OSPREY® & MCA

Quick Start Guide

&

Safety Information

www.MOBILTEX.com

ABOUT THIS DOCUMENT

This document has been issued as a reference only; in all instances please refer to the full OSPREY Installation Instructions for further information.

HOW TO OBTAIN FULL OSPREY INSTALLATION INSTRUCTIONS

Installation instructions for OSPREY can be found online at www.MOBILTEX.com

CERTIFICATION DETAILS

USA Marking:
Class I, Zone 0, AEx ia IIB T3 Ga
Class I, Division 1, Groups C & D
-40ºC ≤ Tamb ≤ +70ºC

Certificate number: ITS 13 ATEX 27828X
IECEx ITS 16.0050X
Marking: II 1 G Ex ia IIB T3 Ga
Ta = –40ºC to +70ºC

Canada Marking:
Ex ia IIB T3 Ga
-40°C ≤ Tamb ≤ +70°C

This product is ETL, ATEX & IECEx approved by: Intertek Testing and Certification Limited
(Notified Body Number: 0359)
Cleeve Rd, Leatherhead, Surrey. KT22 7SB. United Kingdom

Intertek Italia S.p.A (Notified Body Number: 2575)
Via Guido Miglioli 2/A, 20063 Cernusco sul Naviglio
Milano (MI) Italy

Conforms to UL 60079-0, UL 60079-11 and UL 61010-1.
Certified to CSA C22.2 No. 60079-0, No.60079-11 and No.61010-1.

SPECIAL CONDITIONS FOR SAFE USE

Electrostatic hazard - clean only with a damp cloth, care must be taken when unit is installed to avoid static discharge, avoid dry dusty airflow.

Isolated metal parts of the equipment (Cellular, GPS & Communications Port connector shells and sensor coupling), have a maximum capacitance of 22pF.

MCA enclosure has a total capacitance of 308pF. The user must ensure that these parts are not subject to electrostatic charging - these risks may be mitigated if MCA enclosure is earthed. No other electrical connections (including earth but excluding MCA) shall be made to the OSPREY unit whilst the PressureLink is connected.

Connections to OSPREY shall only be made via PressureLink. These connections must be made when the equipment is not located in as hazardous area.

ADDITIONAL NOTES FOR SAFETY

If it is not possible to ensure that these parts are not subject to electrostatic charge, the MCA shall have a connection to earth of $<10^6\Omega$. Either through direct bonding or if you have a metal framework in the vicinity of your apparatus (e.g. gas pipes), this would be considered adequate as an earth connection point. Such a connection would ensure equipotential bonding.

Where this is not practical, the following precautions may reduce the risk:

i. Equipment should not be installed in an area prone to fast moving dry airflows.
ii. Equipment should not be installed where it is prone to brushing from non-metallic materials.
iii. If the equipment is in contact with non-metallic materials, cleaning should be with a damp cloth to minimize electrostatic charging.
iv. The capacitance value would also significantly decrease when spaced with a thicker insulator/dielectric such as a wooden backboard.

SAFETY INFORMATION

Please ensure you are familiar with the safety regulations of your company and observe them at all times.

General Safety Summary

This document contains information and warnings that must be observed to keep the unit in a safe condition and ensure safe operation. Please ensure you fully understand all instructions throughout this document and follow all site safety practices and procedures.

Safety Symbols

The table below lists safety symbols that appear on the OSPREY and within this document.

⚠ Risk of danger. Important information. See warnings. See instruction manual for full details.

Maximum Pressure

The calibrated pressure for the OSPREY is model dependant, please refer to pressure limit detailed on the info label. The calibrated pressure for the MCA is dependant on model, please refer to pressure limit detailed on the label. Do not install on systems with higher pressures than those detailed.

Working Temperature

The OSPREY & MCA have been designed to work in temperatures between **-40ºC to +70ºC (–40ºF to +158ºF)**. The unit must not be installed in an environment which exceeds these temperatures.

⚠ **WARNING: DO NOT EXCEED THE MAXIMUM TEMPERATURE RANGE –40ºC to +70ºC.**

Battery Replacement

The OSPREY batteries are specific to the product (SAFT LS 33600) nominal battery voltage is **3.6V** per cell.

Do not attempt to reuse cells. Install only new un-used batteries, bearing the same date code, from the same manufacturer and the same approved battery type: saft ls 33600. Ensure correct installation of cells; incorrect installation of or mixing of new and used cells can result in cell venting or explosion and possible fire.

⚠ **WARNING: DO NOT REPLACE BATTERY WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT. USE ONLY SAFT LS33600 BATTERIES.**

Static Hazard

⚠ **WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE SPECIAL CONDITIONS FOR SAFE USE**

Communication Port

The maximum value of Um which may be applied to the communication port is **6.51V** and USB Port, Unspecified equipment, is **250VAC**. The communications port can only be used with a PressureLink unit. Contact Abriox for more information.

