

- NOTES:
1. NUMBERS SUBSTITUTES ARE ILLUSTRATION NUMBERS
 2. SWITCH (40) SHOWN IN EXTREME COUNTERCLOCKWISE POSITION.
 3. SELENIUM RECTIFIER AND 68 OHM RESISTOR, ILLUSTRATION NUMBERS 68 AND 23, ARE USED IN MODEL 286-PP ONLY. IT73 TUBE SHOWN IN DOTTED LINES IS USED IN MODEL 286-P ONLY.

REAR OF CHASSIS

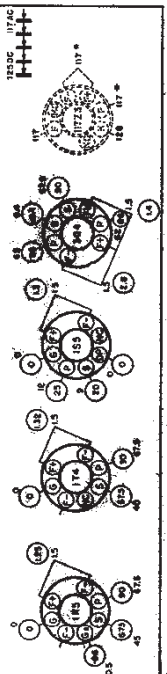
NOTES:

ALL VOLTAGES EXCEPT AS OTHERWISE INDICATED ARE MEASURED FROM SOCKET CONTACTS TO CHASSIS GROUND. VOLTAGES IN CIRCLES ARE OBTAINED WHEN SET IS OPERATED ON 117V. AC OR DC VOLTAGES NOT IN CIRCLES ARE OBTAINED WHEN SET IS OPERATED ON BATTERIES.

* AC EXCEPT WHEN SHOWN IS USED ON DC.

SYM.	DESCRIPTION
1	1.5M. FIL. SUPPLY
2	2. I.F. TRANS.
3	3. I.F. TRANS.
4	4. I.F. TRANS.
5	5. I.F. TRANS.
6	6. 40MF. CAP.
7	7. 100MF. CAP.
8	8. 1.5M. FIL. SUPPLY
9	9. 1.5M. FIL. SUPPLY
10	10. 1.5M. FIL. SUPPLY
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94	94. 1.5M. FIL. SUPPLY
95	95. 1.5M. FIL. SUPPLY
96	96. 1.5M. FIL. SUPPLY
97	97. 1.5M. FIL. SUPPLY
98	98. 1.5M. FIL. SUPPLY
99	99. 1.5M. FIL. SUPPLY
100	100. 1.5M. FIL. SUPPLY

VOLTAGE TABLE (BOTTOM VIEW OF CHASSIS)



SENTINEL RADIO CORP.

ALIGNMENT PROCEDURE

Be sure to follow procedure carefully and in the order given—otherwise the receiver will be insensitive and the dial calibration incorrect. For alignment procedure, read tabulations from left to right. Make the adjustment marked (1) first, (2) next, (3) third. **ALWAYS HAVE METAL BOTTOM PLATE MOUNTED ON CHASSIS WHEN ALIGNING SET.**

Before starting alignment:

- (A) Check tuning dial adjustment by tuning gang condenser until plates touch maximum capacity stop (completely in mesh) at which point the dial indicator must be exactly even with the bottom edge of the large 5 in the 55 calibration number at the low frequency end of the dial scale. If dial indicator does not point exactly to the bottom edge of the large 5, move knob to correct position.
- (B) Use an accurately calibrated test oscillator with some type of output measuring device.
- (C) **WHEN ADJUSTING THE 1620 KC OSCILLATOR TRIMMER**, remove chassis from cabinet and disconnect the loop, connection wires from the loop. Attach a 1 megohm resistor across these connections and feed output of test oscillator across the 1 megohm resistor.
- (D) **THE 1400 KC LOOP ANTENNA TRIMMER** should be adjusted only after all other adjustments have been made and with the set mounted in the cabinet, and the loop in an upright position. When aligning the 1400 KC Antenna Trimmer, couple test oscillator to receiver loop by: (1) make loop consisting of five to ten turns of No. 20 to No. 30 size wire, wound on a 2" or 3" form; (2) connect this loop across output of test oscillator; (3) place test oscillator loop near radio loop. **BE SURE THAT NEITHER LOOP MOVES WHILE ALIGNING.**

