

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.

📲 Motordata client		
ELM327 Diagnostics Reference data	About	Motordata Client
Diagnostics and Reference Data These MotorData sections provide valuable data on car diagnostics and repair. Accessing them require registration on motordata.ru and obtaining a license. Complete list of all Diagnostics and Reference Data modules and their features can be found on http://motordata.ru/en/about/features	Connectivity via ELM327 This section is FREE to use! ELM327 section allows you to connect to your car's ECUs (Electronic Control Units) using EL Proxy server settings Co fea Server 192.168.1.1 Port 80 Proxy requires authorization Login user Password *******	Here are some links to help you get started with MotorData: • Quick Start Guide • FAQ • Download User Manual • MotorData on YouTube Information on current MotorData database contents can be found on http://motordata.ru/en/about/models
Login for registered users E-mail: usemame@domain.com password: ******* V Use proxy Sign in Sign in		

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

### **1.2 Catalog Navigation**

//ake	^ Model	Market	Models		Years	▲ System		
OYOTA	4RUNNER	USA	RZN18#, VZN18#		(1995-2002)	Engine management system		
ITSUBISHI	4RUNNER	USA	GRN21#, UZN21#		(2002-2009)	Engine electrical system		
ISSAN	ALLEX	JAP	NZE12#. ZZE12#		(2001-2006)	Automatic transmission control s	vstem	
ONDA	ALLION	JAP	AZT240, NZT240, ZZT24#		(2001-2007)	Anti-lock brake system		
AZDA	ALLION	JAP	NZT260, ZRT26#		(2007- )	Power steering system		
UBARU	ALPHARD	JAP	ANH1#, MNH1#		(2002-2008)	Airbag system		
JZUKI	ALTEZZA	JAP	GXE1#, SXE10		(1998-2005)	Air conditioning		
AIHATSU	ALTEZZA GITA	JAP	GXE1#, JCE1#		(2001-2005)	Central locking		
EXUS	ARISTO	JAP	JZS16#		(1997-2004)	Combination meter		
CION	AURIS	EUR	ADE15#, NDE150, NRE150, ZRE	E15#, ZZE150	(2006-2012)	Audio		
IFINITI	AURIS	JAP	NZE15#, ZRE15#		(2006-2012)	Navigation system		
CURA	AVALON	USA	GSX30		(2005-2012)			
IUZU	AVENSIS	EUR	AT22#, AZT220, CDT220, CT220	), ST220, ZZT22#	(1997-2003)			
HEVROLET	AVENSIS	EUR	ADT25#, AZT25#, CDT250, ZZT	25#	(2003-2008)			
AEWOO	AVENSIS	JAP	AZT25#		(2003-2008)			
YUNDAI	AVENSIS VERSO	EUR	ACM20, CLM20		(2001-2009)			
A	BB	JAP	NCP3#		(2000-2005)			
SANGYONG	BB	JAP	QNC2#		(2006- )			
ΥD	BELTA	JAP	KSP92, NCP96, SCP92		(2005-2012)			
HERY	BLADE	JAP	AZE15#, GRE156		(2006-2012)			
EELY	BREVIS	JAP	JCG1#		(2001-2007)			
REAT WALL	CALDINA	JAP	AT211, CT216, ST21#		(1997-2002)	_		
^7		14 Ph	A 7TO AN OTO 40 77TO 44		(0000.0007)	•		
em	Model code		Power (hp / rpm)	Configuration		luction date	Volume	Specification
NZ-FE	NZE12#		110/6000	2WD	01.2		1.5i	R4 D0HC VVT
NZ-FE	NZE12#		105/6000	4WD	01.2		1.5i	R4 D0HC VVT
ZZ-FE	ZZE12#		136/6000	2WD, with VSC		02-09.2006	1.8i	R4 D0HC VVT
ZZ-FE	ZZE12#		136/6000	2WD, without VSC		02-09.2006	1.8i	R4 D0HC VVT
ZZ-FE	ZZE12#		125/6000	4WD		02-09.2006	1.8i	R4 D0HC VVT
ZZ-GE	ZZE12#		190/7600	STD	01.2	101-	1.8i	R4 D0HC VVTL

