# MotorData

Car diagnostics made easy

MotorData Client Software User Manual

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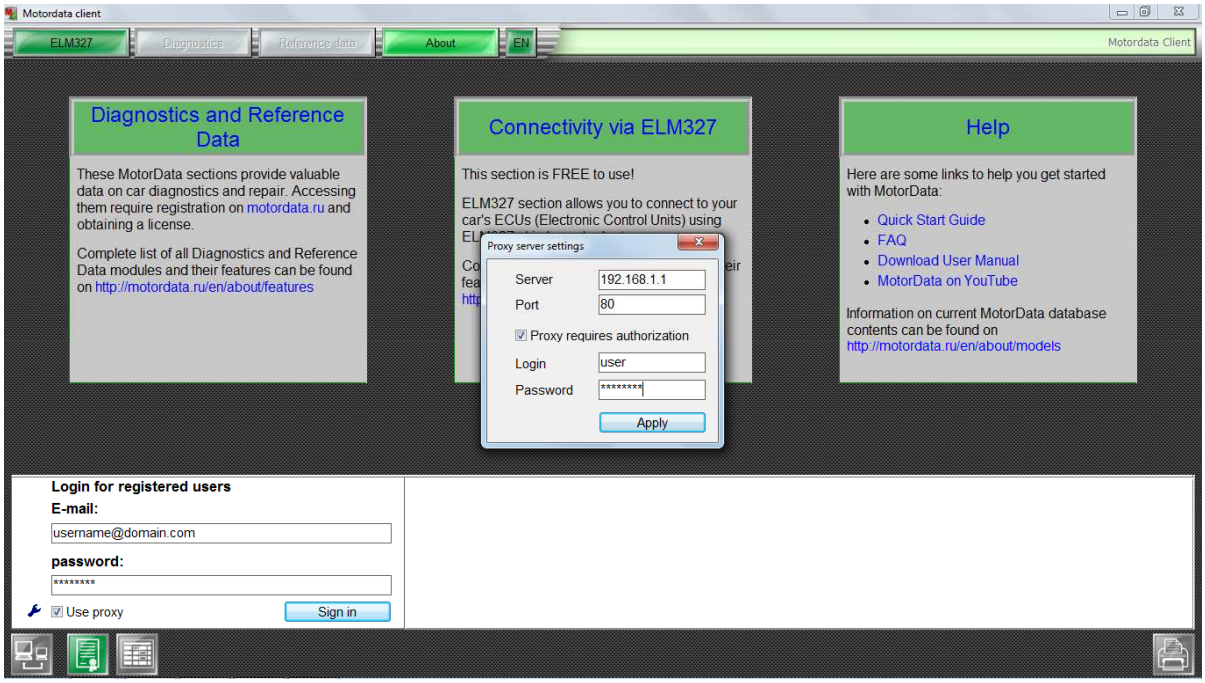
# DIAGNOSTICS AND REFERENCE DATA SECTIONS

