Siegmund
Tube Amplification

Big Boy 330

Owner's Manual

330 Watt Bass Guitar Tube Amplifier

Before you plug into your new amplifier, be aware of the following precautions:

- Practice common sense.
- Connect the amp only to a grounded AC power source, meeting the power supply specifications, provided next to the AC power socket.
- Only use fuses with the rating indicated next to the fuse holder.
- Turn off the power, when changing fuse or tubes.
- Give tubes time to cool down, before replacement, to avoid burned fingertips.
- Never attempt to service the amplifier, unless you are a qualified technician. DC current and voltages can be lethal!
- Do not expose the amp to moisture, water, direct sunlight or extreme temperatures.
- Do not use solvents to clean the amps covering or chassis. Use a damp (not wet) soft cloth.
- When the amp is stored for an extended period, switch on both power and standby for a few hours. At least once a year, to keep the filter capacitors from drying out.

Contents

Overview

The **Big Boy 330** is a Bass tube amplifier with high quality custom wound transformers.
Simplicity in design and function creates the purest and most musical bass tones made available yet.

The **Big Boy** has silky smooth big warm lively tube sound packing a powerful tight punch.
The overdrive tone and crunch is rich with even-order musical harmonics.

Six KT150 power tubes in ultra-linear operation with Gain, 5-band EQ and Master Volume controls plus parallel FX loop and Preamp output and Power amp input.

External bias and balance feature allows for easy adjusting and monitoring of the output tubes for ideal performance and sound quality.

Power-up

Important : This power-up procedure should always be followed to substantially extend the tubes life.

Plug your Bass into the **Input** jack on the front panel.
Bring the **Standby** switch to the *Standby* position.
Turn the **Power** switch on.

The pilot lamp will light up - an indicator that the tubes are being heated.
Each tube will emit a faint glow in its center. After about **1 minute**, the elements inside the tubes have been sufficiently heated for the tubes to operate properly without premature wear.

The **Standby** switch can now be turned off to supply voltage to the tubes.
The front panel will light up - an indicator that the amp is ready to play.

Controls

High / Low Z switches between high or low impedance pickups.
Passive pickups are High impedance and Active pickups are Low impedance.
You can also use the switch in either position regardless of pickups –
whatever gives the better signal and useful sweep range of the gain pot.

Gain controls how much gain is sent to the following stages.
It also supplies the signal to the FX loop Send.

After the **Gain** knob reaches the maximum clean headroom setting, any further rotation of the knob will slightly raise the volume and make the distortion more saturated and compressed.

The EQ section of the **Big Boy** is designed to suppress or boost certain frequency ranges in an interactive manner.
EQ band ranges are 50, 160, 500, 1600 and 5000 Hz with 6 dB/octave roll-off between peaks and flat below 50 and above 5000.

Sub	50 Hz
Low	160 Hz
Mid	500 Hz
High	1600 Hz
Bright	5000 Hz

Master allows for lower volume and a complex and natural overdriven tone at lower volume levels.
It is completely bypassed, when turned all the way up, for maximum clean headroom.

FX Loop

The **Big Boy** parallel effects loop has a buffered low-impedance **Send** output.
It is capable of supplying both effects rack-mount and pedal inputs.
The **DI output** gives a low impedance Microphone level signal.

Adjust the **Level** control to get a good balance with the unit connected to **Send**.
Note: Rotating the knob will cause slight scratchy sounds, which are normal.

The **Return** input is high impedance and accepts any kind of preamp, for dual channel operation.

A standard instrument cable or patch cord can be connected between **Send** and **Return** to create a parallel secondary preamp channel.

The **Mix** control blends the preamp with the signal from the **Return jack.**

Always leave the knob turned all the way to *Pre* when no effect or other preamp is connected.

Preamp Out - Power amp In

These jacks provide access to the **Big Boy** Preamp and Power amp.

Preamp Out taps the preamp signal.

EQ / FX Toggle selects if the Preamp Out signal includes the EQ of the front panel and the FX loop

Power Amp In When plugged in, the preamp signal turns off and an external Preamp can be used.

