PHONO STAGE

MM/MC phono preamp Made by: Exposure Electronics, Lancing, UK Supplied by: Exposure Electronics Telephone: 01273 423877 Web: www.exposurehifi.com Price: £900 (+£220 per additional MC board)

Exposure 3010S2

Exposure has augmented its 3010S2 electronics range with a standalone phono stage offering MM and MC compatibility, plus a number of cartridge loading options Review: Adam Smith Lab: Paul Miller

ucked away in my bookcase is a mid-1980s book from the classic comedy duo of Griff Rhys Jones and (the late) Mel Smith, containing several spoof advertisements. One of these is for the 'Sansussi Module 2000': a fictional hi-fi component with a 'red light, seven knobs and a lever, that increases the size of your hi-fi stack with no discernible effect whatsoever'. This came to mind as I unpacked Exposure's new phono stage, the 3010S2, as it is clearly the polar opposite of this device!

Naturally, while the Exposure will also increase the height of your hi-fi stack, fortunately it *does* have an effect on the sound. At the same time, though, the front panel is definitely sparse. With the increasing popularity of computer audio, the add-on box of choice for binary endeavours is the DAC and, while there are one or two plainer models around, generally the digital audiophile can expect a handful of status and samplingrate lights at the very least, with possibly a display thrown in for good measure.

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IT'S THE INNARDS THAT COUNT

By contrast, the unadorned box is the norm here, with more feature-laden units definitely in the minority. Still, to quote a more modern comedy duo, The Mighty Boosh 'It's what's inside that counts'. And Exposure's name on the outside means that the internals are highly likely to be well up to scratch – the company knows a thing or two when it comes to amplification: dating back to 1974 it has a deservedly strong reputation here.

Although Exposure is one manufacturer that has never turned its back on the LP, always offering high quality optional phono boards for its integrated amplifiers, the 3010S2 phono stage fills a gap that has existed since the demise of the '26' a few years ago.

RIGHT: Inside the 3010S2 phono preamp is an over-sized linear power supply with separate L/R rectification and regulation. This PSU would not look out of place in an integrated amplifier

Matching the same stylish but simple casework as its power amplifier brethren, the new phono stage has nothing more than a power switch and LED on its front panel, with input, output and mains power sockets on the rear, plus an earthing post. The inside tells a different story, as

this is most certainly not an item that one opens up only to find one tiny circuit-board and lots of fresh air. On the left is a sizeable mains transformer that would not disgrace a power amp, and most of the case is occupied by a large PCB [see below]. To the left of this board is the power supply circuitry, boasting 40,000µF of smoothing capacitance per channel and voltage regulation through discrete power transistors. To the right there's a piggy-back PCB that is replaceable to configure the 3010S2 either for moving-magnet or moving-coil operation. The purchase price includes one of these two options, and the extra PCB can be added as required at £220.

Changing between PCBs is achieved by simply removing the unit's lid, undoing three screws, lifting the resident board off its mating connectors and substituting the alternative. Both PCBs have gain and loading options available, with the MM board configurable for 2.5mV or 5mV input sensitivity, and the MC offering the choice between 250µV and 500µV. In terms of cartridge loading, the MC board gives the user the choice of seven resistance settings between 100 and 470ohm. There is less opportunity for tweaking with the MM board however as the only alternative available here is the presence, or lack, of 220pF of load capacitance. The default setting is for this to be in-circuit, which should be fine for all but the highest capacitance arm cables.

D HEAR-THROUGH CLARITY

After allowing the Exposure a good few days to warm up, I connected it to my Michell Gyro SE turntable with Audio





Note Arm Two/II arm, using an Ortofon 2M Black MM cartridge, plus Ortofon Kontrapunkt B and Audio-Technica AT-OC9MLII MCs.

Put simply: the 3010S2 does not have a tonal balance that leaps out at you on first listening. There is no treble lift, no thundering bass and no discernable distortion artefacts to impart a particular character on the sound.

Any of these might make the unit stand out in a comparative audition and the consequent lack of them might even leave the conclusion that it is a tad 'dull'. However, once the initial appeal of a design that *does* display one or more of those inaccuracies has worn off, one is left with something that fails to satisfy, and this is most certainly not something that can be said of the Exposure.

