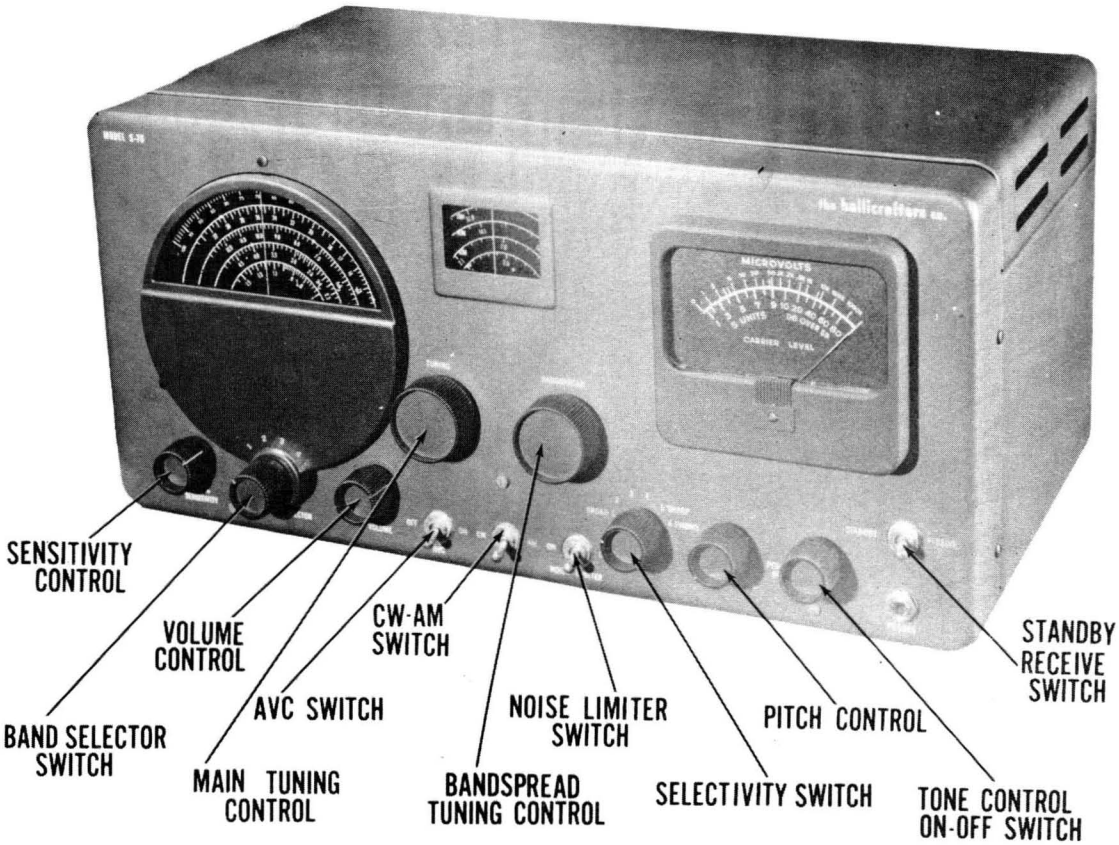
HALLICRAFTERS
MODELS S-76, S-76U

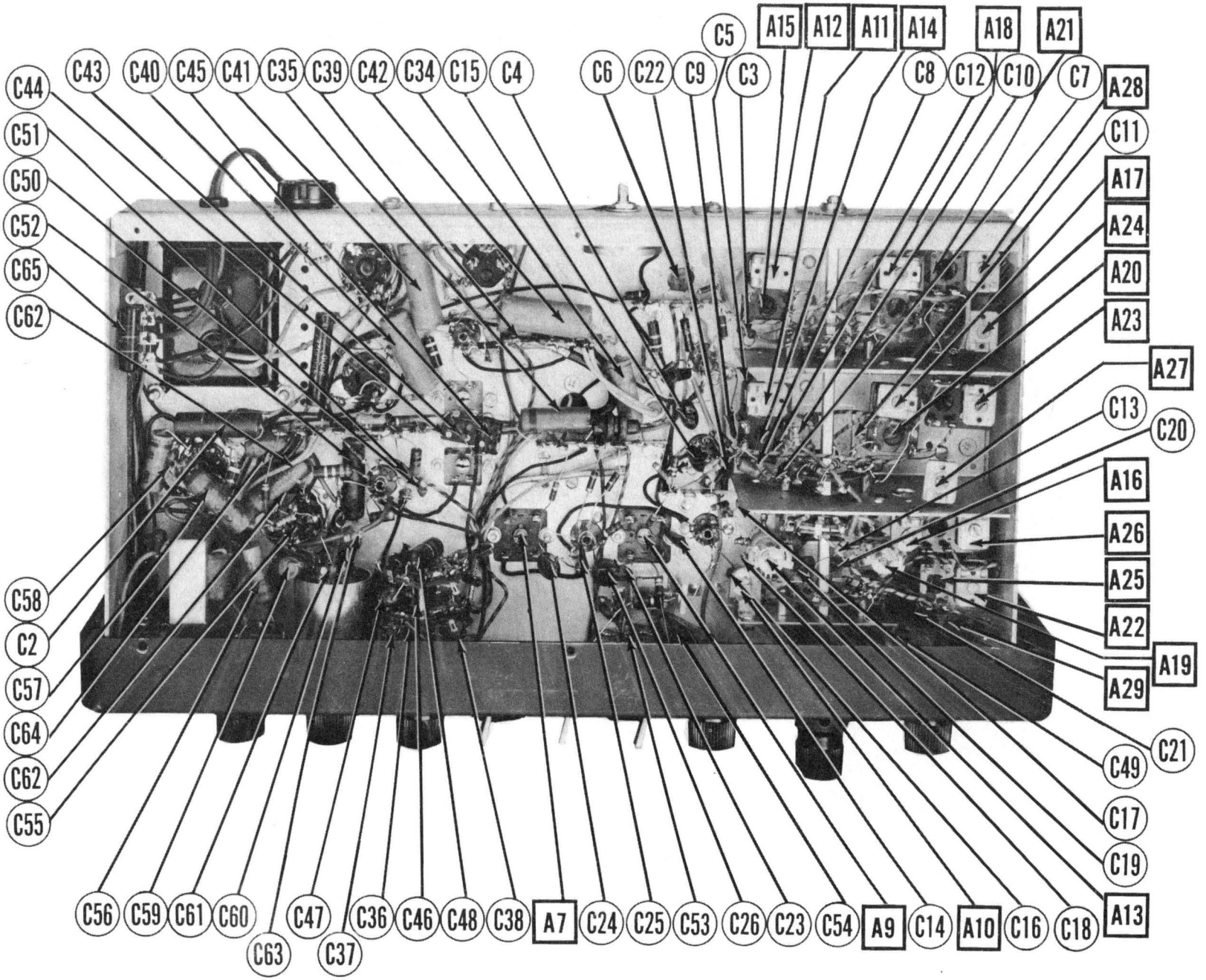



HALLICRAFTERS
MODELS S-76, S-76U

| | |
|---|---|
| TRADE NAME | Hallicrafters, Models S-76, S-76U |
| MANUFACTURER | The Hallicrafters Co., 5th. and Kostner Avenues, Chicago, Illinois |
| TYPE SET | AC Operated Multi-Band Superheterodyne Communications Type Receiver |
| TUBES (ELEVEN) | Types 6CB6 RF Amp., 6AU6 1650KC Mixer, 6C4 Oscillator, 6BA6 1650KC IF Amp., 6BE6 50KC Converter, 6BA6 50KC IF Amp., 6AL5 DET-AVC-Noise Limiter, 6SC7 AF Amp.-BF0, 6K6GT Power Output, VR-150/0D3 Voltage Regulator, 5Y3GT Rectifier |
| POWER SUPPLY | 105-125 Volts AC (Model S-76), 105 or 250 Volts AC (Model S-76U) |
| RATING | .71 Amp. at 117 Volts AC |
| TUNING RANGE | Band 1 538-1580KC, Band 2 1720KC-4.9MC, Band 3 4.6-13MC, Band 4 12-34MC |

