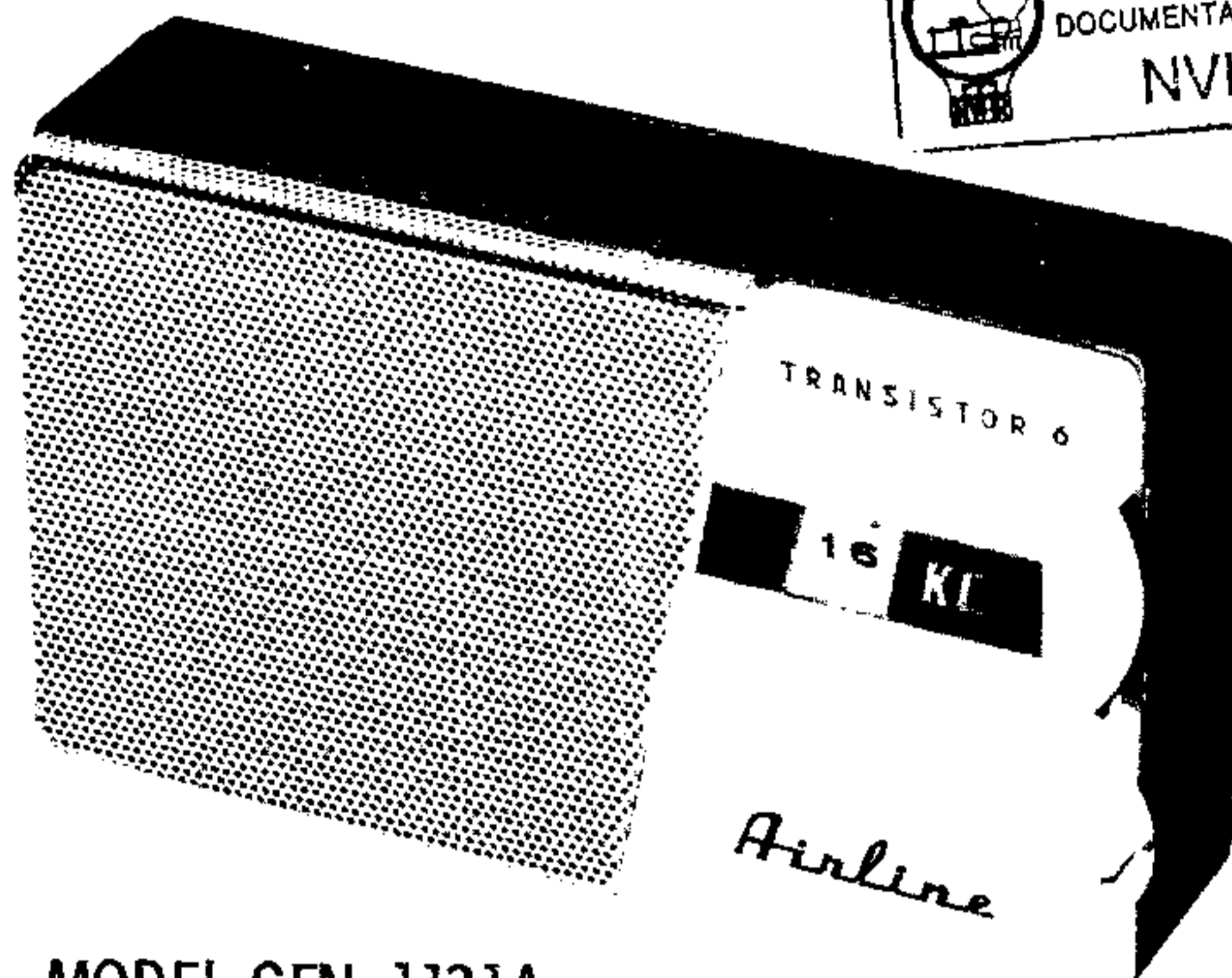
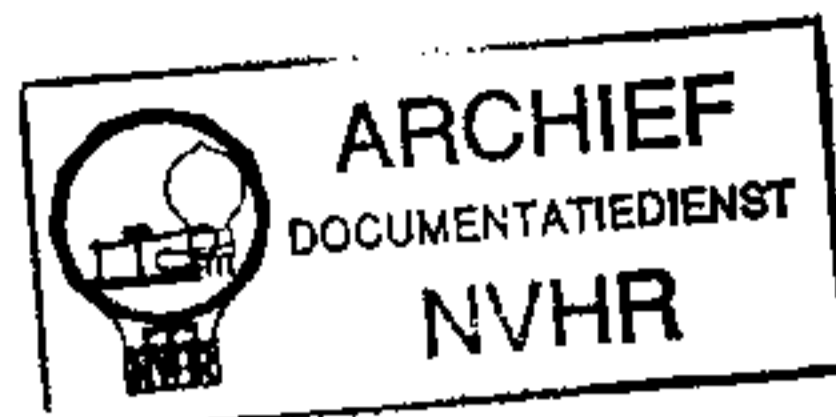


