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Made In China

T300PRO

User's Manual

OBD II Scanner + Battery Tester



For OBD II/EOBD Full Mode Diagnostics

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Safety Precautions and Warnings

To prevent personal injury or unnecessary damage while using the tool, please read this Owner's Manual carefully first and observe at least the following safety precautions when using the vehicle:

- Always perform automotive testing in a safe environment.
- Do not attempt to operate or observe the tool while driving a vehicle, Operating or observing the tool will cause driver distraction and could cause a fatal accident.
- Wear safety eye protection that meets ANSI standards.
- Keep clothing, hair, hands, tools, test equipment, etc. away from all rotating or hot engine parts.
- Operate the vehicle in a well-ventilated work area. Exhaust gases are poisonous.
- Put blocks in front of the drive wheels and never leave the vehicle unattended while running tests.
- Use extreme caution when working around the ignition coil, distributor cap, ignition wires and spark plugs. These Components create hazardous voltages when the engine is running.
- Put the transmission in P (for A/T) or N(M/T) and make sure the parking brake is engaged.
- Keep a fire extinguisher suitable for gasoline /chemical / electrical fires nearby.
- Don't connect or disconnect any test equipments while the ignition is ON or the engine is running.
- Keep the scan tool dry, clean free from oil/ water or grease. Use a mild detergent on a clean cloth to clean the outside of the scan tool when necessary.
- Our company is not responsible for any damage caused by unintentional or deliberate misuse of our products or tools.

Products

The content of this manual is edited based on the product (T300_v1.0.44).

Newly upgraded, multi-function OBD II scanner + battery diagnostics, support for battery life analysis, cloud printing, vehicle year recognition and many other special features detection, scanner using 2.8 inch bright TFT color screen, equipped with a new generation of processors, large memory, faster response speed. Built-in more than 50,000 fault codes, applicable to all cars in line with the OBD II protocol (can match up to 97% of the models), T300PRO is the best choice for professional automotive repair tools.

Supported Protocols

- 1.ISO9141-2(5 baud init, 10.4 Kbaud)
- 2.SAE J1850 PWM (41.6Kbaud)
- 3.SAE J1850 VPW (10.4Kbaud)
- 4.ISO14230-4 KWP (5 baud init, 10.4 Kbaud)
- 5.ISO14230-4 KWP (fast init, 10.4 Kbaud)
- 6.ISO15765-4 CAN (11bit ID, 500 Kbaud)
- 7.ISO15765-4 CAN (29bit ID, 500 Kbaud)
- 8.ISO15765-4 CAN (11bit ID, 250 Kbaud)
- 9.ISO15765-4 CAN (29bit ID, 250 Kbaud)

Battery Diagnostics

- Testing is accurate, fast, easy to operate and intuitive display.
- Main functions include: quick test, standard test, start-up test, charging test, and locomotive battery test.
- Can test **all** automotive starter **lead-acid** batteries, including ordinary **lead-acid** batteries, AGM flat batteries, AGM spiral batteries and **gel** batteries.
- Reverse polarity protection, reverse polarity **will** not damage the tester or affect the vehicle or battery.
- Test standards include most of the current battery standards in the world: CCA, JIS, GB, SAE, MCA, CA, DIN, IEC, EN, BCI.

Product Specification:

Display Screen	2.8-inch TFT color screen (320*240)
External Power	8V-30V DC
Range CCA	20-2000 CCA
Battery Range	10AH-300AH
Operating Temperature	-20~60°C (-4~140°F)
Storage Temperature	-20~70°C (-4~158°F)

