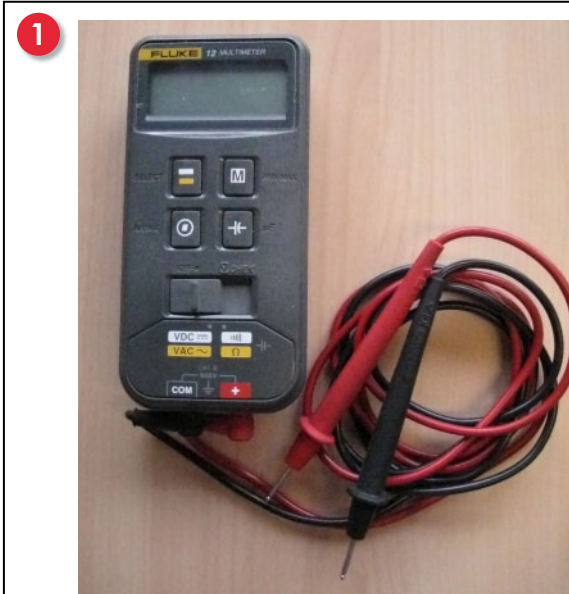


Problems with your 12V Booster?

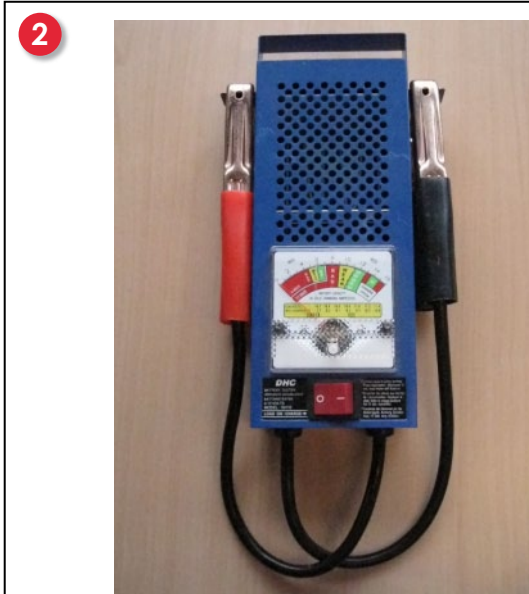
**Check this Trouble Shooting Manual
for your answer**

- 1. Tools Required**
- 2. First Tests to conduct**
 - 2.1 Measure the Voltage at the Clamps
 - 2.2 Testing the power (Amps)
- 3. Testing the Booster Accessories**
 - 3.1 300A Internal Fuse
 - 3.2 16A External Fuse
 - 3.3 Cigarette Lighter Plug
 - 3.4 Push Button
 - 3.5 Voltmeter
 - 3.6 External Charger

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

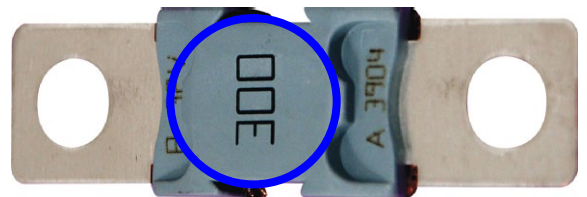
With your Digital Multimeter you can measure the precise voltage of your battery.

- 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.

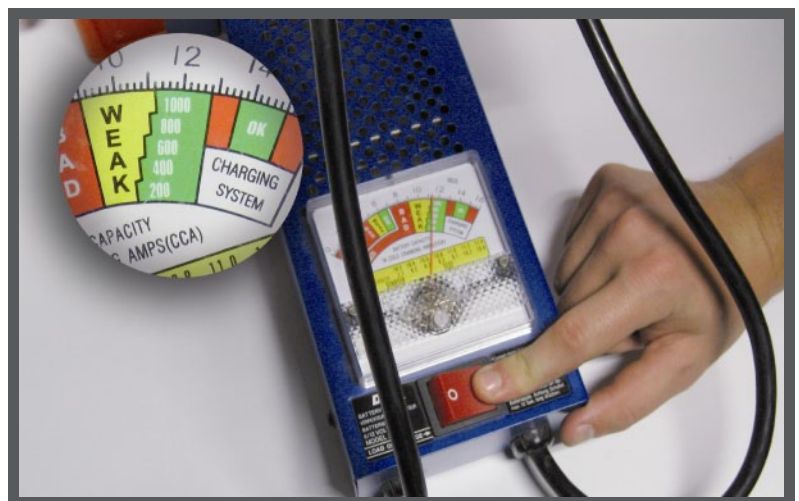
- Connect the red clamp of your tester to the positive terminal of the battery and the black clamp to the negative terminal of the battery.
- Turn the tester on for 10 seconds, then check the reading for the cranking amp level of your battery.



