

# **Grounded Grid**

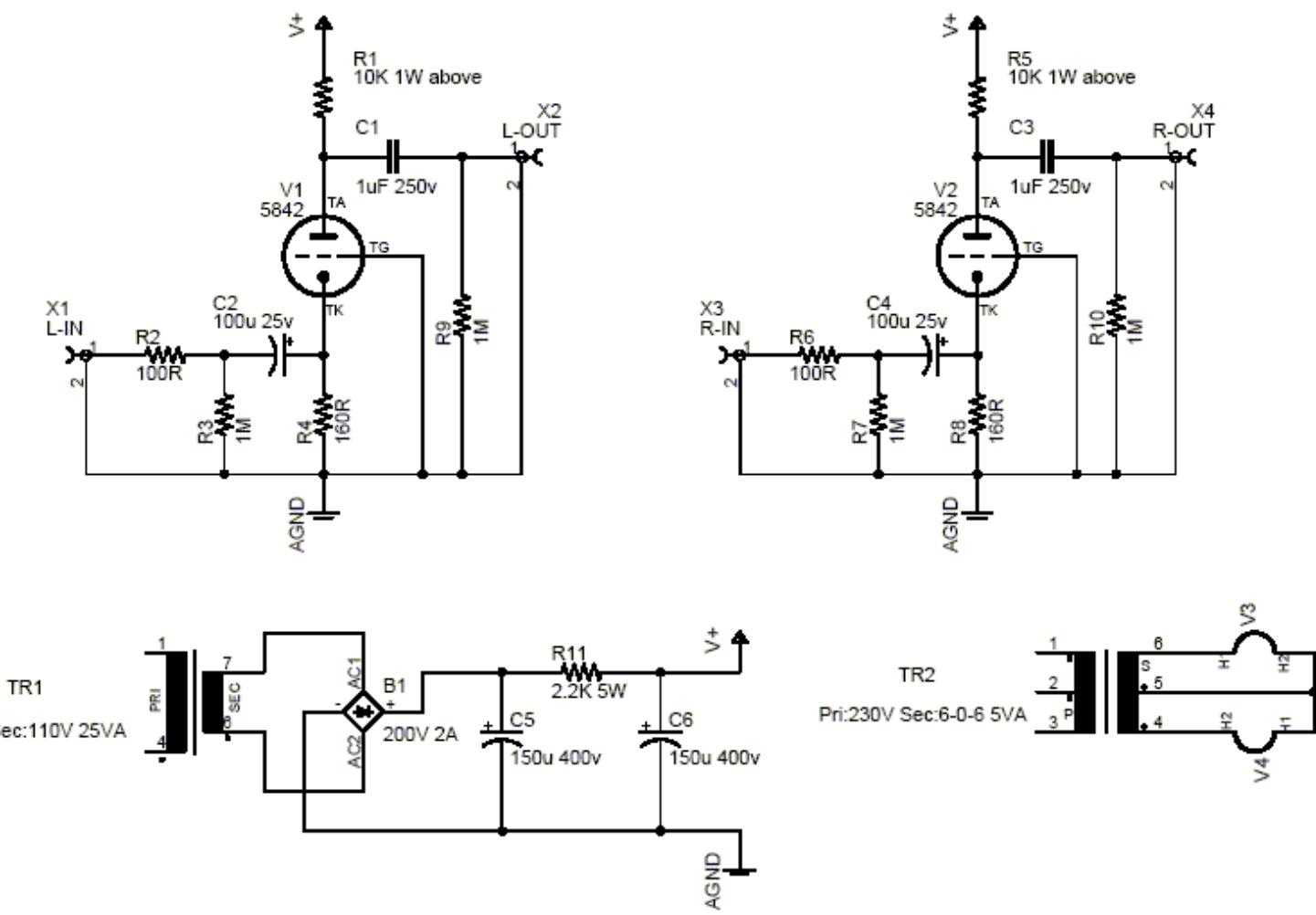
## **Tube Gain Stage**

### **Basic layout**

**Great for current