

# ***MotorData***

Car diagnostics made easy

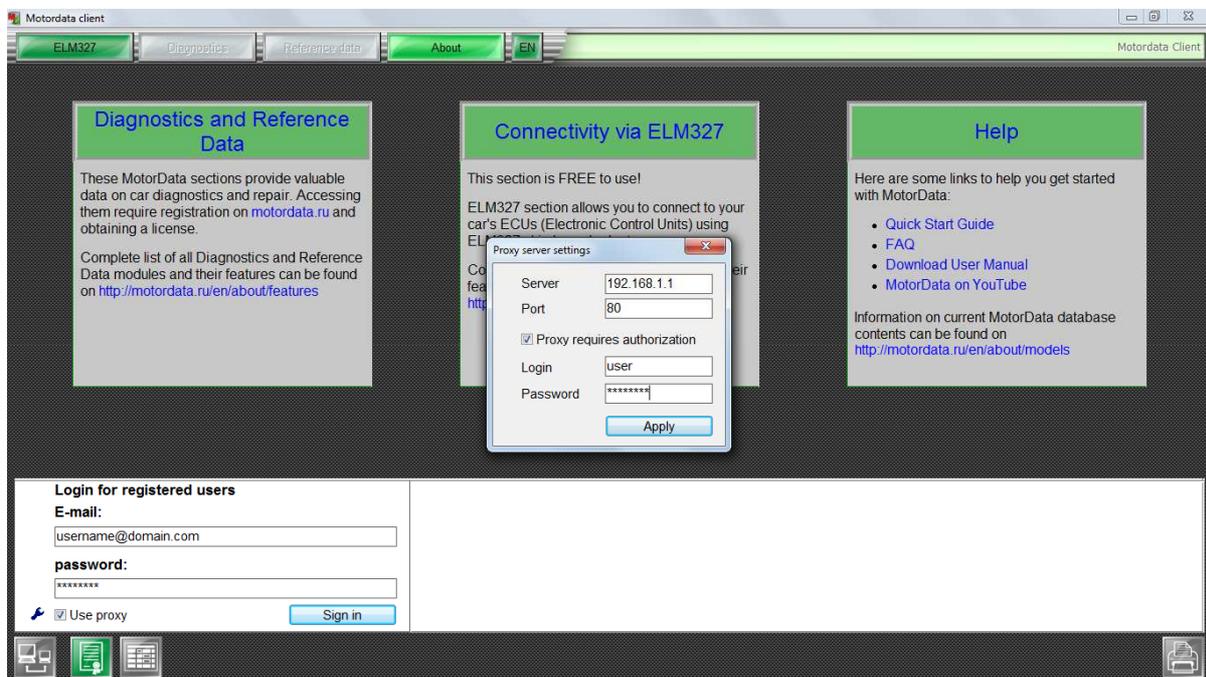
MotorData Client Software User Manual

## 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

The screenshot displays the Motordata client software interface. The main window title is "Motordata client" and the subtitle is "Engine management system, TOYOTA ALLEX/JAP/ NZE12#, 1NZ-FE 110/6000 2WD 01.2001-". The interface is divided into several sections:

- Top Menu:** ELM327, Diagnostics, Reference data, About, EN.
- Left Sidebar:** Make (TOYOTA, MITSUBISHI, NISSAN, HONDA, MAZDA, SUBARU, SUZUKI, DAIHATSU, LEXUS, SCION, INFINITI, ACURA, ISUZU, CHEVROLET, DAEWOO, HYUNDAI, KIA, SSANGYONG, BYD, CHERY, GEELY, GREAT WALL, CAT).
- Central Table:** Model, Market, Models, Years.
- Right Sidebar:** System (Engine management system, Engine electrical system, Automatic transmission control system, Anti-lock brake system, Power steering system, Airbag system, Air conditioning, Central locking, Combination meter, Audio, Navigation system).
- Main Table:** Item, Model code, Power (hp / rpm), Configuration, Production date, Volume, Specification.
- Bottom Toolbar:** Home, Refresh, Print, DTC, EWD, DATA, TSB, J1939, J1930, Motordata logo, Print, Help.

