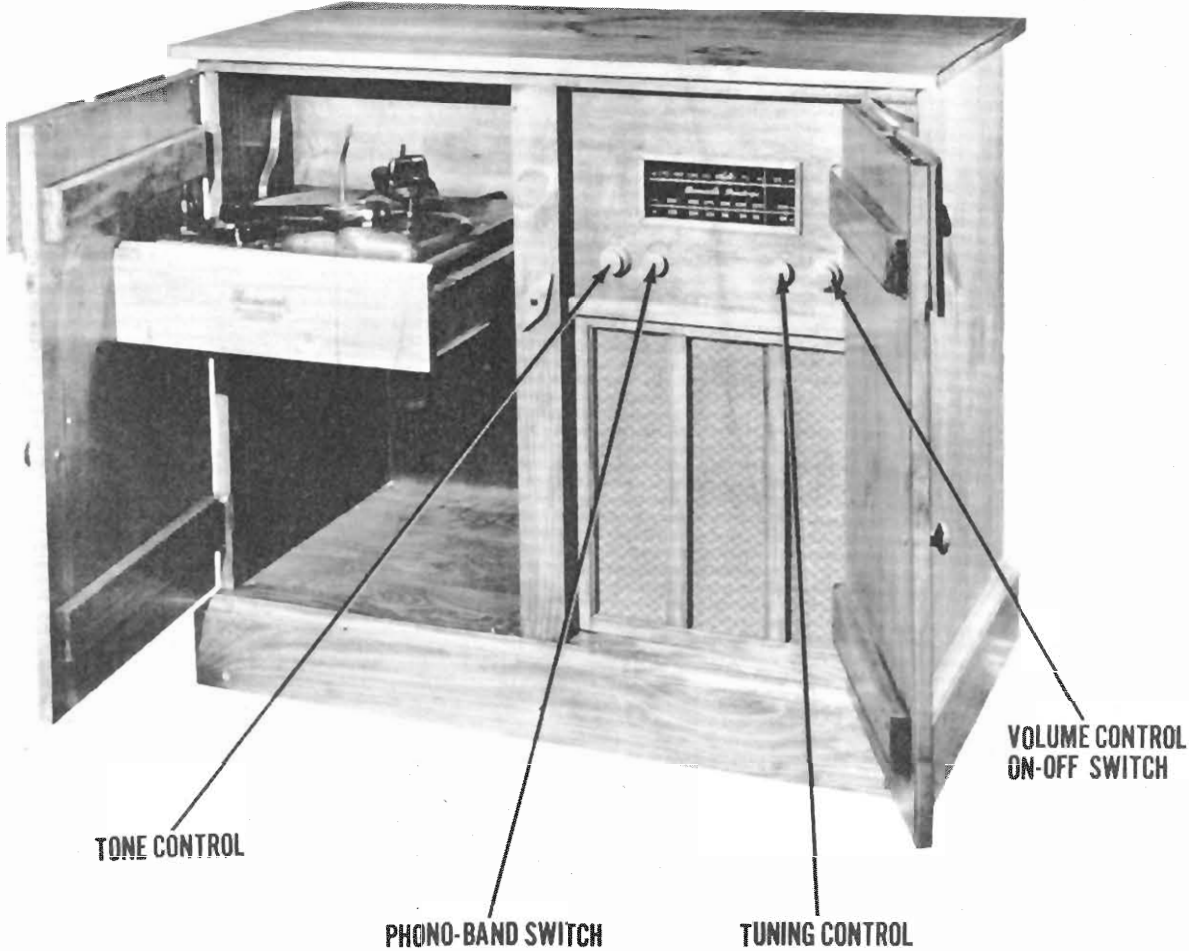


BRUNSWICK MODELS
D-1000, D-1100, T-9000

BRUNSWICK MODELS
D-1000, D-1100, T-9000



BRUNSWICK Model D-1000	
TRADE NAME	Brunswick, Models D-1100, T-9000
MANUFACTURER	Radio & Television Inc., 244 Madison Ave., New York, 16, N.Y.
TYPE SET	AC Operated Combination Phono-Radio, AM-FM Superheterodyne Receiver with Loop Ant.
TUBES(FOURTEEN)	Types, 6AG5 FM RF Amp., 6SB7Y FM Converter, 6SQ7 or 6SK7 AM RF Amp., 6SA7 AM Converter 6SK7 FM 1st IF Amp., 6SK7 FM 2nd IF-AM 1st IF, 6SK7 FM 3rd IF Amp., 6H6 FM Detector, 6SQ7 AM Det.-AVC-1st AF, 6U5/6G5 Tuning Indicator, 6SN7GT 2nd AF-Phase Inv., (2) 6K6GT Power Output, 5Y3GT Rectifier.
POWER SUPPLY	110-120 Volts AC
RATING	.71 Amp. @ 117 Volts AC
TUNING RANGE-BROADCAST	540-1620KC
FREQ.MOD.	88-108MC

