



LA502 Setup guide

Follow the testing procedure in the shown order. If one test fails, find out the problem, correct it then resume.

Always unplug power between steps because it is very easy to create a short circuit when moving a DMM probe. And most of the time, shortcuts are fatal to the circuits.

Step	Description
1.	<p>Initial settings</p> <p>IMPORTANT: It is necessary to turn the seven trimmer potentiometers all the way counter clockwise before start. These trimmers are 20 turns so that's a lot of turns to do!</p> <p>Set the PEAK potentiometer to 0.</p> <p>Set all switches to the left position</p> <p>Set the GAIN potentiometer to 0.</p>
2.	<p>Board installation</p> <p>Plug the LA502 into your 500 connector Extender, if you own one or...</p> <p>Remove all other modules from you 500 rack or Lunchbox and insert the LA502 into the leftmost slot.</p>
3.	<p>Power voltages check</p> <p>Set your DMM to DC Volts on a 20 V scale.</p> <p>Power the lunchbox.</p> <p>Connect the black probe to test point 0V.</p> <p>Connect the red probe to test point V+. Check that you get a value between 15 and 16 Volts.</p> <p>Connect the red probe to test point V-. Check that you get a value between -15 and -16 Volts.</p>
4.	<p>Input signal</p> <p>Connect a 1 KHz sine source to the input.</p> <p>You can use your multitrack software loop playing a sine tone like the one that is downloadable from the "Support/Downloads & Useful links" section on our website.</p> <p>Route the signal to an audio output connected to the LA502 input.</p> <p>Connect your DMM to the LA502 output, between pin 2 and pin 3 of the XLR. The DMM is set to AC Voltage.</p> <p>Check that you get your signal on the DMM (bypass mode).</p> <p>Adjust the sine source in order to get about 1 VAC.</p>
5.	<p>Compressor check</p> <p>Set the Bypass switch to IN.</p> <p>Increase the GAIN pot and check that you can see the voltage on output increase up to 25-26VAC.</p> <p>Adjust the gain pot to get 15VAC</p> <p>Now turn the PEAK pot clockwise and check that it makes the output voltage go down to 1 VAC or less.</p>



Step		Description
6.	GR meter setup	<p>All these trimmers look scary but the setup is actually simple.</p> <p>The switches are still on the left position except the bypass which is on center. Trimmer P3 is all the way CCW.</p> <p>PEAK pot is on 0.</p> <p>Adjust GAIN pot to get exactly 15VAC on output.</p> <ul style="list-style-type: none"> - Turn up PEAK pot until the voltage goes down to exactly 10.6V. Adjust P4 until the -3 LED starts lighting. - Turn up PEAK pot until the voltage goes down to exactly 7.5V. Adjust P5 until the -6 LED starts lighting. - Turn up PEAK pot until the voltage goes down to exactly 5.3V. Adjust P6 until the -9 LED starts lighting. - Turn up PEAK pot until the voltage goes down to exactly 3.75V. Adjust P7 until the -12 LED starts lighting. - Turn up PEAK pot until the voltage goes down to exactly 2.4V. Adjust P8 until the -16 LED starts lighting. - Turn up PEAK pot until the voltage goes down to exactly 1.5V. Adjust P9 until the -20 LED starts lighting.
7.	Sound check	<p>Send a musical signal to the compressor and monitor the output.</p> <p>Check the different ratios. Increasing ratios should increase compression (subtle effect).</p> <p>Check that the “HPF” switch increases the relative level of basses.</p> <p>Check the effect of the “Attack” switch on percussive sounds.</p>
8.	Stereo adjust	<p>If you are setting up a stereo pair, it is necessary to match the 2 compressors.</p> <p>The stereo link signals (pin 6 of the card edge connector) must be connected together in the lunchbox.</p> <p>Send the sine source to both inputs.</p> <p>Set all the switches to the left except the Bypass switch set to the right on both compressors (STER.)</p> <p>Start increasing the PEAK potentiometer on both compressors until you see at least one LED lighting up on each.</p> <p>If the LED's light up simultaneously , then there is nothing more to do.</p> <p>If there is a difference, you must adjust P3 on the compressor that attenuates more (the LED's light up first).</p> <p>Make your adjustments on a low compression levels -3 to -6 dB.</p> <p>Turn P3 clockwise on the lagging compressor until the LED's light up together on both compressors.</p> <p>When working in stereo, it is recommended to stay with moderate compression levels because the optical couplers may not track perfectly on the full 40 dB range.</p>
9.	Congratulations!	<p>You're done!</p>