

THE COOPERATION OF THE MANUFACTURER OF THIS RECEIVER MAKES IT POSSIBLE TO BRING YOU THIS SERVICE

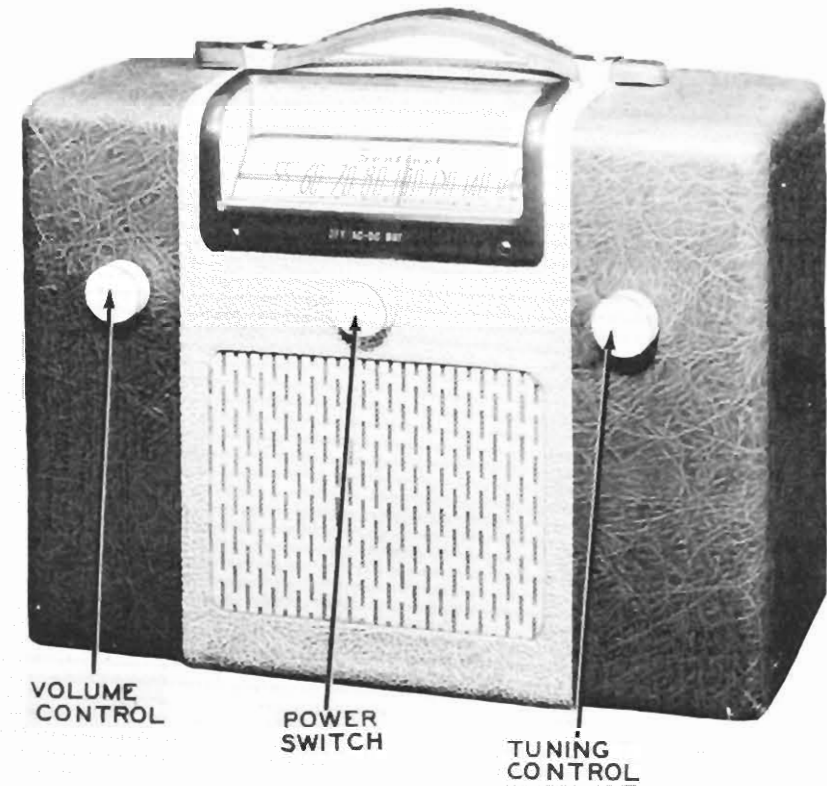
RESISTANCE READINGS IN THE B+ CIRCUITS MAY VARY WIDELY ACCORDING TO THE CONDITION OF THE FILTER CAPACITORS

The stage gain measured values listed above are approximate values for an average operative stage, rather than an absolute value. It should be borne in mind that it is possible to introduce so many variables into the measurement operation, such as, type of equipment used for measuring, handling and placement of probes, the accuracy of alignment, etc., that an absolute reading is impractical. AVC is grounded.

1-DC voltage measurements are at 20,000 ohms per volt; AC voltages measured at 1000 ohms per volt; views.  
2-Measured values are from socket pin to common negative.  
3-Measured values are from socket pin to common negative.  
4-line voltage maintained at 117 volts for voltage readings.  
5-tolerance on component values makes possible a variation of  $\pm 10\%$  in voltage and resistance readings.  
6-voltage control at maximum, no signal applied for voltage measurements.

PHOTOFACT\* Folder

SENTINEL  
MODELS 285P, IU-285P



SENTINEL MODEL 285P

<b>TRADE NAME</b>		Sentinel Models 285P, 1U-285P				
<b>MANUFACTURER</b>		Sentinel Radio Corp., 2020 Ridge Ave., Evanston, Ill.				
<b>TYPE SET</b>		Three Power Portable Superheterodyne Receiver - Self Contained Loop Antenna				
<b>TUBES (SIX)</b>		Types, 1N5GT RF Amp., 1A7GT Converter, 1N5GT IF Amp., 1H5GT Det.-AVC-AF, 3Q5GT Power Output, 117Z6GT Rectifier.				
<b>POWER SUPPLY</b>		110-120 Volts AC-DC or 2-4½ Volt "A" Batteries & 2-45 Volt "B" Batteries				
<b>RATING</b>		.195 Amps. @ 117V AC - 58MA @ 9 Volts DC and 12MA @ 90 Volt DC				
<b>TUNING RANGE-BROADCAST</b>		535-1650KC				
<b>ALIGNMENT INSTRUCTIONS</b>						
When set is aligned on AC-DC use isolation transformer if available. If not, connect a capacitor in series with the low side of the signal generator and common negative. Volume control at maximum volume position and output from signal generator no higher than is necessary to obtain output reading. Use insulated alignment screwdriver for adjusting.						
<b>DUMMY ANTENNA</b>	<b>SIGNAL GENERATOR COUPLING</b>	<b>SIGNAL GENERATOR FREQUENCY</b>	<b>RADIO DIAL SETTING</b>	<b>OUTPUT METER</b>	<b>ADJUST</b>	<b>REMARKS</b>
2 MFD.	High side to grid cap of 1A7. Low side to common negative.	455KC	Any point where no interfering signal is received.	Across voice coil	A2, A3, A4.	Adjust for maximum output.
Direct	Across 1 megohm resistor.	"	Variable fully closed.	"	A5	Disconnect the white-green and white-black loop connection wires from the loop antenna trimmer. Attach a 1 megohm resistor across these wires and feed output of signal generator across this resistor. Adjust for minimum.
Direct	"	1650KC	Variable fully open.	"	A6	Adjust for maximum output.
Direct	High side to ext. ant. clip. Low side to ext. ground.	1400KC	Tune for maximum output.	"	A7	Remove 1 megohm resistor and reconnect loop antenna trimmer. Reinstall chassis in cabinet & adjust A7 for maximum output with the back in closed position.

