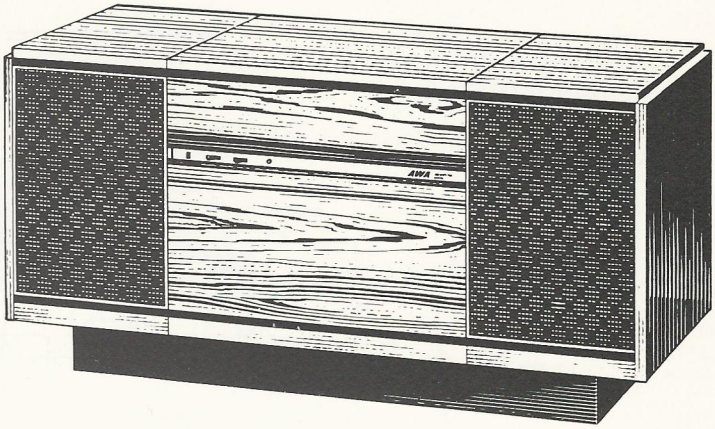
SERVICE MANUAL AWA MODEL B413.



SPECIFICATIONS

Power Output: 25w R.M.S. music power per channel.
Power Supply: 240v A.C. 50Hz.
Load Impedance: 8 ohms

CHASSIS REMOVAL

Undo the two screws at the rear of the cabinet. Remove the two screws located inside the cabinet, at the top of door opening. The chassis can now be slid forward and out of the cabinet.

TO REMOVE PRE-AMP CHASSIS

(1) Rear Panel Removal

Undo the six screws securing the rear panel to its supports. Remove the two screws, securing the tape socket bracket to the rear panel. The rear panel and transformer can now be carefully lifted clear.

(2) Chassis Removal

Pull off the slid control knobs and the tuning knob. Undo the eight nuts securing the control bracket to the cabinet top. The chassis can now be lifted clear of the cabinet top.

TO REMOVE AMP BOARD

Remove the four screws securing the power transistors to the heat-sink. Slide the board out of the supports. When replacing the amp. board, ensure that there is adequate heatsink compound on the transistors and that the screws are fully tightened.

TO REMOVE TURNTABLE

Turn the transit screws fully in and hinge the retaining clips parallel to the screws. Discontect leads to the turntable. Lift the turntable clear.

TO SERVICE POWER SUPPLY BOARD

With the rear panel removed, loosen the clamps on the large electrolytic capacitors. The P.S. board can then be lifted clear.

TO SERVICE TUNER

All components are accesible with the boards in place.

RADIO ALIGNMENT

I.F. Connect a signal generator to a coupling loop placed in line with and about 2 feet from the ferrite rod antenna. With tuning gang fully closed and volume at maximum set the generator to 455KHz and adjust the I.F. transformer core for maximum output. The ceramic filter, FL101, is pre-set and should not be adjusted. Reduce generator output as receiver output increases, use a signal level as low as practical.

R.F. Set the tuning gang fully closed and align pointer to calibration mark on dial. With gang fully closed adjust oscillator coil at 520KHz, with gang fully open adjust oscillator trimmer at 1630Hz, repeat the above adjustment until tracking is correct. Adjust the aerial coil (by sliding along rod) for maximum output at 600KHz, and aerial trimmer for maximum output at 1470KHz. Repeat adjustments until no further improvement can be obtained.

QUIESCENT CURRENT ADJUSTMENT

With no signal input (volume control in minimum position) adjust RV401 and RV501 for 20mA.

SENSITIVITY

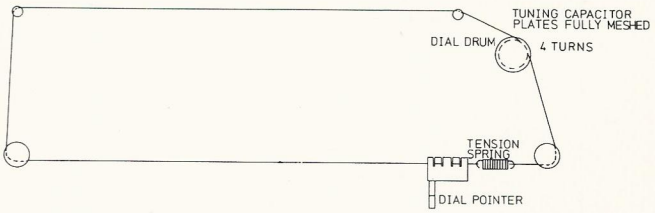
Main Amplifier

Input signal 1 volt R.M.S. IKHz fed to the input of main amplifier via R401, R501. A power meter connected to the amplifier output should register 18w R.M.S. ±1.5db.

