

model PL1

SPECIFICATIONS

Tuning range	520 - 1620 kc/s
Intermediate frequency	455 kc/s
Power supply - battery	type 2761 (9V)
Battery consumption	14 - 18 mA (no signal)
Dial lamps	type 8023N (6V, 0.18A bayonet)

ALIGNMENT

The various trimming point locations are shown in an inset drawing on the main circuit diagram drawing.

I.F. Alignment

Fully open the tuning capacitor, apply a 455 kc/s signal, via I.F. dummy, from the generator to TR2 base. Receiver volume control should be at maximum. Peak cores of I.F. transformers, in turn, in the position which is nearest to the printed board. Repeat the operation.

R.F. Alignment

Apply signal from generator, via I.F. dummy with $4,700\ \Omega$ $\frac{1}{2}$ W carbon resistor in series, to TR1 base. With tuning capacitor fully closed, set dial cursor at stop mark on dial scale.

Tune receiver to 600 kc/s (7ZL) and peak oscillator, R.F. and aerial coils.
Tune receiver to 1500 kc/s (3AK) and peak oscillator, R.F. and aerial trimmers.

Repeat above operation until tracking is correct.

CHASSIS REMOVAL

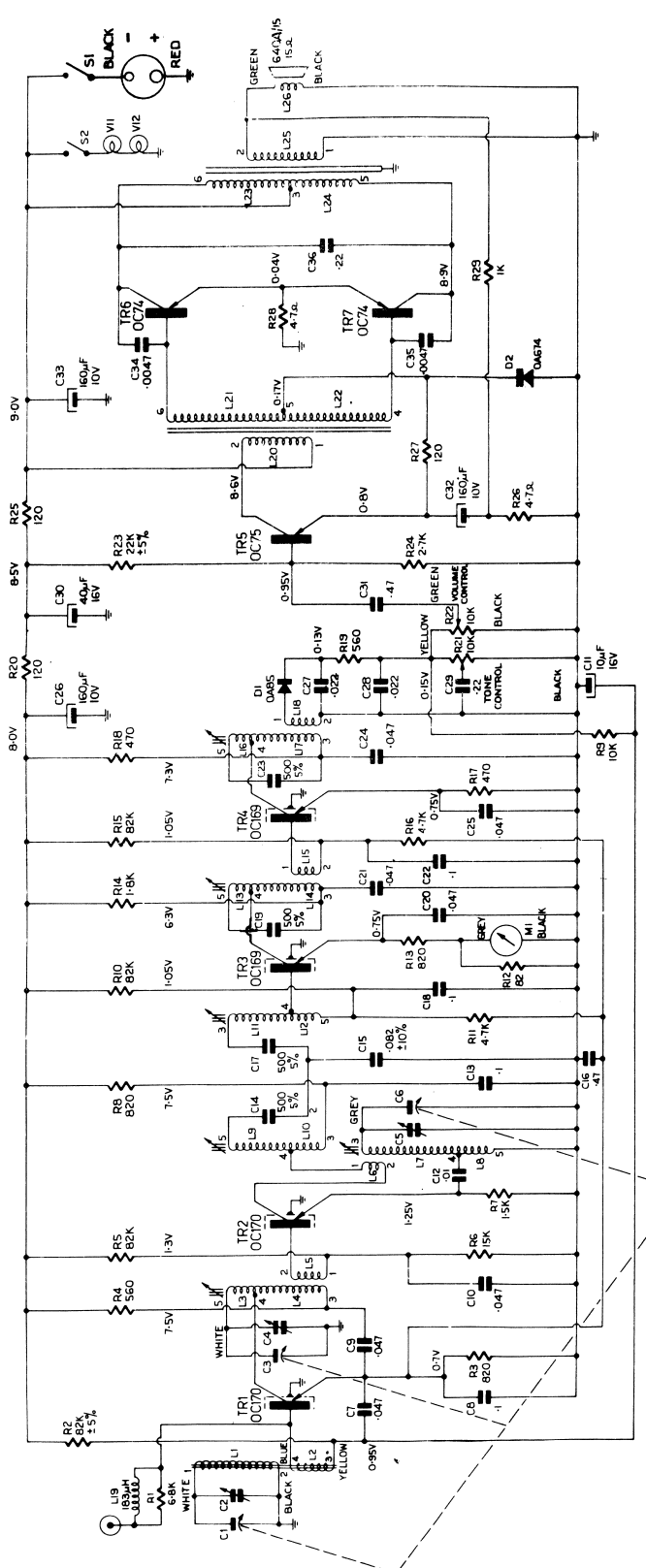
Unclip case back cover. Unplug and remove battery.

From inside case remove four corner located screws, which mount case and front grille casting together. Unsolder loading coil from external aerial socket.

Lift case and chassis/front grille assembly apart.

Refitting is a reversal of the above procedure.

