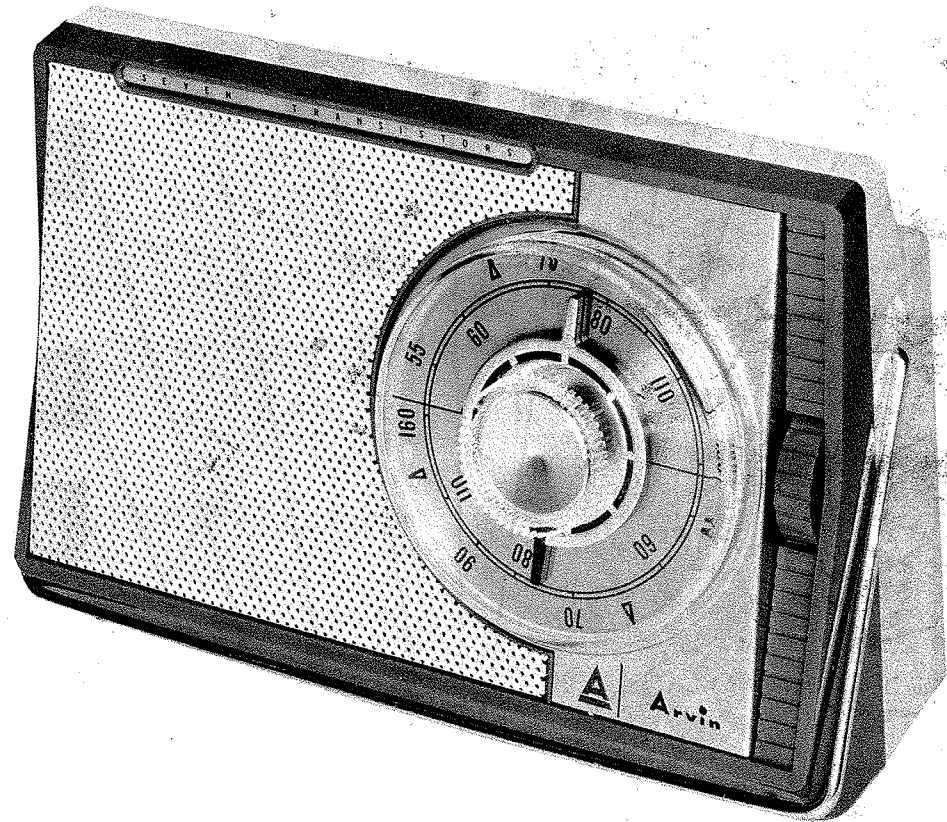




ARVIN MODELS 60R33, 60R35,  
60R38, 60R58 (Ch. 1.47601, 1.50300)



ARVIN MODELS 60R33, 60R35,  
60R38, 60R58 (Ch. 1.47601, 1.50300)

|              |   |        |   |
|--------------|---|--------|---|
| TRADE NAME   | Arvin Models 60R33, 60R35, 60R38 (Ch. 1.47601); 60R58 (Ch. 1.50300) |        |   |
| MANUFACTURER | Arvin Industries, Inc., Columbus, Indiana                           |        |   |
| TYPE SET     | Battery Operated Transistorized Portable AM Receiver                |        |   |
| POWER SUPPLY | 6 Volts DC  | RATING | 8MA @ 6 Volts DC (No Signal, Min. Volume) |
| TUNING RANGE | BROADCAST 540 - 1670KC  |        | 20MA @ 6 Volts DC (Signal, Normal Volume) |

