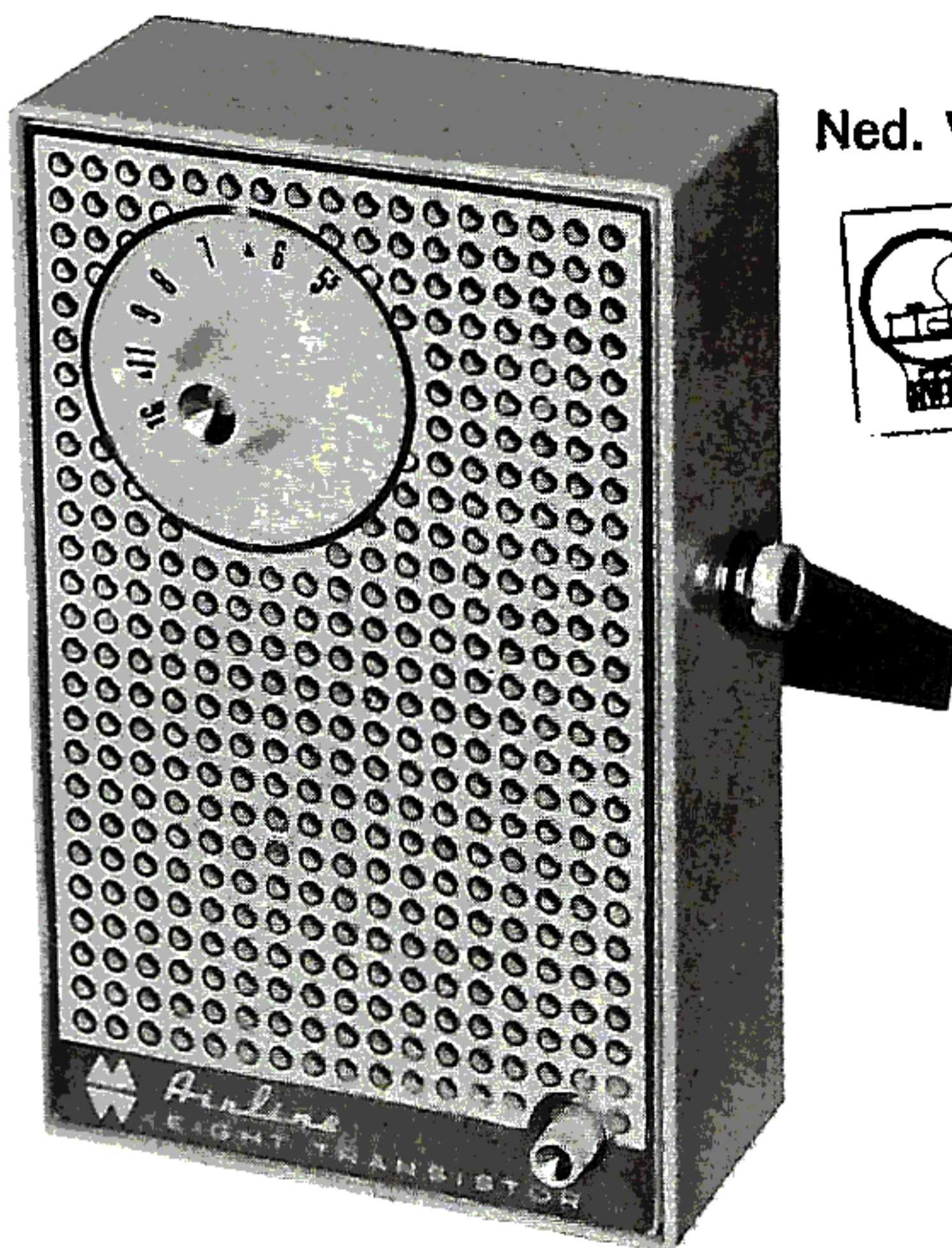
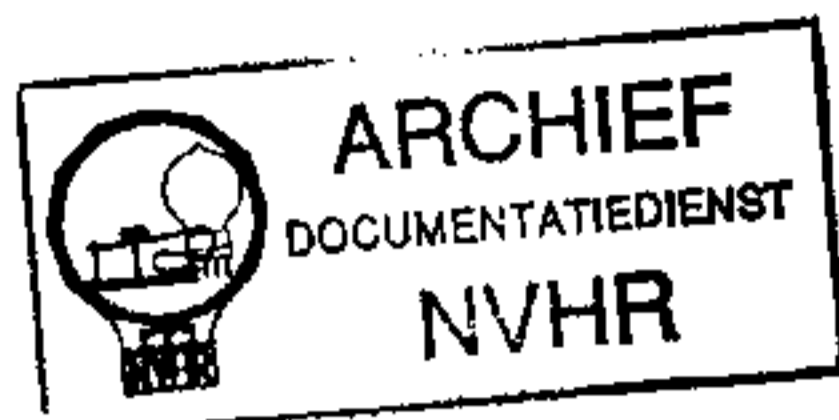


