OMNICOMM

Conversion Server

User Manual

19.04.2021

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Conversion Server

This user manual contains recommendations of how to set up third-party manufacturer terminals to work in Omnicomm Online software.

General

Terms and Definitions

OS — operating system; PC — personal computer; SW — software; VH — transportation vehicle.

System Requirements

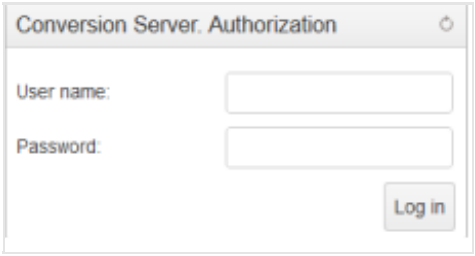
Workstation	Hardware	Software
User	Personal computer with internet access	Browsers (versions of at least) Mozilla 2.X, Opera 9, Google Chrome 41.

User Qualification Requirements

Advanced user

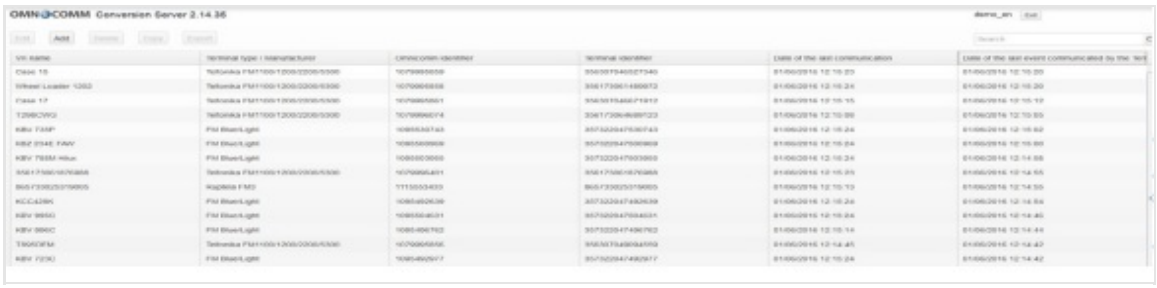
Authorization

To connect to the conversion server, open the browser and paste http://convert.omnicomm.ru:8082/#en into the location bar. The user authentication screen appears:



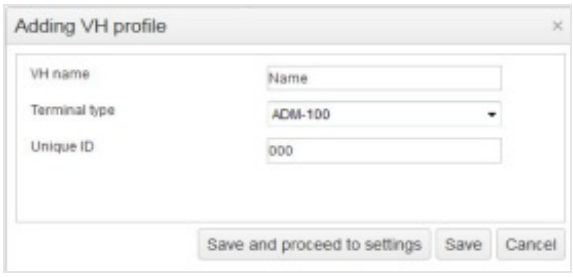
Enter dealer (partner) Omnicomm Online login in the field "**User name**". Enter dealer (partner) Omnicomm Online password in the field "**Password**".

The main screen of the conversion server will open:



Adding Terminal

Press the button "**Add**" in the main screen of the conversion server. The following screen appears:



Enter the name and registration number of the VH next to "**VH Name**". The VH name must contain 3-64 characters. It should coincide with the VH name loaded in Omnicomm software.

Select the type of onboard equipment installed on the VH next to "**Terminal type**".

Enter IMEI or factory number of the terminal next to "**Unique ID**". The identification number must contain 3-20 characters. Allowable characters are Latin letters and digits.

"Customer" - enter the name of the client that owns the terminal.

To add a terminal and then set it up, press the button "**Save and proceed to settings**". Data conversion setting screen for the added VH opens.

To add the terminal and proceed to the main screen of the conversion server, press "**Save**".

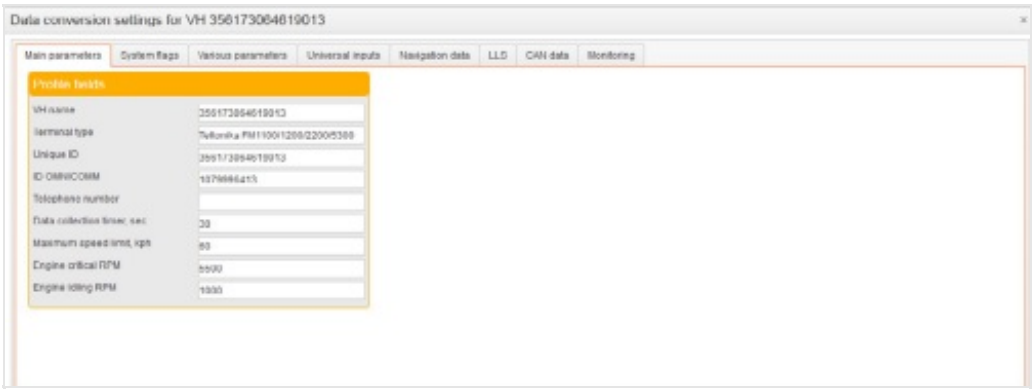
In case of any inaccuracies when adding a terminal, please contact Omnicomm technology support department by email support@omnicomm-world.com or by the telephone numbers shown at www.omnicomm-world.com.

Setting Up Terminals

Before selecting options of “Method of calculation”, proceed to the tab “Monitoring”, and make sure that the data from the planned parameter of “Method of calculation” are available.

Main Parameters

In the section “**Main parameters**”:



VH name — VH name indicated while adding the VH in the control server.

Terminal type — type of the terminal installed on the VH.

Unique ID — IMEI or factory number of the terminal indicated when adding the VH in the control server. Allowable characters are Latin letters and digits.

ID Omnicomm — identification number of the terminal installed on the VH. The identification number is formed automatically based on the unique ID terminal.

Telephone number — telephone number of the SIM-card installed in the terminal. Data collection timer, sec. The parameter is required to ensure regular time intervals between the events (data) in Omnicomm Online software. Recommended value – interval of collection data from fuel level sensors LLS installed in the terminal.

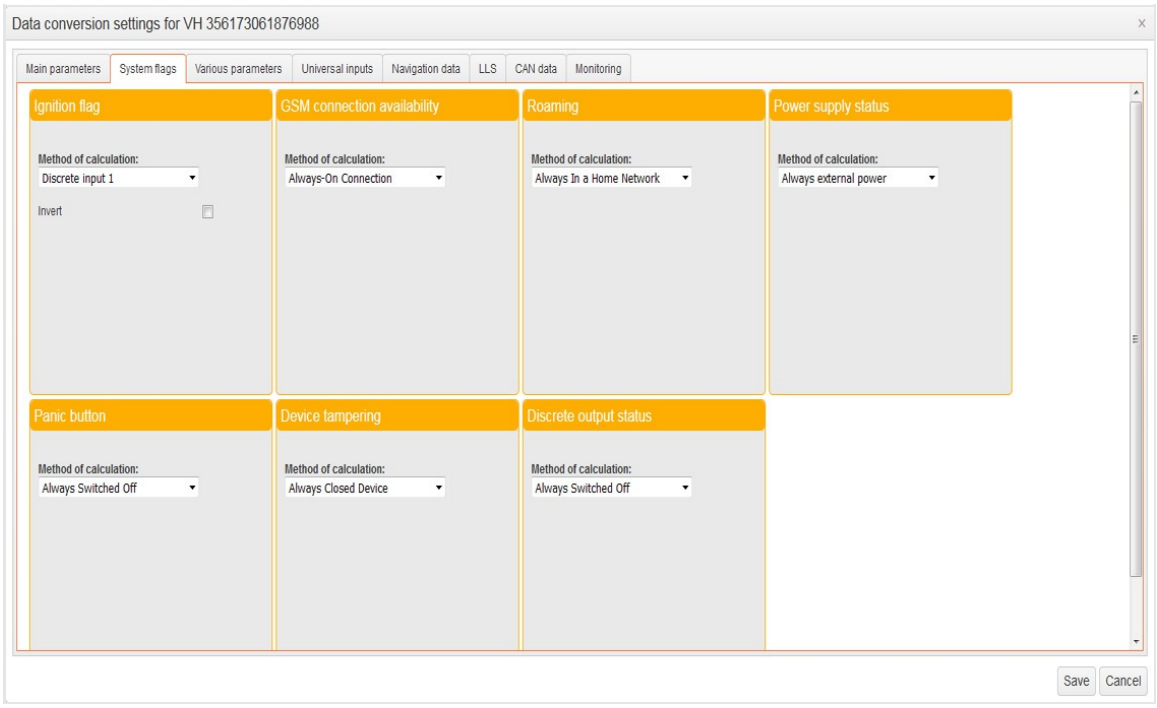
Maximum speed limit, kph — enter the value of VH speed, in excess of which Omnicomm Online software will record the VH motion with the excess speed.

Engine critical RPM — enter the value of engine speed in excess of which Omnicomm Online software will record VH operation under the limit load.

Engine idling RPM — engine speed value in excess of which Omnicomm Online software will record the VH motion.

System Parameters

Open the tab "**System flags**".



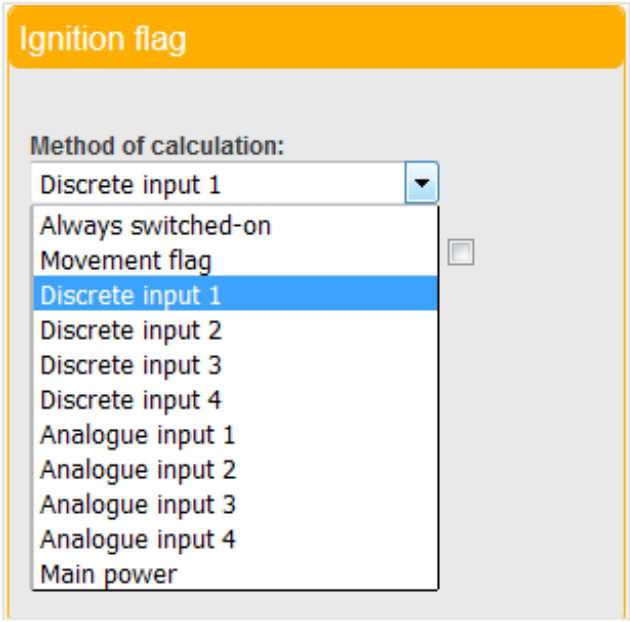
This displays setting sections depending on the type of the terminal being connected.

