



# EV Equipment Brochure



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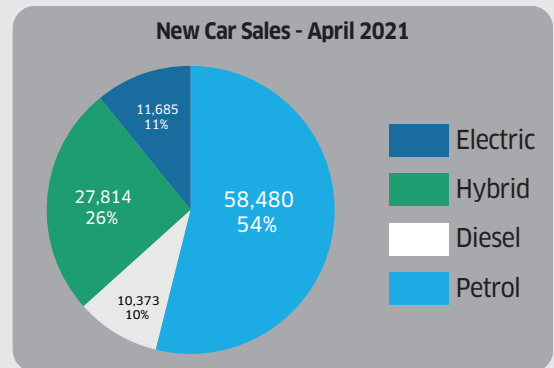
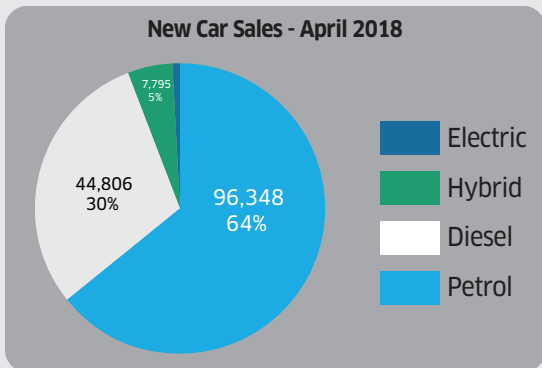
**Carlac**



# EV Market

Electric vehicles enjoyed a record year in 2021 for car sales in the UK against a market place which was 28.7% below pre-Covid levels. Overall, 1.65 million new cars were registered in 2021 (1% up on 2020) due to the ongoing impact of the pandemic and the global semiconductor chip shortage.

Despite this, more battery electric vehicles (BEV) were sold than over the previous five years combined (2016 - 2020), with 190,727 registrations (11.6% of all new car sales), while plug-in hybrid vehicles (PHEVs) made up 7% / 114,554 cars. This means that 18.5% of all new cars registered in 2021 can be plugged in.



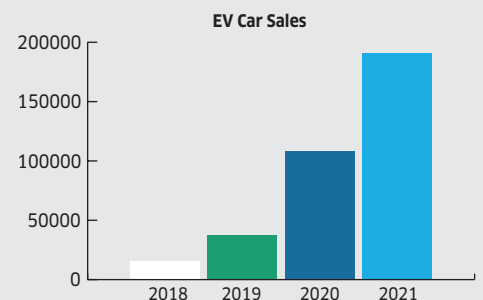
BEV sales grew again in January with 14,433 being sold making up 12.5% of all new registrations. This trend continued in February with a market share of 17.7% of all new registrations.

March 2022 saw the highest volume of BEV registrations ever being recorded in a single month with 39,315 new zero emission cars leaving the dealerships - an increase of 78.7% on March 2021.

In fact March 2022 witnessed more BEV being registered in March 2022 than during the whole of 2019 which now gives them an overall market share of 16.1%.

According to the latest vehicle stats, the EV market is booming. Electric passenger car sales increased by 186% in 2020 and today there is 432,000 electric vehicles on the road in the UK and more than 750,000 plug-in hybrids.

There's been a massive increase in the number of electric vehicles on sale in the UK with more than 40% of models now available as plug-ins. Car manufacturers like Nissan, Tesla, Ford & Vauxhall have all expanded their offerings. Volkswagen have created their electric only ID. range and Mercedes Benz have launched their EQ models.



The Institute of the Motor Industry (IMI) has warned that workshops and garages do not currently have the skills and the pipeline talent needed to service and repair electrified vehicles. The original report in May 2021 stated that the UK had just of 6% of garages equipped for E V vehicles.

With the UK garages having this major shortfall serious investment will be required. Each technician will need to be equipped with the correct clothing, protection & tooling to be kept safe at all times. Having your own 'EV kit' is no different to apprentice mechanics investing in their tool kits when starting out.

Data gathered from DfT (Department for Transport) & SMMT (Society of Motor Manufacturers & Traders)

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## Electrical Operations

### Maintenance

#### Vehicle Shut Down - Lock-Out Procedure

- Identify the vehicle - The most obvious and instant indication is the badge on the vehicle. As well as the badges on the exterior of the vehicle, there are a number of internal differences. An electric or hybrid vehicle will have a digital display to show battery / energy levels. Plus the vehicle will not have a gear stick as there is no gearbox. The vehicle will have a 'paddle' or 'selector'.
- Before starting the vehicle 'shut down' please check the vehicles operating manual. ALL makes and models have a 'safe time' that needs to be followed to allow the vehicle shutdown correctly keeping all the manufacturers data along with making the vehicle safe.
- Before starting any work on the vehicle please ensure the vehicle has all the correct safety coloured chains & posts around the vehicle to identify it to others.
- Ensure you have the correct PPE protection on before identifying the power points / voltage or carrying out any work on the vehicle.

