

McMICHAEL MODEL 367 SUITCASE PORTABLE

CIRCUIT.—The McMichael 367 is a four-valve suitcase portable designed for working on long and medium wave bands.

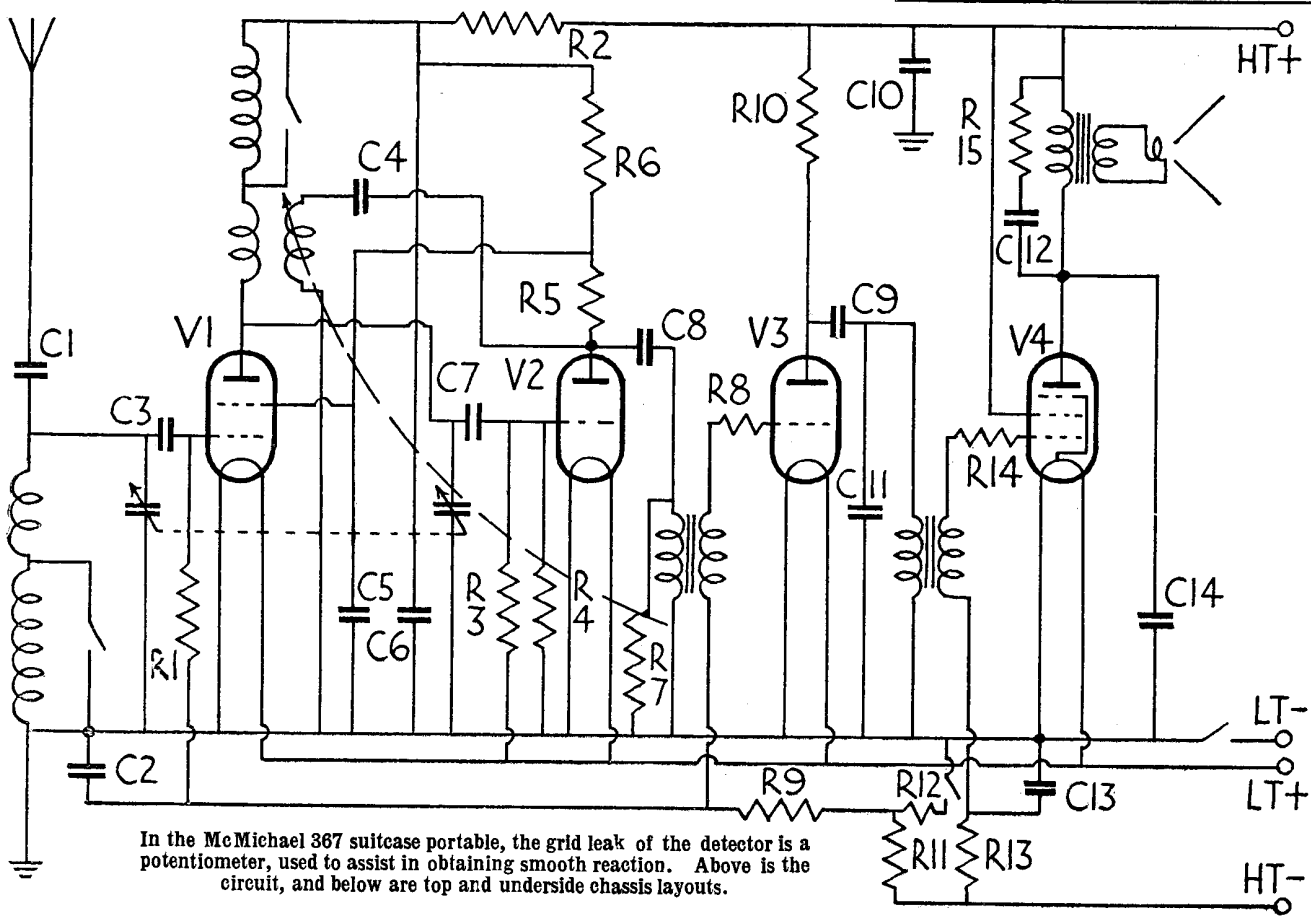
The aerial circuit consists of a tuned frame aerial feeding the grid of V1, a screen-grid valve, through a series condenser. An external aerial connection is provided through a small fixed condenser.

The output of V1 passes to V2, a triode detector, through an H.F. coil and C7. Reaction is obtained by varying the coupling between the H.F. and reaction coils. With this valve the grid leak is a potentiometer consisting of R3 and R4, connected across the filament supply. The centre point is connected to the grid and
(Continued on next page.)

