

MODEL A301, Chas. 101,  
101S  
MODEL A500  
MODEL A501

HOFFMAN RADIO CORP.

SYMBOL	DESCRIPTION	HOFFMAN No.
C1-C2, C3	Three-Section Variable (3B8-3B6-1B0 MmL)	4400
C4, C5, C6	Trimmers: Part of Variable Capacitor	4100
C7, C8	.05 Mfd. 200 Volt, Tubular Paper	4000
C9, C12	100 Mmf. ± 20%, Mica	4101
C13, C15	.05 Mfd. 400 Volt, Tubular Paper	4102
C10-C11	.005 Mfd. 600 Volt, Tubular Paper	4103
C14, C16	.01 Mfd. 600 Volt, Tubular Paper	4300
C17	Dry Electrolytic Capacitor	4104
C18-C19-C20	(20-20-20 MH 450-450-25 Volt)	4105
C21	.001 Mfd. 600 Volt, Tubular Paper	5200
C22	.01 Mfd. 600 Volt, Tubular Paper (Metal Can)	9003
C23	500 Mmf. ± 5%, Silver Mica	4500
L1	Oscillator Coil	4501
L2	Loadspeaker, 5" P.M.	4502
L3	.22 Megohm ± 20%, 1/2 Watt	4503
R1, R2	22,000 Ohm ± 20%, 1/2 Watt	4504
R3	2.2 Megohm ± 20%, 1/2 Watt	4505
R4	10,000 Ohm ± 10%, 2 Watt	4506
R5	.5 Megohm Potentiometer (Volume)	4804
R6	10 Megohm ± 20%, 1/2 Watt	4507
R7	.47 Megohm ± 20%, 1/2 Watt	4605
R8	560 Ohm ± 10%, 1/2 Watt	4508
R9	.25 Megohm Potentiometer With Switch (Tone)	4509
R10	47 Ohm ± 20%, 1/2 Watt	4701
R11	330 Ohm ± 20%, 1/2 Watt	6000
R12	1500 Ohm ± 5%, 8 1/2 Watt	5201
R13	On-Off Switch (On Tone Control)	5202
R14	Pushbutton Switch Assembly	5203
S1	Antenna Loop	5100
S2	R.F. Coil (Shielded)	5100
T1	Input I.F. Transformer (455 K.C.)	5100
T2	Output I.F. Transformer (455 K.C.)	5100
T3	Audio Output Transformer	5100
T4	Power Transformer	5100
T5	Pushbutton Tuning Assembly	5200
T6	Pushbutton Tuning Assembly	5200



PUSHBUTTON NO.	1	2	3	4	5
FREQUENCY RANGE IN KILOCYCLES	550-600	550-600	720-1200	720-1200	900-1500

Fig. 3 Pushbuttons

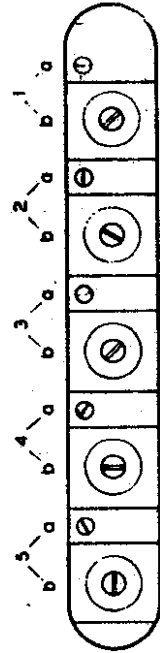
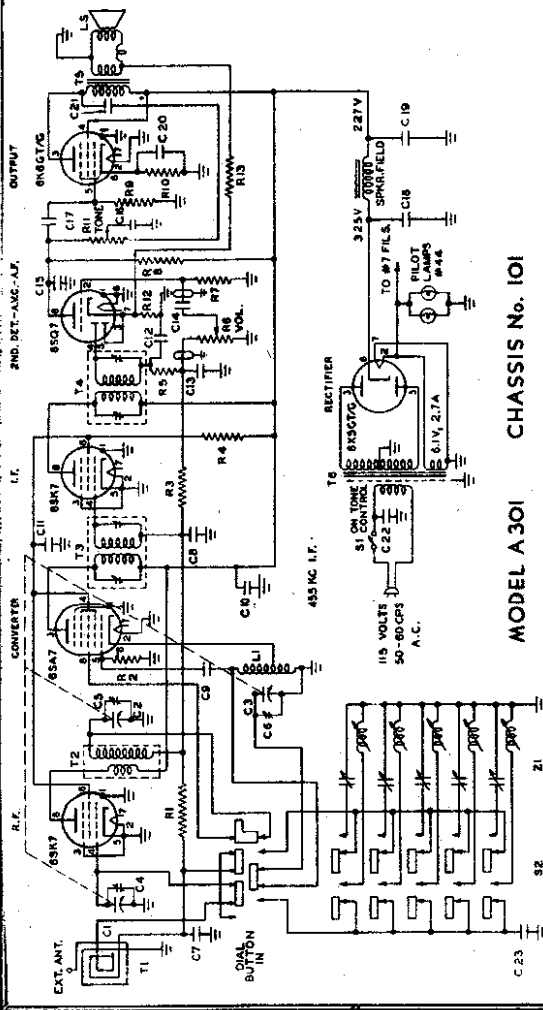


Fig. 4 Adjustment Screws



MODEL A 301 CHASSIS No. 101

Hoffman Model A301 with Chassis 101S is electrically identical with Chassis 101 except for the following:

1. Five-inch P.M. speaker, part number 9003, has been substituted for 4 x 6-inch oval dynamic speaker, part number 9000.
2. A 1500-ohm resistor, part number 4701, has been connected in the filter circuit in place of the 1500-ohm speaker.