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1 Face Shield	EVH10	6
2 Insulating Gloves	EVH42, EVH43, EVH44	6
3 Arc Flash Hoodie	EVH12, EVH13, EVH14, EVH15	6
4 Safety Boots	EVH48, EVH49, EVH50, EVH51, EVH52	6
5 Safety Chain, Post & Base	EVH1, EVH2 & EVH3	7, 8
6 Insulated Rubber Mat	EVH17	7
7 Insulating Shroud - Clear	EVH18	7
8 Lock-Out / Tag-Out	EVH4, EVH30, EVH23, EVH24, EVH29	9
9 Voltage Detector	EVH32	10
10 Multimeter	EVH33	10

### Working On The Vehicle

#### Vehicle Shutdown - Working Safely

- Before commencing any work on the vehicle please ensure the vehicle is safe to do so.
- There are special procedures for working on electric vehicles and the technician needs to be suitably qualified.
- High voltage is dangerous and can cause burns, shocks, sparks, explosions and even fires.



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10 Multimeter	EVH33	10



- Do not work without face shield and insulating gloves in the vicinity of live energy sources
- Do not use a measuring device when carrying out a voltage absence check

# Electrical Operations

## Working On The Vehicle

### General Day To Day Activities

- Ensure the vehicle's key is kept away from the vehicle to prevent accidental operation, ideally being locked away utilising the 'lock-out' cabinet.
- Before carrying out any maintenance visually check the vehicle for signs of damage to high voltage cabling (usually coloured orange) or any electrical components.
- Unless a specific task requires the vehicle to be energised always isolate or disconnect the high voltage battery in accordance with the manufactures instructions.
- Even when isolated, vehicle batteries and their components may still contain large amounts of energy and retain a high voltage. Only suitable tools & test equipment should be used. You must always test and prove that any high voltage cable or electrical component is dead prior to carrying out work.
- Pressure washing has the potential to damage high voltage electrical components and cables. Refer to guidance from manufacturers before valeting in any under body areas.
- Avoid towing any E&HV vehicles unless it can be determined that it is safe to do so. Dangerous voltages can be generated by movement of the drive wheels.
- Determine the location of high voltage cables before carrying out tasks such as panel replacements, cutting or welding plus taking appropriate precautions to prevent them being damaged



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11 Rescue Safety Pole	EVH16	7
12 EV Safety Posters & Signs	EVH37, EVH38, EVH39, EVH40	8

## Vehicle Warnings & Inspection

### Vehicle Dangers

- Voltages present in electric and hybrids are significantly higher (up to 650 Volts direct current -DC, than those used in other vehicles 12/24 Volts DC. In dry conditions, accidental contact with parts that are live at voltages above 110 Volts DC can be fatal.
- Not only is it important to check the vehicle is safe to use but its also important to regularly check your PPE equipment for damages as even a 'pin prick' sized hole in your gloves will cause serious injury as electricity will find its way through as it earths.



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8 Lock-Out / Tag-Out	See page 9	9
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10 Multimeter	EVH33	10
11 Fire Blanket	EVH19	7

## Vehicle Check & Overview

### Vehicle Assessment

- Always approach the vehicle with care, just because the technician has carried out the 'shutdown' process always assess the vehicle properly and give the possible risks the respect they deserve



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- Do not work without face shield and insulating gloves in the vicinity of live energy sources
- Do not use a measuring device when carrying out a voltage absence check

# Electrical Operations

## Roadside Recovery

### Incident Response

- Identify the vehicle and assess the risks for the technician, general public & other rescue services.
- Only approach the vehicle whilst wearing the correct PPE.
- Look for visual damages to bodywork and high voltage cabling.
- Check to see if the battery has been compromised. If the vehicle is smoking deploy the fire blanket.
- Once safe to do so remove the key from the vehicle to prevent it being activated / started.
- Sign off the area to prevent any unauthorised access.
- If the vehicle is damaged, faulty, and it's safe to do so, isolate the high voltage battery system using the isolation device on the vehicle. Always refer to the manufacturer's instructions for guidance.
- Have access reliable source of information for specific vehicle types.
- Avoid towing electric or hybrid vehicles unless it is determined to do so.