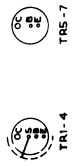
L	19	1,2	3,4,5	6,7,8,9,10	11,12	13,14,15	16,17,18	20,21,22	23,24,25	26
C	1	2	3,4	5,6,7	8	9,10	11,12	13,14	15,16	17,18
Q	1	2	3,4	5,6,7	8	9,10	11,12	13,14	15,16	17,18
D	1	2	3,4	5,6,7	8	9,10	11,12	13,14	15,16	17,18



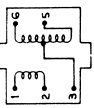
NOTES

CAPACITOR VALUES
 WHOLE NOS. PF.
 * HI-CERAMIC TOL. + 80% - 20% 25V.
 ELECTROLYTICS TOL. + 50% - 10%
RESISTORS
 1/10W UNLESS OTHERWISE SHOWN.
 VOLTAGES MEASURED WITH V.T.V.M.
 SI MOUNTED ON VOLUME CONTROL, R22.

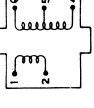
TRANSISTOR CONNECTIONS



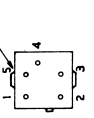
OUTPUT



DRIVER



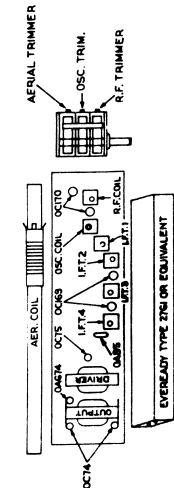
RF, OSC & IF



AERIAL



COILS & TRANSFORMERS VIEWED FROM PIN END



CAPACITORS

CAPACITORS (Contd.)

RESISTORS (Contd.)

C.No.	DESCRIPTION	V.W.	Tol ±%	CODE OR TYPE
1-6	3 gang tuning with trimmers	-	-	CZ.108.101 MSP type K3XT
7	47 nF ceramic	25	-20+80	Ducon CDR style B
8	0.1 µF ceramic	25	-20+80	Ducon CDR style C
9	47 nF ceramic	25	-20+80	Ducon CDR style B
10	47 nF ceramic	25	-20+80	Ducon CDR style B
11	10 µF electrolytic	16	-	Phillips C.426.AM/E10
12	10 nF ceramic	25	-20+80	Ducon CDR style F
13	0.1 µF ceramic	25	-20+80	Ducon CDR style C
14	Part of 1st I.F.T.			Phillips C.296.AA/A82K
15	82 nF Polyester	125	10	Ducon CDR style E
16	0.47 µF ceramic	25	-20+80	Ducon CDR style C
17	Part of 2nd I.F.T.			Ducon CDR style B
18	0.1 µF ceramic	25	-20+80	Ducon CDR style B
19	Part of 3rd I.F.T.			Ducon CDR style C
20	47 nF ceramic	25	-20+80	Ducon CDR style B
21	47 nF ceramic	25	-20+80	Ducon CDR style B
22	0.1 µF ceramic	25	-20+80	Ducon CDR style C
23	Part of 4th I.F.T.			Ducon CDR style B
24	47 nF ceramic	25	-20+80	Ducon CDR style B
25	47 nF ceramic	25	-20+80	Ducon CDR style B
26	160 µF electrolytic	10	-	Phillips C.426.AM/D160
27	22 nF ceramic	25	-20+80	Ducon CDR style A
28	22 nF ceramic	25	-20+80	Ducon CDR style A
29	0.22 µF ceramic	25	-20+80	Ducon CDR style D
30	40 µF electrolytic	16	-	Phillips C.426.AM/E40

RESISTORS

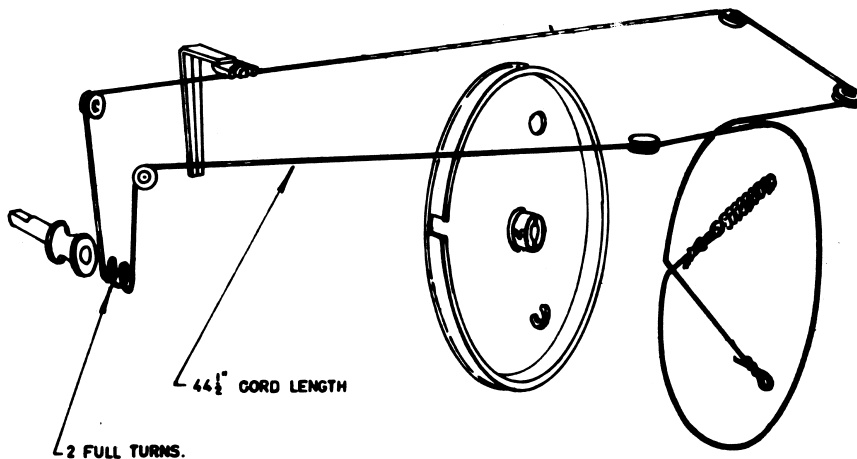
R.No.	DESCRIPTION	W	Tol ±%	CODE OR TYPE NO.
1	Former for L19			I.R.C. B.T.S.
2	82k Ω carbon	½	5	I.R.C. B.T.S.
3	820 Ω carbon	½	10	I.R.C. B.T.S.
4	560 Ω carbon	½	10	I.R.C. B.T.S.
5	82k Ω carbon	½	10	I.R.C. B.T.S.
6	15k Ω carbon	½	10	I.R.C. B.T.S.
7	1,500 Ω carbon	½	10	I.R.C. B.T.S.
8	820 Ω carbon	½	10	I.R.C. B.T.S.
9	10k Ω carbon	½	10	I.R.C. B.T.S.
10	82k Ω carbon	½	10	I.R.C. B.T.S.
11	4,700 Ω carbon	½	10	I.R.C. B.T.S.
12	82 Ω carbon	½	10	I.R.C. B.T.S.
13	820 Ω carbon	½	10	I.R.C. B.T.S.
14	1,800 Ω carbon	½	10	I.R.C. B.T.S.
15	82k Ω carbon	½	10	I.R.C. B.T.S.
16	4,700 Ω carbon	½	10	I.R.C. B.T.S.
17	470 Ω carbon	½	10	I.R.C. B.T.S.
18	470 Ω carbon	½	10	I.R.C. B.T.S.
19	560 Ω carbon	½	10	I.R.C. B.T.S.
20	120 Ω carbon	½	10	I.R.C. B.T.S.
21	10k Ω carbon potentiometer taper C (tone)	½	10	I.R.C. B.T.S. CZ.029.155
22	10k Ω carbon potentiometer taper C, with S.P.S.T. switch (volume, on/off)	½		CZ.032.046 I.R.C. Series 45
23	22k Ω carbon	½	5	I.R.C. B.T.S.