WEEE Directive

In the European Union (EU) this symbol indicates that this product is not to be disposed of with your household waste, according to the WEEE Directive (2002/96/EC) and your national law.

Batteries Directive—Information for Users

In the European Union (EU) this symbol indicates that the batteries in this product should be collected separately and not be disposed of with household waste.

CE Declaration of Conformity

For European model, the product is CE marked which means that Abriox declares that the product or equipment complies with all applicable European Directives.

FC FCC

For US models, this device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

i) Reorient or relocate the receiving antenna
ii) Increase the separation between the equipment and receiver

Do not make any changes or modifications to the equipment unless otherwise specified in the manual. If such changes or modifications should be made, you could be required to stop operation of the equipment

COMPLIANCE

ATEX Directive

The following instructions apply to equipment covered by certificate numbers:

ITS13ATEX27828X & IECEX ITS 16.0050X

i. The equipment may be used with flammable gases and vapours with apparatus groups IIB and with temperature classes T3.
ii. The equipment is only certified for use in ambient temperatures in the range **–40ºC to +70ºC** and should not be used outside this range.
iii. The certificate numbers have an 'X' suffix which indicates that special conditions of installation and use apply.
iv. Installation shall be carried out in accordance with the applicable code of practice by suitably-trained personnel.
v. Repair of this equipment should be carried out by authorised personnel only.
vi. If the equipment is likely to come into contact with aggressive substances, then it is the responsibility of the user to take suitable precautions that prevent it from being adversely affected, thus ensuring that the type of protection is not compromised.
    * Aggressive substances — e.g. acidic liquids or gases that may attack metals, or solvents that may affect polymeric materials.
    * Suitable precautions — e.g. regular checks as part of routine inspections or establishing from the material's data sheet that it is resistant to specific chemicals.
i. There are no special checking or maintenance conditions other than a periodic check.

ETL Directive

The ETL Listed Mark is proof that the product is compliant to North American safety standards has been independently tested and meets the applicable published standard.
The Osprey is designed and approved for mounting in **Class 1, Division 1** Hazardous area locations (refer to the NFPA Electrical code book)

DISCLAIMER

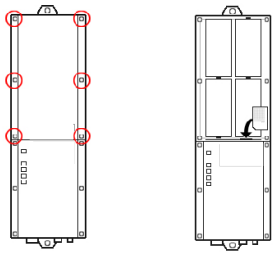
If this equipment is used in a manner not specified by Abriox, the protection provided by the equipment may be impaired. Please ensure you have read and understand all safety and installation requirements before installing this equipment. Please refer to the full Osprey Installation Instructions for further information.

⚠ **ENSURE YOU ARE FAMILIAR WITH THE SAFETY REGULATIONS OF YOUR COMPANY AND OF THIS EQUIPMENT AND OBSERVE THEM AT ALL TIMES.**

INSTALLATION INSTRUCTIONS

This document has been issued as a guide only, in all installations the antennas should be mounted as high as possible in order to achieve the best possible signal for cellular and GPS communications. Refer to the full OSPREY Installation Instructions for further information.

STEP 1 - CHECK/INSTALL BATTERIES AND SIM

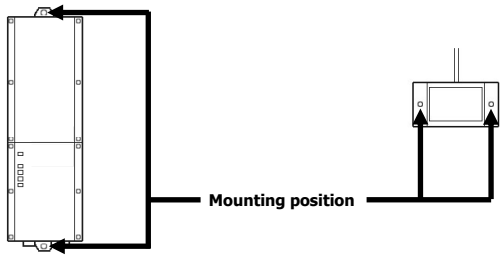


⚠WARNING: BATTERY AND SIM INSTALLATION OR REPLACEMENT MUST BE CARRIED OUT IN A NON-HAZARDOUS LOCATION.

Check the batteries and SIM card have been fitted (prior to installation in the zone). Refer to the Battery and SIM Card Replacement Instructions (Annex A) in the OSPREY Installation Instructions for full details.

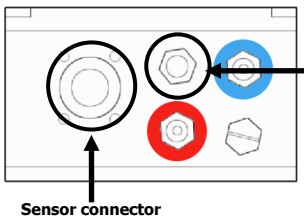
1. Remove the six screws holding the top lid and gasket in place (as shown above)
2. Check/install the batteries
3. Check/install SIM card (push in/out fitting)
4. Replace top lid, ensuring the gasket is fully seated, and refit screws 0.44lbft (0.6Nm)
5. Connect Laptop/PC via PressureLink and send NEW BATTERY command

STEP 2 - POSITION THE OSPREY & MCA



The OSPREY and MCA come complete with mounting brackets/holes which allow the unit to be securely fitted in place inside a cabinet, meter cabinet or governor station. For dimensions of the bracket and mounting holes, see the full OSPREY Installation Instructions.