Product Description



- 1). Screen – Displays menus and test results
- 2). F1 Button – Customized shortcuts
- 3). F2 Button – Customized shortcuts
- 4). Arrow Button – For moving up and down or flipping pages
- 5). OK Button – To confirm the desired option
- 6). ESC Button – Exits or returns to previous level menu
- 7). OBD II Connector – Connects the scan tool to the vehicle's data link
- 8). Battery clip cord – For battery diagnostics
- 9). Malfunction Indicator
 - ✔ Green Light – Indicates that the engine system is functioning properly and that the vehicle is not malfunctioning
 - ⚠ Yellow Light – Indicates pending DTCs exist
 - ✖ Red Light – Indicates there are some problems in one or more of the vehicle's systems

Operating Instructions

Connecting The Scanner

1. Turn off the ignition switch
2. Locate the vehicle's 16-pin data link connector
3. Plug the OBD II cable into the vehicle's DLC
4. Turn on the ignition and engine
5. When finished, the device automatically enters the diagnostic interface



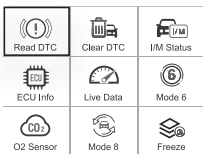
Read DTC

When the vehicle's instrument panel indicates an engine malfunction light (Fig 1), you can use the T300PRO to read the vehicle malfunction and repair the malfunction before operating the tool to eliminate the malfunction light indication.

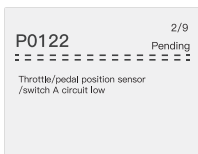
Select [OBD]→[Read fault codes], press [OK] to enter the Read Fault Codes function, if there is a fault code, the screen will display the code (Fig 3), if you find more than one DTC fault code, please use the left/right keys to turn the page to check all the codes.



(1)



(2)

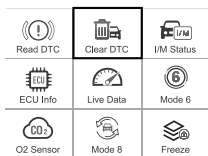


(3)

Clear DTC

Before clearing the fault code, please follow the prompts of the fault code to carry out vehicle maintenance, vehicle maintenance can be completed to clear the fault code operation.

Select [Clear DTC] and press the [OK] key to continue, the display will show as follows:



(4)



(5)

NOTE: Clearing a fault code does not mean that the fault code in the ECU has been completely eliminated; the fault code will continue to appear as long as the vehicle has a fault.

I/M Status

The [I/M Status] function is used to check the operation of the emissions system on OBD II-compliant vehicles, and it is an excellent function for checking whether the vehicle complies with the national emissions test. You can select the ready status after clearing the fault and the ready status of the current driving cycle, or you can set the I/M shortcut key and use the I/M shortcut key to enter the checking with one click.

Select [I/M Status] and press the [OK] key to continue, the display will be as follows:

This driving cycle	1/10
MIS	N/A
FUEL	N/A
CCM	OK
CAT	OK
HCAT	N/A
EVAP	N/A
AIR	N/A

(6)

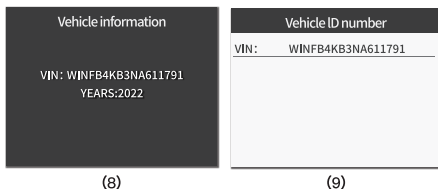
I/M Status			
I/M		IGN	Spark
DTC	0	Pd DTC	0
MIS	✓	EVAP	⊘
FUE	✓	AIR	⊘
CCM	✓	O2S	✗
CAT	✗	HRT	✓
HCAT	⊘	EGR	⊘

(7)

ECU Info

The ECU Info function allows you to quickly search for information about the vehicle year, frame number, calibration number, and calibration verification number.

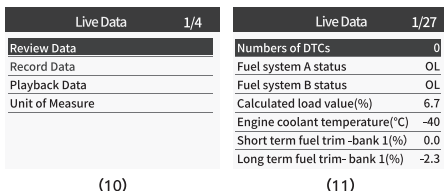
Select [ECU Info] and press the [OK] key to continue. The display is as follows:



Live Data

View [Live Data] allows viewing of vehicle PID real time data, all supported data is displayed and can be viewed by quickly flipping the page with the left/right buttons or selecting custom data for comparison.

