# Fuel Cap Protector (AR0234) Product Overview

Cellocator Division
Pointer Telocation Ltd.



Version 1.1

Revised and Updated: November 22, 2011

POINTER

Pointer Telocation Ltd. 14 Hamelacha St., Rosh Ha'ayin 48091, Israel • Tel: 972-3-5723111 • Fax: 972-3-5723100 • www.pointer.com

# Table of Contents

# 1 Introduction

## 1.1 Overview

The AR0234 Fuel Cap Protector decreases the possibility of fuel theft by preventing access to the fuel lid and reporting on fuel cap openings. The Protector, which is connected to one of the Cellocator unit digital inputs, detects fuel cap access and sends a signal to the Cellocator unit digital input. The Cellocator unit reports to the Control Center by sending an appropriate event.

The Fuel Cap Protector is designed to be mounted on the tank lid neck, disabling access to the fuel cap when closed and allowing free access to the fuel cap when open.

The AR0234 Cellocator Fuel Cap Protector replaces the AR0224 Cellocator Fuel Cap Sensor and the AR0192 Cellocator Fuel Cap Sensor.

## 1.2 Highlights

- Informs on any access to the fuel cap
- Supports all fuel lead sizes (and not only 10.5 cm diameter ones)
- Has a rugged and professional design
- Disables access to fuel cap when cover is closed
- Allows free access to fuel cap when cover is open
- Supports easy installation as no calibration is needed
- Supports automatic opening due to built-in spring
- Supports Stainless steel hinges and springs
- Supports full plastic, strengthen with fiber glass, case (unbreakable material)
- Supports internal, firmly placed and inaccessible magnet and reed relay

## 1.3 Compatibility

All Cellocator units utilizing digital inputs support the Fuel Cap Protector.

## 1.4 Abbreviations

| Abbreviation | Description |
|---|---|
| | |
| | |

## 1.5 References

All the reference documents listed in the following table can be downloaded from the support section of the Pointer website (www.pointer.com).

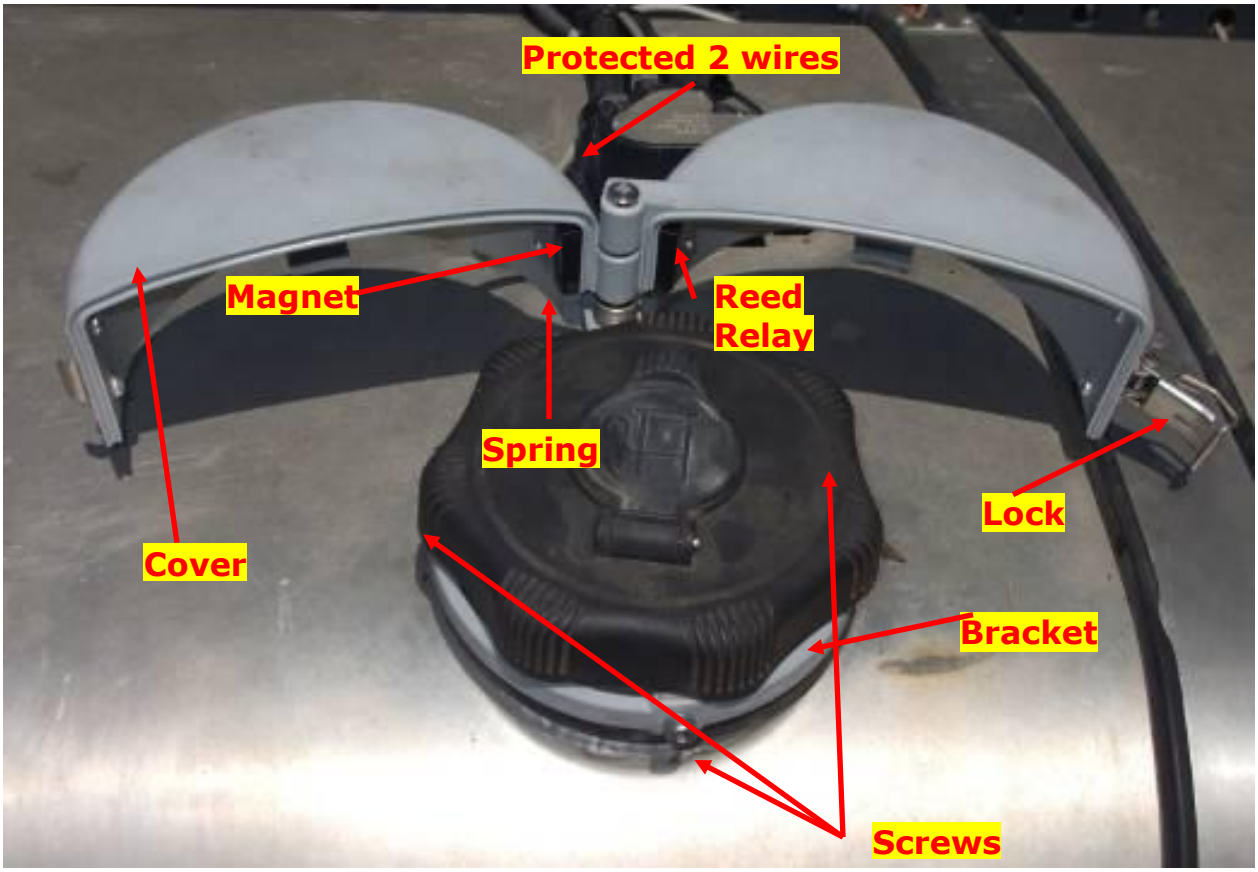
| # | Reference | Description |
|---|---|---|
| 1. | | |
| 2. | | |

