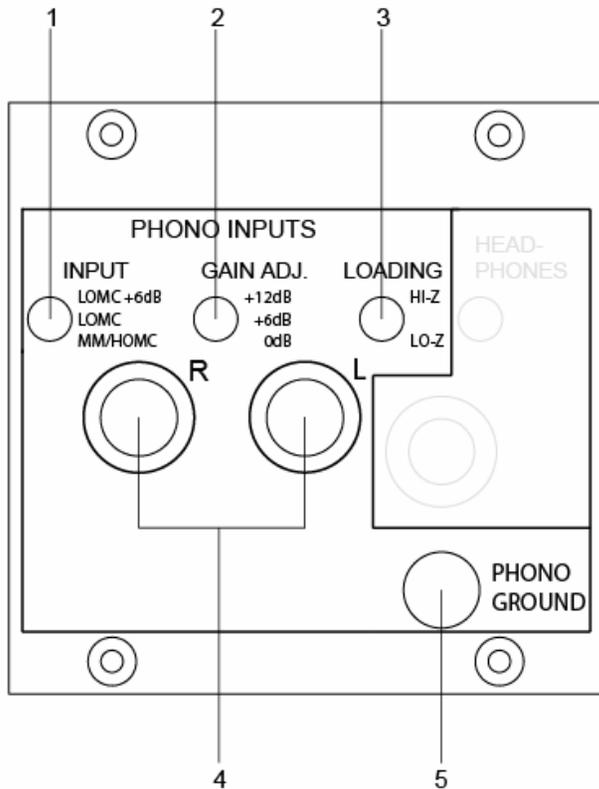


Phono Pre-amp Rear Panel Features and Definitions

The Integris CDP optional Phono Preamp module is designed to deliver maximum performance for any vinyl playback enthusiast. It has several features designed to get the most out of any phono cartridge.



Rear Panel Diagram

- 1 Phono Preamp Input Selector Switch
- 2 Phono Preamp Gain Adjustment Selector Switch
- 3 Phono Preamp Input Loading Selector
- 4 Phono Preamp RCA Inputs
- 5 Phono Preamp Ground Post

The phono input module will take over one of the standard unbalanced analog line-level inputs. The external RCA connectors for that input will be disabled. We suggest the user may rename the displayed input as "PHONO" or something similar using the **MENU** feature for **Setting Input Names**.

1. Phono Preamp Input Selector Switch

This 3-position switch allows matching to cartridge type.

MM/HOMC is suited to Moving Magnet and High Output Moving Coil cartridges having greater than 1mV rated output. The nominal gain is 43dB with the gain adjustment switch (2) in its lowest position.

LOMC engages step-up transformers for true Low-Output Moving Coil cartridges. The transformers' 10X step-up raises nominal gain to 63dB. This setting also lowers the preamp's input impedance by a factor of 100 to better suit LOMCs.

LOMC +6dB reconfigures the transformer windings for 20X step-up. Minimum gain is 69dB and impedance drops by a factor of 400. This input configuration is for LOMCs having 0.25mV or less output and very low source impedances.

2. Phono Preamp Gain Adjustment Selector Switch

This 3-position switch provides 2 more gain increase options. These will most likely only be used with MM/HOMC cartridges having 1-3mV output. At **0dB**, the nominal gains listed above are in effect. **+6dB** provides the equivalent of 2X the cartridge output; **+12dB** delivers the equivalent of 4X cartridge output. Don't forget there is also an input gain trim function for every analog input on the Integris CDP that will also allow +/-12dB

adjustment in 0.5dB increments. See the section of the manual, **Setting Analog Input Levels**. With both the phono gain switch and the Menu-driven input level trim, no cartridge should ever be gain-incompatible.

3. Phono Preamp Input Loading Selector

This 2-position switch allows adjustment of input impedance loading (**Z**) for a cartridge. When the transformer-coupled inputs are engaged, this results in numerous effective combinations of gain and loading as per the table below. We recommend that users choose whichever settings they feel sounds best to them.

Input Selector Position	Min. Gain (1 kHz)	Loading Switch Position	Input Impedance
MM/HOMC	43dB	HI-Z	47kΩ
		LO-Z	10kΩ
LOMC	63dB	HI-Z	470Ω
		LO-Z	200Ω
LOMC +6dB	69dB	HI-Z	120Ω
		LO-Z	50Ω

4. Phono Preamp RCA Inputs

Connect the turntable's armwire signal leads here. It may be advantageous to keep the leads as short as possible.

