

Achieve the impossible

ABRITES Diagnostics for Renault/Dacia User Manual

Version: 2.7

www.ABRITES.com

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1. Introduction

The "Abrites Diagnostics for Renault/Dacia" is a personal electronic device and online server based diagnostic software for Renault/Dacia vehicles. With the help of this software you can perform complete diagnostic operations of all vehicles produced by the brand.

For proper operation of your diagnostic software you will need a corresponding interface for connection between your PC and vehicle named "AVDI". The usage of the software requires the device it is installed on (i.e. personal computer) to be connected to the Internet.

AVDI is an interface produced by Abrites Ltd. intended to act as an interface between the PC and the electronic control units within the vehicles.

Your AVDI should be used with ABRITES software produced by Abrites Ltd.

ABRITES is a trade mark of Abrites Ltd.

2. Getting Started

The Abrites diagnostics for Renault/Dacia is installed together with the software applications as a part of the installation provided to the user with the e-mails sent.

You can start the Abrites diagnostics for Renault/Dacia from the Quick start icon, installed on your desktop upon installation of the Abrites diagnostic suite. You will be able to start it by clicking on the brand logo. When the software opens the user will see the following screen:

A ABR	TES Diagnostics for Renault 6.6	www.al	orites.com		■ X
#	All Units for CLIO III	Protocol	DTC	-	
1	INJECTION (\$7A)				
2	A.B.S. (\$01)				Previous
3	INSTRUMENT PANEL (\$51)				Previous
4	UCH (\$26)				
5	AIRBAG / PRETENSIONERS (\$2C)				$\boldsymbol{\varsigma}$
8	AIR CONDITIONING (\$29)				Open
9	AUTOMATIC GEARBOX (\$6E)				
10	COMMUNICATIONS UNIT (\$57)				
18	VARIABLE P.A.S. (\$04)				Next
20	UPC (\$27)				
21	mynme (000)			•	
🚘 V	hide Selection				
Curr	ent context				53
RE	NAULT	<i>i</i>	7		Options
CT		Clear all DTCs	Filter		
	IO III		Filter		
					Exit

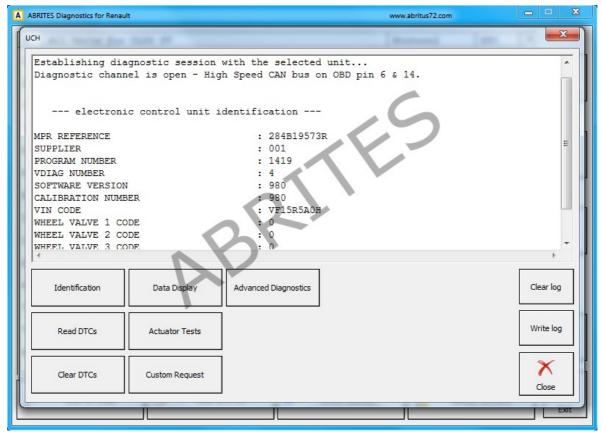
In this main screen the user can select the model of the vehicle and proceed to diagnostics or click the "Detect" button in order for the Abrites diagnostics for Renault/Dacia to automatically detect the vehicle.

3. Standard Diagnostics

The Abrites diagnostics for Renault/Dacia provides a multitude of options in terms of standard diagnostics. It can assist the user to read and clear diagnostic trouble codes (DTC),perform identification on the electronic control modules installed in the vehicles produced by Renault and Dacia, show the actual values of the vehicles in real time in a list form as well as a graph and also perform actuator testing in order to determine the cause of issues within the vehicles.

3.1. Module Identification

Once the software identifies the vehicle make and model the user will see the list of modules installed in the particular vehicle. When they choose a module and click on it the following screen will be displayed:



Using the "Identification" button the user will have all the available information for the module. This includes part number, supplier, programming number, VIN, as well as many other details. This will help in the cases where a replacement unit is needed.

3.2. Reading and clearing Diagnostic Trouble Codes (DTC)

Diagnostic Trouble Codes are one of the first signs of issues with a vehicle. Abrites diagnostics for Renault/Dacia provides reading and clearing of these codes as well as full information about the codes themselves. Once the module that is diagnosed is found (after scanning for trouble codes from the main screen the DTCs are displayed in a list next to the electronic modules) the user can enter the module and select the "Read DTCs" button.

A BRITES Diagnostics for Renault	www.abritus72.com	
UCH	(Annual) [4	x
DTC9520: STARTER RELAY Short circuit to the eart DTC9565: BRAKE PEDAL CONTACT CIRCU Signal low DTC9566: BRAKE PEDAL CONTACT CIRCU	IT	
Signal low === Total: 3 DTCs found		
clear diagnostic trouble co DTCs cleared	des	
Identification Data Display	Advanced Diagnostics	Clear log
Read DTCs Actuator Tests		Write log
Clear DTCs Custom Request		Close
Î	IL I	Exit

A description of the trouble code is provided. It contains the description of the DTC (one or more), the car's code for it as well as the total amount of the discovered trouble codes. Once the user is done with the analysis of the present codes and the repair of the fault itself they can proceed to clicking the "Clear DTCs" button which will remove the code from the electronic unit's memory.

3.3. Actual Values

Actual values are an inseparable part of the detailed diagnostics of a vehicle. They are used to monitor and observe the details of operation of the vehicles's components in real time and can allow the user to make adjustments to the vehicle and immediately see their effect. The actual values can be viewed using the "Data display button". They can be monitored as a list or in graph form:

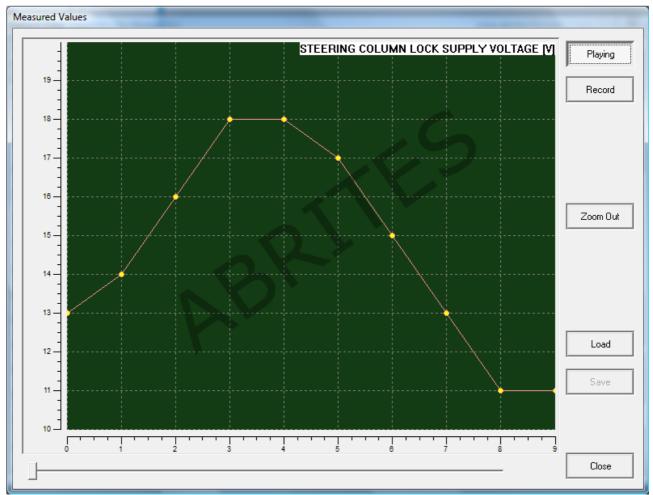
Current Data	and all the second s	×
DATASET	•	
Data	Value	
DRIVER'S DOOR	CLOSED	Previous
INJECTION IMMOBILISER CODE	INACTIVE	
STARTER SWITCH POSITION	+APC	-
BRAKE PEDAL POSITION	RELEASED	Next
CLUTCH START OF TRAVEL SWITCH	RELEASED	
RF KEY VALID	NO	
RF RECEPTION COUNTER KEY	0.00	
BATTERY VOLTAGE	12.49 V	
FRONT WASHER REQUEST	MISSING	
REAR WASHER REQUEST	MISSING	II I
PASSENGER'S DOOR	CLOSED	Pause
REAR DOORS OR BOOT	CLOSED	
REAR RIGHT DOOR	CLOSED	Graph
LEFT HAND REAR DOOR	CLOSED	
TAILGATE/BOOT OPEN BUTTON	RELEASED	×
REAR SCREEN WIPER PARKED POSITION	INACTIVE 🔻	Exit

In the list view the options are stacked and their status value is displayed on the right hand side of the screen.

Using this view many separate sources can be viewed simultaneously. The user can choose to freeze the live data reading in order to observe and analyze them at a particular point.