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PARTS LIST AND DESCRIPTIONS

TUBES

ITEM No.	USE	REPLACEMENT DATA	RMA BASE TYPE	INSTALLATION NOTES
		SENTINEL PART No.	STANDARD REPLACEMENT	
1	RF AMP.	INSUT	5Y	
2	Converter	1A7GT	7Z	
3	IF AMP.	INSUT	5Y	
4	Det.-A.V.C.-AF	INSUT	5Y	
5	Power Output	3A6GT	7A <sup>2</sup>	
6	Rectifier	117Z6GT	7C	

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	REPLACEMENT DATA				IDENTIFICATION CODES AND INSTALLATION NOTES
		SENTINEL PART No.	MALLOY PART No.	SOLAR PART No.	AEROVOX PART No.	
7A	50	25E1	FP214	DT-250-150	AF1010D	UF4B333
8A	50	25E4	WFS20T	DY-240-150	AF98D	
9	.002	235A105	TP405	S-6-002	484-002	DT6D2
10	.005	235A110	TP425	S-4-005	TC-15	DT4S6
11	.005	235A115	TP405	S-4-005	TC-15	DT6D5
12	.005	235A118	TP405	S-4-005	TC-15	DT4P1
13	.003	235A106	TP405	S-4-003	TC-23	DT6D3
14	.005	235A116	TP425	S-4-005	TC-15	DT4S6
15	.005	235A118	TP425	S-4-005	TC-15	DT4P1
16	.003	235A106	TP405	S-6-003	TC-23	DT6D3
17	.005	235A116	TP425	S-4-005	TC-15	DT4S6
18	.005	235A118	TP425	S-4-005	TC-15	DT4P1
19	.005	235A118	TP425	S-4-005	TC-15	DT4S6
20	.005	235A118	TP425	S-4-005	TC-15	DT4P1
21	.005	235A118	TP425	S-4-005	TC-15	DT4S6
22	.005	235A118	TP425	S-4-005	TC-15	DT4P1
23	.005	235A118	TP425	S-4-005	TC-15	DT4S6
24	.005	235A118	TP425	S-4-005	TC-15	DT4P1
25	.005	235A118	TP425	S-4-005	TC-15	DT4S6
26	.005	235A118	TP425	S-4-005	TC-15	DT4P1
27	.005	235A118	TP425	S-4-005	TC-15	DT4S6
28	.005	235A118	TP425	S-4-005	TC-15	DT4P1
29	.005	235A118	TP425	S-4-005	TC-15	DT4S6

CONTROLS

ITEM No.	RATING	REPLACEMENT DATA				INSTALLATION NOTES
		SENTINEL PART No.	MALLOY PART No.	CLAROSTAT PART No.	CLAROSTAT PART No.	
30A	1 Meg.	23E8	MK402	D13-137	AM-83-2	Volume Control
30B	1 Meg.	23E12*	MK402	D13-137	AM-83-2	Volume Control
30C	1 Meg.	23E12*	MK402	D13-137	AM-83-2	Volume Control

