

PHOTOFACT[®] with

CIRCUITRACE[®]

For Supplier Address See PHOTOFACT Index

NOTE

Repair or adjustment of transmitter circuits must be under supervision of a person with first-or second-class radiotelephone license.

(Refer to FCC Rules and Regulations Part 95, Subpart C & D.)

The frequency of the transmitter should be checked periodically with a secondary frequency standard to insure proper and legal operation.

Best results will be obtained when adjusting the final RF output circuit if the antenna normally used is connected and the chassis is as nearly in the cabinet as possible.

Connect either 50-ohm dummy load or the normally used antenna system.



MODEL 3-5825B

MANUFACTURER'S SPECIFICATIONS

GENERAL

CHANNELS: AM-40 channels - PLL digital logic channel synthesizer circuitry, SSB-80

POWER REQUIREMENT: Consumption - 35 watts; Current drain - 2.5 amps (100% mod.) at 13.8 Volt DC

POWER SUPPLY: 12 Volts DC nominal (Positive or Negative ground)

SEMICONDUCTORS: Integrated circuits, transistors and diodes. Crystal Filter and six pole Ceramic Filter.

OPERATING TEMPERATURE RANGE: -30 to +50°C

MICROPHONE: Dynamic with push-to-talk switch, 500 ohm.

BUILT-IN SPEAKER: 8 ohms impedance; 94mm (3½ inches) in size

CONTROLS/FEATURES: Volume with ON-OFF switch, Squelch, CB/PA switch, R.F. Gain control, Channel selector switch, Tone switch, Noise blanker + ANL switch, AM/SSB switch, Clarifier (fine and coarse) control MIC POWER Control LED type channel readout, Large TX (transmit) light, Antenna warning light, S-RF meter (receive-transmit)

CONNECTORS: External speaker jack 3.5mm (8 ohms impedance), SO239 type antenna receptacle to match PL-259 coax plug (50 ohms impedance), PA Speaker Jack 3.5mm (8 ohms impedance), 12 Volt DC power jack, separate power cable that allows easy disconnect, MIC Jack.

DIMENSIONS: 7½" W, 2½" H, 8⅝" D.

RECEIVER

SENSITIVITY: AM — Better than 0.5uv for 500 MW audio output. SSB-.25uv to produce 500 MW audio output

CLARIFIER: MIN. 1000 — MAX. 2200 Hz.

FREQUENCY COVERAGE: 26.965 to 27.405 MHz, 40 channels AM and SSB 80 channels.

ADJACENT CHANNEL SELECTIVITY: Better than 60db.

SPURIOUS REJECTION: Better than 60db.

IF FREQUENCIES: SSB; 10.695 MHz, AM; 1st; 10.695 MHz, 2nd; 0.455 MHz.

SQUELCH RANGE: 0.5 to 2000 uV.

IMAGE REJECTION: MIN. 55dB

AGC: MIN. 70dB

SIGNAL TO NOISE (S/N):

— unsquelched; MIN. 40dB

— squelched; MIN. 60dB

TRANSMITTER

FREQUENCY RESPONSE: 400Hz to 2.5kHz.

FREQUENCY COVERAGE: 26.965 to 27.405 MHz; 40 channels AM, and SSB 80 channels

TRANSMIT POWER OUTPUT: 4 watts maximum as limited by FCC Regulations at 13.8 Volts DC, (PEP 12 watts max SSB)

MODULATION: MAX. capability with 100% max. factory pre-set limit.

FREQUENCY TOLERANCE: Better than ±.003%.

ALL MEASUREMENTS AT 25°C AND 13.8 VOLT D.C.

Courtesy of the Manufacturer

HOWARD W. SAMS & CO., INC. Indianapolis, Indiana 46206

© 1979 Howard W. Sams & Co., Inc. Printed in U. S. of America

8CF963

GENERAL ELECTRIC MODEL 3-5825B

ALIGNMENT INSTRUCTIONS

CAUTION: Use isolation transformer or observe polarity when connecting test equipment. Maintain line voltage at 120V AC. Allow a 15-minute warm-up period. Adjustments made with 13.8-volt DC input. Connect low sides of test equipment to ground unless specified otherwise. Connect 50-ohm dummy load or antenna before keying transmitter. Connect microphone.

Suggested Alignment Tools

GC ELECTRONICS:
T1,T2,T207,T208.....5009,8728A,8728
L209,L212,L214,T209.....9091,8728A,8728
T3,T4,T201 thru T206,VCO.....9440
CT1,CT2,CT201,CT202,CT203.....8276,5000

SYNTHESIZER ALIGNMENT

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Input of frequency counter to TP3(A) (Q202 Collector).	Ch. 19, USB Clarifier 0	CT201	Adjust for 10.240MHz.
Input of oscilloscope to TP3(B) (IC201, Pin 4).	Ch. 19, USB Clarifier 0	T201	Adjust for maximum RF. (125mV p-p typical).
Input of frequency counter to TP3(B) (IC201, Pin 4).	Ch. 19, USB Clarifier 0	CT203	Adjust for 20.105MHz.
	Ch. 19, LSB Clarifier 0	CT202	Adjust for 20.1035MHz.
Input of frequency counter to TP5 (Q4, Emitter).	Ch. 19, USB Clarifier 0	CT1	Adjust for 10.695MHz.
	Ch. 19, LSB Clarifier 0	CT2	Adjust for 10.692MHz.
Input of DC meter to TP1.	Ch. 1, USB Clarifier 0	VCO	Adjust for 3.6 volts.
Input of oscilloscope to TP13 (IC202, Pin 1).	Ch. 40, USB Clarifier 0	T202	Adjust for maximum RF. (60mV p-p typical).
	Ch. 1, USB Clarifier 0	T203	Adjust for maximum RF. (60mV p-p typical).
Input of frequency counter to TP13 (IC202, Pin 1).	Ch. 1, USB or AM, Clarifier 0		Check for 37.660MHz. Check all channels. (See Truth Chart for correct frequencies).
Input of frequency counter to TP13 (IC202, Pin 1).	Ch. 1, LSB Clarifier 0		Check for 37.657MHz. Check all channels. (See Truth Chart for correct frequencies).
Input of frequency counter to TP14 (IC203, Pin 2).	Ch. 1, AM Clarifier 0		Check for 2.550MHz. Check all channels. (See Truth Chart for correct frequencies).

TRANSMITTER ALIGNMENT

Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.
NOTE: Be sure to check transmit frequency and power on all active channels after alignment of transmitter.
See page 4 for channel frequencies.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Inject a 2400Hz, 2.5mV signal at MIC input.	Ch. 40, USB MIC-PWR Maximum	T204	Adjust for maximum.
Inject a 2400Hz, 2.5mV signal at MIC input.	Ch. 1, USB MIC-PWR Maximum	T205	Adjust for maximum.
Inject a 2400Hz, 2.5mV signal at MIC input.	Ch. 19, USB MIC-PWR Maximum	T3,T209, L209,L212, L214	Adjust for maximum.

TRANSMITTER ADJUSTMENTS

Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.
NOTE: Be sure to check transmit frequency and power on all active channels after adjustment of transmitter.
See page 4 for channel frequencies.

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
No signal input.	Ch. 19, USB	RV1,RV2	BALANCE Adjust for MINIMUM RF.
Input of DC meter to TP15 (Q208, Base).	Ch- 19, USB MIC-PWR MINIMUM	R240	BIAS Adjust for .7 volts.
Inject a 2400Hz, 20mV signal at MIC input.	Ch. 19, USB MIC-PWR Maximum	RV3,RV201	ALC Set RV3 to midrange. Adjust RV201 for 12 watts maximum. If necessary adjust RV3 to obtain 12 watts.
Inject a 1000Hz, 20mV signal at MIC input. Input of oscilloscope or modulation meter to antenna jack.	Ch. 19, AM MIC-PWR Maximum	RV9	AF ALC Adjust RV9 for 100% modulation, maximum.
Connect an RF wattmeter and 50 ohm/25 watt dummy load to antenna connector.	Ch. 19, AM	VR1	AM POWER Adjust VR1 for 4 watts.
Connect an RF wattmeter and 50 ohm/25 watt dummy load to antenna connector.	Ch. 19, AM	RV202	POWER METER Adjust RV202 so that POWER meter agrees with RF wattmeter.
Connect a 150 ohm/5 watt non-inductive resistor to antenna connector.	Ch. 19, AM	RV203	AWI Adjust RV203 so that AWI indicator lights.

RECEIVER ALIGNMENT

Connect an AC VTVM or AF wattmeter across speaker voice coil.
Adjust volume control to obtain a suitable indication.
Set generator output low enough to prevent AGC limiting.
RF Gain Maximum, Clarifier 0, Squelch MINIMUM, NB + ANL Off.

AM

TEST EQUIPMENT	TRANSCEIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to TP11 (Q5, Base). 455kHz,1000Hz @ 30% modulation.	Ch. 19, AM	T2,T1	Adjust for maximum output.
Output of signal generator thru .01uF to antenna jack. 27.185MHz,1000Hz @ 30% modulation.	Ch. 19, AM	T208,T207, T204,T205, T206	Adjust for maximum output. If necessary readjust T1 and T2. Recheck alignment of T204 and T205 in Transmitter Alignment.

GENERAL ELECTRIC MODEL 3-5825B

RECEIVER ALIGNMENT

Connect an AC VTVM or AF wattmeter across speaker voice coil.
Adjust volume control to obtain a suitable indication. Preset as indicated, unless otherwise noted:
RF Gain Maximum, Clarifier 0, Squelch MINIMUM, NB + ANL Off

SSB

TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Output of signal generator thru .01uF to TP12. (D3, Cathode) 10.694MHz, no modulation.	Ch. 19, USB	T4,T3	Adjust for maximum output.
Output of signal generator thru .01uF to antenna jack. 27.186, no modulation.	Ch. 19, USB	T208,T207, T204,T205, T206	Adjust for maximum output. If necessary readjust T3 and T4. Recheck alignment of T204 and T205 in Transmitter Alignment.

RECEIVER ADJUSTMENTS

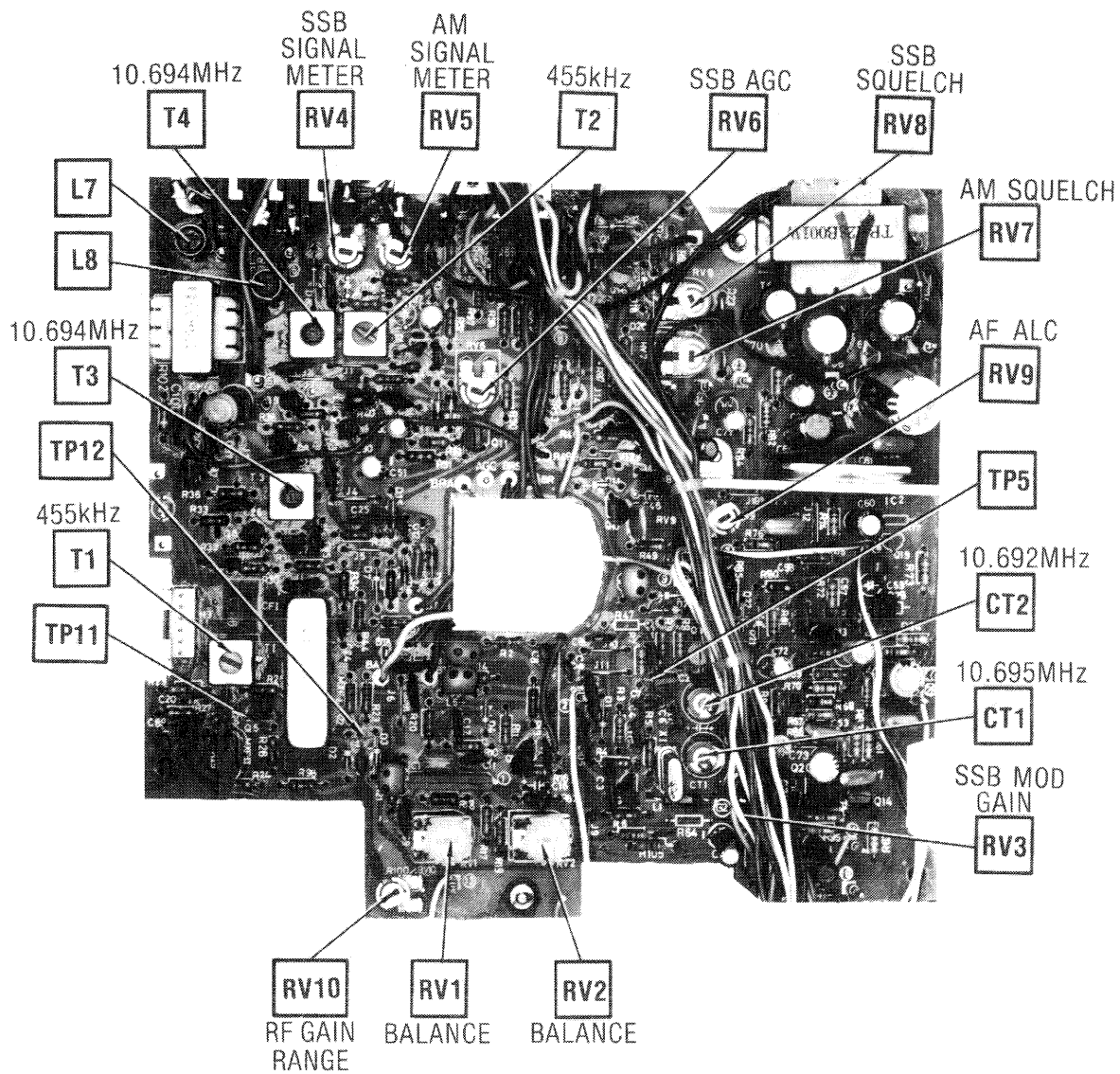
Connect an AC VTVM or AF wattmeter across speaker voice coil.
Adjust volume control to obtain a suitable indication. Preset as indicated, unless otherwise noted:
RF Gain Maximum, Clarifier 0, NB + ANL Off, Squelch MINIMUM.

TEST EQUIPMENT	TRANSCIVER	ADJUST	REMARKS
Input of DC meter to TP16 (Junction R226 & R248).	Ch. 19	RV10	RF GAIN RANGE Adjust for 2.00 volts.
Output of signal generator thru .01uF to antenna jack. 27.186MHz, no modulation. Output 50,000uV.	Ch. 19, USB	RV6	SSB AGC Adjust volume for 0dB. Decrease generator output to 50uV. Adjust RV6 so audio does not drop more than 10dB.
Output of signal generator thru .01uF to antenna jack. 27.185MHz,1000Hz @ 30% modulation. Output 1000uV.	Ch. 19, AM	RV7	AM SQUELCH Adjust so squelch just breaks.
Output of signal generator thru .01uF to antenna jack. 27.186MHz, no modulation. Output 100CuV.	Ch. 19, USB	RV8	SSB SQUELCH Adjust so squelch just breaks.
Output of signal generator thru .01uF to antenna jack. 27.185MHz,1000Hz @ 30% modulation. Output 100uV.	Ch. 19, AM	RV5	AM SIGNAL METER Adjust for 9 on SIGNAL scale of meter.
Output of signal generator thru .01uF to antenna jack. 27.186MHz, no modulation. Output 100uV.	Ch. 19, USB	RV4	SSB SIGNAL METER Adjust for 9 on SIGNAL scale of meter.

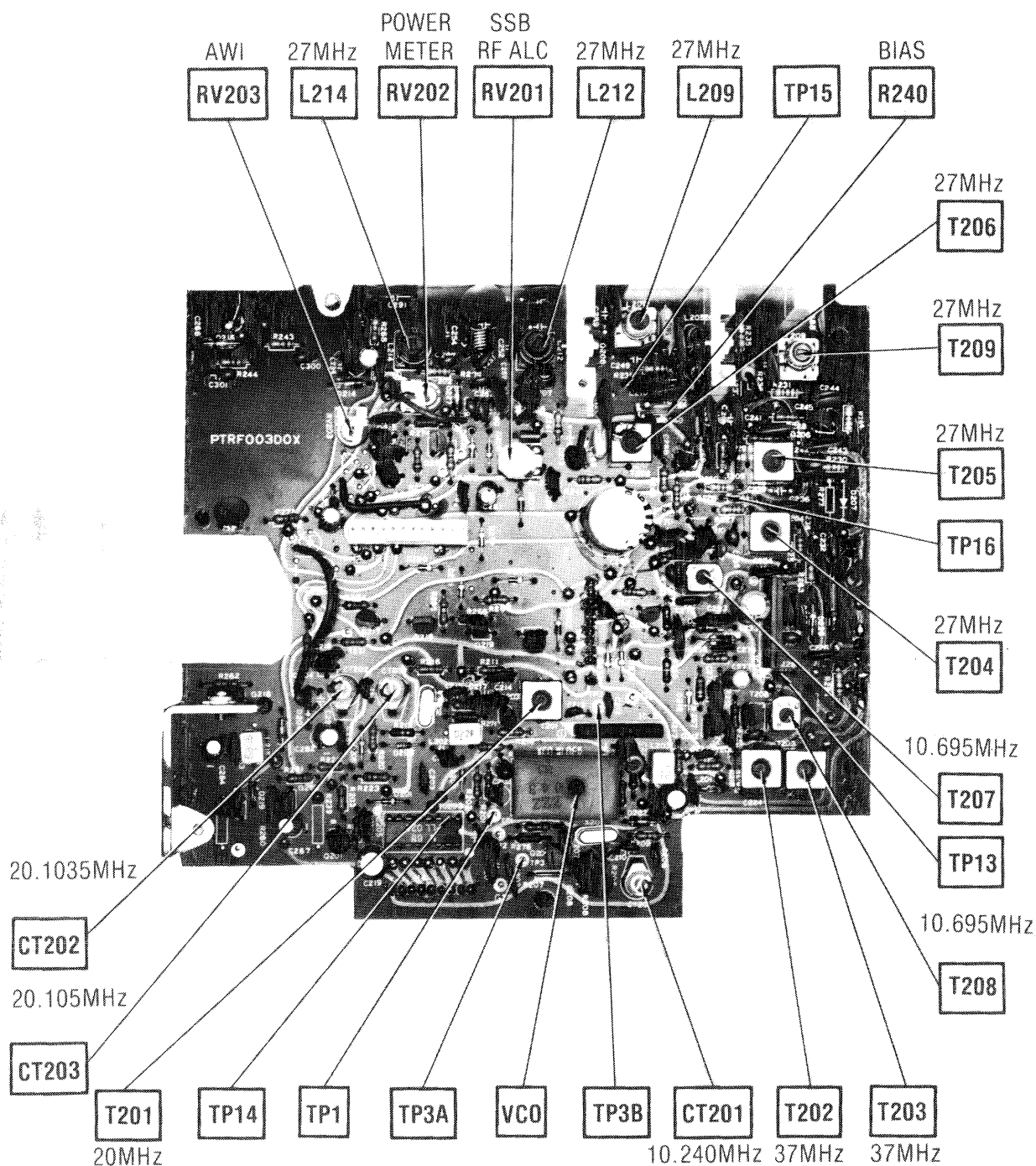
TRUTH CHART

CHANNEL	1 = 5.40 Volts 0 = 0 Volts								USB (REC & XMT) AM (REC & XMT) SYNTHESIZER OUTPUT IN MHz AT TP13	LSB (REC & XMT) SYNTHESIZER OUTPUT IN MHz AT TP13	DIVIDER INPUT IN MHz AT TP14
	IC203 PROGRAM DIVIDER										
	PINS										
	10	11	12	13	14	15					
1	1	1	1	1	1	1			37.660	37.657	2.550
2	1	1	1	1	1	0			37.670	37.667	2.540
3	1	1	1	1	0	1			37.680	37.677	2.530
4	1	1	1	0	1	1			37.700	37.697	2.510
5	1	1	1	0	1	0			37.710	37.707	2.500
6	1	1	1	0	0	1			37.720	37.717	2.490
7	1	1	1	0	0	0			37.730	37.727	2.480
8	1	1	0	1	1	0			37.750	37.747	2.460
9	1	1	0	1	0	1			37.760	37.757	2.450
10	1	1	0	1	0	0			37.770	37.767	2.440
11	1	1	0	0	1	1			37.780	37.777	2.430
12	1	1	0	0	0	1			37.800	37.797	2.410
13	1	1	0	0	0	0			37.810	37.807	2.400
14	1	0	1	1	1	1			37.820	37.817	2.390
15	1	0	1	1	1	0			37.830	37.827	2.380
16	1	0	1	1	0	0			37.850	37.847	2.360
17	1	0	1	0	1	1			37.860	37.857	2.350
18	1	0	1	0	1	0			37.870	37.867	2.340
19	1	0	1	0	0	1			37.880	37.877	2.330
20	1	0	0	1	1	1			37.900	37.897	2.310
21	1	0	0	1	1	0			37.910	37.907	2.300
22	1	0	0	1	0	1			37.920	37.917	2.290
23	1	0	0	0	1	0			37.950	37.947	2.260
24	1	0	0	1	0	0			37.930	37.927	2.280
25	1	0	0	0	1	1			37.940	37.937	2.270
26	1	0	0	0	0	1			37.960	37.957	2.250
27	1	0	0	0	0	0			37.970	37.967	2.240
28	0	1	1	1	1	1			37.980	37.977	2.230
29	0	1	1	1	1	0			37.990	37.987	2.220
30	0	1	1	1	0	1			38.000	37.997	2.210
31	0	1	1	1	0	0			38.010	38.007	2.200
32	0	1	1	0	1	1			38.020	38.017	2.190
33	0	1	1	0	1	0			38.030	38.027	2.180
34	0	1	1	0	0	1			38.040	38.037	2.170
35	0	1	1	0	0	0			38.050	38.047	2.160
36	0	1	0	1	1	1			38.060	38.057	2.150
37	0	1	0	1	1	0			38.070	38.067	2.140
38	0	1	0	1	0	1			38.080	38.077	2.130
39	0	1	0	1	0	0			38.090	38.087	2.120
40	0	1	0	0	1	1			38.100	38.097	2.110

