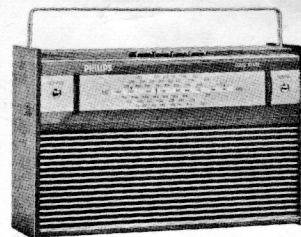




PHILIPS Service



23 RL 475

PHILIPS ELECTRICAL INDUSTRIES OF NEW ZEALAND LIMITED

HEAD OFFICE: 181-195 WAKEFIELD STREET, WELLINGTON. G.P.O. BOX 2097. PHONE 57-250.
AUCKLAND BRANCH: 5-7 HARGREAVES STREET, AUCKLAND. P.O. BOX 5124. PHONE 34-410.
CHRISTCHURCH BRANCH: 77 FERRY ROAD, CHRISTCHURCH. P.O. BOX 1488. PHONE 65-244.

GENERAL

Power Supply

9 v. Philips Power Pack ER4304 or Eveready 765 Battery.

Speaker

6" Elliptical, 8 ohms, 6 watts

Controls

Four pushbuttons off, on, treble, bass
Tuning and volume knobs.

Circuitry using 7 transistor, 3 diodes.

- (1) The speaker impedance is 8 ohms.
- (2) With volume control minimum the total current consumption of the set with 9 volt supply at an ambient temperature of 20°C should be between 12 and 16 M/a.
- (3) To adjust the collector current of the output transistors, proceed as follows:-
 - (a) Turn Volume Control down to minimum.
 - (b) Turn trimpot R23 to the right against stop.
 - (c) Insert meter (range 10Ma) in collector-line of TR 6 at point X on circuit.
 - (d) Adjust collector current of TR 7 (AC 128) at a battery voltage of 9 volt by means of trimpot R23 to 3 Ma at an ambient temperature of 20°C. This adjustment should not be normally necessary unless the transistors have been replaced.
- (4) For the position of trimmers and coils see the trimmer location diagrams.

ALIGNMENT INSTRUCTIONS

Turn tuning condenser to minimum capacity (higher frequency) and the volume control to maximum. Keep the audio output level constant at approximately 50 Mw during alignment operations.

Screw out all cores of I.F. transformers except L15-L16 and L7-L8.

Trimming Frequency	Connect Signal Generator	Adjust for Max. Output
455 Kc Modulated 30%	Via 33K pfd to base TR 2	Cores L15-L16, L11-12, & L13-14.
455 Kc Modulated 30%	Via 33K pfd to base TR 1	Cores L7-8 and L9-10.

R.F. CIRCUIT ALIGNMENT

The local oscillator is at a higher frequency than the signal frequency.

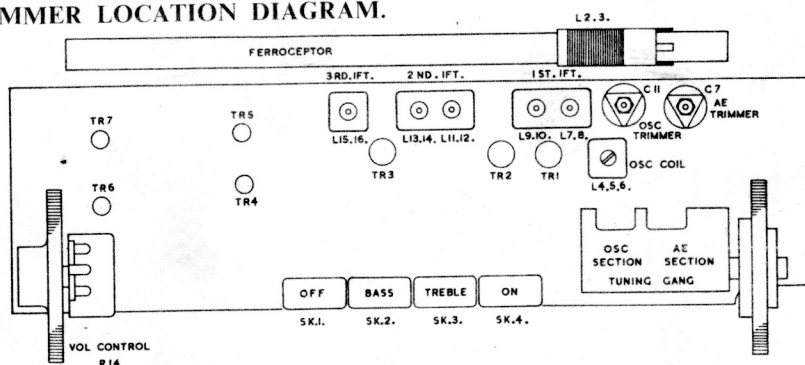
Coverage = 512 to 1635 Kc.

Connect signal generator via Standard Dummy aerial to the aerial socket of receiver.

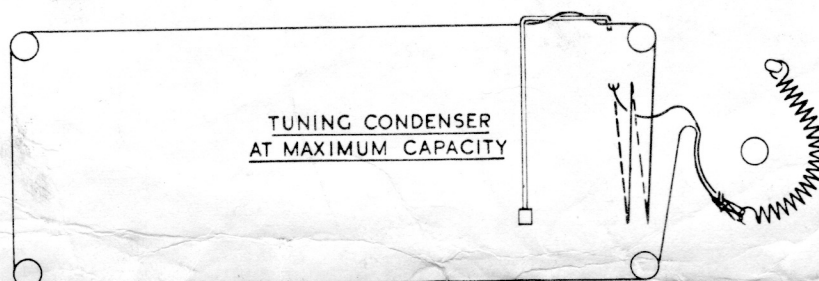
Trimming Frequency	Gang Position	Trim for Max. Output
512 Kc Modulated 30%	Fully closed. Maximum capacity	L4-6 oscillator core L2-3 aerial coil on rod
1635 Kc Modulated 30%	Fully open. Minimum capacity	L11 oscillator trimmer C7 aerial trimmer

Repeat the RF Alignment once more as above.

TRIMMER LOCATION DIAGRAM.

