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**CAPITAL
MODEL ND-309**



NOTICE
ONLY THOSE PERSONS PROPERLY LICENSED ARE PERMITTED TO MAKE REPAIRS OR ADJUSTMENTS WHICH MAY RESULT IN ILLEGAL OPERATION. (REFER TO FCC RULES & REGULATIONS PART 19, SUBPART D, SECTION 19.71.)

TRADE NAME	Capital Model ND-309		
SUPPLIER	Associated Importers, 1168 Battery Street, San Francisco 11, California		
TYPE SET	Battery Operated 9 Transistor Portable Citizens Band Transmitter-Receiver		
POWER SUPPLY	9 Volts DC	RATING	8MA @ 9 Volts DC, Receive (No Signal, Min. Volume)
			12MA @ 9 Volts DC, Receive (Signal, Normal Volume)
			22MA @ 9 Volts DC, Transmit (No Signal)
			30MA @ 9 Volts DC, Transmit (Modulated)
TUNING RANGE	Any one of Citizens Band Channels 1 thru 22		

ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT
Best results will be obtained when adjusting A5 and A7 if the antenna normally used is connected and the unit is as nearly in the cabinet as possible.
Suggested Alignment Tools:
A1, A2, A3..... GENERAL CEMENT #5000, 5003, 5066, 8276, 8290, 9087, 9089
WALSCO #2512, 2525, 2528

RECEIVER ALIGNMENT
Connect DC VTVM across Volume Control.

SIGNAL GENERATOR	CHANNEL	ADJUST	REMARKS
1. High side thru .005mfd to the base of X1, low side to ground. (Tune to 455KC Unmod.)		A1, A2, A3	Adjust for maximum deflection.
2. Fashion loop of several turns of wire and radiate signal into loop of receiver.	Highest Channel Used	A4	Adjust for maximum deflection. Rock A4 to each side of peak. Note Rate of dropoff and set just below peak, on side of gradual dropoff.
3. "	Channel Desired	A5	Adjust for maximum deflection.

TRANSMITTER ALIGNMENT
ONLY THOSE PERSONS PROPERLY LICENSED ARE PERMITTED TO MAKE REPAIRS OR ADJUSTMENTS WHICH MAY RESULT IN ILLEGAL OPERATION. (REFER TO FCC RULES & REGULATIONS PART 19, SUBPART D. SECTION 19.71)

SPECIAL INSTRUCTIONS	INDICATOR	ADJUST	REMARKS
1. Connect dummy load or antenna to antenna terminal.	DC VTVM Across R26.	A6, A7	Adjust for maximum deflection. Observe meter carefully while adjusting A6.

