579EV QUICK START GUIDE

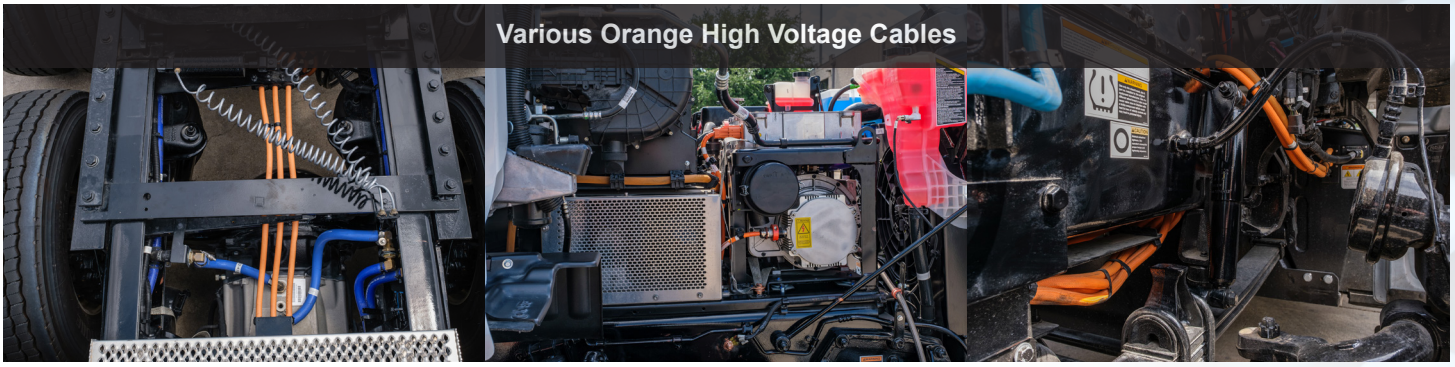
Peterbilt's Model 579EV offers a zero emissions, high-performance vehicle for clean, efficient operation. This Quick Start Guide outlines the unique and important guidelines for operating the 579EV.

1) SAFETY

a. Cables or connectors that are colored in bright orange signify high voltage. Before operating the vehicle, visually check for damaged components or low hanging cables below the truck. If you see anything damaged or in a questionable state, have an authorized Peterbilt technician examine and repair the components without delay. Do not touch, attempt to remove, or service high voltage parts. Ignoring this warning will create risk of injury or death to yourself and bystanders.

Your dealer's service center is the best place to have your vehicle repaired. Properly maintained high voltage personal protective equipment is required. If you are not a qualified mechanic for the Peterbilt 579EV, leave all repairs to an authorized service facility. Authorized service facilities are equipped to perform repairs safely and correctly.

Various Orange High Voltage Cables



b. Electric Vehicles can be very quiet in operation, even when 'running'. Because of this, the vehicle operator must remain aware of nearby vehicles or pedestrians at all times.

c. 'Truck running' is indicated by the Power Gauge needle moving to the point on the gauge that lies in between the words 'Charge' and 'Eco'. When the vehicle is ready to drive, the 'Ready to Move' tell-tale will illuminate in green.

Truck Running Indiactors

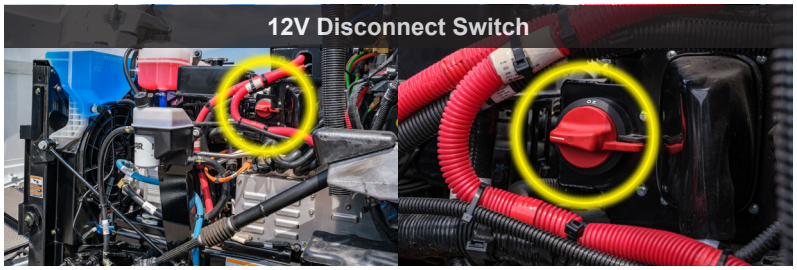
Ready to Move Telltale

Rev: 9/2023

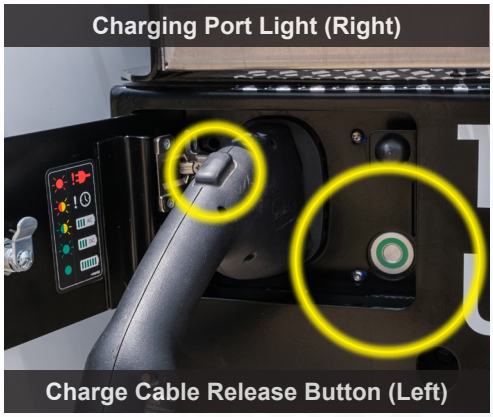
579EV QUICK START GUIDE

2) CHARGING / BATTERIES

a. Before plugging the 579EV to a charger, ensure that the 12V Disconnect switch (located under the hood) is in the 'on' position. For best results wait a minimum of 2 minutes after vehicle shutdown to plug in.



