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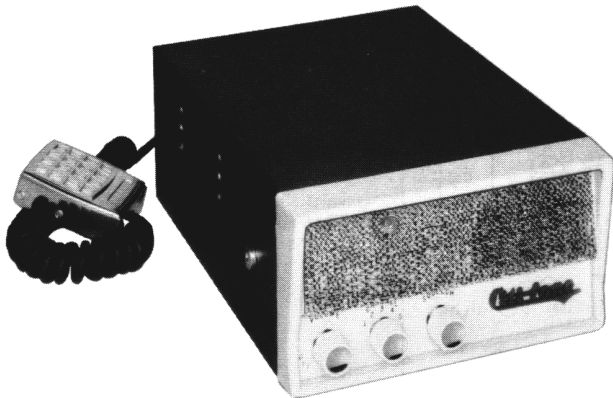
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**NOTICE**

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	Citi-Fone Models CD-6/6 CD-6/12		
MANUFACTURER	Multi-Products Co., 21470 Coolidge Highway, Oak Park 37, Michigan		
TYPE SET	AC-Battery Operated 9 Tube Citizens Band Transmitter-Receiver		
POWER SUPPLY	110 - 120 Volts AC, 60 Cycles (or) 6 Volt Storage Battery (or) 12 Volt Storage Battery		
RATING	Receive: 48 Watts, .44 Amp. @117 Volts AC	Transmit: 60 Watts, .55 Amp. @117 Volts AC	
	2.8 Amp. @12.6 Volts DC	3.6 Amp. @12.6 Volts DC	
	5.6 Amp. @6.3 Volts DC	7.2 Amp. @6.3 Volts DC	
TUNING RANGE	Any 5 of Citizens Band Channels 1 thru 22		

## ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools:	
A1 thru A7.....	GENERAL CEMENT #8282, 8606, 8606-L, 9295, 9440 WALSCO #2526, 2543, 2544, 2545
A8, A9, A10.....	GENERAL CEMENT #5000, 5003, 5066, 8271, 8272, 8276, 8277, 8290, 8609, 8722, 9150, 9298 WALSCO #2515, 2516, 2518, 2519, 2525, 2541

### RECEIVER ALIGNMENT

Connect DC probe of VTVM to point  $\Delta$ , common to ground.

	SIGNAL GENERATOR	CHANNEL	ADJUST	REMARKS
1.	High side to pin 7 (grid) of V2, common to ground. Tune to 455KC (Unmod.).	Any	A1, A2, A3, A4, A5, A6	Adjust for maximum deflection. Repeat as required.
2.	Across antenna terminals. Tune to channel frequency.	Center Channel	A7	Adjust for maximum deflection.

### TRANSMITTER ALIGNMENT

Best results will be obtained when adjusting A9 and A10 if the antenna normally used is connected to the unit and the chassis is as nearly in the cabinet as possible.

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	SPECIAL INSTRUCTIONS	INDICATOR	ADJUST	REMARKS
1.	Connect antenna or dummy load.	DC VTVM across R41 (V9 Grid).	A8	Key transmitter. Adjust for maximum deflection.
2.	"	RF wattmeter or field strength meter.	A9, A10	Key transmitter. Adjust for maximum output.

