SPARTON RADIO SERVICE MANUAL

Effective Oct. 1st, 1935 **Bulletin 3F**

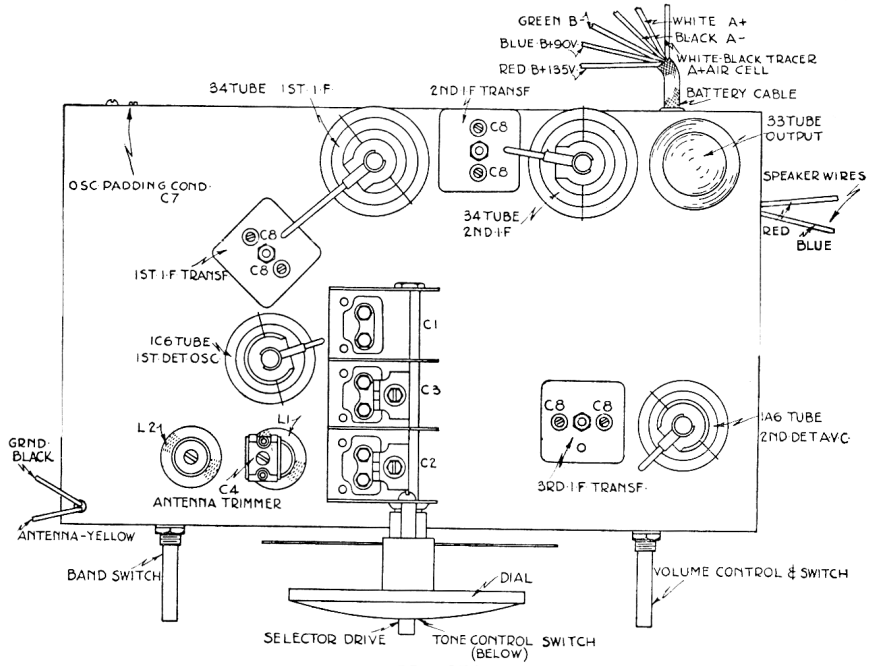
Model 951 and 954—Battery Operated Chassis

WAVE RANGE 530-1600 K.C., Broadcast 2100-6300 Short Wave **P.M. Dynamic Speaker**

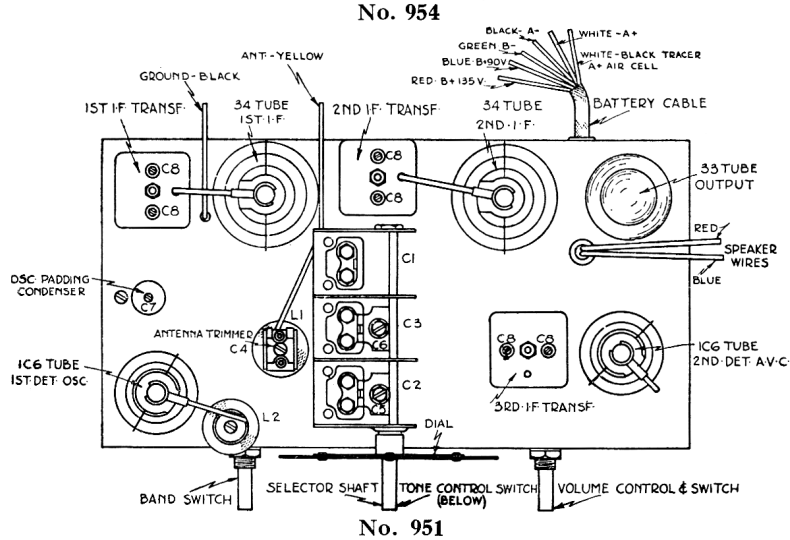
VOLTAGE ANALYSIS AND RESISTANCE CHART

Tube	Location	Plate Mils	Plate Volts	Screen Volts	Control Grid Volts	RESISTANCE TO GROUND (3)		
						Plate	Grid	Screen
1C6	Converter	.1	80	45	(1)	12	1,000,000	50,000
34	1st I.F.	1	80	50	"	12	"	"
34	2nd I.F.	1	75	50	"	5000	"	"
1C6	2nd. Det.	.1	45	40	"	150,000	2,000,000	"
33	Output	8	130	130	1 (2)	500	—	—

Volume control on full, no signal. All readings for + or — 10%.
(1) Grid bias supplied by signal cannot be read by analyzer.
(2) As read on 10 volt scale of 1000 ohm per volt meter not true voltage.
(3) All resistance readings taken with battery wires disconnected and grounded.



