

LASER[®]

THE AUTOMOTIVE TOOL SPECIALIST

PAST • PRESENT • FUTURE

HIGH VOLTAGE TOOLS

TEST INSTRUMENTS

WORKSHOP SAFETY

PERSONAL SAFETY

VEHICLE SAFETY



HYBRID & ELECTRIC VEHICLE TOOLS & SAFETY EQUIPMENT



www.lasertools.co.uk

LASER[®]

TECHNICAL PRODUCTS WITH TECHNICAL SUPPORT

HYBRID & EV TOOLS DEMONSTRATION VAN



**OUR MOBILE TECH CENTRE, SHOWCASING ALL
OUR LATEST HYBRID & EV PRODUCT RANGE!**



Our state of the art van is packed full of some of the latest tools, equipment and workshop safety to cover all your needs for maintaining and working on high voltage electrical and hybrid vehicles.



Contact us for further information:

Tel: 01926 818191

Email: sales.support@toolconnection.co.uk

Our Laser van workout days are available to all of our Tool Connection customers.

www.toolconnection.co.uk/tech-van-booking



HYBRID & ELECTRIC VEHICLES

The Laser Tools range of tools and safety products for Hybrid & EV's has been developed in conjunction with leading UK Car Manufacturers and Importers, to create a dedicated programme covering all aspects of Workshop Safety, Vehicle Safety, Personal Safety, and related High Voltage Tools and Test Instruments.

All products are tested and certificated to the latest International Standards for working on, or close to, live high voltage environments, as found on modern Hybrid and Electric Vehicles.

Whether you are working on Cars, Vans, Trucks or Buses, the Laser Tools programme will help keep your employees and your customers safe.

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Drive Size



No. of Ratchet Teeth



IEC Certification



Torque Direction Clockwise



Torque Direction Both



Calibration Certification



Chrome Vanadium



Consumable



Battery Included



Safety Glasses



Safety Mask



Made in the UK



6638

Insulated Rescue Pole

Electrically insulated rescue pole with hook.

- For rescuing electrified victims in case of an accident.
- Only for use in dry conditions.
- Insulation rated to 45kV. Length: 1.65m. Weight: 1kg.
- Supplied with wall mounting support brackets.

1650mm long

6639



High Voltage/No Admittance Sign

Warning sign for employees and customers.

- Available with or without text - ideal if required in multi-lingual environments.
- Made from 1.2mm rigid plastic with two holes for fixing to chains, walls etc.
- Satin finish suitable for both indoor and outdoor use.
- Dimensions: 500 x 300mm.
- Conforms to ISO7010, BS5499, BS5378.



7576

Part No.	Type
6639	High Voltage/No Admittance Sign
7576	High Voltage/No Admittance Sign (without text)



7577

Danger High Voltage Sign

To inform employees and customers of risks concerned with high voltage vehicles.

- Available with or without text - ideal if required in multi-lingual environments.
- Made from 1.2mm rigid plastic with holes for wall fixing.
- Satin finish suitable for outdoor and indoor use.
- Dimensions: 300 x 210mm.
- Conforms to ISO7010, BS5499, BS5378.

6642



Part No.	Type
6642	Danger High Voltage Sign
7577	Danger High Voltage Sign (without text)

7575

Electric Shock First Aid Poster

The Electric Shock First Aid Poster explains the precautions that you should be aware of when dealing with electric shock victims.

- The information contained in this poster is for guidance only and should not be used as a substitute for recognised training.
- Printed in full colour on HP photo realistic paper. The print side is laminated for extra protection.
- Size: 590 x 420mm.



8049

Hybrid/EV Warning Sign 10pc

Hybrid/EV warning sign, easily hangs on rear view mirror or steering wheel inside vehicle.

- Designed to serve as a warning that vehicle is EV or hybrid. Ideal for workshops to hang inside customer cars or car hire companies etc.
- Size: 177 x 66.5mm.



6643

Chain Support Post with Cap

Post height: 950mm.

- High visibility red and white
- Posts are made from high density polyethylene.
- Posts are fitted with chain support caps.

For bases and chain, please see Laser Part Nos. 6644 (base) & 6645 (chain).

6644

Safety Post Support Base

Manufactured from recycled PVC.

- Base for Safety Posts.
- Weight: 3kg

6645

Plastic Chain

Red and white for high visibility.

- Chain size: 25m x 6mm



Set of Posts & Bases with Chain

Plastic support posts and bases for marking out restricted areas.

