

**This Manual is provided by**  
**CBTricks.com**

Someone who wanted to help you repair your equipment  
scanned this manual.

If you would like to help us put more manuals online support us.

Supporters of CBTricks.com paid for the hosting so you would have this file.

CBTricks.com is a non-commercial personal website was created to help promote the exchange of service, modification, technically oriented information, and historical information aimed at the Citizens Band, GMRS (CB "A" Band), MURS, Amateur Radios and RF Amps.

CBTricks.com is not sponsored by or connected to any Retailer, Radio, Antenna Manufacturer or Amp Manufacturer, or affiliated with any site links shown in the links database. The use of product or company names on my web site is not endorsement of that product or company.

If your company would like to provide technical information to be featured on this site I will put up on the site as long as I can do it in a non-commercial way.

The site is supported with donation from users, friends and selling of the Galaxy Service Manual CD to cover some of the costs of having this website on the Internet instead of relying on banner ads, pop-up ads, commercial links, etc. to pay my costs. Thus I do not accept advertising banners or pop-up/pop-under advertising or other marketing/sales links or gimmicks on my website.

ALL the money from donations is used for CBTricks.com I didn't do all the work to make money (I have a day job). I all didn't do all this work for someone else to make money also, for example the ebay CD sellers.

All Trademarks, Logos, and Brand Names are the property of their respective owners.  
This information is not provided by, or affiliated in any way with any radio or antenna Manufacturers.  
Thank you for any support you can give.



# PHOTOFACT<sup>®</sup>



TRADE NAME : Utica Model T & C II  
 SUPPLIER : Utica Communications  
 2917 W. Irving Park Road, Chicago 25, Ill.  
 TYPE SET : 9 Tube Transceiver  
 POWER SUPPLY : 110 - 120 Volts AC, 60 Cycles (or)  
 6 (or) 12 Volt Storage Battery  
 RATING : .5 Amp. @ 117 Volts AC (or)  
 4.5 Amp. @ 12.6VDC  
 TUNING RANGE : Any 6 CB Channels 1 thru 23  
 Receiver may be continuously tuned.

UTICA MODEL T & C II

## ALIGNMENT INSTRUCTIONS

### Suggested Alignment Tools:

A1 thru A6, A10, A11.....GENERAL CEMENT #8282, 8606, 8606-L...WALSCO #2526, 2543, 2544  
 A7, A8, A12.....GENERAL CEMENT #8271, 8722.....WALSCO #2519  
 A13.....GENERAL CEMENT #2588.....WALSCO #2588

### RECEIVER ALIGNMENT

Connect DC probe of VTVM to point  $\diamond$ , common to chassis.

SIGNAL GENERATOR	CHANNEL	ADJUST	REMARKS
High side to pin 7 of V3, common to chassis. (Tune to 266KC, 400% Mod.)	Unused Channel	A1, A2, A3, A4	Adjust for maximum deflection.
High side to pin 2 of V2, common to chassis (Tune to 1680KC).	Unused Channel	A5, A6	Adjust for maximum deflection.
High side to pin 1 of V1, common to chassis. (Tune to channel frequency).	Center Channel Used.	A7	Tune-Crystal switch in Crystal position. Adjust for maximum deflection. Note rate of dropoff on either side of peak. Set just below peak on side of gradual dropoff.
"	"	A8	Tune-Crystal switch to tune position. Adjust for maximum deflection. Note rate of dropoff on either side of peak. Set just below peak on side of gradual dropoff.
"	"	A9	Adjust for maximum deflection.
High side to antenna receptacle, low side to chassis.	"	A10, A11	Adjust for maximum deflection.

