

# EMT JSD Pure Black cartridge and STX-5/10 step-up transformer

by Alan Sircom

There are a lot of brands with a long-standing reputation in the vinyl world, but few of them have quite as commanding a standing as EMT. Founded in Germany in 1940 as a maker of high-performance transducers for broadcasters (at a time when high-quality broadcasting in Germany wasn't just a 'given' – it was a key propaganda tool). From those early days, the company has maintained a 'sans pareil' reputation as a maker of moving coil cartridges and accessories.

The cartridge makers of the original German side of EMT decided to call it a day and retired in 2014. Fortunately, the sun did not set on this long-standing connection to the groove and a Swiss company picked up the baton and the manufacture of a range of EMT moving coil cartridges and both a step-up transformer and a headshell. EMT's famous JPA66 phono stage (now in Mk 3 guise) lives on too. However, it's taken a little while to re-establish the brand and its international links. Fast forward to today...

EMT's series of cartridges is an eight-strong range of moving coil designs, six of which can be specified with one of three different coil options. There are also three stereo and three mono cartridges designed primarily for broadcast use (it may seem remarkable to some, but LP replay is still a thing on some radio stations, just not the compressed lo-thought stations we normally attribute to FM or DAB in the UK). internet radio stations are especially keen it seems.

Our choice of cartridge is the JSD Pure Black; the fourth from the top (the flagship JSD Anniversary Limited Edition). All eight of the JSD range share the same body shape and design, with the Pure Black (and Pure Green) using a sandwich body design. Seven of them – including once again the Pure Black and Green – use a microline stylus, and these two models are the least expensive ones in the line-up to feature the same sapphire cantilever used right up to the top model.

As discussed earlier, EMT's JSD cartridges come in a choice of three variants; a half-coil and quarter-coil winding option, and a silver coil version that adds £540 to the cost (the gold-finished JSD Anniversary Limited Edition has silver coils as standard... you could probably ask for it to be downgraded to the standard coil variants, but you also probably shouldn't). We went with the pure silver half-coil option.

This is presented in a beautifully old-school case that smells of sandalwood, and has a brushed aluminium top plate. The cartridge itself is in a little pull-out wooden insert on the right side of the case and there is a full mounting kit, a small manual (of sorts) and a chart of your cartridge's frequency plot (it's flat to 10kHz, and rising to about +8dB at 20kHz, with a fraction of a decibel between the channels... impressive!). Some care and attention is needed as this is a nude stylus with no such thing as a stylus guard, but in all other respects installation is easy.

As to matching... that 2 x12Ω impedance and 200Ω load (as well as the 1.05mV gain) are perfectly handled by the step-up transformer also made by the company. This too is an exercise in old-school charm; the STX 5/10 has roughly the same dimensions as a petty-cash tin (albeit one that's well filled with coins... it's weight isn't listed but it's just under 1.9kg). It's finished in a pewter-grey Hammerite-like finish that looks classic and truly doesn't draw any attention to itself (which is ideally what a step-up should do). The business end (is it the front or the rear... it's hard to decide) has left and right inputs, with outputs for open (+20dB) and EMT specific (+14dB), accessed via toggle switch. There's also a toggle switch to determine the choice of grounding options, and there is a traditional turntable grounding terminal and a supplied grounding lead.

If you decide to eschew EMT's step-up design (I can understand that, given its price compared to that of the cartridge itself... although its performance lends itself to being used wherever feasible), remember that 0.5mV is a



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high output for a moving coil design. As in, it's at the upper end of a typical moving coil output. However, unlike something like a high-output Dynavector or Ortofon, 0.5mV is also a little on the low side for all bar the lowest noise moving magnet phono stage designs. I had no trouble whatsoever partnering it with the RCM Audio TheRIAA and similarly no problems with the outstanding Primare R35 phono stage. However, simply plugging into the phono stage of an integrated amplifier with limited options for gain setting may result in either something approaching clipping on dynamic passages (on the 'MC' setting), or a too-quiet signal barely rising above the noise floor (on 'MM'). But, somehow I don't think anyone uses more than £4,000 of cartridge (if you include the silver coil option) with the sort of amp that has a simple built-in 'MM/MC' phono stage.

