

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:

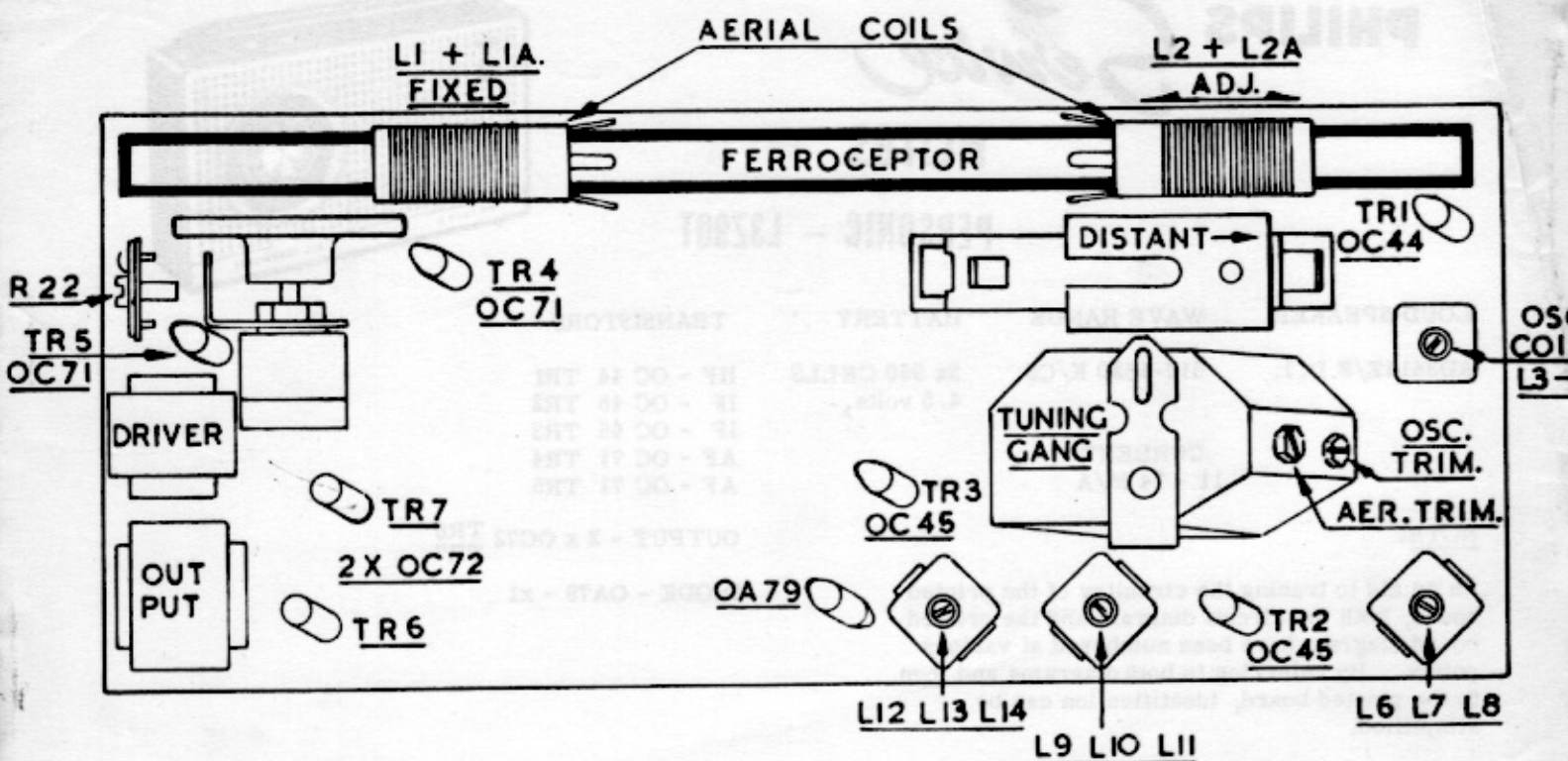
As an aid to tracing the circuitry of the printed board, both the circuit diagram and the printed board diagram have been numbered at various points. By referring to both diagrams and then to the printed board, identification can be simplified.

