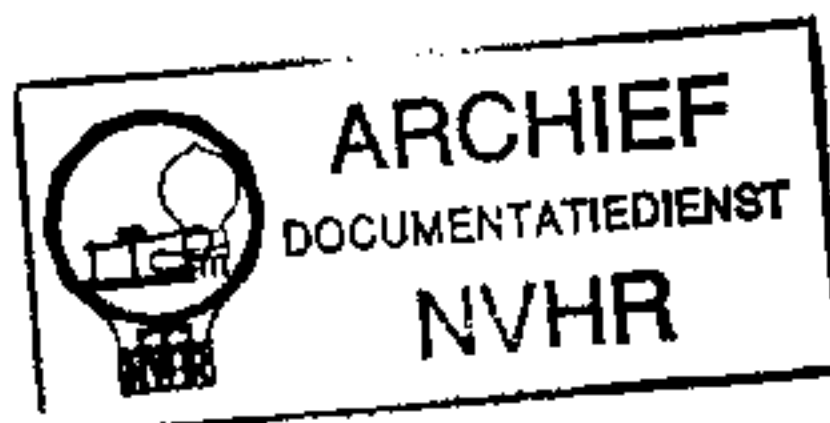




Ned. Ver. v. Historie v/d Radio



Met dank aan Jef Bos

TRADE NAME	Realtone Model TR-561 (Venus)		
IMPORTER	Realtone Electronics, 71 Fifth Ave., New York 3, N. Y.		
TYPE SET	Battery Operated Transistorized Portable AM Receiver		
POWER SUPPLY	9 Volts DC	RATING	6MA@9 Volts DC (No Signal, Min. Volume)
TUNING RANGE-BROADCAST	540 - 1600KC		10MA@9 Volts DC (Signal, Normal Volume)

## ALIGNMENT INSTRUCTIONS

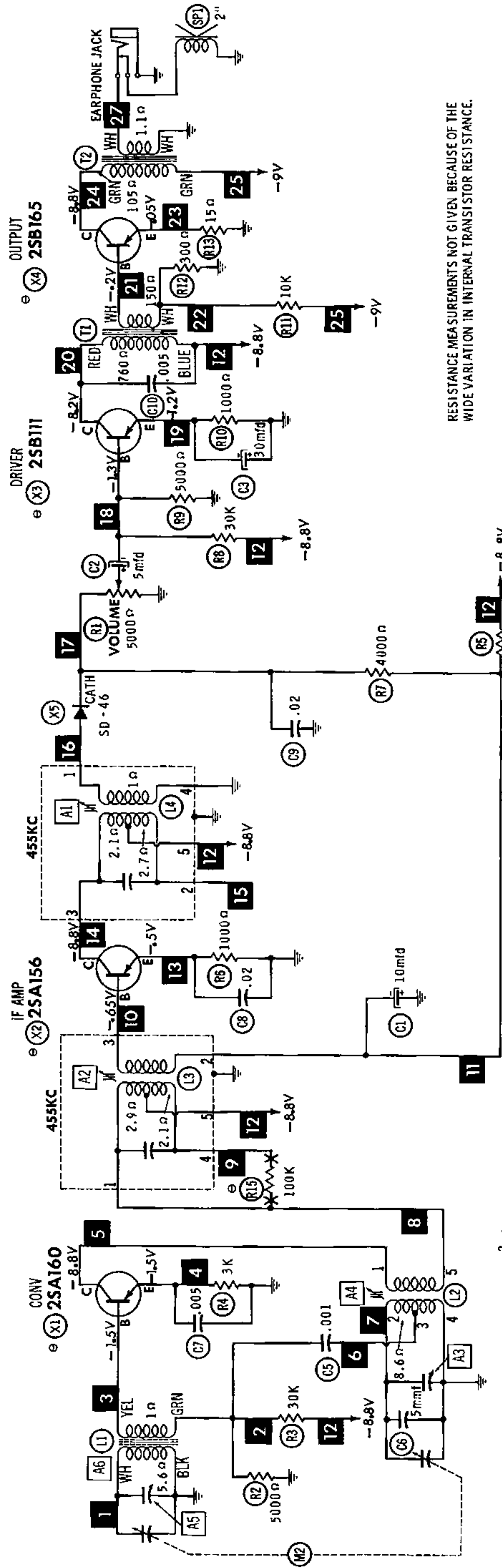
ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT						
Volume control should be at maximum position. Output of signal generator should be no higher than necessary to obtain an output reading.						
Suggested Alignment Tools:						
A1, A2.....GENERAL CEMENT #8607, 9291, 9294 WALSCO #2520, 2522, 2523, 2524, 2534, 2537						
A3, A5.....GENERAL CEMENT #5000, 5003, 5066, 8276, 8290, 9087, 9089 WALSCO #2512, 2525, 2528						
A4.....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.	Fashion loop of several turns of wire and radiate signal into loop of receiver.	455KC (400% Mod.)	Tuning gang fully open.	Across voice coll.	A1, A2	Adjust for maximum output.
2.	"	1600KC	1600KC	"	A3	"
3.	"	600KC	600KC	"	A4	Adjust for maximum output while rocking tuning gang.
4.	"	1400KC	1400KC Signal.	"	A5	"
5.	"	600KC	600KC Signal	"	A6	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 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 LF046

