



communications

**OPERATING and SERVICE
INSTRUCTIONS**



SX-62

the hallicrafters co.
MANUFACTURERS OF PHOTO AND ELECTRONIC EQUIPMENT, CHICAGO 26, U. S. A.

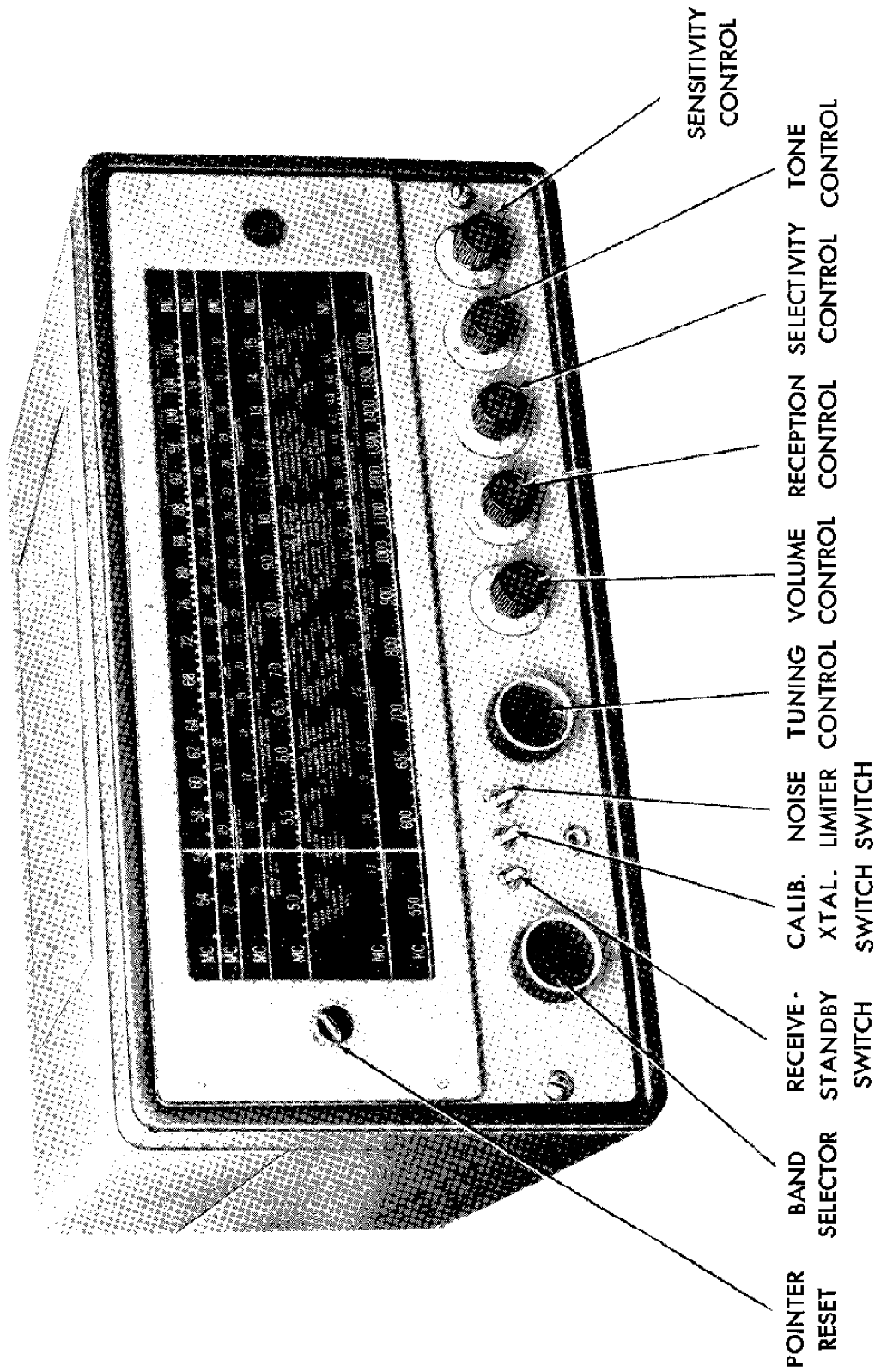
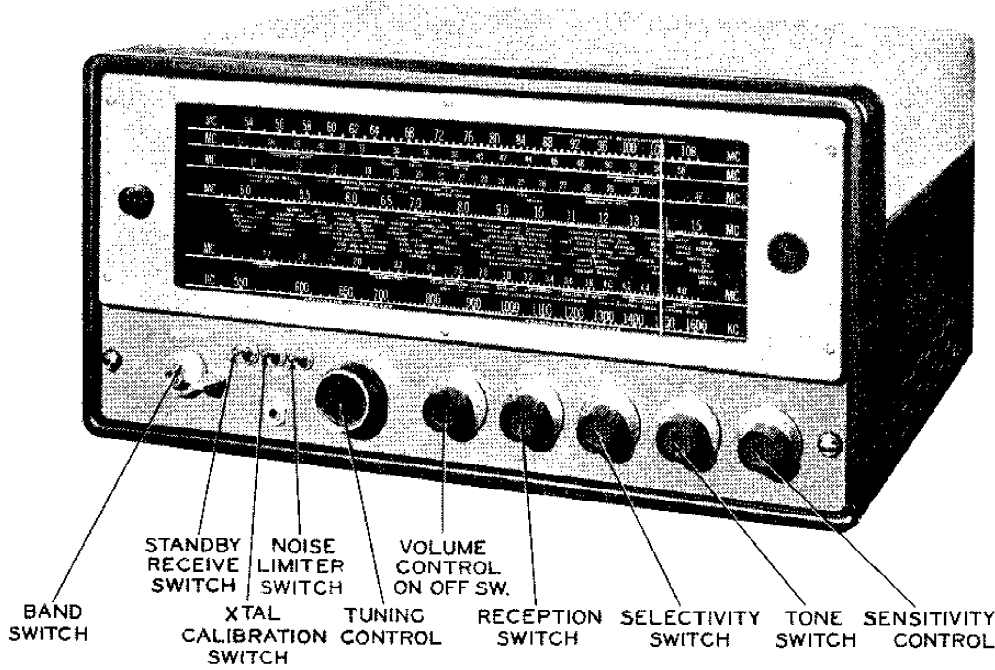


Fig. 1. Radio Receiver Model SX-62/62U



HALLICRAFTERS
MODEL SX-62

HALLICRAFTERS MODEL SX-62

TRADE NAME Hallcrafters, Model SX-62

MANUFACTURER The Hallcrafters Co., 5th & Kostner Avenues, Chicago 24, Illinois

TYPE SET AC Operated Multi-Band AM-FM Superheterodyne Receiver

TUBES(SIXTEEN) Types 6CA XTAL Calib. Csc., 6AC5 1st RF Amp., 6AC5 2nd RF Amp., 7FC Converter, 6BK7 1st IF Amp., 6BK7 2nd IF Amp., 7H7 3rd IF Amp., 7H7 4th IF AMP.-AM DET-AVC, 6H6 Discriminator, 7A4 CW Beat Csc. 6H6 Noise Limiter, 6SL7GT AF-Phase Inv. (2) 6V6GT Power Output, 6DS/VR-150 Voltage Regulator, 5U4G Rectifier

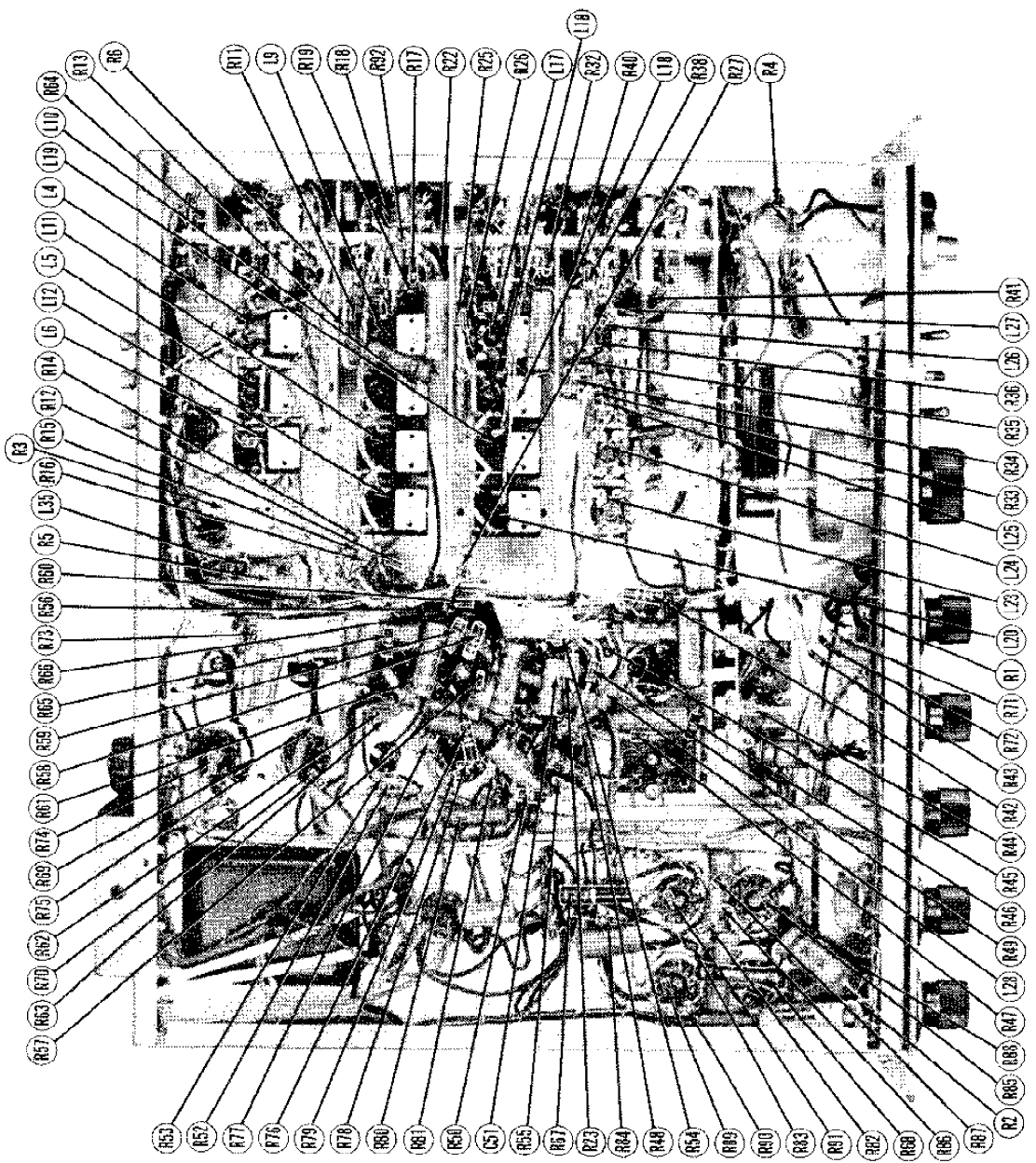
POWER SUPPLY 105-125 Volts AC RATING .198 Amp., @ 117 Volts AC

