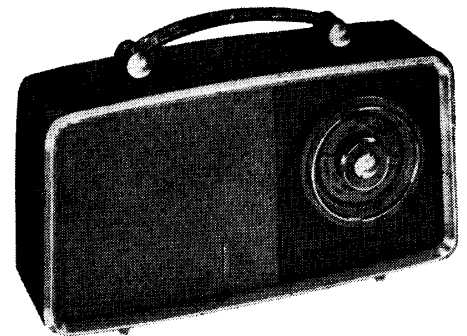
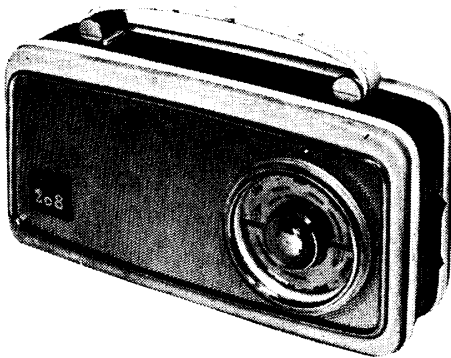


EKCO

FERRANTI

SERVICE SHEET



TRANSISTOR PORTABLES

EKCO MODEL PT208

FERRANTI MODEL PT1127

CIRCUIT ANALYSIS

Battery consumption 12mA with no signal input.					
Code	Transistor Function	Type	Ec	Eb	Ee
VT1	Frequency Changer	NKT.162	7.8	1.0	1.2
VT2	1st I.F. Amplifier	NKT.163Z/25	7.8	0.65	0.55
VT3	2nd I.F. Amplifier and A.F. Pre-Amp.	NKT.164Z/25	7.9	1.1	1.0
VT4	Driver	NKT.274	8.8	1.4	1.6
VT5	Output	NKT.271	9.0	0.2	0.02
VT6	Output	NKT.271	9.0	0.2	0.02
VT7	PCC diode	NKT.259	—	—	—

All voltages negative with respect to chassis. All measurements taken on medium waveband with no signal input, gang fully meshed, using Avo model 8, which has a resistance of 20,000 ohms per volt.

TRIMMING PROCEDURE

Apply signal as below:—		Set receiver controls to:—	Adjust in order for maximum output:—
1.	470 kc/s. across L3 with 0.1 μ F capacitor in each lead.	Low frequency end of M.W.	Cores of L13, L11 and L9.
2.	600 kc/s. to rod aerial via search coil at 11" from centre of rod.	M.W. 500 metres.	Core of L8.
3.	As 2, but 1500 kc/s.	M.W. 200 metres.	Trimmer C9.
4.	Repeat 2 and 3 until calibration is correct.		
5.	As 2, but 214 kc/s.	L.W. 1400 metres.	Trimmer C11.
6.	214 kc/s. to rod aerial via search coil at 11" from centre of rod, with L2 nearest search coil.	L.W. 1400 metres.	Adjust position of L4 on rod aerial and seal in position with polystyrene dope.
7.	As 6, but 600 kc/s.	M.W. 500 metres.	Adjust position of L2 on rod aerial.
8.	As 6, but 1500 kc/s.	M.W. 200 metres.	Trimmer C2.
9.	Repeat 7 and 8 until tracking is correct. Seal L2 with polystyrene dope.		
10.	1439 Kc/s. (Luxembourg) to rod aerial via search coil at 11" from centre of rod.	Switch to 'LUX' position Tune to 300 metres.	Trimmer C32 (marked 0) then trimmer C31 (marked A).

NOTES:—Tests 2 to 9 should be carried out with the chassis in the cabinet, and the battery in its correct position. L8 is accessible through a hole in the printed panel; C2 and C9 via the knob escutcheon aperture. With gang fully meshed, the datum marks on the tuning knob should coincide with the pointers on the front of the cabinet.

Main Service Department:—
Radio & Television Services Ltd.,
Somerton Works, Arterial Road,
Westcliff-on-Sea, Essex.
'Phone: Southend 42296.

Please order spare parts direct from:—
Radio & Television Services Ltd.,
P.O. Box 11, Cambridge.
'Phone: Cambridge 59101
Night Service: Cambridge 59106.

