

**MOUSE
MAXI MOUSE
PORTABLE AMPLIFIERS**

**OPERATING INSTRUCTIONS
and trouble-shooting guide**

LECTROSONICS, INC.
Rio Rancho, NM

INTRODUCTION

Mouse was introduced to the Music Industry in 1979. It was the first rechargeable, portable amp with enough power to satisfy the demands of the professional. It puts out more sound than anything near its size. Since that time, the Mouse has continued to be the Number One choice of street musicians throughout the world, and will be found sitting around the studios of some of the finest guitarists in the world.

The Maxi Mouse model was introduced in 1984 as a "step up" unit. The Maxi offered more power, more inputs and controls, and a unique high-efficiency power supply that quickly established it as a suitable partner for Mouse. The Maxi Mouse has tone and equalization controls which offer the performer a truly wide range of settings.

Lectrosonics has designed and produced thousands of portable, rechargeable music amps and PA systems over the last 15 years. Our engineers have continuously refined the layouts and designs of these systems, resulting in maximum reliability. Both of these heavy-duty units are built for constant, hard use.

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GENERAL DESCRIPTION

The Mouse was designed for the guitarist. The system is equalized with a preset frequency response determined by analyzing a number of guitarist's preferences using graphic equalizers. The tone control offers a very wide adjustment range. The result is a guitar amp with large amplifier "bite" and a response that musicians prefer. It works with virtually any effects box available.

The Maxi Mouse is a rechargeable battery operated, dual input amplifier. It is designed to be both a high output instrument amplifier and a very versatile voice amplifier. Designed with a special signal processor, it will put out as much sound as amplifiers with much higher ratings. Switchable input equalization allows using maximum gain with microphones, and better fidelity when used with instruments. By moving the equalization switch to the appropriate position, it is possible to run any type of audio source into the Maxi, from microphones to tape decks. This is why Maxi Mouse is also used as a general utility amplifier, to amplify everything from a VCR to a "walkman" type portable stereo, in locations ranging from a hotel ballroom to the beach.

Both the Mouse and Maxi Mouse are designed to operate from the built-in battery pack. The Heavy duty batteries are designed for heavy use and provide a pure, stable DC power source. A line output allows running an external speaker or patching the Mouse or Maxi Mouse into another amplifier or mixing console.

IMPORTANT

FAILURE TO OBSERVE THE FOLLOWING PRECAUTIONS CAN CAUSE PREMATURE BATTERY FAILURE. BATTERY FAILURE CAUSED BY NEGLIGENCE OR MISUSE IS NOT COVERED BY THE WARRANTY.

It is very important to recharge the battery pack immediately after the unit is used. The battery pack is charged by plugging the CH-40 charger into the jack labeled CH-40 on the control panel of the unit. Connect the charger into a standard 110 Volt, 60Hz AC outlet. The green lamp beneath the jack will light as long as the batteries are charging. When the batteries are almost completely charged the green charging light will go out. You may leave the charger plugged in after the green light has gone out with no danger of damage to the system. In fact, we recommend charging the system whenever it is not in use, then the system will always be "ready to go".

Operation is possible while charging the batteries with the supplied CH-40 charger, however since the amplifier consumes more power than the CH-40 charger can supply, the batteries will recharge faster if you turn the amplifier power off while charging.

The battery pack should be recharged for 16 hours at least once every six months even when the unit is in storage and not being used.

In many cases, a battery that seems to be dead may be saved by prolonged charging. As much as 10 days of continuous charging may be necessary to restore the batteries after they have been left for several weeks or more in a "discharged" condition. The charge lamp may not light up during the first part of a prolonged charging period.

CONTROLS AND FUNCTIONS - MOUSE PORTABLE SPEAKER/AMP

INPUT JACK

This is a switching jack that turns on the amplifier when you plug in your instrument cord. The red LED above it indicates when the amp is on. The input is compatible with Hi or Lo impedance pickups (magnetic or contact) without the use of a preamp.

