

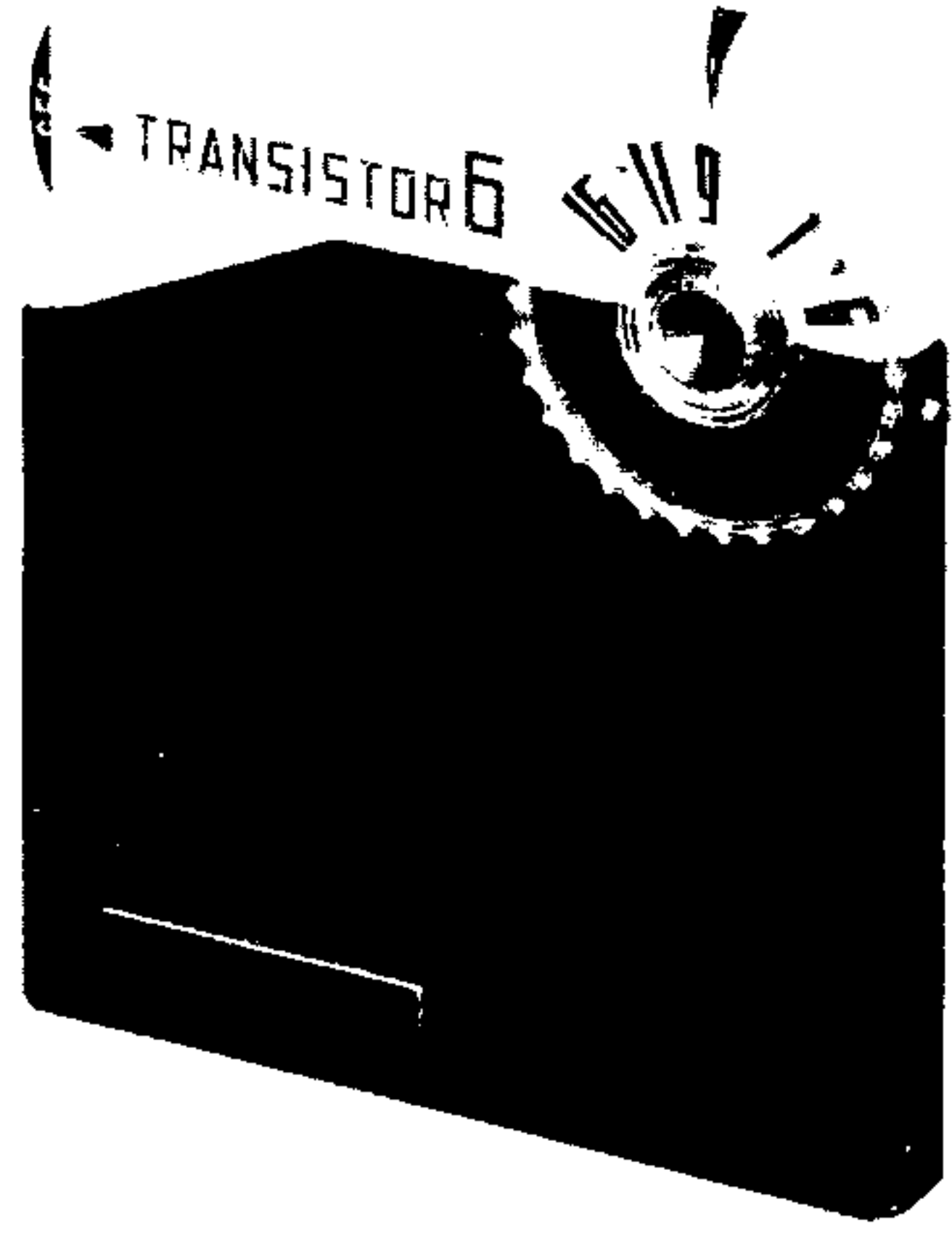
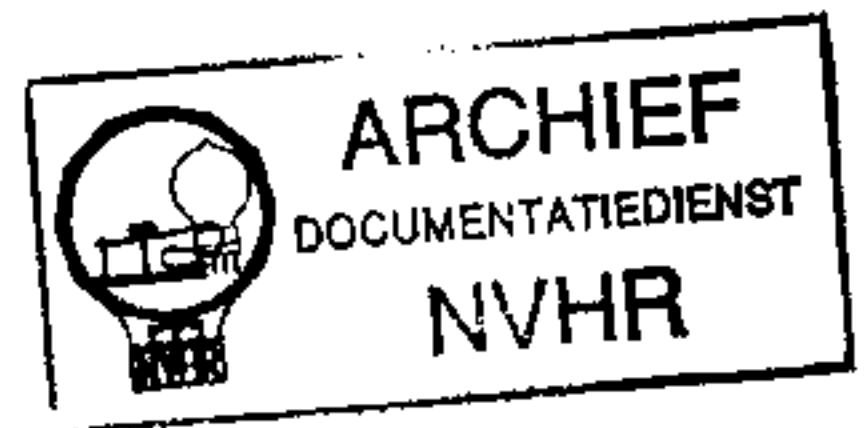
PHOTOFACT® Folder

