

# MARCONI PHONE

## SERVICE MANUAL

PRIVATE AND CONFIDENTIAL TO THE TRADE ONLY



### MODEL 279—6-VALVE (INC. RECT.) A.C. MAINS PORTABLE

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1935  
SERIES  
NUMBER FOUR  
PART No. 18841

## GENERAL DESCRIPTION.

### WAVELENGTH RANGE.

ACTUAL. **Medium Waves.**—200 to 560 metres.

**Long Waves.**—900 to 2,100 metres.

INDICATED. **Medium Waves.**—220 to 560 metres.

**Long Waves.**—1,100 to 2,000 metres.

### POWER CONSUMPTION.

Approximately 70 watts.

### VOLTAGE RANGE.

**Standard Model.**—200 to 250 volts, 50-100 cycles.

### SPEECH OUTPUT.

2 watts (undistorted).

Anode dissipation of MPT4 output valve :—8 watts.

### PHYSICAL DETAILS.

Size :—

Overall height.  
18 $\frac{3}{8}$  inches.  
46.5 cm.

Overall width.  
15 $\frac{3}{8}$  inches.  
39 cm.

Overall depth.  
8 $\frac{5}{8}$  inches.  
22 cm.

Weight :—

35 lb. nett, 15.9 kg.

41 lb. gross, 18.6 kg.

## CIRCUIT DESCRIPTION

The separate medium and long wave frame aerials (FAE 1 and FAE 2), which are tuned by VC2, feed the grid of the :—

### H.F. Amplifier VMS4B (V1).

The A.V.C. circuit controls the bias of this valve, which is auto-transformer coupled (L1, L2, L3—tuned by VC3) to the :—

### Frequency Changer MS4B (V2).

This valve is a cathode coupled combined oscillator and 1st detector.

L4, L5, L6 and L7 are the oscillator coils, the last pair being tuned by VC4.

The I.F. transformer (L8, L9) couples this valve to the :—

### Intermediate Frequency Amplifier VMS4B (V3).

The A.V.C. circuit also controls the bias of this valve, which is coupled by the I.F. transformer (L10, L11) to the :—

### Second Detector (Double Diode Triode) MHD4 (V4),

One diode acts as 2nd detector, whilst the other, fed through C10 from the anode of the I.F. valve, supplies the A.V.C. bias voltage across R18.

The initial negative bias for the controlled valves (V1 and V3) and delay voltage for the A.V.C. diode is taken from the potentiometer R20, R21, which is connected across the bias section of the loud-speaker field (250-ohm section). The triode portion of this valve is fed from the volume control VR1, and is resistance capacity coupled (R12, C20) to the :—

## **CIRCUIT DESCRIPTION**—*continued.*

### **Output Valve MPT4 Cat (V5).**

The negative bias for this valve is supplied by the 250-ohm tap on the loudspeaker field. C23 is the tone correcting condenser.

### **Rectifier MUI2 (V6).**

An indirectly heated Marconi valve.

## **THE POWER UNIT.**

The mains transformer T2 and the dry electrolytic smoothing condensers C25 and C26 are contained in a separate shielded pack mounted in the bottom of the cabinet (see Fig. 4). The mains transformer, which has a screened primary, is also fitted with anti-interference condensers C27 and C28.

## **LOUDSPEAKER.**

Speech coil impedance, 10 ohms. D.C. resistance, 8.0 ohms.

An energised moving coil speaker with hum bucking coils.

For service data, see separate Manual (available shortly).

## **WARNING.**

*Marconi valves have been selected for this instrument because of their high performance and special electrical characteristics. Inferior performance or actual damage may result if valves other than the specified Marconi types are employed.*

## **EXTRA LOUDSPEAKERS.**

Switch off the instrument before disconnecting and re-arranging speakers.

**Do not under any circumstances switch on the instrument whilst the OP—OP terminals are open circuited.**

### **LOW RESISTANCE TYPE.**

Two extra low-resistance moving coil speakers may be connected to this instrument without appreciably reducing the volume of the parent speaker.

The speech coil impedance of the extra speakers should be at least 10 ohms, the Marconiphone Models 140 and 141 being eminently suitable.

Always use a heavy gauge wire for extra low resistance loudspeaker leads, and keep the leads as short as possible. Connect the speech coil of extra loudspeaker to the EXT. LS terminals of loudspeaker transformer panel.

If a transformer is incorporated on the extra speaker the leads from the receiver must be connected to the speech coil of the speaker and NOT to the primary (high resistance) winding of the transformer.

### **HIGH RESISTANCE (MOVING IRON) TYPE.**

Connect this type of speaker to RED-YEL. and RED terminals (OP—OP) of loudspeaker transformer panel.

If 0.2 mfd. condensers are used (one in each lead) these will serve to protect the high resistance speaker windings.

Speaker must have protected or insulated terminals, and the extension wiring must be rubber covered and of good quality, as the leads are at high potential.

In order to keep high note attenuation to a minimum and to reduce induction losses, use heavy conductors and keep as short as possible.

## **PICK-UP.**

A pick-up for use with this instrument must have a D.C. resistance of not less than 1,000 ohms, and the leads connecting it with the pick-up sockets must be screened with metal braid. The Marconiphone Model 25 pick-up is recommended for use with this receiver.

Connect this metal braiding to the E socket of the receiver, which should be connected to true earth.

## DISMANTLING.

### REPLACEMENT OF PILOT LAMP.

Proceed as follows :—

1. Open back of instrument—this automatically disconnects the receiver from the “ mains.”
2. Move the wavelength scale to about 300 metres. The pilot lamp will now be accessible. Renew with lamp of the 6.2-volt 0.3-amp. screw-in type. Screw in firmly.

A spot of wax or a slip of paper should be employed if lamp is slack in the holder.

### ADJUSTMENT OF INDICATING LIGHT ARROWS.

If, after replacing a pilot lamp, the light arrows do not coincide with the metal pointers, the projecting round head screw (adjacent to springs NP, Fig. 2) should be adjusted.

This screw gives micrometer adjustment of the bracket carrying the indicating light assembly. See that the indicating light and control and lamp leads are not fouling the wavelength scale.

### REMOVAL OF RADIO CHASSIS.

1. Disconnect the frame aerials by removing the three screws fixing the terminal strip to the left-hand side of chassis.
  2. Detach the heater and earth leads from terminals 1, 2 and 3, on terminal strip on centre of chassis. *When replacing attach black lead to centre terminal.*
  3. Remove the four screws fixing chassis to side bearers of cabinet. *The removal of control knobs is unnecessary.*
- The chassis is now free.

### REMOVAL OF “ POWER PACK.”

Having removed leads of multiple cable from speaker and chassis terminal strip, take out the four screws fixing the assembly to bottom of cabinet.

The heads of these screws are on the underside of cabinet.

### REMOVAL OF LOUDSPEAKER.

1. Remove radio chassis and power pack as previously described.
  2. Remove the four nuts holding speaker to baffle. *Do not interfere with the cross-headed screws on front of cabinet.*
- Do not forget to replace the locking washers when re-assembling.*

## PRELIMINARY TESTS.

Employ these tests in the order given :—

1. See that all leads are securely connected and are continuous.

*A two-pin socket fitted with mains lead and mains connector will be found useful, as the mains are automatically disconnected when the lid of instrument is open.*

2. Ascertain that the loudspeaker magnet is being energised by applying a screwdriver near pole-pieces.

3. Check speech circuit by momentarily connecting a 1½-volt battery across EXT. LS terminals whilst magnet is being energised. A definite “ plonk ” will be heard if circuit is O.K.

4. Try instrument on “ GRAM.” If results are O.K. the valves V4, V5 and V6 and the components associated with those valves may be assumed correct.

