

# BULLHEAD 3K

## Operation Manual





**Congratulations** on your purchase of the Trickfish Bullhead 3K. The Trickfish team has put all of our experience and skill into making the Bullhead 3K a truly musical piece of equipment. The design goals were modest: build a pre-amp that had the lowest noise floor possible so when we record it's nice and quiet, employ powerful EQ's so we can shape the sound in the most musical way possible and utilize a stout, no-nonsense power amp that delivers when you're digging in and pouring on the heat. We kept it simple and clean so that it would be easy to operate on stage – big knobs that are easy to grab and full size switches to minimize fumbling.

Featuring the acclaimed Mike Pope designed low noise pre-amp integrated with (2) tour proven, 2500W Class D power amplifiers, the Bullhead 3K offers all of the professional features and performance expected of a Trickfish product. Housed in a robust aluminum chassis, the powerful head offers a wide variety of tone-shaping capabilities via a 4-band EQ and 8 frequency select options.

This manual contains valuable safety instructions, operational information, and some insights we've gained over the years. Please take a few minutes to read it.

**Trickfish Amplification** is dedicated to delivering a collection of killer products that will serve as valuable tools for discriminating bassists as they seek inspiration for their artistic vision. We share a common vision of intelligent design, precision, delectable tone and rugged durability in everything we build, and we're committed to providing impeccable customer service; service that's commensurate with the quality we strive to deliver in every design we offer.

Trickfish products are designed and manufactured for discerning musicians looking for accuracy, power and reliability while in pursuit of their artistic vision. We strive to deliver intelligently designed product that is easy to operate, is beautiful to look at and yet without compromise, reveals the nuance and subtlety of the player and their instrument. We have a passion for what we do, and that love is channeled through strong principles and ideals. We demand the best out of ourselves because without that resolve, the product would be only average – we are not striving to be average.

## Unpacking the amplifier

**IMPORTANT NOTE:** Your Trickfish Amplification product was originally packaged in a specially designed carton and included special packing materials. Please save these items. They should be used when shipping your Trickfish Amplification product.

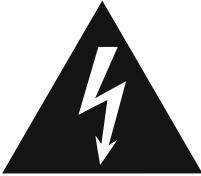
Please inspect the shipping carton. If the packaging is damaged immediately return this item to the shipper.

### **WARNING:**

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

### **CAUTION:**

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK DO NOT REMOVE THE COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING BACK TO MANUFACTURER



### **WARNING!**

**RISK OF ELECTRIC SHOCK  
DO NOT OPEN**



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) in the literature accompanying this device.

# Important Safety Instructions

- Read these instructions.
- Keep these instructions
- Heed all warnings.
- Follow the instructions.
- Do not use this apparatus near water.
- Clean only with a dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat.
- Do not defeat the safety purpose of the grounding type plug. A grounding type plug has two blades and a third grounding prong and is used for your safety.
- Protect the power cable from being walked on or pinched particularly at the plugs or at the point where they exit the device.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Object and Liquid entry: Never push any foreign objects of any kind into the openings as they may touch dangerous voltage points that could result in fire or electric shock. The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids such as a beverage shall be placed on top.
- When the apparatus exhibits a distinct change in performance this indicates a need for service.
- There are NO USER SERVICABLE PARTS
- Refer servicing to all qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as the power cable has been damaged or liquid has been spilled or objects have fallen into the apparatus or the apparatus has been exposed to rain or moisture, does not operate normally or has been dropped.
- Damage requiring service: Unplug the apparatus from the wall outlet and refer servicing to qualified service personnel under the following conditions:
  - a) When the power supply cord has been damaged.
  - b) If liquid has been spilled, or objects have fallen into the apparatus.
  - c) If the apparatus has been exposed to rain or moisture.
  - d) If the apparatus does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the apparatus to its normal operation.
  - e) If the apparatus has been dropped or damaged.
- Connecting: When you connect the amplifier unit to other equipment, turn off the power and unplug all of the equipment from the supply source. Failure to do so may cause an electric shock and serious personal injury. Read the user manual of the other equipment carefully and follow the instructions when making the connections.
- Sound Volume: Reduce the volume to minimum before you turn on the amplifier to prevent sudden high levels of noise which may cause hearing or speaker damage.
- Speakon connectors: WARNING: Speakon connectors marked with the lightning flashes indicate high voltages that are potentially life threatening. Wiring to these terminals requires installation by an instructed person and the use of ready made leads or cords.
- Custom wiring should only be carried out by qualified personnel.
- To prevent electric shock, do not operate the product with any of the conductor portion of the speaker wire exposed.
- NOTE: For reasons of safety and performance, use only high quality fully insulated speaker cables of stranded copper wire. Use the largest wire size that is economically and physically practical, and make sure the cables are no longer than necessary.

