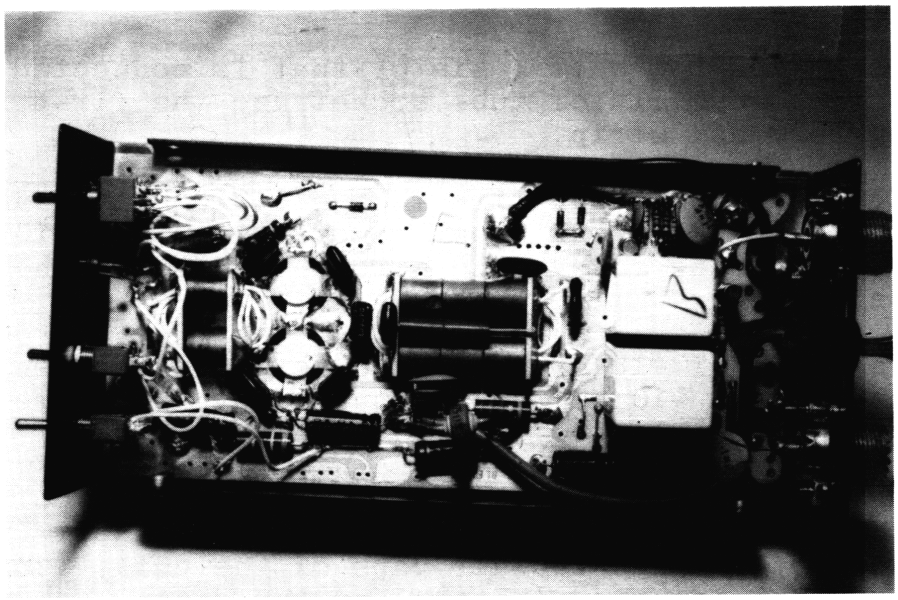
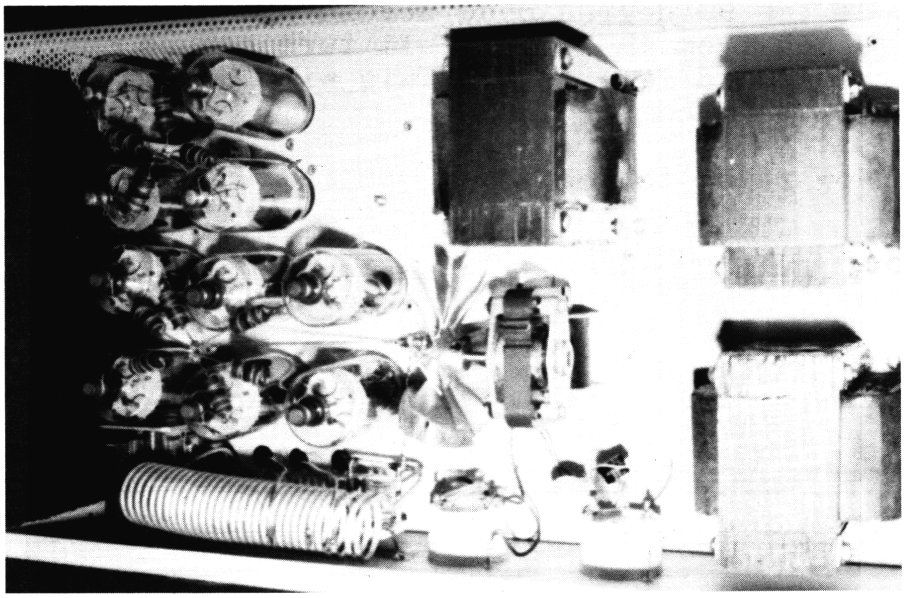
SPECIAL SECTION ON LINEAR AMPLIFIERS





PDX-400

1. Turn the unit upside down with the front toward you.

2. Remove the insulated wire and the 5pf disc capacitor that is connected between the VFO (SO-239) and pin #2 of the oscillator tube socket.

3. Remove the 470K two watt resistor that is connected between pin #1 of the oscillator tube socket and the first lug of the five lug terminal strip.

4. a. Disconnect the brown wire from pin #10 of the antenna relay.
   b. Solder the loose end, just removed from pin #10, to pin #6 of the antenna relay; the wire should be as short as possible.

5. Solder a piece of #18 or larger copper wire between the VFO (SO-239) and pin #10 of the antenna relay; the wire should be as short as possible.

6. Starting at the bottom of the driver stage tank coil (at the tune control on the right hand end) bridge solder (going from right to left) across two air gaps of the coil. This will be done on the interior (bottom) of the coil.

7. Turn the unit right side up, with the front toward you.

8. Starting at the bottom of the final stage tank coil (at the load control on the left hand end) bridge solder (going from left to right) across two air gaps of this coil. Solder from the end of the 90 degree bend across one air gap to the first full turn and from the first full turn across the second air gap to the second full turn. This will be done on the interior (bottom) of this coil.