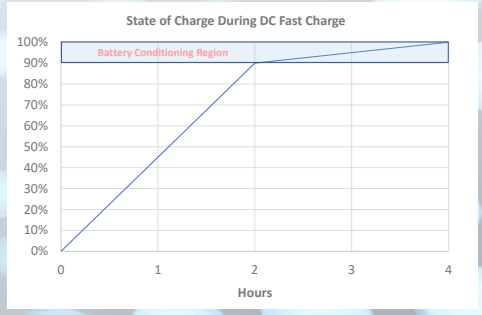
b. After being plugged in, the charge port light will blink green to indicate truck is being charged. There may be a small delay between when the charger is plugged in to when the truck starts charging. If Charging does not commence after a small delay, usually less than a minute, restart the sequence by first unplugging the charge cable and then turning off the low voltage disconnect before attempting again. Wait at least one minute before attempting again.



LED Color	Charger Status
	DC Fast Charging
	Charging Complete
	AC Charging (No Errors)
	DC or AC Charge Rate Severely Limited
	Charging Error

c. Max charge speed: Charging will be as fast as possible, per charger type, with the limit speed being the lesser of the vehicle or charger max speed.
   i. Max vehicle charge speed 150 kW.

d. Charge speed will slow down when the battery is nearly full, which is above 90%. Once the truck reaches about 90% state of charge (SOC) it is a good time to stop charging, if opportunity charging. Opportunity Charging is when you have a limited time window for charging, such as a lunch break, where you can add critical range without taking all the time needed for a full charge. Utilizing opportunity charges will maximize vehicle productivity.



Rev: 9/2023

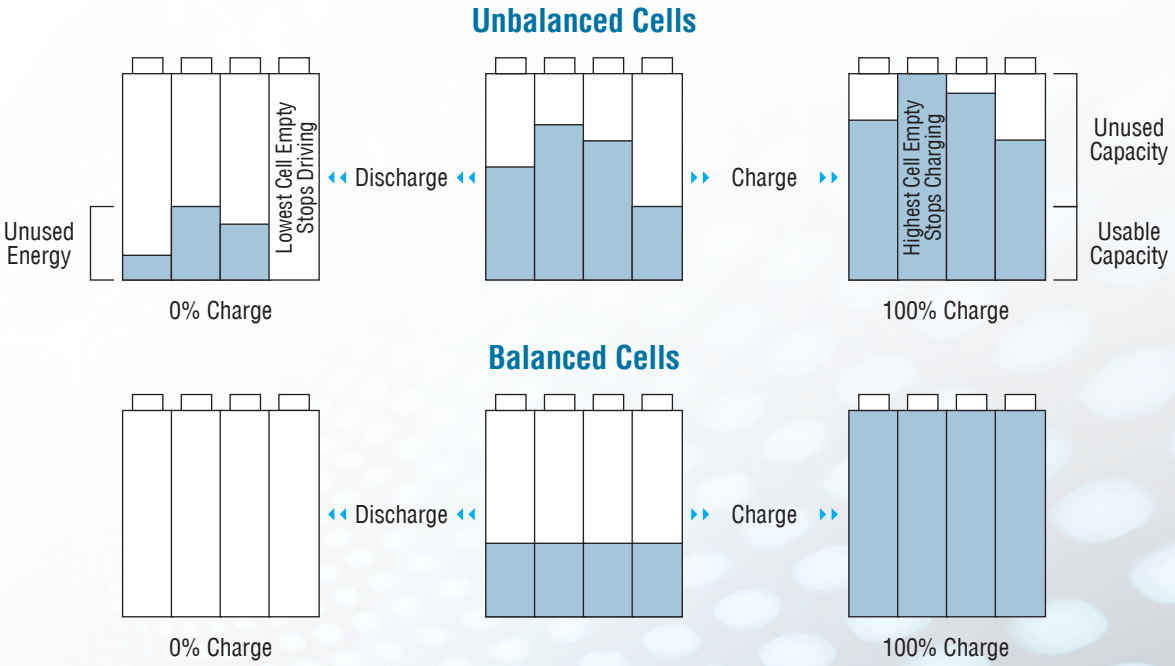
579EV QUICK START GUIDE

2) CHARGING / BATTERIES *continued*

e. Battery balancing occurs during the last 10% of charging. For the longevity of the battery system make sure to fully charge the truck at least once a week.

