

Trip Type Detection

1 Introduction

1.1 About the Functionality

The tracking device can be configured to register the vehicle trip as either private or business. This allows you to define if the trip was performed for business purposes.

Detailed descriptions of tracking devices and functionalities can be found on our documentation website: doc.ruptela.lt

1.2 Legal Information

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1.3 Compatibility

This functionality is compatible with the following devices with the newest firmware version:

- HCV5
- LCV5
- Pro5
- FM-Tco4 HCV
- FM-Tco4 LCV
- FM-Pro4
- FM-Eco4 S/T

1.4 Contact Information

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1.5 Document Changelog

Version	Date	Modification
1.0	2020-09-25	Initial draft.

1.6 Notations

The following notations are used in this document to highlight important information:

Bold text

Used to indicate user interface elements or for emphasis.

Italic text

Used to indicate items that belong to a list and can be selected, also for identification of examples.

Note



Used to highlight important information or special conditions.

Tip



Suggestions on how to proceed.

2 Description

2.1 Operation Principles

The trip type can be set by toggling a switch or pushing a button that is installed in the vehicle. When using the push button, you also have to predefine how the trip type changes when turning on the ignition. The following parameters can be configured:

Trip type source	Select to which digital input a button/switch is connected. Default value: <i>DIN1</i> .
Trip type logic	Select, which logic will be used to define the trip type: <ul style="list-style-type: none">• <i>Low: Private, High: Business</i> – if the switch is OFF, the trip is considered to be private. If the switch is ON, the trip is considered to be business.• <i>Low: Business: High: Private</i> – if the switch is OFF, the trip is considered to be business. If the switch is ON, the trip is considered to be private.• <i>Switch on pulse</i> – is used only with a push button. When a button is pressed, the trip type changes. Default value can be set to <i>Private</i> or <i>Business</i>. Additionally, set how the trip type changes when turning the ignition on:<ul style="list-style-type: none">○ <i>Keep current type</i> – the trip type does not change.○ <i>Switch to 'Business'</i> – the trip type changes to business.○ <i>Switch to 'Private'</i> – the trip type changes to private.In this mode you can also enable the Preserve trip type when ignition is switched off checkbox, which allows you to save the last set trip type after switching off the ignition. When the ignition is turned on, the saved trip type is set again. Default value: <i>Private, Keep current type</i>. Default value: <i>Low: Private, High: Business</i>

2.2 Examples

Example no.1:

Desirable trip type	Always private. If the push button is pressed, trip type changes to business.
Configuration	Default: <i>Private</i> On ignition on: <i>Keep current</i> Preserve trip type when ignition is switched off: disabled
Success scenario	The tracking device is powered on: default value <i>Private</i> is set. Ignition is switched on: no change to the value. Driver pushes the button: the value changes to <i>Business</i> . Ignition off: the value changes to <i>Private</i> .

Example no.2:

Desirable trip type	With the ignition on, the trip type is business. If the push button is pressed, trip type changes to private.
Configuration	Default: <i>Private</i> On ignition on: <i>Change to 'Business'</i> Preserve trip type when ignition is switched off: enabled
Success scenario	The tracking device is powered on: the default value <i>Private</i> is set. Ignition is switched on: the value is changed to <i>Business</i> . Driver pushes the button: the value changes to <i>Private</i> . Ignition off: the value remains <i>Private</i> .

