

PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		KOWA PART No.	REPLACEMENT DATA			NOTES
	PHI.	SEC.		Holderson PART No.	Merit PART No.	Stancor PART No.	
T1	1.2	1	TRT1B	TR-39		TR-39	

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE	REPLACEMENT DATA		KOWA PART No.	QUAM PART No.	NOTES
		PHI.	SEC.			
T2	800Ω	6-80	TRT6Y	TR-104 ①		① Tape Center Tap

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		KOWA PART No.	QUAM PART No.	NOTES
		SIZE	V. C. IMP.			
SP1	2"	PM	6-80	P-200		

BATTERIES

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

CRYSTAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA		KOWA PART No.	NOTES
		CBS PART No.	RAYTHEON PART No.		
M2	SD46	IN60	IN60	IN60	Detector (Pigtail)

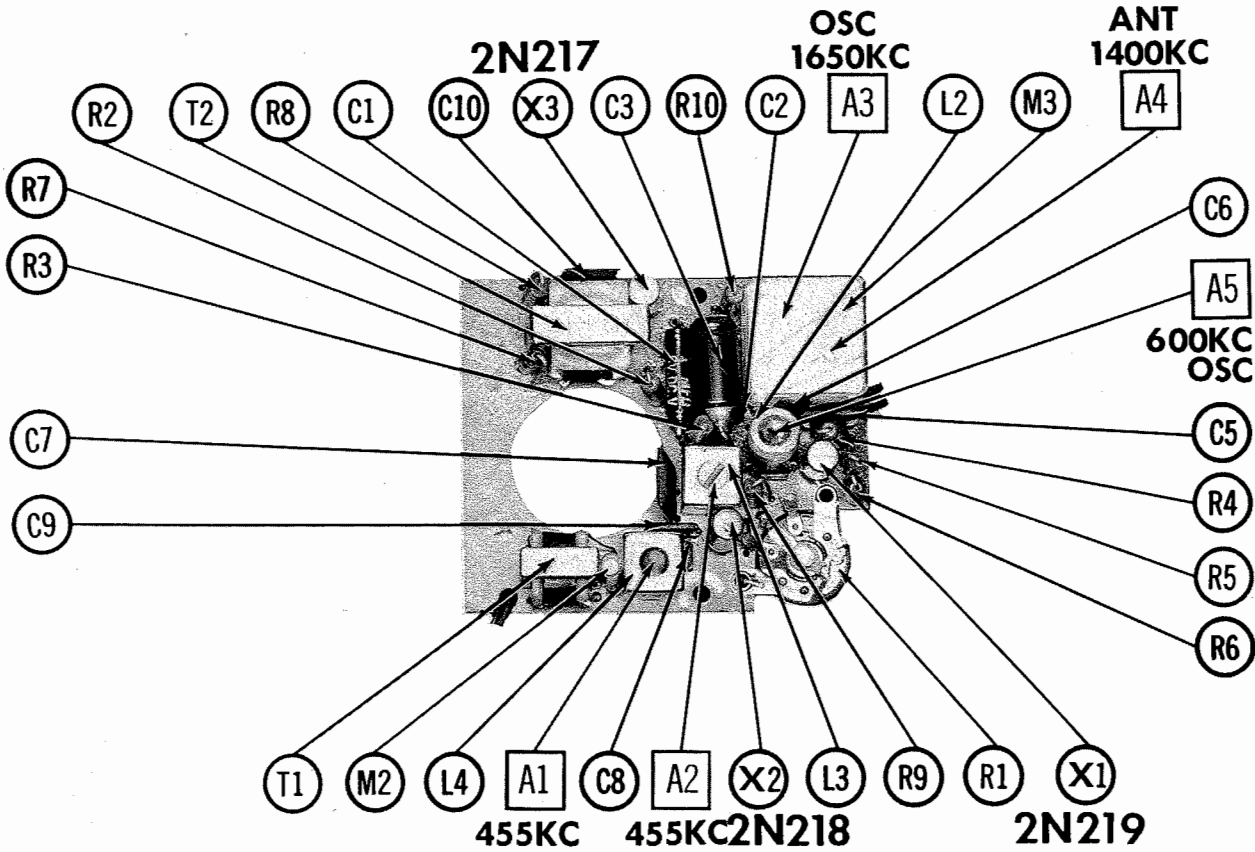
MISCELLANEOUS

ITEM No.	PART NAME	KOWA PART No.	NOTES
M3	Tuning Cap		2 Gang

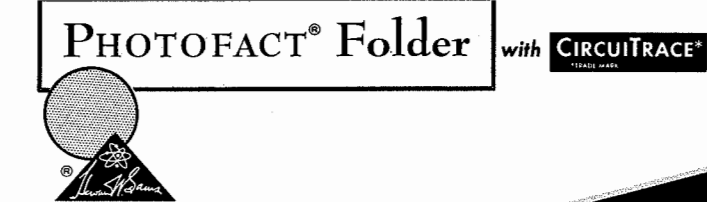
WIRING DATA

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

CHASSIS—TOP VIEW



FOLDER 9  
SET490