TUNING RANGE Band #1 550-1620KC, Band#2 1.62-4.9MC, Band#3 4.9-15MC, Band#4 15-32MC, Band#5 27-56MC AM-FM, Band#6 54-109MC AM-FM.

HOWARD W. SAMS & CO., INC. • Indianapolis 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."
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HALLICRAFTERS
MODEL SX-62

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PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

| ITEM No. | RATING CAP. VOLT | REPLACEMENT DATA | | | RESISTANCE WATTS | HALLICRAFTERS PART No. | HALLICRAFTERS REPLACEMENT DATA | HALLICRAFTERS PART No. | IDENTIFICATION CODES |
|----------|------------------|------------------------|----------------------|---------------|------------------|------------------------|--------------------------------|------------------------|----------------------|
| | | HALLICRAFTERS PART No. | STANDARD REPLACEMENT | RMA BASE TYPE | | | | | |
| V1 | 500 | 444 | 500 | 444 | 1000K | RC20A1227 | 375-1200 | 1R-Red-Res | |
| V2 | 500 | 444 | 500 | 444 | 1.5K | RC20A1228 | 375-6 & 8 Meg | 1R-Ort.-Blk. | |
| V3 | 500 | 444 | 500 | 444 | 2.2 Meg | RC20A1229 | 375-6 & 8 Meg | 1R-Red-Blk | |
| V4 | 500 | 444 | 500 | 444 | 100K | RC20A1230 | 375-1000 | 1R-Blk.-Red | |
| V5 | 500 | 444 | 500 | 444 | 2000K | RC20A1231 | 375-2000 | 1R-Blk.-Red | |
| V6 | 500 | 444 | 500 | 444 | 500K | RC20A1232 | 375-500 | 1R-Blk.-Red | |
| V7 | 500 | 444 | 500 | 444 | 100K | RC20A1233 | 375-1000 | 1R-Blk.-Red | |
| V8 | 500 | 444 | 500 | 444 | 100K | RC20A1234 | 375-1000 | 1R-Blk.-Red | |
| V9 | 500 | 444 | 500 | 444 | 100K | RC20A1235 | 375-1000 | 1R-Blk.-Red | |
| V10 | 500 | 444 | 500 | 444 | 100K | RC20A1236 | 375-1000 | 1R-Blk.-Red | |
| V11 | 500 | 444 | 500 | 444 | 100K | RC20A1237 | 375-1000 | 1R-Blk.-Red | |
| V12 | 500 | 444 | 500 | 444 | 100K | RC20A1238 | 375-1000 | 1R-Blk.-Red | |
| V13 | 500 | 444 | 500 | 444 | 100K | RC20A1239 | 375-1000 | 1R-Blk.-Red | |
| V14 | 500 | 444 | 500 | 444 | 100K | RC20A1240 | 375-1000 | 1R-Blk.-Red | |
| V15 | 500 | 444 | 500 | 444 | 100K | RC20A1241 | 375-1000 | 1R-Blk.-Red | |
| V16 | 500 | 444 | 500 | 444 | 100K | RC20A1242 | 375-1000 | 1R-Blk.-Red | |
| V17 | 500 | 444 | 500 | 444 | 100K | RC20A1243 | 375-1000 | 1R-Blk.-Red | |
| V18 | 500 | 444 | 500 | 444 | 100K | RC20A1244 | 375-1000 | 1R-Blk.-Red | |
| V19 | 500 | 444 | 500 | 444 | 100K | RC20A1245 | 375-1000 | 1R-Blk.-Red | |
| V20 | 500 | 444 | 500 | 444 | 100K | RC20A1246 | 375-1000 | 1R-Blk.-Red | |
| V21 | 500 | 444 | 500 | 444 | 100K | RC20A1247 | 375-1000 | 1R-Blk.-Red | |
| V22 | 500 | 444 | 500 | 444 | 100K | RC20A1248 | 375-1000 | 1R-Blk.-Red | |
| V23 | 500 | 444 | 500 | 444 | 100K | RC20A1249 | 375-1000 | 1R-Blk.-Red | |
| V24 | 500 | 444 | 500 | 444 | 100K | RC20A1250 | 375-1000 | 1R-Blk.-Red | |
| V25 | 500 | 444 | 500 | 444 | 100K | RC20A1251 | 375-1000 | 1R-Blk.-Red | |
| V26 | 500 | 444 | 500 | 444 | 100K | RC20A1252 | 375-1000 | 1R-Blk.-Red | |
| V27 | 500 | 444 | 500 | 444 | 100K | RC20A1253 | 375-1000 | 1R-Blk.-Red | |
| V28 | 500 | 444 | 500 | 444 | 100K | RC20A1254 | 375-1000 | 1R-Blk.-Red | |
| V29 | 500 | 444 | 500 | 444 | 100K | RC20A1255 | 375-1000 | 1R-Blk.-Red | |
| V30 | 500 | 444 | 500 | 444 | 100K | RC20A1256 | 375-1000 | 1R-Blk.-Red | |
| V31 | 500 | 444 | 500 | 444 | 100K | RC20A1257 | 375-1000 | 1R-Blk.-Red | |
| V32 | 500 | 444 | 500 | 444 | 100K | RC20A1258 | 375-1000 | 1R-Blk.-Red | |
| V33 | 500 | 444 | 500 | 444 | 100K | RC20A1259 | 375-1000 | 1R-Blk.-Red | |
| V34 | 500 | 444 | 500 | 444 | 100K | RC20A1260 | 375-1000 | 1R-Blk.-Red | |
| V35 | 500 | 444 | 500 | 444 | 100K | RC20A1261 | 375-1000 | 1R-Blk.-Red | |
| V36 | 500 | 444 | 500 | 444 | 100K | RC20A1262 | 375-1000 | 1R-Blk.-Red | |
| V37 | 500 | 444 | 500 | 444 | 100K | RC20A1263 | 375-1000 | 1R-Blk.-Red | |
| V38 | 500 | 444 | 500 | 444 | 100K | RC20A1264 | 375-1000 | 1R-Blk.-Red | |
| V39 | 500 | 444 | 500 | 444 | 100K | RC20A1265 | 375-1000 | 1R-Blk.-Red | |
| V40 | 500 | 444 | 500 | 444 | 100K | RC20A1266 | 375-1000 | 1R-Blk.-Red | |
| V41 | 500 | 444 | 500 | 444 | 100K | RC20A1267 | 375-1000 | 1R-Blk.-Red | |
| V42 | 500 | 444 | 500 | 444 | 100K | RC20A1268 | 375-1000 | 1R-Blk.-Red | |
| V43 | 500 | 444 | 500 | 444 | 100K | RC20A1269 | 375-1000 | 1R-Blk.-Red | |
| V44 | 500 | 444 | 500 | 444 | 100K | RC20A1270 | 375-1000 | 1R-Blk.-Red | |
| V45 | 500 | 444 | 500 | 444 | 100K | RC20A1271 | 375-1000 | 1R-Blk.-Red | |
| V46 | 500 | 444 | 500 | 444 | 100K | RC20A1272 | 375-1000 | 1R-Blk.-Red | |
| V47 | 500 | 444 | 500 | 444 | 100K | RC20A1273 | 375-1000 | 1R-Blk.-Red | |
| V48 | 500 | 444 | 500 | 444 | 100K | RC20A1274 | 375-1000 | 1R-Blk.-Red | |
| V49 | 500 | 444 | 500 | 444 | 100K | RC20A1275 | 375-1000 | 1R-Blk.-Red | |
| V50 | 500 | 444 | 500 | 444 | 100K | RC20A1276 | 375-1000 | 1R-Blk.-Red | |
| V51 | 500 | 444 | 500 | 444 | 100K | RC20A1277 | 375-1000 | 1R-Blk.-Red | |
| V52 | 500 | 444 | 500 | 444 | 100K | RC20A1278 | 375-1000 | 1R-Blk.-Red | |
| V53 | 500 | 444 | 500 | 444 | 100K | RC20A1279 | 375-1000 | 1R-Blk.-Red | |
| V54 | 500 | 444 | 500 | 444 | 100K | RC20A1280 | 375-1000 | 1R-Blk.-Red | |
| V55 | 500 | 444 | 500 | 444 | 100K | RC20A1281 | 375-1000 | 1R-Blk.-Red | |
| V56 | 500 | 444 | 500 | 444 | 100K | RC20A1282 | 375-1000 | 1R-Blk.-Red | |
| V57 | 500 | 444 | 500 | 444 | 100K | RC20A1283 | 375-1000 | 1R-Blk.-Red | |
| V58 | 500 | 444 | 500 | 444 | 100K | RC20A1284 | 375-1000 | 1R-Blk.-Red | |
| V59 | 500 | 444 | 500 | 444 | 100K | RC20A1285 | 375-1000 | 1R-Blk.-Red | |
| V60 | 500 | 444 | 500 | 444 | 100K | RC20A1286 | 375-1000 | 1R-Blk.-Red | |
| V61 | 500 | 444 | 500 | 444 | 100K | RC20A1287 | 375-1000 | 1R-Blk.-Red | |
| V62 | 500 | 444 | 500 | 444 | 100K | RC20A1288 | 375-1000 | 1R-Blk.-Red | |
| V63 | 500 | 444 | 500 | 444 | 100K | RC20A1289 | 375-1000 | 1R-Blk.-Red | |
| V64 | 500 | 444 | 500 | 444 | 100K | RC20A1290 | 375-1000 | 1R-Blk.-Red | |
| V65 | 500 | 444 | 500 | 444 | 100K | RC20A1291 | 375-1000 | 1R-Blk.-Red | |
| V66 | 500 | 444 | 500 | 444 | 100K | RC20A1292 | 375-1000 | 1R-Blk.-Red | |
| V67 | 500 | 444 | 500 | 444 | 100K | RC20A1293 | 375-1000 | 1R-Blk.-Red | |
| V68 | 500 | 444 | 500 | 444 | 100K | RC20A1294 | 375-1000 | 1R-Blk.-Red | |
| V69 | 500 | 444 | 500 | 444 | 100K | RC20A1295 | 375-1000 | 1R-Blk.-Red | |
| V70 | 500 | 444 | 500 | 444 | 100K | RC20A1296 | 375-1000 | 1R-Blk.-Red | |
| V71 | 500 | 444 | 500 | 444 | 100K | RC20A1297 | 375-1000 | 1R-Blk.-Red | |
| V72 | 500 | 444 | 500 | 444 | 100K | RC20A1298 | 375-1000 | 1R-Blk.-Red | |
| V73 | 500 | 444 | 500 | 444 | 100K | RC20A1299 | 375-1000 | 1R-Blk.-Red | |
| V74 | 500 | 444 | 500 | 444 | 100K | RC20A1300 | 375-1000 | 1R-Blk.-Red | |
| V75 | 500 | 444 | 500 | 444 | 100K | RC20A1301 | 375-1000 | 1R-Blk.-Red | |
| V76 | 500 | 444 | 500 | 444 | 100K | RC20A1302 | 375-1000 | 1R-Blk.-Red | |
| V77 | 500 | 444 | 500 | 444 | 100K | RC20A1303 | 375-1000 | 1R-Blk.-Red | |
| V78 | 500 | 444 | 500 | 444 | 100K | RC20A1304 | 375-1000 | 1R-Blk.-Red | |
| V79 | 500 | 444 | 500 | 444 | 100K | RC20A1305 | 375-1000 | 1R-Blk.-Red | |
| V80 | 500 | 444 | 500 | 444 | 100K | RC20A1306 | 375-1000 | 1R-Blk.-Red | |
| V81 | 500 | 444 | 500 | 444 | 100K | RC20A1307 | 375-1000 | 1R-Blk.-Red | |
| V82 | 500 | 444 | 500 | 444 | 100K | RC20A1308 | 375-1000 | 1R-Blk.-Red | |
| V83 | 500 | 444 | 500 | 444 | 100K | RC20A1309 | 375-1000 | 1R-Blk.-Red | |
| V84 | 500 | 444 | 500 | 444 | 100K | RC20A1310 | 375-1000 | 1R-Blk.-Red | |
| V85 | 500 | 444 | 500 | 444 | 100K | RC20A1311 | 375-1000 | 1R-Blk.-Red | |
| V86 | 500 | 444 | 500 | 444 | 100K | RC20A1312 | 375-1000 | 1R-Blk.-Red | |
| V87 | 500 | 444 | 500 | 444 | 100K | RC20A1313 | 375-1000 | 1R-Blk.-Red | |
| V88 | 500 | 444 | 500 | 444 | 100K | RC20A1314 | 375-1000 | 1R-Blk.-Red | |
| V89 | 500 | 444 | 500 | 444 | 100K | RC20A1315 | 375-1000 | 1R-Blk.-Red | |
| V90 | 500 | 444 | 500 | 444 | 100K | RC20A1316 | 375-1000 | 1R-Blk.-Red | |
| V91 | 500 | 444 | 500 | 444 | 100K | RC20A1317 | 375-1000 | 1R-Blk.-Red | |
| V92 | 500 | 444 | 500 | 444 | 100K | RC20A1318 | 375-1000 | 1R-Blk.-Red | |
| V93 | 500 | 444 | 500 | 444 | 100K | RC20A1319 | 375-1000 | 1R-Blk.-Red | |
| V94 | 500 | 444 | 500 | 444 | 100K | RC20A1320 | 375-1000 | 1R-Blk.-Red | |
| V95 | 500 | 444 | 500 | 444 | 100K | RC20A1321 | 375-1000 | 1R-Blk.-Red | |
| V96 | 500 | 444 | 500 | 444 | 100K | RC20A1322 | 375-1000 | 1R-Blk.-Red | |
| V97 | 500 | 444 | 500 | 444 | 100K | RC20A1323 | 375-1000 | 1R-Blk.-Red | |
| V98 | 500 | 444 | 500 | 444 | 100K | RC20A1324 | 375-1000 | 1R-Blk.-Red | |
| V99 | 500 | 444 | 500 | 444 | 100K | RC20A1325 | 375-1000 | 1R-Blk.-Red | |
| V100 | 500 | 444 | 500 | 444 | 100K | RC20A1326 | 375-1000 | 1R-Blk.-Red | |

