

# PHOTOFACT<sup>®</sup> with

# CIRCUITRACE<sup>®</sup>

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 934.38080700

## MANUFACTURER'S SPECIFICATIONS

### Receiver

|                      |                                                      |
|----------------------|------------------------------------------------------|
| Frequency Coverage:  | All 40 CB Channels (Class D)<br>26.965 to 27.405 MHz |
| Sensitivity :        | 0.5 $\mu$ V for 10 dB S + N/N                        |
| Selectivity :        | 50 dB $\pm$ 10 KHz                                   |
| IF Frequency :       | 1st IF : 10.695 MHz<br>2nd IF : 455 KHz              |
| Audio Output :       | 5W (maximum)                                         |
| Frequency Response : | 400—2000 Hz                                          |
| Squelch :            | Adjustable                                           |

### Transmitter

|                            |                                                                                        |
|----------------------------|----------------------------------------------------------------------------------------|
| Frequency Coverage :       | All 40 CB Channels (Class D)<br>26.965 to 27.405 MHz                                   |
| Power Output :             | 4W (maximum)                                                                           |
| Emission :                 | 6A3                                                                                    |
| Modulation :               | $\pm$ 90%                                                                              |
| Spurious Radiation :       | 65 dB                                                                                  |
| RF Frequency Stability :   | 0.002%                                                                                 |
| Antenna Impedance :        | 50 ohms                                                                                |
| Semiconductor Complement : | 2 IC's<br>22 Transistors<br>3 FET's<br>25 Diodes                                       |
| Microphone :               | Dynamic                                                                                |
| Power Requirements :       | DC 13.8V positive or negative ground                                                   |
| Dimensions :               | 2 $\frac{3}{8}$ "(H)x7 $\frac{11}{16}$ "(W)x8 $\frac{5}{8}$ "(D)<br>(6.0x19.5x21.9 cm) |
| Weight :                   | 3 lbs. 15 oz. (1.8Kg)                                                                  |

Courtesy of the Manufacturer

SEARS MODEL 934.38080700

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

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## 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, T11 thru T15, T301, T302 ..... 9440  
T3, T4, T5 ..... 5000, 5009, 8276, 8728, 8728A  
T15 ..... 8282, 8606, 9302, 9440  
T201, T206, T207, T208 ..... 5000, 5009, 8276, 8728, 8728A  
T202 thru T205 ..... 9440

## SYNTHESIZER ALIGNMENT

| TEST EQUIPMENT                                      | TRANSCEIVER                    | ADJUST           | REMARKS                                                                                    |
|-----------------------------------------------------|--------------------------------|------------------|--------------------------------------------------------------------------------------------|
| Input of oscilloscope to TP1 (P201 Pin 6).          | Ch. 19                         | T208             | Adjust for maximum RF output.                                                              |
| Input of frequency counter to TP1 (P201 Pin 6).     | Ch. 19<br>Fine Tuning Midrange |                  | Check for 10.240MHz.                                                                       |
| Input of frequency counter to TP2 (IC201 Pin 9).    | Ch. 19<br>Fine Tuning Midrange |                  | Check for 5.120MHz.                                                                        |
| Input of oscilloscope to TP3 (T206 Secondary).      | Ch. 19<br>Fine Tuning Midrange | T206             | Adjust for maximum RF output.                                                              |
| Input of frequency counter to TP3 (T206 Secondary). | Ch. 19<br>Fine Tuning Midrange |                  | Check for 15.360MHz.                                                                       |
| Input of DC meter to TP4 (junction of R203 & R206). | Ch. 1<br>Fine Tuning Midrange  | T201             | Adjust for 1.80 volts.                                                                     |
| Input of frequency counter to TP5 (IC201 Pin 13).   | Ch. 1<br>Fine Tuning Midrange  |                  | Check for .910MHz.<br>Check all channels.<br>(See Truth Chart for correct frequencies.)    |
| Input of oscilloscope to TP6 (P211).                | Ch. 19                         | T202             | Adjust for maximum RF output.                                                              |
| Input of frequency counter to TP6 (P211).           | Ch. 1<br>Fine Tuning Midrange  |                  | Check for 16.270MHz.<br>Check all channels.<br>(See Truth Chart for correct frequencies.)  |
| Input of frequency counter to TP7 (Q210 Emitter).   | Ch. 19 XMT                     |                  | Check for 10.695MHz.                                                                       |
| Input of oscilloscope to TP8 (T207 Secondary).      | Ch. 19 XMT                     | T207             | Adjust for maximum RF output.                                                              |
| Input of oscilloscope to TP9 (P201 Pin 2).          | Ch. 19 XMT                     | T203, T204, T205 | Adjust for maximum RF output.                                                              |
| Input of frequency counter to TP9 (P201 Pin 2).     | Ch. 1 XMT                      | R222             | Adjust for 26.965MHz.<br>Check all channels.<br>(See Truth Chart for correct frequencies.) |

## 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.  
Fine tuning midrange, RF gain maximum, squelch MINIMUM, NB off.

| TEST EQUIPMENT                                                                                 | TRANSCEIVER | ADJUST     | REMARKS                                                                         |
|------------------------------------------------------------------------------------------------|-------------|------------|---------------------------------------------------------------------------------|
| Output of signal generator thru .01uF to TP10 (Q3 Base).<br>455kHz, 1000Hz @ 30% modulation.   | Ch. 19      | T5, T4, T3 | Adjust for maximum output.                                                      |
| Output of signal generator thru .01uF to antenna input.<br>27.185MHz, 1000Hz @ 30% modulation. | Ch. 19      | T2, T1     | Adjust for maximum output.<br>If necessary, readjust T3, T4 and T5 for maximum. |



## RECEIVER ALIGNMENT (Continued)

| TEST EQUIPMENT                                                                                                                                    | TRANSCIEVER | ADJUST    | REMARKS                                                                                                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Output of signal generator thru .01uF to antenna input.<br>27.185MHz, 1000Hz @ 30% modulation.<br>Input of oscilloscope to TP11 (Q303 Collector). | Ch. 19      | T301,T302 | Set generator output for 10db signal to noise plus noise level of receiver.<br>Inject a 100pps, 1uSec. pulse width signal at antenna input, switch NB to on and adjust for maximum amplitude pulses. |

## RECEIVER ADJUSTMENTS

Connect an AC VTVM or AF wattmeter across speaker voice coil.  
Adjust volume control to obtain a suitable indication.  
Fine tuning midrange, RF gain maximum, squelch MINIMUM, NB off.

| TEST EQUIPMENT                                                                                                     | TRANSCIEVER | ADJUST | REMARKS                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------|-------------|--------|--------------------------------------------------------------------------------------------------------------------------------|
| Output of signal generator thru .01uF to antenna input.<br>27.185MHz, 1000Hz @ 30% modulation.<br>Output 50,000uV. | Ch. 19      | RT1    | MIXER GAIN<br>Set volume RV2 for 0db.<br>Decrease generator output to 10uV. Adjust so that audio does not drop more than 10db. |
| Output of signal generator thru .01uF to antenna input.<br>27.185MHz, 1000Hz @ 30% modulation.<br>Output 100uV.    | Ch. 19      | RT2    | S METER<br>Adjust for 9 on S scale of meter.                                                                                   |

SEARS MODEL 934.38080700

## 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                                                         | TRANSCIEVER | ADJUST      | REMARKS                                 |
|------------------------------------------------------------------------|-------------|-------------|-----------------------------------------|
| Input of RF wattmeter and 50-ohm, 25-watt dummy load to antenna input. | Ch. 19      | T11,T12,T13 | Adjust for maximum RF output.           |
| Input of RF wattmeter and 50-ohm, 25-watt dummy load to antenna input. | Ch. 19      | T14,T15     | Adjust for 4.0 watts RF output maximum. |

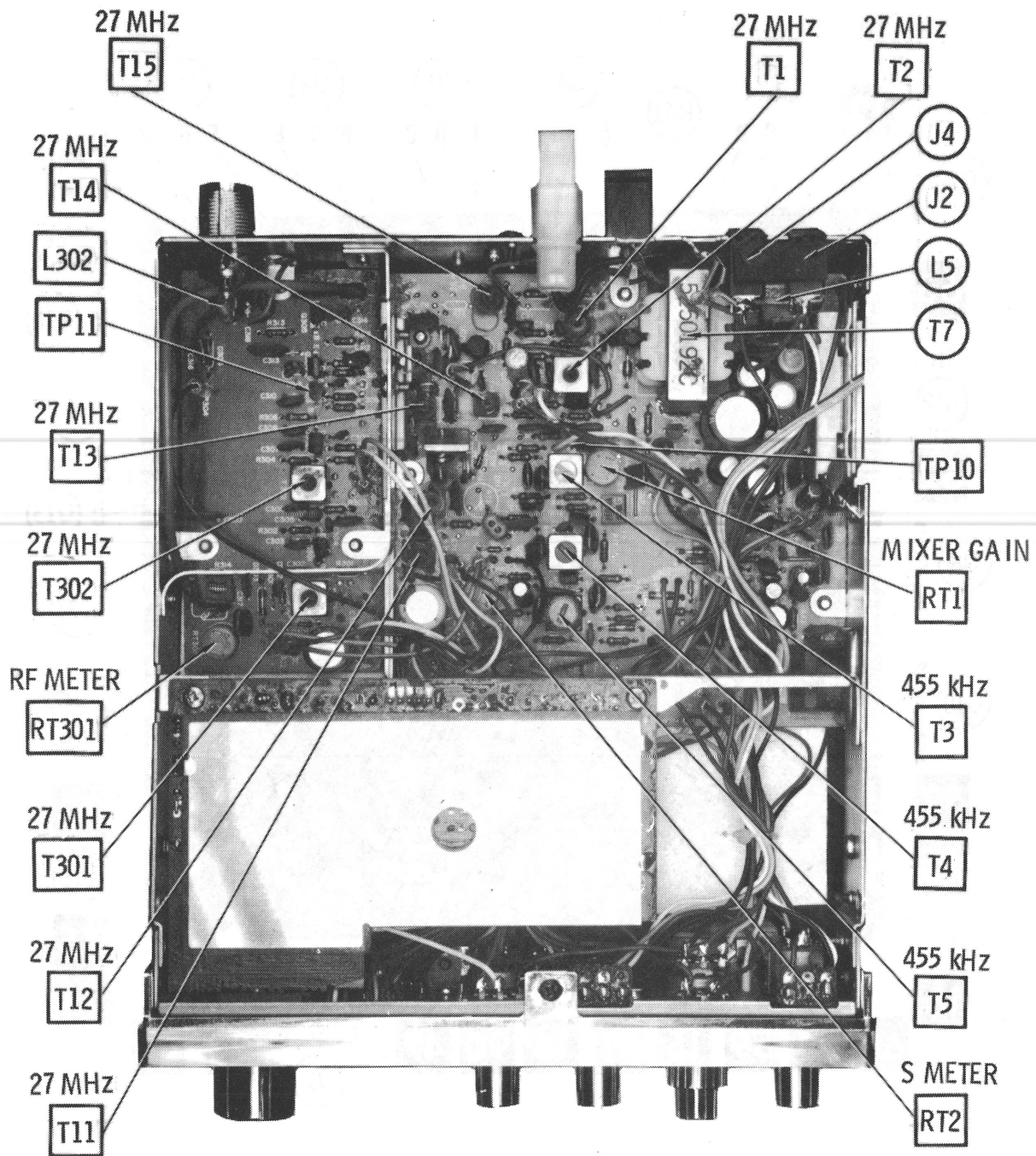
## TRANSMITTER ADJUSTMENTS

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.

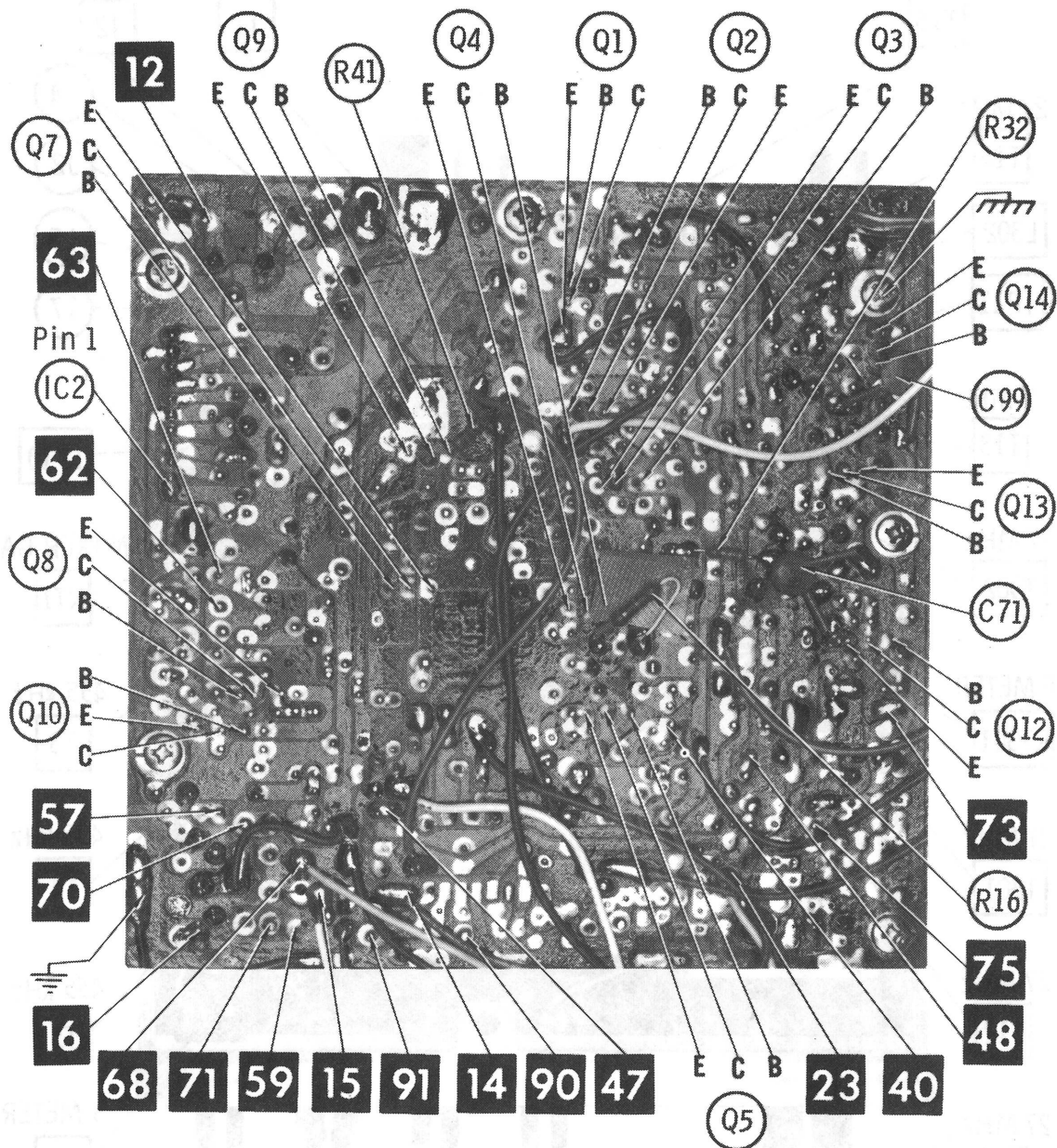
| TEST EQUIPMENT                                                         | TRANSCIEVER | ADJUST | REMARKS                                                       |
|------------------------------------------------------------------------|-------------|--------|---------------------------------------------------------------|
| Input of RF wattmeter and 50-ohm, 25-watt dummy load to antenna input. | Ch. 19      | RT301  | RF METER<br>Adjust so that RF meter agrees with RF wattmeter. |

