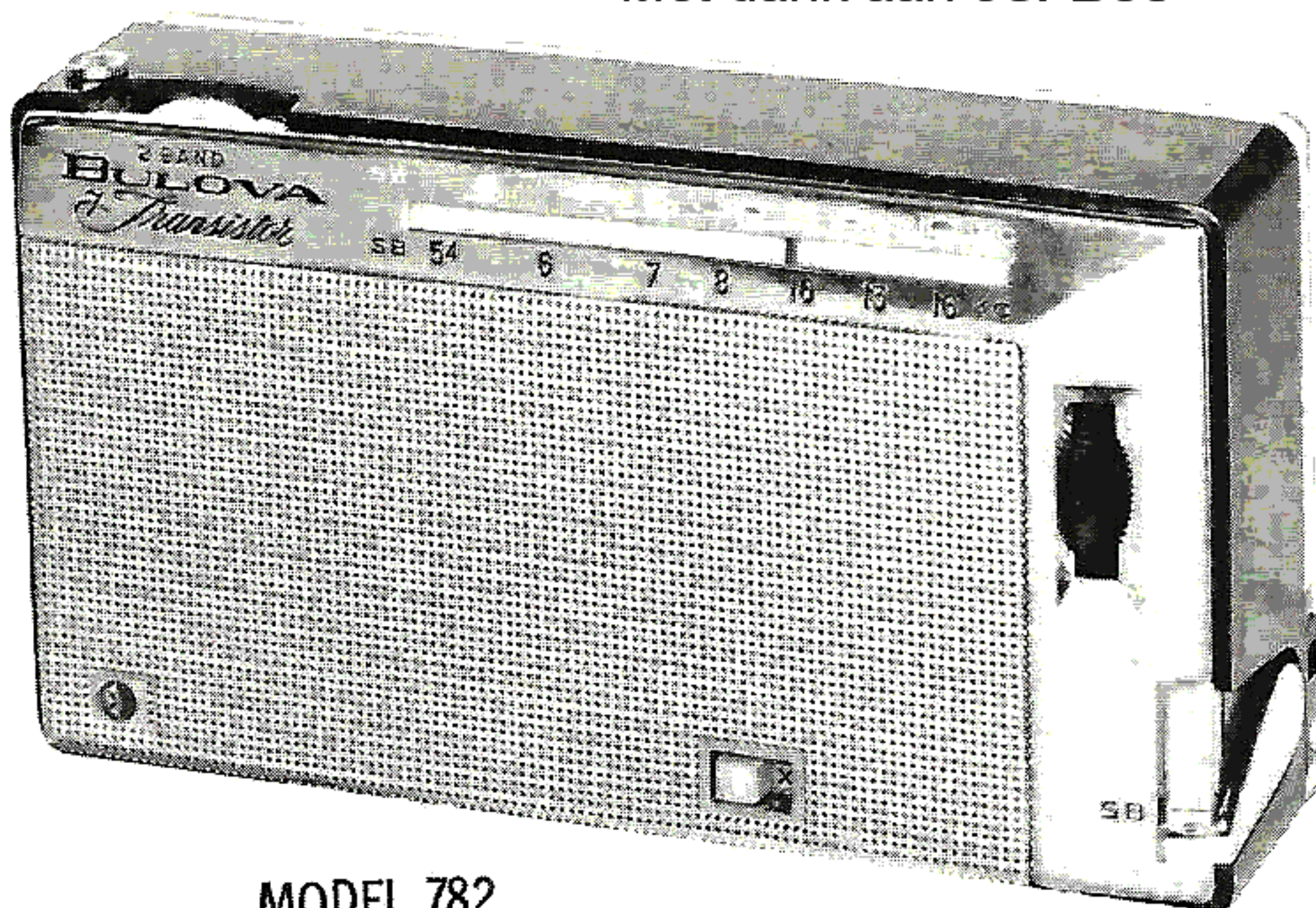
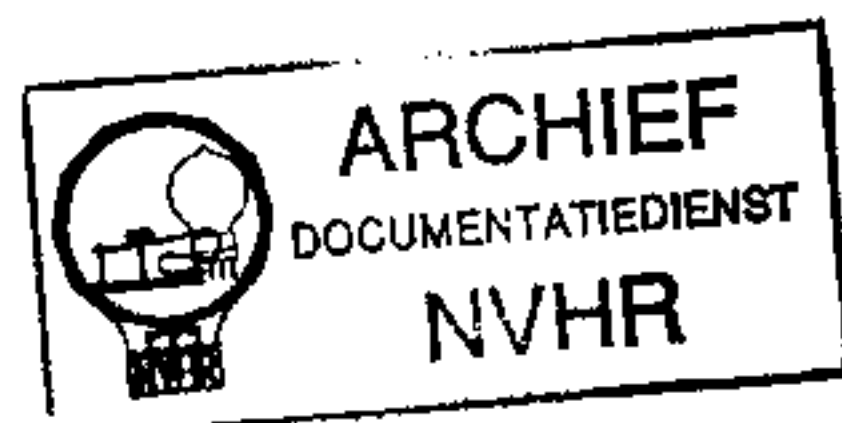


