

Entry-level LFE

BK's 10in sub offers brutal performance at a terrifyingly low price



BK Electronics' subwoofers are clever bits of kit, and in a function-leads-form way you could be forgiven for confusing their products with a couple of other brands. A veneered cabinet enclosing some air and made of thick MDF, plus a panel with an amplifier and connections on it, are going to breed this sort of look.

In my opinion, a real indicator of cunning enlightenment – and true of any brand of sub that has this – is the use of both high- and low-level inputs at the same time. It isn't the 'more-is-better, it'll be louder and go to eleven' thing. It is about the Low Frequency Effects, or LFE, channel from your processor.

A movie's sound engineer will put bass in there as he sees fit during the mixdown, but if the recordist who made the soundtrack material has created stuff with deep frequencies in but the mixer doesn't suss it, the LFE channel doesn't get the bass and the movie is less exciting as a result.

It has been happening since the days of *Lion King*. Check out the

partridges under the elephant feet in the beginning. They missed them out in the rears! And the elephants' footfalls only boom in the woofer channel sporadically. So, using both inputs is about picking up all the LF information, and creating better bass by sending all that was recorded in that passband to the woofer.

Of course, you do need to have the levels of these two inputs separately controlled, and this means twice as many knobs as normal, which is why it's not often done. So, when you find a sub with this feature, it's almost always a good sign, and means a brand which knows its onions.

Another good sign of this BK XLS200MKII is the mad-looking driver. Like the one on the REL (see page 101), it is hugely heavy-duty and has a big top suspension surround.

The enclosure sits on stubby feet with its driver pointing downwards, and the look is 'woody cube'. Yet despite its small size this box throbs with passion. It drops with a bizarrely deep extension and, despite a small cubic capacity, seems to hold a

Box of tricks:

It might not look like it, but this humble cube is actually a vital piece of home cinema equipment

melody and make some decent dynamics. Forty minutes into *Pirates of the Caribbean: Curse of the Black Pearl*, an axe whumps into a table – and this woofer loved it. When the gang head to the isle of Tortuga around the 48-minute mark, there's a massive, bassy swell in the soundtrack. And whaddyaknow? The XLS200 loved that, too.

We say...

This BK is bogglingly potent for its size and absurdly good value for money. Just think: you could have three or four of these for the cost of the bigger ones in this group...

Versatile:
The BK XLS200 offers more options than most



For THX enthusiasts

Hardcore AV fans will be intrigued by this certified sub from Crystal Audio



The THX Select badge is a revision of the THX programme, and came about in an effort to acknowledge that, in Europe at least, we have smaller viewing rooms than in the US. By engineering power supplies to fill small-capacity rooms, component costs can be reduced. Tomlinson Holman's work (see page 24) gives us a brilliant 'here's-how-it-should-be' feeling. In the world of home cinema, THX is a Gold Standard.

The whole idea is to get products to perform together with commensurate levels of output, so that a THX-rated system in all its parts would add up to an experience the filmmakers would approve of.

As THX drove the home cinema scene globally, the need for manufacturers to buy into THX licensing was huge, but it does add to the cost of the product. In these later years, however, manufacturers are endeavouring to produce THX-certified products that needn't cost the earth regardless of the expense of the license. Crystal Audio is one

and this subwoofer is the bigger (12in) of two THX Select-rated subs in the Greek company's range.

It's remarkably simple to setup in comparison to the other subs in this test: if you have a THX front-end and speakers, then all the sub needs is a phase control switch for 0-180° and a volume knob. **And it's all this has on the back; one knob and a couple of switches.**

Unfortunately, though, in this instance, one of these switches was grubby and actually caused a crackle when I used it.

I have seen switches like this on car amps and they allow dust in. On a unit that has as much air puffing around as the THX-12SUB, they're probably not a good idea. However, once set and working, you'll never touch them again, so maybe it isn't worth getting upset over.

I cranked the volume all the way up so I could use the output level control on my reference Acurus ACT3 amplifier, and played more of *Pirates of the Caribbean: Curse of the Black Pearl*.

No messin':
A 12in driver does the business without a fuss

The THX-12SUB clearly has considerable muscle. The scene where the skeleton pirates take an underwater walk (around 104 minutes in) came through the Crystal's 12in driver a treat.

We say...

This THX-Select subwoofer from Crystal Audio is a bit swollen in tuning at the deep end, yet it can still drop incredibly low and with quite a whack of power.

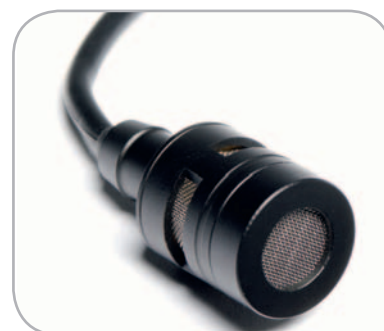
Design-wise – well, it's a 'plain Jane' and a bit featureless. But that THX label means it does exactly what it says on the tin. I mean box.

