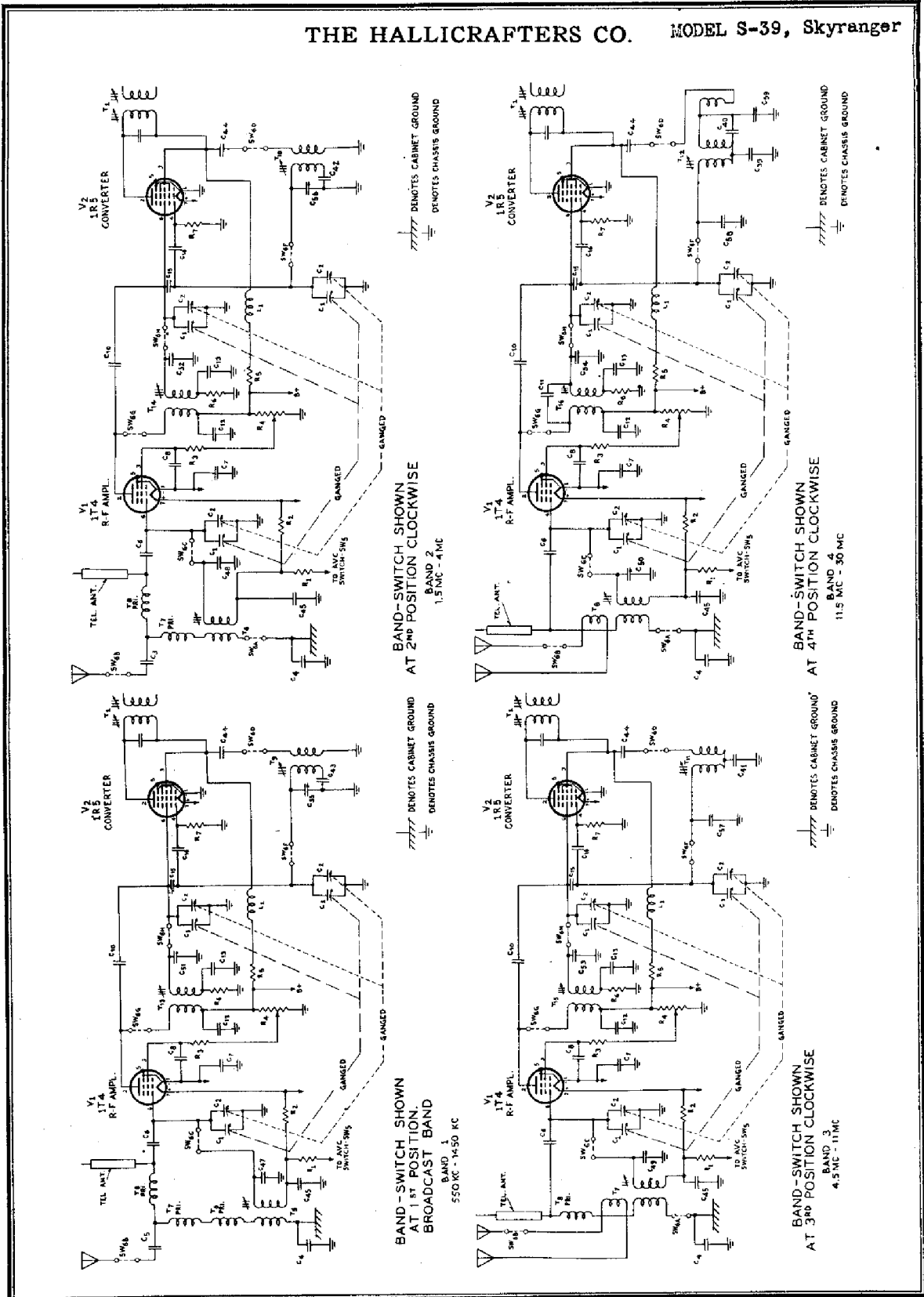
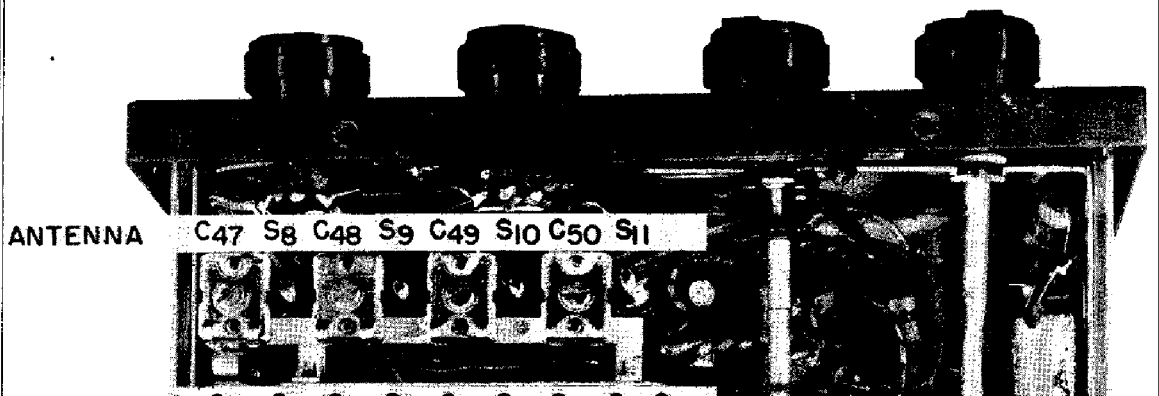