SPARE PARTS LIST

CAPACITORS					RESISTORS			
Circuit Ref.	Description	± %	Volts	Part No.	Circuit Ref.	Ohms	± %	Part No.
C1	344 pF Swing Gang ...			D 123627	R1	56K	10	NG 56304
C2	3-25 pF Gang Trimmer ...			D 123627	R2	10K	10	NG 10304
C3	82 pF P.S.M. ...	2		53947	R3	3K3	10	NG 33206
C4	.04 μF 400/M16 ...		150	PR 18000	R4	120K	10	NG 12406
C5	.01 μF 400/M12 ...		150	PR 14003	R5	18K	10	NG 18306
C6	250 pF Polystyrene ...	2½		C 121373/14	R6	630	—	NG 68106
C7	286 pF P.S.M. ...	1		PP 10471	R7	4K7	10	NG 10206
C8	229 pF Swing Gang ...			D 123627	R8	12K	10	NG 12306
C9	3-25 pF Gang Trimmer ...			D 123627	R9	4.7	10	NG 47206
C10	200 pF P.S.M. ...	2		PP 10010	R10	690	10	NG 68106
C11	10-80 pF Trimmer ...			B 122359	R11	390	10	NG 39106
C12	8 μF Electrolytic ...		3	PR 22108	R12	470	20	NH 47106
C13	.04 μF 400/M16 ...		150	PR 18000	R13	3K3	10	NG 33206
C14	250 pF Polystyrene ...	2½		C 121373/14	R14	68K	10	NG 68306
C15	125 pF P.S.M. ...	2		PP 09002	R15	22K	10	NG 22306
C16	.04 μF 400/M16 ...		150	PR 18000	R16	680	10	NG 68106
C17	80 μF Electrolytic ...		6	PS 36000	R17	1M	20	NH 10506
C18	250 pF Polystyrene ...	2½		C 121373/14	R18	1K	10	NG 10206
C19	43 pF P.S.M. ...	2		PP 06523	R19	560	10	NG 56106
C20	.03 μF 400/M15 ...		150	PR 17010	R21	100	10	NH 10106
C21	.03 μF 400/M15 ...		150	PR 17010	R22	4.7	5	NE 04706
C22	160 μF Electrolytic ...		10	PR 39202	R23	8K2	10	NG 82206
C23	8 μF Electrolytic ...		3	PR 22108	R24	82	10	NG 82006
C24	100 μF Electrolytic ...		6	PS 38002				
C25	160 μF Electrolytic ...		10	PS 39202				
C26	0.25 μF W48 ...		150	PR 21536				
C27	.04 μF 400/M16 ...		150	PR 18000				
C28	.04 μF 400/M16 ...		150	PR 18000				
C29	5 μF Electrolytic ...		2.5	PS 19013				
C30	.04 μF ...		30	PN 58301				
C31	3-53 pF Trimmer ...			PV 05061				
C32	5-53 pF Trimmer ...			PV 05061				
C33	4.7pF N 750AD5pF		PN 03066				
C34	10 pF Polystyrene ...			PQ 04502				
C35	22 pF Polystyrene ...			PQ 05624				

TRANSISTORS			
Circuit Ref.	Description	Part No.	Part No.
VT1	NKT 162 ...		FV 06036
VT2	NKT 163Z/25 ...		FV 06089
VT3	NKT 164Z/25 ...		FV 06090
VT4	NKT 274 ...		FV 06187
VT5	NKT 271 Colour Matched ...		FV 06184
VT6			FV 06184
VT7	NKT 259 ...		FV 06150

