

ASTOR

RADIO CORPORATION PTY. LTD.

DIVISION OF ELECTRONIC INDUSTRIES LTD.

Astor House, 161-173 Sturt Street, South Melbourne.

M3B-1

File: Receivers A.C.

Date: 6-8-62

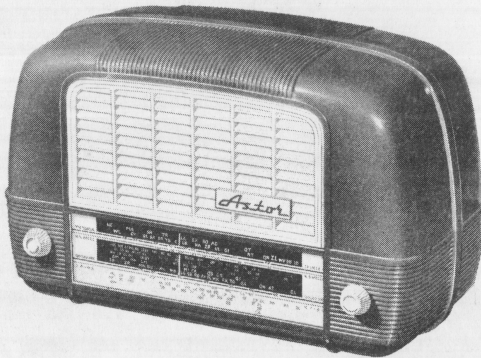
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SERVICE DATA

ASTOR MODEL "M3B"

5 VALVE SUPERHETERODYNE BROADCAST BAND

MAINS OPERATED MANTEL RECEIVER



ACCESS TO INTERIOR OF RECEIVER -

The receiver chassis does not have to be removed from the cabinet for alignment of the IF & RF signal circuits. All alignment functions may be made when the rear section of the cabinet is removed from the front section.

REMOVAL OF REAR SECTION OF CABINET -

Prise off the two spring clips from cabinet base with a thin blade screw driver or knife. At the base of the cabinet insert the thin blade into the crevice between the two sections of cabinet, prise the sections apart.

TO REMOVE AND REFIT CHASSIS TO CABINET -

Remove the push-on type knobs.
Unclip two leads from speaker terminals.
At each end of chassis, loosen screw which fastens chassis to cabinet then withdraw chassis.

Reverse procedure to refit chassis.

CHASSIS SERIAL NUMBER -

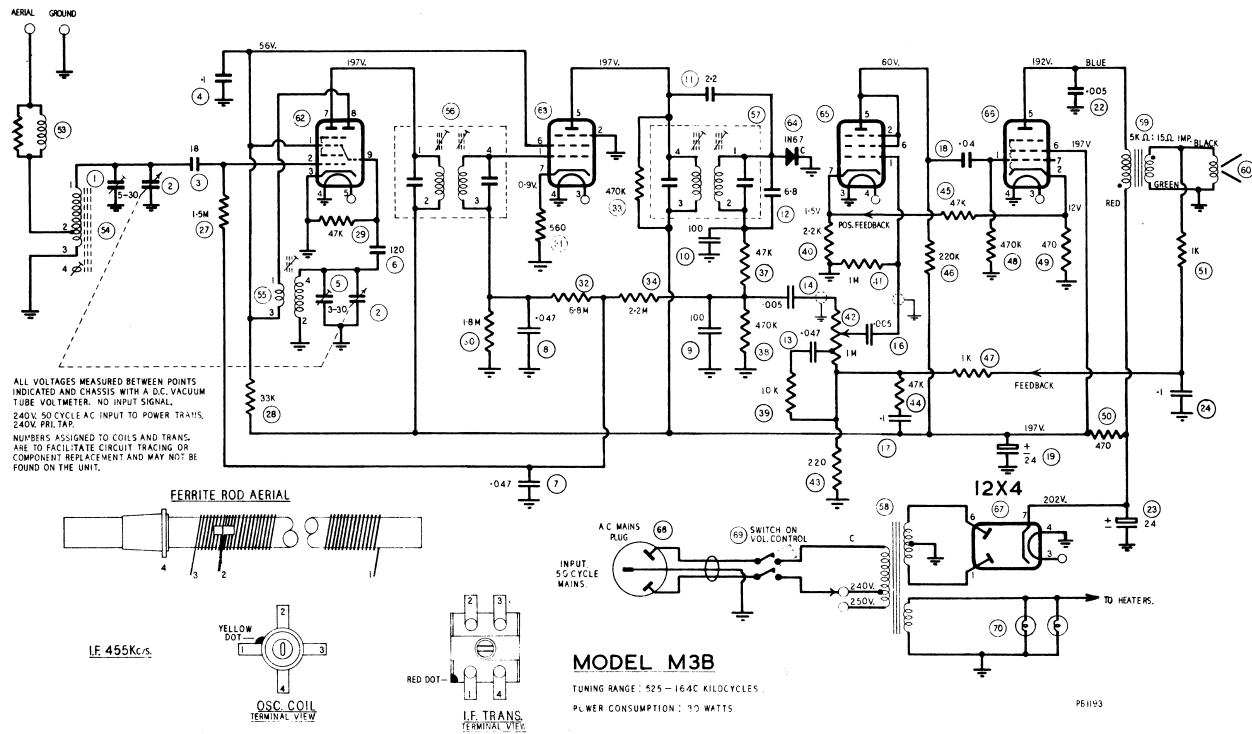
The serial number is stamped into the chassis below the volume control. When viewing the receiver from the rear the number is visible through the slots in the cabinet, right hand end.