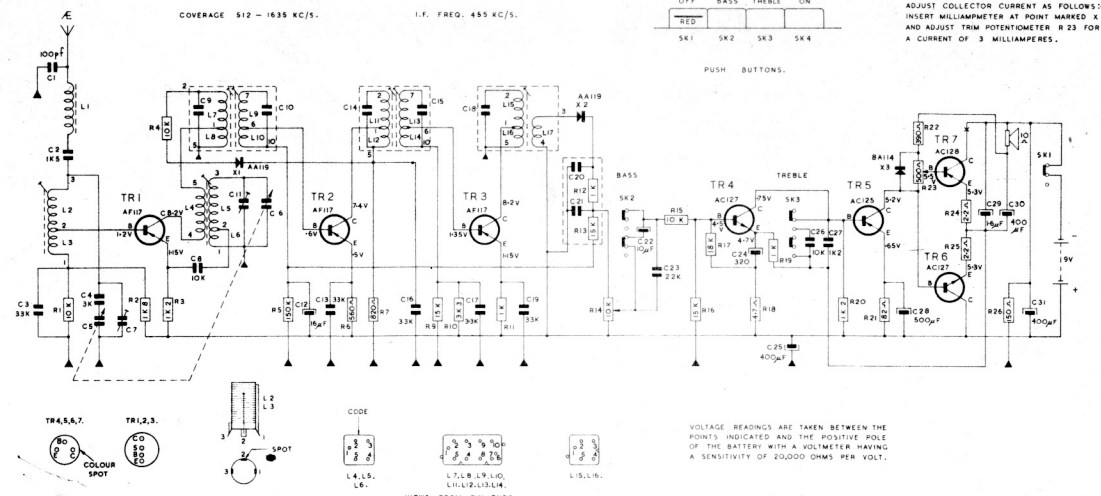


DRIVE CORD ASSY.

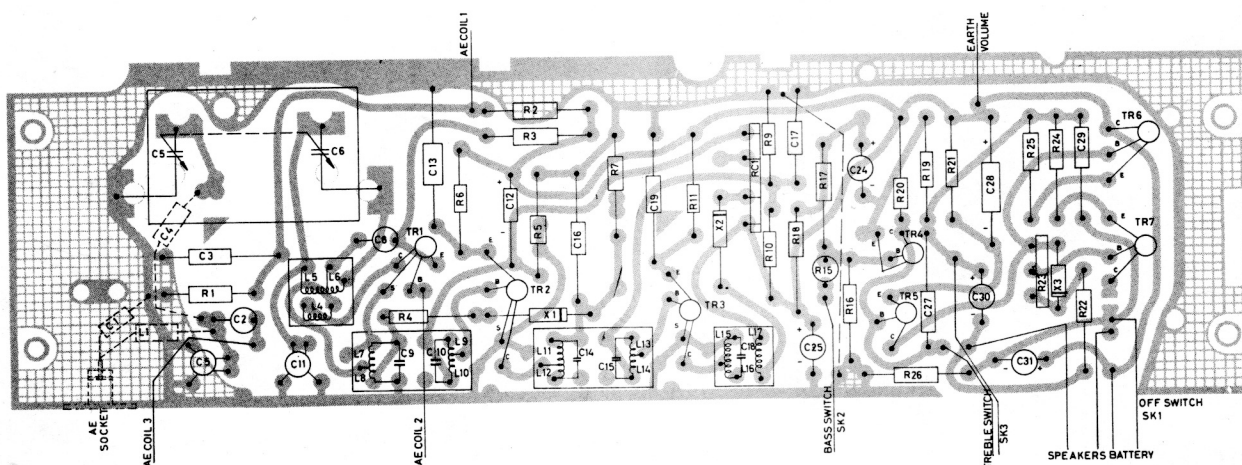


L	2,3,1,		4,5,6,7,8,9,10,			11,12,13,14,			15,16,17,								
C	3,1,2,	4,5,7,	8,9,	11,10,6,	12,13,	14,	16,15,	17,18,	19,	20,21,	22,23,	24,	25,26,27,	28,	29,30,	31,	
R	1,	2,3,4,	5,	6,	7,	8,	9,10,	11,	12,13,14,	15,	16,17,	18,19,	20,	21,	22,23,	24,25,	26,

CIRCUIT DIAG.



BOTTOM VIEW P. BOARD



PARTS LIST.

Cabinet	3123 108 80830
Front Grille	3123 101 60120
Rear Grille	3123 104 00490
Dial Scale	3123 105 00270
Speaker 8 ohms	2423 255 80104
P.B. Switch	3122 108 43170
Knob Tuning	3123 104 00510
Knob Volume	3123 104 00520
Handle	3123 108 10140
Dial Scale Stud	3123 100 40030
Aerial Plug	4823 264 18027
Dial Pointer	3123 101 00050

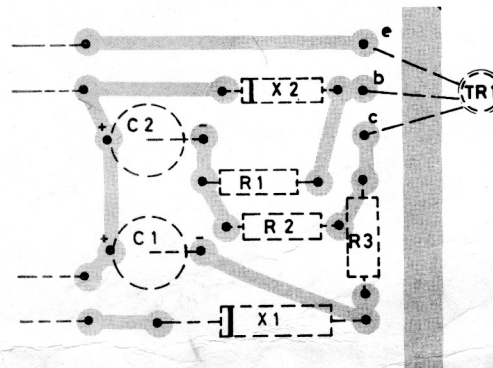
Back Screw	B037AF/3 x 10
Feet	3123 104 01280
Choke Coil	A3.986.92
Aerial	EN.470.04
Aerial Rod	56.681.23/4B
Oscillator	3123 108 20040
1st I.F.	3122 108 23160
2nd I.F.	3122 108 23160
3rd I.F.	3122 108 23150
Tuning Gang	4822 125 20004
Vol. Control	E098CG/00B29

Transistors and Diodes

TR1	AF117
TR2	AF117
TR3	AF117
TR4	AC127
TR5	AC125

TR6 AC127	) Matched Pair
TR7 AC128	
X1 AA119	
X2 AA119	
X3 BA114	

BOTTOM VIEW PRINT BOARD LAYOUT



CIRCUIT DIAGRAM ER 4304 POWER SUPPLY.

