ONE LA 500
USER'S MANUAL

Please read all of the following instructions and save them or later reference before attempting to connect this unit to the Power DC Supply.
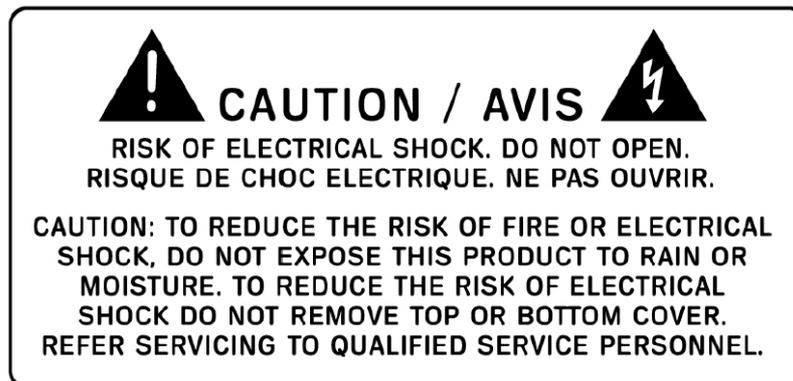
COVERS
DO NOT remove the covers or try to repair the module on your own. Refer servicing to qualified personnel only.

MOISTURE
DO NOT expose the unit to rain or moisture. If the unit should become so exposed TURN OFF the device immediately.

HEAT
ALWAYS site the unit away from sources of heat including direct sunlight and ensure adequate ventilation around the unit.

⚠ CAUTION / AVIS ⚡

RISK OF ELECTRICAL SHOCK. DO NOT OPEN.
RISQUE DE CHOC ELECTRIQUE. NE PAS OUVRIR.

CAUTION: TO REDUCE THE RISK OF FIRE OR ELECTRICAL
SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR
MOISTURE. TO REDUCE THE RISK OF ELECTRICAL
SHOCK DO NOT REMOVE TOP OR BOTTOM COVER.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Manual revision: 1.1 (may 2014)

Thank you for buying this IGS Audio product.

Please read the information provided below very carefully before using your IGS unit.

Unpacking

Your ONE LA 500 has been carefully and meticulously tested and inspected before dispatch. Please check for any signs of transit damage. If any signs of mishandling are found please notify the carrier and your dealer immediately.

Your ONE LA 500 packing should contain an ONE LA 500 with IGS Audio tag (packed in ESD bag) and this manual with the Warranty and RoHS/CE/WEEE Declaration attached.

Compatibility and Power

The ONE LA 500 module is designed to be installed into an API™ 500 Series compatible rack and cannot function stand alone, requiring the power source supplied by the rack system. It should be noted that the module consumes more power supply current than most other 500 series modules available due to the high voltage tubes used. For this reason, there may be limitations on how many IGS Audio modules can be installed into some rack systems currently available (does not apply to IGS PANZER 500).

The current consumption of the ONE LA 500 is rated at 250 miliamperes per slot (total of 500mA). Please check with the rack manufacturer that the design can meet this rating. The start-up time of the unit is about 30 seconds. It is necessary to warm up the tubes and set up all voltages correctly.

Mounting

WARNING! Never plug or unplug any 500 series module with the power supply switched on. You may destroy your unit permanently!

The dimensions of all IGS Audio 500 series modules are compatible with API standard. When plugging your new unit to the 500-series rack, no unnecessary force is needed. However, please be careful and do not rush while pushing the unit into the rack sockets, to avoid damaging of the connectors and/or the PCBs of either the unit or the rack.

After the unit is placed in the rack, use the screws provided with your 500-series rack unit to make sure that the unit is safely placed.

When removing the unit from the rack, unscrew the front panel from the rack, and use your fingers to pull it out gently. Do not use any sharp objects (i.e. knives or screwdrivers) to prize it.

IGS AUDIO ONE LA 500 – mono tube optical compressor

The IGS ONE LA 500 is an opto-compressor built for the 500 series format. This is the first high voltage vacuum tube 500 series module that is offered by IGS. It is powered with 250V DC from an on-board voltage converter, so it can be plugged into any 500 series rack equipped with a standard power supply.

