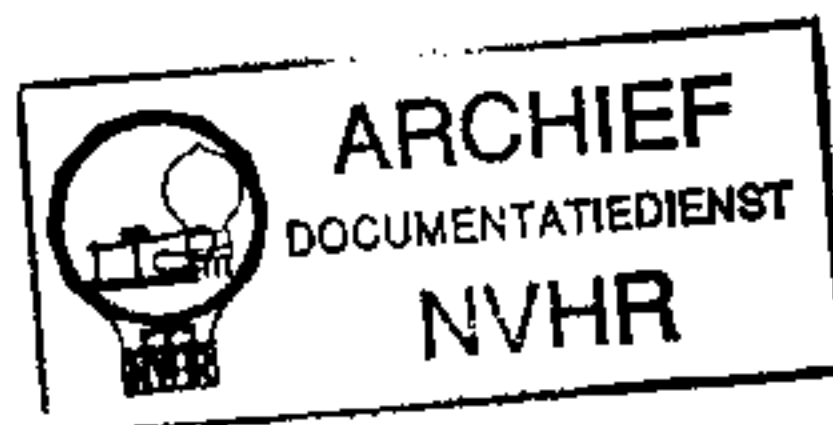


Met dank aan Jef Bos

Ned. Ver. v. Historie v/d Radio

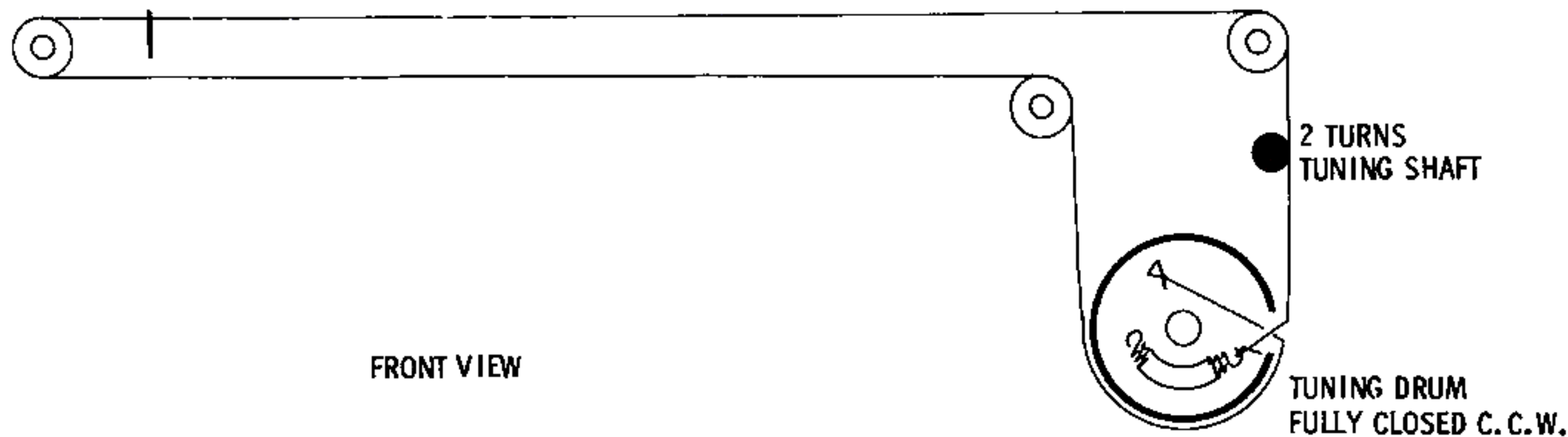


TRADE NAME	ITT Model 731		
SUPPLIER	ITT Distributor Products Div., International Telephone & Telegraph Corp., P.O. Box 99, Lodi, N. J.		
TYPE SET	Battery Operated 7 Transistor Portable AM Receiver		
POWER SUPPLY	9 Volts DC	RATING	14 MA @ 9 Volts DC (No Signal, Min. Volume)
TUNING RANGE—BROADCAST	535 — 1620KC		18MA @ 9 Volts DC (Signal, Normal Volume)

## ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT					
Use only enough generator output to provide a usable indication.					
Suggested Alignment Tools:					
A1 thru A6.....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	INDICATOR	ADJUST	REMARKS
1. Fashion loop of several turns of wire and radiate signal into loop of receiver.	455KC (Unmod.)	Tuning gang fully open.	DC VTVM across volume control.	A1, A2, A3	Adjust for maximum deflection.
2. "	1620KC	"	"	A4	"
3. "	540KC	Tuning gang fully closed.	"	A5	Adjust for maximum deflection while rocking tuning gang. Repeat Step 2.
4. "	1400KC	1400KC	"	A6	Adjust for maximum deflection.

## DIAL CORD STRINGING

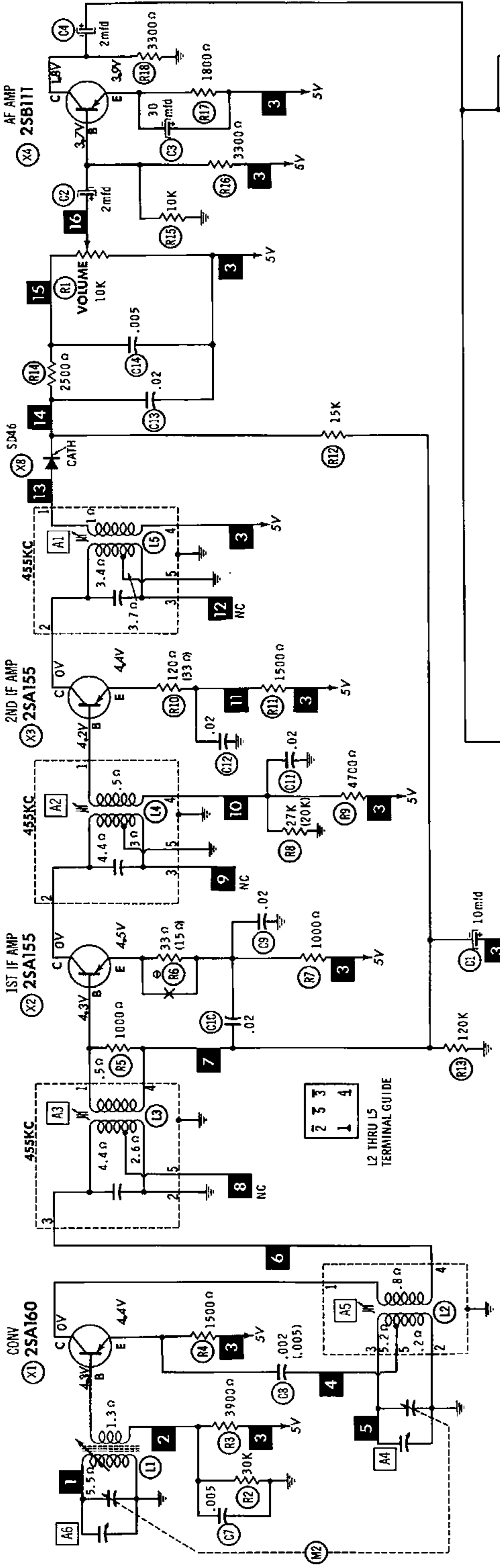


**HOWARD W. SAMS & CO., INC.** Indianapolis 6, Indiana

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 the particular type of replacement LF892

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. ©1963 Howard W. Sams & Co., Inc., Indianapolis 6, Indiana.