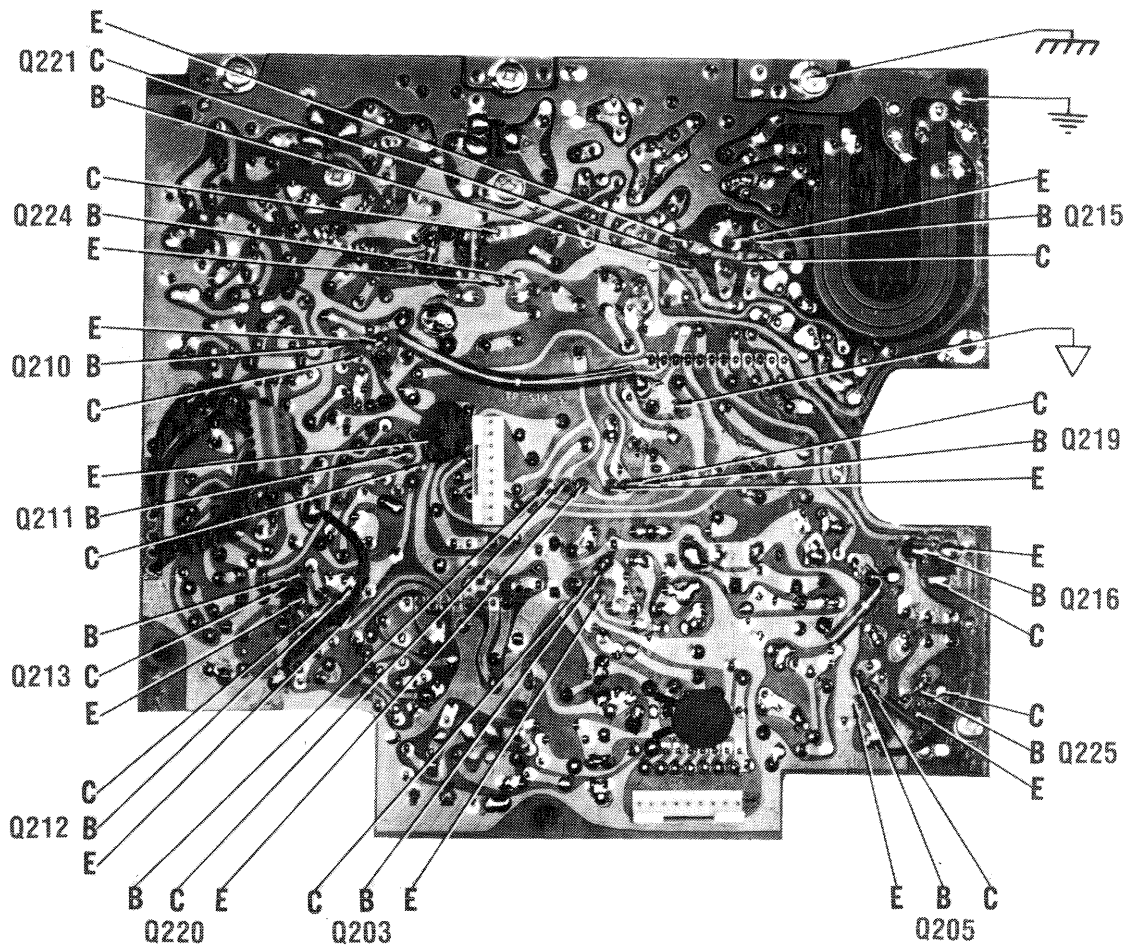
GENERAL ELECTRIC MODEL 3-5825B



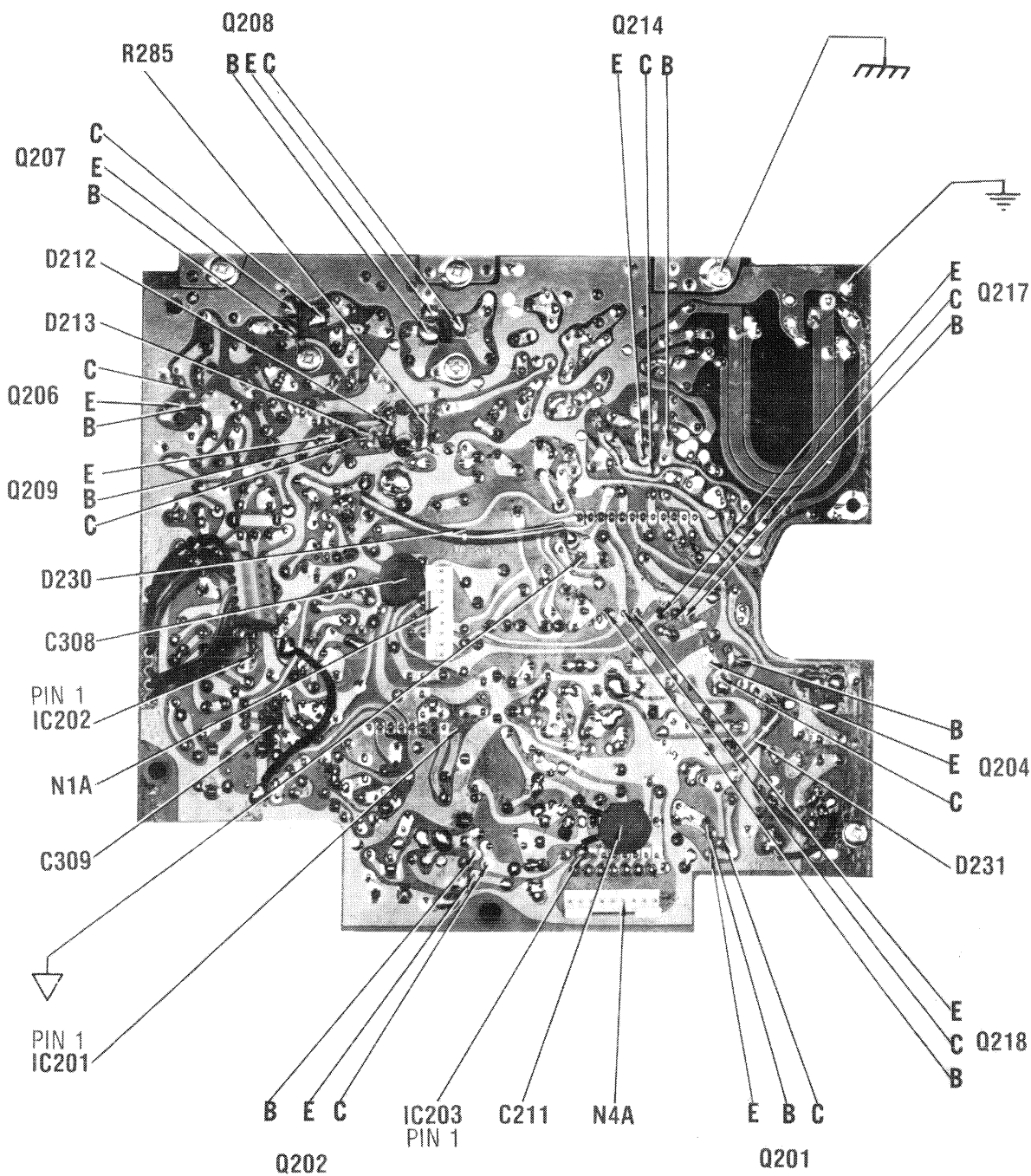
IF/AUDIO BOARD



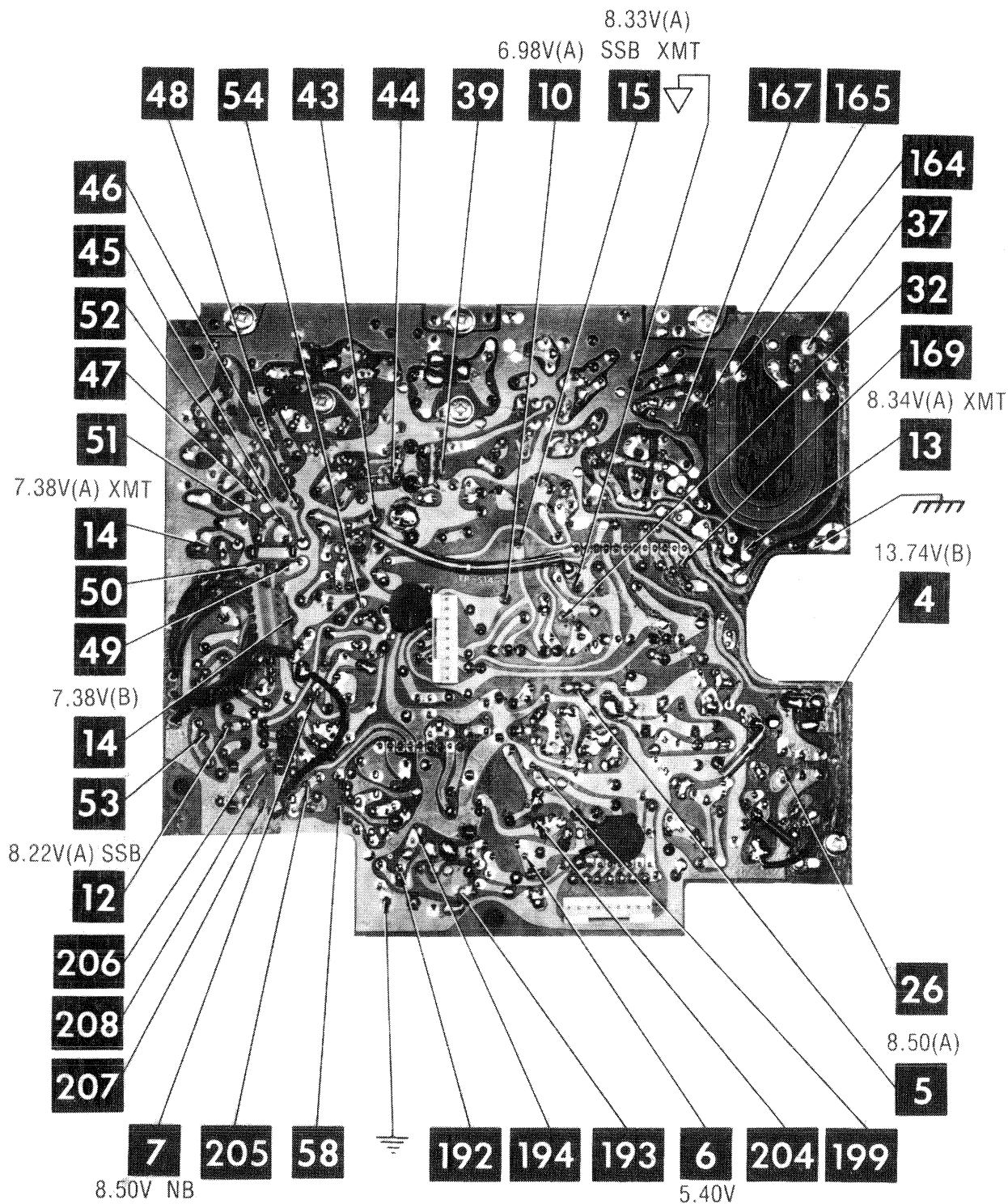
RF BOARD



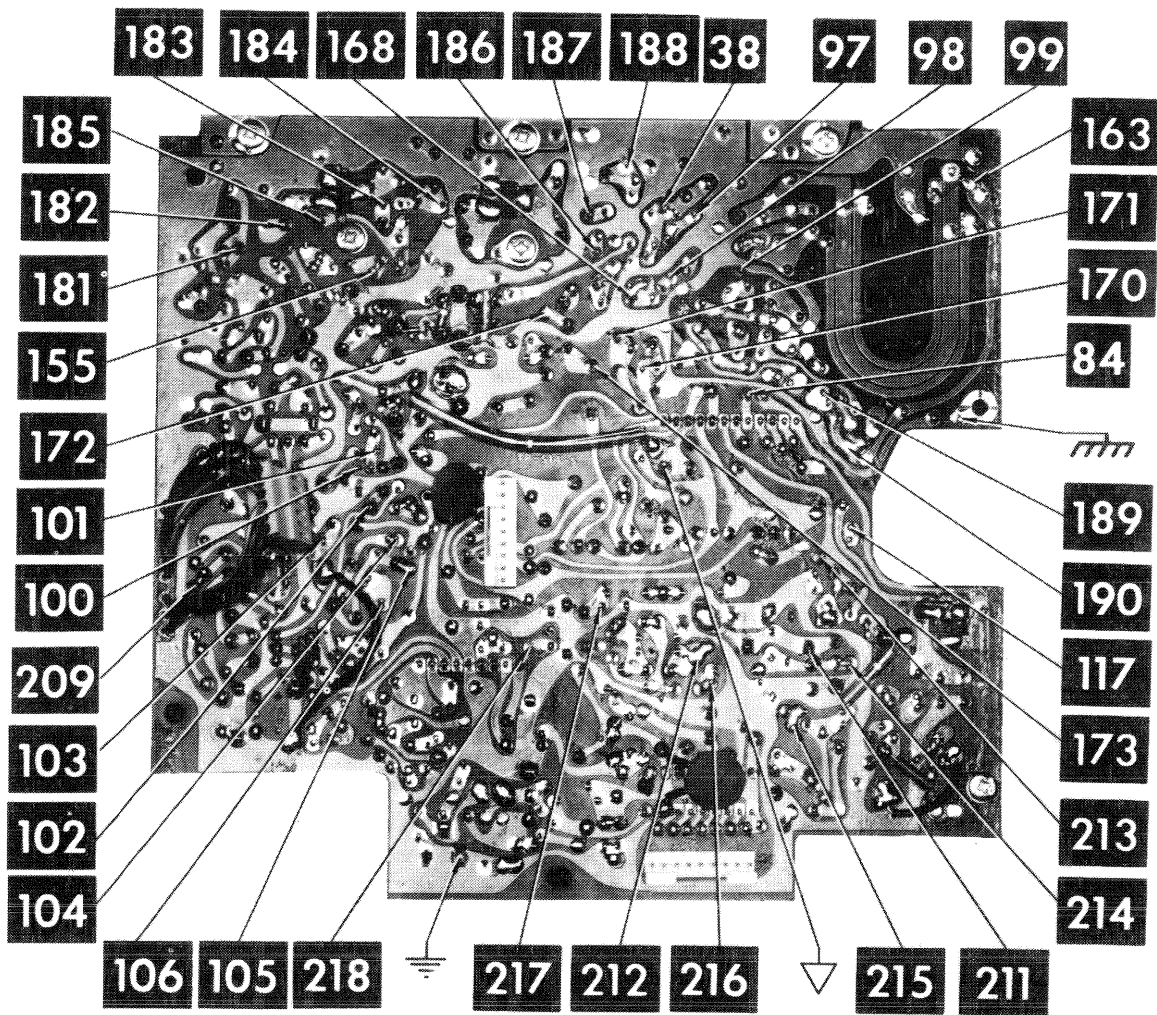
RF BOARD



RF BOARD

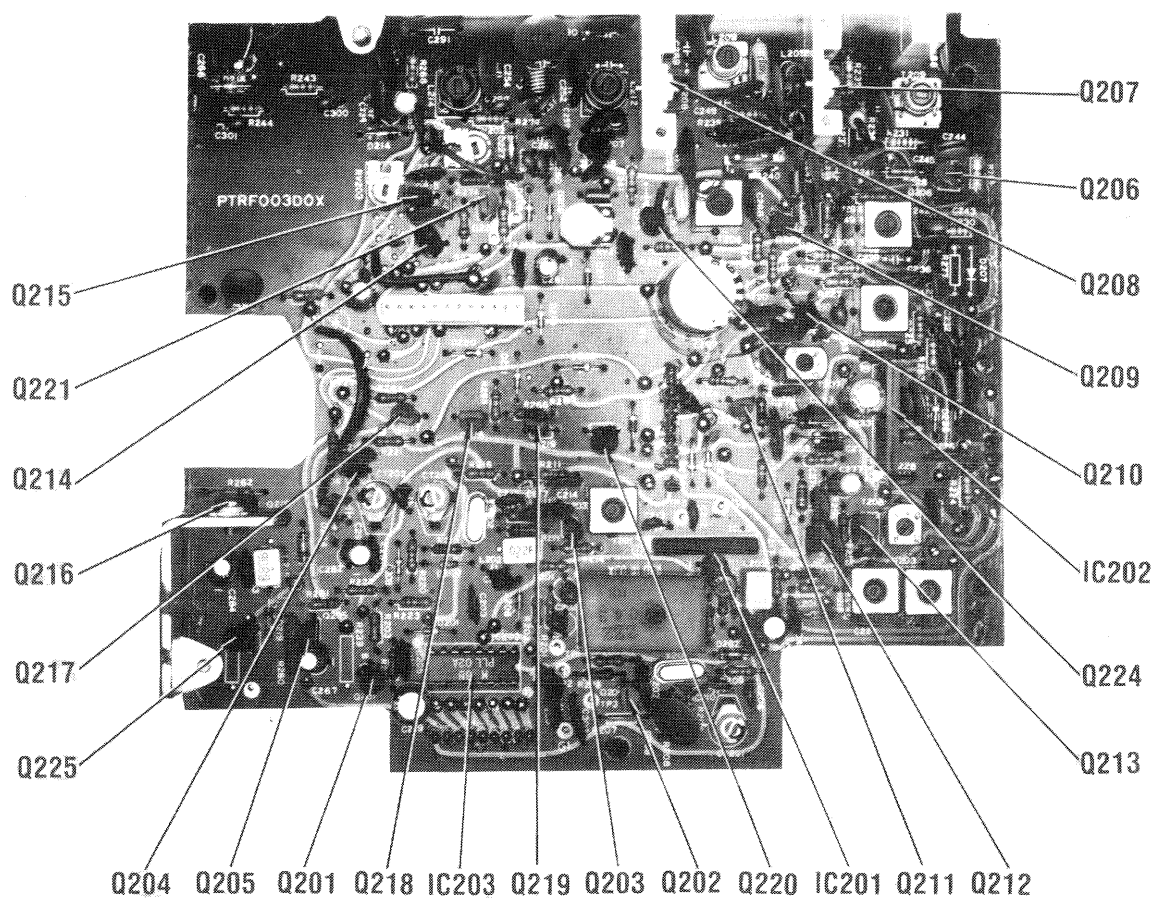


RF BOARD

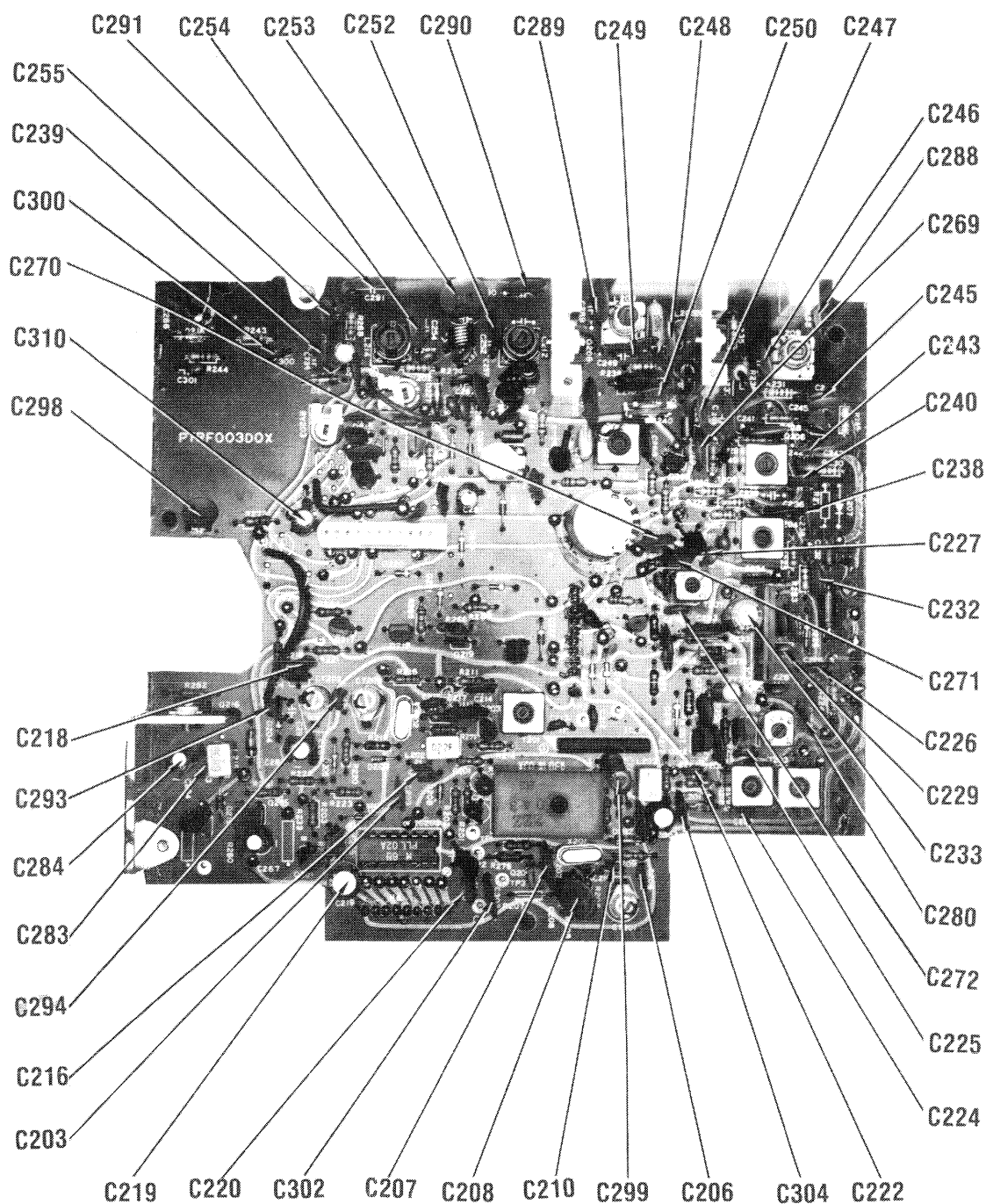


GENERAL ELECTRIC MODEL 3-5825B

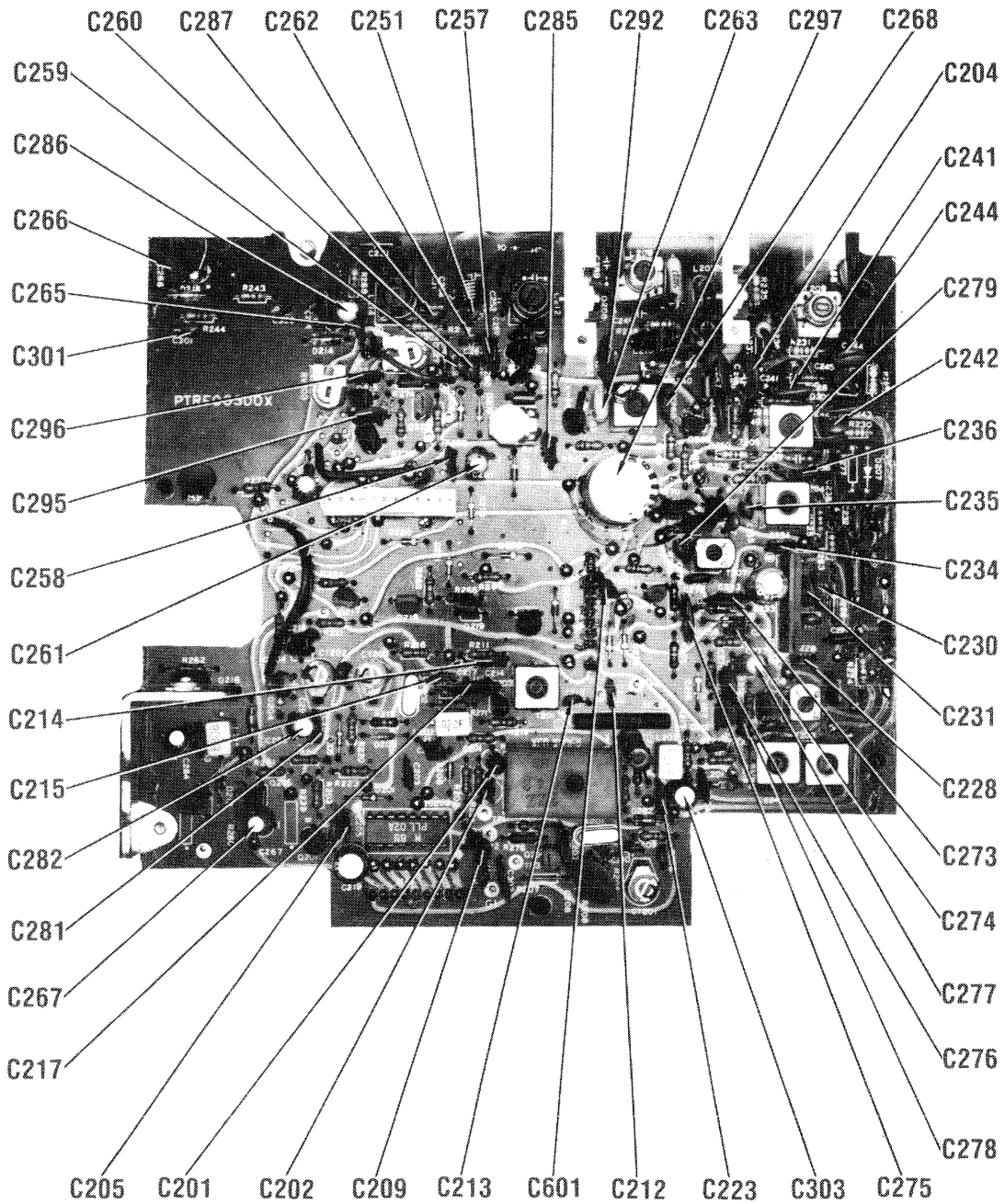
RF BOARD



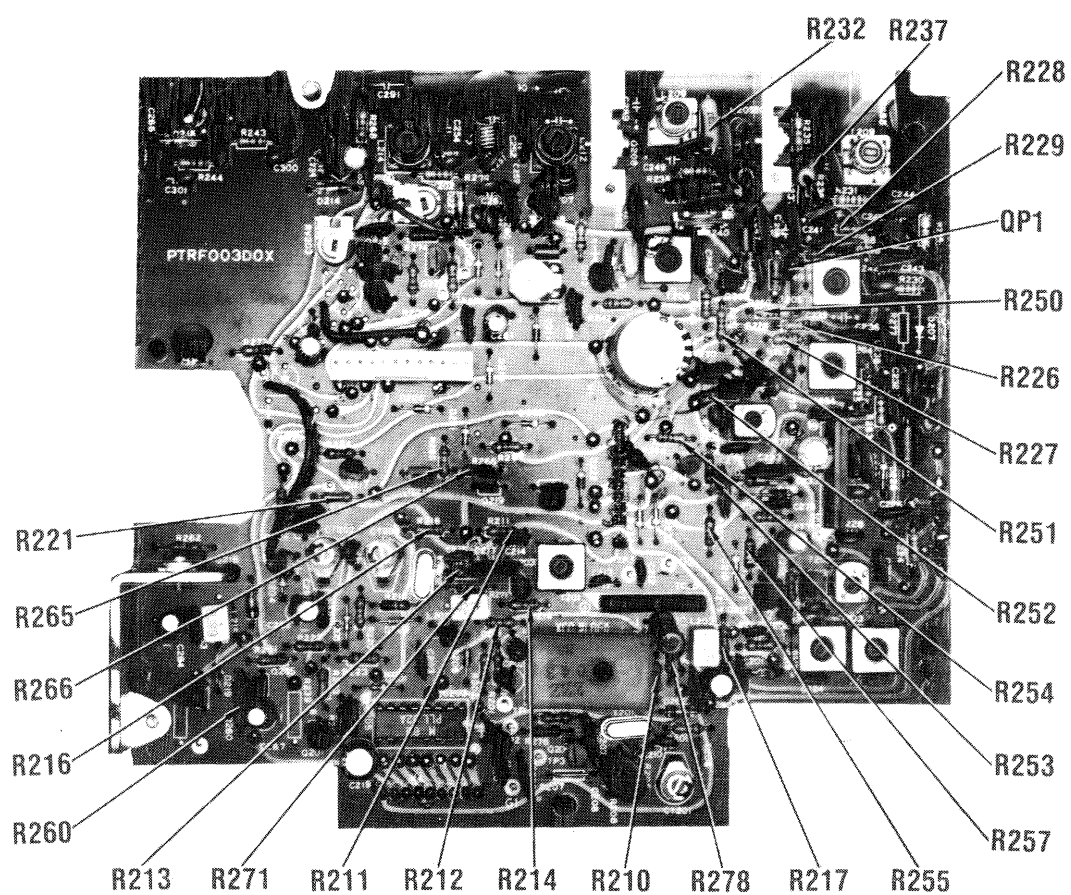
RF BOARD



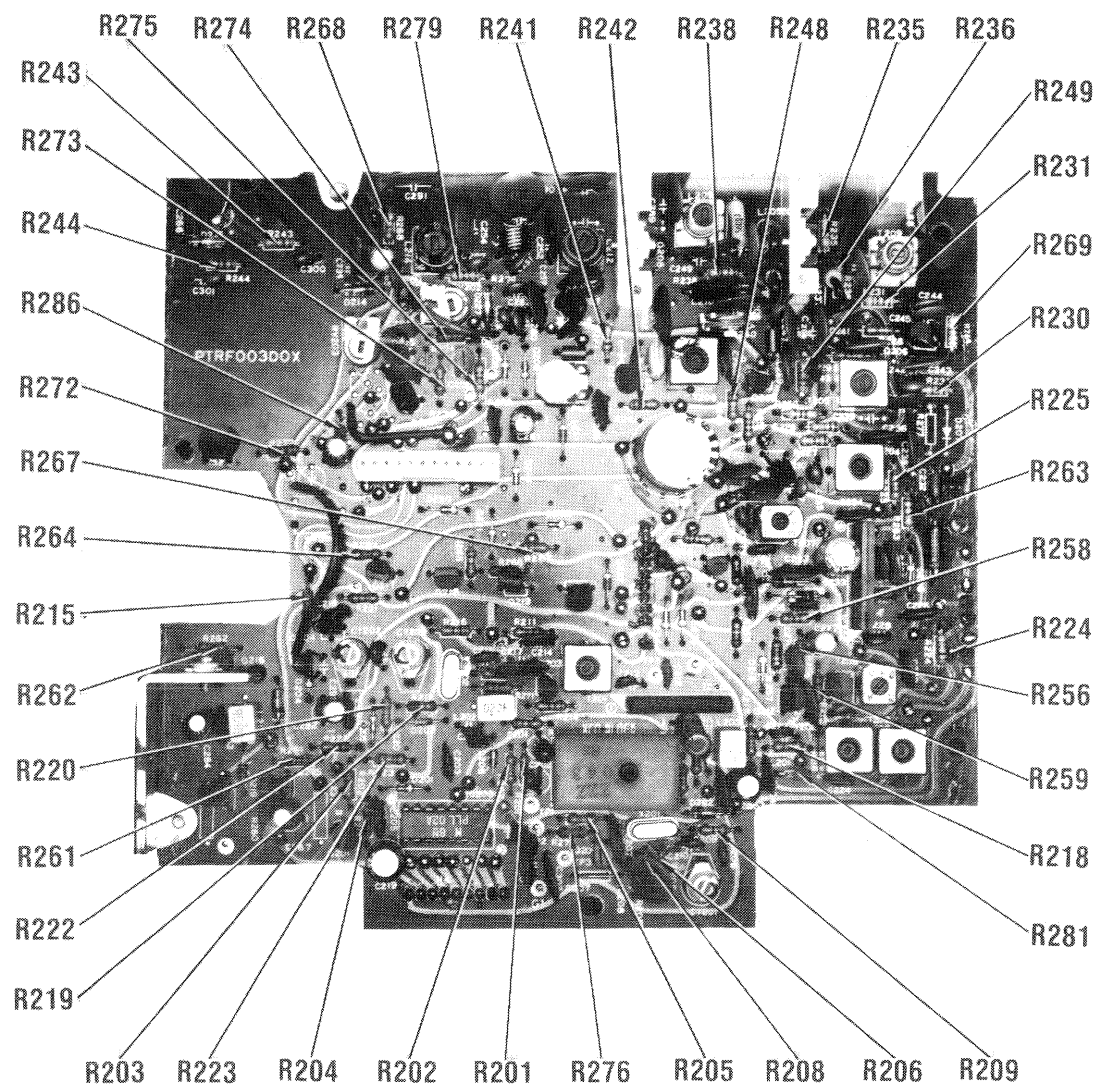