Select [Live Data] and press the [OK] key to continue, the display will be as follows:



Help

[Help] When viewing [Live Data], some data will be abbreviated due to the limited display area, then we can view the complete data description through [Help].

Select the data to be viewed, Press [F2] to go to the full description, and press [F2] again to return to the original page with the following display:

Live Data	14/27
Short term fuel trim -bank 2(0.0
Long term fuel trim-bank 2	-4.7
Engine RPM(rpm)	0
Vehicle speed sensor(km/h)	0
Ignition timing advance for #	0.0
Intake air temperature(°C)	-40
Air flow rate from mass air	0.00

(12)

Air flow rate from mass air flow sense
Air flow rate from mass air flow sensor(g/s)

(13)

Record Data

Select [Live Data]→[Recorded Data]→[All Data] → [Manual Trigger]→[Store Location] to continue, the display will be as follows:

Live Data	2/4
Review Data	
Record Data	
Playback Data	
Unit of Measure	

(14)

Recording...50/51	1/27
Numbers of DTCs	0
Fuel system A status	OL
Fuel system B status	OL
Calculated load value(%)	6.7
Engine coolant temperature(°C)	-40
Short term fuel trim -bank 1(%)	0.0
Long term fuel trim- bank 1(%)	-2.3

(15)

Playback Data

Select [Live Data]→[Playback Data], press [OK], select the corresponding storage location to continue, and the display will be as follows:

Live Data	3/4
Review Data	
Record Data	
Playback Data	
Unit of Measure	

(16)










1 of 8 frame	1/27
Numbers of DTCs	0
Fuel system A status	OL
Fuel system B status	OL
Calculated load value(%)	6.7
Engine coolant temperature(°C)	-40
Short term fuel trim-bank 1(%)	0.0
Long term fuel trim-bank 1(%)	-2.3

(17)

In-Vehicle Monitoring Test

After repairing or clearing fault codes, on-board monitor tests are useful, diagnostic tools allow access to on-board diagnostic monitor test results for specific components, and vehicle manufacturers are responsible for assigning MID、CID, for testing different systems and components.

Select [Mode 6] and press the [OK] key to continue, the following is displayed:

 Read DTC	 Clear DTC	 I/M Status
 ECU Info	 Live Data	 Mode 6
 O2 Sensor	 Mode 8	 Freeze

(18)

\$00 Test	1/4
Test value	0000
Min Limit	—
Max Limit	0000
Status	OK

(19)

O2 Sensor

O2 sensors are tested to identify problems related to fuel efficiency and vehicle emissions. The Oxygen Sensor test does not support CAN communication protocol, CAN communication protocol vehicles can be tested in [Mode 6].

Select [O2 Sensor] and press the [OK] key to continue, the display will be as follows:

O2 monitor test
O2 bank1 sensor1
O2 bank1 sensor2
O2 bank1 sensor3
O2 bank2 sensor1

(20)









\$81	1/4
Test value	127
Min Limit	90
Max Limit	255
Status	OK

(21)

Component Testing

The component test function allows initiating a leak test of the vehicle's evaporative system.

Select [Mode 8] and press the [OK] key to continue, the display will be as follows:

 Read DTC	 Clear DTC	 I/M Status
 ECU Info	 Live Data	 Mode 6
 O2 Sensor	 Mode 8	 Freeze

(22)

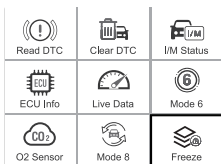
Mode 8
Evaporative system leak test

(23)

Freeze

Freeze Frame data allows the technician to view the vehicle's operating parameters at the time the DTC was detected.

