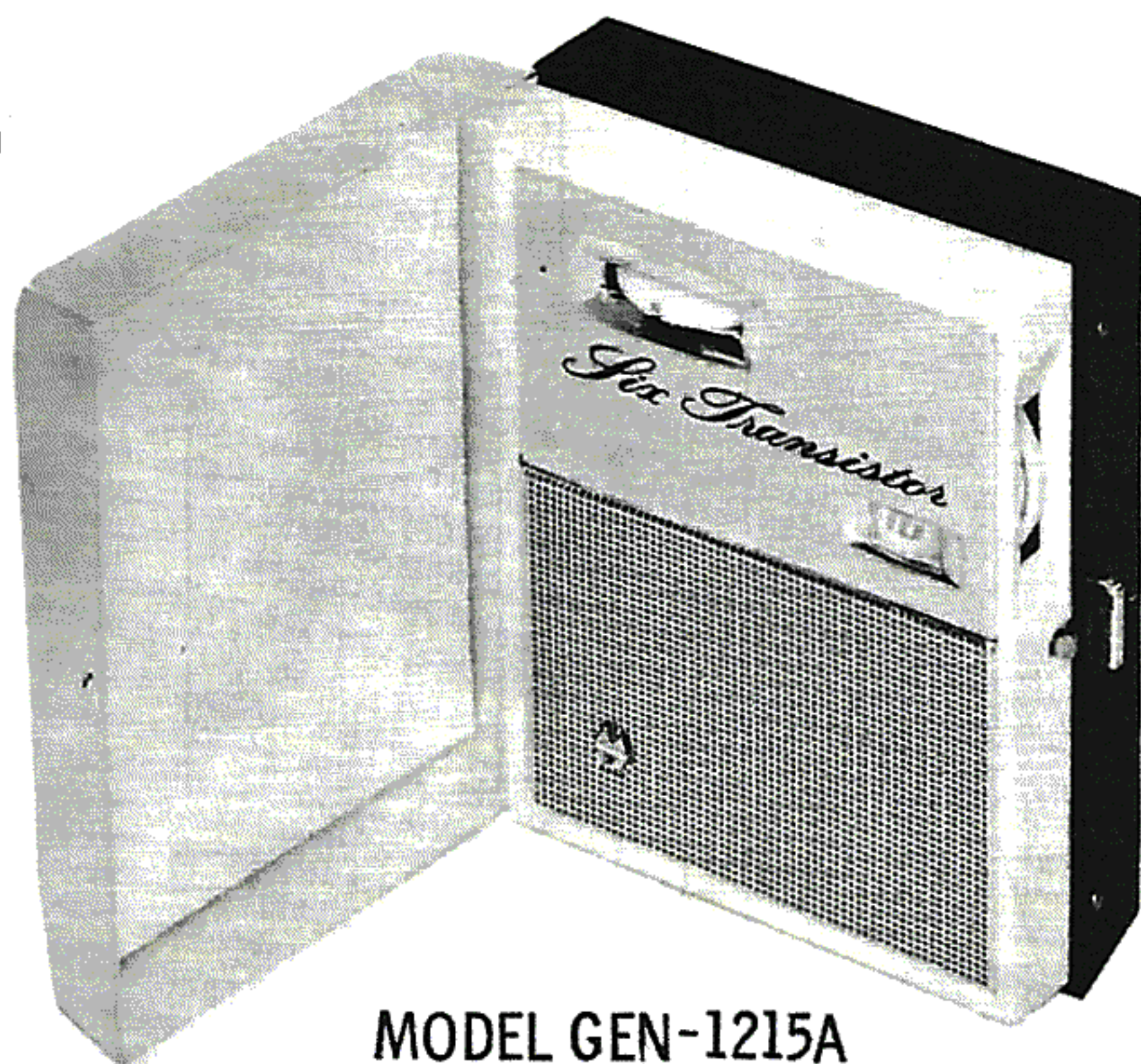
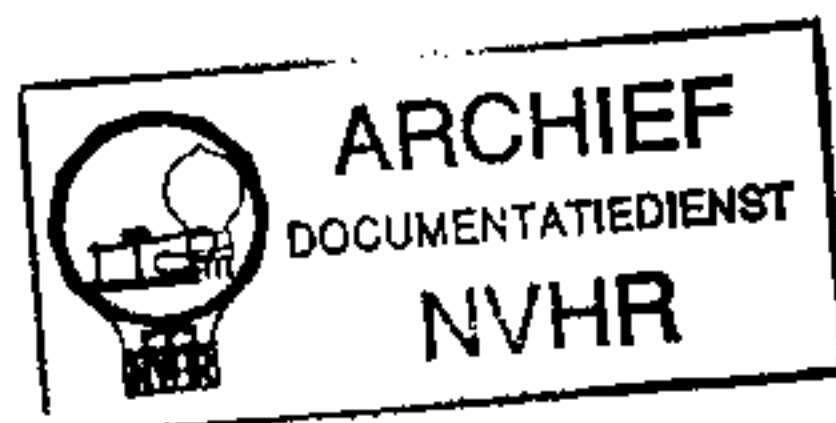


