

**BARTON'S** (Radio)  
LIMITED

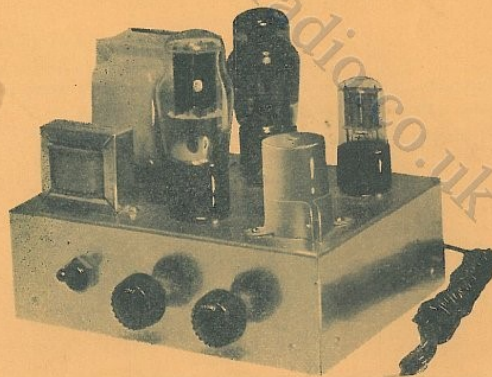
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THE AMPLIFIER YOU CAN BUILD

**BARTON'S**  
4 Watt  
AMPLIFIER KIT



INSTRUCTION BOOKLET 1/-

ALL COMPONENTS SUPPLIED BY US GUARANTEED ONE YEAR

## AMPLIFIER KIT — ASSEMBLY INSTRUCTIONS

### ASSEMBLY

Mount components in the following order:—

Fit Valveholders X, Y and Z on the underside of chassis, taking care that the location keys are in the correct direction, as shown on the diagram.

Fit Condenser C5 above chassis with clamp provided, using one fixing bolt to fit Tag strip N on the underside of the chassis and other fixing bolt to mount S2.

Fit Grommets A, B, C and D. Now fit Mains Transformer T1. Under one fixing bolt fit Tag strip M. Care should be taken to fit Transformer with the 2 Green, 2 Red and 1 Grey lead going through Grommet B. Take other wires of Mains Transformer through Grommet A.

Now fit Smoothing Choke, under one fixing bolt fit Tag strip P. Take the two wires through Grommet C.

Fit Volume Control R1 and Tone Control R8 and On/Off Switch.

Mount P.U. Sockets and Solder tag S1. Then fit L.S. Sockets and Voltage panel on rear of chassis. Now mount Output Transformer T2.

### WIRING

All components are shown in their approximate positions and should be placed as near as possible to the positions indicated.

Connect one end of R2	to N3	the other end to X6
.. .. R3	.. N1	.. .. X6
.. .. R4	.. N1	.. .. X3
.. .. R5	.. N3	.. .. X3
.. .. R6	.. X3	.. .. Y3
.. .. R7	.. X1	.. .. S1
.. .. R9	.. Y5	.. .. M1
.. .. R10	.. Y8	.. .. M1
.. .. R11	.. N3	.. .. N2
.. .. R12	.. X5	.. .. N2
.. .. R13	.. X2	.. .. N3

Connect Positive end of C1 to N2 the other end to S2

Connect one end of C2 .. X5 .. .. .. X1  
" " " " C3 .. X2 .. .. .. Y5  
" " " " C4 .. X1 .. .. .. R8 Tag 1

Connect one tag of C5 to N3, the other tag to Z8. Connect P2 to N3. Solder inner core of screened lead to R1 tag 2, the screening to R1 tag 1. The other end of inner core is soldered to X4.

Solder another length of screened lead inner core to R1 tag 3, screening to R1 tag 1. The other end of inner core should be connected to one tag of P.U. socket. The screening to remaining tag and S1.

Connect R8 tag 2 to P1.

.. R1 tag 1 to S2.

.. one lead of Choke to P2, the other lead to Z8.

Mains Transformer T1 is connected as follows:—

#### Through Grommet B

One Green wire to Z8, the other Green wire to Z2.

One Red wire to Z4 the other Red wire to Z6.

Connect Grey Wire to P1.

#### Through Grommet A

Connect thick Red wire to Y2, the other thick Red wire to Y7.

.. Blue wire to 250 volt tag on Voltage panel

.. Yellow .. .. 230 .. .. ..

.. White .. .. 210 .. .. ..