# EC Declaration of Conformity in accordance to EC Directives

Electro-magnetic compatibility (Council Directive 89/336/EEC, as amended by Directives 92/31/EEC and 93/68/EEC); Low - voltage electrical equipment (Council Directive 73/23/EEC)

This product conforms to the following standards:

- EN55103-1 Emission
- EN55103-2 Immunity
- EN62368-1 Safety



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## FCC Part 15 Class B Compliance

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

This equipment has been verified to comply with the limits for a class B computing device, pursuant to FCC Rules. In order to maintain compliance with FCC regulations, shielded cables must be used with this equipment. Operation with non-approved equipment or unshielded cables is likely to result in interference to radio and TV reception. The user is cautioned that changes and modifications made to the equipment without the approval of manufacturer could void the user's authority to operate this equipment.



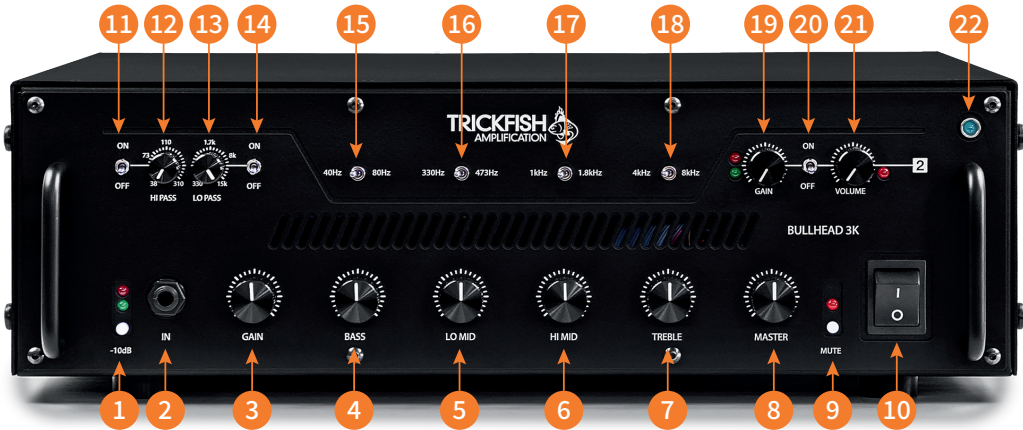
## Connections:

1. Remove the AC cable from the package and firmly insert the female end in the AC receptacle located on the back panel of your amp.
2. With the amplifier in the "OFF POSITION" plug the male end of the AC cable into the wall outlet.
3. Connect the speaker using Neutrik Combo Connector on the rear panel - Make sure that you are using an "unshielded" speaker cable and that the polarity of the cable is correct. Do not use a shielded instrument cable to connect speakers to an amplifier. Ensure that the cable is good quality and that there are no nicks or abrasions of the insulation that could expose people or equipment to the electrical potential that is present on the speaker conductors. Never allow speaker connections to short or contact other metal objects. Do not connect output to anything other than a proper speaker load. Do not use a shielded instrument cable to connect speakers to an amplifier.
4. Now you can connect your instrument to the amplifier. Make certain that you are using a "shielded" instrument cable to connect your instrument to your amplifier. If you are unsure of the type of cables you currently own, we advise you take a trip to your local music store and purchase the appropriate cables.
5. If you have a passive instrument plug it into the instrument input and select the "HI" setting on the attenuator button. If you have an active instrument then press the attenuator button to use "LO" gain setting.