output DACs like Monica**

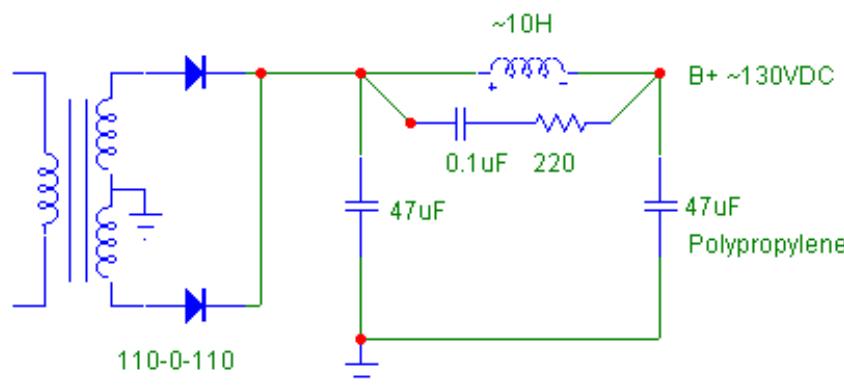
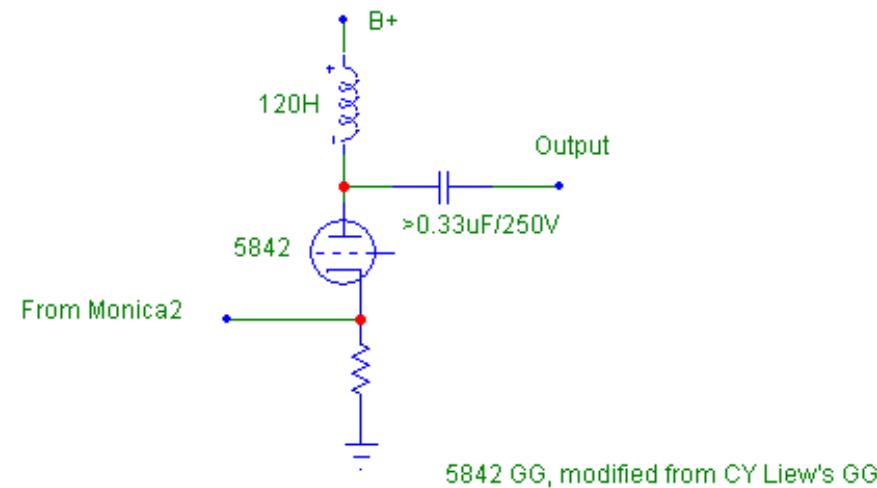
**DIY Paradise**

