

**SECTION VII
DRAWINGS**

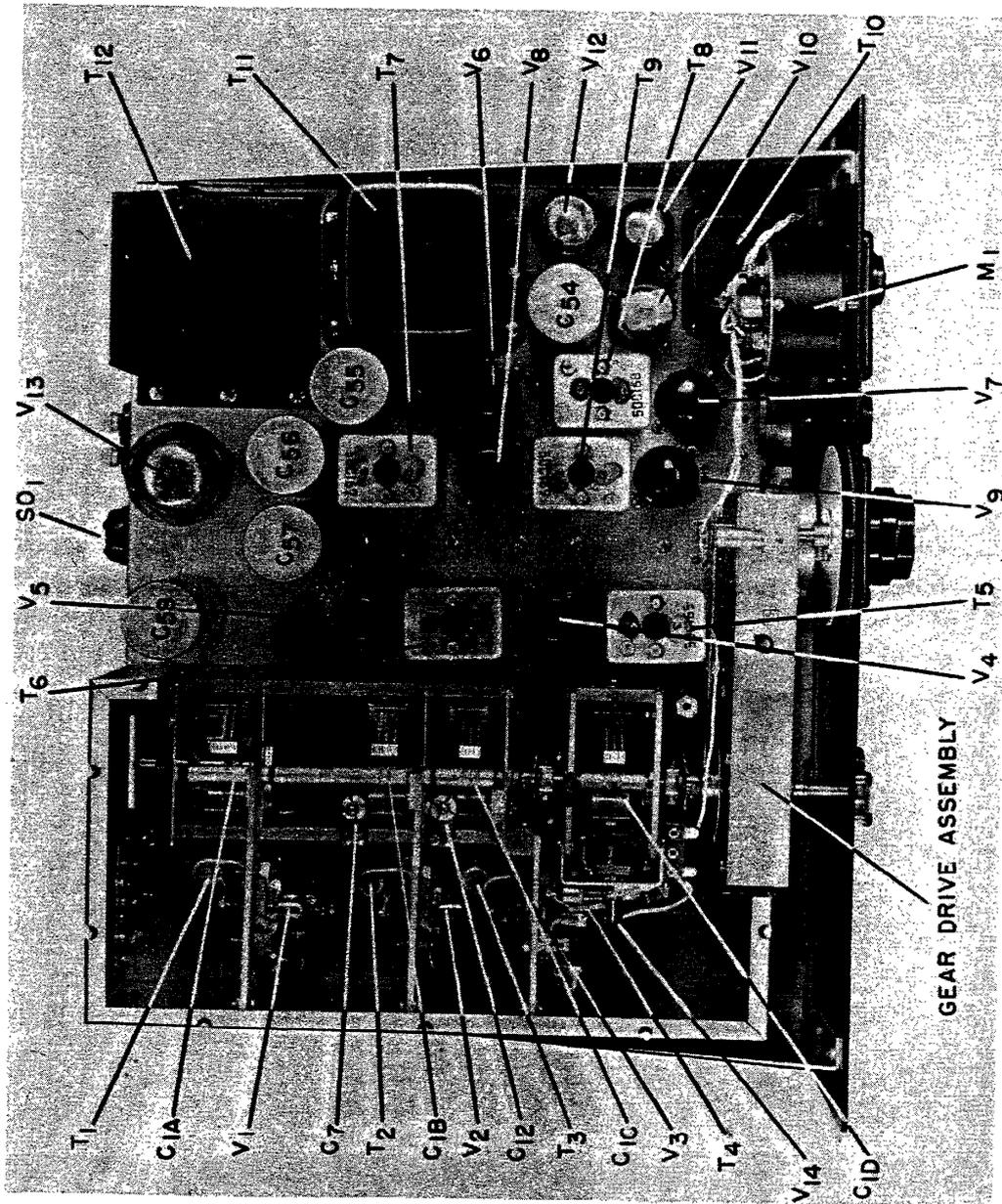
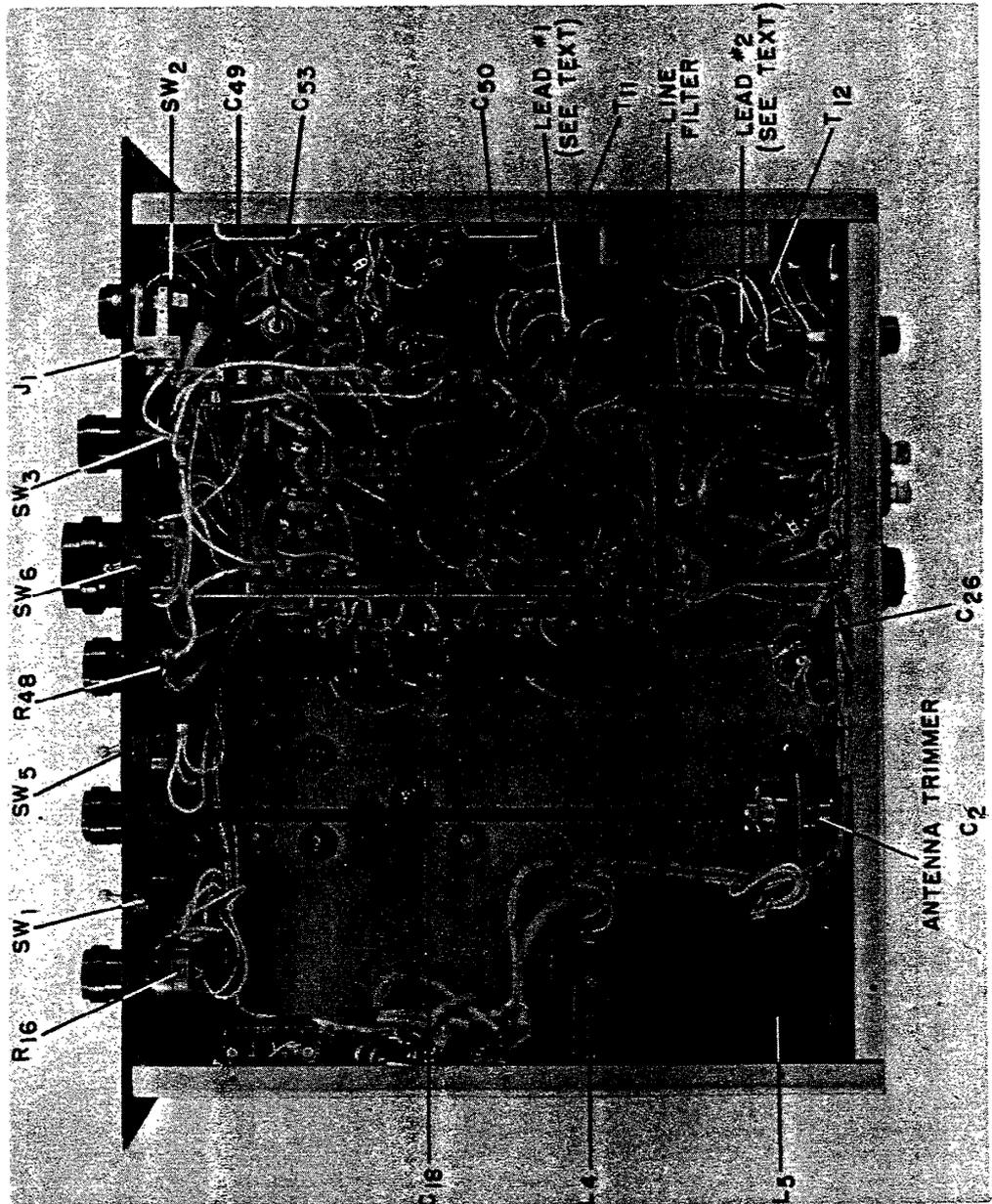


Figure 7-1. Radio Receiver Model S-37, top view.



1360
5

Figure 7-2. Radio Receiver Model S-37, bottom view.