HOWARD W. SAMS & CO., INC. • Indianapolis 5, 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 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. Copyright 1952 by Howard W. Sams & Co., Inc., Indianapolis 5, Indiana, U. S. of America. Copyright under International Copyright Union. All rights reserved under Inter-American Copyright Union (1910) by Howard W. Sams & Co., Inc." Printed in U. S. of America


C5
A15
A12
A11
A14
A18
A21
C43
C40
C45
C41
C35
C39
C42
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C4
C6
C22
C9
C3
C8
C12
C10
C7
A28
C44
C11
C51
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R40
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M5
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L10
R20
R56
T2
M9
R54
R55
R3
R60
L21
R33
R43
R42
M6
R36
R35
R34
R41
M10
M8
R26
M7
R22
R52
R21
R23
R2
R19
R32
R18

# PARTS LIST AND DESCRIPTIONS

## TUBES (SYLVANIA or Equivalent)

| ITEM No. | USE | REPLACEMENT DATA: Hallicrafters PART No. | REPLACEMENT DATA: STANDARD REPLACEMENT | RMA BASE TYPE | INSTALLATION NOTES |
|---|---|---|---|---|---|
| V1 | RF Amplifier | 90X6CB6 | 6CB6 | 6CK | |
| V2 | 1650KC Mixer | 90X6AU6 | 6AU6 | 7BK | |
| V3 | Oscillator | 90X6C4 | 6C4 | 6BG | |
| V4 | 1650KC IF Amp. | 90X6BA6 | 6BA6 | 7BK | |
| V5 | 50KC Converter | 90X6BE6 | 6BE6 | 7CH | |
| V6 | 50KC IF Amplifier | 90X6BA6 | 6BA6 | 7BK | |
| V7 | Detector-AVC-Noise Limiter | 90X6AL5 | 6AL5 | 6BT | |
| V8 | AF Amplifier-BFO | 90X6SC7 | 6SC7 | 8S | |
| V9 | Power Output | 90X6K6GT | 6K6GT | 7S | |
| V10 | Voltage Regulator | VR150/0D3 | VR150/0D3 | 4AJ | |
| V11 | Rectifier | 90X5Y3GT | 5Y3GT | 5T | |

## CAPACITORS

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

| ITEM No. | RATING: CAP. | RATING: VOLT | REPLACEMENT DATA: Hallicrafters PART No. | AEROVOX PART No. | CENTRALAB PART No. | CORNELL-DUBILIER PART No. | ERIE PART No. | SPRAGUE PART No. | IDENTIFICATION CODES AND INSTALLATION NOTES |
|---|---|---|---|---|---|---|---|---|---|
| C1A | 60 | 450 | 45B113 | | | UPT62245 | | TVL-3790 | ▲ Filter |
| B | 20 | 450 | | | | | | TVA-1705 | ■ Filter |
| C | 20 | 450 | | | | | | | ▲ Filter |
| C2 | 10 | 25 | 45A121 | PRS25/10 | | BR102A | | TVA-1204 | Output Cathode |
| C3 | 220 | | 47B20221K5 | SI220 | D6-221 | 5R5T25 | GP2K-221 | 5GA-T22 | RF Coupling |
| C4 | 5000 | | 47A168 | BPD-005 | DD-502 | 1D5D5 | 811-005 | 5HK-D5 | RF Amp. Screen |
| C5 | 5000 | | 47A168 | BPD-005 | DD-502 | 1D5D5 | 811-005 | 5HK-D5 | RF Amp. Cathode |
| C6 | 5000 | | 47A168 | BPD-005 | DD-502 | 1D5D5 | 811-005 | 5HK-D5 | AVC Filter |
| C7 | 2.2 | | 47A160-4 | | TCZ-2.2 | | NP0K-2R2 | | Fixed Trimmer |
| C8 | 220 | | 47B20221K5 | SI220 | D6-221 | 5R5T25 | GP2K-221 | 5GA-T22 | RF Bypass |
| C9 | 5000 | | 47A168 | BPD-005 | DD-502 | 1D5D5 | 811-005 | 5HK-D5 | RF Bypass |
| C10 | 25 | | 47X20UK250K | | | | N750K-250 | 5TCU-Q25 | RF Coupling |
| C11 | 2.2 | | 47A160-4 | | TCZ-2.2 | | NP0K-2R2 | | RF Coupling |
| C12 | 100 | | 47X20UJ101K | SI100N750 | TCN-100 | | N750L-101 | 5TCU-T1 | RF Coupling |
| C13 | 2.2 | | 47A160-4 | | TCZ-2.2 | | NP0K-2R2 | | Osc. Coupling |
| C14 | 5000 | | 47A168 | BPD-005 | DD-502 | 1D5D5 | 811-005 | 5HK-D5 | 1650KC Mixer Plate |
| C15 | 5000 | | 47A168 | BPD-005 | DD-502 | 1D5D5 | 811-005 | 5HK-D5 | 1650 KC Mixer Screen |
| C16 | 100 | | 47X20UJ101K | SI100N750 | TCN-100 | | N750L-101 | 5TCU-T1 | Osc. Feedback |
| C17 | 100 | | 47X20UJ101K | SI100N750 | TCN-100 | | N750L-101 | 5TCU-T1 | Osc. Grid Cap. |
| C18 | 25 | | 47X20UK250K | | | | N750K-250 | 5TCU-Q25 | Fixed Trimmer |
| C19 | 2400 | 500 | 47X30D242J | 1464-0025 | | 1R5D25 | | | Fixed Padder |
| C20 | 1000 | 500 | 47X25D102J | 1464-001 | | 1R5D1 | | MS-21 | Fixed Padder |
| C21 | 470 | 500 | 47X20B471K | 1469-0005 | TCN-470 | 5R5T5 | N750L-471 | MS-35 | Fixed Padder |
| C22 | 5000 | | 47A168 | BPD-005 | DD-502 | 1D5D5 | 811-005 | 5HK-D5 | 1650KC Mixer Cathode |
| C23 | 5000 | | 47A168 | BPD-005 | DD-502 | 1D5D5 | 811-005 | 5HK-D5 | AVC Filter |
| C24 | 5000 | | 47A168 | BPD-005 | DD-502 | 1D5D5 | 811-005 | 5HK-D5 | 1650KC IF Amp. Dec. |
| C25 | 5000 | | 47A168 | BPD-005 | DD-502 | 1D5D5 | 811-005 | 5HK-D5 | 1650 KC IF Amp. Screen |
| C26 | 5000 | | 47A168 | BPD-005 | DD-502 | 1D5D5 | 811-005 | 5HK-D5 | 1650 KC IF Amp. Cathode |
| C27 | .05 | 200 | 46AU503J | P288-05 | DF-503 | PTE4S5 | | 2TM-S5 | Osc. Anode Dec. |
| C28 | 100 | | 47X20UJ101K | SI100N750 | TCN-100 | | N750L-101 | 5TCU-T1 | Osc. Grid Cap. |
| C29 | .05 | 200 | 46AU503J | P288-05 | DF-503 | PTE4S5 | | 2TM-S5 | Conv. Cathode |
| C30 | 100 | | 47X20UJ101K | SI100N750 | TCN-100 | | N750L-101 | 5TCU-T1 | Fixed Trimmer |
| C31 | 2.2 | | 47A160-4 | | TCZ-2.2 | | NP0K-2R2 | | IF Coupling |
| C32 | 390 | 500 | 47X20D391J | 1469-0004 | TCN-390 | 5R5T4 | N750L-391 | MS-34 | Fixed Trimmer |
| C33 | 390 | 500 | 47X20D391J | 1469-0004 | TCN-390 | 5R5T4 | N750L-391 | MS-34 | Fixed Trimmer |
| C34 | .05 | 200 | 46AU503J | P288-05 | DF-503 | PTE4S5 | | 2TM-S5 | 50KC Conv. Dec. |
| C35 | .02 | 600 | 46A4203J | P688-02 | DF-203 | PTE6S2 | | 6TM-S2 | RF Bypass |
| C36 | .0047 | 600 | 46A181 | P688-0047 | D6-472 | | GP2-333-472 | 6TM-D47 | Fixed Padder |
| C37 | .01 | 600 | 46A179 | P688-01 | D6-103 | PTE6S1 | GP2-333-103 | 6TM-S1 | Fixed Padder |
| C38 | .022 | 600 | 46A180 | P688-022 | | | | 6TM-S22 | Fixed Padder |
| C39 | 470 | 500 | 47X20B471K | 1469-0005 | TCN-470 | 5R5T5 | N750L-471 | MS-35 | IF Coupling |
| C40 | .05 | 600 | 46AY503J | P688-05 | DF-503 | PTE6S5 | | 6TM-S5 | 50KC IF Amp. Dec. |
| C41 | .05 | 600 | 46AY503J | P688-05 | DF-503 | PTE6S5 | | 6TM-S5 | 50KC IF Amp. Screen |
| C42 | .25 | 200 | 46AT254J | P488-25 | | GT2P25 | | 2TM-P25 | 50KC IF Amp. Cathode |
| C43 | 2.2 | | 47A160-4 | | TCZ-2.2 | | NP0K-2R2 | | IF Coupling |
| C44 | 390 | 500 | 47K20D391J | 1469-0004 | TCN-390 | 5R5T4 | N750L-391 | MS-34 | Fixed Trimmer |
| C45 | 390 | 500 | 47X20D391J | 1469-0004 | TCN-390 | 5R5T4 | N750L-391 | MS-34 | Fixed Trimmer |
| C46 | .0047 | 600 | 46A181 | P688-0047 | D6-472 | | GP2-333-472 | 6TM-D47 | Fixed Padder |
| C47 | .01 | 600 | 46A179 | P688-01 | D6-103 | PTE6S1 | GP2-333-103 | 6TM-S1 | Fixed Padder |

