

## P2G

### Battery replacement guide



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## i. About the Technical description

- In this manual are written procedures for battery change on P2G loggers, intended for technically qualified personnel, responsible for energy measurements.

## ii. Definitions, Acronyms and Abbreviations

VDD	Voltage drain supply
Vbat	Battery voltage
GSM	Global System for Mobile Communications, originally Groupe Spécial Mobile
LED	Light Emitting Diode
SMS	Short Message Service

## iii. Reference documents

- P2G Installation manual
- P2G Technical description

## iv. Versioning

Date	Version	Update
22.11.2013	V1.00	First version of document

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## SAFETY INFORMATION

Safety information used in this User Manual is described with the following symbols and pictographs:



**DANGER:** for a possibly dangerous situation, which could result in severe physical injury or fatality – attention to a high risk hazards.



**WARNING:** attention to a medium risk hazards.

**CAUTION:** for a possibly dangerous situation, which could result in minor physical injury or material damage - attention to a low risk hazards.



**Operating instruction:** for general details and other useful information.

All safety information in this user manual describes the type and source of danger, its possible consequences and measures to avoid the danger.

### 1.1. Responsibilities

The owner of the P2G is responsible to assure that all authorized persons who work with the device read and understand the parts of this manual.

The personnel must be sufficiently qualified for the work that will be performed. The installation personnel must possess the required electrical knowledge and skills, and must be authorised by the utility to perform the installation procedure.

The personnel must strictly follow the safety regulations and operating instructions, written in the individual chapters in this Manual.

### 1.2. Safety instructions



**CAUTION:** The edges of the seal wires are sharp.



The installer must consult and comply with local regulations and read the installation instructions written in this Manual.



**WARNING:** P2G installation and maintenance may not be performed by unauthorised and untrained personnel. Such persons are not allowed to cut the seals and open the P2G cover.



**CAUTION:** The installer is expected to fully understand the risks and safety issues involved in electrical installations. The installer shall be aware at all times of the potential hazard of electrical shock and shall exercise due to caution in completing the task!

Installation personnel must possess the required electrical knowledge and skills and must be authorised by the utility to perform the installation procedure.

The installer is obligated to perform the installation procedure in accordance with the national legislation and internal norms



cover.

**DANGER:**In case of any damage inside the P2G (fire, explosion...) do not open the device



After the end of the battery lifetime, the battery should be treated according to the Waste Electric and Electronic Directive (WEEE).

## CHANGING OF THE P2G BATTERY

The P2G is powered by a 3.9V, size D-lithium battery. Authorized personnel can easily replace the battery on site, typically saving time and money.

Before replacing the battery, please read the following instructions carefully, including the Safety information chapter.



**CAUTION:** For safety reasons the use of batteries other than those supplied by the P2G manufacturer is not permitted.



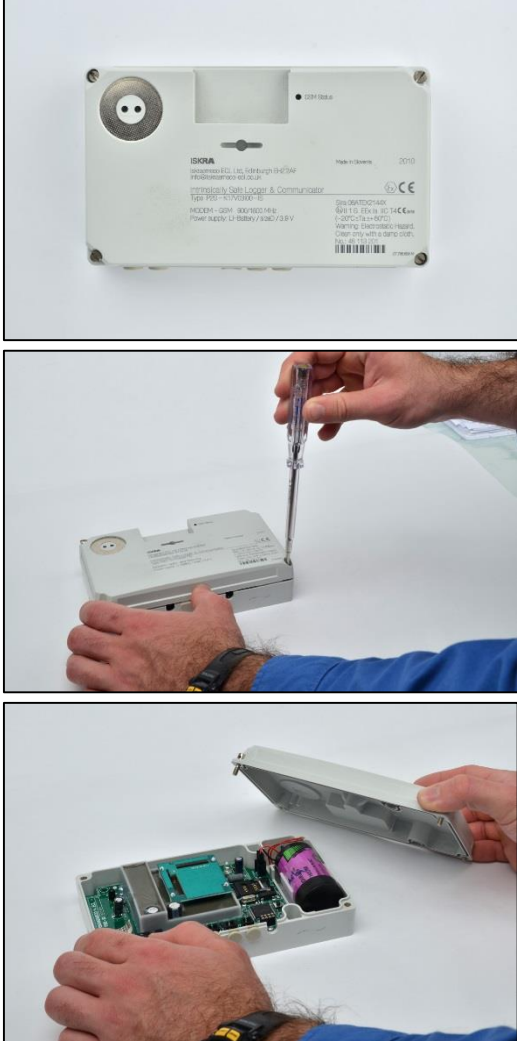
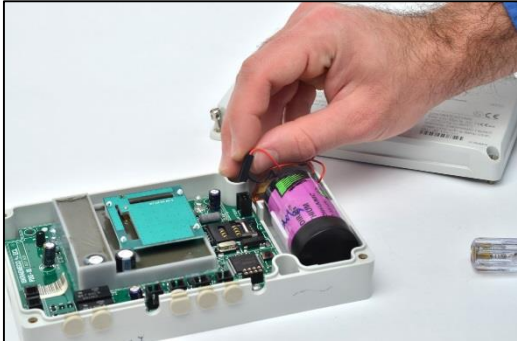
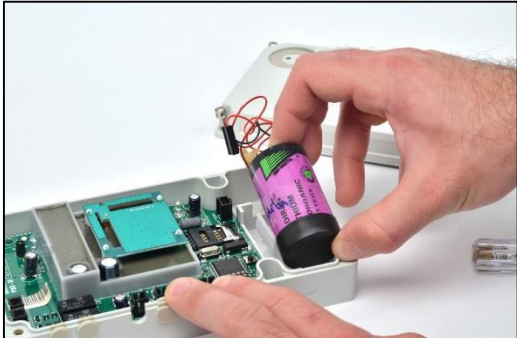
**WARNING:** The battery must always be changed in explosive free atmosphere, where mixture of air and flammable substances in the form of gas, vapour or mist does not occur.



