

# KB

## SERVICE MANUAL

MODEL  
**WG. 10** "CAPRICE"

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AN  ASSOCIATE

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COMBINED RADIO AND TELEVISION SERVICE LTD  
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 SERVICING ORGANISATION FOR K.B. REGENTONE. R.G.D.

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# Service Data



## for WG.10 "CAPRICE"

Name	- - - - -	"Caprice".
Type Number	- - - - -	WG.10.
Description	- - - - -	Radiogram for Medium and Long Wavebands.
Dimensions	- - - - -	Height                      Depth                      Length 2'4 $\frac{3}{4}$ "                      9 $\frac{3}{4}$ "                      2'2 $\frac{1}{4}$ " (73 cms)                      (24.8 cms)                      (66 cms)
Weight	- - - - -	35 lbs. 12 ozs.
Cabinet	- - - - -	French Walnut Veneered Wood Satin Finish.
Loudspeaker	- - - - -	9" (22.9 cms) x 5" (12.7 cms).
Power Supply	- - - - -	200–250V. A.C. only.
Technical Specification	- - - - -	Suitable for reception of A.M. radio transmissions in Medium and Long waves.
Valve Complement	- - - - -	4 valves +1 Valve rectifier.
Valve Types	- - - - -	6C12, 6F18, 6LD13, 6P15, EZ80.
Features	- - - - -	1. Internal ferrite aerial. 2. Ferrite aerial may be rotated for best reception. 3. External aerial and earth socket. 4. Tone Control. 5. 9" x 5" loudspeaker high flux ceramic magnet. 6. 4-speed automatic record player. 7. Radio operable without shewing player unit.

## GENERAL DESCRIPTION

This is a monaural radiogram capable of receiving broadcast signals on the Medium and Long wavebands, and incorporating a 4-speed record changer suitable for 7", 10" and 12" records.

The record player unit is fitted to a hinged front lid and so can be out of sight when the WG.10 is used for radio only.

French walnut veneer is used on the cabinet, which is in a satin finish.

## CIRCUIT DESCRIPTION

The aerial coil L1 (Medium Waves) and L2 (Long Waves) are wound on a ferrite rod. Trimmers are provided on both coils for tracking purposes. The triode section of the 6C12 is used as local oscillation and 470 Kc/s. I.F. is obtained at the pentode anode.

6F18 is a pentode I.F. amplifier, and one diode of the 6LD13 provides detection. The other diode provides A.G.C. clamp and A.G.C. is applied to the grid of the 6F18 and pentode grid of the 6C12.

The audio amplifier is the triode of the 6LD13, followed by 6P15 pentode output.

Tone adjustment is provided by a resistance capacity network on the anode of the 6P15.

Half wave rectification is obtained using the EZ80.

On gramophone the pick-up is connected via 2 m $\Omega$  to the grid of the L.F. triode.

## VALVE COMPLEMENT

V1.	Mazda.	6C12	Frequency Changer.
V2.	..	6F18	I.F. Amplifier.
V3.	..	6LD13	Diode Detector and Audio Amplifier.
V4.	..	6P15	Audio Output.
V5.	..	EZ80	Rectifier.

## PERFORMANCE

### Waveranges

Medium Waveband:	530-1580 Kc/s	565-190 metres.
Long Waveband:	153-275 Kc/s	1960-1090 metres.

### I.F. Selectivity

At -6 dB  $\pm$ 5.5 Kc/s.

At -22 dB  $\pm$ 13 Kc/s.

### Power Output

1 Watt for 10% distortion.

### Power Consumption

40 Watts.

30 Watts on Radio only.

## REMOVAL OF CHASSIS FROM CABINET

1. Remove Front Control Knobs.
2. Remove Chassis Rear Cover.
3. Disconnect Mains Lead to Autochanger, P.U. Connection and Speaker Leads.
4. Remove 4 x 4 BA. Securing Nuts and Washers from Chassis Rear and Dial Plate.
5. Detach Aerial Rod Assembly.
6. Withdraw Chassis from Cabinet.

## W.G.10 CHASSIS ALIGNMENT PROCEDURE

### I.F.

Set wavechange switch to M.W. with tuning condenser fully closed and volume control at maximum.

Connect 3 ohm output meter to L/S leads.

If an output meter is not available an A.C. meter may be connected across the L/S.

Connect signal generator to pin 2 of 6C12 valve via  $\cdot 1$ /MFD.

Feed in a 470 Kc/s 30% modulated signal and adjust I.F. cores for maximum output.

All the cores are set on the **outer** peak except the bottom core (L6) of the second I.F. transformer (nearest the main transformer). This must be set on the **inner** peak.

The input should be kept as low as possible, to prevent A.G.C. from operating.

### R.F.

Set wavechange switch to M.W.

Check that pointer is on 550 metres with the tuning condenser fully closed.

Connect signal generator to A. and E. sockets **through a dummy aerial**.

If a dummy aerial is not available a 200 pf condenser must be inserted in the signal generator lead.

Tune set and signal generator to 500 metres (600 Kc/s).