with CIRCUITRACE™

TOSHIBA
MODEL 6TP-357

Met dank aan Jef Bos

Ned. Ver. v. Historie v/d Radio



| | | | |
|-------------------------|--|--------|--|
| TRADE NAME | Toshiba Model 6TP-357 | | |
| IMPORTER | Transistor World Corp., 52 Broadway, New York 4, N. Y. | | |
| TYPE SET | Battery Operated Transistorized Portable AM Receiver | | |
| POWER SUPPLY | 4.5 Volts DC | RATING | 5MA @ 4.5 Volts DC (No Signal, Min. Volume) 14MA @ 4.5 Volts DC (Signal, Normal Volume) |
| TUNING RANGE--BROADCAST | 530 - 1680KC | | |

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 outpur reading.

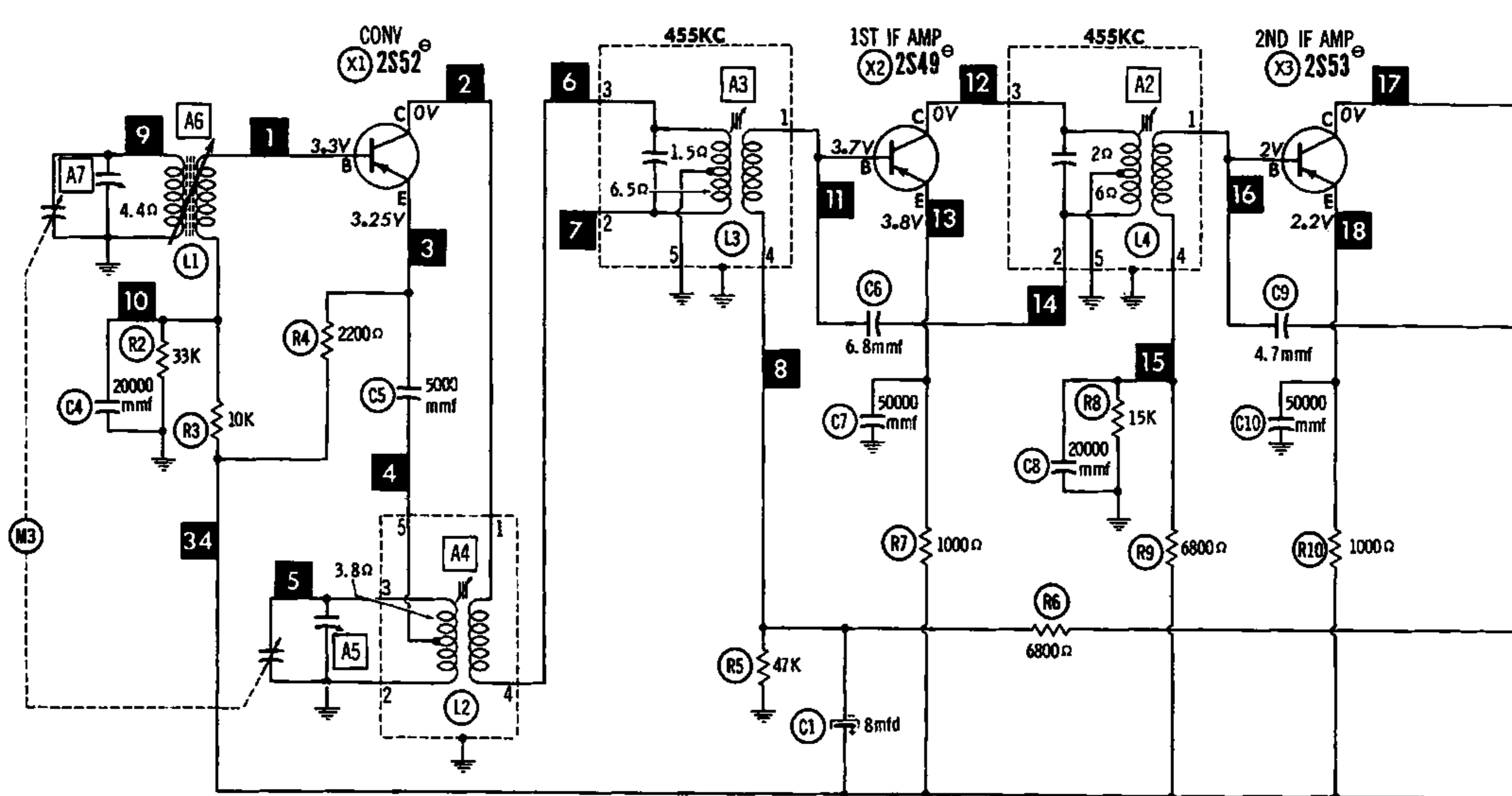
Suggested Alignment Tools: A1, A2, A3, A4..... GENERAL CEMENT #5009, 8195, 8274, 8275, 8728, 8729, 8987, 8988, 8989
WALSCO #2515, 2531, 2532
A5, A7..... GENERAL CEMENT #5000, 5003, 5066, 8276, 8290, 9087, 9089
WALSCO #2512, 2525, 2528

