

**FLUKE®**

**Biomedical**

# **Nuclear Associates 05-441**

**PrimaPak™ II Backup Battery Pack**

## **Operators Manual**

**Fluke Biomedical  
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## Section 1

# General Information

### 1.1 Introduction

The PrimaPak™ II automatically provides battery power during primary power failure when used with the following radiation monitors: Primalert 10, Primalert 35, and Primalarm (after serial #1827).

### 1.2 Specifications

*Input Electrical Rating:* 12 VDC, 1.0 Amp, 12 VA

*Output Electrical Rating:* 12 VDC, 500 mA, 6 Watts

*Capacity:* 1200 mAh at 12 V (8.2 end of life)

*Operating Conditions:* 0 – 40°C, 92.5% relative humidity. Case is fully vented.

*Charging Time:* The system will charge to full capacity from a complete discharge in 4 hours

*Battery Life:* 1 year of normal operation, min

*Power-Off Life:* 8 hours for fully-charged unit under alarm conditions; 32 hours when quiescent

*Size:* 4¾" x 5¾" x 2⅜" deep; 1.8 lbs.

*Accessories Supplied:* Interconnect Power Pb Battery charger with indicator and DC power interconnect cable

*Circuit Protection:* The Primalert Power Output is protected with a surface mount re-settable device 60 V/1.0 Amp.

The Pb charger input is protected with a surface mount re-settable device 16 V/1.95 Amp.



Figure 1-1. Model 05-441 PrimaPak™ II Backup Battery Pack

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## Section 2

# Operation

### 2.1 Installation

**NOTE**

Manual is written in English. Contact factory for help with the translation of this manual.

- a. Disconnect the converter used with the Primalert or Primalarm; it is no longer needed. However, keep it in the event that the Primalert or Primalarm are ever used without the PrimaPak.
- b. Select the most favorable location for the PrimaPak, bearing in mind that the interconnecting cable supplied is 36" long. Mount the PrimaPak, using screws.
- c. Connect the interconnecting cable to the "Primalert Power Output" port on the PrimaPak and to the power input of the Primalert or Primalarm.
- d. Connect the converter to the "PB Battery Charger Input" port of the PrimaPak.

**CAUTION**

The converter supplied with the PrimaPak should NEVER be connected directly to a Primalarm or Primalert.

- e. Plug the converter into the power line.

### 2.2 Operation

The PrimaPak contains a gel battery pack that provides a 12 VDC output for 1200 mAh with an end-of-life of 8.2 volts. When used in the standby mode, a minimum charging current is provided, ensuring full capacity upon demand. The system's design ensures a full charge in approximately 4 hours after a complete discharge. A small Bicolor LED is located on the Pb charger. The red color indicates fast charge operation. The Bicolor LED shall change to green to indicate a trickle charge mode.

### 2.3 Testing

Periodic testing should be performed by disconnecting the plug at the "Pb battery charger input" jack while placing the Primalert in an alarm condition, using a test source. If the buzzer and the alarm lights operate, the PrimaPak is capable of providing standby battery power. This test indicates the system is in working condition but does not test for the life and capacity of the internal battery pack.

## 2.4 Performance Monitoring

Because of the crucial nature of the systems using the PrimaPak (i.e., radiation monitoring), a monthly battery life test should be performed. To do this test, unplug the converter from the power line, thereby placing the Primalert in battery operation. If the system fails to operate properly after four (4) hours of battery operation (non-alarming), the PrimaPak should be returned for repair.



### CAUTION

Prolonged deep discharge can be detrimental to battery life and effective capacity.

## 2.5 Service Information



### CAUTION

There are no user serviceable parts for this system. Disconnect all power before servicing unit.



### WARNING

Battery is Model PS-1212 rated 12 volts DC and is manufactured by Powersonic or an equivalent.



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