VOLUME CONTROL

This is a feedback-type volume control and is more sensitive than the controls found on most other amplifiers.

TONE CONTROL

The tone control boosts treble when turned clockwise; bass when turned counter-clockwise. When set in a mid position, the tone control circuitry in the Mouse suppresses the midrange as shown in the drawing. When amplifying acoustic instruments, this midrange suppression reduces feedback at higher volume levels. This type of equalization also improves the overall sound of the unit with musical instruments, but it can also produce excessive feedback with microphones. Mouse is designed to be an instrument amplifier, not a microphone amplifier. For microphones, it is best to use Maxi Mouse, which offers adjustable switched equalization.

OUTPUT JACK

Plugging in an external speaker, headphones etc., automatically disconnects the internal speaker. Since the bass handling capability of this amplifier is limited only by the size of the internal speaker, plugging in a larger external speaker will greatly improve the low frequency response.

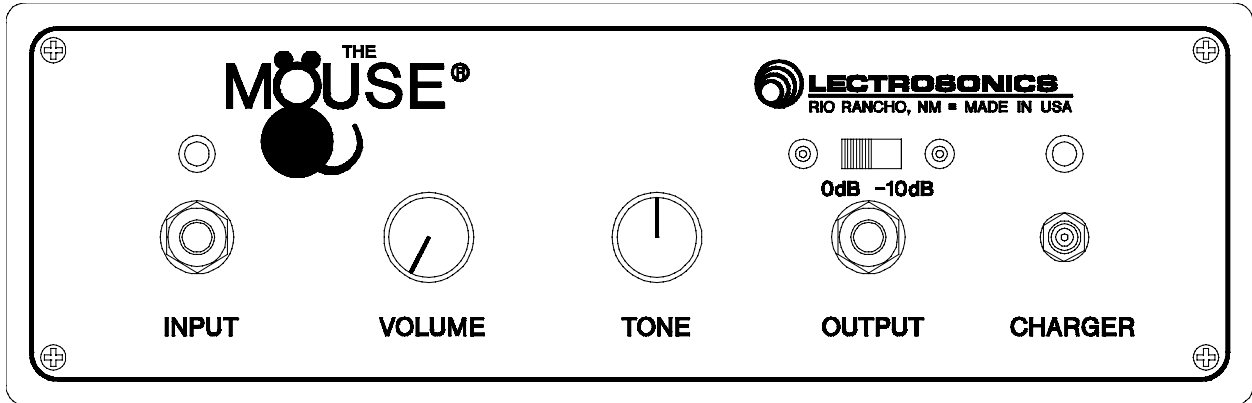
0 dB / -10 dB ATTENUATION SWITCH

This switch reduces the output of the amp by 10dB at both the internal speaker and the output jack. It allows you to get full power overload and distortion at a lower volume level, and prevents over-driving sensitive pre-amps and headphones. To use the MOUSE as a preamp for a larger amplifier, simply move the switch to the -10db position and connect the output of the MOUSE to the input of the other amplifier with a shielded cord.

