

SAMS PHOTOFACT[®] CB RADIO SERIES



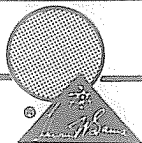
CB-48
48
SEPTEMBER 1973



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HOWARD W. SAMS & CO., INC. Indianapolis, Indiana



PHOTOFACT[®] with

CIRCUITRACE[®]

For Supplier Address See PHOTOFACT Index



MODEL 10-2

NOTE

ONLY THOSE PERSONS PROPERLY LICENSED ARE PERMITTED TO MAKE REPAIRS OR ADJUSTMENTS WHICH MAY RESULT IN ILLEGAL OPERATION. (REFER TO FCC RULES AND REGULATIONS PART 95, SUBPARTS C & D.)

The frequency of the transmitter should be checked periodically with a secondary frequency standard to insure proper and legal operation.

Best results will be obtained when adjusting the final RF output circuit if the antenna normally used is connected and the chassis is as nearly in the cabinet as possible.

Connect either 50-ohm dummy load or the normally used antenna system.

PAGE MODEL 10-2

ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools:

L1, L2, L3, L5, L7, L8 .. GC ELECTRONICS: 9440
L4, T1, T2, T3 GC ELECTRONICS: 9087, 9089

HOWARD W. SAMS & CO., INC. Indianapolis, Indiana 46206

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RECEIVER ALIGNMENT

Connect an AC VTVM across speaker voice coil. Turn Squelch control fully counterclockwise. Adjust Volume control for suitable reading.

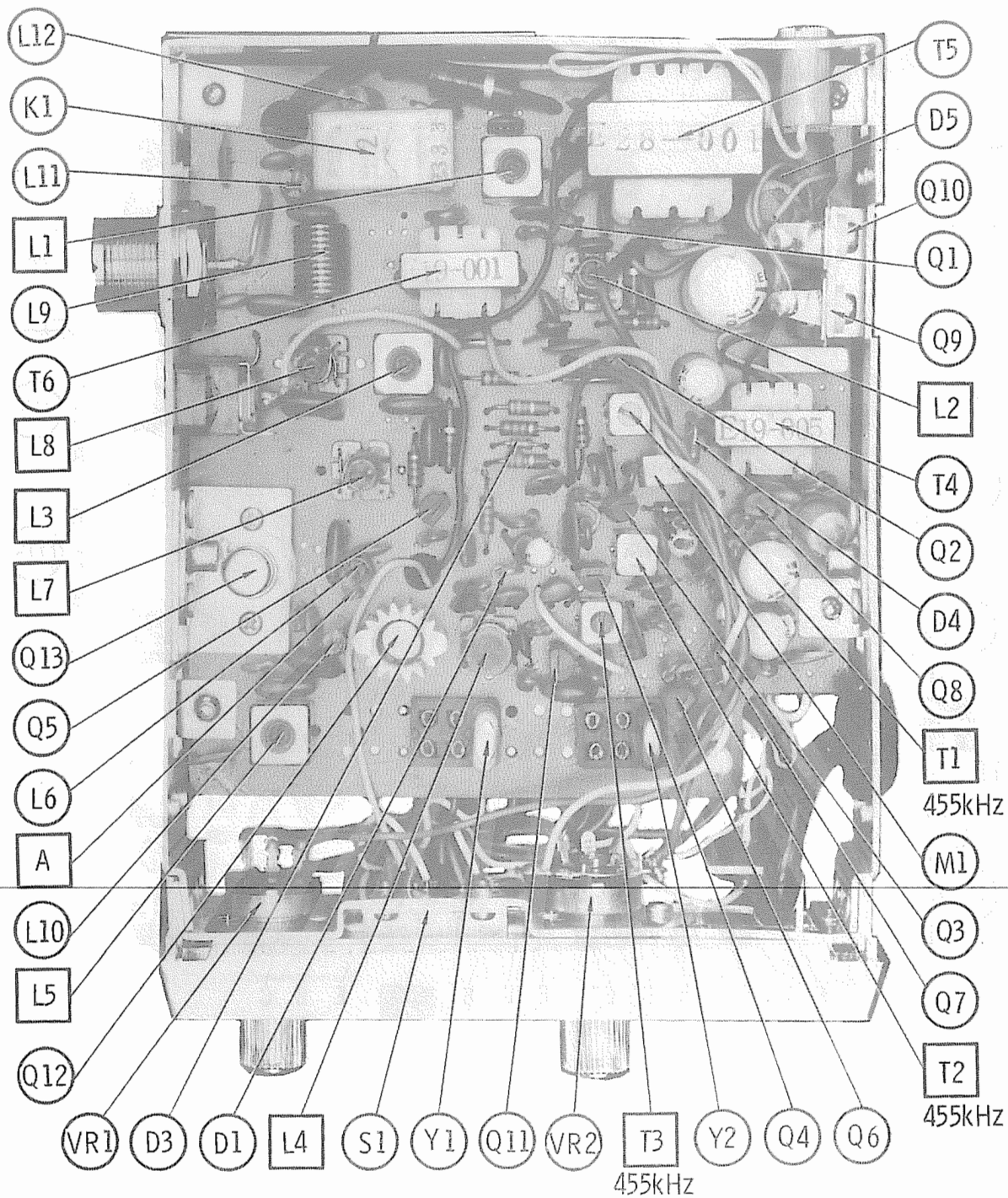
SIGNAL GENERATOR	CHANNEL	ADJUST	REMARKS
Connect high side thru .01mfd to base of Q2 (Mixer), low side to ground. Set to 455kHz (mod.).	Any	T3,T2, T1	Adjust for maximum.

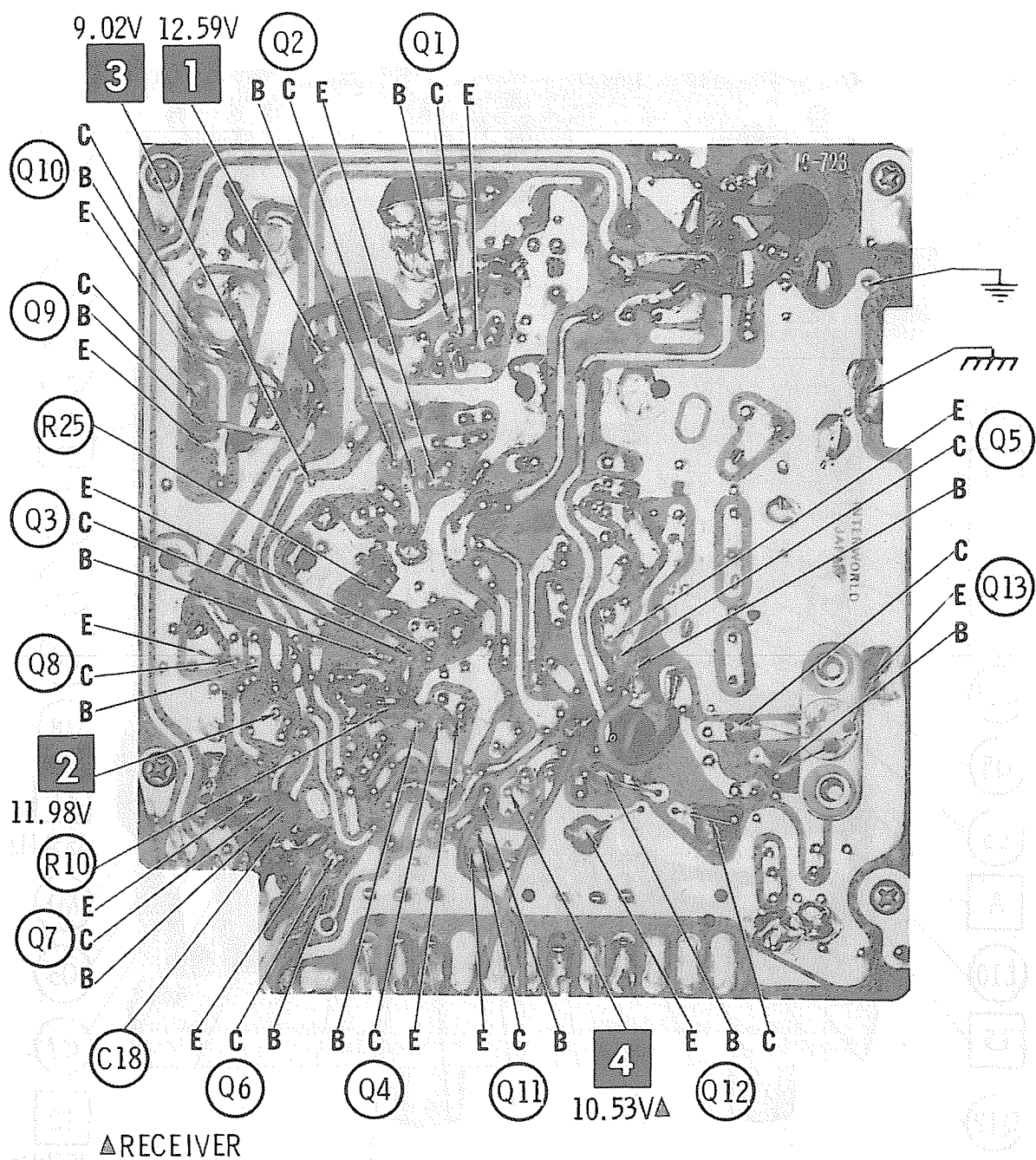
SIGNAL GENERATOR	CHANNEL	ADJUST	REMARKS
Connect high side thru .01mfd to antenna connector, low side to chassis. Set to 27.065MHz (mod.)- (Channel 9).	9	L3,L2, L1	Adjust for maximum.