## ALIGNMENT INSTRUCTIONS

### ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

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

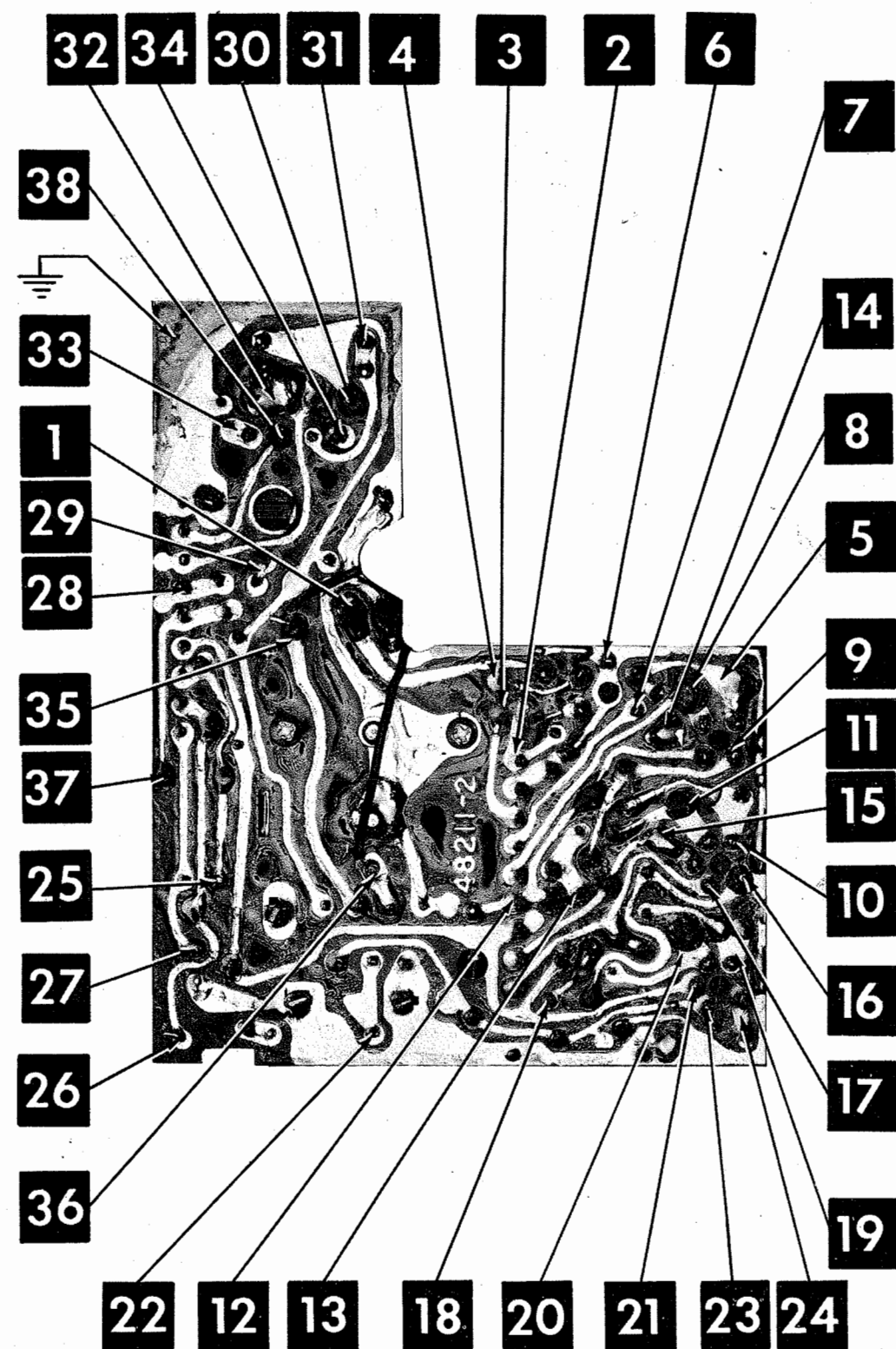
Suggested Alignment Tools: A1, A2, A3 .. GENERAL CEMENT #5009, 8195, 8274, 8275, 8728, 8729, 8987, 8988, 8989  
WALSCO #2515, 2531, 2532  
A4, A5 ..... GENERAL CEMENT #5004, 5009, 8195, 8274, 8275, 8607, 8728, 8987, 8988,  
8989, 9291  
WALSCO #2515, 2520, 2522, 2523, 2531, 2532, 2534, 2537, 2538  
A6 ..... GENERAL CEMENT #8282, 8606, 8606-L, 9295, 9440  
WALSCO #2528, 2543, 2544, 2545

