

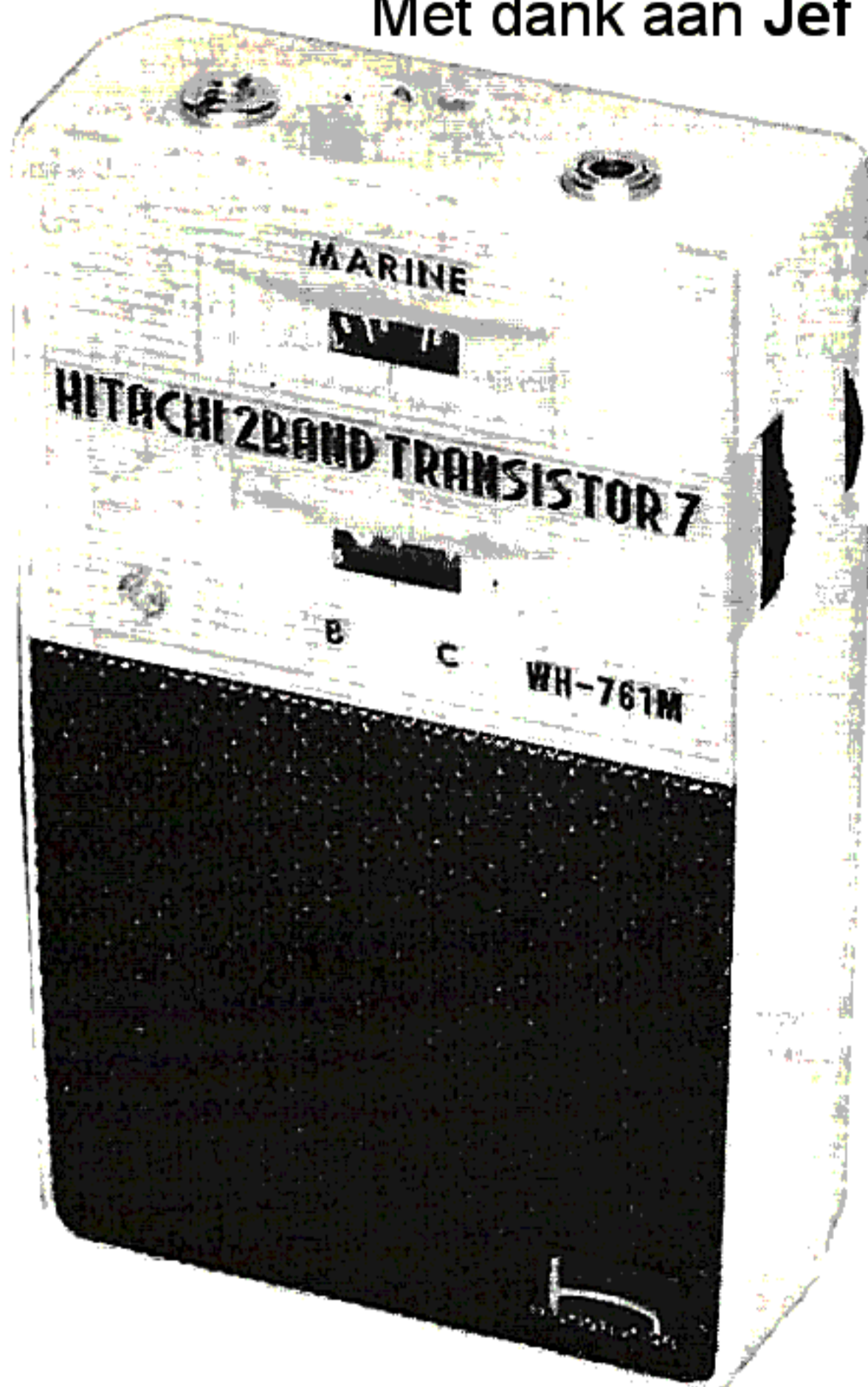
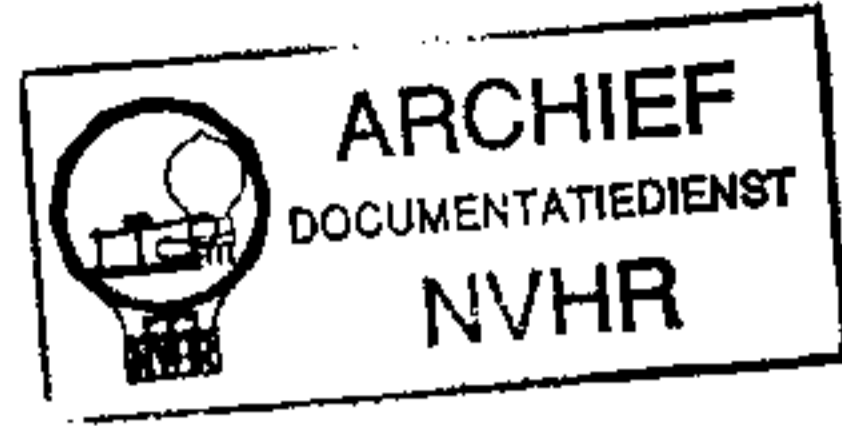
PHOTOFACT® Folder

