

PLATE 2

INTERIOR OF INSTRUMENT

<i>Item No.</i>	<i>Description</i>	<i>Circuit Ref.</i>	<i>Part No.</i>
1	Resistor Board		21132-1
2	Resistor 73k Ω \pm 1%	R13	12049-628
3	Resistor 150k Ω \pm 1%.	R15	12049-665
4	Battery Contact (Negative)		See Table 4
5	Ohms Zero Wiper		15310-2
6	Resistor 1.3k Ω \pm 20%	R14	12049-630
7	Resistor 113 Ω \pm 1%	R8	12049-746
†8	Ohms Potentiometer Strip	RV1	15309-A
9	Battery Contact (Positive)		15313-1
10	Sprung Contact		15311-1
11	Printed Circuit Switch	R6, SA2	21134-1
12	Selector Switch Arm		21130-2
13	Resistor 24k Ω \pm 1%	R10	12049-654
14	Resistor 11.36k Ω \pm 1%	R9	12049-657
15	Selector Switch Cap		15315-1
16	Moulded Switch Ring.	SA1	See Table 4
17	Resistor 9.35k Ω \pm 1%	R11	12049-658
18	Resistor 15k Ω \pm 1%	R12	12049-656
19	Shunt Board Assembly (for details see page 16)	R1, R2, R3	21133-G
20	Movement Assembly (60 μ A, 1667 Ω including R19)	M1	See Table 4
21	Resistor 750k Ω \pm 1%	R16	12049-659
22	Resistor 1.5 M Ω \pm 1%	R17	12049-661
23	Resistor 7.5 M Ω \pm 1%	R18	12049-660

†See note on page 23.

