

POWER MODIFICATION DAX X

- 1.** Remove cabinet cover, bottom plate, and rear panel.
- 2.** Remove 6DG6 tube and tube hold down clamp.
- 3.** Remove 12BY7A tube and shield.
- 4.** Unsolder pin 3 of octal socket R.F. power amp.
- 5.** Pull wire thru hole in chassis from top side and attach to parasitic suppressor. Wire should be 2-3/4 inches long. If wire is not that long, then replace with piece of stranded #18 insulated wire.
- 6.** Unsolder pin #4 and remove 3.9K (R211) and replace with 39K 2-Watt resistor.
- 7.** Unsolder pin #6 remove all ground connections and filament supply lead wires.
- 3.** Unsolder all connections to pin #8.
- 9.** Unsolder all connections to pin #1.
- 10.** Solder 0.01uF 50-Volt ceramic bypass capacitor from pin #2 to pin #7.
- 11.** Solder blue wire removed from pin #8 to pin #3. Route wire under terminal strip TB-1.
- 12.** Connect free end of 4.7 ohm resistor on pin #7 to pin #6. This resistor will now be connected between pins 6 and 7. Do not solder pin 6 at this time.
- 13.** Connect a 0.01uF 50-Volt ceramic bypass capacitor between pin 7 and pin 6. Solder pin #6.
- 14.** Connect the ground bus wire to pin #7.
- 15.** Connect the yellow and purple wires (filament lead wires) to pin #7.
- 16.** Connect the free end of the 0.001uF 2 KV (C209) capacitor now on pin #4 to pin #7. This capacitor will now be connected between #4 and #17.

- 17.** Connect the free end of the 0.001uF 2KV (C210) capacitor to the last lug on the terminal strip, TB-1.
- 18.** Add a 450 volt 1uF across R204 on terminal board TB-2. Connect the (+) lead to terminal 2 and the (-) lead to terminal 3.
- 19.** Unsolder and relocate the lead wire from R-309 that is connected to TB-3 terminal 4. This lead will not be used.
- 20.** Use a short piece of stranded insulated wire and connect the 1000ohm 10W section of R-310 to TB-3, terminal 4.
- 21.** On rear apron of chassis locate R-210. (56K 1/4Watt). This resistor is on the board surrounded by a shield against the rear of the chassis. Replace the R-210 with a 150K resistor on the foil side of the board.
- 22.** Connect a 33uF 6-volt capacitor from collector of Q-34 squelch amp to ground. The (+) of the capacitor to the collector.
- 23.** Remove the white wire from the end terminal of the mic gain control and connect a 4.7K resistor between the white wire and the control terminal.
- 24.** Insert the 12GN7 tube in the 9 pin socket and replace the tube shield.
- 25.** Mount Stancore P-8605 48volt transformer as shown in the drawings Fig. 1 thru Fig. 6.
- 26.** Route lead wires from transformer thru holes in chassis now containing power transformer leads.
- 27.** Connect red wire from P-8605 to fuse holder connection with white wire.
- 28.** Connect yellow wire from P-8605 to terminal strip TB-5, terminal 3.
- 29.** Tape brown and green wires separately. These are not used.
- 30.** Tape black wire from P-8605 secondary. This lead is not used.
- 31.** Remove yellow wire from TB-4, terminal 5, and connect to light green wire from P-8605 transformer. Tape connection.

32. Connect gray wire from P-8605 to TB-4, terminal 5.
33. Check all connections to be sure they are properly soldered and that there are no shorts, pieces of wire, solder, etc. or other contamination.
34. Insert 6DQ5 tube in socket and place plate cap on tube. Be sure the lead wire or parasitic suppressor does not short to shield.
35. Turn set on and warm up tubes. Leave standby switch in standby position.
36. **CAUTION: HIGH VOLTAGE** - The plate cap of the 6DQ5 has 480-volts potential. --- Be careful.
37. Connect a 1Khz tone signal to the mic input. Use pin #1 as audio input and pin #2 as ground.
38. Connect pin #3 and pin #4 to together on mic plug. Thiis will cause relay to operate into XMT position.
39. Place gain control to full counter clockwise position. Mode is U.S.B. , meter switch in plate current, Channel 20.
40. Connect 50 ohm dummy load (100-Watt) to R.F. output.
41. Connect low capacity scope probe across dummy load.
42. Connect voltmeter from pin #3 on 6DQ5 tube socket to ground. (+) lead to pin #3. Voltage range 2-1/2 Volts D.C.
43. Turn transmit-standby switch to transmit.
44. Adjust RV-202 so voltmeter reads 0.47 volt at pin #3.
45. Adjust RV-802 until plate current meter reads 50 MA.
At this point the plate current meter is indicating 1/2. actual current. For proper current reading multiply reading X 2.
46. Turn mic gain control full clockwise position then adjust C-902 then C903 and alternate for maximum, power output.
47. Switch to Channel 1 and adjust the bottom slug of L-203 for maximum output on scope. Change to Channel 40 and adjust top slug -- alternate until even output is obtained.
48. If a two-tone signal is available, check scope Pattern to be sure no flat topping occurs. If flat topping is observed, adjust RV-2 to correct this condition.

