

# **VDT800 SMART DIAGNOSTIC SYSTEM**

# **User Manual**



### **Legal Information**

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#### **Disclaimer of Warranties and Limitation of Liabilities**

All pictures and illustrations shown are for reference purposes only. All information, specifications and illustrations in this manual are based on the latest information available at the time of printing and are subject to change without notice. While the authors have taken due care in the preparation of this manual, nothing contained herein:

- Modifies or alters in any way the standard terms and conditions of the purchase, lease, or rental agreement under the terms of which the equipment to which this manual relates was acquired.
- Increases in any way the liability to the customer or to third parties.

VDIAGTOOL will not be liable for any direct, special, incidental, indirect damages or any economic consequential damages (including the loss of profits).

VDIAGTOOL reserves the right to make changes at any time without notice.

#### **IMPORTANT:**

Before operating or maintaining this unit, please read this manual carefully paying extra attention to the safety warnings and precautions.

#### **Product Support Information**

Technical Assistance Website: www.vdiagtool.com

E-Mail: support@vdiagtool.com

Phone: 1-213-355-7171 (United States)

or use our online contact form from the below link: https://www.vdiagtool.com/support/tech-support

This manual is periodically revised to ensure the latest information is included.

### Manuals/ Technical Documentation

This manual is periodically revised to ensure the latest information is included. Download the latest version of this manual and other related technical documentation at:

https://www.vdiagtool.com/support/downloads.

#### **Product Training Videos**

Diagnostic Tool specific training videos are available on our website. Follow along and learn the basics of Diagnostic Tool operation with our free training videos. Videos are product specific and are available at:

https://www.vdiagtool.com/support/training-center Click on the "Support" - "Training Center" tab select the applicable diagnostic tool, then select the training video you want to watch.

### **Safety Information**

For your own safety and the safety of others, and to prevent damage to the device and vehicles upon which it is used, it is important that the safety instructions presented throughout this manual be read and understood by all persons operating or coming into contact with the device.

There are various procedures, techniques, tools, and parts for servicing vehicles, as well as in the skill of the person doing the work. Because of the vast number of test applications and variations in the products that can be tested with this equipment, we cannot possibly anticipate or provide advice or safety messages to cover every circumstance. It is the automotive technician's responsibility to be knowledgeable of the system being tested. It is crucial to use proper service methods and test procedures. It is essential to perform tests in an appropriate and acceptable manner that does not endanger your safety, the safety of others in the work area, the device being used, or the vehicle being tested.

Before using the device, always refer to and follow the safety messages and applicable test procedures provided by the manufacturer of the vehicle or equipment being tested. Use the device only as described in this manual. Read, understand, and follow all safety messages and instructions in this manual.

### **Safety Messages**

The safety messages are provided to help prevent personal injury and equipment damage. All safety messages are introduced by a signal word indicating the hazard level.

# A DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury to the operator or to bystanders.

# **∆**warning

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury to the operator or to bystanders.

### **Safety Instructions**

The safety instructions herein cover situations VDIAGTOOL is aware of. VDIAGTOOL cannot know, evaluate or advise you as to all of the possible hazards. You must be certain that any condition or service procedure encountered does not jeopardize your personal safety.

# A DANGER

When an engine is operating, keep the service area WELL VENTILATED or attach a building exhaust removal system to the engine exhaust system. Engines produce carbon monoxide, an odorless, poisonous gas that causes slower reaction time and can lead to serious personal injury or loss of life.

