

## Ramsey PA-1 2-meter to 3-meter conversion mod (updated)

The Ramsey 2-meter amp (PA-1) can be converted for use on the FM broadcast band. The following changes need to be made:

L1 - should be replaced with a 1-turn 1/4" diameter coil, identical to the stock L2 shown in the PA-1 manual.

L2 - no change required

C1 - no change required

C2 - should be replaced with a larger trimmer capacitor. Use a trimmer that will go up to at least 125pF.

C3 - no change required (\*)

C4 - should be replaced with a larger trimmer capacitor. Use a trimmer that will go up to at least 125pF.

\* - at higher power levels (>15 watts), this capacitor should be replaced with a trimmer that goes up to at least 200pF.

### Tuning:

Tuning the amp for proper operation on 3-meters can be tricky. I suggest the following setup:

FM xmitter --- SWR Meter --- PA-1 --- Power Meter --- 50 ohm dummy load

Starting with C1 and C3 about 1/2 turn from closed, tune C2 and then C4 for maximum power output. If the SWR is much over 2:1, you will need to adjust C1, C2, and C4 to reduce it to an acceptable level. Watch the output power while you do this. Sometimes, tuning the trimmers for minimum SWR will peak the power output, whereas other times the power output will drop markedly. Avoid trimming the capacitors that have a large negative effect on the power output. After several iterations of adjustment, you should have decent power gain and low input SWR.

*Note:* Watch for sudden jumps in power output that you can't linearly tune through. If you encounter this happening, chances are your SWR between the transmitter and amplifier will go way up, too. This is a sign that your amplifier is oscillating and you will need to tune it out of this region for proper operation.