

# **EC2**

## **EXPANSION CONTROLLER MODULE**

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**OPERATING INSTRUCTIONS  
and trouble-shooting guide**

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**LECTROSONICS, INC.**

Rio Rancho, NM

# INTRODUCTION

The EC2 Expansion Controller module enables larger Modular Audio Processor systems to be configured than can be accommodated in one mainframe. It supplies all the power for other Modular Audio Processor system modules, and provides expansion in and expansion out connectors for Modular Audio Processor system interconnect.

Both main modules (automatic or expansion) reside in a special slot on the far right side of a Modular Audio Processor mainframe. A printed circuit board inside the Modular Audio Processor mainframe serves as the buss for signals and power to be distributed within a Modular Audio Processor system. Most necessary connections between the main module and other modules are made by the main buss, leaving very little wiring to be done by the installer.

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## THEORY OF OPERATION

The EC2 Expansion Controller module is the basis for an expanded Modular Audio Processor system, whether automatic or standard.

The power supply for the system is located in the main module. A toroidal power transformer is used in the Modular Audio Processor system, for both lower radiated and mechanical noise. The secondaries are rectified and filtered to produce  $\pm 23$  volts. The unregulated power is then distributed to each module, where it is regulated to  $\pm 15$  volts.

The Modular Audio Processor system has two central signal busses, Main and Aux, plus other logic and power busses. The EC2 contains circuitry to transfer all necessary signals to the AC2.

## INSTALLATION

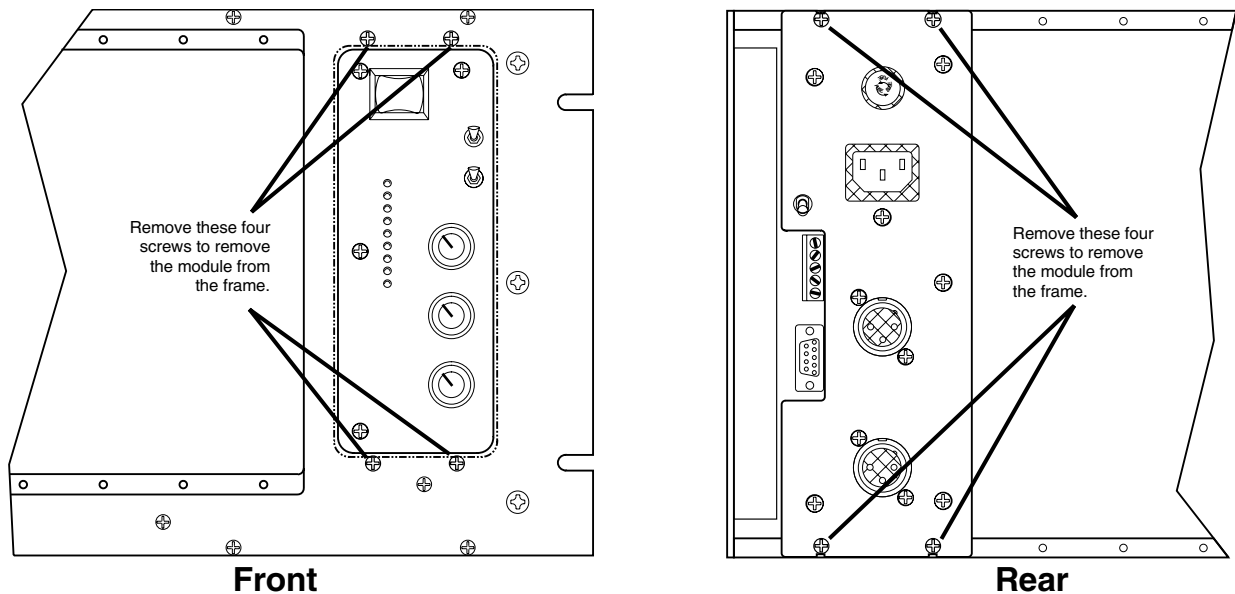


Figure 1 - Removing the module from the frame

To install the EC2 module, fit the module into the card guides for the slot and slide it forward in the mainframe until the female edge connector seats firmly onto the male pins of the main bus board.

Care should be taken when inserting the edge connector onto the pins to be sure there is correct alignment.

Four phillips head #2 machine screws with captive washers are provided to secure the rear panel of the EC2 to the top and bottom rear rails of the Modular Audio Processor mainframe. Four #2 flat head screws are provided to secure the front panel of the EC2 to the front panel of the Modular Audio Processor mainframe. Once these eight screws are in place, the installation of this module is complete.

## FRONT PANEL DESCRIPTION

**POWER** - Controls AC power for the module.

## REAR PANEL DESCRIPTION

**FUSE HOLDER** - Contains the AC fuse for the system. In 120 Volt systems, this fuse is a 3/4A Slo-Blo type, and should only be replaced by a similar type fuse. 240 Volt systems will have a 3/8A Slo-Blo fuse.

**EXPANSION INTERFACE CONNECTOR - (To AC2/EC2)** Provides a means of system expansion if more than one Modular Audio Processor mainframe is needed. Uses a standard male to female 9 pin subminiature D type connector.

**EXPANSION INTERFACE CONNECTOR - (To EC2)** Provides a means of system expansion if more than one EC2 Expansion mainframe is needed. Uses a standard male to female 9 pin subminiature D type connector.

