



## Details

### LP to HD

NAD's PP-3 combines the award winning PP-2 MM/MC Phono Preamp with a high quality Analogue-to-Digital converter with USB interface. Utilizing VinylStudio™ Lite PC Software [CD included] copy your LPs directly to a PC as either .wav or .mp3 files. Once your analogue LPs are digitized, the music can be burned onto CD-Rs or transferred to portable music players. The PP-3 also includes the same analog outputs as the PP-2 for connection to an analogue stereo system.

### TECHNICALLY SPEAKING

The PP-3 phono preamp consists of a low noise discrete MC preamp followed by a low noise opamp-based RIAA MM stage incorporating a 12dB /octave infrasonic filter to attenuate turntable "rumble" noise. The output feeds the Line Output as well as the soft clipped input of an A/D converter with USB Output. This can be connected to any PC for recording from vinyl disc to PC hard drive.

### MC/MM PHONO STAGE

The moving coil preamp is a 4 transistor low distortion amplifier noise-optimised for the very low source impedance of moving coil cartridges. It uses ultra-low intrinsic base resistance transistors and operates two of them in parallel push-pull for a further 3dB lowering of input noise. Its input noise is typically 60nV, or 78dB below 0.5mV [RIAA and A weighted]. It has a gain of 15 times or 24dB bringing the lowest output MC cartridges up to MM level. The input impedance is 100 ohms in parallel with 180pF.

The Moving magnet preamp section uses a low noise low distortion opamp with RIAA equalisation and infrasonic filter in the feedback network. The gain at 1k is 35.2dB, or 287mV out for 5mV in with 23dB overload margin and the frequency response is accurate within +/- 0.3dB 50Hz-20kHz, +/- 1dB 20-50Hz. The infrasonic filter has -3dB point at 10Hz and is 14dB down at 5Hz. The input noise with IHF cartridge source is 0.75uV or 76dB S/N re 5mV [RIAA and A weighted as per IHF202.]

### DIGITAL STAGE

The output of the phono preamp is attenuated, further low pass filtered and fed to the input of the A/D converter. A Soft Clipping circuit is employed to prevent overdriving the A/D converter. The MM preamp has a 100dB dynamic range and the A/D converter 89dB allowing NAD to optimise the gain for best signal to noise and lowest distortion. The A/D converter has a sampling frequency of 48kHz for USB compatibility and a THD of only 0.01% at 100% FS.

### POWER SUPPLY

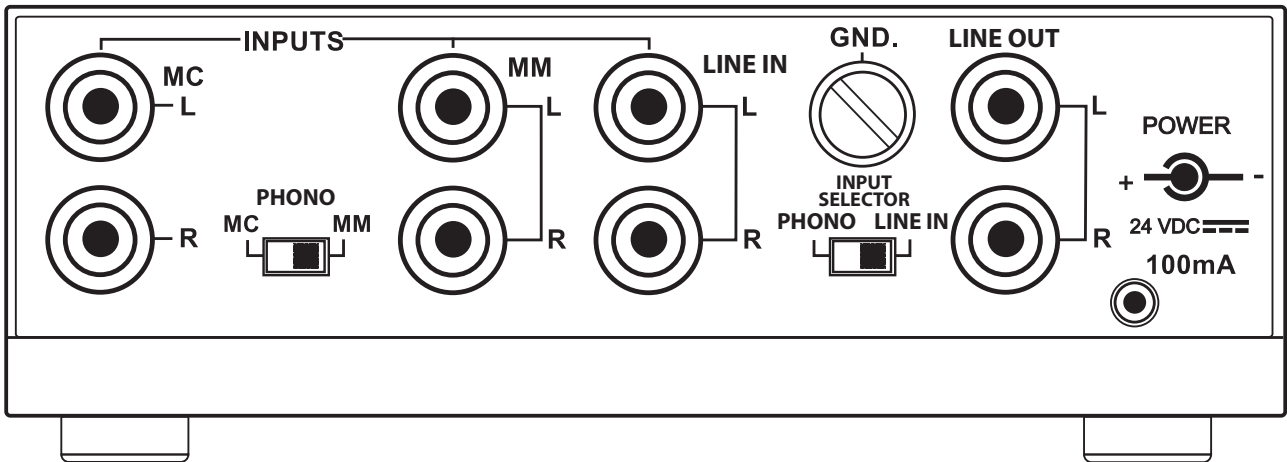
By increasing the power supply voltage from 15 volts to 24 volts, we have improved overload margins and enhanced musical dynamics. This supply delivers raw DC to the PP-3. Internal circuitry has a precision low

noise series current source /shunt regulator arrangement for low impedance and noise. The digital stage is fed by the 5V USB supply of the PC thus offering total isolation of the analogue and digital stages for clean low noise performance.

SUMMARY

This sophisticated and cost-effective component allows you to enjoy your vinyl LP collection through your normal stereo system, but also gives the option to record your LP's into

today's digital formats. The additional Line Input allows any other analogue source, be it FM radio, Tape, or the analogue output of your CD player, to be converted to the digital USB format. This also 'adds back' the input on your Amp or Receiver used up by the PP-3. This extra functionality makes the PP-3 an easy upgrade from the PP-2, while maintaining the PP-2's extraordinary performance and sound quality.



SPECIFICATIONS

	MM	MC
Input impedance	47kohms + 200pF	100ohms + 180pF
Gain at 1kHz	35dB	58dB
Input sensitivity (1kHz for 300mV output)	5mV	0.35mV
Signal to noise (A weighted, with cartridge connected)	76dB	78dB
(Un-weighted, with cartridge connected)	65dB	70dB
Input Overload (20Hz/1kHz/20kHz)	10/100/900mV	0.65/6.5/60mV
Rated distortion (THD 20Hz - 20kHz at 3V)	<0.03%	<0.03%
RIAA response accuracy	+/- 0.3dB	+/- 0.3dB
Infrasonic filter	-3dB (10Hz) -14dB (5Hz)	-3dB at 10Hz - 14dB at 5Hz
Digital Output (USB)	16 bit linear PCM	16 bit linear PCM
Sampling frequency	48kHz	48kHz
Dynamic Range	89dB	86dB
Net Dimensions (excl. Power supply) (W x H x D)	5 1/4 x 1 11/16 x 2 13/16" (146 x 43 x 71mm )	
Gross Dimensions (excl. Power supply) (W x H x D)	5 1/4 x 1 15/16 x 3" (146 x 49 x 76mm )	
Net Weight (includes power supply)	0.9lbs (0.4kg)	
Shipping Weight	1.7lbs (0.75kg)	