5. Test valves for filament continuity and freedom from inter-electrode shorts.

6. Check total H.T. voltage between RED (OP) and green-yellow (F) terminals on speaker transformer panel. If the reading between these points is less than 360 volts, suspect rectifier valve and smoothing condensers C25 and C26. Reading between anode of MPT4 and earth should be approximately 225 volts.

## PRELIMINARY TESTS—continued.

7. Check the test voltages on each valve as specified in valve table on page 7. Suspect the components enumerated in the Valve Table if any valve fails to show the test voltage given.

8. In order to localise a fault in the H.F. side of the instrument connect an aerial direct to the fixed vane lug of VC3 (centre section of ganged condensers).

If signals are not received when aerial is connected to A socket, but are fairly satisfactory when aerial is connected to L2, VC3, the valve V1 and its associated components should be suspected.

## H.F. TESTS AND ADJUSTMENTS.

### RE-ALIGNING TUNED CIRCUITS.

Exceptional care should be taken when making re-alignment adjustments on this model, or instability in operation may result. It is most important to ensure that whilst re-aligning circuits the input from the oscillator is never sufficient to give a deflection on the visual tuning meter (wavelength scale).

### TRIMMING OF I.F. TRANSFORMERS.

Short circuit the frame aeriels (outer terminals) and earth cathode of V2 to frame by a short piece of wire. Turn tuning condenser to minimum capacity and couple the modulated oscillator to V2. Use an 0-2 A.C. voltmeter connected to the extra LS terminals as an output meter. Do not use the visual tuner.

Proceed as follows :—

Remove plate covering underside of valve deck.

Trim TC5 (extreme right) on 127 kc.

Trim TC4 and TC3 (second from right and second from left respectively) on 123 kc.

Trim TC2 (extreme left) on 127 kc.

Repeat the foregoing three operations in the same order, always making sure to adjust for maximum needle deflection on the output meter.

The final resonance curve of the I.F. amplifier (as observed on the output meter) should be substantially flat from 123 to 127 kc.

### RE-GANGING OF TUNING CONDENSERS.

Great accuracy must be observed in this work or instability in operation may result. Always regang H.F. circuits after making any adjustment to the I.F. trimmers.

Disconnect frame aeriels and couple the modulated oscillator to the outer frame aerial connection terminals. The plate covering underside of valve deck must be removed, and the chassis must be removed from cabinet to gain access to the H.F. trimmers. Use an 0-2 A.C. voltmeter across the extra LS terminals as an output meter. Tune receiver and oscillator to exactly 220 metres.

Screw up trimmers of VC3 and VC4 to maximum. Unscrew VC4 trimmer until maximum deflection is obtained on output meter. Keep the voltmeter reading as low as is consistent with true indication.

**IMPORTANT.**—Two positions for maximum deflection **must** be found, and that nearest fully unscrewed used. Manipulate the gang condenser until this condition is obtained.

Slowly unscrew VC3 trimmer until maximum deflection is obtained. Two settings of VC3 giving maximum deflection *must* be found, and that position chosen which is nearest to fully screwed.

Go over the settings of VC4 and VC3 trimmers to ensure that they are correct.

Now set the receiver and oscillator to long waves and tune to 1,400 metres.

Adjust TC1 (centre trimmer under valve deck) for maximum deflection on output meter.

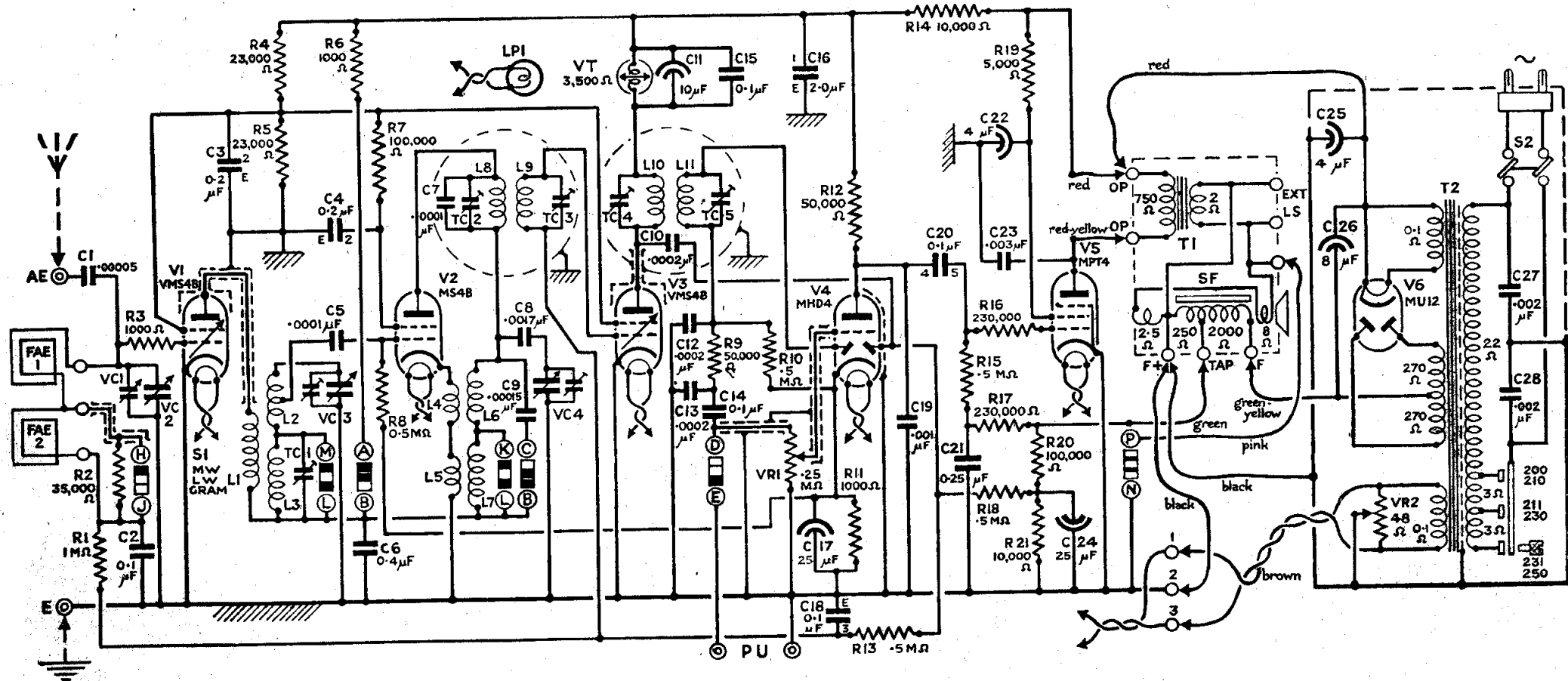


Fig. 1.

## VALVE TABLE.

	VMS4B (V1)	MS4B (V2)	VMS4B (V3)	MHD4 (V4)	MPT4 (V5)	MUI2 (V6)
TEST VOLTAGES ... ..	Radio : 140 (160) Gram. : Nil	Radio : 30·0* Gram. : 20·0*	Radio : 46·0 (52·0) Gram. : 41·0	Radio : 0·8* Gram. : 1·0*	25·0 (volt drop across field)	250
MEASURED BETWEEN ... ..	Anode and frame	Screen and frame	Screen and frame	Cathode and frame	Red and Red/Yellow terminals on speaker transformer	OP (Red) terminal on speaker transformer and frame
PARTS WHICH MUST BE CHECKED IF TEST VOLTAGE IS ABNORMAL	MUI2 and associated components, R14, R6, S1 (contacts A and B), L1 and C6, C16, anode screening, R4, R5, C3 and R6 and A.V.C.	MUI2 and associated components, R14, R6 and C6, S1 (contacts A, B), L8, L4 and L5, R7, R5 and C4, L6, L7, L8, R4, C16	MUI2 and associated components, R14, visual tuner, L10, anode screening, R4 and R5, C3, C16 and A.V.C.	MUI2 and associated components, R14, R12 and R11, VRI, C16	MUI2 and components, T1 (primary), speaker field, R15, R16, R17, C22 and C23, R19	Speaker field, T2 (high voltage secondary) C25 and C26, Red leads at terminal OP of T1.
ANODE/FRAME VOLTS ... ..	Radio : 140 Gram. : Nil	Radio : 140 Gram. : Nil	Radio : 130 Gram. : 155	Radio : 80* Gram. : 90*	225	—
SCREEN/FRAME VOLTS ... ..	Radio : 55* Gram. : 45*	Radio : 30* Gram. : 20*	Radio : 55* Gram. : 45*	—	225	—
ANODE/FEED M/A ... ..	Radio : 2·4 (1·3) Gram. : Nil	Radio : 0·3 Gram. : Nil	Radio : 2·7 (1·9)* Gram. : 2·0	Radio : 1·2 Gram. : 1·4	33·0	Measure at OP (Red terminal on speaker transformer.
SCREEN FEED M/A ... ..	—	—	—	—	6·0 Varies with modulation	—

### A.V.C. NOTES.

Where two values are given the first is for no signal (carrier) and the one in brackets shows the variation due to the action of the A.V.C. on a powerful nearby station.