## 1.1 Connection to MotorData Web Service

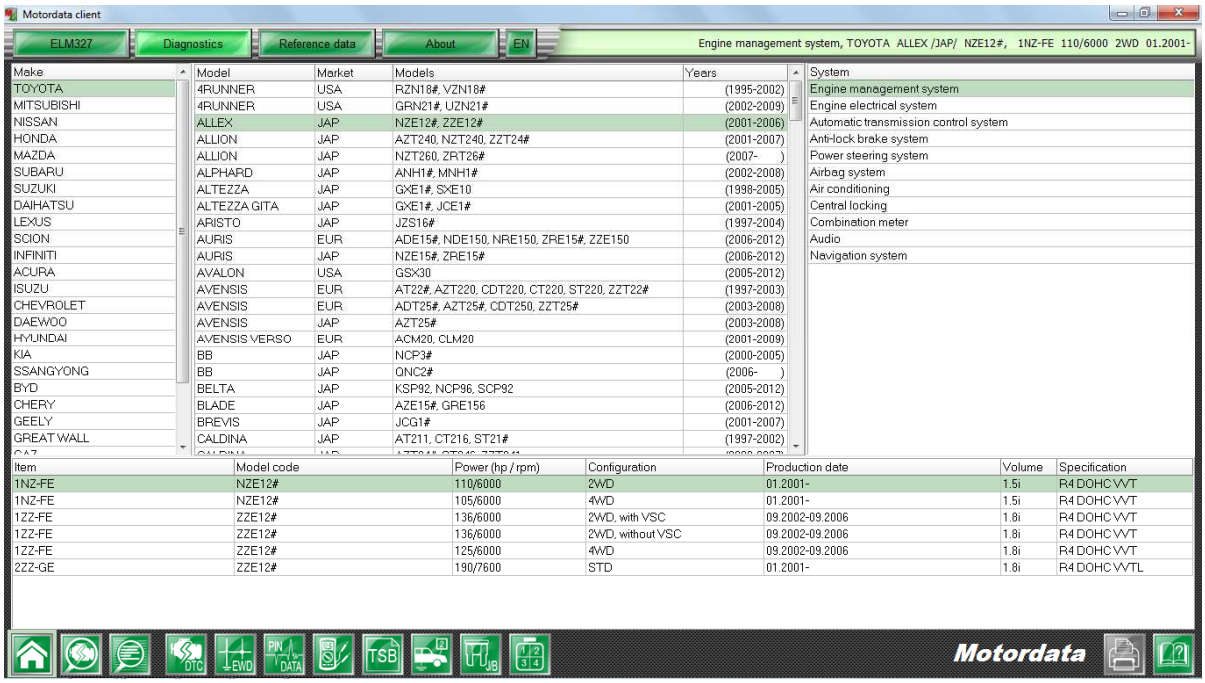
To start using MotorData System please enter your e-mail and password specified during registration on MotorData website.

If you need to use a proxy server to connect to the Internet check the *Use proxy* option and click the wrench icon to specify your proxy settings.




Please note that you may need to configure your antivirus/firewall software to let MotorData client software establish Internet connections.