Met dank aan Jef Bos

Ned. Ver. v. Historie v/d



TRADE NAME Airline Model GEN-1214A  
 SUPPLIER Montgomery Ward & Co., 619 Chicago Ave., Chicago 7, Illinois  
 TYPE SET Battery Operated Transistorized Portable AM Receiver  
 POWER SUPPLY 6 Volts DC RATING 10MA @6 Volts DC (No Signal, Min. Volume)  
 TUNING RANGE - BROADCAST 540 - 1600KC 15MA @6 Volts DC (Signal, Normal Volume)

## ALIGNMENT INSTRUCTIONS

### ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

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

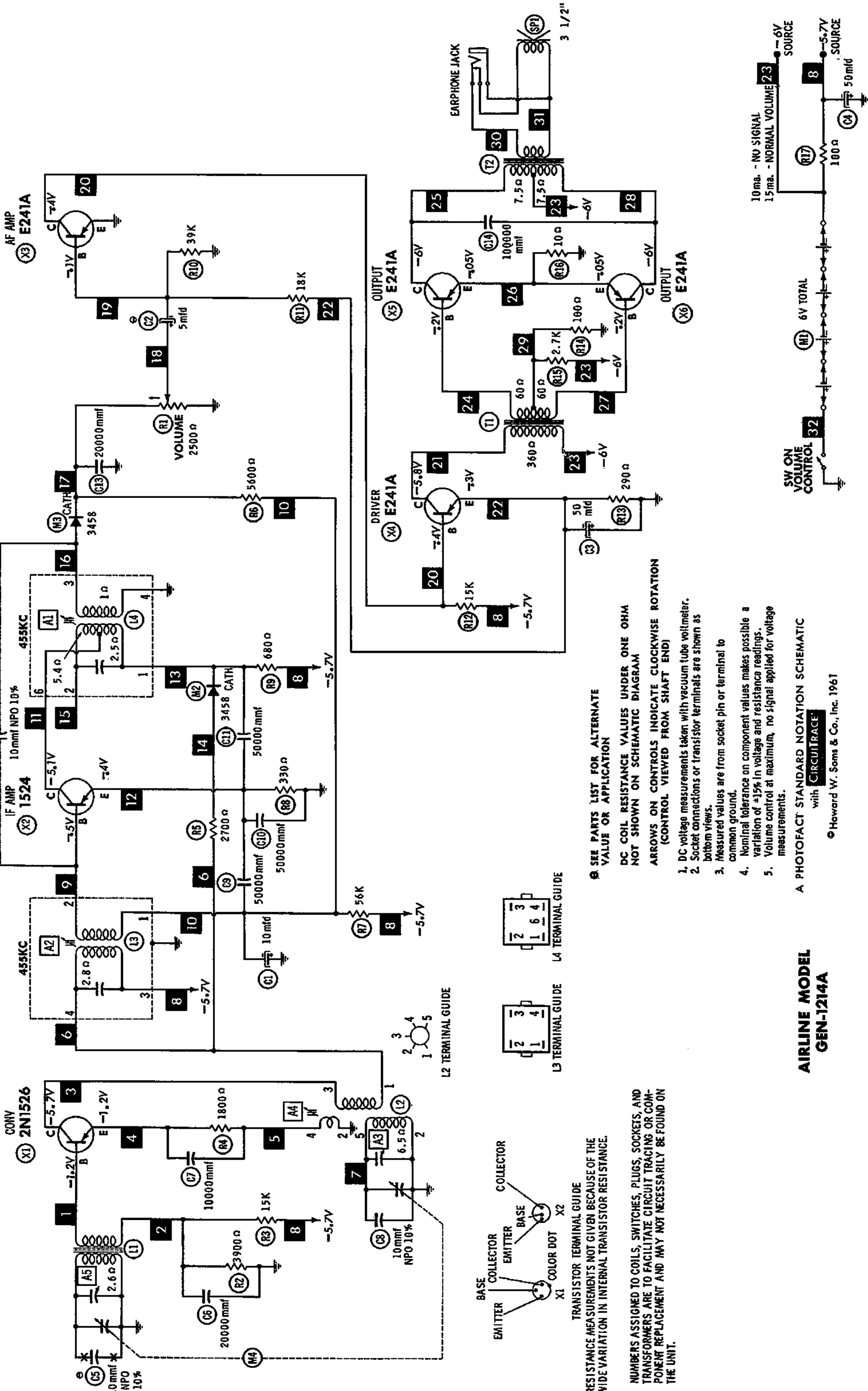
Suggested Alignment Tools: A1, A2, A4, ... GENERAL CEMENT #5009, 8195, 8274, 8275, 8728, 8729, 8987, 8988, 8989  
 WALSCO #2515, 2531, 2532  
 A3, A5, ... GENERAL CEMENT #5004, 5009, 8195, 8274, 8275, 8607, 8728, 8987, 8988, 8989, 9291  
 WALSCO #2515, 2520, 2522, 2523, 2531, 2532, 2534, 2537, 2538

