



EQ-73

Vintage Style Equalizer



INTRODUCTION

Congratulations on choosing the Golden Age Project EQ-73 Equalizer!

The class-A circuit used in the EQ-73 is similar to the eq section in the classical 1073 module, without the high pass filter. Additional frequencies have been added and the mid frequency band uses two inductors, the higher value of the second one is used for the two lowest frequencies, 160 Hz and 240 Hz, to achieve a suitable response.

The sound character is warm, punchy, sweet and musical. These classic characteristics have been heard on countless recordings through the years and it is a versatile sound that works very well on most sound sources and in most genres. The essence of this sound is now available at a surprisingly low cost, making it available to nearly everyone.

The EQ-73 has stepped frequency controls that offers a wide selection of frequencies from 20 Hz to 24 kHz. The Low and High frequency bands are shelving and the mid frequency band is of the bell type. The control range is +/-15 dB for the two lower bands and +/- 18dB for the high frequency band. There are separate bypass switches for all three bands.

The EQ-73 cannot be used as a standalone EQ. It is made to be used together with one of our PRE-73 models that has an Insert jack.

Combining a PRE-73 and an EQ-73, and using a UNITE rack kit to mount them together, one will get a 19-inch 1073-style unit at a low cost and with a great sound!

FEATURES

- Vintage Style electronics. No intergrated circuits in the signal path
- 3-band with a dual inductor based mid frequency band
- Stepped frequency selection
- A wide selection of frequencies from 20 Hz to 24 kHz
- Control range up to +/- 18 dB
- Separate Bypass switches for each band
- Tantalum capacitors in the signal path
- Made to be used together with one of our PRE-73 models with an Insert jack
- TRS jack for in-and output connection, the nominal working level is around 18 dBu
- Selectable ground lift switch
- External power supply to avoid interaction with the audio circuits
- Great sound that suits most sound sources and genres
- A solid build quality that will last many years of normal use



CIRCUIT DESCRIPTION

The main signal path in the EQ-73 consists of two gain stages that uses three transistors each and a few resistors and capacitors. So, all in all, the complete signal chain only contains six active elements. Compare that to the big number of transistors that are usually used in one single integrated circuit! The filter

circuits uses additional passive components.

The first gain stage handles the LF and HF bands and the second gain stage handles the MF band. By designing the EQ-73 to be used with a PRE-73 with an Insert jack, the unit does not have to be fitted with an input and output stage.

The MF band uses two inductors and capacitors for a classic LC-style eq circuit. The first inductor has a several taps to achieve suitable Q-values (ie, the shape of the curve) for the different mid frequencies from 350 Hz to 10 kHz. The second inductor has a higher value and are used for the two lowest mid frequencies, 160 Hz and 240 Hz.

MODERN VERSUS OLD

It is true that there are some great IC's available today that achieves very low levels of static and dynamic distortion. The simple circuits that the EQ-73 uses, cannot match the low distortion specifications of modern IC's.

It is the distortion components that imparts a sound character to the audio signal and, if the distortion components are of the right sort, this is a good thing since it makes the recorded voice or instrument sound "better", more musical, more pleasing to the ear. This is one reason why vintage style units are so popular today.

This is not to suggest that modern, transparent sounding audio circuits is a bad thing, sometimes they are preferred over colored ones. It's all about taste and it depends on the genre. For most modern music styles, color and character is definitely a good thing.

And doesn't it feel good to use audio components built according to the old, minimalistic approach where one can follow the signal from one discrete component to another?

USING THE EQ-73

Using an equalizer is not rocket science. Here are some points though to help you getting the maximum out of the EQ-73:

- Connect the cable from the power supply to the AC 24V connector at the back of the EQ-73. Power on the unit with the front panel POWER switch.

- Connect the supplied stereo TRS cable between the back panel TRS jack and the Insert jack of the PRE-73.

- The EQ-73 will now be inserted in the signal path of the PRE-73. If you are using the EQ-73 together with a PRE-73 DLX, you must engage the INSERT switch to activate the EQ-73.

- The best way to learn how to set the controls of the EQ-73 is to experiment with different settings on different sound sources. There are a number of frequencies added to the original design, expanding the possibilities for soundshaping.

- The LF and HF bands are of the shelving type, ie, it affects all frequencies below (LF) and above (HF) the selected frequency. The eq action starts gradually above (LF) or below (HF) the selected

frequency and increases up to the maximum boost or cut. The MF has a bell curve, ie, a cut or boost centered around the resonance frequency.

- By engaging the OUT switches, the eq action of each band can be easily removed for quick comparisons between eq and no eq. Using the INSERT switch in the PRE-73 DLX, one can instantly bypass the complete EQ-73 from the signal path.

- There is a Ground Lift switch on the back panel. It should normally be in the OUT position. If the EQ-73 is mounted in a UNITE rack kit together a PRE-73 and / or mounted in a rack where other units are also mounted, ground loops can give rise to problems. Try engaging the Ground Lift switch which will lift the circuit board ground from the cabinet of the EQ-73.

PLEASE NOTE:

- The maximum boost and cut varies somewhat with the selected frequency.

- Inserting the EQ-73 in a PRE-73 will result in a small gain change.

- Clicks can arise when the controls are operated, especially on the HF band. This is normal and a consequence of the used circuit design.

- The inductors and the filter circuits in the EQ-73 are sensitive to electromagnetic fields. If you have a problem with hum or noise, try moving the unit to another physical location in your studio. One situation where this problem is most likely to show up is if the EQ-73 is mounted above or close to a unit that contain a power supply with a mains transformer.

WARRANTY

The EQ-73 is built to last. But as in any electronic device, components can break down.

There is a fast blow fuse located inside the unit. If the unit dies, please check this fuses. If it has blown, replace it with a new one. You can also try with another 24V AC adaptor if you have one available.

If this doesn't help, or if the unit has another problem, it will need repair and you should then contact the reseller where you bought the unit.

The warranty period is decided by the Distributor for your country. The Distributor will support Golden Age Project resellers and end users with repairs and spare parts.

REGISTRATION

You are welcome to register your unit at our website: www.goldenageproject.com

I would like to thank you for choosing the EQ-73!
I hope it will serve you well and that it will help you in making many great sounding recordings.

Yours,
Bo Medin

Create music
- Be happy!