Rather than leap out and slap you around the face with its abilities, the 3010S2 is an altogether more subtle performer and its pleasing accuracy and sense of hear-through clarity are things that gently sneak up on you over a period of time. Once familiar, however, and it becomes clear that this is a design that is eminently capable, with, above all, a neutrality that is quite unusual at such an affordable level. I have

DEALING CARDS

The design of the 3010S2's plug-in MM/MC cards was inspired by the phono stage from Exposure's flagship MCX preamplifier. Surfacemount parts are used throughout the 3010S2's cards but Exposure insists on manual insertion of any key close-tolerance components that are directly in the signal path. The RIAA circuit itself is partpassive and part-active, with the passive 75µs section between the input head amp stage and the active EQ stage. The basic difference between the MC and MM cards lies in the gain and loading of this input head amp – the extra gain required for MC pick-ups achieved using six parallel PNP transistors per side of its differential input. Exposure specifies very low-noise dual-transistors for this purpose. There is also separate on-board regulation for both channels plus additional regulation on the main PCB [see picture, p58]. PM

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encountered several designs bearing much higher price tags that offer more coloured, if not unpleasant, perspectives.

SPACE AND ATMOSPHERE

With a test favourite in the form of the title track from The Eagles' 2007 doublealbum *Long Road Out Of Eden* [Universal 060251749243 1] cued up and the MM board in place, I was impressed by the way in which the Exposure phono stage offered just the

right amount of space and atmosphere around the instruments, but without giving an overblown sense or unrealistic perspective to proceedings.

All the musicians were well defined within

the area around my loudspeakers; and the focus of the musical performance, as it moved from right to left in the soundstage, was easy to follow. The 3010S2 also imparted a delightful shimmer to the electronic piano at the start of the track, giving each note a fine measure of body and impact. With the growing feeling that the Exposure was more than capable in terms of soundstage positioning and **ABOVE:** Available in both black and silver, the extruded aluminium front panel sports a power switch and blue LED, but nothing else

definition, I moved to a favourite 1980s single by Cathy Dennis. The version of 'Too Many Walls' on the B-side of this 7in disc [Polydor 867236-7] makes a surprising encounter for the first time, offering as it does a well recorded version of the better-known

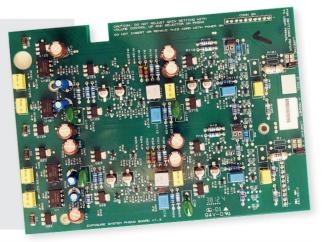
'Holst's *The Planets* powered into the room with real fervour'

song from the A-side but featuring the vocal augmented by more sparse instrumentation. With this under the

stylus, the backing piano was again vivid and beautifully

presented, but Cathy's part stood out due to the real emotion it offered, all the while given an impressively solid location in the centre of the image.

This sense of realism turned out to be one of the very best aspects of the Exposure's performance and it had no problem imparting this regardless of the kind of music. Whether asked to reveal the full grandeur of an orchestral event or the softer stylings of a more \bigcirc



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PHONO STAGE



ABOVE: The rear panel of the 3010S2 Phono Stage continues the theme of simplicity with only input and output connections, an earthing post and IEC mains inlet to be seen. Different PCBs are available for MM/MC matching

intimate and simple recording, the 3010S2's MM section rose to the challenge superbly, underpinning the action with a well-defined and taut bass performance where required. In absolute terms I felt that a little extra top-end sparkle would not have gone amiss but the Exposure never sounded closed-in or drab.

EXTRA INSIGHTS

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It was with this highly pleasing start in mind that I took out my screwdriver and swapped MM for MC board and 2M Black for Ortofon Kontrapunkt B, fervently hoping that the noted strengths would continue.

I need not have worried and, in fact, I was delighted by the first few bars of the Cathy Dennis track this time, as that small touch of extra sparkle and top-end crispness that I had been missing slightly with the moving-magnet pick-up suddenly appeared. Overall, the MC board has been as expertly voiced as its MM partner and the family aural resemblance between the two is plain to hear, but the moving-coil board neatly avoids the hint of languidness found with its MM brother - the result was one of the most open and detailed presentations I've heard for the price.

