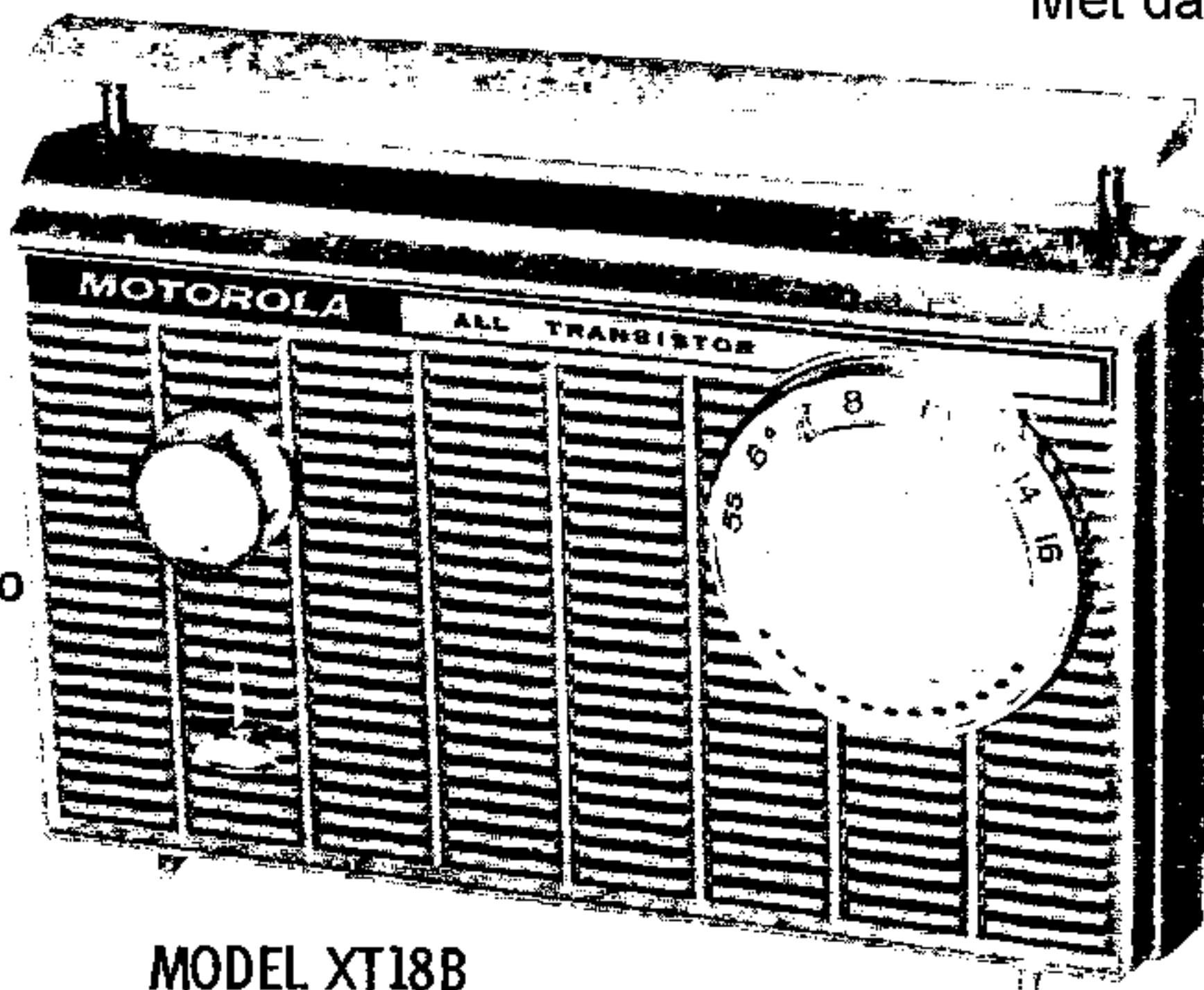


Met dank aan Jef Bos

r. v. Historie v/d Radio

ARCHIEF
DOCUMENTATIEDIENST
NVHR



MODEL XT18B

TRADE NAME Motorola Models XT18B, XT18S (Ch. HS-802)
 MANUFACTURER Motorola Inc., 4545 W. Augusta Blvd., Chicago 51, Illinois
 TYPE SET Battery Operated Transistorized Portable AM Receiver
 POWER SUPPLY 9 Volts DC RATING 10MA @ 9 Volts DC (No Signal, Min. Volume)
 TUNING RANGE—BROADCAST 535 - 1620KC 25MA @ 9 Volts DC (Signal, Normal Volume)

ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Volume control should be at maximum position. Output of signal generator should be no higher than necessary to obtain an output reading.

Suggested Alignment Tools: A1, A2, A3.... GENERAL CEMENT #5097, 8727
 WALSCO #2515
 A4..... GENERAL CEMENT #9296, 9297
 WALSCO #2546, 2547
 A5, A6..... GENERAL CEMENT #5004, 5008, 5009
 WALSCO #2520

	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1.	Loop	455KC (400 Mod.)	Tuning gang fully open.	Across voice coil.	A1, A2, A3	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
2.	"	600KC	600KC	"	A4	"
3.	"	1620KC	Tuning gang fully open.	"	A5	"
4.	"	1400KC	1400KC Signal.	"	A6	Adjust for maximum output. Repeat Steps 2 thru 4.

DISASSEMBLY INSTRUCTIONS

CABINET BACK

1. Loosen back panel mounting screws. (Screws are captive). Remove panel.
2. Remove batteries and unsnap connectors.
3. Release handle by pressing button.
4. Remove 2 screws holding cabinet back.
5. Unfasten arms from handle rods by pushing them to the side with a screwdriver.

6. Remove cabinet back.

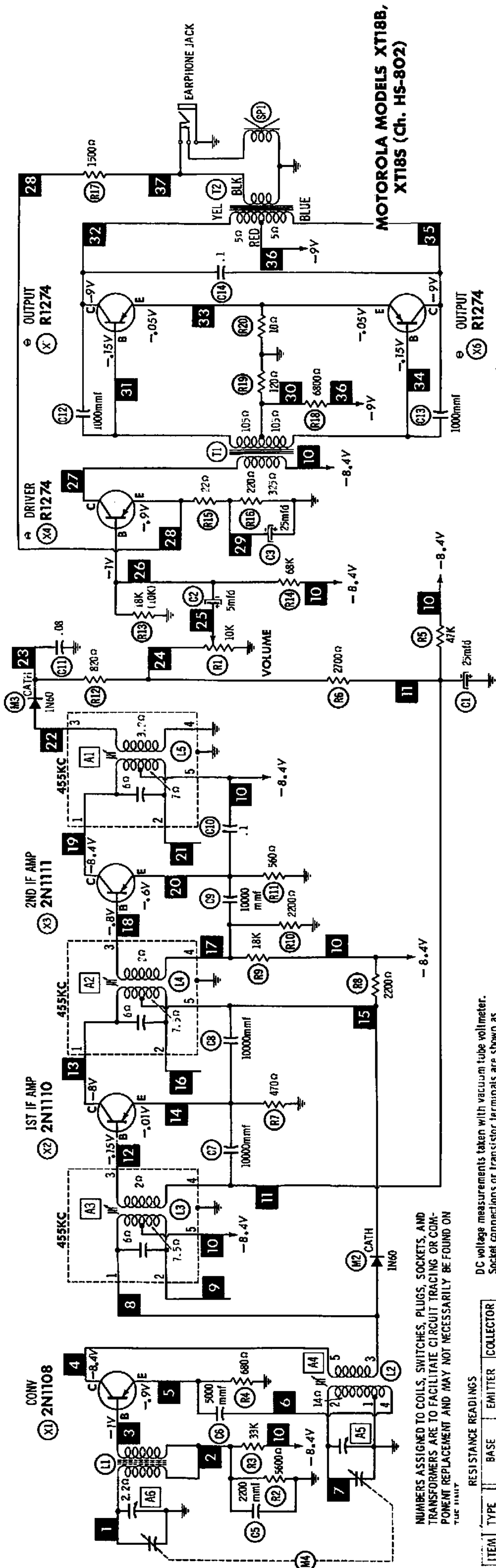
CHASSIS

1. Remove cabinet back.
2. Remove knobs.
3. Remove earphone jack mounting nuts.
4. Remove chassis mounting screws and palnut from front of cabinet.
5. Unsolder necessary leads and remove chassis.

HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana

The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of KF312

the particular type of replacement part listed. Reproduction or use, without express permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein. © 1961 Howard W. Sams & Co., Inc., Indianapolis 6, Indiana. Printed in U.S. of America



**MOTOROLA MODELS XT18B,
XT185 (Ch. HS-802)**

NUMBERS ASSIGNED TO COILS, SWITCHES, PLUGS, SOCKETS, AND TRANSFORMERS ARE TO FACILITATE CIRCUIT TRACING OR COMPONENT REPLACEMENT AND MAY NOT NECESSARILY BE FOUND ON THE UNIT

RESISTANCE READINGS

ITEM	TYPE	BASE	EMITTER	COLLECTOR
X1	2N1108	5600Ω	680Ω	±100Ω
X2	2N1110	5000Ω	470Ω	±2300Ω
X3	2N1111	2200Ω	560Ω	±100Ω
X4	R1274	15K	240Ω	±425Ω
X5	R1274	225Ω	30Ω	±5Ω
X6	R1274	225Ω	30Ω	±5Ω

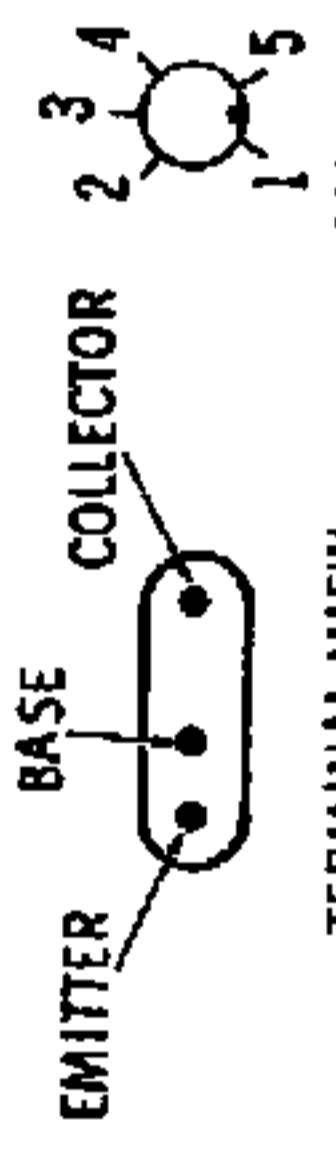
TRANSISTORS REMOVED FOR RESISTANCE MEASUREMENT
† MEASURED FROM CircuitTrace POINT 36.

DC voltage measurements taken with vacuum tube voltmeter. Socket connections or transistor terminals are shown as bottom views.

Measured values are from socket pin or terminal to common ground.
Nominal tolerance on component values makes possible a variation of ±15% in voltage and resistance readings.
Volume control at maximum, no signal applied for voltage measurements.

SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

DC COIL RESISTANCE VALUES UNDER ONE Ω NOT SHOWN ON SCHEMATIC DIAGRAM



EMITTER BASE COLLECTOR
TERMINAL VIEW OF TRANSISTORS
TERMINAL VIEW L2
TERMINAL VIEW L3, L4, L5

A PHOTOFACT STANDARD NOTATION SCHEMATIC with CIRCUITTRACE

Howard W. Semi & Co., Inc. 1961

PARTS LIST AND DESCRIPTIONS

WIRING DATA

General-use Unshielded Hook-up Wire Use BELDEN No. 8530 (Solid) Available in Ten Colors
8524 (Stranded) Available in Ten Colors