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT							
To set pointer turn tuning cap. fully closed and set pointer to last reference mark at low frequency end of dial.							
AM ALIGNMENT							
Loop should be maintained in same relative position to chassis as when receiver in cabinet. Volume control should be at maximum position. Output of signal generator should be no higher than necessary to obtain an output reading. Use an insulated alignment screwdriver for adjusting.							
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1 .05 MFD	High side to Pin 4 (grid) of 6SK7 AM RF Tube (3). Low side to chassis.	455KC	AM (counter-clockwise)	Tuning cap. fully open.	Across voice coil	A1, A2, A3, A4	Adjust for maximum output.
2 .05 MFD	"	"	"	"	"	A5	Adjust for minimum output.
3 .05 MFD	"	1500KC	"	1500KC	"	A6	Adjust for maximum output.
4 .05 MFD	"	800KC	"	800KC	"	A7	Adjust for maximum output. Repeat Steps 3 & 4 until no further improvement can be made.
5	Loop	"	"	"	"	A8	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
6	"	1500KC	"	Tune for maximum output.	"	A9	Adjust for maximum output. Repeat Steps 5 & 6 until no further improvement can be made.
FM IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM							
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
7 .01 MFD	High side to Pin 8 (grid) of 6SB7Y. Low side to chassis.	10.7MC (Unmodulated)	FM (Center position)	Tuning cap. fully open.	DC probe to Point \diamond . Common to chassis.	A10, A11, A12, A13, A14, A15	Adjust for maximum deflection.
8 .01 MFD	"	"	"	"	DC probe to Point \diamond . Common to Point \diamond .	A16	Use zero center scale VTVM if available and adjust for zero deflection. Continue with FM-RF Alignment in Step 11.
FM IF ALIGNMENT USING FM SIGNAL GENERATOR AND OSCILLOSCOPE							
Use frequency modulated signal with 80% modulation and 450KC sweep. Use 120 V sawtooth voltage in scope for horizontal deflection.							
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT SCOPE	ADJUST	REMARKS
7 .01 MFD	High side to Pin 4 (grid) of 6SK7 2nd IF Tube (6). Low side to chassis.	10.7MC (Freq. Mod.)	FM (Center position)	Tuning cap. fully open.	Vertical input to Point \diamond . Ground to chassis.	A10, A12, A11	Disconnect 2 MFD cap. (16) from Point \diamond . Adjust A10, A12 & A11 for maximum amplitude, symmetry and coincidence of pattern per Fig. 1.
8 .01 MFD	High side to Pin 4 (grid) of 6SK7 1st IF Tube (5). Low side to chassis.	"	"	"	"	A14, A13	Adjust for maximum amplitude, symmetry and coincidence of pattern per Fig. 1.
9 .01 MFD	High side to Pin 8 (grid) of 6SB7Y. Low side to chassis.	"	"	"	"	A15	Adjust for maximum amplitude, symmetry and coincidence of pattern per Figure 1. Reconnect 2 MFD Cap.
10 .01 MFD	High side to Pin 4 (grid) of 6SK7 2nd IF Tube (6). Low side to chassis.	"	"	"	Vertical input to Point \diamond . Ground to chassis.	A16	Adjust for crossover of diagonal lines occurring at scope horizontal sweep line per Fig. 2. Continue with FM-RF Alignment in Step 11.
FM RF ALIGNMENT							
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
11 Direct	High side to Pin 3 of FM Dipole socket. Low side to chassis.	108MC (Unmodulated)	FM	108MC	DC probe to Point \diamond . Common to chassis.	A17	Adjust for maximum deflection.
12 Direct	"	88MC	"	88MC	FM Osc. Coil (110)	"	Compress or expand osc. coil slightly for maximum deflection.
13 Direct	"	103MC	"	Tune for maximum deflection.	"	A18, A15	Rock tuning cap. and adjust for maximum deflection.

