Figure 7-7. Radio Receiver Model S-36A, schematic wiring diagram.

Ref. Symbol	Name of Part and Description	Function	Mfr Code and Type No.	Hallicrafter's Part No.
	CAPACITOR	es .		
c ₁	Capacitor, variable: air dielectric; 3 section; 9 plates with double spacing between plates; min. cap, 6 mmfd., max. cap. 54.7 mmfd.; plates are aluminum; shaft silver plated brass ½" long x 0.375" dia., with x 2B insulation on stators; front rotor section grounded to frame, other two sections insulated from frame; spade lug mtg.; solder lug terminals.	Secondary tuning of trans- formers T ₁ to T ₉ inclu- sive	OM special	48C147
c ₂	Capacitor, variable: air dielectric; single section; 7 plates; min. cap. 3 mmfd., max. cap. 25 mmfd.; aluminum plates; ceramic insulation; brass shaft 3/4" long x ½" dia., mtg. base ½" thick x 1-7/32" dia., mtg. centers 21/32"; total depth of unit 7/8"; solder lug terminals	ANTENNA tuning	BC type 22-7	48A039
c ₃	Capacitor, fixed: mica dielectric; 330 mmfd. \pm 10%; 500 V. D-C working; case 51/64" lg x 15/32" wd x 7/32" thk; same as C_5 , C_9 , C_{10} , C_{45} , C_{46} , C_{47} , C_{55} .	Secondary padder on transformer T ₅	ASA	CM20A331K
c ₄	Capacitor, fixed: mica dielectric; 2200 mmfd. \pm 10%; 500 V. D-C working; case 53/64" long x 53/64" wide x 9/32" thick; same as $^{\rm C}_{6}$, $^{\rm C}_{52}$, $^{\rm C}_{61}$.	Cathode by-pass for tube	ASA	CM30A222K
c_5	Same as C ₃	Screen by-pass for tube	1	-
c ₆ c ₇	Same as C ₄ Capacitor, fixed: ceramic dielectric; 10 mmfd. ± 10%; 500 V. D-C working; temp. coeff0.00055 mmfd/ mmfd/ deg. Cent.; case 0.625" long x 0.225" dia.	Plate return for tube V_1 Coupling between tubes V_1 and V_2	CRL type 811-077	47A006

c ₈	Capacitor, fixed: mica dielectric; 8200 mmfd. \pm 10%; 500 V. D-C working; case 1-1/32" long x 41/64" wide x 11/32" thick; same as C_{13} , C_{14} , C_{15} , C_{17} , C_{18} , C_{19} , C_{21} , C_{22} , C_{23} , C_{30} , C_{33} , C_{36} , C_{37} , C_{62} , C_{78} .	A-V-C filter	ASA	CM40A822K
c ⁹	Same as C ₃	Coupling between oscilla- tor tube V ₁₅ and mixer tube V ₂	- ,	-
c_{10}	Same as C ₃	Screen by-pass for tube	-	-
c ₁₁	Capacitor, variable: air dielectric; small variable capacity formed between a 6-32 metal screw and a CRS plate 5/8" wd x 13/16" lg, rolled to 3/16" ID, at one end, with a 7/32" dia mtg hole 3/16" center from other end x 7/32" center from top side; cadmium plated plate.	Trimmer adjustment for osc. tuning capacitor	H 48A140	48 A1 4 0
c ₁₂	Capacitor, fixed: paper dielectric; 1000 mmfd. + 100-20%; 600 V. D-C working; case 3/4" lg x ½" wd x 7/32" thk.	A-V-C filter for tube V ₃	CE	47A121
c ₁₃	Same as C ₈	Cathode by-pass for tube ${ m V}_3$	-	-
C ₁₄	Same as C ₈	Screen by-pass for tube V ₃	-	-
$\mathbf{c_{15}}$	Same as C _R	Plate return for tube V3	-	-
c ₁₆	Same as C ₁₂	A-V-C filter for tube V4	_	-
c ₁₇	Same as C ₈	Cathode by-pass for tube V_4	-	-
C ₁₈	Same as C ₈	Screen grid by-pass for tube V_A	-	-
c ₁₉	Same as C ₈	Plate return for tube V_A	-	-
c_{20}^{-0}	Capacitor, fixed: mica dielectric; 47 mmfd. + 10%; 500 V.	Coupling between trans-	ASA	CM20A470K
	D-C working; case $51/64$ " long x $15/32$ " wide x $7/32$ " thick; same as C_{31} .	former ${f T_{12}}$ and Tube ${f V_5}$,
c ₂₁	Same as C ₈	Cathode by-pass for tube $V_{f 5}$	-	<u></u>