PRE-AMPLIFIER

With a generator output of 100mv R.M.S. at 1KHz fed to the tape input socket. A power meter connected to the main amplifier output should register:

18w R.M.S. ±1.5db.



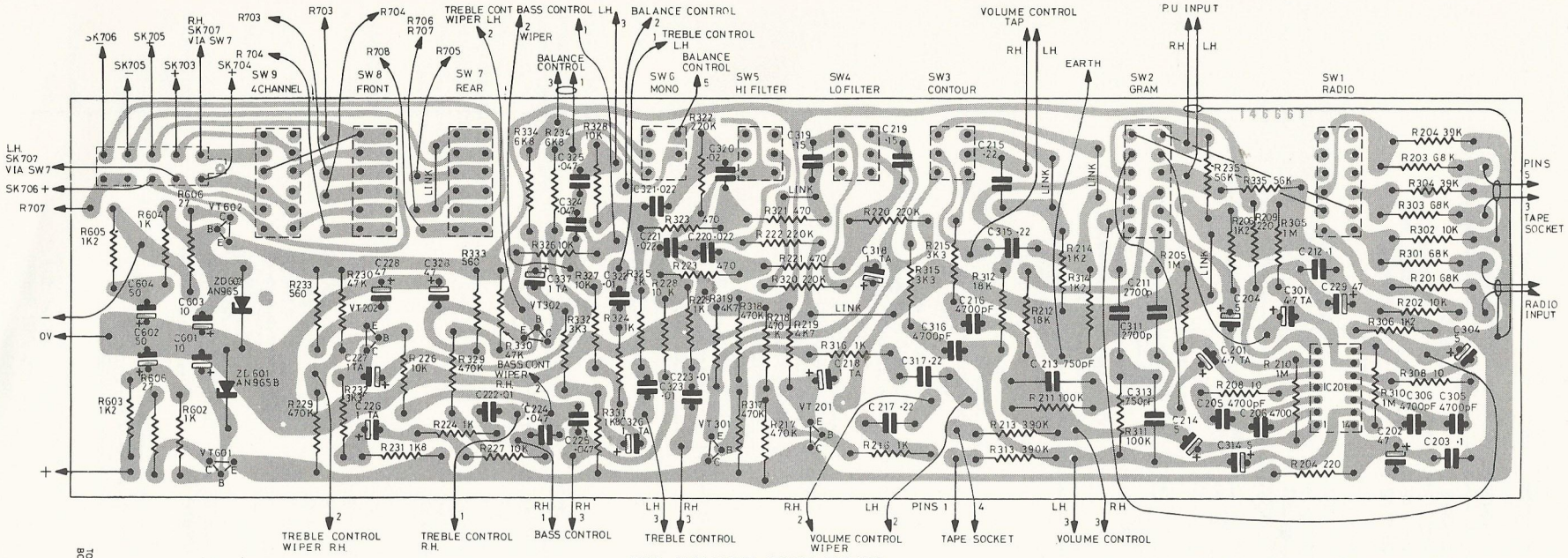
RM, RN DIAL CORD ARRANGEMENT

GENERAL MECHANICAL PARTS LIST.