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## Work And Repair

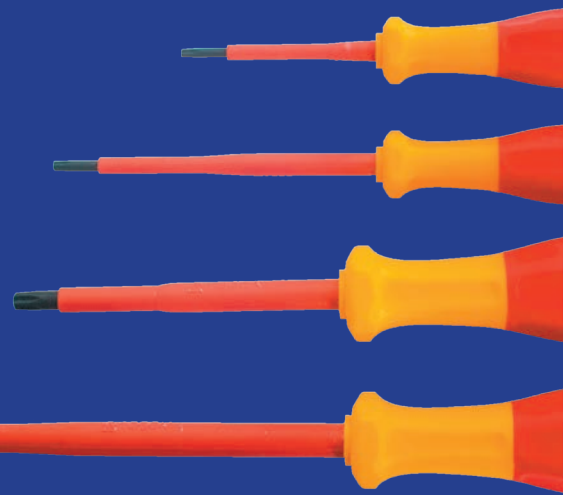
### Workshop Steps

- Locate the vehicle away from other vehicles & sign off the area.
- Approach the vehicle with the correct PPE.
- Check for damages to cabling and bodywork.
- If the vehicle has already been made safe by the shutdown process and isolating the service plug check for voltage.
- When checking voltage only use a CAT 3 tester.
- Remember to store the vehicles key and isolation service plug in the lock-out cabinet.



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# EV Tools ... Coming Soon



- Do not work without face shield and insulating gloves in the vicinity of live energy sources
- Do not use a measuring device when carrying out a voltage absence check

# EV PPE

## Face & Head Protection

### EV Arc Flash Face Shield

- Heavy duty helmet & visor offers class 1 electric arc protection (GS-ET-29) to 1,500VDC.
- The ABS dual shell helmet offers excellent impact resistance & incorporates a retractable PC visor.
- A foam sweat band with rotor adjustment system to suit head sizes between 53 / 63cm.
- Retractable visor with anti-fog & anti-scratch protection.
- Includes a microfibre protective storage bag.



Part No	Qty
<b>WS420</b>	1

### EV Arc Flash Face Shield Lightweight

- Lightweight design with a flip front protector.
- 1.5mm visor thickness offers protection against short circuit electric arcs.
- Visor comes with anti-fog acetate coating.
- Adjustable headband gives a comfortable & secure fit.
- Conforms to : EN 166 B 8.9.



Part No	Qty
<b>EVH10</b>	1

### EV Face Shield Protective Bag

- Protective bag to safely store the lightweight face shield.
- Storage bag will help prevent damage to the face shield

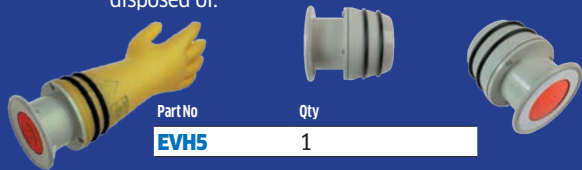


Part No	Qty
<b>EVH11</b>	1

## Hand Protection

### Pneumatic Safety Glove Tester

- The tester allows you to check electrical insulation gloves in accordance with EN60903.
- The EN60903 standard recommends regular inspection & testing for all electrical insulating products.
- Ideally they should be checked prior to each use to ensure they are free from damage.
- The pneumatic tester allows you to inflate the gloves to inspect them to check for air leaks caused by pinholes as electricity will find the smallest of holes in the gloves.
- Any holes or mechanical damage to the insulated gloves renders them ineffective & should be disposed of.



Part No	Qty
<b>EVH5</b>	1

### EV Insulated Gloves

- Fully insulated electrical safety glove. Latex material offers excellent electrical resistance.
- Class 0 rated for 1000v.
- Standards - EN60903, PPE CAT III 0333
- Overall length 36cm



Part No	Qty	Size
<b>EVH42</b>	1 Pair	Medium
<b>EVH43</b>	1 Pair	Large
<b>EVH44</b>	1 Pair	Extra Large

### EV Leather Gauntlet Overgloves

- Designed to be worn over electricians gloves.
- Extends the lifespan of the electricians gloves.
- Provides additional mechanical protection & offers a higher level of grip.
- Standards - 3111X, PPE CAT II
- Protects the electricians gloves in dirty or oily environments.