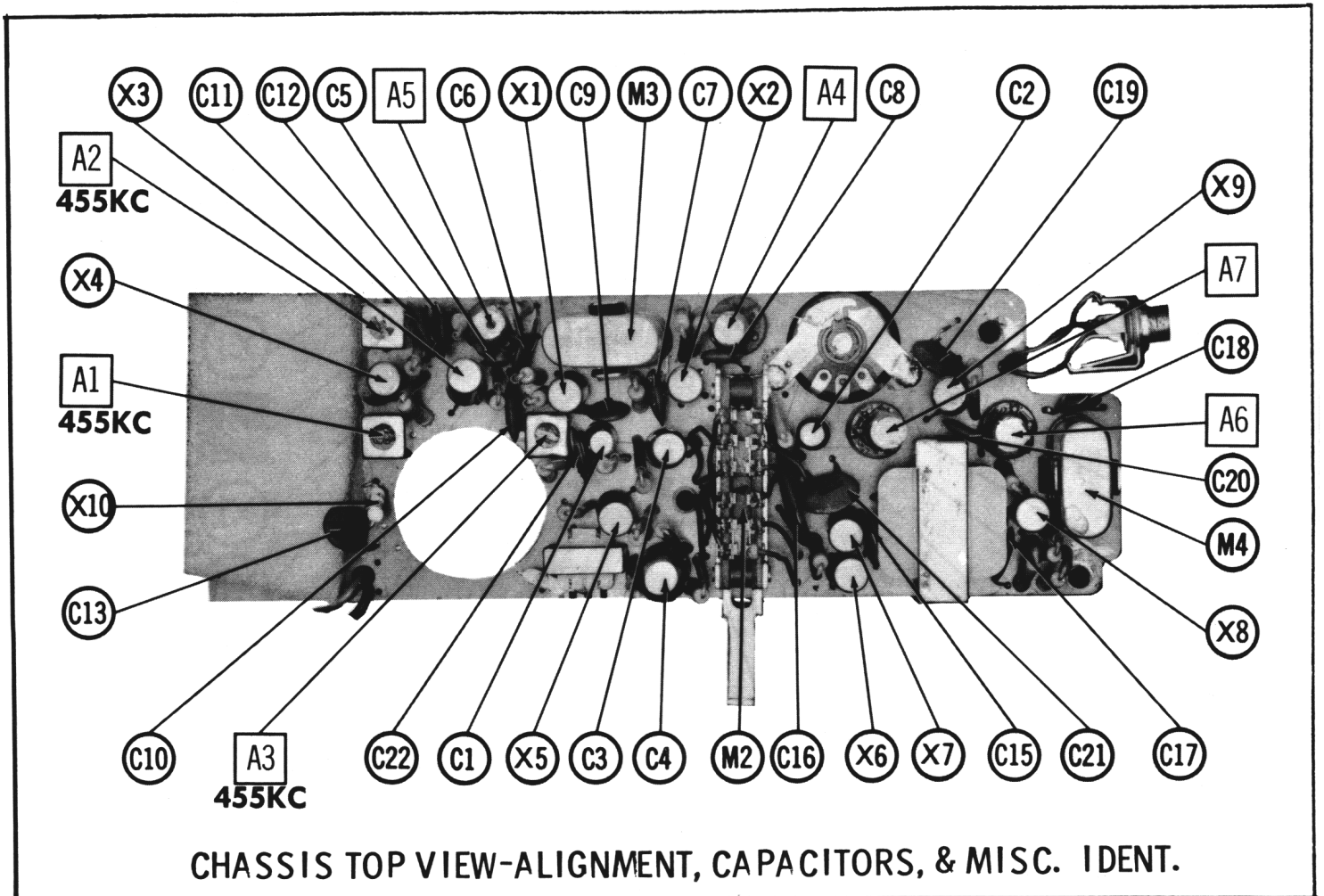
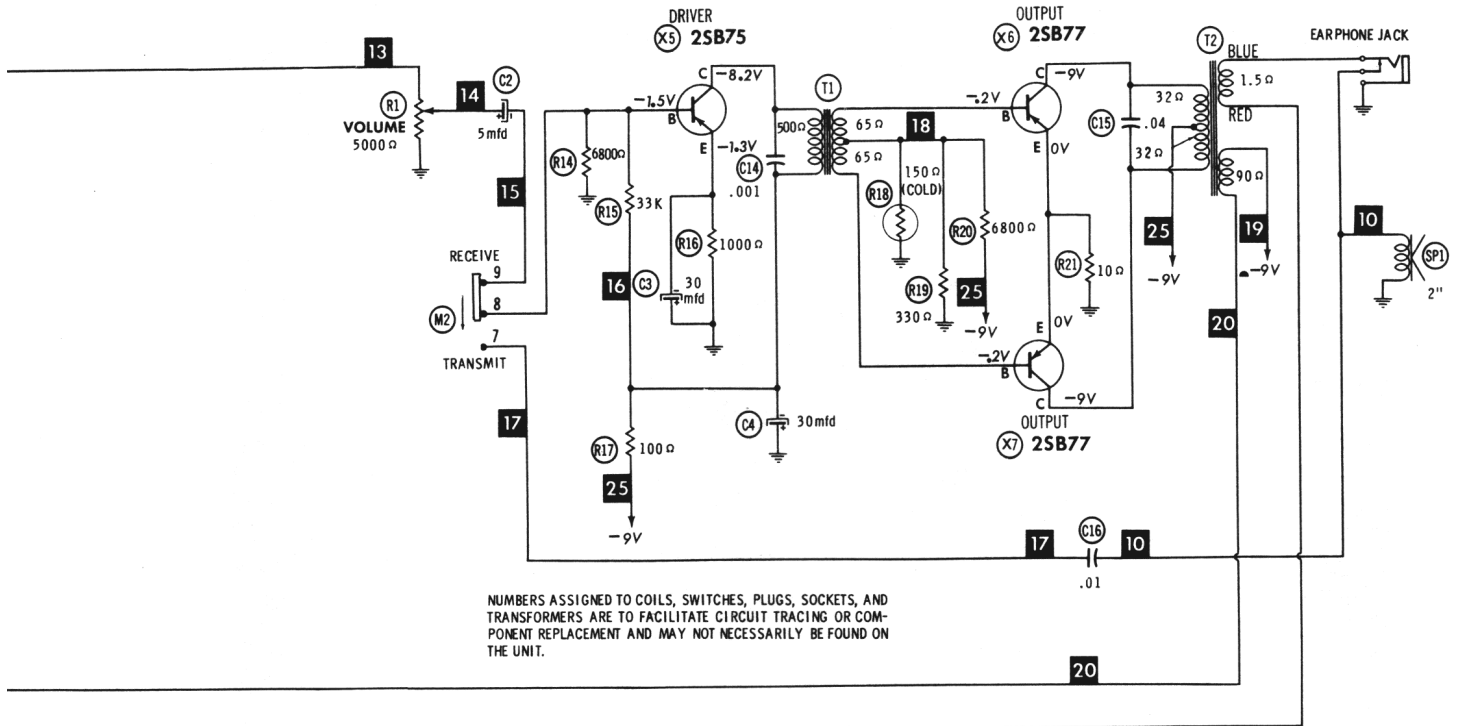
**CAPITAL
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