

Use this troubleshooting supplement to help:

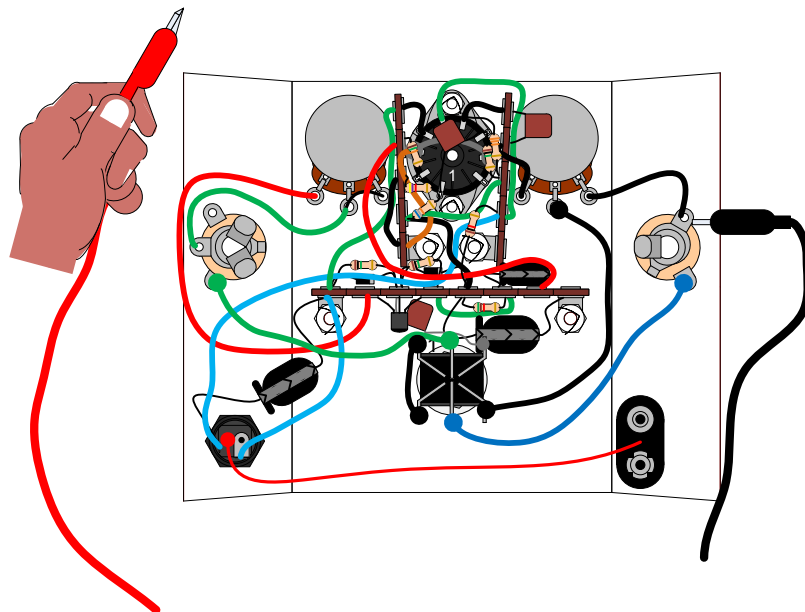
- Measure DC voltage test points to identify major discrepancies and locate problem areas.

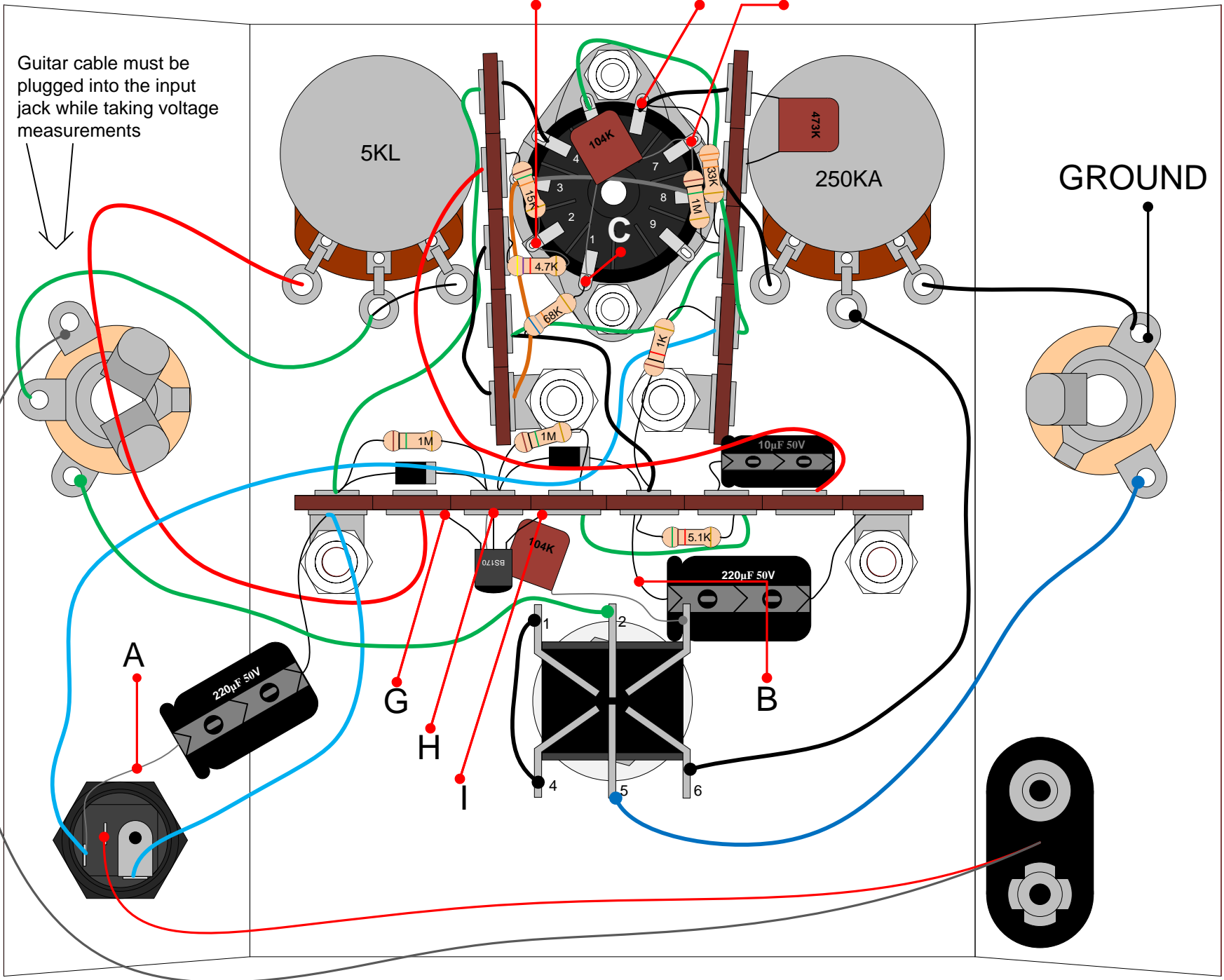
(Keep in mind that the voltage measurements will vary slightly from kit to kit. The voltages you measure should be in the same ballpark, but do not expect to get the exact same value.)