THE HALLICRAFTERS CO.

MODEL S-39, Skyranger



MODEL S-39, Skyranger THE HALLICRAFTERS CO.



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Connect "Hot" lead of signal
elements of slug S₁, generator to extended section of
all the I-F trans-
mitter output.
the 6.5 mmfd dummy antenna con-
denser.

Connect ground side of generator
to chassis
Mounting the signal to chassis
after completing the Have external antenna plug P₁₂
mer alignment, ad-
out of socket SO
transformer as fol-
Set MAIN TUNING dial of receiver
and signal generator frequency
as shown in the alignment chart.

Adjust trimmers (C₄₇ to C₅₆) and
slugs (S₂ to S₁₉) in the order
shown on the alignment chart.
Approx. 4000 cycles).
Set figure 5 for location of
located under the
adjustment screws).

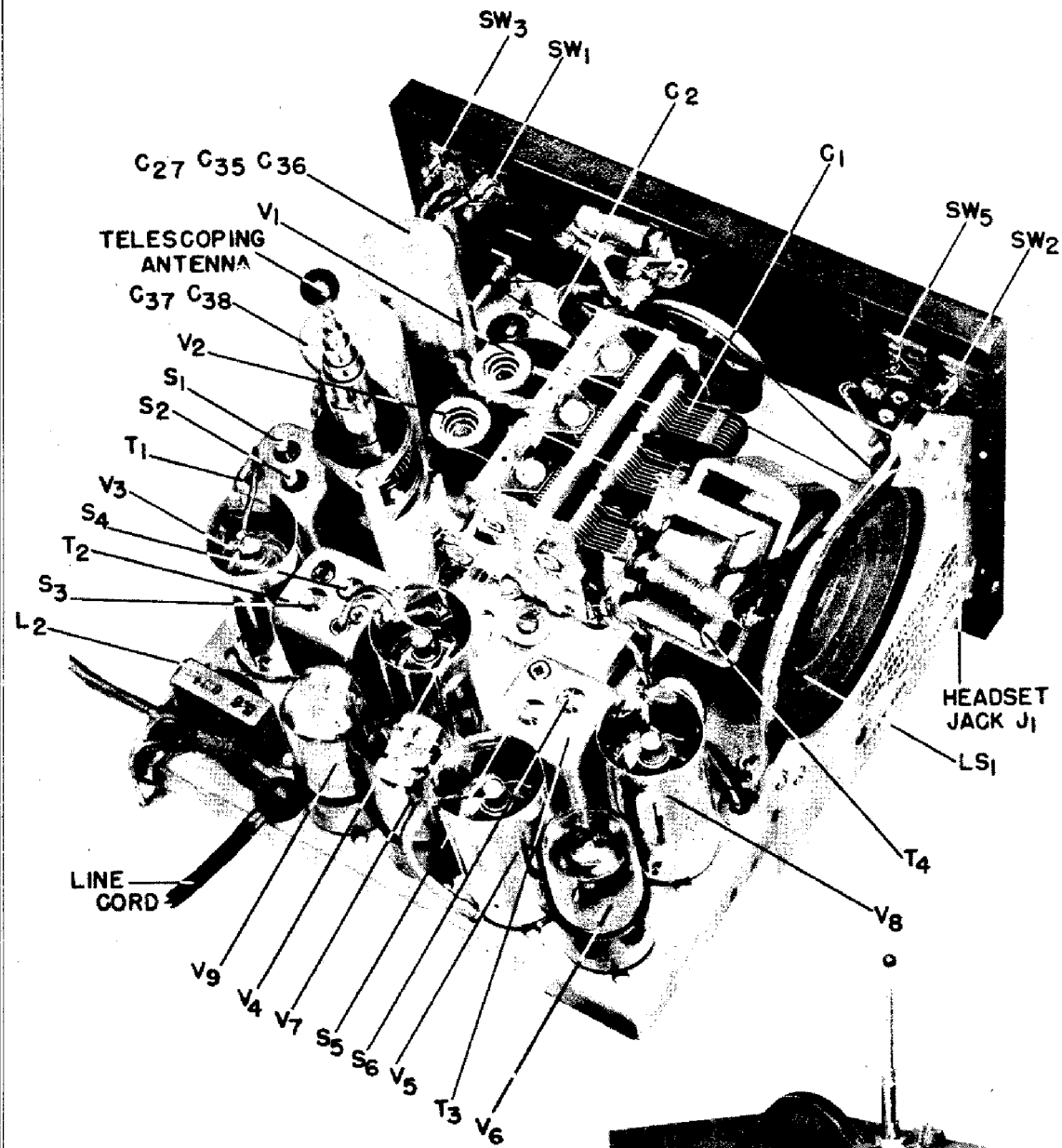
Note: When aligning bands 3 and
4 "rock" the MAIN TUNING control
slightly to peak the adjustment.
When aligning the low frequency
end of band 4 by adjusting slug
S₁₅, the oscillator may lose its
function. A slight adjustment
of condenser C₄₉ will bring it
back into oscillation.