- Includes 25m x 6mm chain in red & white for high visibility.

Part No.	Set
6700	Set of 4 Posts & Self-weighted Bases with Chain
6701	Set of 6 Posts & Self-weighted Bases with Chain
6702	1 x Post & Self-weighted Base
8055	Set of 4 posts & Fillable Bases* with red & white chain

* Fill with sand or water to stabilise



61607

Individual Chain Support Post with Cap

Post height: 950mm.

- Made from high density Polyethylene.
- Posts are fitted with chain support caps.

Use with Safety Post Support Base 6644 (above)



Set of Posts & Bases with Chain

Plastic support posts and bases for marking out restricted areas.

- Includes 25m x 6mm chain in black and yellow for high visibility.

Part No.	Set
61608	Set of 4 Posts & Self-weighted Bases with Chain
61609	Set of 6 Posts & Self-weighted Bases with Chain

61238

Plastic Chain

Black and yellow for high visibility.

- Chain size: 25m x 6mm



7892

Hybrid Disconnect & Shut Down Kit

An essential kit for shutting down hybrid or electric vehicles prior to service. All the necessary tools in one handy kit. Ideal for individual technicians as a personal safety kit, for mobile mechanics, and also for breakdown recovery operators. (nb. manufacturers shut down procedure should be adhered to at all times).

- Includes sign & stickers to clearly identify the high voltage vehicle.
- Safety tag & lockout padlock to ensure keys are safe.
- Shut down timer & voltage tester to test residual voltage.
- Always wear electrical insulating gloves when working on any PHEV or BEV.



Case can be locked with vehicle key inside during maintenance

The 7892 kit contents explained:

Electric and Hybrid electric vehicles are safe to work on as long as certain guide lines are followed.

Firstly, when working on EV or Hybrid vehicles if the low or high voltage systems are to be disconnected then safety PPE must be worn starting with **high voltage gloves**.

It is not always obvious that a Hybrid or EV vehicles is switched on or off because their motors do not make a noise! For this reason when working on them the technician should remove the keys completely from the vehicle and lock them away with a suitable **padlock**.

Signage should be placed both inside and outside the vehicle warning everyone not to start the vehicle. With many vehicles a strict time lapse protocol should be followed when disconnecting the 12v ancillaries battery as well as HV batteries. This is to ensure that all HV capacitors have discharged and no damage is done to or programs lost from the on board control ECU's. For this the purpose the 7892 provides a **digital timer**.

Once the source of power has been disconnected the final safety related task is to ensure no residual current or voltage remains in the circuits and for this a **voltage tester** is required.



All items available separately as part of the wider Laser Tools Hybrid range of safety & insulated tools.



8000

Hybrid/EV Folding Safety Barrier

Folding safety barrier specifically for workshop use as a warning aid to others that maintenance is being carried out on a Hybrid/EV vehicle. Made up from 3 plastic framed panelled sections which can be folded for easy storage when not in use.

- Fully extended barrier length: 1650mm.
- 1 panel measures 600 x 1000mm; 3 panels included. Pictorial hazard warnings with no text therefore suitable for any language speaking country.
- Lightweight & easily folded for compact workshop storage when not in use. Strong plastic framework ensures lightness and non-conductivity.
- To join barriers together, extra brackets are available - please see Laser Part No. 8006.



8006

Folding Safety Barrier Brackets



SET OF
2

7521

Hybrid/EV Floor Warning Signs 2pc

EV/Hybrid warning signs height 600mm

- Height: 600mm.
- Width: 210mm (top) x 305mm (bottom).
- Material PE.
- Weight: 0.6kg each.

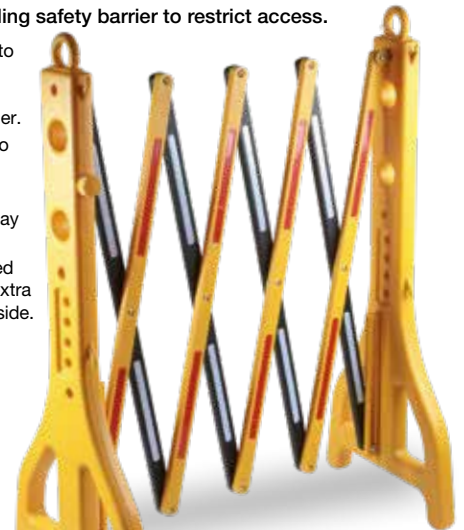


7490

Plastic Folding Safety Barrier

Extendable plastic folding safety barrier to restrict access.