> The field "Method of calculation" displays only Method of calculations that are supported by the selected third-party terminal.

Ignition Flag

"Ignition flag" section contains:

System Parameters



Select the parameter, based on which Omnicomm Online software will record the event of VH ignition as on/off.

Possible values depending on the type of terminal being connected:

• "**Always switched-on**". This Method of calculation is a default value or is set up if ignition on/off control is not required. Omnicomm Online software will display a permanently on ignition. Therefore, the parameters based on ignition on/off data will not be calculated;

• "**Ignition flag**". This Method of calculation is set up if a third-party terminal transmits ignition on/off data depending on the position of the ignition key.

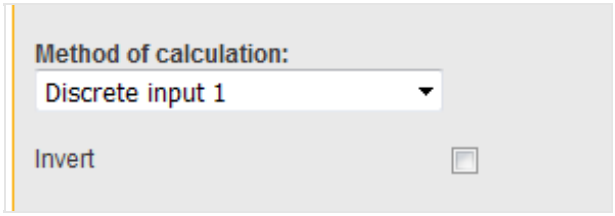
• "**Main power**". This Method of calculation is set up if a third-party terminal transmits data about the availability of the main power and backup battery power. Omnicomm Online software will record ignition on if the terminal is energised from the backup battery;

• "**Engine speed**". This Method of calculation is set up if a third-party terminal transmits the engine speed values. Omnicomm Online software will record ignition on when engine speed values are above 0;

• "**Movement flag.**" This Method of calculation is set up if a third-party terminal transmits the event "moving". Omnicomm Online software will record ignition on if the terminal transmits the event "moving";

• "**Discrete input**". This Method of calculation is set up if a discrete third-party terminal input is connected to the signal from the ignition key. Omnicomm Online software will record ignition on when it receives the event of discrete input on from the third-party terminal.

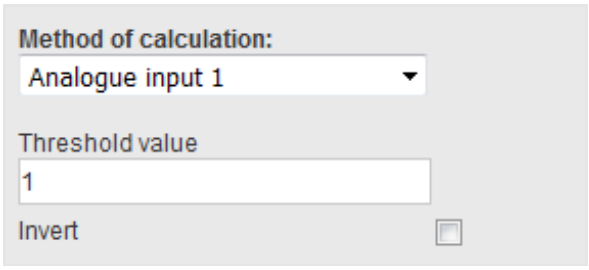
If it is required to record ignition on when receiving the event of discrete input **off**, tick the box "**Invert**".



• **Flag "Engine speed CAN"**. This Method of calculation is set up if the third-party terminal transmits engine speed values from the bus CAN. Omnicomm Online software will record ignition on when receiving from the third-party terminal the events with engine speed data from the bus CAN.

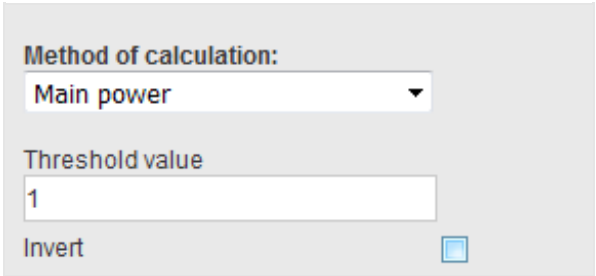
• "**Analogue input**". This Method of calculation is set up if an analogue input of the third-party terminal is connected to the ignition key signal. Omnicomm Online software will record ignition on whe the analogue input voltage exceeds "Threshold value, B".

If it is required to record ignition on when the analogue input voltage is less than "**Threshold value**", tick the box " **Invert**".



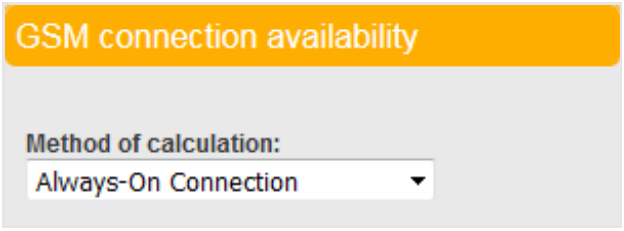
• "**Main power**". This Method of calculation is set up if the third-party terminal transmits data about main power availability. Omnicomm Online software will record ignition on when the VH onboard power network voltage exceeds "**Threshold value**".

If it is required to record ignition on when the VH onboard power network voltage is less than "**Threshold value**", tick the box " **Invert**".



GSM availability

In the section **"GSM connection availability"**:



The method of calculation options is given in descending order of priority, so that the first option is the top priority.

In the field "**Method of calculation**", select the parameter based on which Omnicomm Online software will record the availability of GSM connection.

Possible values depending on the type of terminal being connected:

• "**Always-on connection**". This Method of calculation is a default value or is set up if it is not required to control GSM connection availability. Omnicomm Online software will display permanent availability of GSM connection.

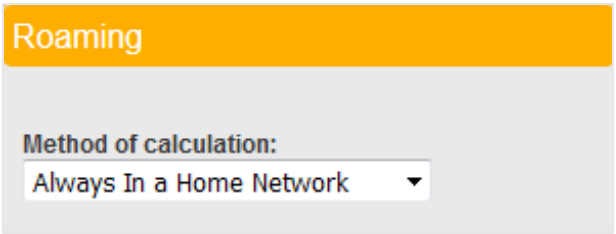
• **Flag "GSM connection"**. This Method of calculation is set up if the third-party terminal transmits information about the availability of GSM connection. Omnicomm Online software will record the availability of GSM connection when receiving the event of GSM connection availability from the terminal.

• **GSM signal strength.** This Method of calculation is set up if the third-party terminal transmits signal receive level data. Omnicomm Online software will record the availability of GSM connection when receiving signal receive level values exceeding 0 from the third-party terminal.

Roaming

In the section **"Roaming"**:

In the field **"Method of calculation"**, select the parameter based on which Omnicomm Online software will record when the VH is roaming.



Possible values depending on the type of terminal being connected:

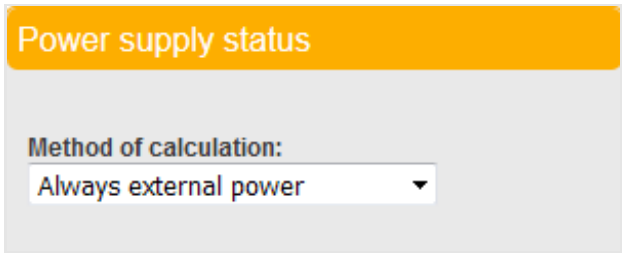
• **"Always in a home network"**. This Method of calculation is a default value or is set up if it is not required to control the presence in roaming. Omnicomm Online software will

display the permanent presence of the terminal in the home network.

• **Flag "Roaming"**. This Method of calculation is set up if the third-party terminal transmits information about the presence in roaming. Omnicomm Online software will record the presence in roaming when it receives the event of presence in roaming from the terminal.

Power Supply Status

In the section **"Power supply status"**:



In the field **"Method of calculation"**, select the parameter based on which Omnicomm Online software will record the terminal's power supply status.

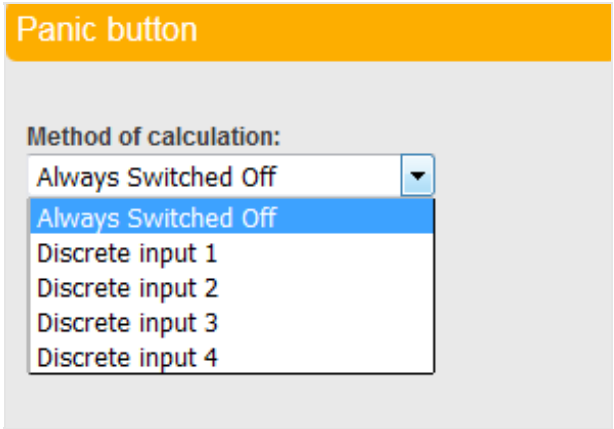
Possible values depending on the type of terminal being connected:

• **Flag "Power supply status"**. This method allows the recording in Omnicomm software of the events of the main power on/off and transition to a backup power. The value of the main power supply voltage is set out in Section 4.4.3.

• **"Always external power"**. This method is set up if the terminal does not transmit the parameter "Power supply status" (internal/external) or if it is not required to control the events of the main power on/off and transition to a backup power in Omnicomm software. Omnicomm Online software will always display the external power availability.

Panic Button

In the section **"Panic button"**:



In the field "Method of calculation", select the parameter based on which

Omnicomm Online software will record the panic button status.

Possible values depending on the type of the terminal being connected:

• **Always Switched off**. This Method of calculation is a default value or is set up if it is not required to control the panic button status. Omnicomm Online software will always display no panic button actuations.

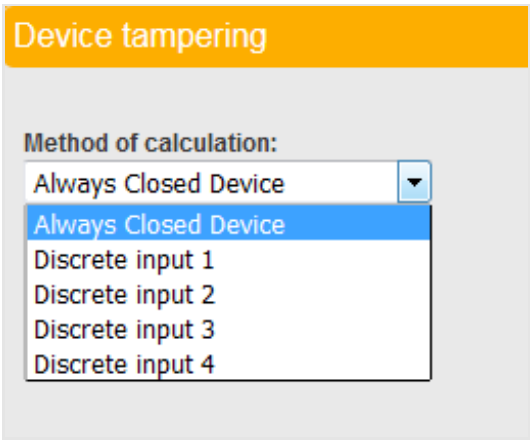
• **Flag "Panic button"**. This Method of calculation is set up if the third-party terminal transmits information about the panic button status. Omnicomm Online software will record the pressing of the panic button when receiving a respective event from the third-party terminal.

