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Primare R35
Flagship phono stage is an analogue triumph

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Primare R35

Primare’s ‘Prisma push’ may have focused resources into network-enabling its amplifiers and CD players, but its new flagship phono pre proves its love of vinyl has not waned.

Review: Adam Smith & Lab: Paul Miller

Even the most ardent vinyl enthusiasts will admit that they can get bamboozled by the whole process of cartridge loading and gain matching. Some MM’s and MC’s can be quite particular about the load resistance and capacitance that they ‘see’, just as most phono stages will have a ‘sweet spot’ gain setting that varies from pick-up to pick-up. So there’s a great deal to be said for a flexible phono stage that offers numerous adjustments. On the other hand I can appreciate the popularity of designs where the complexity extends to nothing more than an MMC switch!

The new phono preamps offered by Sweden’s Primare look to be both flexible without being daunting – the £995 R15 model has 18 gain and loading steps across its MM and MC inputs, while the £1350 R35 model has no fewer than 29. This is a vast increase on its predecessor, the R22 [HFN Jan ’12], which only offered seven impedance settings and three gain options.

Clearly, although Primare is making waves with its Prisma network player technology [HFN Dec ’19], it is still taking the LP very seriously, which is good to see.

TOGGLE BEHAVIOUR

As a result, the R35 should be able to wrestle the optimum performance from any cartridge you care to use, even some of the oddball designs with absurdly low outputs or peculiar loading requirements.

The R35 is presented in a beautifully styled and finished enclosure weighing in at an impressive 9.5kg and available in titanium or black. The front panel is blank apart from the Primare logo, the centre of which doubles as an on/off switch and also contains an operation LED. The unit reverts to standby after 20 minutes of no input signal being detected, but this function can be defeated if required.

DIGIT: Entirely discrete (FET based) active MC headamp (top right) is relay-switched into the op-amp based RIAA eq stage (below top right) and balanced preamp output (centre). Linear PSU (left) has multiple, regulated supplies.

At the rear, the unit has unbalanced inputs and outputs on RCA’s, plus a set of balanced XLR outputs. A row of toggle switches selects MC or MC operation, a subsonic filter and the gain of the preamp circuitry. Three switch positions give the options of +36, +40 and +44dB through the unbalanced outputs, plus +42, +46 and +50dB from the balanced XLRs, for MM.

The corresponding figures for MC are +62, +66 and +70dB (unbalanced) and +68, +72 and +76dB (balanced), all of which are pretty accurate in practice [see FM’s Lab Report, p57, and boxout, p55].

If you are wondering where the input loading is adjusted then look behind the screw-on blanking panels beside each input socket [see p57]. Removing the thumbscrews reveals the adjustments as a row of tiny DIP switches. I have a loathing for these inferior devices as they are a fiddly to use and, when mounted on the rear of a unit as per the R35, completely defeat the object of being able to turn down the volume, make a quick adjustment, turn back up and listen. They are also only labelled with switch numbers, so you need the manual to hand when making changes. The R35 would be more user-friendly if the old R32’s rotary controls had been retained, but moved to the front panel along with a handy muting switch.

IMPEDANCE VALUES

The two rows of ten switches are split between MM and MC sections. The numbers 1 to 6 adjust MC impedance, with 21 settings over the 100ohm-47kohm range, while number 7 sets the MM load capacitance to 100pF or 1nF. Switch 8 sets the MM impedance to 47kohm or 2.5kohm and 9/10 select capacitances of 100, 200, 300 or 400pF. These are generally well chosen, although I cannot ever recall encountering an MM cartridge that requires 2.5kohm loading. This might suit a high-output MC if none of the closely-spaced MC impedance options and/or higher gain of the MC input are suitable. The R35 comes with a 3.5mm jack lead that can be used to connect it to other Primare equipment for external power on/off triggering. Also in the box was something called an ‘AC Polarity Pen’ that Primare recommends you use on your choice of IEC mains input cable to confirm which lead is live.

This is a popular accessory in some European markets, and particularly among German audiophiles. Anyway, Primare suggests reversing the leads if it shows the polarity is wrong, as it says that this can ‘make a significant difference to the sound’.

REAL WALLOW

Eager to audition the R35 in my resident system of Michell Gyrodec S2/M3E 309 turntable, plus Naim Supernat 2 amplifier [HFN Nov ’13] and PMC Twenty5.24 loudspeakers [HFN May ’17], I selected from among my cartridges the Ortofon 2M Black MM [HFN Mar ’11], plus Clearaudio MC Essence [HFN Aug ’11] and Denon DL-103 (HFN Jul ’09) MC.

I kicked off with the Ortofon 2M Black, setting the R35 to its +44dB gain and standard 47kohm loading – a ‘plain vanilla’ set-up that immediately illustrated the delightfully smooth and inherently neutral performance offered up by this phono preamp. There was no sense of it showboating or boosting any particular part of the musical spectrum, and neither did I feel compelled to change either the gain or loading away from my initial and very standard settings.

Above: The elegant Scandinavian styling is unmistakable. Touch the Primare logo – machined into the black alloy fascia – and the R35 switches out of standby. A titanium finish is also offered by way of alternative.

Instead, the pleasing even-handedness of the R35 lets the inherent character of the cartridge – where there is one – shine through. In the case of the 2M Black, this meant a presentation that was poised, clean and beautifully detailed. And I was also delighted by the punch, heft and insight the R35 offered at the low-end. Kick drums had real wallop behind them and bass guitar lines bounded along with gusto.

These two aspects combined very effectively on The Art Company’s 12in single of their joyous pop hit “Susanna” [Epic TC 4174]. Sure enough, I was a little concerned at the stridency of the vocals on occasion but, by way of upside, the R35 certainly projected these voices with confidence into the listening space.

