

# **μNR Operating Instructions**

P/N 817439451

Rev A

## **1. SCOPE**

This document provides a general and functional description of the μNozzle Reader (hereafter referred to as μNR) units.

## **2. μNR DESCRIPTION**

The μNR is a self-contained, battery operated transceiver installed on the dispenser's fueling nozzle. μNR uses RFID technology to read the vehicle FuelOmat data and transfer it to the WGT network through the nearest WGT. The μNR uses an internal battery and requires only mechanical interface to the fueling nozzles. The following NR types are available (Figure 1 and Figure 2):



*Figure 1. μNR-F*



*Figure 2. μNR-B/T – Rectangular Coil (Left) & Round Coil (Right)*

### 3. OPERATING INSTRUCTIONS

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Proceed as follows:

1. Remove the nozzle from the boot
2. Insert the nozzle spout into the vehicle fuel inlet
3. The  $\mu$ NR detects the FuelOpass and the indication LED blink twice
4. Turn on the pump handle and dispense fuel
5. Turn the pump handle off
6. Return the nozzle to the boot

### 4. TECHNICAL SPECIFICATIONS

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Table 1 lists the specifications for the  $\mu$ NR units.

*Table 1.  $\mu$ NR Specifications*

<i>Parameter</i>	<i>Description</i>
Supply Voltage:	P/N 812539200 (x2) Battery replacement should be performed only by authorized service personnel
Power Consumption:	Active mode: 25mA typical. Standby mode: 20 $\mu$ A
Battery Life Span	2 to 3 years typical
Operating Temperature:	-40° to +60 °C
Storage Temperature:	-40° to +60 °C
Dimensions (HxWxD):	$\mu$ NR Assembly: 27.2x39.3x44.2mm NR-B Back Clamp: 106x56.9x72.2mm
Communication Interface:	<ol style="list-style-type: none"><li>1. RF communication method to WGT:<ul style="list-style-type: none"><li>• Frequency: 2.405-2.480 GHz</li><li>• Typical transmission power: 3dbm (2mW)</li></ul></li><li>2. RFID communication method with FuelOpass:<ul style="list-style-type: none"><li>• Frequency: 119-135 kHz</li></ul></li></ol>

## FCC Compliance Statement

This device 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 residential installations. 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 and television reception.

However, there is no guarantee that interference will not occur in a particular installation. If this device does cause such interference, which can be verified by turning the device off and on, the user is encouraged to eliminate the interference by one or more of the following measures:

- Re-orient or re-locate the receiving antenna.
- Increase the distance between the device and the receiver.
- Connect the device to an outlet on a circuit different from the one that supplies power to the receiver.
- Consult the dealer or an experienced radio/TV technician.

***WARNING!*** *Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.*

This device complies with FCC Rules Part 15 and with Industry Canada licence-exempt RSS standard(s). Operation is subject to two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference that may be received or that may cause undesired operation.

Le present appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisee aux deux conditions suivantes :(1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioelectrique subi, meme si le brouillage est susceptible d'en compromettre le fonctionnement.