These changes have been incorporated in the schematic diagram shown below.

- SPECIFICATIONS**
- Tuning Range ..... 535 Kc to 1640 Kc
  - Intermediate Frequency ..... 455 Kc
  - Power Supply ..... 115 V A.C., 50-60 C.P.S.
  - Power Consumption ..... 55 Watts
  - Audio Output ..... 1.25 Watts

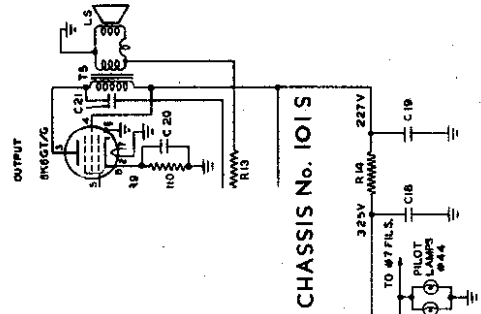
MODELS A301, A500, A501 MAY, 1946

**PUSHBUTTON ADJUSTMENTS**

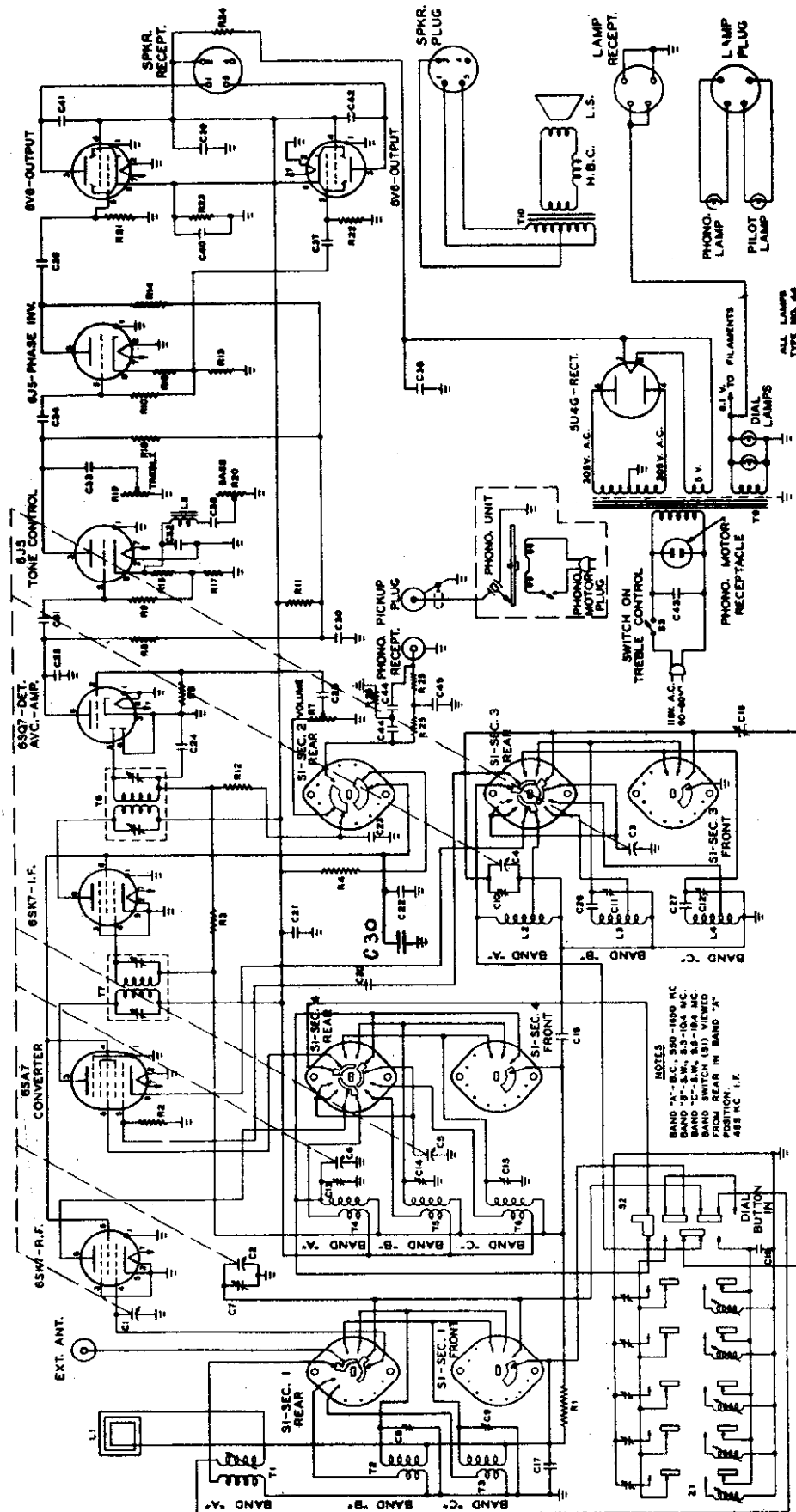
The frequency ranges for the pushbuttons are given in figure 3. A layout of the pushbutton adjustments is shown in figure 4. Note that in this figure pushbutton number 1 is now to the extreme right, since the pushbutton assembly is being viewed from the rear. To make pushbutton adjustments, proceed as follows:

1. Turn the receiver on and let it warm up for fifteen minutes or longer in order to minimize drift effects.
2. Depress the DIAL pushbutton and tune in the station which is to be set on pushbutton number 1.
3. Now depress pushbutton number 1 and adjust tuning slug 1a and trimmer 1b (figure 4) until the station is accurately tuned in again.
4. Repeat the above procedure for the remaining pushbuttons.

NOTE: When making oscillator coil pushbutton adjustments, it is desirable that this adjustment be made from the high-frequency end (slug all the way out). The proper oscillator coil slug setting will then be reached before there is any possibility of tuning the oscillator to the low-frequency side of the carrier.



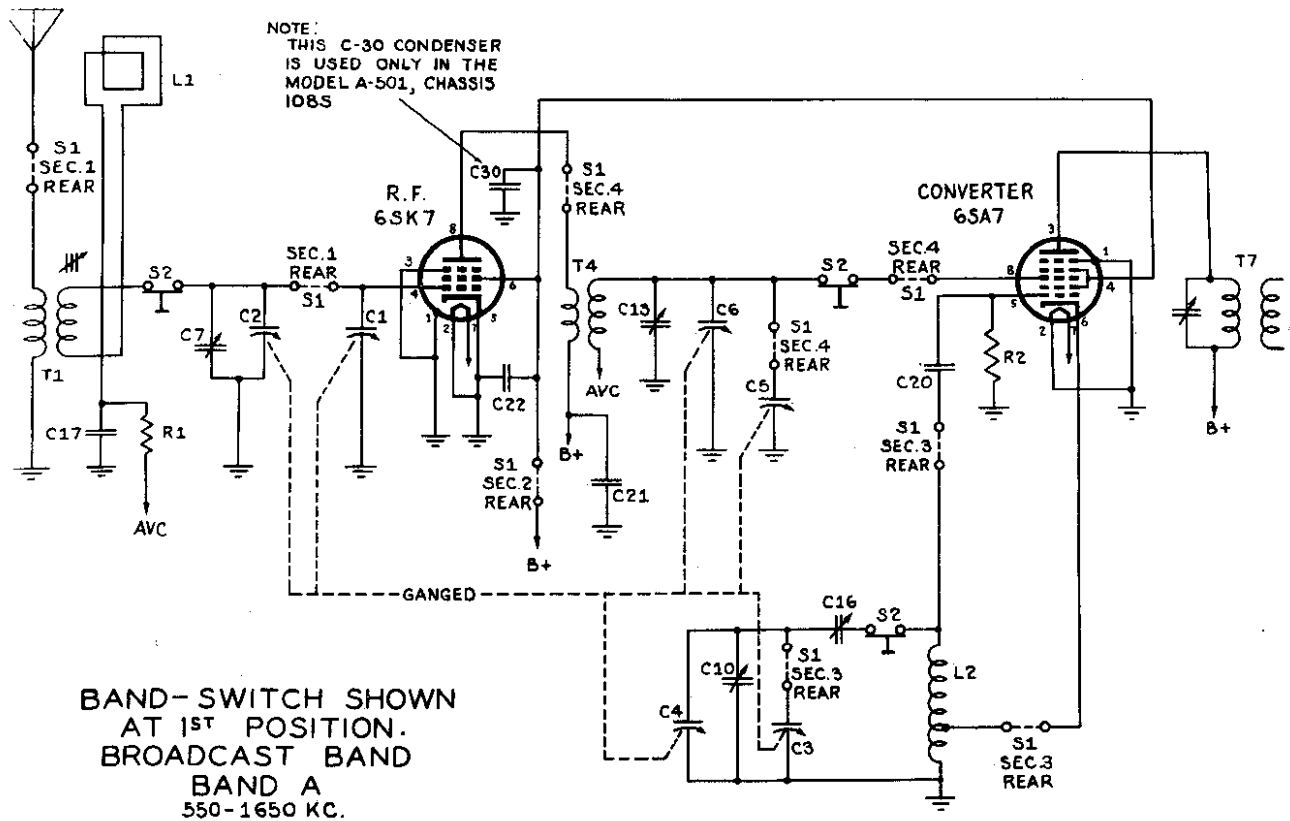
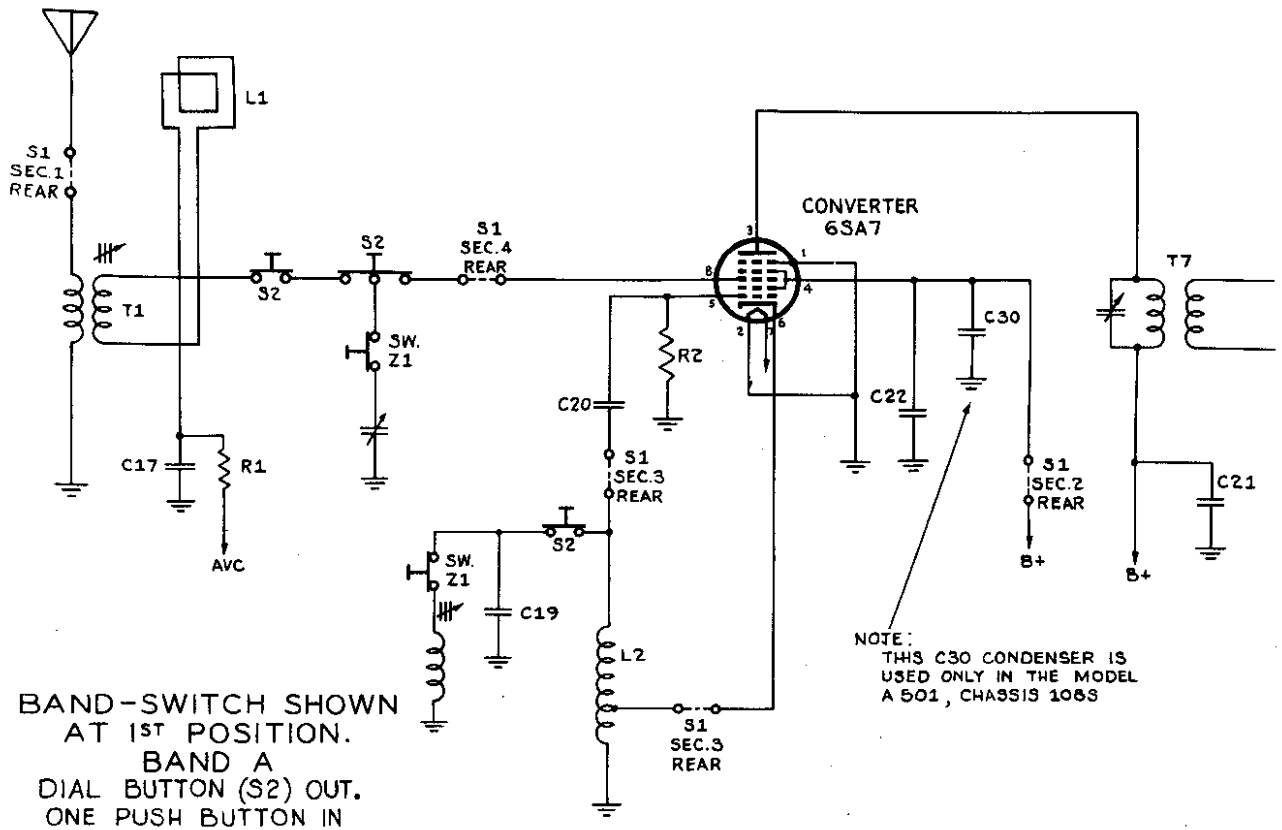
CHASSIS No. 101S