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

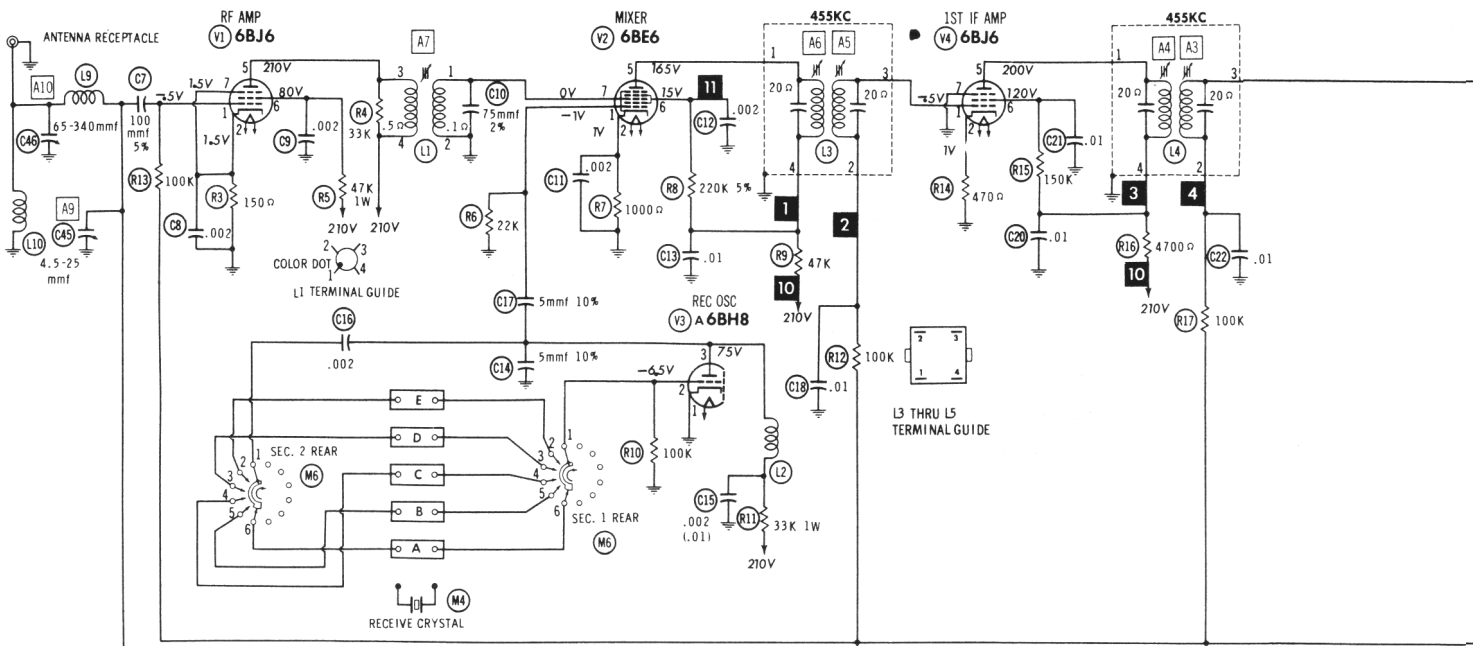


The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement LY766

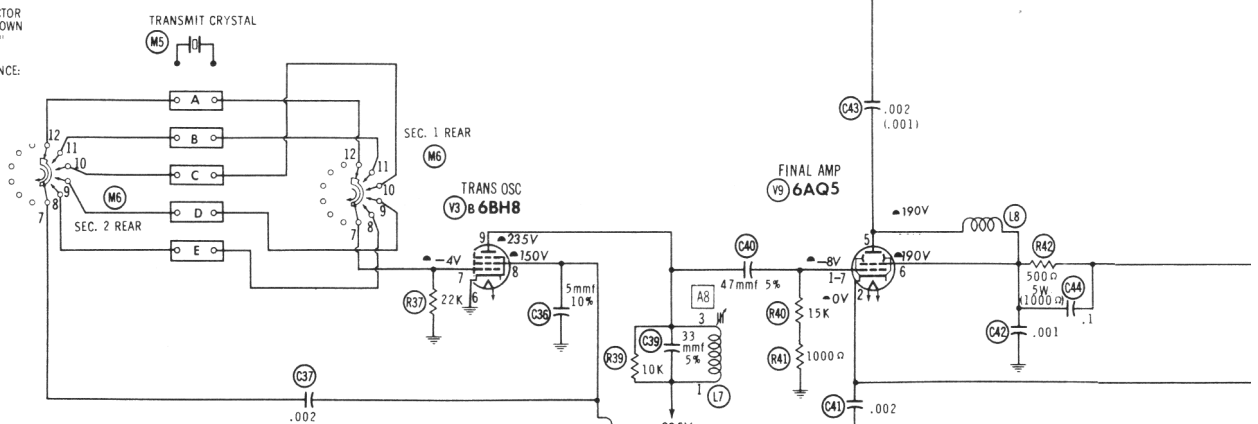
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**CITI-FONE MODELS  
CD-6/6, CD-6/12**



CHANNEL SELECTOR SWITCH M6 SHOWN IN "CHANNEL A" POSITION. SWITCH SEQUENCE: 1. CHANNEL A, 2. CHANNEL B, 3. CHANNEL C, 4. CHANNEL D, 5. CHANNEL E



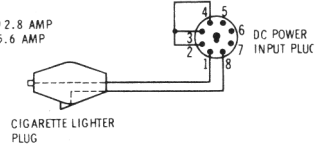
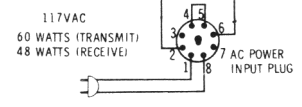
RESISTANCE READINGS