RF BOARD



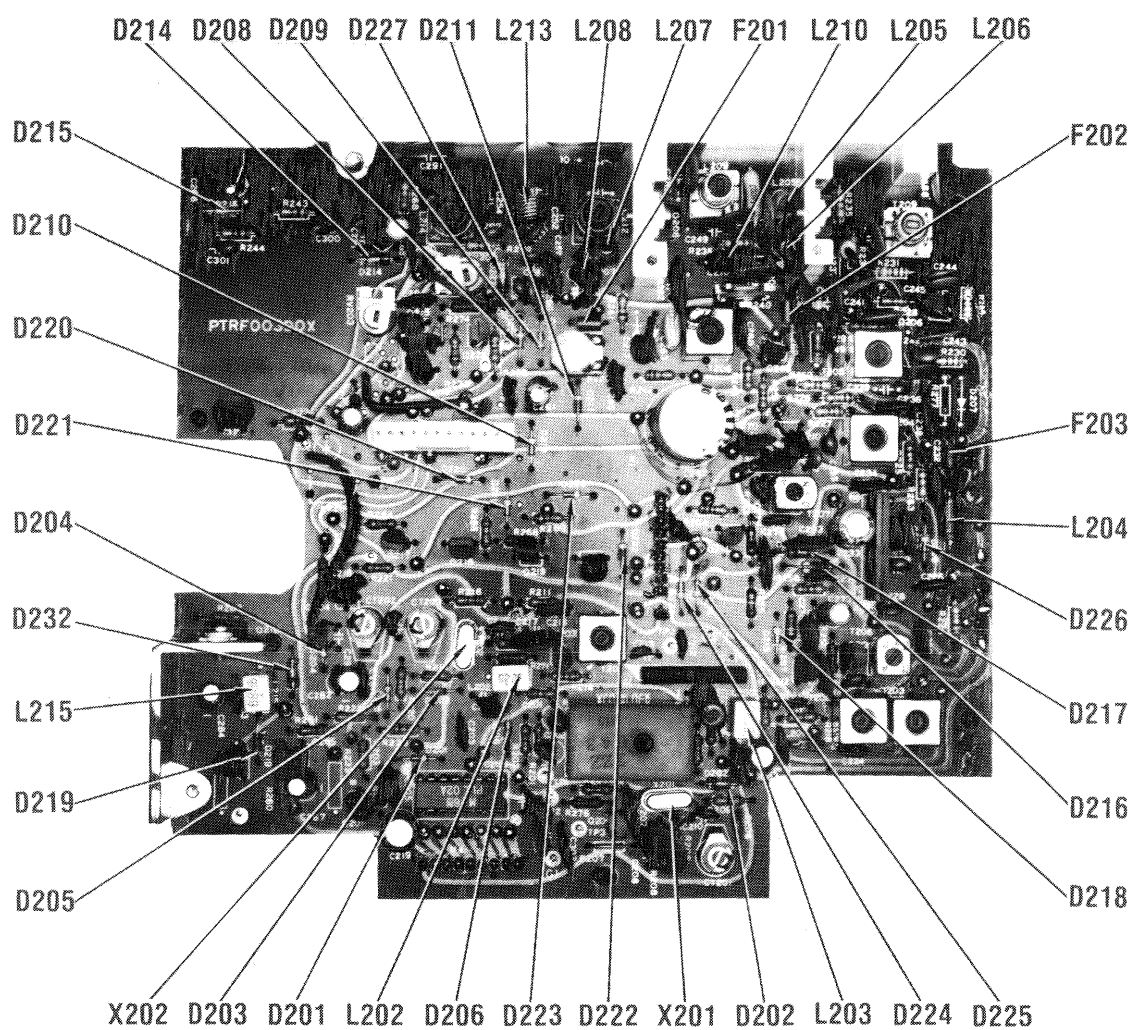
RF BOARD



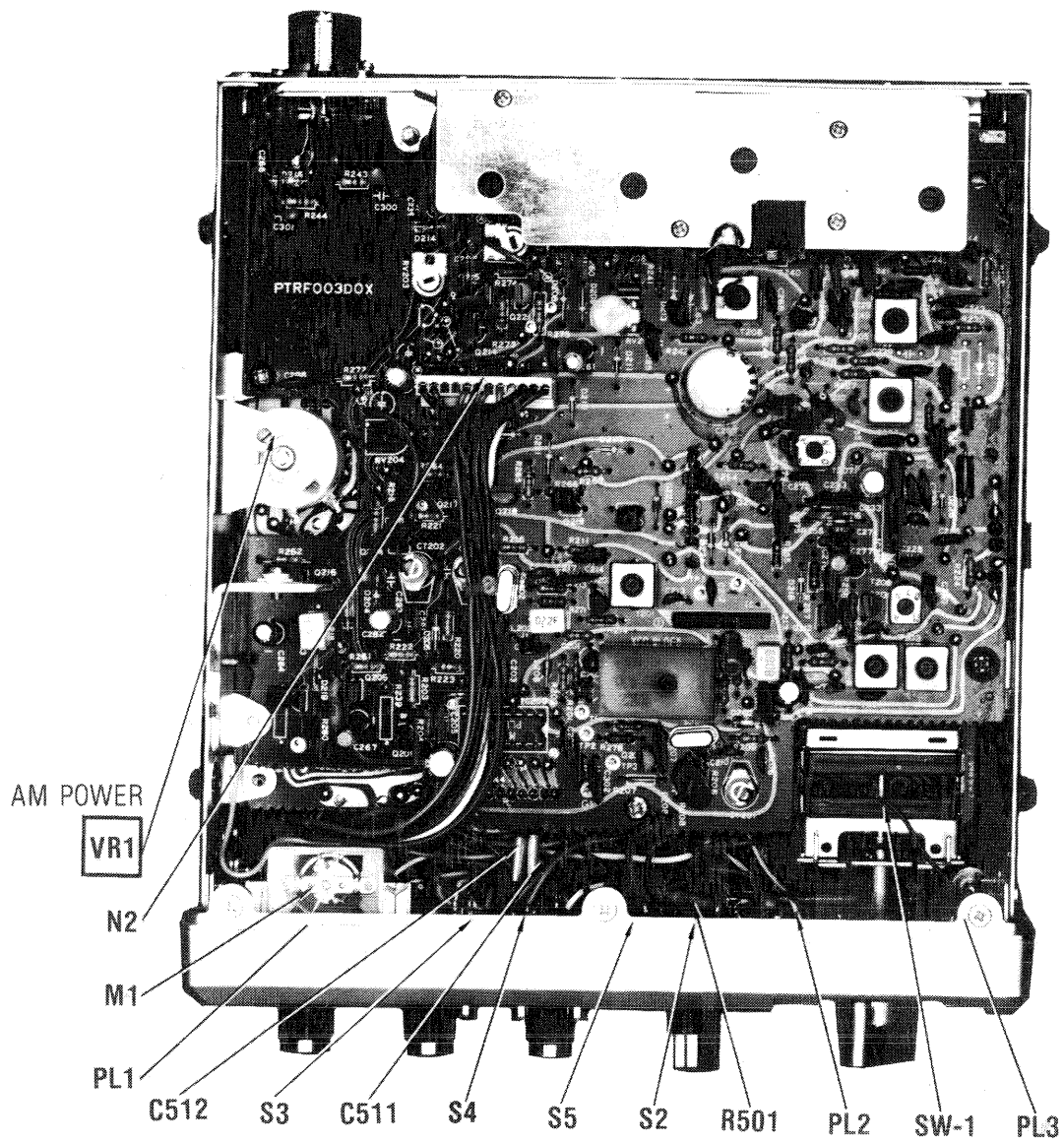
RF BOARD



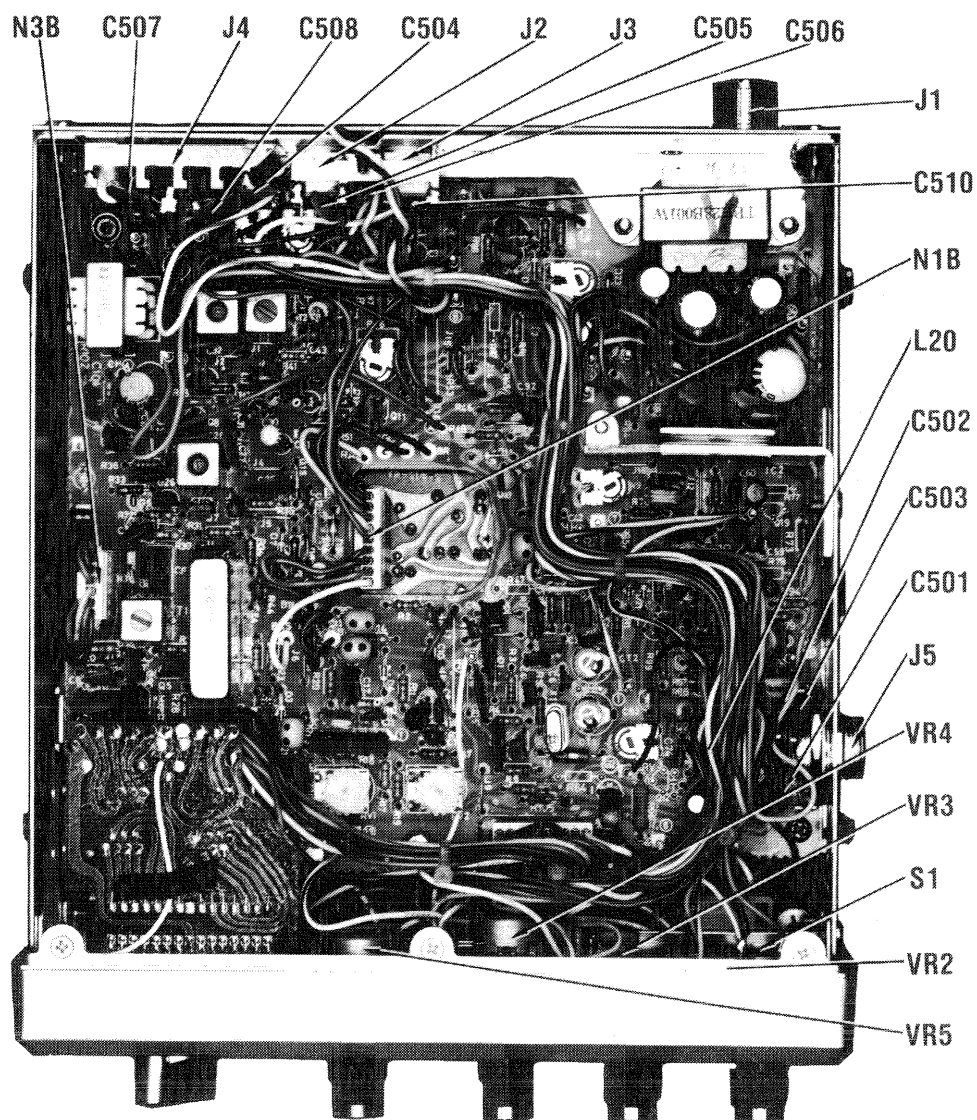
RF BOARD



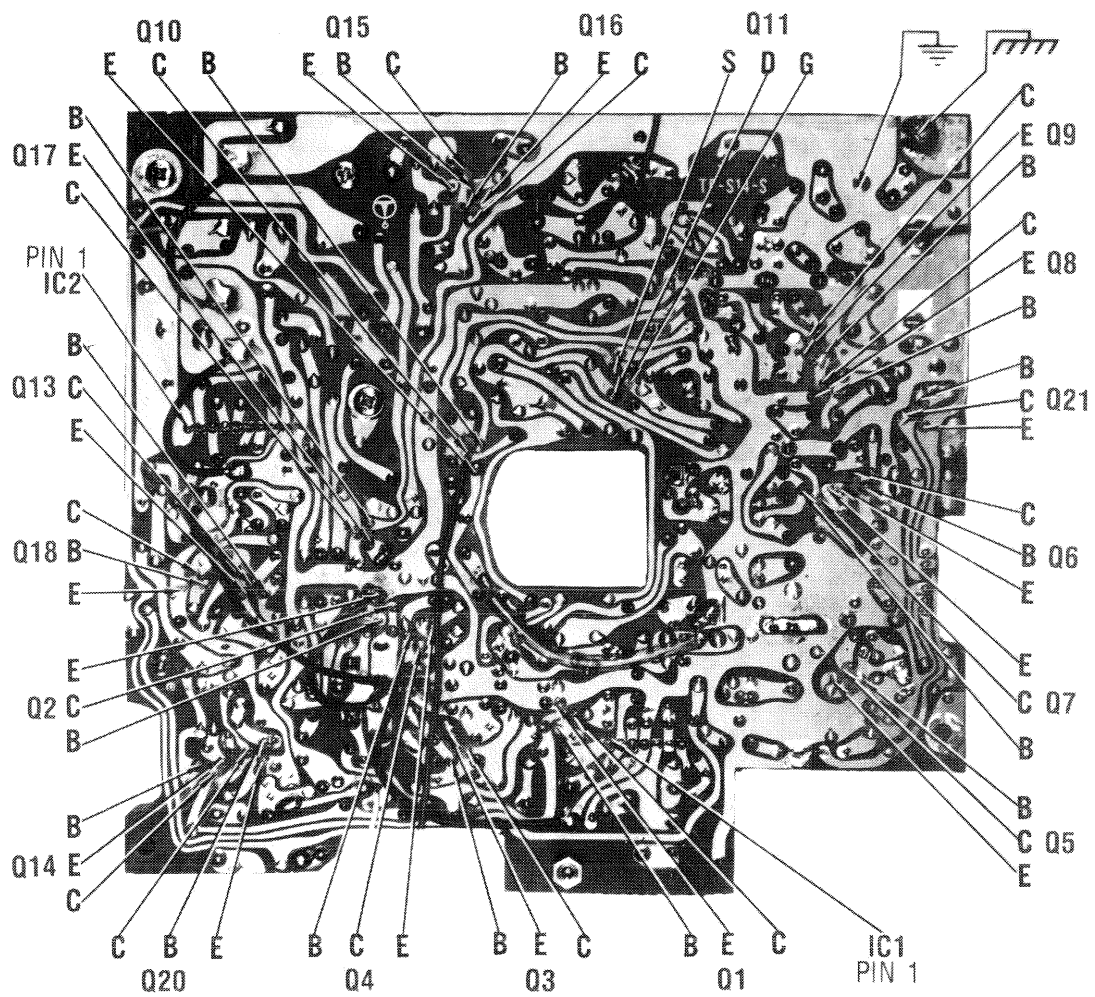
RF BOARD



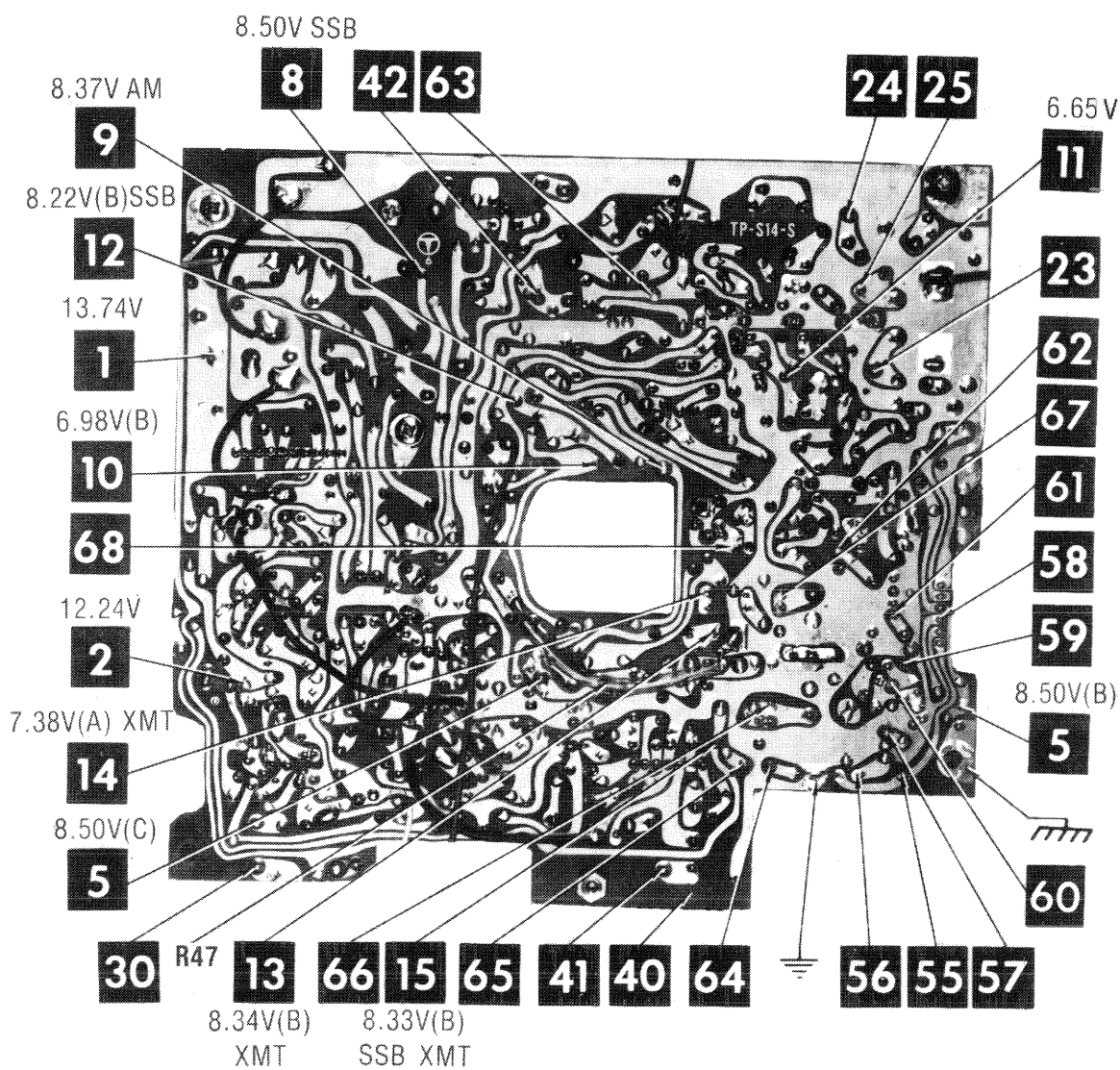
CHASSIS-TOP VIEW



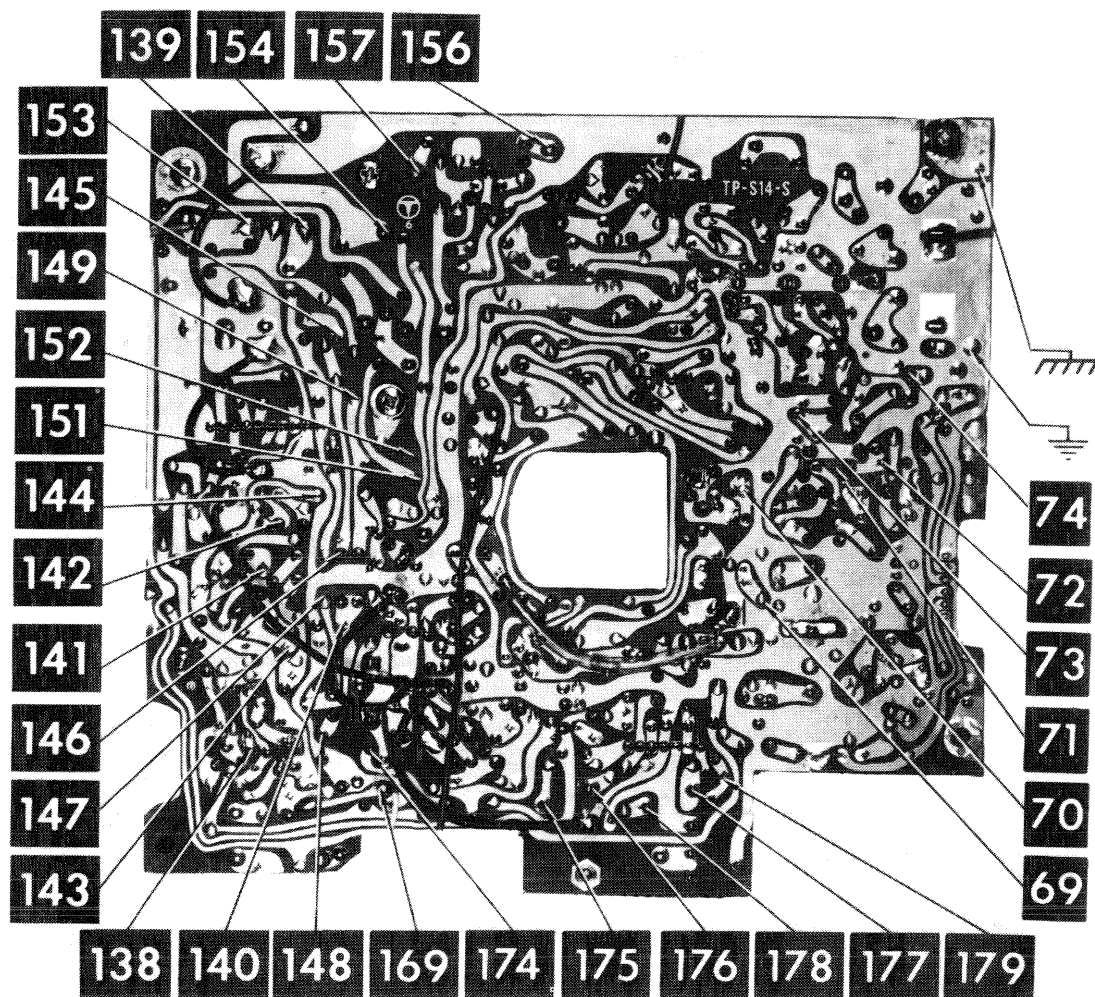
CHASSIS-BOTTOM



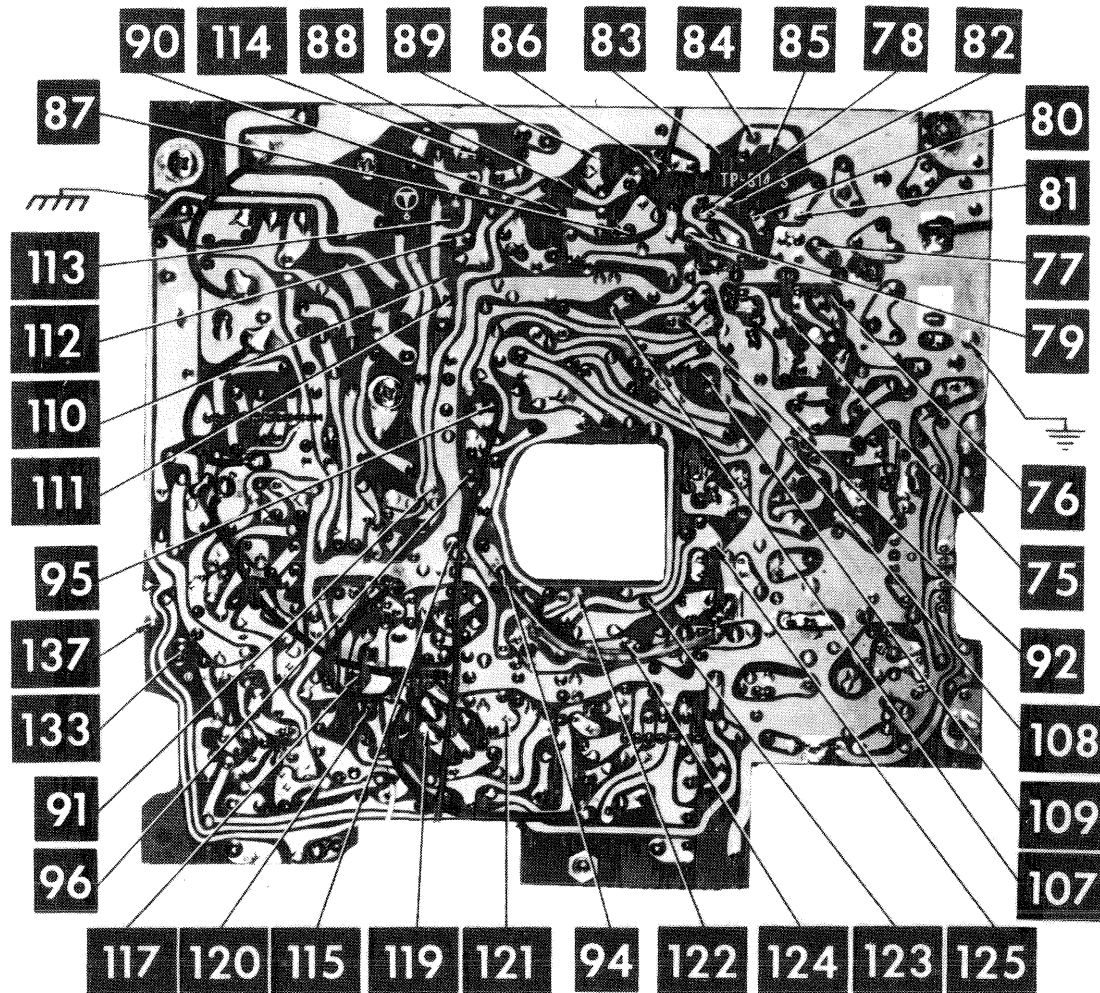
IF AUDIO BOARD



IF AUDIO BOARD

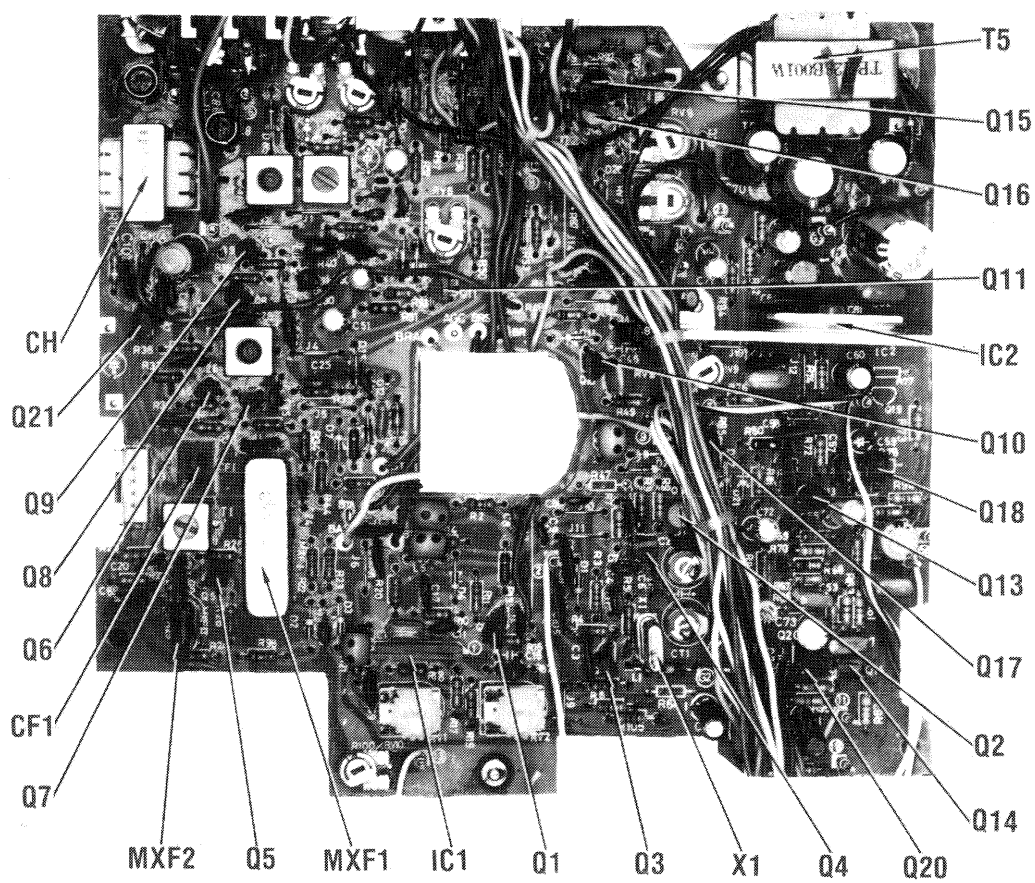


IF AUDIO BOARD

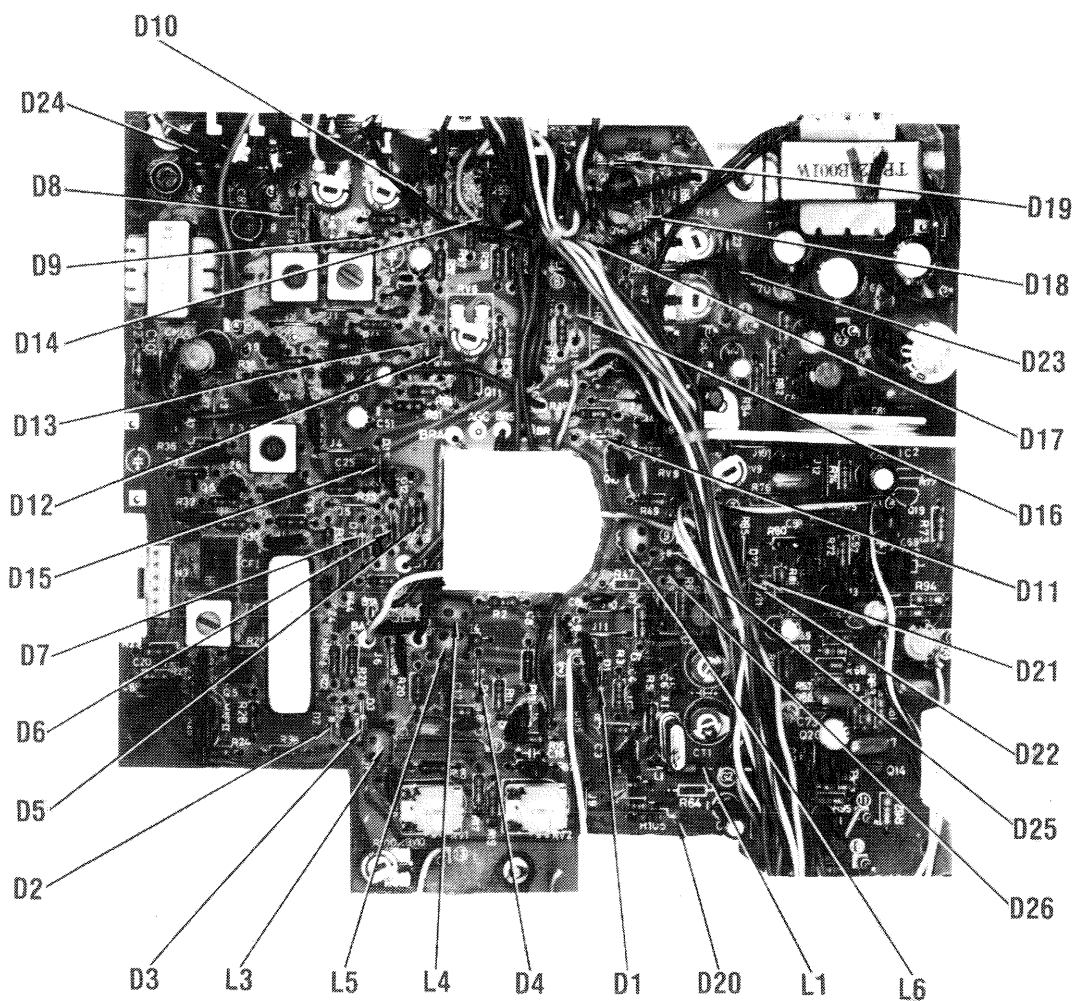


