

Reprint

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»Red Alert«:

Fink Team Borg

They do have a sense of humour, the gentlemen of the Fink Team. The name of their latest loudspeaker Borg is not an homage to a famous tennis player, no, it comes from the science-fiction epos »Star Trek«. One of the most feared species in this series are the Borg, and their notorious threat is very clear: »We are the Borg. Lower your shields and surrender. Resistance is futile!« I wonder if the Fink Team wants this to be understood literally.

Since with the Borg the second loudspeaker from the Essen manufacture is now hitting the market, one or two readers might come to the conclusion that the Fink Team is a start-up. Yet the opposite is true. For more than four decades Karl-Heinz Fink has been active in the loudspeaker business, but mostly he and his colleagues remain in the background. A lot of makers use the know-how and experience of the specialists from Essen to develop their own products. Even automotive groups task him with the acoustic planning of their vehicles, also because Fink works with measuring systems and software which already, before the first physical prototype, describe pretty accurately its characteristics.

In order to convey to new customers the potential of a possible reproduction quality and at the same time have an inhouse work reference, the decision was taken years ago to build a sound transducer of their own without any cost-limiting. Marketing the concept loudspeaker was initially not talked about. Marantz brand ambassador Ken Ishiwata, who's a friend of Fink, was among the first who got a chance to listen to this loudspeaker, the look of which was described as »anything but aesthetical« back then. But Ken Ishiwata felt enthusiastic about the sound and desperately wanted to celebrate the premiere of the Marantz PM-10 integrated amplifier and the SA-10 SACD player with these speakers at the High End 2016. Hence the English designer Kieron Dunk was commissioned to give it an attractive look. So far, so good. How-

Review: Loudspeaker Fink Team Borg

The Borg is a sound transducer as sophisticated as it is thought out. The Fink Team has succeeded in creating a two-way loudspeaker to dream of.

ever, no one could have anticipated the success of the model named WM-4 with the audience. I can still remember well that already on the first exhibition day this speaker was a main topic of conversation. In the wake of this surprise the planning for a more budget-friendly version began right after the trade show; after all, the price for a pair of WM-4 was approximately 65,000 euros.

At this year's High End the Borg two-way bass reflex design saw its world premiere. It's an unusual appearance. Like with the WM-4, Kieron Dunk has been responsible for the design of the loudspeaker which is slightly above one hundredweight and will probably be cursed by the cabinet maker for the elaborate baffle board alone. During the development phase, the Fink Team also went to great lengths to address the issue of resonance suppression. A vibrating body will create colorations and ultimately mask acoustic details. Therefore, in order to tackle resonances, MDF boards of varying thickness have been joined in the Borg. Between the layers is a damping layer which transforms vibrations into heat. What was calculated with the aid of a software in the first design step, had to stand up to a critical scrutiny by laser scan afterwards. Lo and behold: although the woofer chassis was firmly screwed into place, vibrations did occur. The solution is now provided by a solid metal ring behind the driver.

Take a closer look at the Borg's driver line-up and you'll be amazed. Many two-way designs are fitted with a 17 cm (6.5") low-mid chassis, whereas the Borg's model is 26 cm (10") in diameter. To complement such a big driver in the high-frequency range, a dome tweeter with a proportionately large diameter would seem to be obvious, but here the Fink Team relies on an Air Motion Transformer from Mundorf. The crossover frequency between the two is a low 1,600 hertz. Which makes me wonder if the woofer goes way up high or if the AMT takes over at an unusually low crossover frequency. In his inimitable way Karl-Heinz Fink

Red Alert



The Borg combines an Air Motion Transformer (right) with a heavy-duty 10-inch low-mid driver (above). The two-part crossover (below) is a 24 dB Linkwitz/Riley filter design.