# PARTS LIST AND DESCRIPTIONS (Continued)

## RESISTORS

| ITEM No. | RATING: RESISTANCE | RATING: WATTS | REPLACEMENT DATA: Hallicrafters PART No. | IRC PART No. | IDENTIFICATION CODES |
|---|---|---|---|---|---|
| R28 | 15Ω | ½ | 23X20X150K | | Parasitic Supppessor |
| R29 | 22KΩ | ½ | 23X20X223K | BTS-22K | 50KC Osc. Grid |
| R30 | 10KΩ | 1 | 23X30X103K | BTA-10K | 50KC Osc. Anode |
| R31 | 150Ω | ½ | 23X20X151K | BTS-150 | 50KC Conv. Cathode |
| R32 | 3300Ω | ½ | 23X20X332K | BTS-3300 | 50KC Conv. Plate Decoupling |
| R33 | 470Ω | ½ | 23X20X471K | BTS-470 | Bias Network |
| R34 | 180Ω | ½ | 23X20X181K | | Parasitic Suppressor |
| R35 | 220Ω | ½ | 23X20X221K | | Parasitic Suppressor |
| R36 | 390Ω | ½ | 23X20X391K | | Parasitic Suppressor |
| R37 | 1Meg | ½ | 23X20X105K | BTS-1Meg | 50KC IF Amp. Grid |
| R38 | 100Ω | ½ | 23X20X101K | BTS-100 | 50KC IF Amp. Cathode |
| R39 | 39KΩ | 1 | 23X30X393K | BTA-39K | 50KC IF Amp. Screen |
| R40 | 3300Ω | ½ | 23X20X332K | BTS-3300 | 50KC IF Amp. Decoupling |
| R41 | 180Ω | ½ | 23X20X181K | | Parasitic Suppressor |
| R42 | 220Ω | ½ | 23X20X221K | | Parasitic Suppressor |
| R43 | 390Ω | ½ | 23X20X391K | | Parasitic Suppressor |
| R44 | 6.8Ω | 1 | 23X30X068K | | Diode Filament |
| R45 | 1.5Meg | ½ | 23X20X155K | BTS-1.5Meg | Noise Limiter Diode Load |
| R46 | 1Meg | ½ | 23X20X105K | BTS-1Meg | Voltage Divider |
| R47 | 1Meg | ½ | 23X20X105K | BTS-1Meg | Voltage Divider |
| R48 | 82KΩ | ½ | 23X20X823K | BTS-82K | Det. Diode Load |
| R49 | 330KΩ | ½ | 23X20X334K | BTS-330K | Det. Diode Load |
| R50 | 47KΩ | ½ | 23X20X473K | BTS-47K | AVC Network |
| R51 | 3.3Meg | ½ | 23X20X335K | BTS-3.3Meg | AVC Network |
| R52 | 100Ω | ½ | 23X20X101K | BTS-100 | AVC Network |
| R53 | 470KΩ | ½ | 23X20X474K | BTS-470K | Phono Input Shunt |
| R54 | 120KΩ | ½ | 23X20X124K | BTS-120K | BFO Grid-See Note 2 |
| R55 | 39KΩ | ½ | 23X20X393K | BTS-39K | BFO Plate-See Note 3 |
| R56 | 15Meg | ½ | 23X20X156K | BTS-15Meg | AF Amp. Grid |
| R57 | 220KΩ | ½ | 23X20X224K | BTS-220K | AF Amp. Plate |
| R58 | 470KΩ | ½ | 23X20X474K | BTS-470K | Output Grid |
| R59 | 390Ω | 1 | 23X30X391K | BTA-390 | Output Cathode |
| R60 | 560Ω | 1 | 23X30X561K | BTA-560 | Output XFMR Shunt |
| R61 | 390KΩ | ½ | 23X20X394K | BTS-390K | Bias Network-See Note 4 |
| R62 | 3000Ω | 10 | 24BG302E | 1 3/4A-3000 | Voltage Regulator Load |
| R63 | 10KΩ | ½ | 23X20X103K | BTS-10K | Filter |

Note 1 Some models use 2.2Meg resistor in this application.
Note 2 Some models use 100KΩ resistor in this application.
Note 3 Some models use 47KΩ resistor in this application.
Note 4 Some models use 350KΩ resistor in this application.