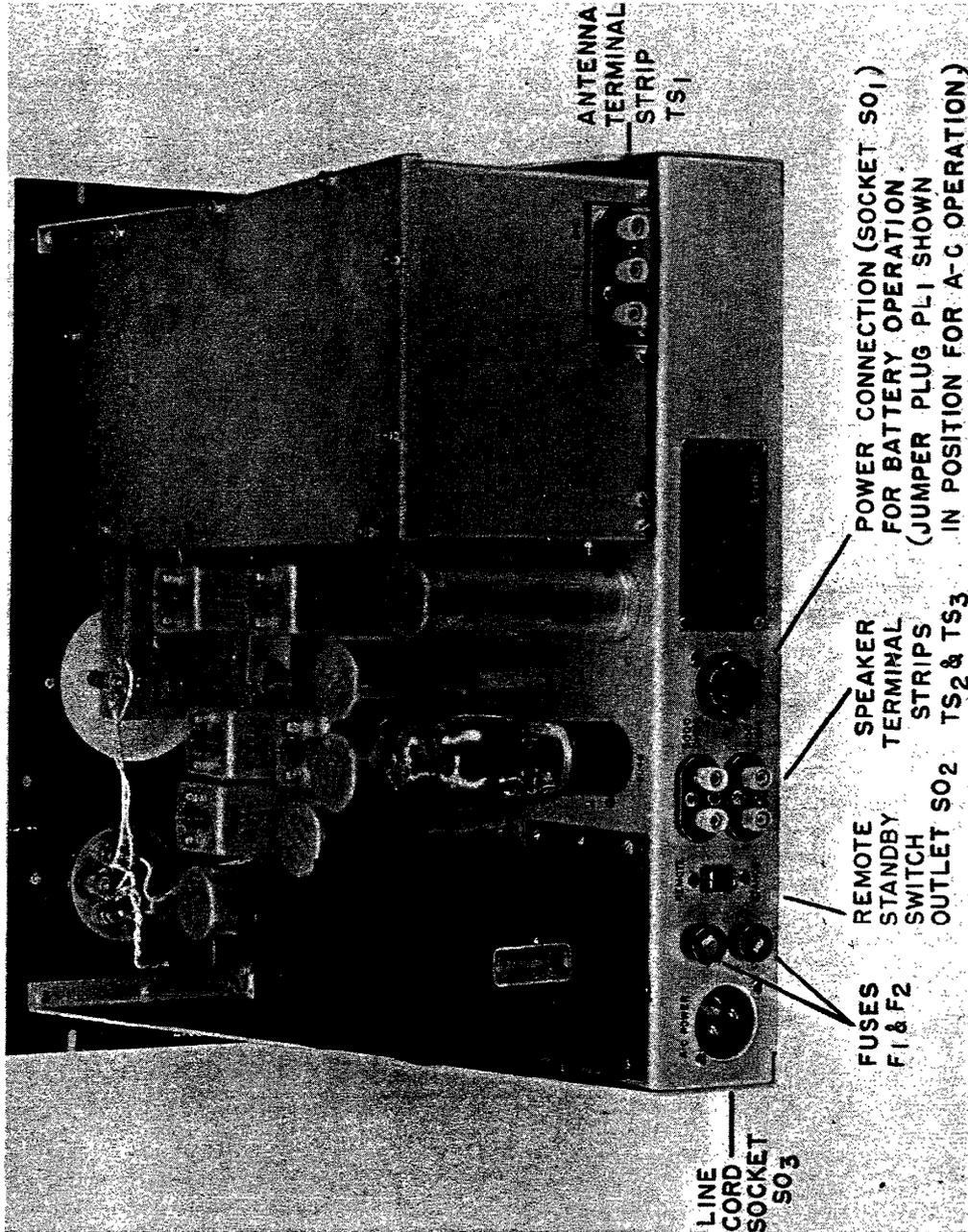


Figure 7-3. Radio Receiver Model 8-37, rear view.

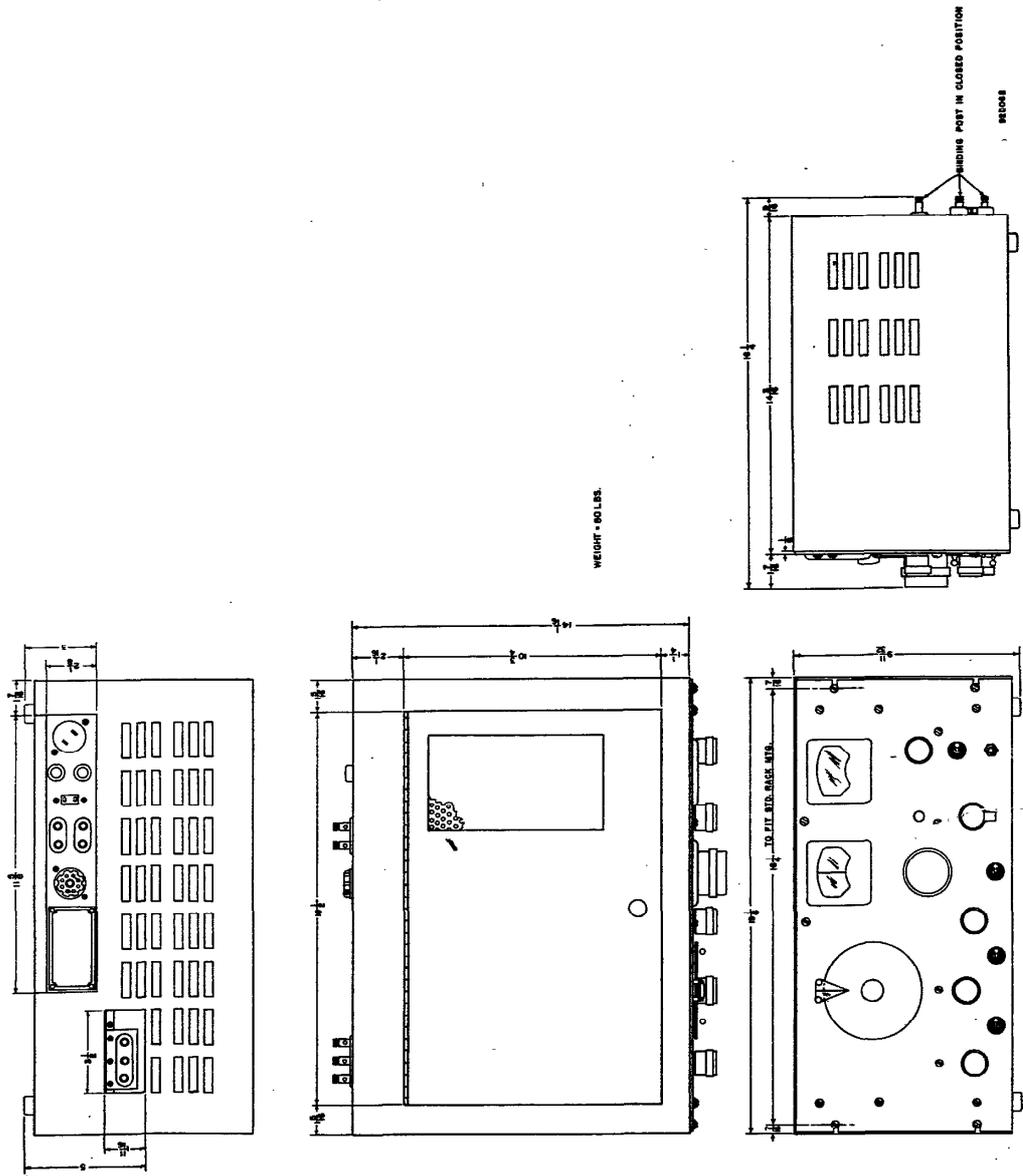


Figure 7-4. Radio Receiver Model S-37, outline dimensions.

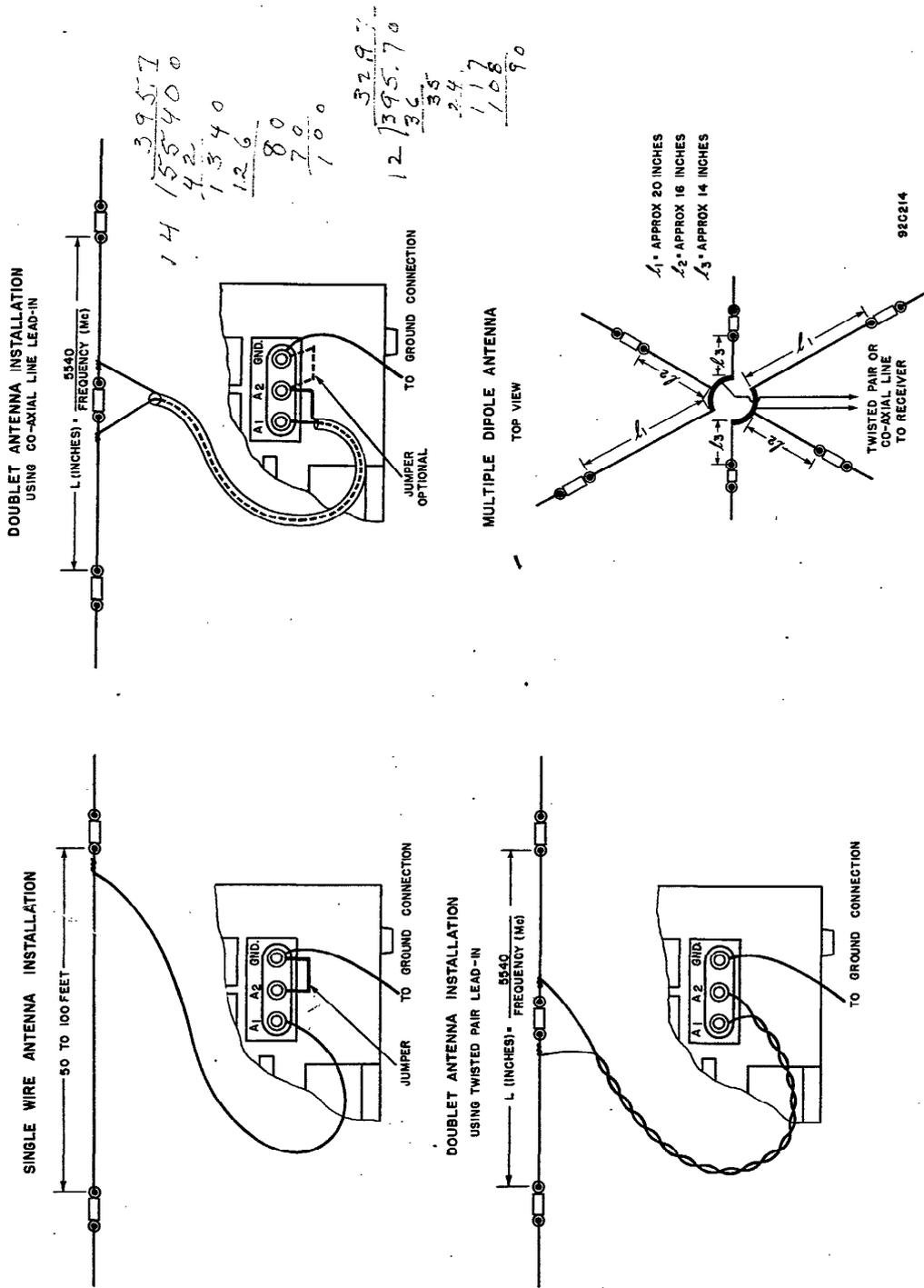
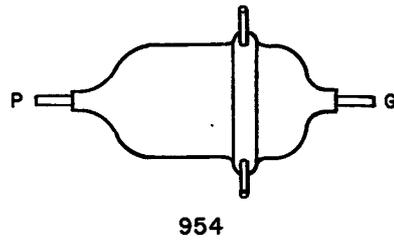
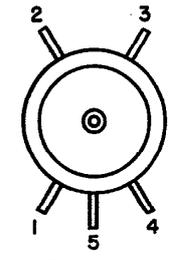


Figure 7-5. Radio Receiver Model 8-37, recommended antenna installations.

