

**LAUNCH**

# **X-431 PADII Product Introduction**



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## Product Introduction

- ✓ X-431 PADII is Launch's new high-end car fault diagnostic device based on the Android system. It inherits Launch's many advantages in car fault diagnostic technologies, including large car model coverage, powerful functions, a large number of special functions, and accurate test data. Car fault diagnosis can be implemented for all car models and systems by connecting the car diagnosis connector to mobile intelligent terminals via Bluetooth. In addition, X-431 PADII supports extension module applications for oscilloscopes, sensors, endoscopes, multimeters, and battery detection.
- ✓ X-431 PADII hardware configurations are supereminent among similar products: Cortex-A7 4 core processor, 1.2GHZ; 2G memory, solid state memory 32G; 10.1 inch IPS high definition capacitive screen; machine passed the IP65 test



## Machine Introduction



SN	Name	Description
1	golo indicator lamp	When a new message is received, the golo indicator lamp blinks.
2	Front camera	It supports foregrounds and 2 megapixel.
3	Power indicator lamp	When the host starts or is working properly, the power indicator lamp turns on.
4	Power key	Click it to lock the screen and turn on/off the device.
5	Power interface	It is used to connect to the power adapter.
6	Mini USB interface	It is used to connect to USB devices.
7	HDMI interface	It is used to connect to high definition projectors or displays.
8	Audio input interface	It is used to connect to audio devices such as headphones.
9	SD card slot	It supports extended storage card (TF) up to 32G.
10	USB interface	It is used to connect to USB devices. It is used to connect to the oscilloscope module, sensor module, or battery module during function extension.
11	Volume key	It is used to adjust the volume.
12	Restart key	Click it to automatically restart the device.
13	Rear camera	It supports high definition filming with flashlight and 5 megapixel.
14	Battery	12000mAh <a href="#">lithium polymer battery</a>



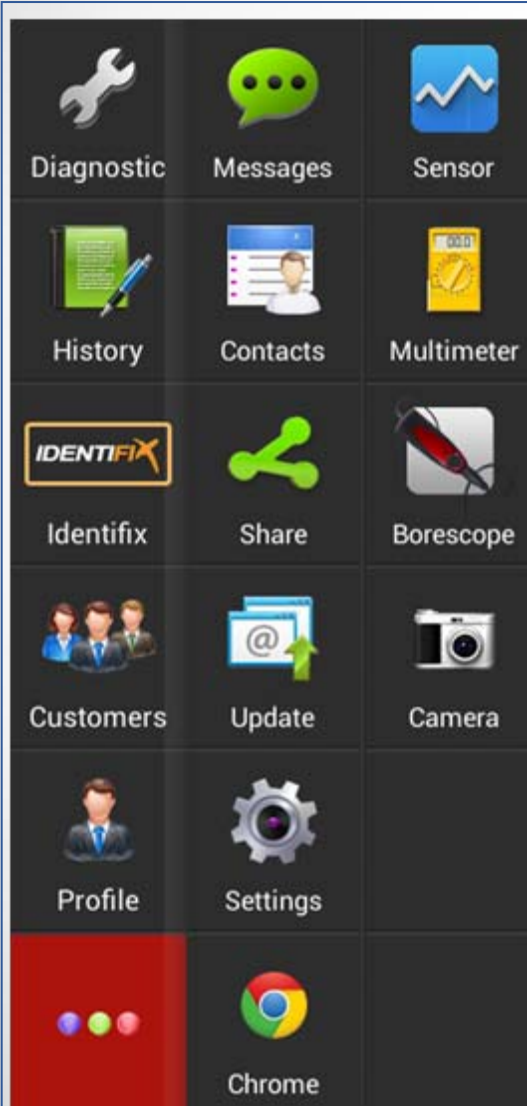
# DLC Introduction



编号	名称及说明
1	充电槽 -- 用于给X-431 PADII进行充电。
2	带电OBD16接头插槽
3	电源插孔 -- 将电源线连接至插座给充电底座供电。
4	不带电OBD16接头插槽 -- 用于存放其它闲置的DBScar诊断接头以防丢失。



# Product Key Point Introduction



## **More powerful hardware configuration**

Cortex-A7 4 core processor, 1.2GHZ; 2G memory, solid state memory 32G; 10.1 inch IPS high definition capacitive screen; machine passed the IP65 test

## **Comprehensive diagnosis for all functions**

Full system diagnostic device, supporting: Read data streams, storage, playback, read DTCs, clear DTCs, actuation test, special functions

## **Large car model diagnosis coverage**

Support more than 200 car models and more than 2000 car brands.