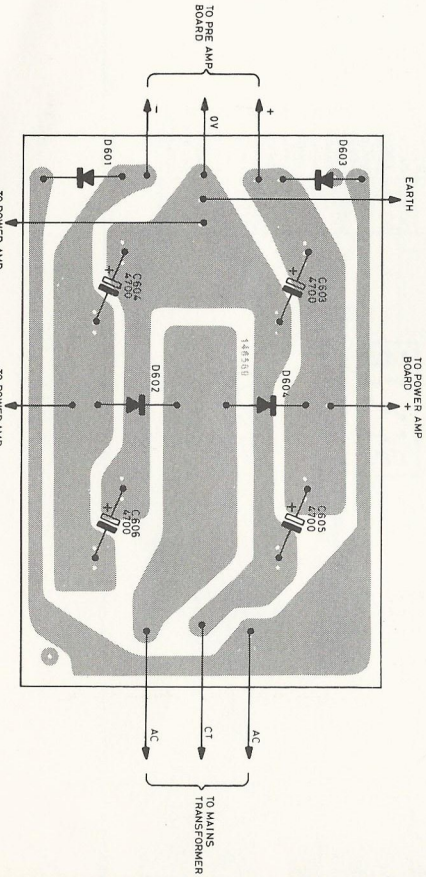
Description	Part No.
Cabinet	160431
Insert Control Panel	477053
Trim Front	920189
Moulded Cabinet	160433
Diffuser	376007
Knob push button	510224
Knob Tuning	510229
Knob Slider	510237
Dial Pointer	683007
Carrier Dial Pointer	195005

GENERAL ELECTRICAL PARTS LIST

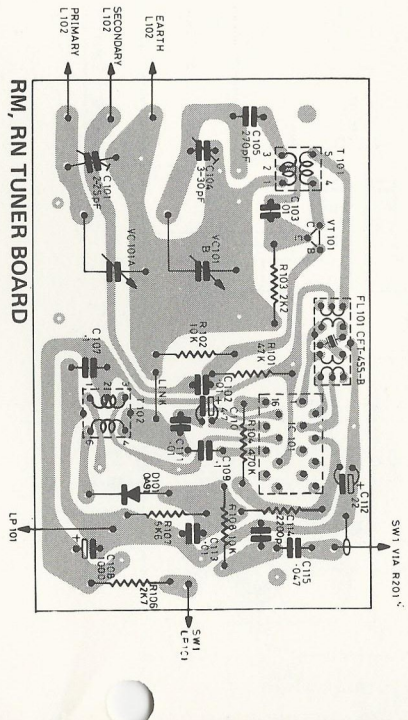
Description	Part No.
Lamp 28V	535034
Ferrite Rod	770012
Neon Lamp	535029
Rocker Switch DPDT.	880816
7 Push Button switch	880820
Mains Transformer	917557
Record Changer (Garrard SL-82)	720070
Cartridge (Goldring ES-705)	202005
Replacement Stylus — ND-171	
Loudspeaker 8"	560310
Loudspeaker Tweeter	560100



