

# LOKI MAX

#### INSANE AMAZING ULTIMATE EQUALIZER

LOKI IS A TRICKSTER, BUT THIS LOKI IS TRICKIEST OF ALL.

OR THIS LOKI MAY JUST BE COMPLETELY INSANE.

BECAUSE WHO DOES AN EQ WITH RELAY POTENTIOMETERS?

AND REMOTE CONTROL?

AND ALL LC TOPOLOGY?

AND ALL DISCRETE?

YEAH, THIS IS NUTS. BUT THAT'S WHY YOU LOVE IT.

**OWNER'S MANUAL** 

# INTRODUCTION

Loki Max is, to put it frankly, a completely bonkers equalizer. Where most EQs are content to be boxes of sub-standard op-amps and scratchy slide pots (or software that lives on your computer only to irritate your spouse, grandmother, and other sane human beings), Loki Max is a microprocessor-controlled, relay-potentiometer, all-LC, all-discrete, remote-controlled retrofuturistic tour de force. Really the only question is who is crazier—us, for making it, or you, for *choosing* it?

#### IN THE BOX

- (1) Loki Max
- (1) Power cord
- (0) Tubes (oh gawd no please)
- (0) Stick-on feet (they're pressed in)
- (0) Wall-warts (they're not needed)



The following is required by the roughly 9,542 government agencies and regulations we have to comply with. If you have some common sense, they should seem pretty straightforward. In any case, read

these instructions before proceeding farther, follow all instructions, and heed all warnings. Or else!

- 1. If you don't know how to install audio devices, get a qualified professional to help.
- 2. Never use this device near water, and clean only with a dry cloth.
- 3. Assure adequate ventilation, do not block any ventilation openings, or place near heat sources.
- 4. Use only the supplied power cord or suitable replacement. Route cords away from traffic areas and protect them from being pinched. Unplug the cord from the outlet if the apparatus is unused for a long period of time.
- 5. To prevent electric shock, do not use the plug with an extension cord, receptacle, or outlet unless blades can be fully inserted.
- 6. Refer all servicing to qualified service personnel. Service is required when the device has been damaged, including cord or plug damage, 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.



WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS DEVICE TO RAIN OR MOISTURE.

# **GETTING STARTED**

Before connecting everything up, choose the right location for Loki Max. Loki Max isn't like other equalizers. It's an LC, or inductor-capacitor, equalizer. This means it's full of inductors—or, in other words, coils that can pick up hum and noise from transformers in other components. So, ideally, you want to avoid stacking Loki Max on top of other gear, especially power amps that might have large transformers inside.

The best place for Loki Max is:

- 1. Not stacked on other equipment.
- 2. On a well-ventilated shelf by itself.
- 3. Away from excess AC cabling.
- 4. Not near wall panels for AC distribution.

Basically—keep it away from other gear that may create magnetic fields, and away from your house wiring that might do the same thing.

**Connect your sources.** Connect up to 2 sources—one balanced and one single-ended—to Loki Max's inputs. You can connect Loki Max either before or after your preamp. Connecting before your preamp can allow for a lower noise floor. Connecting after your preamp allows you to use more than two sources.

**Connect the output.** Connect the output of Loki Max to your amplifiers or powered speakers using the balanced or single-ended outputs.

**Power it up, turn it up, and explore.** Loki Max allows you a wide range of control over the frequency response of your system—and you have all that control available right at your listening chair, via remote control. So sit back and tweak your system to your exact preferences!

# REMOTE CONTROL

Yes, Loki Max comes with a remote control. With it, you can change EQ settings, switch inputs, bypass the EQ, and save favorite EQ presets.

**1-6 EQ bands.** Press to increase or decrease the EQ settings. EQ bands range from lows (1) to highs (6). Each band has 15 "clicks" up and down, for a total of 31 positions, including center.