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

📆 Motordata client									
ELM327	Diagnostics	Reference data	About EN		Engine management s	syst	em, TOYOTA 4RUNNER /USA/ VZN18#,	5VZ-FE 183/48	00 STD -08.2002
Make	<ul> <li>Model</li> </ul>	Market	Models		Years		System	_	1
TOYOTA	4RUNNER	USA	RZN18#, VZN18#		(1995-2002)	-	Engine management system		
MITSUBISHI	4RUNNER	USA	GRN21#, UZN21#		(2002-2009)		Automatic transmission control system		
NISSAN	ALLEX	JAP	NZE12#, ZZE12#		(2001-2006)		4WD system		
HONDA	ALLION	JAP	AZT240, NZT240, ZZT24#		(2001-2007)		Anti-lock brake system		
MAZDA	ALLION	JAP	NZT260, ZRT26#		(2007- )		Airbag system		
SUBARU	ALPHARD	JAP	ANH1#, MNH1#		(2002-2008)		Air conditioning		
SUZUKI	ALTEZZA	JAP	GXE1#, SXE10		(1998-2005)		Accessory socket		
DAIHATSU	ALTEZZA GITA	JAP	GXE1#, JCE1#		(2001-2005)				
LEXUS	_ ARISTO	JAP	JZS16#		(1997-2004)				
SCION	AURIS	EUR	ADE15#, NDE150, NRE150, 2	2RE15#, ZZE150	(2006-2012)				
INFINITI	AURIS	JAP	NZE15#, ZRE15#		(2006-2012)				
ACURA	AVALON	USA	GSX30		(2005-2012)				
ISUZU	AVENSIS	EUR	AT22#, AZT220, CDT220, CT	220, ST220, ZZT22#	(1997-2003)				
CHEVROLET	AVENSIS	EUR	ADT25#, AZT25#, CDT250, Z	ZT25#	(2003-2008)				
DAEWOO	AVENSIS	JAP	AZT25#		(2003-2008)				
HYUNDAI	AVENSIS VERS	SO EUR	ACM20, CLM20		(2001-2009)				
KIA	BB	JAP	NCP3#		(2000-2005)				
SSANGYONG	BB	JAP	QNC2#		(2006- )				
BYD	BELTA	JAP	KSP92, NCP96, SCP92		(2005-2012)				
CHERY	RIADE	IAD	AZE16# CDE166		(2008-2012)	*			
GEELY	Enter a DTC	P0300	- Our and		14 m 1	5			
GREAT WALL	Enterable	P0300	Search		🗶 Exit				
C ^ 7			P	Theorem	L	_			
Item	Model code	e	Power (hp / rpm)	Configuration	Produc			Specificati	on
5VZ-FE	VZN18#		183/4800	STD	-08.200	12	3.4i	V6 DOHC	
5VZ-FE	VZN18#		183/4800	STD	-08.200	12	3.4	V6 DOHC	
<b>^</b>			68 🚅 R. 🗄	]			Moto	rdata	

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.

