

# Problems with your 12V Booster?

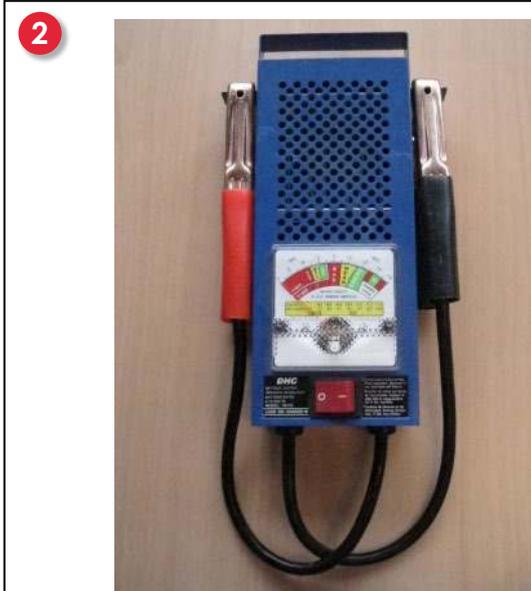
**Check this Trouble Shooting Manual  
for your answer**

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**1. TOOLS REQUIRED**



Digital Multimeter with 2 decimals



Battery Tester (Amps)



a 'Voltage' position   b 'Buzzer' position



Phillips Head Screwdriver



2 X 8mm Spanners  
and 2 X 10mm Spanners

## 2. FIRST TESTS TO CONDUCT

### 2.1 Measure the Voltage at the Clamps

With your Digital Multimeter you can measure the precise voltage of your battery.

- Directly connect both terminals of your multimeter to the clamps: The red terminal on the red clamp and the black terminal to the blue clamp. You will be able to see the exact voltage.



#### If your reading is 0 Volts:

- The Internal Fuse may have blown (see point 3.1)
- The battery may be short-circuited (dead)
- An internal cell of the battery has melted after a short-circuit or a too long starting attempt



#### If your reading is between 1 and 12.4 Volts:

- The Booster hasn't been charged (Recharge it for at least 24 hours)
- The Booster will not charge anymore:
  - » The charger does not work anymore (see point 3.6)
  - » The female cigarette charging plug of the Booster is disconnected inside the Booster (see point 3.3)
  - » The 16A external fuse has shut down OR is defective (see point 3.2)



#### If your reading is 12.4 Volts or more:

- An Amp test will be necessary in order to measure the exact cranking amps level left in the battery. (See point 2.2)

## 2.2 Testing the power (Amps)

You will need to take the back cover of the Booster off to gain access to the battery.

- Connect the red clamp of your tester to the positive terminal of the battery and the black clamp to the negative terminal of the battery.
- Turn the tester on for 10 seconds, then check the reading for the cranking amp level of your battery.



If the meter shows a reading in the **Green zone**, the power level of your battery is OK.

In this Green zone :

- A Micro 660, 700, 760 or 800CA should be between 600 to 800A
- A Micro 1000CA should be between 800 to 1000A



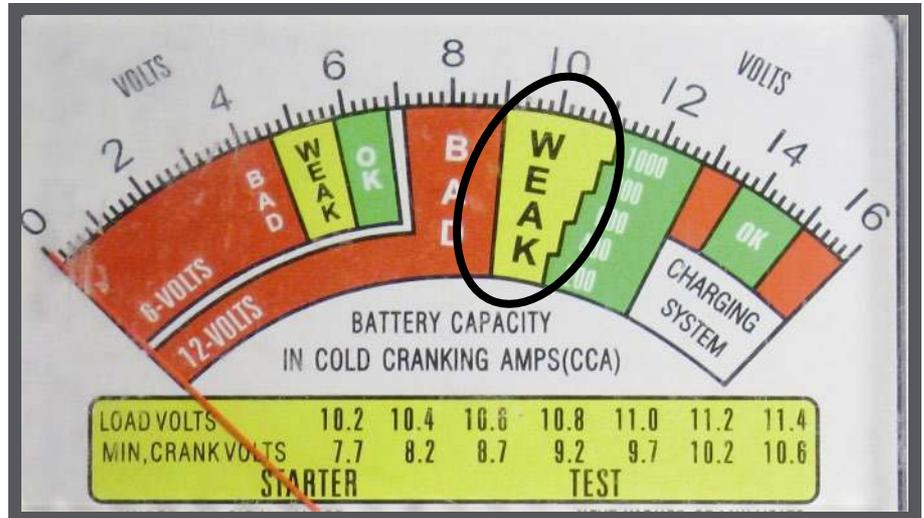
If you still encounter starting problems in spite of this result:

- Check that the connections at the clamps and battery terminals are firm.
- Check that you are using the correct size Booster for your vehicle's needs.
- Check the overall condition of the vehicle. Eg: Out of Fuel or a mechanical problem.