Met dank aan Jef Bos

Ned. Ver. v. Historie v/d Radio



**MODEL GEN-1131A**

<b>TRADE NAME</b>	Airline Models GEN-1130A, GEN-1130B, GEN-1131A		
<b>SUPPLIER</b>	Montgomery Ward & Co., 619 Chicago Ave., Chicago 7, Illinois		
<b>TYPE SET</b>	Battery Operated Transistorized Portable AM Receiver		
<b>POWER SUPPLY</b>	9 Volts DC	<b>RATING</b>	6MA@9 Volts DC (No Signal, Min. Volume)
<b>TUNING RANGE—BROADCAST</b>	540 — 1600KC		10MA@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.

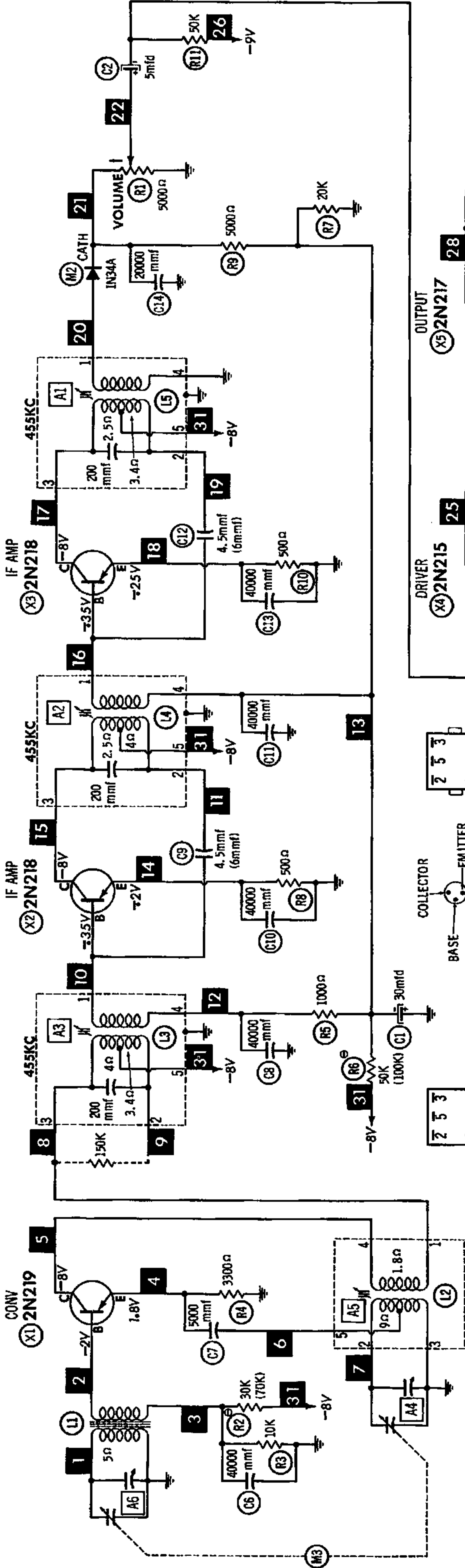
**Suggested Alignment Tools:** A1, A2, A3... GENERAL CEMENT #5004, 5009, 8195, 8274, 8275, 8607, 8728, 8987, 8988, 8989, 9291  
 WALSCO #2515, 2520, 2522, 2523, 2531, 2532, 2534, 2537, 2538  
 A4, A6..... GENERAL CEMENT #5000, 5003, 5066, 8276, 8290, 9087, 9089  
 WALSCO #2512, 2525, 2528  
 A5..... GENERAL CEMENT #5009, 8195, 8274, 8275, 8728, 8729, 8987, 8988, 8989  
 WALSCO #2515, 2531, 2532

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1. Loop	455KC (400V Mod.)	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. "	1670KC	"	"	A4	"
3. "	525KC	Tuning gang fully closed.	"	A5	"
4. "	1400KC	1400KC Signal.	"	A6	Adjust for maximum output while rocking tuning gang.