JULY, 1946

# "clarified schematics"

## HOFFMAN RADIO CORP.

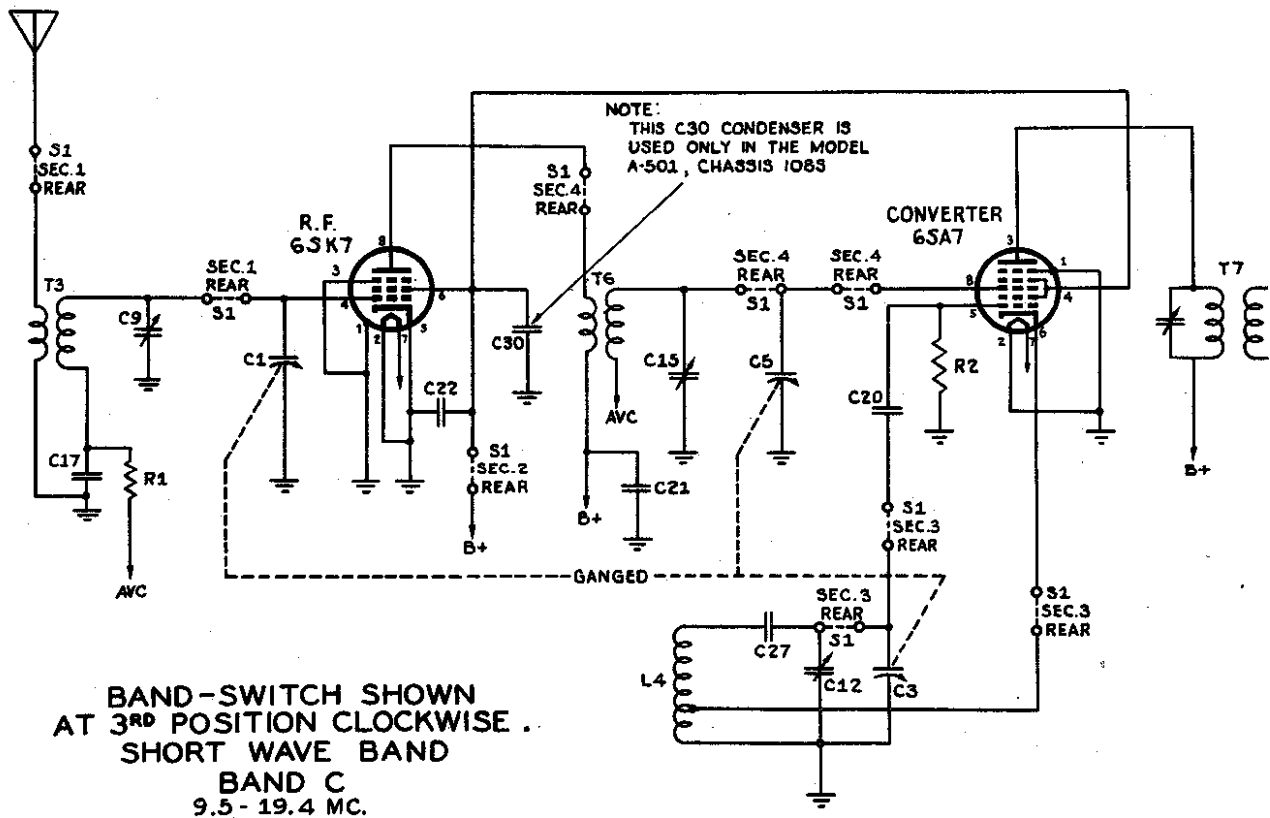
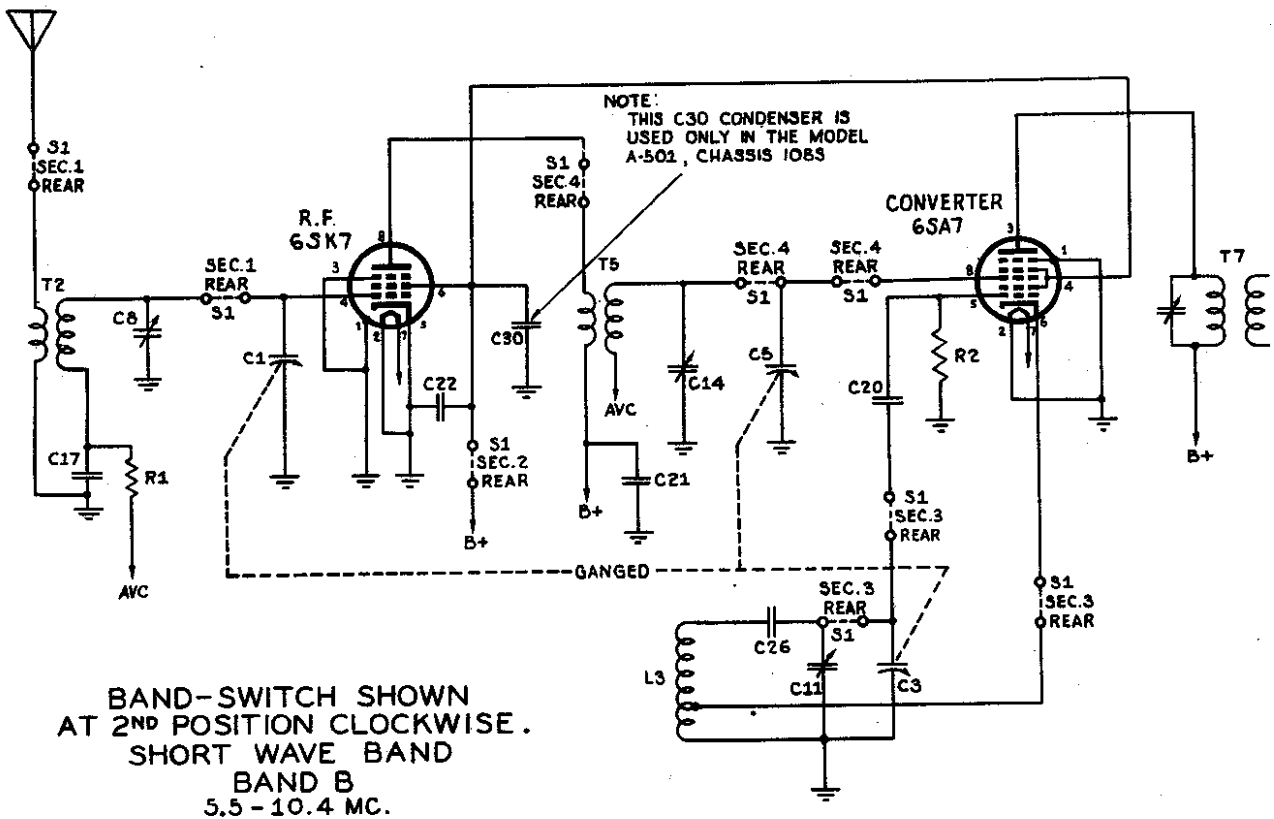