**If your result is in the Yellow zone:**

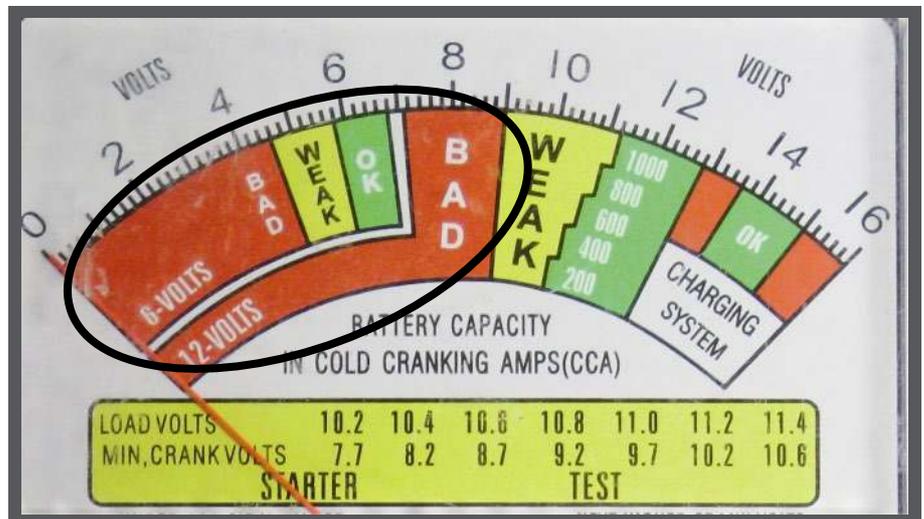
The battery of your Booster has a lack of power.

*NOTE: This is usually caused by not waiting three minutes between vehicle start attempts, or attempting to use the Booster for more than 10 seconds at a time. You have damaged your battery, and should take care not to damage it any further.*



**If your result is in the Red zone:**

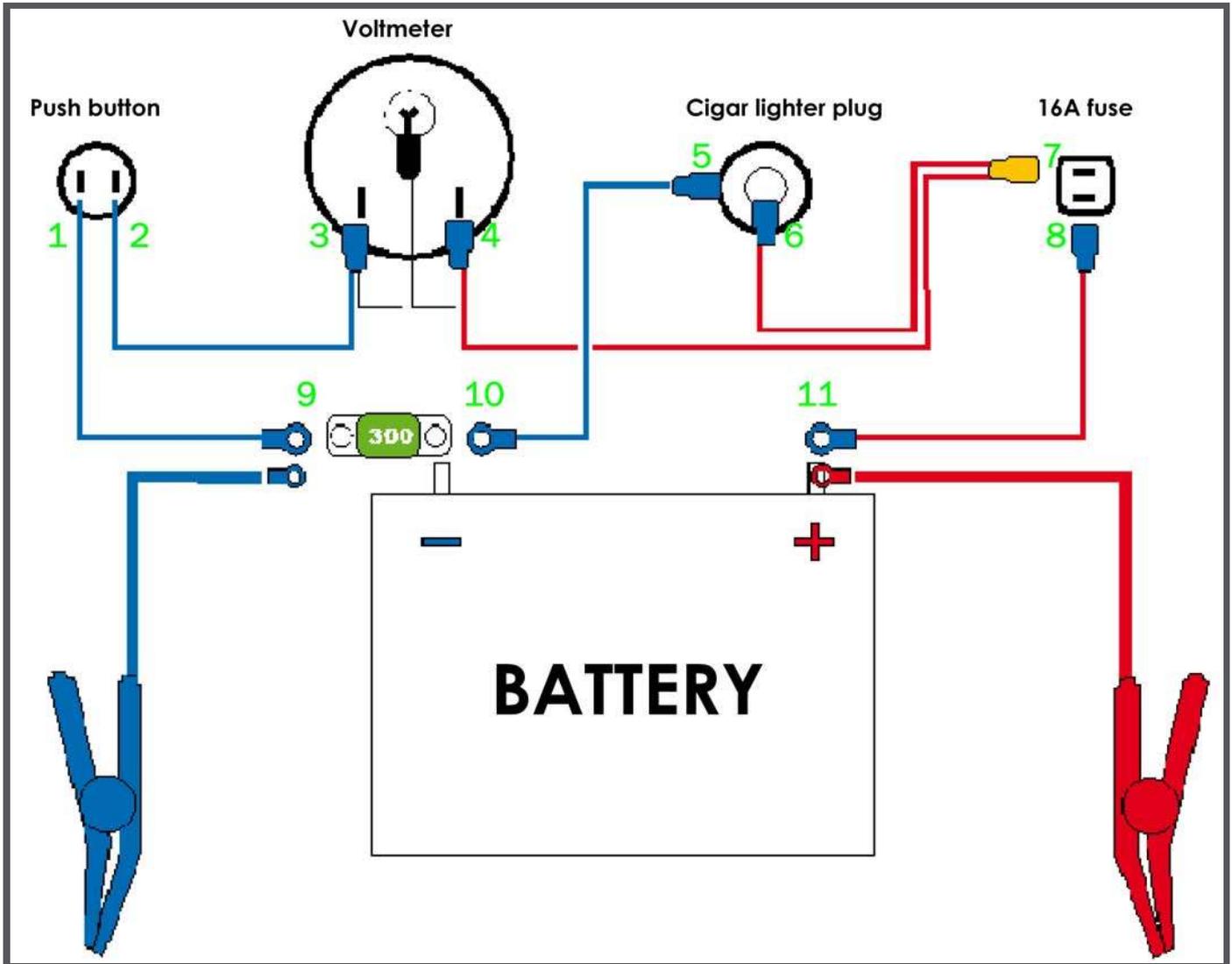
The battery needs to be replaced.  
*You have drained it beyond repair.*