# **A**SAFETY WARNINGS

- Always perform automotive testing in a safe environment.
- Wear safety eye protection that meets ANSI standards.
- Keep clothing, hair, hands, tools, test equipment, etc. away from all moving or hot engine parts.
- Operate the vehicle in a well ventilated work area, for exhaust gases are poisonous.
- Put the transmission in PARK (for automatic transmission) or NEUTRAL (for manual transmission) and make sure the parking brake is engaged.
- Put blocks in front of the drive wheels and never leave the vehicle unattended while testing.
- Be extra cautious when working around the ignition coil, distributor cap, ignition wires and spark plugs. These components create hazardous voltages when the engine is running.
- Keep a fire extinguisher suitable for gasoline, chemical, and electrical fires nearby.
- Do not connect or disconnect any test equipment while the ignition is on or the engine is running.
- Keep the test equipment dry, clean, free from oil, water or grease. Use a mild detergent on a clean cloth to clean the outside of the equipment as necessary.
- Do not drive the vehicle and operate the test equipment at the same time. Any distraction may cause an accident.
- Refer to the service manual for the vehicle being serviced and adhere to all diagnostic procedures and precautions. Failure to do so may result in personal injury or damage to the test equipment.
- To avoid damaging the test equipment or generating false data, make sure the vehicle battery is fully charged and the connection to the vehicle DLC is clean and secure.
- Do not place the test equipment on the distributor of the vehicle. Strong electromagnetic interference can damage the equipment.

# Table of Contents

1. Introduction	1
2. Getting started	3
3. Special functions	
4. Warranty	6
5 Contact Us	<del>-</del>

### 1. Introduction

The VDIAGTOOL VDT800 Diagnostic Tool interfaces with the electronic control unit(ECU) of a vehicle to retrieve diagnostic trouble codes(DTCs), access data stream information, and command active tests (bi-directional control tests). Various vehicle control systems, such as engine, transmission, and anti-lock brake system(ABS), SRS(Airbag) system, Chassis, Body and etc are readily diagnosed using this Diagnostic Tool. The Diagnostic Tool is capable of graphing up to eight(8) live data parameters on a single screen, and also includes ECU information.

### 1.1 Technical Specifications

Item	Description/ Specification
Display	8 Inch Touch Screen, 1280×800
	Resolution
Operating System	Android 10.0
Processor	Quad-Core Processor 1.5GHz
Memory	4G RAM, 64G ROM
Connectivity	Bluetooth 4.1, Wi-Fi(2.4GHz & 5Ghz),
	Type-C
Sensor	Gravity Accelerometer/ Ambient Light
	Sensor
Audio	Microphone
Speaker	Built-In Speaker
Camera	8 Mega Pixel
Battery	DC 7.3V Rechargeable Li-ion battery,
	5000mAh
Power Supply	Input: 5.0V 3.0A
	For AC Adapter Input: 100-240V
	Adapter Output: 5.0V 3.0A
Operating Voltage	9-36V DC

### 1.2 What's In The Box

VDT800 Diagnostic Tool	1
Type-C to Type-A Adapter(Connecting to	1
PC)	
Type-C to Type-A Charger Cable	1
Charger Adapter US Standard	1
Charger Adapter EU Standard	1
Charger Adapter UK Standard	1
Color Carbon	1
Quick Start Guide	1
Packing List	1
Hard Case	1

### 2. Getting Started

Make sure the Diagnostic Tool has sufficient power or is connected to the external power supply.

#### Note:

The images and illustrations depicted in this manual may differ from the actual ones.

Turning On/ Off and Force Shut Down

The following sections describe how to turn the VDIAGTOOL VDT800 Diagnostic Tool on and off and how to perform an emergency shutdown.

### 2.1 Turning On

Press and hold the power button on the top right of the Diagnostic Tool for 3(three) seconds and it will automatically turn on when the internal battery pack has power in it or connected to an AC power supply.

If the internal battery pack is completed drained, you may need to wait for a few minutes before you turn it on.

### 2.2 Turning Off

Press and hold the power button again for over 3(three) seconds and the Diagnostic Tool will turn off automatically.

### Important:

All vehicle communication must be terminated BEFORE turning off the Diagnostic Tool.

