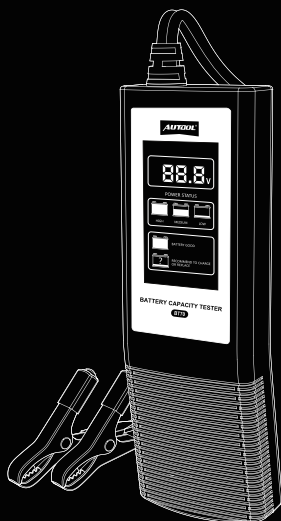


AUTOOL BT70

Battery Capacity Tester

User Manual

用户手册





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CAUTIONS

Warning

⚠ This manual includes instructions for using the instrument and warnings for safe operation and how to maintain it. Please use the battery tester device strictly according to the manual. This device strictly complies with GB4793. Safety requirements for electronic measuring instruments and IEC/EN61010-1 safety standards for design and production.

- ▶ This product is suitable for the detection of 12V and 24V car batteries.
- ▶ The working voltage range is 8 volts to 30 volts with direct current (DC).
- ▶ When the battery is in just fully charged state, the voltage will be slightly higher than the normal value. Please turn on the headlights for 2~3 minutes and wait for the voltage to drop back to normal before testing.
- ▶ Before use, check whether the insulating layer of the test clamps is intact, damaged, exposed, or disconnected. It is strictly prohibited to use the back cover before it is closed, otherwise, there is a danger of electric shock.
- ▶ Do not use or store the device in harsh environments such as high temperature, high humidity, flammable, explosive, and strong electromagnetic fields.
- ▶ Do not change the internal wiring of the device at will to avoid damage to the meter.
- ▶ If the car engine is running, do not put the equipment and accessories next to the engine or exhaust pipe to avoid damage by high temperature.

PRODUCT INTRODUCTION

Introduction

The BT70 is a battery tester tool for testing the performance of start-up lead-acid batteries. The device uses a large-screen LCD display, and the test process and results can be displayed through sound alarms and icons. The internal protection of the device has been strengthened to prevent it from reverse polarity connection, high voltage access and

poor test clamp contact, which ensure more security and convenience in the operation.

Parameter

Battery type	12V	24V
Low voltage	$\leq 10.5V$	$\leq 21.0V$
Medium voltage	10.6~11.8V	21.1~23.7V
High voltage	$\geq 11.9V$	$\geq 23.8V$

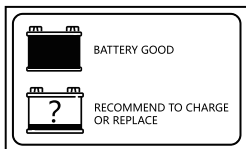
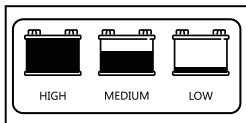
PRODUCT ICONS AND DESCRIPTION

Description of icons and test clamps:

- Voltage display:



- Battery status: high, medium, low ;

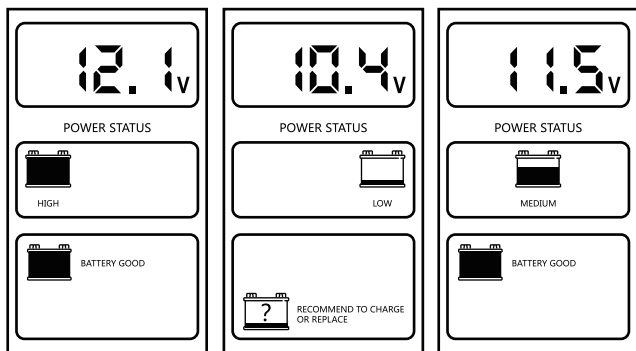


- Determined Recommendation by status: good, charge or replace;
- Red test clamp: Positive wiring test clamp;
- Black test clamp: Negative wiring test clamp.