- Extendable from 24cm to 254cm; height: 97cm. Barriers can be linked together to extend further.
- Red & white reflectors to enhance visibility.
- Weight 2.35kg.
- Also suitable for MOT bay exclusion.
- The uprights can be filled with sand or water for extra stability when used outside.



6622

High Voltage Floor Matting

Flame retardant oil and acid resistant insulated floor matting.

- Tested to IEC61111 Class 2 rated for working voltages up to 17kV.
- Ribbed on the underside fabric impression on upper side.



Part No.	Length	Dimensions
6622	1 metre	1m x 1m x 3mm (thick); weight: 4kg/m ² .
6623	10 metres	10m x 1m x 3mm (thick); weight: 4kg/m ² .

Ribbed surface for extra grip



Complete with
4.5 meter cable



7695

Electric Vehicle Charger - 240V Portable

Portable mains electrical charger for electric vehicles.

- Portable 240V Mains EV Charger 8A-13A IEC 62196-2 Type 2 vehicle plug, complete with carry bag.
- Adjustable Current 8A, 10A, 13A (refer to instructions). Input voltage 220 to 250v, 3 pin standard UK mains plug.
- Resistance voltage: 2000V, Insulated Resistance >1000M Ω , Contact Resistance < 0.5m Ω .
- Fire rating UL94 V-O; waterproof rating IP54; working temperature -30°C to 50°C. Cable specification 3 x 2.5mm², + 2 x 0.5mm². Charging gun cable length: 4.5m. Complete with 0.5m cable with BS Mains connection.

Protection: Overheat, overvoltage, overcurrent, overcharge, electric leakage.

WARNING: if using with extension lead, ensure extension lead load rating is not exceeded and lead is fully extended.



Laser Tools Furthers Commitment to Developing and Promoting Hybrid/EV Tools and Equipment

The latest professional racing driver to join Laser Tools as a brand ambassador is three times Le Mans 24 Hour winner **Darren Turner**.

Works driver for Aston Martin Racing, and high performance development driver for Aston Martin Lagonda, Darren has also recently begun his role as the official Hybrid Development Driver for both TOCA and Cosworth as part of the Kwik Fit British Touring Car Championship's new hybrid programme.



Darren's responsibility is to give in-depth feedback and assist in the development of the BTCC's first specification hybrid system, comprised of a 60V gearbox-mounted hybrid motor that generates around 40bhp additional power for the driver when applied.

Darren comments "One of the things Laser Tools is currently working on is insulated tool kits for racing teams that will be running hybrid/EV cars - it will be interesting to get involved with them on that side of things. Plus, with their Laser Tools Racing BTCC team the company is in a unique position to develop these kits."



The market leading range of insulated tools and equipment supplied by Laser Tools is continually growing, matching pace with evolving hybrid/EV market. The company uses the extensive knowledge of its technical team to provide tailored packages, taking the hassle away from workshops and bodysshops to identify and order the required insulated tools by supplying all the tools required in one kit.

Keep up-to-date with Darren Turners development and the latest BTCC news at: www.lasertoolsracing.co.uk



Darren Turner

Official Hybrid Development Driver, BTCC



Cable End Shroud with Grip Collar

Push on shrouds for uninsulated cable ends - 1000V insulated.

- Flexible gripping collar prevents damage to the cable insulation.
- Will also fit over cable connectors and lugs.

Part No.	Size
6633	15mm dia x 100mm length
6634	25mm dia x 110mm length
6635	35mm dia x 130mm length



6703

Cable End Shrouds 3pc

- Sizes: 15, 25 & 35mm diameter.



6676

Transparent Insulating Shrouding 1000V

Easily installed and fitted.

- Protects technicians and engineers from live voltages up to 1000V.
- Dimensions: 1400mm x 1000mm x 0.5mm. Weight: 0.8kg.

Insulated safety clamps are recommended - please see Laser Part No. 6618 below.

7550

Terminal/Cable End Insulated Covers 10pc

Terminal/cable end insulated covers designed to slide over HV connectors and cable ends to help protect against shock.

- Insulated protective covers for Hybrid and EV applications and other high voltage applications.
- 10 Protective 100mm Sleeves: 5 x 18mm OD x 14mm ID and 5 x 24mm OD x 20mm ID

Also part of large, 50 piece insulated tool kit, please see Laser Part No. 7383. - See P17



6618

Insulated Safety Clamp 1000V

For use with insulated shrouding to hold the shroud in situ.

