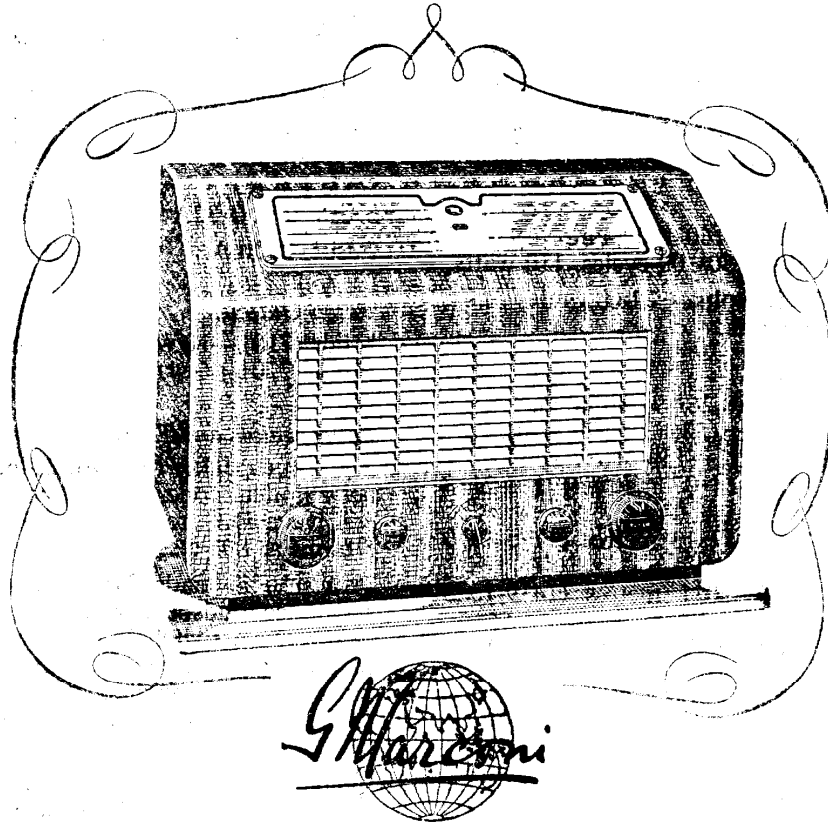


MARCONI



SERVICE MANUAL

Model 7101 for A.C. Mains
 Model 7201 for A.C./D.C. Mains
 7-valve Bandsread Table Receiver

MADE IN ENGLAND

CONTENTS

	Page		Page
Circuit Diagrams	5 & 6	Installing and Dismantling ...	3
Circuit Description	2	Spare Parts Lists	12, 13, 14
Component Diagrams	4 & 7	Specification	2
Condenser and Pointer Drives	10	Valve Tables	11
H.F. Adjustments	8	Wavechange Drive	10

Copyright and reproduction of diagrams strictly reserved

MODELS 7101 and 7201

In view of similarities and for convenience of description, this Manual deals with the above two models. Unless otherwise stated, all details given apply to both the A.C. (Model 7101) and A.C./D.C. (Model 7201) versions.

SPECIFICATION

Physical.

Height	15½ inches (39.4 cms.)	} Overall.
Width	22 " (56 cms.)	
Depth	11½ " (29.2 cms.)	
Net Weight	(Model 7101) 45 lb. (20.4 kg.) : (Model 7201) 35 lb. (15.9 kg.) :	

Mains Supply and Consumption.

Model 7101	100-130, 140-160 and 195-255 volts. 50-100 cycles, 110 watts.
Model 7201	195-255 volts. 25-60 cycles A.C., 90 watts.

Wave Ranges.

S.W.	33-92 metres (3,261-9,090 kc/s).
M.W.	190-570 metres (526.3-1,579 kc/s).
L.W.	720-2,000 metres (150-416.7 kc/s).
Bandsread : ..	(13m.) 13.75-14.07 metres (21.3-21.8 Mc/s).
	(16m.) 16.65-17.13 metres (17.5-18.0 Mc/s).
	(19m.) 19.34-20.1 metres (14.9-15.5 Mc/s).
	(25m.) 24.8-25.8 metres (11.6-12.1 Mc/s).
	(31m.) 30.44-31.5 metres (9.5-9.85 Mc/s).

Valves, Lamps and Fuses.

Model 7101.	Model 7201.
-------------	-------------

Marconi :

KTW61M	KTW61M	R.F. Amplifier.
X61M	X61M	Frequency Changer.
KTW61M	KTW61M	R.F. Amplifier.

Marconi :

DH63M	DH63M	Detector, A.V.C. and L.F. Amplifier.
KT66	KT33C	Output Stage.
U52	U31	Rectifier.
Y61	Y61	Visual Tuning Indicator.

Scale Lamps :

7.0 v. 0.32A	4.5 v. 0.25A
--------------	--------------

Fuse: 250mA .

0.5A Cartridge Type.

Rated Output.

Model 7101—10 watts maximum.

Model 7201—6 watts maximum.

Loudspeaker and Extra Loudspeaker.

The Loudspeaker (Pt. No. 24460AN) is a permanent magnet elliptical cone, moving coil loudspeaker. The speech coil has a D.C. resistance of 3 ohms and an impedance of 5 ohms at 800 c/s.

Provision is made for the connection of additional low resistance loudspeakers to the sockets at the back of the receiver. A switch is provided at the back for switching to internal, external or both loudspeakers. The receiver must not be operated with the switch in the external position unless an external loudspeaker is connected.

Connection of Pick-up.

A high resistance pick-up or a record player may be connected to the sockets provided. A combined selectivity and gramophone switch is fitted at the front of the receiver. The receiver volume and tone controls are operative on gramophone.

CIRCUIT DESCRIPTION

R.F. Amplifier.

An inductively-coupled aerial circuit feeds the grid of the R.F. Amplifier V1(KTW61M). The coupling transformers, iron-dust cored for medium and long wave, have their secondaries tuned by one section (VC1) of the three gang condenser. For the bandsread ranges, VC1 is disconnected and fixed tuning is provided by either of two tapped secondaries (L2 for 13 and 16m, and L4 for 19, 25 and 31m).

This valve has a tuned anode circuit, which is capacity coupled to the triode-hexode frequency changer 42(X61M). These circuits consist of tapped inductances, tuned by the second section (VC2) of the gang condenser for short, medium and long waves. For bandsread ranges, preset capacity tuned (TC5) tapped inductances are used (VC2 in this case being disconnected).

Frequency Changer.

The triode portion of V2 (the local oscillator) has a grid circuit tuned by the third section (VC3) of the gang

condenser. Separate coils are provided for all wave-ranges (including the bandsread ranges, L14-13m, L16-16m, L17-19m, L18-25m, L19-31m) and anode coupling coils in all cases except L.W. and the 19, 25 and 31m bandsread ranges. In these cases, oscillations are maintained by C19 with C11 on bandsread and C16 on L.W. The variable condenser VC3 has a system of series parallel capacitances (C11 and C14) switched so as to limit its capacity change to suit the bandsread ranges.

I.F. Amplifier.

Two iron-dust cored I.F. transformers (IFT1 and IFT3) with adjustable inductors and fixed capacitors, couple the hexode anode of V2 to the grid of the I.F. Amplifier V3 (KTW61M). These I.F. transformers give increased selectivity in the "Radio Selective" and "Distant Speech" positions of switch S3. A further I.F. transformer (IFT2) couples the anode of V3 to the detector diode. The intermediate frequency is 465 kc/s.

Detector and L.F. Amplifier.

The double-diode-triode V4 (DH63M), has one diode used as a detector (which also operates the tuning indicator V7) and the other as A.V.C. rectifier. The L.F. load of the diode is tapped and the Switch S3, selects the voltage across the whole load or across part of it only (R14) for application to the volume control, and this maintains equal sensitivity on "Radio Normal" or "Radio Selective" switch positions. In the "Distant Speech" position of S3 the bass frequencies are limited by C44, and in the remaining position of the switch the gramophone pick-up sockets are connected to the volume control and the aerial input to earth. On Model 7201 an isolating transformer (T3) is connected in the pick-up circuit.

The A.V.C. diode is fed via C28 from the I.F. amplifier and the automatic volume control voltage is applied via a filter R12, C23 to V1, V2 and V3.

Output Stage.

The triode portion of V4 provides L.F. amplification and

is resistance-capacity (R20, C34) coupled to the beam tetrode output valve V5 (KT66 on Model 7101 and KT33C on Model 7201). This valve is self-biased and has a negative feed-back tone control circuit VR2, C46 and feeds the loudspeaker through the coupling transformer T1.