TRANSMITTER ALIGNMENT

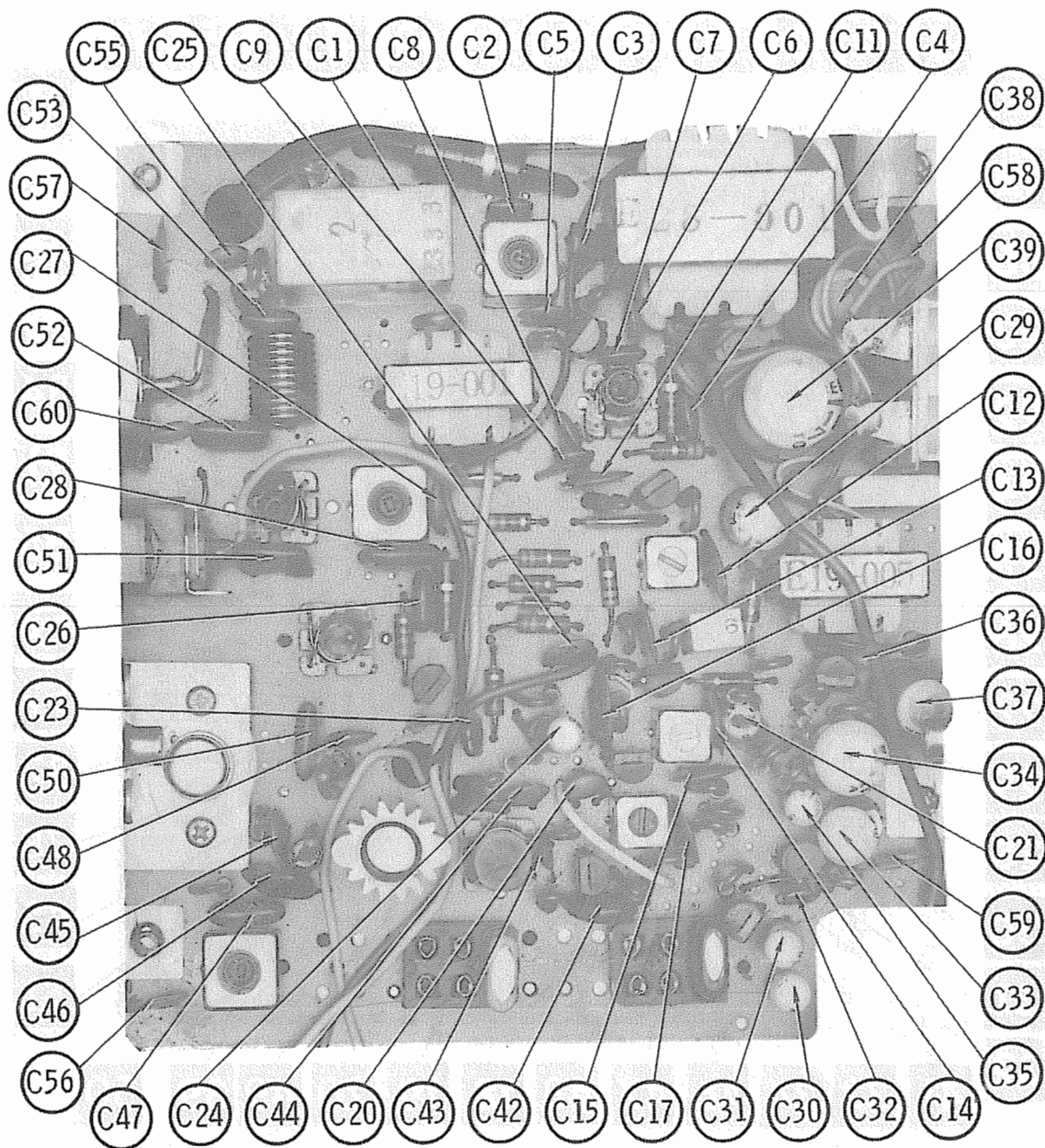
INDICATOR	ADJUST	REMARKS
Connect an RF wattmeter between antenna connector and dummy load.	L4,L5, L7,L8	Key transmitter and adjust for maximum output.

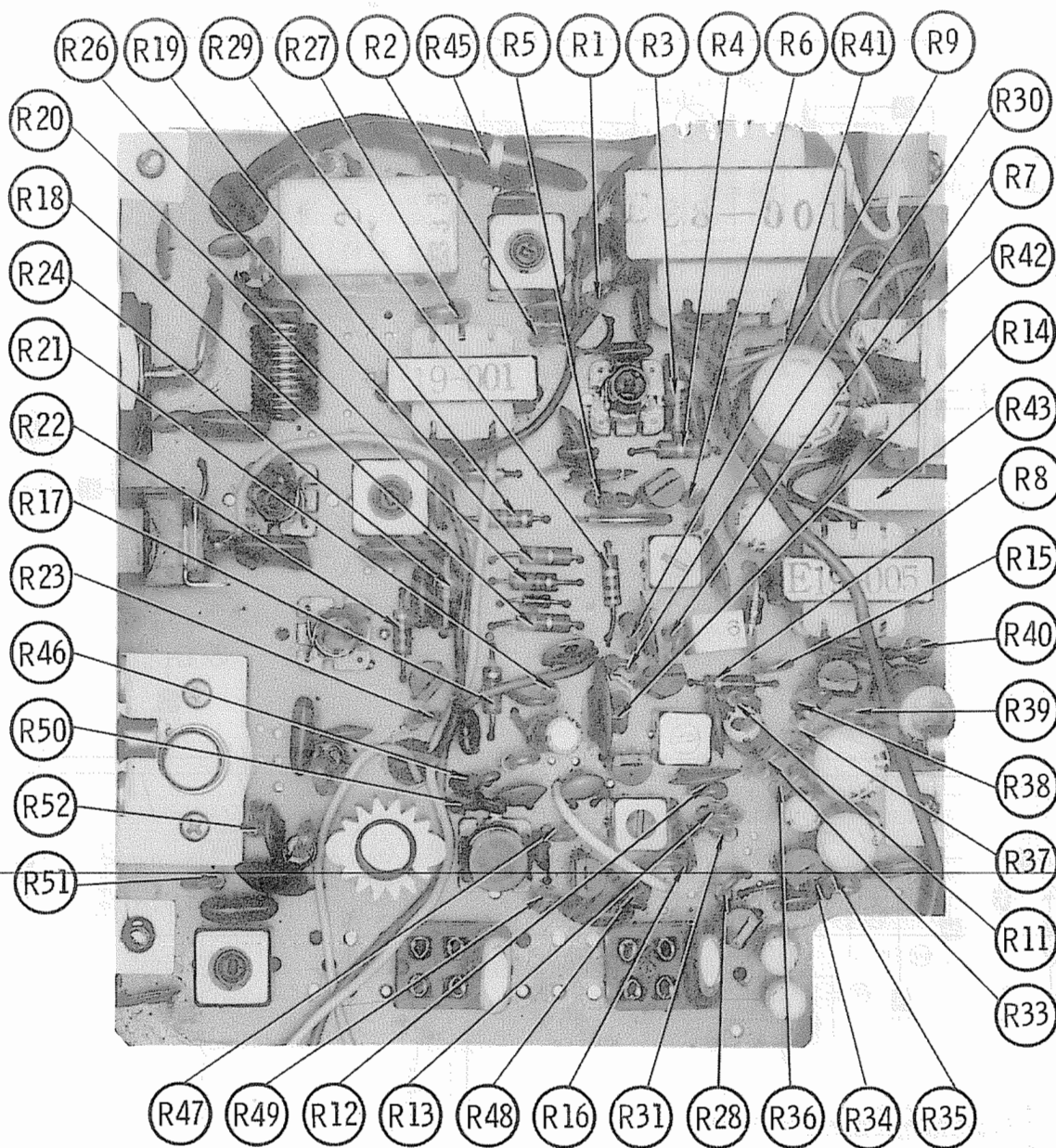
INDICATOR	ADJUST	REMARKS
Unsolder cold end of L6 from circuit board (point A) and insert a 0-500ma DC ammeter in collector circuit of Q13 (RF Amp).	L8	Adjust for 5 watts DC input to final amplifier.