## TRANSFORMER (POWER)

| ITEM No. | RATING: PRI. | RATING: SEC. 1 | RATING: SEC. 2 | RATING: SEC. 3 | REPLACEMENT DATA: Hallicrafters PART No. | STANCOR PART No. | MERIT PART No. | CHICAGO PART No. |
|---|---|---|---|---|---|---|---|---|
| T1 | 117VAC @ .71A | 540VCT .105ADC | 5VAC @ 2A | 6.3VAC @ 3.5A | 52C221<br>52C222 ① | | P-3052 ④ | PH-120 ③ |

① Used in model S-76U.
② Add series resistor to reduce plate voltage.
④ Drill new mounting holes.

## TRANSFORMER (AUDIO OUTPUT)

| ITEM No. | RATING: IMPEDANCE PRI. | RATING: IMPEDANCE SEC. | RATING: DC RES. PRI. | RATING: DC RES. SEC. | REPLACEMENT DATA: Hallicrafters PART No. | STANCOR PART No. | MERIT PART No. | CHICAGO PART No. | INSTALLATION NOTES |
|---|---|---|---|---|---|---|---|---|---|
| T2 | 7KΩ | 500Ω Tap 3.2Ω | 370Ω | 52Ω Tap .4Ω | 55B120 | A-3878 | A2900 | RO-13 | |

# PARTS LIST AND DESCRIPTIONS (Continued)

## CAPACITORS

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

| ITEM No. | RATING CAP. | RATING VOLT | REPLACEMENT DATA Hallicrafters PART No. | AEROVOX PART No. | CENTRALAB PART No. | CORNELL-DUBILIER PART No. | ERIE PART No. | SPRAGUE PART No. | IDENTIFICATION CODES AND INSTALLATION NOTES |
|---|---|---|---|---|---|---|---|---|---|
| C48 | .022 | 600 | 46A180 | P688-022 | | | | 6TM-S22 | Fixed Padder |
| C49 | .25 | 200 | 46AT254J | P488-25 | | GT2P25 | | 2TM-P25 | RF Bypass |
| C50 | 220 | | 47B2022lK5 | SI220 | D6-221 | 5R5T25 | GP2K-221 | 5GA-T22 | Diode RF Filter |
| C51 | 220 | | 47B2022lK5 | SI220 | D6-221 | 5R5T25 | GP2K-221 | 5GA-T22 | Diode RF Filter |
| C52 | .02 | 600 | 46AY203J | P688-02 | DF-203 | PTE6S2 | | 6TM-S2 | Audio Coupling |
| C53 | .02 | 600 | 46AY203J | P688-02 | DF-203 | PTE6S2 | | 6TM-S2 | Audio Coupling |
| C54 | .02 | 600 | 46AY203J | P688-02 | DF-203 | PTE6S2 | | 6TM-S2 | Audio Coupling |
| C55 | 220 | | 47B2022lK5 | SI220 | D6-221 | 5R5T25 | GP2K-221 | 5GA-T22 | RF Bypass |
| C56 | .005 | 600 | 46AY502J | P688-005 | D6-502 | PTE6D5 | GP2-333-502 | 6TM-D5 | Tone Comp. |
| C57 | .02 | 600 | 46AY203J | P688-02 | DF-203 | PTE6S2 | | 6TM-S2 | Audio Coupling |
| C58 | .01 | 600 | 46X35X103J | P688-01 | D6-103 | PTE6S1 | GP2-333-103 | 6TM-S1 | Output Plate |
| C59 | .02 | 600 | 46AY203J | P688-02 | DF-203 | PTE6S2 | | 6TM-S2 | BFO Feedback |
| C60 | 470 | 500 | 47X20B471K | 1469-0005 | | 5R5T5 | | MS-35 | BFO Grid Cap. |
| C61 | 560 | 500 | 47X20D561J | | | | | | Fixed Trimmer |
| C62 | .02 | 600 | 46AY203J | P688-02 | DF-203 | PTE6S2 | | 6TM-S2 | RF Bypass |
| C63 | 47 | | 47X20UK470K | SI47 | D6-470 | 5R5Q5 | GPlK-470 | 5GA-Q47 | BFO Coupling |
| C64 | .05 | 200 | 46AU503J | P288-05 | DF-503 | PTE4S5 | | 2TM-S5 | Noise Limiter Filter |
| C65 | .01 | 600 | 46X35X103J | P688-01 | D6-103 | PTE6S1 | GP2-333-103 | 6TM-S1 | Line Filter |

## CONTROLS

| ITEM No. | RATING RESISTANCE | RATING WATTS | REPLACEMENT DATA Hallicrafters PART No. | IRC PART No. | CLAROSTAT PART No. | CENTRALAB PART No. | INSTALLATION NOTES |
|---|---|---|---|---|---|---|---|
| R1A | 10KΩ | ½ | 25B590 | Q13-116 | AM-81-Z | B-15 | Sensitivity Control |
| B | Shaft | | Not Req. | Not Req. | RS-2 | Not Req. | Attach to R1A Per Instructions. |
| R2A | 500KΩ | ½ | 25B534 | Q13-133 | AM-60-Z | B-60 | Volume Control |
| B | Shaft | | Not Req. | Not Req. | RS-2 | Not Req. | Attach to R2A Per Instructions. |
| R3A | 500KΩ | ½ | 25B605 | Q13-133 | AG-60-Z | B-60-S | Tone Control |
| B | Shaft | | Not Req. | Not Req. | RS-2 | Not Req. | Attach to R3A Per Instructions. |
| C | Switch | | Not Req. | 76-1 | SWB | Not Req. | Attach to R3A Per Instructions. |
| R4 | 500Ω | 4 | | | RTV-25 | | "S" Meter Adjustment-Wire Wound |

