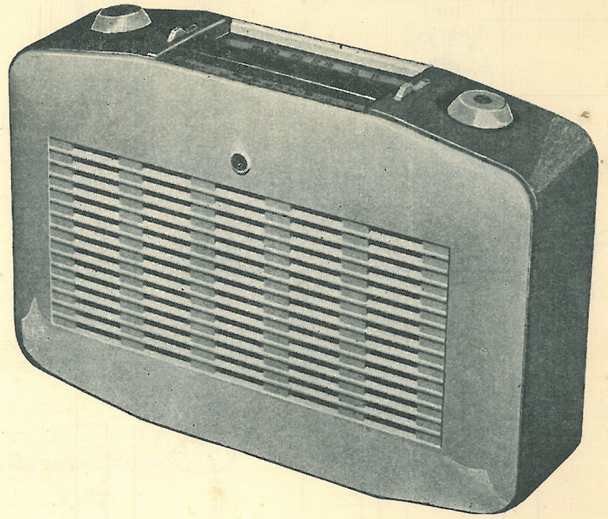
SERVICE SHEET FOR

model PZ65MBQ

FOR OPERATION OFF
230 VOLT A.C. MAINS
BATTERIES



CIRCUIT ANALYSIS

Batteries : H.T. = 90 volts. L.T. = 9·0 volts Current Consumption : H.T. = 14·5mA. L.T. = 50 mA.								
						Osc.		
Valve	Mullard	Ea	Ia	Es	Is	Ea	Ia	Ik
V7 R.F. Amplifier	DF91	53	1·9	53	0·7	—	—	2·6
V1 Frequency Changer	DK92	53	0·45	53	0·11	38	1·4	1·96
V2 I.F. Amplifier	DF91	53	1·0	53	0·4	—	—	1·4
V3 Det. and A.F. Amp.	DAF91	24·5	50μA	21	10μA	—	—	0·06
V4 Output	DL94	87	5·5	90	1·02	—	—	6·52
A.C. Mains 230 volts. Consumption 32·5 Watts. Output 2 Watts.								
						Osc.		
Valve	Mullard	Ea	Ia	Es	Is	Ea	Ia	Ik
V7 R.F. Amplifier	DF91	49	1·75	49	0·63	—	—	2·38
V1 Frequency Changer	DK92	49	0·35	49	0·09	35·5	1·25	2·69
V2 I.F. Amplifier	DF91	49	0·85	49	0·35	—	—	1·2
V3 Det. and A.F. Amp.	DAF91	34	175μA	36	32μA	—	—	207μA
V5 Output	UL41	204	52	—	—	—	—	—
V6 Rectifier	EZ40	Anode to Anode 490 v. AC. Vk 250 v. D.C.						52·5
NOTE : Above readings taken on Avometer Model 8 instrument.								

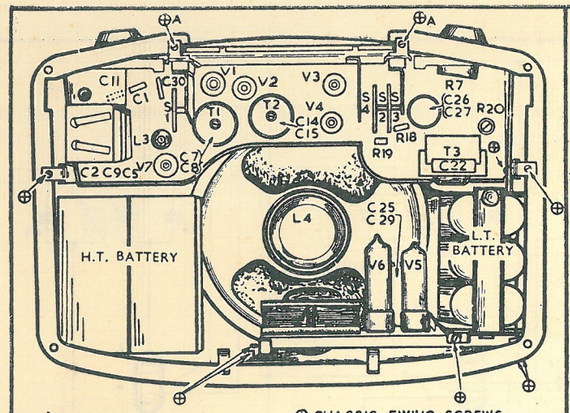
TRIMMING PROCEDURE

Apply signal as below :	Set receiver controls to :	With volume control at maximum adjust in order stated for output of approx. 50 mW. Progressively reduce input as trimming proceeds.
(1) 470 kc/s via a 0·1μF condenser between control grid of V2 and chassis.	Gang condenser fully meshed.	Iron dust cores of I.F. Transformer T2.
(2) As (1) between control grid of V1 and chassis.	As (1)	Iron dust cores of I.F. Transformer T1. Do NOT reajust T2.
(3) As (2) but 600 kc/s. between control grid of V7 and chassis.	600 kc/s.	Padding condenser C11. Iron dust core of L2.
(4) As (3) but 1500 kc/s.	1500 kc/s.	Trimmer C10 and then Trimmer C6.
(5) As (2) but 900 kc/s.	900 kc/s.	Iron dust core of L3.
(6) Repeat (3), (4) and (5) until calibration is correct.		
(7) 1500 kc/s by allowing signal generator output lead to lie near frame aerial.	1500 kc/s.	Trimmer C1.