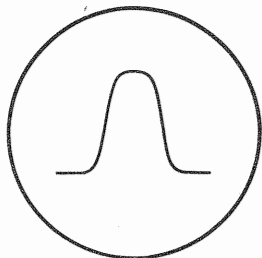


FIG. 1

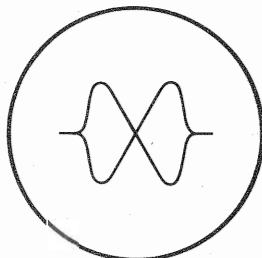


FIG. 2

HOWARD W. SAMS & CO., INC. • Indianapolis 7, Indiana

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DATE 2/49-#494-7 Set#56-Folder #7

BRUNSWICK MODELS
D-1000, D-1100, T-9000

TONE CONTROL

TRADE NAME	Brunswick
MANUFACTURER	Radio
TYPE SET	AC OF
TUBES (FOURTEEN)	6X4 6H6 F AF-PR
POWER SUPPLY	110-1
RATING	.71 A
TUNING RANGE	BROADCAST

HOV

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ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT
To set pointer turn tuning cap. fully closed and set pointer to last reference mark at low frequency end of dial.

AM ALIGNMENT

Loop should be maintained in same relative position to chassis as when receiver in cabinet. Volume control should be at maximum position. Output of signal generator should be no higher than necessary to obtain an output reading. Use an insulated alignment screwdriver for adjusting.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1 .05 MFD	High side to Pin 4 (grid) of 6SK7 AM RF Tube (3). Low side to chassis.	455KC	AM (counter-clockwise)	Tuning cap. fully open.	Across voice coil	A1, A2, A3, A4	Adjust for maximum output.
2 .05 MFD	"	"	"	"	"	A5	Adjust for minimum output.
3 .05 MFD	"	1500KC	"	1500KC	"	A6	Adjust for maximum output.
4 .05 MFD	"	800KC	"	800KC	"	A7	Adjust for maximum output. Repeat Steps 3 & 4 until no further improvement can be made.
5	Loop	"	"	"	"	A8	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
6	"	1500KC	"	Tune for maximum output.	"	A9	Adjust for maximum output. Repeat Steps 5 & 6 until no further improvement can be made.

FM IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
7 .01 MFD	High side to Pin 8 (grid) of 6SB7Y. Low side to chassis.	10.7MC (Unmodulated)	FM (Center position)	Tuning cap. fully open.	DC probe to Point 1. Common to chassis.	A10, A11, A12, A13	Adjust for maximum deflection.
8 .01 MFD	"	"	"	"	DC probe to Point 2. Common to Point 1.	A16	Use zero center scale VTVM if available and adjust for zero deflection. Continue with FM-RF Alignment in Step 11.

FM IF ALIGNMENT USING FM SIGNAL GENERATOR AND OSCILLOSCOPE

Use frequency modulation signal with 60% modulation and 450KC sweep. Use 120V sawtooth voltage in scope for horizontal deflection.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT SCOPE	ADJUST	REMARKS
7 .01 MFD	High side to Pin 4 (grid) of 6SK7 2nd IF Tube (6). Low side to chassis.	10.7MC (Freq. Mod.)	FM (Center position)	Tuning cap. fully open.	Vertical input to Point 1. Ground to chassis.	A10, A12, A11	Disconnect 2 MFD cap. (16) from Point 1. Adjust A10, A12 & A11 for maximum amplitude, symmetry and coincidence of pattern per Fig. 1.
8 .01 MFD	High side to Pin 4 (grid) of 6SK7 1st IF Tube (5). Low side to chassis.	"	"	"	"	A14, A13	Adjust for maximum amplitude, symmetry and coincidence of pattern per Fig. 1.
9 .01 MFD	High side to Pin 8 (grid) of 6SB7Y. Low side to chassis.	"	"	"	"	A15	Adjust for maximum amplitude, symmetry and coincidence of pattern per Figure 1. Reconnect 2 MFD Cap.
10 .01 MFD	High side to Pin 4 (grid) of 6SK7 2nd IF Tube (6). Low side to chassis.	"	"	"	Vertical input to Point 2. Ground to chassis.	A16	Adjust for crossover of diagonal lines occurring at scope horizontal sweep line per Fig. 2. Continue with FM-RF Alignment in Step 11.

