



PHILCO



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Model U-1647—Auto-Radiogram

Model U-1647 is an Auto Radiogram Receiver employing a similar circuit to Model U-647, but with the following refinements:—

GRAMOPHONE. Automatic record-changing equipment (with universal motor and 2,000 ohms pick-up) is incorporated which plays eight 9-inch, 10-inch and 12-inch records, mixed in any order, entirely automatically without pre-setting. Any record may be repeated or rejected whilst the instrument is in operation should it be desired to do so, and the turntable is automatically stopped at the conclusion of the final record. A "stop" button is also fitted which allows the machine to be stopped at any time. Operation of the gramophone is controlled by the extreme clockwise rotation of the wave-change switch, which makes change-over from radio to gramophone without the possibility of radio break-through.

CONTROLS. All controls are on the motor board.

REMOVAL OF CHASSIS. This is easily effected by loosening the bracket nuts inside the cabinet, which allows the chassis to be lowered and lifted out, after the knobs have been removed.

POWER SUPPLY. The range of universal operation is limited by reason of the gramophone motor to 200 to 250 volts A.C. or D.C., and on A.C. mains the periodicity must be between 40 and 60 cycles. Separate terminals for A.C. and D.C. supplies respectively are fitted to a panel on the motor, and care must be taken to see that the correct connection has been made for the mains supply on which the Receiver is to be used.

LOUDSPEAKER. A full-size (11-inch) auditorium speaker is used which embodies the latest principles in acoustic design and covers the entire useful range of audio frequencies.

TOP CHASSIS DIAGRAM. Same as for Model U-647, except for addition of Barretter extension lead and plug in place of Barretter.

CIRCUIT DIAGRAM. A revised diagram showing the necessary modifications is shown on the next page.

UNDER CHASSIS DIAGRAM. Same as for Model U-647, except for removal of C.1 and addition of C.9A alongside C.9. Tables 1 and 2 and Alignment Procedure are unchanged.

TABLE 3 - PARTS AND PRICE LIST.
MODEL U-1647.

