

## RADIO CORPORATION PTY. LTD.

1090-1140 Centre Road, Clayton

PE036 - 1

File: RECEIVERS PORTABLE

Date: 1-9-70

Page: 1

# SERVICE DATA **ASTOR MODEL PE036**

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.

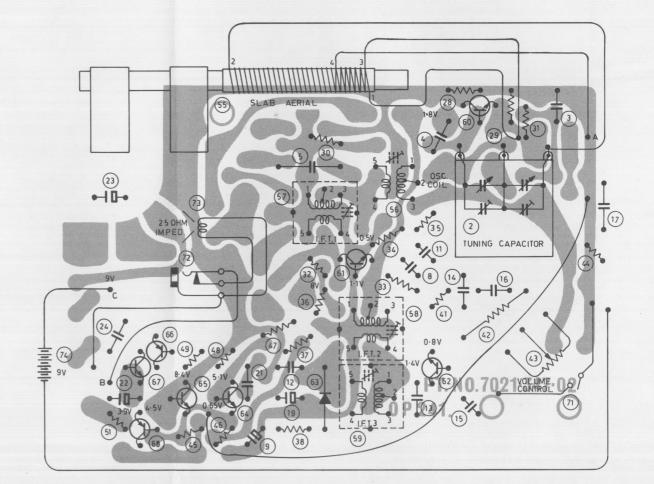
## ACCESS TO INTERIOR OF CABINET

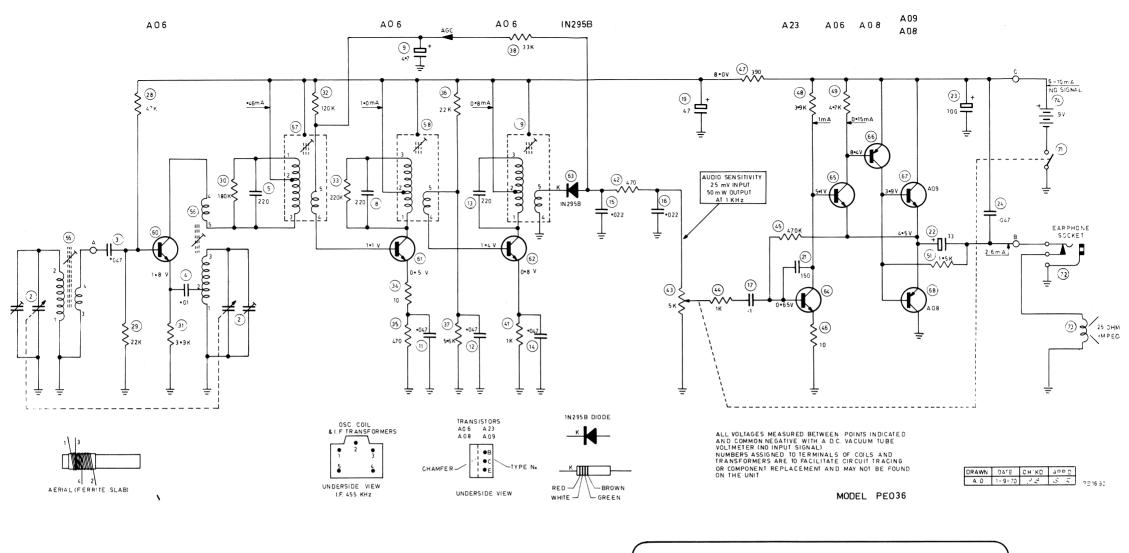
Prise rear section off body of cabinet.

INFORMATION CONTAINED HEREIN MUST NOT BE REPRODUCED WITHOUT PRIOR WRITTEN PERMISSION FROM RADIO CORPORATION PTY. LTD.

CIRCUIT BOARD
PRINTED WIRING SIDE
MODEL PEO36.

