



**Professional Broadcast Equipment**

# OC124NP

## Overnight Charger

### Instruction Manual

#### CONTENTS

SECTION	PAGE
1 SAFETY	2
2 SPECIFICATION	3
3 INSTALLATION	4
4 OPERATING INSTRUCTIONS	5
5 SERVICING & REPAIRS	6
6 WARRANTY	7

## SECTION 1

### SAFETY

- 1.1 This manual contains important safety and operating instructions. Please read these fully before using the OC124NP.
- 1.2 The OC124NP is rated for indoor use only. Do not expose it to water.
- 1.3 The OC124NP is not intended for any use other than the charging of Nickel-Cadmium batteries as detailed in Specification, Section 2.
- 1.4 The OC124NP is an extremely rugged appliance, designed for arduous service conditions. It should not be used, however, if it has received a severe drop or blow, or been otherwise damaged in any way. It should be returned to your local PAG Dealer, or direct to PAG Limited, London for service or repair.
- 1.5 Do not disassemble the OC124NP. There are no user-serviceable parts inside. Incorrect reassembly may result in a safety hazard.
- 1.6 Ensure that the ventilation slots are not obstructed when in use e.g. do not site the OC124NP on a deep pile carpet or similar surface.
- 1.7 Disconnect the OC124NP from the supply before attempting any cleaning.
- 1.8 Use the OC124NP only on a suitable AC supply. See Specification, Section 2.
- 1.9 Do not use an extension cord for the supply unless absolutely necessary. If an extension cord is used, ensure that it is properly wired, has a conductor cross-sectional area of a least 0.5mm and a length of less than 30 metres. Suitable extension cords should be classified as follows:  
Domestic and light commercial application: H05 W-F  
Industrial application: H05RR-F or H05RN-F.
- 1.10 **WARNING:**  
ALTHOUGH THE CHARGER IS SHORT CIRCUIT PROTECTED, EXTREME CARE SHOULD BE TAKEN NOT TO SHORT CIRCUIT THE BATTERY ITSELF. NICKEL-CADMIUM BATTERIES CAN DELIVER POWER AT VERY HIGH RATES, AND A SHORT CIRCUIT COULD RESULT IN FIRE AND PERSONAL INJURY. DO NOT CONNECT THE OC124NP TO THE BATTERY BY MEANS OF BARE WIRES OR CROCODILE CLIPS.

## SECTION 2

### SPECIFICATION

#### 2.1 Description:

PAG OC124NP, four channel Overnight Charger, Model No. 9782.

The name of this charger is descriptive, being derived from its operating parameters (i.e. OC124NP = Overnight Charger, 12V, 4 channel, with charging pockets to suit NP type batteries.

**Note:** The charging output on the top connectors is optimised for NP type batteries with a capacity of 1.7 to 2.3Ah. The charging output on the front connectors is optimised for 90 type batteries with a capacity of 4 to 5Ah. 12V refers to the nominal voltage only. The charger, in this case, has been designed to charge batteries from 12 to 14.4V.

#### 2.2 Range of Batteries Charged:

Nickel-Cadmium batteries of reputable manufacture, having nominal voltages of between 12 and 14.4V and nominal capacities of between 1 and 7Ah.

#### 2.3 Battery Connections:

4 charging pockets to suit NP type batteries, and four 2.1mm sockets (centre pin negative).

Note: Do not connect a battery to both the NP pocket and the 2.1mm socket of a channel.

#### 2.4 Charging Regime:

The OC124NP will charge batteries in the top (NP type) pockets at the rate of 200mA, and batteries in the front (2.1mm type) connectors at the rate of 400mA. All four channels operate simultaneously.

#### 2.5 Charge Timer:

A green indicator is lit on any channel which has had a battery connected to it for 14 hours.

#### 2.6 Maintenance Charge:

A maintenance charge is applied to any battery which has been connected to a channel for 36 hours.

#### 2.7 Input Supply:

'Widerange' 100 volts to 250 volts AC. Frequency 50Hz to 60Hz. Maximum power consumption 50W.

#### 2.8 Output Protection:

Charger protected against short circuit, open circuit, excess battery voltage and reverse battery voltage.

#### 2.9 Safety:

Designed to comply with electrical safety standard EN60335-2-29 (1991) double insulated. UK mains lead fitted with 1" fuse to BS1362 rated 5A.

#### 2.10 Operating Temperature Range:

OC124NP: 0°C to 40°C.  
Batteries: 0°C to 50°C.

#### 2.11 Overall Dimensions:

78mm high x 142mm wide x 240mm deep.  
(3.1" x 5.6" x 9.5" approx.)

#### 2.12 Weight:

900g (2lb approx.)

