Battery Boosting Meeting Kit

IS BATTERY BOOSTING SIMPLE?

If a battery is not cared for properly, not used for a long time or is nearing the end of its useful life expectancy, then it can become weak and lose its charge.

BATTERY BOOSTING DANGERS

Improper battery boosting can lead to serious injury if done improperly. Batteries commonly explode when improperly boosted, leading to worker exposure to risk of acid burns and injuries from flying objects.

The following composition and make-up of batteries explains why battery boosting is more than what “meets the eye”.

1. Lead-acid batteries are built with a number of individual cells containing layers of lead plates immersed in sulphuric acid. When the sulphuric acid comes into contact with the lead plate, energy is produced. The battery will have a negative and a positive terminal on the top or side of the battery, and will have vent caps on top. The purpose of the vent caps is to allow for the escape of gases formed when the battery is charging. In addition, the vent caps allow water and acid levels of the battery to be checked during maintenance.
2. Lead-acid batteries can produce explosive mixtures of hydrogen and oxygen gases when they are being charged. If ventilation is poor, the escaping hydrogen creates an explosive atmosphere around the battery. Always keep sparks, flames, burning cigarettes, and other sources of ignition away from the battery recharging area because the gas can be ignited. The result of an explosion could be severe burns and/or fire.

ROADSIDE ASSISTANCE ROLE

If your car battery is dead, the best thing to do is call a Roadside Assistance Service, whose experts can advise you on the procedure to follow.

STEPS TO FOLLOW IN A BATTERY BOOST

1. To jump start a discharged battery from a good (donor) battery, park both vehicles close to each other but not touching. Do not have the donor vehicle running during this process because it could cause electrical damage if there is an electrical surge while the cables are connected. Better safe than sorry.
2. Open the hoods and locate the battery terminals, which are often enclosed by a plastic cover. Open the cover to expose the terminals and wipe off any excess

corrosion with a rag. Do not attempt to jump start a damaged or leaking battery as this could cause a spark or fire. On vehicles with a battery located in the trunk, under a seat, or use side battery terminals, you should find a red plastic cover labeled as positive (+) in the engine compartment. This is there for you to make the positive booster connection.

Cables attached to the car for a jump start

1. Use heavy duty 2 gauge (best) or 4 gauge booster cables to connect the batteries in the following order. First start by connecting the positive (red) cable clamp to the positive terminal on the dead battery. Next connect the other positive clamp to the positive terminal on the good battery.

Next while at the good battery, connect the negative (black) clamp to the negative (-) battery terminal. Finally, connect the other negative clamp to a bare metal part of the engine block on the dead car. Some vehicles even have designated negative (-) ground spots in the engine bay.

Be sure to make this last connection as far away from the battery as possible because a dead battery will emit hydrogen gas that could ignite if there is a slip with the clamps causing a spark. Also be aware of moving parts in the engine bay (such as belts) to ensure that the booster cables and clamps are clear and unobstructed. For your protection, be sure to wear safety goggles or a face mask and gloves when making the connections.

1. Now that you've completed the connected circuit, wait a few minutes for the voltage to transfer from the good battery to the discharged, then start it up with all of the accessory lights and power features turned off to minimize the power load. Once the vehicle is running, disconnect the booster cables in the reverse order: negative off the boosted car, negative off the helper car, positive off the helper car, positive off the boosted car.
2. Allow the boosted car to run for at least ten minutes to partially charge the battery before driving off. If the car does not restart on it's own after going for a lengthy drive then have your battery, alternator and electrical system checked by a mechanic.

BATTERY BOOSTER REMINDERS/TIPS

Before attaching the jumper cables, be sure to keep sparks, flames, and cigarettes away from batteries at all times. Make sure the cars don't touch and set both cars' parking brakes. Place automatic transmissions in Park and manual transmissions in neutral. Turn both ignitions off and add battery water if needed. Don't jump start a car if battery fluid is frozen or if the batteries of both cars are not the same voltage.

Protective goggles should be worn by everyone working with car batteries or standing nearby. They can keep flying battery fragments and chemicals out of the eyes. Inexpensive safety eyewear can be purchased at many hardware stores.

Should battery acid get into the eyes, immediately flush them with water continuously for 15 minutes, holding the eyelids open. Then seek medical attention without delay.

When selecting battery cables, they should be at least 12 feet in length, heavy gauge wire, well-insulated, have sharp and clean alligator clips and be color-coded to avoid wrong connections.

FINAL WORD

Battery boosting is very common particularly in northern climates. But the dangers associated with battery boosting is often underappreciated. This results in many

injuries that could have been prevent with proper training.