RADIO CORPORATION PTY. LTD.

1090-1140 Centre Road, Clayton

SERVICE DATA

ASTOR MODEL PE035

TRANSISTOR PORTABLE RECEIVER

TUNING RANGE:	520 - 1650 KHz.
INTERMEDIATE FREQUENCY:	455 KHz.
POWER OUTPUT:	200 milliWatts
CURRENT CONSUMPTION:	8 - 10 milliAmps (No Signal)
SUPPLY SOURCE:	9 Volts D.C.

ACCESS TO INTERIOR OF CABINET

Prise rear section off body of cabinet.

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ALIGNMENT EQUIPMENT

Signal Generator - Modulated 400 Hz.

Output Meter - 25 Ohm impedance

Alignment Tools - Flat metal blade end

Part No. 4121-001-01 for I.F.T. iron core adjustment and trimmer capacitor adjustment.

Part No. 4121-028-03 for osc. coil iron core adjustment.

ALIGNMENT CONDITIONS

Volume Control - Maximum setting

Output Level - 50 milliWatts

Output Meter Connection - To receiver earphone socket

Supply Voltage - 9 Volts D.C.

INTERMEDIATE FREQUENCY TRANSFORMER ALIGNMENT

Prise rear section off cabinet. The receiver chassis does not have to be removed for alignment purposes. Set tuning control to high frequency end of travel. Connect generator direct to pin on circuit board.

Oper. No.	Generator Connection	Generator Frequency	Instructions
1	To Pin converter base	455KHz	Adjust iron core of 3rd I.F. trans. for maximum output.
2	As oper. 1	455KHz	Adjust iron core of 2nd I.F. trans. for maximum output.
3	As oper. 1	455KHz	Adjust iron core of 1st I.F. trans. for maximum output.
4	Repeat operations 1, 2 and 3 in same order.		

BROADCAST ALIGNMENT

A To inject a signal into the receiver, connect 2ft. of aerial wire to the 'hot' terminal of signal generator. Fashion wire into a vertical position.

B Place receiver so that ferrite aerial is uppermost and horizontal. Tuning end of receiver is to be toward, but not less than one foot from generator aerial wire.

Oper. No.	Generator Connection	Generator Frequency	Instructions
1	Refer Paragraphs A & B	520KHz	Set tuning indicator to low frequency end of dial. Adjust iron core of oscillator coil for maximum output.
2	As oper. 1	1650KHz	Set tuning indicator to high frequency end of dial. Adjust oscillator trimmer for maximum output.
3	Repeat operations 1 & 2 until no change occurs.		
4	As oper. 1	600KHz	Tune to 600KHz and move adjustable aerial former for maximum output.
5	As oper. 1	1400KHz	Tune to 1400KHz. Adjust aerial trimmer for maximum output.
6	Repeat operations 4 & 5 until no change occurs.		

CAPACITORS

Circuit No.	Value	Description	Tol ±	Rating V.DCW	Part Number
1					
2		Two gang - tuning			4000-056-04
3	.047uF	Ceramic Disc		25	4008-057-04
4	.01uF	Ceramic Disc	20%	25	4008-039-12
5	220pF	Polystyrene	5%	125	4004-005-10
6					
7					
8	220pF	Polystyrene	5%	125	4004-005-10
9	4.7uF	Electrolytic		25	4005-055-03
10					
11	.047uF	Ceramic Disc		25	4008-057-04
12	.047uF	Ceramic Disc		25	4008-057-04
13	220pF	Polystyrene	5%	125	4004-005-10
14	.047uF	Ceramic Disc		25	4008-057-04
15	.022uF	Ceramic Disc		25	4008-010-06
16	.022uF	Ceramic Disc		25	4008-010-06
17	.1uF	Polyester	10%	100	4009-008-40
18					
19	47uF	Electrolytic		10	4005-040-04
20					
21	150pF	Ceramic Disc	10%	50	4008-035-05
22	33uF	Electrolytic		10	4005-057-02
23	100uF	Electrolytic		10	4005-022-55
24	.047uF	Ceramic Disc		25	4008-057-04
25					
26					
27					

