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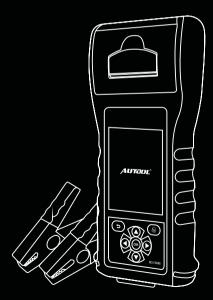




AUTOOL BT760

Battery System Tester

User Manual



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Trademark

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Attention

- Non- technical person shall not change, disassemble or repair the product, otherwise all losses caused by this shall be bared by the user himself.
- Please do not scratch, bend, twist or stretch the wires. Do not place the wires in high temperature. Do not press hard or decompose the accessories.
- Please do not place nails, pins, and other small debris on the charging port, in order to avoid damaging the charging connector.
- Do not place the product in unstable place such as high altitude area, slope, or shelf.
- This product is powered by electricity and should not be used as a toy for children.

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- To avoid short circuit, do not immerse the product in water or other liquid.
- Please try to use the power supply and power cord supplied by manufacturer as standard.
- Please do not expose this product to strong light or high temperature when it's not at use.

Product Summary Product Profile

Autool BT760 battery tester adopts the world's most advanced conductance testing technology, it is designed with built-in printer. BT760 can quickly and accurately measure the actual cold starting current of the starting batteries of automobiles and motorcycles, the health condition of the batteries, and it can quickly detect common failures of the starting systems and charging systems of cars and motorcycles, which is convenient for the rapid maintenance of cars and motorcycles

- BT760 can do tests on automotive and motor batteries such as battery test, cranking test, charging test and maximum load test.
- Test all automotive cranking lead acid battery, including ordinary lead acid battery, AGM flat plate battery, AGM spiral battery, and Gel battery, etc.
- Directly detect bad cell battery.
- Polarity reverse connection protection, reverse connection will not damage the tester or affect the vehicle and battery.
- Directly test the battery with power shortage, no need to fully charge it before testing.
- Testing standards include currently the world's majority of battery standards, CCA, JIS, DIN, IEC, EN, SAE, GB.

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 Support multiple languages, customer can select different language package, which including English, Russian, Spanish, French, German, etc. Other customized language version are also provided.

Product Function

- Battery test is mainly targeted to analyze the battery healthy status to calculate the actual cold cranking capability of the battery and the aging extent, which provide reliable analysis evidence for the test and maintenance of the battery. It notifies the user to replace battery in advance when the battery getting aged.
- Cranking test is mainly to test and analyze the starting motor. Through testing the actual required cranking current and cranking voltage of the starting motor, it can find out whether the starting motor works fine. There are several reasons why the starting motor is abnormal: lubricating system fault causing the starting loaded torque increasing or rotor friction of the starting motor causing the increasing friction of the starting motor itself.
- Charging test is to check and analyze the charging system, including generator, rectifier, rectifier diode, etc., thus to find out whether the output voltage of the generator is normal, the rectifier diode works fine and the charging current is normal. Suppose one of the above mentioned parts is not in normal situation, it will lead to over charge or incomplete charge of the battery, thus the battery will be quickly damaged and also greatly shorten the using life of other loaded electrical appliance.

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- Load test is the test of battery pack, DC power supply, UPS backup battery maintenance and capacity detection.
- Additional functions include: language setting, voltmeter and screen brightness adjustment.

Technical Parameters

- Cold Cranking Amps Measure Range:
 CCA (USA): 20-3000; IEC (International): 20-2500;
 EN (Europe): 20-3000; DIN (Germany): 20-2500;
 JIS (Japan): 26A17-N200Z; Other Species.
- Voltage Measure Range: 6v~ 30v DC.
- Current Measure Range: 4 AH~ 240AH.
- Working temperature: -20°C~ 50°C
- Shell material: Acid resistant ABS material

Working Steps

It is applicable for automotive manufacturers, automotive maintenance and repair workshops, automotive battery factories, automotive battery distributors, and educational organizations, etc.