Test Point	Location Description	Controls turned to minimum	Controls turned to Maximum
A	Positive power supply voltage	9.2 VDC	9.2 VDC
B	Terminal #5	8.8 VDC	8.3 VDC
C	Tube pin 1 (plate)	8.3 VDC	7.8 VDC
D	Tube pin 6 (plate)	7.0 VDC	6.7 VDC
E	Tube pin 2 (grid)	0 VDC	0 VDC
F	Tube pin 7 (grid)	0 VDC	0 VDC
G	MOSFET "Source" lead	1.6 VDC	0 VDC
H	MOSFET "Gate" lead	3.4 VDC	1.9 VDC
I	MOSFET "Drain" lead	7.1 VDC	4.0 VDC

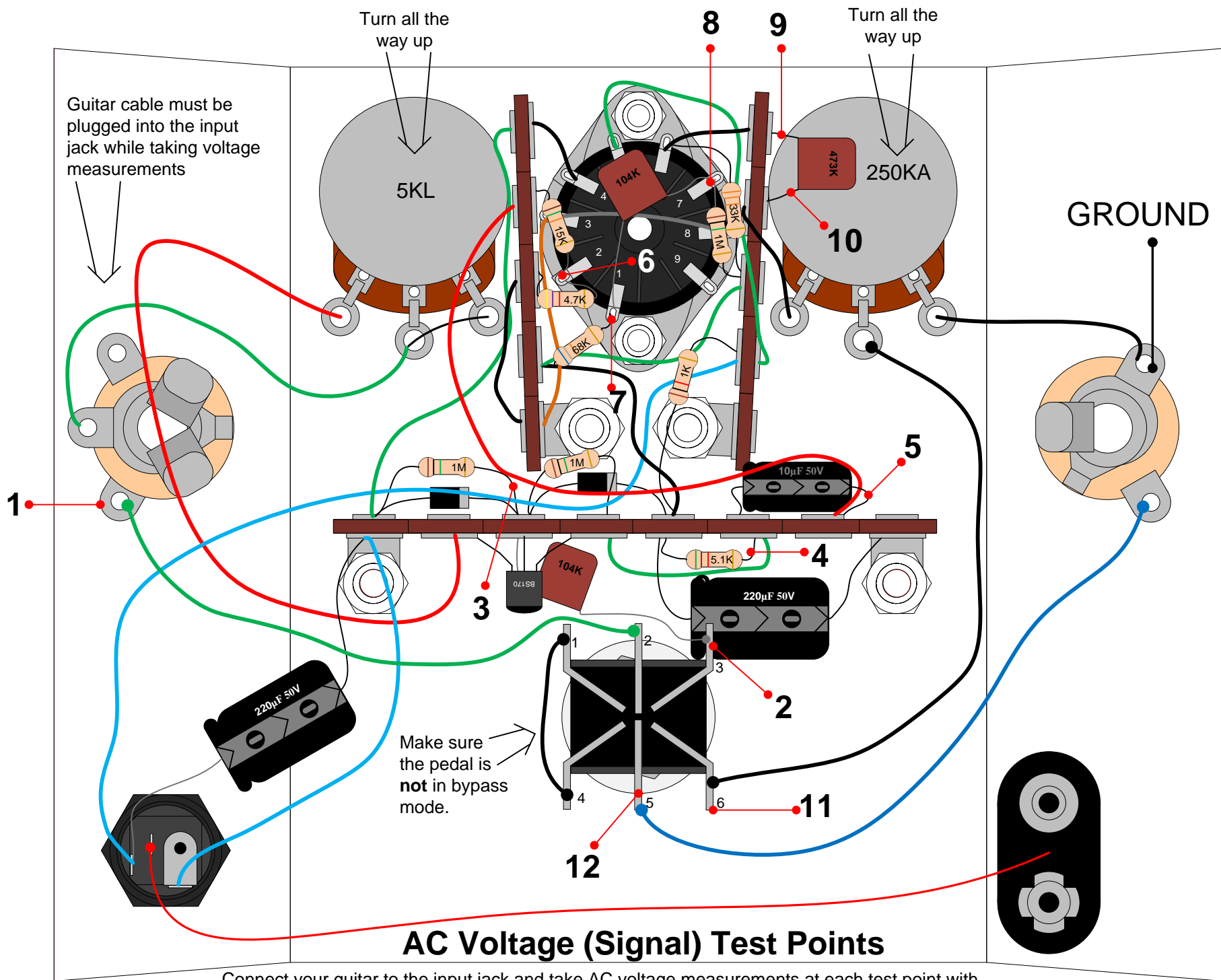
Using a volt meter, connect the ground side lead of the meter to any ground point on the pedal. One ground point would be the output jack's ground lug. The other volt meter lead will be used to measure DC voltage at the test points listed above and shown in the drawing on the next page.

First, plug a guitar cable into the input jack and take measurements at each test point with both controls turned all the way down taking note of each measurement. Next, take measurements at each test point with both controls turned all the way up and take note of each measurement. Any major differences between the voltages listed above should indicate a problem area.





