

PAUL MAC finds that sometimes it's best not to over-analyse. With the Phazer, for instance, it's best just to listen.

Oddly, for such an unassuming metal box, the Radial Phazer is one of the more interesting reviews I've done. My expectations before using the unit were based on thinking way too hard about the idea of phase adjustment, not having tried a phase adjustment tool before. The Radial Phazer, at the time of writing, is one of three phase adjusters on the market – the Little Labs IBP hardware and plug-in versions are the others.

I did have a long explanation of phase adjustment prepared that evolved while I was waiting to do the review, but that now all seems a little superfluous. If you're not sure what's going on, just consider that within a complex waveform frequencies can be shifted, phase-wise, and not necessarily together. This is not a time delay. Put two signals (two microphones or direct and miked signals) from the same source on two channels and muck about with the phase on one of them. The interaction between the two can be seen as fixing their correlations, minimising comb filtering, or just, well, mucking about with them. If you're really interested, you can see the phase response graphs on the Radial website.

The Phazer has jack and XLR line level I/O, a phase adjustment section with Shift knob,



bypass button, phase flip (180 degree); a low-pass filter section with bypass, cut-off frequency knob, and range switch; plus ground lift (pin 1/sleeve disconnect), and power switch. The box is heavy duty – built for the stage as well as the studio – with a large non-slip pad on the bottom.

The phase response of the unit is not linear with frequency, so the 0-180° labelling on the Shift control is a little misleading, but when you actually plug the thing in, this seems a bit picky.

In Use

The main review fodder was a simple acoustic guitar and a variety of microphones. I didn't expect to be working through my microphone collection when I began, but when you discover a small, metal revelation you can't help it. So, following the manual's advice I started with a couple of well matched large diaphragm condensers – one tight in to the guitar, and one a little further away. I used a small analogue mixer and inserted the Phazer on the channel of the closest microphone. Both channels were panned to the centre with everything else set to match. After that, it's a case of fiddling with the Phazer. And it is 'fiddling'. While each mic set up and position had its own interaction with the phase control, each situation required a small amount of exploration to work out what was happening where.

Even before I got going with all the variables in the set up, a little tweaking of the main phase control soon revealed one of the most naturally bright, open, and presence-full sounds I've ever got from that guitar. And it wasn't as if I had to do much to find it – I didn't have to move the mics, I didn't have to switch in any EQ, and I had no dynamics inserted. A muddy-sounding beast came to life. Right there, the Phazer earned its price. I now had two faders with which to refine the sound, and better than that, the two channels were complicit in the act – tuned to each other, if you like.

Once you start fiddling with the Shift knob and the two independent channel levels, it becomes clear just how important that bypass switch is. The changes the Phazer brings in can be quite drastic, and it's important to constantly refer backwards without having to move the phase control. As implied by the way the phase response curves change band emphasis though a control sweep,

you will generally find a proportion of the control's arc that is particularly suited to the situation. It's also straightforward to find 'break points' where something obviously new is happening.

Once hooked, you'll want to explore the Phazer's effects in all sorts of set-ups. I tried varying the distance between the microphones, switching polar patterns, and switching microphones. At one stage the close mic was a pencil-type condenser pointed at the guitar bridge with a bigger mic further back. On its own, the pencil was detailed, but 'hollow', while the other was almost the opposite. I'm not sure if it's fate, but as is so often the case, without the Phazer the two combined mics pretty much summed up the worst of both worlds. With a little tweaking the Phazer turned this on its head. In this case I found I had to be much more critical in listening – the break points weren't so well defined, and it was easy to end up in a strange world of 'not quite right, but not sure why'.

The box even did some good work when I placed the mics at two positions along the length of the guitar, rather than at two different distances from it. Again though, you have to re-calibrate your expectations of what the phase control actually does.

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Phase Adjustment Tool

A few words must go to the other controls on the box. First, the 180-degree button is really just an extension of the phase control range. I used it a couple of times to find a break point that wasn't apparent in the lower range. The low pass filter is an interesting addition – especially as it would bring in its own phase response. In practice though, I used it once in earnest in order to tone down some 'zing'. I think this control would probably come into its own on bass, kick, or anything that could officially withstand a low-pass.

Conclusion

I honestly didn't think I'd have a whole lot to say about the Phazer when I started this review. But now – different microphones, different arrangements, different instruments (can't wait to try drums), different polar patterns, direct and mic combinations, and on and on. But isn't that the point? Just when you thought you knew your mic collection and had worked everything out, something like the Phazer comes along to tell you that just isn't so.

I also admit to pursuing the idea that 'every tweak must have a predictable effect' a little too far. I tried more metering than should be legal, to see if I could find method. In the end I had to concede that the Phazer is simply a little box that can make a big difference to your sound. It's an effect, an EQ, a correction tool, and more besides; but the most important concept is that it works on two channels by working on one... Because phase is relative... Sort of. Anyway, you should get one. **FM**

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THE REVIEWER

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