Adjust oscillator core (L5) and M.W. aerial coil (L1) on ferrite rod for maximum output.

Re-tune set and generator to 200 metres (1500 Kc/s).

Adjust oscillator and M.W. aerial **trimmers** T3 and T1 for maximum output.

These two operations should be repeated until no further improvement can be obtained at 200 or 500 metres.

Set wavechange switch to L.W. Tune generator and set to 1800 metres (167 Kc/s).

Adjust L.W. aerial coil (L2) on ferrite rod for maximum output.

Re-tune generator and set to 1200 metres (250 Kc/s).

Adjust L.W. oscillator and aerial trimmers T4 and T2 for maximum output.

Repeat these two operations on L/W until no further improvement can be obtained at 1200 or 1800 metres.

Seal all coil cores and aerial coils with wax.

## W.G.10 CAPRICE SPARES LIST

Prices are subject to alteration without notice



COMPONENT	CIRCUIT REF.	PART NO.	PRICE		
			£	s.	d.
<b>CABINETS</b>					
Cabinet		797/220	18	15	0
Cabinet Back		797/222		5	0
<b>COMPONENTS</b>					
Rod Aerial Assembly	L1, L2	797/30	12		7
Oscillator Coil	L5	32/32	3		8
I.F. Transformer	L3, 4. L6, 7	32/33	10		6
Audio Output Transformer	L8, 9	39/AO/11	9		7
Mains Transformer	L10, 11, 12	39/S1/12	1	19	3
Control Knobs		580/135/A		1	3
Voltage Selector Panel		13/220		1	0
Aerial Panel		13/221		1	0
P.U. Panel		13/222		1	0
Pointer (Red)		33/65		1	6
Condenser 32-32μF 350v.	C22, 23	11/004		7	9
Volume Control	R8	9/98		4	6
Tone Control, On/Off	R15	9/99		7	9
Wavechange Switch		13/224		8	2
Dial		44/6	1	1	3
Loudspeaker		11/116	1	10	6
B.S.R. U.A.14 Grey/Fawn					
Autochanger Unit		37/5	15	9	8

L1	2.5Ω	L8	500Ω
L2	10Ω	L10	340Ω
L3,4,6,7	11Ω	L12	95Ω
L5	5Ω	ALL OTHERS LESS THAN 1Ω	

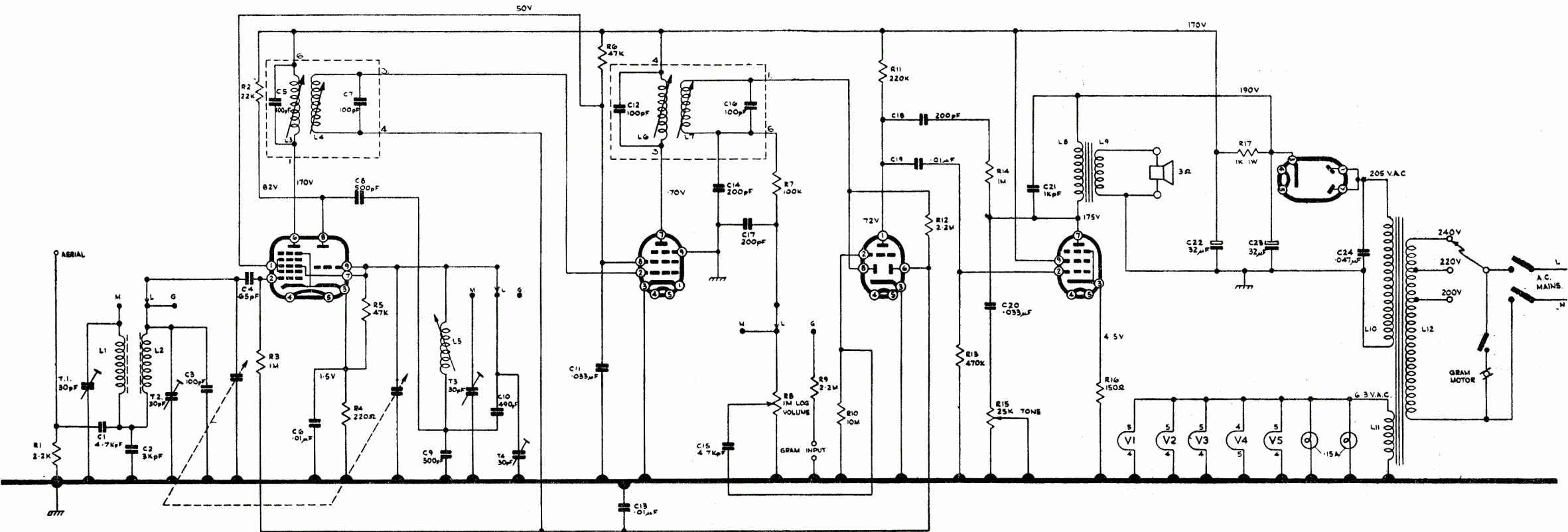
V1  
6C12

V2  
6F18

V3  
6BD13

V4  
6PI5

V5  
EZ80



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