

ALIGNMENT PROCEDURE

SIGNAL GENERATOR—Connect ground lead to B—, and connect output lead as indicated in chart. Use modulated output.

OUTPUT LEVEL—During alignment, adjust signal-generator output to hold output-meter indication below 1.25 volts.

STEP	SIGNAL GENERATOR		RADIO		ADJUST
	CONNECTION TO RADIO	DIAL SETTING	DIAL SETTING	SPECIAL INSTRUCTIONS	
1	Through .1-mf. condenser to external-aerial lead. Make sure that radio loop aerial is connected to radio.	455 kc.	Tuning condenser fully meshed.	Adjust, in order given, for maximum output.	TC301B—2nd i-f sec. TC301A—2nd i-f pri. TC300B—1st i-f sec. TC300A—1st i-f pri.
2	Radiating loop (see note below).	1600 kc.	1600 kc.	Adjust for maximum output.	C400B—osc.
3	Same as step 2.	1500 kc.	1500 kc.	Adjust for maximum output.	C400A—aerial

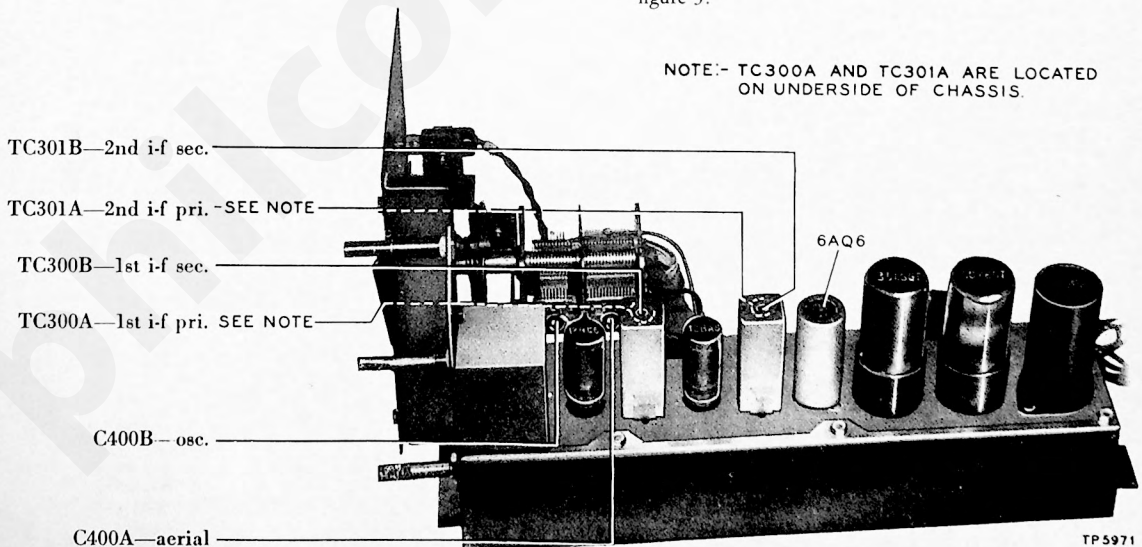
RADIATING LOOP: Make up a 6–8-turn, 6-in-diameter loop, using insulated wire; connect to signal-generator leads and place near radio loop aerial.

DIAL—With tuning condenser fully meshed, set pointer to index mark at low-frequency end of dial, beyond "55".

RADIO CONTROLS—Set volume control to maximum, and radio-phonograph switch to radio position.

OUTPUT METER—Connect to terminals indicated in figure 3.

NOTE:—TC300A AND TC301A ARE LOCATED ON UNDERSIDE OF CHASSIS.



TP 5971

Figure 3. Top View, Showing Trimmer Locations
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REPLACEMENT PARTS LIST

NOTE: Part numbers identified by an asterisk (*) indicates a general replacement item. The part numbers of these items may not be identical with those on factory parts; also, the electrical values of some replacement items may differ from the values given in the schematic diagram and parts list. The values substituted in any case are so chosen that the operation of the radio will be either unchanged or improved. When ordering replacements, use only the "Service Part No."

SECTION 1

POWER SUPPLY

Reference Symbol	Description	Service Part No.
C100	Condenser, line filter, .05 mf.	61-0107*
C101	Condenser, electrolytic, filter, 20 mf.	30-2568-22
C102	Condenser, electrolytic, 3-section	30-2575-26
C102A:	Condenser, filter, 40 mf.	Part of C102
C102B:	Condenser, filter, 40 mf.	Part of C102
C102C:	Condenser, filter, 20 mf.	Part of C102
I100	Pilot lamp	34-2605
R100	Resistor, filter, 180 ohms	66-1184340*
R101	Resistor, filter, 10,000 ohms	66-3103340*
R102	Resistor, filter, 10,000 ohms	66-3103340*
R103	Resistor, isolating, 120,000 ohms	66-4123340*
S100	Switch, power on-off	Part of R200
W100	Line cord and plug	L2183*
WS-A	Switch-wafer section	Part of 42-1847-1†