RESISTORS

Circuit No.	Value Ohms	Description	Tol ±	Rating V.DCW	Part Number
28	47K	Carbon	10%	.5	4022-051-03
29	22K	Carbon	10%	.5	4022-026-02
30	180K	Carbon	10%	.5	4022-014-03
31	3.9K	Carbon	10%	.5	4022-020-01
32	120K	Carbon	10%	.5	4022-031-01
33	220K	Carbon	10%	.5	4022-063-01
34	10	Carbon	10%	.5	4022-035-01
35	470	Carbon	10%	.5	4022-016-01
36	22K	Carbon	10%	.5	4022-026-02
37	5.6K	Carbon	10%	.5	4022-022-02
38	33K	Carbon	10%	.5	4022-059-03
39					
40					
41	1K	Carbon	10%	.5	4022-008-01
42	470	Carbon	10%	.5	4022-016-01
43	5K	Volume Control SP.ST. Switch attached			4029-003-05
44	1K	Carbon	10%	.5	4022-008-01
45	470K	Carbon	10%	.5	4022-045-02
46	10	Carbon	10%	.5	4022-035-01
47	390	Carbon	10%	.5	4022-058-04
48	3.9K	Carbon	10%	.5	4022-020-01
49	4.7K	Carbon	10%	.5	4022-005-01
50					
51	1.5K	Carbon	10%	.5	4022-007-01
52					
53					
54					

PE035

MISCELLANEOUS

Circuit No.	Description	Part Number
55	Ferrite slab aerial	4074-109-01
56	Oscillator coil	4043-094-01
57	No. 1 I.F. Transformer Green/Orange	4044-031-01
58	No. 2 I.F. Transformer Blue/Orange	4044-031-02
59	No. 3 I.F. Transformer Green/Green	4044-009-09
60	Transistor type A06 - Converter	4128-162-02
61	Transistor type A06 - I.F. amp	4128-162-02
62	Transistor type A06 - I.F. amp	4128-162-02
63	Diode type 1N295B - Detector	4127-001-02
64	Transistor type A23 - Audio amp	4128-244-02
65	Transistor type A06 - Audio driver	4128-162-02
66	Transistor type A08 - Audio driver	4128-164-02
67	Transistor type A09 - Audio output	4128-165-02
68	Transistor type A08 - Audio output	4128-164-02
69		
70		
71	Switch - part of volume control	
72	Socket - earphone	7222-164-01
73	Speaker 2 - 1/4" dia. 25 Ohm imped.	4056-020-07
74	Battery 9 Volt Hitachi type 006P or Eveready equivalent type 216	4062-002-11
-	Earphone and plug assembly	4085-248-01
-	Battery lead and plug assembly	4078-065-01

MECHANICAL

Part Number	Description
7309-150-01	Screw (2) special - gang mount
7236-156-01	Support (2) slab aerial
7086-088-03	Eyelet (2) aerial support
7071-016-01	Tuning disc
7309-079-01	Screw (1) special - tuning disc
7071-062-01	Volume disc
7309-050-11	Screw (1) special - volume disc
7204-575-01	Screw (3) 1/4" x No. 2 Phillips Head - board and speaker mount
7028-927-02	Bracket (1) speaker mount
7229-058-01	Carrying strap
7040-037-01	Carrying bag
7099-097-11	Cabinet front assembly complete
7006-351-01	Cabinet back