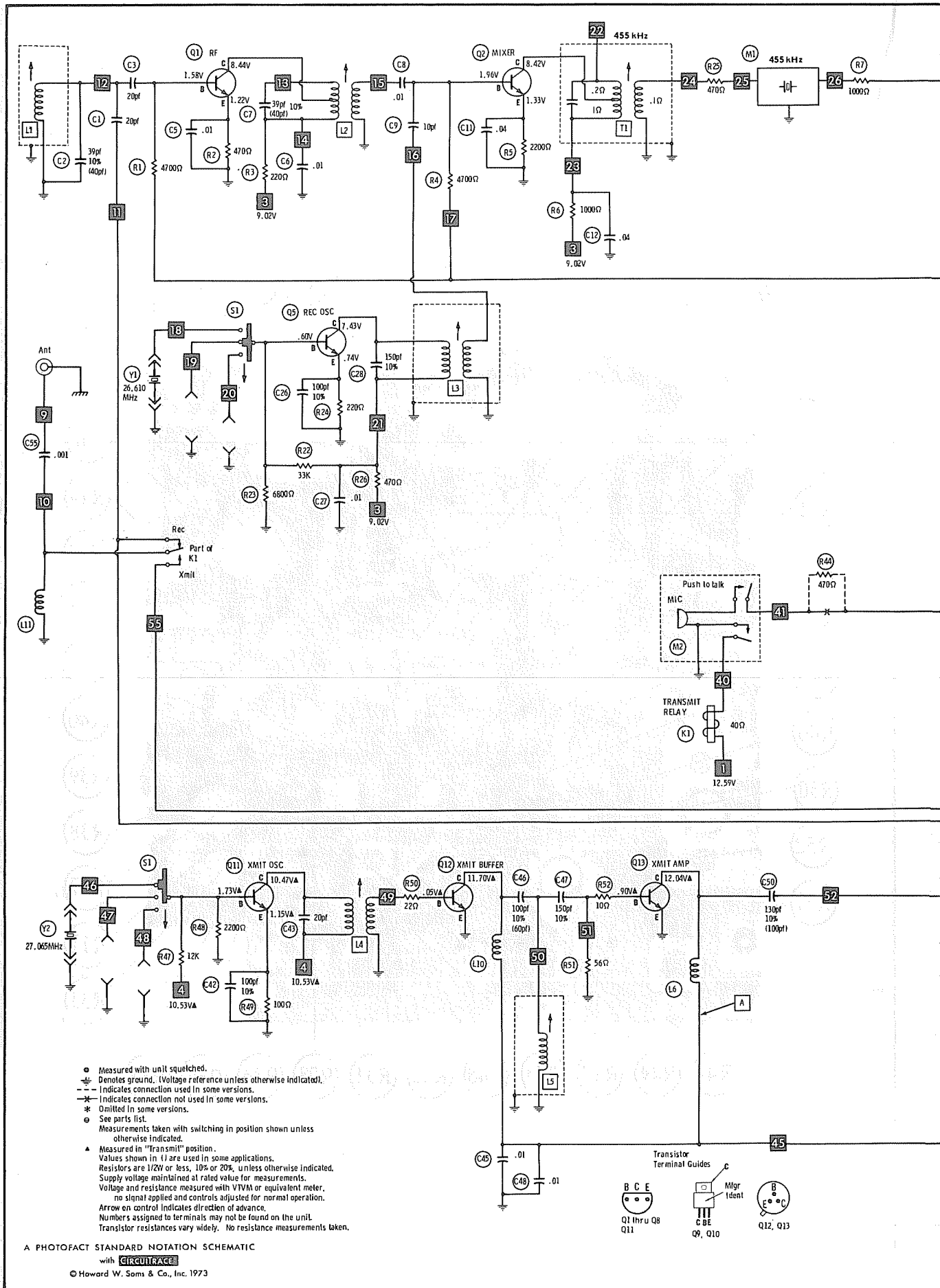


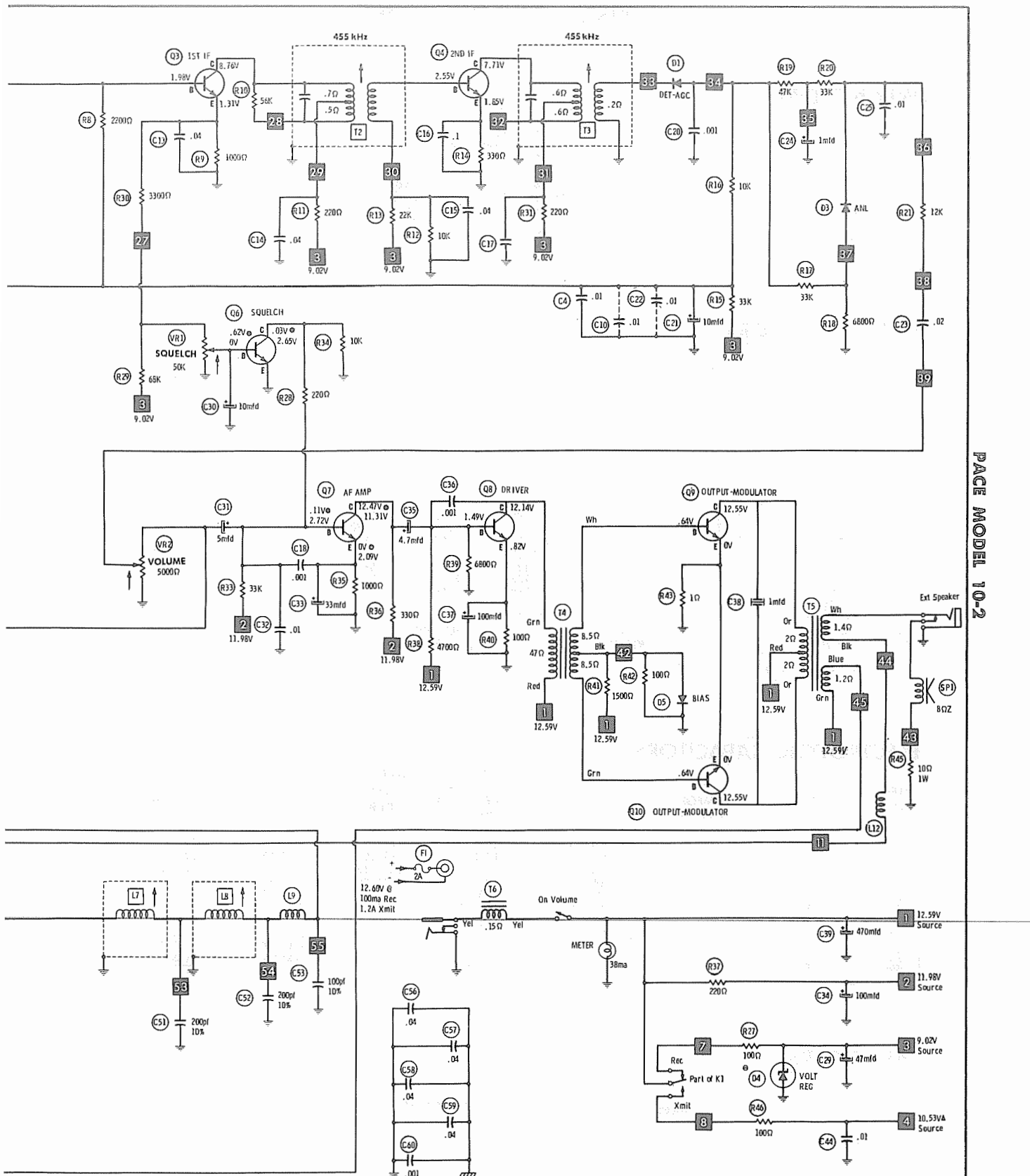












PARTS LIST AND DESCRIPTION

(When ordering parts, state Model, Part Number, and Description.)

WIRING DATA

General-use Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in 12 Colors
	8524 (Stranded) Available in 12 Colors
Shielded Antenna Lead	Use BELDEN No. 8214 Lowest-loss (RG-8/U Type)
	8237 Low-loss (RG-8/U)
	8240 (Solid) Miniature (RG-58/U)
	8259 (Stranded) Miniature (RG-58A/U)
Coiled Microphone Cable	Use BELDEN No. 8497 3-Conductor, 1 Shielded, for Press-to-Talk (Neoprene)
	8496 3-Conductor, 1 Shielded, for Press-to-Talk (Vinyl)
Ignition Noise Suppression	Use BELDEN No. 7300-Series Spark-Plug Sets
Bonding Strap	Use BELDEN No. 8661 (3/8 In.)

SEMICONDUCTORS

ITEM No.	TYPE / MFR. No. / PART No.	REPLACEMENT DATA						
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	MOTOROLA PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
D1	1N60	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D3	1S1588	GE-300	D200	PTC214	HEPR0600	SK3100	RT218	ECG 177
D4	BZ-090	GEZD-9.1		PTC505	HEPZ0412	SK3060	RT240	ECG 139
	9.02V Zener							
D5	MV-3	GE-300	D200	PTC214	HEPR0600	SK3100	RT218	ECG 177
Q1	2SC710	GE-10	TR-24	PTC126	HEP723	SK3018	RT107	ECG 107
Q2	2SC710	GE-10	TR-24	PTC126	HEP723	SK3018	RT107	ECG 107
Q3	2SC710	GE-10	TR-24	PTC126	HEP723	SK3018	RT107	ECG 107
Q4	2SC710	GE-10	TR-24	PTC126	HEP723	SK3018	RT107	ECG 107
Q5	2SC710	GE-10	TR-24	PTC126	HEP723	SK3018	RT107	ECG 107
Q6	2SC711(D)	GE-62	IRTR-51	PTC123	HEP721	SK3122	RT105	ECG 123A
Q7	2SC711(D)	GE-62	IRTR-51	PTC123	HEP721	SK3122	RT105	ECG 123A
Q8	2SC712(C)	GE-10	TR-24	PTC123	HEP53	SK3124	RT102	ECG 123A
Q9	2SC1014	GE-28 (7)	IRTR-55 (7)	PTC110 (7)	HEPS3023(7)	SK3054 (7)	RT154 (7)	ECG 186 (7)
Q10	2SC1014							
Q11	2SC710	GE-10	TR-24	PTC126	HEP723	SK3018	RT107	ECG 107
Q12	2SC776		IRTR-65		HEPS3001	SK3048		ECG 195
Q13	2SC777		IRTR-65		HEPS3001	SK3049		ECG 195

(7) Two required - select matched pair.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA					
		MFR. PART No.	ARCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C21	0 16V		RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1222
C24	1 25V		RME-A-G-001	EP30-2	PC1-50	MTV1CB50	EV-1315
C29	47 16V		RME-E-E-050	EP15-50	PC50-16	MTV50CB15	EV-1226
C30	10 16V		RME-B-E-010	EP15-10	PC10-25	VTT10A25	EV-1222
C31	4.7 25V		RME-A-G-005	EP30-5	PC5-50	VTT4R7A50	EV-1319
C33	33 16V		ME-3-E-035	EP15-25	PC30-25	MTV30CB25	EV-1325
C34	100 16V		RME-E-E-100	EP15-100	PC100-16	MTV100CD15	EV-1230
C35	4.7 25V		RME-A-G-005	EP30-5	PC5-50	VTT4R7A50	EV-1319
C37	100 6.3V NP		RME-E-D-100	EP15-100	PC100-10	MTV100CB10	EV-1130
C38	1 63V NP					TCN501A	TVAN-1560
C39	470 16V		RME-L-E-500	EA15-500	PC500-16	MTV500DN15	EV-1250

CAPACITORS

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA				
			ARCO/ELMENC0 PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	20		DM-15-200J	CPR-20J		SX420	
C2	39	10%	DM-15-390J	CPR-39J	CD15E0390J03	SX439	
C3	20		DM-15-200J	CPR-20J		SX420	
C4	.01		CCD-103	CK-103	MGP01	TA110	TG-S10
C5	.01		CCD-103	CK-103	MGP01	TA110	TG-S10
C6	.01		CCD-103	CK-103	MGP01	TA110	TG-S10
C7	39	10%	DM-15-390J	CPR-39J	CD15E0390J03	SX439	
C8	.01		CCD-103	CK-103	MGP01	TA110	TG-S10
C9	10		DM-15-100J		CD15CD100J03	SX410	
C11	.04			DD-403		GP140	
C12	.04			DD-403		GP140	
C13	.04			DD-403		GP140	
C14	.04			DD-403		GP140	
C15	.04			DD-403		GP140	

PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

CAPACITORS (cont)