A.V.C. components are :—R1, R13, R18, R20, R21, C2, C18 and speaker field.

### KEY TESTS.

Bias for MPT4... .. "Tap" (GRN) to chassis—10 V.  
Voltage drop across... "F" (G/YEL) to chassis—113 V.  
Total H.T. feed ... At "F" (G/YEL)—52 M/A.

### METER NOTES.

To obtain the readings marked thus—\*the meter must have a full-scale deflection at least ten times the voltage shown in table.

The readings given were taken on a meter having a resistance of 200 ohms per volt.  
Tolerances  $\pm 10$  per cent.

### IMPORTANT.

Do not remove valves whilst the instrument is switched on. The absence of valves will cause the total H.T. voltage to rise and so impose an excessive strain on the electrolytic condensers.

Due to the presence of electrolytic condensers, the D.C. resistance of a component will vary according to the position (polarity) of the test leads.

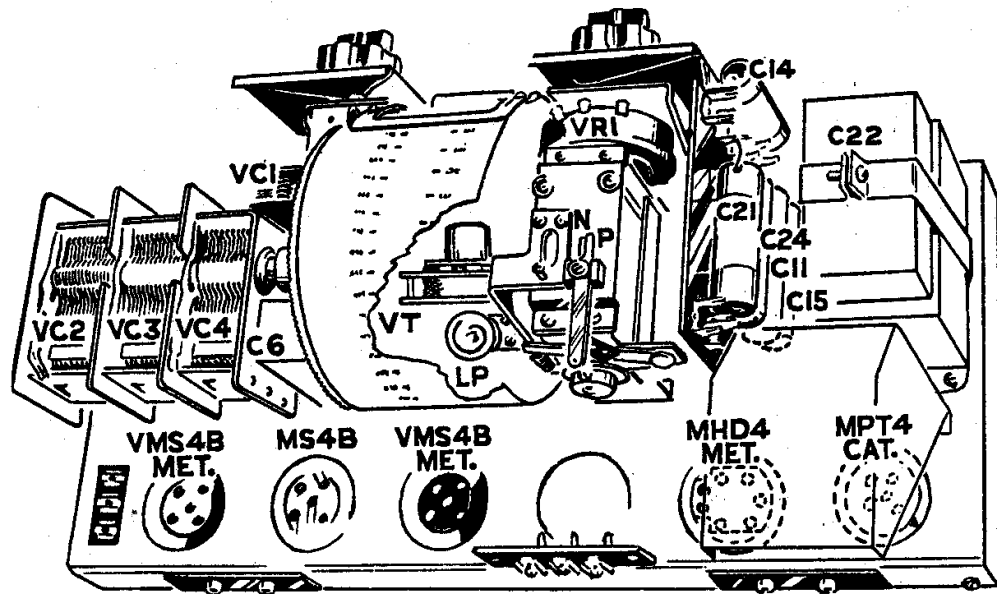


Fig. 2.

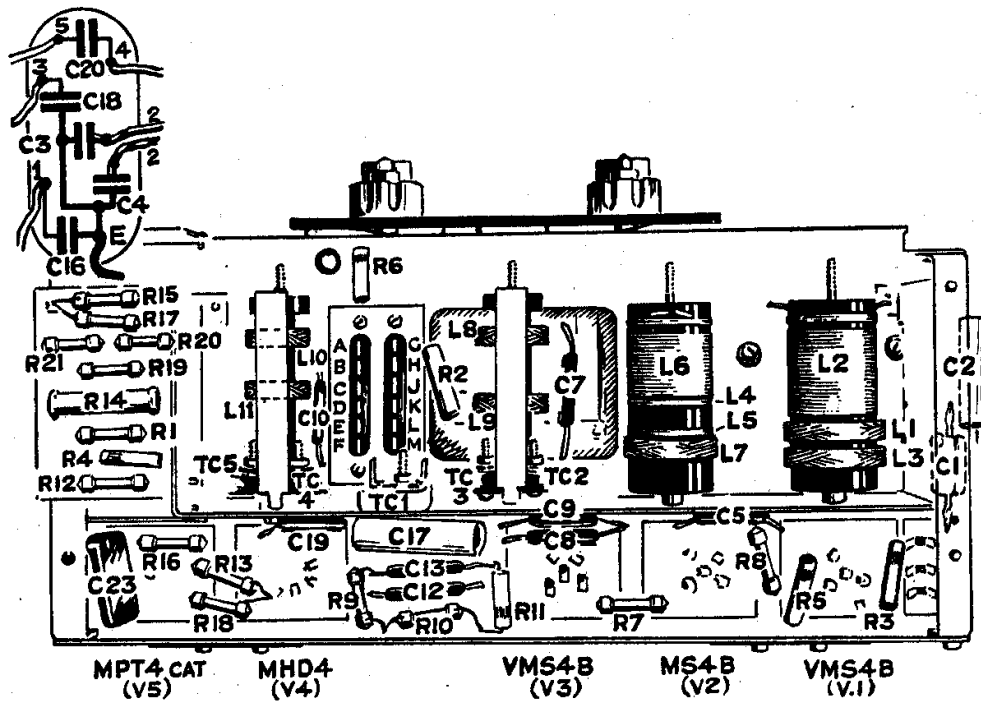


Fig. 3.

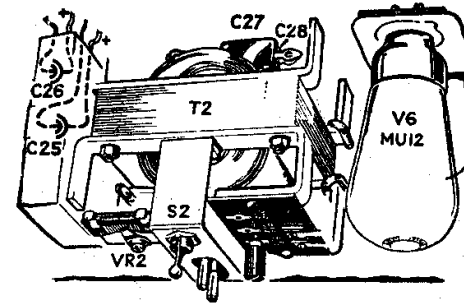


Fig. 4.

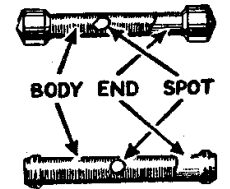


Fig. 5.

### RESISTANCE COLOUR CODE.

BODY and END Colours.  
(1st and 2nd figures.)

- 0 Black.
- 1 Brown.
- 2 Red.
- 3 Orange.
- 4 Yellow.
- 5 Green.
- 6 Blue.
- 7 Violet.
- 8 Grey.
- 9 White.

SPOT Colours  
(Additional 0's.)

- 0 Black.
- 0· Brown.
- 00· Red.
- 000· Orange.
- 0,000· Yellow.
- 00,000· Green.

### NEW WIRING COLOUR CODE.

H.T. positive (+)	...	...	...	...	Red.
Anodes of valves when not direct to H.T. +	...	...	...	...	Red/Yellow.
Screening grids when not direct to H.T. +	...	...	...	...	Red/Black.
Grid circuits	...	...	...	...	Green.
Earth	...	...	...	...	Black.
Mains	...	...	...	...	Orange.
Heaters, filaments and cathodes	...	...	...	...	Brown.
General purpose colour	...	...	...	...	Yellow.