Tubes

6x KT150	12AT7	12DW7	12DW7	EF86
Power Tubes	Phase Inverter	EQ Driver	FX Loop	Input Gain

Always use matched sets of KT150 power tubes.
The Left side and the Right side of tubes are in parallel with each other on their side.

The amp understands each side as one combined unit and what matters is that both Left and Right side are equally strong and balanced with each other.

If a matched sextet of tubes is not available, you can also use...

3x matched pairs or

1x matched quartet + 1 matched pair

Bias Control

To achieve maximum performance while giving longest tube life, the **Big Boy** features a complete easy-access **Bias Control** section, with test-points for DVM hook-up.

Here is a simple guide for adjusting bias:

No technical knowledge is required.
All we need is a **D**igital **V**olt **M**eter, which reads DC millivolts (mV).

L … Left Tube **G** … Ground **R** … Right Tube

Bias:

1 Follow the power-up procedure.
2 Play the amp for about 30 minutes or until the tubes are completely warmed up.
3 Turn the **Master** volume all the way down.
4 Switch the DVM to the DC millivolts setting. (200mV on most units)
5 Insert the **Black** probe of the DVM into the **G** test-point.
6 Insert the R**ed** probe into **L** and adjust the **Bias** trim below it to the number shown in the table on the next page.
7 Insert the **Red** probe into **R** and again adjust **Bias** trim below it to the same number.
8 Repeat steps 6 and 7 until both sides have stabilized at the same number.

Balance:

1 Insert the **Black** probe into **L** and the **Red** probe into **R**
The meter reading is now the difference between **L** and **R**
2 Play one single note or chord with the amp in your favorite front panel knob settings and adjust **Balance** to a reading close to Zero.

Use this guide to find the bias numbers for your desired configuration:

Speaker impedance	Bias	Power	Peak
2 ohm	200 mV	330 Watts	430 Watts
4 ohm	200 mV	260 Watts	300 Watts
4 ohm	240 mV	300 Watts	350 Watts

Only bias to 240 mV with a 4 ohm load - Never with 2 ohm, or the tubes will wear prematurely.

Biasing tips:

- Always do bias adjustments with the power tubes fully warmed up after playing.
- From time to time check the **Bias** setting of both **L** and **R** to make sure all tubes are working properly.
- A dead or premature worn tube will give a noticeable lower reading.
  In that case remove one tube at a time and look for none or the least change in the meter reading and replace that tube. Then reset using the Bias procedure above.
- Readjust **Bias** as tubes wear down over time to maintain balance between **L** and **R**
- Reset **Bias** after replacing one or more power tubes.
- **Balance** can only be adjusted when the amp is played and Master is at least half way up.

Tube Replacement Procedures

1) Allow tubes to cool down before handling.
2) Pull off the tube retainer.
3) Gently pull out the tube by its base with a light circular motion. Don't use excessive force and take your time.
4) Inspect each tube before inserting, for straight pins and an undamaged locating pin in the center.
5) Line up the locating pin with the socket, by rotating the tube until it locks into place.

Caution: Power tubes will be especially hot!
Never touch hot tubes with your bare fingers!

Speakers

Always use a combined speaker load of **2 - 4 ohms** to make full use of the output transformer and to match impedances of the tubes and speakers for maximum musical response and performance.

An 8 ohm and 4 ohm cabinet in parallel has **2.6 ohm**
In this configuration, the 8 ohm cabinet gets twice the power from the amp than the 4 ohm cabinet.

Lifetime Warranty

Chris Siegmund *guarantees this Amplifier to be an excellent unit, functionally and musically.*
It is covered by a warranty to the original purchaser for life,
against any defect traceable to faulty workmanship or defective components.
Siegmund Guitars & Amplifiers *agrees to repair or replace such defect.*
This warranty does not cover any damage resulting from misuse, accidents or improper storage
and the normal wear of tubes, sockets, jacks, potentiometers and filter capacitors.

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