SECTION 2

AUDIO CIRCUITS

C200	Condenser, d-c blocking, .01 mf.	61-0120*
C201	Condenser, d-c blocking, .01 mf.	61-0120*
C202	Condenser, r-f by-pass, 220 mmf.	66-122001001*
C203	Condenser, tone compensation, .004 mf.	61-0179*
C204	Condenser, tone compensation, .01 mf.	61-0120*
R200	Volume control (with power on-off witch), 2 megohms, tapped at 1 megohm	33-5535-15
R201	Resistor, grid return, 10 megohms	66-6103340*
R202	Resistor, plate load, 220,000 ohms	66-4223340*
R203	Resistor, grid return, 470,000 ohms	66-4473340*
R204	Resistor, cathode bias, 180 ohms	66-1183340*
R205	Resistor, tone compensation, 47,000 ohms	66-3473340*
LS200	Loud-speaker, PM	36-1629
T200	Transformer, output	32-8242-4
WS-B	Switch-wafer section	Part of 42-1847-1†

† 42-1847-1 Wafer switch, single wafer, radio-phonograph (includes WS-A, WS-B, WS-C).

SECTION 3

I-F, DETECTOR, AND A-V-C CIRCUITS

C300A	Condenser, fixed, 1st i-f primary	Part of Z300
C300B	Condenser, fixed, 1st i-f secondary	Part of Z300
C301A	Condenser, fixed, 2nd i-f primary	Part of Z301
C301B	Condenser, fixed, 2nd i-f secondary	Part of Z301
C301C	Condenser, fixed, i-f filter	Part of Z301
C301D	Condenser, fixed, i-f filter	Part of Z301
C302	Condenser, a-v-c filter, .05 mf.	61-0122*
C303	Condenser, screen by-pass, .01 mf.	61-0120*
C304	Condenser, plate by-pass, .003 mf.	61-0109*
C305	Condenser, r-f by-pass, .1 mf.	61-0113*
R300	Resistor, a-v-c filter, 22,000 ohms	66-3223340*
R301	Resistor, a-v-c filter, 2.2 megohms	66-5223340*
R302	Resistor, screen dropping, 100,000 ohms	66-4103340*
R303	Resistor, plate dropping, 1,000 ohms	66-2103340*
R304	Resistor, a-v-c filter, 47,000 ohms	66-3473340*

SECTION 3 (Cont.)

Reference Symbol	Description	Service Part No.
R305	Resistor, diode load, 470,000 ohms	66-4473340*
R306	Resistor, bias, 100 ohms	66-1103340*
TC300A	Tuning core, 1st i-f primary	Part of Z300
TC300B	Tuning core, 1st i-f secondary	Part of Z300
TC301A	Tuning core, 2nd i-f primary	Part of Z301
TC301B	Tuning core, 2nd i-f secondary	Part of Z301
WS-C	Switch-wafer section	Part of 42-1847-1†
Z300	Transformer, 1st i-f	32-4160
Z301	Transformer, 2nd i-f	32-4240

SECTION 4

R-F AND CONVERTER CIRCUITS

C400	Condenser, tuning gang	31-2727
C400A:	Condenser, trimmer, aerial	Part of C400
C400B:	Condenser, trimmer, oscillator	Part of C400
C401	Condenser, ceramic, 10 mmf.	30-1224-6
C402	Condenser, ceramic, 56 mmf.	60-00515307*
C403	Condenser, r-f by-pass, .03 mf.	45-3500-1*
C404	Condenser, aerial coupling, 5 mmf.	60-90505007*
LA400	Loop aerial	76-2127-9
R400	Resistor, leakage, 150,000 ohms	66-4153340*
R401	Resistor, grid return, 22,000 ohms	66-3223340*
R402	Resistor, parasitic suppressor, 33 ohms	66-0333340*
T400	Transformer, oscillator	32-4190-2

† 42-1847-1 Wafer switch, single wafer, radio-phonograph (includes WS-A, WS-B, WS-C).

MISCELLANEOUS

Description	Service Part No.
Cabinet and Cabinet Parts	
Bezel	56-5931
Cabinet	10727
Knob (3)	54-4527-9
Phonograph cover	45-6454
Window, acetate	54-4630
Dial Scale and Hardware	
Dial cord (25-ft. spool)	45-8750*
Pointer	56-5956
Spring, pointer	56-6299
Scale	54-5022
Shaft assembly, drive	76-3731-1
Spring, drive cord	56-2617
Pilot-lamp-socket assembly	27-6233-1
Bracket, rear	27-9508
Socket, octal	27-6174
Socket, miniature	27-6226
Wafer, condenser mounting	27-9508
Crystal pickup cartridge, P-30	35-2671-1
Needle for P-30 crystal	45-1597
Pickup cartridge and needle assembly L. P.	45-1609
Speaker Shield (record comp.)	
Stud (8)	56-5955
Screws (8)	56-6296
Lid support	1W13946FA9
Lid support	56-5992