Crowson Tactile Effects System ◆ £1,300 (approx) ◆ 0845 803 5565 ◆ www.crowsontech.co.uk

Pump up the bass!

Martin Pipe is moved - quite literally - by a novel 'tactile transducer' that'll put some rumble into your home cinema

Deep bass – don'tcha just love it! Whether it's the explosive impact of an edge-of-your-seat action movie, or the lower octaves of your favourite music, your home cinema experience just wouldn't be the same without it. But how about bass you can really *feel*?

True, an inevitable by-product of a subwoofer is its ability to vibrate the room to one degree or another, thereby adding a further degree of gravitas to the proceedings. But now a Californian company by the name of Crowson is selling a product that will take a feed from your audio system and use it to energise your listening chair or sofa. As a result, you can truly feel – as well as hear and see – your movie.

You can buy chairs with low-frequency transducers built in. But the Crowson TES-1000 can be used with the furniture you already have. Also available on the market are 'bass-shakers', which simply resonate at a certain frequency (typically 40Hz or so). The TES-1000 is different, insofar that it can vibrate across a range of frequencies – claimed to be 1Hz to 500Hz. What you 'feel' will thus change according to the nature of the input signal, a characteristic that should impart greater realism than what you can expect from a bass-shaker.

The key part of the package is the deceptively-small and surprisingly heavy TES-1000 'tactile transducer', which can be seen as a subwoofer drive unit without the frame and cone. Effectively a short-throw linear motor, it consists of a powerful magnet and voice coil. The latter is sprung, and attached to the top plate that the foot of your sofa sits on. The throw of the top plate will vary according to the amplitude (i.e. intensity) of the input signal – just as your subwoofer's cone will pull and push further with louder signals, shifting more air as it does so.

To install, the device is placed on the floor underneath the feet of your sofa. One variant has a top plate with a 'rough' surface that has a better 'grip' with the foot – the other is smooth. In both cases, the bottom-plate that makes contact with the floor is made of aluminium. Crowson recommends the use of two transducers (typically placed under the rear feet) for a sofa – you should be able to get away with just one for a chair. To ensure that your seat is level, Crowson supplies a series of vibration isolators (aka spacers) that attach to your furniture's other feet and level the furniture.

Naturally, you need some way of powering these transducers. Each has a pair of sprung terminals that will accept bare speaker wire (18 to 10AWG) or banana plugs, for connection to an amplifier. You can use your own here, provided it's rated at between 50W and 300W RMS, and can drive loads with a nominal impedance of 6Ω (most, if not all, can). Take the LFE (low-frequency effects) feed from your decoder, and use a splitter to feed its input(s) plus that of the sub.

For this review, Crowson UK supplied its A300 amplifier, a butch-looking 2 x 150W design that can drive up to 4 transducers.

The A300 also features remote-handset control of volume, and a built-in low-pass filter ('LPF') that gets rid of the higher (and 'non-feelable' frequencies). This comes into its own with regular stereo systems.

> ***'With the TES-1000 explosions, rumbles and crashes become a whole-new ballgame'***

There's also an LFE input, which would be fed from your AV kit's subwoofer output – Crowson supplies an adaptor that allows both subwoofer and A300 to be connected simultaneously. But the US brand recommends that even if your system has a dedicated LFE output, you should still use the stereo inputs – these would be fed from the line-level front outputs from your AV amp.

Why? Although conventional wisdom has it that LFE effects can't easily be pinpointed to a specific source, the same isn't true of physical vibrations. The two transducers of a 'stereo' setup are effectively being fed from slightly different signals, and are 'shaking' differently in a way that complements the action on-screen. Naturally, this system will also add another dimension to stereo and multichannel music listening.

Note that with the DIY amp approach outlined above, you won't get the 'stereo' effect - it makes no provision for front-channels. Thankfully, Crowson sells a £260 'preamp' (the BMP-3S) for use with third-party amps – this includes the necessary front-channel inputs, LPFs and LFE splitter.

Performance

So does Crowson's product deliver the goods? Yes – and with surprising conviction, provided the transducers are driven at a reasonably-high level (i.e. with the amplifier working hard). I tried a pair of TES-1000s and A300 with a three-seater sofa, and was impressed with the manner in which enjoyment of action movies like *The Matrix* were enhanced – explosions, rumbles and crashes become a whole-new ballgame. And because those vibrations vary in intensity and frequency, according to the soundtrack, different types of 'effect' have their own character.

My viewing room has a laminated floor, which was also made to vibrate slightly by the transducers. And therein lies a small problem. Those vibrations can 'rattle' objects that are not fixed down – and they can be felt throughout much of the house. If you don't live in a detached house, chances are that your immediate neighbours will also join in the 'fun' – be prepared, then, for a knock on the door. Not really a problem in the TES-1000's US birthplace, but here in the UK most houses are joined to others...

Conclusion

Overall, the TES-1000 does indeed add a worthwhile 'involvement factor', particularly to movies. The effect doesn't come cheap. The TES-1000 transducers sell for around £350 each (£600 per stereo pair) while the A300 amp will set you back over £700! But if you're looking for that finishing piece to your home cinema setup, then Crowson's rumble pack has no equal. Now where's my copy of *Earthquake*? ■

SPECIFICATIONS

Features (TES-1000 transducers)
Max. load 1000lbs; spring terminals (18-10 AWG wire); 6Ω nominal impedance; 180° Fahrenheit protection cut-out; recommended amplifier power 50-500W RMS; 1Hz - 500Hz frequency response
Dimensions: 4.8in(w) x 1.1in(h) x 5.7in(d); **Weight:** 3.5lbg

Features (A300 amp)
2Hz - 600Hz frequency response; 150Wx2 output (6Ω, two transducers); 160W x2 output (3 ohms, four transducers); 12dB/octave LPF variable from 20Hz to 600Hz; 33 kilohm imput impedance; auto turn-on; level control;
Dimensions: 16.5in(w) x 3.75in(h) x 15.5in(d); **Weight:** 24lb

RATINGS

Highs:
Lows:

Features	
Impact	
Enjoyment	
OVERALL	

The transdducers are driven by a hefty power amp able to drive four units

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