

Amplifier tests for the 406M/408M/408S

Power Consumption

With no signal and no load, the power consumption from the AC mains should be:

Variac	Power consumption
Up to 40vac	< 3W
Up to 60vac	< 8W
Up to 120vac	< 40W

DC supplies

Set the Variac up to 120vac (US models)

Measure the DC supplies: (see page 204-4 for the pcb layout)

+69 to +71vdc	Q5 Pin 2
-69 to -71vdc	Q50 Pin 2
+59 to +61vdc	Q10 Pin 2
-59 to -61vdc	Q47 Pin 2
+14 to +15.5vdc	U1 Pin 3
-14 to -15.5vdc	U2 Pin 3
+4.75 to +5.25vdc	Across U5 Pins 2 & 3

Bias Adjustment

The bias adjustment is best done when the amplifier has been warmed up. Run it with a music program into a dummy load until the heatsink is warm to the touch.

The actual adjustment is done with no signal and no load:

Channel 1

Measure the DC voltage between the two pins of J7

Adjust R2 for 19 to 21mVdc,

Seal the pot with a drop of nail paint

Channel 2

Measure the DC voltage between the two pins of J6

Adjust R1 for 19 to 21mVdc

Seal the pot with a drop of nail paint

Power Tests

Continuous Sine Wave Average Output Power, both channels driven (rated power):

180 watts per channel into 4Ω from 40Hz to 20kHz, with no more than 0.15% THD

110 watts per channel into 8Ω from 40Hz to 20kHz, with no more than 0.10% THD

Check for symmetrical clipping.