• **From discrete input <N>**. This Method of calculation is set up if the panic button is connected to a discrete input of the third-party terminal. Omnicomm Online software will record the panic button actuation when receiving the event of the discrete input on from the third-party terminal.

If it is required to record the panic button actuation when receiving the event of the discrete input **off**, tick the box " **Invert**".

Tampering of the Device

In the section **"Device tampering"**:



In the field "Method of calculation", select the parameter based on which Omnicomm Online software will record terminal tampering.

Possible values depending on the type of the terminal being connected:

• **"Always closed device"**. This Method of calculation is a default value or is set up if it is not required to control tampering sensor status. Omnicomm Online software will always display no tampering of the device.

• **Flag "Device tampered"**. This Method of calculation is set up if the third-party terminal transmits information about the tampering sensor status. Omnicomm Online software will record tampering of the device when receiving a respective event from the third-

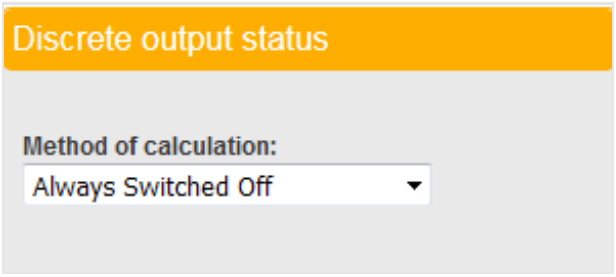
party terminal.

• **From discrete input <N>**. This Method of calculation is set up if the tampering sensor is connected to a discrete input of the third-party terminal. Omnicomm Online software will record tampering of the device when receiving the event of discrete input on from the third-party terminal.

If it is required to record tampering of the case of the device when receiving the event of discrete input **off**, tick the box " **Invert**".

Discrete Output Status

In the section **"Discrete output status"**:



In the field "Method of calculation", select the parameter based on which Omnicomm Online software will record the discrete output status.

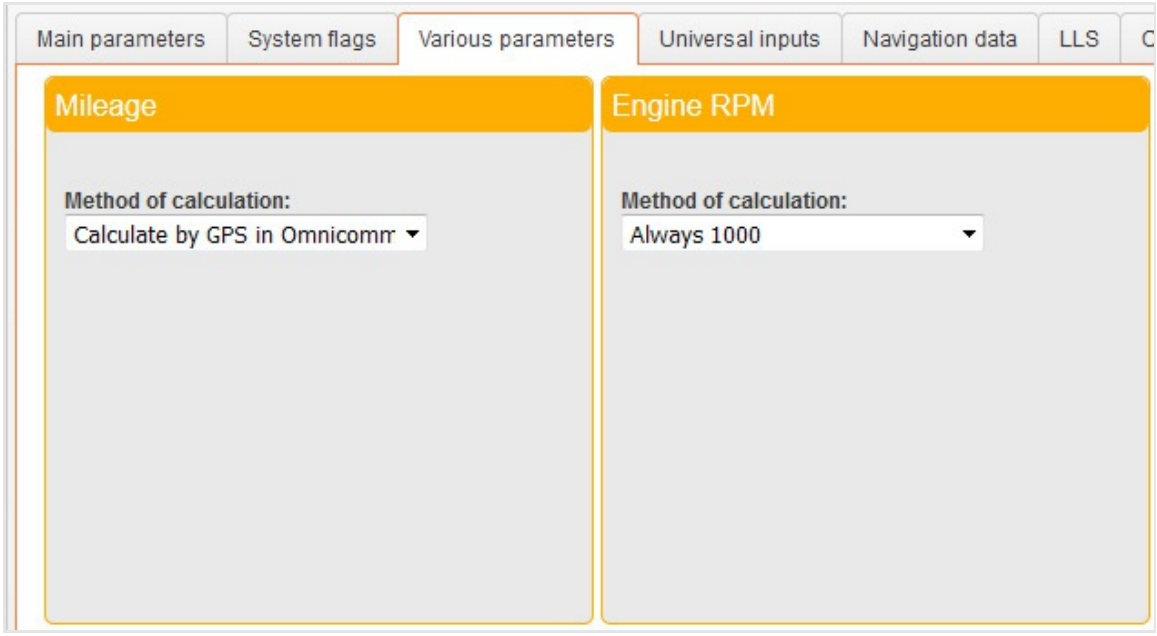
Possible values depending on the type of the terminal being connected:

• **"Always Switched Off"**. This Method of calculation is a default value or is set up if it is not required to control the discrete output. Omnicomm Online software will always display the discrete output off.

• **Flag "Discrete output status"**. This Method of calculation is a default value or is set up if the third-party terminal transmits information about the discrete output status.

Various Parameters

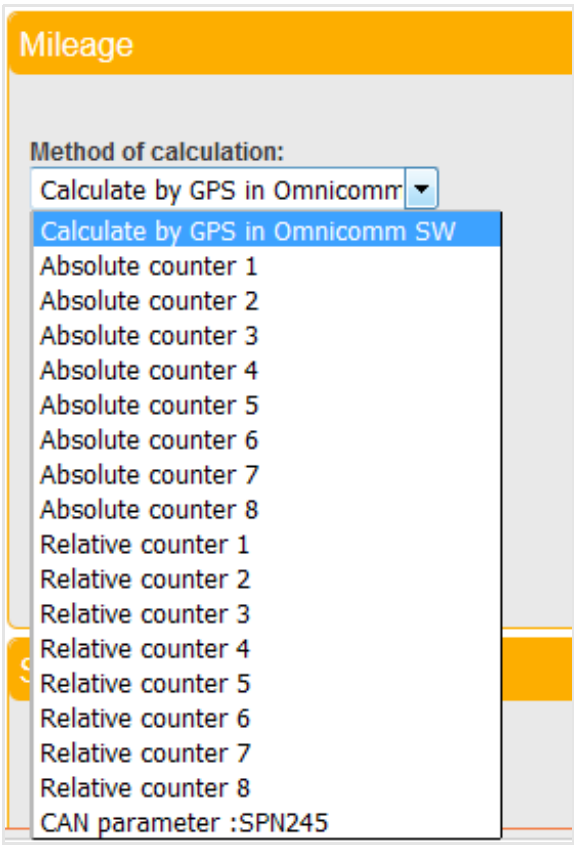
Open the tab **"Various parameters"**.



Mileage

In the section **"Mileage"**:

In the field **"Method of calculation"**, select the parameter based on which Omnicomm Online software will calculate the VH mileage.



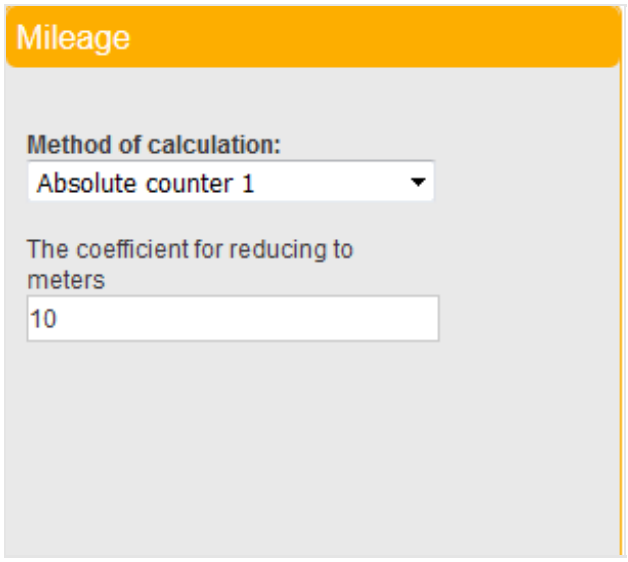
Possible values depending on the type of the terminal being connected:

• **Calculate by GPS in Omnicomm SW** This Method of calculation is set by default. Mileage will be calculated in Omnicomm Online software in GPS coordinates. The value "Speed in GPS, mileage in GPS coordinates" (without smoothing inaccuracies) will be set in Omnicomm Online software, in the settings of VH profile, in the parameter "Method of calculation for mileage and speed";

• **Absolute mileage**. This Method of calculation is set up if the third-party terminal transmits a cumulative value of VH mileage for the entire period of VH operation in metres. The value "By terminal data" (without smoothing inaccuracies) will be set in Omnicomm Online software, in the VH profile settings, in the parameter "Method of calculation for mileage and speed";

• **Relative mileage**. This Method of calculation is set up if the third-party terminal transmits the mileage values between the sequential events in metres. The value "By terminal data" (without smoothing inaccuracies) will be set in Omnicomm Online software, in the VH profile settings, in the parameter "Method of calculation for mileage and speed";

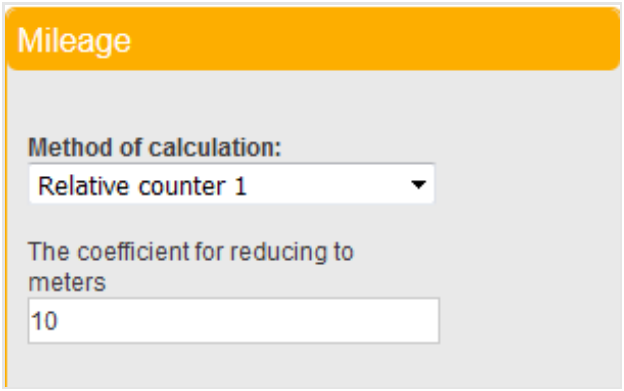
• **Absolute counter <N>**. This Method of calculation is set up if the third-party terminal transmits the cumulative mileage value in units of measurement other than metres.



"The coefficient for reducing to meters" — enter the factor to multiply the mileage received by, from the absolute counter in order to convert the mileage value to metres.

The value "By terminal data" (without smoothing inaccuracies) will be set in Omnicomm Online software, in the VH profile settings, in the parameter "Method of calculation for mileage and speed";

• **Relative counter <N>**. This Method of calculation is set up if the third-party terminal transmits mileage values between the sequential events in units of measurement other than metres.