THX made easy:
One goal of the THX program is to simplify system hookup. Consequently, this is one of the easiest subs to use



High-end sophisticate

Velodyne's advanced SPL-1200R wants you to come and play with it



At the polar opposite to the Crystal THX-12SUB reviewed elsewhere you'll find the Velodyne SPL series. These come with moulded front baffles that horn-load the woofers' output and a little window in the front. The Velodyne's neat grille (removed for our photoshoot) has a corresponding hole for infra red light to shine through, as this woofer comes complete with a test microphone and an infrared remote control system.

The unit itself just has up/down volume buttons on the back and a knob to set crossover point. The blue LED light on the front has a clumsy way of flashing at you, Morse-Code style, so you can read the volume level out of one hundred. This is silly – but the EQ curves you can preset are not.

The Jazz-Classical setting is Velodyne's reference and has a subsonic filter set at 15Hz and adds no EQ at all. The Movies setting has a 25Hz subsonic filter and adds 5dB of 35Hz as well as cranking the relative volume a tad. The R&B/Rock setting

has 28Hz subsonic filter frequency and adds only 1dB of EQ and an extra decibel of relative level, but does it up at 55Hz. The Games setting is pure mizzly thump and adds a 4dB lift and volume hike at 62Hz for frag bass thumpage. I tried them all and, obviously to anyone who knows me, went with the reference deepest subsonic filter and no EQ lift.

The self-EQ system is a hoot. I set up the microphone in the listening position, pressed the EQ button for three seconds and the sub went Bwooooouuupppp! twelve times to equalise itself to my room before I overlaid any of the presets. It works a treat as the sound is tight, rich and fat. And its controlled character is as melodic as any sub I've heard. Velodyne is another specialist manufacturer which, like REL, concentrates on making products to harness low frequencies and it shows. The remote control is simple to use and the sub is undeniably gorgeous.

We say...

The Velodyne SPL-1200R doesn't

Good-looking:

Velodyne's SPL-1200R comes with a self-calibration microphone

quite have the authority of the bigger-boxed REL (see opposite) elsewhere, but **it has no problem with huge bass extensions, even happily handling the 15Hz test tone** that I so adore using – which, incidentally, the wee BK did okay at, too. It has phono inputs and outputs, as well as speaker lead jacks, but you can only use one or other. Plus there are sockets for a 12V trigger, and a remote 'eye' for an extra custom remote control system – additional tech that's very welcome. This is a 21st century bombastic bass-making beast.

Subwoofer sophistication:

The SPL-1200R is one of the most advanced subs on the market



Insane Britannia

REL's frighteningly fearless B1 woofer continues the brand's glorious heritage



The big REL sub bass system in this gang of four is from its Britannia range. Conceived before the Lord of Bass (*that's Richard Lord, to most people – Ed*) sold up to Sumiko, and developed right through the process of changing parent companies, the B1 is an important product for the new REL owners.

The model claims to offer all the performance of bigger (gulp!) models in the REL range, and indeed has a significant percentage of REL's flagship woofers' performance characteristics. These include two clever rotary switches for roll-off, one coarse and one fine, that combine to offer 24 crossover points from 95Hz down to 22Hz. It also has a facility to plug in both the speaker level input simultaneously with the phono signal level input and mix them by way of a gain control, ensuring each is still part of the pie.

As on previous models, you'll find odd-looking Neutrik pro audio Speakon plugholes, which is where you stuff the supplied wire from your

speaker feeds. The phonos are not paired but rather 0dB or +12dB (the latter to perhaps to match with a THX LFE output). Setup is via a rotary phase control. Adjust it until you get the biggest gain in the room.

The model is not nearly as pretty as the glass-topped Reference series; it's a bit slabby in an old-model Volvo way, but has the *de-rigueur* blue LED in the front and a handsome grille through which you can see the mighty driver lurking. This has a huge top roll surround and is as job-specific as an anteater's tongue.

The output is prodigious, with a large extension from the Acoustic Resistive Matrix enclosure. The box is weighty and complex, and allows for an insane depth and range of low frequencies to be propagated. Its character is melodic with superb control and lycra-tight accuracy. The result is a fabulously high-end output with both pressure and sustainable weight for fear-register effects and room-bursting explosions.

That said, I can detect a difference in the last iota of performance and

Noted aggression: With baffle removed, REL's B1 driver glares in all its glory

grip when compared to the top-end Reference job that lives in my room, but the sound that the Britannia B1 makes is definitely in that top echelon. It is serious money, but the B1 will grab and twist exactly when the director and his sound engineers decide.

We say...

Hardcore REL fans can rest easy. The new boys in charge of the brand are clearly just as bass-obsessed as the man who started the company. This is a big powerful sub, albeit one that will only suit a limited number of installations.