Every single ONE LA is hand made with high quality, matched components (1% metal film resistors, Wima caps). It is equipped with JJ tubes and individually calibrated to give you the unique and unspoiled experience of one of the best opto-compressors in the history - the Teletronix '68 LA-2A. We have spent hundreds of hours designing the ONE LA, to make sure that it is as simple to use as it is versatile. Not only for harmonically rich vocals and strings, but also for huge and beefy drums and bass instruments. Three audio transformers (Sowter and Edcor in audio path and OEP in sidechain) have been used to provide excellent performance and with only two knobs and a single compressor/limiter switch, there is nothing that could go wrong.
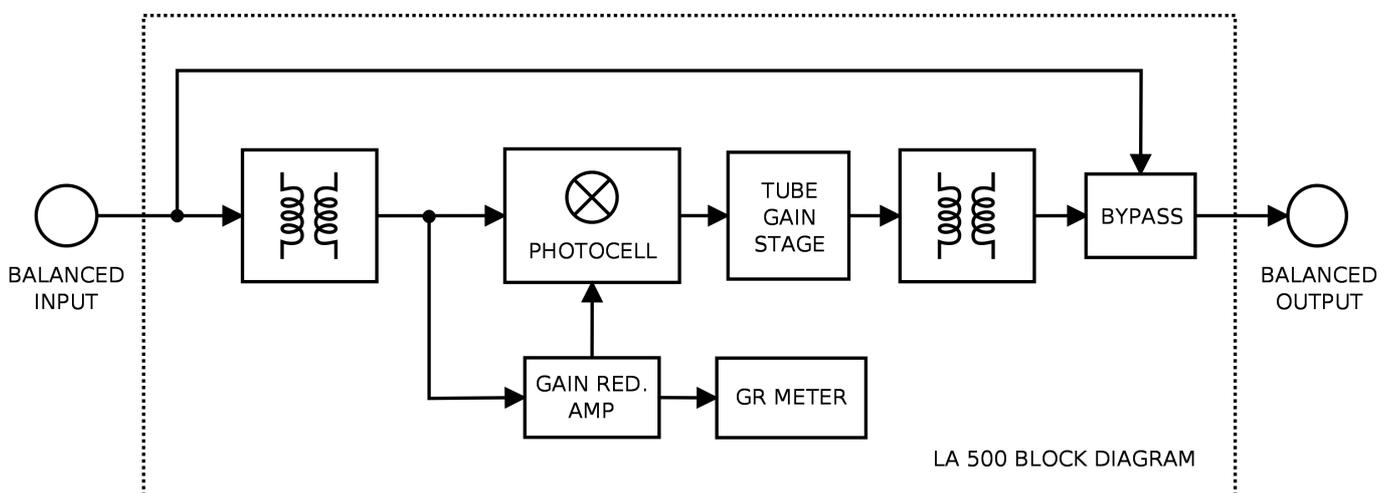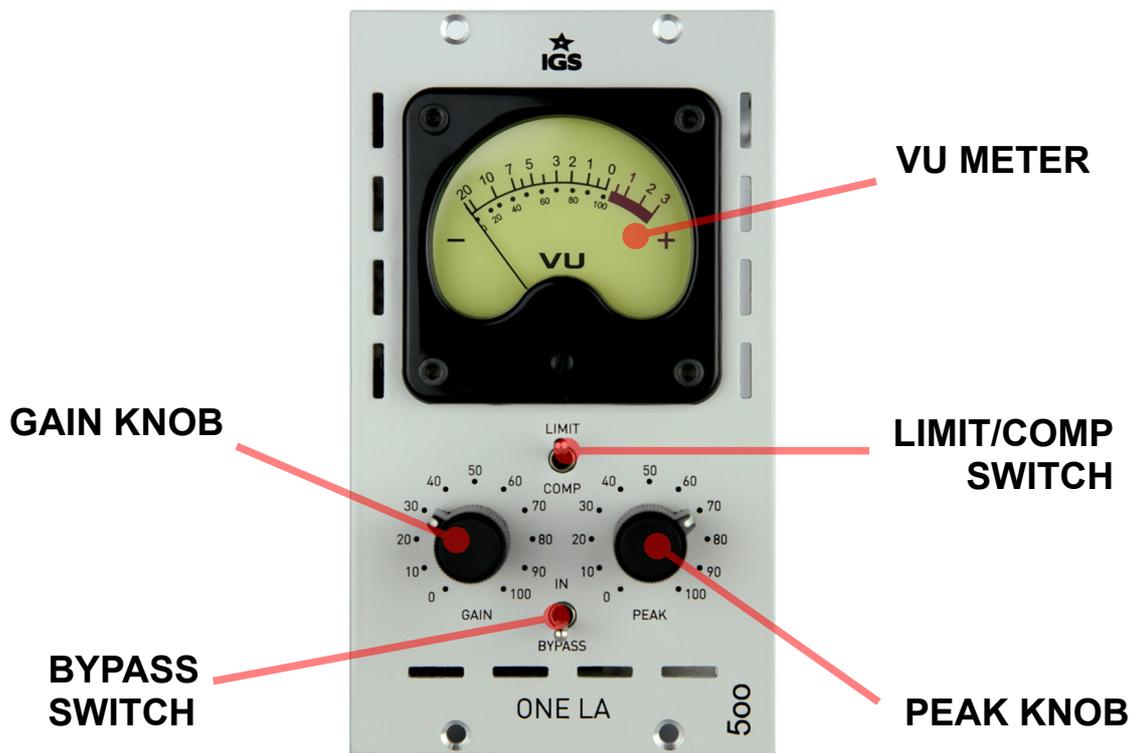
Typical usage

