

REAL Torque

April 2021

Contact maintenance for any questions on 0800 80 80 69

Electric Trucks - Driver Induction

The purpose of this Real Torque is to give you a basic guide on how to start these trucks and how to charge them. If you need further information, give the TR Maintenance Team a call, and we will be more than happy to help.

Last month, we took delivery of three SEA Electric trucks. These trucks are an Isuzu F Series, converted to Electric Trucks. They arrived in New Zealand as a standard Isuzu, then the engine gearbox was removed, and a SEA electrical conversion kit was installed.



Safety



DO NOT TOUCH any **ORANGE** cables.
ORANGE indicates high voltage.

The component box (pictured below) acts as the brain of the truck. This should never be opened by anyone other than a SEA technician as it houses the distribution of high voltage through the truck. The component boxes are locked for this reason.

When parking the truck, follow the standard process trained within the industry. Select **neutral** and **apply the handbrake** at all times. Electric vehicles are very quiet and this action will prevent a 'vehicle rollaway'. A hand brake alarm wired to the horn is an added safety prevention equipped to these vehicles.

Do not jumpstart or use this vehicle to jumpstart other vehicles. This truck contains sensitive electronic components which can be easily damaged.



Component Box

Starting The Truck

There are **five** main things to think of when starting the EV:

- 1 Exterior Red Isolator switch is ON.
- 2 Hand brake is applied.
- 3 Gear selector is in neutral position.
- 4 Ensure the foot brake is engaged.
- 5 Turn the key ON, and then turn the key to the start position and hold for approximately 5 seconds.

(The rev counter will cycle from zero to full and back to zero whilst you are holding the key in the start position. Once complete, the vehicle is live and you will hear the air compressor begin to pump).

***Please note: The key start can only be cycled once every 20 seconds. Patience is required to start the EV. Do not rush this process.**

EV Vehicle information screen



Driving The Truck

Driving Off

Once the vehicle is started, engage the foot brake, select the desired gear, release the parking brake and when you're ready, remove your foot from the brake. The vehicle may roll automatically like an automatic car, or the accelerator can be used in order to help the vehicle move gently.

Regen and Braking

EV truck braking is assisted by electric motors. When your foot is **off** the pedal, much like engine braking in your truck, the electric motor pulls back on the truck (also charging the batteries); this is called **Regen**.

Efficient Driving

Efficient driving is critical when it comes to EVs; this includes **avoiding harsh accelerations** and/or braking and using the Regen to its full potential.

Turning Off

Make sure the gear selector is in the neutral position with the footbrake pressed and hand brake applied. Turn the key to the off position and remove the keys. Leave the exterior red isolator switch in the ON position. Remember to wait 20 to 30 seconds before plugging the charger into the truck.

Charging The Truck

Steps to follow when charging an EV at TR Group:

- 1 Hand brake is applied with gear selector in neutral.
- 2 Remove all items being taken away with you and lock the vehicle cab.
- 3 Exterior Red Isolator switch is left ON.
- 4 Plug the charge cable into the left-hand side component box socket.
- 5 Remain at the socket. The white LED may display, indicating the charger is connecting. The green LED light will flash if a connection has been made.
- 6 Walk back to the charging station and ensure the centre display reads '32amps charging'.

Unplug The Charger

Steps to follow when unplugging an EV at TR Group:

- 1 Unlock the vehicle, turn the ignition key to ON. This will unlock the charging cable from its socket.
- 2 Remove charge cable socket from left-hand side component box and secure end cap.
- 3 Wind up lead and place inside charging station. Pull down the roller door.

***Please note: The system will not power up until the charging cable is physically disconnected from the truck. If for any reason the charge socket will not disengage when the vehicle ignition is activated, try this process again by cycling the key OFF and ON. DO NOT try and remove this plug with force.**

Tips and Tricks

- ▶ Don't touch any orange cables as these are 400v.
- ▶ Do not carry out any repairs and/or maintenance on these trucks. All repairs, including jumpstarts, must be handled by trained personal only.
- ▶ If you cannot start the truck first, turn the key and the isolator off. Wait 1 minute and then turn the key and isolator back on again.
- ▶ If you use the tail lift more than ten times in one session, keep the key ON; otherwise, you will drain the low voltage batteries.
- ▶ It's important for the operator to regularly monitor the current vehicle status screen, especially battery percentage and kms remaining. This can change depending on the environment and operation. The operator must manage their run to ensure there is enough energy/kms to return to your charging location. When an EV uses all available energy, the only option is to tow the vehicle.
- ▶ The coolant level must be checked every day as part of your pre-trip inspection. EVs rely on this coolant heavily to operate at the right temperature. If this is not between the low and high level the vehicle will start and operate but may derate once at operating temperature.

TR Tips

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RENTAL & LEASE
TR GROUP LTD

Making heavy vehicle fleet
management easy for you