**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

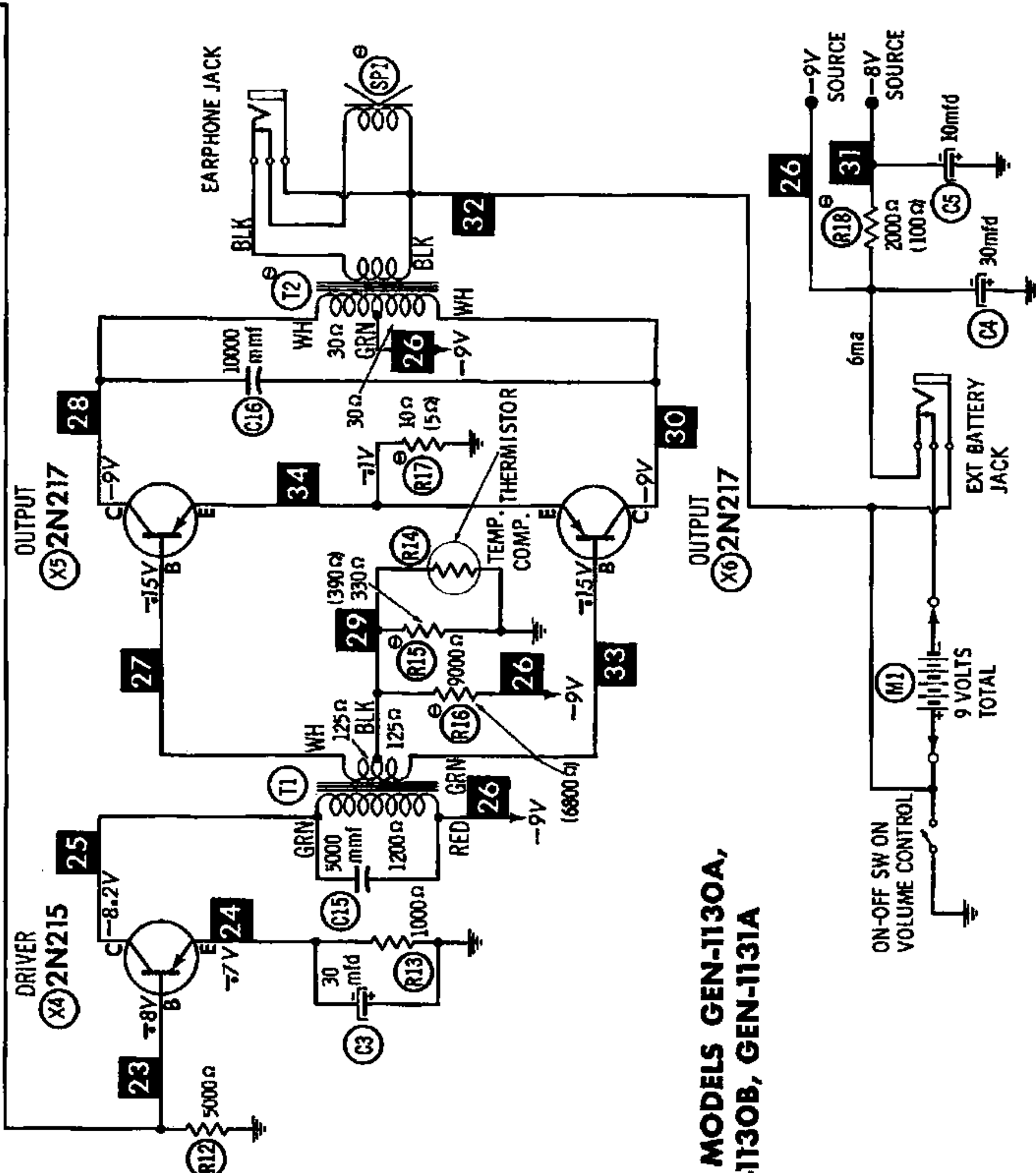
the particular type of replacement part listed. Reproduction or use, without express permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein. © 1961 Howard W. Sams & Co., Inc., Indianapolis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



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.