Part No	Qty	Size
<b>EVH45</b>	1 Pair	Medium
<b>EVH46</b>	1 Pair	Large
<b>EVH47</b>	1 Pair	Extra Large

### EV Arc Flash Hoodie

- Arc flash protective fleece with hood. This premium hooded sweatshirt features a warm neck design, ideal for working outside.
- Constructed from 320gsm VXS+ inherent sweat fabric with a brushed inner fleece lining for warmth.
- Breathable, soft to wear & fantastic to touch. Round neck higher collar.
- Colour : Navy



Part No	Qty	Size
<b>EVH12</b>	1	Small
<b>EVH13</b>	1	Medium
<b>EVH14</b>	1	Large
<b>EVH15</b>	1	Extra Large

### EV Safety Boots

- Protective boot with fibreglass toecap & composite anti-penetration flexi-midsole.
- Complete with scuff cap & shock absorbing dual density EVA nitrile rubber outsole.
- Upper material water repellent full grain black nubuck with breathable mesh panels.
- Certified to withstand electrical risks of 18KV in accordance with the ASTM F2412-18 test method.

Part No	Qty	Size
<b>EVH48</b>	1 Pair	Size 8
<b>EVH49</b>	1 Pair	Size 9
<b>EVH50</b>	1 Pair	Size 10
<b>EVH51</b>	1 Pair	Size 11
<b>EVH52</b>	1 Pair	Size 12



## Safety Chain, Post & Base

### Safety Chain

- Safety chain designed to cordon off the working area around the car.
- Also designed as a multifunctional barrier.
- High visibility for easy identification.
- To be fitted to matching colour posts.
- Chain 6mm x 25m length with a breaking strain of 60kg (Approx)



Part No	Qty
<b>EVH1</b>	1

### Chain Support Post

- Support posts to house the safety chains around the vehicles.
- Also designed as a multifunctional barrier.
- High visibility for easy identification.
- Posts have two spring clips to clip the chain over.
- Height of post 90cm, diameter 4.5cm, weight 0.38kg



Part No	Qty
<b>EVH2</b>	1

### Chain Support Heavy Base

- Heavy duty base which securely holds the post & chains in position.
- Designed only to house our posts.
- Due to size offer less floor space when set up improving access.
- Made from recycled PVC.
- Base dimensions - Diameter 34.5cm, height 8.4cm, Weight 3Kg (Approx).

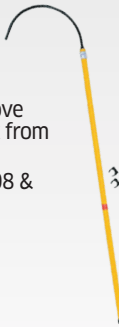


Part No	Qty
<b>EVH3</b>	1

## EV Safety

### Rescue Safety Pole

- Electrically insulated rescue hook & pole.
- Designed to safely remove victims of electric shock from danger.
- Conforms to NF EN50508 & CEI61235-S.
- Rated to 45,000V.
- Length 145cm.



Part No	Qty
<b>EVH16</b>	1

### EV Insulated Rubber Mat

- Electrical insulated rubber matting.
- Essential for ensuring the safety of technicians whilst working on electric & hybrid vehicles.
- Manufactured to IEC61111 Class 0 international standards.
- Offers protection up to 1,000 volts.
- Size : 1m x 1m.



Part No	Qty
<b>EVH17</b>	1

### Warning Wing Cover

- Designed to protect both the vehicle that's being worked on & fellow technicians.
- Printed with hi-vis signage to identify the vehicle is a EV / Hybrid car that's being worked on.
- Printed in durable, fade resistant inks in high impact colours for great visibility.
- Manufactured with anti-slip soft rubber backing & polyester facing.
- Size : 90cm x 60cm.



Part No	Qty
<b>EVH20</b>	1

### Transparent Insulating Shroud

- Transparent shroud 1000v to isolate / protect high voltage parts
- Prevents accidental contact with live terminals.
- Easily installed & fitted.
- Insulated safety clamps are recommended to secure the shroud in position.
- Dimensions: 1m x 1.3m



Part No	Qty
<b>EVH18</b>	1

### EV Insulated Safety Clamp

- Insulated spring loaded plastic clamp to hold the transparent shroud in place.
- Secures the shroud in place to prevent the shroud from slipping to protect contact with live terminals.
- Insulation rating to 1,000 volts. Jaw opening : 25mm.
- Dimensions : 165 x 82 x 18mm



Part No	Qty
<b>EVH22</b>	1

### EV Car Fire Blanket

- Manufactured from specialised quartz material with a silicon polymer coating.
- This combination of high tech fabric engineering provides continuous temperature resistance up to 1,000°C and spikes of 1,600°C.
- By deploying an EV car fire blanket the combustion potential can be minimised by depriving the fire of oxygen.
- Once the fire is controlled the temperatures drop rapidly which prevents damage to surrounding vehicles & property.
- Dimensions : 8 x 6 metres.



Part No	Qty
<b>EVH19</b>	1

# EV Signage

## EV Warning Sign Pack

- Complete assorted pack of electric vehicle warning signs.
- Comes with - drivers door window sign - Size 300mm x 200mm.
- Roof top warning sign - Size 310mm x 235mm x 3 sides. Constructed from durable rigid plastic.
- Chain barrier warning signs x 3. Size 300mm x 200mm.
- Perfect warning starter pack.