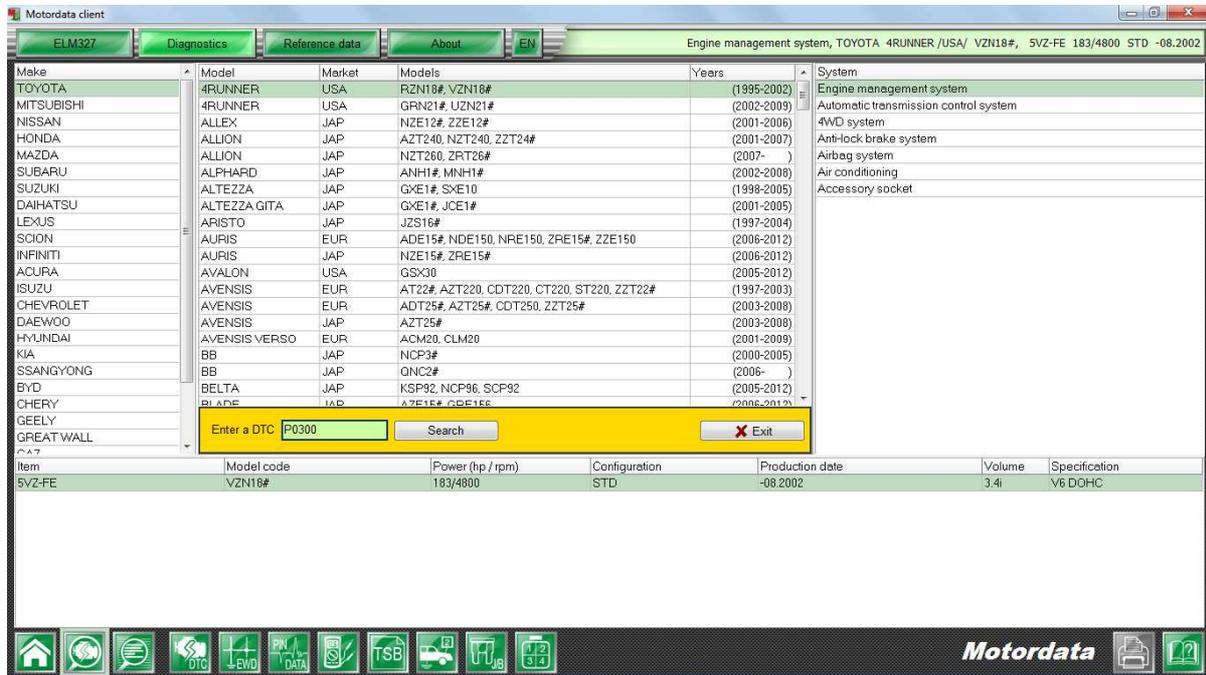
Item	Model code	Power (hp / rpm)	Configuration	Production date	Volume	Specification
1NZ-FE	NZE12#	110/6000	2WD	01.2001-	1.5i	R4 DOHC VVT
1NZ-FE	NZE12#	105/6000	4WD	01.2001-	1.5i	R4 DOHC VVT
1ZZ-FE	ZZE12#	136/6000	2WD, with VSC	09.2002-09.2006	1.8i	R4 DOHC VVT
1ZZ-FE	ZZE12#	136/6000	2WD, without VSC	09.2002-09.2006	1.8i	R4 DOHC VVT
1ZZ-FE	ZZE12#	125/6000	4WD	09.2002-09.2006	1.8i	R4 DOHC VVT
2ZZ-GE	ZZE12#	190/7600	STD	01.2001-	1.8i	R4 DOHC VVT

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 is 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.