# TRUTH CHART

| CHANNEL | 1 = 5.18 Volts                      0 = 0 Volts |   |   |   |   |   |  |  | DIVIDER<br>INPUT<br>IN MHz AT<br>TP5 | REC SYNTH<br>OUTPUT<br>IN MHz AT<br>TP6 | XMT SYNTH<br>OUTPUT<br>IN MHz AT<br>TP9 |
|---------|-------------------------------------------------|---|---|---|---|---|--|--|--------------------------------------|-----------------------------------------|-----------------------------------------|
|         | IC201<br>PROGRAM DIVIDER                        |   |   |   |   |   |  |  |                                      |                                         |                                         |
|         | PINS                                            |   |   |   |   |   |  |  |                                      |                                         |                                         |
|         | 6                                               | 5 | 4 | 3 | 2 | 1 |  |  |                                      |                                         |                                         |
| 1       | 0                                               | 0 | 0 | 0 | 0 | 1 |  |  | .910                                 | 16.270                                  | 26.965                                  |
| 2       | 0                                               | 0 | 0 | 0 | 1 | 0 |  |  | .920                                 | 16.280                                  | 26.975                                  |
| 3       | 0                                               | 0 | 0 | 0 | 1 | 1 |  |  | .930                                 | 16.290                                  | 26.985                                  |
| 4       | 0                                               | 0 | 0 | 1 | 0 | 0 |  |  | .950                                 | 16.310                                  | 27.005                                  |
| 5       | 0                                               | 0 | 0 | 1 | 0 | 1 |  |  | .960                                 | 16.320                                  | 27.015                                  |
| 6       | 0                                               | 0 | 0 | 1 | 1 | 0 |  |  | .970                                 | 16.330                                  | 27.025                                  |
| 7       | 0                                               | 0 | 0 | 1 | 1 | 1 |  |  | .980                                 | 16.340                                  | 27.035                                  |
| 8       | 0                                               | 0 | 1 | 0 | 0 | 0 |  |  | 1.000                                | 16.360                                  | 27.055                                  |
| 9       | 0                                               | 0 | 1 | 0 | 0 | 1 |  |  | 1.010                                | 16.370                                  | 27.065                                  |
| 10      | 0                                               | 1 | 0 | 0 | 0 | 0 |  |  | 1.020                                | 16.380                                  | 27.075                                  |
| 11      | 0                                               | 1 | 0 | 0 | 0 | 1 |  |  | 1.030                                | 16.390                                  | 27.085                                  |
| 12      | 0                                               | 1 | 0 | 0 | 1 | 0 |  |  | 1.050                                | 16.410                                  | 27.105                                  |
| 13      | 0                                               | 1 | 0 | 0 | 1 | 1 |  |  | 1.060                                | 16.420                                  | 27.115                                  |
| 14      | 0                                               | 1 | 0 | 1 | 0 | 0 |  |  | 1.070                                | 16.430                                  | 27.125                                  |
| 15      | 0                                               | 1 | 0 | 1 | 0 | 1 |  |  | 1.080                                | 16.440                                  | 27.135                                  |
| 16      | 0                                               | 1 | 0 | 1 | 1 | 0 |  |  | 1.100                                | 16.460                                  | 27.155                                  |
| 17      | 0                                               | 1 | 0 | 1 | 1 | 1 |  |  | 1.110                                | 16.470                                  | 27.165                                  |
| 18      | 0                                               | 1 | 1 | 0 | 0 | 0 |  |  | 1.120                                | 16.480                                  | 27.175                                  |
| 19      | 0                                               | 1 | 1 | 0 | 0 | 1 |  |  | 1.130                                | 16.490                                  | 27.185                                  |
| 20      | 1                                               | 0 | 0 | 0 | 0 | 0 |  |  | 1.150                                | 16.510                                  | 27.205                                  |
| 21      | 1                                               | 0 | 0 | 0 | 0 | 1 |  |  | 1.160                                | 16.520                                  | 27.215                                  |
| 22      | 1                                               | 0 | 0 | 0 | 1 | 0 |  |  | 1.170                                | 16.530                                  | 27.225                                  |
| 23      | 1                                               | 0 | 0 | 0 | 1 | 1 |  |  | 1.200                                | 16.560                                  | 27.255                                  |
| 24      | 1                                               | 0 | 0 | 1 | 0 | 0 |  |  | 1.180                                | 16.540                                  | 27.235                                  |
| 25      | 1                                               | 0 | 0 | 1 | 0 | 1 |  |  | 1.190                                | 16.550                                  | 27.245                                  |
| 26      | 1                                               | 0 | 0 | 1 | 1 | 0 |  |  | 1.210                                | 16.570                                  | 27.265                                  |
| 27      | 1                                               | 0 | 0 | 1 | 1 | 1 |  |  | 1.220                                | 16.580                                  | 27.275                                  |
| 28      | 1                                               | 0 | 1 | 0 | 0 | 0 |  |  | 1.230                                | 16.590                                  | 27.285                                  |
| 29      | 1                                               | 0 | 1 | 0 | 0 | 1 |  |  | 1.240                                | 16.600                                  | 27.295                                  |
| 30      | 1                                               | 1 | 0 | 0 | 0 | 0 |  |  | 1.250                                | 16.610                                  | 27.305                                  |
| 31      | 1                                               | 1 | 0 | 0 | 0 | 1 |  |  | 1.260                                | 16.620                                  | 27.315                                  |
| 32      | 1                                               | 1 | 0 | 0 | 1 | 0 |  |  | 1.270                                | 16.630                                  | 27.325                                  |
| 33      | 1                                               | 1 | 0 | 0 | 1 | 1 |  |  | 1.280                                | 16.640                                  | 27.335                                  |
| 34      | 1                                               | 1 | 0 | 1 | 0 | 0 |  |  | 1.290                                | 16.650                                  | 27.345                                  |
| 35      | 1                                               | 1 | 0 | 1 | 0 | 1 |  |  | 1.300                                | 16.660                                  | 27.355                                  |
| 36      | 1                                               | 1 | 0 | 1 | 1 | 0 |  |  | 1.310                                | 16.670                                  | 27.365                                  |
| 37      | 1                                               | 1 | 0 | 1 | 1 | 1 |  |  | 1.320                                | 16.680                                  | 27.375                                  |
| 38      | 1                                               | 1 | 1 | 0 | 0 | 0 |  |  | 1.330                                | 16.690                                  | 27.385                                  |
| 39      | 1                                               | 1 | 1 | 0 | 0 | 1 |  |  | 1.340                                | 16.700                                  | 27.395                                  |
| 40      | 1                                               | 0 | 0 | 0 | 0 | 0 |  |  | 1.350                                | 16.710                                  | 27.405                                  |

