

DAVID BOGEN CO., INC.

MODEL B-20 Amplifier Schematic, Notes

- is supplied with each amplifier and is connected as follows:-
1. Skin outer rubber covering about 5/8" exposing the shield.
 2. Remove all cotton sleeve which in some cable is present over the metal shield and insert over the shield the metal sleeve supplied with the connector.
 3. Remove the exposed shielding up to the sleeve making sure to bend back over the sleeve all loose metal wires.
 4. Skin second rubber covering about 1/8" from the sleeve exposing about 1/4" of the conductor.
 5. Insert the cable thus prepared into one part of the connector, drop the spring washer in the recess, place bakelite washer over it allowing the conductor to pass through eyelet.
 6. Clean and solder conductor to eyelet, cut excessive wire, and screw set screw over the sleeve.
 7. Do not use soldering paste or acid on any connection on microphone or cable.

OUTPUT CONNECTIONS:-

Two, one thousand ohm speakers must be connected to the amplifier by means of sockets marked "SPK" located on the right side of the amplifier. As a safety measure, these sockets are so wired that the A.C. to the amplifier is cut off unless both speaker plugs are inserted. The speakers are wired as shown in Fig. 1. Additional speakers having their own source of field supply may be connected by using the taps on the strip marked "OUTPUT". The terminal connections are as follows: Terminal #1 is common; #2 is four ohms; #3 is nine ohms; #4 is fifteen ohms and #5 is five hundred ohms.

A.C. RECEPTACLE:-

An A.C. receptacle is located on the rear panel. This can be used to connect the A.C. for additional speaker exciters, phonographs, etc. The A.C. to this outlet is controlled by the master switch on the front panel.

FIELD SUPPLY:-

The built-in field supply will furnish 100 mils. at 125 volts to each of two 1000 ohm speakers. This field supply is not taken from the plate voltage supply but has its own source of power.

FUSE:-

If the amplifier fails to operate when turned on, examine the fuse clip. A five ampers fuse is used. If this fuse is burned out, examine the connections for a possible short circuit.

CONTROLS:-

Mixer Fader - The first control on the left governs the gain for either channel #1, a high gain input to channel #2, a low gain input. The second control from the left governs the gain for either channel #3 or #4 similarly. By using both controls simultaneously it is possible to mix the inputs from channels #1 and #2 with those of channels #3 and #4.

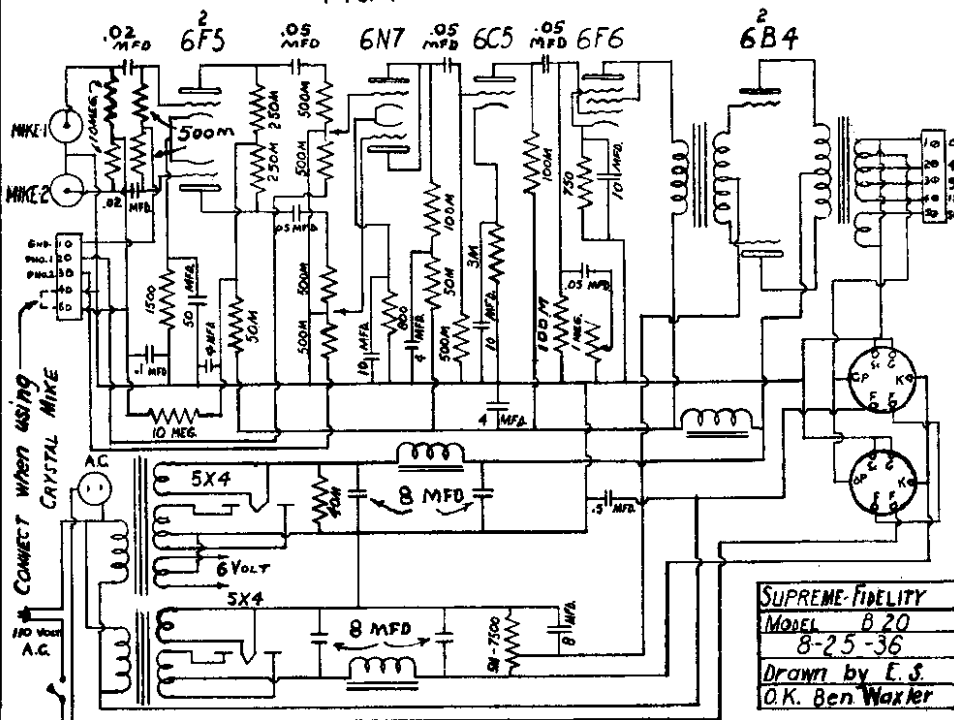
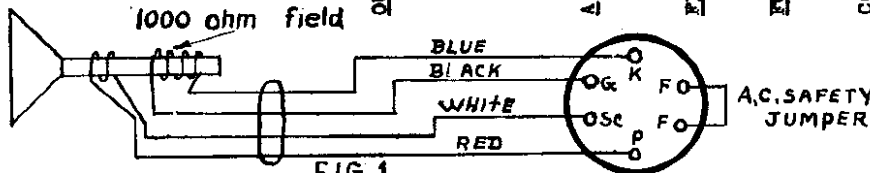
Tone - The control marked "Tone" is used for tone correction effects.

Master Switch - The switch at the extreme right on the control panel controls all A.C. The pilot light indicates when the amplifier is operating.

REMARKS:-

If any hum is noticed, when using the microphone, reverse the line polarity, by pulling out the line plug, giving it a half turn and reinserting.

Hum can be caused by faulty tubes, particularly with a high gain amplifier of this design. Check all tubes carefully before looking elsewhere. In rare cases an external ground may be necessary.



INSTRUCTIONS FOR MODEL B-20

The Supreme Fidelity Model B-20 is a nine tube amplifier operating on 110-125 volts, 50-60 cycles with a drain of 275 watts. The tubes used are: 2-6F5M, 1-6N7G, 1-6C5G, 1-6F6G, 1-6B4G, 2-5X4G.

INPUT CONNECTIONS:-

The five post input strip is used as follows: Terminals "1-2" are channel #2 for a phonograph or other low gain input. Terminal #1 is the ground side; terminals "1-3" are channel #4, for another phonograph or low gain input. When using a Crystal microphone connect posts #4 and #5 by a wire. Do not jump these terminals when using a Velocron or Velocity microphone.

MICROPHONE CONNECTIONS:-

Above the five post strip are two screw cable connectors. These are the two channel inputs #1 and #3, for Velocron, Velocity or Crystal microphones. For each microphone, a single conductor shielded cable must be employed. The plug that is used on the microphone cable