

Checklist after service of PLM

PLM 10000Q, PLM 14000

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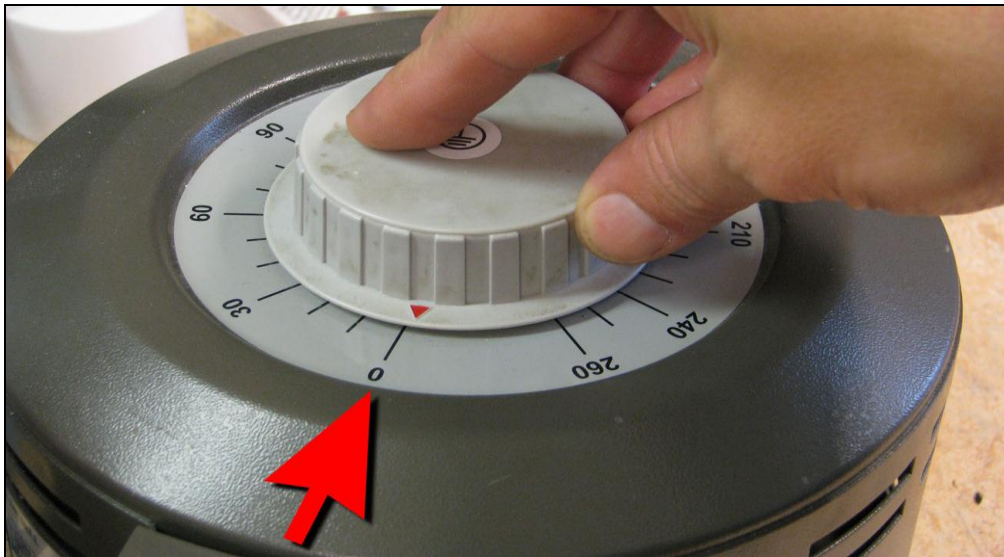
1 Introduction

This checklist shall be used to make sure the amplifier is always checked in a proper way after service has been done. It is important to follow the steps in this check list and check all points so that the set up of parameters in the amplifier is correct adjusted. When have done all checks and adjusted the parameters the amplifier will work properly and will have the output power that it is designed for.

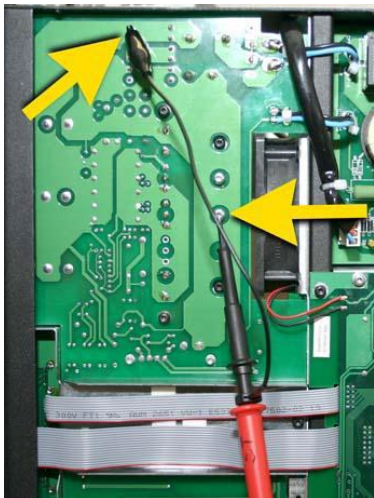
2 Check list PLM-series

Always clean the amplifier by blowing with compressed air through coolers and fans. Be careful when blowing where big electrolytic capacitors are placed so that the capacitor doesn't get damaged.

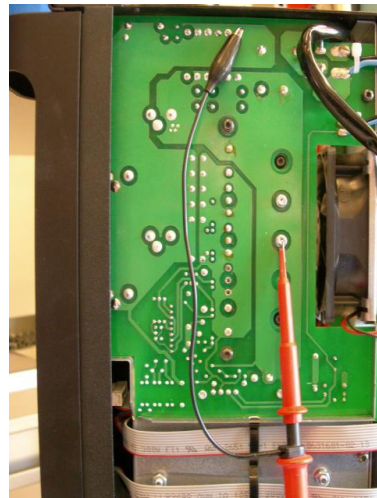
1.	Turn down variac. Insert mains plug from variac into amp.		
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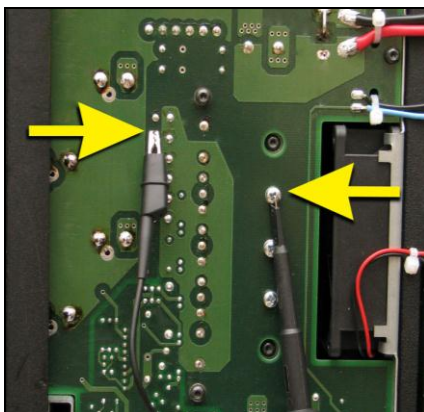
2.	Connect an oscilloscope probe.		
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Measuring points for SP100F.