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			RCA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
X1	2N1108	Converter		2N1366	2N412	PNP
X2	2N1110	1st IF Amp.		2N483	2N409	PNP
X3	2N1111	2nd IF Amp.		2N483	2N409	PNP
X4	R1274 *	Driver	2N408			PNP
X5	R1274 *	Output	2N408			PNP
X6	R1274 *	Output	2N408			PNP

* Alternate Type 2N1274.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						NOTES
	CAP.	VOLT.	MOTOROLA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.	
C1	25	10	23K646499	PTT-10025	NLW25-10	TT10X25	ML25-12	TE-1118	
C2	8	10	23K646500	XPP-10006	NLW6-25	TT10X6	ML6-12	TE-1127, 1	
C3	25	10	23K646499	PTT-10025	NLW25-10	TT10X25	ML25-12	TE-1118	
C4	50	15	23K643463	BCD15050	ECPB415	PET1575	ML50-15	VL-1174	①

① Some versions may use 50mfd @ 10V in this application (Part #23K644671).

FIXED CAPACITORS

Capacity values given in the rating column are in mfd. for Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C5	2200		BPD-0022	DD-222	BYA10D22	CCD-222	B-222	5HK-D22
C6	5000		BPD-005	DD-502	BYA10D5	CCD-502	B-250	5HK-D50
C7	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C8	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C9	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C10	.1 50V		P268N-1	DDA-104	CUB2P1	IDP-2-104	GEM-201	2TM-P10
C11	.08 50V	#8R131283			DPM86882			2WF-S82
C12	1000		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C13	1000		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C14	.1 50V		P268N-1	DDA-104	CUB2P1	IDP-2-104	GEM-201	2TM-P10

Motorola Part Number.

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	MOTOROLA PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.	
R1	10K	1/2	18B646239					Volume & Switch

RESISTORS (IRC or EQUIVALENT)

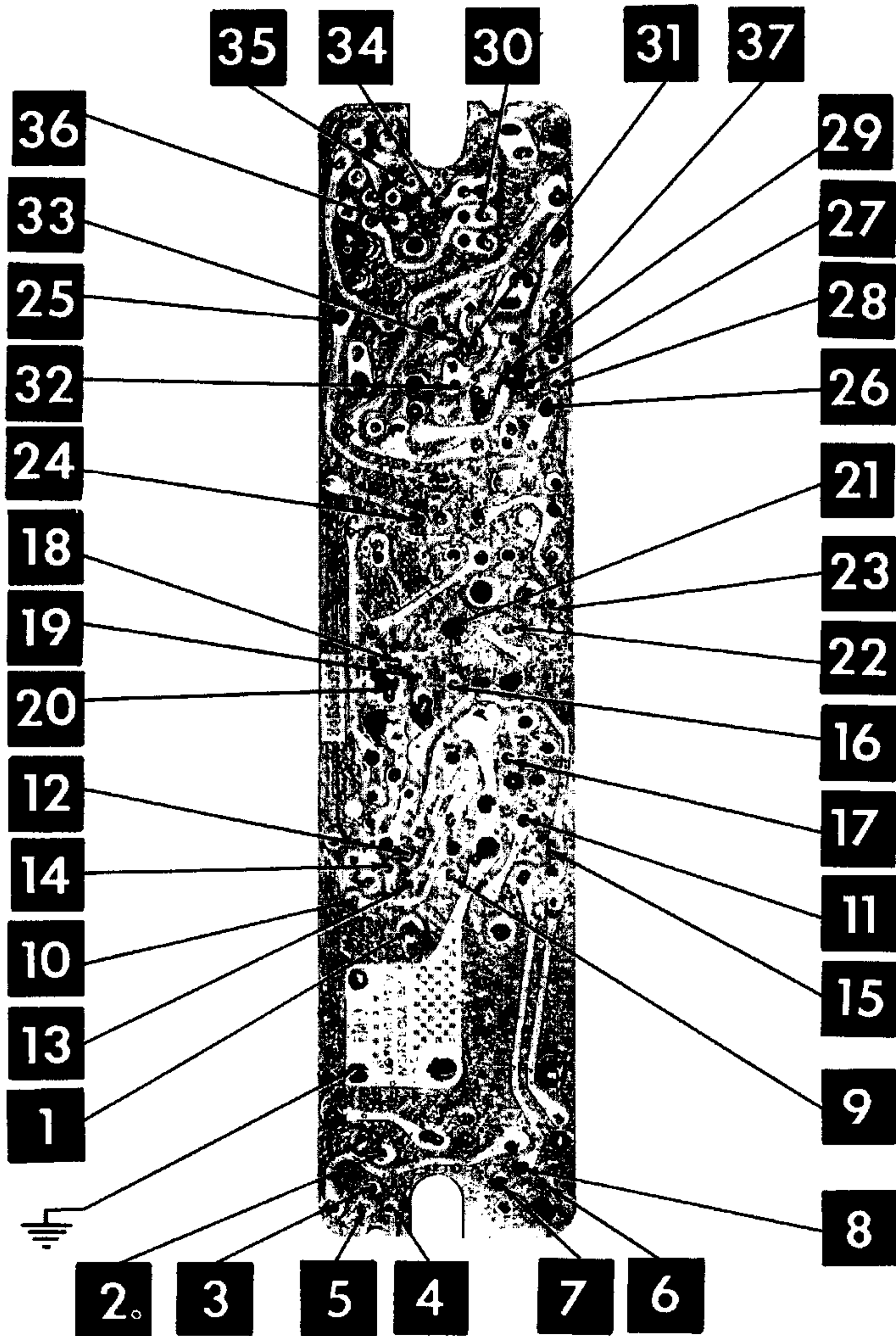
All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS
R2	5600Ω		R9	18K		R16	220Ω	
R3	33K		R10	2200Ω		R17	1500Ω	
R4	680Ω		R11	560Ω		R18	6800Ω	
R5	47K		R12	820Ω		R19	120Ω	
R6	2700Ω		R13	18K	(10K) *	R20	10Ω	
R7	470Ω		R14	68K		R21	100Ω	
R8	2200Ω		R15	22Ω				