### TRANSMITTER ALIGNMENT

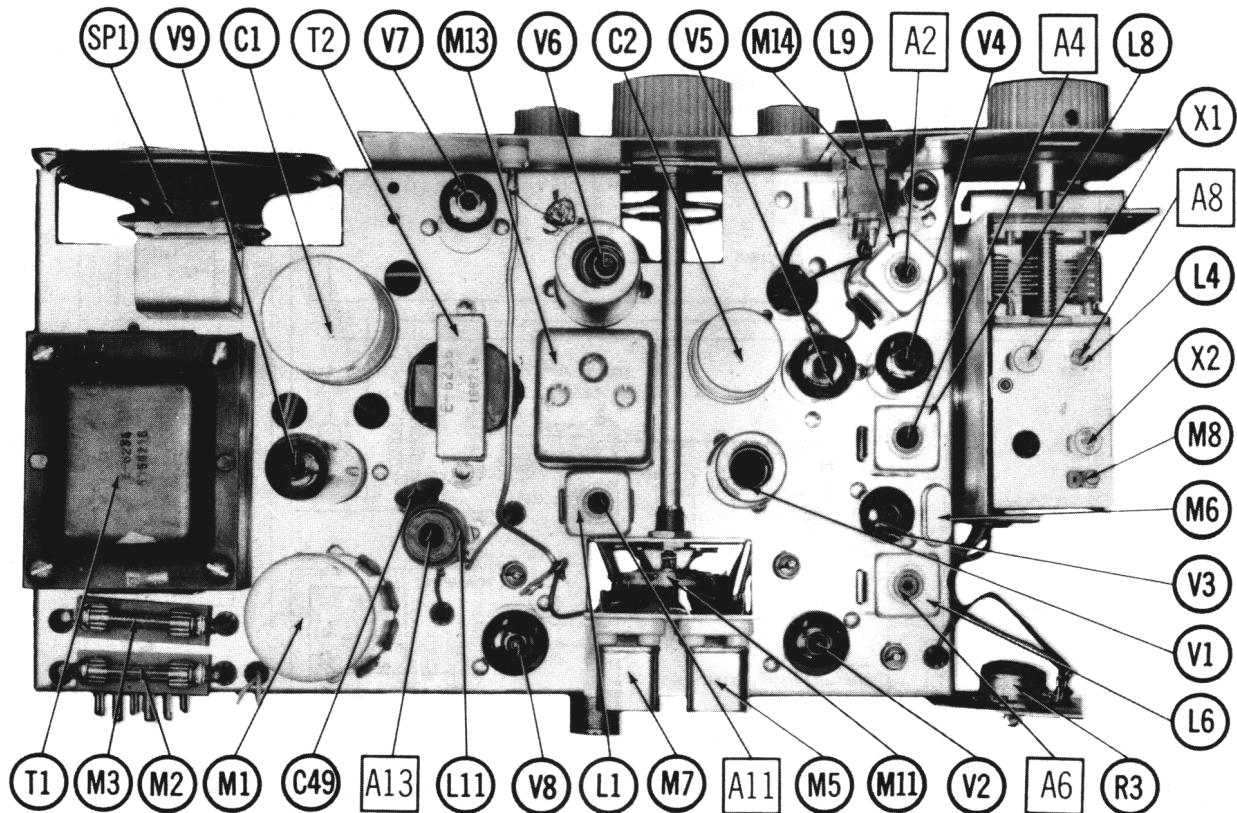
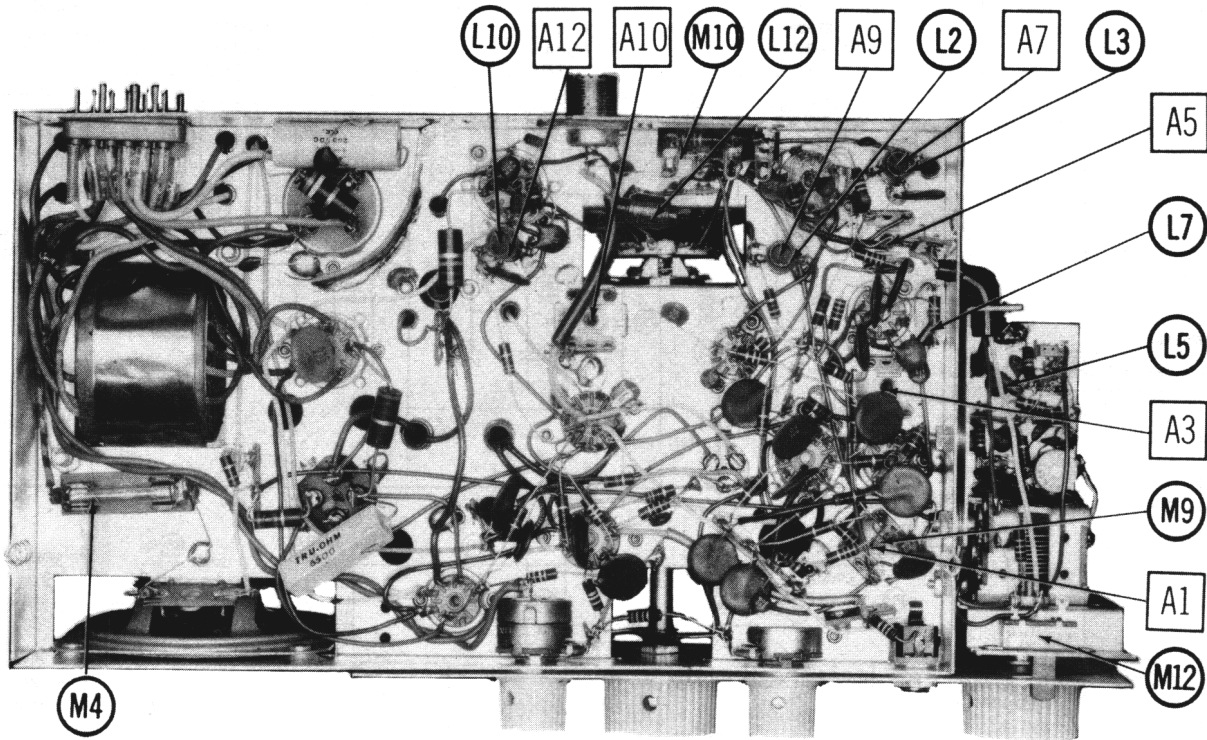
Only those persons properly licensed are permitted to make repairs or adjustments which may result in illegal operation. (Refer to FCC rules and regulations Part 19, Subpart D, Section 19.71).