with **CIRCUITRACE™**

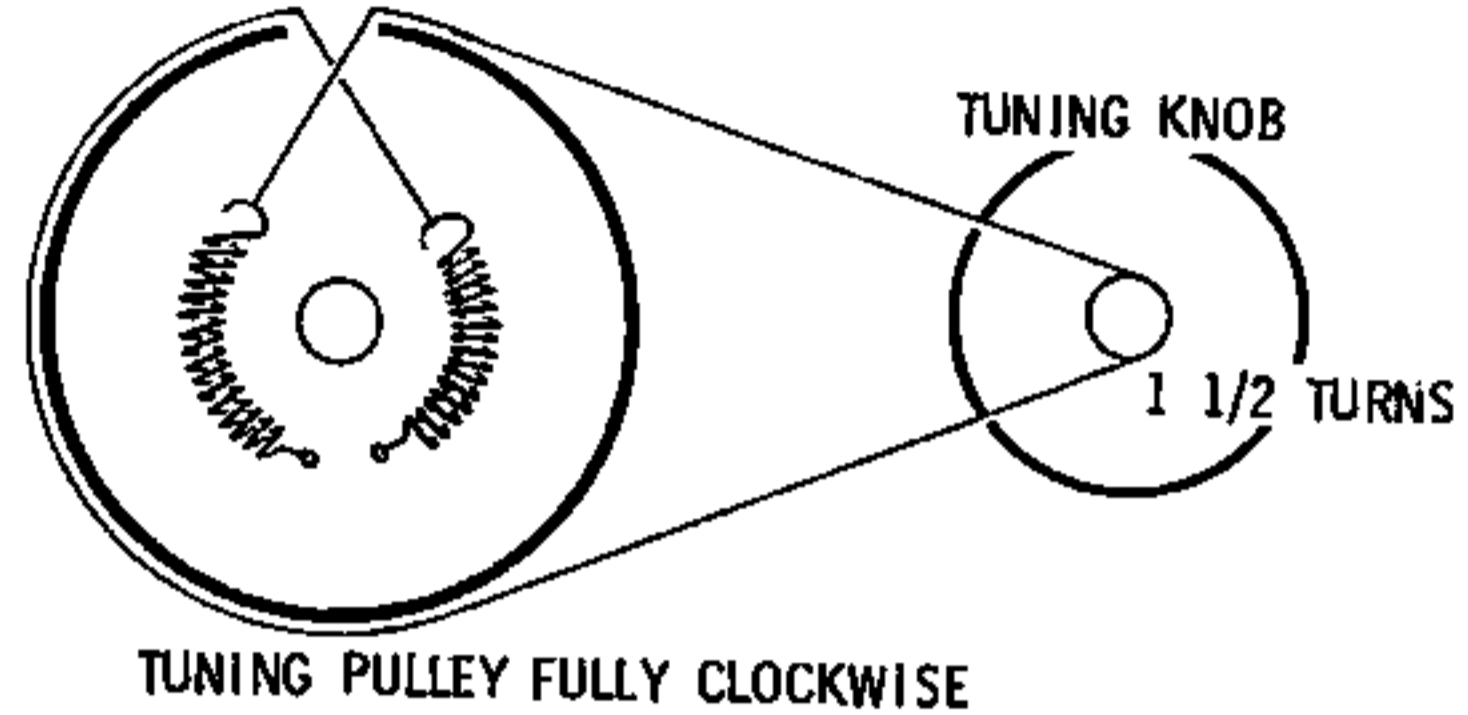
**HITACHI MODELS
WH-761M**

Met dank aan Jef Bos

Ned. Ver. v. Historie v/d Radio



DRIVE CORD STRINGING



FRONT VIEW

TRADE NAME	Hitachi Model WH-761M		
IMPORTER	Electronic Utilities Co., Div. of the Sampson Co., 2244 S. Western Ave., Chicago 8, Illinois		
TYPE SET	Battery Operated Transistorized Portable BC-SW Receiver		
POWER SUPPLY	9 Volts DC	RATING	5MA @ 9 Volts DC (No Signal, Min. Volume) 15MA @ 9 Volts DC (Signal, Normal Volume)
TUNING RANGE—BROADCAST	535-1605KC	SHORT WAVE	L 6-4.5MC

