

**FREQUENCY SENSITIVE PARTS**  
**T51-144 VHF FM EXCITER**

<u>Ref Desig</u>	<u>Value (Marking)</u>	<u>Ref Desig</u>	<u>Value (Marking)</u>
C1	220 pF (221)	C41	220 pF (221)
C22	220 pF (221)	C42	12 pF
C24	.01 uF (103)	C43	62 pF
C25	.01 uF (103)	C44	220 pF (221)
C26	62 pF	C46	5 pF
C27	1 pF	C47	20 pF variable (red)
C28	62 pF	C48	220 pF (221)
C29	.001 uF (102)	C49	20 pF variable (red)
C30	.001 uF (102)	C50	20 pF variable (red)
C31	20 pF	C51	20 pF
C32	0.39 pF tubular(orn-wht-gry)	C52	220 pF (221)
C33	18 pF	Q11	SD-1115-7 or SD-1134-1
C34	220 pF (221)	R17	10K
C35	220 pF (221)	L1, L2	10-1/2 turns widespaced (blk)
C36	8.2 pF or 8 pF	L3, L4	7-1/2 turns widespaced (vio)
C37	0.39 pF tubular(orn-wht-gry)	L5, L6	4-1/2 turns widespaced (yel)
C38	10 pF	L7	3-1/2 turns widespaced (orn)
C39	62 pF	L8, L9, L10	5 turns #22 magnet wire close spaced
C40	220 pF (221)	L11	12 turns #22 magnet wire close spaced
		L12	8 turns #22 magnet wire close spaced

**NOTE:** Add the following steps to alignment procedure for simplest procedure.

1. Set power control R34 to mid-range instead of full output before starting.
2. After step e, connect vtrm with normal resistor in probe (not VOM) to base of Q9. Adjust L5 and L6 alternately for maximum negative indication. Do not readjust L5-L6 as stated in step f.
3. Modify step g to this extent: For optimum efficiency, set R34 to desired level and repeat variable capacitors in driver and PA stage alternately until proper output level is reached at minimum gain control setting. At two meters, two watts output normally is obtained at less than 375 mA total current drain; so it is recommended that this level not be exceeded. If your power meter is not calibrated well, you can set power control R34 to 375 mA exciter current.

**NOTE:** Please correct error on schematic diagram. Polarity of C10 is incorrect. It should be as shown on parts location diagram.