

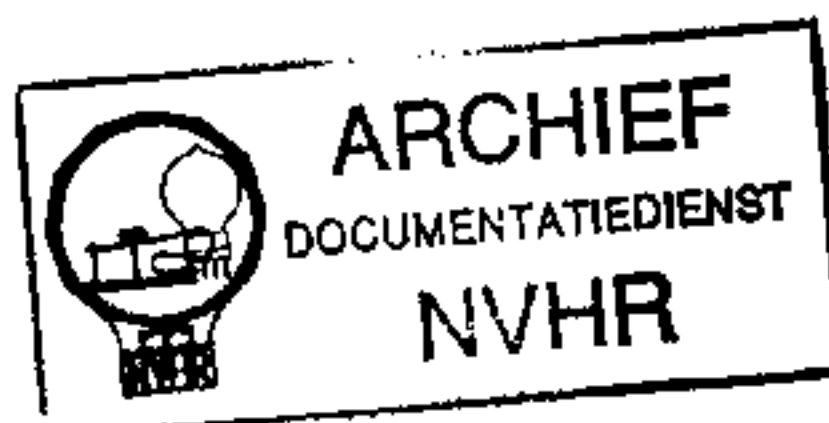


with **CIRCUITRACE***
TRADE MARK

Met dank aan Jef Bos



Ned. Ver. v. Historie v/d Radio



MODEL TR-280

TRADE NAME	Trav-Ler Models TR-280, TR-281, TR-282, TR-283		
MANUFACTURER	Trav-Ler Radio & Tel. Corp. 571 W. Jackson Blvd., Chicago, Illinois		
TYPE SET	Battery Operated Portable AM Transistorized Receiver		
POWER SUPPLY	9 Volts DC	RATING	22MA @ 9 Volts DC (No Signal, Min Volume)
TUNING RANGE—BROADCAST	535-1620KC		25MA @ 9 Volts DC (Signal, Normal Volume)