## RESISTORS

| ITEM No. | RATING RESISTANCE | RATING WATTS | REPLACEMENT DATA Hallicrafters PART No. | IRC PART No. | IDENTIFICATION CODES |
|---|---|---|---|---|---|
| R5 | 22Ω | ½ | 23X20X220K | | Parasitic Suppressor |
| R6 | 15Ω | ½ | 23X20X150K | | Parasitic Suppressor |
| R7 | 1Meg | ½ | 23X20X105K | BTS-1Meg | RF Amp. Grid |
| R8 | 180Ω | ¼ | 23X20X181K | BTS-180 | RF Amp. Cathode |
| R9 | 39KΩ | 1 | 23X30X393K | BTA-39K | RF Amp. Screen |
| R10 | 1000Ω | ½ | 23X20X102K | BTS-1000 | RF Choke Shunt |
| R11 | 3300Ω | ½ | 23X20X332K | BTS-3300 | RF Amp. Plate |
| R12 | 3300Ω | ½ | 23X20X332K | BTS-3300 | RF Amp. Plate |
| R13 | 6800Ω | 1 | 23X30X682K | BTA-6800 | RF Amp. Plate |
| R14 | 3300Ω | ½ | 23X20X332K | BTS-3300 | RF Amp. Plate Decoupling |
| R15 | 15Ω | ½ | 23X20X150K | | Parasitic Suppressor |
| R16 | 1.5Meg | ½ | 23X20X155K | BTS-1.5Meg | 1650KC Mixer Grid-See Note 1 |
| R17 | 2200Ω | ½ | 23X20X222K | BTS-2200 | 1650 KC Mixer Cathode |
| R18 | 330KΩ | ½ | 23X20X334K | BTS-330K | 1650 KC Mixer Screen |
| R19 | 3300Ω | ½ | 23X20X332K | BTS-3300 | 1650 KC Mixer Plate Decoupling |
| R20 | 22KΩ | ½ | 23X20X223K | BTS-22K | Osc. Grid |
| R21 | 10KΩ | 1 | 23X30X103K | BTA-10K | Osc. Plate |
| R22 | 15Ω | ½ | 23X20X150K | | Parasitic Suppressor |
| R23 | 120KΩ | ½ | 23X20X124K | BTS-120K | AVC Network-See Note 2 |
| R24 | 100Ω | ½ | 22X20X101K | BTS-100 | 1650KC IF Amp. Cathode |
| R25 | 8200Ω | ½ | 23X20X822K | BTS-8200 | 1650 KC IF Amp. Screen |
| R26 | 3300Ω | ½ | 23X20X332K | BTS-3300 | 1650 KC IF Amp. Plate Decoupling |
| R27 | 270Ω | ½ | 23X20X271K | BTS-270 | "S" Meter Shunt |

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FOLDER 9

# PARTS LIST AND DESCRIPTIONS (Continued)

## FILTER CHOKE

| ITEM No. | RATINGS TOTAL DIRECT CURRENT | RATINGS D. C. RESISTANCE | RATINGS INDUCTANCE (0 CURRENT 1000 ~) | REPLACEMENT DATA Hallicrafters PART No. | STANCOR PART No. | MERIT PART No. | CHICAGO PART No. | INSTALLATION NOTES |
|---|---|---|---|---|---|---|---|---|
| L1 | .105A | 330Ω | 9 Henries | 56B107 | | C-2995 ② | R-23110② | ② One new mounting hole. |

## COILS (RF-IF)

| ITEM No. | USE | DC RES. PRI. | DC RES. SEC. | REPLACEMENT DATA Hallicrafters PART No. | MEISSNER PART No. | NOTES |
|---|---|---|---|---|---|---|
| L2 | Ant. Coil | .2Ω | 0Ω | 51B1325 | | Band 4 |
| L3 | Ant. Coil | .3Ω | .1Ω | 51B1324 | | Band 3 |
| L4 | Ant. Coil | .4Ω | 1.5Ω | 51B1323 | | Band 2 |
| L5 | Ant. Coil | 28Ω | 5.8Ω | 51B1322 | | Band 1 |
| L6 | RF Choke | .3Ω | | 53A215 | | |
| L7 | RF Coil | 1.3Ω | 0Ω | 51B1327 | | Band 4 |
| L8 | RF Coil | 9Ω | .1Ω | 51B1326 | | Band 3 |
| L9A | RF Coil | 1.5Ω | | 51B1319 | | Band 2 L9A and 9B wound on same |
| L9B | RF Coil | 6.5Ω | | | | Band 1 Form |
| L10 | Osc. Coil | 2Ω | .1Ω | 51B1321 | | Band 4 |
| L11 | Osc. Coil | .5Ω | .1Ω | 51B1320 | | Band 3 |
| L12 | Osc. Coil | .5Ω | .9Ω | 51B1329 | | Band 2 |
| L13 | Osc. Coil | .7Ω | 2Ω | 51B1328 | | Band 1 |
| L14 | 1st IF | .8Ω | .8Ω | 50B488 | | 1650KC |
| L15 | 2nd IF | .8Ω | .8Ω | 50B488 | | 1650KC |
| L16 | Osc. Coil | .4Ω | | 50B490 | | 1600KC (Tap 2Ω) |
| L17 | 1st IF Pri. | 32Ω | | 50B489 | | 50KC (Tap 14Ω) |
| L18 | 1st IF Sec. | 32Ω | | 50B489 | | 50KC (Tap 14Ω) |
| L19 | 2nd IF Pri. | 32Ω | | 50B489 | | 50KC (Tap 14Ω) |
| L20 | 2nd IF Sec. | 32Ω | | 50B489 | | 50KC (Tap 14Ω) |
| L21 | BFO Osc. Coil | 100Ω | | 54B045 | | (Tap 69Ω) |
| L22 | RF Choke | 9Ω | | 53A107 | | |

## DIAL LIGHTS

| ITEM No. | BASE TYPE | VOLTS | AMPS. | BEAD COLOR | REPLACEMENT DATA Hallicrafters PART No. | | NOTES |
|---|---|---|---|---|---|---|---|
| M1 | Bayonet | 6-8 | .25 | Blue | 39A003 | | Type number 44. |
| M2 | Bayonet | 6-8 | .25 | Blue | 39A003 | | Type number 44. |
| M3 | Bayonet | 7.5 | .2 | White | | | Type number 51. |
| M4 | Bayonet | 7.5 | .2 | White | | | Type number 51. |

## MISCELLANEOUS

| ITEM No. | PART NAME | HALLICRAFTERS PART No. | NOTES |
|---|---|---|---|
| M5A | Switch | 62B053 | Band, Ant. Section |
| B | Switch | 62B053 | Band, RF Section |
| C | Switch | 62B054 | Band, Osc. Grid Section |
| D | Switch | 62B055 | Band, Osc. Plate Section |
| M6 | Switch | 60B399 | Selectivity |
| M7 | Switch | 60A138 | AVC |
| M8 | Switch | 60A138 | AM-CW |
| M9 | Switch | 60A192 | Receiver-Standby |
| M10 | Switch | 60A138 | Limiter |
| M11 | Meter | 82C183 | Carrier Level |
| M12 | 3 Gang Var. Cap. | 48C244 | (12-420MMF) Each Section |
| M13 | 3 Gang Var. Cap. | 48C243 | Bandspread |
| | Cabinet | 66D652 | |
| | Dial Scale | 83B387 | Main |
| | Dial Scale | 83B388 | Bandspread |