7 Input. Press to select the balanced or single-ended input.

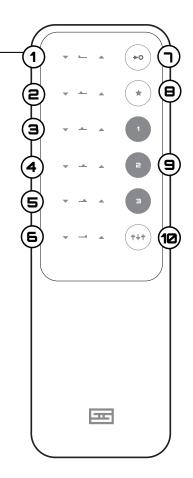
**8 Favorite.** Press and hold for 5 seconds to define a Preset (see below). For example, if you want to change preset "3", select that Preset, make the changes you want, then press and hold the Favorite button for 5 seconds.

**9 Presets.** Press to change the EQ to one of three different Presets that you have defined using the Favorite button above.

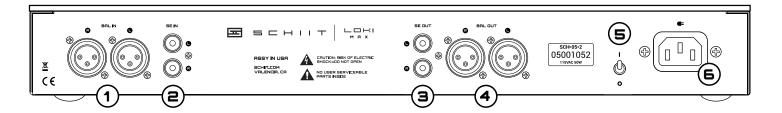
**10 Process/Bypass.** Press to bypass the EQ completely, or to switch in the EQ if it is bypassed. When bypassed, the EQ isn't just flat--it's completely out of the circuit.

#### **Changing the Battery**

- 1. Flip the remote over to reveal a single hole on the back.
- 2. Push the remote open by inserting the end of an open paper clip into the hole in the back and pushing firmly. It's held together with magnets.
- 3. Replace the battery inside with one of the same type.
- 4. Reassemble the remote by first inserting the clear LED in the front, then dropping the panel down onto the matching magnets. Press down gently to pop the panel in place.



# CONNECTIONS



### 1 Balanced Input

Connect your balanced source here, using high-quality XLR cables. You can use Loki Max either before or after your preamplifier. If using a single source, connecting Loki Max before the preamp can give you a lower noise floor.

# 2 Single-Ended Input

Connect your single-ended source here, using high-quality XLR cables. As above, you can connect either before or after your preamp. We provide shorting plugs for the single-ended input; remove them if you are using this input.

### 3 Single-Ended Output

Connect to external power amplifiers or powered speakers that accept RCA connections, using high-quality RCA cables, especially for longer runs.

# **4 Balanced Output**

Connect to external power amplifiers or powered speakers that accept XLR connections, using good XLR cables. Or, well, you could use crappy XLR cables too, but why hold yourself back? It's not like you need cables that cost more than the Loki Max, but some good-quality XLRs really aren't that expensive.

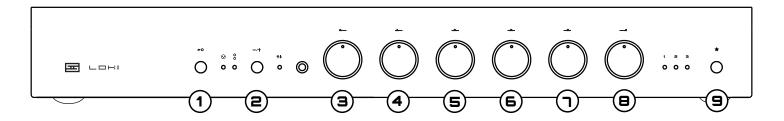
#### 5 Power Switch

Up for on, down for off. No tricks here. It's perfectly fine to leave Loki Max on all the time, except for perhaps an existential feeling of wastefulness for the power consumed.

#### 6 Power Inlet

Plug the end of the supplied IEC cord in here. You can also use fancy audiophile types if you really feel like it, but we're not big on the idea ourselves. However, make sure your Loki Max matches your local AC voltage—plugging a 115VAC Loki Max into 230V will not be a good day.

# CONTROLS



# 1 Input Select

Press to select the balanced (XLR) or single-ended (RCA) input. The selected input is indicated by the LEDs to the right of this button.

## 2 Process/Bypass

Press to engage and disengage Loki Max' equalization. When Loki Max is processing, the LED to the right glows. When it is bypassed, the LED is off, and all active stages are taken completely out of the circuit for full transparency.

#### 3 20Hz Control

Turn to the right to increase the lowest bass frequencies, turn to the left to decrease them.

#### 4 120Hz Control

Turn to the right to increase midbass, turn to the left to decrease it.

### 5 400Hz Control

Turn to the right to increase the lower midrange, turn to the left to decrease.

#### 6 2kHz Control

Turn to the right to increase the presence frequencies, turn left to decrease.