Pre-test Connect Tester

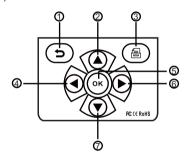
Shake the clamps back and forth to make sure they are well connected. Tester requires the two clamps well connected with the battery poles, otherwise, the test can not go on. The red to the positive and the black to the negative, then the tester display will show the starting interface.

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 When the measured battery voltage is lower than 6.0V, the normal test cannot be performed. Press OK to continue.

Key Description

- Up / Down /Left /Right /Key(2,7,4,6)
 Select upwards or downwards via white UP and DOWN keys.
- Return key(1)
 Return to previous menu via return key.
- OK key(5)
 Confirm the selection via green OK key
- Print key(3)



Start Tester

According to the tester's prompt, press the up and down keys to select in sequence:

- ①Battery system test
- 2 Starting system test
- ③Charging system test
- 4 Load test
- ⑤Language setting
- 6 Help



Select Language

Press UP/DOWN key to select the Language, include English, French, German, Spanish, etc.



Battery Test

 After entering battery test program, tester will show the battery types for you to choose.



 After choosing right battery type, the tester will display the following content.



· Press OK key to Start Testing.

Regarding internal resistance, for the same battery, the smaller the internal resistance, the better the health status (except for short circuit). The internal resistance value can be used as a reference for the state judgment standard of a certain range of battery performance.





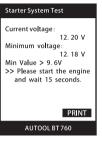
Note:

- When the battery voltage is lower than the normal test voltage, the test value cannot correctly determine the battery usage status, and the test result will display "Charge Retest". At this time, you need to charge the battery before testing.
- When the battery voltage is too high or the vehicle is running, the test cannot be performed normally, it will prompt "The voltage is too high, please stop the fire! Turn on the headlights for 3 minutes before measuring".
- For batteries that are deeply in deficit (such as when the vehicle is not in use for a long time and the battery is not charged in time; the lights and car doors are forgotten to be closed, causing the battery to fail due to severe battery failure and cannot start the vehicle, etc.), the actual detection process may also prompt "Please replace the battery". Such a battery, please consult the battery manufacturer first, and perform the test after charging and restoring according to the charging method provided by the manufacturer.

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Starter System Test

After the battery test is completed, press the up and down keys to select the starter system test, and press the OK key to enter the test state.





Charging Test

In the main menu, press the up and down keys to select the charging system test. Press the OK key to enter the test. At this time, start the engine. After waiting for stable operation, press the OK key to display the test status.





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Note: Please do not shut down the engine during the test. Other electrical equipment should be turned off. If any electrical appliances in the car are switched on or off during the test, it can affect the accuracy of the test results.

Under different engine operating conditions, the battery voltage will be different. Under normal conditions, the charging voltage will not be lower than the minimum value of 13.3V, and it should not be higher than 15.0V at high speeds.

Charging voltage is too low:

- The charging voltage of the charging system is insufficient.
- Please check the generator drive belt for slippage or disconnection, and check whether the line connection between the generator and the battery is normal.
- If the transmission belt and line are well connected, please follow the suggestions of automobile and motorcycle manufacturers to eliminate the generator fault.

Charging voltage is too high:

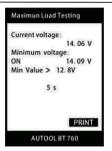
- The generator output voltage is too high.
- Since most car generators use built-in regulators, you need to replace the generator assembly (some older cars use external regulators, please replace the regulators directly).
- The usual high voltage limit for automotive regulators is 14.7V.
 Excessive charging voltage can overcharge the battery, which shortens the battery life and causes it to malfunction.

Maximum Load Test

In the main menu, press the up and down keys to select the load test, and press the OK key to enter the test, notice:

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Start the engine at this time, wait for the operation to stabilize, and then press OK to display the test status.

When all electrical appliances are turned on, under normal circumstances, the power supply capacity of the generator is sufficient, and the charging voltage will be greater than 12.8V. If it is lower than this voltage value, the reason may be that the generator output current is insufficient, the generating power is reduced, or the appliance Excessive load or leakage occurs; if the electric appliances on the car are artificially increased, the voltage will also decrease.

