

Depower and Reinitialise Electric Vehicles VR Module Overview

Modelled from Unit of Competency: AURETH101



Experience Overview

What's included in VR Depower and Reinitialise Electric Vehicle



Train your team to handle high-voltage systems with precision, confidence, and zero compromise on safety.

This immersive VR experience places participants in the heart of electric vehicle maintenance, guiding them through the step-by-step process of safely depowering and reinitialising battery electric vehicles. With lifelike tools, components, and guided procedures, users gain critical hands-on experience, without the real-world risk.

Working on battery EVs is high-stakes mistakes here can cost lives, not just downtime.

Participants are placed in a realistic maintenance environment where they must:

- Safely isolate and depower high-voltage components using correct procedures.
- Select and apply the appropriate PPE and specialised tooling.
- Navigate risk scenarios that simulate real-world electric vehicle faults.
- Follow strict sequences to re-initialise vehicle systems post-maintenance.
- Build confidence in high-voltage awareness and safe system handling.

This high-impact simulation builds the practical skill set needed to work on electric vehicles safely—making it essential for technicians transitioning into EV servicing and maintenance roles.

Features

- Perform the depower and re-initialise procedures twice to solidify your understanding and skills.
- Learn to use critical safety equipment like high-voltage gloves and multimeters, and implement safety checks like proper signage and equipment handling.
- Completed in 32 minutes
- Available in 13 languages

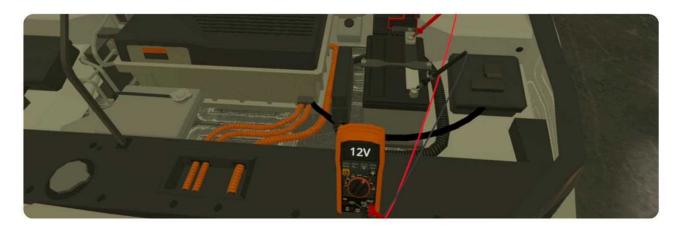
Languages

- English (AU, US, UK)
- Arabic
- Hind
- Spanish
- French
- German
- Italian
- Portuguese
- Serbian
- Polish
- Bosnian

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Training Frameworks

The experience is built around a phased, competency-based training structure:



- Introduction: Highlights the real-life dangers of working on EVs without proper depowering.
- Discovery Phase: Interactive questions to check learner understanding of EV hazards and safe practices.
- Instructional Walkthrough:
 - Step-by-step guide for the depowering and reinitialising process using:
 - Visual cues
 - Voice-over prompts
 - Tool interaction and teleportation
- **Practice Phase:** Learners are guided to complete tasks semi-independently with reminders and corrections for unsafe behaviour.

Exam Phase

- A full procedural assessment of the learner's ability to perform all safety steps without direct guidance.
- Evaluates performance based on correct sequencing, equipment usage, and safety compliance.
- **Results Review:** Detailed feedback on missed steps, incorrect actions (e.g., skipping PPE checks), and successes.



Key Learning Outcomes

Engaging methods of training Depower and Reinitialise Electric Vehicle













- Safely depower and Safely depower and reinitialize battery electric vehicles (EVs) following industry best practices.
- Understand the dangers of high voltage systems, including how to identify active systems and the risks of improper handling.
- Prepare and use all required equipment, including:
 - High-voltage PPE (gloves, arc flash shield, insulating mat)
 - Multimeter for live-dead-live testing
 - Service signage (roof signs, caution signs)
 - Lockable toolbox and glove inflator
- Implement proper depowering procedures, including:
 - Verifying the vehicle is off and securing the key fob
 - Reviewing technical documentation and vehicle-specific shutdown procedures
 - Disconnecting the 12V battery and high-voltage service plug
 - Waiting for full capacitor discharge
 - Performing live-dead-live tests to confirm the system is safe
- Safely reinitialize the system after maintenance by:
 - Reversing the depowering steps
 - Reconnecting the service plug and 12V battery
 - Confirming vehicle readiness via dashboard indicators
- Apply safety frameworks, such as the "One-Hand Rule" and proper PPE inspections, to prevent electrical shock.

Discovery

In this segment, trainees are tested on their subject matter knowledge prior to commencing any training.