ELM327	Diagnostics	Reference data	About			Engine management	system, TOYOTA 4RUNNER /USA/ VZN	18#, 5VZ-FE 183/4800 STD -08.2
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	1333 2000	TONDION	00/1	01030140	150/4000	orb s. 4 to borro	00.2004
ACURA	3S-GTE							
ISUZU	3SZ-VE							
CHEVROLET	3UR-FE							
DAEWOO	3UZ-FE							
IYUNDAI								
HT UNDAI	3ZR-FAE							
	32R-FAE 3ZR-FE							
KIA								
KIA SSANGYONG	3ZR-FE							
KIA SSANGYONG BYD	3ZR-FE 3ZZ-FE							
KIA SSANGYONG BYD CHERY GEELY	3ZR-FE 3ZZ-FE 4A-FE							
KIA SSANGYONG BYD CHERY	32R-FE 32Z-FE 4A-FE 4A-GE							
KIA SSANGYONG BYD CHERY GEELY GREAT WALL	32R-FE 32Z-FE 4A-FE 4A-GE 4E-FE							
KIA SSANGYONG BYD CHERY GEELY GREAT WALL GAZ	32R-FE 32Z-FE 4A-FE 4A-GE 4E-FE 4E-FE 4E-FTE							
KIA SSANGYONG BYD CHERY GEELY GREAT WALL GAZ LADA	32R-FE 32Z-FE 4A-FE 4A-GE 4E-FE 4E-FTE 4GR-FSE							
KIA SSANGYONG BYD CHERY GEELY GREAT WALL GAZ LADA	32R-FE 32Z-FE 4A-FE 4A-GE 4E-FE 4E-FTE 4GR-FSE 4S-FE	E						
KIA SSANGYONG BYD CHERY GEELY	32R-FE 322-FE 4A-FE 4E-FE 4E-FE 4E-FTE 4GR-FSE 4S-FE 4S-FE 42Z-FE	E						
KIA SSANGYONG BYD CHERY GEELY GREAT WALL GAZ LADA	32R-FE 32Z-FE 4A-FE 4A-GE 4E-FE 4E-FTE 4GR-FSE 4S-FE 4S-FE 5A-FE	E						
KIA SSANGYONG 3YD CHERY GEELY SREAT WALL GAZ ADA	32R-FE 32Z-FE 4A-FE 4A-GE 4E-FE 4GR-FSE 4GR-FSE 4S-FE 4Z2-FE 5A-FE 5E-FE	E						
KIA SSANGYONG 3YD CHERY GEELY SREAT WALL GAZ ADA	32R-FE 32Z-FE 4A-FE 4E-FE 4E-FE 4E-FTE 4GR-FSE 4S-FE 5A-FE 5E-FE 5K	E						
KIA SSANGYONG 3YD CHERY GEELY SREAT WALL GAZ ADA	32R-FE 32Z-FE 4A-FE 4E-FE 4E-FE 4GR-FSE 4GR-FSE 4S-FE 5A-FE 5E-FE 5K 5L 5L-E							
KIA SSANGYONG BYD CHERY GEELY GREAT WALL GAZ LADA	32R-FE 32Z-FE 4A-FE 4A-GE 4E-FE 4E-FTE 4GR-FSE 4S-FE 5A-FE 5A-FE 5K 5L-E 5S-FE							
KIA SSANGYONG BYD CHERY GEELY GREAT WALL GAZ LADA	32R-FE 32Z-FE 4A-FE 4E-FE 4E-FE 4GR-FSE 4GR-FSE 4S-FE 5A-FE 5E-FE 5K 5L 5L-E							

Select:

1. Make.

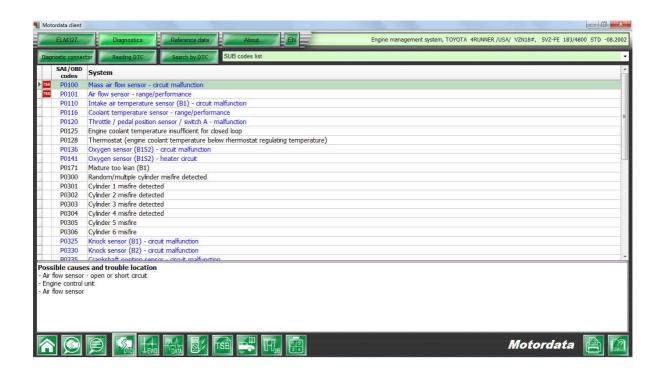
2. Engine model.

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.