Part No	Pack of
<b>EVH37</b>	5



## High Voltage Sign

High voltage ISO pictogram denotes a hazard or prohibition message without text.

- Fitted with a durable sucker to allow placement on any smooth surface.
- Printed on a durable polymer panel measuring 25cm x 20cm.
- Sign to warn the workforce or customers of the potential hazard.
- Suitable for use throughout Europe



Part No	Qty
<b>EVH35</b>	1

## High Voltage Floor Sign

- Hazard warning floor sign.
- High voltage sign to be used with additional signage / warnings to highlight electric / hybrid vehicles & the potential danger.
- Warning of the potential hazards inside the workshop or garage with this double sided, highly visible warning sign.
- Manufactured from hardwearing plastic with integral handle making it easier for carrying.
- Height measures 630mm



Part No	Qty
<b>EVH41</b>	1

## Electric Vehicle Safety Poster

- Electric vehicle full safety procedure wall poster.
- An essential checklist for technicians preparing to work on electric & hybrid vehicles.
- Ensures the correct sequence is followed to make vehicles safe prior to work.
- Printed on durable polymer panel.
- Dimensions : 750mm x 500mm.



Part No	Qty
<b>EVH38</b>	1

## Electric Shock & CPR Poster

- The first aid & CPR advice poster offers a full procedure & precautions against electric shocks from EV / hybrids.
- Displays an easy to follow casualty assessment guide & CPR instructions.
- The poster is printed on a durable polymer panel.
- Please note - The poster is just for guidance.
- Dimensions : 750mm x 500mm



Part No	Qty
<b>EVH39</b>	1

## Vehicle Roof Top Warning Sign

- High visibility warning to alert all personnel that the vehicle that's being serviced or repaired is a hybrid or an electric vehicle.
- High voltage sign to be used with additional signage / warnings to highlight electric / hybrid vehicles & the potential danger.
- Constructed from durable rigid plastic.
- Foam protected feet to prevent damage to the vehicle bodywork.
- Dimensions : 310mm x 235mm x 3 sides



Part No	Qty
<b>EVH40</b>	1

## Reusable Stickers High Voltage

- Designed to indicate high voltage areas on an EV such as a charging port, battery, capacitor bank etc.
- Reusable labels.
- Low-tack adhesive which does not leave residue on the vehicle & enables them to be used many times.
- Hi visibility warning sticker.
- Dimensions : 100 x 140mm



Part No	Qty
<b>EVH31</b>	1

## High Voltage Signs For Chains

- Electric / hybrid vehicle warning signs.
- Signage to be used with barrier chains.
- Lightweight but durable polymer panel signs.
- Mounting hooks for easy deployment on the hi vis chains.
- Dimensions : 300 x 200mm



Part No	Pack of
<b>EVH36</b>	3

## Safety Chain

- Safety chain designed to cordon off the working area around the car.
- Also designed as a multifunctional barrier.
- High visibility for easy identification.
- To be fitted to matching colour posts.
- Chain 6mm x 25m length with a breaking strain of 60kg (Approx)



Part No	Qty
<b>EVH1</b>	1

## Chain Support Post

- Support posts to house the safety chains around the vehicles.
- Also designed as a multifunctional barrier.
- High visibility for easy identification.
- Posts have two spring clips to clip the chain over.
- Height of post 90cm, diameter 4.5cm, weight 0.38kg



Part No	Qty
<b>EVH2</b>	1

## Chain Support Heavy Base

- Heavy duty base which securely holds the post & chains in position.
- Designed only to house our posts.
- Due to size offer less floor space when set up improving access.
- Made from recycled PVC.
- Base dimensions - Diameter 34.5cm, height 8.4cm, Weight 3Kg (Approx).



Part No	Qty
<b>EVH3</b>	1



# Lock-Out & Tag-Out

## EV Lockout Station

- The lockout station is designed to securely store a vehicles keys, isolators & lockout padlocks away from the vehicle that's being worked on.
- Heavy duty steel construction & powder-coated finish.
- Includes wall mountings.
- Resettable 3-digit combination.
- Dimensions: 20cm x 16mm x 7.5cm.
- (PLEASE NOTE ISOLATORS & PADLOCKS ARE NOT INCLUDED)



Part No	Qty
<b>EVH25</b>	1

## Car Key Lockout Tags Reusable

- Manufactured from gloss laminated polyester to ensure durability & moisture resistance.
- Hi-vis warning printed in vibrant colours on one side with a panel on the reverse so the technicians name can be written along with vehicle registration no.
- When used with the dry wipe marker the lockout tags can be used many times.
- Supplied with a fine point dry wipe marker pen so the 'technician in charge' can identify themselves.
- Dimensions : 50 x 70mm