Yellow will be used for leads not falling in the general code, and\* when stocks of any colour are temporarily exhausted in the factory.



## COMPONENT CONTINUITY TESTS.

Remove valves and pilot lamp and set switch to long wave position.

Test No.	Component to be Tested.	Test between	D.C. Resistance and Wire Gauge.	Approximate Reading between Component and Chassis.
9	Long wave frame, F.AE. 2 ...	2 lugs in lid ... ..	20 ohms, 34 D.S.C. ... ..	2 megohms.
10	Medium wave frame, F.AE. 1	2 inside lugs on chassis ... ..	2 ohms, 26 S.W.G. enam. Cu. ...	2 megohms.
11	H.F. transformer— L1 (primary) ... .. L2 (M.W.) ... .. L3 (L.W.) ... ..	Anode lead V1 and S1 contact L or B ... .. Fixed vanes of VC3 and S1 contact M ... .. S1 contacts M and L ... ..	20 ohms } 5 ohms } 15 ohms }	36 D.S.C. Cu. wire { 47,000 ohms. 47,000 ohms. 47,000 ohms.
12	OSCILLATOR REACTION COILS L4 and L5.	Cathode socket of V2 and chassis.	1.0 ohm, 34 D.S.C. Cu. wire ...	—
13	OSCILLATOR COILS— L6 (M.W.) ... .. L7 (L.W.) ... ..	Junction of C8 and C9 and S1 contact K. S1 contacts K and L ... ..	3.5 ohms } 7.0 ohms }	34 S.W.G. enam. Cu. { 47,000 ohms. 47,000 ohms.
14	Intermediate frequency transformer— L8 ... .. L9 ... ..	Anode lead of V2 and junction of C8 and C9. Grid socket of V3 and chassis (earth).	65 ohms } 95 ohms }	41 S.S.C. enam. Cu. { 47,000 ohms. 1 megohm.
15	Intermediate frequency transformer— L10 ... .. L11 ... ..	Across ends ... .. Across ends ... ..	75 ohms } 95 ohms }	41 S.S.C. enam. Cu. { 49,000 ohms. 0.5 megohm.
16	L1+, L6+, L7+, L8 ...	Anode lead of V1 and anode lead of V2.	96 ohms... ..	47,000 ohms.

## GENERAL FAULTS TABLE.

Symptom.	Action to be Taken.	Possible Fault.
No signals, radio or gram.	See that current is reaching the instrument Check continuity of T2 primary ... ..	Mains not reaching instrument. Faulty S2 switch. Primary of T2 may be burnt out.
No signals, radio or gram. Pilot lamps light.	Employ preliminary tests described on page ..  Check C20 (grid coupling to output valve) Check C23 (tone compensating condenser)	Defective coupling, or decoupling components. Speaker muting contacts N and P not opening correctly. Signals not reaching output valve. This component may fail and short the anode of the output valve to earth.
Good gram, no radio ...	Check R8 ... .. Check R10 ... ..	V2 not oscillating. Defective load resistance.

**GENERAL FAULTS TABLE—continued.**

Symptom.	Action to be taken.	Possible fault.
<b>Distortion — radio and gram.</b>	Check speaker field tap and green lead at T1. Also check R15, R16, R17, R20 and R21 ... Check C17 and R11 (biasing) ... Check C 23 (tone corrector) ...	No bias on output valve. — No bias on L.F. valve MHD4, resulting in no volts between cathode and frame. —
<b>Distortion or instability on radio and overloading of signals.</b>	Examine R1, R13, R18, C2, C10 and C18 ...	Disconnection or short on A.V.C. feeder. Valve caps not contacting with metallising. "Hum dinger" arm not contacting or winding "dis."
<b>Hum ...</b>	Check VR2 for continuity and contacting of arm. ADJUST THE HUM CONTROL. Check C25, C26 and total "H.T." The voltage between "F" and "OP—RED" on output transformer should be not less than 360 volts. Check field for shorts to chassis ... Examine screened leads and VR1 ... Check C27 and C28 for disconnection or open circuit. Examine C20 ... Check connections of C24 ...	Slider of hum control not contacting, or "DIS." in winding. Faulty smoothing condensers. Faulty speaker field. Grid circuit of V4 may be earthed. Modulation hum due to faulty decoupling. — The positive side of this condenser must be connected to earth. C22 open circuited.
<b>Weak radio or general insensitivity.</b>	Check F.AE. 1, F.AE. 2. Apply preliminary test No. 8 in order to locate faults on H.F. side of instrument. Regang as instructed on page 5 ...	VMS4B (V1) or an associated component faulty. Circuits out of tune.
<b>Crackle or buzz ...</b>	Examine wiring for bad connection ... Examine speaker cone for clearance ... Clean valve pins and, if necessary, pinch the socket clips. Test valves individually ... See that pilot lamp is firm in holder ... — Examine mains plug and listen for noise when plug is moved in supply point. Check ON—OFF switch ... If a condenser is suspected of leaking the Continuity Tests 11, 12, 13, 14, 15 and 16 should be employed. See that cans on VMS4B valves are making electrical contact with metallising. See under "ELECTRICAL INTERFERENCE," page 11.	A "dry" joint. Speech coil not correctly centred or spider fractured. Bad connection at valve pins. Inter-electrode short in a valve. A loose or faulty pilot lamp, usually denoted by flicker, will cause serious interference. C23 (tone compensating condenser) faulty. — — — —
<b>Indicator light not operating.</b>	Check VT. If coil is "Dis." or has been out of circuit, the condenser C11 will have failed. Replace both components.	—
<b>A.V.C. not functioning ...</b>	Check A.V.C. components (see Valve Table, page 7).	—
<b>Fuses blowing ...</b>	Check condensers C27 and C28 and wiring thereto.	—
<b>Indicator Light not working (large shadow)</b>	Look for insulation fault on anode side of V.T.	C10, C11, C15, L10, TC4 and/or for anode screening. Faulty valve.

## ELECTRICAL INTERFERENCE.

Before attributing disturbing noises to a fault within the instrument the following simple tests should be made :—

Switch on the receiver and, having tuned to a point where signals are not being received, make and break the aerial lead. If the aerial is picking up disturbances a decrease in noise will be noticed when aerial is disconnected. The earth lead may also be responsible for a certain amount of interference pick-up.

On the other hand, if no difference is noticed in noise level whether aerial is connected or not, the interference may be due to high frequency (H.F.) brought to the instrument via the current supply or to a fault in the receiver.

To establish definitely that interference is not air borne, a wire should be connected between the fixed and moving vanes of section VCI of variable condensers and the frame aeriels disconnected from instrument. If interference is propagated via the mains the noise will still be heard.

If interfering noises are due to a bad connection in the receiver, a jar will sometimes aggravate the trouble and so assist in locating the source of trouble—see Faults Table.

All but the very worst types of H.F. interference coming in via the mains supply will be effectually filtered out by the H.F. filter unit incorporated in the instrument.

Loose or faulty pilot lamps will give rise to severe crackling. If a flickering lamp is noticed and a renewal does not improve matters, suspect a bad connection in the heater circuits of the valves. See that valves are fully inserted and that pilot lamps are tightly screwed in.

