

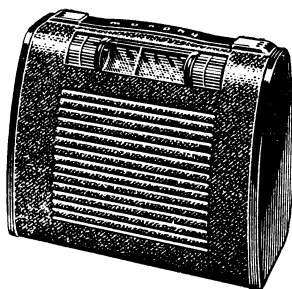
BI43

BI43

MURPHY SERVICE INSTRUCTIONS

**MURPHY RADIO LTD
WELWYN GARDEN CITY · HERTS
PHONE: WELWYN GARDEN 800**

THE B143 RECEIVER



BATTERY SUPPLY:	H.t.: 90V. L.t.: 1.5V.
CONSUMPTION:	H.t.: 10 mA. L.t.: 0.3 A.
WAVE RANGES:	MEDIUM: 188-560 metres. LONG: 970-2050 metres
INTERMEDIATE FREQUENCY:	465 Kc/s.
VALVES:	Mazda: 1F3 (2), 1C1, 1FD9, 1P10.
SPEECH COIL IMPEDANCE:	3 ohms.
CABINET DIMENSIONS:	15 in. wide, 12 $\frac{1}{4}$ in. high, 6 $\frac{1}{4}$ in. deep.
WEIGHT:	10 $\frac{1}{4}$ lb. less batteries. 17 $\frac{1}{4}$ lb. with batteries.
RELEASED:	December 1949.
PRICE:	£14 10s. 6d. plus P.T.

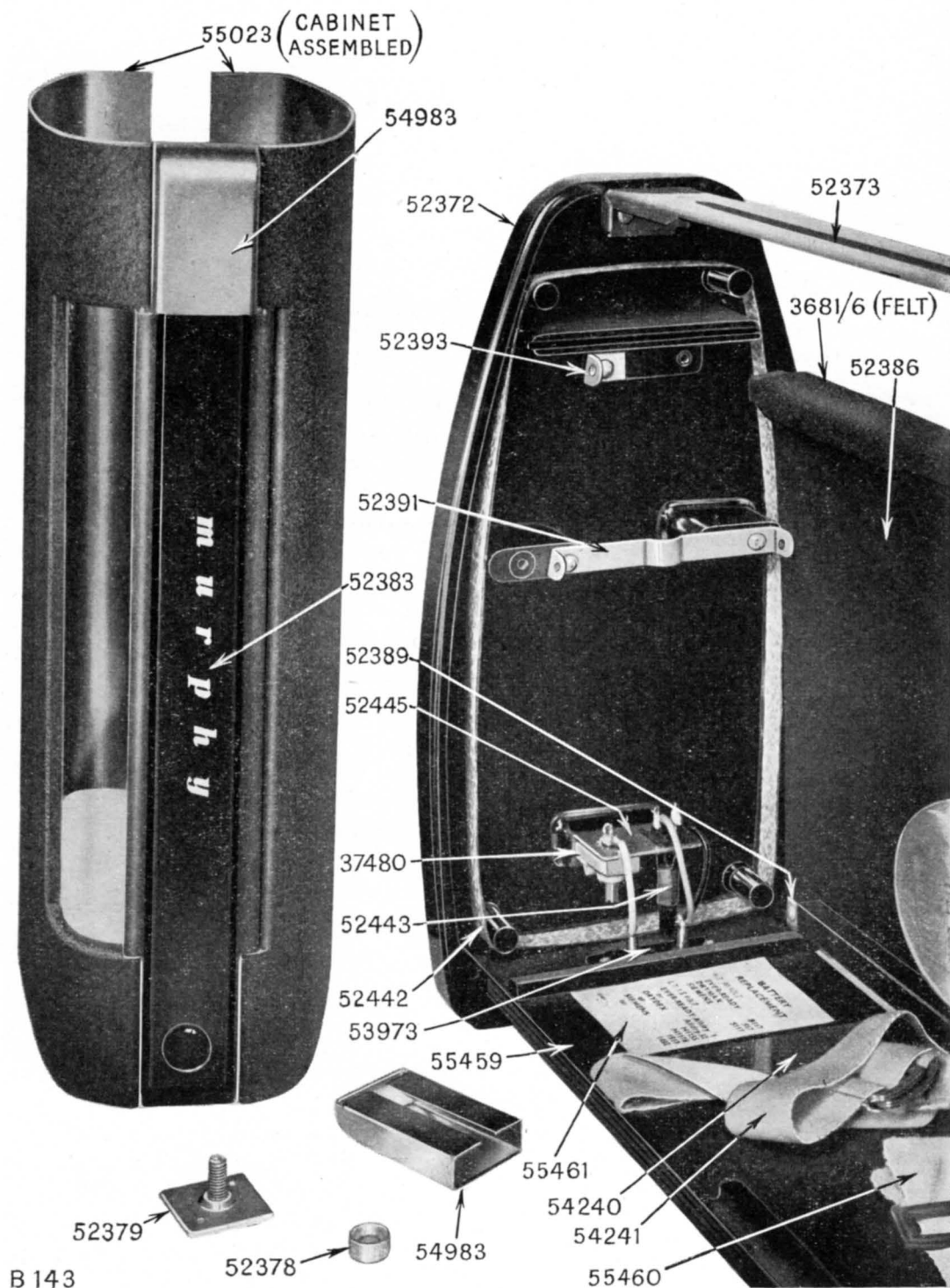


Fig. 1. The cabinet assembly details.

ELECTRICAL NOTES

General note. The circuit employed is that of a conventional super-heterodyne receiver powered entirely by dry batteries, the valve filaments being rated at 1.5 volts.