## SECTION 3

### INSTALLATION

- 3.1 The OC124NP is fitted with a mains input socket conforming to CEE22 (IEC socket). This is situated on the back panel. Mains connection to the charger should only be made using the standard lead supplied with this equipment.
- 3.2 The OC124NP has been designed for use on AC mains supply worldwide and automatically accepts supplies from 100 to 250 volts. Mains supply frequency must be in the range 50Hz to 60Hz.  
DO NOT ATTEMPT TO USE THIS CHARGER ON DC SUPPLIES.  
IF IN DOUBT OF ANY OF THE ABOVE CONSULT A QUALIFIED ELECTRICIAN.

**SECTION 4****OPERATING INSTRUCTIONS**

- 4.1 Connect the OC124NP to the input supply. At power-up an LED test is performed. After 4 seconds a yellow indicator will be lit on any channel which does not have a battery connected.
- 4.2 Connect batteries to the OC124NP, using appropriate adapter leads if necessary.  
 Note: The charger is equipped with four NP type pockets in the top cover, and four 2.1mm sockets situated on the front panel. Either connector can be used on any channel, but both connectors of any one channel must not be used simultaneously.
- 4.3 As a battery is connected charging will automatically commence, and the yellow indicator for that channel will blink.
- 4.4 A timer is provided for each channel. Each timer is fully independent, and is started when a battery is connected. It is re-set when a battery is disconnected, and enables users to discriminate between batteries which may have been applied to the charger at different times.
- 4.5 When 14 hours has elapsed since the connection of a battery, a green indicator will light on that channel and NP or 90 type batteries may be removed for use.  
 Note that the 14 hour timer indicator is for reference purposes only.  
 If a battery is left connected, charging will continue up to a duration of 36 hours, enabling larger capacity batteries to be charged. If batteries other than NP type or 90 type are to be charged, suitable time allowance must be made, using the following formula:  

$$\frac{\text{Battery Nominal Capacity (Ah)}}{\text{Charging Current (200mA or 400mA)}} + 25\% = \text{Time required}$$
- 4.6 When a green indicator has lit on a channel, the yellow charging indicator continues to blink and the charging current is maintained for a total duration of 36 hours from when the battery was connected.
- 4.7 When a battery has been connected to a channel for 36 hours, the yellow indicator is extinguished and the charging current is reduced to a maintenance rate.

**SECTION 5****SERVICING & REPAIRS**

- 5.1 The OC124NP is based upon advanced electronics and does not require periodic maintenance. Consequently there are no user serviceable parts inside.
- 5.2 Qualified electronics engineer who wish to gain access to internal assemblies should note that parts of the power circuit retain a high voltage even after the mains supply has been disconnected. Wait for a period of five minutes following disconnection before commencing disassembly.
- 5.3 When the OC124NP is correctly connected to a mains supply and the yellow indicators are not lit, it is possible that a fuse has become open circuit for some reason.
- 5.4 Equipment supplied for use in the UK will be supplied with a standard UK mains lead, terminated with a fused plug. If this fuse has become open circuit it should be replaced by another of the correct rating (see Specification Section 2.9). **USE ONLY A FUSE OF THE CORRECT RATING.**  
 If a replacement of an open circuit fuse fails to correct the fault do not attempt further fuse replacement. Seek advice from your nearest PAG dealer or direct from PAG Limited, London, by telephoning +44 (0)20 8543 3131.
- 5.5 Unqualified personnel should not attempt further investigation. Any such interference will invalidate the guarantee and invariably cause more damage than the original fault (see paragraph 5.1).

**SECTION 6****WARRANTY**

- 6.1 Notwithstanding any provision of any agreement the following warranty is exclusive: PAG Limited warrants each AR Series 2 charger it manufactures to be free of defects in material and workmanship under use and service for two years from the date of purchase. This warranty extends only to the original purchaser. This warranty shall not apply to fuses or any product or parts which have been subject to misuse, neglect, accident or abnormal conditions of operation.
- 6.2 In the event of failure of a product covered by this warranty, PAG Limited will repair and calibrate equipment returned to an authorised service facility within the period of the warranty, provided the warrantor's examination discloses to its satisfaction the product was defective. The warrantor may, at its option, replace the product in lieu of repair. With regard to any equipment returned within this period, said repairs or replacements will be made without charge. If the failure has been caused by misuse, neglect, accident or abnormal conditions of operation, repairs will be billed at a nominal cost. In such a case, an estimate will be submitted before work is started, if requested.
- 6.3 The foregoing warranty is in lieu of all other warranties, express or implied, including but not limited to any implied warranty or merchantability, fitness or adequacy for any particular purpose or use. PAG Limited shall not be liable for any special, incidental, or consequential damages, whether in contract, tort, or otherwise.