- Rubber contacts in the jaw protect the insulating shroud.
- Length: 140mm. Jaw opening: 45mm. Weight: 52g.

7574

High Voltage Sign (Double Sided)

Ensures that technicians are aware that the vehicle being worked on is a Hybrid or Electric Vehicle.

- Made from Correx material, this foldable sign is designed to be placed on the roof of the vehicle.
- The A frame design means it can sit on a surface and be seen from both sides.
- Holds together with Velcro strips, and has a plastic suction cup to hold it on the vehicle roof.
- Size: 297mm x 210 (A4).



7561

High Voltage Self-Adhesive Label 150 x 75mm 12pc

Reusable self adhesive vinyl labels.

- Indicates high voltage parts of the vehicle.
- Label dimensions: 150 x 75mm.
- Supplied in a pack of 12.





6640

Steering Wheel Lockout Cover 400mm

Warning message to employees, not to start the vehicle unless authorised to do so.

- Screen printed on reinforced vinyl with a stitched pocket that fits over the steering wheel
- 400mm diameter fits most cars and vans
- Includes a metal grommet to accommodate a hasp/padlock to fix the cover to the steering wheel allowing removal only by authorised personnel
- Part of the Hybrid range but also useful when timing tools are being used.



6675

Safety Tag - DO NOT START

Can be used in conjunction with safety lockout padlock.

- Durable plastic construction.
- Resists chemicals, abrasion, grease and solvents.
- Self-adhesive overlay on back of tag, allows for authorised employee name to be written.
- Part of the Hybrid range but also useful with engine timing and locking tools.



Overlay on reverse for employees name to be written



7941

Lockout Tags 10pc

A 10 pack of lock out tags, providing safety warning with space for the contact details of the responsible person to be added.

- Self-adhesive overlay on back of tag, allows for authorised employee name to be written.
- Size: 146 x 75 x 0.5mm.
- Made from durable PVC, making it both water & oil proof.

Can be used in conjunction with Laser safety lockout padlock (right).

7942

Nylon Lock Out Hasp

Allows the safe and effective lock out where electric power isolation is required by more than one operative.

- 6 separate holes allowing multiple padlocks to be used. Especially useful where multiple technician are working to prevent accidental powering up of high voltage systems.
- Total length: 193mm, width: 41.5mm.
- Hasp length: 101mm; hole diameters: 10mm.
- Made from non conductive nylon material.

Can be used in conjunction with Laser safety lockout padlock (right).



7943

6641

Safety Lockout Padlocks

Non conductive nylon bodied lockout padlocks for preventing accidental activation of, or access to high voltage systems on electric vehicles and mains electrical systems.

- Padlock & keys marked with individual code number, which can be assigned to specific employee &/or vehicle.

Part No.	Description	Shackle Size
6641	Standard Shackle	6mm dia, 38mm clearance
7943	Long Shackle	6mm dia, 76mm clearance





8030

Lockout Bag

High visibility safety lockout bag with lockable strap to prevent unauthorised access. Ideal for locking away vehicle keys, EV MSD's (Manual Service Disconnect switches) etc. to ensure accidental activation of high voltage systems is not possible.

- Size: 440 x 245mm.
- Made from wear resistant polyester cloth.
- PVC inner material to prevent accidental damage to contents.

Use with Laser lockout safety hasp or padlocks (opposite).

7944

Padlock Station

Padlock station for easy access and safe storage of padlocks in one place. Use to store unused safety padlocks to see at a glance what locks are in use.

- Holds 6 padlocks.
- Size: 140 x 40 x 80mm.

Ideal for storing Laser safety lockout padlocks - supplied with wall fixings.



(Padlocks not included)



7947

(Contents not included)

Lockout Management Station

Wall mounted, lockout management station providing a safe and secure storage facility for electric and hybrid vehicle key and MSD (manual service disconnect) units to prevent accidental activation of HV systems while performing service and repair.

- Adjustable shelves for flexible placement to suit stored equipment.
- Size: 360 x 450 x 155mm.
- Lockable to ensure safety lockout products always available when needed.
- Supplied with fixings and two keys.

7945

Locking Tag Station

Easy storage for up to 100 lockout or hybrid/EV warning tags (not supplied).

- Size: 350 x 400 x 30mm.
- Manufactured from steel with polycarbonate pockets.
- Wall mounted - fixings included.