INTERIOR OF INSTRUMENT

PLATE 2

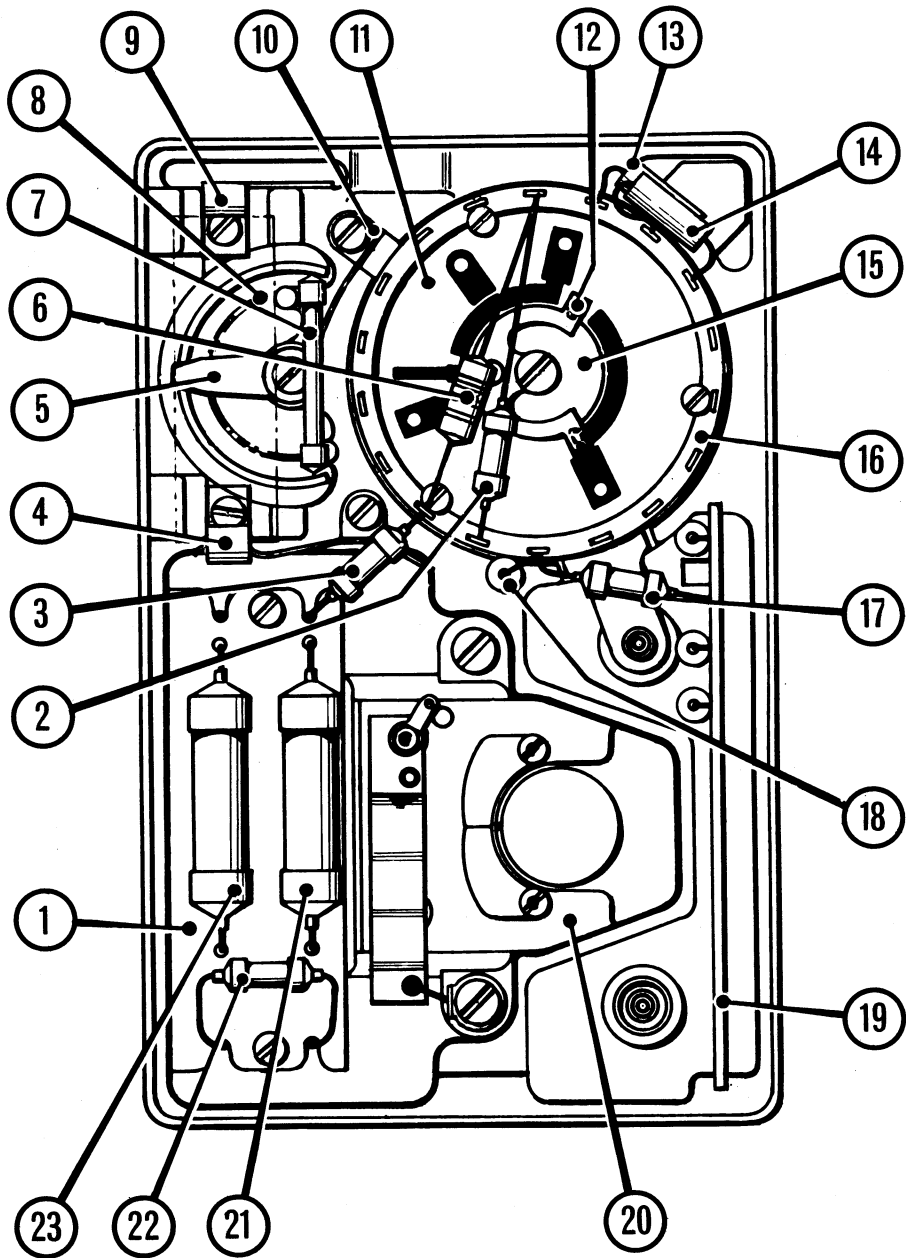


PLATE 3

PRINTED CIRCUIT BOARD

<i>Item No.</i>	<i>Description</i>	<i>Circuit Ref.</i>	<i>Part No.</i>
1	Printed Circuit Shunt Board	R1,R2,R3	21133-G
2	Resistor 225Ω ± 1%	R4	12049-623
†3d	Resistor 1650Ω ± 1%	R5	12049-620
†3b	Resistor 1450Ω ± 1%	R5	12049-115
4	Rectifier Type M15	R1,R2	12049-620
5	Resistor 286Ω ± 1%	R7	12049-617

†see Note on Page 23

PRINTED CIRCUIT BOARD

PLATE 3

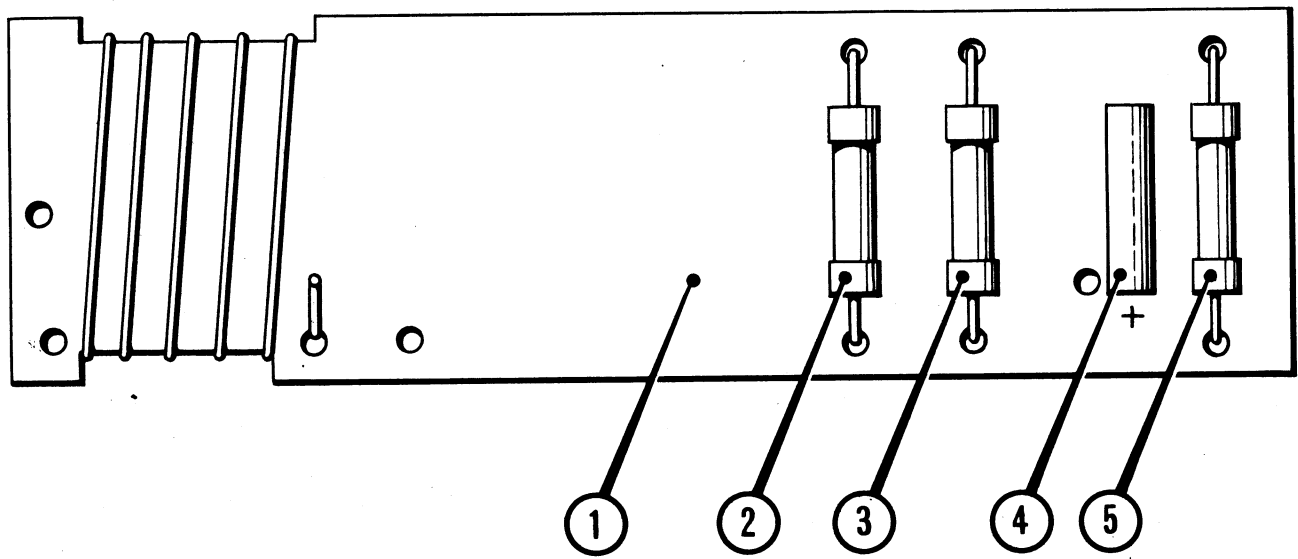
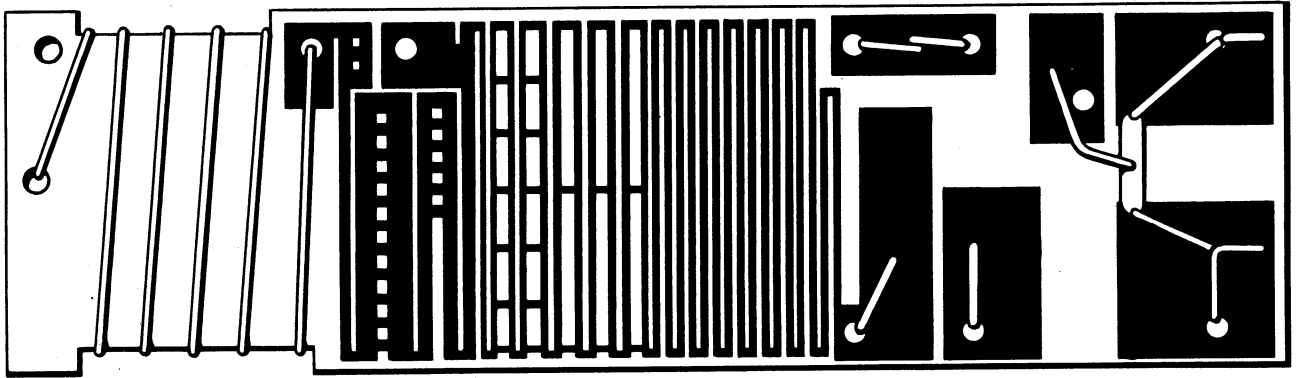