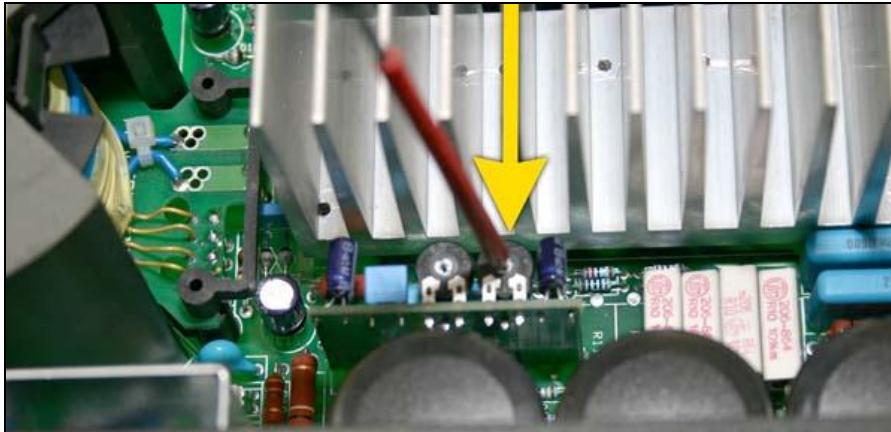


Measuring points for SP130F.



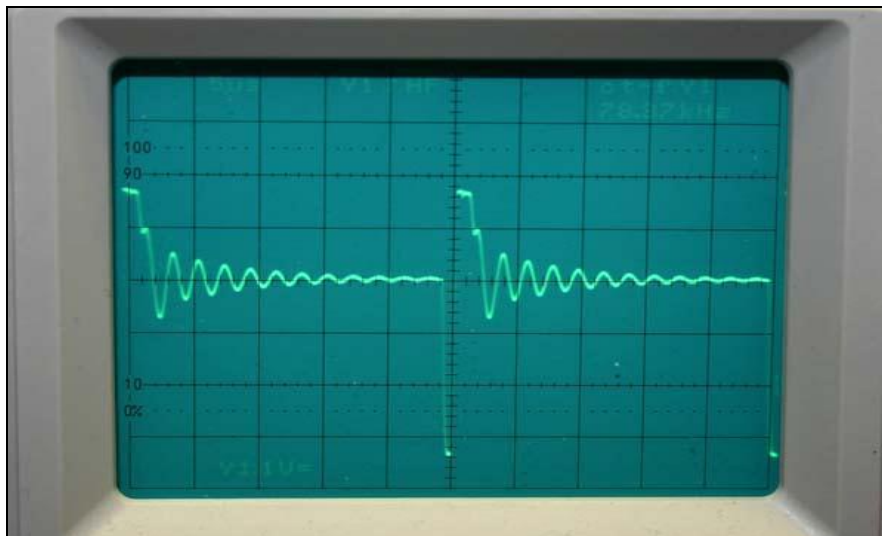
Measuring points for SP140F.

3.	Make sure VR1 is turned fully counter clockwise.		VR1-PWMF1
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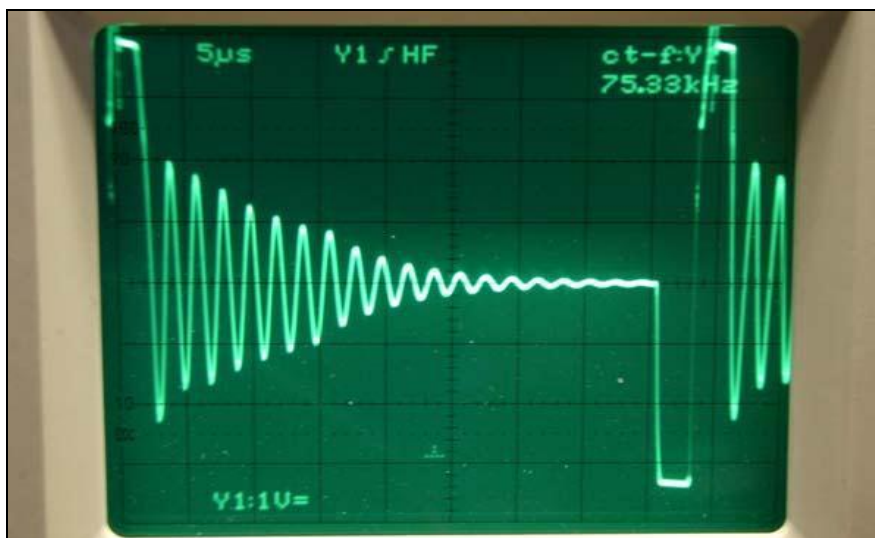