Ref. Symbol	Name of Part and Description	Function	Mfr Code and Type No.	Hallicrafter's Part No.
c ₂₂	Same as C ₈	Screen grid by-pass for tube V ₅	-	-
С ₂₃ С ₂₄	Same as C_8 Capacitor, fixed: mica dielectric; 56 mmfd. \pm 10%; 500 V. D-C working; case 51/64" long x 15/32" wide x 7/32"; thk; same as C_{26}	Plate return for tube V_5 Diode return for tube V_6	ASA	- CM2OA560K
с ₂₅	Capacitor, fixed: paper dielectric; 0.05 mfd 6 + 14%; 600 V. D-C working; metal case 1-25/32" long x 1-1/32" deep x 13/16" high, with 2 mtg. feet with 2-1/8" mtg. centers; 2 solder lug terminals insulated from case by neoprene seals and phenolic washers; same as C ₃₅	A-N-L by-pass	IC type 7678	46A005
с ₂₆ С ₂₇	Same as C ₂₄ Capacitor, fixed: mica dielectric; 100 mmfd. ± 10%; 500 V. D-C working; case 51/64" lg x 15/32" wd x 7/32" thick.	Diode filter for tube V ₆ A-V-C filter	ASA	- CM2OA1O1K
c ₂₈	Capacitor, fixed: mica dielectric; 560 mmfd. ± 10%; 500 V. D-C working; case 53/64" long x 53/64" wide x 9/32" thick.	A-V-C filter	ASA	CM30A561K
C ₂₉	Capacitor, fixed: ceramic dielectric; 25 mmfd. ± 10%; 500 V. D-C working; negative 0 temp. coeff; body 5/8" lg x 3/16" dia.	Coupling between tube V ₇ and transformer T ₁₄	IRC special	47 A 142
°30 °31 °32	Same as C_8 Same as C_{20} Capacitor, fixed; mica dielectric; 560 mmfd. \pm 10%; 500 V. D-C working; case 1-1/16" long x 15/32" wide x 7/32" thick.	Plate return for tube V_7 Cathode by-pass for tube V_8 De-emphasis for tube V_8	- ASA	- - C M25 A561 K

\mathfrak{c}^{33}	Same as C ₈	Coupling between tubes V ₆ .	-	_
		V ₈ and V ₉		
c ₃₄	Capacitor, fixed: mica dielectric; 1000 mmfd ± 10%; 500 V. D-C working; case 53/64" square x 9/32 thk.	Grid by-pass for tube V ₁₂	ASA	CM30A102K
c ₃₅	Same as C ₂₅	Tone control for tubes V ₁₁	-	-
c_{36}	Same as C ₈	and V ₁₂ Coupling between tubes V ₉	-	_
c ₃₇	Same as C ₈	and V ₁₂ Coupling between tubes V ₉	-	-
c ₃₈	Capacitor, fixed: paper dielectric; 20 mfd 10 + 75%; 25 V. D-C working; case hermetically sealed metal 2-1/8" long x 1" deep x 13/16" high; 2 mtg. feet with 2-1/8" mtg. centers; 2 solder lug terminals insulated from the case; same as C ₄₀	and V ₁₁ Cathode by-pass for tube V ₉	IC type 1B113	46A011
c ₃₉	Capacitor, fixed: mica dielectric; 150 mmfd. ± 10%; 500 V. D-C working; case 51/64" lg x 15/32" wd x 7/32" thk	Tone control for tubes V ₁₁ and V ₁₂	ASA	CM20A151K
c ₄₀	Same as C ₃₈	Cathode by-pass for tube	-	-
C ₄₁ C ₄₂ C ₄₃ C ₄₄	Not used Capacitor, fixed: paper dielectric; triple unit; unit #1 is 4 mfd. 650 V. D-C working (C_{42}) , unit #2 is 8 mfd. 650 V. D-C working (C_{43}) , unit #3 is 8 mfd. 650 V. D-C working (C_{44}) ; hermetically sealed metal case $4-\frac{1}{4}$ " long x $2-\frac{1}{2}$ " deep x 5-7/16" high: 2 mtg. feet with $4-3/4$ " x 2" mtg. centers; 4 solder lug terminals (one common to all units) insulated from the case by bakelite and neoprene washers; terminals marked "8", "4", "8".	Power supply filter	IC type 7392E	428043
^C 45	Same as C ₃	Heater by-pass for tube	-	- '
^C 46	Same as C ₃	Heater by-pass for tube V ₂	_	_
C47	Same as C3	Heater by-pass for tube V ₁		