Select [Freeze] and press the [OK] key to continue, the display will appear as follows:



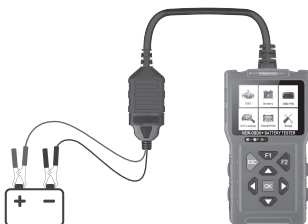
(24)

Freeze		1/17
DTCFRZF		U3FFF
FUELSYSA	OL	
FUELSYSB	OL	
LOAD_PCT(%)	100.0	
ECT(°C)	215	
SHRTFT1(%)	99.2	
SHRTFT3(%)	99.2	

(25)

Battery Diagnostics

Put the car in the off state(Fig 26), the red clip connects to the positive terminal, the black clip connects to the negative terminal, and then connect the scanner to the clip wire.



(26)

Standard Test

The standard test can detect the status of different types of batteries.

Select [Battery]→[Standard test] and press [OK], select the corresponding battery mode according to the battery type and operate according to the prompts to analyze the health status of the battery.

Battery test	1/5
Standard test	
Startup test	
Charging test	
Voltage waveform monitoring	
Load test	

(27)

Battery performance is good	
(SOH) 100 %	
Voltage:	12.33V
Rated value:	680CCA
CCA:	696CCA
Impedance:	4.52mR
Battery power:	70%

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Batteries For Locomotives

Select [Battery]→[Standard test] →[Motorcycle test]→[Motorcycle], use up and down keys to select the corresponding battery parameter, and then press [OK] to quickly test the battery life of the locomotive, if you can't find the corresponding battery model in the [Motorcycle] option, you can select [Other Categories], and enter the corresponding CCA for testing.

Battery type selection	6/6
Normal battery	
AGM flat battery	
AGM spiral battery	
GEL	
EFB	
Motorcycle test	

(29)

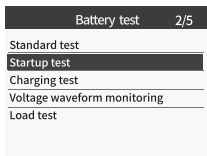
Testing after charging	
(SOH): 40.4 %	
Voltage:	11.76V
Input Rating:	175CCA
CCA:	84CCA
Impedance:	34.63mR
Power:	31%

(30)

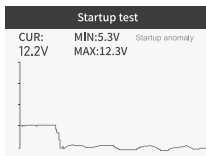
Startup Test

Starting test can detect the current starting performance of the battery, which helps to judge the service life of the battery.

Select [Battery]→[Startup test] and operate according to the product interface prompts to view the test results:



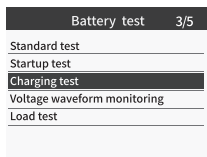
(31)



(32)

Charging Test

Select [Battery]→[Charging test], press [OK] to confirm and view the test result:



(33)

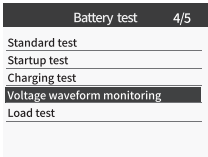
Charging test	
Charging is normal	
Load Voltage:	14.80V
No-load voltage:	14.78V
Voltage fluctuation:	70.90mV

(34)

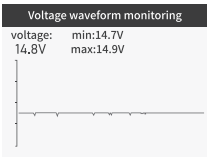
Voltage Waveform Monitoring

Voltage waveform monitoring allows real-time monitoring of the voltage status of our batteries.

Select [Battery]→[Voltage waveform monitoring], press [OK] to confirm and view the test result:



(35)

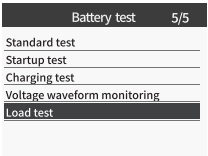


(36)

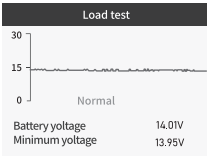
Load Test

The load test can record the voltage fluctuation of the car turning the load on and off in real time, and can accurately determine the health status of the battery.

Select [Battery]→[Load test], enter the function, follow the on-screen prompts to operate and view the test results:



(37)

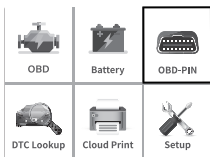


(38)

OBD-PIN

When the vehicle appears to be unable to diagnose, you can use the OBD voltage function to check the voltage of the OBD pins to help us find the vehicle fault faster.

