

Orange Thunderverb head £1,399

ORANGE THUNDERVERB HEAD

PRICE: £1,399

ORIGIN: UK

TYPE: All valve, two-channel guitar/bass head with footswitchable attenuator

OUTPUT: 200W RMS (switchable to 100W RMS)

VALVES: Power amp: Four x 6550/KT88, preamp: four x 12AX7/ECC83, two x 12AT7/ECC81 (FX loop and reverb)

DIMENSIONS: 550 (w) x 283 (d) x 260mm (h)

WEIGHT (kg/lb): 30/66

CHANNELS: Two x three gain stages, clean through to dirty

CONTROLS: (Front) attenuator (both channels) reverb (both channels). Channel A: volume, treble, middle, bass, gain. Channel B: volume, shape, gain. (Rear) Three position toggle switch selects between 100W (valves 1 & 3), 200W (valves 1, 2, 3 & 4) & 100W (valves 1 & 4)

FOOTSWITCHES: Can use any latching footswitch (not included) for reverb, channel switching, attenuator defeat

ADDITIONAL

FEATURES: 6.4mm jack sockets for send and return. 6.4mm jacks for channel, reverb and attenuator footswitches. Speaker jacks 8/16 Ohm (100W) and 4/8 Ohm (200W). Can power up to four regular Celestion Vintage 30 loaded, 16 ohm Orange 4 x 12 cabinets (PPC 412, £599) or two high power, G12100 K loaded, 8 ohm Orange 4 x 12 cabinets (PPC 412HP8, £699). Valve driven FX loop and reverb

RANGE OPTIONS: At present the Thunderverb is only available in this configuration, but check out the Rockerverb heads (starting at £1,095) for even more dirt

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200-watts of valve power with built-in attenuation not enough for you?

Well, it also doubles as a bass amp... by Chris Vinnicombe

If you have attended any of the big festivals this summer it's likely that you'll have noticed a significant number of Orange rigs amidst the backlines of the rich and famous, and there's good reason for this. Seriously roadworthy, Orange is one of the last

big-name UK valve amp builders to maintain a wholly British chain of manufacture from R&D right down to the nuts and bolts of the assembly line. Also, if there's a cooler-looking backline in the business than an Orange stack, we've yet to see it.

When the Thunderverb was announced, we'll admit to raising an eyebrow at the 200-watt specification and wondering who really needs 200 valve watts these days? That said, with a half-power mode, built-in attenuation and bass-amp functionality, there's





PHOTOGRAPHY: SIMON LEES

clearly much more to the Thunderverb than a big power stage. Although the preamp valve complement is identical to the Rockerverb 50 and 100 heads, which we encountered in issue 253, the Thunderverb has three gain stages on each channel, rather than a four-gain-stage lead channel and more traditional clean/dirty channel configuration.

This means that each of the Thunderverb's channels has the same amount of preamp gain on tap, so unlike the majority of twin-channel, high-gain amplifiers, channels A & B here aren't simply dedicated rhythm

and lead or clean and dirty channels. The main distinction between channels is found in the way that each channel's individual EQ allows you to sculpt its sound. Channel A's standard complement of treble, middle and bass controls are characteristically powerful – completely killing the sound when all three are set hard left – while channel B features a new 'shape' control that acts like a mid contour, scooping the EQ as you twist it clockwise and boosting the extremities of treble and bass. Broadly speaking, towards hard left gives you mid-spiked 'vintage' and

hard right offers 'modern' hi-gain.

Equipped with 6550 power valves, the Thunderverb can also run KT88s or a pair of each, which opens up some interesting possibilities for tone shaping. Attenuation defeat, channel switching and reverb on/off are all footswitchable, and each can be controlled via a standard latching footswitch. This is a good idea as far as we're concerned, as for all the ease that a dedicated three-button switch would provide, it's certainly a lot easier to replace a standard latching unit if it breaks down at a gig.



