

EBS TD650

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The TD650 is EBS' most powerful amplifier head to date. With a power rating of 650 W and a preamp with transistor and tubetechnology, their aim has been to crate a flexible, yet user-friendly top-of-the-line amp.

EBS has had great success with their first-born Fafner and the HD350. The design ambition behind TD650 has been to combine Fafner's power and ease of use with the flexibility of HD350. Bo Engberg at EBS tells us that: "Fafner is their best selling amp in Europe and that it is a favorite particularly among rock bassists while their American counterparts seem to prefer the HD350". TD650 is designed to bridge that gap, but is it just a "big brother" to HD350 or can it offer something additional?

CONSTRUCTION

The exterior of TD650 is similar to other EBS products: black front panel with black rubber knobs and ventilation holes that outline the EBS logo.

In concert with two chromed handles on the front and blue LED indicators, it is a forceful appearance. It proves that it is an amp built to handle rough treatment and functional live use. The small buttons and micro switches of earlier models have been exchanged for larger ones with LED's. The handles protect the front panel controls and four rubber feet shields the back panel in/output-jacks, if it is placed on the back panel. If you remove the cover of the heavy steel chassis, you notice carefully made wiring and fiberglass printed circuit boards with multi-connectors for easy servicing.

To avoid tube mishaps – i.e. if you drop the amp, it is situated in different area of the circuit board so it is in a more flexible and protected space.

The tube utilizes DC (Direct Current) heating instead of AC, which is more common (it is also cheaper) which makes it less susceptible to electrical buzz or mains



hum. The input has phantom power, which is activated by a switch on the back panel. The phantom power can be used instead of batteries with an active bass or with EBS effect pedals. If this feature is used the battery must be removed, the poles on the battery clip short-circuited and a stereo cable must be used instead of the normal mono cable. The gain controls have a LED next to it to make adjustments easier. A bass with normal output level roughly reaches the middle ground on the LED.

The filter section is almost identical to the HD350, but the present bass and treble filters have been softened a little, in order to sound more musical. The sweepable mid frequency has an unusually broad range (50 Hz-3 kHz), which makes it possible to use it as an additional bass or treble filter. Another refinement is EBS brilliant notch-function: it narrows the bandwidth when you attenuate the signal more than 12 dB. That makes it easy to remove unwanted frequencies (i.e. low end resonance) without affecting the basic sound very much. The characterfilter is the same as on the HD350 and it is designed to add life to dull-sounding basses and give sterile sounding hi-tech instruments a little more warmth. This is done by boosting the bass and treble slightly while carefully keeping the middle frequency trimmed. The bright control is an effect filter placed higher than the treble, which affects the upper harmonics.

The compressor/limiter is borrowed from the HD350 and uses an LED-indicator to show when compression is applied. The knob regulates the effect and compress the signal up to 3:1 ratio, which is a "soft leveling" of the signal peaks. The drive-section is an improved version of the ones used on the models Fafner and HD350. At the lowest setting, the signal is unchanged but becomes "hotter" quite fast.

At normal setting, the transistorbased tube-simulation is active but the tube circuitry - an ECC83 tube (12AX7) - is engaged with a switch. The amplification is compensated or to cite the owner's manual: "the output level is kept at a fairly constant level". With normal setting, only frequencies above 350 Hz are affected to give a more smooth sound with less muddled. Low-end frequencies below 350 Hz are kept clean which gives a more full bottom end. This function can be disengaged with the Boost Drive-switch if you would like to use distortion on all frequencies. The Drive section is not conventional distortion; it works as an effect or an amp/cab simulator. This is why it is placed after the effects loop and consequently influence the effects that you connect.

Under normal circumstances this is not a problem but sometimes the end result might not turn out to be what you expected. A nice sounding reverb with lots of Drive will sound as a distorted reverb.

Using the Line Out and Amp In can solve such problems together with an external line box.

There are ways around it but the Drive function is primarily geared towards getting a rig that sounds like an old vintage amp head. The Volume controls the Speaker outputs and Line Out. I take notice that both the Drive control and volume knob ends with 11 (I guess that it is a "cultural heritage" from the movie Spinal Tap and the scene with the line: "one louder").