The aerial circuits. The frame aerial (L1) and the frame series coil (L17) together form the medium wave tuned inductor. C6 is the main tuning capacitor and C11, in series with C3 (L5 has a high impedance on the medium wave band), forms the medium wave trimming capacitor. On the long wave band L2, L3, and L4 (which are sectionalized windings on the long wave aerial coil), together form the tuned inductor while the frame coil (L1) and the frame series coil (L17), are matched to the circuit by connection across L4. The combination C3, C9 and C11, forms a fixed shunt capacitance on the long wave band (C11 being pre-set for optimum performance on the medium wave band). When used with an external aerial and earth, suitable matching to the medium wave tuned circuit is obtained by connecting the aerial to the junction of C3 and C11, while on the long wave band, L5, which is tuned by C3 to a frequency below the l.f. end of the band, serves as a coupling

winding. Additionally, C11 provides capacitive coupling between the top end of L5 and the top end of the long wave tuned inductor.

Grid bias supplies. Self-biasing arrangements are used for V3 and V4, where the required voltages are developed across high value resistors (R12 and R17) on the grid leak principle. The bias voltage for V5 is developed across a resistor (R24) connected in series with the h.t. negative lead. V1 and V2 also have grid leak bias supplies though to a reduced extent; they are additionally biased by the a.v.c. voltage when a signal is received.

The output valve. To provide the required electron emission, V5 is constructed with a double filament. The centre tap is connected to l.t. negative (chassis) and the two outer ends are connected to l.t. positive.

The electrolytic capacitor. This is of the polarized type and it is therefore necessary to ensure that the h.t. supply is always connected with the correct polarity. As the h.t. positive connector is a socket and the h.t. negative connector is a plug, an error can occur only when non-standard h.t. supplies are used.

MECHANICAL NOTES

General note. The receiver is assembled in such a way that most of the components can be replaced without taking the chassis out of the cabinet but it is helpful if the metal covers are first removed as described below.

The cabinet. This is constructed of several individually replaceable parts. Replacement metal covers (**cabinet assembled** 55023) can, however, be supplied only as a single assembly, consisting of the front, back and top, but less the handle and its fittings. The back cover is fastened by two **catches** (52380) underneath the cabinet and the front cover

is fastened by two wood screws, also underneath the cabinet. Raising the back cover exposes the batteries and the rear of the chassis, on which most of the wiring and small components are arranged.

The valves, the tuning scale assembly, the ganged capacitor, the i.f. cans and a few smaller components are accessible after raising the front cover and lowering the baffle board. The baffle board, with the loudspeaker in position, may be hinged downwards after releasing two screws with washers, situated at the sides.

Removal of the cabinet covers. Lay the

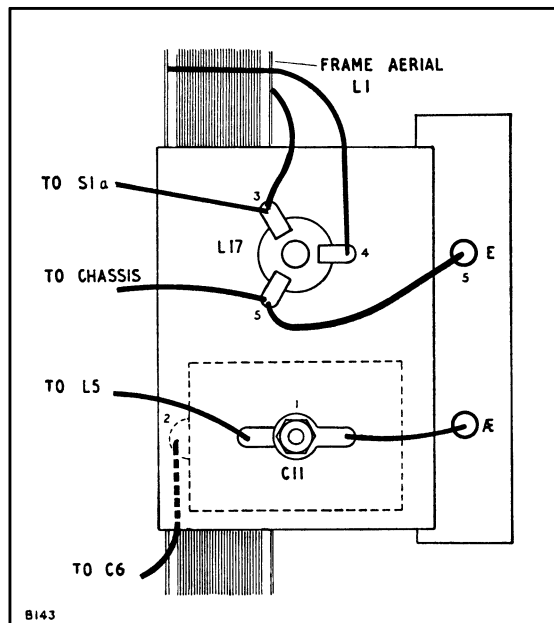


Fig. 2. The frame aerial circuit connections.

cabinet front downwards, on a soft cloth to protect its surface, release the two catches which fasten the bottom edge of the back cover, and remove the two screws which fasten the bottom edge of the front cover. Open the back, remove the two **o BA nuts** (206110) beneath the ends of the carrying handle and after standing the set upright, lift off the covers.

To remove the carrying handle. Remove the cabinet covers as already described and slip off the handle **end caps** (54983); if the caps are very tight they may be freed by gently bending open their flanges. When refitting the handle, make sure that the word "Murphy" is readable from the front of the cabinet, and that the flanges of the end caps go under the middle portion of the cover.

To remove the chassis. Remove the cabinet covers and lower the baffle. Disconnect the leads from the loudspeaker, the leads to **CII** and **LI7**, and the bare wire which connects the tie bar to the case of the volume control. Release the four screws fastening the chassis to its supports and withdraw the chassis.

To fit the chassis. Slide the chassis into position

so that it rests in the grooves in the cabinet ends, and fit the four screws which fasten the chassis to its supports. Connect the leads to the loudspeaker, the leads to **CII** and **LI7**, and the bare wire from the tie bar to the case of the volume control. Raise and fasten the baffle and fit the cabinet covers. The position of the knobs and scale relative to the opening in the front cover can be adjusted, if required. Movement in a front/back direction is secured by altering the position of the **top chassis supports** (52392 and 52393) shown in Fig. 1, which have slotted holes for their fixing screws. Movement sideways is secured by adjustments to the **brackets** (52396 and 52409) which carry the control knob spindles and involves removing the chassis from the cabinet again; these brackets are adjusted in the factory on a special jig and should not be moved unless it is absolutely necessary.

The battery retaining straps. The straps should be threaded through the buckles as shown by the broken lines in Fig. 3.