ALIGNMENT INSTRUCTIONS - See Trimmer Location Diagram.

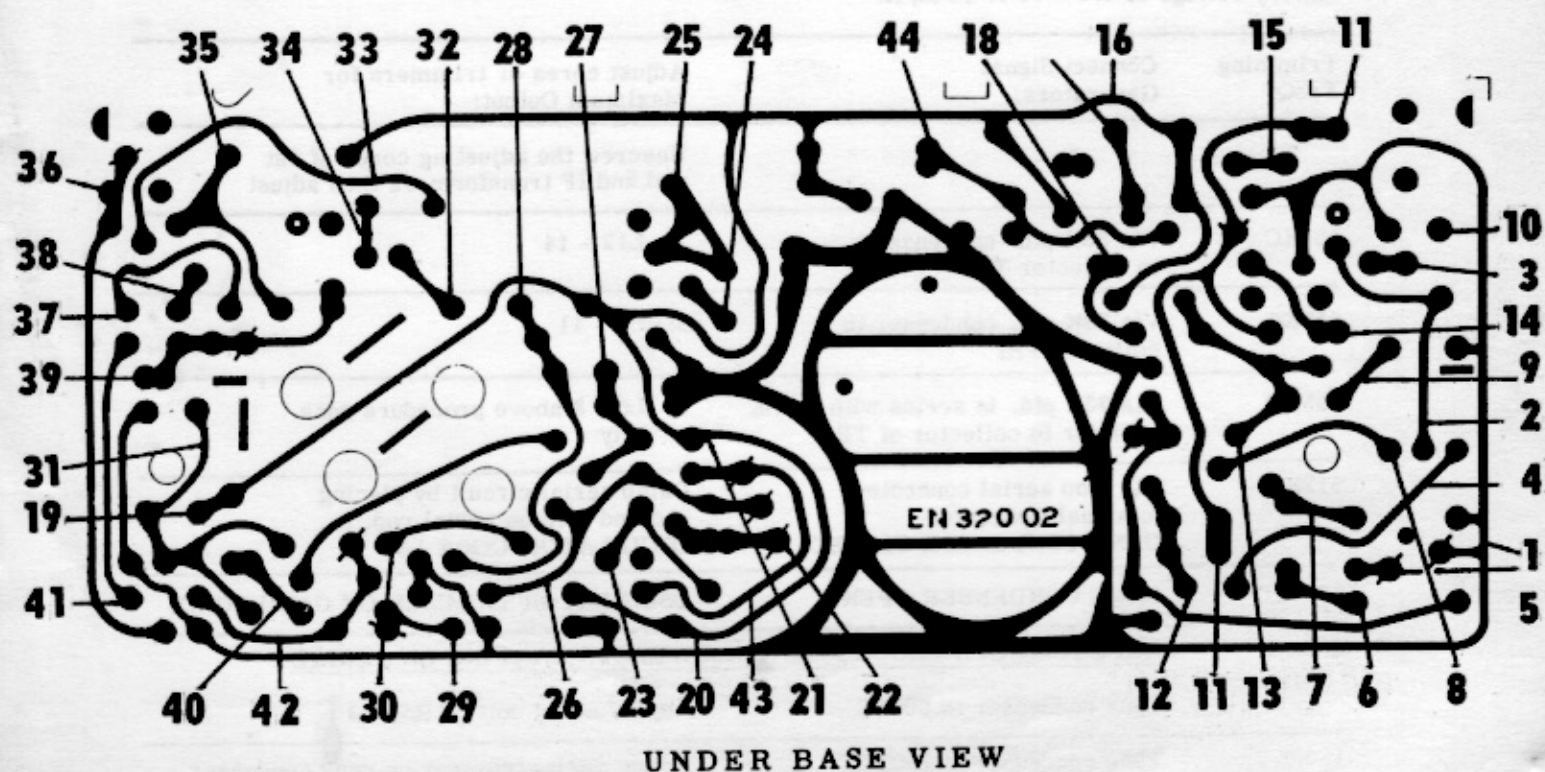
General:

- 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.