FM RF ALIGNMENT

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
11 Direct	High side to Pin 3 of FM Dipole socket. Low side to chassis.	108MC (Unmodulated)	FM	108MC	DC probe to Point 1. Common to chassis.	A17	Adjust for maximum deflection.
12 Direct	"	88MC	"	88MC	"	FM Osc. Coil (115)	Compress or expand osc. coil slightly for maximum deflection.
13 Direct	"	103MC	"	Tune for maximum deflection.	"	A18, A15	Rock tuning cap. and adjust for maximum deflection.

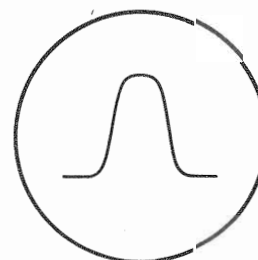


FIG. 1

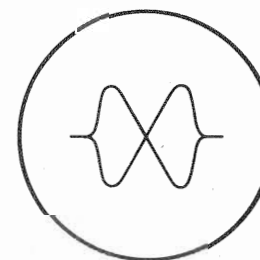
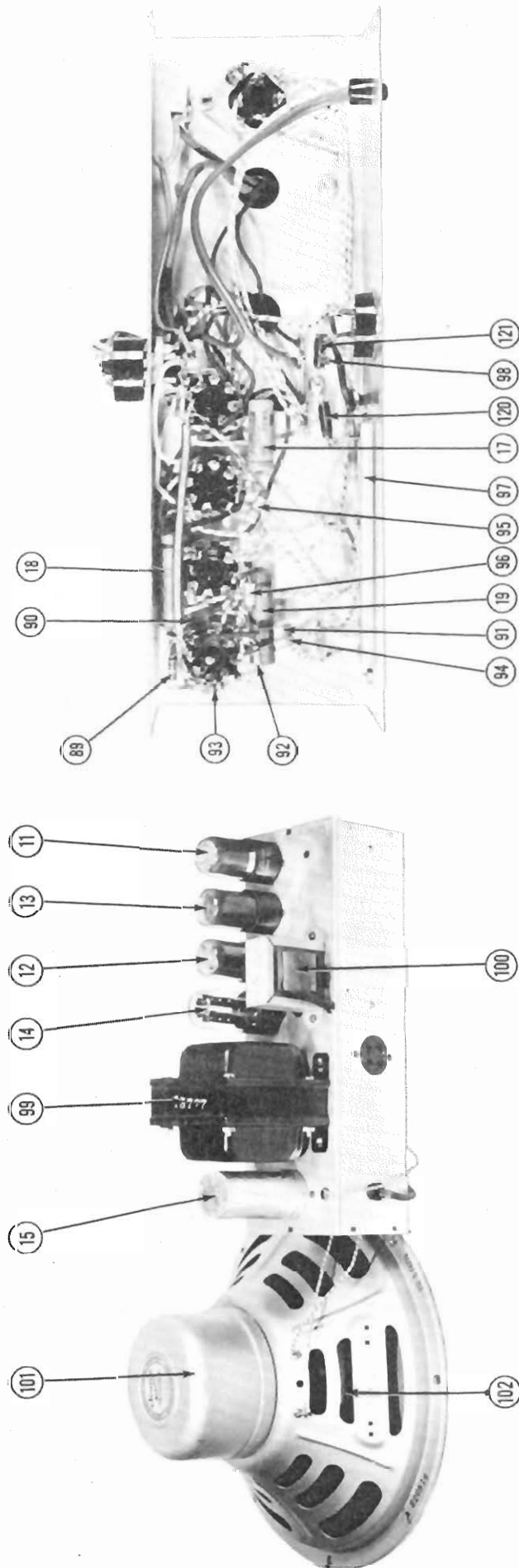
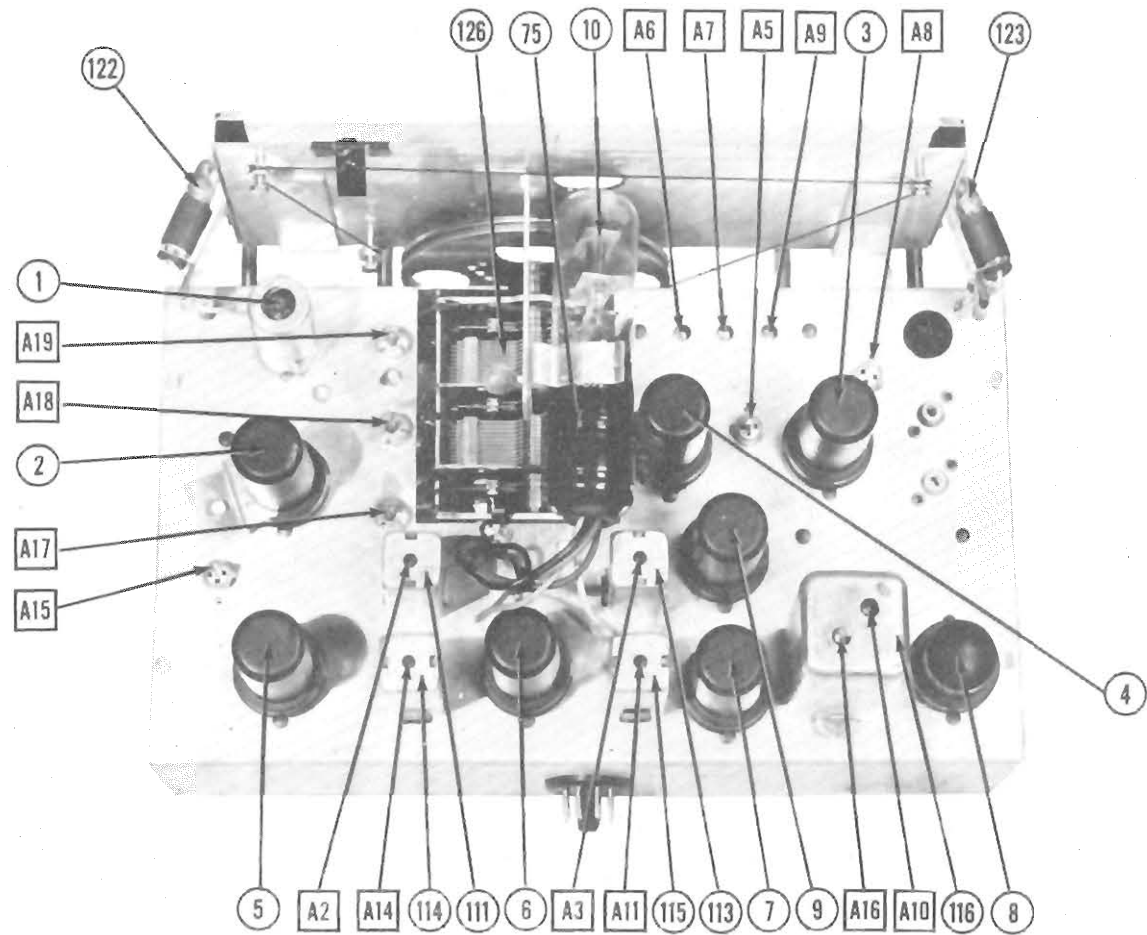