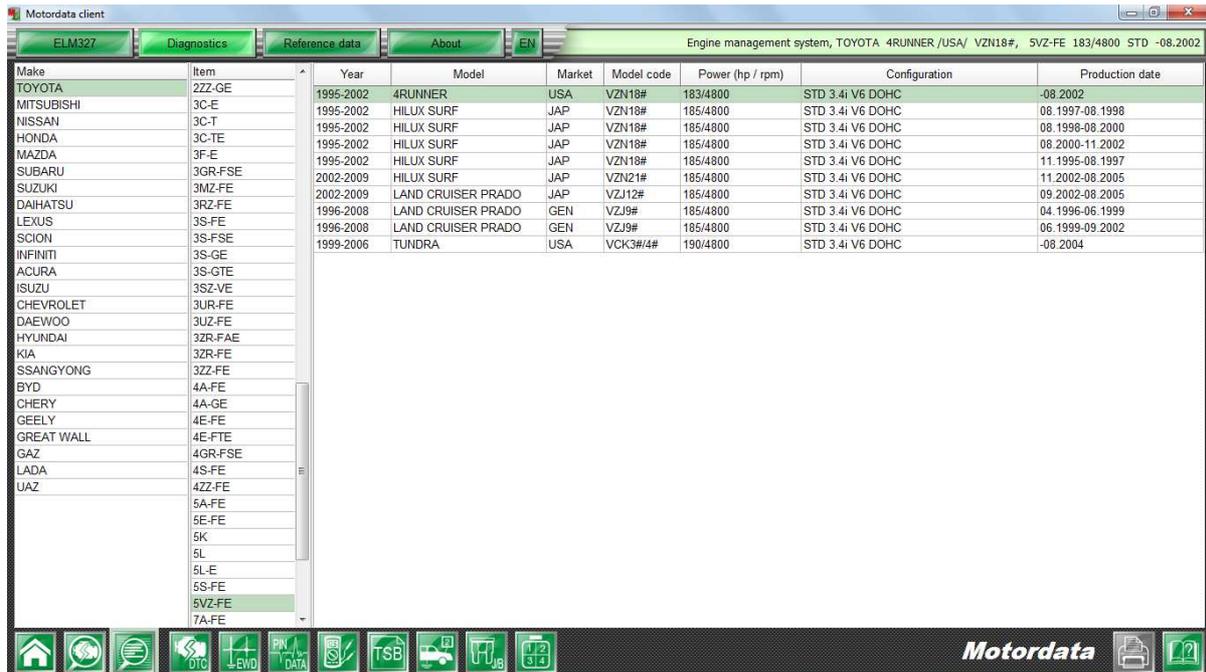
Only makes, models, systems and modifications that have the requested code will remain listed. The lower part of the window will have the DTC transcription for the selected modification.

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.



The screenshot shows the Motordata client software interface. The title bar reads "Motordata client". The menu bar includes "ELM327", "Diagnostics", "Reference data", "About", and "EN". The main window title is "Engine management system, TOYOTA 4RUNNER /USA/ VZN18#, 5VZ-FE 183/4800 STD -08.2002". The main area displays a table with the following columns: Make, Item, Year, Model, Market, Model code, Power (hp / rpm), Configuration, and Production date. The table contains data for various car models and engine codes, including Toyota 4Runner, Mitsubishi HILUX SURF, Nissan HILUX SURF, Honda HILUX SURF, Mazda HILUX SURF, Subaru HILUX SURF, Suzuki LAND CRUISER PRADO, Daihatsu LAND CRUISER PRADO, Lexus LAND CRUISER PRADO, and Scion Tundra.