Part No	Pack of
<b>EVH28</b>	10

## Steering Wheel Lockout & Sign

- High visibility warning to alert unauthorised personnel that the vehicle is being serviced or repaired.
- When the wheel lockout device sign is in place no attempt to start or move the vehicle should be made.
- The sign is an integral component of the key locked steering wheel immobiliser to prevent unauthorised removal.
- Supplied with a dry wipe marker pen so the 'technician in charge' can identify themselves.
- Comes with two keys



Part No	Qty
<b>EVH30</b>	1

## Padlocks & Tags

### EV Lockout Safety Padlock

- Insulated safety lockout padlocks are used to secure the insulation port lockout device.
- Nylon body & hasp ensures the padlock is fully insulated.
- Supplied with 2 keys.
- Ideally stored in the lockout station.
- Dimensions : 38mm body & 40mm hasp height.



Part No	Qty
<b>EVH23</b>	1

### EV Lockout Long Shackle Padlock

- Insulated safety lockout padlocks are used to secure the insulation port lockout device.
- Nylon body & hasp ensures the padlock is fully insulated.
- Supplied with 2 keys.
- Ideally stored in the lockout station.
- Dimensions : 38mm body & 76mm shackle.



Part No	Qty
<b>EVH24</b>	1

### Padlock Lockout Tags Reusable

- Lockout tags are designed to be used with lockout padlocks when securing the isolation port lockout device or steering wheel warning cover.
- Manufactured from gloss PVC to ensure durability & moisture resistance.
- 10mm brass eyelet ensures the lockout tags cannot be torn off.
- Supplied with a fine point dry wipe marker pen so the 'technician in charge' can identify themselves.



Part No	Pack of
<b>EVH27</b>	5

## Lockout Accessories

### Isolation Port (MSD) Lockout Device

- The isolation port lockout device is designed to blank off electric & hybrid vehicle manual service disconnect (MSD) ports.
- It has an adjustable bar & cam action that allows it to be locked off with the insulated padlocks.
- Prevents unauthorised reinsertion of the isolator & restrict fingers touching live terminals.
- A small but essential piece of equipment to safeguard technicians working on electric & hybrid vehicles.



Part No	Qty
<b>EVH4</b>	1

### EV Nylon Lockout Hasp

- The nylon hasp allows you to prevent access when padlocks are not long enough.
- Can be used with lockout tags.
- Supplied with 6 holes so multiple padlocks can be used to prevent access.
- To be used with the safety lockout padlocks.
- Dimensions : Total length 193mm - width 41.5mm, hasp length 101mm - hole diameters : 10mm.



Part No	Qty
<b>EVH29</b>	1

### Identification Tags High Voltage

- Identification tags designed to be hung on internal rear view mirror or steering wheels to warn the car is either an electric or hybrid vehicle.
- High voltage sign to be used with additional signage / warnings to highlight electric / hybrid vehicles & the potential danger.
- Provides an additional safety check when working on EV / hybrids.
- Workshops, car showrooms, car hire companies can utilise to identify electric / hybrid vehicles.



Part No	Pack of
<b>EVH26</b>	10

# Testing, Measuring & Accessories

## Voltage Detector Up To 1,000V

- An electric voltage tester is an essential piece of equipment for EV / hybrid technicians to prove there is no voltage present prior to working.
- A simple LED scale indicates the voltage range present at the time of testing.
- The electrical voltage tester has a safe test range from 12v to 1000v AC/DC.
- Voltage measurement is in increments of - 12, 24, 50, 120, 230, 400, 690 & 1000 volts.
- Conforms to the following safety standards - BS EN61243-3, TUV-GS38, EN61010-1 CAT111 - 1000V, EN61010-1 CAT IV - 600V.



Part No	Qty	Voltage
<b>EVH32</b>	1	Up to 1,000 V

## Accessories

### EV Disconnect Shutdown Timer

- Digital timers are perfect for accurately measuring the required shut down times following the manufacturers guide line for disconnecting & reconnecting.
- Important where airbag, BSI, hybrid & electric ECU's need time to shut down before proceeding with further work.
- Suitable for technicians working on electric & hybrid vehicles regularly.
- Large digital display & rear magnet fold out stand.
- Requires 1 x AAA battery (supplied).
- Dimensions : 70(H) X 70(W) X 25(D)mm.



