

Voltage	90 - 240VAC
Frequency	50 - 60Hz
Power	<70VA

**Mechanical:**

Size	3.50" x 19" x 12.5"
Weight	≈17lbs (including two power supplies)

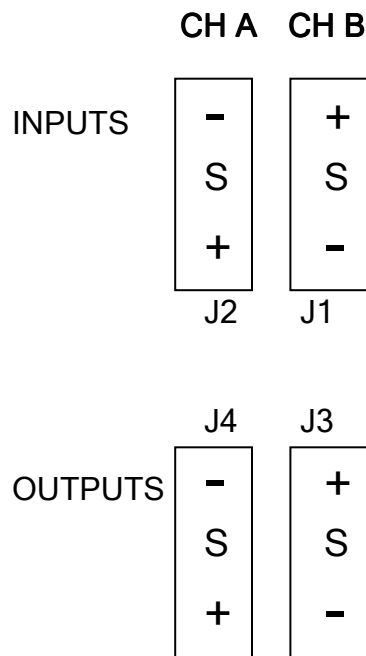
# SECTION III

## AMF-100

### Installation

The AMF-100 frame requires two rack units of space (3.50 inches) and is intended to be mounted in a standard 19 inch rack. The horizontal depth required in the rack is 12.5 inches (to the rear connectors; leave additional space for wiring interconnect). No special cooling requirements are necessary, but it is desirable to avoid mounting the frame adjacent to high-speed digital units to avoid possible noise problems.

The frame input and output connections are similar for most all of the RJM and Leitch\* audio modules. Refer to the appropriate amplifier manual for the actual frame inter-connections. The typical installation consists of three-pin terminal blocks as defined below:



\*Leitch is a trademark of Leitch Technology International, Inc.

## SECTION IV

### PS-102

#### General Description

The PS-102 power supply provides DC power for the Simlatus AMF-100 audio frame. The supply is auto-sensing, and will operate from any input voltage in the range 90 to 260VAC with a frequency of 50 or 60Hz. The supply provides  $\pm 21\text{VDC}$  @ 40 Watts. If the power required by the frame exceeds 30 Watts, it is recommended that two supplies be used to improve heat dissipation and reliability. Two supplies powered from separate AC sources are always recommended to maximize reliability.

## SECTION V

### PS-102

#### Specifications

##### Input:

Voltage	90 - 260 VAC
Frequency	50 - 60 Hz
Power	<70VA

##### Output:

Voltage	$\pm 21V$
Power	40 Watts

## SECTION VI

### Diagrams

PS-102 24V POWER SUPPLY SCHEMATIC

PS-102 SUB-REGULATOR SCHEMATIC