

# icon Audio

Award Winning Valve Amplifiers

*designed by David Shaw*

## NEW MB 845i Mono Blocks

**80+80 watts RMS\***

**Pure Triode Mode**

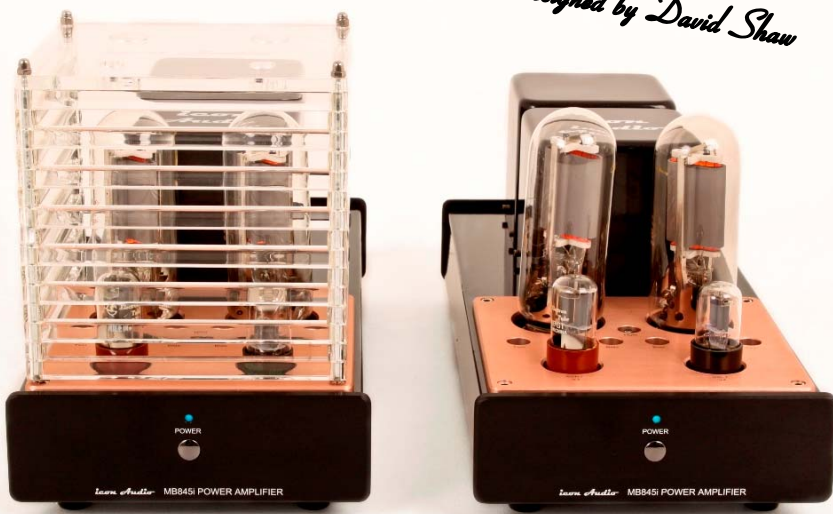
**Low & High Sensitivity**

**Choke Loaded Drivers**

**Only 3 stages**

**LDT Tertiary Transformers**

**Awarded 5 Globes  
in Hi-Fi World**



Shown with standard valves and our attractive valve cover.

***The 845 Pure Triode Tube. 1931 Vintage. A powerful alternative to the 300B.***

In our quest to make the best kinds of valve amplifier it is logical that we should use the 1930 RCA big triode as it is in many ways like a jumbo 300B having very linear characteristics and a sublime sound. But it requires a huge voltage swing to drive it to full power (440v), a massive power supply, a very special driving circuit and exceptional output transformers.

To get enough driving voltage for the 845, other designs use an extra stage with a 300B/EL34 valve as the final driver, but this is not a job they were designed for. In our opinion using four stages leads to rather "sloppy" performance. We like to keep amplifiers simple as possible using only three stages, we drive the 845s by choke loading the superb 6SN7 which in turn is driven by its high gain sister 6SL7 which combined together have symbiosis.

The **MB845i** is an upgrade of our original design, the main change is the use of our LDT output transformers which make use of a tertiary or 3<sup>rd</sup> winding to reduce distortion and increase linearity.

It is relatively easy to make an amplifier out of the myriad of parts that are available today, but in order to create a sound which above all is truthful without "harshness" or a mechanical sound, all the components must be in sympathy with each other.

Our preference for simple designs, gives a faster more transparent sound but plenty of power in reserve, we used all our expertise to create a simple practical design similar to our popular MB90 KT90 mono-blocks.

**DID YOU KNOW:** Two 845s in class AB1 produce as much "Class A" as a pair of KT66/300Bs in pure class A, but more than four times the power in AB1. And their low idle current causes much less stress on the tube. As it is less than 50% of the maximum rating, preserving tube life.

Surprisingly from such big amplifiers is how well they perform at low powers. Their agility and detailed texture of strings and vocals is quite astounding.

A useful feature of the MB845s is the high and low sensitivity. This enables MB845s to work with both "Passive" and conventional pre amplifiers. This is not done by the usual attenuation which increases noise and reduces quality, but genuinely changes the sensitivity (or gain) of the input.

***"Amongst the best amplifiers  
I have ever heard..."  
N. Keywood Hi Fi World.***

The brand new design features a heavy gauge steel chassis, 20 mm solid alloy front panel. And our famous stainless steel and Plexiglass valve cover to create a stunning visual impression. On the scales at 50Kg (pair) this amplifier is no lightweight in quality or performance and should give many years of excellent service.

As each amplifier is prepared to your order here in Leicester. We can offer a range of upgrades including premium and "new old stock" valves, the superb Jensen Copper foil "paper in oil" capacitors. Ask us for a quote.

As a small company we make customer service a priority. Valve amplifiers do need a little more TLC than transistors, they will need a valve change every few years, but the sonic benefits more than compensate for this. When re-valved, you get a new pair of amplifiers again! An Icon engineer is always on hand at the end of the phone

## **Total Peace of mind service!**

When buy an Icon Audio product, you get:

- A UK 240v specification product. Designed for use in UK and Europe.
- A full UK guarantee.
- A comprehensive manual to tell you everything you need to know, including how to check the performance & how to check and change valves.
- UK service dept with skilled engineers that know how your product should sound!
- Full back up of spares in stock
- Free valve testing for customers
- Free telephone or email advice

### **What we do:**

In Leicester each amplifier is carefully checked & tweaked plus any custom modifications added as required before undergoing over 20 rigorous tests in all its important static & dynamic parameters. Finally each amplifier is run to allow the valves to "bed in". This ensures, inc. and listening performance, plus any custom modifications required.

