

SECTION B, LAMINATED CIRCUIT BOARD

NOTE: Read Section "A", Introductory Instruction Booklet, carefully and completely before proceeding with Section "B" below.

Laminated Circuit Board		
PARTS LIST		
Symbol	Description Markings Indicated by Quotation Marks (" ")	Qty.
C-13	Capacitor, disc, 0.0012 mf., "1200, 5%"	1
C-14	Capacitor, tubular, 0.1 mf., 200 volt, ".1 MFD, 200 WVDC"	1
C-15	Capacitor, disc, 0.02 mf., "AC, .02"	1
C-16	Capacitor, disc, 560 mmf., "560, 5%"	1
C-17	Capacitor, tubular, 0.1 mf., 400 volt, ".1 MFD, 400 WVDC"	1
C-18	Capacitor, tubular, 0.1 mf., 400 volt, ".1 MFD, 400 WVDC"	1
C-19	Capacitor, disc, 0.05 mf., "AC, .05, 20%"	1
C-20	Capacitor, tubular, 0.05 mf., 200 volt, ".05 MFD, 200 WVDC"	1
C-21	Capacitor, disc, 0.02 mf., "AC, .02"	1
C-22	Capacitor, disc, 5 mmf., "5, 20%"	1
C-32	Capacitor, tubular, 0.1 mf., 400 volt, ".1 MFD, 400 WVDC"	1
C-33	Capacitor, tubular, 0.1 mf., 200 volt, ".1 MFD, 200 WVDC"	1
C-34	Capacitor, tubular, 0.1 mf., 200 volt, ".1 MFD, 200 WVDC"	1
C-35	Capacitor, tubular, 0.1 mf., 200 volt, ".1 MFD, 200 WVDC"	1
L-1	Coil, 20 microhenry. (Body is 5/8-inch long and 3/16-inch in diameter, and is wound with copper wire.)	1
L-2, L-3	Coil, 36 microhenry. (Body is wax-covered, about 5/16-inch long, and contour shows ridge where coil is wound.)	2
R-13	Resistor, 1 megohm, 5%, 1/2-watt, "1 MΩ, 5% 5"	1
R-14	Resistor, 100 ohms, 5%, 1/2-watt, "100Ω, 5% 5"	1
R-15	Resistor, 1.2K ohms, 5%, 1/2-watt, "1.2KΩ, 5% 5"	1
R-16	Resistor, 1 megohm, 10%, 1/2-watt, "brn, blk, grn, silv"	1
R-17	Resistor, 120 ohms, 5%, 1/2-watt, "120Ω, 5% 5"	1
R-18	Resistor, 1.2K ohms, 5%, 1/2-watt, "1.2K 5% 5"	1
R-20	Resistor, 470K ohms, 10%, 1/2-watt, "ylw, viol, ylw, silv"	1
R-21	Resistor, 470K ohms, 10%, 1/2-watt, "ylw, viol, ylw, silv"	1
R-22	Resistor, 220K ohms, 5%, 1/2-watt, "220K, 5% 5"	1
R-24	Resistor, 1.8K ohms, 5%, 1 watt, "1.8K, 1W, 5% 5"	1
R-25	Resistor, 1.2K ohms, 5%, 1/2-watt, "1.2KΩ, 5% 5"	1
R-26	Resistor, 10K ohms, 5%, 1/2-watt, "10KΩ, 5% 5"	1
R-28	Resistor, 1K ohms, 5%, 1/2-watt, "1KΩ, 5% 5"	1
R-29	Resistor, 1K ohms, 5%, 1/2-watt, "1KΩ, 5% 5"	1
R-30	Resistor, 2400 ohms, 5%, 5 watt, ceramic encased, about 3/8-inch long and 11/32-inch square	1
R-31	Resistor, 1.2K ohms, 5%, 1/2-watt, "1.2KΩ, 5% 5"	1
R-32	Resistor, 1.8K ohms, 5%, 1 watt, "1.8K, 1W, 5% 5"	1
R-33	Resistor, 1 megohm, 10%, 1/2-watt, "brn, blk, grn, silv"	1
R-34	Resistor, 820K ohms, 5%, 1/2-watt, "820K, 5% 5"	1
R-37	Resistor, 820K ohms, 5%, 1/2-watt, "820K, 5% 5"	1
R-38	Resistor, 1 megohm, 10%, 1/2-watt, "brn, blk, grn, silv"	1
R-39	Resistor, 68K ohms, 10%, 1/2-watt, "blue, gray, org, silv"	1
R-40	Resistor, 3.3K ohms, 10%, 1/2-watt, "org, org, red, silv"	1
R-41	Resistor, 680 ohms, 5%, 1/2-watt, "680Ω, 5% 5"	1
R-44	Resistor, 270K ohms, 5%, 1/2-watt, "270K, 5% 5"	1
R-45	Resistor, 39K ohms, 5%, 1/2-watt, "39K, 5% 5"	1
R-48	Resistor, 15K ohms, 5%, 1/2-watt, "15KΩ, 5% 5"	1
R-49	Resistor, 2.4K ohms, 5%, 1/2-watt, "2.4K, 5% 5"	1
R-50	Resistor, 10 megohms, 10%, 1/2-watt, "brn, blk, blue, silv"	1
R-51	Resistor, 15K ohms, 5%, 1/2-watt, "15KΩ, 5% 5"	1
R-52	Resistor, 2.4K ohms, 5%, 1/2-watt, "2.4K, 5% 5"	1
R-53	Resistor, 10 megohms, 10%, 1/2-watt, "brn, blk, blue, silv"	1
R-55	Resistor, 120K ohms, 5%, 1/2-watt, "120K, 5% 5"	1
R-56	Resistor, 120K ohms, 5%, 1/2-watt, "120K, 5% 5"	1
R-57	Resistor, 820K ohms, 5%, 1/2-watt, "820K, 5% 5"	1
R-58	Resistor, 820K ohms, 5%, 1/2-watt, "820K, 5% 5"	1
R-59	Resistor, 2.7 megohms, 10%, 1/2-watt, "red, viol, grn, silv"	1
R-62	Resistor, 2.7 megohms, 10%, 1/2-watt, "red, viol, grn, silv"	1
R-77	Resistor, 100K ohms, 10%, 1/2-watt, "brn, blk, ylw, silv"	1
MISCELLANEOUS		
(The quantity of solder is sufficient for complete assembly of the kit.)		
Rosin Core 60/40 Solder		20'
Laminated Circuit Board "C-907097"		1
9-pin molded type socket		2
9-pin wafer type socket		2