## 1.2 Catalog Navigation

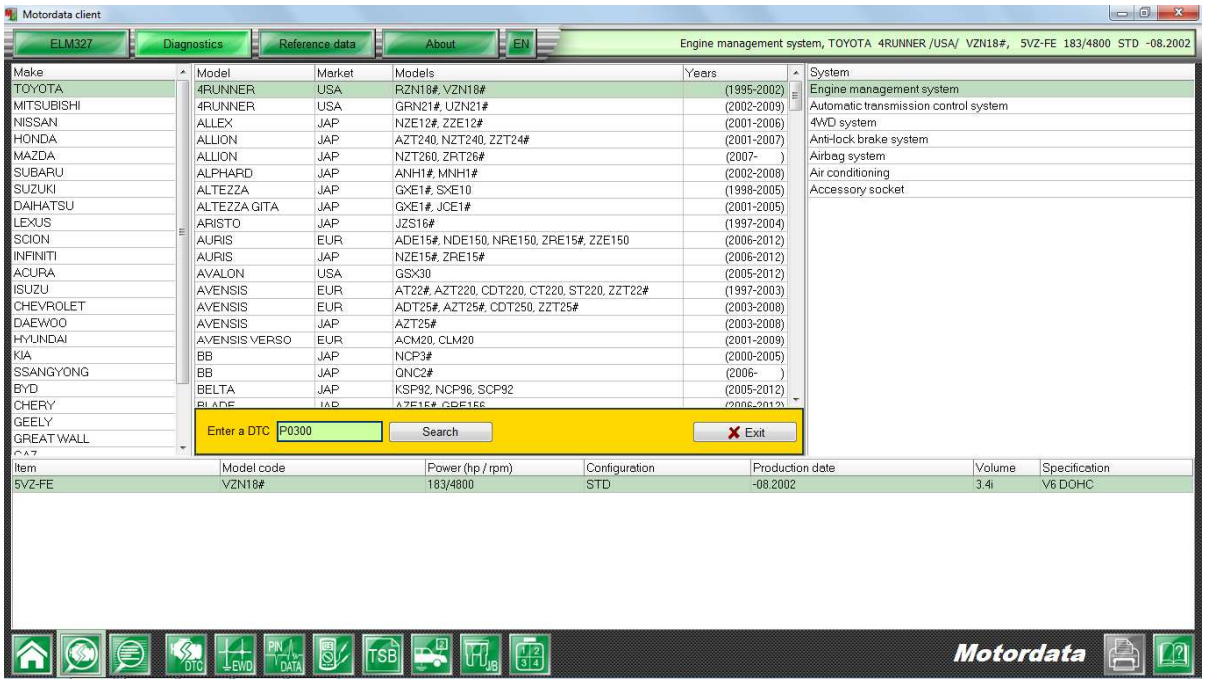



Once you are logged in you will see the model selection screen. Select the desired make first, then the model, the system and finally the modification.

Module icons below are enabled if there are data in the database available for the selected modification.

In some cases it allows you to perform diagnostics by analogy, even if the exact car model in not explicitly listed. For that you can use *Search by DTC* and *Search by engine* code functions.

### 1.2.1 Search by DTC




To use Search by DTC function:

1. Press the «Search by DTC» button.
2. Enter the code you are looking for.
3. Press the «Search» button.

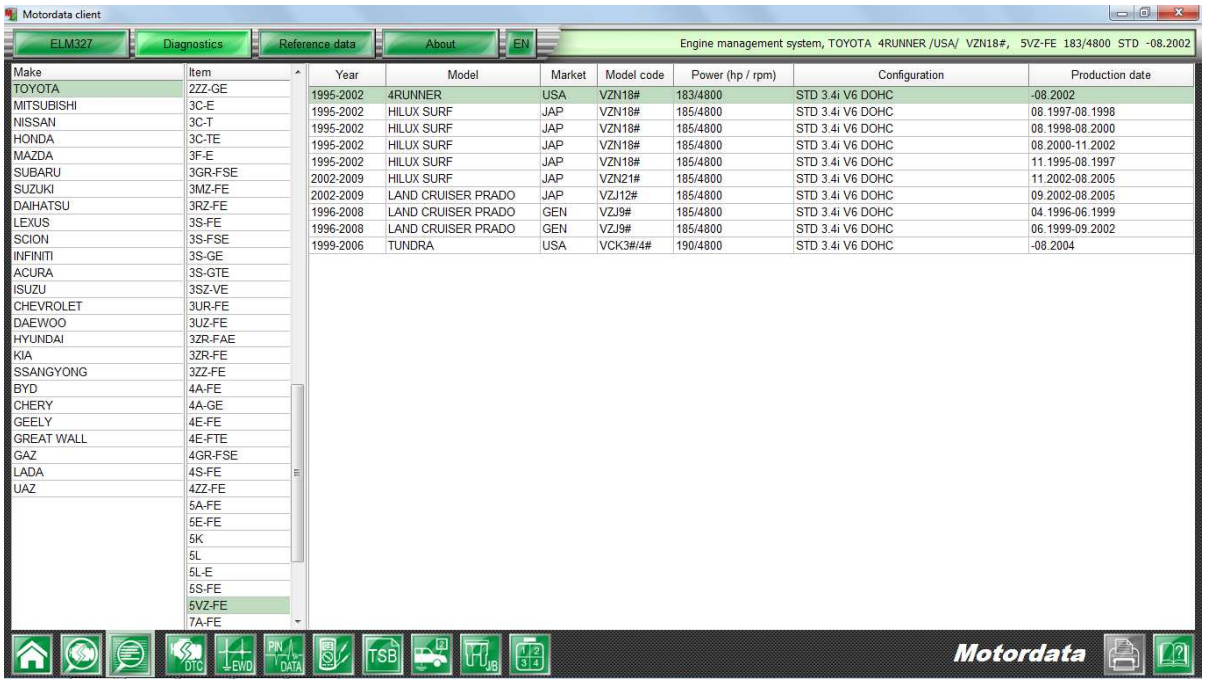
Only makes, models, systems and modifications that have the requested code will remain listed. The lower part of the window will have the DTC transcription for the selected modification.

Choose the required modification. Then you can switch to other modules to view the data on the modification selected.

To return to the catalog navigation or to select a different modification, press the «Model/System» button. To finish your search press the «Exit» button. You will be taken to the selected modification in the catalog.