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





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.

SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

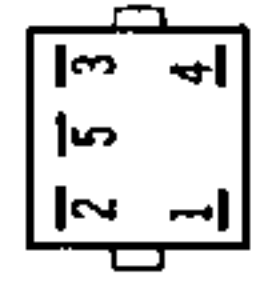
DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM

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

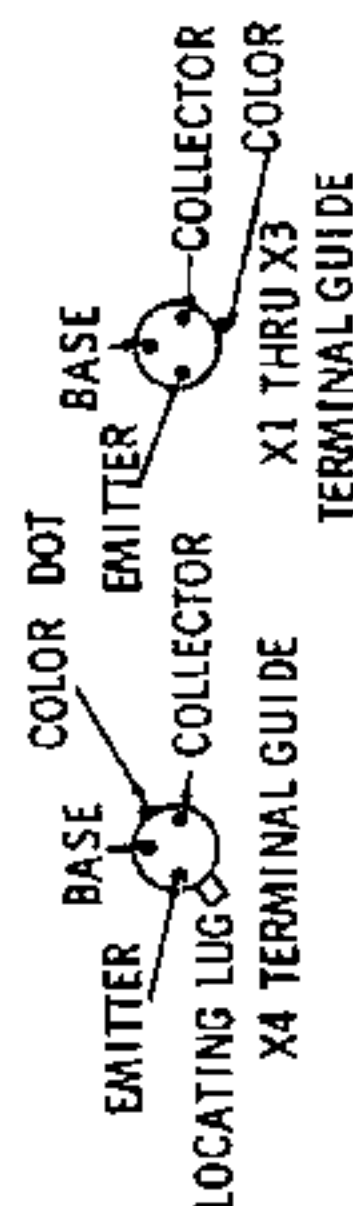
A PHOTOFACT STANDARD NOTATION SCHEMATIC with **CIRCUTRACE**