VOLTAGE READINGS

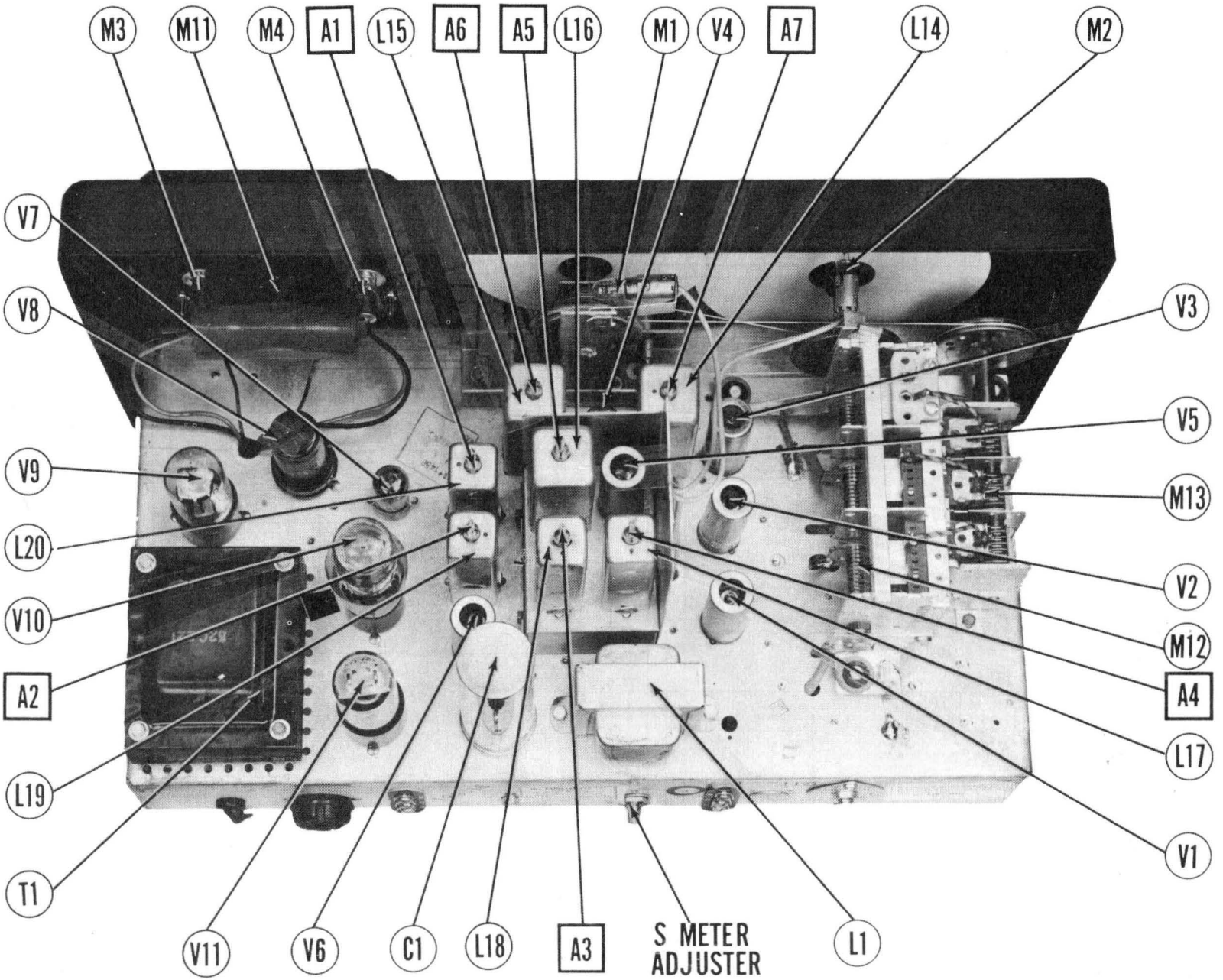
| Item | Tube | Pin 1 | Pin 2 | Pin 3 | Pin 4 | Pin 5 | Pin 6 | Pin 7 | Pin 8 |
|---|---|---|---|---|---|---|---|---|---|
| V 1 | 6CB6 | 0V | 26VDC | 0V | 6.3VAC | 260VDC | 255VDC | 26VDC | |
| V 2 | 6AU6 | -3.8VDC | 0V | 0V | 6.3VAC | 255VDC | 70VDC | 4.6VDC | |
| V 3 | 6C4 | 85VDC | 0V | 0V | 6.3VAC | 85VDC | §-11VDC | 0V | |
| V 4 | 6BA6 | 0V | 26VDC | 0V | 6.3VAC | 260VDC | 135VDC | 26VDC | |
| V 5 | 6BE6 | §-1.8VDC | 1.4VDC | 0V | 6.3VAC | 260VDC | 85VDC | 0V | |
| V 6 | 6BA6 | 0V | 26VDC | 0V | 6.3VAC | 250VDC | 220VDC | 26VDC | |
| V 7 | 6AL5 | 0V | -.1VDC | 0V | 4.3VAC | 0V | 0V | -.1VDC | |
| V 8 | 6SC7 | 0V | ▲115VDC | -.5VDC<br>▲-6.1VDC | -.3VDC | 95VDC | 0V | 0V | 6.3VAC |
| V 9 | 6K6GT | 0V | 0V | 265VDC | 260VDC | 0V | 280VDC | 6.3VAC | 16VDC |
| V 10 | VR-150/0D3 | 0V | 0V | 140VDC | 260VDC | 140VDC | 0V | 140VDC | 0V |
| V 11 | 5Y3GT | 260VDC | 280VDC | 0V | 280VAC | 0V | 280VAC | 0V | 280VDC |