Ju	IIE	
2	01	9

The live values can also be displayed in a graph. This graph can be opened by selecting the "Graph" button. It can be recorded, saved and played for further analysis. The user can zoom the graph for aditional details or to see it in a larger scale so that the vehicle's behaviour can be thoroughly analyzed:



3.4. Actuator Tests

When looking for the soursce of a fault in a vehicle it is very important to be able to test separate components within a system in order to determine the exact part of a system that is faulty. This is applicable particularly in the cases where the system is more complex which is very common in modern vehicles.

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Some vehicles have many actuators that enable and disable one or more functionalities of the vehicle's operation as well. These may be used to determine a cause of a fault but also to apply changes to a vehicle.

Current Data	and the second sec	×
DATASET	▼	(
Data	Value	
FAULT FINDING ON ACCESS AERIALS		Previous
STARTER AERIALS TEST		
HFM> TRANSPONDER RING CONNECTION TEST		-
REMOTE LOCKING BUZZER	IN PROGRESS	Next
ABRIL		Pause
		X Exit

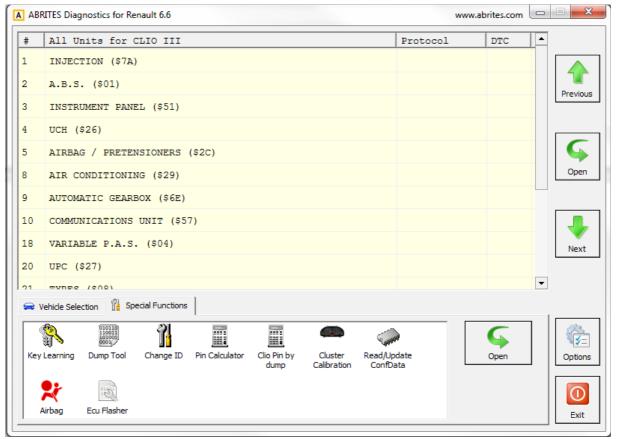
4. Advanced Diagnostics

Abrites diagnostics for Renault/Dacia provides the user with advanced diagnostic functions in the form of special functions. These functions can be used in the cases where a vehicle is in need of special operations such as key learning and PIN code reading (used mostly by automotive locksmiths, but applicable in repair shops too), module ID repalcement (valid in the cases where an electronic module requires replacement), reading mileage and calibration (once again – extremely valuable when replacing a module), Airbag memory manager (used often in the field of damage repair workshops).

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4.1. PIN code reading and key learning

In order to open the key learning functions of the Abrites diagnostics for Renault/Dacia the application should be started. On the main screen the user should select the "Special functions" menu:



Once in the main screen the user will see the special functions list. Please note that not all special functions may be included in the basic software and they must be purchased in order to be used.

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4.1.1. Common procedure

There is function for auto-detection of the vehichle model. Nevertheless if you don't succeed to learn the key using the auto-detection, please try to make it by selection the model manually from the drop down list of supported models:

	Clio II Ph2/3	X65	2002-2006	-
	Master Ph2	x70	2002-2006	
	Master Ph3	X70	2007+	
	Master III	X62	2010+	
	Megane II	X84	2003-2006	
Dia _{Dia}	Megane II Ph2	X84	2007+	
_	Megane III	X95	2009+	
_	Megane III RS	X95	2009+	
	Modus	X77	2004+	

When this function is opened, the "ABRITES Diagnostics for Renault/Dacia" opens the following dialog:

Ke	y Learning	- Instant	X
	Key ID B2476E86 66466E86	Key type Key/Card with RF - PCF7961 Key/Card with RF - PCF7961	Start
			Stop
			Learn
	PIN Code:	Read PIN Code	Preapare PCF7936 transponder
	Done.		X Exit

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When you press the "Start" button then application connects to the immobilizer and reads the keys which are currently accepted from the car. If you want to learn a key/card, then you need to press the "Learn" button and you've to specify how many keys/cards you want to learn.

After that you should follow the instructions.

Normally the procedure goes in that way:

- When pressing the start button the application is connecting to the immobilizer and displaying the present keys/cards. In most cases it is not required that the car is on ignition, for some cars the immobilizer is awake directly from the diagnostic. But on some cars it may happened that the ignition is given when connecting to the device.
- 2. After pressing the "Learn" button and specifying the number of keys you will be invited to remove the key/card from the ignition. Please be sure that the key/cards is really removed after this. Otherwise immobilizer will reject the key-learning procedure.
- 3. After that you will be invited to insert each next key/card and give the ignition ON. For each key there are several seconds required until the immobilizer recognize the key/card.

NOTE: For some models there are two ways to learn keys/cards – regular procedure or using direct writing to the EEPROM memory. For Clio III Direct, Modus Direct and Traffic III Direct the keys are put into the programmer, not into the ignition. When putting the key into the programmer please be sure that it is correct placed as shown in the pictures below:



4.Step "3" is repeated for each key you want to learn.

5. After inserting all keys which have to be learned you will be asked whether you want to store the result or to reject the whole procedure (useful if you made a mistake during the key-learning procedure like forgot to put a key).

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If you do not have an original key for the model, you can use PCF7936 transponder to make a key for the car. Please note that PCF7936 might be used only on cars with key, not on cars with cards! Also if you learn PCF7936 transponder there will be no remote control for that key! So if you want to use such PCF7936 transponder, you should connect your programmer, put a factory new transponder inside and press the "Prepare PCF7936 transponder".

4.1.2. X95 based cars

For X95 based cars (Megane III/ScennicIII/Fluence, etc) there is a difference in step "2" from the common procedure. The rule is that if you will learn a new (virgin) key/card, put the card in the ignition lock (without giving IGNITION ON), if you will learn an already pre-coded or working keys/cards - there should be no key/card in the ignition lock. Here are some examples:

- if you will learn a virgin card, put this card in the ignition lock. For example if car has two working cards, and you want to add one, you should specify 3 cards for the key count, put the virgin card in the ignition, then when invited to put first key/card – do nothing. Then when invited to put second and third key/card, put the original working keys into the ignition. If you want to add two virgin cards, you need to execute the whole procedure twice!

- if you will learn only cards which are working (e.g. car has three working cards, one of them is loosed and you want to relearn that only the other two cards continue to work), in that case no card should be on the ignition for this step.

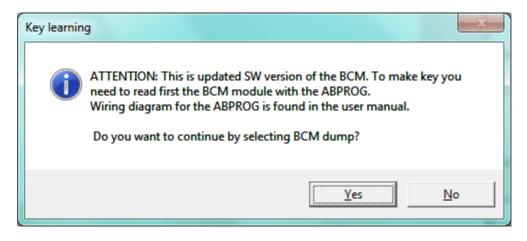
NOTE: For Renault Fluence if you want to learn a virgin key, put it in the ignition lock (without giving ignition ON) and perform the procedure (this is the original procedure). If you've message "PIN code not accepted! Make sure ignition is OFF!" - then repeat the procedure from the beginning with the SAME VIRGIN KEY, and this time the key should be outside the ignition lock! (i.e. the exception here is that the virgin key is not in the ignition lock).

4.1.3. X95 based cars with updated software

Starting from about 2011 these cars have updated software in the immobilizer and it is no more possible to make them by OBDII. With ABRITES Diagnostics for Renault, it is possible to make cards for them, but you should first read them with the ABPROG. You can easily recognize these immobilizers since they are showing "09090909" for the existing key-IDs.

-	ey Learning					
	Key ID 09090909 09090909	Key type Key without RF Key without RF			_	Start
						Stop
						Leam
	PIN Code:		Read PIN (Code		Preapare PCF7936 transponder
	Done.		1			X Exit

If you press "Learn" or "Read PIN Code" for such immobilizer, there will be a warning that first you need to read the immobilizer with the ABPROG. You should press here "Yes" after you already read the immobilizer dump.



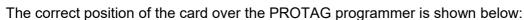
To read using Abprog please refer to the Abprog user manual.

4.1.4. Using "Abrites key" cards

Vehicles like the Clio IV can use the key cards, produced by Abrites ltd. These cards come prepared for the user and look like this:

It is used together with the Abrites PROTAG programmer and can be purchased from abrites.com or our dealer network.

