

McMICHAEL - 463

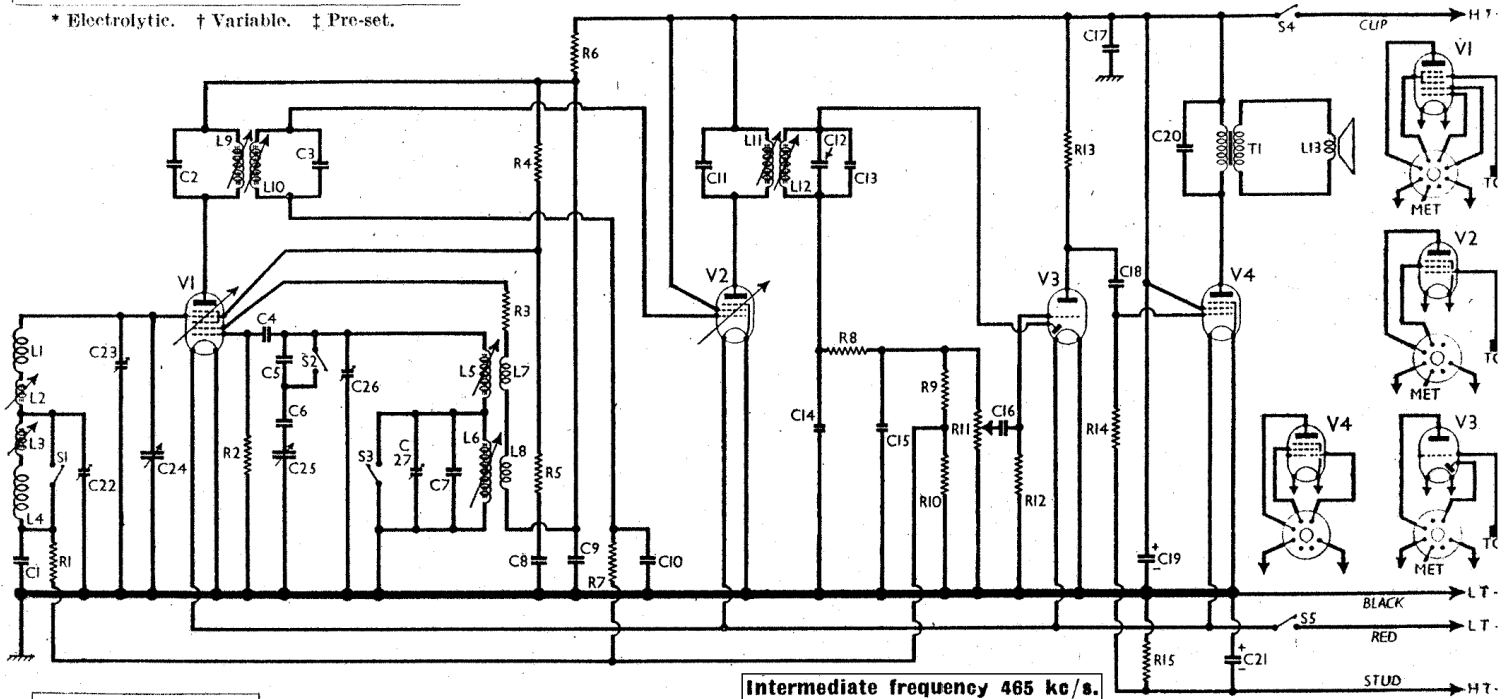
CAPACITORS		Values (μF)
C1	V1 pent. C.G. decoupling	0.05
C2	1st I.F. transformer tuning capacitors	0.0001
C3	V1 osc. C.G. capacitor	0.0001
C4	Osc. L.W. tracker	0.00062
C5	Osc. M.W. tracker	0.00082
C6	Osc. L.W. fixed trimmer	0.00019
C7	V1 S.G. decoupling	0.05
C8	V1 H.T. decoupling	0.05
C9	V2 C.G. decoupling	0.05
C10	2nd I.F. transformer tuning capacitors	0.0001
C11		0.0001
C12		0.000005
C13	I.F. by-pass capacitors	0.000033
C14	A.F. coupling to V3	0.0005
C15	H.T. circuit R.F. by-pass	0.05
C16	A.F. coupling to V4	0.001
C17	H.T. reservoir capacitor	4.0
C18	Fixed tone corrector	0.01
C19*	V4 G.B. by-pass	25.0
C20†	Aerial L.W. trimmer	—
C21†	Aerial M.W. trimmer	—
C22†	Aerial circuit tuning	—
C23†	Oscillator circuit tuning	—
C24†	Oscillator M.W. trimmer	—
C25†	Oscillator L.W. trimmer	—
C26†		—
C27†		—