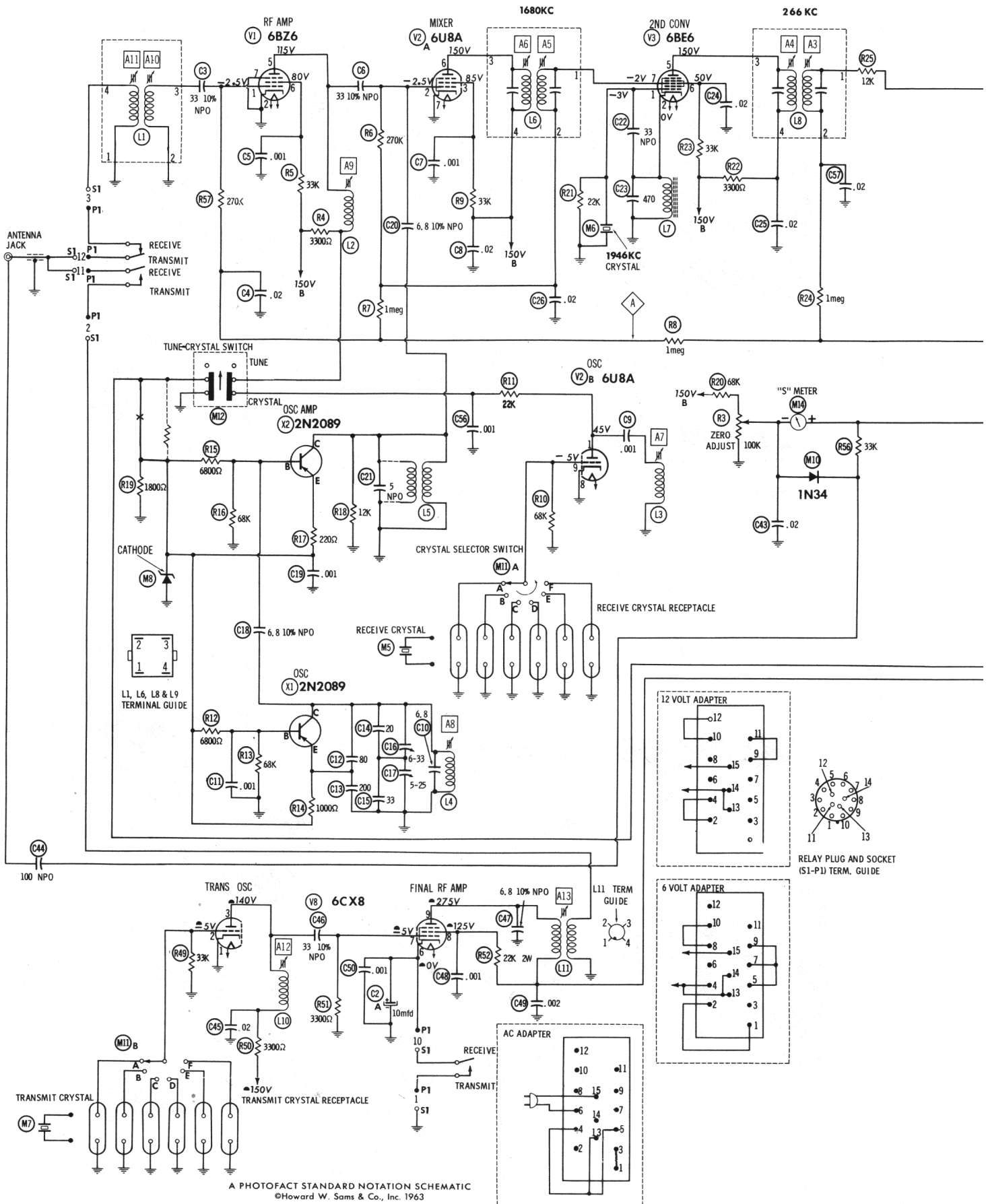
The frequency of the transmitter should be checked periodically with a secondary frequency standard to insure proper and legal operation.