"The coefficient for reducing to metres" — enter the factor to multiply the mileage received by, from the absolute counter in order to convert the mileage value to metres.

The value "By terminal data" (without smoothing inaccuracies) will be set in Omnicomm Online software, in the VH profile settings, in the parameter "Method of calculation for mileage and speed";

• **From CAN parameter: SPN245**. This Method of calculation is set up if the third-party terminal transmits the mileage values from the bus CAN signal SPN245.

The value "By terminal data" (without smoothing inaccuracies) will be set in Omnicomm Online software, in the VH profile settings, in the parameter "Method of calculation for mileage and speed";

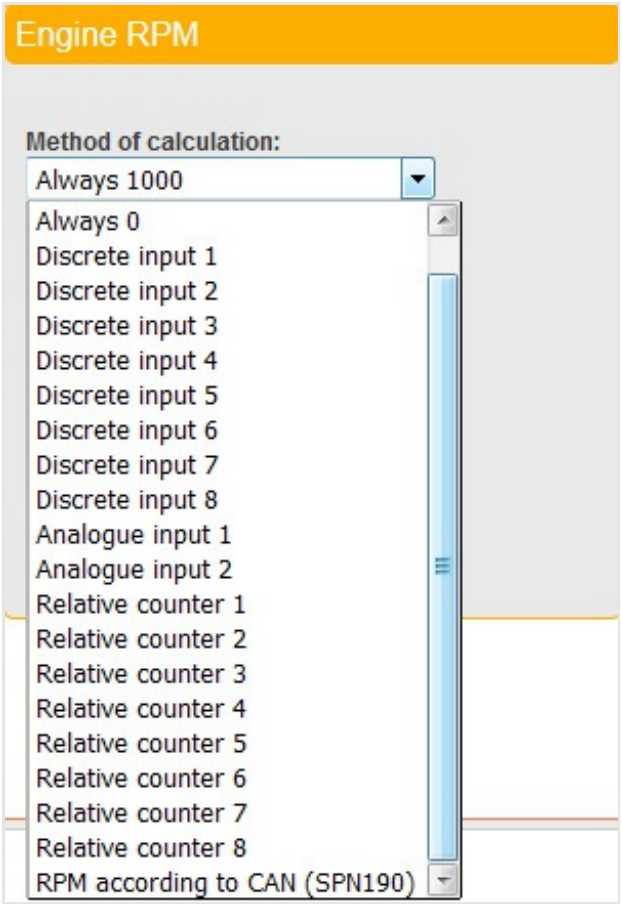
• **From CAN parameter "N"**. This Method of calculation is set up if the third-party terminal transmits the mileage values from the bus CAN and the signal is different to SPN245. Select CAN signal value through which Omnicomm Online software will record the mileage value.

The value "By terminal data" (without smoothing inaccuracies) will be set in Omnicomm Online software, in the VH profile settings, in the parameter "Method of calculation for mileage and speed".

Engine Speed

In the section **"Engine RPM"**:

In the field "Method of calculation", select the parameter based on which Omnicomm Online software will calculate the VH engine speed.



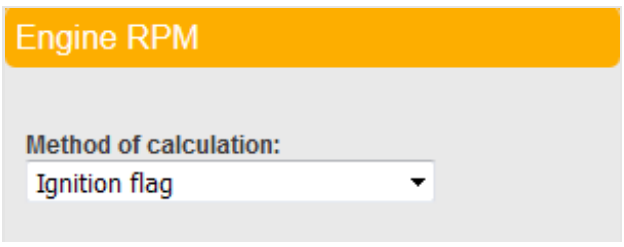
Possible values depending on the type of the terminal being connected:

• **Always 1000 rev/min**. This Method of calculation is set up if it is not required to control the engine speed and Omnicomm Online software will record a permanent engine speed value — 1000.

• **Always 0**. This Method of calculation is set up if it is not required to control the engine speed and Omnicomm Online software will record a permanent engine speed value — 0.

• **Ignition Flag**. This Method of calculation is set up if the engine speed value is not calculated, and the engine speed value is set up when receiving the event of ignition on from the third-party terminal;

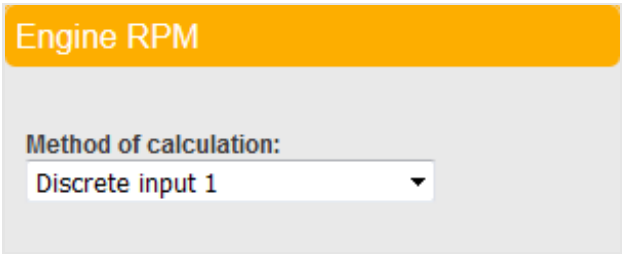
In **"Engine RPM"**, enter the engine speed value that will be recorded in the Omnicomm Online software when receiving the event of ignition on from the third-party terminal;



• **Engine speed sensor**. This Method of calculation is set up if the third-party terminal transmits the engine speed value from VH engine speed sensor readings;

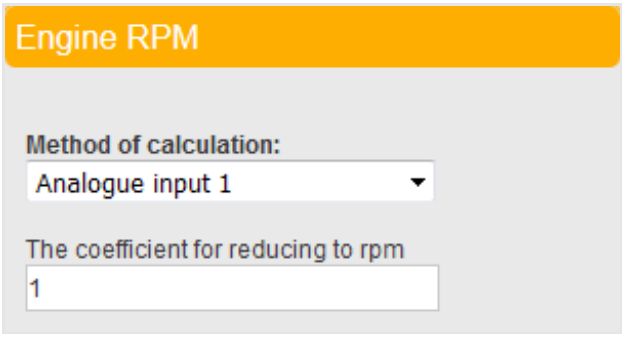
• **Discrete input <N>**. This Method of calculation is set up if the engine speed value is not calculated; this value is set up when the discrete input of the third-party terminal is on.

"Engine RPM" — enter the engine speed value that will be recorded in the Omnicomm Online software when receiving the event of the discrete input on from the third-party terminal;



• **Analogue input <N>**. This Method of calculation is set up if the engine speed sensor is connected to an analogue input of the third-party terminal. Omnicomm Online software will record the engine speed value when receiving the respective value from the third-party terminal;

"The coefficient for reducing to rpm" — enter the factor by which to multiply the received engine speed value, in order to convert it to rpm.



• **Relative counter <N>**. This Method of calculation is set up if the third-party terminal transmits the engine speed values between sequential events in measurement units other than rpm;

"Conversion factor to rpm" — enter the factor by which to multiply the received engine speed value to convert it to rpm.

• **CAN parameter: SPN190**. This Method of calculation is set up if the third-party terminal transmits the engine speed values from the bus CAN signal SPN190;

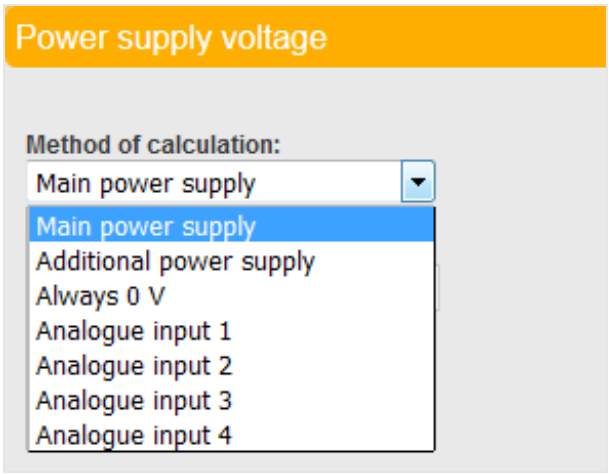
• **CAN parameter <N>**. This Method of calculation is set up if the third-party terminal transmits engine speed values from the bus CAN, and if the signal is different to SPN190. Select the CAN signal value by which Omnicomm Online will record the engine speed

values;

Power Supply Voltage

In the section **"Power supply voltage"**:

In the field **"Method of calculation"**, select the parameter based on which Omnicomm Online software will record the terminal power supply voltage.



Possible values depending on the type of the terminal being connected:

• **Main/additional power**. This Method of calculation is set up if the third-party terminal is connected to the VH onboard network and backup battery. Omnicomm Online software will record the main power or additional power value depending on the parameter "Power supply status";

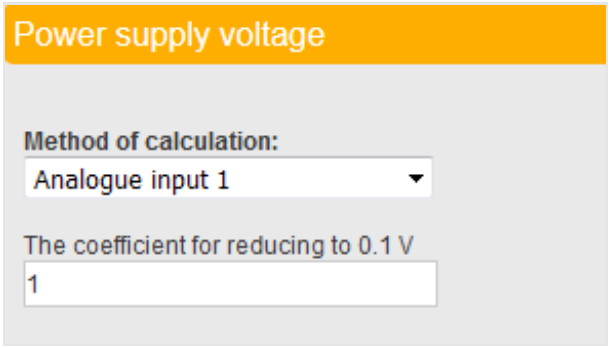
• **Main power supply**. This Method of calculation is set up if the third-party terminal is connected to VH onboard network. Omnicomm Online software will record only the voltage value of the main power;

• **Additional power supply**. This Method of calculation is set up if the third-party terminal is connected to the backup battery. Omnicomm Online software will record only the voltage value of the additional power (i.e. the backup battery);

• **Always 0 V.** This Method of calculation is set up if it is not required to control the onboard network voltage and Omnicomm Online software will record the permanent value of the power supply voltage – 0.

• **Analogue input <N>**. This Method of calculation is set up if the analogue input of the third-party terminal is connected to the onboard network. Omnicomm Online software will record the voltage value when receiving a respective value from the third-party terminal;

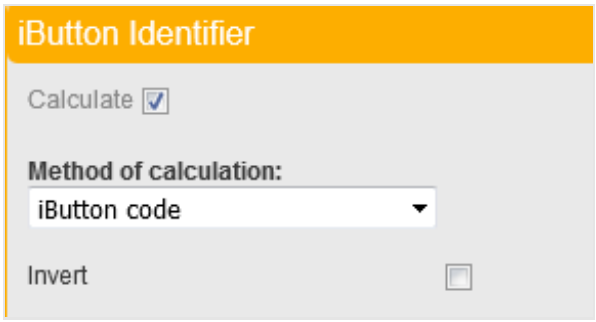
• **CAN parameter: SPN168**. This Method of calculation is set up if the third-party terminal transmits the engine speed value from the bus CAN signal SPN168;



"The coefficient for reducing to 0.1 V"- enter the factor by which to multiply the received power supply voltage value to convert it to dimensions of 0.1 V;

Identifier iButton

In the field **"Method of calculation"**, select the parameter "iButton Identifier" to send the key identifier iButton to Omnicomm software.



