# Rick-Tone

MAKE / MODEL
Rick-Tone "Trem-O-Drive"

DESCRIPTION
Tremolo & Volume Boost Effect For Guitar
(Redrawn on computer in July 2007 from my old hand-drawn schematics circa 1980's)

DRAWING TYPE
Electrical Schematic

DRAWN BY
Rick Campbell

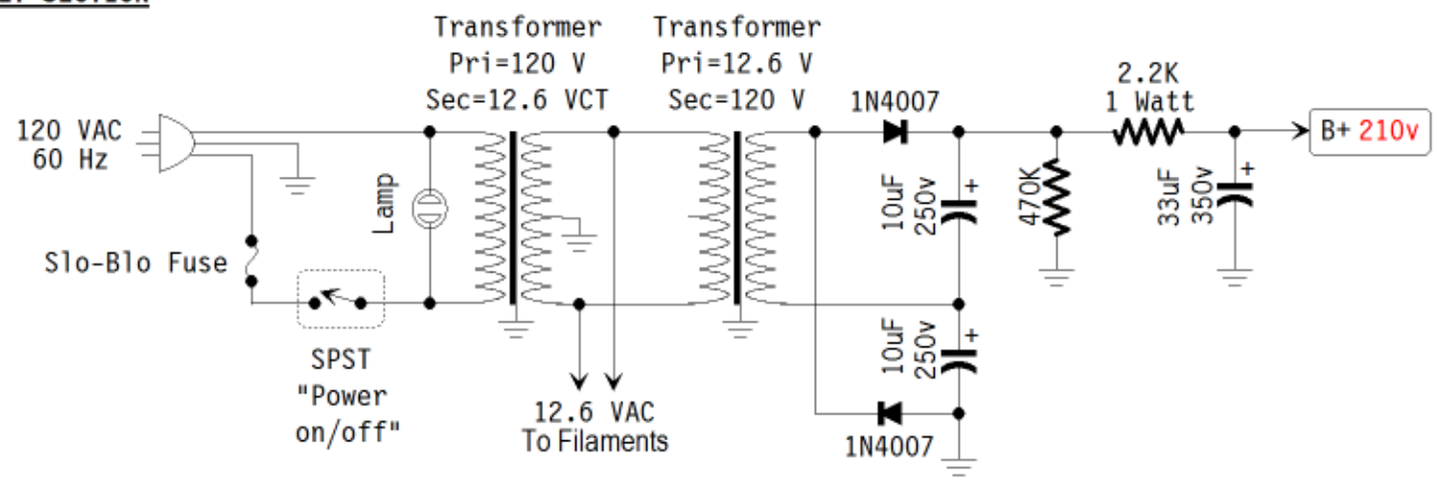
**PLEASE NOTE:** These devices underwent many changes and improvements over the time span that they were produced, and were often custom-tailored to individual owner's tastes. While this drawing may serve as a general overview for the circuit of this type/model of device, it is quite possible that the circuit of your individual Rick-Tone device may not match this drawing in every detail.

**CAUTION! ELECTRICAL SHOCK HAZARD:** Vacuum tube circuits can contain dangerous high voltage electricity that can be harmful or even lethal if appropriate safety measures are not observed. Dangerous voltages may even still be present when the unit is turned off and unplugged. Do not attempt to repair, modify, touch, or build such circuits without proper training.