| | SIGNAL GENERATOR COUPLING | SIGNAL GENERATOR FREQUENCY | RADIO DIAL SETTING | OUTPUT METER | ADJUST | REMARKS |
|----|---------------------------|----------------------------|---------------------------|--------------------|------------|--|
| 1. | Loop | 455KC (400v Mod.) | Tuning gang fully closed. | 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. | " | 530KC | " | " | A4 | " |
| 3. | " | 1680KC | Tuning gang fully open. | " | A5 | Adjust for maximum output. Repeat Steps 2 and 3. |
| 4. | " | 600KC | 600KC Signal. | " | A6 | Adjust for maximum output. |
| 5. | " | 1400KC | 1400KC Signal. | " | A7 | Adjust for maximum output. Repeat Steps 4 and 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 KFH13

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. © 1961 Howard W. Sams & Co., Inc., Indianapolis 6, Indiana. Printed in U.S. of America



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.

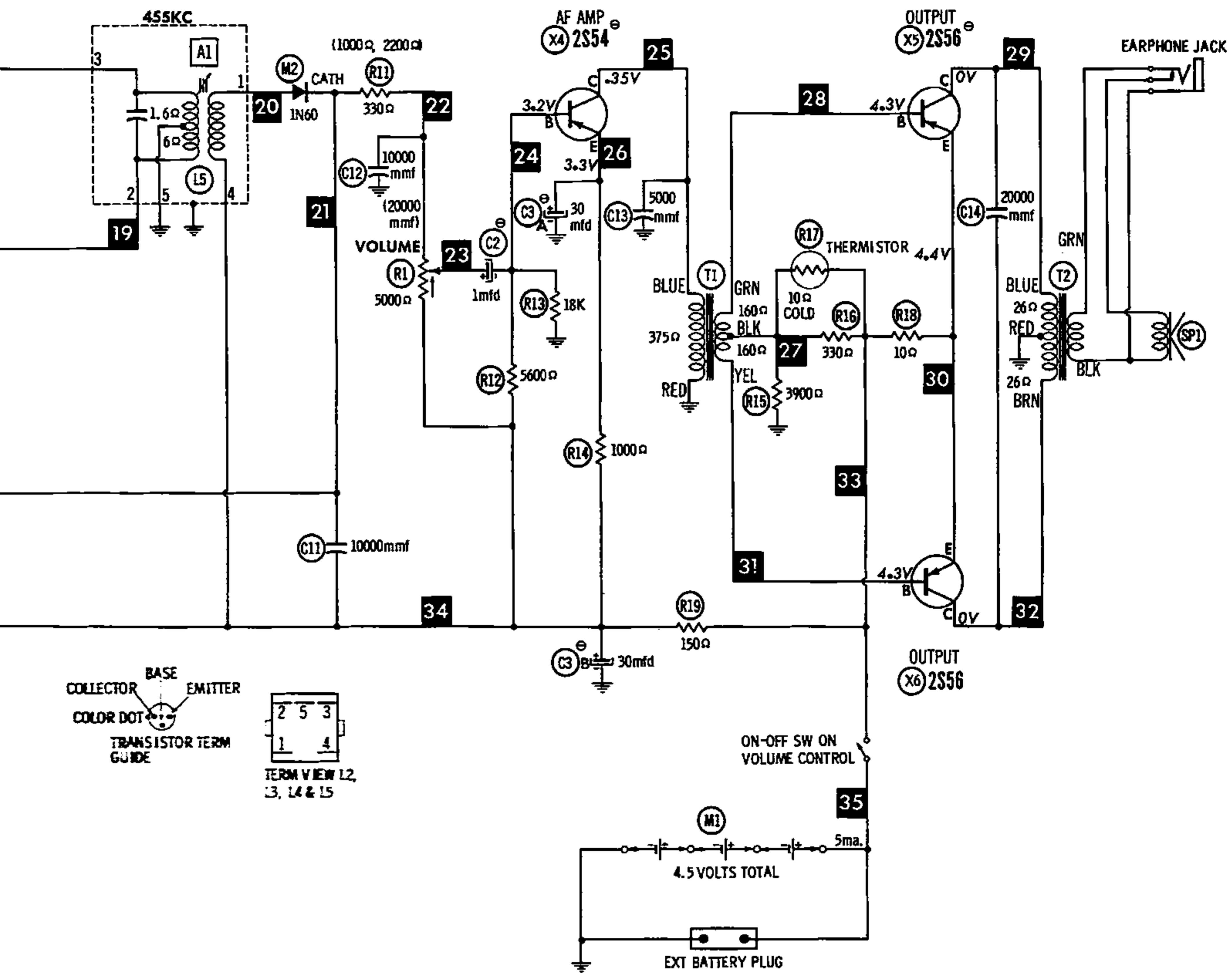
NUMBERS ASSIGNED TO COILS, SWITCHES, PLUGS, SOCKETS, AND TRANSFORMERS ARE TO FACILITATE CIRCUIT TRACING OR COMPONENT REPLACEMENT AND MAY NOT NECESSARILY BE FOUND ON THE UNIT.

