

DEVICE DYNAMICS CHECK

Input signal should be +10dBv at 1Khz.

All the output devices now need to be checked to ensure that they are sharing current equally.

Measure the AC voltage across all the device output resistors, they should measure about 35mv AC.

If any devices are out by more than 20% they should be changed as their life cycle will be significantly reduced.

PSU TUNING AND SYNCH

Wind variac down to 0 Volts, wait 10 seconds, depower unit, unplug current meter jig and replace with PCB EPC760E power plug, switch amp to BRIDGE MODE, plug 8ohm load into the + terminals on the output.

Bridge mode will cause both channels to be driven from channel 1 input.

At this point both relays RL105 & RL106 must be on, to achieve this either use a variac set at 244V or put a resistor in parallel with R236 (about 1M) this will force both relays on, regardless of input voltage.

Power on and wait for startup cycle to complete, wind variac all the way up, observe current cycle on scope.

The power supply frequency must now be tuned.

This is achieved by use of P101 (FREQ) and P102 (SYNC).

There is a time gap between the positive and negative half cycles of the current sinewave.

The positive going half cycle of the current sinewave has to be synchronised with the negative going half cycle of the current sinewave. This will allow the PSU to operate at maximum efficiency.

Some parts of this test need to be done at maximum power which is why we have chosen bridge mode, minimum time should be spent on this test as it does require a little more current than the amp is capable of sustaining for longer periods.

Wind input signal up till the power supply is using about 6 amps, set frequency using P101, rotate pot until the gap between the positive and negative half cycles is as small as it can be but leave a small gap, typically about a 5th of a scope centimetre.

At this point set the synch pot P102 to about 12 o'clock, nothing visible should happen, set scope to 1V per centimetre, increase input signal to full scale, current should rise to about 30amps.

Set level control to min, change amp load to 4 Ohms.