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## **Circuit Change**

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***PROBLEM:*** You may receive a complaint that the unit goes into protection mode.

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***CAUSE:*** The transistors in the gain stage maybe overheating causing a dc offset in the output.

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***SOLUTION:*** Increase the value of resistors R311/313 and R312/314 from 93 ohms 1/4w to 180 ohms 1/4w. The dissipation of transistors Q307/311 and Q309/313 drops significantly.

*Please pay attention to any discolouring of the pc board as it may indicate the transistors need replacing (prolonged heat may cause transistor to drift or breakdown).*

*After performing the above change, check the idle current. A value of 30 -35mV is normal. Excessive idle current can blow the amplifier channel.*

*Also if the idle current cannot be adjusted up enough then change the value of R501/502 on each amplifier board. If these resistors are 4k on the board (the service manual may indicate 1.5K) increase slightly. A 4.7 k gives good results.*

*Please note: A variac is definitely required for setting the idle current. Bring the AC voltage up slowly while monitoring the idle current.*

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