Met dank aan Jef Bos

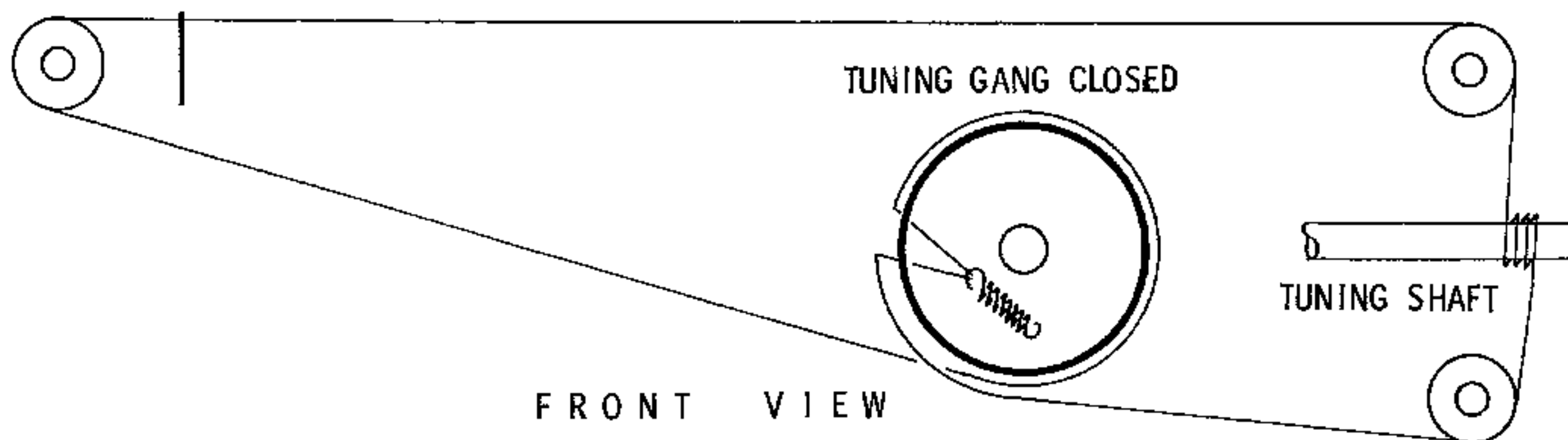


MODEL 782

Ned. Ver. v. Historie v/d R



DIAL CORD STRINGING



TRADE NAME Bulova Models 782, 785, 786
 MANUFACTURER Bulova Watch Co., Bulova Park, Flushing 70, N. Y.
 TYPE SET Battery Operated Transistorized Portable BC-SW Receiver
 POWER SUPPLY 6 Volts DC RATING 10MA@6 Volts DC (No Signal, Min. Volume)
 TUNING RANGE—BROADCAST 540 — 1600KC 20MA@6 Volts DC (Signal, Normal Volume)
 SHORT WAVE 4—10MC

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:

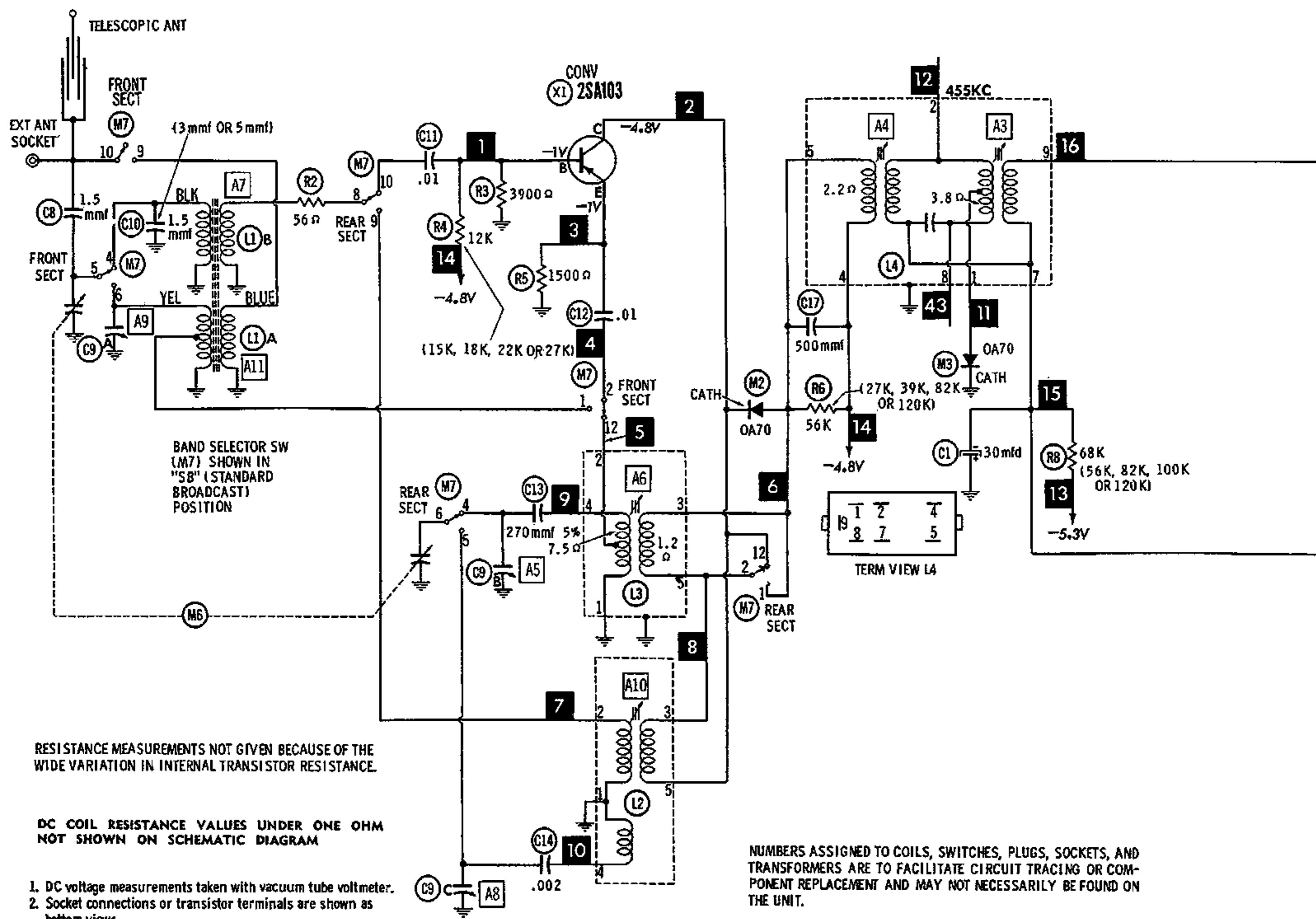
GENERAL CEMENT #8607, 9291, 9294
 WALSCO #2520, 2522, 2523, 2524, 2534, 2537

| | SIGNAL GENERATOR COUPLING | SIGNAL GENERATOR FREQUENCY | RADIO DIAL SETTING | OUTPUT METER | ADJUST | REMARKS |
|----|---|----------------------------|---------------------------------|--------------------|----------------|---|
| 1. | Fashion loop of several turns of wire and radiate signal into loop of receiver. | 455KC | (SB) Tuning gang fully open. | Across voice coil. | A1, A2, A3, A4 | Adjust for maximum output. |
| 2. | " | 1600KC | 1600KC | " | A5 | " |
| 3. | " | 600KC | 600KC | " | A6, A7 | " |
| 4. | High side to external antenna connector. Low side to chassis. | 10.0MC | (SW) 10.0MC | " | A8, A9 | " |
| 5. | " | 4.0MC | 4.0MC | " | A10, A11 | Adjust for maximum output. Repeat Steps 2 thru 5. |

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 LF028

the particular type of replacement part listed. Reproduction or use, without express permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein. ©1962 Howard W. Sams & Co., Inc., Indianapolis 6, Indiana. Printed in U.S. of America



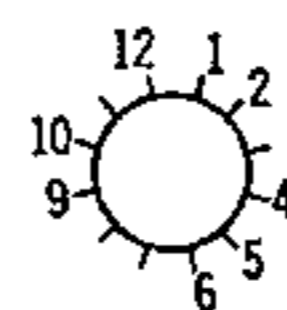
RESISTANCE MEASUREMENTS NOT GIVEN BECAUSE OF THE WIDE VARIATION IN INTERNAL TRANSISTOR RESISTANCE.