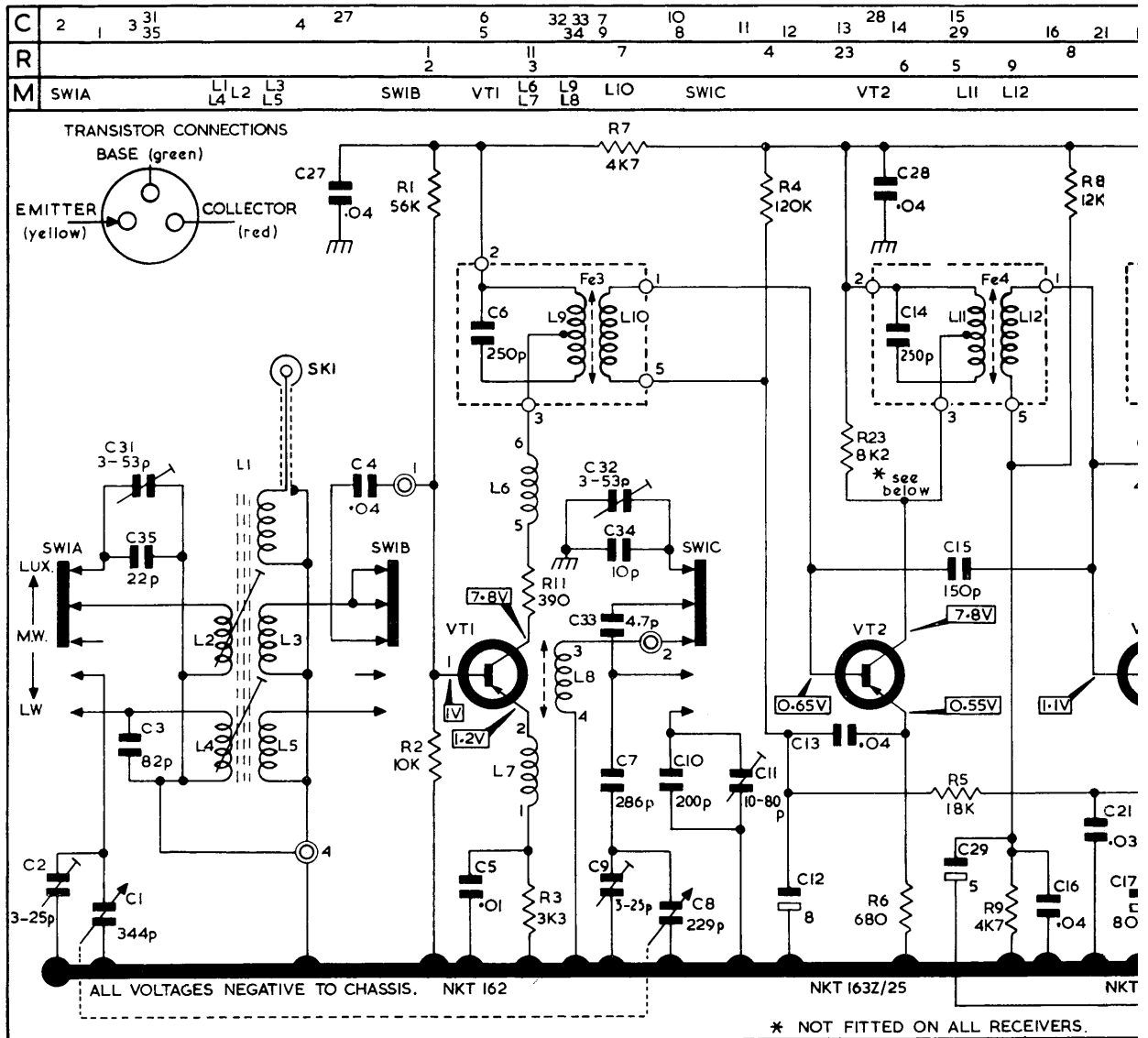
VARIABLE RESISTORS AND RECTIFIERS			
Circuit Ref.	Description	Part No.	Part No.
RV1	5K Ω Semi-Log ...		122362/2
RV2	2.5-15K Linear Preset ...		B 134583
MRI	Diode NKT 155E ...		FV 06153

COILS			
Circuit Ref.	Description	Part No.	Part No.
L1	AE Coupling Coil ...		DP 30607
L2	M.W. AE Coil Pri. ...		DP 30861/B
L3	M.W. AE Coil Sec. ...		
L4	L.W. AE Coil Pri. ...		DP 30608
L5	L.W. AE Coil Sec. ...		
L6	Osc. Coil Sec. ...		SA 5937A
L7	Osc. Coil Ter. ...		
L8	Osc. Coil Pri. ...		
L9	1st. I.F. Trans. Pri. ...		
L10	1st. I.F. Trans. Sec. ...		SA 5935A
L11	2nd. I.F. Trans. Pri. ...		SA 5935A
L12	2nd. I.F. Trans. Sec. ...		
L13	3rd. I.F. Trans. Pri. ...		
L14	3rd. I.F. Trans. Sec. ...		SA 5935B

FERRITES			
Circuit No.	Description	Part No.	Part No.
Fe1	Aerial Rod ...		08615
Fe2	Screw Core ...		122831
Fe3	Screw Core ...		122831
Fe4	Screw Core ...		122831
Fe5	Screw Core ...		122831

TRANSFORMERS			
Circuit Ref.	Description	Part No.	Part No.
T1	Driver Trans ...		SA 5983 A
T2	Output Tran ...		SA 5984 A

MISCELLANEOUS			
Circuit Ref.	Description	Part No.	Part No.
S1	Wavechange and preset switch ...		FS 00073
S2	On/Off Part (Part of RVI) ...		122362/1
LS	5" Dia. Elac. ...		123749
SK1	Aerial Socket ...		58125
PL1	Press Stud ...		56833
PL2	Press Clip ...		56834
	Print Panel Assembly ...		AJ 00688



Circuit Diagram

PPC SETTING-UP PROCEDURE

The variable resistor RV2 is pre-set at the factory and will not normally need to be disturbed. When replacing VT5, VT6, VT7, or associated components, however, the following procedure should be carried out:—