## **Multifunction extension module**

Oscilloscopes, sensors, endoscopes, multimeters, and battery detection

## **DTC intelligent search**

With the car model name prefix to quickly search for DTCs on Internet.

## **Maintenance database**

Provide a large amount of vehicle maintenance information

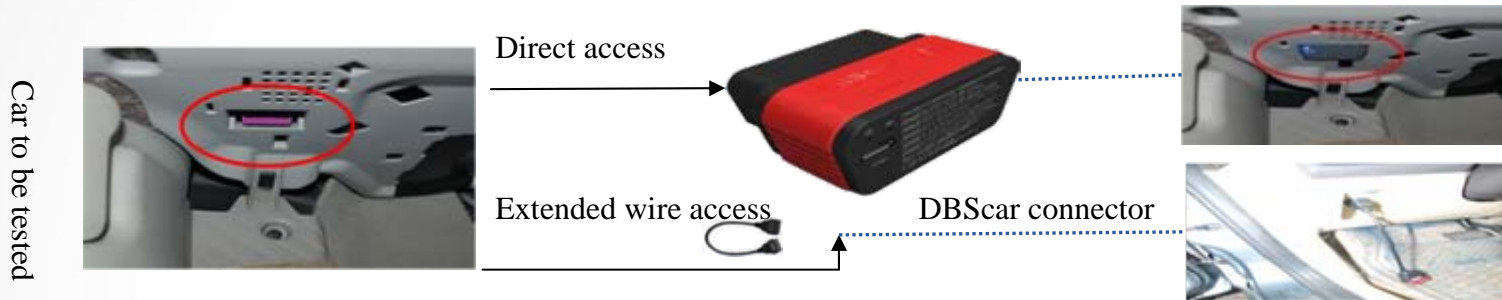
## **Upgrade center**

Support one-click upgrade for firmware and car model software and release updates in real time.



## Wireless Diagnostic Function Schematic

- ◆ Equipped with DBScar diagnostic connector (100 meter Bluetooth)



Step 1: Insert the DBScar diagnostic connector into the DLC (OBD II extended wire is recommended). If the DLC is not OBDII 16PIN, insert the adapter into the DLC and then insert the DBScar diagnostic connector into the adapter.

Step 2: Choose **Set > Wireless and Network > Bluetooth** to access the X-431 PADII Bluetooth page and set the Bluetooth state to ON.

Step 3: Access the software to diagnose the car.