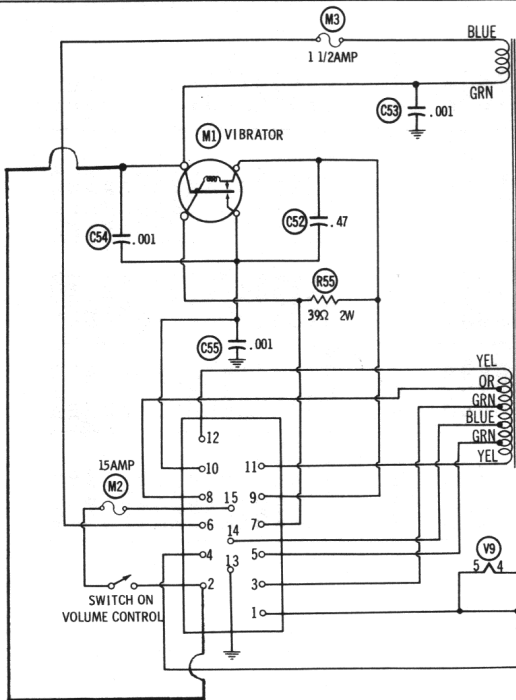
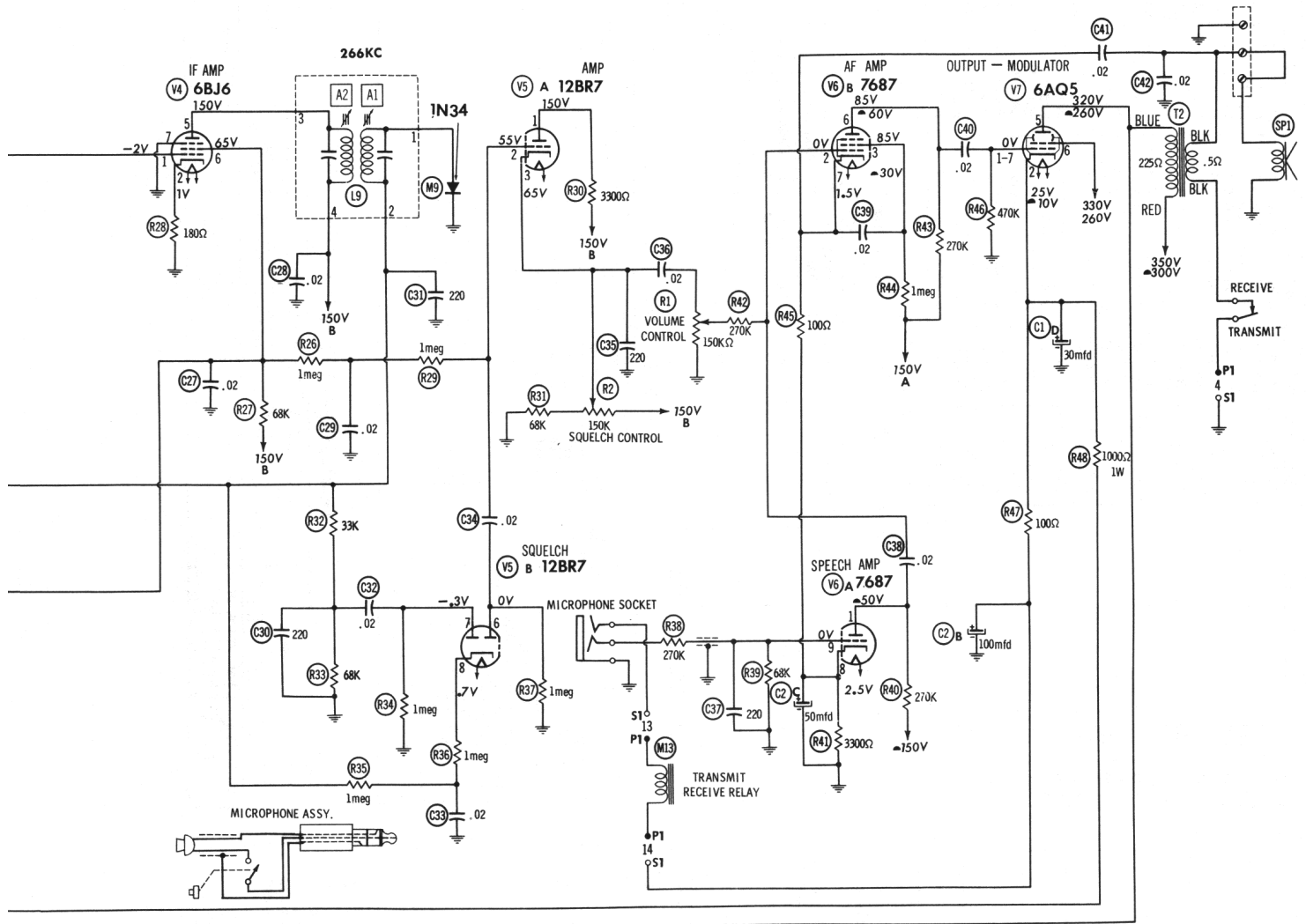
Best results will be obtained when adjusting the final RF output circuit if the antenna normally used is connected and the chassis is as nearly in the cabinet as possible.