Ref. Symbol	Name of Part and Description	Function	Mfr Code and Type No.	Hallicrafter's Part No.
C48	Capacitor, fixed: mica dielectr1c; 8200 mmfd \pm 20%; 500 V. D-C working; case 53/64" square x 11/32" thk; same as $^{\rm C}$ 49, $^{\rm C}$ 50, $^{\rm C}$ 51.	Power line filter in IF ₁	ASA	CM35A822M
C49	Same as C ₄₈	Power line filter in IF1	-	-
C ₅₀	Same as C ₄₈	Power line filter in LF	-	•
C ₅₁	Same as C ₄₈	Power line filter in LF	-	_
C ₅₂	Same as C ₄	Plate decoupling for tube	-	-
^C 53	Capacitor, fixed: mica dielectric; 100 mmfd ± 20%; 500 V. D-C working; case 51/64" lg x 15/32" wd x 7/32" thk.	B-F-0 grid coupling	ASA	CM20A101K
^C 54	Capacitor, fixed: ceramic dielectric; 200 mmfd ± 10%; 500 V. D-C working; zero temp. coeff; body 1.875" lg x 0.265" dia.	B-F-0 tuning on L ₅	ER	47A026
c ₅₅	Same as C ₃	Plate decoupling for tube	-	<u>.</u>
^C 56	Capacitor, fixed: ceramic dielectric; 50 mmfd ± 2.5 mmfd; 500 V. D-C working; neg. 0.00075 mmfd/mmfd/deg. Cent.; body 7/16" lg x 7/32" dia.	Plate decoupling for tube	ER type N750K	47A1 09
c ₅₇	Capacitor, fixed: ceramic dielectric; 1000 mmfd ± 20%; 500 V. D-C working; body 11/16" lg x 3/16" dia.	Grid coupling for tube V ₁₅	MT type 20K12OO	47A132
c ₅₈	Capacitor, adjustable: mica dielectric; 450 mmfd ± 10%; bakelite mtg. insulation; 2 solder lug terminals to which are attached #1SAWG tinned copper leads 1" long, both leads insulated from the frame; special L shaped mtg. frame 1"x 7/8" x 1"; octagon condenser frame 3/4" diam.	Padder for transformer T ₇	UE type S81A	44 A0 5 0 ′

c ₅₉	Capacitor, fixed: twisted pair of leads to form 1 mmfd capacity.	Coupling between tubes V_{14} and V_6	-	-
c ₆₀	Capacitor, variable: air dielectric; min. cap. 3.5 mmfd, max. cap. 23 mmfd; ceramic insulation; 2 mtg. holes with 21/32" mtg. centers; one solder lug terminal (rotor plates); wire slot on stator plates mtg. posts; shaft 29/32" long x ½" dia.; base 1-7/32" long x 15/16" wide; overall depth 2-3/8".	Pitch control for tube T ₁₄	RC type 22-7	484064
C ₆₁	Same as C ₄	Screen grid by-pass for tube Vo	-	-
c ₆₂	Same as C ₈	Plate decoupling for tube	<u>-</u>	-
c ₆₃	Capacitor, adjustable: mica dielectric; min. cap. 3 mmfd, max. cap. 50 mmfd; ceramic insulation; compression type adjustment; unit is 3/4" long x 5/8" wide x 11/16" deep including 2 solder lug terminals.	Secondary trimmer for transformer T ₄	UE Special	44 A049
c ₆₄	Capacitor, adjustable: ceramic dielectric; 4 to 20 mmfd; 300 V. D-C working; screw driver adjustment; vertically mounted by a CRS special mtg bracket; same as C ₆₅ .	Secondary trimmer for transformer T ₅	H Special	44A101
c ₆₅	Same as C ₆₄	Secondary trimmer for transformer T ₆	-	<u>-</u>
^C 66	Capacitor, adjustable: air dielectric; 1 to 12 mmfd; bake-lite insulation; screw driver adjustment; 1-11/64" lg x 0.555" dia. overall excluding solder lug terminals; same as C ₆₇ .	Secondary trimmer for transformer T ₇	MN type 22-5230 modified	44A140
c ₆₇	Same as C ₆₆	Secondary trimmer for transformer T _R	-	- ,
c ₆₈	Capacitor, fixed: ceramic dielectric; 100 mmfd \pm 3%; 500 V. D-C working; neg. 0.00005 mmfd temp. coeff.; body 3/4" lg x \pm " dia.; same as C_{69} , C_{70} , C_{71} , C_{72} , C_{73} , C_{76} , C_{77} .	1 0	ER Special	47A117