Objet d'art: The REL sports a clean, simple and versatile back board

The bottom line

At the conclusion of a typical group test, we normally weigh up the pros and cons of each product, and reveal which is most-deserving of your money. But this isn't a tight apples-with-apples test. More of a 'What-if-you-had-this-much?' type of a group. Four price points, two big ones, two smaller.

What we do have here are some cracking examples of four totally different approaches. They all score well. Some are 'prettier' than others, but I'm not sure whether aesthetics are so important when choosing a woofer that will probably sit out of view.

The cheapest sub, the entry-level BK Electronics XLS200MkII, is tested here in its down-firing version; it can also be bought with a front-firing woofer behind a grille, although I would suggest that this DF model will deliver the best results. Overall, the BK XLS200 can be considered incredible value. It's a truly handsome and brutally deep subwoofer that is unlikely to disappoint buyers looking for depth on a limited budget.

The mid-range Crystal Audio THX-12SUB is a doddle to install: connect, turn up, and off you go. And while I'm not totally convinced of the value of the THX-Select certification when it comes to a model such as this (a THX Ultra sub would be a different kettle of chaos), it's still a great value product. It offers huge, roomshaking lows, even better than the BK, but in a bigger package. It'd be great for action movies, and when bought as part of Crystal Audio's highly-rated THX package it works a treat.

By way of contrast, the Velodyne's high-end SPL-1200R is a good deal more sophisticated. It's not cheap but I suspect that any tweak-freak will love it to death. I utterly guarantee that owners will regularly re-EQ their subwoofer just so they can hear the 'Bwoooooooupppp!' noise it makes. It's also the sleekest of this bunch, and head, shoulders and hairy chest above the others in clever control.

Finally, for the combined cost of the BK, Crystal Audio and Velodyne subs, you could plump for the insane REL Britannia B1. It has all the controls of the Reference series, adds some SPL and loses very little indeed. It is, hardly surprisingly, the best of the four in pure performance terms. A delight, but applications will be limited ●



HCC VERDICT

BK Electronics XLS200MkII DF
£290 Approx

Highs: Deep and extended output; disproportionately powerful; compact

Lows: Given its price, any complaints would be churlish

Performance: 1 2 3 4 5

Design: 1 2 3 4 5

Features: 1 2 3 4 5

Overall: 1 2 3 4 5

→ Specifications

Drive Unit: 8in with extra

Enclosure: Sealed cubic

Frequency Response: 22Hz to 100Hz

On-Board Power: 275W RMS

Dimensions: 254(w) x 254(h) x 254(d)mm cube

Weight: 12.7Kg

Features: Twin sets of binding posts for speaker level in and out



HCC VERDICT

Crystal THX-12SUB
£340 Approx

Highs: Simple to use and ideal for pairing with THX-certified AVRs

Lows: The gain of the input could be far wider for poorer level signals

Performance: 1 2 3 4 5

Design: 1 2 3 4 5

Features: 1 2 3 4 5

Overall: 1 2 3 4 5

→ Specifications

Drive Unit: 12in

Enclosure: Rear-ported, front-firing

Frequency Response: 20Hz to 350Hz

On-Board Power: 200W RMS

Dimensions: 350(w) x 470(h) x 470(d)mm

Weight: 28Kg

Features: Paired RCA connectors



HCC VERDICT

Velodyne SPL-1200R
£1,100 Approx

Highs: Quality in both profundity and control are backed up by a self-EQ system and a remote control

Lows: Techno-refuseniks may recoil from actually having EQ in the LF

Performance: 1 2 3 4 5

Design: 1 2 3 4 5

Features: 1 2 3 4 5

Overall: 1 2 3 4 5

→ Specifications

Drive Unit: 12in (9.7in piston diameter, 3 in voice coil) high excursion

Enclosure: Sealed floor-loaded cubic

Frequency Response: 22Hz to 120Hz

On-Board Power: 1000W RMS Class D

Dimensions: 360(w) x 370(h) x 410(d)mm

Weight: 26Kg

Features: Phono inputs and outputs (post 80Hz crossover) and speaker level inputs



HCC VERDICT

REL Britannia B1
£1,900 Approx

Highs: Thunderous, truly extended bass; accurate control; class-leading connectivity

Lows: Not as resistant to overloading as the Reference series

Performance: 1 2 3 4 5

Design: 1 2 3 4 5

Features: 1 2 3 4 5

Overall: 1 2 3 4 5

→ Specifications

Drive Unit: 12in long-throw heavy duty cast chassis

Enclosure: Acoustic Resistive Matrix with loaded porting

Frequency Response: 22Hz to 96Hz

On-Board Power: 500W RMS

Dimensions: 387(w) x 660(h) x 470(d)mm

Weight: 43Kg

Features: Two gas tight Neutrik Speakon speaker level connectors, paired phonos and XLR socket