Printed in U.S. of America



**⊖** COLOR DOT  
**⊕** X1 THRU X7  
 TERMINAL GUIDE

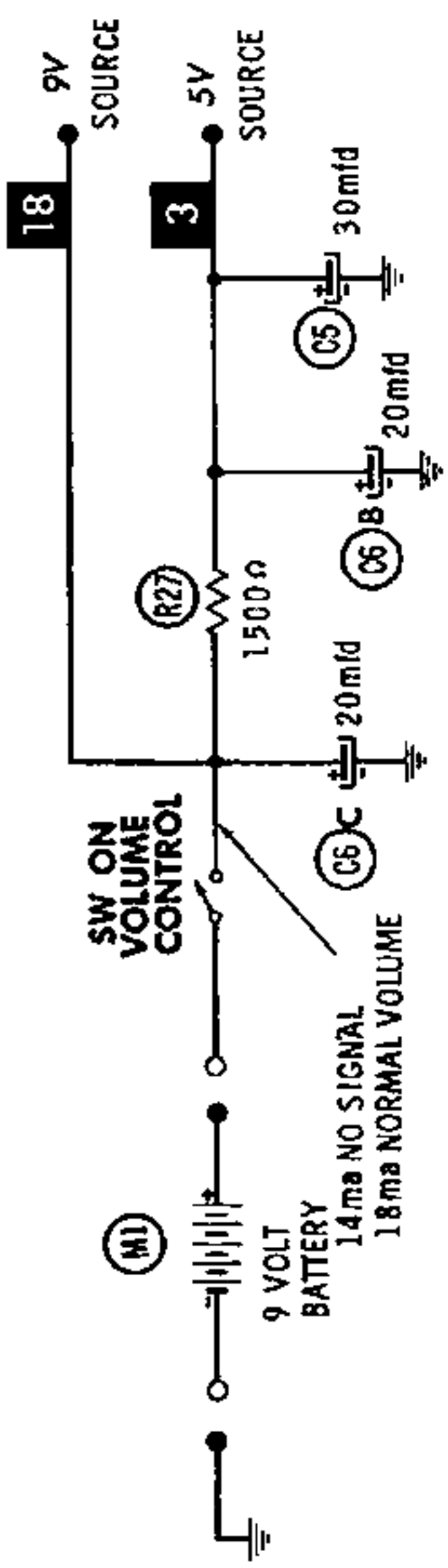
NUMBERS ASSIGNED TO COILS, SWITCHES, PLUGS, SOCKETS, AND TRANSFORMERS ARE TO FACILITATE CIRCUIT TRACING OR COMPONENT REPLACEMENT AND MAY NOT NECESSARILY BE FOUND ON THE UNIT.

SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

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 PHOTOFAC STANDARD NOTATION SCHEMATIC with CIRCUITACE

©Howard W. Sams & Co., Inc. 1963



# PARTS LIST AND DESCRIPTION

## WIRING DATA

General-use Unshielded Hook-up Wire ..... Use BELDEN No. 8530 (Solid 22AWG) Available in 12 Colors  
 8524 (Stranded 22AWG)  
 8570 (Stranded 26AWG)

### TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	
X1	2SA160	Converter	DS25	GE-1		PNP
X2	2SA155	1st IF Amplifier	DS25	GE-1		PNP
X3	2SA155	2nd IF Amplifier	DS25	GE-1		PNP
X4	2SB111	AF Amplifier	DS26	GE-2	2N406	PNP
X5	2SB111	Driver	DS26	GE-2	2N406	PNP
X6	2SB111	Output	DS26	GE-2	2N406	PNP
X7	2SB111	Output	DS26	GE-2	2N406	PNP

### POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	CURRENT RATING (Measured)	ORIGINAL Part or Type No.	RECTIFIERS		DIODES	NOTES
			RCA PART No.	SARKES TARZIAN PART No.		
X8		SD46				Detector

### ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	ITT 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	52-11311	PTT8	NLW10-8	MT1-5	TT5X10	MLV10-3	TE-1053
C2	2	12	52-02211	PTT49	NLW2-50	MT1-1	TT12X2	MLV2-12	TE-1121
C3	30	6	52-13611	PTT27	NLW30-6	MT1-13	TT6X30	MLV30-6	TE-1092
C4	2	12	52-02211	PTT49	NLW2-50	MT1-1	TT12X2	MLV2-12	TE-1121
C5	30	6	52-13611	PTT27	NLW30-6	MT1-13	TT6X30	MLV30-6	TE-1092
C6A	20	10	52-12011						
B	20	10							
C	20	10							