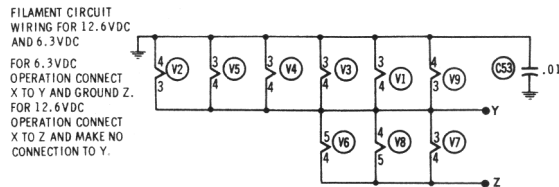
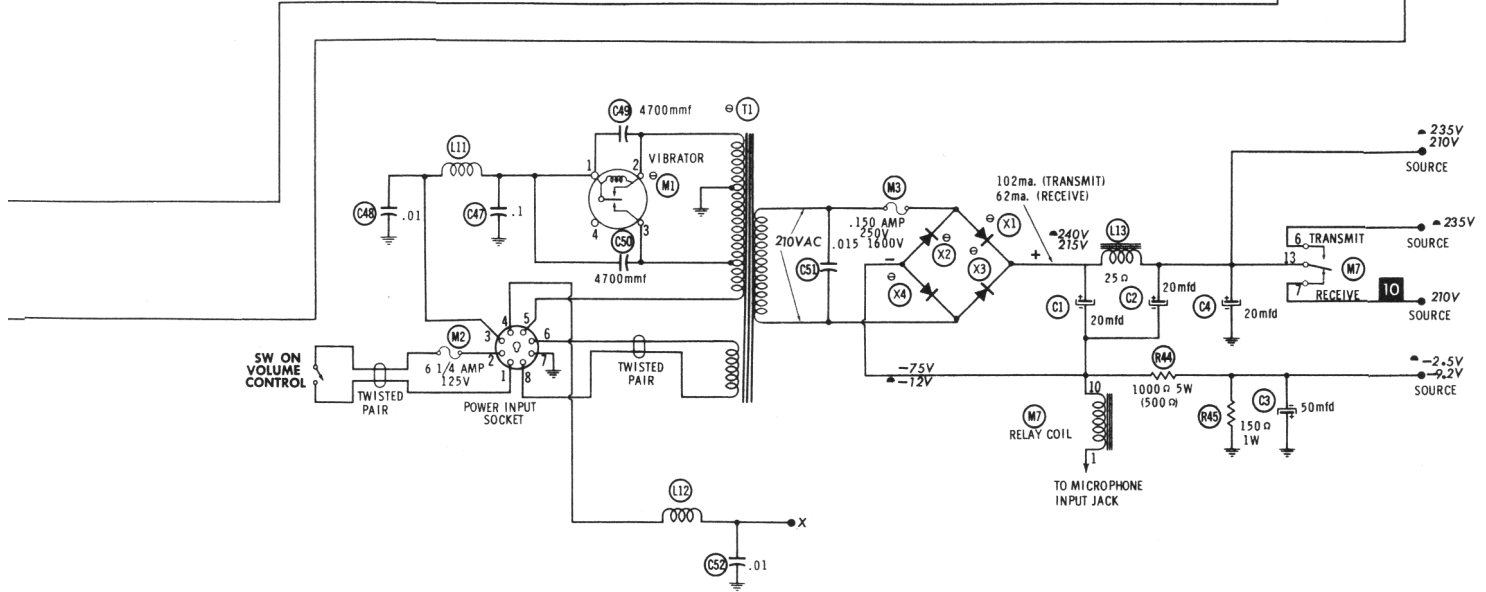
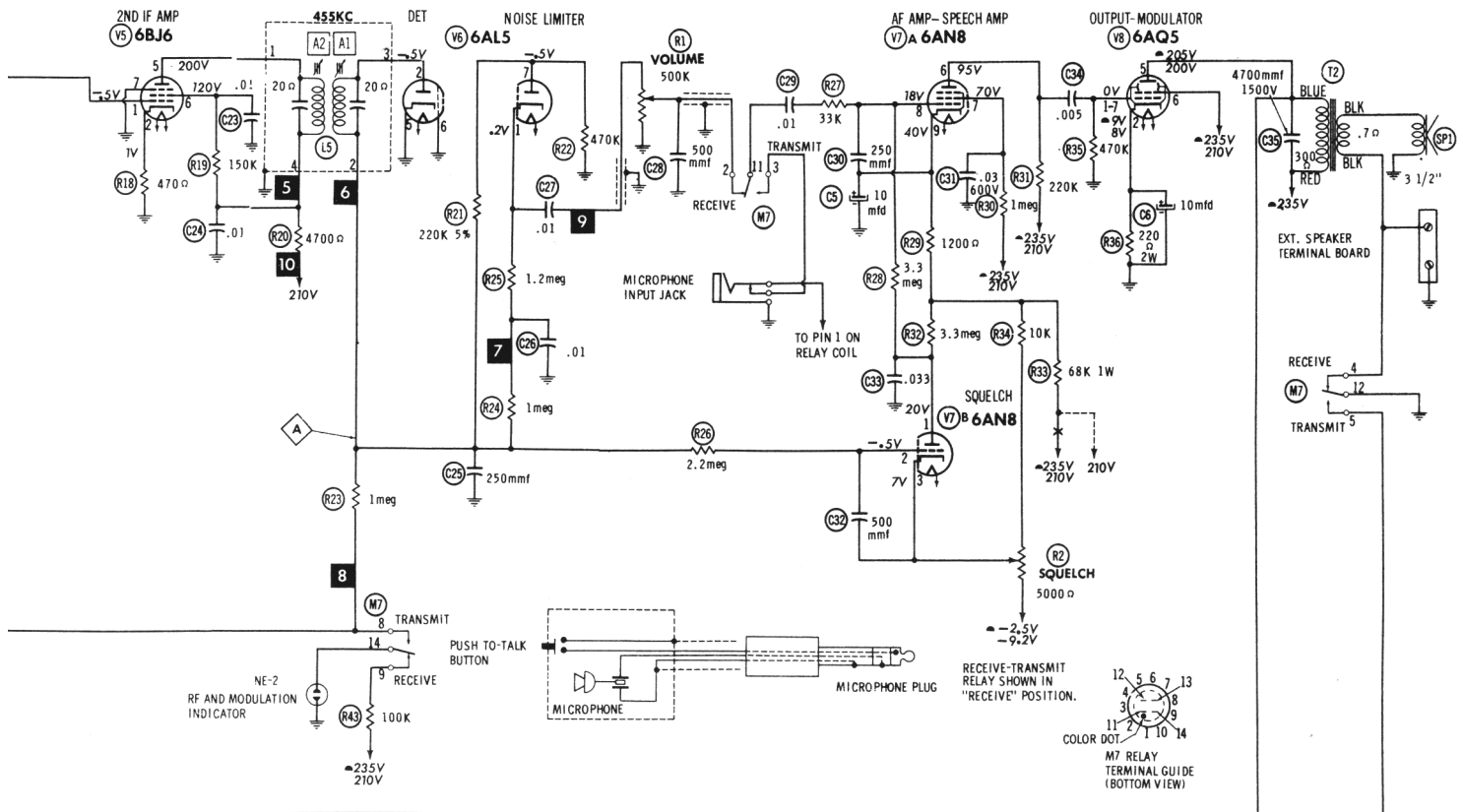
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	6BJ6	1.8meg	150Ω	FIL	FIL	†25Ω	†47K	150Ω		
V2	6BE6	22K	1000Ω	FIL	FIL	†47K	†270K	.1Ω		
V3	6BH8	0Ω	100K	†33K	FIL	FIL	0Ω	22K	†22K	†25Ω
V4	6BJ6	1.8meg	470Ω	FIL	FIL	†4700Ω	†155K	0Ω		
V5	6BJ6	1.8meg	470Ω	FIL	FIL	†4700Ω	†155K	0Ω		
V6	6AL5	2.7meg	700K	FIL	FIL	0Ω	0Ω	470K		
V7	6AN8	†3.4meg	2.9meg	5000Ω	FIL	FIL	†220K	†1meg	16.7meg	15K
V8	6AQ5	470K	220Ω	FIL	FIL	†325Ω	†25Ω	470K		
V9	6AQ5	16K	0Ω	FIL	FIL	†825Ω	†825Ω	16K		

