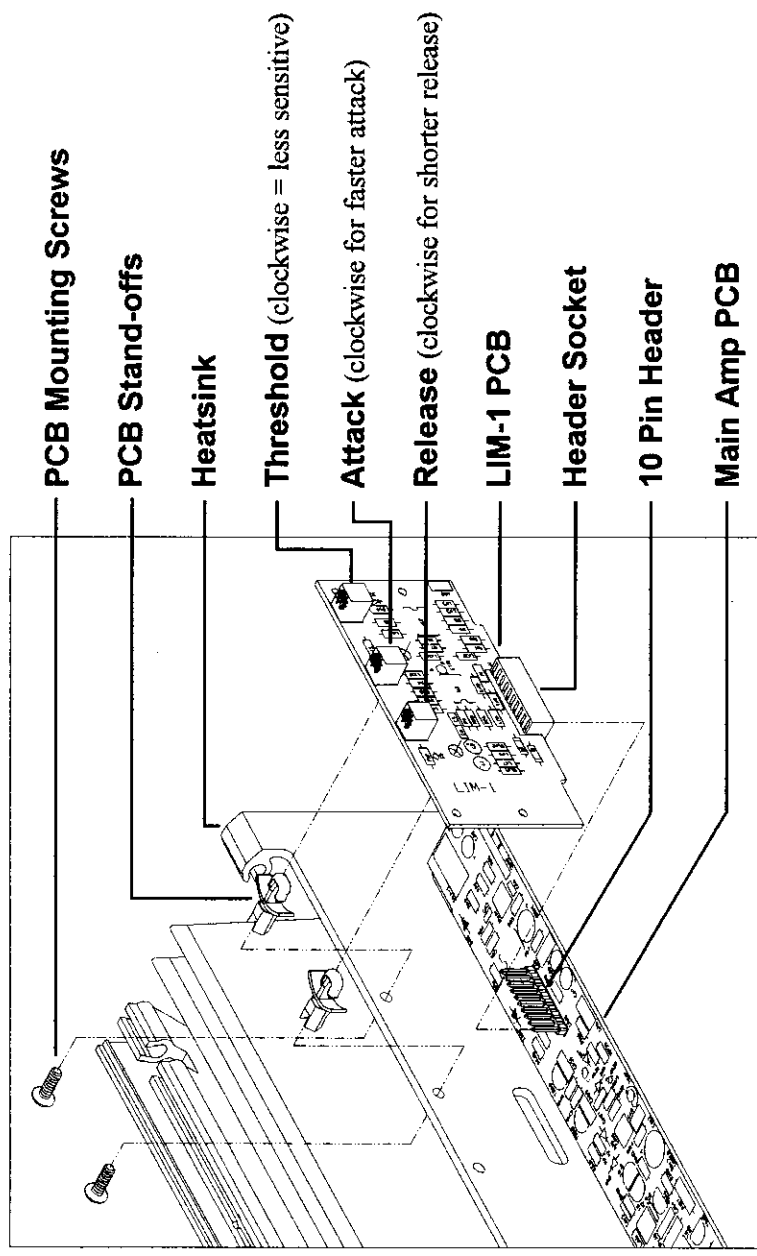


Note: On early model PA and KA Series amplifiers, some wiring is in the way, restricting access of the LIM-1 limiter card to the 10 Pin Header pins on the main amplifier board. Whilst the amplifier is off and disconnected from the mains supply, remove the top lid of the amplifier. A cable tie holds 3 thermal sensor wires (red, purple and black) and 1 fault detect wire (yellow) against the heatsink as the wires come from the centrally located slow start and distribution PCB. Cut the cable tie and form the wires around the area that the Lim-1 PCB will occupy. Try not to disturb the fan wiring too much as their location has been set during test to minimise noise radiating into the amplifier.

Starting with Channel-A;

1. Remove the signal strapping link on the 10-Pin header on the Main Amp PCB.
2. Push the PCB stand-offs into LIM-1 PCB and ensure it "clicks / locks" into position.
3. Line up header socket on LIM-1 PCB with the header pins on the Main Amp PCB. Do not push in just yet. Check that no components are in the way and will not be caught by the LIM-1 PCB.
4. Once you are sure that the header socket and pins do line up and all components are clear - push the LIM-1 PCB onto the header pins until the mounting holes in the PCB stand-offs line up with the mounting screw clearance holes in the heatsink.
5. Screw the mounting screws into the PCB stand-offs adding nail polish as a locking "anti vibration" agent.
6. Repeat for Channel-B.



Set up: The LIM-1 limiter card comes with 3 (user variable) controls being Threshold, Attack and Release. The Threshold is adjustable from -20dB to 0dB (re full power of the amplifier). The Attack time adjustment can be varied from <1ms (fully clockwise) to 40ms (fully counter clockwise) whilst the Release can be adjusted from 100ms (fully clockwise) to 1.1 seconds (fully counter clockwise). The LIM-1 can be set as a peak limiter (fast attack and short release) to an RMS "Power" limiter (slow attack and long release), we believe in most instances that it should be used as a sustained clipping limiter. On this basis we recommend that the attack and release controls are left in a central position. You will require an oscilloscope, signal generator and an appropriately rated load, to handle the power, to set the threshold level. To set the threshold, turn it on and turn the Channel attenuator knob up fully (0dB attenuation). Apply a variable signal taking your amplifier up until it starts to clip or where you want the limiting action to occur. Turn the threshold control anti-clockwise until the waveform is starting to be compressed by the limiter. The threshold has now been set. Repeat for the other channel. Do a final inspection of your installation checking that the card is located securely and wiring or components are not binding on any adjacent surfaces. Replace lids.