Illustration: Figure 1.

Steps 1 through 59. Check (✓) each step as it is completed.

- () Place the laminated board in position as shown in Figure 1, with copper-foil side down, noting that lettering on board is now upside-down from lettering on Figure 1.
" (S)" means solder any and all connections on the designated lug or terminal.
" (NS)" means do not solder.
- () Select the two wafer-type 9-pin tube sockets, and the two molded 9-pin sockets. Insert the two wafer-type sockets into the 9-hole patterns on the lettered side of the laminated circuit board, marked "12AT7". Press down until the pins snap into place. Repeat this process, inserting the molded sockets into the patterns marked "6BR8A" and "6BK7B". Turn the board over and solder each of the pins to the copper foil. The solder should flow out and cover the pins and the circular sections of copper foil through which the pins protrude.
NOTE: In the following steps, care should be exercised to prevent damage to the components. The enameled resistors in particular must not be chipped, scratched, or burned with the soldering iron.
- () Select resistor R-14 (see Parts List for description). Bend leads at right angles to resistor body so that they fit dimension between holes in board marked "R-14". Insert leads into R-14 holes and push through until resistor is flush with board. Bend leads slightly on copper side of board to hold resistor in place. Solder leads to copper foil at point where they emerge through board and clip off the excess leads just above the solder globule. Use this method for installing the other resistors on the laminated circuit board, except where special instructions are given.