GENERAL ELECTRIC MODEL 3-5825B

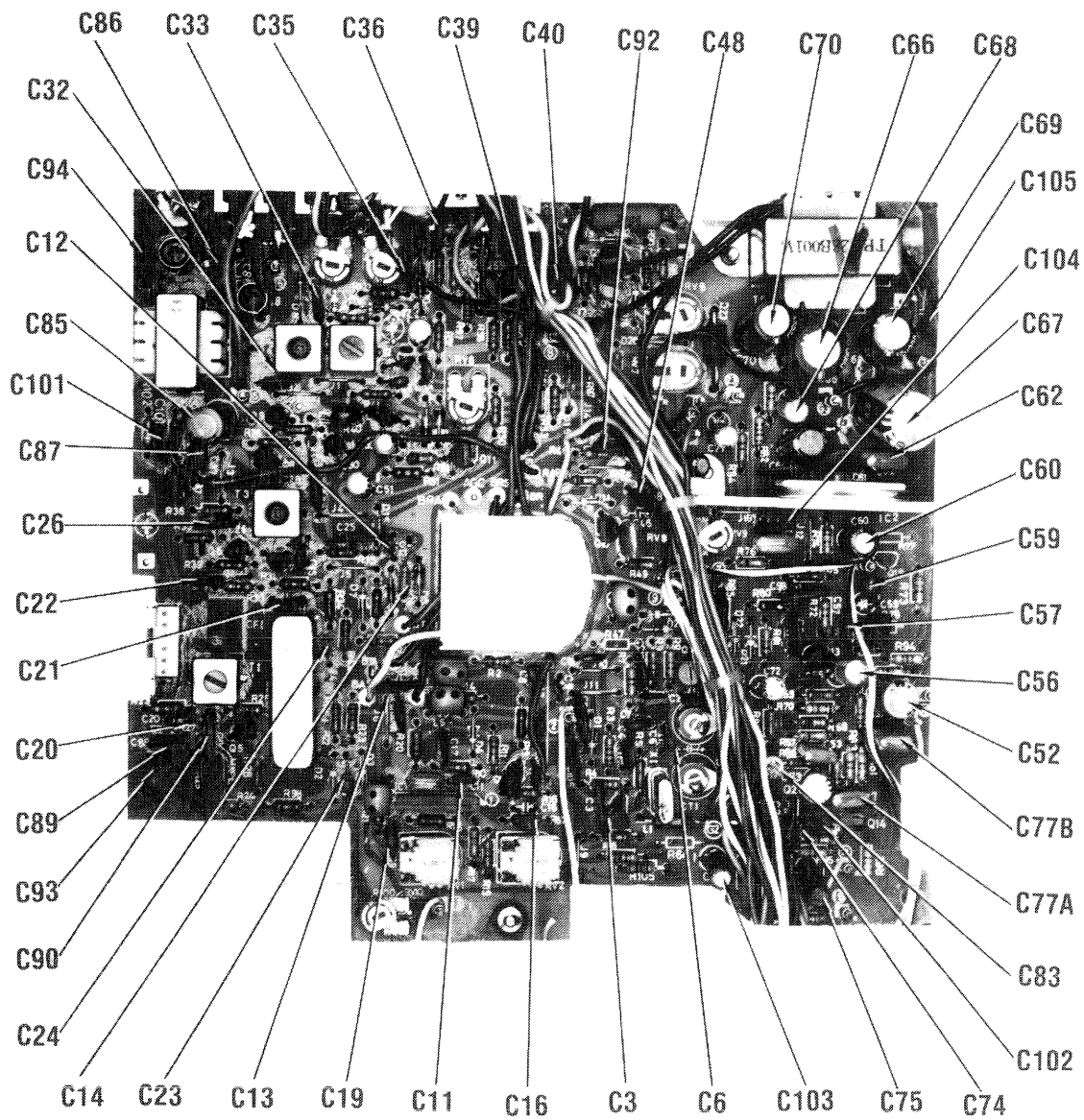
IF AUDIO BOARD



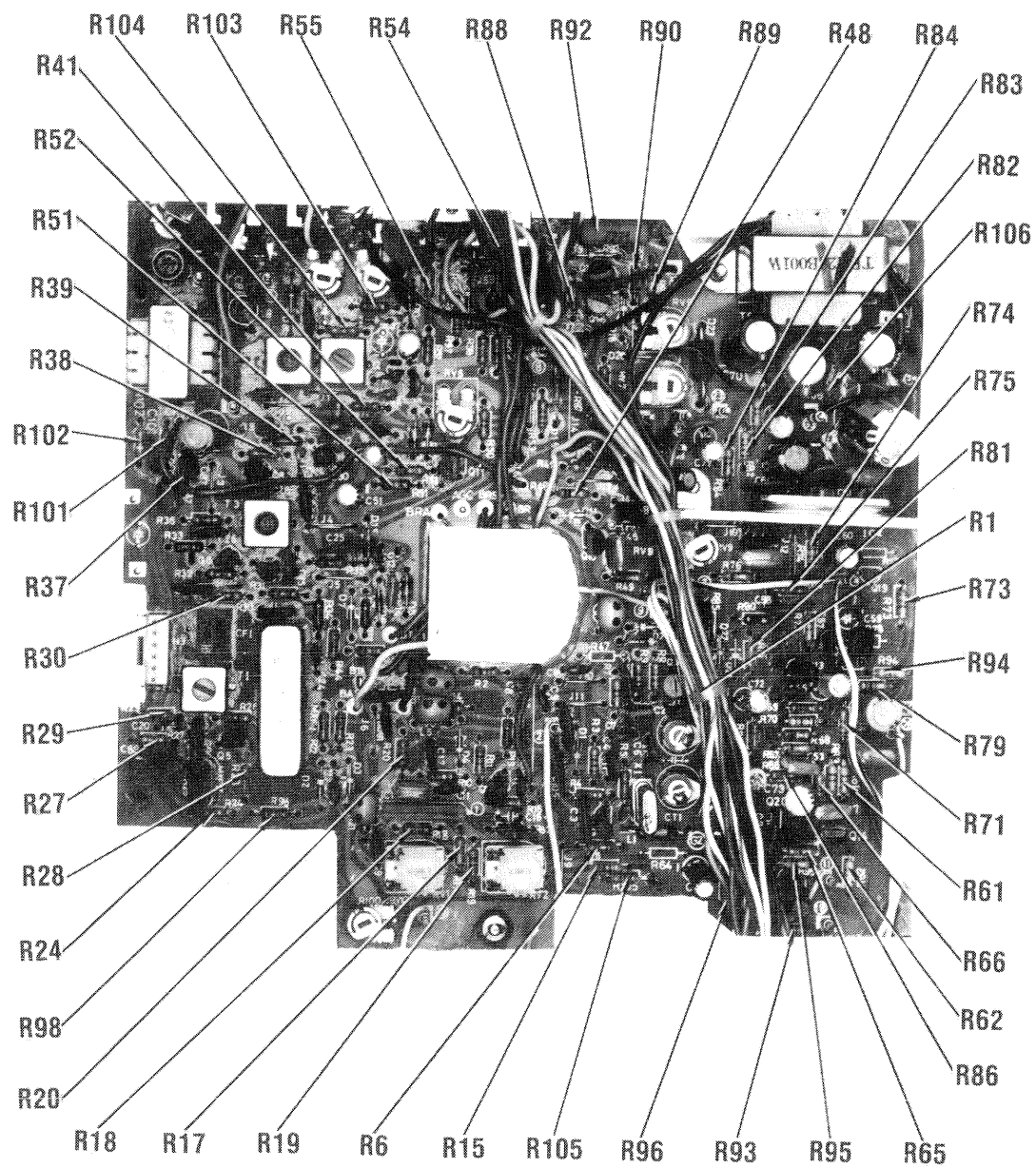
IF AUDIO BOARD



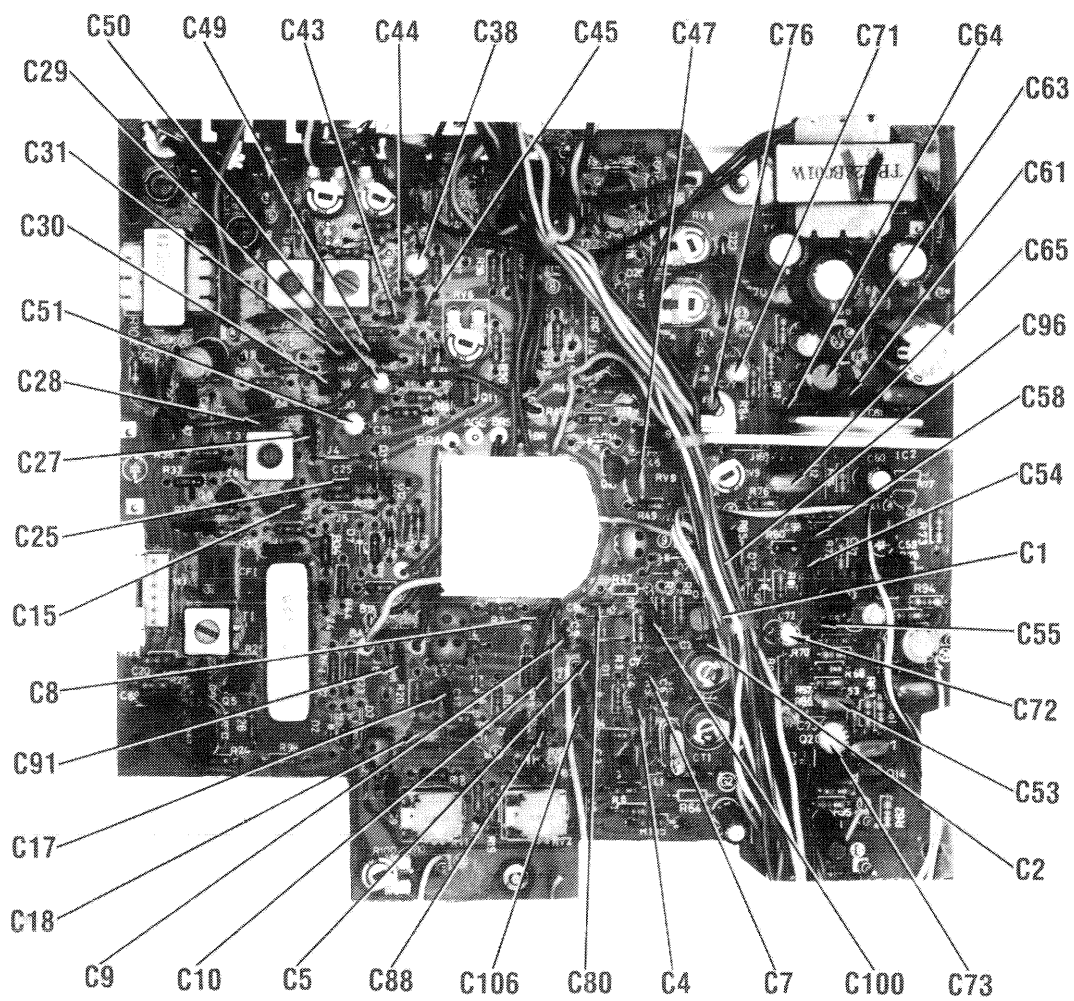
IF AUDIO BOARD



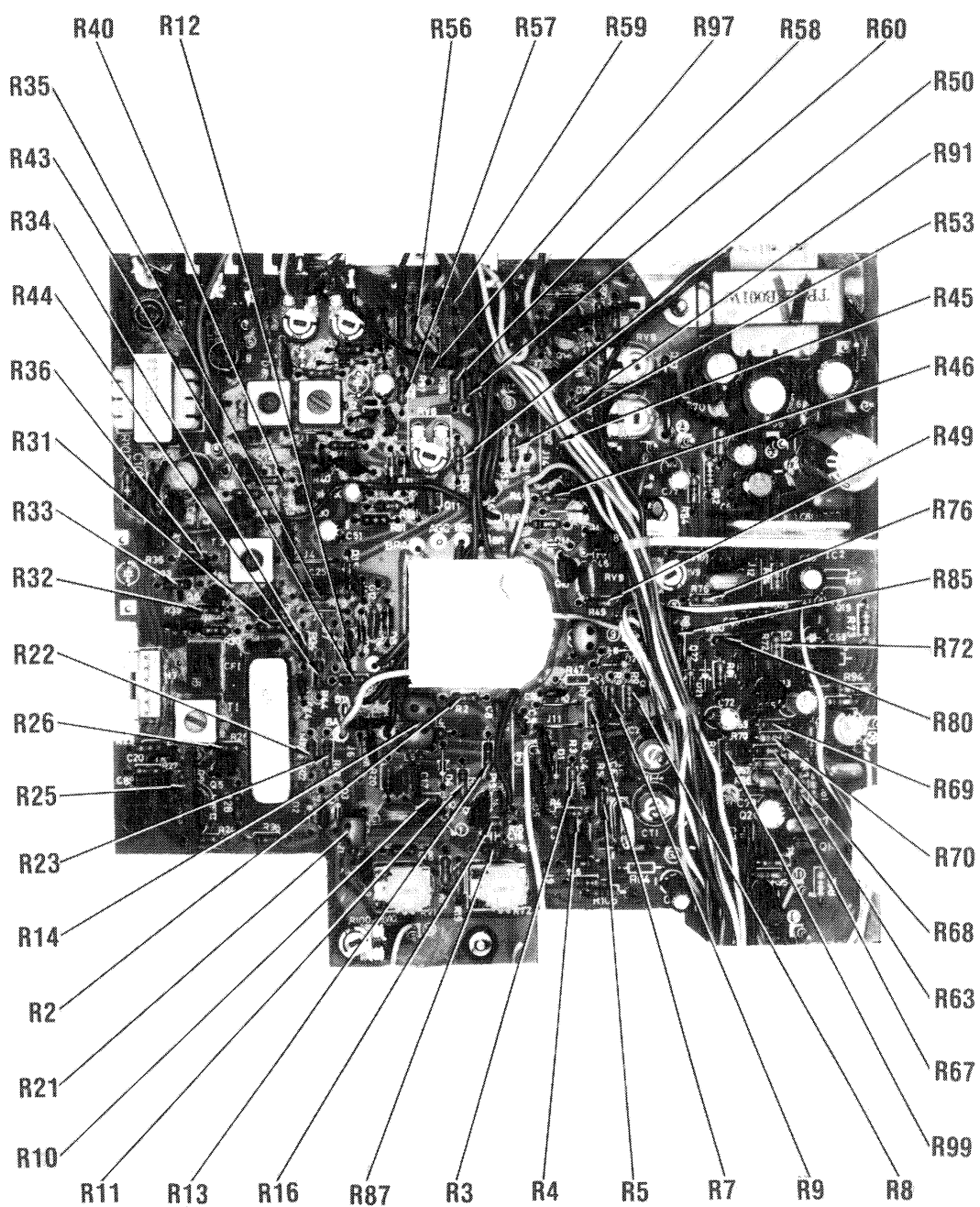
IF AUDIO BOARD



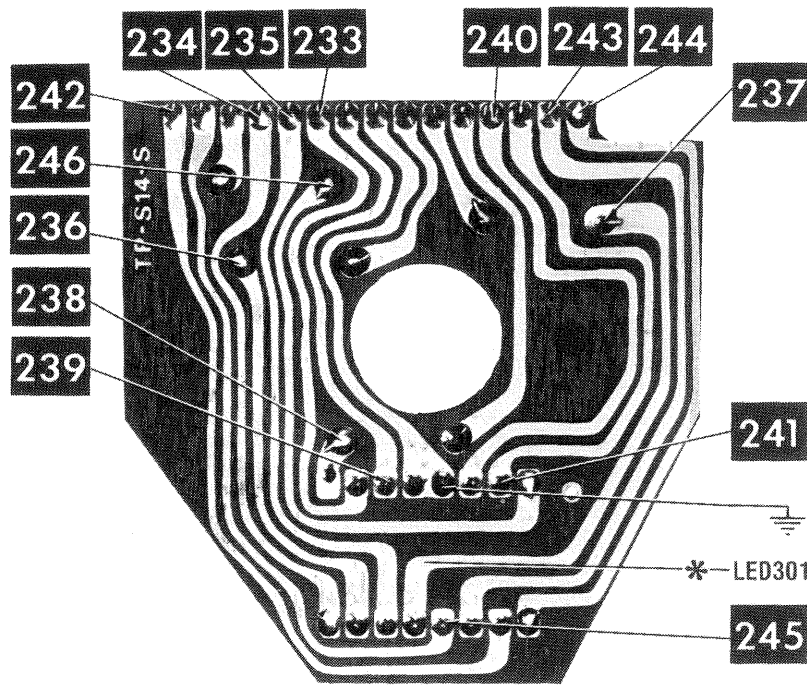
IF AUDIO BOARD



IF AUDIO BOARD

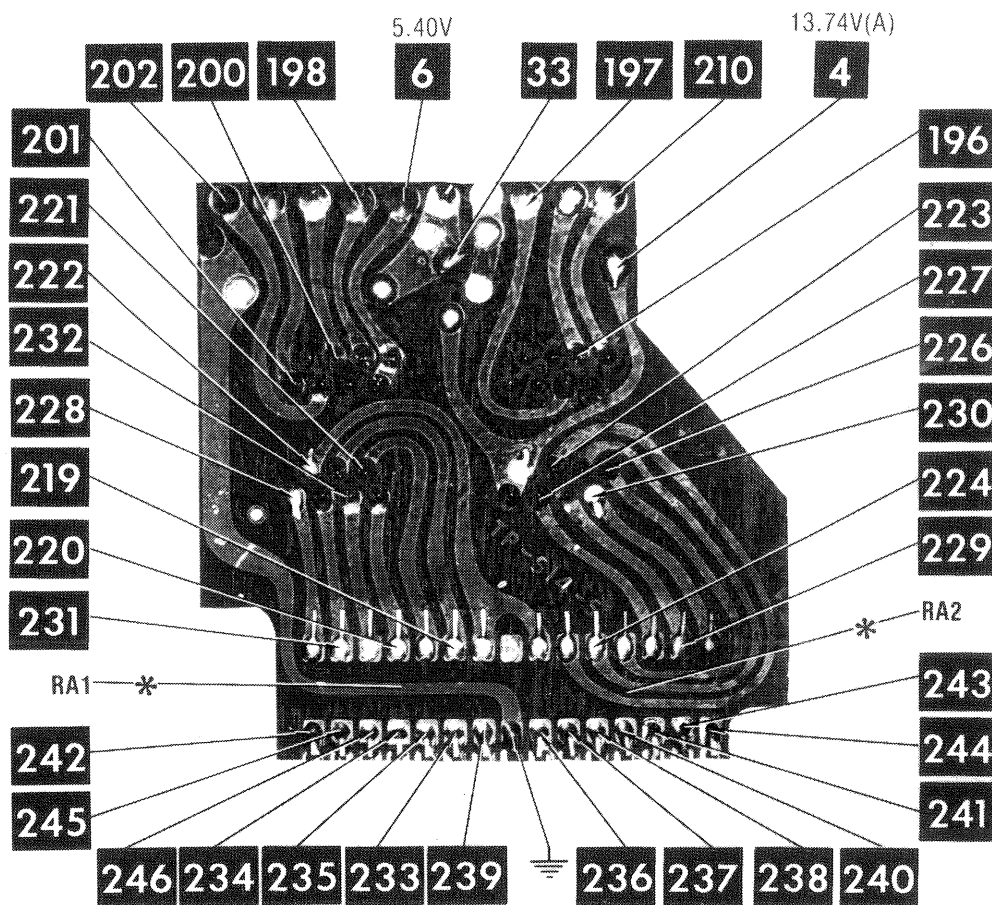


IF AUDIO BOARD



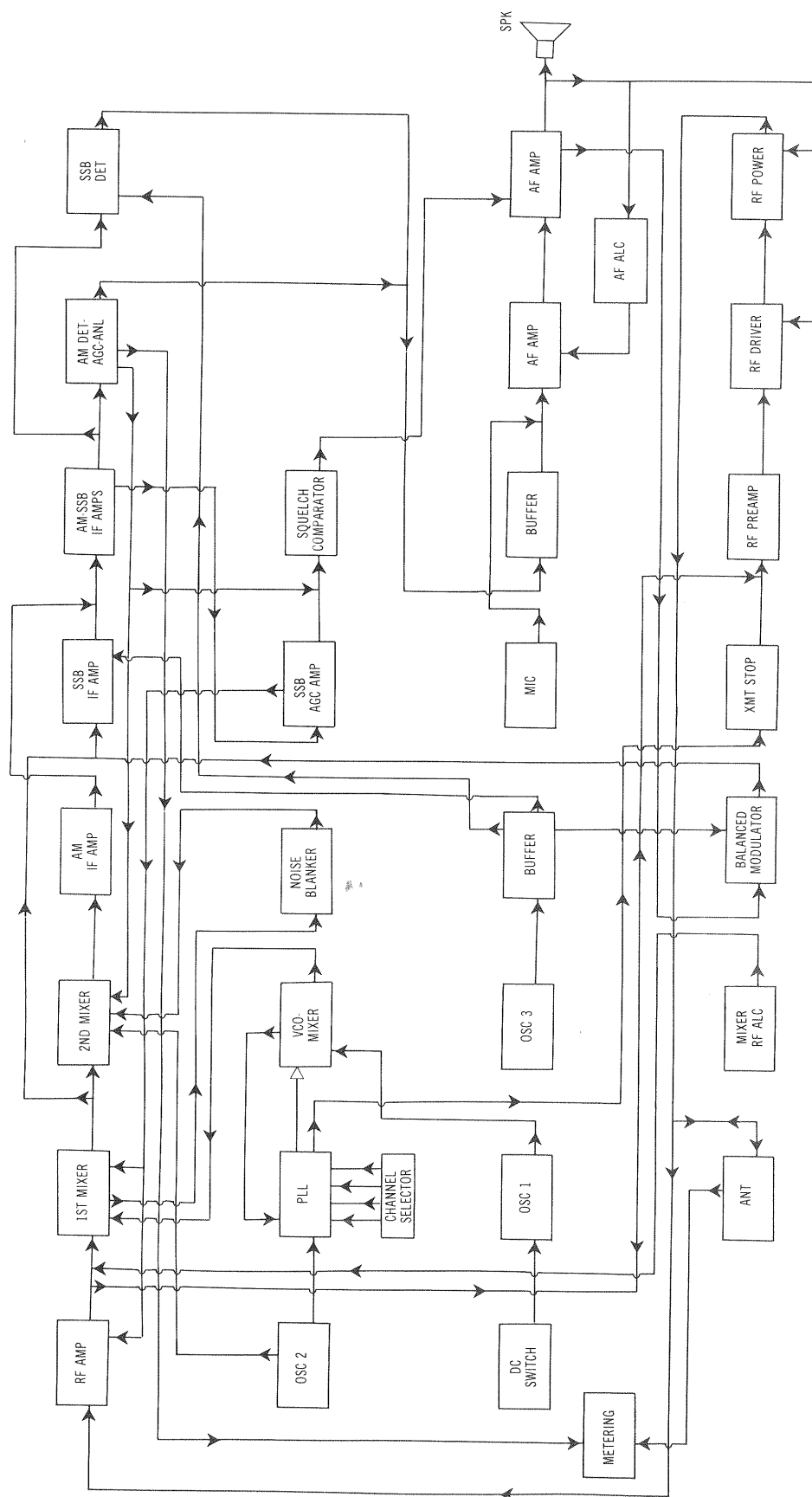
* COMPONENT ON TOP OF BOARD

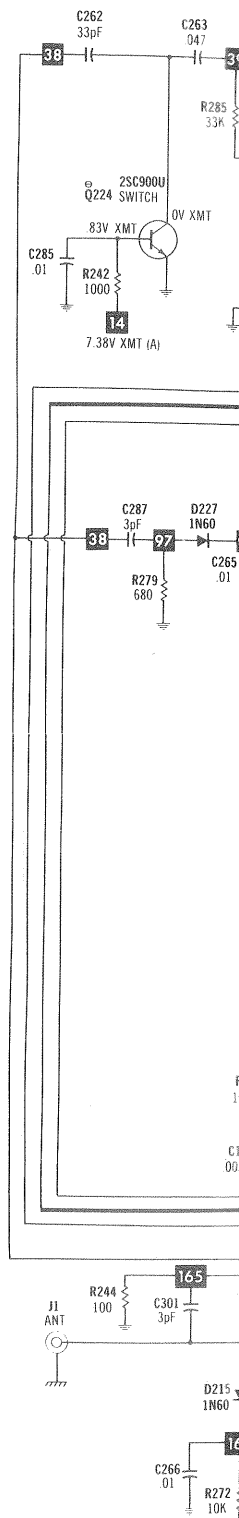
LED BOARD



