



ECLIPSE RADIO PTY. LTD.

(A DIVISION OF ELECTRONIC INDUSTRIES LTD.)

11-21 STURT STREET, SOUTH MELBOURNE

TECHNICAL BULLETIN

Bulletin "BLK"-1

File : Receivers, Portable

Date : 1/6/49

SUBJECT:

Battery Eliminator
for use with
Eclipse Portable Receivers
Models "BKP", "CKP" and "DKP"

For Operation From:

200-260 volt, 40-60 C.P.S., A.C. Mains.

This Bulletin Contains:

1. Technical Specification.
2. General Description.
3. Instructions for Mains voltage adjustment and replacement of Flashlight Cell.
4. Circuit Diagram
5. Component Parts List.

SUBJECT: Technical Specifications

Model "BLK"

Input Voltages:

200-260 V.A.C. 40-60 C.P.S.

Output Voltages:

90 Volts D.C. Max Current 20mA.

1.5 Volts D.C. Max. Current 400mA.

Power Consumption:

25 watts approximately.

Rectifiers:

High Tension-"Westalite" Dry Metal Half Wave Type 14D/12.

Low Tension-"Westalite" Dry Metal Full Wave Type LT7/W.

General Description:

The model "BLK" is a power supply unit designed for use with portable receivers manufactured by Eclipse Radio Pty. Ltd., enabling them to be operated from the 200-250 volts 50 C.P.S. A.C. electric supply mains, and when a suitable transformer is fitted, from the 200-260 volts 40 C.P.S. A.C. mains.

The unit is equipped with a standard 9-foot mains connecting cable, and a 2' 6" cable fitted with an octal connector which may be plugged into any portable receiver fitted with this means of connecting external batteries. The portable receivers with which this unit is designed to operate are equipped with a socket, bridging plug, and protective rubber cover. To operate the receiver from the supply mains the cover and plug are removed and the connector with which the unit is fitted is inserted into the socket. The receiver internal batteries are automatically disconnected. If it is desired to use with the model "BKP" Portable receiver a 6-pin connector is to be fitted.

This unit is completely enclosed in a metal case of convenient size, measuring $8\frac{1}{4}$ " x $3\frac{7}{8}$ " x $2\frac{7}{8}$ " and weighing 5 lbs., finished in grey "Hammerstone" enamel.

A special feature is the safety factor obtained by use of a 1.5 volt torch cell which is floated across the filament supply, ensuring that the voltage to the tube filaments cannot rise to a dangerous level with increasing mains voltage, or under conditions of reduced load such as might occur if one or more of the tubes were removed, or had fallen out of their sockets. It also ensures continued maximum performance should the supply voltage become temporarily low.

Use of this cell also provides filtering sufficient to remove all traces of mains hum.

A switch and an indicator light are provided. The switch, as well as switching the mains, disconnects the cell so that the switch/volume control on the receiver may be left set to the desired volume. If this switch were not provided it would be necessary to disconnect the unit from the mains, and to turn off the receiver switch, when the receiver was not in use, to prevent the cell from discharging into the tube filaments.

It is estimated that the cell will require replacement about once per annum. Replacement is facilitated by use of a metal holding clip similar to that used in our personal portable receiver, and by simple means of removing the front of the case to gain access.

Connection of the power supply automatically reduces the bias on the power amplifier tube in the receiver so that greater output is obtained. In our portable receivers this tube is slightly over-biased in the interest of battery economy.

To Fit 6-pin Connector for operation with Model "BKP".

If it is desired to operate the Model "BKP" Portable receiver from the battery eliminator, the octal connector must be removed and replaced with a 6-pin connector, Eclipse Part No. PM459.

Pin Connections are made as follows:-

- | | |
|-------------------|-------------------|
| 1. No Connection. | 4. No Connection. |
| 2. Black. | 5. Yellow |
| 3. Red. | 6. Green. |

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SUBJECT: Mains Voltage Adjustment and Replacement of Cell.

This unit is shipped from the factory connected for operation from the 230-250 volt A.C. supply mains.

If it is desired to operate the unit from voltages between 200 and 220 volts carefully follow the instructions below:-

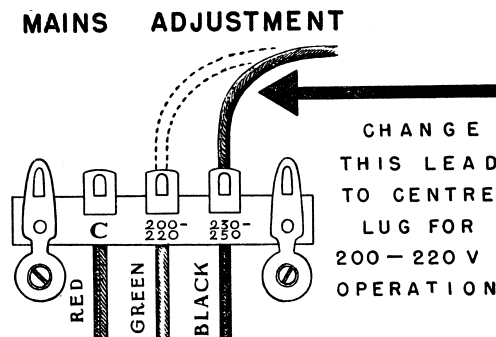
Disconnect the unit from the mains.

Remove the control knob and front cover. The cover is removed by pressing the top of the case and lifting forward.

Remove the three Parker-Kalon screws located near the edge of the chassis, two above the control spindle and the other in the left-hand, lower corner.

Withdraw the chassis from the case and locate the mains terminal strip which is secured to the power transformer.

Unsolder the lead which is connected to the 230-250 volt lug and resolder it to the 200-220 volt lug in accordance with the diagram below.



Replacement of Cell.

It is recommended that the flashlight cell be replaced every 12 months. To replace the cell disconnect the unit from the supply mains, and remove the control knob and front cover. The cell will be located in the top right-hand corner of the case and may now be lifted out. Make sure that the new cell is in good order and that it is held firmly in the clasp, before replacing the cover.