**Electrical machinery or flashing signs will invariably give rise to the type of interference known as "H.F." and will cause crackling or "frying" noises in the speaker. Attention is drawn to the activities of H.M. Post Office and the British Broadcasting Corporation in investigating this type of interference.**

### WHAT TO DO.

1. Make absolutely certain that the interference is not within the instrument by employing the tests previously described.
2. Obtain from a post office (or the B.B.C.) a copy of the special questionnaire form issued by them.
3. Fill in the form accurately, giving, in addition to the answers required :—
  - (a) Name of manufacturer of the receiver.
  - (b) The manufacturer's Cat. No. of the receiver.
4. Send the questionnaire back as directed, together with **brief** notes as to possible source of interference which your local knowledge may suggest.
5. Do **not** assure your customer that a cure will be effected.
6. The P.O./B.B.C. organisation is one for investigating the **cause** of complaint with a view to ascertaining whether or not a cure can be effected. Such investigations may be both delicate and lengthy, and require both goodwill and tact to bring to a successful conclusion. **Do not** suggest to the owner (if known) of the interfering apparatus that your application is in any way a measure of retaliation.
7. It is of the utmost importance that this valuable channel of co-operation with H.M. Post Office and the B.B.C. should not be employed until every possible test has been made to ensure that the interference complained of comes definitely from a source **exterior** to the instrument.

## THE INTERFERENCE MANUAL.

You are advised, in your own interests, to obtain the new Marconiphone Manual "Electrical Interference with Broadcast Reception." This is a most comprehensive treatment of the subject, extending to over 32 pages and dealing fully with the symptoms, cause and remedy of all types of interference. In conjunction with the manual, four special 12-inch Records have been made of the various interference noises, each fully cross-indexed for rapid identification.

The nett price of the Manual and Records in an album is 7s. 6d. Orders should be sent to The Marconiphone Co., Ltd., Radio House, Tottenham Court Road, London, W.1.

## SPARE PART LIST.

Part No.	Description.	Retail List Price.	Per
<b>CABINET PARTS AND FITTINGS.</b>			
		£ s. d.	
—	Cabinet, polished ... ..	4 0 0	Each.
1908A	Turntable, with rubber ... ..	0 2 9	"
1912	Rubber for turntable ... ..	0 0 11	"
9545	Screw securing turntable ... ..	0 0 3	Doz.
2288	Hinge for back ... ..	0 0 4	Each.
9549	Screw for hinge ... ..	0 0 4	Doz.
2925	Back pin ... ..	0 0 1	Each.
7341	Back pin socket ... ..	0 0 1	"
2289	Catch and plate ... ..	0 0 3	Each pt.
9922	Screw for catch and plate ... ..	0 0 4	Doz.
17270	Gauze for back ... ..	0 0 9	Each.
15486	Bush, in back, for aerial, earth and P.U. leads ... ..	0 0 1	"
17287	Switch escutcheon ... ..	0 0 6	"
17306	Screw, securing escutcheon ... ..	0 0 3	Doz.
16730B	Tuning escutcheon (mottled), with felt and transfer ... ..	0 2 3	Each.
or 17598A	Tuning escutcheon (brown), with felt and transfer ... ..	0 2 3	"
16731	Felt ... ..	0 0 1	"
17395	Transfer "M—L—G" ... ..	0 0 1	"
11029	Screw, securing escutcheon ... ..	0 0 3	Doz.
16046	Loudspeaker fret (mottled) ... ..	0 2 6	Each.
or 17597	Loudspeaker fret (brown) ... ..	0 2 6	"
9548	Button } securing fret ... ..	0 0 1	"
—	Screw } ... ..	0 0 3	Doz.
17367	Baffle board, with silk and two insert nuts ... ..	0 3 0	Each.
17367	Silk ... ..	0 1 3	"
12775	Insert nut ... ..	0 0 1	"
9524	Screw ... ..	0 0 4	Doz.
17197	Ornamental screw, long ... ..	0 0 2	Each.
17317	Ornamental screw, short ... ..	0 0 1½	"
17318	Ornamental washer ... ..	0 1 5	Doz.
14220	Stud ... ..	0 0 1½	Each.
5981	Spacer washer ... ..	0 0 1	"
12780	Spacer nut ... ..	0 0 9	Doz.
1022	Washer ... ..	0 0 2	"
3168	Washer, S.P. ... ..	0 0 2	"
11626	Nut ... ..	0 0 9	"
<b>LOUDSPEAKER.</b>			
10971X	Loudspeaker, complete with T1—Output transformer ... ..	2 2 0	Each.
10971J	Magnet yoke and core ... ..	0 3 6	"
14783A	Hum neutralising coil ... ..	0 2 1	"
14785	Packing block, securing coil to magnet yoke... ..	0 0 2	"
12947	Felt washer ... ..	0 0 2	"
10976	Fibre washer ... ..	0 0 1	"
13541E	Field coil ... ..	0 9 10	"
10978	Top plate ... ..	0 1 3	"
12496	Bolt } securing top plate to magnet yoke ... ..	0 0 1	"
3167	Washer, S.P. } ... ..	0 0 2	Doz.
14778	Centre stud ... ..	0 0 3	Each.
14772A	Cone chassis, with four studs ... ..	0 2 5	"
14779	Transformer bracket ... ..	0 0 2	"
11627	Nut } securing transformer bracket and magnet assembly to studs on } ... ..	0 0 6	Doz.
3167	Washer, S.P. } cone chassis ... ..	0 0 2	"
17596A	Speech coil and cone ... ..	0 4 0	Each.
14780	Lock washer ... ..	0 0 2	Doz.
14781	Washer } securing cone spider to centre stud ... ..	0 0 3	"
14782	Screw } ... ..	0 0 3	"
3327	Clamping segment } securing cone to cone chassis ... ..	0 0 3	Each.
11187	Screw } ... ..	0 0 8	Doz.
10990	Felt strip ... ..	0 0 3	Each.
12040S	T1—Output transformer ... ..	0 10 5	"
8777	Screw, P.K. } securing T1 to bracket ... ..	0 0 6	Doz.
3166	Washer, S.P. } ... ..	0 0 2	"
18248A	Terminal panel, with terminal screws ... ..	0 1 7	Each.
11228	Terminal screw ... ..	0 0 4	Doz.
12619	Screw, securing terminal panel to T1 ... ..	0 0 6	"
17244A	Loudspeaker lead, with 4 tags ... ..	0 1 3	Each.
11802	Tag ... ..	0 0 3	Doz.