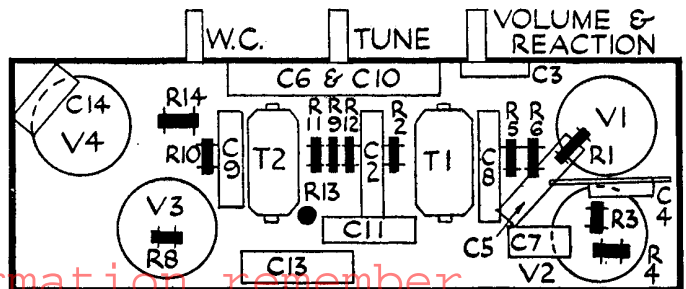
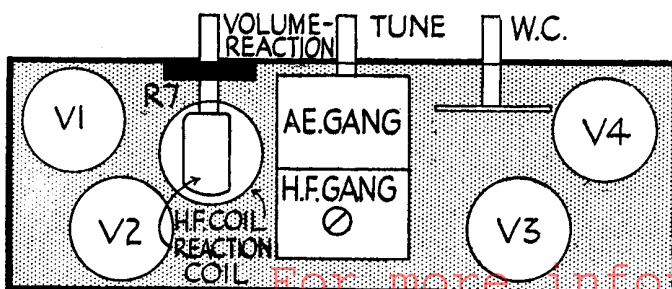


VALVE READINGS				
No signal and no reaction. New batteries.				
V.	Type.	Electrode.	Volts.	Ma.
1	S215A Met.(4)	anode ...	92	.45
		screen ...	37	.1
2	HL2 Met. (4) ...	anode ...	29	.15
3	HL2 Met. (4) ...	anode ...	63	.38
4	Pen. 220 (5)	anode ...	104	3.2
	(All Mazda)	screen ...	106	.32

CONDENSERS		
C.	Purpose.	Mfds.
1	Series aerial ...	.00001
2	V1 and V3 bias decoupling ...	.25
3	V1 grid... ..	.001
4	Reaction feed ...	.002
5	V1 screen decoupling... ..	.1
6	V1 and V2 H.T. shunt ...	8
7	V2 grid... ..	.00005
8	L.F. coupling ...	.1
9	L.F. coupling ...	.1
10	H.T. shunt ...	8
11	H.F. by-pass ...	.002
12	Tone control ...	.002
13	V4 bias decoupling ...	.1
14	Pentode compensating ...	.005



In the McMichael 367 suitcase portable, the grid leak of the detector is a potentiometer, used to assist in obtaining smooth reaction. Above is the circuit, and below are top and underside chassis layouts.



McMICHAEL 367 PORTABLE BATTERY RECEIVER (Continued)

RESISTANCES

R.	Purpose.	Ohms.
1	V1 bias feed ...	1 meg.
2	V1, V2 series H.T. ...	5,000
3	V2 grid leak pot. ...	2 meg.
4	V2 grid leak pot. ...	2 meg.
5	V2 anode feed... ..	30,000
6	V1 screen and V2 anode de-coupling ...	80,000
7	Volume control ...	—
8	V3 grid stopper ...	.1 meg.
9	V1 and V3 decoupling ...	.5 meg.
10	V3 anode feed... ..	30,000
11	Bias potentiometer ...	400
12	Bias potentiometer ...	100
13	V4 bias decoupling ...	.5 meg.
14	V4 grid stopper ...	.1 meg.
15	Tone control ...	20,000

(Continued from previous page.)

the purpose of the arrangement is to assist in obtaining smooth reaction.

The coupling to V3, a triode, is through a condenser C8, and a transformer, the

volume control being shunted across the primary winding and ganged with the moving reaction coil.

The L.F. output of V3 then passes through a second transformer to the output pentode V4 and, after amplification, to the moving-coil speaker.

Grid bias is automatic, no separate battery being used, and is obtained by means of resistances in the negative H.T. lead.

Special Notes.—Terminals are provided for headphones. These are on the right of the speaker grille.

The sockets on the left of the speaker grilles are for an external aerial and earth, the outside one being the aerial connection.

C1, C12, and R15 are inside the lid on the speaker baffle.

Exposing Chassis.—Remove the cover of

the battery compartment, and undo the two large bolts nearest the handle of the case. These bolts are captive and cannot be completely removed. By using the bolts heads as knobs the chassis can be raised on hinges.

There is no need to remove the batteries when exposing the chassis.

To remove the frame aerial remove the four wood screws, two on either side of the outside of the lid.

ALIGNMENT NOTES

There is one trimmer that can be adjusted on this receiver, situated on the H.F. section of the gang condenser.

The adjustment should be made on a weak transmission with the volume control in a mid position.

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WHEN the time comes for an obsolete receiver to be replaced with one of up-to-date design, the prospective customer is often amazed and incredulous of the depreciation of his old set.

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