# PHOTOFACT® Folder

with **CIRCUITRACE**

## AIRLINE MODELS GEN-1215A, GNT-1215

Ned. Ver. v. Historie v/d Radi



MODEL GEN-1215A

Met dank aan Jef Bos

<b>TRACE NAME</b>	Airline Models GEN-1215A, GNT-1215		
<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>	5.6 Volts DC	<b>RATING</b>	8MA @ 5.6 Volts DC (No Signal, Min. Volume)
<b>TUNING RANGE—BROADCAST</b>	540 — 1640KC		15MA @ 5.6 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 **output reading**.

**Suggested Alignment Tools:**

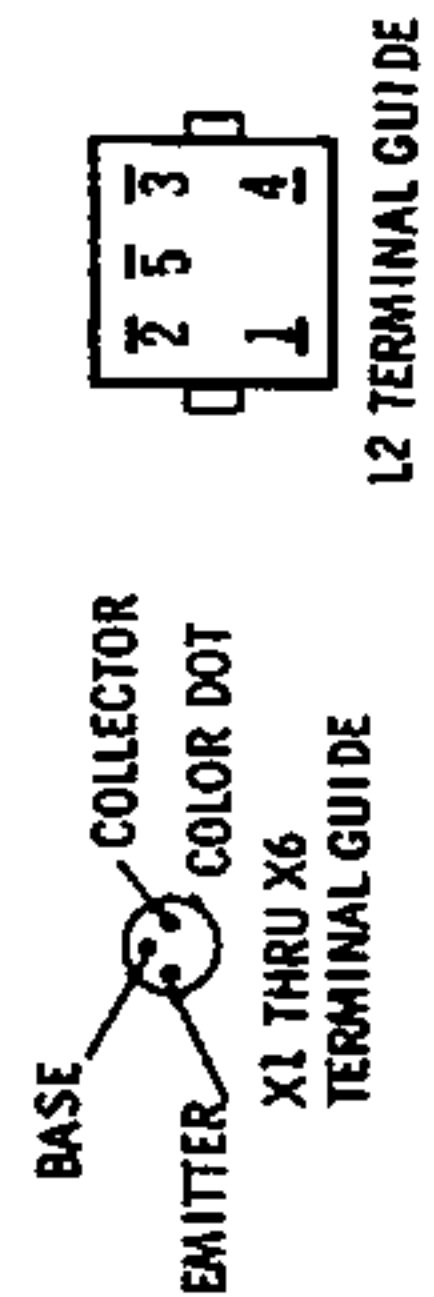
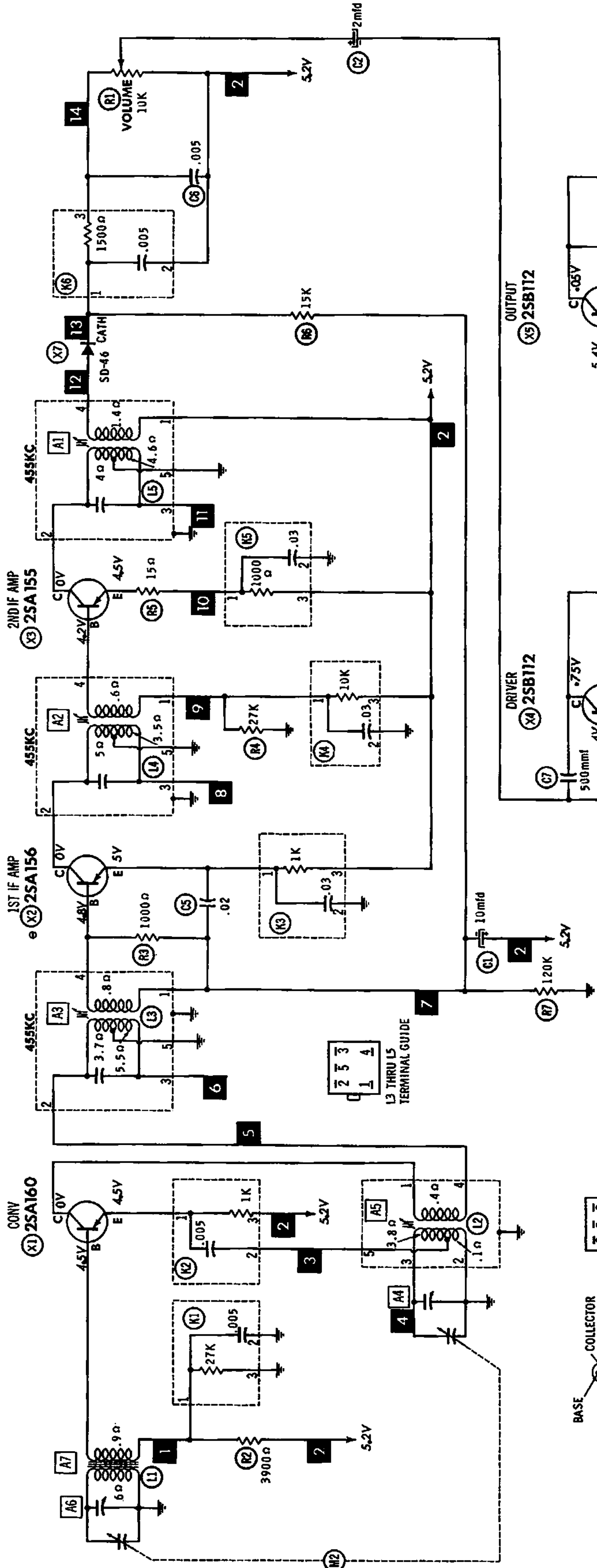
- A1, A2, A3, A5.... GENERAL CEMENT #8607, 9291, 9294  
WALSCO #2520, 2522, 2523, 2524, 2534, 2537
- A4, A6..... GENERAL CEMENT #5000, 5003, 5066, 8276, 8290, 9087, 9089  
WALSCO #2512, 2525, 2528