Printing Data

 battery test printing, After the battery system test is completed, there is a "print" item in the lower right corner of the screen. At this time, press the shortcut key of "select Print function", the printer of the tester will start to work, and the test result data of the battery system will be displayed on the print paper.

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 start test result, charge test result and maximum load test result printing, all of which are printed in the same way as battery test result printing.

Note: if you want to print four data items on the printing paper at the same time, please do not tear off the printing paper until the four data items are printed.

Warranty

There are 3 years' warranty for AUTOOL product main unit and 1 year warranty for the accessories since the day the customers have received the product parcel.

Warranty Access

- Repair or replace the equipment will be done according to the specific fault conditions;
- We guarantee that all replacement parts, accessories or equipment are brand new;
- When there is a product breakdown that can not be solved within 90 days, customer should provide video and pictures as proof, we will bear the freight cost and provide customer the accessories in need to replace. After receiving the product for more than 90 days, the customer shall bear the freight cost, we will provide the accessory for free to replace.

Warranty not Covered in Conditions Listed Below

 Product is bought through non-official AUTOOL purchase channel.

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 Product failure is caused by incorrect use of the product, use for other wrong purpose or human factors.

Disclaimer: The AUTOOL Technology Co, Ltd. reserves the right to change product designs and specifications without prior notice. The physical appearance and color may differ from those shown in the instruction manual. Please refer to the actual product. If you have any question, please contact the dealer or the Autool service center. The company have the final explanation right of product and shall not bear any consequences due to misunderstanding.

注册商标

偶然公司已在中国及海外若干国家进行了商标注册,其标志为 **AUTOOL**"。本手册所提及之偶然公司其它商标、服务标志、域 名、图标、公司名称均属偶然及其下属公司之产权。在偶然公司之商标、服务标志、域名、图标、公司名称还未注册之国家,偶然公司声明其对未注册商标、服务标志、域名、图标、公司名称之所有权。本手册所提及之其它产品及公司名称的商标仍属于原注册公司所有。在未得到拥有人的书面同意之前,任何人不得使用偶然公司或所提及的其它公司之商标,服务标志,域名,图标,公司名称。您如有任何疑问,可以访问偶然网址:www.autooltech.com,或发送邮件至:aftersale@autooltech.com,与偶然公司联系。

注意

- 非技术人员不得私自改造,拆卸或维修本产品。
- 请勿刺划、弯折、扭曲、拉伸电线,且勿将电线置于高温处。
- 请勿将钉子、针等其他细小杂物置干线路接口,以免损坏。
- 请勿将产品置于斜面、支架等不稳的位置使用。
- 使用本产品请仔细阅读本说明书。
- 本产品通电使用,请勿让儿童当玩具使用。
- 请勿把本产品浸入水或其他液体中,可能发生短路。
- 请勿自行拆卸修理本产品,因此会带来保修损失的风险。
- 请尽量使用本产品标配连接线。

产品介绍

BT760蓄电池检测仪,采用目前世界上最先进的电导测试技术,可以方便、快速、准确的测量汽车起动电池的实际冷起动电流能力,

电池本身的健康程度,以及快速检测汽车启动系统和充电系统的 常见故障,有利于维修人员快速准确判断汽车的故障位置,便于 汽车的快速维修。

- BT760电池测试仪的主要功能包括:电池测试,起动测试,充电测试和其他附加功能。
- 测试所有汽车启动式铅酸电池,包括普通铅酸电池,AGM平板 电池,AGM螺旋电池和凝胶电池等。
- 直接检测出坏电池。
- 极性反接保护、反接不会损坏测试仪或影响车辆和电池。
- 直接测试电池是否断电,测试前无需充满电。
- 测试标准包括当前世界上大多数的电池标准:CCA,JIS,DIN,IEC,EN,SAE,GB。
- 支持多国语言,客户可以选择不同的语言包,包括:中文,日文,英文,俄文,西班牙文,法文,德文等。其他语言也可以根据用户需要定制。