OTHER COMPONENTS		Approx. values (ohms)
L1	Frame aerial M.W. winding	0.9
L2	Aerial M.W. "loading" coil	1.1
L3	Aerial L.W. "loading" coil	3.0
L4	Frame aerial L.W. winding	10.2
L5	Osc. M.W. tuning coil	2.1
L6	Osc. L.W. tuning coil	3.4
L7	Osc. M.W. and L.W. reaction coils, total	4.0
L8	1st I.F. trans. { Pri. ...	9.5
L9	Sec. ...	9.5
L10	2nd I.F. trans. { Pri. ...	10.25
L11	Sec. ...	11.75
L12	Speaker speech coil	2.6
L13	Speaker input { Pri. ...	450.0
T1	trans. { Sec. ...	0.3
S1-S3	Waveband switches	—
S4	H.T. circuit switch	—
S5	L.T. circuit switch	—

Valve	Anode Voltage (V)	Anode Current (mA)	Screen Voltage (V)	Screen Current (mA)
V1 DK32	78	0.33	34	0.6
V2 DF33	68	1.6	82	0.2
V3 DAC32	32	0.04	—	—
V4 DL35	78	5.7	82	1.1

RESISTORS		Values (ohms)
R1	V1 pent. C.G. decoupling	2,200,000
R2	V1 osc. C.G. resistor	220,000
R3	Osc. reaction stabiliser	5,600
R4	V1 S.G. H.T. feed	68,000
R5	V1 S.G. stabiliser	12,000
R6	V1 H.T. decoupling	1,000
R7	V2 C.G. decoupling	2,200,000
R8	I.F. stopper	47,000
R9	A.V.C. feed pot. divider	2,200,000
R10	Manual volume control	1,000,000
R11	V3 triode C.G. resistor	4,700,000
R12	V3 triode anode load	330,000
R13	V4 C.G. resistor	1,000,000
R14	V4 G.B. resistor	680
R15		—

* Electrolytic. † Variable. ‡ Pre-set.



Intermediate frequency 465 kc/s.

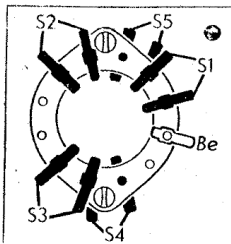


Diagram of the switch unit, as seen in the front (underside) view of the chassis below.

CIRCUIT ALIGNMENT

I.F. Stages.—Connect signal generator leads to control grid (top cap) of V1 and chassis, turn the volume control to maximum, slacken the lock-nuts, feed in a 465 kc/s (645.16 m) signal, and adjust the cores of the two I.F. transformers for maximum output. Tighten lock-nuts.

R.F. and Oscillator Stages.—Couple signal generator output via a loop of wire near the frame assembly, which must be removed from the carrying case. With the gang at minimum, the pointer should cover lower edge of "McMichael Radio Ltd." lettering.

M.W.—Switch set to M.W., tune to 200 m on scale, feed in a 200 m (1,500 kc/s) signal, and adjust C26, then C23, for maximum output. Check calibration at 500 m (600 kc/s) and if necessary adjust the core of L5. Then repeat the 200 m adjustments.

L.W.—Switch set to L.W., tune to 1,000 m on scale, feed in a 1,000 m (300 kc/s) signal, and adjust C27 and C22 for maximum output. Check calibration at 2,000 m (150 kc/s) and if necessary adjust the core of L6. Then repeat the 1,000 m adjustments.