i. The energy storage system consists of many individual battery cells organized into banks. When driving the vehicle, energy is drawn from the bank, which means energy is drawn from all cells. However different cells within the bank can have differing energy levels. Once a single cell in the bank is completely empty, the truck considers the bank empty. On the other side of things, when charging the truck as quickly as possible the truck will show to be fully charged when a single cell in the bank is completely full.

ii. If you charge the truck overnight, the truck's battery monitoring system begins passive balancing, and can fill all the cells completely full, minimizing the difference in energy levels. It is important for the longevity of the battery system to charge overnight and enable passive balancing at least twice a week.



579EV QUICK START GUIDE

2) CHARGING / BATTERIES *continued*

f. To disconnect the charge cable, charging must be stopped.

i. This can be done via the charger's interface, or by pressing the button next to the charge port on the truck. Some chargers are quipped with a physical emergency stop button. It is recommended that you do not use this button to stop the charging sequence unless there is an emergency. Doing so may result in faults with the vehicle.

ii. If charging has not been stopped, the release button on the charge cable is interlocked to prevent the charge cable from being released. (See previous picture)

iii. The vehicle also has an interlock which prevents it from being driven while connected to the charge cable. When there is a charger tell-tale illuminated on the instrument cluster the vehicle interlock is engaged.

Emergency Physical Stop Charging Button (Left)

Standard Stop Charging Button (Right)

g.Low voltage batteries

i. The 579EV is equipped with a single 12V battery. This battery is used to power the cab electronics and enable starting, just like a diesel truck. When the truck is 'running' this 12V battery is filled by a high voltage to low voltage inverter which is analogous to an alternator on a diesel truck. Please note that when the 12V battery is dead the truck will not start. Jump Starting is not recommended due to the various LV battery installations and electrical options. It is recommended that the dead battery be swapped with a charged battery.

ii. If powering off for an extended period and not plugged into a charger, set the 12V disconnect switch to off. This will preserve charge in the low voltage system. The 579EV has CCS1 charging port and system voltage of 650V. Compatible DC fast chargers, must have a minimum voltage of 700V. For AC charging, a minimum of 11kW is necessary to slow charge.

iii. During Charging or when the truck is 'running' do not turn off the low voltage disconnect. This may cause damage to the vehicle.

3) START UP

Pre-Truck Inspection

a. Exterior

i. Check for low hanging cables below the truck, especially, orange high voltage cables. Have an authorized technician examine any questionable components and repair them without delay.

ii. Ensure the wheel cap nuts are in place and torqued properly.

iii. Check the parking spot for evidence of any fluids leaking.

iv. Verify that the truck exterior lights are all functioning.

v. Ensure all windows, mirrors, and lights are clean and unobstructed.

579EV QUICK START GUIDE

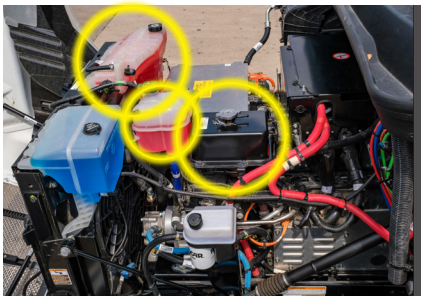
3) START UP *continued*

b. Power Accessories

i. Verify that the coolant lines, power steering lines, airlines, fittings, and other connections are all secure, intact, and free of chafing.

ii. Verify that all coolant reservoirs are in the correct location and adequately filled. The power electronics/motor coolant reservoir and cab heat reservoir fluid levels can be checked via the indicators molded into the translucent reservoirs. The battery chiller reservoir fluid level can be checked via the site glass. If fluid can be seen on the site glass then there is adequate fluid.

iii. Ensure the radiator fan is free of debris.