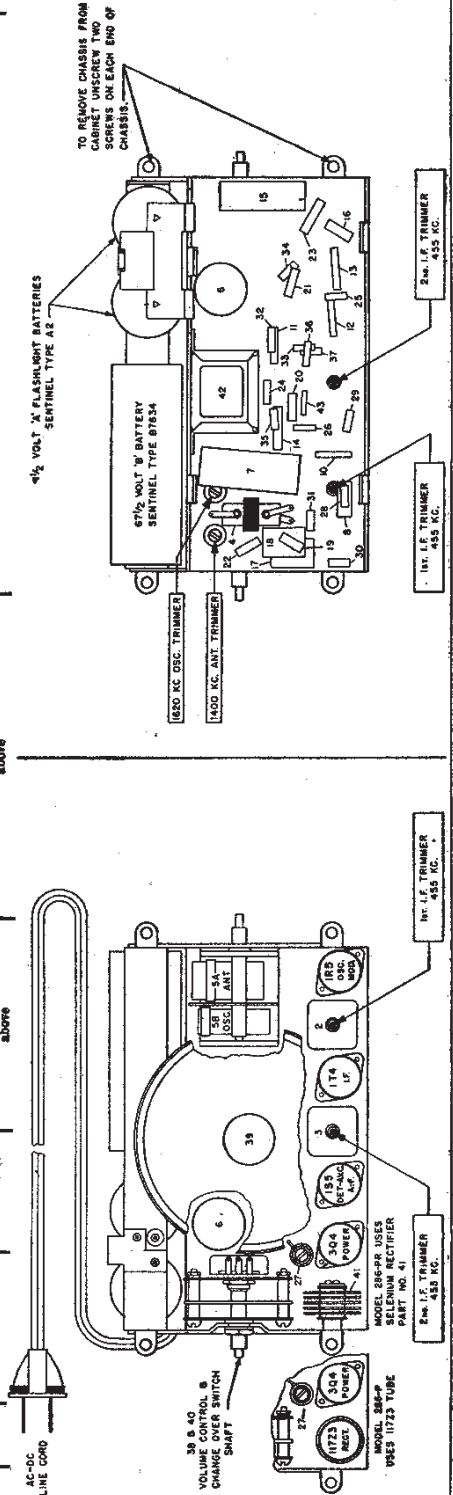
TEST OSCILLATOR			
Steps	Set receiver dial to:	Adjust test oscillator frequency to:	Use dummy antenna in series with output of test oscillator consisting of:
1	Any point where no interfering signal is received	Exactly 455 K. C.	0.2 Mfd. Condenser
2	Rotates gang condenser to minimum capacity	Exactly 1620 K. C.	See paragraph (C) above
3	Approximately 1400 K. C.	Approx. 1400 K. C.	See paragraph (D) above

Refer to parts layout diagram for location of trimmers mentioned below:

Adjust each of the 2nd I.F. transformer trimmer adjustment screws for maximum output, then adjust each of the 1st I.W. transformer trimmer adjustment screws for maximum output.

Adjust 1620 K. C. oscillator trimmer for maximum output.

Adjust 1400 K. C. antenna trimmer for maximum output.



