

PJB M300 & 8B

Bass amp and cabinet

With their indestructible build ethos, hi-fi approach to amp technology and innovative speaker designs, PJB have built quite a reputation in the bass amp world. We take a look at the M300 amp and one of the new Neo-Power cabs, the 8B.

David Etheridge

I've looked at PJB amps over the last few years with interest, Phil Jones' whole approach to bass amplification being so totally left field compared to other marques that it can hardly fail to stand out from the rest. At first sight, the use of five-inch drivers seems to be nonsense and against all the laws of physics, but when you look more closely at the concept and hear the resulting sound, you see that it really works.

PJB's range runs the gamut from the massive (and extraordinarily comprehensive) M500 — with its three inputs, 12-band graphic and three-band parametric EQ — right down to the ergonomically handy and back-friendly Flightcase, Briefcase, Suitcase and Bass Buddy amps. The new model on offer this month is the M300, which I'm guessing is a medium-range (relatively speaking, of course) model, between the extremes of the tour- and stadium-friendly M500 and the smaller models designed for the studio and small-gig musician. As ever with PJB amps, the features are impressive and enticing: twin Active or Passive inputs; twin five-band EQ; an optical limiter; headphone, preamp and

balanced line outs (the latter with ground lift); dual AC 120/120V operation; sophisticated protection circuitry; a soft-clipping 500W amplifier; an ultra low-noise preamp circuit; and a whole raft of safety protection features. Now add the enclosure of choice with the 8B, comprising eight five-inch drivers, and we have a rig for all seasons.

M300 amp

The M300 top is substantially built, and at 33lbs is rather heavier than you might expect — a testament to the substantial components inside. The chassis is 2.5mm-thick steel, making it incredibly strong, but also improving grounding and magnetic shielding, while the internal connections are silver soldered for fail-free performance over decades. The casing's black Tolex cover has substantial reinforcing corner plates, and the front control panel is angled up towards you when placed on the speaker enclosure. Substantial square rubber feet allied to the weight of the amp absolutely defy you to move it inadvertently on a gig.

The control panel is the usual PJB fare, bristling with features: twin channels each comprising Active and Passive input jacks, plus an Input Level pot (-10dB to +10dB) with clip LED; five-band EQ (+/-18dB @ 50Hz, 160Hz, 630Hz, 2.5kHz and 12kHz); FX Send/Return

jacks; a Headphone Output jack (which mutes the sound to the speakers when plugged in); a Tuner out jack; a Limiter on/off switch, LED and control pot (preset to a 3:1 ratio); a Master Volume pot and a power switch (soft start) with indicator light. Around the back is the balanced XLR DI out with ground lift (200Ω), two independent preamp line out jacks for use with slave amps or a tuner, a voltage selector slide switch, fuse (with spare), an IEC power out socket, and forced air cooling system input and outputs. The two Speaker connectors are paralleled for a 4Ω load when using 8Ω cabinets, although the 8B enclosure is rated at 4Ω itself.

Most importantly for longevity, Phil Jones amps have no fewer than six protection circuits to prevent damage. Transformer overheat protection: a heat-sensing circuit breaker that disconnects the transformer from the power source above 105°C. Soft start speaker protection: when the amp is powered up, there's a two-second delay before turn-on that eliminates startup transient thumps. Current limiting protection: the amp will shut down if the current exceeds 7 amps in any of the output transistors. Transistor overheat protection: if the amp reaches an internal temperature of 90°C, the amp will turn off to protect the output transistors. Short circuit protection: faulty speaker or

Performing Musician

PJB M300 £629 & 8B £649

Clean, faithful and flexible, this amp could be regarded by some as 'over-engineered', but that just means it'll still be running years after the rest have given up. Nuclear-grade construction, supreme power and clarity, and capable of taking anything you care to throw at it, you simply won't find anything better. Not the cheapest as an initial purchase, but its longevity may well prove to be a bargain over decades of trouble-free use. Just watch your back when loading it!

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speaker connections will cause an automatic shutdown. DC output protection: the M300 is a DC-coupled design that offers the best performance, and any internal fault will shut down the amp, preventing any damage and protecting the speakers from any lethal DC current.

8B cabinet

More traditionally minded players would up until recently have presumed that to run an amp like this you would need 10-, 15- or even 18-inch drivers to make the most of things. So why only five-inch drivers? Won't they lose the bottom end? After all, the laws of physics dictate that large speakers are needed for the long wavelengths of low frequencies...