Ref. Symbol	Name of Part and Description	Function	Mfr Code and Type No.	Hallicrafter's Part No.
c ₆₉	Same as C ₆₈	Secondary trimmer for transformer T ₁₀	-	-
c ₇₀	Same as C ₆₈	Primary trimmer for trans- former T ₁₁	-	-
c ₇₁	Same as C ₆₈	Secondary trimmer for transformer T ₁₁	~	-
c ₇₂	Same as C ₆₈	Primary trimmer for trans- former T ₁₂	-	~
c ₇₃	Same as C ₆₈	Secondary trimmer for transformer T ₁₂	-	-
C ₇₄	Capacitor, fixed: ceramic dielectric; 50 mmfd \pm 10%; 500 V. D-C working; zero temp. coeff; body $3/4$ lg x $1/4$ dia.; same as C_{75} .		ER Special	47A091
c ₇₅	Same as C ₇₄	Secondary trimmer for transformer T ₁₄	-	_
c ₇₆	Same as C ₇₄	Primary trimmer for trans- former T ₁₃	• -	~
C ₇₇	Same as C ₇₄	Secondary trimmer for transformer T ₁₃	~	- -
C ₇₈	Same as C ₈	Plate decoupling for tube	-	-
	FUSES	•		
FS ₁	Fuse: 3 amperes @250 V.; 4AG; glass enclosed; 1-4" long x 9/32" dia.; caps nickle plated copper alloy; carries 110% of rated current; vibration factor is 200.	Power transformer primary protection	LF type 1093	39A318

JACKS					
J ₁	Jack, phone: switching-one make, one break; steel frame; silver contacts; rubber and bakelite insulation; mounted by 3/8-32 brass bushing ½* long; frame dimensions 1-19/32* x 27/32* x 3/4*; solder lug contacts; 1* from front of bushing to tip contact.	600 ohm headset connector.	U type ST-687 modified	368008	
	INDUCT	CORS			
L ₁	Inductor, R-F: 75 turns of #38SCE single layer winding; inductance 15.5 microhenries ± 10%; d-c resistance 4.10 chms ± 3%; wound on molded bakelite coil form 15/16* long x 5/32* dia., coated with Chinese red lacquer; air core.	Plate choke for tube V ₁₅	SWI type 661	53A008	
L ₂	Inductor, line filter: 57 turns of #22SCE universal winding; 46 microhenries inductance; winding ½* ID x 1-1/16* OD x 9/32* lg; air core; coil form 1* lg x ½* dia., tapped 6-32 at each end for mtg.	Power line filter choke	Н 53A082	53A062	
L ₃ L ₄	Same as L ₂ Inductor, R-F: 42 turns of #288CE single layer winding; inductance 4.20 microhenries ± 10%; d-c resistance 0.25 ohms ± 70%; wound on molded bakelite coil form 7/8* long x 9/32* dia., coated with Chinese blue lacquer; air core.	Power line filter choke Choke for heater of tube V ₁₅	SWI type 662	- 53A009	
L ₅	Inductor, beat frequency oscillator: 15-7/8 turns of #15/44 D cel. litz single layer winding tapped 3-1/8" turns and 10-7/8 turns from start of winding; coil wound on xx bakelite tube 1-5/8" long x $\frac{1}{2}$ " 0.D. x 0.409" I.D.; tuned by adjustable iron core; unit shielded; assembly includes resistor R_{61} and capacitors C_{53} , C_{54} , and C_{59} .	Beat frequency oscillator (B-F-0) coil	SWI type 3491	540024	