12AN7

12AU6

12AU6

12AQ5



ALIGNMENT PROCEDURE

ALIGNMENT CONDITIONS

EQUIPMENT -

- R. F. Signal Generator - modulated 400 cps.
- Output Meter - 15 Ohm impedance.
- Series Capacitor - R. F. Sig. Gen. for I. F. T. alignment .01 mF Part No. 4003-031-02

- Remove rear section of cabinet as detailed on Page 1.
- Volume Control - maximum volume (fully clockwise).
- Output Level - 50 milliwatts.
- Output Meter Connection - across secondary of output transformer, speaker voice coil disconnected.

Alignment Tools -

- a) Blade tip type, Part No. PM581 or 4121-015-01, for trimmer capacitor and I. F. T. core adjustment.
- b) Flexible rod type, Part No. 4121-018-01, for oscillator coil core adjustment.

INTERMEDIATE FREQUENCY TRANSFORMER ALIGNMENT

Oper. No.	Generator Connection	Generator Frequency	Instructions
1.	.01 mF capacitor in series, to grid of 12AU6 I. F. valve.	455 Kc/s	Turn tuning control to high freq. end of travel. Peak 2nd I. F. trans. pri. and sec. iron cores for max. output.
2.	.01 mF capacitor in series, to grid end of rod aerial.	455 Kc/s	Peak 1st I. F. trans. pri and sec. iron cores for max. output.

COMPONENTS PARTS LIST - ELECTRICAL

Circuit No.	Value	Description	Tol	Rating	Part No.	Circuit No.	Value	Description	Tol	Rating	Part No.
1.	5-30pF	Trimmer, Compression			4000-023-01	36.					
2.		Two Gang Tuning			4000-027-01	37.	47K	Carbon	10%	1/2W	4022-051-03
3.	18pF	Tubular Ceramic		500	4008-051-01	38.	470K	Carbon	10%	1/2W	4022-045-03
4.	.1mF	Paper		200	4007-008-02	39.	10K	Carbon	10%	1/2W	4022-004-01
5.	3-30pF	Trimmer, Wire wound			4000-025-01	40.	2.2K	Carbon	10%	1/2W	4022-021-02
6.	120pF	Polystyrene		125	4004-010-02	41.	1M	Carbon	10%	1/2W	4022-012-02
7.	.047mF	Disc Ceramic		25	4008-057-03	42.	1M	Carbon, Volume Control tapped at 400K D. P. S. T. switch attached			4032-006-10
8.	.047mF	Disc Ceramic		25	4008-057-03	43.	220	Carbon	10%	1/2W	4022-017-01
9.	100pF	Polystyrene		125	4004-008-03	44.	47K	Carbon	10%	1/2W	4022-051-03
10.	100pF	Polystyrene		125	4004-008-03	45.	47K	Carbon	10%	1/2W	4022-051-03
11.	2.2pF	Disc Ceramic	10%	500	4008-033-01	46.	220K	Carbon	10%	1/2W	4022-063-01
12.	6.8pF	Disc Ceramic	.5pF	500	4008-001-01	47.	1K	Carbon	10%	1/2W	4022-008-01
13.	.047mF	Paper		100	4007-003-01	48.	470K	Carbon	10%	1/2W	4022-045-03
14.	.005mF	Disc Ceramic		25	4008-058-01	49.	470	Carbon	10%	1/2W	4022-016-01
15.						50.	470	Carbon	10%	1/2W	4022-016-02
16.	.005mF	Disc Ceramic		25	4008-058-01	51.	1K	Carbon	10%	1/2W	4022-008-01
17.	.1mF	Paper		200	4007-008-02	52.					
18.	.04mF	Metallised Paper		200	4006-007-01						
19.	24mF	Electrolytic		300	4005-013-05						
20.											
21.											
22.	.005mF	Mica	10%	500	4003-053-02						
23.	24mF	Electrolytic		300	4005-013-05						
24.	.1mF	Paper		100	4007-008-03						
25.											
26.											
27.	1.5M	Carbon	10%	1/2W	4022-046-01	53.		Loading Coil			4036-051-01
28.	33K	Carbon	10%	1/2W	4022-059-01	54.		Rod Aerial			4074-024-02
29.	47K	Carbon	10%	1/2W	4022-051-01	55.		Oscillator Coil			4043-031-01
30.	1.8M	Carbon	10%	1/2W	4022-054-01	56.		No. 1 I. F. Transformer 455 Kc/s			4044-007-01
31.	560	Carbon	10%	1/2W	4022-010-01	57.		No. 2 I. F. Transformer 455 Kc/s			4044-007-01
32.	6.8M	Carbon	10%	1/2W	4022-065-02	58.		Power Transformer			4041-016-01
33.	470K	Carbon	10%	1/2W	4022-045-03	59.		Speaker Transformer - 5K : 15 ohm impedance			4042-052-01
34.	2.2M	Carbon	10%	1/2W	4022-036-01	60.		Speaker - 5" x 4" permag, type 54C00/83/15			4056-007-03
35.						61.					
						62.		Mixer - Oscillator Valve, type 12AN7			4124-054-01
						63.		I. F. Amplifier Valve, type 12AU6			4124-059-01
						64.		Detector Diode, type 1N67			4127-025-01
						65.		Audio Amplifier Valve, type 12AU6			4124-059-01
						66.		Audio Output Valve, type 12AQ5			4124-057-01
						67.		Rectifier Valve, type 12X4			4124-058-01
						68.		Mains Input Plug and Lead Assy.			4077-120-04
						69.		ON-OFF Switch - part of Circuit No. 42			
						70.		Dial Lamp (2) 12V. .15A Screw Base G3 1/2 Bulb			4068-002-02