9. Unit is now ready to load.

D & A 250 MAVERICK

1. Turn the unit upside down with the front toward you.

2. Remove the insulated wire and 5 pf disc capacitor that is connected between the VFO input SO-239 and pin #2 of the oscillator tube socket.

3. Remove the 470K two watt resistor that is connected between pin #1 of the oscillator tube socket and the first lug of the five lug terminal strip.

4. a. Disconnect the brown wire where it is connected to the second lug of the five lug terminal strip.
   b. Solder the loose end to the VFO input SO-239. (Wire should be cut as short as possible).

5. Starting at the top of the driver stage tank coil, (load control or left hand end) bridge solder (going from left to right) across two air gaps of this coil. Solder from the end of the coil across one air gap to the first full turn and from the first full turn across the second air gap to the second full turn.

6. Turn the unit right side up, with the front toward you.

7. Starting at the bottom of the final stage tank coil, (load control or left hand end) bridge solder (going from left to right) across two air gaps of this coil. Solder from the end of the 90 degree bend across one air gap to the first full turn and from the first full turn across the second air gap to the second full turn. This will be done on the interior (bottom) of this coil.

8. Unit is now ready to load.

MACO

THE DUSTER 300, 750, & 1000 TRANSMITTER

Remove transmitter board as follows:
1. Remove capacitor at relay board.
2. Remove jack from front panel with wire attached.
3. Remove wire from bilateral switch on front panel.
4. Remove board with attached parts.

It is rumored that the factory will swap transmitter boards for a 2057 tube.

To get unit to Transmit do the following:
1. Remove insulating sleeve from between the SO-239 (radio) connector, where the cap was removed, and the relay board.
2. Solder center of the SO-239 to pad on the relay board.

MACO 75

1. First change tube to 2057 and then remove bottom.
2. Take out and throw away brown wire connected to 10K resistor which runs from relay to PC board.
3. Take out, turn around, and re-install the glass diode on the foil side of the PC board.
4. Two wires going to the relay are reversed, they are the coax and the yellow wire going to the purple coil. Remove and reverse and reconnect.
5. Replace the bottom and key the radio, whistle, and tune front control for maximum.

NOTE: Dead key, no modulation should be 4-6 watts, if more adjust pot on bottom for this output.

NOTE ON MACO 75's:

<u>With Bilateral Not Connected</u>
1. Take off the jumper from across the lugs on the rear relay.
2. Connect the red wire to bottom empty pin on the stand by switch.
3. The black wires on bilateral board must be connected. Connect the wire directly below the red wire to the relay lug nearest the antenna connector. This lug had the jumper on it originally.
4. The other black wire goes to the other lug on the relay nearest radio connector. This had the other end of the jumper on it.
5. The wire with the green choke goes to the same relay lug as black wire, nearest radio connector as in (4).
6. This connects the Bilateral.

<u>With Bilateral Connected, But Not Operational</u>
1. Take off the jumper from across the lugs on the rear relay.
2. This enables the Bilateral.

It is essential that the Maco 500 be tuned and operated properly! Failure to do so will damage this product and is not covered by warranty!

DO'S

1. Do tune side control in the low position for maximum while whistling.
2. Do tune front load and tune controls for maximum in the HI position, while whistling.

DO NOT

1. Retune side control after it is once set!
2. Do not detune the front for any reason, always set for maximum.
3. Do not for any reason operate in SSB position on Maco 500 with radio on AM, this product has special circuitry for SSB, which if operated with radio in AM will destroy the driver tubes. Repeat, with radio in AM the 500 must be in AM.
4. Do not drive with over four watts AM under any conditions. If you overdrive, it is at your peril. If this was a 750 we would sell it at the 750 price!

CONVERSION: Instructions same as Maco 300. Later versions will be the same instructions as 750.

TUNING: If you are not familiar with the front tuning, it is done as follow:

1. Turn the front load control all the way to the left; key, whistle and set tune for maximum output. Then turn load control to the right while whistling, adjust tune for maximum. Continue this adjusting load and tune for maximum output.

500CX AND 700CX
10 TO 11 METER CONVERSION

1. Remove VFO cover and locate 10 meter VFO coil. Solder a 5 pf NPO capacitor in parallel with the existing 2.5 pf capacitor.

2. Replace cover and secure the screws.

3. Using a calibrated source such as a signal generator or crystal controlled CB transmitter and with the tuning dial of the 500CX set to zero, adjust the variable trimmer C-17170, capacitor so that channel #1, (28.020) coincides with this mark. Place signal source on channel #23 and adjust dial of 500CX. It should read approximately 28.350. If proper tracking has not been obtained; remove cover, take out 10 pf NPO and replace with 15 pf NPO capacitor and repeat calibration.