4.	Slowly turn variac up. The variac should be set to 230VAC for 230V amplifiers and 115VAC for 115V amplifiers. Start up the amplifier.		
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5.	When the amplifier is all started up; Begin turning VR1 clockwise. Waveform should look like picture below.		
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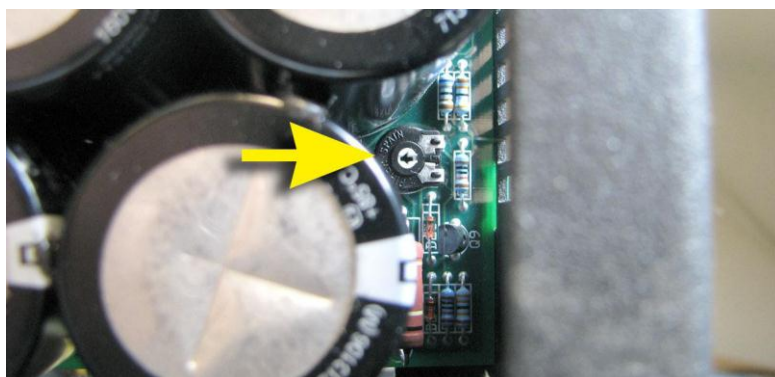


6.	At a certain point, power supply will regulate. Then, turn current potentiometer (VR1) fully clockwise.	120-140V	+/- RAIL
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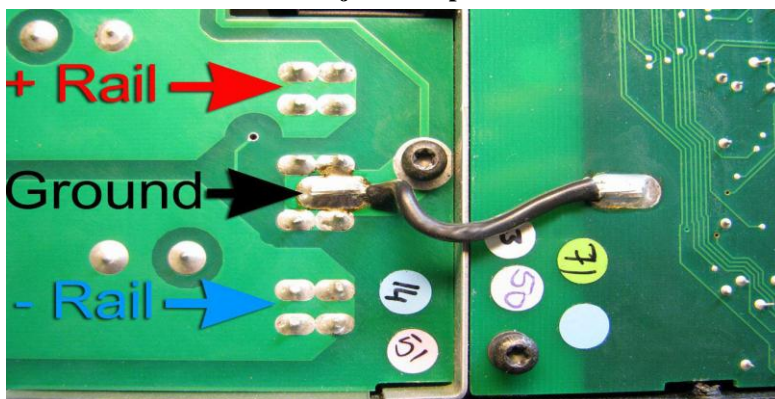


7.	Begin turning voltage adjust potentiometer. At 174V (+/- 2V) power supply will stop.	ca +/- 174V	VR1-SP1**F
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8.	Adjust voltage. You will find where to adjust and measure the voltage in the pictures below.	+/- 158-160V	VR1-SP1**F
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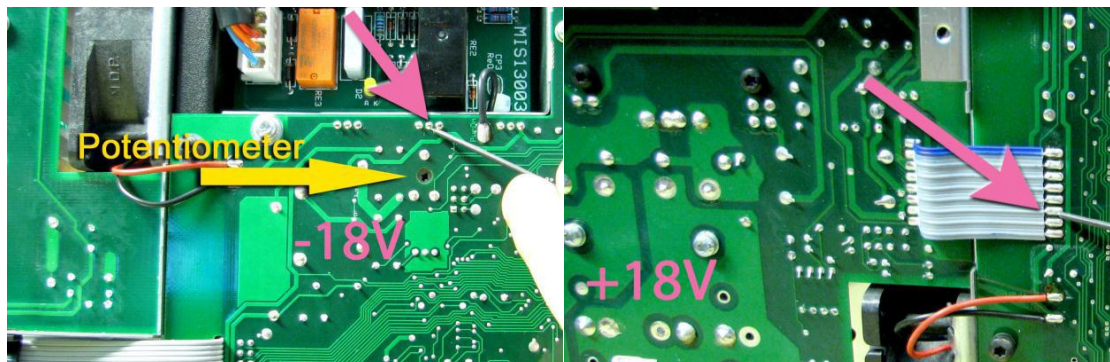