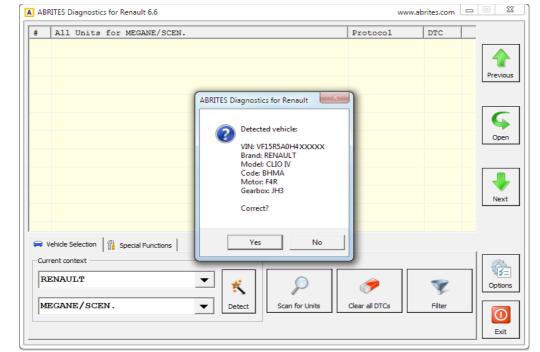
The correct position of the card over the PROTAG programmer is shown below:





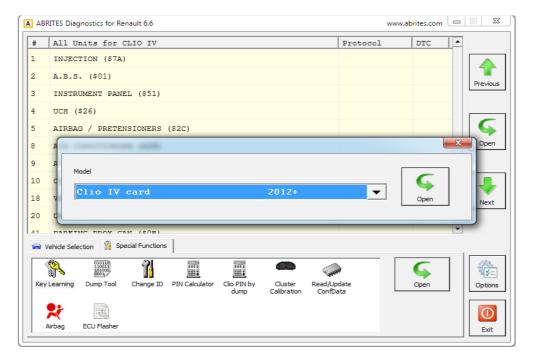
(1)

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The procedure for "Abrites key" cards requires connection to the internet. The car will be autodeted:

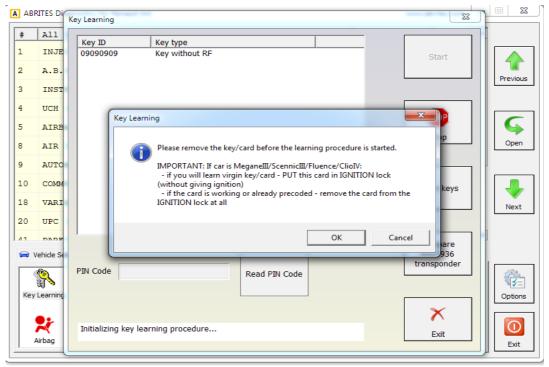
The Abrites diagnostics for Renault/Dacia will ask you to confirm whether orr not the vehicle is correctly autodetected. You can confirm.



1 INJE 2 A.B. 3 INST 4 UCH 5 AIRB 8 AIR 9 AUTO 10 COM4 18 VARI 20 UPC 1 Dabb Vehicle Se Key Learning PIN Code Read PIN Code Transponder	ŧ	All	Key ID	Key type				-
INST UCH AIRB AIRB AIR AIR AUTO O COM Select number of keys to be learned: 1 Select number of keys to be learned: 1 BAUTO 0 COM 8 VARI 20 UPC 1 NDRP Vehice So Vehice So Vehice So Vehice So PIN Code Read PIN Code		INJE					Start	
INST UCH AIRE AIRE AIRE AIRE AUTO 0 COMM 8 VARI 0 UPC 1 Dare		А.В.						Previou
AIRE AIR AIR AIR AUTO 0 COMM 8 VARI 0 UPC 1 DARV Vehide Se Vehide S		INST						Frevioc
AIRB AIR AIR AIR AIR AIR AUTO 0 COMM 8 VARI 0 UPC Vehice Se Vehice		UCH						
AIR AUTO 0 COMM 8 VARI 0 UPC Vehide Se Vehide Se FIN Code Read PIN Code Cancel Freapare PCF7936 transponder Cancel Freapare CF7936 transponder Comment Comme		AIRB	k k	(ey count				G
AUTC 0 COMM 8 VARI 0 UPC Vehice St Key Learning PIN Code Read PIN Code Cancel Treapare PCF7936 transponder Key Learning		AIR		Soloct number of key	to be learned:	1	Stop	Open
8 VARI 0 UPC Vehicle St Key Learning Done		AUTO		Select number of keys	s to be learned.	19		-
8 VARI 0 UPC 1 DARY Vehice Se Vehice Se Vehice Se PIN Code PIN Code Read PIN Code Cancel PCF7936 transponder Key Learning	0	сомм					earn keys	1
Vehicle Se Vehicle Se Key Learning Done	8	VARI						Next
Vehicle Se Vehicle Se Vehicle Se Vehicle Se Vehicle Se PIN Code Read PIN Code Vehicle Se PIN Code Read PIN Code Vehicle Se Vehicle Se PIN Code Network Sector Se	0	UPC		1		X		
Vehide Se Vehide Se Vehide Se PIN Code PIN Code PIN Code Vehide Se Vehide	1	DADE		ОК		Cancel	Preapare]
Key Learning PIN Code Done None	N	/ehicle Se					PCF7936	1
	(9	PIN Code		Read PIN Code		dansponder	
Done	Key	Learning						Option
Done							X	
Fyit		*	Done.				Exit	

Press start and the software will ask you to input the number of keys to be programmed:

In this case we will be programming 1 key-card.



# ABI	All	Key Learning			1
1	INJE	Key ID 09090909	Key type Key without RF	Start	
2	А.В.				Previous
3	INST				
4	UCH			STOP	
5	AIRB		Please Wait		
8	AIR		Reading Configuration Data, please wait	Stop	Open
9	AUTO				J
10	COMM			Learn keys	
18	VARI				Next
20	UPC		55 % Remaining Time: 00:00:14 Cancel		
/ 1	שחוח	'		Preapare	J
	/ehicle S€			PCF7936 transponder	1 —
		PIN Code	Read PIN Code	· · · · · · · · · · · · · · · · · · ·	
	Learning				Options
	••			\times	
	Rirbag	Reading PIN. Plea	se wait	Exit	
· · ·	Mirbag				Exit

After following the instructions the Configuration data and PIN are being read:

At this point the software will ask you if you are using and Abrites key. Please confirm.

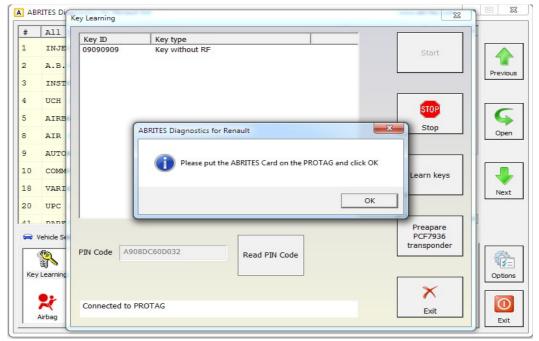
A AB	RITES DI	Key Learning	•	23	
# 1 2 3	All INJE A.B. INST	Key ID 09090909	Key type Key without RF	Start	Previous
4 5 8	UCH AIRB AIR		ABRITES Diagnostics for Renault	STOP Stop	G Open
9 10 18 20	AUTO COMM VARI UPC		Do you want to learn an ABRITES key? Yes No	Learn keys	Next
	Vehicle Se	PIN Code A908D	C60D032 Read PIN Code	Preapare PCF7936 transponder	
	v Learning Rif Airbag	Done. PIN: A908D	DC60D032	X Exit	Options

A AB	RITES Di	Key Learning		
#	All	Key ID	Key type	
1	INJE	09090909	Key without RF	Start 🔶
2	A.B.			Previous
3	INST			
4	UCH			STOP
5	AIRB	ABRIT	ES Diagnostics for Renault	Ston
8	AIR			Open
9	AUTO		In order to continue this operation you must be connected to Internet.	the
10	COMM		Please establish an internet connection and press OK to contir	nue. rn keys 🛛 🦊
18	VARI			Next
20	UPC		ОК Са	ancel
	D D D D			Preapare PCF7936
	Vehicle Se	PIN Code A908	C60D032	transponder
			Read PIN Code	
Key	y Learning			Options
	2	Done, PIN: A908	0000022	
	Airbag	Done. PIN: A908		Exit

At this point you will be reminded to check the internet connection.

