



Pedal Powered

As backline style continues to change we look at two new – and very different – ways to amplify your digital modeller. The revolution is here...

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LINE 6 POWERCAB 112 PLUS & HEADRUSH FRFR-112 £799 & £299

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What You Need To Know

1

What is FRFR?

It's generally taken to mean 'Full Range, Flat Response'. These days, it's usually applied to powered monitors used to reproduce the sound of amp and effects modelling devices. Conventional guitar amps and speakers deliberately colour the input signal, which is the last thing you want if you've spent ages creating your favourite sound in the digital domain.

2

We know Line 6, but HeadRush?

A relatively new player to the market, HeadRush is part of the inMusic group of brands, which also includes Alesis, Akai and Alto. The HeadRush Pedalboard has proved a runaway success, with arguably the best user interface of any modelling floorboard, and sounds powered by the Eleven HD DSP software.

3

So, who would buy one of these?

Any guitarist who owns a modelling preamp and wants to reproduce its sounds cleanly on stage, without the need for in-ear monitoring. The Powercab 112 Plus is a more specialist product aimed at owners of Line 6's Helix, while the HeadRush FRFR can work with just about any preamp, in any size of venue.



During the last decade or so, digital amplification and effects modelling has properly come of age, with software and hardware capable of producing convincing amp-like sounds that are hard to separate from the real thing. There's also been a significant advance at the guitar end of the signal chain, with products such as Line 6's Variax capable of sounding like a multitude of instruments in any tuning you like, all at the touch of

a button. At the other end of the chain, we've seen the development of IR (impulse response) technology, to mimic the dynamics of different speaker cabinets and microphone arrangements.

While many companies package their digital products in conventional-looking plywood boxes with speakers, the professional end of the market is tending towards all-in-one rack or floorboard controllers, such as Line 6's Helix or the HeadRush Pedalboard, which are portable and output directly to a PA without the need for microphones. This is an ideal setup for the modern 'quiet stage' approach, where performers use in-ear monitoring, but for more conventional live use some kind of local monitoring is needed, ideally something that won't colour your carefully constructed amp sounds.

One abbreviation doing the rounds at the moment is 'FRFR', which stands for 'Full Range, Flat Response'. In simpler terms, this means a powered PA-style monitor, so you can plug your amp modeller into a PA but still have a volume knob you can turn up when you need to – after all, we are guitarists! There's always more than one pathway to tone where amp modelling is concerned, and this month we're looking at two very different approaches: the new Powercab 112 Plus from market leaders



The Powercab Plus's clean, modern design is also very functional, with rounded rear corners and a front port to reduce internal reflections and improve bass response and projection



1. The ring around the Edit knob can be programmed to light up in different colours, so you can see at a glance which preset is in use

2. USB connects the Powercab to a PC for editing with the software app. You can also record and play back sound through it

3. The Powercab Plus has AES/EBU/Line 6 Link digital inputs and outputs, which mean the sound can stay in the digital domain right up until it hits the loudspeaker, for maximum clarity and zero latency



250 watts peak. According to Line 6, this will deliver 125dB SPL at 1m, which is more than loud enough for the average gig. The Powercab Plus's digital features include speaker modelling, using newly developed Line 6 technology to reproduce the characteristics of six popular loudspeakers, including Celestion's Vintage 30, Alnico Blue, Greenback and Creamback alongside Jensen's P12Q and Eminence's 'Swamp Thang'. There's also a HF defeat, which turns off the compression driver for a more traditional guitar speaker response, and a Flat setting that takes out the modelling and IR responses, turning the Powercab Plus into a full range PA-style monitor.