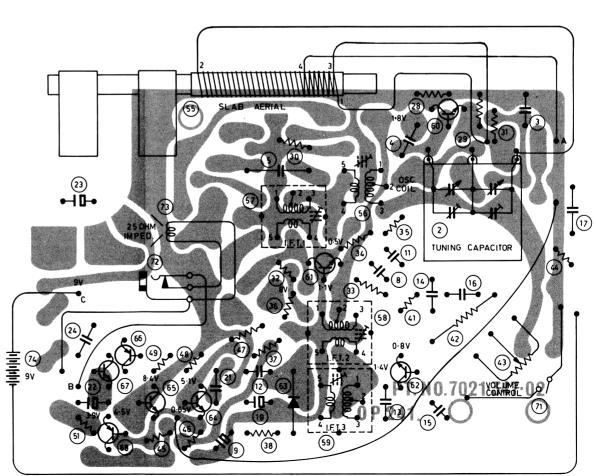
DRAWN	DATE	CH, KD	APP'D	PB1694
A.0.	8-9-70	P.B.	5.7.2.	PB1694







DRAWN	DATE	CH'KD	APP'D	PB1694
A.0.	8-9-70	P. B.	5.1.2.	PB1094



#### MISCELLANEOUS

Circuit No.	Description	Part Number
55 56	Ferrite slab aerial Oscillator coil	4074-109-01 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 AO6 - Audio driver	4128-162-02
66	Transistor type AO8 - Audio driver	4128-164-02
67	Transistor type A09 - Audio output	4128-165-02
68	Transistor type AO8 - 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 7236-156-01	Screw (2) special - gang mount Support (2) slab aerial	
7086-088-03	Eyelet (2) aerial support	
7071-016-01 7309-079-01	Tuning disc Screw (1) special - tuning disc	
7071-062-01 7309-050-11	Volume disc Screw (1) special - volume disc	
7204-575-01	Screw (3) 1/4" x No. 2 Phillips Head - boa and speaker mount	rd
7028-927-02 7229-058-01 7040-037-01	Bracket (1) speaker mount Carrying strap Carrying bag	

## 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.

#### STYLING

CL	ASSIC BLACK (PE036-S)	CRAZY YELLOW (PEO36-P)		
7099 <b>-</b> 097-01	Front assembly complete	7099-097-03	Front assembly complete	
7006-351-06	Back	7006-351-03	Back	
	(PP00( 0)	a.	(ppoo( 1)	
	PEBEL RED (PE036-0)	SM	OOTH BLUE (PEO36-X)	
7099-097-02	Front assembly complete	<u>sm</u> 7099-097-04	Front assembly complete	

