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SVS SB16-Ultra Subwoofer Review

The state of the subwoofer art

by [Steve Withers](#) Jul 19, 2017 at 8:28 AM

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SRP: £2,550.00



amplification that can deliver 1,500W of continuous output and over 5,000W of peak power. There's also a fully discrete MOSFET output, along with an innovative subwoofer control and DSP smartphone app with custom presets for precise tuning. As you've probably realised the 'SB' stands for 'sealed box' and the '16' relates to the 16-inch driver, whilst the word 'Ultra' suggests it isn't going to be cheap. It isn't, with the SB16-Ultra retailing for £2,550 as at the time of writing (July 2017). So does SVS's latest subwoofer deliver on its potential and is it worth the price tag?

Design



It probably won't come as a huge surprise to discover that the SB16-Ultra is essentially a simple cube but when you're dealing with sealed subwoofers your design options are limited. The SB16 comes with the option of a black oak or piano gloss black finish but, whichever you choose, the price is the same. Our review sample was piano gloss black and we thought it looked very attractive, although unsurprisingly it's prone to showing fingerprints. There are screw-in rubber feet and the subwoofer is nicely engineered and extremely well made using double thick MDF construction. The SB16 isn't huge, especially compared to some ported subs, but it's big for a sealed box, measuring 508 x 495 x 582mm (HxWxD) with the grille attached, 508 x 495 x 511mm (HxWxD) without and weighing in at a back-breaking 55.3kgs.





Despite the limitations in terms of subwoofer design, SVS have done their best to make the SB16-Ultra appear interesting. There's a curved non-resonant steel mesh grille on the front, which we aren't that fond of but it does provide plenty of genuine protection against small children or animals. There's also an angled front display with basic controls, bi-directional feedback and an 8-digit LED interface, which allows you to setup the subwoofer, select the DSP functions and fine tune the bass management, although you can also do all this via the provided remote control and the excellent SVS Subwoofer App – more on that later. If you're thinking that the display would be distracting in a darkened home cinema, don't worry because it can be turned off.

“The SB16-Ultra is big, heavy and well made, it's also as attractive as a glossy black box can be

Features and Specs



In terms of features the SB16-Ultra boasts three key innovations that SVS believe will set



and pulls the cone to produce all the bass energy. In the SB16 this voice coil is attached to the midpoint of the cone, making it stiffer and less prone to distortion.

It's this innovation that ensures ultra-low distortion and pinpoint control at the highest drive levels resulting in increased output and low frequency extension. To push the driver are four dedicated toroidal ferrite magnets that can deliver 78mm peak-to-peak Xmech excursion (65mm Xmax) for the highest levels of motor force and sound pressure levels. The light and rigid 16-inch Ultra driver cone consists of a premium fiberglass resin composite with optimal stiffness to mass ratio to maximise the movement of air and create sonic energy without distorting or losing control.

The second major innovation is the new Sledge amplifier which, according to SVS, is rated at 1,500W continuous and over 5,000W of peak power. The Sledge STA-1500D amplifier uses 64 Amp 200-Volt MOSFETs (metal-oxide-semiconductor field-effect transistors) that are the sonic muscle behind the physical power of the SB16-Ultra. The fully discrete MOSFET output stages deliver improved performance and represent an upgrade over the less robust integrated circuit output stages found in other Class D subwoofer amplifiers. To harness this power effectively the SB16-Ultra uses an advanced 50 MHz Analog Devices Audio DSP with 56bit filtering to deliver all the low frequency energy at the correct time.



For the SB16-Ultra to be able to deliver all this power it needs a suitably robust cabinet design and SVS have built it with a double thick MDF front baffle and rigid internal bracing to support the massive drive unit and to ensure an acoustically inert environment. There's a high density cast aluminium basket which creates a reinforced internal design that should eliminate any colouration or resonance from the cabinet, even when the deepest low frequencies are played at reference sound pressure levels. Finally the precision machined driver motor elements also ensure that the low frequency output remains tight and fast even at reference levels.

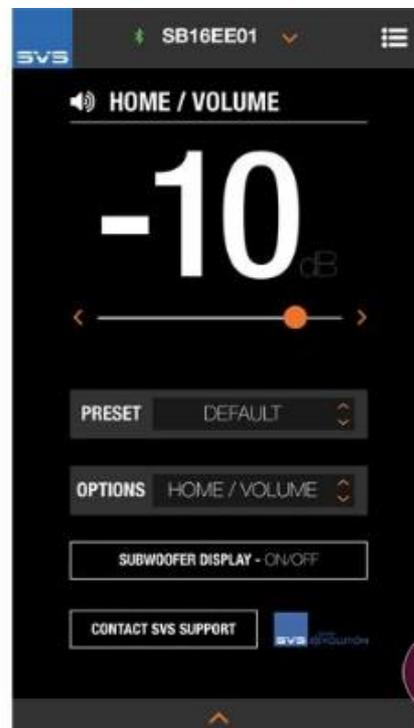

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are any controls because you set up and fine tune the SB16-Ultra using the controls on the front, the provided remote control or the smartphone app. The credit card sized IR remote control includes buttons for volume, up/down, back and enter, along with the presets and a brightness control for the LED display.