H.F. and L.T. Supplies.

The H.T. supply for Model 7101 consists of a conventional full-wave rectifier (V6, U52) circuit with electrolytic reservoir and smoothing condensers, and a smoothing choke. In Model 7201 a half-wave rectifier (V6, U31) is employed, and adequate H.F. filtering is provided in the mains input leads in addition to the usual L.F. smoothing.

The L.T. supply for Model 7101 is taken from a separate winding on the mains transformer. Four pilot lamps (LP1, LP2, LP3 and LP4) are connected across the winding. In Model 7201 the heaters of all valves are in series with the mains resistances R55, R56 and R57. Four pilot lamps are provided with shunt resistances, R32, R33, R34 and R35.

INSTALLING

The Aerial and Earth.

This receiver was particularly designed to give a new standard of short wave reception. Unless it is connected to an adequate aerial and earth installation, however, the advantages of the design will be minimised or lost, and although the receiver will work on an inside aerial, a high outside aerial is essential for the best reception. Erect 60 to 80 feet of copper wire (including lead-in) as high as possible and as far as possible from buildings and trees.

A lightning arrester or switch should be provided and the aerial must be well insulated at all points of contact with grounded objects.

A copper plate or earth rod buried in moist ground or a

rising main water pipe forms an efficient earth. Do not use a telephone earth or a hot water or gas pipe.

Important.

The mains voltage is best ascertained by direct measurement at the customers premises.

The voltages covered by the terminals are :—

Model 7101.		Model 7201.	
Terminal	Voltage.	Terminal	Voltage.
110	100-117	205	195-215
125	118-130	225	216-235
150	140-160	245	236-255
205	195-215		
225	216-235		
245	236-255		

DISMANTLING

Removal of Chassis.

1. Disconnect the receiver entirely from the mains.
2. Remove the aerial and earth plugs from their sockets.
3. Remove the external loudspeaker switch knob at the back of the cabinet (spring fixing).
4. Remove the card back (two screws).
5. Remove the local-distant switch knob (spring fixing) and the remaining control knobs (screw fixing) from the front of the cabinet. (On Model 7201, knob screws are covered with wax, which should be replaced on re-assembling.)
6. On Model 7201 remove the "On/Off" switch on the side of the cabinet.
7. Remove the four chassis fixing screws underneath the cabinet. (On Model 7201, these screws are covered with insulators.)
8. Withdraw the chassis.

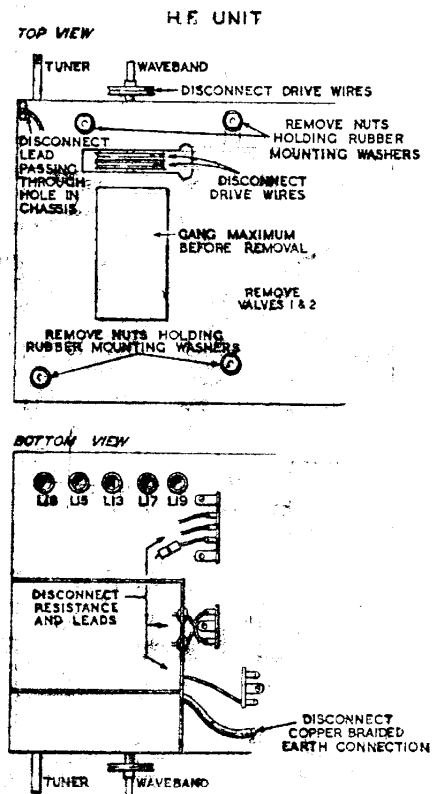
For replacement of valves, scale lamps, etc., and for minor adjustments and ganging, the chassis need not be removed from the cabinet. To obtain access carry out operations 1-4 above, then remove the inspection panel beneath the cabinet (four screws).

Note.—Care should be taken not to damage the supply leads to the loudspeaker and it may be found advisable to

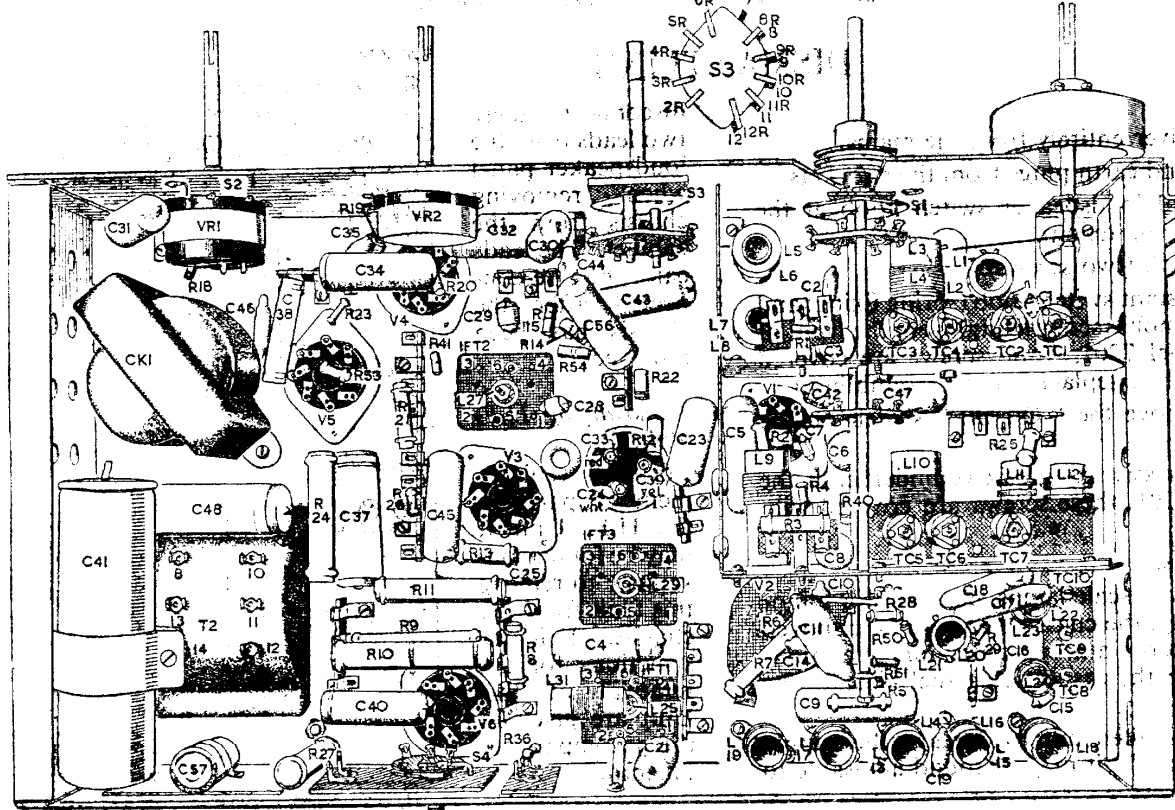
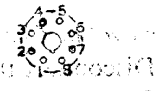
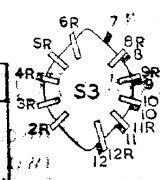
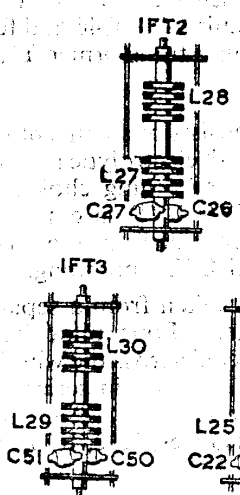
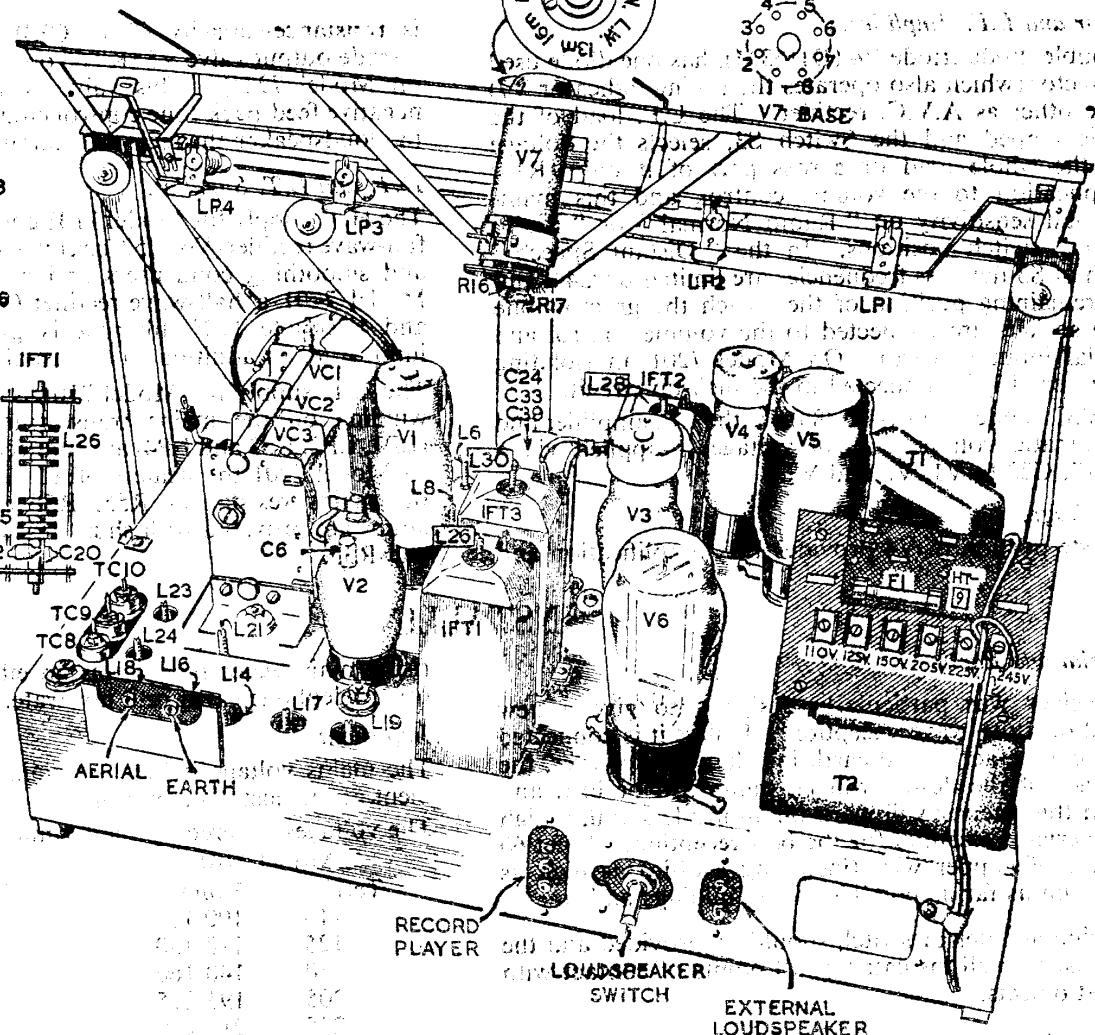
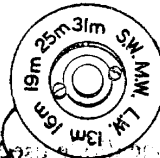
disconnect these two leads from the loudspeaker panel when removing chassis from the cabinet. The leads can be re-connected after the chassis has been removed.

