McCORMACK

MICRO PHONO DRIVE

Dear Customer:

Selecting fine audio equipment such as the unit you've just purchased is only the start of your musical enjoyment. Now it's time to consider how you can maximize the fun and excitement your equipment offers. This manufacturer and the Electronic industries Association's Consumer Electronics Group want you to get the most out of your equipment by playing it at a safe level. One that lets the sound come through loud and clear without annoying blaring or distortion — and, most importantly, without affecting your sensitive hearing.

Sound can be deceiving. Over time your hearing "comfort level" adapts to higher volumes of sound. So what sounds "normal" can actually be loud and harmful to your hearing. Guard against this by setting your equipment at a safe level BEFORE your hearing adapts.

To establish a safe level:

- Start your volume control at a low setting.
- Slowly increase the sound until you can hear it comfortably and clearly, and without distortion.

Once you have established a comfortable sound level:

- Set the dial and leave it there.

Taking the time to do this now will help to prevent hearing damage or loss in the future. After all, we want you listening for a lifetime.

INTRODUCTION

Thank you for purchasing the Micro Phono Drive. This phono preamplifier is one of a series of compact McCormack components designed to deliver the exceptional levels of natural musicality usually found in much larger, more expensive products.

While repackaging our famous circuits in this more convenient form, we reduced complexity, but not quality. This phono preamplifier is handcrafted with top quality, highly reliable parts - most often the same ones used in our full-size components. We are confident that you will be well satisfied with its sonic performance and find pleasure in its functional beauty. Before you enjoy these experiences, however, please take a few minutes to read the entire Owner's Manual. This will ensure your listening pleasure today, and for many years to come.

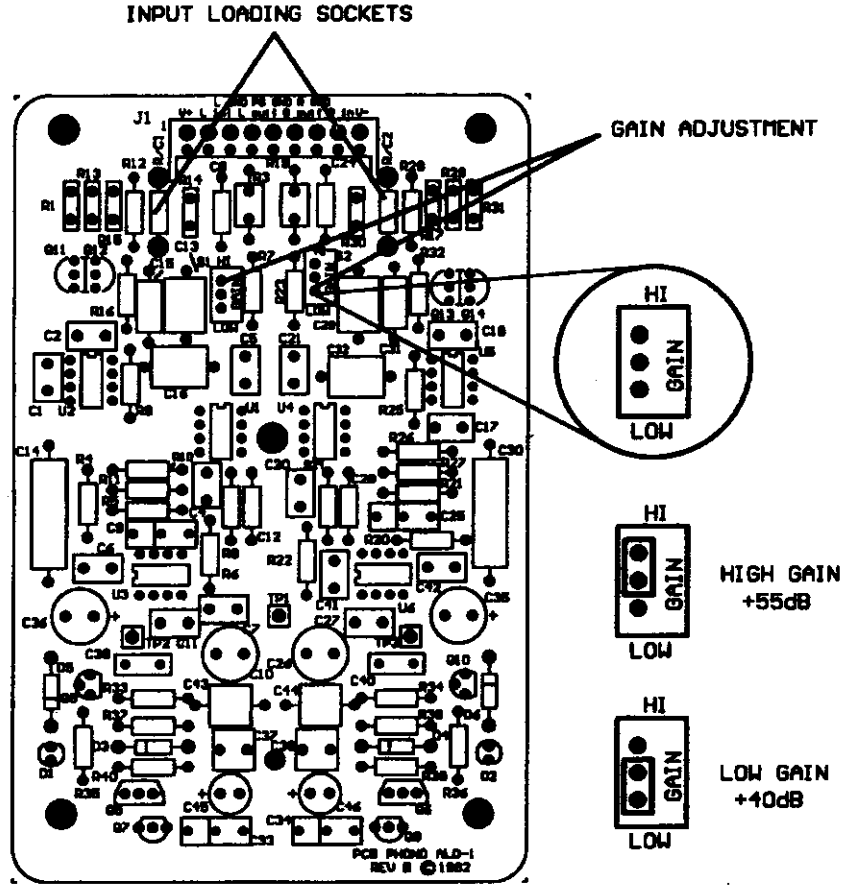
OPERATING INSTRUCTIONS

UNPACKING - Be sure to save the Micro Phono Drive's box and packing materials. Store them in a dry environment. It is best to use the original packaging should you need to transport or to ship the Micro Phono Drive in the future.

LOADING AND GAIN SETTINGS - The first step in setting up your Micro Phono Drive is adjusting the cartridge loading and gain, if necessary. All units are shipped from the factory set for a 47k ohm input load and for high gain (suitable for low-output cartridges).

The cartridge loading may be changed by installing resistors or capacitors in the socket positions marked R/C1 and R/C2 at the top of the main circuit board, as indicated in the diagram.

The high gain (+55 dB) can be changed to low gain (+40 dB, for high-output cartridges) by repositioning the 2 gain jumpers located in the upper center of the main circuit board, as indicated in the diagram below.



