

Icon Audio MB845 MkII (£5500)

This imposing monoblock power amplifier aims to offer the delicacy and immediacy of single-ended valve designs while able to drive real-world loudspeakers

Review: **John Bamford** Lab: **Paul Miller**

Icon Audio would never claim to have created an overnight sensation here, since David Shaw formed the company in the late 1990s to specialise in designing valve audio electronics. After all, it takes a while to build a brand name and garner a reputation for providing good service. But Icon Audio is a thriving business, with a wide range of evolving integrated and pre/power models, alongside phono and headphone amplifiers, with exports going far and wide.

Deliciously retro in appearance, these huge monoblocks – which represent Icon's flagship power amplifiers – started life in 2009 as the MB845s: so-called as they utilise a pair of the mighty 845 direct heated triodes, the biggest and brightest-glowing of all audio valves. Icon's MB845s (which are still in production) cost just half the price of these latest MkII versions, designer David Shaw significantly reworking an original design rated at 65W and 'repositioning' the model as a more prestigious high-end product.

It's an altogether larger amplifier too, with weight increased from 23kg to 33kg. It's also much better finished in a smart gloss black, with a substantial copper-coloured aluminium top plate. The rocker power switch formerly positioned on the amplifier's side, and to the rear of the chassis, has become a more convenient front-mounted push-button, with blue 'power on' LED above it. And this MkII employs an improved high current driver circuit employing two 6SN7 dual-triodes.

High power output from the two 845 valves requires a truly massive power supply design too, so the MkII's mains transformer has grown in size compared with that of the original MB845. Icon's tertiary

transformers are custom designed and said to employ Japanese long grain iron, hand-wound with low oxygen copper.

If you're feeling flush and want to go the extra mile, you can add £1000 to the price for the extra-special David Shaw Signature versions that feature cost-no-object Jensen copper foil paper-in-oil coupling capacitors and premium valves. In the Signature models, each monoblock's two 6SN7s are replaced with Shuguang's premium-priced Treasure Series CV181 tubes that employ a high polymer compound glass coating, and the amplifier's 6SL7 valve (centre front) is replaced by a TJ Full Music domed-glass 6SL7 featuring a copper/ceramic base and gold connecting pins. If this suggests profligacy... well, I'm bound to point out that even at £6500 per pair these stately-looking monoblocks cost far less than many high-end valve alternatives, especially at this power rating.

GOOD HOUSEKEEPING

As this is a fixed-bias amplifier it's important to check and adjust the operating bias every so often, for which Icon supplies a small multimeter that you connect to the amp's ground speaker terminal post and the RCA socket situated on the top-plate. If the amplifier is in daily use for several hours, Icon recommends

checking the bias voltage every couple of months. Otherwise a quick check every six months or so should suffice.

Needless to say, these 845s do become pretty hot, consequently Icon supplies protective valve covers that you are advised to use if your listening room is to be shared with small children and/or pets. But if it's safe to do so, you'll surely want to remove them, to bask in the gloriously vivid orange glow reflected from the amplifiers' top plates.

What you should never do, unless qualified to delve inside an amplifier containing lethal voltages, is remove the amplifier's bottom plate to peek inside. Internal construction features point-to-point wiring throughout, all done using Teflon-insulated silver-plated wire. While Icon Audio has its chassis designs manufactured in China, every amplifier is hand-assembled and tested prior to despatch from Leicester. With these MB845 MkIIs, each pair of 845 output valves is matched to the monoblock and labelled accordingly.

When I spoke with him during the course of this review David Shaw said: 'I'm of the opinion that an audio amplifier should work reliably for at least 20 years, if not longer. And when it fails – because *everything* fails eventually – it should be

RIGHT: Huge mains and output transformers, and three chokes housed in screening cans, dominate the MB845 MkII. Rotary pots on the top plate are for adjusting operating bias



RIGHT: The two Shuguang 845B direct heated triodes with graphite anodes simply dwarf the two 6SN7 driver triodes and central 6SL7 first stage gain valve in the foreground

easily serviceable, anywhere in the world, with readily available parts.' So, no printed circuit boards are to be found here.

STEADY WITH THE GAIN

What might come as a surprise to today's audiophiles accustomed to listening to digital sources with sold-state electronics, is the fact that there's nothing whatsoever old-fashioned about the sound of these MB845 MkIIs. Hear them for the first time with a high-resolution digital source and you'll be astonished to experience a sound that is crisply detailed and vivid – with fast, tight bass and immense 'slam' that will encourage an almost careless winding up of the system's volume control.