Note: Some resistors are parallel.

Note: Some resistors are parallel.

PARTS LIST AND DESCRIPTIONS

TUBES (SYLVANIA or Equivalent)

| ITEM No. | USE | HALLICRAFTERS PART No. | STANDARD REPLACEMENT | RMA BASE TYPE | NOTES |
|----------|-----|------------------------|----------------------|---------------|-------|
| V1 | 6X4 | 604 | 604 | 6L9 | |
| V2 | 6X4 | 604 | 604 | 6L9 | |
| V3 | 6X4 | 604 | 604 | 6L9 | |
| V4 | 6X4 | 604 | 604 | 6L9 | |
| V5 | 6X4 | 604 | 604 | 6L9 | |
| V6 | 6X4 | 604 | 604 | 6L9 | |
| V7 | 6X4 | 604 | 604 | 6L9 | |
| V8 | 6X4 | 604 | 604 | 6L9 | |
| V9 | 6X4 | 604 | 604 | 6L9 | |
| V10 | 6X4 | 604 | 604 | 6L9 | |
| V11 | 6X4 | 604 | 604 | 6L9 | |
| V12 | 6X4 | 604 | 604 | 6L9 | |
| V13 | 6X4 | 604 | 604 | 6L9 | |
| V14 | 6X4 | 604 | 604 | 6L9 | |
| V15 | 6X4 | 604 | 604 | 6L9 | |
| V16 | 6X4 | 604 | 604 | 6L9 | |
| V17 | 6X4 | 604 | 604 | 6L9 | |
| V18 | 6X4 | 604 | 604 | 6L9 | |
| V19 | 6X4 | 604 | 604 | 6L9 | |
| V20 | 6X4 | 604 | 604 | 6L9 | |
| V21 | 6X4 | 604 | 604 | 6L9 | |
| V22 | 6X4 | 604 | 604 | 6L9 | |
| V23 | 6X4 | 604 | 604 | 6L9 | |
| V24 | 6X4 | 604 | 604 | 6L9 | |
| V25 | 6X4 | 604 | 604 | 6L9 | |
| V26 | 6X4 | 604 | 604 | 6L9 | |
| V27 | 6X4 | 604 | 604 | 6L9 | |
| V28 | 6X4 | 604 | 604 | 6L9 | |
| V29 | 6X4 | 604 | | | |