### FIXED CAPACITORS

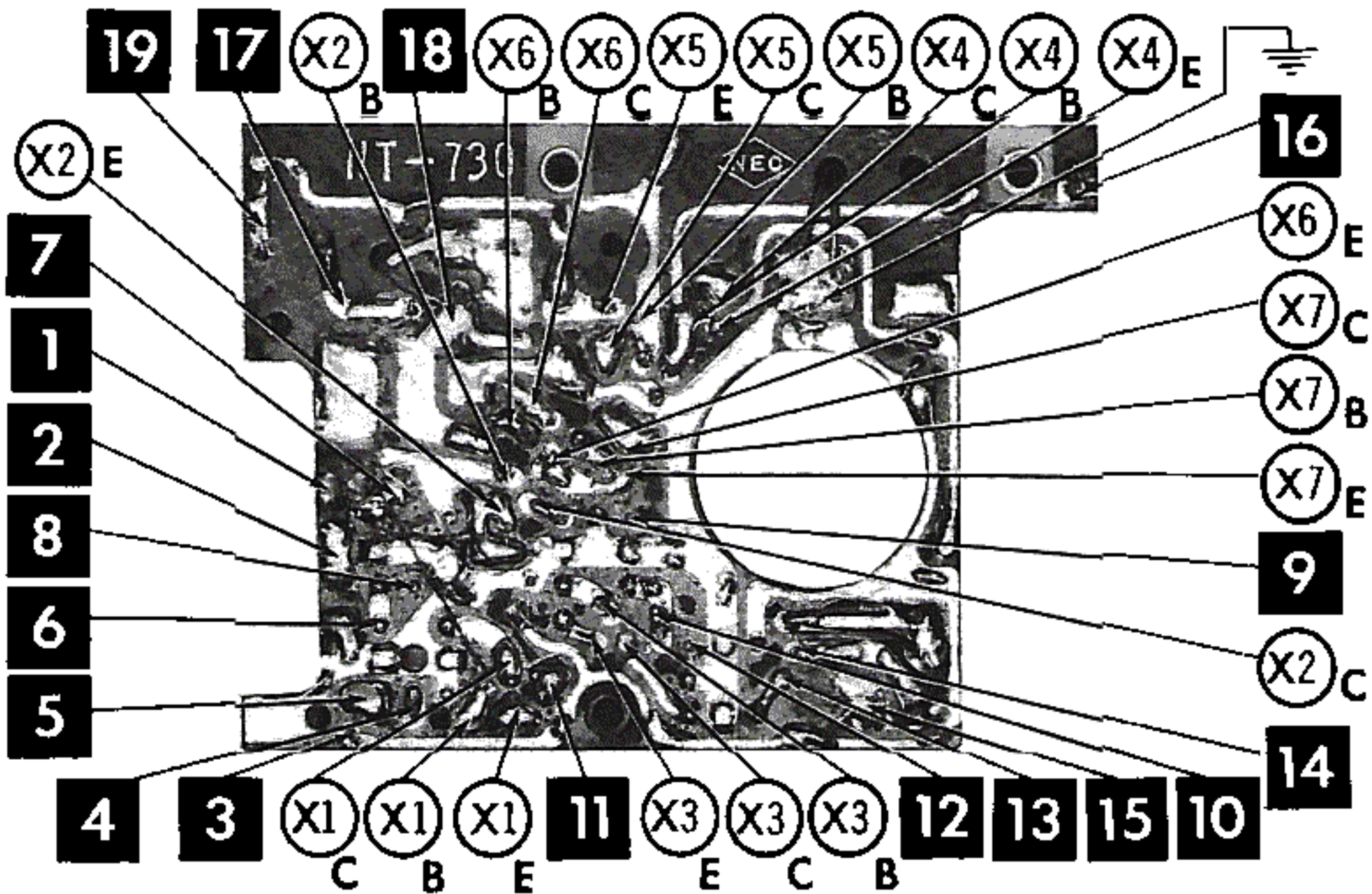
ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C7	.005	(.005) †	TTD-005	DM-502	H05D5	CCD-502	TA-250	TG-D50
C8	.002		TTD-02	DM-202	H05S2	CCD-202	TA-120	TG-S20
C9	.02		TTD-02	DA-203	H05S2		TA-120	TG-S20
C10	.02		TTD-02	DA-202	H05S2		TA-120	TG-S20
C11	.02		TTD-02	DA-202	H05S2		TA-120	TG-S20
C12	.02	TTD-02	DA-202	H05S2		TA-120	TG-S20	
C13	.02	TTD-02	DA-202	H05S2		TA-120	TG-S20	
C14	.005	(.005) †	TTD-005	DM-502	H06D6	CCD-502	TA-250	TG-D50
C15	.001		TTD-05	DM-102	H05D1	CCD-102		
C16	.05		TTD-05	DA-503	H05S5			TH-S50
C17	500							