A PHOTOFAC STANDARD NOTATION SCHEMATIC with **CIRCUITRACE**

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**AIRLINE MODELS GEN-1130A,  
GEN-1130B, GEN-1131A**

- ⊙ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION
- DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM
- ARROWS ON CONTROLS INDICATE CLOCKWISE ROTATION (CONTROL VIEWED FROM SHAFT END)

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

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.

# PARTS LIST AND DESCRIPTIONS

## WIRING DATA

General-use Unshielded Hook-up Wire . . . . . Use MIL-DTL-17 No. 6030 (Solid) Available in Ten Colors  
6024 (Stranded) Available in Ten Colors

### TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			RCA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
X1	2N219	Converter	2N219	2N486	2N219	PNP
X2	2N218	1st IF Amp.	2N218	2N483	2N218	PNP
X3	2N218	2nd IF Amp.	2N218	2N483	2N218	PNP
X4	2N215	Driver	2N407	2N382	2N104	PNP
X5	2N217	Output	2N407	2N633	2N217	PNP
X6	2N217	Output	2N407	2N633	2N217	PNP

### ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						NOTES
	CAP.	VOLT.	AIRLINE PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.	
C1	30	6	J-971	XPP-6030	NLW30-6	TT6X30	ML30-6	TE-1092	
C2	5	6	J-973	XPP-6005	NLW5-6	TT6X5	ML5-6	TE-1084	
C3	30	6	J-971	XPP-6030	NLW30-6	TT6X30	ML30-6	TE-1092	
C4	30	10	J-972	XPP-10030	NLW30-15	TT15X30	MLV40-12	TE-1158	
C5	10	10	J-974	XPP-10010	NLW10-10	TT12X10	ML10-12	TE-1114	

### 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.	
C6	40000								
C7	5000		C80V502AM	DA-502	H-05D6	CCD-502	TA-250	TG-D50	
C8	40000								
C9	4.5	(6) †	NPO-DI 4.7	DTZ-4R7	C10V47C	CCTO-4R7	CNO-547	10TCC-V47	
C10	40000								
C11	40000								
C12	4.5	(6) †	NPO-DI 4.7	DTZ-4R7	C10V47C	CCTO-4R7	CNO-547	10TCC-V47	
C13	40000								
C14	20000		C80V203AM	DA-203	H-05S2		TA-120	TG-S20	
C15	5000		C80V502AM	DA-502	H-05D5	CCD-502	TA-250	TG-D50	
C16	10000		C80V103AM	DM-103	H-05S1		TA-110	TG-S10	

† Alternate Value.

### CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	AIRLINE PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.	
R1	5000Ω	1/10	V-500S					Volume & Switch