**July 2006**

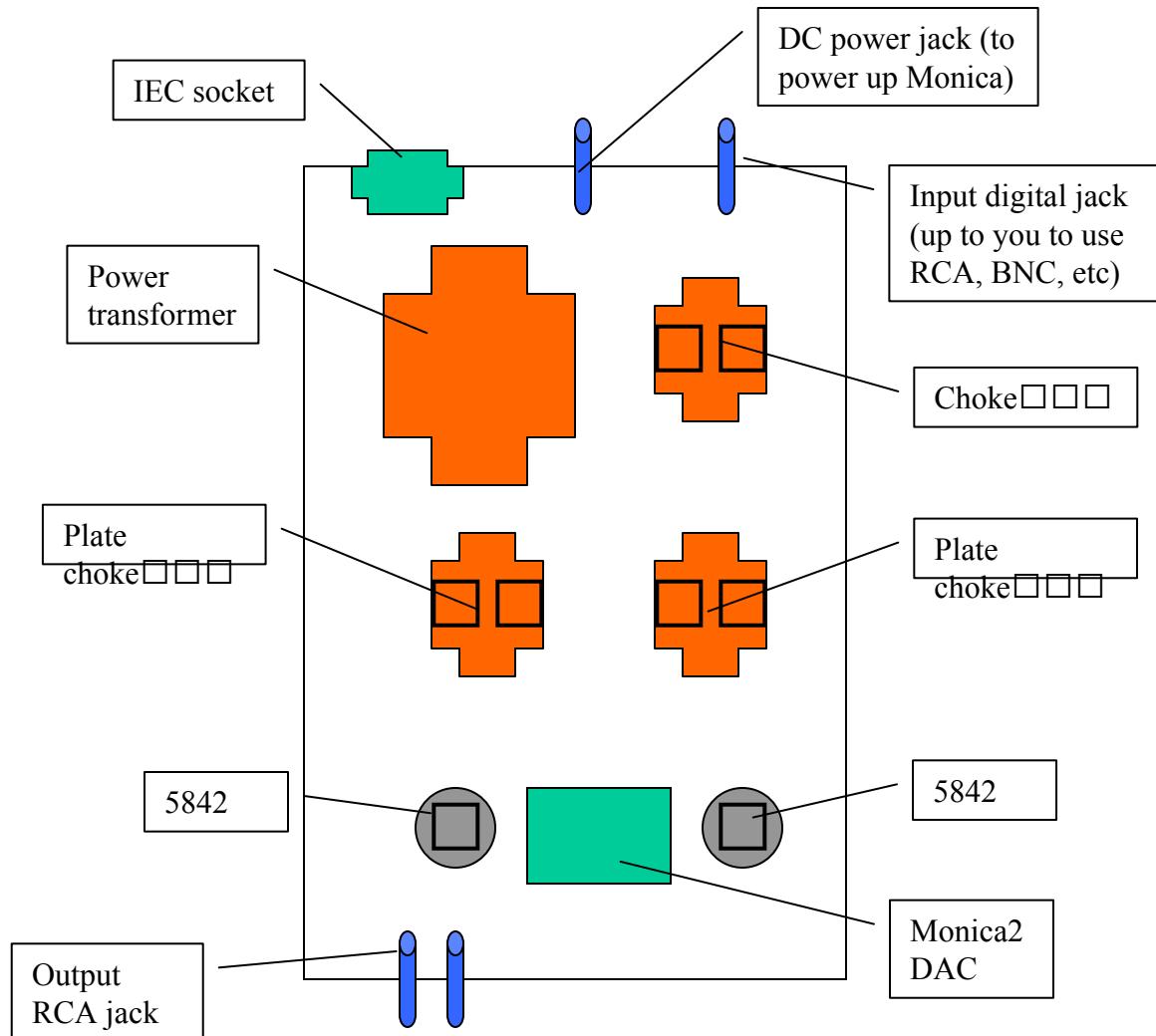


Schematic

Courtesy of CY Liew



Simplified Schematic      diyparadise  
 (cathode resistor is 160ohm like previous page)



Chassis Layout Top View

This is the layout I used. I fitted in Monica2 together in one chassis. You could separate them but if you do so, please keep the interconnect cable between Monica2 and GG short. The layout is done this way to minimize digital noise from corrupting the analog section. The digital signal wire is preferably shielded all the way from the back to Monica2. You could place the input jack at the front if you wish.

The following wiring diagrams are meant to aid you in the sequence in wiring this tube gain stage. Of course, you can do it some other way. Any other way, actually.

Power supply wiring is not shown here. You don't have to use the same scheme. Use whatever components you have in hand.