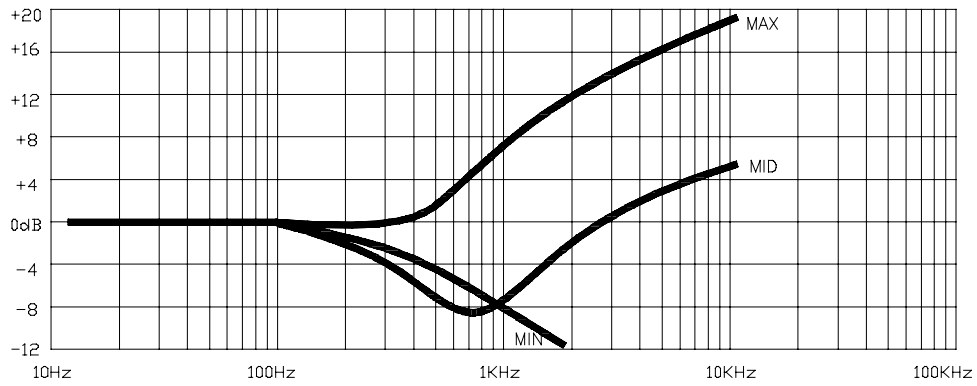
CHARGER JACK

To charge the Mouse, insert the charger plug fully into the CH-40 INPUT jack on the control panel, and plug the CH-40 charger into a 110 Volt wall outlet. The green LED above the CH-40 INPUT jack will light up when the unit is taking a charge. Leave the charger connected in this manner until the green LED goes out, indicating that the batteries are fully charged. You may leave the charger plugged in after the green light has gone out with no danger of damage to the system. In fact, we recommend charging the system whenever it is not in use, then the system will always be "ready to go". A fully discharged battery pack will take about 12 hours to recharge.

CONTROLS AND FUNCTIONS - MOUSE PORTABLE SPEAKER/AMP



MOUSE FREQUENCY RESPONSE



CONTROLS AND FUNCTIONS

MAXI MOUSE PORTABLE SPEAKER/AMP

INPUTS AND VOLUME CONTROL

INPUTS "A" and "B" are standard 1/4" phone jacks which may be used with either an instrument or a high impedance microphone. These are switching jacks that turn on the amplifier when you plug in your instrument cord. The input impedance is 10 megohms to match any type of instrument pickup. When used with low impedance microphones, a matching transformer should be used to convert the microphone output to high impedance. A suitable matching transformer is readily available at music stores or electronics dealers in your area.

Each input on the Maxi Mouse has a separate VOLUME and TONE control for individual adjustment of each channel. The MASTER VOLUME control adjusts the total output of the amplifier

EQUALIZATION SWITCH

This three position switch changes the frequency response of the inputs. In the left-most position, both inputs A and B have a frequency response with reduced mid-range and boosted bass and treble. The "INST" equalization generally sounds better for almost any type of instrument when there are no other signal processors (effects boxes) in use. The center position sets input A to a flat response and input B to the "INST" equalized response. The right-most position sets both inputs to a flat response.

MASTER VOLUME

For a flat, clean type of sound or when used with microphones, set the MASTER VOLUME control to "VOICE RANGE" or fully clock-wise, and adjust the loudness of each input with the volume control next to each input jack.

A distorted (over-driven) sound is produced by setting the MASTER VOLUME counter-clockwise to a lower position and turning the input volume up to near maximum. When either input is set for a distorted, over-driven sound, the sound from both inputs will be distorted.

