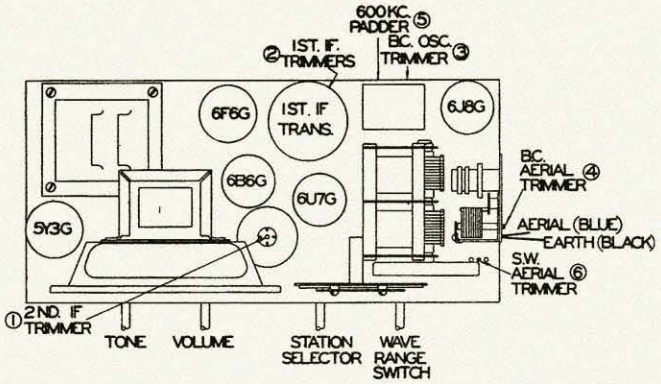
STROMBERG-CARLSON

STROMBERG - CARLSON
SERVICE BULLETIN, No. D39

Stromberg-Carlson Model D39

A.C. DUAL WAVE RECEIVER



Chassis of Model D39

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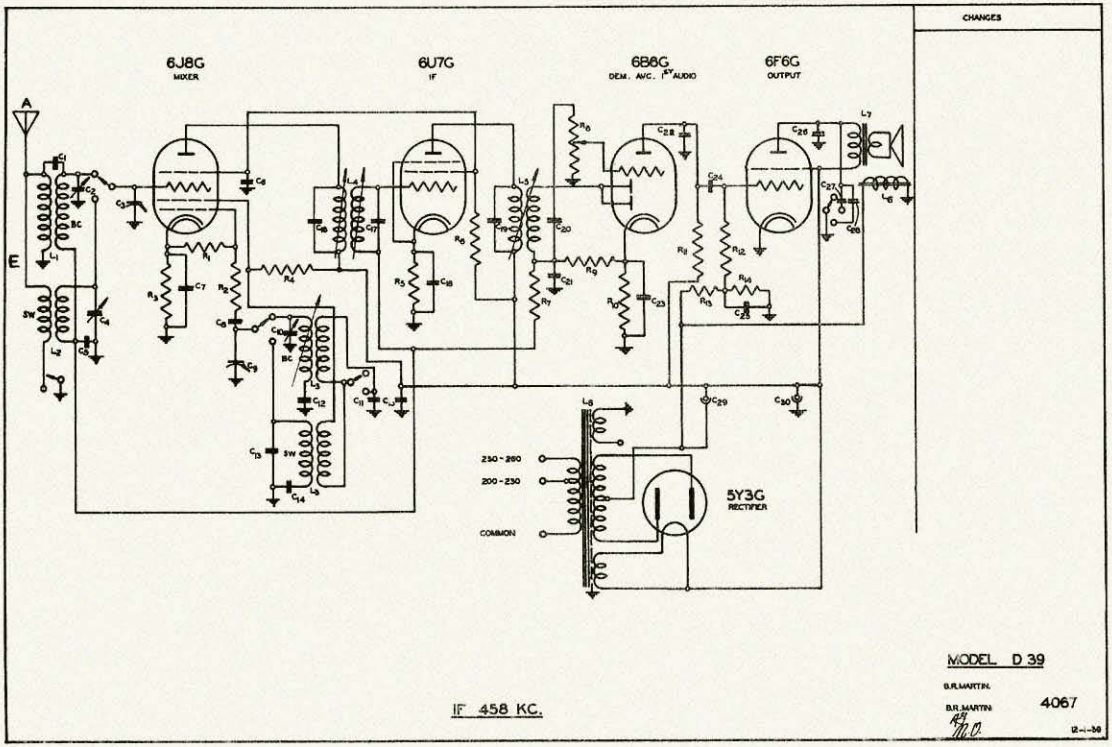
CHANGES
6J8G
MIXER
6U7G
IF
6B8G
DEM. AVC. 1ST AUDIO
6F6G
OUTPUT
A
E
BC
SW
230 - 260
200 - 230
COMMON
5Y3G
RECTIFIER
IF 458 KC.
MODEL D 39
B.R.MARTIN
4067
12-1-38

CIRCUIT CODE MODEL D39 RECEIVER.

C	Part No.	Description
C1	2515	5 mmf
C2	2543	Air Trimmer.
C3	2960	2 Gang Type H. C.C.
C4	2543	Air Trimmer
C5	2667	.05 mf 200 V.
C6	2578	.1 mf 400 V.
C7	2306	.1 mf 200 V.
C8	2582	100 mmf
C9	2960	2 gang Type H. C.C.
C10	2543	Air Trimmer
C11	2580	.01 mf 400 V.
C12	2974	440 mmf
C13	2515	5 mmf
C14	2660	.004 mf.
C15	2578	.1mf 400 V
C16	2863	100 mmf
C17	2863	100 mmf
C18	2306	.1 mf 200 V.
C19	2658	150 mmf
C20	2580	.01 mf 400 V
C21	2583	250 mmf
C22	2597	.001 mf
C23	2576	10 mf. 25 V.
C24	2580	.01 mf 400 V.
C25	2667	.05 mf 200V
C26	2662	.004 mf 600 V.
C27	3076	.02 mf 400 V.
C28	2579	.05 mf 400 V.
C29)		16 mf 500V.
C30)	2952	8 mf 500 V.