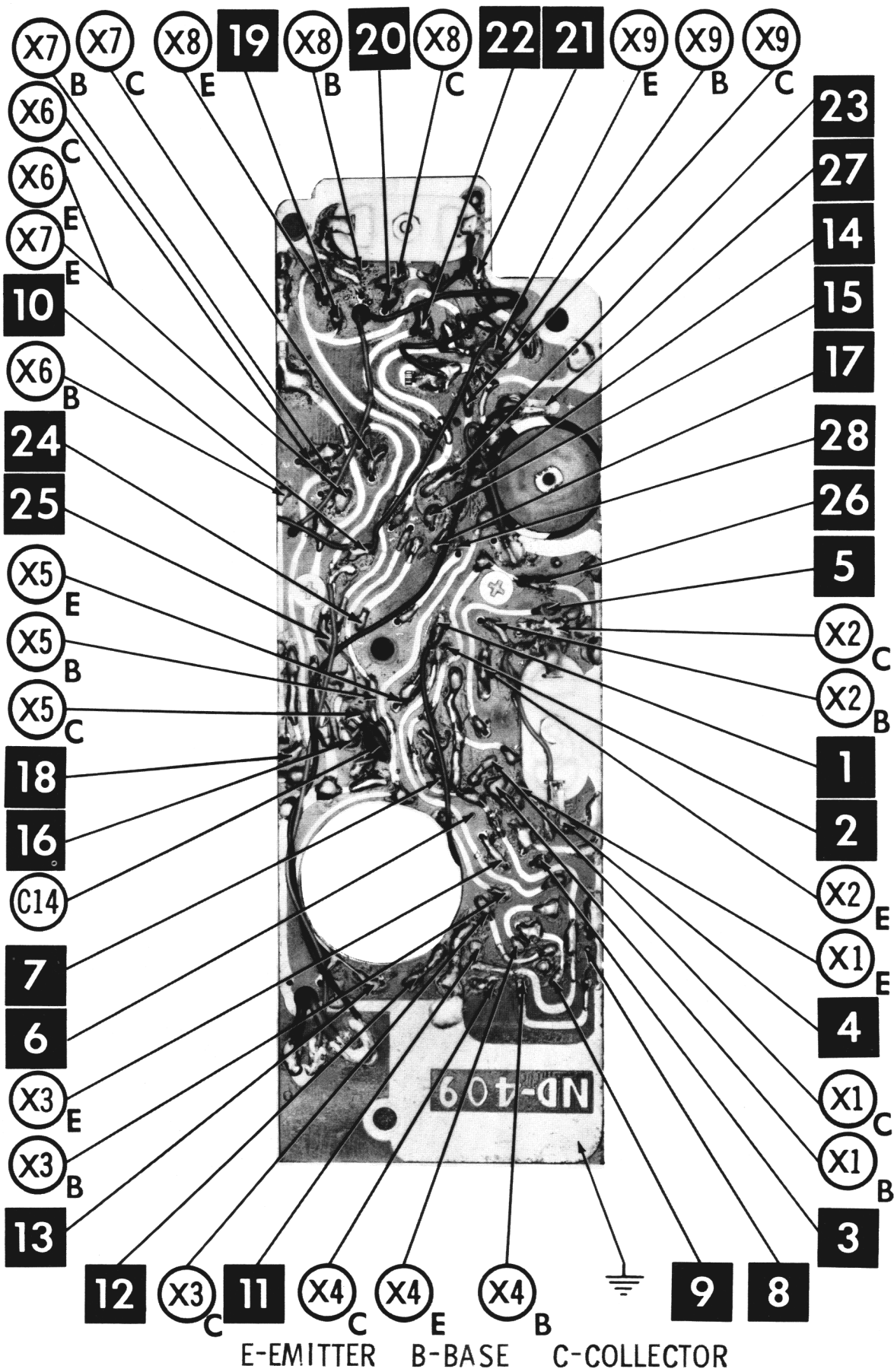
HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana



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 LY629

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PARTS LIST AND DESCRIPTIONS

TRANSISTORS

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

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA		NOTES
			GENERAL ELECTRIC PART No.	RCA PART No.	
X1	25A82	Receive Mixer	GE-1		PNP
X2	25A80	Receive Oscillator	GE-1		PNP
X3	25A83	1st IF Amplifier	GE-1		PNP
X4	25A83	2nd IF Amplifier	GE-1		PNP
X5	25B75	Driver	GE-2	2N408	PNP
X6	25B77	Output-Modulator	GE-2	2N408	PNP
X7	25B77	Output-Modulator	GE-2	2N408	PNP
X8	25A80	Transmit-Oscillator	GE-1		PNP
X9	25A235	Final Amplifier	GE-1		PNP

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	CURRENT RATING (Measured)	ORIGINAL Part or Type No.	RECTIFIERS		NOTES
			SARKES RCA PART No.	TARZIAN PART No.	
X10		1N34A			Detector

ELECTROLYTIC CAPACITORS

ITEM No.	RATING CAP. VOIT.	CAPITAL PART No.	REPLACEMENT DATA				SPRAGUE PART No.	
			AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.		PYRAMID PART No.
C1	10		CRE407	ECPB408	MTI-5	PET1840	MLV10-10	VL-1127
C2	5		CRE204	ECPB405	MTI-3	TT8X5	MLV5-3	VL-1035
C3	30		BCD3025	ECPB412	MTI-13	TT8X30	MLY30-6	VL-1043
C4	30		BCD10025	ECPB412		TT10X30	MLY35-15	VL-1132

FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	EIMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C5	20		TTD-005	DD-200	LI042	CCD-200	GP430	5GA-Q20
C6	.005		TTD-02	DDM-502	H-05D5		TA-250	TG-D50
C7	.02		TTD-02	DD-300	H-05S2		GP430	TG-S20
C8	30		TTD-005	DDM-502	H-05D5		TA-250	5GA-Q30
C9	.005		TTD-005	DDM-502	H-05D5		TA-250	TG-D50
C10	.04		TTD-001	DM-102	H-05D1			
C11	.04		TTD-01	DDA-104	H-05P1		TA-120	TG-P10
C12	.02		TTD-02	DDM-203	H-05S2		GP430	TG-S20
C13	.005		TTD-02	DDM-203	H-05S2		TA-120	5GA-Q30
C14	.001		TTD-01	DDM-103	H-05S1		TA-110	TG-S10
C15	.04		BFD-0002	DD-201	LI072		GP320	5GA-T20
C16	.1							
C17	.02							
C18	.02							
C19	.001							
C20	.01							
C21	200							
C22	.04							

CONTROLS

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

ITEM No.	USE	REPLACEMENT DATA			
		CAPITAL PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	MALLORY PART No.
R1	Volume & Switch	50002			

RESISTORS

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

ITEM No.	RATING	REMARKS	REPLACEMENT DATA		ITEM No.	RATING	REMARKS	REPLACEMENT DATA	
			IRC PART No.	WORKMAN PART No.				IRC PART No.	WORKMAN PART No.
R2	1000Q				R15	33K			
R3	56K				R16	1000Q			
R4	5600Q				R17	1000			
R5	56K				R18	1500 Cold			
R6	4700Q				R19	330Q			
R7	1000Q				R20	6800Q			
R8	82K				R21	10Q			
R9	3000Q				R22	33K			
R10	40K				R23	10K			
R11	100Q				R24	470Q			
R12	10K				R25	100Q			
R13	10K				R26	100Q			
R14	6800Q				R27	100Q			

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		CAPITAL PART No.	Meritt PART No.	Miller PART No.	Stancor PART No.	
L1	Receive RF					
L2	Receive Osc.					
L3	1st IF					
L4	2nd IF					
L5	3rd IF					
L6	Transmit Osc.					
L7	Final					

TRANSFORMER (DRIVER)

ITEM No.	REPLACEMENT DATA				NOTES
	CAPITAL PART No.	MERIT PART No.	STANCOR PART No.	THORNDARSON PART No.	
T1					

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	REPLACEMENT DATA				NOTES
	CAPITAL PART No.	Meritt PART No.	Stancor PART No.	Thordarson PART No.	
T2					

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		CAPITAL PART No.	QUAM PART No.	
SPL	2" PM 6-8Q			

BATTERIES

ITEM No.	VOLTAGE	REPLACEMENT DATA				NOTES
		CAPITAL PART No.	BURGESS PART No.	EVEREADY PART No.	MALLORY PART No.	
M1	9V					

MISCELLANEOUS

ITEM No.	PART NAME	CAPITAL PART No.	NOTES
M3	Crystal		Receive-Transmit
M4	Crystal		Receive-Transmit

WIRING DATA

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