		ADJUST	REMARKS
Connect antenna or dummy load.	RF Watt-meter or Signal Strength Meter.	A12	Key transmitter. Adjust for maximum output. Key transmitter several times to be certain that oscillator starts each time.
"	"	A13	Adjust for maximum output.

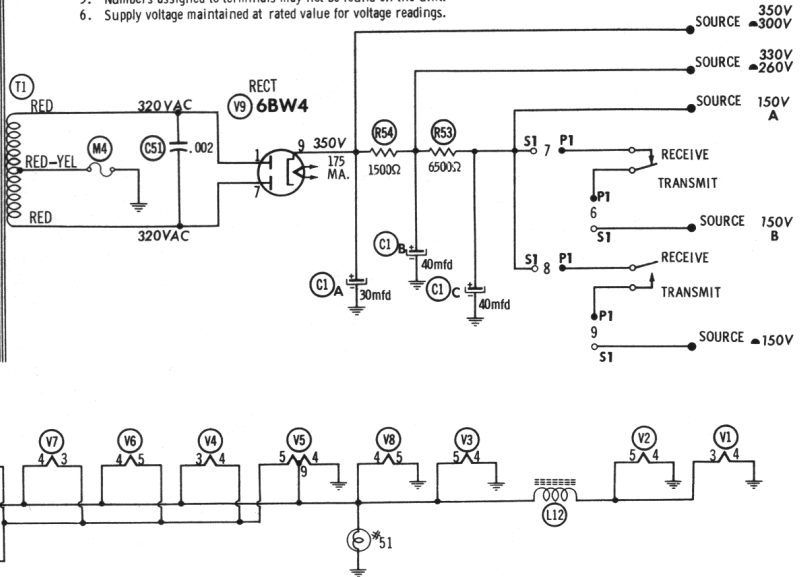
**HOWARD W. SAMS & CO., INC.** Indianapolis 6, Indiana







- ⊖ See parts list for alternate value or application.
1. Voltage measurements taken with vacuum tube voltmeter.
  2. All controls set for normal operation, no signal applied.
  3. Measured values are from socket pin or terminal to common ground.
  4. All terminals viewed from bottom unless otherwise designated.
  5. Numbers assigned to terminals may not be found on the unit.
  6. Supply voltage maintained at rated value for voltage readings.