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
Loop	455KC (400% Mod.)	Tuning gang fully open.	Across voice coil.	A1, A2	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
-	1640KC	"	"	A3	"
-	540KC	Tuning gang fully closed.	"	A4	"
-	1400KC	1400KC Signal.	"	A5	Adjust for maximum output. Repeat Steps 2, 3 and 4.

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

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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)

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 PHOTOFACT STANDARD NOTATION SCHEMATIC with CIRCUITRACE

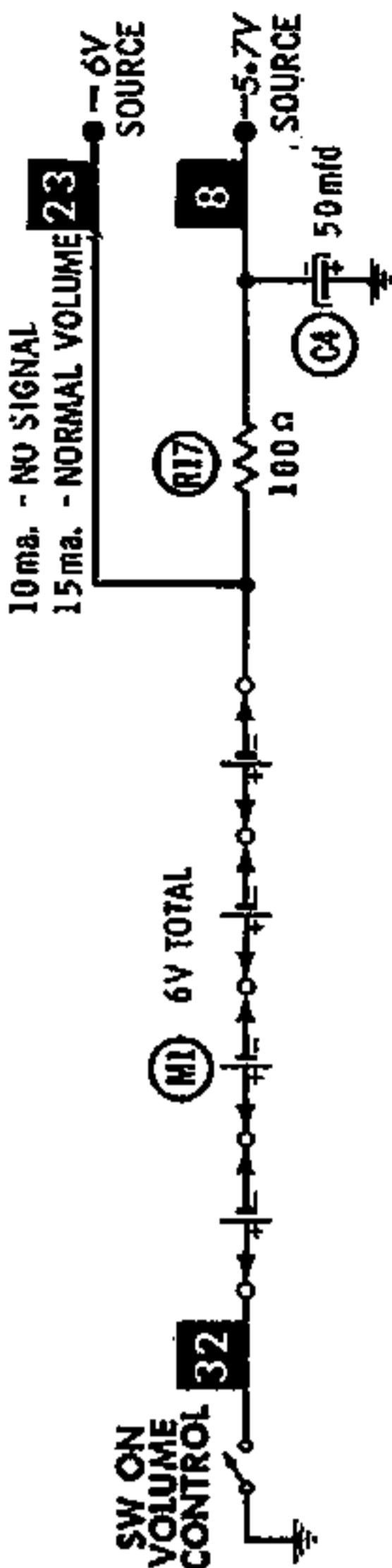
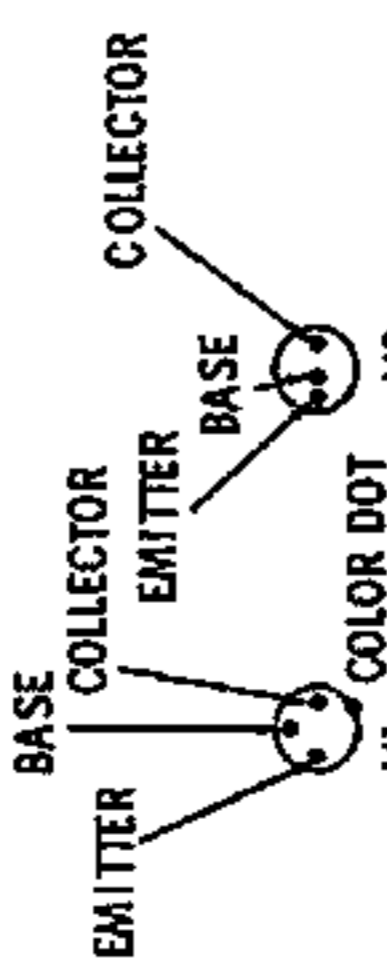
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**AIRLINE MODEL GEN-1214A**

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.