|    | SIGNAL GENERATOR COUPLING  | SIGNAL GENERATOR FREQUENCY | RADIO DIAL SETTING     | OUTPUT METER      | ADJUST     | REMARKS  |
|----|--|----------------------------|------------------------|-------------------|------------|--|
| 1. | High side thru .05mfd to antenna stator of tuning gang. Low side to chassis. | 455KC (400v Mod.)          | Tuning gang fully open | Across voice coil | A1, A2, A3 | Adjust for maximum output.   |
| 2. | Loop   | 1670KC                     | "                      | "                 | A4         | Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output. |
| 3. | "  | 1400KC                     | 1400KC Signal          | "                 | A5         | "  |
| 4. | "  | 600KC                      | 600KC Signal           | "                 | A6         | Adjust for maximum output while rocking tuning gang.   |

## 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 KF168

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PARTS LIST AND DESCRIPTIONS

TRANSISTORS

| ITEM No. | ORIG. TYPE | USE              | REPLACEMENT DATA |                   | NOTES |
|----------|------------|------------------|------------------|-------------------|-------|
|          |            |                  | RCA PART No.     | SYLVANIA PART No. |       |
| X1       | 2N194A     | Converter        | 2N1386           | 2N194             | NPN   |
| X2       | 2N233A †   | 1st IF Amplifier | 2N1387           | 2N233A            | NPN   |
| X3       | 2N101      | 2nd IF Amplifier | 2N1387           | 2N101             | NPN   |
| X4       | 2N101      | AF Amplifier     | 2N1387           | 2N101             | NPN   |
| X5       | 2N101      | Driver           | 2N1387           | 2N101             | NPN   |
| X6       | 2N101 *    | Output           | 2N1387           | 2N101             | NPN   |
| X7       | 2N101 *    | Output           | 2N1387           | 2N101             | NPN   |

† Type 2N194 used in Chassis 1. 50300

ELECTROLYTIC CAPACITORS

| ITEM No. | RATING CAP. | VOLT. | REMARKS | REPLACEMENT DATA |                         |                  | NOTES   |
|----------|-------------|-------|---------|------------------|-------------------------|------------------|---------|
|          |             |       |         | AEROVOX PART No. | CORNELL-DUBIER PART No. | MALLORY PART No. |         |
| C1       | 10          | 10    | 44398-4 | PTT10010         | NLW10-15                | TT12X10          | ML10-15 |
| C2       | 10          | 10    | 44398-4 | PTT10010         | NLW10-15                | TT12X10          | ML10-15 |
| C3A      | 80          | 12    | 44397-3 | BCD10X8080       | ECFAN14                 |                  | VL-2350 |
| C4       | 12          | 12    |         |                  |                         |                  | Note 1  |

Note 1. C3A is not used in Chassis 1. 50300 (C3 Part #44279-8).