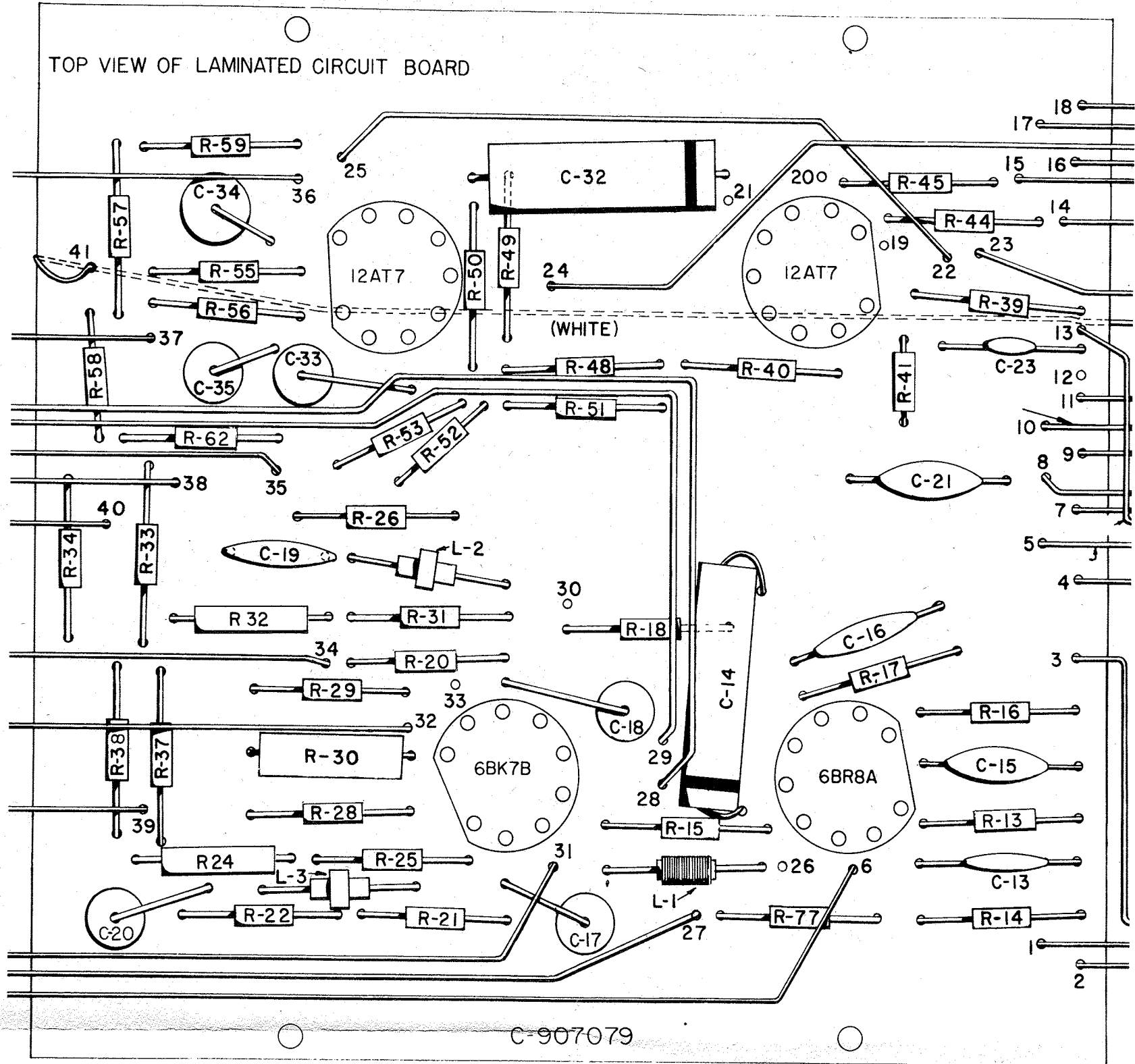
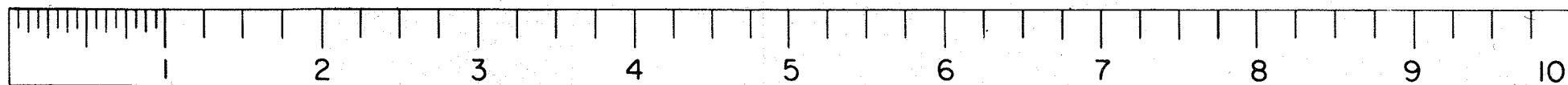


