

Sentinel Radio Corp.

Model: 284NA

Chassis:

Year: Pre 1948

Power:

Circuit:

IF:

Tubes:

Bands:

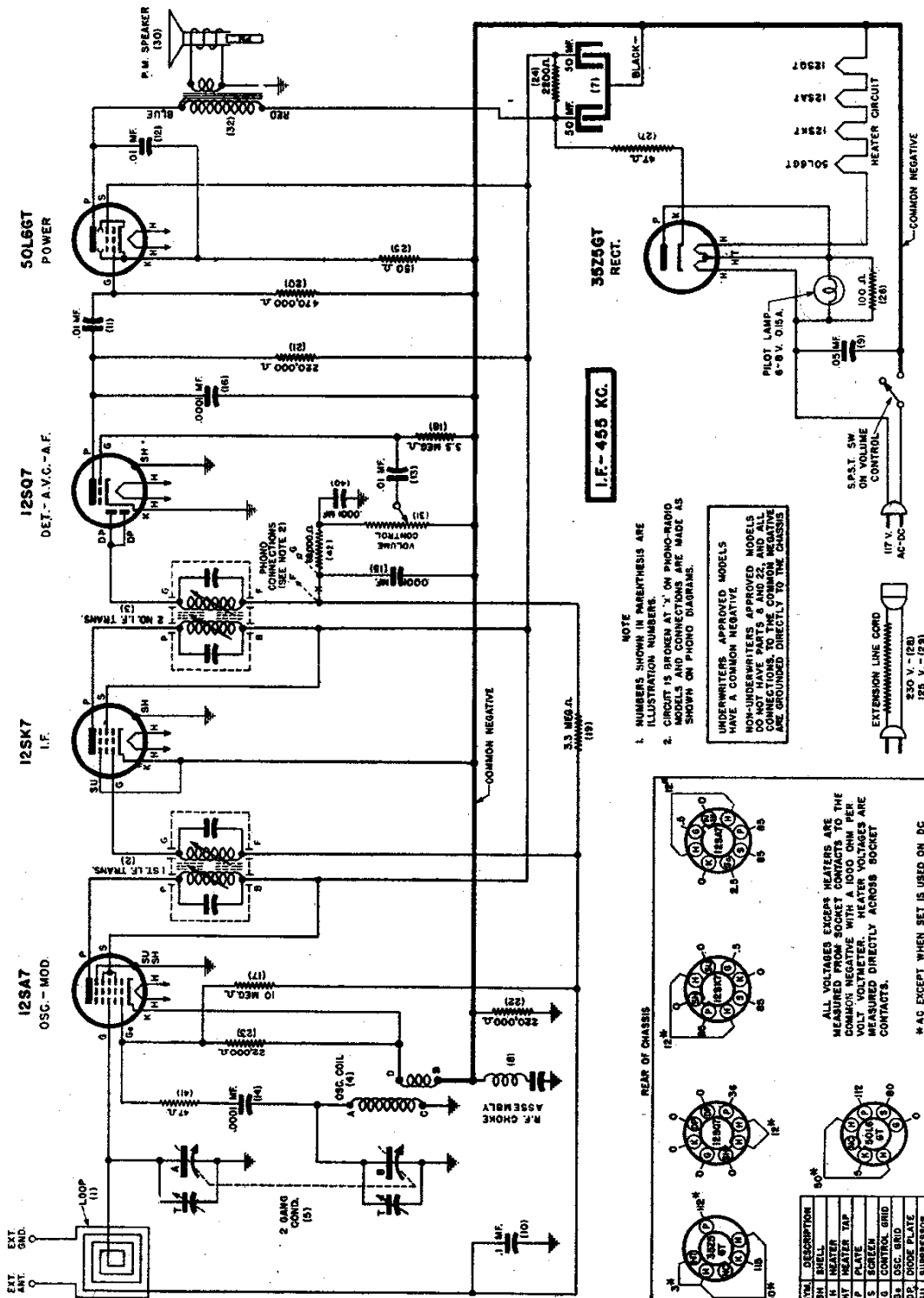
Resources

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MODELS 284W, 284I, 284NI, 284NA,
 1U-284W, 1U-284I, 1U-284NI, SENTINEL RADIO CORP.
 1U-284NA



I.F. - 455 KC.

- NOTE
- NUMBERS SHOWN IN PARENTHESES ARE ILLUSTRATION NUMBERS.
 - CIRCUIT IS BROKEN AT X ON PHONO-RADIO CHASSIS AND IS MADE AS SHOWN ON PHOTO DIAGRAM.
- MANUFACTURERS APPROVED MODELS HAVE A COMMON NEGATIVE. MODEL MANUFACTURERS APPROVED MODELS DO NOT HAVE PARTS A AND 22 AND ALL CONNECTIONS TO THE COMMON NEGATIVE ARE GROUNDED DIRECTLY TO THE CHASSIS.