NOTE : Operations 1 & 2 must be carried out on the chassis removed from the cabinet. The remainder can be carried out with it in the cabinet. For operations 3, 4 & 5 the back of the receiver must be open and the input connected to the bottom spring contact on top of gang condenser. The back of the receiver must be properly closed for operation 7.

PYE (NEW ZEALAND) LIMITED - P.O. BOX 2839, AUCKLAND - NEW ZEALAND

PZ65MBQ



⊕ CHASSIS FIXING SCREWS

L1 FRAME AERIAL NOT ILLUSTRATED, SITUATED ON BACK COVER.

FIG. 1

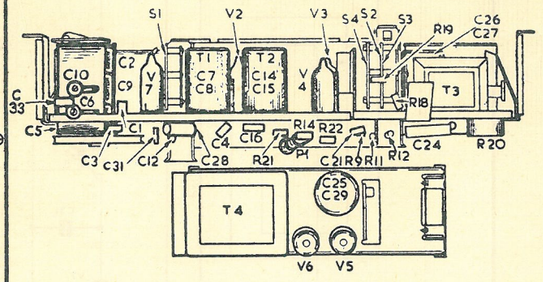
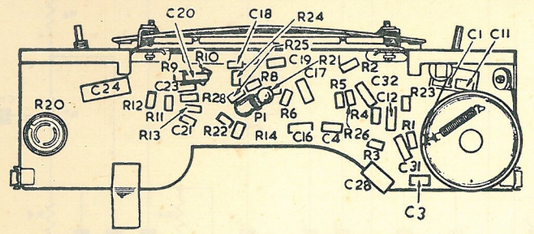


FIG. 2



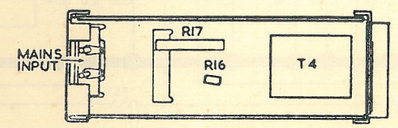


FIG. 3

VALVE BASE CONNECTIONS

	1	2	3	4	5	6	7	8
V1	F−	A	G2	G1	G4	G3	F+ G5	—
V2 & V7	F− G3	A	SG	—	F− G3	G	F+	—
V3	F− G3	—	AD	SG	A.	G	F+	—
V4	F−	A	SG	—	FCT G3	G	F+	—
V5	H	A	K G3	—	G2	G	K G3	H
V6	H	A1	—	—	—	A2	K	H