To remove the loudspeaker baffle. Remove the cabinet covers and the two screws which fasten the chassis at the loudspeaker end of the cabinet. Lay the set on its back and remove the two baffle screws and the two **screws** (102443) which fasten the base board to the loudspeaker end of the cabinet. Gently pull the free cabinet end outwards

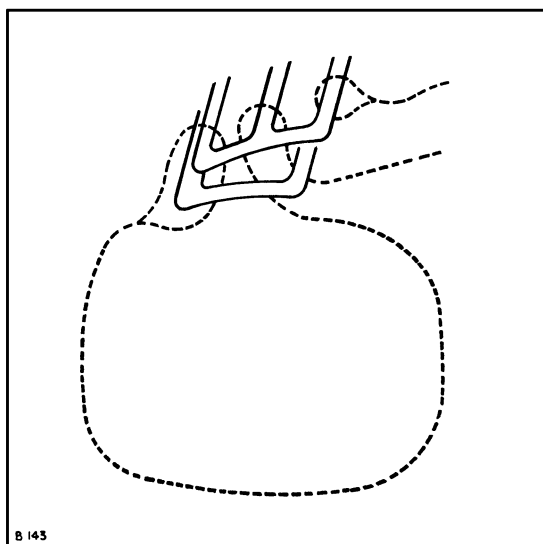


Fig.3 . Battery strap fastening.

until the baffle pivot is just clear and withdraw the baffle complete with the loudspeaker.

To replace a cabinet end. Remove the cabinet covers and the chassis. If the end carrying the frame aerial is being replaced it will also be necessary to unsolder the leads connecting C11 and L17 to the aerial and earth panel. Release the screws which fasten the tie bar and the base board to the cabinet end and remove the end. Transfer all the fittings to the replacement end; the frame aerial is fastened to the moulded supporting pillars with "Adhesive A" or "Durofix". Fit the end to the cabinet making sure that the baffle pivots are correctly seated.

To remove the cabinet base. Free the chassis and the baffle board at the loudspeaker end of the receiver. Disconnect the leads from the aerial and earth sockets and remove the four wood screws that hold the base board. Ease the cabinet end outwards sufficiently to allow the base board to clear the slot.

To remove the window. Remove the three screws which fasten the window to the top edge of the tuning scale. Holding the top edge of the window, near the middle fastening point, gently draw it away from the scale so that it becomes distorted and slips out of the grooves in the scale supports.

To fit the window. Slightly distort the window and starting with the flanged end, fit it into the grooves in the scale supports. Fasten the window

to the top edge of the scale with the three screws making sure that the markings "Med", "Long", "Off", register accurately with the index lines on the control knobs.

To remove the tuning scale. Remove the window and slide the scale out of the grooves in the scale supports.

To remove the indicator. Release the drive cord from the **carrier for indicator** (52420), and withdraw the indicator and carrier.

To fit the indicator. Insert the indicator into the space between the scale and the window and make sure that the carrier fits correctly on its guide rail (see Fig. 8). Hook the cord on to the projections on the carrier, so that when the ganged capacitor is fully meshed the indicator registers with the right hand ends (500 metre ends) of the horizontal lines on the scale.

To remove the volume control knobs. Disconnect the bare wire lead which joins the volume control to the earth tag beside the output transformer (T1), release the nut which secures the volume control and lift out the control complete with the knobs. Holding the volume control firmly in one hand to avoid straining the leads which are still connected, draw the knobs off the spindle one at a time. If a **spring** (52462) falls inside a knob, it may be withdrawn through one of the large side holes.

To fit the volume control knobs. Slide a

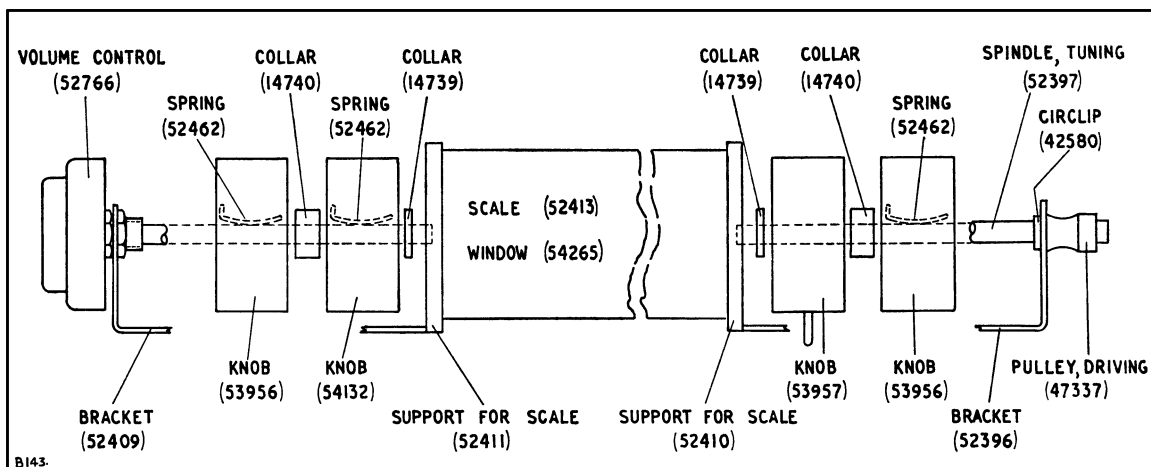


Fig. 4. The control knob assembly.

spring (52462) into the slotted portions of the central hole in a plain **knob** (53956), ensuring that the spring is bowed towards the centre. Press the knob on to the volume control spindle, with the bent corners of the spring facing the volume control, so that the spring, by pressing against the flat on the spindle, holds the knob firmly (see Fig. 4). Thread a thick **collar** (14740) on to the spindle and then press on the **knob with index** (54132) complete with a spring. It is helpful, when pressing on the second knob, if the flat on the spindle is facing downwards, for the end of the spring then automatically slides inside the collar, which itself naturally hangs downwards. Thread a thin **collar** (14739) on to the end of the spindle, and lower the assembly on to the **bracket** (52409). Fasten the volume control nut after making sure that the two ends of the spindle are correctly seated. Finally, press the knobs towards the scale support, so that there is no play on the spacing collars, and reconnect the bare wire lead from the earth tag beside the output transformer to the volume control.

To remove the tuning and wave band knobs.