PLATE 4

MOVEMENT ASSEMBLY

<i>Item No.</i>	<i>Description</i>	<i>Circuit Ref.</i>	<i>Part No.</i>
1	Scaleplate		See Table 2
2	Zero Adjuster		15299-2
3	Moving Coil complete with items 7,8 & 10		21124-A
4	Jewel Screw		10184-A
5	Swamp	R19	15323-A
6	Inspection Cover		15298-1
7	Pivot Short (Top)		10158-2
8	Hairspring		10075-16
9	Movement Case		See Table 2
10	Pivot Long (Bottom)		10158-4

MOVEMENT ASSEMBLY

PLATE 4

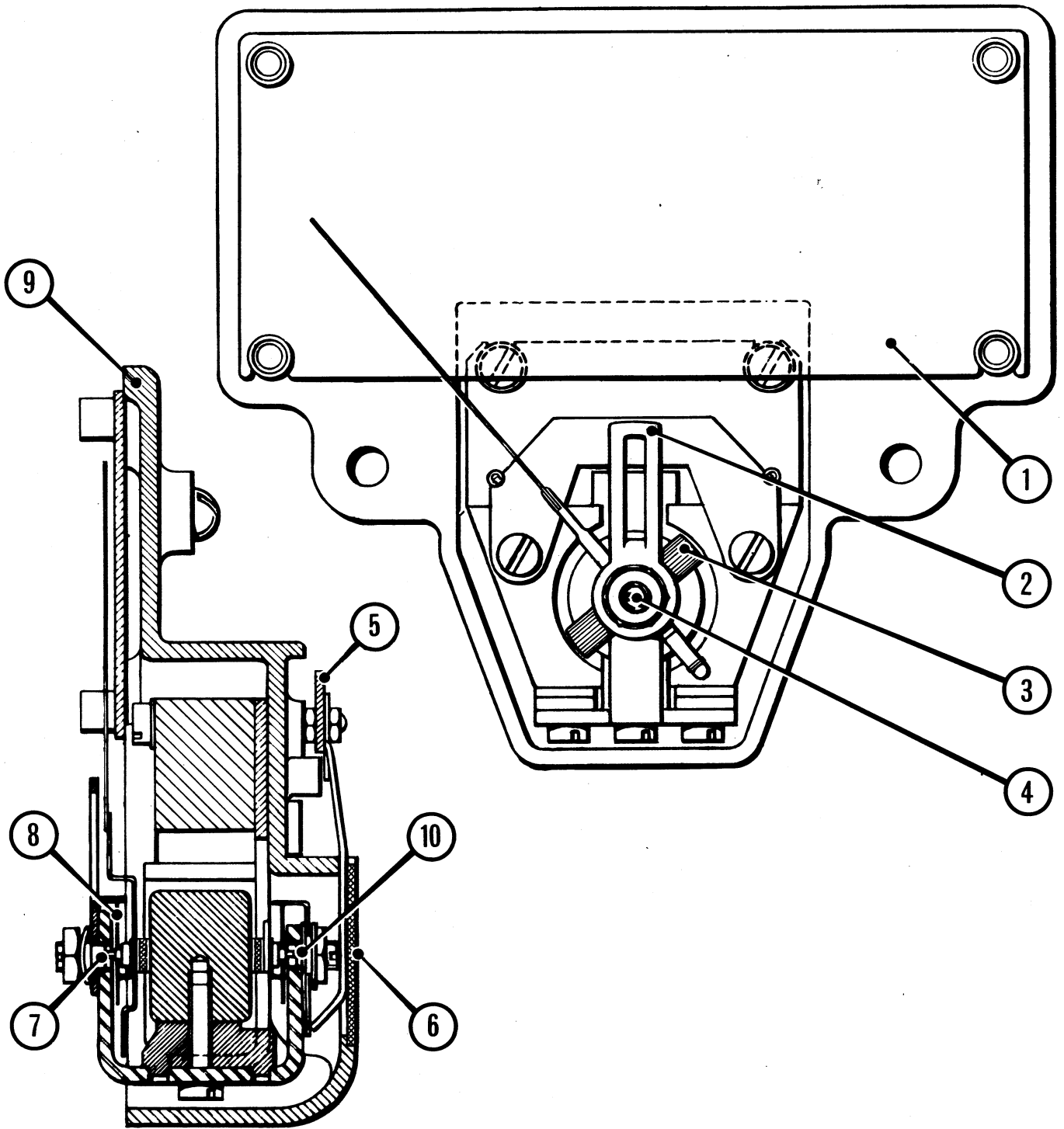


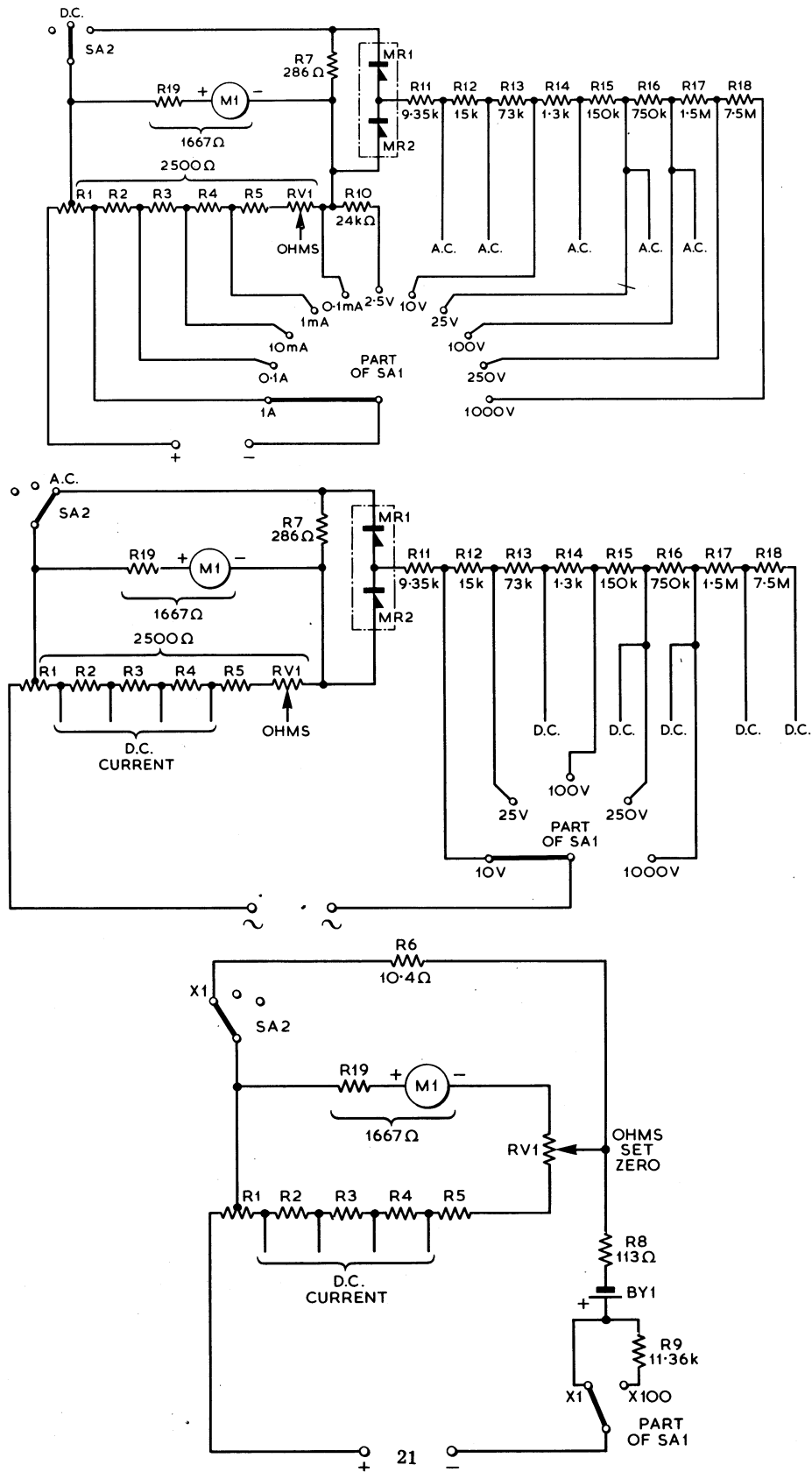
PLATE 5 ACCESSORIES (NOT ILLUSTRATED)