Removal of H.F. Unit.

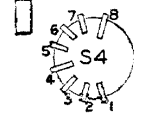
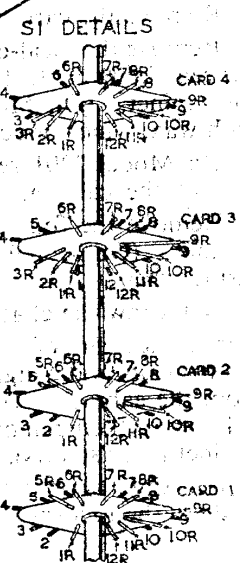
For the replacement of parts in the H.F. Unit it may be found convenient to remove this Unit from the chassis. Full instructions for the removal of this Unit are given in the accompanying diagram.



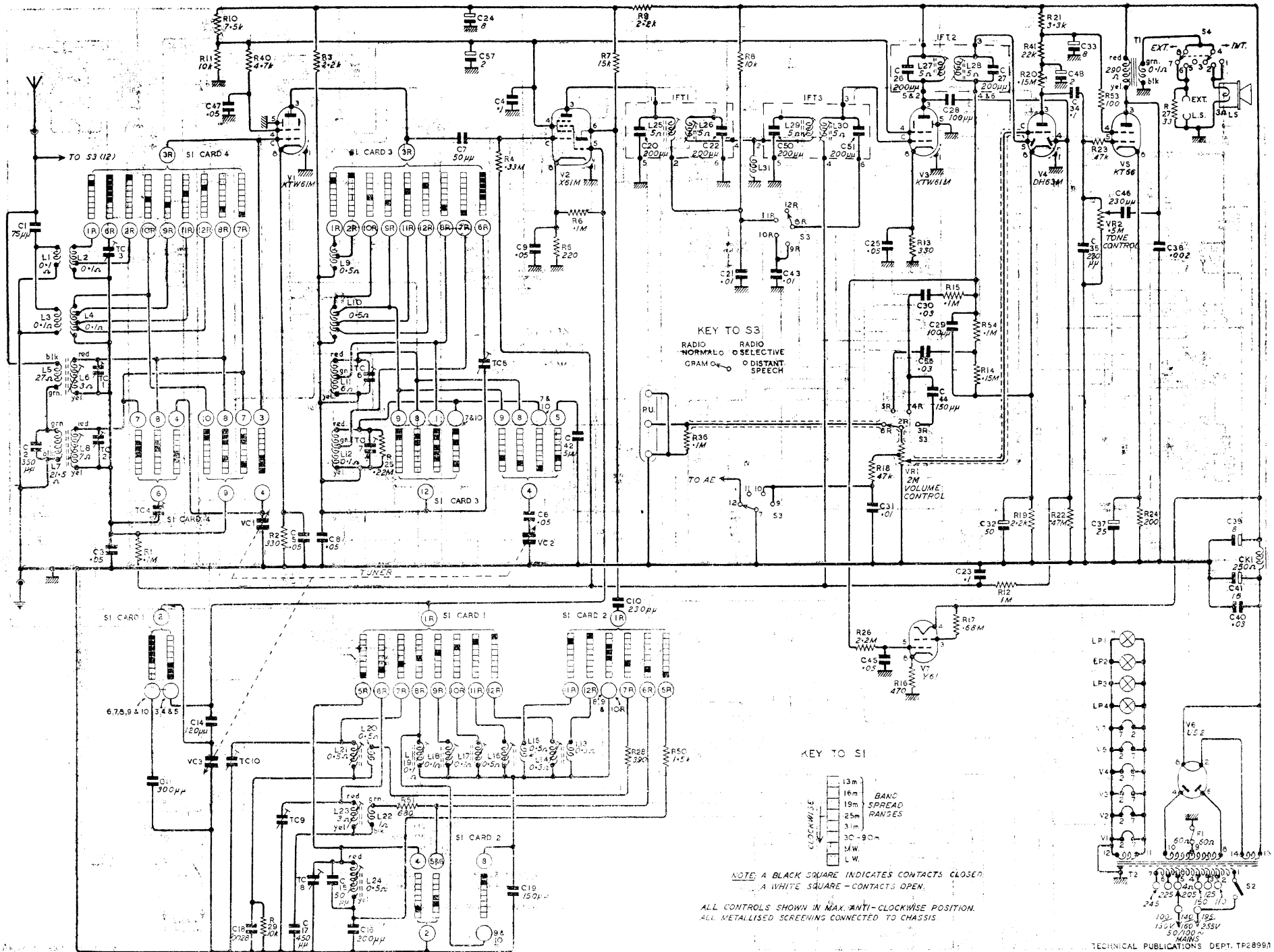