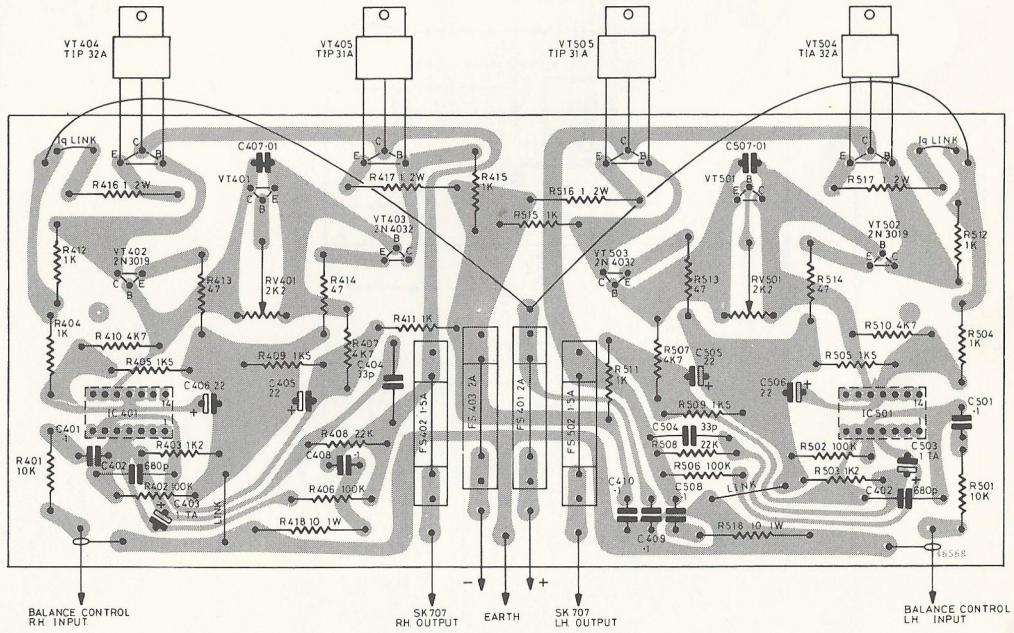
RM, RN PRE-AMPLIFIER



RM & RN POWER SUPPLY BOARD



RM, RN TUNER BOARD



RM POWER AMPLIFIER

KALCO PRINT — SYDNEY

POWER SUPPLY

Description		Part No.
Printed Circuit Board		146569
Diodes —		
D601 — 604,	OA626-100	378082
Capacitors: —		
C603 — C606	4700uF 35v electro.	
C606	.01uF 250v A.C. ceramic	
C607	.047uF 10% 100v poly.	

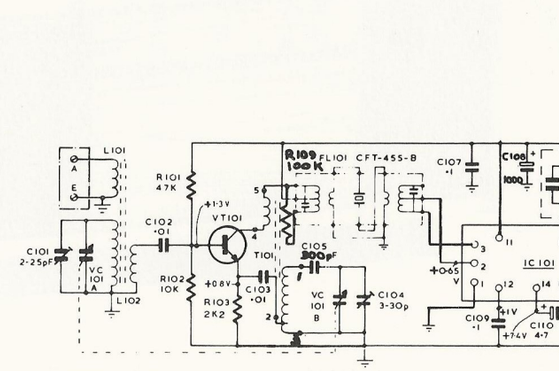
TUNER

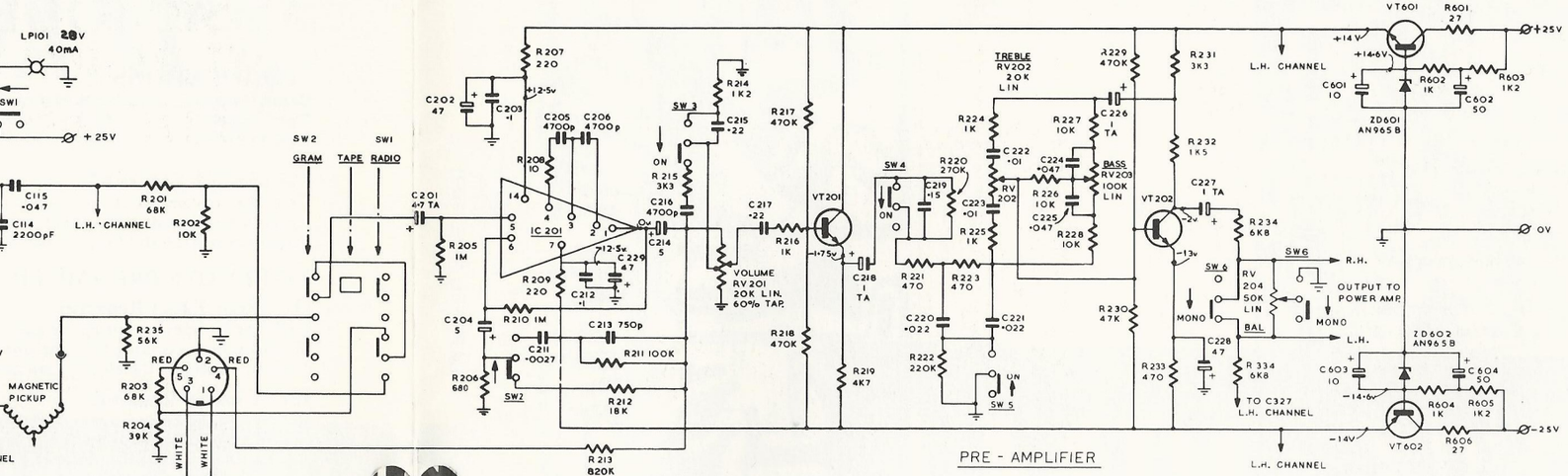
Description	Part No.
Printed Circuit Board	146572
Transistor BF 194	918050
Diode OA91	378000
Tuning capacitor 2 gang	274021
Ceramic filter	436032
I.C. TBA460 — O	471007
I.F. transformer	917609
B/C osc. transformer	917616
Screw, 2.6mm x 13mm	820031
Screw, 2.6mm x 6mm	820030