† Alternate Value

### CONTROLS

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

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA				
			ITT PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Volume & Switch	10K	12-31029				



# PARTS LIST AND DESCRIPTION (CONTINUED)

## 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	30K				R15	10K			
R3	3900Ω				R16	3300Ω			
R4	1500Ω				R17	1800Ω			
R5	1000Ω				R18	3300Ω			
R6	33Ω			(15Ω) *	R19	47K 5%			
R7	1000Ω				R20	4700Ω			
R8	27K			(20K) †	R21	1800Ω			
R9	4700Ω				R22	6900Ω			
R10	120Ω			(33Ω) †	R23	200Ω			
R11	1500Ω				R24	250Ω Cold			#D32S
R12	15K				R25	10Ω			
R13	120K				R26	22K			
R14	2500Ω				R27	1500Ω			

\* Value varies or item may be omitted. † Value varies. Replace with original value. # ITT Part Number.

## COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		ITT PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	Workman PART No.	
L1	Loopstick	31-3590					
L2	Osc.	31-3600					
L3	1st IF	31-3131	BC-574				
L4	2nd IF	31-3132	BC-575				
L5	3rd IF	31-3133	BC-576				

## TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		REPLACEMENT DATA					NOTES
	PRI.	SEC.	ITT PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	1.5	1	31-3618					

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	ITT PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2	850Ω CT	6-8Ω	31-3629					

## BATTERIES

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

## MISCELLANEOUS

ITEM No.	PART NAME	ITT PART No.	NOTES
M2	Tuning Cap. Earphone	50-00278 01-52041	2 Gang