No. 954



No. 951

ALIGNMENT PROCEDURE

NOTE—Before commencing alignment make sure that the dial is set so that with the selector plates in flush, the pointer points to the last division on the dial.
See bulletin 2F for full instructions.

1. INTERMEDIATE FREQUENCY AMPLIFIER—Set service oscillator at 345 K. C. and with test lead attached to 1C6 (converter) grid cap adjust the six condensers C8 for maximum reading on output meter.

2. OSCILLATOR TRIMMER—Set service oscillator at 1500 K. C. and connect test lead to yellow aerial lead, adjust trimmer C6 (on selector) until with signal tuned in dial points to 150.

3. OSCILLATOR PADDER — Set service oscillator at 600 K. C. and adjust padder (C7) until with signal tuned in dial points to 60. Re-check at 1500 as in section No. 2 above.

4. R. F. TRIMMERS—With service oscillator at 1500, adjust trimmers C4 and C5 for maximum output.

NOTE—In some cases better results will be obtained if C4 (the antenna trimmer) is adjusted with a station tuned in at 1400 K. C., when the set is connected to the aerial upon which it is to operate.

WHAT TO LOOK FOR IN CASE OF TROUBLE:

A — Audio Howl — check chassis mounting screws, these should be loose enough so that chassis is able to rest freely on rubber cushion washers. Also check for microphonic tube.

B—Poor selectivity—check alignment as above.

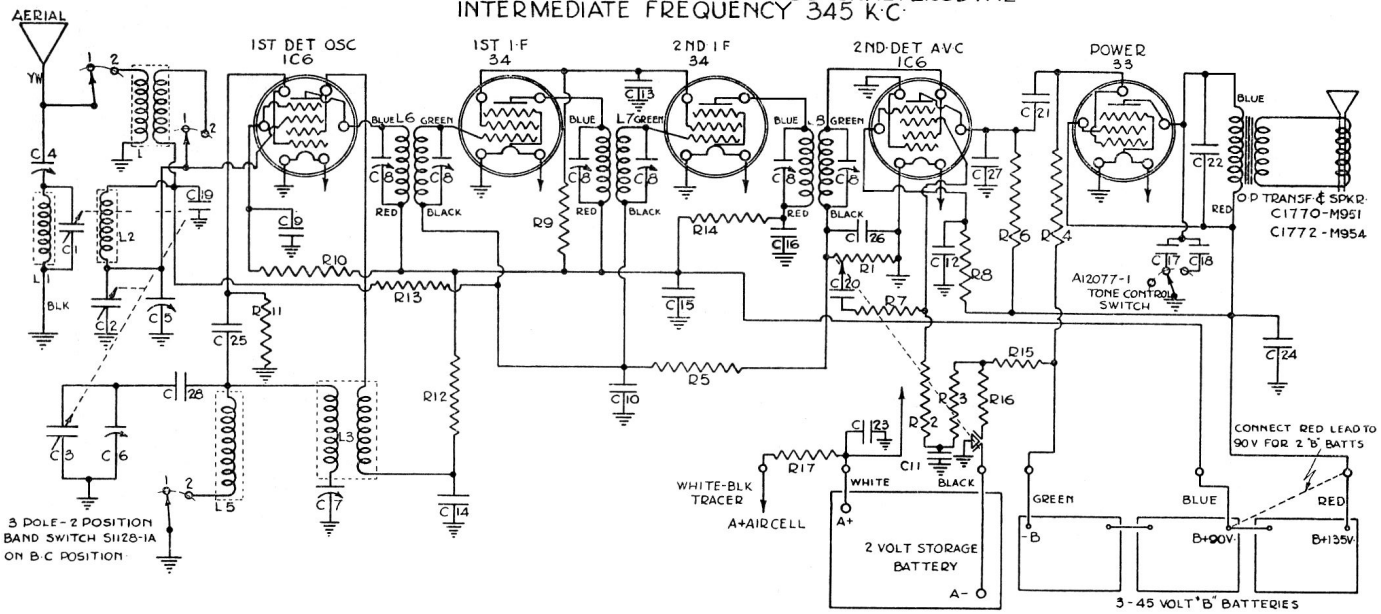
C—Excessive noise—check alignment, check aerial, too short an aerial will sometimes result in the picking up of too large a proportion of noise. A ground should ALWAYS be used.