Make	Item	Year	Model	Market	Model code	Power (hp / rpm)	Configuration	Production date
TOYOTA	2ZZ-GE	1995-2002	4RUNNER	USA	VZN18#	183/4800	STD 3.4i V6 DOHC	-08.2002
MITSUBISHI	3C-E	1995-2002	HILUX SURF	JAP	VZN18#	185/4800	STD 3.4i V6 DOHC	08.1997-08.1998
NISSAN	3C-T	1995-2002	HILUX SURF	JAP	VZN18#	185/4800	STD 3.4i V6 DOHC	08.1998-08.2000
HONDA	3C-TE	1995-2002	HILUX SURF	JAP	VZN18#	185/4800	STD 3.4i V6 DOHC	08.2000-11.2002
MAZDA	3F-E	1995-2002	HILUX SURF	JAP	VZN18#	185/4800	STD 3.4i V6 DOHC	11.1995-08.1997
SUBARU	3GR-FSE	2002-2009	HILUX SURF	JAP	VZN21#	185/4800	STD 3.4i V6 DOHC	11.2002-08.2005
SUZUKI	3MZ-FE	2002-2009	LAND CRUISER PRADO	JAP	VZJ12#	185/4800	STD 3.4i V6 DOHC	09.2002-08.2005
DAIHATSU	3RZ-FE	1996-2008	LAND CRUISER PRADO	GEN	VZJ9#	185/4800	STD 3.4i V6 DOHC	04.1996-06.1999
LEXUS	3S-FE	1996-2008	LAND CRUISER PRADO	GEN	VZJ9#	185/4800	STD 3.4i V6 DOHC	06.1999-09.2002
SCION	3S-FSE	1999-2006	TUNDRA	USA	VCK3#4#	190/4800	STD 3.4i V6 DOHC	-08.2004
INFINITI	3S-GE							
ACURA	3S-GTE							
ISUZU	3SZ-VE							
CHEVROLET	3UR-FE							
DAEWOO	3UZ-FE							
HYUNDAI	3ZR-FAE							
KIA	3ZR-FE							
SSANGYONG	3ZZ-FE							
BYD	4A-FE							
CHERY	4A-GE							
GEELY	4E-FE							
GREAT WALL	4E-FTE							
GAZ	4GR-FSE							
LADA	4S-FE							
UAZ	4ZZ-FE							
	5A-FE							
	5E-FE							
	5K							
	5L							
	5L-E							
	5S-FE							
	5VZ-FE							
	7A-FE							

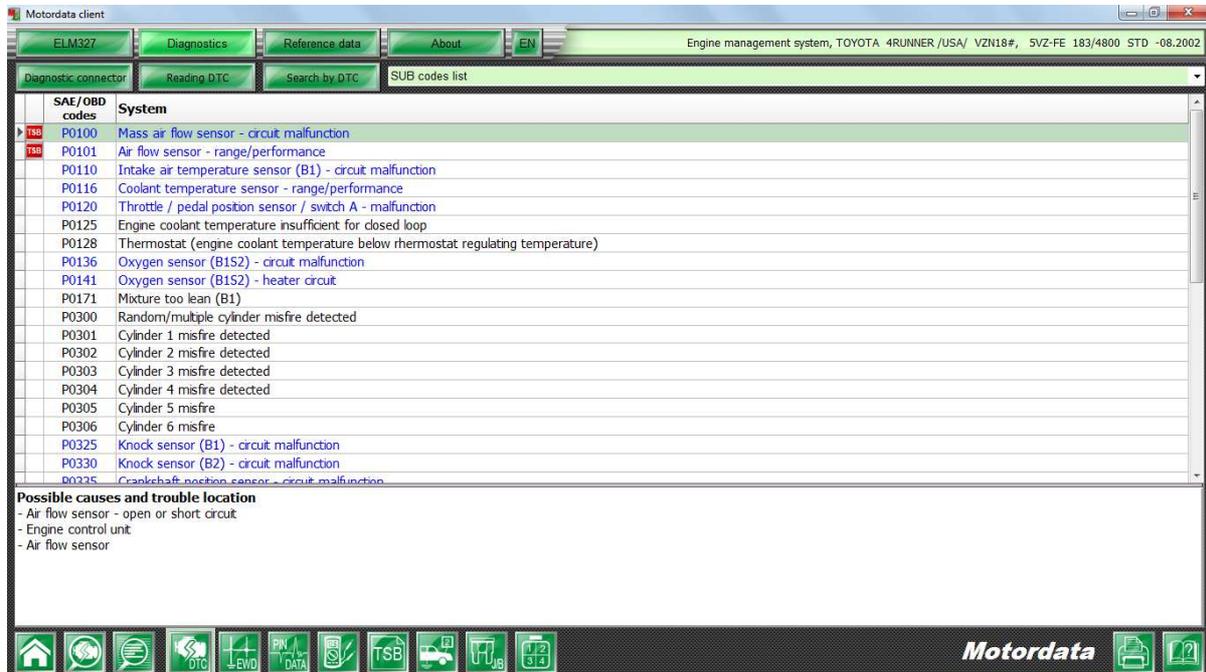
Select:

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.

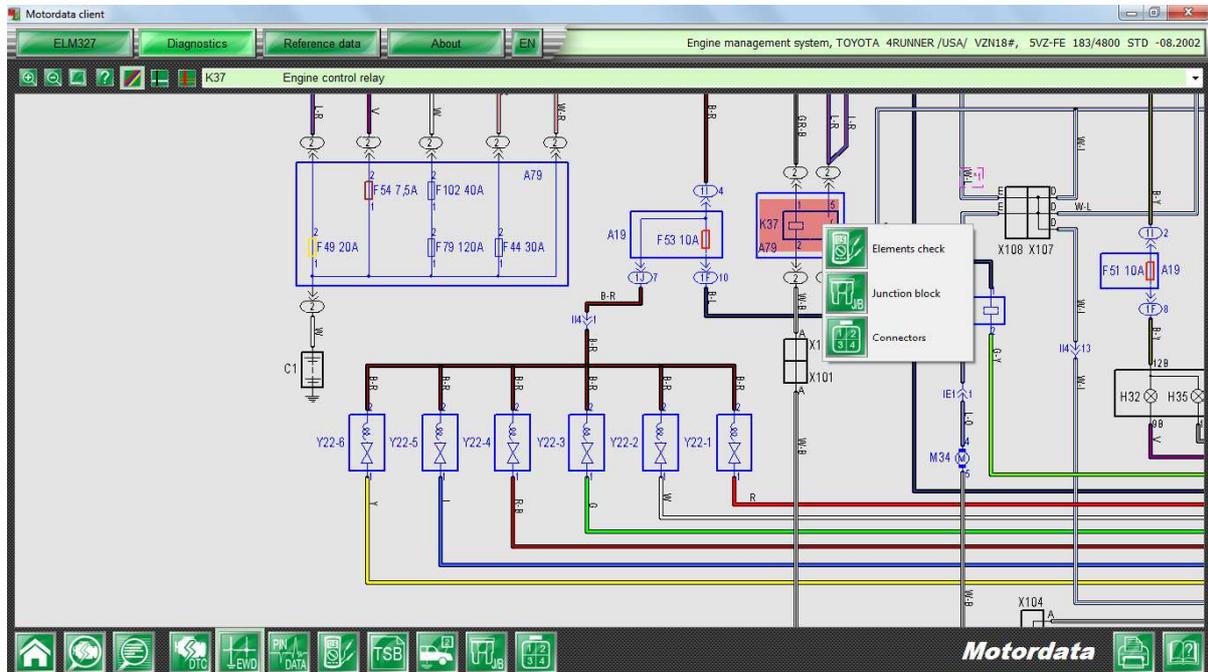
From DTCs you can jump to other modules (double-click):

