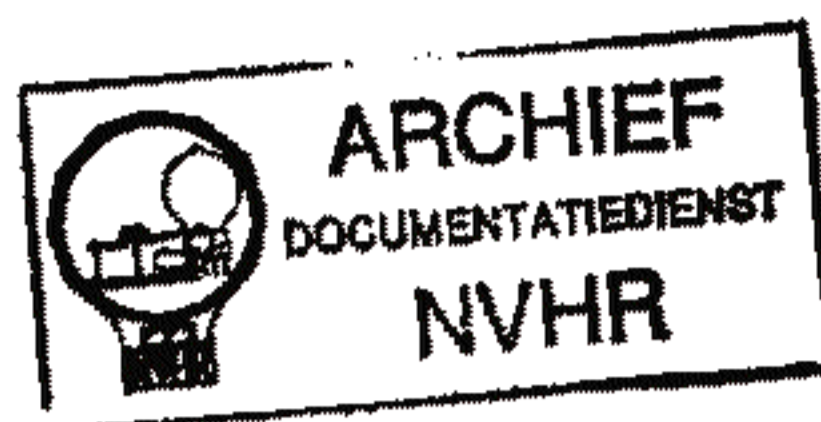


Met dank aan Jef Bos

Ned. Ver. v. Historie v/d Radio



MODEL 4-C-50

TRADE NAME	Firestone Models 4-C-45 (Code 1-9-71/288), 4-C-50 (Code 1-0-TC11)		
SUPPLIER	Firestone Tire & Rubber Co., 1200 Firestone Parkway, Akron 17, Ohio		
TYPE SET	Battery Operated Transistorized AM Receiver with Electric Clock		
POWER SUPPLY	6 Volts DC (Radio), 1.5 Volts DC (Clock)	RATING	10MA@6 Volts DC (No Signal, Min. Volume) 15MA@6 Volts DC (Signal, Normal Volume)
TUNING RANGE - BROADCAST	540 - 1620KC		

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.