Relax the tension in the drive cord, by slipping the cord off the upper pulley to the right of the scale (see Fig. 8), and remove the **pulley driving** (47337) from the tuning spindle. Release the two screws securing the **bracket** (52396) and remove the bracket together with the spindle, knobs, and right-hand scale support (see Fig. 4). Remove the **circlip** (42580) from the spindle, move the spindle to the right-hand side and remove the wave band knob. With the blade of a small screwdriver press the tuning knob locking spring out of its slot and draw the knob off the spindle.

To fit the tuning and wave band knobs.

Throughout this operation, reference should be made to Fig. 4. Fit a locking spring to the tuning **knob** (53956) in a manner similar to that quoted under the heading "To fit the volume control knobs". Pass the shaped end of the tuning spindle from left to right through the hole in the left-hand end (i.e. the scale support end) of the **bracket** (52396) and press the tuning knob, bent corners of the locking spring first, on to the spindle (slide it almost up to the shoulder of the spindle). Draw the spindle through the hole in the right-hand end of

the bracket until the left-hand end of the spindle is free. On to the left-hand end of the spindle, place in this order, a thick **collar** (14740), the wave band knob (make sure that no locking spring is fitted and that the black index line on the circumference of the knob is at the left-hand side), and a thin **collar** (14739). Pass the left-hand end of the spindle back through the hole in the left-hand end of the bracket and fit the **circlip** (42580), by pinching it into the groove in the right-hand end of the spindle. The circlip should prevent the spindle from sliding to the right-hand side again. If there is excessive end play in the knobs and spindle or if they are too tight, an adjustment may be made by sliding the tuning knob along the spindle. Fit the scale support on to the bracket and fasten the whole assembly on the chassis so that the scale and window are correctly located in, and firmly held by, the grooves in the scale support. If the volume control mounting bracket has not been moved, the scale and knobs will automatically take up their correct positions relative to the opening in the front cover of the cabinet. (See also "To fit the chassis"). Loop the

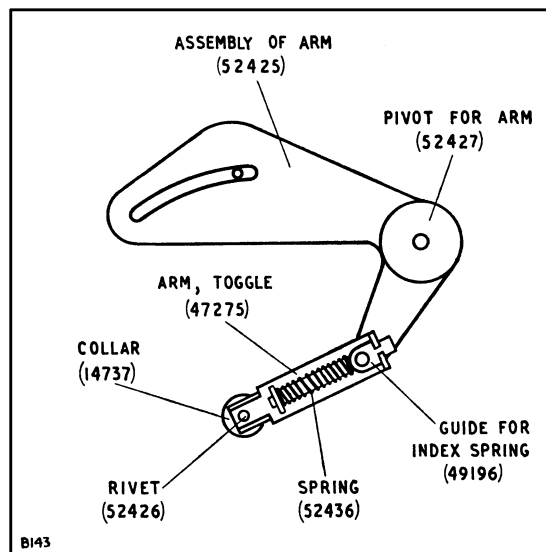


Fig. 5. The wave band switch mechanism.

drive cord on to the **pulley driving** (47337) (see Fig. 4), fit this pulley on to the end of the tuning spindle, re-arrange the drive cord over the drive drum and remaining pulleys, and make sure that

the indicator is fitted as quoted under the heading "To fit the indicator".

The wave band switch mechanism. The control knob actuates the switch via a system of spring loaded levers, which are illustrated in Fig. 5. A thin **washer** (47941), which is not shown, fits

between the assembly of **arm** (52425) and the chassis, beneath the pivot. If the toggle arm is for some reason disengaged from the switch rotor, it is essential before re-engaging it, to make sure that the switch rotor is turned to the correct position (it can become displaced by 180°).

CIRCUIT ALIGNMENT

The Circuit Alignment Table is on page 10

The circuit may be completely aligned without removing the chassis from the cabinet. For greater ease of access, the metal covers and handle may be removed (see Mechanical Notes); the covers, however, must be in place and closed for the adjustment of the frame series coil (L17) and trimmer (C11) which are accessible through two holes drilled in the base of the cabinet, beside the aerial and earth panel.

All coil cores must be adjusted with a thin non-metallic screwdriver, shaped to fit the core slots; a metal screwdriver is unsuitable as it will affect the inductance of the coils and may cause damage to the cores.

Before starting alignment the following procedure should be followed; turn the gang capacitor to maximum capacitance (fully meshed) and ensure

that the indicator lies exactly over the ends of the long horizontal lines on the tuning scale. Turn the volume control to maximum. Connect an output meter across the loudspeaker speech coil and during alignment ensure that the a.f. output from the receiver does not exceed 0.4 V a.c., by suitable adjustment of the signal generator attenuator.

Because the long-wave oscillator and r.f. coil windings are formed by the long-wave section in series with the medium-wave section in each case, the **medium-wave adjustments must be completed before adjusting the long-wave circuits.**

After completing the long-wave adjustments, re-check the medium wave band calibration, repeating the oscillator circuit adjustments if necessary.

MODIFICATIONS

The baffle. Later models have a part of the felt, on the inside of the baffle, cut away opposite the i.f.t. cans. This was done to reduce microphony by preventing vibration of the baffle being transmitted to the chassis.

The l.t. batteries. Modified l.t. batteries are called for in later models. They are: Ever Ready All Dry 1 or All Dry 32, Drydex H 1155 or H 1178,

Siemens 1517 or 1432 and replace the Drydex B.T.11 or Ever Ready "Flag" cell.

The base assembly. As a result of the l.t. battery change, the **base assembly** (52394) has been replaced by the **base assembly** (55459).

The battery label. As a result of the above change, **battery label** (54235) has been replaced by **battery label** (55461).