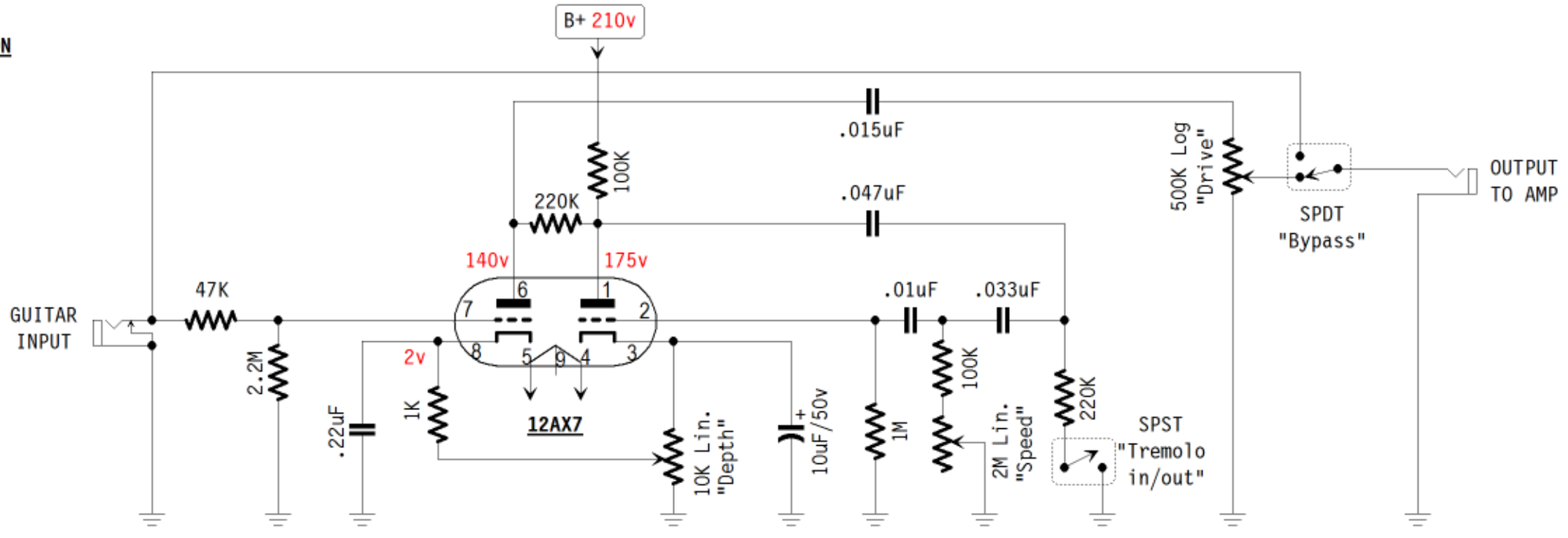
**DISCLAIMER:** This diagram is provided for informational/educational use only. Any use is AT YOUR OWN RISK. The authors and distributors of this diagram disclaim any an all liability for consequences of your use of this drawing and its contents.

All resistors are 1/2 watt unless otherwise marked.
All capacitors are 400v unless otherwise marked.

## POWER SUPPLY SECTION




## EFFECT SECTION




## GENERAL DESCRIPTION

This is a simple tube-based effect pedal that performs two functions: (1) tremolo (or amplitude modulation), and, (2) volume boost (or clean overdrive). This is accomplished with one dual triode tube. The first triode is configured to act as a gain stage, boosting the volume of the incoming guitar signal. The second triode is configured to act as a low frequency oscillator that modulates the cathode of the first triode, thereby producing the tremolo effect. The power supply uses two inexpensive 12 volt transformers wired back-to-back to provide both the filament voltage and high voltage power for the circuit. A voltage doubler circuit is used to further increase the power supply voltage for the tube. The bypass leaves the input of the device connected to the guitar in both positions, but the input impedance of the device is so high that it doesn't noticeably load down the guitar's magnetic pickup.

120V
PILOT LAMP
(OPTIONAL)

FUSE
HOLDER

POWER
SWITCH

TRANSFORMER
120V 12V

TRANSFORMER
12V 120V

NOTE: In order to more clearly show wiring detail, some components in this drawing are spread apart much farther from each other than they would be in the actual device.

10uF
250V
+

10uF
250V
+

1N4007

1N4007

33uF
350V
+

2.2K
1W

470K
1/2W

POWER CORD
(TO WALL OUTLET)