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1. Parallel loop of several turns of wire and radiate signal into loop of receiver.	455KC (400% Mod.)	Tuning gang fully open.	Across voice coil.	A1, A2, A3	Adjust for maximum output.
2. "	1640KC	"	"	A4	"
3. "	600KC	600KC	"	A5	"
4. "	1400KC	1400KC Signal.	"	A6	"
5. "	600KC	600KC	"	A7	Adjust for maximum output by moving antenna coil turns along ferrite core.

**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 guarantee 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

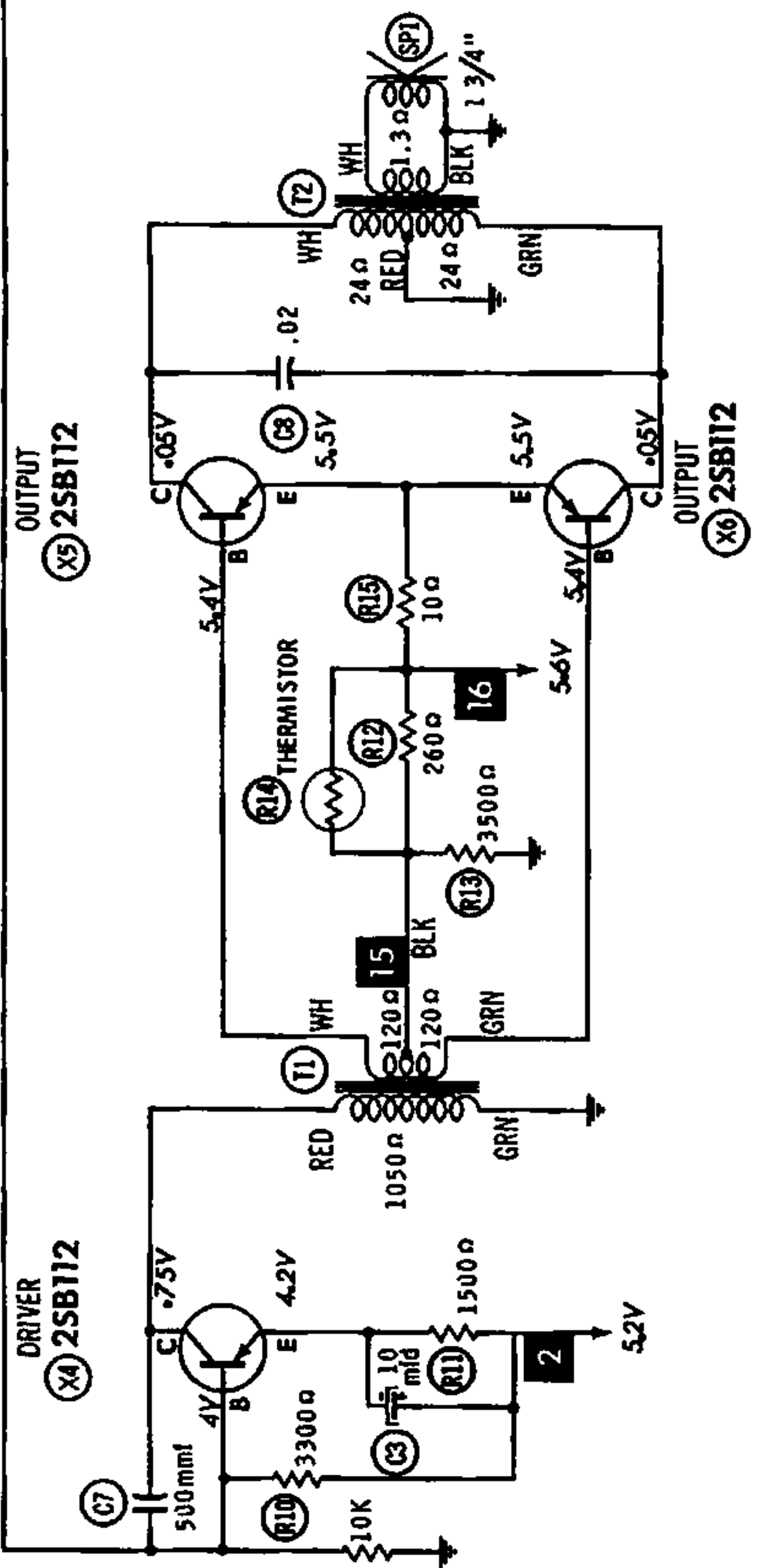