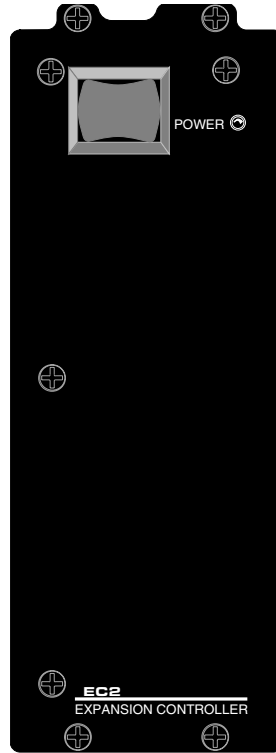


Figure 3 - EC2 Front Panel

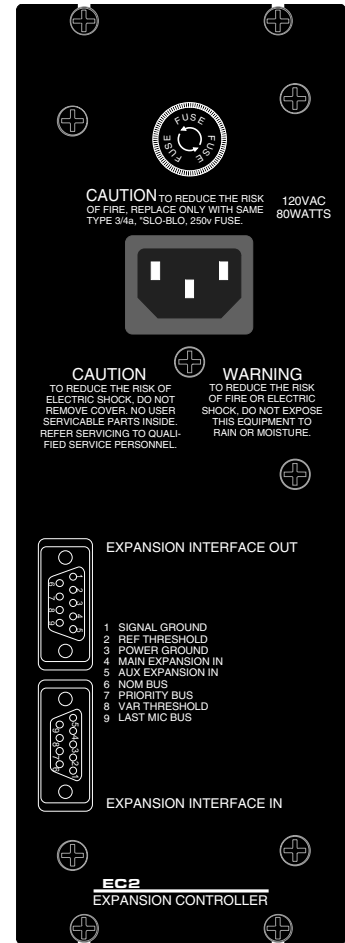


Figure 2 - EC2 Rear Panel

## OPERATING INSTRUCTIONS

- 1) Install all Modular Audio Processor modules in the EC2 Expansion mainframe according to the installation instructions included with each module.
- 2) If the EC2 is to be connected to an AC2 connect the Expansion Interface Out of the EC2 to the Expansion Interface In of the AC2.
- 3) If the EC2 is to be connected to another EC2, connect the Expansion Interface Out of the first EC2 to the Expansion Interface In on the second EC2.

## SPECIFICATIONS

<b>Input:</b>	
<b>Type:</b>	9 pin female D subminiature Expansion Interface In
<b>Output:</b>	
<b>Type:</b>	9 pin male D subminiature Expansion Interface Out
<b>Maximum Power Consumption:</b>	0.75 Amps at 120VAC 90 Watts

## SERVICE AND REPAIR

If your system malfunctions, you should attempt to correct or isolate the trouble before concluding that the equipment needs repair. Make sure you have followed the setup procedure and operating instructions. Check out the inter-connecting cords and then go through the TROUBLE SHOOTING section in the manual

We strongly recommend that you **do not** try to repair the equipment yourself and **do not** have the local repair shop attempt anything other than the simplest repair. If the repair is more complicated than a broken wire or loose connection, send the unit to the factory for repair and service. Don't attempt to adjust any controls inside the units. Once set at the factory, the various controls and trimmers do not drift with age or vibration and never require readjustment. **There are no adjustments inside that will make a malfunctioning unit start working.**

LECTROSONICS service department is equipped and staffed to quickly repair your equipment. In-warranty repairs are made at no charge in accordance with the terms of the warranty. Out of warranty repairs are charged at a modest flat rate plus parts and shipping. Since it takes almost as much time and effort to determine what is wrong as it does to make the repair, there is a charge for an exact quotation. We will be happy to quote approximate charges by phone for out of warranty repairs.

## RETURNING UNITS FOR REPAIR

You will save yourself time and trouble if you will follow the steps below:

- A. DO NOT return equipment to the factory for repair without first contacting us by letter or by phone. We need to know the nature of the problem, the model number and the serial number of the equipment. We also need a phone number where you can be reached 8 am to 4 pm (Mountain Standard Time).
- B. After receiving your request, we will issue you a return authorization number (R.A.). This number will help speed your repair through our receiving and repair departments. The return authorization number must be clearly shown on the outside of the shipping container.
- C. Pack the equipment carefully and ship to us, shipping costs prepaid. If necessary, we can provide you with the proper packing materials. UPS is usually the best way to ship the units. Heavy units should be "double-boxed" for safe transport.
- D. We also strongly recommend that you insure the equipment, since we cannot be responsible for loss of or damage to equipment that you ship. Of course, we insure the equipment when we ship it back to you.

Mailing address:  
Lectrosonics, Inc.  
PO Box 15900  
Rio Rancho, NM 87174  
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Shipping address:  
Lectrosonics, Inc.  
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Rio Rancho, NM 87124  
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Telephones:  
(505) 892-4501  
(800) 821-1121  
FAX: (505) 892-6243

**World Wide Web:** <http://www.lectrosonics.com>

**email:** [sales@lectrosonics.com](mailto:sales@lectrosonics.com)

## **LIMITED ONE YEAR WARRANTY**

The equipment is warranted for one year from date of purchase against defects in materials or workmanship provided it was purchased from an authorized dealer. This warranty does not cover equipment which has been abused or damaged by careless handling or shipping. This warranty does not apply to used or demonstrator equipment.

Should any defect develop, we will, at our option, repair or replace any defective parts without charge for either parts or labor. If we cannot correct the defect in your equipment, we will replace it at no charge with a similar new item. We will pay for the cost of returning your merchandise to you.

This warranty applies only to items returned to us, shipping costs prepaid, within one year from the date of purchase.

This warranty gives you specific legal rights. You may have additional legal rights which vary from state to state.

**LECTROSONICS, INC.**

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