PARTS LIST AND DESCRIPTIONS (Continued)

| ITEM No. | RATING CAP. VOLT | HALL-CRAFTERS PART No. | REPLACEMENT DATA | | SOLAR PART No. | SPRAGUE PART No. | IDENTIFICATION CODES AND INSTALLATION NOTES |
|----------|---------------------|---------------------------|-----------------------|--------------------|-------------------|---------------------|---|
| | | | ALCANTARA PART No. | CONVUL PART No. | | | |
| C44 | .02 | 800 | 45912003 | F685-02 | ST-6-02 | TH-12 | Let. IF Screen Bypass |
| C45 | .05 | 800 | 45912003 | F685-02 | ST-6-05 | TH-13 | 1st IF Plate Decoupl. |
| C46 | .01 | 800 | 45912003 | F685-01 | ST-6-01 | TH-14 | AVC Filter |
| C47 | .01 | 800 | 45912003 | F685-05 | ST-4-05 | TH-15 | 2nd IF Cath. Bypass |
| C48 | .01 | 800 | 45912003 | F685-05 | ST-4-05 | TH-16 | 1st IF Screen Bypass |
| C49 | .02 | 800 | 45912003 | F685-01 | ST-6-01 | TH-17 | AVC Filter |
| C50 | .01 | 800 | 45912003 | F685-01 | ST-6-01 | TH-18 | 1st IF Plate Decoupl. |
| C51 | .01 | 800 | 45912003 | F685-01 | ST-6-01 | TH-11 | 1st IF Grid Filter |
| C52 | .02 | 800 | 45912003 | F685-01 | ST-6-02 | TH-12 | 2nd IF Cath. Bypass |
| C53 | .02 | 800 | 45912003 | F685-02 | ST-6-02 | TH-13 | 1st IF Screen Bypass |
| C54 | .02 | 800 | 45912003 | F685-02 | ST-6-02 | TH-14 | 2nd IF Plate Decoupl. |
| C55 | .02 | 800 | 45912003 | F685-02 | ST-6-02 | TH-15 | AVC Filter |
| C56 | .02 | 800 | 45912003 | F685-02 | ST-6-02 | TH-16 | 1st IF Screen Bypass |
| C57 | .02 | 800 | 45912003 | F685-02 | ST-6-02 | TH-17 | 2nd IF Plate Decoupl. |
| C58 | .02 | 800 | 45912003 | F685-02 | ST-6-02 | TH-18 | AVC Filter |
| C59 | .02 | 800 | 45912003 | F685-02 | ST-6-02 | TH-19 | 1st IF Screen Bypass |
| C60 | .02 | 800 | 45912003 | F685-02 | ST-6-02 | TH-20 | 2nd IF Plate Decoupl. |
| C61 | .02 | 800 | 45912003 | F685-02 | ST-6-02 | TH-21 | AVC Filter |
| C62 | .02 | 800 | 45912003 | F685-02 | ST-6-02 | TH-22 | 1st IF Screen Bypass |
| C63 | .02 | 800 | 45912003 | F685-02 | ST-6-02 | TH-23 | 2nd IF Plate Decoupl. |
| C64 | .02 | 800 | 45912003 | F685-02 | ST-6-02 | TH-24 | AVC Filter |

* No. 100FD variable capacitor in parallel.
Note: Not seen in e.i. models.

CONTROLS

| ITEM No. | RATING RESIST. WATTS | HALL-CRAFTERS PART No. | ALCANTARA PART No. | CONVUL PART No. | SOLAR PART No. | SPRAGUE PART No. | IDENTIFICATION CODES AND INSTALLATION NOTES |
|----------|-------------------------|---------------------------|-----------------------|--------------------|-------------------|---------------------|---|
| | | | | | | | |
| R1A | 1/2 W. Pot. | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-12 | Volume control |
| R1B | 1/2 W. Pot. | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-13 | Attach to R1A per instructions |
| R2 | 10KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-14 | Attach to R1A per instructions |

RESISTORS

| ITEM No. | RATING RESISTANCE WATTS | HALL-CRAFTERS PART No. | ALCANTARA PART No. | CONVUL PART No. | SOLAR PART No. | SPRAGUE PART No. | IDENTIFICATION CODES AND INSTALLATION NOTES |
|----------|----------------------------|---------------------------|-----------------------|--------------------|-------------------|---------------------|---|
| | | | | | | | |
| R3 | 4.7 MΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-12 | Crystal Oscillator Grid |
| R4 | 27KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-13 | Crystal Oscillator Voltage Dropout |
| R5 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-14 | Ant. Coil Shunt |
| R6 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-15 | Parasitic Suppressor |
| R7 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-16 | 1st IF Cathode |
| R8 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-17 | 1st IF Screen |
| R9 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-18 | 2nd IF Cathode |
| R10 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-19 | 2nd IF Screen |
| R11 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-20 | AVC Network |
| R12 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-21 | 1st IF Cathode |
| R13 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-22 | 1st IF Screen |
| R14 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-23 | 2nd IF Cathode |
| R15 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-24 | 2nd IF Screen |
| R16 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-25 | AVC Network |
| R17 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-26 | 1st IF Cathode |
| R18 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-27 | 1st IF Screen |
| R19 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-28 | 2nd IF Cathode |
| R20 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-29 | 2nd IF Screen |
| R21 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-30 | AVC Network |
| R22 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-31 | 1st IF Cathode |
| R23 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-32 | 1st IF Screen |
| R24 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-33 | 2nd IF Cathode |
| R25 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-34 | 2nd IF Screen |
| R26 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-35 | AVC Network |
| R27 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-36 | 1st IF Cathode |
| R28 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-37 | 1st IF Screen |
| R29 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-38 | 2nd IF Cathode |
| R30 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-39 | 2nd IF Screen |
| R31 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-40 | AVC Network |
| R32 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-41 | 1st IF Cathode |
| R33 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-42 | 1st IF Screen |
| R34 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-43 | 2nd IF Cathode |
| R35 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-44 | 2nd IF Screen |
| R36 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-45 | AVC Network |
| R37 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-46 | 1st IF Cathode |
| R38 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-47 | 1st IF Screen |
| R39 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-48 | 2nd IF Cathode |
| R40 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-49 | 2nd IF Screen |
| R41 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-50 | AVC Network |
| R42 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-51 | 1st IF Cathode |
| R43 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-52 | 1st IF Screen |
| R44 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-53 | 2nd IF Cathode |
| R45 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-54 | 2nd IF Screen |
| R46 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-55 | AVC Network |
| R47 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-56 | 1st IF Cathode |
| R48 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-57 | 1st IF Screen |
| R49 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-58 | 2nd IF Cathode |
| R50 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-59 | 2nd IF Screen |
| R51 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-60 | AVC Network |
| R52 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-61 | 1st IF Cathode |
| R53 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-62 | 1st IF Screen |
| R54 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-63 | 2nd IF Cathode |
| R55 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-64 | 2nd IF Screen |
| R56 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-65 | AVC Network |
| R57 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-66 | 1st IF Cathode |
| R58 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-67 | 1st IF Screen |
| R59 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-68 | 2nd IF Cathode |
| R60 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-69 | 2nd IF Screen |
| R61 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-70 | AVC Network |
| R62 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-71 | 1st IF Cathode |
| R63 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-72 | 1st IF Screen |
| R64 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-73 | 2nd IF Cathode |
| R65 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-74 | 2nd IF Screen |
| R66 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-75 | AVC Network |
| R67 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-76 | 1st IF Cathode |
| R68 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-77 | 1st IF Screen |
| R69 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-78 | 2nd IF Cathode |
| R70 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-79 | 2nd IF Screen |
| R71 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-80 | AVC Network |
| R72 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-81 | 1st IF Cathode |
| R73 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-82 | 1st IF Screen |
| R74 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-83 | 2nd IF Cathode |
| R75 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-84 | 2nd IF Screen |
| R76 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-85 | AVC Network |
| R77 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-86 | 1st IF Cathode |
| R78 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-87 | 1st IF Screen |
| R79 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-88 | 2nd IF Cathode |
| R80 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-89 | 2nd IF Screen |
| R81 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-90 | AVC Network |
| R82 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-91 | 1st IF Cathode |
| R83 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-92 | 1st IF Screen |
| R84 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-93 | 2nd IF Cathode |
| R85 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-94 | 2nd IF Screen |
| R86 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-95 | AVC Network |
| R87 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-96 | 1st IF Cathode |
| R88 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-97 | 1st IF Screen |
| R89 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-98 | 2nd IF Cathode |
| R90 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-99 | 2nd IF Screen |
| R91 | 100KΩ | 254549 | 210-137 | M-65-2 | ST-6-02 | TH-100 | AVC Network |

† Include AN Pri. winding
‡ Include AN Pri. winding
§ Include AN Pri. winding
¶ Includes AN Pri. winding

PARTS LIST AND DESCRIPTIONS (Continued)

| ITEM No. | RATING CAP. VOLT | HALL-CRAFTERS PART No. | ALCANTARA PART No. | CONVUL PART No. | SOLAR PART No. | SPRAGUE PART No. | IDENTIFICATION CODES AND INSTALLATION NOTES |
|----------|---------------------|---------------------------|-----------------------|--------------------|-------------------|---------------------|---|
| | | | | | | | |
| T1 | 117VAC | 800VAC | 5VAC | 6.3VAC | 4.7A | TH-12 | Let. IF Screen Bypass |
| T2 | 117VAC | 800VAC | 5VAC | 6.3VAC | 4.7A | TH-13 | 1st IF Plate Decoupl. |
| T3 | 117VAC | 800VAC | 5VAC | 6.3VAC | 4.7A | TH-14 | AVC Filter |
| T4 | 117VAC | 800VAC | 5VAC | 6.3VAC | 4.7A | TH-15 | 2nd IF Cath. Bypass |
| T5 | 117VAC | 800VAC | 5VAC | 6.3VAC | 4.7A | TH-16 | 1st IF Screen Bypass |
| T6 | 117VAC | 800VAC | 5VAC | 6.3VAC | 4.7A | TH-17 | AVC Filter |
| T7 | 117VAC | 800VAC | 5VAC | 6.3VAC | 4.7A | | |