The R35’s treble typically imparts an appealing glossy sheen to performances. Treble detail is, as mentioned, excellent, and percussion instruments generally have just the right amount of metallic shimmer to their sound. Equally, firmly distinguished are the cymbals, establishing a clear focus and dynamic authority that I could employ to good effect. Finally, the R35’s treble is sufficiently coherent to enable me to distinguish the real from the processed.

PRICE BUSTER

By way of example, the electronic percussion at the beginning of ‘The War On Drugs’ Under The Pressure from their Lost In The Dream LP [Secretly Canadian SC30] sounded in complete contrast to the real hi-hats used in the main body of the track.

That said, while the Primare R35 never sounds less than smooth and unfustered, the busiest and brightest of recordings can appear just a little sanitised, as if details and dynamics large and small are bundled, so to speak, into a neatly digestible package. So while the R35 never sounds –

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Phono stages often trade versatility for ease-of-use, obliging users to fiddle with DIP switches to select between the various options. Fortunately, the DIP switches here cater only for input loading/capacitance, so once set for MM and MC they can be shut away behind their little blanking plates. MM/MC and their respective gain options are selected via toggles, with relay muting inside the R35, so changes may be executed swiftly and without speaker-busting pops. Primare claims +42dB, +46dB and +50dB gain for its MM input and +68dB, +72dB and +76dB for MC, values that are closely matched on test at +42.1dB, +46.1dB and +50.2dB for MM and +68.5dB, +72.3dB and +76.5dB, respectively, for MC (all single-ended in/balanced out).

In practice, the lowest MM gain offers a 7.85mV sensitivity (good for high output MMs) with the highest MC gain equal to 0.15mV (149µV – and with a 10ohm load option, ideal for the lowest output MCs). With a huge maximum output of 22V, the R35 carries enough headroom to maintain a +27dB input overload margin with every input setting. The limits of 176mV, 115mV and 73mV (MM) and 8.9mV, 5.6mV and 3.3mV (MC), respectively, are sufficient to accommodate the “hottest” +18dB groove modulations (re. 1.12µm/300Hz). See boxout, p55.

The RIAA equalisation is also very flat and extended out to 100kHz. Its subsonic filter amounting to –0.5dB/20Hz and –6dB/9Hz [see Graph 1]. If you have reflex-loaded speakers then the sub filter should be engaged. Otherwise, the RIAA- eq’d distortion [Graph 2] is very low, with a max. of just 0.0035% and a min. of 0.00035% (20Hz-20kHz). Noise is low too, and the A-wtd S/N ratios impressive at 85dB (all MM gain settings) and 77dB (all MC gain settings). All versatile, textbook stuff! PM

### HI-FI NEWS VERDICT

Although the Primare R35 may appear to have a daunting array of cartridge matching options, and its physical layout is not exactly user-friendly, it is well worth persevering with. In practice, it is an incredibly flexible and capable phono stage that seemingly has the ability to extract the very best from any cartridge that crosses its path. A rare feat at any price, this only further pumps up the R35’s value.

**Sound Quality**: 85%

<table>
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<th>Score</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
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**LAB REPORT**

### PRIMARE R35

**ABOVE**: Single phono inputs [far left] are switched between MM/MC by a toggle, alongside other toggles for gain and subsonic filtering. Input loading DIP switches are hidden behind small panels [inset]. RIAA eq’d outputs are offered on RCAs and balanced XLRs.

might have been evident with the high value MM quickly disappeared using the MC input and, in this instance, the more capable pick-up. Midrange detail, image focus and solidity all took a step forward, the cartridge ‘upgrade’ being rewarded rather than smothered by the R35.

So how about the venerable Denon DL103 moving-coil – the stalwart of many a vinyl-spinner’s system in years past? Setting the load impedance using the old adage of ‘10x the cartridge impedance’ worked a treat here. In theory, the DL103 works best into around 400ohm, thanks to its relatively high 40ohm generator impedance and, in my experience, can sound a little flat and dull into the ‘standard’ 100ohm loading that most MC phono stages offer. Fortunately, with the loading dialled up to 400ohm the R35 confirmed the ‘10x rule’ as the DL103 came alive, sounding as punchy and gutsy as I have ever heard it. I suspect there’ll be few cartridges that Primare’s R35 cannot squeeze the very best from! *

### PRIMARE R35

<table>
<thead>
<tr>
<th>Input loading (MM/MC)</th>
<th>47kohm</th>
<th>100ohm–47kohm</th>
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</thead>
<tbody>
<tr>
<td>Input sensitivity (re. 0dBV)</td>
<td>7.85mV–149µV</td>
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<tr>
<td>Input overload (re. 1% THD)</td>
<td>176mV [115/73/8.9/5.6/3.3mV]</td>
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<tr>
<td>Max. output (re. 1% THD) / Impedance</td>
<td>22.0V / 80–93kohm</td>
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<tr>
<td>A-wtd S/N ratio (re. 0dBV)</td>
<td>85.0dB / 77.1dB (MM/MC)</td>
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<tr>
<td>Frequency resp. (20Hz-20kHz/100kHz)</td>
<td>–0.10dB to +0.12dB / +0.18dB</td>
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<tr>
<td>Distortion (20Hz-20kHz, re. 0dBV)</td>
<td>0.00035–0.0035% (MM)</td>
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<tr>
<td>Power consumption</td>
<td>12W (W standby)</td>
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<tr>
<td>Dimensions (WHD) / Weight</td>
<td>430x92x186mm / 9.5kg</td>
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