* COMPONENT ON TOP OF BOARD

CHANNEL SELECTOR BOARD

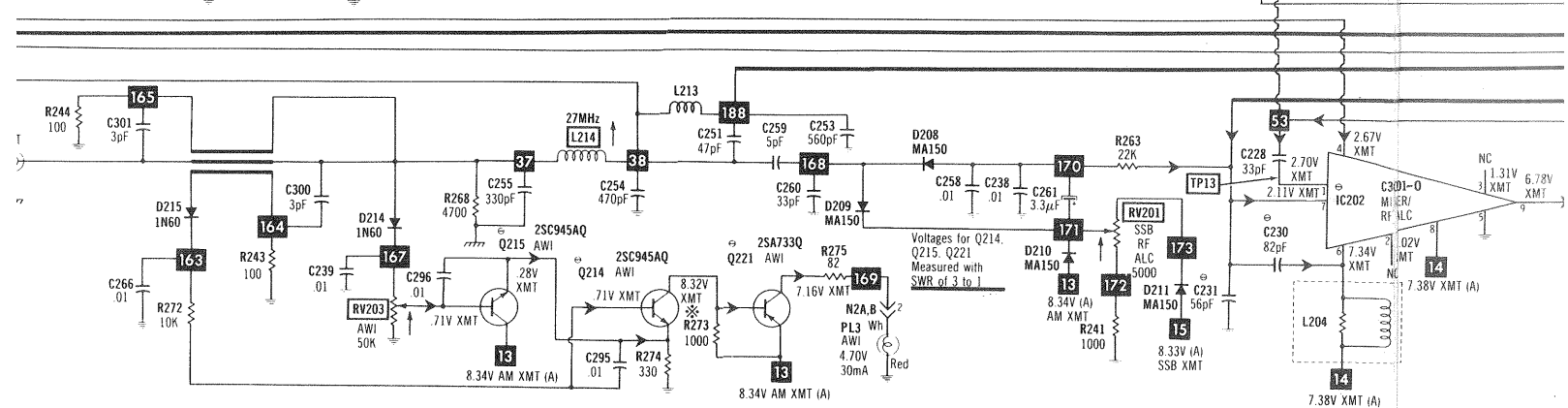


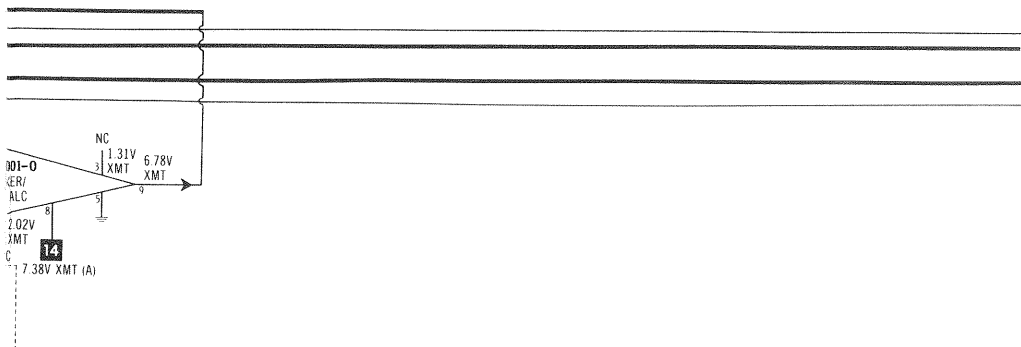
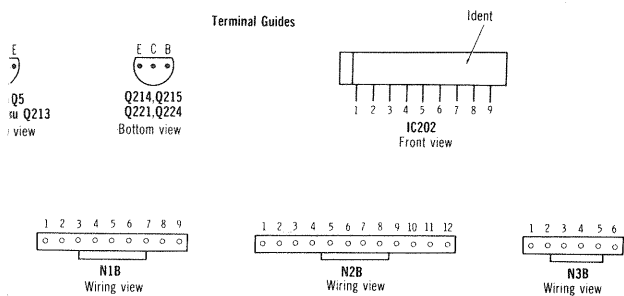
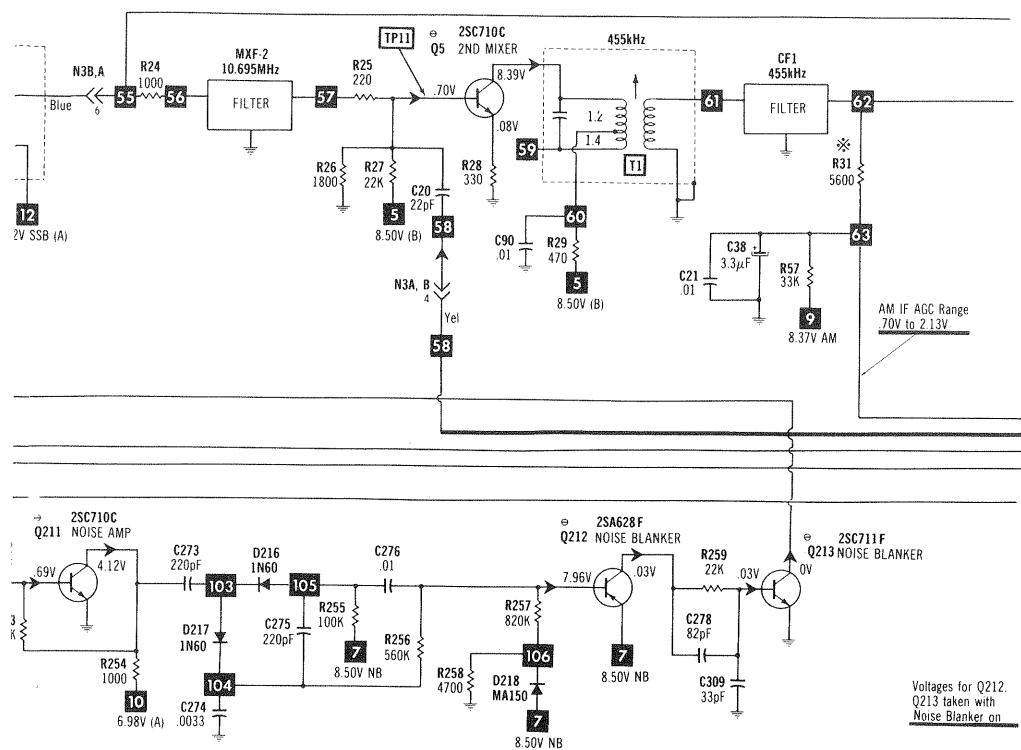


- Measurements made in Channel 1 with switching in receive unless noted.
Item numbers in rectangles appear in the alignment/adjustment instructions.
Supply voltage maintained as shown at input.
Voltages measured with digital meter, no signal.
Controls adjusted for normal operation.