Diagnosis



Bluetooth pairing

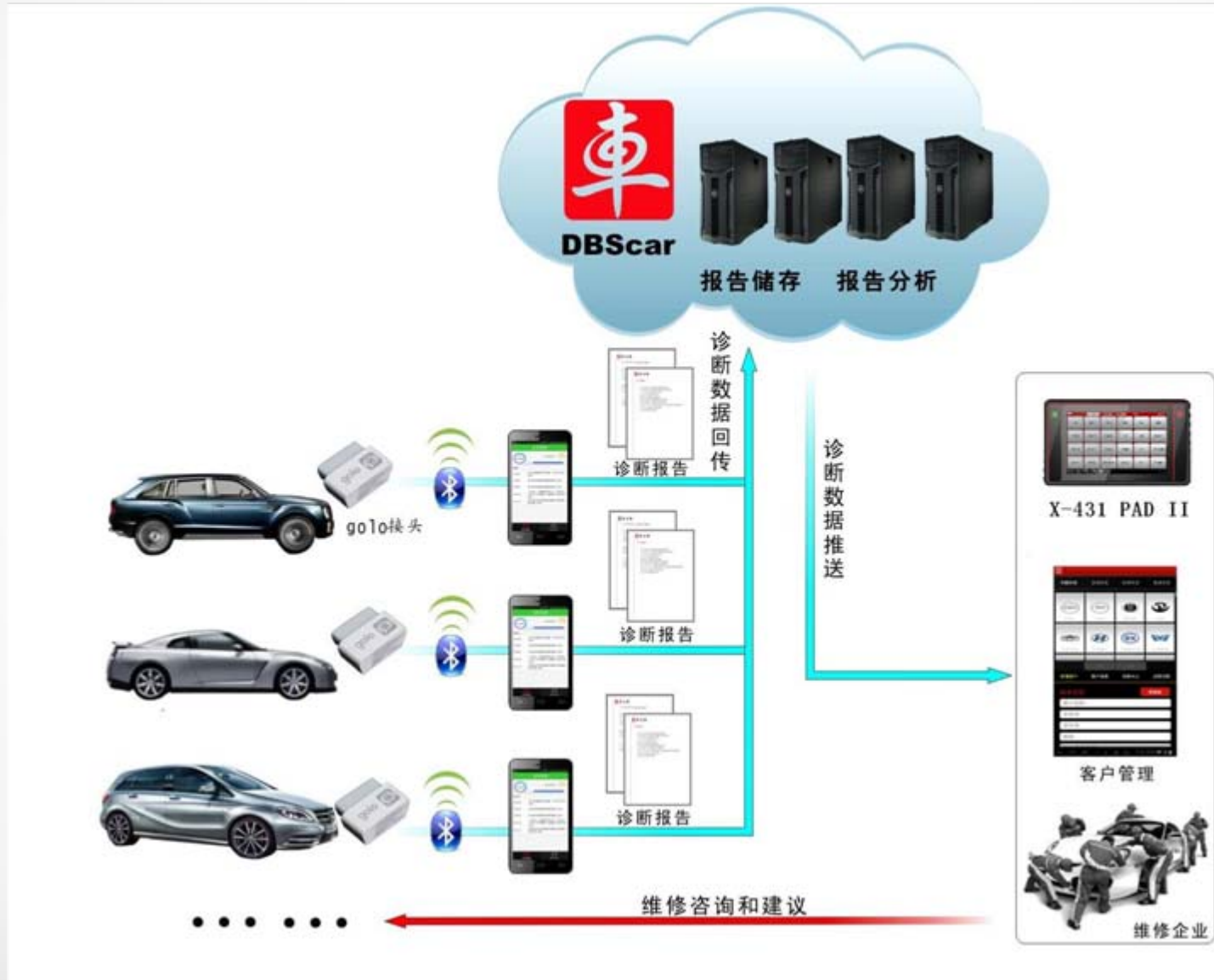


Intelligent terminal





# Remote Diagnostic Function Schematic







## Hardware Part

Compared with X-431 PadI , X-431 PadII has better hardware configuration.

### X-431 PADII



### X-431 PADI

Quad-core: ARM Cortex-A7, quad-core, 1.2GHZ	<b>Processor</b> 	Dual-core: Intel Dual Core, Processor 1.6GHz
2G/32G	<b>Memory/Hard disk</b> 	2G/16G
Capacitive screen: 10.1 inch, 1280*800  5 point touch screen, IPS high-definition screen	<b>Display</b> 	Resistive screen: 9.7 inch, 1024*768, TFT LCD Wide Screen
12000mAh Use duration: 6-8 hours	<b>Battery</b> 	7400mAh Use duration: 4-6 hours
Android 4.1	<b>Operating system</b>	Windows 7



## DTC Functions

Provide integrated services of Read DTCs, Clear DTCs, Query DTCs, and Help.

DTC	Description	Status
 P1121	Intake air temperature sensor	
 P1131	Knock sensor	

Fault Code Search

Google


Web Images News Videos More - Search tools

**P1121 DTC: Throttle position (TP) sensor - circuit/ intermittent ...**  
www.dtcsearch.com/P1121/  
14 results - **P1121** - Ford. Type, Powertrain - Manufacturer Controlled DTC - Manufacturer Controlled. Description. TP Sensor inconsistent with MAF Sensor ...

**P1121 GM DTC: TP Sensor Circuit Intermittent High Input Conditions**  
www.dtcsearch.com/P1121/GM/  
**P1121** - GM. Type, Powertrain - Manufacturer Controlled DTC - Manufacturer Controlled. Description. TP Sensor Circuit Intermittent High Input Conditions.

**p1121 - GM Forum - Buick Cadillac Chev Olds GMC & Pontiac ...**

Fault Code Search

**DTC search**  

**P1121 OBD Trouble Code**

1 result found

<b>P1121 - GM</b>	
Type	Powertrain - Manufacturer Controlled DTC - Manufacturer Controlled
Description	TP Sensor Circuit Intermittent High Input Conditions
Cause	Engine running, I AC valve position from 10-30 counts, then the PCM detected an intermittent TP sensor input that was more than 4.70v, condition met for less than one second

Try also: <http://www.obd-codes.com/p1121>

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DTC one-click search (Intelligently read the car model name as the prefix during search. )



Generate Screenshot Reports



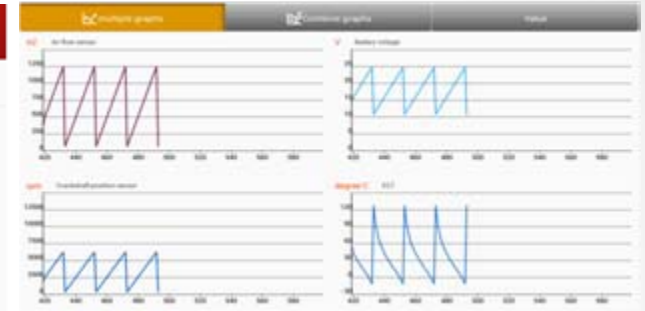
## Software Introduction – Data Stream (1)

On the page for selecting and reading data streams, you can click "Record", "Graphic", "Combined Display", and "Text Display" to perform the corresponding operations. In addition, report generation, graph recording, and playback services are supported.