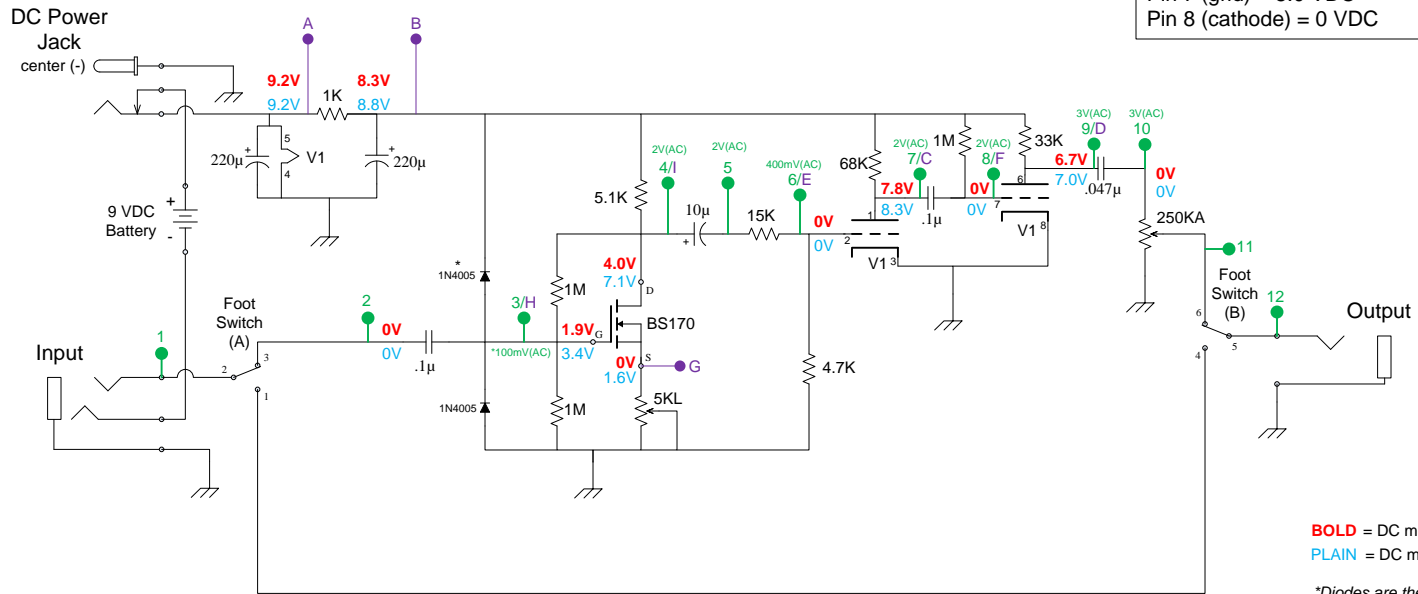
DC Voltage Test Points



Connect your guitar to the input jack and take AC voltage measurements at each test point with both controls turned all the way up. At each test point the AC voltage should increase dramatically each time you strum the guitar. (No strum = 0.0 VAC, Hard strum = anywhere from 10 mV to 2 V).

Tube socket measurements with no tube installed:

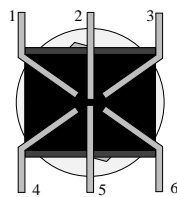
- Pin 1 (plate) = 8.7 VDC
- Pin 2 (grid) = 0 VDC
- Pin 3 (cathode) = 0 VDC
- Pin 6 (plate) = 8.7 VDC
- Pin 7 (grid) = 8.0 VDC
- Pin 8 (cathode) = 0 VDC



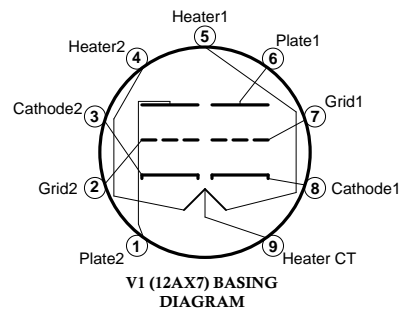
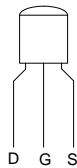
BOLD = DC measurement at maximum gain
PLAIN = DC measurement at minimum gain

**Diodes are there to protect the MOSFET from static and accidental reverse polarity.*

DPDT Foot Switch



BS170 N-Channel MOSFET

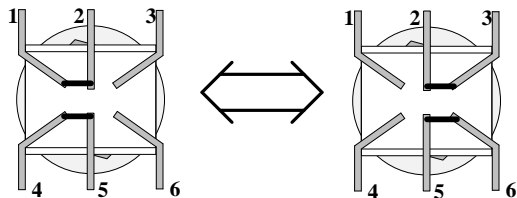


NUMBERS = AC signal test points

LETTERS = DC test points

***100mV(AC)**

AC voltage measurements are rough approximations of open strumming with Mexican strat set to full volume/ tone with pedal controls at max settings



Switching function of the DPDT switch. The solid line illustrates an internal connection between terminals.



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"The Persuader" (K-930) Schematic