4. After proper tracking and calibration is obtained, it is suggested that some type of coil dope be applied to the area of the coil and capacitor so that they acquire a measure of mechanical rigidity to reduce possibility of drift.

   The following coils will have to be repeaked: L-101, L-203, and L-301.

5. Set the transceiver on channel #13 and connect dummy load to it.

6. With the receiver on receive and using the DC scale of a VTVM, connect the negative lead to pin #1 of V-7, the receiver mixer, and the positive lead to ground. Adjust L-101 to the maximum negative DC reading.

7. Load set using the instructions given in manual for tuning.

8. Insert approximately 150 MA of carrier by adjusting carrier balance control, and peak L-203 and L-301 for maximum indication on watt meter.

9. The alignment is now complete, but neutralization will probably be required and this is accomplished by using the method described in the manual for 10 meters excepting that the transceiver dial is set on channel #13.

RDX-75

1. Turn the unit upside down with the front toward you.

2. Remove the 5pf disc capacitor that is connected between the VFO input (SO-239) and pin #2 of the oscillator tube socket.

3. Remove the 47OK two watt resistor that is connected to pin #1 of the oscillator tube socket and the first lug of the 5 terminal strip.

4. a. Disconnect the brown wire where it is connected to pin #7 of the antenna relay and reconnect it to pin #4 of the antenna relay.
   b. Solder a piece of #18 or larger copper wire from the VFO input (SO-239) to pin #7 of the antenna relay (wire should be as short as possible.)

5. Starting at the top of the tank coil (load control on left hand end) bridge solder from the end of the coil across one air gap to the first full turn and then across the second air gap to the second full turn.

6. Unit is now ready to load.

HDX-50

1. Turn the unit upside down with the front toward you.

2. Remove the 5pf disc capacitor that is connected between the VFO input (SO-239) and pin #2 of the oscillator tube socket.

3. Remove the oscillator tube, the 6GK6.

4. a. Disconnect the brown wire where it is connected to pin #7 of the antenna relay and reconnect it to pin #4 of the antenna relay.
   b. Solder a piece of #18 or larger copper wire from the VFO input (SO-239) to pin #7 of the antenna relay (wire should be as short as possible.)

5. Starting at the top of the tank coil (load control on left hand end), bridge solder from the end of the coil across one air gap to the first full turn.

6. Unit is now ready to load.

1. Turn the unit upside down with front toward you.

2. Remove the insulated wire and the 5pf disc capacitor that is connected between the VFO input (SO-239) and pin #2 of the oscillator tube socket.

3. Remove the 47OK 2 watt resistor that is connected between Pin #1 of the oscillator tube socket and the first lug of the five lug terminal strip.

4. a. Disconnect the brown wire where it is connected to the second turn of the oscillator tank coil.
   b. Solder the loose end to the VFO (SO-239); wire should be cut as short as possible.

5. Starting at the top of the driver stage tank coil, (load control on left hand end) bridge solder (going from left to right) across two air gaps of this coil. Solder from the end of the coil across one air gap to the first full turn and from the first full turn across the second air gap to the second full turn.

6. Turn the unit right side up, with the front toward you.

7. Starting at the bottom of the final stage tank coil (load control on left hand end) bridge solder (going from left to right) across two air gaps of this coil. Solder from the end of the 90 degree bend across one air gap to the first full turn and from the first full turn across the second air gap to the second full turn. This will be done on the interior (bottom) of this coil.

8. Unit is now ready to load.

PDX-400 LINEAR AMPLIFIER

1. Turn the unit upside down with the front toward you.

2. Remove the insulated wire and the 5pf disc capacitor that is connected between the VFO (SO-239) and pin #2 of the oscillator tube socket.

3. Remove the 470K two watt resistor that is connected between pin #1 of the oscillator tube socket and the first lug of the 5 lug terminal strip.

4. a. Disconnect the brown wire from pin #10 of the antenna relay.
   b. Solder the loose end, just removed from pin #10, to pin #6 of the antenna relay; the wire should be as short as possible.

5. Solder a piece of #18 or larger copper wire between the VFO (SO-239) and pin #10 of the antenna relay; the wire should be as short as possible.

6. Starting at the bottom of the driver stage tank coil (at the tune control on the right hand end) bridge solder (going from right to left) across two air gaps of the coil. This will be done on the interior (bottom) of the coil.

7. Turn the unit right side up, with the front toward you.

8. Starting at the bottom of the final stage tank coil (at the load control on the left hand end) bridge solder (going from left to right) across two air gaps of this coil. Solder from the end of the 90 degree bend across one air gap to the first full turn and from the first full turn across the second air gap to the second full turn. This will be done on the interior (bottom) of this coil.