### **Specifications and Features**

- Comprehensive manual supplied
- Full instructions for DIY valve change included
- Full instructions for 845 valve testing included
- Meter supplied for valve 845 bias/condition testing
- All hand wired point to point
- No printed circuit board to 'colour' sound
- Class A, all Triode front end
- Fitted with the Shuguang 845, (upgrades available)
- 2x 845 precisely matched for best performance
- 6SL7 first stage gain valves
- 6SN7 driver valve, choke loaded plates
- HT delay unnecessary as 845s have instant start
- AC 845 heating for max life and max reliability
- 80w RMS output at clipping point
- Giving approx 15 Watts of Pure Class A
- Can be used with passive or active pre-amp
- 480mv (high) & 1000mv (low) input sensitivity.
- Signal to noise level -95db
- Hum and noise 0.5mv (low sensitivity)\*
- 6SL7/6SN7 DC heater circuit for minimum hum
- Freq response -1db points= 7Hz - 18kHz 1w
- Freq response -3db points= 7Hz - 39kHz 1w
- Source impedance 0.6Ω (8Ω taps, low sensitivity)
- Damping factor 14 @ 8Ω
- Gain 27 Low or 58 High
- THD typically less than 0.4% @ 8w (1kHz)
- 4 & 8 ohm loudspeaker taps
- Custom hand-wound mains/output transformers using Japanese special long grain iron and low oxygen copper oven baked in resin to minimise mechanical hum and increase reliability.
- Attractive valve cover included in the price
- High quality 2W metal film, & wire-wound resistors
- Blue LED mains indicator
- Polypropylene audio capacitors (or optional copper foil in paper & oil upgrades)
- Silver coated Teflon audio cable
- Ceramic valve holders for minimum leakage
- Gold plated Input & speaker terminals
- 230/240volts (117v covetable )
- Power consumption: 180w quiescent, (290w max sine wave) each
- C E, ROHS, WEEE compliant where applicable
- Size in mm W220, D520, H290 mm ( inc cover), 23kg each (Allow space for connections and ventilation)
- Shipping H 32, W 32, D 59cm 24kg

\*Typically @ 235V May be subject to around 5% variation due to valve tolerance)  
(Specifications subject to change, errors & omissions excepted. Gen 01/07/11)

## *David Shaw* Signature Edition

Includes: Silky smooth Jensen copper foil in paper and oil audio capacitors. The new improved SG 845B output valve. Selected American original Old Stock high grade military 6SL7. The new super "globe" SG 6SN7 with ceramic base and gold pins. Each one guaranteed to pass our exacting specification. Tweaked, tested and auditioned by David Shaw to assure you of the finest performance.

### **How to Buy:**

**You can buy direct from us, or through your dealer. Contact us by email or phone to discuss availability, upgrades, payment etc. You can then pay by credit/debit card or cheque. Your amplifiers will normally be dispatched within 7 days by next day service (UK), or you could collect and save the shipping cost.**

**(Next day delivery £30 pr, UK mainland)**

### **Our 30 Day Guarantee of Satisfaction.**

If upon auditioning the amplifier in your own system you are not happy with the performance, Icon Audio will refund the purchase price.

#### **Conditions**

Direct sales only. Dealers will usually have their own scheme. UK mainland only, excludes carriage costs. The unit must be returned in new condition in original box and packaging within 30 days of purchase, together with accessories. Customers are responsible for return carriage and insurance. A 10% re-stocking charge will apply at our discretion.

## ***icon Audio***

351 Aylestone Road Leicester LE2 8TA

**+44 (0)116 2440593 mob 07787 158791**

**www.iconaudio.com Fax +44 (0)116 244 0593**

**Email: sales@iconaudio.com**

\*The 1950s EL34 and KT88 are Pentodes (5 parts). This gives far more power than Triodes (3 parts), but most people consider the sound of "Pure Pentodes" inferior. In 1953 Hafler and Keroes developed "Ultralinear" (or Distributed Load). This is a combination which nearly all valve amp manufacturers use in order to get the best compromise of sound quality and power. However it does not compare with "Real Triodes", which are much more linear and more tolerant of "difficult" speaker loads.

\*\*The RCA 211 and 805 are specifically designed to work as a high frequency radio transmitter in Class C. They may also be used for audio. The 845 is specifically designed for Class A/B audio like the 300B. It may also be used as the *Audio Driver* valve in a transmitter. But is not a transmitting valve. This is one of the reasons why both the 845 and 300B were continued in production in Russia and China during the "Cold War". Today they both are enjoying a resurgence in popularity due to their unique hi fi sound.

\*\*\*In modern valves the heater and Cathode (the bit that glows red) are separate. 845s and 300Bs are more primitive in that the Cathode is the same "Hot Wire" as the heater (Directly Heated). This makes the design of the amplifier more complex to keep the noise levels down. Many people like this more "Golden Sound" which can improve the "Harsh", "Clinical" qualities of solid state and digital sources.

\*\*\*\*RMS Volts do not literally exist, however this figure is derived from 25.3V 8 Ohms RMS continuous sine wave output.