### 1.2.2 Search by Engine Code

To start searching by engine code, press «Search» button with the selected «Engine management system» on the «Model/System» screen.



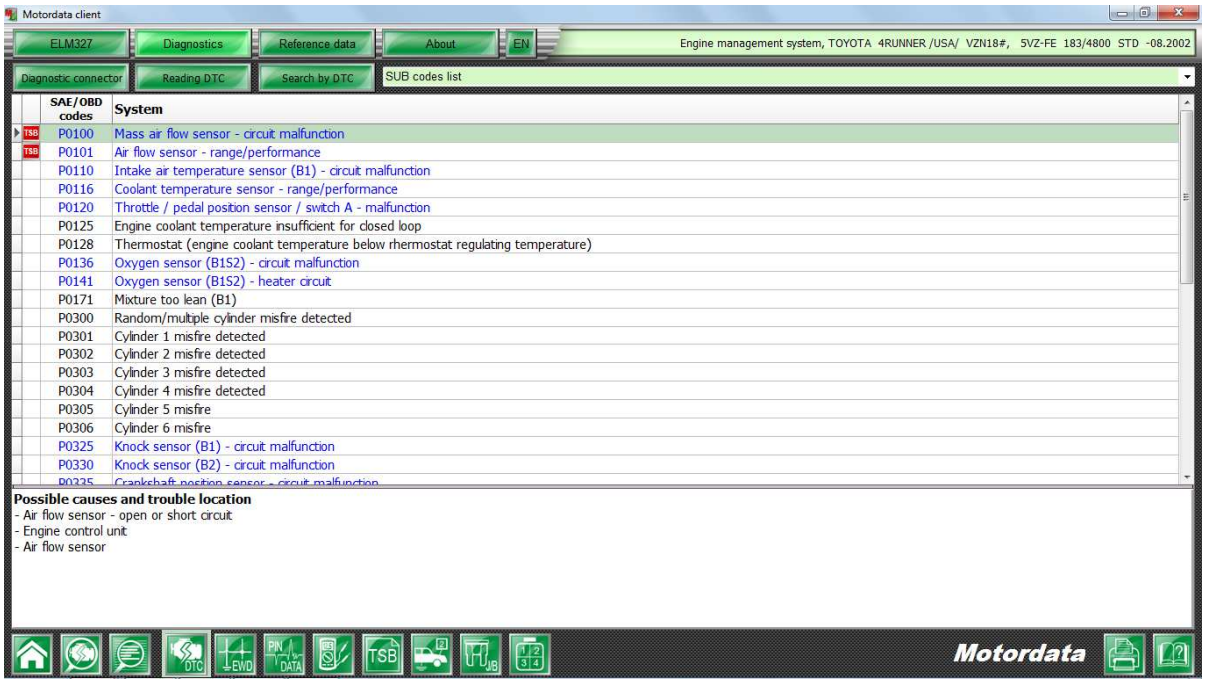

Select:

1. Make.
2. Engine model.
3. Applicable modification.

Switch to different modules to view the corresponding data on the selected modification.

To finish searching and to proceed to the selected modification press the «Model/System» button.

## 1.3 Diagnostic Trouble Codes




«Diagnostic Trouble Codes» module contains:

1. OBD codes, internal manufacturers codes, Flash-codes.
2. Possible causes and locations of malfunctions.
3. Conditions of appearance.