RESISTORS

ITEM No.	RATING	REPLACEMENT DATA				IDENTIFICATION CODES
		SENTINEL PART No.	MALLOY PART No.	IRC PART No.	IRC PART No.	
31	22K	27E224	27E224	BTS-22K	BTS-22K	Red-Red-Or. RF Screen Dropping
32	47K	27E473	27E473	BTS-47K	BTS-47K	Y1-V1-Or. RF Plate Load
33	1/3	27E473	27E473	BTS-47K	BTS-47K	Blue-Gray-Orn. AVC Network
34	6.8 Meg.	27E685	27E685	BTS-6.8 Meg.	BTS-6.8 Meg.	Blue-Gray-Orn. AVC Network
35	6.8 Meg.	27E685	27E685	BTS-6.8 Meg.	BTS-6.8 Meg.	Blue-Gray-Orn. AVC Network
36	500	27E500	27E500	BTS-500	BTS-500	Red-Red-Y1. Converter Grid
37	100K	27E100	27E100	BTS-100K	BTS-100K	Orn.-Blue-Br. Filament String
38	300	27E300	27E300	BA-3-300	BA-3-300	Or.-White-Br. Filament String
39	680	27E680	27E680	BTS-680	BTS-680	Red-Y1-V1. If Grid
40	270K	27E270	27E270	BTS-270K	BTS-270K	Or.-Or.-Orn. AVC Network
41	3.3 Meg.	27E330	27E330	BTS-3.3 Meg.	BTS-3.3 Meg.	Br.-Blk.-Blue 1st AF Grid
42	10 Meg.	27E100	27E100	BTS-10 Meg.	BTS-10 Meg.	Br.-Blk.-Orn. 1st AF Plate Load
43	1 Meg.	27E100	27E100	BTS-1 Meg.	BTS-1 Meg.	Br.-Blk.-Y1. 1st AF Plate Filter
44	10K	27E10K	27E10K	BTS-10K	BTS-10K	Br.-Blk.-Orn. Output Grid
45	1 Meg.	27E100	27E100	BTS-1 Meg.	BTS-1 Meg.	Or.-White-Br. Filament String
46	300	27E300	27E300	BA-3-300	BA-3-300	Or.-White-Br. Filament String
47	1/3	27E500	27E500	BTS-500	BTS-500	Orn.-Blue-Br. Filament String

\*Used in Underwriters approved models only

100 not use last section.

48	220K	1/3	27E224	27E224	BTS-220K	Red-Red-Y1. Line Inducting*
49	680	1/3	27E680	27E680	BA-3-680	Blue-Gray-Blk. 5* Lead Bat. Position*
50	750	2	27E1001	27E1001	BA-2-750	Y1-Orn.-Blk. Pilot Light Shunt
51	500K	2	27E1001	27E1001	BA-2-750	Y1-Orn.-Blk. Pilot Light Shunt

\*Adjust tap to 500K from one end.

\*Used in Underwriters approved models only.

TRANSFORMER (OUTPUT)

ITEM No.	RATING	REPLACEMENT DATA				INSTALLATION NOTES
		SENTINEL PART No.	MALLOY PART No.	STANCOR PART No.	THORAD* PART No.	
52A	7500-0	3-00	8200	8402	2227*	A-3378
52B	7500-0	3-00	8200	8402	2227*	T-22247

\*Used in Underwriters approved model only.

SPEAKER

ITEM No.	RATINGS	REPLACEMENT DATA				INSTALLATION NOTES
		SENTINEL PART No.	MALLOY PART No.	JENSEN PART No.	THORAD* PART No.	
53	FIELD	VC IMP.	1E12	1E12	1E12	
54	FIELD	VC IMP.	1E12	1E12	1E12	

R F COILS

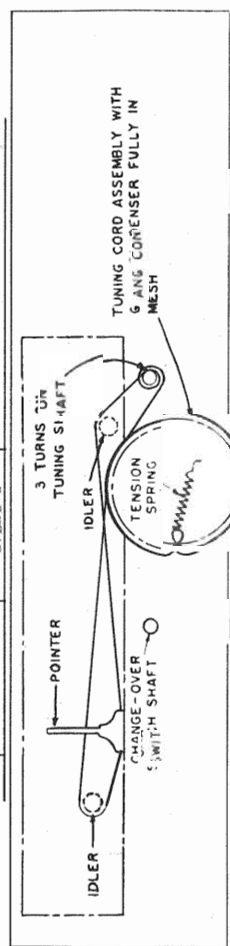
ITEM No.	USE	REPLACEMENT DATA				INSTALLATION NOTES
		DC RES.	DC RES.	DC RES.	DC RES.	
55A	Loop Ant.	102	.50	20E102	20E102	
55B	Wave Trap	1.50	5.00	20E150	20E150	
56	Sec. Coil	1.50	5.00	20E150	20E150	
57	Input IF	1.50	5.00	20E150	20E150	
58	Output IF	1.50	5.00	20E150	20E150	