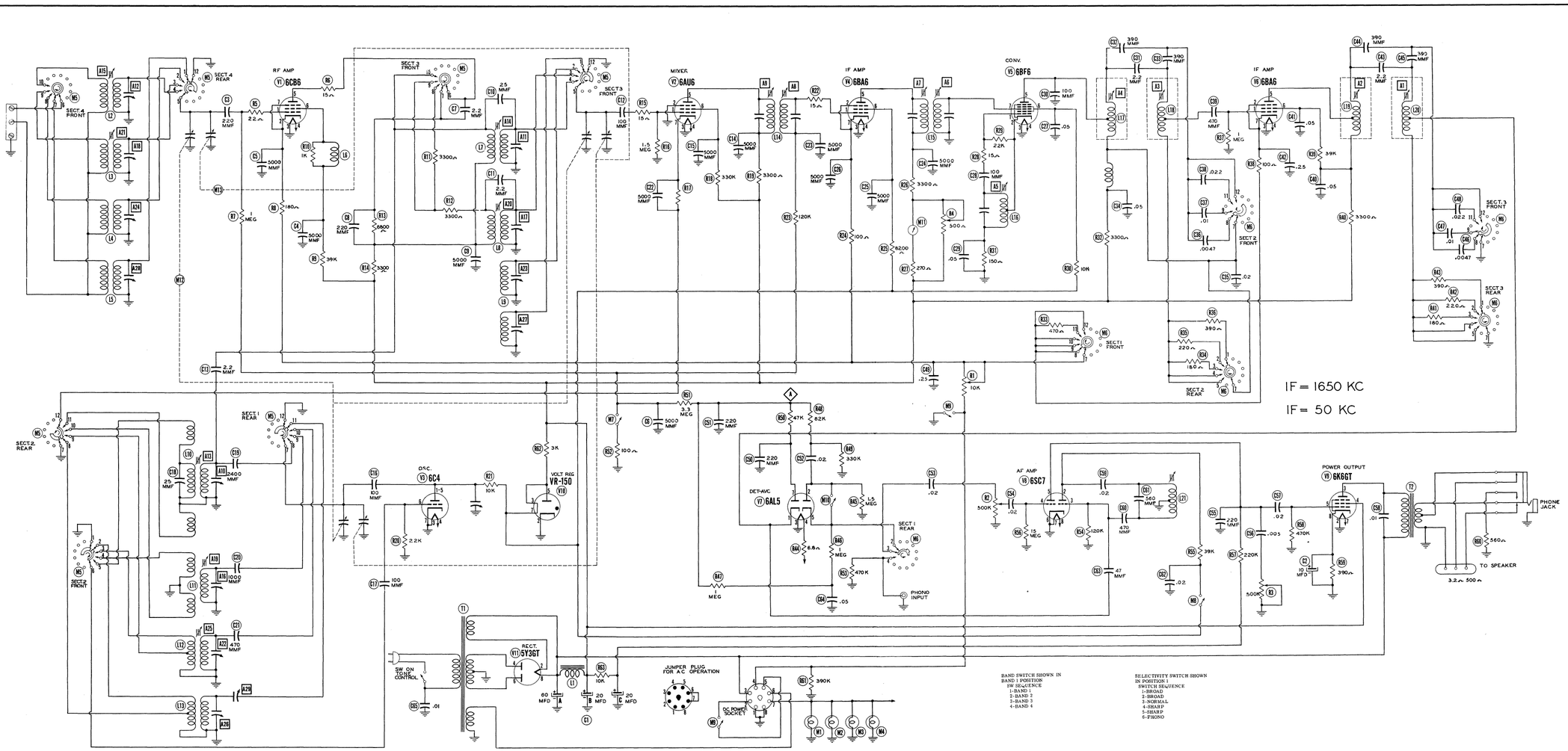
RESISTANCE READINGS

| Item | Tube | Pin 1 | Pin 2 | Pin 3 | Pin 4 | Pin 5 | Pin 6 | Pin 7 | Pin 8 |
|---|---|---|---|---|---|---|---|---|---|
| V 1 | 6CB6 | 4.7Meg | 10KΩ | 0Ω | .1Ω | †10KΩ | †39K Ω | 10KΩ | |
| V 2 | 6AU6 | 1.5Meg | 0Ω | 0Ω | .1Ω | †3.6KΩ | †330KΩ | 2.2KΩ | |
| V 3 | 6C4 | †13KΩ | Inf. | 0Ω | .1Ω | †13KΩ | 22KΩ | 0Ω | |
| V 4 | 6BA6 | 3.8Meg | 10KΩ | 0Ω | .1Ω | †3.6KΩ | †11KΩ | 10KΩ | |
| V 5 | 6BE6 | 22KΩ | 150Ω | 0Ω | .1Ω | †3.6KΩ | †13KΩ | .8Ω | |
| V 6 | 6BA6 | 1Meg | 10KΩ | 0Ω | .1Ω | †3.6KΩ | †42KΩ | 10KΩ | |
| V 7 | 6AL5 | 390Ω | 1.5Meg | 0Ω | 2.5Ω | 2.4Meg | Inf. | 450KΩ | |
| V 8 | 6SC7 | 0Ω | †▲42KΩ | 120KΩ | 15Meg | †230KΩ | 0Ω | 0Ω | .1Ω |
| V 9 | 6K6GT | Inf. | 0Ω | †370Ω | †330Ω | 470KΩ | †0Ω | .1Ω | 390Ω |
| V 10 | VR-150/0D3 | Inf. | 0Ω | †3.3KΩ | †330Ω | †3.3KΩ | Inf. | †3.3KΩ | Inf. |
| V 11 | 5Y3GT | †330Ω | 40KΩ | Inf. | 70Ω | Inf. | 78Ω | Inf. | 40KΩ |

▲ CW AND AM SWITCH IN CW POSITION.
§ TAKEN WITH VACUUM TUBE VOLTMETER.
ALL MEASUREMENTS TAKEN IN BC BAND #1.
▲ CW AND AM SWITCH IN CW POSITION.
† MEASURED FROM PIN 8 OF V11.
SELECTIVITY SWITCH IN BROAD 1.
AVC SWITCH IN ON POSITION.
NOISE LIMITER SWITCH IN ON POSITION.

1. DC Voltage measurements are at 20,000 ohms per volt; AC Voltages measured at 1,000 ohms.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Line voltage maintained at 117 volts for voltage readings.
5. Nominal tolerance on component values makes possible a variation of ±15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.


M3
M11
M4
A1
L15
A6
A5
L16
M1
V4
A7
L14
M2
V7
V8
V3
V5
V9
M13
L20
V2
V10
M12
A2
A4
L17
L19
V1
T1
V11
V6
C1
L18
A3
S METER
ADJUSTER
L1