ACORN TYPE TUBES

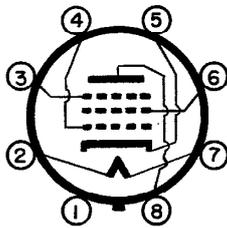


- 954
 1 HEATER
 2 SCREEN
 3 SUPPRESSOR
 4 HEATER
 5 CATHODE

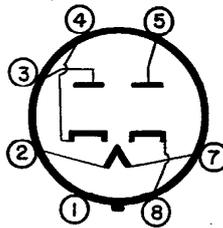


- 955
 1 HEATER
 2 PLATE
 3 GRID
 4 HEATER
 5 CATHODE

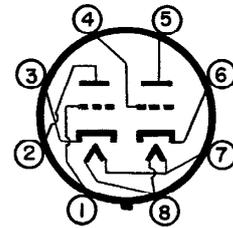
STANDARD TYPE TUBES



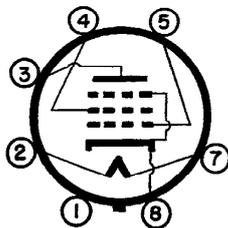
6AC7
 6AB7
 6SK7



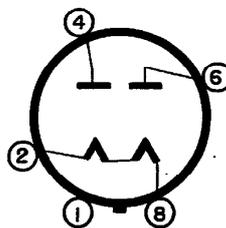
6H6



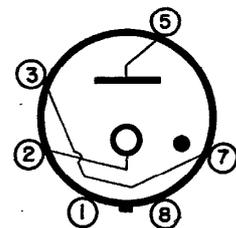
6SL7-GT



6V6-GT/G



5U4-G



OD3/VR150

928227

Figure 7-6. Radio Receiver Model S-37, tube socket connections.

SECTION VIII
PARTS LIST

MODEL S-37 PARTS LIST

Ref. Symbol	Name of Part and Description	Function	Mfr Code and Type No.	Hallicrafter's Part No.
C _{1A} C _{1B} C _{1C}	Capacitor, variable; air dielectric; 4 sections, section 1 (C _{1A}), approx. 6 mmf min to 26 mmf max. sections 2 & 3 (C _{1B} and C _{1C}) capacity approx. 6 mmf min to 34 mmf max. section 4 (C ₂) capacity; approx. 6 mmf min. to 10.5 mmf max; 6- $\frac{1}{4}$ " lg excluding shaft, shaft $\frac{1}{2}$ " lg x 0.375/0.373" diam. for sections 1, 2 and 3, shaft for section 4 is 21/32" lg x $\frac{1}{4}$ " diam; section 1 has 4 plates, sections 2 & 3 have 5 plates each, section 4 has 6 plates, common stator plates for sections 1 and 4; X2B bakelite insulation; spade lug mtg bolts not supplied with unit; each section has rotor shaft insulated from other sections; section 4 is separate rotor assembly bolted to main unit so that the plates mesh with section 1 stator plates and has its own drive shaft assembly consisting of a 1 to 1 ratio brass and fibre gear drive assembly.	R-F amplifier tuning	OM Special	48C067
C _{1D}	Capacitor, variable, single section, effective capacity 28 mmf., air dielectric, unit is ganged to C ₁ .	Oscillator tuning	H Special	48B066
C ₂	Section 4 of Hallicrafters variable capacitor assembly 48C067; refer to description of C _{1A} , C _{1B} , C _{1C} for details.	Antenna trimmer	-	-
C ₃	Capacitor, fixed; mica dielectric; 330 mmf. \pm 20%; 500 v dcw; case 51/64" lg x 15/32" wd x 7/32" thk; two #20 AWG wire leads 1-1/8" lg; humidity resistant; same as C ₄ , C ₅ , C ₈ , C ₉ , C ₁₁ , C ₁₃ , C ₅₉ , C ₆₁ , C ₆₂ , C ₆₃ , C ₇₀ , C ₇₂ .	Cathode by-pass for tube V ₁	ASA	CM20A331H
C ₄	Same as C ₃ .	Screen by pass for tube V ₁	-	-

C ₅	Same as C ₃ .	Plate circuit return for tube V ₁	-	-
C ₆	Capacitor, fixed; ceramic dielectric; 5-6½ mmf; 500 vdcw; TC-0.00075 mmf/mm ² /°C; case 0.625" lg x 0.225" dia; two #22 AWG tinned copper or brass wire leads 1-½" lg; same as C ₁₀ .	Coupling between plate of tube V ₁ and control grid of tube V ₂	CRL type 807004 NTC	47A005
C ₇	Capacitor, variable; polystyrene dielectric; 2 mmf; same as C ₁₂ .	Trimmer for secondary of transformer T ₂	H Special	44A081
C ₈	Same as C ₃ .	Cathode by-pass for tube V ₂	-	-
C ₉	Same as C ₃ .	Screen by-pass for tube V ₂	-	-
C ₁₀	Same as C ₆ .	Coupling between plate of tube V ₂ and control grid of tube V ₃	-	-
C ₁₁	Same as C ₃ .	Plate circuit return for tube V ₂	-	-
C ₁₂	Same as C ₇ .	Trimmer for secondary of transformer T ₃	-	-
C ₁₃	Same as C ₃ .	Screen by-pass for tube V ₃	-	-
C ₁₄	Capacitor, fixed; mica dielectric; 6200 mmf. ± 10%; 500 vdcw; case body 53/64" square x 11/32" thk; humidity resistant; two #18 AWG wire leads 1-1/8" lg; same as C ₂₁ , C ₂₈ .	Plate circuit return for tube V ₃	ASA	CM35A622J
C ₁₅	Capacitor, fixed; ceramic dielectric; 50 mmf. ± 10%; 500 vdcw; T. C. 0.00075 max negative; body 7/16" lg x 7/32" diam; two #22 AWG wire leads 1-½" lg; part of transformer T ₅ .	Primary fixed trimmer for i-f transformer T ₅	ER type K	47A091
C ₁₆	Same as C ₁₅ ; part of transformer T ₅ .	Secondary fixed trimmer for i-f transformer T ₅ .	-	-

MODEL S-37 PARTS LIST

Ref. Symbol	Name of Part and Description	Function	Mfr Code and Type No.	Hallicrafter's Part No.
C ₁₇	Capacitor, fixed: mica dielectric; 3900 mmf \pm 10%; 500 vdcw; case 53/64" x 53/64" x 11/32"; humidity resistant; two #18 AWG wire leads 1-1/8" lg; same as C ₇₄ .	A-V-C by pass.	ASA	CM35A392K
C ₁₈	Capacitor, variable; ceramic dielectric; 2-6 mmf.; solder lug terminals; same as C ₂₆ .	Neutralize 1st i-f amplifier tube V ₄	CRL type 820-A	44A079
C ₁₉	Capacitor, fixed: mica dielectric; 5800 mmf. \pm 10%; 500 vdcw; case body 53/64" x 53/64" x 11/32"; humidity resistant; two #18 AWG wire leads 1-1/8" lg; same as C ₂₄ , C ₂₇ , C ₇₆ .	Cathode by-pass for tube V ₄	ASA	CM35A562K
C ₂₀	Capacitor, fixed: mica dielectric; 2200 mmf \pm 20%; 500 vdcw; case 53/64" x 53/64" x 9/32"; humidity resistant, two #18 AWG wire leads 1-1/8" lg.	Screen by-pass for tube V ₄	ASA	CM30A222M
C ₂₁	Same as C ₁₄ .	Plate circuit return for tube V ₄	-	-
C ₂₂	Same as C ₁₅ ; part of transformer T ₆ .	Primary fixed trimmer for i-f transformer T ₆	-	-
C ₂₃	Same as C ₁₅ ; part of transformer T ₆ .	Secondary fixed trimmer for i-f transformer T ₆	-	-
C ₂₄	Same as C ₁₉ .	Cathode by-pass for tube V ₅	-	-
C ₂₅	Capacitor, fixed: mica dielectric; 3900 mmf \pm 10%; 500 vdcw; case 53/64" x 53/64" x 9/32"; humidity resistant; two #18 AWG wire leads 1-1/8" lg.	A-V-C by-pass for tube V ₅	ASA	CM30A332K
C ₂₆	Same as C ₁₈ .	Neutralize 2nd i-f amplifier tube V ₅	-	-

