

Anthony DeMaria Labs

Model ADL 1000/1500



Tube compressor / Limiter

Owner's Manual

Introduction

Congratulations on your purchase of the ADL 1000/1500 pure tube compressor/limiter. The ADL 1000/1500 employs an all discrete tube design with no integrated circuits (IC's) or transistors. The use of vacuum tubes in place of IC's creates an overall "warmer", "fatter", more natural sound. The ADL 1000/1500 also uses an opto electrical attenuator for "invisible" compression eliminating the obvious "pumping" sound associated with other compressors and limiters.

The ADL 1000/1500 has many practical applications for recording studios, live concert sound reinforcement as well as for film and broadcast work. Some of these uses include compression and limiting of vocal and instrument material, adding "warmth" and "fattening" up of digital recording systems and samplers, compression of the stereo mix buss, as well as countless others and even more you will discover as you experiment with its vast potential. Many people use the ADL 1000/1500 on virtually every track they record to get the wonderful sound of the vacuum tubes in their signal chain, even if they're not turning up the compression. Whatever uses you have in store for the ADL 1000/1500, you'll enjoy it's wide frequency response, low noise floor, "warm", "rich", "clear" sound, "invisible" compression and incredible ease of operation.

Remove Packing foam from underneath tubes before turning unit on!!

Included in this Package

ADL 1000/1500 Tube Compressor / Limiter

AC Power Cable

Spare Fuse

Spare Meter Lamp

Owner's Manual

Warranty Card

If any of these items are missing or if you have any questions after reading this manual, please call the Anthony DeMaria Technical Department at: 914-256-0032.

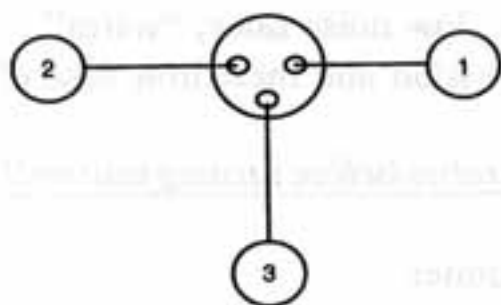
Installation

Audio Connections-Balanced Systems

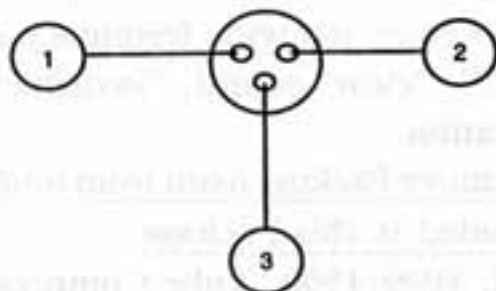
The XLR input and output jacks on the back of the ADL 1000/1500 are balanced 600 ohm connectors. Make sure that the signal preceding the ADL unit is also 600 ohms. Most systems are 600 ohms. If your system is not, please call Anthony DeMaria Labs to order a "Converter plus" adapter to convert your system to 600 ohms. Use good quality audio cable for best results (i.e. Mogami, Canare, Monster Cable, etc.). Pin 2 or pin 3 can be wired hot. Keep it the same as everything else in your audio system. Be consistent. If you wire pin 3 hot on the input, make sure to wire pin 3 hot on the output. Please follow diagram 1 for the proper audio hook-up. Remember, if pin 3 is hot then wire pin 2 cold and if pin 2 is hot then wire pin 3 cold. Pin 1 is always ground in this hook-up.

Diagram 1

Input Connector



Output Connector



1 GND

2 - (Cold)

3 + (Hot)

Or visa versa if your studio is
2 pin hot.