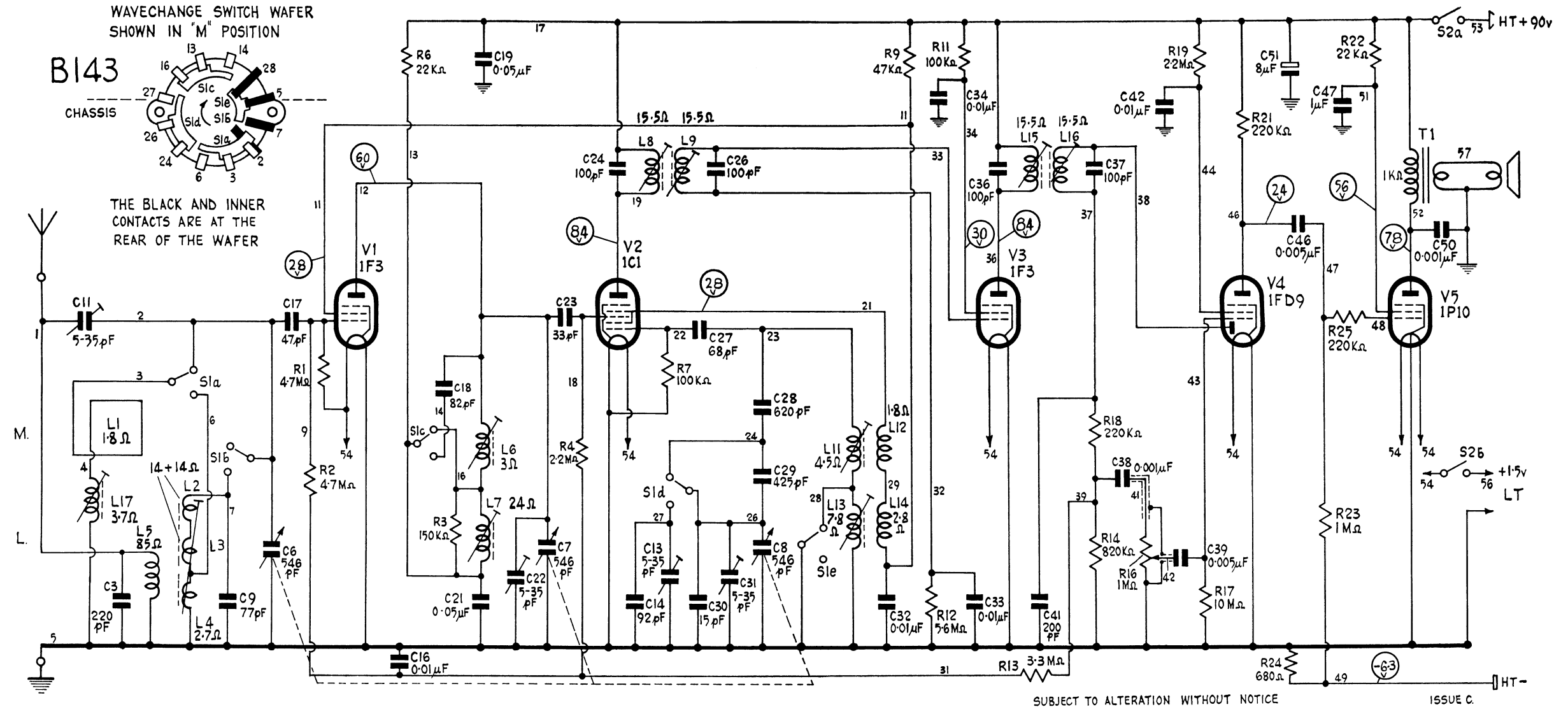
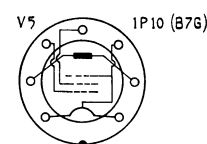
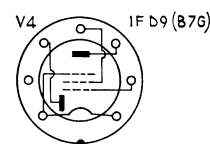
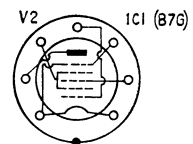
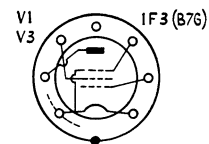


Fig. 6



CIRCUIT ALIGNMENT TABLE

Read "Circuit Alignment" on page 7 before proceeding.

CIRCUIT	SIG. GEN. FREQUENCY	SIG. GEN. TERMINATION	CONNECT SIG. GEN. TO	RECEIVER WAVE BAND	RECEIVER SCALE SETTING	NOTES	ADJUSTMENTS
2nd i.f.t.	465 Kc/s	Via 0.1 μ F. capacitor	V3 grid 1 (test point 33)	M	540 metres	First unscrew secondary core (top of can) to fullest extent.	L15 (pri.) rear of chassis L16 (sec.) top of can DO NOT RE-ADJUST
1st i.f.t.			V2 grid 3 (test point 18)	M			L8 (pri.) rear of chassis L9 (sec.) top of can DO NOT RE-ADJUST
M.W.	600 Kc/s (500 m.)	Via dummy aerial	Aerial and earth sockets	M	500 metres	Repeat the adjustments until the optimum calibration is obtained.	M.w. osc. coil (L11) M.w. r.f. coil (L6) Frame series coil (L17)
	1500 Kc/s (200 m.)				200 metres		M.w. osc. trimmer (C31) M.w. r.f. trimmer (C22) M.w. ae. trimmer (C11)
L.W.	158 Kc/s (1900 m.)			L	1900 metres		L.w. osc. coil (L13) L.w. r.f. coil (L7) L.w. ae. coil (L2, 3, 4)
	300 Kc/s (1000 m.)				1000 metres		L.w. osc. trimmer (C13)

C	¹⁶ 32	21	17	22	18	23	13	14	27	33	41	38	19	42	39	47	4	50	C			
L					7	13	14	30	6	31	15	14	13						L			
R	¹ 2				6	11	12	8	7										R			
MISC.			V1	S1	3	6	9	7	12	4	13	18	14	21	19	22	23	25	24	16	S2a S2b	MISC.