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



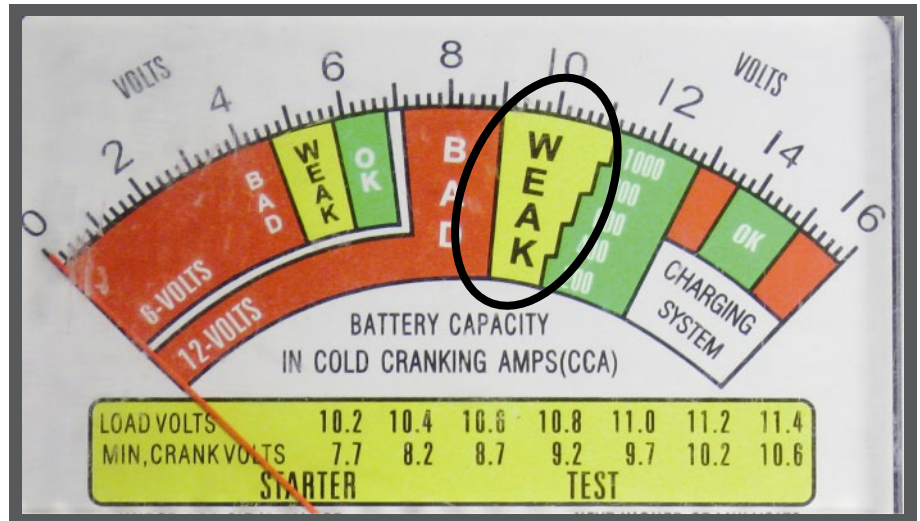
If you still encounter starting problems in spite of this result:

- 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.

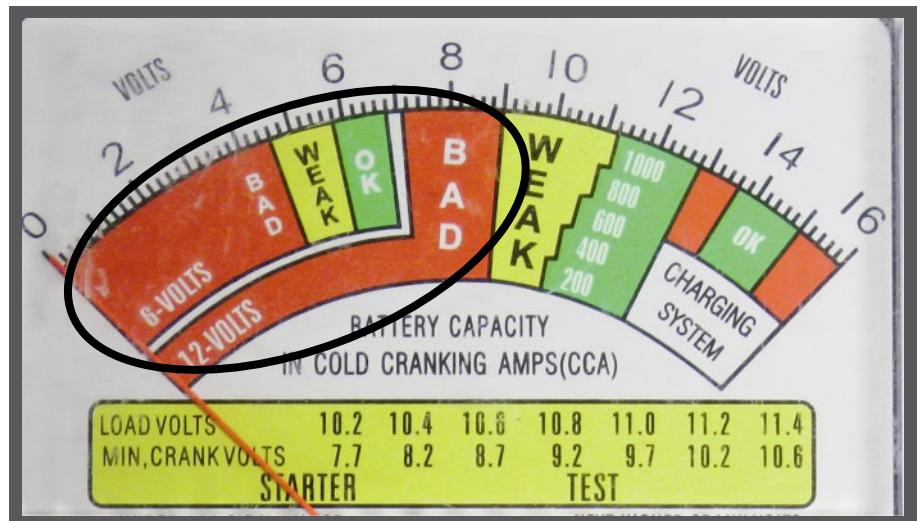
NOTE: This is usually caused by not waiting three minutes between vehicle start attempts, or attempting to use the Booster for more than 10 seconds at a time. You have damaged your battery, and should take care not to damage it any further.



If your result is in the Red zone:

The battery needs to be replaced.