the particular type of replacement part listed. Reproduction or use, without express permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein. ©1962 Howard W. Sams & Co., Inc., Indianapolis 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  $\pm 15\%$  in voltage and resistance readings.
5. Volume control at maximum, no signal applied for voltage measurements.

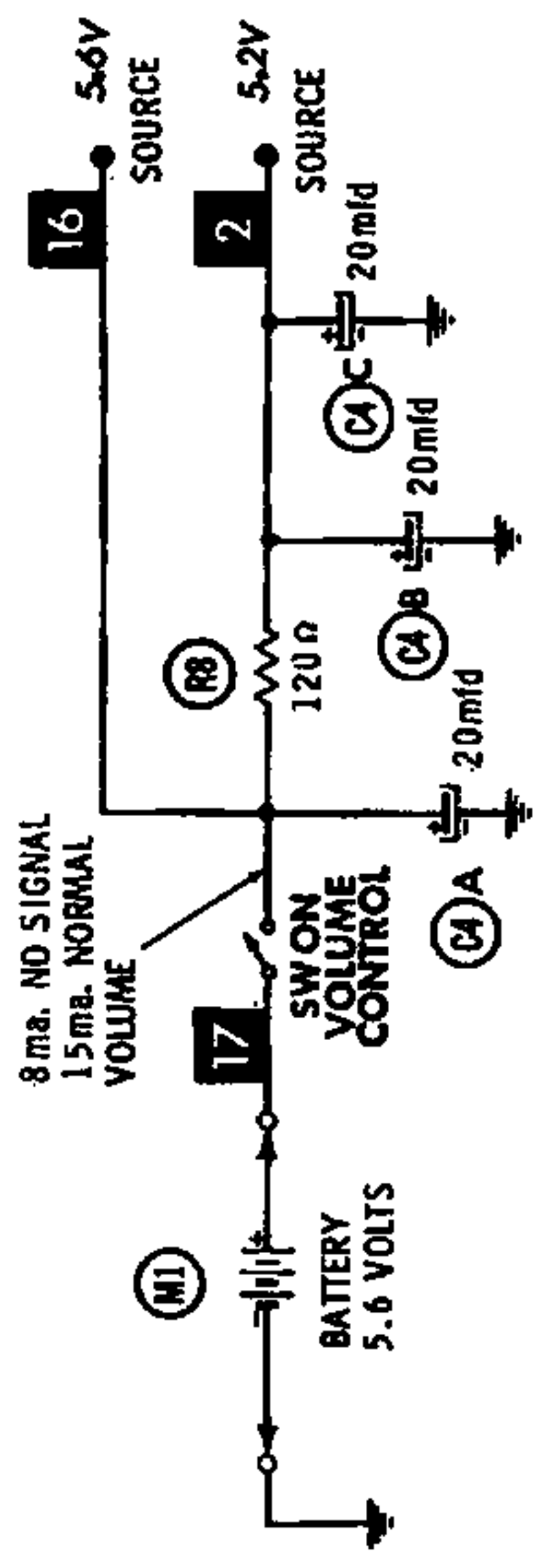
A PHOTOFACT STANDARD NOTATION SCHEMATIC with **CIRCUITRACE**

