Sound Skulptor Analog Pro Audio

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# LA502T 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. | Initial settings | IMPORTANT: It is necessary to turn the trimmer potentiometer TR3 all the way counter clockwise before start. This trimmer is 20 turns.<br>Set the PEAK potentiometer to 0.<br>Set the 3 top switches to the left position and the bottom switch to centre (bypass).<br>Set the GAIN potentiometer to 0. |
| 2. | Board installation | Plug the LA502T into your 500 connector Extender, if you own one or…<br>Remove all other modules from you 500 rack or Lunchbox and insert the LA502T into the leftmost slot. |
| 3. | Supply voltages check | Set your DMM to DC Volts on a 20 V scale.<br>Power the lunchbox.<br>Connect the black probe to test point 0V.<br>Connect the red probe to test point V+. Check that you get a value between 15 and 16 Volts.<br>Connect the red probe to test point V-. Check that you get a value between -15 and -16 Volts. |
| | High voltage check | Set your DMM to DC Volts on a minimum 300 V scale.<br>Connect the black probe to to the V- pin on U5.<br>Connect the red probe to the B+ pin on U5 and power up.<br>The voltage should be around 30V and after 10 seconds it should rise to around +225V. |
| | Heater voltage check | Set your DMM to DC Volts on a 20 V scale.<br>Connect the black probe to to the H- pin on U5.<br>Connect the red probe to the H+ pin on U5 and power up.<br>The voltage should go from 7V to 12V after a few seconds. |
| | DC voltage check | Set your DMM to DC Volts on a 200 V scale.<br>Connect the black probe to test point **0V** and power up.<br>With the red probe measure the DC voltages on:<br>TP2: 146V ± 15%<br>TP3: 113V ± 15%<br>Set your DMM to DC Volts on a 20 V scale.<br>With the red probe measure the DC voltages on:<br>TP1, TP4, TP5, TP6, TP7: 0V. |

| Step | | Description |
|---|---|---|
| 4. | Input signal | Connect a 1KHz sine source to the input.<br>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.<br>Route the signal to an audio output connected to the LA502T input.<br>Connect your DMM to the LA502T output, between pin 2 and pin 3 of the XLR. The DMM is set to AC Voltage.<br>Check that you get your signal on the DMM (bypass mode).<br>Adjust the sine source in order to get about 1VAC. |
| 5. | Compressor check | Set the Bypass switch to IN.<br>Increase the GAIN pot and check that you can see the voltage on output increase up to 20VAC at least.<br>Adjust the gain pot to get 15VAC<br>Now turn the PEAK pot clockwise and check that it makes the output voltage go down to 2VAC or less. |
| 6. | GR meter setup | The switches are all on the left position. Trimmer TR3 is all the way CCW (20 turns).<br>PEAK pot is on 0.<br>Adjust GAIN pot to get exactly 15VAC on output.<br>- Turn up PEAK pot until the voltage goes down to exactly 10.6V. Adjust TR1 until the -3 LED starts lighting.<br>- Turn up PEAK pot until the voltage goes down to exactly 1.5V. Adjust TR2 until the -20 LED starts lighting. |
| 7. | Sound check | Send a musical signal to the compressor and monitor the output.<br>Check the different ratios. Increasing ratios should increase compression (subtle effect).<br>Check that the "HPF" switch increases the relative level of basses.<br>Check the effect of the "Attack" switch on percusive sounds. |
| 8. | Stereo adjust | If you are setting up a stereo pair, it is necessary to match the 2 compressors.<br>The stereo link signals (pin 6 of the card edge connector) must be connected together in the lunchbox.<br>Send the sine source to both inputs.<br>Set all the switches to the left except the Bypass switch set to the right on both compressors (STEREO).<br>Start increasing the PEAK potentiometer on both compressors until you see at least one LED lighting up on each.<br>If the LED's light up simultaneously , then there is nothing more to do.<br>If there is a difference, you must adjust TR3 on the compressor that attenuates more (the LED's light up first).<br>Make your adjustments on a low compression levels -3 to -6 dB.<br>Turn TR3 clockwise on the compressor that compresses too much until the LED's light up together on both compressors.<br>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. |
| 9. | Congratulations! | You're done! |