ALL READINGS MADE IN "RECEIVE" POSITION UNLESS OTHERWISE DESIGNATED.   
 ▲ TAKEN IN "TRANSMIT" POSITION. † MEASURED FROM JUNCTION OF X1 AND X3.

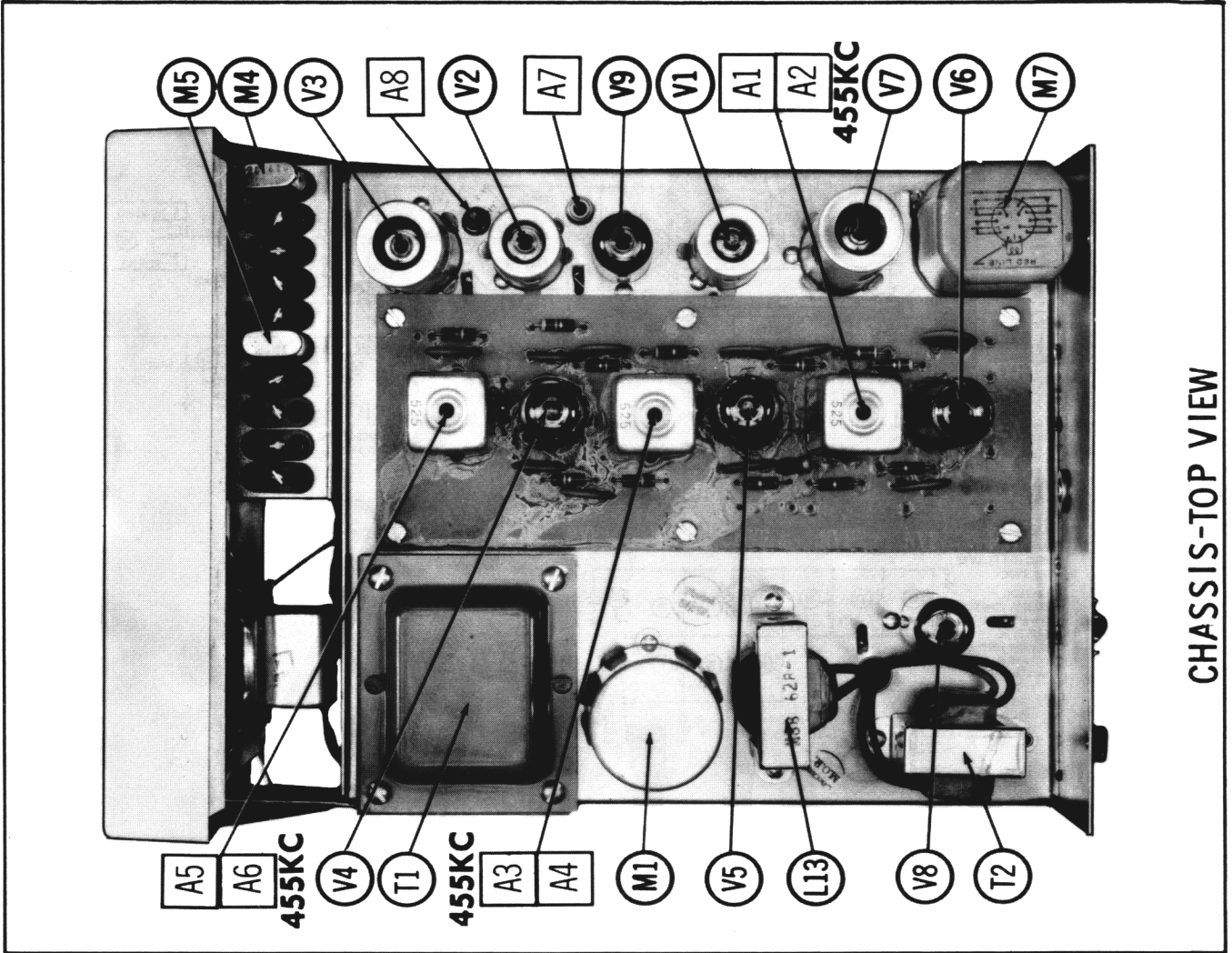
- SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION
- DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured with 1000 ohm per volt voltmeter.
  - Socket connections are shown as bottom views.
  - Measured values are from socket pin to common ground.
  - Line voltage maintained at 117 volts for voltage readings.
  - Nominal tolerance of component values makes possible a variation of ±1% in voltage and resistance readings.