REAR OF CHASSIS

ALL VOLTAGES EXCEPT HEATERS ARE MEASURED FROM SOCKET CONTACTS TO THE COMMON NEGATIVE WITH A 1000 OHM PER DIVISION METER. HEATER VOLTAGES ARE MEASURED DIRECTLY ACROSS SOCKET CONTACTS.

* AC EXCEPT WHEN SET IS USED ON DC

SYMBOL	DESCRIPTION
SH	SHELL
W	WATER TAP
M	METER TAP
P	PIE
S	SCREEN
G	CONTROL GRID
OS	OSC. GRID
DP	DIODE PLATE
SU	SUPPRESSOR
K	CATHODE
NC	NO CONNECTION

VOLTAGE TABLE
 (BOTTOM VIEW OF CHASSIS)

SENTINEL RADIO CORP.

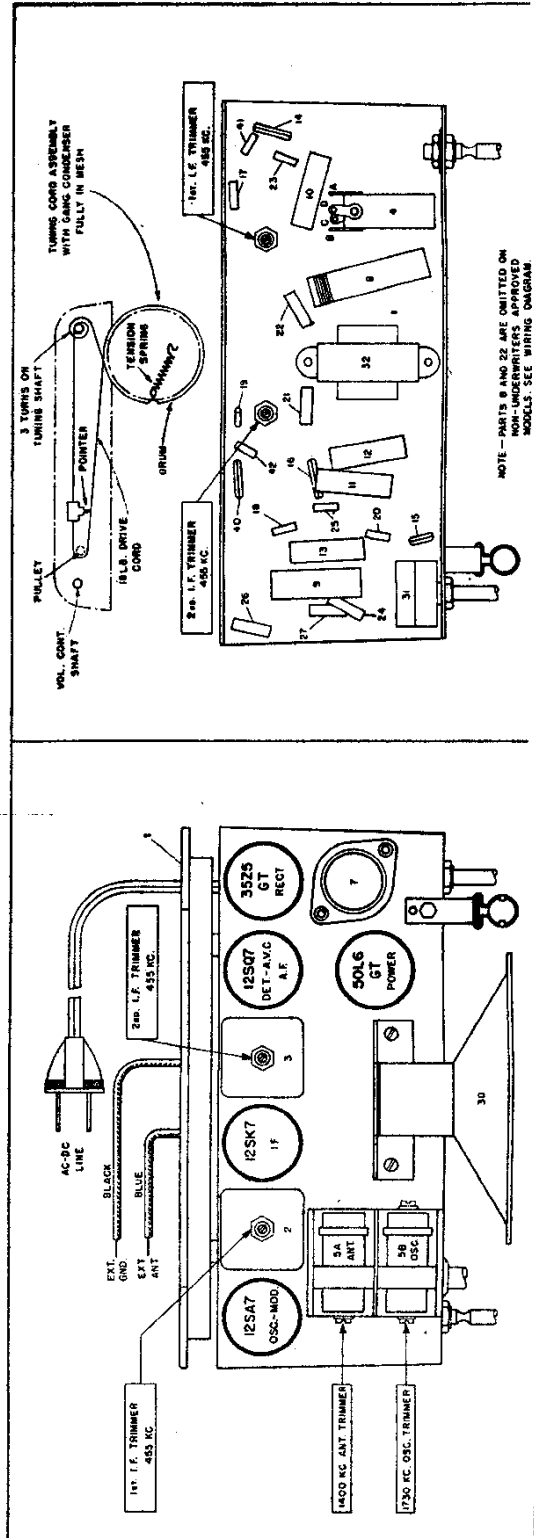
MODELS 284W, 284I, 284NI,
284NA, 1U-284W, 1U-284I,
1U-284NI, 1U-284NA

For alignment procedure read tabulations from left to right, and make the adjustment marked (1) first, (2) next, (3) third.

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 needle must be exactly even with the last line at the low frequency end of the dial calibration. If dial needle does not point exactly to last line move to correct position.
- (b) Use an accurately calibrated test oscillator with some type of output measuring device.
- (c) PLACE LOOP ANTENNA IN THE SAME POSITION IT WILL BE IN WHEN THE SET IS IN THE CABINET.