C ₂₇	Same as C ₁₉ .	Screen by-pass for tube V ₅	-	-
C ₂₈	Same as C ₁₄ .	Plate circuit return for tube V ₅	-	-
C ₂₉	Same as C ₁₅ ; part of transformer T ₇ .	Primary fixed trimmer for i-f transformer T ₇	-	-
C ₃₀	Same as C ₁₅ ; part of transformer T ₇ .	Secondary fixed trimmer for i-f transformer T ₇	-	-
C ₃₁	Not used.			
C ₃₂	Capacitor, fixed: mica dielectric; 2200 mmf \pm 10%; 500 vdcw; case 53/64" x 53/64" x 9/32"; humidity resistant; two #18 AWG wire leads 1-1/8" lg; same as C ₃₃ , C ₄₃ , C ₄₄ .	Cathode by-pass for tube V ₆	ASA	CM30A222K
C ₃₃	Same as C ₃₂ .	Screen by-pass for tube V ₆	-	-
C ₃₄	Capacitor, fixed: mica dielectric; 6200 mmf \pm 5%; 500 vdcw; case body 53/64" square x 11/32" thk; humidity resistant; two #18 AWG wire leads 1-1/8" lg.	Plate circuit return for tube V ₆	ASA	CM35A622J
C ₃₅	Same as C ₁₅ ; part of transformer T ₈ .	Primary fixed trimmer for i-f transformer T ₈	-	-
C ₃₆	Same as C ₁₅ ; part of transformer T ₈ .	Secondary fixed trimmer for i-f transformer T ₈	-	-
C ₃₇	Capacitor, fixed: mica dielectric; 47 mmf \pm 10%; 500 vdcw; case 51/64" x 51/64" x 9/32"; humidity resistant; two #20 AWG wire leads 1-1/8" lg; same as C ₃₈ , C ₄₆ .	R-F filter in diode load	ASA	CM20A470K
C ₃₈	Same as C ₃₇ .	R-F filter in diode load	-	-
C ₃₉	Capacitor, fixed: paper dielectric; 0.05 mfd \pm 20%; 400 vdcw; molded bakelite case 1-7/16" lg x 3/4" wd x 3/8" thk; two #20 AWG wire leads 1-1/2" lg.	A-N-L return for tube V ₇	MIC type 345	46AL503H
C ₄₀	Capacitor, fixed: ceramic dielectric; 25 mmf \pm 10%; 500 vdcw; T.C. negative 0.00075 mmf/mm/degree C; body 0.825" lg x 0.225" diam; two #22 AWG wire leads 1-1/2" lg; part of discriminator transformer T ₉ .	Discriminator transformer coupling	ER type K	47A103

MODEL S-37 PARTS LIST

Ref. Symbol	Name of Part and Description	Function	Mfr Code and Type No.	Hallcrafters' Part No.
C ₄₁	Same as C ₁₅ ; part of discriminator transformer T ₉ .	Primary tuning for discriminator transformer T ₉	-	-
C ₄₂	Same as C ₁₅ ; part of discriminator transformer T ₉ .	Secondary tuning for discriminator transformer T ₉	-	-
C ₄₃	Same as C ₃₂ .	Plate circuit return for tube V ₈	-	-
C ₄₄	Same as C ₃₂ .	Screen by-pass for tube V ₈	-	-
C ₄₅	Capacitor, fixed: mica dielectric; 470 mmf \pm 10%; 500 vdcw; case 51/64" x 15/32" wd x 7/32" thk; humidity resistant; two #20 AWG wire leads 1-1/8" lg; same as C ₄₇ .	A-V-C circuit by-pass at tube V ₈	ASA	CM20A471K
C ₄₆	Same as C ₃₇ .	Cathode circuit by-pass at tube V ₀	-	-
C ₄₇	Same as C ₄₅ .	Part of de-emphases circuit	-	-
C ₄₈	Capacitor, fixed: mica dielectric; 8200 mmf \pm 10%; 500 vdcw; case 53/64" x 53/64" x 11/32"; humidity resistant; two #18 AWG wire leads 1-1/8" lg; same as C ₅₁ , C ₅₂ , C ₆₄ , C ₆₅ , C ₆₆ , C ₆₇ .	A-F coupling to grid of tube V ₁₀	ASA	CM35A822K
C ₄₉	Capacitor, fixed: electrolytic; 20 mfd -20 + 50%; 100 vdcw; bathtub metal case 1-3/4" lg x 1" wd x 13/16" h, excluding lugs; two mtg lugs with 2-1/8" mtg/c; two solder lug terminals; same as C ₅₀ .	Cathode by-pass for tube V ₁₀	IC type 100BE20	45B033
C ₅₀	Same as C ₄₉ .	Cathode by-pass for tube V ₁₁	-	-

C ₅₁	Same as C ₄₈ .	Tone control capacitor at tube V ₁₁	-	-
C ₅₂	Same as C ₄₈ .	A-F coupling at grid of tube V ₁₁	-	-
C ₅₃	Capacitor, fixed; paper dielectric; 0.005 mfd \pm 20%; 1000 vdw; round metal case 2- $\frac{1}{4}$ " h x 11/16" diam; oil filled; one mtg hole 9/16" from center of unit on mtg base; mtg hole .178/.188" diam.; base is one terminal, solder lug on top is other terminal.	Plate circuit by-pass for tube V ₁₁	IC	46A007
C ₅₄	Capacitor, fixed; paper dielectric; 4 mfd. \pm 10%, 600 vdw; tubular metal case 4-1/2" lg x 1-1/2" diam. overall; mtd by bushing having 3/4-16 NF-2 thd, nut and lock washer included; solder lug is one terminal, can is other terminal; same as C ₅₅ , C ₅₆ , C ₅₇ , C ₅₈ .	Power supply filter	CD type TL6040	46A018
C ₅₅	Same as C ₅₄ .	Power supply filter	-	-
C ₅₆	Same as C ₅₄ .	Power supply filter	-	-
C ₅₇	Same as C ₅₄ .	Power supply filter	-	-
C ₅₈	Same as C ₅₄ .	Power supply filter	-	-
C ₅₉	Same as C ₃ .	R-F by-pass at filament of tube V ₃	-	-
C ₆₀	Capacitor, fixed; mica dielectric; 330 mmf \pm 10%; 500 vdw; case 51/64 lg x 15/32" wd x 7/32" thk; humidity resistant; two #20 AWG wire leads 1-1/8" lg.	R-F by-pass at filament of tube V ₃	ASA	CM20A331K
C ₆₁	Same as C ₄₅ .	R-F by-pass at filament of tube V ₁₄	-	-
C ₆₂	Same as C ₃ .	R-F by-pass at filament of tube V ₂	-	-
C ₆₃	Same as C ₃ .	R-F by-pass at filament of tube V ₁	-	-
C ₆₄	Same as C ₄₈ .	A-C line filter	-	-
C ₆₅	Same as C ₄₈ .	A-C line filter	-	-

MODEL S-37 PARTS LIST

Ref. Symbol	Name of Part and Description	Function	Mfr. Code and Type No.	Hallicrafter's Part No.
C ₆₆	Same as C ₄₅ .	A-C line filter	-	-
C ₆₇	Same as C ₄₅ .	A-C line filter	-	-
C ₆₈	Capacitor, fixed; silver mica dielectric; 150 mmf \pm 20%; 500 vdcw; button type; 13/32" x 29/64" diam; 2 solder lug terminals; mtg hole tapped #3-48 x 11/64" d.	Grid return by-pass for tube V ₁₄	ER type 370-A	47A135
C ₆₉	Not used.			
C ₇₀	Same as C ₃ .	Cathode return for tube V ₃	-	-
C ₇₁	Capacitor, fixed; ceramic dielectric; 100 mmf \pm 5 mmf; 500 vdcw; T.C. positive 0.0007 mmf/mm/degree C; body 11/16" lg x 7/32" diam; vacuum wax impregnated; two #20 AWG wire leads 1-1/2" lg; part of oscillator transformer T ₄ .	R-F coupling for plate of tube V ₁₄	ER type N-750L	47A108
C ₇₂	Same as C ₄₅ .	Plate circuit by-pass for tube V ₁₄	-	-
C ₇₃	Same as C ₁₅ ; part of transformer T ₇ .	Grid coupling for tube V ₈	-	-
C ₇₄	Same as C ₁₇ .	A-V-C by-pass for tubes V ₄ and V ₅	-	-
C ₇₅	Not used.			
C ₇₆	Same as C ₁₉ .	Hash filter for tube V ₁₂	-	-
F ₁	Fuse, cartridge; 3 amp 250-volt; 3 AG; glass enclosed; ferrule caps; same as F ₂ .	Line fuse	LF type 1043	39A301
F ₂	Same as F ₁ .	Line fuse	-	-
J ₁	Jack, telephone; headphone; short; takes standard tip and sleeve; mounts by bushing 3/8"-32x3/8"; furnished with one brass hex nut and one brass ni pl 5/8" OD washer; solder lug terminals.	Headphone connection	U type ST-627	36B011