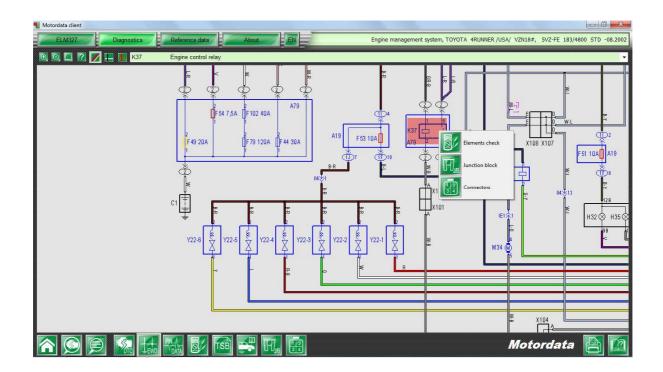
From DTCs you can jump to other modules (double-click):

- 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**



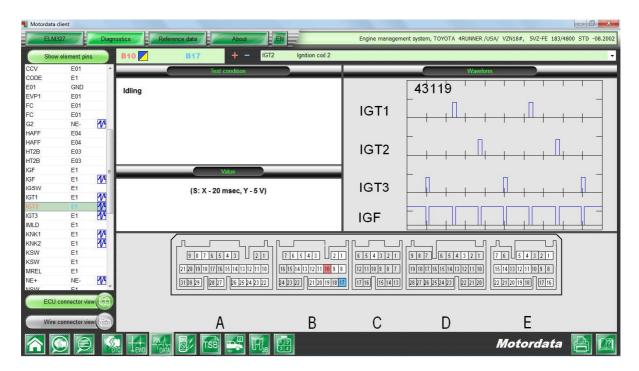
All elements highlighted in blue (sensors, boxes, relays, fuses, connectors and grounding points) are interactive, providing a quick cross-link to the required information.

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.

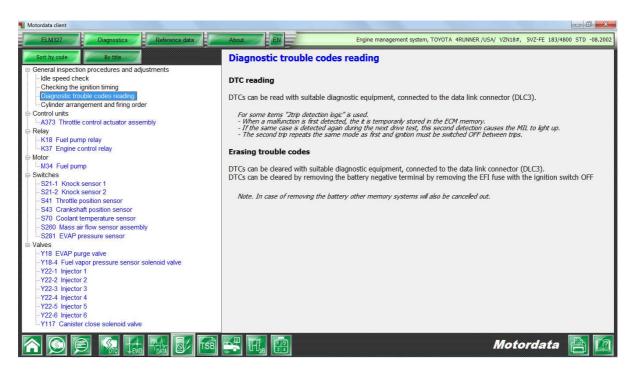
For the pins, marked with blue icons there are waveforms, stored in MotorData database.

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.

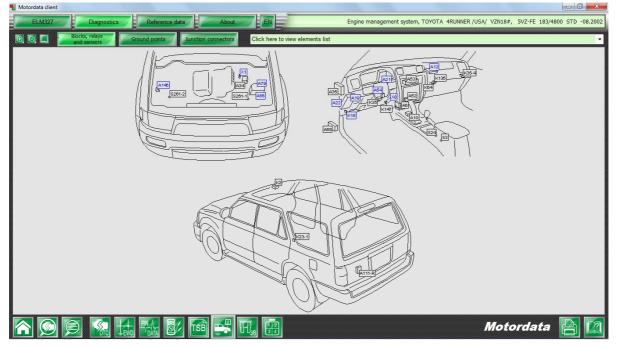
2. Initialization and adaptation procedures.

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.

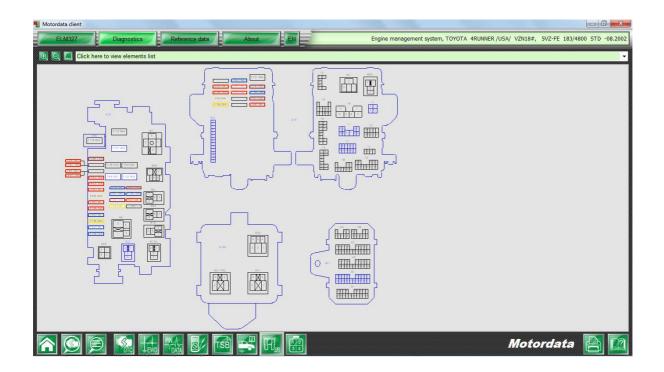
Double-click to view the ground point on the wiring diagram.

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.

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#### **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.