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, A5..... GENERAL CEMENT #5009, 8195, 8274, 8275, 8728, 8729, 8987, 8988, 8989
WALSCO #2515, 2531, 2532
A4, A7, A8, A11, A12, A15. GENERAL CEMENT #5000, 5003, 5066, 8276, 8290, 9087, 9089
WALSCO #2512, 2525, 2528
A9, A10, A13, A14..... GENERAL CEMENT #9440

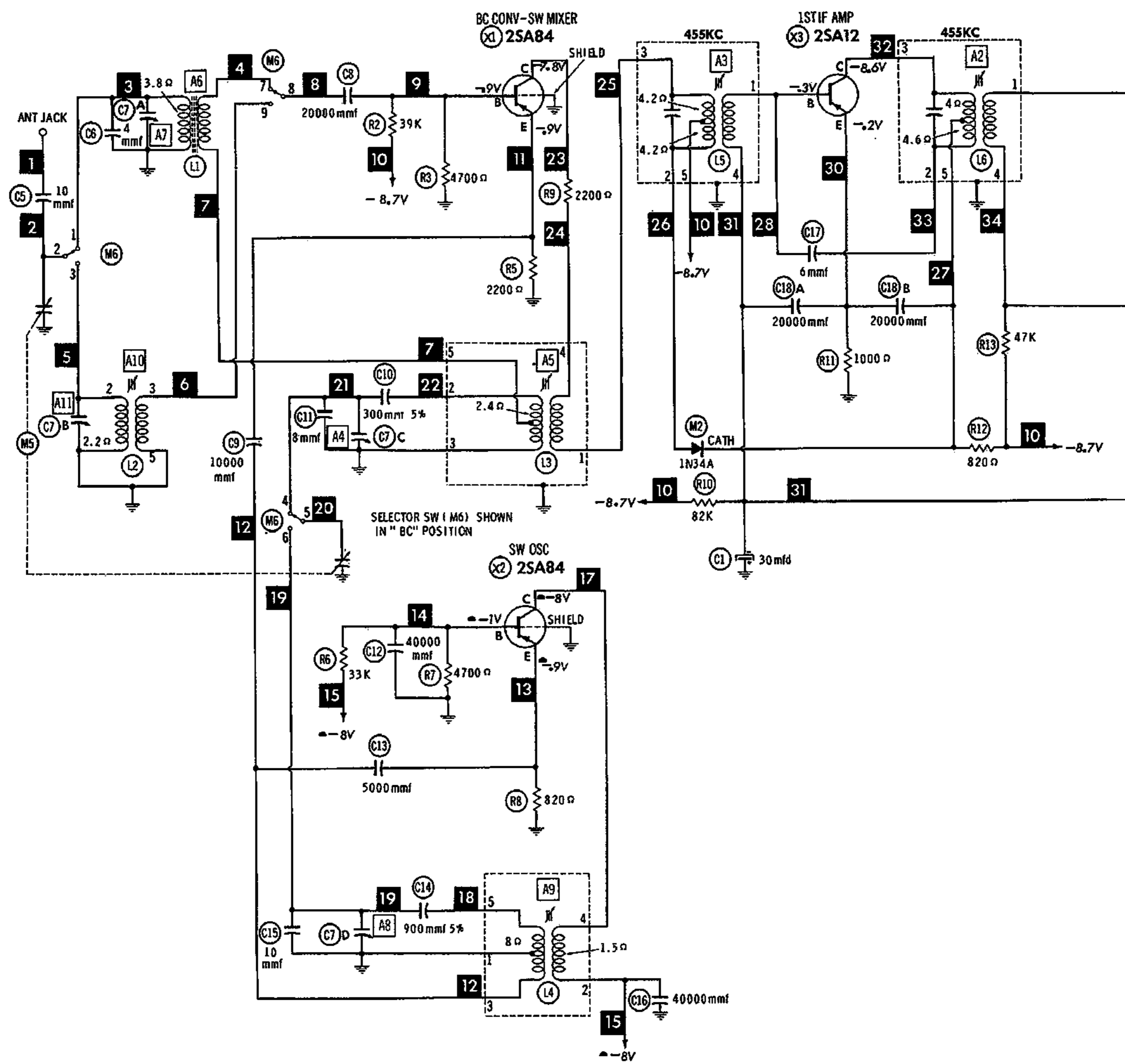
	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1.	Loop	455KC (400% Mod.)	(BC) Tuning gang fully open.	Across voice coll.	A1, A2, A3	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
2.	"	1600KC	1600KC	"	A4	"
3.	"	600KC	600KC	"	A5, A6	"
4.	"	1400KC	1400KC Signal	"	A7	"
5.	High side to antenna jack, Low side to chassis.	4.5MC (400% Mod.)	(MB) 4.5MC	Across voice coll.	A8	Adjust for maximum output.
6.	"	1.6MC	1.6MC	"	A9, A10	"
7.	"	4.0MC	4.0MC	"	A11	"

