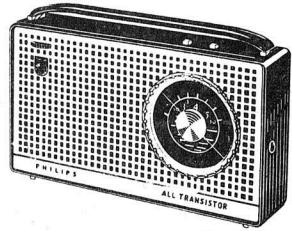


PHILIPS *Service*

NOTES

PERSONIC - L3Z90T



LOUD SPEAKER	WAVE RANGE	BATTERY	TRANSISTORS
AD3414Z/S.D.1.	517-1620 K/CS	3x 950 CELLS 4.5 volts.	HF - OC 44 TRI IF - OC 45 TR2 IF - OC 45 TR3 AF - OC 71 TR4 AF - OC 71 TR5
	CURRENT		
	11 - 14 M/A		

OUTPUT - 2 x OC72 ^{TR6}
TR7

DIODE - OA79 - x1

NOTE:

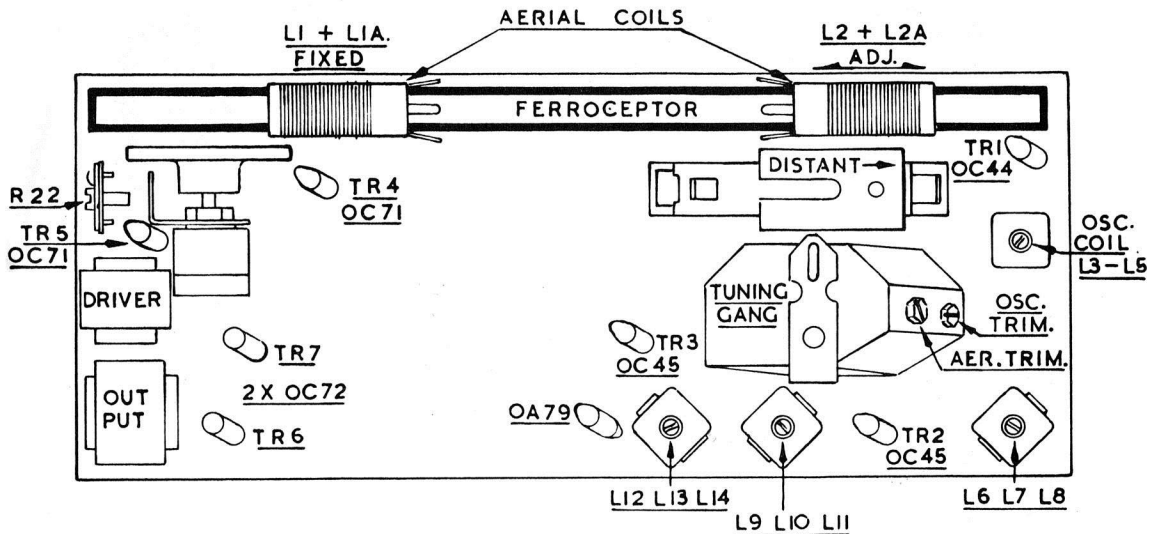
As an aid to tracing the circuitry of the printed board, both the circuit diagram and the printed board diagram have been numbered at various points. By referring to both diagrams and then to the printed board, identification can be simplified.

ALIGNMENT INSTRUCTIONS - See Trimmer Location Diagram.

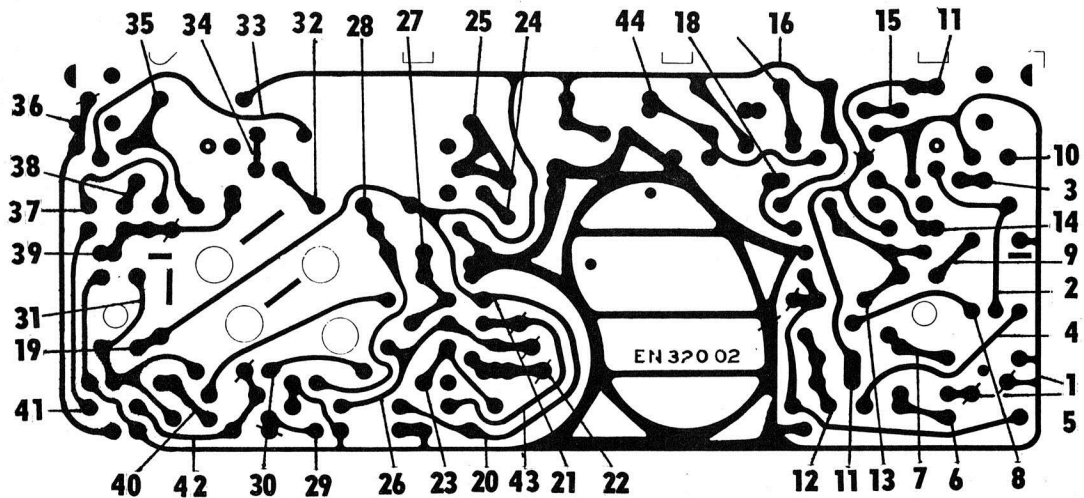
General:

- 1) The load impedance is 3 ohms across the secondary of the Output Transformer.
- 2) Adjustment of the Output Stage (2 x OC72) collector current. Turn volume control to minimum, connect meter (range 5 M/A) at point X on the circuit. This point is located on the printed board directly under the output transformer and is bridged by a tinned copper wire. With a battery voltage of 4.5 volts adjust R22 for a collector current of 3 M/A then replace tinned copper wire.
- 3) The total current consumption of the set with volume control at minimum and a battery voltage of 4.5 = 11 to 14 M/A.

Trimming Freq:	Connect Signal Generators:	Adjust cores or trimmers for Maximum Output:
-	-	Unscrew the adjusting cores of 1st and 2nd IF transformers then adjust
454KC	Via 33K pfd. condenser to collector TRI	1) L12 - 14
455KC	Via 33K pfd. condenser to collector TRI	2) L9 - 11
455KC	Via 33K pfd. in series with LOOK resistor to collector of TRI	3) L6 - 8 above procedure once only
512KC	Via loop aerial connected to signal Generator GANG CONDENSER CLOSED	Damp aerial circuit by placing shorted turn on aerial rod. OSCILLATOR CORE L3 - 5
1635KC	GANG CONDENSER OPEN	OSCILLATOR TRIMMER ON GANG COND.
600KC	<u>REPEAT ABOVE PROCEDURE THEN REMOVE DAMPING ON AERIAL</u>	
	Tune condenser to 600KC	Adjust aerial coil on Rod L2
1500KC	Tune condenser to 1500KC	Adjust aerial trimmer on gang condenser
	<u>REPEAT ABOVE PROCEDURE</u>	



MODEL L3Z 90T
 TRIMMER, INDUCTANCE & TRANSISTOR LOCATION.



