Eleven is a problematic number in home entertainment. Seven used to occupy that position, and before that it was five. But now it’s eleven. Because eleven is the number of full-range speakers the fully-equipped home entertainment system is now supposed to employ. And that’s without counting the subwoofer (or subwoofers).

Four of these speakers are now in the ceiling (or sitting atop other speakers), but there’s still the problem of the seven at the listeners’ level. Where to put them?

Krix has several answers, thanks to its product range which runs from massive horn-laden loudspeaker systems designed for real cinemas, down to compact outdoor speakers. Within that range are ‘installation speakers’, including these new Krix Symmetrix in-wall speakers.

**EQUIPMENT**

The great thing about in-wall speakers is that they use no floor space. That doesn’t mean that they’re for everyone. If you have furniture covering the plausible placement locations, then they aren’t going to do you much good. But if you have a largely clear wall, especially if your TV is wall-mounted with space either side, you can install two Symmetrix. Or maybe you want to make them your surrounds, or your rear surrounds, or indeed all six.

Installation speakers are mostly round, and often sit in the ceiling, and mostly the results sound somewhere between OK and just plain lousy. But Krix has a habit of taking the moving parts from its fine floorstanders and engineering wall enclosures to fit (e.g. the Krix Epix are installation versions of the highly regarded Krix Neuphonix). Here these Symmetrix have similarities to the company’s Tryptix — the same tweeter and drivers and a similar internal volume. But Krix informs us that the crossover has been modified to suit the in-wall design.

They are arranged as two-way speakers, each with a 26mm ring radiator tweeter and two 100mm bass/midrange drivers, one above and one below the tweeter. The tweeter has a wave-guide centre plug and uses a neodymium magnet. The wave guide (or phase plug) isn’t merely a pointy bit on the tweeter diaphragm, it’s actually fixed to the body of the tweeter, emerging through a tightly matched hole in the centre of the diaphragm. Thus the diaphragm really is a ring. Krix says that this is ‘for controlled directivity’. In theory, at least, it should reduce interference between the same frequencies produced on opposite sides of the diaphragm, broadening the effective cone of high frequency dispersion.

The bass/midrange drivers feature 25mm voice coils and high-temperature Kapton formers, which is just as well since Krix recommends the use of amplifiers rated at between 20 and 140 watts per channel. It says that their impedance is six ohms and their sensitivity 90dB (2.83 volts, 1 metre).

One concern with in-wall installations is rattling, and not necessarily straight away, but over time. Those wall cavities, even if not stuffed with insulation and whatnot, somehow manage to contain chunks of Gyprock, wads of dust, random screws and wood splinters. Install a speaker and its mechanical action is certain, over time, to shake loose that stuff and more, some of which can settle on the rear of the cone and in the basket of the speaker. The problem isn’t as severe in-wall as in-ceiling, but it’s there.

Worse, mount a speaker on the wall and who knows what your baffle will be made of. Gyprock most likely. A driver that works well mounted on a good MDF baffle will likely sound very different
on a baffle consisting of two sheets of cardboard with some plaster between them.

Krix has dealt with both of those problems by providing these speakers as complete units with their own enclosures (the back of the box is shown here). The enclosures are usefully shallow, requiring only 79mm of depth from the front of the panels on which they’re installed. Their bass reflex ports fire out into the room.

And perhaps even more importantly, they have a known performance because the parameters of the enclosure are known. Whereas open-back speakers could find themselves in practice located in anything from a tiny acoustic suspension enclosure, or with a massively underdamped space behind them.

The hardest part of installation is likely to be running cable through your walls. Otherwise it’s just a matter of using the supplied template to mark and then cut a rectangle the correct size (120mm wide, 555mm tall), pulling the cable through and connecting to the terminals, placing the speaker in the hole and then tightening the eight self-locking screws on each. (If you undo the screws, the locking arms swing back behind the speaker enclosure allowing it to be removed). The heavily sprung speaker connections are gold-plated and can take much thicker cable than you’re likely to see in most wall cavities.