Possible options:

- **iButton Identifier** to send the iButton key ID to Omnicomm Online

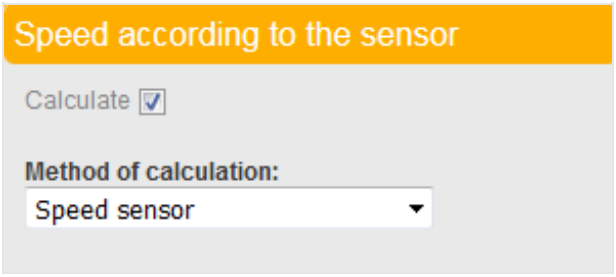
The terminal transmits the value of identifier iButton in an inverted form. Therefore, the screen "Monitoring" of the conversion server displays an inverted identifier iButton. Reverse inversion of the identifier iButton value is performed in Omnicomm software, while the first and the last bytes are suppressed.

- **RFID** to send RFID tags to Omnicomm Online

Example.

Speed from Sensor

In the section **"Speed according to the sensor"**:



In the field "Method of calculation", select the parameter based on which Omnicomm Online software will calculate the VH speed.

Possible values depending on the type of the terminal being connected:

• **Speed sensor.** This Method of calculation is set up if the third-party terminal transmits the speed values from VH speed sensor readings;

• **Analogue input <N>.** This Method of calculation is set up if the speed sensor is connected to an analogue input of the third-party terminal. Omnicomm Online software will record the speed value when receiving a respective value from the third-party terminal;

• **CAN parameter: SPN1624.** This Method of calculation is set up if the third-party terminal transmits mileage values from the bus CAN signal SPN1624;

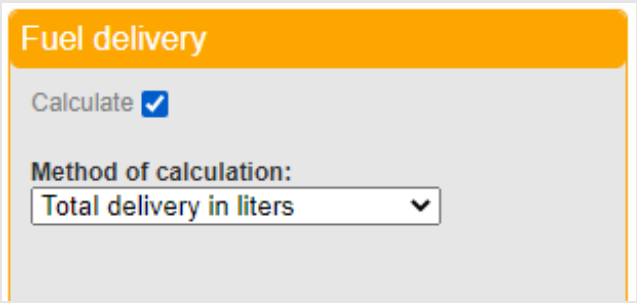
• **From CAN parameter «N».** This Method of calculation is set up if the third-party terminal transmits the speed value from the bus CAN, and the signal is different to SPN1624. Select CAN signal value by which Omnicomm Online software will record the speed value;

"Conversion factor to kph" — enter the factor by which to multiply the received speed value to convert it to kph.

Fuel Dispensing

The calculation is made only for fuel tankers.

In the **"Fuel dispensing"** section:



In the **"Calculation method"** field, select the parameter which Omnicomm Online will use to calculate fuel dispensing.

Possible values:

• **"Pulse output through input 1"**. When this calculation method is used, the pulses are sent to Omnicomm Online and displayed in the "Log" report throughout the entire fuel dispensing operation. You will need to add the conversion factor of pulses into liters in Omnicomm Online. This method provides an accurate record of the beginning and end of the fuel dispensing operation.

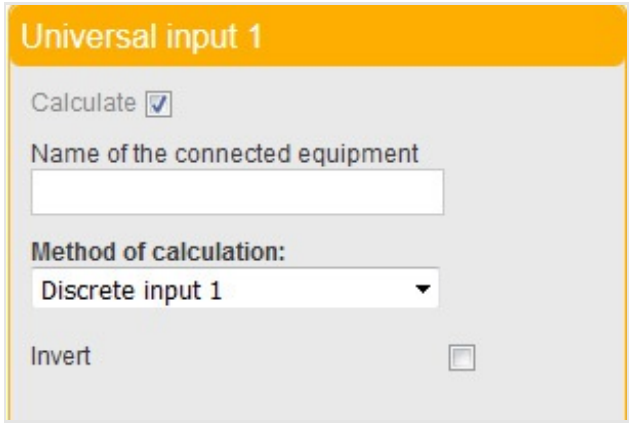
• **"Pulse output through input 1"**. When this calculation method is used, the pulses are sent to Omnicomm Online and displayed in the "Log" report throughout the entire fuel dispensing operation. You will need to add the conversion factor of pulses into liters in Omnicomm Online. This method provides an accurate record of the beginning and end of the fuel dispensing operation.

• **"Total pulse output"**. When this method is used, the terminal sends the total volume of dispensed fuel in pulses. The start of the dispensing operation is recorded when the first pulse is received. The total of pulses is given at the end of the dispensing operation.

• **"Total liter output"**. This calculation method is used if the dispensing source provides the volume of dispensed fuel in liters. The total of liters is given at the end of the dispensing operation.

Universal Inputs

Open the tab **"Universal inputs"**.



"Calculate" — tick if it is required to control the universal input.

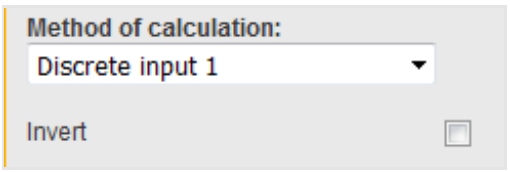
"Name of the connected equipment" — enter the name of the auxiliary equipment connected to the thirdparty terminal.

"Method of calculation" — select the Method of calculation depending on the type of the connected auxiliary equipment.

Possible Method of calculation options:

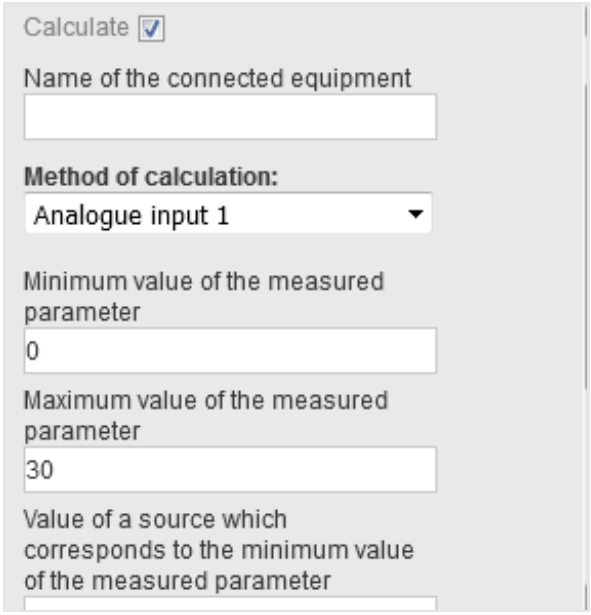
• **Discrete input <N>.** This Method of calculation is set up if a discrete input of the third-party terminal is connected to the auxiliary equipment whose on/off switching must be controlled. Omnicomm Online software will record the auxiliary equipment startup when receiving the event of the discrete input on from the thirdparty terminal.

In case it is required to record the auxiliary equipment shutdown when receiving the event of the discrete input **off**, tick **"Invert"**.



• **Analogue input <N>.** This Method of calculation is set up if an analogue input of the third-party terminal is connected to the auxiliary equipment, whose readings must be controlled.

System Parameters



"Minimum value of the measured parameter" set the minimum value of the parameter measured by the sensor. The parameter is measured in appropriate units of measurement, e.g. for temperature – in degrees Celsius.

"Value of a source" — set up the voltage value in Volts corresponding to minimum value of the measured parameter.

"Maximum value of the measured parameter" — set up the maximum value of the parameter measured by the sensor.

"Value of a source that corresponds to the maximum value of the measured parameter" — set up the voltage value corresponding to the maximum value of the measured parameter.

• **Temperature sensor.** This Method of calculation is set up if a temperature sensor whose readings must be controlled is connected to the third-party terminal;

"Minimum value of the measured parameter" — set up the minimum value of the parameter measured by the sensor in degrees Celsius.

"Value of a source that corresponds to the minimum value of the measured parameter" — set up the voltage value in Volts corresponding to minimum value of the measured parameter.

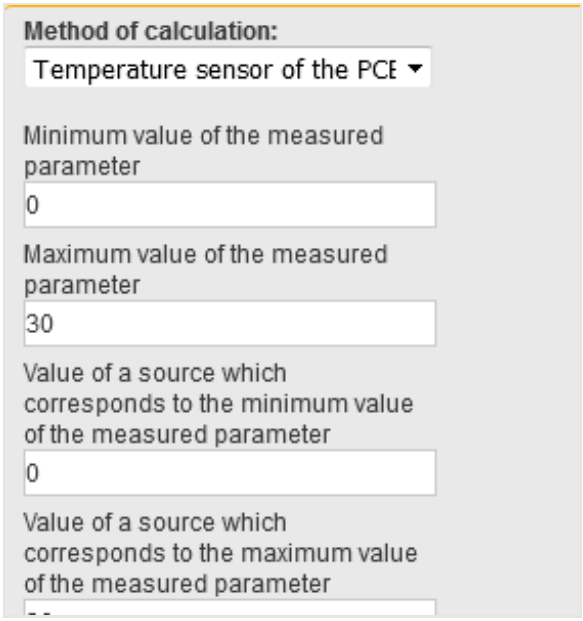
"Maximum value of the measured parameter" — set up the maximum value of the parameter measured by the sensor in degrees Celsius.

"Value of a source that corresponds to the maximum value of the measured parameter" — set up the voltage value corresponding to maximum value of the measured parameter.