INDUCTORS

L.No.	DESCRIPTION	W	Tol ±%	CODE OR TYPE NO.
1,2	Rod aerial assembly			CZ.323.055
3,4,5	R.F. Coil (red/blue)			CZ.323.426
6,7,8	Oscillator coil (green)			CZ.323.425
9,10	1st I.F.T. (yellow/white)			CZ.320.534
11,12	2nd I.F.T. (yellow/green)			CZ.320.535
13,14,15	3rd I.F.T. (red/green)			CZ.320.527
16,17,18	4th I.F.T. (yellow/blue)			CZ.320.528
19	Loading coil			CZ.321.292
20,21,22	Driver transformer			CZ.345.829 MSP type 3XJ/960/600 C.T.
23,24,25	Output transformer			CZ.344.820 MSP type 3XJ/74 C.T./15
26	Speaker			CZ.162.534 MSP type 6-4/0A/15

R.No.	DESCRIPTION	W	Tol ±%	CODE OR TYPE NO.
24	2,700 Ω carbon	½	10	I.R.C. B.T.S.
25	120 Ω carbon	½	10	I.R.C. B.T.S.
26	4.7 Ω wire wound	½	10	I.R.C. B.T.S.
27	120 Ω carbon	½	10	I.R.C. B.T.S.
28	4.7 Ω wire wound	½	10	I.R.C. B.T.S.
29	1,000 Ω carbon	½	10	I.R.C. B.T.S.

<u>DESCRIPTION</u>	<u>CODE NO.</u>	<u>DESCRIPTION</u>	<u>CODE NO.</u>
Aerial socket	CZ.369.930 Cinch X256	Dial cord spring	CS.200.030
Aerial socket escutcheon, gold for tan and dark green cases	CS.430.136	Dial cursor assembly	CR.480.685
Aerial socket escutcheon, chrome for black case	CS.430.135	Dial drum assembly	CR.382.817
Badge - Philips, gold for tan and dark green cases	CS.436.517	Dial lamp button assembly	CR.526.202
Badge - Philips, chrome for black case	CS.436.518	Dial scale	CS.412.465
Button assembly - dial lamp on/off	CR.526.202	Escutcheon - aerial socket, gold for tan and dark green cases	CS.430.136
Board - printed	CS.237.381	Escutcheon - aerial socket, chrome for black case	CS.430.135
Case front, gold (for tan and dark green cases)	CS.430.727	Grille - case (rear)	P5.350.70.000
Case front, chrome (for black case)	CS.430.728	Indicator - tuning and battery	CZ.291.609
Case - rear assembly, tan	CR.572.593	Knob - control, 3x black	CR.523.559
Case rear assembly, dark green	CR.572.594	Knob - control, 3x dark green	CR.523.560
Case rear assembly, black	CR.572.595	Knob - control, 3x tan	CR.523.558
Contact - spring, dial lamp switch (with contact indentation)	CS.200.031	Plug - 2 pin polarised (battery)	CZ.365.120 C/F 691-5-2
Contact - spring, dial lamp switch (plain)	CS.200.032	Printed Board	CS.237.381
Cord - dial drive, 44½" bulk	965/JB1	Lampholder, 2x	CZ.367.720
Cursor assembly - dial	CR.480.685	Socket - aerial	CZ.369.930
Dial back plate	CS.034.030	Spring - dial cord	CS.200.030
Dial cord, 44½" bulk	965/JB1	Tuning spindle assembly	CR.371.239
		Tuning and Battery Indicator	CZ.291.609



EXPLODED VIEW FROM REAR, SHOWING GANG CONDENSER IN CLOSED POSITION.