## MAD MUSTARD (PEO36-T)

7099-097-05	Front	assembly	complete
7006-351-05	Back		

## CAPACITORS

Circuit No.	Value	Description	To1	Rating V.DCW	Part Number
1					1000 056 04
2		Two gang - tuning			4000-056-04
3 4	.047uF	Ceramic Disc	. 1	25	4008-057-04
4	.01uF	Ceramic Disc	20%	25	4008-039-12
5	220pF	Polystyrene	5%	125	4004-005-10
5 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
$1\overline{4}$	.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 27					
~ 1					
		RESISTOR	<u>s</u>		
Circuit	Value		To1	Rating	Danie Mamban
Circuit No.	Value Ohms	Description	To1	Rating V.DCW	Part Number
No.	Ohms		<u> </u>	V.DCW	
No. 28	Ohms 47K	Carbon	± 10%	V.DCW .5	4022-051-03
No. 28 29	Ohms 47K 22K	Carbon Carbon	±  10% 10%	V.DCW .5 .5	4022-051-03 4022-026-02
28 29 30	Ohms 47K 22K 180K	Carbon Carbon Carbon	±  10% 10% 10%	v.DCW • 5 • 5 • 5	4022-051-03 4022-026-02 4022-014-03
28 29 30 31	0hms 47K 22K 180K 3.9K	Carbon Carbon Carbon Carbon	± 10% 10% 10% 10%	v.DCW  .5 .5 .5 .5	4022-051-03 4022-026-02 4022-014-03 4022-020-01
28 29 30 31 32	Ohms 47K 22K 180K 3.9K 120K	Carbon Carbon Carbon Carbon Carbon	± 10% 10% 10% 10%	v.DCW  .5 .5 .5 .5	4022-051-03 4022-026-02 4022-014-03 4022-020-01 4022-031-01
28 29 30 31 32 33	Ohms 47K 22K 180K 3.9K 120K 220K	Carbon Carbon Carbon Carbon Carbon Carbon	± 10% 10% 10% 10% 10%	v.DCW  .5 .5 .5 .5 .5	4022-051-03 4022-026-02 4022-014-03 4022-020-01 4022-031-01 4022-063-01
28 29 30 31 32 33 34	Ohms 47K 22K 180K 3.9K 120K 220K 10	Carbon Carbon Carbon Carbon Carbon Carbon Carbon Carbon	10% 10% 10% 10% 10% 10%	V.DCW  .5 .5 .5 .5 .5 .5	4022-051-03 4022-026-02 4022-014-03 4022-020-01 4022-031-01 4022-063-01 4022-035-01
28 29 30 31 32 33 34 35	0hms 47K 22K 180K 3.9K 120K 220K 10 470	Carbon Carbon Carbon Carbon Carbon Carbon Carbon Carbon Carbon	10% 10% 10% 10% 10% 10% 10%	V.DCW  .5 .5 .5 .5 .5 .5 .5	4022-051-03 4022-026-02 4022-014-03 4022-020-01 4022-031-01 4022-063-01 4022-035-01 4022-016-01
28 29 30 31 32 33 34 35 36	0hms 47K 22K 180K 3.9K 120K 220K 10 470 22K	Carbon	10% 10% 10% 10% 10% 10% 10%	V.DCW  .5 .5 .5 .5 .5 .5 .5 .5	4022-051-03 4022-026-02 4022-014-03 4022-020-01 4022-031-01 4022-063-01 4022-035-01 4022-016-01 4022-026-02
28 29 30 31 32 33 34 35 36 37	Ohms 47K 22K 180K 3.9K 120K 220K 10 470 22K 5.6K	Carbon	10% 10% 10% 10% 10% 10% 10% 10%	V.DCW  .5 .5 .5 .5 .5 .5 .5 .5 .5 .5	4022-051-03 4022-026-02 4022-014-03 4022-020-01 4022-031-01 4022-063-01 4022-035-01 4022-016-01 4022-026-02 4022-022-02
28 29 30 31 32 33 34 35 36	0hms 47K 22K 180K 3.9K 120K 220K 10 470 22K	Carbon	10% 10% 10% 10% 10% 10% 10%	V.DCW  .5 .5 .5 .5 .5 .5 .5 .5	4022-051-03 4022-026-02 4022-014-03 4022-020-01 4022-031-01 4022-063-01 4022-035-01 4022-016-01 4022-026-02
28 29 30 31 32 33 34 35 36 37 38 39	Ohms 47K 22K 180K 3.9K 120K 220K 10 470 22K 5.6K	Carbon	10% 10% 10% 10% 10% 10% 10% 10%	V.DCW  .5 .5 .5 .5 .5 .5 .5 .5 .5 .5	4022-051-03 4022-026-02 4022-014-03 4022-020-01 4022-031-01 4022-063-01 4022-035-01 4022-016-01 4022-026-02 4022-022-02
28 29 30 31 32 33 34 35 36 37 38	Ohms 47K 22K 180K 3.9K 120K 220K 10 470 22K 5.6K	Carbon	10% 10% 10% 10% 10% 10% 10% 10%	V.DCW  .5 .5 .5 .5 .5 .5 .5 .5 .5 .5	4022-051-03 4022-026-02 4022-014-03 4022-020-01 4022-031-01 4022-063-01 4022-035-01 4022-016-01 4022-026-02 4022-022-02 4022-059-03