Terminal identification may not be found on unit.
Resistors are 1/2W or less, 5% unless noted.
Value in () used in some versions.
Arrow head(s) at coils and transformers indicates accessibility of tuning slug(s).

© Howard W. Sams & Co., Inc. 1979

POWER SUPPLY SCHE

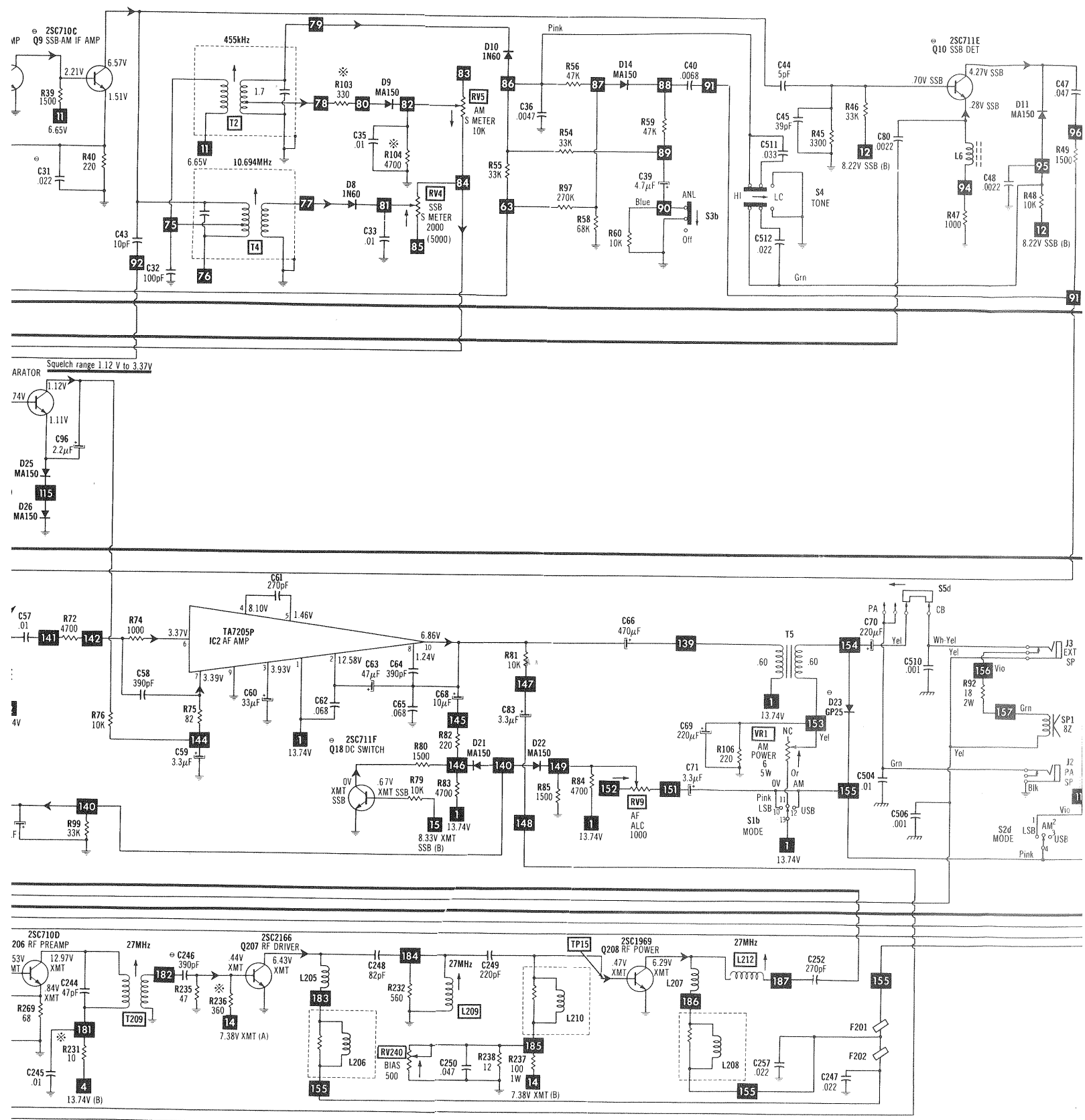




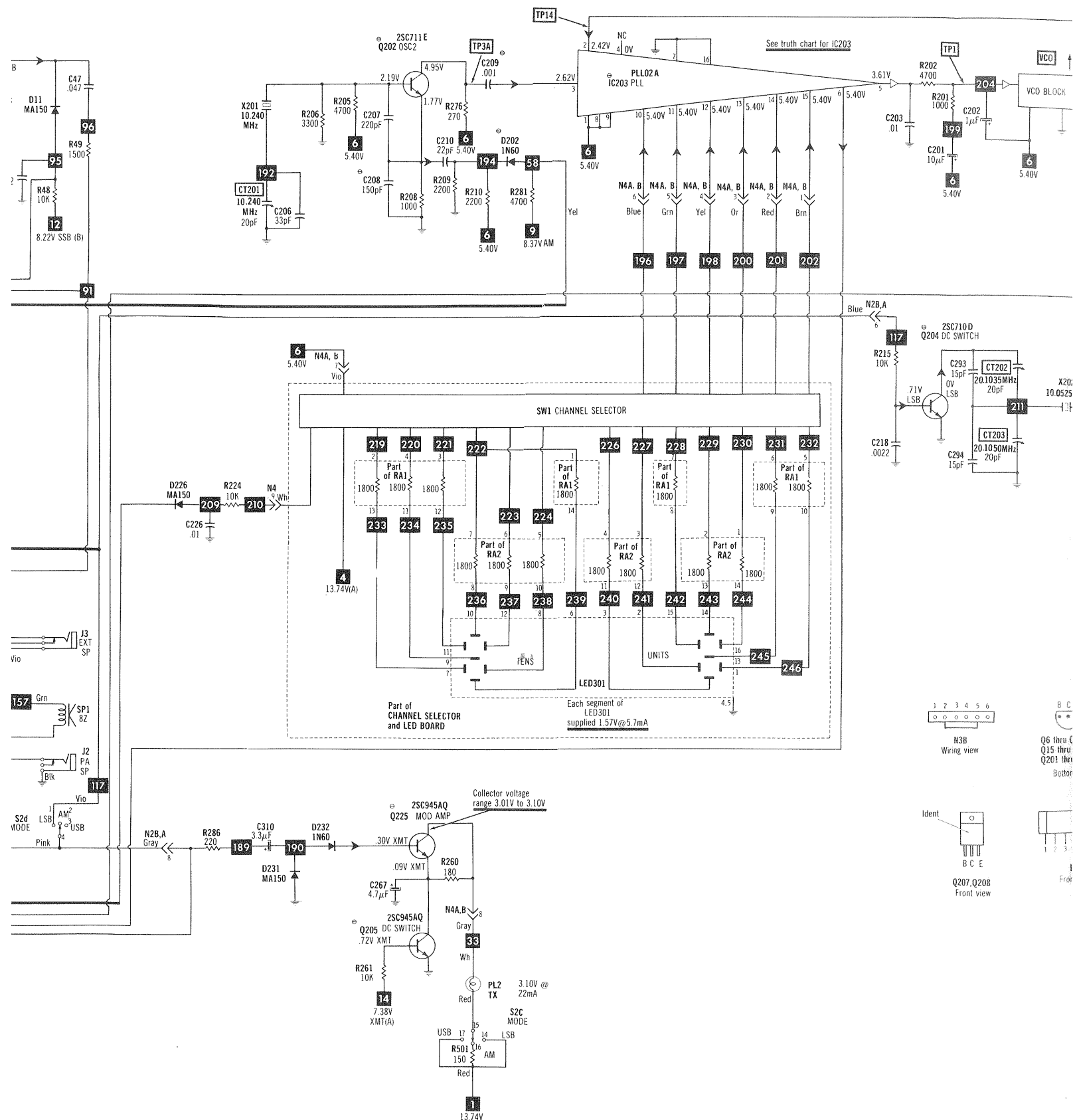
MAIN CB SCHEMATIC

GENERAL ELECTRIC MODEL 3-5825B





MAIN CB/PLL SCHEMATIC



The schematic diagram illustrates the internal circuitry of a radio receiver. Key components include:

- VCO BLOCK:** A Voltage-Controlled Oscillator block (204) receiving a 5.40V signal and outputting 2.48V and 1.90V signals.
- IC201 (C3001A):** A VCO/MIXER IC (201) with multiple pins connected to various components, including a 1.25V supply, 2.30V supply, and 5.40V supply.
- Transistors:** T202, T203, T201, and T204 are used in various stages of the circuit.
- Capacitors:** Various values are specified, such as 20.1035MHz, 20.1050MHz, 20.1052MHz, 20.1055MHz, 20.1058MHz, 20.1060MHz, 20.1062MHz, 20.1065MHz, 20.1068MHz, 20.1070MHz, 20.1072MHz, 20.1075MHz, 20.1078MHz, 20.1080MHz, 20.1082MHz, 20.1085MHz, 20.1088MHz, 20.1090MHz, 20.1092MHz, 20.1095MHz, 20.1098MHz, 20.1100MHz, 20.1102MHz, 20.1105MHz, 20.1108MHz, 20.1110MHz, 20.1112MHz, 20.1115MHz, 20.1118MHz, 20.1120MHz, 20.1122MHz, 20.1125MHz, 20.1128MHz, 20.1130MHz, 20.1132MHz, 20.1135MHz, 20.1138MHz, 20.1140MHz, 20.1142MHz, 20.1145MHz, 20.1148MHz, 20.1150MHz, 20.1152MHz, 20.1155MHz, 20.1158MHz, 20.1160MHz, 20.1162MHz, 20.1165MHz, 20.1168MHz, 20.1170MHz, 20.1172MHz, 20.1175MHz, 20.1178MHz, 20.1180MHz, 20.1182MHz, 20.1185MHz, 20.1188MHz, 20.1190MHz, 20.1192MHz, 20.1195MHz, 20.1198MHz, 20.1200MHz, 20.1202MHz, 20.1205MHz, 20.1208MHz, 20.1210MHz, 20.1212MHz, 20.1215MHz, 20.1218MHz, 20.1220MHz, 20.1222MHz, 20.1225MHz, 20.1228MHz, 20.1230MHz, 20.1232MHz, 20.1235MHz, 20.1238MHz, 20.1240MHz, 20.1242MHz, 20.1245MHz, 20.1248MHz, 20.1250MHz, 20.1252MHz, 20.1255MHz, 20.1258MHz, 20.1260MHz, 20.1262MHz, 20.1265MHz, 20.1268MHz, 20.1270MHz, 20.1272MHz, 20.1275MHz, 20.1278MHz, 20.1280MHz, 20.1282MHz, 20.1285MHz, 20.1288MHz, 20.1290MHz, 20.1292MHz, 20.1295MHz, 20.1298MHz, 20.1300MHz, 20.1302MHz, 20.1305MHz, 20.1308MHz, 20.1310MHz, 20.1312MHz, 20.1315MHz, 20.1318MHz, 20.1320MHz, 20.1322MHz, 20.1325MHz, 20.1328MHz, 20.1330MHz, 20.1332MHz, 20.1335MHz, 20.1338MHz, 20.1340MHz, 20.1342MHz, 20.1345MHz, 20.1348MHz, 20.1350MHz, 20.1352MHz, 20.1355MHz, 20.1358MHz, 20.1360MHz, 20.1362MHz, 20.1365MHz, 20.1368MHz, 20.1370MHz, 20.1372MHz, 20.1375MHz, 20.1378MHz, 20.1380MHz, 20.1382MHz, 20.1385MHz, 20.1388MHz, 20.1390MHz, 20.1392MHz, 20.1395MHz, 20.1398MHz, 20.1400MHz, 20.1402MHz, 20.1405MHz, 20.1408MHz, 20.1410MHz, 20.1412MHz, 20.1415MHz, 20.1418MHz, 20.1420MHz, 20.1422MHz, 20.1425MHz, 20.1428MHz, 20.1430MHz, 20.1432MHz, 20.1435MHz, 20.1438MHz, 20.1440MHz, 20.1442MHz, 20.1445MHz, 20.1448MHz, 20.1450MHz, 20.1452MHz, 20.1455MHz, 20.1458MHz, 20.1460MHz, 20.1462MHz, 20.1465MHz, 20.1468MHz, 20.1470MHz, 20.1472MHz, 20.1475MHz, 20.1478MHz, 20.1480MHz, 20.1482MHz, 20.1485MHz, 20.1488MHz, 20.1490MHz, 20.1492MHz, 20.1495MHz, 20.1498MHz, 20.1500MHz, 20.1502MHz, 20.1505MHz, 20.1508MHz, 20.1510MHz, 20.1512MHz, 20.1515MHz, 20.1518MHz, 20.1520MHz, 20.1522MHz, 20.1525MHz, 20.1528MHz, 20.1530MHz, 20.1532MHz, 20.1535MHz, 20.1538MHz, 20.1540MHz, 20.1542MHz, 20.1545MHz, 20.1548MHz, 20.1550MHz, 20.1552MHz, 20.1555MHz, 20.1558MHz, 20.1560MHz, 20.1562MHz, 20.1565MHz, 20.1568MHz, 20.1570MHz, 20.1572MHz, 20.1575MHz, 20.1578MHz, 20.1580MHz, 20.1582MHz, 20.1585MHz, 20.1588MHz, 20.1590MHz, 20.1592MHz, 20.1595MHz, 20.1598MHz, 20.1600MHz, 20.1602MHz, 20.1605MHz, 20.1608MHz, 20.1610MHz, 20.1612MHz, 20.1615MHz, 20.1618MHz, 20.1620MHz, 20.1622MHz, 20.1625MHz, 20.1628MHz, 20.1630MHz, 20.1632MHz, 20.1635MHz, 20.1638MHz, 20.1640MHz, 20.1642MHz, 20.1645MHz, 20.1648MHz, 20.1650MHz, 20.1652MHz, 20.1655MHz, 20.1658MHz, 20.1660MHz, 20.1662MHz, 20.1665MHz, 20.1668MHz, 20.1670MHz, 20.1672MHz, 20.1675MHz, 20.1678MHz, 20.1680MHz, 20.1682MHz, 20.1685MHz, 20.1688MHz, 20.1690MHz, 20.1692MHz, 20.1695MHz, 20.1698MHz, 20.1700MHz, 20.1702MHz, 20.1705MHz, 20.1708MHz, 20.1710MHz, 20.1712MHz, 20.1715MHz, 20.1718MHz, 20.1720MHz, 20.1722MHz, 20.1725MHz, 20.1728MHz, 20.1730MHz, 20.1732MHz, 20.1735MHz, 20.1738MHz, 20.1740MHz, 20.1742MHz, 20.1745MHz, 20.1748MHz, 20.1750MHz, 20.1752MHz, 20.1755MHz, 20.1758MHz, 20.1760MHz, 20.1762MHz, 20.1765MHz, 20.1768MHz, 20.1770MHz, 20.1772MHz, 20.1775MHz, 20.1778MHz, 20.1780MHz, 20.1782MHz, 20.1785MHz, 20.1788MHz, 20.1790MHz, 20.1792MHz, 20.1795MHz, 20.1798MHz, 20.1800MHz, 20.1802MHz, 20.1805MHz, 20.1808MHz, 20.1810MHz, 20.1812MHz, 20.1815MHz, 20.1818MHz, 20.1820MHz, 20.1822MHz, 20.1825MHz, 20.1828MHz, 20.1830MHz, 20.1832MHz, 20.1835MHz, 20.1838MHz, 20.1840MHz, 20.1842MHz, 20.1845MHz, 20.1848MHz, 20.1850MHz, 20.1852MHz, 20.1855MHz, 20.1858MHz, 20.1860MHz, 20.1862MHz, 20.1865MHz, 20.1868MHz, 20.1870MHz, 20.1872MHz, 20.1875MHz, 20.1878MHz, 20.1880MHz, 20.1882MHz, 20.1885MHz, 20.1888MHz, 20.1890MHz, 20.1892MHz, 20.1895MHz, 20.1898MHz, 20.1900MHz, 20.1902MHz, 20.1905MHz, 20.1908MHz, 20.1910MHz, 20.1912MHz, 20.1915MHz, 20.1918MHz, 20.1920MHz, 20.1922MHz, 20.1925MHz, 20.1928MHz, 20.1930MHz, 20.1932MHz, 20.1935MHz, 20.1938MHz, 20.1940MHz, 20.1942MHz, 20.1945MHz, 20.1948MHz, 20.1950MHz, 20.1952MHz, 20.1955MHz, 20.1958MHz, 20.1960MHz, 20.1962MHz, 20.1965MHz, 20.1968MHz, 20.1970MHz, 20.1972MHz, 20.1975MHz, 20.1978MHz, 20.1980MHz, 20.1982MHz, 20.1985MHz, 20.1988MHz, 20.1990MHz, 20.1992MHz, 20.1995MHz, 20.1998MHz, 20.2000MHz, 20.2002MHz, 2

A PHOTOFACIT STANDARD NOTATION SCHEMATIC

WITH **CIRCUITRACE®**

Item numbers in rectangles appear in the alignment/adjustment instructions.
Supply voltage maintained as shown at input.
Voltages measured with digital meter, no signal.
Controls adjusted for normal operation.
Terminal identification may not be found on unit.
Resistors are 1/2W or less, 5% unless noted.
Value in () used in some versions.
Arrow head(s) at coils and transformers indicates accessibility of tuning slug(s).

(When ordering parts, state Model, Part Number, and Description.)

(When or

General-use Hook-up Wire (available in 5 colors)	BELDEN No. 8523	Coiled Microphone Cable	
Shielded Hook-up Wire (spiral wrapped)	BELDEN No. 8421	3-conductor (1 shielded)	23AWG BELDEN No. 9471 (5')
(braided)	BELDEN No. 8401		BELDEN No. 8497 (6')
Speaker Cable (available in 4 colors)	BELDEN No. 8782		BELDEN No. 9472 (7-1/2')
Bonding Strap	BELDEN No. 8672		28AWG BELDEN No. 9466 (6')
AC Power Cord (6')	BELDEN No. 17106	4-conductor (unshielded)	31AWG BELDEN No. 9468 (10')
(9')	BELDEN No. 17109	5-conductor (1 shielded)	23AWG BELDEN No. 9415 (6')
			28AWG BELDEN No. 9467 (6')
			BELDEN No. 9465 (7-1/2')

--	--	--

ITEM No.	TYPE No.	MFG. PART No.	REPLACEMENT DATA									
			GENERAL ELECTRIC PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.	THORDARSON PART No.	WORKMAN PART No.	ZENITH PART No.
D1	MA150	EA16X146	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D2	MA150	EA16X146	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D3	MA150	EA16X146	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D4	MA150	EA16X146	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D5	IN60	EA16X146	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D6	MC301	EA16X176	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM109/**	WEP134	103-29001
D7	MA150	EA16X146	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D8	IN60	EA16X146	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D9	MA150	EA16X146	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM109/**	WEP134	103-29001
D10	IN60	EA16X146	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM109/**	WEP134	103-29001
D11	MA150	EA16X146	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D12	IN60	EA16X146	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM109/**	WEP134	103-29001
D13	IN60	EA16X146	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM109/**	WEP134	103-29001
D14	MA150	EA16X146	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D15	IN60	EA16X146	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM109/**	WEP134	103-29001
D16	IN60	EA16X146	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM109/**	WEP134	103-29001
D17	IN60	EA16X146	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D18	MA150	EA16X146	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D19	MA150	EA16X146	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D20	MA150	EA16X146	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D21	MA150	EA16X146	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D22	MA150	EA16X146	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D23	GP25	EA16X149	GE-512	PTC204	HEPR0098	REN 156	SK3051	RT-201	ECG156	TM156	WEP4008	212-29000
D24	GP25	EA16X149	GE-512	PTC204	HEPR0098	REN 156	SK3051	RT-201	ECG156	TM156	WEP4008	212-29000
D25	MA150	EA16X146	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D26	MA150	EA16X146	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D201	MA150	EA16X146	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM177	WEP1062	103-131
D202	IN60	EA16X146	GE-300	PTC214	HEPR0602	REN 177	SK3100	RT-218	ECG177	TM109/**	WEP134	103-29001
D203	IT7310	EA16X177	GE-90	PTC214	HEPR2503	REN 614	SK3100	RT-218	ECG177	TM177	WEP1	

ITEM No.	TYPE No.	
Q8	25C710C	E
Q9	25C710C	E
Q10	25C711E	E
Q11	25C711 25K34E 25K34	
Q13	25C1312G	
Q14	25C900F	
Q15	25C900 25A628F 25A628	
Q16	25C711F 25C711	E
Q17	25C711F 25C711	E
Q18	25C711F	E
Q20	25A628F 25A628 25A719	F
Q21	25C711F 25C711	
Q201	25C711F 25C711	
Q202	25C711E 25C711	E
Q203	25C710D 25C710	
Q204	25C710D 25C710	
Q205	25C945AQ 25C945A 25C945	F
Q206	25C710D 25C710	F
Q207	25C2166	
Q208	25C1969	
Q209	25C1047C 25C1047 25C763C	
Q210	25C710C 25C710	
Q211	25C710C 25C710	E
Q212	25A628F 25A628	F
Q213	25C711F 25C711	E
Q214	25C945AQ 25C945A 25C945	F
Q215	25C945AQ 25C945A 25C945	F
Q216	25C359 25C360	E
Q217	25C355	E
Q218	25B525	E
Q219	25C355	E
Q220	25B525	E
Q221	25Q733Q 25A733	
Q222	25C900D	E
Q223	25C945AQ 25C945A	
Q225	25C945	F

* Lead configuration
/** Also available as

ELECTI

ITEM No.
C16
C30
C38
C39
C50
C51
C52
C56
C59
C60
C63
C66
C67
C68
C69
C70

PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

SEMICONDUCTORS (Select replacement transistor for best results) (cont)

ITEM No.	TYPE No.	MFR. PART No.	REPLACEMENT DATA									
			GENERAL ELECTRIC PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.	THORDARSON PART No.	WORKMAN PART No.	ZENITH PART No.
Q8	2SC710C	EA15X365	GE-211*	PTC132	HEPS0016*	REN 123A*	SK3122	RT-308*	ECG123A*	TM123A*/**	WEP710	121-29000A
Q9	2SC711	EA15X365	GE-211*	PTC132	HEPS0016*	REN 123A*	SK3122	RT-308*	ECG123A*	TM123A*/**	WEP710	121-29000A
	2SC710C		GE-211*	PTC132	HEPS0016*	REN 123A*	SK3122	RT-308*	ECG123A*	TM123A*/**	WEP710	121-29000A
Q10	2SC711E	EA15X364	GE-62*	PTC121	HEPS0024*	REN 199*	SK3245	RT-302*	ECG199*	TM199*/**	WEP372*	121-972
	2SC711		GE-62*	PTC121	HEPS0024*	REN 199*	SK3245	RT-302*	ECG199*	TM199*/**	WEP372*	121-972
Q11	2SK34E	EA15X394	GE-FET-2	PTC161	HEPF0021	REN 132	SK3448	RT-175	ECG312	TM312	WEP920	121-756
	2SK34		GE-FET-2	PTC161	HEPF0021	REN 132	SK3448	RT-175	ECG312	TM312	WEP920	121-756
Q13	2SC1312G	EA15X352	GE-62	PTC139*	HEPS0015*	REN 199	SK3122	RT-172*	ECG199	TM199	WEP66	121-972
Q14	2SC900F	EA4025	GE-62	PTC139*	HEPS0015*	REN 199	SK3124	RT-302	ECG199	TM199/**	WEP66	121-972
	2SC900		GE-62	PTC139*	HEPS0015*	REN 199	SK3124	RT-302	ECG199	TM199/**	WEP66	121-972
Q15	2SA628F	RV1059	GE-82*	PTC103*	HEPS0013*	REN 159*	SK3114	RT-303	ECG159*	TM159/**	WEP62	121-29003
	2SA628		GE-82*	PTC103*	HEPS0013*	REN 159*	SK3114	RT-303	ECG159*	TM159/**	WEP62	121-29003
Q16	2SC711F	EA15X354	GE-62*	PTC121	HEPS0024*	REN 199*	SK3245	RT-302*	ECG199*	TM199/**	WEP372*	121-972
	2SC711		GE-62*	PTC121	HEPS0024*	REN 199*	SK3245	RT-302*	ECG199*	TM199/**	WEP372*	121-972
Q17	2SC711F	EA15X354	GE-62*	PTC121	HEPS0024*	REN 199*	SK3245	RT-302*	ECG199*	TM199/**	WEP372*	121-972
	2SC711		GE-62*	PTC121	HEPS0024*	REN 199*	SK3245	RT-302*	ECG199*	TM199/**	WEP372*	121-972
Q18	2SC711F	EA15X354	GE-62*	PTC121	HEPS0024*	REN 199*	SK3245	RT-302*	ECG199*	TM199/**	WEP372*	121-972
	2SC711		GE-62*	PTC121	HEPS0024*	REN 199*	SK3245	RT-302*	ECG199*	TM199/**	WEP372*	121-972
Q20	2SA628F	RV1059	GE-82*	PTC103*	HEPS0013*	REN 159*	SK3114	RT-303	ECG159*	TM159/**	WEP62	121-29003
	2SA628		GE-82*	PTC103*	HEPS0013*	REN 159*	SK3114	RT-303	ECG159*	TM159/**	WEP62	121-29003
Q21	2SA719	EA15X354	GE-269	PTC103*	HEPS0019*	REN 290	SK3114	RT-305	ECG290	TM290/**	WEP911	121-1019
	2SC711F		GE-62*	PTC121	HEPS0024*	REN 199*	SK3245	RT-302*	ECG199*	TM199/**	WEP372*	121-972
Q201	2SC711F	EA15X354	GE-62*	PTC121	HEPS0024*	REN 199*	SK3245	RT-302*	ECG199*	TM199/**	WEP372*	121-972
	2SC711		GE-62*	PTC121	HEPS0024*	REN 199*	SK3245	RT-302*	ECG199*	TM199/**	WEP372*	121-972
Q202	2SC711E	EA15X354	GE-62*	PTC121	HEPS0024*	REN 199*	SK3245	RT-302*	ECG199*	TM199/**	WEP372*	121-972
	2SC711		GE-62*	PTC121	HEPS0024*	REN 199*	SK3245	RT-302*	ECG199*	TM199/**	WEP372*	121-972
Q203	2SC710D	EA15X364	GE-211*	PTC132	HEPS0016*	REN 123A*	SK3122	RT-308*	ECG123A*	TM123A*/**	WEP710	121-29000A
	2SC710		GE-211*	PTC132	HEPS0016*	REN 123A*	SK3122	RT-308*	ECG123A*	TM123A*/**	WEP710	121-29000A
Q204	2SC710D	EA15X364	GE-211*	PTC132	HEPS0016*	REN 123A*	SK3122	RT-308*	ECG123A*	TM123A*/**	WEP710	121-29000A
	2SC710		GE-211*	PTC132	HEPS0016*	REN 123A*	SK3122	RT-308*	ECG123A*	TM123A*/**	WEP710	121-29000A
Q205	2SC945AQ	RT7557	GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP1945	121-972
	2SC945A		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP1945	121-972
Q206	2SC710D	EA15X364	GE-211*	PTC132	HEPS0016*	REN 123A*	SK3122	RT-308*	ECG123A*	TM123A*/**	WEP710	121-29000A
	2SC710		GE-211*	PTC132	HEPS0016*	REN 123A*	SK3122	RT-308*	ECG123A*	TM123A*/**	WEP710	121-29000A
Q207	2SC2166	EA15X391	GE-215	PTC186	HEPS0016*	REN 235	SK3197	RT-146	ECG235	TM235	WEP736*	121-79039
	2SC1969	EA15X392	GE-216	PTC186	HEPS0016*	REN 236	SK3197	RT-158	ECG236	TM236	WEP940	121-79040
Q209	2SC1047C	EA15X393	GE-60*	PTC132*	HEPS0016*	REN 229*	SK3132	RT-107	ECG229*	TM229*	WEP63*	121-79021
	2SC1047		GE-60*	PTC132*	HEPS0016*	REN 229*	SK3132	RT-107	ECG229*	TM229*	WEP63*	121-79021
Q210	2SC763C	EA15X393	GE-61*	PTC115	HEPS0020*	REN 229*	SK3122	RT-309	ECG229*	TM229*	WEP56	121-79021
	2SC710C		GE-211*	PTC132	HEPS0016*	REN 123A*	SK3122	RT-308*	ECG123A*	TM123A*/**	WEP710	121-29000A
Q211	2SC710	EA15X365	GE-211*	PTC132	HEPS0016*	REN 123A*	SK3122	RT-308*	ECG123A*	TM123A*/**	WEP710	121-29000A
	2SC710C		GE-211*	PTC132	HEPS0016*	REN 123A*	SK3122	RT-308*	ECG123A*	TM123A*/**	WEP710	121-29000A
Q212	2SC710	RV1059	GE-211*	PTC132	HEPS0016*	REN 123A*	SK3122	RT-308*	ECG123A*	TM123A*/**	WEP710	121-29000A
	2SA628F		GE-82*	PTC103*	HEPS0013*	REN 159*	SK3114	RT-303	ECG159*	TM159/**	WEP62	121-29003
Q213	2SA628	EA15X354	GE-82*	PTC103*	HEPS0013*	REN 159*	SK3114	RT-303	ECG159*	TM159/**	WEP62	121-29003
	2SC711F		GE-62*	PTC121	HEPS0024*	REN 199*	SK3245	RT-302*	ECG199*	TM199/**	WEP372*	121-972
Q214	2SC711	RT7557	GE-62*	PTC121	HEPS0024*	REN 199*	SK3245	RT-302*	ECG199*	TM199/**	WEP372*	121-972
	2SC945AQ		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP1945	121-972
Q215	2SC945A	RT7557	GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP1945	121-972
	2SC945AQ		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP1945	121-972
Q216	2SC945	EA15X423	GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP1945	121-972
	2SD359		GE-247	PTC110	HEPS5027	REN 186A	SK3041	RT-158	ECG186A	TM186A	WEP900	121-29008
Q217	2SD360	EA15X424	GE-66	PTC167	HEPS3011*	REN 152	SK3054	RT-154	ECG152	TM152	WEP745	121-987-02
	2SD355		GE-271	PTC143*	HEPS3011*	REN 297	SK3849	RT-114*	ECG297	TM297	WEP914	121-29014
Q218	2SD3525	EA15X425	GE-272	PTC141	HEPS3012	REN 298	SK3450	RT-115	ECG298	TM298	WEP915	121-29015
	2SD355		GE-271	PTC143*	HEPS3011*	REN 297	SK3849	RT-114*	ECG297	TM297	WEP914	121-29014
Q220	2SA7330	EA15X425	GE-272	PTC141	HEPS3012	REN 298	SK3450	RT-115	ECG298	TM298	WEP915	121-29015
	2SA733		GE-48	PTC127	HEPS0019*	REN 294	SK3114	RT-303	ECG294	TM294/**	WEP911	121-952
Q224	2SC900U	EA4025	GE-62	PTC139*	HEPS0015*	REN 199	SK3114	RT-303	ECG294	TM294/**	WEP911	121-952
	2SC900		GE-62	PTC139*	HEPS0015*	REN 199	SK3114	RT-303	ECG294	TM294/**	WEP911	121-952
Q225	2SC945AQ	RT7557	GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP1945	121-972
	2SC945A		GE-212	PTC121*	HEPS0015*	REN 199	SK3124	RT-107A	ECG199	TM199/**	WEP1945	121-972

* Lead configuration may vary from original.