49. Switch to AM mode and adjust RV-201 for 50ma on plate meter. Remember 50ma is really 100ma. The meter now has 2X calibration.

50. Adjust RV-204 for 95 to 100% modulation on scope.

51. If a power output meter is available it can be used as a reference to set the power output meter in the set. Adjust RV-602 for AM power output and RV-603 for SSB power output.

This modification should result in P.E.P of at least 75-Watts on sideband and 20-Watts AM at 95% modulation and a AM envelope power of 35-Watts output.

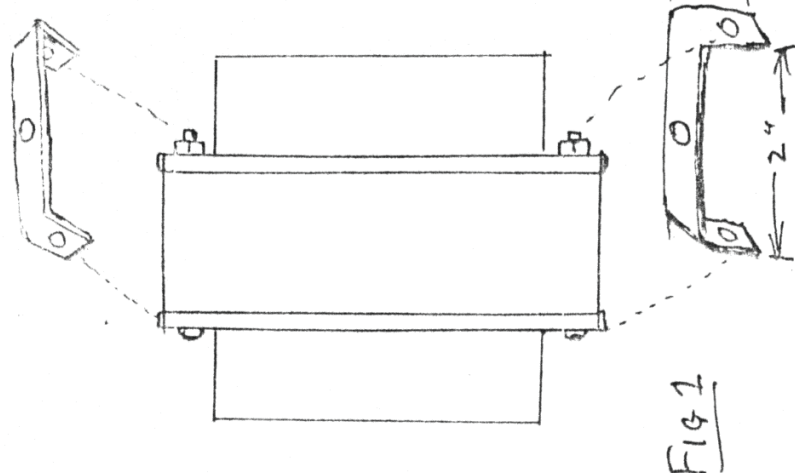


FIG 1

1. MAKE 2 BRACKETS TO FIT TOP OF POWER TRANSFORMER AS SHOWN, IN FIG 1 (USE ALUMINUM STRIP .090 THICK)
2. MAKE PLATE AS SHOWN IN FIG 2.
3. REMOVE SCREWS FROM POWER TRANSFORMER. TOP SCREWS ONLY. LEAVE PLASTIC WASHER IN PLACE WHEN REMOVING SCREWS.

LOCATION OF MOUNTING BRACKET SUPPORTS

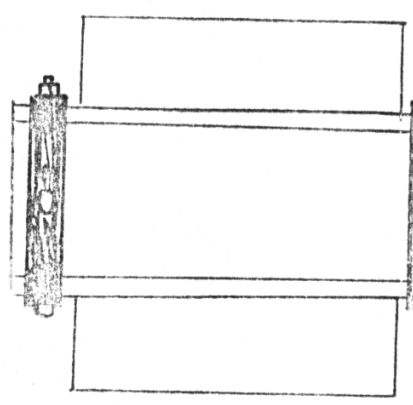


FIG 3.

