

Chassis Divergencies.—Originally, the P220 was standard for the output valve, but the user was recommended to use a P240 to improve the performance, at the expense of a 25 per cent. reduction in HT battery life. GB -3 tapping then went to -9 V

Later, a pentode valve (**Mazda Pen 220**) replaced the triode. The resistance of the speaker winding in such cases is 3,000 Ω instead of 2,000 Ω , and GB -3 plug goes in the -3 V socket. The external speaker impedance becomes 20,000-30,000 Ω . The pentode screen HT feed is brought out to a separate HT plug marked HT +2, which goes into an HT battery socket between 90 V and 105 V, according to desired HT current economy. The 126 V tapping therefore becomes HT +3.

Another alteration introduced later was to return the earthy ends (rotors) of **C14**, **C15**, **C16** and **C18** directly to chassis.

CIRCUIT ALIGNMENT

As the adjustments at the tops of the RF coil cans and trimmers **C4**, **C8** cannot be reset without special instruments, there remain only the two trimmers **C17** and **C19** to set. These should be adjusted for maximum output at 200 m (1,500 kc/s). **C14** is adjusted by a control knob as required by the user.

Valve	Anode Voltage (V)	Anode Current (mA)	Screen Voltage (V)	Screen Current (mA)
V1 SG215	115	2.5	60	0.8
V2 SG215	115	1.2	60	0.4
V3 HL210	110	0.1	—	—
V4 P220	106	4.0	—	—

CAPACITORS		Values (μ F)
C1	V1 CG decoupling ...	0.25
C2	V1 SG decoupling ...	0.25
C3	V1 anode decoupling ...	0.25
C4	V1 anode LW trimmer ...	0.000018
C5	RF coupling to V2 ...	0.0002
C6	V2 SG decoupling ...	0.25
C7	V2 anode decoupling ...	0.25
C8	V2 anode LW trimmer ...	0.000018
C9	V3 CG capacitor ...	0.0002
C10	RF filter capacitors ...	0.0003
C11		0.0003
C12	V3 anode decoupling ...	1.0
C13	Fixed tone corrector ...	0.002
C14†	Manual trimmer ...	—
C15†	Frame aerial tuning ...	—
C16†	V1 anode circuit tuning ...	—
C17†	V1 anode MW trimmer ...	—
C18†	V2 anode circuit tuning ...	—
C19†	V2 anode MW trimmer ...	—

RESISTORS		Values (ohms)
R1	V1 CG decoupling ...	1,000
R2	V1 SG decoupling ...	2,000
R3	V1 fixed GB resistor ...	2,000
R4	V1 gain control ...	25,000
R5	V1 anode decoupling ...	2,000
R6	V2 CG resistor ...	2,000,000
R7	V2 SG decoupling ...	2,000
R8	V2 anode decoupling ...	2,000
R9	V3 CG resistor ...	1,000,000
R10	V3 anode decoupling ...	2,000

OTHER COMPONENTS		Approx. Values (ohms)
L1	Frame aerial windings ...	2.0
L2		26.0
L3	V1 anode tuning coils ...	3.7
L4		36.0
L5	V2 anode tuning coils ...	3.7
L6		36.0
L7	RF filter choke ...	380.0
L8	V4 anode RF choke ...	380.0
L9	LT circuit RF choke ...	Very low
L8	Speaker winding ...	2,000.0†
T1	Intervalve trans: { Pri. ...	1,000.0
	{ Sec. ...	10,000.0
S1-S3	Waveband switches ...	—
S4	Radio muting switch ...	—
S5	Speaker muting switch ...	—
S6-S8	Battery circuit switches	—

† Variable. ‡ Pre-set.

† 3,000 Ω if V4 is a pentode.

