BEARE
Painted Dog

User Manual

Serial Number	2402A
Timber	Tas Oak
Speaker	NA
Other	Cathode Bias

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Thank you for purchasing a Beare Painted Dog!

The Serengeti series of amplifiers are named after wild animals found on the plains of Africa. Vicious and untamed, these beasts are designed for filthy gains, gorgeous cleans and everything in between.

The “Painted Dog” is the smallest beast in the Serengeti herd but it is still more than capable of devouring your gig!

Features include:

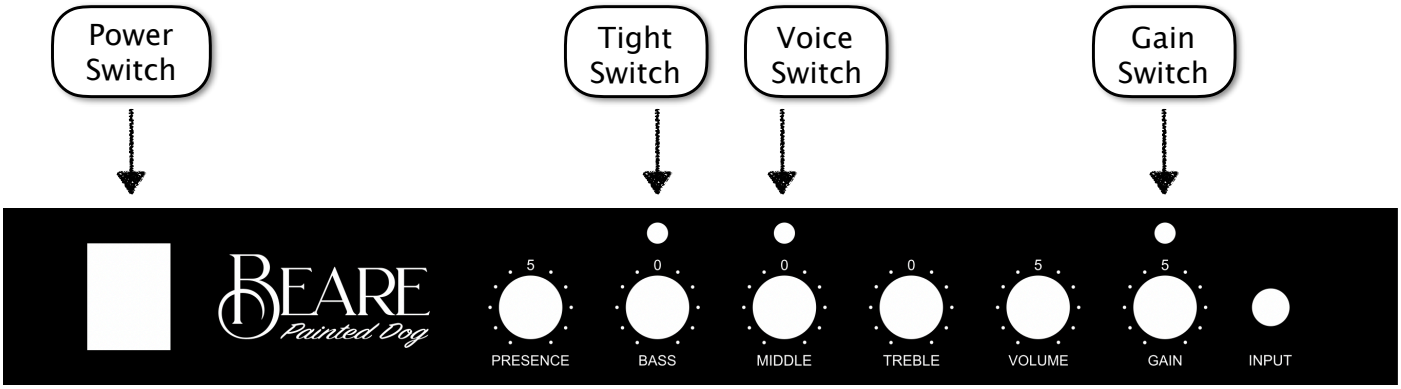
- Gain Switch
- Voice Switch
- Tight Switch
- Transparent FX Loop
- hand-wired circuitry
- optimum components
- finger-jointed, solid timber cabinetry

Each amp is built personally by myself with the utmost care and attention to detail. If you have a problem with anything regarding this amp - I want to know about it!

Enjoy your new amp,

Kym Beare
kym@bearemusic.com

Front Panel



Input Jack

Plug your guitar in here. If using FX see the section "FX Loop" for info regarding what FX should preceed the amplifier input and which should go in the FX Loop.

Gain Control

Adjusts the desired level of distortion. When used in conjunction with the Gain Switch (see below) a wide range of overdrive / distortion is available.

Volume Control

Adjust the overall volume of the amplifier (AKA Master Volume). Pre-FX Loop.

Treble / Middle / Bass Controls

The Painted Dog has been designed to sound great with the tone controls set at noon or "0" on the control panel. You can then either -/+ to taste.

Presence Control

Again, the Painted Dog has been designed to sound great with the Presence control set at noon or "0" on the control panel. If you find the high-end frequencies too agressive at higher gain settings reduce the Presence. Conversely, humbuckers can benefit from the increase in high-end from the Presence control.

Gain Switch

The Gain Switch selects between Low-Gain (Right) and High-Gain (Left) modes. In addition to the increase in gain the High-Gain mode also boosts the high and upper-mid frequencies slightly.

Voicing Switch

The Voicing Switch selects between British (Right) and American (Left) upper-mid frequency characteristics. British has more mids and American is more scooped.

Tight Switch

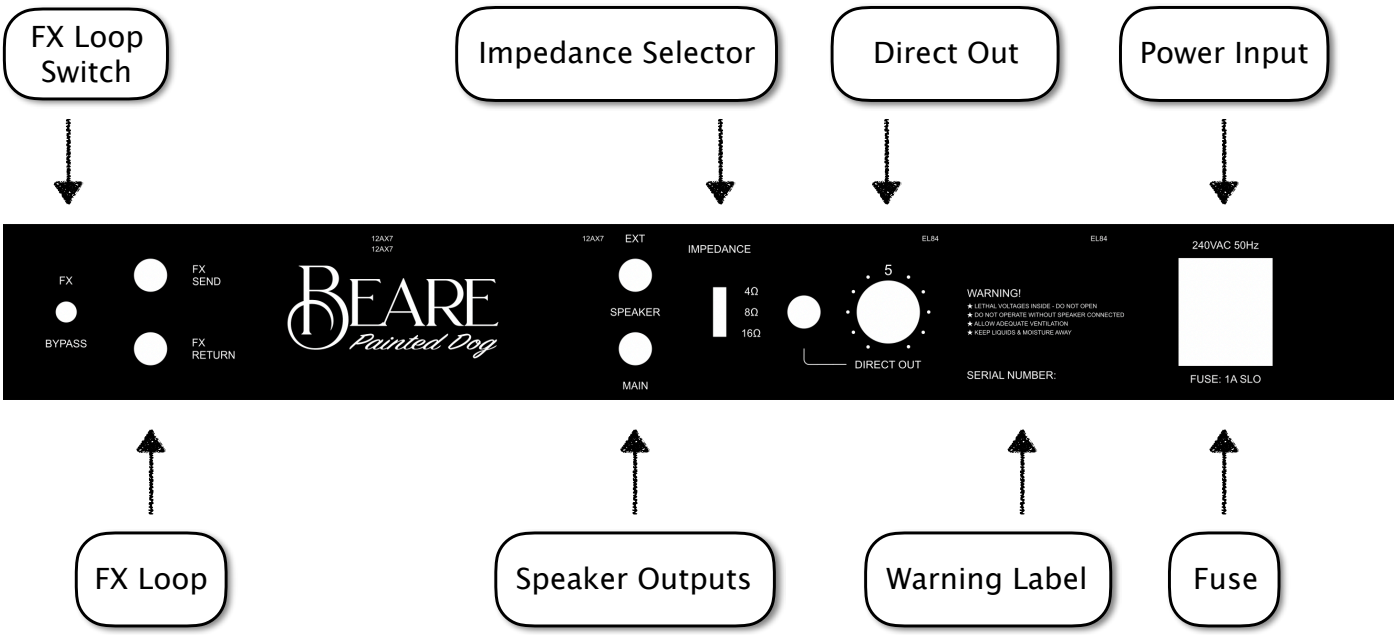
The Tight Switch allows you to tailor the character of the distortion to your taste. A by-product of tube-generated distortion is that as the distortion increases so do the low frequencies. This can result in a loose/flabby distortion which you may enjoy but is generally avoided in heavy music styles. The solution is to reduce the amount of low-frequencies entering distortion stages. The Tight Switch selects between Tight (Right), Tightest (Centre) and Full (Left) low frequency responses.