# "clarified schematics"

PAGE 15-8 HOFFMAN

MODEL A501, Ch. 108S,  
108ST

HOFFMAN RADIO CORP.



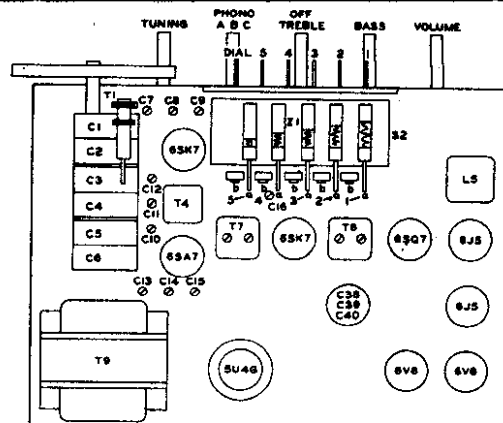
HOFFMAN RADIO CORP.

OPERATIONS IN ORDER	SIGNAL GENERATOR		RECEIVER		TRIMMER ADJ. IN ORDER
	CONNECTIONS TO REC.	FREQUENCY	CONTROL SETTINGS	DIAL SETTING	
1	To stator of C-6 through .1 mfd. cond.	455 Kc	Vol. Max. Range Sw. on "A" Band	Minimum Capacity	T-8 and T-7
2	To Ant. Term. through a 400-ohm resistor.	18 Mc	Vol. Max. Range Sw. on "C" Band	18 Mc	C-12, C-15, C-9
3	To Ant. Term. through a 400-ohm resistor	10 Mc	Vol. Max. Range Sw. on "B" Band	10 Mc	C-11, C-13, C-8
4	To Ant. Term. through 200 mmf. condenser	1400 Kc	Vol. Max. Range Sw. on "A" Band	1400 Kc	C-10, C-13, C-7
5	To Ant. Term. through 200 mmf. condenser	600 Kc	Vol. Max. Range Sw. on "A" Band	600 Kc	C-16, T-1 tuning slug
6	To Ant. Term. through 200 mmf. condenser	1400 Kc	Vol. Max. Range Sw. on "A" Band	1400 Kc	C-10, C-13, C-7

NOTE: Rocking the condenser gang on the higher frequencies (bands "B" and "C") is necessary in order to avoid a false point of alignment due to "pulling action" between r-f and oscillator circuits.

NOTE: Be sure that the image frequency is not picked up during this adjustment. Note that the signal may be readily heard at two points as C-11 is adjusted. The correct setting for C-11 is with the trimmer in its looser position (adjusting screw further out).

NOTE: It is necessary to align the "C" band first so that "B" band and broadcast band alignment will not be adversely affected by subsequent "C" band adjustment. Alignment of "C" Band:



NORMAL OPERATING VOLTAGES

The following table lists the normal operating voltages to be expected at the various tube socket terminals.

5U4G  
6V6

NORMAL OPERATING CURRENTS

Cathode Current 115 Ma.  
Cathode Current (both tubes) 70 Ma.