SETTING THE DIAL POINTER

Turn tuning control until the tuning condenser gang is at the low frequency end of travel stop, condenser plates fully meshed. Set the centre of dial pointer to the centre of the end of travel spot, right hand end of dial reading.

Positioning of the pointer may be made from the rear of the chassis by sliding the pointer along the dial cord with a pair of long nose pliers.

BROADCAST ALIGNMENT

- A. To inject a signal into the receiver rod aerial, connect to the active terminal of the signal generator approximately two feet of aerial wire, then fashion the wire into a vertical position.
- B. Place vertical wire at a position in line with ferrite rod aerial and located at a position not less than 1 ft. from the inductance trimmer end of ferrite rod.

Oper. No.	Generator Connection	Generator Frequency	Instructions
1.	Refer para. A and B.	600 Kc/s	Turn tuning cond. gang and dial pointer to 600 Kc/s dial mark. Leave cond. gang and pointer set in this position, adjust osc. coil iron core and rod aerial inductance trimmer (metal ring) for max. output.
2.	Refer para. A and B.	1400 Kc/s	Turn cond. gang and dial pointer until centre of dial pointer is on centre of 1400 Kc/s mark on dial. Adjust osc. and aerial trimmer condensers for max. output.
3.	Repeat operations 1 and 2.		

NOTE: Do not rock the cond. gang to and fro through signal.

Tuning range after alignment 525-1640 Kc/s.

Socket (4) 7 pin valve	7222-002-01
Socket - 9 pin 12AN7 valve	7222-013-01
Terminal Strip (2) 2 lug type E1	7231-011-02
Terminal Strip - 7 lug type 2E3E	7231-211-01
Terminal Strip - 8 lug type 2E3E1	7231-221-02
Terminal Strip - 3 lug type 1E1	7231-102-01
Mount Bracket (2) Chassis to cabinet	7169-151-02
Nut Plate (2) Chassis to cabinet	7279-017-01
Clip (2) Cabinet base	7055-382-01
Tuning Spindle Assy.	7224-206-01
Bearing - Tuning Spindle	7303-009-01
Horseshoe Washer	7261-028-01
Dial Cord - 60 inches	1107-002-02
Spring - dial cord	7225-039-02
Dial Drum Assy.	7077-011-01
Pulley (2) dial cord	7174-008-01
Stud (2) pulley	7234-035-03
Dial Pointer	7173-020-02
Pad - dial pointer	7159-010-01
Knob (2) volume and tuning	7124-123-06
Clip (2) knobs	7055-383-01
Grommet (3) rubber, gang condenser mount	7106-032-01
Bush (3) brass, gang condenser mount	7031-017-01
Screw (3) $\frac{3}{8}$ " x No. 4 BA. Csk. hd. gang condenser mount	7196-067-15
Lamp Socket (2) dial lamps	7222-034-01
Clip (2) I. F. Transformer mount	7055-381-01
Pillar (2) rod aerial mount	7166-001-01
Clip (2) rod aerial mount	7225-078-01
Nut Plate (2) mount pillar	7279-005-01
Screw (2) $\frac{1}{2}$ " x $\frac{1}{8}$ " Whit. rd. hd. - nut plate	7198-176-35
Screw (2) $\frac{3}{8}$ " x $\frac{1}{8}$ " Whit. rd. hd. - chassis to cabinet	7198-176-33
Screw (2) $\frac{1}{4}$ " x $\frac{1}{8}$ " Whit. rd. hd. - mount brackets to chassis	7198-176-31
Screw (2) $\frac{5}{8}$ " x $\frac{1}{8}$ " Whit. rd. hd. - pulley mount	7198-176-36
Nut (6) $\frac{1}{8}$ " Whit. hex. - various	7148-302-11
Washer (6) Shakeproof - $\frac{1}{8}$ " ext. - various	7262-508-01
Washer (6) Shakeproof - $\frac{1}{8}$ " int. - various	7262-008-01
Washer (4) Flat Steel - pulley and chassis mount	7261-128-02
Grub Screw (2) $\frac{5}{32}$ " Whit. - dial drum bush	7198-812-04
Speed Nut (4) Speaker Mount	7152-275-01
Spacer - volume control	7293-015-07
Washer - Shakeproof $\frac{3}{8}$ " int. vol. control	7262-024-01
Lock Nut - volume control	7150-858-01
Spacer - mains cord bracket	7293-015-08
Bracket - mains cord anchor	7028-179-02
Insulator Body - mains cord anchor	7120-055-01
Insulator Wedge - mains cord anchor	7120-055-21
Clip (2) Fahnstock, speaker terminals	7055-384-02