Part No	Qty
<b>EVH34</b>	1

### EV Cable End Shroud

- Protective cable end shroud with grip collars.
- Shrouds are designed to protect uninsulated cable ends, connectors & lugs.
- 1000 volts insulation.
- The flexible gripping collar ensures a positive fit onto cables to prevent damage.



Part No	Qty	Diameter
<b>EVH6</b>	1	15 mm
<b>EVH7</b>	1	25 mm
<b>EVH8</b>	1	35 mm

## EHV Multimeter CAT 111 Up To 1,000V

- The EHV multimeter & insulation tester is designed for testing & checking components on electric & hybrid vehicles through the continuity test & diode test.
- The multimeter function is combined with an inbuilt insulation test facility making it ideal for troubleshooting & preventative maintenance.
- The insulation test function operates at the following test voltages - 50v, 100v, 250, 500, & 1000v.
- Complies with EN61010 CATEGORY III (1000v) & CATEGORY IV (600v).



Part No	Qty	Ref	Voltage
<b>EVH33</b>	1	CAT 111	Up to 1,000 V

### EV Insulated Trim/Cable Tool Set

- Insulated trim & cable management tool set.
- Used to safely remove vehicle trim & clipped components on electric & hybrid vehicles.
- Four profile shapes to assist with removal of various trim clip styles.
- Tested up to 1000 volts.
- Supplied with storage pouch.



Part No	Qty
<b>EVH21</b>	1

### Pneumatic Safety Glove Tester

- The tester allows you to check electrical insulation gloves in accordance with EN60903.
- The EN60903 standard recommends regular inspection & testing for all electrical insulating products.
- Ideally they should be checked prior to each use to ensure they are free from damage.
- The pneumatic tester allows you to inflate the gloves to inspect them to check for air leaks caused by pinholes as electricity will find the smallest of holes in the gloves.
- Any holes or mechanical damage to the insulated gloves renders them ineffective & should be disposed of.

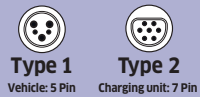


Part No	Qty
<b>EVH5</b>	1

# Accessories



**Type 1**  
Single Phase



**Charge time from 4 hours**

## RING EV Charging Cable 1 Phase - Type 2 to Type 1

IP65 and IK10 rated. Suitable for all fully electric and plug in hybrid vehicles. Supplied with a compact, heavy duty storage case.

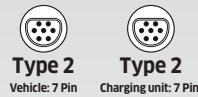
- 5m long pure copper cable
- Operating temperature -40°C to 85°C

Part No.	Qty	Voltage	Amps Output	Wattage
<b>EVRCC11605</b>	1	240V	16A	3.6kWh
<b>EVRCC13205</b>	1	240V	32A	7.2kWh

1 Phase 16A charge times: 30kWh Battery - 8 hours. 60kWh Battery - 16 hours. 90kWh Battery - 24 hours.  
1 Phase 32A charge times: 30kWh Battery - 4 hours. 60kWh Battery - 8 hours. 90kWh Battery - 12 hours.



**Type 2**  
Single Phase



**Charge time from 4 hours**

## RING EV Charging Cable 1 Phase - Type 2 to Type 2

IP65 and IK10 rated. Suitable for all fully electric and plug in hybrid vehicles. Supplied with a compact, heavy duty storage case.

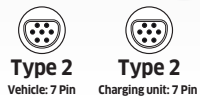
- 5m long pure copper cable
- Operating temperature -40°C to 85°C

Part No.	Qty	Voltage	Amps Output	Wattage
<b>EVRCC21605</b>	1	240V	16A	3.6kWh
<b>EVRCC23205</b>	1	240V	32A	7.2kWh

1 Phase 16A charge times: 30kWh Battery - 8 hours. 60kWh Battery - 16 hours. 90kWh Battery - 24 hours.  
1 Phase 32A charge times: 30kWh Battery - 4 hours. 60kWh Battery - 8 hours. 90kWh Battery - 12 hours.



**Type 2**  
Three Phase



**Charge time from 1.5 hours**

## RING EV Charging Cable 3 Phase 32A - Type 2 to Type 2

IP65 and IK10 rated. Suitable for electric and plug in vehicles. Supplied with a compact, heavy duty storage case.