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA				
			ARCO/ELMENCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C16	.1			CK-104		TA010	TG-P10
C17	.04			DD-403		GP140	
C18	.001			DD-102	GP1000	SM210	2SS-D10
C20	.001		CCD-102	DD-102	GP1000	SM210	2SS-D10
C23	.02 100V		1DP-1-203			PVC212	2PS-S20
C25	.01		CCD-103	CK-103	MGP01	TA110	TG-S10
C26	100 10%		DM-15-101J	CPR-100J	CD15F0101J03	SX310	424MC1000J501
C27	.01		CCD-103	CK-103	MGP01	TA110	TG-S10
C28	150 10%		DM-15-151J	CPR-150J	CD15F0151J03	SX315	424MC1500J501
C32	.01 100V		1DP-1-103			BWFA1110	1PB-S10
C36	.001		CCD-102	DD-102	GP1000	SM210	2SS-D10
C42	100 10%		DM-15-101J	CPR-100J	CD15F0101J03	SX310	424MC1000J501
C43	20		DM-15-200J	CPR-20J		SX420	
C44	.01		CCD-103	CK-103	MGP01	TA110	TG-S10
C45	.01		CCD-103	CK-103	MGP01	TA110	TG-S10
C46	100 10%		DM-15-101J	CPR-100J	CD15F0101J03	SX310	424MC1000J501
C47	150 10%		DM-15-151J	CPR-150J	CD15F0151J03	SX315	424MC1500J501
C48	.01		CCD-103	CK-103	MGP01	TA110	TG-S10
C50	130 10%		DM-15-131J	CPR-130J		SX313	MS-313
C51	200 10%		DM-19-201J	CPR-200J	CD15F0201J03	SX320	424ME2000J501
C52	200 10%		DM-19-201J	CPR-200J	CD15F0201J03	SX320	424ME2000J501
C53	100 10%		DM-15-101J	CPR-100J	CD15F0101J03	SX310	424MC1000J501
C55	.001		CCD-102	DD-102	GP1000	SM210	2SS-D10
C56	.04			DD-403		GP140	
C57	.04			DD-403		GP140	
C58	.04			DD-403		GP140	
C59	.04			DD-403		GP140	
C60	.001		CCD-102	DD-102	GP1000	SM210	2SS-D10

PAGE MODEL 10-2

CONTROLS (All wattages 1/2 watt, or less, unless listed)

ITEM No.	FUNCTION	RESIST-ANCE	REPLACEMENT DATA				
			MFR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
VR1	Squelch	50K					
VR2	Volume/Switch	5000					

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		ITEM No.	RATING	REPLACEMENT DATA	
		WORKMAN PART No.	MFR. PART No.			WORKMAN PART No.	MFR. PART No.
R43	1 10% (WW)						

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA			
		PART No.	MEISSNER PART No.	MILLER PART No.	WORKMAN PART No.
L1	Antenna				
L2	RF Amp				
L3	Rec. Osc.				
L4	Xmtr. Osc.				
L5	Xmtr. Buffer				
L6	RF Choke (1.4uh)		19-1001	74F156AP	T856
L7	Loading				
L8	Pi Network				
L9	Pi Network (11 turns)				
L10	RF Choke (1.4uh)		19-1001	74F156AP	T856
L11	RF Choke (3.8uh)		19-1003	74F396AP	T858
L12	RF Choke (3.8uh)		19-1003	74F396AP	T858
T1	Input IF		16-9033	8515	
T2	Interstage IF		16-9033	8515	
T3	Output IF		16-9033	8515	

PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA				NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	MFG. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T6	1200ma	.15	.7mh	(E19-001)				

TRANSFORMER (Driver)

ITEM No.	TURNS RATIO			REPLACEMENT DATA				NOTES
	PRI.	SEC. 1	SEC. 2	MFG. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD Part No.	
T4	1.5	1 CT		(E19-005)	TA38	TR5		

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE			REPLACEMENT DATA				NOTES
	PRI.	SEC. 1	SEC. 2	MFG. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T5	72	8	1.2 DC Resistance	(E28-001)				

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFG. PART No.	QUAM PART No.	
SP1	2 5/8" PM, 8 ohm			

FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA					
		PART No.		BUSS PART No.		LITTELFUSE PART No.	
		DEVICE	HOLDER	DEVICE	HOLDER	DEVICE	HOLDER
F1	2 Amp, Quick-Acting			AGC 2	HDJ	312002	150145

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
K1	Relay		Coil Resistance, 40 ohm
Y1	Crystal		26.610 MHz - Receive Ch. 9
Y2	Crystal		27.065 MHz - Transmit, Ch. 9



PHOTOFACT[®] with CIRCUITRACE[®]

For Supplier Address See PHOTOFACT Index

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The frequency of the transmitter should be checked periodically with a secondary frequency standard to insure proper and legal operation.

Best results will be obtained when adjusting the final RF output circuit if the antenna normally used is connected and the chassis is as nearly in the cabinet as possible.

Connect either 50-ohm dummy load or the normally used antenna system.



MODEL HA-420 (99-32674L)

ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools:

L1, L2, L3.....GC ELECTRONICS #9091
T1, T2, T6, T9, L7GC ELECTRONICS #9440
T3, T4, T5GC ELECTRONICS #9089

RECEIVER

Connect an AC VTVM across speaker voice coil (TP7 and ground). Turn SQUELCH control to Off. Adjust VOLUME control for suitable reading.

SIGNAL GENERATOR	CHANNEL	ADJUST	REMARKS
Connect high side thru .01mfd to TP1, base of Q2 (Rec. Mixer), low side to chassis. Set to 455KC (Mod.).	Any	T5, T4, T3	Adjust for maximum.
Connect high side thru .01mfd to antenna, low side to chassis. Set to channel A frequency (Mod).	A	T2, T1	Adjust for maximum.