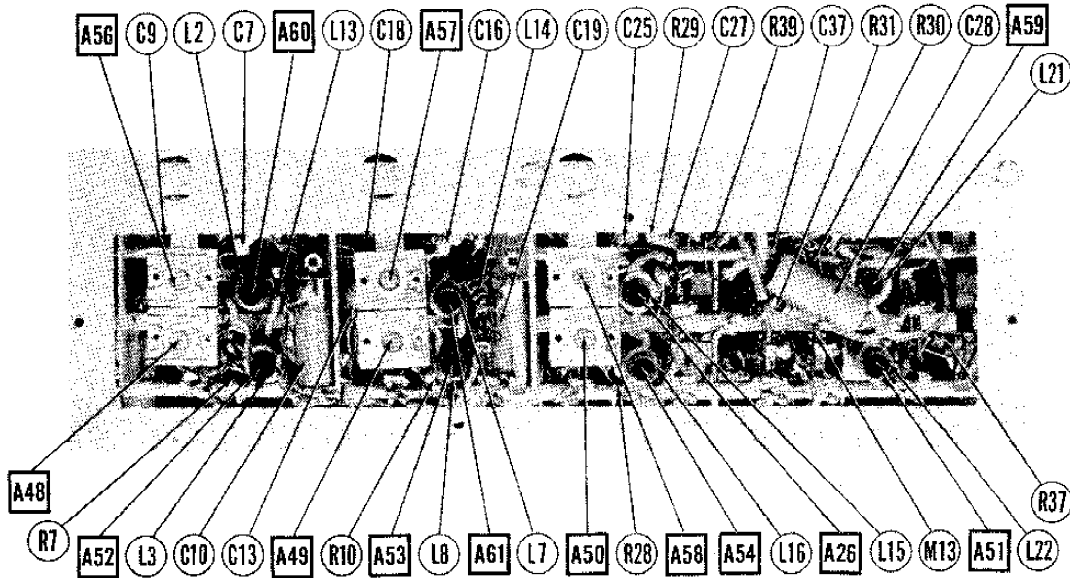
PARTS LIST AND DESCRIPTIONS (Continued)

DIAL LIGHTS

| ITEM No. | BASE TYPE | VOLTS | AMPS. | BEAD COLOR | REPLACEMENT DATA | | NOTES |
|----------|-----------|-------|-------|------------|-------------------------------|----------|----------|
| | | | | | HALL EFFECT SWITCHES PART No. | TYPE #54 | |
| 101 | Bayonet | 5-8V | 0.25A | St. Gr | | | Type #54 |
| 102 | | | | | | | |
| 103 | | | | | | | |

MISCELLANEOUS

| ITEM No. | PART NAME | HALL CHARACTER PART No. | NOTES |
|----------|---------------|-------------------------|-------|
| 104 | SWITCH | 56135167 | |
| 105 | Shanty | 60A1139 | |
| 106 | AMPL. CALIB. | 60A1138 | |
| 107 | 10188 Lighter | 60A1198 | |
| 108 | RECEPTOR | 60A2300 | |
| 109 | RECEPTOR | 60A2301 | |
| 110 | RECEPTOR | 60A2302 | |
| 111 | RECEPTOR | 60A2303 | |
| 112 | RECEPTOR | 60A2304 | |
| 113 | RECEPTOR | 60A2305 | |
| 114 | RECEPTOR | 60A2306 | |
| 115 | RECEPTOR | 60A2307 | |
| 116 | RECEPTOR | 60A2308 | |
| 117 | RECEPTOR | 60A2309 | |
| 118 | RECEPTOR | 60A2310 | |
| 119 | RECEPTOR | 60A2311 | |
| 120 | RECEPTOR | 60A2312 | |
| 121 | RECEPTOR | 60A2313 | |
| 122 | RECEPTOR | 60A2314 | |
| 123 | RECEPTOR | 60A2315 | |
| 124 | RECEPTOR | 60A2316 | |
| 125 | RECEPTOR | 60A2317 | |
| 126 | RECEPTOR | 60A2318 | |
| 127 | RECEPTOR | 60A2319 | |
| 128 | RECEPTOR | 60A2320 | |
| 129 | RECEPTOR | 60A2321 | |
| 130 | RECEPTOR | 60A2322 | |
| 131 | RECEPTOR | 60A2323 | |
| 132 | RECEPTOR | 60A2324 | |
| 133 | RECEPTOR | 60A2325 | |
| 134 | RECEPTOR | 60A2326 | |
| 135 | RECEPTOR | 60A2327 | |
| 136 | RECEPTOR | 60A2328 | |
| 137 | RECEPTOR | 60A2329 | |
| 138 | RECEPTOR | 60A2330 | |
| 139 | RECEPTOR | 60A2331 | |
| 140 | RECEPTOR | 60A2332 | |
| 141 | RECEPTOR | 60A2333 | |
| 142 | RECEPTOR | 60A2334 | |
| 143 | RECEPTOR | 60A2335 | |
| 144 | RECEPTOR | 60A2336 | |
| 145 | RECEPTOR | 60A2337 | |
| 146 | RECEPTOR | 60A2338 | |
| 147 | RECEPTOR | 60A2339 | |
| 148 | RECEPTOR | 60A2340 | |
| 149 | RECEPTOR | 60A2341 | |
| 150 | RECEPTOR | 60A2342 | |
| 151 | RECEPTOR | 60A2343 | |
| 152 | RECEPTOR | 60A2344 | |
| 153 | RECEPTOR | 60A2345 | |
| 154 | RECEPTOR | 60A2346 | |
| 155 | RECEPTOR | 60A2347 | |
| 156 | RECEPTOR | 60A2348 | |
| 157 | RECEPTOR | 60A2349 | |
| 158 | RECEPTOR | 60A2350 | |
| 159 | RECEPTOR | 60A2351 | |
| 160 | RECEPTOR | 60A2352 | |
| 161 | RECEPTOR | 60A2353 | |
| 162 | RECEPTOR | 60A2354 | |
| 163 | RECEPTOR | 60A2355 | |
| 164 | RECEPTOR | 60A2356 | |
| 165 | RECEPTOR | 60A2357 | |
| 166 | RECEPTOR | 60A2358 | |
| 167 | RECEPTOR | 60A2359 | |
| 168 | RECEPTOR | 60A2360 | |
| 169 | RECEPTOR | 60A2361 | |
| 170 | RECEPTOR | 60A2362 | |
| 171 | RECEPTOR | 60A2363 | |
| 172 | RECEPTOR | 60A2364 | |
| 173 | RECEPTOR | 60A2365 | |
| 174 | RECEPTOR | 60A2366 | |
| 175 | RECEPTOR | 60A2367 | |
| 176 | RECEPTOR | 60A2368 | |
| 177 | RECEPTOR | 60A2369 | |
| 178 | RECEPTOR | 60A2370 | |
| 179 | RECEPTOR | 60A2371 | |
| 180 | RECEPTOR | 60A2372 | |
| 181 | RECEPTOR | 60A2373 | |
| 182 | RECEPTOR | 60A2374 | |
| 183 | RECEPTOR | 60A2375 | |
| 184 | RECEPTOR | 60A2376 | |
| 185 | RECEPTOR | 60A2377 | |
| 186 | RECEPTOR | 60A2378 | |
| 187 | RECEPTOR | 60A2379 | |
| 188 | RECEPTOR | 60A2380 | |
| 189 | RECEPTOR | 60A2381 | |
| 190 | RECEPTOR | 60A2382 | |
| 191 | RECEPTOR | 60A2383 | |
| 192 | RECEPTOR | 60A2384 | |
| 193 | RECEPTOR | 60A2385 | |
| 194 | RECEPTOR | 60A2386 | |
| 195 | RECEPTOR | 60A2387 | |
| 196 | RECEPTOR | 60A2388 | |
| 197 | RECEPTOR | 60A2389 | |
| 198 | RECEPTOR | 60A2390 | |
| 199 | RECEPTOR | 60A2391 | |
| 200 | RECEPTOR | 60A2392 | |
| 201 | RECEPTOR | 60A2393 | |
| 202 | RECEPTOR | 60A2394 | |
| 203 | RECEPTOR | 60A2395 | |
| 204 | RECEPTOR | 60A2396 | |
| 205 | RECEPTOR | 60A2397 | |
| 206 | RECEPTOR | 60A2398 | |
| 207 | RECEPTOR | 60A2399 | |
| 208 | RECEPTOR | 60A2400 | |
| 209 | RECEPTOR | 60A2401 | |
| 210 | RECEPTOR | 60A2402 | |
| 211 | RECEPTOR | 60A2403 | |
| 212 | RECEPTOR | 60A2404 | |
| 213 | RECEPTOR | 60A2405 | |
| 214 | RECEPTOR | 60A2406 | |
| 215 | RECEPTOR | 60A2407 | |
| 216 | RECEPTOR | 60A2408 | |
| 217 | RECEPTOR | 60A2409 | |
| 218 | RECEPTOR | 60A2410 | |
| 219 | RECEPTOR | 60A2411 | |
| 220 | RECEPTOR | 60A2412 | |
| 221 | RECEPTOR | 60A2413 | |
| 222 | RECEPTOR | 60A2414 | |
| 223 | RECEPTOR | 60A2415 | |
| 224 | RECEPTOR | 60A2416 | |
| 225 | RECEPTOR | 60A2417 | |
| 226 | RECEPTOR | 60A2418 | |
| 227 | RECEPTOR | 60A2419 | |
| 228 | RECEPTOR | 60A2420 | |
| 229 | RECEPTOR | 60A2421 | |
| 230 | RECEPTOR | 60A2422 | |
| 231 | RECEPTOR | 60A2423 | |
| 232 | RECEPTOR | 60A2424 | |
| 233 | RECEPTOR | 60A2425 | |
| 234 | RECEPTOR | 60A2426 | |
| 235 | RECEPTOR | 60A2427 | |
| 236 | RECEPTOR | 60A2428 | |
| 237 | RECEPTOR | 60A2429 | |
| 238 | RECEPTOR | 60A2430 | |
| 239 | RECEPTOR | 60A2431 | |
| 240 | RECEPTOR | 60A2432 | |
| 241 | RECEPTOR | 60A2433 | |
| 242 | RECEPTOR | 60A2434 | |
| 243 | RECEPTOR | 60A2435 | |
| 244 | RECEPTOR | 60A2436 | |
| 245 | RECEPTOR | 60A2437 | |
| 246 | RECEPTOR | 60A2438 | |
| 247 | RECEPTOR | 60A2439 | |
| 248 | RECEPTOR | 60A2440 | |
| 249 | RECEPTOR | 60A2441 | |
| 250 | RECEPTOR | 60A2442 | |
| 251 | RECEPTOR | 60A2443 | |
| 252 | RECEPTOR | 60A2444 | |
| 253 | RECEPTOR | 60A2445 | |
| 254 | RECEPTOR | 60A2446 | |
| 255 | RECEPTOR | 60A2447 | |
| 256 | RECEPTOR | 60A2448 | |
| 257 | RECEPTOR | 60A2449 | |
| 258 | RECEPTOR | 60A2450 | |
| 259 | RECEPTOR | 60A2451 | |
| 260 | RECEPTOR | 60A2452 | |
| 261 | RECEPTOR | 60A2453 | |
| 262 | RECEPTOR | 60A2454 | |
| 263 | RECEPTOR | 60A2455 | |
| 264 | RECEPTOR | 60A2456 | |
| 265 | RECEPTOR | 60A2457 | |
| 266 | RECEPTOR | 60A2458 | |
| 267 | RECEPTOR | 60A2459 | |
| 268 | RECEPTOR | 60A2460 | |
| 269 | RECEPTOR | 60A2461 | |
| 270 | RECEPTOR | 60A2462 | |
| 271 | RECEPTOR | 60A2463 | |
| 272 | RECEPTOR | 60A2464 | |
| 273 | RECEPTOR | 60A2465 | |
| 274 | RECEPTOR | 60A2466 | |
| 275 | RECEPTOR | 60A2467 | |
| 276 | RECEPTOR | 60A2468 | |
| 277 | RECEPTOR | 60A2469 | |
| 278 | RECEPTOR | 60A2470 | |
| 279 | RECEPTOR | 60A2471 | |
| 280 | RECEPTOR | 60A2472 | |
| 281 | RECEPTOR | 60A2473 | |
| 282 | RECEPTOR | 60A2474 | |
| 283 | RECEPTOR | 60A2475 | |
| 284 | RECEPTOR | 60A2476 | |
| 285 | RECEPTOR | 60A2477 | |
| 286 | RECEPTOR | 60A2478 | |
| 287 | RECEPTOR | 60A2479 | |
| 288 | RECEPTOR | 60A2480 | |
| 289 | RECEPTOR | 60A2481 | |
| 290 | RECEPTOR | 60A2482 | |
| 291 | RECEPTOR | 60A2483 | |
| 292 | RECEPTOR | 60A2484 | |
| 293 | RECEPTOR | 60A2485 | |
| 294 | RECEPTOR | 60A2486 | |
| 295 | RECEPTOR | 60A2487 | |
| 296 | RECEPTOR | 60A2488 | |
| 297 | RECEPTOR | 60A2489 | |
| 298 | RECEPTOR | 60A2490 | |
| 299 | RECEPTOR | 60A2491 | |
| 300 | RECEPTOR | 60A2492 | |
| 301 | RECEPTOR | 60A2493 | |
| 302 | RECEPTOR | 60A2494 | |
| 303 | RECEPTOR | 60A2495 | |
| 304 | RECEPTOR | 60A2496 | |
| 305 | RECEPTOR | 60A2497 | |
| 306 | RECEPTOR | 60A2498 | |
| 307 | RECEPTOR | 60A2499 | |
| 308 | RECEPTOR | 60A2500 | |