A warning message displays if you attempt to turn the Diagnostic Tool off while communicating with the vehicle. Forcing a shut down while communicating may lead to ECM problems on some vehicles. Never disconnect the device when the Diagnostic Tool is communicating with the vehicle ECM.

#### 2.3 Emergency Shutdown

During normal operation, turn the Diagnostic Tool off using the Turning Off procedure above. The emergency shutdown procedure should only be used If the Diagnostic Tool does not respond to navigate or control buttons or exhibits erratic operation.

To force an emergency shutdown, press and hold the Power button for five seconds until the Diagnostic Tool turns off.

#### Important:

Using the emergency shutdown procedure while communicating with the vehicle ECM may lead to ECM problems on some vehicles.

#### 3. Special Functions

This chapter describes various scheduled services and maintenance functions, or called "Special Functions". A typical special function screen is a series of menu driven executive commands. By following the on-screen instructions to select appropriate execution options, enter correct values or data, and perform necessary actions, the screen prompts will guide you through the complete performance for various special functions.

The VDT800 supports 38 common special functions, such as Oil Reset, BMS Reset, Injector Coding and so on.

### 4. Warranty

Limited One Year Warranty

This warranty is expressly limited to buyer who purchase VDIAGTOOL VDT800 product for purposes of resale or use in the ordinary course of the buyer's business.

VDIAGTOOL VDT800 is warranted against defects in materials and workmanship for one year (12 months) from date of delivery to the buyer. This warranty does not cover any part that has been abused, altered, used for a purpose other than for which it was intended, or used in a manner inconsistent with instructions regarding use. The exclusive remedy for any tool found to be defective is repair or replacement, and it shall not be liable for any consequential or incidental damages.

### 5. Contact Us

**Warranty & Support** 

E-mail: <a href="mailto:support@vdiagtool.com">support@vdiagtool.com</a>
Website: <a href="mailto:support@vdiagtool.com">www.vdiagtool.com</a>

For wholesale business or become our distributors:

E-mail: <a href="mailto:sales@vdiagtool.com">sales@vdiagtool.com</a>

Invent with us, test products before they hit market, help us make better products for everyone:

E-mail: <u>inventers@vdiagtool.com</u>

Create social media content, post online and help our community:

E-mail: marketing@vdiagtool.com

Follow Us on Social Media



Facebook Page: Search for "vdiagtool"

Facebook User Group: Search for "VDIAGTOOL OFFICIAL User Group"

Instagram: Search for "vdiagtool\_official"

**TikTok:** Search for "vdiagtool\_us"

YouTube: Search for "Vdiagtool Official"

## **Compliance Information**

## **FCC Compliance**

FCC ID: 2BE93VDT800

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- 1) This device may not cause harmful interference
- 2) This device must accept any interference received, including interference that may cause undesired operation.

#### Warning

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### Note

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment can generate, use and radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### **ISED Statement**

IC: 32118-VDT800

Model: VDT800, VD80, VD80S, VD80 BT, VD80 PLUS, VD80 PRO, VD80 MAX, VD80 ELITE, VD80BT PRO, VD80BT LITE, VD80BT ELITE, IM80, IM80 BT, IM80 PRO, IM80 LITE, IM80 MAX, VD80 TP, VD80 EV

PMN: VDT800, VD80, VD80S, VD80 BT, VD80 PLUS, VD80 PRO, VD80 MAX, VD80 ELITE, VD80BT PRO, VD80BT LITE, VD80BT ELITE, IM80, IM80 BT, IM80 PRO, IM80 LITE, IM80 MAX, VD80 TP, VD80 EV

HVIN: VDT800

English: This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

CAN ICES (B) / NMB (B).

French: Cet appareil contient des émetteurs/récepteurs exempts de licence qui sont conformes aux RSS exemptés de licence d'Innovation, Sciences et Développement économique Canada. L'exploitation est soumise aux deux conditions suivantes :

- (1) Cet appareil ne doit pas provoquer d'interférences.
- (2) Cet appareil doit accepter toute interférence, y compris les interférences susceptibles de provoquer un fonctionnement indésirable de l'appareil.