(SUITABLE FOR ALL MODELS)

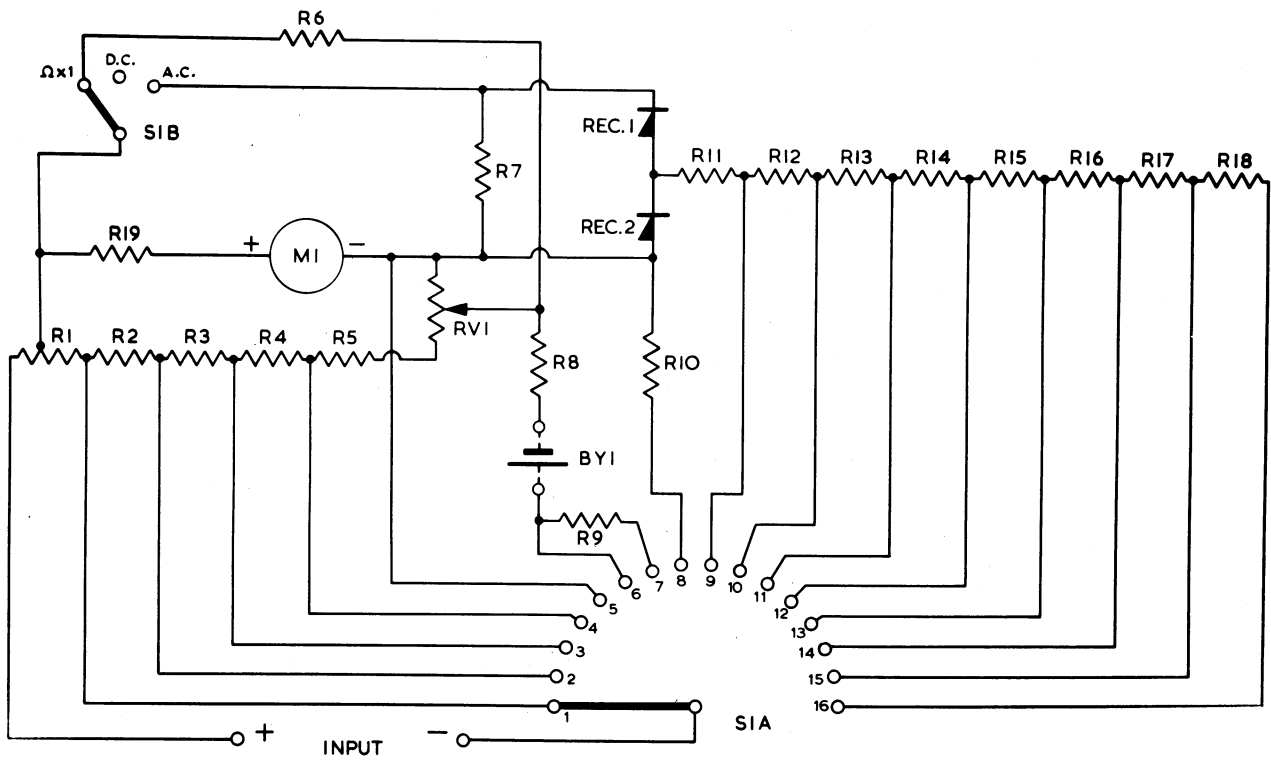
<i>Item No.</i>	<i>Description</i>	<i>Circuit Ref.</i>	<i>Part No.</i>
1	Connecting Lead Red	}	21126-C
2	Connecting Lead Black suitable for all models . .		21126-D
3	Prod Red		11588-C
4	Prod Black		11588-C
5	Pair of Crocodile Clips		11029-A
6	Pair of Long Reach Safety Clips Mk2 (suitable for Item 1 and 2)		21509-A
7	2 Amp Shunt		15505-D
8	5 Amp Shunt		15505-C
9	10 Amp Shunt		15505-B
10	25 Amp Shunt		15505-A
11	2,500 Volt Multiplier		21162-A
12	Leather Carrying Case to accommodate instrument, Leads, Prods & Clips only)		40635-1
13	Leather Carrying Case suitable for instrument, Leads, Prods & Clips together with Long Reach Safety Clips Voltage Multiplier and shunt		40635-3
14	Plastic Carrying Case		40767-1
15	Items 1, 2, 3, 4, 5, Supplied as a set		16103-X