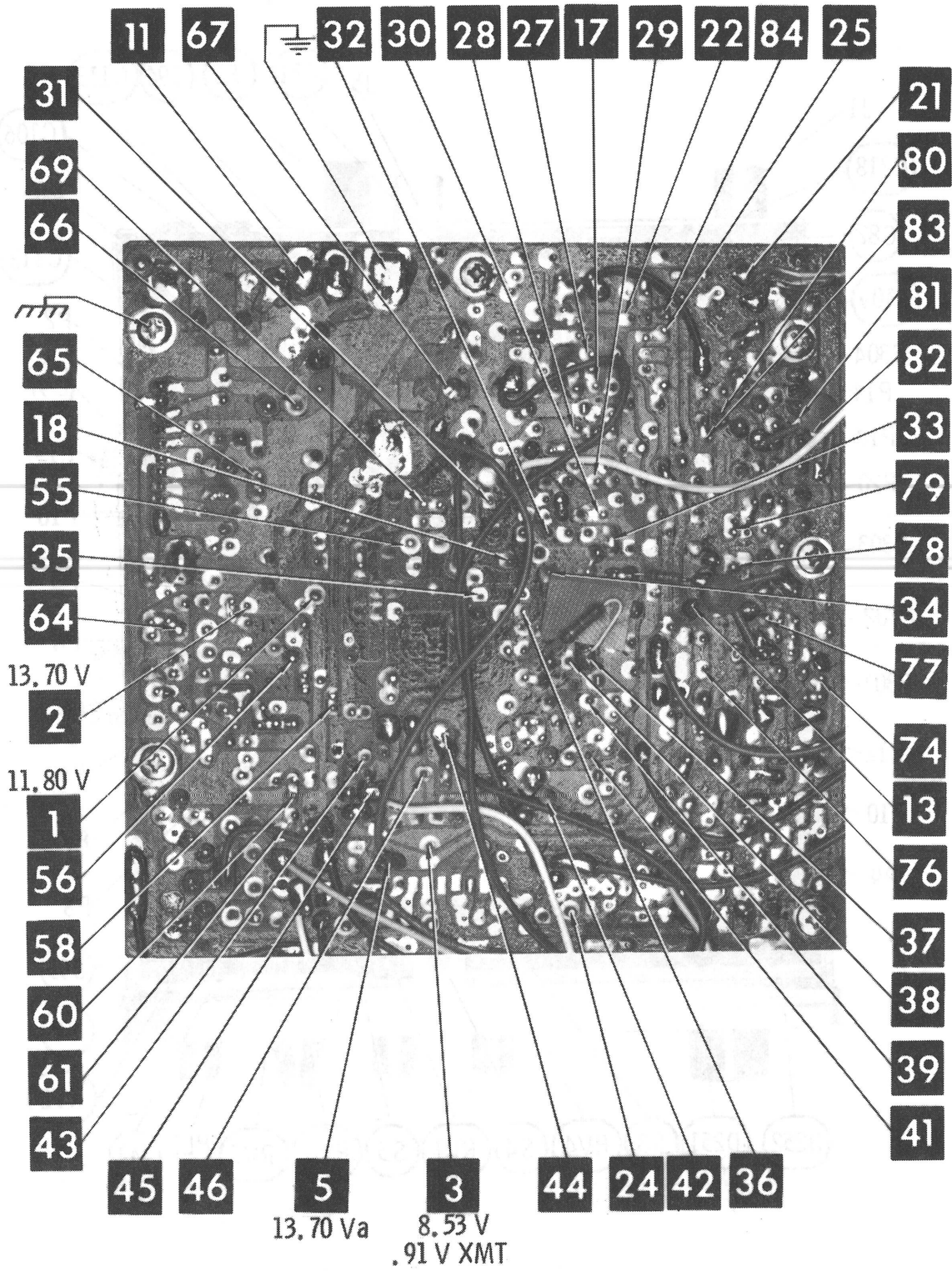


CHASSIS-BOTTOM



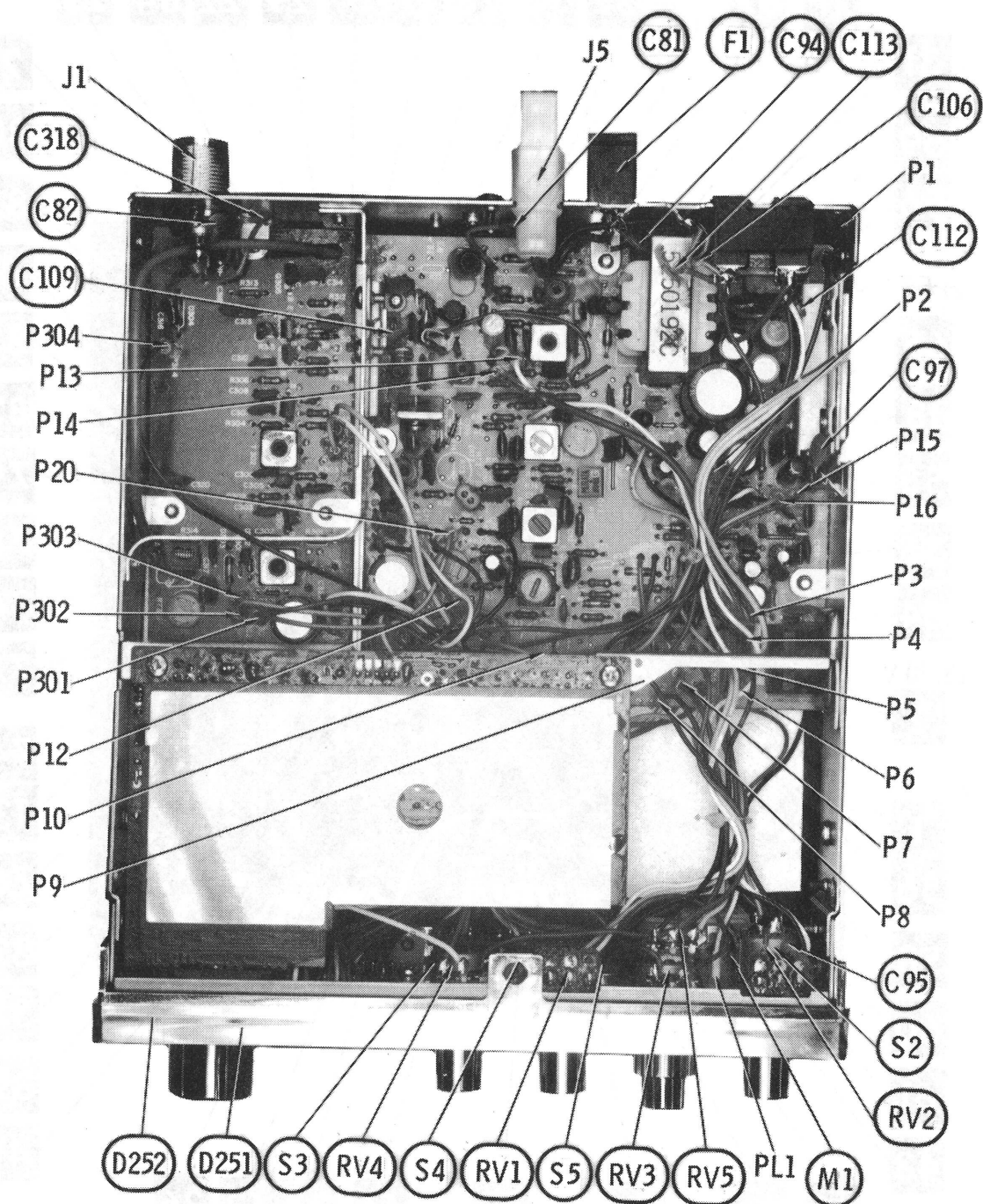
MAIN BOARD



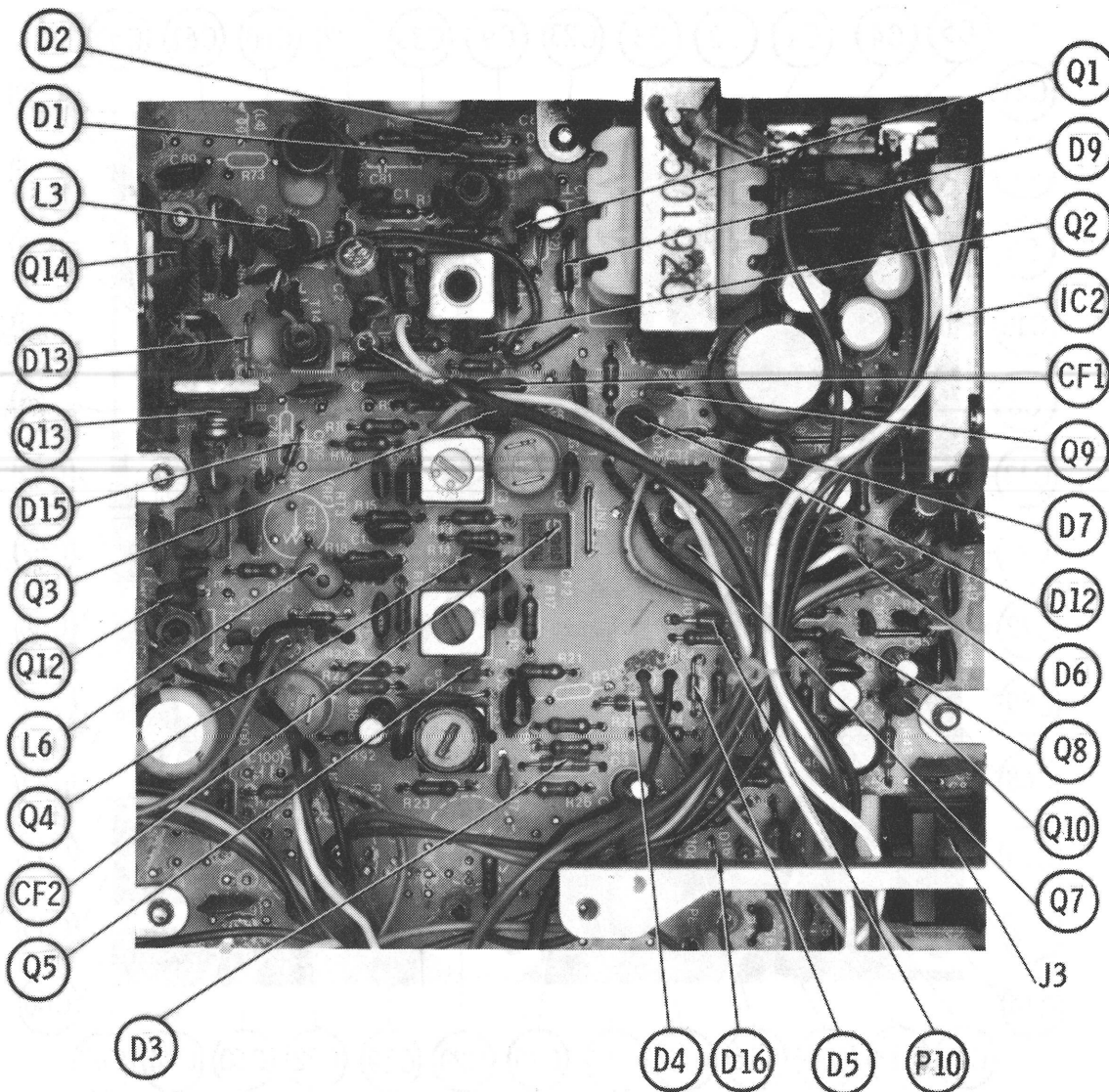


SEARS MODEL 934.38080700

MAIN BOARD

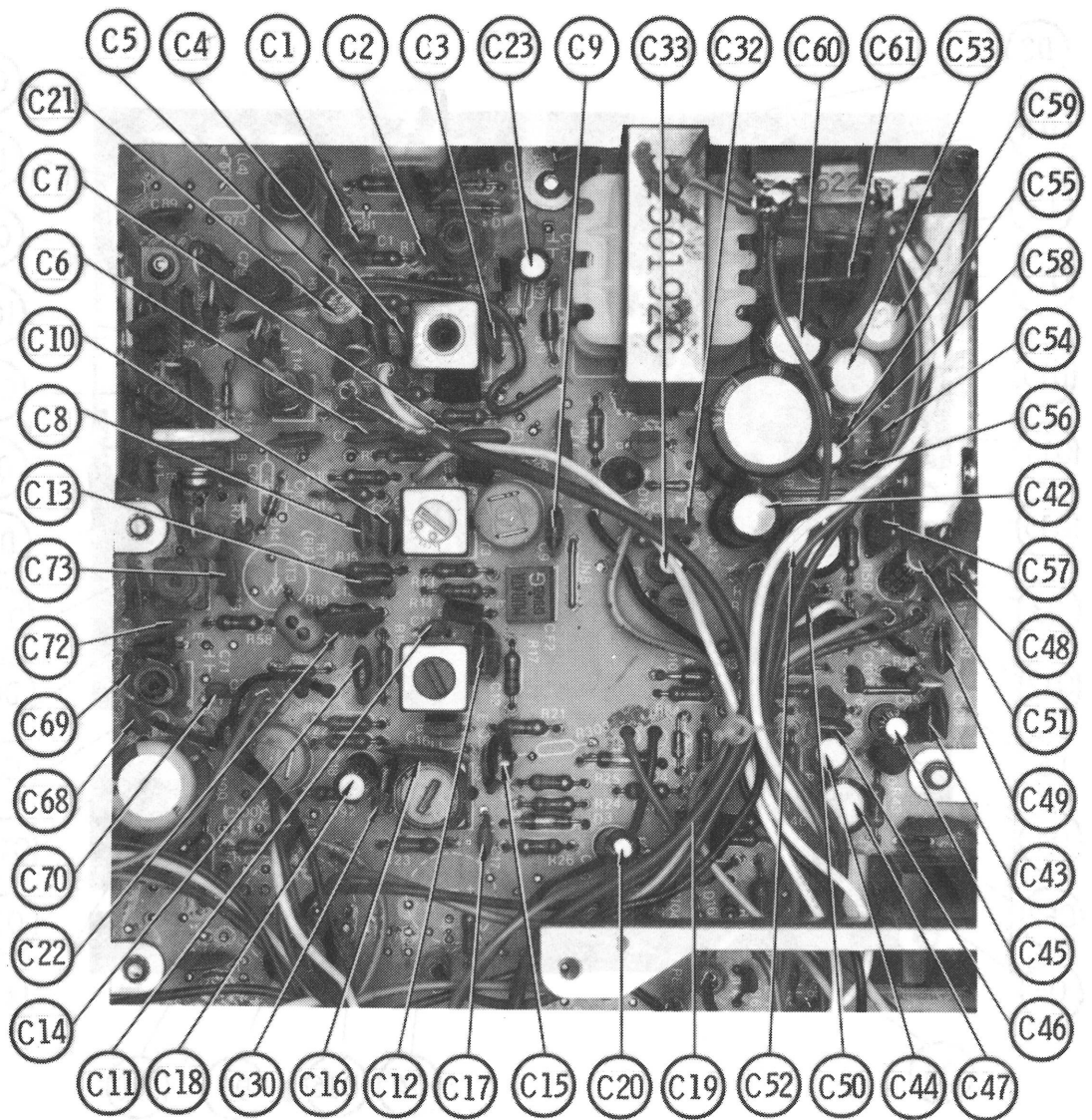


CHASSIS-BOTTOM

