

+5V power supply upgrade kit for PMS-5000, PPA-1200, and PPE-2410

Due to the fact that the PMS-5000, the PPA-1200, and the PPE-2410 make use of a microcontroller to control and monitor the device, problems may arise when the mains power provision is of poor quality.

This results in the device being reset during a mains power dip. The audio signal is shut off during the reset condition which means that you are out of sound for a moment.

The 5V power supply upgrade kit allows the mains voltage to dump to 60% of the nominal value. The following table lists various mains voltages and their minimum allowed values after the kit has been installed.

Mains voltage (V)	Minimum allowed value (V)
100	60
110	66
120	72
200	120
220	132
230	138
240	144

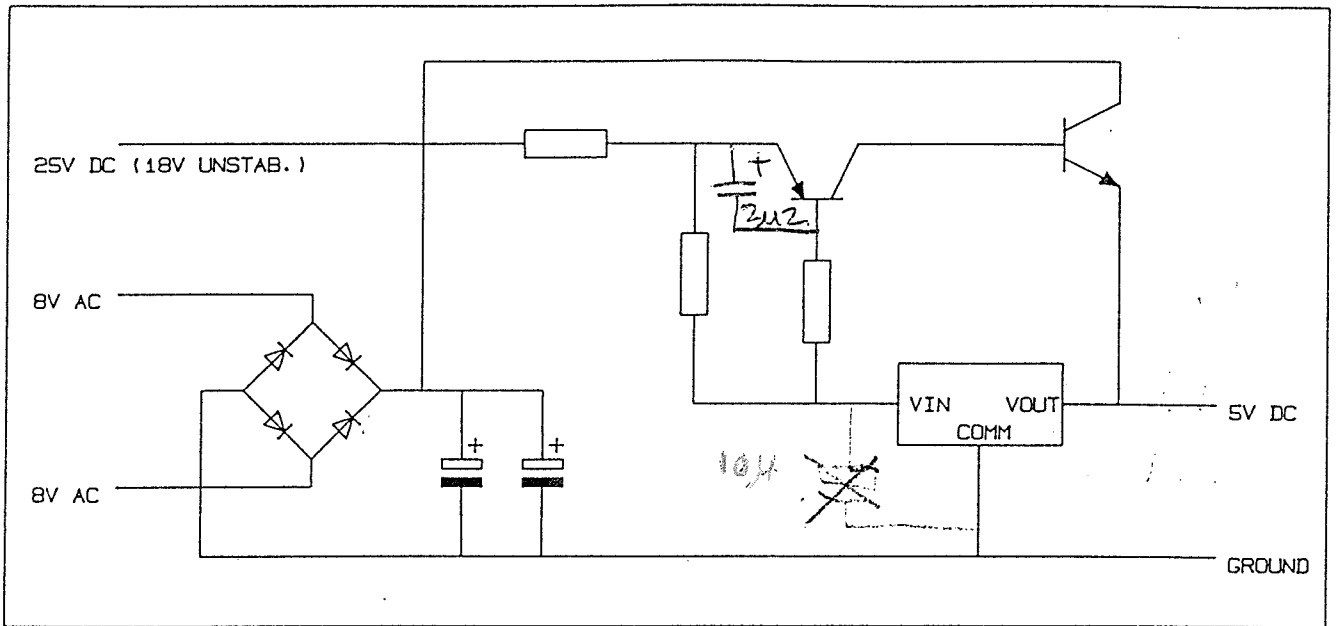
Description and installation of the upgrade kit:

The unregulated voltage of the +5V power supply is constantly monitored by the circuit (see enclosed diagram). As soon as the voltage dumps below a certain level, current is drawn from the unregulated +25V power supply with a maximum of 600 mA.