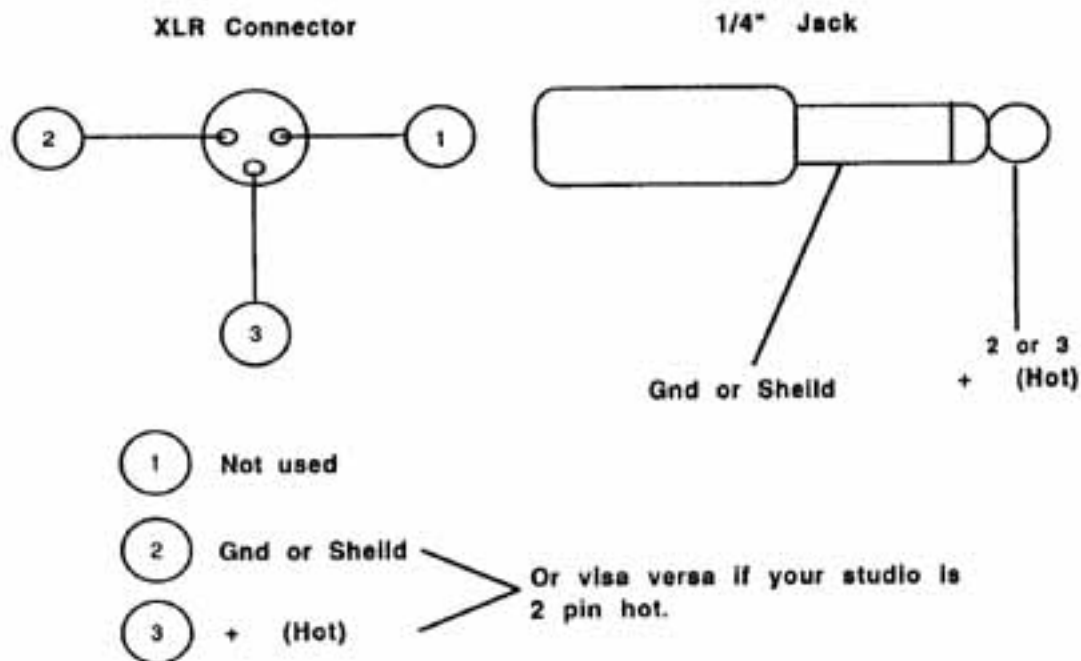
Audio Connections-Unbalanced Systems

Although we feel that the ADL 1000/1500 performs quieter in balanced audio systems, it is also possible to use the unit in unbalanced audio systems with very good results. First, make sure that the signal preceding the ADL unit has a 600 ohm output impedance. If your system does not, call Anthony DeMaria Labs technical department to order a "converter plus" adapter to convert your system to 600 ohms.

1. Connect the ground or shield of your cable to pin 2 of your XLR.
2. Connect the hot wire to pin 3 of the XLR.
3. Repeat steps 1 & 2 for the 1/4" jack. (See Diagram 2)

Note - This set up is for audio systems with pin 3 hot. If your audio systems is pin 2 hot then connect the ground or shield of your cable to pin 3 and the hot to pin 2. Remember, to keep it the same on both the input and the output.

Diagram 2



AC Connections

The vacuum tubes in the ADL 1000/1500 operate at voltage as high as 350 volts. Be Careful. Do not operate with top cover off. Do not use near water. Avoid any moisture. Always use a grounded AC receptacle! ADL assumes no responsibility for possible injury from electric shock while servicing this product or operating it with the top panel off. Turning the unit off while not in use will increase component life. If you have any questions, call Anthony DeMaria Labs. To further increase component life, please allow for adequate ventilation at rear of unit. Because of the heat generated by the tubes we also recommend one rack space be left vacant (Blank) above the unit for additional air flow.

1. Connect the AC cable to the back of the ADL 1000/1500
2. Connect the plug to a properly grounded AC receptacle only!

Fuse Replacement: The ADL 1000/1500 is supplied with a spare fuse. Should it become necessary to change the fuse, first turn the unit off and unplug the AC cable from the receptacle. Gently remove the fuse cover located on the back panel of the unit. Discard bad fuse and replace with correct fuse. Replace fuse cover. Plug in AC cable and turn the unit on.

Model 1000 - For 120 volt units use 1/2 amp slo blow fuse (5x20mm)
For 220 volt units use 1/4 amp slo blow fuse (5x20mm)
For 100 volt units use 800 mA slo blow fuse (5x20mm)

Model 1500 - For 120 volt units use 1 amp slo blow fuse (5x20mm)
For 220 volt units use 1/2 amp slo blow fuse (5x20mm)
For 100 volt units use 1.25 amp slo blow fuse (5x20mm)

Lamp Replacement: The ADL 1000/1500 is supplied with a spare VU meter lamp. If the meter lamp should burn out, turn off the unit and unplug the AC cable from the receptacle. Unscrew the top panel and carefully remove it. Find the VU meter bulb located above the VU meter on the front panel. Gently unscrew the old bulb and discard it. Install the spare bulb and replace the top cover. Plug in the AC cable and turn on the unit.

