



ELECTROCOMPANIE T AS

Electrocompaniet MC-2 Moving Coil Interface

The Electrocompaniet MC-2 is a unique step-up device. It will make extremely low output moving coil cartridges compatible with any preamp. There are basically two parts of the MC-2 design, each contributing to what is theoretically an ideal moving coil-amplification interface. It not only responds to the dynamic impedance demands of moving coil cartridges when a musical signal is introduced, but the design also gives special consideration to the dramatic influences of noise and distortion on the amplification of the extremely minute signal that comes from a moving coil cartridge. The Electrocompaniet MC-2 provides a more exact and complete moving coil-amplification interface than high-gain preamps and voltage-gain step-up devices.

The first part of the moving-coil interface circuit design is a current-sensing device. The interface senses the current coming from the moving coil and automatically adjusts to its impedance characteristics. It is a dynamic interface, and is constantly adjusting to the demands of any moving-coil cartridge as it responds to musical signals. Voltage-gain step-ups are designed to operate with a nominal static impedance measured under laboratory conditions that will provide the flattest frequency response for a given moving-coil cartridge; however, when an actual musical signal is introduced these devices tend to "damp" full dynamic and frequency response. The dynamic current-sensing capabilities of the Electrocompaniet MC-2 do not "damp" cartridge performance as is the case with step-ups that require cartridge loading with resistors.

The second part of the circuitry is a user-adjustable feedback loop. The appropriate setting provides the degree of feedback that will result in the lowest noise and distortion for a particular moving-coil cartridge. The importance of eliminating as much noise and distortion as possible at the crucial input stage where the signal is very small was only recently discovered. As a result of years of trial-and-error experimenting with the effect of closed-loop feedback on sonic performance, the designer of Electrocompaniet electronics found that a relatively small amount of feedback in the first stage of amplification results in far more dramatic sonic improvement than larger amounts of feedback elsewhere in the signal path.

Although there is only 6 db of feedback throughout the entire range of the 16-setting potentiometer in each channel of the MC-2, adjustments of only one or two positions result in obvious sonic differences. Most moving coil cartridges perform best with settings between 0 and 7, with 0 representing the least amount of feedback. The user may prefer that the dealership preset the MC-2 according to Electrocompaniet's recommendations, or the user may want to experiment with the settings. The potentiometers that control the feedback loop in each channel are readily accessible through openings on the bottom plate of the device.

Electrocompaniet has experimented with a number of moving coil cartridges with the MC-2 and has determined that the following ranges are most suitable:

Koetsu	1-3
Dynavector	2-4
Asak	3-5
EMT	3-5
AC-2	4-6
Alpha-1	3-5

The exact setting within the recommended range is dependent upon a number of variables such as the sonic character of other components in the system and the acoustic interaction of the listening environment.

In general, a setting that is too low results in audible distortion. The listener can readily recognize that bass and high frequencies are soft and lacking in dynamic impact. A setting that is too high results in increased low-level transistor noise. Bass will be very tight, but high frequencies begin to sound unnaturally hard and sharp. Finding the right setting is a matter of starting with a low setting and increasing feedback until the listener recognizes unnaturally hard and sharp high frequencies. Turning each potentiometer back one or two notches should result in an optimum amount of feedback where noise and distortion are at a minimum.

Musical instruments and performers will become more focused on an amazingly dimensional soundstage. Tonal quality is accurate and natural. Many listeners have commented that the sense of electronics in their audio systems actually seems to disappear, and they are closer to the vitality of the performance as captured on the source.

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