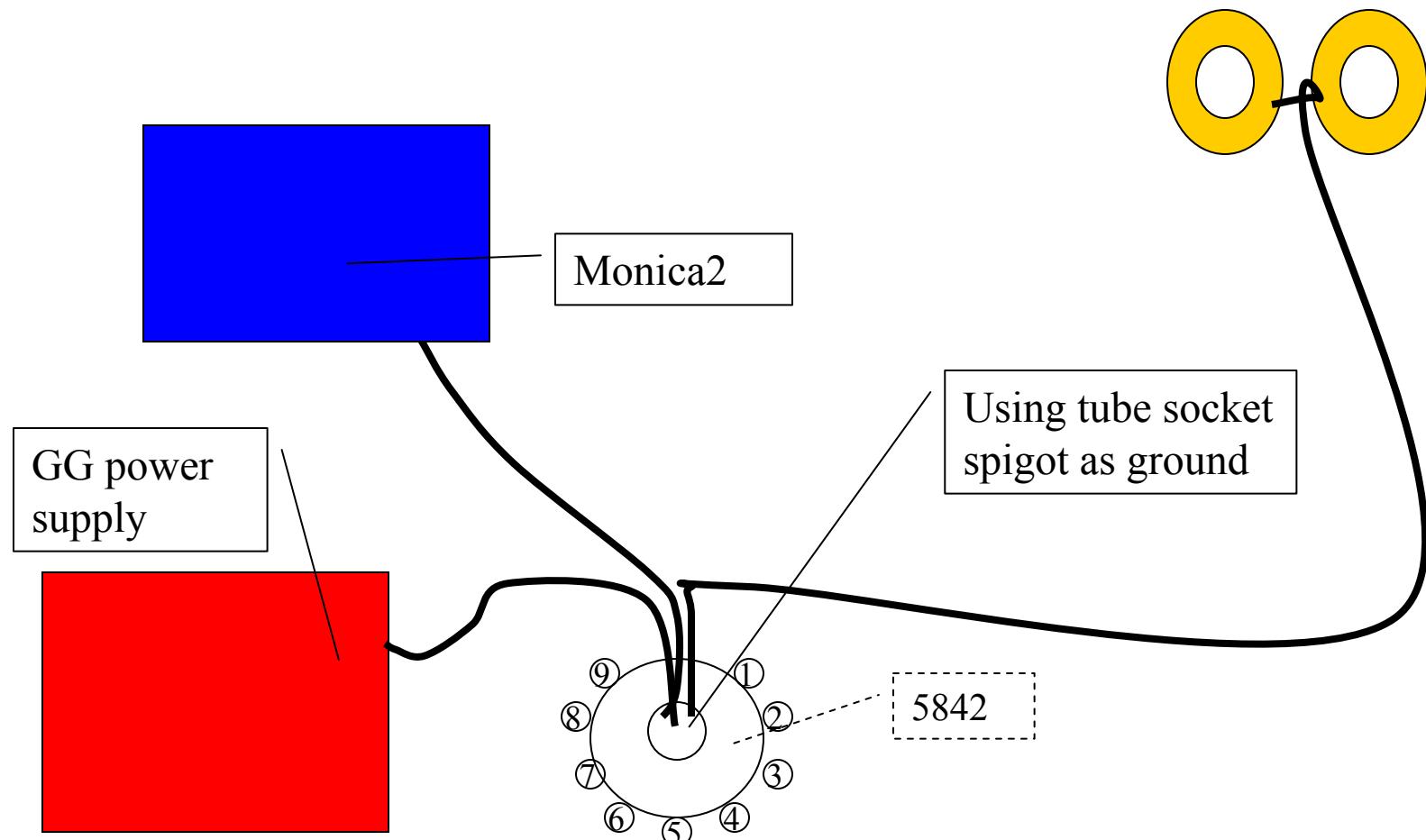
Remember basic rules still apply:

- keep signal wires far away from filament wires, transformer and chokes.
- also keep digital signal far away from analog signals. In fact, just keep the digital signal far away from anything. If you have to cross wires, then cross only at 90 degrees.
- twist tightly the heater wires, place close to chassis.
- maintain star ground.

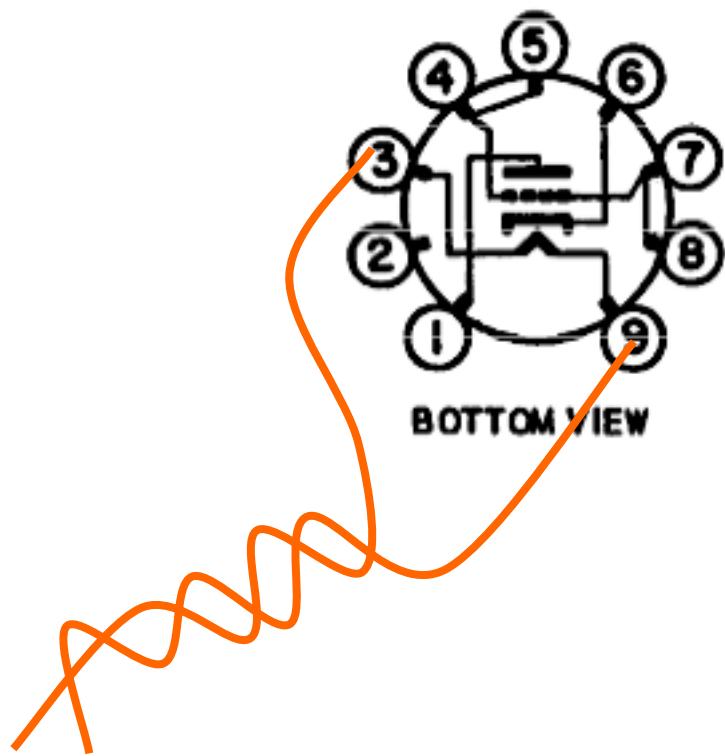
**SAFETY FIRST: REMEMBER TO SOLDER IN BLEEDER RESISTOR! REMEMBER TO “EARTH THE CHASSIS”!**

You “earth the chassis” by wiring Earth of IEC socket to chassis, through a nut. THEN confirm the resistance between Earth of IEC and chassis is as close to zero as possible.