NOTE—Models 951 and 954 are identical as far as the circuit is concerned. Model 951 has a disc dial and is mounted on a small chassis. Model 954 has an aeroplane dial and is mounted on a larger chassis.

All 2 volt tubes can be damaged by the application, even momentarily, of excessive filament voltage and even if it still lights it may not operate.

USE GENUINE SPARTON SERVICE PARTS

SCHEMATIC DIAGRAM
SPARTON CHASSIS MODEL 951-54 SUPERHETERODYNE
INTERMEDIATE FREQUENCY 345 K.C.



C1	SELECTOR-R.F PRIMARY SECTION S1002B*	C15	2 MFD-200V
C2	SELECTOR-R.F SECONDARY " " *	C16	.2 " - "
C3	SELECTOR-OSC SECTION " *	C17	.01 " 400V.
C4	ANTENNA TRIMMER 5-35 MMFD. S1028A	C18	.02 " "
C5	R.F SECONDARY TRIMMER(SELECTOR)	C19	.05 " 200V
C6	OSC TRIMMER (ON SELECTOR)	C20	.05 " 400V
C7	OSC PADDING COND 300-750MMFD A9874-4	C21	.05 " "
C8	I-F TRANSFORMER TRIMMERS	C22	.005 MFD-600V
C9	.1 MFD - 200V S200-1A	C23	1.0 MFD 100V
C10	.1 " - " S200-1A	C24	4 MFD-T50W.V. ELECTROLYTIC
C11	.1 " - " "	C25	50 MMFD MICA
C12	.1 " - " "	C26	250 " "
C13	.1 " - " "	C27	500 " "
C14	.2 " - " S200-2A	C28	3200 " "

*NOTE M954-USE SELECTOR S1004B

S200-2A	R1	500,000 Ω VOLUME CONTROL & SWITCH S1129-1A
S200-2A	R2	1 MEG .25 W B5458-40
S400-01A	R3	1 " .25 W B5458-40
S400-02A	R4	500,000 Ω .25W B5458-12
S200-05A	R5	500,000Ω " B5458-12
S400-05A	R6	150,000Ω " B5458-7
S400-05A	R7	100,000 Ω " B5458-30
S600-005A	R8	50,000 Ω " B5458-5
S100-10A	R9	50,000Ω " B5458-5
S1149A	R10	" " B5458-5
A9578-2	R11	" " B5458-5
A9578-5	R12	10,000Ω " B5458-20
A9578	R13	5,000 Ω " B5458-16
A9578-15	R14	5,000 Ω " B5458-16
	R15	550Ω .5 W ELECTRAD B5243-50
	R16	75 Ω 3/8 W. " B5243-51
	R17	44-46 Ω AIR CELL RESISTOR A10000-7

L1	#1 R.F COIL } MUTUALLY COUPLED	S1137-1A
L2	#2 R.F COIL } TOGETHER	S1137-2A
L3	#3 R.F COIL ORANGE SPOT	S1137-3A
L4	#4 R.F COIL YELLOW SPOT	S1137-4A
L5	#5 R.F COIL GREEN SPOT	S1137-5A
L6	#1 I.F TRANSFORMER	S1135-1A
L7	#2 I.F "	S1133-2A
L8	#3 I.F "	S1133-3A

L1 - BROWN SPOT
L2 - RED SPOT