Read data stream		
Data Stream Name	Value	Unit
<input checked="" type="checkbox"/> 2nd solenoid valve duty	45.1	%
<input type="checkbox"/> A/C relay	Off	
<input checked="" type="checkbox"/> Crankshaft position sensor	7000	r/min
<input checked="" type="checkbox"/> Deceleration slip speed	89	r/min
<input type="checkbox"/> Down switch	Off	
<input checked="" type="checkbox"/> Downshift solenoid valve duty	54.9	%
<input checked="" type="checkbox"/> EVAP	87.3	%
<input checked="" type="checkbox"/> Electricity relay voltage	18.20	V
<input checked="" type="checkbox"/> Fuel temperature sensor	180	degree C

Record   **Graphic**   Report   Unselect

Text Display



Multiple graphic display

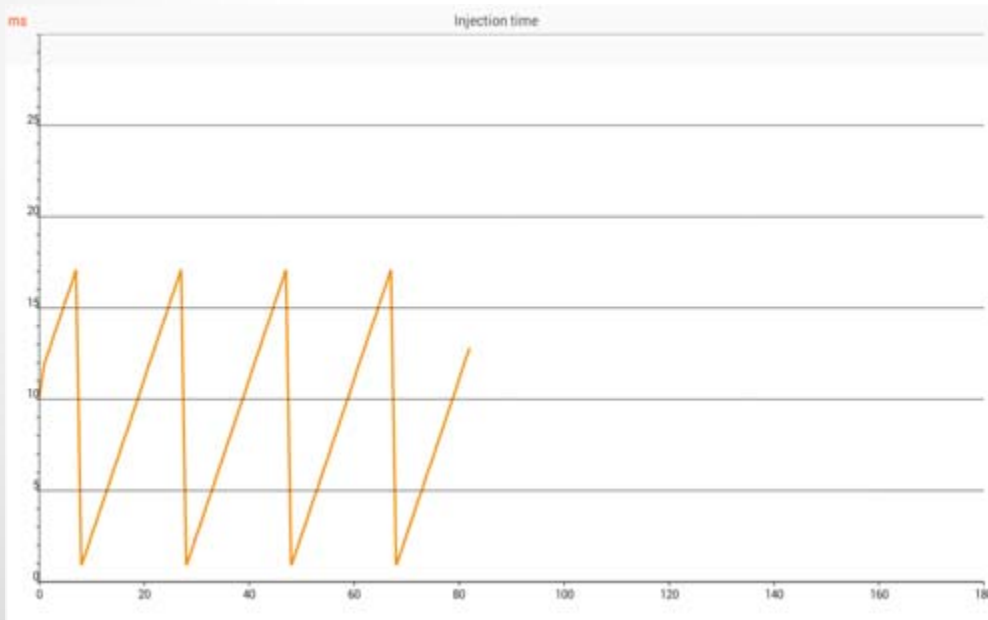
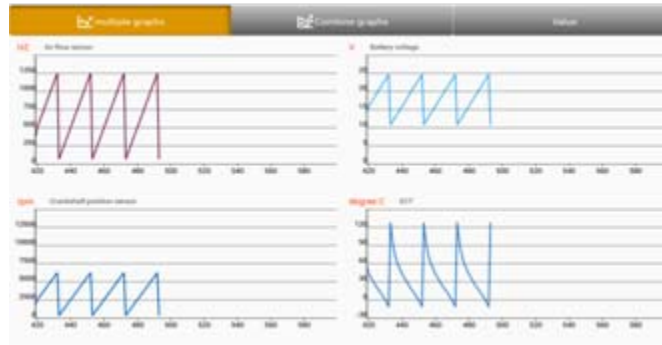
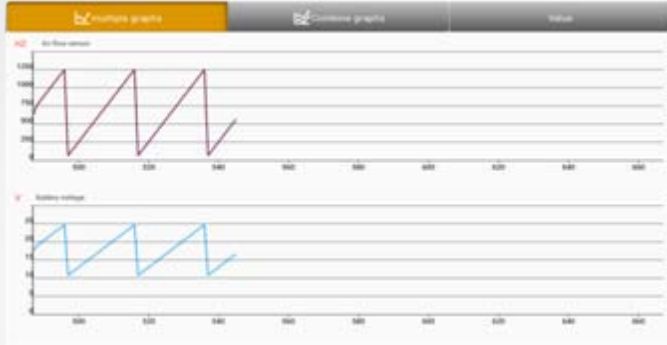


Multiple graphic combined display



## Data Stream (2)

On the page for reading data streams, multiple types of graphs can be displayed, and at most 15 graphs can be displayed



Click a graph to view it in full screen.