Operation

The ADL 1000/1500 is designed to prevent an increase in output level beyond a pre-determined point which is determined by the position of the peak reduction control. The ADL 1000/1500 operates as a combination compressor and limiter. Compression occurs and gradually increases over the first 10 db of input level rise. After 10 db of input, the limiter prevents an increase of output level regardless of input increase.

Controls

Gain - The gain knob controls the amount of output from the ADL 1000/1500. The gain knob functions independently of the peak reduction knob, however, the gain control should be set to provide sufficient output after the peak reduction control has been set.

Peak Reduction - The peak reduction knob should be set for the desired amount of gain reduction as indicated by the meter.

VU Meter - The VU meter has 2 functions depending on the position of the meter select switch. The meter can either indicate output level or the amount of peak reduction or peak limiting in db.

Meter Switch - The meter switch controls the function of the VU meter. **THE POSITION OF THE SWITCH DOES NOT AFFECT THE SOUND OF THE ADL 1000/1500, ONLY THE FUNCTION OF THE VU METER!** If the switch is set to output +4, the meter will display the ADL 1000/1500's output. The meter will rest at "0" VU until compression takes place, in other words the meter will move to the left 1 db for each db of reduction.

Operational tips - Set the VU meter switch to Output +4. With a consistent input going to the ADL 1000/1500(i.e., an oscillator tone), begin bringing up the gain control so that the VU meter is reading about +2. Next, bring up the peak reduction control so that the VU meter is now reading -4db. You are now compressing 6db. If you flip the meter switch to gain reduction, you will see that the meter has moved left from 0 to -6db indicating 6db of compression. Experiment with the peak reduction knob to get the exact amount of compression you desire and then adjust the output control to the desired output level. For a general setting, try a gain of between 5-8. This should work very well for most situations. Remember that these are just our general guidelines. You may discover through experimentation that different settings will provide a superior result. Don't be afraid to try your own settings!

Meter Calibration Pot

With no input to the ADL 1000/1500 and the meter switch set to gain reduction, the VU meter should read 0VU. If the meter does not read "0"VU it should be adjusted by inserting a small screwdriver into the meter pot located below the VU meter. to insure accuracy it is important to allow the unit to warm-up for 40 minutes before performing this calibration.

Please be advised that these are real tube units and they will produce a considerable amount of heat. The long term effects of this unventilated heat may slowly damage your equipment. To prevent any premature heat related problems, we recommend you take the following precautionary steps;

1. Please leave one rack space above and below each unit
2. Ample air conditioning or small fan pointed directly at the units
3. Open back racks



(Example of appropriate cooling fan)

Stereo Linking C/L 1000

C/L 1000 Stereo Set-up

1. Allow unit to warm-up for 40 minutes before performing calibrations.
2. Set both meter switches to read "Gain Reduction" both meters should read "0" VU, if not adjust via meter adjust with small screw-driver.
3. While operating the C/L 1000 in mono, make sure the stereo adjust located on the back of the unit is set fully counter-clockwise. Please note the unit will not function if control is not properly set. This control is only to be used for stereo linking.
4. Connect a 1/4" mono guitar cable (not to exceed 2 feet) between the 1/4" stereo link jacks located on the rear panels of the C/L 1000's.
5. Link XLR inputs of both units to an audio oscillator tuned to 1-kHz. Be sure audio tone is in phase.
6. With the meter select switch in the "Output" position increase gain knobs on both units so that both VU meters read "0" VU.
7. Set both meter select switches to read "Gain Reduction".
8. Increase peak reduction control on one of the C/L 1000 until it reads 5 db of reduction on the VU meter (Master). If the other unit (Slave) reads less than 5 db of peak reduction, restore (Master) peak reduction to zero and repeat this step using the opposite unit as the master and turn up peak reduction to read 5 db.
9. Next, use the stereo adjust pot on the new slave (opposite side) by rotating it clockwise until it reads 5 db of gain reduction, now both units should read 5 db of gain reduction.
10. For accurate stereo operation, make sure both gain and peak reduction knobs are positioned the same.
11. Once you have completed your stereo recording, it is important to disconnect 1/4" cable from both units and reset both stereo adjust pots fully counter-clockwise.

