

# Fink Team Borg floorstanding loudspeaker

by Jason Kennedy

There are two types of loudspeaker designer: those that come up with a loudspeaker design and create a whole company around it, and those who take a more 'hired gun' approach. Often, the skill set of the founder limits the scale of the operation – not many can design an excellent loudspeaker, market it, sell it, and run a company simultaneously – so the canny ones employ a managing director to run the business side. The 'hired gun' speaker designer is usually employed by different brands over a career span or works as a consultant to different brands; the latter is the rarest variety in my experience. Examples include Robin Marshall (who founded Epos but went on to work for several British and American companies) and Andrew Jones (who started at KEF but has gone on to design for TAD and ELAC among others). Karl-Heinz Fink is perhaps unique in that he has feet in both camps; his design consultancy has designed great loudspeakers for many manufacturers (often hidden under the cloak of a Non-Disclosure Agreement), but Fink is also running a fast-growing loudspeaker-making business in its own right.

The first Fink Team product unveiled to the world was the WM-4, which appeared in Ken Ishiwata's Marantz demonstration room at the Munich High End a couple of years ago. That was the second incarnation of a WM-3 made specifically for Ken – he and Karl-Heinz seem to get along rather well. The WM-4 is a huge loudspeaker with a 15-inch paper bass driver in the bottom half and two BMR midrange units flanking a ribbon tweeter in the top section. It is naturally costly as well and such is Fink's reputation that its appearance prompted requests for a more affordable and easily accommodated alternative.

The Fink Team Borg was the response; this shares the stealth styling of the WM-4 in a cabinet that while still in the large class is far more manageable. The Borg was launched at the 2018 High-End show but had only recently reached these shores. Mine came in a highly distinctive and beautiful finish with the two-tone combination of matt black baffle and dark Zebrano veneered rear section. The driver unit choice is pretty radical, combining a 10.25-inch paper bass driver with a massive Air Motion Transformer (AMT) tweeter, which is not something you see every day; the last speaker I saw that had anything like this combination appeared decades ago. A bass driver of this size has minimal midrange capability, so the tweeter is more of a mid-cum-HF unit; the crossover point is down at 1.6kHz which is crazy low for a two-way. However, it's also below (most of) the midband where the ear is most sensitive. ▶



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► I asked Karl-Heinz why he had gone for such an extreme driver combination and got the following response: “A multiway speaker is always a compromise because no crossover path is perfect. Best phase integration means a slight loss of acoustic power around the crossover region; perfect acoustic power can give you some strange behaviour on or off-axis. The theoretical best crossover with a 6dB slope does not work in real life, because the total behaviour of the electrical filter and acoustical filter have to be combined *and* as a driver is already a 2nd order bandpass on its own; you cannot win with first-order crossovers. Best solution: no crossover, but that has other problems. Which brings us back to two-way and that is what we did. It was a challenge. The tweeter only decided to work with the woofer after we added a passive all-pass filter to the crossover. The speaker has nice off-axis behaviour, and that makes it easy (sort of) to place in different rooms.”

With all this attention to detail it's not surprising that the Fink Team has gone to some lengths to keep cabinet resonance to a minimum, Karl-Heinz refers to audible resonances undermining signal to noise ratio, and he's not wrong. The approach with Borg has been to push resonances down with localised bracing and damp them to reduce audibility, and it also has reinforcement in the weakest parts such as the large opening for the bass driver. It's worth mentioning that both design and execution are of an exceptionally high standard, I particularly like the faceting on the front baffle and the dome feet that are spike alternatives.

British designer Kieron Dunk, who worked with Karl-Heinz at Q Acoustics, developed the overall appearance. I like his style. Even the packaging is of unusually high quality and consists of plywood cases

that have threaded bolts to hold them together and straps to aid the 'shifting about' process. The Borg is not a colossal speaker, but its 52-kilo mass commands respect.

The drive units are naturally not off the shelf types, even the tweeter which is made by Mundorf (the capacitor people) required a bit of tweaking by the Fink Team to iron out a resonance. It uses pleated Kapton with an aluminium strip, a combination of materials chosen for excellent internal damping and “particularly low distortion”, it's also plentiful for the type, the oval opening being 118mm high. The in-house built bass driver is purpose-built for this loudspeaker; it has a sizeable three-inch voice coil (75mm) and an aluminium shorting ring on the pole piece to reduce voice coil inductance variations and to reduce flux variations. The paper cone looks old fashioned with its pleated surround, but if you don't need a lot of driver excursion, this approach often results in excellent sound. Fink has gone to town on the Borg's port which aims to minimise resonance in the three forms that afflict these ducts, that is material, length, and airmass resonance. The cutaway shows that it's far from being a regular tube but is shaped and damped to control these resonances, it is also quite big, yet you don't need to place the Borg very far from the wall given its size.

The driver combo is radical enough, but that's not all, there are also control knobs on the rear above the four-way cable terminals. These are not marked bass and treble, but 'damping', 'mid', 'presence', and 'high' and are designed to adapt the speaker to different rooms and partnering amplifiers. Damping does the latter, with three settings to suit transistor, tube, and low damping factor amps that struggle to control the bass in some rooms. The mid setting can be used to compensate for room issues but also adjusts the position of the image, moving it back or forwards. Presence, on the other hand, is for tuning the speaker to different characteristics in the source and amplifier, balancing out elements that are a little bit soft or too bright. High adjusts tweeter output to suit different rooms or to balance the response. All of these filters only make small changes, but that is usually all you need so long as there is some flexibility in positioning, but I wouldn't put the Borg up against the wall; it might get a bit fighty.