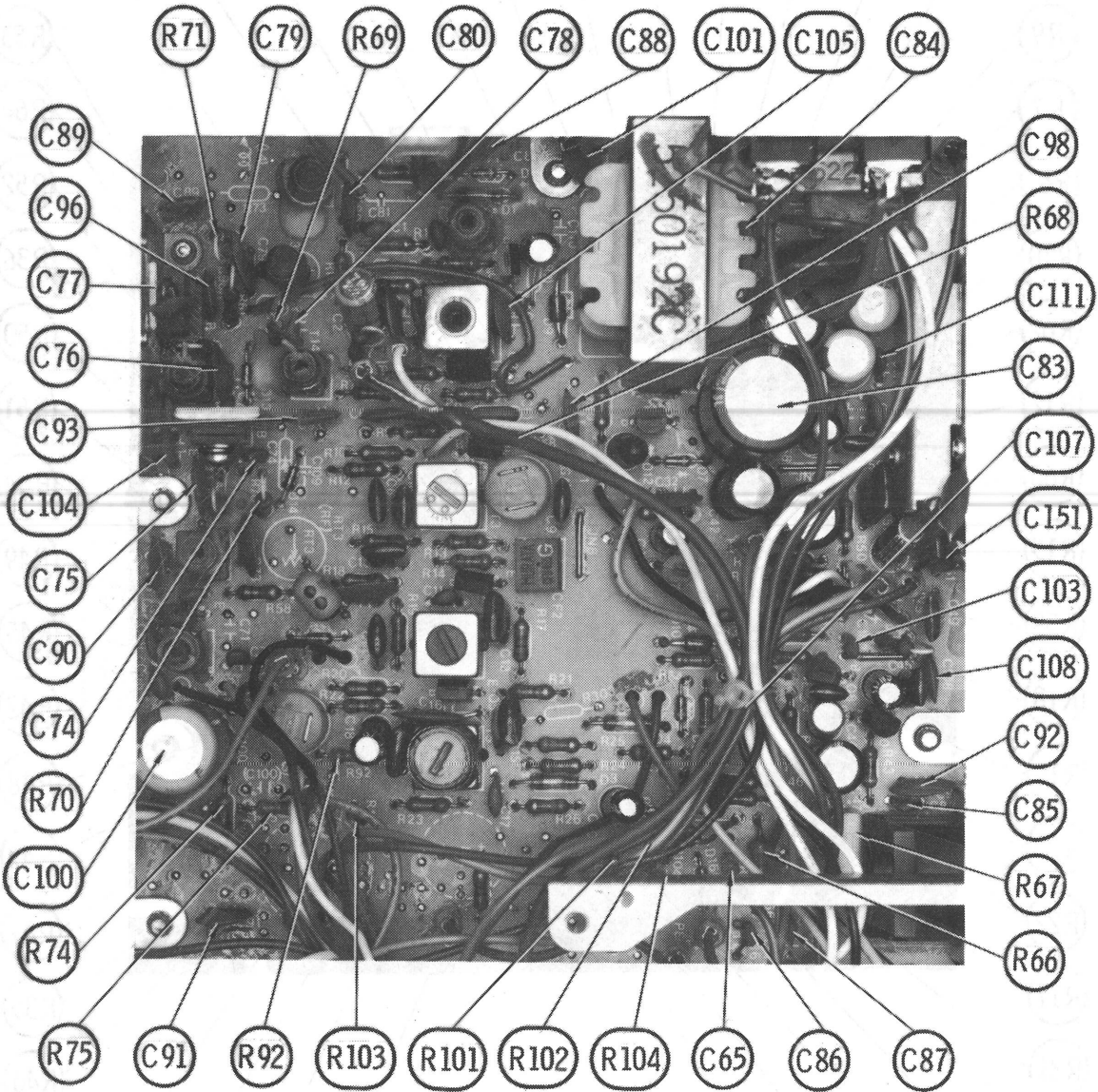


MAIN BOARD

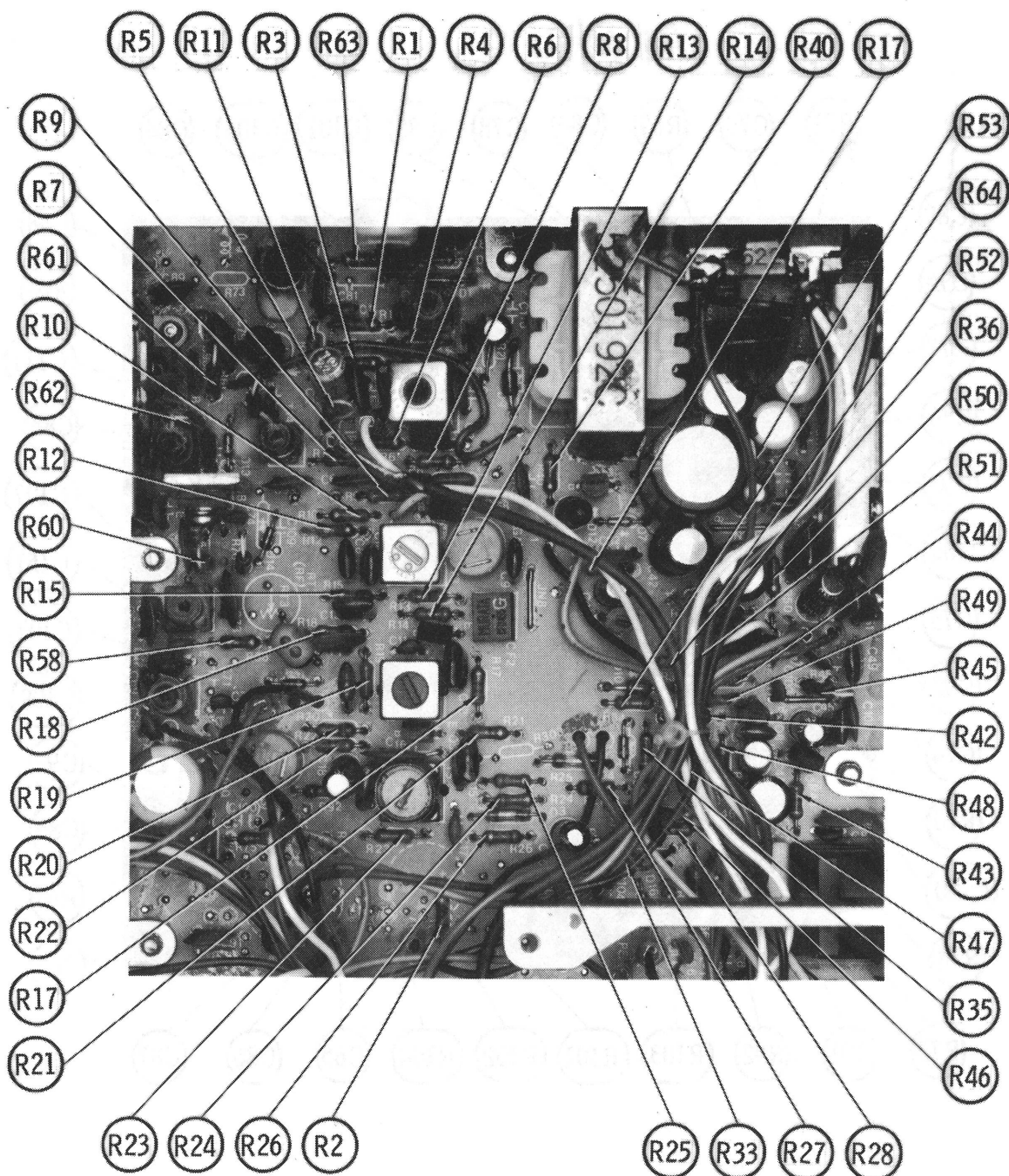




MAIN BOARD

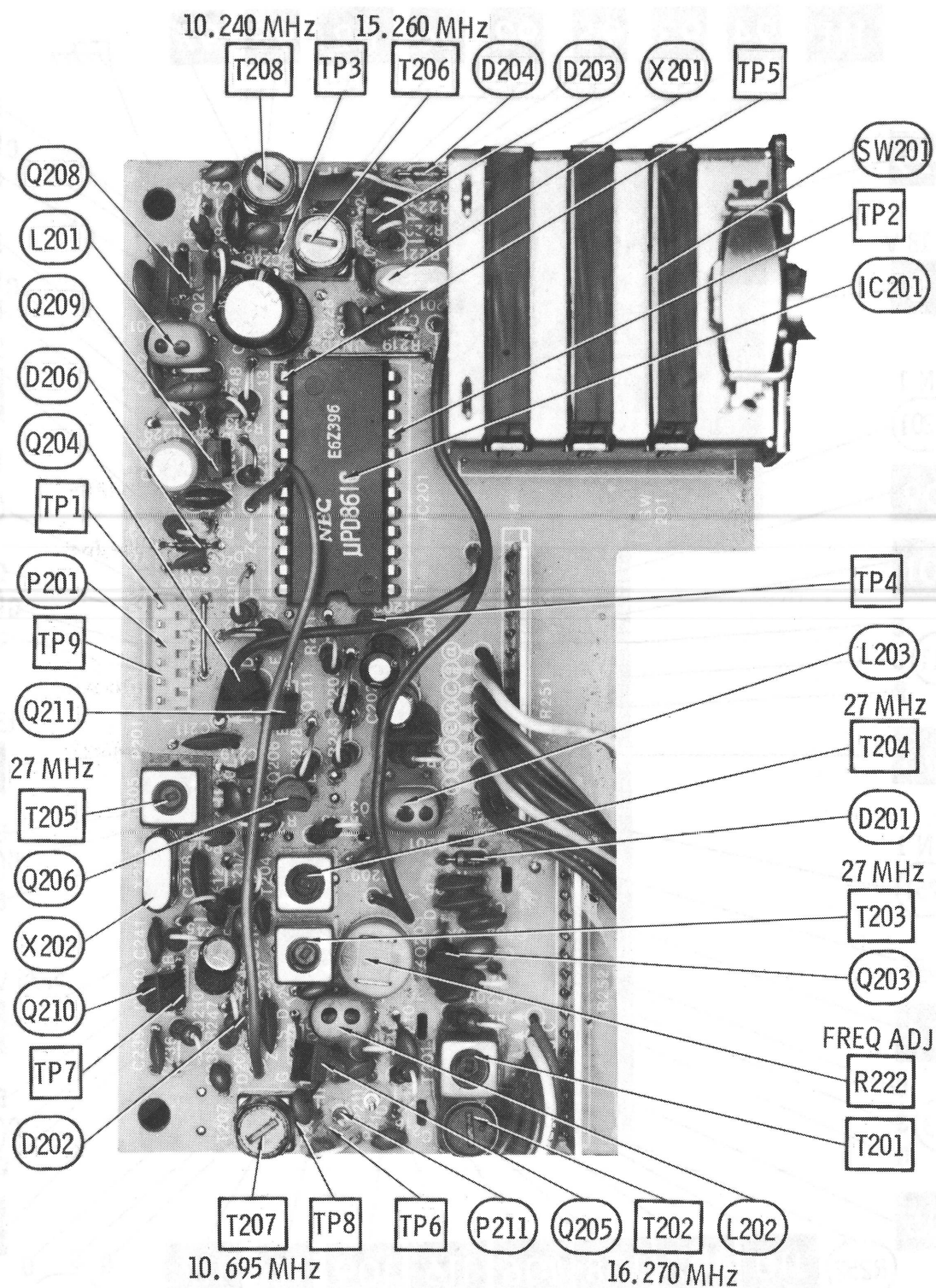


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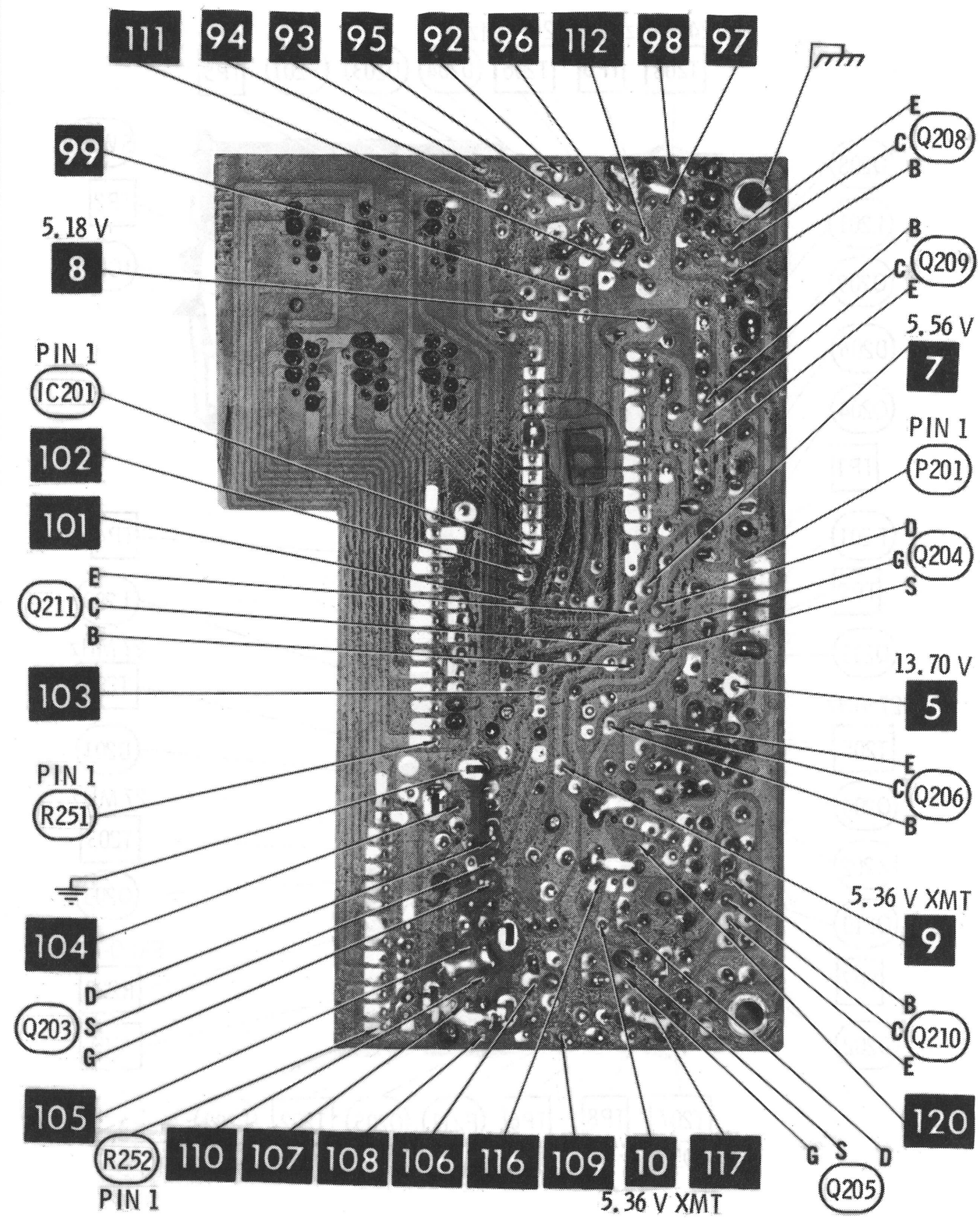


MAIN BOARD



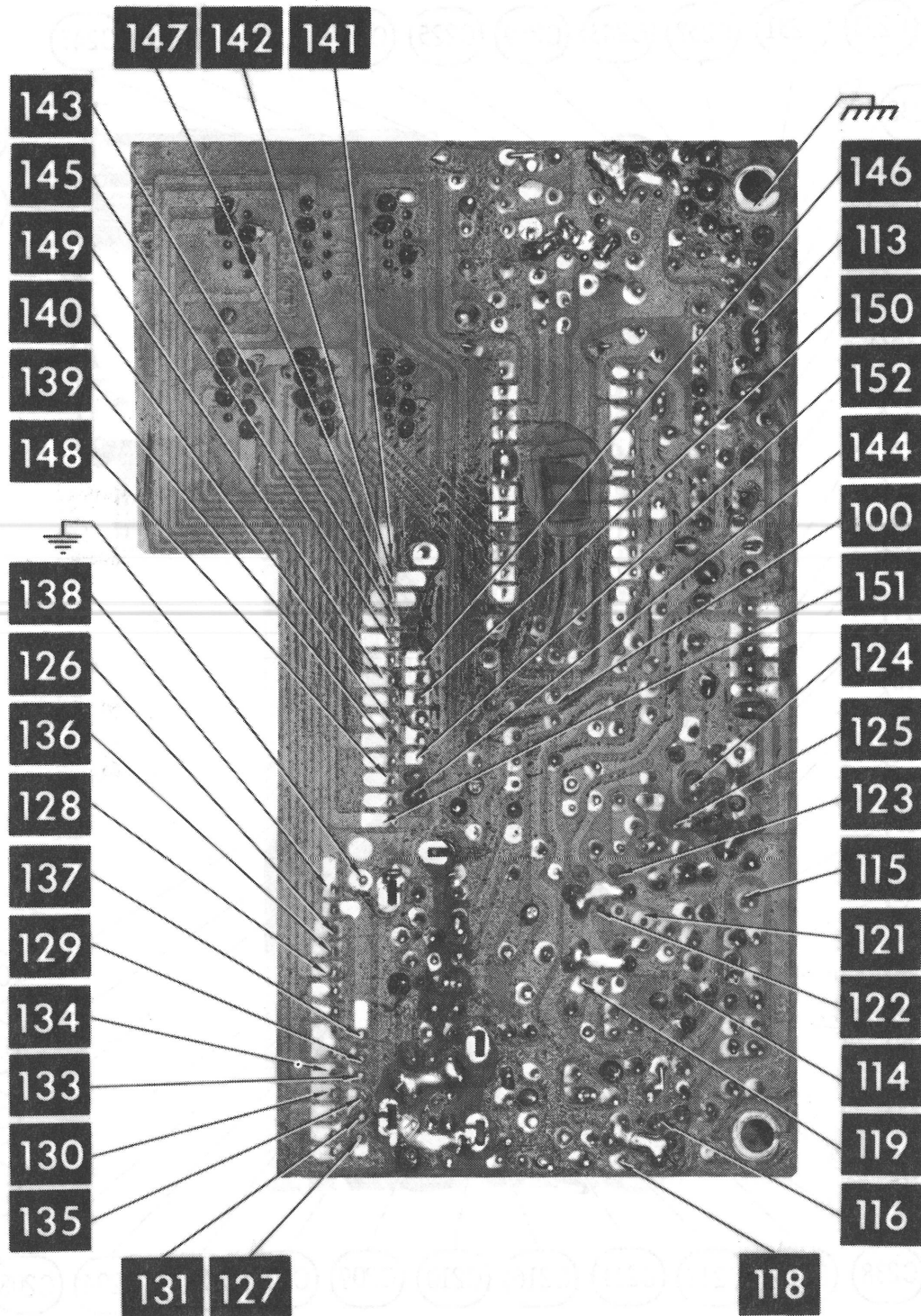


PLL BOARD



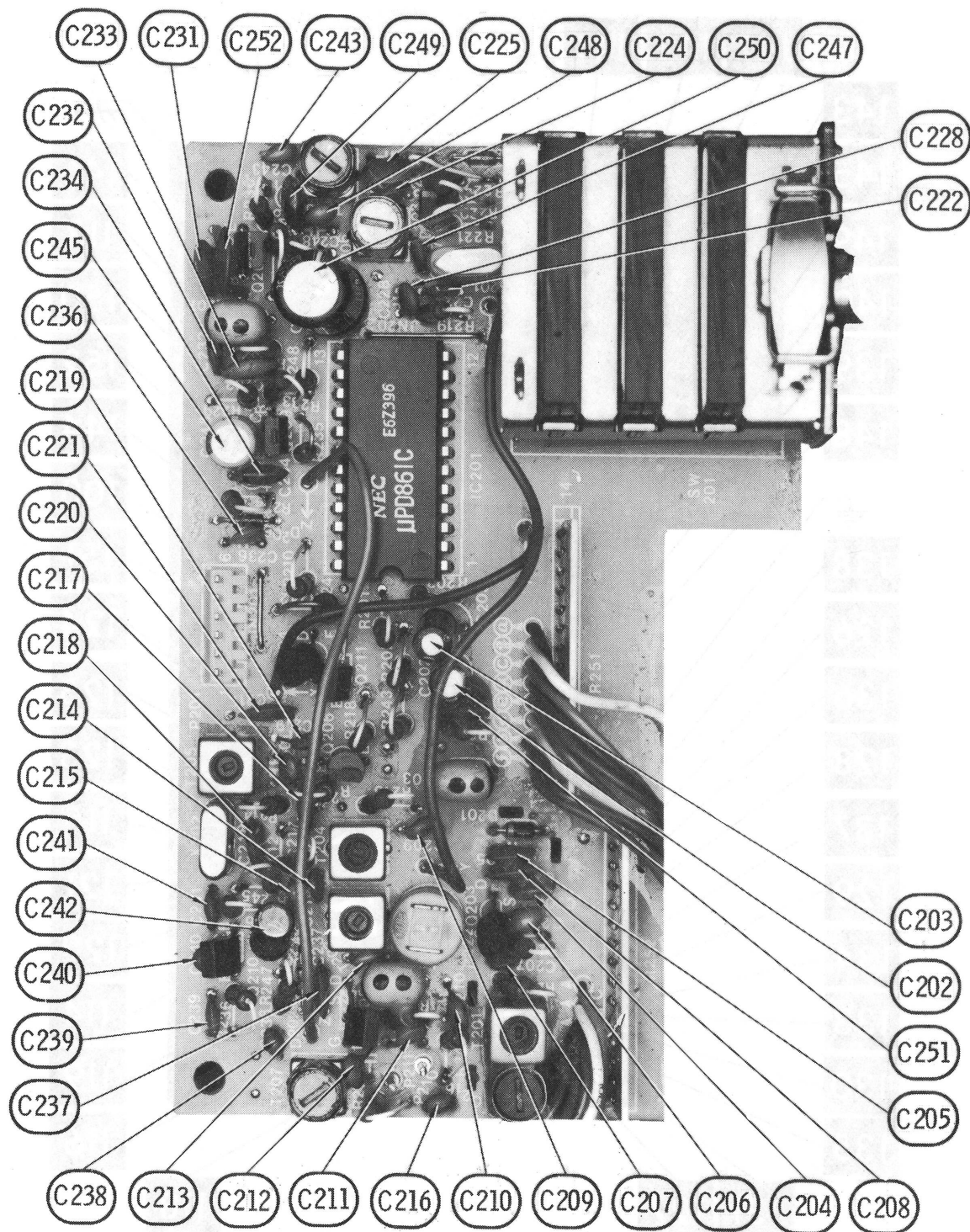
PLL BOARD



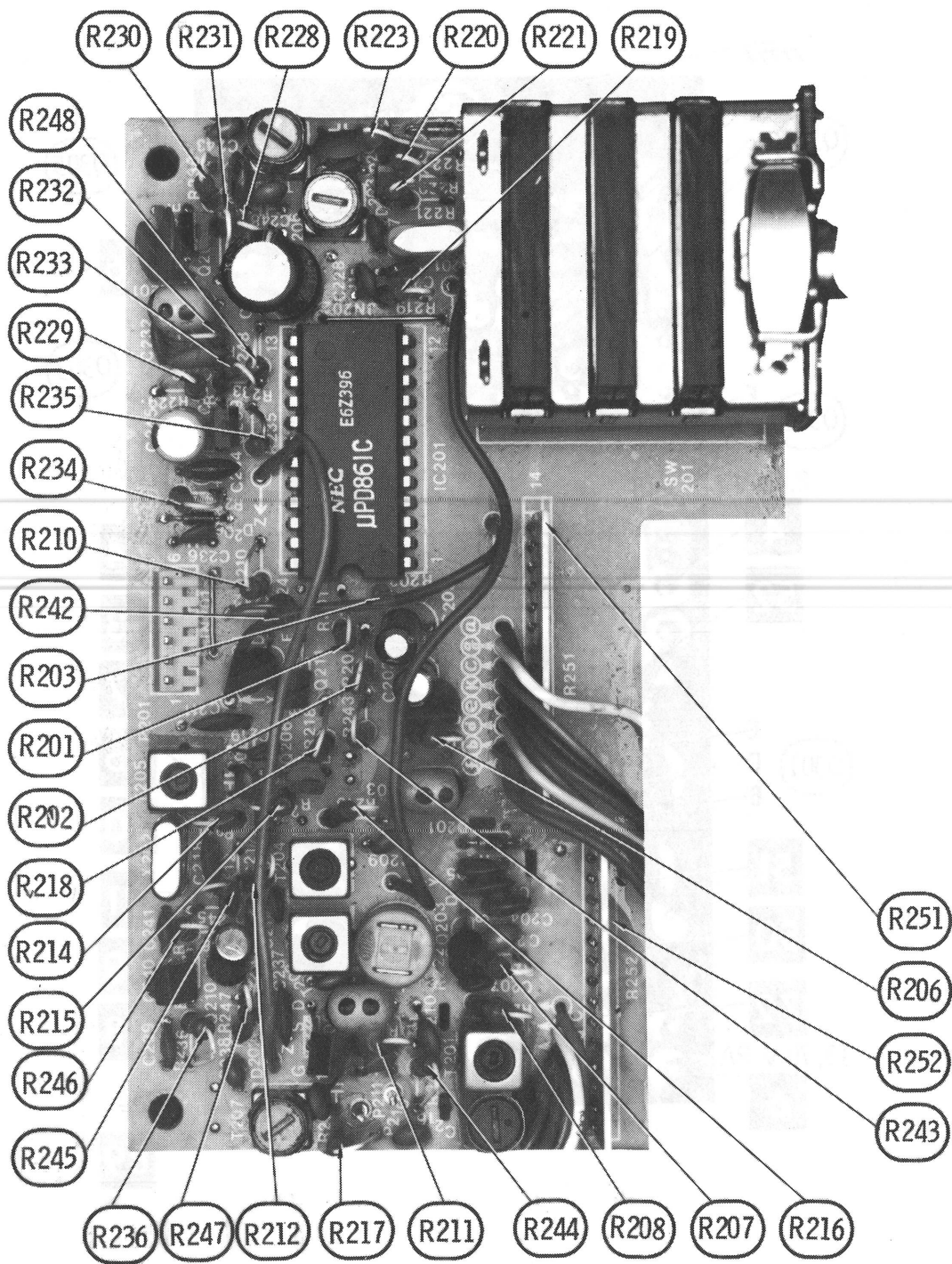


SEARS MODEL 934.38080700

PLL BOARD

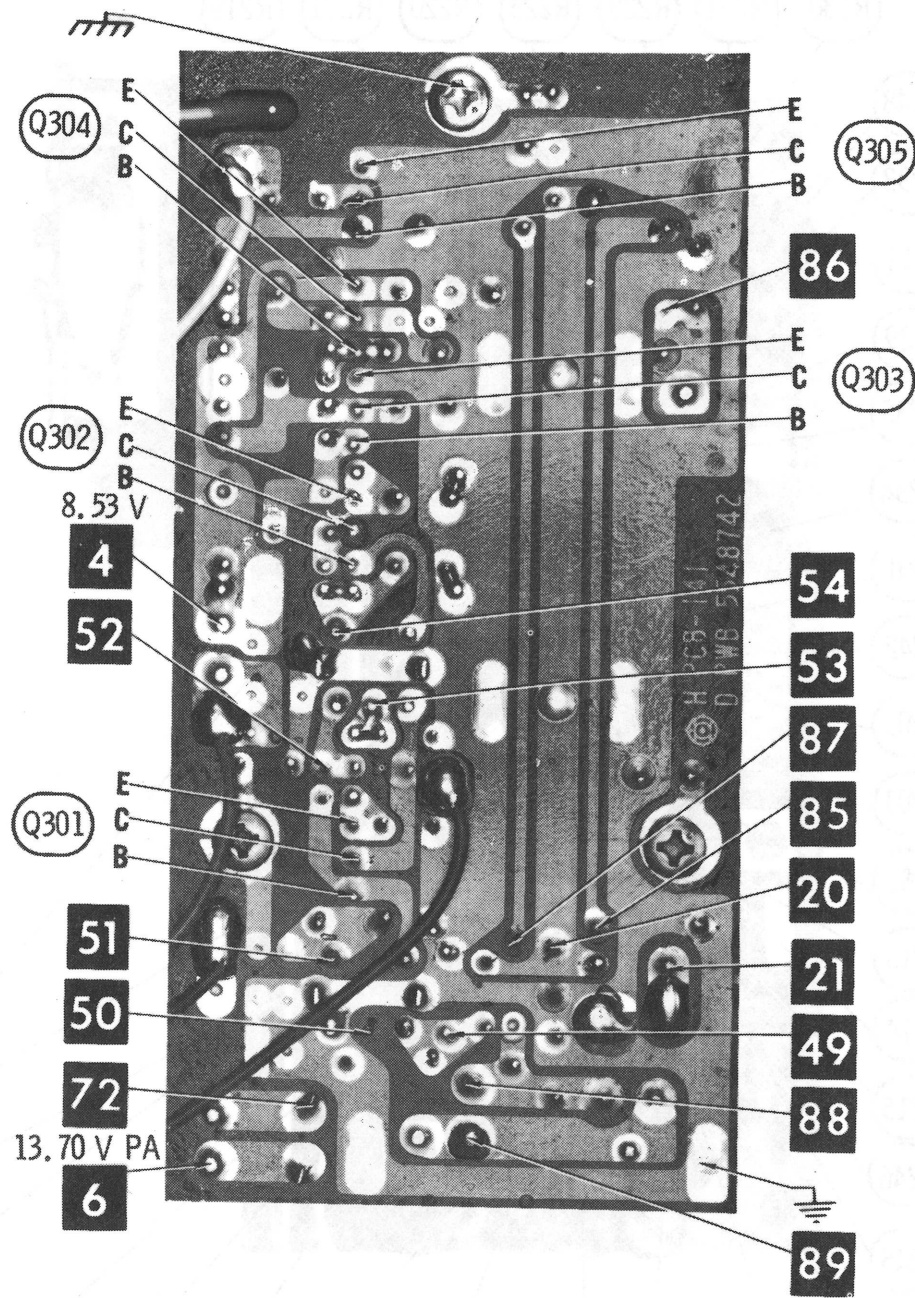


PLL BOARD



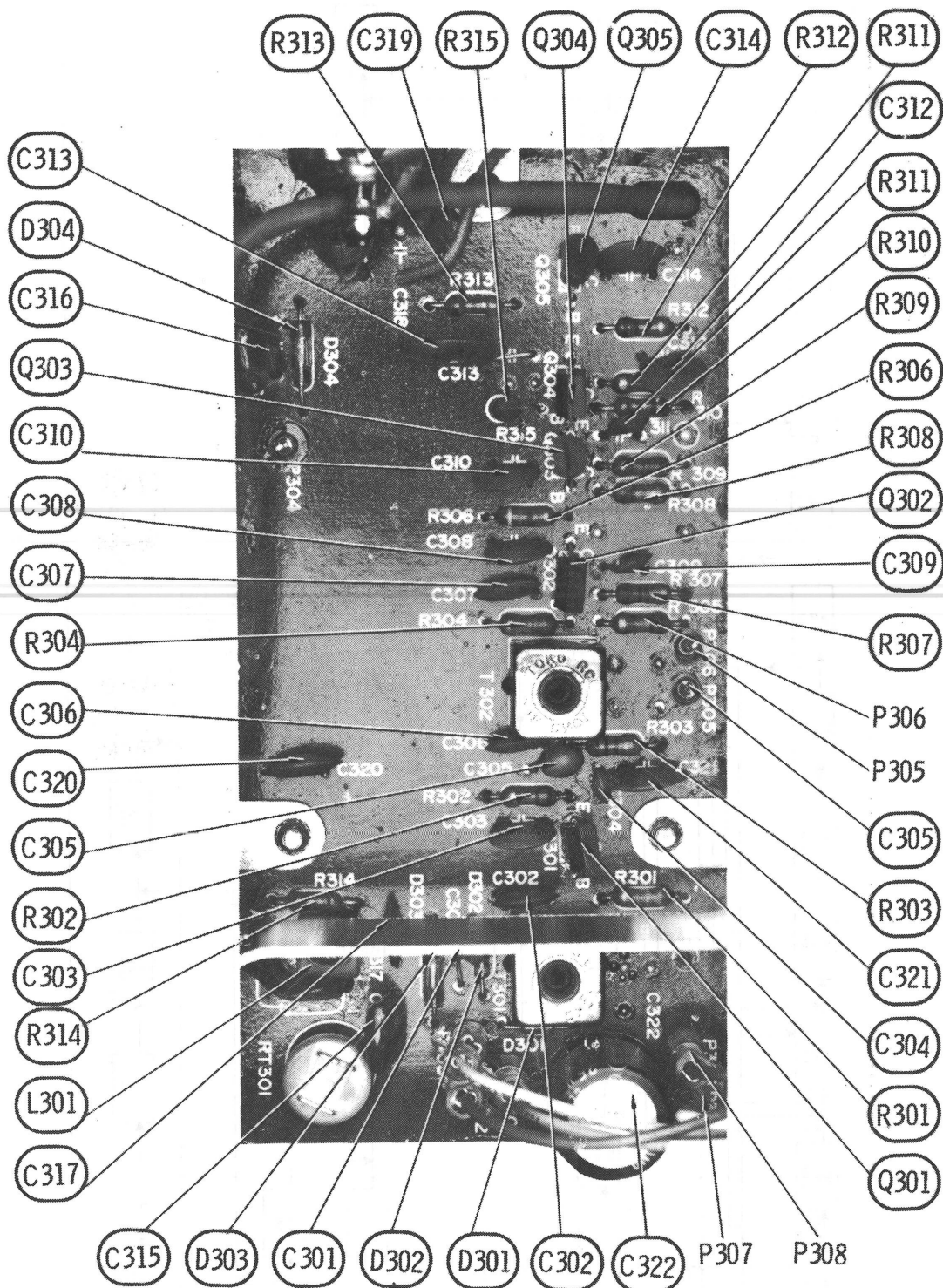
PLL BOARD





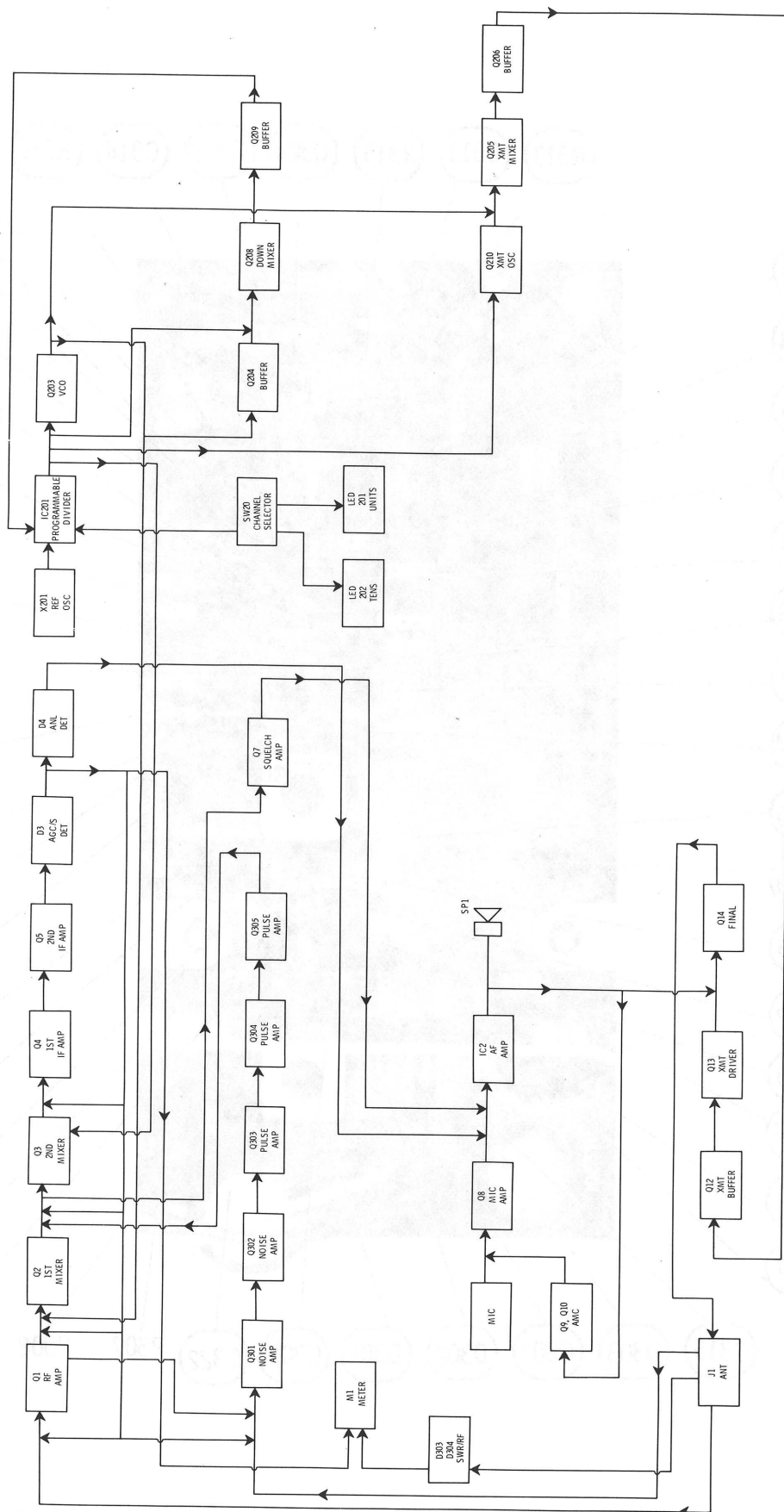
ANT & NOISE AMP BOARD





ANT &amp; NOISE AMP BOARD

# BLOCK DIAGRAM



# PARTS LIST AND DESCRIPTION

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

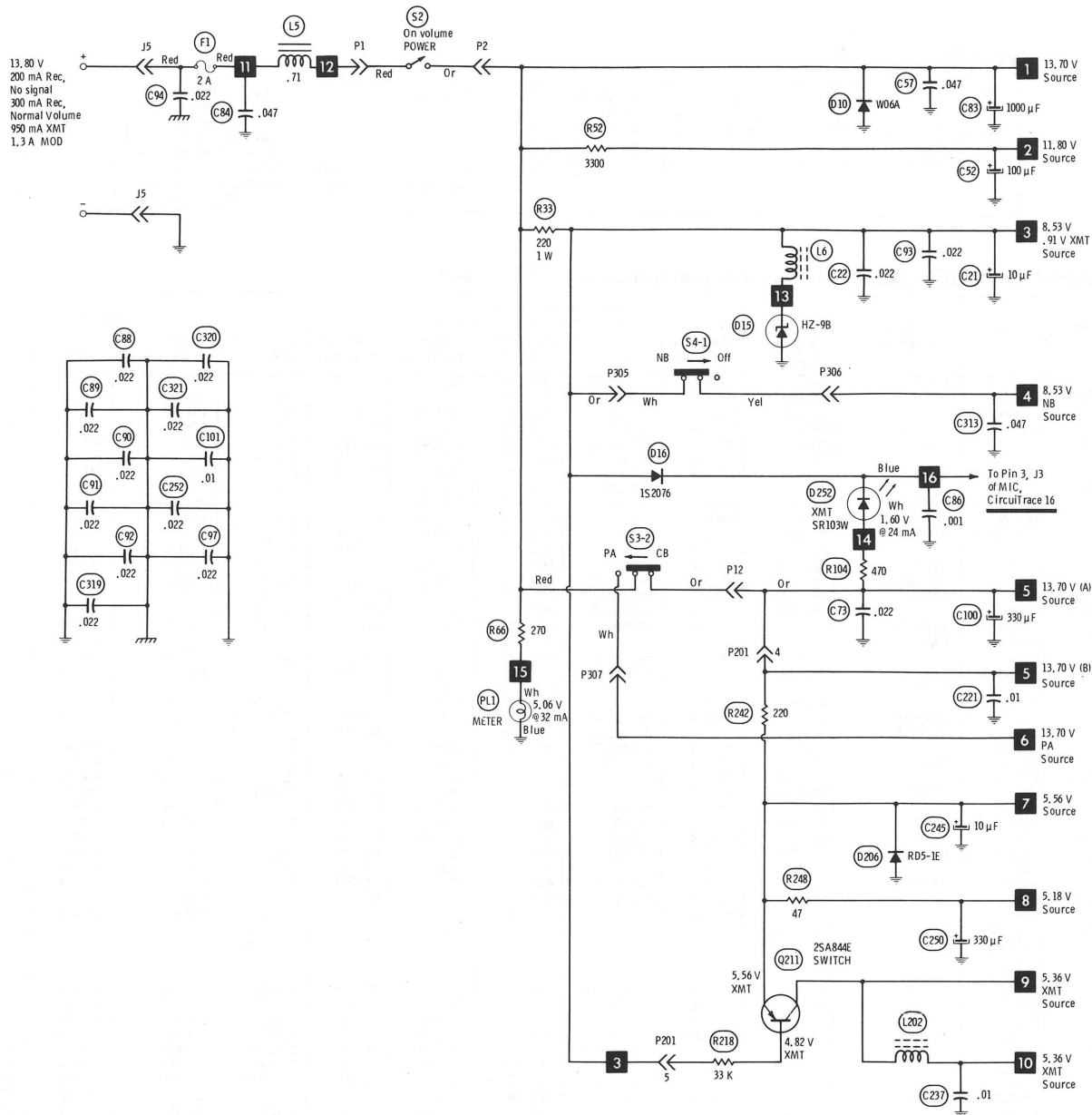
## WIRING DATA

|                                                  |                       |                                |                          |
|--------------------------------------------------|-----------------------|--------------------------------|--------------------------|
| 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 | 31AWG                          | BELDEN No. 9468 (10')    |
|                                                  | (9') BELDEN No. 17109 | 4-conductor (unshielded) 23AWG | BELDEN No. 8415 (6')     |
|                                                  |                       | 5-conductor (1 shielded) 28AWG | BELDEN No. 9467 (6')     |
|                                                  |                       |                                | BELDEN No. 9465 (7-1/2') |

## SEMICONDUCTORS (Select replacement transistor for best results)

| 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       | 1N60       | 5330731       | 1N60                      | PTC206           | HEPR9135          | REN 109           | SK3088       | RT-263           | ECG109            | 1N60                | WEP134           | ZEN-430         |
| D2       | 1S2076     |               | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
|          | 1S2076-TFI | 533013        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D3       | 1N60       | 5330731       | 1N60                      | PTC206           | HEPR9135          | REN 109           | SK3088       | RT-263           | ECG109            | 1N60                | WEP134           | ZEN-430         |
| D4       | 1N60       | 5530731       | 1N60                      | PTC206           | HEPR9135          | REN 109           | SK3088       | RT-263           | ECG109            | 1N60                | WEP134           | ZEN-430         |
| D5       | 1S2076     |               | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
|          | 1S2076-TFI | 5330133       | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D6       | 1S2076     |               | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
|          | 1S2076-TFI | 5330133       | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D7       | 1S2076     |               | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
|          | 1S2076-TFI | 5330133       | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D8       | 1S2076     |               | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
|          | 1S2076-TFI | 5330133       | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D9       | W06A       | 5330341       | GE-504A                   | PTC201           | HEPR0052          | REN 116           | SK3030       | RT-213           | ECG116            | 1N4004              | WEP156           | 212-76-02       |
| D10      | W06A       | 5330341       | GE-504A                   | PTC201           | HEPR0052          | REN 116           | SK3030       | RT-213           | ECG116            | 1N4004              | WEP156           | 212-76-02       |
| D13      | 1S2076     |               | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
|          | 1S2076-TFI | 5330133       | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D15      | HZ-98      | 5330322       | GEZD-8.7                  | ZM8.7B           |                   | REN 5073          |              |                  | ECG5017           |                     | WEP1418          |                 |
| D16      | 1S2076     |               | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
|          | 1S2076-TFI | 5330133       | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D201     | 1S2790     | 5330661       |                           |                  |                   | REN 614           | SK3126       |                  | ECG613            |                     |                  | 103-281         |
| D202     | 1S2076     |               | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
|          | 1S2076-TFI | 5330133       | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D203     | 1SV50      | 5330852       | GE-90                     |                  | HEPR2503          | REN 614           |              | RT-262           | ECG614            |                     | WEP200           | ZEN-453         |
| D204     | 1S2076     |               | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
|          | 1S2076-TFI | 5330133       | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D206     | RD5-1E     |               | GEZD-5.1                  | ZM5.1B           |                   | REN 177           | SK3056       | RT-235           | ECG5010           | 1N4733A             | WEP1411          | 103-279-10      |
|          | RD5.1E-C   | 5330842       | GEZD-5.1                  | ZM5.1B           |                   | REN 177           | SK3056       | RT-235           | ECG5010           | 1N4733A             | WEP1411          | 103-279-10      |
| D301     | 1S2076     |               | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
|          | 1S2067-TFI | 5330133       | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D302     | 1S2076     |               | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
|          | 1S2076-TFI | 5330133       | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D303     | 1N60       |               | 1N60                      | PTC206           | HEPR9135          | REN 109           | SK3088       | RT-263           | ECG109            | 1N60                | WEP134           | ZEN-430         |
|          | 1N60P      | 5330732       | 1N60                      | PTC206           | HEPR9135          | REN 109           | SK3088       | RT-263           | ECG109            | 1N60                | WEP134           | ZEN-430         |
| D304     | 1N60       |               | 1N60                      | PTC206           | HEPR9135          | REN 109           | SK3088       | RT-263           | ECG109            | 1N60                | WEP134           | ZEN-430         |
|          | 1N60P      | 5330732       | 1N60                      | PTC206           | HEPR9135          | REN 109           | SK3088       | RT-263           | ECG109            | 1N60                | WEP134           | ZEN-430         |
| IC2      | HAI 339A   | 5350491       | GEIC-64                   |                  |                   |                   | SK3708       |                  | ECG1169           |                     |                  |                 |
|          | HAI 339    |               | GEIC-64                   |                  |                   |                   | SK3708       |                  | ECG1169           |                     |                  |                 |
| IC201    | UPD861C    |               |                           |                  |                   |                   |              |                  |                   |                     |                  |                 |
|          | MPD861C    |               |                           |                  |                   |                   |              |                  |                   |                     |                  |                 |
| Q1       | 2SC460C    | 0573487       | GE-61*                    | PTC136*          | HEPS0014*         | REN 107           | SK3122       | RT-134           | ECG107            | 2SC460              | WEP460           | 121-722         |
|          | 2SC460     |               | GE-61*                    | PTC136*          | HEPS0014*         | REN 107           | SK3122       | RT-134           | ECG107            | 2SC460              | WEP460           | 121-722         |
| Q2       | 2SC460C    | 0573487       | GE-61*                    | PTC136*          | HEPS0014*         | REN 107           | SK3122       | RT-134           | ECG107            | 2SC460              | WEP460           | 121-722         |
|          | 2SC460     |               | GE-61*                    | PTC136*          | HEPS0014*         | REN 107           | SK3122       | RT-134           | ECG107            | 2SC460              | WEP460           | 121-722         |
| Q3       | 2SC454C    | 0573492       | GE-210*                   | PTC115*          | HEPS0015*         | REN 289           | SK3018*      | RT-187           | ECG289            | 2SC454              | WEP454           | ZEN-114         |
|          | 2SC454     |               | GE-210*                   | PTC115*          | HEPS0015*         | REN 289           | SK3018*      | RT-187           | ECG289            | 2SC454              | WEP454           | ZEN-114         |
| Q4       | 2SC839     |               | GE-61*                    | PTC132*          | HEPS0015*         | REN 123A*         | SK3444       | RT-308           | ECG123A*          | 2SC839              | WEP736*          | 121-29000*      |
|          | 2SC454C    | 0573492       | GE-210*                   | PTC115*          | HEPS0015*         | REN 289           | SK3018*      | RT-187           | ECG289            | 2SC454              | WEP454           | ZEN-114         |
|          | 2SC454     |               | GE-210*                   | PTC115*          | HEPS0015*         | REN 289           | SK3018*      | RT-187           | ECG289            | 2SC454              | WEP454           | ZEN-114         |
|          | 2SC839     |               | GE-61*                    | PTC132*          | HEPS0015*         | REN 123A*         | SK3444       | RT-308           | ECG123A*          | 2SC839              | WEP736*          | 121-29000*      |
| Q5       | 2SC454C    | 0573492       | GE-210*                   | PTC115*          | HEPS0015*         | REN 289           | SK3018*      | RT-187           | ECG289            | 2SC454              | WEP454           | ZEN-114         |
|          | 2SC454     |               | GE-210*                   | PTC115*          | HEPS0015*         | REN 289           | SK3018*      | RT-187           | ECG289            | 2SC454              | WEP454           | ZEN-114         |
|          | 2SC839     |               | GE-61*                    | PTC132*          | HEPS0015*         | REN 123A*         | SK3444       | RT-308           | ECG123A*          | 2SC839              | WEP736*          | 121-29000*      |
| Q7       | 2SC458D    | 5320064       | GE-210*                   | PTC121*          | HEPS0009*         | REN 123A*         | SK3122       | RT-187           | ECG289            | 2SC458              | WEP458           | 121-29000*      |
|          | 2SC458     |               | GE-210*                   | PTC121*          | HEPS0009*         | REN 123A*         | SK3122       | RT-187           | ECG289            | 2SC458              | WEP458           | 121-29000*      |
|          | 2SC1740    |               | GE-62                     | PTC121*          | HEPS0015*         | REN 123A*         | SK3122       | RT-109*          | ECG123A*          |                     | WEP736*          | 121-972         |
| Q8       | 2SC458D    | 5320064       | GE-210*                   | PTC121*          | HEPS0009*         | REN 123A*         | SK3122       | RT-187           | ECG289            | 2SC458              | WEP458           | 121-29000*      |
|          | 2SC458     |               | GE-210*                   | PTC121*          | HEPS0009*         | REN 123A*         | SK3122       | RT-187           | ECG289            | 2SC458              | WEP458           | 121-29000*      |
|          | 2SC1740    |               | GE-62                     | PTC121*          | HEPS0015*         | REN 123A*         | SK3122       | RT-109*          | ECG123A*          |                     | WEP736*          | 121-972         |
| Q9       | 2SC458D    | 5320064       | GE-210*                   | PTC121*          | HEPS0009*         | REN 123A*         | SK3122       | RT-187           | ECG289            | 2SC458              | WEP458           | 121-29000*      |
|          | 2SC458     |               | GE-210*                   | PTC121*          | HEPS0009*         | REN 123A*         | SK3122       | RT-187           | ECG289            | 2SC458              | WEP458           | 121-29000*      |
|          | 2SC1740    |               | GE-62                     | PTC121*          | HEPS0015*         | REN 123A*         | SK3122       | RT-109*          | ECG123A*          |                     | WEP736*          | 121-972         |
| Q10      | 2SC458D    | 5320064       | GE-210*                   | PTC121*          | HEPS0009*         | REN 123A*         | SK3122       | RT-187           | ECG289            | 2SC458              | WEP458           | 121-29000*      |
|          | 2SC458     |               | GE-210*                   | PTC121*          | HEPS0009*         | REN 123A*         | SK3122       | RT-187           | ECG289            | 2SC458              | WEP458           | 121-29000*      |
|          | 2SC1740    |               | GE-62                     | PTC121*          | HEPS0015*         | REN 123A*         | SK3122       | RT-109*          | ECG123A*          |                     | WEP736*          | 121-972         |
| Q12      | 2SC1213C   | 5320613       | GE-268                    | PTC123*          | HEPS0014*         | REN 289           | SK3024*      | RT-134           | ECG289            | 2SC1166             | WEP910           | 121-1014        |
|          | 2SC1213    |               | GE-268                    | PTC123*          | HEPS0014*         | REN 289           | SK3024*      | RT-134           | ECG289            | 2SC1166             | WEP910           | 121-1014        |
|          | 2SC454     |               | GE-210*                   | PTC115*          | HEPS0015*         | REN 289           | SK3018*      | RT-187           | ECG289            | 2SC454              | WEP454           | ZEN-114         |
|          | 2SC839     |               | GE-61*                    | PTC132*          | HEPS0015*         | REN 123A*         | SK3444       | RT-308           | ECG123A*          | 2SC839              | WEP736*          | 121-29000*      |
| Q13      | 2SC1957    | 5321311       | GE-270                    | PTC180           | HEPS3044          | REN 295           | SK3197       |                  | ECG295            |                     | WEP913           |                 |
|          | 2SC2091    |               | GE-270                    | PTC180           |                   | REN 295           | SK3253       |                  | ECG295            |                     | WEP913           |                 |
| Q14      | 2SC1909    | 5321321       | GE-215                    | PTC186           |                   | REN 235           | SK3197       | RT-146           | ECG235            |                     | WEP785           |                 |
|          | 2SC2092    |               | GE-337                    | PTC186           |                   | REN 235           | SK3197       | RT-146           | ECG235            |                     | WEP785           |                 |
| Q203     | 2SK49F     | 5321422       | GE-FET-2                  | PTC161           | HEPF0021          | REN 132           | SK3448       | RT-175           | ECG312            | 2SC1306             |                  | ZEN-123         |
|          | 2SK49      |               | GE-FET-2                  | PTC161           | HEPF0021          | REN 132           | SK3448       | RT-175           | ECG312            |                     |                  | ZEN-123         |
| Q204     | 2SK68      |               | GE-FET-1                  | PTC151           | HEPF0010          | REN 133           | SK3112       | RT-176           | ECG133            |                     | WEP801           | ZEN-123         |
|          | 2SK68L     | 5321501       | GE-FET-1                  | PTC151           | HEPF0010          | REN 133           | SK3112       | RT-176           | ECG133            |                     | WEP801           | ZEN-123         |
| Q205     | 2SK55D     | 5320943       | GE-FET-2                  | PTC161           | HEPF0021          | REN 132           | SK3448       | RT-175           | ECG312            |                     |                  | ZEN-123         |
|          | 2SK55      |               | GE-FET-2                  | PTC161           | HEPF0021          | REN 132           | SK3448       | RT-175           | ECG312            |                     |                  | ZEN-123         |
| Q206     | 2SC1906    | 5321431       | GE-86                     | PTC132*          | HEPS0016*         | REN 108*          | SK3039*      | RT-113*          | ECG108*           | 2SC717*             | WEP56*           | ZEN-104         |
| Q208     | 2SC454C    | 0573492       | GE-210*                   | PTC115*          | HEPS0015*         | REN 289           | SK3018*      | RT-187           | ECG289            | 2SC454              | WEP454           | ZEN-114         |
|          | 2SC454     |               | GE-210*                   | PTC115*          | HEPS0015*         | REN 289           | SK3018*      | RT-187           | ECG289            | 2SC454              | WEP454           | ZEN-114         |

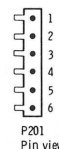
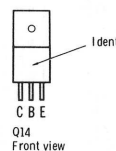
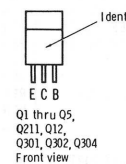
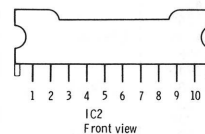
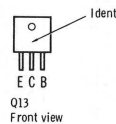
SEARS MODEL 934.38080700



- X— Circuitry not used in some versions
- Circuitry used in some versions
- ⊙ See parts list
- ⊗ Nominal value
- ⊕ Ground
- ⊖ Chassis
- ▽ Common tie point
- Signal path
- ↔ Voltage path

Measurements made in Channel 1 with switching as shown 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.  
Arrow at control indicates direction of advance.  
Terminal identification may not be found on unit.  
Resistors are 1/2 W or less, 5% unless noted.  
Value in ( ) used in some versions.

#### Terminal Guides

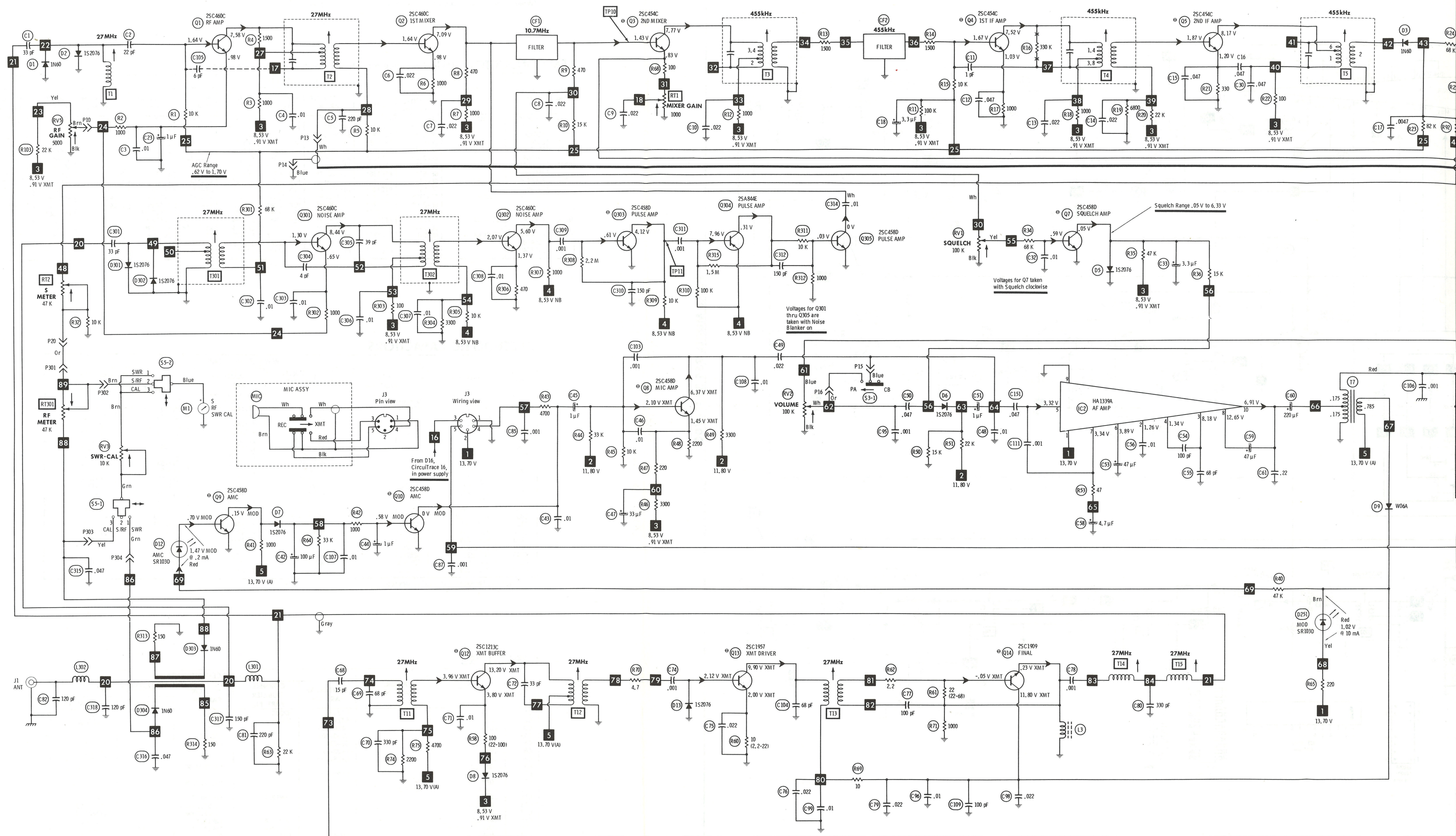


A PHOTOFAC STANDARD NOTATION SCHEMATIC

WITH **CIRCUITRACE**

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SEMICONDUCTORS (Select

| ITEM No. | TYPE No. | MFR. PART No. | GEN. ELEC. PART |
|----------|----------|---------------|-----------------|
| Q209     | 2SC454C  | 0573492       | GE-21           |
| Q210     | 2SC454   | 0573487       | GE-21           |
| Q211     | 2SC460C  | 5321253       | GE-61           |
| Q301     | 2SA844E  | 0573487       | GE-24           |
| Q302     | 2SC460C  | 0573487       | GE-61           |
| Q303     | 2SC460C  | 5320064       | GE-61           |
| Q304     | 2SC458D  | 5321253       | GE-21           |
| Q305     | 2SC458D  | 5320064       | GE-21           |
|          | 2SC1740  |               | GE-62           |

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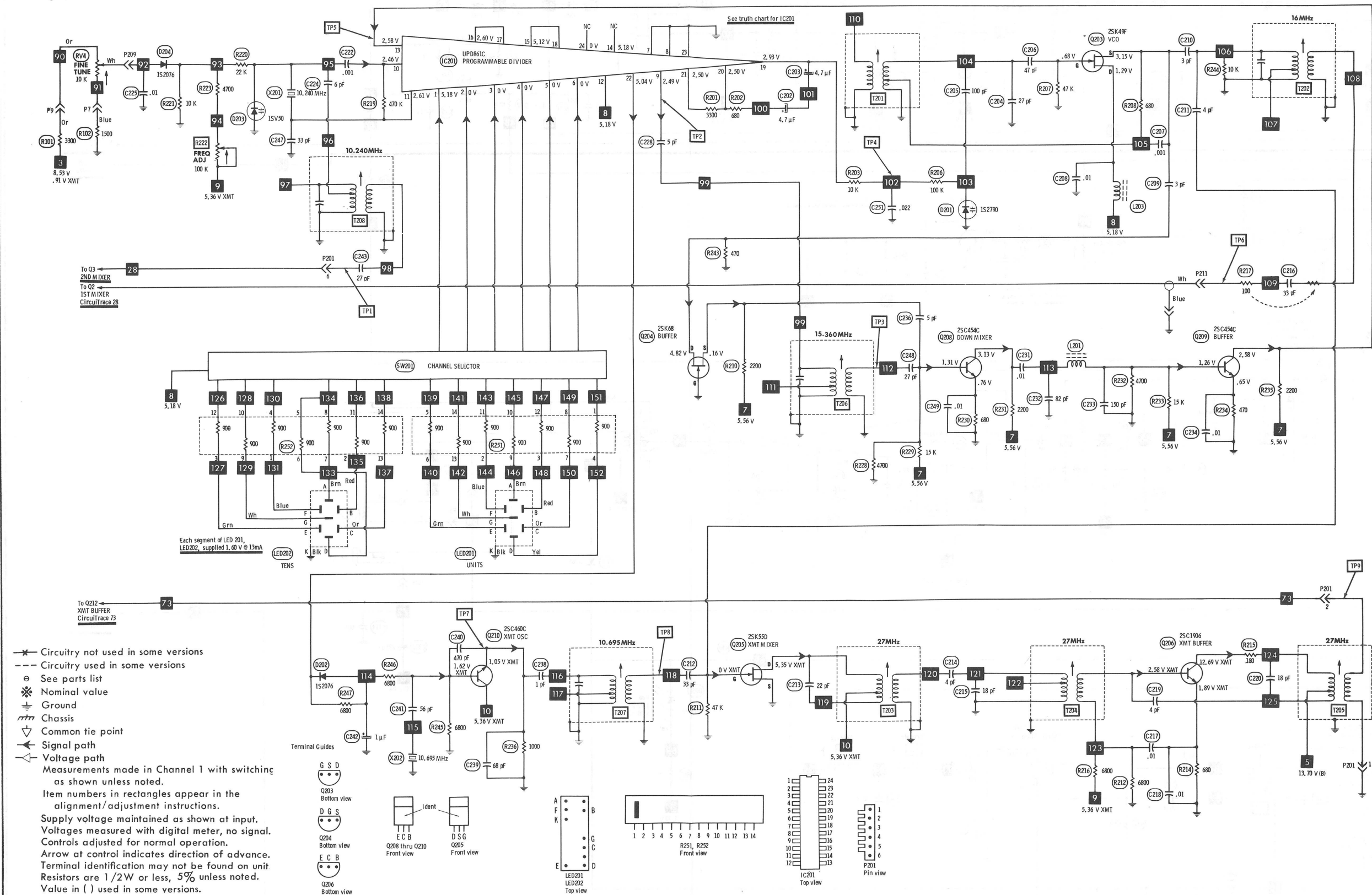
ELECTROLYTIC CAPA

| ITEM No. | RATING   |
|----------|----------|
| C18      | 3.3 25V  |
| C20      | 1 25V    |
| C21      | 10 25V   |
| C23      | 1 25V    |
| C33      | 3.3 25V  |
| C42      | 100 6.3V |
| C44      | 1 25V    |
| C45      | 1 25V    |
| C47      | 33 25V   |
| C51      | 1 25V    |
| C52      | 100 16V  |
| C53      | 47 16V   |
| C58      | 4.7 25V  |
| C59      | 47 16V   |
| C60      | 220 10V  |
| C83      | 1000 16V |
| C100     | 330 16V  |
| C202     | 4.7 25V  |
| C203     | 4.7 25V  |
| C242     | 1 25V    |
| C245     | 10 25V   |
| C250     | 330 6.3V |
| C322     | 220 25V  |