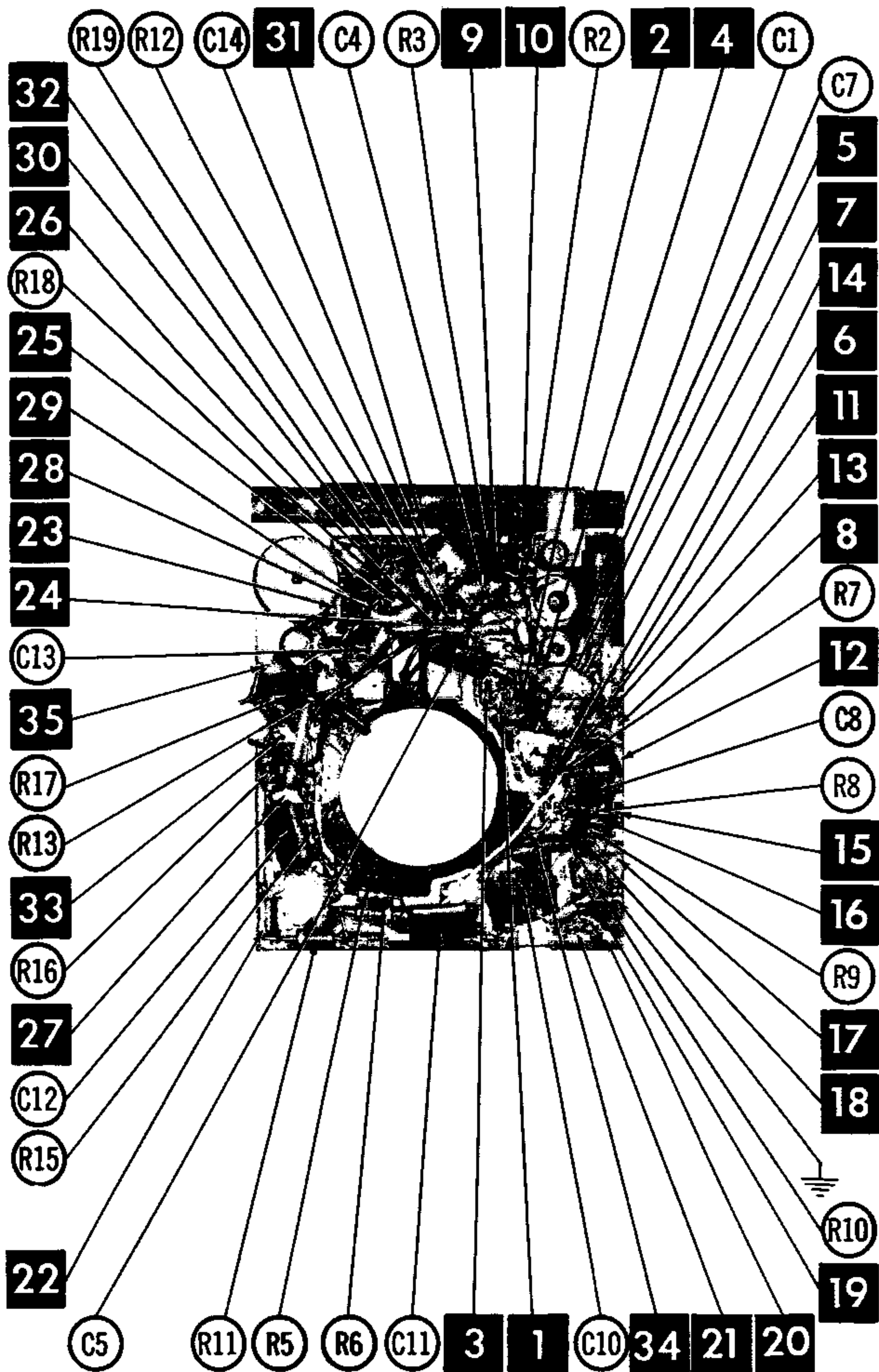
⊕ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

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

ARROWS ON CONTROLS INDICATE CLOCKWISE ROTATION (CONTROL VIEWED FROM SHAFT END)

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





PARTS LIST A

TRANSISTORS

| ITEM No. | ORIG. TYPE | USE | REPLACEMENT DATA | | | NOTES |
|----------|------------|------------------|------------------|-------------------|-------------------|--------------------|
| | | | RCA PART No. | RAYTHEON PART No. | SYLVANIA PART No. | |
| X1 | 2S52① | Converter | | | 2N411 | PNP |
| X2 | 2S49② | 1st IF Amplifier | 2N410 | 2N483 | 2N410 | PNP |
| X3 | 2S53③ | 2nd IF Amplifier | 2N410 | 2N483 | 2N410 | PNP |
| X4 | 2S54④ | AF Amplifier | 2N408 | 2N632 | 2N408 | PNP |
| X5 | 2S56⑤ | Output | 2N408 | 2N632 | 2N408 | PNP |
| X6 | 2S56⑤ | Output | 2N408 | 2N632 | 2N408 | PNP } Matched Pair |

- ① Alternate Type 2SA52 may be used.
- ② Alternate Type 2SA49 may be used.
- ③ Alternate Type 2SA53 may be used.
- ④ Alternate Type 2SB54 may be used.
- ⑤ Alternate Type 2SB56 may be used.