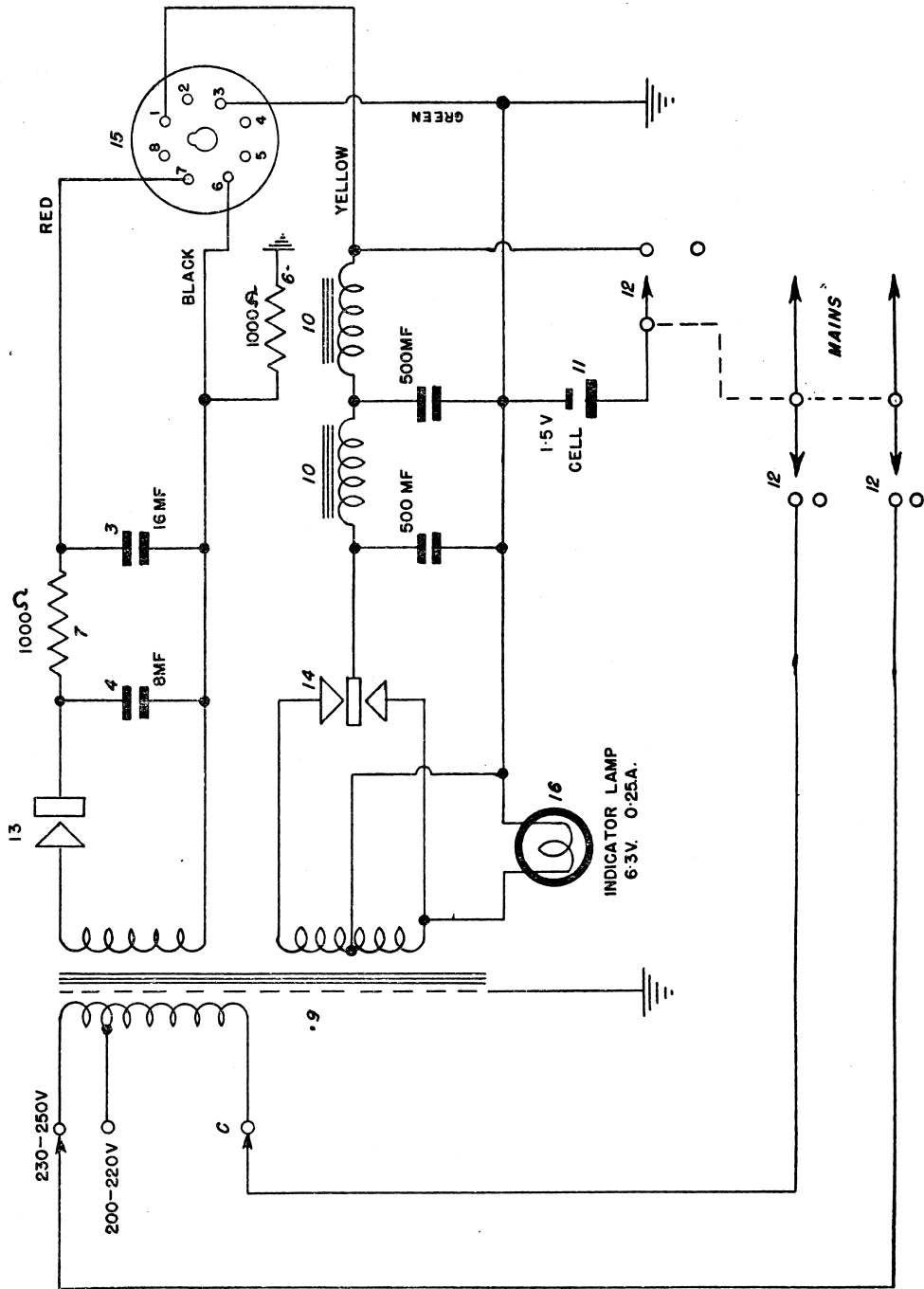
IMPORTANT

The unit must not be operated unless the cell is firmly in position.

SUBJECT:

Circuit Diagram

Model "BLK"



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Components Parts List

Model "BLK"

Circuit No.	Part Name	Rating	Tol.	Eclipse Part No.
1.	500MFD Electrolytic Capacitor	12PV	20%	PC295
2.	500MFD Electrolytic Capacitor	12PV	20%	PC295
3.	16MFD Electrolytic Capacitor	350PV	20%	PC275
4.	8MFD Electrolytic Capacitor	350PV	20%	PC280
5.				
6.	1000 ohm Carbon Resistor	$\frac{1}{2}$ watt	10%	PR252
7.	1000 ohm Carbon resistor	1 watt	10%	PR450
8.				
9.	Power Transformer 200-250V 50 cycles A.C.			PT870
	Power Transformer 200-200 40 cycles A.C.			PT873
10.	Filter Choke Low tension			PT214
11.	Flashlight cell type 950			PM466
12.	Switch			S157
13.	H.T. Rectifier Half Wave "Westalite" Type 14D/12			M194
14.	L.H. Rectifier Full Wave "Westalite" Type LT7/W			M193
15.	Octal Connector			PM350
16.	Dial Lamp 6.3V-0.25A			PM678
17.				
18.				
	Case Assembly			A101/E282
	Cover			6/634-5
	Control knob			5/E252-1
	Spring-Control knob			17/81
	Felt washer-Control knob			79/30C
	Lamp Bezel			27/688
	Lamp Socket Assembly			A130/30C
	Flashlight cell clasp			A104/639
	Grommet (2)			40/30C
	Cover-Octal Connector			216/224
	Screws-Chassis Mounting			40/560-14
	Carton			48/E271
	Instruction Leaflet			50/E271
	Mains Adjustment Label			52/E271