产品功能

- ◆ 快速测试摩托车,汽车12V/24V蓄电池冷启动电流、内阻、电池 寿命及剩余电量,判定蓄电池是否需要更换;
- 检测12V/24V汽车启动系统和充电系统,可通过电压负荷测试检测发电机供电能力,并打印出测试结果。

产品特点

- 快速、准确地显示蓄电池测试结果;
- 显示蓄电池目前的健康状况,直接检测出坏格电池;
- 直接打印检测结果:
- 可以直接测试亏电的蓄电池;
- 不发热,无火花,无操作危险。

产品参数

● 测量标准与测量范围:

CCA (USA): 20-3000; IEC (International): 20-2500; EN (Europe): 20-3000; DIN (Germany): 20-2500; JIS (Japan): 26A17-N200Z; Other Species.

工作温度: -20°C 到 50°C.
外壳材料: 耐酸 ABS 塑料.
测量电池范围: 4AH-240AH.
测量电压范围: 6V-30V.

操作方法

- 预测试
- 连接测试仪

前后摇动夹子,以确保它们连接牢固。测试仪要求两个夹子与电 池两极连接良好,否则测试将无法进行。当进入电池测试程序 时,屏幕提示按任意键继续。测试仪具有反向连接保护功能。反 向连接夹具时,测试仪的屏幕不会亮起,但不会损坏测试仪或汽 车负载。

注意:对于并联电池,请先断开阴极连接,然后对每个电池进行 一次测试。假设未断开阴极连接,则测试结果会有误差。

● 测试仪启动 正确连接夹具后,测试仪会自动启动,并显示功能主界面,请参 见图1。



图1.功能主界面

● 选择语言

按上/下/左/右键选择语言,包括英语,法语,德语,俄语,波兰语,西班牙等。见图2。



图2

● 电池测试

进入电池测试程序后,测试仪将显示电池类型选择。见图3。输入电池规格。见图4。







图3.

图4.

输入正确的测试标准和等级,按OK键,测试仪开始测试,并提示"测试中,请稍后"。见图5,2秒后,测试仪将显示电池测试结果。见图6。





图5.

图6.

● 启动测试

进入启动测试程序后,测试仪将显示启动系统检测,并提示启动 发动机,等待15秒。见图7。





启动发动机,等待15秒后,测试仪将显示启动系统检测结果。见 图8。



• 充电测试

进入充电测试程序后,测试仪将提示启动发动机,等待15秒! 按 <OK>键开始检测。见图9。



启动发动机,等待15秒后,测试仪将显示充电系统检测结果。见 图10。



● 最大负荷测试

进入最大负荷测试程序后,测试仪将提示请开启全部用电设备, 启动发动机,等待15秒!按<OK>键开始检测。见图11。



图11.

开启全部用电设备后,启动发动机,等待15秒! 按<OK>键开始检测后,测试仪将显示最大负荷测试结果。见图12。



图12.

打印测试数据

- 电池测试打印
- 电池系统测试完成后,屏幕右下角有一项"打印",此时可按<选 打印功能>快捷键,测试仪自带的打印机开始工作,打印纸上将显 示电池系统检测结果数据。
- 启动测试打印,充电测试打印,最大负荷测试打印,这三项数据打印都与电池测试打印方式相同。

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注意:如果想将四项数据同时打印在打印纸上,逐一打印数据结果时,请不要将打印纸撕下,直到将四项数据打印完即可。

帮助

进入帮助程序后,测试仪显示电池表格。此表格有三页,可按<左/右>键选择。

售后保修:

AUTOOL 整机自客户签收日起享有3年保修期,附件1年保修期。 保修方式:

- 根据具体的故障情况对设备进行修理或更换;
- 我方保证所有更换的部件、附件或设备都是全新;
- 在客户收到产品90天内出现故障同时提供视频和图片,我方承 担运费并免费提供相应配件给客户更换。收到产品超过90天, 客户承担相应的费用,我方免费提供配件给客户更换。

以下情况不再免费保修范围:

- 非正规渠道购买AUTOOL的产品;
- 未按产品说明书要求使用和维护造成的损坏。

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