

# Klipsch

## KSW-12 Subwoofer



Klipsch's KSW-12 subwoofer, which uses a linear 105-watt power amplifier to drive a down-firing 305mm 'fibre-composite' driver, is intended for use with that company's very popular Synergy Series of home theatre speakers, but is available separately. This is a great idea, because if you plan on upgrading an existing system, but intend to do so incrementally, you could purchase the KSW-12 first to use with whatever speakers you now own, then add the Synergy speakers later. This is opposite to the way most people do it, but actually makes better acoustic sense, since a subwoofer will integrate well with almost any system, no matter how old, and the extra deep bass will be immediately noticeable—and welcome!—when watching movies.

### The Equipment

As you'd expect from Klipsch, the KSW-12 is excellently finished, though the stippled black finish is clearly a synthetic, rather than a real wood veneer. The '12' in the model name indicates the driver diameter is 12-inches, differentiating it from

Klipsch's slightly smaller KSW-10.

In fact the '12-inches' actually refers to the overall diameter, which isn't truly indicative of driver size. The important Theile/Small dimension is 250mm, which means the effective cone area (ECA) is 490cm<sup>2</sup>. Klipsch down-fires the cone to ensure better room-coupling, but this means that because the woofer is facing the floor, you need to ensure the subwoofer doesn't sink into deep carpet, which would muffle the output. Klipsch has more-or-less ensured this by equipping the KSW-12 with four very large 50mm-high plastic feet.

Downfiring subs are usually easier to position in a room and work particularly well in corners, but Klipsch has placed the very large (75mm diameter) bass reflex port on the rear of the subwoofer which means you won't be able to sit the sub flush in a corner unless you face the port away from a wall. If you'd rather not do this, you need only have the port around 50mm from a wall for it to still work effectively.

The KSW-12's amplifier plate was clearly designed by someone with a sense of humour, because the volume control has markings from 1 to 11 and the three-position power switch is marked 'disable/auto/enable.' The low-pass filter has a 40–120Hz range and the phase control positions for 0° and 180°. There are both line level inputs and speaker level inputs, as well as speaker-level outputs. The amplifier itself is a conventional 'linear' (i.e. not digital) MOSFET amplifier. Its 105-watt rating is a true figure, measured according to US Federal Trade Commission (FTC) rules.

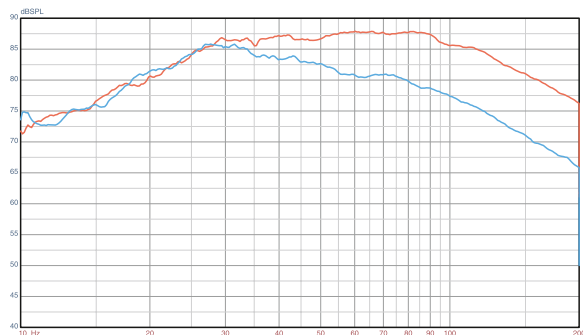
The dimensions of the KSW-12 are modest, with the sub standing 433mm high on its feet, 400mm deep and 380mm wide.

### Performance

I partnered the KSW-12 with Klipsch's largest Synergy home theatre system (S-III) and found it was a perfect match acoustically, crossing over beautifully to the large F-3 floorstanders with the crossover

## Klipsch

**Brand:** Klipsch  
**Model:** KSW-12  
**Category:** Powered Subwoofer  
**RRP:** \$849  
**Warranty:** Five/One Years  
**Distributor:** International Dynamics  
**Address:** 129 Palmer Street  
 Richmond  
 VIC 3121  
**T:** 1800 456 393  
**T:** (03) 9429 0822  
**F:** (03) 9429 0833  
**E:** mail@internationaldynamics.com.au  
**W:** www.internationaldynamics.com.au



**Figure 1:** Pink noise frequency responses (smoothed to one-third octave at 2.0 metres with crossover control at maximum (red trace) and minimum (blue).

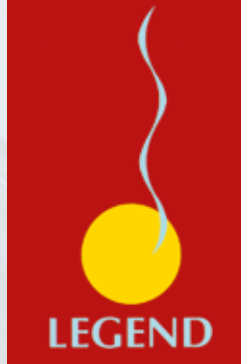
control turned to its minimum setting, and there was obviously plenty of power in reserve. I didn't have to wind the volume up even when driving the system hard in a large room. I also tried smaller (non-Klipsch) speakers and the KSW-12 still delivered the goods—though with smaller speakers, you'll have to increase the crossover frequency, of course. Even at the maximum crossover setting (120Hz) there was still more than ample power and the bass reproduced cleanly, with no sense of confusion.

*Australian Hi-Fi Test Laboratories* measured the KSW-12 with its crossover control set to maximum. The response was very flat and linear, extending from 24Hz to 130Hz  $\pm 2.5$ dB, which is markedly better than Klipsch's specification of 26Hz to 100Hz  $\pm 3$ dB. Across the region between 26Hz and 120Hz, the Klipsch returned a response that was within  $\pm 1.25$ dB, which is truly remarkable. When the crossover is set to minimum (40Hz), the KSW-12's response starts rolling off a little earlier, at 30Hz, which is actually a plus, so Klipsch should re-labelling the control minimum at 30Hz!

### Conclusion

This one's a no-brainer if you already have—or plan to buy—a Klipsch home theatre system, but the KSW-12's performance is such that it would easily slot into any home theatre system. 

Jutta Dziwnik



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