1. Adjustment point

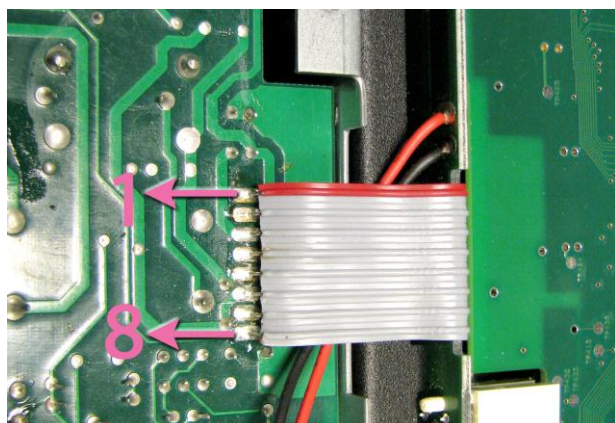


2. Measuring point

9.	Check and set the 18V if necessary. It must not be higher than 18V at the highest measure and not lower than 17,95V at the lowest measure. Where to measure and set the 18V with the potentiometer is shown in the picture below.	18V - 17,95V	VR1-SP1**F
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10.	Measure voltages according to chart:		
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1	GND	X	X
2	+2V	+/- 0.1V	Trafotemp
3	+26V	+/- 1V	15VUnr
4	GND	X	X
5	X	X	X
6	X	X	X
7	X	X	X
8	+3,3V	+/- 0.1V	PAL

11.	Test every channel individually by enabling MUTE for the channels which is not being tested.		
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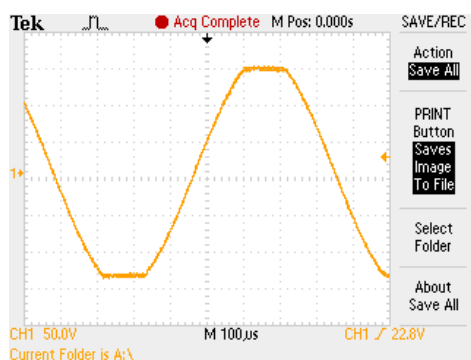
12.	Press MUTE ENABLE . Button starts flashing.		
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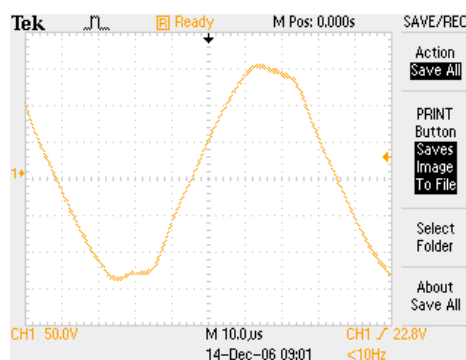
13.	RED indicates muted channel. GREEN indicates active channel.		
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14.	When testing a channel; Check offset with no input (+/- 50mV). Increase input signal and check output signal at clip 8Ω		
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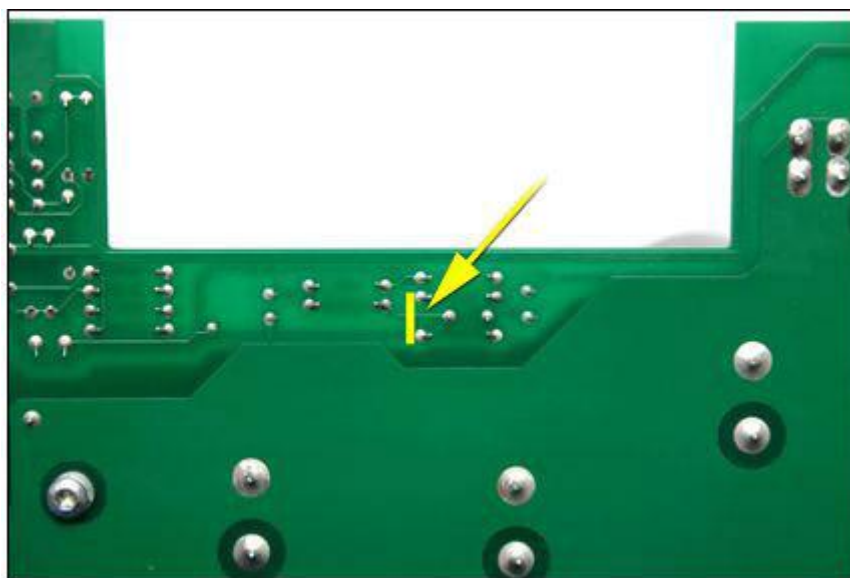
Wave measured at 1.3kHz.



Wave measured at 13kHz.

15.	When every channel is tested – activate all!		
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16.	Test SP140F temperature protection by short-circuit according to picture below. Make sure the fans starts spinning at full speed and that all channels indicates TEMP FLT:CH on the display.		
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17.	Test the undervoltage protection by start turning down the variac, the SP140F should shut down at about 70VAC .		
18.	Check dust filters, change when needed.		