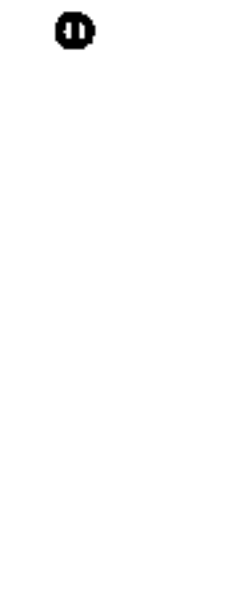
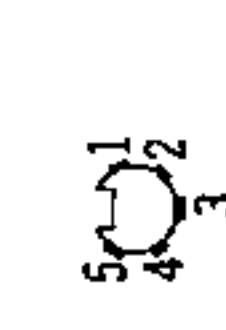
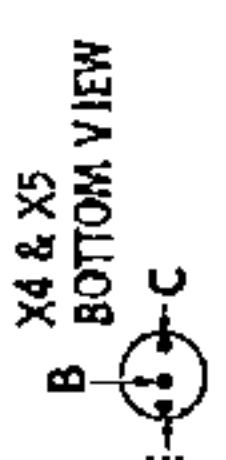
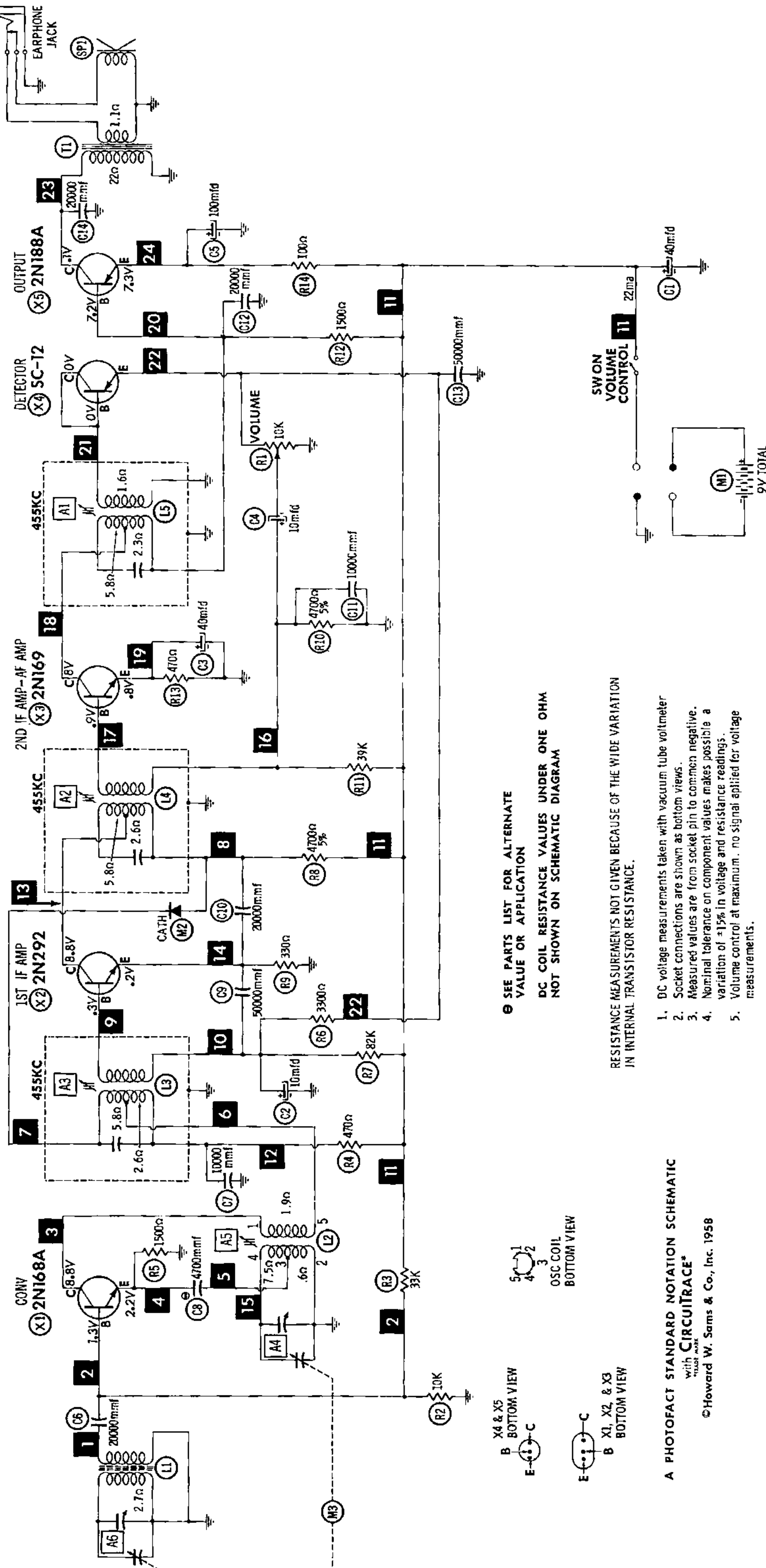
ALIGNMENT INSTRUCTIONS

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. Use an insulated alignment screwdriver for adjusting.						
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1.	Loop	455KC (400% Mod.)	Tuning gang	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.	"	1620KC	"	"	A4	"
3.	"	600KC	600KC	"	A5	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output while rocking tuning gang. Repeat Steps 2 & 3.
4.	"	1400KC	Tune to 1400KC Signal	"	A6	"

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 H673

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SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION
 DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM

RESISTANCE MEASUREMENTS NOT GIVEN BECAUSE OF THE WIDE VARIATION IN INTERNAL TRANSISTOR RESISTANCE.

1. DC voltage measurements taken with vacuum tube voltmeter
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Nominal tolerance on component values makes possible a variation of $\pm 15\%$ in voltage and resistance readings.
5. Volume control at maximum. no signal applied for voltage measurements.