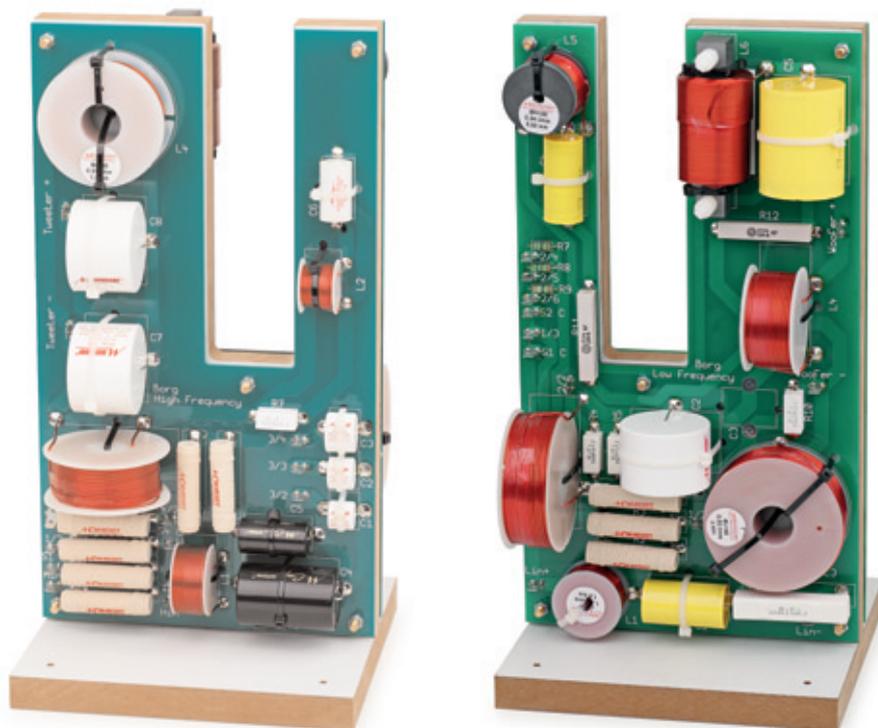
answers with a smirk: »Both is correct«. And as Fink honestly admits, the fine-tuning of the harmonic transition between the two drivers ate up quite some time and nerves indeed.

The rear connection panel is what sets the Borg apart from all other loudspeakers. Beside bi-wiring terminals it offers a total of four controls with interesting setting options. The idea behind it: even if you don't have an acoustically optimised listening room, no one should have to do without a tonally intense reproduction. The tweeter boost or cut respectively is the setting that is most easily explained: in a well dampened room a bit more treble will do good; with reflecting walls a little less will be just right. For a perfect music reproduction the Borg can also be adapted to the

amplifier damping factor. Which is fairly high or even really high in modern solid-state amps, but rather low in valve amps – accordingly there are three ad-

justment options available. This selection will primarily affect the low-end range precision and control. The »Mid« and »Presence« switches let you take into account both the acoustic properties of the room and the characteristic of the system which drives the Borg. Hence the listener gets the chance to also modify the spatial imaging and decide whether he'd rather sit in the third row or further back. For this purpose Fink uses subtle, but wideband corrections of the frequency response (see right-hand box). Instead of excessive sound level changes, which are no good in practical use, the more discreet options of the Borg are well understandable.

In the listening room the Borg had a rendezvous with the McIntosh trio of the C 1100 AC and the MC 611 AC mono blocks. A quick check of the available speaker cables showed that the Borg can reveal sonic differences exceptionally well: here the HMS Armonia didn't have much of a chance against the HMS Suprema. Already during the placement





procedure, at the end of which the Borg was positioned slightly angled towards the listening spot, one of my concerns vanished into thin air: a lot of manufacturers who employ an AMT in the tweeter position would really like it to be heard very clearly. But in this point the Borg is not even anywhere near a suspicion.

For a start I've chosen »Ash Tray« by George Duke to listen in, a song that invites numerous speakers to pick the music to pieces, making the bass groove in the low-frequency basement while the keyboard is raging upstairs. As was to be expected, the Borg has a very low opinion of such a disintegration process. It paints a coherent, amazingly fast and yet powerful soundscape. Because of this clarity you will instinctively feel like turning up the volume control. With this outstanding performance it becomes immediately obvious that no more energy can escape through the cabinet. I can't remember having ever had such a clear view on the drumkit or heard wind players with such a brilliance.

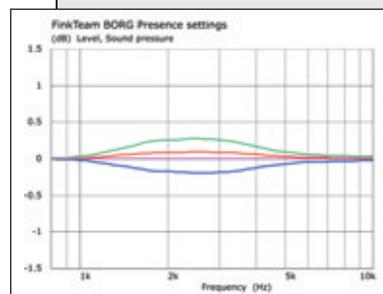
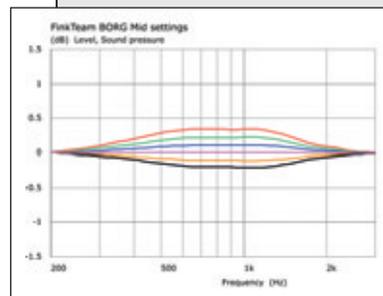
When Miles Davis is getting ready for the interpretation of »Godchild«, one can look into the recording room without any cloudiness: subtle and genuinely realistic the drummer's cymbals, the trumpet (because of my settings) a little offset behind the stereo centre, and that really insistent, above all very relaxed rhythm: I've never heard it that way before. On to »Shadow« by Billy Cobham, and although this track sounds already superb at low levels, the Borg with its dynamic nature

Comment: Not really important?

Not a few opinion leaders in the high-end scene tend to spread the view that with loudspeakers the »last two or three dBs« don't matter any more. And the thing about metrology, you know that, right? – not really important. Comments like these can be heard at every trade show. Absurd, isn't it? Just imagine you have a new kitchen installed, but the worktop doesn't close nicely in the corners, and instead there's a nasty gap. And if your kitchen joiner now claims with utter conviction that the last two or three centimetres don't matter that much and the whole metrology (pocket rule) is overrated anyway, you'll understandably chase the guy to the devil. Because it's so very clear with what we're dealing in both cases: lame excuses.