/** Also available as exact type replacement.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA			
			CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C16	3.3 25V	EA31X126		TDC335M035FL		SD35-3R39
C30	10 16V	EA31X246		TDC106M025FL	QDT1-64	SD25-109
C38	3.3 25V	EA2552	PC5-50	VTT3R3A50	QV1-25	EV-1618.1
C39	4.7 25V	EA31X211	PC5-50	VTT4R7B50	QV1-31	EV-1619.1
C50	4.4 16V	EA31X239	PC5-50	VTT3R3A50	QV1-25	EV-1618.1
C51	10 16V	EA31X246	PC10-25	VTT10B25	QV1-41	EV-1222
C52	47 16V	EA31X214	PC50-16	VTT47D16	QV1-73	EV-1226
C56	10 16V	EA31X246	PC10-25	VTT10B25	QV1-41	EV-1222
C59	3.3 35V	EA31X239		TDC335M035FL		SD35-3R39
C60	33 16V	RT2315	PC30-25	VTT33025	QV1-63	EV-1325
C63	47 16V	EA31X214	PC50-16	VTT47D16	QV1-73	EV-1226
C66	470 16V	RT4637	PC500-16	VTT470K16	QV1-151	EV-1251
C67	1000 16V	EA31X200	PC1000-16	VTT1000L16	QV1-183	EV-1261
C68	10 16V	EA31X246	PC10-25	VTT10B25	QV1-41	EV-1222
C69	220 16V	RT5047	PC250-25	VTT220H16	QV1-117	EV-1240
C70	220 16V	RT5047	PC250-25	VTT220H16	QV1-117	EV-1240

PARTS

(When ord

ELECTR

ITEM No.

C71

C72

C73

C75

C76

C83

C85

C96

C103

C201

C202

C219

C233

C261

C267

C277

C282

C264

C286

C297

C299

C303

C307

C310

C601

PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

ELECTROLYTIC CAPACITORS (cont)

ITEM No.	RATING	REPLACEMENT DATA				
		MFRG. PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
					Q-LINE	GENERAL LINE
C71	3.3 25V	EA31X246	PC5-50	VTT3R3A50	QV1-25	EV-1618.1
	10 16V		PC10-25	VTT10R25	QV1-41	EV-1222
C72	3.3 25V	EA31X214	PC5-50	VTT3R3A50	QV1-25	EV-1618.1
	47 16V		PC50-16	VTT47D16	QV1-73	EV-1226
C73	33 10V	EA31X216	PC30-25	VTT33B10		EV-1225
	2.2 25V		PC2-100	VTT2R2A50	QV1-21	EV-1617.1
C75	4.7 25V	EA31X211	PC5-50	VTT4R7B50	QV1-31	EV-1619.1
C76	4.7 25V	EA31X211	PC5-50	VTT4R7B50	QV1-31	EV-1619.1
C83	3.3 25V	EA2552	PC5-50	VTT3R3A50	QV1-25	EV-1618.1
C85	47 16V	EA31X214	PC50-16	VTT47D16	QV1-73	EV-1226
C96	2.2 25V			TDC225M035FL		SD35-2R29
	3.9 25V	EA31X261	PC5-50	VTT4R7B50	QE1-83*	TVA-1302.7*
C103	4.7 25V	EA31X211	PC5-50	VTT4R7B50	QV1-31	EV-1619.1
C201	10 16V	EA31X246		TDC106M025FL	QDT1-64	SD25-109
C202	1 35V	EA31X204		TDC105M035EL		SD35-19
C219	100 10V	RS6480	PC100-10	VTT100E10	QV1-93	EV-1131
C233	47 25V	RT4632	PC50-25	VTT47E25	QV1-77	EV-1426.1
C261	3.3 25V		PC5-50	VTT3R3A50	QV1-25	EV-1618.1
C267	4.7 25V	EA31X211	PC5-50	VTT4R7B50	QV1-31	EV-1619.1
C277	3.3 25V		PC5-50	VTT3R3A50	QV1-25	EV-1618.1
C282	1 50V	EA31X204	PC1-50	VTT1A50	QV1-11	EV-1615
C284	10 16V	EA31X246	PC10-25	VTT10R25	QV1-41	EV-1222
C286	1 50V	EA31X204	PC1-50	VTT1A50	QV1-11	EV-1615
C297	1000 16V		PC1000-16	VTT1000L16	QV1-183	EV-1261
C299	1 50V	EA31X204	PC1-50	VTT1A50	QV1-11	EV-1615
C303	33 6.3V	RT5269	PC30-25	VTT33B10		EV-1225
C307	1 50V	RT5044	PC1-50	VTT1A50	QV1-11	EV-1615
C310	3.3 25V		PC5-50	VTT3R3A50	QV1-25	EV-1618.1
C601	1			TDC105M050EL	QDT1-25	SD50-19

GENERAL ELECTRIC MODEL 3-5825B

CAPACITORS

ITEM No.	RATING	MFRG. PART No.	REPLACEMENT DATA				
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
						Q-LINE	GENERAL LINE
C43	10 N150 50V	EA18X152			*		10TCP-Q10
C44	5 N150 50V	EA2525			*		10TCP-V50
C45	39 N150 50V 10%	EA18X141			*		10TCP-Q39
C47	.047 50V 10%			DPMS2S47	M192P4739R8	QFT2-171	1FT-S47
C48	.0022 50V 10%			DPMS6D22	M192P2229R8	QFT2-27	1FT-D22
C49	.022 50V 10%			DPMS2S22	M192P2239R8	QFT2-127	1FT-S22
C53	.033 50V 10%			DPMS6S33	M192P3339R8	QFT2-149	1FT-S33
C54	270 50V 10%		DTZ-270				10TCC-T27
C55	.0047 50V 10%		DD-472	GP4700	GP247		5GA-D47
C57	.01 50V 10%			WMF151	M192P1039R8	QFT2-91	1FT-S10
C58	390 50V 10%		DD-391	GP390	GP339		10TS-T39
C61	270 50V 5%		DTZ-270				10TCC-T27
C62	.068 50V 10%	EA22X24					
C64	390 50V 10%		DD-391	GP390	GP339		10TS-T39
C65	.068 50V 10%	EA22X24					
C74	.0022 50V 10%			DPMS6D22	M192P2229R8	QFT2-27	1FT-D22
C77A	.047 50V 10%			DPMS2S47	M192P4739R8	QFT2-171	1FT-S47
C77B	.047 50V 10%			DPMS2S47	M192P4739R8	QFT2-171	1FT-S47
C80	.0022 50V 10%			DPMS6D22	M192P2229R8	QFT2-27	1FT-D22
C86	.047 50V				MAG5015		
C87	.01 50V		UK50-103		MAG5011		
C88	.0022 50V				GP222		10TS-D22
C89	.01 50V		UK50-103		MAG5011		
C90	.01 50V		UK50-103		MAG5011		
C91	.01 50V		UK50-103		MAG5011		
C92	.01 50V		UK50-103		MAG5011		
C93	.047 50V		UK50-503		MAG5015		
C94	.047 50V		UK50-503		MAG5015		
C100	100 N150 50V 10%	EA18X186			*		10TCP-T10
C101	.01 50V		UK50-103		MAG5011		
C102	.0047 50V		DD-472	GP4700	GP247		5GA-D47
C104	.01 50V		UK50-103		MAG5011		
C105	.01 50V		UK50-103		MAG5011		
C106	.047 50V		UK50-503		MAG5015		
C203	.01 50V		UK50-103		MAG5011		
C204	.022 50V		DC-253	MGP025	TA125		TG-S25
C205	.01 50V		UK50-103		MAG5011		
C206	33 N150 50V 10%	EA31X194			*		10TCP-Q33
C207	220 N150 50V 10%	EA18X218			*		10TCP-T22
C208	150 N150 50V 10%	EA18X217			*		10TCP-T15
C209	.001 50V 10%			DPMS6D1	M192P10292	QFT2-1	1FT-D10
C210	22 N150 50V	EA18X155			*		10TCP-Q22
C211	.047 50V				MAG5015		
C212	33 N150 50V 10%	EA31X194	UK50-503		*		10TCP-Q33
C213	12 N150 50V 10%	EA18X248			*		10TCP-Q12
C214	.01 50V		UK50-103		MAG5011		
C215	27 N150 50V	EA18X181			*		10TCP-Q27
C216	.001 50V 10%			DPMS6D1	M192P10292	QFT2-1	1FT-D10
C217	220 N150 50V 10%	EA18X218			*		10TCP-T22
C218	.0022 50V		DD-472	GP4700	GP247		5GA-D47
C220	.01 50V		UK50-103		MAG5011		
C221	100 N150 10%	EA18X254			*		10TCP-T10
C222	.001 50V		DD-102		GP210		10TS-D10
C223	.001 50V		DD-102		GP210		10TS-D10
C224	.0018 50V 10%	RT5774			*		
C225	2 N150 50V	EA18X160			*		10TCP-V22
C226	.01 50V		UK50-103		MAG5011		

PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

CAPACITORS (cont)

CAPACITORS (cont.)			REPLACEMENT DATA					
ITEM No.	RATING	MFR. PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.		
						Q-LINE	GENERAL LINE	
C227	10 N150 50V	EA18X152			*		10TCP-Q10	
C228	33 N150 50V 10%	EA31X194			*		10TCP-Q33	
C229	15 N150 50V	EA18X200			*		10TCP-Q15	
C230	82 N150 50V 10%	EA18X234			*		10TCP-Q82	
C231	56 N150 50V 10%	EA18X207			*		10TCP-Q56	
C232	.01 50V		UK50-103		MAG5011			
C234	.01 50V		UK50-103		MAG5011			
C235	3 N150 50V	EA18X174			*		10TCP-V30	
C236	.01 50V		UK50-103		MAG5011			
C238	.01 50V		UK50-103		MAG5011			
C239	.01 50V		UK50-103		MAG5011			
C240	.01 50V		UK50-103		MAG5011			
C241	82 N150 50V 10%	EA18X234			*		10TCP-Q82	
C242	39 N150 50V 10%	EA18X141			*		10TCP-Q39	
C243	.047 50V		UK50-503		MAG5015			
C244	47 N150 50V 10%	EA18X246			*		10TCP-Q47	
C245	.01 50V		UK50-103		MAG5011			
C246	390 NPO 50V			GP330	GP333		10TCC-139	
	330 50V		DD-331	MGP025	TA125		10TS-T33	
C247	.022 50V		DC-253		*		TG-S25	
C248	82 N150 50V 10%	EA18X234			*		10TCP-Q82	
C249	220 NPO 50V		DTZ-220				10TCC-T22	
C250	.047 50V		UK50-503		MAG5015			
C251	47 N150 50V 10%	EA18X246			*		10TCP-Q47	
C252	270 NPO 50V 10%		DTZ-270				10TCC-T27	
C253	560 50V 10%		DD-561		GP356		10TS-T56	
C254	470 NPO 50V	EA18X220			*			
C255	330 NPO 50V	EA18X170			*		10TCC-T33	
C257	.022 50V		DC-253	MGP025	TA125		TG-S25	
C258	.01 50V		UK50-103		MAG5011			
C259	5 N150 50V				*		10TCP-V50	
C260	33 N150 50V 10%	EA31X194			*		10TCP-Q33	
C262	33 N150 50V 10%				*		10TCP-Q33	
C263	.047 50V 10%			DPMS2S47	M192P4739R8	QFT2-171	1FT-S47	
C265	.01 50V		UK50-103		MAG5011			
C266	.01 50V		UK50-103		MAG5011			
C268	.01 50V		UK50-103		MAG5011			
C269	.01 50V		UK50-103		MAG5011			
C270	.01 50V		UK50-103		MAG5011			
C271	.01 50V		UK50-103		MAG5011			
C272	47 N150 50V 10%				*		10TCP-Q47	
	18 50V				CN0418		10TCC-Q18	
C273	220 N150 50V 10%				*		10TCP-T22	
C274	.0033 50V 10%			WMF1D33	M192P3329R8	QFT2-43	1FT-D33	
C275	220 N150 50V 10%				*		10TCP-T22	
C276	.01 50V		UK50-103		MAG5011			
C278	82 N150 50V 10%	EA18X234			*		10TCP-Q82	
C279	2 N150 50V	EA18X160			*		10TCP-V22	
C280	.01 50V		UK50-103		MAG5011			
C281	.01 50V		UK50-103		MAG5011			
C283	.01 50V		UK50-103		MAG5011			
C285	.01 50V		UK50-103		MAG5011			
C287	3 N150 50V				*		10TCP-V30	
C288	.047 50V		UK50-503		MAG5015			
C289	.022 50V		DC-253	MGP025	TA125		TG-S25	
C290	.022 50V		DC-253	MGP025	TA125		TG-S25	
C291	.047 50V		UK50-503		MAG5015			
C292	.047 50V		UK50-503		MAG5015			
C293	15 N150 50V	EA18X200			*		10TCP-Q15	
C294	15 N150 50V	EA18X200			*		10TCP-Q15	
C295	.01 50V		UK50-103		MAG5011			
C296	.01 50V		UK50-103		MAG5011			
C298	.01 50V		UK50-103		MAG5011			
C300	3 N150 50V				*		10TCP-V30	
C301	3 N150 50V				*		10TCP-V30	
C302	.022 50V		DC-253	MGP025	TA125		TG-S25	
C304	.01 50V		UK50-103		MAG5011			
C308	.047 50V		UK50-503		MAG5015			
C309	33 N150 50V 10%				*		10TCP-Q33	
C501	.01 50V		UK50-103		MAG5011			
C502	.001 50V		DD-102		GP210		10TS-D10	
C503	.01 50V		UK50-103		MAG5011			
C504	.01 50V		UK50-103		MAG5011			
C505	.01 50V		UK50-103		MAG5011			
C506	.001 50V		DD-102		GP210		10TS-D10	
C507	.047 50V		UK50-503		MAG5015			
C508	.047 50V		UK50-503		MAG5015			
C510	.001 50V		DD-102		GP210			
C511	.033 50V 10%			DPMS6S33	M192P3339R8	QFT2-149	10TS-D10	
C512	.022 50V 10%			DPMS2S22	M192P2239R8	QFT2-127	1FT-S33	
CT1	20	EA30X62					1FT-S22	
CT2	20	EA30X62						
CT201	20	EA30X62						
CT202	20	EA30X62						
CT203	20	EA30X62						

* Not normally in distributor's stock. Available thru distributor on order to manufacturer.

PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

CONTROLS (All wattages 1/2 watt, or less, unless listed)

ITEM No.	FUNCTION	RESISTANCE	REPLACEMENT DATA			
			MFGR. PART No.	CENTRALAB PART No.	MALLORY PART No.	TRW PART No.
RV1	Carrier Balance	1000	EA49X434			U260R102B
RV2	Carrier Balance	10K	EA49X435			U260R103B
RV3	SSB Mod Gain	1000	EA49X360			U260R102B
RV4	SSB S Meter	2000				U260R252B
	SSB S Meter	5000	EA49X359			U260R502B
RV5	AM S Meter	10K	EA49X363			U260R103B
RV6	SSB AGC Range	5000	EA49X359			U260R502B
RV7	AM Squelch Range	20K	EA49X332			U260R253B
RV8	SSB Squelch Range	100K	EA49X436			U260R104B
	SSB Squelch Range	200K	EA49X361			U260R254B
RV9	AF ALC	1000	EA49X360			U260R102B
RV10	RF Gain Range	100K	EA49X436			U260R104B
RV201	SSB RF ALC	5000	EA49X437			U260R502B
RV202	RF Power Meter	20K	EA49X332			U260R253B
RV203	AWI	50K	EA49X438			U260R503B
RV240	Bias	500	EA49X439	T-500 (2)	MTC52L1 (2)	X201R501B (2)
VR1	AM Power	6 5W	EA49X429			
VR2	Volume/Power Switch	50K	EA49X430			
VR3	Squelch	50K	EA49X431			
VR4a	MIC Power	5000	EA49X432			
VR4b	RF Gain	50K				
VR5	Clarifier	50K	EA49X433			

(2) Cut off one of the end terminals and bend to fit PC board.

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		ITEM No.	RATING	REPLACEMENT DATA	
		MFGR. PART No.	WORKMAN PART No.			MFGR. PART No.	WORKMAN PART No.
QP1	6000 Cold NTC			RA2	Resistor Array(1)	EA42X4	
RA1	Resistor Array(1)	EA42X4					

(1) Consists of seven 1.8k ohm resistors.

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L1	Oscillator (10.695MHz)	EA35X135		9310-34	
L3	RF Choke (150uH)	EA36X377			
L4	RF Choke (150uH)	EA36X377			
L5	RF Choke (150uH)	EA36X377			
L6	RF Choke (150uH)	EA36X377			
L7	RF Choke (150uH)	EA36X263			
L8	RF Choke (150uH)	EA36X263			
L202	Oscillator (10.0525MHz)	EA36X237		70F226AI	
L203	RF Choke (68uH)	EA36X239			
L204	Mixer/RF ALC (1.95uH)	EA36X290			
L205	RF Choke (.75uH)	EA36X294			
L206	Predriver (.75uH)	EA36X293			
L207	RF Choke (.75uH)	EA36X294			
L208	RF Choke (.75uH)	EA36X293			
L209	Driver (27MHz)	EA36X292			
L210	RF Choke (.75uH)	EA36X293			
L212	Final Loading (.335uH)	EA36X295			
L213	Pi Filter (.11uH)	EA36X297			
L214	Antenna Loading (27MHz)	EA36X378			
L215	RF Choke (68uH)	EA36X239			
T1	Mixer (455kHz)	EA36X288			
T2	AM IF Amp (455kHz)	EA36X379			
T3	SSB IF Amp (10.694MHz)	EA36X286			
T4	SSB IF Amp (10.694MHz)	EA36X286			
T201	Oscillator (20MHz)	EA36X281			
T202	VCO (37MHz)	EA36X258			
T203	Mixer (37MHz)	EA36X280			
T204	RF Amp (27MHz)	EA36X282			
T205	RF Amp (27MHz)	EA36X283			
T206	Rec RF (27MHz)	EA36X249			
T207	Noise Blanker(10.695MHz)	EA36X380			
T208	Mixer (10.695MHz)	EA36X380			
T209	Preamplifier (27MHz)	EA36X284			

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA			NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
CH	1.7A	.241	3.72mH	EA36X256 LJ119H004W (1)			(1) Number on unit.

PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP	3 1/2" PM 8 Ohms	EA95X127	3A05Z8	

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T5	8	8	EA36X37 TBG28A001W (1)		MCB26	(1) Number on unit.

FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA						
		PART No.		BUSS PART No.		LITTELFUSE PART No.		WORKMAN PART No.
		DEVICE	HOLDER	DEVICE	HOLDER	DEVICE	HOLDER	DEVICE
F1	3A Quick Acting	EA10X29	EA68X119	AGC3	HDJ	312003	150145	FG3-2

MICROPHONE

MICROPHONE											
ITEM No.	REPLACEMENT DATA				CONNECTION DATA						
	MFGR. PART No.	GC PART No.	GC NOISE CANCEL	GC POWER	GC CONNECTOR	GC Red	GC Shield	GC Yellow	GC Blue	GC White	GC Black
MIC	EA68X123B	18-032	18-034	18-010	18-092	1	2	4	3	NC	2

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
CF1	Filter	EA36X232	455kHz
F201	Ferrite Bead	EA2X941	
F202	Ferrite Bead	EA2X941	
F203	Ferrite Bead	EA2X941	
J1	Jack	EA41X203	Antenna
J2	Jack	EA41X135	PA Speaker
J3	Jack	EA41X135	External Speaker
J4	Jack	EA41X156	
J5	Jack	EA41X176	
L20	Ferrite Bead	EA2X941	
LED301	LED	EA16X308	Channel Readout, Tens and Units (1.57V @ 5.7mA each segment)
MXF-1	Filter	EA36X376	10.694MHz
MXF-2	Filter	EA36X333	10.695MHz
PL1	Lamp	EA41X202	Meter (5.0V @ 65mA)
PL3	Lamp	EA41X202	AWI, Red (4.7V @ 30mA)
S1	Switch		Power On/Off (Part of Volume Control)
S2	Switch	EA55X148	LSB/AM/USB
S3	Switch	EA39X227	Off/NB/NB & ANL
S4	Switch	EA39X225	Tone, (HI/Low)
S5	Switch	EA55X133	CB/CB-PA/PA
SW1	Switch	EA93X342	Channel Selector
X1	Crystal	EA75X4	10.695MHz
X201	Crystal	EA75X6	10.240MHz
X202	Crystal	EA75X9	10.0525MHz
	Plug	EA8X195	9 Pin
	Plug	EA8X196	12 Pin
	Plug	EA8X197	6 Pin
	Plug	EA8X198	9 Pin
	Socket	EA34X53	9 Pin
	Socket	EA34X54	12 Pin
	Socket	EA34X55	6 Pin
	Socket	EA34X53	9 Pin
	P.C. Board	EA93X343	Channel Readout w/LED
	P.C. Board	EA93X344	RF w/Components
	P.C. Board	EA93X345	IF/Audio w/Components

CABINETS & CABINET PARTS (When ordering specify model, chassis & color)

ITEM	PART No.	ITEM	PART No.
Cabinet, Bottom	EA98X603	Knob, Fine Clarifier	EA43X831
Cabinet, Top	EA98X602	Knob, Rapid Clarifier	EA43X832
Knob, Channel Selector	EA43X683	Knob, RF Gain	EA43X729
Knob, Mic Gain	EA43X730	Knob, Volume/Squelch	EA43X727
Knob, Mode Selector	EA43X687	Panel, Control	EA90X225