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

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

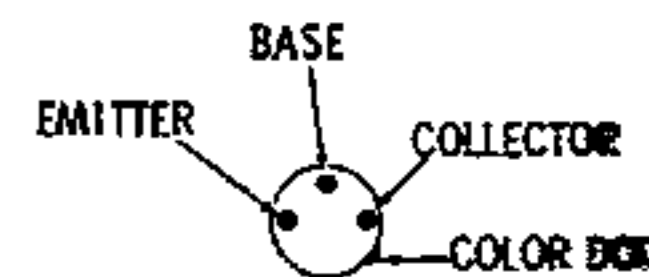
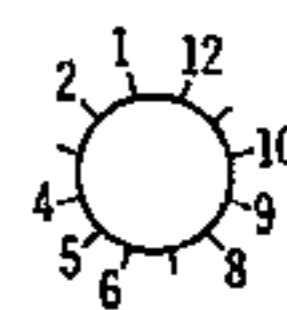
NUMBERS ASSIGNED TO COILS, SWITCHES, PLUGS, SOCKETS, AND TRANSFORMERS ARE TO FACILITATE CIRCUIT TRACING OR COMPONENT REPLACEMENT AND MAY NOT NECESSARILY BE FOUND ON THE UNIT.

FRONT SECT



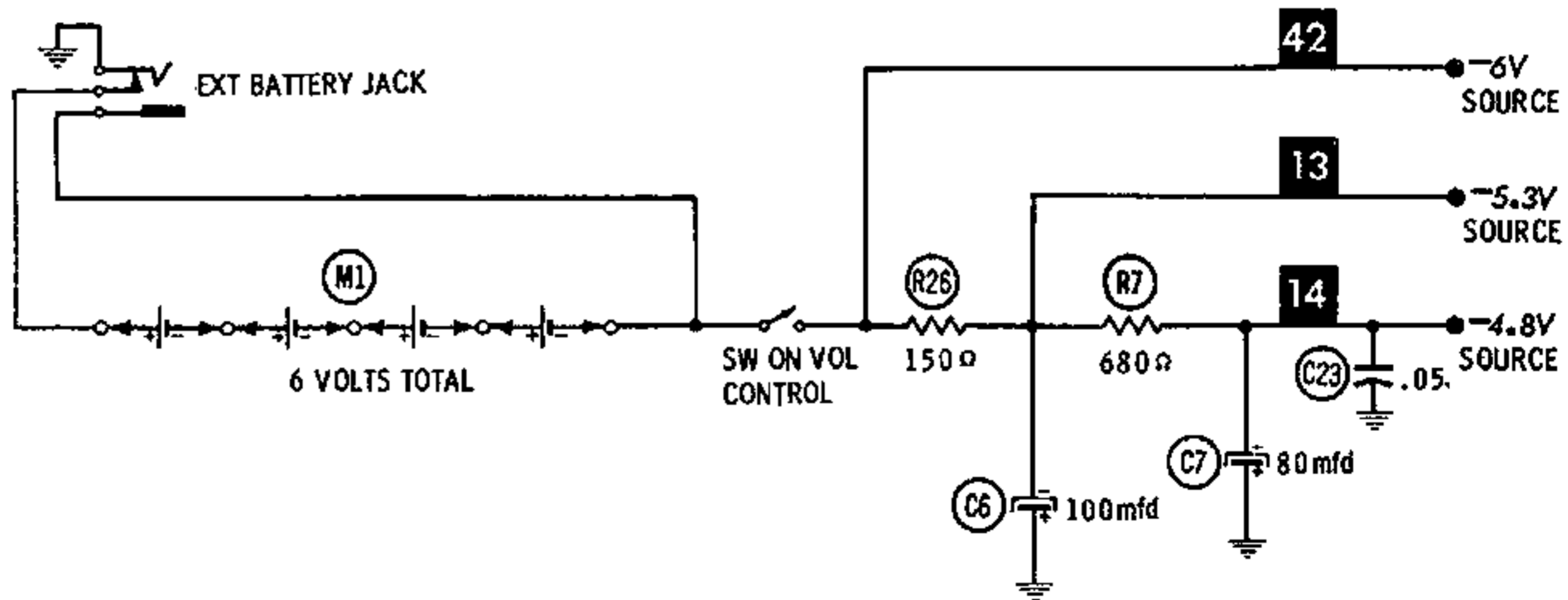
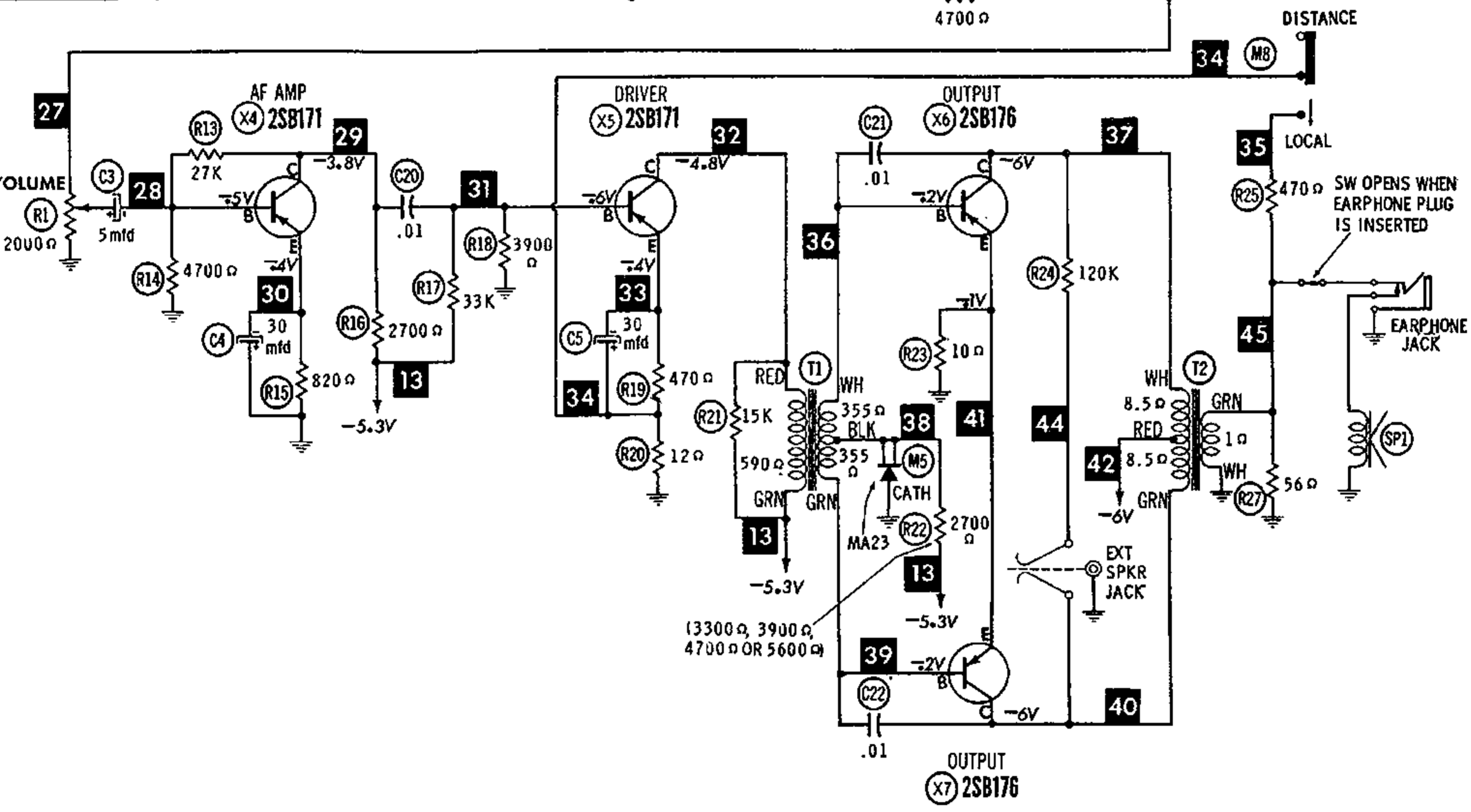
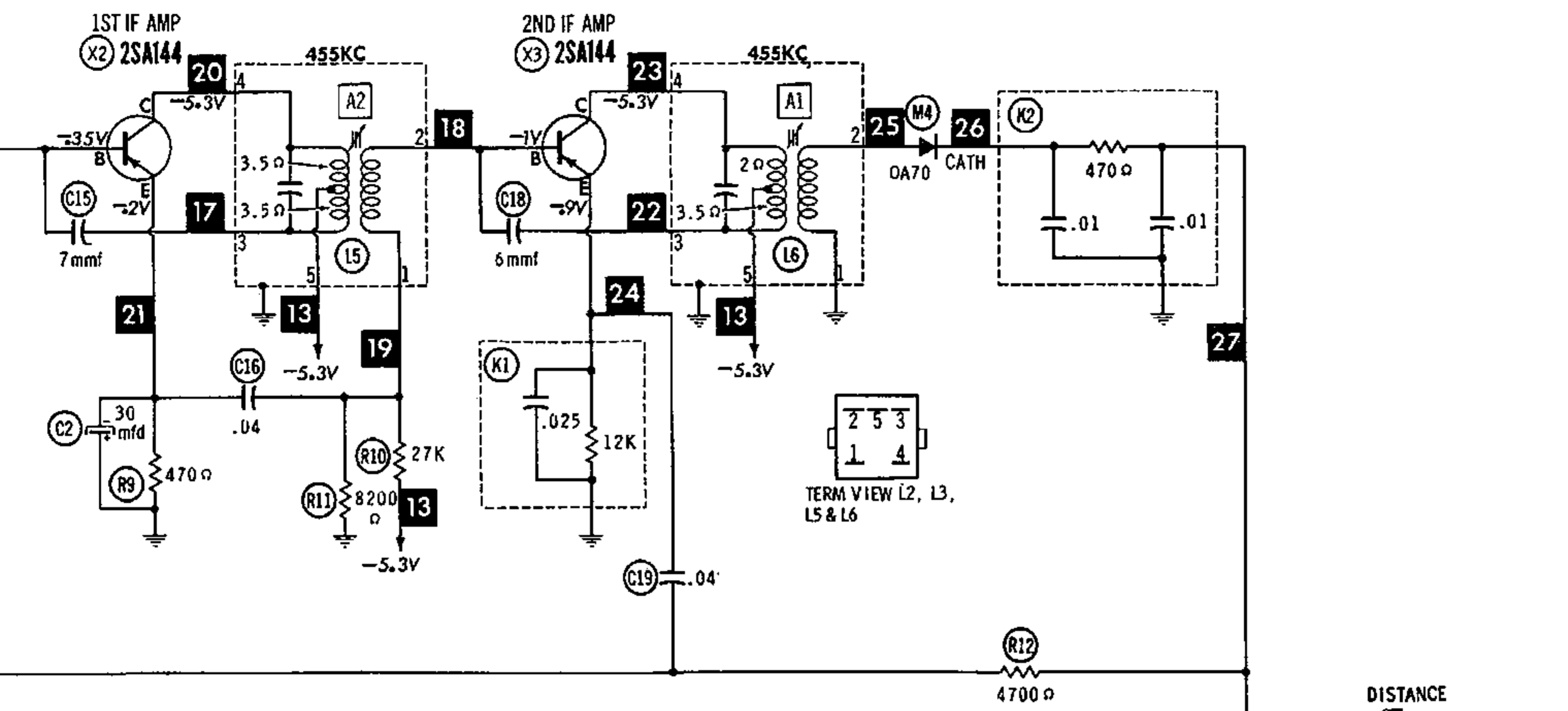
TERM VIEW (M7)
BAND SELECTOR SW