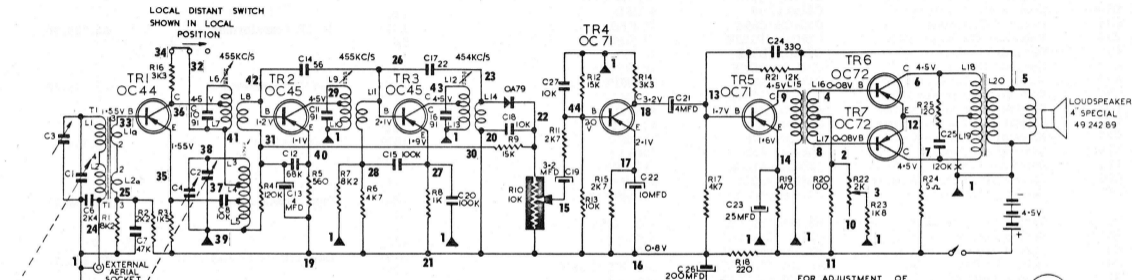
UNDER BASE VIEW

PARTS LIST

C1)							
C2)							
C3)	Tuning Condenser	49.002, 42		L1)	Rod Aerial Assy		EN 470.00
C4)				L2)			
C6	Styfoflex Condenser 125v	C285AB/2K4	2400 PFD	L3)			
C7	Polyester Condenser 125v	C280AA/P47K	47,000 PFD	L4)	Oscillator Coil		A3, 129.68
C8	Ceramic Condenser	C322BA/H10K	10,000 PFD	L5)			
C12	Polyester Condenser 125v	C296AA/A68K	68,000 PFD				
C13	Electrolytic Condenser 64v	C425AL/H4	4 MFD	L6)			
C14	Ceramic Condenser	C304GH/C56E	56 PFD	L7)	1st IF Transformer		A3.129.60
C15	Polyester Condenser 125v	C280AA/P100K	.1 MFD	L8)			
C17	Ceramic Condenser	C304GB/B22E	22 PFD				
C18	Ceramic Condenser	C322 BA/H10K	10,000 PFD	L9)			
C19	Electrolytic Condenser 40v	C426AM/G3.2	3.2 MFD	L10)	2nd IF Transformer		A3.129.60
C20	Polyester Condenser 125v	C280AA/P100K	.1 MFD	L11)			
C21	Electrolytic Condenser 64v	C425AL/H4	4 MFD				
C22	Electrolytic Condenser 16v	C426AM/E10	10 MFD	L12)			
C23	Electrolytic Condenser 10v	C425AL/D25	25 MFD	L13)	Detector coil		A3.129.61
C24	Ceramic Condenser	C322BC/P33OE	330PFD	L14)			
C25	Polyester Condenser 125v	C296AA/A120K	.12 PFD				
C26	Electrolytic Condenser 6.4v	C426AM/E200	200 MFD	L15)			
C27	Ceramic Condenser	C322 BA/H10K	10,000 PFD	L16)	Input Transformer		A3.162.17
				L17)			
R1	Carbon Resistor .25W	B8.305.05B/8K2	8200 ohms				
R2	Carbon Resistor .25W	B8.305.05B/2K2	2200 ohms	L18)			
R3	Carbon Resistor .25W	B8.305.05B/1K5	1500 ohms	L19)	Output Transformer		A3.154.17
R4	Carbon Resistor .25W	B8.305.05B/120K	120,000 ohms	L20)			
R5	Carbon Resistor .25W	B8.305.05B/56OE	560 ohms				
R6	Carbon Resistor .25W	B8.305.05B/4K7	4,700 ohms		Back Cover		P5.450.23/159
R7	Carbon Resistor .25W	" 8K2	8200 ohms		Battery Container		A3.348.35... Yellow
R8	Carbon Resistor .25W	" 1K	1,000 ohms		" "		A3.348.32... Orange
R9	Carbon Resistor .25W	" 15K	15,000 ohms		Push Buttons		P4.382.37/417
R10	Volume Control W/Switch	B1.514.85	10,000 ohms		Dial Scale		EN 852.88
R11	Carbon Resistor .25W	B8.305.05B/2K7	2,700 ohms		Knob Assy (Dial)		A3.783.66
R12	" .25W	" 15K	15,000 ohms		Dial Screw		A3.715.17
R13	" .25W	" 10K	10,000 ohms		PANEL Assy		A3.356.27 NZ
R14	" .25W	" 3K3	3,300 ohms		Volume Control (Knob		A3.784.39
R15	" .25W	" 2K7	2,700 ohms		(Grubscrew		B061DD/3x4
R16	" .25W	" 3K3	3,300 ohms		Local Distant (Switch		A3.792.21
R17	" .25W	" 4K7	4,700 ohms		(Bracket		A3.935.29
R18	" .25W	" 22OE	220 ohms				
R19	" .25W	" 47OE	470 ohms		Back Screws		A3.715.15
R20	" .25W	" 100E	100 ohms		Carrying Handle		A3.789.03 NZ
R21	" .25W	" 12K	12,000 ohms				
R22	Pre set adjustable Pot	EO97AC/2K	2,000 ohms				
R23	Carbon Resistor .25W	B8.305.05B/1K3	1,800 ohms				
R24	" .25W	" 5E	5ohms *				
R25	" .25W	" 120E	120 ohms				

* R24 Consists of two 10 ohm resistors in parallel.

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



ALL VOLTAGES ARE MEASURED, WITH A MULTIMETER HAVING A SENSITIVITY OF 20,000 OHMS PER VOLT, BETWEEN POINTS INDICATED AND THE POSITIVE POLE OF THE BATTERY.

FOR ADJUSTMENT OF COLLECTOR CURRENT TR6 & TR7 INSERT MILLIAMMETER 0-10MA. AT POINT X & ADJUST R22 FOR A CURRENT OF 3MA. WITH NO SIGNAL INPUT

MODEL L3Z90T