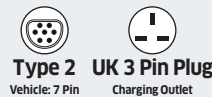
- 5m long pure copper cable
- Operating temperature -40°C to 85°C

Part No.	Qty	Voltage	Amps Output	Wattage
<b>EVRCC23P05</b>	1	480V	32A	22kWh

3 Phase 32A charge times: 30kWh Battery - 1.5 hours. 60kWh Battery - 3 hours. 90kWh Battery - 4.5 hours.



**Type 2**  
UK Mains Power



**Charge time from 10 hours**

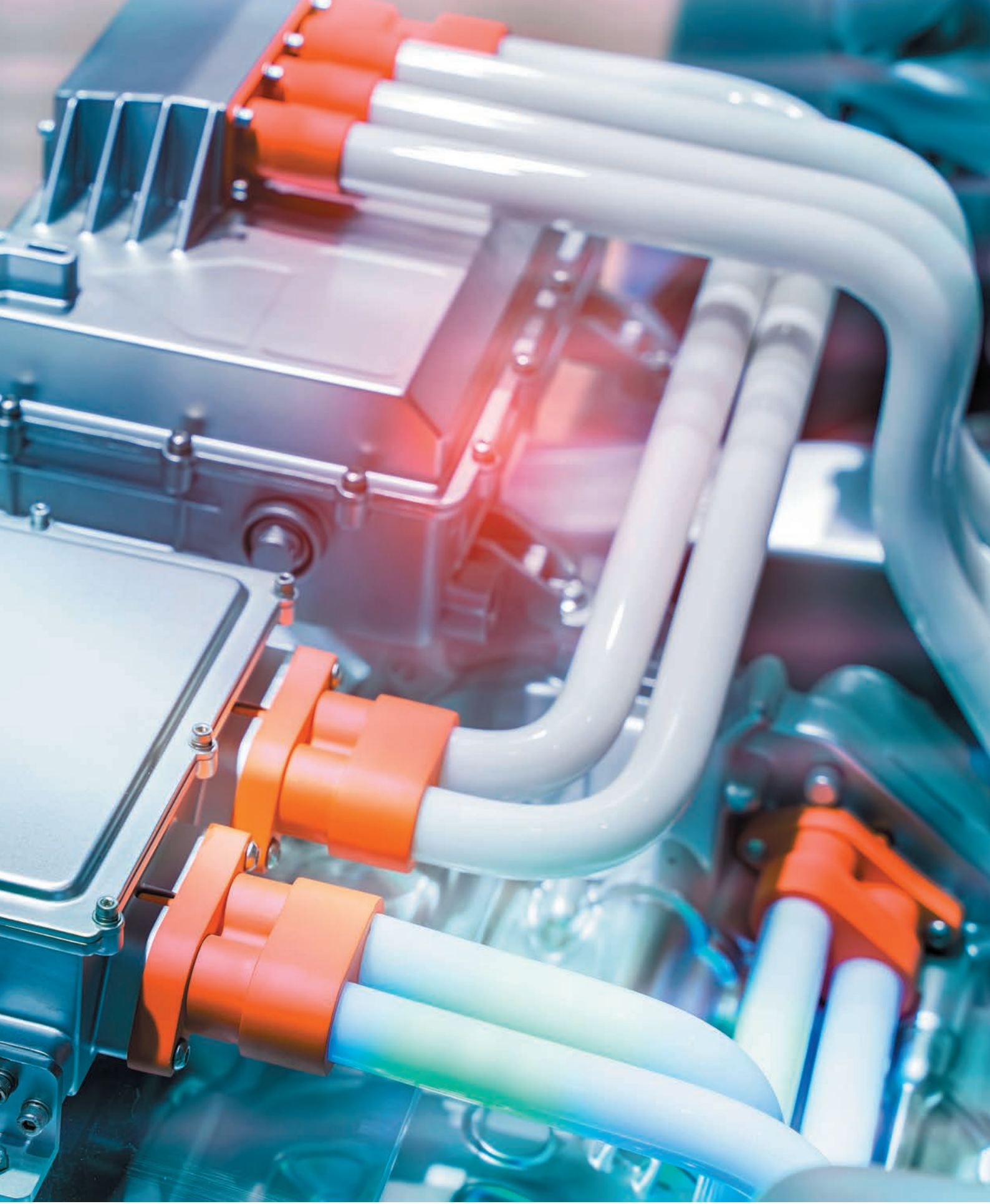
## RING EV Charging Cable 3-pin Plug to Type 2

Suitable for all Type 2 fully electric and plug in hybrid vehicles. LCD Screen shows length of charge and power consumption. Supplied with a compact, heavy duty storage case.

- 5m long cable
- Operating temperature -25°C to 45°C

Part No.	Qty	Voltage	Current	Max Power
<b>EVRPC20A05</b>	1	240V	6/10/13A	3kWh

13A charge times 3kWh: 30kWh Battery - 10 hours. 60kWh Battery - 20 hours. 90kWh Battery - 30 hours.  
10A charge times 2.3kWh: 30kWh Battery - 13 hours. 60kWh Battery - 26 hours. 90kWh Battery - 39 hours.



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