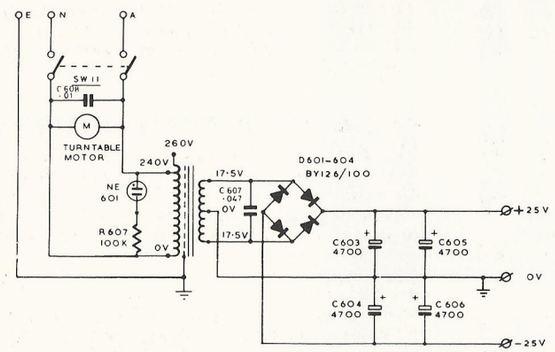
Capacitors:—

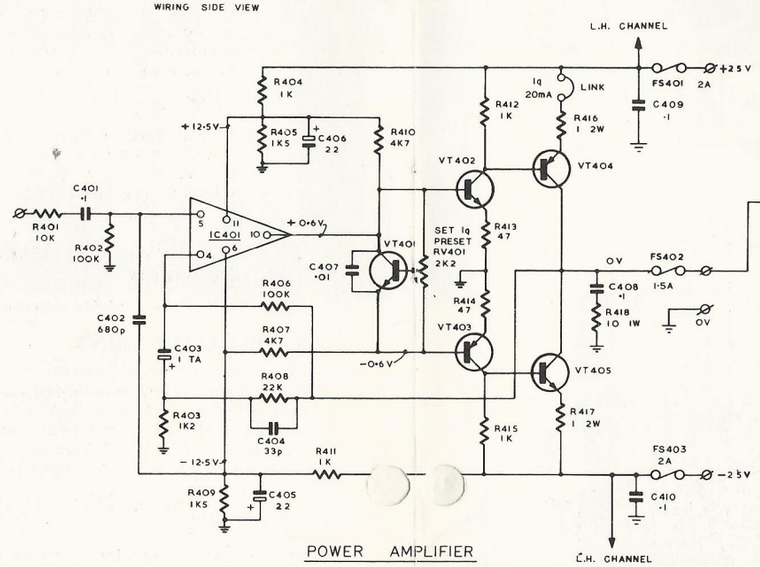
C101	2.25pF trimmer	274010
C102	.01uF 10% 50v poly.	
C103	.01uF 10% 50v poly.	
C104	3.30pF trimmer	274016
C105	300pF 5% 300v mica	
C107	.1uF GMV 25v ceramic	
C108	1000uF 16v electric	
C109	.1uF GMV 25v ceramic	
C110	4.7uF 25v electro.	
C111	.01uF 10% 50v poly.	
C112	22uF 25v electro.	
C113	.01uF 10% 50v poly.	
C114	2200pF 10% 50v poly.	
C115	.047uF 10% 50v poly.	