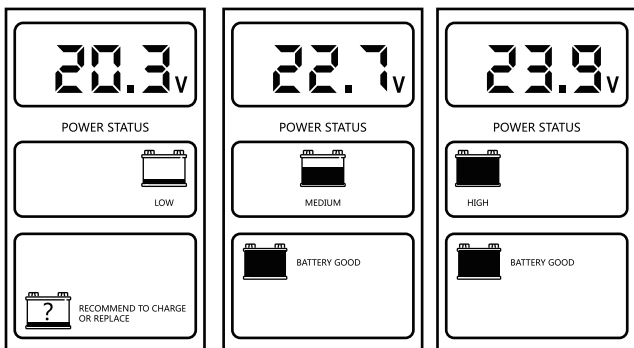
FUNCTION INSTRUCTIONS

The voltage detector has two modes: 12V/24V. After the device is powered on, it will automatically identify the 12v or 24v battery voltage type and display the measured voltage and battery status on the LCD screen.

- **Example display of 12V battery:**



- **Example display of 24V battery:**



INSTALLATION INSTRUCTION

After confirming that the car battery is in normal condition, please install it in the following order.

- Simply connect the red clamp to the positive of the battery, and the black clamp to the negative of the battery, then the battery tester device is connected with the car battery. Pay attention to ensure good contact, so as not to affect the test results.
- After the connection is completed, the battery tester will automatically detect and identify the 12V or 24V battery voltage type, and its voltage value and battery status will be displayed on the LCD screen.
- The principle process of this product is:
After power on, the buzzer will beep once, and the 12V/24V battery will be automatically detected and displayed. The indicator lamp lights up one after another and the voltage is detected after three cycles of operation, and the battery status is judged. After the test is completed, the buzzer beeps once, and the LCD screen displays the voltage value and battery status.



PRECAUTIONS

- ▶ If the voltage reading is greater than 15.0V (for a 24V system, the reading is greater than 30.0V), please check if there is a problem with the voltage regulator.
- ▶ If the voltage reading is less than 13.3V (for a 24V system, the reading is less than 26.6V), please check the connection, wires, and generators.
- ▶ If the voltage reading is less than 12.8V (for a 24V system, the reading is less than 25.6V), please check whether the generator belt is worn out and the wires are short-circuited.



PRECAUTIONS

- ▶ The engine starting performance of the battery varies with factors such as temperature, and the starting performance at low temperatures is poor. Therefore, even if the battery decays to the same extent, it shows a poorer starting performance at low temperatures than at room temperature.
- ▶ Since this product diagnoses the engine starting performance of the battery based on the engine starting characteristics of the vehicle, this result may differ from that of a battery tester.
- ▶ If an external power supply is used to start the engine through the booster cable, the correct engine starting performance will not be displayed. (Usually, the engine starting will show the correct engine cranking performance.)
- ▶ If the motor is turned without stepping on the clutch while the manual vehicle is in gear, the correct engine starting performance will not be displayed. (Usually, the engine starting will show the correct engine cranking performance.)



PRECAUTIONS

- ▶ When the battery voltage is detected as low voltage, the buzzer will beep five times, wait for three seconds and then cycle, then the "CHARGE" or "REPLACE" icon will light up.
- ▶ When the battery voltage is detected as medium voltage or high voltage, the "BATTERY GOOD" icon lights up.

MAINTENANCE / INSPECTION

Clean car battery lifespan diagnose unit

- Wet the cloth with water, wring out, and wipe the dirt.
- Do not wipe with a dry cloth or other materials that may generate static electricity.
- Do not use volatile oil (petroleum), thinner, gasoline and other organic solvents as cleaning agents.

Installation inspection of connectors

- Make sure the test clamps are well-connected.
- If it is loose, the test clamp needs to be reconnected and fixed.

MAINTENANCE SERVICE

- Our products are made of long-lasting and durable materials, and we insist on perfect production process. Each product leaves the factory after 35 procedures and 12 times of testing and inspection work, which ensures that each product has excellent quality and performance.
-

Maintenance

To maintain the performance and appearance of the product, it is recommended that the following product care guidelines be read carefully:

- Be careful not to rub the product against rough surfaces or wear the product, especially the sheet metal housing.
- Please regularly check the product parts that need to be tightened and connected. If found loose, please tighten it in time to ensure the safe operation of the equipment. The external and internal parts of the equipment in contact with various chemical media should be frequently treated with anti-corrosion treatment such as rust removal and painting to improve the corrosion resistance of the equipment and extend its service life.
- Comply with the safe operating procedures and do not overload the equipment. The safety guards of the products are complete and reliable.
- Unsafe factors are to be eliminated in time. The circuit part should be checked thoroughly and the aging wires should be replaced in time. Adjust the clearance of various parts and replace worn (broken) parts. Avoid contact with corrosive liquids.
- When not in use, please store the product in a dry place. Do not store the product in hot, humid, or non-ventilated places.