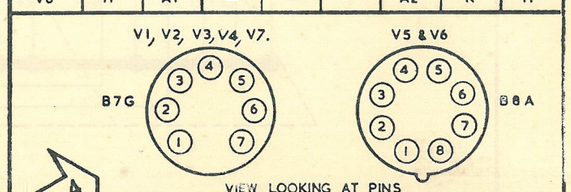


FIG. 4

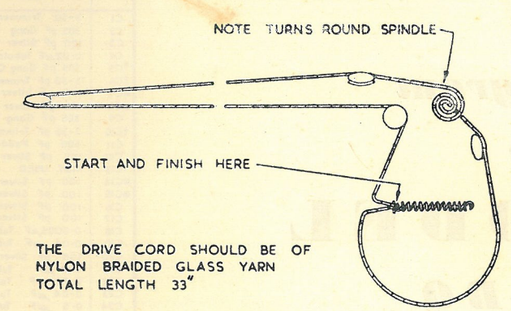


FIG. 5

Notes

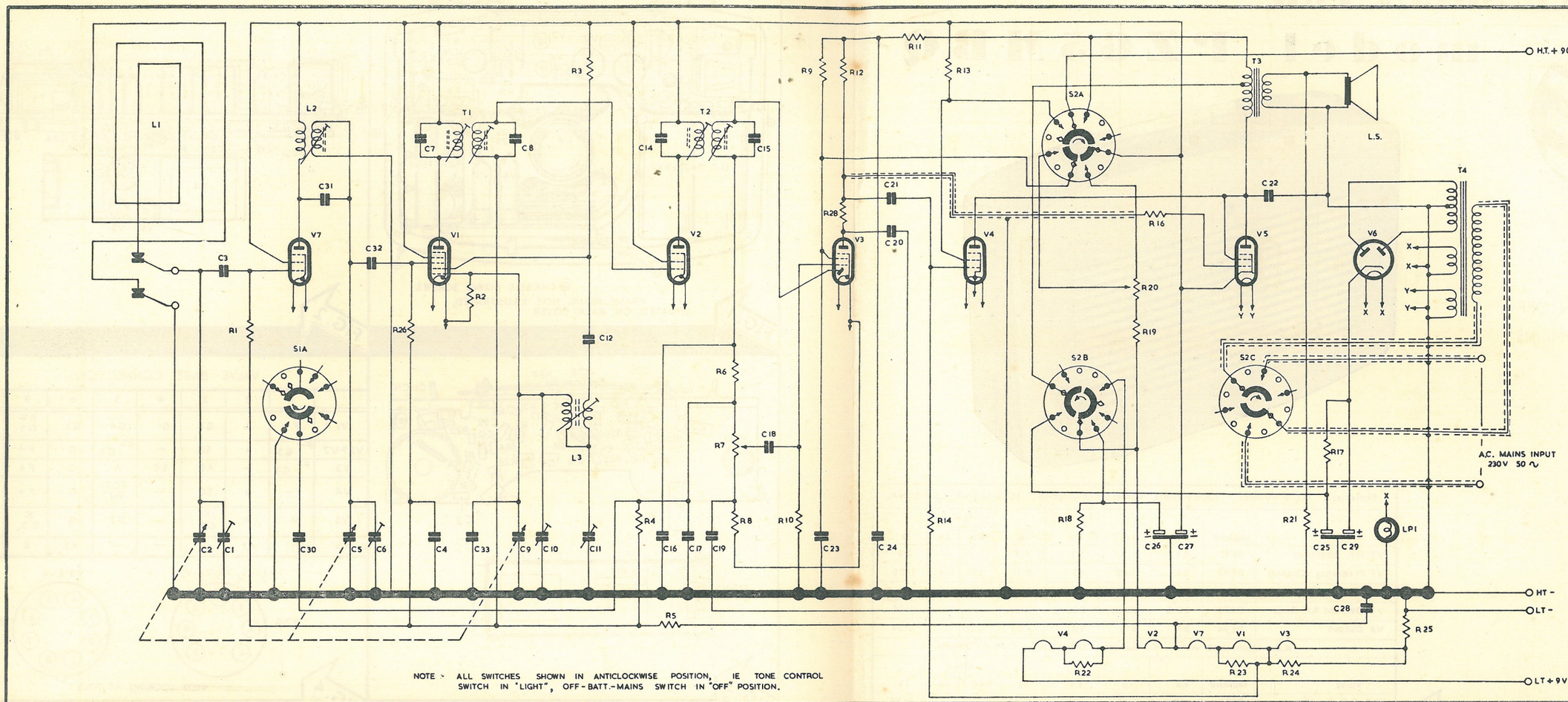
1 Remove back of receiver by turning the slotted button (top centre of back) in an anti-clockwise direction.
2 Disconnect H.T. Batteries.
3 Pull off knobs.
4 Remove all chassis fixing screws including the ones fastening the L.T battery box.
5 Remove L.T battery box and unclip the positive L.T lead.
6 Lift and hold carrying handle, insert screwdriver between outer and inner lugs "A" at either side of dial scale opening (see Fig. 1) and slide outwards to their fullest extent of approx. ¾ inch.
7 Still holding carrying handle lower main chassis for approximately 1 inch and lift out of cabinet.
8 The power supply chassis may also be removed from cabinet.

NOTE: The speaker leads and cable from connecting power supply and main chassis are made long enough for normal service requirements but care should be taken not to snatch the leads.

BATTERY REPLACEMENT: The H.T. batteries should be replaced by 2 Ever-Ready No. 482 45V batteries.

The L.T batteries should be replaced by 3 Ever-Ready No. 701 cycle lamp batteries.

NOTE: To remove L.T batteries unscrew knurled nut and remove clamping strip. The old batteries can now be withdrawn. Care should be taken to see that new batteries are placed with their contacts in correct position. On replacement of either V3 or V5 the potentiometer R20 should be readjusted to give the following voltage at junction of R19 and V2 filament:
5.6V With Mains Input 220V; 5.8V With Mains Input 230V
5.95V With Mains Input 240V



NOTE :- ALL SWITCHES SHOWN IN ANTICLOCKWISE POSITION, IE TONE CONTROL SWITCH IN "LIGHT", OFF-BATT.-MAINS SWITCH IN "OFF" POSITION.