Ref. Symbol	Name of Part and Description	Function	Mfr Code and Type No.	Hallicrafter's Part No.
L ₆	Inductor assembly, filter: 2 section unit; section #1 inductance 3 henries – 10 + 30% @ 150 milliamperes; d-c resistance 85 ohms \pm 10%; connected to solder lug terminals #2 and #3 (L_6); section #2 inductance 12 henries – 10 + 20%, @ 90 milliamperes; d-c resistance 215 ohms \pm 10%; connected to solder lug terminals #1 and #2 (L_7); each section has a separate iron core; coils and cores located so no mutual coupling exists; hermetically sealed case 3-4" long x 2-9/16" deep x 5-½" high; unit mounts by 4 threaded lugs with 2-5/8" x 1-9/16" mtg. centers; breakdown between core and windings 2000 V. RMS; heat rise under rated load 40 deg. Cent. or less	Power supply filter choke	ST type 10CU23	56C048
	LINE F	ILTERS		
IF ₁	Line filter assembly: consists of inductors L_2 and L_3 , and capacitors C_{48} , C_{49} , C_{50} and C_{51} , mounted in drawn aluminum can 4-15/32" high, x 1-3/8" wide x 1-13/16" deep with solder lug terminals and mounted by 4 spade lugs.	A-C line filter	SWI type 3492	53A056
	LAMI	PS		
IM ₁	Lamp: bayonet base 6 to 8 volts @ 250 milliamperes; glass bulb; same as ${\rm LM}_2$	Main tuning dial lamp	GE type 44	3 9A 003
IM ₂	Same as IM ₁	Vernier tuning dial lamp	-	-
j i	•			l

	MET!	ERS		
M ₁	Meter, "S" meter: calibrated in "S" units; 160-0-40 micro-amperes movement; body 2.82" dia. x 1.56" deep; round flush type mtg. plate 3.5 0.D., with 3 mtg. holes 120 degrees apart; includes 2 terminals ±-28-NF2 which project 0.69" from rear of meter.	A.M./F.M. tuning meter	H Special	82A097
	PLU	GS		
PL ₁	Plug and line cord assembly: 2 conductor #18 type S-J all rubber covered cord 6 feet long with a spring type (allied type 371) molded on plug at one end and stripped and tinned for 5/8" at the other end.	A-C power line connection	B type 1750	87A125
PL_2	Plug, octal: male, bakelite body 1-±" 0.D. x 7/16" thick; metal contact prongs 7/16" long; supplied with insulated jumpers between contacts 3 and 4, and contacts 6 and 7.	Shorting plug for A-C operating and remote stand-by connection	AP type CP-8	35A003
	RESIS	TORS		
R ₁	Resistor, fixed: 270 ohms ± 10%; ½ watt; carbon; insulated; 0.249" 0.D. x 0.655" long.	Cathode bias for tube V ₁	ASA	RC21AF271K
R_2	Resistor, fixed: 1000 ohms \pm 10%; $\frac{1}{2}$ watt; carbon; insulated; 0.249 0.D. x 0.655 long; same as R_3 , R_6 , R_{21} , R_{27} , R_{67} .	Screen voltage dropping for tube V ₁	ASA	RC21AE102K
R_3	Same as R ₂	Plate decoupling for tube	-	-
R ₄	Resistor, fixed: 10,000 ohms ± 20%; 2 watt; carbon; insulated; 0.342 0.D. x 1.76 long.	Plate decoupling for tube	ASA	RC41AE103M
$R_{\overline{5}}$	Resistor, fixed: 2200 ohms ± 10%; ½ watt; carbon; insulated; 0.249 0.D. x 0.655 long; same as R ₂₉ , R ₇₂ .	Cathode bias for tube $\mathbf{V_2}$	ASA	RC21AE222K