The 24-bit/96kHz 'almost unplugged' re-recordings of 'Jukebox Hero' and 'Waiting For A Girl Like You' – bonus tracks on Foreigner's *Foreigner 4* album, remastered for DVD-Audio in 2001 [Atlantic/Rhino 8 122743669] – sounded highly explicit. Sure, the recording balance is forward and rather brightly-lit, like so many modern rock recordings, but with the Icon monoblocks powering the system the effect was simultaneously powerful and sharp without becoming overly aggressive. Singer Lou Gramm's gruff and urgent vocal delivery was kept nicely in check as he spat violently into the studio microphone. And the delicate rattle of tambourine in the background was both clear and gorgeously realistic, where so often it can be buried by the fulsome, resonant orchestra of sound produced by the accompanying guitar.

I had little idea I was listening at such a high sound pressure level – the subsequent introduction of the bottleneck slide together with the throbbing, high-level bass line causing me to scurry frantically for my Cambridge Audio preamp's remote! Indeed, if you listen to a lot of rock music



you surely will not be disappointed by the MB845 MkIIs. Whether revisiting old rock classics on vinyl or modern pop/rock recordings on compact disc, the amplifier's lack of high frequency edginess allows intimate dissection of a recording's production quality together with hour upon hour of fatigue-free listening.

Subjectively its upper-frequency response, particularly the cleanness of its transient reproduction of electric guitars, proved spectacularly revealing when enjoying what is surely Jimmy Page's finest

recorded moment: his sublime guitar workout during 'No Quarter' from Led Zeppelin's double LP soundtrack album *The Song Remains The Same* [Swan Song SS-2-

201]. The palette of sounds was rich and bold in tonal colour and texture, while the amplifiers' rather fruity bottom-end weight caused John Paul Jones' churning, thunderous bass

'Bottom end weight shook everything in the room that wasn't strapped down'

pedals to rattle and shake everything in the listening room that wasn't strapped down.

Even the screeching sibilance caused by the unfortunate (and so-oo unnecessary) use of phasing effects midway through the recording appeared less bothersome than usual, through the MB845 MkIIs, failing to spoil the otherwise immaculate performance that comes frighteningly close to suspending disbelief in capturing the *Gestalt* of live music when heard through fine audio components.

With more modern, full-on rock recordings on silver disc the MB845 MkIIs were similarly entralling. Yes, even when the source was restricted in dynamic range in an attempt seemingly to make anything sound louder than everything else (to quote Deep Purple's Ian Gillan, ☺

MAGIC IN A BOTTLE

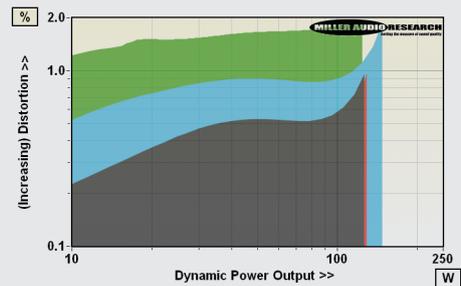
The 845 directly heated triode was originally developed by RCA in 1931 as an audio amplification valve for use in its AM radio transmitters. Its anode is machined from graphite to allow high power dissipation while its tungsten filament glows a striking orange colour. Smaller and less power-hungry valves were soon demanded by the consumer electronics manufacturers. By the late '60s the 845 had all but disappeared. Single-ended valve amplifiers featuring the difficult-to-acquire 845 output valve, often designed using 300B triodes as driver valves, tended to cost a king's ransom. And rarely were they capable of delivering more than a handful of watts, suited only to high-sensitivity speakers. In recent times, increased Russian and Chinese manufacturing of valves has seen the venerable 845 become readily available once again.

LAB REPORT

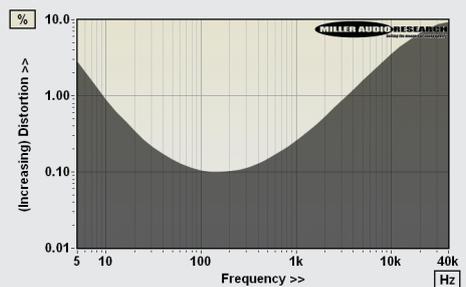
ICON AUDIO MB845 MkII (£5500)

Readers wishing to compare the MB845 MkII with a near-relative should revisit the French KTRLab 845 eVolution [HFN Nov '10] which also employs a pair of the said directly-heated power triodes. In almost every respect, Icon Audio's implementation is superior. Power output is vastly improved to a full 118W/8ohm and 121W/4ohm, measured via the 8 and 4ohm taps, respectively. There's a hint more power under dynamic conditions [see Graph 1, below] – up to 127W, 129W and 129W at <1% THD into 8, 4 and 2ohm loads and a full 124W/1ohm at <2% THD. Lusty stuff for a pair of 845s. Midrange distortion climbs quite obviously with power output from a low 0.055% at 1W/8ohm to 0.55% at 60W where it steadies off until clipping at 120W. At the frequency extremes, distortion increases much more markedly and especially through the treble where midband values of 0.25% at 1kHz/10W increase to 3.4% at 10kHz, 6.5% at 20kHz and 9.2% at an ultrasonic 40kHz [see Graph 2, below]. By comparison, the inevitable increase in distortion through low bass frequencies is mild – just 0.35% at 20Hz and 2.8% at 5Hz/10W.