L ₁	Coil, r-f: 15.5 uh \pm 10%; distributed capacity 1 mmf \pm 20%; d-c resistance 4.10 ohms \pm 3%; "Q" with 100 mmf capacity 65 \pm 15%; 75 turns #38 SCC wire on molded natural bakelite rod 15/16" lg x 5/32" diam; two wire leads 1- $\frac{1}{2}$ " lg; Chinese red laquer coating.	Oscillator plate choke, tube V ₁₄	SWI Special	53A008
L ₂	Coil, filter: line; 46 uh; 57 turns #22 SCE wire, universal winding; wound on glazed ceramic form 1" lg x $\frac{1}{2}$ " diam, tapped #6-32 x 7/16 d; winding is 1" lg x 1-1/16" diam; two extended leads with spaghetti covering; tape over spaghetti and leads to prevent leads breaking; same as L ₃ .	A-C line filter	SWI Special	53A095
L ₃	Same as L ₂ .	A-C line filter	-	-
L ₄	Coil, filter: input; 2 henries \pm 15%; rated d-c current 150 ma; d-c resistance 85 ohms \pm 10%; iron core; 1850 turns of #31 enameled copper wire; metal case 2-5/8" h x 2-3/16" wd x 2-11/16" lg; mtg flange has six mtg holes, 3 on each side, of 3/16" diam, spaced 3/4" apart, on 2-3/8" mtg centers; two lug terminals on top of case, each terminal 3/16" diam, spaced 5/8" apart; coil is vacuum wax impregnated; voltage breakdown 2400 volts A.M.S. between coil and core or coil and case.	Power supply input filter choke	CTC type 7468	56B011
L ₅	Coil, filter: output; 12 henries; rated d-c current 90 ma; d-c resistance 298 ohms at 75°C; test voltage 2400 volt r.m.s. between coil and core or coil and case; hermetically sealed in metal case 3-1/16" h x 2-3/8" wd x 2- $\frac{1}{2}$ " lg; four #8-32 NC thread mtg studs on 1- $\frac{1}{2}$ " x 1-3/4" mtg centers; hardware included; two lug terminals on top spaced 23-32" apart.	Power supply output filter choke	CTC type 7845	56B012

MODEL S-37 PARTS LIST

Ref. Symbol	Name of Part and Description	Function	Mfr Code and Type No.	Hallicrafter's Part No.
L ₀	Coil, r-f: 4.2 uh \pm 10%; distributed capacity 1 mmf \pm 20%; d-c resistance 0.25 ohms \pm 10%; "Q" with 100 mmf capacitor 100 \pm 20%; 42 turns #28 ESCC copper wire on molded natural bakelite form 7/8" lg x 9/32" diam; Chinese blue lacquer coated; two copper wire leads 1- $\frac{1}{2}$ " lg.	Oscillator tube filament choke	SWI Special	53A009
LM ₁	Lamp, incandescent: pilot; 6-8 volt, 0.15 amp; bayonet type base.	Vernier scale illumination	GE type 47	39A004
LM ₂	Same as LM ₁ .	Meter scale illumination	-	-
PL ₁	Connector, male contact: octal; molded bakelite body, 1" lg x 1- $\frac{1}{2}$ " diam overall; prongs are numbered from 1 to 8 on both sides; includes insulated jumper between 3 and 4 and one between 6 and 7.	D-C power plug	AP type CP-8	35A003
M ₁	Meter, micro ammeter: range 160-0-40 microamperes; accuracy \pm 20% of full scale length 1.65" covered in 90° of pointer swing; approx resistance 1250 ohms d-c; damping factor 8 (full scale length); metal case 1-3/16 d x 2- $\frac{1}{2}$ " diam; mtd by metal flange 3- $\frac{1}{2}$ " diam having 3 mtg holes 1/8" diam spaced 120° apart on 1-3/16" radius; two stud terminals at rear $\frac{1}{2}$ " long x #10-32 thread; flange is part of case.	"S" meter	B Special	82A036
R ₁	Resistor, fixed: 2.2 ohm \pm 10%; $\frac{1}{2}$ watt; composition; insulated; 7/16" lg x 0.215" diam; two #18 AWG leads 1- $\frac{1}{2}$ " lg; part of transformer T ₁ .	Parasitic suppressor for tube V ₁	ER type 504	23A016

R ₂	Resistor, fixed: 270 ohm \pm 10%; $\frac{1}{2}$ watt; composition; humidity resistant; insulated; 0.655" lg x 0.249" diam; two #21 AWG wire leads 1- $\frac{1}{2}$ " lg; same as R ₃ , R ₄₄ .	Cathode bias for tube V ₁	ASA	RC21AE271K
R ₃	Resistor, fixed: 1000 ohm \pm 20%; $\frac{1}{2}$ watt; composition; humidity resistant; insulated; 0.655" lg x 0.249" diam; two #21 AWG wire leads 1- $\frac{1}{2}$ " lg; same as R ₄ , R ₆ , R ₇ , R ₉ , R ₁₀ , R ₂₃ , R ₂₉ .	Voltage drop for screen of tube V ₁	ASA	RC21AE102M
R ₄	Same as R ₃ .	Decoupling for plate circuit of tube V ₁	-	-
R ₅	Same as R ₂ .	Cathode bias for tube V ₂	-	-
R ₆	Same as R ₃ .	Voltage drop for screen of tube V ₂	-	-
R ₇	Same as R ₃ .	Decoupling for plate circuit of tube V ₂	-	-
R ₈	Resistor, fixed: 12,000 ohms \pm 10%; 2 watt; composition; insulated; humidity resistant; 1.78" lg x 0.342" diam; two #10 AWG wire leads 1-1/2" lg.	Plate voltage dropping resistor for tubes V ₁ and V ₂	ASA	RC41AE123K
R ₉	Same as R ₃ .	Voltage drop for screen of tube V ₃	-	-
R ₁₀	Same as R ₃ .	Decoupling for plate circuit of tube V ₃	-	-
R ₁₁	Resistor, fixed: 33 ohm \pm 10%; $\frac{1}{2}$ watt; composition; insulated; humidity resistant; 0.655" lg x 0.249" diam; two #21 AWG wire leads 1- $\frac{1}{2}$ " lg; same as R ₂₁ , R ₂₅ , R ₃₉ , R ₆₄ .	Parasitic suppressor for tube V ₄	ASA	RC21AE330K
R ₁₂	Resistor, fixed: 100,000 ohm \pm 10%; $\frac{1}{2}$ watt; composition; insulated; humidity resistant; 0.468" lg x 0.249" diam; two #21 AWG wire leads 1- $\frac{1}{2}$ " lg; part of transformer T ₅ . Same as R ₁₉ , R ₄₅ , R ₄₆ .	A-V-C decoupling for tube V ₄	ASA	RC20AE104K

MODEL S-37 PARTS LIST

Ref. Symbol	Name of Part and Description	Function	Mfr Code and Type No.	Hallicrafter's Part No.
R ₁₃	Resistor, fixed: 100,000 ohm \pm 10%; $\frac{1}{2}$ watt; composition; insulated; humidity resistant; 0.655" lg x 0.249" diam; two #21 AWG wire leads 1- $\frac{1}{2}$ " lg; same as R ₁₅ , R ₃₃ .	A-V-C decoupling for tube V ₄	ASA	RC21AE104K
R ₁₄	Resistor, fixed: 330 ohm \pm 10%; $\frac{1}{2}$ watt; composition; insulated; humidity resistant; 0.655" lg x 0.249" diam; two #21 AWG wire leads 1- $\frac{1}{2}$ " lg; same as R ₂₄ , R ₅₃ , R ₆₀ .	Cathode bias for tube V ₄	ASA	RC21AE331K
R ₁₅	Same as R ₁₃ .	Part of r-f gain control circuit	-	-
R ₁₆	Resistor, variable: 10,000 ohm \pm 20%; carbon; #8 reversed taper; shaft 1" long x $\frac{1}{4}$ " diam; 3 solder lug terminals; center lug is variable contact; includes switch SW ₃ .	R-F Gain control	CT type 135	25C068
R ₁₇	Resistor, fixed: 39,000 ohm \pm 10%; $\frac{1}{2}$ watt; composition; insulated; humidity resistant; 0.655" lg x 0.249" diam; two #21 AWG wire leads 1- $\frac{1}{2}$ " lg.	Voltage drop for screen of tube V ₄	ASA	RC21AE393K
R ₁₈	Resistor, variable: 330 ohm \pm 20%; $\frac{1}{2}$ watt; composition; insulated; humidity resistant; 0.655" lg x 0.249" diam; two #21 AWG wire leads 1- $\frac{1}{2}$ " lg.	Decoupling for plate circuit of tube V ₄	ASA	RC21AE331M
R ₁₉	Same as R ₁₂ ; part of transformer T ₆ .	A-V-C decoupling for tube V ₅	-	-
R ₂₀	Resistor, fixed: 100,000 ohm \pm 20%; $\frac{1}{2}$ watt; composition; insulated; humidity resistant; 0.655" lg x 0.249" diam; two #21 AWG wire leads 1- $\frac{1}{2}$ " lg; same as R ₃₇ , R ₄₅ , R ₄₆ .	A-V-C decoupling for tube V ₅	ASA	RC21AE104M
R ₂₁	Same as R ₁₁ .	Parasitic suppressor for tube V ₅	-	-