However you're unlikely to use the remote control once you've had a taste of the SVS Subwoofer App, which is the third major innovation in the SB16-Ultra. The free app is compatible with iOS and Android platforms and allows you to setup the sub, control all the DSP functions and conveniently store custom presets. The app provides an incredibly easy way to fine tune bass performance, all from the comfort of the sweet spot. For added convenience, SVS have included a two-way feedback which shows updates in real time on both the app and subwoofer interface. There is also Bluetooth connectivity to allows adjustments to be made even when the subwoofer is not in sight.

“The sub is built around three main factors – the 16" driver, the Sledge amp and a smartphone app

Setup and Operation

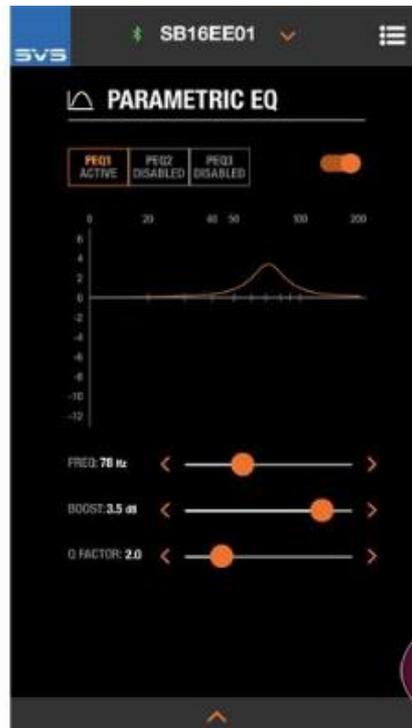


In terms of setup we positioned the SB16-Ultra at the front of our dedicated home cinema between the centre and front left speakers, which we know from experience to be a good spot. It's probably worth mentioning at this point that the SB16 is heavy, really heavy and is definitely a two-person lift. So make sure you have help when installing it and that you have sufficient space to get this bad boy into whichever room you decide to position it. There is often a degree of compromise when positioning a subwoofer, with many rooms only offering



although you have three different ways to do this, the smartphone remote app is the obvious choice.

The app has a well designed and intuitive user interface that makes setting up and optimising the SB16 as easy as possible. There is a home page that allows you to set the subwoofer volume and turn the subwoofer display on or off. You can also access a range of options from which you can select Home/Volume, Low Pass Filter, Phase, Polarity, Parametric EQ, Room Gain Compensation, Presets and System Settings. For each of these options there is an additional help page that explains what the feature does and how best to set it. You can set up the SB16 so that it is On (which is the default), in Auto (which means it comes on when there's a signal) or you can use a Trigger as part of a controlled system. In terms of the display you can set it so that it shows the Volume (the default setting), you can set it so that it shows the SVS logo or you can turn it off. If you have the display on, you also have the option to add a time out from 10 seconds (the default setting) to 60 seconds.



So for the Low Pass Filter you can turn the low pass filter on or off depending on whether you're using the sub with a Low Frequency Effect (LFE) channel. If the low pass filter is on then you can set the frequency at which the sub crosses over with the main speakers and you can adjust the slope at which the low pass filter rolls off (the default is 12dB). There's also a Phase control, which allows you to shift the timing of the subwoofer output to align with the main speakers or additional subwoofers, and a Polarity control that allows you to reverse the electrical polarity from positive (default) to negative if necessary. The Room Gain Compensation control allows you to adjust for excessive sound wave density in smaller rooms by reducing the bass at either -6 or -12 dB per an octave, below a frequency that is adjustable from 25 to 40 Hz. You do this by turning the room gain compensation on or off and adjusting the high pass frequency and the adjustment slope (12dB is the default setting).



-12 dB, and for Q Factor (bandwidth) from 0.2 to 10. You can create presets as well with the option of no preset, a Movie preset for when using the SB16 with film soundtracks (which introduces a mild bass boost), a Music preset for listening to two-channel music with a subwoofer (which is flat) and a Custom preset if you'd rather create one of your own. It should be pointed out that there is no auto EQ feature on the SB16-Ultra, so you'll need to make all these adjustments manually, ideally with the help of a calibrated microphone and an audio spectrum analyser like Room EQ Wizard.

“The smartphone app is excellent, allowing for extensive setup and plenty of fine tuning

Performance



The SB16-Ultra was already well run in when it arrived for review, so after installing it and familiarising ourselves with the remote app we were ready to start testing the latest SVS. We started off with movie soundtracks because that's probably the main area of interest for the average AV enthusiast. Yes some people like to use a subwoofer to augment a two-channel system when listening to music but everyone loves a powerful sub to give greater impact to their favourite film soundtracks. From the moment we started watching [Pacific Rim](#) we could tell that SB16-Ultra was delivering a powerful bass performance but doing so with both control and agility. There was a weight to the bass that you don't expect from a sealed box design but also the speed and responsiveness that you would expect. This proved to be a great combination that meant the size and scale of both the Jaegers and the Kaiju are delivered with wonderful low frequency depth and precision.