Ideal for storing Laser safety tags, including Laser Lockout Tags (Part No. 7941) or Hybrid/EV Warning Tag (Part No. 8049).



7946

(Contents not included)

Combined Lockout Station

Compact designed, wall mounted lockout station for storing safety lockout products including padlocks, tags or hasps.

- Ensures required equipment is safely stored & easily accessible.
- Size: 200 x 250 x 97mm.
- Four secure clips allows storage of up to 8 padlocks.
- Storage bin for several lockout tags, warning signs, cable ties etc.
- Wall mounted to ideally place near regularly locked out equipment. Supplied with fixings.



(Tags not included)



6549

High Voltage Insulation Tester CAT III

Compact and easy to use insulation tester for testing high voltage cables up to 1000V (DC) or 750V (AC).

- Tests insulation resistance across three voltage ranges 250V, 500V, 1000V.
- Large LCD display with backlight, low battery indication and overload protection on all ranges.

- Supplied with manual, test leads, carrying case and batteries.
- EMC, LVD and meets IEC10101, CAT III 1000V.



7477

Disconnect Shut Down Timer

Used to accurately measure the required shut down period between switching off the ignition and disconnecting or reconnecting the vehicle's battery etc.

- Battery powered Digital Timer (up to 99 minutes).
- Audible and visual alarm (user selectable).
- Direct minutes and seconds input.
- Mounting magnet and fold out stand.
- Dimensions 76mm x 56mm x 16mm.
- Memory recall last setting.
- LR44 battery included.





7434

Insulated Star* Screwdriver Set 9pc

Interchangeable VDE Star* screwdriver set with interchangeable insulated blades, to IEC60900 for live working.

- Sizes: T8, T9, T10, T15, T20, T25, T30.
- Suitable for use on live circuits 1500V DC or 1000V AC.
- Handle PP/TPR.

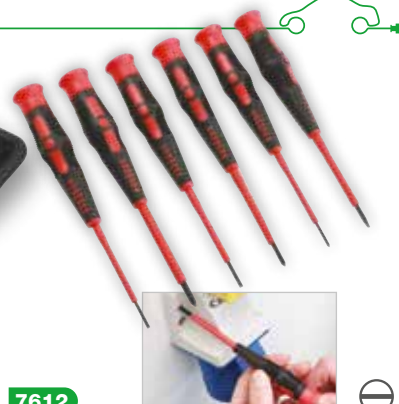


7435

Insulated Interchangeable Screwdriver Set 14pc

Interchangeable VDE screwdriver set with interchangeable blades, to IEC60900 for live working.

- Supplied with 2 x main handle (1 x VDE) & voltage tester (110-250v).
- 11 x Screwdriver Heads: Phillips Ph0, Ph1, Ph2; Flat 2.5, 3.5, 4.0, 5.5, 6.5mm; Star*: T10, T15, T20.
- Handle PP/TPR.



7612

Precision Electrical Screwdriver Set 6pc

A set of precision VDE screwdrivers, to IEC60900 standard for live working.

- Phillips: Ph1, Ph0, Ph00 x 65mm long.
- Flat profile: 2mm, 2.5mm, 3mm x 65mm long.
- Soft grip insulated handles with precision turn motion.
- Suitable for use on live circuits 1500V DC or 1000V AC.



7448

Insulated Star* Screwdriver Set 7pc

Fully insulated, VDE screwdriver set in Star* profile, with black tips, to IEC60900 standard for live working.

- Sizes: T10, T15, T20, T25, T27, T30, T40
- Suitable for use on live circuits 1500V DC or 1000V AC.
- Ergonomic grip handle PP/TPR.



Individual Screwdrivers

Part No.	Blade	Length
7449	T10	100mm
7450	T15	100mm
7451	T20	100mm
7452	T25	125mm
7453	T27	125mm
7454	T30	150mm
7455	T40	175mm



7939

Insulated Screwdriver Set 13pc

Insulated interchangeable screwdriver set, ideal for use on electric/hybrid vehicles or by electricians. Rated to 1000V.

- 1000V certified screwdriver handle with 11 interchangeable blades, connect with simple push to fit, twist to release.
- Contents: 2 x Phillips blades: Ph1 x 80mm, Ph2 x 100mm. 4 x Flat blades: 0.5 x 3mm, 0.8 x 4mm, 1 x 5.5mm, 1.2 x 6.5mm; shaft length: 100mm.
- 2 x Pozi Drive blades: Pz1 x 80mm, Pz2 x 100mm. 3 x Star* blades: T10, T15, T20; shaft length: 100mm.
- Supplied with single-pole voltage tester (110-250V).
- Manufactured to IEC60900. VDE/GS approved.