The balanced XLR-output is sensibly situated on the front panel along with switches for Pre/Post EQ, speaker simulator, and the ground lift. In addition to the mains switch there is a stand-by switch.

The latter gives the tube some time to reach working temperature before you turn on the sound.

On the back panel, there is an input for the power

cable with a fitted fuse-holder and a back-up fuse. The effects loop has one send and two returns, which can be used in both parallel and serial modes.

The most commonly used is the serial loop, which breaks the signal chain between the preamp and power amp stage when a connecting plug is connected to the send return, which means that the unchanged signal pass through the effect. In a parallel loop, the sound from the amp is mixed 50/50, with the effect. The effect loop provides the same sort of phantom power as the front panel input. There are two switches, which make it possible to activate the phantom power on the input, or the effects loop separately. Moreover, there is an unbalanced Line Out, which is used when connecting another poweramp with speaker cabinet and a power amp input if you would like to use it as a slave amp.

Tuner out is active even when the stand-by switch is off, which turns off the sound to all other outputs. The two parallel speaker outputs are of the Speakon type. The MOSFET-power amp can be loaded down to 2 ohms, with an output between 530-650 Watts RMS. The output is slightly higher than the Fafner amp, but a modified design makes the perceived output louder. With more power device pairs and more effective cooling the output, effect is higher. The cooling is done with a fan moving air through tunnels with a heavy-duty heat sink.

IN USE

The basic sound of TD650 is clean; open with guts and presence but with a small tendency to become sterile and harsh. This problem is easily solved with the Character-function, which makes the sound warmer and more natural without losing the essence of the sound. For me, this filter works great, but if you would like further refinements, the other filter section functions flawlessly.

The low-end control is wide and soft with a low end that is not blurred or unclear. It was easy to get a rumbling reggae sound letting the whole room vibrate.

The mid controls considerable frequency range makes it possible to highlight sound character

in the low and treble registers and the Notchfunction does a good job to get rid of unwanted low-end rumble.

The register of the treble control is placed somewhere "between gnarly and open" which works very well with the bright control. The treble register controls also smooth the top ends nicely, if you prefer a more traditional warm bass sound.

The bright function opens up the sound in a gentle and soft way, but can get to prominent if used to liberally.

In conjunction with the Drivefunction, it can give you a very hard-hitting sound with good attack.

The Drive-section offers a combination of brash raw, rough and well-defined distortion. At the beginning the sound starts to distort a little and then increases into a vigorous distortion sound. At full strength, it sounds good without sounding to extreme. If you would like a more powerful distortion, just engage the Boost Drive-switch, which will result in a more filthy and compressed sound with fast saturation. It works well for simulating a hard driven amp head but must be used cautiously.

The preset volume compensation is not constant which you might be led to believe. EBS has designed it so that the more to drive that is used, the volume increases to give a more rock & roll touch, but not to the extent of an uncompensated signal.

With the Drive control set to minimum, you can play at full volume without almost any power amp distortion. But after that, the distortion affects the volume increase along with the distortion amount the more the Drive is used.

The compressor section is practical and easy to use. It works well for smoothing out sounds but is not flexible enough for more extreme compression. In my opinion, it works well for slap bass sounds, to give it more zest and if you play heavier rock with a pick it is easy to get a meaty sound with good punch and attack. It is relatively easy to get a good sound from TD650 and it is flexible enough for most playing applications. Traditional sounds when playing with the fingers and hi-tech sound very nice but I think that its big strength is when played with a pick for a rock sound in combination with the Drive and Compressor.

CONCLUSION

TD650 does not feel like a new product like earlier models Taurus, Drome or Fafner did but it is a natural successor to other amp heads in the EBS product range. On the strength of its 650 W, a strong robust chassis, switches with LED-indicators, it is a more practical alternative for live use than Fafner. Alongside standard connections like XLR output and effects loop, there are special refinements like phantom power, speaker simulation, and a notch filter. The sound is first-class even at loud volumes and the combined filter section and Drive-function makes it easy to dial in sounds ranging from crystal clear hi-tech to a sweaty tube amp in heat. I think that EBS has succeeded with this alternative to their other amps in their product range.

Positive

Robust

Flexible to use with good sounds

User friendly

Negative

Nothing

