



4Ah INTRINSIC SAFE MINER'S CAP LAMP

R68 Headpiece Assembly

User's Manual

**FIRST NATIONAL BATTERY
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FNB Miner's 4Ah I/S Cap Lamp with R68 Headpiece Assembly User's Manual

Introduction

Congratulations, you are now the proud user of the latest technology cap lamp available.

The new FNB cap lamps are state of the art, robust, intrinsically safe and intelligent devices, designed for the maximum ease of use and safety for you the miner.

The purpose of this booklet is to ensure that you the user understand how to operate and use the lamp and get the best service from it

General Description

The new lamp comprises of a 4Ah Intrinsic Safe Lead-Acid battery and R68 LED headpiece, optic and a cable. The safety circuit is sealed within the battery and therefore inaccessible.

Being sealed within the battery case, the safety circuits are permanently connected to, and continuously draw power from the battery. It is therefore necessary to prevent the battery from being fully discharged. The battery should be recharged immediately after each shift, and again **before** going on shift on your first day after returning from leave.

Safety Warnings

Your safety is very important, so please adhere to the following at all times:

- Never attempt to open the battery. The power from this battery is too low for any use other than powering the light.
- Never attempt to open the headpiece. This will damage both the light and the seals that prevent ingress of water and dust.
- Do not attempt to cut the cable. The power in this cable is too low for any use other than powering the light.



Safety Warnings

- Do not expose the lamp to fire, do not throw it on the floor or against a wall or hit it with any hard or heavy object. Breaking the battery and light enclosures will result in early failure and may even render it unsafe.
- Do not attempt to repair the lamp yourself. Report any problem to the lamp room staff; they are fully trained to maintain and repair your lamp.
- The headpiece will switch to low beam when the battery voltage at the headpiece falls below 3.6 Volt – low beam serves as a warning to the user that the power source needs to be recharged.

Proper Use of the Lamp

Battery fully charged check. When removing the lamp from the charger, switch the light on to check its operation. If the lamp's battery has been fully recharged, the light will switch on. If it does not switch on, report this to the lamp room attendant before proceeding to the work place.

End of shift procedure. At the end of the shift, clean the lamp by wiping with a clean cloth before placing it back on the charger. Check that the light is switched off, and that the lamp is properly connected and charging **before** proceeding to the exit.

On returning to the lamp room, immediately place the lamp back on charge. Check that the light is switched off, that the lamp is properly connected to the charger and charging before leaving the lamp room.

Putting the lamp on charge. The lamp is designed to be charged through the head piece, by connecting power between the connecting point at the bottom at the head piece, and the concealed internal connection which is accessible only with a charger key. Charging points in the lamp room have a charging key and contact spring or plate. With the key slot on the head piece facing downwards, push the headpiece down over the key and lightly rotate clockwise until the connecting point contacts the spring or plate. Then rotate fully until the headpiece stops against the side plate and the green “Charge” LED on the charger lights up.



Charge Feature of Headpiece



Charge Key and Plate



Headpiece rotated 180° clockwise making contact with the plate to engage the charging process

The green LED indicates that the battery is being charged. Once the battery is fully charged, the green "Charge" LED will switch off. The lamp is now ready for service.



Green LED burning – Lamp on charge



Green LED Off – Charge complete

Reporting problems to the lamp room:

In order for the lamp room staff to properly repair the lamp it is important that you report exactly what has happened to it. Report if the lamp was subjected to severe heat, impact or the like, or submerged under water. The more complete your report to the lamp room is, the better they can maintain your lamp for you.