

## Jump Starting

If the battery is discharged, the engine should only be started with jumper cables and the (12 V) battery of another vehicle.

### Warning!

**Failure to follow these directions will cause damage to the electronic components, and can lead to a battery explosion and personal injury.**

**Read all instructions before proceeding.**

Proceed as follows:

1. Position the vehicle with the charged battery so that the jumper cables will reach, but never let the vehicles touch. Make sure the jumper cables do not have loose or missing insulation.
2. On both vehicles:
  - Turn off engine and all lights and accessories, except hazard warning flashers or work lights.
  - Apply parking brake and shift selector lever to position "P".
3. Clamp one end of the first jumper cable to the positive (+) terminal of the discharged battery and the other end to the positive (+) terminal of the charged battery. Make sure the cable clamps do not touch any other metal parts.
4. Clamp one end of the second jumper cable to the grounded negative (-) terminal of the charged battery and the final connection to a grounded heavy metal bracket in the engine compartment or on the engine of the disabled vehicle.
5. Start engine of the vehicle with the charged battery and run at high idle. Make sure the cables are not on or near pulleys, fans or other parts that will move when the engine is started. Then start engine of the disabled vehicle in the usual manner.
6. After the engine has started, remove jumper cables by exactly reversing the above installation sequence, starting with the last connection made first. When removing each clamp, make sure that it does

not touch any other metal while the other end is still attached.

### Important!

A discharged battery can freeze at approx. +14°F (-10°C). In that case it must be thawed out before jumper cables are used.

Jumper cable specifications:

- Minimum cable cross-section of 25 mm<sup>2</sup> or approx. 2 AWG
- Maximum length of 11.5 ft (3.5 m).

### Warning!

**Never lean over batteries while connecting or jump starting, you might get injured.**

**Battery fluid contains sulfuric acid. Do not allow this fluid to come in contact with eyes, skin, or clothing. In case it does, immediately flush affected area with water, and seek medical help.**

**A battery will also produce hydrogen gas, which is flammable and explosive. Keep flames or sparks away from battery, avoid improper connection of jumper cables, smoking etc..**