## SPARE PART LIST.

Part No.	Description.	Retail List Price.	Per
<b>RADIO UNIT.</b>			
		£ s. d.	
14940G	Radio Unit ... ..	7 3 0	Each.
11092	Strap	0 0 2	"
16725	Bolt } securing radio unit	0 0 1	"
3167	Washer, S.P. }	0 0 2	Doz.
13759B	Knob (mottled)—Switch	0 0 7	Each.
or 13759	Knob (brown)—Switch	0 0 7	"
13759A	Knob (mottled)—Trimmer	0 0 7	"
or 13759E	Knob (brown)—Trimmer	0 0 7	"
10674	Grub screw	0 0 4	Doz.
17312A	Backing plate, with springs, behind knobs	0 0 7½	Each.
17230B	<b>Power pack</b> ... ..	2 10 0	Each.
11212	Screw } securing power pack	0 0 2	Doz.
1021	Washer }	0 0 3	"
17230A	Base plate, with valveholder	0 2 9	Each.
16757	Large insulating bush...	0 0 1	"
17239A	Cover ... ..	0 2 9	"
17513	Felt ... ..	0 0 3	Doz.
12619	Screw, P.K., securing cover	0 0 6	"
17235A	Cover plate, marked with voltage ranges	0 0 4½	Each.
11228	Screw, securing cover plate	0 0 4	Doz.
17231A	Bracket for mains switch, mains plug and hum control	0 0 7½	Each.
17241A	Mains plug	0 0 6	"
16355	Rivet securing mains plug to bracket	0 0 2	Doz.
13844	Screw } securing bracket...	0 1 9	"
3168	Washer }	0 0 2	"
16576	Earthing tag, near valveholder	0 0 3	"
12619	Screw, P.K., securing tag	0 0 6	"
3153	Cleat securing leads	0 0 3	"
10545	Valve panel	0 0 2	Each.
10546	Valve leg clip	0 0 7	Doz.
13703	Valve panel cover	0 0 2	Each.
10547	Valve panel cover, upper, with red spot	0 0 2	"
13804	Rivet securing valveholder	0 0 3	Doz.
<b>Marconi Valves.</b>			
—	V1—VMS4B—Metallised—H.F. Amplifier	—	—
—	V2—MS4B—Plain—Frequency Changer	—	—
—	V3—VMS4B—Metallised—I.F. Amplifier	—	—
—	V4—MHD4—Metallised—Detector L.F. Amplifier	—	—
—	V5—MPT4—Catkin—Pentode Output	—	—
—	V6—MUI2—Mains Rectifier	—	—
17446	Valve nut	0 0 6	Doz.
<b>Inductances.</b>			
16717C	F.A.E. 1—M.W. frame aerial, complete with fixing brackets	0 4 0	Each.
9545	Screw, securing brackets to cabinet	0 0 3	Doz.
17278B	F.A.E. 2—L.W. frame aerial, complete with fixing bracket	0 5 0	Each.
12909	Screw	0 0 1	"
11636	Nut } securing L.W. frame to cabinet back	0 0 4	Doz.
3166	Washer }	0 0 2	"
11655	Fixing bracket	0 0 2	Each.
11475	Screw securing bracket to frame	0 0 2	Doz.
11734A	Terminal panel, with tags	0 0 5	Each.
11735	Terminal panel, backing strip	0 0 1½	"
11727	Tag	0 0 7½	Doz.
8694	Screw securing terminal panel to frame	0 0 4½	"
11761A	Frame connecting panel, with three tags	0 0 6	Each.
11376	Screw } securing panel to panel on radio unit	0 0 6	Doz.
1048	Washer }	0 0 2	"
16733A	Lead—purple } from M.W. frame to frame connecting panel	0 0 2	Each.
16734A	Lead—green/white }	0 0 2	"
16735A	Lead—purple } from L.W. frame to frame connecting panel	0 0 1½	"
16736A	Lead—green/white }	0 0 1½	"
17227A	L1—Anode coupling coil } anode coil assembly	0 3 3	"
	L2—Anode coil—M.W. }		
	L3—Anode coil—L.W. }		

## SPARE PART LIST.

Part No.	Description	Retail List Price.	Per
14967B	L4—Oscillator coil—M.W. reaction L5—Oscillator coil—L.W. reaction L6—Oscillator coil—M.W. L7—Oscillator coil—L.W. } oscillator coil assembly ... ..	£ s. d. 0 2 6	Each.
11230	Screw	0 0 3	Doz.
3165	Washer, S.P. } securing above coil assemblies ... ..	0 0 2	"
7601	Distance collar	0 0 4	"
17224B	L8—Primary of 1st I.F.T. L9—Secondary of 1st I.F.T. } I.F.T. 1 coil assembly ... ..	0 3 0	Each.
17224A	L10—Primary of 2nd I.F.T. L11—Secondary of 2nd I.F.T. } I.F.T. 2 coil assembly ... ..	0 3 0	"
11278	Screw securing I.F. coil assemblies to brackets ... ..	0 0 2	Doz.
17225A	Bracket with screw at top ... ..	0 0 4½	Each.
11381	Screw	0 0 4	Doz.
1062	Washer	0 0 3	"
3165	Washer, S.P. } securing brackets and trimmer condensers ... ..	0 0 2	"
11629	Nut	0 0 6	"
14961	Coil screen ... ..	0 0 5	Each.
3166	Washer, S.P. } securing coil screens ... ..	0 0 2	Doz.
12917	Nut	0 0 4	"
12040S	T1—Output transformer, on loudspeaker ... ..	0 10 5	Each.
14584F	T2—Mains transformer... ..	1 7 0	"
17234	Hook bolt	0 0 9	Doz.
1021	Washer	0 0 3	"
3167	Washer, S.P. } securing T2 to base plate of power pack ... ..	0 0 2	"
11627	Nut	0 0 6	"
12179A	Voltage adjustment screw ... ..	0 0 3	Each.
14585C	Terminal panel, with tags ... ..	0 0 7½	"
10606	Screw, P.K., securing panel ... ..	0 0 7	Doz.
11228	Terminal screws ... ..	0 0 4	"
<b>Resistances</b>			
or 5787G	R1—1 megohm ... ..	0 0 9	Each.
or 17541G	R2—35,000 ohms ... ..	0 0 9	"
17541E			
or 17140E	R3—1,000 ohms ... ..	0 0 9	"
17541K			
or 17140K	R4—23,000 ohms ... ..	0 0 9	"
17541AA			
or 17140AA	R5—23,000 ohms ... ..	0 0 9	"
17541AA			
or 17140AA	R6—1,000 ohms ... ..	0 0 9	"
17541K			
or 17140K	R7—100,000 ohms ... ..	0 0 9	"
17541Q			
or 17140Q	R8—½ megohm ... ..	0 0 9	"
17541C			
or 17140C	R9—50,000 ohms ... ..	0 0 9	"
17541P			
or 17140P	R10—½ megohm ... ..	0 0 9	"
17541C			
or 17140C	R11—1,000 ohms ... ..	0 0 9	"
17541K			
or 17140K	R12—50,000 ohms ... ..	0 0 9	"
5787P			
or 17541P	R13—½ megohm ... ..	0 0 9	"
17541C			
or 17140C	R14—10,000 ohms ... ..	0 0 10	"
10451H			
or 5787C	R15—½ megohm ... ..	0 0 9	"
17541C			
or 17541Z	R16—230,000 ohms ... ..	0 0 9	"
17140Z			
or 5787Z	R17—230,000 ohms ... ..	0 0 9	"
17541Z			
or 17541C	R18—½ megohm ... ..	0 0 9	"
17140C			
or 5787F	R19—5,000 ohms ... ..	0 0 9	"
17541F			
or 5787Q	R20—100,000 ohms ... ..	0 0 9	"
17541Q			