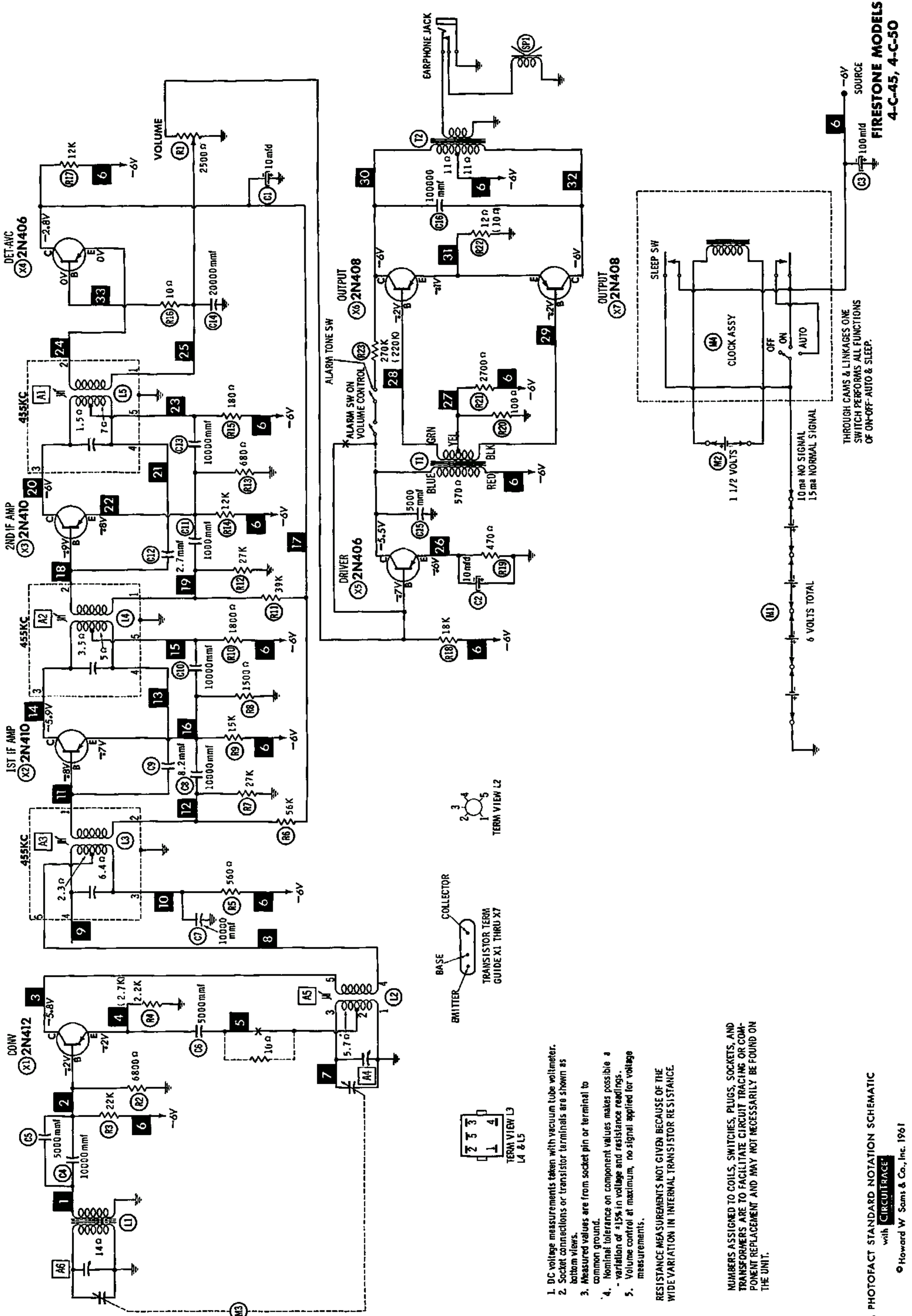
Suggested Alignment Tools: A1, A2, A3... GENERAL CEMENT #5009, 8195, 8274, 8275, 8728, 8729, 8987, 8988, 8989
 WALSCO #2515, 2531, 2532
 A4, A6..... GENERAL CEMENT #5004, 5008, 5009
 WALSCO #2520
 A5..... GENERAL CEMENT #8282, 8606, 8606-L, 9091
 WALSCO #2526, 2542, 2543, 2544, 2541

	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1.	High side thru .1mfd to Base of Converter. Low side to chassis.	455KC (400v Mod.)	Tuning gang fully open.	Across voice coil.	A1, A2, A3	Adjust for maximum output.
2.	Loop	1620KC	"	"	A4	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
3.	"	600KC	600KC	"	A5	"
4.	"	1400KC	1400KC Signal.	"	A6	Adjust for maximum output. Repeat Steps 2, 3 and 4.

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 KF531

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**FIRESTONE MODELS
4-C-45, 4-C-50**

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.

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

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			RCA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
X1	2N412	Converter	2N412	2N486	2N412	PNP
X2	2N410	1st IF Amplifier	2N410	2N483	2N410	PNP
X3	2N410	2nd IF Amplifier	2N410	2N483	2N410	PNP
X4	2N406	Det. - AVC	2N406	2N633	2N406	PNP
X5	2N406	Driver	2N406	2N633	2N406	PNP
X6	2N408	Output	2N408	2N633	2N408	PNP
X7	2N408	Output	2N408	2N633	2N408	PNP

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA					NOTES
	CAP.	VOLT.	FIRESTONE PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	
C1	10	10	581052	PTT-10010	NLW10-15	TT12X10	MLV10-10	TE-1114
C2	10	10	581052	PTT-10010	NLW10-15	TT12X10	MLV10-10	TE-1114
C3	100	10	581051	PTT-10100	NLW100-15	TT15X100	MLV100-10	TE-1119.3