ALIGNMENT INSTRUCTIONS

IF ALIGNMENT

| | |
|--|--------------|
| Pre-set the front panel controls as follows: | |
| Receive/standby | Receive |
| Calib. Ital | Off |
| Noise Limiter | Off |
| Volume | Near Maximum |
| Reception | AM |
| Selectivity | Normal/Sharp |
| Sensitivity | Near Maximum |

| DUMMY ANTENNA | SIGNAL GENERATOR COUPLING | SIGNAL GENERATOR FREQUENCY | BAND SWITCH POS. | RADIO DIAL SETTING | OUTPUT METER | ADJUST | REMARKS |
|--|---|----------------------------|------------------|--------------------|-------------------|------------------------|----------------------------|
| 1. .1MFD | High side to Pin 1 (Grid) 7F8 (V4), Low side to chassis | 455KC | Band 1 | 1000KC | Across voice coil | A1, A2, A3, A4, A5, A6 | Adjust for maximum output. |
| 2. Set reception switch at "CW" and adjust A7 for 1000kc note. | | | | | | | |
| 3. Set selectivity control to crystal/broad. Turn A4 slowly in one direction across the resonant setting obtained above and "rock" the signal generator observing the dip in the output meter reading. The correct setting of A4 is in center of the observed dip. Set the signal generator at the weaker of the two peaks obtained on either side of zero beat and adjust A8 (crystal phasing trimmer) for the null. | | | | | | | |
| 4. Set selectivity control to crystal/sharp and A9 near minimum capacity. Slowly increase its capacity while "rocking" the signal generator and adjust for maximum output. It may be necessary to reduce the signal generator input and the receiver sensitivity to prevent overloading. After peaking A9, turn it in until a 2 db. drop in output occurs. | | | | | | | |
| 5. Tune signal generator to the exact crystal frequency and note output meter reading. Set selectivity control to crystal/broad position and note the drop in output reading. Switch to crystal/medium position and with A10 pre-set near minimum capacity, slowly increase its capacity, while "rocking" the signal generator, until output meter reads half way between output readings obtained in the sharp crystal and broad crystal positions. | | | | | | | |
| 6. Set reception switch to "AM" and the selectivity control to crystal/sharp and set signal generator to the exact crystal frequency. Switch to normal/sharp position and reset A1, A2, A3, A5, A6, and A11 for maximum output. | | | | | | | |
| 7. Set reception switch to "CW" and adjust A7 for zero beat. | | | | | | | |

| DUMMY ANTENNA | SIGNAL GENERATOR COUPLING | SIGNAL GENERATOR FREQUENCY | BAND SWITCH POS. | RADIO DIAL SETTING | OUTPUT METER | ADJUST | REMARKS |
|---|--|----------------------------|------------------|--------------------|-------------------|-------------------------|--|
| 8. .1MFD | High side to Pin 1 (Grid) 7F8 (V4), Low side to chassis. | 10.7MC (AM) (400V. MOD) | Band 3 | Mid Scale | Across voice coil | A12, A13, A14, A15, A16 | Adjust for maximum output. |
| 9. .1MFD | " | " | " | " | " | A17, A18 | Adjust for maximum output. Do not readjust A12 thru A16. |
| 10. Remove 400V. modulation and set reception control to "CW". Adjust A19 for zero beat. | | | | | | | |
| 11. Add 400V. modulation, turn reception control to "FM" and adjust A20 for maximum output. | | | | | | | |
| 12. Adjust A21 for the null or minimum indication on the output meter. Slowly tune signal generator down 13.790 and note the two maximum readings on the output meter. If the peaks are equal, the discriminator transformer is properly aligned. If not, it may be necessary to readjust A20 until reasonable balance is obtained. | | | | | | | |

Connect signal generator high side thru RFA dummy to A-1 on antenna terminal strip and place a jumper across the "A-2" and "V4" terminals. Use only enough signal from generator to give a 500 milliwatt output reading for best results. The RFA dummy antenna consists of a 200PF capacitor in series with a 200H. RF choke which is shunted by a 400K Ω capacitor in series with a 400 Ω carbon resistor.

| DUMMY ANTENNA | SIGNAL GENERATOR COUPLING | SIGNAL GENERATOR FREQUENCY | BAND SWITCH POS. | RADIO DIAL SETTING | OUTPUT METER | ADJUST | REMARKS |
|----------------------|--|----------------------------|------------------|--------------------|-------------------|--------------------|----------------------------|
| 13. RFA Dummy | High side to "A1" on Ant. terminal strip. Low side to chassis. | 1500KC | Band 1 | 1500KC | Across voice coil | A22, A23, A24, A25 | Adjust for maximum output. |
| 14. RFA Dummy | " | 800KC | " | 600KC | " | A26 | " |
| 15. RFA Dummy | " | 4.5MC | Band 2 | 4.5MC | " | A27, A28, A29 | " |
| 16. RFA Dummy | " | 2.0MC | " | 2.0MC | " | A30 | " |
| 17. RFA Dummy | " | 14.0MC | Band 3 | 14.0MC | " | A31, A32, A33, A34 | " |
| 18. RFA Dummy | " | 7.0MC | " | 7.0MC | " | A35, A36, A37, A38 | " |
| 19. RFA Dummy | " | 28.0MC | Band 4 | 28.0MC | " | A39, A40, A41, A42 | " |
| 20. RFA Dummy | " | 18.0MC | " | 18.0MC | " | A43, A44, A45, A46 | " |
| 21. 3000 carbon res. | High side thru 3000 to "A1". Low side to chassis. | 50.0MC | Band 5 | 50.0MC | " | A47, A48, A49, A50 | " |
| 22. 3000 carbon res. | " | 30.0MC | " | 30.0MC | " | A51, A52, A53, A54 | " |
| 23. 3000 carbon res. | " | 105KC | Band 6 | 105MC | " | A55, A56, A57, A58 | " |
| 24. 3000 carbon res. | " | 60KC | " | 60KC | " | A59, A60, A61, A62 | " |