Note: Only one section of the
telescoping antenna shall extend
above the top cover of the re-
ceiver. (This procedure is nec-
essary to obtain an accurate
calibration for the receiver
when aligning with the dummy an-
tenna of 6.5 mmfd.) The re-
ceiver's top cover must be fas-
tened down for the following ad-
justments.

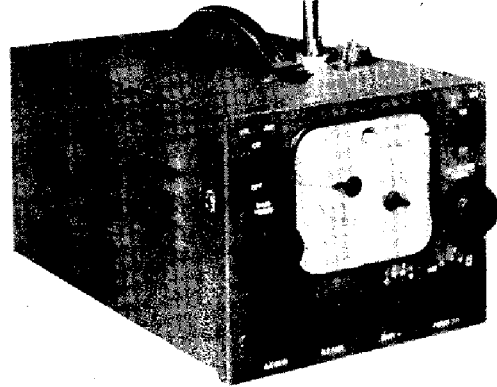
Tools for R-F align-
ment
BFO switches at OFF
switch at ON
GAIN controls set
at Band to be aligned
at chart
at BAI. (power cord
wall socket)
BRING at "0"
antenna is collapsed
bottom section
meter plug in phone

ALIGNMENT CHART

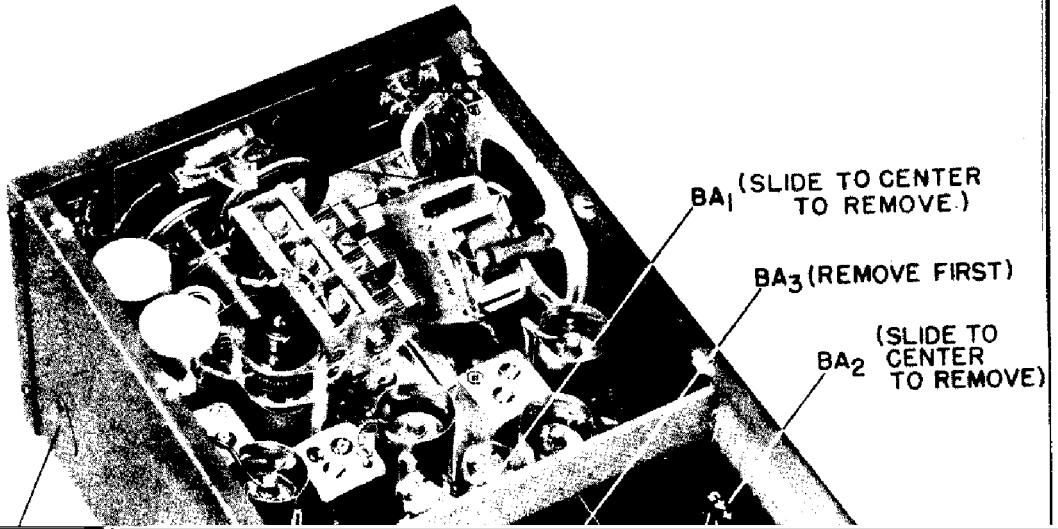
ANTENNA AND CONVERTER SECTIONS	OSCILLATOR FREQUENCY RELATIVE TO SIGNAL FREQUENCY
C ₄₇ and C ₅₁	455 KC Above
S ₂ and S ₁₆	455 KC Above
C ₄₈ and C ₅₂	455 KC Above
S ₉ and S ₁₇	455 KC Above
C ₄₉ and C ₅₃	455 KC Above
S ₁₀ and S ₁₈	455 KC Above
C ₅₀ and C ₅₄	455 KC Below
S ₁₁ and S ₁₉	455 KC Below



TOP VIEW.



THE HALLICRAFTERS CO. MODEL S-39, Skyranger



BA1 (SLIDE TO CENTER TO REMOVE)

BA3 (REMOVE FIRST)

BA2 (SLIDE TO CENTER TO REMOVE)

MODEL S-39, Skyranger

THE HALLICRAFTERS CO.