.. Black .. .. M2

.. Red and White wire to M1

Connect remaining tag on Voltage panel to one tag on On/Off switch.

.. .. .. On/Off switch to M3.

Connect Y2 to X8

.. Y7 to X7 and S1.

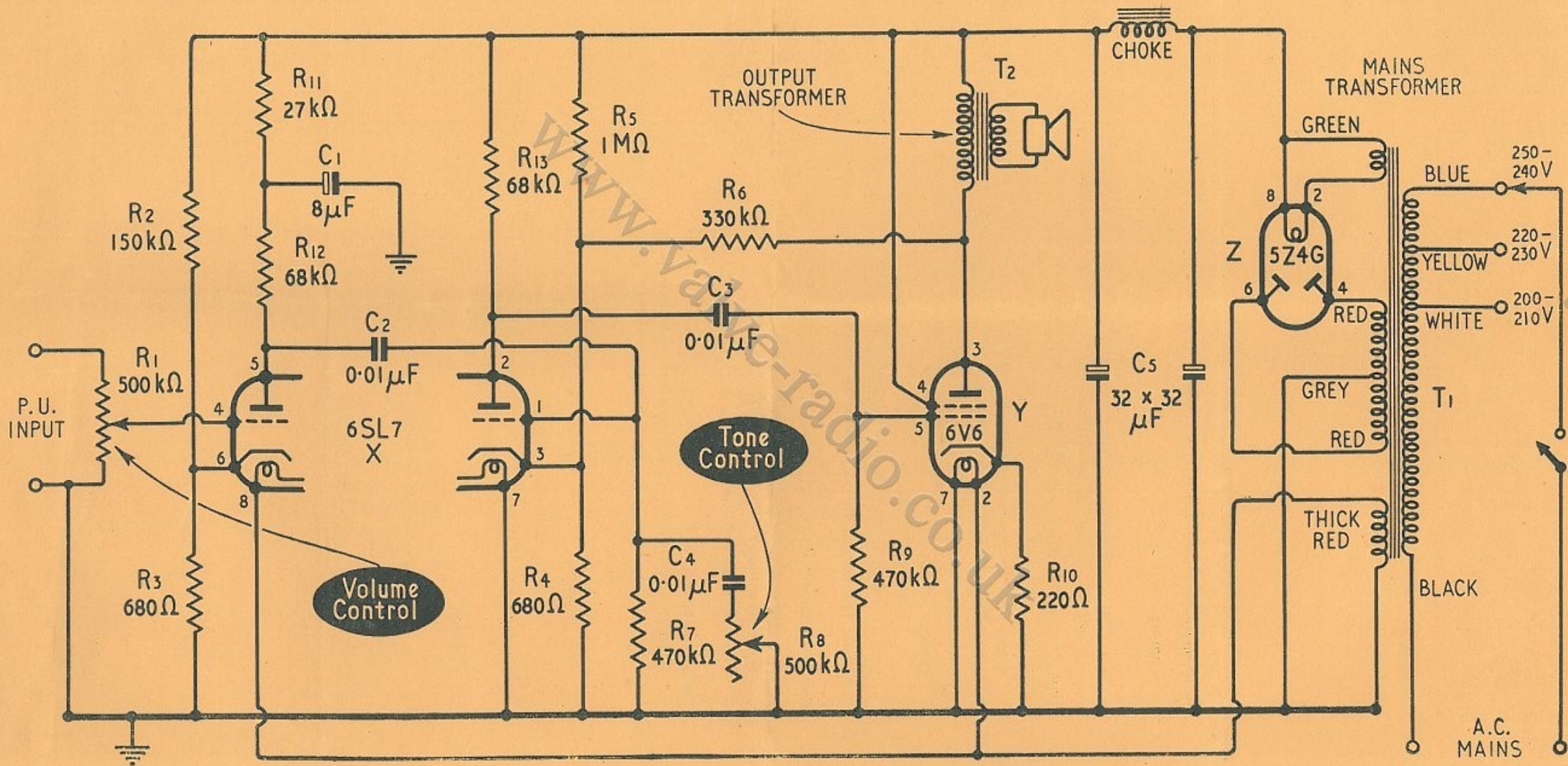
.. Solid wire Tags on Output Transformer to L.S. Sockets.