A PHOTOFAC STANDARD NOTATION SCHEMATIC with **CIRCUITRACE**

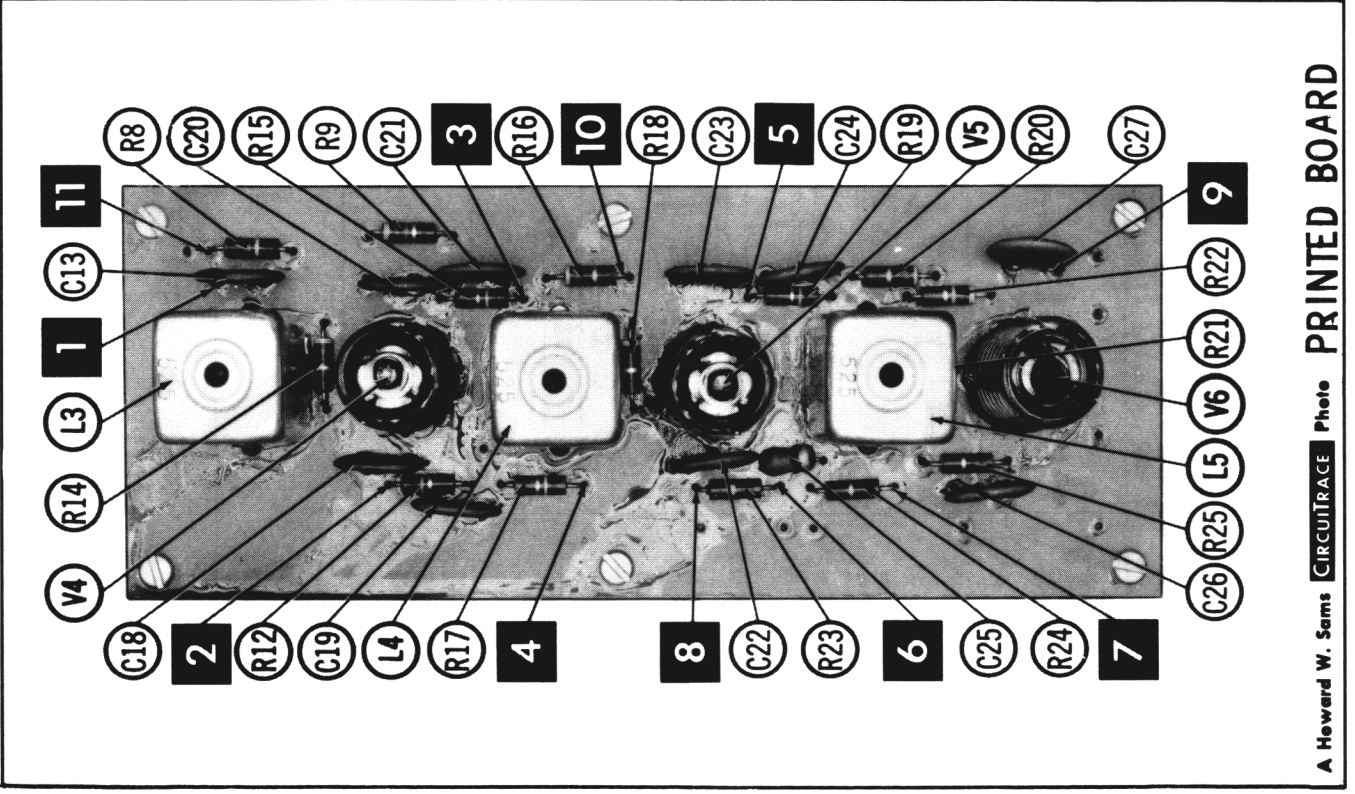




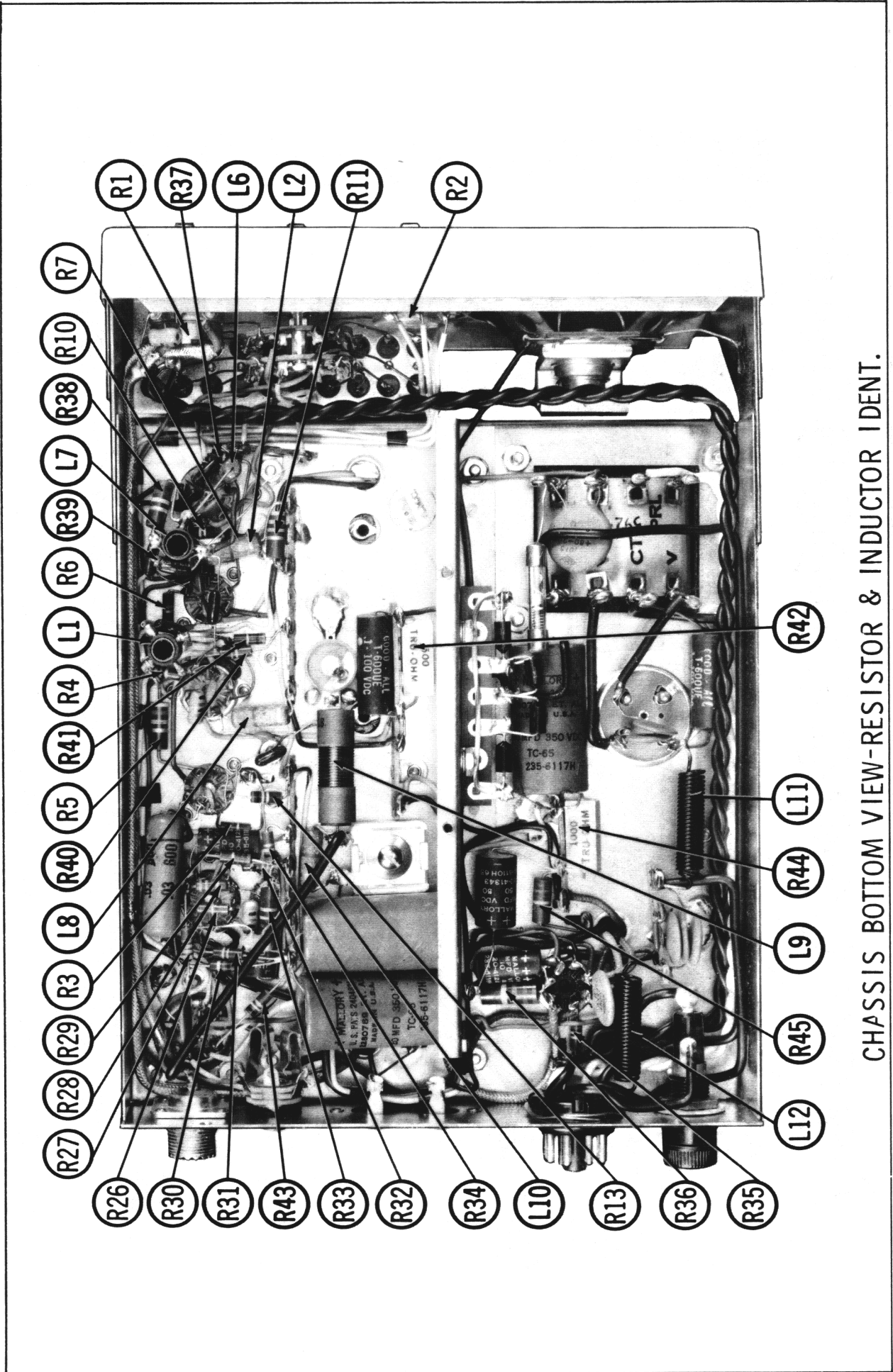
CITI-FONE MODELS  
CD-6/6, CD-6/12



CHASSIS-TOP VIEW



A Howard W. Sams CIRCUITRACE Photo PRINTED BOARD



CHASSIS BOTTOM VIEW-RESISTOR & INDUCTOR IDENT.