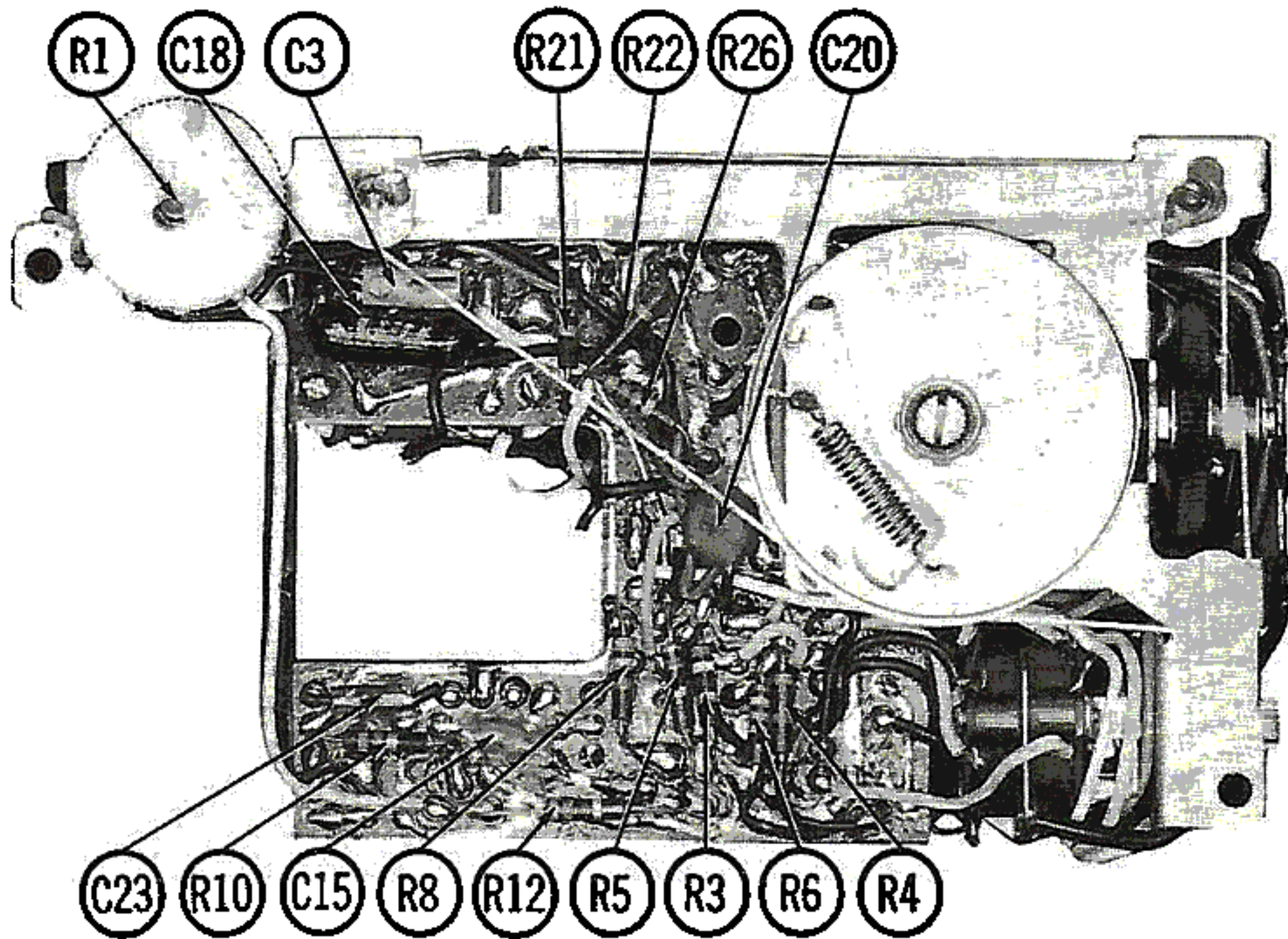
REAR SECT



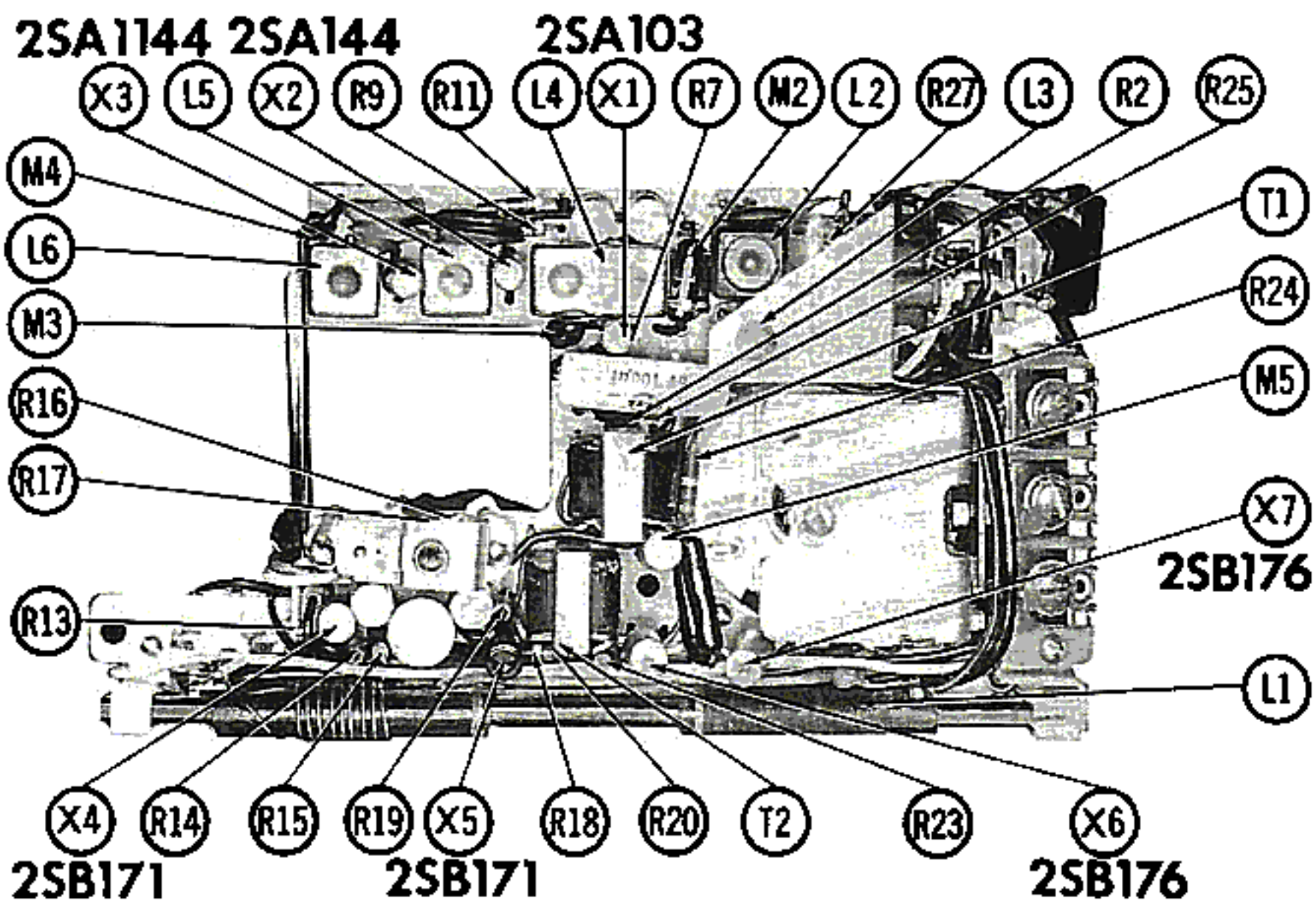
TRANSISTOR TERM
GUIDE X1 THRU X7

A PHOTOFAC T STANDARD NOTATION SCHEMATIC
with **CIRCUITRACE**

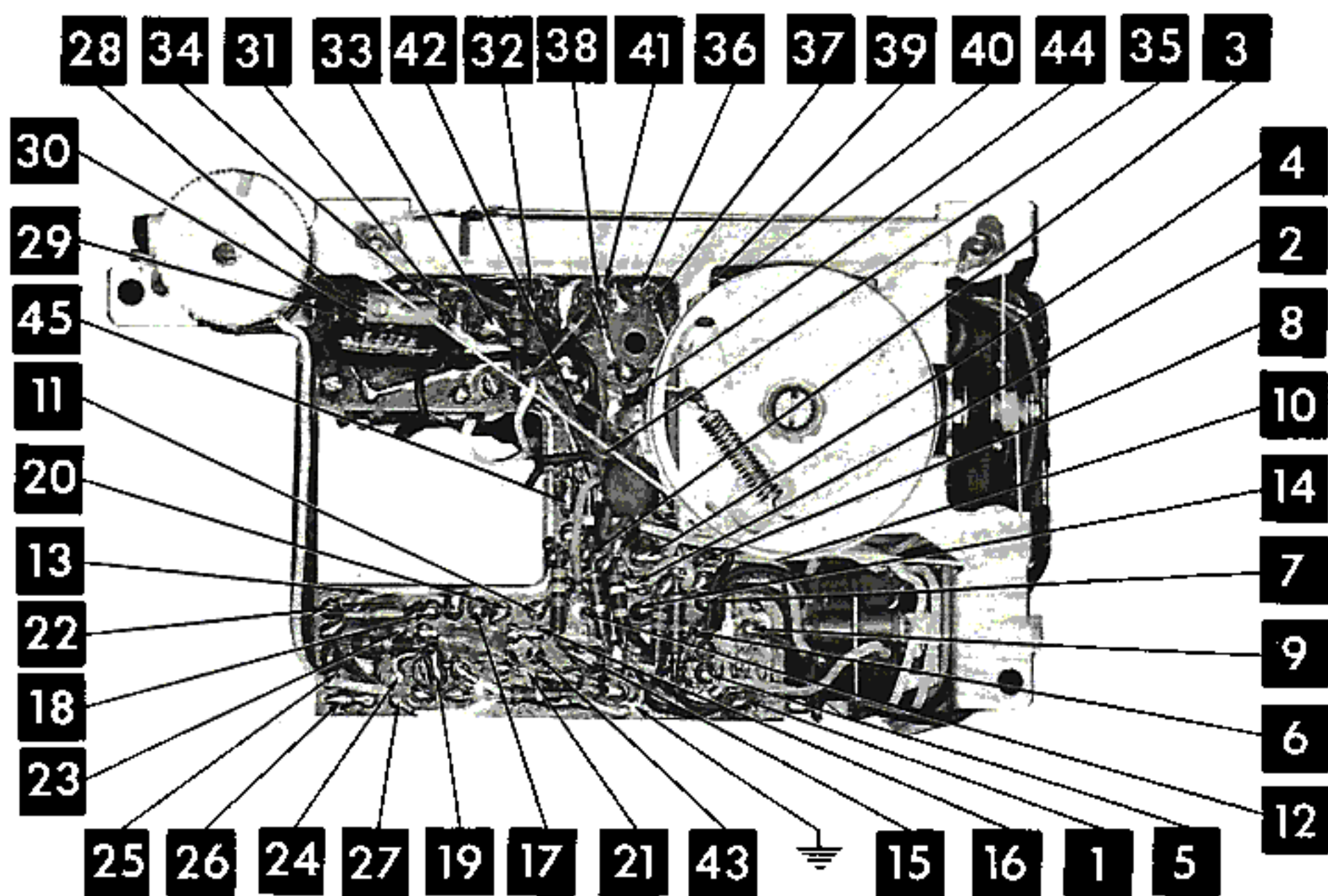




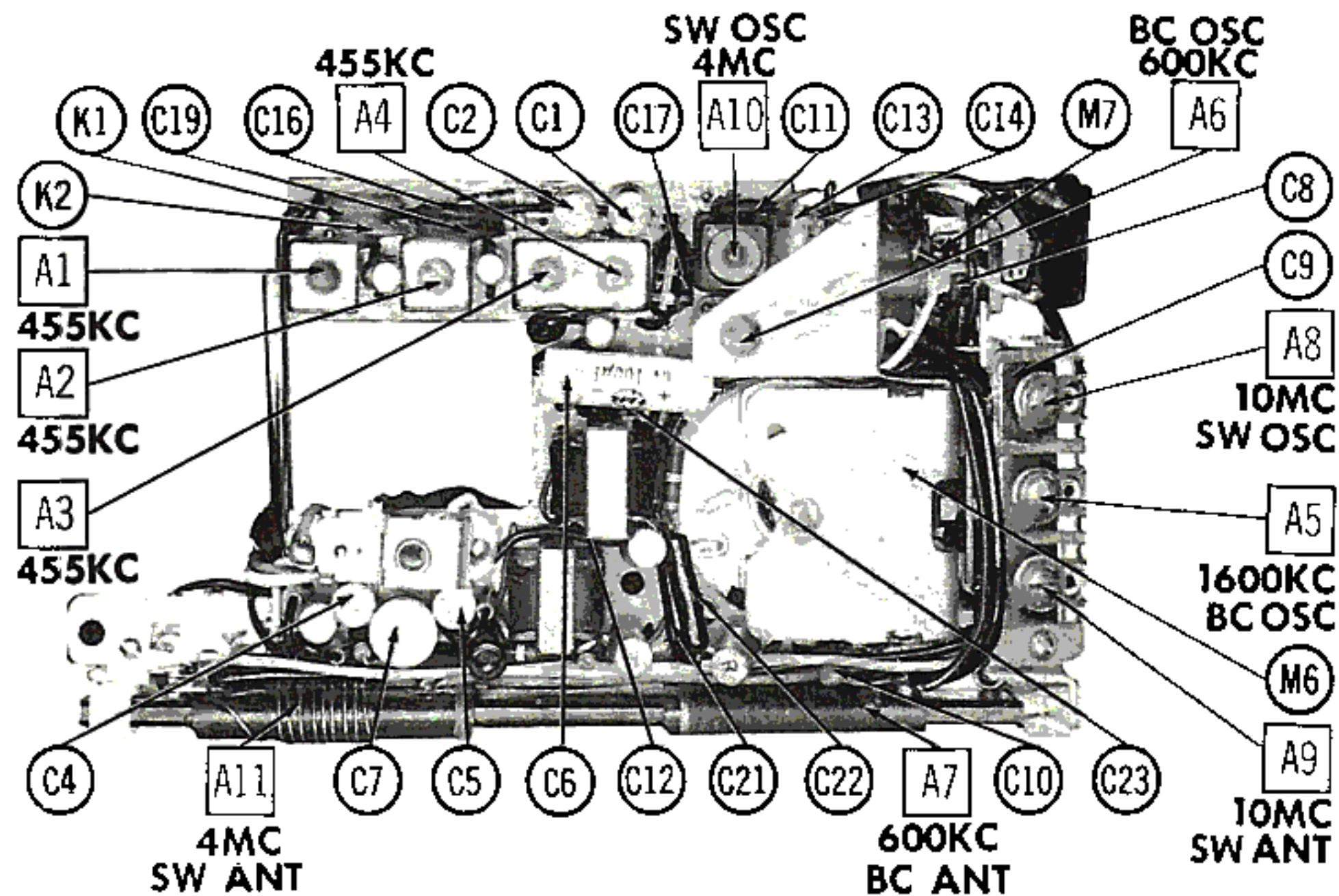
CHASSIS-BOTTOM VIEW



CHASSIS TOP VIEW-RESISTOR, INDUCTOR, MISC. & TRANSISTOR IDENT.



CHASSIS—TOP VIEW



TRANSISTORS

| ITEM No. | ORIG. TYPE | USE | REPLACEMENT DATA | | NOTES |
|----------|------------|------------------|------------------|-------------------|-------|
| | | | RCA PART No. | RAYTHEON PART No. | |
| X1 | 2SA103 | Converter | 2N412 | | PNP |
| X2 | 2SA144 | 1st IF Amplifier | | | PNP |
| X3 | 2SA144 | 2nd IF Amplifier | | | PNP |
| X4 | 2SB171 | AF Amplifier | | | PNP |
| X5 | 2SB171 | Driver | | | PNP |
| X6 | 2SB176 | Output | | | PNP |
| X7 | 2SB176 | Output | | | PNP |

ELECTROLYTIC CAPACITORS

| ITEM No. | RATING | | REPLACEMENT DATA | | | | | | |
|----------|--------|-------|------------------|------------------|---------------------------|---------------------------|------------------|------------------|------------------|