STYLING

<u>CABINET</u>	<u>FRONT SECTION</u>
Cream	7099-007-05
Cherry Red	7099-007-16
Grey	7099-007-06

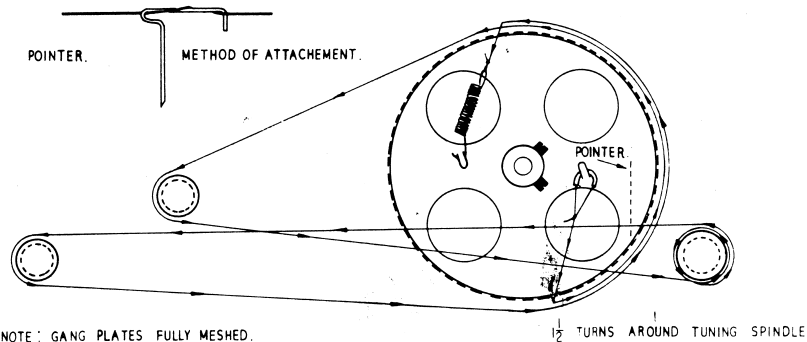
Dial Reading - Cream	- used with cream cabinet
Dial Reading - Pink	- used with Cherry Red and Grey Cabinets

DIAL GLASS REPLACEMENT

1. Remove chassis from cabinet.
2. Remove all pieces of broken dial.
3. Remove all traces of plastic material which previously sealed dial in position.
4. Place dial reading into cavity. Check correct face.
5. Press dial firmly into cavity, then with a hot soldering iron, form the ridge of cavity over the rear of dial reading adjacent to where original dial was fastened.

CLEANING OF CABINET -

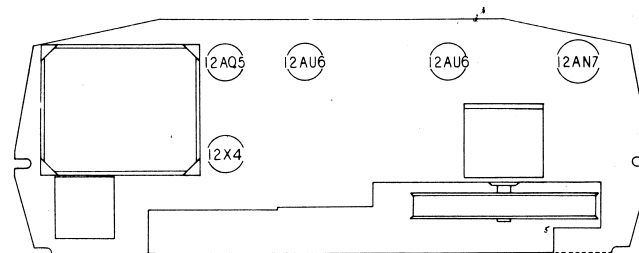
Do not polish the cabinet with an abrasive material, car polish, boot polish or similar household cleaning fluids as permanent damage may result to the finish of the cabinet. To restore the lustre of the cabinet, wipe with a soft cloth dampened with water and lightly polish with a neutral wax.



NOTE: GANG PLATES FULLY MESHED.

 $\frac{1}{2}$ TURNS AROUND TUNING SPINDLE.REAR SECTION

7006-079-05
7006-079-16
7006-079-06



7070-022-01

7070-022-02

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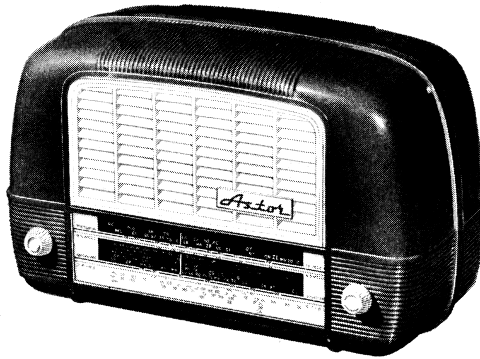
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ASTOR MODEL "M3B"

5 VALVE SUPERHETERODYNE BROADCAST BAND

MAINS OPERATED MANTEL RECEIVER



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REMOVAL OF REAR SECTION OF CABINET -

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TO REMOVE AND REFIT CHASSIS TO CABINET -

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Reverse procedure to refit chassis.

CHASSIS SERIAL NUMBER -

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