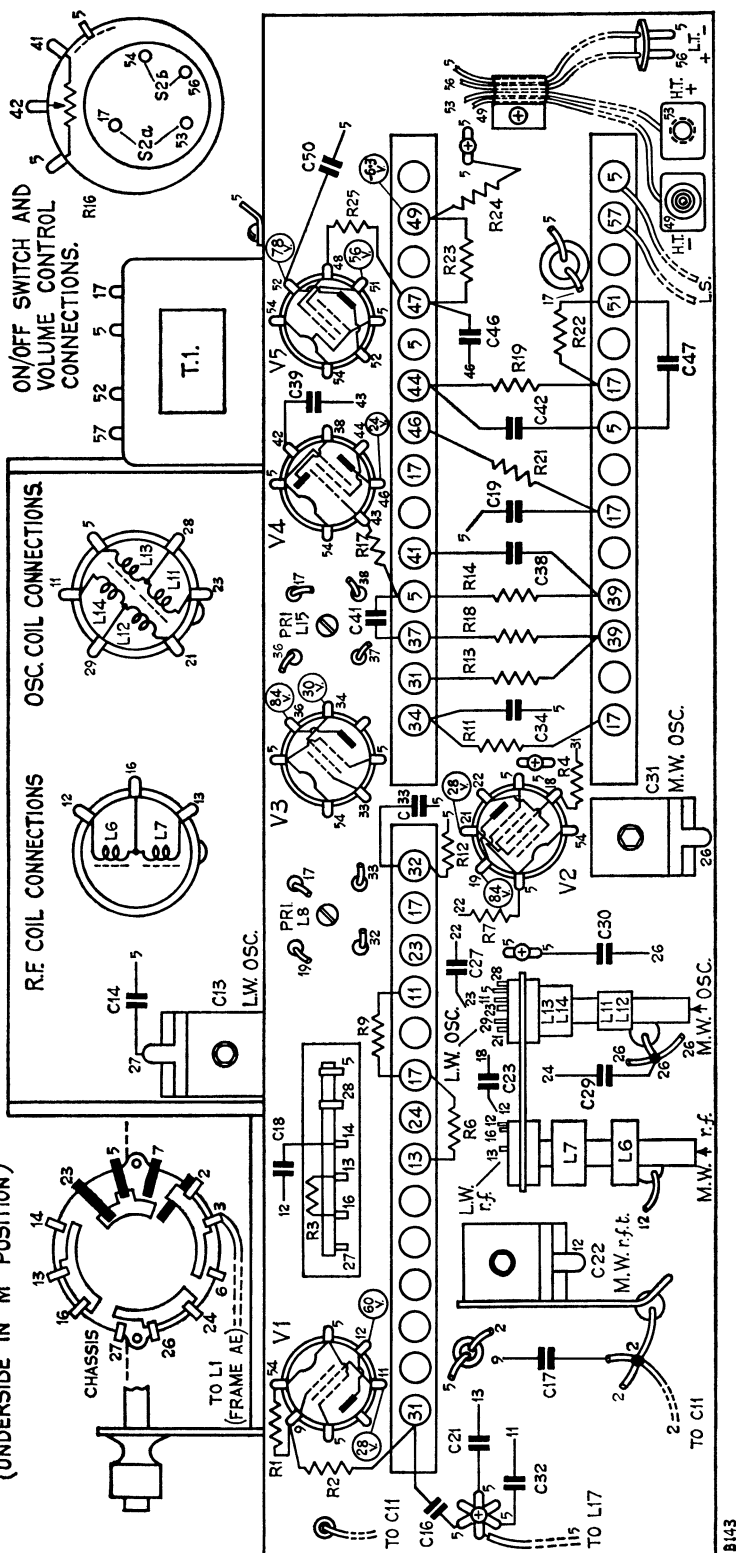


Fig. 7. The rear of the receiver chassis. The front is shown on page 13.

THE CORD DRIVE

Before attempting to fit a new cord, see that when the gang capacitor plates are fully meshed, an imaginary line between the centre of the slot in the rim of the **drum** (48189) and the set screw is parallel to the straight edges of the plates.

To replace the drive **cord** (3962/1) tie a 38 in. stretched length to the **spring** (47478) and hook the spring on to the drum; rotate the drum and capacitor so that the plates are fully meshed. Pass the free end of the cord around the pulleys in the direction indicated by the arrows in Fig. 8, and tie it to the spring, so that the spring and cord are

under tension. The spring should not be stretched excessively because the chassis distorts slightly but is restored to normal when re-fitted in the cabinet, thus applying further tension to the drive.

Engage the cord with the projections on the **carrier for indicator** (52420), so that with the ganged capacitor fully meshed the **indicator** (52422) registers with the right-hand ends (i.e. the 500 metre ends) of the horizontal lines on the tuning scale. Operate the drive a few times through its full range and if the action is satisfactory cut off any surplus cord.