| | CAP. | VOLT. | BULOVA PART No. | AEROVOX PART No. | CORNELL-DUBILIER PART No. | GENERAL ELECTRIC PART No. | MALLORY PART No. | PYRAMID PART No. | SPRAGUE PART No. |
| C1 | 30 | 3 | A-9 | PTT10 | NLW30-6 | MT1-13 | TT6X30 | MLV30-6 | TE-1092 |
| C2 | 30 | 3 | A-9 | PTT10 | NLW30-6 | MT1-13 | TT6X30 | MLV30-6 | TE-1092 |
| C3 | 5 | 3 | A-8 | PTT4 | NLW5-15 | MT1-3 | TT6X5 | MLV5-3 | TE-1052.2 |
| C4 | 30 | 3 | A-9 | PTT10 | NLW30-6 | MT1-13 | TT6X30 | MLV30-6 | TE-1092 |
| C5 | 30 | 3 | A-9 | PTT10 | NLW30-6 | MT1-13 | TT6X30 | MLV30-6 | TE-1092 |
| C6 | 100 | 6 | A-11 | PTT30 | NLW100-12 | MT1-18 | TT6X100 | MLV100-6 | TE-1102 |
| C7 | 80 | 6 | A-10 | BCD6075 | NLW75-15 | MT1-18 | TT6X80 | MLV100-6 | TE-1101.5 |

FIXED CAPACITORS

| ITEM No. | RATING | REMARKS | REPLACEMENT DATA | | | | | |
|---------------------|--------|------------------|------------------|--------------------|---------------------------|------------------|------------------|------------------|
| | | | AEROVOX PART No. | CENTRALAB PART No. | CORNELL-DUBILIER PART No. | ELMENC0 PART No. | MALLORY PART No. | SPRAGUE PART No. |