#### 7 6kHz control

Like the others, turn right to increase treble, turn left to decrease. No surprises!

#### 8 16kHz Control

Turn to the right to increase "air," turn to the left to decrease.

#### 9 Preset/Favorite

Press briefly to select from one of three EQ presets. Or, press and hold for 5 seconds to define a new favorite on the currently selected preset.

# FAQ

#### I hear hum, what do I do?

Loki Max is a pure LC equalizer—which means it is full of inductors, which can pick up hum if Loki Max is stacked on top of other equipment that has transformers inside. Move Loki Max and see if the hum resolves.

# No, I mean, I have a LOT of hum, and Loki Max isn't stacked on top of anything!

You may have a ground loop. Try a ground loop isolator or a device like the EbTech HumX to eliminate the ground loop.

# I hear some small amount of noise when I have all the knobs turned all the way up.

A small amount of noise can be typical if you use the EQ this way (hint: use both boost and cut in moderation to achieve your desired results). Loki Max has a ton of gain available in high and low frequency bands, so it may magnify the noise already present in your system if you turn everything all the way up. (Which probably doesn't sound that good anyway.)

# Loki Max doesn't do anything when I first turn it on, even though the lights flash.

That's perfectly normal. Loki Max does not engage its EQ processing until all circuits have stabilized.

### What are the "right" EQ settings?

That's really up to you. Loki Max is designed to help tailor the sound of your system to your personal preferences. In general, though, we'd recommend you explore both boosting and cutting frequencies in small increments before making huge changes. Loki Max is a powerful instrument that allows for very radical frequency tailoring—which many systems may not need. Sometimes only subtle shifts are necessary to achieve the desired sound.

# What's with the clicking noises when I turn the knobs?

That's the sound of the mechanical relays in the custom relay potentiometers. Fun fact: there are 72 relays in Loki Max.

### Can I use both outputs at the same time?

Most of the time, yes. If you have products that short the input when turned off, then that can cause distortion.

### It doesn't turn on, what do I do?

Plug it in to a different AC socket. Ensure you are not currently in a blackout. Then email us if it still doesn't work.

#### **5-YEAR WARRANTY**

Schiit Audio warrants to the original purchaser that the product shall be free from defects in material and workmanship for five (5) years from the date of purchase. Exceptions: Tubes and remote controls. Tubes are covered by a 90-day limited warranty with the same terms, and remotes are covered by a 1-year limited warranty with the same terms. If a defect covered by this warranty occurs during this warranty period, Schiit Audio will repair the defective product, free of charge. Date of purchase will be based on customer-submitted receipts, otherwise date of manufacturing will be used to determine warranty period.

#### OBTAINING WARRANTY SERVICE

If you believe you need warranty service, contact us first. There may be a simple solution to your problem. Schiit Audio products sent back to us without a Return Authorization (RA) will be returned to the sender without repair. To contact us and obtain an RA, email info@schiit.com. We will respond quickly to email inquiries.

#### WARRANTY LIMITATIONS

THIS WARRANTY SHALL NOT APPLY IF THIS PRODUCT: (a) IS MODIFIED OR TAMPERED WITH; (b) IS DAMAGED BY NEGLIGENCE, ACCIDENT, UNREASONABLE USE, COFFEE, OR BY OTHER CAUSES UNRELATED TO DEFECTIVE MATERIALS OR WORKMANSHIP; OR (c) HAS HAD THE SERIAL NUMBER ALTERED. DEFACED OR REMOVED.

ANY APPLICABLE IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY LIMITED IN DURATION TO THE WARRANTY PERIOD (5 YEARS). IN NO EVENT SHALL SCHIIT AUDIO BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES RESULTING FROM THE BREACH OF ANY IMPLIED OR EXPRESS WARRANTIES. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS OR EXCLUSION OF CONSEQUENTIAL OR INCIDENTAL DAMAGES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

This warranty gives you specific legal rights. You may also have other rights which vary from state to state or province to province.