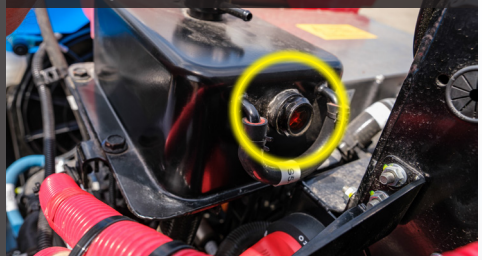


Power Electronics/Motor Coolant Reservoir (Top Left)

Cab Heat Reservoir (Middle)

Battery Chiller Reservoir (Bottom Right)

Battery Chiller Reservoir Site Glass



c. Interior

i. Remove the charger plug if necessary.

ii. Switch on the low voltage disconnect switch if necessary. It is recommended to turn the key to the run position for at least one minute. This will allow the truck to fully run through all the starting checks before the ignition sequence.

iii. Turn the ignition key fully clockwise and let spring back.

iv. Release the park brake.

v. Put the truck in drive.

vi. The truck will be ready to move when the green Ready to Move tell-tale is illuminated.

d. Towing

i. Do not attempt to tow without reading and following directions outlined in the 579EV Operator's Manual and the Meritor 14Xe Axle Electric Powertrain Operator Manual. Failure to follow correct towing procedure could result in injury death or damage to the vehicle.

e. Shutdown

i. Put the truck in N (neutral).

ii. Pull the park brake to ensure that it is applied.

iii. Remove the key from the ignition.

iv. Ensure the Ready to Move tell-tale is extinguished.

Rev: 9/2023

579EV QUICK START GUIDE

4) RANGE/EFFICIENCY *EVs have a limited range, so driver behavior is key to maximizing range!*

a. Highest energy consumption is driving at high average speeds.

i. 65 MPH cruise or slower is recommended.

ii. Routes/applications with more stops/starts will result in the best EV range vs high speed highway driving.

b. Moderate driving behavior.

i. As with any vehicle, moderate acceleration and deceleration will result in the best driving efficiency (25% - 75% of the accelerator pedal)

c. One pedal driving

i. If the vehicle is in motion and the regenerative braking is engaged, the vehicle will be slowed down when the operator's foot eases off the accelerator pedal. This is energy being put back into the batteries.

ii. The regenerative braking system will slow the vehicle to 5mph, then the operator will need to use the service brakes to bring the vehicle to a complete stop. Similar to an engine retarder on an internal combustion engine, regenerative braking is controlled by the right-hand stalk.

iii. There are 4 settings for regenerative braking on the 579EV: 0 –Off, 1 –33% Braking Power, 2 –66% Braking Power, 3 –100% Braking Power.

iv. Higher regenerative brake settings will result in stronger regenerative braking and more energy being put back into the batteries.

v. Higher utilization of regenerative braking will result in the most efficient driving possible and will extend range.

vi. When the battery is completely full the vehicle will be unable to use regenerative braking since there is no room in the battery to store the regenerative braking energy. This is normal. When this occurs the regenerative braking tell-tale will light up on the instrument cluster. In the event that the drive motor, drive motor inverter or battery temperature is too high, the regenerative braking tell-tale may also illuminate. This indicates the regenerative braking system has been disabled.

d. HVAC

i. Energy consumption at idle is relatively low as compared to driving.

ii. Best practice is to eliminate excessive idle time by turning the truck off when leaving the cab. This will reduce energy consumption and improve range.

iii. Utilize the recirculation mode on the HVAC system to minimize heating and cooling energy consumption. Also, do not drive with the windows down and HVAC running.

579EV QUICK START GUIDE

4) RANGE/EFFICIENCY *continued*

e. Temperature

i. Batteries like to be at moderate (room) temperatures. The truck will automatically adjust the battery temperature by heating them when cold, or cooling them when hot.

1. This means temperature extremes will affect vehicle range. Plan for reduced range in these conditions.

ii. Preconditioning

1. Bringing the vehicle, batteries and cabin to operating temperature while connected to the charger, prior to departing, will help to mitigate weather-related range loss.

iii. Park the vehicle with weather-related range loss in mind.

1. For hot climates, park in shade.

Parking in Shade

2. For cold climates, park in an indoor, warmer area if possible.

Parking Inside

Note: This quick start guide is intended as a quick reference. Operators should fully read the 579EV operators manual before operating the 579EV. This quick start guide also does not replace driver training and operators must be properly trained before driving the 579EV.

Y53-6209-1A1
Rev: 9/2023