WARRANTY

- From the date of receipt, we provide a three-year warranty for the main unit and all the accessories included are covered by a one-year warranty.
-

Warranty access

- The repair or replacement of products is determined by the actual breakdown situation of product.
- It is guaranteed that AUTOOL will use brand new component, accessory or device in terms of repair or replacement.
- If the product fails within 90 days after the customer receives it, the buyer should provide both video and picture, and we will bear the shipping cost and provide the accessories for the customer to replace it free of charge. While the product is received for more than 90 days, the customer will bear the appropriate cost and we will provide the parts to the customer for replacement free of charge.

These conditions below shall not be in warranty range

- The product is not purchased through official or authorized channels.
- The product breakdown because the user does not follow product instructions to use or maintain the product.

We AUTOOL pride ourselves on superb design and excellent service. It would be our pleasure to provide you with any further support or services.

Disclaimer

- All information, illustrations, and specifications contained in this manual, AUTOOL reserves the right of modify this manual and the machine itself with no prior notice. The physical appearance and color may differ from what is shown in the manual, please refer to the actual product. Every effort has been made to make all descriptions in the book accurate, but inevitably there are still inaccuracies, if in doubt, please contact your dealer or AUTOOL after-service centre, we are not responsible for any consequences arising from misunderstandings.

RETURN & EXCHANGE SERVICE

Warranty access

- If you are an AUTOOL user and are not satisfied with the AUTOOL products purchased from the online authorized shopping platform and offline authorized dealers, you can return the products within seven days from the date of receipt; or you may exchange it for another product of the same value within 30 days from the date of delivery.
- Returned and exchanged products must be in fully saleable condition with documentation of the relevant bill of sale, all relevant accessories and original packaging.
- AUTOOL will inspect the returned items to ensure that they are in good condition and eligible. Any item that does not pass inspection will be returned to you and you will not receive a refund for the item.
- You can exchange the product through the customer service center or AUTOOL authorized distributors; the policy of return and exchange is to return the product from where it was purchased. If there are difficulties or problems with your return or exchange, please contact AUTOOL Customer Service.

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安全规则及注意事项



本手册包括使用仪表说明和安全操作警告及如何保养。不按手册说明使用仪表可能造成损坏。本仪表严格遵循GB4793.1电子测量仪器安全要求以及IEC/EN61010-1安全标准进行设计和生产。

- ▶ 本产品适用于12伏特及24伏特汽车蓄电池的检测。
- ▶ 工作电压范围与直流 (DC) 8伏特~ 30伏特。
- ▶ 电瓶于刚充饱状态电压会略高于正常值，请开启大灯2~3分钟，待电压降回正常值再行测量。
- ▶ 使用前应检查测试夹钳绝缘层完好，无破损、裸露及断线。后盖没有盖好前严禁使用，否则有电击的危险。
- ▶ 不要在高温、高湿、易燃、易爆和强电磁场中使用和存放仪表。
- ▶ 请勿随意改变仪表内部线路，以免损坏仪表和安全。
- ▶ 在测试或修理汽车时要戴合格的眼罩以防止引擎带起异物飞入眼睛。
- ▶ 请在通风良好的环境下运行及维修汽车，以防吸入有毒的气体。
- ▶ 如汽车引擎在运转，不要将仪表及配件放在引擎或排气管旁以免被高温损坏。
- ▶ 在维修汽车的时候，请严格遵守汽车维修手册上的相关规定。

产品简介

概述

- BT70系列蓄电池检测仪为启动型铅酸蓄电池性能检测工具。仪器采用大屏液晶显示，测试过程及结果可以通过声音报警和图标显示。内部使用精确电路和强大数字处理单元。仪器内部加强了防护，做到防止极性接反，防止电压接入过高，防止测试钳接触不良等，以保证在使用过程中更加安全方便。
-

参数

电池类型	12V	24V
低电压	$\leq 10.5V$	$\leq 21.0V$
中电压	10.6~11.8V	21.1~23.7V
高电压	$\geq 11.9V$	$\geq 23.8V$