## Powering Up:

1. Turn the volume on your instrument to the loudest position.
2. Place the amp in the "mute" position and turn the master volume all the way down to minimum (counter-clockwise).
3. Place the amplifier power switch in the "ON POSITION"
3. Next, set the EQ controls (bass, mid, and treble) to zero (twelve o'clock position) and begin playing aggressively while turning up the Gain control of the appropriate channel (as indicated by the LED indicators). When the top LED stays in the red your input is probably too hot and your signal will distort. A little bit of the red LED on the peaks is OK.
4. Next, disengage the "mute" button and slowly turn the Master Control clockwise to the desired listening volume. At this point you should be hearing your instrument amplified through the system.
5. As you ADD EQ you are also adding gain and so, once you've turned up the Master and start to EQ, be aware that the signal will INCREASE as EQ is added. You may have to re-adjust the "Input Gain" once you've added EQ.

## Bullhead 3K Front Panel Features



- 1. Input Attenuator:** 0, -10db of gain reduction to accommodate active or passive inputs with signal level and Clip LEDs (green/red)
- 2. Instrument Input:** ¼" phone plug line input
- 3. Input Gain:** Input level adjust
- 4. Bass EQ Cut/Boost:** Center detent is flat. Counter clockwise cuts, clockwise rotation boosts
- 5. Low Mid EQ Cut/Boost:** Center detent is flat. Counter clockwise cuts, clockwise rotation boosts
- 6. High Mid Cut/Boost:** Center detent is flat. Counter clockwise cuts, clockwise rotation boosts
- 7. Treble EQ Cut/Boost:** Center detent is flat. Counter clockwise cuts, clockwise boosts
- 8. Master Volume:** Controls the overall volume of the amplifier
- 9. Amplifier Mute:** Mutes the signal to the amplifier and to the DI
- 10. AC Mains on/off:** Power on/off
- 11. High Pass Filter on/off:** Turns on/off high pass filter
- 12. High Pass Filter:** Sweep from 38Hz to 310Hz
- 13. Low Pass Filter:** Sweep from 330Hz to 15kHz
- 14. Low Pass Filter on/off:** Turns on/off low pass filter
- 15. Bass EQ Frequency Select:** Selects frequency for the shelving bass EQ
- 16. Low Mid Frequency Select:** Selects the frequency for the Low - Mid Bandpass EQ
- 17. High Mid Frequency Select:** Selects the frequency for the Low - Mid Bandpass EQ
- 18. Treble EQ Frequency Select:** Selects the frequency for the shelving Treble EQ
- 19. Input Gain:** Input 2 level adjust signal level and Clip LEDs (green/red)
- 20. Amplifier 2 on/off:** Turns on/off amplifier output 2
- 21. Amplifier 2 Master Volume:** Controls the overall volume of amplifier 2
- 22. Power on/off LED indicator:** Illuminated blue LED indicates power is on



# Bullhead 3K Back Panel Features



- 1. AC Mains Input:** Attach supplied cable firmly into socket
- 2. Parallel Speaker Outputs (Main):** Neutrik Combo connectors accommodate both Speakon and ¼” phone plugs
- 3. Parallel Speaker Outputs (Amp 2):** Neutrik Combo connectors accommodate both Speakon and ¼” phone plugs
- 4. Input Amp 2:** ¼” phone plug line input
- 5. Phase switch:** Reverses the phase of Amp 2
- 6. Direct Out Ground Lift Switch:** Ground lift dedicated to Direct Out
- 7. Line Input:** ¼” phone plug accommodates MP3 players and any other input sources
- 8. Tuner Out:** ¼” phone jack sends signal to tuner
- 9. EFX Loop Series/Parallel select switch:** Switches the EFX Loop from parallel operation to serial operation
- 10. EFX Loop Return:** ¼” phone jack returns the signal FROM the destination device
- 11. Direct Out Pre/Post select switch:** Switches between a Pre-EQ or Post-EQ send
- 12. Direct Out Ground Lift Switch:** Ground lift dedicated to Direct Out
- 13. Direct Out XLR (Amp 2):** Balanced Female XLR connection
- 14. Headphone Output:** ¼” stereo phone plug for headphone monitoring
- 15. EFX Loop Ground Lift:** Ground lift dedicated to EFX Loop
- 16. EFX Loop Send:** ¼” phone jack routes the signal TO the destination device
- 17. Direct Out XLR (Main):** Balanced Female XLR connection