# WIRING DIAGRAM: POWER SUPPLY FOR TUBE PEDAL

12 VAC
TO TUBE
FILAMENTS

GROUND

B+ Approx
210VDC

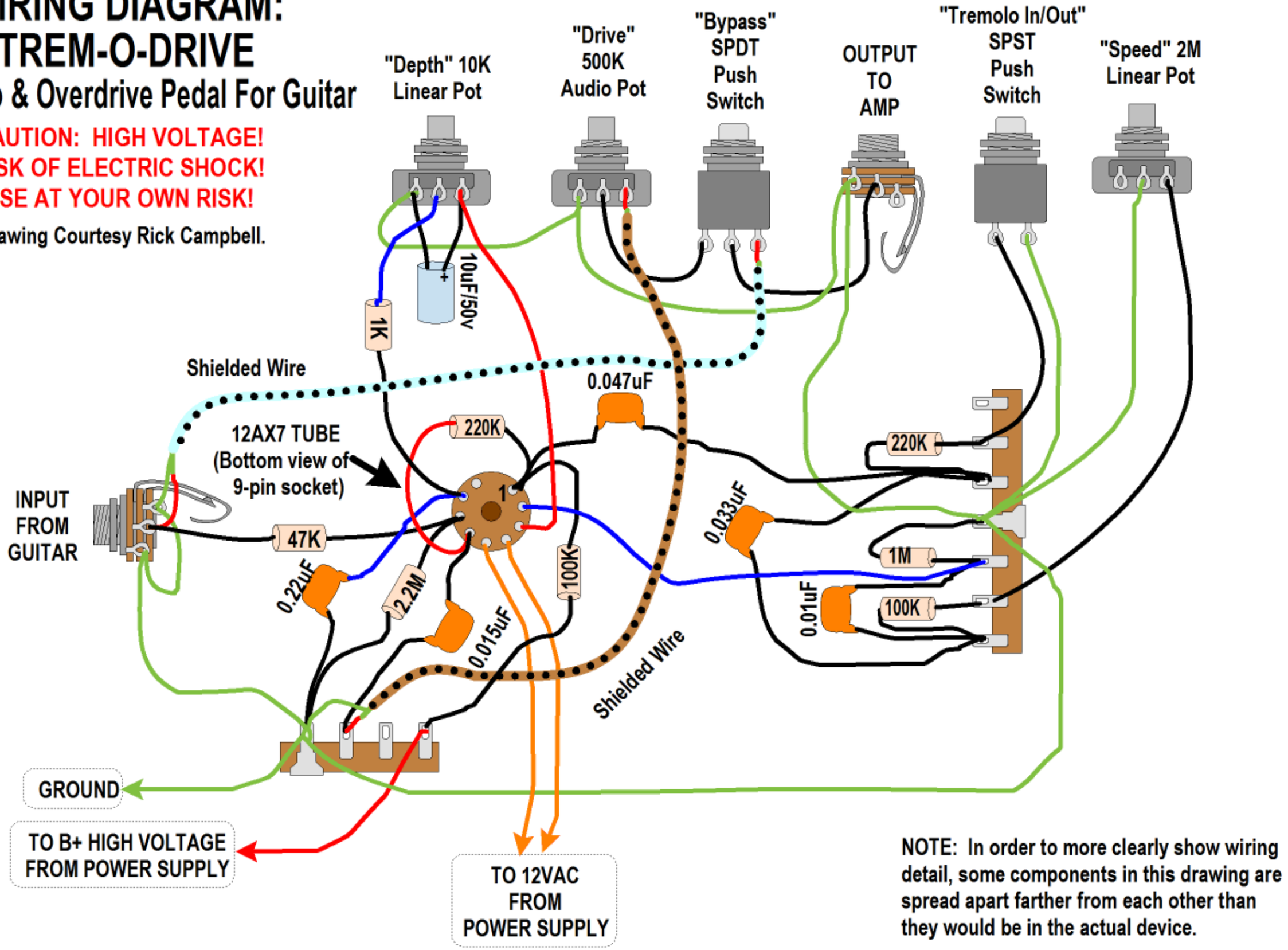
**CAUTION: HIGH VOLTAGE!**
**RISK OF ELECTRIC SHOCK!**
**USE AT YOUR OWN RISK!**

Drawing Courtesy Rick Campbell.

# WIRING DIAGRAM:
# TREM-O-DRIVE
## Tremolo & Overdrive Pedal For Guitar

**CAUTION: HIGH VOLTAGE!**
**RISK OF ELECTRIC SHOCK!**
**USE AT YOUR OWN RISK!**

Drawing Courtesy Rick Campbell.




NOTE: In order to more clearly show wiring detail, some components in this drawing are spread apart farther from each other than they would be in the actual device.