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## Gallien-Krueger Service Center Memo

**Model** 400RBIII power amp board rev. D  
**Subject** Fan circuit  
**Date** 7-30-01  
**Memo ID** Sm400III-01 fan

### Description of Service Issue:

It has been brought to our attention that some fans burn out on early 400RBIII revision D power amp boards (206-0121-D) due to over-voltage. Q26, the 2SA1837 transistor tends to short out as well under this condition. This upgrade is for revision D power amp boards only. This should be offered to the end-user as a warranty repair if their unit is out of warranty and has this particular board revision and problem.

### Update procedure:

1. Replace Q26 and the fan
2. Solder a 1N970B (24V 500mW zener diode) across the emitter of Q27 and the collector of Q26. The cathode (striped end) goes to the collector of Q26 and the anode side goes to the emitter of Q27. See schematic on next page.

Removal of the power amp board and the heatsink are necessary to replace Q27. The 24V zener should be soldered on the bottom of the board and oriented so its leads do not short out against the chassis or any other leads.

Part #: 012-1002-0 2SA1837  
020-0240-0 1N970B 24V zener  
086-0000-0 24VDC fan

