# SHD.5K



USER GUIDE



for the 500 Series enclosures

#### Introduction

Congratulations on your purchase of this 500 Series compatible MCAudioLab channel module. It has been specifically designed to operate in a 500 Series enclosures (riginal API lunchbox® or its equivalent). The nominal output level is +4 dBu. The SHD.5K is a double-width 500 Series tube Harmonic Enhancer.

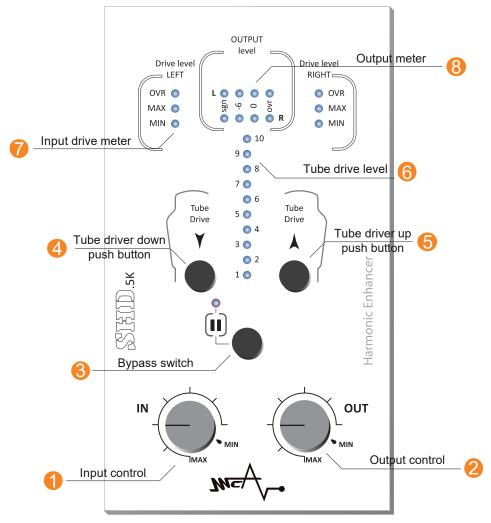
## The specific sound of the tube saturation

You're about to explore the unique sounds of tube saturation. The SHD.5K is designed around vacuum tubes that is the main responsible of that sweet Harmonic Enhancement a triode only can deliver.

The resulting effect is the creation of harmonic content which are totally different with respect to transistor or digital approaches: smooth and pleasing.

# Operation

Please refer to the illustration below



MCAudioLab SHD.5K front panel

# 1 Input control

This control works as an attenuator. Turn it clockwise to set the required signal level that will feed the Harmonic enhancer stage (drive). The input signal level is monitored by the "Drive level -Left/Right" LED meter. See #7. This is a stereo control.

# Output control

This control works as an attenuator. Turn it clockwise to set the required output signal level. This is a stereo control.

# Bypass switch (true bypass)

Press the pushbutton switch to engage a relay which will drive the incoming signal to the output directly. The unit will totally excluded from the audio path. The SHD.5K is temporarily paused and the red LED is on.

## Tube driver down push button

Pressing this pushbutton, you will set the Tube drive level one step down.

The Tube drive has 10 pre-set steps going from 1 (flat mode) to 10 (max drive). The effectiveness of the 'tube driver' is directly proportional to the input level.

# Tube driver up push button

Same as #4 but opposite direction

NOTE: By holding the one of the #4 or #5 button pressed down, the level automatically raises or lowers step by step. If the level reaches the maximum, the "up" button has no more effect as well as the minimum is reached, the sequence stops and the pushbutton #4 has no effect.

## Tube driver LED bar

It allows you to check the "drive" level set by the buttons #4 and #5. The default level is 1 when the unit is turned on. The higher the level the higher the harmonic enhancing effect.

# Input drive meter

The description below concerns both the right and left channel meters. This meter is essential for the correct use of the unit. It is important that the input signal is at the level the MAX LED lights up. By turning the input control knob you are able to adjust the correct input level. Do this by keeping the 'tube drive' level at 1. As long as the signal is within the min-max range, you will be able to control the SHD in order to achieve the harmonic henancing. By exceeding the input signal and making the OVR LED light up, you get a saturation effect.

## **Output meter**

This peak led meter allows you to monitor the output level.

## **Audio Specifications**

Dynamic range, 20Hz – 22KHz: Max input level: +20dBu

Max output level: +20dBu input impedance: 10K Ohm output impedance: <50 Ohm

Specifications are typical of a production unit and are subject to change without notice.

## **Installation Instructions**

Switch off the 500-series enclosure and remove mains power.

Carefully insert the SHD.5K module into the empty slot in the 500-series enclosure and ensure the rear edge connector on module and the edge connector of the 500-series enclosure mates correctly.

Screw into the 500-series enclosure to secure the module into the enclosure.

Apply mains power into the 500-series enclosure and switch on. The module is not designed to be hot-plugged.

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## **Health & Safety Notice**

For your own safety and the protection of others, please observe the safety instructions below:

- Read these instructions, follow all instructions and keep these instructions.
- Heed all safety warnings.
- Do not use near water.
- Clean only with a dry cloth.
- Do not install near heat sources.
- Do not block ventilation openings.
- Unplug when unused for long periods of time.
- Refer all servicing to qualified personnel only.

# **CAUTION: Connecting & Mounting**

- Never connect the output of a power amplifier to this device.
- Always install the unit in an appropriate lunchbox 500 series compatible.
- Use the device according to this manual only.

## **CAUTION:** Temperature

- Surfaces of the device may become hot during operation.
- Do not install this device near any heat source such as radiators, stoves or other heat sources.
- Always allow enough ventilation space around the unit for air circulation.
- Do not cover circulation vents in the lunchbox.

#### CAUTION: Humidity

• If this device is moved from a warm to a cold room, condensation may occur inside the device. To avoid damaging the unit, please allow it to reach room temperature before switching it on again.