



GUNGNIR

BALANCED UPGRADABLE DAC

GUNGNIR IS ODIN'S SPEAR IN NORSE MYTHOLOGY.
IT'S SO COOL IT NEVER MISSES ITS MARK.
OUR GUNGNIR WOULD MAKE A TRULY CRAPPY SPEAR.
BUT IT DEFINITELY HITS THE MARK MUSICALLY.
WARNING: NOT APPROVED FOR JAVELIN EVENTS.
USING GUNGNIR LIKE THAT WOULD VOID THE WARRANTY.

OWNER'S MANUAL

INTRODUCTION

Gungnir is Odin's spear, which never missed its mark. Yeah, we know, it doesn't sound so impressive in these days of nuclear weapons, Higgs bosons and so all, but ya gotta consider the context. And who knows, "a spear that never misses" might be Norse for "hydrogen bomb," for all we know. And yeah, we know, we started this out with a discussion of weapons. Well, we are Americans, after all. Sorry about that.

But back to Gungnir. Don't use our Gungnir to stab your friends, use it to deliver unfailing, on-target reproduction of your digital music library, whether it's on CD or in a computer server. Enjoy your time with Gungnir!

IN THE BOX

- (1) Gungnir
- (1) Power cord
- (0) Stick-on feet (they're screwed on)
- (0) Wall-warts (they're not needed)
- (0) Crystals, cryo-nano-dampers, alien wave absorbers, or any other magical parts



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

- 1. Connect Gungnir to your source and your amp or preamp.** You'll need a set of XLR or RCA cables to connect the Gungnir's outputs to your amp or preamp, and a digital cable or cables (coaxial BNC or RCA, Toslink, or USB) to connect your sources.
- 2. If you are using USB and have a Windows computer, you may need to download drivers.** Many newer Windows computers will automatically install the correct drivers, though, so it's best to simply plug the Gungnir in via USB and see if it does so. If it doesn't, our drivers are available at schiit.com/drivers
- 3. If you are using a computer source, ensure it is set to output to the Gungnir.** Sometimes PCs and Macs get confused and want to use internal speakers, or your powered USB headset, or whatever. Plus, you need to select the Gungnir via Control Panel or System Preferences and via your music player software—many types of music players can override the output specified in the OS.
- 4. Select your source using the button on the front panel.** And enjoy your music!

ABOUT UPGRADES

Gungnir is upgradable via modular DAC/Analog and USB Input Cards. Upgrades can be purchased on the Schiit website. All cards must be added or changed by authorized service personnel. Some cards may require firmware changes from the factory.

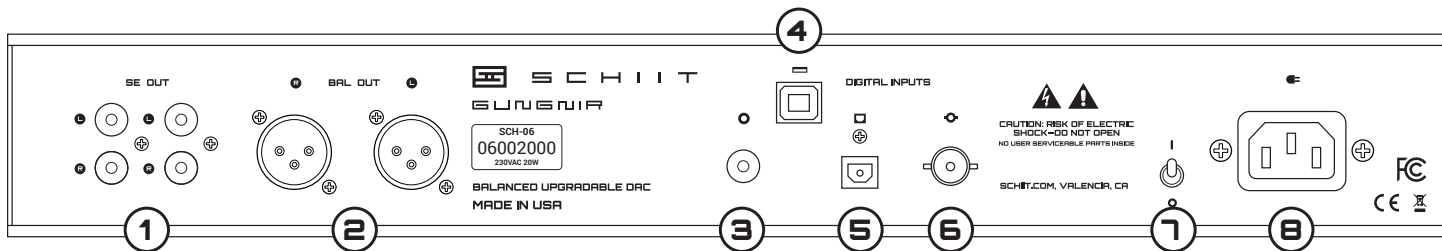
USB Card. When significant changes happen to USB technology, we can easily keep pace with an updated USB input card.

DAC/Analog Card. We'll announce selected upgrades when there have been significant changes in technology—or, in other words, we won't be starting a D/A chip-of-the-month club.

When it's time for your upgrade, and it has to come back to us, the Schiit Upgrade Queueing system ensures you can keep your DAC until the moment we're ready to do the upgrade and turn it around fast. When you order an upgrade, you'll be automatically added to the queueing system.

If you'd like to be the first to know about upgrades as they become available, sign up on the SPAM link on our site.

CONNECTIONS



1 RCA Single-Ended Outputs. If you don't have balanced inputs, use these to connect to your amp or preamp. We've provided two pairs for your convenience. There's no difference between them, and all outputs are active all the time.

2 XLR Balanced Outputs. If the rest of your gear is balanced, use XLR cables to connect Gungnir to their inputs from these outputs. You can use all outputs, XLR and RCA, simultaneously.

3 Coaxial Input. Connect your coaxial output source with . . . wait for it . . . a coaxial cable! Very exciting.

4 USB Input. Use a standard USB A-B cable to connect—2m or less in length, true USB 2.0 rated. Note that some audiophile USB cables can't handle USB 2.0 speeds. Yes, even in this day and age.