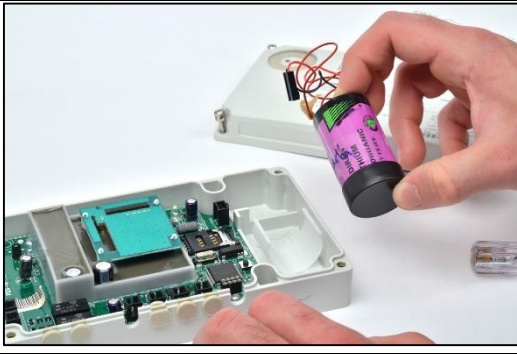
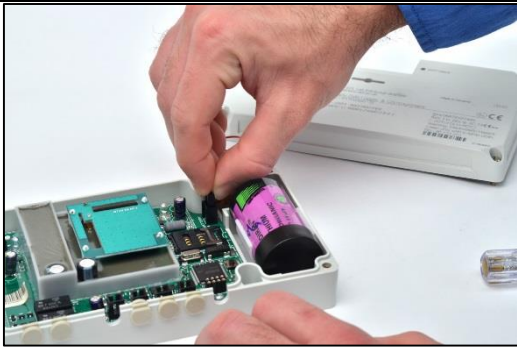
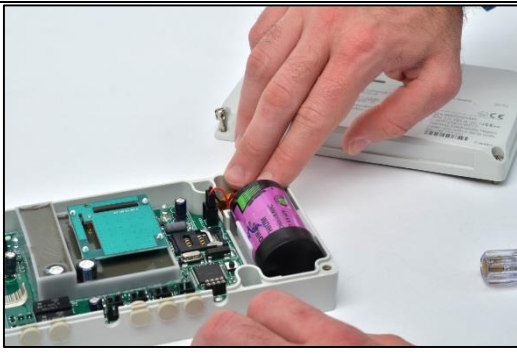

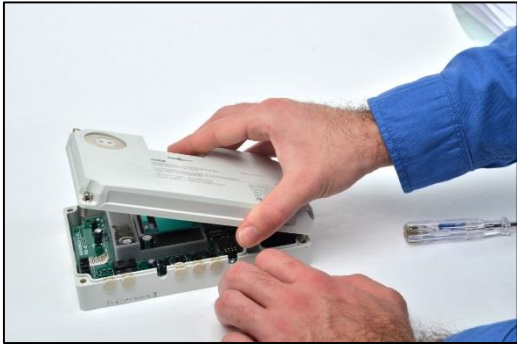
To prevent any damage to the P2G, the main battery should be replaced before it is completely drained! For measurement instructions of the battery before the replacement, refer to the annex.



The electronic circuit of the unit is protected against reverse polarity installation of the battery. A temporary or lasting disconnection of the battery will not cause any loss of stored data or unit settings.

Step	Action	Picture
1	Unscrew the plastic lid and remove it.	
2	Unplug the terminals.	
3	Remove the old battery from its hold	



<p>4</p>	<p>Put the new battery in its hold.</p>	
<p>5</p>	<p>Plug in the terminals.</p>	
<p>6</p>	<p>Secure the excessive cables, by gently putting them in empty space above the battery.</p>	
<p>7</p>	<p>Use a pin (wooden pin, thin pencil, wire or similar) to press the contact accessible through the hole in the inner plastic cover of the P2G.</p>	
<p>8</p>	<p>Close the lid and tighten the screws.</p>	

## ANNEX – MEASURING THE BATTERY VOLTAGE

Before battery replacement, it is recommended to measure the actual battery voltage (Vbat). The voltage measurement shall be done with voltage meter with two probes.

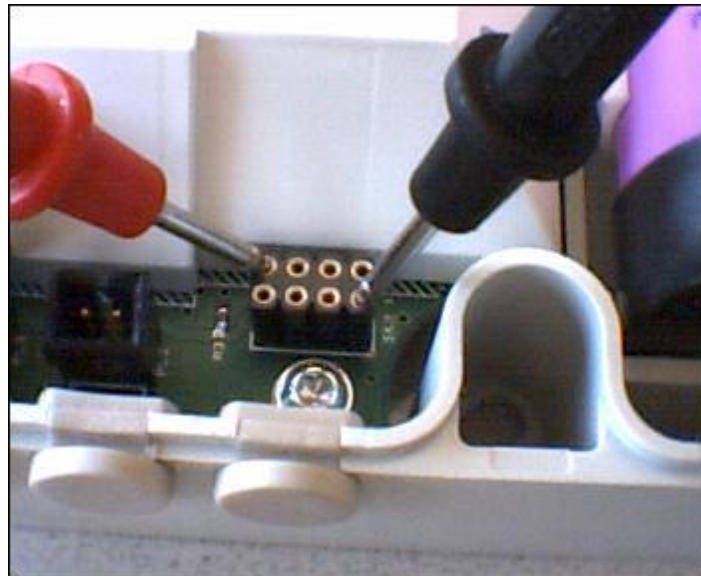


Figure 1: Checking the VDD voltage (red probe = POSITIVE, black probe = GROUND)

Measurement of P2G supply voltage VDD must be performed between the lower right pin of the 8-pin connector (GROUND) and the upper left pin (POSITIVE).

In case the measured **VDD** voltage is below 3.5V, replacement of the battery is needed.

In case the measured **VDD** voltage is below 2.19V, it is recommended that the battery replacement will be done at the factory.

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Owing to periodically improvements of our products the supplied products can differ in some details from data stated in this manual.

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