HeadRush's FRFR looks more like a conventional modern PA speaker,



with separate 12-inch and horn-loaded compression drivers in a practically indestructible polypropylene wedge casing that can sit on the floor or be pole-mounted. On the rear panel there's a pair of inputs on combi XLR/jack sockets with separate volume controls, and a single XLR output for connection to a PA or another FRFR, with ground lift and EQ contour switches. Basic fare maybe, but everything you need to amplify your cabinet and speaker models is here. Most importantly, inside the enclosure there's a chunky power amp capable of producing a whopping 2,000 watts at peak or around 1,000 watts continuous. Whichever rating you choose, that's ample power for any venue, with headroom to carry over every nuance of

Line 6 and the FRFR-112 from relative newcomers HeadRush.

Now teamed with industry-giant Yamaha, at first glance Line 6's Powercab Plus looks like a conventional boutique guitar combo, with a smart grille cloth and distinctive cabinetry featuring a one-piece plywood back and sides. There are also generously curved rear corners and recessed kick-back feet. A small top-facing control panel features two knobs, two buttons and a slim LCD display. The rear panel gives the game away that the Powercab Plus is anything but conventional, with a comprehensive range of connectors including main and aux inputs on combi jack/XLR sockets, digital AES/L6 Link in/outs, a balanced XLR main output with a ground lift and low cut, MIDI in and out/thru and a USB connector.

Behind the grille cloth, there's a unique dual-concentric 12-inch loudspeaker and HF driver in a front-ported enclosure, driven by a power amp producing up to

Line 6's Powercab Plus scores well on the tone front, with an authentic 'real amp' sound



4. As well as sitting the FRFR on the floor, you can pole-mount the HeadRush, just like a conventional PA speaker

5. The FRFR chassis has a built-in grab handle for easy carrying



your sound. Both speakers weigh about the same and are quite portable; the FRFR is taller and narrower with an integral grip on the top rear, while the Powercab Plus's more conventional shape makes it a little easier to carry single-handed.

Sounds

Both monitors power up cleanly and smoothly; we tried them out with an entry-level amp modelling pedal and a higher-grade rack unit, also borrowing a Helix Floor to check out the Powercab Plus's digital and MIDI integration.

Sonically, the HeadRush and Line 6 are both quality performers. There's a big difference in power and this was immediately noticeable, with the massive headroom of the HeadRush FRFR making itself felt as well as heard. While the 2,000-watt figure is qualified as a peak measurement, this still works out at around 1,000 watts continuous, which is respectably loud by any standard, with no less than 128 dB SPL. With immense power comes great clarity and the HeadRush is perfect for music that demands precise definition, like metal, or anything that uses detuned instruments. The only downside to this level of power is that any mistake you make is reproduced with the same stunning clarity. So if you're prone to sloppiness, then

be prepared to polish your chops if you want to get the most from the HeadRush's huge headroom.

While not as powerful, the Powercab Plus scores well on the tone front, with a more authentic 'real amp' sound compared with the HeadRush FRFR, which comes over more like a high-quality recorded track. The Powercab Plus still puts out 125dB peak SPL, which is loud enough for small to medium gigs and, of course, there's a balanced output to hook it up to whatever PA is in use. Another cool feature of the Powercab is that the dual concentric driver arrangement means you can mic it like a regular guitar speaker and hear the HF and LF content from one source. The speaker models are very impressive, particularly the Vintage 30 and Alnico Blue programs, both of which sound spine-chillingly authentic compared to the real thing. The Creamback and Greenback models are ideal for putting the final polish of authenticity on vintage

The massive headroom of the HeadRush FRFR makes itself felt as well as heard

Marshall-type tones, while the Eminence Swamp Thang patch mixed with a rude tweed champ model is instant *Tres Hombres* ZZ Top.

The Powercab Plus functions on a number of different levels when combined with a Line 6 Helix. You can choose to set it to 'Flat' and use the Helix's amp/cab modelling, or turn off that part of the Helix and use the Powercab to generate speaker, cabinet and mic placement effects, together with your choice of impulse response. The Line 6 Link ins and outs let the whole operation take place in the digital domain with zero latency.