PIN NO.	1	2	3	4	5	6	7	8
6SK7 (R.F.)	0	0	0	-.1	0	+95	6.2 AC	+290
6SA7 (Conv.)	0	0	+290	+95	-5 to -10	0	6.2 AC	-.15
6SK7 (I.F.)	0	0	0	-.15	0	+95	6.2 AC	+290
6SQ7	0	-.2	0	-.25	0	+75	6.2 AC	0
6J5 (Tone)	0	0	+130	0	+20 □	0	6.2 AC	+22
6J5 (Inverter)	0	0	+105	0	+50 #	0	6.2 AC	+43
6V6	0	0	+290	+290	0	0	6.2 AC	+17
6V6	0	0	+290	+290	0	0	6.2 AC	+17
5U4G	0	+350 5.2 AC*	0	335 AC	0	335 AC	0	+350 5.2 AC*

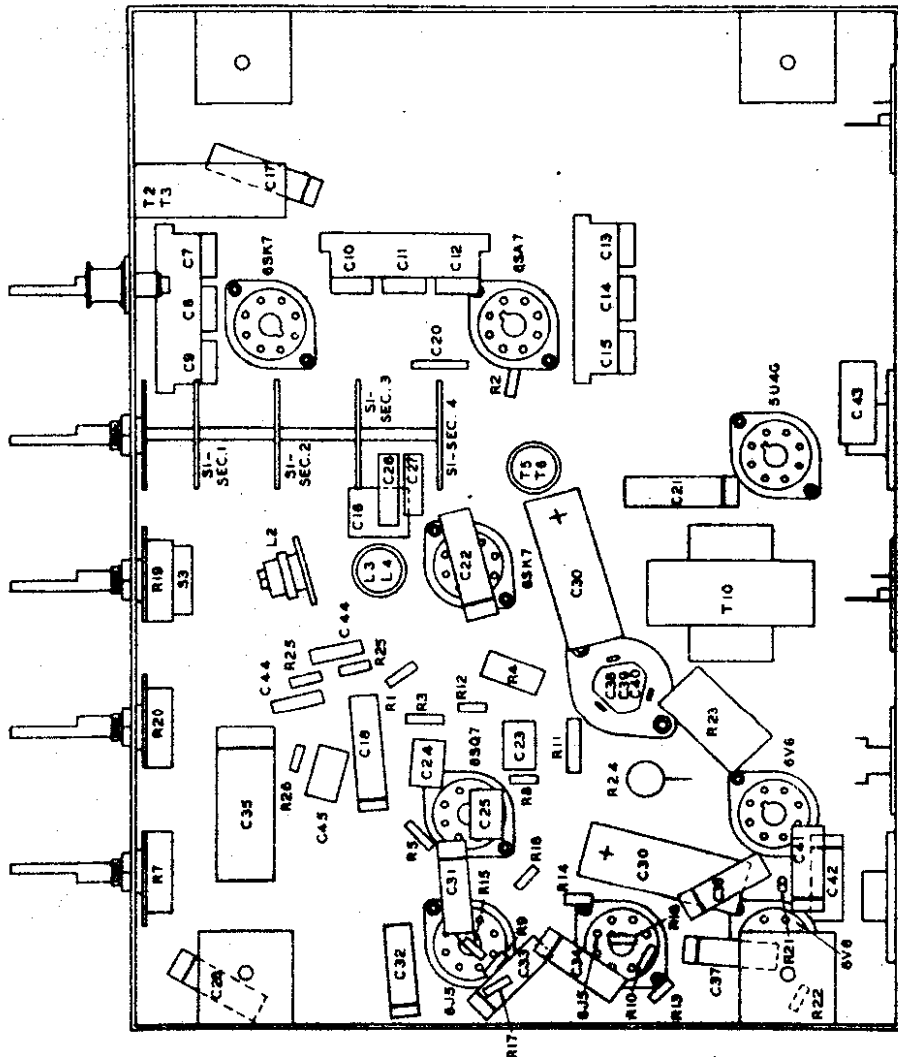
D.C. voltages measured with 20,000 ohm/volt meter.  
A.C. voltages measured with 1,000 ohm/volt meter.  
Line voltage 117.  
# measured at junction of R13 and R16.  
□ measured at junction of R15 and R17.

All voltages measured with reference to chassis except as follows:  
\* measured between pins 2 and 8; not to chassis.  
NOTE The above readings are obtained with no signal input to receiver and band switch in position "A".

MODEL A501, Ch. 108S,  
108ST

HOFFMAN RADIO CORP.