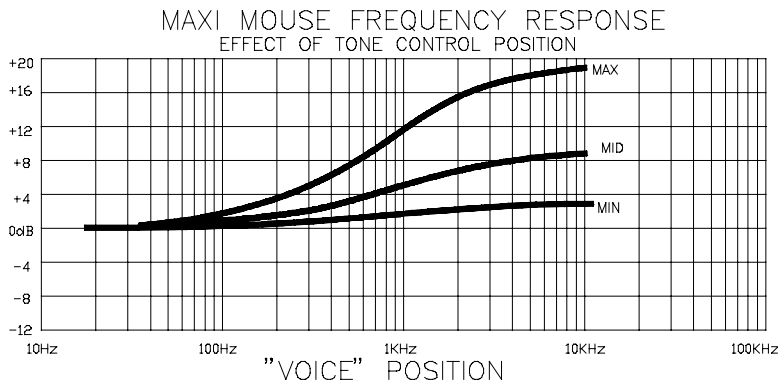
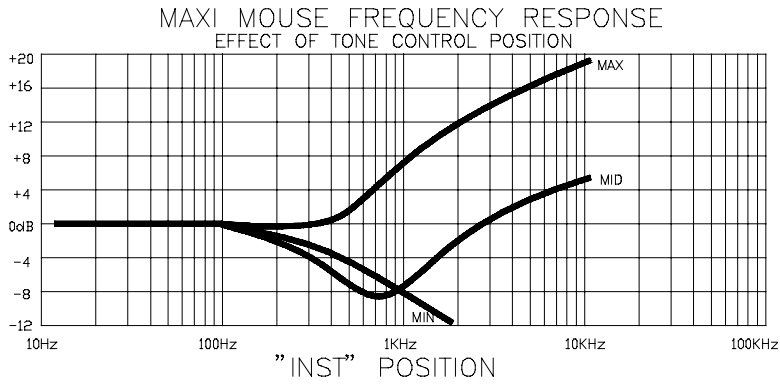
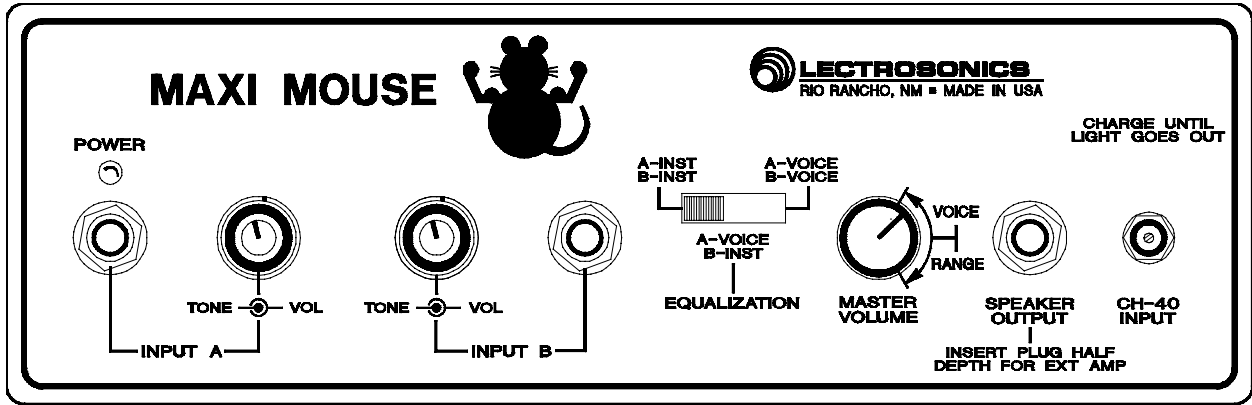
SPEAKER OUTPUT

This output jack accepts a standard 1/4" phone plug. When the plug is inserted fully, the output will drive a 2 to 4 Ohm speaker. The jack is also equipped with a detent that allows the plug to be inserted half-depth, providing a "line" output for connecting into another amplifier or tape recorder with an input impedance of about 10K Ohms.

CH40 INPUT JACK

To charge the Maxi Mouse, insert the charger plug fully into the CH-40 INPUT jack on the control panel, and plug the CH-40 charger into a 110 Volt wall outlet. The green LED above the CH-40 INPUT jack will light up when the unit is taking a charge. Leave the charger connected in this manner until the green LED goes out, indicating that the batteries are fully charged. You may leave the charger plugged in after the green light has gone out with no danger of damage to the system. In fact, we recommend charging the system whenever it is not in use, then the system will always be "ready to go". A fully discharged battery pack will take about 12 hours to recharge.

CONTROLS AND FUNCTIONS MAXI MOUSE PORTABLE SPEAKER/AMP



TROUBLESHOOTING GUIDE

BEFORE GOING THROUGH THE FOLLOWING CHART, BE SURE THE BATTERY PACK IS FULLY CHARGED. The POWER LAMP should light up when the unit comes on. The POWER LAMP will grow dim as the batteries discharge. Keep the batteries fully charged when not in use to insure long battery life. Continuous charging will not harm the battery pack, although it is not necessary. In extreme cases a continuous charge of ten days may be necessary to restore a deeply discharged battery pack. If the battery pack still will not except a charge after ten days then the pack will need to be replaced. See page 2 for charging instructions.

It is important to follow these steps in the sequence listed.

