



CP554 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
	<p>The setup is done in 2 steps. First we will setup the audio path of the compressor (PCB-1) then in the second step, we will setup the side chain (PCB-2).</p> <p>If you own an XT500 connector extension, you can use it for the audio path setup.</p> <p>If you own two XT500 connector extensions, you can use them for both the audio path and side chain setup.</p>
1.	<p>Before setup</p> <p>Remove the CP554 cover and the top PCB (PCB-2), leaving only the front panel PCB (PCB-3) and the PCB with the transformers (PCB-1) in place.</p>
2.	<p>Board installation (without XT500)</p> <p>Remove all other modules from your 500 rack or Lunchbox and insert the CP554 into the leftmost slot.</p>
3.	<p>Board installation (with XT500)</p> <p>Connect the lower PCB-1 to your XT500.</p>
4.	<p>Power voltages check</p> <p>Set your DMM to DC Volts on a 20 V scale.</p> <p>Connect the black probe to test point 0V.</p> <p>Power up the lunchbox.</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> <p>Switch on the BYPASS switch (down) and check that the front panel LED lights up.</p>
5.	<p>Bias adjust</p> <p>With TR2, we are going to adjust the bias of Q7 in order to flow about 65mA of direct current in the output transformer primary. To do this, we are going to measure the voltage across resistor R32, between TP2 and TP3.</p> <p>Set your DMM to DC volts.</p> <p>Place the (+) probe of your DMM on the test pin TP2. Place the (-) probe of your DMM on the test pin TP3.</p> <p>Adjust TR2 until you read 3.0 Volts on the DMM. P2 is a multi-turn so it may take several turns to see a change.</p> <p>Warning : If you do not see any voltage change when turning TR2, stop adjusting and check your board. You probably have an error.</p>



Step		Description
6.	Input signal	<p>Connect a 1 VAC, 1 KHz sine source to the input.</p> <p>You can use your multitrack software (DAW) to play a sine tone like the one that is downloadable from the “Support/Downloads & Useful links” section on our website.</p> <p>Connect your DMM to the CP554 output, between pin 2 and pin 3 of the XLR. The DMM is set to AC Voltage.</p> <p>Switch off the BYPASS switch (up) to turn off the CP554.</p> <p>Adjust the signal amplitude from the DAW in order to read 1.0 VAC on the DMM.</p> <p>Switch on the BYPASS switch (down) to turn the compressor on.</p> <p>Check that turning the MAKEUP switch changes the output level.</p>
7.	0dB Gain trim	<p>Set the MAKEUP gain to 0dB and adjust trimmer TR1 in order to get no output level change when switching on and off the BYPASS switch.</p>
	MAKEUP	<p>Check that each step of the MAKEUP switch increases the output level up to 12.5V-13 V at +22.</p>
8.	Side chain setup	<p>Please refer to the assembly guide to install the side chain board, PCB-2.</p> <p>If you don't own a second XT500, install the CP554 inside a lunchbox. Remove all other modules from your lunchbox and insert the compressor into the leftmost slots.</p> <p>It is recommended to use a special trimmer tool with a recessed blade that won't slip from the trimmer pot screw.</p>
9.	Initial settings	<p>Set RATIO to 6, Set ATTACK to 1mS, Set RECOVERY to 100mS, Set THRESHOLD to -6dB, Set MAKEUP to 0dB, Set SIDE CHAIN to INT, Set all the push switches in the up position.</p> <p>Power up and let the compressor warm-up 15mn.</p>
10.	3V Adjust	<p>Place the jumper JMP1 across pins 2-3 (pin 1 is identified by a white dot).</p> <p>Connect the meter to J4a.</p> <p>Set your DMM to DC volts.</p> <p>Place the (+) probe of your DMM on the test pin 3V (near trimmer TR4). Place the (-) probe of your DMM on the test pin 0V.</p> <p>Adjust TR4 to get exactly 3 Volts.</p>
11.	Control voltage adjust	<p>Connect your DMM to the CP554 output, between pin 2 and pin 3 of the XLR. The DMM is set to AC Voltage.</p> <p>Switch off the BYPASS switch (up) and adjust the 1 KHz sine source to 2.45VAC (+10dBu).</p> <p>Switch on the BYPASS switch (down) and adjust the CV trimmer (TR5) in order to read 0.98VAC (+2dBu).</p>
12.	Meter adjust	<p>Adjust trimmer TR6 in order to read 8dB attenuation on the meter.</p> <p>Check you can vary the attenuation by playing on the 3V trimmer (TR4).</p> <p>This 3V setting is not necessary anymore.</p>



Step		Description
13.	THRESHOLD adjust	<p>Place the jumper JMP1 across pins 1-2. It will remain here after the setup.</p> <p>Set the THRESHOLD to -6dB.</p> <p>Switch off the BYPASS switch and adjust the 1KHz sine source to 6.15VAC (+18dBu).</p> <p>Switch on the BYPASS switch and adjust the THRESHOLD trimmer (TR3) in order to read 0.615VAC (-2dBu).</p> <p>Set the THRESHOLD to -18dB.</p> <p>Switch off the BYPASS switch and adjust the 1KHz sine source to 1.55VAC (+6dBu).</p> <p>Switch on the BYPASS switch and check that the output level is 0.155VAC (-14dBu) more or less 10% or 1dB.</p> <p>Set the THRESHOLD to +9dB.</p> <p>Switch off the BYPASS switch and adjust the 1KHz sine source to 6.15VAC (+18dBu).</p> <p>Switch on the BYPASS switch and check that the output level is 2.6VAC (+10.5dBu) more or less 10% or 1dB.</p>
14.	General check	Send a musical program to the input and verify that all the front panel controls work as expected.
15.	Congratulations!	You're done!