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					SPRAGUE PART No.
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	
C4	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C5	5000		BPD-005	DD-502	BYA10D5	CCD-502	B-250	5HK-D50
C6	5000		BPD-005	DD-502	BYA10D5	CCD-502	B-250	5HK-D50
C7	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C8	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C9	8.2		NPO-SI 8.2		C10V82C			10TCC-V82
C10	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C11	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C12	2.7		NPO-SI 3.0		C10V3C			10TCC-V27
C13	10000		BPD-01	DD-103	BYA10S1	CCD-103	B-110	5HK-S10
C14	20000		BPD-02	DD-203	BYB6S2	CCD-203	B-120	5HK-S20
C15	5000		BPD-005	DD-502	BYA10D5	CCD-502	B-250	5HK-D50
C16	100000		C80V104AM	DDA-104	H-05PI	IDP-2-104	TA-010	TG-P10

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA				INSTALLATION NOTES	
	RESISTANCE	WATTS	FIRESTONE PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.		MALLORY PART No.
R1	2500Ω	1/4	368056					Volume & Switch

RESISTORS

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

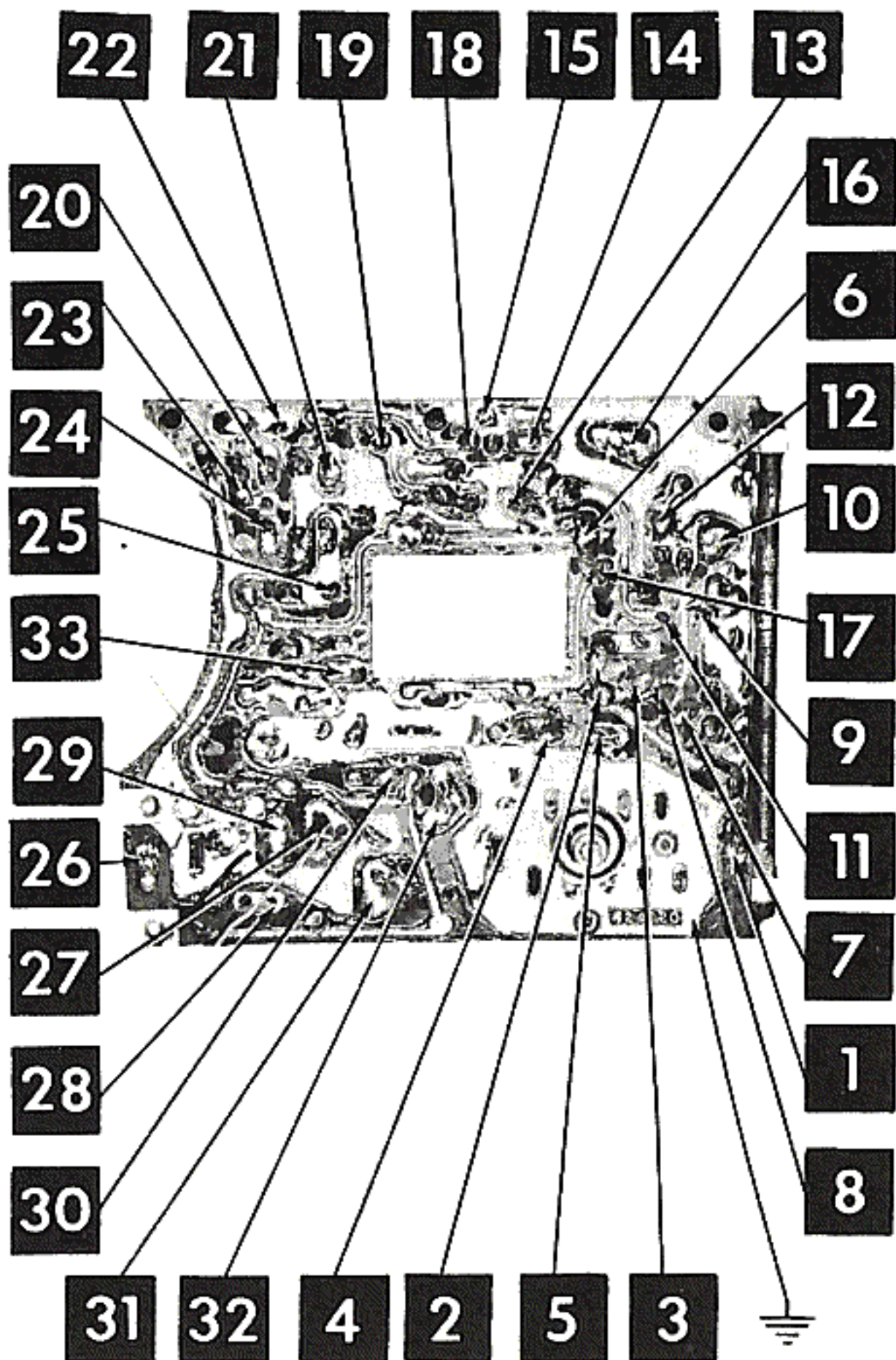
ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN TV PART No.	REMARKS			IRC PART No.	WORKMAN TV PART No.	REMARKS
R2	6800Ω			(2700Ω) *	R13	680Ω			
R3	22K				R14	12K			
R4	2200Ω				R15	180Ω			
R5	560Ω				R16	10Ω			
R6	56K				R17	12K			
R7	27K				R18	18K			
R8	1500Ω				R19	470Ω			
R9	15K				R20	100Ω			
R10	1000Ω				R21	2700Ω			
R11	39K				R22	12Ω			
R12	27K				R23	270K			
									(10Ω) * (220K) *†