TRANSISTOR TERMINAL GUIDE

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



# PARTS LIST AND DESCRIPTIONS

## TRANSISTORS

ITEM No.	OMK. TYPE	UMH	REPLACEMENT DATA			INSTALLATION
			RCA PART No.	RAYTHEON PART No.	HYLVANHA PART No.	
X1	2N1520	Converter				PNP
X2	1524	IF Amplifier				PNP
X3	2N1524*	IF Amplifier				PNP
	E241A	AF Amplifier				
X4	3550*	AF Amplifier				PNP
	E241A	Driver				
X5	3550*	Driver				PNP
	E241A	Output				
X6	2N406*	Output	2N406	2N362	2N406	PNP
	E241A	Output				
	2N406*	Output	2N406	2N362	2N406	

\* Alternate Type.

## 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	10	10	E3238	PTT39	NLW10-15	TT12X10	MLV10-10	TE-1114	①
C2	5	10		PTT37	NLW5-15	TT12X5	MLV5-12	TE-1127	
C3	50	10	E3240	PTT45	NLW50-10	TT10X50	MLV50-10	TE-1119	
C4	50	10	E3240	PTT45	NLW50-10	TT10X50	MLV50-10	TE-1119	

① Some versions may use 3mfd@7V in this application (Part #E3239).

## 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 10%	Note 1	NPO-DI 10	DTZ-10	C10Q1C	CCTO-100	CNO-410	10TCC-Q10
C6	20000		BPD-02	DD-203	H-05S2	CCD-203	TA-120	TG-S20
C9	10000		BPD-01	DD-103	H-05S1	CCD-103	TA-110	TG-S10
C8	10 NPO 10%		NPO-DI 10	DTZ-10	C10Q1C	CCTO-100	CNO-410	10TCC-Q10
C9	50000		BPD-05	DD-503	H-05S5		TA-150	TG-S50
C10	50000		BPD-05	DD-503	H-05S5		TA-150	TG-S50
C11	50000		BPD-05	DD-503	H-05S5		TA-150	TG-S50
C12	10 NPO 10%		NPO-DI 10	DTZ-10	C10Q1C	CCTO-100	CNO-410	10TCC-Q10
C13	20000		BPD-02	DD-203	H-05S2	CCD-203	TA-120	TG-S20
C14	100000		C80V104AM	DDA-104	H-05P1		TA-010	TG-P10

Note 1. Not used in some versions.

## 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.	
RIA B	5000Ω Switch	$\frac{1}{2}$	E2556A					Volume Power Off-On

## 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	3900Ω				R10	39K			
R3	15K				R11	18K			
R4	1800Ω				R12	15K			
R5	2700Ω				R13	290Ω			
R6	5600Ω				R14	100Ω			
R7	56K				R15	2700Ω			
R8	330Ω				R16	10Ω			
R9	680Ω				R17	100Ω			



# 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.	Workman TV PART No.	
L1	Loopstick Oscillator Input IF Output IF	E6095B					
L2		E6144A					
L3		E6262A					
L4		E6263A					

## 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	1, 8	1	E1132B					

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
			AIRLINE PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
	PRI.	SEC.						
T2	1200Ω CT	3-4Ω	E1133B					

## SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
				AIRLINE PART No.	QUAM PART No.	
	SIZE	FIELD	V. C. IMP.			
SP1	3½"	PM	3-4Ω	E1059	3A05 *	* Trim Mounting to fit

## BATTERIES

ITEM No.	VOLTAGE	AIRLINE PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
M1	1.5V	62-67		930 *		1015*		M-15R*	* 4 Required

## SIGNAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA				NOTES
		AIRLINE PART No.	GENERAL ELECTRIC PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
M2	3458	E2412				Overload Detector
M3	3458	E2412				

## MISCELLANEOUS

ITEM No.	PART NAME	AIRLINE PART No.	NOTES
M4	Tuning Cap. Printed Board	E3530B E5649	2 Gang

## CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Knob	E50148C	Tuning
Knob	E50147B	Volume
Cabinet	E70109D	Back
Cabinet	E70118D	Front
Handle	E40195B	Metal, Carrying

## 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**