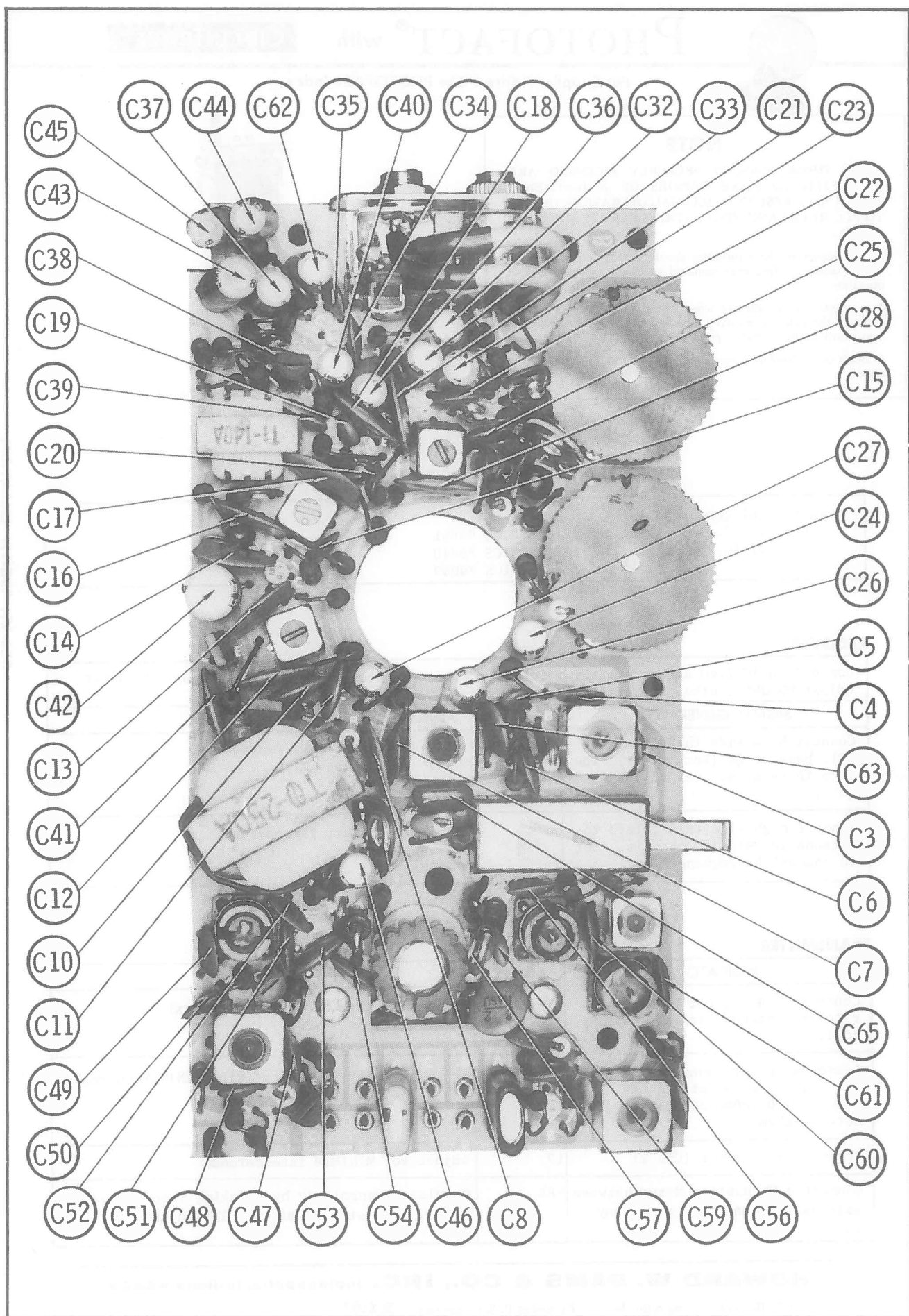
TRANSMITTER

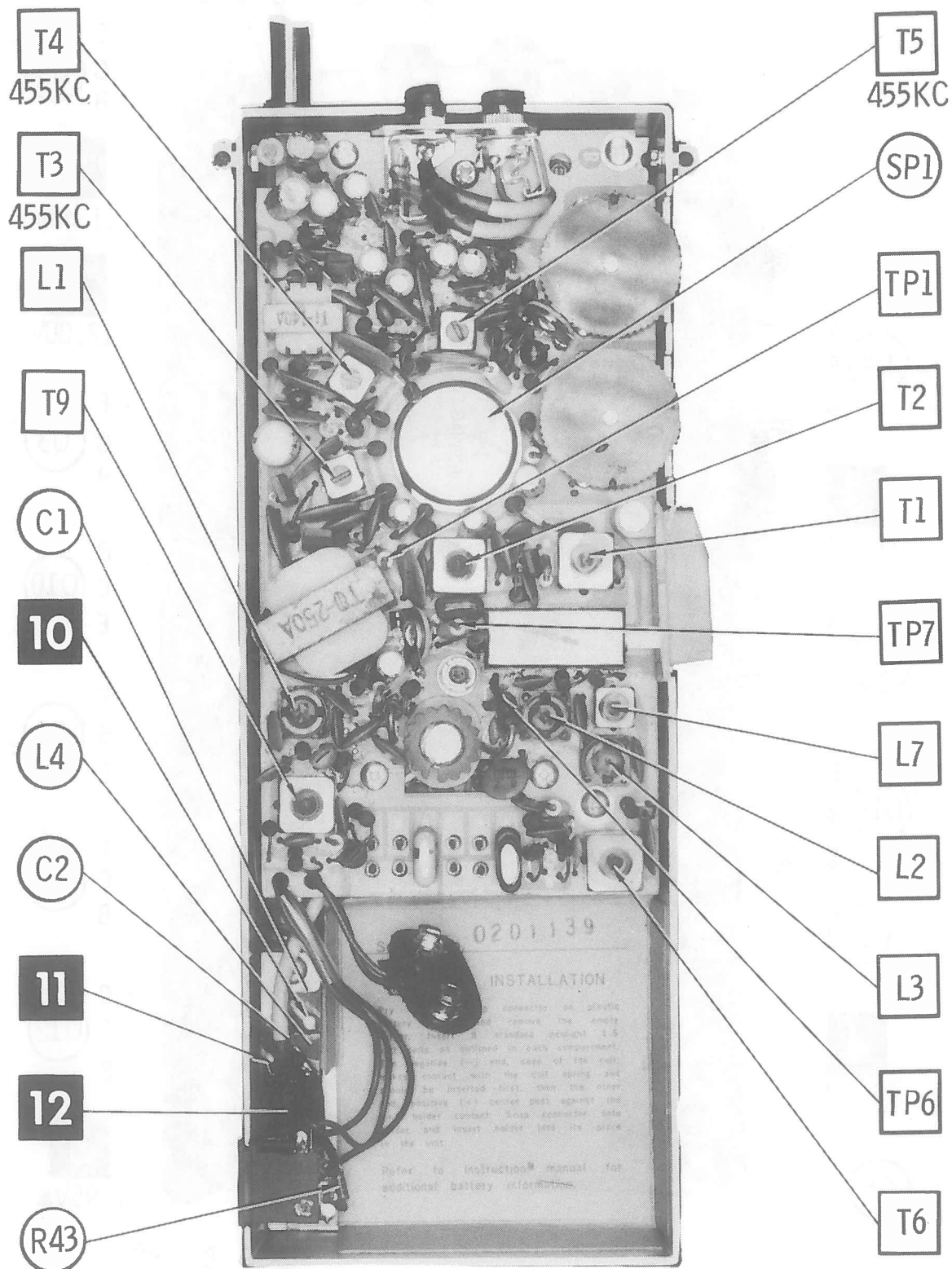
INDICATOR	ADJUST	REMARKS
Connect RF Wattmeter between external antenna jack and dummy load.	T9, L1, L2, L3	Key transmitter and adjust for maximum.
Leave Wattmeter connected. Unsolder the two wires at TP6 and connect a 0-500ma DC ammeter between them.	L2, L3	Adjust for maximum output with MINIMUM current at 1.5-watts input.
