PHILIPS

RADIO RL271

Service notes

SPECIFICATIONS

Tuning range	520–1620 KHz
Intermediate frequency	455 KHz
Battery supply	Type 2362 (9v.)
Battery consumption	See table below
Audio module	Type UA411
RF module	Type UF311

OUTPUT TRANSISTOR ADJUSTMENT

Metering point facilitates easy insertion of a meter for adjustment of output transistor current by means of R108. Current to be adjusted at no signal in accordance with the following table. This table also includes total receiver current.

Temp.°F	TR103/104 Current MA	Receiver Current MA
50	6.5	16.7
55	6.6	17.0
60	6.7	17.2
65	6.8	17.4
70	6.9	17.6
75	7.0	17.9
80	7.1	18.1
85	7.2	18.3
90	7.3	18.5
95	7.4	18.8
100	7.5	19.0
105	7.6	19.2
110	7.7	19.4
115	7.8	19.7

ALIGNMENT

The location of the various trimming points used in alignment is shown on circuit and interconnection drawings.

I.F. ALIGNMENT

Connect signal generator via I.F. dummy to base of TR1. Put volume control to maximum. Detune I.F. coils by screwing out cores about one turn. Peak cores in the following order and at the quoted frequencies.

Detector coil	457.5 KHz
IFT 2	457 KHz
IFT 1	453.3 KHz

R.F. ALIGNMENT

Fully open the tuning capacitor, set the centre of the cursor to coincide with the RH end of the silver rectangle at the left of 16" and peak the oscillator trimmer at 1620 KHz. Connect signal generator via a coupling loop around the rod aerial assembly. Put volume control at maximum. Fully close the tuning capacitor and peak the oscillator coil core at 520 KHz. Repeat these two operations until the band end setting is correct. Tune to 600 KHz (7ZL) and adjust aerial coil for maximum output. Tune to 1500 KHz (3AK) and adjust aerial trimmer for maximum output. Repeat these two operations for correct tracking. Seal aerial coil to rod.

Published by PHILIPS ELECTRICAL PTY. LTD., Australia
Branches in all States.

January, 1970.

ELECTRICAL PARTS LIST

CAPACITORS

C. No.	DESCRIPTION	V.W.	TOL. ±%	TYPE OR CODE No.
1	47K Ceramic	25	+80–20	Ducon CDR 47K-B
				CZ.097.906
3	22K Ceramic	25	+80–20	Ducon CDR 22K-A
				CZ.097.905
4	3K6 Styroflex	63	5	C295.AH/B3K6
5	47K Ceramic	25	+80–20	Ducon CDR 47K-B
6	47K Ceramic	25	+80–20	CZ.097.906
7	150E Ceramic			Part of 2nd I.F.T.
8	47K Ceramic	25	+80–20	
9	47K Ceramic	25	+80–20	Ducon CDR 47K-B
10	47K Ceramic	25	+80–20	CZ.097.906
11	47K Ceramic	25	+80–20	
12	150E Ceramic			Part of 3rd I.F.T.
13	2M5 Electrolytic	16	+100-10	C426.AS/E2.5
14	4K7 Ceramic	25	+80–20	Ducon CDR 4K7-F
15	4K7 Ceramic	25	+80–20	CZ.097.567
16	47K Ceramic	25	+80–20	Ducon CDR 47K-B
17	47K Ceramic	25	+80–20	CZ.097.906
101	1M Electrolytic	40		C426.AS/G1
102	200M Electrolytic	10		C426.AR/D200
103	320M Electrolytic	6.4		C426.AR/C320
105	320M Electrolytic	6.4		C426.AR/C320
106	200M Electrolytic	10		C426.AR/D200
201, 202, 203, 204	Tuning capacitor			2222.807.10087
205	6E8 Ceramic N750		± 2½%	Ducon CDS-F
206	6E8 Ceramic N750		+2½%	CZ.096.114

RESISTORS

R. No.	DESCRIPTION	W.	TOL. ±%	TYPE OR CODE No.
1	22E Carbon	½	10	B8.305.05A/22E
2	1K8 Carbon	½	10	B8.305.05A/1K8
3	680K Carbon	½	10	B8.305.05A/680K
5	680E Carbon	½	10	B8.305.05A/680E
6	150K Carbon	½	10	B8.305.05A/150K
7	1K Carbon	½	10	B8.305.05A/1K
8	1K Carbon	½	10	B8.305.05A/1K
9	1K Carbon	½	10	B8.305.05A/1K
10	270K Carbon	½	10	B8.305.05A/270K
12	470E Carbon	½	10	B8.305.05A/470E
13	82K Carbon	½	10	B8.305.05A/82K
14	3K3 Carbon	½	10	B8.305.05A/3K3
15	10K Carbon	½	10	B8.305.05A/10K
16	39K Carbon	½	10	B8.305.05A/39K
101	120K Carbon	½	10	B8.031.05A/120K
102	330K Carbon	½	10	B8.031.05A/330K
103	300E Carbon	¼	5	B8.031.04NB/300E
104	33E Carbon	½	10	B8.031.05A/33E
105	4K7 Carbon	½	10	B8.031.05A/4K7
106	1K8 Carbon	½	10	B8.031.05A/1K8
107	130E NTC Disc			E201.BC/A130E
108	220E Carbon pot. (preset bias adjustment)			E086.AC/220E
109	1E8 Carbon	½	5	B8.031.05B/1E8
110	1E8 Carbon	½	5	B8.031.05B/1E8
111	680E Carbon	½	10	B8.031. 05A /680E
201	25K carbon switch pot. assembly			CR.262.567