UTICA MODEL T & C II

# PARTS LIST AND DESCRIPTION

## TUBES

ITEM No.	AMPEREX		GENERAL ELECTRIC		RCA		RAYTHEON		SYLVANIA	
	USE	TYPE	USE	TYPE	USE	TYPE	USE	TYPE	USE	TYPE
V1	RF Amplifier	6BZ6	Speech Amp. -AF Amp.	76B7						
V2	Mixer-Oscillator	6UB-A	Output-Modulator	6AQ5						
V3	2nd Converter	6BE6	Transmit Osc. -Final RF	6CX8						
V4	IF Amplifier	6B6	Rectifier	6BW4						
V5	Noise Limiter-Squelch	12BR7								

## TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA		NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	
X1	2N2088	Oscillator Amp.		2N1178	
X2	2N2089	Oscillator Amp.		2N1178	

## ELECTROLYTIC CAPACITORS

ITEM No.	RATING	CAP.	VOL.	REPLACEMENT DATA						
				UTICA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	GENERAL INSTRUMENT PART No.	MALLORY PART No.	SPRAGUE PART No.
C1A	33	10% NPO	450		AFH3-140-50	C0870	XC3-39	TMT-3387	FP387.5	TVL-3744
C1B	40	350	350		PRS1670	BR3045	QTI-12	TD-30-450	TC87	TVA-1711
C1C	40	350	350							
C1D	30	25	25							
C2A	10	100	100		AFH2-05	B0070	XC2-32	TMD-2035	WP339.5A	TVL-2224
C1E	100	25	25		PRS1A10	BBR10-150	QTI-5	TD-10-150		TVA-1406
C1F	50	6	6							

## FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CORNELL-DUBILIER PART No.	CENTRALAB PART No.	ELMENC0 PART No.	MALLORY PART No.	SPRAGUE PART No.
C3	33 10% NPO		NPO-DI 33	C10Q33C	D7Z-33	CCTO-33	CNO-433	10TCC-Q33
C4	02		BFD-02	BYA682	DD-203	CCD-203	B-120	5HK-520
C5	001		BFD-001	BYA10D1	DD-102	CCD-102	B-110	5HK-D10
C6	33 10% NPO		NPO-DI 33	C10Q33C	D7Z-33	CCTO-33	CNO-433	10TCC-Q33
C7	001		BFD-001	BYA10D1	DD-102	CCD-102	B-210	5HK-D10
C8	02		BFD-02	BYA682	DD-203	CCD-203	B-120	5HK-520
C9	001		BFD-001	BYA10D1	DD-102	CCD-102	B-210	5HK-D10
C10	6.8		NPO-DI 6.8	C10V68C	D7Z-6R8	CCTO-6R8	CNO-568	10TCC-V68
C11	001		BFD-001	BYA10D1	DD-102	CCD-102	B-210	5HK-D10
C12	80 N150							
C13	200 N150							
C14	20 NPO							
C15	133 NPO							
C16	5-25							
C17	6-33							
C18	6.8 NPO 10%		NPO-DI 6.8	C10V68C	D7Z-6R8	CCTO-6R8	CNO-568	10TCC-V68
C19	001		BFD-001	BYA10D1	DD-102	CCD-102	B-210	5HK-D10
C20	6.8		NPO-DI 6.8	C10V68C	D7Z-6R8	CCTO-6R8	CNO-568	10TCC-V68
C21	5 NPO							
C22	33 NPO 10%							
C23	470		D1-470	C10Q47C	DD-471	CCD-471	B-347	10TCC-Q47
C24	02		BFD-02	BYA682	DD-203	CCD-203	B-120	5HK-520
C25	02		BFD-02	BYA682	DD-203	CCD-203	B-120	5HK-520
C26	02		BFD-02	BYA682	DD-203	CCD-203	B-120	5HK-520
C27	02		BFD-02	BYA682	DD-203	CCD-203	B-120	5HK-520
C28	02		BFD-02	BYA682	DD-203	CCD-203	B-120	5HK-520
C29	02		BFD-02	BYA682	DD-203	CCD-203	B-120	5HK-520
C30	220		D1-220	L10722	DD-221	CCD-221	B-322	10TCC-T22
C31	220		D1-220	L10722	DD-221	CCD-221	B-322	10TCC-T22
C32	02		BFD-02	BYA682	DD-203	CCD-203	B-120	5HK-520
C33	02		BFD-02	BYA682	DD-203	CCD-203	B-120	5HK-520
C34	02		BFD-02	BYA682	DD-203	CCD-203	B-120	5HK-520