Model 7101



VALVE BASE NUMBERS



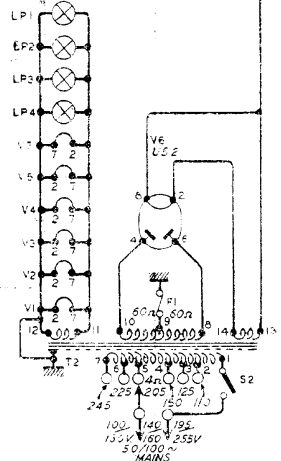
Model 710A

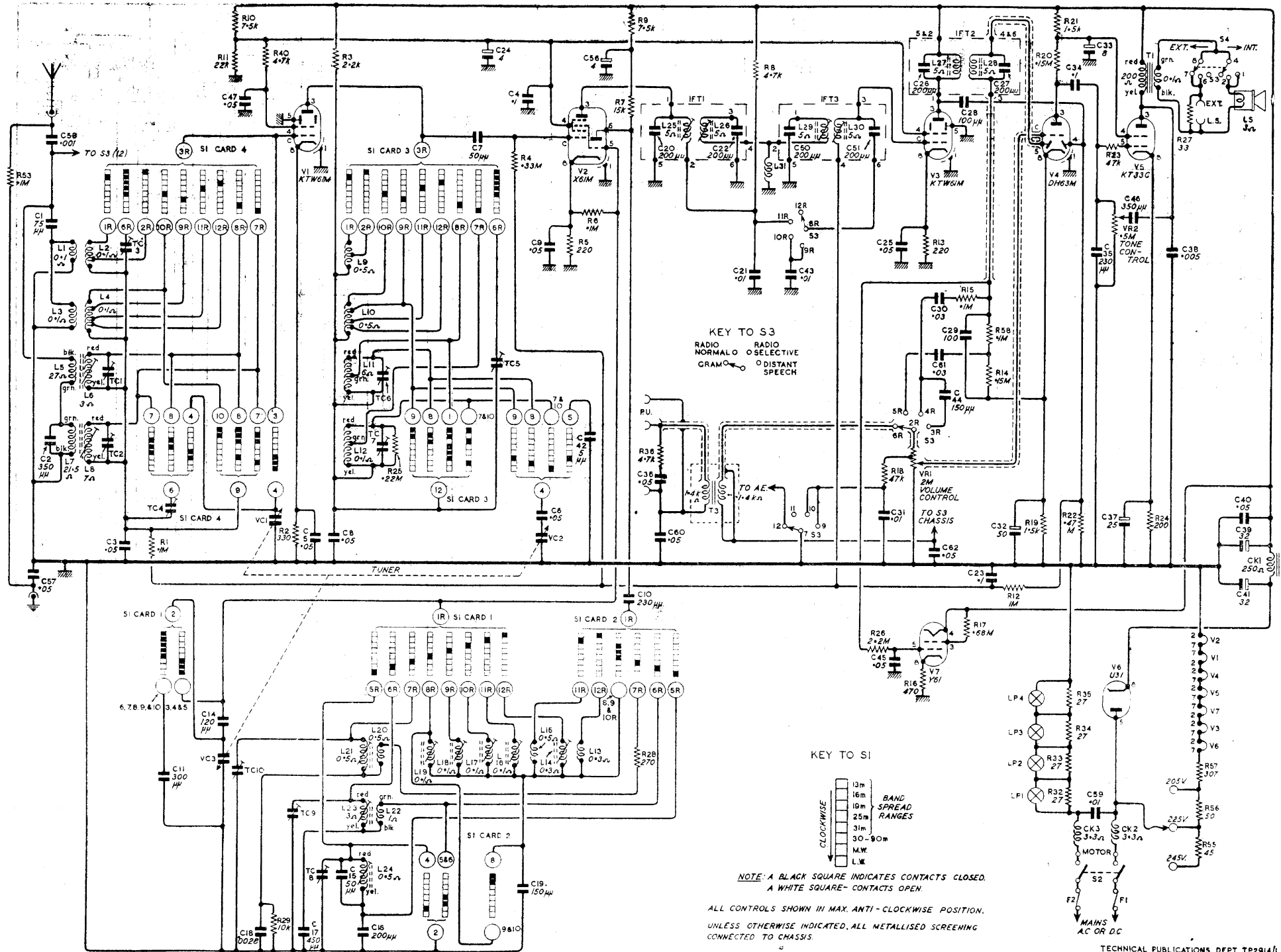


KEY TO S3
 RADIO NORMAL ○ RADIO SELECTIVE
 GRAM ○ DISTANT SPEECH

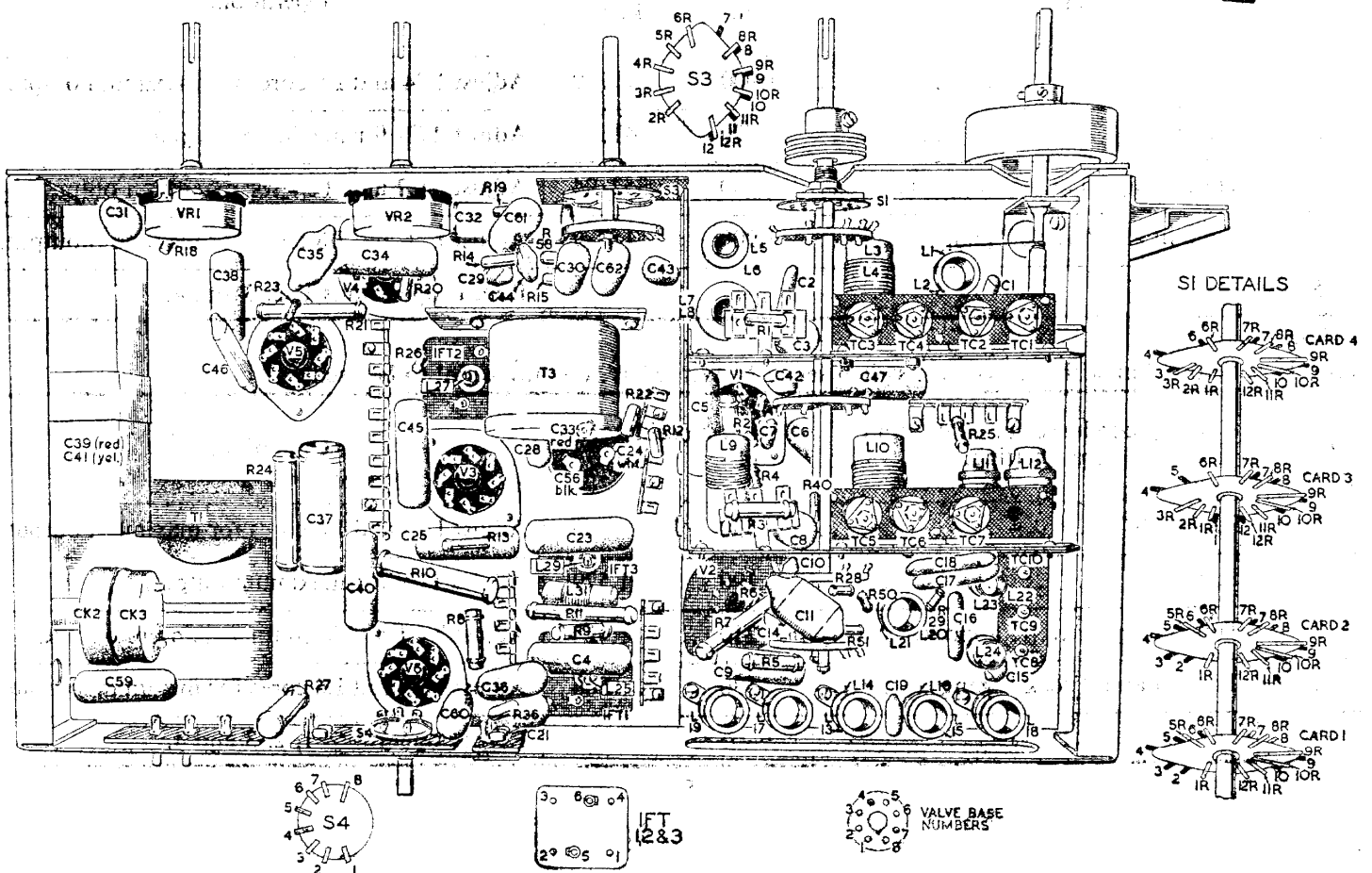
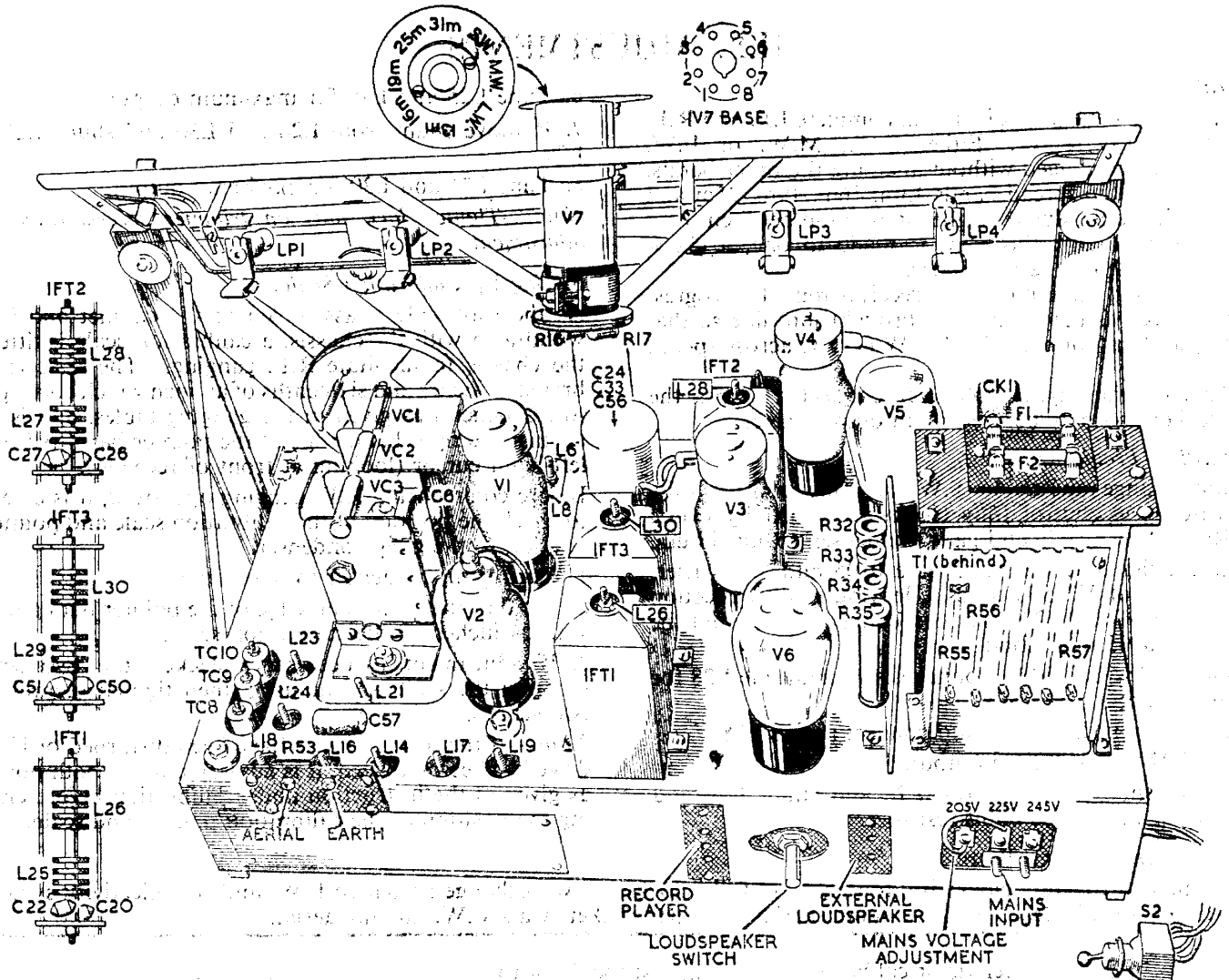
KEY TO SI
 13m
 16m
 19m
 25m
 31m
 30-90m
 W/W
 L/W
 CLOCKWISE