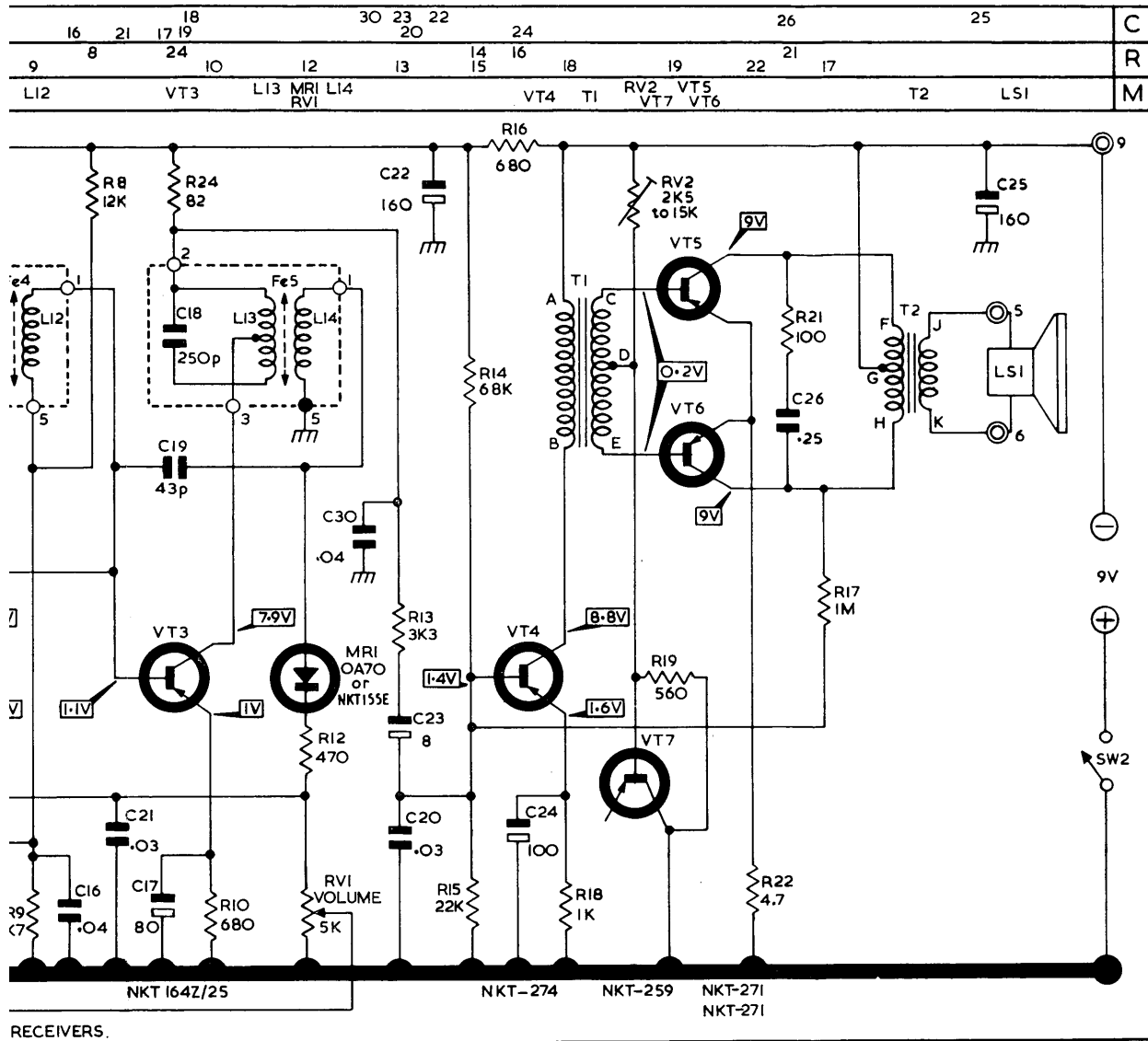
1. Adjust RV2 to give maximum resistance. It is important that this should be done before the receiver is switched on.
2. Carefully break the printed panel connection between battery -ve and centre-tap primary of the output transformer.
3. Connect AVO 8 or similar instrument (10mA DC range) across break in circuit.
4. Re-adjust RV2 to obtain a reading of 4mA, with no signal input.
5. Repair circuit with jumper of ordinary wire.

NOTE: In some receivers a fixed resistor of selected value has been fitted in place of RV2. Carry out steps 2 and 3 above, and if collector current is incorrect, replace with suitable fixed resistor, or variable RV2.

