

FM Micro Power Radio Guide

- O Insert Q1, marked 2n4416, note correct orientation on board.
- O Insert Q2, marked 2n3866 or 2n4427, note correct orientation on board.

Insert and solder the following coils :

- O Insert L1, 6 Turns #18 .25" diameter, connect a tap wire at 2.5 turns from the ground end.
- O Insert L2, 6 Turns #18 .25" diameter, connect a tap wire at center of coil.
- O Insert L3, 4 Turns #18 .25" diameter.
- O Insert L4, 2.5 Turns #18, .25" diameter.
- O Insert L5, 4 Turns #18, .25" diameter.

Install the last transistor and heatsinks :

- O Insert Q3, note correct orientation on board. Mount from the bottom with the writing of the transistor facing up. See Layout sheet for more detail.
- O Install heatsink on Q3.
- O Install heatsink on Q2.

Install the feed wires :

- O Install the power cables, use red and black wires if possible, connecting the red wire to the +12volts area as shown on the layout diagram. Connect the black wire to the curcut ground as shown on the layout diagram.
- O Install the audio input cable, shielded audio cable works best. Connect the center strand of the cable to the place marked Audio Input and connect the surrounding braided strand to the place marked Audio Ground.
- O Lastly, install a piece of 50 ohm coaxial cable to the RF output. Connect the center strand to the place markded RF out, and the braided shell to the place marked RF ground.

Ok, now your transmitter should be assembled. Go back and check all your work. Make sure that all the solder connections are shiney and don't bridge over traces. Once this is done you should prepair to tune the transmitter up. You may want to wait until after you have done some testing before mounting you transmitter in a case.

Tune Up

(1) Connect the piece of 50 ohm coaxial cable to a power meter with a *dummy load* on its output jack. You can use a "CB" watt-meter, or a more accurate VHF watt-meter. The power meter/dummy load shown in this book can also be used.

(2) Set R4 and R5 at mid-range.

(3)Apply 12volts DC to the transmitter.

(4) Feel around to see if anything gets too hot to the touch or smokes. If it does stop right here, switch off the power supply immediatly and check for wiring errors. Otherwise continue.