NOTE: A BLACK SQUARE INDICATES CONTACTS CLOSED.
 A WHITE SQUARE - CONTACTS OPEN.
 ALL CONTROLS SHOWN IN MAX. ANTI-CLOCKWISE POSITION.
 ALL METALLISED SCREENING CONNECTED TO CHASSIS





Model 7201



H.F. ADJUSTMENTS

General.

If I.F. circuits have been disturbed, complete I.F. and R.F. alignment must follow. Either S.W., M.W. or L.W. bands can be re-ganged without affecting the other bands. In the case of the spread bands 13m, 16m, 19m, 25m and 31m it is desirable, due to slight inter-action between these circuits, that if an adjustment is made to one, a check should be made on the remainder.

Whilst ganging, the input to the receiver must be progressively reduced as the circuits are brought into line so that the output does not exceed 500 mW (1.5 v. across speech coil).

An A.C. (rectifier type) voltmeter connected across the loudspeaker coil may be used as an output meter.

Intermediate Frequency.

Set wavechange switch to S.W., volume control fully clockwise, tone control fully clockwise, selectivity switch to "Radio Selective" and gang condenser to maximum.

1. Inject a signal at 465 kc/s, via a 0.05 mfd. condenser, into the grid of V2 and chassis, leaving grid connection made. (On Model 7201, chassis connection should be made via a 0.05 mfd. condenser.)

2. Shunt L27 with a 10,000 ohm resistor and tune L28 for maximum output.

3. Remove shunt from L27 and connect across L28.

4. Tune L27 for maximum output.

5. Remove shunt resistor from L28 and shunt L26 and L30 with further 10,000 ohms resistors.

Radio Frequency—Long Waves.

Set volume control fully clockwise, tone control fully clockwise, wavechange switch to L.W. and the selectivity switch to "Radio Selective." Inject test signal into aerial and earth sockets via a L.W. dummy aerial.

Op. No.	Gang condenser or calibration scale setting.	Tune test oscillator to		Operation.
		m.	kc/s.	
1	Set to $4\frac{7}{8}$ "	1,900	157.9	Adjust L24 and L8 cores for maximum output.
2	Set to $\frac{3}{8}$ "	720	416.7	Adjust TC8 for maximum output.
3	Tune in signal at $1\frac{1}{8}$ " approx.	850	352.94	Adjust TC2 and TC7 for maximum output.
4	Tune in and "rock" gang	1,900	157.9	Adjust L24 and L8 cores for maximum output.
5	—	—	—	Repeat operations 1, 2, 3 and 4.

Medium Waves.

Controls as before, but with wavechange switch set to M.W. M.W. dummy aerial to be used.

Op. No.	Gang condenser or calibration scale setting.	Tune test oscillator to		Operation.
		m.	kc/s.	
1	Set to $4\frac{1}{8}$ "	530	566	Adjust L23 and L6 cores for maximum output.
2	Set to $\frac{3}{8}$ "	190	1,579	Adjust TC9 for maximum output.
3	Tune in signal at $\frac{1}{8}$ " approx.	210	1,428	Adjust TC1 and TC6 for maximum output.
4	Tune in and "rock" gang	530	566	Adjust L23 and L6 cores for maximum output.
5	—	—	—	Repeat operations 1, 2, 3 and 4.

6. Tune L25 and L29 for maximum output.

7. Remove shunt from L26 and L30 and shunt L25 and L29.

8. Tune L26 and L30 for maximum output.

Note.—Tighten lock nuts on trimmer screws after each adjustment.

Setting Up Calibration Scale.

As the wavescale is assembled to the cabinet and is not withdrawn with the chassis, a calibration scale is fitted to the chassis to facilitate R.F. ganging. The scale is calibrated in inches and sixteenths of an inch which correspond to frequencies as given in the ganging tables, and is read against the right-hand edge of the pointer bar fitted to the left-hand cursor (looking at front of receiver).

Before commencing R.F. ganging operation, it is essential to check the position of the calibration scale and pointer in relation to the gang condenser.

1. Turn gang condenser to maximum.

2. See that the right-hand edge of the pointer bar coincides with $5\frac{1}{2}$ inches on the calibration scale.

3. If adjustment is necessary, slacken the two screws securing the scale and adjust; then tighten securely the two screws.

Note.—If the scale pointers have been disturbed or if their drive has been replaced, it is advisable to set both pointers as given in the instruction under calibration before checking the position of the calibration pointer and scale.

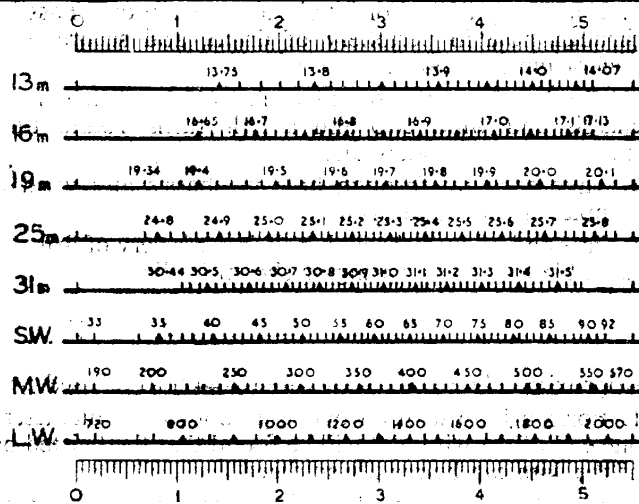
Short Waves.

Controls as before, but with wavechange switch set to S.W. S.W. dummy aerial to be used.

Op. No.	Gang condenser or calibration scale setting.	Tune test oscillator to		Operation.
		m.	kc/s.	
1	Set to $4\frac{3}{16}$ "	86	3,488	Adjust L21 core for maximum output.
2	Set to $\frac{1}{16}$ "	33	9,090	Adjust TC10 for maximum output.
3	Tune in and "rock" gang	40	7,500	Adjust TC4 for maximum output.
4	—	—	—	Repeat operations 1, 2 and 3.

Bandspread Ranges.