Stereo Linking S/C/L 1500

S/C/L 1500 Stereo Set-up

1. For mono use make sure stereo select switch located on front panel is set to "Stereo-Out" if you desire both channels to be linked simply set switch to "Stereo-In".
2. Please make sure both gain knobs, as well as both peak reduction knobs are positioned the same.

Front panel stereo adjustments are factory set. If these front panel tweak pots are mistakenly adjusted. Please follow these steps for readjustment.

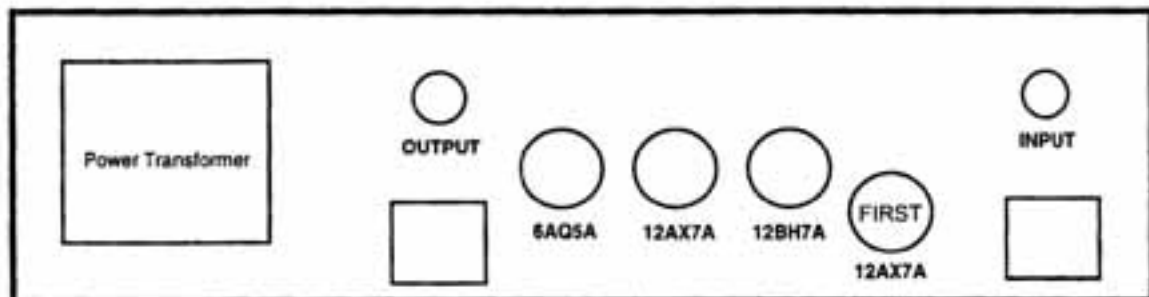
1. Allow unit to warm-up for 20 minutes before performing calibrations.
2. Set both meter switches to read "Gain Reduction" both meters should read "0" VU, if not adjust via meter adjust with small screw-driver.
3. Link XLR inputs to an audio oscillator tuned to 1-kHz. Be sure audio tone is in phase.
4. With both meter select switches in the "Output" position increase gain knobs so that both VU meters read "0" VU.
5. Set both meter select switches to read "Gain Reduction".
6. Set stereo switch to "Stereo In".
7. Increase peak reduction control on right side until it reads 5 db of reduction on the VU meter (Master). If the other side (Slave) reads less than 5 db of peak reduction, restore (Master) peak reduction to zero and repeat this step using the opposite side as the master and turn up peak reduction to read 5 db.
8. Next, use the stereo adjust pot on the front panel slave (opposite side) by rotating it clockwise until it reads 5 db of gain reduction, now both units should read 5 db of gain reduction.
9. For accurate stereo operation, make sure both gain and peak reduction knobs are positioned the same.
10. Once you have completed your stereo recording, there is no need to reset these front panel adjustment pots. Simply switch to "Stereo-Out" and you are ready to resume your mono recording.

ADL 1000/1500 Compressor / Limiter

Specifications

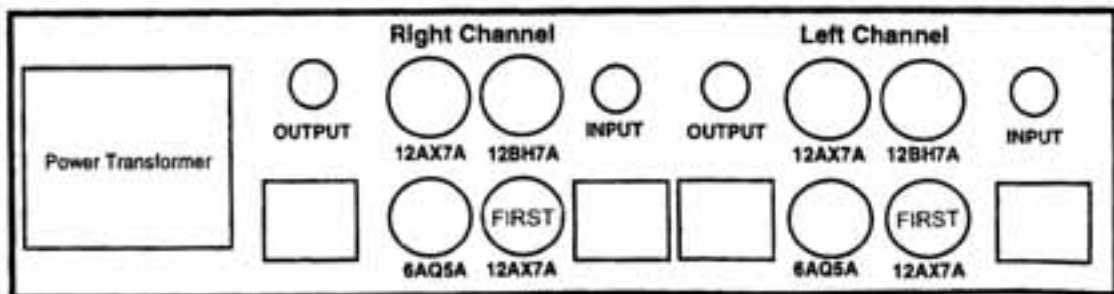
Frequency Response.....	15 Hz - 30kHz \pm 0.5 dB
Clip.....	+22
Distortion.....	@+4 + 0.75% @+20 + 0.18%
Noise.....	-80 dB
Input/Output Impedance.....	600 Ohm Balanced XLR
Gain Reduction.....	40 dB
Gain.....	40 dB \pm 1 dB
Attack Time.....	10uSec.
Release Time.....	Approximately 0.07 Sec. fro 50% Release, 0.5 Sec. to 4 Sec. for Complete Release, Depending on Amount of Previous Reduction
Panel Size.....	Standard Two Rack Space (2U)
Panel Controls.....	Gain Reduction/Output +4 Switch Gain, Peak Reduction and Power (Stereo link switch on Model 1500 only)
Power.....	117(Standard), 100, 220 & 240 (Available on request)
Fuse.....	For ADL 1000-120v use 1/2 amp Slo Blow (5x20mm) For ADL 1000-220v use 1/4 amp Slo Blow (5x20mm) For ADL 1000-100v use 800mA Slo Blow (5x20mm) For ADL 1500-120v use 1 amp Slo Blow (5x20mm) For ADL 1500-220v use 1/2 amp Slo Blow (5x20mm) For ADL 1500-100v use 1.25 amp Slo Blow (5x20mm)
Tube compliment.....	ADL 1000 (2) 12AX7A, (1) 12BH7A, (1) 6AQ5A ADL 1500 (4) 12AX7A, (2) 12BH7A, (2) 6AQ5A
Shipping Weight.....	ADL 1000 (11 lbs) ADL 1500 (14lbs)

ADL 1000 Rear Panel View



*Please note - Tube #12BH7A
could also be designated #6829, 12AU7A

ADL 1500 Rear Panel View



FIRST 12AX7A
Could Also Be Designated 12AX7LPS

FIRST 12AX7A
Could Also Be Designated 12AX7LPS

Important

You must fill out the warranty card completely and mail it now to receive service and future product updates!

IMPORTANT!

BE SURE TO REMOVE ALL PACKING FOAM FROM UNDERNEATH TUBES BEFORE TURNING UNIT ON!

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

CAUTION

**RISK OF ELECTRIC SHOCK
DO NOT OPEN**

CAUTION:

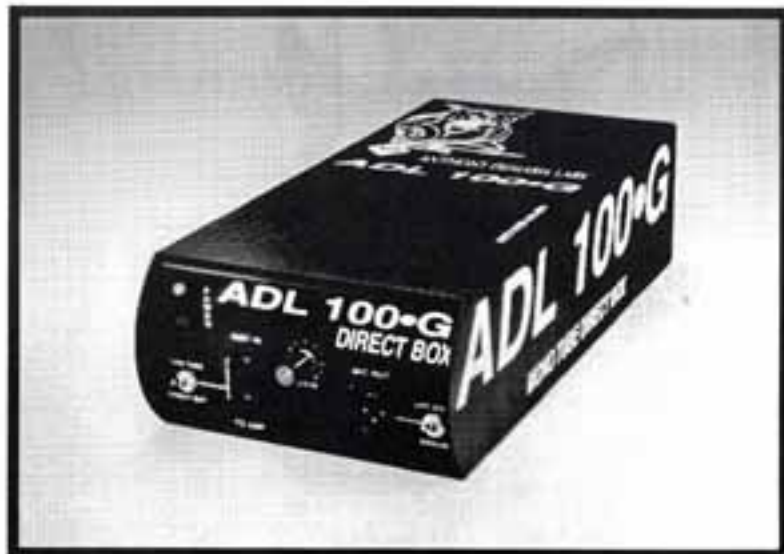
DO NOT OPEN UNIT, REFER TO QUALIFIED SERVICE PERSONNEL. REFER TO MANUAL FOR CORRECT FUSE USE OF WRONG FUSE CAN CAUSE FIRE.

ADL is happy to serve your recording needs, listed below you will find our complete product line;

- ADL Mono Tube Comp/Limiter C/L 1000
- ADL Stereo Tube Comp/Limiter S/C/L 1500
- ADL Mono Tube Direct Box 100-G
- ADL Stereo Tube Direct Box 300-G

Anthony DeMaria Labs
95 Dubois Road,
New Paltz, New York 12561

Manual updated 3/99



ADL Mono Tube Direct Box 100-G



ADL Stereo Tube Direct Box 300-G

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"TOP DOG IN AUDIO!"

Anthony DeMaria Labs

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