The Thunderverb's versatility means channels A and B aren't simply for rhythm or lead work

ORANGE THUNDERVERB TEST RESULTS

| | |
|-----------------|-------|
| Build quality | ★★★★★ |
| Features | ★★★★★ |
| Sound | ★★★★★ |
| Value for money | ★★★★★ |

WE LIKED Great range of fabulous sounds with guitar or bass; attenuation is a masterstroke

WE DISLIKED Some may perceive £1,399 as too much, but just think about what you are getting for the price!

As we've come to expect from Orange, the Thunderverb's innards are housed in a chunky, confidence-inspiring birch ply casing that's identical in dimensions to the Rockerverb heads, and approximately 40mm deeper than the 30-watt AD series units. We hooked up the Thunderverb head to Orange's new stereo PPC 412HP8 cabinet (£699) that features a quartet of Celestion G12100K drivers, perfect for coping with the extra power that the head packs. Unconventionally, when run in stereo, the speakers split into two 16-ohm, 200-watt diagonal pairs. Orange designer Adrian Emsley explains: "We preferred the sonic spread of this diagonal speaker configuration when used with two heads and a Space Echo." For more from Adrian on the thinking behind the Thunderverb, see our interview over the page.

SOUNDS: Beginning with channel A, we managed to quickly dial in a delicious, slightly foggy clean tone with the volume wound up and the gain backed off to around 10 o'clock that absolutely loves a Strat neck pickup

and Little Wing-style embellishments. Add a touch of reverb and it gets even sweeter, with everything from a touch of ambience to a pretty authentic Albatross-style depth around half way, right up to the illusion of a church-like cavernous space on full tilt that works really well with volume swells.

Cranking up the gain and backing off the 'verb, with a PAF-style bridge humbucker the sound is quickly in classic rock territory, moving from Oasis-style singing chords that retain note definition even with complex voicings, through an AC/DC-style metallic grind into more aggressive alt-rock levels of dirt. Throughout, the sound is truly majestic and the definition of mush-free musical overdrive. Kicking in channel B provides more of the same, with the shape control below 12 o'clock. Winding up the shape control sees the dirt take on a more scooped characteristic without becoming too hollow or fizzy, just like a good modern Boogie when you get the EQ right. Palm-muted metal riffs get pretty scary here, in the best possible way.

The footswitchable attenuation really gives you somewhere to go in a live scenario when you need a volume boost for solos. Whereas a stompbox booster into a cranked valve amp at stage levels may add more compression and drive but not necessarily the required volume hike, switch out the attenuation and

you can set it up to give a serious jump in level and headroom if desired. The untamed power section allows languid lead runs to sing out, and notes to bloom into feedback in incredibly satisfying fashion.

Switching to a battle-scarred old P-bass, the Thunderverb possesses an instant classic valve-bass tonality that manages to sound both warm and defined, huge and tight, with a grin-inducing growl emerging as you twist the gain control clockwise, up to a Nick Oliveri-style QOTSA graunch and beyond. Due to its three-part EQ section, we found that channel A worked best for setting up our main bass sound. Channel B is then great for

Our overall impression on the bass side of the coin is that the Thunderverb would definitely make an impressive dedicated bass amp in its own right

kicking in either a wall of fuzzy power or a bowel-loosening fat dub sound, depending on the interplay between the immensely powerful shape control and the amount of gain dialled in. The attenuator and 100-watt mode allow you to get some great overdriven bass tones, but 200 watts and zero attenuation should guarantee all the headroom you need in a live situation too. Our overall impression is that the Thunderverb would definitely make an impressive dedicated bass amp in its own right. Okay, so there's no multi-band graphic EQ or onboard compression here, but that isn't likely to enter the equation when you actually hear just how juicy this thing sounds.



The option of footswitchable attenuation offers the possibility of a live boost for solos

ORANGE THUNDERVERB HEAD £1,399

AMPS



The rivals

| | |
|-----------------|------|
| Marshall DSL100 | £696 |
| HiWatt Hi-Gain | £TBC |
| Matamp GT1 | £936 |

None of the other classic British amp brands have anything that competes directly with the Thunderverb, but none of these models are short on power or features. Marshall's DSL is a ballsy 100W beast, but looking a little dated lately. Matamp's GT1 is simpler and lower powered at around 80 watts RMS, but shares the same ancestry as Orange, and if we're talking about loud and British amp heads, it's impossible to ignore HiWatt — check out its new Hi-Gain series.