## Data Stream (3)

Data streams can be recorded and a report can be generated. Historical reference data is provided.

Read data stream		
Data Stream Name	Value	Unit
<input checked="" type="checkbox"/> EVAP	62.4	%
<input checked="" type="checkbox"/> Electricity relay voltage	13.00	V
<input checked="" type="checkbox"/> Fuel temperature sensor	140	degree C
Inhibitor	N	
<input checked="" type="checkbox"/> Input speed sensor	3000	r/min
<input checked="" type="checkbox"/> LR solenoid valve duty	60.8	%
Normal/hold	Off	

Bottom bar: (00:30) Stop | Graphic | Text Reports | Unselect

<
DEMO-Report 2014-04-02 16:49
DEMO-Report 2014-04-02 16:48

Records are saved in “My Report” as a report.



## Data Stream Report Playback

You can click the data stream storage report to view recorded data stream information, which can be displayed in waveform.



## Special Functions

Idle Analysis, Fuel Supply Control, Battery Replacement Reset, EGR, and key Matching

Data Stream Name	Value	Unit
Illumination		%
Airbag Warning Light	OFF	
DISPLAY UNITS	METRIC	
CONTROL MODULE VOLTAGE	12	V
Brake warning lamp	ON	
Brake Pad Wear	OFF	


Actuation test can be performed during data stream reading. Use +/- to adjust test object status.





## Maintenance Database

Provide maintenance database of various car models for customers.




Diagnosis and Repair

本周更新内容: 增加转向灯


汽车技术手册

维修案例

Select car model



View maintenance information




上海通用

上海通用\_君威\_2006\_怠速回软偶发故障维修

上海通用\_别克\_2005\_失火故障

上海通用\_别克\_间歇性水温高

上海通用\_别克\_空调压缩机故障



怠速回软偶发故障维修

故障描述:

该车在维修厂调出节气门之后,怠速高达2000r/min,经过维修站进行PCK编程后,怠速恢复正常约1000r/min,约行驶10分钟后,怠速即回升到1800r/min,重新启动后怠速恢复正常,再行驶10分钟后,怠速即回升到1800r/min,上升的1800r/min,在多家维修站多次进行PCK编程,效果不佳,使用节气门,使用PCK,故障依旧未解决。

故障分析:

1.1 首先,了解L26发动机的怠速控制原理,从而得知影响怠速故障的相关因素,逐一分析产生怠速故障的原因和部位。

2.1 L26发动机的怠速控制,包括了发动机水温,进气温度,发动机负荷等反馈,当发动机在多种启动状态的时候,30s以内,设定怠速将向1300r/min,随着下降则

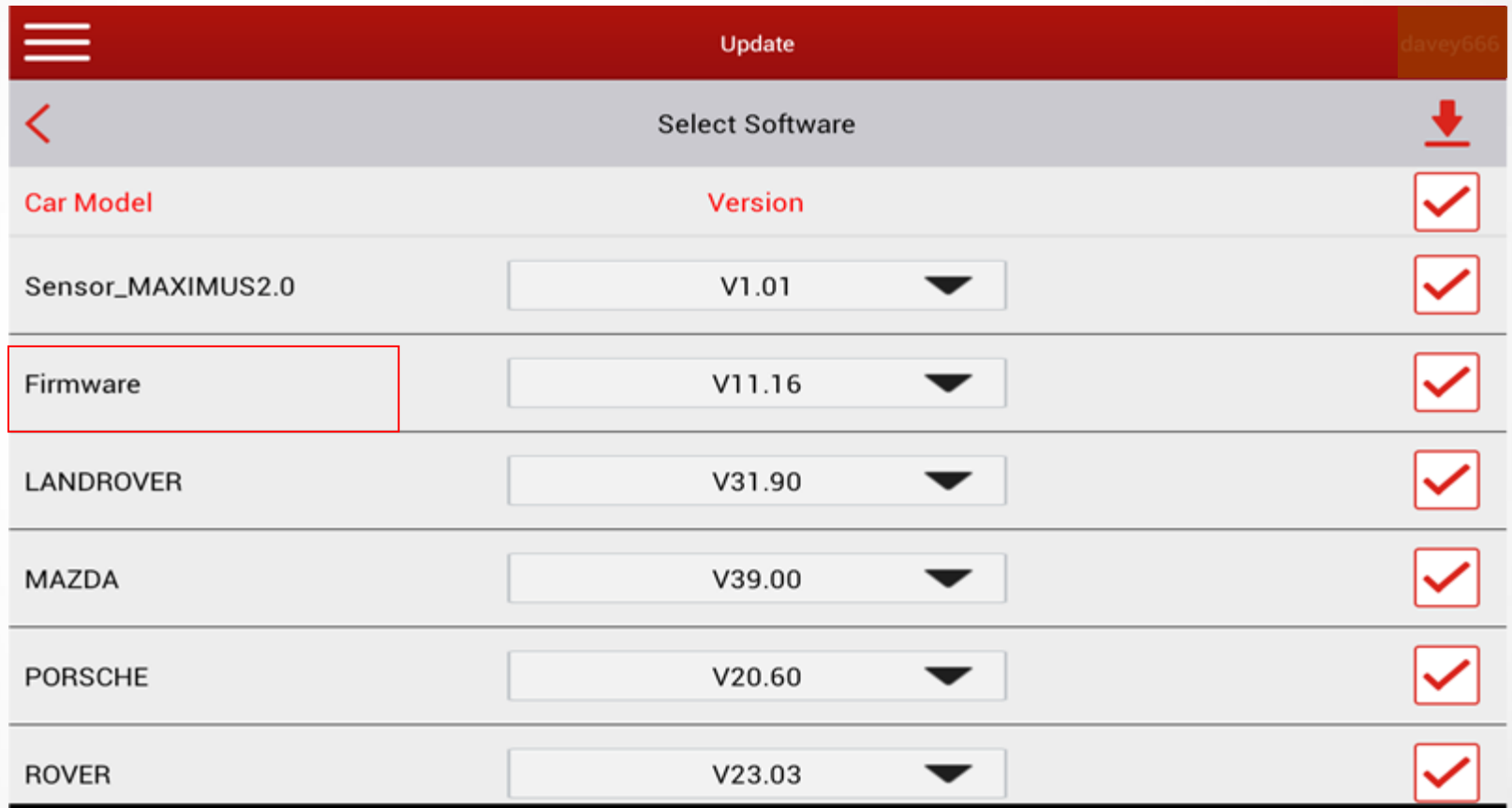
Click “Maintenance Database” on the main page.

Note: To successfully use the maintenance database, ensure that X-431 PADII is connected to the Internet.



## Upgrade Center

Support one-click upgrade for firmware and car model software and release updates in real time.



The screenshot shows a mobile application interface for the 'Upgrade Center'. At the top, there is a red header with a hamburger menu icon on the left, the word 'Update' in the center, and the user name 'davey666' on the right. Below the header is a grey bar with a back arrow on the left, the text 'Select Software' in the center, and a download icon on the right. The main content is a list of software items, each with a red checkmark in a box on the right. The items are: 'Sensor\_MAXIMUS2.0' (version V1.01), 'Firmware' (version V11.16), 'LANDROVER' (version V31.90), 'MAZDA' (version V39.00), 'PORSCHE' (version V20.60), and 'ROVER' (version V23.03). The 'Firmware' row is highlighted with a red border. On the left side of the image, there are two blue text labels: 'Firmware upgrade' pointing to the 'Firmware' row and 'Car model software upgrade' pointing to the 'LANDROVER' through 'ROVER' rows.

Car Model	Version	Upgrade Status
Sensor_MAXIMUS2.0	V1.01	✓
Firmware	V11.16	✓
LANDROVER	V31.90	✓
MAZDA	V39.00	✓
PORSCHE	V20.60	✓
ROVER	V23.03	✓

Firmware upgrade

Car model software upgrade

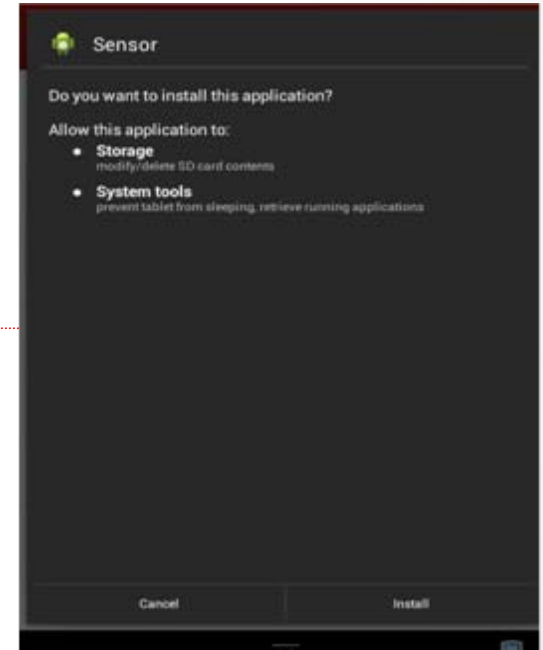


## Public Module Upgrade

The extension module is an independent installation program, and can be uninstalled, downloaded, and installed. Firmware upgrade is "Project that must be upgraded" to resolve hardware problems.