SYMPTOM	POSSIBLE CAUSE
POWER LAMP NOT ON	<ol style="list-style-type: none">1) Amplifier turned off. Check that input cable is fully plugged in.2) Battery pack discharged. Recharge unit.
CHARGING LAMP NOT ON WITH CHARGER PLUGGED INTO CHARGING JACK	<ol style="list-style-type: none">1) CH-40 not plugged into 110V supply.2) 110V supply switched off or defective. Check 110V outlet for voltage by plugging in a lamp or other AC device.3) CH-40 charger defective.
NO SOUND FROM SPEAKER	<ol style="list-style-type: none">1) Volume turned down. Check Volume control.2) Input cable not plugged in.3) Mic muted. Check mute switch on microphone body if this feature is included on your equipment.4) Defective mic or cable.
INTERMITTENT AUDIO OR "CRACKLING" SOUND FROM SPEAKER	<ol style="list-style-type: none">1) Defective mic or cable. Try different mic and cable.2) Dirty cable plugs. Clean cable ends with clean alcohol and a clean soft cloth. A brand new cord stored in a sealed container such as a plastic bag will give off a gas that forms a coating on the plugs ("outgassing"). This coating can cause improper contact when the plug is connected to the jack on the equipment. It will appear that the cord is defective. It is a good idea to clean the cord periodically, and after the system has been stored. Clean the plugs with alcohol and a clean cloth.

TROUBLESHOOTING GUIDE (cont.)

SYMPTOM	POSSIBLE CAUSE
DISTORTED SOUND FROM SPEAKER	<ol style="list-style-type: none">1) Volume set too high. Reduce volume control.2) Excessive wind noise or breath "pops".3) Batteries very low. Recharge batteries. As the batteries discharge you have to turn up the volume. When the volume knob is turned all the way up and you're still not getting much volume out of the system, the amplifier is being driven to its limit and usually produces distorted sound.
EXCESSIVE FEEDBACK	<ol style="list-style-type: none">1) Volume too high. Reduce volume control.2) Microphone too far from sound source (requiring the volume to be turned up to compensate). Speak closer to the mic or move mic closer to sound source.3) Microphone too close to, or directly in front of, the speaker. The unit should be placed between you and the crowd. If you stand in front of the unit while you use it, feedback can occur. This problem is easily solved by moving behind the unit as you speak.

MOUSE SPECIFICATIONS

AMPLIFIER

Integrated circuit, 5.5 Watts, RMS, into 2 Ohms
Signal-to-noise ratio: -80dB at 100mV input
Input impedance: 10 megohms
Output impedance: 1.6 Ohms

SPEAKER

Full range, 8-inch speaker with 2-pound magnet assembly

POWER SOURCE

Rechargeable 12 Volt, lead-acid gel cell, 4 Amp-hour self-contained battery pack. CH-40 charger included.

SIZE AND WEIGHT

9 1/2" High x 12" wide x 10" deep - 13 pounds

MAXI MOUSE SPECIFICATIONS

AMPLIFIER

All silicon transistor, 9 Watts, RMS, into 2 Ohms
Distortion: Less than 1%
Frequency response: 50-20K Hz (+ or -) 1dB
Equivalent input noise: (-) 120dBv
Input impedance: 10 megohm-matches high impedance microphones and instrument pickups
Output impedance: Speaker - 2 Ohms, External amplifier - 10K Ohm

SPEAKER

Full range, 8-inch speaker with 2-pound magnet assembly and 2 Ohm voice coil

POWER SOURCE

Rechargeable 12 Volt, lead-acid gel cell, 4 Amp-hour self-contained battery pack. CH-40 charger included.

SIZE AND WEIGHT

9 1/2" high x 12" wide x 10" deep - 13 pounds

ACCESSORY COVER, Optional, Model P-MM

A heavy-duty, naugahyde slip cover with a convenient zippered pouch large enough to store the charger, guitar cords and effect devices.

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
USA

Shipping address:
Lectrosonics, Inc.
581 Laser Rd.
Rio Rancho, NM 87124
USA

Telephones:
(505) 892-4501
(800) 821-1121
FAX: (505) 892-6243

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.

**581 LASER ROAD
RIO RANCHO, NM 87124 USA**

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