.. Stranded wire Tags on Output Transformer to Y3 and Y4

.. Y4 to P2.

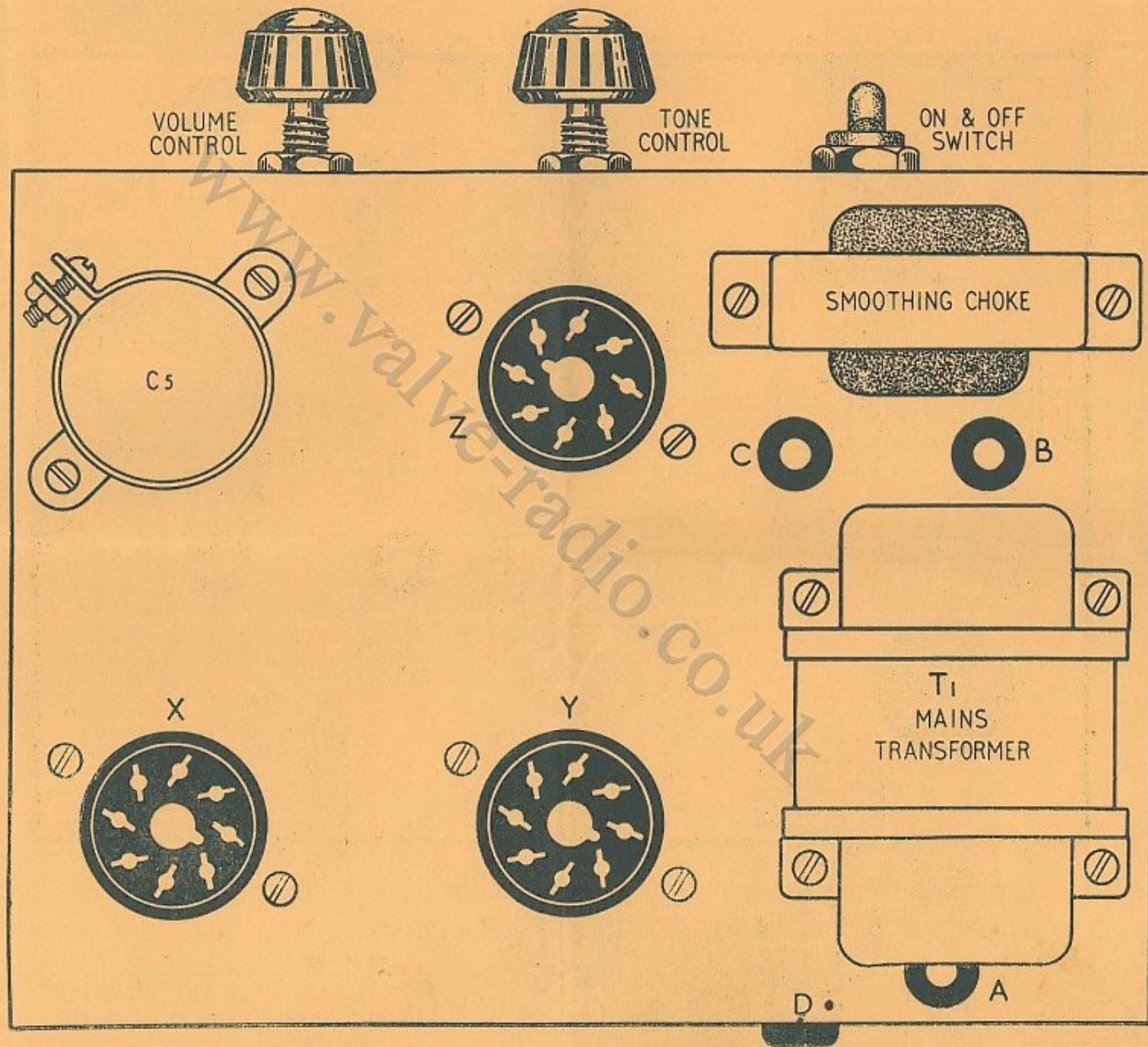
.. Mains lead to M2 and M3.