REF. SYMBOL	NAME OF PART AND DESCRIPTION	MFR. CODE	CONTR. S. PART NO.	REF. SYMBOL	NAME OF PART AND DESCRIPTION	MFR. CODE	CONTR.'S. PART NO.
R ₁	Resistor, 2.2 megohm ± 10%, 1/4 watt, carbon	ASA	RC10AB225K	C ₈	Capacitor, 0.01 mfd. -10 + 40%, 400 V. D-C working, paper dielectric, type AB	SP	46AW103J
R ₂	Same as R ₁						
R ₃	Resistor, 8,200 ohm ± 10%, 1/4 watt, carbon	ASA	RC2LAB22K				
R ₄	Resistor, variable, 1/2 megohm ± 20%, carbon	CT	25C071	C ₉	Same as C ₈		
R ₅	Resistor, 4700 ohm ± 10%, 1/4 watt, carbon	ASA	RC10AB472K				
R ₆	Same as R ₁			C ₁₀	Capacitor, adjustable, min. cap. 5 mmfd., max. cap. 6.5 mmfd., 500 V. D-C working, temp. coeff. -.00075 mmfd./mmfd./degree Cent., ceramic dielectric, type 307-004	CRL	47A005
R ₇	Resistor, 100,000 ohm ± 10%, 1/4 watt, carbon	ASA	RC10AE104K				
R ₈	Resistor, 1.0 megohm ± 10%, 1/4 watt, carbon	ASA	RC10AE105K	C ₁₁	Same as C ₁₀		
R ₉	Same as R ₁			C ₁₂	Same as C ₇		
R ₁₀	Resistor, 51,000 ohm ± 5%, 1/2 watt, carbon	ASA	RC2LAB513J	C ₁₃	Same as C ₇		
R ₁₁	Same as R ₁			C ₁₄	Capacitor, 3 mmfd., twisted wire leads		
R ₁₂	Same as R ₈						
R ₁₃	Same as R ₇						
R ₁₄	Resistor, variable, 1/2 megohm ± 20%, carbon	CT	25C070	C ₁₅	Capacitor, 2 mmfd., twisted wire leads		
R ₁₅	Resistor, 10 megohm ± 20%, 1/4 watt, carbon	ASA	RC10AE106M				
R ₁₆	Same as R ₇			C ₁₆	Same as C ₃		
R ₁₇	Resistor, 470,000 ohm ± 20%, 1/4 watt, carbon	ASA	RC10AE474M	C ₁₇	Same as C ₇		
R ₁₈	Same as R ₁₇			C ₁₈	Same as C ₈		
R ₁₉	Same as R ₁₇			C ₁₉	Not used		
R ₂₀	Resistor, 47,000 ohm ± 20%, 1/4 watt, carbon	ASA	RC10AE473M	C ₂₀	Same as C ₇		
R ₂₁	Same as R ₂₀			C ₂₁	Capacitor, 100 mmfd. ± 20%, 500 V. D-C working, mica dielectric	ASA	CM20A101M
R ₂₂	Not used						
R ₂₃	Not used						
R ₂₄	Resistor, 24 ohm ± 5%, 1 watt, carbon	ASA	RC31AE240J	C ₂₂	Capacitor, 0.004 mfd. -10 + 40%, 600 V. D-C working, paper dielectric, type 684	A	46AW240ZJ
R ₂₅	Resistor, 330 ohm ± 5%, 9 watt, wire wound, candohm, type FH	MT	24A829				
R ₂₆	Not used			C ₂₃	Capacitor, 0.1 mfd. -10 + 40%, 200 V. D-C working, paper dielectric, type 284	A	46AU104J
R ₂₇	Resistor, 1000 ohm ± 10%, 1/4 watt, carbon	ASA	RC10AE102K	C ₂₄	Same as C ₈		
R ₂₈	Not used.						
R ₂₉	Resistor, 560 ohm ± 10%, 1/4 watt, carbon	ASA	RC10AE561K	C ₂₅	Capacitor, 0.005 mfd. -10 + 40%, 400 V. D-C working, paper dielectric, type 484	A	46AW502J
R ₃₀	Same as R ₂₉						
R ₃₁	Not used			C ₂₆	Capacitor, 0.02 mfd. -10 + 40%, 400 V. D-C working, paper dielectric, type AB	SP	46AW203J
R ₃₂	Same as R ₂₇						
