

# 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 TRC-457

## MANUFACTURER'S SPECIFICATIONS

### GENERAL:

|                             |                                                                                              |
|-----------------------------|----------------------------------------------------------------------------------------------|
| Channels                    | : 40 Channels for AM, Upper Side Band and Lower Side Band, utilizing Digital Circuitry       |
| Frequency Range             | : 26.965 MHz to 27.405 MHz                                                                   |
| Frequency Control           | : Digital (Phase Lock Loop) Synthesizer                                                      |
| Frequency Accuracy          | : $\pm 100$ Hz                                                                               |
| Operating Temperature Range | : $-20^{\circ}\text{C}$ to $+50^{\circ}\text{C}$                                             |
| Power Requirements          | : 13.8V DC (12-16 volts DC, negative or positive ground) or 120V AC (60 Hz)                  |
| Antenna                     | : 52 ohm (Coaxial connector)                                                                 |
| Microphone                  | : 600 ohm Dynamic Type                                                                       |
| Speaker                     | : 8 ohm, 2.5 Watt                                                                            |
| Clock                       | : Digital Type (solid state)                                                                 |
| Size                        | : 4" x 15" x 11-1/2" (HWD) (10 x 38 x 29.2 cm [HWD])                                         |
| Weight                      | : 16 lbs. (approx.) (7.3 kg)                                                                 |
| Accessories                 | : AC Cord, DC Cord with in-line Fuse, Microphone and Microphone Hanger and Mounting Brackets |

### MEASUREMENT CONDITION:

|                                    |                                                      |
|------------------------------------|------------------------------------------------------|
| Power Source                       | : 13.8V DC, 120V AC (60 Hz)                          |
| Antenna Impedance                  | : 50 ohms                                            |
| Test Temperature                   | : $25^{\circ}\text{C}$                               |
| AM Modulation Frequency            | : 1 kHz                                              |
| SSB Modulation Frequency, Transmit | : Two tone: 500 Hz and 2400 Hz<br>Single tone: 1 kHz |
| Mean Signal Input Level            | : 1000 $\mu\text{V}$                                 |
| Reference Audio Output Power       | : 0.5 W                                              |
| Reference AM Modulation Percentage | : 1 kHz 30%                                          |
| Audio Frequency, SSB Receive       | : 1 kHz                                              |
| Audio Output Load                  | : 8 ohms resistive                                   |
| Measuring Channel                  | : 19                                                 |

Courtesy of the Manufacturer

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

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REALISTIC MODELS TRC-457/-458

## 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 volts at TP10 (TR401, Emitter). Connect low sides of test equipment to ground unless specified otherwise. Connect 50-ohm dummy load or antenna before keying transmitter. Suggested Alignment Tools: GC ELECTRONICS  
 CT1 thru CT7. . . . . .8276, 5000  
 L27, L30, L32 . . . . .9091, 8728-A, 8728  
 L1 thru L8, L16, L17, L24, L37, L39 . . . . .9440

## SYNTHESIZER ALIGNMENT

| TEST EQUIPMENT                                             | TRANSCIVER                      | ADJUST | REMARKS                                                                                 |
|------------------------------------------------------------|---------------------------------|--------|-----------------------------------------------------------------------------------------|
| Input of frequency counter thru 47pF to TP11(IC7, pin 10). | Ch. 1, AM                       |        | Check for 10.240MHz.                                                                    |
| Input of oscilloscope to TP6.                              | Ch. 1, AM                       | L24    | Adjust for maximum RF.                                                                  |
| Input of frequency counter to TP6.                         | Ch. 1, AM, CLARIFIER, Midrange  | CT6    | Adjust for 33.855MHz $\pm 20$ Hz.                                                       |
|                                                            | Ch. 1, USB, CLARIFIER, Midrange | CT4    | Adjust for 33.8574MHz $\pm 20$ Hz.                                                      |
|                                                            | Ch. 1, LSB, CLARIFIER, Midrange | CT5    | Adjust for 33.8526MHz $\pm 20$ Hz.                                                      |
| Input of DC meter to TP7.                                  | Ch. 1, AM, CLARIFIER, Midrange  | L17    | Adjust for 2.00 volts.                                                                  |
| Input of oscilloscope to TP8.                              | Ch. 19, AM, CLARIFIER, Midrange | L16    | Adjust for maximum RF.                                                                  |
| Input of frequency counter to TP8.                         | Ch. 1, AM, CLARIFIER, Midrange  |        | Check for 34.765MHz. Check all channels. (See Truth Chart for correct frequencies).     |
|                                                            | Ch. 1, USB, CLARIFIER, Midrange |        | Check for 34.7675MHz. Check all channels. (See Truth Chart for correct frequencies).    |
|                                                            | Ch. 1, LSB, CLARIFIER, Midrange |        | Check for 34.7625MHz. Check all frequencies. (See Truth Chart for correct frequencies). |
| Input of frequency counter to TP12 (TR31 collector).       | Ch. 1, AM, CLARIFIER, Midrange  |        | Check for .910MHz. Check all channels. (See Truth Chart for correct frequencies).       |
| Input of frequency counter to TP9.                         | Ch. 1, USB                      | CT2    | Adjust for 7.8025MHz $\pm 5$ Hz.                                                        |
|                                                            | Ch. 1, LSB                      | CT3    | Adjust for 7.7975MHz $\pm 5$ Hz.                                                        |
| Input of frequency counter to antenna jack.                | Ch. 1, AM, XMT                  | VR9    | Adjust for 26.965MHz.                                                                   |

## 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 Off, ANL Off.

### AM

| TEST EQUIPMENT                                                                                | TRANSCIVER          | ADJUST            | REMARKS                                                                    |
|-----------------------------------------------------------------------------------------------|---------------------|-------------------|----------------------------------------------------------------------------|
| Output of signal generator thru .01uF to TP13 (FET1, G1)<br>7.8MHz, 1000Hz @ 30% modulation.  | Ch. 19, AM          | L8, L7,<br>L6, L5 | Adjust for maximum output.                                                 |
| Output of signal generator thru .01uF to antenna jack.<br>27.185MHz, 1000Hz @ 30% modulation. | Ch. 19, AM          | L4, L3            | Adjust for maximum output.<br>If necessary readjust L5,<br>L6, L7, and L8. |
| Inject a 100pps, 1uSec signal at MIC input.<br>Input of oscilloscope to TP5.                  | Ch. 19, AM<br>NB On | L1, L2            | Adjust for maximum.                                                        |

## RECEIVER ALIGNMENT

Connect an AC VTVM or AF wattmeter across speaker voice coil.  
Adjust volume control to obtain a suitable indication.  
RF GAIN Maximum, Clarifier 0, Squelch MINIMUM, ANL Off, NB Off, Volume Maximum.

### SSB

| TEST EQUIPMENT                                                                                      | TRANSCIVER  | ADJUST | REMARKS                   |
|-----------------------------------------------------------------------------------------------------|-------------|--------|---------------------------|
| Output of signal generator thru .01uF to antenna jack.<br>27.186MHz no modulation.<br>Output .25uV. | Ch. 19, USB | CT1    | Adjust for 2 volts audio. |

## RECEIVER ADJUSTMENTS

Connect an AC VTVM or AF wattmeter across speaker voice coil.  
Adjust volume control to obtain a suitable indication.  
RF GAIN Maximum, Clarifier 0, Squelch MINIMUM, NB Off, ANL Off.

| TEST EQUIPMENT                                                                                                  | TRANSCIVER                                       | ADJUST | REMARKS                                                |
|-----------------------------------------------------------------------------------------------------------------|--------------------------------------------------|--------|--------------------------------------------------------|
| Output of signal generator thru .01uF to antenna jack.<br>27.185MHz, 1000Hz @ 30% modulation.<br>Output .5uV.   | Ch. 19, AM<br>VOLUME Maximum                     | VR5    | AM RX GAIN<br>Adjust for 2 volts audio.                |
| Output of signal generator thru .01uF to antenna jack.<br>27.185MHz, 1000Hz @ 30% modulation.<br>Output 50uV.   | Ch. 19, AM<br>RF GAIN MINIMUM<br>SQUELCH Maximum | VR2    | RF GAIN<br>Adjust for 2 volts audio.                   |
| Output of signal generator thru .01uF to antenna jack.<br>27.185MHz, 1000Hz @ 30% modulation.<br>Output 1000uV. | Ch. 19, AM<br>Squelch Maximum                    | VR3    | SQUELCH RANGE<br>Adjust so that squelch just breaks.   |
| Output of signal generator thru .01uF to antenna jack.<br>27.185MHz, 1000Hz @ 30% modulation.<br>Output 100uV.  | Ch. 19, AM                                       | VR1    | SIGNAL METER<br>Adjust for 9 on SIGNAL scale of meter. |

## 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.

### AM

| TEST EQUIPMENT                                                | TRANSCEIVER | ADJUST | REMARKS                      |
|---------------------------------------------------------------|-------------|--------|------------------------------|
| Input of Spectrum analyzer or harmonic meter to antenna jack. | Ch. 19, AM  | L27    | Adjust for MINIMUM at 54MHz. |

## 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.

### SSB

| TEST EQUIPMENT                             | TRANSCEIVER | ADJUST               | REMARKS              |
|--------------------------------------------|-------------|----------------------|----------------------|
| Inject a 1000Hz 5mV signal at MIC input.   | Ch. 19      | L39,L37,L32, L30,CT7 | Adjust for maximum.  |
| Inject a 1000Hz 200mV signal at MIC input. | Ch. 19      | CT7                  | Adjust for 12 watts. |

## 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.

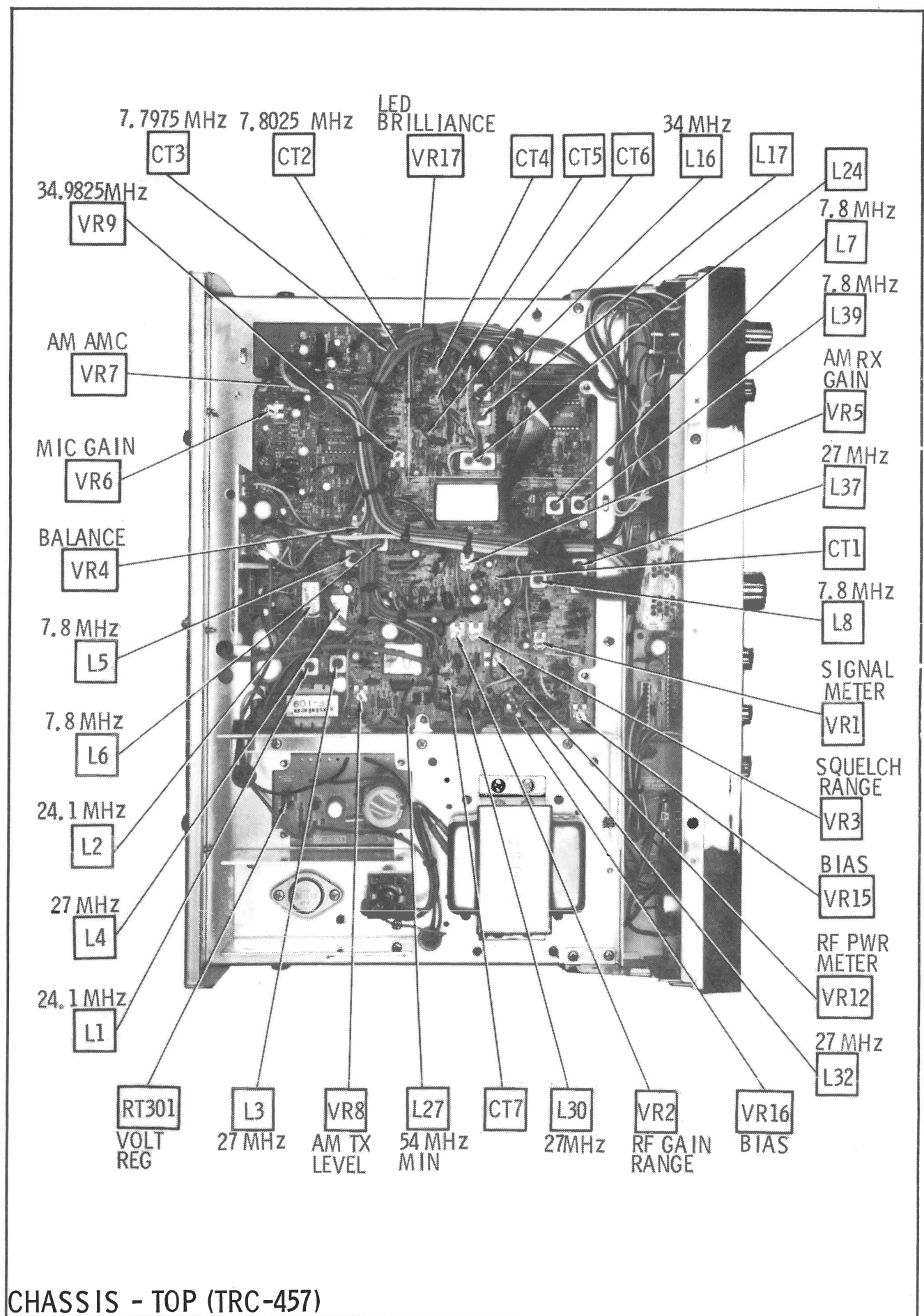
See page 4 for channel frequencies.

| TEST EQUIPMENT                                                                                          | TRANSCEIVER | ADJUST  | REMARKS                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------|-------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input of DC meter to TP10 (TR401, Emitter)                                                              | Ch. 19, AM  | RT301   | VOLT REG<br>Adjust for 13.80 volts.                                                                                                                               |
|                                                                                                         | Ch. 19, AM  | VR17    | LED BRILLIANCE<br>Adjust so that channel LED and clock display are the same brightness.                                                                           |
| Connect current meter in series with circuit at TP4.<br>No signal input.                                | Ch. 19, USB | VR15    | BIAS<br>Adjust for 40mA.                                                                                                                                          |
| Connect current meter in series with circuit at TP2.<br>No signal input.                                | Ch. 19, USB | VR16    | BIAS<br>Adjust for 15mA.                                                                                                                                          |
| Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.<br>No signal input.        | Ch. 19, USB | VR4     | BALANCE<br>Adjust for MINIMUM RF.                                                                                                                                 |
|                                                                                                         | Ch. 19, AM  | VR8     | AM POWER<br>Adjust for 4 watts maximum.                                                                                                                           |
| Inject a 1000Hz, 5mV signal at MIC input.<br>Input of oscilloscope or modulation meter to antenna jack. | Ch. 19, AM  | VR6,VR7 | MIC GAIN & AM AMC<br>Turn VR7(From top) fully clockwise.<br>Adjust VR6 for 50% modulation.<br>Increase audio to 200mV.<br>Adjust VR7 for 100% modulation maximum. |
| Connect an RF wattmeter and 50-ohm, 25-watt dummy load to antenna connector.                            | Ch. 19, AM  | VR12    | POWER METER<br>Adjust so that the POWER meter reads just below the red on the power scale of meter.                                                               |

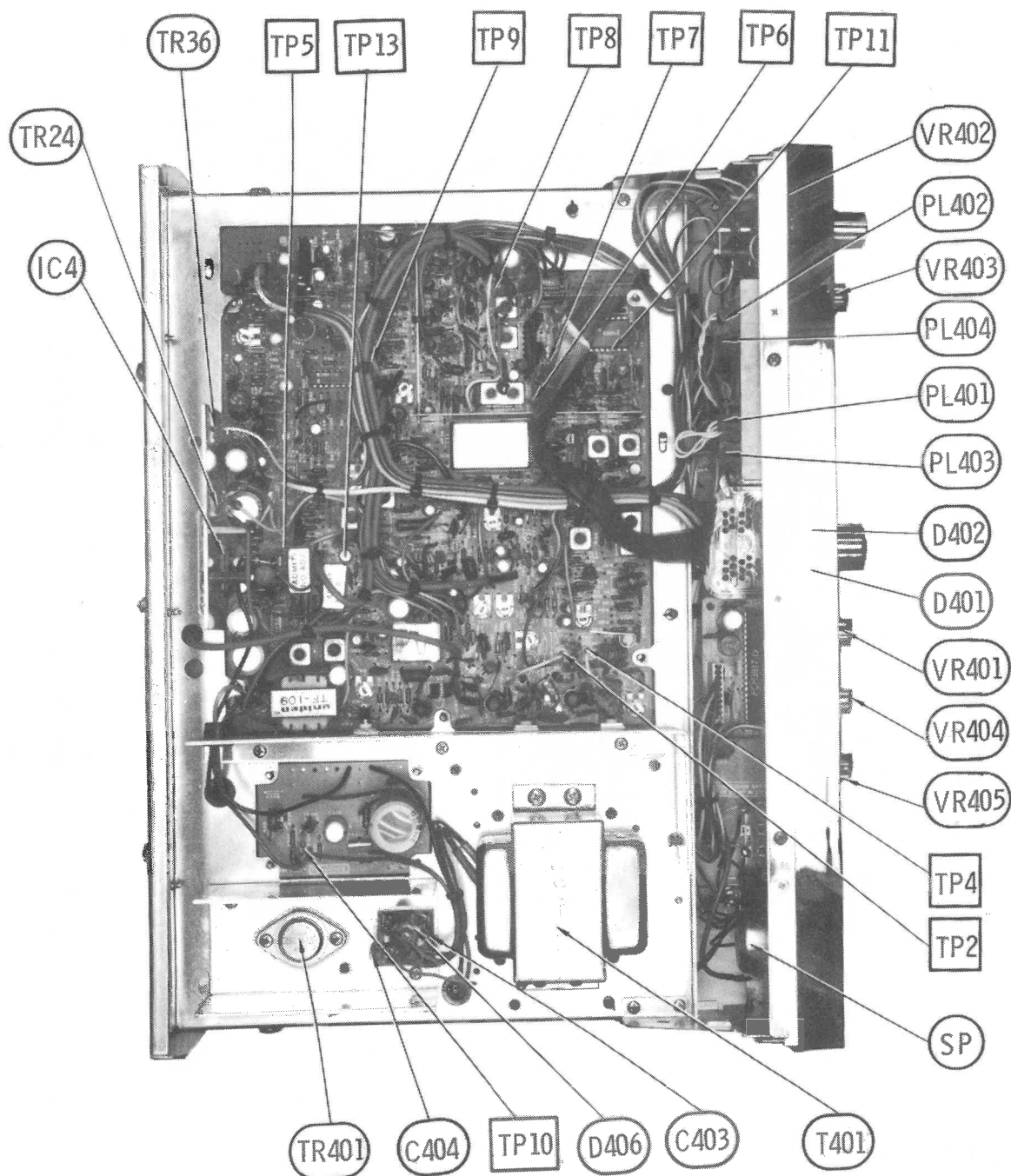
# TRUTH CHART

| C<br>H<br>A<br>N<br>N<br>E<br>L | 1 = 4.90 Volts      0 = 0 Volts<br>IC7<br>PROGRAM DIVIDER |    |    |    |    |    |    |    | AM(REC)<br>SYNTHESIZER<br>OUTPUT<br>IN MHz AT<br>TP8 | USB<br>(REC & XMT)<br>AM(XMT)<br>SYNTHESIZER<br>OUTPUT<br>IN MHz AT<br>TP8 | LSB<br>(REC & XMT)<br>SYNTHESIZER<br>OUTPUT<br>IN MHz AT<br>TP8 | AM,USB,LSB<br>(REC & XMT)<br>DIVIDER<br>INPUT<br>IN MHz AT<br>TP12 |
|---------------------------------|-----------------------------------------------------------|----|----|----|----|----|----|----|------------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------------|
|                                 | PINS                                                      |    |    |    |    |    |    |    |                                                      |                                                                            |                                                                 |                                                                    |
|                                 | 21                                                        | 20 | 18 | 17 | 16 | 15 | 14 | 13 |                                                      |                                                                            |                                                                 |                                                                    |
| 1                               | 0                                                         | 1  | 0  | 1  | 0  | 0  | 0  | 1  | 34.765                                               | 34.7675                                                                    | 34.7625                                                         | .910                                                               |
| 2                               | 0                                                         | 1  | 0  | 1  | 0  | 0  | 1  | 0  | 34.775                                               | 34.7775                                                                    | 34.7725                                                         | .920                                                               |
| 3                               | 0                                                         | 1  | 0  | 1  | 0  | 0  | 1  | 1  | 34.785                                               | 34.7875                                                                    | 34.7825                                                         | .930                                                               |
| 4                               | 0                                                         | 1  | 0  | 1  | 0  | 1  | 0  | 1  | 34.805                                               | 34.8075                                                                    | 34.8025                                                         | .950                                                               |
| 5                               | 0                                                         | 1  | 0  | 1  | 0  | 1  | 1  | 0  | 34.815                                               | 34.8175                                                                    | 34.8125                                                         | .960                                                               |
| 6                               | 0                                                         | 1  | 0  | 1  | 0  | 1  | 1  | 1  | 34.825                                               | 34.8275                                                                    | 34.8225                                                         | .970                                                               |
| 7                               | 0                                                         | 1  | 0  | 1  | 1  | 0  | 1  | 1  | 34.835                                               | 34.8375                                                                    | 34.8325                                                         | .980                                                               |
| 8                               | 1                                                         | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 34.855                                               | 34.8575                                                                    | 34.8525                                                         | 1.000                                                              |
| 9                               | 1                                                         | 0  | 0  | 0  | 0  | 0  | 0  | 1  | 34.865                                               | 34.8675                                                                    | 34.8625                                                         | 1.010                                                              |
| 10                              | 1                                                         | 0  | 0  | 0  | 0  | 0  | 1  | 0  | 34.875                                               | 34.8775                                                                    | 34.8725                                                         | 1.020                                                              |
| 11                              | 1                                                         | 0  | 0  | 0  | 0  | 0  | 1  | 1  | 34.885                                               | 34.8875                                                                    | 34.8825                                                         | 1.030                                                              |
| 12                              | 1                                                         | 0  | 0  | 0  | 0  | 1  | 0  | 1  | 34.905                                               | 34.9075                                                                    | 34.9025                                                         | 1.050                                                              |
| 13                              | 1                                                         | 0  | 0  | 0  | 0  | 1  | 1  | 0  | 34.915                                               | 34.9175                                                                    | 34.9125                                                         | 1.060                                                              |
| 14                              | 1                                                         | 0  | 0  | 0  | 0  | 1  | 1  | 1  | 34.925                                               | 34.9275                                                                    | 34.9225                                                         | 1.070                                                              |
| 15                              | 1                                                         | 0  | 0  | 0  | 1  | 0  | 0  | 0  | 34.935                                               | 34.9375                                                                    | 34.9325                                                         | 1.080                                                              |
| 16                              | 1                                                         | 0  | 0  | 1  | 0  | 0  | 0  | 0  | 34.955                                               | 34.9575                                                                    | 34.9525                                                         | 1.100                                                              |
| 17                              | 1                                                         | 0  | 0  | 1  | 0  | 0  | 0  | 1  | 34.965                                               | 34.9675                                                                    | 34.9625                                                         | 1.110                                                              |
| 18                              | 1                                                         | 0  | 0  | 1  | 0  | 0  | 1  | 0  | 34.975                                               | 34.9775                                                                    | 34.9725                                                         | 1.120                                                              |
| 19                              | 1                                                         | 0  | 0  | 1  | 0  | 0  | 1  | 1  | 34.985                                               | 34.9875                                                                    | 34.9825                                                         | 1.130                                                              |
| 20                              | 1                                                         | 0  | 0  | 1  | 0  | 1  | 0  | 1  | 35.005                                               | 35.0075                                                                    | 35.0025                                                         | 1.150                                                              |
| 21                              | 1                                                         | 0  | 0  | 1  | 0  | 1  | 1  | 0  | 35.015                                               | 35.0175                                                                    | 35.0125                                                         | 1.160                                                              |
| 22                              | 1                                                         | 0  | 0  | 1  | 0  | 1  | 1  | 1  | 35.025                                               | 35.0275                                                                    | 35.0225                                                         | 1.170                                                              |
| 23                              | 1                                                         | 0  | 1  | 0  | 0  | 0  | 0  | 0  | 35.055                                               | 35.0575                                                                    | 35.0525                                                         | 1.200                                                              |
| 24                              | 1                                                         | 0  | 0  | 1  | 1  | 0  | 0  | 0  | 35.035                                               | 35.0375                                                                    | 35.0325                                                         | 1.180                                                              |
| 25                              | 1                                                         | 0  | 0  | 1  | 1  | 0  | 0  | 1  | 35.045                                               | 35.0475                                                                    | 35.0425                                                         | 1.190                                                              |
| 26                              | 1                                                         | 0  | 1  | 0  | 0  | 0  | 0  | 1  | 35.065                                               | 35.0675                                                                    | 35.0625                                                         | 1.210                                                              |
| 27                              | 1                                                         | 0  | 1  | 0  | 0  | 0  | 1  | 0  | 35.075                                               | 35.0775                                                                    | 35.0725                                                         | 1.220                                                              |
| 28                              | 1                                                         | 0  | 1  | 0  | 0  | 0  | 1  | 1  | 35.085                                               | 35.0875                                                                    | 35.0825                                                         | 1.230                                                              |
| 29                              | 1                                                         | 0  | 1  | 0  | 0  | 1  | 0  | 0  | 35.095                                               | 35.0975                                                                    | 35.0925                                                         | 1.240                                                              |
| 30                              | 1                                                         | 0  | 1  | 0  | 0  | 1  | 0  | 1  | 35.105                                               | 35.1075                                                                    | 35.1025                                                         | 1.250                                                              |
| 31                              | 1                                                         | 0  | 1  | 0  | 0  | 1  | 1  | 0  | 35.115                                               | 35.1175                                                                    | 35.1125                                                         | 1.260                                                              |
| 32                              | 1                                                         | 0  | 1  | 0  | 0  | 1  | 1  | 1  | 35.125                                               | 35.1275                                                                    | 35.1225                                                         | 1.270                                                              |
| 33                              | 1                                                         | 0  | 1  | 0  | 1  | 0  | 0  | 0  | 35.135                                               | 35.1375                                                                    | 35.1325                                                         | 1.280                                                              |
| 34                              | 1                                                         | 0  | 1  | 0  | 1  | 0  | 0  | 1  | 35.145                                               | 35.1475                                                                    | 35.1425                                                         | 1.290                                                              |
| 35                              | 1                                                         | 0  | 1  | 1  | 0  | 0  | 0  | 0  | 35.155                                               | 35.1575                                                                    | 35.1525                                                         | 1.300                                                              |
| 36                              | 1                                                         | 0  | 1  | 1  | 0  | 0  | 0  | 1  | 35.165                                               | 35.1675                                                                    | 35.1625                                                         | 1.310                                                              |
| 37                              | 1                                                         | 0  | 1  | 1  | 0  | 0  | 1  | 0  | 35.175                                               | 35.1775                                                                    | 35.1725                                                         | 1.320                                                              |
| 38                              | 1                                                         | 0  | 1  | 1  | 0  | 0  | 1  | 1  | 35.185                                               | 35.1875                                                                    | 35.1825                                                         | 1.330                                                              |
| 39                              | 1                                                         | 0  | 1  | 1  | 0  | 1  | 0  | 0  | 35.195                                               | 35.1975                                                                    | 35.1925                                                         | 1.340                                                              |
| 40                              | 1                                                         | 0  | 1  | 1  | 0  | 1  | 0  | 1  | 35.205                                               | 35.2075                                                                    | 35.2025                                                         | 1.350                                                              |

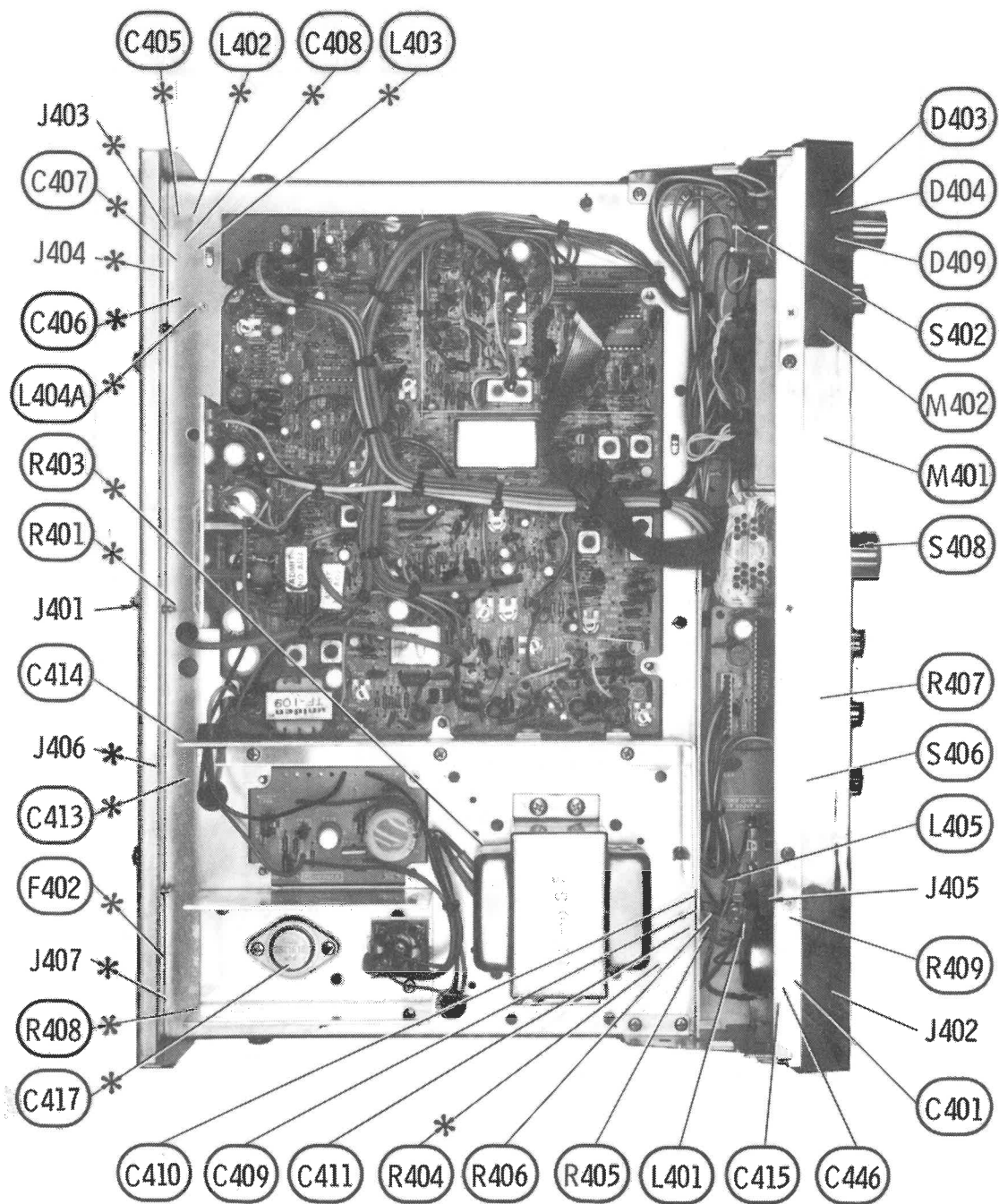
REALISTIC MODELS TRC-457/-458



CHASSIS - TOP (TRC-457)

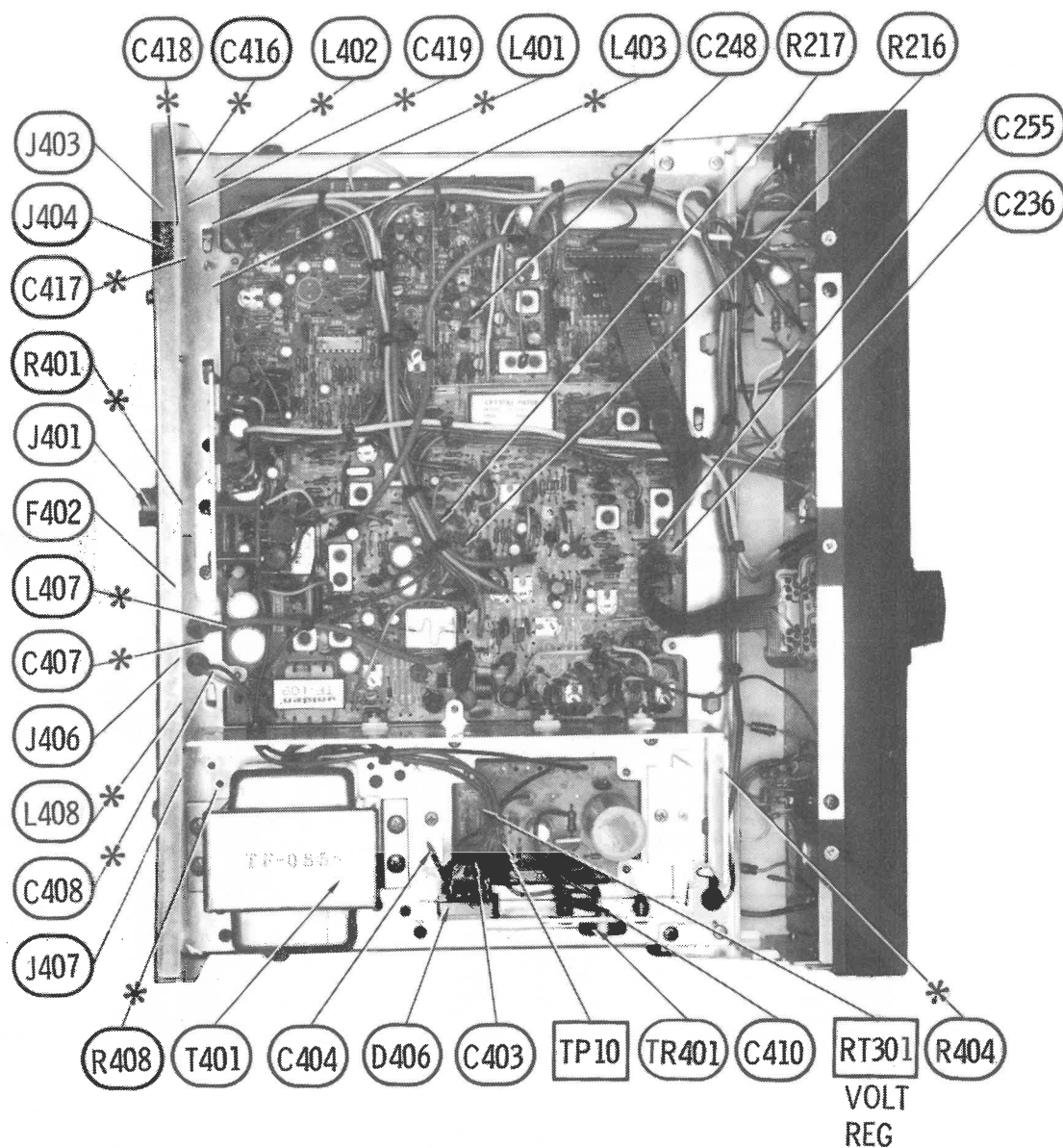


CHASSIS - TOP (TRC-457)



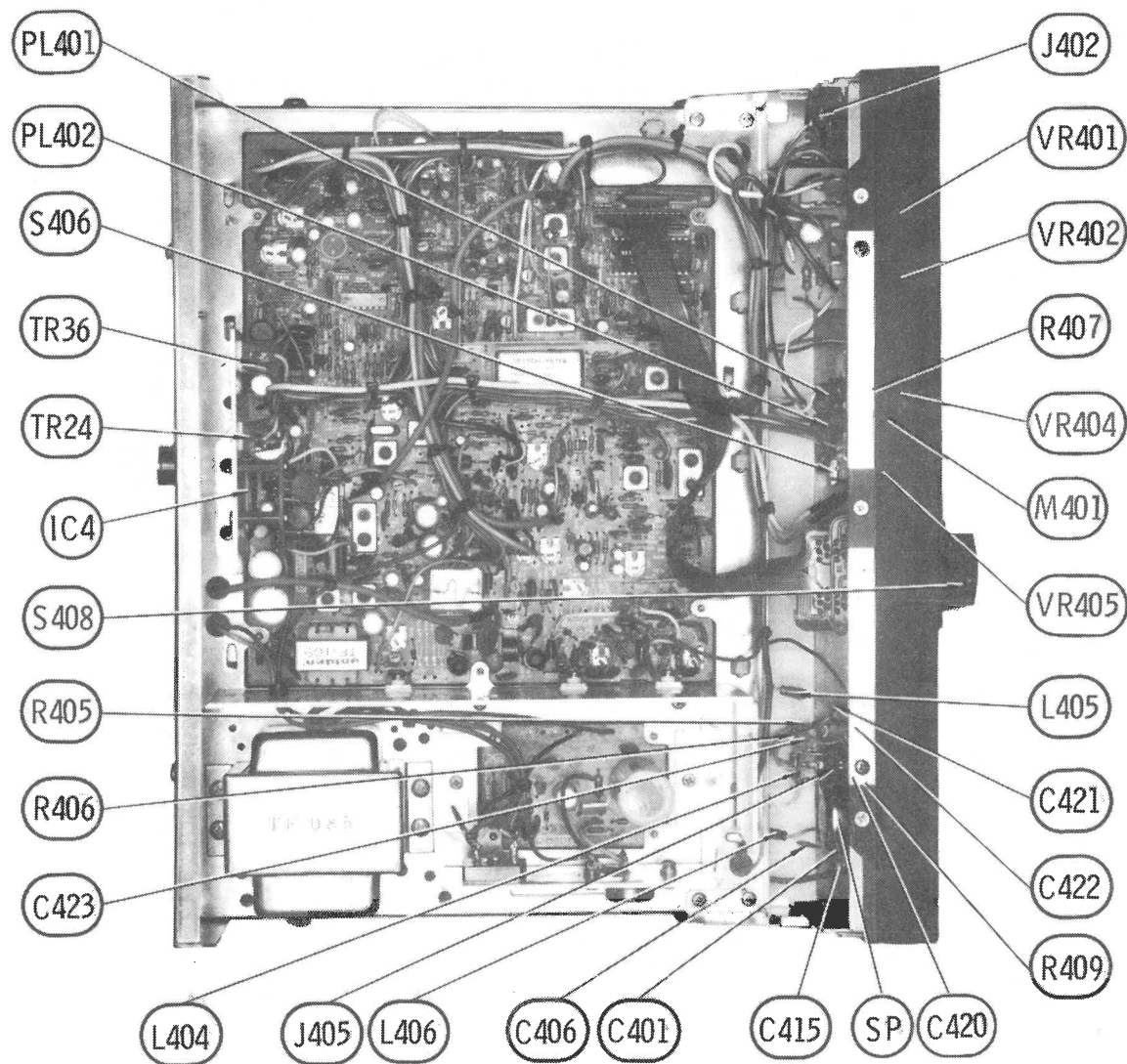
\* Located on bottom of chassis

CHASSIS - TOP (TRC-457)

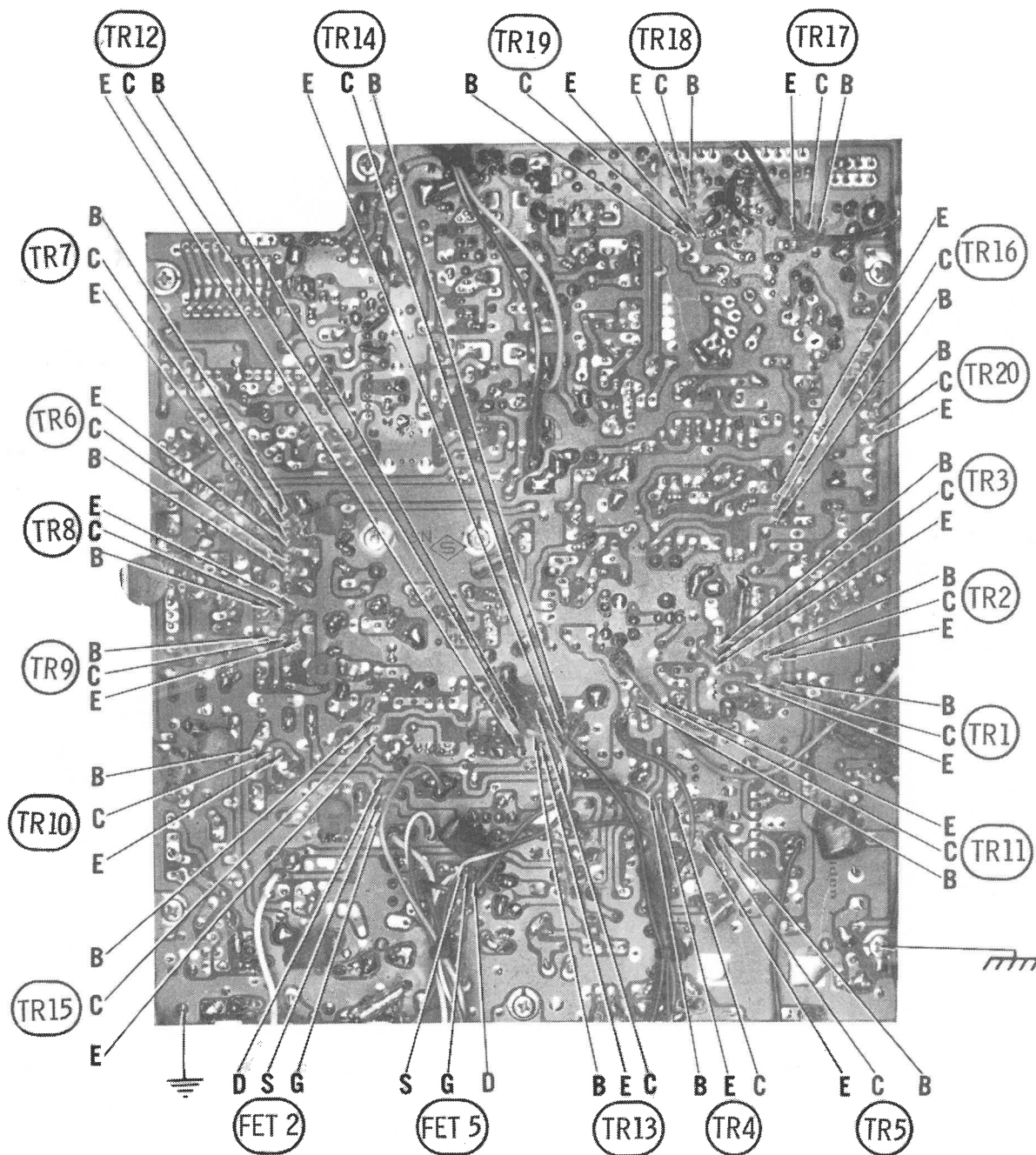


\* Located on bottom of chassis

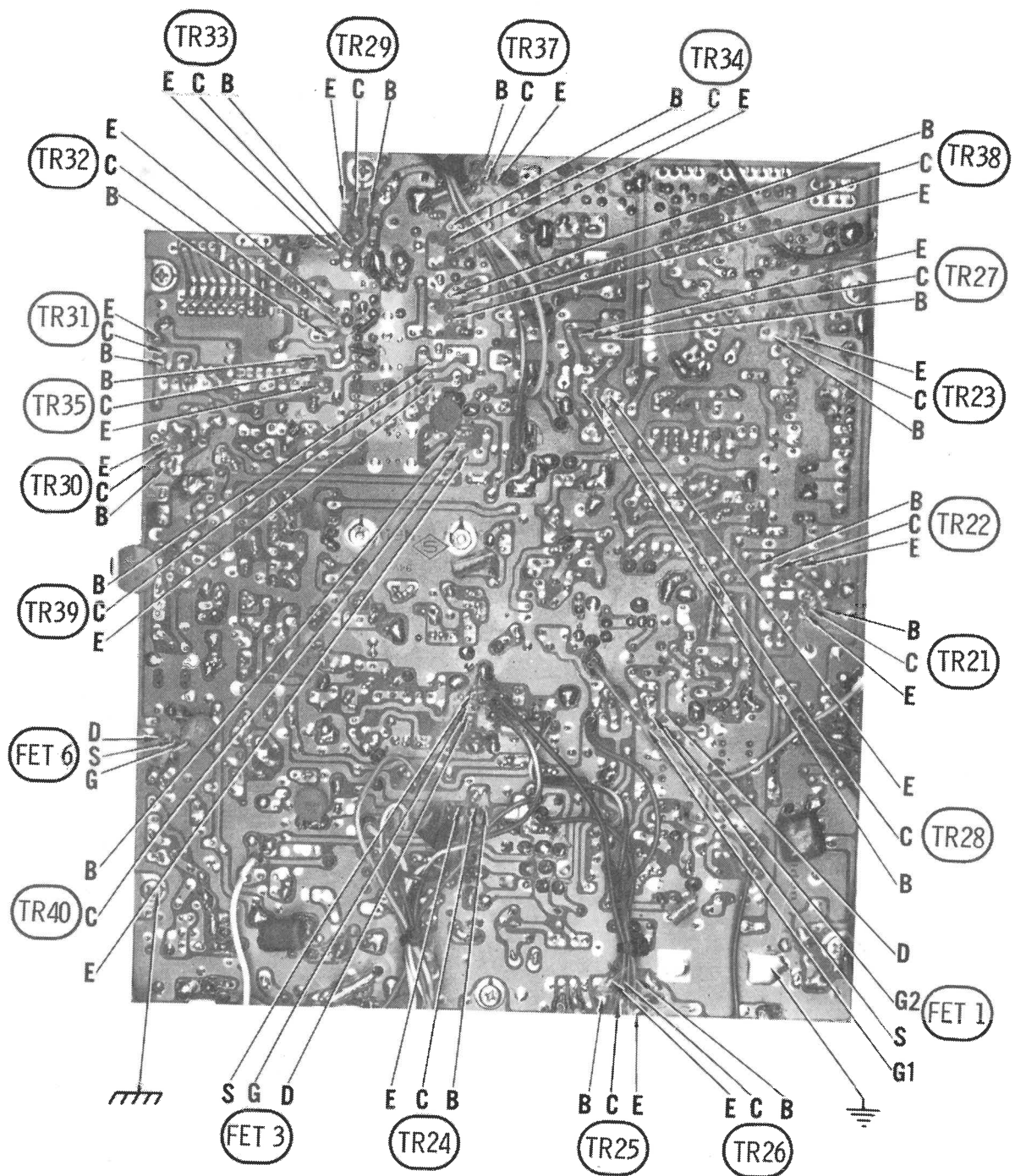
CHASSIS - TOP (TRC-458)



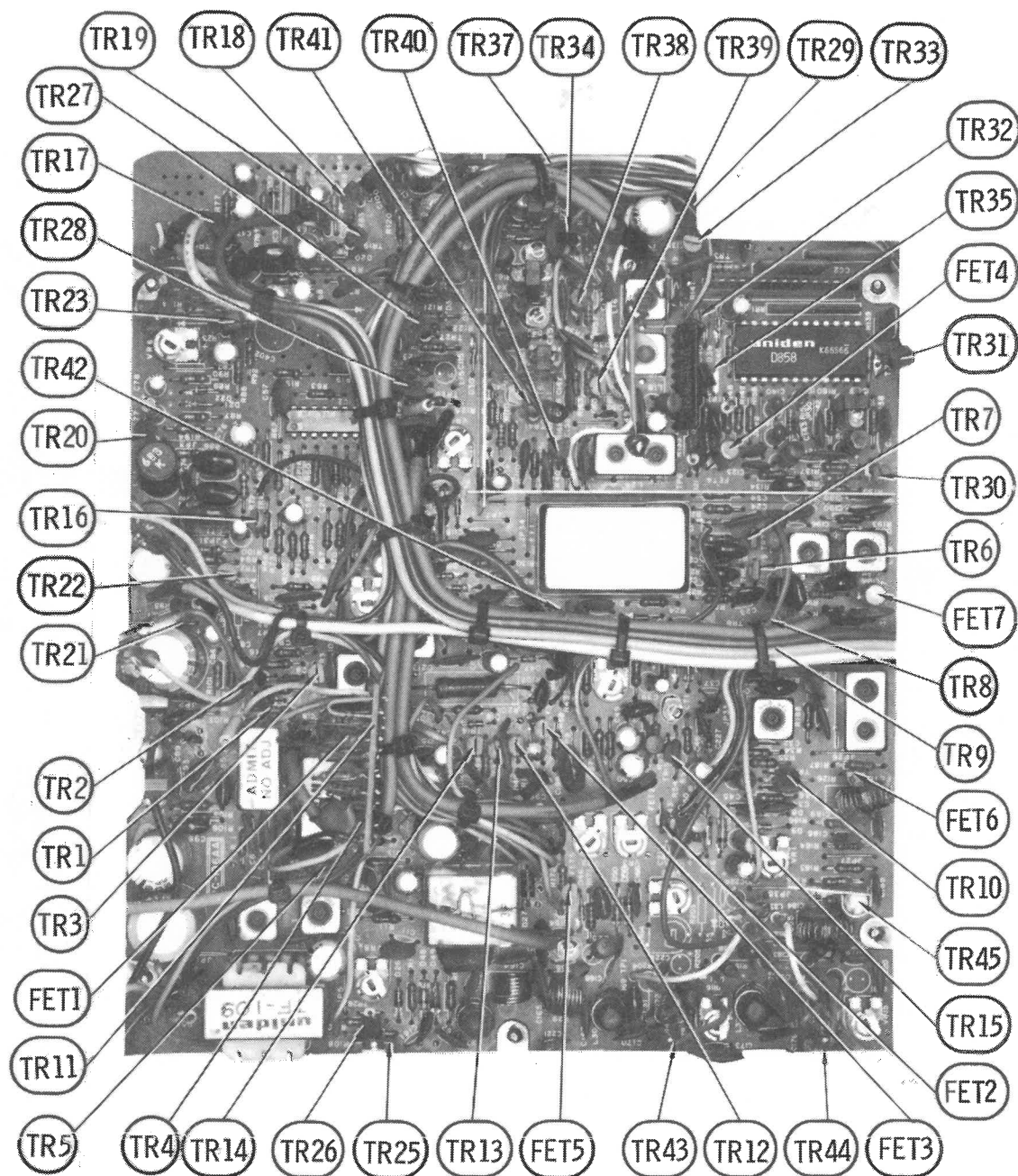
CHASSIS - TOP (TRC-458)



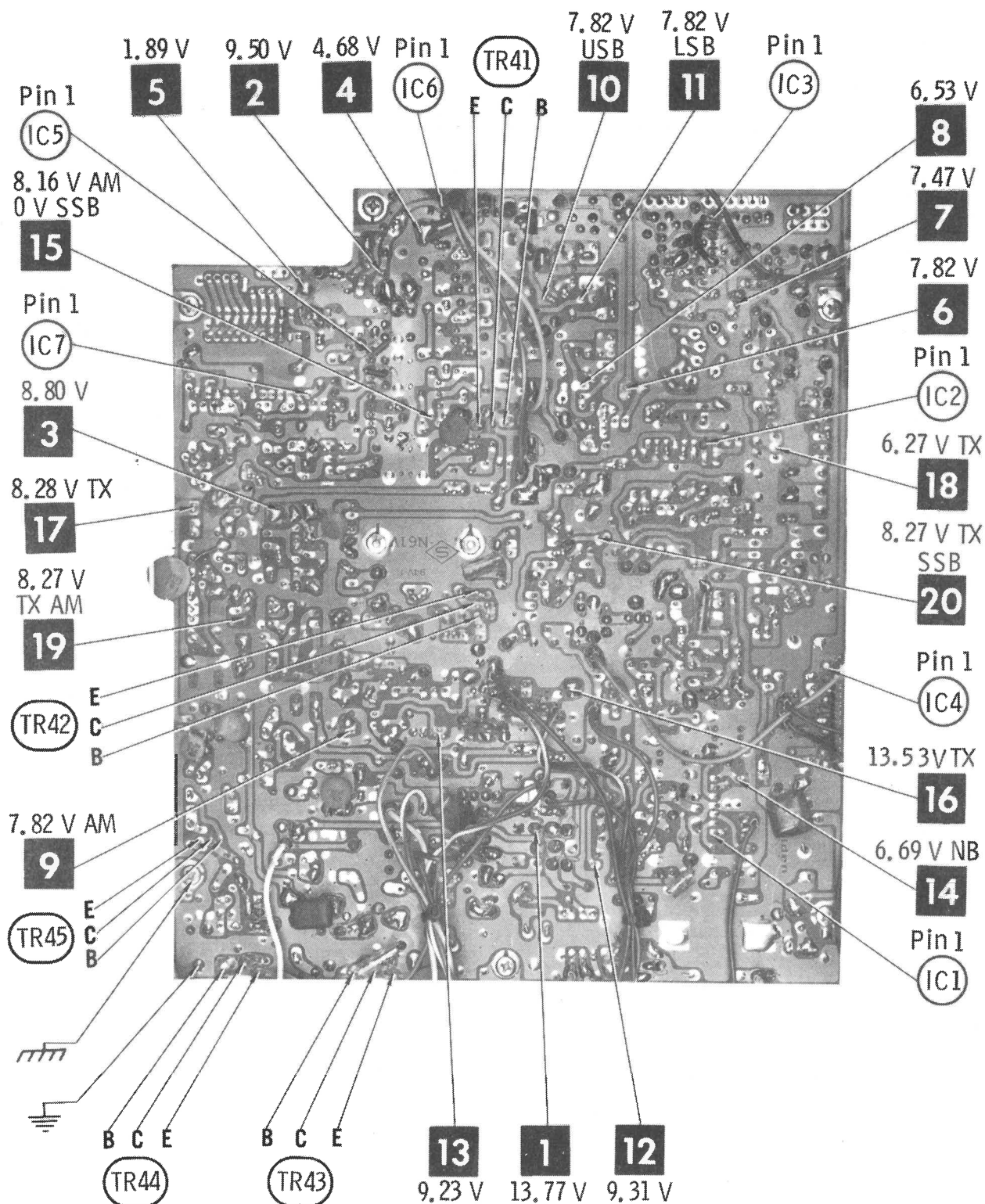
MAIN BOARD



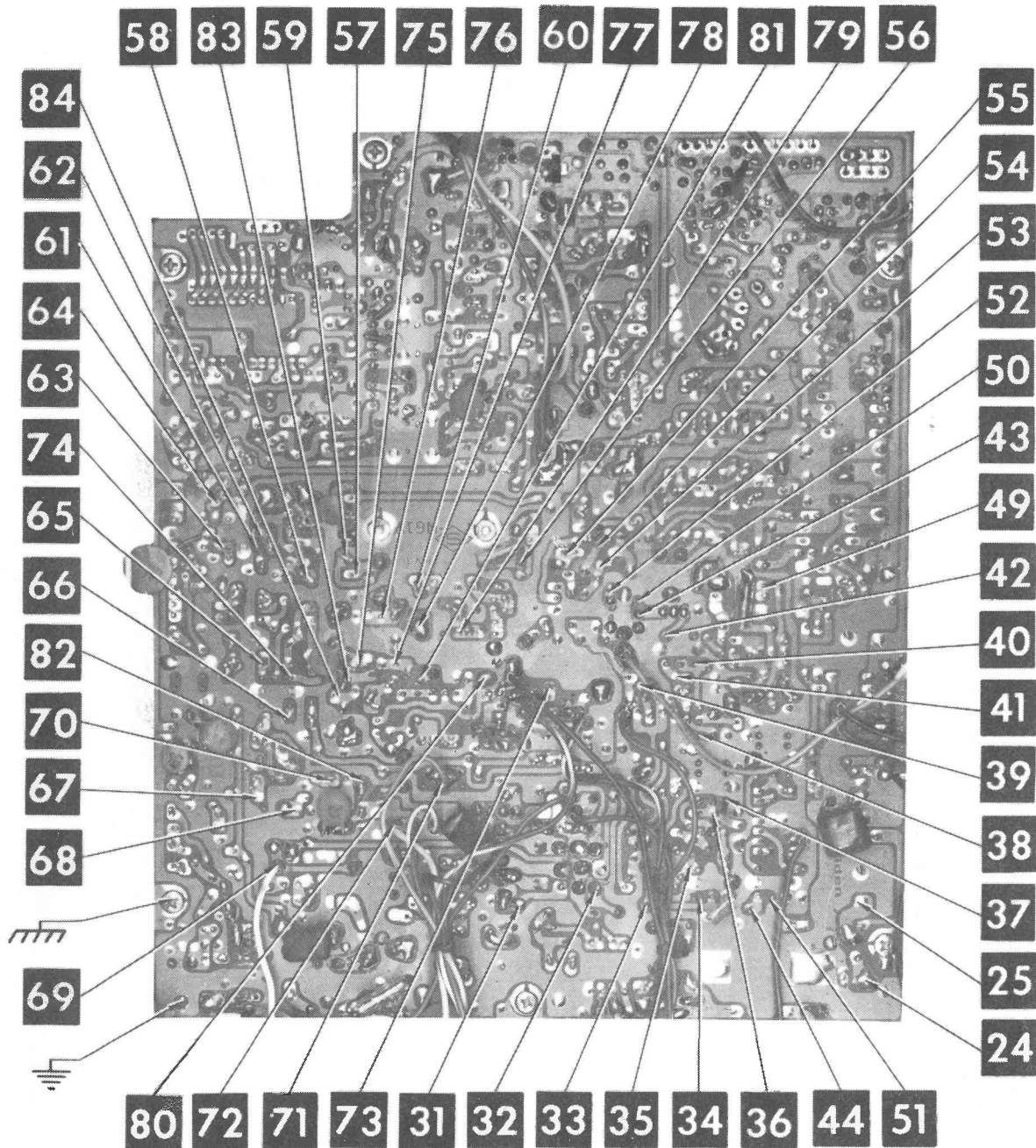
MAIN BOARD



MAIN BOARD

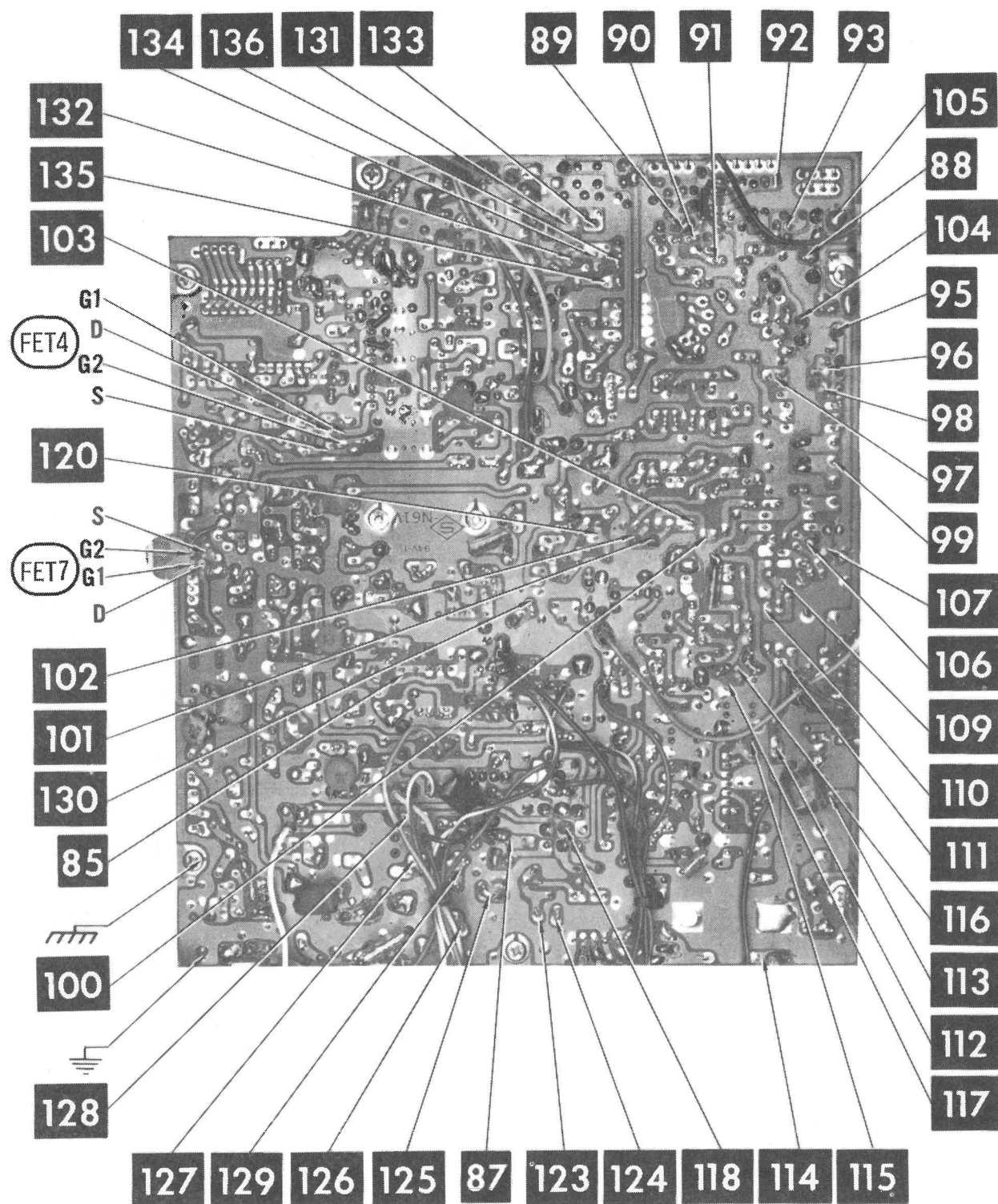


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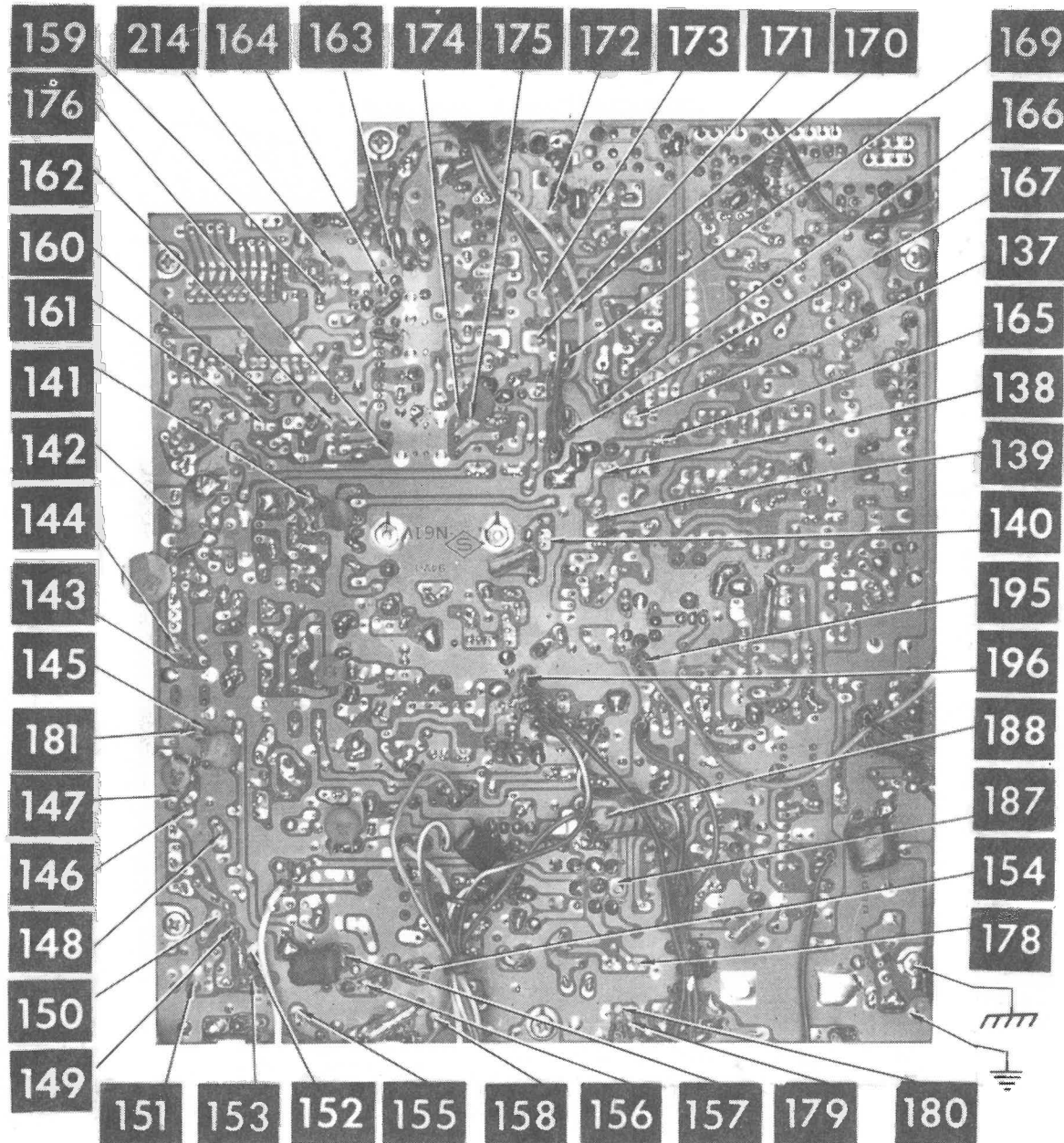


REALISTIC MODELS TRC-457/-458

MAIN BOARD

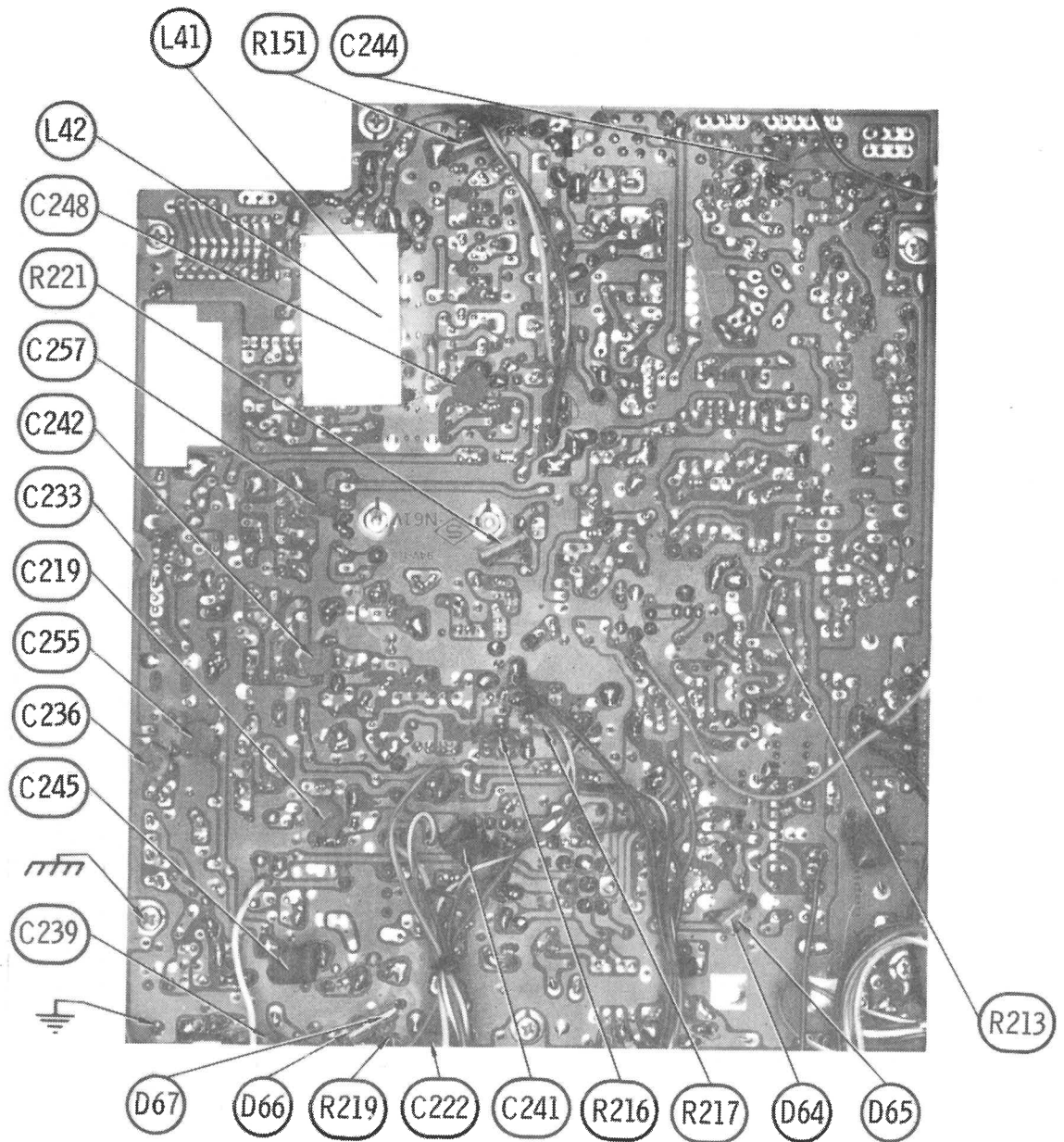


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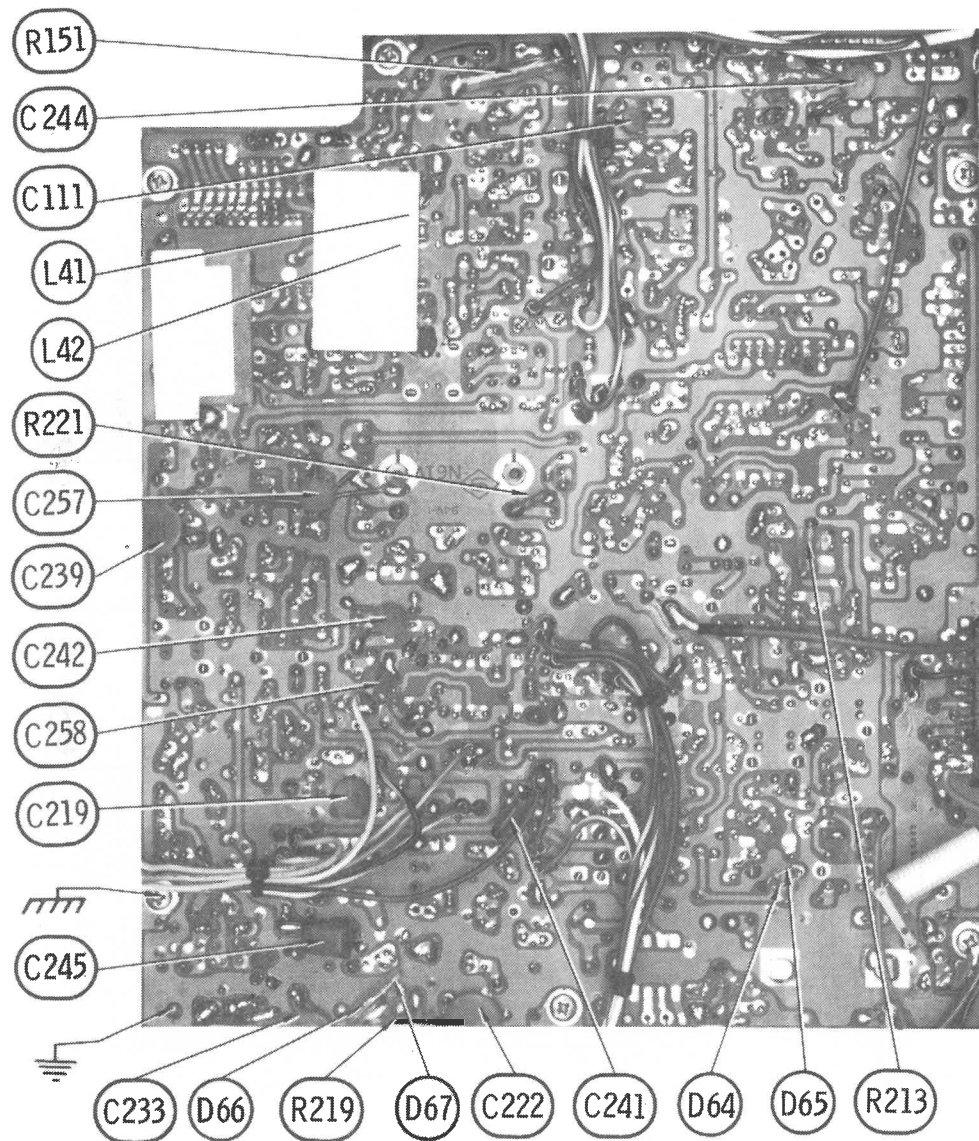


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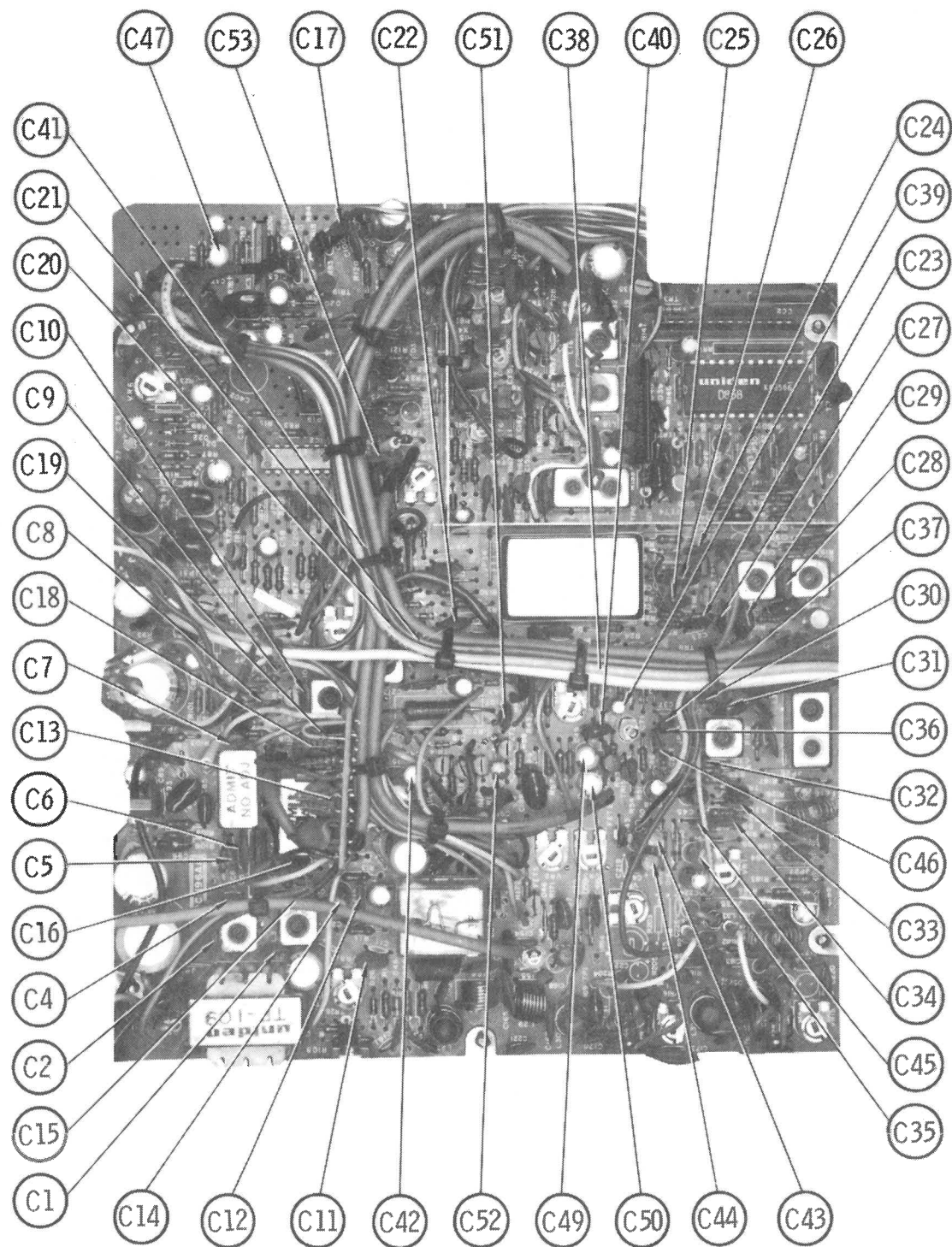
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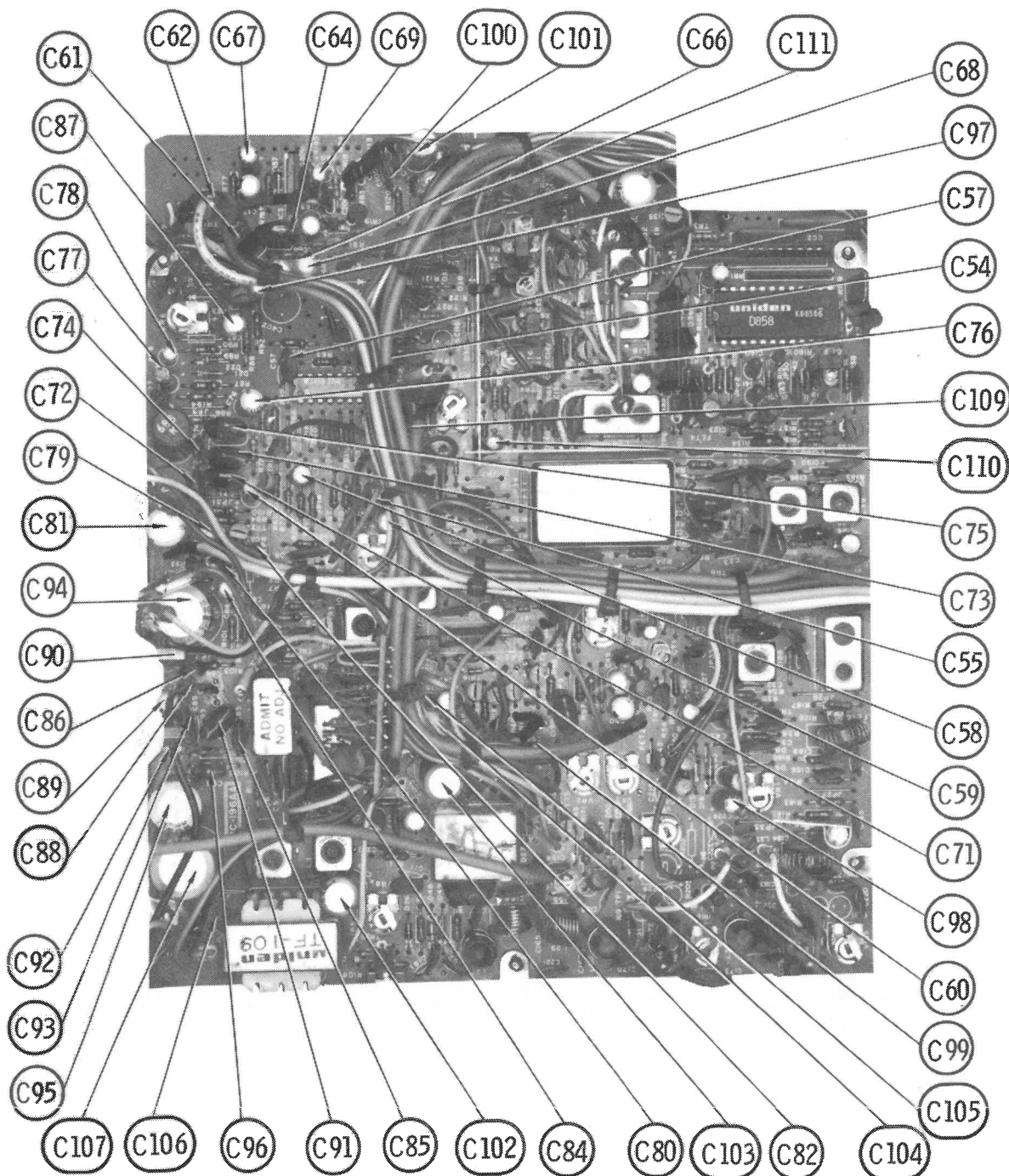
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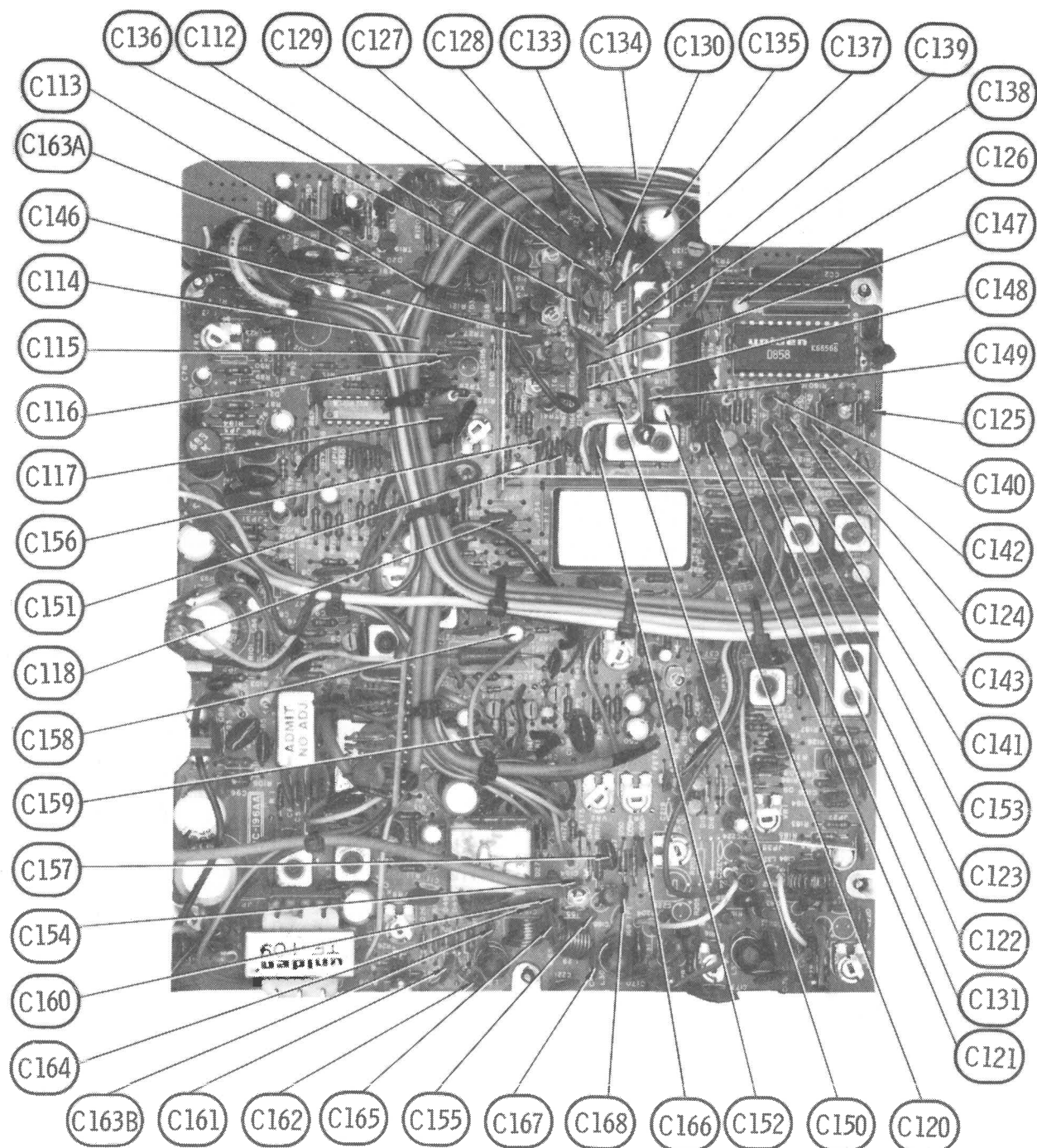
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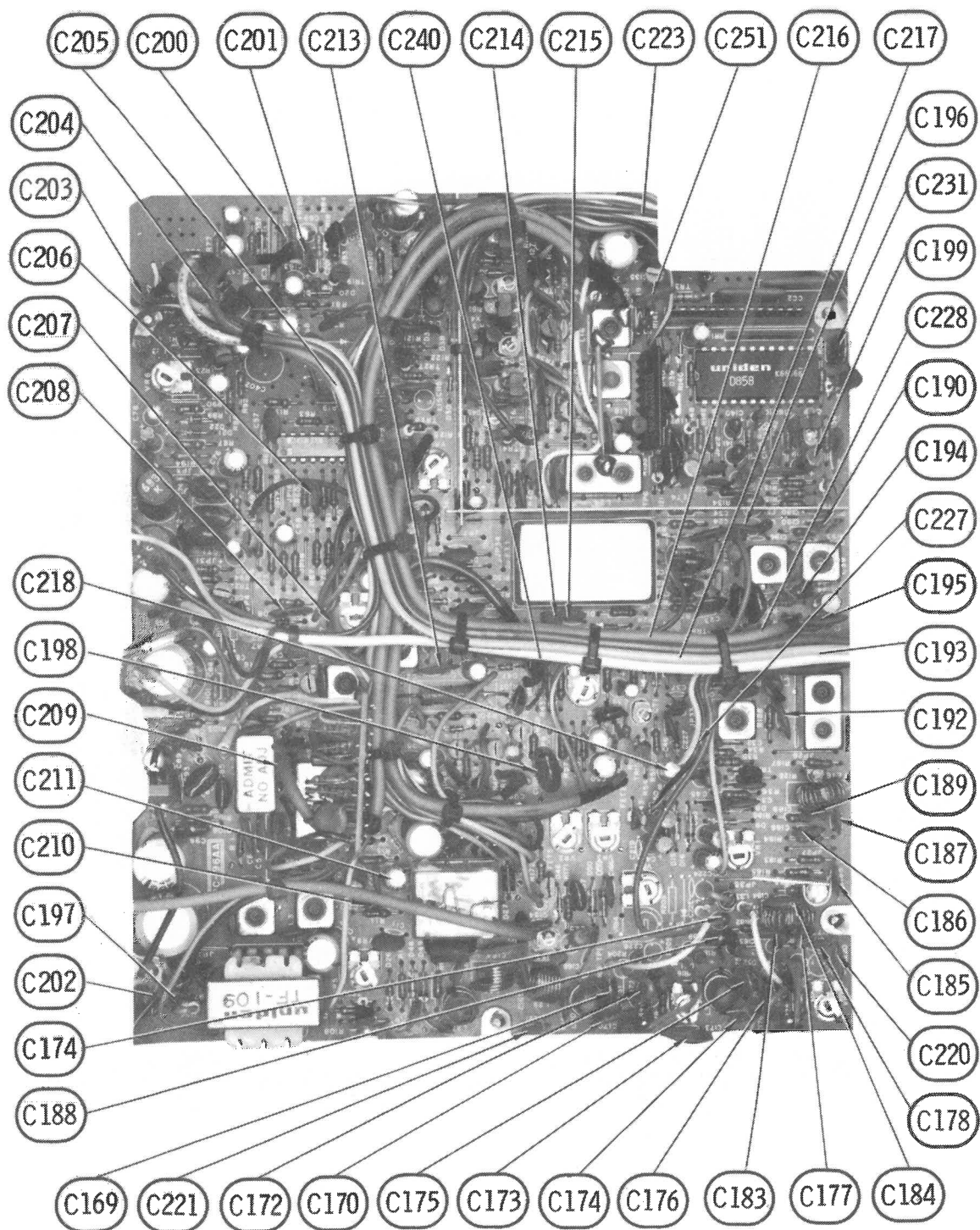
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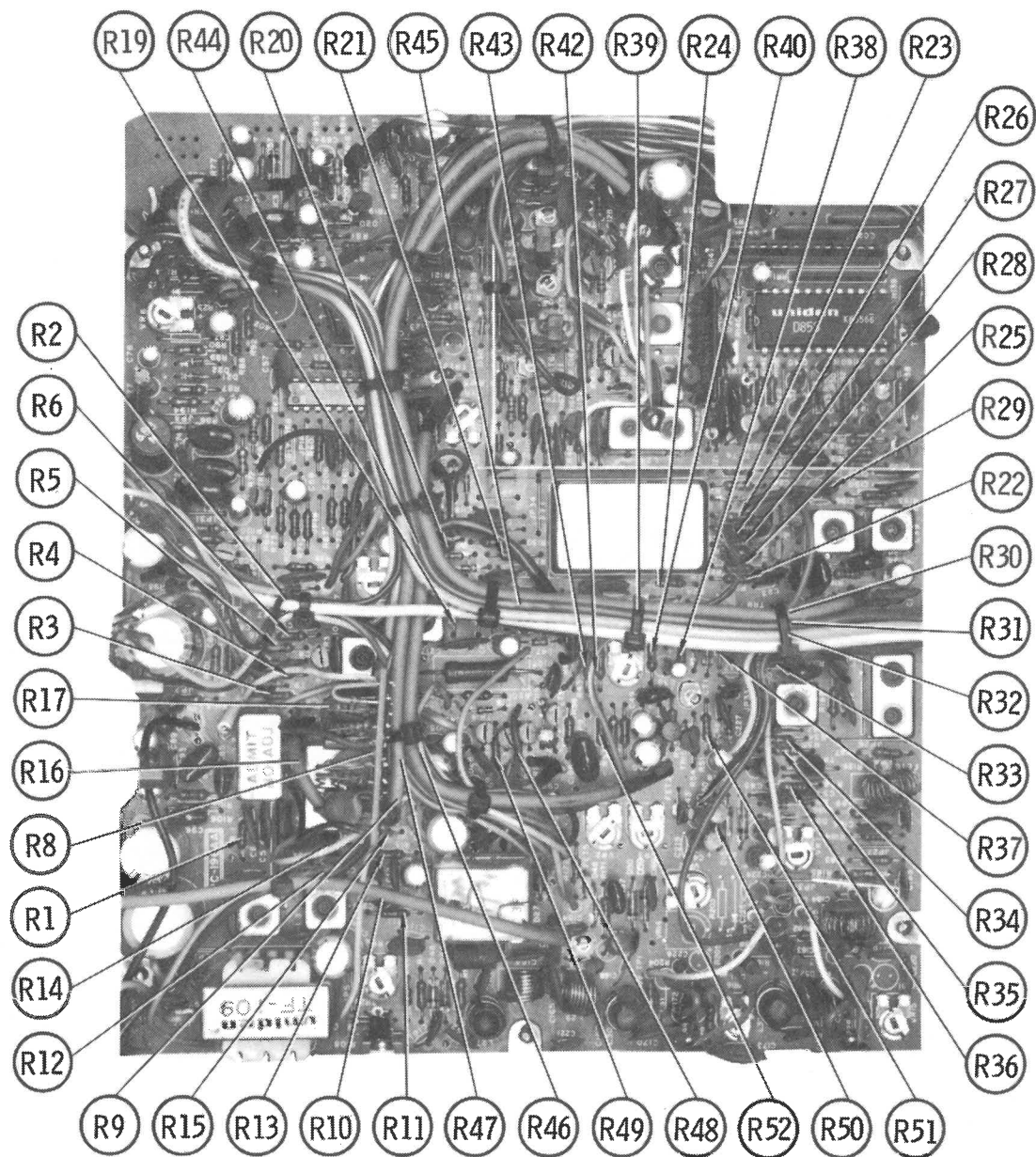
MAIN BOARD



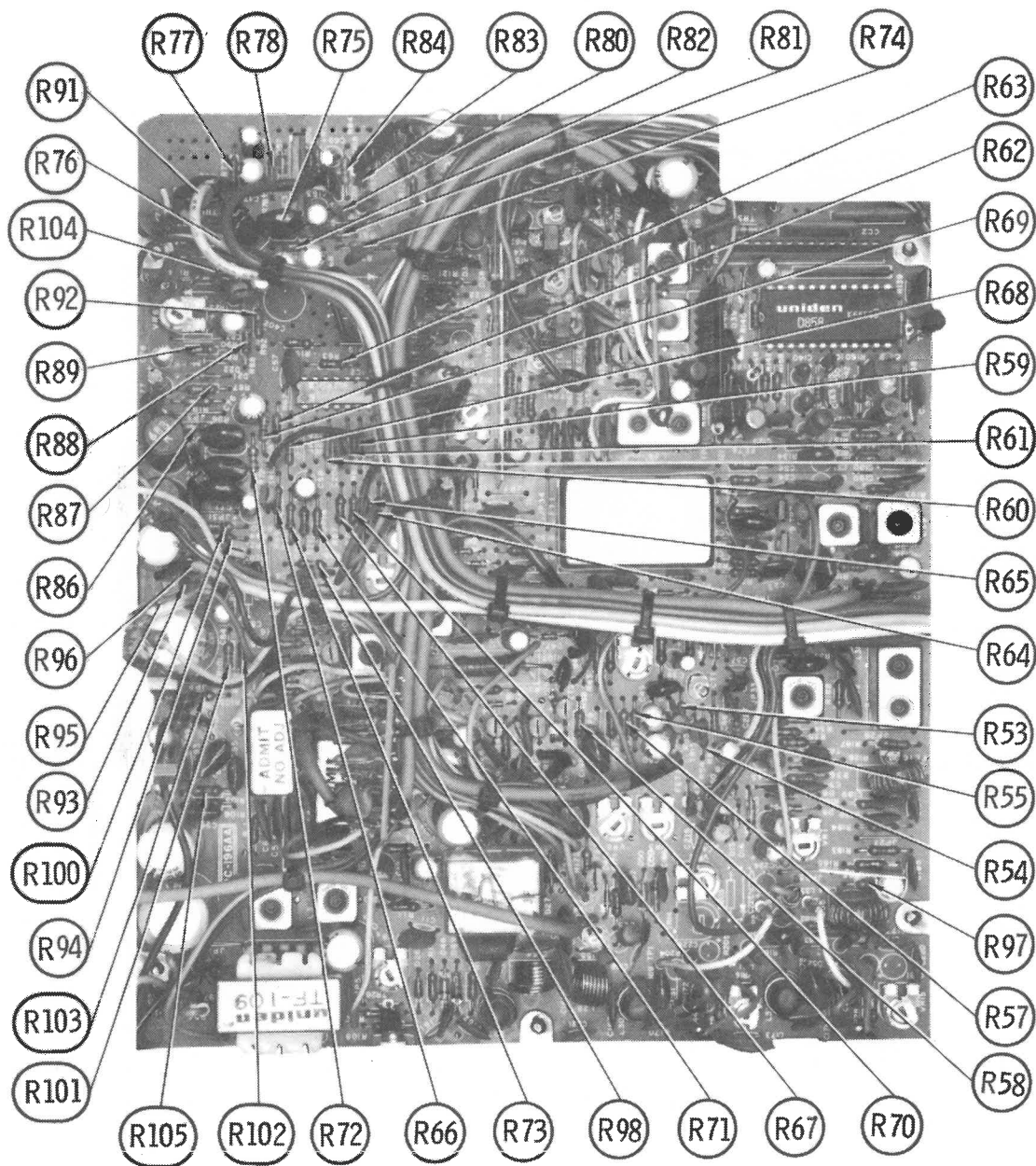
MAIN BOARD



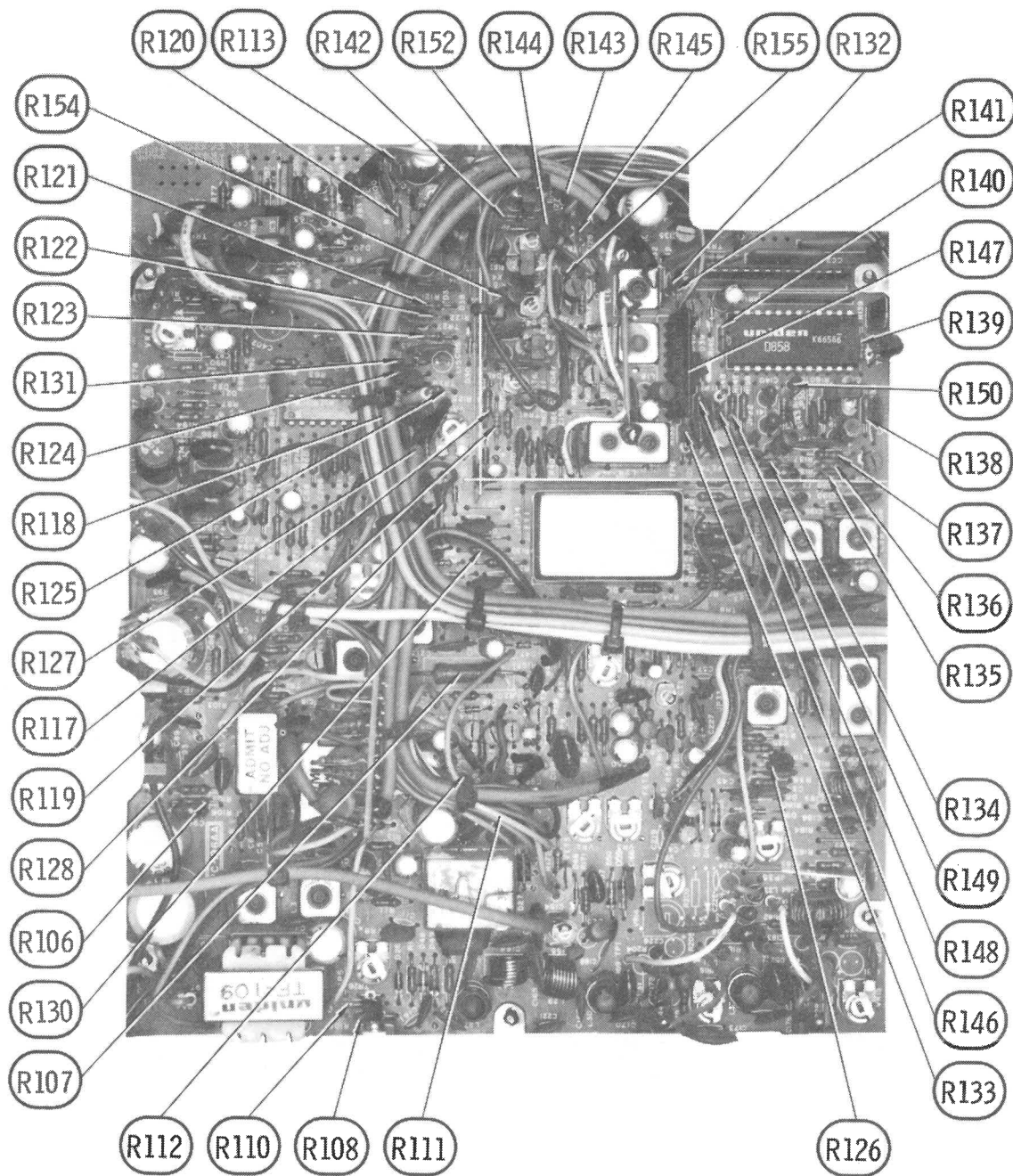
MAIN BOARD



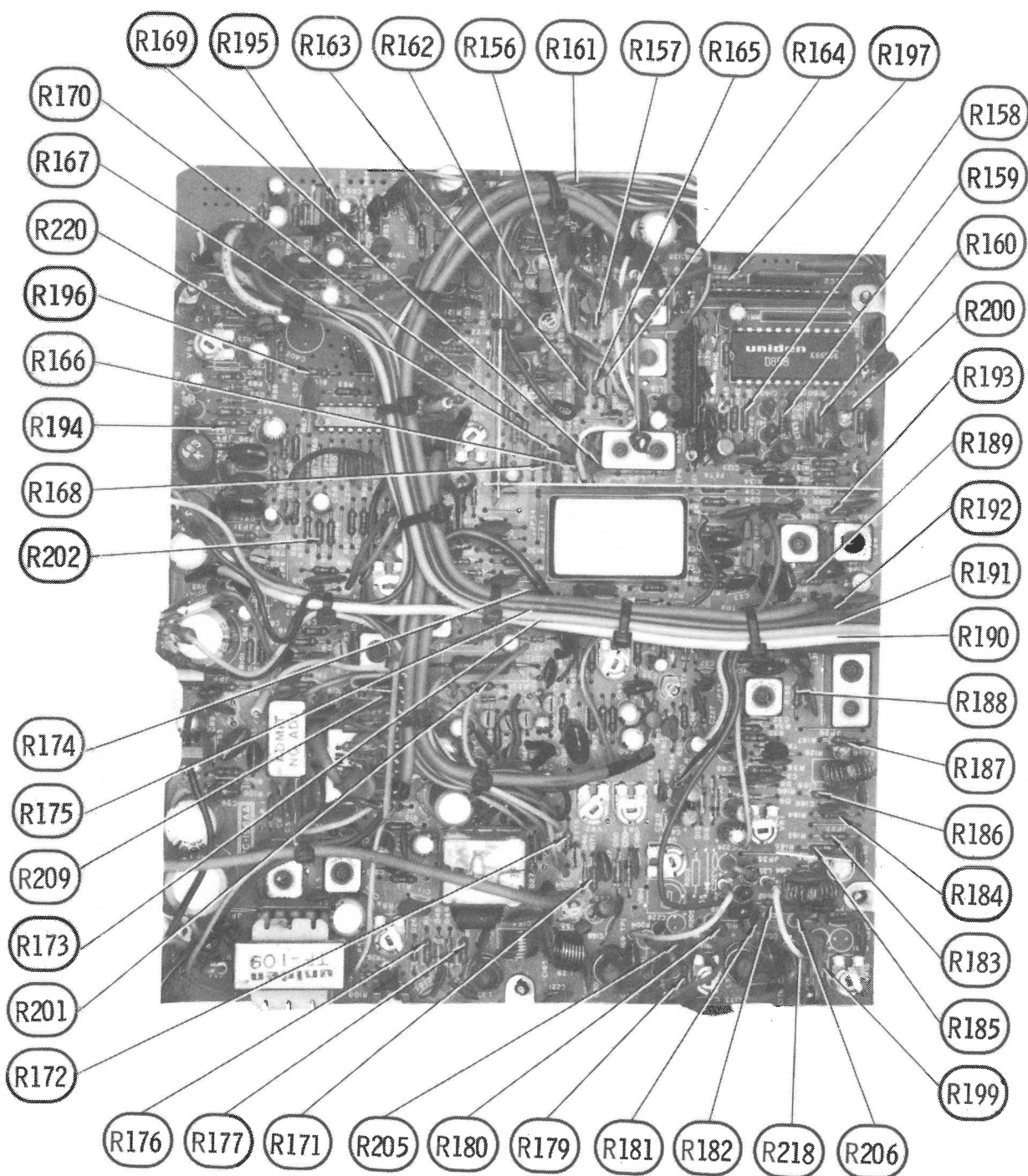
MAIN BOARD



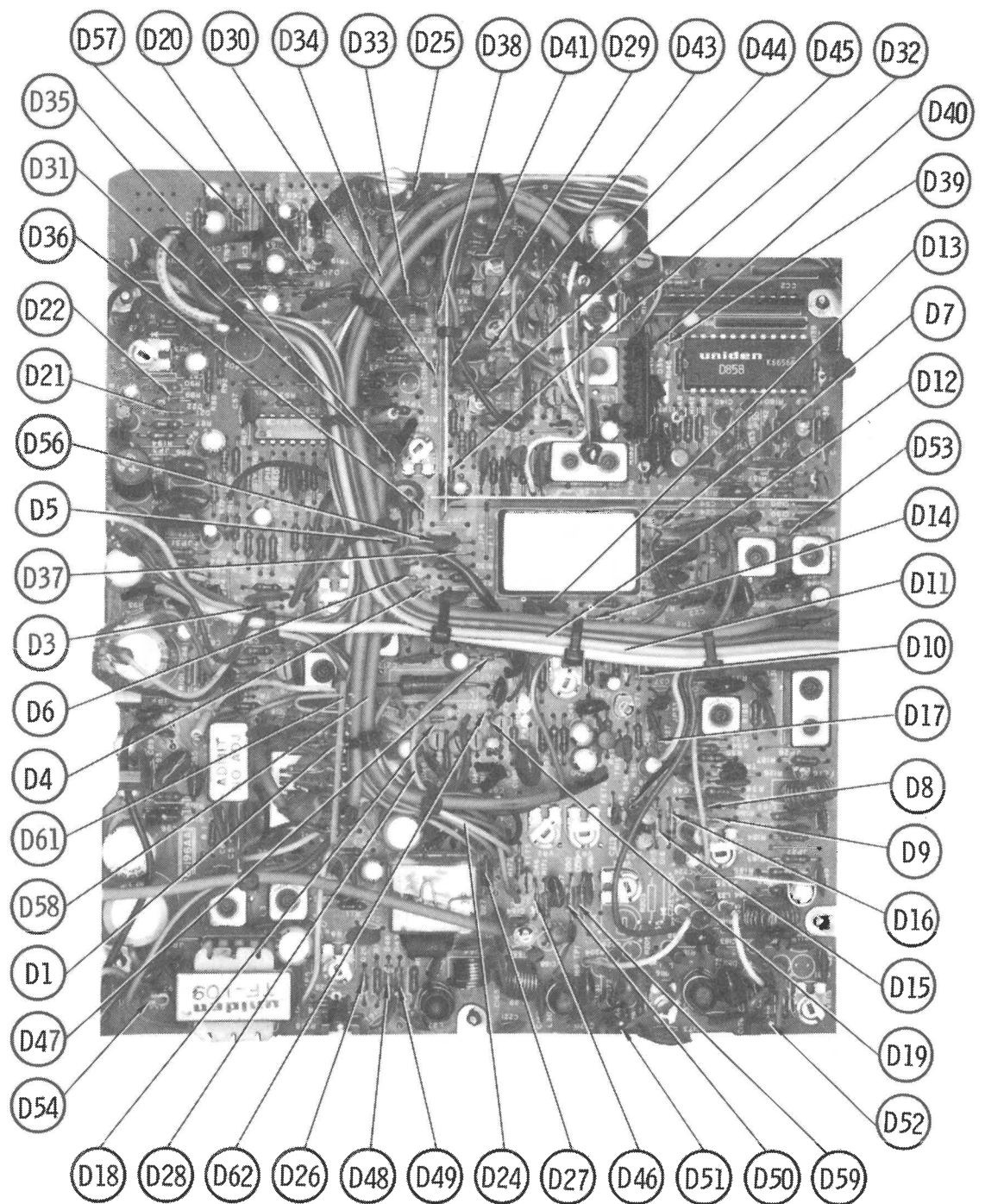
MAIN BOARD



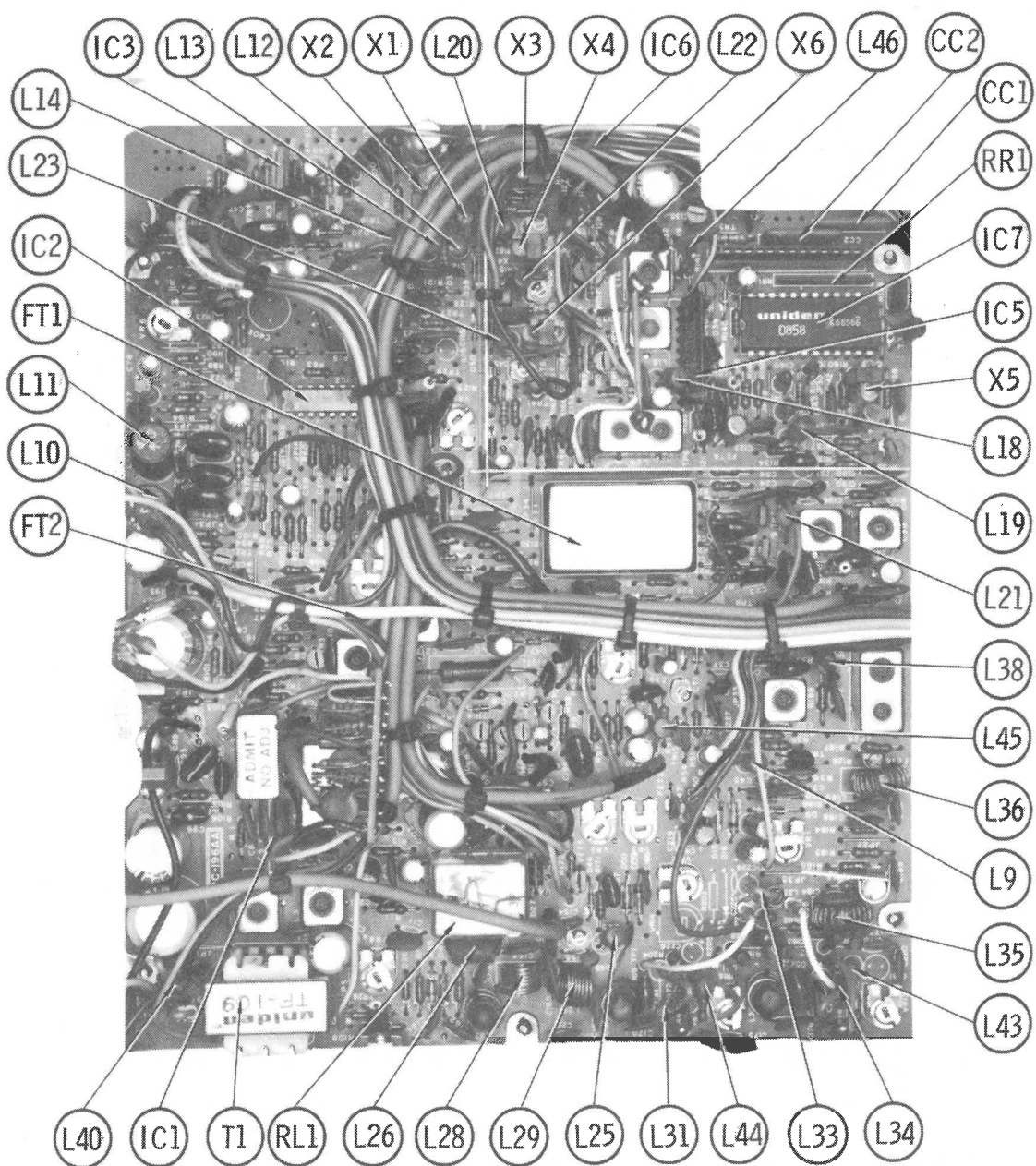
MAIN BOARD



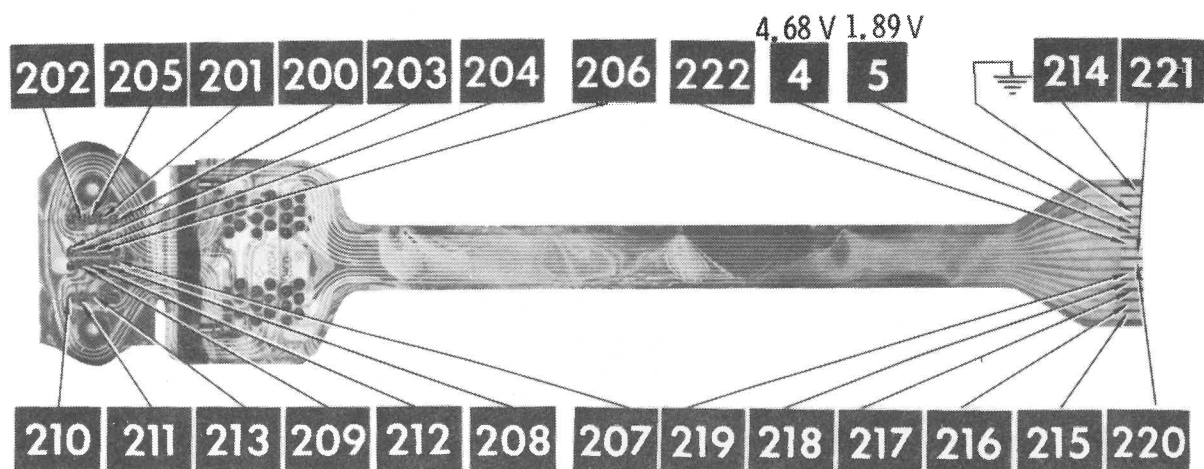
MAIN BOARD



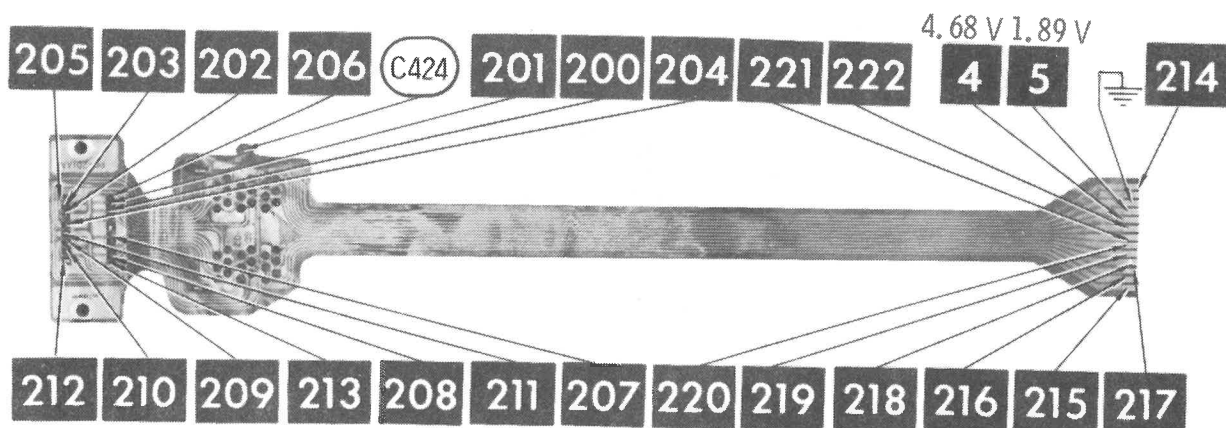
MAIN BOARD



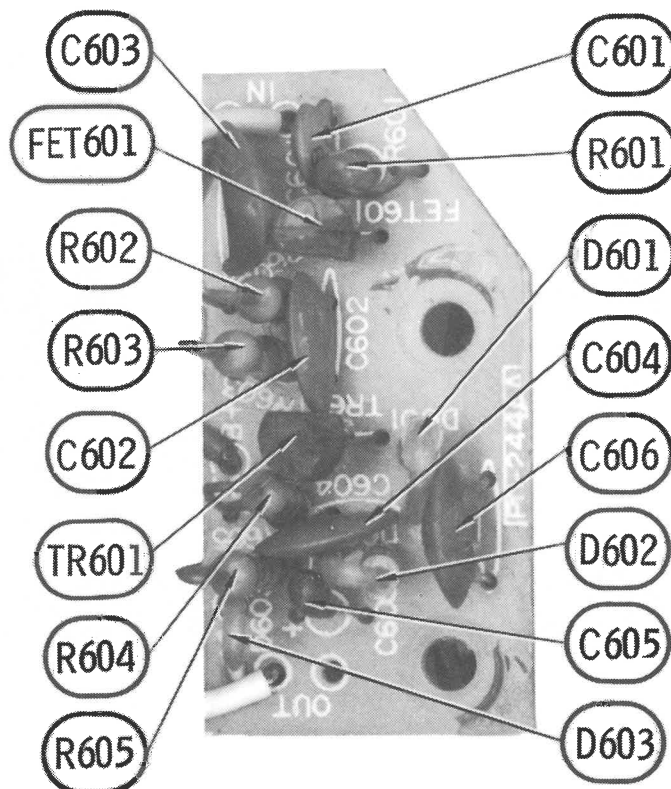
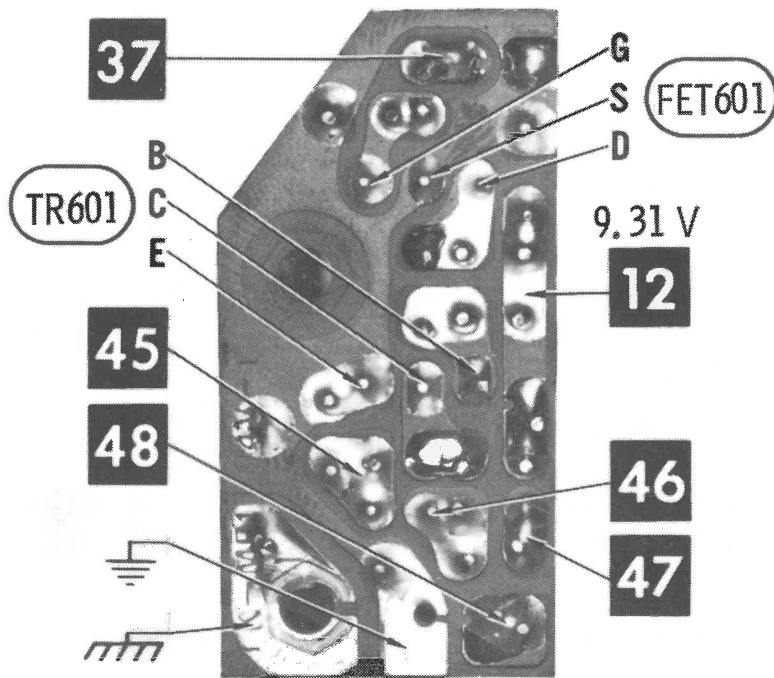
MAIN BOARD



### CH. SELECTOR & READOUT BOARD (TRC-457)

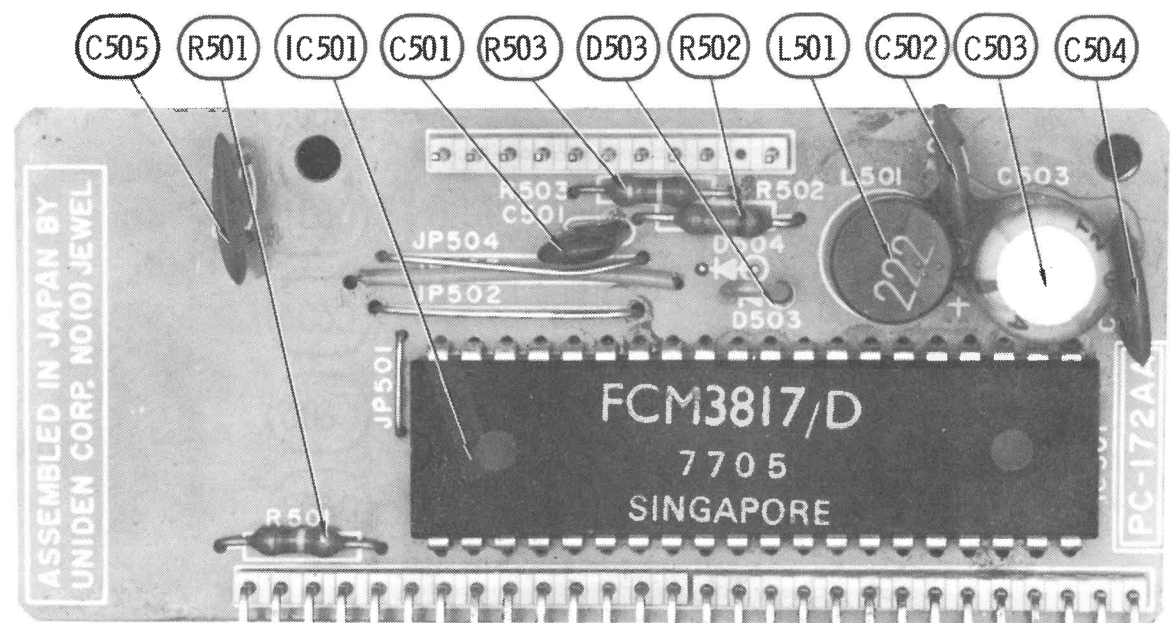
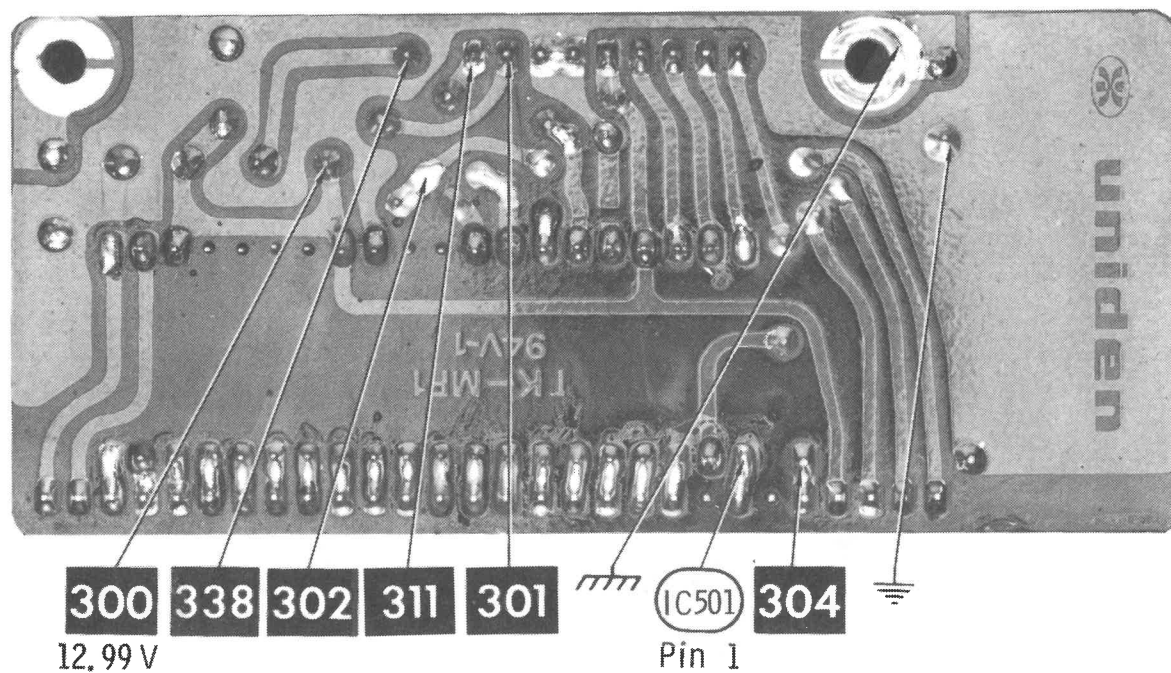


### CH. SELECTOR & READOUT BOARD (TRC-458)

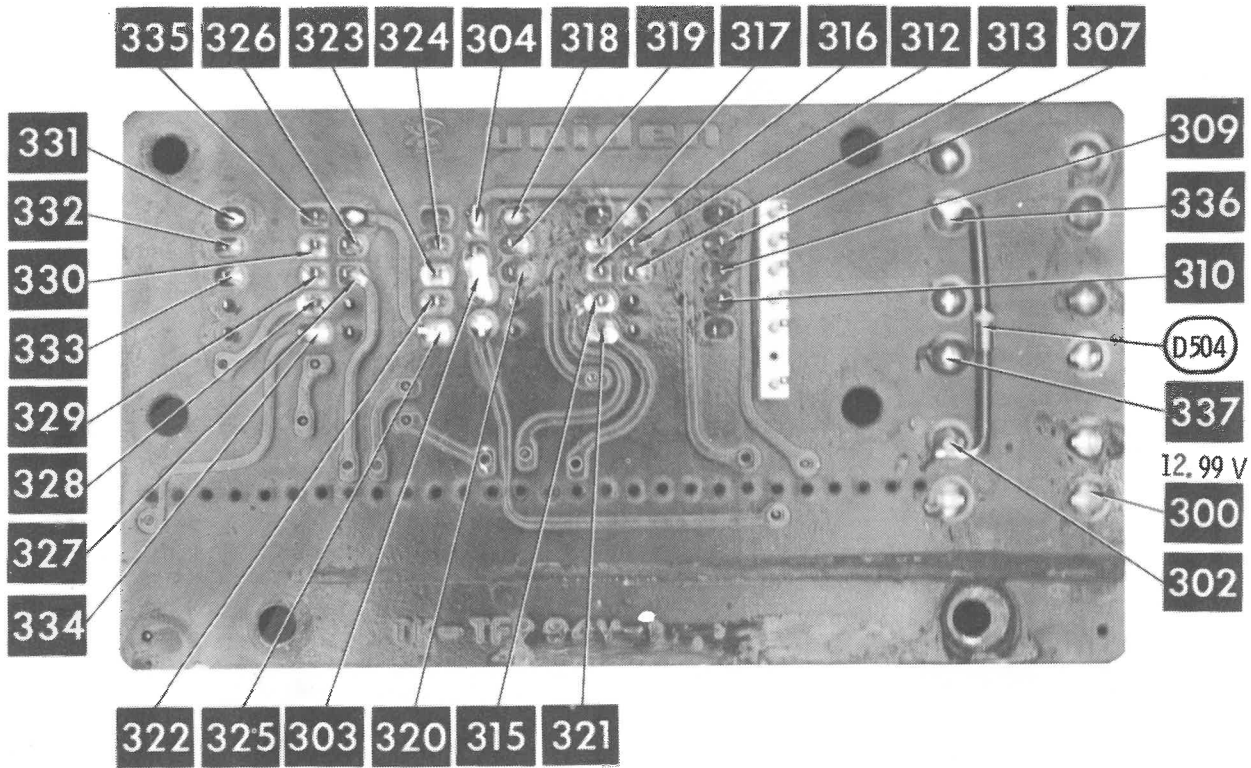


NOISE BLANKER BOARD

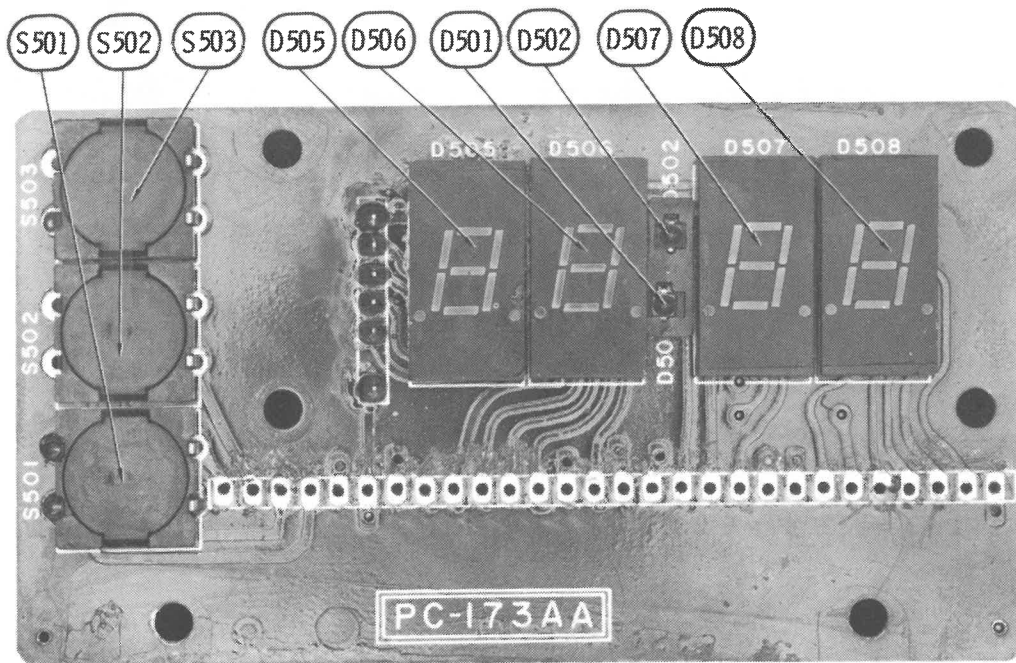
REALISTIC MODELS TRC-457/-458



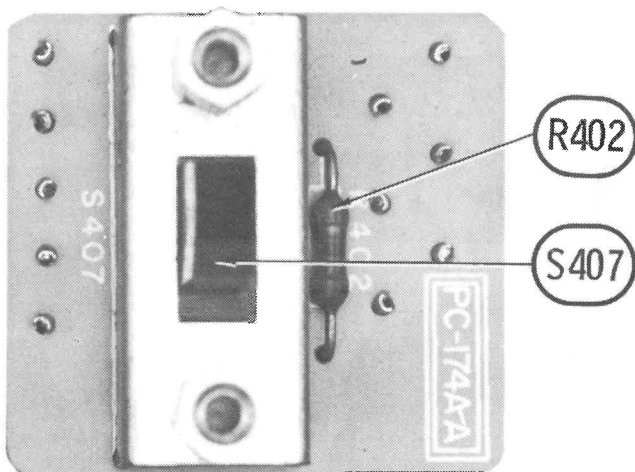
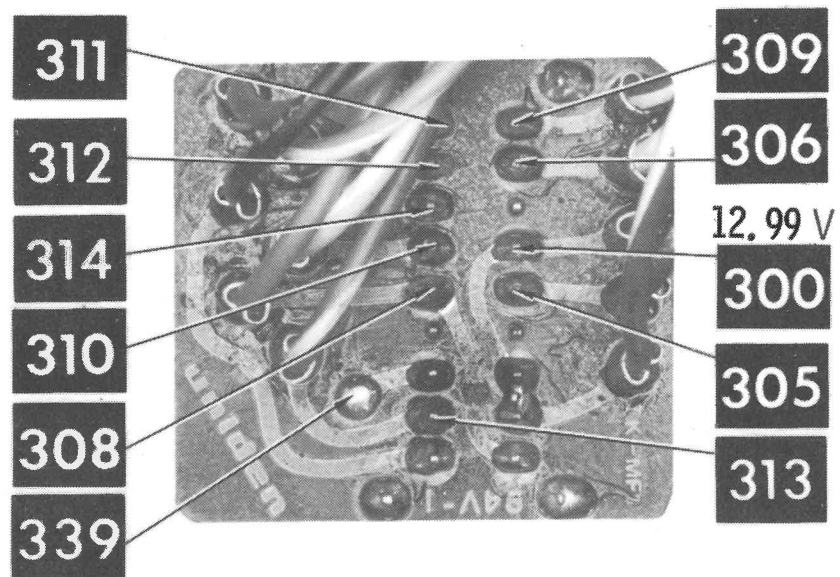
CLOCK LOGIC BOARD (TRC-457)



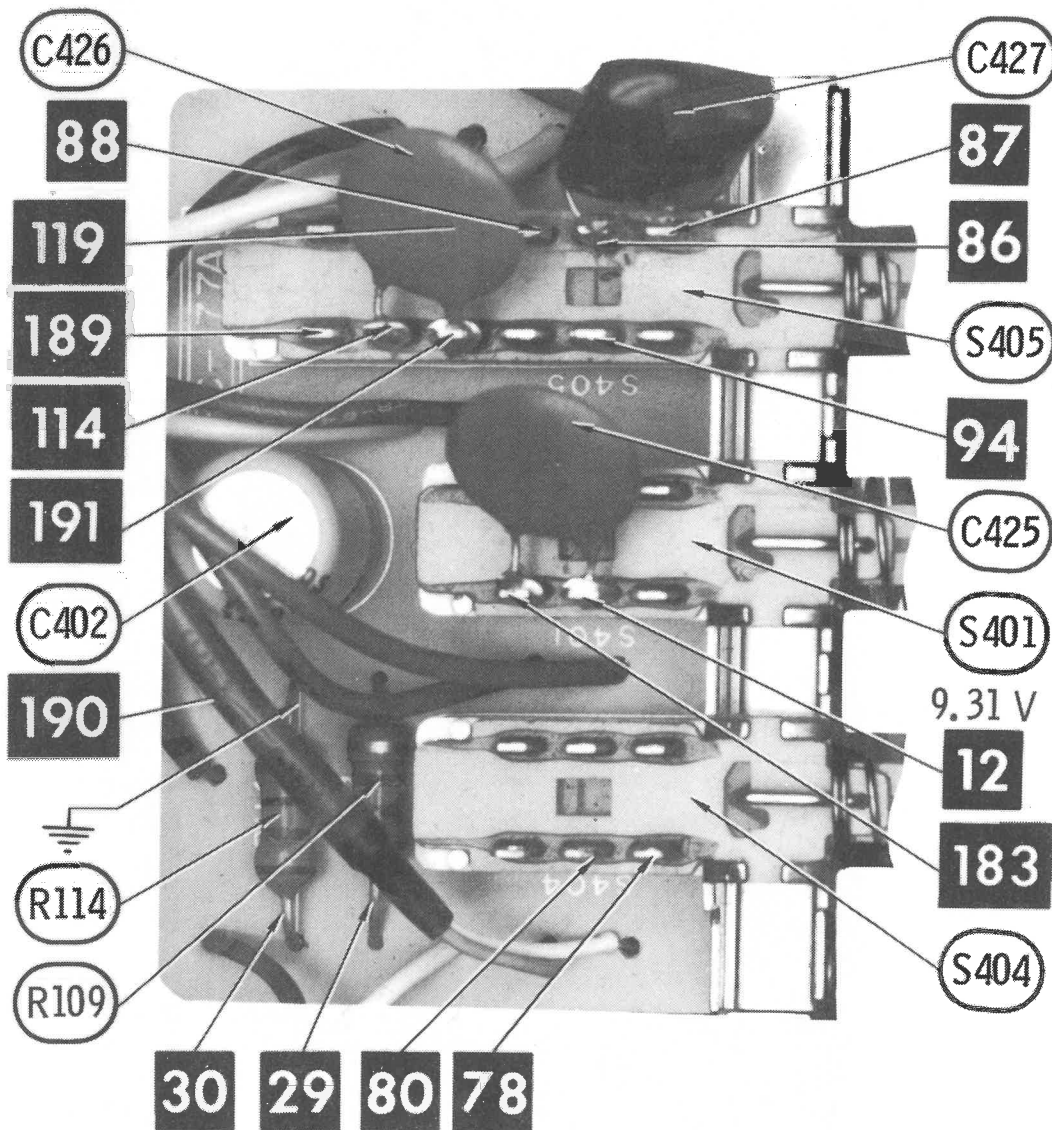
REALISTIC MODELS TRC-457/-458



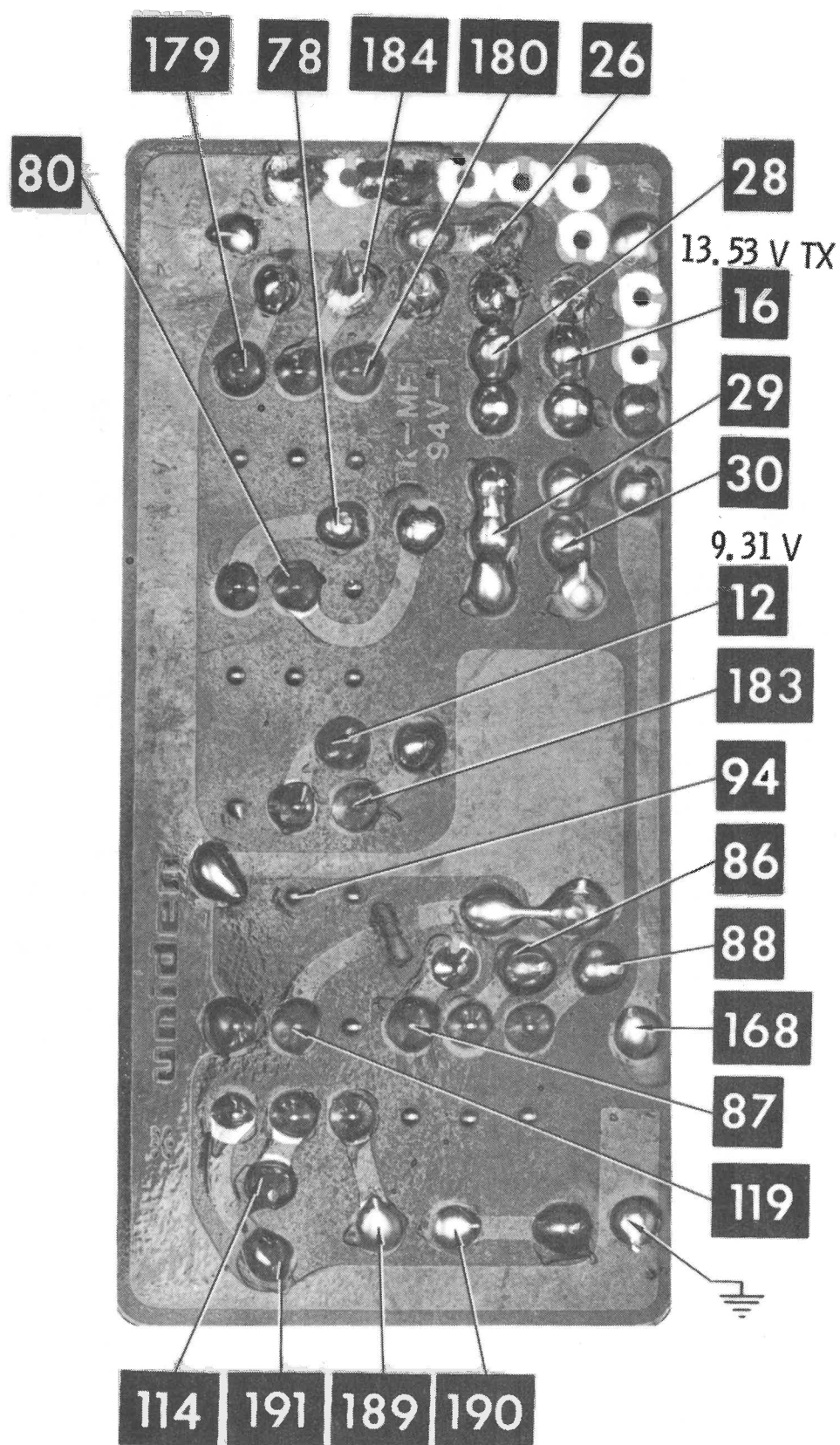
CLOCK READOUT BOARD (TRC-457)



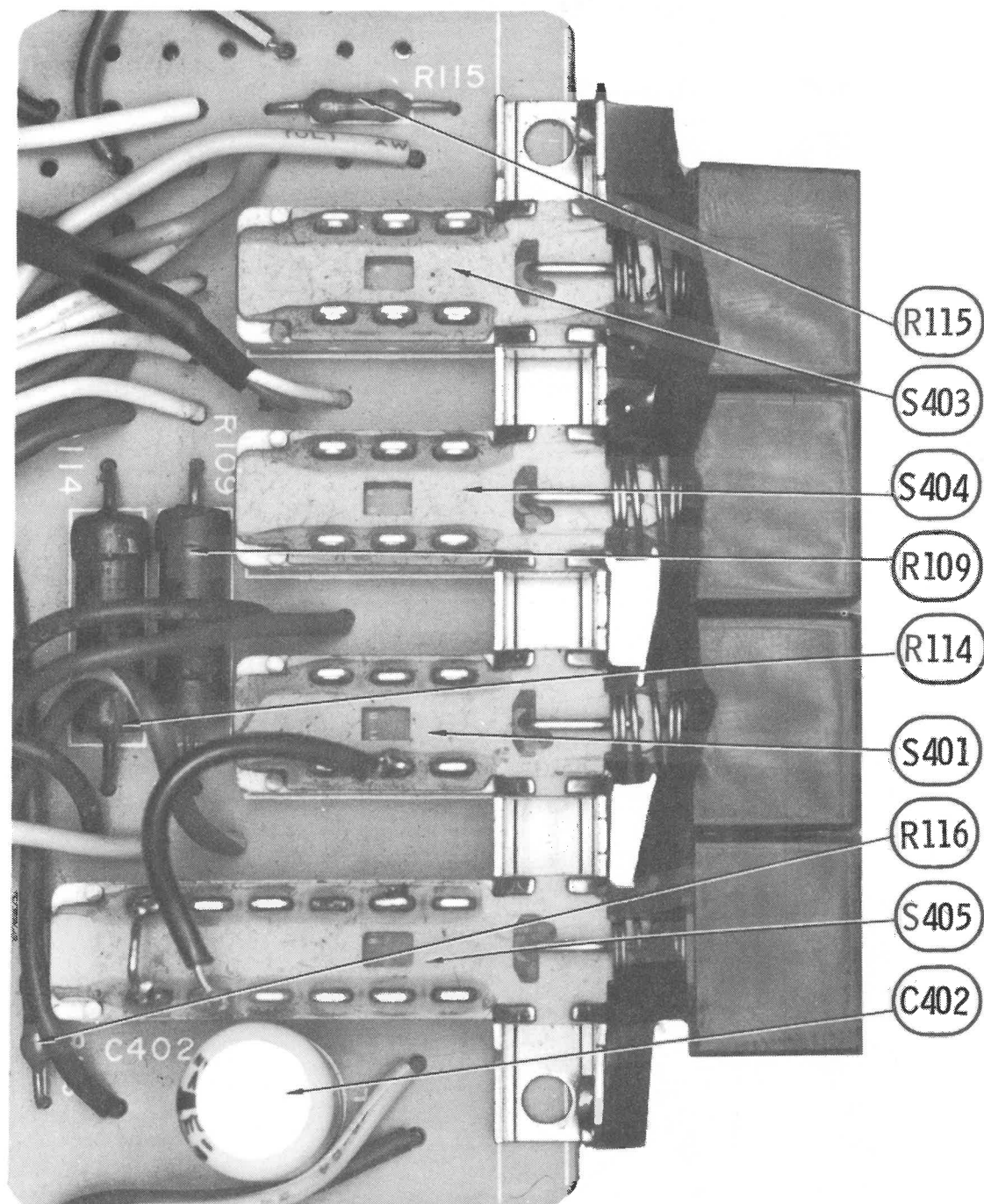
12-24 HOUR BOARD (TRC-457)



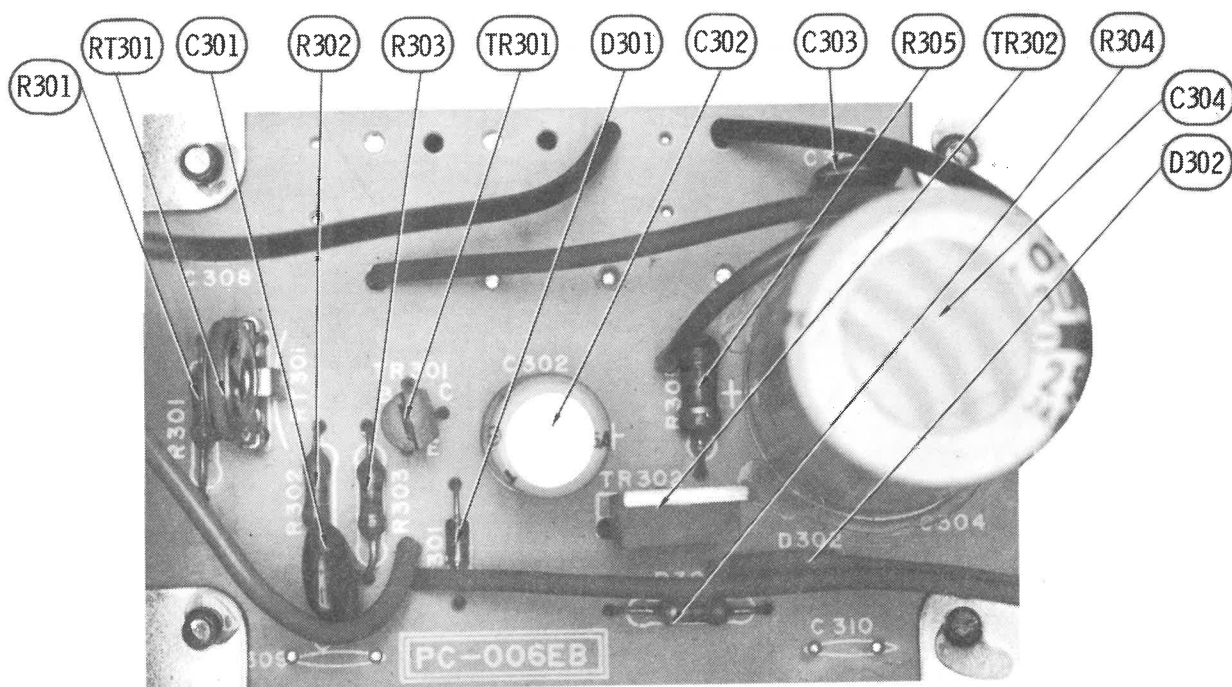
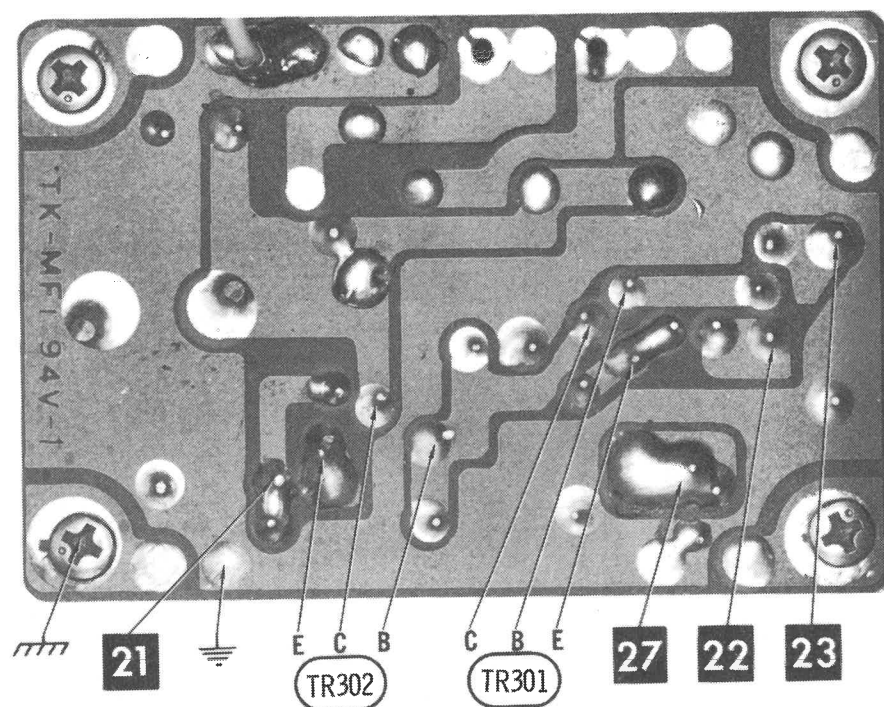
SWITCH BOARD (TRC-458)



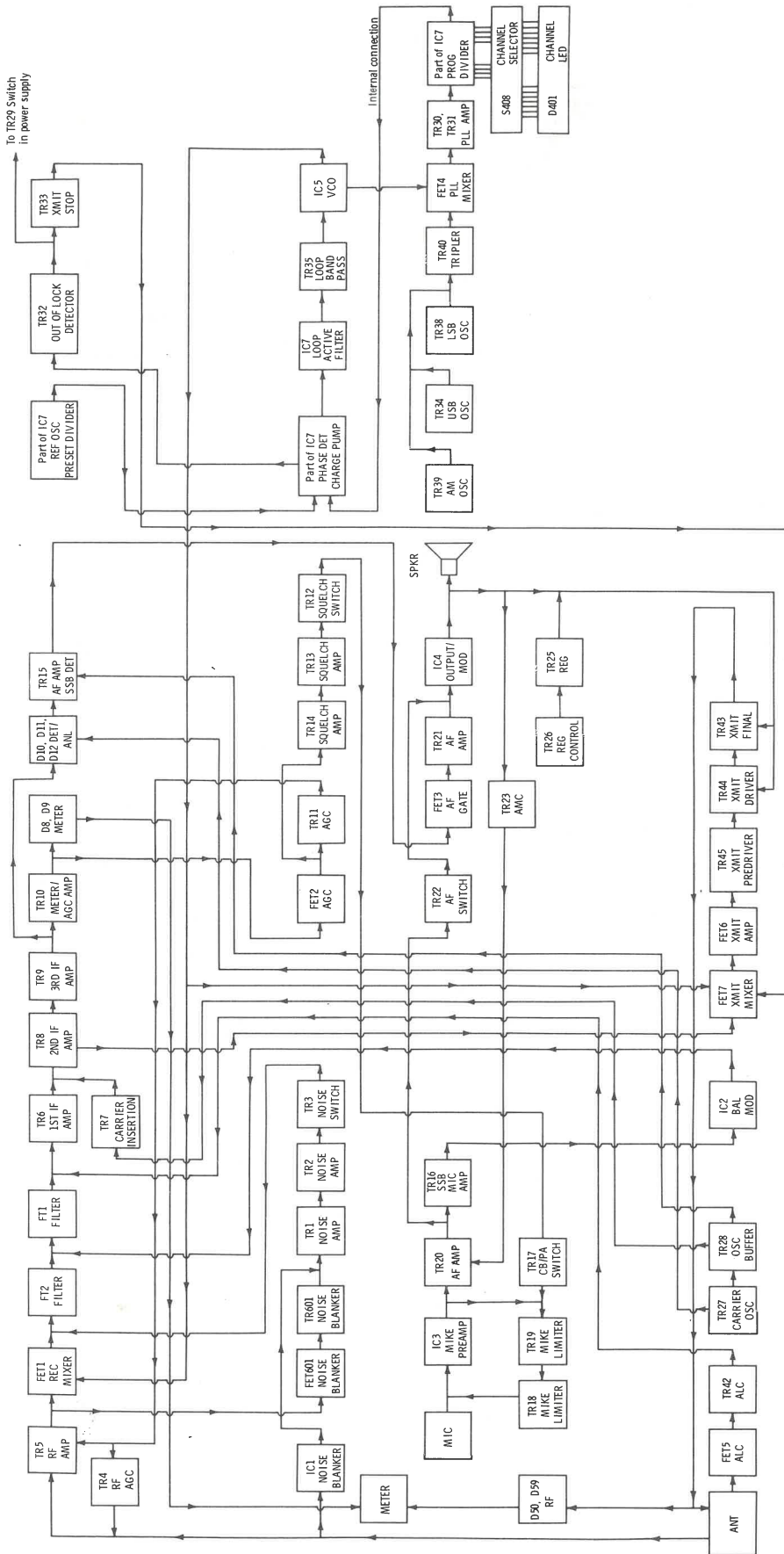
SWITCH BOARD (TRC-457)



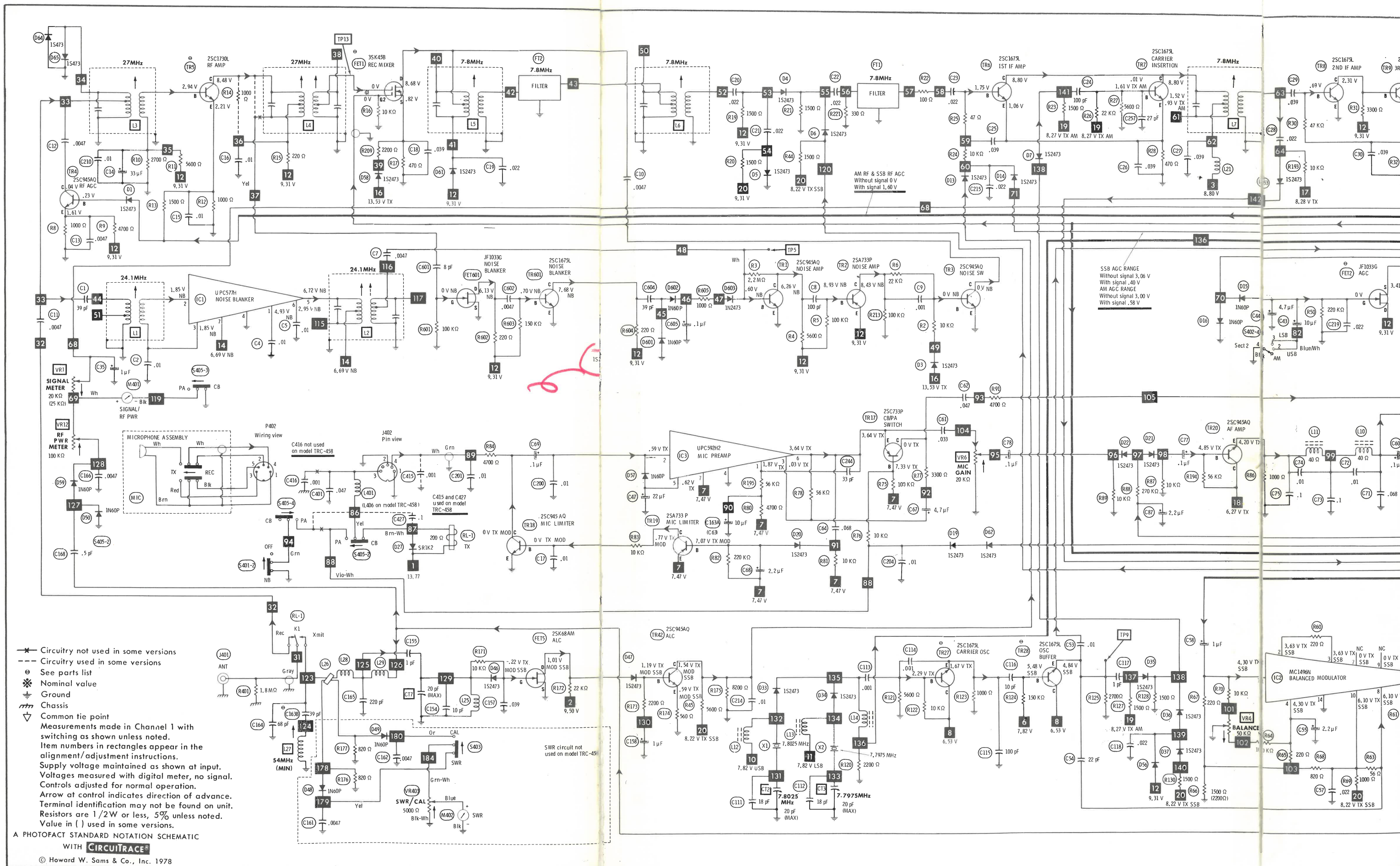
SWITCH BOARD (TRC-457)



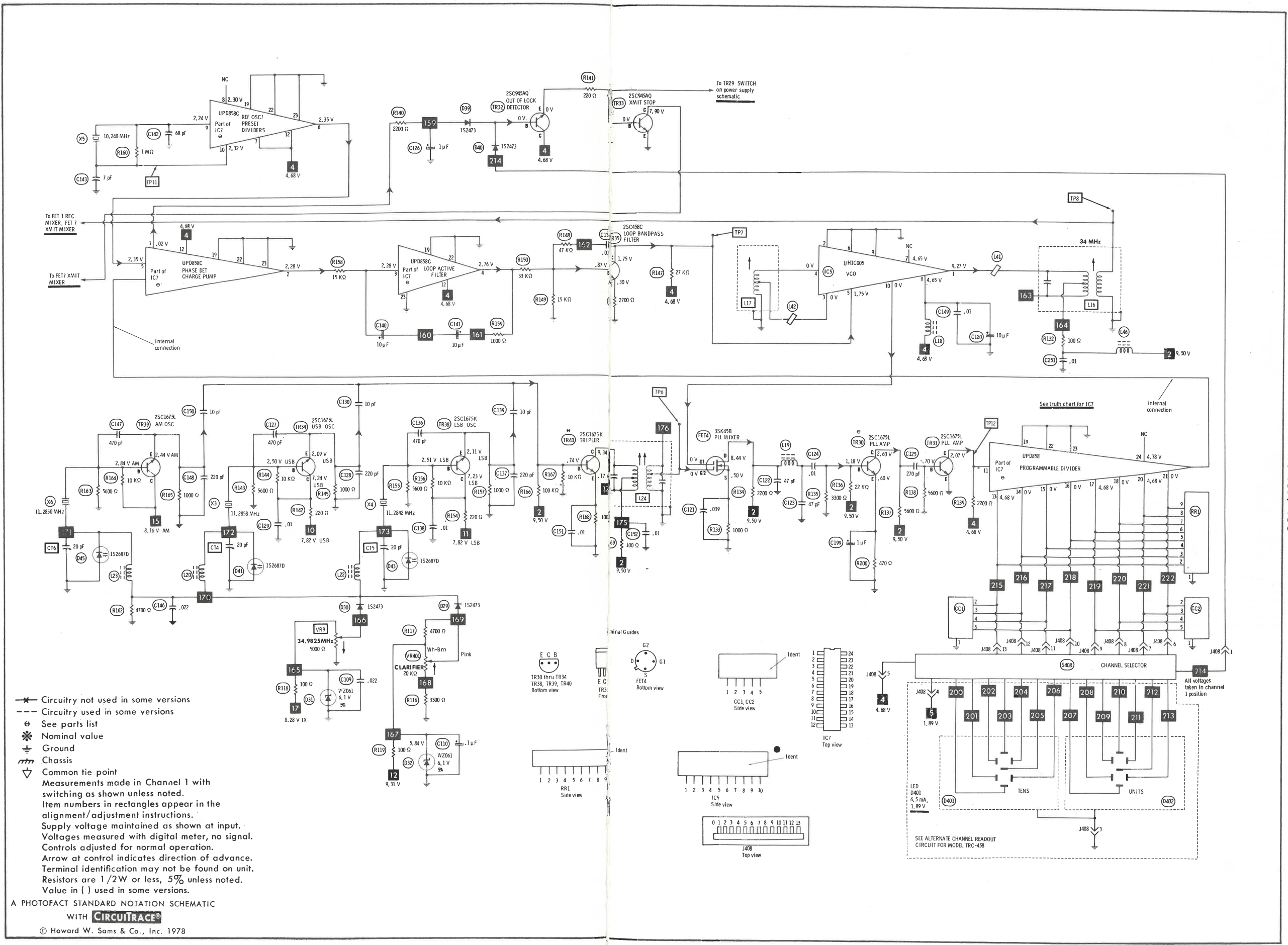
POWER SUPPLY BOARD



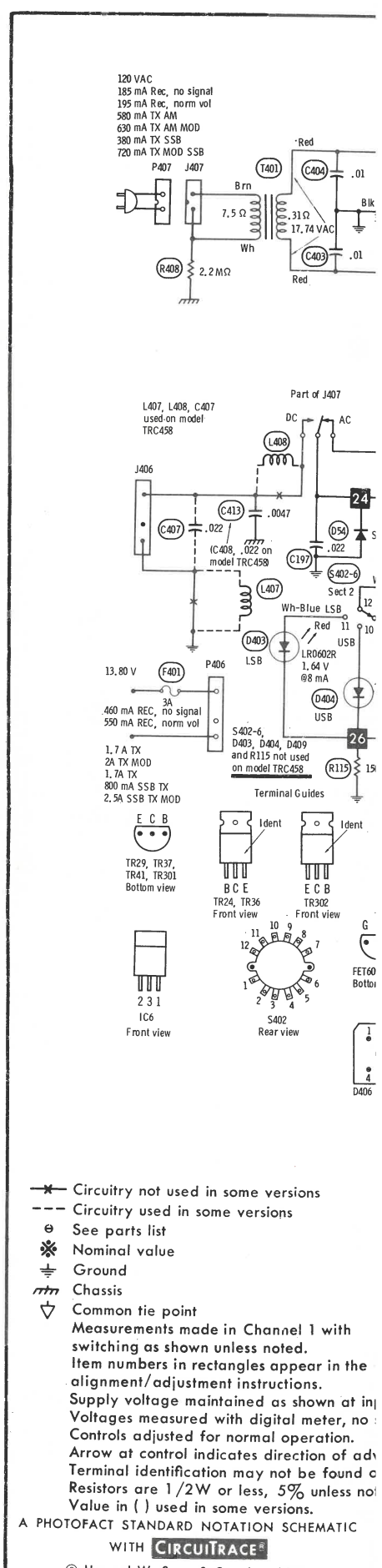
BLOCK DIAGRAM



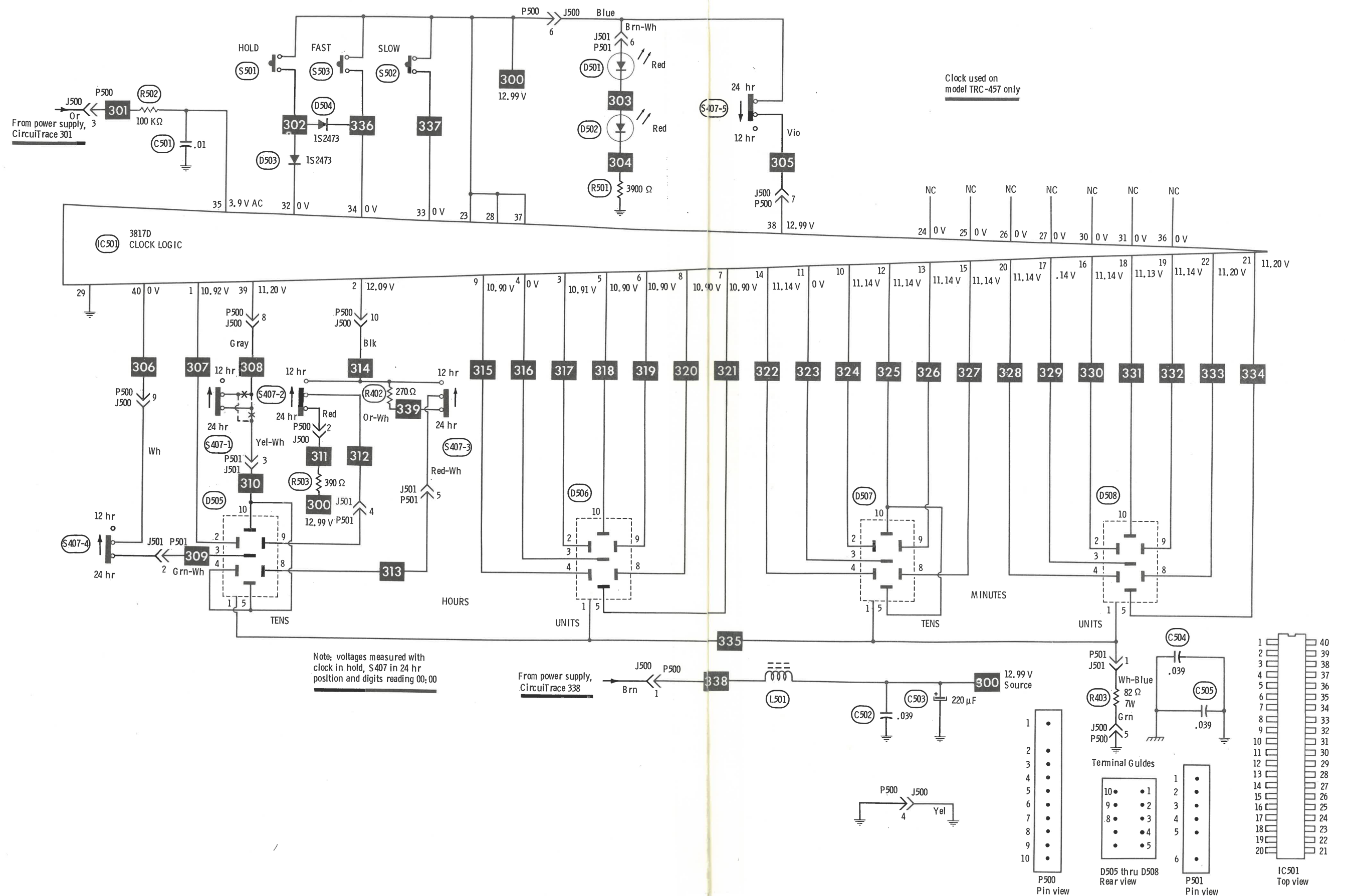




REALISTIC MODELS TRC-457/-458









# PARTS LIST AND DESCRIPTION

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

## 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       | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D3       | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D4       | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D5       | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D6       | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D7       | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D8       | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D9       | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D10      | 1N60P    | DX-0162        | 1N60                      | PTC206           | HEPR9135          | REN 109           | SK3088       | RT-263           | ECG109            | 1N60                | WEP134           | ZEN-430         |
| D10      | 1N60P    | DX-0161(14)    | 1N60                      | PTC206           | HEPR9135          | REN 109           | SK3088       | RT-263           | ECG109            | 1N60                | WEP134           | ZEN-430         |
| D11      | 1N60P    | DX-0162        | 1N60                      | PTC206           | HEPR9135          | REN 109           | SK3088       | RT-263           | ECG109            | 1N60                | WEP134           | ZEN-430         |
| D11      | 1N60P    | DDAY001023(14) | 1N60                      | PTC206           | HEPR9135          | REN 109           | SK3088       | RT-263           | ECG109            | 1N60                | WEP134           | ZEN-430         |
| D12      | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D13      | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D14      | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D15      | 1N60P    | DX-0162        | 1N60                      | PTC206           | HEPR9135          | REN 109           | SK3088       | RT-263           | ECG109            | 1N60                | WEP134           | ZEN-430         |
| D15      | 1N60P    | DX-0161(14)    | 1N60                      | PTC206           | HEPR9135          | REN 109           | SK3088       | RT-263           | ECG109            | 1N60                | WEP134           | ZEN-430         |
| D16      | 1N60P    | DX-0162        | 1N60                      | PTC206           | HEPR9135          | REN 109           | SK3088       | RT-263           | ECG109            | 1N60                | WEP134           | ZEN-430         |
| D16      | 1N60P    | DX-0161(14)    | 1N60                      | PTC206           | HEPR9135          | REN 109           | SK3088       | RT-263           | ECG109            | 1N60                | WEP134           | ZEN-430         |
| D17      | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D18      | 1S2473   | DDAY048001     | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
|          | 1S2473K  | DDAY048001     | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D18      | 1S2473   | DX-0299(14)    | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
|          | 1S2473K  | DX-0299(14)    | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D19      | 1S2473   | DDAY048001     | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
|          | 1S2473K  | DDAY048001     | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D19      | 1S2473   | DX-0299(14)    | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
|          | 1S2473K  | DX-0299(14)    | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D20      | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D21      | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D22      | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D24      | DZ-092   | DX-0087        | GEZD-9.1                  | ZB9.1A           | HEPZ0412          | REN 139           | SK3060       | RT-240           | ECG139            | 1N4739A             | WEP1109          | 103-272         |
| D25      | BZ-075   | DDAY009005     | GEZD-7.5                  | ZB7.5A           | HEPZ0410          | REN 138           | SK3059       | RT-239           | ECG138            | 1N4737A             | WEP1107          | ZEN-505         |
| D26      | YZ-037   | DDAY087002     | GEZD-7.5                  | ZB7.5A           | HEPZ0410          | REN 138           | SK3059       | RT-239           | ECG138            | 1N4737A             | WEP1107          | ZEN-505         |
| D25      | BC-075   | DX-0748        | GEZD-7.5                  | ZB7.5A           | HEPZ0410          | REN 138           | SK3059       | RT-239           | ECG138            | 1N4737A             | WEP1107          | ZEN-505         |
| D26      | YZ-037   | DX-0529        | GEZD-3.6                  | ZB3.6B           |                   | REN 134           |              | RT-234           | ECG134A           |                     | WEP1151          |                 |
| D27      | SR1K2    | DX-0475        | GE-504A                   | PTC201           | HEPR0052          | REN 116           | SK3030       | RT-213           | ECG116            | 1N4004              | WEP156           | 212-76-02       |
| D28      | CZ-092   | DX-0087        | GEZD-9.1                  | ZB9.1A           | HEPZ0412          | REN 139           | SK3060       | RT-240           | ECG139            | 1N4739A             | WEP1109          | 103-272         |
| D29      | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D30      | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D31      | WZ-061   | DX-0530        | GEZD-6.2                  | ZM6.2B           |                   | REN 137           |              | RT-237           | ECG5013           | 1N4735A             | WEP1414          |                 |
| D32      | WZ-061   | DX-0530        | GEZD-6.2                  | ZM6.2B           |                   | REN 137           |              | RT-237           | ECG5013           | 1N4735A             | WEP1414          |                 |
| D33      | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D34      | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D35      | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D36      | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D37      | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D38      | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D39      | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D40      | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D41      | 1S2687D  | DX-0749        |                           |                  | HEPR2502          | REN 612           |              |                  | ECG612            |                     |                  | ZEN-452         |
| D43      | 1S2687D  | DX-0749        |                           |                  | HEPR2502          | REN 612           |              |                  | ECG612            |                     |                  | ZEN-452         |
| D44      | CZ-092   | DX-0087        | GEZD-9.1                  | ZB9.1A           | HEPZ0412          | REN 139           | SK3060       | RT-240           | ECG139            | 1N4739A             | WEP1109          | 103-272         |
| D45      | 1S2687D  | DX-0749        |                           |                  | HEPR2502          | REN 612           |              |                  | ECG612            |                     |                  | ZEN-452         |
| D46      | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D47      | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D48      | 1N60P    | DX-0162        | 1N60                      | PTC206           | HEPR9135          | REN 109           | SK3088       | RT-263           | ECG109            | 1N60                | WEP134           | ZEN-430         |
| D49      | 1N60P    | DX-0162        | 1N60                      | PTC206           | HEPR9135          | REN 109           | SK3088       | RT-263           | ECG109            | 1N60                | WEP134           | ZEN-430         |
| D50      | 1N60P    | DX-0162        | 1N60                      | PTC206           | HEPR9135          | REN 109           | SK3088       | RT-263           | ECG109            | 1N60                | WEP134           | ZEN-430         |
| D50      | 1N60P    | DDAY001023(14) | 1N60                      | PTC206           | HEPR9135          | REN 109           | SK3088       | RT-263           | ECG109            | 1N60                | WEP134           | ZEN-430         |
| D51      | MV-1Y    | DX-0752        |                           |                  | PTC301            | REN 601           | SK3463       |                  | ECG601            |                     |                  |                 |
| D51      | MV-1Y    | DX-0750(14)    |                           |                  | PTC301            | REN 601           | SK3463       |                  | ECG601            |                     |                  |                 |
| D52      | MV-1Y    | DX-0752        |                           |                  | PTC301            | REN 601           | SK3463       |                  | ECG601            |                     |                  |                 |
| D52      | MV-1Y    | DX-0750(14)    |                           |                  | PTC301            | REN 601           | SK3463       |                  | ECG601            |                     |                  |                 |
| D53      | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D54      | SR1K1    | DX-0475        | GE-504A                   | PTC201           | HEPR0052          | REN 116           | SK3030       | RT-213           | ECG116            | 1N4004              | WEP156           | 212-76-02       |
| D56      | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D57      | 1N60P    | DDAY001002     | 1N60                      | PTC206           | HEPR9135          | REN 109           | SK3088       | RT-263           | ECG109            | 1N60                | WEP134           | ZEN-430         |
| D57      | 1N60P    | DX-0161(14)    | 1N60                      | PTC206           | HEPR9135          | REN 109           | SK3088       | RT-263           | ECG109            | 1N60                | WEP134           | ZEN-430         |
| D58      | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D59      | 1N60P    | DX-0162        | 1N60                      | PTC206           | HEPR9135          | REN 109           | SK3088       | RT-263           | ECG109            | 1N60                | WEP134           | ZEN-430         |
| D59      | 1N60P    | DDAY001023(14) | 1N60                      | PTC206           | HEPR9135          | REN 109           | SK3088       | RT-263           | ECG109            | 1N60                | WEP134           | ZEN-430         |
| D61      | 1S2473   | DX-0299        | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D62      | 1S2473   | DDAY048001     | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
|          | 1S2473K  | DDAY048001     | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D64      | 1S2475   | DDAY048001     | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
|          | 1S2475K  | DDAY048001     | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
| D65      | 1S2475   | DDAY048001     | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4148              | WEP925           |                 |
|          | 1S2475K  | DDAY048001     | GE-514                    | PTC214           | HEPR0602          | REN 177           | SK3100       | RT-218           | ECG519            | 1N4                 |                  |                 |

## PARTS LIST AND DESCRIPTION (CONTINUED)

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

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

| 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. |
| FET1     | 3SK45B     | DDCY104001     | GE-FET-4                  | PTC182           | HEPF2007          | REN 222           | SK3065       | RT-181           | ECG222            |                     | WEP905           | 121-826         |
| FET2     | JF1033-RED | DDCY202003     | GE-FET-2                  | PTC161           | HEPF0021          | REN 132           | SK3448       | RT-175           | ECG312            |                     |                  | ZEN-123         |
| FET3     | 2SK109L    | DDCY202003     | GE-FET-2                  | PTC161           | HEPF0021          | REN 132           | SK3448       | RT-175           | ECG312            |                     |                  | ZEN-123         |
| FET4     | 2SK68AM    | DDCY009002     | GE-FET-2                  | PTC161           | HEPF0021          | REN 132           | SK3448       | RT-175           | ECG312            |                     |                  | ZEN-123         |
| FET5     | 2SK68M     | DDCY009002     | GE-FET-4                  | PTC182           | HEPF2007          | REN 222           | SK3065       | RT-181           | ECG222            |                     | WEP905           | 121-826         |
| FET6     | 2SK68AM    | DDCY009002     | GE-FET-2                  | PTC161           | HEPF0021          | REN 132           | SK3448       | RT-175           | ECG312            |                     |                  | ZEN-123         |
| FET7     | 2SK68M     | DDCY009002     | GE-FET-2                  | PTC161           | HEPF0021          | REN 132           | SK3448       | RT-175           | ECG312            |                     |                  | ZEN-123         |
| FET8     | JF1033-RED | DDCY202003     | GE-FET-2                  | PTC161           | HEPF0021          | REN 132           | SK3448       | RT-175           | ECG312            |                     |                  | ZEN-123         |
| FET9     | 2SK79BL    | DDCY202003     | GE-FET-2                  | PTC161           | HEPF0021          | REN 132           | SK3448       | RT-175           | ECG312            |                     |                  | ZEN-123         |
| FET10    | 3SK45B     | DDCY104001     | GE-FET-4                  | PTC182           | HEPF2007          | REN 222           | SK3065       | RT-181           | ECG222            |                     | WEP905           | 121-826         |
| FET11    | JF1033G    | DDCY104001     | GE-FET-2                  | PTC161           | HEPF0021          | REN 132           | SK3448       | RT-175           | ECG312            |                     |                  | ZEN-123         |
| FET12    | JF1033H    | DDCY104001     | GE-FET-2                  | PTC161           | HEPF0021          | REN 132           | SK3448       | RT-175           | ECG312            |                     |                  | ZEN-123         |
| IC1      | UPC577H    | DDEY064001     | GEIC-140                  |                  | HEPC6050G         | REN 1082          | SK3461       |                  | ECG1082           | UPC577H             | WEP939           |                 |
| IC2      | MC1496N    | DDEY070001     |                           |                  |                   |                   | SK3233       |                  | ECG973            |                     |                  |                 |
| IC3      | UPC592H2   | DDEY070001     |                           |                  |                   |                   | SK3469       |                  | ECG1195           |                     |                  |                 |
| IC4      | UPC1156H   | DDEY081001     |                           |                  |                   |                   |              |                  | ECG1194           |                     |                  |                 |
| IC5      | UHC-005    | DDEY083001     |                           |                  |                   | REN 977           | SK3462       |                  | ECG1204           |                     |                  |                 |
| IC6      | UPC78L05   | DDEY083001     |                           |                  |                   |                   |              |                  | ECG977            |                     |                  |                 |
| IC7      | UPC858C    | DDEY055001     |                           |                  |                   |                   |              |                  | ECG1198           |                     |                  |                 |
| IC501    | FCM3817D   | DDEY081001     |                           |                  |                   |                   |              |                  |                   |                     |                  |                 |
| TR1      | 3817DPC    | DDBY224003     | GE-212                    | PTC121*          | HEPS0015*         | REN 199           | SK3124       | RT-107A          | ECG199            | 2SC945              | WEP1945          | 121-Z9000       |
| TR2      | 2SC945AQ   | DDBY003001     | GE-48                     | PTC127           | HEPS0019*         | REN 294           | SK3138       | RT-303           | ECG294            | 2SA733              | WEP916           | 121-933         |
| TR3      | 2SC945AQ   | DDBY224003     | GE-212                    | PTC121*          | HEPS0015*         | REN 199           | SK3124       | RT-107A          | ECG199            | 2SC945              | WEP1945          | 121-Z9000       |
| TR4      | 2SC945AQ   | DDBY224003     | GE-212                    | PTC121*          | HEPS0015*         | REN 199           | SK3124       | RT-107A          | ECG199            | 2SC945              | WEP1945          | 121-Z9000       |
| TR5      | 2SC945AQ   | DDBY224003     | GE-17*                    | PTC136*          | HEPS0025*         | REN 107           | SK3018*      | RT-107A          | ECG316*           |                     | WEP535           | 121-888         |
| TR6      | 2SC1730L   | DDBY269001     | GE-213                    | PTC132*          | HEPS0025*         | REN 123A*         | SK3124       | RT-308           | ECG229*           |                     | WEP956*          | ZEN-127         |
| TR7      | 2SC1675K2  | DDBY259001     | GE-213                    | PTC132*          | HEPS0025*         | REN 123A*         | SK3124       | RT-308           | ECG229*           |                     | WEP956*          | ZEN-127         |
| TR8      | 2SC1675L   | DDBY259001     | GE-213                    | PTC132*          | HEPS0025*         | REN 123A*         | SK3124       | RT-308           | ECG229*           |                     | WEP956*          | ZEN-127         |
| TR9      | 2SC1675L   | DDBY259001     | GE-213                    | PTC132*          | HEPS0025*         | REN 123A*         | SK3124       | RT-308           | ECG229*           |                     | WEP956*          | ZEN-127         |
| TR10     | 2SC1675L   | DDBY259001     | GE-213                    | PTC132*          | HEPS0025*         | REN 123A*         | SK3124       | RT-308           | ECG229*           |                     | WEP956*          | ZEN-127         |
| TR11     | 2SC1675L   | DDBY259001     | GE-213                    | PTC132*          | HEPS0025*         | REN 123A*         | SK3124       | RT-308           | ECG229*           |                     | WEP956*          | ZEN-127         |
| TR12     | 2SC1675L   | DDBY259001     | GE-213                    | PTC132*          | HEPS0025*         | REN 123A*         | SK3124       | RT-308           | ECG229*           |                     | WEP956*          | ZEN-127         |
| TR13     | 2SC1675L   | DDBY259001     | GE-213                    | PTC132*          | HEPS0025*         | REN 123A*         | SK3124       | RT-308           | ECG229*           |                     | WEP956*          | ZEN-127         |
| TR14     | 2SC945AQ   | DDBY224003     | GE-212                    | PTC121*          | HEPS0015*         | REN 199           | SK3124       | RT-107A          | ECG199            | 2SC945              | WEP1945          | 121-Z9000       |
| TR15     | 2SC945AQ   | DDBY224003     | GE-212                    | PTC121*          | HEPS0015*         | REN 199           | SK3124       | RT-107A          | ECG199            | 2SC945              | WEP1945          | 121-Z9000       |
| TR16     | 2SC945AQ   | DDBY224003     | GE-212                    | PTC121*          | HEPS0015*         | REN 199           | SK3124       | RT-107A          | ECG199            | 2SC945              | WEP1945          | 121-Z9000       |
| TR17     | 2SA733P    | DDBY003001     | GE-48                     | PTC127           | HEPS0019*         | REN 294           | SK3138       | RT-303           | ECG294            | 2SA733              | WEP916           | 121-933         |
| TR18     | 2SC945AQ   | DDBY224003     | GE-212                    | PTC121*          | HEPS0015*         | REN 199           | SK3124       | RT-107A          | ECG199            | 2SC945              | WEP1945          | 121-Z9000       |
| TR19     | 2SA733P    | DDBY003001     | GE-48                     | PTC127           | HEPS0019*         | REN 294           | SK3138       | RT-303           | ECG294            | 2SA733              | WEP916           | 121-933         |
| TR20     | 2SC945AQ   | DDBY224003     | GE-212                    | PTC121*          | HEPS0015*         | REN 199           | SK3124       | RT-107A          | ECG199            | 2SC945              | WEP1945          | 121-Z9000       |
| TR21     | 2SC945AQ   | DDBY224003     | GE-212                    | PTC121*          | HEPS0015*         | REN 199           | SK3124       | RT-107A          | ECG199            | 2SC945              | WEP1945          | 121-Z9000       |
| TR22     | 2SC945AQ   | DDBY224003     | GE-212                    | PTC121*          | HEPS0015*         | REN 199           | SK3124       | RT-107A          | ECG199            | 2SC945              | WEP1945          | 121-Z9000       |
| TR23     | 2SC945AQ   | DDBY224003     | GE-212                    | PTC121*          | HEPS0015*         | REN 199           | SK3124       | RT-107A          | ECG199            | 2SC945              | WEP1945          | 121-Z9000       |
| TR24     | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           | 121-Z9000       |
| TR25     | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           | 121-Z9000       |
| TR26     | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           | 121-Z9000       |
| TR27     | 2SC1675L   | DDBY259001     | GE-213                    | PTC132*          | HEPS0025*         | REN 123A*         | SK3124       | RT-308           | ECG229*           |                     | WEP956*          | ZEN-127         |
| TR28     | 2SC1675L   | DDBY259001     | GE-213                    | PTC132*          | HEPS0025*         | REN 123A*         | SK3124       | RT-308           | ECG229*           |                     | WEP956*          | ZEN-127         |
| TR29     | 2SC1675L   | DDBY259001     | GE-213                    | PTC132*          | HEPS0025*         | REN 123A*         | SK3124       | RT-308           | ECG229*           |                     | WEP956*          | ZEN-127         |
| TR30     | 2SC1675L   | DDBY259001     | GE-213                    | PTC132*          | HEPS0025*         | REN 123A*         | SK3124       | RT-308           | ECG229*           |                     | WEP956*          | ZEN-127         |
| TR31     | 2SC1675L   | DDBY259001     | GE-213                    | PTC132*          | HEPS0025*         | REN 123A*         | SK3124       | RT-308           | ECG229*           |                     | WEP956*          | ZEN-127         |
| TR32     | 2SC1675L   | DDBY259001     | GE-213                    | PTC132*          | HEPS0025*         | REN 123A*         | SK3124       | RT-308           | ECG229*           |                     | WEP956*          | ZEN-127         |
| TR33     | 2SC945AQ   | DDBY224003     | GE-212                    | PTC121*          | HEPS0015*         | REN 199           | SK3124       | RT-107A          | ECG199            | 2SC945              | WEP1945          | 121-Z9000       |
| TR34     | 2SC945AQ   | DDBY224003     | GE-212                    | PTC121*          | HEPS0015*         | REN 199           | SK3124       | RT-107A          | ECG199            | 2SC945              | WEP1945          | 121-Z9000       |
| TR35     | 2SC1675L   | DDBY259001     | GE-213                    | PTC132*          | HEPS0025*         | REN 123A*         | SK3124       | RT-308           | ECG229*           |                     | WEP956*          | ZEN-127         |
| TR36     | 2SC1675L   | DDBY259001     | GE-213                    | PTC132*          | HEPS0025*         | REN 123A*         | SK3124       | RT-308           | ECG229*           |                     | WEP956*          | ZEN-127         |
| TR37     | 2SC1675L   | DDBY259001     | GE-213                    | PTC132*          | HEPS0025*         | REN 123A*         | SK3124       | RT-308           | ECG229*           |                     | WEP956*          | ZEN-127         |
| TR38     | 2SC1675L   | DDBY259001     | GE-213                    | PTC132*          | HEPS0025*         | REN 123A*         | SK3124       | RT-308           | ECG229*           |                     | WEP956*          | ZEN-127         |
| TR39     | 2SC1675L   | DDBY259001     | GE-213                    | PTC132*          | HEPS0025*         | REN 123A*         | SK3124       | RT-308           | ECG229*           |                     | WEP956*          | ZEN-127         |
| TR40     | 2SC1675L   | DDBY259001     | GE-213                    | PTC132*          | HEPS0025*         | REN 123A*         | SK3124       | RT-308           | ECG229*           |                     | WEP956*          | ZEN-127         |
| TR41     | 2SC945AQ   | DDBY224003     | GE-212                    | PTC121*          | HEPS0015*         | REN 199           | SK3124       | RT-107A          | ECG199            | 2SC945              | WEP1945          | 121-Z9000       |
| TR42     | 2SC945AQ   | DDBY224003     | GE-212                    | PTC121*          | HEPS0015*         | REN 199           | SK3124       | RT-107A          | ECG199            | 2SC945              | WEP1945          | 121-Z9000       |
| TR43     | 2SC1307(1) | DDBY231002(13) | GE-216                    | PTC186           |                   | REN 236           | SK3197       | RT-158           | ECG236            |                     | WEP840           |                 |
| TR44     | 2SC1306    | DDBY230001(12) | GE-215                    | PTC186           |                   | REN 235           | SK3197       | RT-146           | ECG235            | 2SC1306             | WEP785           |                 |
| TR45     | 2SC1973    | DDBY272001     | GE-335                    |                  |                   |                   | SK3250       |                  | ECG315            | 2SC773              | WEP922           |                 |
| TR301    | 2SC945AQ   | DDBY224003     | GE-212                    | PTC121*          | HEPS0015*         | REN 199           | SK3124       | RT-107A          | ECG199            | 2SC945              | WEP1945          | 121-Z9000       |
| TR302    | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           |                 |
| TR401    | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           |                 |
| TR402    | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           |                 |
| TR403    | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           |                 |
| TR404    | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           |                 |
| TR405    | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           |                 |
| TR406    | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           |                 |
| TR407    | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           |                 |
| TR408    | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           |                 |
| TR409    | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           |                 |
| TR410    | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           |                 |
| TR411    | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           |                 |
| TR412    | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           |                 |
| TR413    | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           |                 |
| TR414    | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           |                 |
| TR415    | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           |                 |
| TR416    | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           |                 |
| TR417    | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           |                 |
| TR418    | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           |                 |
| TR419    | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           |                 |
| TR420    | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           |                 |
| TR421    | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           |                 |
| TR422    | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           |                 |
| TR423    | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           |                 |
| TR424    | 2SD325E    | DDBY224003     | GE-28                     | PTC110           | HEPS0027          | REN 186           | SK3197       | RT-197           | ECG186            | 2SD325              | WEP751           |                 |

# 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 |
| C28      | .022     |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C29      | .039     |               |                    | DPMS6S39                  | PVC6139          |                  | 6PS-S39      |
| C30      | .039     |               |                    | DPMS6S39                  | PVC6139          |                  | 6PS-S39      |
| C31      | .039     |               |                    | DPMS6S39                  | PVC6139          |                  | 6PS-S39      |
| C32      | 5 NPO    |               | DTZ-4R7            | NPO4P7                    | CN0547           |                  | 10TCC-V47    |
| C33      | .022     |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C34      | .022     |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C36      | 5 NPO    |               | DTZ-4R7            | NPO4P7                    | CN0547           |                  | 10TCC-V47    |
| C37      | 10 NPO   |               | DTZ-10             | NPO10                     | CN0410           |                  | 10TCC-Q10    |
| C38      | 330 N750 |               | DTN-330            | N330                      | CN7333           |                  | 10TCU-T33    |
| C40      | .039     |               |                    | DPMS6S39                  | PVC6139          |                  | 6PS-S39      |
| C41      | .022     |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C45      | 47 NPO   |               | DTZ-47             | NPO47                     | CN0447           |                  | 10TCC-Q47    |
| C46      | .01      |               | DC-103             | MGP01                     | TA110            | QC2-141          | TG-S10       |
| C51      | .022     |               |                    | DPMS2S22                  | EWFA1A122        | QF1-127          | 1PB-S22      |
| C53      | .01      |               | DC-103             | MGP01                     | TA110            | QC2-141          | TG-S10       |
| C54      | 22 NPO   |               | DTZ-22             | NPO22                     | CN0422           |                  | 10TCC-Q22    |
| C57      | .022     |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C61      | .033     |               |                    | DPMS6S33                  | EWFA1A133        |                  | 6PS-S33      |
| C62      | .047     |               |                    | DPMS2S47                  | EWFA1A147        | QF1-171          | 1PB-S47      |
| C64      | .068     |               |                    | WMF1S68                   | EWFA1A168        | QF1-195          | 1PB-S68      |
| C71      | .068     |               |                    | WMF1S68                   | EWFA1A168        | QF1-195          | 1PB-S68      |
| C72      | .022     |               |                    | DPMS2S22                  | EWFA1A122        | QF1-127          | 1PB-S22      |
| C73      | .1       |               |                    | DPMS2P1                   | EWFA1A010        | QF1-215          | 1PB-P10      |
| C74      | .01      |               |                    | WMF1S1                    | EWFA1A110        | QF1-91           | 1PB-S10      |
| C75      | .1       |               |                    | DPMS2P1                   | EWFA1A010        | QF1-215          | 1PB-P10      |
| C80      | .022     |               |                    | DPMS2S22                  | EWFA1A122        | QF1-127          | 1PB-S22      |
| C82      | .022     |               |                    | DPMS2S22                  | EWFA1A122        | QF1-127          | 1PB-S22      |
| C85      | .039     |               |                    | DPMS6S39                  | PVC6139          | QF1-127          | 6PS-S39      |
| C86      | .022     |               |                    | DPMS2S22                  | EWFA1A122        |                  | 1PB-S22      |
| C90      | 22 NPO   |               | DTZ-22             | NPO22                     | CN0422           | QF1-127          | 10TCC-Q22    |
| C91      | .1       |               |                    | DPMS2P1                   | EWFA1A010        | QF1-215          | 1PB-P10      |
| C93      | 68 NPO   |               | DD-560             |                           | GP456            |                  | 10TS-Q56     |
| C96      | .22      |               |                    | DPMS2P22                  | EWFA1A022        | QF1-253          | 1PB-P22      |
| C100     | .022     |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C105     | .022     |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C106     | .022     |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C109     | .022     |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C111     | 18 NPO   |               |                    |                           | CN0418           |                  | 10TCC-Q18    |
| C112     | 18 NPO   |               |                    |                           | CN0418           |                  | 10TCC-Q18    |
| C113     | .001     |               | DD-1026            | GP1000                    | GP210            | QC2-81           | 5GA-D10      |
| C114     | .001     |               | DD-1026            | GP1000                    | GP210            | QC2-81           | 5GA-D10      |
| C115     | 100 NPO  |               | DTZ-100            | NPO100                    | CN0310           |                  | 10TCC-T10    |
| C116     | 10 NPO   |               | DTZ-10             | NPO10                     | CN0410           |                  | 10TCC-Q10    |
| C117     | 1 NPO    |               |                    |                           | CN0510           |                  | 10TCC-V10    |
| C118     | .022     |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C121     | .039     |               |                    | DPMS6S39                  | PVC6139          |                  | 6PS-S39      |
| C122     | 47 NPO   |               | DTZ-47             | NPO47                     | CN0447           |                  | 10TCC-Q47    |
| C123     | 47 NPO   |               | DTZ-47             | NPO47                     | CN0447           |                  | 10TCC-Q47    |
| C124     | .01      |               | DC-103             | MGP01                     | TA110            | QC2-141          | TG-S10       |
| C125     | 270      |               | DD-271             | GP270                     | GP327            |                  | 10TS-T27     |
| C127     | 470      |               | DD-471             | GP470                     | GP347            |                  | 10TS-T47     |
| C128     | 220      |               | DD-221             |                           | GP322            |                  | 10TS-T22     |
| C129     | .01      |               | DC-103             | MGP01                     | TA110            | QC2-141          | TG-S10       |
| C130     | 10 NPO   |               | DTZ-10             | NPO10                     | CN0410           |                  | 10TCC-Q10    |
| C131     | .01      |               |                    | WMF1S1                    | EWFA1A110        | QF1-91           | 1PB-S10      |
| C133     | .1       |               |                    | DPMS2P1                   | EWFA1A010        | QF1-215          | 1PB-P10      |
| C134     | .1       |               |                    | DPMS2P1                   | EWFA1A010        | QF1-215          | 1PB-P10      |
| C136     | 470      |               | DD-471             | GP470                     | GP347            |                  | 10TS-T47     |
| C137     | 220      |               | DD-221             |                           | GP322            |                  | 10TS-T22     |
| C138     | .01      |               | DC-103             | MGP01                     | TA110            | QC2-141          | TG-S10       |
| C139     | 10 NPO   |               | DTZ-10             | NPO10                     | CN0410           |                  | 10TCC-Q10    |
| C142     | 68 NPO   |               | DD-680             | GP68                      | GP468            |                  | 10TS-Q68     |
| C143     | 7 NPO    |               | DTZ-6R8            | NPO6P8                    | CN0568           |                  | 10TCC-V68    |
| C146     | .022     |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C147     | 470      |               | DD-471             | GP470                     | GP347            |                  | 10TS-T47     |
| C148     | 220      |               | DD-221             |                           | GP322            |                  | 10TS-T22     |
| C149     | .01      |               | DC-103             | MGP01                     | TA110            | QC2-141          | TG-S10       |
| C150     | 10 NPO   |               | DTZ-10             | NPO10                     | CN0410           |                  | 10TCC-Q10    |
| C151     | .01      |               | DC-103             | MGP01                     | TA110            | QC2-141          | TG-S10       |
| C152     | .01      |               | DC-103             | MGP01                     | TA110            | QC2-141          | TG-S10       |
| C153     | .047     |               |                    | DPMS2S47                  | EWFA1A147        | QF1-171          | 1PB-S47      |
| C154     | 10 NPO   |               | DTZ-10             | NPO10                     | CN0410           |                  | 10TCC-Q10    |
| C155     | 1 NPO    |               |                    |                           | CN0510           |                  | 10TCC-V10    |
| C156     | .022     |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C157     | .039     |               |                    | DPMS6S39                  | PVC6139          |                  | 6PS-S39      |
| C159     | .0047    |               | DD-472             | GP4700                    | GP247            |                  | 5GA-D47      |
| C160     | .0047    |               | DD-472             | GP4700                    | GP247            |                  | 5GA-D47      |
| C161     | .0047    |               | DC-103             | MGP01                     | TA110            | QC2-141          | TG-S10       |
| C162     | .0047    |               | DC-103             | MGP01                     | TA110            | QC2-141          | TG-S10       |
| C163B    | 39 NPO   | (1)           |                    |                           | CN0439           |                  | 10TCC-Q39    |
| C163B    | 47 NPO   | (1)           | DTZ-47             | NPO47                     | CN0447           |                  | 10TCC-Q47    |
| C164     | 68 NPO   | (2)           | DTZ-68             | NPO68                     | CN0468           |                  | 10TCC-Q68    |
| C165     | 220 NPO  |               | DTZ-220            |                           |                  |                  | 10TCC-T22    |
| C166     | .0047    |               | DD-472             | GP4700                    | GP247            |                  | 5GA-D47      |
| C167     | 390 N750 |               | DTN-390            |                           |                  |                  | 10TCU-T39    |
| C168     | .5 NPO   |               |                    |                           |                  |                  |              |
| C169     | .047     |               |                    | DPMS2S47                  | EWFA1A147        | QF1-171          | 1PB-S47      |
| C170     | 470 N750 |               | DTN-470            |                           |                  |                  | 10TCU-T47    |
| C172     | .0047    |               | DD-472             | GP4700                    | GP247            |                  | 5GA-D47      |
| C173     | 180 NPO  |               | DTZ-180            |                           |                  |                  | 10TCC-T18    |
| C174     | 47 NPO   |               | DTZ-47             | NPO47                     | CN0447           |                  | 10TCC-Q47    |
| C175     | .1       |               |                    | DPMS2P1                   | EWFA1A010        | QF1-215          | 1PB-P10      |
| C176     | 82 NPO   |               | DTZ-82             | NPO82                     | CN0482           |                  | 10TCC-Q82    |
| C177     | .0047    |               | DD-472             | GP4700                    | GP247            |                  | 5GA-D47      |
| C178     | .0047    |               | DD-472             | GP4700                    | GP247            |                  | 5GA-D47      |

REALISTIC MODELS TRC-457/-458

# PARTS LIST AND DESCRIPTION (CONTINUED)

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

## CAPACITORS (cont)

| ITEM No. | RATING  | MFG. PART No. | REPLACEMENT DATA   |                           |                  |                  |              |
|----------|---------|---------------|--------------------|---------------------------|------------------|------------------|--------------|
|          |         |               | CENTRALAB PART No. | CORNELL-DUBILIER PART No. | MALLORY PART No. | SPRAGUE PART No. |              |
|          |         |               |                    |                           |                  | Q-LINE           | GENERAL LINE |
| C183     | .0047   |               | DD-472             | GP4700                    | GP247            |                  | 5GA-D47      |
| C184     | 120 NPO |               | DTZ-120            |                           | CNO312           |                  | 10TCC-T12    |
| C185     | .0047   |               | DD-472             | GP4700                    | GP247            |                  | 5GA-D47      |
| C186     | .0047   |               | DD-472             | GP4700                    | GP247            |                  | 5GA-D47      |
| C187     | .0047   |               | DD-472             | GP4700                    | GP247            |                  | 5GA-D47      |
| C188     | .047    |               |                    | DPMS2S47                  | EWFA1A147        | QF1-171          | 1PB-S47      |
| C189     | .0047   |               | DD-472             | GP4700                    | GP247            |                  | 5GA-D47      |
| C190     | .01     |               | DC-103             | MGP01                     | TA110            | QC2-141          | TG-S10       |
| C192     | .01     |               | DC-103             | MGP01                     | TA110            | QC2-141          | TG-S10       |
| C193     | .022    |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C194     | .039    |               |                    | DPMS6S39                  | PVC6139          |                  | 6PS-S39      |
| C195     | .01     |               | DC-103             | MGP01                     | TA110            | QC2-141          | TG-S10       |
| C196     | .022    |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C197     | .022    |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C198     | .1      |               |                    | DPMS2P1                   | EWFA1A010        | QF1-215          | 1PB-P10      |
| C200     | .01     |               |                    | WMF1S1                    | EWFA1A110        | QF1-91           | 1PB-S10      |
| C202     | .022    |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C203     | .022    |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C204     | .01     |               | DC-103             | MGP01                     | TA110            | QC2-141          | TG-S10       |
| C205     | .01     |               | DC-103             | MGP01                     | TA110            | QC2-141          | TG-S10       |
| C206     | .022    |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C207     | .01     |               | DC-103             | MGP01                     | TA110            | QC2-141          | TG-S10       |
| C208     | .01     |               | DC-103             | MGP01                     | TA110            | QC2-141          | TG-S10       |
| C209     | .01     |               | DC-103             | MGP01                     | TA110            | QC2-141          | TG-S10       |
| C210     | .01     |               |                    | WMF1S1                    | EWFA1A110        | QF1-91           | 1PB-S10      |
| C213     | .1      |               | DC-104             | MGP1                      | TA010            | QC2-233          | TG-P10       |
| C214     | .01     |               | DC-103             | MGP01                     | TA110            | QC2-141          | TG-S10       |
| C215     | .022    |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C216     | .022    |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C217     | .022    |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C219     | .022    |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C220     | .022    |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C221     | .022    |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C222     | .1      |               | DC-104             | MGP1                      | TA010            | QC2-233          | TG-P10       |
| C223     | .022    |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C227     | .022    |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C228     | .022    |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C231     | .047    |               |                    | DPMS2S47                  | EWFA1A147        | QF1-171          | 1PB-S47      |
| C233     | .1      |               | DC-104             | MGP1                      | TA010            | QC2-233          | TG-P10       |
| C236     | 33 NPO  |               | DTZ-33             | NP033                     | CNO433           | QC2-233          | 10TCC-Q33    |
| C239     | .1      |               | DC-104             | MGP1                      | TA010            | QC2-233          | TG-P10       |
| C240     | .01     |               |                    | WMF1S1                    | EWFA1A110        | QF1-91           | 1PB-S10      |
| C241     | .047    |               |                    | DPMS2S47                  | EWFA1A147        | QF1-171          | 1PB-S47      |
| C242     | 47 NPO  |               | DTZ-47             | NP047                     | CNO447           |                  | 10TCC-Q47    |
| C244     | 33 NPO  |               | DTZ-33             | NP033                     | CNO433           |                  | 10TCC-Q33    |
| C245     | .047    |               |                    | DPMS2S47                  | EWFA1A147        | QF1-171          | 1PB-S47      |
| C248     | .022    |               | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C251     | .01     |               | DC-103             | MGP01                     | TA110            | QC2-141          | TG-S10       |
| C255     | .0047   |               | DD-472             | GP4700                    | GP247            |                  | 5GA-D47      |
| C257     | 27 NPO  |               |                    |                           | CNO427           |                  | 10TCC-Q15    |
| C258     | 15 NPO  |               | DTZ-15             | NP015                     | CNO415           | QF1-127          | 1PB-S22      |
|          |         |               |                    | DPMS2S22                  | EWFA1A122        | QC2-81           | 5GA-D10      |
| C263     | .001    |               | DD-102G            | GP1000                    | GP210            |                  | 6PS-S39      |
| C301     | .039    |               |                    | DPMS6S39                  | PVC6139          |                  | 6PS-S39      |
| C303     | .039    |               |                    | DPMS6S39                  | PVC6139          |                  | 6PS-S39      |
| C401     | .047    |               |                    | DPMS2S47                  | EWFA1A147        | QF1-171          | 1PB-S47      |
| C403     | .01     | (1)           | DC-103             | MGP01                     | TA110            | QC2-141          | TG-S10       |
| C404     | .01     | (1)           | DC-103             | MGP01                     | TA110            | QC2-141          | TG-S10       |
| C405     | .01     | (1)           | DD-102G            | GP1000                    | GP210            | QC2-81           | 5GA-D10      |
| C406     | .001    | (2)           | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C406     | .022    | (1)           | DD-402G            | GP1000                    | GP210            | QC2-81           | 5GA-D10      |
| C407     | .001    | (1)           | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C407     | .022    | (2)           | DD-102G            | GP1000                    | GP210            | QC2-81           | 5GA-D10      |
| C408     | .001    | (1)           | DC-203             | MGP02                     | TA120            | QC2-157          | TG-S20       |
| C408     | .022    | (2)           | DD-102G            | GP1000                    | GP210            | QC2-81           | 5GA-D10      |
| C409     | .001    | (1)           | DD-102G            | GP1000                    | GP210            | QC2-81           | 5GA-D10      |
| C410     | .001    | (1)           | DD-102G            | GP1000                    | GP210            | QC2-81           | 5GA-D10      |
| C410     | .1      | (2)           | DC-104             | MGP1                      | TA010            | QC2-233          | TG-P10       |
| C411     | .001    | (1)           | DD-102G            | GP1000                    | GP210            | QC2-81           | 5GA-D10      |
| C412     | .001    | (1)           | DD-102G            | GP1000                    | GP210            | QC2-81           | 5GA-D10      |
| C413     | .0047   | (1)           | DD-472             | GP4700                    | GP247            |                  | 5GA-D47      |
| C414     | .0047   | (1)           | DD-472             | GP4700                    | GP247            |                  | 5GA-D47      |
| C415     | .001    |               | DD-102G            | GP1000                    | GP210            | QC2-81           | 5GA-D10      |
| C416     | .001    |               | DD-102G            | GP1000                    | GP210            | QC2-81           | 5GA-D10      |
| C417     | .1      | (1)           | DC-104             | MGP1                      | TA010            | QC2-233          | TG-P10       |
| C417     | .001    | (2)           | DD-102G            | GP1000                    | GP210            | QC2-81           | 5GA-D10      |
| C418     | .001    | (2)           | DD-102G            | GP1000                    | GP210            | QC2-81           | 5GA-D10      |
| C419     | .001    | (2)           | DD-102G            | GP1000                    | GP210            | QC2-81           | 5GA-D10      |
| C420     | .001    | (2)           | DD-102G            | GP1000                    | GP210            | QC2-81           | 5GA-D10      |
| C421     | .001    | (2)           | DD-102G            | GP1000                    | GP210            | QC2-81           | 5GA-D10      |
| C422     | .001    | (2)           | DD-102G            | GP1000                    | GP210            | QC2-81           | 5GA-D10      |
| C423     | .001    | (2)           | DD-102G            | GP1000                    | GP210            | QC2-81           | 5GA-D10      |
| C424     | .001    | (2)           | DD-102G            | GP1000                    | GP210            | QC2-81           | 5GA-D10      |
| C425     | .01     | (2)           | DC-103             | MGP01                     | TA110            | QC2-141          | TG-S10       |
| C426     | .01     | (2)           | DC-103             | MGP01                     | TA110            | QC2-141          | TG-S10       |
| C427     | .1      | (2)           |                    | DPMS2P1                   | EWFA1A010        | QF1-215          | 1PB-P10      |
| C501     | .01     | (1)           |                    | WMF1S1                    | EWFA1A110        | QF1-91           | 1PB-S10      |
| C502     | .039    | (1)           |                    |                           | GP140            |                  | 5GA-S40      |
| C504     | .039    | (1)           |                    |                           | GP140            |                  | 5GA-S40      |

## 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 Q-LINE | PART No. GENERAL LINE |
| C505     | .039   | (1)           | DTZ-6R8            | NP06P8                    | GP140            | QC2-141        | 5GA-S40               |
| C601     | 8 NPO  |               | DD-472             | GP4700                    | CN0568           |                | 10TCC-V68             |
| C602     | .0047  |               | DC-103             | MGPO1                     | GP247            |                | 5GA-D47               |
| C603     | .01    |               |                    |                           | TA110            |                | TG-S10                |
| C604     | 39 NPO |               |                    |                           | CN0439           | QC2-141        | 10TCC-Q39             |
| C606     | .01    |               | DC-103             | MGPO1                     | TA110            |                | TG-S10                |
| CC1      |        | C-0793(3)     |                    |                           |                  |                |                       |
| CC2      |        | C-0793(3)     |                    |                           |                  |                |                       |
| CT1      | 20     | CCVY028004    |                    |                           |                  |                |                       |
| CT2      | 20     | CCVY028004    |                    |                           |                  |                |                       |
| CT3      | 20     | CCVY028004    |                    |                           |                  |                |                       |
| CT4      | 20     | CCVY028004    |                    |                           |                  |                |                       |
| CT5      | 20     | CCVY028004    |                    |                           |                  |                |                       |
| CT6      | 20     | CCVY028004    |                    |                           |                  |                |                       |
| CT7      | 20     | CCVY028004    |                    |                           |                  |                |                       |

(1) Model TRC-457

(2) Model TRC-458

(3) Consists of four .01 capacitors.

### 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. |
| RT301    | Volt Reg            | 300         | P-6423           | T-300              | MTC32L1          | X201R351B    |
| VR1      | Signal Meter        | 20K         | P-6416           |                    |                  | U260R253B    |
| VR2      | RF Gain Range       | 100K        | P-6418           |                    |                  | U260R104B    |
| VR3      | Squelch Range       | 100K        | P-6418           |                    |                  | U260R104B    |
| VR4      | Balance             | 50K         | P-6417           |                    |                  | U260R503B    |
| VR5      | AM RX Gain          | 100K        | P-6418           |                    |                  | U260R104B    |
| VR6      | MIC Gain            | 20K         | P-6416           |                    |                  | U260R253B    |
| VR7      | AM AMC              | 3000        | RRVY189010       |                    |                  | U260R502B    |
| VR8      | AM TX Level         | 10K         | P-6415           |                    |                  | U260R103B    |
| VR9      | 34.9825MHz          | 5000        | P-6414           |                    |                  | U260R502B    |
| VR12     | RF PWR Meter        | 100K        | P-6418           |                    |                  | U260R104B    |
| VR15     | Bias                | 300         | P-6420           |                    |                  |              |
| VR16     | Bias                | 300         | P-6420           |                    |                  |              |
| VR17     | LED Brilliance      | 500         | RRVY145006       |                    |                  | U260R502B    |
| VR401    | Clarifier           | 20K         | P-1768           |                    |                  |              |
| VR402    | RF Gain             | 100K        | P-1767           |                    |                  |              |
| VR403    | SWR/CAL             | 5000        | p-1769(18)       |                    |                  |              |
| VR404    | Squelch             | 100K        | P-1767           |                    |                  |              |
| VR405    | Volume/Power Switch | 10K         | P-1766           |                    |                  |              |

(18) Used in Model TRC-457 only.

### RESISTORS (Power and Special)

| ITEM No. | RATING    | REPLACEMENT DATA |               | ITEM No. | RATING           | REPLACEMENT DATA |               |
|----------|-----------|------------------|---------------|----------|------------------|------------------|---------------|
|          |           | WORKMAN PART No. | MFR. PART No. |          |                  | WORKMAN PART No. | MFR. PART No. |
| R403     | 82 ohm 7W |                  | NFL-0122(1)   | RR-1     | Resistor Network |                  | C-0792(2)     |
| R404     | 10 ohm 5W | 10W-SQ10         | NFR-0063      |          |                  |                  |               |

(1) Model TRC-457

(2) Consists of eight 4700 ohm resistors.

### COILS (RF-IF)

| ITEM No. | FUNCTION                | REPLACEMENT DATA         |                      |                          | REMARKS                                              |
|----------|-------------------------|--------------------------|----------------------|--------------------------|------------------------------------------------------|
|          |                         | PART No.                 | OTHER IDENTIFICATION | MILLER PART No.          |                                                      |
| L1       | Noise Blanker (23.5MHz) | CA-3272                  | LA-029               | CBS-740-T                | (1) Used in Model TRC457<br>(2) Used in Model TRC458 |
| L2       | Noise Blanker (23.5MHz) | CA-3747                  | LA-155               |                          |                                                      |
| L3       | Rec Ant (27MHz)         | CA-3746                  | LA-152               |                          |                                                      |
| L4       | Rec RF (27MHz)          | CA-3748                  | LA-156               |                          |                                                      |
| L5       | IF (7.8MHz)             | CA-3762(1)<br>CA-3764(2) | LA-178               |                          |                                                      |
| L6       | IF (7.8MHz)             | CA-3751                  |                      | CBS512-7TC<br>CBS511-7TC |                                                      |
| L7       | IF (7.8MHz)             | CA-3414                  | LA-038               |                          |                                                      |
| L8       | IF (7.8MHz)             | CA-3424                  | LA-096               |                          |                                                      |
| L9       | RF Choke (470uH)        | C-0787                   | LZ-012               |                          |                                                      |
| L10      | RF Choke (56mH)         | C-0788                   | LZ-015               |                          |                                                      |
| L11      | RF Choke (68mH)         | C-0789                   | LZ-015               |                          |                                                      |
| L12      | RF Choke (470uH)        | C-0787                   | LZ-012               |                          |                                                      |
| L13      | RF Choke (470uH)        | C-0787                   | LZ-012               |                          |                                                      |
| L14      | RF Choke (470uH)        | C-0787                   | LZ-012               |                          |                                                      |
| L16      | VCO (34.195MHz)         | CA-3750                  | LA-195               |                          |                                                      |
| L17      | VCO (34.195MHz)         | CA-3753                  | LA-191               |                          |                                                      |
| L18      | RF Choke (470uH)        | C-0787                   | LZ-012               |                          |                                                      |
| L19      | RF Choke (100uH)        | C-0786                   | LZ-012               |                          |                                                      |

REALISTIC MODELS TRC-457/-458

## 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. |                   |
| L20      | RF Choke (470uH)     | C-0787           | LZ-012               | CB304           |                   |
| L21      | RF Choke (470uH)     | C-0787           | LZ-012               |                 |                   |
| L22      | RF Choke (470uH)     | C-0787           | LZ-012               |                 |                   |
| L23      | RF Choke (470uH)     | C-0787           | LZ-012               |                 |                   |
| L24      | Trippler (33.855MHz) | CA-3752          | LA-190               |                 |                   |
| L25      | RF Choke (470uH)     | C-0787           | LZ-012               |                 |                   |
| L27      | TVI Trap (54MHz)     | CA-3409          | LC018                |                 |                   |
| L28      | RF Choke (.4uH)      | CA-3763          | LE-051               |                 |                   |
| L29      | RF Choke (.4uH)      | CA-3763          | LE-051               |                 |                   |
| L30      | Final (27MHz)        | CA-3639          | LC-019               |                 |                   |
| L31      | RF Choke (.89uH)     | CA-3757          | LD-018               | CB305           |                   |
| L32      | XMT Driver (27MHz)   | CA-3409          | LC-018               |                 |                   |
| L33      | RF Choke (.89uH)     | CA-3757          | LD-018               |                 |                   |
| L34      | RF Choke (.89uH)     | CA-3757          | LD-018               |                 |                   |
| L35      | XMT Amp (27MHz)      | CA-3758          | LD-057               |                 |                   |
| L36      | XMT Buffer (27MHz)   | CA-3758          | LA-057               |                 |                   |
| L37      | XMT Mixer (27MHz)    | CA-3749          | LA-157               |                 |                   |
| L38      | RF Choke (470uH)     | C-0787           | LZ-012               |                 |                   |
| L39      | XMT Mixer (2.8MHz)   | CA-3414          | LA-038               |                 |                   |
| L40      | RF Choke (7.3uH)     | CA-3756          | LD-013               |                 |                   |
| L43      | RF Choke (1uH)       | C-0785           | LZ-002               | CBS572-7TC      |                   |
| L44      | RF Choke (1uH)       | C-0785           | LZ-002               |                 |                   |
| L45      | RF Choke (100uH)     | C-0786           | LZ-012               |                 |                   |
| L46      | RF Choke (10uH)      | C-0796           |                      |                 |                   |
| L401     | RF Choke (1.2uH)     | CA-3644          | LD-066               |                 |                   |
| L402     | RF Choke (1.2uH)     | CA-3644          | LD-066               |                 |                   |
| L403     | RF Choke (1.2uH)     | CA-3644          | LD-066               |                 |                   |
| L404     | RF Choke (1.2uH)     | CA-3644          | LD-066               |                 |                   |
| L405     | RF Choke (1.2uH)     | CA-3644          | LD-066               |                 |                   |
| L406     | RF Choke (1.2uH)     | CA-3644(3)       | LD-066               |                 |                   |
| L407     | RF Choke (1.2uH)     | CA-3412(3)       | LE-003               |                 | (3) Model TRC-458 |
| L408     | RF Choke (1.2uH)     | CA-3412(3)       | LE-003               |                 | (4) Model TRC-457 |
| L501     | RF Choke (2.2mH)     | C-0795(4)        | LZ-003               |                 |                   |

### TRANSFORMER (Audio Output)

| ITEM No. | IMPEDANCE |      | REPLACEMENT DATA     |                     |                | NOTES               |
|----------|-----------|------|----------------------|---------------------|----------------|---------------------|
|          | PRI.      | SEC. | MFGR. PART No.       | THORDARSON PART No. | TRIAD PART No. |                     |
| T1       | 8         | 18   | TD-0156<br>TF-109(1) |                     |                | (1) Number on unit. |

### TRANSFORMER (Power)

| ITEM No. | RATING                |                         | REPLACEMENT DATA     |                     |                | NOTES               |
|----------|-----------------------|-------------------------|----------------------|---------------------|----------------|---------------------|
|          | PRI.                  | SEC. 1                  | MFGR. PART No.       | THORDARSON PART No. | TRIAD PART No. |                     |
| T401     | 120V AC @<br>580mA AC | 17.74V AC @<br>4.55A AC | TA-0529<br>TF-085(1) |                     |                | (1) Number on unit. |

### SPEAKER

| ITEM No. | TYPE             | REPLACEMENT DATA    |               | NOTES               |
|----------|------------------|---------------------|---------------|---------------------|
|          |                  | MFGR. PART No.      | QUAM PART No. |                     |
| SP       | 2 3/4" PM 8 ohms | S-4605<br>SP-030(1) | 27A0528       | (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           |
| F401     | 3 amp       | ZFSY001006       | W-1934 | AGC3          | HDJ    | 312003              | 150145   | FG3-2            |
| F402     | 3 amp       | ZFSY002003       | F-1112 | AGC3          | HKP    | 312003              | 342001AL | FG3-2            |

# PARTS LIST AND DESCRIPTION (CONTINUED) (When ordering parts, state Model, Part Number, and Description.)

## 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      | M-2222           | 18-032      | 18-034          | 18-010   | 18-105          | 4      | 1         | 3         | NC      | NC       | 1        |

## MISCELLANEOUS

| ITEM No. | PART NAME    | PART No.   | NOTES                                        |
|----------|--------------|------------|----------------------------------------------|
| D401     | LED          | L-0782     | Channel Display Tens (DA-076) Model TRC-157  |
| D401     | LED          | L-0776     | Channel Display (TLR321) Model TRC-158       |
| D402     | LED          | L-0782     | Channel Display Units (DA-076) Model TRC-157 |
| D403     | LED          | L-0781     | LSB Indicator (LR-0602R) Model TRC-157       |
| D404     | LED          | L-0781     | USB Indicator (LR-0602R) Model TRC-157       |
| D405     | LED          | L-0781     | AM Indicator (LR-0602R) Model TRC-157        |
| D501     | LED          | L-0783     | Clock Display Colon Model TRC-157            |
| D502     | LED          | L-0783     | Clock Display Colon Model TRC-157            |
| D505     | LED          | L-0782     | Clock Display Tens (DA-076) Model TRC-157    |
| D506     | LED          | L-0782     | Clock Display Units (DA-076) Model TRC-157   |
| D507     | LED          | L-0782     | Clock Display Tens (DA-076) Model TRC-157    |
| D508     | LED          | L-0782     | Clock Display Units (DA-076) Model TRC-157   |
| FT1      | Filter       | C-0791     | 7.8MHz                                       |
| FT2      | Filter       | C-0794     | 7.8MHz                                       |
| J401     | Jack         | J-0846     | Antenna                                      |
| J402     | Jack         | J-0723     | Microphone                                   |
| J403     | Jack         | J-0643     | PA                                           |
| J404     | Jack         | J-0643     | EXT SP                                       |
| J405     | Jack         | J-0853     | Headphone                                    |
| J406     | Jack         | J-0819     | DC Power                                     |
| J407     | Jack         | JKKY063001 | AC Power                                     |
| L26      | Ferrite Bead | CA-3761    |                                              |
| L41      | Ferrite Bead | CA-3754    |                                              |
| L42      | Ferrite Bead | CA-3754    |                                              |
| M401     | Meter        | M-0340     | S/Rf Model TRC-157                           |
| M401     | Meter        | M-0342     | S/Rf Model TRC-158                           |
| M401     | Meter        | M-0341     | SWR Model TRC-157                            |
| PL401    | Lamp         | L-0786     | S/Rf Meter (11.73V @ 43mA)                   |
| PL402    | Lamp         | L-0786     | SWR Meter (11.73V @ 43mA) Model TRC-457      |
| PL403    | Lamp         | L-0787     | S/Rf TX (11.03V @ 64mA) Model TRC-458        |
| PL404    | Lamp         | L-0787     | SWR TX (11.03V @ 64mA) Model TRC-457         |
| RL-1     | Relay        | ZRLY027001 | XMT/Rec RL-027                               |
| S401     | Switch       | S-7383     | NB Model TRC-457                             |
| S401     | Switch       | S-7315     | NB Model TRC-458                             |
| S402     | Switch       | S-1278     | AM/LSB/USB Model TRC-457                     |
| S402     | Switch       | S-1279     | AM/LSB/USB Model TRC-458                     |
| S403     | Switch       | S-7313     | SWR/CAL Model TRC-457                        |
| S404     | Switch       | S-7313     | ANL Model TRC-457                            |
| S404     | Switch       | S-7315     | ANL Model TRC-458                            |
| S405     | Switch       | S-7313     | CB/PA Model TRC-457                          |
| S405     | Switch       | S-7313     | CB/PA Model TRC-458                          |
| S406     | Switch       | S-7315     | Power (Part of Volume Control)               |
| S407     | Switch       | S-2382     | Clock Model TRC-457                          |
| S408     | Switch       | S-1276     | Channel Selector                             |
| S501     | Switch       | S-7314     | Hold Model TRC-457                           |
| S502     | Switch       | S-7314     | Slow Model TRC-457                           |
| S503     | Switch       | S-7314     | Fast Model TRC-457                           |
| X1       | Crystal      | MX-2171    | 7.8025MHz                                    |
| X2       | Crystal      | MX-2172    | 7.7975MHz                                    |
| X3       | Crystal      | MX-2317    | 11.2858MHz                                   |
| X4       | Crystal      | XX-2315    | 11.2842MHz                                   |
| X5       | Crystal      | MX-2292    | 10.240MHz                                    |
| X6       | Crystal      | MX-2316    | 11.2850MHz                                   |
| PC Board |              | PPCY196024 | Main                                         |
| PC Board |              | X-7429     | Power Supply                                 |
| PC Board |              | PPCY175013 | Switch Model TRC-457                         |
| PC Board |              | PPCY177012 | Switch Model TRC-458                         |
| PC Board |              | X-7431     | Flexible Model TRC-457                       |
| PC Board |              | X-7438     | Flexible Model TRC-458                       |
| PC Board |              | X-7422     | Noise Blanker Model TRC-458                  |
| PC Board |              | X-7432     | Clock Circuit Model TRC-458                  |
| PC Board |              | X-7433     | Clock Display Model TRC-458                  |
| PC Board |              | X-7434     | 12 Hr/24 Hr Model TCR-458                    |
| PC Board |              | X-7435     | LED Model TCR-458                            |

REALISTIC MODELS TRC-457/-458

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

| ITEM                         | PART No. | ITEM                        | PART No. |
|------------------------------|----------|-----------------------------|----------|
| Escutcheon Model TRC-457     | Z-3506   | Knob, Channel Model TRC-458 | K-2565   |
| Escutcheon Model TRC-458     | Z-3513   | Knob, Control               | K-2564   |
| Cabinet Top Model TRC-457    | Z-3502   | Knob, Clock Model TRC-457   | K-2562   |
| Cabinet Top Model TRC-458    | Z-3510   | Mounting Bracket (Left)     | MB-0137  |
| Cabinet Bottom Model TRC-457 | Z-3505   | Mounting Bracket (Right)    | MB-0136  |
| Cabinet Bottom Model TRC-458 | Z-3512   | Microphone Hanger           | M-3105   |
| Knob, Channel Model TRC-457  | K-2563   |                             |          |

## 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') |