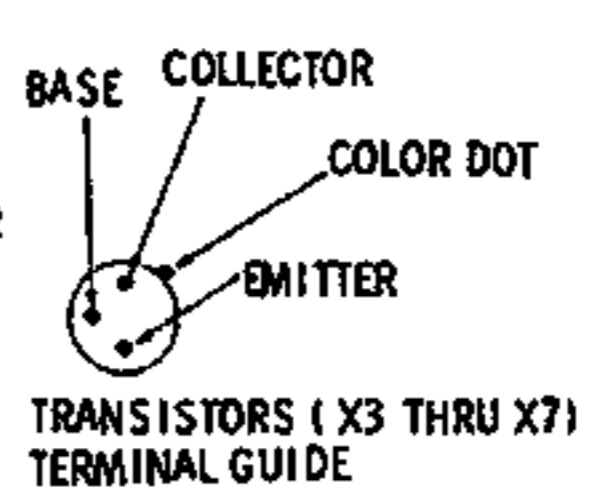
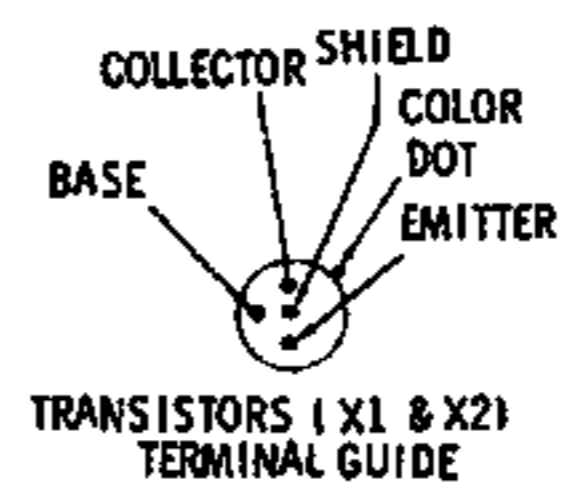
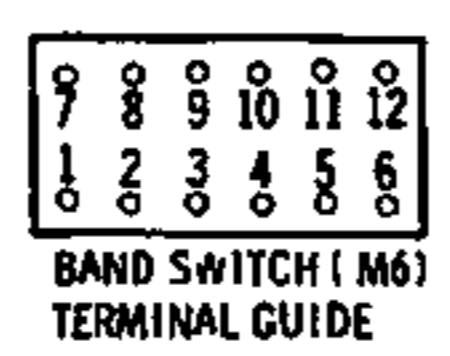