FIGURE 1

WORK AREA



RADIO CORPORATION OF AMERICA
ELECTRON TUBE DIVISION, CAMDEN, N. J.

Trade Mark(s) Registered — Marca(s) Registrada(s)

Printed in U.S.A.

- () Insert resistor R-13. (S)
- () Insert resistor R-16. (S)
- () Insert resistor R-77. (S)
- () Insert resistor R-17. (S)
- () Insert resistor R-15. (S)
- () Insert resistor R-18. (S)
- () Insert resistor R-21. (S)
- () Insert resistor R-25. (S)
- () Insert resistor R-28. (S)
- () Insert resistor R-30. Space body of resistor about 3/16-inch away from board. (S)
- () Insert resistor R-29. (S)
- () Insert resistor R-20. (S)
- () Insert resistor R-31. (S)
- () Insert resistor R-26. (S)
- () Insert resistor R-22. (S)
- () Insert resistor R-24. (S) Be careful to avoid running solder across board to adjacent foil.
- () Insert resistor R-32. (S)
- () Insert resistor R-37. (S)
- () Insert resistor R-33. (S)
- () Insert resistor R-38. (S) Be careful to avoid running solder across board to adjacent foil.
- () Insert resistor R-34. (S)
- () Insert resistor R-41. (S)
- () Insert resistor R-39. (S)
- () Insert resistor R-44. (S)
- () Insert resistor R-45. (S)
- () Insert resistor R-40. (S)
- () Insert resistor R-51. (S)
- () Insert resistor R-48. (S)
- () Insert resistor R-49. (S)
- () Insert resistor R-52. (S)
- () Insert resistor R-53. (S)
- () Insert resistor R-50. (S)
- () Insert resistor R-62. (S)
- () Insert resistor R-56. (S)
- () Insert resistor R-55. (S)
- () Insert resistor R-59. (S)
- () Insert resistor R-58. (S)
- () Insert resistor R-57. (S)
- () Insert capacitor C-13 into holes marked "C-13". (S) (See Parts List for description. The body of this capacitor should be mounted perpendicular to the laminated circuit board, otherwise the procedure should follow the same pattern as was used in installing resistors in the preceding steps. Follow Figure 1 closely for proper position of capacitors.)
- () Insert capacitor C-15. (S)
- () Insert capacitor C-16. (S)
- () Insert capacitor C-14, with body flush against board. See Parts List for description. Note position of banded-end, as shown in Figure 1. (S)
- () Insert capacitor C-17, with banded-end against board, and with body perpendicular to board as shown in Figure 1. (S)
- () Insert capacitor C-18, as above. (S)
- () Insert capacitor C-20. (S)
- () Insert capacitor C-19. (S)
- () Insert capacitor C-21. (S)
- () Insert capacitor C-23. (S)
- () Insert capacitor C-32 with body flush against board and banded end in proper position. (S)
- () Insert capacitor C-33 perpendicular to board, with banded end against board. (S)
- () Insert capacitor C-35, as above. (S)
- () Insert capacitor C-34. (S)
- () Insert coil L-1; using same procedure used for resistors. See Parts List for description. (S)
- () Insert coil L-3, as above. (S)
- () Insert coil L-2. (S)
- () Inspect work at this time. All connections made thus far to the laminated circuit board should be soldered to the copper foil. Dress the components on the board so that they do not touch, and so that they are not touched by the uninsulated leads of other components.