The load the Borg presents to partnering amplifiers is an average 87dB with a high 10 Ohm average impedance (that goes down to 6.5 Ohms at 20kHz), so it looks like a relatively easy beast to drive, especially when you consider the damping options. I used an ATC P2 power amp for the majority of the listening but started off the new Naim Supernait 3 integrated as it happened to be in the system. What first strikes you about the character of this speaker is just how gorgeous the bass is, it's juicy, deep and when required can sound like 'rolling glue' as Yello put it. There is something about a large paper cone driver that sounds so real and natural, and it's a sturdy material to ►

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► beat if you want the full gamut from nuance to muscle in the low frequencies. Conjure’s ‘Dualism’ [*Music for the Texts of Ishmael Reed*, American Clave] sounds beautiful, the music rolling out in totally unfettered form into the room. The Borg’s mids and highs are as natural sounding as its bass, while its single driver gives rare coherence from a wide-bandwidth design. It’s powerful on immediacy, which makes everything sound more real and alive but is also excellent when it comes to the tonal depth, which enhances the palpability of the experience. Listening to the Borg is a very high-resolution experience.

One illustration of this is that it seems to have all the time in the world to unfold the music, there is no sense of hurry because the leading and trailing edges of notes are so clearly defined. There’s no blurring of the subtle differences between notes, instruments, and voices; everything is clearly separated yet presented as a coherent whole, which is much fun whatever your musical tastes.

With my usual amplification combo of Townshend Allegri+ pre and ATC P2 power amp the bass gets more fabulous still. The low pulse on ‘Rymden – The Odyssey’ [*Rymden*, Wesseltoft Berglund Öström, Jazzland] is both controlled and open leaving plenty of space for the speed of the drumkit to bring occupancy to the experience. The Borg are also very good at creating a sense of space, the sculpting of the deep front baffle allowing the sound to expand out into the room both upwards and sideways, and that includes the bass which on one track sounded like distant thunder; a good result methinks. However, more important is that once a track starts, it’s difficult to stop it; the Borg’s musical communication skills are in the premier league thanks to the qualities of the AMT driver in particular.

I tried some of the adjustments on the back and got the sort of results that are predicted in the manual; increasing Presence makes the balance a bit fruity and increasing the Mid setting makes the midrange a little bit exposed for my room/system/ears. However, it’s great to have these options which can be used like sophisticated image and tone controls, albeit without bass adjustment, which is often necessary to compensate for room vagaries. I preferred them flat especially where drums are involved, here the dynamics and speed of the bass, in particular, comes into its own — revealing everything that’s going on in the mix with phenomenal timing accuracy.

With a favourite tune, the Borg become mesmerising, it can’t disguise the limitations of lesser quality recordings such as Van Morrison’s ‘The Way Young Lovers Do’ [*Astral Weeks*, Warner Bros] but doesn’t allow this to get in the way of the music. The vitality of the acoustic guitar piece ‘Requiem for John Fahey’ [Gwenifer Raymond, *You Never Were Much of a Dancer*, Tompkins Square] makes a sharp contrast with the Van classic, but there have been nearly fifty years of recording technology advances since then. You’d hope that they would count for something.

## TECHNICAL SPECIFICATIONS

**Type:** Two-way floorstanding speaker with output and damping controls

**Driver complement:** One Mundorf

Air Motion Transformer tweeter

with 6464mm<sup>2</sup> surface area; one

10.25inch high-power mid/bass driver

**Crossover frequency:** 1.6kHz

**Frequency response:** 41Hz–30kHz (-6dB)

**Impedance average/minimum:**

10/6.5 Ohms

**Sensitivity:** 87dB/W/m

**Dimensions (H×W×D):** 1050 × 300 × 400mm

**Weight:** 52kg/each

**Finishes:** Choice of standard finish or any finish to special order

**Price:** €25,000/pair

**Manufacturer:** FinkTeam

**URL:** [finkteam.com](http://finkteam.com)

**Distributed in the UK by:** Kog Audio

**URL:** [kogaudio.com](http://kogaudio.com)

**Tel:** +44(0)24 7722 0650

I also hooked up a valve amp in the form of the Quad VA-One, an EL-84 push-pull integrated that’s somewhat on the affordable side for these speakers. However, it was interesting to hear how setting the Damping control to ‘3’ made the sound more involving and alive with inner detail. It didn’t produce a large image, but I daresay that tweaking some of the other controls might have helped here. More important is that it produced musically rewarding and engaging results. The Borg warrant a more sophisticated amplifier than I had to hand, but it didn’t highlight the limitations of the amps I did have. Rather, it brought out the best in them.

Fink Team’s Borg is a very revealing loudspeaker but not a ‘warts n all’ critic of partnering equipment; instead, it is a low distortion, high-resolution design that takes a unique approach and comes out smiling. At least that’s the result it provokes in anyone listening. +