Hum amounts to -43dBV, leading to a reduced 78dB A-wtd S/N ratio (re. 0dBW) but the ~0.6ohm output impedance is well managed (via 8ohm tap) so its response is less affected by speaker load than others of its kind. In practice, the MB845 MkII is flat to within -0.7dB from 20Hz-20kHz but shows a subsonic boost of +1.8dB/3Hz and -3dB high treble rolloff of 32kHz. For the technology, the MB845 MkII is deeply impressive. Readers are invited to view a comprehensive QC Suite test report for Icon Audio's MB845 MkII power amp by navigating to www.hifinews.com and clicking on the red 'download' button. PM



ABOVE: Dynamic power output versus distortion into 8ohm (black trace), 4ohm (red), 2ohm (blue) and 1ohm (green) speaker loads



ABOVE: Distortion versus extended frequency from 5Hz to 40kHz (10W/8ohm)

HI-FI NEWS SPECIFICATIONS

Power output (<1% THD, 8/4ohm)	118W / 121W
Dynamic power (<1% THD, 8/4/2/1ohm)	127W / 129W / 129W / 124W
Output impedance (20Hz-20kHz)	0.60-1.35ohm
Frequency response (20Hz-100kHz)	+0.0dB to -21.3dB
Input sensitivity (for 0dBW/110W)	102mV / 1105mV
A-wtd S/N ratio (re. 0dBW/110W)	78.3dB / 98.7dB
Distortion (20Hz-20kHz, 10W/8ohm)	0.11-6.5%
Power consumption (Idle/Rated o/p)	225W/390W
Dimensions (WHD)	280x280x570mm



ABOVE: High/low sensitivity switch allows matching with passive and conventional preamps. Input is single-ended while speaker terminals provide 4 and 8ohm taps

from decades ago). Linkin Park's 'Lying From You' from *Meteora* [Warner 9362 48443 2] was a case in point. The quieter, more reflective moments of the choir-boys-come-rappers sounded, er, loud-ish, while the majestic crescendos simply sounded compressed rather than swelling in stature.

KNOCKOUT PUNCHES

This comes with the territory, sad to say. It would be disingenuous to say the MB845 MkIIs are wholly flattering of recording/mastering inadequacies such as this, but there is a sweetness at high frequencies that seems to ameliorate the worst of the nasty edges. The result was that the myriad 'scratching' and electronic effects in the recording could be observed clearly while the thrashing guitar and hollering vocals filled the soundstage.

As for the whopping sub-bass punches during 'Lying From You', created by goodness-knows what (a drum? A synth? Who can tell?) they really were delivered as knockout punches, with speed and considerable finesse.

Feed them source recordings of the highest calibre and these Icon monoblocks create a holographic sound image that will bring tears to the eyes of any music loving audiophile. A 24-bit/96kHz FLAC file downloaded from the website of Norway's 2L record label [see www.klicktrack.com/2l/home] featuring organist Iver Kleive playing 'Bridge

Over Troubled Water' in Bergen cathedral was a breathtaking experience. This recording is taken from the soundtrack to Norwegian film director Erik Poppe's 2008 film *De Usynlige* [Troubled Water], which is also available on hybrid SACD: 2L-066-SACD. The dynamic contrasts were reproduced with a lovely sense of ease and the varied tonal sounds and textures of the organ were painted in gloriously vibrant colours, outlined within a wonderful bloom of the cathedral's acoustic space.

As for reproducing the power and sonority of a grand piano, a 24-bit/192kHz file of another Norwegian artist, Tor Espen Aspaas, playing Beethoven's Piano Sonata Op. 111 [from his SACD *Mirror Canon*: 2L49SACD] was startling in its realism. Really startling. ☺

HI-FI NEWS VERDICT

While a pair of MB845 MkIIs will represent a substantial investment for any music lover, compared with many valve amps you do get a lot for your money. Of course they offer enormous retro appeal, but they combine this with modern design, build quality and finish, with carefully selected parts. And an ability to swing the musical mood between serenely relaxed and fast and furious is immensely engaging.

Sound Quality: 85%