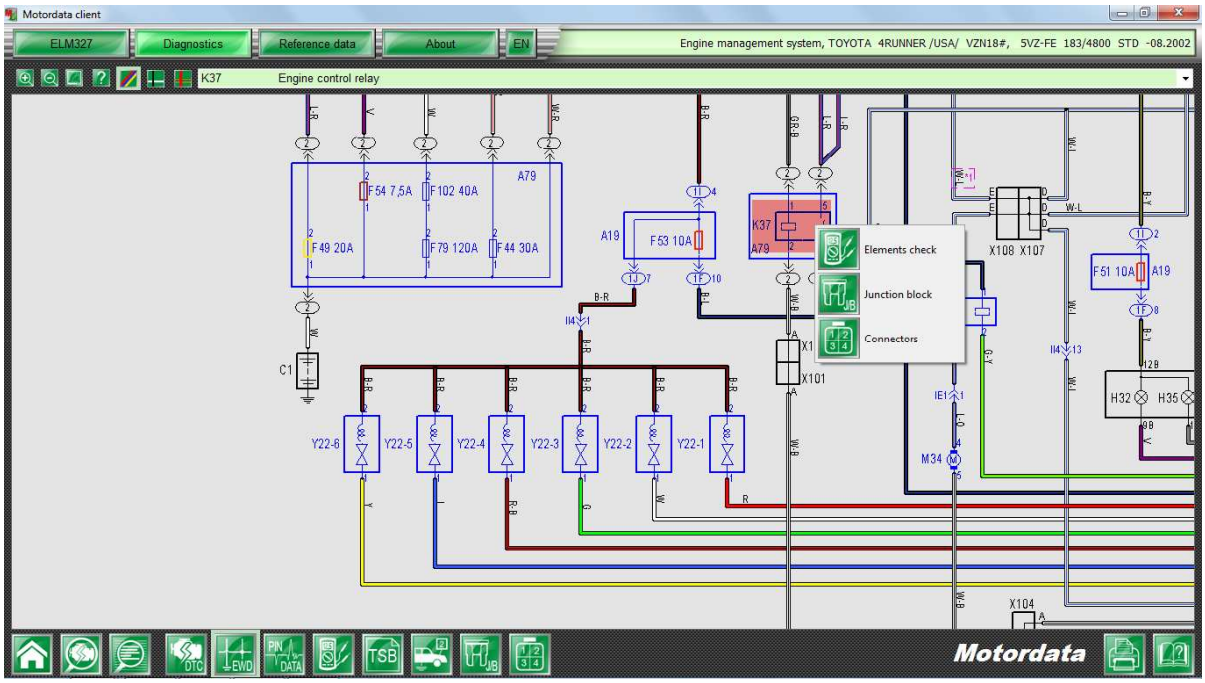
From DTCs you can jump to other modules (double-click):

1. Element location of the Wiring diagram.
2. Signals, data and pins description in PINDATA.
3. Elements check procedures.
4. Typical malfunctions.

The buttons above the code list will provide links to:

1. Diagnostic connector location.
2. DTC readout procedures.
3. Search by DTC including unique manufacturers' codes.

## 1.4 Wiring Diagrams



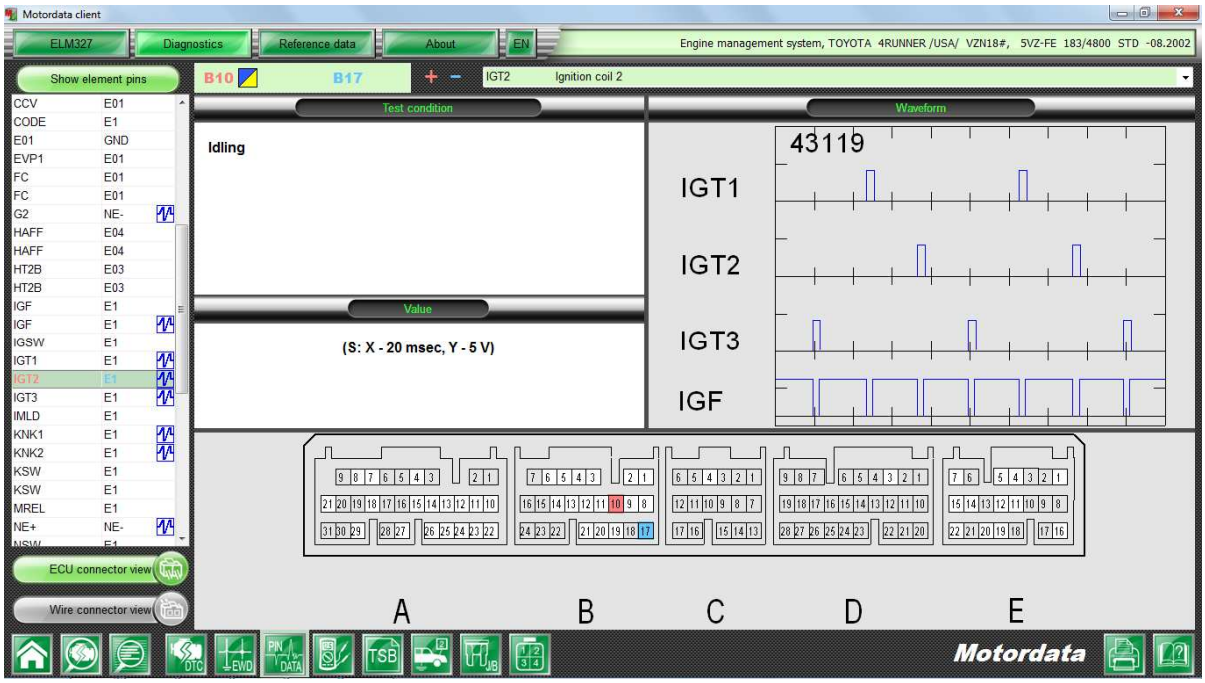

All elements highlighted in blue (sensors, boxes, relays, fuses, connectors and grounding points) are interactive, providing a quick cross-link to the required information.

You can quickly find an element on the diagram by using the alphabetically arranged drop-down list. The selected element gets highlighted with red on the diagram.

Double-click on an element to open a menu with cross-links to other modules. Double-click on a grounding (earth) point to see its location on the car body and the wiring data connected to it. Double-click on an ECU pin (terminal) to see its details in the PINDATA module.

Monochrome and colored wire tracing allows for easy determination and checks of the required circuits. Return to colored display of all the wires by clicking the corresponding button.

## 1.5 PINDATA




You can search PINDATA module by:
1. Pin label or number in the ECU connector.
2. Pin name using the drop-down above.

You can filter the list to leave only relevant pins (terminals) by pressing the «Show element pins» button. Pressing the «Show all pins» button resets the filter and displays all pins.

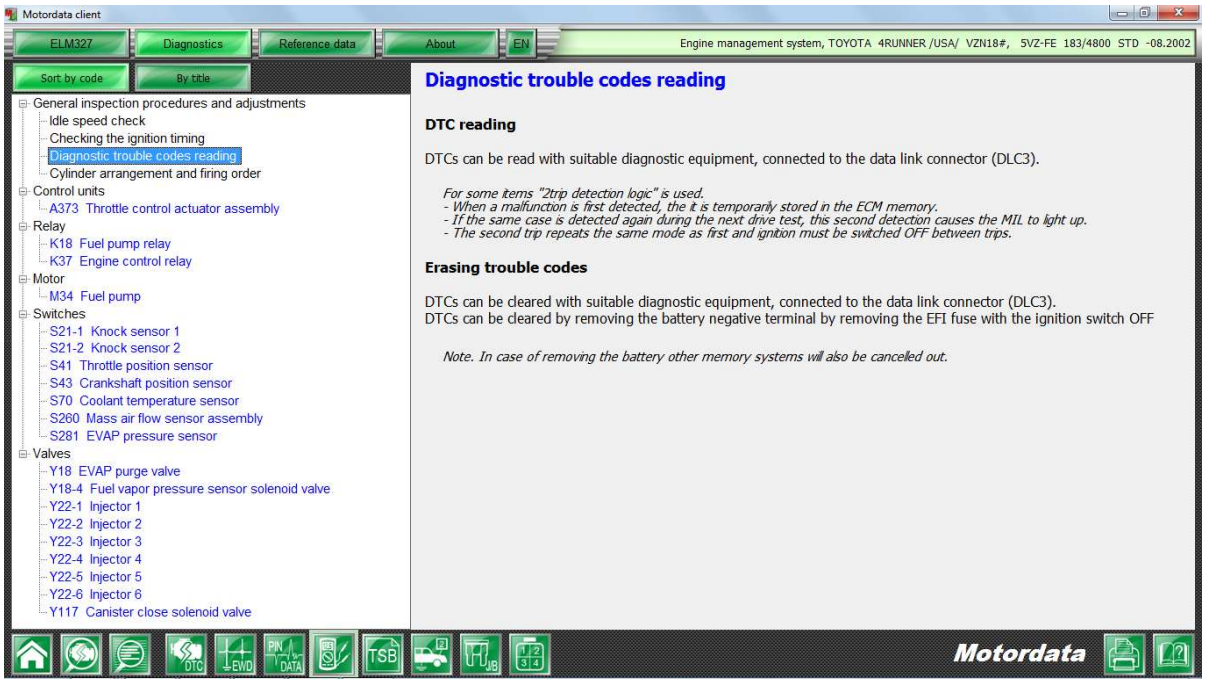
For the pins, marked with blue icons there are waveforms, stored in MotorData database.