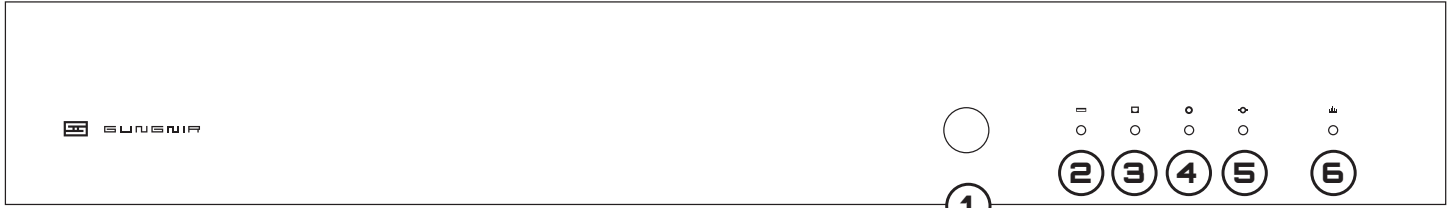
5 Optical Input. Use a standard Toslink cable to connect to the optical input. If you're using an Apple computer with integrated optical output, you'll need a Toslink with a 1/8" (3.5mm) plug on one side, and a standard Toslink on the other.

6 BNC Input. If you have a source with a BNC output, Gungnir provides a true 75 ohm input. Connect this input with a true 75-ohm BNC cable.

7 Power Switch. Up is on. Down is off. It doesn't go sideways.

8 AC Input. Plug the power cord in here. Plug the other end into a wall outlet of the correct voltage. Trying to run a 115V unit on 230V will result in a blown fuse, no music, and a void warranty.

CONTROLS



1 Input Select. Press the button to cycle through the inputs: USB, Optical, RCA Coaxial, and BNC. Only one can be selected at a time, unless you ordered the special Reality Distortion Field™ option. No. Not really.

2 USB Input LED. When this is lit, the USB input is selected.

3 Optical Input LED. When this is lit, the optical input is selected. Pretty simple, huh?

4 Coax Input LED. When this is lit, the coaxial input is selected. You probably already knew this.

5 BNC Input LED. And...when this is lit, the BNC input is selected. Yeah, we know. Obvious.

6 Clock Mode LED (AKA the “Buy Better Gear Light.”) When this LED is on, this means the input is off-frequency or high jitter, and Gungnir cannot provide maximum clock regeneration. Don't panic. What this means is you're still getting re-clocked data (via VCOs vs VCXOs.) If it's a source you have no control over (such as via Airport Express) there's nothing to worry about. If you can control your source, you may want to consider a new one.

7 How Come These Holes Don't Go Through? Hey, you try getting FCC-friendly radiated noise on a DAC that has vents in the cover. Go ahead, try. But hey, they look cool, right?

FAQ

I hear hum from Gungnir. What do I do?

Gungnir's noise floor is insanely low, so it's most likely a ground loop. To fix a ground loop, try a HumX or a ground loop isolator.

Hey, this thing clicks between songs/between inputs/etc!

Yes, it does.

Care to explain why, smartass?

Sure. That's the muting relay engaging when there's no input. Many computer sources turn off the digital audio output between songs and when changing sampling rates. We went with a muting relay because it's the best way to ensure there are no clicks or pops when the input is unlocked. But it does click a bit.

It takes a few seconds to change inputs and play music!

Yes, it does. Gungnir is doing a lot when you change inputs. It's actually looking at the quality of the input signal and making a decision on which clock regeneration system to use, as well as which clock frequency is appropriate to the sampling rate. It's a hell of a job, so it can take a little while to lock in.

My computer doesn't see the Gungnir via USB. What's up?

It depends on the computer. Some Mac and PC operating systems have draconian restrictions on the amount of power their USB ports can provide. Check [schiit.com/faq/USB-problems](https://www.schiit.com/faq/USB-problems) for some possible solutions.

How do I install the Windows USB drivers?

Many newer Windows systems won't need drivers at all—just plug in and it will find and install the correct driver. If you need drivers, our drivers are available at [schiit.com/drivers](https://www.schiit.com/drivers).

What if I'm still having glitches or intermittent connectivity when connected to a computer?

Start at [schiit.com/faq/DAC-problems](https://www.schiit.com/faq/DAC-problems) for troubleshooting.

I don't get any sound from Gungnir!

Are your sources on? Check those first. If you're using a computer source, ensure that your computer's sound output is set to go to the Gungnir via SPDIF or USB in BOTH the Control Panel/System Preferences AND your music player software.

Can I leave Gungnir on all the time?

Sure, if you want to. In fact, we leave all our DACs on all the time. It won't hurt anything.

So when do I get the killer upgrade to the next level from you?

Make sure you're on the mailing list, and we'll let you know when we've released new USB or analog boards.

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 turn on.

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@schiiit.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.



This product is in compliance with standards and regulations of the European Community.



This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.



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