Television Receiver (Ch. 2)	L7	Adjust for MINIMUM interference.
Connect a Modulation Meter between external antenna jack and dummy load.	VR4	Modulate transmitter by speaking into microphone. Adjust to limit modulation to 100%.

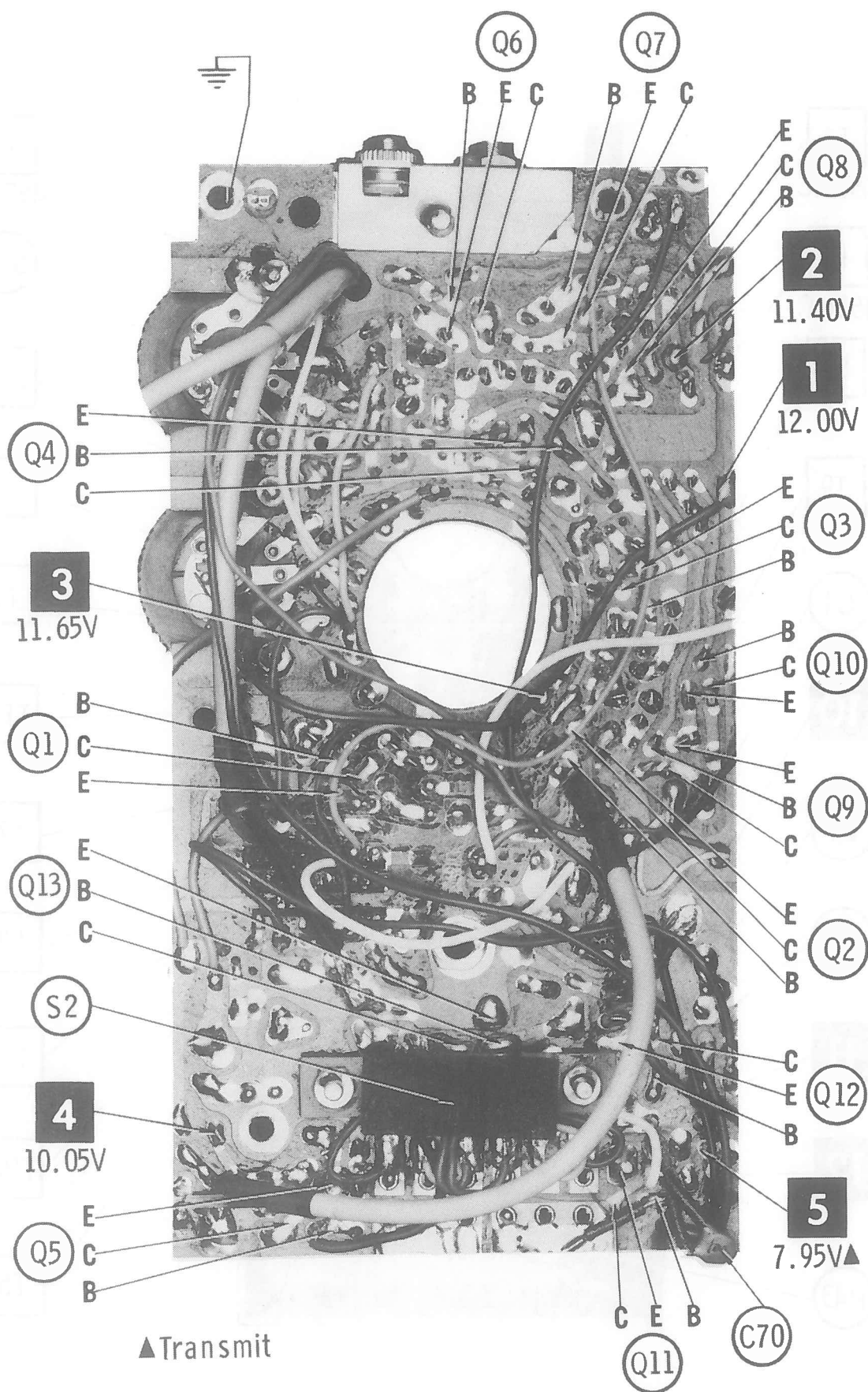
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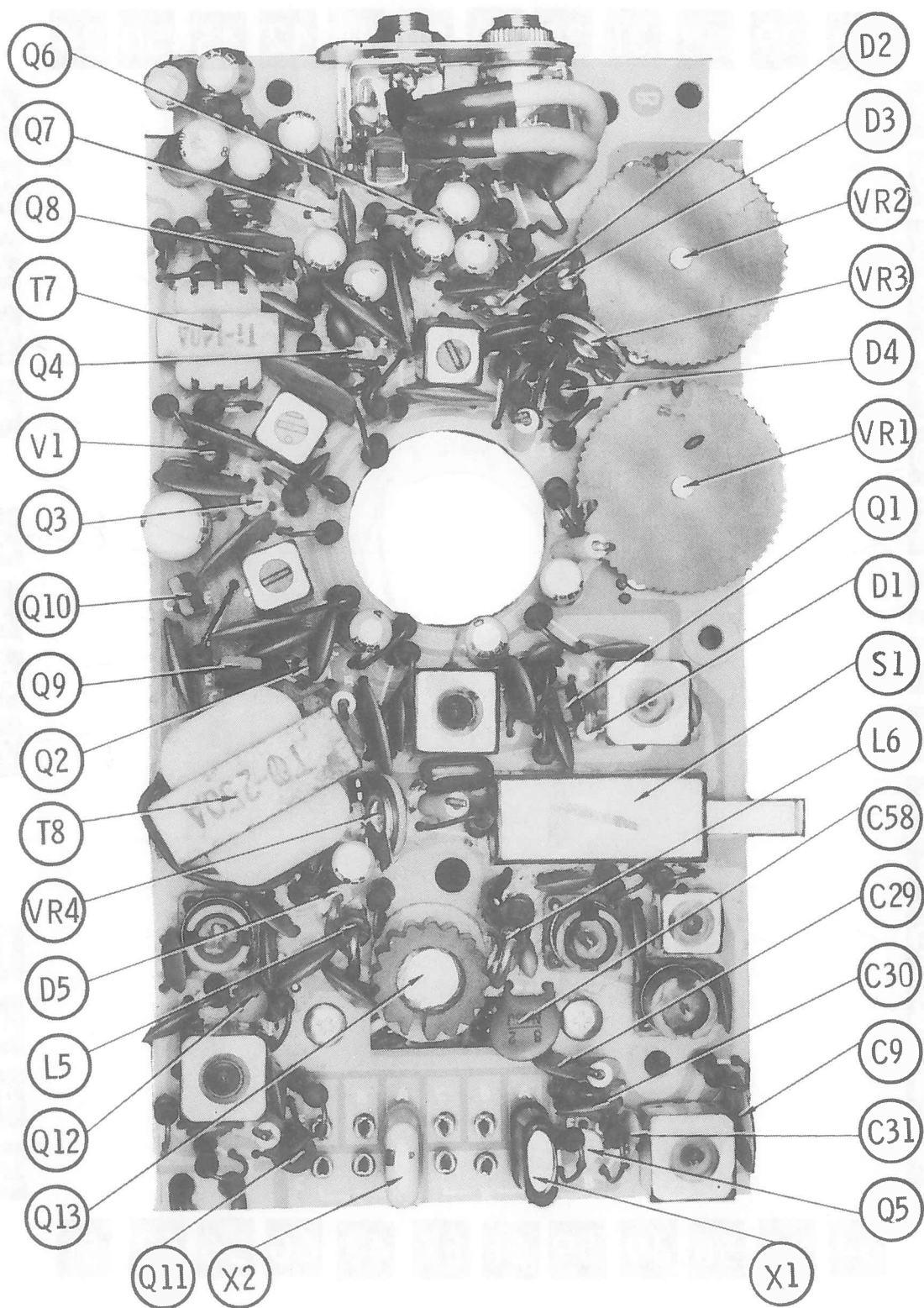
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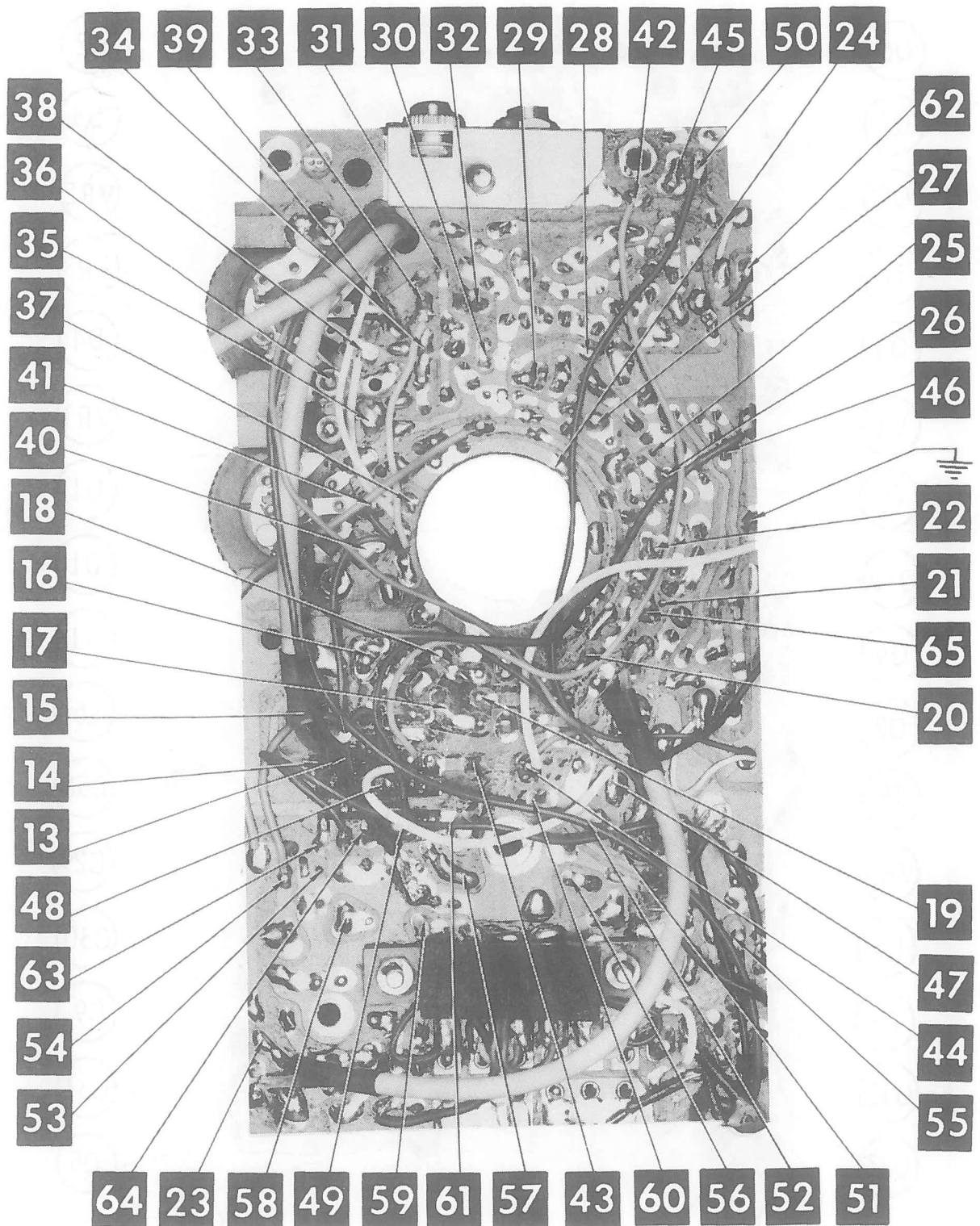
LAFAYETTE MODEL HA-420