Then connect the PROTAG programmer:

A AB	RITES DI	Key Learning				23	
#	All INJE	Key ID 09090909	Key type Key without RF		— [Start	
2	А.В.				L		Previous
3	INST UCH				Г	_	
5	AIRB					STOP	G
8	AIR	A	BRITES Diagnostics for Renau	ılt	<u> </u>	Stop	Open
9 10	AUTC COMM		Please connect PR	OTAG via USB or directly to A	AVDI and click OK	arn keys	
18 20	VARI			ОК	Cancel		Next
11	Vehicle Se					Preapare PCF7936]
	Learning	PIN Code A9	08DC60D032	Read PIN Code		transponder	Options
	R irbag	Done. PIN: A9	08DC60D032			Exit	Exit



Then place the Abrites card over the Protag programmer as per the photo above and click "OK"

The Abrites card will be prepared:

		Key Learning		
# 1 2	All INJE A.B.	Key ID 09090909	Key type	
5	AIRB			Previous
8 9 12	AIR AUTC GAS		ABRITES Diagnostics for Renault	Open
21 25 65	TYRE SUNR SEAT		ABRITES card prepared successfully! Learn keys OK	Next
(Vehicle Se	PIN Code A908	Preapare PCF7936 transponder	Options
	Rirbag	ABRITES card p	repared successfully!	

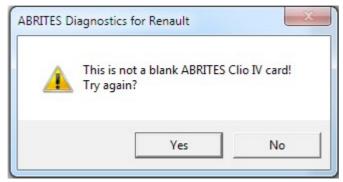
ŧ	All	Key Learning			Ĩ
	INJE	Key ID 09090909	Key type		
	A.B.	0,0,0,0,0,0	key wallout k	Start	
					Previous
	AIRB				
	AIR			STOP	
	AUTO				G
2	GAS		Key Learning	Stop	Open
1	TYRE				
5	SUNR		Please insert key 1 and give on ignition and press 'OK'		
				Learn keys	
5	SEAT		ОК		Next
				1	
		,		Preapare	-
€ V	/ehicle Se			PCF7936 transponder	
(%	PIN Code A9080	Read PIN Code	transponder	
Kev	Learning				Options
				~	
1	*	Insert key 1		×	
	Airbag	Insert key 1		Exit	

Continue by putting the card in the ignition and press OK

The software will then confirm by saying "Done" in the bottom left corner:

A AB	RITES Di	Key Learning			⊡ ∑ 3
# 1 2	All INJE A.B.	Key ID 09090909	Key type Key without RF	Start	Previous
5 8 9 12	AIRB AIR AUTC GAS			Stop	Open
21 25 65	TYRE SUNR SEAT			Learn keys	Next
	Vehicle Se	PIN Code A908	Read PIN Code	Preapare PCF7936 transponder	Options
	R irbag	Done.		Exit	Exit

Please note that in case you have not used an Abrites card during the process the software will note this immediately.

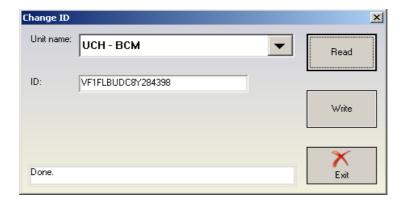


4.2. Dump Tool

The dump tool give to the user the ability to make modification in the dump files of different devices (e.g. airbags). But you will need to read EEPROM/flash with a programmer, and after modifications in the dump tool the resulting file has to be write back to the EEPROM/flash with a programmer.

4.3. Change ID

Calling this function will bring you a dialog, where all devices for the selected model are available.



For each device you can try to read and change the Vehicle Identification Number. When changing this number there is also a checksum which is calculated automatically. Please note that in the most of the device there will be no such number present.

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4.4. PIN Calculator

This is a calculator which can evaluate the immobilizer security code from the vehicle model and the code written on the key itself (when you open the key). This calculator is used for cars with 4 digit PIN till 2001 year.

A AB	RITES Commander for Renault 5.1		www.a	ıbritus72.com				<u> </u>
#	Unit name				Protocol		DTC	
01	ABS-VDC (\$01)							
02	PIN Calculator						×	Previous
03 04 05	Vehicle type (e.g. B56C):	B56C				Calculate		
06 07 08	Key code:	23836						
08 09 10 11	Immobilizer security code: 41		uccess		×	X Exit		Connect
11 12 13	Top Control Unit (\$1C)		Immobilize	r security code: 4	112	EXIT		₽
14 15	4 wheels Drive (\$1E) 4 wheels Steering (\$23)			0	ж			Next
% I	Key Learning 🛛 🏎 Vehicle Selection (Special Fund	ctions 🔯 Options					
C	ump Tool Change ID PIN Calculat	or Clio PIN by dump	X Airbag				Ope	m

4.5. Clio PIN by dump

This is a calculator for getting the Clio PIN code from the immobilizer dump. After starting this special function you will need to select the EEPROM dump file and after that you will get the security (PIN) code.

4.6. Cluster calibration

This function allows the user to calibrate the mileage in all relevant modules. Please note that regarding the vehicle models that use ABS synchronization there is the added option to disable the sync. This special function also provides the option to read and write the EEPROM and flash so that in case of any issues during calibration or others you can repair the vehicle. The function provides the added option to disable the synchronization between the cluster and the ABS module - Ideal for replacing components containing the vehicle mileage. Once you replace the faulty mileage containing module you can set the value to the car's actual mileage with no more than a few clicks. Incrementing and decrementing is availabe in this option.

You can re-enable the synchronization easily by reflashing the cluster with its original file which you can find in the log files folder. It is automatically saved there before you start the synchronization disabling procedure.

Laguna III/Megane III mileage X Instrument cluster X 62688 Current mileage value: km Read Exit New mileage value: 60255 km Recalibrate Disable ABS synchronization ~ ABS 1 Current mileage value: km New mileage value: km -Done.

In order to determine the mileage it has to be read:

In some cases it is inevitable to disable the synchronisation between the ABS and cluster:

Instrument cluster					
Current mileage value:	25227	km	Read	5	Exit
New mileage value:	0	km f	Recalibrate		
Disable ABS synchroniza	ation 🔽	2			
Current mileage value:		kr	87	mfData dump	
New mileage value:		kr		unfData dump	
Done.					

Instrument cluster Conf Data can be read, updated, saved to file and loaded via OBD:

00000000 00 02 FF 37 01 01 09 95 37 37 CE F7 08 18 70 FF?	Load from file.
0000000 FF	
D000010 FF FF	
000050 FF FF FF FF FF 06 0 C 7F 09 01 C 2 00 64 00 00 14 14	
0000000 22 22 32 32 32 32 32 32 32 32 32 32 32	Save to file
0200000 00 25 E0 01 61 02 02 03 B5 01 AC 06 4B 01 30 09 24	
0000000 00 DC 0D 31 00 96 12 06 00 5D 16 6C 00 37 1A D111.1.7. 0000000 02 EC 02 1F 3F 00 14 27 10 00 10 35 EE 03 84 03 20 .7	
00000R0 00 20 1F FF	E2P
20000B0 02 EC 02 58 01 F4 01 90 01 2C 00 C8 00 64 00 0AX	
D0000C0 00 1E 00 1E 01 22 04 E 10 00 01 00 EE 00 F0 1(r.x) D0000C0 22 10 FA 01 86 01 B8 34 30 33 25 23 43 13 33 47 T40924144 D000DF0 20 0A 19 01 2C 03 E8 32 14 0A 64 02 00 0E FF FF,	
0000E0 52 10 FA 9E FA 9E 00 00 FA FA FA FA FA FA 7A 03 02 K	
0000100 0 0 0 1 1 2 C 0 3 E8 32 14 0 A 64 02 0 0 0 E FF F2, 42d.,	
000010 05 19 05 03 64 03 D0 03 4E 32 34 38 31 30 53 99d. HR4E1039 000010 05 52 20 20 23 4E 30 4B 32 39 39 4D 20 23 556-2700299K-2 0000120 4E 30 4B 32 39 39 4D 41 4F 32 30 32 39 36 57 31 H0X299K02029671 0000130 20 23 28 51 31 31 22 02 00 20 0 20 0 20 0 20 0 20	
0000110 35 36 52 20 20 32 48 30 4B 32 39 39 4D 44 62 20 32 56R-2H0K299K-2 0000120 48 30 4B 32 39 39 4D 44 47 32 30 32 30 36 57 31 H0K299K202029671 0000130 20 32 38 31 31 31 22 20 20 20 20 6B 85 01 F4 00 281112 0000150 00 00 19 00 00 00 00 00 78 00 5A 58 00 FB 00 1F 0000150 00 78 00 04 00 06 00 04 00 40 00 C 00 06 5 0000160 07 80 00 40 00 66 00 04 00 40 00 C 00 06 5 0000160 12 03 04 60 12 01 01 01 12 06 04 06 12 01 0000180 12 03 04 66 12 01 01 01 01 12 26 64 06 12 01 0000180 FF	
0000120 48 30 48 32 39 39 40 41 4F 32 30 32 39 36 57 31 B0K293M02029671 0000130 20 32 88 31 31 32 20 20 20 08 B0 16 400 226112 0000140 0C 00 00 10 00 3E 00 0D 20 00 30 00 00 00 50	
0000100 20 32 38 31 31 31 32 22 02 02 02 00 BB Be 01 E4 00 228112	
D000150 00 00 00 19 00 00 00 00 78 00 54 05 80 05 80 05 80x.Z D000160 00 78 00 40 00 60 00 60 00 40 00 00 00 00 00x. D000170 00 18 00 06 00 0C 04 02 01 01 01 01 00 04 00 01 01 01 01 D000180 12 03 04 06 12 01 01 01 01 12 06 04 06 12 01 D000180 10 10 10 10 00 FF FF FF FF FF FF FF FF FF FF D000100 FF F	
20001F0 0 FF	
D0001F0 00 18 00 06 00 0C 04 02 01 02 04 01 01 01 01 01	
0000100 12 03 04 06 12 01 01 01 01 01 12 06 04 06 12 01	
0000100 01 01 01 00 00 FF	
00001B0 FF	
00001C0 FF	
00001D0 FF	
DODOLED FF	
DOGOLFO FF F	
r	
	×
Istrument Cluster ConfData Read/Update	

4.7. ECU configuration data, flash and IMMO data reading and updating

When a situation requires for the ECU configuration data, flash and IMMO data to be read the Abrites diagnostics for Renault can assist. This option is focused on different ECUs within the Renault vehicle brand. Currently the support for the ECUs includes the following:

Reading and updating the EEPROM of the following ECUs:

- EDC15C3
- EDC15C13
- EDC17
- SIRIUS32
- SID301
- SIM32
- SAFIR/SAFIR2/SAFIR200
- IAW 6R.20
- IAW 6R.30 (reading only)

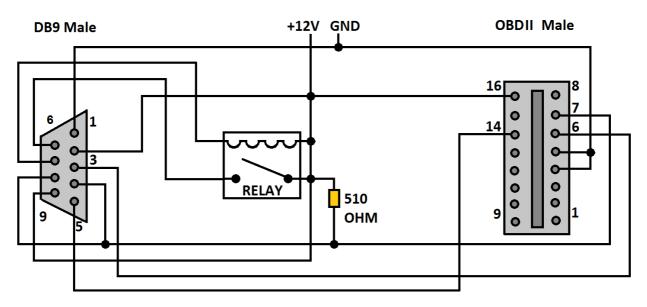
Reading and updating the FLASH of the following ECUs:

- EDC15C3
- EDC15C13
- EDC17
- SIRIUS32
- SID301
- SIM32

Clearing IMMO code data for the following ECUs:

- EDC15C3
- EDC15C13
- EDC17
- SIRIUS32
- SID301
- SIM32
- IAW 6R.30

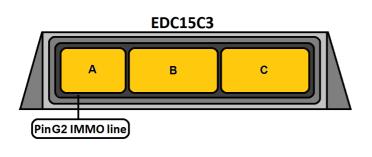
You can operate with all these ECUs on a desk using the following adapter OBDII to DB9 Male:



4.7.1. EDC15C3

For this ECU the type of MCU is SAK-C167CS-LM, the external flash is AM29F400BT with size of 512 KB. The configuration data is stored in EEPROM 95P08 with size of 1 KB.

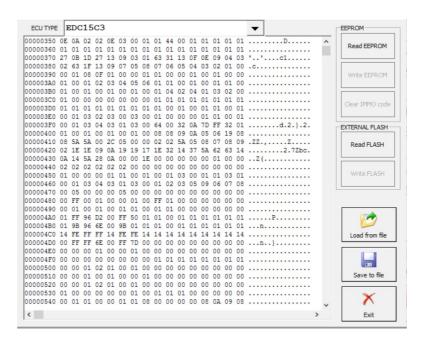
Use the following pinout to DB9 Female connector:



DB9 F Pin	ECU Connector	ECU Pin
1	В	M4
2	В	E3
3		
4	А	C3
5		
6	В	M3
7	В	D4
8	Α	D3
9		

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After clearing the IMMO code, the ECU will perform self-learning with the first ignition cycle when a valid signal from immobilizer is present. Note that you need a valid signal from immobilizer system to start the engine!



4.7.2. EDC15C13

Please bare in mind that the EDC15C13 box looks very similar to the EDC16 boxes. Please make sure that you check the BOSCH number to be 100% sure what ECU you have. The MCU type is SAK-C167CS-LM. The external flash is AM29F400BT with size of 512 KB. The configuration data could be stored either on 5P08 or 35P08 EEPROM with size is 1KB.

You can read and write the configuration data and the full flash using the appropriate buttons.

After clearing the IMMO code, the ECU will perform self-learning with the first ignition cycle when a valid signal from immobilizer is present. Note that you need a valid signal from immobilizer system to start the engine!

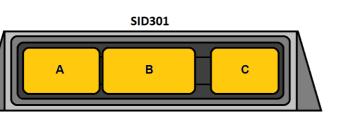
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Use the following pinout to DB9 Female connector:

473	SID301
4.7.J.	310301

The SID301 ECU has a MPC561 MCU type and the external flash type is AM29BDD160GB with size of 2 MB. The configuration data is stored on 95320 EEPROM with 4KB. After clearing the IMMO code, the ECU will perform self-learning with the first ignition cycle when a valid signal from immobilizer is present. Note that you need a valid signal from immobilizer system to start the engine!

Use the following pinout to DB9 Female connector:

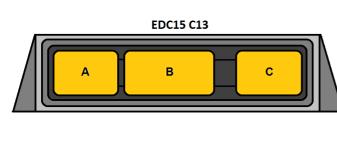


DB9 Female Pin	ECU Connector	ECU Pin
1	С	H4
2		
3	С	A4
4		
5	С	A3
6		
7		
8		
9	С	D1
9	В	G4

DB9 Female Pin	ECU Connector	ECU Pin
1	В	M4
2	В	A1
3		
4	С	F2
5		
6	В	M3
7	В	F1
8		

9

Г

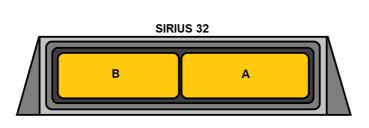


4.7.4. SIRIUS 32

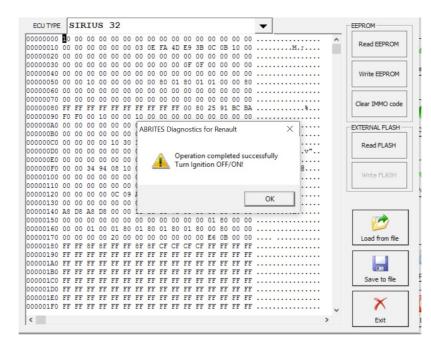
For these ECUs we have two options for the type of MCU: SAK-C167SR-LM an SAK-C167CR-LM. The external flash is AM29F200BB, 256KB in size.

