# Doug Coil Machine Set-Up Instructions

1. Place the QSC1850HD Amplifier on a sturdy table or chest ( it weighs 50 lbs) It helps to place it on a piece of poster board or cardboard since you need access to the back of the amplifier to connect a number of wires - it will slide better without marking the table. It comes with 4 small rubber stick-on pads if you choose to use them.

2. Place the oak cabinet on top of the amplifier and remove its lid. Place your multimeter (voltage, current, or amp meter are other names) on the table to the right of the amplifier. Connect the red test wire supplied with the ultimeter into the red socket on the front of the multimeter labeled with V~. This symbol represents alternating current. Connect the black test wire into the socket labeled Com on the front of the multimeter. Feed the alligator clip ends of the test wires through the top center ventilation hole in the back of the cabinet or through the top center hole on the right side of the cabinet. Find the vertical panel inside the cabinet with 5 ceramic resistors mounted on each side. Choose the side of this panel that is closest to where you fed the multimeter test wires into the cabinet. Clip the **red** alligator clip onto the vertical copper wire (that connects 5 ceramic resistors together) that is closest to the back of the cabinet. This vertical copper wire has 5 silver wires from the resistors soldered to it. Clip the **black** alligator clip to the vertical copper wire connected to the same 5 resistors that is closest to the switches. Both test wires should be on the same side of the resistor panel. Put the lid back on the coil machine cabinet and place the multimeter on top of the lid. It's ok if the red and black test wires just lay on top of the components in the cabinet. The test wires stay in the cabinet this way unless you want to move your doug coil machine. Place the lid on the cabinet.

3. Find the mode switches on the left side of the back of the amplifier. Use the tip of a pen or something similar to push all of the small switch levers to the left in the OFF position EXCEPT for #4 and 5. They should be pushed to the right and in the ON position.

4. Place the signal generator on top of the coil machine cabinet. Connect the BNC connector on the cable supplied to the jack on the lower right front of the generator. The other ends of this cable have small fork connectors on the red and black wires. If you turn the amplifier and face the back – these two wires connect at the top left (Amplifier Input) where you see 5 screws in a vertical column. Use a Phillips screwdriver for the next few steps. The red wire should be connected to the + (plus) screw for Channel 1 (ignore the color of the fork terminal). The black wire should be connected to the – (minus) screw for Channel 1. In the ziploc bag is a small loop of wire. This should be connected to the – (minus) screw for Channel 1 and to the screw just below which is the grounding screw (the loop connects the 2nd screw and 3rd screw down from the top).

5. Notice that 3 wires are coming out of a bottom ventilation hole in the back of the cabinet. These connect to the plastic red and black screw output terminals labeled on the back of the amplifier "Output." Screw all 4 terminals all the way out. Two of the wires are labeled "Channel 1 + (plus) output" with masking tape and go to the red screw out terminals. It doesn't matter which of these wires is connected to the top red terminal. When you screw the red plastic terminal out, the slot that the wire goes into is on the right side at the bottom (as you directly at the back) of the red plastic knob and in the black metal base. Put the bare wire end in the slot and tighten the red plastic knob. Do the same thing with the other wire. Double check to be sure these wires are in the center of the slot- wiggle the wire to be sure it is secure.

6. Connect the wire labeled "Channel 1 – (minus) output" to the top black plastic terminal. Get the Ziploc bag and get the larger wire loop and connect one end of it to this same top black terminal. You may have to wiggle both wires to get them into the hole. The other end of the wire loop is connected to the bottom black terminal. Again twist out the plastic cap and place the wire in the slot on the bottom right and twist the black cap tight. **Now is a good time to triple check that the wires are going into the center of the opening in the base that the red and black plastic terminals are mounted on. If there is a poor wire connection here the doug coil will not work.**

The Doug Coil Machine is now finished. Get the page called "Operating Instructions" and you are ready to turn the doug coil machine on.