* Alternate Value.

† Not used in Model 4-C-45.

PRINTED BOARD

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PARTS LIST AND DESCRIPTIONS (Continued)

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		FIRESTONE PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	Workman TV PART No.	
L1	Loopstick	464032		2004		T528	
L2	Osc.	455084					
L3	1st IF	450026					
L4	2nd IF	450027					
L5	3rd IF	450028					

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		REPLACEMENT DATA					NOTES
			FIRESTONE PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T1	1.7	1	430580		TA-28	TR-4		

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	FIRESTONE PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2	300Ω CT	3-4Ω	430579		TA-20	TR-101①	① Use 4Ω Tap	

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	FIRESTONE PART No.	QUAM PART No.	
SPI	3"	PM	3-4Ω	409013		

BATTERIES

ITEM No.	VOLTAGE	FIRESTONE PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
M1	1.5V	①		930①		1015①		M-15R①	① 4 Required (radio)
M2	1.5V	②		930②		1015②		M-15R②	② 1 Required (Clock)

MISCELLANEOUS

ITEM No.	PART NAME	FIRESTONE PART No.	NOTES
M3	Tuning Cap.	590055	2 Gang
M4	Clock Ass'y.	384025	Model 4-C-50
	Clock Ass'y.	394021	Model 4-C-45

CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Indicator	272324	Model 4-C-50
Knob	272323	Tuning, Model 4-C-50
Knob	272309	Tuning, Model 4-C-45
Knob	272310	Volume
Knob	272322	Clock, Model 4-C-50
Knob	272311	Clock, Model 4-C-45
Handle	761132	
Cabinet	250670	Turquoise, Model 4-C-50
Cabinet	250671	Ebony, Model 4-C-50
Cabinet	250431	Ebony, Model 4-C-45
Cabinet	250430	Turquoise, Model 4-C-45
Cabinet Cover	250440	Turquoise, Model 4-C-45
Cabinet Cover	250610	Turquoise, Model 4-C-50
Cabinet Cover	250611	Ebony, Model 4-C-50
Cabinet Cover	250441	Ebony, Model 4-C-45

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