A PHOTOFAC STANDARD NOTATION SCHEMATIC
 with **CIRCUITRACE**[®]
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PARTS LIST AND DESCRIPTIONS

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA				NOTES
			CBS PART No.	RCA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
X1	2N168A	Converter	CBS-2N439			2N212	NPN
X2	2N292	1st IF Amplifier	CBS-2N439			2N94	NPN
X3	2N169	2nd IF Amp. -AF Amp.	CBS-2N439			2N94	NPN
X4	8C-12	Detector		2N406	CK879	2N94	PNP
X5	2N168A	Output	CBS-2N439	2N270	2N632	2N241A	PNP

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		TRAV-LER PART No.	REPLACEMENT DATA					
	CAP.	VOLT.		AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1	40	12	EC-84	XPP-12040	NL50-10	TT15X40	ML40-15	MQ-0130	R2329 *
C2	10	12	EC-83	XPP-12010	NL10-15	TT12X10	ML10-15		TE-1128
C3	40	12	EC-84	XPP-12040	NL50-10	TT15X40	ML40-15	MQ-0130	R2329 *
C4	10	12	EC-83	XPP-12010	NL10-15	TT12X10	ML10-15		TE-1128
C5	100	12	EC-82	SR812V100	NL100-10	TT15X100	ML100-15		TE-1162

* Not normally in distributors stock. Available thru distributor on order to manufacturer.

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		TRAV-LER PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	NOTES
	CAP.	VOLT.							
C6	20000		CC-85	BPD-02	DD-203	BYB6S2		5HK-S2	①
C7	10000		CC-84	BPD-01	DD-103	BYA10S1	DC511	5HK-S1	
C8	4700			BPD-0047	DD-472	BYA10D47M	UC-6247	5HK-D47	
C9	50000		CC-86	BPD-05	DF-503			5HK-S5	
C10	20000		CC-85	BPD-02	DD-203	BYB6S2		5HK-S2	
C11	10000		CC-84	BPD-01	DD-103	BYA10S1	DC511	5HK-S1	
C12	20000		CC-85	BPD-02	DD-203	BYB6S2		5HK-S2	
C13	50000		CC-86	BPD-05	DF-503			5HK-S5	
C14	20000		CC-85	BPD-02	DD-203	BYB6S2		5HK-S2	

① Some versions may use 20000mmf in this application (Part #CC-85).

CONTROLS

ITEM No.	RATING		TRAV-LER PART No.	REPLACEMENT DATA				INSTALLATION NOTES
	RESISTANCE	WATTS		CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	
R1	10K	1/4	VC-127					Volume & Switch