CHASSIS REMOVAL:

1. Slacken the two coin slotted back cover.
2. Using fine nose pliers or tweezers, remove the tuning knob assembly or the screw then exposed.
3. Remove the side escutcheon.
4. Remove the Philips head screw which secures the panel to the extent of the

Note: When replacing the side escutcheon, line with the switch arm before



Ekco PT208 Ferranti PT1127

MOVING COIL:

Remove the two coin slotted screws at the rear of the cabinet, and take off the knob assembly using pliers or tweezers, taking care to ensure that the spindle flats are in line. Remove the side escutcheon, held by two wood screws. See Note following. Remove the Philips head screw from R/H centre of print panel and lift out the speaker leads to the extent of the speaker leads.

When replacing the side escutcheon, ensure that the switch slider slot is in line with the switch arm before pressing home.

LOUD-SPEAKER:

5" dia. Elec. Impedance 3 ohms at 400 c/s.

INTERMEDIATE FREQUENCY:

470 Kc/s.

WAVEBAND COVERAGE:

M.W. 1640—540 Kc/s, 183—555 metres.
L.W. 255—146 Kc/s, 1180—2060 metres.

BATTERY:

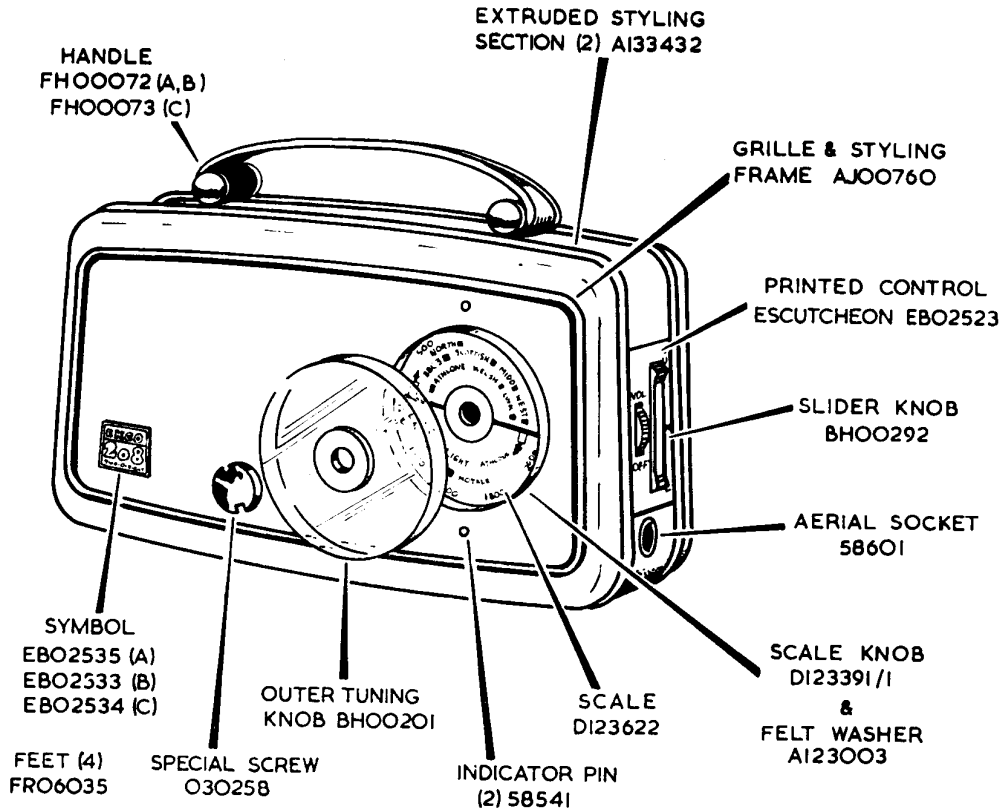
9V Ever Ready PP7, Drydex DT7, Vidor T6007.

CONSUMPTION:

No Signal : 12 mA
50 mW output : 40 mA
350 mW output : 85 mA

CABINET Grey/blue—AKOO220 (A)
 Grey/charcoal—AKOO221 (B)
 Red /stone—AKOO222 (C)