Installation is easy so long as you aren't too shaky-handed over that exposed cantilever. The gold line on the front of the body tends to act as excellent sight-lining for horizontal alignment within the headshell itself and rake angle is easy to eyeball too thanks to the absence of body. It tracks at around 2.4g, although I found a little lighter was best. ▶



### PRICE AND CONTACT DETAILS

#### EMT Pure Black MC cartridge

**Diamond:** MR HP  
**Cantilever:** Sapphire  
**Magnet:** AlNiCo, gold-plated  
**Body:** Aluminium, black anodized  
**Vertical Tracking Angle:** 23°  
**Frequency Response:** 20Hz–30kHz  
**Tracking force:** 2.4g  
**Output voltage:** 0.5mV @ 5cm/s  
**Compliance:** 12µm/mN  
**Impedance:** 2x 12Ω  
**Recommended load:** 200-300Ω  
**Weight:** 12g  
**Price:** £3,750

#### EMT STX/5-10 step-up transformer

**Gain:** +14dB (1.5)/+20dB (1:10)  
**Wire:** 99.99% silver  
**Core:** Very low-loss alloy  
**Ground options:** Centre tap/Floating/  
 Input Cold  
**Load options:** EMT/Open  
**Size (WxHxD):** 20 x 8 x 16cm  
**Price:** £7,350

**Manufacturer:** EMT Tontechnik  
**URL:** [emt-tontechnik.ch](http://emt-tontechnik.ch)

**UK Distributor:** fiaudio  
**URL:** [fiaudio.co.uk](http://fiaudio.co.uk)  
**Tel:** +44(0)1563 574185

I was extremely impressed by the performance of the EMT design. It cuts its own distinct sonic path, perhaps with a few sonic nods to the best in Audio Technica in terms of transient speed and directness of musical attack, but also with more body and texture. It's arguably more about musical drive than about air and spaciousness; it puts out a good soundstage, but there are better image resolvers than the Pure Black. However, none of those soundstage makers at anything close to the Pure Black's price have the same direct connection with music's dynamism or energy. And none can match it for speed and attack.

If this makes the EMT cartridge sound over-confident or somehow 'wild' that was not the intention at all. This is a stellar cartridge, one that gets under the skin of music with outstanding coherence and energy and it does have that encompassing, beguiling warmth of vinyl replay. But, this is also a cartridge that stems from a broadcast heritage and that comes through, too. It's about as honest as it gets, and that is perhaps even more beguiling than the warmth inherent to vinyl, because it reminds you why so many feel LP remains a better source of 'high-res' than high-resolution digital audio. There is so much information being extracted from the groove, the sound is uncanny. Add to this superb tracking and an ability to listen through pops and crackle well and this makes for a real star performer. For example, my worn-but-wonderful first pressing of *Somethin' Else* [Blue Note] sounds almost crisp and new again!

Finally, there's the STX/5-10 step-up. A good step-up 'disappears' and simply makes whatever cartridge and phono stage it sits between sound 'better'; the phono stage sounds quieter as if it has less work to do, and the tonal balance of the cartridge 'explains itself' better in terms of frequency response and tonal balance (you find yourself saying "Oh, that's what it was supposed to sound like!" a lot). Naturally, using an EMT step-up with an EMT cartridge is kind of audio nepotism, but the two really do the 'double act' thing at the Fred and Ginger/Lennon and McCartney grade. Trying it with a Kuzma and a Hana cartridge, however, showed the step-up is really world class in its own right. Judging by either product – and especially by both together – EMT really deserves its place among the vinyl gods.

It's not just that EMT has the kind of commanding reputation in LP replay that other companies would kill for. It's not just that the company has a small, but intensely focused range of vinyl's finest and has done so (albeit with a few cast changes) since 1940. It's more that the Pure Black (especially when used with the STX/5-10) do so many things right, it's hard not to be extremely impressed by their performance. +