



Met dank aan Jef Bos



Ned. Ver. v. Histori

TRADE NAME Sonic Model TR-500
 MANUFACTURER Sonic Industries, Inc., 19 Wilbur St., Lynbrook, N. Y.
 TYPE SET Battery Operated Portable Transistorized Receiver

POWER SUPPLY 9 Volts DC
 TUNING RANGE—BROADCAST 540 - 1620KC

RATING 23MA @ 9 Volts DC



ARCHIEF
 DOCUMENTATIE
 NVHR

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. Use an insulated alignment screwdriver for adjusting.
 Loop should be maintained in the same relative position to chassis as when the receiver is in cabinet.

DUMMY ANTENNA	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.	"	1600KC	1600KC	"	A4	"
3.	"	1400KC	1400KC	"	A5	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output. Rock tuning gang while adjusting.

HOWARD W. SAMS & CO., INC. • Indianapolis 5, Indiana

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PARTS LIST AND DESCRIPTIONS

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			CBS PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
X1	2N168A	Converter	2N439		2N212	Note 1 Note 1
X2	2N292	1st IF Amp.	2N439		2N94	
X3	2N292	2nd IF Amp. - AF Amp.	2N439		2N94	
X4	2N241A	Output	2N180	2N360	2N383	

Note 1. Type 2N169 may be used in some versions.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						NOTES
	CAP.	VOLT.	SONIC PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	
C1A	100	12							R2503 *
B	40	12							
C	40	12	①						
C2	2	10	②	XPP10002	NL3-10	TT12X2	ML2-15		R2441 *
C3	10	10	①	XPP10010	NL10-10	TT12X10	ML10-15	MMT-0210	TE-1114
C4	10	10		XPP10010	NL10-10	TT12X10	ML10-15	MMT-0210	TE-1114

① In some versions C1C and C3 are reversed.

② Not used in some versions.

* Non Catalog Item

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		REPLACEMENT DATA						NOTES
	CAP.	VOLT	SONIC PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	
C5	10000								TG-S10
C6	10000								TG-S10
C7	10000								TG-S10
C8	10000								TG-S10
C9	10000								TG-S10
C10	10000								TG-S10
C11	.05	200							TG-S50
C12	.05	200							TG-S50
C13	.05	200							TG-S50

① Not used in some versions.

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	SONIC PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	
R1	5000Ω	½	TR-6-4					Volume & Switch

RESISTORS

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

ITEM No.	RATING		SONIC PART No.	NOTES	ITEM No.	RATING		SONIC PART No.	NOTES
	OHMS	WATT				OHMS	WATT		
R2	27K			Note 1	R9	82K			Note 2 Note 3 Note 4 Note 4
R3	9100Ω				R10	2700Ω			
R4	470Ω				R11	150Ω			
R5	1500Ω				R12	1000Ω			
R6	3300Ω				R13	5600Ω			
R7	3300Ω				R14	68Ω			
R8	9100Ω				R15	100K			
					R16	3300Ω			

Note 1. Some versions may use 10K in this application.

Note 2. Some versions may use 1200Ω in this application.

Note 3. Some versions may use 470Ω in this application.

Note 4. Not used in some versions.

PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES	
			SONIC PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.		Triad PART No.
	PRI.	SEC.							
T1	352Ω	3-4Ω	Part of Spkr.						

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
				SONIC PART No.	QUAM PART No.	
	SIZE	FIELD	V. C. IMP.			
SP1	3½"	PM	3-4Ω	4666	9A07	

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		SONIC PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Loop Stick					
L2	Osc. Coil					
L3	1st IF					
L4	2nd IF					
L5	3rd IF					

BATTERIES

ITEM No.	VOLTAGE	SONIC PART No.	REPLACEMENT DATA								NOTES
			BURGESS		EVEREADY		MALLORY		RAY-O-VAC		
			"A"	"B"	"A"	"B"	"A"	"B"	"A"	"B"	
M1	9V			P8		226		M1600		1600	