Verdict

If you really feel like you need that extra stage of preamp gain, then the Rockerverb series is where it's at. However, if you scrutinise the extreme metal tones of the likes of Slayer, Lamb Of God or Mastodon, you'll notice that it's definition that's the order of the day, not scooped-out fuzztones. You might be forgiven for assuming that a 200-watt valve head is only at home on the biggest of stages, but for a studio musician or producer, the Thunderverb's combination of built-in attenuation and world-class guitar and bass tones will prove very tempting.

Priced at £1,399, it's a serious investment, but in return you're getting an amp that punches its weight without breaking a sweat. Also, to buy separate guitar and bass heads with a similar tonal quality and an outboard attenuator would cost well in excess of this price. However, with an amp like this, you don't have to be a professional to get access to top-drawer performance. **G**

Orange Thunderverb head

Guitarist RATING ★★★★★



Channel B's shape control acts like a mid contour to scoop the EQ

The Future's Orange

Orange's chief designer Adrian Emsley talks us through the R&D process, and explains exactly what's going on under the bonnet of the Thunderverb head

Adrian Emsley began working for Orange on a freelance basis in early 1997, modifying Overdrive heads that went on to be used on tour by a plethora of big names including U2 and Oasis. A production version of the modified design hit the streets in the shape of the OTR a few months later. By 1998, Adrian was working for Orange full-time, embarking upon an amplifier design career that would yield a succession of incredibly popular amps such as the AD15, AD30, Rockerverb series and hand-wired Custom Shop heads, amongst others.

Adrian explains how the research and development process works at Orange: "The R&D process for all models involves making a completely point-to-point prototype of each one and spending a couple of weeks tweaking and getting feedback from the rest of the guitar-playing sales staff at Orange, along with certain respected guitar players. When 100 per cent happy, I'll then draw up a circuit diagram which, along with the prototype, goes to a very good friend of mine who lays out the PCB and the metalwork for production. I will work very closely with him on this to ensure subtle details. We then build the PCB prototype



and put it through its paces, then a pre-production run of 10 so that the factory can find their teeth with the new model."

So what was the thinking behind the new Thunderverb head?

"I think that the Thunderverb will appeal to most pro players, especially those who require lots of dynamic headroom and somewhere to go volume-wise when they let the brakes off the attenuator to take a solo. It also cleans up really well from the guitar's volume control and works great with boutique overdrive pedals. The amp will also suit certain types of bass player who lean towards a more aggressive sound than most of the bass amps on the market. Bass players that use an overdrive of some kind will love this head.

"The key to making it work well with both guitar and bass is mainly down to preamp voicing and a unique output transformer design. Most guitar amp output transformers are three or five sections if you're lucky, and they rarely match the DC resistance or, more

importantly, the signal coupling very accurately. I designed the latest Orange output transformers in the 50, 100 and 200-watt amps to all be eight sections, with matched DC resistance and signal coupling. This not only sounds way better, clean or dirty, but allows you to actually get the most out of using matched output valves. Most three or five section outputs can sound harsh at the point where the high frequencies start to drop off and you can really hear this when the output valves are being overdriven. The latest Orange outputs just keep coupling way past this point and remain harmonically rich all the way through. These aren't cheap to make but we feel it's well worth it! We have called this ETR (Extended Tonal Range)."

Tell us a bit more about the Thunderverb's onboard attenuation...

"The footswitchable attenuator doesn't actually hammer the hell out of the output valves, but instead determines where they would start to saturate. This makes the Thunderverb sound just like you're using a Hotplate or similar load box but your valves will last longer and you can footswitch it in and out for solos."

How does it feel when you go to a gig and see someone using an amp you've designed?

"It feels good to see Orange amps on stage, but it feels even better if the person using them is a great player!"