Even better, this sense of insight and clarity is not at the expense of any top end smoothness, and the 3010S2's treble is as creamy and delightful as one could hope for. Rather, it succeeds in letting the innate nature of the items feeding it through. A later swap to the Audio-Technica AT-OC9MLII cartridge, which is a brighter and crisper performer than the more even-handed Kontrapunkt B, could easily have led to sharpness if the previously noted MC clarity was just as a result of a lift in output at high frequency, for example. This turned out not to be the case, however, as the Audio-Technica's more ebullient and forward nature was easily distinguishable, but it came without any unpleasant side effects. The extra insight and sense of pace and vigour that are some of the most enjoyable aspects of this cartridge were clear to hear.

Before this swap, though, I took the opportunity to explore the Exposure's MC capabilities with the Ortofon further and found no material that caused it any difficulties. The crashing climaxes from Holst's *The Planets* [Boston SO/William Steinberg, DG 419 475-1] powered into the room with intensity and fervour but never swamping the innate tonal colour of the various instruments involved.

Equally, the Exposure absolutely lapped up the punchy bass line from the extended dance mix of the Pet Shop Boys' 'West End Girls' [Parlophone 12R6115] and proved itself to be more than capable of throwing a shape or two on the dance floor. (b)

HI-FI NEWS VERDICT

The Exposure 3010S2 is a pleasingly capable phono stage with an impressive sense of neutrality on both MM and MC configurations. It has the ability to let the true nature of the cartridge feeding it shine through, without resorting to any 'showroom trickery' and is happy with all kinds of music. Factor in the reasonable price and the fine build quality and you have a unit that richly deserves audition.

Sound Quality: 80%

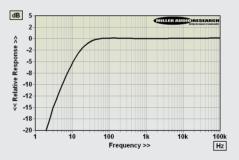
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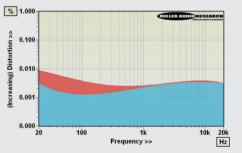
EXPOSURE 3010S2 PHONO

Bearing in mind that Exposure's 3010S2 phono preamp has a (linear) power supply substantial enough to service a small integrated amplifier, levels of hum and noise are still very low indeed. Residual noise is just -80dBV (MM) and -70dBV (MC) while the A-wtd S/N ratio(s) are 81.2dB (MM re. 5mV input) and 70.1dB (MC re. 500µV input). The precise gains of the MM and MC modules are not specified but amount to +41dB and +58.9dB respectively, the latter best suited to mid output rather than low output MCs. The input overload margins are generous enough, with 12.5mV via MC representing a headroom of +28dB over a default 500µV or +21dB over its nominal 1.13mV input sensitivity. The 10V single-ended output is more than capable of driving a power amplifier directly, if only the 3010S2 possessed a volume control!

Incidentally, the output impedance of the MM module is slightly higher than that of the MC card at 48ohm versus 15ohm, with both having a lower source impedance at lower frequencies. This is partly reflected in the high-pass filter built into both modules, yielding an identical response that's all but flat out to 100kHz (+0.15dB) but that rolls away below 40Hz to -1.5dB/20Hz and -5.1dB/10Hz, slightly steeper than Exposure's specification suggests [see Graph 1, below] but potentially useful for owners of reflex-loaded loudspeakers. Channel separation also deteriorates slightly at LF (64dB/20Hz from 87dB/1kHz) but this is still superior to any pick-up, as is the low distortion - 0.0012-0.0035% via MM and 0.0028-0.009% via MC [see Graph 2, below]. Readers may view QC Suite test reports for the MM and MC phono boards of Exposure's 3010S2 phono preamp by navigating to *www.hifinews.co.uk* and clicking on the red 'Download' button. **PM**



ABOVE: RIAA corrected frequency response over five decades from 1Hz-100kHz. MM and MC are identical



ABOVE: Distortion versus frequency from 20Hz-20kHz at 1V output (MM input, blue; MC input, red)

HI-FI NEWS SPECIFICATIONS

Input loading (MM / MC)	47kohm/220pF / 100-470ohm
Input sensitivity (re. OdBV, MM/MC)	8.93mV / 1.13mV
Input overload (re. 1% THD, MM/MC)	98mV / 12.5mV
Maximum output (re. 1% THD)	10V (48ohm/15ohm o/p imp)
A-wtd S/N ratio (re. 0dBV, MM/MC)	81.2dB / 70.1dB
Frequency response (20Hz-20kHz)	-1.5dB to +0.1dB
Dist. (20Hz-20kHz, 0dBV, MM/MC)	0.0012-0.0035%/0.0028-0.009%
Power consumption	9W
Dimensions (WHD)	440x90x300mm

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