R ₂₂	Resistor, fixed: 150 ohm \pm 10%; $\frac{1}{2}$ watt; composition; insulated; humidity resistant; 0.655" lg x 0.249" diam; two #21 AWG wire leads 1- $\frac{1}{2}$ " lg.	Cathode bias for tube V ₅	ASA	RC21AE151K
R ₂₃	Same as R ₃ .	Voltage drop for screen of tube V ₅	-	-
R ₂₄	Same as R ₁₄ .	Decoupling for plate circuit of tube V ₅	-	-
R ₂₅	Same as R ₁₁ .	Meter shunt, A-M operation	-	-
R ₂₆	Not used			
R ₂₇	Resistor, fixed: 560 ohm \pm 10%; $\frac{1}{2}$ watt; composition; insulated; humidity resistant; 0.655" lg x 0.249" diam; two #21 AWG wire leads 1- $\frac{1}{2}$ " lg.	Cathode bias for tube V ₆	ASA	RC21AE561K
R ₂₈	Resistor, fixed: 7500 ohm \pm 10%; 10 watt; wire wound; vitreous baked enameled coated; 1-3 $\frac{1}{4}$ " lg x 3/8" max diam; two #18 AWG wire leads 1-3/8" lg.	Voltage drop for screens of tubes V ₁ , V ₂ , V ₆ and V ₈	U type CC	24BG752E
R ₂₉	Same as R ₃ .	Voltage drop for screen of tube V ₆	-	-
R ₃₀	Resistor, fixed: 1000 ohm \pm 10%; $\frac{1}{2}$ watt; composition; insulated, humidity resistant; 0.655" lg x 0.249" diam; two #21 AWG wire leads 1- $\frac{1}{2}$ " lg.	Decoupling for plate circuit of tube V ₆	ASA	RC21AE102K
R ₃₁	Resistor, fixed: 47,000 ohm \pm 10%; $\frac{1}{2}$ watt; composition; insulated; humidity resistant; 0.655" lg x 0.249" diam; two #21 AWG wire leads 1- $\frac{1}{2}$ " lg; same as R ₃₈ .	Diode load for tube V ₇	ASA	RC21AE473K
R ₃₂	Resistor, fixed: 1 megohm \pm 20%; $\frac{1}{2}$ watt; composition; insulated; humidity resistant; 0.655" lg x 0.249" diam; two #21 AWG wire leads 1- $\frac{1}{2}$ " lg.	A-N-L decoupling	ASA	RC21AE105M
R ₃₃	Same as R ₁₃ .	Diode load for tube V ₇	-	-

MODEL S-37 PARTS LIST

Ref. Symbol	Name of Part and Description	Function	Mfr Code and Type No.	Hallicrafter's Part No.
R ₃₄	Resistor, fixed: 270,000 ohm \pm 10%; $\frac{1}{2}$ watt; composition; insulated; humidity resistant; 0.655" lg x 0.249" diam; two #21 AWG wire leads 1- $\frac{1}{2}$ " lg; same as R ₃₅ , R ₄₁ , R ₅₀ .	Diode load for tube V ₇	ASA	RC21AE274K
R ₃₅	Same as R ₃₄ .	Diode load for tube V ₇	-	-
R ₃₆	Resistor, fixed: 470,000 ohm \pm 20%; $\frac{1}{2}$ watt; composition; insulated; humidity resistant; 0.655" lg x 0.249" diam; two #21 AWG wire leads 1- $\frac{1}{2}$ " lg.	A-V-C decoupling for tubes V ₄ and V ₅ in A.M. operation	ASA	RC21AE474M
R ₃₇	Same as R ₂₀ .	A-V-C decoupling for tubes V ₄ and V ₅ in F.M. operation	-	-
R ₃₈	Same as R ₃₁ .	Grid return for tube V ₈	-	-
R ₃₉	Same as R ₁₁ .	Parastic suppressor for grid of tube V ₈	-	-
R ₄₀	Resistor, fixed: 3,900 ohm \pm 10%; 2 watt; composition; insulated; humidity resistant; 1.78" lg x 0.242" diam; two #19 AWG wire leads 1- $\frac{1}{2}$ " lg.	Voltage drop for screen of tube V ₈	ASA	RC41AE392K
R ₄₁	Same as R ₃₄ .	Grid return for tube V ₈	-	-
R ₄₂	Resistor, fixed: 3300 ohm \pm 10%; 1 watt; composition; insulated; humidity resistant; 1.28" lg x 0.310" diam; two #20 AWG wire leads 1- $\frac{1}{2}$ " lg.	Load for screen voltage on tube V ₈	ASA	RC31AE332K
R ₄₃	Resistor, fixed: 330,000 ohm \pm 10%; $\frac{1}{2}$ watt; composition; insulated; humidity resistant; 0.655" lg x 0.249" diam; two #21 AWG wire leads.	"S" meter current limiting for F.M. operation	ASA	RC21AE334K

R ₄₄	Same as R ₂ .	Decoupling for plate circuit of tube V ₈	-	-
R ₄₅	Same as R ₁₂ ; part of transformer T ₉ .	F.M. diode load for tube V ₉	-	-
R ₄₆	Same as R ₁₂ ; part of transformer T ₉ .	F.M. diode load for tube V ₉	-	-
R ₄₇	Resistor, fixed: 220,000 ohm \pm 20%; $\frac{1}{2}$ watt; composition; insulated; humidity resistant; 0.655" lg x 0.249" diam; two #21 AWG wire leads 1- $\frac{1}{2}$ " lg.	De-emphasis network for tube V ₉	ASA	RC21AE224M
R ₄₈	Resistor, variable: 1 megohm \pm 20%; carbon; #6 taper; shaft 1" long x $\frac{1}{4}$ " diam; 3 solder lug terminals with variable contact located in the center and fixed contacts 1-7/16" apart; no taps.	A-F GAIN control	CRL type 1-010	25C059
R ₄₉	Resistor, fixed: 3300 ohm \pm 10%; $\frac{1}{2}$ watt; composition; insulated; humidity resistant; 0.655" lg x 0.249" diam; two #21 AWG wire leads 1- $\frac{1}{2}$ " long.	Cathode bias for tube V ₁₀	ASA	RC21AE332K
R ₅₀	Same as R ₃₄ .	Plate load for tube V ₁₀	-	-
R ₅₁	Resistor, fixed: 470,000 ohm \pm 10%; $\frac{1}{2}$ watt; composition; insulated; humidity resistant; 0.655" lg x 0.249" diam; two #21 AWG wire leads 1- $\frac{1}{2}$ " lg.	Grid return for tube V ₁₁	ASA	RC21AE474K
R ₅₂	Resistor, variable: 500,000 ohm \pm 20%; carbon; #6 taper; shaft 1" lg x $\frac{1}{2}$ " diam; 3 solder lug terminals with variable contact between the outer lug terminals; terminals 1-7/16" apart; no taps.	TONE control	CT type 31	25C065
R ₅₃	Same as R ₁₄ .	Cathode bias for tube V ₁₁	-	-
R ₅₄	Resistor, fixed: 4700 ohm \pm 20%; 1 watt; composition; insulated; humidity resistant; 1.28" lg x 0.310" diam; two #20 AWG wire leads 1- $\frac{1}{2}$ " lg.	Output load, phone operation	ASA	RC31AE472M

MODEL S-37 PARTS LIST

Ref. Symbol	Name of Part and Description	Function	Mfr Code and Type No.	Hallicrafter's Part No.
R ₅₅	Resistor, variable: 1500 ohm \pm 20%; wire wound; st line taper; shaft 3/8" long x 1/4" diam, slotted 1/16" x 1/16"; 3 solder lug terminals with variable contact located in the center and fixed contacts 1-7/16" apart; no taps.	S METER ADJ. control	CT type 125	25C060
R ₅₆	Resistor, fixed: 3,200 ohm \pm 10%; 10 watt; wire wound; vitreous enamel coated; 1-3/4" lg x 3/8" max diam; two #18 AWG wire leads 1-3/8" long.	Voltage drop for regulator tube V ₁₂	U type CC	24BG322E
R ₅₇	Resistor, fixed: 22,000 ohm \pm 20%; 1/2 watt; composition; insulated; humidity resistant; 0.655" lg x 0.249" diam; two #21 AWG wire leads 1-1/2" lg.	Grid return for tube V ₁₄	ASA	RC21AE223M
R ₅₈	Resistor, fixed: 3900 ohm \pm 10%; 1/2 watt; composition; insulated; humidity resistant; 0.655" lg x 0.249" diam; two #21 AWG wire leads 1-1/2" lg.	Cathode bias for tube V ₃	ASA	RC21AE392K
R ₅₉	Resistor, fixed: 5,600 ohm \pm 10%; 1/2 watt; composition; insulated; humidity resistant; 0.655" lg x 0.249" diam; two #21 AWG wire leads 1-1/2" lg.	Decoupling for plate circuit of tube V ₁₄	ASA	RC21AE562K
R ₆₀	Same as R ₁₄ .	Decoupling for plate circuit of tube V ₁₄	-	-
R ₆₁	Resistor, fixed: 150,000 ohm \pm 20%; 1/2 watt; composition; insulated; humidity resistant; 0.655" lg x 0.249" diam; two #21 AWG wire leads 1-1/2" lg.	Voltage drop for screen of tube V ₃	ASA	RC21AE154M
R ₆₂	Resistor, fixed: 8 ohm \pm 10%; 1/2 watt; composition; insulated; humidity resistant; 7/16" lg x 0.215" diam; two #21 AWG wire leads.	Parasitic suppressor at grid of tube V ₁₄	ER type 504	23A019