Unless the signal generator to be used for aligning is known to have an extremely high order of accuracy it is essential to check the calibration of these ranges on a transmission of known frequency either during or after ganging. The oscillator circuit inductances may be re-adjusted to bring the tuning to the correct pointer reading on the scale. The receiver should be switched on for at least a quarter of an hour before making adjustments. A reproduction of the scales relative to the calibration scale is attached so that wavelengths can be interpreted into calibration scale readings for this purpose.



13, 16, 19, 25 and 31 metres Wavebands.

Controls as before, but with wavechange switch set as required. S.W. dummy aerial to be used.

Op. No.	Wavechange switch.	Gang condenser or calibration scale setting.	Tune test oscillator to		Operation.
			m.	Mc/s.	
1	16 m.	Set to $2\frac{3}{16}$ "	16.84	17.8	Adjust L16 core and TC5 for maximum output.
2	16 m.	"Rock" gang	16.84	17.8	Adjust TC3 for maximum output.
3	16 m.	Set to $2\frac{1}{16}$ "	16.84	17.8	Adjust L16 core for maximum output.
4	13 m.	Set to $3\frac{3}{8}$ "	13.88	21.6	Adjust L14 core for maximum output.
5	13 m.	"Rock" gang	13.88	21.6	Adjust L2 loop for maximum output.
6	13 m.	Set to $3\frac{1}{8}$ "	13.88	21.6	Adjust L14 core for maximum output.
7	19 m.	Set to $3\frac{7}{16}$ "	19.724	15.2	Adjust L17 core for maximum output.
8	25 m.	Set to $4\frac{1}{16}$ "	25.624	11.7	Adjust L18 core for maximum output.
9	31 m.	Set to $2\frac{3}{16}$ "	30.907	9.7	Adjust L19 core for maximum output.

Note.—The receiver oscillator is tuned on the high frequency side of the signal on all wavebands. If in doubt, proceed as follows when adjusting cores of L14, L16, L17, L18 and L19 :—

Screw each core to its maximum anti-clockwise position and then turn clockwise until the first signal from the test oscillator, previously set to the signal frequency required, is heard.

Ganging Tools.

A 4BA non-metallic box-spanner is required for adjusting the trimmer condensers. This spanner, together with a

small non-metallic screwdriver inserted through the spanner, should be used for adjusting coil cores.

CALIBRATION

When the chassis is replaced in the cabinet, it may be found necessary to adjust the scale pointers so that they coincide with the station names given on the wavescale. Proceed as follows:—

1. With gang condensers set at maximum, adjust the right-hand pointer (looking at front of receiver) by slackening the clamp screw holding the cursor to the drive wire, and

sliding cursor along wire. Set pointer to the mark on the L.W. scale to the right of 2,000 metres.

2. By the same method, set the left-hand pointer to the equivalent mark on the right of the 31m. band.

3. Check pointer setting on stations of known wavebands and, if necessary, adjust to give the best compromise.

CONDENSER DRIVE

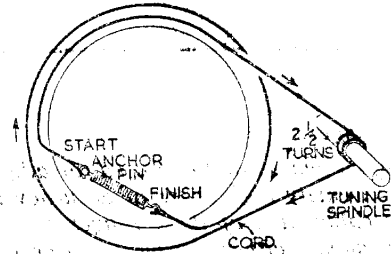
Approximately 28 inches of high grade fishing line (S515) to be used.

1. Form loop in the cord, twist and tie a knot. Pass loop through hole in periphery of drum, and secure to the anchor pin as shown in diagram.

2. Wind cord partly round drum, pass through hole in chassis and wind two and a half turns round tuning spindle. Arrows show direction.

3. Take cord up through hole in chassis and wind one complete turn round drum.

4. Pass end of cord through hole in periphery of drum and assemble to tension spring as shown in diagram.



CONDENSER DRIVE FROM FRONT

POINTER DRIVE

Approximately 57 inches of wire (S2447) to be used.

1. Form a loop with an opening about $\frac{1}{8}$ " in diameter at one end of the wire. It will be found that the twisted part of the wire can be readily soldered.

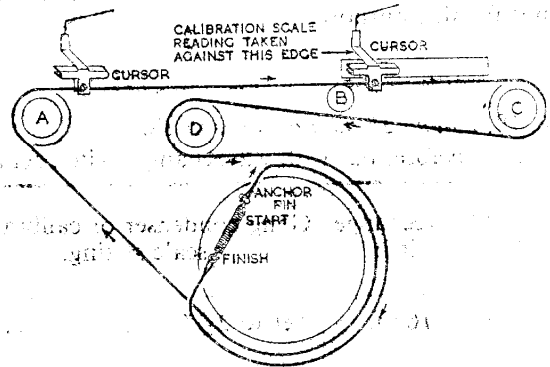
2. Pass loop through hole in periphery of drum and assemble to anchor pin.

3. Wind wire half a turn round drum and take over pulley "A." Arrows show direction.

4. Take wire behind small pulley "B," round pulley "C" and back and round pulley "D."

5. Take wire round drum and in through hole in periphery of drum. Assemble the tension spring as shown, twist wire and solder.

6. Assemble cursors to wire.



POINTER DRIVE FROM REAR

WAVECHANGE DRIVE

Approximately 63 inches of wire (S2447) to be used.

1. Form a loop with an opening about $\frac{1}{8}$ " in diameter at one end of the wire.

2. Fix end to one side of spring. The other end of spring should be temporarily fixed by any means, to the chassis.

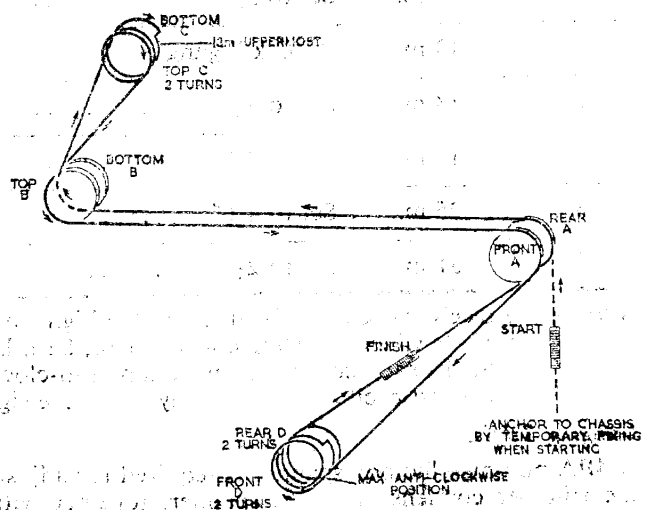
3. Pass wire over rear pulley "A" and straight across under bottom pulley "B." Arrows show direction.

4. Take wire over bottom pulley "C," pass through slot into top pulley "C," wind 2 turns clockwise and take wire back under top pulley "B."

5. Take wire over front pulley "A" and down to front of pulley "D."

6. Wind 2 turns clockwise round front of pulley "D," pass through slot into rear of pulley "D" and wind 2 turns clockwise.

7. Disconnect temporary fixing of spring to chassis and assemble tension spring to end of wire, twist and solder.



WAVECHANGE DRIVE FROM FRONT

VALVE TABLE

The following tables indicate the approximate voltage and current readings obtained on each valve when the receiver is connected to a 220 volt 50 cycle mains supply. Variations of $\pm 15\%$ may be anticipated between models. Higher or lower mains voltage will naturally produce a corresponding variation in meter readings in approximate proportion to the change in mains supply.

A high resistance voltmeter should be used to measure voltages. Values stated below were obtained using a meter with a resistance of 500 ohms per volt.

MODEL 7101

Valves.	Anode.		Screen.		Cathode.	
	Volts to Chassis.	Current mA.	Volts to Chassis.	Current mA.	Volts to Chassis.	Current mA.
V1 (KTW61M)	180	6.4	72	2.0	3.0	8.3
V2 (X61M)	Mx. 220 Osc. 120	Mx. 1.4 Osc. 4.2	83	2.2	3.1	7.8
V3 (KTW61M)	253	7.3	83	2.0	3.2	9.3
V4 (DH63M)	80	0.6	—	—	1.2	0.6
V5 (KT66)	232	66.0	230	4.3	14.0	70.3
V6 (U52)	255 (A.C.)	—	—	—	Heater.	
					270	—
			Target.			
V7 (Y61)	—	0.4	250	0.9	0.7	1.2

Total A.C. current 430 mA. Total H.T. current 103 mA (D.C.). Smoothed H.T. 245 v. (D.C.).