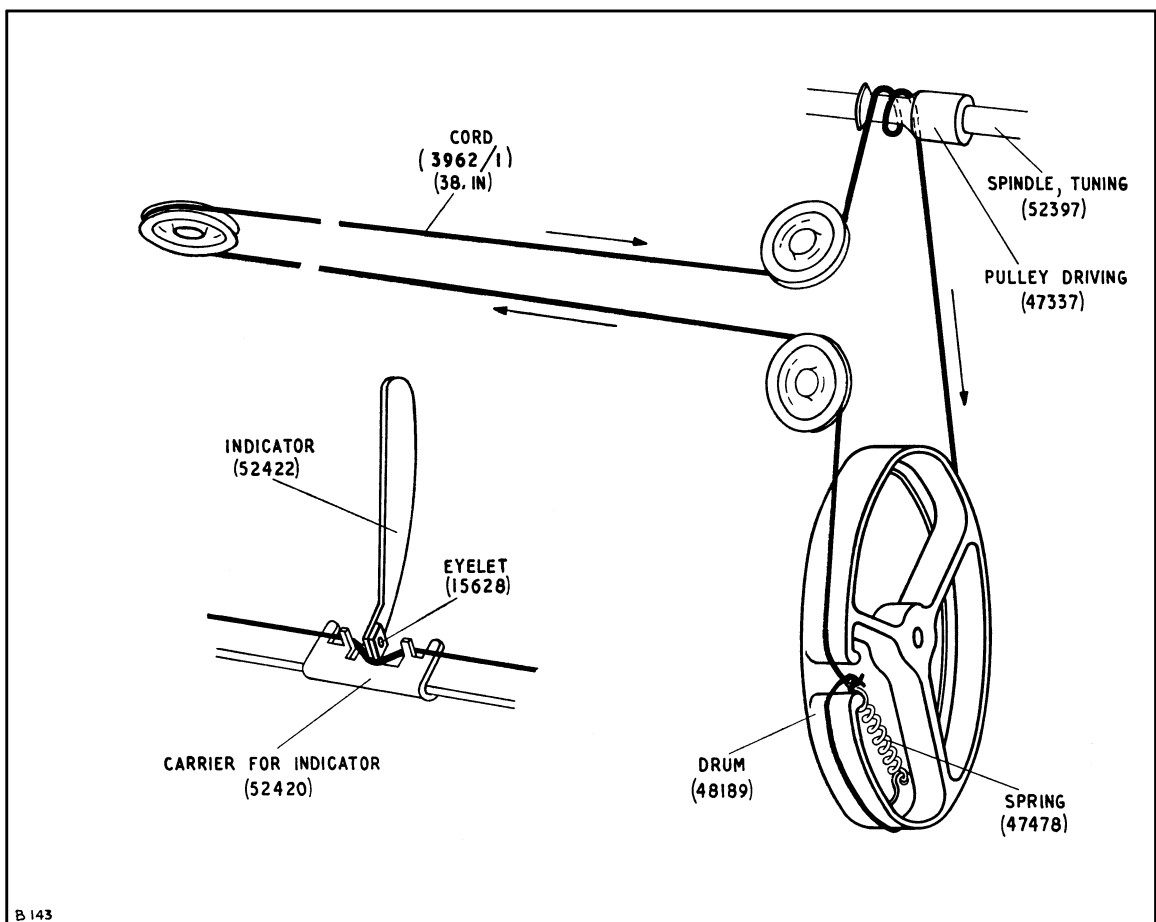


Fig. 8 The cord drive.

Fig. 9. The front of the receiver chassis. The rear is shown on page 11.

PARTS LIST (Electrical Components)

All resistors are rated at $\frac{1}{4}$ watt and all types of capacitors are rated at 350 v.w., unless otherwise stated. The d.c. resistance quoted for the coil and transformer windings is an average figure and should be used as a general guide only; it is omitted where the value is less than one ohm. The coils are supplied without cans or cores, unless otherwise stated.

The following abbreviations are used in the table below:

-ve	—	negative temperature coefficient	s.tub.	—	sealed paper tubular
cer.	—	ceramicon	tub.	—	paper tubular
elec.	—	electrolytic	v.w.	—	d.c. voltage working
p.s.m.	—	protected silvered mica	m.m.	—	moulded mica.

PART NO.	CIRCUIT NO.	VALUE	TOLERANCE AND REMARKS	PART NO.	CIRCUIT NO.	VALUE	TOLERANCE AND REMARKS
28255	C3	220 pF.	5% p.s.m.	23900	C41	200 pF.	20% m.m.
52434	C6	456 pF.	Ac. section	47449	C42	0.01 μ F.	25% tub.
	C7	456 pF.	R.f. section	50962	C46	0.005 μ F.	20% s.tub., 500 v.w.
	C8	456 pF.	Osc. section	49444	C47	1 μ F.	25% tub., 150 v.w.
28211	C9	77 pF.	2% p.s.m.	41416	C50	0.001 μ F.	25% tub., 1,000 v.w.
37480	C11	5-35 pF.	Trimmer (m.w. ae.)	31376	C51	8 μ F.	+100% —20%, elec., 150 v.w.
47365	C13	5-35 pF.	Trimmer (l.w. osc.)				
28178	C14	92 pF.	5% p.s.m.	27589	R1	4.7 M Ω	20%
47449	C16	0.01 μ F.	25% tub.	27589	R2	4.7 M Ω	20%
52172	C17	47 pF.	20% cer., -ve, 500 v.w.	27301	R3	150 K Ω	20%
28262	C18	82 pF.	2% p.s.m.	27525	R4	2.2 M Ω	20%
41403	C19	0.05 μ F.	20% tub.	27141	R6	22 K Ω	20%
41403	C21	0.05 μ F.	20% tub.	27269	R7	100 K Ω	20%
37480	C22	5-35 pF.	Trimmer (m.w. r.f.)	25573	R9	47 K Ω	10%
52168	C23	33 pF.	20% cer., -ve, 500 v.w.	27269	R11	100 K Ω	20%
52630	C24	100 pF.	5% p.s.m.	26373	R12	5.6 M Ω	10%
52630	C26	100 pF.	5% p.s.m.	27557	R13	3.3 M Ω	20%
40701	C27	68 pF.	10% cer., -ve, 500 v.w.	26053	R14	820 K Ω	10%
28241	C28	620 pF.	1% p.s.m.	52766	R16	1 M Ω	Volume control
28261	C29	425 pF.	1% p.s.m.	27653	R17	10 M Ω	20%
23602	C30	15 pF.	10% p.s.m.	27333	R18	220 K Ω	20%
37480	C31	5-35 pF.	Trimmer (m.w. osc.)	27525	R19	2.2 M Ω	20%
47449	C32	0.01 μ F.	25% tub.	27333	R21	220 K Ω	20%
47449	C33	0.01 μ F.	25% tub.	25445	R22	22 K Ω	10%
47449	C34	0.01 μ F.	25% tub.	27461	R23	1 M Ω	20%
52630	C36	100 pF.	5% p.s.m.	29109	R24	680 Ω	5% high stability
52630	C37	100 pF.	5% p.s.m.	27333	R25	220 K Ω	20%
41407	C38	0.001 μ F.	25% tub., 500 v.w.				
41409	C39	0.005 μ F.	25% tub., 500 v.w.				
PART NO.	CIRCUIT NO.	RESISTANCE (d.c.)	REMARKS	PART NO.	CIRCUIT NO.	RESISTANCE (d.c.)	REMARKS
52442	L1	1.8 Ω	Frame aerial				
52439	L2	28 Ω	L.w. ae. coil	52437	L11	4.5 Ω	M.w./l.w. osc. coil
	L3	2.7 Ω			L12	1.8 Ω	
	L4	85 Ω			L13	7.8 Ω	
52438	L5	3 Ω	m.w./l.w. r.f. coil	52219	L14	2.8 Ω	2nd i.f.t.
	L6	24 Ω			L15	15.5 Ω	
52219	L7	15.5 Ω	1st i.f.t.	52443	L16	15.5 Ω	Frame series coil
	L8	15.5 Ω		52440	L17	3.7 Ω	
	L9	15.5 Ω			T1	1 K Ω	Pri. Sec. } o.t.