# Bullhead 3K Specs

## **Power per output channel (two power amplifiers total):**

4 Ohms: 2500W @ 0.05% THD

8 Ohms: 1500W @ 0.05% THD

**Power Amplifiers:** Class D with Switch - Mode Power Supply

**Pre-Amp:** Low noise, all analog, solid state

**Input:** ¼" Phone with switchable attenuation and rotary gain control per power channel

**Input Level Indicator:** Signal level and lip LEDs (green/red)

**EQ:** 4 Band

Shelving Bass and Treble with selectable Hi-Pass frequencies

Low-Mid and Hi-Mid - Variable Gain, Band Pass EQ with selectable frequency / bandwidth options, +/- 12dB

## **Filter Section:**

Hi Pass Filter - 38Hz to 330Hz with separate on/off toggle switch

Lo Pass Filter - 330Hz to 15kHz with separate on/off toggle switch

**Master Volume:** Rotary Control

**Line In:** 1/8" mini jack

**Headphone Out:** Stereo 1/8" mini jack

**Mute Switch:** Push button

**AC Mains:** 85 - 132V, 195 - 264V, 45 - 65 Hz, 1000VA (Worldwide usage)

**AC Mains Indicator:** Blue LED

**EFX Loop:** Series/Parallel selectable, w/ground lift

**Tuner Out:** ¼" phone jack sends signal to tuner

**Direct Out per channel:** 600 Ohm Balanced, XLR, Pre/Post, Ground Lift and Level control

**Speaker Output per channel:** 2 x Neutrik Combo connectors

**Chassis:** Aircraft grade aluminum w/removable rubber feet, 3 rack spaces

**Size:** (H x W x D in.) 5 x 17 x 13

**Weight:** 12.89 lbs.

## Additional Notes:

Suggested EQ settings download available at <https://www.trickfishamps.com/manuals>

- Please remember that the BH3K will handle a minimum two 4 Ohm loads and is warranted as such. Failure to adhere to this impedance can void the manufacturer's warranty.
- The BH3K is cooled through the use of fans and side panel vents and is constructed from aluminum which is a metal that provides excellent heat transfer. Our heat tests revealed that the BH3K runs extremely cool under normal circumstances but, the vents must remain clear for the heat to dissipate. Do not block these vents as the over-stress of heat buildup will cause the amplifier to shut down until it has cooled to safe operating temperature. When using the optional rack-ears leave enough room on the sides of the amp for the heat to dissipate (Don't pack foam, cables or use the space for storage of personal items).
- ALWAYS use quality unshielded speaker cables (16GA pair minimum) and keep the runs as short as possible
- Never use an unshielded cable for the instrument input, EFX loops or the DI out.

## Warranty:

We proudly stand behind our products with a 5 year warranty against manufacturer defects with one exception; drivers are warranted against manufacturer defect for 90 days. This warranty extends to the original owner of the product and the product must have been purchased from an authorized Trickfish Amplification dealer. The owner must present to us the sales invoice that clearly shows the dealer's name, store location or website, product model and date of purchase. We do not warranty against abuse, water damage, fire, physical force, modification, improper installation, power surges or brownouts, or any other damage caused by a third party. Please contact [service@trickfishamps.com](mailto:service@trickfishamps.com) to obtain a Return Authorization number for the repair. Depending on the nature of the repair we may have the unit sent to us or have the owner take it to a local repair facility. The owner will be responsible for freight charges to the repair facility and if it is deemed, at our discretion, that the repairs needed fall under the guidelines of the warranty, we will pay the return freight.

# TRICKFISH

AMPLIFICATION



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