

# BIFROST 2

TRUE MULTIBIT<sup>™</sup> AUTONOMY<sup>™</sup> DAC

IN NORSE LEGEND, BIFROST IS THE FLAMING RAINBOW BRIDGE CONNECTING ASGARD TO MIDGARD (AKA, THE EARTH).

YES, RAINBOWS, HOW 1970'S OF THEM, HA HA.

TELL THAT TO DDIN AND SEE WHAT HE THINKS.

I DON'T THINK YOU'LL BE LAUGHING AT HIM.

OWNER'S MANUAL

### INTRODUCTION

Bifrost 2/64 is our most affordable, hardware-balanced, True Multibit™ DAC. With 4 stereo multibit D/A converters, time- and frequency-domain optimized digital filter, NOS mode, Unison USB™ input, and an all-new Autonomy™ platform for easy firmware and hardware upgradability in the future, we think you'll agree: Bifrost 2/64 is a stunning DAC.

#### WHAT'S IN THE BOX

- (1) Bifrost 2/64
- (1) Remote Control
- (1) Power cord
- (128) Bits total



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 Bifrost 2/64 to your source and your amp or preamp. You'll need RCA-to-RCA or XLR-to-XLR cables to connect the Bifrost to your preamp or amp, as well as a digital cable or cables (coaxial, Toslink, or USB) to connect your source or sources.
- 2. If you are using USB, use a good, short cable. You need to use a 2M or less, true USB 2.0 rated cable at a minimum. The one you found covered in dust at the back of the closet may not cut it, but any new USB cable from a reputable cable manufacturer should do just fine.
- 3. If you are using a computer source, ensure it is set to output to the Bifrost. Sometimes PCs and Macs get confused and want to use internal speakers, or your powered USB headset, or whatever.
- 4. Select your source using the button on the front panel. And enjoy your music!

#### ABOUT DRIVERS

Schiit's Unison USB™ is UAC2 compliant, which means it does not need drivers on any modern operating system.

#### **ABOUT UPGRADES**

Bifrost 2 is firmware upgradable via a MicroSD card slot, and hardware upgradable via slide-in Input Card and Analog Cards.

Firmware upgrades, when available, will be posted at schiit.com/firmware, together with information on how to write to a microSD card.

**Hardware upgrades**, when available, will be purchasable on the Schiit site, in the Upgrades section. These upgrades simply slide in to the appropriate slot on the back panel, so you won't need to send it in for upgrade.

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.

## FRONT CONTROLS



- 1 Input Select. Press the button to cycle through Coaxial, Optical, and USB inputs. Press and hold to go into NOS (non-oversampled) mode. The input LED will slowly pulse when in NOS mode.
- **2 Input LEDs.** From left to right, this indicates the USB, optical, and coaxial inputs.

Note: The input light will flash if Bifrost 2 is muted. You can mute and unmute via the remote control.

- **3 Remote Window.** The remote control communicates through this window.
- **4 Invert LED.** When the output is inverted, this LED will light. You can invert and de-invert via the remote only.



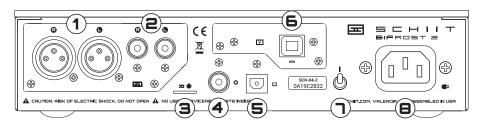
#### REMOTE CONTROL

The remote allows you to cycle through inputs, mute the output, and invert the output.

#### Changing the Battery

- 1. Push the remote open by inserting the end of an open paper clip into the hole in the back and pressing firmly.
- 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.

## REAR CONNECTIONS



- 1 XLR Outputs. Connect to your preamp or amp with XLR cables.
- 2 RCA Outputs. Connect to your preamp or amp with RCA cables.

Note: Both RCA and XLR outputs are active at the same time.

- 3 Firmware Update Slot. Follow the directions at schiit.com/firmware to create a microSD card to insert here when it's time to upgrade firmware. NO IT WILL NOT PLAY YOUR MUSIC FILES.
- **4 Coaxial Input.** Connect to a digital source with coaxial output using a coaxial cable.

- **5 Optical Input.** Connect to a digital source with Toslink output using a Toslink cable.
- **6 USB Input.** Connect to a computer or streamer using a minimum USB 2.0-rated cable, 2M or less in length.
- **7 Power Switch.** Up for music, down for silence. You get the picture.
- **8 Power Inlet.** Connect the power cord here, or #7 won't work. Don't connect a 115VAC Bifrost to a 230V power source, or you'll blow the fuse.



# I hear hum from Bifrost 2/64. What do I do? Bifrost'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. 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.

# The input LED is slowly fading in and out.

That means that Bifrost is in NOS (non-oversampled) mode. Press and hold the input button for 2 seconds, then release it to go into standard mode.

# I have a version of Windows earlier than Windows 10, where do I get drivers?

We do not provide drivers for earlier versions of Windows. All modern operating systems support our UAC2 compliant input without drivers.

# What happens if I plug a random microSD card in the firmware upgrade slot?

You'll get flashing LEDs that mean the card isn't recognized. You won't hurt the DAC. Nor will you hear beautiful music from your FLAC files, unlock a secret function to align the electrons in your cables, or make any significant change whatsoever. Just use it for firmware upgrades when they are available at schiit.com/firmware.

## I don't get any sound from Bifrost!

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 Unison USB in BOTH your Control Panel/System Prefs AND your player software.

## Can I leave Bifrost on all the time?

Sure, if you want to. It won't hurt anything.

### 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.

### 5-YEAR LIMITED WARRANTY

Schiit Audio warrants to the original purchaser that this product shall be free from defects in material and workmanship for five (5) years from the date of purchase. If a defect covered by this warranty occurs during this period, Schiit Audio will repair the defective product, free of charge. Date of purchase will be based on customer receipts, otherwise date of manufacturing will be used.

If you believe you need warranty service, contact us first. 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.

Warranty Limitations. This warranty shall not apply if a product: (a) is modified or tampered with; (b) is damaged by negligence, accident, unreasonable use, or other causes unrelated to defective materials or workmanship, or (c) has had the serial number altered or removed.

Any implied warranties, including warranties of merchantability and fitness for a particular purpose, are hereby limited in duration to the warranty period of 2 years. In no event shall Schiit Audio be liable for consequential or incidental damages resulting from the breach of any implied or expressed warranties. Some states do not allow these limitations, so they may not apply to you. You may also have other rights which vary from state to state or province to province.

Note: 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. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- · Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- · Consult the dealer or an experienced radio/TV technician for help.

Modifications not expressly approved by the manufacturer could void the user's authority to operated the equipment under FCC rules.

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



