MUSICAL SURROUNDINGS

# NOVA III

## PHONO PREAMPLIFIER



## OWNER'S MANUAL

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## **1.0) INTRODUCTION**

Our 3rd generation Michael Yee design, the Nova III features an updated discrete, dual mono audio circuit with maximum 65dB of gain and a new power supply design that Yee describes as "effectively eliminating the wallwart". The Nova III incorporates a large, regulated power supply providing greater dynamics and image dimensionality, instead of batteries as in previous generations. Further performance enhancements are available by adding the optional \$1000 Linear Power Supply, originally developed for our \$5,000 SuperNova III.

#### Featured AUDIO CIRCUIT highlights:

- Discrete dual-mono circuit
- Super Matched Pair/Low Noise input devices
- Multiple gain settings on rear panel with 65dB maximum
- Extensive resistive loading settings on rear panel
- Improved Ground System
- Micro-processor control for Mute and Subsonic functions
- Michael Yee proprietary Subsonic filter

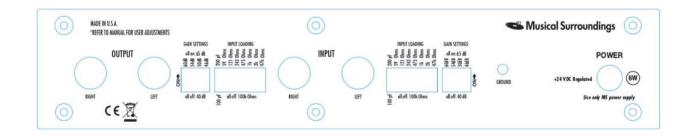
#### **NEW POWER SUPPLY design:**

- Super Low Noise voltage regulation
- Isolated DC to DC converter
- Dual Inductor de-coupling
- 10 x 1000 $\mu$ f capacitors for 10,000 $\mu$ f of regulation
- Made in California

The Nova III is a complete phonograph preamplifier with RIAA equalization that amplifies the output signal of either a moving coil or moving magnet phono cartridge to a nominal "line level". The Nova III may be used with a receiver or an integrated amplifier. If you use separate components, a line level control unit (preamp) is required before the power amp, since there is no built-in volume control for the Nova III. The Nova III's power supply is external and connects to the wall with the supplied wall mount transformer.

The Installation of the Nova III is quite simple and involves:

- a) Setting the two rear panel configuration settings (one for each channel) for Gain and Input Loading (see section 2).
- b) Placing the unit (see section 3).
- c) Connecting the power source (see section 4).
- d) Connecting the Audio Inputs and Outputs (see section 5).



### **2.0) EXTERNAL CONFIGURATION SETTINGS** 2.1) BASIC GAIN SETTINGS



GAIN SWITCHES

The Gain switches are located on the back panel. Use a non-metallic tool to adjust the settings (up=on, down=off).

- The chart below provides a general guide to choosing Gain settings appropriate to your cartridge.
- There are 16 total possible Gain combinations.
- After adjusting the gain to match factory recommendations, settings may be further fine-tuned to personal taste or system characteristics.
- Generally, lower Gain settings (40dB) are intended for moving-magnet cartridges or high-output moving-coil cartridges.
- Higher Gain settings are intended for low-output cartridges (0.5mV or so).

**Note:** Always let the unit settle for 60 seconds after any configuration changes are made before listening. Slowly raise the volume control to insure that the unit is stable and will not damage your system if the configuration is not set correctly.

#### 2.2) ADVANCED GAIN SETTINGS



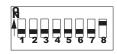
GAIN SWITCHES

• The chart below provides a general guide to choosing Gain settings appropriate to your cartridge. **BOLD** settings are listed on the back panel.

GAIN (dB)	Pos 1	Pos 2 Pos 3		Pos 4	
40	OFF	OFF	OFF	OFF	
46	OFF	OFF OFF		ON	
50	OFF	OFF	ON	OFF	
52	OFF	OFF	ON	ON	
54	OFF	ON	OFF	OFF	
55.6	OFF	ON	OFF	ON	
56.9	OFF	ON	ON	OFF	
58	OFF	ON	ON	ON	

GAIN (dB)	Pos 1	Pos 2 Pos 3		Pos 4	
60	ON	OFF OFF		OFF	
60.5	ON	OFF	OFF	ON	
61	ON	OFF	ON	OFF	
61.6	ON	OFF	ON	ON	
62.3	ON	ON	OFF	OFF	
63	ON	ON	OFF	ON	
64	ON	ON	ON	OFF	
65	ON	ON ON		ON	

#### 2.3) BASIC INPUT LOADING SETTINGS



INPUT LOADING SWITCHES

To set the input loading, there are two eight-position switches, one for each channel, located on the rear panel. Refer to your cartridge owner's manual to determine proper input loading settings. The factory setting for input loading is 47,000 Ohms. The chart below provides a general guide to choosing Resistive Loading settings appropriate to your cartridge. **BOLD** settings are listed on the back panel.

Switch #1 controls capacitive loading, which is often used with moving-magnet cartridges and has little effect on moving-coil cartridges. When using a moving-coil cartridge, you can try both capacitive loading positions to determine the effect. CAPACITIVE LOADING (SWITCH #1): OFF=100pF; ON=200pF.

Switches #2-8 control resistive loading, which is primarily used with lower-output moving-coil cartridges. Most moving-magnet along with medium and high-output moving-coil cartridges use approximately 47,000 Ohms. Low-output moving-coil cartridges typically use 2000 Ohms or less. Check the chart below and select the closest loading value to the cartridge manufacturer's recommended value. Typically, a lower resistive setting provides increased focus and tighter bass, while a higher setting provides more openness. Use a non-metallic object to select the proper settings, flipping the switch UP to activate the ON setting.