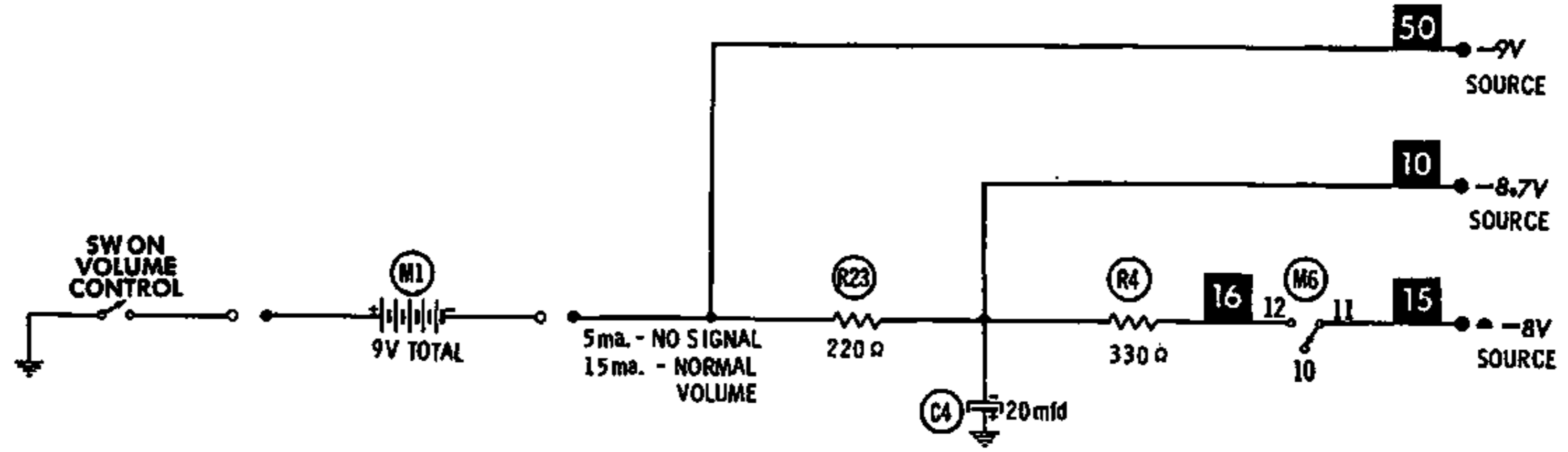
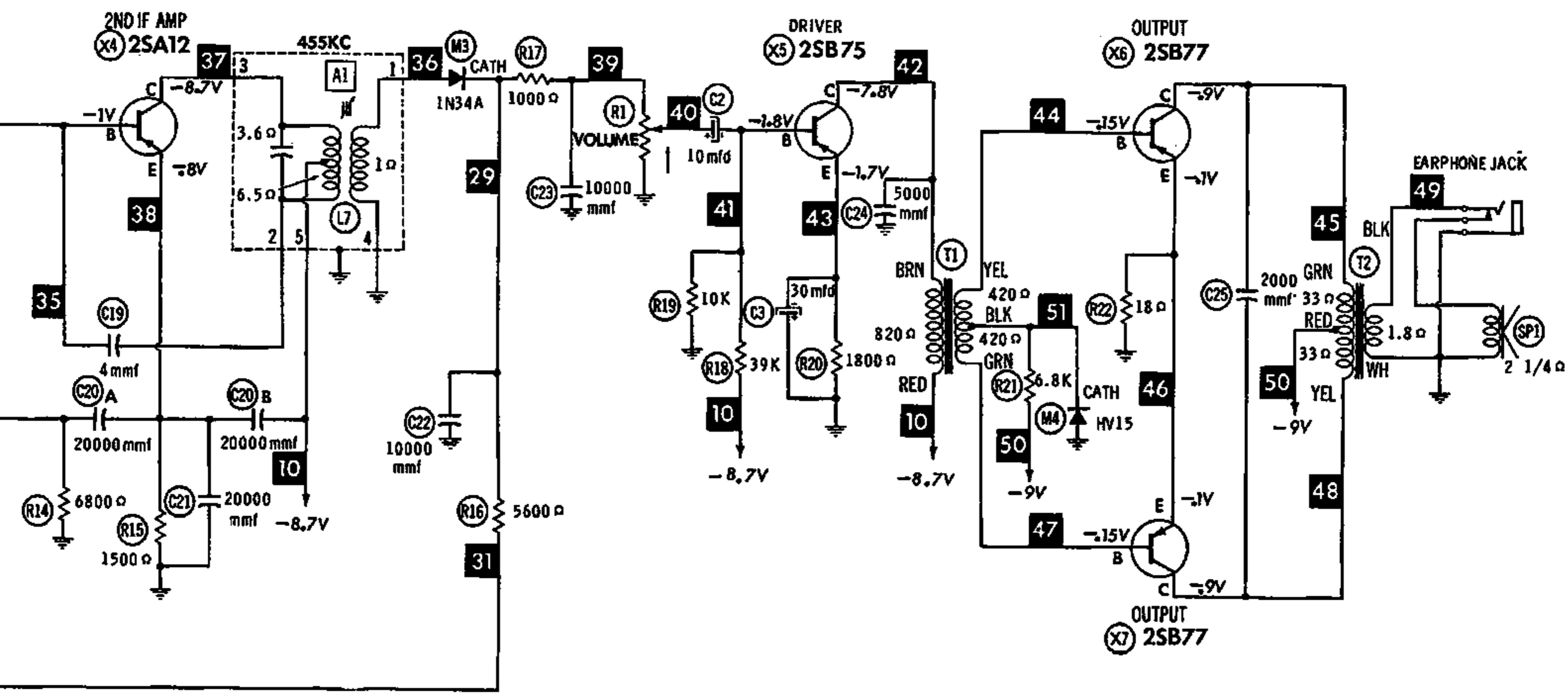
HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana

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 KF590

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







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

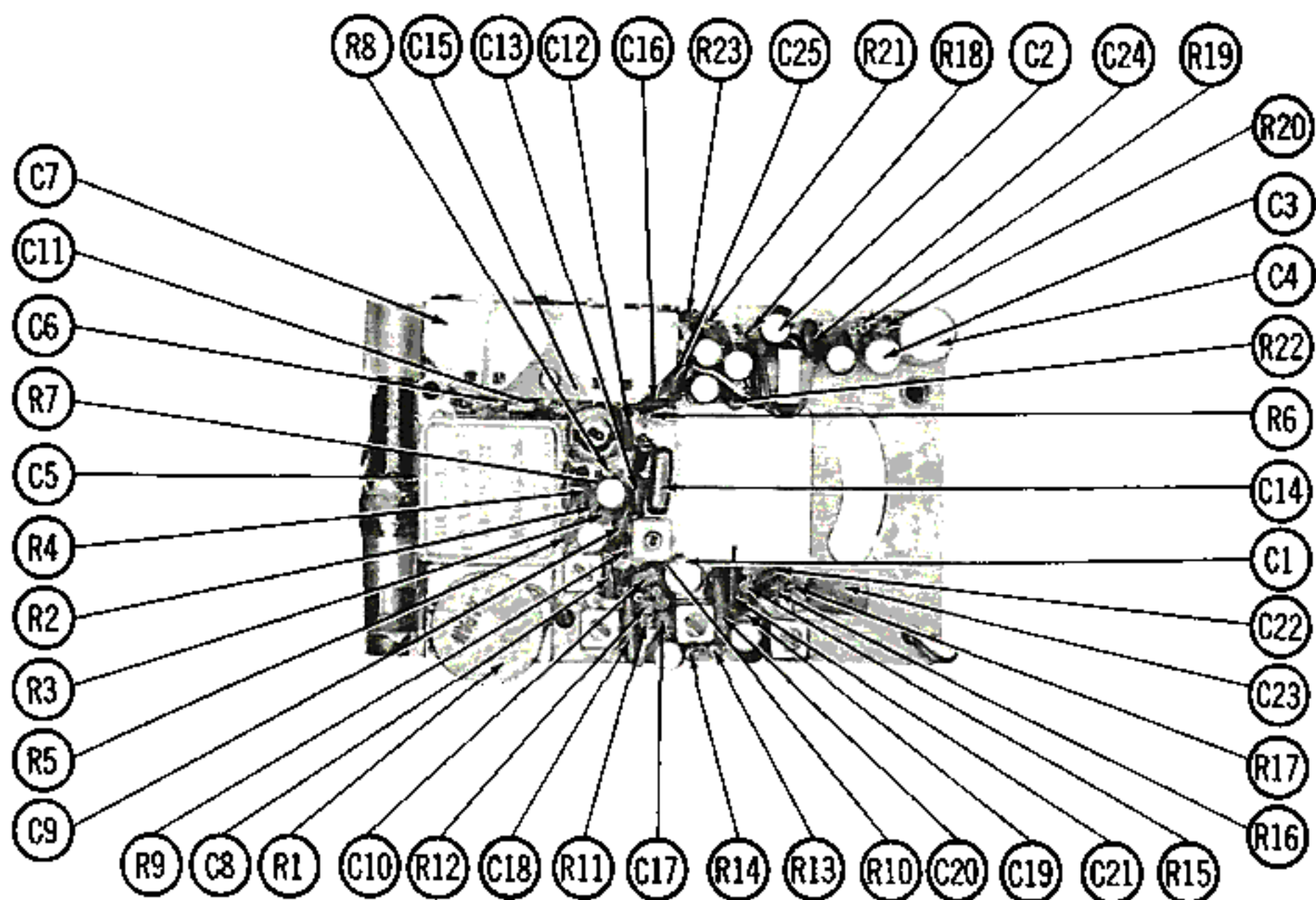
ARROWS ON CONTROLS INDICATE CLOCKWISE ROTATION (CONTROL VIEWED FROM SHAFT END)