FIG. 2

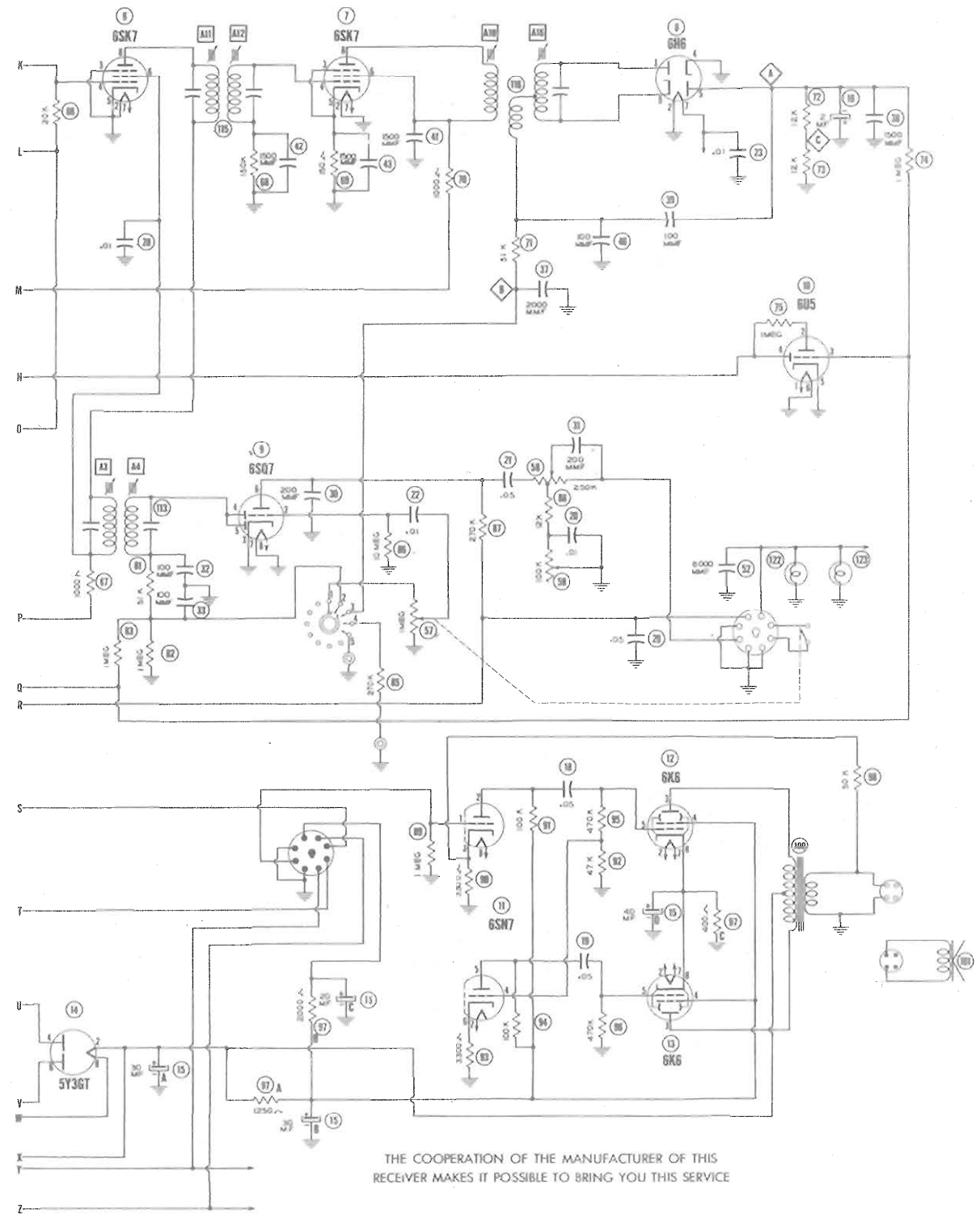
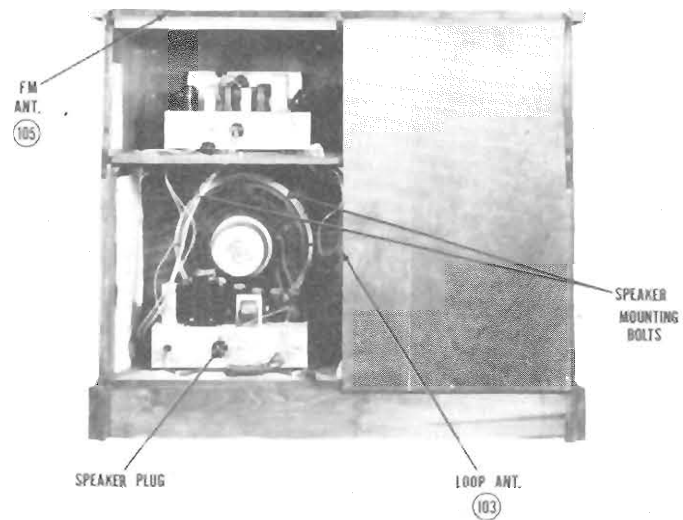


CHASSIS—TOP VIEW



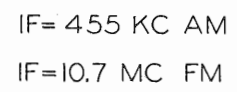
DISASSEMBLY INSTRUCTIONS

1. Disconnect phone motor and pickup plugs.
2. Remove speaker plug from front of output chassis.
3. Remove power plug from rear of tuner chassis.
4. Remove ten hex type metal screws holding output chassis to mounting frame. Remove output chassis.
5. Remove speaker.
6. Remove three push on type and two set screw type control knobs.
7. Remove loop antenna leads from loop.
8. Remove FM antenna plug from tuner chassis.
9. Remove four hex type metal bolts from underneath tuner chassis.
10. Remove tuner chassis.
11. Remove twelve hex type metal screws holding tuner chassis to chassis mount.



