

Assembly Instructions for the "HONEY BEE"

RECEIVER KIT CS - 511AK

GENERAL ASSEMBLY INSTRUCTIONS

When properly assembled, your 511A Receiver will provide performance equal to a factory-built unit. To insure this result, follow each assembly step exactly as specified. Observe the following points.

- Read instructions completely through before starting assembly. Be sure you understand all steps.
- Work slowly and carefully. Do only what the assembly step indicates, nothing more.
- All operations are illustrated or described by text. Perform each step in its numerical sequence, and check off as completed.
- Use a pencil type low wattage soldering iron, 25-50 watts maximum, with a small tip. Too much heat can ruin parts. Do not use an instant heat iron.

e. Use only rosin core 60-40 solder. In event acid core solder or acid flux is used, C & S Electronics will not even attempt to repair such equipment.

f. Be sure all surfaces and wires to be soldered are absolutely clean. Apply heat to parts being soldered, then feed solder to joint until it forms a smooth connection.

g. Do not use excess solder. Use care to avoid "cold" or under-soldered joints.

h. Unless otherwise indicated, solder all parts in place as they are installed. After soldering clip off surplus lead length, but do not cut into the solder joint.

i. Unless otherwise indicated, all parts should fit snugly against the board.

j. Use extreme care when soldering transistors and electrolytic capacitors in place. Too much heat can damage or ruin these parts and make unit inoperative.

k. Orient printed circuit board, circuit side down, as shown in figure 1. Start assembly with transformers and capacitors.

