

MODELS 15X, 16X-1,
16X-2, 16X-3
MODELS 16X-11,
16X-13, 16X-14
MODELS 500, 501

RCA MFG. CO., INC.

MODEL BP-10

MODELS 15X, 16X-1, 16X-2, 16X-3

Precautionary Lead Dress:

- .01 mfd. capacitor from output plate to cathode to be dressed as far as possible away from .015 mfd. 1st audio grid condenser and volume control terminals to eliminate audio howl.
- Filament lead to pin No. 7 on 85L6-GT socket to be dressed away from 1st audio grid.
- Dress B+ lead on 12SK7 I.F. socket across bottom of socket between grid and plate contacts to aid reduction of grid plate capacitance.
- Dress excess lead lengths of I.F. transformer, grid and plate leads into cans to aid shielding.
- Dress filament leads of 85L6-GT around 12SQ7 socket and into chassis corner to reduce hum.

Alignment Procedure

Output Meter Alignment.—If this method is used, connect the meter across the voice coil, and turn the receiver volume control to maximum.
Test-Oscillator.—For all alignment operations, keep the output as low as possible to avoid a-v-c action.

MODELS 500, 501

| Steps | Connect the high side of test-oscillator to— | Tune test-osc. to— | Turn radio dial to— | Adjust the following for max. peak output— |
|-------|---|--------------------|-------------------------------------|--|
| 1 | 12SK7 grid in series with .001 mfd. | 455 kc | Quiet Point at 1,600 kc end of dial | C17, C18 (2nd I-F Trans.) |
| 2 | 12SA7 grid in series with .001 mfd. | | | C15, C16 (1st I-F Trans.) |
| 3 | Antenna term. of ant. trans. in series with 100 mmfd. | 1,720 kc | Full clockwise (out of mesh) | C14 (oscillator) |
| 4 | | 1,500 kc | Resonance on 1,500 kc signal | C12 (antenna) |

| Steps | Connect the high side of test-osc. to— | Tune test-osc. to— | Turn radio to— | Adjust the following for maximum peak output |
|-------|--|--------------------|-------------------------------------|--|
| 1 | 12SK7 I-F grid, in series with 0.1 mfd. | 455 kc | Quiet Point at 1,700 kc end of dial | C33, C22 2nd I-F transformer |
| 2 | 12SA7 1st det. grid, in series with 0.1 mfd. | | | C21, C20 1st I-F transformer |
| 3 | 12SK7 R-F grid, in series with 0.1 mfd. | 1,720 kc | 1,720 kc | C18 (osc.) |
| 4 | Radiated signal 1,300 kc | | Signal frequency | C16 (ant.) |
| 5 | Repeat steps 3 and 4 | | | |

Alignment Procedure

MODELS 16X-11, 16X-13, 16X-14

| Steps | Connect the high side of test-osc. to— | Tune test osc. to— | Turn radio dial to— | Adjust the following for max. peak output— |
|-------|---|--------------------|---|--|
| 1 | 12SK7 I-F grid in series with 0.1 mfd. | 455 kc | "A" Band Quiet Point 1,600 kc end of dial | C23, C22 2nd I-F Transformer |
| 2 | 12SA7 1st Det. grid in series with 0.1 mfd. | | | C21, C30 1st I-F Transformer |
| 3 | Ant. terminal in series with 47 mmfd. | 19 mc | "C" Band 19 mc | C18 (osc.) |
| 4 | Radiated Signal 18 mc | | "C" Band Resonance on Signal | C31 (ant.) |

| Steps | Connect the high side of test-osc. to— | Tune test-osc. to— | Turn radio to— | Adjust the following for maximum peak output |
|-------|--|--------------------|------------------------------|--|
| 5 | Radiated Signal 6.1 mc | | Resonance on Signal | Inductance of L12* |
| 6 | Ant. terminal in series with 200 mmfd. | 1,720 kc | "A" Band 1,720 kc | C35 (osc.) |
| 7 | Radiated signal 1,400 kc | | "A" Band Resonance on Signal | C33 (ant.) |
| 8 | Ant. terminal in series with 200 mmfd. | 590 kc | "A" Band 590 kc | C36 (osc.) |
| 9 | Repeat steps 6, 7 and 8 | | | |

* Adjust by dressing proximity of AVC lead to coil.