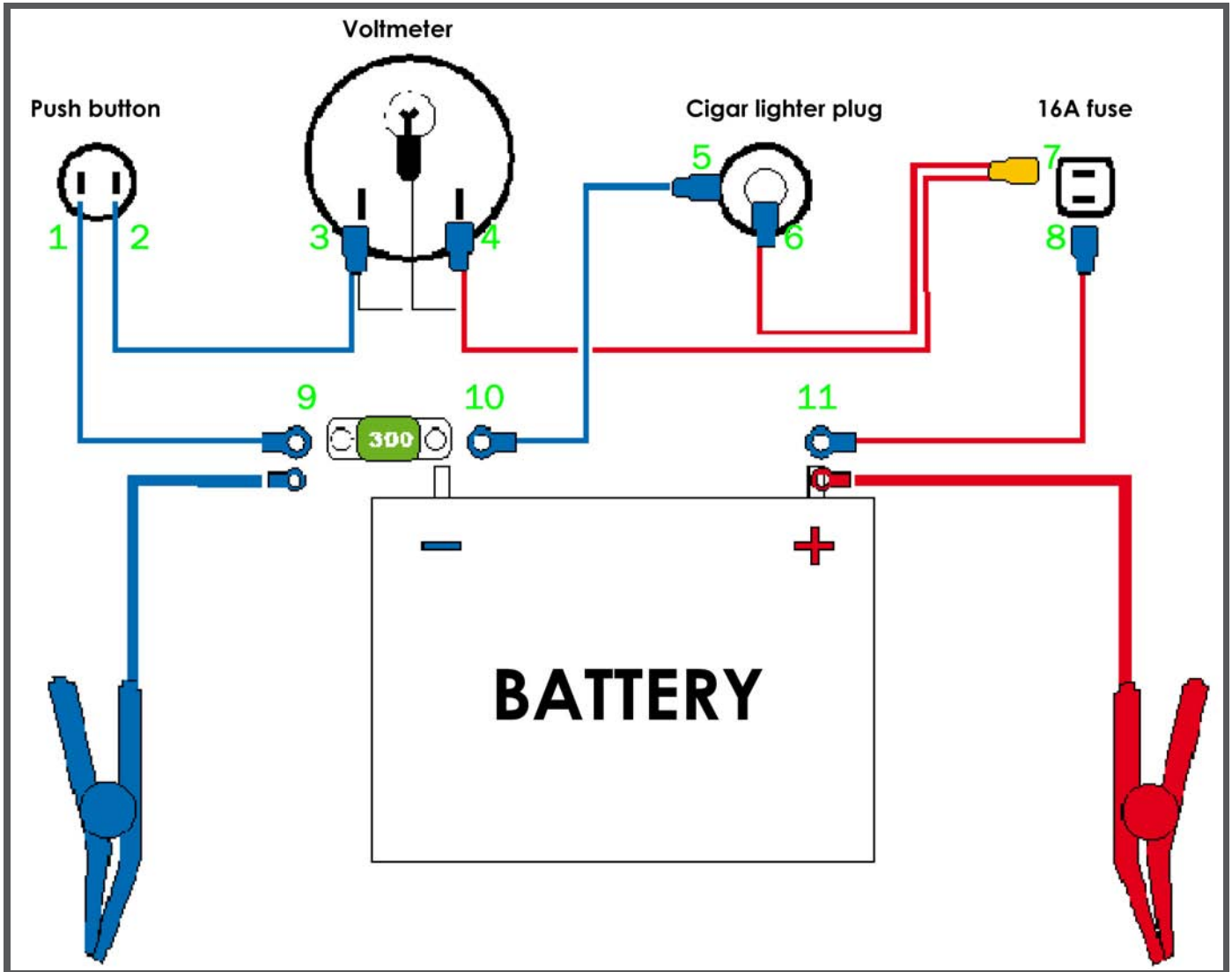
You have drained it beyond repair.



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:

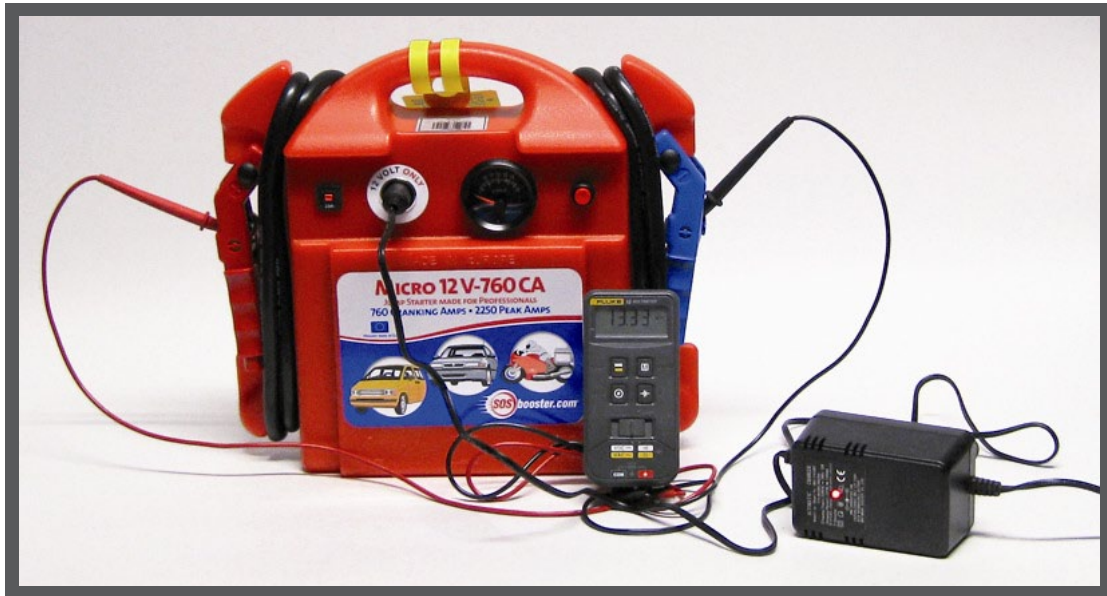
- Check wire connections. Voltmeter may need to be replaced.

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**.

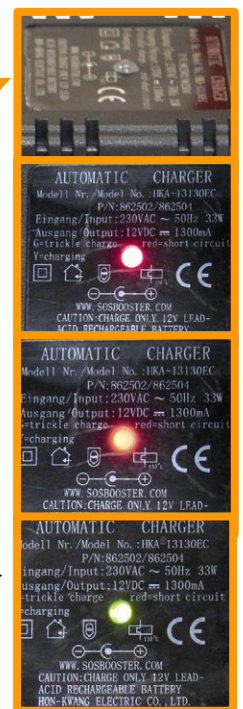
- The charger does not work anymore.

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.