ELECTROLYTIC CAPACITORS

| ITEM No. | RATING | | REPLACEMENT DATA | | | | | | NOTES |
|----------|--------|-------|------------------|------------------|---------------------------|------------------|------------------|------------------|--------|
| | CAP. | VOLT. | TOSHIBA PART No. | AEROVOX PART No. | CORNELL-DUBILIER PART No. | MALLORY PART No. | PYRAMID PART No. | SPRAGUE PART No. | |
| C1 | 8 | 5 | 30516 | XPP-6008 | NLW8-6 | TT6X8 | ML8-6 | TE-1086 | ① ② |
| C2 | 1 | 10 | | XPP-10001 | NLW1-50 | TT12X1 | | | |
| C3A | 30 | 5 | | | | | | | |
| B | 30 | 5 | | | | | | | |

- ① Some versions may use 3V in this application (Part #30488).
- ② Some versions may use two 60mfd in this application (Part #30516).

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 | REMARKS | REPLACEMENT DATA | | | | | |
|----------|--------|---------|------------------|--------------------|---------------------------|------------------|------------------|------------------|
| | | | AEROVOX PART No. | CENTRALAB PART No. | CORNELL-DUBILIER PART No. | ELMENCO PART No. | MALLORY PART No. | SPRAGUE PART No. |
| C4 | 20000 | | C80V203AM | DA-203 | H-05S2 | | TA-120 | TG-S50 |
| C5 | 5000 | | C80V502AM | DM-502 | H-05D5 | CCD-502 | TA-250 | TG-D50 |
| C6 | 6.8 | | NPO-DI 6.8 | DTZ-6R8 | C10V68C | CCTO-6R8 | CNO-568 | 10TCC-V68 |
| C7 | 50000 | | C80V503AM | DA-503 | H-05S5 | | TA-150 | TG-S50 |
| C8 | 20000 | | C80V203AM | DA-203 | H-05S2 | | TA-120 | TG-S20 |
| C9 | 4.7 | | NPO-DI 4.7 | DTZ-4R7 | C10V47C | CCTO-4R7 | CNO-547 | 10TCC-V47 |
| C10 | 50000 | | C80V503AM | DA-503 | H-05S5 | | TA-150 | TG-S50 |
| C11 | 10000 | | C80V103AM | DM-103 | H-05S1 | | TA-110 | TG-S10 |

D DESCRIPTIONS

FIXED CAPACITORS (cont)

| ITEM No. | RATING | REMARKS | REPLACEMENT DATA | | | | | |
|----------|--------|-----------|------------------|--------------------|---------------------------|------------------|------------------|------------------|
| | | | AEROVOX PART No. | CENTRALAB PART No. | CORNELL-DUBILIER PART No. | ELMENCO PART No. | MALLORY PART No. | SPRAGUE PART No. |
| C12 | 10000 | (20000) † | C80V103AM | DM-103 | H-05B1 | CCD-502 | TA-110 | TG-S10 |
| C13 | 5000 | | C80V502AM | DM-502 | H-05D5 | | TA-250 | TG-D50 |
| C14 | 20000 | | C80V203AM | DA-203 | H-05B2 | | TA-120 | TG-S20 |

† Alternate Value.