28 29 30 31 32 33 34 35 36 37 38 39 40 41	Ohms 47K 22K 180K 3.9K 120K 220K 10 470 22K 5.6K	Carbon	10% 10% 10% 10% 10% 10% 10% 10%	V.DCW  .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5	4022-051-03 4022-026-02 4022-014-03 4022-020-01 4022-031-01 4022-063-01 4022-035-01 4022-016-01 4022-026-02 4022-022-02 4022-059-03
28 29 30 31 32 33 34 35 36 37 38 39 40	Ohms  47K 22K 180K 3.9K 120K 220K 10 470 22K 5.6K 33K	Carbon	10% 10% 10% 10% 10% 10% 10% 10% 10%	V.DCW  .5 .5 .5 .5 .5 .5 .5 .5 .5 .5	4022-051-03 4022-026-02 4022-014-03 4022-020-01 4022-031-01 4022-063-01 4022-035-01 4022-016-01 4022-026-02 4022-022-02 4022-059-03
28 29 30 31 32 33 34 35 36 37 38 39 40 41	Ohms  47K 22K 180K 3.9K 120K 220K 10 470 22K 5.6K 33K	Carbon	10% 10% 10% 10% 10% 10% 10% 10% 10%	V.DCW  .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5	4022-051-03 4022-026-02 4022-014-03 4022-020-01 4022-031-01 4022-063-01 4022-035-01 4022-016-01 4022-026-02 4022-022-02 4022-059-03
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42	Ohms  47K 22K 180K 3.9K 120K 220K 10 470 22K 5.6K 33K	Carbon	10% 10% 10% 10% 10% 10% 10% 10% 10%	V.DCW  .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5	4022-051-03 4022-026-02 4022-014-03 4022-020-01 4022-031-01 4022-063-01 4022-035-01 4022-016-01 4022-026-02 4022-022-02 4022-059-03 4022-016-01 4022-016-01 4029-003-05
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42	Ohms  47K 22K 180K 3.9K 120K 220K 10 470 22K 5.6K 33K	Carbon	10% 10% 10% 10% 10% 10% 10% 10% 10% 10%	V.DCW  .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5	4022-051-03 4022-026-02 4022-014-03 4022-020-01 4022-031-01 4022-063-01 4022-035-01 4022-016-01 4022-026-02 4022-022-02 4022-059-03 4022-016-01 4022-016-01 4029-003-05 4022-008-01
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43	Ohms 47K 22K 180K 3.9K 120K 220K 10 470 22K 5.6K 33K	Carbon	10% 10% 10% 10% 10% 10% 10% 10% 10% 10%	V.DCW  .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5	4022-051-03 4022-026-02 4022-014-03 4022-020-01 4022-031-01 4022-063-01 4022-035-01 4022-016-01 4022-026-02 4022-022-02 4022-059-03 4022-016-01 4022-016-01 4022-016-01 4022-016-01
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43	Ohms  47K 22K 180K 3.9K 120K 220K 10 470 22K 5.6K 33K  1K 470 5K	Carbon	10% 10% 10% 10% 10% 10% 10% 10% 10% 10%	V.DCW  .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5	4022-051-03 4022-026-02 4022-014-03 4022-020-01 4022-031-01 4022-063-01 4022-035-01 4022-016-01 4022-026-02 4022-022-02 4022-059-03 4022-016-01 4022-016-01 4022-016-01 4022-016-01 4022-016-01
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43	Ohms  47K 22K 180K 3.9K 120K 220K 10 470 22K 5.6K 33K  1K 470 5K	Carbon Volume Control SP Switch attached Carbon Carbon	10% 10% 10% 10% 10% 10% 10% 10% 10% 10%	V.DCW  .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5	4022-051-03 4022-026-02 4022-014-03 4022-020-01 4022-031-01 4022-063-01 4022-035-01 4022-016-01 4022-026-02 4022-022-02 4022-059-03 4022-016-01 4022-016-01 4022-016-01 4022-008-01 4022-045-02 4022-035-01 4022-058-04
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47	Ohms  47K 22K 180K 3.9K 120K 220K 10 470 22K 5.6K 33K  1K 470 5K 1K 470K 10 390	Carbon Volume Control SP Switch attached Carbon Carbon Carbon	10% 10% 10% 10% 10% 10% 10% 10% 10% 10%	V.DCW  .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5	4022-051-03 4022-026-02 4022-014-03 4022-020-01 4022-031-01 4022-035-01 4022-035-01 4022-026-02 4022-026-02 4022-029-03 4022-059-03 4022-016-01 4029-003-05 4022-045-02 4022-058-01 4022-058-04 4022-058-04 4022-020-01