INDUCTORS

L. No.	DESCRIPTION	CODE No.
1,2,3,	Oscillator Coil	CZ.652.019
4,5,6	1st I.F.T.	CZ.651.004
7,8,9	2nd I.F.T.	CZ.651.010
10,11,12	3rd I.F.T.	CZ.651.009
201,202	Rod aerial assembly	CZ.323.112
203	Speaker (MSP 275 JB 22 ohm – K10)	CZ.161.033
	Earphone	CZ.165.252

PHILIPS ELECTRICAL PTY. LTD.

UNIT MODEL: RL 271

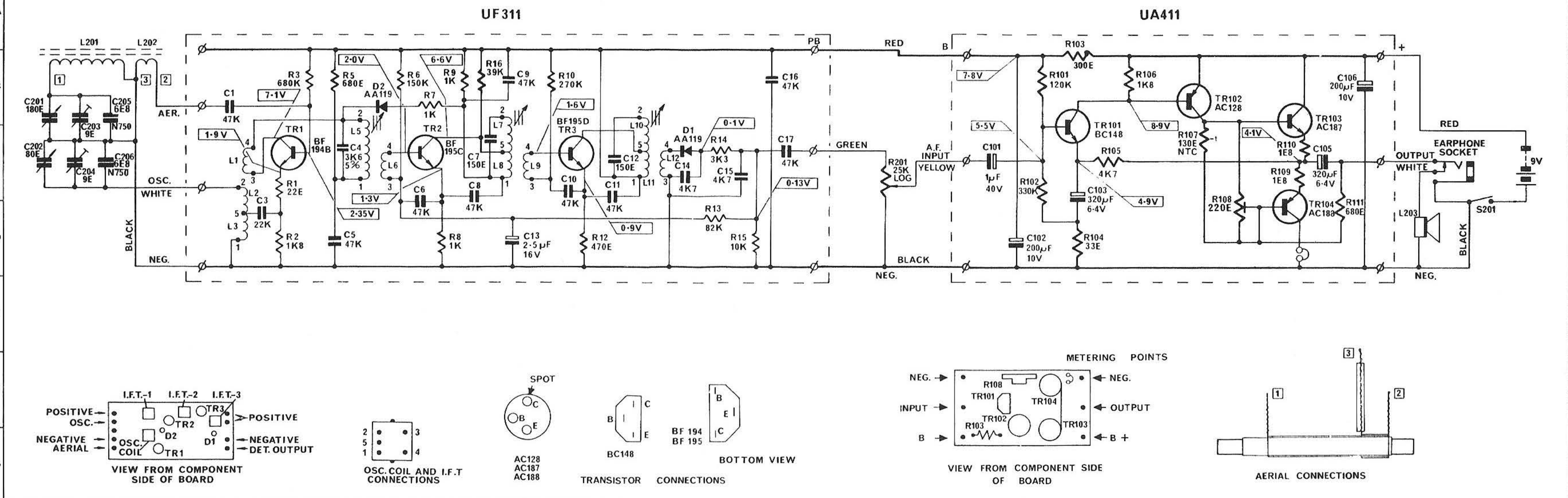
COMPONENT LOCATION					
COMP	ZONE	COMP	ZONE	COMP	ZONE
C201	1B	R201	12C		
C202	1C			S201	20D
C203	2B				
C204	1C	L201	2B		
C205	2B	L202	2B		
C206	2C	L203	19D		

NOTES:
S201 MOUNTED ON VOLUME CONTROL R201.
L203 MSP TYPE 275 JB-33-K10 CONE.

POINT	ZONE	UNIT	MODEL APPLICATION
PB	11A	7·8V	

VOLTAGES

TOLERANCES	
R	± 10%, ½W.
C	



RL271

MECHANICAL PARTS LIST

DESCRIPTION	CODE No.
Battery strap	CS.219.177
Carrying case	CR.575.062
Case assembly (mushroom)	CR.572.700
Case assembly (charcoal)	CR.572.701
Clip – Module mounting	CS.233.833
Cursor assembly (with cord loop)	CR.480.717
Earphone socket	CZ.365.600
Dial scale (mushroom)	CS.030.062
Dial scale (charcoal)	CS.030.063
Geared gang drive	CS.354.035
Guide (cord)	CS.252.611
Knob/tuning spindle	CR.524.529
Knob/volume	CS.610.024
Spring case clamp	CS.200.093
Socket – battery	CZ.369.957
Stud – battery	CZ.365.061