SYMBOL	DESCRIPTION	Hoffman No.
C1-C2, C3-C4, C5-C6	Three-section Variable with Split Stator, (160-260, 160-260, 160-260 Mmf.)	4403
C7, C8, C9	Three-section Trimmer Assembly	4300
C10, C11, C12	Three-section Trimmer Assembly	4300
C13, C14, C15	Three-section Trimmer Assembly	4301
C16	110-560 Mmf. Padder, Band "A"	4100
C17, C18	.05 Mfd., 200 Volt, Tubular Paper	4004
C19	500 Mmf. ±5%, Silver Mica	4007
C20	47 Mmf. ±10%, Mica	4101
C21, C22	.05 Mfd., 400 Volt, Tubular Paper	4000
C23, C24, C25	100 Mmf. ±20%, Mica	4005
C26	1050 Mmf. ±5%, Mica	4006
C27	2300 Mmf. ±5%, Mica	4102
C28, C29	.005 Mfd., 600 Volt, Tubular Paper	4203
C30	10 Mfd., 450 Volt, Tubular Electrolytic	4112
C31, C32, C33, C34	.01 Mfd., 400 Volt, Tubular Paper	4110
C35	.5 Mfd., 200 Volt, Tubular Paper	4106
C36, C37	.02 Mfd., 400 Volt, Tubular Paper	4200
C38-C39-C40	20-20-20 Mfd./450-450-25 V. Electrolytic	4103
C41, C42	.01 Mfd., 600 Volt, Tubular Paper	4105
C43	.01 Mfd., 600 Volt, Tubular Paper (Metal Can)	4010
C44	330 Mmf., 5%, Mica	4011
C45	650 Mmf., 5%, Mica	5221
L1	Loop Antenna	5215
L2	Oscillator Coil (Band "A")	5218
L3-L4	Oscillator Coil (Bands "B" and "C")	5103
L5	5 Hy Choke (Bass Boost)	9020
L6	12-inch Loudspeaker, Permanent Magnet	4511
R1	.1 Megohm ±20%, ½ Watt	4501
R2	22,000 Ohm ±20%, ½ Watt	4502
R3	2.2 Megohm ±20%, ½ Watt	4520
R4	10,000 Ohm ±20%, 3 Watt	4505
R5	10 Megohm ±20%, ½ Watt	4521
R6	15,000 Ohm ±20%, ½ Watt	4804
R7	.5 Megohm Potentiometer (Volume Control)	4500
R8	.22 Megohm ±20%, ½ Watt	4513
R9, R10	1 Megohm ±20%, ½ Watt	4516
R11	47,000 Ohm ±20%, 1 Watt	4504
R12, R13, R14	47,000 Ohm ±20%, ½ Watt	4512
R15, R16	2200 Ohm ±20%, ½ Watt	4515
R17, R18	10,000 Ohm ±20%, ½ Watt	4805
R19	25 Meg. Pot. with Switch (Treble Control)	4806
R20	50,000 Ohm Potentiometer (Bass Control)	4506
R21, R22	47 Megohm ±20%, ½ Watt	4519
R23	220 Ohm ±20%, 3 Watt	4702
R24	500 Ohm ±10%, 20 Watt	4537
R25	47,000 Ohm ±10%, ½ Watt	4538
R26	22,000 Ohm ±10%, ½ Watt	6005
S1	Band Change Switch	6004
S2	Pushbutton Switch Assembly	5220
S3	On-Off Switch (On Treble Control)	5217
T1	Antenna Coil (Band "A")	5216
T2-T3	Antenna Coil (Bands "B" and "C")	5219
T4	R.F. Coil, Shielded (Band "A")	5213
T5-T6	R.F. Coil (Bands "B" and "C")	5001
T7	Input I.F. Transformer	5107
T8	Output I.F. Transformer	55200
T9	Power Transformer	
T10	Audio Output Transformer (On Speaker)	
Z1	Pushbutton Tuning Assembly	



**TUNING RANGES:**  
 Band "A" ..... 540 Kc to 1600 Kc.  
 Band "B" ..... 5.6 Mc to 10.4 Mc  
 Band "C" ..... 9.4 Mc to 19.4 Mc  
 Intermediate Frequency ..... 455 Kc  
 Power Supply ..... 115V A.C., 50-60 C.P.S.  
 Power Consumption (incl. phono) .. 125 Watts  
 Undistorted Audio Output ..... 12 Watts  
 Model A501 with Chassis 108S  
 is electrically identical with  
 Chassis 108ST, except for:  
 Output transformer, Part No. 5110  
 substituted for Part No. 5107.

These are electrically identical -  
 Cal.  
 A 10-mf, 450-volt electrolytic  
 condenser, Part No. 4203, has been  
 added from screen to ground on  
 the 6SK7 r-f and i-f tubes to  
 eliminate a hum modulation. It  
 is suggested that this conden-  
 ser be added on all Model A501  
 receivers not having it.