R ₃₃	Resistor, 820 ohm ± 10%, 1 watt, carbon	ASA	RC31AE821K	C ₂₇	Capacitor, 60 mfd. -10 + 50%, 150 V. D-C working, electrolytic, one section of 3 section unit, 6 prong plug-in assembly, type 10B336	IC	45A065
R ₃₄	Resistor, 1645 ohm ± 10%, tapped at 800 ohm, 7.4 watt, 2 unit, wire wound, unit #1 800 ohm (R ₃₄), unit #2 845 ohm (R ₃₅), candohm, type MW-2	IRC	24A044	C ₂₈	Capacitor, 0.02 mfd. -10 + 40%, 400 V. D-C working, paper dielectric, type AB	SP	46AW203J
R ₃₅				C ₂₉	Same as C ₂₈		
R ₃₆	Resistor, 820 ohm ± 10%, 1/4 watt, carbon	ASA	RC10AB821K	C ₃₀	Capacitor, 3 turn twisted wire leads		
R ₃₇	Not used.			C ₃₁	Same as C ₂₁		
R ₃₈	Same as R ₃₄			C ₃₂	Capacitor, 510 mmfd. ± 5%, 500 V. D-C working, mica dielectric	ASA	CM20A511J
R ₃₉	Resistor, 1.5 megohm ± 20%, 1/4 watt, carbon	ASA	RC10AE155M	C ₃₃	Same as C ₇		
R ₄₀	Resistor, 450 ohm tapped at 87 ohm, 7 watt, 2 unit, wire wound, unit #1 363 ohm (R ₄₀), unit #2 87 ohm (R ₄₁) candohm, special	MT	24A819	C ₃₄	Capacitor, 0.05 mfd. -10 + 40%, 400 V. D-C working, paper dielectric, type 484	A	46AW503J
R ₄₁				C ₃₅	Capacitor, 30 mfd. -10 + 50%, 150 V. D-C working, electrolytic, one part of triple unit - refer to C ₂₇		
R ₄₂	Same as R ₇			C ₃₆	Capacitor, 100 mfd. -10 + 65%, 5 V. D-C working, electrolytic, one part of triple unit - refer to C ₂₇		
C ₁	Capacitor, variable, 3 section, 2 unit, unit #1-(C ₁), max. cap. per section 352 mmfd., air dielectric, unit #2-(C ₂) max. cap. per OM section 22 mmfd. air dielectric, each unit has separate drive shaft to which pulleys are fixed, type 945-3-20		48B055	C ₃₇	Capacitor, dual, 120 mfd. -10 + 50%, 150 V. D-C working (C ₃₆), 60 mfd. -10 ± 85%, 5 V. D-C working (C ₃₇), unit hermetically sealed	IC	45A066
C ₂				C ₃₈	4 prong plug-in assembly, type 10B335		
C ₃	Capacitor, 51 mmfd. ± 5%, 500 V. D-C working, low loss mica dielectric	ASA	CM20C510J	C ₃₉	Capacitor, 4500 mmfd. ± 5%, 500 V. D-C working, mica dielectric	ASA	CM35A452J
C ₄	Capacitor, 0.1 mfd. -10 + 40%, 400 V. D-C working, paper dielectric, type 464	A	46AV104J	C ₄₀	Capacitor, 240 mmfd. ± 5%, 500 V. D-C working, mica dielectric	ASA	CM20A241J
C ₅	Capacitor, 15 mmfd. ± 20%, 500 V. D-C working, temp. coeff. -.00075 mmfd./mmfd./degree Cent., ceramic dielectric, type 809-047	CRL	47A027				
C ₆	Capacitor, 10 mmfd. ± 20%, 500 V. D-C working, temp. coeff. -.00075 mmfd./mmfd./degree Cent., ceramic dielectric, type 811-013.	CRL	47A028				
C ₇	Capacitor, 0.05 mfd. -10 + 40%, 200 V. D-C working, paper dielectric, type AB	SP	46AU503J				