**Output RCA jack  
insulated from chassis**

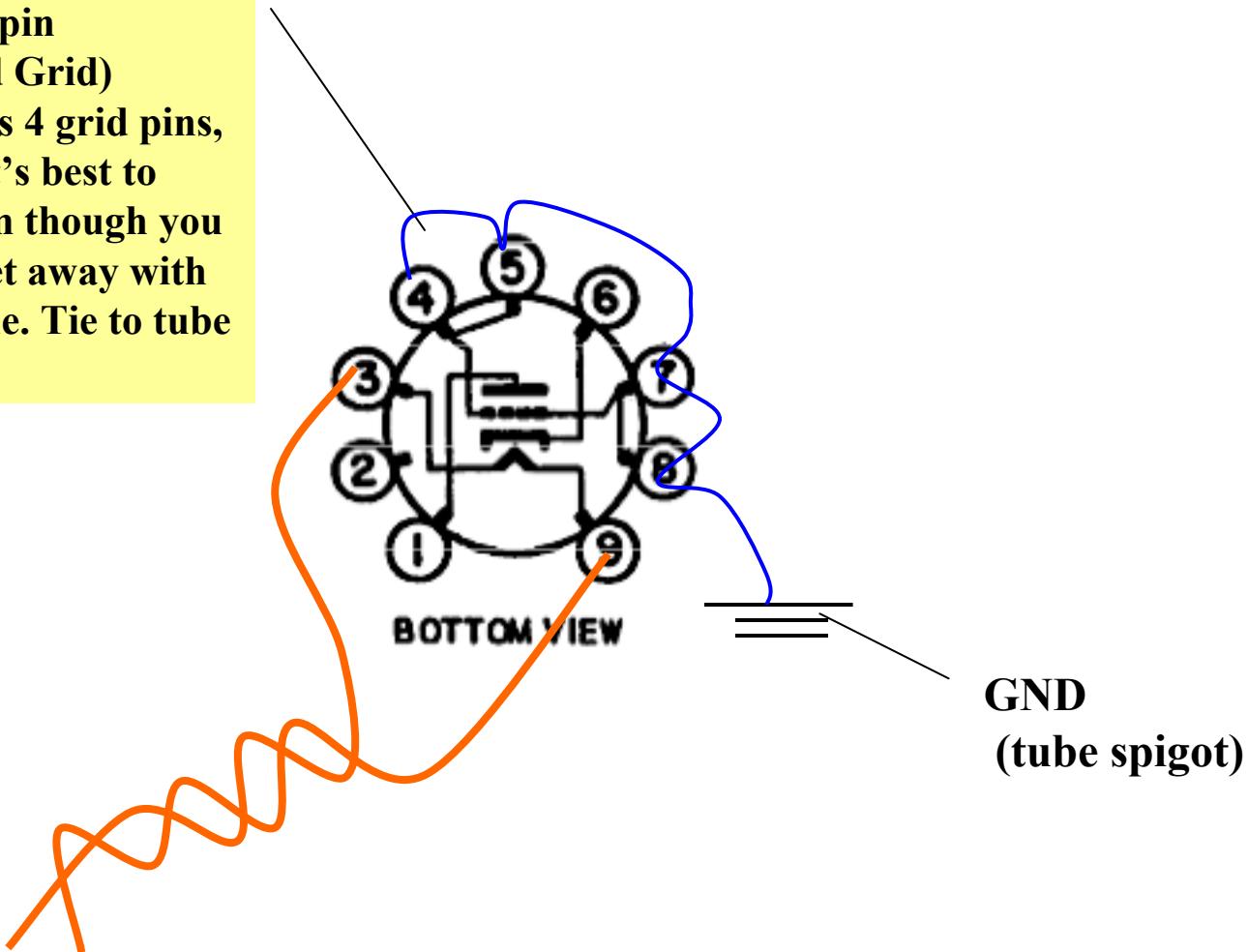


**Ground layout**



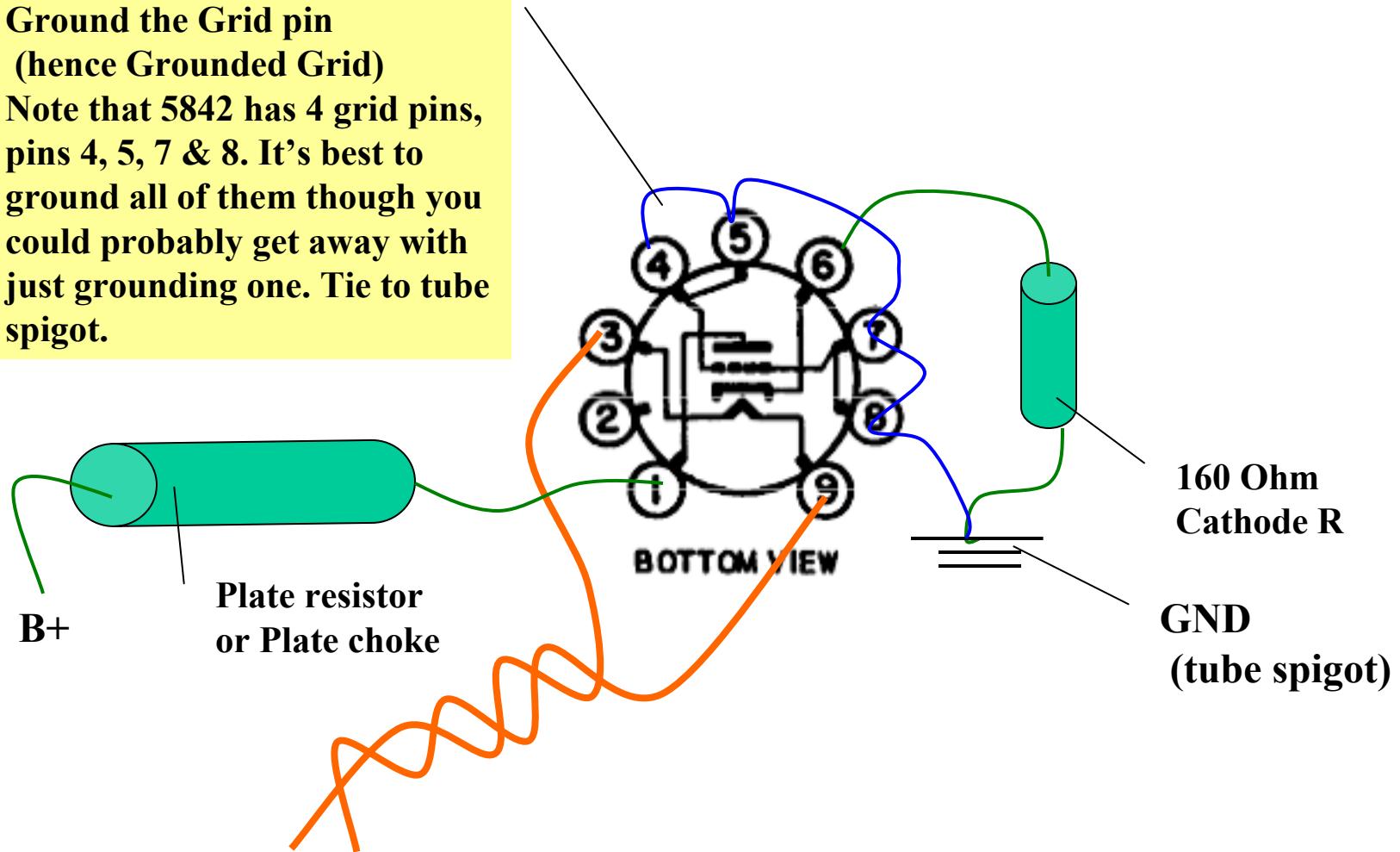
**Wiring of heaters**

**Ground the Grid pin  
(hence Grounded Grid)**  
Note that 5842 has 4 grid pins,  
pins 4, 5, 7 & 8. It's best to  
ground all of them though you  
could probably get away with  
just grounding one. Tie to tube  
spigot.