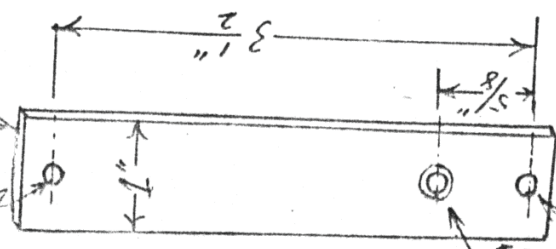


FIG 2

HOLE FOR 8/32 X 3/8" SCREW
 1/8 GA. ALUMINUM STRIP

COUNTERSINK FOR FLAT MACHINE HEAD MACHINE SCREW 8/32X1 1/4
 HOLE FOR 8/32 X 3/8" SCREW

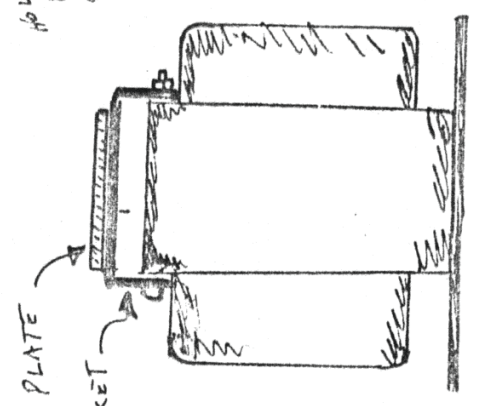


FIG 4

PLATE
 BRACKET

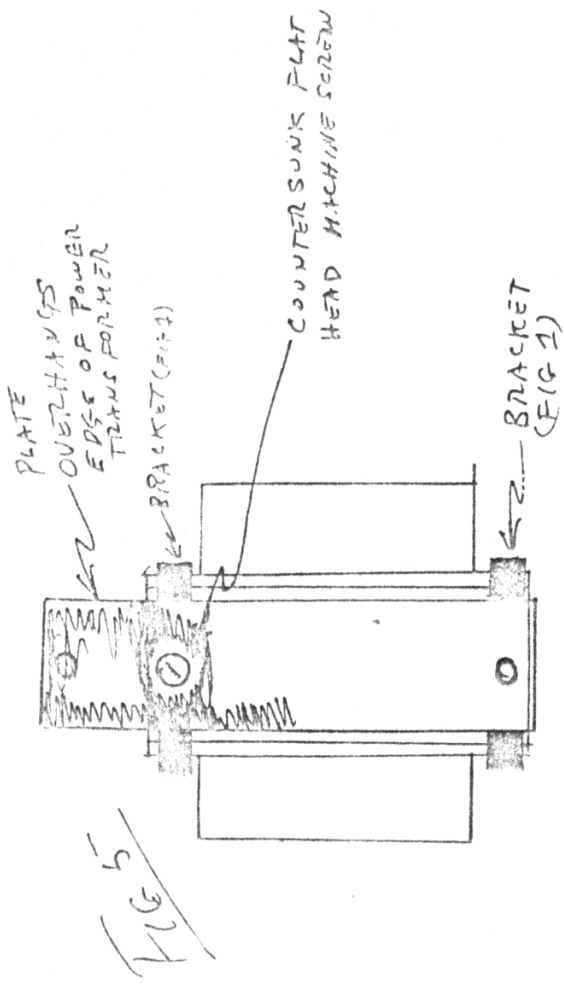


FIG 5

4. MOUNT PLATE ON TOP OF BRACKETS-DO NOT BOLT TO TRANSFORMER AT THIS TIME.

5. ASSEMBLE P-8605 TRANSFORMER AS SHOWN IN FIG 6

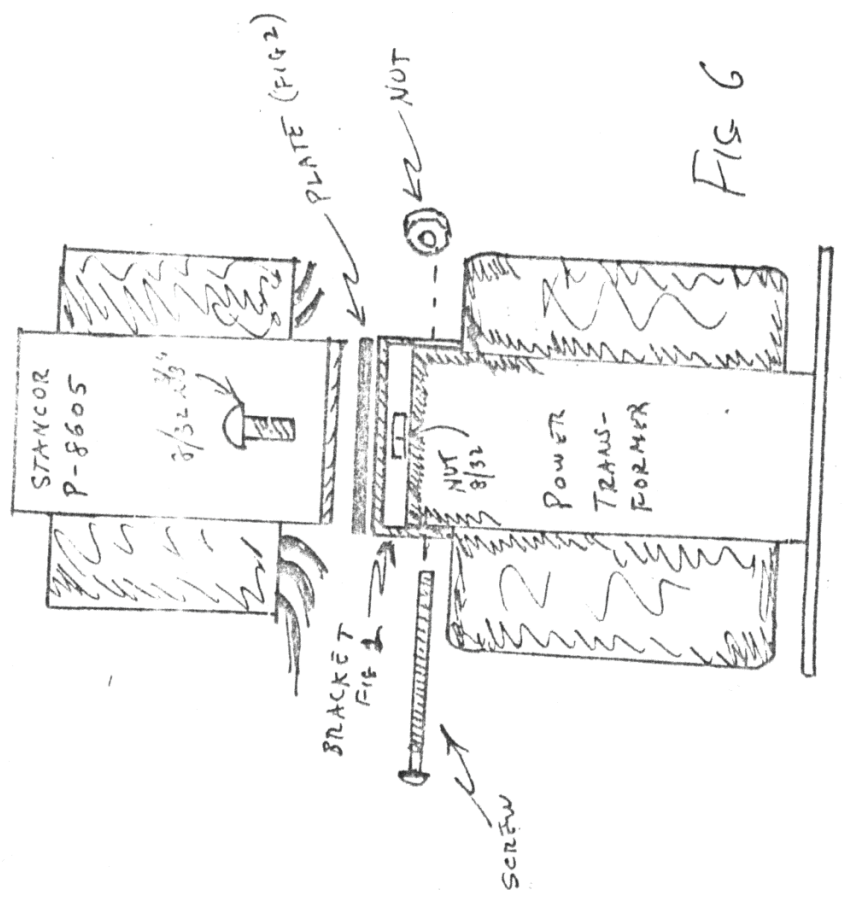
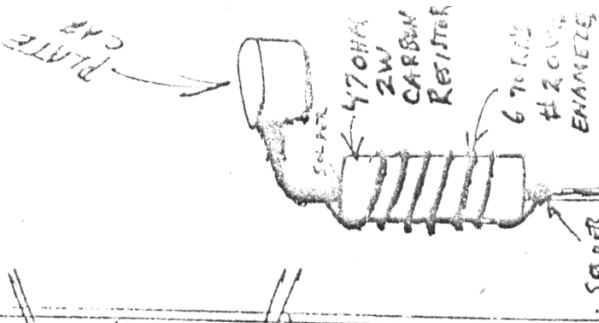