Selected pin wire colors are displayed on the upper part of the window.

To make the search for the required pin easier, you can switch between connector view from the ECU side and from the wire bundle side.

Double-click the pin on the connector to see that pin (terminal) on the wiring diagram.

## 1.6 Elements Check and General Check Procedures



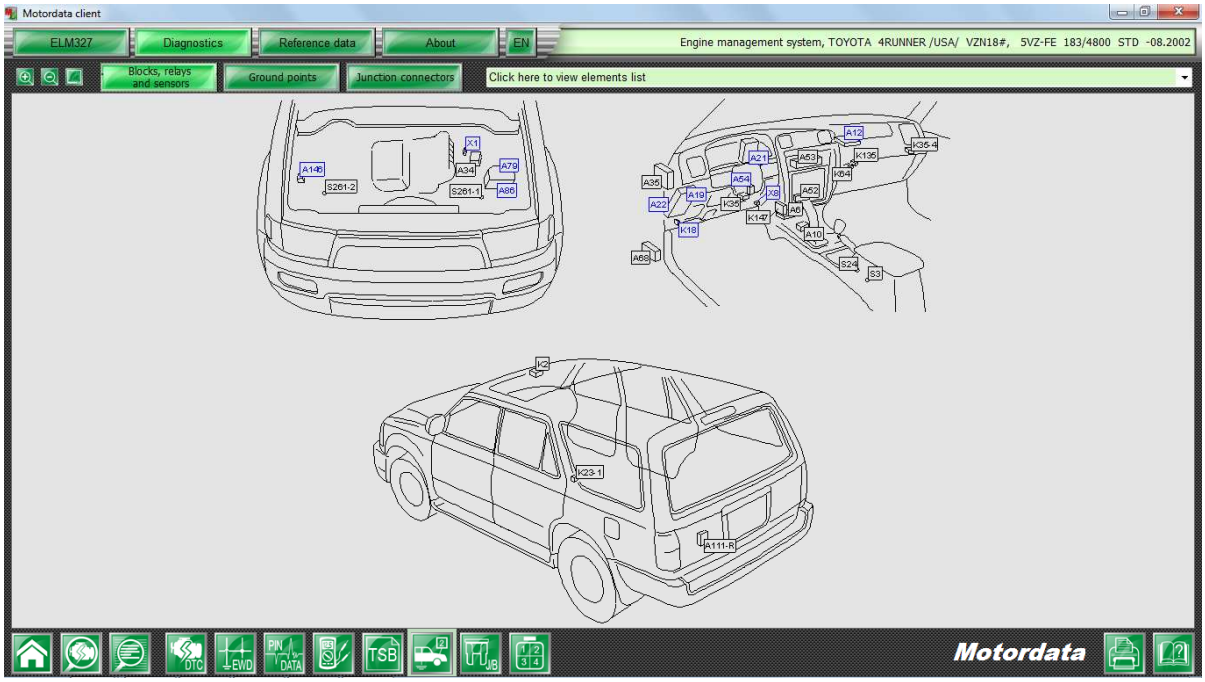

«Elements check» module contains data on:

1. General check, adjustments and code readout procedures.
2. Initialization and adaptation procedures.
3. Step-by-step instructions on elements check procedures: sensors, switches, electromagnetic valves and much more.

All elements in the list that are marked blue contain links to other modules. You can double click them to see the element in:

1. «Wiring diagram» module.
2. «PINDATA» module.
3. «Component locations» module.