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



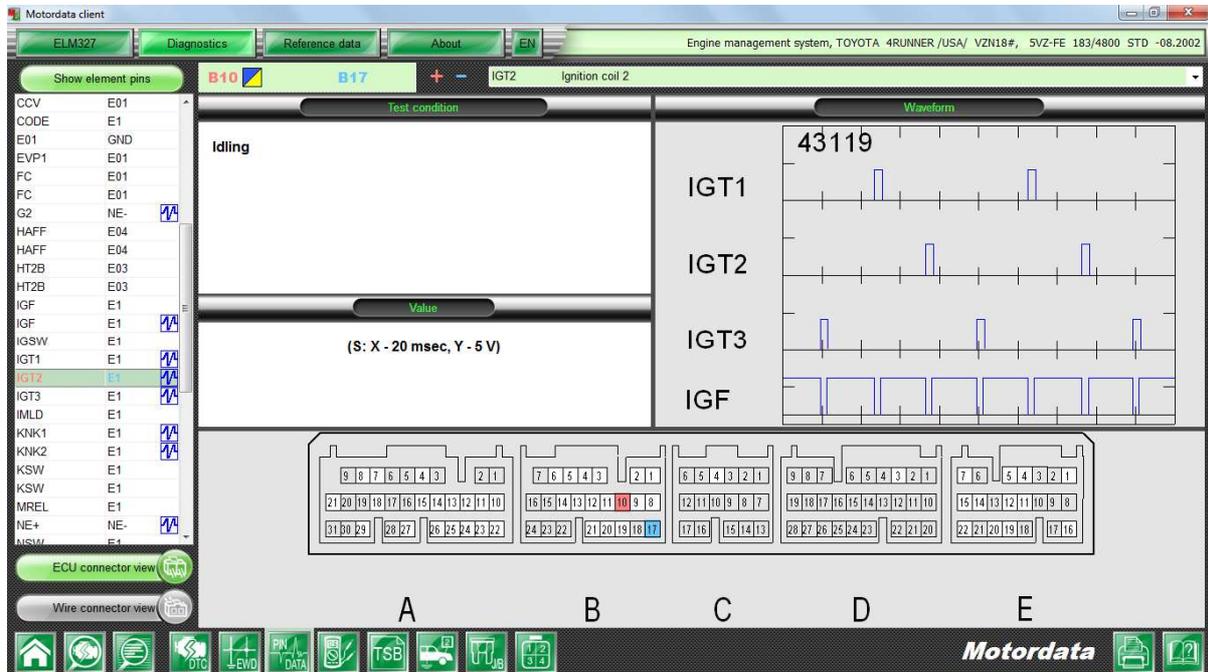
All elements highlighted in blue (sensors, boxes, relays, fuses, connectors and grounding points) are interactive, providing a quick cross-link to the required information.

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.

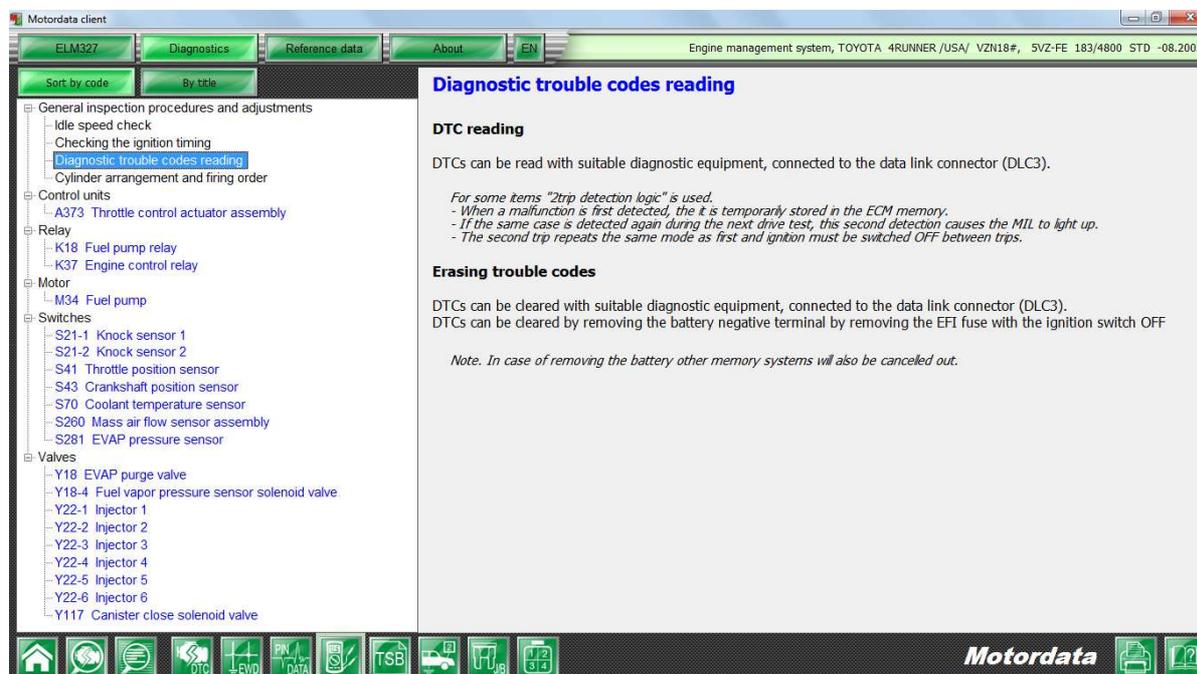
For the pins, marked with blue icons there are waveforms, stored in MotorData database.

