

# Introducing the THD BiValve-30 Amplifier!

The new THD BiValve-30 is a Single-Ended Class A amplifier head with two output tubes that can be switched at will among many octal-based power tubes for different tones without re-biasing the amp. Unlike any other amplifier on the market, the BiValve-30 gives each power tube its own cathode-bias circuit and its own transformer winding. This permits the BiValve-30 to run two completely different tube types, creating a new dimension within tube amp sound. Useable tubes include 6L6, EL34, 6550, KT90, KT88, KT77 and KT66. With the amp in “LoV” setting you can use the 6V6 power tube for reduced output power. Special BiValve-30 Yellow Jacket™ Converters are available allowing the BiValve-30 to use the popular EL84 power tube, also in “LoV” setting.

Likewise, the two preamp tubes can be any combination of 12AX7, 12AT7, 12AU7, 12AY7 or 12AZ7.

*... the BiValve 30 – running a 6550 and an EL34 – produced a level of tonal complexity and sonic dimension that was simply off the scale.*

*The BiValve 30 could easily be the richest, most detailed amp in its class...*

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The BiValve-30 exceeds in versatility and harmonic richness, delivering tones from smooth and clear to very aggressive overdrive. At 30 watts Class A it is an amp well suited for stage use, yet is quite small and transportable. It has a built-in Hot Plate™ Power Attenuator that allows for full output distortion at any volume.

## What is Class A?

Class A is a term given to an amp that runs its tubes at full current all the time, unlike most tube amps that alternate between running one set of tubes and the other set, each for one half of the wave. The set not in use is turned off by a positive swing of the grid voltage. Single-ended output stages always operate in Class A. Most push-pull amplifiers, including the venerated Vox AC-30, operate in Class AB when overdriven, even if they are in Class A while clean. Class A operation has its own unique tonal characteristics that set it apart from other tube amp classes.

Class A amps sound great at low volumes, and even better as you turn them up. Thus, with the relatively low wattage of the UniValve you can turn up the amplifier to take full advantage of its stunning output distortion tone without deafening anyone.

Being single-ended, the BiValve-30 has a much fuller harmonic content to its overdrive and distortion because it is rich in both even and odd harmonics. The push-pull configuration that most amplifiers use cancels even harmonics leaving only half of the sonic spectrum offered by the BiValve-30.

## Why the self-biasing feature?

The BiValve-30's circuitry senses the current needs of the output tubes and provides the correct bias voltage to the cathode of the output tubes regardless of tube type or wear. Without any trip to an amp technician, you can simply replace the output tubes with tubes

that have different sound characteristics. (Of course, you can also change the preamp tubes at will for even more tonal variations.) For example, two 6550 tubes will stay cleaner at higher volumes, but when overdriven, have an astoundingly “woody” character to the overdrive. On the other hand, two EL34’s will break up earlier than the 6550’s and give a more “British” sound. The ever-popular 6L6 family of tubes gives a tight overdrive with less power than a 6550 but more detail than an EL34. Even within the same type of output tube there are “harder” and “softer” tubes. Two guitarists playing with the same guitar through the same BiValve-30, who simply switch the tubes to their preference, can have noticeably different tones.

## Controls and Features

The BiValve-30 has two inputs: one for high gain and one for low gain ranges. The low gain input with 12AX7 preamp tubes in the amp gives a wide range of clean sounds from “Country” clean and crisp to Jazz-direction warmth. With the controls pegged and a relatively high-output humbucker, the low-gain input can deliver a very convincing “Texas Blues” type of overdrive. Plug into the high-gain input and you are in a whole different world from early “British Invasion” tones to contemporary hard rock sounds. The most surprising aspect to the BiValve-30’s high-gain overdrive is that even with stunning levels of grind, you can still play complex chords and hear every note of the chord clearly. There is none of the mush and confusion normally associated with high-gain tones.

The controls are the traditional Volume, Treble and Bass controls along with what we call an “Attitude” control. The Attitude control determines how the driver stage responds to the signal and how it drives the power tube. The Attitude control is not a Presence control, as the amplifier has no negative feedback from the output transformer back into the driver stage. There is also a cut switch which reduces highs for a smoother, less aggressive sound and a built-in THD Hot Plate power attenuator that lets you have full output distortion at any volume level. The Hot Plate has its own hard-bypass switch on the front panel, which completely removes it from the circuit for Full-Power playing into a speaker.

The BiValve-30 features a light bulb on the front panel that not only glows when the amplifier is played, but it also provides very effective noise-reduction. For occasions when you do not want this feature, there is an On-Off switch for the light bulb circuit right on the front panel.

The BiValve-30 has a HiV/LoV switch, which reduces the voltage to the tubes somewhat like a Variac. In the LoV setting, the power is reduced more or less to half, pick attack is slowed and the feel is more “elastic”. The amp also has more “bloom” in the LoV setting and can also take a number of tubes that cannot withstand the higher voltages of the HiV setting. These tubes include the entire 6V6 family and a number of antique 6L6 family tubes like the 6L6G, 6L6GA and 6L6GB.

The BiValve-30 has a GREAT- sounding transformer-isolated line out on the back panel complete with an adjustable level control and a switch to choose Line- or Instrument-Level signal. The transformer used in the line out was chosen for its pickup-like impedance and tonal characteristics. Most amplifiers’ line outs only work well when used to drive other power amplifiers, and sound harsh and thin when plugged into the guitar input of an amplifier. Not so with the THD BiValve-30. Even into the input of a Marshall 100-watt head, the BiValve-30 provides a warm, fat, tight and sweet sound that FEELS like an

amplifier, not like a preamp-amp rig. The BiValve-30 can drive any speaker load from  $2\Omega$  all the way up to  $16\Omega$ . When there is no speaker plugged into the speaker jack, the amp uses its own built-in dummy load so no damage will occur, and to allow the silent use of the amp for direct recording purposes when miking a cabinet is not practical.

## Configuration

The BiValve-30 will initially be sold only as a head. It features a metal chassis, powder coated and enclosed in a perforated steel cage to protect the tubes. In the coming months, we will be introducing a number of different combo cabinet and head box configurations. The BiValve-30 can be installed in any of them simply by screwing it into the box. There will be a huge range of choices and options in the cabinets including head boxes, 1-12" combos, 2-12" combos, 2-10" combos and others. We will periodically produce "Limited Edition" cabinets with special hardwoods or other unique features. Anyone with a BiValve-30 or a UniValve will be able to use these as swapping cabinets only takes about five minutes!

So, go to your nearest THD dealer and try the new THD BiValve-30 amplifier. You will be glad you did.