Ref. Symbol	Name of Part and Description	Function	Mfr Code and Type No.	Hallicrafter's Part No.
R ₆	Same as R ₂	Screen voltage dropping for tube V ₂	-	-
R ₇	Resistor, fixed: 100,000 ohms ± 10%; ½ watt; carbon; insulated; 0.249* 0.D. x 0.655* long; same as R ₃₃ , R ₄₀ , R ₄₁ , R ₅₁ .	Screen voltage dropping for tube ${ m V}_2$	ASA	RC21AE104K
R ₈ R ₉	Not used Resistor, fixed: 10 ohms ± 10%; ½ watt; carbon; insulated; 0.249" 0.D. x 0.655" long; same as R ₁₆ , R ₂₃ , R ₂₆ .	1st I-F band expansion on transformer T ₁₀	ASA	RC21AE100K
R ₁₀	Resistor, fixed: 100,000 ohms ± 10%; ½ watt; carbon; insulated; 0.170° diam x 0.406° long.	A-V-C decoupling for tube	ASA	RC10AE104K
R ₁₁	Resistor, variable: 10,000 ohm ± 20%; #8 reversed taper; shaft 1" long x ½" dia.; 3 solder lug terminals with the variable contact located in the center and the fixed contacts 1-7/16" apart; no taps; includes a toggle action switch (SW ₃) on rear which closes the circuit when the control is turned to the extreme right (clockwise).	R.F. GAIN control	CT type 135	25C058G
R ₁₂	Resistor, fixed: 120 ohms ± 10%; ½ watt; carbon; insulated; 0.249 0.D. x 0.468 long.	Cathode bias for tube V9	ASA	RC20AE121K
R ₁₃	Resistor, fixed: 120 ohms \pm 10%; $\frac{1}{2}$ watt; carbon; insulated; 0.249* 0.D. x 0.655* long; same as R_{20} .	Cathode bias for tube V ₃	ASA	RC21AE121K
R ₁₄	Resistor, fixed: 39,000 ohms ± 10%; ½ watt, carbon; insulated; 0.249" 0.D. x 0.655" long.	Screen voltage dropping for tube V ₃	ASA	RC21AE393K
R ₁₅	Resistor, fixed: 330 ohms ± 10%; ½ watt; carbon; insulated; 0.249 0.D. x 0.655 long; same as R ₂₂ , R ₂₅ , R ₆₂ .	Plate decoupling for tube V ₃	ASA	RC21AE331K

9	1		
	2nd I-F band expansion on	-	-
	transformer T ₁₁		
fixed: 33 ohms ± 10%; ½ watt; carbon; insulated;	Parasitic suppressor for		
0.D. x 0.655" long; same as R_{55} , R_{57} , R_{65} .	tube V	ASA	RC21AE330K
10	A-V-C decoupling for tube	-	-
13	V ₄ Cathode bias for tube V ₄	_	_
13	Screen voltage dropping	-	_
2	for tube V ₄		
15	Plate decoupling for Tube V ₄	-	-
	3rd I-F band expansion on	_	-
9	transformer T ₁₂	-	-
fixed: 470,000 ohms ± 10%; ± watt; carbon; in-	Grid return for tube V ₅	ASA	RC21 AE474K
; 0.249" 0.D. x 0.655" long; same as R ₃₅ , R ₅₆ .			
15	Cathode bias for tube V ₅	-	_
9	Parasitic suppressor for tube V,	-	-
2	Plate decoupling for tube	- .	- ,
fixed: 7500 ohms + 5%; 10 watt; wire wound;	Screen voltage dropping	IRC	24B6752D
with baked vitreous enamel; 3/8" 0.D. x 1-3/4"	for tubes V_1 , V_5 and V_7	type	
	1, 0	AB	
5	Screen and plate voltage	-	-
0	dropping for tube V ₇		
fixed: 22,000 ohms ± 10%; 2 watt; carbon; in-	Screen voltage divider for	ASA	RC41AE223K
; 0.342" 0.D. x 1.76" long; same as R ₆₀ .	tube V ₇		,
fixed: 47,000 ohms \pm 10%; $\frac{1}{2}$ watt; carbon; in; 0.249" 0.D. x 0.655" long.	Diode load for tube V6	ASA	RC21 AE473 K
f:	ixed: 47,000 ohms \pm 10%; $\frac{1}{2}$ watt; carbon; in-	ixed: 47,000 ohms \pm 10%; $\frac{1}{2}$ watt; carbon; in-	ixed: 47,000 ohms ± 10%; ½ watt; carbon; in- Diode load for tube V ₆