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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.



**AIRLINE MODELS  
GEN-1215A, GNT-1215**

# PARTS LIST AND DESCRIPTIONS

## WIRING DATA

General use Transistor Hook up Wire

Line NUMBER No. 0001 (Solid State)  
 0004 (Mesa Point State)  
 0070 (Mesa Point State)

Available  
 in  
 101 cases

### TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA		NOTES
			RCA PART No.	RAYTHEON PART No.	
X1	28A100	Converter	2N412		PNP PNP PNP PNP PNP PNP } Matched Pair
X2	28A100	1st IF Amplifier	2N410		
	28A100*	1st IF Amplifier	2N410		
X3	28A100	2nd IF Amplifier	2N410		
X4	28B12	Driver	2N408		
X5	28B12	Output	2N408		
X6	28B12	Output	2N408		

\* Alternate

### POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	CURRENT RATING (Measured)	ORIGINAL Part or Type No.	RECTIFIERS		DIODES	NOTES
			RCA PART No.	SARKES TARZIAN PART No.	RAYTHEON PART No.	
X7		J2441			1N60	Detector (SD-46)

### ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	AIRLINE PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.
C1	10	3	J3219		NLW10-6				
C2	2	12	J3221		NLW2-50				
C3	10	3	J3219		NLW10-6				
C4A	20	10	J3224						
B	20	10							
C	20	10							

### FIXED 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	.02		C80V203AM	DA-203	H-05S2		TA-120	TG-S20
C6	.005		C80V502AM	DM-502	H-05D5		TA-250	TG-D50
C7	500		DI-500	DD-501	LI0T5	CCD-501	B-350	10TS-T50
C8	.02		C80V203AM	DA-203	H-05S2		TA-120	TG-S20

### CONTROLS

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

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA				
			AIRLINE PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CYS-IRC PART No.	MALLORY PART No.
R1	Volume & Switch	10K	J2510				