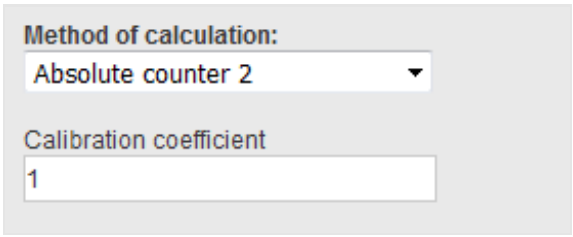
"Adjustment factor of 1st universal input" — enter the factor by which to multiply the

received value, to convert it to the dimensions of the measured physical parameter.

• **Temperature sensor of the PCB**. This Method of calculation is set up if a temperature sensor installed on the board is connected to the third-party terminal;



• **Absolute counter <N>.** This Method of calculation is set up if the third-party terminal transmits a cumulative value of the measured parameter;



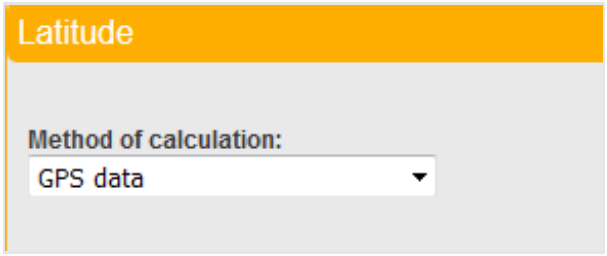
"Calibration coefficent" — enter the factor by which to multiply the received value, to convert it to the dimensions of the measured physical parameter.

• **Relative sensor <N>.** This Method of calculation is set up if the third-party terminal transmits the value of the measured parameter between subsequent events;

Navigation Data

Latitude

In the **"Method of calculation"** — select a Method of calculation depending on the type of the connected auxiliary equipment.

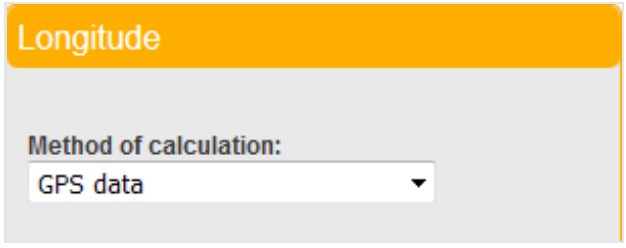


Possible Method of calculation options:

• **GPS data.** This Method of calculation is set up if the third-party terminal transmits the latitude from GPS data.

Longitude

In the **"Method of calculation"** — select a Method of calculation depending on the type of the connected auxiliary equipment.

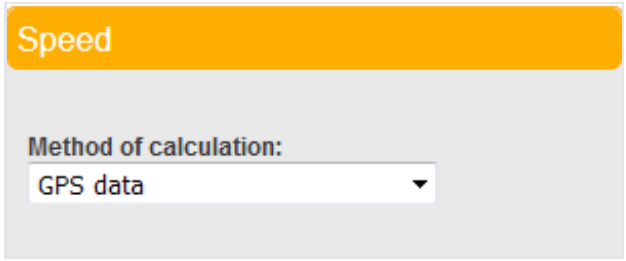


Possible Method of calculation options:

• **GPS data.** This Method of calculation is set up if the third-party terminal transmits the longitude from GPS data.

Speed

In the **"Method of calculation"** — select a Method of calculation depending on the type of connected auxiliary equipment.



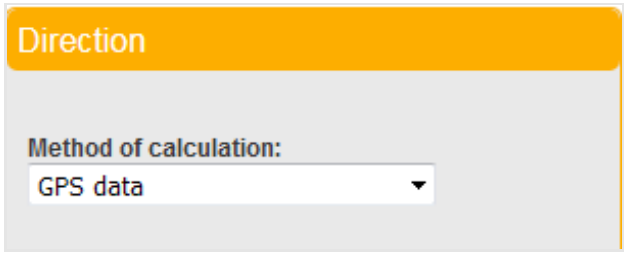
Possible Method of calculation options:

• **GPS data.** This Method of calculation is set up if the third-party terminal transmits the speed value from GPS data.

• **Always 0.** This Method of calculation is set up if it is not required to control the VH speed, and Omnicomm Online software will record the VH speed value — 0.

Direction

In the **"Method of calculation"** — select a Method of calculation depending on the type of connected third-party terminal.



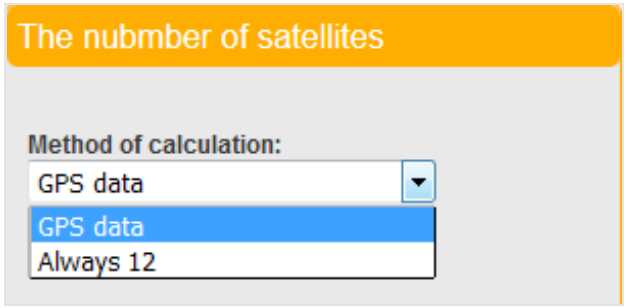
Possible Method of calculation options:

• **GPS data.** This Method of calculation is set up if the third-party terminal transmits the direction of VH motion from GPS data.

• **Always 0.** This Method of calculation is set up if it is not required to control the direction of VH motion; Omnicomm Online software will not record the direction of the motion.

Number of Satellites

"Method of calculation" — select a Method of calculation depending on the type of connected third-party terminal.



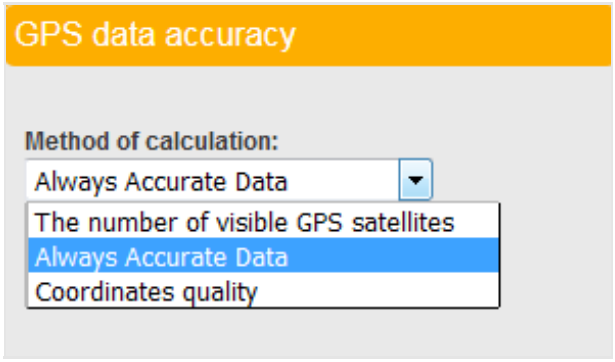
Possible Method of calculation options:

• **GPS data.** This Method of calculation is set up if the third-party terminal transmits the number of GPS satellites.

• **Always 12.** This Method of calculation is set up if it is not required to control the number of satellites; Omnicomm Online software will record the permanent presence of 12 satellites.

GPS Data Accuracy

In the **"Method of calculation"** — select a Method of calculation depending on the third-party terminal type.



Possible Method of calculation options:

• **"GPS accuracy flag"**. This Method of calculation is set up if the third-party terminal transmits information about the accuracy of GPS data. Omnicomm Online software will record accurate GPS data when receiving a respective event from the third-party terminal.

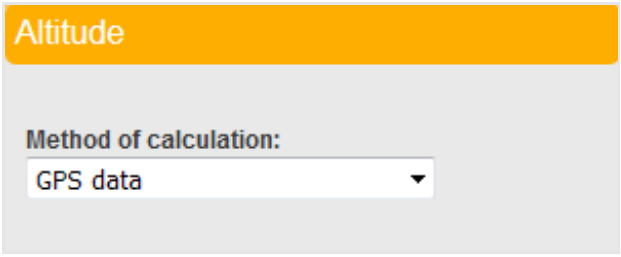
• **The number of visible GPS satellites.** This Method of calculation is set up if the third-party terminal transmits the number of GPS satellites. Omnicomm Online software will record accurate GPS data if the number of visible satellites exceeds three.

• **Coordinates quality.** This Method of calculation is set up if the third-party terminal transmits the VH coordinates. Omnicomm Online software will record accurate GPS data when receiving at least two coordinates from the third-party terminal.

• **Always Accurate Data.** This Method of calculation is set up if it is not required to control GPS data; Omnicomm Online software will always record accurate data.

Altitude

In the **"Method of calculation"** — select the Method of calculation depending on the type of connected third-party terminal.



Possible Method of calculation options:

• **GPS data.** This Method of calculation is set up if the third-party terminal transmits the value of the VH position height by GPS data.

• **Always 0.** This Method of calculation is set up if it is not required to control the height of the VH position;

Omnicomm Online software will not display the direction of the motion.

Fuel Level Sensors

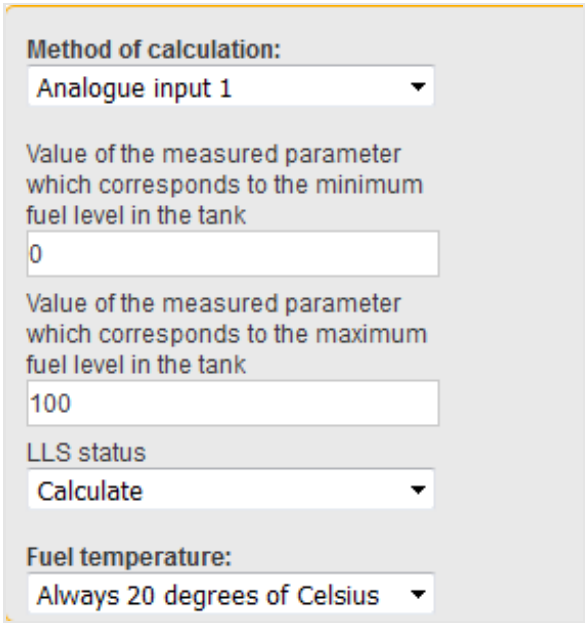
Open the tab **“LLS”**:

In the field **“Method of calculation”**, select the parameter based on which Omnicomm Online software will record the fuel level.

Possible options to calculate the fuel level:

• **Fuel level sensor X.** This Method of calculation is set up if the third-party terminal transmits data received from the digital fuel level sensor LLS produced by Omnicomm.

