

**ASTOR**

# ASTOR ELECTRONICS PTY. LTD.

DIVISION OF ELECTRONIC INDUSTRIES LTD., BOX 183, P.O. SOUTH MELBOURNE

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PE033 - 1

File: RECEIVERS  
PORTABLE

Date: 16-6-70

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## SERVICE DATA

### ASTOR MODEL PE033

#### TRANSISTOR PORTABLE RECEIVER



Tuning Range	- 520 - 1650 KHz
Intermediate Frequency	- 455 KHz
Power Output	- 100 milliWatts
Current Consumption	- 8 - 10 milliAmps (No Signal)
Supply Source	- 9 Volts D.C.

#### ACCESS TO INTERIOR OF CABINET

Remove screw and prise rear section off body of cabinet.

Information contained herein must not be reporduced without  
prior written permission from Astor Electronics Pty. Ltd.

\* THIS CAPACITOR IS REPLACED BY TRIMMER 1A IN SOME RECEIVERS.



### ALIGNMENT EQUIPMENT

Signal Generator - Modulated 400 Hz  
Output Meter - 40 Ohm impedance  
Alignment Tool - Flat metal blade end.  
Part No. 4121-001-01 for I.F.T. and Osc. coil iron core  
adjustment and trimmer capacitor adjustment.

### ALIGNMENT CONDITIONS

Volume Control - Maximum setting  
Output Level - 50 milliWatts  
Output Meter Connection - To receiver earphone socket  
Supply Voltage - 9 Volt D.C.

### INTERMEDIATE FREQUENCY TRANSFORMER ALIGNMENT

Remove screw and prise rear section off cabinet. The receiver chassis does not have to be removed for I.F. transformer alignment purposes. Set tuning control to high frequency end of travel. Connect generator direct to Pin A on circuit board.

Oper. No.	Generator Connection	Generator Frequency	Instructions
1	To Pin A 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	1600KHz	Set tuning indicator to 1600KHz graduation on 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.		



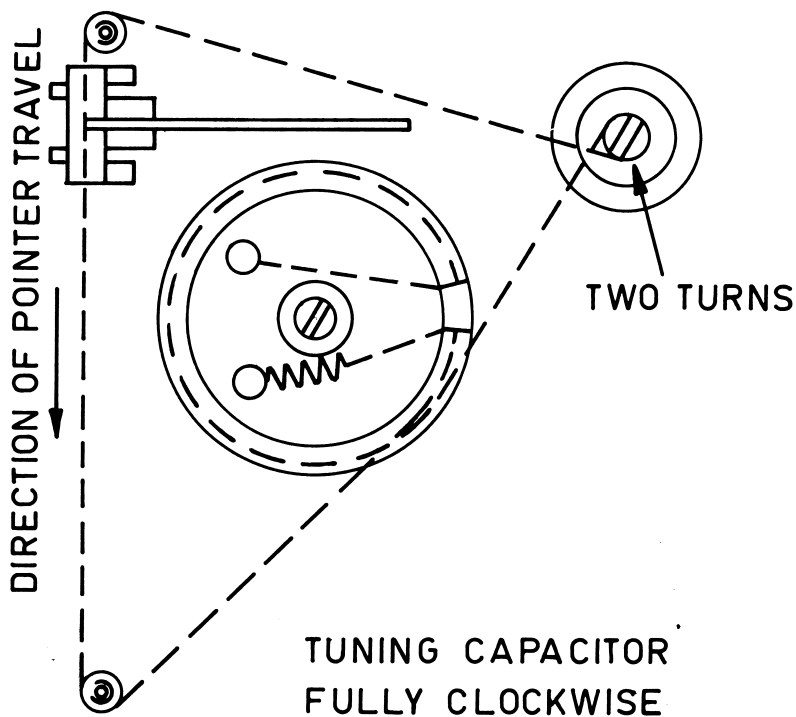
# CAPACITORS

Circ. No.	Value	Description	Tol. ±	Rating V.DCW	Part Number
1	15pF	Ceramic Disc	10%	50	4008-050-08
2		Two gang - tuning			4000-056-05
3	.047uF	Ceramic Disc		25	4008-057-04
4	.01uF	Ceramic Disc		25	4008-039-10
5	220pF	Polystyrene	5%	125	4004-005-10
6	220pF	Polystyrene	5%	125	4004-005-10
7	12pF	Ceramic Disc	10%	50	4008-018-11
8	220pF	Polystyrene	5%	125	4004-005-10
9	5uF	Electrolytic		3	4005-018-18
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	.47uF	Electrolytic		3	4005-056-01
18					
19	50uF	Electrolytic		10	4005-001-21
20					
21	220pF	Ceramic Disc	20%	50	4008-009-06
22	30uF	Electrolytic		6	4005-033-07
23	100uF	Electrolytic		10	4005-002-51
24	.047uF	Ceramic Disc		25	4008-057-04
25					
26					
27					