After clearing the IMMO code, the ECU will perform self-learning with the first ignition cycle when a valid signal from immobilizer is present. Note that you need a valid signal from immobilizer system to start the engine!

Use the following pinout to DB9 Female connector:



DB9 Female Pin	ECU Connector	ECU Pin
1	В	28
2	В	29
3		
4	В	56
5		
6	А	66
7	А	39
8	В	26
9	В	30



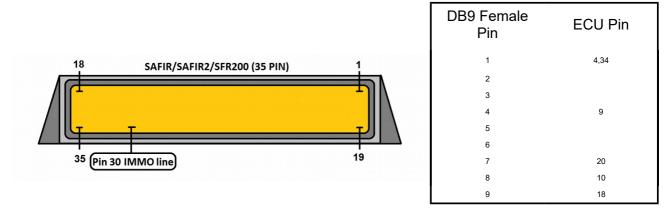
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4.7.5. SAFIR/SAFIR2/SFR200 using 35 or 55 pin connector

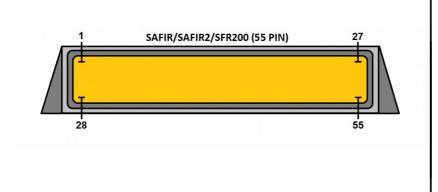
The Sagem Safir/Safir2 and Magneti Marelli SFR200 ECUs have a TMS374 internal MCU. The configuration data is 256 KB. For these ECUs you can read the configuration data of the TMS374, you can clear the IMMO code and the car can run with the cleared code if the immobilizer line is disconnected from the ECU. In this case the Immobilizer line for the 35 pin connector is pin 30 and for 55 pin connector – it is pin 37.

After clearing the IMMO code, the ECU will perform self-learning with the first ignition cycle when a valid signal from immobilizer is present. Note that you need a valid signal from immobilizer system to start the engine!

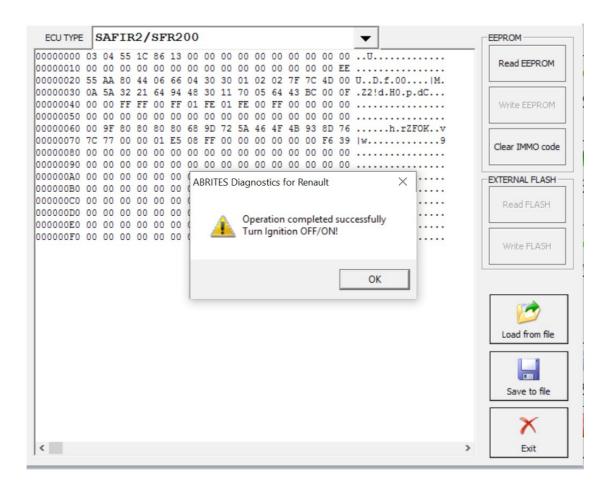
Use the following pinout to DB9 Female connector for 35 pin version:



Use the following pinout to DB9 Female connector for 55 pin version:



DB9 Female Pin	ECU Pin
1	2,18
2	
3	
4	11
5	
6	
7	48
8	38
9	1

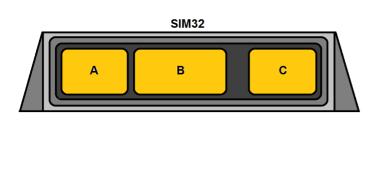


4.7.6. SIM32

The Siemens SIM32 has a HD64F7055 MCU with 512KB FLASH. The configuration data is 2KB stored in 95160 EEPROM.

After clearing the IMMO code, the ECU will perform self-learning with the first ignition cycle when a valid signal from immobilizer is present. Note that you need a valid signal from immobilizer system to start the engine!

Use the following pinout to DB9 Female connector:



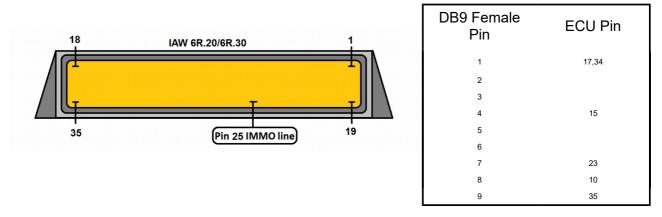
DB9 Female Pin	ECU Connector	ECU Pin
1	С	H4
2	С	D1
3	С	A4
4	С	B4
5	С	A3
6	В	J1
7		
8	В	G1
9	А	G1

4.7.7. IAW 6R.20/6R.30

The Magneti Marelli IAW 6R.20/6R.30 ECUs have a TMS370 MCU. The configuration data is 256 bytes inside the MCU. For 6R.20 you can read/write the configuration data while on 6R.30 you can read the configuration data and clear the IMMO code.

The car can run with the cleared code if the immobilizer line (pin 25) is disconnected from ECU. After clearing the IMMO code, the ECU will perform self-learning with the first ignition cycle when a valid signal from immobilizer is present. Note that you need a valid signal from immobilizer system to start the engine!

Use the following pinout to DB9 Female connector:



4.7.8. EDC17 Boot mode reading

The EDC 17 ECUs can be read by boot mode. You can read the Flash and configuration data.

ECU TYPE	E	DC	:17	В	00	т											-		EEPROM
	00		00 00 00	000000	00	00000	00 00 00	00 00 00	00 00 00		00 00 00	00	00 00 00	00	00 00 00	00		^	Read EEPROM
00000040 00000050	00		00	00	00	00 00 00	00	00 00 00	00	00	00	00	00	00	00	00			Write EEPROM
00000060 00000070 00000080 00000090	00	00			00		00		_		00	00					·····		Clear IMMO code
000000A0 000000B0	00	00	00	00				nfigu	ratio	n Da	ata 1	olea	60 W	ait			- U X		EXTERNAL FLASH
000000C0 000000D0 000000E0	00	00	00	00	Ne	auing	y Coi	mgu	irauc	in De	ita,	pica		art					Read FLASH
000000F0 00000100	00	00	00	00															Write FLASH
00000110 00000120 00000130	00	00	00	00													×		
00000140 00000150	-				9	6 %	Re	emair	-	Time							Cancel		
00000160 00000170 00000180	00	00	00	00	00	00	00	00	00	00		00	00	00	00	00			Load from file
00000190 000001A0 000001B0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00			
	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00			Save to file
000001F0									_									× >	Exit

a

They can also be saved to files and used later. They can be transferred and updated to other ECUs.

Please note that the pinout connections are similar to the ones in the Abrites diagnostics for VAG EDC17 connections.

Dialog	×
ECU TYPE EDC17 BOOT	EEPROM
	Read EEPROM
00000020 00 00 00 00 00 00 00 00 00 00 0	
00000030 00 00 00 00 00 00 00 00 00 00 0	
00000040 00 00 00 00 00 00 00 00 00 00 0	Write EEPROM
00000050 00 00 00 00 00 00 00 00 00 00 0	
	Clear IMMO code
00000090 00 00 00 00 00 00 00 00 00 00 0	
000000B0 00 00 00 Reading FLASH, please wait	EXTERNAL FLASH
000000C0 00 00 00 00	Read FLASH
00000000 00 00 00 00	Redu FLASH
000000E0 00 00 00 00	
000000F0 00 00 00 00	
00000100 00 00 00 00	Write FLASH
00000110 00 00 00 00	
00000130 00 00 00	
00000140 00 00 00 00 15 % Remaining Time: 00:04:13	17
	Land Care Cla
	Load from file
000001A0 00 00 00 00 00 00 00 00 00 00 00 00 0	
000001B0 00 00 00 00 00 00 00 00 00 00 00 00 0	
000001C0 00 00 00 00 00 00 00 00 00 00 00 00 0	Save to file
000001D0 00 00 00 00 00 00 00 00 00 00 00 00 0	
000001E0 00 00 00 00 00 00 00 00 00 00 00 00 0	×
000001F0 00 00 00 00 00 00 00 00 00 00 00 00 0	\wedge
<	Exit