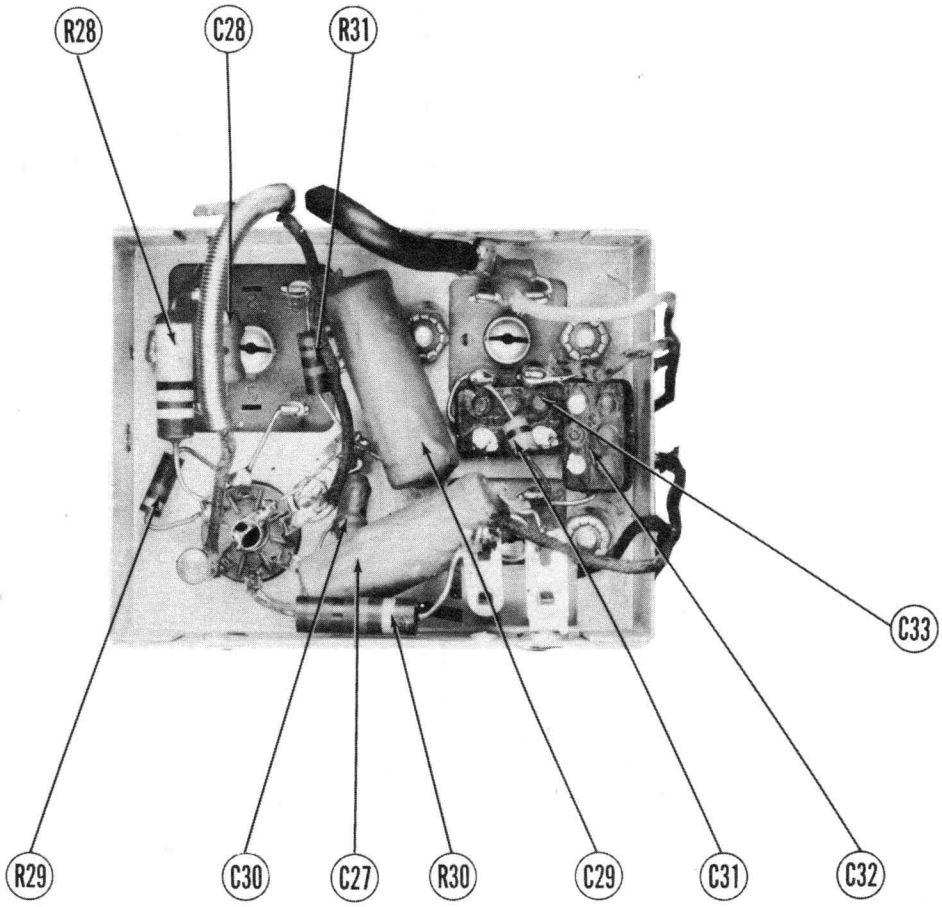


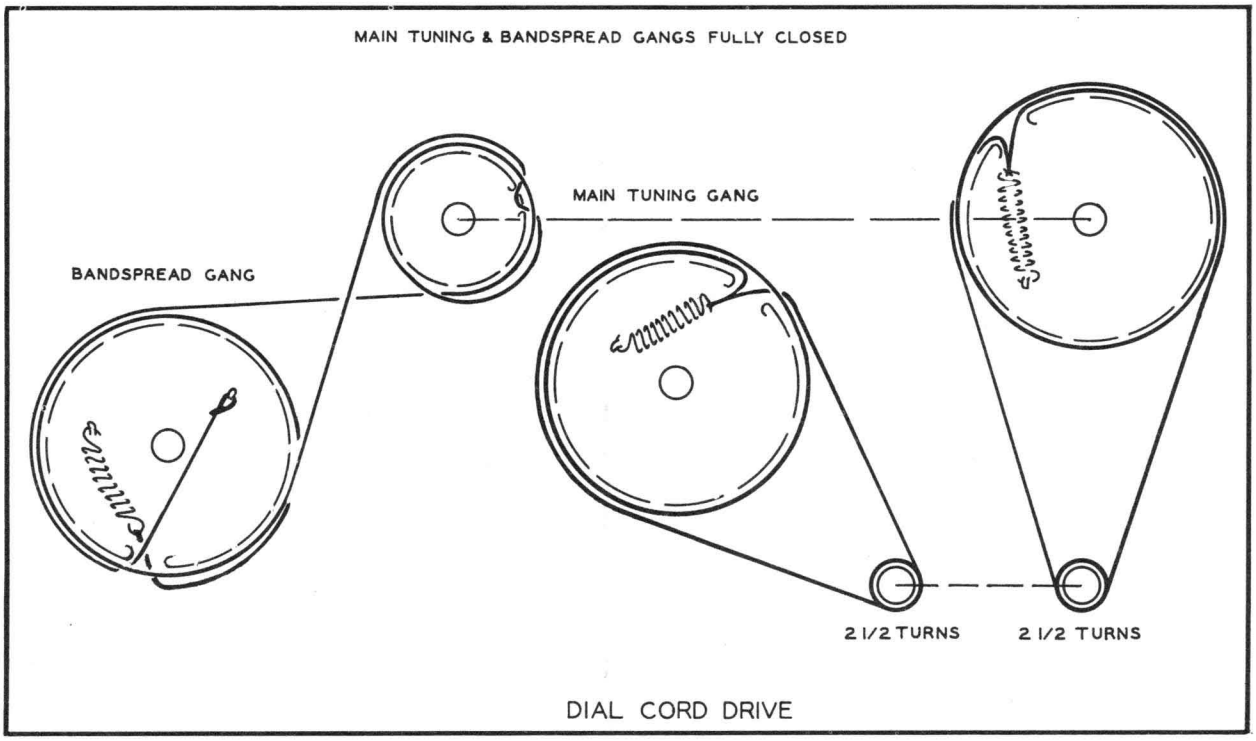

A PHOTOFACT STANDARD NOTATION SCHEMATIC
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## ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

To set dial turn tuning gang fully closed and set the zero on the logging scale under the dial index line.
Turn the noise limiter and AVC switches to "off", send-receive switch to "receive", CW/AM switch to AM, and the band selector to "band 2".
Turn both main tuning and bandspread capacitors to half meshed.
During alignment of the 50KC IFs, (step 1), remove the first oscillator tabe, (V3). from its socket to prevent signal interference
Connect a 3.2 or 500Ω speaker.

| | DUMMY ANTENNA | SIGNAL GENERATOR COUPLING | SIGNAL GENERATOR FREQUENCY | BAND SWITCH POS. | RADIO DIAL SETTING | CONNECT VTVM | ADJUST | REMARKS |
|---|---|---|---|---|---|---|---|---|
| 1. | .01MFD | High side to terminal 1 on L15. Low side to chassis. | 50KC (unmod.) | 2 | Tuning gang half meshed. | Use VTVM DC Probe to Point A . Common to chassis. | A1, A2, A3, A4 | Adjust in the order given for maximum deflection. Then repeat the adjustments in the same order. |
| 2. | " | High side to stator on center section of main tuning gang. Low side to chassis. | 1650KC | " | " | " | A5, A6, A7, A8, A9 | Replace V3. Adjust A5 for maximum deflection. Then retune signal gen. for maximum deflection. Adjust A6, A7, A8, and A9 for maximum deflection, at the new frequency. Rotate the selectivity switch from step 5 to step 1. The reading on the VTVM should decrease progressively, if not repeat step.1. |
| 3. | " | High side to terminal 1 on L15. Low side to chassis. | 50KC (unmod.) | " | " | Use speaker as indicator | | Turn CW/AM switch to "CW". Remove pitch control knob. Turn pitch control shaft for zero beat indication on speaker. Replace knob with indicator line straight up. Turn switch back to "AM". |
| | Turn the BAND SPREAD, VOLUME, TONE, and SENSITIVITY controls fully clockwise. Turn the SELECTIVITY switch to 3. Leave all other controls as set. | | | | | | | |
| 4. | 330Ω carbon resistor | High side thru 330Ω to antenna terminal "A1", (connect link) Low side to chassis. | 30MC (400∿ Mod.) | 4 | 30MC | DC Probe to Point A . Common to chassis. | A10, A11 A12 | Adjust for maximum deflection. |
| 5. | " | " | 14MC | " | 14MC | " | A13, A14 A15 | Adjust for maximum deflection. Repeat steps 4 and 5 until no further improvement can be made. |
| 6. | " | " | 11.5MC | 3 | 11.5MC | " | A16, A17 A18 | Adjust for maximum deflection. |
| 7. | " | " | 5.1MC | " | 5.1MC | " | A19, A20 A21 | Adjust for maximum deflection. Repeat steps 6 and 7 until no further improvementscan be made. |
| 8. | " | " | 4.6MC | 2 | 4.6MC | " | A22, A23 A24 | Adjust for maximum deflection. |
| 9. | " | " | 1.925MC | " | 1.925MC | " | A25 | Adjust for maximum deflection. Repeat steps 8 and 9 until no further improvement can be made. |
| 10. | " | " | 1400KC | 1 | 1400KC | " | A26, A27, A28 | Adjust for maximum deflection. |
| 11. | " | " | 600KC | " | 600KC | " " | A29 | Adjust for maximum deflection. Repeat steps 10 and 11 until no further improvement can be made. |




DIAL CORD DRIVE