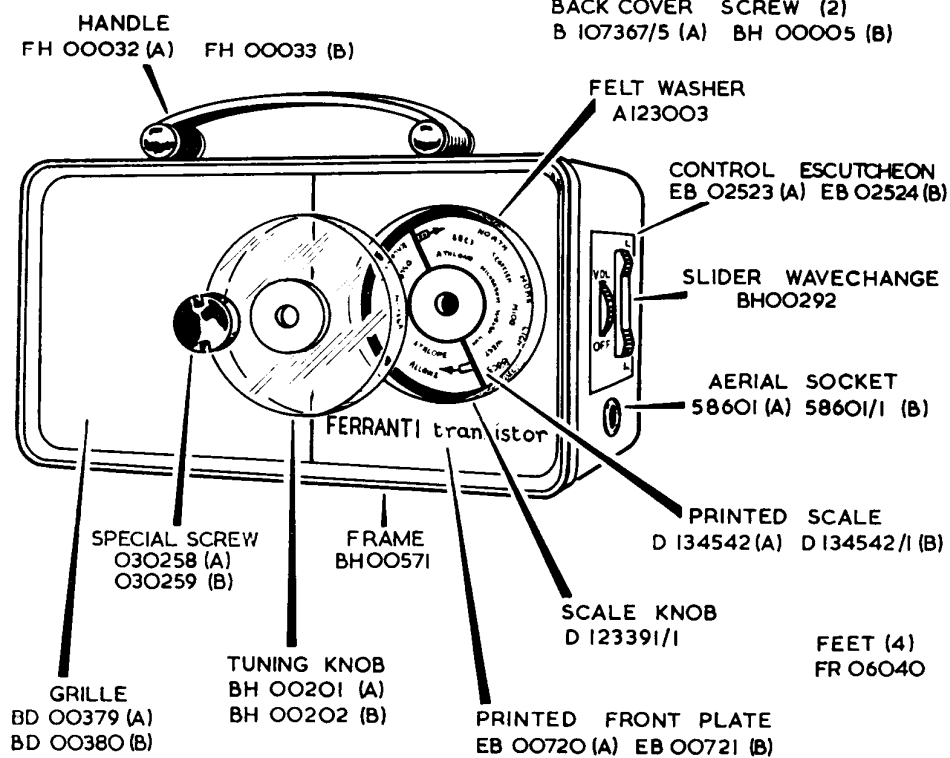
BACKCOVER FIXING
 SCREW (2) B107367/5



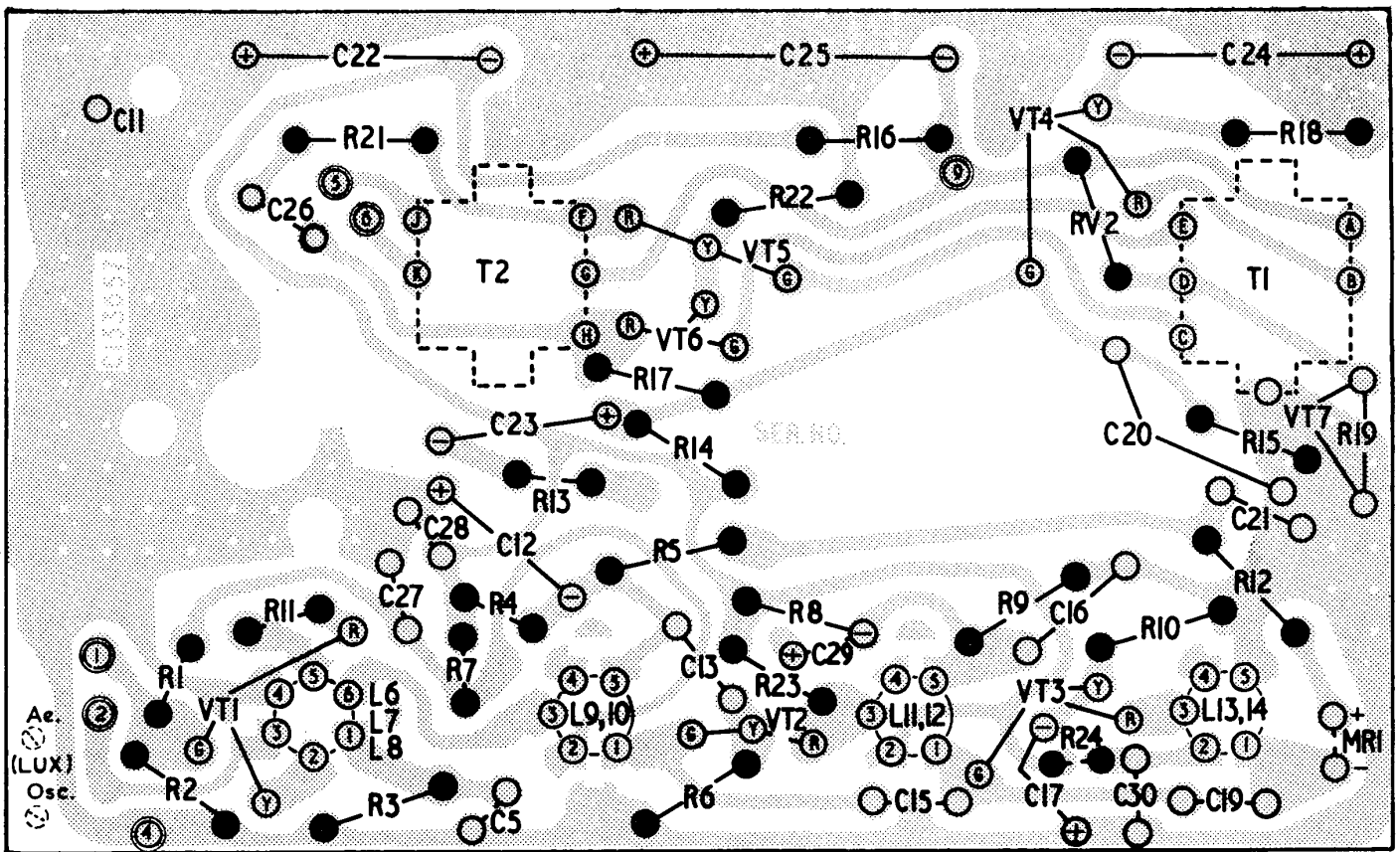
Ekco PT208

CABINET Red/gold AK 00202 (A)
 Blue/silver AK 00203 (B)