Calibration Scale.—The glass tuning dial may be easily removed from the cabinet and temporarily attached to the dial backing plate for quick reference during alignment.

Replacement Parts MODEL BP-10

Insist on genuine factory-tested parts, which are readily identified and may be purchased from authorized dealers.

| STOCK No. | DESCRIPTION | Unit List Price | STOCK No. | DESCRIPTION | Unit List Price |
|------------------------------------|---|-----------------|---------------------------------------|---|-----------------|
| CHASSIS ASSEMBLIES (RC-544) | | | | | |
| 36717 | Capacitor—20 mmfd. | .40 | 30982 | Resistor—10 megohm, 1 watt | .20 |
| 36715 | Capacitor—60 mmfd. | .40 | 31085 | Screw—No. 8-32 x 1/4 set screw for knobs | .15 |
| 36716 | Capacitor—100 mmfd. | .40 | 36500 | Socket—Tube socket | .15 |
| 12488 | Capacitor—270 mmfd. | .35 | 36069 | Socket—1T4 tube socket | .20 |
| 36183 | Capacitor—.001 mfd. | .25 | 36498 | Transformer—First I.F. transformer | 1.90 |
| 33594 | Capacitor—.005 mfd. | .25 | 36499 | Transformer—Second I.F. transformer | 1.90 |
| 36248 | Capacitor—.02 mfd. | .20 | SPEAKER ASSEMBLIES (64991-501) | | |
| 32797 | Capacitor—.05 mfd. | .20 | 36504 | Speaker—3-inch P. M. speaker, complete with cone and voice coil, less output transformer | 2.50 |
| 36719 | Capacitor—Electrolytic, 10 mfd., 60 volts | .40 | 36505 | Transformer—Output transformer | .75 |
| 36497 | Coil—Oscillator coil | .70 | MISCELLANEOUS ASSEMBLIES | | |
| 36496 | Condenser—Variable tuning condenser | 2.75 | 36510 | Antenna—Antenna loop and cover | 1.75 |
| 36495 | Control—Volume control | 1.00 | 36507 | Bottom—Receiver case bottom cover | 1.50 |
| 36806 | Core—Adjustable core and stud for oscillator coil | .15 | 36508 | Center—Receiver case center strip | 2.50 |
| 36503 | Holder—Battery holder complete | .40 | 36509 | Handle—Carrying handle and bracket | .45 |
| 36501 | Knob—Tuning knob | .75 | 36898 | Initials—100 initials to each set comprising 25 groups of the average initials and one tube of cement | 2.00 |
| 36502 | Knob—Volume control knob | .60 | 36511 | Lid—Receiver case top cover and panel | 5.50 |
| 30158 | Resistor—820 ohms, 1/2 watt | .20 | 36895 | Strap—Shoulder strap | .60 |
| 38714 | Resistor—15,000 ohms, 1/2 watt | .20 | 36506 | Switch—Power switch | .40 |
| 30787 | Resistor—47,000 ohms, 1/2 watt | .20 | | | |
| 3256 | Resistor—100,000 ohms, 1/2 watt | .20 | | | |
| 30652 | Resistor—1 megohm, 1/2 watt | .20 | | | |
| 31417 | Resistor—3.3 megohm, 1/2 watt | .20 | | | |
| 30881 | Resistor—4.7 megohm, 1/2 watt | .20 | | | |

ALL PRICES ARE SUBJECT TO CHANGE OR WITHDRAWAL WITHOUT NOTICE.

