

BT-170 Car Battery Tester User Manual



BT-170 Car Battery Tester

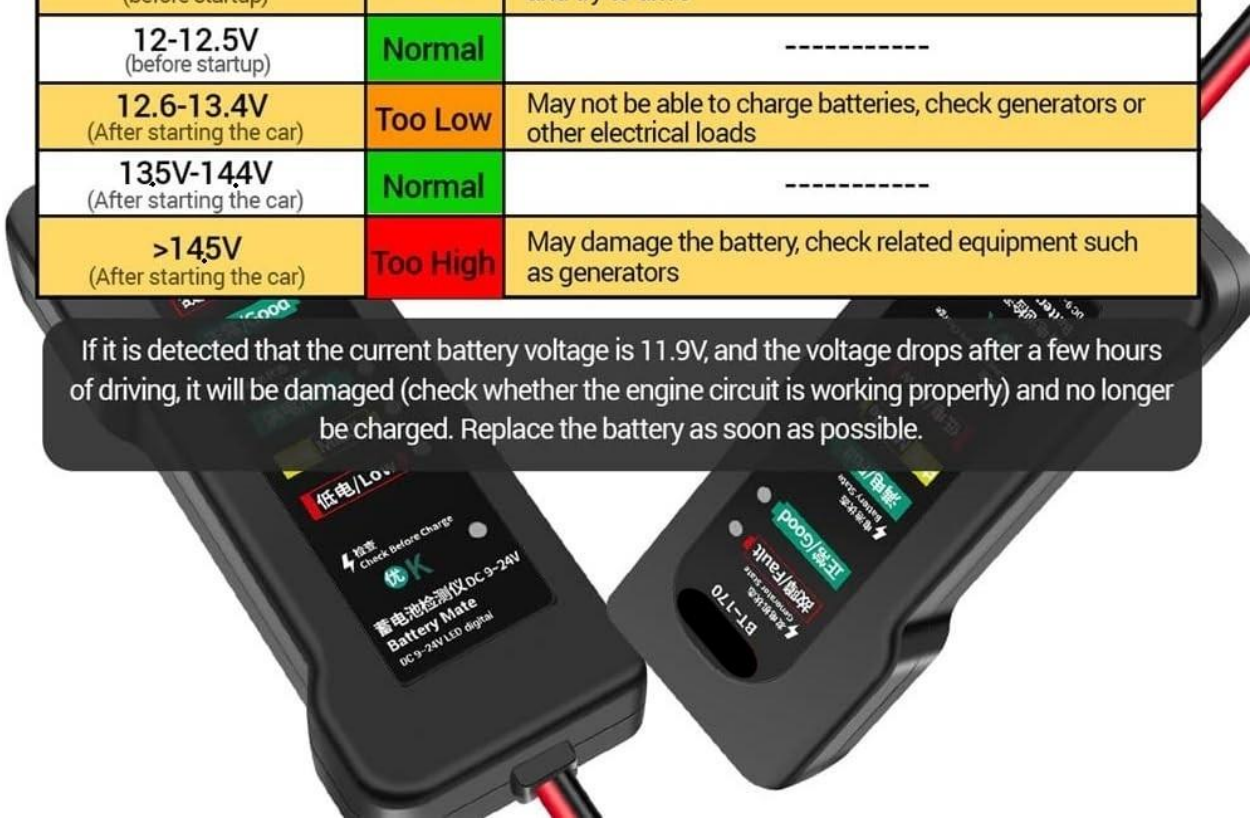


Battery detector

Car battery voltage reference table (12V battery)

Battery voltage	Result	Performance and solutions
< 11.4 (Before startup)	Too low	Unable to start the car, please replace the battery in time
11.4-11.8V (before startup)	LOW	Difficult to drive, please turn off other electrical appliances and try to drive
12-12.5V (before startup)	Normal	-----
12.6-13.4V (After starting the car)	Too Low	May not be able to charge batteries, check generators or other electrical loads
13.5V-14.4V (After starting the car)	Normal	-----
>14.5V (After starting the car)	Too High	May damage the battery, check related equipment such as generators

If it is detected that the current battery voltage is 11.9V, and the voltage drops after a few hours of driving, it will be damaged (check whether the engine circuit is working properly) and no longer be charged. Replace the battery as soon as possible.



Alligator clip

Pure copper plated material, wide range, Strong bite force, more accurate measurement



High Load State

The car has been started, "Fault" is on, the voltage is higher than 16V, and it is under high load, which will damage the battery and turn off some electrical appliances on the car

Prevent Flameout

The car is not started, "Middle" and "LOW" lights are on, 11.6V current voltage < 12.2V. The battery is medium, prevent flameout.



high load state

The car has been started, "Fault" is on, the voltage is higher than 16V, and it is under high load, which will damage the battery and turn off some electrical appliances on the car.



Sufficient and good power

The car is not started, the "Good" light is on, the current voltage is $\approx 14V$, and the battery is good



Check the car engine

The car has started, "Good" and "Fault" are on, $14V < \text{current voltage} < 16V$, the battery is damaged, please check the car engine in time.

Key Selling Points :

1. Robust & Safe Design – Overvoltage protection + reverse polarity detection to prevent damage.
2. Wide Compatibility – Tests 12V batteries in cars, EVs, boats, and generators.
3. User-Friendly Operation – Integrated alligator clips with strong grip + compact size for portability.
4. Professional-Grade Tool – Trusted by auto technicians, DIYers, and fleet managers.

Function:

1. designed for testing 12V battery voltage or charging system voltage
2. with LED display and LED battery status indicator
3. rubber body with alligator clips for connection
4. with reverse connection alarm and overvoltage protection function

Operation Instruction:

1. Correctly connect the instrument battery clip to the battery terminal ,the red clip connects to the positive pole”+”and the black clip connect to the negative pole”-“,if the connection is reversed, the LED display dose not show, PEVERSC indicator lights up and issues an alarm prompt
2. after the correct connection. the LED display will show the real time voltage of the battery under test, while the LED lights up to indicate the battery status.
3. when testing the generator charging system. please keep the tester and battery terminals correctly connected, and then start generator, the output voltage will be shown on the LED display screen, and the right LED indicator lights up to indicator the genrator status.



PART NO. BT170

12V BATTERY TESTER

For checking and testing the battery and the dynamo

Connections

Attach the cable clip of the red cable to the plus point (+) of the battery and the cable clip of the black cable to the minus point (-) of the battery.

Checking the dynamo

Connect the testing device. Start the engine and switch off the headlights, radio etc. Start the engine again and switch on the headlights, radio etc. In both cases, the green signal lamp "GOOD" must shine. The red signal lamp "Fault" will start to shine if the dynamo supplies no or very little voltage. Please check that the tester is connected correctly. Otherwise contact the car workshop.

Checking the charging level

Switch on the headlights for 1-2 minutes, then switch off again. Remove the cable clips from the battery, wait approx. 10 minutes and then switch the testing device on again. A signal lamp will shine according to the charging status of the battery indicating "FULL", "HALF-FULL" or "VERY LOW CHARGE".

Start capability of the battery

The battery needs to be charged up to the maximum. Remove the connection of the ignition coil and then connect the testing device. Try to start the vehicle using the key in the ignition switch. The engine cannot start (interrupted ignition). When the green signal lamp "BATTERY OK" starts to shine, the charging status of the battery is OK.

Comment: If the starter is not OK, the signal lamp "BATTERY OK" will start to go out regardless of the charging status of the battery.

WARNING! Only perform a start for 2-3 seconds otherwise your catalyst could become damaged!