Select [OBD-PIN] and press [OK] to confirm, you can view the voltage status of each OBD pin:



(39)

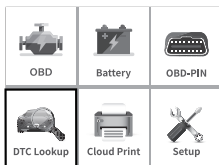
OBD Voltage		
OBDPin	Voltage	Normalrange
BUS+(2Pin)	11.2v	4.5v~12.0v
CAN-H(6Pin)	1.0 v	2.5v~3.5v
K-line(7Pin)	13.7 v	9.0v~14.8v
BUS-(10Pin)	4.2 v	
CAN-L(14Pin)	1.2 v	1.5v~2.5v
line(15Pin)	10.0 v	9.0v~14.8v
VIN(16Pin)	14.6 v	9.0v~14.8v

(40)

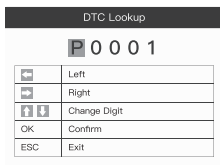
DTC Lookup

The DTC lookup function is equivalent to a fault code dictionary, with more than 50,000 fault codes built in, which can be used to query various types of fault codes, making it easy for maintenance personnel to quickly find problems and improve work efficiency.

Select [DTC Lookup] and press the [OK] key to continue, the display will be as follows:



(41)

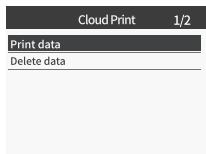


(42)

Cloud Print

Cloud Print can print the results of the inspection wirelessly.

Select [Cloud Print]→[Print data], operate according to the prompts, and finally select [QR Code] interface will display the QR code, scan the QR code with your cell phone to display the test data, and then convert the data into PDF format to connect to the printer to print out. The display is as follows:



(43)



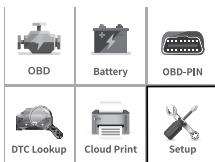
(44)



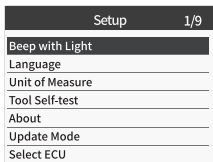
(45)

Setup

Select [Setup] and then [OK] to continue, the display will be as follows:



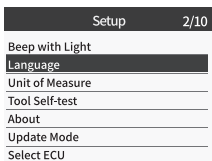
(46)



(47)

Language Settings

Select [Setup] → [Language] is displayed as follows:



(48)

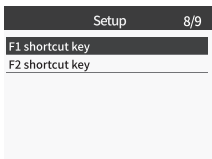


(49)

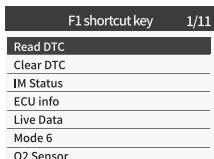
Shortcut Key Setting

Setting shortcut keys can quickly access the corresponding functions, convenient for daily operation.

Select [Setup] → [F1 shortcut key] to select the desired function, press [OK] to confirm, [F2 shortcut key] can also be set to the corresponding shortcut key in the same way:



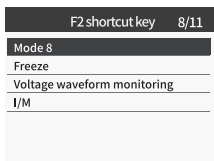
(50)



(51)



(52)



(53)

Update Mode

You can consult with your agent to check the latest software version and ask your dealer for an upgrade tool to complete the upgrade.

Warranty And Service

One Year Warranty

We promises to provide warranty service for 1 year from the date of original purchase, if this product is purchased from an official channel, which must meet the following conditions:

- 1) The warranty are limited to repairing or replacing new equipment, without additional cost, but need to mention for regular sales invoices or copies of invoices.
- 2) The warranty does not cover the unauthorized disassembly of this product due to flooding, lightning strikes, or outside repair shops not authorized by the company ,The personnel have repaired it and considered damage caused by improper use.
- 3) We is not responsible for any damages caused by use, misuse or installation and testing. Some countries limitations on the duration of implied warranties are not allowed, so the above limitations may not apply to you.
- 4) All information in this manual is based on the latest and effective information at the time of publication, and there is no guarantee of its accuracy or completeness. we reserves the right to make changes at any time without notice.

Service Process

If you have any questions in the process of using this product, please contact your local authorized dealer directly.