CLEANING AGENT FOR CARRY BAG AND MOULDED PLASTIC CASE

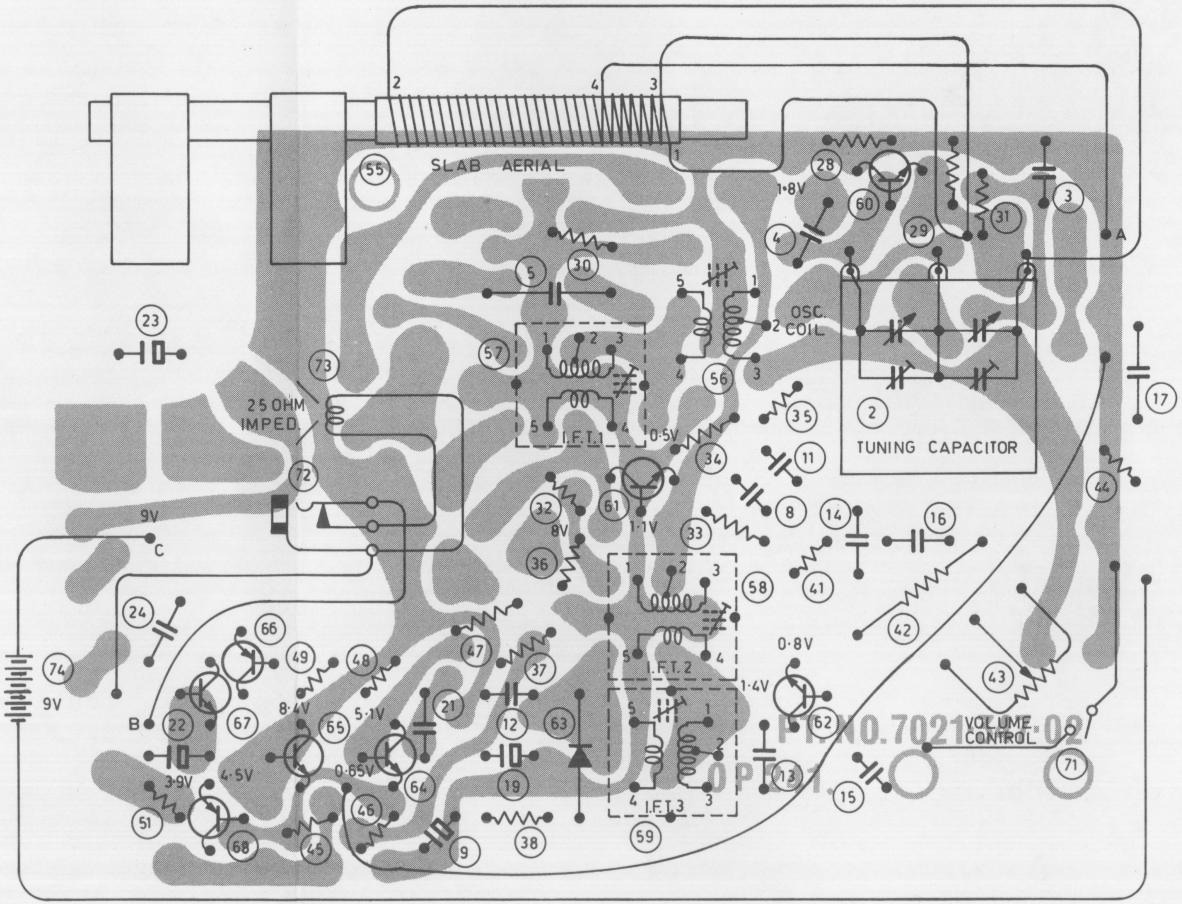
Do not polish the carry bag or the moulded plastic case with an abrasive material, motor car polish, boot polish or similar household cleaning fluids, as permanent damage may result to the finish of the carry bag or the moulded case.