circuit diagram of the

PYE MODEL

PZ65MBQ

CONDENSERS

	Specification	Volts		Fig.	No.
C1	3–50 Trimmer			1,2&3	
C2	385 pF Gang Condenser			1&2	800221
C3	100 pF Silver Mica		2%	2&3	664101
C4	0·02μF Tubular	150		2&3	
C5	385 pF Gang Condenser			1&2	800221
†C6	3–30 pF Trimmer			2	800221
*C7	100 pF Silver Mica		2%	1&2	666776
*C8	100 pF Silver Mica		2%	1&2	666776
C9	385 pF Gang Condenser			1&2	800221
†C10	3–30 pF Trimmer			2	800221
C11	600 pF Padder		TPBD	1&3	
C12	100 pF Silver Mica		2%	2&3	664101
C13	NOT USED				
*C14	100 pF Silver Mica		2%	1&2	666776
*C15	100 pF Silver Mica		2%	1&2	666776
C16	100 pF Silver Mica		2%	2&3	664101
C17	100 pF Silver Mica		2%	3	664101
C18	0·0005μF Tubular	600		3	669089
C19	0·04 μF Tubular	150		3	669106
C20	100 pF Silver Mica		2%	3	664101
C21	0·01 μF Tubular	150		2&3	669082
C22	0·005μF Tubular	1000		1	668571
C23	0·04 μF Tubular	150		3	669106
C24	0·5 μF Tubular	150		2&3	669103
C25	32 μF Electrolytic	350		1&2	667504
C26	100μF Electrolytic	50		1&2	667525
C27	100μF Electrolytic	50		1&2	667525
C28	0·25μF Tubular	150		2&3	668723
C29	32 μF Electrolytic	350		1&2	667504
C30	560 pF Silver Mica		2%	1	664273
C31	10 pF Silver Mica		2%	2&3	
C32	100 pF Silver Mica		2%	3	664101
C33	15 pF Silver Mica		5%	2	664713

RESISTORS

	Ohms	Watts	Fig.		No.
R1	1·2 meg	¼	3	20%	671771
R2	47 000	¼	3	20%	671618
R3	10 000	¼	3	20%	671614
R4	4·7 meg	¼	3	20%	671630
R5	3·3 meg	¼	3	20%	671629
R6	100 000	¼	3	20%	671620
R7	1·0 meg Volume Control		1		810246
R8	820	½	3	10 %	670517
R9	6·8 meg	¼	2&3	20 %	671631
R10	2·2 meg	¼	3	20 %	671628
R11	150 000	½	2&3	20 %	671621
R12	1·2 meg	¼	2&3	10 %	671771
R13	4 700	½	3	20 %	671612
R14	1·2 meg	¼	2&3	10%	671771
R15	NOT USED				
R16	100 000	¼	3	20 %	671620
R17	680	6	3	5 %	671940
R18	680	½	1&2	10 %	671732
R19	390	2	1&2	5 %	672175
R20	500 potentiometer	2	1,2&3		810261
R21	22 000	½	2&3	20 %	671616
R22	390	½	3	10 %	671729
R23	1000	½	3	10 %	671734
R24	560	½	3	10 %	671731
R25	10	½	3	10 %	671710
R26	1·2 meg	½	3	10 %	671771
R27	NOT USED				
R28	47 000	½	3	20 %	671618

† Part of Gang Condenser

* Integral part of I.F. Transformer

INDUCTANCES

	Specification	Ref.	Fig.	No.
L1	Frame Aerial			078009
L2	M.W. R.F. Coil			1716
L3	M.W. Osc. Coil		1	781189
L.S.	Loudspeaker	JBKO	1	850090

TRANSFORMERS

	Specification		Ref.	Fig.	No.
T1	1ST I.F. Trans.	Prim. Res. 11 Ω Sec. Res. 11 Ω		1&2	770369
T2	2ND I.F. Trans.	Prim. Res. 11 Ω Sec. Res. 11 Ω		1&2	770369
T3	Output Trans.	Prim. Res 120 + 270 Ω Sec. Res. — Ω		1&2	770951
T4	Mains Trans.	Prim. Res. 67 Ω Sec. Res. 320 + 360 Ω		1,2&3	770950

SWITCHES, LAMPS, ETC.

	Specification	Ref.	Fig.	No.
S1	'Light'–'Mellow' Tone Switch		1&2	830402
S2	Off – Batt – Mains Switch		1&2	830403
LP1	Panel Lamp 6·5V 0·3A		2&3	700494