KOWA  
MODEL KT-31

TRADE NAME	Kowa Model KT-31		
SUPPLIER	Lafayette Radio, 165-08 Liberty Ave., Jamaica 33, N.Y.		
TYPE SET	Battery Operated Transistorized Portable AM Receiver		
POWER SUPPLY	9 Volts DC		
TUNING RANGE-BROADCAST	535-1650 KC	RATING	4MA @ 9 Volts DC (No signal, minimum volume) 5MA @ 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 #5004, 5009, 8195, 8274, 8275, 8607, 8728, 8987, 8988, 8989, 9291					
WALSCO #2515, 2520, 2522, 2523, 2531, 2532, 2534, 2537, 2538					
A3, A4 . . . . . GENERAL CEMENT #5000, 5003, 5066, 8271, 8272, 8276, 8277, 8290, 8609, 8722, 9150, 9298					
WALSCO #2515, 2516, 2518, 2519, 2525, 2541					
SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1 Loop	455 KC (400% mod)	Tuning gang fully open	Across voicecoil	A1, A2	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output
2 "	1650 KC	"	"	A3	"
3 "	1400 KC	Tune to 1400KC signal	"	A4	"
4 "	600 KC	Tune to 600KC signal	"	A5	Adjust for maximum output while rocking tuning gang.