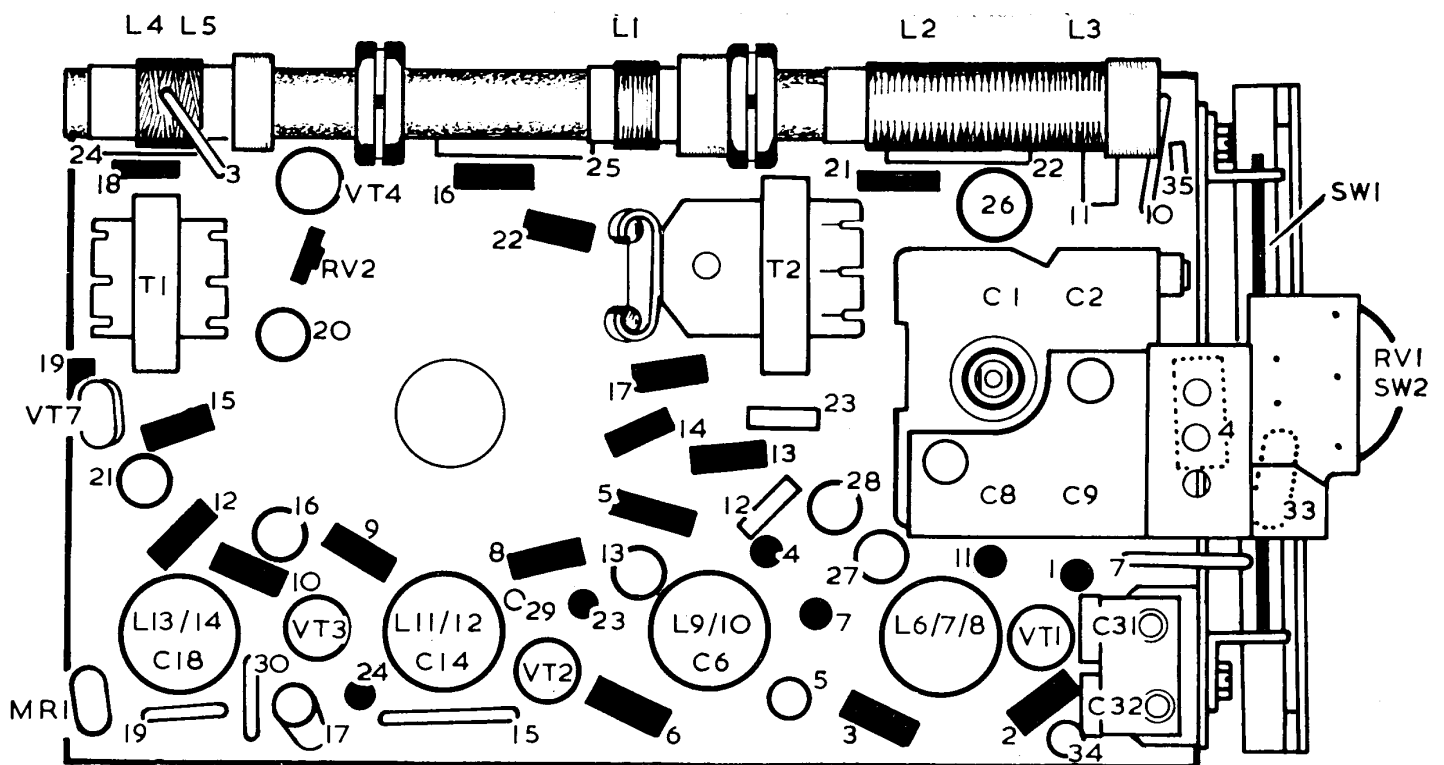
BACK COVER RELEASE TAB
 EB 01496 (A) EB 01497 (B)
 TAB RETAINING PLATE
 O40521 (A) O48259 (B)
 BACK COVER SCREW (2)
 B 107367/5 (A) BH 00005 (B)