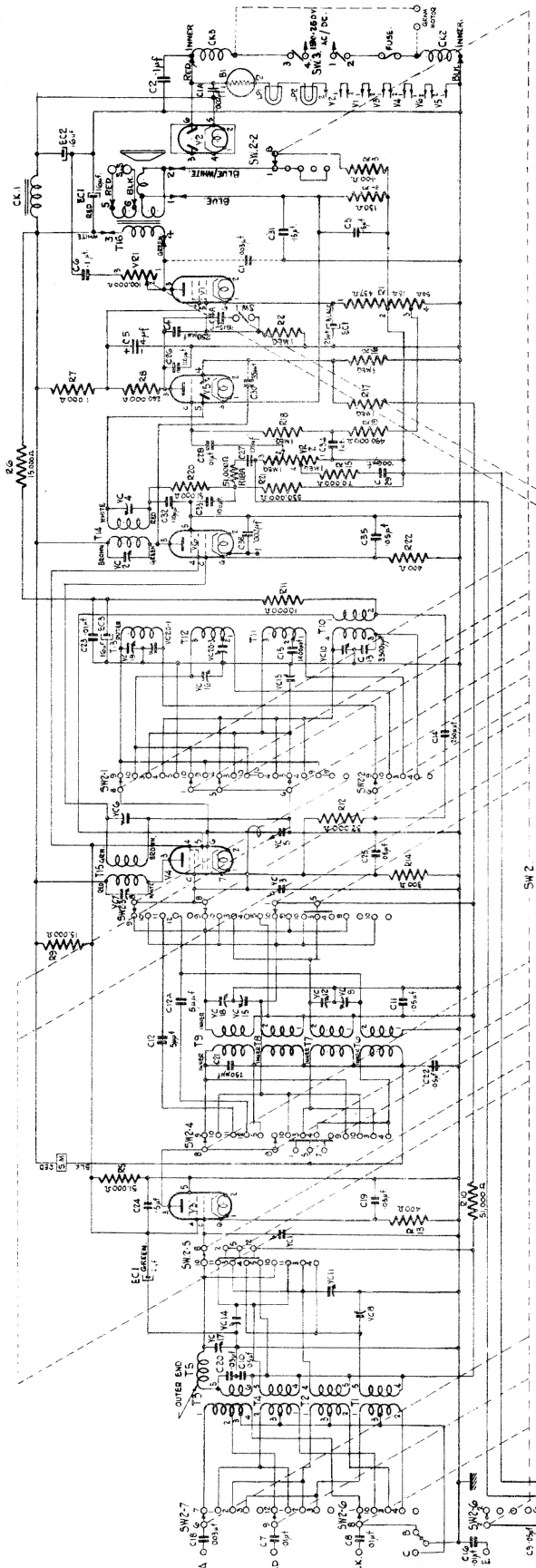
Remove:—

REF. NUMBER.	DESCRIPTION.	PART NUMBER.
T.16	Output Transformer, Part No. 320-8001	Complete Speaker 360-1101 †
	Speech Coil and Cone, Part No. 360-4002	
	Permanent Magnet	
C.1	Tubular Condenser, .003 mfd.	30-4042
C.27	Tubular Condenser, .01 mfd.	30-4124
	Chassis Mounting Rubbers	5189
	Chassis Mounting Washers	29-2089
	Chassis Mounting Bolts	W-1345A

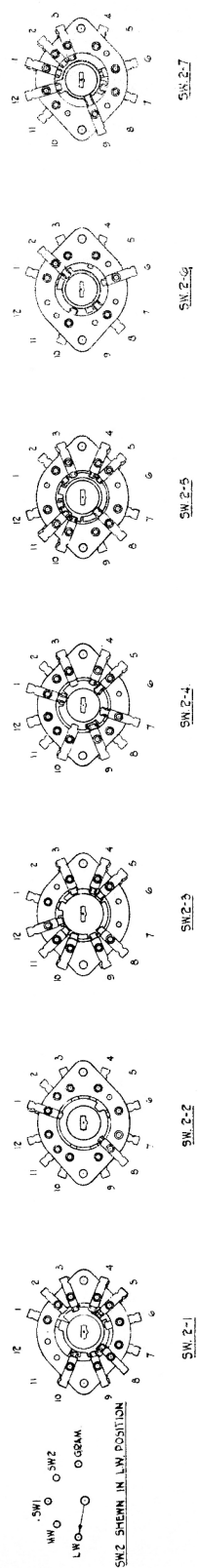
Add:—

REF. NUMBER.	DESCRIPTION.	PART NUMBER.	LIST PRICE.
			£ s. d.
T.16	Output Transformer, Part No. 320-8012	Complete Speaker 360-1111 †	2 7 6
	Speech Coil and Cone, Part No. 360-4009		
	Permanent Magnet		
C.9A	Tubular Condenser, .001 mfd.	30-4201	6
		or 30-4310	—
		or 30-4453	—
C.27	Tubular Condenser, .001 mfd.	30-4201	6
		or 30-4310	—
		or 30-4453	—
	Extruded Washer (Rubber)	27-4199	doz. 2 1
	Plain Washer (Rubber)	27-4198	2
	Bracket	280-7001	1 2
	Bolt (Coach type)	WB-1109	1
	Nut (Square)	WN-1109	1
	Motor Cable	LO-1013	8
	Aerial Panel and Leads Assembly	380-5273	2 9
	Barretter Plug	380-5011	2 9
	Barretter Cable	LO-1002	1 0
	Cable Clamps	29-1644	doz. 4
	Porcelain Barretter Socket	270-4019	2 9
	On/off Switch Escutcheon	280-1374	6
	Fixing Screws (Bronze finish)	WB-1106	doz. 2
	Bridge type Automatic Record Changer, A.C./D.C. Motor, Turntable, Needle Cups, and Pick-up and Lead Assembly ..	350-2019	11 16 3

† When ordering Speaker parts, the letter which will be found in the Speaker part number must also be given.



NOTE - MODEL 164Z C-1 REMOVED S.9.A. ADDED & C.27
 CHANGED TO .001μF.
 P.U. SHIELDING CONNECTED TO CHASSIS & GRAM.
 MOTOR EARTHED TO SOCKET 'E'.



VIEWS OF SWITCHES FROM FRONT
 CHASSIS BEING UPSIDE DOWN
 NOTE - SPINDLE LOCATING NOTCHES AT BOTTOM

"SCHEMATIC DIAGRAM."