The white metal grille is held over each of the speakers by 18 small magnets. These project out and can take much thicker cable than you’re likely to see in most wall cavities.

PERFORMANCE

These speakers are likely to be used in a system with a subwoofer, but we started our listening with them wired up to Yamaha’s current top-end AV receiver purely in stereo mode, as front speakers. (We could see them performing good service as surrounds and surround rears as well, but we only had two for review.) We had them strapped them up as closely as possible to the wall on either side of our display, and would note that there’s a chance that actual wall insertion could add a touch more bass due to boundary effects.

But as it turned out, the upper bass and a goodly portion of the mid-bass was delivered remarkably well, despite the very limited internal volume of the enclosures. A song like Cake’s version of ‘I Will Survive’ draws much of its power from the unusual bass guitar line employed, and while missing the fundamental frequencies of this in the lower reaches, its musical integrity was maintained.

Likewise with tracks from ‘The Hidden Land’ by Béla Fleck and the Flecktones. The driving bass line in ‘Weed Whacker’ lacked the real authority that an extra octave of bass extension would have granted, but it was nonetheless a real presence, making a real musical contribution. Meanwhile the banjo and other instruments were delivered with a control and tonal balance reminiscent of the better English loudspeakers: restrained yet fully revealing of the content and always highly musical. There was also rather more of the kick drum that we had expected.

We tried some solo piano — Scarlatti’s K.420 Sonata in C Major, rendered in DSD64 format — and this demonstrated a very even frequency performance over most of the piano keyboard, and a clear coherence in the strike of the hammers upon the strings.

We weren’t expecting much in the way of imaging, given the closeness of the rear wall, but the speakers proved happily happy at generating a large soundstage with a moderate amount of depth and a width greater than that of the speakers themselves.

We like to give fairly precise figures on the kind of bottom-end performance you can expect from pair of smallish standalone speakers because that can help guide you with regard to what kind of subwoofer would be suitable, or even whether you need one at all. So we measured these speakers up close to kill room effects, with the microphone positioned midway between one of the bass/midrange drivers and the closest port. This explained a lot about what we’d noticed with the musical performance, that upper bass was very well balanced and with quite good mid-bass.

Indeed, we were pleased to note that the output was dead even down to 95Hz, with a small tapering off to be down by 6dB at 60Hz. Below that the output fell away rapidly, suggesting that the bass reflex enclosure had been tuned to just a little above 60Hz. On our test the output at 55Hz was down by a dozen decibels and at 40Hz by 27dB.

We’d suggest if you’re using a subwoofer a standard THX-recommended 80Hz crossover would be a good choice.

Indeed, we decided to do just that and set our AV receiver to send the bass below 80Hz to our subwoofer, and revisited a number of the tracks.

The effects were two-fold. First, the bass was obviously fuller, and with that solid deep foundation the fine sonic qualities of the speakers were even more evident. But they also seemed to be able to lift their game with a slightly cleaner midrange, more revealing of the dynamics of the music, we suspect due to them being relieved of the duty of the deep bass which they were less capable of delivering.

CONCLUSION

With the Symmetrix speaker Krix has come up with a high-quality and highly practical solution to the problem of proliferating home theatre loudspeaker locations. If you have the wall positions available (and of course own the house yourself), then seriously consider these speakers as a means to combining aesthetic neatness with high-quality sonic delivery.

---

Krix Symmetrix
in-wall speakers

- High quality sound, especially with subwoofer
- Highly practical design
- Good value
- Nothing at all against

Price: $695 each

Drivers: 1 x 26mm dual concentric dia-
phragm tweeter, 2 x 100mm bass/midrange
Frequency response: 55Hz-40,000Hz (in-room)
Impedance: 6 ohms, min. 3.5 ohms
Sensitivity: 90dB (2.82V/1m)
Power handling: 20-140 watts
recommended amplifier power
Cabinet: Bass reflex (front port)
Dimensions (hwd): 596 x 211 x 79mm
Weight (each): 4kg
Warranty: Limited lifetime

Contact: Krix
Telephone: 08 9384 3433
Web: www.krix.com.au