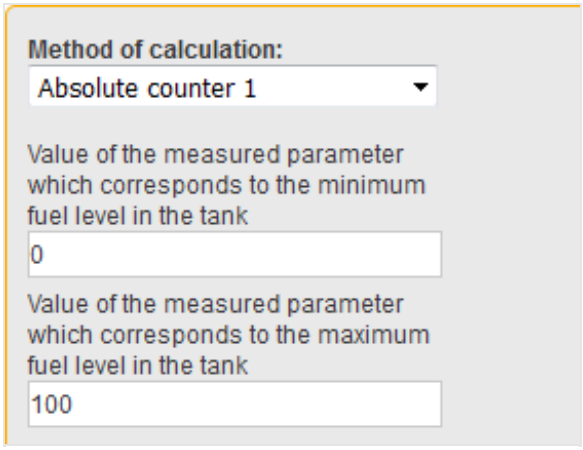
• **Analogue input X.** This Method of calculation is set up if an analogue input of the third-party terminal is connected to an analogue fuel level sensor LLS produced by Omnicomm.



“Value of the measured parameter that corresponds to the minimum fuel level in the tank” — enter the value (in Volts) from the calibration table of the analogue sensor that corresponds to an empty tank.

“Value of the measured parameter that corresponds to the maximum fuel level in the tank” — enter the value (in Volts) from the calibration table of the analogue sensor that corresponds to a full tank.

• **From absolute sensor.** This Method of calculation is set up if the third-party terminal transmits the current value of the fuel level in the tank.



“Value of the measured parameter that corresponds to the minimum fuel level in the tank” — enter the value (in Hertz) from the calibration table of the fuel level sensor connected to the third-party terminal that corresponds to an empty tank.

“Value of the measured parameter that corresponds to the maximum fuel level in the tank” — enter the value (in Hertz) from the calibration table of the fuel level sensor connected to the third-party terminal that corresponds to a full tank.

• **From CAN parameter SPN96.** This Method of calculation is set up if only one fuel level sensor is connected to the third-party terminal and data are transmitted from the bus CAN signal SPN96.

• **From CAN parameter SPN38.** This Method of calculation is set up if two fuel level sensors are connected to the third-party terminal and data are transmitted from the bus CAN signal SPN96 for the first vessel and SPN38 for the second one.

• **From CAN parameter “N”.** This Method of calculation is set up if the third-party terminal transmits the fuel level value from the bus CAN, and the signal is different to SPN96.

In the **“LLS status”** field, select the parameter which Omnicomm Online will use to determine the status of the fuel level sensor.

Possible options to determine the LLS status:

• **Calculate.** This Method of calculation is set up if the third-party terminal transmits data about the fuel level sensor status or in case the fuel level sensor readings go beyond the interval 0–4095.

For a digital fuel level sensor:

In the field “The level is equal to 0”:

• “Ready”. When there is a constant power supply to the fuel level sensor, the “Ready” status is sent to Omnicomm Online

• “Not ready”. When the terminal is powered off and, as a result, the fuel level sensor is powered off, the “Not ready” status is sent to Omnicomm Online.

In the field “The level is more than 4095”:

• “Ready”. When the fuel level is more than 4095, the “Ready” status of the fuel level sensor is sent to Omnicomm Online

• “Not ready”. When the fuel level is more than 4095, the “Not ready” status of the fuel level sensor is sent to Omnicomm Online

• “Do not send sensor data”. When the fuel level is more than 4095, no data is sent to Omnicomm Online from the fuel level sensor

For an analog fuel level sensor:

If, after converting the measured value from Volts into a digital code, the obtained value is equal to 0, the “Not ready” status of the fuel level sensor is sent to Omnicomm Online.

• **Always “Ready”.** This Method of calculation is set up if it is not required to control the fuel level sensor status; Omnicomm Online software will always display the status “Ready” by default.

Possible options of Method of calculation for the fuel temperature:

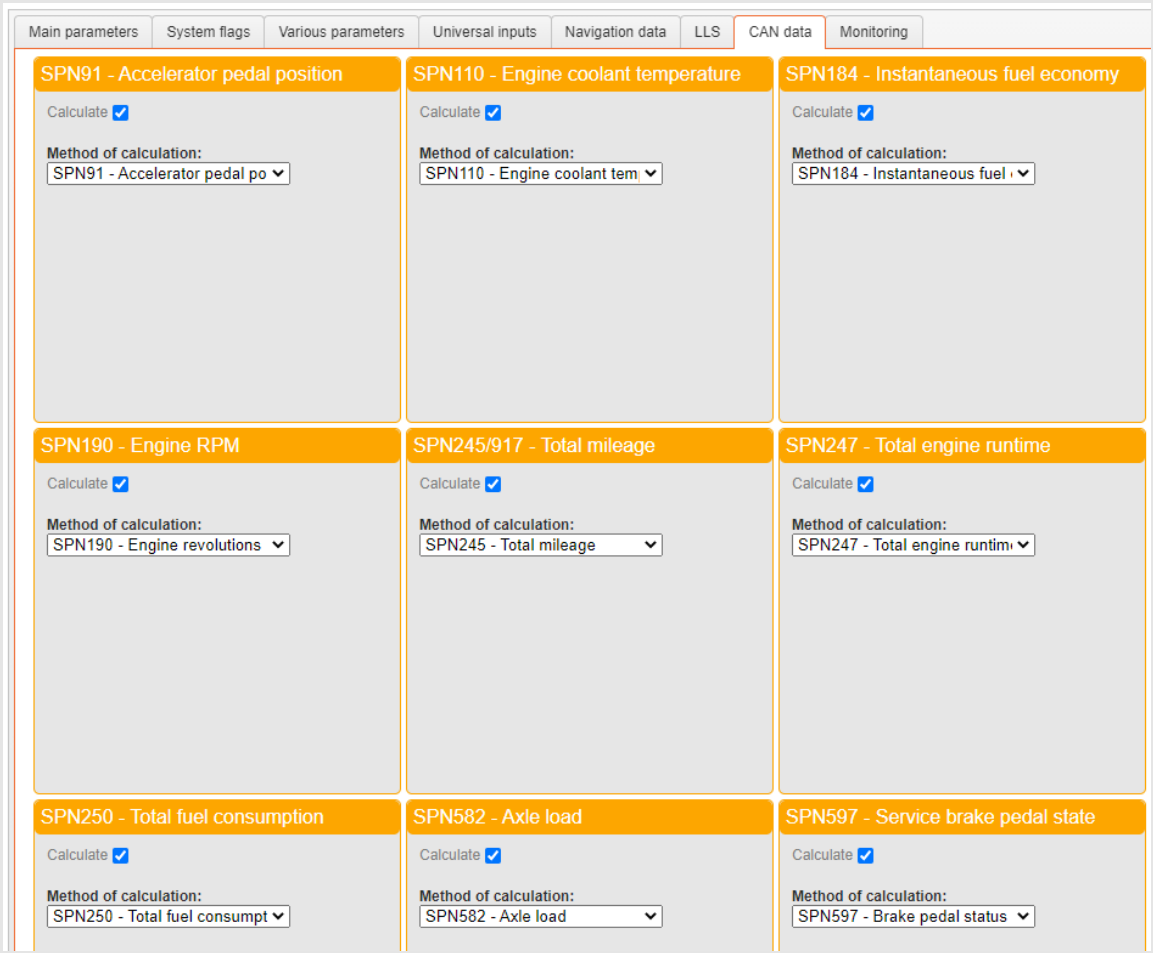
• **Always 20 degrees Celsius.** This Method of calculation is a default value or is set up if the third-party terminal does not transmit data about the fuel temperature to the Omnicomm Online software.

• **From temperature sensor.** This Method of calculation is set up if the third-party terminal transmits data about the fuel temperature from the temperature sensor readings.

Data from CAN Bus

Open the tab **“CAN data”**:

System Parameters



In the field **"Method of calculation"**, select the parameter based on which Omnicomm Online software will record the CAN parameter.

CAN parameters and possible Method of calculations:

• **CAN parameter SPN70.** This Method of calculation is set up if the third-party terminal transmits the parking brake status from the bus CAN signal SPN70;

• **CAN parameter SPN91.** This Method of calculation is set up if the third-party terminal transmits the accelerometer pedal position from the bus CAN signal SPN91;

• **CAN parameter SPN100.** This Method of calculation is set up if the third-party terminal transmits the engine oil pressure value from the bus CAN signal SPN100;

• **CAN parameter SPN110.** This Method of calculation is set up if the third-party terminal transmits the coolant temperature value from the bus CAN signal SPN110;

• **CAN parameter SPN174.** This Method of calculation is set up if the third-party terminal transmits the fuel temperature value from the bus CAN signal SPN174;

• **CAN parameter SPN175.** This Method of calculation is set up if the third-party terminal transmits the engine oil temperature value from the bus CAN signal SPN175;

• **CAN parameter SPN182.** This Method of calculation is set up if the third-party terminal transmits the daily fuel consumption value from the bus CAN signal SPN182;

• **CAN parameter SPN184.** This Method of calculation is set up if the third-party terminal transmits the event of instantaneous fuel economy from the bus CAN signal SPN184;

• **CAN parameter SPN190.** This Method of calculation is set up if the third-party terminal transmits the engine RPM value from the bus CAN signal SPN190;

• **CAN parameter SPN244.** This Method of calculation is set up if the third-party terminal transmits the daily mileage value from the bus CAN signal SPN244;

• **CAN parameter SPN245.** This Method of calculation is set up if the third-party terminal transmits the total mileage value from the bus CAN signal SPN245;

• **CAN parameter SPN247.** This Method of calculation is set up if the third-party terminal transmits the value of the total time of engine operation from the bus CAN signal SPN247;

• **CAN parameter SPN250.** This Method of calculation is set up if the third-party terminal transmits the total fuel consumption from the bus CAN signal SPN250;

• **CAN parameter SPN521**. This Method of calculation is set up if the third-party terminal transmits information about the service brake pedal position from the bus CAN signal SPN521;

• **CAN parameter SPN522.** This Method of calculation is set up if the third-party terminal transmits information about clutch pedal position from the bus CAN signal SPN522;

• **CAN parameter SPN527.** This Method of calculation is set up if the third-party terminal transmits the cruise control status from the bus CAN signal SPN527;

• **CAN parameter SPN582.** This Method of calculation is set up if the third-party terminal transmits the axle pressure value from the bus CAN signal SPN582;

• **CAN parameter SPN597.** This Method of calculation is set up if the third-party terminal transmits information about the service brake pedal status from the bus CAN signal SPN597;

• **CAN parameter SPN598.** This Method of calculation is set up if the third-party terminal transmits information about the clutch pedal status from the bus CAN signal SPN598;

• **CAN parameter SPN914.** This Method of calculation is set up if the third-party terminal transmits data about the mileage until the next maintenance from the bus CAN signal SPN914;

• **CAN parameter SPN916.** This Method of calculation is set up if the third-party terminal transmits data about the Engine run time until the next technical maintenance from the bus CAN signal SPN916;

• **CAN parameter SPN928.** This Method of calculation is set up if the third-party terminal transmits data with the axle index from the bus CAN signal SPN928;

• **CAN parameter SPN1624.** This Method of calculation is set up if the third-party terminal transmits the VH instantaneous speed value from the bus CAN signal SPN1624;

• **CAN parameter SPN1821.** This Method of calculation is set up if the third-party terminal transmits information about the VH door status from the bus CAN signal SPN1821;

• **CAN parameter SPN1856.** This Method of calculation is set up if the third-party terminal transmits information about the VH seatbelt status from the bus CAN signal SPN1856.