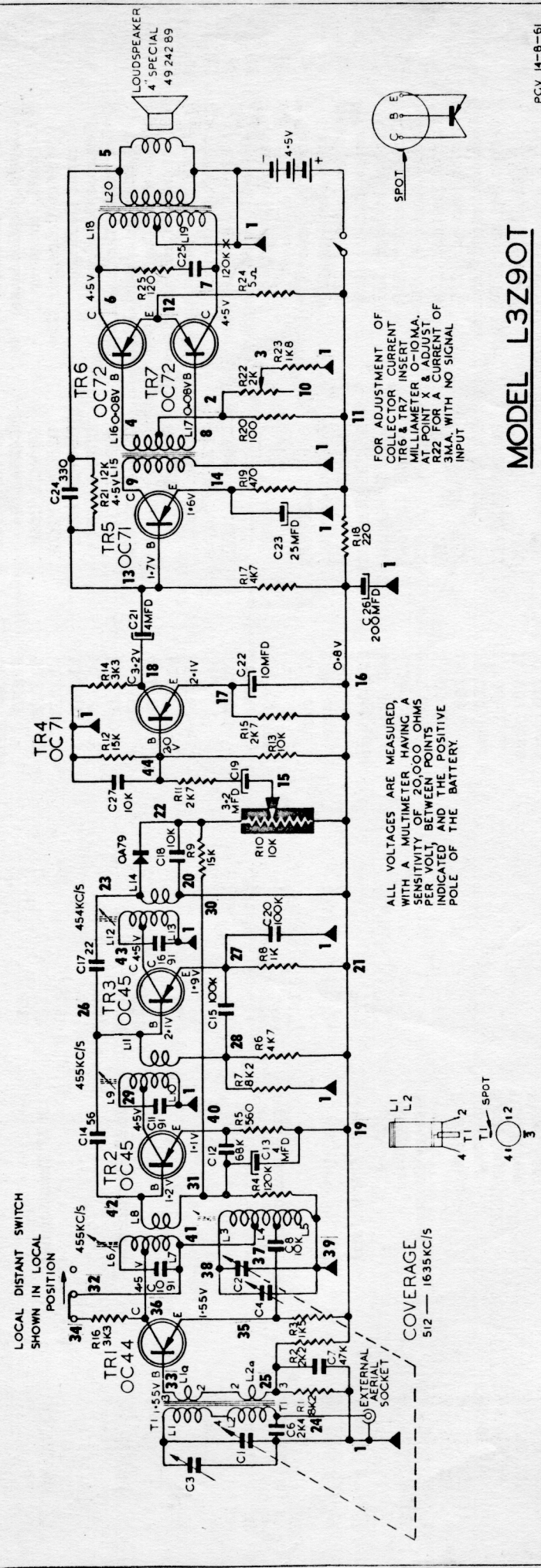
Trimming FreQ:	Connect Signal Generators:	Adjust cores or trimmers for Maximum Output:
-	-	Unscrew the adjusting cores of 1st and 2nd IF transformers then adjust
454KC	Via 33K pfd. condenser to collector TRI	1) L12 - 14
455KC	Via 33K pfd. condenser to collector TRI	2) L9 - 11
455KC	Via 33K pfd. in series with LOOK resistor to collector of TRI	3) L6 - 8 above procedure once only
512KC	Via loop aerial connected to signal Generator GAND 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	REPEAT ABOVE PROCEDURE THEN REMOVE DAMPING ON AERIAL	
	Tune condenser to 600KC	Adjust aerial coil on Rod L2
1500KC	Tune condenser to 1500KC	Adjust aerial trimmer on gang condenser
REPEAT ABOVE PROCEDURE		



MODEL L3Z 90T
TRIMMER, INDUCTANCE & TRANSISTOR LOCATION.