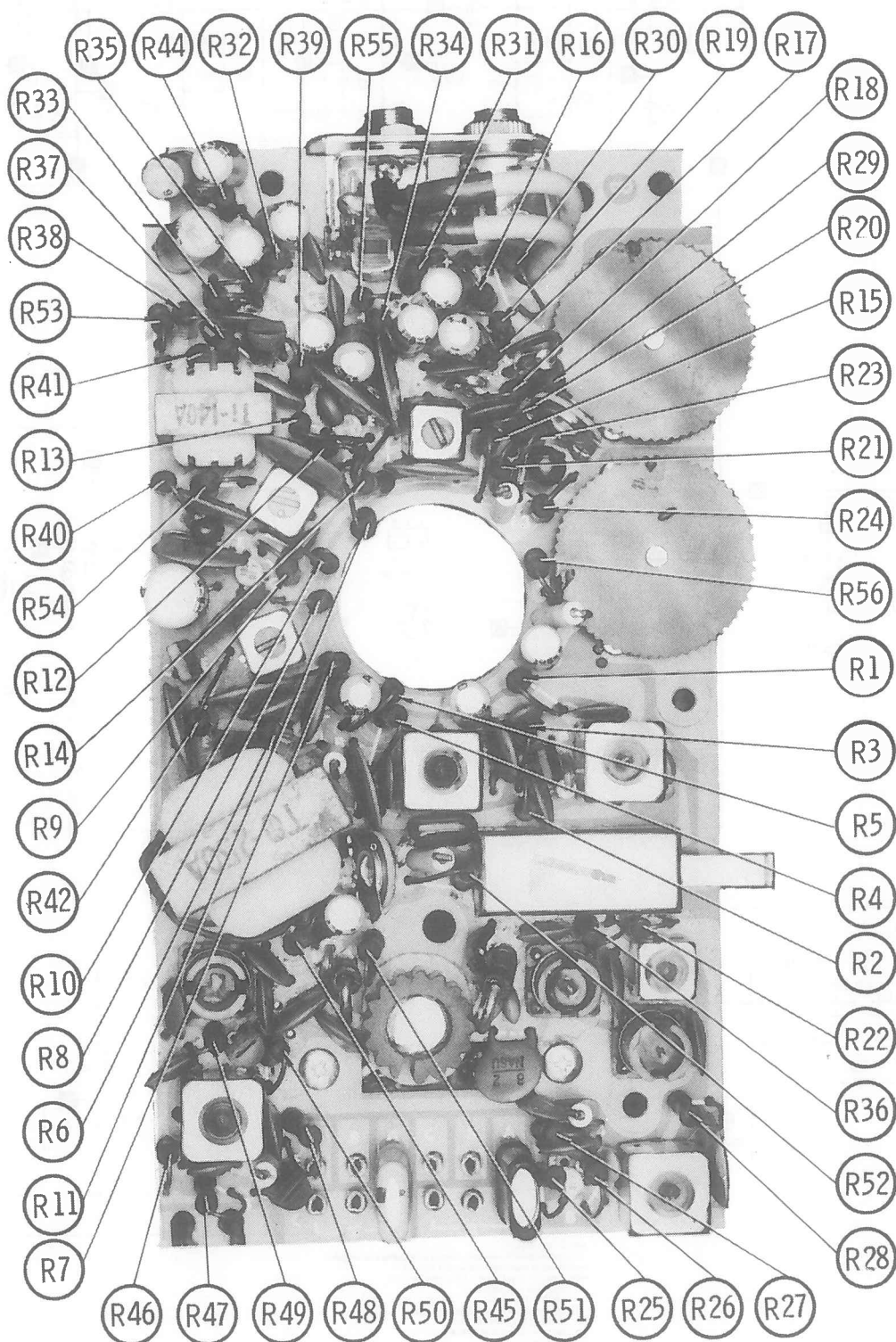


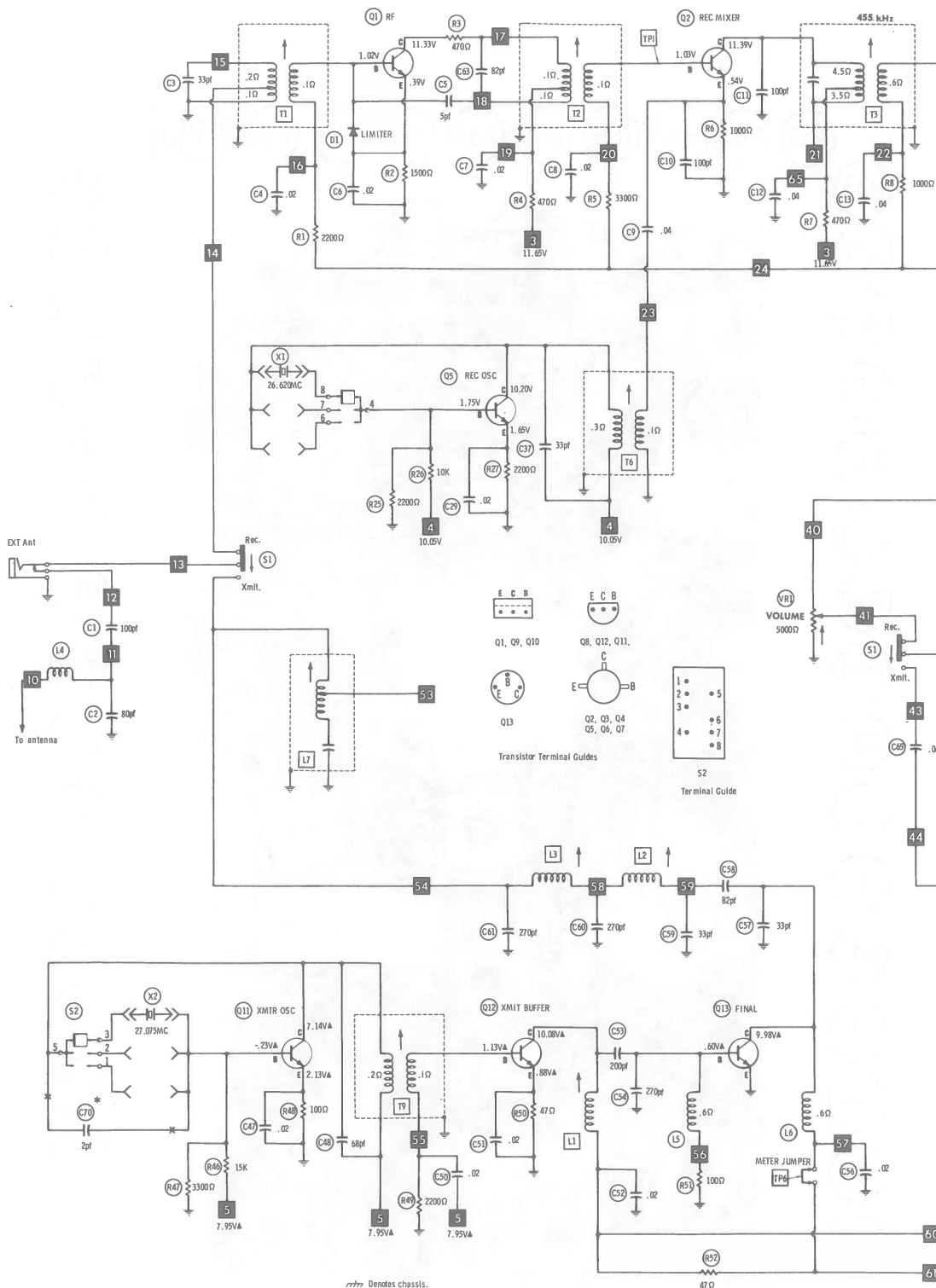






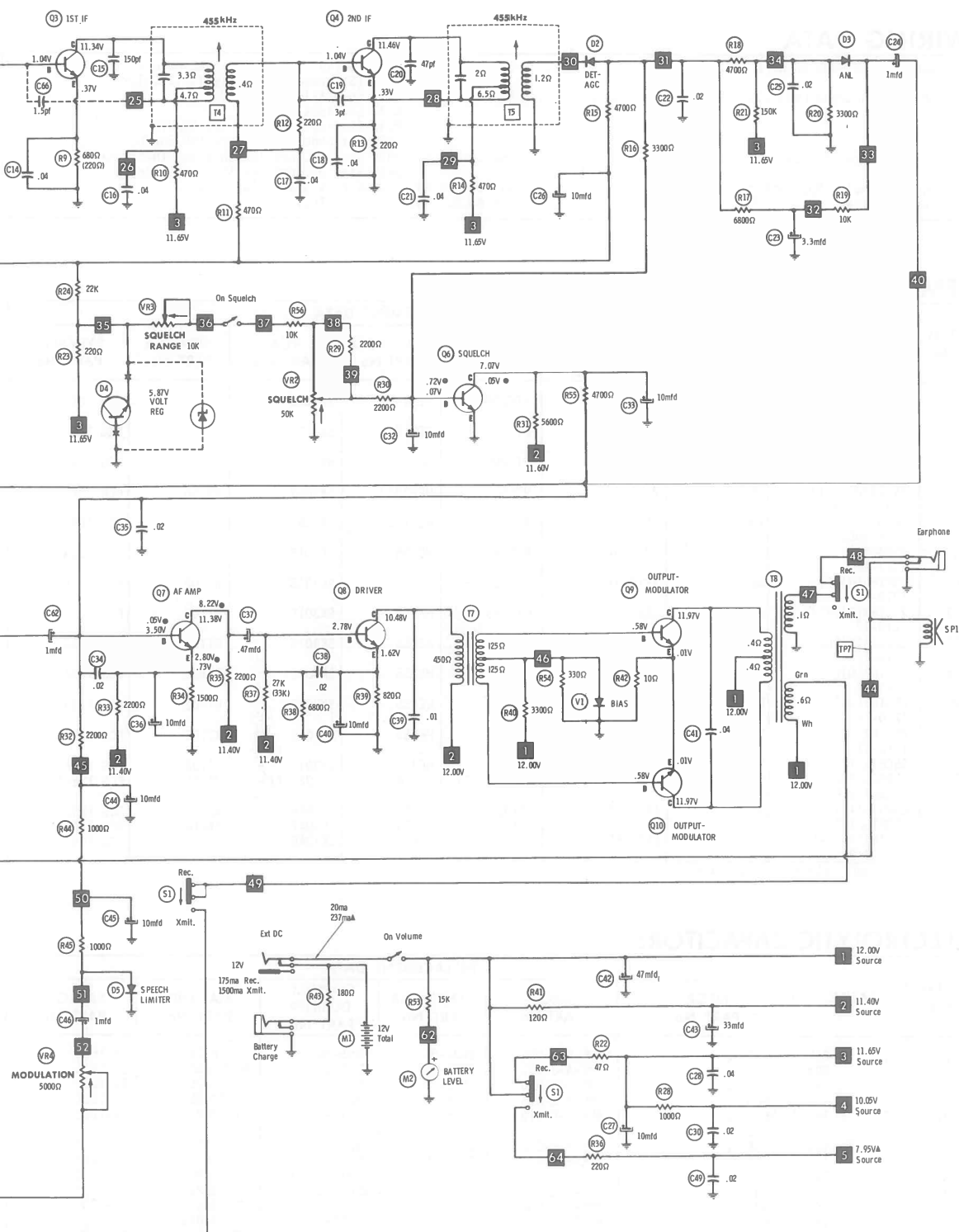






Denotes chassis.
 Denotes ground. (Voltage reference unless otherwise indicated)
 --- Indicates connection used in some versions.
 * Indicates connection not used in some versions.
 * Omitted in some versions.
 See parts list.
 Value varies; replace with original value.
 Measured in transmit position.
 Measured with unit squelched.
 NC No Connection.
 Measurements taken with switching in position shown unless otherwise indicated.
 Values shown in () are used in some applications.
 Resistors are 1/2W or less, 10% or 20%, unless otherwise indicated.
 Supply voltage maintained at rated value for measurements.
 Voltage and resistance measured with VTVM or equivalent meter, no signal applied and controls adjusted for normal operation.
 Arrow on control indicates direction of advance.
 Numbers assigned to terminals may not be found on the unit.
 Transistor resistances vary widely; no resistance measurements taken.
 Resistors are 1/2W or less, 5%, unless otherwise indicated.

A PHOTOFAC STANDARD NOTATION SCHEMATIC
 with **CIRCUITRACE**
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LAFAYETTE MODEL HA-420

PARTS LIST AND DESCRIPTION

(When ordering parts, state Model, Part Number, and Description.)

WIRING DATA

General-use Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in 12 Colors 8524 (Stranded) Available in 12 Colors
Shielded Antenna Lead	Use BELDEN No. 8214 Lowest-loss (RG-8/U Type) 8237 Low-loss (RG-8/U) 8240 (Solid) Miniature (RG-58/U) 8259 (Stranded) Miniature (RG-58A/U)
Coiled Microphone Cable	Use BELDEN No. 8499 Single-Conductor Shielded (Neoprene) 8498 Single-Conductor Shielded (Vinyl)
Ignition Noise Suppression	Use BELDEN No. 7300-Series Spark-Plug Sets
Bonding Strap	Use BELDEN No. 8661 (3/8 In.)

SEMICONDUCTORS

ITEM No.	TYPE / MFR. No. / PART No.	REPLACEMENT DATA						
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	MOTOROLA PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
D1	1N60, 1S34/1000-17	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D2	1N60, 1S34/1000-17	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D3	1N60, 1S34/1000-17	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
D4	FV-24/2106-17 5.87V Zener	GEZD5.6	Z-1204	PTC502	HEPZ0407	SK3057	RT236	ECG 136
D5	1N60, 1S34/1000-17	1N60	1N60	PTC206	HEP135	SK3088		ECG 109
Q1	2SC460(A) / 1373-17	GE-10	IRTR-51	PTC123	HEP55	SK3018	RT102	ECG 123A
Q2	2SC183(Q)(R) / 1210-17	GE-10	IRTR-51	PTC123	HEP55	SK3018	RT102	ECG 123A
Q3	2SC183(Q)(R) / 1210-17	GE-10	IRTR-51	PTC123	HEP55	SK3018	RT102	ECG 123A
Q4	2SC183(Q)(R) / 1210-17	GE-10	IRTR-51	PTC123	HEP55	SK3018	RT102	ECG 123A
Q5	2SC183(Q)(R) / 1210-17	GE-10	IRTR-51	PTC123	HEP55	SK3018	RT102	ECG 123A
Q6	2SC183(Q)(R) / 1210-17	GE-10	IRTR-51	PTC123	HEP55	SK3018	RT102	ECG 123A
Q7	2SC183(Q)(R) / 1210-17	GE-10	IRTR-51	PTC123	HEP55	SK3018	RT102	ECG 123A
Q8	2SC838/1835-17	GE-10	IRTR-51	PTC123	HEP55	SK3018	RT102	ECG 123A
Q9	2SC509/2181-17	GE-18 (7)	TR-25 (7)	PTC141 (7)	HEP243 (7)	SK3024 (7)	RT114 (7)	ECG 128 (7)
Q10	2SC509/2181-17							
Q11	2SC838/1835-17	GE-10	IRTR-51	PTC123	HEP55	SK3018	RT102	ECG 123A
Q12	2SC815/1879-17	GE-20	IRTR-62	PTC123	HEP736	SK3047	RT114	ECG 123A
Q13	2SC781/1916-17		IRTR-65		HEPS3001	SK3049		ECG 195
V1	1S1209/2182-17							