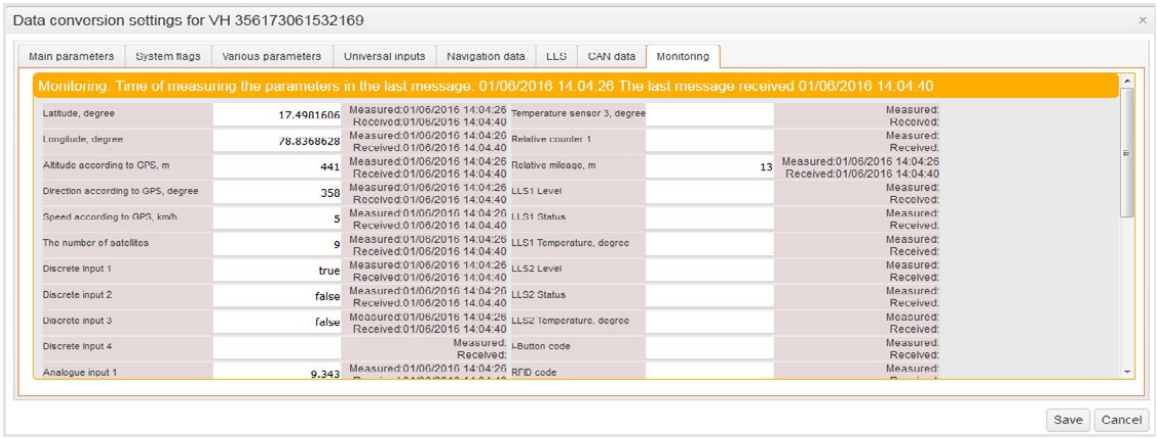
Viewing Current Values

Open the tab **"Monitoring"**.

The screen will open, displaying current values of the parameters set up by the indicated Method of calculations.

"Time of parameter measurement in the last message" (DD/MM/YYYY hh:mm:ss)— time of recording the value/event from the last message.

'Last message received" (DD/MM/YYYY hh:mm:ss) — time the last message was received by the conversion server.



The following parameters can be displayed in the section "Monitoring" depending on the type of the third-party terminal:

- Flag Power supply status;
- Flag Additional power supply status;
- Flag CAN Engine speed;

System Parameters

- Flag Roaming;
- Flag Ignition;
- Flag GSM connection;
- Flag GPS accuracy;
- Flag Panic button;
- Flag Device tampering;
- Flag CAN data availability;
- Flag Discrete output status;
- Flag Movement;
- Latitude, deg;
- Longitude, deg;
- GPS speed, kph;
- GPS direction, deg;
- GPS height, m;
- Number of satellites;
- DOP/HDOP
- Main power, V;
- Additional power, V;
- Absolute mileage, m;
- Relative mileage, m;
- Speed, kph;
- Engine speed, rpm;
- Acceleration magnitude, 0.01 g;
- LLS<N> Temperature, °C;
- PCB board temperature, °C;
- X-wise acceleration, 0.01 g;
- Y-wise acceleration, 0.01 g;

System Parameters

- Z-wise acceleration, 0.01 g;
- Temperature sensor <N>, °C;
- Built-in battery voltage, V;
- CAN (SPN245) mileage;
- CAN (SPN1624) Instantaneous speed;
- CAN (SPN190) engine RPM;
- CAN (SPN168) voltage;
- Coordinates quality;
- CAN fuel level;
- LLS<N> Level;
- LLS<N> Status;
- GSM signal strength;
- Flag Moving;
- DOP/HDOP;
- Code i-Button;
- Analogue input <N>;
- Absolute counter <N>;
- Relative counter <N>;
- Discrete input <N>.
- SPN-96 Fuel level in tank No. 1;
- SPN-38 Fuel level in tank No. 2;
- SPN70 — parking brake status;
- SPN91 — accelerometer pedal position;
- SPN100 — engine oil pressure;
- SPN110 — coolant temperature;
- SPN174 — fuel temperature;
- SPN175 - engine oil temperature;

Deleting

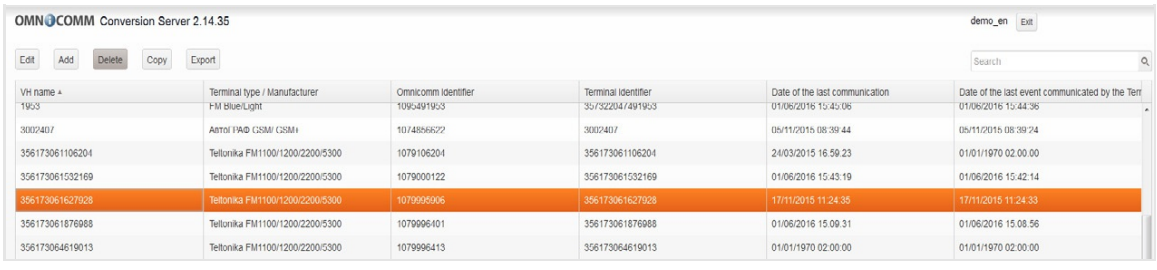
- SPN182 — daily fuel consumption;
- SPN184 — Instantaneous fuel economy;
- SPN244 — daily mileage;
- SPN247 — total engine operation time;
- SPN250 — total fuel consumption;
- SPN521 — service brake pedal position;
- SPN522 — clutch pedal position;
- SPN527 — cruise control status;
- SPN582 /*PGN 65258 */ — axle load;
- SPN597 — service brake pedal status;
- SPN598 — clutch pedal status;
- SPN914 — mileage until the next technical maintenance;
- SPN916 — Engine run time until the next technical maintenance;
- SPN928 /*PGN 65258 */ — axle index;
- SPN1821 — door status;
- SPN1856 — seatbelt status;

“Measured” — the last time the parameter value was recorded by the third-party terminal.

“Received” — the last time the parameter value was received by the conversion server.

Deleting

Select the terminal to be deleted from the list:

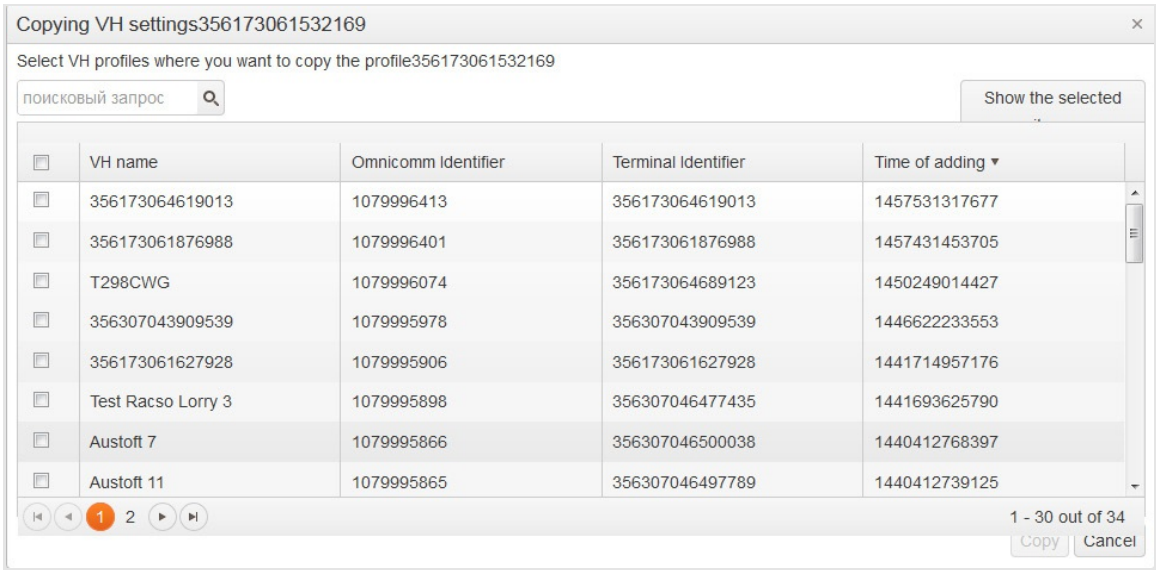


Press the button **“Delete”**.

If an inaccuracy occurs while adding a terminal, please contact Omnicomm technical support by email at support@omnicomm-world.com, or by the telephone numbers shown at www.omnicomm-world.com.

Copying Terminal Settings

Select from the list a terminal whose settings should be copied for another terminal of the same type, and press the button **"Copy"**. The following screen opens:



Exporting VH Profiles

To export the VH profiles (XML files of the recorders), select one or a few VH(s) from the list. To select a few VHs, press the "Shift" button on the keyboard and left-click the mouse.

Press the button **"Export"**.

The conversion server will download the VH profiles archived in **export.zip**.

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