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Mise à jour : 14/01/2005

INSTRUCTIONS MANUAL

<u>GAMMA</u>: TBP 500

BATTERY TESTER 12 V – 160 Ah max

- Voltmeter (0 to 16 V)
- Starter capacity
- Load circuit (alternator)

Important: This tester is provided of a sound buzzer, which will start after 15 seconds of test.

As soon as the ringing resounds, it is necessary to read quickly the results posted on the voltmeter and immediately give to zero the needle of the "DC-AMPS" while unscrewing the central button by several turns towards "OFF".

A / BATTERY TEST

The battery must be tested when it is at « rest ».

If the tension is > 12.6V or if it was used less than 15 minutes before the test, it is advisable to bring back it to its tension "rest".

2 possibilities:

- Light the headlights of the car during 5 seconds.
- Use TBP 500 TO 150A during 15 seconds (scale black of monitor "DC-AMPS")

Then leave the battery at rest during 10 minutes so that it is stabilized.

Test of tension

- Turn the button of TBP 500 to several turns towards the left « OFF » until the needle of monitor « DC-AMPS » is to 0.
- Put the red clamp at (+) of the battery
- Put the black clamp at (-) of the battery

If the needle of the voltmeter (monitor DC Volts) shows less that 12.4V, the battery must be reloaded and retested. If, after the new test, the battery is<12.4V, it should be replaced.

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The battery must be at least charged to 75% before the test.

- 1. Turn the button of TBP 500 to several turns towards the left "OFF" to bring the needle of monitor " DC-Amps" to 0.
- 2. Connect the red clamp on (+) of the battery and the black clamp on (-).
- 3. Turn the button of TBP 500 towards the right so that the needle of monitor DC-Amps posts on the green scale Amp/hours indicated by the battery. For the absence of Amp/hours, it is possible to post on the blue scale the intensity of starting CCA mentioned on the battery.

Then TBP 500 will provide a discharging current (Amps) in the battery, readable on the black scale.

- 4. Maintain this current for 15 seconds. A ringing will resound.
- 5. Read on the monitor of right-hand side "DC-Volts" the tension and locate the positioning of the needle on the scale "Battery Test", then unscrew immediately the central button by several turns to give the needle "DC-Amps" to 0.
- 6. The battery is bad if the needle is in the red zone "Replace". The battery is good if the needle is in the green zone "OK".

Notice: TBP 500 products the heat in use. Wait 15 minutes between the tests so that it cools.

B / TEST OF THE LOAD CIRCUIT

- 1. Connect the TBP 500 as for the test of the battery's state.
- 2. Start the engine of the car so that it reaches its normal temperature of operation.
- 3. Make turn the engine between 1200 and 1500 turns.
- 4. Read the results on the scale "ALT®.TEST "of the monitor to the right-hand side.

If the needle is in the red part "LOW", there is a problem in the load circuit. If the needle is in the red part "HI", the load circuit probably causes on the overload of the battery.

C / TEST OF THE CIRCUIT 12V STARTER

This makes to know if there is a starter current excessive problematic for starting and being able to generate a reduction of the battery's lifespan.

With this intention, the battery must be assembled in temperature.

- 1. The red clamp is on (+) of the battery; the black clamp is on (-).
- 2. Start the engine and note the tension on the monitor to the right-hand side during the starting.
- 3. If the tension is ≤ 9 Volts, the current is too high. That can be due either to bad connections, either to the failure of the starter, or with the size of the too weak battery compared to the needs of the car.