VOLTAGE READINGS

| Item | Tube | Pin 1 | Pin 2 | Pin 3 | Pin 4 | Pin 5 | Pin 6 | Pin 7 | Pin 8 |
|------|------------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1 | 6C4 | 23VDC | 0V | 0V | 6.3VAC | 23VDC | -4VDC | 0V | |
| 2 | 6AG5 | 0V | 1.6VDC | 0V | 6.3VAC | 23.5VDC | 16.5VDC | 1.6VDC | |
| 3 | 6AG5 | -1.1VDC | 1.6VDC | 0V | 6.3VAC | 24.0VDC | 16.5VDC | 1.6VDC | |
| 4 | 7F8 | -9VDC | 0V | 8.5VDC | 4VDC | 0V | 12.5VDC | 6.3VAC | ±2.4VDC |
| 5 | 6SK7 | 0V | 6.3VAC | 0V | 0V | 8.2VDC | 16.0VDC | 0V | 24.0VDC |
| 6 | 6SQ7 | 0V | 6.3VAC | 2.8VDC | 0V | 2.8VDC | 14.0VDC | 0V | 24.0VDC |
| 7 | 7H7 | 0V | 22.5VDC | 30.0VDC | 0V | 0V | 0V | 7.6VDC | 6.3VAC |
| 8 | 7H7 | 0V | 50VDC | 50VDC | 0V | 0V | -5VDC | 0V | 6.3VAC |
| 9 | 6E6 | 0V | 0V | -5.7VDC | 1.8VDC | -1.8VDC | 0V | 6.3VAC | 0V |
| 10 | 6M4 | 0V | 14.0VDC | 0V | 0V | 0V | 16.5VDC | 24.0VDC | 6.3VAC |
| 11 | 6E6 | 0V | 0V | -1.1VDC | -1.1VDC | 0V | -1.2VDC | 4.3VAC | 0V |
| 12 | 6SL6GT | 0V | 65VDC | 1.8VDC | 0V | 86VDC | 6VDC | 6.3VAC | 0V |
| 13 | 6V6GT | 0V | 0V | 27.0VDC | 24.0VDC | 0V | 0V | 6.3VAC | 14.5VDC |
| 14 | 6V6GT | 0V | 0V | 27.0VDC | 24.0VDC | 0V | 0V | 6.3VAC | 14.5VDC |
| 15 | UD3/VR-100 | 14.5VDC | 0V | 15.5VDC | 0V | 15.5VDC | 0V | 14.5VDC | 0V |
| 16 | 5Y4G | 0V | 23.0VDC | 0V | 27.0VAC | 0V | 27.0VAC | 23.0VDC | 27.0VDC |

‡ TAKEN WITH VACUUM TUBE VOLTMETER.

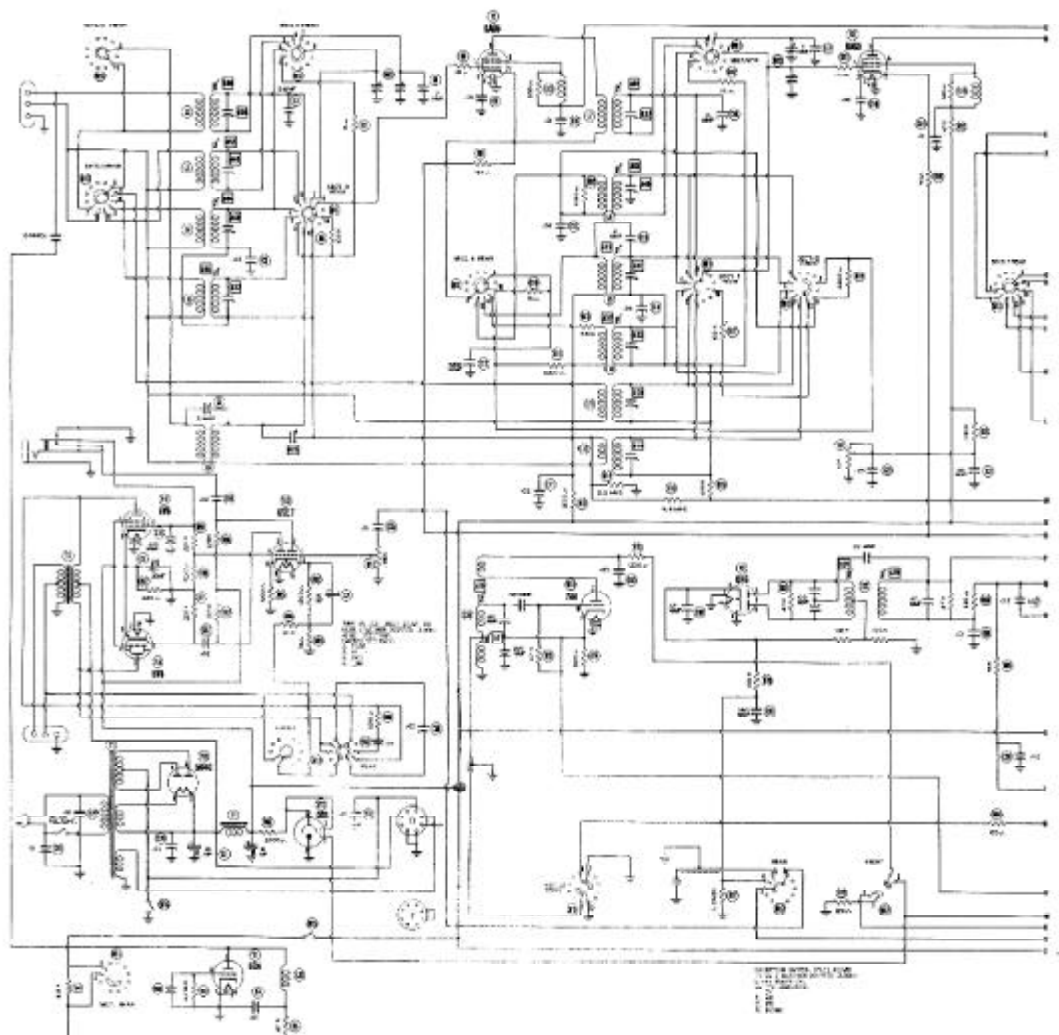
RESISTANCE READINGS

| Item | Tube | Pin 1 | Pin 2 | Pin 3 | Pin 4 | Pin 5 | Pin 6 | Pin 7 | Pin 8 |
|------|------------|----------|--------|---------|----------|--------|----------|--------|--------|
| 1 | 6C4 | *500KΩ | 0Ω | 0Ω | .2Ω | 500KΩ | 4.7 Meg. | 0Ω | |
| 2 | 6AG5 | 2. Meg. | Inf. | 0Ω | .2Ω | *3.5KΩ | *3.5KΩ | 170Ω | |
| 3 | 6AG5 | 1.3 Meg. | 1.5Ω | 0Ω | .2Ω | *1.2KΩ | *47KΩ | 170Ω | |
| 4 | 7F8 | 2.2 Meg. | 0Ω | *2.5KΩ | 100Ω | 0Ω | *30Ω | .2Ω | 10Ω |
| 5 | 6SK7 | 0Ω | .2Ω | 0Ω | *2.1Meg. | 270Ω | *30Ω | 0Ω | *1.5KΩ |
| 6 | 6SQ7 | 0Ω | .2Ω | 230Ω | 2.5 Meg. | 530Ω | 60KΩ | 0Ω | *1.5KΩ |
| 7 | 7H7 | 0Ω | *11KΩ | *50KΩ | 0Ω | 0Ω | 2.2 Meg. | 1.0KΩ | .2Ω |
| 8 | 7H7 | 0Ω | *50 KΩ | *52KΩ | 0Ω | 0Ω | 24.0KΩ | 0Ω | .2Ω |
| 9 | 6E6 | 0Ω | 0Ω | 120KΩ | 270KΩ | 120KΩ | Inf. | .2Ω | 0Ω |
| 10 | 6M4 | 0V | *180KΩ | 10Ω | Inf. | Inf. | 65KΩ | 5KΩ | .2Ω |
| 11 | 6E6 | 0Ω | 0Ω | 2.2Meg. | 1.7 Meg. | Inf. | 150Ω | 2.2KΩ | 10Ω |
| 12 | 6SL6GT | 1 Meg. | *220KΩ | 1.5KΩ | 8.5KΩ | 22.0KΩ | 1.2KΩ | .2Ω | 0Ω |
| 13 | 6V6GT | 0Ω | 0Ω | *200Ω | *250Ω | 220KΩ | 10KΩ | .2Ω | 220Ω |
| 14 | 6V6GT | 0Ω | 0Ω | *250Ω | *250Ω | 220KΩ | 5Ω | .2Ω | 220Ω |
| 15 | UD3/VR-100 | 2.2KΩ | 0Ω | *2.2KΩ | 220KΩ | *2.2KΩ | Inf. | *5.2KΩ | Inf. |
| 16 | 5Y4G | Inf. | 50KΩ | Inf. | 6Ω | Inf. | 5Ω | 55KΩ | 50KΩ |

‡ VOLTAGE AND RESISTANCE READINGS TAKEN IN FA POSITION.

* Measured from pin 2 of V16 (6U4G)
 † Taken in lead 2 position.