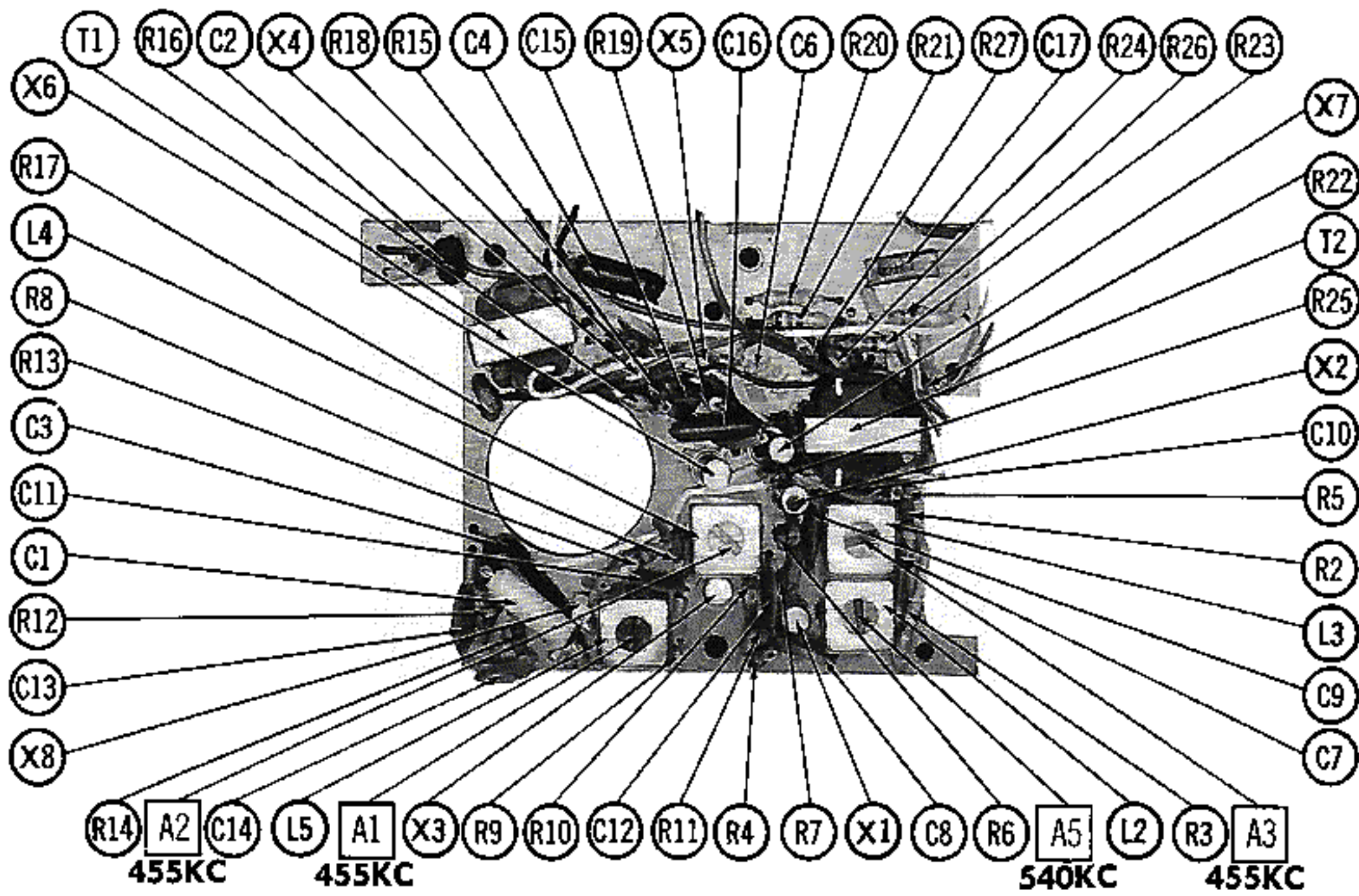
## SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA	
	SIZE	FIELD	V. C. IMP.	ITT PART No.	QUAM PART No.
SP1	2 1/4"	PM	6-8Ω	02-00354	

## CABINETS & CABINET PARTS

(When Ordering Specify Model, Chassis & Color)

NAME	PART NO.	NOTES
Dial Pointer	01-37019	
Dial Face	01-30433	
Dial Back Plate	01-30316	
Knob	01-36965	Tuning
Knob	01-36966	Volume
Cabinet	01-30427	Front
Cabinet	01-30430	Back



T1 R16 C2 X4 R18 R15 C4 C15 R19 X5 C16 C6 R20 R21 R27 C17 R24 R26 R23

X6

R17

L4

R8

R13

C3

C11

C1

R12

C13

X8

X7

R22

T2

R25

X2

C10

R5

R2

L3

C9

C7

R14 A2 C14 L5 A1 X3 R9 R10 C12 R11 R4 R7 X1 C8 R6 A5 L2 R3 A3

455KC

455KC

540KC

455KC