| C8 C9A B C | 1.5 | #A-6 (3, 5) * | NPO-SI 1.5 | TCZ-1R5 | C10V15C | | CNO-515 | 10TCC-V15 |
| C10 | 1.5 | | NPO-SI 1.5 | TCZ-1R5 | C10V15C | | CNO-515 | 10TCC-V15 |
| C11 | .01 | #A-15 | C80V103AM | DM-103 | H-05SI | | TA-110 | TG-S10 |
| C12 | .01 | | C80V103AM | DM-103 | H-05SI | | TA-110 | TG-S10 |
| C13 | 270 5% | | | TCZ-270 | 5R5T27 | CM-19B-271J | CNO-327 | 10TCC-T27 |
| C14 | .002 | | SI 2000 | D6-202 | BYA10D2 | CCD-202 | B-220 | 5HK-D20 |
| C15 | 7 | #A-15 | NPO-SI 6.8 | TCZ-6R8 | C10V7C | CCTO-6R8 | CNO-568 | 10TCC-V68 |
| C16 | .04 | | SI 500 | D6-501 | BYA10T5 | CCD-501 | B-350 | 10TS-T50 |
| C17 | 500 | | NPO-SI 6.8 | TCZ-6R8 | C10V6C | CCTO-6R8 | CNO-568 | 10TCC-V68 |
| C18 | 6 | #A-15 | | | | | | |
| C19 | .04 | | | | | | | |
| C20 | .01 | | C80V103AM | DM-103 | H-05SI | | TA-110 | TG-S10 |
| C21 | .01 | | C80V103AM | DM-103 | H-05SI | | TA-110 | TG-S10 |
| C22 | .01 | | C80V103AM | DM-103 | H-05SI | | TA-110 | TG-S10 |
| C23 | .05 | | C80V503AM | DA-503 | H-05S5 | | TA-150 | TG-S50 |

Bulova Part Number.

