

PARTS MOUNTING ON THE IF PRINTED CIRCUIT BOARD

SEE FIGURE 1.

From the top of the IF printed circuit board (the side with the parts identified), mount the parts listed in the following 33 steps. These steps give the symbol numbers and values of all the resistors to be mounted on the IF printed circuit board. Insert the wire leads through the holes indicated, and bend the wires on the foil side of the board to hold the parts in place. The colors given in parenthesis are those of the stripes on the respective resistors. The following resistors are all $\frac{1}{2}$ watt unless specified otherwise.

- ☒ R-23, 2.7 meg Ω (red, violet, green)
- ☒ R-21, 5600 Ω (green, blue, red)
- ☒ R-16, 220K Ω (red, red, yellow)
- ☒ R-17, 2.7 meg Ω (red, violet, green)
- ☒ R-18, 1500 Ω (brown, green, red)
- ☒ R-20, 100K Ω (brown, black, yellow)
- ☒ R-19, 2700 Ω (red, violet, red)
- ☒ R-27, 2700 Ω (red, violet, red)
- ☒ R-49, 220K Ω (red, red, yellow)
- ☒ R-3, 100K Ω (brown, black, yellow) 1 watt
- ☒ R-22, 330 Ω (orange, orange, brown)
- ☒ R-26, 47K Ω (yellow, violet, orange)
- ☒ R-30, 680 Ω (blue, gray, brown). Omit if you have S-Meter Kit.
- ☒ R-28, 100K Ω (brown, black, yellow)
- ☒ R-45, 2700 Ω (red, violet, red)
- ☒ R-31, 47K Ω (yellow, violet, orange)
- ☒ R-33, 2700 Ω (red, violet, red)
- ☒ R-35, 1 meg Ω (brown, black, green)
- ☒ R-34, 1 meg Ω (brown, black, green)
- ☒ R-41, 220K Ω (red, red, yellow)
- ☒ R-40, 220K Ω (red, red, yellow)
- ☒ R-50, 3.3 Ω (orange, orange, gold)
- ☒ R-43, 1 meg Ω (brown, black, green)
- ☒ R-42, 1 meg Ω (brown, black, green)
- ☒ R-46, 470K Ω (yellow, violet, yellow)
- ☒ R-48, 100 Ω (brown, black, brown)
- ☒ R-47, 82 Ω (gray, red, black)
- ☒ R-54, 100K Ω (brown, black, yellow)
- ☒ R-29, 27K Ω (red, violet, orange)
- ☒ R-39, 100K Ω (brown, black, yellow)
- ☒ R-38, 39K Ω (orange, white, orange)
- ☒ R-37, 220K Ω (red, red, yellow)
- ☒ R-36, 47K Ω (yellow, violet, orange)

There are a number of disc capacitors, as well as other types, to be mounted on the IF printed circuit board. Several have the same value. Sort the disc capacitors into the following groups: .01 μ fd (may be marked 10,000 or 10K)—seven of this value; .0015 μ fd (1500 or 1.5K)—four; 470 μ fd—three; .0047 μ fd (4700 or 4.7K)—two; and two 330 μ fd disc capacitors. This grouping makes it easier to find the required capacitors as needed. Mount the capacitors in the following order:

- | | |
|--|--|
| <input checked="" type="checkbox"/> C-27, 470 μ fd | <input checked="" type="checkbox"/> C-48, 330 μ fd |
| <input checked="" type="checkbox"/> C-17, .0047 μ fd | <input checked="" type="checkbox"/> C-43, .02 μ fd |
| <input checked="" type="checkbox"/> C-23, .0015 μ fd | <input checked="" type="checkbox"/> C-60, 25 μ fd |
| <input checked="" type="checkbox"/> C-25, .01 μ fd | <input checked="" type="checkbox"/> C-50, 330 μ fd |
| <input checked="" type="checkbox"/> C-24, .01 μ fd | <input checked="" type="checkbox"/> C-46, .0015 μ fd |
| <input checked="" type="checkbox"/> C-30, .0015 μ fd | <input checked="" type="checkbox"/> C-51, .0047 μ fd |
| <input checked="" type="checkbox"/> C-32, .01 μ fd | <input checked="" type="checkbox"/> C-52, 470 μ fd |
| <input checked="" type="checkbox"/> C-33, .01 μ fd | <input checked="" type="checkbox"/> C-42, .01 μ fd |
| <input checked="" type="checkbox"/> C-35, .002 μ fd | <input checked="" type="checkbox"/> C-41, .0015 μ fd |
| <input checked="" type="checkbox"/> C-37, .01 μ fd | <input checked="" type="checkbox"/> C-45, .01 μ fd |
| <input checked="" type="checkbox"/> C-44, 470 μ fd | |

CAUTION: Bend L-13 leads carefully to prevent breaking the thin wires.

- ☒ Mount L-13, the 5 mh RF choke.

☒ Solder all of the leads and terminals of the parts just mounted to the metal foil right at the holes in the printed circuit board. Be sure to get the point to be soldered HOT enough. Refer to page 5 again. After soldering, cut off all the leads close to the board.

Notice that the three IF transformers are in stand-up cans and each has four terminals. These three transformers are all the same, so it makes no difference which you use as Z-1, Z-2, or Z-3. The IF transformers must be installed in the correct locations as shown on the circuit board. There is a color dot on the terminal-end of each transformer that must be in the position shown in Figure 1. The transformers will "snap" in place with moderate pressure from the top.

- ☒ Mount the IF transformers, Z-1, Z-2, and Z-3.

☒ Use a tube carton to lean the board on edge. This prevents the solder from running down the terminal inside the transformer and shorting out the transformer. This would happen if the board were turned completely over to solder the IF transformer terminals.

☒ Solder each terminal of the three IF transformers to the foil on the printed circuit board. Solder the clips which hold the transformers in place.

☒ Install L-15, the BFO coil (in a two-terminal can). This coil can be installed in only one way. Solder the two terminals of L-15 and the two clips which hold the can to the board.