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THE HALLICRAFTERS CO.

MODEL S-39, Skyranger

REF. SYMBOL	NAME OF PART AND DESCRIPTION	MFR. CODE	CONTR.'S. PART NO.	REF. SYMBOL	NAME OF PART AND DESCRIPTION	MFR. CODE	CONTR.'S. PART NO.
C ₄₁	Capacitor, 2000 mmfd. ± 5%, 500 V. D-C working, mica dielectric	ASA	CM30A202J	SW ₇	Switch, rotary selector, 3 position, single section, non-shorting type contacts, has a type 8030-K1 toggle action, SPST A-C switch ganged on rear of assembly "ON" position full clockwise, type H	CM	60A182
C ₄₂	Capacitor, 910 mmfd. ± 5%, 500 V. D-C working, mica dielectric	ASA	CM30A911J	SO ₁	Socket, female, 4 contacts, bakelite insulation, wafer type, brass contacts, 2 mtg. holes with 1/4" mtg. centers, type 2642	CN	10A080
C ₄₃	Capacitor, 390 mmfd. ± 5%, 500 V. D-C working, mica dielectric	ASA	CM20A391J	PL ₁	Plug with line cord, 2 conductor, rubber insulation, #18 ga. stranded copper wire, length 6 feet, 2 prong spring type molded on plug, special	F	87A078
C ₄₄	Same as C ₆			BA ₁	Battery, 6 V. D-C, 2 hole socket, 3-7/8" x 2-15/16" x 5 1/2", type P698A	ROV	27A010
C ₄₅	Same as C ₇			BA ₂	Battery, 45 V. D-C, combination "B" socket, 4-1/8" x 2-9/16" x 5-5/16", type P6303	ROV	27A009
C ₄₆	Capacitor, 0.5 mfd. -10 + 40%, 200 V. D-C working, paper dielectric		46AT504J	BA ₃	Same as BA ₂		
C ₄₇	Capacitor, 4 unit assembly, mica dielectric, compression type adjustment, trimmers mounted on a single metal strip, 3 units with min. cap. 2.7 mmfd., max. cap. 35 mmfd. (C ₄₇ , C ₄₈ , C ₅₀), 1 unit with min. cap. 1.5 mfd., max. cap. 10 mmfd. (C ₄₈ special)	UE	44A064	J ₁	Jack, single circuit, normally closed, brass mechanism, bakelite insulation, type 1J102	U	36A002
C ₄₈				LS ₁	Loudspeaker; 4 inch O.D. permanent magnet dynamic, includes transformer T ₄ in the assembly, type 4-OM-11A	OT	85E009
C ₄₉				LM ₁	Lamp, indicator, 1-1/8" leads, clear glass bulb type 4 1/2, type NE-7	GE	39A007
C ₅₀				V ₁	Tube, pentode, type 1T4	RCA	90X1T4
C ₅₁	Same as C ₄₇ , C ₄₈ , C ₄₉ , C ₅₀ assembly. (C ₅₁ , C ₅₂ , C ₅₃ , C ₅₄ same as C ₄₇ , C ₄₈ , C ₅₀ ; and C ₅₂ same as C ₄₈)			V ₂	Tube, pentagrid converter, type 1R5	RCA	90X1R5
C ₅₂				V ₃	Tube, type, 1P5GT	RCA	90X1P5GT
C ₅₃				V ₄	Same as V ₃		
C ₅₄				V ₅	Tube, diode triode, type 1H5GT	RCA	90X1H5GT
C ₅₅		Capacitor, 5 unit assembly, mica dielectric, compression type adjustment, trimmers mounted on a single metal strip, 2 units with min. cap. 1.5 mmfd., max. cap. 10 mfd. (C ₅₇ and C ₅₈), 2 units with min. cap. 2.7 mmfd., max. cap. 35 mmfd. (C ₅₅ and C ₅₆), 1 unit with min. cap. 25 mmfd., MAX. 140 mmfd. (C ₅₉), special	UE	44A092	V ₆	Tube, beam power amplifier, type 3Q5GT	RCA
C ₅₆				V ₇	Tube, half-wave high-vacuum rectifier, type 3Z5GT	RCA	90X3Z5GT
C ₅₇				V ₈	Same as V ₅		
C ₅₈				V ₉	Same as V ₇		
C ₅₉							
C ₆₀	Not used						
C ₆₁	Same as C ₄₀						
C ₆₂	Same as C ₂₁						
T ₁	Transformer, I-F, 455 KC., fixed primary trimmer 155 mmfd., fixed secondary trimmer 80 mmfd., primary and secondary are	SI	50A086	T ₁	FOR TROPICAL RECEIVERS USE THE ABOVE PARTS Transformer, I-F, 455 KC., fixed primary	SI	50A160