PARTS LIST

Qty.	Part No.	Part Name	Description	List Price	Qty.	Part No.	Part Name	Description	List Price
1	20E134	Antenna	Loop with Cabinet Lid Assem.	\$3.55	24	27E101-7	Resistor	Carbon, 100 Ohm, 1/4 W.	.07
2	20E125	Coil	1st I.F. Transformer	3.00	25	27E471-7	Resistor	Carbon, 470 Ohm, 1/4 W.	.06
3	20E125	Coil	2nd I.F. Transformer	3.00	26	27E561-7	Resistor	Carbon, 560 Ohm, 1/4 W.	.06
4	20E127	Coil	Oscillator	1.00	27	27E1003	Resistor	Wire Wound 1750 and 610 Ohms, 7 W.	.85
5	24E20	Condenser	Tuning, 2 Gang	3.40	28	27E682-7	Resistor	Carbon, 6,800 Ohm, 1/4 W.	.06
6	25E13	Condenser	Tubular, Dry Elect. 40-40 Mfd. 150 Volt	1.15	29	27E223-7	Resistor	Carbon, 22,000 Ohm, 1/4 W.	.06
7	25E12	Condenser	Tubular, Dry Elect. 100 Mfd. 10 Volt	.80	30	27E683-7	Resistor	Carbon, 68,000 Ohm, 1/4 W.	.06
8	23E2004-5	Condenser	Tubular, .01 Mfd. 150 V.	.40	31	27E475-7	Resistor	Carbon, 4.7 Megohm, 1/4 W.	.06
10	23E2004-5	Condenser	Tubular, .01 Mfd. 150 V.	.40	32	27E271-7	Resistor	Carbon, 270 Ohm, 1/4 W.	.08
11	23E2004-5	Condenser	Tubular, .01 Mfd. 150 V.	.40	33	27E105-7	Resistor	Carbon, 1 Meg Ohm, 1/4 W.	.06
12	23E2004-5	Condenser	Tubular, .01 Mfd. 150 V.	.40	34	27E105-7	Resistor	Carbon, 1 Meg Ohm, 1/4 W.	.06
13	23E2004-5	Condenser	Tubular, .01 Mfd. 150 V.	.40	35	27E475-7	Resistor	Carbon, 4.7 Meg Ohm, 1/4 W.	.06
14	23E2004-7	Condenser	Tubular, .05 Mfd. 150 V.	.40	36	27E475-7	Resistor	Carbon, 4.7 Meg Ohm, 1/4 W.	.06
15	23E416	Condenser	Tubular, .05 Mfd. 400 V.	.25	37	27E475-7	Resistor	Carbon, 4.7 Meg Ohm, 1/4 W.	.06
16	23E2004-2	Condenser	Tubular, .002 Mfd. 150 V.	.40	38	28E14	Vol. Control	2 Megohm	.80
17	23E2004-8	Condenser	Tubular, .1 Mfd. 150 V.	.45	39	1E19	Speaker	4 Inch P.M.	4.00
18	23E2004-8	Condenser	Tubular, .1 Mfd. 150 V.	.45	40	29E11	Switch	Power Selector	2.25
19	23E9	Condenser	Mica, .0001 Mfd.	.20	41	57E1	Rectifier	Selenium (Used in Model 286PR only)	2.25
20	23E9	Condenser	Mica, .0001 Mfd.	.20	41	OR	OR	Selenium (Round Type) used in Model 286PR only	2.00
21	23E9	Condenser	Mica, .0001 Mfd.	.20	42	22E16	Transformer	Output	2.25
22	23E8	Condenser	Mica, .000025 Mfd.	.23	43	27E106-7	Resistor	Carbon, 10 Megohm, 1/4 W.	.06
23	27E680-2	Resistor	Carbon, 68 Ohm 1/2 W. (used in Model 286PR only)	.0743					

MISCELLANEOUS PARTS

Part No.	Part Name	Description	List Price	Part No.	Part Name	Description	List Price
20E128	"A" Batt. Con. Bracket Assembly	With 4 No. 10E43 Trimount Studs	.60	30E25-1	Cab. Center Section	Less Lid and Bottom Assemblies, with Handle, Spr. Screen, Lid Catch & Push Button	4.30
20E130-1	Cab. Assembly	Complete Cabinet Assembly with Lid & Loop, Handle, Lid Catch & Push Button Assembly & Bottom Assembly	9.00	20E131	Chassis Plate	Bottom Shield Plate for Chassis	.85
20E134	Cab. Lid Assembly	Lid Assembly with Loop and Hinges	3.55	20E136-1	Hinge	Hinge & Spring Assembly with 2 No. 82E36-F10 No. 4 24x1/4 Mtg. Screws	.40
20E135-1	Cab. Bottom	Bottom Assem. with Locking Slotted Head Stud	2.10	37E44-1	Knob	Calibrated Dial Knob	.88
				37E34-1	Knob	"OFF-AC-DC-BATT."	.85
				37E32-1	Knob	Tuning and Volume Knobs	.53
				20E129	"B" Batt. Connector	B- and B+ Batt. Connector Assembly	.50