# PARTS LIST AND DESCRIPTION

## FIXED CAPACITORS (cont)

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELEMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C34	500		CI-500	DD-501	LI0T5	CCD-501	GP350	10TS-T50
C35	4700 1500V		DAC-0047	DD16-502	HVE16 D47	3CCD-502	2HV-247	30GA-D47
C36	5 10%		ADM-15-05	DD-050	LI0V5	CCD-050	GP550	10TS-Y50
C37	.002		BPD-002	DD-202	LI0D2	CCD-202	GP220	10TS-D20
C38	.002		BPD-002	DD-202	LI0D2	CCD-202	GP220	10TS-D20
C39	33 5%		ADM-15-330	DTZ-33	22R5Q33	DM-15-330J		MS-433
C40	47 5%		ADM-15-470	DTZ-47	22R5Q47	DM-15-470J		MS-447
C41	.002		BPD-002	DD-202	LI0D2	CCD-202	GP220	10TS-D20
C42	.001		BPD-001	DD-102	LI0D2	CCD-102	GP220	10TS-D10
C43	.1 100V	(.001) †	BPD-002	DD-202	LI0D2	CCD-202	GP220	10TS-D20
C44	65-340		P288N-1	DD-202	CUB2P1	1DP-2-104	GEM-201	5GAB-P10
C45	4.5 -25			822-AZ		303		5GAB-P10
C46	65-340		P288N-1	DF-104	CUB2P1	IDP-2-104	GEM-201	10TS-S10
C47	.1 100V		BPD-01	DD-103	BYA10S1	CCD-103	GP110	10TS-D47
C48	.01		BPD-0047	DD-472	LI0D47	CCD-472	GP247	10TS-D47
C49	4700		BPD-0047	DD-472	LI0D47	CCD-472	GP247	10TS-D47
C50	4700		BPD-0047	DD-472	LI0D47	CCD-472	GP247	10TS-D47
C51	.015 1600V		BPD-01	DD16-153	HVE16S15	CCD-103	2HV-110	30GA-S10
C52	.01		BPD-01	DD-103	BYA10S1	CCD-103	GP110	10TS-S10
C53	.01		BPD-01	DD-103	BYA10S1	CCD-103	GP110	10TS-S10

† Alternate Value.

## ELECTROLYTIC CAPACITORS

ITEM No.	RATING CAP. VOLTS.	Circuit-Fone 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	20	350	PRSI735	BR20-350	QTI-9	TC-45	TD-20-350	TVA-1608
C2	20	350	PRSI735	BR20-350	QTI-9	TC-45	TD-20-350	TVA-1608
C3	50	50	P1T98	NLW50-50	MTI-17	TT50X50	TT-1307	TE-1307
C4	20	350	PRSI735	BR20-350	QTI-9	TC-45	TD-20-350	TVA-1608
C5	10	50	P1T92	NLW10-50	MTI-6	TT50X10	MLV10-50	TE-1304
C6	10	50	P1T92	NLW10-50	MTI-6	TT50X10	MLV10-50	TE-1304

## CONTROLS

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

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA			
			Circuit-Fone PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.
R1	Volume & Switch	500K	(713)	B-40-S or (F9-500K, KR-1, AK-31, SU204)	A47-500K-Z, SWE-12, FS-3 GC	BU2, CF#5, SSI, SF1000
R2	Squelch	5000Ω	(714)	B-10 or (F1-5000, SU204)	A47-5000-S, FS-3	BU2, CF#5, SSI, DC1

## FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELEMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C7	100 5%		ADM-15-101	DTZ-100	22R5T1	DM-15-101J	MCE-235	10TCC-T10
C8	.002		BPD-002	DD-202	LI0D2	CCD-202	GP220	10TS-D20
C9	.002		BPD-002	DD-202	LI0D2	CCD-202	GP220	10TS-D20
C10	75 2%		ADM-15-750	DTZ-75	22R5Q75	DM-15-750G	MCE-230	10TS-D20
C11	.002		BPD-002	DD-202	LI0D2	CCD-202	GP220	10TS-D20
C12	.002		BPD-01	DD-103	LI0V5	CCD-050	GP550	10TS-S10
C13	.002		BPD-01	DD-103	LI0V5	CCD-050	GP550	10TS-S10
C14	5 10%		ADM-15-050	DTZ-5	LI0V5	CCD-050	GP550	10TS-D20
C15	.002		BPD-002	DD-202	LI0D2	CCD-202	GP220	10TS-D20
C16	.002		BPD-002	DD-202	LI0D2	CCD-202	GP220	10TS-D20
C17	5 10%		ADM-15-050	DTZ-5	LI0V5	CCD-050	GP550	10TS-S10
C18	.01		BPD-01	DD-103	BYA10S1	CCD-103	GP110	10TS-S10
C19	.01		BPD-01	DD-103	BYA10S1	CCD-103	GP110	10TS-S10
C20	.01		BPD-01	DD-103	BYA10S1	CCD-103	GP110	10TS-S10
C21	.01		BPD-01	DD-103	BYA10S1	CCD-103	GP110	10TS-S10
C22	.01		BPD-01	DD-103	BYA10S1	CCD-103	GP110	10TS-S10
C23	.01		BPD-01	DD-103	BYA10S1	CCD-103	GP110	10TS-S10
C24	.01		BPD-01	DD-103	BYA10S1	CCD-103	GP110	10TS-S10
C25	250		CI-250	DD-250	LI0T25	CCD-251	GP325	10TS-T25
C26	.01		BPD-01	DD-103	BYA10S1	CCD-103	GP110	10TS-S10
C27	.01		BPD-01	DD-103	BYA10S1	CCD-103	GP110	10TS-S10
C28	500		CI-500	DD-501	LI0T5	CCD-501	GP350	10TS-T50
C29	.01		BPD-01	DD-103	BYA10S1	CCD-103	GP110	10TS-S10
C30	250		CI-250	DD-251	LI0T25	CCD-251	GP325	10TS-T25
C31	.03 600V		P688N-03	DD-303	BYB6S3	CCD-303	GP130	6PS-S30
C32	500		CI-500	DD-501	LI0T5	CCD-501	GP350	10TS-T50
C33	.033 100V		P288N-033	DD-303	BYB6S3	CCD-303	GP130	4PS-S33

† Alternate Value.