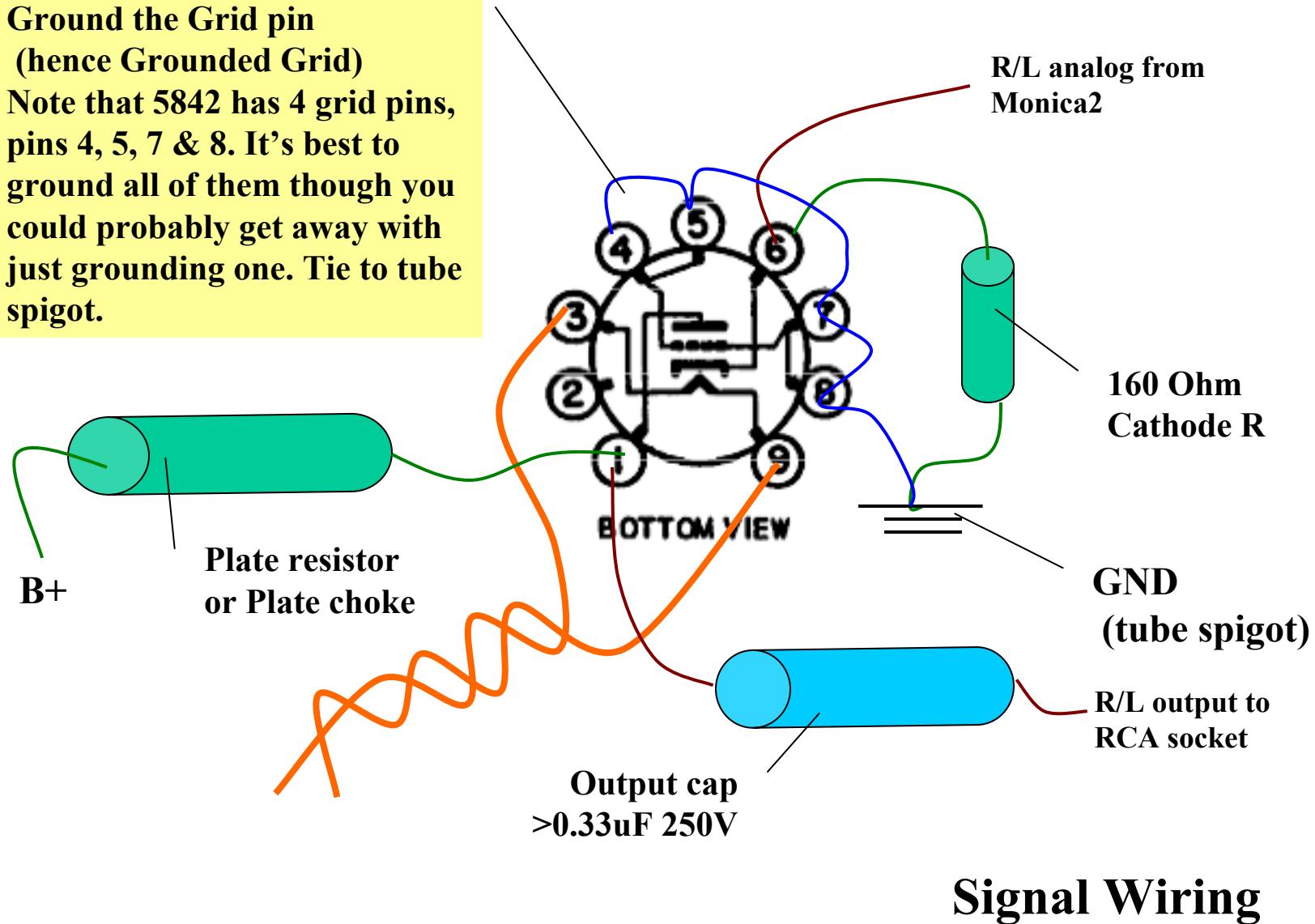
**Signal Wiring  
(Grid first)**

**Ground the Grid pin  
(hence Grounded Grid)**  
Note that 5842 has 4 grid pins,  
pins 4, 5, 7 & 8. It's best to  
ground all of them though you  
could probably get away with  
just grounding one. Tie to tube  
spigot.