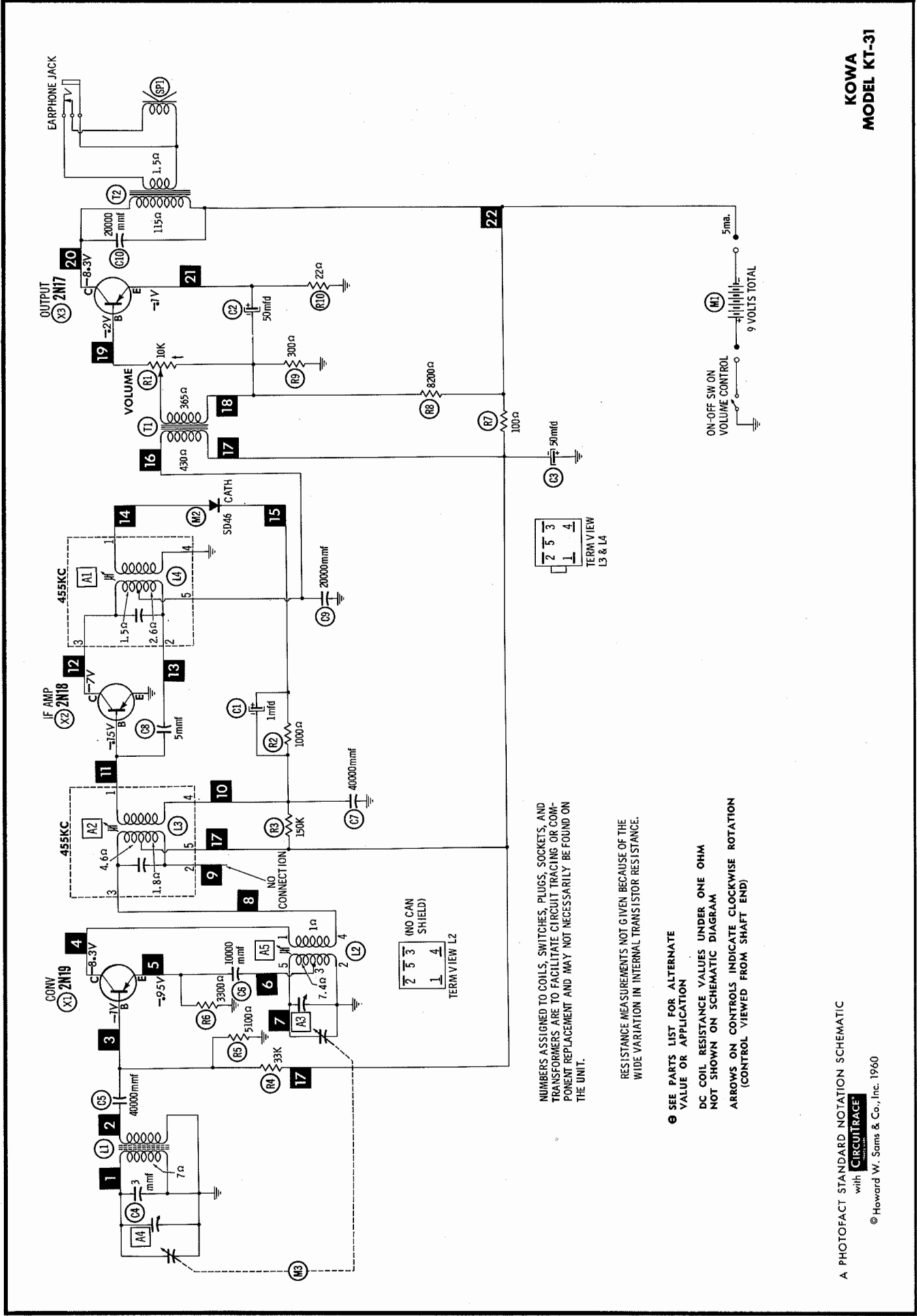
HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana



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KOWA  
MODEL KT-31



KOWA  
MODEL KT-31

## PARTS LIST AND DESCRIPTIONS

### TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA				NOTES
			CBS PART No.	RCA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
X1	2N219	Converter IF Amplifier Output		2N219	2N486	2N218	PNP
X2	2N218			2N218	2N484	2N217	PNP
X3	2N217			2N217	2N631	2N217	PNP

### ELECTROLYTIC CAPACITORS

ITEM No.	RATING CAP.	VOLT.	KOWA PART No.	REPLACEMENT DATA				NOTES
				AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
C1	1	6		XPPE001	NLW1-50	TT12X1	ML1-6	TE-1080
C2	50	10		XPPI0050	NLW50-10	TT10X50	ML50-15	TE-1119
C3	50	10		XPPI0050	NLW50-10	TT10X50	ML50-15	TE-1119

### 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				NOTES
			AEROVOX PART No.	CORNELL-DUBILIER PART No.	ELMOCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C4	3		NP0-D15.0	DTZ-3R3	C10V9C	CCTO-3R3	CND-633
C5	40000		C80V103AM	DDM-103	H-0581	TA-110	TG-810
C6	10000		NP0-D15.0	DTZ-4R7	C10V6C	CCTO-050	CNO-547
C7	40000		C80V203AM	DDM-203	H-0582	TA-120	TG-820
C8	5		NP0-D15.0	DTZ-4R7	C10V6C	CCTO-050	CNO-547
C9	20000		C80V203AM	DDM-203	H-0582	TA-120	TG-820
C10	20000		C80V203AM	DDM-203	H-0582	TA-120	TG-820

### CONTROLS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA				INSTALLATION NOTES
			KOWA PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	
R1	10K			B16-216			Volume and Switch

### RESISTORS

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

ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS
R2	1000K		R5	5100K	
R3	150K		R6	3300K	
R4	33K		R7	100K	

### COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		KOWA PART No.	Gerni PART No.	Meissner PART No.	Mallory PART No.	
L1	Loopstick					
L2	Osc. Coil					
L3	1st IF Trans					
L4	2nd IF Trans					

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KOWA  
MODEL KT-31

## PRINTED BOARD

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