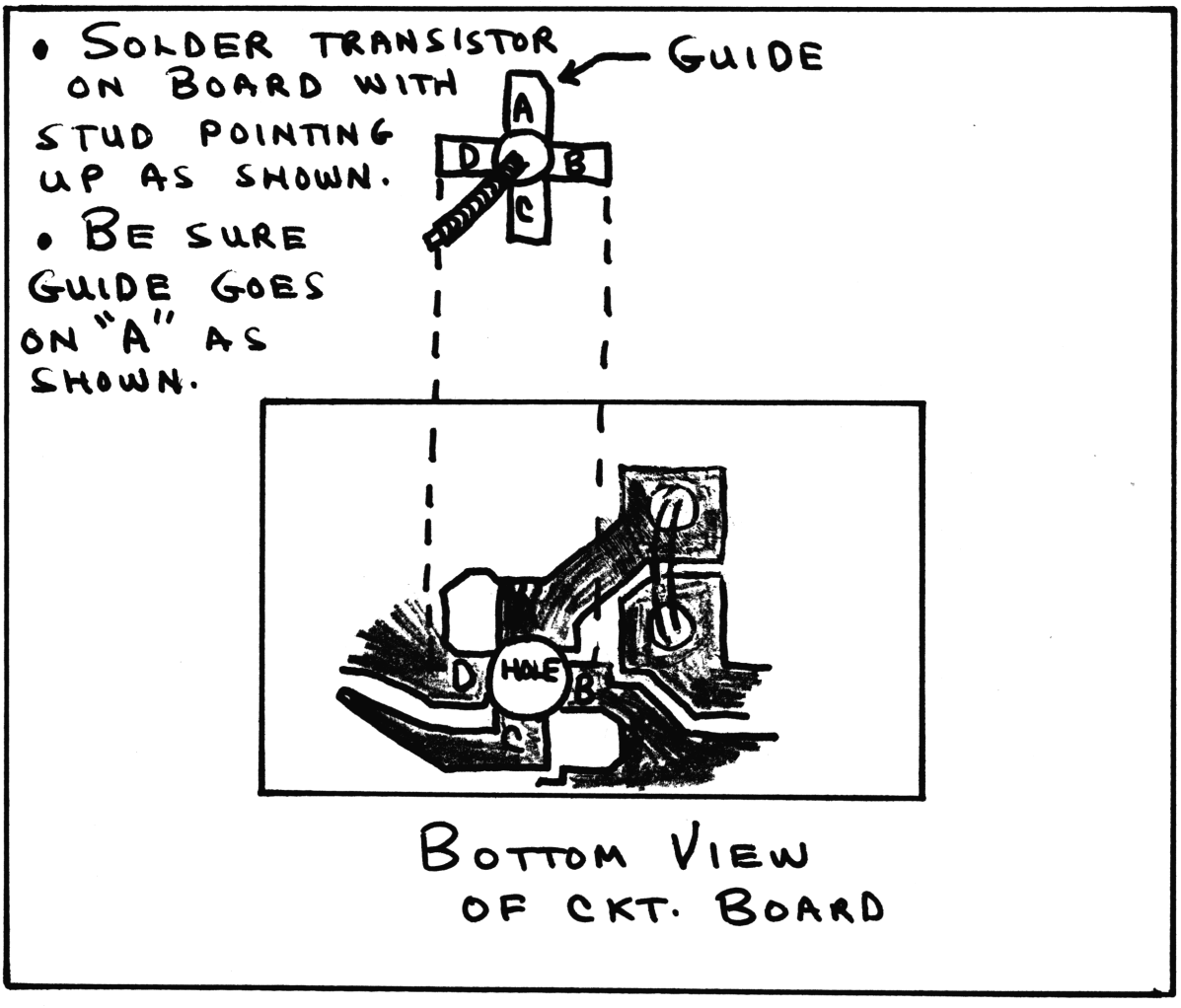
9. Unit is now ready to load.

10 METER AMATEUR KIT

EXPERIMENTER BOARD INFO SHEET

INSTRUCTIONS:

The transistor is pre-cut and pre-tested. You must mount the transistor and solder it in place as shown. If the device is not installed correctly, it will result in immediate destruction of $19.95. So, it is important to install it right the first time.



We have found that when installing the 10 meter unit in the radio you need to have additional sheilding between the amp and the radio component's to prevent feed back. This may be accomplished by using a piece of aluminum foil wrap and inclosing it between a piece of note book paper. Fold the paper in half and insert the foil wrap between the folded paper, tape or staple and insert the shield between the amp and the radio. Fold the excess over the heat sink and tape the foil so it grounds out on the heat sink or the chassis. You must tear the paper off one end so you can expose the foil in order to ground it to the chassis or heat sink. Be sure the paper covers all parts that might short out. See illustration below: