

PHOTOFACT* Folder

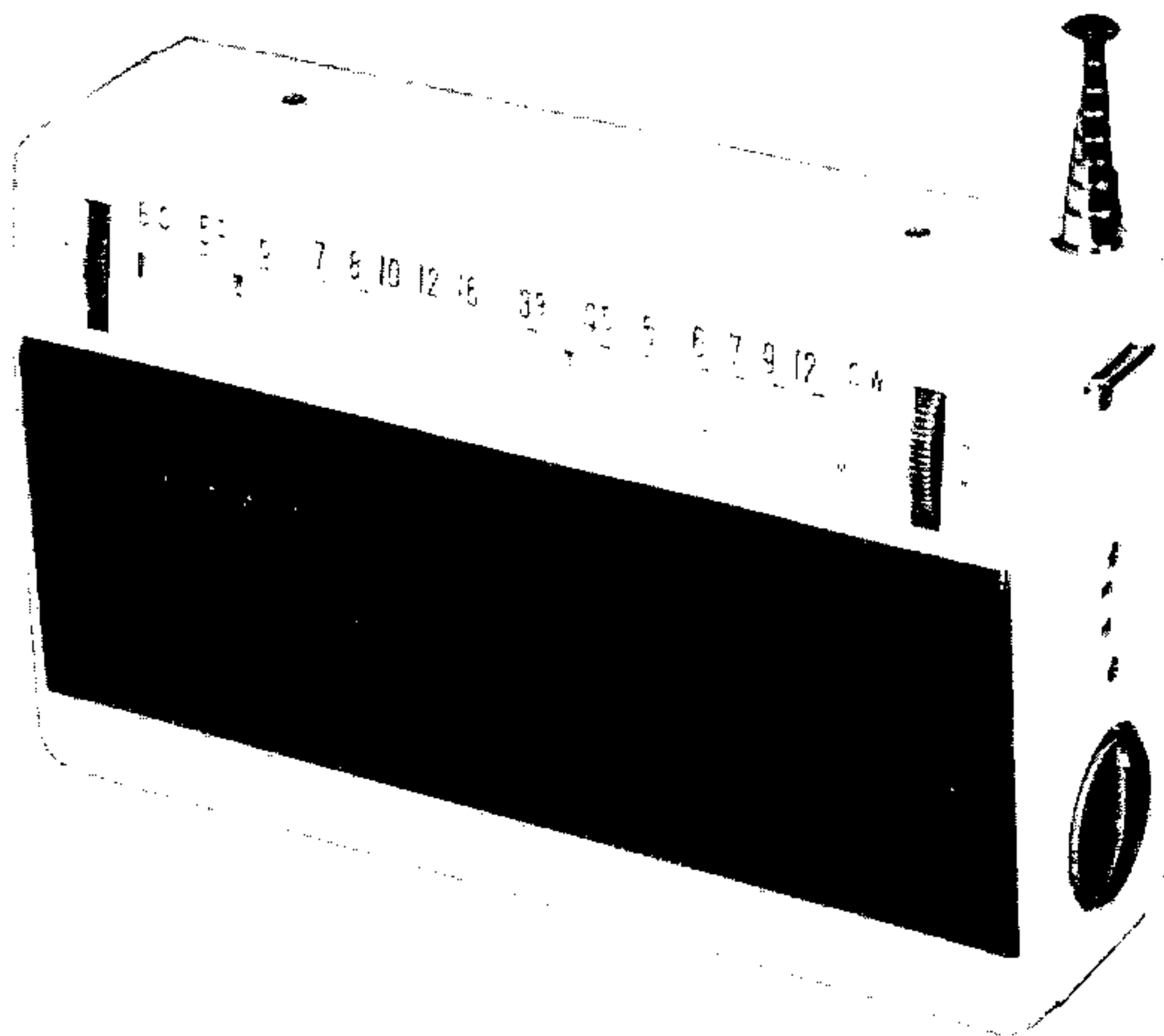


TRUETONE MODEL DC3050



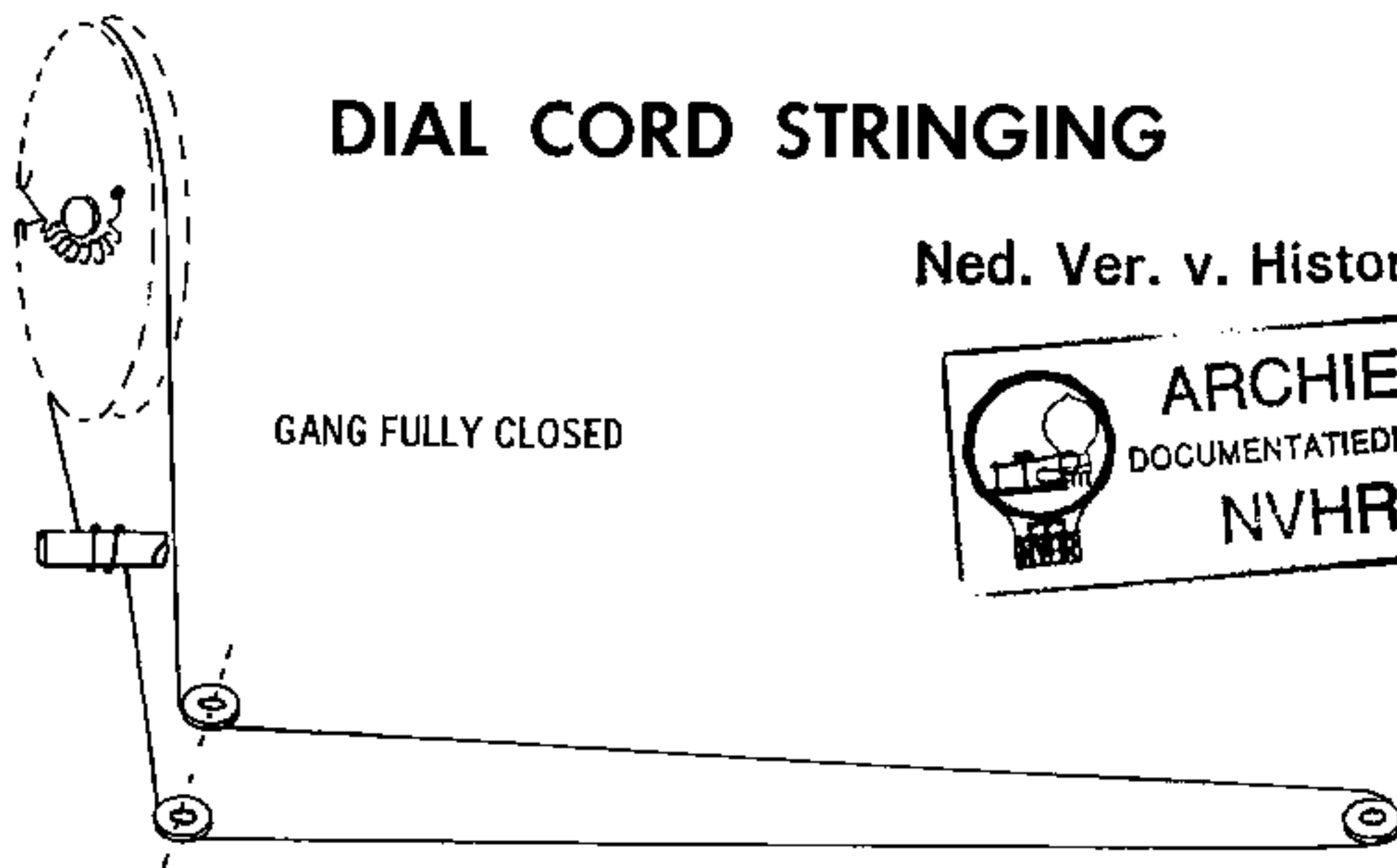
with CIRCUITRACE*

Met dank aan Jef Bos

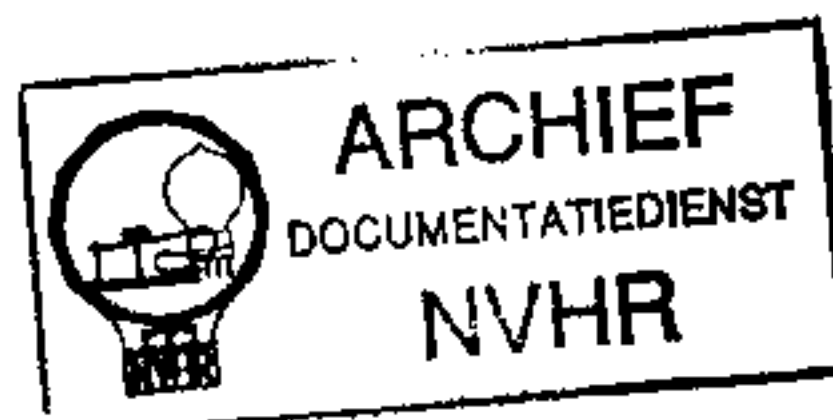


| | | | |
|------------------------|---|------------|--|
| TRADE NAME | Truetone Model DC 3050 | | |
| SUPPLIER | Western Auto Supply Co., 2107 Grand Ave., Kansas City 8, Missouri | | |
| TYPE SET | Battery Operated Portable Transistorized BC-SW Receiver | | |
| POWER SUPPLY | 9 Volts DC | RATING | 8.5MA@9 Volts DC (No Signal, Min. Volume) 10.5MA@9 Volts DC (Signal, Normal Volume) |
| TUNING RANGE—BROADCAST | 535 — 1640KC | SHORT WAVE | 3.9 - 12MC |

DIAL CORD STRINGING



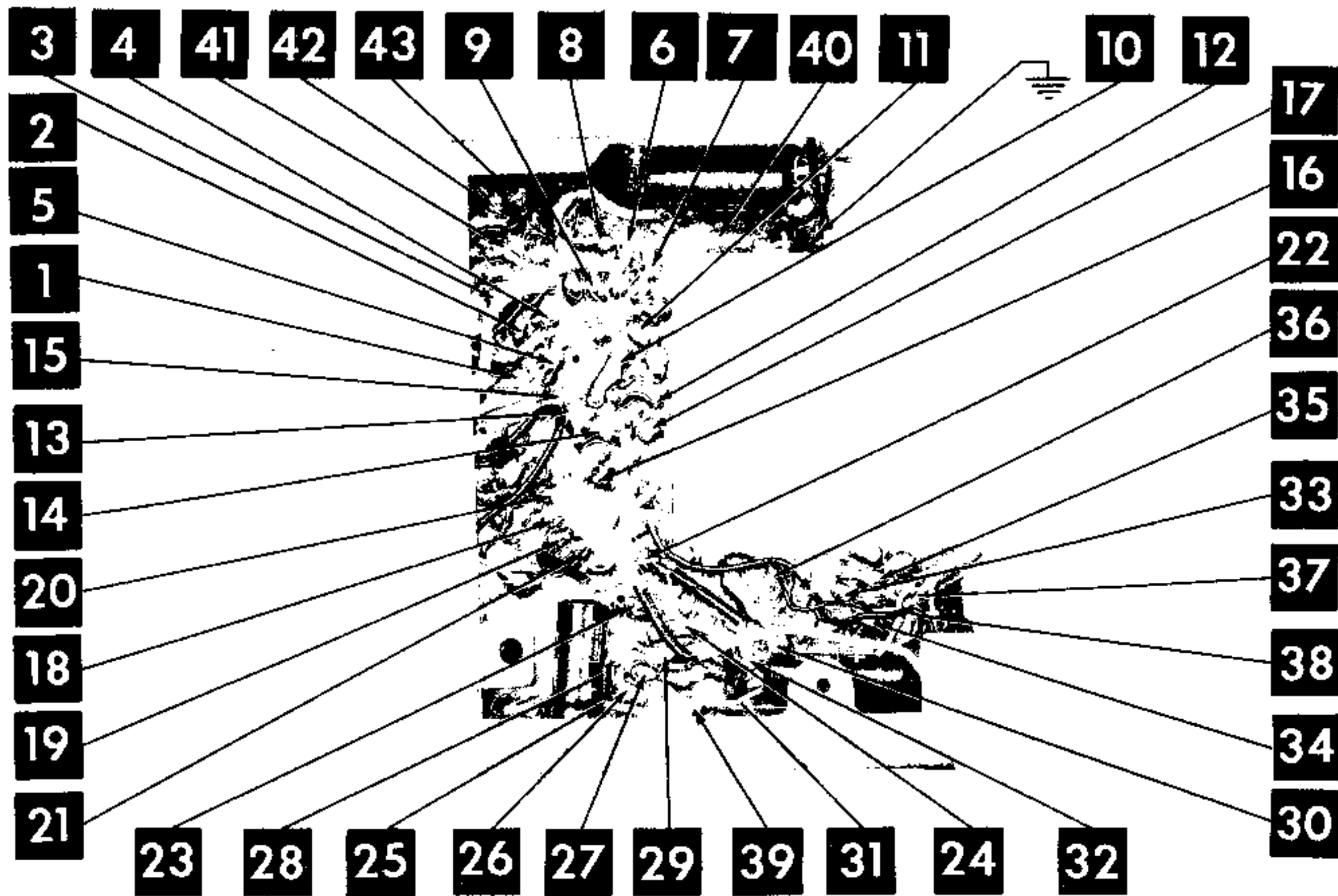
Ned. Ver. v. Historie v/d Radio

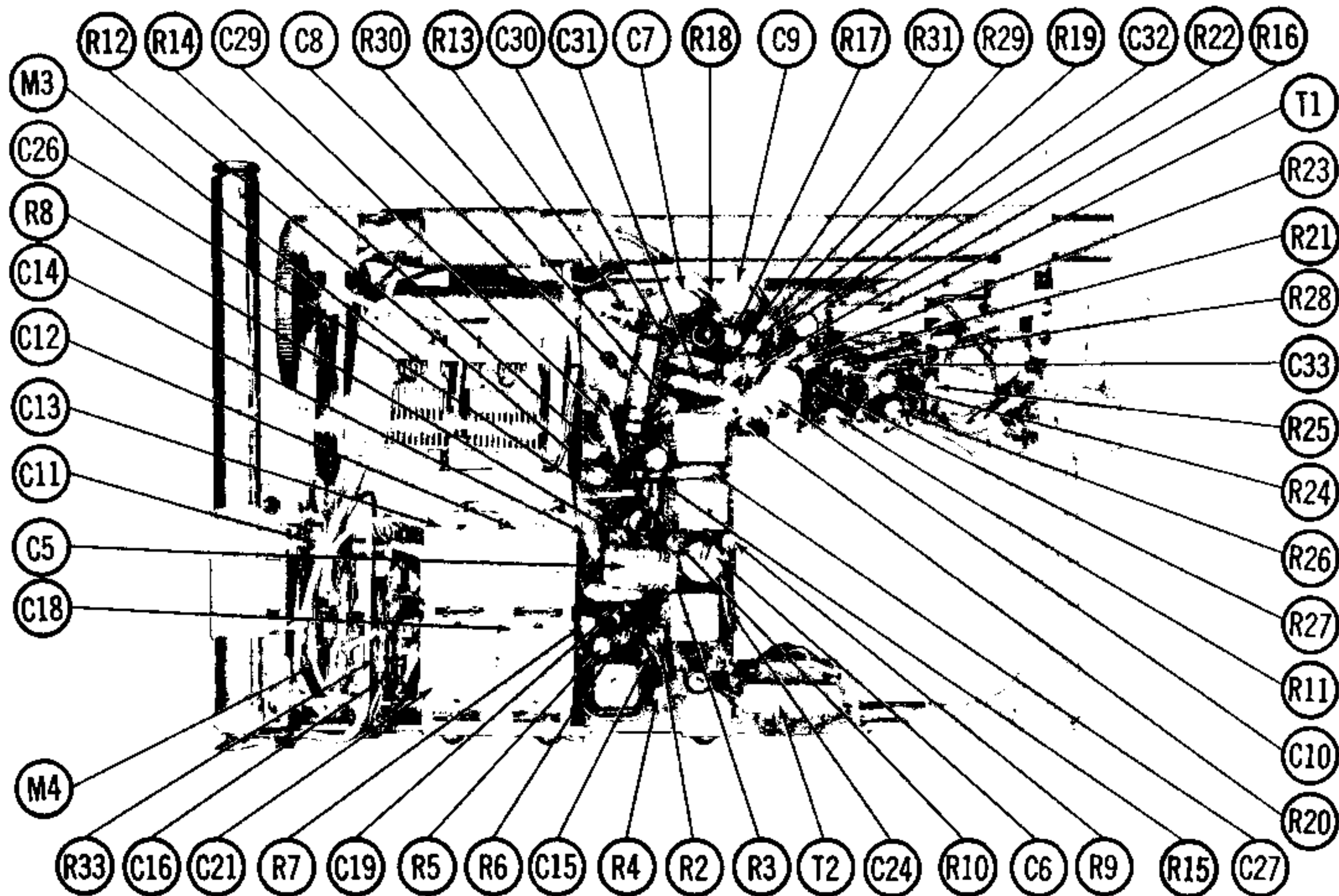


HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana

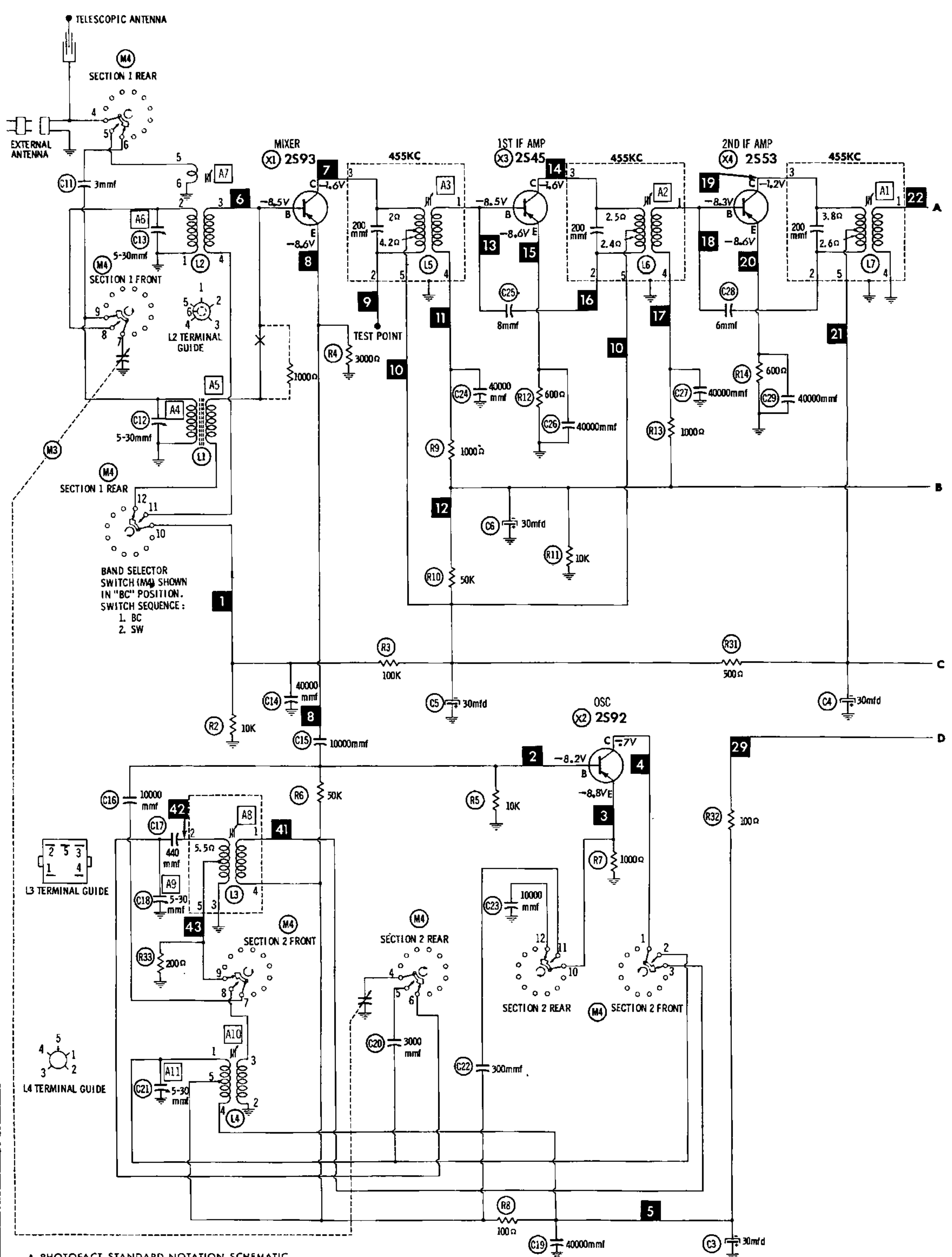
The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of JF338

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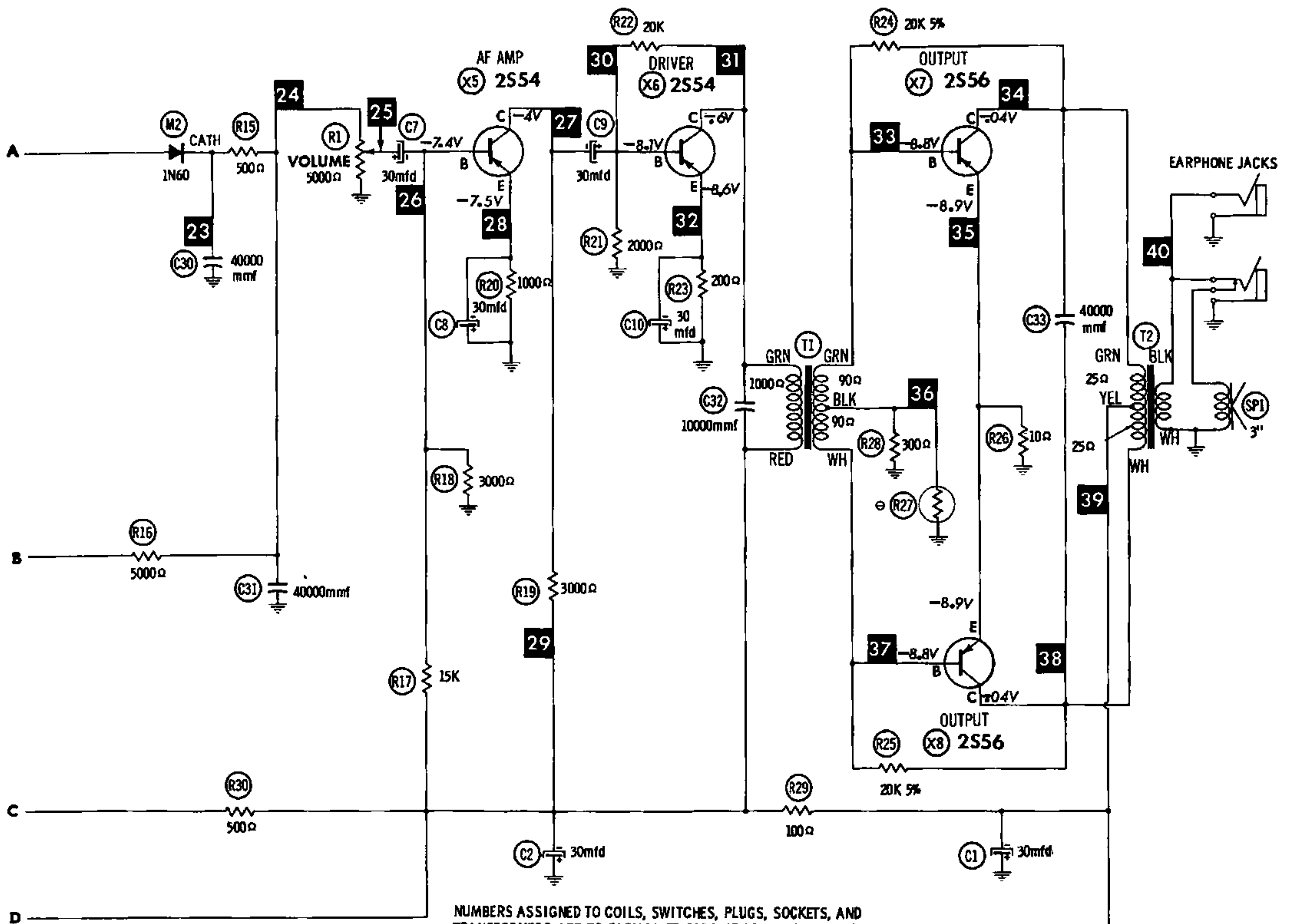




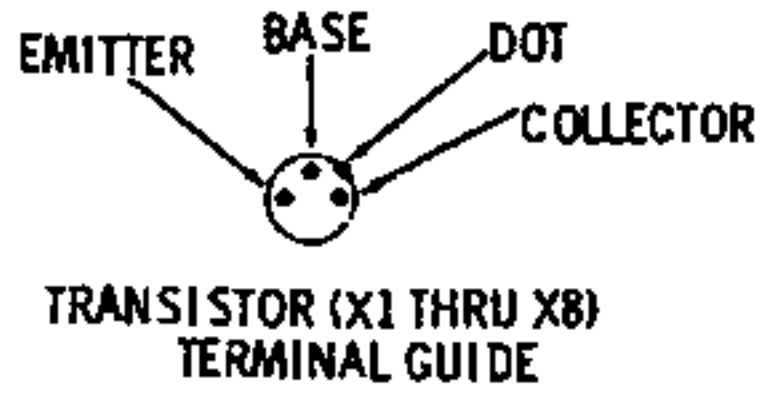
CHASSIS-TOP VIEW



A PHOTOFAC STANDARD NOTATION SCHEMATIC with CIRCUITRACE



NUMBERS ASSIGNED TO COILS, SWITCHES, PLUGS, SOCKETS, AND TRANSFORMERS ARE TO FACILITATE CIRCUIT TRACING OR COMPONENT REPLACEMENT AND MAY NOT NECESSARILY BE FOUND ON THE UNIT.

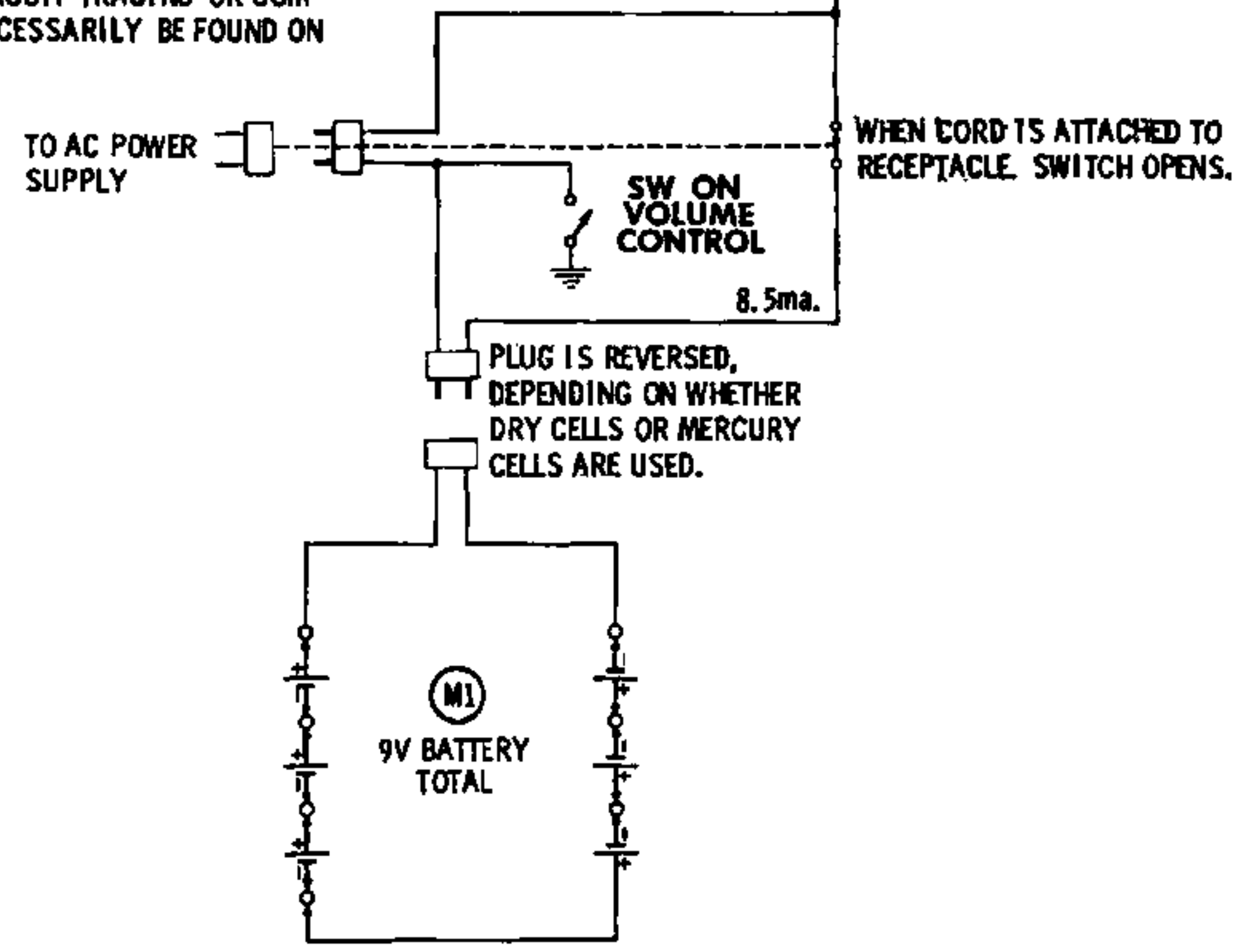


RESISTANCE MEASUREMENTS NOT GIVEN BECAUSE OF THE WIDE VARIATION IN INTERNAL TRANSISTOR RESISTANCE.

1. DC voltage measurements taken with vacuum tube voltmeter.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Nominal tolerance on component values makes possible a variation of ±15% in voltage and resistance readings.
5. Volume control at maximum, no signal applied for voltage measurements.

SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM



ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

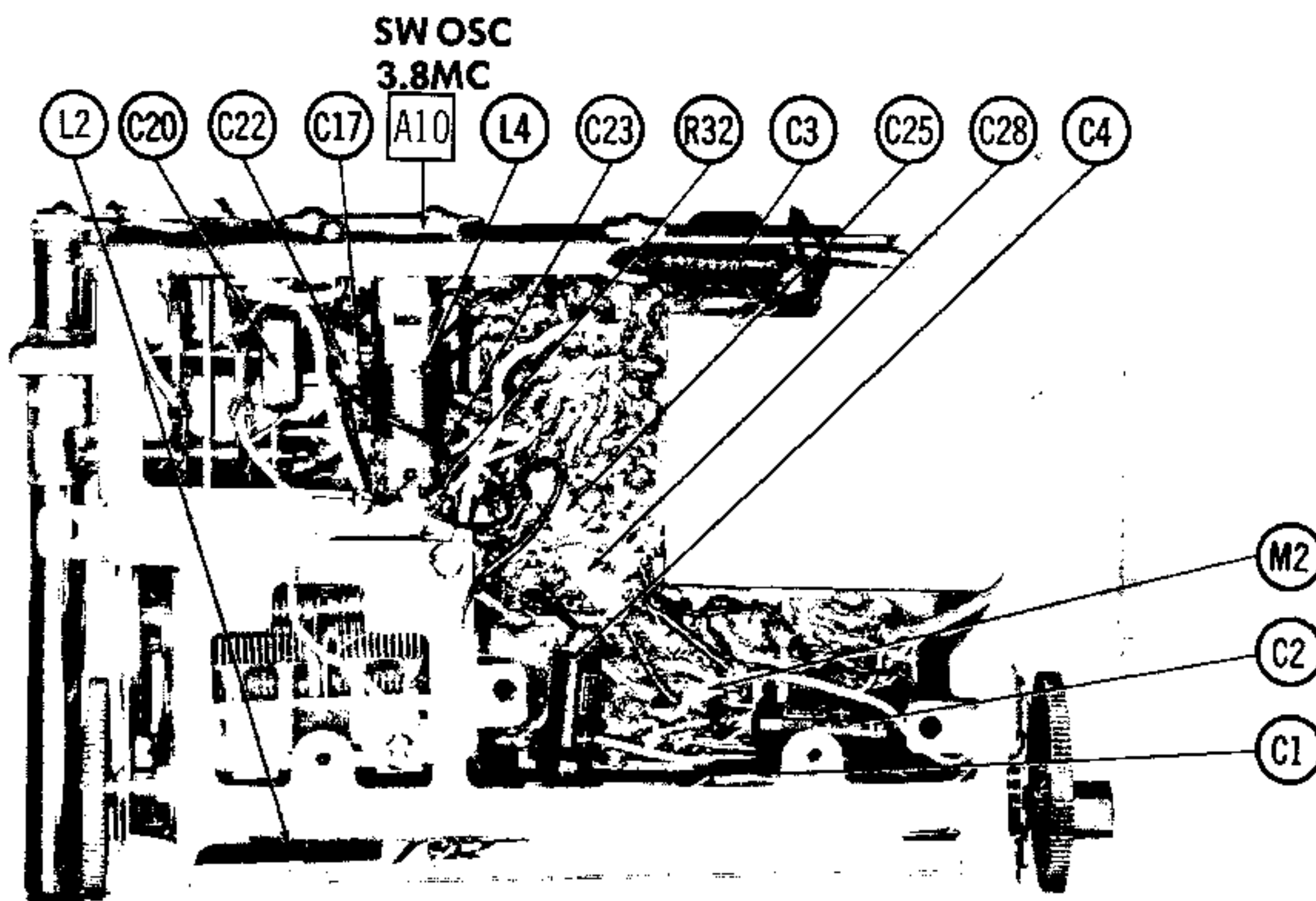
Volume control should be at maximum position. Output of signal generator should be no higher than necessary to obtain an output reading. Suggested alignment tools:

| | |
|----------------------|---|
| A1, A2, A3..... | GENERAL CEMENT #8607, 9291 WALSCO #2520, 2522, 2523, 2524, 2537 |
| A4, A8, A9, A11..... | GENERAL CEMENT #5004, 5008, 5009 WALSCO #2520 |
| A7, A10..... | GENERAL CEMENT #8721, 8722 WALSCO #2519 |
| A8..... | GENERAL CEMENT #8282, 8606, 8606L, 9091 WALSCO #2526, 2541, 2543, 2544 |

| DUMMY ANTENNA | SIGNAL GENERATOR COUPLING | SIGNAL GENERATOR FREQUENCY | BAND SWITCH POS. | RADIO DIAL SETTING | OUTPUT METER | ADJUST | REMARKS | |
|---------------|---------------------------|---|------------------|------------------------|-------------------|------------|---|---|
| 1. | Loop | 455KC (400% Mod.) | B. C. | Tuning gang fully open | Across voice coil | A1, A2, A3 | Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output. | |
| 2. | " | 1400KC | " | 1400KC | " | A4 | " | |
| 3. | " | 600KC | " | 600KC | " | A5 | Check alignment of loop stick by use of tuning wand. If necessary, adjust by sliding bobbin along core for maximum output. If large change was necessary, repeat steps 2 and 3. | |
| 4. | 300Ω Carbon Resistor | High side thru 300Ω to telescope antenna. Low side to B-. | 10MC | S. W. | 10MC | " | A6 | Adjust for maximum output. |
| 5. | " | " | 4.5MC | " | 4.5MC | " | A7 | Adjust for maximum output. If large change was necessary, repeat steps 4 and 5. |

Steps 6 thru 9 are not necessary unless the oscillator core has been tampered with or associated components have been replaced.

| | | | | | | | | |
|----|-----------------------|---|--------|--------------------------|---------------------------|----|---|---|
| 6. | Loop | 535KC | B. C. | Tuning gang fully closed | Across voice coil | A8 | Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output. | |
| 7. | " | 1640KC | " | Tuning gang fully open | " | A9 | Adjust for maximum output. Repeat Steps 6 and 7 until oscillator covers required range. Repeat Steps 2 and 3. | |
| 8. | 300Ω Carbon Resistors | High side thru 300Ω to telescope antenna. Low side to B-. | 3.8MC | S. W. | Tuning gang fully closed. | " | A10 | Adjust for maximum output. |
| 9. | " | " | 12.2MC | " | Tuning gang fully open. | " | A11 | Adjust for maximum output. Repeat steps 8 and 9 until oscillator covers required range. Repeat Steps 4 and 5. |



CHASSIS BOTTOM VIEW

PARTS LIST AND DESCRIPTIONS

TRANSISTORS

| ITEM No. | ORIG. TYPE | USE | REPLACEMENT DATA | | | | NOTES |
|----------|------------|------------------|------------------|--------------|-------------------|-------------------|--------------------|
| | | | CBS PART No. | RCA PART No. | RAYTHEON PART No. | SYLVANIA PART No. | |
| X1 | 2S03 | Mixer | | | 2N486 | 2N140 | PNP |
| X2 | 2S02 | Oscillator | | | 2N485 | 2N411 | PNP |
| X3 | 2S45 | 1st IF Amplifier | | | 2N483 | 2N409 | PNP |
| X4 | 2S53 | 2nd IF Amplifier | | | 2N483 | 2N409 | PNP |
| X5 | 2S54 | AF Amplifier | | | 2N362 | 2N407 | PNP |
| X6 | 2S54 | Driver | | | 2N362 | 2N407 | PNP |
| X7 | 2S56 | Output | | | 2N632 | 2N407 | PNP |
| X8 | 2S56 | Output | | | 2N632 | 2N407 | PNP } Matched Pair |

ELECTROLYTIC CAPACITORS

| ITEM No. | RATING | | REPLACEMENT DATA | | | | | | NOTES |
|----------|--------|-------|-------------------|------------------|---------------------------|------------------|------------------|------------------|-------|
| | CAP. | VOLT. | TRUETONE PART No. | AEROVOX PART No. | CORNELL-DUBILIER PART No. | MALLORY PART No. | PYRAMID PART No. | SPRAGUE PART No. | |
| C1 | 30 | 10 | | XPP-10030 | NLW30-15 | TT15X30 | ML30-15 | TE-1158 | |
| C2 | 30 | 10 | | XPP-10030 | NLW30-15 | TT15X30 | ML30-15 | TE-1158 | |
| C3 | 30 | 10 | | XPP-10030 | NLW30-15 | TT15X30 | ML30-15 | TE-1158 | |
| C4 | 30 | 10 | | XPP-10030 | NLW30-15 | TT15X30 | ML30-15 | TE-1158 | |
| C5 | 30 | 6 | | XPP-6030 | NLW30-6 | TT6X30 | ML30-6 | TE-1092 | |
| C6 | 30 | 6 | | XPP-6030 | NLW30-6 | TT6X30 | ML30-6 | TE-1092 | |
| C7 | 30 | 6 | | XPP-6030 | NLW30-6 | TT6X30 | ML30-6 | TE-1092 | |
| C8 | 30 | 6 | | XPP-6030 | NLW30-6 | TT6X30 | ML30-6 | TE-1092 | |
| C9 | 30 | 6 | | XPP-6030 | NLW30-6 | TT6X30 | ML30-6 | TE-1092 | |
| C10 | 30 | 6 | | XPP-6030 | NLW30-6 | TT6X30 | ML30-6 | TE-1092 | |

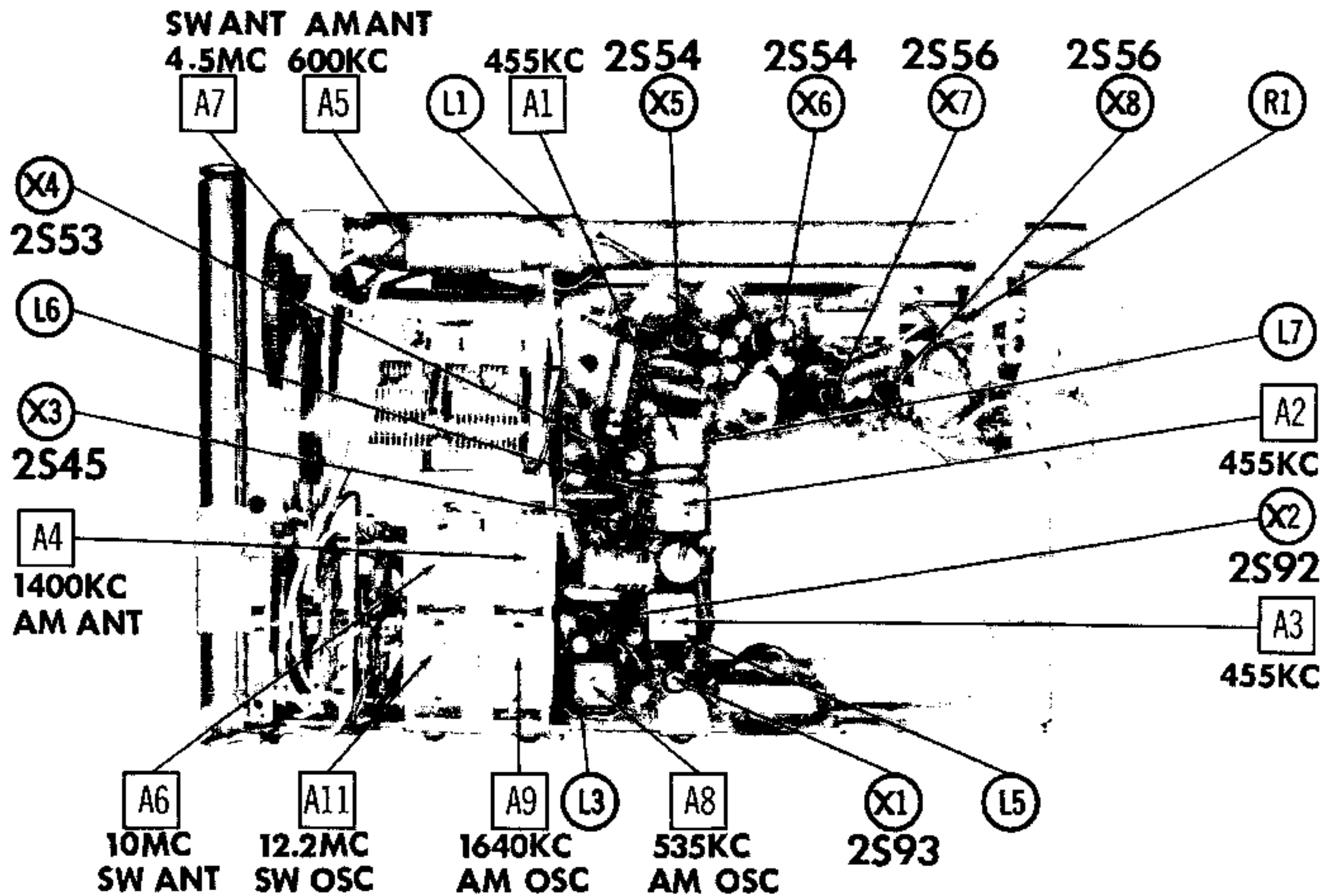
FIXED CAPACITORS

Capacity values given in the rating column are in mfd. for Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

| ITEM No. | RATING | | | REPLACEMENT DATA | | | | | | NOTES |
|----------|--------|------|-----|-------------------|------------------|--------------------|---------------------------|------------------|------------------|-------|
| | CAP. | VOLT | TOL | TRUETONE PART No. | AEROVOX PART No. | CENTRALAB PART No. | CORNELL-DUBILIER PART No. | MALLORY PART No. | SPRAGUE PART No. | |
| C11 | 3 | | | | NPO-SI 3 | D6-030 | C10V3C | ZT-553 | 5TCCB-V3 | |
| C12 | 5-30 | | | ST-B | | | | | | |
| C13 | 5-30 | | | ST-B | | | | | | |
| C14 | 40000 | | | | C-80V503AM | DA-503 | H-05S5 | TA-150 | TG-S50 | |
| C15 | 10000 | | | | C-80V103AM | DM-103 | H-05S1 | TA-110 | TG-S10 | |
| C16 | 10000 | | | | C-80V103AM | DM-103 | H-05S1 | TA-110 | TG-S10 | |
| C17 | 440 | | | | | | | | 5GA-T44S * | |
| C18 | 5-30 | | | ST-B | | | | | | |
| C19 | 40000 | | | | C-80V503AM | DA-503 | H-05S5 | TA-150 | TG-S50 | |
| C20 | 3000 | | | | 1467-003 | | 1W5D3 | UC-523 | MS-23 | |
| C21 | 5-30 | | | ST-B | | | | | | |
| C22 | 300 | | | | SI 300 | D6-301 | L10T3 | UC-533 | 5GA-T3 | |
| C23 | 10000 | | | | C-80V103AM | DM-103 | H-05S1 | TA-110 | TG-S10 | |
| C24 | 40000 | | | | C-80V503AM | DA-503 | H-05S5 | TA-150 | TG-S50 | |
| C25 | 8 | | | | | DD-080 | L10V8 | | 5GA-V8 | |
| C26 | 40000 | | | | C-80V503AM | DA-503 | H-05S5 | TA-150 | TG-S50 | |
| C27 | 40000 | | | | C-80V503AM | DA-503 | H-05S5 | TA-150 | TG-S50 | |
| C28 | 6 | | | | | DD-060 | C10V6C | | 5GA-V6 | |
| C29 | 40000 | | | | C-80V503AM | DA-503 | H-05S5 | TA-150 | TG-S50 | |
| C30 | 40000 | | | | C-80V503AM | DA-503 | H-05S5 | TA-150 | TG-S50 | |
| C31 | 40000 | | | | C-80V503AM | DA-503 | H-05S5 | TA-150 | TG-S50 | |
| C32 | 10000 | | | | C-80V103AM | DM-103 | H-05S1 | TA-110 | TG-S10 | |
| C33 | 40000 | | | | C-80V503AM | DA-503 | H-05S5 | TA-150 | TG-S50 | |