\* Axial replacement for radi

CAPACITORS

| ITEM No. | RATING   |
|----------|----------|
| C1       | 33 10%   |
| C2       | 22 10%   |
| C3       | .01      |
| C4       | .01      |
| C5       | 220 10%  |
| C6       | .022     |
| C7       | .022     |
| C8       | .022 50V |
| C9       | .022     |
| C10      | .022 50V |
| C11      | 1 +.25   |
| C12      | .047 50V |
| C13      | .022 50V |
| C14      | .022 50V |
| C15      | .047 50V |
| C16      | .047     |
| C17      | .0047    |

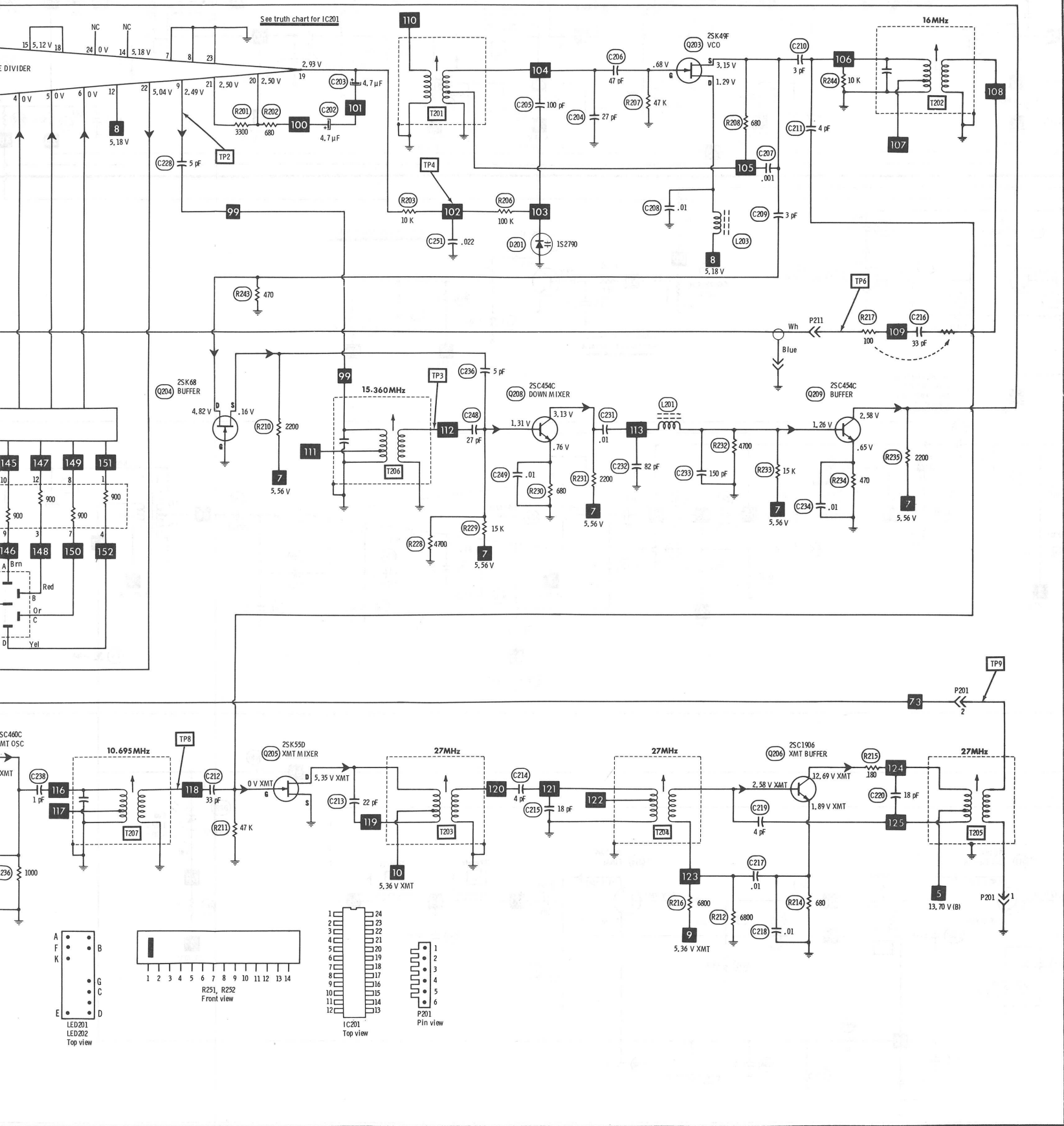


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SEARS MODEL 934.38080700



## 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. |
| Q209     | 2SC454C  | 0573492       | GE-210*                   | PTC115*          | HEPS0015*         | REN 289           | SK3018*      | RT-187           | ECG289            | 2SC454              | WEP454           | ZEN-114         |
| Q210     | 2SC454   | 0573487       | GE-210*                   | PTC115*          | HEPS0015*         | REN 289           | SK3018*      | RT-187           | ECG289            | 2SC454              | WEP454           | ZEN-114         |
| Q211     | 2SC460C  | 5321253       | GE-61*                    | PTC136*          | HEPS0014*         | REN 107           | SK3122       | RT-134           | ECG107            | 2SC460              | WEP460           | 121-722         |
| Q301     | 2SC460   | 0573487       | GE-61*                    | PTC136*          | HEPS0014*         | REN 107           | SK3122       | RT-134           | ECG107            | 2SC460              | WEP460           | 121-722         |
| Q302     | 2SC460C  | 0573487       | GE-61*                    | PTC136*          | HEPS0014*         | REN 107           | SK3122       | RT-134           | ECG107            | 2SC460              | WEP460           | 121-722         |
| Q303     | 2SC458D  | 5320064       | GE-210*                   | PTC121*          | HEPS0009*         | REN 123A*         | SK3122       | RT-187           | ECG289            | 2SC458              | WEP458           | 121-Z9000*      |
| Q304     | 2SC458   | 5321253       | GE-210*                   | PTC121*          | HEPS0009*         | REN 123A*         | SK3122       | RT-187           | ECG289            | 2SC458              | WEP458           | 121-Z9000*      |
| Q305     | 2SC1740  | 5320064       | GE-62                     | PTC121*          | HEPS0015*         | REN 123A*         | SK3122       | RT-109*          | ECG123A*          | 2SC458              | WEP736*          | 121-Z9000*      |
|          | 2SC458D  |               | GE-210*                   | PTC121*          | HEPS0009*         | REN 123A*         | SK3122       | RT-187           | ECG289            | 2SC458              | WEP458           | 121-Z9000*      |
|          | 2SC1740  |               | GE-62                     | PTC121*          | HEPS0015*         | REN 123A*         | SK3122       | RT-109*          | ECG123A*          | 2SC458              | WEP736*          | 121-972         |

\* Lead configuration may vary from original.

### ELECTROLYTIC CAPACITORS

| ITEM No. | RATING   | MFR. PART No. | CORNELL-DUBILIER PART No. | MALLORY PART No. | REPLACEMENT DATA |              |
|----------|----------|---------------|---------------------------|------------------|------------------|--------------|
|          |          |               |                           |                  | Q-LINE           | GENERAL LINE |
| C18      | 3.3 25V  | 0252613       | PC5-50                    | VTT3R3A50        | QV1-23           | EV-1318      |
| C20      | 1 25V    | 0252611       | PC1-50                    | VTT1A50          | QV1-9            | EV-1315      |
| C21      | 10 25V   | 0252621       | PC10-25                   | VTT10B25         | QV1-43           | EV-1322      |
| C23      | 1 25V    | 0252611       | PC1-50                    | VTT1A50          | QV1-9            | EV-1315      |
| C33      | 3.3 25V  | 0252613       | PC5-50                    | VTT3R3A50        | QV1-23           | EV-1318      |
| C42      | 100 6.3V | 0252231       | PC100-10                  | VTT100E10        | QV1-93           | EV-1130      |
| C44      | 1 25V    | 0252611       | PC1-50                    | VTT1A50          | QV1-9            | EV-1315      |
| C45      | 1 25V    | 0252611       | PC1-50                    | VTT1A50          | QV1-9            | EV-1315      |
| C47      | 33 25V   | 0252623       | PC30-25                   | VTT33D25         | QV1-63           | EV-1325      |
| C51      | 1 25V    | 0252611       | PC1-50                    | VTT1A50          | QV1-9            | EV-1315      |
| C52      | 100 16V  | 0252531       | PC100-16                  | VTT100F16        | QV1-95           | EV-1230      |
| C53      | 47 16V   | 0252525       | PC50-16                   | VTT47D16         | QV1-73           | EV-1226      |
| C58      | 4.7 25V  | 0252615       | PC5-50                    | VTT4R7B50        | QV1-27           | EV-1319      |
| C59      | 47 16V   | 0252525       | PC50-16                   | VTT47D16         | QV1-73           | EV-1226      |
| C60      | 220 10V  | 0252332       | PC250-10                  | VTT220F10        | QV1-115          | EV-1140      |
| C83      | 1000 16V | 0256010       | PC1000-16                 | VTT1000L16       | QV1-183          | EV-1260      |
| C100     | 330 16V  | 0252533       | WBR300-35*                | VTT330H16        | QV1-133          | EV-1245      |
| C202     | 4.7 25V  | 0252615       | PC5-50                    | VTT4R7B50        | QV1-27           | EV-1319      |
| C203     | 4.7 25V  | 0252615       | PC5-50                    | VTT4R7B50        | QV1-27           | EV-1319      |
| C242     | 1 25V    | 0252611       | PC1-50                    | VTT1A50          | QV1-11           | EV-1615      |
| C245     | 10 25V   | 0252621       | PC10-25                   | VTT10B25         | QV1-43           | EV-1322      |
| C250     | 330 6.3V | 0252233       | WBR300-35*                | VTT330G10        | QV1-131          | EV-1145      |
| C322     | 220 25V  | 0252632       | PC250-25                  | VTT220K25        | QV1-119          | EV-1340      |

\* Axial replacement for radial device.

### CAPACITORS

| ITEM No. | RATING   | MFR. PART No. | REPLACEMENT DATA   |                           |                  |                  |
|----------|----------|---------------|--------------------|---------------------------|------------------|------------------|
|          |          |               | CENTRALAB PART No. | CORNELL-DUBILIER PART No. | MALLORY PART No. | SPRAGUE PART No. |
| C1       | 33 10%   | 0248631       | DTZ-33             | NP033                     | CN0433           | 10TCC-Q33        |
| C2       | 22 10%   |               | DTZ-22             | NP022                     | CN0422           | 10TCC-Q22        |
| C3       | .01      |               | UK50-103           |                           | MAG5011          |                  |
| C4       | .01      |               | UK50-103           |                           | MAG5011          |                  |
| C5       | 220 10%  |               | DD-221             |                           | GP322            |                  |
| C6       | .022     |               | UK25-223           |                           |                  |                  |
| C7       | .022     |               | UK25-223           |                           |                  |                  |
| C8       | .022 50V |               |                    |                           | M192P2239R8      | 10TS-T22         |
| C9       | .022     |               |                    |                           |                  | HY-725           |
| C10      | .022 50V |               |                    |                           |                  | 192P2239R8       |
| C11      | 1 +.25   |               |                    |                           |                  | HY-725           |
| C12      | .047 50V |               |                    |                           |                  | 192P2239R8       |
| C13      | .022 50V |               |                    | DPMS2S47                  | EW1A147          | 1PB-S47          |
| C14      | .022 50V |               |                    |                           | M192P2239R8      | 192P2239R8       |
| C15      | .047 50V |               |                    |                           |                  | 192P2239R8       |
| C16      | .047     |               |                    | DPMS2S47                  | EW1A147          | 1PB-S47          |
| C17      | .0047    |               | DD-472             | GP4700                    | GP247            | 56A-047          |