CRYSTAL DIODES

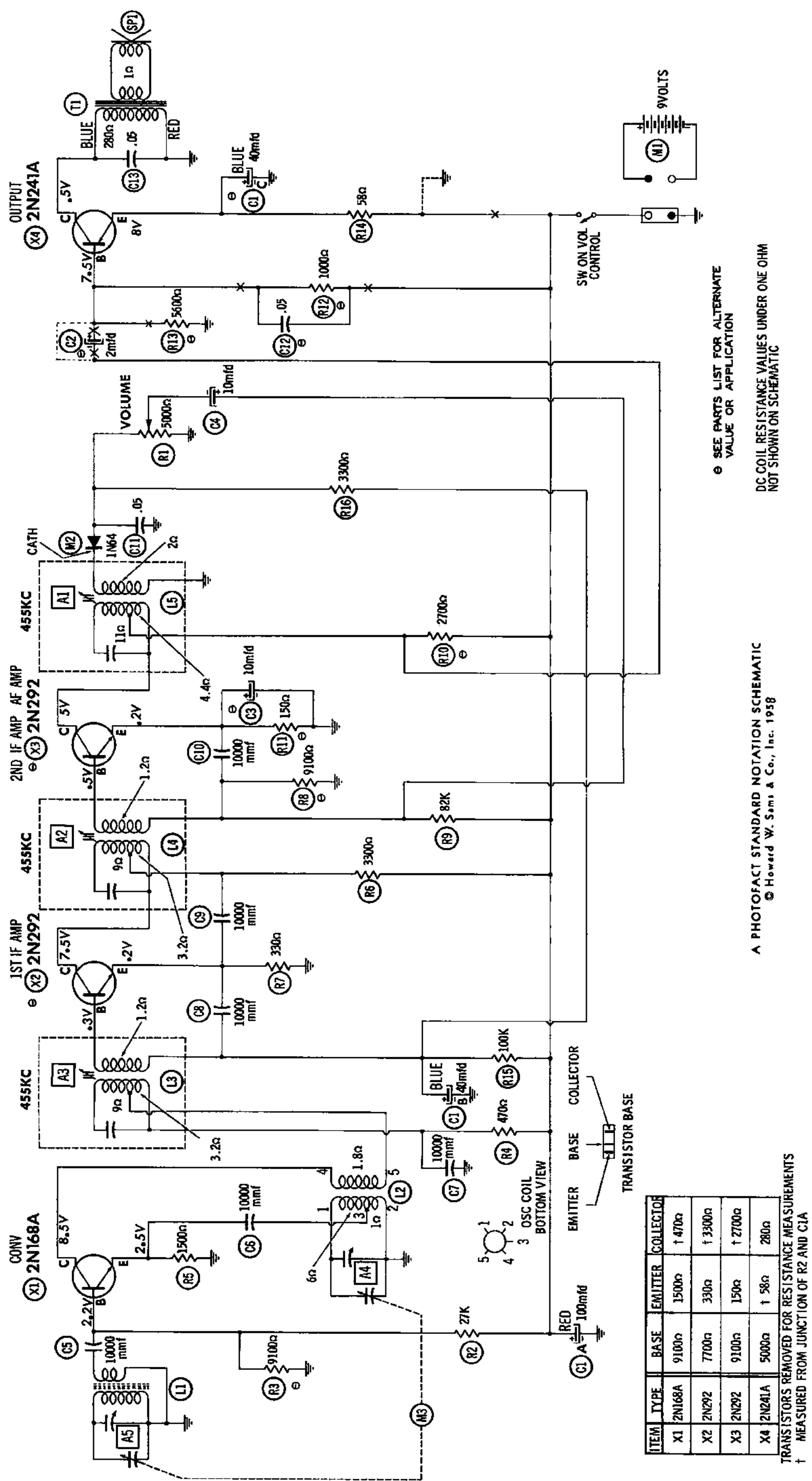
ITEM No.	ORIG. TYPE	REPLACEMENT DATA			NOTES
		SONIC PART No.	CBS PART No.	SYLVANIA PART No.	
M2	1N64		1N64	1N60	Audio Detector

MISCELLANEOUS

ITEM No.	PART NAME	SONIC PART No.	NOTES
M3	Tuning Cap.		2 Gang (Ant. 13-220mmf)

WIRING DATA

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



⊖ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

A PHOTOFAC STANDARD NOTATION SCHEMATIC
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DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC

ITEM	TYPE	BASE	EMITTER	COLLECTOR
X1	2N168A	9100Ω	1500Ω	† 470Ω
X2	2N292	7700Ω	330Ω	† 3300Ω
X3	2N292	9100Ω	150Ω	† 2700Ω
X4	2N241A	5000Ω	† 58Ω	280Ω

TRANSISTORS REMOVED FOR RESISTANCE MEASUREMENTS
† MEASURED FROM JUNCTION OF R2 AND C1A