# User Guide Phono Stage for LTA Integrated Amplifiers

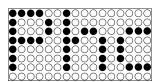
Your LTA integrated amplifier includes an internal phono stage that can be configured either with a step-up transformer ("SUT") to be used with all moving magnet ("MM") or moving coil ("MC") cartridges, or without an SUT to be used with MM and high-output MC cartridges.

All standard settings for these phono stages can be adjusted using the front panel buttons or the remote control. The menu options will be different depending on whether your phono stage includes an SUT or not.

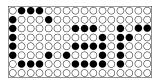
After the configurable gain settings of the phono stage, our integrated amplifiers have a significant amount of fixed gain. We generally recommend using the lowest gain settings that give you a usable volume range in your system and appropriate loading for your cartridge.

To access the menu, press the **Menu** button on the front panel or the remote. Use the **Up** or **Down** buttons to scroll. Use the center button on the remote control or the **Select** button on the front panel to make selections. When you select a setting a confirmation message will scroll across the screen. You can interrupt the confirmation message by pressing any button. Use the **Back** button to return to the main menu or exit the menu. Not pressing any button will automatically exit the menu after a period of time. Our display will only show three characters initially and the full text will begin to scroll when you pause on an option. In this guide we show you what the initial screen will look like before it starts to scroll.

# Phono Stage with SUT

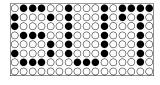


Select the **Phono Menu** option and you will be taken to the Phono sub-menu, which contains five settings.



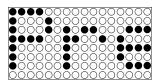
#### Cartridge Type

Choosing **MC** or **MM** will enable or bypass the SUT. The MC setting uses the SUT and the MM setting bypasses it. The MM setting also disables the resistive and capacitive loading options. When you change the **Cartridge Type** setting, the volume will automatically be set to 0.



#### **SUT Gain**

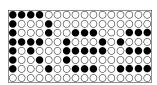
This sets the gain of the SUT (it will therefore have no effect if you are in MM mode). The **20dB** setting will have a 1:10 step-up ratio and **26dB** has a 1:20 ratio.



## **Preamp Gain**

This sets the gain of the phono stage after the SUT. The options are **34dB**, **42dB**, and **54dB**. We recommend that you use the lowest gain setting that gives you a usable volume range.

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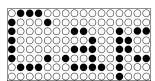
### **Resistive Load**

This sets the resistive loading for the **MC** cartridge setting. The loading options change depending on the **SUT Gain** setting.

**20dB** loading options are: **20**, **50**, **75**, **150**, **200**, **270**, **300**, **400**, **470 26dB** loading options are: **20**, **40**, **50**, **75**, **90**, **100**, **120** 

When scrolling through the Resistive Load menu, the amplifier will preview each setting. If you select a setting a confirmation message will scroll past. If you leave the menu without selecting a setting, the amplifier will return to the previous load setting. If you change the **SUT Gain** setting, the Resistive Load will be reset to the highest value.

In **MM** mode, the input resistance will be set at  $47K\Omega$ 



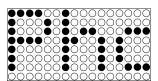
# **Capacitive Load**

This sets the capacitive loading for the **MC** cartridge setting.

The options are: 100pF, 220pF, 320pF

These settings will preview as you scroll, like the **Resistive Load** menu.

# Phono Stage without SUT



If your phono stage is configured without an SUT, there is no **Phono Menu** sub-menu, there is a single menu option called **Phono Gain**. The available settings are **Low**, **Med**, and **High**. These correspond with actual gain settings of **34dB**, **42dB**, and **54dB**.

The input resistance of the phono stage is  $47K\Omega$ .

# **Custom Loading Options**

If you want to have a specific resistive or capacitive load for your cartridge, there is a socket provided to add your own resistor or capacitor. This value would not be configurable via the front panel menu and would require that you open the amplifier case to make the change. Please contact us at <a href="https://milion.org/lineartubeaudio.com">https://milion.org/lineartubeaudio.com</a> for further details about custom loading.