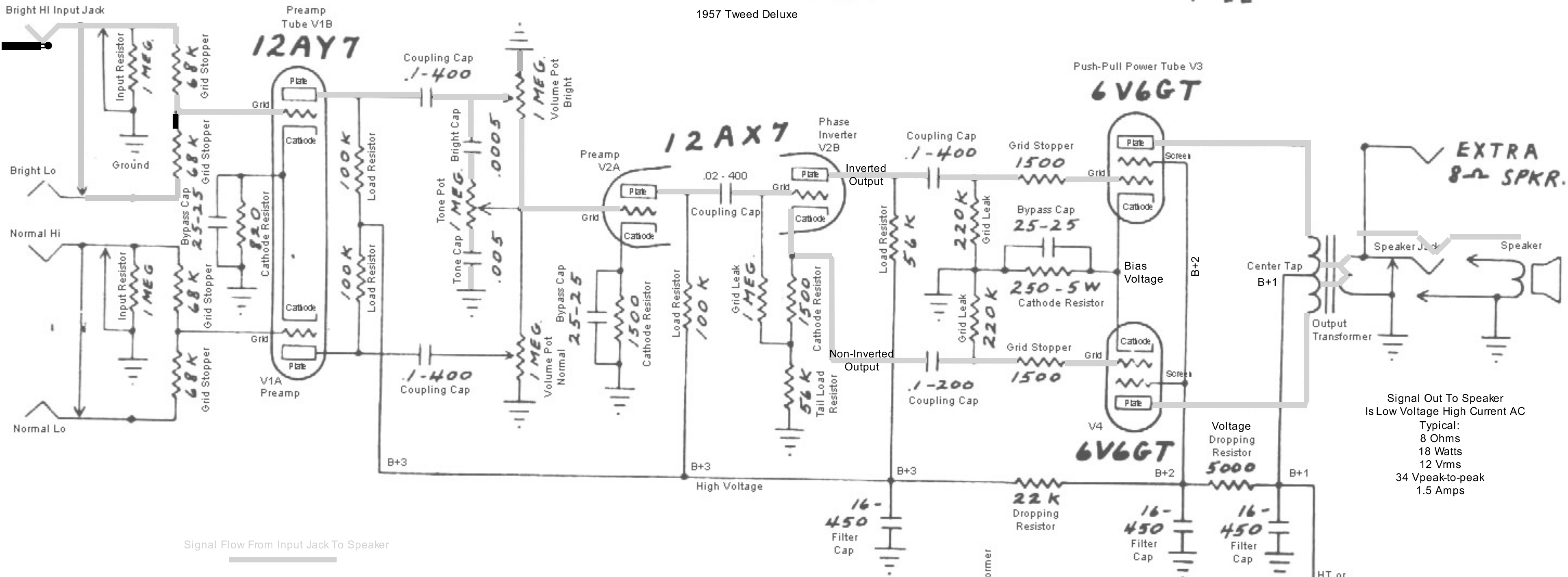


# FENDER "DELUXE" SCHEMATIC

## MODEL 5E3

F-EE

Signal In From Guitar Is Stratocaster Single Coil  
Very Low Voltage AC  
Low E String Pluck = 0.05 Vrms or 50 milli volts rms



Signal Out To Speaker  
Is Low Voltage High Current AC  
Typical:  
8 Ohms  
18 Watts  
12 Vrms  
34 Vpeak-to-peak  
1.5 Amps

Notes: The Input Resistors act as tube V1's grid leak resistors.  
Grid Stopper Resistors filter out unwanted frequencies above human hearing.  
Grid Stopper Resistors also act as mixing resistors for each channel's two inputs.  
The Volume pots act as the V2A grid leak.  
The Input Resistor sets high input impedance to increase signal voltage at the grid by trading guitar coil current for voltage.  
Grid Leak Resistors provide the signal voltage return path.  
Grid Leak Resistors drain off unwanted grid current & voltage.  
Grid Leak Resistors also increase input impedance to enhance inter-stage signal voltage transfer.  
Load Resistors transform the amplification stage from current to voltage amplification.  
Coupling capacitors block the flow of high voltage DC but pass the AC signal voltage to the next amplifier stage.  
Cathode Resistors set the cathode bias voltage. Cathode Bypass Capacitors allow signal voltage to bypass the cathode resistor to boost gain.  
The Output Transformer steps down voltage and steps up current to drive the speaker voice coil which is a simple electromagnet.