POSITION JUMPERS AS SHOWN TO ADJUST GAIN

In general, cartridges with 1mV output *or less* should be used with the high gain setting. Cartridges with more than 1mV output should work well with the low gain setting. However, these are only guidelines and you should feel free to experiment with the two settings to decide which is better for your system.

If you wish to change either the cartridge loading or the gain, follow this simple procedure.

1.) Use the small Allen wrench supplied with your Micro Phono Drive to loosen the 6 screws holding the top cover in place and remove the top cover.

2.) Lower the gain by repositioning both gain jumpers (1 per channel). Grasp the jumper's black plastic cap and pull up. Reposition the cap over the center and lower (LOW) pins, as indicated in the diagram, and push down. Repeat for the second channel.

3.) Change the input load by selecting the appropriate resistors or capacitors to be installed in parallel with the 47k ohm resistor supplied from the factory. Insert 1 for each channel in the sockets marked R/C1 and R/C2.

NOTE: If you wish to calculate the total load resistance with your resistors installed, use this formula:

$$R(total) = 47{,}000 \times R(user) / 47{,}000 + R(user)$$

You do not need to use this formula for user installed values of 1000 ohms or less because there will be very little change in total load resistance.

4.) Replace the top cover and tighten the screws carefully.

NOTE: If you decide to make gain or cartridge loading adjustments after you have installed the Micro Phono Drive, be sure to turn down the system volume control, select an unused input on your preamplifier, and unplug the Micro Phono Drive before beginning the adjustment procedure.

INSTALLATION – After completing any necessary adjustments, place the Micro Phono Drive as close as possible to its final position while leaving yourself access to the back panel.

NOTE: The Micro Phono Drive has no ON-OFF switch, having been designed to be on at all times with minimal power consumption. In fact, it has no switches or knobs at all so it can be placed wherever it is most convenient since you do not need access to the front panel during normal use.

- Turn your preamplifier's volume control all the way down, and select an unused input.
- Connect the transformer's power cord to the Micro Phono Drive using the jack labeled AC IN on the back panel, but do not plug the transformer into an AC wall socket yet.
- Connect the signal cables from your turntable to the PHONO INPUT jacks on the Micro Phono Drive's back panel.
- Connect your turntable's ground wire to the ground post located adjacent to the PHONO INPUT jacks on the Micro Phono Drive's back panel.
- Connect the LINE OUTPUT jacks on the Micro Phono Drive's back panel to a line level input on your preamplifier.
- Plug the Micro Phono Drive's power transformer into a convenient AC wall socket. The green LED in the lower center of the front panel will light.
- With your volume control still turned down, select the input with the Micro Phono Drive attached.

ABOUT INTERCONNECT CABLES...The Micro Phono Drive uses high performance circuitry, and quality RCA phono jacks for input and output connections. Please remember that selecting high quality cables for use with this revealing component will result in superior sonic performance from your system. Your McCormack dealer will guide you in making this important component choice.

LISTENING – You are now ready to enjoy listening to your records. If you find the volume level from your turntable to be either too low or too high, follow the adjustment instructions above in the section called LOADING AND GAIN SETTINGS.

The Micro Phono Drive will accommodate cartridges with outputs of about .25mV and higher. The higher the output level of your cartridge, the better your signal-to-noise ratio will be If you turn your preamplifier's volume control up all the way while you are NOT playing a record, it is normal to hear some noise. You should hear little or no noise from your listening position with your volume control set for normal listening levels.

If you hear hum at normal listening levels, check the positioning of the cables from your turntable to the Micro Phono Drive. They should be at least 12 inches away from any transformer (including the Micro Phono Drive's wall-mount unit) and well separated from other AC cords. You also may need to experiment with how your turntable's ground wire is attached.

TROUBLESHOOTING

- If you experience loss of power or signal, check your interconnect, power cord and transformer connections. Make certain all are secure. Check your AC wall socket to make sure it is supplying power.
- If the green LED at the lower center of the front panel is lighted but there is no sound from the system, then check all cables for tight connections. Check the positions of the control knobs and/or switches on your preamplifier.
- Make certain your turntable, preamplifier and power amplifier are operating correctly.
- Hearing hum and noise from your Micro Phono Drive with no input cables attached *is normal.* Your turntable/cartridge output cables must be connected for correct operation.
- There are no fuses or other user serviceable parts in the Micro Phono Drive. Contact your McCormack Dealer for service options.

SPECIFICATIONS

Inputs:	1 phono level
Outputs:	1 line level
Gain:	user adjustable, set for low (+40 dB) or high (+55 dB)
Input impedance:	user adjustable, set to 47k ohms at factory
Output impedance:	100 ohms
Low gain phono sensitivity:	5mV for 0.5V @ 1kHZ
Low gain S/N:	-80 dB "A" weighted re: 0.5V
High gain phono sensitivity:	0.9mV for 0.5V @ 1kHZ
High gain S/N:	-75 dB "A" weighted re: 0.5V
Phono overload:	200mV
Absolute polarity:	non-inverting
Dimensions:	9.5" wide, 9" deep, 3" high
Shipping weight:	8 lbs.