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

CHASSIS—TOP VIEW



PARTS LIST AND DESC

CONTROLS

| ITEM No. | RATING | | REPLACEMENT DATA | | | | | INSTALLATION NOTES |
|----------|------------|-------|-------------------|--------------------|--------------------|--------------|------------------|--------------------|
| | RESISTANCE | WATTS | TRUETONE PART No. | CENTRALAB PART No. | CLAROSTAT PART No. | IRC PART No. | MALLORY PART No. | |
| R1 | 5000Ω | 1/4 | V-153 | B16-214 | | | | Volume & Switch |

RESISTORS

All wattages 1/2 watt, or less, unless otherwise listed.

| ITEM No. | RATING | REMARKS |
|----------|--------|---------|
| R2 | 10K | |
| R3 | 100K | |
| R4 | 3000Ω | |
| R5 | 10K | |
| R6 | 50K | |
| R7 | 1000Ω | |
| R8 | 100Ω | |
| R9 | 1000Ω | |
| R10 | 50K | |
| R11 | 10K | |
| R12 | 600Ω | |

| ITEM No. | RATING | REMARKS |
|----------|--------|---------|
| R13 | 1000Ω | |
| R14 | 600Ω | |
| R15 | 500Ω | |
| R16 | 5000Ω | |
| R17 | 15K | |
| R18 | 3000Ω | |
| R19 | 3000Ω | |
| R20 | 1000Ω | |
| R21 | 2000Ω | |
| R22 | 20K | |
| R23 | 200Ω | |

| ITEM No. | RATING | REMARKS |
|----------|-------------|----------|
| R24 | 20K 5% | |
| R25 | 20K 5% | |
| R26 | 10Ω | |
| R27 | Temp. Comp. | (#M8601) |
| R28 | 300Ω | |
| R29 | 100Ω | |
| R30 | 500Ω | |
| R31 | 500Ω | |
| R32 | 100Ω | |
| R33 | 200Ω | |

COILS (RF-IF)

| ITEM No. | USE | REPLACEMENT DATA | | | | | | NOTES |
|----------|---------------|-------------------|-----------------|-------------------|----------------|-----------------|--------------|-------|
| | | TRUETONE PART No. | Gramer PART No. | Meissner PART No. | Merit PART No. | Miller PART No. | Ram PART No. | |
| L1 | Loopstick | L-198A | | | | | | |
| L2 | SW Ant. Coil | L-199A | | | | | | |
| L3 | AM Osc. Coil | L-198B | | | | | | |
| L4 | SW Osc. Coil | L-199B | | | | | | |
| L5 | 1st IF Trans. | IF-500 | | | | | | |
| L6 | 2nd IF Trans. | IF-501 | | | | | | |
| L7 | 3rd IF Trans. | IF-502 | | | | | | |

TRANSFORMER (DRIVER)

| ITEM No. | TURNS RATIO | | REPLACEMENT DATA | | | | | | NOTES |
|----------|-------------|------|-------------------|---------------------|----------------|------------------|---------------------|----------------|-------|
| | PRI. | SEC. | TRUETONE PART No. | Halldorson PART No. | Merit PART No. | Stancor PART No. | Thordarson PART No. | Triad PART No. | |
| T1 | 2.5 | 1 | T-459 | | | | | | |

TRANSFORMER (AUDIO OUTPUT)

| ITEM No. | IMPEDANCE | | REPLACEMENT DATA | | | | | | | NOTES |
|----------|-----------|------|-------------------|---------------------|----------------|--------------|------------------|---------------------|----------------|-------|
| | PRI. | SEC. | TRUETONE PART No. | Halldorson PART No. | Merit PART No. | Ram PART No. | Stancor PART No. | Thordarson PART No. | Triad PART No. | |
| T2 | 400Ω CT | 10Ω | T-455 | TR-104 | | | TA-43 | TR-104 | | |

RIPTIONS (Continued)

SPEAKER

| ITEM No. | TYPE | | | REPLACEMENT DATA | | NOTES |
|----------|------|-------|------------|-------------------|---------------|-------|
| | SIZE | FIELD | V. C. IMP. | TRUETONE PART No. | QUAM PART No. | |
| SPI | 3" | PM | 10Ω | PM-301A | | |

BATTERIES

| ITEM No. | VOLTAGE | TRUETONE PART No. | REPLACEMENT DATA | | | | | | NOTES |
|----------|---------|----------------------|------------------|-----|----------|----------------|---------|------------------|--|
| | | | BURGESS | | EVEREADY | | MALLORY | | |
| | | | "A" | "B" | "A" | "B" | "A" | "B" | |
| M1 | 9V | 3B6710 ① 3B6810 ② | | Z ① | | 915 ① E9E ② | | M15F ① M15R ② | ① 6 Required ② Mercury Type, 6 Required |

CRYSTAL DIODES

| ITEM No. | ORIG. TYPE | REPLACEMENT DATA | | | | NOTES |
|----------|------------|-------------------|--------------|-------------------|-------------------|--------------------|
| | | TRUETONE PART No. | CBS PART No. | RAYTHEON PART No. | SYLVANIA PART No. | |
| M2 | 1N60 | | 1N60 | 1N60 | 1N60 | Detector (Pigtail) |

MISCELLANEOUS

| ITEM No. | PART NAME | TRUETONE PART No. | NOTES |
|----------|-------------|-------------------|--|
| M3 | Tuning Cap. | C-127 | 2 Gang (AM. 11- 508mmf, Osc. 11-454mmf) Band Selector |
| M4 | Switch | WY23-4 | |

CABINETS & CABINET PARTS

(When Ordering Cabinets & Cabinet Parts, Specify Model, Chassis & Color)

| NAME | PART NO. | DESCRIPTION |
|---------|----------|---------------|
| Knob | 1087-04 | Tuning |
| Knob | 1087-05 | Volume |
| Knob | 1123-04 | Band Selector |
| Cabinet | 1123-01 | Rear Cover |
| Cabinet | 1123-02 | |

WIRING DATA

General-use Unshielded Hook-up Wire Use BELDEN No. 8530 (Solid) Available in Ten Colors
8524 (Stranded) Available in Ten Colors