HARDWARE

Part No.	Part Name	Description	List Price	Part No.	Part Name	Description	List Price
15E41	Lid Catch Bracket	Bracket for Mounting Lid Catch, With 2 No. 82E3-F10 Screws	.12	78E142-F50	Screw	No. 2 56x3/16 Rec. Oval Hd. B.M.	1.25/C
20E138	Lid Catch	Lid Catch with Screw	.25	82E3-F10	Screw	No. 4 24x1/4 Rec. Hd. Type 25	.93/C
37E35-1	Lid Catch Button	Button for Lid Catch with No. 13E3-F10 No. 4 40x1/4 Hex Screw and No. 11E3-F10 Lockwasher	.14	82E36-F10	Screw	No. 6 20x5/16 Rec. Hd. Type 25	2.25/C
55E22-1	Handle	Leather	.50	10E41	Stud	Trimount for Mounting Chassis Bottom Shield	1.15/C
55E21-1	Handle Bracket	Bracket for Mounting Handle	.25	10E43	Stud	Trimount for Mounting "A" Batt. Contact Brkt. Assem.	1.15/C
71E42-F10	Screw	No. 4 40x3/16 Slot B.H.I.M.	.30/C	65E8	Spring	Lid Index Spring	.09
				64E12-1	Screen	Speaker Screen Grille	.60

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

VOLTAGE SELECTOR

For BATTERY operation, turn to maximum right hand "BATT" position.

For AC-DC operation, turn to middle "AC-DC" position.

BE SURE TO TURN TO MAXIMUM LEFT HAND "OFF" POSITION WHEN THROUGH LISTENING.

VOLUME CONTROL

Turn clockwise to increase volume.

TO OPEN LID

Depress this button.

LOOP AERIAL

Always have Loop in upright position when operating set.

TUNING CONTROL

Use this control to tune receiver to desired station.

67 1/2 Volt "B" Battery SENTINEL Type B7634

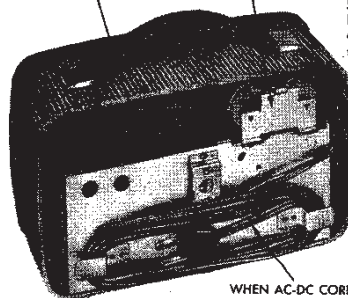
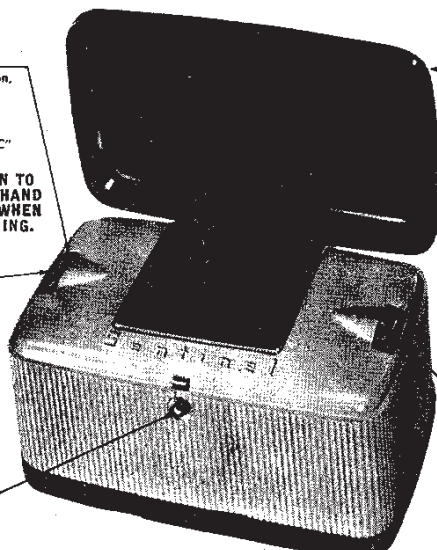
TWO 1 1/2 Volt "A" Batteries SENTINEL Type A2
TO REMOVE: Press lightly on battery contact plate.

FOR AC-DC OPERATION
Remove back, unwind line cord from reel, place in slot and close back.

WHEN AC-DC CORD IS NOT IN USE, WIND ON REEL.

TO REMOVE CABINET BACK

Turn slotted screw with thin dime or screw driver and gently separate.



INSTALLATION OF REQUIRED BATTERIES

Diagram shows proper location and connections of the following required types of batteries:

- Two SENTINEL, Type A2, 1 1/2 Volt "A" batteries, or equivalent, such as Ray-O-Vac Type No. 2, Eveready 750, etc.
- One SENTINEL Type B7634, 67 1/2 Volt "B" battery, or equivalent, such as Ray-O-Vac Type 4367, Eveready 467, etc.