### 3. TESTING THE BOOSTER ACCESSORIES

Unscrew the back cover and open the Booster.

The following diagram shows the inside wiring and schematics of your Booster.



#### 3.1 300A Internal Fuse

To test the Internal Fuse, use the multimeter by connecting the red terminal to point **9** on the diagram, and the black terminal to point **10**.

If you hear a long beep:

- The current is passing through the fuse correctly.  
Fuse is OK.

If you do not hear anything :

- The 300A internal fuse is blown.  
You need to replace the 300A fuse.



**NOTE:** Bolts must be well tightened after replacing the 300A fuse.  
Never replace with a stronger fuse (500A for example)!

### 3.2 16A External Fuse

To test the External Fuse, use the multimeter by connecting the red terminal to point **8** on the diagram, and the black terminal to point **7**.

If you hear a long beep:

- The current is passing through the fuse correctly.  
Fuse is OK.

If you do not hear anything :

- The 16A external fuse has shut down.  
Push the red button on the fuse to restart it.
- The 16A external fuse is blown.  
You need to replace the 16A fuse.



### 3.3 Cigarette Lighter Plug

#### Method 1

Test the voltage with your multimeter at the front of the Booster as shown on these images:

Connect the red terminal (+) in the centre of the plug and the black terminal (-) on the side of the plug.



#### Method 2

Test the voltage with your multimeter by connecting the red terminal to point **6** on the diagram, and the black terminal to point **5**.

If the voltage appears:

- The cigarette lighter plug is powered.

If nothing appears on your multimeter:

- The 16A external fuse has shut down. Push the red button on the fuse to restart it.
- An internal cable may be disconnected.  
Check the connections at points 5, 6, 7, 8, 10 and 11 on the diagram.

### 3.4 Push Button

Test the Push Button with your multimeter by connecting the red terminal to point **2** on the diagram and the black terminal to point **1**.

Push the push button.

If you hear a long beep:

- The Push Button is functioning correctly.

If you do not hear anything :

- The Push Button needs to be replaced.



### 3.5 Voltmeter

Test the supply of the voltmeter with your multimeter by connecting the red terminal to point **4** on the diagram and the black terminal to point **3**, AND by pushing the push button.

If a voltage appears on the multimeter and the voltmeter:

- Voltmeter is working correctly.

If a voltage appears on the multimeter, but not on the voltmeter on the Booster:

- Check wire connections. Voltmeter may need to be replaced.

If no voltage appears on either the multimeter or the voltmeter on the Booster:

- Voltmeter needs to be replaced.



### 3.6 External Charger



- 1 Check the charger's cables for any splits or gaps.
- 2 Connect both terminals of your multimeter to the clamps of the Booster (see image above)
- 3 Connect the charger to a mains supply (wall plug)
- 4 Connect the charger's male cigarette lighter plug into the Booster

#### Check the Charger's LED:

LED lamp does not light at all.

- No current on the plug.
- The led lamp is broken.
- The charger does not work anymore.

LED lamp lights **Red**.

- The charger does not work anymore.

LED lamp lights **Orange**.

- The charger has a current.

LED lamp lights **Green**.

- Battery is charged.



If the battery is charged (**Green** LED and 14.4V) you must test the Amps with the battery tester (point 2.2), in order to lower the voltage to make the charger work.

#### Results on the multimeter:

No reading.

- You need to test the female cigarette lighter plug of the Booster (point 3.3)
- The male charging plug of the charger is defective
- The charger does not work anymore.

The voltage on the multimeter rises until about 14.4V

- The charger is functioning properly.