Why is safety signage used to demarcate the EV and its surroundings during maintenance and repair? The first question asked during the discovery phase.	
8	To comply with legal requirements and avoid penalties
8	To ensure that the vehicle is not accidentally moved or disturbed during maintenance or repair work
0	To warn others of potential hazards and risks involved in working on an electric vehicle
8	To prevent unauthorized access to the vehicle or work area from clients or other personnel
	t is the significance of the ready light? econd question asked during the discovery phase. Is only presented to the learner if the previous question was answered successfully.
0	To indicate if the HV battery is fully charged
0	To indicate the HV battery is operational
8	To indicate when the vehicle is ready to be worked on
0	To indicate when the vehicle is turned on
	s it important to wait the right amount of time as recommended by the manufacturer? — — — — — — — — — — — — —
0	To allow the high voltage to circulate around
0	To allow the low voltage to discharge
0	To allow the HV battery to drain
0	To allow the high voltage to discharge

Practice

To provide a better grip on the vehicle's components

To protect the vehicle from damage

To prevent the worker from getting dirty

To protect the worker from electrical shock

In this segment, trainees are placed in a practice scenario and asked to complete various tasks.

TARGET What do you think the most appropriate next step is? Inspect the High Voltage PPE you need to wear when interacting with High Voltage components Demarcate the vehicle and the area around it with signage To prevent the worker from getting dirty To measure the voltage of the high voltage battery What do you think is the main reason for depowering an electric vehicle for maintenance purposes? To prevent electrical shock to people working on the vehicle To conserve battery life and extend the vehicle's range To activate the vehicle's regenerative braking system To increase the battery's capacity and performance & TARGET Why do you think is important to wear insulated gloves during the depowering process of an electric vehicle?



What do you believe is the purpose of the dead test during the live-dead-live test? To verify that the 12V battery is functional To check for short circuits in the high voltage or low voltage system To ensure that the high voltage system has no charge To measure the voltage of the high voltage battery Targett Select the time in minutes for the vehicle to discharge fully.

Exam

In this segment, trainees are asked to complete various tasks toward their final assessment. This segment is scored and will dictate their final score.





€ ACTIVITY

The learner has checked the vehicle is off by looking at that the Ready Light is not active.



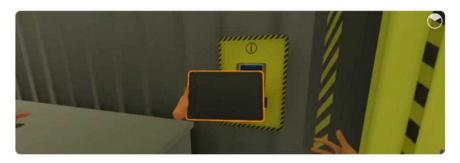
■ ACTIVITY

The learner has moved the key fob from the car to a locked box at least 5 meters from the vehicle.



□ ACTIVITY

The learner has read the documents detailing the steps involved in depowering the vehicle.



E ACTIVITY

The learner has disconnected the 12V battery to prevent the vehicle from starting.



□ ACTIVITY

The learner has checked the integrity of the PPE and equipped it.



□ ACTIVITY

The learner has removed the service plug from the vehicle to allow the stored energy to dissipate.



ACTIVITY

The learner has locked the service plug away for safe keeping.



€ ACTIVITY

The learner has changed the colour of the signs to show the status of the electric vehicle.



S TARGET

Select the time in minutes for the vehicle to discharge fully.

- O 10
- **©** 2
- O 15
- O 5



(E) ACTIVITY

The learner has tested the multimeter is functional by placing the positive and negative leads on the car's battery.



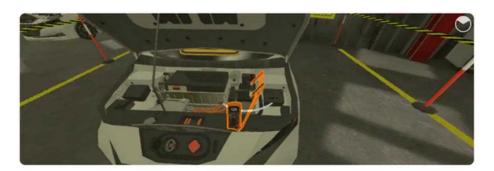
E ACTIVITY

The learner has tested that the vehicle has been depowered by checking the voltage of the fast charging port for any charge.



@ ACTIVITY

The learner has tested the multimeter is functional a second time by placing the positive and negative leads on the car's battery.



@ ACTIVITY

The learner has changed the roof sign to show the status of the electric vehicle.



@ ACTIVITY

The learner has changed the roof sign to show the status of the electric vehicle.



@ ACTIVITY

The learner retrieved the service plug and reinserted it back into the electric vehicle. $\label{eq:energy}$



□ ACTIVITY

The learner connects the battery cable back to the battery.



⊕ ACTIVITY

The learner has inspected the electric car's ready light and confirmed its it on.



□ ACTIVITY

The learner has gathered all the equipment used in depowering the vehicle and put it away.



VR Trainee Certificate

Employees will receive a VR Trainee Certificate upon successfully completing a training module in the Next World platform.



Certificate of Completion: Finished the module, underperformed the pass threshold



Finished the module, exceeded the pass threshold



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