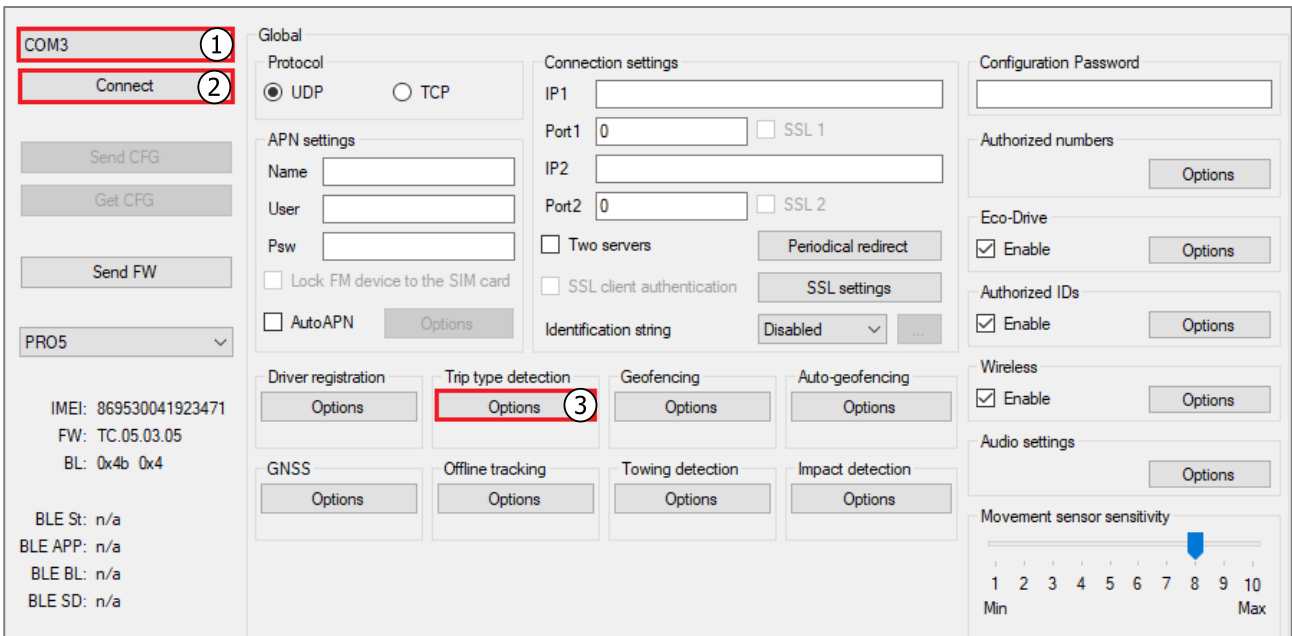
3 Configuration

i This functionality requires the use of the advanced configurator.

3.1 Starting the Configuration

To start the configuration, follow these steps:

1. Open the advanced configurator. Select the COM port to which your device is connected.
2. Click **Connect**.
3. Click the **Options** in the **Trip type detection** section to open the **Trip type detection** window.



3.2 Configuring Trip Type Detection

Follow these steps to configure trip type detection:

1. Tick the **Enable** checkbox.
2. Select your **Trip type source**.
3. Select the desired trip type logic.
4. If *Switch on pulse* is selected, select the required **Default value**.
5. Select how the trip type will change **On ignition on**.
6. If required, tick the **Preserve trip type when ignition is switched off** checkbox.



For the 4th generation devices, you have to tick the **Send I/O data with 1.1 protocol** checkbox in **IO events** prior to IO enabling.

Trip type detection

Enable (1)

Trip type source:
DIN1 (2)

Trip type logic:
 Low: Private, High: Business
 Low: Business, High: Private
 Switch on pulse (3)

Default value Private Business (4)

