

Safety Toolbox Talks



BRIESER CONSTRUCTION COMPANY SITE SAFETY MEETING - TOOL BOX TALK

JUMP STARTING A VEHICLE

The objective of this procedure is to show you how to start a vehicle with a discharged battery using jumper leads and a second vehicle or battery. For safety always connect the leads in the correct order: positive on discharged battery; then positive on charged battery; then negative on charged battery; then negative to a good ground on the vehicle with the discharged battery - away from the battery itself.

Part 1. Preparation and safety

Objective

- Start a vehicle with a discharged battery using jumper leads and a second vehicle or battery.



Personal safety

Whenever you perform a task in the workshop you must use personal protective clothing and equipment that is appropriate for the task and which conforms to your local safety regulations and policies. Among other items, this may include:

- Work clothing - such as coveralls and steel-capped footwear
- Eye protection - such as safety glasses and face shields
- Ear protection - such as earmuffs and earplugs
- Hand protection - such as rubber gloves and barrier cream

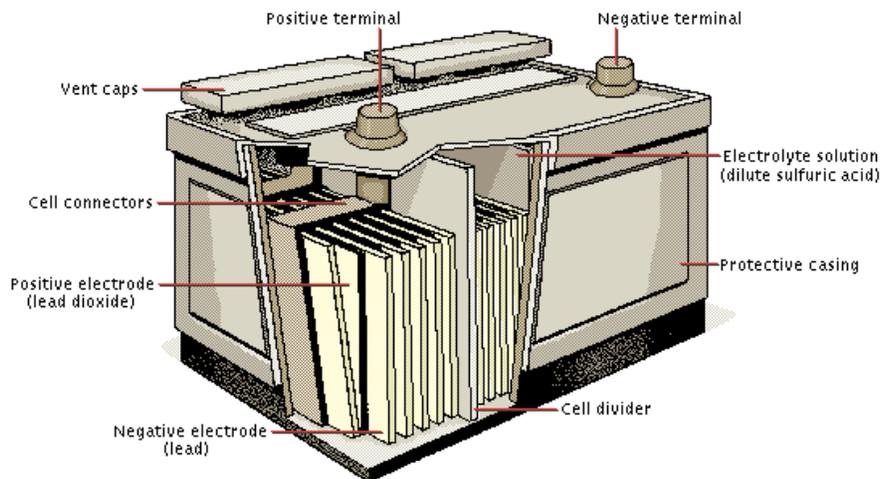
If you are not certain what is appropriate or required, ask your supervisor.

Safety check

- Make sure that the hood is secure with a stay rod before going under it.
- A spark created above a battery can cause an explosion. So always follow these precautions:

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1. Keep your face and body as far back as you can while connecting jumper leads.
 2. Connect the leads in the correct order -- positive on discharged battery; then positive on charged battery; then negative on charged battery; then negative to a good ground on the vehicle with the discharged battery -- away from the battery itself.
 3. Do not connect the negative cable to the discharge battery because this may cause a spark.
 4. Only use specially designed heavy-duty jumper cables to start a vehicle with a dead battery. Do not try to connect the batteries with any other type of cable.
- Always make sure that you wear the appropriate personal protection equipment before starting the job. Remember, batteries contain acid and it is very easy to hurt yourself even when the most exhaustive protection measures are taken.
 - Always make sure that your work area/environment is as safe as you can make it. Do not use damaged, broken or worn out workshop equipment.
 - Always follow any manufacturer's personal safety instructions to prevent damage to the vehicle you are servicing.
 - Make sure that you understand and observe all personal safety procedures when carrying out the following tasks. If you are unsure of what these are, ask your supervisor.



Points to note:

- Make sure the battery is not frozen; you cannot jump-start a frozen battery.
- Do not stand over battery while charging and make sure cables are not touching fan blades.
- Before you disconnect the service battery from the discharged battery, it is good practice to place a load across the discharged battery (such as turning on the headlamps) to absorb any sudden rise in voltage that may occur as the alternator suddenly increases its output.
- In most modern vehicles there are many sensitive electronic devices. These devices are very susceptible to electric voltage surges. One method of reducing the risk of damage to such devices is by using jumper leads that have a built in surge protector. Separate surge protector devices can also be used to reduce the possibility of such surges and voltage spikes.

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Part 2: Step-by-step instruction

1. **Locate the charged battery**

Locate the charged battery close enough to the discharged battery of your vehicle so that it is within comfortable range of your jumper cables. If the charged battery is in another vehicle, make sure the two vehicles are not touching.

2. **Connect jumper leads**

Connect the leads always in this order. First, connect the red, positive, lead to the positive terminal of the discharged battery in the vehicle you are trying to start. The positive terminal is the one with the plus sign. Next, connect the other end of this lead to the positive terminal of the charged battery. Then connect the black, negative, lead to the negative terminal of the charged battery. The negative terminal is the one with the minus sign. Connect the other end of the negative lead to a good ground on the engine block or body of the vehicle with the discharged battery, and as far away as possible from the battery. Do NOT connect the lead to the negative terminal of the discharged battery itself; this may cause a dangerous spark.

3. **Start the vehicle with the discharged battery**

Start the vehicle with the discharged battery. If the booster battery does not have enough charge to do this, start the engine in the second vehicle and try it again with the engine running. Turn the lights on to prevent a possible voltage spike damaging electronic equipment.

4. **Disconnect jumper leads**

Disconnect the leads in the reverse order to connecting them. Remove the negative lead from the good ground. Then from the second battery. Then remove the positive lead from the second battery and lastly, disconnect the other end from the battery in the vehicle you have just started. If the charging system is working correctly and the battery is in good condition, the battery will be recharged while the engine is running.