R ₆₃	Resistor, fixed: 27,000 ohm \pm 10%; $\frac{1}{2}$ watt; composition; insulated; humidity resistant; 0.468" lg x 0.249" diam; two #21 AWG leads 1- $\frac{1}{2}$ " lg. Part of transformer T ₉ .	Primary load for transformer T ₉	ASA	RC20AE273K
R ₆₄	Same as R ₁₁ .	Voltage dropping for plate of tube V ₃	-	-
SO ₁	Connector, female contact: octal; high dielectric mica filled bakelite body, 1-7/64" diam x 31/64" thick; silver plated phosphor bronze solder lugs; molded on steel mtg plate 1-9/32" wd x 0.091" thk having 2 mtg holes of 5/32" diam x 1- $\frac{1}{2}$ " mtg centers; pins are numbered on back of socket clockwise from locating pin.	D-C power input connection	AP type M1P8TM	6A200
SO ₂	Connector, female contact: two terminal; bakelite body, 11/16" wd x 3/8" h x 23/32" d + thickness of mtg plate; mounted by cad plated steel plate having 2 mtg holes with 1-1/8" mtg centers; 2 solder lug terminals 5/16" lg x $\frac{1}{2}$ " wd, rated 10 amp at 250 volts, 15 amp at 125 volts.	External stand-by switch connection	AL type 4002-T	10A015
SO ₃	Connector, male contact: recessed; two brass prongs; screw type terminals; 1-3/4" x 1-5/8" x 1- $\frac{1}{4}$ " overall; molded bakelite body recessed in metal cup 1-3/8" diam with flange type mtg having 1-3/4" mtg centers, mtg holes 0.144" diam.	A-C line plug	AP type 60M-10	10A047
SW ₁	Switch, toggle; SPST; power; rated 3 amp at 250-volt; black enamel steel case 13/16" h x 15/32" d x $\frac{1}{2}$ " wd; 2 solder lug terminals; mounts by brass bushing 15/32" - 32 to fit a 3/8" hole; mechanism is brass; lugs separated by fibre piece; same as SW ₂ , SW ₅ .	POWER switch	HH type 20994	60A116
SW ₂	Same as SW ₁ .	SEND-REC. stand-by switch	-	-

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Ref. Symbol	Name of Part and Description	Function	Mfr Code and Type No.	Hallicrafter's Part No.
SW ₃	Switch, toggle: SPST; mounts on back of R.F. GAIN control and closes when the R.F. GAIN control is turned all the way to the right (clockwise); part of R.F. GAIN control.	"S" Meter switch	-	-
SW _{4A} SW _{4B} SW _{4C} SW _{4D}	Switch, rotary: single section; 2 position; all metal parts silver plated brass except for stainless steel index spring and ball; vacuum wax impregnated phenolic wafer; non shorting teeth of contacts 5 and 8; frame 5/16" lg; mts by 3/8-32 bushing 1/2" lg, shaft 1" lg x 1/4" diam.	A.M.-F.M. switch	OM type GH	60A177
SW ₅ SW ₆	Same as SW ₁ . Switch, toggle: DPST; rated 1 amp at 250-volts, 3 amp at 125-volts; metal case, 1-9/16" x 19/32" overall diam; includes fibre separators in assembly; 4 brass lug terminals; mts by brass bushing 15/32-32 x 13/32".	A.V.C. switch A.N.L. switch	- HH	- 60A117
T ₁	Transformer, r-f: sec, 2 turns of 1/8" O.D. x 1/16" I.D. copper tubing, silver plated; pri, 1-1/2 turns of #28 tinned & single braided celanese wire strung thru hollow sec; grid lead, stranded voice coil wire 3/41 lg; spacing between sec turns not less than 1/32"; coil wound on polystyrene form 1-13/16" lg x 3/8" diam; includes resistor R ₁ , mounted thru center of form 1/4" from top end; one lead of resistor soldered to sec about 1-3/4 turns from winding start; the other lead is cut short and the grid lead with acorn tube clip is attached; the start end of the sec extends 27/32" from the center of the coil form and is flattened 3/16" from the end; the finish end of the secondary extends 13/16" from the	Antenna coil	EW Special	51A350

	center of the coil form; the primary terminal are two solder lug terminals which are mounted on a ceramic terminal $5/8"$ wd x $3/4"$ h x $5/32"$ thk which is mtd near the bottom of the coil form by a $1/2"$ nickel plated brass screw; start and finish leads of sec extend from coil at a 90 degree angle.			
T ₂	Transformer, r-f: pri, 2- $1/2$ turns of #32 enameled single silk covered wire; spaced one wire diam; sec, 2 turns of silver plated copper tubing $1/8"$ O.D. x $1/16"$ I.D.; grid lead is voice coil wire 1- $1/2"$ lg with acorn tube clip and soldered on sec 2 turns from winding start; spacing between sec turns not less than $1/32"$; the start end of the sec extends $3/4"$ from center of coil form and flatted $3/16"$ from end; the finish end extends $15/16"$ from center of coil form; coils are wound on polystyrene from 1- $7/16"$ lg x $3/8"$ diam at one end and $5/16"$ diam at other end; secondary leads terminate as two solder lug terminals which are mtd on a ceramic terminal $5/8"$ wd x $3/4"$ h x $5/32"$ thk which mounts to coil form by a $1/2"$ nickel plated brass screw; grid lead insulated by 2 Amphenol "912" beads #73-1; start and finish leads of sec extend from coil at a 90 degree angle.	1st r-f coil	EW Special	51A351
T ₃	Transformer, r-f: pri, 3- $3/4"$ turns of #32 enameled single silk covered wire spaced not less than $1/32"$ between turns; sec, 1- $1/2$ turns of silver plated copper tubing, $1/8"$ O.D. x $1/16"$ I.D.; grid lead is voice coil wire 1- $3/4"$ lg with acorn tube clip at one end, other end soldered to sec 1 turn from start end; start end of sec extends 1- $1/32"$ from center of coil and is flatted $3/16"$ from end; finish end of sec extends $13/16"$ from center of coil; start and finish end of coil extend at a 90 degree angle; pri leads terminate at two solder lug terminals which are mounted on a ceramic terminal $5/8"$	Converter or 2nd r-f coil	EW Special	51A352

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MODEL S-37 PARTS LIST

Ref. Symbol	Name of Part and Description	Function	Mfr Code and Type No.	Hallicrafter's Part No.
	wd x 3/4" h x 5/32" thk mounted on coil form by a 1/2" nickel plated brass screw; grid lead is insulated by 3 amphenol "912" beads #73-1.			
T ₄	Transformer, r-f: pri, 1-1/2 turns of #16 tinned copper wire; sec, 1-1/2 turns of silver plated copper tubing 1/8" O.D. x 1/16" I.D.; sec winding spaced 1/32"; sec leads are 1-1/4" and 1-3/32" lg respectively; pri leads are 1-3/4" wd 1-1/4" lg respectively and extending from the coil at a 90 degree angle; capacitor C ₇₁ is soldered 1 turn from longest lead of sec; coils are wound on polystyrene from 1-1/2" lg x 3/8" diam; pri is slightly sealed to coil form for shipping, seal may easily be broken for adjustment.	Oscillator coil	EW Special	51A353
T ₅	Transformer, IF: 16 megacycles; input stage; shielded; shield can 1-7/8" lg x 1-7/16" wd x 4" h; powdered iron core; tuned primary and secondary; adjustable iron core tuning; spade lug mtg on 1-7/8" x 1-7/16" mtg centers; 8 solder lug terminals at base; includes capacitors C ₁₅ and C ₁₆ and resistor R ₁₂ .	1st IF transformer	EW Special	50C165
T ₆	Transformer, IF: 16 megacycles; interstage; shielded; shield can 1-7/8" lg x 1-7/16" wd x 4" h; powdered iron core; tuned primary and secondary; adjustable iron core tuning; spade lug mtg on 1-7/8" x 1-7/16" mtg centers; 8 solder lug terminals at base; includes capacitors C ₂₂ and C ₂₃ , and resistor R ₁₈ .	2nd IF transformer	EW Special	50C166