DIAL LIGHT

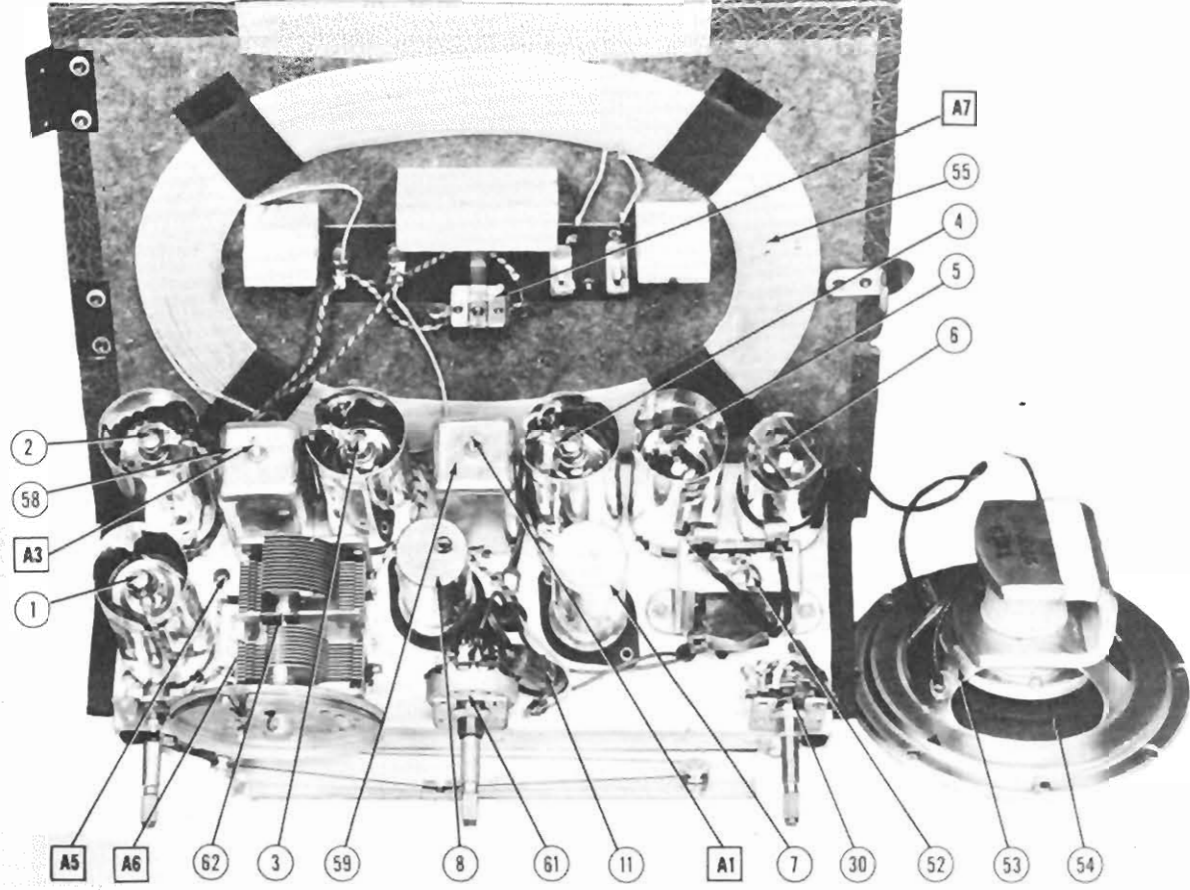
ITEM No.	BASE TYPE	VOLTS	AMPS.	REPLACEMENT DATA		INSTALLATION NOTES
				BEAD COLOR	REPLACEMENT PART No.	
60	Bayonet	6-8	.25	Blue	40E2	Type 44

MISCELLANEOUS

ITEM No.	PART NAME	SENTINEL PART No.	NOTES
61	Switch	24E2	Power Changerover
62A	Tuning Cap.	24E18	2 Gang Var. Cap. 2 Hole Mtg
62B	Trimmer Cap	24E3	Wave Trap Adj. 3-35 MUF
A5	Battery	28A	Ant. Loop Adj. 3-35 MUF or equivalent
A7	Cabinet	7843-1	Dial Back Plate
	Dial Plate Assy	20E78	Acetate
	Dial Crystal	984	Plastic
	Dial Escutcheon	48E1	
	Dial Scale	36E15	
	Dial Pointer	36E10	
	Knob	37E21-1	
		37E21-3	"AC-DC-Off-Batt"



CHASSIS—TOP VIEW



CHASSIS—BOTTOM VIEW

