

ACTIVITY	PERSON AT RISK	SIGNIFICANT HAZARDS	RISK*			RISK CONTROL MEASURES	RESIDUAL RISK**		
			P	S	DR		P	S	DR
Replacing a car battery	Technician and persons in vicinity	Spark igniting escaped gasses caused by short circuit	2	4	8	<ul style="list-style-type: none"> <li>Staff trained and will follow Company H&amp;S Procedure.</li> <li>Always wear appropriate PPE when working with lead acid batteries.</li> <li>Ensure work area is well ventilated.</li> <li>Exercise caution when working with metallic tools in battery area.</li> <li>Make first disconnection and the last connection the earth point.</li> <li>Always take great care to avoid shorting the live terminal to earth</li> </ul>	1	4	4
Replacing a car battery	Technician	Electrical burn from short circuit	3	3	9	<ul style="list-style-type: none"> <li>Staff trained and will follow Company H&amp;S Procedure.</li> <li>Always wear appropriate PPE when working with lead acid batteries.</li> <li>Exercise caution when working with metallic tools in battery area.</li> <li>Make first disconnection and the last connection the earth point.</li> <li>Remove all metallic jewellery.</li> <li>Always take great care to avoid shorting the live terminal to earth</li> </ul>	1	3	3
Replacing a car battery	Technician	Back injury arising from lifting of heavy battery	3	4	12	<ul style="list-style-type: none"> <li>Staff trained and will follow Company H&amp;S Procedure.</li> <li>If the battery to be replaced is of significant weight or needs to be lifted into an awkward position, staff to ask for assistance from a colleague</li> <li>Staff trained in correct manual handling techniques and will follow the Company's H&amp;S Manual Handling Procedure</li> </ul>	1	1	1

ACTIVITY	PERSON AT RISK	SIGNIFICANT HAZARDS	RISK*			RISK CONTROL MEASURES	RESIDUAL RISK**		
			P	S	DR		P	S	DR
<b>Charging a car battery</b>	Technician and persons in vicinity	Explosion caused by ignition of expelled gasses by spark ignition	3	4	12	<ul style="list-style-type: none"> <li>Batteries to be charged in a well-ventilated area.</li> <li>Ensure leads are fitted correctly before turning mains power on.</li> <li>Ensure mains power off before disconnecting.</li> <li>Always wait at least 5 minutes after ceasing charging before disconnecting.</li> <li>Always take care to ensure that cables and connections are handled in such a way that avoids accidental sparks.</li> <li>Battery charger units subject to PAT testing and replaced if necessary.</li> <li>Always ensure appropriate PPE is worn.</li> </ul>	1	4	4
<b>Charging a car battery</b>	Technician and persons in vicinity	Explosion caused by ignition of expelled gasses by static charge	2	4	8	<ul style="list-style-type: none"> <li>Staff trained and will follow Company H&amp;S Procedure.</li> <li>Staff instructed to always minimise static build up.</li> <li>Avoid rubbing against man-made fibres.</li> <li>Always ensure appropriate PPE is worn, i.e. safety footwear, gloves.</li> </ul>	1	4	4
<b>Jump Starting/ Using booster packs</b>	Technician	Battery explosion causing significant injuries	3	5	15	<ul style="list-style-type: none"> <li>Staff trained and will follow Company H&amp;S Procedure.</li> <li>Ensure the vehicles are not touching metal on metal.</li> <li>Connect positive to positive (RED) then negative to negative (BLACK).</li> <li>Ensure all connections are tight and away from rotating/moving parts.</li> <li>Remove cables in opposite order keeping away from rotating/moving parts.</li> <li>Avoid all naked flames and static charges.</li> </ul>	1	5	5

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			P	S	DR		P	S	DR
Battery charging	Technician	Spillage of electrolyte	3	3	9	<ul style="list-style-type: none"> <li>Staff trained and will follow Company H&amp;S Procedure.</li> <li>Batteries only charged in designated area.</li> <li>Staff advised of COSHH precautions.</li> <li>Any spillages to be contained and cleaned up immediately using suitable materials.</li> <li>Suitable PPE to be worn, i.e. safety glasses, gloves, clothing.</li> </ul>	2	2	4
Battery charging	Technician	Possible inhalation of sulphuric acid mist	3	4	12	<ul style="list-style-type: none"> <li>Staff trained and will follow Company H&amp;S Procedure.</li> <li>Batteries only charged in designated area.</li> <li>Batteries only charged in well ventilated area.</li> <li>Staff advised of COSHH precautions.</li> <li>Staff instructed not to agitate batteries.</li> <li>Suitable PPE to be worn, i.e. safety glasses, gloves, clothing.</li> </ul>	1	2	2
Working on battery electric vehicles, hybrid electric vehicles, plug-in hybrid electric vehicles	Technician and persons in vicinity	Various hazards associated with BEVs, HEVs and PHEVs	4	5	20	<ul style="list-style-type: none"> <li>Staff trained and will follow Company H&amp;S Procedure.</li> <li>Company policy not to undertake work on these vehicles other than mechanical items as outlined in the Policy.</li> </ul>	2	1	2

**PROBABILITY (P)** = Remote (0) – Unlikely (1) – Possible (2) - Probable (3) – Very Likely (4) – Certain (5)

**SEVERITY (S)** = No injury (0) – Minor Injury (1) – First-aid Injury (2) – 3 Day Injury (3) – Major Injury (4) – Fatality/Disability (5)

**DEGREE OF RISK (DR)** = PROBABILITY x SEVERITY

\* Risk identified in the absence of any control measures in place.

\*\* Residual risk is the level of risk that remains after suitable and sufficient risk control measures are introduced

<b>Signed originator</b>	<b>Keith Ambrose</b>	<b>Job title</b>	Director
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<b>Document Control</b>			
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1	01/02/2025	Original document drafted	Keith Ambrose
2			
3			
4			

Risk Assessment Matrix – Multiply the scores Probability (P) x Severity (S) to determine Degree of Risk (DR)

			Probability					
			(0)	(1)	(2)	(3)	(4)	(5)
Severity			Remote	Unlikely	Possible	Probable	Very Likely	Certain
			No Injury	(0)	0	0	0	0
Minor Injury	(1)	0	1	2	3	4	5	
First-Aid Injury	(2)	0	2	4	6	8	10	
3 Day injury	(3)	0	3	6	9	12	15	
Major injury	(4)	0	4	8	12	16	20	
Fatality/Disability	(5)	0	5	10	15	20	25	

<b>Low</b>	<b>0 - 2</b>	<b>Monitor</b>	Tolerable risk. No additional controls required. Employees made aware of safe/correct systems of work.
<b>Medium</b>	<b>3- 9</b>	<b>Improvement</b>	Action may be required to further reduce the risk to acceptable level. Periodic review of process or activity.
<b>High</b>	<b>10 +</b>	<b>Immediate Action</b>	Unacceptable risk. Stop activity immediately. Inform next level of management and refer to Safety Co-ordinator. Possible cessation/withdrawal of process or activity