"Tight" and "Tightest" are intended for use with medium-high levels of gain. "Full" is intended for clean and hairy-clean tones.

Power Switch

Down is active. Switch will illuminate when amplifier is active.

Rear Panel



Fuse

Use only a 1 Amp Slo-Blow fuse. 5x20mm.

Power Input

Required power is 240 Volts AC 50Hz with an IEC C13 plug connecting to this socket.
For your safety, ensure your cable has a functioning ground / earth.

Impedance Selector

Ensure the correct impedance is selected to match the speaker(s) being used. If using multiple speakers see "Using 2 Speaker Cabinets" below. Ensure the amplifier is OFF before changing the impedance selection.

Speaker Outputs

The MAIN SPEAKER output must be used at all times. If adding an extension cabinet connect it to the EXT SPEAKER output. The EXT SPEAKER output is wired in parallel with the MAIN SPEAKER output.

FX Loop Switch

Selects between FX Loop active and bypassed. When bypassed the FX Loop is completely out of the circuit.

FX Loop

The preamp of the Painted Dog is designed to generate a significant amount of distortion. Any signal entering the Input of the amp will be affected by the gain settings of the preamp.

- FX that you do not want to be distorted should go in the FX Loop:
    - Reverb, Delay, Modulation etc.
- Gain enhancing FX should go before the amplifier's Input:
    - Tubescreamer / DS1 / Compressor

Connect FX Send to the input of your first FX Loop effect.
Connect FX Return to the output of your last FX Loop effect.

The Volume Control is before the FX Loop and therefore affects the level of the signal being sent to your pedals. The FX loop send is "instrument level" and should be compatible with most FX units.

FX Send can be used as a preamp only direct out and FX Return can be used as a power amp input.

Nominal output level: 200mVpp / -20.8dBu / -23dBV
Maximum out level (High Gain Mode, Gain Max, Volume Max): 3Vpp / +4dBu / 1.7dBV
Output impedance (Send): 320 ohms
Input impedance (Return): 1M ohm

Warnings!

1) There are no user serviceable parts inside the chassis. There is, however, voltages that can be fatal - even when the amp is off and disconnected from mains power!
2) A speaker(s) or load box must be connected before applying power to the amplifier otherwise serious damage can occur.
3) Do not exposure the amplifier to moisture or liquids.
4) Tubes get very hot. Do not touch during or for some time after operating the amplifier. Allow substantial ventilation around the rear of the amplifier.

Direct Out

The Direct Out is a line level output taken after the power tubes and output transformer.
Use the Direct Out Control to vary the output level to taste.

Maximum output level: 2.7Vpp (+1.8dBu)

IMPORTANT!!! A speaker or load box must be connected to the Speaker output at all times when operating the amplifier.

Time to Replace Tubes?

When to replace the tubes depends on how much use the amp gets. Preamp and rectifier tubes should last 3-5 years. Output tubes may need replacing every year with heavy use.

Important! Always replace tubes with the same type as indicated.
Ensure tubes are cool before touching.

Output

- the two largest tubes
- EL84 (AKA 6BQ5)

Preamp / Phase Inverter

- the other three smaller tubes
- 12AX7 (AKA ECC83S)

Caution! The tubes must be correctly oriented. The tubes have a space in the pins. Ensure this corresponds to the spacing of the tube socket. Be careful not to bend the pins.

Biasing

Your Painted Dog is configured in Cathode-Bias and is self-biasing. Output tubes may be changed with the same kind (EL84) without the need for the bias to be manually adjusted.

Using 2 Speaker Cabinets

While one speaker is certainly sufficient to get the most out of your Painted Dog there are times when you may wish to add a second speaker cabinet.

Key concepts:

- Both cabinets must be the **SAME** impedance, eg 8 ohms.
- Combining impedances in parallel results in an overall impedance of **HALF** the original impedances.
- Ensure the correct impedance is selected on the **IMPEDANCE SWITCH**.

Example 1: 8 ohm cab + 8 ohm cab in parallel = 4 ohm overall impedance. Therefore select the 4 ohm setting on the Impedance switch.

Example 2: 16 ohm cab + 16 ohm cab = 8 ohm overall impedance. Therefore select the 8 ohm setting on the Impedance switch.