#### 2.4) ADVANCED INPUT LOADING SETTINGS

12345	678

INPUT LOADING SWITCHES

SWITCH #	1	2	3	4	5	6	7	8
LOADING (OHMS)	100pF 200pF							
30	Х	ON	ON	ON	ON	ON	OFF	OFF
40	Х	ON	ON	OFF	OFF	OFF	OFF	OFF
50	Х	ON	OFF	OFF	ON	ON	OFF	OFF
59	Х	ON	OFF	OFF	OFF	OFF	OFF	OFF
80	Х	OFF	ON	ON	OFF	OFF	OFF	OFF
100	Х	OFF	ON	OFF	OFF	ON	ON	OFF
121	Х	OFF	ON	OFF	OFF	OFF	OFF	OFF
150	Х	OFF	OFF	ON	ON	OFF	ON	OFF

SWITCH #	1	2	3	4	5	6	7	8
243	Х	OFF	OFF	ON	OFF	OFF	OFF	OFF
280	Х	OFF	OFF	OFF	ON	ON	ON	OFF
380	Х	OFF	OFF	OFF	ON	OFF	ON	ON
475	Х	OFF	OFF	OFF	ON	OFF	OFF	OFF
660	Х	OFF	OFF	OFF	OFF	ON	ON	ON
1,000	Х	OFF	OFF	OFF	OFF	ON	OFF	OFF
2,000	Х	OFF	OFF	OFF	OFF	OFF	ON	OFF
47,000	Х	OFF	OFF	OFF	OFF	OFF	OFF	ON
100,000	Х	OFF						

## **3.0) AUDIO CHASSIS PLACEMENT**

The Nova III may be placed near your turntable if space allows, on a separate shelf in your audio rack, or on top of another source or line-level component. Please make sure that ventilation to the unit is not restricted, and that the unit is away from magnetic fields or noise from other components' motors, transformers or displays.

## 4.0) POWER SUPPLY

The Nova III connects to a wall outlet or power strip with the supplied wall-mount transformer.

The Nova III will NOT operate without the wall-mount transformer plugged into an outlet.

## **5.0) AUDIO INPUTS AND OUTPUTS**

Please make sure that the volume control on your receiver, integrated amp, or preamp is turned completely down before plugging in the audio connections. Connect the phono cables of your turntable to the inputs of the Nova III, noting proper left and right connections. Attach the turntable's ground lead to the ground lug on the rear panel of the Nova III.

Using a high-quality interconnect cable, connect the outputs of your Nova III unit to a line-level input of your receiver, integrated amplifier, or pre-amp, again noting proper left and right channels. DO NOT PLUG THE NOVA III's OUTPUT INTO ANOTHER COMPONENT'S "PHONO" INPUT. Some line-level pre-amps have an input labeled "phono" for convenience but which does not contain phono circuitry. Please check your pre-amp's owner's manual if you have concerns.

## 6.0) USING YOUR NOVA III

If you have followed the above instructions along with mastering the following two user options, your Nova III is ready to play music. Simply cue down your cartridge on a favorite record, select the correct input on your receiver, integrated amp or pre-amp, and slowly bring up the volume level. Then sit back and enjoy the music.

#### 6.1 Subsonic Filter

Some records have sonic components due to cutting artifacts or off center "center hole" that are low in frequency and causes woofers to move at a worrisome way. These subsonic components can cause distortion such as "Doppler Shift".

Implementing a subsonic filter usually involve adding quite a lot of electronics which can degrade the sonic integrity. The Nova III has a very novel implementation of a subsonic filter where a subsonic filter is implemented with OpAmps, but the audio portion of the signal is "stolen" from the OpAmps before the OpAmps can degrade the signal but the low frequency noise is already removed. This "stolen signal" is then amplified by the Nova III's discrete circuitry. This allows the Nova III preamp section to pristinely amplify the signal.

The Nova III has a button for alternating between Normal and Subsonic Filter modes.

The system automatically mutes when the Subsonic filter is activated or is deactivated. This is a 5 second mute. The LED indicates the Subsonic Filter is activated.

#### **6.2 Mute Selection**

The Nova III has a button for alternating between Normal and Mute modes.

The LED indicates the Mute Mode is activated.

The Mute Mode cannot be changed if the Mute is activated automatically by the Subsonic Filter selection. The user must wait approximately 5 seconds for the automatic mute to change back to unmute automatically.

## 7.0) WARRANTY INFORMATION

This product is automatically warranted for 90 days from date of original purchase, extended to 3 full years with the return of this form and a copy of your sales receipt. These forms must be received within 30 days of the date of original purchase. Items not covered include improper installation, improper handling, accidental damage, shipping damage or acts of nature. Warranty is valid only for the original owner and is non-transferable.

We do not assume any liability for any damage to any other component in the system due to a failure in the Nova III. If you believe your Nova III is malfunctioning, please contact the dealer where you purchased the unit, or contact:

Musical Surroundings 5662 Shattuck Ave Oakland, CA 94609 USA Telephone: (510) 547-5006 (x-101) Fax: (510) 547-5009 Email: <u>service@musicalsurroundings.com</u>

If the unit needs to be sent in for repair, contact Musical Surroundings at the above number and you will be issued you a Return Authorization (RA) number. You must then send the unit (packed in its original box) back to Musical Surroundings.

## 8.0) OPTIONAL LINEAR POWER SUPPLY

Further performance enhancements are available by adding the optional \$1,000 Linear Power Supply. Originally developed for our \$5,000 SuperNova III, the LPS utilizes ultra sophisticated circuitry in its proprietary AC-to-DC conversion process including a Japanese Tamura transformer along with ultra low noise, ultra fast recovery linear regulators to bring out the most of what the Nova III has to offer.