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:

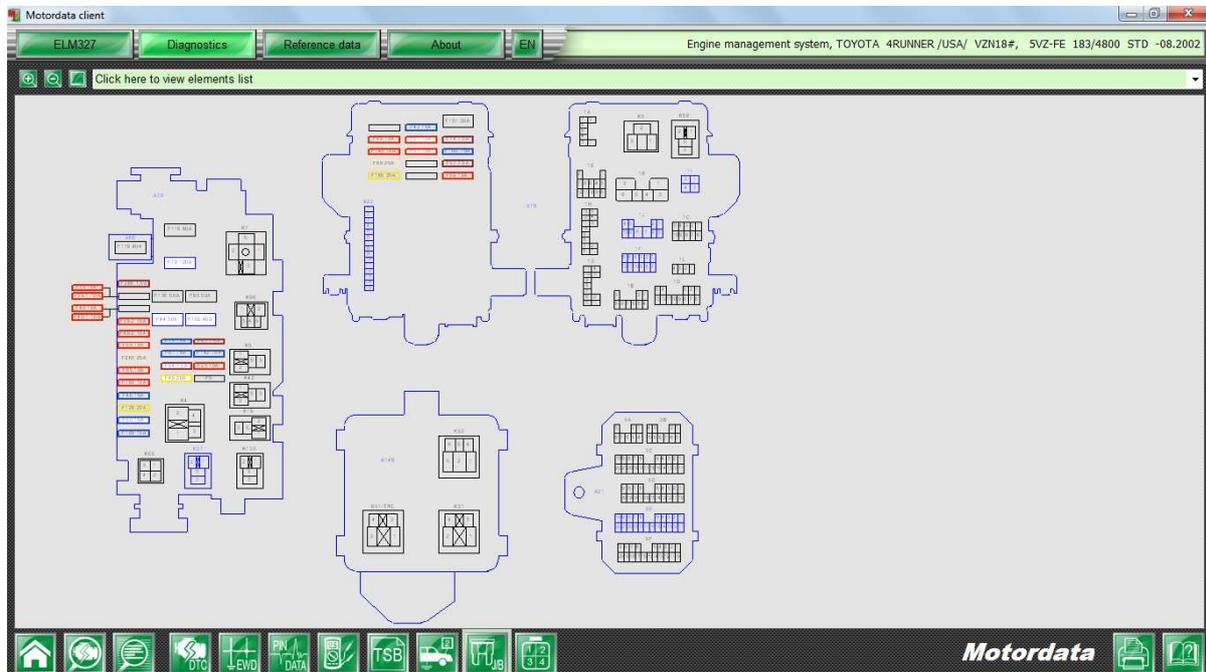
1. General check, adjustments and code readout procedures.
2. Initialization and adaptation procedures.
3. Step-by-step instructions on elements check procedures: sensors, switches, electromagnetic valves and much more.

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.



## 1.8 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.