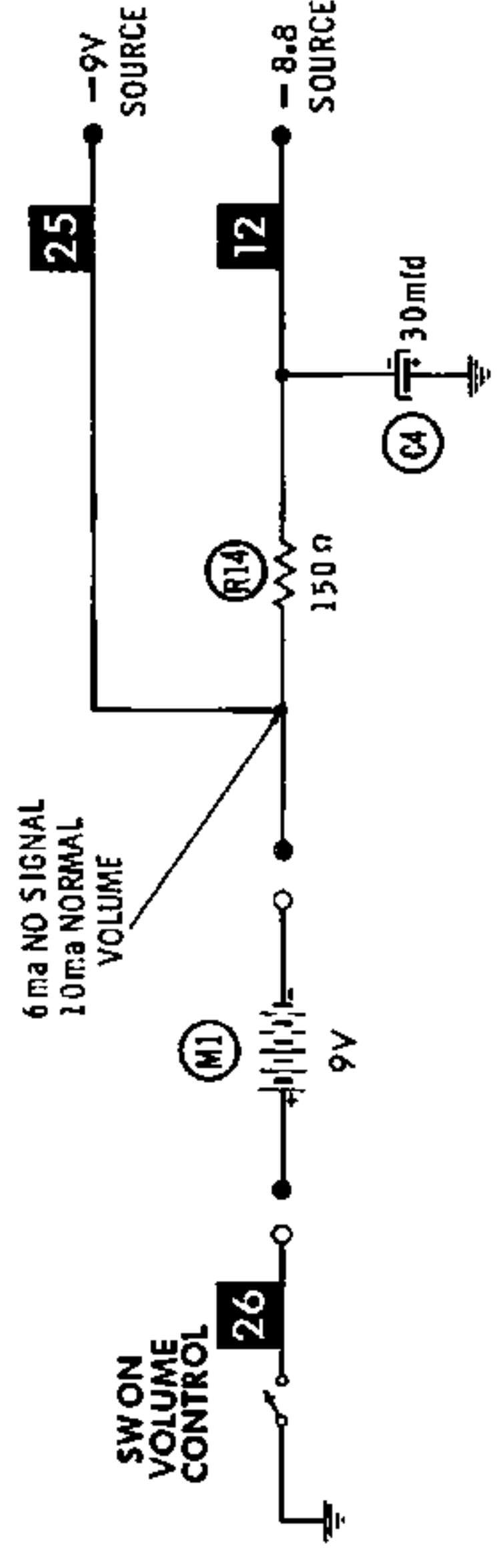
L2 TERMINAL GUIDE



L3 & L4 TERMINAL GUIDE



X1 THRU X3 TERMINAL GUIDE



**REALTONE  
MODEL TR-561**

# PARTS LIST AND DESCRIPTIONS

## TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA		NOTES
			RCA PART No.	RAYTHEON PART No.	
X1	2SA160 2SA159*	Converter	2N412		PNP
X2	2SA156 2SA155*	IF Amplifier	2N410		PNP
X3	2SB111 2SB113*	Driver	2N408		PNP
X4	2SB165 2SB114* 2SB116*	Output	2N109		PNP

\* 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.	GENERAL ELECTRIC PART No.	RAYTHEON PART No.	
X5		561-D1				1N60	Detector (SD-46)

## ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REALTONE PART No.	REPLACEMENT DATA					
	CAP.	VOLT.		AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.
C1	10	6		PTT23	NLW10-6	MT1-5	TT6X10	MLV10-6	TE-10B7
C2	5	6		PTT21	NLW5-15	MT1-3	TT6X5	MLV5-6	TE-10B4
C3	30	6		PTT27	NLW30-6	MT1-13	TT6X30	MLV30-6	TE-1092
C4	30	10		PTT43	NLW30-15	MT1-14	TT15X30	MLV40-12	TE-1132

## 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.
C6	.001		BPD-001	DD-102	BYA10D1	CCD-102	GP210	5HK-D10
C6	5		DI-5	DD-050	L10V5	CCD-050	CNO-550	10TS-V50
C7	.005		BPD-005	DM-502	H-05D5	CCD-502	TA-250	TG-D50
C8	.02			DA-203	H-05S2		TA-120	TG-S20
C9	.02			DA-203	H-05S2		TA-120	TG-S20
C10	.005		BPD-005	DM-502	H-05D5	CCD-502	TA-250	TG-D50

## CONTROLS

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

ITEM No.	USE	RESIST-ANCE	REPLACEMENT DATA				
			REALTONE PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Volume & Switch	5000Ω	561-VR	B16-214			