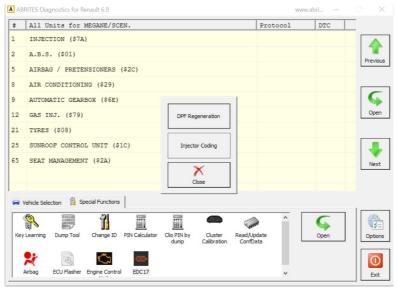
```
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```

4.8. EDC 17 Specific functions

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There are some EDC17 specific diagnostic functions available - injector coding and DPF regeneration..



The injector coding function will allow you to read the injector codes, and write the new ones when an injector has been replaced for example. Take additional attention when writing the new values - there is a checksum inside the code and ECU will refuse to accept invalid codes.

+	All Units for	CAPTUR/QM	13			Protocol	DTC		
	INJECTION (\$7)	A)							
2	A.B.S. (\$01)								Pre
3	INSTRUMENT PA	NEL (\$51)							er
4	UCH (\$26)	[Injector Coding			×			
5	AIRBAG / PRET	ENSIONERS		Current	New				
8	AIR CONDITION	ING (\$29)	Injector 1	AZ1CCSA	AZ1CCSA				Op
9	AUTOMATIC GEA	RBOX (\$6E)	Injector 2	7P8GAS7	7P8GAS7				
10	COMMUNICATION	S UNIT (\$5	Injector 3	8Y887W7	8Y887W	7			
18	VARIABLE P.A.	s. (\$04)	Injector 4	8ZR1DEB	8ZR1DEB				Ne
20	UPC (\$27)		2	4	X				
11	DADETNO DDOV	(400) ME	Read	Write	Exit			•	
	Vehicle Selection	Special Function:		WICC	LAN				
-	010110 110011 100001	1			Contra	^	6		5
Key	Learning Dump Tool	Change ID	PIN Calculator Clic	PIN by Cluster dump Calibration	Read/Upd n ConfDa		Open		Opt
	2	ر ب				- 11			(
1	Airbag ECU Flasher	Engine Contro	EDC17			~			E

Before starting the procedure, please be sure that the vehicle is placed on non-flammable surface away form public places! It is recommended to observe the vehicle from a distance with a fire extinguisher on hand.

#	All Units for CAPT	UR/QM3	Prote	ocol	DTC		
	INJECTION (\$7A)						
	A.B.S. (\$01)	DPF Regeneration		×			Previou
	INSTRUMENT PANEL (The procedure can be paused by two short pr	resses of the				
	UCH (\$26)	START-STOP button. To stop the procedure, turn IGNITION OFF for During the procedure do NOT:	r at least 1 munu	ite.			
	AIRBAG / PRETENSIO						9
	AIR CONDITIONING (Press the brake pedal The operation takes 30 minutes. 					Open
	AUTOMATIC GEARBOX	Engine Speed	0	RPM			
0	COMMUNICATIONS UNI	Coolant temperature	0	°C			1
8	VARIABLE P.A.S. (\$	Turbo temperature	-	°C			Next
0	UPC (\$27)	DPF temperature	0	°C			
1	DADUTHC DOOV CAN /			_		•	
2	Vehicle Selection						
	010110 110011 80000	Start	Cance		6	ן ך	(
Key	Learning Dump Tool Cha		ConfData		Open		Option
	2						0
	Airbag ECU Flasher Engin	e Control EDC17		<u> </u>			Exit

Reading the CLIO IV/ Captur handsfree module:

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NB!

Please note that the Male DB25 must be connected to the ABPROG which must be connected to the AVDI. Then you can read the handsfree module.2.7

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4.9. Renewal

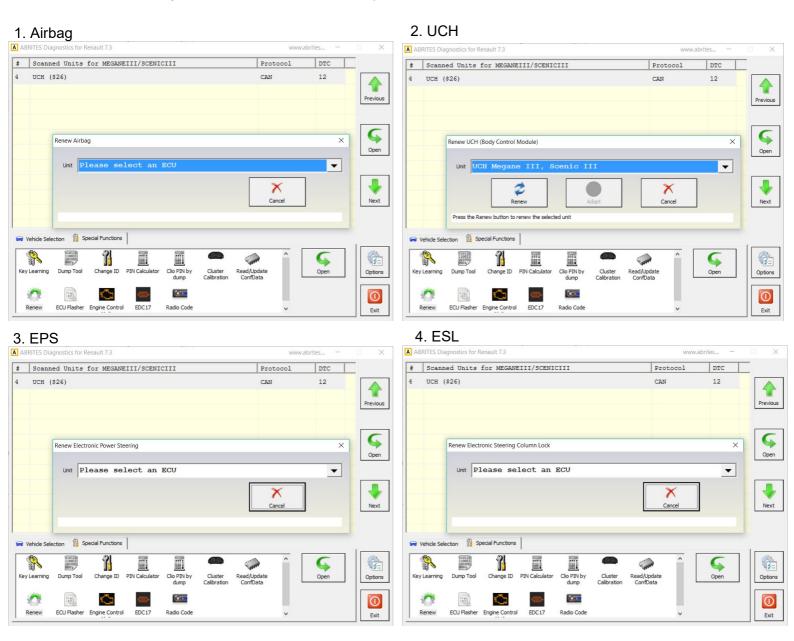
The Abrites Diagnosrtics for Renault/Dacia offers the new "Renew" Special Function. It will allow you to renew Airbags, UCH, EPS and ESL. The "Renew" Function can be located under the main Special Functions list:

A ABP	RITES Dia	gnostics for I	Renault 7.3					ww	w.abrites —	
#	Scann	ed Units	for MEGANE	III/SCENI	CIII		Pro	tocol	DTC	
4	UCH (\$26)					CAN		12	
										Previous
										6
										Open
										Next
s v	ehicle Sele	ection 👔 S	pecial Functions	1						
	()	010110 110011 101000 8001	91	· 			~	^	C	
Kou		Dump Tool	Change ID	PIN Calculator	Clio PIN by	Cluster	Read Aledate		>	₩3 =
Ney	Learning	Dump 100	Change ID	Pin Calculator	dump	Calibration	Read/Update ConfData		Open	Options
3	0	25	C	-	(<u>)</u>					
R	lenew	ECU Flasher	Engine Control	EDC17	Radio Code			~		Exit

Once you open the "Renew" Special Function, a new Window will appear, letting you choose from four different options- Airbag, UCH, EPS and ESL:

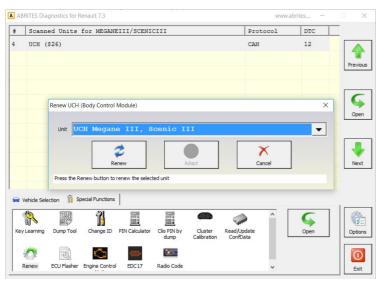
AB	BRITES Diagnostics for Renault 7.3			www.	abrites —	
#	Scanned Units for MEGANEIII/SCENI	CIII	1	Protocol	DTC	
4	UCH (\$26)			CAN	12	Previou
		Airba				Open
		EPS EPS				Next
	Vehide Selection	ESL				Next
1	Learning Dump Tool Change ID PIN Calculator		uster Read/Upda	ite	Open	Option
1	Renew ECU Flasher Engine Control EDC17	Radio Code		~		Exit