Phil's answer to this is strength in numbers. By using five-inch drivers working in multiple, the frequency response is actually better than larger drivers, providing the power to project low frequencies efficiently and running cooler because they're not having to work so hard. The 8B enclosure uses Neo-Power drivers (first seen in the Flightcase combo), which are lightweight, but extremely powerful units with a neodymium iron boron (NeFeB) magnet motor structure. These are currently the most powerful magnets available, being nearly 20 times more powerful than conventional magnets of the same mass. The Neo-Power cabinets are constructed from three-quarter-inch Baltic birch ply with substantial bracing, reinforced corner plates, castors and a handy locking carry handle, which means that heaving around this 54lb monster becomes fairly straightforward. Although you won't want to throw it in and out of a car too often! Other models in the Neo-Power range currently include the massive 12B and the slightly more manageable 6B enclosures, with the number indicating the number of drivers.

Performance

PJB products are obviously made to the highest possible standards, because it shows in every aspect of both the amp and cabinet. As usual with PJB amps, it's all about cleanliness and silence. The onboard fan only cuts in when the heat sink temperature exceeds 80°C, and cuts off below 60°C. In the time I was reviewing it, it didn't cut in at all — mind you, I enjoy the fact that I get on with

my neighbours and that my hearing is fairly intact, so I didn't run it hard in the limits of my own home.

The Input control can be set to match the output of your bass very easily on active or passive instruments. I tried both through the M300 and got clean sounds very easily (you can play two basses through the amp at the same time with no loss of performance), but with plenty of power and no loss of tone from either one. Of course, if you desire slightly earthier tones, you can boost the input (you can play two basses through the amp at the same time with no loss of performance), but with plenty of power and no loss of tone from either one. Of course, if you desire slightly earthier tones, you can boost the input (you can play two basses through the amp at the same time with no loss of performance), but with plenty of power and no loss of tone from either one. Of course, if you desire slightly earthier tones, you can boost the input (you can play two basses through the amp at the same time with no loss of performance), but with plenty of power and no loss of tone from either one.

The EQ section is impeccable, with a superbly chosen range of frequencies to bring out all the nuances of your sound, and this amp will handle everything from passive four-strings to active multi-string monsters with ease. Bottom-end 8-strings are clean and

powerful, while upper-string double and triple octave harmonics ring out clear and bell-like, and with +/-18dB of control you can tailor your sound more extensively than most mixing desks.

Despite the size of the drivers, the 8B delivers all the sound that you could conceive of and more, with listed frequencies down to low F sharp below B (24Hz) in the manual. All I've got to do is find an extended-range 8- to 10-string bass to try this out! The optical limiter works as perfectly as I have found on other PJB amps, with a smooth action that once again provides truly musical results.

Conclusion

In my opinion, Phil Jones is still miles ahead of the competition in terms of innovation with his unique approach to amps. Beautifully constructed, it provides power in spades, with a clean and faithful sound that will show you how your bass actually sounds, studio-quality EQ that really opens up your instrument tonally, and many professional touches that should satisfy and delight the most demanding of players. The 8B enclosure shares the amp's propensity for bombproof construction, with more nice practical details for getting the amp to and from gigs.

If I have a reservation, it's that it simply is too big for the average local gig. For those, the simple answer is perhaps one of the smaller Phil Jones combo amps, which offer most of the features of the M300 and 8B combination, but in a more manageable package. If, however, you're looking at the big gig and touring market, this rig, like other PJB products, merits serious consideration. ■ PM

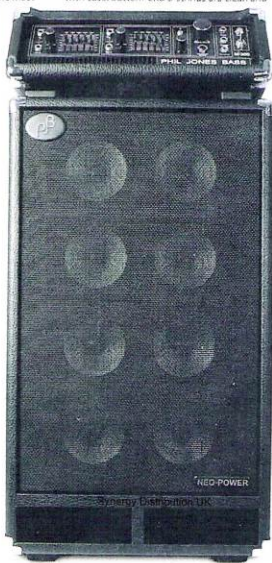
Tech Spec

M300

- Power output: 300W into 8Ω, 400W into 4Ω, 500W into 2Ω.
- Active/passive input: 20Hz — 40kHz (-1dB).
- Low cut filter: 24dB/oct @ 20Hz.
- High cut filter: 12dB/oct @ 40kHz.
- S/N ratio: better than 88dB (EQ off, input gain on full, volume on full).
- 0.04% THD @ 250W.
- Twin five-band graphic EQ (±18dB @ 50Hz, 160Hz, 830Hz, 2.5kHz, 12kHz).
- Six protection circuits.
- Dimensions (WDH): 400 x 324 x 133mm.
- Weight: 33lbs.

8B

- Eight five-inch Neo-Power drivers.
- Power: 400W.
- Impedance: 4Ω.
- Frequency: 25Hz — 15kHz.
- Dimensions (WDH): 368 x 440 x 721mm.
- Weight: 54lb.
- NL4 connectors.



■ The 8B enclosure uses eight five-inch Neo-Power drivers — lightweight, but powerful units with a neodymium iron boron magnet motor structure.