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



FOR ADJUSTMENT OF
COLLECTOR CURRENT
TR6 & TR7 INSERT
MILLIAMETER 0-10MA.
R22 POINT X & ADJUST
R23 FOR A CURRENT OF
3MA. WITH NO SIGNAL
INPUT

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

PARTS LIST

	Tuning Condenser	49.002.42		L1) L2)	Rod Aerial Assy	EN 470.00
C6	Styroflex 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	L6)		
C13	Electrolytic Condenser 64v	C425AL/H4	4 MFD	L7)	1st IF Transformer	A3.129.60
C14	Ceramic Condenser	C304GH/C56E	56 PFD	L8)		
C15	Polyester Condenser 125v	C280AA/P100K	.1 MFD	L9)		
C17	Ceramic Condenser	C304GB/B22E	22 PFD	L10)	2nd IF Transformer	A3.129.60
C18	Ceramic Condenser	C322 BA/H10K	10,000 PFD	L11)		
C19	Electrolytic Condenser 40v	C426AM/G3.2	3.2 MFD	L12)		
C20	Polyester Condenser 125v	C280AA/P100K	.1 MFD	L13)	Detector coil	A3.129.61
C21	Electrolytic Condenser 64v	C425AL/H4	4 MFD	L14)		
C22	Electrolytic Condenser 16v	C426AM/E10	10 MFD	L15)		
C23	Electrolytic Condenser 10v	C425AL/D25	25 MFD	L16)	Input Transformer	A3.162.17
C24	Ceramic Condenser	C322BC/P33OE	33OPFD	L17)		
C25	Polyester Condenser 125v	C296AA/A120K	.12 PFD	L18)		
C26	Electrolytic Condenser 6.4v	C426AM/E200	200 MFD	L19)	Output Transformer	A3.154.17
C27	Ceramic Condenser	C322 BA/H10K	10,000 PFD	L20)		
R1	Carbon Resistor .25W	B8.305.05B/8K2	8200 ohms		Back Cover	P5.450.23/159
R2	Carbon Resistor .25W	B8.305.05B/2K2	2200 ohms		Battery Contalner	A3.348.35... Yellow
R3	Carbon Resistor .25W	B8.305.05B/1K5	1500 ohms		"	A3.348.32... Orange
R4	Carbon Resistor .25W	B8.305.05B/120K	120,000 ohms		Push Buttons	P4.382.37/417
R5	Carbon Resistor .25W	B8.305.05B/56OE	560 ohms		Dial Scale	EN 852.88
R6	Carbon Resistor .25W	B8.305.05B/4K7	4,700 ohms		Knob Assy (Dial)	A3.783.66
R7	Carbon Resistor .25W	" 8K2	8200 ohms		Dial Screw	A3.715.17
R8	Carbon Resistor .25W	" 1K	1,000 ohms		Panel Assy	A3.356.27 NZ
R9	Carbon Resistor .25W	" 15K	15,000 ohms		Volume Control (Knob	A3.784.39
R10	Volume Control W/Switch	B1.514.85	10,000 ohms		(Grubscrew	B061DD/3x4
R11	Carbon Resistor .25W	B8.305.05B/2K7	2,700 ohms		Local Distant (Switch	A3.792.21
R12	" .25W	" 15K	15,000 ohms		(Bracket	A3.935.29
R13	" .25W	" 10K	10,000 ohms			
R14	" .25W	" 3K3	3,300 ohms		Back Screws	A3.715.15
R15	" .25W	" 2K7	2,700 ohms		Carrying Handle	A3.789.03 NZ
R16	" .25W	" 3K3	3,300 ohms			
R17	" .25W	" 4K7	4,700 ohms			
R18	" .25W	" 22OE	220 ohms			
R19	" .25W	" 47OE	470 ohms			
R20	" .25W	" 100E	100 ohms			
R21	" .25W	" 12K	12,000 ohms			
R22	Pre set adjustable Pot	E097AC/2K	2,000 ohms			
R23	Carbon Resistor .25W	B8.305.05B/1K8	1,800 ohms			
R24	" .25W	" 5E	5ohms *			
R25	" .25W	" 12OE	120 ohms			

* R24 Consists of two 10 ohm resistors in parallel.