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 |                         |                  | SPRAGUE PART No. |
|----------|---------|---------|------------------|-------------------------|------------------|------------------|
|          |         |         | AEROVOX PART No. | CORNELL-DUBIER PART No. | ELMENDO PART No. |                  |
| C4       | 20000   |         | BPD-02           | DD-203                  | CCD-203          | B-120            |
| C5       | 680     | 10%     | 1469-00068       | BYB682                  | CM-19B-681K      | MS-388           |
| C6       | 16 NPO  | 10%     | NPO-DI 15        | DTZ-15                  | CCD-150          | CNO-415          |
| C7A      | 20000   |         | BPD-2X02         | DD3-203                 | CCD-203          | B-120            |
| C8       | 470     | 10%     | 1469-00047       | BYB47                   | CM-19B-471K      | MS-347           |
| C9       | 16 NPO  | 10%     | NPO-DI 15        | DTZ-15                  | CCD-203          | B-120            |
| C10A     | 20000   |         | BPD-2X02         | DD3-103                 | CCD-203          | B-120            |
| C11      | 470     | 10%     | 1469-00047       | BYB47                   | CM-19B-471K      | MS-347           |
| C12      | 20000   |         | BPD-02           | DD-203                  | CCD-203          | B-120            |
| C13      | 1mfd 3V |         |                  | UK-105                  | CCD-203          | B-120            |
| C14      | 10000   |         | BPD-01           | DD-103                  | CCD-103          | B-110            |

PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (DRIVER)

| ITEM No. | TURNS RATIO | REPLACEMENT DATA |                 |                     | NOTES |
|----------|-------------|------------------|-----------------|---------------------|-------|
|          |             | ARVIN PART No.   | Meritt PART No. | Thorndicon PART No. |       |
| T1       | 4           | 45604-7          |                 |                     |       |

SPEAKER

| ITEM No. | TYPE                  | REPLACEMENT DATA |               | NOTES                      |
|----------|-----------------------|------------------|---------------|----------------------------|
|          |                       | ARVIN PART No.   | QUAM PART No. |                            |
| SF1      | SIZE FIELD V. C. IMP. |                  |               |                            |
|          | 3 1/2" 5"             | 48523-4          | 3A05230       | * Used in Chassis 1. 50300 |

BATTERIES

| ITEM No. | VOLTAGE | ARVIN PART No. | REPLACEMENT DATA  |   |   | NOTES           |
|----------|---------|----------------|---|---|---|-----------------|
|          |         |                | BURGESS   | EVEREADY  | MALLORY   |                 |
| M1       | 1.5V    |                | "A" "B" "C" "D" "E" "F" "G" "H" "I" "J" "K" "L" "M" "N" "O" "P" "Q" "R" "S" "T" "U" "V" "W" "X" "Y" "Z" | "A" "B" "C" "D" "E" "F" "G" "H" "I" "J" "K" "L" "M" "N" "O" "P" "Q" "R" "S" "T" "U" "V" "W" "X" "Y" "Z" | "A" "B" "C" "D" "E" "F" "G" "H" "I" "J" "K" "L" "M" "N" "O" "P" "Q" "R" "S" "T" "U" "V" "W" "X" "Y" "Z" | * Four required |

CRYSTAL DIODES

| ITEM No. | ORIG. TYPE | REPLACEMENT DATA |                   | NOTES                                       |
|----------|------------|------------------|-------------------|---|
|          |            | ARVIN PART No.   | SYLVANIA PART No. |   |
| M2       | IN235      | 49659            | IN295             |   |
| M3       | IN235      | 49659            | IN295             | Overload & AVC (Pigtail) Detector (Pigtail) |

MISCELLANEOUS

| ITEM No. | PART NAME                             | ARVIN PART No.      | NOTES   |
|----------|---------------------------------------|---------------------|---|
| M4       | Tuning Cap. Tuning Cap. Printed Board | 48346 48304 48211-2 | 2 Gang, Chassis 1. 47601 2 Gang, Chassis 1. 50300 |