## 1.7 Components and Ground Points Locations




«Components and ground points locations» module contains data on locations of:
1. Control units, junction boxes, sensors and relays.
2. Grounding points.
3. Junction connectors.

You can search for elements using the drop-down list. The selected element is highlighted in red.

Additional information about an element is shown when the mouse pointer is hovered over it.

Double-click on any element that is marked blue to go to the linked modules.

In the «Ground points» mode the locations of ground (earth) points on the car body is shown.

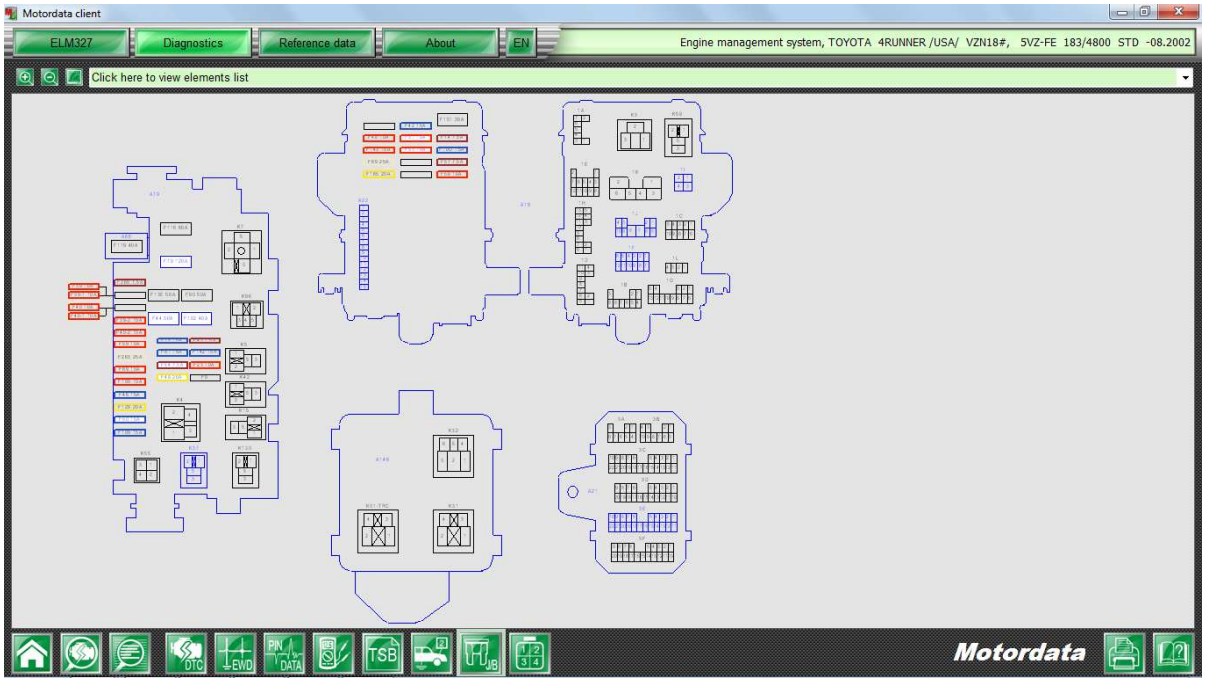
When a ground point is hovered over the following information is shown:
1. Ground point location description.
2. Circuits and systems that use it.
3. List of systems with additional information about the ground point.

Double-click to view the ground point on the wiring diagram.

In the «Junction connectors» mode the location of junction connectors on the car body is shown.

Double-click the connector to view its layout and appearance.

## 1.8 Junction Boxes




«Junction boxes» module contains appearance of the junction boxes and their layouts (relays and fuses). All elements that are marked blue are linked to other modules.

When a fuse is hovered over, the protected circuits it is connected to are shown.

You can find a junction box element using the drop-down list. The selected element gets highlighted with red on the diagram.

Double-click an element to view it in the connected modules, for example on the wiring diagram.

## 1.9 Refill Capacities and Oil Types

«Reference data» section contains information on refilled fluid capacities and oil types. To switch to the reference section, press the corresponding button.