After choosing the desired renewal function, you will be prompted to select the ECU of the car.

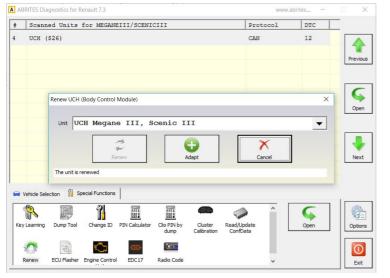


Renewing the UCH will offers more options, which should be taken into consideration. After you make the renewal, you can also adapt the UCH by entering new VIN to the unit and new PIN. To make the renewal, the next steps can be followed.

1. Open the UCH renewal and select an ECU



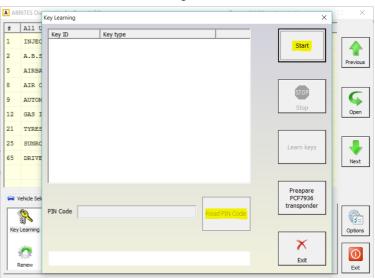
3. The unit is renewed now



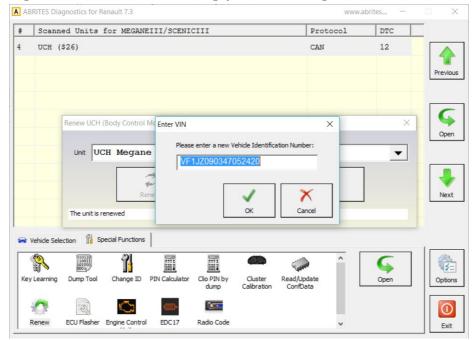
2. Confirm with "Yes" after the warning

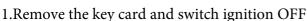
t Sc	canned Units	for MEGANE	TTT/SCENTO		P	rotocol	1	TC	
	CH (\$26)	IOT MEGANE	III/SCENIC			AN		2	Previ
	Renew UCH	ABRITES Dia	agnostics for R	a unit might r	not work corr		×	×	Ор
			adapted! Do you want to	unit might i		icity units		_	
Vehic	Press the Re le Selection 🔐 Sp		adapted!	Y		No			Ne
Vehic	le Selection	ene recial Functions	adapted!			No	0	→ pen	Ne

4. Make sure to have the original PIN code



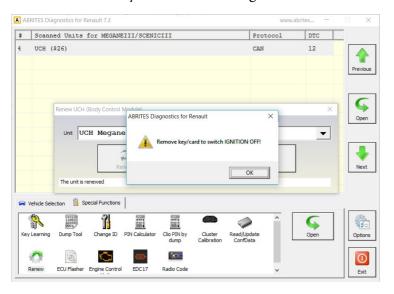
To adapt the new UCH module, simply click on "Adapt" and enter the new VIN:



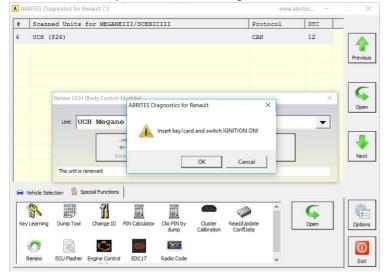


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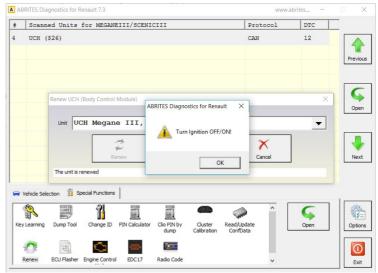
3. Insert the key card and switch Ignition ON



2. Enter the original PIN

ABRITES D	iagnostics for R	enault 7.3					WWW.a	abrites —	
Scan	ned Units	for MEGANE	III/SCENIO	.111		Prot	cocol	DTC	
UCH	(\$26)					CAN		12	Previou
	Renew UCH	(Body Control N	/lodule)					×	Oper
		CH Megan F		2334455	ОК	Cancel		_	Next
🕏 Vehide Se	The unit is r	enewed becial Functions							
Key Learning	Dump Tool	Change ID	PIN Calculator	Clio PIN by dump	Cluster Calibration	Read/Update ConfData	î	G Open	Option
Renew	ECU Flasher	Engine Control	EDC17	Radio Code					0

4. Turn the ignition to OFF/ON



5. The operation has successfully completed and the new UCH is now adapted.

	BRITES Diagnostics fo	r Renault 7.3					WWV	v.abrites	- 🗆 ×
ŧ	Scanned Unit:	for MEGANE	III/SCENICI	II		Pr	otocol	DTC	
	UCH (\$26)					CA	N	12	Previous
		H (Body Control M	ABRITES Diag	nostics for R	enault	×			× Gopen
	Unit	JCH Megane	A	peration con	npleted succ	essfully		_	
	The unit	s renewed				ОК	Cancel		Next
=	Vehicle Selection	Ren					Cancel]	Next
		s renewed Special Functions		lio PIN by dump	Cluster Calibration		Cancel	Open	
Key	Vehicle Selection	s renewed Special Functions Change ID	PIN Calculator C	lio PIN by	Cluster	OK Read/Update	Cancel	Open	

June 2019

4.10. Radio Code

The Abrites Diagnostics for Renault 7.3 offers the "Radio Code" Special Function. It will allow you to adapt the radio if it was somehow reset. You need to have the last 4 symbols from the ID, which can be obtained in three ways:

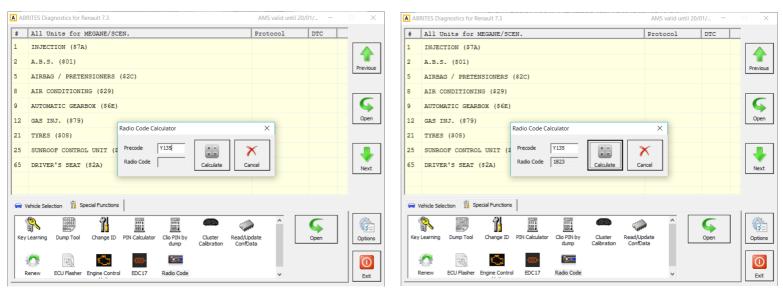
On the back side of the unit you can find the code. In this case it is **Y135**:



You can hold the radio buttons 1 and 6 for 3-4 seconds and the code should be automatically loaded on the radio display. The Twingo III car is an exception, where the code standard is different.

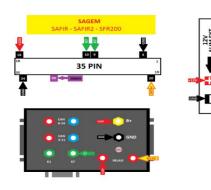
You can also click on the "Extended Identification of the radio when diagnosing the car and the code will be displayed as well.

Once you have the code, go to the "Radio Code" Special function and enter the code and calculate the radio code:

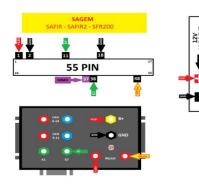


5.0 Connecting ECUs on bench using ZN051 Distribution Box

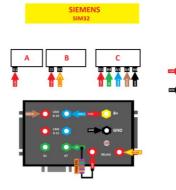
SAGEM SFR200



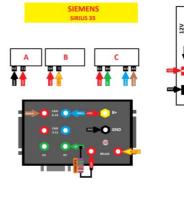
SAGEM SFR200



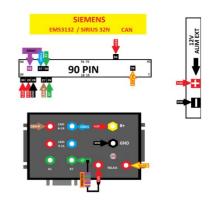
SIEMENS SIM32



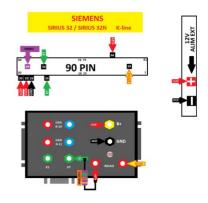
SIEMENS SIRIUS35



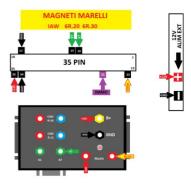
SIEMENS EMS3132



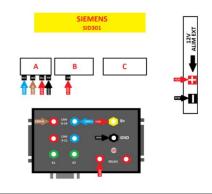
SIEMENS SIRIUS32N



MM IAW 6R.20 6R.30

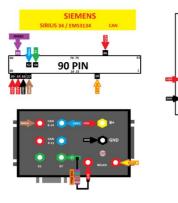


SIEMENS SID301

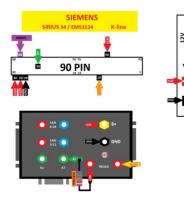


SIEMENS SIRIUS34 EMS3134

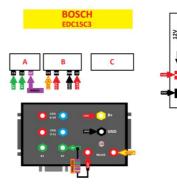
12V



SIEMENS SIRIUS34 EMS3134



BOSCH EDC15C3



BOSCH EDC15 C13