# RESISTORS

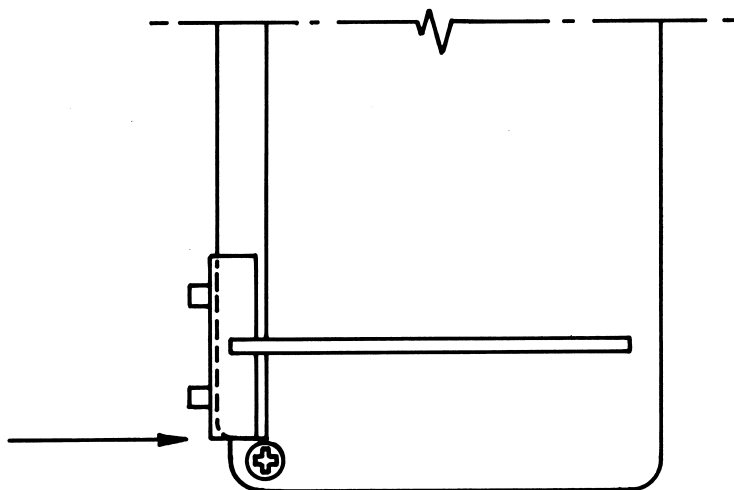
Circ. No.	Value Ohms	Description	Tol ±	Rating V.DCW	Part Number
28	18K	Carbon	10%	.5	4022-018-01
29	12K	Carbon	10%	.5	4022-029-01
30	18K	Carbon	10%	.5	4022-014-03
31	2.2K	Carbon	10%	.5	4022-021-02
32	120K	Carbon	10%	.5	4022-031-01
33	220K	Carbon	10%	.5	4022-063-01
34	47	Carbon	10%	.5	4022-041-01
35	470	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	10	Carbon	10%	.5	4022-035-01
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					

#### DIAL CORDING DIAGRAM



#### TUNING POINTER SETTING

Set tuning capacitor to closed position, i.e., fully anti-clockwise. Slide pointer carriage along cord so that edge of carriage and dial background align as indicated in diagram. Crimp lugs on pointer carriage to dial cord.



#### DIAL READING REPLACEMENT

The dial reading and the Astor Metcal are secured to the cabinet with adhesive.

Remove three screws holding printed circuit board to cabinet. Apply pressure to rear of dial reading to break adhesive bond.

#### 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.

MISCELLANEOUS

Circuit No.	Description	Part Number
55	Ferrite slab aerial	4074-105-01
56	Oscillator coil	4043-049-01
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 - 3/4" dia. type 2C00/4/40	4056-009-08
74	Battery 9 Volt Hitachi type 006P or Eveready equivalent type 216	4062-002-11
-	Earphone and plug assy.	4085-248-01
-	Battery lead and plug assy.	4078-065-02

MECHANICAL

Part Number	Description
7309-150-01	Screw (2) special - gang mount
7236-156-01	Support (2) slab aerial
7086-088-08	Eyelet (2) aerial support
7077-044-01	Dial drum
7309-082-01	Screw (1) 2.6mm Dia. X .45mm pitch X 6mm long Ch. Hd. - dial drum
7234-155-01	Stud (1) tuning knob
7146-009-01	Nut (1) 8 BA Hex. - stud
7005-083-02	Dial background
7166-028-01	Pillar (2) background mount
7196-733-01	Screw (4) 3/16" X 8 BA Phillips Hd. - background mount
7173-088-01	Pointer
1107-002-03	Dial cord 18 inches required
7225-129-01	Spring (1) dial cord
7196-741-01	Screw (1) special - volume knob
7138-189-01	Lug (1) speaker mount
7209-513-02	Screw (4) 1/4" X 4/40 Phillips Hd. - speaker and circuit board mount
7309-081-01	Screw (1) special - back mount
7040-034-01	Carrying bag

Front assembly complete consists of:

Parts not serviced separately :-

Front - moulded  
Bush - back mount  
Escutcheon - moulded  
Grille - speaker

Parts serviced separately and not affected  
by styling :-

7070-151-02 Dial reading  
7008-448-01 Metcal - Astor  
7008-489-01 Metcal - strip

BLACK (PE033-S)

7099-088-01 Front assy. complete  
7006-367-01 Back  
7065-373-01 Cover - battery  
7124-507-01 Knob - tuning  
7124-506-01 Knob - volume

NAVY BLUE (PE033-X)

7099-088-02 Front assy. complete  
7006-367-02 Back  
7065-373-02 Cover - battery  
7124-507-02 Knob - tuning  
7124-506-02 Knob - volume

CAMEL (PE033-T)

7099-088-03 Front assy. complete  
7006-367-03 Back  
7065-373-03 Cover - battery  
7124-507-03 Knob - tuning  
7124-506-03 Knob - volume

RED (PE033-0)

7099-088-04 Front assy. complete  
7006-367-04 Back  
7065-373-04 Cover - battery  
7124-507-04 Knob - tuning  
7124-506-04 Knob - volume

MARIGOLD (PE033-P)

7099-088-05 Front assy. complete  
7006-367-05 Back  
7065-373-05 Cover - battery  
7124-507-05 Knob - tuning  
7124-506-05 Knob - volume