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48	Ohms  47K 22K 180K 3.9K 120K 220K 10 470 22K 5.6K 33K  1K 470 5K  1K 470K 10 390 3.9K	Carbon	10% 10% 10% 10% 10% 10% 10% 10% 10% 10%	V.DCW  .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5	4022-051-03 4022-026-02 4022-014-03 4022-020-01 4022-031-01 4022-063-01 4022-035-01 4022-016-01 4022-026-02 4022-022-02 4022-059-03 4022-016-01 4022-016-01 4022-016-01 4022-008-01 4022-045-02 4022-035-01 4022-058-04
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49	Ohms  47K 22K 180K 3.9K 120K 220K 10 470 22K 5.6K 33K  1K 470 5K 1K 470K 10 390	Carbon	10% 10% 10% 10% 10% 10% 10% 10% 10% 10%	V.DCW  .5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.	4022-051-03 4022-026-02 4022-014-03 4022-020-01 4022-031-01 4022-063-01 4022-035-01 4022-016-01 4022-026-02 4022-029-03 4022-059-03 4022-008-01 4022-008-01 4022-045-02 4022-058-04 4022-020-01 4022-020-01 4022-005-01
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50	Ohms  47K 22K 180K 3.9K 120K 220K 10 470 22K 5.6K 33K  1K 470 5K  1K 470K 10 390 3.9K 4.7K	Carbon	10% 10% 10% 10% 10% 10% 10% 10% 10% 10%	V.DCW  .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5	4022-051-03 4022-026-02 4022-014-03 4022-020-01 4022-031-01 4022-063-01 4022-035-01 4022-016-01 4022-026-02 4022-022-02 4022-059-03 4022-016-01 4029-003-05 4022-045-02 4022-058-01 4022-058-04 4022-058-04 4022-020-01
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	Ohms  47K 22K 180K 3.9K 120K 220K 10 470 22K 5.6K 33K  1K 470 5K  1K 470K 10 390 3.9K	Carbon	10% 10% 10% 10% 10% 10% 10% 10% 10% 10%	V.DCW  .5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.	4022-051-03 4022-026-02 4022-014-03 4022-020-01 4022-031-01 4022-063-01 4022-035-01 4022-016-01 4022-026-02 4022-029-03 4022-059-03 4022-008-01 4022-008-01 4022-045-02 4022-058-04 4022-020-01 4022-020-01 4022-005-01
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 45 46 47 48 950 51 52	Ohms  47K 22K 180K 3.9K 120K 220K 10 470 22K 5.6K 33K  1K 470 5K  1K 470K 10 390 3.9K 4.7K	Carbon	10% 10% 10% 10% 10% 10% 10% 10% 10% 10%	V.DCW  .5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.	4022-051-03 4022-026-02 4022-014-03 4022-020-01 4022-031-01 4022-063-01 4022-035-01 4022-016-01 4022-026-02 4022-029-03 4022-059-03 4022-008-01 4022-008-01 4022-045-02 4022-058-04 4022-020-01 4022-020-01 4022-005-01
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	Ohms  47K 22K 180K 3.9K 120K 220K 10 470 22K 5.6K 33K  1K 470 5K  1K 470K 10 390 3.9K 4.7K	Carbon	10% 10% 10% 10% 10% 10% 10% 10% 10% 10%	V.DCW  .5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.	4022-051-03 4022-026-02 4022-014-03 4022-020-01 4022-031-01 4022-063-01 4022-035-01 4022-016-01 4022-026-02 4022-029-03 4022-059-03 4022-008-01 4022-008-01 4022-045-02 4022-058-04 4022-020-01 4022-020-01 4022-005-01

### 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.	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	o 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.

Repeat operations 4 & 5 until no change occurs.

6



## RADIO CORPORATION PTY. LTD.

1090-1140 Centre Road, Clayton

PE036 - 1

File: RECEIVERS

PORTABLE

Date: 1-9-70

Page: 1

# SERVICE DATA **ASTOR MODEL PE036**

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.

INFORMATION CONTAINED HEREIN MUST NOT BE REPRODUCED WITHOUT PRIOR WRITTEN PERMISSION FROM RADIO CORPORATION PTY. LTD.