DIAGRAM 1



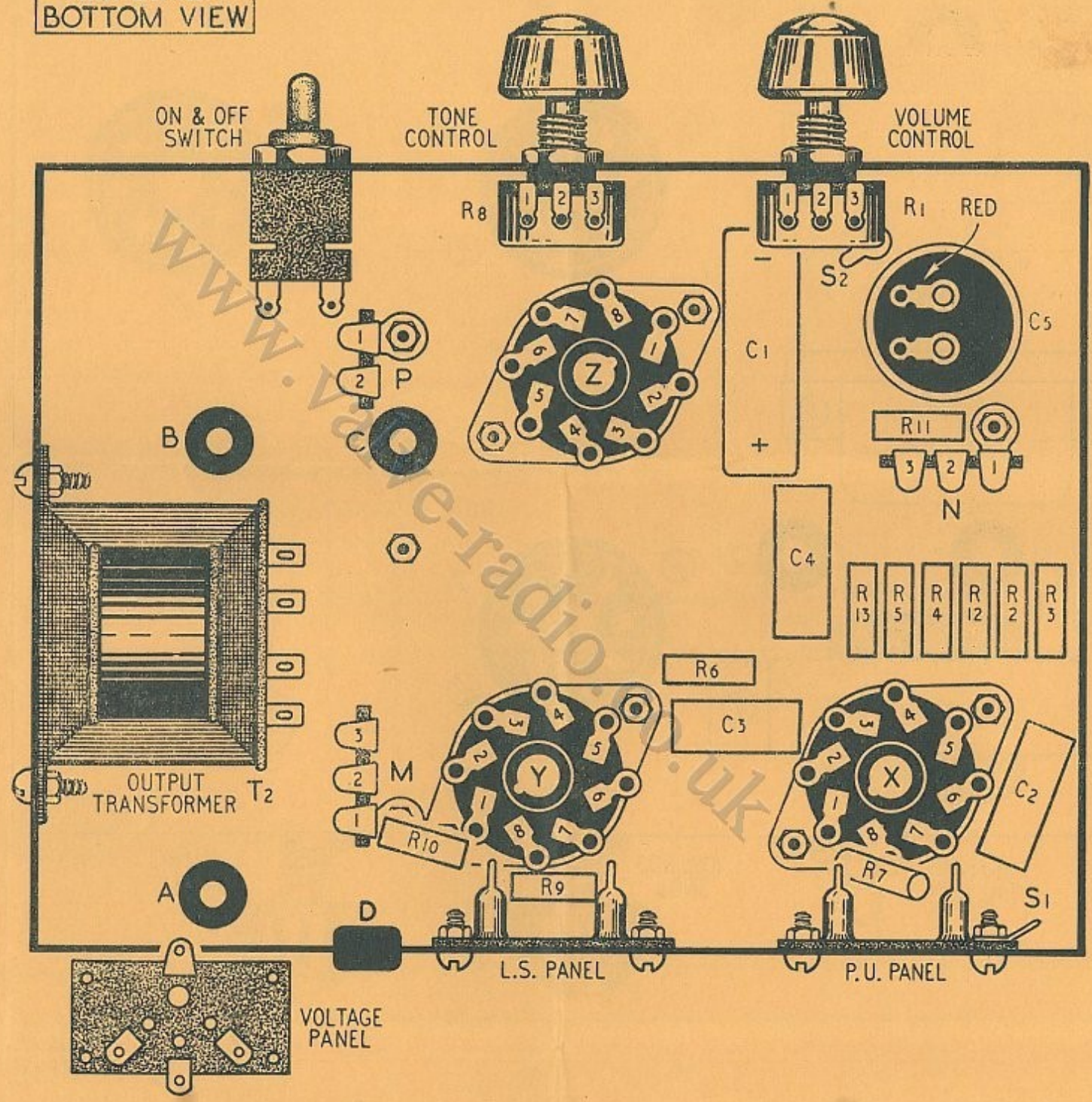
# DIAGRAM 2

## AMPLIFIER TOP VIEW



# DIAGRAM 3

## AMPLIFIER BOTTOM VIEW



## AMPLIFIER STOCK LIST

	s.	d.		s.	d.
1—Chassis 6 x 7½ x 2½ ...	11	0	2—3-way Tag Strips ...	...	8
1—Mains Transformer T1 LPI £1	3	9	1—2-way Tag Strip ...	...	3
1—Choke (60 mA 15H) ...	4	11	1—5Z4 (Z) Valve ...	...	10 6
1—Output Transformer T2 ...	6	6	1—6V6 (Y) Valve ...	...	9 6
3—1/Octal Valveholders ...	1	6	1—6SL7 (X) Valve ...	...	12 6
1—On/Off Switch ...	2	0	11—4BA Bolts ¼"		
4—Grommets ...	-	4	11—4BA Nuts		
4—Wander Plugs ...	1	4	16—6BA Bolts ¼"		
1—P.U. Panel ...	-	9	16—6BA Nuts	...	2 4
1—L.S. Panel ...	-	9	2—Solder Tags		
1—Voltage Panel ...	-	9	2—Knobs (engraved) ...	...	2 4

### RESISTORS

	s.	d.		s.	d.
2—½ M ohm Potentiometers			2—68K ohm R12 & R13 ...	-	6
L/S R1 & R8 ...	5	6	1—150K ohm R2 ...	-	3
2—680 ohms ¼ R3 & R4 ...	-	6	1—330K ohm R6 ...	-	3
1—220 ohms R10 ...	-	3	2—470K ohm R7 & R9 ...	-	6
1—27K ohm R11 ...	-	3	1—1 Meg ohm R5 ...	-	3

### CONDENSERS

	s.	d.		s.	d.
1—8 mfd 350v.w. Electrolytic C1	2	11	2 yards Mains Lead		