## FIXED CAPACITORS (cont)

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CORNELL-DUBILIER PART No.	CENTRALAB PART No.	ELMENC0 PART No.	MALLORY PART No.	SPRAGUE PART No.
C35	220		D1-220	L10722	DD-221	CCD-221	B-322	10TCC-T22
C36	02		BFD-02	BYA682	DD-203	CCD-203	B-120	5HK-520
C37	02		BFD-02	BYA682	DD-203	CCD-203	B-120	5HK-520
C38	02		BFD-02	BYA682	DD-203	CCD-203	B-120	5HK-520
C39	02		BFD-02	BYA682	DD-203	CCD-203	B-120	5HK-520
C40	02		BFD-02	BYA682	DD-203	CCD-203	B-120	5HK-520
C41	02		BFD-02	BYA682	DD-203	CCD-203	B-120	5HK-520
C42	02		BFD-02	BYA682	DD-203	CCD-203	B-120	5HK-520
C43	02		BFD-02	BYA682	DD-203	CCD-203	B-120	5HK-520
C44	100 NPO		NPO-DI 100	C10Q100C	D7Z-100	CCTO-101	CNO-310	10TCC-T10
C45	02		BFD-02	BYA682	DD-203	CCD-203	B-120	5HK-520
C46	33 NPO 10%		NPO-DI 33	C10Q33C	D7Z-33	CCTO-330	CNO-433	10TCC-Q33
C47	6.8 NPO 10%		NPO-DI 6.8	C10V68C	D7Z-6R8	CCTO-6R8	CNO-568	10TCC-V68
C48	001		BFD-001	BYA10D1	DD-102	CCD-102	B-210	5HK-D10
C49	002 3000V		HVD-30-3200	HVC3022	DD30-202	3CCD-202	3HV-222	30GA-D20
C50	001		BFD-001	BYA10D1	DD-102	CCD-102	B-210	5HK-D10
C51	002 3000V		HVD-30-3200	HVC3022	DD30-202	3CCD-202	3HV-222	30GA-D20
C52	47 200V		P288N-5	CUR28P5	DD-102	CCD-102	B-210	5HK-D10
C53	001		BFD-001	BYA10D1	DD-102	CCD-102	B-210	5HK-D10
C54	001		BFD-001	BYA10D1	DD-102	CCD-102	B-210	5HK-D10
C55	001		BFD-001	BYA10D1	DD-102	CCD-102	B-210	5HK-D10
C56	001		BFD-001	BYA10D1	DD-102	CCD-102	B-210	5HK-D10
C57	02		BFD-02	BYA682	DD-203	CCD-203	B-120	5HK-520

## CONTROLS

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

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA				
			UTICA PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Volume & Switch	150K		B-44, KR-1 or (AB-44, AK-11, KR-1) or B-43	A47-150K-S/RS-2, SWE-2	B-13-328, SK-3, 76-1	U-42, US-26 or (UA154A, SK750, US-41)
R2	Squelch	150K		B-43 or (AB-43, AK-11)	A-47-150K-S/RS-2	BU-328, SK-3	U43 or (UA154L, SL2500, RU164L, SL38, SL2800)
R3	Zero Adjust	100K					

## COILS (RF-IF)

ITEM No.	USE	UTICA PART No.	REPLACEMENT DATA			NOTES
			MERIT PART No.	MILLER PART No.	STANCOR PART No.	
L1	Antenna	AK-40-310	TV-140	6252	RTC-8609	T234
L2	RF		SW-608	6171-A	RTC-8609	T216
L3			SW-608	6171-A		T216
L4	Osc. (Crystal)					
L5	Osc. Plate (Tuneable)					
L6	IF (680KC)	EOL1492				
L7	IF Choke (50uh)		TV-193	4829	RTC-8668	T962
L8	1st 266KC IF		BC-350	14-H1	RTC-8638	T604
L9	2nd 266KC IF		BC-351	14-H2	RTC-8639	T605
L10	Transmit Osc.		SW-608	6171-A	RTC-8609	T216
L11	Final					
L12	Filtering Choke (50uh)					