T ₇	Transformer, IF: 16 megacycles; interstage; shielded; shield can 1-7/8" lg x 1-7/16" wd x 4" h; powdered iron core; tuned primary and secondary; adjustable iron core tuning; spade lug mtg on 1-7/8" x 1-7/16" mtg centers; 8 solder lug terminals at base; includes capacitors C ₂₉ , C ₃₀ and C ₇₃ .	3rd IF transformer	EW Special	50C167
T ₈	Transformer, IF: 16 megacycles; diode; shielded; shield can 1-7/8" lg x 1-7/16" wd x 4" h; powdered iron core; tuned primary and secondary; adjustable iron core tuning; spade lug mtg on 1-7/8" x 1-7/16" mtg centers; 8 solder lug terminals at base; includes capacitors C ₃₅ and C ₃₆ .	Diode IF transformer	EW Special	50C168
T ₉	Transformer, IF: 16 megacycles; discriminator; shielded; shield can 1-7/8" lg x 1-7/16" wd x 4" h; powdered iron core; tuned primary and secondary; adjustable iron core tuning; spade lug mtg on 1-7/8" x 1-7/16" mtg centers; 8 solder lug terminals at base; includes capacitors C ₄₀ , C ₄₁ and C ₄₂ , and resistors R ₄₅ , R ₄₆ and R ₆₉ .	Discriminator IF transformer	EW Special	50C169
T ₁₀	Transformer, AF: audio output; two windings; primary to match output of tube V ₁₁ (6V6GT), secondary to match 5000 ohm load; tapped to match 500 ohm load; enclosed in metal case.	Couples tube V ₁₁ to external load	H Special	55B012
T ₁₁	Transformer, power: filament; primary for 230 volts, 50 cycles with tap for 115-volts; #1 secondary 3 amp 5 volts; #2 secondary 4 amp 6.3 volts; coil and core potted and sealed in metal case 3-15/16" x 3-1/4" x 4" overall, 2 mtg flanges each having 3 mtg holes 7/32" diam spaced 1-1/8" apart, 2 sets of mtg holes have 3-1/2" x 2-1/4" mtg centers.	Filament power supply	H Special	52A044

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MODEL S-37 PARTS LIST

Ref. Symbol	Name of Part and Description	Function	Mfr Code and Type No.	Hallicrafter's Part No.
T ₁₂	Transformer, power: plate; primary 230 volts, 50 cycles with tap for 115 volts; secondary 280 volts each side of center tap, 150 ma using 5U4G full wave rectifier and 10 mfd filter capacity; coil and core potted and sealed in metal case, 4-3/8" h x 3-21/32" wd x 3-21/32" d; 2 mtg flanges each having 3 mtg holes 7/32" diam spaced 1-3/8" apart, mtg centers 3-7/8" x 2-3/4".	Plate and screen power supply	H Special	52A043
TS ₁	Board, terminal: mounts three brass, cadmium plated binding posts and nuts, and has two brass cadmium plated mtg inserts; base of black BM120 or 262 high impact bakelite; base 2-3/8" lg x 7/8" wd x 3/16" thk; mtg inserts centered on 3/4" x 1/2" mtg centers, have 0.144" clearance ID.	Antenna and grid connections	H Special	11B163
TS ₂	Board, terminal: mounts two brass, cadmium plated binding posts and nuts, and has two brass cadmium plated mtg inserts; base of black BM120 or 262 high impact bakelite; base 1-5/8" lg x 7/8" wd x 3/16" thk; mtg inserts centered on 1/2" mtg centers have 0.144" clearance ID, same as TS ₃ .	5000 ohm output connection	H Special	11B162
TS ₃	Same as TS ₂ .	500 ohm output connection	-	-
V ₁	Tube, detector amplifier pentode (acorn type); same as V ₂ , V ₃ .	1st r-f amplifier	RCA type 954	90X954
V ₂	Same as V ₁ .	2nd r-f amplifier	-	-
V ₃	Same as V ₁ .	Mixer	-	-

V ₄	Tube, television amplifier pentode, same as V ₉ .	1st i-f amplifier	RCA type 6AC7	✓	90X6AC7
V ₅	Tube, television amplifier pentode.	2nd i-f amplifier	RCA type 6AB7		90X6AB7
V ₆	Tube, triple-grid super-control amplifier.	3rd i-f amplifier	RCA type 6SK7		90X6SK7
V ₇	Tube, twin diode; same as V ₉ .	2nd detector A-N-L, A-V-C	RCA type 6H6	✓	90X6H6
V ₈	Same as V ₄ .	F-M limiter	-		-
V ₉	Same as V ₇ .	F-M discriminator	-		-
V ₁₀	Tube, twin-triode amplifier.	Audio voltage amplifier	RCA type 6SL7GT	✓	90X6SL7GT
V ₁₁	Tube, beam power amplifier.	Audio power amplifier	RCA type 6V6 GT/G		90X6V6GT/G
V ₁₂	Tube, voltage regulator (Glow discharge type).	Voltage regulator	RCA type OD3/VR-150	✓	90XVR150
V ₁₃	Tube, full-wave high-vacuum rectifier.	Rectifier	RCA type 5U4G	✓	90X5U4G
V ₁₄	Tube, detector, amplifier, oscillator (acorn type).	High frequency oscillator	RCA type 6E5	✓	90X6E5

INDEX TO PARTS MANUFACTURERS

Symbol	Manufacturer	Symbol	Manufacturer
AL	Alden Manufacturing Co. Brookton, Mass.	IC	Industrial Condenser Corp. Chicago, Illinois
AP	American Phenolic Corp. Chicago, Illinois	IRC	International Resistance Co. Philadelphia, Pennsylvania
CD	Cornell-Dubilier Corp. South Plainfield, N.J.	IF	Littlefuse Inc. Chicago, Illinois
CRL	Centralab Milwaukee, Wis.	O	Ohmite Manufacturing Co. Chicago, Illinois
CT	Chicago Telephone Supply Elkhart, Indiana	OM	Oak Manufacturing Co. Chicago, Illinois
ER	Erie Resistor Co. Erie, Pennsylvania	RCA	RCA Mfg. Co. Chicago, Illinois
GE	General Electric Co. Schenactady, N.Y.	SI	F. W. Sickles Co. Springfield, Mass.
H	The Hallicrafters Co. Chicago, Illinois	U	Utah Products Co. Chicago, Illinois
HH	Hart & Hegeman Hartford, Conn.		

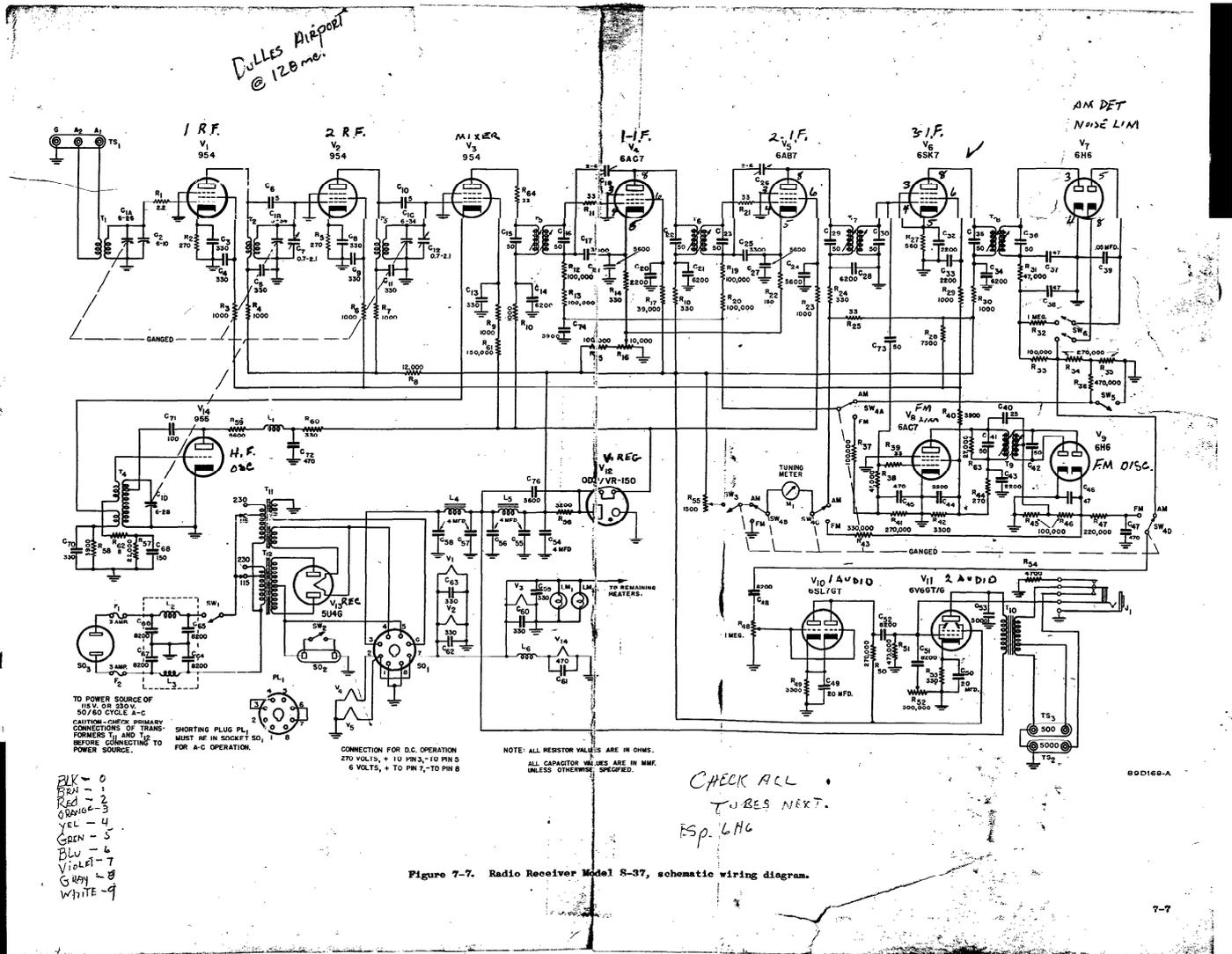


Figure 7-7. Radio Receiver Model R-37, schematic wiring diagram.