## SPARE PART LIST.

Part No.	Description.	Retail List Price.	Per
5787B or 17541B } 6000AS 15806 4400 14567D 8777	R21—10,000 ohms ... ..	£ s. d. 0 0 9	Each.
	VRI—Volume Control—250,000 ohms ... ..	0 4 2	"
	Distance-piece } securing VRI ... ..	0 0 3	"
	Nut } ... ..	0 0 2	"
	VR2—Hum control—48.5 ohms (in power pack) ... ..	0 1 0	"
	Screw securing VR2 ... ..	0 0 6	Doz.
	<b>Condensers.</b>		
15719A	C1—0.00005 mfd. ... ..	0 0 8	Each.
13806	Rivet ... ..	0 0 4	Doz.
1062	Washer ... ..	0 0 3	"
16316D	C2—0.1 mfd. ... ..	0 0 9	Each.
16688D {	C3—0.2 mfd. ... ..		
	C4—0.2 mfd. ... ..		
	C16—2.0 mfd. } condenser block ... ..	0 5 6	"
	C18—0.1 mfd. } C20—0.1 mfd. }		
12619	Screw, P.K. ... ..	0 0 6	Doz.
15719B	C5—0.0001 mfd.... ... ..	0 0 9	Each.
13806	Rivet ... ..	0 0 4	Doz.
1062	Washer ... ..	0 0 3	"
16691B	C6—0.4 mfd. ... ..	0 1 8	Each.
12619	Screw, P.K. ... ..	0 0 6	Doz.
15719AA	C7—0.0001 mfd.... ... ..	0 0 9	Each.
15719L	C8—0.0017 mfJ.... ... ..	0 1 3	"
15719Z	C9—0.00015 mfd. ... ..	0 0 9	"
13806	Rivet ... ..	0 0 4	Doz.
1062	Washer ... ..	0 0 3	"
15719C	C10—0.0002 mfd. ... ..	0 0 9	Each.
17250A	C11—10.0 mfd. electrolytic ... ..	0 2 6	"
15719C	C12—0.0002 mfd. ... ..	0 0 9	"
15719C	C13—0.0002 mfd. ... ..	0 0 9	"
16316D	C14—0.1 mfd. ... ..	0 0 9	"
16316D	C15—0.1 mfd. ... ..	0 0 9	"
17250B	C17—25.0 mfd., electrolytic ... ..	0 3 6	"
15719F	C19—0.001 mfd.... ... ..	0 0 9	"
13806	Rivet ... ..	0 0 4	Doz.
1062	Washer ... ..	0 0 3	"
16316F	C21—0.25 mfd. ... ..	0 0 9	Each.
17595A	C22—4.0 mfd. electrolytic ... ..	0 3 0	"
11220	Screw ... ..	0 0 2	Doz.
17207	Nut ... ..	0 0 1	Each.
or 15754D } 10064C }	C23—0.003 mfd.... ... ..	0 1 6	"
	C24—25.0 mfd., electrolytic ... ..	0 3 6	"
17250B	C25—4.0 mfd., electrolytic } in power pack ... ..	0 6 0	"
17246A {	C26—8.0 mfd., electrolytic }		
	Strap ... ..	0 0 2	"
17249	Screw, P.K. ... ..	0 0 6	Doz.
8777 } 10064B }	C27—0.002 mfd.... ... ..	0 1 6	Each.
	C28—0.002 mfd.... ... ..		
17233	Insulation ... ..	0 0 2	Doz.
11231	Screw } securing C27 and C28 to base plate of power pack ... ..	0 0 2	"
3165	Washer, S.P. }	0 0 2	"
11737C	TC1—0.00007 mfd. trimmer condenser ... ..	0 1 3	Each.
10845	Screw ... ..	0 0 2	Doz.
11629	Nut ... ..	0 0 6	"
3165	Washer, S.P. ... ..	0 0 2	"
12640B {	TC2 and TC3—twin pre-set condenser ... ..		
	TC4 and TC5—twin pre-set condenser ... ..	0 2 1	Each.
11743	Adjusting screw ... ..	0 0 8	Doz.
10611P	VCI—0.0003 mfd. variable condenser (trimmer) ... ..	0 3 6	Each.
3910	Washer, S.P. ... ..	0 0 2	Doz.
5607	Nut ... ..	0 0 1	Each.
14957A	VCI, VC2 and VC3—three-gang variable condenser, with two trimmers ... ..	0 11 0	"
16025	Distance-piece } securing ganged condenser ... ..	0 0 6	Doz.
17058	Screw }	0 0 2	"
3167	Washer }	0 0 2	"

## SPARE PART LIST.

Part No.	Description.	Retail List Price.	Per
14980A	Scale drum ... ..	£ 0 1 2	Each.
11773	Screw securing drum ... ..	0 0 5	Doz.
14976C	Scale ... ..	0 0 7½	Each.
211	Screw, P.K. } ... ..	0 0 6	Doz.
1048	Washer } securing scale to scale drum ... ..	0 0 2	"
11227	Screw } ... ..	0 0 6	"
3165	Washer, S.P. } ... ..	0 0 2	"
14942A	Cursor mounting bracket, supporting VRI, cursor, condenser drive spindle and VCI ... ..	0 0 8	Each.
12619	Screw, P.K., securing bracket ... ..	0 0 6	Doz.
16702A	Condenser drive bush with drive sleeve ... ..	0 0 7	Each.
11676	Drive shaft ... ..	0 0 2	"
10674	Grub screw ... ..	0 0 4	Doz.
14945	Cursor ... ..	0 0 2	Each.
14947	Cursor bracket ... ..	0 0 2	"
11248	Screw } securing cursor to bracket and latter to cursor mounting } ... ..	0 0 7	Doz.
1048	Washer } bracket (14942A) ... ..	0 0 2	"
3165	Washer, S.P. } ... ..	0 0 2	"
12968	Pointer ... ..	0 0 1	Each.
11235	Screw, securing pointers to cursor ... ..	0 0 3	Doz.
15935A	Scale guide bracket with two rollers ... ..	0 0 4	Each.
12619	Screw, P.K. ... ..	0 0 6	Doz.
4396	Washer ... ..	0 0 2	"
17258A	Lamp bracket, with bracket for visual tuning indicator ... ..	0 0 4½	Each.
11248	Screw } securing bracket to plate on top of switch ... ..	0 0 7	Doz.
3165	Washer } ... ..	0 0 2	"
11229	Adjusting screw ... ..	0 0 3	"
17262A	Lampholder ... ..	0 0 4½	Each.
11248	Screw } securing lampholder to lamp bracket ... ..	0 0 7	Doz.
3165	Washer } ... ..	0 0 2	"
1575A	Pilot lamp—6·2-volt 0·3 ampere ... ..	0 0 9	Each.
17260B	Visual tuning indicator ... ..	0 4 9	Doz.
11248	Screw } securing VT to lamp bracket ... ..	0 0 7	Doz.
3165	Washer } ... ..	0 0 2	"
17263A	Reflector ... ..	0 0 3	Each.
<b>SWITCHES.</b>			
14950F	S1—Change-over switch ... ..	0 7 0	Each.
14954	Guard plate, marked A to M ... ..	0 0 2	"
8777	Screw, P.K. } securing switch and guard panel ... ..	0 0 6	Doz.
1048	Washer } ... ..	0 0 2	Each.
14950	Switch frame, front ... ..	0 0 2	Each.
14950D	Switch frame, rear ... ..	0 0 9	"
12013	Tension spring, on locating arm ... ..	0 0 9	Doz.
11696A	Strip with six gold-plated spring contacts ... ..	0 2 8	Each.
8777	Screw, P.K. } securing contact strips to switch frames ... ..	0 0 6	Doz.
1062	Washer } ... ..	0 0 3	"
17255	Spindle ... ..	0 0 4½	Each.
12541B	Locating collar, with four pins and stop ... ..	0 0 6	"
10674	Grub screw, securing locating collar ... ..	0 0 4	Doz.
11051J	Rotor, with gold-plated contacts ... ..	0 1 0	Each.
11063	Collar } securing rotor to spindle ... ..	0 0 2	"
10674	Grub screw } ... ..	0 0 4	Doz.
1039	Washer } at front end of rotor ... ..	0 0 2	"
12567	Spring } ... ..	0 0 6	"
14951	Top plate, bakelite ... ..	0 0 1	Each.
17257	Top plate, metal ... ..	0 0 3	"
11805	Screw, P.K., securing top plates to switch frames ... ..	0 0 6	Doz.
17261	Muting switch holder... ..	0 0 1½	Each.
10801C	Spring contact, pointed ... ..	0 0 2	"
10801D	Spring contact, flat ... ..	0 0 2	"
17196	Screw } securing muting switch ... ..	0 0 3	Doz.
12037	Spacer } ... ..	0 0 1	Each.
1058	Washer } ... ..	0 0 3	Doz.
17253	Insulating piece, actuating muting switch ... ..	0 0 3	"
14519	Rivet, securing insulation piece ... ..	0 0 1	"
14672C	S2—Mains switch—double pole ... ..	0 3 0	Each.
14697	Nut, securing S2 to bracket in power pack ... ..	0 0 11	Doz.