5986

Insulated Screwdriver Set 7pc

Fully insulated, VDE screwdriver set in Phillips and Flat profiles, with black tips, to IEC60900 standard for live working.

- 4 x Flat: 3, 4mm x 100mm, 5.5 x 125mm, 6.5 x 150mm.
- 3 x Phillips: Ph0 x 60mm, Ph1 x 80mm, Ph2 x 100mm.
- Suitable for use on live circuits 1500V DC or 1000V AC.



Individual Screwdrivers

Part No.	Blade	Length
61135	SL3	100mm
61136	SL4	100mm
61137	SL5.5	125mm
61138	SL6.5	150mm
61134	Ph0	60mm
61139	Ph1	80mm
61140	Ph2	100mm

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INSULATED PLIERS RANGE

Part of a wide range of insulated tools from Laser, suitable for use on live circuits up to 1000V AC or 1500V DC. Two colour VDE insulated handles with slip guards.

7425

Insulated Water Pump Pliers 240mm

Used for gripping pipes, irregular shaped objects, turning/holding nuts & bolts.

- Length: 240mm.
- Range: 0 - 37mm.



7424

Insulated Cable Cutters 200mm

Suitable for use on copper and aluminium cables.

- Length: 200mm.



7468



7469

Insulated Long Nose Pliers

Designed to provides access into tight, difficult to reach areas.

Part No.	Length	Jaw Opening
7468	150mm	44mm
7469	200mm	82mm



7423

Insulated Wire Stripping Pliers 160mm

Precision cutting edge for easy and safe cutting of cable insulation.

- Length: 160mm.



5912

Insulated Diagonal Side Cutters 150mm

Insulated diagonal side cutters for cutting or stripping wire insulation.

- Length: 150mm; jaw opening: 19mm.



7570

Insulated Bent Nose Pliers 200mm

Suitable for use on live circuits up to 1000V AC or 1500V DC.

- Length: 200mm; jaw opening: 82mm.



7483

Insulated Combination Pliers 180mm

Designed for tightening, loosening, grasping & cutting. VDE certified.

- Length: 180mm; jaw opening: 35mm.



7426

Insulated Scissors

Will protect technician when servicing electrical circuits and performing maintenance up to 1000V AC/1500V DC.

- Manufactured from stainless steel.
- Ideal for use on electric and hybrid vehicles and for electricians.



7427

Insulated Cable Knife

Insulated cable knife, ideal for stripping standard cables.

- Will protect technician when servicing electrical circuits and performing maintenance up to 1000V AC or 1500V DC.
- VDE insulated handle with slip guard & blade protection.
- Spare blades available - Part No. 7428



VISIT US ONLINE

Our range of Hybrid & EV tools is constantly expanding. Visit our website for the latest!

www.lasertools.co.uk





7885

1000V Insulated Inspection Mirror 50mm

Ideal for the inspection of High Voltage Cables & Connectors in confined areas such as battery packs, controller & difficult to get to under vehicle areas.

- Insulated Rubber moulded casing for easier handling.
- Manufactured from non-conductive materials.
- Manufactured & Tested to EN/IEC 60900:2012 Standard, for up to 1000V live working.



Ratchet Ring Spanner - VDE

Insulated, VDE certified ratchet ring spanner, to IEC60900 standards for live working up to 1000V AC / 1500V DC.

- 120 teeth, Bi-Hex (12pt) ratchet ring.
- VDE certified.



Part No.	Size	Part No.	Size
7541	10mm	7544	13mm
7542	11mm	7545	14mm
7543	12mm		



7551

Insulated Trim Removal Tool Kit 1000V 4pc

For the removal of hard to release trim and clipped components on Hybrid and Electric vehicles.

- Four essential profile shapes to allow removal of various trim clip styles and glued trims.
- Tested to 1000 volts.
- Supplied with pouch bag for storage.



6048

Insulated Open Ended Spanner Set 7pc

Insulated open ended spanner set 8mm to 19mm, to IEC60900 standards for live working up to 1000V AC / 1500V DC.

- Sizes: 8, 10, 12, 13, 14, 17, 19mm.
- IEC60900 for live working up to 1000V AC / 1500V DC.
- VDE certified.