TEST OSCILLATOR			Refer to parts layout diagram for location of trimmers mentioned below:
Steps	Adjust test oscillator frequency to:	Attach output of test oscillator to:	
1	Any point where no interfering signal is received. 455 K. C.	Use dummy antenna in series with output of test oscillator consisting of: .02 MFD. condenser. High slide to rear stator plates of tuning condenser. Low slide to frame of condenser through a .02 MFD. blocking condenser.	Adjust each of the second I. F. transformer trimmers for maximum output—then adjust each of the first I. F. trimmers for maximum output.
2	Exactly 1750 K. C.	.00095 MFD. condenser Receiver blue antenna lead Receiver black ground lead	Adjust 1750 K. C. oscillator trimmer for maximum output.
3	Approx. 1400 K. C.	.00095 MFD. condenser Receiver blue antenna lead Receiver black ground lead	While rocking gang condenser adjust 1400 K. C. antenna trimmer for maximum output.



MODELS 284W, 284I, 284NI,
284NA, 1U-284W, 1U-284I,
1U-284NI, 1U-284NA
MODEL 289T

SENTINEL RADIO CORP.

MODELS 284W, 284I, 284NI, 284NA,
1U-284W, 1U-284I, 1U-284NI, 1U-284NA,

PARTS LIST

Ill. No.	Part No.	Part Name	Description	Ill. No.	Part No.	Part Name	Description
1	20E24	Antenna	Loop	20	27E474	Resistor	Carbon, 470,000 Ohm 1/3 Watt
2	20E21	Coil	1st I.F. Transformer	21	27E224	Resistor	Carbon, 220,000 Ohm 1/3 Watt
3	20E22	Coil	2nd I.F. Transformer	22	27E224	Resistor	Carbon, 220,000 Ohm 1/3 Watt
4	20E13	Coil	Oscillator See *Note				(Und. Appd. Only)
	or			*23	27E223	Resistor	Carbon, 22,000 Ohm 1/3 Watt See *Note
4	20E162	Coil	Oscillator See *Note				
5	24E2	Condenser	Tuning, 2 Gang (3 Hole Mtg.)	*23	27E473	Resistor	Carbon, 47,000 Ohm See *Note
5	24E18	Condenser	Tuning, 2 Gang (2 Hole Mtg.)	24	27E222-2	Resistor	Carbon, 2,200 Ohm 1 Watt
7	25E1	Condenser	Dry Electrolytic, 50-50 Mfd, 150 V.	25	27E151	Resistor	Carbon, 150 Ohm 1/3 Watt
8	20E75	Choke	R.F. Choke Assembly (Und. Appd. Only)	26	27E101	Resistor	Carbon, 100 Ohm 1/3 Watt
9	23E416	Condenser	Tubular, .05 Mfd, 400 Volts	27	27E470-2	Resistor	Carbon, 47 Ohm 1/2 Watt
10	23E218	Condenser	Tubular, .1 Mfd, 200 Volts	28			230 Volt Extension Line Cord
11	23E211	Condenser	Tubular, .01 Mfd, 200 Volts				Used in models not Underwriters Apprd.
12	23E211	Condenser	Tubular, .01 Mfd, 200 Volts	29			125 Volt Extension Line Cord
13	23E211	Condenser	Tubular, .01 Mfd, 200 Volts				Used in models not Underwriters Apprd.
14	23E39	Condenser	Mica, .0001 Mfd	30	1E9	Speaker	5" PM
15	23E39	Condenser	Mica, .0001 Mfd	31	28E1	Volume Control	With S.E.S.T. Switch
16	23E39	Condenser	Mica, .0001 Mfd	32	22E2	Transformer	Output for Speaker
17	27E106	Resistor	Carbon, 10 Megohm 1/3 Watt	40	23E39	Condenser	Mica, .001 Mfd
18	27E335	Resistor	Carbon, 3.3 Megohm 1/3 Watt	*41	27E470	Resistor	Carbon, 47 Ohm 1/3 W. See *Note
19	27E335	Resistor	Carbon, 3.3 Megohm 1/3 Watt	42	27E683	Resistor	Carbon, 68,000 Ohm, 1/3 W.