MODEL S-39, Skyranger

RECOMMENDED ANTENNA INSTALLATIONS

MFR. CONTR'S. CODE PART NO.

NAME OF PART AND DESCRIPTION

REF. SYMBOL

SI 50A151

Transformer, I-F, 455 KC., fixed primary trimmer 155 mmfd., fixed secondary trimmer 85 mmfd., primary and secondary are tuned by adjustable iron cores, vacuum impregnated with zophar #1340 and flash dipped in Hallowax #2012, special, (Note T₃ differs from T₁ and T₂ in the length of the wire leads)

T₃

SWI 51B648

Transformer, R-F, 4 unit assembly, tunes from 0.55 MC. to 30 MC. in 4 bands with condenser C₁ and C₂, inductance adjusted by movable iron cores, wax impregnated with Hallowax #2012

T₅
T₆
T₇
T₈

SWI 51B650

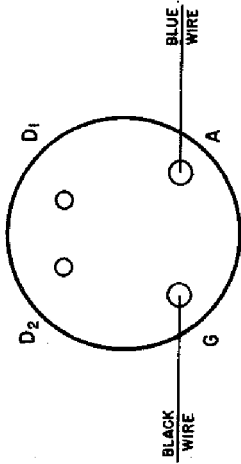
Transformer, R-F, 4 unit assembly, tunes from 0.55 MC. to 30 MC. in 4 bands with condenser C₁ and C₂, inductance adjusted by movable iron cores, wax impregnated with Hallowax #2012

T₉
T₁₀
T₁₁
T₁₂

SWI 51B649

Transformer, R-F, 4 unit assembly, tunes from 0.55 MC. to 30 MC. in 4 bands with condenser C₁ and C₂, inductance adjusted by movable iron cores, wax impregnated with Hallowax #2012

T₁₃
T₁₄
T₁₅
T₁₆



PL2
PIN VIEW

NOTE: PL2 IS SUPPLIED WIRED AS ABOVE