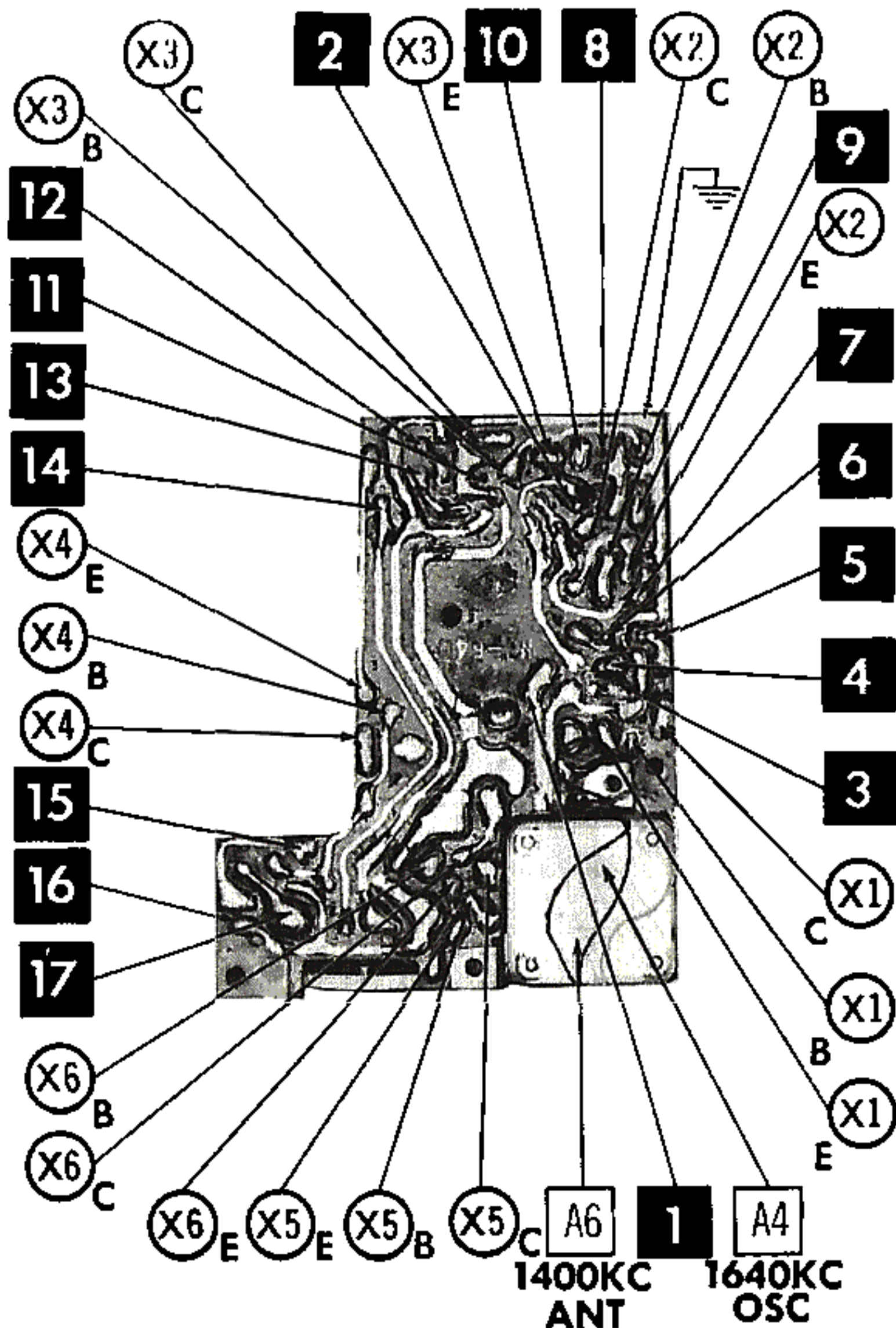
### RESISTORS

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

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	REMARKS			IRC PART No.	WORKMAN PART No.	REMARKS
R2	3900Ω				R9	10K			
R3	1000Ω				R10	3300Ω			
R4	27K				R11	1500Ω			
R5	15Ω				R12	260Ω			
R6	15K				R13	3500Ω			
R7	120K				R14	Thermistor			Pt. #J2442
R8	120Ω				R15	10Ω			

# PRINTED BOARD

A Howard W. Bess Photo



E - EMITTER B - BASE C - COLLECTOR

# 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 PART No.	
L1	Loopstick	J6010					
L2	Osc.	J6122					
L3	1st IF	J6219					
L4	2nd IF	J6220					
L5	3rd IF	J6221					

## 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	1.4	1	J1116					

## 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	7000 CT	6-8Ω	J1117					

## SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
				AIRLINE PART No.	QUAM PART No.	
	SIZE	FIELD	V. C. IMP.			
SP1	1 3/4"	PM	6-8Ω	J1011		

## COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	AIRLINE PART No.	REPLACEMENT DATA
K1	Antenna Coil Secondary	.005mfd, 27K	J942	
K2	Conv. Emitter	.005mfd, 1000Ω	J941	
K3	1st IF Emitter	.03mfd, 1000Ω	J943	
K4	2nd IF Secondary	.03mfd, 10K	J945	
K5	2nd IF Emitter	.03mfd, 1000Ω	J944	
K6	Diode RF Filter	.005mfd, 1500Ω	J946	

## BATTERIES

ITEM No.	VOLTAGE	AIRLINE PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
M1	5.8V	62-104		H164		E164		TR164	

## MISCELLANEOUS

ITEM No.	PART NAME	AIRLINE PART No.	NOTES
M2	Tuning Cap.	J3514	2 Gang

## CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Knob, Volume	J5025	
Knob, Tuning	J5024	
Cabinet Front	J7033	Includes Grill and Escutcheon
Cabinet Back	J7034	Includes Metal Cover and Latch

**CHASSIS—TOP VIEW**