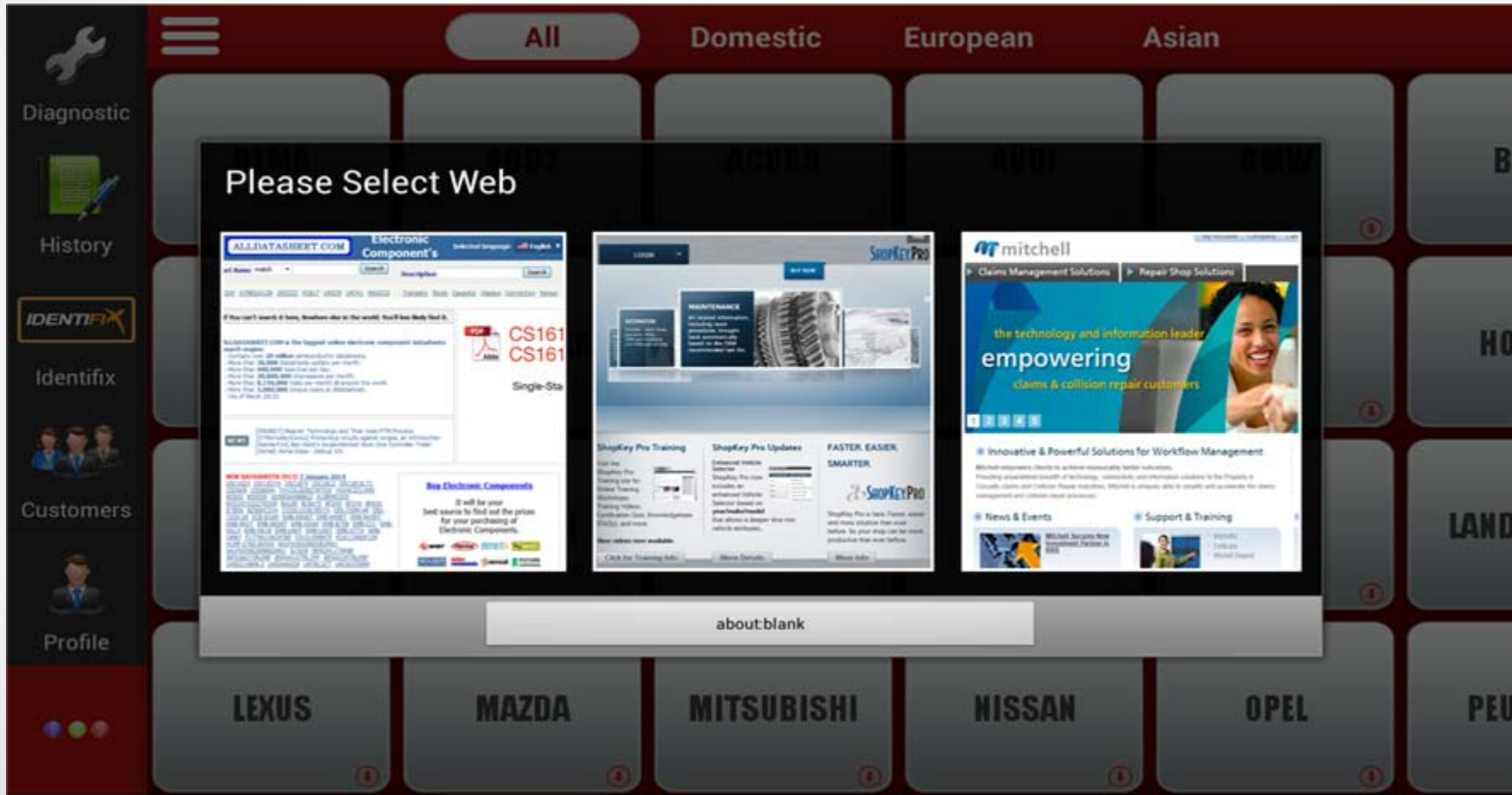
Download Software			
Software Name	Version	Progress	Status
Sensor_MAXIMUS2.0	V1.01	<div style="width: 100%;"></div>	<a href="#">Click to install</a>
Firmware	V11.16	<div style="width: 100%;"></div>	Successful
LANDROVER	V31.90	<div style="width: 100%;"></div>	Successful
MAZDA	V39.00	<div style="width: 100%;"></div>	Successful
PORSCHE	V20.60	<div style="width: 100%;"></div>	Successful
ROVER	V23.03	<div style="width: 100%;"></div>	Successful
SSANGYONG	V18.20	<div style="width: 100%;"></div>	Successful
TOYOTA	V47.61	<div style="width: 100%;"></div>	Successful