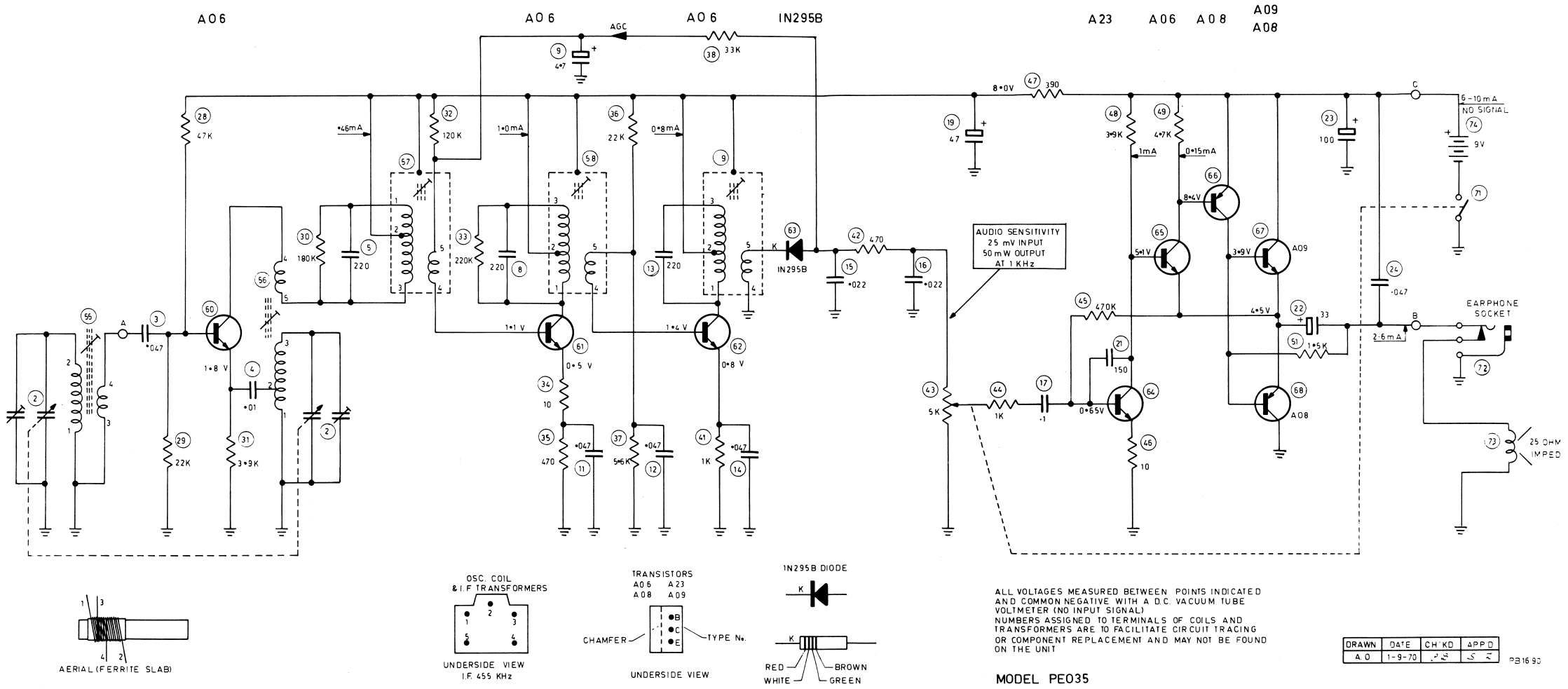
To restore the finish of the carry bag and moulded case, wipe with a soft cloth dampened with water and lightly polish with a neutral wax.

CIRCUIT BOARD
PRINTED WIRING SIDE
MODEL PE035

DRAWN	DATE	CH'KD	APP'D
A.O.	8-9-70	P.B.	S.I.T.

PB1694




A06
A06
A06
IN295B
A23
A06
A08
A09
A08
AGC
9
4·7
38
33K
8·0V
47
390
19
47
28
47K
32
120K
·46mA
1·0mA
36
22K
0·8mA
57
58
9
30
180K
5
220
33
220K
220
8
13
220
63
IN295B
42
470
15
·022
16
·022
AUDIO SENSITIVITY
25 mV INPUT
50 mW OUTPUT
AT 1 KHz
48
3·9K
1mA
49
4·7K
0·15mA
66
8·4V
65
5·1V
67
3·9V
A09
23
100
C
6-10 mA
NO SIGNAL
74
9V
71
24
·047
B
2·6 mA
EARPHONE
SOCKET
72
45
470K
4·5V
22
33
51
1·5K
21
150
64
0·65V
68
A08
46
10
43
5K
44
1K
17
·1
55
A
3
·047
60
1·8 V
4
·01
56
29
22K
31
3·9K
2
2
61
1·1 V
0·5 V
34
10
35
470
·047
11
62
1·4 V
0·8 V
37
5·6K
·047
12
41
1K
·047
14
73
25 OHM
IMPED
OSC. COIL
& I.F TRANSFORMERS
UNDERSIDE VIEW
I.F. 455 KHz
TRANSISTORS
A06 A23
A08 A09
CHAMFER
TYPE No.
B
C
E
UNDERSIDE VIEW
1N295B DIODE
K
K
RED
WHITE
BROWN
GREEN
AERIAL (FERRITE SLAB)
ALL VOLTAGES MEASURED BETWEEN POINTS INDICATED
AND COMMON NEGATIVE WITH A D.C. VACUUM TUBE
VOLTMETER (NO INPUT SIGNAL)
NUMBERS ASSIGNED TO TERMINALS OF COILS AND
TRANSFORMERS ARE TO FACILITATE CIRCUIT TRACING
OR COMPONENT REPLACEMENT AND MAY NOT BE FOUND
ON THE UNIT
MODEL PE035
DRAWN
DATE
CH'KD
APP'D
A.O
1-9-70
PB16 90