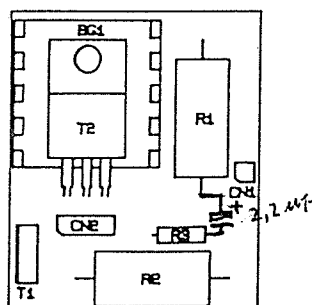
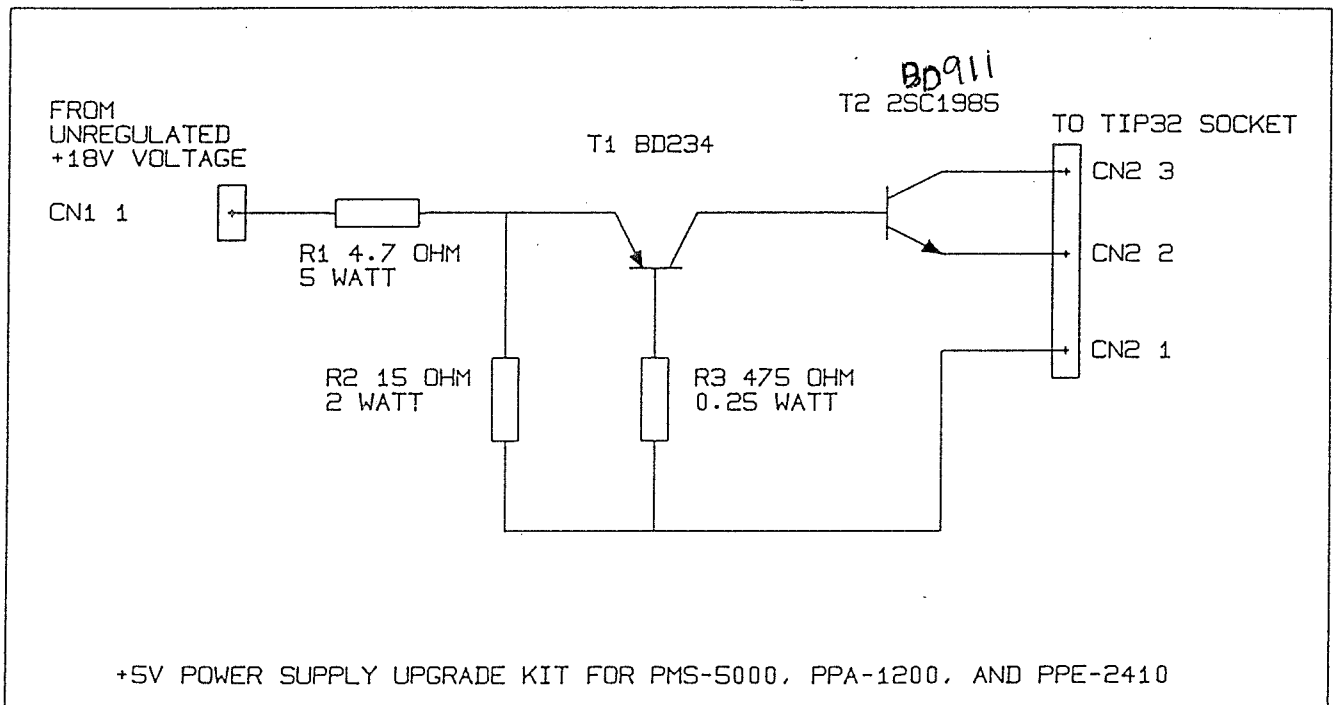
In all three cases, the TIP32 power transistor can be replaced by an upgrade printed circuit board (PCB). There are no further hardware modifications except that the high power resistor in series with the +5V regulator has to be removed. Furthermore, the wire from the upgrade PCB has to be connected with the unregulated +25V voltage.

Article/order numbers are:

Blue Box Amplifier Module, PMS-5000 : 2995.5000
Programmable Parametric Equaliser, PPE-2410 : 2995.2410
Programmable Power Amplifier, PPA-1200 : 2995.1200

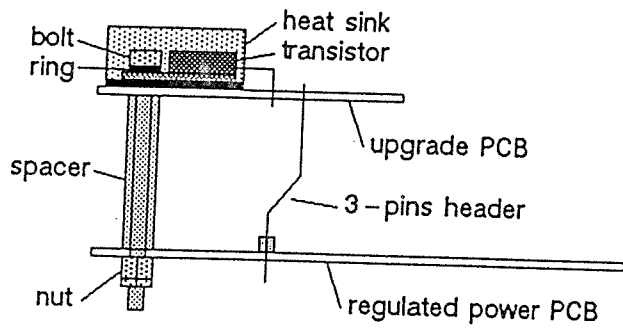


NB. 10µF/35V rechtsstreeks op de aansluitingen v.d. 5V regulator



Detailed installation prescription for the PMS-5000 upgrade kit

- 1 - Be sure that the PMS has been disconnected from the mains power supply! Remove the four bolts of the regulated power supply PCB. Take care that you do not unnecessarily bend the transformer wires!
- 2 - Remove resistor R21 (+5V series resistor) and remove transistor T14 (TIP32). Desolder the PCB holes of T14. Keep the heat sink, the bolt, and the nut.
- 3 - Fasten the spacer with the nut on the regulated power PCB. Insert the 3-pins header into the former T14 holes. Position the heat sink between transistor 2SC1985 and the upgrade PCB. See the side view drawing and the picture.
- 4 - Fasten the upgrade PCB with the bolt to the spacer and insert the 3-pins header into the appropriate holes of the upgrade PCB. Again see the side view drawing and the picture.
- 5 - Solder the 3-pins header and solder the wire of the upgrade PCB to the cathode of diode D13 (1N4007). See picture.
- 6 - Reposition the regulated power supply PCB and fasten it with the four bolts. Be sure that all bolts and nuts are securely fixed!
- 7 - The installation is ready now. Check the PMS's functions.



Side view of installed 5V upgrade kit for PMS - 5000.