▲ MEASURED IN "SW" POSITION

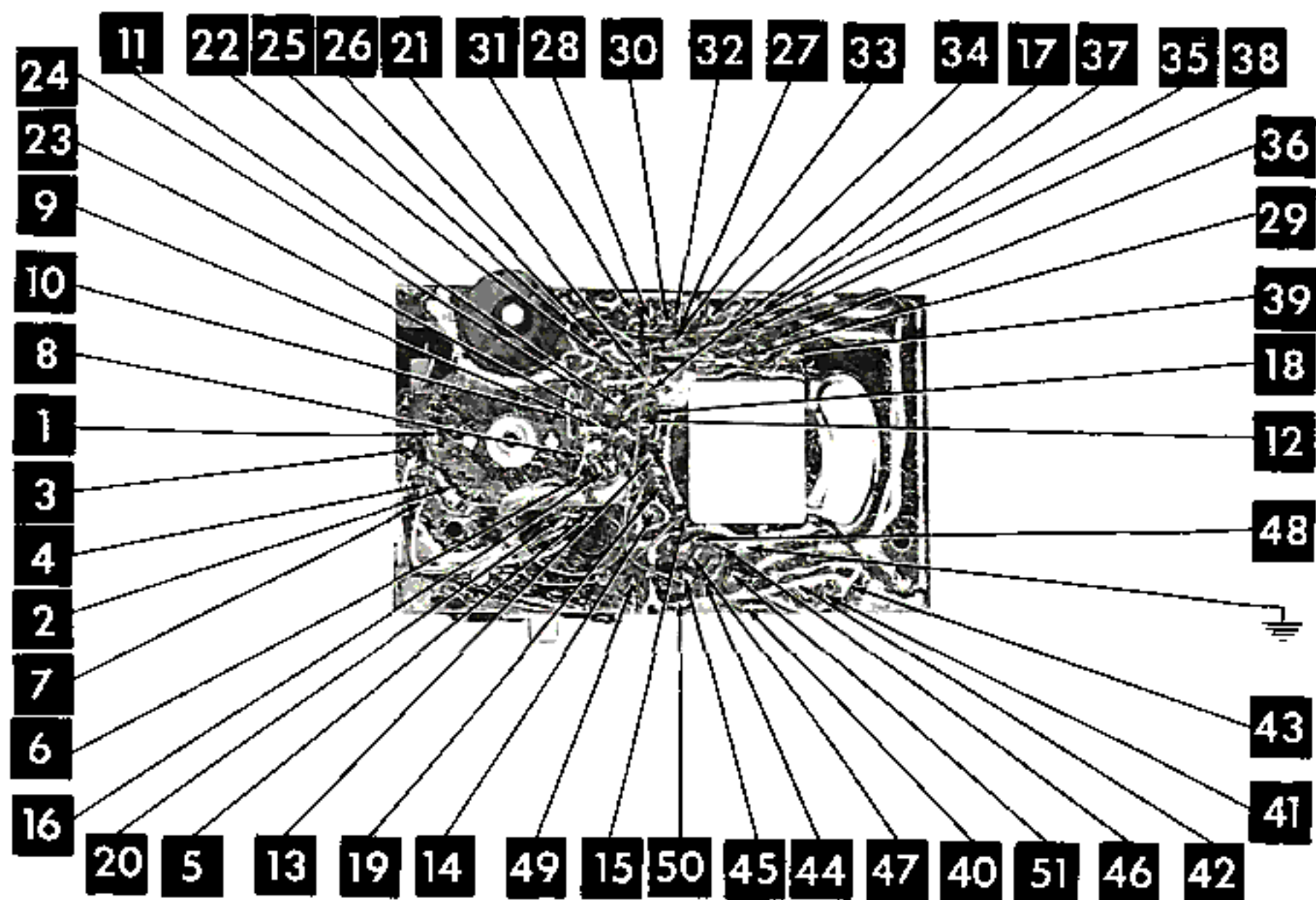
NUMBERS ASSIGNED TO COILS, SWITCHES, PLUGS, SOCKETS, AND TRANSFORMERS ARE TO FACILITATE CIRCUIT TRACING OR COMPONENT REPLACEMENT AND MAY NOT NECESSARILY BE FOUND ON THE UNIT.

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

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



CHASSIS TOP VIEW - CAPACITOR & RESISTOR IDENT.



TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			RCA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
X1	2SA84	BC Converter-SW Mixer				PNP
X2	2SA84	SW Oscillator				PNP
X3	2SA12	1st IF Amplifier				PNP
X4	2SA12	2nd IF Amplifier				PNP
X5	2SB75	Driver	2N406			PNP
X6	2SB77	Output	2N408			PNP
X7	2SB77	Output	2N408			PNP

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA					NOTES
	CAP.	VOLT.	HITACHI PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	
C1	30	3		BCD3025	NLW35-3	TT6X30	MLV30-6	TE-1092
C2	10	3		BCD3010	NLW10-6	TT3X10	MLV10-3	TE-1053
C3	30	3		BCD3025	NLW35-3	TT6X30	MLV30-6	TE-1092
C4	20	10		BCD10025	NLW20-15	TT15X20	MLV20-12	TE-1130

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	10		NPO-SI 10	TCZ-10	C10Q1C	CCTO-100	CNO-410	10TCC-V10
C6	4				C10V4C			10TCC-V39
C7A								
C7B								
C7C								
C7D								
C8	20000		C80V203AM	DA-203	H-05S2		TA-120	TG-S20
C9	10000		C80V103AM	DM-103	H-05S1		TA-110	TG-S10
C10	300 5%							
C11	8		NPO-SI 8.2		C10V82C			10TCC-V82
C12	40000							
C13	5000		C80V502AM	DM-502	H-05D5	CCD-502	TA-250	TG-D50
C14	900							
C15	10		NPO-SI 10	TCZ-10	C10Q1C	CCTO-100	CNO-410	10TCC-V10
C16	40000							
C17	6				C10V6C			

ND DESCRIPTIONS

FIXED CAPACITORS (cont)

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.
C18A	20000		C80V203AM	DA-203	H-05S2		TA-120	TG-S20
B	20000		C80V203AM	DA-203	H-05S2		TA-120	TG-S20
C19	4				C10V4C			10TCC-V39
C20A	20000		C80V203AM	DA-203	H-05S2		TA-120	TG-S20
B	20000		C80V203AM	DA-203	H-05S2		TA-120	TG-S20
C21	20000		C80V203AM	DA-203	H-05S2		TA-120	TG-S20
C22	10000		C80V103AM	DM-103	H-05S1		TA-110	TG-S10
C23	10000		C80V103AM	DM-103	H-05S1		TA-110	TG-S10
C24	5000		C80V502AM	DM-502	H-05S2	CCD-502	TA-250	TG-D50
C25	20000		C80V203AM	DA-203	H-05S2		TA-120	TG-S20

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA				INSTALLATION NOTES	
	RESISTANCE	WATTS	HITACHI PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.		MALLORY PART No.
R1	5000Ω	1/4						Volume & Switch

RESISTORS

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

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN TV PART No.	REMARKS			IRC PART No.	WORKMAN TV PART No.	REMARKS
R2	39K				R13	47K			
R3	4700Ω				R14	6800Ω			
R4	330Ω				R15	1500Ω			
R5	2200Ω				R16	5600Ω			
R6	33K				R17	1000Ω			
R7	4700Ω				R18	39K			
R8	820Ω				R19	10K			
R9	2200Ω				R20	1800Ω			
R10	82K				R21	6800Ω			
R11	1000Ω				R22	18Ω			
R12	820Ω				R23	220Ω			

PARTS LIST AND DESCRIPTIONS (Continued)

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		HITACHI PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	Workman TV PART No.	
L1	Loopstick						
L2	SW Ant.						
L3	BC Osc.						
L4	SW Osc.						
L5	1st IF						
L6	2nd IF						
L7	3rd IF						

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		REPLACEMENT DATA					NOTES
			HITACHI PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T1	PRI. 1.5	SEC. 1	CT-70					

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
			HITACHI PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2	PRI. 2000Ω CT	SEC. 8-10Ω	OT722					

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
				HITACHI PART No.	QUAM PART No.	
SP1	SIZE 2 1/4"	FIELD PM	V. C. IMP. 8-10Ω	SP-2302	22A06Z8	

BATTERIES

ITEM No.	VOLTAGE	HITACHI PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
M1	9V	006P				216		M-1604	

SIGNAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA				NOTES
		HITACHI PART No.	GENERAL ELECTRIC PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
M2	1N34A			1N34A	1N34A	Overload Detector Output Bias Regulator
M3	1N34A			1N34A	1N34A	
M4	HV15					

MISCELLANEOUS

ITEM No.	PART NAME	HITACHI PART No.	NOTES
M5 M8	Tuning Cap. Switch		2 Gang Band Selector (Slide Type)

WIRING DATA

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

Shielded Hook-up Wire Use BELDEN No. 8885

Bonding Strap Use BELDEN No. 8661

CHASSIS—TOP VIEW