THE COOPERATION OF THE MANUFACTURER OF THIS
RECEIVER MAKES IT POSSIBLE TO BRING YOU THIS SERVICE

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PARTS LIST AND DESCRIPTIONS

TUBES

ITEM No.	USE	REPLACEMENT DATA		RMA BASE TYPE	NOTES
		BRUNSWICK PART No.	STANDARD REPLACEMENT		
1	FM RF Amp.	6857	6857	7D	
2	FM Converter	6857	6857	8R	
3	AM RF Amp.	6857	6857	8R	
4	AM Converter	6857	6857	8R	
5	FM 1st IF Amp.	6857	6857	8R	
6	1st IF	6857	6857	8R	
7	FM 3rd IF Amp.	6857	6857	8R	
8	FM Detector	6857	6857	7Q	
9	AM Det.-AVC-1st	6857	6857	8Q	
10	Tuning Indicator	6857	6857	8R	
11	2nd AF-Phase Inv.	6857	6857	8R	
12	Power Output	6857	6857	8R	
13	Rectifier	6857	6857	8R	
14	Rectifier	6857	6857	8R	

CAPACITORS

Capacity values given in the rating column are in mfd. for Electrolytic and Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING	REPLACEMENT DATA		IDENTIFICATION CODES
		BRUNSWICK PART No.	STANDARD REPLACEMENT	
15A	30 450	6857	6857	7D
15B	30 450	6857	6857	7D
15C	30 450	6857	6857	7D
15D	30 450	6857	6857	7D
16	2 25	6857	6857	7D
17	2 25	6857	6857	7D
18	2 25	6857	6857	7D
19	2 25	6857	6857	7D
20	2 25	6857	6857	7D
21	2 25	6857	6857	7D
22	2 25	6857	6857	7D
23	2 25	6857	6857	7D
24	2 25	6857	6857	7D
25	2 25	6857	6857	7D
26	2 25	6857	6857	7D
27	2 25	6857	6857	7D
28	2 25	6857	6857	7D
29	2 25	6857	6857	7D
30	2 25	6857	6857	7D
31	2 25	6857	6857	7D
32	2 25	6857	6857	7D
33	2 25	6857	6857	7D
34	2 25	6857	6857	7D
35	2 25	6857	6857	7D
36	2 25	6857	6857	7D
37	2 25	6857	6857	7D
38	2 25	6857	6857	7D
39	2 25	6857	6857	7D
40	2 25	6857	6857	7D
41	2 25	6857	6857	7D
42	2 25	6857	6857	7D
43	2 25	6857	6857	7D
44	2 25	6857	6857	7D
45	2 25	6857	6857	7D
46	2 25	6857	6857	7D
47	2 25	6857	6857	7D
48	2 25	6857	6857	7D
49	2 25	6857	6857	7D
50	2 25	6857	6857	7D
51	2 25	6857	6857	7D

PARTS LIST AND DESCRIPTIONS (Continued)

ITEM No.	RATING	REPLACEMENT DATA		IDENTIFICATION CODES
		BRUNSWICK PART No.	STANDARD REPLACEMENT	
52	30 450	6857	6857	7D
53	30 450	6857	6857	7D
54	30 450	6857	6857	7D
55	30 450	6857	6857	7D
56	30 450	6857	6857	7D
57	30 450	6857	6857	7D
58	30 450	6857	6857	7D
59	30 450	6857	6857	7D
60	30 450	6857	6857	7D
61	30 450	6857	6857	7D
62	30 450	6857	6857	7D
63	30 450	6857	6857	7D
64	30 450	6857	6857	7D
65	30 450	6857	6857	7D
66	30 450	6857	6857	7D
67	30 450	6857	6857	7D
68	30 450	6857	6857	7D
69	30 450	6857	6857	7D
70	30 450	6857	6857	7D
71	30 450	6857	6857	7D
72	30 450	6857	6857	7D
73	30 450	6857	6857	7D
74	30 450	6857	6857	7D
75	30 450	6857	6857	7D
76	30 450	6857	6857	7D
77	30 450	6857	6857	7D
78	30 450	6857	6857	7D
79	30 450	6857	6857	7D
80	30 450	6857	6857	7D
81	30 450	6857	6857	7D
82	30 450	6857	6857	7D
83	30 450	6857	6857	7D
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85	30 450	6857	6857	7D
86	30 450	6857	6857	7D
87	30 450	6857	6857	7D
88	30 450	6857	6857	7D
89	30 450	6857	6857	7D
90	30 450	6857	6857	7D
91	30 450	6857	6857	7D
92	30 450	6857	6857	7D
93	30 450	6857	6857	7D
94	30 450	6857	6857	7D
95	30 450	6857	6857	7D
96	30 450	6857	6857	7D
97	30 450	6857	6857	7D
98	30 450	6857	6857	7D
99	30 450	6857	6857	7D
100	30 450	6857	6857	7D