## RESISTORS

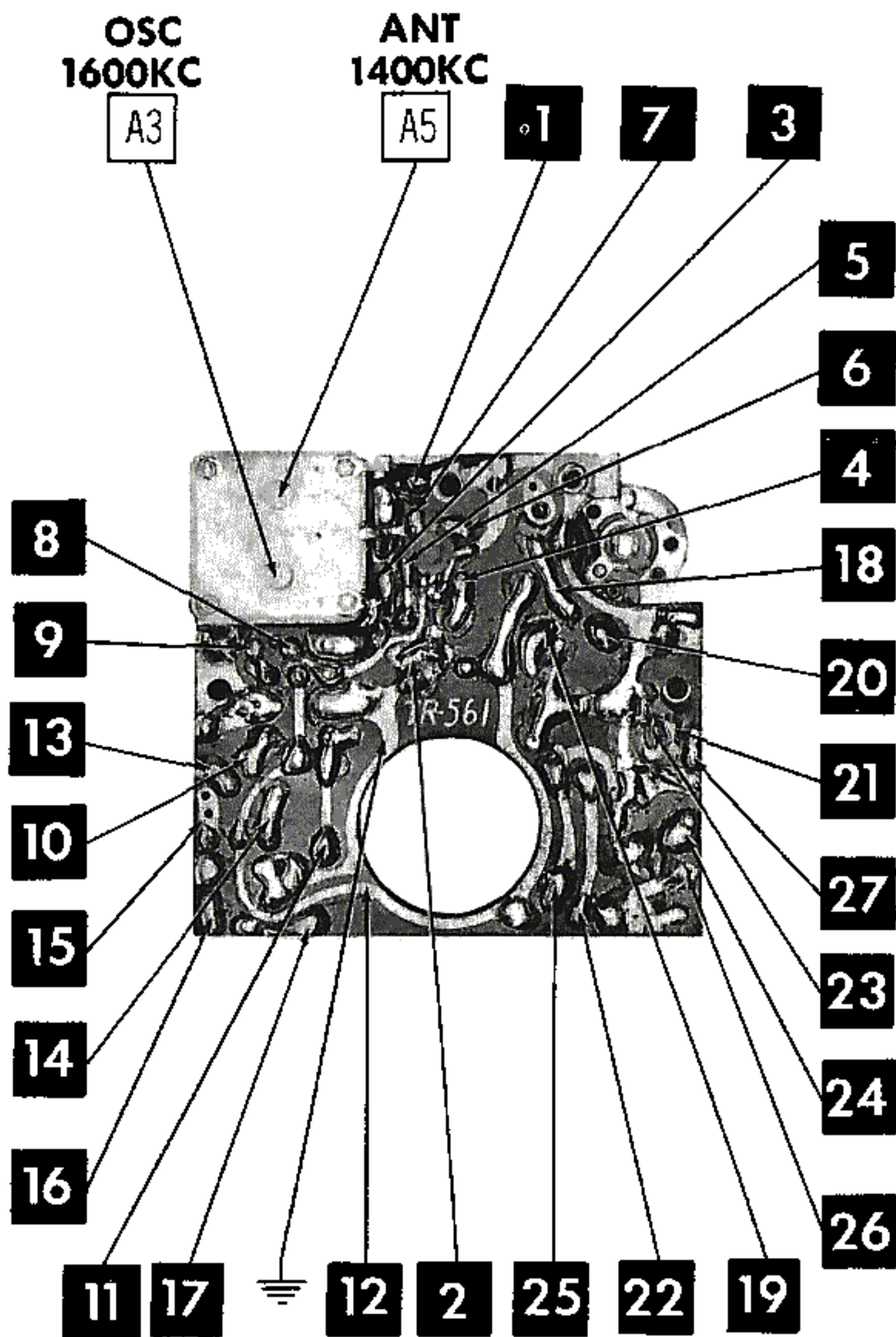
All wattages 1/2 watt, or less, unless otherwise listed.

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	5000Ω				R9	5000Ω			
R3	30K				R10	1000Ω			
R4	3000Ω				R11	10K			
R5	200K				R12	300Ω			
R6	1000Ω				R13	15Ω			
R7	4000Ω				R14	150Ω			
R8	30K				R15	100K			Note 1

Note 1. Not used in some versions.

# PRINTED BOARD

A Howard W. Sams **CIRCUITRACE** Photo



# PARTS LIST AND DESCRIPTIONS (Continued)

## COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		REALTONE PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	Workman TV PART No.	
L1	Loopstick Osc. Input IF Output IF	561-A1					
L2		561-01					
L3		561-IFT <sub>1</sub>					
L4		561-IFT <sub>2</sub>					

## TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		REPLACEMENT DATA					NOTES
			REALTONE PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
	PRI.	SEC.						
T1	3	1	561-IT1					

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	REALTONE PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2	1200Ω	6-8Ω	561-OT1					

## SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	REALTONE PART No.	QUAM PART No.	
SP1	2"	PM	6-8Ω	561-SP1		

## BATTERIES

ITEM No.	VOLTAGE	REALTONE PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
M1	9V	006P		2U6		216		M-1604	

## MISCELLANEOUS

ITEM No.	PART NAME	REALTONE PART No.	NOTES
M2	Tuning Cap.	561-2V6	2 Gang (Ant. 5-174mmf, Osc. 5-76mmf)

## CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Dial Lens	561-105	Tuning Volume
Knob	561-104	
Knob	561-103	
Cabinet Back	561-102	
Cabinet Front	561-101	

## WIRING DATA

(General-use Unshielded Hook-up Wire ..... Use MIL-D-170 No. 6630 (Solid) Available in Ten Colors  
6634 (Stranded) Available in Ten Colors)

# CHASSIS—TOP VIEW