* Alternate Value.

PRINTED BOARD

A Howard W. Sams CIRCUITRACE[®] Photo



PARTS LIST AND DESCRIPTIONS (Continued)

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		MOTOROLA PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	
L1	Loopstick	24B646232				
L2	Osc. Coil	24K646241				
L3	1st IF Trans.	24K646230				
L4	2nd IF Trans.	24K646230				
L5	3rd IF Trans.	24K646231				

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		REPLACEMENT DATA					NOTES
	PRI.	SEC.	MOTOROLA PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T1	1.8	1	25B641394					

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	MOTOROLA PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2	100Ω CT	3-4Ω	(Part of SPI)					

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	MOTOROLA PART No.	QUAM PART No.	
SPI	4"	PM	3-4Ω	50C646223 *	4A07 †	* Includes T2 † Trim Mounting Ear to Fit.

BATTERIES

ITEM No.	VOLTAGE	MOTOROLA PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
M1	9V			D6		276		M-1603	

CRYSTAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA			NOTES
		MOTOROLA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
M2	1N60	48K640754	1N60	1N60	AVC (Pigtail) Detector (Pigtail)
M3	1N60	48K640754	1N60	1N60	

MISCELLANEOUS

ITEM No.	PART NAME	MOTOROLA PART No.	NOTES
M4	Tuning Cap. Printed Board	19B646275 84C646375	2 Gang Less All Components

CABINETS & CABINET PARTS

(When Ordering Cabinets & Cabinet Parts, Specify Model, Chassis & Color)

NAME	PART NO.	DESCRIPTION
Knob	36C646406	Tuning, Clear
Knob	36B646355	Volume, Clear
Cabinet Back	1V60030A25	Blue, Model XT18B
Cabinet Back	1V60030A26	Tan, Model XT18B
Cabinet Front	1V60030A40	Blue, Model XT18B
Cabinet Front	1V60030A41	Tan, Model XT18B
Handle	1C646363	Blue, Model XT18B
Handle	1K646364	Tan, Model XT18B

CHASSIS—TOP VIEW