STEP 3 - CONNECT THE SENSOR



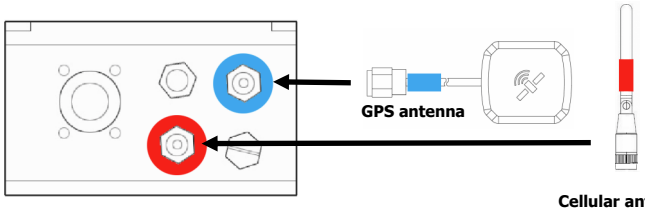
⚠WARNING: ENSURE GAS SUPPLY IS ISOLATED PRIOR TO MAKING THE CONNECTION TO THE OSPREY.

Caution: To avoid damage to the OSPREY, when attaching a sensor adaptor use a spanner to hold the sensor connector to prevent it from rotating.

With the gas supply isolated connect the OSPREY and MCA sensors to the measurement points. The OSPREY and MCA have ¼"NPT or ¼" BSPT Female fitting. If connecting an MCA, ensure the Osprey is off (Reference Annex C in the OSPREY Installation Instructions). Connect the MCA to the port on the OSPREY as detailed.

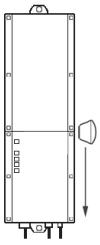
Warning: Do not suspend unsupported pipework from the unit. It is highly recommended attaching the pipework to the unit with a flexible hose to minimise vibrations at the sensor. Further details can be found in the full OSPREY Installation Instructions.

STEP 4 - CONNECT THE ANTENNAS



Take care connecting the antennas; reference colour coding as per above drawing.
Connect the cellular (RED) and GPS (BLUE) antennas to the OSPREY unit. To aid signal, mount the unit/antennas as high in the enclosure as possible or if using an external antenna, mount it outside with a clear view of as much sky as possible. The GPS antenna must have a view of the sky.

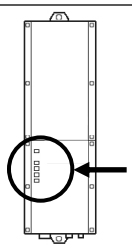
STEP 5 - ACTIVATION



The automated installation can take up to 25 minutes.

Activate the OSPREY by swiping a magnet once along the side of the unit where it is labelled 'RESET'; the LEDs on the unit will momentarily light up. The unit will now start its automated installation process.

STEP 6 - CHECK INSTALLATION STATUS



LED Key
OK - Installation Complete
C - Communications (GPS/Cellular/Server)
S - SIM Card
B - Battery Low
F - FAULT - DO NOT USE UNIT

The installation process performs several self-checks and highlights any warnings via the **Status LEDs**; each LED may flash in turn (on a 6 second cycle) depending on any warnings/faults encountered. Further details of the Status LEDs can be found in the full OSPREY Installation Instructions.

If any of the following LEDs flash after activation/reset, installation will be compromised and/or unsuccessful:

- **-** No Flash = Battery depleted. Remove from zone and change batteries
- **S** - Single flash = SIM Card. Remove from zone and check SIM card
- **B** - Single flash = Battery Low. Remove from zone and change batteries
- **F** - Single flash = Fault. Do not use. Return to Abriox for diagnosis
- F - Double flash = Fault. Stop operation immediately. Do not use. Return to Abriox

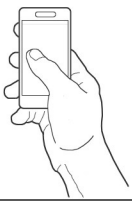
Assuming no warnings/faults are detected (as shown by the **S**, **B** or **F** LEDs), the unit will initially flash the 'C' LED 4 times every six seconds.

- **C -** Quadruple flash = Attempting to establish both cellular and GPS communications
- **C -** Triple flash = Has logged onto the cellular network but has not yet established GPS communications
- **C** - Double flash = Has established GPS communications but has not yet logged onto the cellular network
- **C** - Single flash = Has logged onto both cellular and GPS networks but has not yet established a connection to the data server

Once the green 'OK' LED flashes once every 6 seconds, installation is complete, you may reconnect the gas.

Note
It can take up to 25 minutes to establish full cellular and GPS communications. The LEDs are disabled after 60 minutes regardless of any warnings/faults encountered.

STEP 7 - CHECK THE STATUS BY SMS (OPTIONAL)



⚠WARNING: ENSURE YOU ARE OUTSIDE THE ZONE AND FOLLOW ALL SAFETY PRECAUTIONS.

Note
A manual status check can only be made once the unit is awake and has logged onto the cellular network.

With the gas reconnected (and turned on), send the following text message to the cell number on the front of the unit **`status`**

The unit will reply back to your cell phone `UNIT:01400301 CH1=0.371psi CH2=43.54psi CH3=10.21psi BATT=80% INSTALLED: Yes`

Where **`01400301`** is the unit's serial number. The **`value`** given in **`PSI, bar or mbar`** is the current pressure being measured by the OSPREY & MCA. Further details can be found in the full OSPREY Installation Instructions.

STEP 8 - SECURE THE ENCLOSURE

With the green 'OK' LED flashing once every six seconds and the gas turned back on, you may secure the enclosure.