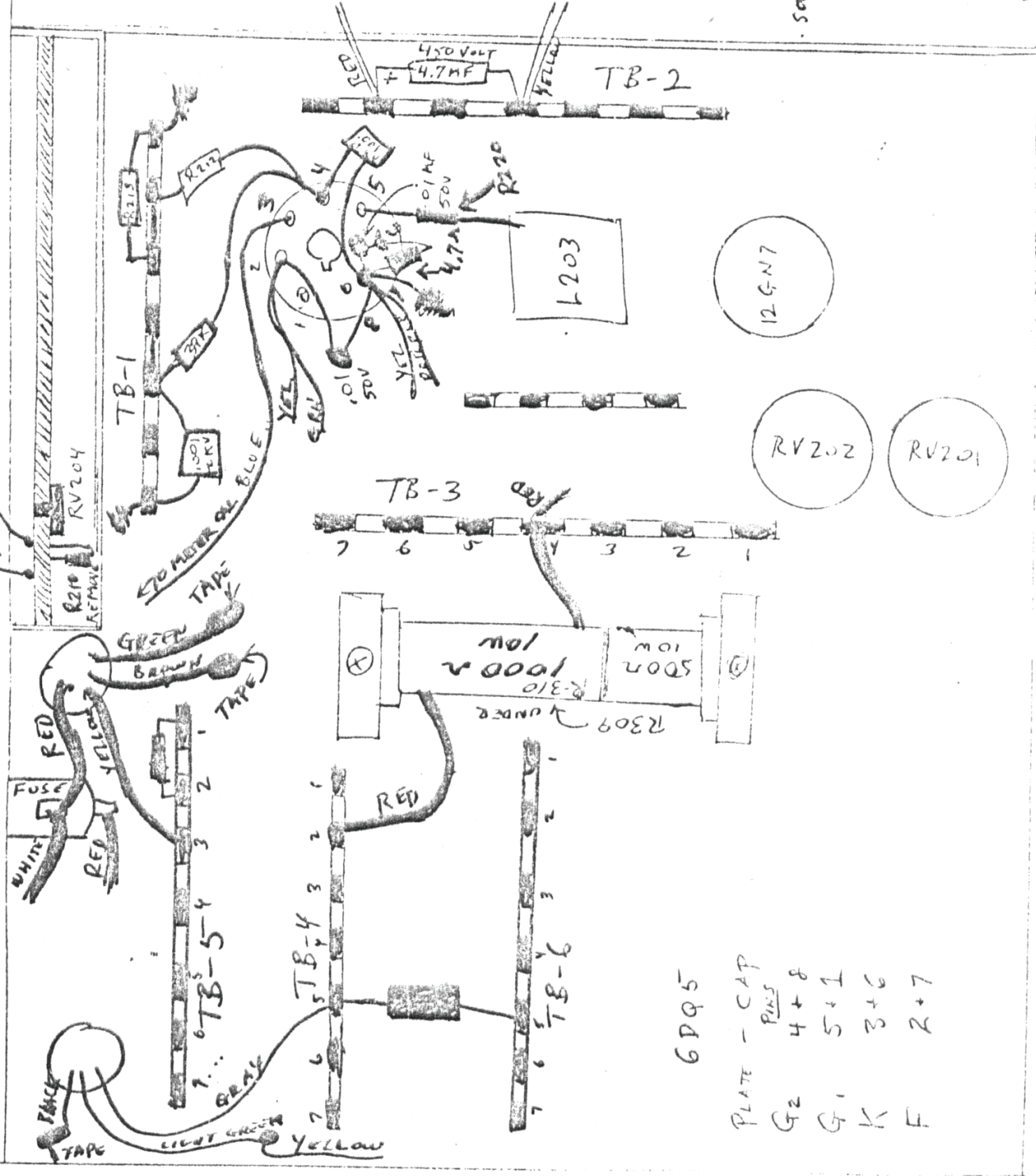
FIG 6

ASSEMBLE P-8605 ON PLATE AND BRACKET ASSEMBLY AND BOLT TO TRANSFORMER AS ABOVE PAGE 2.

PARASITIC SUPPRESSOR



REMOVE OR REPLACE ON 150K FOIL SIDE



6DQ5

PLATE - CAP
PINS
G2 4+8
G1 5+1
K 3+6
F 2+7