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



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WIRE COLOR CODE
 BROWN
 BLACK
 RED
 BLUE
 GREEN
 YELLOW
 PURPLE
 PINK
 LIGHT BLUE
 LIGHT GREEN
 LIGHT YELLOW
 LIGHT PURPLE
 LIGHT PINK
 LIGHT LIGHT BLUE
 LIGHT LIGHT GREEN
 LIGHT LIGHT YELLOW
 LIGHT LIGHT PURPLE
 LIGHT LIGHT PINK
 LIGHT LIGHT LIGHT BLUE
 LIGHT LIGHT LIGHT GREEN
 LIGHT LIGHT LIGHT YELLOW
 LIGHT LIGHT LIGHT PURPLE
 LIGHT LIGHT LIGHT PINK

VOLTAGE READINGS

| Item | Tube | Pin 1 | Pin 2 | Pin 3 | Pin 4 | Pin 5 | Pin 6 | Pin 7 | Pin 8 |
|------|------------|---------|--------|---------|---------|---------|---------|--------|---------|
| 1 | 6C4 | 23VDC | 0V | 0V | 6.3VAC | 23VDC | -14VDC | 0V | |
| 2 | 6AG5 | 0V | 1.6VDC | 0V | 6.3VAC | 235VDC | 165VDC | 1.6VDC | |
| 3 | 6AG5 | -1.1VDC | 1.6VDC | 0V | 6.3VAC | 240VDC | 170VDC | 1.6VDC | |
| 4 | 7F8 | -9VDC | 0V | 83VDC | 1VDC | 0V | 125VDC | 6.3VAC | ±2.4VDC |
| 5 | 6SK7 | 0V | 6.3VAC | 0V | 0V | 8.3VDC | 160VDC | 0V | 240VDC |
| 6 | 6SQ7 | 0V | 6.3VAC | 2.8VDC | 0V | 2.8VDC | 140VDC | 0V | 240VDC |
| 7 | 7H7 | 0V | 225VDC | 300VDC | 0V | 0V | 0V | 7.6VDC | 6.3VAC |
| 8 | 7H7 | 0V | 50VDC | 50VDC | 0V | 0V | -1.5VDC | 0V | 6.3VAC |
| 9 | 6E6 | 0V | 0V | -5.7VDC | 1.8VDC | -1.8VDC | 0V | 6.3VAC | 0V |
| 10 | 6M4 | 0V | 140VDC | 0V | 0V | 0V | 16.5VDC | 24VDC | 6.3VAC |
| 11 | 6E6 | 0V | 0V | -1.1VDC | -1.1VDC | 0V | -1.2VDC | 4.3VAC | 0V |
| 12 | 6SL6GT | 0V | 65VDC | 18VDC | 0V | 86VDC | 6VDC | 6.3VAC | 0V |
| 13 | 6V6GT | 0V | 0V | 270VDC | 240VDC | 0V | 0V | 6.3VAC | 14.5VDC |
| 14 | 6V6GT | 0V | 0V | 270VDC | 240VDC | 0V | 0V | 6.3VAC | 14.5VDC |
| 15 | UD3/VR-100 | 145VDC | 0V | 155VDC | 0V | 155VDC | 0V | 145VDC | 0V |
| 16 | 5Y4G | 0V | 230VDC | 0V | 270VAC | 0V | 270VAC | 250VDC | 230VDC |

‡ TAKEN WITH VACUUM TUBE VOLTMETER.

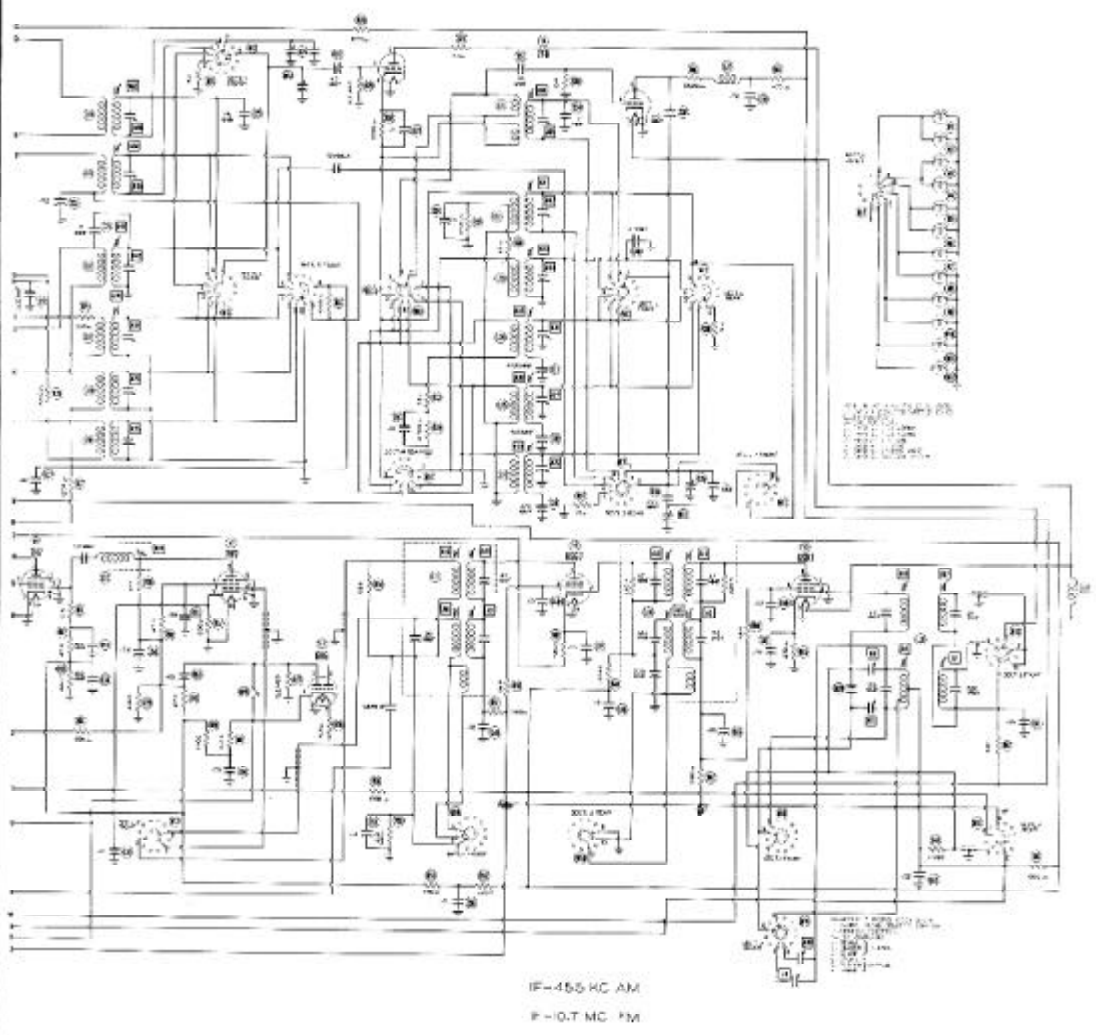
RESISTANCE READINGS

| Item | Tube | Pin 1 | Pin 2 | Pin 3 | Pin 4 | Pin 5 | Pin 6 | Pin 7 | Pin 8 |
|------|------------|----------|--------|---------|----------|--------|----------|--------|--------|
| 1 | 6C4 | *500KΩ | 0Ω | 0Ω | .2Ω | 500KΩ | 4.7 Meg. | 0Ω | |
| 2 | 6AG5 | 2. Meg. | Inf. | 0Ω | .2Ω | *3.5KΩ | *3.5KΩ | 170Ω | |
| 3 | 6AG5 | 1.3 Meg. | 1.5Ω | 0Ω | .2Ω | *1.2KΩ | *47KΩ | 170Ω | |
| 4 | 7F8 | 2.2 Meg. | 0Ω | *20KΩ | 100Ω | 0Ω | *30Ω | .2Ω | 10Ω |
| 5 | 6SK7 | 0Ω | .2Ω | 0Ω | *2.1Meg. | 270Ω | *30Ω | 0Ω | *1.5KΩ |
| 6 | 6SQ7 | 0Ω | .2Ω | 230Ω | 2.5 Meg. | 530Ω | 60KΩ | 0Ω | *1.5KΩ |
| 7 | 7H7 | 0Ω | *11KΩ | *50KΩ | 0Ω | 0Ω | 2.2 Meg. | 1.0KΩ | .2Ω |
| 8 | 7H7 | 0Ω | *50 KΩ | *52KΩ | 0Ω | 0Ω | 240KΩ | 0Ω | .2Ω |
| 9 | 6E6 | 0Ω | 0Ω | 120KΩ | 270KΩ | 120KΩ | Inf. | .2Ω | 0Ω |
| 10 | 6M4 | 0V | *180KΩ | 10Ω | Inf. | Inf. | 65KΩ | 5KΩ | .2Ω |
| 11 | 6E6 | 0Ω | 0Ω | 2.2Meg. | 1.7 Meg. | Inf. | 150Ω | 2.2Ω | 10Ω |
| 12 | 6SL6GT | 1 Meg. | *220KΩ | 1.5KΩ | 8.5KΩ | 220KΩ | 1.2KΩ | .2Ω | 0Ω |
| 13 | 6V6GT | 0Ω | 0Ω | *200Ω | *250Ω | 220KΩ | 10KΩ | .2Ω | 200Ω |
| 14 | 6V6GT | 0Ω | 0Ω | *250Ω | *250Ω | 220KΩ | 5Ω | .2Ω | 200Ω |
| 15 | UD3/VR-100 | 2.2KΩ | 0Ω | *2.2KΩ | 220KΩ | *2.2KΩ | Inf. | *5.2KΩ | Inf. |
| 16 | 5Y4G | Inf. | 50KΩ | Inf. | 6Ω | Inf. | 5Ω | 55KΩ | 50KΩ |

‡ VOLTAGE AND RESISTANCE READINGS TAKEN IN F4 POSITION.

* Measured from pin 2 of V16 (6U4G)
 † Taken in lead 2 position.

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



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