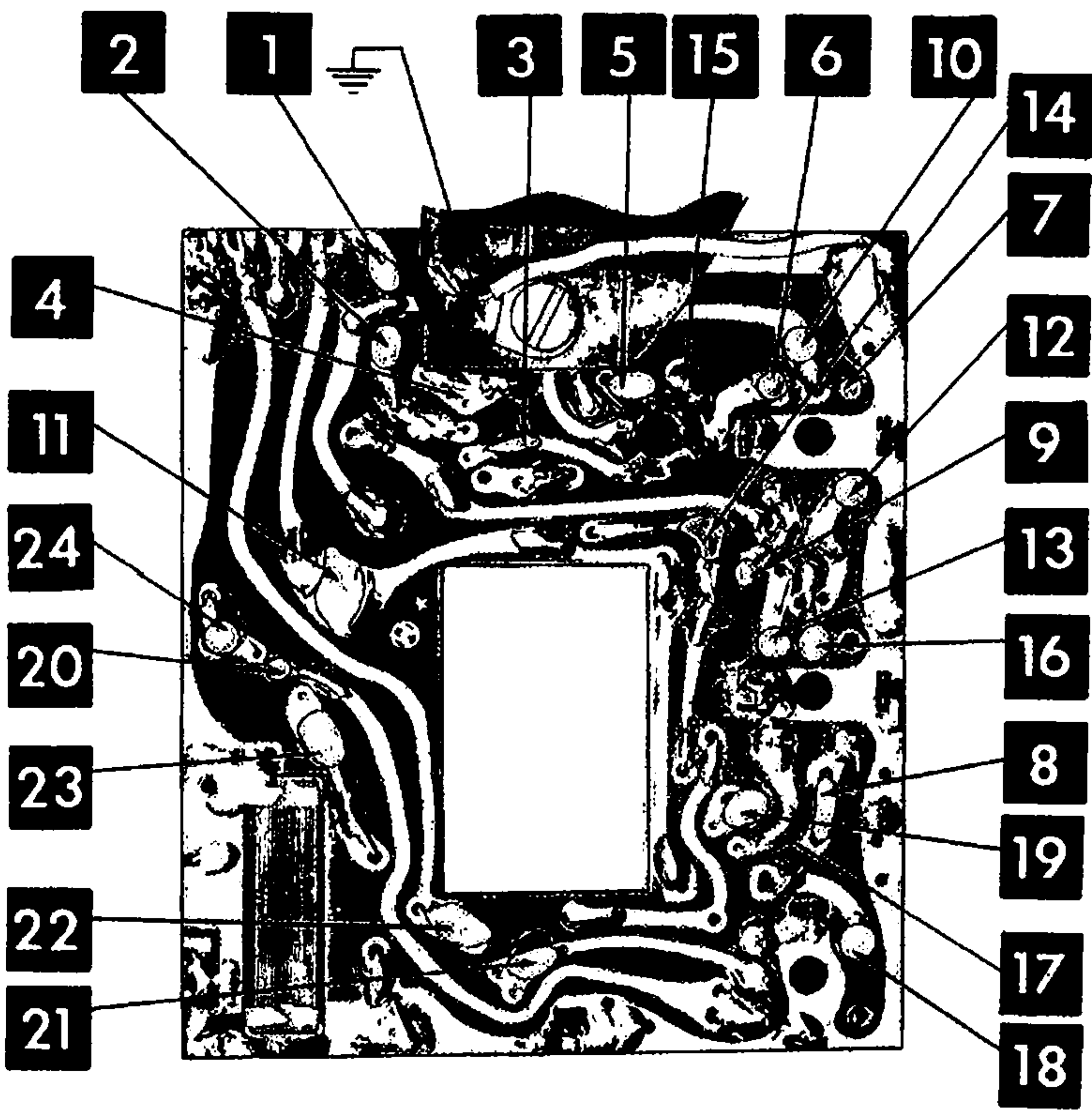
RESISTORS

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

ITEM No.	RATING		TRAV-LER PART No.	NOTES	ITEM No.	RATING		TRAV-LER PART No.	NOTES
	OHMS	WATT				OHMS	WATT		
R2	10K		IR-84		R9	330Ω		IR-189	
R3	33K		IR-158		R10	4700Ω 5%		IR-158	
R4	470Ω		IR-199		R11	30K		IR-121	
R5	1500Ω		IR-29		R12	1500Ω		IR-29	
R6	3300Ω		IR-108		R13	470Ω		IR-199	
R7	82K		IR-31		R14	100Ω		IR-104	
R8	4700Ω 5%		IR-158						

PRINTED BOARD

A Howard W. Sams **CIRCUITRACE**[®] Photo
*TRADE MARK



PARTS LIST AND DESCRIPTIONS (Continued)

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		TRAV-LER PART No.	Meissner PART No.	Merit PART No.	Miller PART No.	Ram PART No.	
L1	Loop Stick	LL-46	14-9001				
L2	Osc. Coil	L0-25-A					
L3	1st IF	LI-20					
L4	2nd IF	LI-20					
L5	3rd IF	LI-21					

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES	
	PRI.	SEC.	TRAV-LER PART No.	Haldorson PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordarson PART No.		Triod PART No.
T1	800Ω	22Ω	AT-33	GH5 ①			TA-42 ①		TY-45X①	① Use original channel frame

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	TRAV-LER PART No.	QUAM PART No.	
SP1	2½"	PM	22Ω	SPK-52		

BATTERIES

ITEM No.	VOLTAGE	TRAV-LER PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
M1	9V			P6		226		M1600	

CRYSTAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA			NOTES
		TRAV-LER PART No.	CBS PART No.	SYLVANIA PART No.	
M2	CTP-461	SC-7	1N64	1N295	Overload diode (Pigtail)

MISCELLANEOUS

ITEM No.	PART NAME	TRAV-LER PART No.	NOTES
M3	Tuning Cap Printed Board	GC-22 720M	Two gang (Ant. 10-132mmf, Osc. 18-97mmf)

CABINETS & CABINET PARTS

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

WIRING DATA

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

CHASSIS—TOP VIEW