This device meets the exemption from the routine evaluation limits in section 6.6 of RSS 102 and compliance with RSS 102 RF exposure, users can obtain Canadian information on RF exposure and compliance.

cet appareil est conforme à l'exemption des limites d'évaluation courante dans la section 6.6 du cnr - 102 et conformité avec rss 102 de l'exposition aux rf, les utilisateurs peuvent obtenir des données canadiennes sur l'exposition aux champs rf et la conformité.

This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment.

Cet équipement est conforme aux limites d'exposition aux rayonnements du Canada établies pour un environnement non contrôlé.

The device for operation in the band 5150 – 5350 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

L'appareil destiné à fonctionner dans la bande 5150-5350 MHz est uniquement destiné à une utilisation en intérieur afin de réduire le potentiel d'interférences nuisibles aux systèmes mobiles par satellite cocanaux.

This radio transmitter has been approved by Industry Canada to operate with the antenna types listed with the maximum permissible gain indicated. Antenna types not included in this list, having again greater than the maximum gain indicated for that type, are strictly prohibited foruse with this device.

Le présent émetteur radio a étéapprouvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

### **Specific Absorption Rate (SAR) information:**

This device meets the government's requirements for exposure to radio waves. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific

studies. The standards include a substantial safety margin designed to assure the safety of all persons regardless of age or health. FCC/ISED RF Exposure Information and Statement the SAR limit of FCC/ISED is1.6 W/kg averaged over one gram of tissue. Device types: This device has also been tested against this SAR limit. This device was tested for typical body-worn operations with the back of This device kept 0mm from the body. To maintain compliance with FCC/ISED RF exposure requirements, use accessories that main tain an 0mm separation distance between the user's body and the back of This device. The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with FCC/ISED RF exposure requirements, and should be avoided.

### In formations sur le débit d'absorption spécifique (DAS) :

Ce dispositif répond aux exigences du gouvernement en matière d'exposition aux ondes radio. Les directives sont basées sur des normes élaborées par des organisations scientifiques indépendantes grâce à une évaluation périodique et approfondie d'études scientifiques. Les normes comprennent une marge de sécurité substantielle conçue pour assurer la sécurité de tous. Informations et déclaration FCC/ISED sur l'exposition aux RF la limite SAR de la FCC/ISED est de 1,6 W/kg en moyenne sur un gramme de tissu. Ce dispositif a également été testé par rapport à cette limite SAR. Cet appareil a été testé pour des opérations typiques portées sur le corps avec l'arrière du système d'alarme mobile personnel maintenu à 0 mm du corps. Pour maintenir la conformité aux exigences d'exposition RF FCC/ISED, utilisez accessoires L'utilisation d'accessoires qui ne satisfont pas à ces exigences ne peut maintenir une distance de séparation de

0 mm entre le corps de l'utilisateur et Ce dispositif. L'utilisation de clips de ceinture, d'étuis et d'accessoires similaires ne doit pas contenir de composants métalliques dans son sont conformes aux exigences d'exposition RF FCC / ISED et doivent être évitées.

### CE

#### **Declaration of conformity**

Hereby, Shenzhen VDIAGTOOL Technology Co., Ltd. declares that this Smart Diagnostic System is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. In accordance with Article 10(2) and Article 10(10), this product allowed to be used in all EU member states.

### **UKCA**

Hereby, Shenzhen VDIAGTOOL Technology Co., Ltd. declares that this Smart Diagnostic System satisfies all the technical regulations applicable to the product within the scope of UK Radio Equipment Regulations (SI 2017/1206); UK Electrical Equipment (Safety) Regulations (SI 2016/1101); and UK Electromagnetic Compatibility Regulations (SI 2016/1091) and declare that the same application has not been lodged with any other UK Approved Body.