# PARTS LIST AND DESCRIPTION (CONTINUED)

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

## CAPACITORS (cont)

| ITEM No. | RATING      | MFR. PART No. | REPLACEMENT DATA   |                           |                  |                  |              |
|----------|-------------|---------------|--------------------|---------------------------|------------------|------------------|--------------|
|          |             |               | CENTRALAB PART No. | CORNELL-DUBILIER PART No. | MALLORY PART No. | SPRAGUE PART No. |              |
|          |             |               |                    |                           |                  | Q-LINE           | GENERAL LINE |
| C19      | .022 50V    |               | UK25-223           |                           | M192P2239R8      |                  | 192P2239R8   |
| C22      | .022        |               |                    |                           |                  |                  | HY-725       |
| C30      | .047 50V    |               | UK50-103           | DPMS2S47                  | EWFA1A147        | QF1-171          | 1PB-S47      |
| C32      | .01         |               |                    |                           | MAG5011          |                  |              |
| C43      | .01 50V     |               |                    | WMF1S1                    | EWFA1A110        | QF1-91           | 1PB-S10      |
| C46      | .01 50V     |               |                    | WMF1S1                    | EWFA1A110        | QF1-91           | 1PB-S10      |
| C48      | .01 50V     |               |                    | WMF1S1                    | EWFA1A110        | QF1-91           | 1PB-S10      |
| C49      | .022 50V    |               |                    |                           | M192P2239R8      |                  | 192P2239R8   |
| C50      | .047 50V    |               |                    | DPMS2S47                  | EWFA1A147        | QF1-171          | 1PB-S47      |
| C54      | 100 10%     |               | DD-101             | GP100                     | GP310            |                  | 10TS-T10     |
| C55      | 68 10%      |               | DD-680             | GP68                      | GP468            |                  | 10TS-Q68     |
| C56      | .01 50V     |               |                    | WMF1S1                    | EWFA1A110        | QF1-91           | 1PB-S10      |
| C57      | .047 50V    |               |                    | DPMS2S47                  | EWFA1A147        | QF1-171          | 1PB-S47      |
| C61      | .22 100V    |               |                    | DPMS2P22                  | EWFA1A022        | QF1-253          | 1PB-P22      |
| C68      | 15 10%      |               | DTZ-15             | NP015                     | CN0415           |                  | 10TCC-Q15    |
| C69      | 68 10%      |               | DD-680             | GP68                      | GP468            |                  | 10TS-Q68     |
| C70      | 330 10%     |               | DD-331             | GP330                     | GP333            |                  | 10TS-T33     |
| C71      | .01         |               | UK50-103           |                           | MAG5011          |                  |              |
| C72      | 33 10%      |               | DTZ-33             | NP033                     | CN0433           |                  | 10TCC-Q33    |
| C73      | .022        |               | UK25-223           |                           |                  |                  | HY-725       |
| C74      | .001        |               | DD-102             |                           | GP210            |                  | 10TS-D10     |
| C75      | .022        |               | UK25-223           |                           |                  |                  | HY-725       |
| C76      | .022        |               | UK25-223           |                           |                  |                  | HY-725       |
| C77      | 100 10%     |               | DD-101             | GP100                     | GP310            |                  | 10TS-T10     |
| C78      | .001        |               | DD-102             |                           | GP210            |                  | 10TS-D10     |
| C79      | .022        |               | UK25-223           |                           |                  |                  | HY-725       |
| C80      | 330 10%     |               | DD-331             | GP330                     | GP333            |                  | 10TS-T33     |
| C81      | 220 10%     |               | DD-221             |                           | GP322            |                  | 10TS-T22     |
| C82      | 120 10%     |               | DTZ-120            |                           | CN0312           |                  | 10TCC-T12    |
| C84      | .047        |               | UK25-503           |                           | MAG2515          |                  | HY-735       |
| C85      | .001        |               | DD-102             |                           | GP210            |                  | 10TS-D10     |
| C86      | .001        |               | DD-102             |                           | GP210            |                  | 10TS-D10     |
| C87      | .001        |               | DD-102             |                           | GP210            |                  | 10TS-D10     |
| C88      | .022        |               | UK25-223           |                           |                  |                  | HY-725       |
| C89      | .022        |               | UK25-223           |                           |                  |                  | HY-725       |
| C90      | .022        |               | UK25-223           |                           |                  |                  | HY-725       |
| C91      | .022        |               | UK25-223           |                           |                  |                  | HY-725       |
| C92      | .022        |               | UK25-223           |                           |                  |                  | HY-725       |
| C93      | .022        |               | UK25-223           |                           |                  |                  | HY-725       |
| C94      | .022        |               | UK25-223           |                           |                  |                  | HY-725       |
| C95      | .001        |               | DD-102             |                           | GP210            |                  | 10TS-D10     |
| C96      | .01         |               | UK50-103           |                           | MAG5011          |                  |              |
| C97      | .022        |               | UK25-223           |                           |                  |                  | HY-725       |
| C98      | .022        |               | UK25-223           |                           |                  |                  | HY-725       |
| C99      | .01         |               | UK50-103           |                           |                  |                  |              |
| C101     | .01         |               | UK50-103           |                           |                  |                  |              |
| C103     | .001        |               | DD-102             |                           | MAG5011          |                  | 10TS-D10     |
| C104     | 68 10%      |               | DTZ-68             | NP068                     | CN0468           |                  | 10TCC-Q68    |
| C105     | 6 +.5       |               | DTZ-6R8            | NP06P8                    | CN0568           |                  | 10TCC-V68    |
| C106     | .001        |               | DD-102             |                           | GP210            |                  | 10TS-D10     |
| C107     | .01         |               | UK50-103           |                           | MAG5011          |                  |              |
| C108     | .01         |               | UK50-103           |                           | MAG5011          |                  |              |
| C109     | 100         |               | DD-101             | GP100                     | GP310            |                  | 10TS-T10     |
| C111     | .001        |               | DD-102             |                           | GP210            |                  | 10TS-D10     |
| C112     | .001        |               | DD-102             |                           | GP210            |                  | 10TS-D10     |
| C113     | .001        |               | DD-102             |                           | GP210            |                  | 10TS-D10     |
| C151     | .047 50V    |               |                    | DPMS2S47                  | EWFA1A147        | QF1-171          | 1PB-S47      |
| C204     | 27 N750 10% |               |                    |                           | CN7427           |                  | 10TCU-Q27    |
| C205     | 100 10%     |               | DD-101             | GP100                     | GP310            |                  | 10TS-T10     |
| C206     | 47 10%      |               | DTZ-47             | NP047                     | CN0447           |                  | 10TCC-Q47    |
| C207     | .001        |               | DD-102             |                           | GP210            |                  | 10TS-D10     |
| C208     | .01         |               | UK50-103           |                           | MAG5011          |                  |              |
| C209     | 3           |               | DTZ-3R3            | NP03P3                    | CN0533           |                  | 10TCC-V33    |
| C210     | 3 +.5       |               | DTZ-3R3            | NP03P3                    | CN0533           |                  | 10TCC-V33    |
| C211     | 4 +.5       |               | DTZ-4R7            | NP04P7                    | CN0547           |                  | 10TCC-V47    |
| C212     | 33          |               | DTZ-33             | NP033                     | CN0433           |                  | 10TCC-Q33    |
| C213     | 22 N470 10% | 0248378       |                    |                           | *                |                  | 10TCT-Q22    |
| C214     | 4 +.5       |               | DTZ-4R7            | NP04P7                    | CN0547           |                  | 10TCC-V47    |
| C215     | 18 N470 10% | 0248376       |                    |                           | *                |                  | 10TCT-Q18    |
| C216     | 33 10%      |               | DTZ-33             | NP033                     | CN0433           |                  | 10TCC-Q33    |
| C217     | .01         |               | UK50-103           |                           | MAG5011          |                  |              |
| C218     | .01         |               | UK50-103           |                           | MAG5011          |                  |              |
| C219     | 4 +.5       |               | DTZ-4R7            | NP04P7                    | CN0547           |                  | 10TCC-V47    |
| C220     | 18 N470 10% | 0248376       |                    |                           | *                |                  | 10TCT-Q18    |
| C221     | .01         |               | UK50-103           |                           | MAG5011          |                  |              |
| C222     | .001        |               | DD-102             |                           | GP210            |                  | 10TS-D10     |
| C224     | 6 +.5       |               | DTZ-6R8            | NP06P8                    | CN0568           |                  | 10TCC-V68    |
| C225     | .01         |               | UK50-103           |                           | MAG5011          |                  |              |
| C228     | 5 +.5       |               | DTZ-4R7            | NP04P7                    | CN0547           |                  | 10TCC-V47    |
| C231     | .01         |               | DD-102             |                           | GP210            |                  | 10TS-D10     |
| C232     | 82 10%      |               | DD-820             |                           | GP482            |                  | 10TS-Q82     |
| C233     | 150 10%     |               | DD-151             |                           | GP315            |                  | 10TS-T15     |
| C234     | .01 50V     |               | DTZ-4R7            | WMF1S1                    | EWFA1A110        | QF1-91           | 1PB-S10      |
| C236     | 5 +.5       |               | DD-102             | NP04P7                    | CN0547           |                  | 10TCC-V47    |
| C237     | .01         |               |                    |                           | GP210            |                  | 10TS-D10     |
| C238     | 1 +.25      | 0248631       |                    |                           |                  |                  |              |
| C239     | 68 10%      |               | DTZ-68             | NP068                     | CN0468           |                  | 10TCC-Q68    |
| C240     | 470 10%     |               | DD-471             | GP470                     | GP347            |                  | 10TS-T47     |

SEARS MODEL 93A.38080700

## PARTS LIST AND DESCRIPTION (CONTINUED)

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

### CAPACITORS (cont)

| ITEM No. | RATING   | MFR. PART No. | REPLACEMENT DATA   |                           |                  |                  |              |
|----------|----------|---------------|--------------------|---------------------------|------------------|------------------|--------------|
|          |          |               | CENTRALAB PART No. | CORNELL-DUBILIER PART No. | MALLORY PART No. | SPRAGUE PART No. |              |
|          |          |               |                    |                           |                  | Q-LINE           | GENERAL LINE |
| C241     | 56 10%   |               | DD-560             |                           | GP456            |                  | 10TS-Q56     |
| C243     | 27 10%   |               |                    |                           | CN0427           |                  | 10TCC-Q27    |
| C247     | 33 10%   |               | DTZ-33             | NP033                     | CN0433           |                  | 10TCC-Q33    |
| C248     | 27 10%   |               |                    |                           | CN0427           |                  | 10TCC-Q27    |
| C249     | .01 50V  |               |                    | WMF1S1                    | EWFTA110         | QF1-91           | 1PB-S10      |
| C251     | .022 50V |               |                    |                           | M192P2239R8      |                  | 192P2239R8   |
| C252     | .022     |               | UK25-223           |                           |                  |                  | HY-725       |
| C301     | 33 10%   |               | DTZ-33             | NP033                     | CN0433           |                  | 10TCC-Q33    |
| C302     | .01      |               | UK50-103           |                           | MAG5011          |                  |              |
| C303     | .01      |               | UK50-103           |                           | MAG5011          |                  |              |
| C304     | 4 +.5    |               | DTZ-4R7            | NP04P7                    | CN0547           |                  | 10TCC-V47    |
| C305     | 39 10%   |               |                    |                           | CN0439           |                  | 10TCC-Q39    |
| C306     | .01      |               | UK50-103           |                           | MAG5011          |                  |              |
| C307     | .01      |               | UK50-103           |                           | MAG5011          |                  |              |
| C308     | .01      |               | UK50-103           |                           | MAG5011          |                  |              |
| C309     | .001     |               | DD-102             |                           | GP210            |                  | 10TS-D10     |
| C310     | 150 10%  |               | DD-151             |                           | GP315            |                  | 10TS-T15     |
| C311     | .001     |               | DD-102             |                           | GP210            |                  | 10TS-D10     |
| C312     | 150 10%  |               | DD-151             |                           | GP315            |                  | 10TS-T15     |
| C313     | .047     |               | UK25-503           |                           | MAG2515          |                  | HY-735       |
| C314     | .01      |               | UK50-103           |                           | MAG5011          |                  |              |
| C315     | .047 50V |               |                    | DPMS2S47                  | EWFTA147         | QF1-171          | 1PB-S47      |
| C316     | .047 50V |               |                    | DPMS2S47                  | EWFTA147         | QF1-171          | 1PB-S47      |
| C317     | 150 10%  |               | DD-151             |                           | GP315            |                  | 10TS-T15     |
| C318     | 120 10%  |               | DTZ-120            |                           | CN0312           |                  | 10TCC-T12    |
| C319     | .022     |               | UK25-223           |                           |                  |                  | HY-725       |
| C320     | .022     |               | UK25-223           |                           |                  |                  | HY-725       |
| C321     | .022     |               | UK25-223           |                           |                  |                  | HY-725       |

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

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

| ITEM No. | FUNCTION      | RESIST-ANCE | REPLACEMENT DATA |                    |                  |              |
|----------|---------------|-------------|------------------|--------------------|------------------|--------------|
|          |               |             | MFR. PART No.    | CENTRALAB PART No. | MALLORY PART No. | TRW PART No. |
| R222     | Freq Adj      | 100K        | 0151889          |                    |                  | U260R104B    |
| RT1      | Mixer Gain    | 1000        | 0151883          |                    |                  | U260R102B    |
| RT2      | S Meter       | 47K         | 0151888          |                    |                  | U260R503B    |
| RT301    | RF Meter      | 47K         | 0151888          |                    |                  | U260R503B    |
| RV1      | Squelch       | 100K        | 5000304          |                    |                  |              |
| RV2      | Volume/Switch | 100K        | 5003142          |                    |                  |              |
| RV3      | SWR-CAL       | 10K         | 5000351 (18)     |                    |                  |              |
| RV4      | RF Gain       | 10K         | 0151450          |                    |                  |              |
| RV5      | Fine Tune     | 10K         |                  |                    |                  |              |

(18) Includes RV3 and RV5.

### COILS (RF-IF)

| ITEM No. | FUNCTION           | REPLACEMENT DATA |                      |                 | REMARKS |
|----------|--------------------|------------------|----------------------|-----------------|---------|
|          |                    | PART No.         | OTHER IDENTIFICATION | MILLER PART No. |         |
| L3       | RF Choke (2.2uH)   | 5150782          |                      | 74F226AP        |         |
| L6       | RF Choke (12uH)    | 5152075          |                      | 70F125AI        |         |
| L201     | Pi Filter (100uH)  | 5152087          |                      |                 |         |
| L202     | RF Choke (10uH)    | 5152074          |                      |                 |         |
| L203     | RF Choke (15uH)    | 5152089          |                      |                 |         |
| L301     | Pi Filter (.33uH)  | 5150072          |                      |                 |         |
| L302     | Matching (.33uH)   | 5150071          |                      |                 |         |
| T1       | Rec Ant (27MHz)    | 5126372          |                      | 4586            |         |
| T2       | RF (27MHz)         | 5120099          |                      |                 |         |
| T3       | Mixer (455kHz)     | 0322116          | 200997135            | CBS723-TC       |         |
| T4       | IF (455kHz)        | 0322146          | 2211672K3            | 8517            |         |
| T5       | IF (455kHz)        | 5132031          | 221466903            | CBS503-4TC      |         |
| T11      | Xmt Buffer (27MHz) | 5126376          | 682532031            | 8518            |         |
| T12      | Xmt Buffer (27MHz) | 5123375          |                      |                 |         |
| T13      | Xmt Driver (27MHz) | 5126377          |                      |                 |         |
| T14      | Final (27MHz)      | 5126378          |                      |                 |         |
| T15      | Loading (27MHz)    | 0317184          |                      |                 |         |

## PARTS LIST AND DESCRIPTION (CONTINUED)

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

### COILS (RF-IF)(cont)

| ITEM No. | FUNCTION            | REPLACEMENT DATA |                      |                 | REMARKS |
|----------|---------------------|------------------|----------------------|-----------------|---------|
|          |                     | PART No.         | OTHER IDENTIFICATION | MILLER PART No. |         |
| T201     | VCO                 | 5123432          | 23432                |                 |         |
| T202     | VCO (16MHz)         | 5123441          | 23441                |                 |         |
| T203     | Xmt Mixer (27MHz)   | 5123431          |                      |                 |         |
| T204     | Xmt Mixer (27MHz)   | 5123432          |                      |                 |         |
| T205     | Xmt Buffer (27MHz)  | 5123431          |                      |                 |         |
| T206     | Buffer (15.360MHz)  | 5123443          | 23443                |                 |         |
| T207     | Xmt Osc (10.695MHz) | 5123442          | 23442                |                 |         |
| T208     | Mixer (10.240MHz)   | 5123444          | 23444                |                 |         |
| T301     | Noise Amp (27MHz)   | 5123266          | 232667215            |                 |         |
| T302     | Noise Amp (27MHz)   | 5123266          | 232667215            |                 |         |

### 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. |       |
| L5       | 1.3A               | .71     | 1.5mH                         | 5220001          | TR548               |                |       |

### TRANSFORMER (Audio Output)

| ITEM No. | IMPEDANCE |      | REPLACEMENT DATA       |                     |                | NOTES               |
|----------|-----------|------|------------------------|---------------------|----------------|---------------------|
|          | PRI.      | SEC. | MFGR. PART No.         | THORDARSON PART No. | TRIAD PART No. |                     |
| T7       | 8         | 18   | 5250192<br>5250192C(1) |                     |                | (1) Number on unit. |

### SPEAKER

| ITEM No. | TYPE          | REPLACEMENT DATA |               | NOTES |
|----------|---------------|------------------|---------------|-------|
|          |               | MFGR. PART No.   | QUAM PART No. |       |
| SP       | 3" PM, 8 Ohms | 5402521          | 30A05Z8R      |       |

SEARS MODEL 934.38080700

## PARTS LIST AND DESCRIPTION (CONTINUED)

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

### FUSE DEVICES

| ITEM No. | DESCRIPTION     | REPLACEMENT DATA |                    |               |        |                     |                  |
|----------|-----------------|------------------|--------------------|---------------|--------|---------------------|------------------|
|          |                 | PART No.         |                    | BUSS PART No. |        | LITTELFUSE PART No. |                  |
|          |                 | DEVICE           | HOLDER             | DEVICE        | HOLDER | DEVICE              | WORKMAN PART No. |
| F1       | 2A Quick Acting | 0591138          | 5722011<br>5722071 | AGC           |        | 312002              | F62-2            |

### 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        | 5421351          | 18-032      | 18-034          | 18-010   | 18-105          | 4      | 1         | 3         | 5       | NC       | 1        |

### MISCELLANEOUS

| ITEM No. | PART NAME | PART No. | NOTES                          |
|----------|-----------|----------|--------------------------------|
| CF1      | Filter    | 5160211  | 10.7MHz                        |
| CF2      | Filter    | 5160011  | 455kHz                         |
| D12      | LED       | 5380051  | AMC (1.47V @ .2mA)             |
| D251     | LED       | 5380051  | MOD (1.02V @ 10mA)             |
| D252     | LED       | 5380052  | XMT (1.60V @ 24mA)             |
| J1       | Jack      | 5675152  | Antenna                        |
| J2       | Jack      | 5673111  | External Speaker               |
| J3       | Jack      | 5653171  | Microphone 5 Pin               |
| J4       | Jack      | 5673111  | PA Speaker                     |
| J5       | Jack      | 5748211  | Power                          |
| J5       | Plug      | 5892751  | Power                          |
| LED201   | LED       | 5310091  | Channel Display Units          |
| LED202   | LED       | 5310091  | Channel Display Tens           |
| M1       | Meter     | 5554151  | S/Rf                           |
| PL1      | Lamp      | 5760821  | Meter (5.06V @ 32mA)           |
| S2       | Switch    |          | Power (Part of Volume Control) |
| S3       | Switch    | 5639212  | PA/CB                          |
| S4       | Switch    | 5639211  | NB                             |
| S5       | Switch    | 5639214  | SWR-CAL                        |
| SW201    | Switch    | 5612192  | Channel Selector               |
| X201     | Crystal   | 5780281  | 10.240MHz                      |
| X202     | Crystal   | 5780282  | 10.695MHz                      |

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

| ITEM          | PART No. | ITEM                            | PART No. |
|---------------|----------|---------------------------------|----------|
| Cover, Top    | 6147291  | Knob Assembly, Channel Selector | 6286313  |
| Cover, Bottom | 6147301  | Knob Assembly, Control          | 6286301  |
| Escutcheon    | 6242053  | Knob, Outer                     | 6294391  |
|               |          | Knob, Inner                     | 6294681  |