MODEL 7201

Valves.	Anode.		Screen.		Cathode.	
	Volts to Chassis.	Current mA.	Volts to Chassis.	Current mA.	Volts to Chassis.	Current mA.
V1 (KTW61M)	150	4.8	75	1.6	1.6	6.4
V2 (X61M)	Mx. 150 Osc. 90	Mx. 1.2 Osc. 3.2	84	2.2	1.5	6.7
V3 (KTW61M)	160	6.6	80	1.9	1.8	7.8
V4 (DH63M)	60	0.5	—	—	0.5	0.5
V5 (KT33C)	153	40.0	150	7.0	10.0	46
V6 (U31)	180 (A.C.)	—	—	—	177	—
			Target			
V7 (Y61)	—	0.25	160	1.5	0.7	1.8

Total A.C. current 400 mA. Total H.T. current 70 mA (D.C.). Smoothed H.T. 165 v. (D.C.).

SPARE PARTS LIST

MODEL 7101

Ref.	Description.	Part No.	Ref.	Description.	Part No.
INDUCTANCES.					
L1, L2	13 and 16 metres aerial coil	33146A	C37	25 mfd.	53470N
L3, L4	19, 25, 31 and 30-90 metre aerial coil	33147A	C38	0.002 mfd.	31840E
L5, L6	M.W. aerial coil	27389AR	C39	8 mfd.	32303B
L7, L8	L.W. aerial coil	27389F	C40	0.03 mfd.	36355Y
L9	13 and 16 metres H.F. coil	33146B	C41	16 mfd.	33594A
L10	19, 25, 31 and 30-90 metres H.F. coil	33147B	C42	5 mmfd.	22164A
L11	M.W. H.F. coil	27389R	C43	0.01 mfd. \pm 10%	36355U
L12	L.W. H.F. coil	27389AF	C44	150 mmfd.	22001AC
L13, L14	13 metre oscillator coils	33150A	C45	0.05 mfd.	36355F
L15, L16	16 metre oscillator coils	33149C	C46	230 mmfd.	31933AD
L17	19 metre oscillator coil	33149D	C47	0.05 mfd.	36355F
L18	25 metre oscillator coil	33148A	C48	2 mfd.	53470B
L19	31 metre oscillator coil	33148B	C50	200 mmfd. \pm 2%	} See IFT3
L20, L21	30-90 metres oscillators coils	33591A	C51	200 mmfd. \pm 2%	
L22, L23	M.W. oscillator coils	27389AH	C55	0.03 mfd.	36355Y
L24	L.W. oscillator coil	27389G	C57	2 mfd.	53470B
L25	IFT1 primary coil	} See IFT1	VC1, VC2,	Gang condenser	32925A
L26	IFT1 secondary coil		VC3		
L27	IFT2 primary coil	} See IFT2	TC1	} 3-30 mmfd.	30480A
L28	IFT2 secondary coil		TC2		
L29	IFT3 primary coil	} See IFT3	TC3		
L30	IFT3 secondary coil		TC4		
L31	Coupling coil	33595A	TC5		
			TC6		
			TC7		
			TC8		
			TC9		
			TC10		
CONDENSERS.					
C1	75 mmfd.	22164K			
C2	350 mmfd.	22001AE			
C3	0.05 mfd.	36355F	R1	0.1 megohms, $\frac{1}{10}$ w.	105574EA
C4	0.1 mfd.	36355G	R2	330 ohms, \pm 5%, $\frac{1}{2}$ w.	33368K
C5	0.05 mfd.	36355F	R3	2,200 ohms, $\frac{1}{2}$ w.	33368DQ
C6	0.05 mfd.	36355F	R4	0.33 megohms, $\frac{1}{10}$ w.	105574ED
C7	50 mmfd.	22164J	R5	220 ohms, \pm 5%, $\frac{1}{2}$ w.	33368J
C8	0.05 mfd.	36355F	R6	0.1 megohms, $\frac{1}{10}$ w.	105574EA
C9	0.05 mfd.	36355F	R7	15,000 ohms, 1 w.	33373DV
C10	230 mmfd.	22001AD	R8	10,000 ohms, $\frac{1}{2}$ w.	33368DU
C11	300 mmfd. \pm 2%	117904AL	R9	2,200 ohms, \pm 5%, 2 w.	33377Q
C14	120 mmfd. \pm 2%	117904AA	R10	7,500 ohms, \pm 5%, 5 w.	33381GG
C15	50 mmfd.	22164J	R11	10,000 ohms, \pm 5%, 2 w.	33377U
C16	200 mmfd. \pm 2%	117903AG	R12	1 megohm, $\frac{1}{10}$ w.	105574EG
C17	450 mmfd. \pm 2%	117904AJ	R13	330 ohms, \pm 5%, $\frac{1}{2}$ w.	33368K
C18	0.0028 mfd. \pm 2%	117906AM	R14	0.15 megohms, $\frac{1}{4}$ w.	33362EB
C19	150 mmfd. \pm 2%	117904AB	R15	0.1 megohm, $\frac{1}{4}$ w.	33360EA
C20	200 mmfd. \pm 2%	See IFT1	R16	470 ohms, $\frac{1}{4}$ w.	33362DL
C21	0.01 mfd. \pm 10%	36355U	R17	0.68 megohms, $\frac{1}{4}$ w.	33362EF
C22	200 mmfd. \pm 2%	See IFT1	R18	47,000 ohms, $\frac{1}{10}$ w.	105574DY
C23	0.1 mfd.	36355G	R19	2,200 ohms, $\frac{1}{2}$ w.	33362DQ
C24	8 mfd.	See C39	R20	0.15 megohms, $\frac{1}{4}$ w.	33362EB
C25	0.05 mfd.	36355F	R21	3,300 ohms, $\frac{1}{2}$ w.	33368DR
C26	200 mmfd. \pm 2%	See IFT2	R22	0.47 megohms, $\frac{1}{4}$ w.	33362EE
C27	200 mmfd. \pm 2%	See IFT2	R23	47,000 ohms, $\frac{1}{10}$ w.	105574DY
C28	100 mmfd.	22164L	R24	200 ohms, \pm 5%, 2 w.	33377AW
C29	100 mmfd.	22164L	R25	0.22 megohms, $\frac{1}{10}$ w.	105574EC
C30	0.03 mfd.	36355Y	R26	2.2 megohms, $\frac{1}{10}$ w.	105574EJ
C31	0.01 mfd.	36355D	R27	33 ohms, \pm 5%, 2 w.	33377D
C32	50 mfd.	53470A	R28	390 ohms, \pm 10%, $\frac{1}{4}$ w.	33360QA
C33	8 mfd.	See C39	R29	10,000 ohms, $\frac{1}{10}$ w.	33365DU
C34	0.1 mfd.	36355G	R36	0.1 megohms, $\frac{1}{10}$ w.	105574EA
C35	230 mmfd.	22001AD	R40	4,700 ohms, $\frac{1}{2}$ w.	33362DS

Ref.	Description.	Part No.
R41	22,000 ohms, $\frac{1}{4}$ w.	33362DW
R50	1,500 ohms, $\frac{1}{10}$ w.	105574DP
R51	680 ohms, $\frac{1}{10}$ w.	105574DM
R53	100 ohms, $\frac{1}{4}$ w.	33362DG
R54	0.1 megohms, $\frac{1}{4}$ w.	33362EA
VR1	2 megohms, volume control	27655GH
VR2	0.5 megohms, tone control	123892J

VALVES.

V1	KTW61M
V2	X61M
V3	KTW61M
V4	DH63M
V5	KT66
V6	U52
V7	Y61

Ref.	Description.	Part No.
TRANSFORMERS AND CHOKES.		
IFT1	1st I.F. transformer	30123V
IFT2	2nd I.F. transformer	30123V
IFT3	3rd I.F. transformer	30123V
T1	Output transformer	35515B
T2	Mains transformer	35233D
CK1	L.F. choke	24355H

MISCELLANEOUS.

S1	Wavechange switch	33143A
S2	Mains switch	See VR1
S3	Selectivity and gram. switch	33142A
S4	External loudspeaker switch	35410A
LP1, LP2, LP3, LP4	Pilot lamp	35420A
LS	Loudspeaker	24460AN
F1	Fuse 250 mA	19850B
	Cabinet	RA103

MODEL 7201.

Ref.	Description.	Part No.
INDUCTANCES.		
L1, L2	13 and 16 metre aerial coils	33146A
L3, L4	19, 25, 31 and 30-90 metre aerial coils	33147A
L5, L6	M.W. aerial coils	27389AR
L7, L8	L.W. aerial coils	27389F
L9	13 and 16 metre H.F. coil	33146B
L10	19, 25, 31 and 30-90 metre H.F. coils	33147B
L11	M.W. H.F. coil	27389R
L12	L.W. H.F. coil	27389AF
L13, L14	13 metre oscillator coils	33150A
L15, L16	16 metre oscillator coils	33149C
L17	19 metre oscillator coil	33149D
L18	25 metre oscillator coil	33148A
L19	31 metre oscillator coil	33148B
L20, L21	30-90 metre oscillator coil	33591A
L22, L23	M.W. oscillator coils	27389AH
L24	L.W. oscillator coil	27389G
L25	IFT1 primary coil	See IFT1
L26	IFT1 secondary coil	
L27	IFT2 primary coil	See IFT2
L28	IFT2 secondary coil	
L29	IFT3 primary coil	See IFT3
L30	IFT3 secondary coil	
L31	Coupling coil	33595A

CONDENSERS.