### RESISTORS (IRC or EQUIVALENT)

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

ITEM No.	RATING	REMARKS
R2	30K	(70K) *
R3	10K	
R4	3300Ω	
R5	1000Ω	
R6	50K	(100K) *
R7	20K	

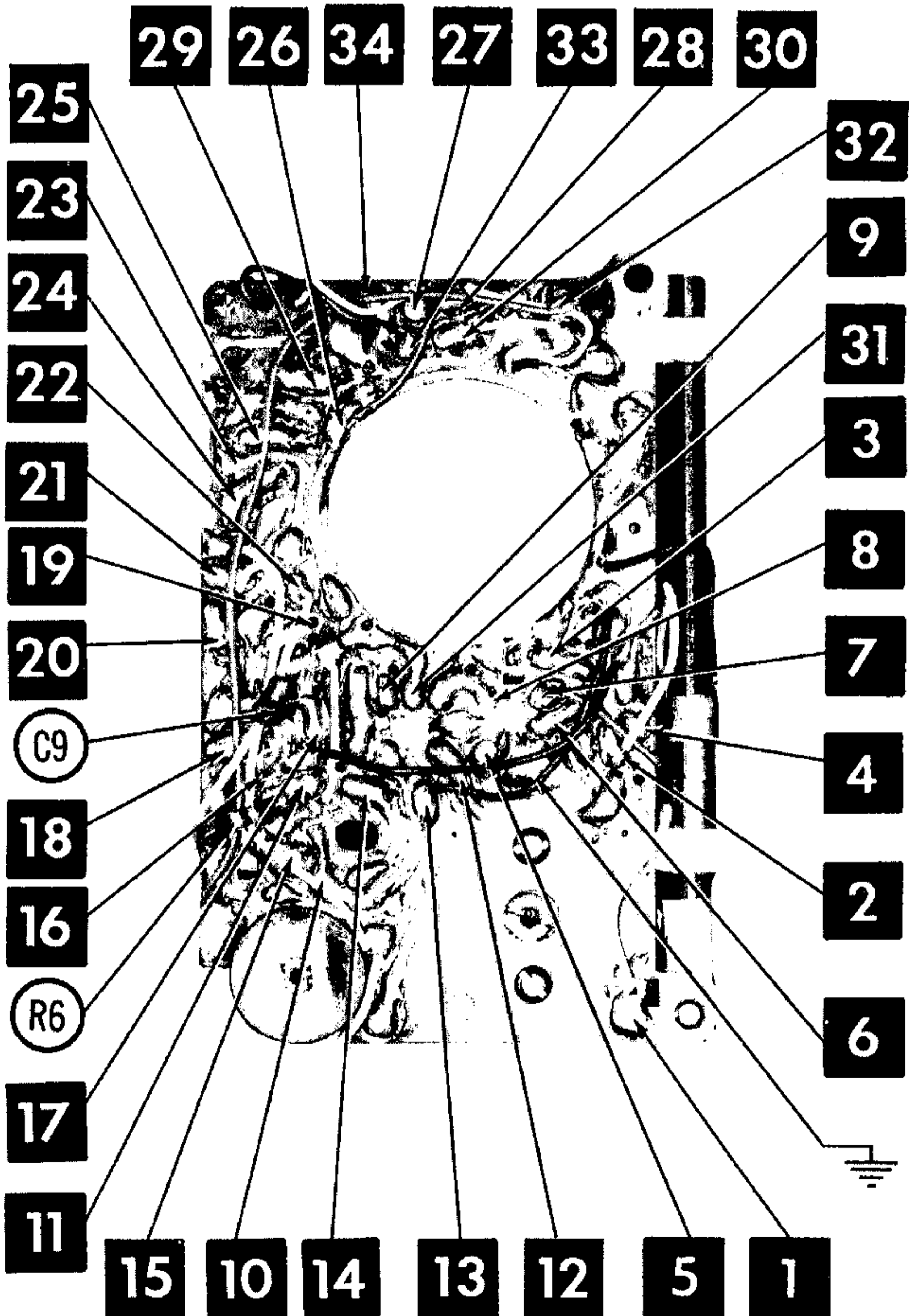
ITEM No.	RATING	REMARKS
R8	500Ω	
R9	5000Ω	
R10	500Ω	
R11	50K	
R12	5000Ω	
R13	1000Ω	

ITEM No.	RATING	REMARKS
R14	Temp. Comp.	Pt. #B-2B
R15	330Ω	(390Ω) *
R16	9000Ω	(6800Ω) *
R17	10Ω	(5Ω) *
R18	2000Ω	(100Ω) *

\* Used in Model GEN-1130A.

# PRINTED BOARD

A Howard W. Burns **CIRCUIT** Photo



# PARTS LIST AND DESCRIPTIONS (Continued)

## COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		AIRLINE PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	
L1	Loopstick	LA-502				
L2	Osc. Coil	7030				
L3	1st IF Trans.	8511				
L4	2nd IF Trans.	8509				
L5	3rd IF Trans.	8518				

## TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		REPLACEMENT DATA					NOTES
			AIRLINE PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
	PRI.	SEC.						
T1	2.5	1	T-453					

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	AIRLINE PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2	1100Ω CT	10-12Ω	OT-503 Ⓛ					Ⓛ Alternate Part #OT-501

## SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	AIRLINE PART No.	QUAM PART No.	
SP1	2 1/4"	PM	10-12Ω	6P-2A *		* Some versions may use 2 1/8" unit (Part #PM-224A).

## BATTERIES

ITEM No.	VOLTAGE	AIRLINE PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
M1	9V	124		2U6		216		M-1604	

## CRYSTAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA			NOTES
		AIRLINE PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
M2	1N34A		1N34A	1N34A	Detector (Pigtail)

## MISCELLANEOUS

ITEM No.	PART NAME	AIRLINE PART No.	NOTES
M3	Tuning Cap. Earphone	C-129 62-3406	2 Gang

## CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Knob	K-516EX	Tuning
Knob	K-506	Volume
Cabinet	1121-01A	"A"
Cabinet	1121-01B	"B", Rear Cover
Case	62-3406	Carrying, Model GEN-1130A, GEN-1130B

**CHASSIS—TOP VIEW**