R	Part No.	Description
R1	2549	.05 MW 1/3 W
R2	2612	50 w 1/3 W
R3	2700	300 w 1/3 W
R4	4054	.01 Mw 1/8 W.
R5	2728	600 w 1/3 W
R6	2975	.04 Mw 1/8 W.
R7	2571	1 Mw 1/3 W
R8	4578	1 Mw Volume Control. (4373)
R9	2569	.25 MW 1/3 W.
R10	2698	4000 w 1/3 W
R11	2569	.25 Mw 1/3 W.
R12	2570	.5Mw 1/3W
R13	2571	1 Mw 1/3 W
R14	2569	.25 Mw 1/3 W.

L	Part No.	Description
L1	2874	B.C. Aerial Coil
L2	4045	S.W. Aerial Coil
L3	4066	Oscillator Coil
L4	2954	1st IF Transformer
L5	4062	2nd IF Transformer
L6)		Field 1000 w
L7)	2951	Transformer 7000w
L8	2465	Power Transformer

OPERATION: Looking at the front of the chassis the four controls reading from left to right are :
Tone - Volume - Station Selector - Wave Range Switch.

TONE CONTROL: Turning clockwise increases the high frequency response of the Receiver.

VOLUME CONTROL: Turn control clockwise to increase volume.

WAVE RANGE SWITCH: This has two positions, clockwise for reception of short wave stations between 16 and 45 metres, and counter clockwise for the regular broadcast band 1600 to 550 K.C.

LINE VOLTAGE PANEL: This is located beneath the chassis near the power transformer and has three lugs marked "common," "200 - 230," and "230 - 260."

Always operate the receiver on the tapping nearest to but not greater than the line voltage in the district. When leaving the factory the tap is set to 230 - 260 volts.

WHEN MAKING ADJUSTMENTS SEE THAT THE POWER PLUG IS COMPLETELY REMOVED FROM THE SOCKET OF THE POWER SUPPLY.

One wire from the power cord must always be left on the "common" lug. The other wire is soldered to either the "200 - 230" or "230 - 260" lugs.

VOLTAGES: These were measured with a line voltage of 240 and a voltmeter having a remistance of 1000 ohms per volt. All readings were measured between the points indicated, and chassis.

The location of all valves is shown on the front page.

VALVE		PLATE	SCREEN	CATHODE
6J8G	Mixer	210	70	3
	Oscillator Section	160	-	-
6U7G	I.F.	210	70	3
6B6G	Dem. A.V.C. 1st Audio.	80	-	1
6F6G	Output	195	210	0 *

* The grid bias for the 6F6G cannot be directly measured on an ordinary voltmeter. It is derived from the voltage drop (55 volts) across the speaker field situated in the negative HT lead.

To reduce the 55 volts to a suitable value for bias two resistors of 1 megohm and 0.25 megohm are connected in series across the field and their common point gives 11 volts bias for the 6F6G.

RECEIVER ALIGNMENT INSTRUCTIONS:
The adjustment of the trimmers should only be undertaken by a qualified service man equipped with a calibrated test oscillator.

Refer to the chassis drawing on the front page for the location of the various trimmers referred to by numbers in the next paragraphs.

I.F. - Turn the volume control fully clockwise and the wave range switch counter clockwise. Set the test oscillator to 458 KC and connect it to the grid of the 6J8G through a condenser of about.05 Mfd. capacity. With a long thin screw - driver adjust the brass screw (1) on the 2nd IF transformer for maximum gain. Then adjust the two hexagonal headed "iron" cores (2) in the side of the 1st IF transformer.

BROADCAST BAND: First make sure that when the gang condenser plates are fully meshed the dial pointer is on the line at the 550 K.C. end of the dial scale.

Connect the test oscillator to the blue aerial wire on the receiver by a standard dummy aerial, or else a .0002 Mfd condenser.

(a) Turn the receiver and test oscillator both to 600 K.C. While rocking the gang back and forth through resonance adjust the iron core (5) in the oscillator coil by means of the chassis.

(b) Turn the test oscillator to 1400 KC, and set the receiver dial pointer to 1400 KC. Adjust the oscillator trimmer (3) to resonance. Then adjust the aerial trimmer (4) for maximum gain.

Repeat operations (a) and (b).

SHORT WAVE BAND: Turn the wave range switch clockwise to the S W position. Replace the .0002 Mfd condenser joining the test oscillator to the blue aerial wire by a 400 or 500 ohm carbon resistor.

Set the test oscillator to 17 metres, tune it in on the receiver and adjust the S W aerial trimmer (6) for maximum gain while rotating the gang through resonance. The test oscillator will be picked up in two adjacent spots near 17 metres. The correct one to use is nearer 16 metres, the other being the "image."

No. S.W. oscillator trimmer or variable padder is employed so this completes the alignment.