1. Complete assembly steps 1 thru 25, then continue with steps 26 thru 39 below.

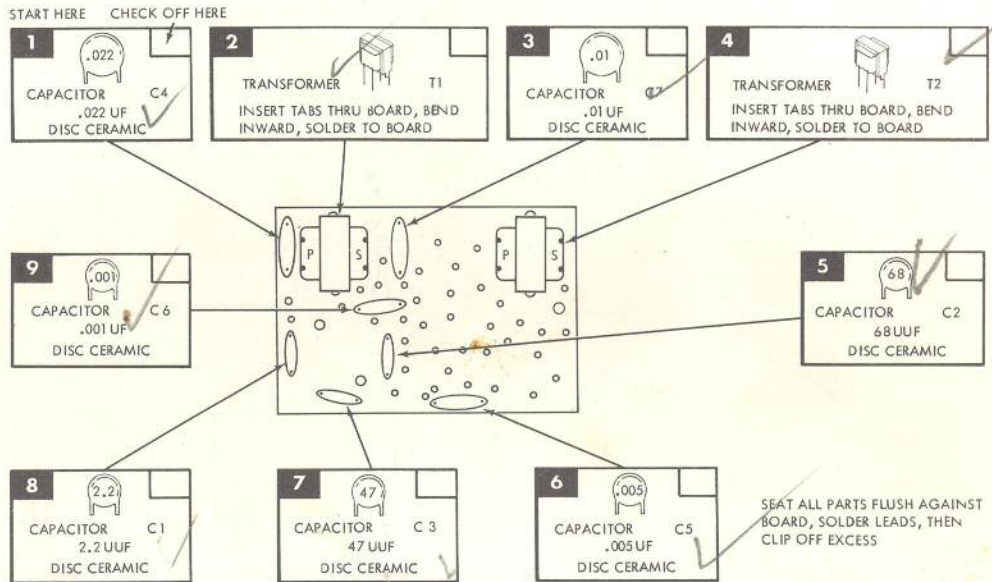


Figure 1. Transformers and Disc Capacitors

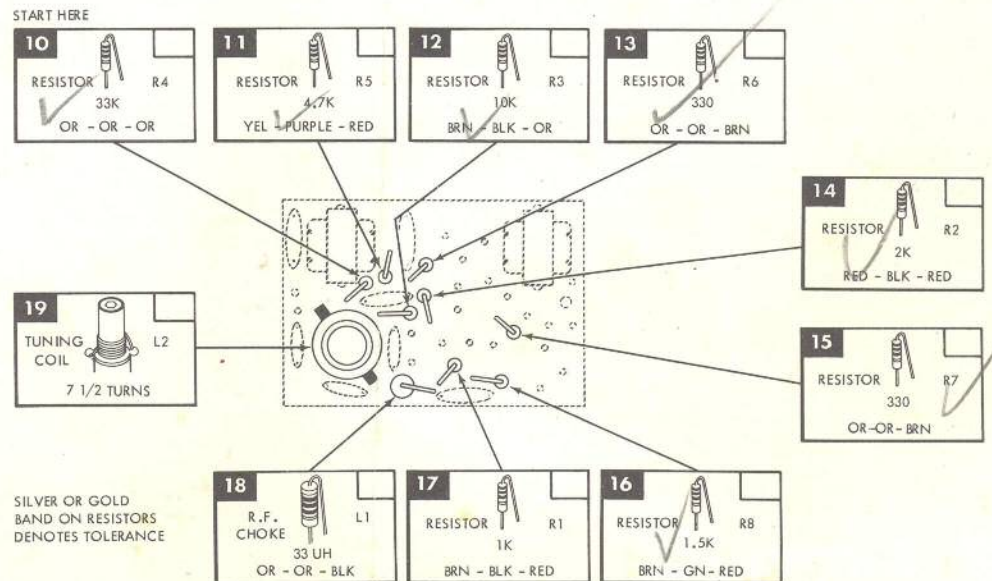


Figure 2. Resistors, Choke and Coil

START HERE

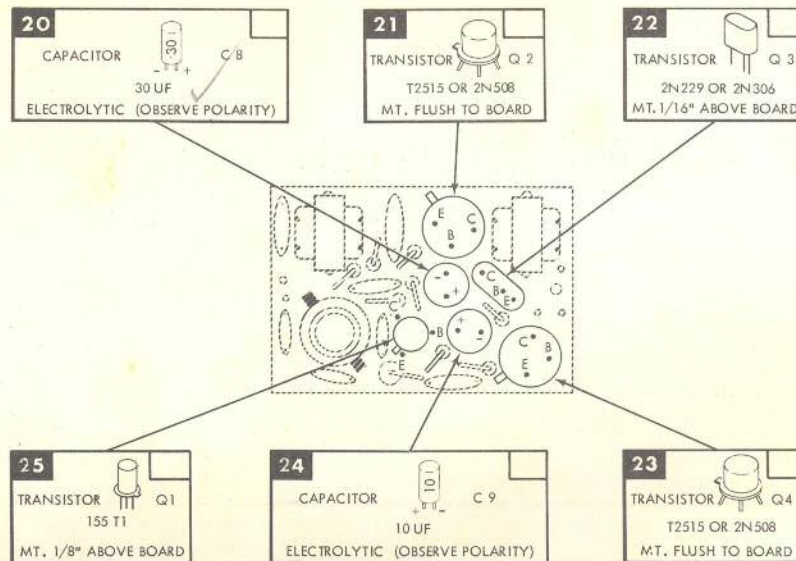


Figure 3. Transistors and Electrolytic Capacitors

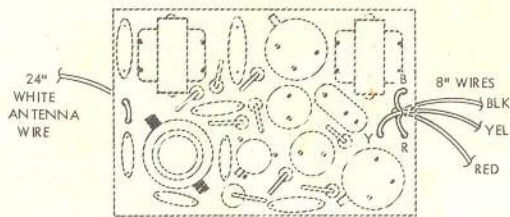


Figure 4. Wire Installation

FINAL ASSEMBLY

- 26. Skin 1/4" insulation from each end of the red, yellow and black wires. Twist wire ends to form a smooth end.
- 27. Insert each wire in turn down thru its respective hole and solder in place. Clip off excess.
- 28. Thread all three wires thru the large hole, and dress neatly.
- 29. Remove 1/4" insulation from one end of white antenna wire.
- 30. Solder wire into antenna hole in same manner as other wires. Thread thru adjacent hole.
- 31. Clean solder rosin from bottom of board with alcohol or lacquer thinner.

FINAL INSPECTION

- 32. Recheck all components on top of board to be sure parts are installed properly and in correct positions. Be sure no leads are shorting or touching other parts.
- 33. Using a magnifying glass, carefully inspect bottom of board for poor solder joints, or solder bridges between lands.

TEST

- 34. Connect receiver to batteries and escapement as shown in the Operating Instructions wiring diagram.
- 35. Using a CS-509A transmitter, or equivalent, adjust tuning slug as per tuning instructions.
- 36. Key transmitter and hold key depressed. Control escapement should pull in and hold until key is released.
- 37. Check receiver range. If O.K., unit is ready for use.
- 38. If equipment does not operate correctly, check voltages to locate defective part.
- 39. If receiver is too sensitive, increase value of C7 to .022 UF.

WARRANTY

All kit components are carefully checked and packaged before leaving factory. No claims for shortages or defective parts will be allowed. In event a part is damaged during assembly, replacements can be obtained at nominal cost.

C & S Electronics assumes no liability for inoperative equipment caused by part substitution, incorrect parts placement, or damage caused by incorrect soldering.

Should equipment fail to work, return it to factory with \$4.00 to cover possible repair charges, parts replacement cost, and shipping cost. Should repairs exceed this amount, you will be notified. If repairs are less, overage will be refunded.

When ordering parts, specify equipment model number and description of parts needed. Include money to cover cost of parts, plus 50¢ for cost of handling and shipping. California residents add 4% sales tax.

KIT PARTS LIST

QTY	ITEM	PRICE (ea)	QTY	ITEM	PRICE (ea)
1	P. C. board	\$ 1.50	1	33 UH RF choke	\$.60
1	2.2 UUF disc capacitor	.20	1	Wound coil, with slug	1.00
1	47 UUF disc capacitor	.20	1	10 UF electrolytic capacitor	.75
1	68 UUF disc capacitor	.20	1	30 UF electrolytic capacitor	.75
1	.001 UF disc capacitor	.20	1	155T1 transistor	1.50
1	.005 UF disc capacitor	.20	2	T2515 (or 2N508) transistor	1.50
1	.01 UF disc capacitor	.30	1	2N229 (or 2N306) transistor	1.25
1	.022 UF disc capacitor	.30	1	24" antenna wire	--
2	Audio transformers	1.25	1 ea	8" colored wire, red, yellow, black	--
1 ea	1/4 watt resistor values 1K, 1.5K, 2K, 4.7K, 10K, 33K ohms	.12	1	Operating instructions	.25
2	1/4 watt resistors, 330 ohms	.12	1	Assembly instructions	.15