

**Operating Manual**

**Battery Pack for PGM-IR/H25-IR Pro Portable Leak Detectors**



Order No.: 3015-5848/01

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**⚠ WARNING!**

These instructions must be provided to users before use of the product and retained for ready reference by the user. Read this manual carefully before using or maintaining the device. The device will perform as designed only if it is used and maintained in accordance with the manufacturer's instructions. Otherwise, it could fail to perform as designed, and persons who rely on this device could sustain serious injury or death.

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The warranties made by MSA with respect to the product are voided if the product is not installed and used in accordance with the instructions in this manual. Please protect yourself and your employees by following the instructions.

Please read and observe the WARNINGS and CAUTIONS inside. For additional information relative to use or repair, call 1-800-MSA-2222 during regular working hours.

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## 1 Safety Information

### **WARNING!**

- DO NOT connect this battery directly with any other battery, neither in serial nor in parallel. This battery is designed to provide power independently only.
- DO NOT disassemble or modify the battery. The battery contains safety and protection devices which if damaged may cause the battery to heat, ignite or explode.
- Never puncture, drop, crush, throw, hit, open or modify the battery or casing.
- DO NOT submerge the battery in water.
- DO NOT expose the battery to heat above 60°C (140°F) or incinerate.
- DO NOT place the battery in microwave ovens, high-pressure containers or on induction cookware.
- DO NOT place the battery in or near fire, or in direct sunlight. Heating the battery can damage the safety circuitry, which can cause additional heating, rupture, or ignition.
- DO NOT insert any foreign objects into the charging port.
- Immediately discontinue use of the battery if while storing, charging or using, the battery emits an unusual smell, feels hot to touch, changes color or shape or appears abnormal in any other way.
- In the event the battery leaks and the fluid gets into one's eye, do not rub the eye. Rinse well with water and immediately seek medical attention. If left untreated, the battery fluid could cause damage to the eye.
- Always dispose of used batteries in accordance with local regulations.
- If this battery is misused or abused, it can result in personal injury from heat, smoke, fire or explosion.

**Failure to follow these warnings can result in serious personal injury or death.**

## 2 Technical Specifications

<b>Model</b>	BP90
<b>Capacity</b>	87 Watt-Hour
<b>Battery Cell</b>	Lithium-Ion
<b>Input Charging Port</b>	Acceptable Input Voltage Range DC 12-24V Connector Size 5.5 x 2.1mm
<b>Output Port (III) to Monitor</b>	Port III: 16V, 19V, 24V selectable Connector Size: 5.5 x 2.5mm Maximum Output Current: 3A ~ 3.5A
<b>Charging Time</b>	4-6 Hours
<b>Size</b>	7.5" x 4.5" x 0.9" (or 186 x 114 x 22.5mm)
<b>Weight</b>	1.4lb (621g)
<b>Power Connector</b>	4 level LED indicator
<b>Built-In Protection Circuit</b>	Over-charge – Over-discharge Over current – Over temperature Short circuit protection

### 3 Components



A Output Port (III) to Monitor

B Check Button

C LEDs

D Input Charging Port

### 4 Operation

#### 4.1 Charge the Battery

This battery can be charged from any 110V or 220V AC power source with the provided AC charger.

Plug the AC charger into the battery input port to charge the battery.

#### **CAUTION!**

- DO NOT connect any device to the battery output port when the battery is under charging.
- The port III output voltage will be ~ 12.6V when the battery is charging.

**Failure to follow these cautions can result in minor or moderate injury.**

The LED on the right will light up red. The remaining three LEDs will light up green and indicate the charge level of the battery. One green LED indicates 30-60% battery charge, two green LEDs indicate 60-90% battery charge, and all three green LEDs indicate a full charge.

**NOTE:** New batteries may stop charging before they are fully charged. If your battery stops charging, remove the charger from the battery and reinsert it, re-initiating the charge cycle. This may happen several times during the first few charges and is normal. Battery may become warm during charging process. It is recommended to recharge the battery before it is fully exhausted.

#### 4.2 Set Output Voltage

Output port III can output three different voltages: 16V, 19V, and 24V.

When an output cord is plugged into the port, a LED will light up to indicate the current active output voltage. The LEDs from right to left are 16V, 19V and 24V.

**NOTE:** MSA PGM-IR and H25-IR PRO dual-power instruments are designed to run at 16V.

### 4.3 Change Output Voltage

1. Remove the output cable from the port (voltage locks whenever an output cable is present.)
2. Press and hold the “CHECK” button for three seconds.

**NOTE:** The LED that represents the currently selected voltage will begin to flash.

3. Press the check button again to switch to the next voltage.

**NOTE:** When the desired voltage is reached, wait five seconds for the LED to stop flashing and the voltage will be selected.



### 4.4 Connect to Monitor

Once the battery is charged and the correct voltage is selected, connect the battery to your monitor as described in the user manual.