## SPARE PART LIST.

Part No.	Description.	Retail List Price.	Per
	<b>Panels, Screens, etc.</b>	£ s. d.	
11733A	Frame aerial connecting panel ... ..	0 0 8	Each.
3152A	Aerial and Earth panel ... ..	0 0 4	"
16073A	P.U. panel ... ..	0 0 4	"
13803	Rivet securing panels ... ..	0 0 3	Doz.
17274A	Terminal panel marked "1, 2, 3," with three tags and terminal screws...	0 0 6	Each.
11228	Terminal screw ... ..	0 0 4	Doz.
16352	Rivet securing terminal panel ... ..	0 0 1	"
17229A	Strap, with two brackets, supporting terminal panel ... ..	0 0 1½	Each.
13802	Rivet securing strap ... ..	0 0 2	Doz.
17579 A	Condenser Panel, with 4 tags ... ..	0 0 7½	Each.
17580	Condenser panel, cover... ..	0 0 6	Doz.
14519	Rivet securing condenser panel and cover ... ..	0 0 1	"
17223	Back screen, underneath valveholders ... ..	0 0 7½	Each.
12619	Screw, P.K., securing back screen ... ..	0 0 6	Doz.
17841A	Screen for MPT4 Catkin valve ... ..	0 0 7½	Each.
11228	Screw ... ..	0 0 4	Doz.
3165	Washer, S.P. } securing screen to bracket ... ..	0 0 2	"
16762A	Valve screen for VMS4B valves ... ..	0 0 7½	Each.
17585A	Large condenser panel, with 11 tags and mounting bracket ... ..	0 0 7½	"
12619	Screw, securing bracket to chassis ... ..	0 0 6	Doz.
14956B	Resistance panel with 13 tags ... ..	0 2 0	Each.
14955	Insulating backing panel ... ..	0 0 6	Doz.
1048	Washer ... ..	0 0 2	"
8777	Screw } securing resistance panel and backing panel ... ..	0 0 6	"
14977	Screen, at end, covering resistance panel ... ..	0 0 3	Each.
14948	Support plate ... ..	0 0 1½	"
8777	Screw, P.K., securing support plate ... ..	0 0 6	Doz.
12619	Screw, P.K., securing screen plate ... ..	0 0 6	"
14946	Strap, at ends of chassis... ..	0 0 4	Each.
13246	Screw ... ..	0 0 3	Doz.
3166	Washer, S.P. ... ..	0 0 2	"
10545	Valve panel ... ..	0 0 2	Each.
10546	Valve leg clip ... ..	0 0 7	Doz.
13703	Valve panel cover ... ..	0 0 2	Each.
10547	Valve panel cover, upper, with red spot ... ..	0 0 2	"
16620	Valve panel cover, black bakelite ... ..	0 0 4½	"
17502	Valve panel, 7-pin ... ..	0 0 2	"
17503	Valve leg clip ... ..	0 0 1	"
17501	Valve panel cover, 7-pin ... ..	0 0 4	"
13813	Rivet securing black valveholders ... ..	0 0 1	Doz.
13804	Rivet securing transparent valveholders ... ..	0 0 3	"
16357	Rivet securing valveholder and bracket supporting valve screen ... ..	0 0 2	"
	<b>Wiring and Leads.</b>		
352/30100	Braided flex—black ... ..	0 2 0	Doz. yds.
352/30155	Braided flex—green ... ..	0 2 0	"
352/30154	Braided flex—green/yellow ... ..	0 2 0	"
352/30124	Braided flex—red/yellow ... ..	0 2 0	"
352/40122	Braided flex—red ... ..	0 3 0	"
352/40120	Braided flex—red/black... ..	0 3 0	"
352/40133	Braided flex—orange ... ..	0 3 0	"
352/30911	Braided flex—brown ... ..	0 0 5	Yard.
223/08440	Varnished cotton sleeving—yellow, 4 mm. ... ..	0 0 4	"
223/16440	Varnished cotton sleeving—yellow, 3½ mm. ... ..	0 0 4	"
223/07440	Varnished cotton sleeving—yellow, 3 mm. ... ..	0 0 3½	"
223/05440	Varnished cotton sleeving—yellow, 2 mm. ... ..	0 0 2½	"
223/04110	Varnished cotton sleeving—brown, 1½ mm. ... ..	0 0 2½	"
223/04550	Varnished cotton sleeving—green, 1½ mm. ... ..	0 0 2½	"
223/04000	Varnished cotton sleeving—black, 1½ mm. ... ..	0 0 2½	"
223/04220	Varnished cotton sleeving—red, 1½ mm. ... ..	0 0 2½	"
223/04330	Varnished cotton sleeving—orange, 1½ mm. ... ..	0 0 2½	"
223/03110	Varnished cotton sleeving—brown, 1 mm. ... ..	0 0 2½	"
223/03220	Varnished cotton sleeving—red, 1 mm. ... ..	0 0 2½	"
223/03440	Varnished cotton sleeving—yellow, 1 mm. ... ..	0 0 2½	"
223/03241	Varnished cotton sleeving—red/yellow, 1 mm. ... ..	0 0 2½	"
223/03550	Varnished cotton sleeving—green, 1 mm. ... ..	0 0 2½	"
223/03000	Varnished cotton sleeving—black, 1 mm. ... ..	0 0 2½	"

## SPARE PART LIST.

Part No.	Description.	Retail List Price.	Per
223/03201	Varnished cotton sleeving—red/black, 1 mm. ... ..	£ 0 0 2½	Yard.
301/02180	No. 18 S.W.G. tinned copper wire ... ..	0 2 6	Lb.
301/02200	No. 20 S.W.G. tinned copper wire ... ..	0 2 6	"
301/02220	No. 22 S.W.G. tinned copper wire ... ..	0 2 6	"
301/02240	No. 24 S.W.G. tinned copper wire ... ..	0 2 9	"
398/20336	Metal braiding ... ..	0 0 4	Yard.
398/20340	Metal braiding ... ..	0 0 4	"
222/00040	Black thread ... ..	0 0 2	Doz. yds.
17525A	Mains lead ... ..	0 1 9	Each.
17276A	Mains socket ... ..	0 1 9	"
17275	Socket, brass ... ..	0 0 2	"
11335	Screw, securing leads to sockets ... ..	0 0 3	Doz.
17276	Half socket ... ..	0 0 7½	Each.
17277	Half socket, with tapped screw holes ... ..	0 0 7½	"
11421	Screw, 1 inch long ... ..	0 0 3	Doz.
11417	Screw, ¾ inch long ... ..	0 0 3	"
<b>TAGS, CLEATS, BUSHES, LEADS, LABELS, etc.</b>			
16576	Tag for earthing leads ... ..	0 0 3	Doz.
3338	Tag for anode leads ... ..	0 0 6	"
or			
17445	Valve clip ... ..	0 0 1½	Each.
833	Cleat—slotted ... ..	0 0 6	Doz.
8692	Screw securing cleat ... ..	0 0 3	"
5820	Cleat ... ..	0 0 1	Each.
8602	Screw securing cleat ... ..	0 0 2	Doz.
3153	Cleat securing leads to radio unit ... ..	0 0 3	"
16755	Insulating bush, small ... ..	0 0 1	Each.
16756	Insulating bush, medium ... ..	0 0 1	"
16757	Insulating bush, large (in power pack) ... ..	0 0 1	"
17289	Model, Warning and Patents label ... ..	0 0 4½	Doz.
17371	Instruction book ... ..	0 0 6	Each.
13874	Label—"Use Marconi Valves" ... ..	0 0 2	"

Please address all service communications respecting Marconiphone Models and also orders for Spare Parts to :—

**E.M.I. SERVICE, LTD.,  
SHERATON WORKS,  
HAYES, MIDDLESEX.**

Telephone : Southall 2468.

Telegraphic Address : Service, Hayes, Middlesex.

Always quote the type and serial number of the instrument ; unless full particulars are quoted delay in the execution of orders will inevitably result.

*The Company reserves the right to make any modifications without notice.*

# MARCONI 279

## SALES POINTS

1. Entirely self-contained—no aerial or earth required.
2. Real Super-het. selectivity giving ample station-separation.
3. Remarkable range with very high quality of reproduction.
4. No batteries or accumulators.
5. Delayed A.V.C. to minimise fading and blasting.
6. Unique Visual Tuning Indicator to ensure absolute perfection of performance.
7. Provision for pick-up and extra speakers.
8. Beautiful inlaid walnut cabinet.