CONTROLS

ITEM No.	RATING	REPLACEMENT DATA		IDENTIFICATION CODES
		BRUNSWICK PART No.	STANDARD REPLACEMENT	
57A	1 Meg.	6857	6857	7D
57B	1 Meg.	6857	6857	7D
57C	1 Meg.	6857	6857	7D
57D	1 Meg.	6857	6857	7D
57E	1 Meg.	6857	6857	7D
57F	1 Meg.	6857	6857	7D
57G	1 Meg.	6857	6857	7D
57H	1 Meg.	6857	6857	7D
57I	1 Meg.	6857	6857	7D
57J	1 Meg.	6857	6857	7D
57K	1 Meg.	6857	6857	7D
57L	1 Meg.	6857	6857	7D
57M	1 Meg.	6857	6857	7D
57N	1 Meg.	6857	6857	7D
57O	1 Meg.	6857	6857	7D
57P	1 Meg.	6857	6857	7D
57Q	1 Meg.	6857	6857	7D
57R	1 Meg.	6857	6857	7D
57S	1 Meg.	6857	6857	7D
57T	1 Meg.	6857	6857	7D
57U	1 Meg.	6857	6857	7D
57V	1 Meg.	6857	6857	7D
57W	1 Meg.	6857	6857	7D
57X	1 Meg.	6857	6857	7D
57Y	1 Meg.	6857	6857	7D
57Z	1 Meg.	6857	6857	7D

RESISTORS

ITEM No.	RATING	REPLACEMENT DATA		IDENTIFICATION CODES
		BRUNSWICK PART No.	STANDARD REPLACEMENT	
59	100K	6857	6857	7D
60	100K	6857	6857	7D
61	100K	6857	6857	7D
62	100K	6857	6857	7D
63	100K	6857	6857	7D
64	100K	6857	6857	7D
65	100K	6857	6857	7D
66	100K	6857	6857	7D
67	100K	6857	6857	7D
68	100K	6857	6857	7D
69	100K	6857	6857	7D
70	100K	6857	6857	7D
71	100K	6857	6857	7D
72	100K	6857	6857	7D
73	100K	6857	6857	7D
74	100K	6857	6857	7D
75	100K	6857	6857	7D
76	100K	6857	6857	7D
77	100K	6857	6857	7D
78	100K	6857	6857	7D
79	100K	6857	6857	7D
80	100K	6857	6857	7D
81	100K	6857	6857	7D
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87	100K	6857	6857	7D
88	100K	6857	6857	7D
89	100K	6857	6857	7D
90	100K	6857	6857	7D
91	100K	6857	6857	7D
92	100K	6857	6857	7D
93	100K	6857	6857	7D
94	100K	6857	6857	7D
95	100K	6857	6857	7D
96	100K	6857	6857	7D
97	100K	6857	6857	7D
98	100K	6857	6857	7D
99	100K	6857	6857	7D
100	100K	6857	6857	7D

PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (POWER)

ITEM No.	RATING				REPLACEMENT DATA			MERIT PART No.	THORDARSON PART No.	MERIT PART No.	INSTALLATION NOTES
	RATING		DC RES.		BRUNSWICK PART No.	STANCOR PART No.	THORDARN PART No.				
	PRI.	SEC.	PRI.	SEC.							
99	117VAC	6857	5.2VAC	6.6VAC	6.6VAC	2.0A	4.45A	P-4850#	750002	P-31554	
100	117VAC	6857	2.0A	4.45A	4.45A	2.0A	4.45A				
#Drill new mounting holes and series res. to reduce plate voltage.											