While the presets and other digital features of the Powercab Plus worked perfectly with other MIDI-compatible sources, it's clear Helix users will enjoy Powercab's full potential. There is a lower spec'd version of the Powercab that retains the speaker models but does away with almost everything else. This will work just fine with any other modelling source, although we wish Line 6 had left MIDI in.

Onboard programming is quite straightforward, with one knob for selecting and editing parameters and 'home' and 'save' push-button switches. The other knob is a non-programmable volume control. The edit knob has a useful LED-illuminated ring that can be



programmed to shine in different colours, to let you know which speaker model is in use. The Powercab Plus can also be edited from a computer using Line 6's Powercab Edit software, which allows loading of up to 128 user IR files (although you may find all you need with the default Line 6 Allure pack that comes pre-loaded). This is a cool feature for Helix users, because it lets you offload some of the Helix's processing power, making space for other things.

Verdict

So, two different solutions for the same problem. The HeadRush is a great choice for bigger stages and all kinds of modellers, including HeadRush's own. It's particularly good for metal, thrash and modern rock and also relatively inexpensive, so you get a lot for your cash. No speaker simulation means you're relying on the built-in cab and mic sims of your modeller, but that's what most of us do anyway.

Helix users owe it to themselves to see what a Powercab Plus can do – it's the accessory many have been asking for and much more besides. While it costs a lot more, it's worth it – if you're a Helix owner. Non-Helix players would do well to check out the standard Powercab. Either way, powered cabs like these give you back your volume knob, so turn it up! **G**

6. The HeadRush has two separate inputs, each with individual volume controls

7. Always a good thing to have on this kind of monitor, the ground lift is sometimes needed to stop excessive hum caused by ground loops between pedal and amp. The contour switch adds a 3dB lift to highs and lows, improving the tone at lower volume



LINE 6 POWERCAB 112 PLUS

PRICE: £799

ORIGIN: Designed in USA, made in China

TYPE: Powered monitor with built-in speaker emulation

SPEAKERS: 1x custom-design co-axial 12"

MAX OUTPUT: 250W peak

INPUTS: 2x XLR/Jack combi, 1x Line 6 link/AES digital

OUTPUTS: 1x XLR, 1x Line 6 Link/AES digital

FREQUENCY RESPONSE:

70Hz-20kHz

DIMENSIONS: 567 (w) x 462 (h) x 305mm (d)

WEIGHT (kg/lb): 16/35

CABINET: Plywood

CONTROLS: Volume, edit/select, save, home

ADDITIONAL FEATURES:

Loudspeaker modelling (6 models), 128 presets, impulse response support, USB audio in/out, MIDI in/out/thru, editing via Line 6

Powercab software, retractable kickback stands, ground lift and bass cut switches

OPTIONS: None

RANGE OPTIONS: The standard Powercab 112 does away with presets, MIDI, USB digital in/out and IR, but retains basic speaker modelling, for £622

8/10

PROS Top-quality sound from the custom coaxial driver, brilliant onboard speaker modelling; a perfect partner for the Helix

CONS It's expensive, though there is a stripped-down version that retains the speaker modelling



HEADRUSH FRFR-112 POWERED MONITOR

PRICE: £299

ORIGIN: Designed in USA, made in China

TYPE: Powered monitor

SPEAKERS: 1x 12" LF, 1x 1.4" HF

MAX OUTPUT: 2,000W peak

INPUTS: 2x XLR/Jack combi

OUTPUTS: 1x XLR

FREQUENCY RESPONSE:

50Hz-20kHz

DIMENSIONS: 605 (w) x 354 (h) x 350mm (d)

WEIGHT (kg/lb): 16/35

CABINET: Polypropylene

CONTROLS: 2x volume, contour switch (3dB low/hi boost), ground lift

ADDITIONAL FEATURES: Can be pole mounted

OPTIONS: None

RANGE OPTIONS: None

7/10

PROS Massive power, headroom and clarity at a very affordable price point

CONS The cabinet isn't so portable because of its shape, but there's not much else to fault at the price