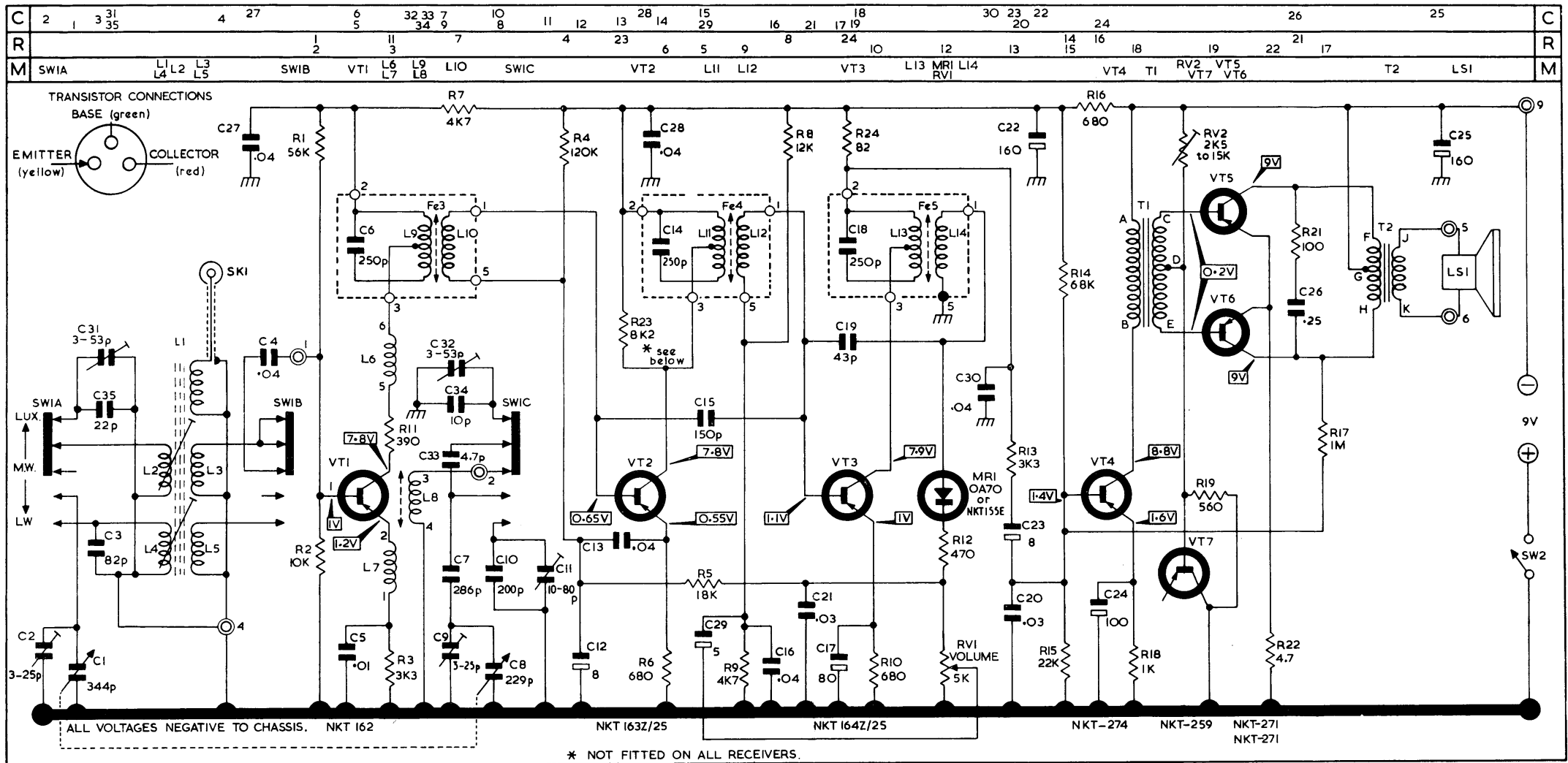
Ferranti PT1127



Printed Panel Layout



Chassis Rear View



Circuit Diagram

Ekco PT208 Ferranti PT1127