Individual Wrenches

Part No.	Size
60911	8mm
60912	10mm
60913	12mm
60914	13mm
60915	14mm
60916	17mm
60917	19mm



5515

Extra Long Insulated Hex Key Set 6pc

Insulated, single ended Hex keys 2.5mm to 8mm, with VDE certified protection to IEC60900 standard, for live working up to 1000V AC / 1500V DC.

- Sizes: 2.5, 3, 4, 5, 6, 8mm.
- VDE approved Hex key set for live working up to 1000V AC / 1500V DC.
- Supplied in a durable storage case.

5516

Extra Long Insulated Star Key Set 9pc

Extra long set of insulated Star* keys T10 to T50, with VDE certified protection to IEC60900 standard, for live working up to 1000V AC / 1500V DC.

- Sizes: T10, T15, T20, T25, T27, T30, T40, T45, T50.



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7211

Insulated Magnetic Pick Up Tool

Insulated magnetic pick up tool rated to 1000V.

- Length: 420mm.
- Magnet size: 5mm.
- Pick up capacity: 250g.
- TPR Black/Red handle.



7758

Insulated Pick Up Tool 1000V

Insulated claw pick up tool; length: 24 inches.

- Length: 24 inch (610mm); 11mm diameter shaft.
- Insulated up to 1000 volts.
- Spring loaded button to operate the 4 hook claw.

NOTE: Use with caution. While the operator is fully insulated from the working end of the tool, any metal object being picked up can still short across live circuits.



7482

Insulated Nut Driver Set 7pc

VDE Nut driver set manufactured from Chrome Vanadium.

- For use on live circuits up to 1000V AC or 1500V DC.
- Sizes: 6, 8, 10, 11, 12, 13, 14mm.
- Length: 125mm.



Individual Drivers

Part No.	Size	Length
7436	4mm	125mm
7437	5mm	125mm
7438	5.5mm	125mm
7439	6mm	125mm
7440	7mm	125mm
7441	8mm	125mm
7442	9mm	125mm
7443	10mm	125mm
7444	11mm	125mm
7445	12mm	125mm
7446	13mm	125mm
7447	14mm	125mm



Insulated Deep Magnetic Sockets 3/8"D

Embedded magnet to retain fastener.

- IEC60900 approved, 1000V.



Part No.	Size	Length
7562	8mm	72mm
7563	10mm	72mm
7564	13mm	72mm



Deep Insulated Sockets 1/2"D

- Insulated deep sockets, designed to protect up to 1000V for use on hybrid and electric vehicles. VDE certified.
- Safe operator use for live voltages up to 1000V AC / 1500V DC.
- VDE certified. IEC 60900.



Part No.	Size	Length
7949	10mm	94mm
7950	11mm	94mm
7951	12mm	94mm
7952	13mm	94mm
7953	14mm	94mm
7954	16mm	94mm
7955	17mm	94mm
7956	18mm	94mm
7957	19mm	94mm

7569

Insulated Extension Bar 3/8"D

- IEC60900 approved. 1000V.
- Length: 100mm.



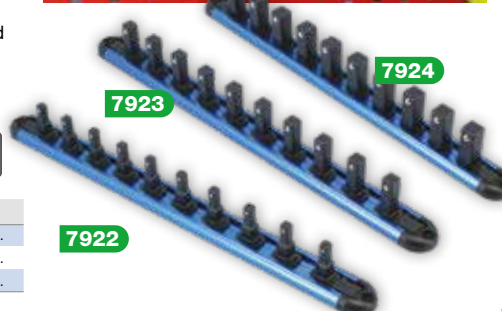
Rails for Insulated Sockets

Lightweight socket rails with 10 socket holders for insulated sockets.

- Socket rails specifically designed to organise 10 insulated (VDE) sockets.
- Screw holes in rail allow it to be easily wall mounted. Rail manufactured from anodised aluminium.
- Please note: standard socket rails cannot be used with insulated sockets.



Part No.	Size
7922	1/4" Rail length: 300mm; socket holder length: 25mm.
7923	3/8" Rail length: 300mm; socket holder length: 28mm.
7924	1/2" Rail length: 300mm; socket holder length: 31mm.



Insulated Socket 1/2"D

Insulated sockets, designed to protect up to 1000V for use on hybrid and electric vehicles. VDE certified.

- Safe operator use for live voltages up to 1000V AC / 1500V DC.