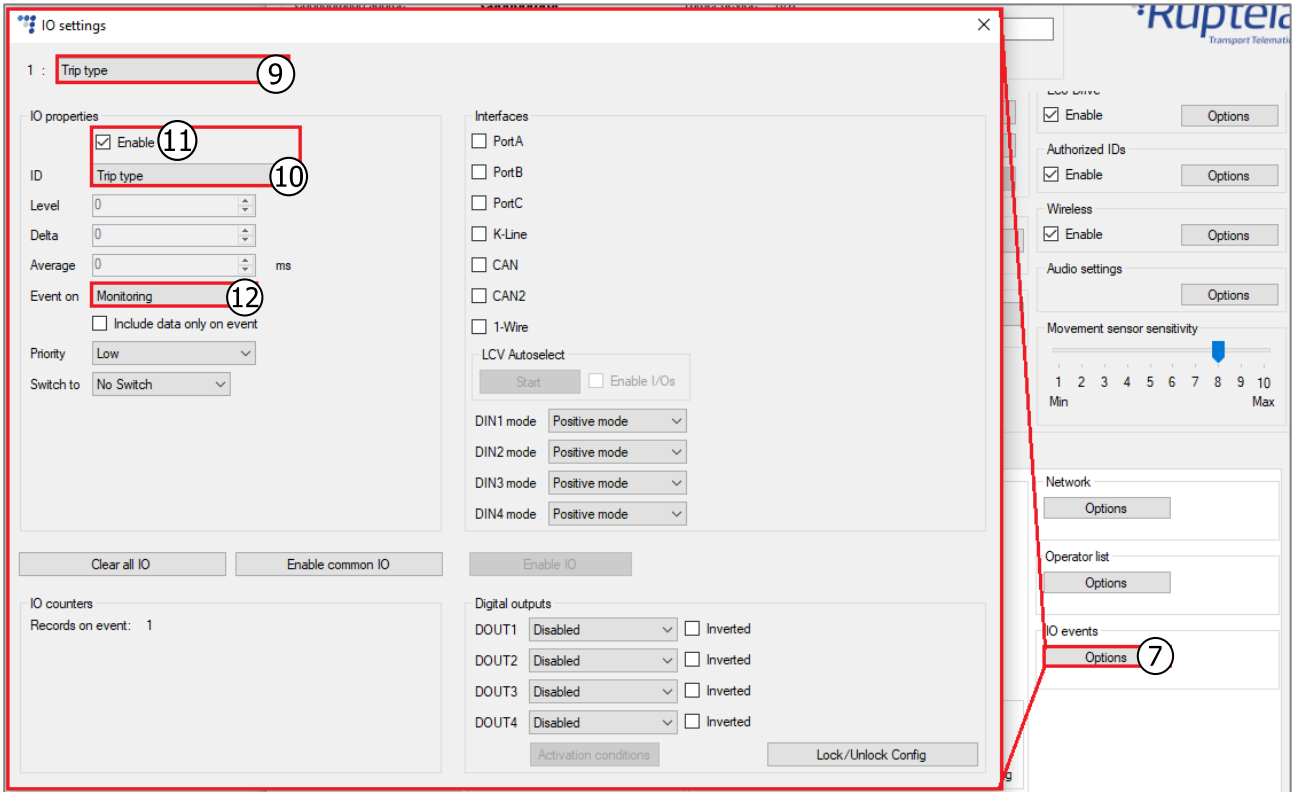
On ignition on:
 Keep current type
 Switch to 'Business' (5)
 Switch to 'Private'

Preserve trip type when ignition is switched off (6)

Enable IO

7. Close the **Trip type detection** window and click **Options** in the **IO Events** section to open the IO settings window.
8. Tick the **Send I/O data with v1.1 protocol** checkbox (4th generation devices only)
9. Select an empty parameter slot.
10. Select *Trip type*.
11. Tick the **Enable** checkbox.

12. Set **Event on** to *Monitoring*, *Hysteresis* or to *On Rising*.



3.3 Finishing the Configuration

To finish the configuration, close the **IO settings** window. Click **Send CFG** to send the configuration to the device.

The screenshot shows a configuration window for an IO device. On the left, there are dropdown menus for 'COM3' and 'PRO5', and buttons for 'Disconnect', 'Send CFG' (highlighted with a red border), 'Get CFG', and 'Send FW'. Below these are device details: IMEI: 869530041923471, FW Build: 03.19, Base FW: 00.06.00.00, BL: 0x4b 0x4, BLE St: (5) No power, BLE APP: n/a, BLE BL: n/a, BLE SD: n/a.

The main configuration area is divided into several sections:

- Global:** Protocol (UDP selected, TCP unselected).
- APN settings:** Name, User, Psw, Lock FM device to the SIM card (unchecked), AutoAPN (unchecked).
- Connection settings:** IP1, Port1 (0), IP2, Port2 (0), SSL 1 (unchecked), SSL 2 (unchecked), Two servers (unchecked), Periodical redirect, SSL settings, Identification string (Disabled).
- Configuration Password:** Password field, Authorized numbers (Options), Eco-Drive (checked, Enable), Authorized IDs (checked, Enable), Wireless (checked, Enable), Audio settings (Options).
- Driver registration, Trip type detection, Geofencing, Auto-geofencing, GNSS, Offline tracking, Towing detection, Impact detection:** Each has an 'Options' button.
- Movement sensor sensitivity:** A slider set to 8, with labels 1-10, Min, and Max.