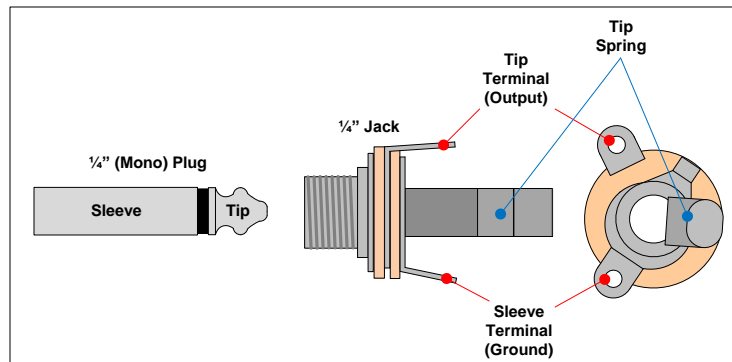


Measuring AC Voltages from the Guitar Signal

Once your DC voltages are in order, if your kit is still not working properly, you can measure AC voltages along the signal path to troubleshoot further.

You will need a volt meter that can measure the small signal AC voltages that electric guitars put out. The output signal from your guitar will likely be less than 1 V.

First, measure the output signal directly from your guitar. You can do this by plugging your guitar cable into the guitar and leaving the other end of the cable disconnected. Connect your meter across the disconnected ¼" plug's "tip" and "sleeve" sections. Make sure your guitar's volume and tone controls are turned up and strum a chord. When you strum, you should see the AC voltage reading on the meter quickly rise to some maximum value and then fall back to 0 VAC when you stop strumming and the strings come to a rest.



Once you are able to measure the output signal from your guitar directly, plug the guitar into the input jack of your kit and use the AC test points to measure the guitar signal along the signal path. Start with test point one and move along in order. You should be looking to identify the last test point where the signal seems normal and the first test point where the signal seems unusual or where it is no longer even present.

The AC voltages on the layout drawing and schematic are numbered 1 through 12 and were measured while strumming an open E chord on a strat switched to the neck pickup only position. All test points were measured with respect to ground. *AC signal voltage levels may vary dramatically from one instrument to another depending on the electronics and how hard you strum.*

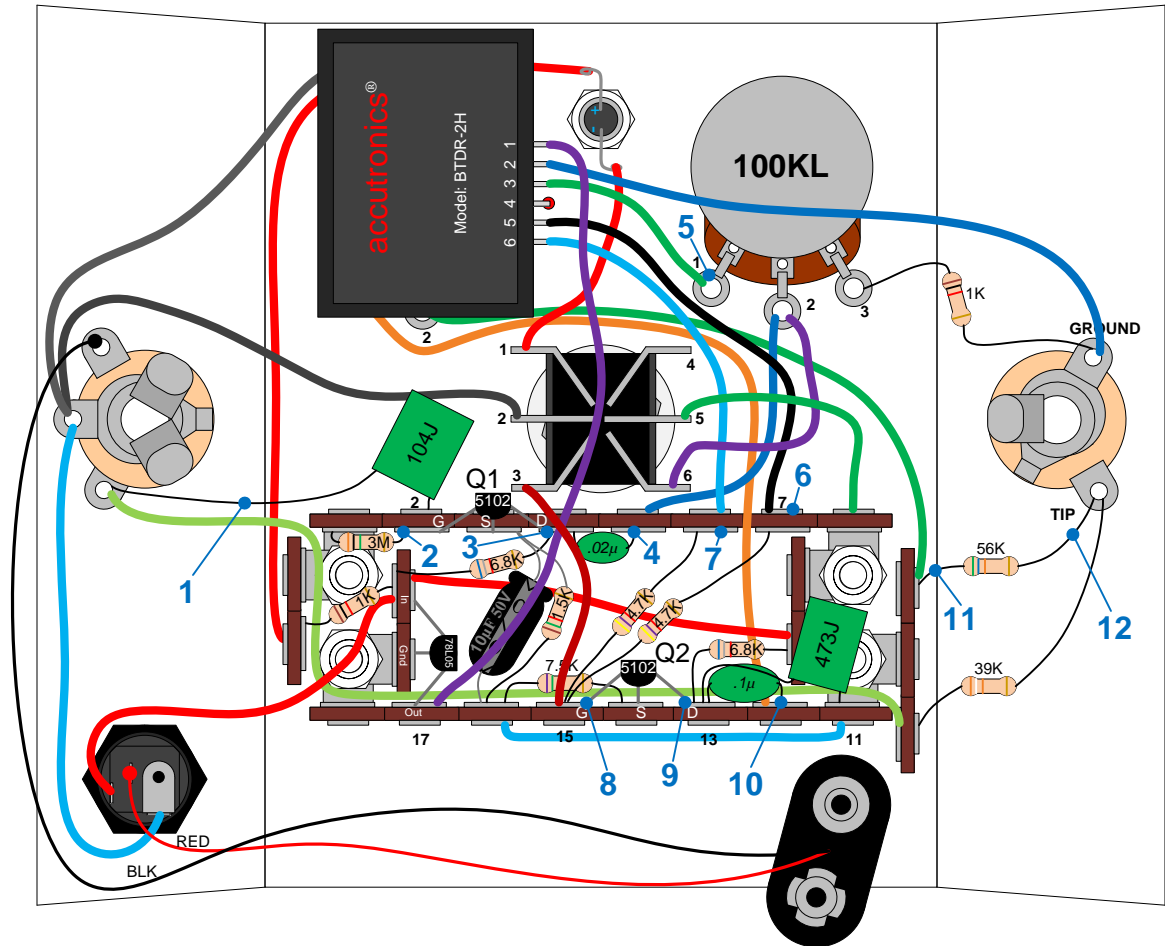
AC Voltages (1 - 12) taken with both controls set to half-way point and strumming open E chord on a strat with single coil neck pickup on.