(7) Two required; select matched pair.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA					
		MFR. PART No.	ARCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C23	3.3 25V	3607-12	RME-A-H-003	EP30-5	WBR5-50	VTT3R3A50	EV-1618
C24	1 50V		RME-A-J-001	EP50-2	WBR1-50	MTV1CB50	EV-1615
C26	10 16V	3605-12	RME-B-E-010	EP15-10	WBR10-25	VTT10A25	EV-1222
C27	10 16V	3605-12	RME-B-E-010	EP15-10	WBR10-25	VTT10A25	EV-1222
C32	10 16V	3605-12	RME-B-E-010	EP15-10	WBR10-25	VTT10A25	EV-1222
	10 10V	3606-12					
C33	10 16V	3605-12	RME-B-E-010	EP15-10	WBR10-25	VTT10A25	EV-1222
C36	10 16V	3605-12	RME-B-E-010	EP15-10	WBR10-25	VTT10A25	EV-1222
C37	.47 16V				TYR13BE474M	TDC474M050EL	EV-1610
C40	10 16V	3605-12	RME-B-E-010	EP15-10	WBR10-25	VTT10A25	EV-1222
C42	47 16V	3603-12	RME-E-E-050	EP15-50	WBR50-25	MTV50CB15	EV-1226
C43	33 16V	3604-12	ME-3-E-035	EP15-25	WBR35-50	MTV30CB25	EV-1325
C44	10 16V	3605-12	RME-B-E-010	EP15-10	WBR10-25	VTT10A25	EV-1222
C45	10 16V	3605-12	RME-B-E-010	EP15-10	WBR10-25	VTT10A25	EV-1222
C46	1 50V		RME-A-J-001	EP50-2	WBR1-50	MTV1CB50	EV-1615
C62	1 50V		RME-A-J-001	EP50-2	WBR1-50	MTV1CB50	EV-1615

CAPACITORS

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA				
			ARCO/ELMENCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	100		CCD-101	DD-101	GP100	GP310	10TS-T10
C2	82		CCTO-820	DTZ-82	NP082	CN0482	10TCC-Q82

PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

CAPACITORS (cont)

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA				
			ARCO/ELMENCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C3	33		CCTO-330	DTZ-33	NP033	CN0433	10TCC-Q33
C4	.02		3MCG-C-223	DA-203	MGP02	MAG5012	TG-S20
C5	5				NP05		10TCC-V50
C6	.02		3MCG-C-223	DA-203	MGP02	MAG5012	TG-S20
C7	.02		3MCG-C-223	DA-203	MGP02	MAG5012	TG-S20
C8	.04		3MCG-C-393	DA-503	MGP05	MAG5015	TG-S50
C9	.04		3MCG-C-393	DA-503	MGP05	MAG5015	TG-S50
C10	100		CCD-101	DD-101	GP100	GP310	10TS-T10
C11	100		CCD-101	DD-101	GP100	GP310	10TS-T10
C12	.04		3MCG-C-393	DA-503	MGP05	MAG5015	TG-S50
C13	.04		3MCG-C-393	DA-503	MGP05	MAG5015	TG-S50
C14	.04		3MCG-C-393	DA-503	MGP05	MAG5015	TG-S50
C15	150		CCD-151	DD-151	GP150	GP315	10TS-T15
C16	.04		3MCG-C-393	DA-503	MGP05	MAG5015	TG-S50
C17	.04		3MCG-C-393	DA-503	MGP05	MAG5015	TG-S50
C18	.04		3MCG-C-393	DA-503	MGP05	MAG5015	TG-S50
C19	3						10TCC-V30
C20	47		CCTO-470	DTZ-47	NP047	CN0447	10TCC-Q47
C21	.04		3MCG-C-393	DA-503	MGP05	MAG5015	TG-S50
C22	.02		3MCG-C-223	DA-203	MGP02	MAG5012	TG-S20
C25	.02		3MCG-C-223	DA-203	MGP02	MAG5012	TG-S20
C28	.04		3MCG-C-393	DA-503	MGP05	MAG5015	TG-S50
C29	.02		3MCG-C-223	DA-203	MGP02	MAG5012	TG-S20
C30	.02		3MCG-C-223	DA-203	MGP02	MAG5012	TG-S20
C31	33		CCTO-330	DTZ-33	NP033	CN0433	10TCC-Q33
C34	.02		3MCG-C-223	DA-203	MGP02	MAG5012	TG-S20
C35	.02		3MCG-C-223	DA-203	MGP02	MAG5012	TG-S20
C38	.02		3MCG-C-223	DA-203	MGP02	MAG5012	TG-S20
C39	.01		3MCG-C-103	CK-103	MGP01	MAG5011	TG-S10
C41	.04		3MCG-C-393	DA-503	MGP05	MAG5015	TG-S50
C47	.02		3MCG-C-223	DA-203	MGP02	MAG5012	TG-S20
C48	68			DTZ-68		CN0468	10TCC-Q68
C49	.02		3MCG-C-223	DA-203	MGP02	MAG5012	TG-S20
C50	.02		3MCG-C-223	DA-203	MGP02	MAG5012	TG-S20
C51	.02		3MCG-C-223	DA-203	MGP02	MAG5012	TG-S20
C52	.02		3MCG-C-223	DA-203	MGP02	MAG5012	TG-S20
C53	200		CCD-201	DD-201	GP200	GP320	10TS-T20
C54	270		CCD-270	DD-271	GP270	GP327	10TS-T27
C56	.02		3MCG-C-223	DA-203	MGP02	MAG5012	TG-S20
C57	33		CCTO-330	DTZ-33	NP033	CN0433	10TCC-Q33
C58	82		CCTO-820	DTZ-82	NP082	CN0482	10TCC-Q82
C59	33		CCTO-330	DTZ-33	NP033	CN0433	10TCC-Q33
C60	270		CCD-270	DD-271	GP270	GP327	10TS-T27
C61	270		CCD-270	DD-271	GP270	GP327	10TS-T27
C63	82		CCTO-820	DTZ-82	NP082	CN0482	10TCC-Q82
C65	.047		1DP-2-473		DPMS6S47	EWFI1A147	225P47391WD3
C70	2			DTZ-2R2	NP02P2	CN0522	10TCC-V22

LAFAYETTE MODEL HA-420

CONTROLS (All wattages 1/2 watt, or less, unless listed)

ITEM No.	FUNCTION	RESIST-ANCE	REPLACEMENT DATA				
			MFR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
VR1	Volume/Power Switch	5000	1604-11	B16-214 (1)			
VR2	Squelch/On-Off Switch	50K	1605-11	B16-119 (1)			
VR3	Squelch Range	10K	2509-13	TSV-10K (2) or T-10K (2)	C-103 (2)	X201R103B (2)	MTC14L1 (2)
VR4	Modulation Adjust	5000	2508-13	TSV-5K (2) or T-5000 (2)	C-502 (2)	X201R502B (2)	MTC53L1 (2)

(1) Use original knob.

(2) Cut off one of the end terminals and bend to fit PC board.

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA			
		PART No.	MEISSNER PART No.	MILLER PART No.	WORKMAN PART No.
L1	Xmtr. Buffer	2419-23			
L2	RF Filter	2420-23			
L3	RF Filter	2421-23			
L4	Loading (31 turns)	2418-23			
L5	RF Choke (2.9uh)	2535-23		74F276AP	T814
L6	RF Choke (2.9uh)	2535-23		74F276AP	T814
L7	TVI Trap	2417-23			
T1	Antenna Matching	2422-23			

PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

COILS (RF-IF) (cont)

ITEM No.	USE	REPLACEMENT DATA			
		PART No.	MEISSNER PART No.	MILLER PART No.	WORKMAN PART No.
T2	RF Amp	2423-23			
T3	Input IF	2094-24	16-9026	8517	
T4	Interstage IF	2095-24	16-9027	8517	
T5	Output IF	2096-24	16-9028	8518	
T6	Rec. Osc.	2424-23			
T9	Xmtr. Osc.	2425-23			

TRANSFORMER (Driver)

ITEM No.	TURNS RATIO			REPLACEMENT DATA				NOTES
	PRI.	SEC. 1	SEC. 2	MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD Part No.	
T7	1.25	1		1668-15				

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA				NOTES
	PRI.	SEC. 1	MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T8	72 CT	8	1669-15				
		SEC.2					
		DC Resistance .6 ohm					

SPEAKER

ITEM No.	TYPE		REPLACEMENT DATA		NOTES
			MFGR. PART No.	QUAM PART No.	
SP1	2-1/4"	8 ohms	1238-36	22A06Z8	

BATTERIES

ITEM No.	VOLTAGE	MFGR. PART No.	EVEREADY PART No.	NOTES
M1	12V		1015 or E91 or E9	8 required

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
M2	Meter	1162-27	Battery Level
S1	Switch	1767-14	Transmit
S2	Switch	1768-14	Channel Selector
X1	Crystal	1242-35	Channel 10 Receive - 26.620MC
X2	Crystal	1243-35	Channel 10 Transmit - 27.075MC

CABINETS & CABINET PARTS (When ordering specify model, chassis & color)

ITEM	PART No.	ITEM	PART No.
Cabinet	6914-10	Knob, Volume, Squelch	1769-18
Rear Cover	6915-10	Button, Transmit	1768-18
Battery Holder	4070-20	External Antenna Jack	1990-19
Speaker Grill	6912-10	Earphone Jack	1989-19
Antenna, Telescopic	1165-39	External Power Jack	1988-19