## 1.6 Revision History

| Version | Date | Description |
|---|---|---|
| 1.0 | November 20, 2011 | Initial preliminary version |
| 1.1 | November 22, 2011 | Change item 2 in the installation instructions |
| | | |

# 2 Fuel Cap Protector Description

The product includes the Fuel Cap Protector itself and three sets of screws.




The plastic Fuel Cap Protector is mounted on the fuel lid using the bracket and three Allen screws. A lock is used to close the two parts of the cover. The spring enables automatic opening of the cover when the lock is opened. When the cover is closed, the reed relay is adjacent to the magnet and the two wires are connected to each other. When the cover is opened the reed relay opens the circuit and disconnects the two wires.

The Fuel Cap Protector is mounted on the fuel lead using three screws. Three types of screws are available for supporting different sizes of fuel leads:

- Short screws: the short screws dimensions are 5 * 14.25 mm and support fuel leads of 102-110 mm.
- Medium screws: the medium screws dimensions are 5 * 20.75 mm and support fuel leads of 89.9 -102.1 mm.
- Long screws: the long screws dimensions are 5 * 20.75 mm and support fuel leads of 73.2 - 90 mm.

All screws are Allen type screws with a sharpened end. The different types of screws are shown in the pictures below.

# 3 Installation Instructions

---

**WARNING:** Installation of the mounting bracket of the fuel tank lid must be done in accordance with the installation instructions.

In addition, to avoid possible bodily injury, or damage to the vehicle, the installer must be a certified technician who has been qualified to install the system.

---

## To install the Fuel Cap Protector:

1. Mount the bracket on the fuel tank lead using the appropriate three screws. Make sure that the cover can be opened and the fuel cap can be removed and closed again.

2. Apply a medium strength threadlocker (adhesive) (such as HENKEL-Loctite 270 screw stabilizer) onto the bolt at the nut engagement area, preventing the bracket from coming loose.
3. Verify that when the bracket is closed the wires are shortened, and when the bracket is opened the reed relay is opened.
4. Connect one wire to the vehicle ground and the other to one of the Cellocator unit inputs.
5. Program the relevant input to the non-inverted state.
6. Open and close the bracket and validate that the Control Center application is notified of the change.

Some installation examples are shown below.

**MAN-Tgl 12.180**

**IVECO Stralis**

# 4 Technical Specifications

| Parameter | Description |
|---|---|
| Contact Type | Normally open |
| Switching Voltage Max | 200 VDC, 140 VAC |
| Switching Current Max | 1 A |
| Cable Length | ~0.45 meter |
| Operating Temperature | -20°C to +85°C |
| Dimensions | ~18.5 X 15.5 X 6.5 cm |
| Weight | ~0.35 Kg |