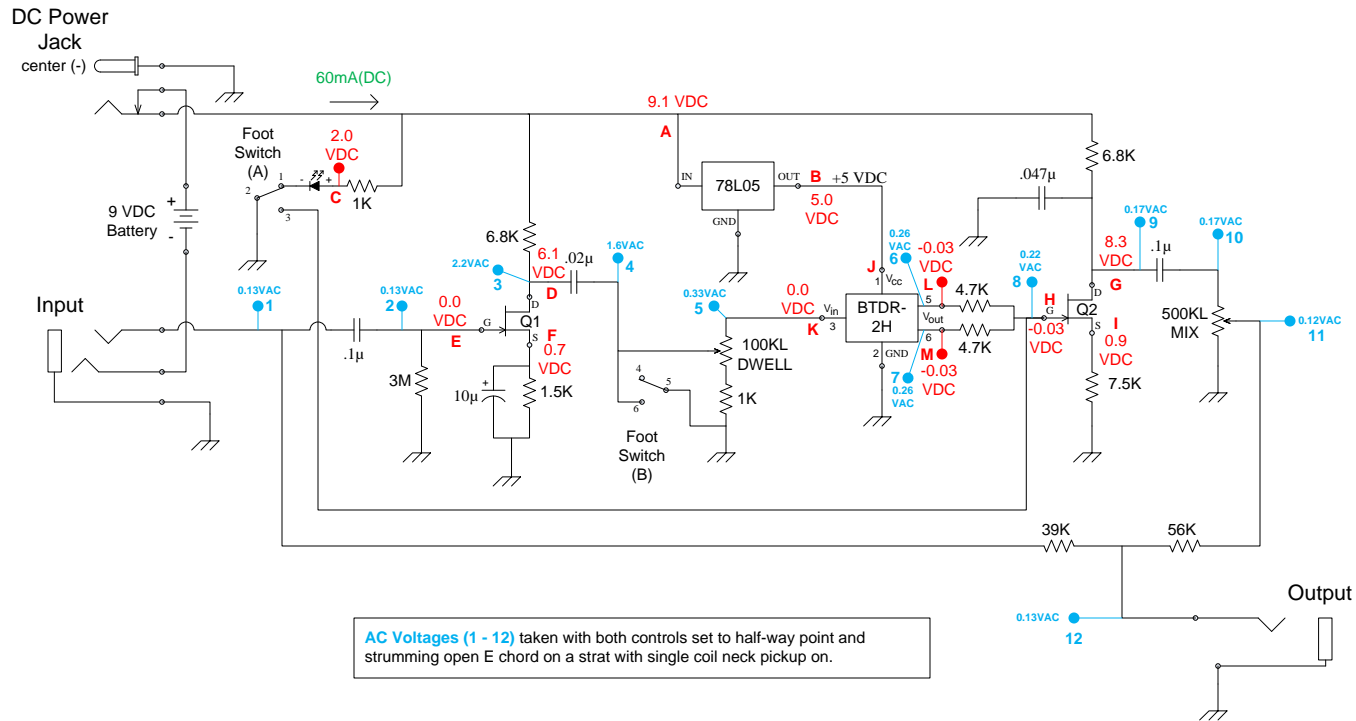
AC Voltage Test Points

- 1 = 0.13 VAC
- 2 = 0.13 VAC
- 3 = 2.2 VAC
- 4 = 1.6 VAC
- 5 = 0.33 VAC
- 6 = 0.26 VAC
- 7 = 0.26 VAC
- 8 = 0.22 VAC
- 9 = 0.17 VAC
- 10 = 0.17 VAC
- 11 = 0.12 VAC
- 12 = 0.13 VAC

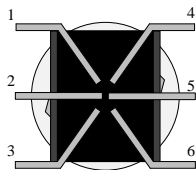
Connect your guitar to the input jack and take AC voltage measurements at each test point with both controls turned up half way. At each test point the AC voltage should increase dramatically each time you strum the guitar. (No strum = 0.0 VAC).

The actual values you measure will depend on your guitar's pickups and how hard you strum.

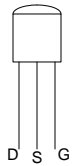




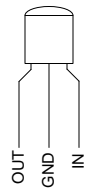
DPDT Foot Switch



PF5102
n-channel
JFET



78L05
Voltage
Regulator



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