## TUBES

ITEM No.	USE	GENERAL ELECTRIC	RCA	RAYTHEON	SYLVANIA	TYPE
V1	RF Amplifier	6BU6				6AL5
V2	Mixer	6BE6				6AN8
V3	Receive Osc. -Trans. Osc.	6BH6				6AQ5
V4	1st IF Amplifier	6BU6				6AQ5
V5	2nd IF Amplifier	6BU6				6AQ5

## POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	CURRENT RATING (Measured)	ORIGINAL Part or Type No.	RECTIFIERS		DIODES	NOTES
			RCA PART No.	SARKES TARZIAN PART No.		
X1	.102A	IN2070*	IN3194	2F4		* HV Rectifier. Alternate 2B4
X2	.102A	IN2070*	IN3194	2F4		
X3	.102A	IN2070*	IN3194	2F4		
X4	.102A	IN2070*	IN3194	2F4		



# PARTS LIST AND DESCRIPTION (CONTINUED)

## COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		Citi-Fone PART No.	Miller PART No.	Stancor PART No.	Workman PART No.		
L1	RF Trans.	602	70F756A1	RTC-8520	T980		
L2	RF Choke (7.5uh)	525					
L3	1st IF	525					
L4	2nd IF	525					
L5	3rd IF	525					
L6	RF Choke (7.5uh)	604	70F756A1	RTC-8520	T980		
L7	Trans. Osc. Plate	718	70F186A1	RTC-8520	T980		
L8	RF Choke (7.5uh)		70F756A1	RTC-8520	T980		
L9	Final Tank		5220	RTC-9182	T980		
L10	Ant. Load(7.5uh)						
L11	Hash Choke(10uh)						
L12	Filament Choke (10uh)						

## FILTER CHOKE

ITEM No.	CURRENT (Measured)	INDUCTANCE (OHMS)	REPLACEMENT DATA				NOTES
			Citi-Fone PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	
L13	.102A	25Ω	1000--1	M488.628-1			
		650 MH					

## TRANSFORMER (POWER)

ITEM No.	RATING	REPLACEMENT DATA				NOTES
		Citi-Fone PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	
T1	117VAC 210VAC 12.6VAC ②.55A or ①.170A 12.6VDC AC ③.3.6A	592 *				* Part #591 used in 6V version.

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE	REPLACEMENT DATA				NOTES
		Citi-Fone PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	
T2	500Ω	121-A6	A-3026	A-3877①	24551① S-6Z	① Drill new mtg. hole(s)

## SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		Citi-Fone PART No.	QUAM PART No.	
SP1	3 1/2" PM 3-4Ω	5531	3A07	

## VIBRATOR

ITEM No.	TYPE	INPUT VOLTS	FREQUENCY	REPLACEMENT DATA		NOTES
				Citi-Fone PART No.	MALLORY PART No.	
M1	Interrupter	12V	115%	G8801	G1801	Model CD 6/12
	Interrupter	6V	115%	5301	1801	Model CD 6/6

## FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA			
			Citi-Fone PART No.	FUSE	HOLDER	BUSS PART No.
M2	Slo-Blo	6 1/4A 125V		3136, 25 6 1/4A 125V S/B)	3420U4	MDX 6 1/4
M3	Slo-Blo	.150A 250V		315, 150 (.15A 250V S/B)		MDV 15/100

## MISCELLANEOUS

ITEM No.	PART NAME	Citi-Fone PART No.	NOTES
M4	Crystal		Receive (Specify Channel and Frequency Desired) Transmit (Specify Channel and Frequency Desired) Channel Selector Receive-Transmit
M5	Crystal Switch		
M6	Relay		
M7			

## WIRING DATA

General-use Hook-up Wire .... Use BELDEN No. 8530 (Solid) Available in 12 Colors  
 Shielded Antenna Lead ..... Use BELDEN No. 8524 (Stranded) Available in 12 Colors  
 Lowest Loss (RG-8/U Type)  
 Coiled Microphone Cable ..... Use BELDEN No. 8237 Low Loss (RG-8/U)  
 8259 (Stranded) Miniature (RG-58/U)  
 8497 3 Conductor - 1 Shielded for Press-to-Talk (Neoprene)  
 Ignition Noise Suppression .... Use BELDEN No. 7300-Series Spark-Plug Sets  
 Bonding Strap ..... Use BELDEN No. 8661 (3/8 In.)