3—.01 mfd Tubular C2, C3, C4	3	9	3 yds. Connecting wire		
1—32-32 mfd 350v.w. Elect. C5			3 yds. Sleeving	...	1 9
with Clamp ...	5	4	18" Screened Lead		

Due to supply difficulties, it becomes necessary from time to time to substitute alternative components, usually the Condensers and Resistors. The alternative components will in no way affect the performance of the Receiver.

The parts listed above total **£5. 13s. 8d.** when purchased separately. If a complete Kit is purchased we supply it at the specially reduced price of **£4. 19s. 6d.**  
Each component listed above may be purchased separately.

## STANDARD RESISTOR COLOUR CODE

1st Figure		2nd Figure		No. of Ciphers	
"Body"	Colour	"Tip"	Colour	"Dot"	Colour
0 ...	Black	0 ...	Black	None ...	Black
1 ...	Brown	1 ...	Brown	0 ...	Brown
2 ...	Red	2 ...	Red	00 ...	Red
3 ...	Orange	3 ...	Orange	000 ...	Orange
4 ...	Yellow	4 ...	Yellow	0000 ...	Yellow
5 ...	Green	5 ...	Green	00000 ...	Green
6 ...	Blue	6 ...	Blue	000000 ...	Blue
7 ...	Violet	7 ...	Violet		
8 ...	Grey	8 ...	Grey		
9 ...	White	9 ...	White		