CONTROLS

| ITEM No. | RATING | | REPLACEMENT DATA | | | | INSTALLATION NOTES | |
|----------|-------------|-------|------------------|--------------------|--------------------|------------------|--------------------|------------------|
| | RESIST-ANCE | WATTS | TOSHIBA PART No. | CENTRALAB PART No. | CLAROSTAT PART No. | CTS-IRC PART No. | | MALLORY PART No. |
| R1 | 5000Ω | 1/4 | 40572 | B16-214 | | | | Volume & Switch |

RESISTORS (IRC or EQUIVALENT)

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

| ITEM No. | RATING | REMARKS |
|----------|--------|---------|
| R2 | 33K | |
| R3 | 10K | |
| R4 | 2200Ω | |
| R5 | 47K | |
| R6 | 6800Ω | |
| R7 | 1000Ω | |

| ITEM No. | RATING | REMARKS |
|----------|--------|-----------------|
| R8 | 15K | |
| R9 | 6800Ω | |
| R10 | 1000Ω | (1000Ω, 2200Ω)* |
| R11 | 330Ω | |
| R12 | 5600Ω | |
| R13 | 18K | |

| ITEM No. | RATING | REMARKS |
|----------|----------|------------|
| R14 | 1000Ω | Pt. #40250 |
| R15 | 9900Ω | |
| R16 | 930Ω | |
| R17 | 10Ω Cold | |
| R18 | 10Ω | |
| R19 | 150Ω | |

* Alternate Value.

COILS (RF-IF)

| ITEM No. | USE | REPLACEMENT DATA | | | | NOTES |
|----------|---------------|------------------|----------------|-----------------|------------------|-------|
| | | TOSHIBA PART No. | Merit PART No. | Miller PART No. | Stancor PART No. | |
| L1 | Loopstick | 20377 | | | | |
| L2 | Osc. Coil | 20378 | | | | |
| L3 | 1st IF Trans. | 20379 | | | | |
| L4 | 2nd IF Trans. | 20380 | | | | |
| L5 | 3rd IF Trans. | 20381 | | | | |

PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (DRIVER)

| ITEM No. | TURNS RATIO | | REPLACEMENT DATA | | | | | NOTES |
|----------|-------------|------|------------------|----------------|------------------|---------------------|----------------|-------|
| | | | TOSHIBA PART No. | Merit PART No. | Stancor PART No. | Thordarson PART No. | Triad PART No. | |
| | PRI. | SEC. | | | | | | |
| T1 | 1.2 | 1 | 20382 | | | | | |

TRANSFORMER (AUDIO OUTPUT)

| ITEM No. | IMPEDANCE | | REPLACEMENT DATA | | | | | NOTES |
|----------|-----------|------|------------------|----------------|--------------|------------------|---------------------|-------|
| | | | TOSHIBA PART No. | Merit PART No. | Ram PART No. | Stancor PART No. | Thordarson PART No. | |
| | PRI. | SEC. | | | | | | |
| T2 | 650Ω CT | 6-8Ω | 20383 | | | | | |

SPEAKER

| ITEM No. | TYPE | | | REPLACEMENT DATA | | NOTES |
|----------|------|-------|------------|------------------|---------------|-------|
| | | | | TOSHIBA PART No. | QUAM PART No. | |
| | SIZE | FIELD | V. C. IMP. | | | |
| SP1 | 2" | PM | 6-8Ω | 50114 | | |

BATTERIES

| ITEM No. | VOLTAGE | TOSHIBA PART No. | REPLACEMENT DATA | | | | | | NOTES |
|----------|---------|------------------|------------------|-----|----------|----------------|---------|---------|---------------------------------------|
| | | | BURGESS | | EVEREADY | | MALLORY | | |
| | | | "A" | "B" | "A" | "B" | "A" | "B" | |
| M1 | 1.5V | UM-5① | | N② | | 904① E-401② | | RM-401② | ① 3 Required ② Mercury, 3 Required |

SIGNAL DIODES

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

MISCELLANEOUS

| ITEM No. | PART NAME | TOSHIBA PART No. | NOTES |
|----------|-------------|------------------|---------|
| M3 | Tuning Cap. | 30469 | 2 (1mg) |

WIRING DATA

General-use Unshielded Hook-up Wire

Use BULBOM No.

1000 (Solid) Available in Ten Values

1000 (Stripped) Available in Ten Values

CHASSIS—TOP VIEW