## TRANSFORMER (POWER)

ITEM No.	RATING		REPLACEMENT DATA				NOTES
	PRI.	SEC. 1	UTICA PART No.	MERIT PART No.	STANCOR THORADSON PART No.	TRIAD PART No.	
T1	117VAC	640VCT	E-6234				* Transmit
	5A	6.3V @ 4A					
	(.68A)*	(.090A)*					

# PARTS LIST AND DESCRIPTION (CONTINUED)

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA				NOTES
	PRI.	SEC.	UTICA PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T2	7300Ω	3-4Ω	E-6256				

## SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		UTICA PART No.	QUAM PART No.	
SPI	3 1/2" PM 3-4Ω	S-5325	3A07	

## VIBRATOR

ITEM No.	TYPE	INPUT VOLTS	PRE-FREQUENCY	REPLACEMENT DATA			NOTES
				UTICA PART No.	CORNELL-DUBILIER PART No.	MALLOY PART No.	
M1	Interrupter	6.3	115v	1610	5372	1610	

## FUSES

ITEM No.	RATING	REPLACEMENT DATA			BUSS PART No.		
		UTICA PART No.	HOLDER	FUSE			
M2	15A			31015	357002	AGC15	3823-2
M3	32V			(9AG 15A 32V)	357002	AGC 1 1/2	3823-2
M4	125V			(9AG 1 1/2A 125V)	357001	AGC 175/1000	4405
	175A			(9AG .175A 250V)			

## MISCELLANEOUS

ITEM No.	PART NAME	UTICA PART No.	NOTES
M5	Crystal		Receive (Order by frequency & channel desired)
M6	Crystal		1946KC
M7	Crystal		Transmit (Order by frequency & channel desired)
M8	Diode	RS-6	Oscillator Amp. Overload
M9	Diode		Detector (IN34)
M10	Diode		Meter Rectifier (IN34)
M11	Switch		Crystal Selector (Rotary Wafer Type)
M12	Switch		Tune-Crystal (DPDT Slide Type)
M13	Relay		Transmit-Receive (Plug-In type, DC Coil Resistance 125Ω)
M14	"IS" Meter		

## WIRING DATA

General-use Hook-up Wire	Use BELDEN No. 8630 (Solid) Available in 12 Colors
Shielded Antenna Lead	8524 (Stranded) Available in 12 Colors
	8214 Lowest Loss (RG-8/U Type)
	8237 Low Loss (RG-8/U)
	8240 (Solid) Miniature (RG-58/U)
	8259 (Stranded) Miniature (RG-58A/U)
	8497 3 Conductor - 1 Shielded for Press-to-Talk (Neoprene)
	7300-Series Spark-Plug Sets
	Use BELDEN No. 8661 (3/8 In.)
	Use BELDEN No. 8661 (3/8 In.)

# RESISTANCE MEASUREMENTS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	6BZ6	1.5meg	0Ω	FIL	FIL	†11.3K	†41K	0Ω		
V2	6U8-A	†33K	2.5meg	†41K	FIL	FIL	†8000Ω	0Ω	0Ω	68K
V3	6BE6	22K	.1Ω	FIL	FIL	†11.3K	†41K	2.2meg		
V4	6BJ6	1.2meg	180Ω	FIL	FIL	†8000Ω	†74K	0Ω		
V5	12BR7	†11.3K	†2meg	100K	FIL	FIL	1meg	1meg	2.1meg	FIL
V6	7687	†▲280K	270K	†1meg	FIL	FIL	†270K	3400Ω	3300Ω	68K ▲330K
V7	6AQ5	470K	2800Ω	FIL	FIL	†225Ω	†1500Ω	470K		
V8	6CX8	0Ω	33K	†▲11.3K	FIL	FIL	▲0Ω	3300Ω	†22K	†225Ω
V9	6BW4	355Ω	NC	NC	FIL	FIL	NC	335Ω	NC	200K

ITEM	TYPE	BASE	EMITTER	COLLECTOR
X1	2N2089	10K	2000Ω	.1Ω
X2	2N2089	10K	2000Ω	3.5Ω

ALL MEASUREMENTS TAKEN IN "RECEIVE" POSITION UNLESS NOTED, WITH TUNE-CRYSTAL SWITCH IN CRYSTAL POSITION.  
† MEASURED FROM PIN 9, V9.  
▲ MEASURED IN "TRANSMIT" POSITION.  
NC NO CONNECTION