* Alternate Value.

ID DESCRIPTIONS

CONTROLS

| ITEM No. | RATING | | REPLACEMENT DATA | | | | INSTALLATION NOTES | |
|----------|------------|-------|------------------|--------------------|--------------------|------------------|--------------------|------------------|
| | RESISTANCE | WATTS | BULOVA PART No. | CENTRALAB PART No. | CLAROSTAT PART No. | CTS-IRC PART No. | | MALLORY PART No. |
| R1 | 2000Ω | 1/4 | A-7 | | | | | Volume & Switch |

RESISTORS

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

| ITEM No. | RATING | REPLACEMENT DATA | | | ITEM No. | RATING | REPLACEMENT DATA | | |
|----------|--------|------------------|---------------------|---------|----------|--------|------------------|---------------------|---------|
| | | IRC PART No. | WORKMAN TV PART No. | REMARKS | | | IRC PART No. | WORKMAN TV PART No. | REMARKS |
| R2 | 56Ω | | | | R15 | 820Ω | | | |
| R3 | 3900Ω | | | | R16 | 2700Ω | | | |
| R4 | 12K | | | Note 1 | R17 | 33K | | | |
| R5 | 1500Ω | | | | R18 | 3900Ω | | | |
| R6 | 56K | | | Note 2 | R19 | 470Ω | | | |
| R7 | 680Ω | | | | R20 | 12Ω | | | |
| R8 | 68K | | | Note 3 | R21 | 15K | | | |
| R9 | 470Ω | | | | R22 | 2700Ω | | | Note 4 |
| R10 | 27K | | | | R23 | 10Ω | | | |
| R11 | 8200Ω | | | | R24 | 120K | | | |
| R12 | 4700Ω | | | | R25 | 470Ω | | | |
| R13 | 27K | | | | R26 | 150Ω | | | |
| R14 | 4700Ω | | | | R27 | 56Ω | | | |

Note 1. Value may vary 12K-27K.

Note 2. Value may vary 27K-120K.

Note 3. Value may vary 56K-120K.

Note 4. Value may vary 2700Ω-5600Ω.

COILS (RF-IF)

| ITEM No. | USE | REPLACEMENT DATA | | | | | NOTES |
|----------|------------------------------|------------------|----------------|-----------------|------------------|---------------------|-------|
| | | BULOVA PART No. | Merit PART No. | Miller PART No. | Stancor PART No. | Workman TV PART No. | |
| L1A B | SW Loopstick BC Loopstick | A-4 | | | | | |
| L2 | SW Osc. | A-35 | | | | | |
| L3 | BC Osc. | A-34 | | | | | |
| L4 | 1st IF | A-36 | | | | | |
| L5 | 2nd IF | A-37 | | | | | |
| L6 | 3rd IF | A-38 | | | | | |

PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (DRIVER)

| ITEM No. | TURNS RATIO | | REPLACEMENT DATA | | | | | NOTES |
|----------|-------------|------|------------------|----------------|------------------|---------------------|----------------|-------|
| | | | BULOVA PART No. | Merit PART No. | Stancor PART No. | Thordarson PART No. | Triad PART No. | |
| | PRI. | SEC. | | | | | | |
| T1 | 1.2 | 1 | A-2 | | TA-30 | | | |

TRANSFORMER (AUDIO OUTPUT)

| ITEM No. | IMPEDANCE | | REPLACEMENT DATA | | | | | NOTES |
|----------|-----------|--------|------------------|----------------|------------------|---------------------|----------------|-------|
| | | | BULOVA PART No. | Merit PART No. | Stancor PART No. | Thordarson PART No. | Triad PART No. | |
| | PRI. | SEC. | | | | | | |
| T2 | 400Ω CT | 10-12Ω | A-3 | | TA-20 | | | |

SPEAKER

| ITEM No. | TYPE | | | REPLACEMENT DATA | | NOTES |
|----------|------|-------|------------|------------------|---------------|-------|
| | | | | BULOVA PART No. | QUAM PART No. | |
| | SIZE | FIELD | V. C. IMP. | | | |
| SP1 | 2½" | PM | 10-12Ω | A-1 | | |

COMPONENT COMBINATIONS

| ITEM No. | USE | DESCRIPTION | BULOVA PART No. | REPLACEMENT DATA |
|----------|---------------------|----------------------|-----------------|------------------|
| K1 | 2nd IF Emitter Bias | .025mfd, 12K | | |
| K2 | Diode RF Filter | .01mfd, .01mfd, 470Ω | | |

BATTERIES

| ITEM No. | VOLTAGE | BULOVA PART No. | REPLACEMENT DATA | | | | | | NOTES |
|----------|---------|-----------------|------------------|------|----------|-------|---------|--------|--------------|
| | | | BURGESS | | EVEREADY | | MALLORY | | |
| | | | "A" | "B" | "A" | "B" | "A" | "B" | |
| M1 | 1 ½V | | | 930* | | 1015* | | M-15R* | * 4 Required |

SIGNAL DIODES

| ITEM No. | ORIG. TYPE | REPLACEMENT DATA | | | NOTES |
|----------|------------|------------------|---------------------------|-------------------|---|
| | | BULOVA PART No. | GENERAL ELECTRIC PART No. | RAYTHEON PART No. | |
| M2 | OA70 | A-30 | | 1N80 | Osc. Compensation Limiter Detector Output Bias Regulator |
| M3 | OA70 | A-30 | | 1N80 | |
| M4 | OA70 | A-30 | | 1N80 | |
| M5 | MA23 | A-33 | | | |

MISCELLANEOUS

| ITEM No. | PART NAME | BULOVA PART No. | NOTES |
|----------|-------------|-----------------|---|
| M6 | Tuning Cap. | A-39 | 2 Gang Band Selector (Rotary Type) DX-Local (SPST Slide Type) |
| M7 | Switch | A-5 | |
| M8 | Switch | | |

CABINETS & CABINET PARTS

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

| NAME | PART NO. | DESCRIPTION |
|--------------|----------|---|
| Dial Pointer | A-83 | Tuning Volume Function Specify Color |
| Knob | A-95 | |
| Knob | A-96 | |
| Lever | A-97 | |
| Cabinet | A-23 | |

WIRING DATA

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