Extension module upgrade schematic



## Convenient Browsing

Convenient browsing websites: [www.alldatasheet.com](http://www.alldatasheet.com), [www.shopkeypro.com](http://www.shopkeypro.com), [www.mitchell.com](http://www.mitchell.com)  
This helps customers to view information from the Internet.



## Extension Module

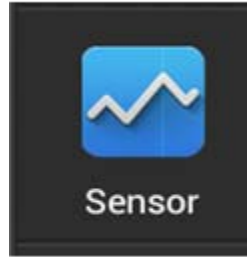
It provides oscilloscope, sensor, endoscope, multimeter, and reset extended function services.

Software icon

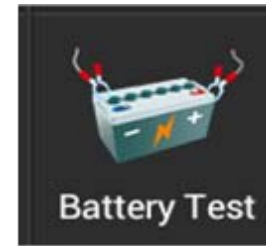
Oscilloscope function (Estimated June)



Sensor test



Battery test



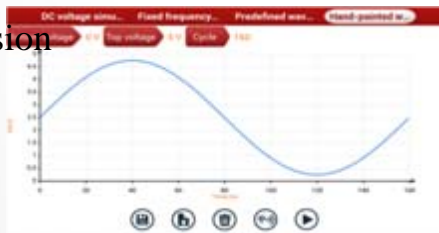
Endoscope



Adapter module



Application extension



# Battery Detection Module Operation Schematic

- Detect battery status when the battery is static, connected and provide an accurate detection report to determine whether the battery is good.



## Registration Instruction

Return ✕

Username

Password

Confirm Password

Email Address

**Register and Log In**

Sign Successfully ✕

To experience a vehicle diagnostic software, you need to register connector

**Register Connector** **No Connector**

**Register Connector** ✕

Serial N...

Verifica...

**Confirm**

Note: Product serial number and verification code is shown in below envelope




Input the product SN and verification code, and then click **Confirm** to access the diagnosis page.





# Comparison with Products of the Same Type

		X-431 PADII	X-431 PAD	X-431 Pro	X-431 Pro3
Contents					
Host	CPU	ARM Cortex-A7 quad-core , 1.2GHZ	1.6GHz dual-core processor	2 core , up to 1G	4 core , up to 1.2G
	RAM/ROM	2G/32G	2G/16G	512M/8G	1G/8G+32G
	Display	10.1 Inches,1280*800,IPS	9.7'colored (TFT) IPS widescreen	7 Inches,1024*600,TN	10.1 Inches,1280*800,IPS
	WIFI	Support	Support	Support	Support
	Ethernet	N/A	Support	N/A	N/A
	Camera	Front 2.0 Megapixel /Rear 5.0 Megapixel, AF with Flashlight	Rear: 1.30 Megapixel (640 x480 resolution) camera	Front 0.3 Megapixel /Rear 2.0 Megapixel	Front 0.3 Megapixel /Rear 3.0 Megapixel
	Battery	12000mAh	7400mAh	3000mAh	6600mAh
	Battery Life	6-8 hours	4-5 hours	3-4 hours	6-8 hours
	Micro SD	Support	Support	Support	Support
	HDMI	Support	Support	N/A	N/A
	USB	One , USB2.0	One , USB2.0	Mini USB	Mini USB
	Boot Time	25s	30s	20s	20s





OS	Android 4.1 and above	Windows 7	Android 4.1 and above	Android 4.1 and above
One-click Update	Support	Support	Support	Support
Identifix	N/A (Quick web link saved in favorite)	N/A (Quick web link saved in favorite)	N/A (Quick web link saved in favorite)	N/A (Quick web link saved in favorite)
Maintenance Database	Support	Support	Support	Support
Customers Manager	Support	Support	Support	Support
Vinscan for kwp,vpw,pwm,can	Support	Support	N/A	N/A
ECU Coding	Advanced	Advanced	Advanced	Advanced
Endoscope	Support	Support	N/A	N/A
Modules	Support	Support	N/A	N.A
GRAPHS	15	12	4	15