C1	75 mmfd.	22164K
C2	350 mmfd.	22001AE
C3	0.05 mfd.	36355F
C4	0.1 mfd.	36355G
C5	0.05 mfd.	36355F
C6	0.05 mfd.	36355F
C7	50 mmfd.	22164J
C8	0.05 mfd.	36355F
C9	0.05 mfd.	36355F
C10	230 mmfd.	22001AD
C11	300 mmfd. \pm 2%	117904AL
C14	120 mmfd. \pm 2%	117904AA

Ref.	Description.	Part No.
C15	50 mmfd.	22164J
C16	200 mmfd. \pm 2%	117903AG
C17	450 mmfd. \pm 2%	117904AJ
C18	0.0028 mfd. \pm 2%	117906AM
C19	150 mmfd. \pm 2%	117904AB
C20	200 mmfd. \pm 2%	See IFT1
C21	0.01 mfd. \pm 10%	36355U
C22	200 mmfd. \pm 2%	See IFT1
C23	0.1 mfd.	36355G
C24	4 mfd.	30241B
C25	0.05 mfd.	36355F
C26	200 mmfd. \pm 2%	See IFT2
C27	200 mmfd. \pm 2%	See IFT2
C28	100 mmfd.	22164L
C29	100 mmfd.	22164L
C30	0.03 mfd.	36355Y
C31	0.01 mfd.	36355D
C32	50 mfd.	53470A
C33	8 mfd.	See C24
C34	0.1 mfd.	36355G
C35	230 mmfd.	22001AD
C36	0.05 mfd.	36355F
C37	25 mfd.	53470N
C38	0.005 mfd.	31840J
C39	32 mfd.	35236A
C40	0.05 mfd.	36355F
C41	32 mfd.	See C39
C42	5 mmfd.	22164A
C43	0.01 mfd. \pm 10%	36355U
C44	150 mmfd.	22001AC
C45	0.05 mfd.	36355F
C46	350 mmfd.	31933AF
C47	0.05 mfd.	36355F
C50	200 mmfd. \pm 2%	See IFT3
C51	200 mmfd. \pm 2%	
C56	4 mfd.	See C24
C57	0.05 mfd.	36355F
C58	0.001 mfd.	22001F
C59	0.01 mfd.	31840N
C60	0.05 mfd.	36355F
C61	0.03 mfd.	36355Y

Ref.	Description.	Part No.
C62	0.05 mfd.	36355F
VC1, VC2, VC3	Gang condenser	32925A
TC1 } TC2 } TC3 } TC4 } TC5 } TC6 } TC7 } TC8 } TC9 } TC10 }	3-30 mmfd.	30480A

Ref.	Description.	Part No.
R32	27 ohms, $\pm 5\%$, 5 w.	33381RK
R33	27 ohms, $\pm 5\%$, 5 w.	33381RK
R34	27 ohms, $\pm 5\%$, 5 w.	33381RK
R35	27 ohms, $\pm 5\%$, 5 w.	33381RK
R36	4,700 ohms, $\frac{1}{10}$ w.	105574DS
R40	4,700 ohms, $\frac{1}{4}$ w.	33362DS
R53	0.1 megohms, $\frac{1}{10}$ w.	105574EA
R55	45 ohms	32852D
R56	50 ohms	
R57	307 ohms	
R58	0.1 megohms, $\frac{1}{10}$ w.	105574EA
VR1	2 megohms volume control	27655KU
VR2	0.5 megohms tone control	123892J

RESISTANCES.

R1	0.1 megohms, $\frac{1}{10}$ w.	105574EA
R2	330 ohms, $\pm 5\%$, $\frac{1}{2}$ w.	33368K
R3	2,200 ohms, $\frac{1}{2}$ w.	33368DQ
R4	0.33 megohms, $\frac{1}{10}$ w.	105574ED
R5	220 ohms, $\pm 5\%$, $\frac{1}{2}$ w.	33368J
R6	0.1 megohms, $\frac{1}{10}$ w.	105574EA
R7	15,000 ohms, 1 w.	33373DV
R8	4,700 ohms, $\frac{1}{2}$ w.	33368DS
R9	7,500 ohms, $\pm 5\%$, $\frac{1}{2}$ w.	33368GG
R10	7,500 ohms, $\pm 5\%$, 2 w.	33377GG
R11	22,000 ohms, $\pm 5\%$, 1 w.	33373W
R12	1 megohm, $\frac{1}{10}$ w.	105574EG
R13	220 ohms, $\pm 5\%$, $\frac{1}{2}$ w.	33368J
R14	0.15 megohms, $\frac{1}{4}$ w.	33362EB
R15	0.1 megohms, $\frac{1}{4}$ w.	33360EA
R16	470 ohms, $\frac{1}{4}$ w.	33362DL
R17	0.68 megohms, $\frac{1}{4}$ w.	33362EF
R18	47,000 ohms, $\frac{1}{10}$ w.	105574DY
R19	1,500 ohms, $\pm 5\%$, $\frac{1}{4}$ w.	33362P
R20	0.15 megohms, $\frac{1}{4}$ w.	33362EB
R21	1,500 ohms, 1 w.	33373DP
R22	0.47 megohms, $\frac{1}{4}$ w.	33362EE
R23	47,000 ohms, $\frac{1}{10}$ w.	105574DY
R24	200 ohms, $\pm 5\%$, 2 w.	33377AW
R25	0.22 megohms, $\frac{1}{10}$ w.	105574EC
R26	2.2 megohms, $\frac{1}{10}$ w.	105574EJ
R27	33 ohms, $\pm 5\%$, 2 w.	33377D
R28	270 ohms, $\pm 10\%$, $\frac{1}{4}$ w.	33360JX
R29	10,000 ohms, $\frac{1}{10}$ w.	33365DU

VALVES.

V1	KTW61M
V2	X61M
V3	KTW61M
V4	DH63M
V5	KT33C
V6	U31
V7	Y61

TRANSFORMERS AND CHOKES.

IFT1	1st I.F. transformer	30123V
IFT2	2nd I.F. transformer	30123V
IFT3	3rd I.F. transformer	30123V
T1	Output transformer	35515C
T3	Pick-up transformer	41410E
CK1	L.F. choke	22628AN
CK2	L.F. choke	16840K
CK3	L.F. choke	16840K

MISCELLANEOUS.

S1	Wavechange switch	33143A
S2	Mains switch	19214D
S3	Selectivity and gram. switch	33142A
S4	External loudspeaker switch	35410A
LP1, LP2, LP3, LP4 }	Pilot lamp	35420B
LS	Loudspeaker	24460AN
F1, F2	Fuse	19850A
	Cabinet	RA104

The Company reserves the right to make modifications without notice.

MARCONIPHONE**Model 7201****7 Valve Bandsread Table Receiver****for D.C. or A.C. Mains****THE GREATEST NAME IN RADIO****AERIAL SOCKET WIRING**

Whenever a Model 7201 is being serviced, IT IS ESSENTIAL that the aerial socket wiring be examined for conformity with the circuit diagram and corrected if found wrong.

The aerial socket MUST be wired to the correct side of C58, otherwise this condenser no longer isolates chassis from aerial, and R53 is ineffective as an aerial to earth resistance path.

MODIFICATIONS

Owing to the difficult supply position of electrolytic condensers, some models have the following modifications:—

A.C. MODEL.

Ref.	Description	Part No.
C24	8 mfd.	38176C
C39	8 mfd.	38181A

A.C./D.C. MODEL.

Ref.	Description	Part No.
C24	8 mfd.	38176C
C33	8 mfd.	38181A
C39	32 mfd.	38150D
C56	8 mfd.	See C33

On the A.C. Model, C33 and C39 are in one can mounted on top of the chassis, and C24 is mounted adjacent to the H.F. unit beneath the chassis.

On the A.C./D.C. Model, C33 and C56 are in one can mounted on top of the chassis, and C24 is mounted beneath C39 and C41.

ISSUED BY:-

E.M.I. SALES & SERVICE LTD., HAYES, MIDDLESEX.

Part No. 45128

Technical Publications Division.

July 1949