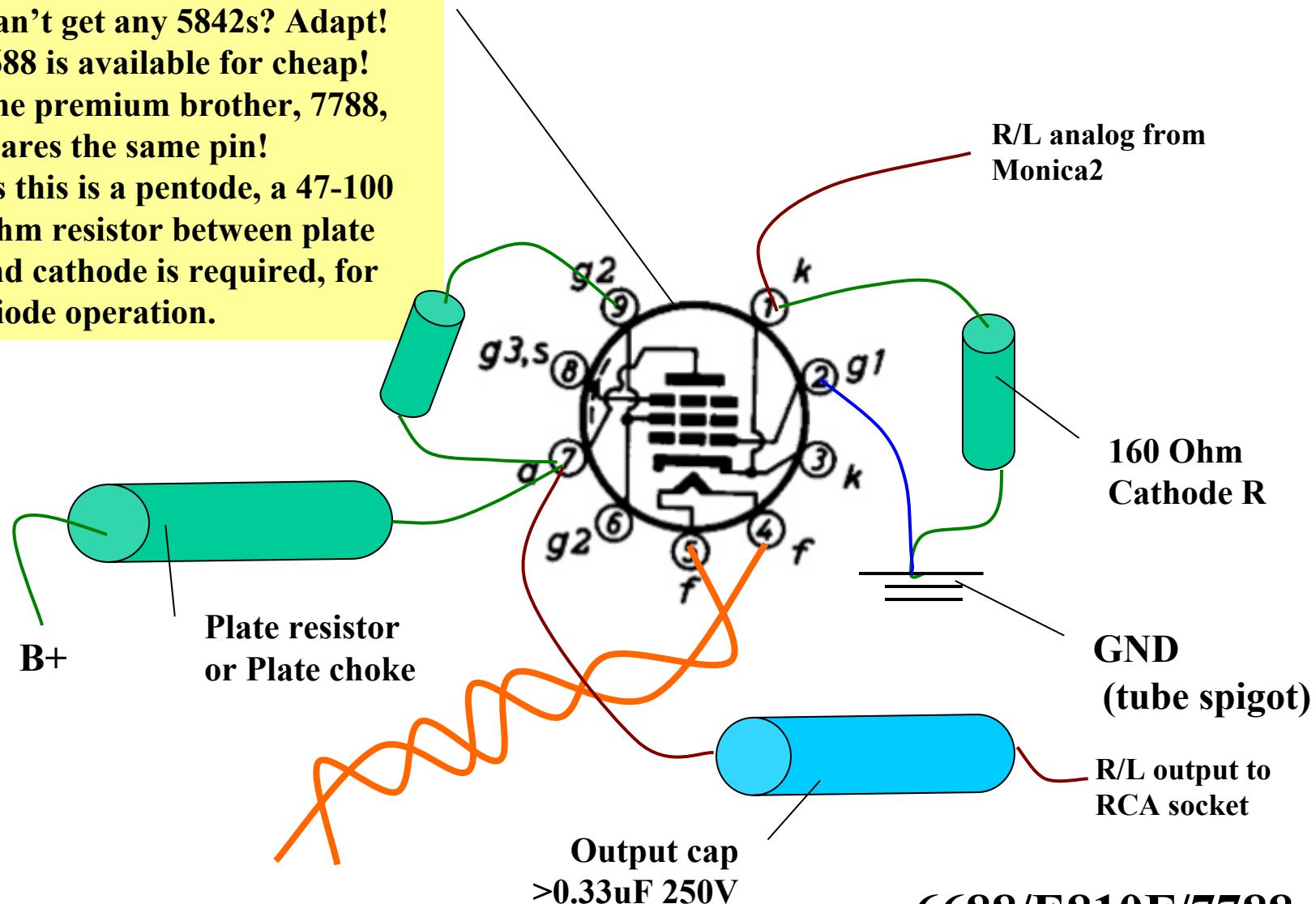


**Signal Wiring  
(Plate and Cathode)**

**Ground the Grid pin  
(hence Grounded Grid)**  
Note that 5842 has 4 grid pins,  
pins 4, 5, 7 & 8. It's best to  
ground all of them though you  
could probably get away with  
just grounding one. Tie to tube  
spigot.



Can't get any 5842s? Adapt!  
6688 is available for cheap!  
The premium brother, 7788,  
shares the same pin!  
As this is a pentode, a 47-100  
Ohm resistor between plate  
and cathode is required, for  
triode operation.



6688/E810F/7788

Signal Wiring