PARTS LIST (Mechanical Components)

This list contains only those parts which are not included in the Electrical Parts List; items such as self-tapping screws, bolts and nuts, etc., may be obtained from Murphy Radio Ltd, Service Department. Where more than one item is used per receiver, the quantity is given in brackets after the description.

PART NO.	DESCRIPTION	REMARKS	PART NO.	DESCRIPTION	REMARKS
52425	Arm	for wave band switch	48189	Drum	for gang capacitor
52386	Baffle board		52372	End for cabinet (2)	
52394	Base for Cabinet	assembled (for early type l.t. batteries)	54983	End cap	for handle inside V4 mounting
55459	Base for Cabinet	assembled (for modified l.t. batteries)	15633	Eyelet (2)	grommets for indicator
52396	Bracket	for tuning spindle	15628	Eyelet	
52445	Bracket	for frame series coil	1829/9	Fabric, 10½ by 8¾	for loudspeaker fret
52409	Bracket	for volume control	3681/6	Felt	self adhesive
52417	Bracket, for pulley	left hand			
52415	Bracket	for osc. and r.f. coils	49196	Guide for index spring	with wave band switch
52416	Bracket	for l.w. aerial coil			
54279	Bracket and pulley	right hand, top	52383	Handle	
54511	Bracket and pulley	left hand	52379	Handle bolt (2)	
54512	Bracket and pulley	right hand, bottom			
55023	Cabinet assembled	the metal covers only	52422	Indicator	for tuning scale
52420	Carrier for indicator		52453	Indicator label	used with early type l.t. batteries for lead to "centre" terminal
52380	Catch (2)	for cabinet back			
52392	Chassis support (top)	left hand	53956	Knob, plain (2)	for volume and tuning controls
52393	Chassis support (top)	right hand			
52390	Chassis and baffle support	left hand	54132	Knob, with index	for volume control
52391	Chassis and baffle support	right hand	53957	Knob with index and pin	for wave band switch
42580	Circlip	for tuning spindle			
14337	Clamp	for C51	52448	Label, name plate	
14330	Clamp	for battery leads	54235	Label (batteries)	for early type l.t. batteries
52378	Collar (2)	for handle bolt			
14739	Collar (2)	Between scale support and knobs	55461	Label (batteries)	for modified l.t. batteries
14740	Collar (2)	between control knobs			
14675	Collar	stand off, for "Ross Courtney" tag	51803	Loudspeaker	
14737	Collar	for wave band switch toggle arm	206110	Nut O.BA (2)	for handle bolts
14732	Collar (2)	spacing for wave band switch wafer	53973	Panel assembly	for aerial and earth
52451	Connector l.t. (2)	for early type l.t. batteries	17236	Panel	for serial number
52449	Connector h.t. positive		52398	Pin	for wave band knob
52450	Connector h.t. negative		52427	Pivot	for wave band switch arm
3962/1	Cord	for tuning drive	52389	Pivot (2)	for baffle board
46910	Core, iron dust (2)	for frame series, and l.w. ac. coils	54240	Plate clamp	for h.t. battery strap
46913	Core, iron dust (4)	for osc. and r.f. coils	52760	Plate, mounting	for controls
52292	Clip, retaining (4)	for coil formers.	52463	Plate, mounting	for V4 holder
			51313	Plug, aerial	
			51314	Plug, earth	
			55462	Plug, 2 pin	for modified l.t. battery
			47337	Pulley, driving	on tuning spindle

PART NO.	DESCRIPTION	REMARKS	PART NO.	DESCRIPTION	REMARKS
52381	Rivet (2)	for "catch for cabinet back"	55460	Strap, retaining	for modified l.t. battery
16256	Rivet (4)	for baffle board pivot	52410	Support for scale	right hand
49506	Rivet (3)	for pulley (49593)	52411	Support for scale	left hand
52426	Rivet	for wave-band switch toggle arm	52435	Switch wafer	wave band
52413	Scale, tuning		629996	Tag, "Ross Courtney"	support for lead to S1a (tag 3)
52455	Screen	for C22 (trimmer)	52373	Tie bar	across top of cabinet
102549	Screw (2)	for catch studs	47275	Toggle	for wave band switch
102443	Screw (4)	for cabinet base	51141	Valveholder B7G (5)	
52397	Spindle, tuning		47963	Washer	for use with rivet (16256)
52462	Spring	knob retaining	47941	Washer	for wave band switch arm
52436	Spring	for wave band switch	54265	Window	
47478	Spring	for cord drive			
54241	Strap, retaining	for h.t. battery			
54242	Strap, retaining	for early type l.t. battery			