

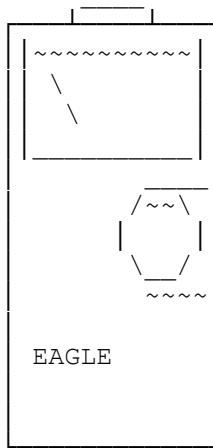
Eagle DB120 Sound Meter

By G8MNY

(8 Bit ASCII Graphics use code page 473 or 850)

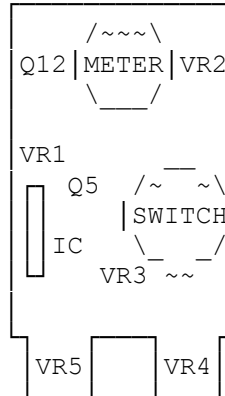
The is a simple cheap sound meter.

(New Dec 07)

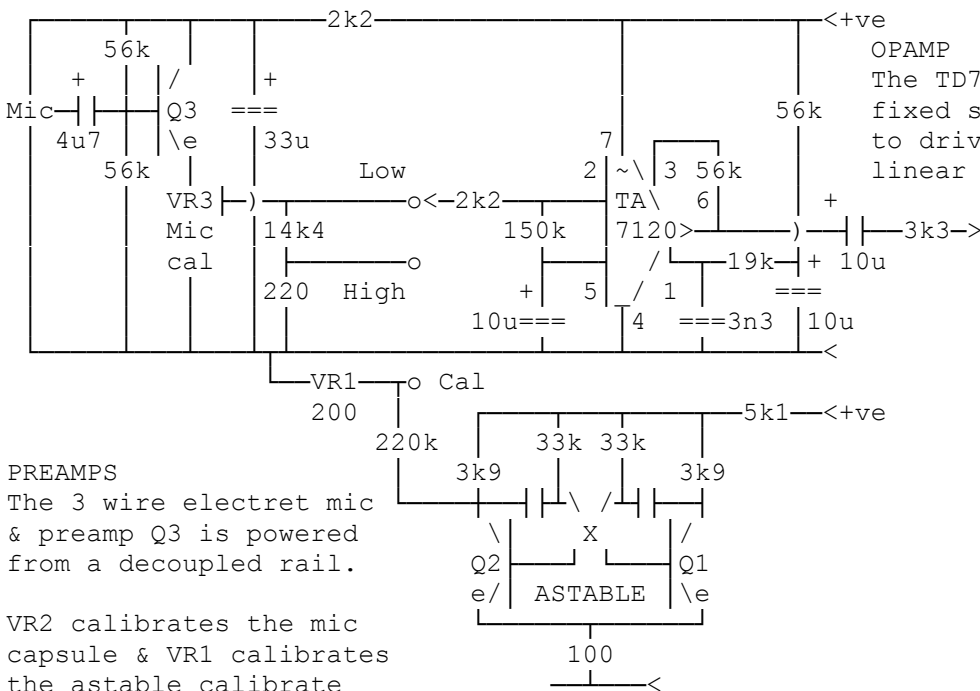


40dBA-120dBA in 2 ranges  
In built calibrator

PCB LAYOUT



CIRCUIT

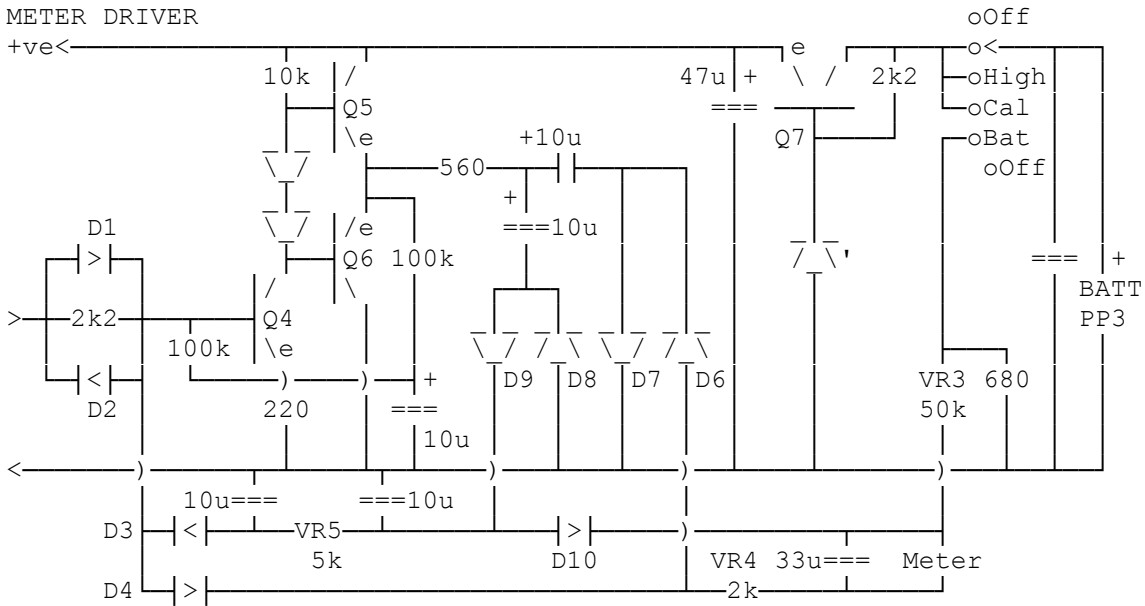


OPAMP  
The TD7120 provides  
fixed stable gain  
to drive the non the  
linear metering stage.

PREAMPS

The 3 wire electret mic  
& preamp Q3 is powered  
from a decoupled rail.

VR2 calibrates the mic  
capsule & VR1 calibrates  
the astable calibrate  
oscillator Q1&2.



To get a usable 40dB scale on a meter quite a lot of compression is needed. This circuit uses an AGC approach. Transistors Q4, 5 & 6 from a power amp to drive the double voltage doubler bridge D6-10 rectified load of the meter & also provide AGC with D3 & D4 making an variable input attenuator.

VR5 set the AGC log action & diodes D1 & D2 correct for over compression to get the very linear 40dB scale. VR4 is the main calibrate & VR3 is the battery cal.

See my bul on "Sound Levels dBA dBB dBC".

Why don't U send an interesting bul?

73 de John G8MNY @ GB7CIP