- recording vocals
- strings
- bass instruments
- bus compressor (stereo when two units are being used)

Calibration procedure

There is small hole in the top of the unit that can be used to calibrate the zero reading of the VU meter. As the unit warms up it might be necessary to adjust the trim under the hole with small screwdriver. If your not confident with this process, please contact with the professional technician, who will do it for you.

Block diagram

LA 500 BLOCK DIAGRAM

VU METER	Clearly visible coil meter takes almost half of the space available at the front panel, to ensure that the amount of gain reduction applied is easy to read.
GAIN KNOB	This is the make up gain knob. You can adjust the amount of signal at the output of ONE LA 500.
PEAK KNOB	Also called REDUCTION knob – allows You to control the depth of dynamics reduction. It can vary form a fraction of dB up to 20 dB or more. The amount of reduction applied can be read on the VU meter.
LIMIT/COMPRESSOR MODE SWITCH	This switch allows you to choose between Compressor (ratio fixed at 4:1; soft-knee) and Limiter (∞ :1 ratio) Mode. This two settings provide significantly different sonic qualities.
BYPASS SWITCH	The audio signal passes thru the compressor circuit when this switch is set to „IN". The „BYPASS" setting causes the circuit to be taken off the signal path.

Troubleshooting

My unit doesn't light up (the VU meter is dark):

– Please check if the rack power supply is on (check the LEDs at the front plate of the rack)

The signal plays thru but there is no change in signal when i turn the knobs:

– Please check the In/Bypass switch position – it should be set to „In".
– Adjust the gain level.

With no signal applied, the VU meter doesn't show 0dB:

– Please use the small screwdriver to set the zero calibration trim under the hole on the side of the unit (see Calibration Procedure)

No signal plays thru the unit, regardless the settings at the front panel:

– Please check the cables connecting the rack.
– Make sure your input and output cables are plugged into the sockets on the right hand side (looking from the back of the unit)

ONE LA 500 main features and technical specification:

- ✔ 500-series double module, mono unit,
- ✔ Original Teletronix '68 audio path,
- ✔ JJ ECC83 input and JJ ECC82 output tubes,
- ✔ tubes powered by 250V DC,
- ✔ Sowter input transformer,
- ✔ Edcor output transformer,
- ✔ OEP sidechain transformer,
- ✔ T4B replaceable photocell (for special order),
- ✔ Potentiometer manipulators,
- ✔ Hard wired bypass,
- ✔ Compressor/Limiter mode,
- ✔ Large VU meter with LED back light
- ✔ 3 year warranty,

Operating Level	+4dBu
Maximum Output	+21 dBu
Maximum Input	+20 dBu
Max Gain Reduction	32 dB
Maximum Gain	32 dB
Input impedance	600 Ohm
Output Impedance	600 Ohm
Frequency response	20Hz to 20kHz; +/- 0.1dB
Noise level dBA	-110dB
THD+N @0dBu	0.002%
Headroom	100 dB
Power consumption	8 Watts
Shipping weight	3kg
Dimensions	H 13,3cm x W 7,6 cm x D 15,8cm

Warranty:

This device is declared to be free from defects in material and workmanship for a period of three years. Any device found defective within three years from the delivery date and returned to the factory, will be repaired, adjusted, or replaced and sent to the customer with no charge. The customer always pays the shipping cost to us. This warranty does not cover expendable items such as tubes or fuses. If the defect has been caused by a misuse or abnormal operation conditions, the repair will be billed at a nominal cost. The product should be returned in its original package, if this is possible, or packed in such a way that it is not damaged during the shipment. We are not to be held responsible for any damages during the shipment. 19" units shall always be packed in a box with support for the rack ears. All 500 series modules need to be secured in ESD bag and protected with foam. We will charge the customer €20 + VAT if the packing material needs to be replaced. If we find that the product works perfectly, the customer will be invoiced €50 + VAT to cover our costs of examination and handling plus the cost for returning the product to the customer.

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