MISCELLANEOUS PARTS

Part No.	Part Name	Description	Part No.	Part Name	Description
7E31-1	Cabinet	Walnut Plastic	68E1	Dial Shaft	Drive Shaft
7E31-2	Cabinet	Ivory Plastic	19E3	Dial Shaft	Bearing For Drive Shaft
7E1-1	Cabinet	Catalin Plastic		Bearing	
7E70	Cabinet Back	For Catalin Cabinet	35E8	Dial Pointer	Dial Indicator
7E32	Cabinet Back	For Walnut & Ivory Plastic Cabinets	65E2	Dial Spring	Tension Spring For Drive Cord
41E1	Cord	6 Ft. Rubber Line Cord	37E17-1	Knob	For Walnut Cabinet
20E12	Dial Plate	Dial Back Plate Assem. Less Scale	37E17-3	Knob	For Ivory Cabinet
	Assem.		37E29-1	Knob	For Catalin Cabinet
4E1	Dial Cord	30" of 18 Lb. Dial Drive Cord	20E43	Pilot Lamp	Pilot Lamp Socket Assembly
9E2	Dial Crystal	Acetate Dial Crystal		Socket	
36E10	Dial Scale	Calibrated Scale	40E1	Pilot Lamp	6-8 Volt .150 Amp. Type 47 Lamp

*NOTE: First production run of this model used Oscillator Coil Part Number 20E13, Illus. No. 4, with the 47 Ohm Resistor, Illus. No. 41, and the value of the 12SA7 grid leak Resistor, Illus. No. 23, was 47,000 Ohms. In later production, Part Number 20E13, Oscillator Coil, was replaced with Part Number 20E162; also the 47 Ohm Resistor, Illus. No. 41, was eliminated and the value of Resistor, Illus. No. 23, was changed to 22,000 Ohms. BECAUSE PERFORMANCE OF THE SET WILL BE SOMEWHAT IMPROVED BY USING OSCILLATOR COIL Part Number 20E162, WE RECOMMEND THAT WHENEVER IT IS NECESSARY TO REPLACE THE OSCILLATOR COIL, THAT ONLY Part Number 20E162 BE USED FOR THIS PURPOSE.

MODEL 289-T

PARTS LIST

Illus. No.	Part No.	Part Name	Description	Illus. No.	Part No.	Part Name	Description
1	20E58	Cable	Battery with 4 Prong Plug	15	23E42	Condenser	Mica, .00025
2	20E32	Coil	Antenna	16	23E3	Condenser	Fixed Ceramic .0001 Mfd.
3	20E21	Coil	1st I.F. Transformer	17	23E3	Condenser	Fixed Ceramic .0001 Mfd.
4	20E35	Coil	2nd I.F. Transformer	18	27E475	Resistor	Carbon, 4.7 Megohm, 1/3 W.
5	20E77	Coil	Oscillator	19	27E335	Resistor	Carbon, 3.3 Megohm, 1/3 W.
6	24E4	Condenser	Tuning 2 Gang, 3-hole mounting	20	27E106	Resistor	Carbon, 10 Megohm, 1/3 W.
6	24E19	Condenser	Tuning 2 Gang, 2-hole mounting	21	27E335	Resistor	Carbon, 3.3 Megohm, 1/3 W.
7	25E9	Condenser	Tubular Dry Elect, 10 Mfd, 100 V.	22	27E105	Resistor	Carbon, 1 Megohm, 1/3 W.
8	23E224	Condenser	Tubular .5 Mfd, 200 Volt	23	27E224	Resistor	Carbon, 220,000 Ohm, 1/3 W.
9	23E224	Condenser	Tubular .5 Mfd, 200 Volt	24	27E223	Resistor	Carbon, 22,000 Ohm, 1/3 W.
10	23E216	Condenser	Tubular .05 Mfd, 200 Volt	25	27E561	Resistor	Carbon, 560 Ohm, 1/3 W.
11	23E216	Condenser	Tubular .05 Mfd, 200 Volt	26	1E15	Speaker	6" PM
12	23E151	Condenser	Tubular .01 Mfd, 120 Volt	27	28E2	Volume Control	With D.P.S.T. Switch
13	23E151	Condenser	Tubular .01 Mfd, 120 Volt	28	22E4	Transformer	Output
14	23E204	Condenser	Tubular .001 Mfd, 200 Volt				

MISCELLANEOUS PARTS

Part No.	Part Name	Description	Part No.	Part Name	Description
7E50	Cabinet	Wood Table Model	19E3	Dial Shaft Bearing	Bearing for Drive Shaft
4E1	Dial Cord	18 Lb. Drive Cord	65E3	Dial Indicator	
65E2	Dial Cord Spring	Dial Cord Tension Spring		Spring	Tension Spring for "On-Off" Indicator
68E2	Dial Shaft	Drive Shaft	12E103-F10	Dial Shaft Washer	"C" Retainer Washer for Drive Shaft
36E11	Dial Scale	Calibrated Scale	37E25-1	Knob	
35E9	Dial Pointer	Dial Needle	17E3-4	Plug	4-Prong Battery Plug
36E14	Dial Indicator	"On-Off" Indicator	46E1-1	Throw Arm	Operates On-Off Indicator