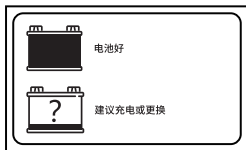
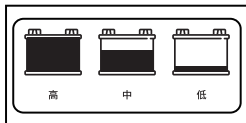
产品图标及说明

图标及测试钳功能介绍：

- 电压值显示



- 电池状态：高，中，低；

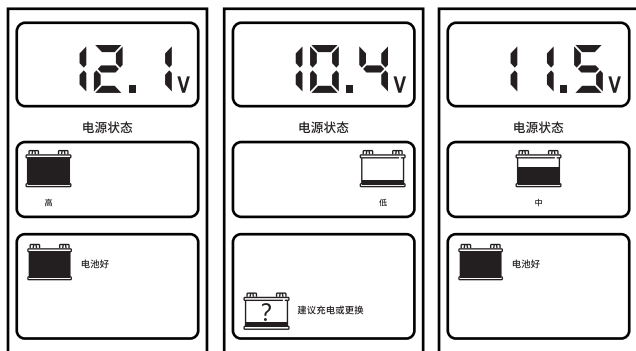


- 状态判定，好，充电或更换。
- 红色测试钳：正极接线测试夹；
- 黑色测试钳：负极接线测试夹。

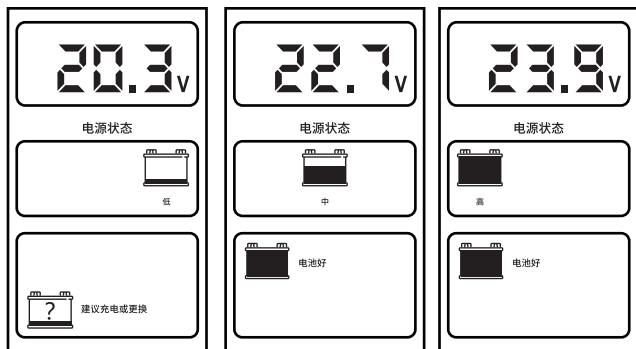
功能使用说明

电压检测仪有二种模式：12V/24V，设备通电开机后，自动识别12V or 24V 蓄电池电压类型，并将检测后测量的电压值和蓄电池状态显示在LCD屏上。

• 12V蓄电池状态显示示例：



• 24V蓄电池状态显示示例：



安装方式

确认汽车蓄电池状态正常后，请按以下顺序安装。

- 按红色测试钳接蓄电池正极，黑色测试钳接蓄电池负极（将点烟器线接头插入车辆的点烟器接口），接好仪器。注意必须良好接触，以免影响测试结果。
- 本产品连接完成后，蓄电池电压检测自动识别12V or 24V蓄电池电压类型，电压值和蓄电池状态通过LCD屏显示。
- 本产品运行流程：通电后，蜂鸣器鸣叫一声，自动检测12V/24V蓄电池并显示，跑马灯运行三圈后检测出电压，判断出蓄电池状态，检测完成后蜂鸣器鸣叫一声，LCD屏显示出电压值和蓄电池状态。

注意事项

- ▶ 如果电压读数大于15.0V(对于24V系统，读数大于30.0V)，请检查调压器。
- ▶ 如果电压读数小于13.3V(对于24V系统，读数小于26.6V)，请检查连接点，电线和发电机。
- ▶ 如果电压读数小于12.8V(对于24V系统，读数小于25.6V)，请检查发电机皮带是否磨损不堪使用，电线是否有短路。

注意事项

- ▶ 电池的发动机启动性能随温度等因素而变化，并且在低温下启动性能较低。因此，即使电池的衰减程度相同，也显示出低温下的启动性能低于常温下的启动性能。
- ▶ 由于本产品根据车辆的发动机启动特性来判断电池的发动机启动性能，因此该判断可能与蓄电池检测仪的判断有所不同。
- ▶ 如果使用外部电源通过增压电缆启动发动机，则不会显示正确的发动机启动性能。（通常，发动机启动会显示正确的发动机启动性能。）
- ▶ 如果在手动车挂入档位的情况下，不踩离合器而转动马达，则不会显示正确的发动机启动性能。（通常，发动机启动会显示正确的发动机启动性能）