Such glib statements are also never the result of systematic investigations. Otherwise it would soon become evident that,

according to Floyd Toole, in 1/3-octave bands even a deviation of a mere 0,5 dB is audible, just like an increase by only one decibel over the entire auditory range (see issue 4/2015). In this context broadband humps in the sound pressure response are most easily spotted, narrow dips rather less so. Karl-Heinz Fink has taken this into consideration with the Borg and equipped it with ample setting options. The HF level is adjustable in three steps – others do this as well. But for the lower mids from about 300



hertz to 2 kilohertz and the extremely critical presence range (ca. 1-5 kHz here, see diagrams above), a designer will otherwise lay down a compromise for the final tuning.

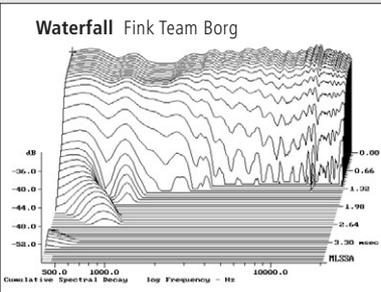
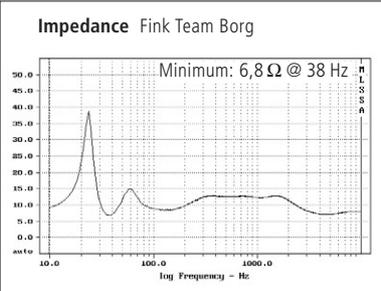
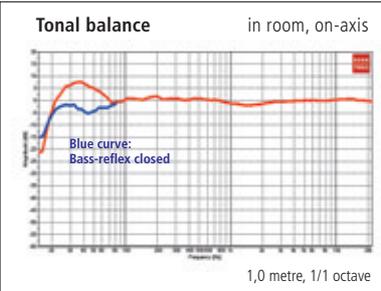
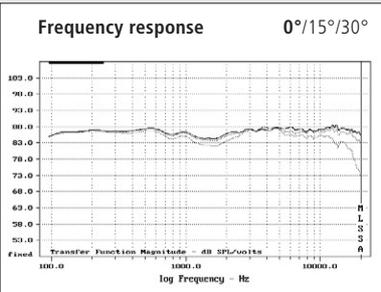
Here the Borg allows very subtle corrections of $\pm 0,5$ dB. The Fink Team says that with these adjustments one can e. g. move the virtual stage further behind the speakers or closer to the listener. And if then the perception of presence and nearness is also affected (Blauert Bands), we are no doubt talking about relevant criteria under audiophile aspects and not – as amateurs tend to believe – about just a little timbre.

Wilfried Kress ■



Lab Report

As unusual the two-way design with a large low-mid driver and an Air Motion Transformer may be, as good-natured is the Borg's behaviour towards amplifiers. Against the trend towards ever lower impedances (including the problems that go with it), Karl-Heinz Fink fortunately opted for an eight-ohm design. Sensitivity is 86.5 dBs (2.83 V / 1 m, 500 – 5,000 Hz), average linearity is ± 2.3 dBs (0/15/30 degrees, 300 Hz -10 kHz), on axis it's even an outstanding ± 1.8 dBs. So the concept works out nicely, the Borg is flawlessly made. ■



invites us to keep raising the volume. And what happens then cannot be described with anything less than the greatest joy in music listening. The bassman is working through the music with so much feeling, and each of Cobham's beats hits home.

Listening to this piece one is also surprised about the room imaging skills of the Borg, so a shift to a nave is certainly worthwhile. »A Sort Of Homecoming« by Anathema is a fantastic live album which was recorded in a church. After setting the high-frequency level on the Borg's rear side with »Thin Air«, you'll have a feeling that the colourful church windows become translucent. These are very minor changes and without looking I finally go for the middle position, which may also speak for the room acoustics. Apart from the Magico S 1 Mk 2 (review in issue 3/2018),



the Borg is hands down among the most impressive sounding loudspeakers I've had in my listening room so far.

Fink Team Borg

WxHxD	30 x 105 x 40 cm
Warranty	4 years
Price	24.900 euros
Manufacturer	FinkTeam Maxstraße 75 45127 Essen
Web	finkteam.com

Result

With the Borg, Karl-Heinz Fink and his team have succeeded

in building an excellent loudspeaker. This applies both to the harmonic tonality, which is based on metrology and hearing impressions, and also the design. The acoustically finely tunable Borg is indeed a serious assault on the loudspeaker establishment; with it, any resistance from audiophile listeners is futile in the spirit of the Borg. *Olaf Sturm* ■