

# REAL Torque

January 2025

Contact maintenance for any questions on 0800 80 80 69



## Jump Starting

What is jump starting and why do we need it? Put simply, jump-starting is a process for getting a vehicle started that has a flat battery. This involves connecting a 'jump starter pack' or even another vehicle to the flat batteries and using this power source to start the vehicle.

### Why would we need to jumpstart a vehicle?

There is a number of reasons this could be required.

- Accessories left on such as lights or radio etc.
- Outside temperatures (extremely cold).
- Battery, cables and terminals in poor condition.
- Current draws, ie something in the vehicle draining the battery.
- Faulty Alternator, not charging the battery properly.

All potential causes for flattening your battery.

### What do we use to jumpstart a vehicle?

When it comes to jump starting there are few common ways.

- Jumper Cables or Jump Leads.
- Battery packs specially built for the purpose of jump starting.
- Jump Packs or Jump Starters which are becoming more and more common.



It is important you know and understand what to use to jump start a vehicle. Due to the specific requirements of some Japanese and European brands, a jump pack is not always suitable as there is a high risk of damage to sensitive electronic components. Some brands require a jump pack to be left connected after starting for up to 30 mins, this is to allow the batteries to balance out and prevent damage to electronic components from voltage spikes etc.



**Jumper Cables**



**Battery Packs**



**Jump Pack**

## Precautions for jump starting a vehicle

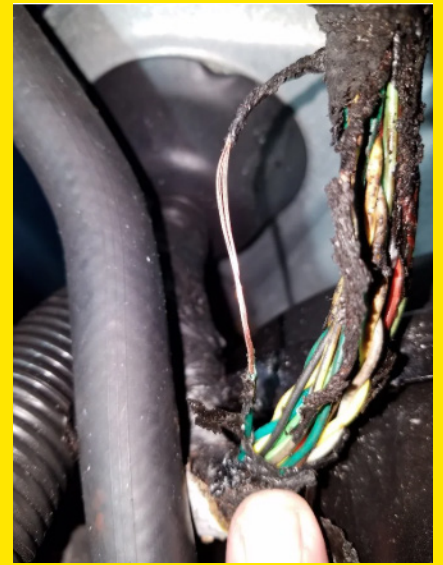
While the process for jump starting a vehicle is relatively straight forward, it does vary from manufacturer to manufacturer. It is important to always consult the manufacturer's recommended procedure when it comes to jump starting. As these are varied and do differ, we won't focus on the procedure. But rather on what can go wrong if the correct procedure is not followed.



This battery exploded due to accidentally connecting the jump cables the wrong way around.



This is the circuit board of an ECU that was burnt out due to not following the correct jump start procedure.



These are melted wires which occurred as the result of a jump start gone wrong.

## Potential risks and hazards.

- 1. Electrical Shock:** Contact with high voltage could result in severe injury or even death.
- 2. Explosion Risk:** Connecting jumper cables incorrectly can cause sparks that may ignite hydrogen gas from the battery, leading to explosions.
- 3. Battery Damage:** Incorrect voltage or reverse polarity can permanently damage the truck's electrical system or the battery.
- 4. Burns:** Sparks or shorts could cause burns from the battery or electrical components.
- 5. Fire:** Damaged wiring, connectors, or equipment could lead to overheating or fires.



## Rules & Safety Guidelines

- ▶ Always check and ensure the correct voltage is identified. Some trucks have complex battery lead arrangements so checking this is important.
- ▶ Wear protective gear such as safety glasses or a face shield and gloves.
- ▶ Check the condition of batteries and terminals.
- ▶ Avoid contacting the clamps on the jump pack together.
- ▶ Ensure the clamps are always on the correct terminals, positive to positive, negative to negative. Connecting with the incorrect polarity can result in damage to the batteries and in some case explosions.
- ▶ Ensure the batteries are maintained to the manufacturer's recommended standards.
- ▶ If you are unsure call the Maintenance team



### TR Tips

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