Take care with armwire routing to avoid hum pickup. Please note that placement of the armwires or the turntable or the Integris CDP may be critical to minimizing hum where large magnetic fields may be present. Proximity to large power transformers and power cables should be avoided.

5. Phono Preamp Ground Post

Connection of a turntable ground lead to this **Ground Post** will usually reduce hum pickup. For convenience, the connector is a standard 5-way binding post.

Specifications

Gain

Options: 43 / 49 / 55 / 63 / 69 / 75 / 81 dB
 Nominal minimum of 43dB@1kHz
 MC step-up transformers add +20dB or +26dB
 Optional circuit settings add +6dB or +12dB

Input Impedance

Switchable from 50Ω to 47kΩ
 See table at left

RIAA Deviation

+/-0.1dB 20Hz-20kHz

Maximum Input Level (1kHz) / Headroom

MM/HOMC: 70mV / 23dB ref. 5.0mV
 LOMC: 7.0mV / 23dB ref. 0.5mV
 LOMC +6dB: 3.5mV / 23dB ref. 0.25mV

Noise

MM/HOMC: -83dBA, -74dB unweighted
 LOMC/ LOMC +6dB: -83dBA, -68dB unweighted

Channel Separation

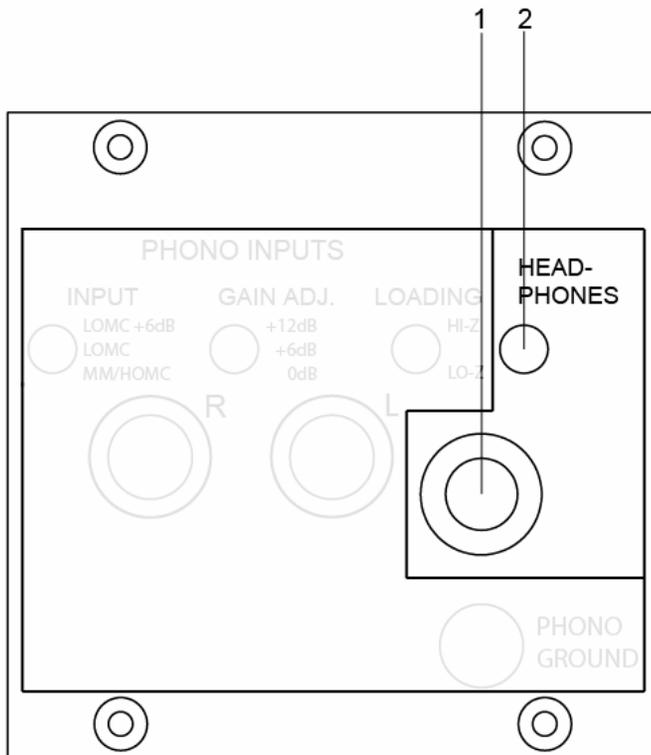
MM/HOMC: 68dB
 LOMC/LOMC+6dB: 64dB

Distortion

<0.01% THD with any input, loading and level

Headphone Amplifier Rear Panel Features and Definitions

The optional Headphone Amplifier is capable of driving virtually any headphone set for its maximum performance capability. The amplifier is capable of driving load impedances as low as 16ohms.



Rear Panel Diagram

- 1 Headphone Amplifier Output On/Off Switch
- 2 Headphone Output Jack

1. Headphone Output

A standard ¼" stereo phone-plug connector (TRS type) is compatible with most high quality headphones. An adaptor plug is required for other connector types.

2. Headphone Amplifier On/Off Switch

This switch turns the headphone output stage on and off. It is included for convenience only so users may leave their headphones connected to the output jack and simply utilize this switch to silence them.

There is no main signal output switch related to headphone operation. Users must separately power off or mute their loudspeakers' power amplifier.

Specifications

Maximum Output, Frequency Response, Distortion

+19dBu (7Vrms) / 1watt+ below 50ohms
DC to >100kHz / +/-0.1dB, 20Hz-20kHz
<0.01%THD

Recommended Impedance

16ohms minimum; no upper limit

Noise

-94dB unweighted, ref. 1V