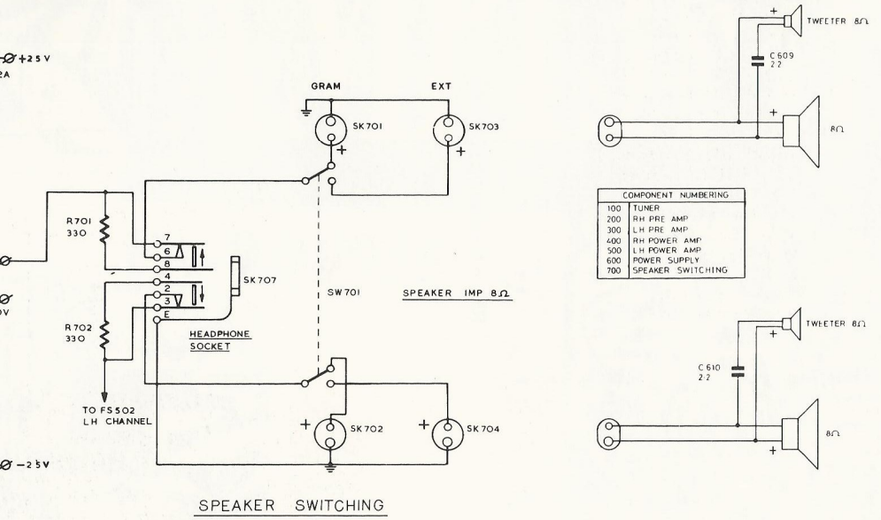
The manufacturers reserve the right to vary specifications and/or materials as may be deemed necessary or desirable at any time.



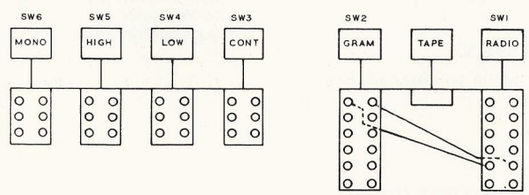


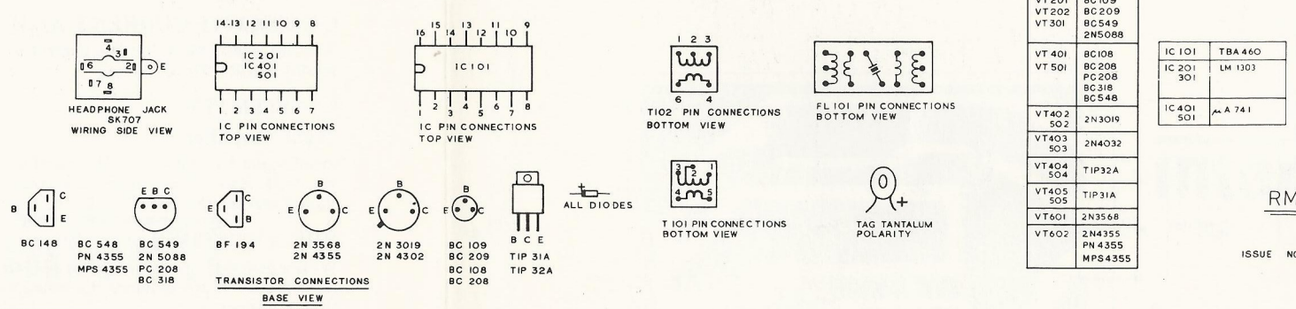






COMPONENT NUMBERING	
100	TUNER
200	RH PRE AMP
300	LH PRE AMP
400	RH POWER AMP
500	LH POWER AMP
600	POWER SUPPLY
700	SPEAKER SWITCHING





VT 101	BF 194
VT 201 VT 202 VT 301	BC 109 BC 209 BC 549 2N5088
VT 401 VT 501	BC 108 BC 208 PC 208 BC 318 BC 548
VT 402 502	2N 3019
VT 403 503	2N 4032
VT 404 504	TIP 32A
VT 405 505	TIP 31A
VT 601	2N 3568
VT 602	2N 4355 PN 4355 MPS 4355

IC 101	TBA 460
IC 201 301	LM 1303
IC 401 501	μA 741

(+12v) VOLTAGES SHOWN THUS ARE MEASURED WITH RESPECT TO THE ZERO VOLT EARTH RAIL USING A 20 000 Ω/V METER WITH NO SIGNAL INPUT

ALL RESISTORS $\frac{1}{4}$ OR $\frac{1}{2}$ W. 5% UNLESS OTHERWISE STATED.

RM-2 SERIES

ISSUE NO 4. DATE 5-4-74 PART NO 365092

DRN JCW CKD [illegible] DATE 10-5-74