60 μA; 1667 Ω ⇒ 100 mV drop.

SIMPLIFIED CIRCUITS OF THE MULTIMINOR PLATE 6



CIRCUIT DIAGRAM OF MULTIMINOR MK 4 PLATE 7



CIRCUIT DIAGRAM OF MULTIMINOR Mk 4 PLATE 7

TABLE OF COMPONENTS

Ccf. Ref.	Description	Remarks	Ccf. Ref.	Description	Remarks	Switch Positions	Range
R1	0.25Ω	Part of shunt Board Assembly	R14	1.3KΩ	± 20%	1	1A d.c.
R2	2.25Ω		R15	150KΩ	± 1%	2	0.1A d.c.
R3	22.5Ω		R16	750KΩ	± 1%	3	10mA d.c.
R4	225Ω	± 1%	R17	1.5MΩ	± 1%	4	1mA d.c.
R5	1450Ω	± 1%	R18	7.5MΩ	± 1%	5	0.1mA d.c.
R6	10.4Ω	± 1%	R19	Swamp	See M1	6	Ω × 1
R7	286Ω	± 1%	RVI	800Ω	± 1%	7	Ω × 100
R8	113Ω	± 1%	REC 1	Part of Westing-		8	2.5V d.c.
R9	11.36KΩ	± 1%	REC 2	house Type M15		9	10V a.c.
R10	24KΩ	± 1%	M1	60μA, 1667Ω including R19		10	25V a.c.
R11	9.35KΩ	± 1%	BY1	1.5V cell		11	10V d.c.
R12	15KΩ	± 1%				12	100V d.c.
R13	73KΩ	± 1%				13	250V a.c./25V d.c.
			S1A	Range Switch		14	1000V a.c./100V d.c.
			S1B			15	250V d.c.
						16	1000V d.c.

BEFORE

†NOTE: ON INSTRUMENTS MANUFACTURED ~~BEFORE~~ SEPT. 1964 THE VALUE OF R5 AND RVI IS ~~1650Ω~~ AND ~~600Ω~~ RESPECTIVELY

1650Ω 600Ω

OTHER SERVICE MANUALS AVAILABLE

AVO METER MODEL 7 MKS I & II

AVO METER MODEL 8 MKS I & II

AVO METER MODEL 8 MK III

AVO METER MODEL 8 X

AVO METER MODEL 9 MK II

AVO METER MODEL 9 SX

AVO METER MODEL 40 MKS I & II

ELECTRONIC TEST METER MK IV

VALVE CHARACTERISTIC METER MK III

VALVE CHARACTERISTIC METER MK IV

VALVE TESTER TYPE 160