[Logan](#) includes a number of incredibly deep bass moments that the SB16 handled with ease but the sound designers also mixed low frequencies into Logan's voice in certain key scenes and the SVS handled these with a telling subtlety as well. This ability to handle bass moments with both power and dexterity is what really impressed but the SB16-Ultra also managed to deliver these incredibly low frequencies without distorting. It was a highly accomplished performance that showed how effective SVS's efforts have been in delivering a sealed subwoofer that can hold it's own against ported boxes.



We have a number of scenes that we love to use when testing a subwoofer, from the famous 'skidoosh' scene in [Kung Fu Panda](#) to the train related mayhem of [Unstoppable](#) and the opening battle in [Edge of Tomorrow](#). The SB16-Ultra handled them all with marvellous authority and confidence. It's possible that a ported sub could squeeze a tiny bit more bass energy out of these soundtracks compared to the SVS but it's hard to imagine any other sealed subwoofer delivering the kind of power of which the SB16 was capable. It's also hard to imagine a ported sub being as nimble as the SVS and, when watching [Whiplash](#), the SB16 revealed a lightness of touch that was genuinely impressive. It's was like the subwoofer equivalent of Muhammad Ali, producing the low frequency sledge hammer punch of the best ported subwoofers but with the fast footwork of the best sealed boxes, resulting in a winning combination.

The musicality that the SB16-Ultra revealed with [Whiplash](#) meant that the subwoofer was certainly capable of delivering low frequency support for two-channel music. If you like combining a subwoofer with your main stereo speakers then the responsive nature of the SVS meant that drum hits and bass lines were delivered with a pleasing tightness, keeping pace with the music whether its rock, dance or classical. The gravelly vocals of Roger Waters on his new album *Is This The Life We Really Want* were given a nice low-end rumble, whilst the epic sweep of M83's *Hurry Up, We're Dreaming* was very effectively supported by the SB16-Ultra. What was particularly impressive was that no matter how complex the



“Tight, powerful, natural and fast, this subwoofer really delivers on all levels

Conclusion

9



SCORE

OUT OF 10

Pros

- Superb bass performance
- Very low distortion
- Great smartphone remote app
- Flexible setup and control
- Well made and attractive design

The Bad

- Bass not quite as deep as some ported models
- No auto EQ
- It's very heavy

You own this

1

You want this

1

You had this

0

SVS SB16-Ultra Subwoofer Review

SVS have set out to make the best sealed subwoofer they can and in the SB16-Ultra we would say that they have succeeded. The subwoofer itself manages to appear attractive considering it's a black cube and the display is an interesting touch that thankfully can be turned off. There are three different ways of controlling the SB16 - with the new smartphone


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However once you have set the SVS up properly you will be seriously impressed with its performance. The 16-inch driver, 8-inch voice coil and 1,500W of Sledge amplification mean that the SB16 can deliver incredibly deep bass for a sealed box but also do so in a surprisingly fast and agile way. This is one powerful and responsive subwoofer that can handle both movies and music with ease. There there is a lightness of touch that belies the depth of bass within and the responsive nature of the SB16-Ultra combined with the confidence and tightness of the low frequency performance results in a subwoofer of genuine authority.

As a result we feel the SVS SB16-Ultra is definitely worthy of a Highly Recommended badge and will doubtless prove difficult to beat, particularly at it's current price. If you like the idea of the SB16 but would rather have a ported subwoofer, then the PB16-Ultra might be right up your alley with all the same features but in a ported box. If you're looking for an alternative sealed unit then the [Sunfire XTEQ_12](#) is definitely worth considering. It only uses a 12-inch driver compared to the SB16's 16-inch driver but the Sunfire is cheaper, has plenty of power, an equally nimble performance and it comes with an auto EQ feature.



[SVS SB16-Ultra Subwoofer \(2017\) Information Hub](#)

Suggested retail price when reviewed: £2,550.00

The Rundown

Sound Quality

9

Build Quality

9

Value For Money

9

Verdict

9

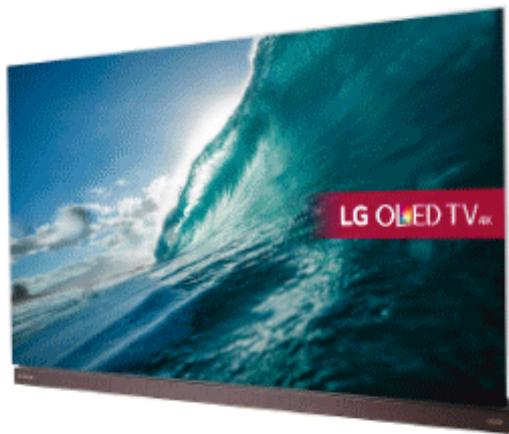
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