注意事项

- ▶ 当蓄电池电压检测为低电压图标亮起时，蜂鸣器鸣叫五声，等待三秒后循环；充电或更换图标亮起。
 - ▶ 当蓄电池电压检测为中电压或高电压图标亮起时，电池良好图标亮起。
-

保养与检查

清洁汽车电池寿命判断单元

- 用水将布弄湿，拧干，然后擦拭。
- 请勿用干布或其他可能产生静电的材料擦拭。
- 请勿使用挥发油（石油），稀释剂，汽油等有机溶剂作为清洁剂使用。

接头安装情况检查

- 确保测试钳的连接没有松动。
- 如果松动，需重新将测试钳连接固定好。。

维修保养服务

- 您所拥有的AUTOOL产品选用持久耐用的材料，AUTOOL坚持精益求精的生产工艺，每一件产品出厂都经过35道工序及12次质检工作，从而确保每一件产品都拥有卓越的品质及性能。所以您的AUTOOL产品值得您定期维护保养，使其将能够长期稳定地工作。
-

维修保养

维护保养是为了保持产品性能和外观，我们建议您仔细阅读以下产品保养指南：

- 注意不要将产品与粗糙表面摩擦或揉搓产品，特别是钣金外壳。
- 对产品中需要紧固和连接的部位经常进行检查，如发现松动应及时紧固，以保证产品的安全运行。对与各种化学介质接触的产品外部和内部零件要经常进行除锈、喷漆等防腐处理，以提高产品的抗腐蚀能力，延长产品的使用寿命。
- 遵守安全操作规程，不超负荷使用产品。产品的安全防护装置齐全可靠，及时消除不安全因素。电路部分彻底检查，老化电线要及时更换。
- 定期清洗和更换油泵、滤油器等易耗部件；调整各部位配合间隙和更换磨损（已坏）部件清洁时，避免产品接触带腐蚀性的液态物品。
- 不使用时，请将产品存放于干燥的位置。不要将产品存放在高温、潮湿或不通风的地方。

保修服务

- AUTOOL主机自客户签收日起享有3年保修期。其所含附件自客户签收日起享有1年保修期。

保修方式

- 根据具体的故障情况对产品进行免费修理或更换；
- 我方保证所有更换的部件、附件或产品都是全新；
- 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；

以下情况不在免费保修范围：

- 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；

在AUTOOL，我们为精湛的设计和卓越的服务感到自豪。我们很乐意为您提供更多的支持或服务。

声明

- 偶然公司保留更改产品设计与规格的权利，届时恕不另行通知。实物外观与颜色可能与说明书中显示的有差别，请以实物为准。我们已尽最大努力力求使书中所有描述准确，但仍难免有不妥之处。如有疑问，请联系经销商或偶然售后服务中心。本公司对产品拥有最终解释权，不承担任何因误解而产生的后果。

退换货服务

退换货

- 如果您对从线上授权购物平台和线下授权经销商所购买的AUTOOL产品不满意，根据《AUTOOL全球销售条款》，您可以自收到产品之日起七日内退货；或者在产品交付之日起的30日内调换等值的其他产品。
- 退回及调换的产品必须处于完全可销售状态，并附上相关销售单据，所有相关配件、纸质发票（如有）。
- AUTOOL将会对寄回退货的商品进行检查，以确保其处于完好无损的状态并且符合条件，相关条件详情请参阅《AUTOOL全球销售条款》。任何未通过检查的商品将退还给您，您将不会获得商品退款。
- 您可以通过客户服务中心或AUTOOL授权经销商调换产品；退换货原则为从哪里购买，就从哪里退换货。如果您退换货遇见困难或者阻碍，请联系AUTOOL客户服务中心。通过客户服务中心退换货时，我们建议您通过下面的方式进行：

中国区域致电	400-032-0988 / 18929303778
售后微信号	18929303778
海外区域致电	+86 0755 23304822
E-mail	aftersale@autooltech.com
Facebook	https://www.facebook.com/autool.vip
YouTube	https://www.youtube.com/c/autooltech

- 如您的退换货得到确认，您将收到确认信息和邮件。