CABINETS & CABINET PARTS

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

| NAME    | PART NO.  | DESCRIPTION  |
|---------|-----------|--|
| Knob    | 46807-29  | Station Indicator, Black, Models 60R33, 60R35, 60R38   |
| Knob    | 46659     | Tuning, Models 60R33, 60R35, 60R38                     |
| Knob    | 47898-188 | Volume, Models 60R33, 60R35, 60R38                     |
| Knob    | 47898-115 | Volume, Slate Blue, Models 60R33, 60R35, 60R38         |
| Knob    | 47898-33  | Volume, Flame, Models 60R33, 60R35, 60R38              |
| Cabinet | 47900-33  | Front Assembly, Flame, Models 60R33, 60R35, 60R38      |
| Cabinet | 47900-115 | Front Assembly, Slate Blue, Models 60R33, 60R35, 60R38 |
| Cabinet | 47900-188 | Front Assembly, Taupe, Models 60R33, 60R35, 60R38      |
| Cabinet | 46811-135 | Back, Moonstone, Models 60R33, 60R35, 60R38            |
| Cabinet | 46811-208 | Back, Sandstone, Models 60R33, 60R35, 60R38            |
| Handle  | 47891-1   | Chrome, Models 60R33, 60R35, 60R38                     |
| Knob    | 47891-2   | Chrome, Models 60R33, 60R35, 60R38                     |
| Knob    | 48216     | Station Indicator, Model 60R58                         |
| Knob    | 47731     | Tuning, Model 60R58                                    |
| Cabinet | 48215     | Tuning, Model 60R58                                    |
| Cabinet | 49054-198 | Model 60R58  |

WIRING DATA

General-use Unshielded Hook-up Wire ..... Use BELDEN No. 8530 (Solid) Available in Ten Colors 8534 (Stranded) Available in Ten Colors

CONTROLS

| ITEM No. | RATING RESIST-ANCE | WATTS | REPLACEMENT DATA |                    |                    |                  | INSTALLATION NOTES  |
|----------|--------------------|-------|------------------|--------------------|--------------------|------------------|---------------------|
|          |                    |       | ARVIN PART No.   | CENTRALAB PART No. | CLAROSTAT PART No. | MALLORY PART No. |                     |
| R1A      | 2200Ω              | 1/4   | 48800-1 ①        |                    |                    |                  | Volume Power Off-On |

① Part #47500-9 used in Chassis 1. 50300.

RESISTORS (IRC or EQUIVALENT)  
All wattages 1/2 watt, or less, unless otherwise listed.

| ITEM No. | RATING | REMARKS | ITEM No. | RATING | REMARKS |
|----------|--------|---------|----------|--------|---------|
| R2       | 2200Ω  |         | R8       | 2200Ω  |         |
| R3       | 4700Ω  |         | R9       | 1800Ω  |         |
| R4       | 330Ω   |         | R7       | 100Ω   |         |

COMPONENT COMBINATIONS

| ITEM No. | USE                  | DESCRIPTION  | ARVIN PART No. | REPLACEMENT DATA |
|----------|----------------------|--|----------------|------------------|
| K1       | RF-IF Circuit        | 4700mmf, 20000mmf, 2200Ω, 2200Ω, 3300Ω, 3900Ω, 18K, 27K, 47K | 48000-8        |                  |
| K2       | Bias & Dec. Circuits | (3) 100Ω, 1800Ω, 3300Ω, (3) 4700Ω, 47K, 39K                  | 48000-7        |                  |

COILS (RF-IF)

| ITEM No. | USE                 | REPLACEMENT DATA |                 |                 |                  | NOTES |
|----------|---------------------|------------------|-----------------|-----------------|------------------|-------|
|          |                     | ARVIN PART No.   | Meritt PART No. | Miller PART No. | Stencor PART No. |       |
| L1       | Loopstick Osc. Coil | 45534-13 ①       |                 |                 |                  |       |
| L2       | 1st IF Trans.       | 44855-9          |                 |                 |                  |       |
| L3       | 2nd IF Trans.       | 44855-12         |                 |                 |                  |       |
| L4       | 3rd IF Trans.       | 44855-13         |                 |                 |                  |       |
| L5       |                     | 44855-14         |                 |                 |                  |       |

① Part #46861-4 used in Chassis 1. 50300.

CHASSIS—TOP VIEW