Part No.	Size	Length
7988	10mm	55mm
7989	11mm	55mm
7990	12mm	55mm
7991	13mm	55mm
7992	14mm	55mm
7993	15mm	55mm
7994	16mm	55mm
7995	17mm	55mm
7996	18mm	55mm
7997	19mm	55mm

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6150

Insulated Tool Kit 3/8"D 25pc

From 7mm - 22mm, including a range of deep single Hex sockets, pliers, wrenches and screwdrivers.

- 9 x 3/8"D sockets: 7, 8, 10, 12, 14, 15, 17, 19, 22mm. Length: 71mm.
- Accessories: combination pliers 175mm; side cutter 150mm; 3/8"D 41 teeth ratchet; extension bar 100mm; T-handle.
- 6 x open end spanners: 7, 8, 10, 12, 14, 17mm; cable knife.
- 4 x screwdrivers: Phillips: Ph1 x 100mm, Ph2 x 100mm; Flat: 5.5 x 125mm, 4 x 100mm.



6147

Insulated Socket Set 1/2"D 24pc

A range of single Hex (6pt) sockets and accessories.

- 20 x 1/2"D sockets: 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 27, 29, 30, 32mm.
- Accessories: quick release 72 teeth ratchet; 3 x extension bars (75mm, 125mm & 250mm long).
- VDE/GS approved insulated socket set.



5483

Insulated Socket Set 3/8"D 17pc

Fully insulated socket set, for live working up to 1000V AC / 1500V DC, from 6mm - 19mm in Bi-Hex (12pt) profile.

- 14 x 3/8"D sockets: 6, 7, 8, 9, 10, 11, 12, 13, 14, 15mm (length: 43mm); 16, 17, 18, 19mm (length: 46mm).
- Accessories: 3/8"D 45 teeth ratchet with quick release function; 2 x extension bars (150mm & 250mm long).
- VDE/GS approved insulated socket set.



INSULATED TOOL SETS

Fully insulated tool sets from Laser, suitable for use on live circuits up to 1000V AC or 1500V DC.



6146

Insulated Tool Kit 3/8"D 22pc

From 6mm - 20mm and including hex sockets, pliers and screwdrivers.

- 15 x 3/8"D sockets: 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20mm. Length: 46mm.
- Accessories: 3/8"D ratchet with 55 teeth & quick release function; 2 x extension bars (75mm & 150mm long); 2 x screwdrivers: Flat 3mm x 100mm long, Phillips Ph1 x 80mm long; long nose pliers; heavy duty cutting pliers.
- VDE/GS approved insulated socket set.



6145

Insulated Socket Set 1/4"D 18pc

From 4mm - 14mm.

- 13 x 1/4"D sockets x single Hex (6pt): 4, 4.5, 5, 5.5, 6, 7, 8, 9, 10, 11, 12, 13, 14mm. Length: 41mm.
- 4 x extension bars 50, 75, 100, 150mm.
- 1 x quick release ratchet handle.



7383

Insulated Tool Kit 3/8"D 50pc

Complete set of fully insulated tools for live working up to 1000V AC / 1500V DC, featuring hex sockets, screwdrivers, pliers and insulation sleeves.

- 16 x 3/8"D sockets: 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20 & 22mm; 2 extension bars: 150 & 250mm; 3/8"D ratchet; 3 spline bits: M8, M10, M12.
- 10 x screwdrivers: Phillips Ph1 x 80mm, Ph2 x 100mm, Ph2 x 150mm; Flat 2.5 x 75mm, 3 x 100mm, 3.5 x 100mm; Torx* T20 x 100mm, T25 x 125mm, T30 x 150mm; circuit tester.
- 10 x protective 100mm sleeves: 5 x 18mm and 5 x 24mm.
- Plier set: cable shears, bent nose pliers, long nose pliers, flat nose pliers, side cutters, water pump pliers and an insulated cable stripping knife.
- VDE/GS approved insulated socket set. IEC60900 approved for 1000V safe working.



Foam trays stack neatly in to case

6149

Insulated Socket Set 1/2"D 20pc

Fully insulated socket set, for live working up to 1000V AC / 1500V DC, including a range of single Hex (6pt) sockets and accessories.

- 11 x 1/2"D sockets: 10, 11, 12, 13, 14, 17, 19, 22, 24, 27, 32mm.
- Accessories: 45 teeth ratchet 1/2"D x 250mm, T-handle x 200mm, 2 x extension bars (150mm & 250mm long), 5 x Hex bits 4, 5, 6, 8, 10mm.
- VDE/GS approved insulated socket set.



6148

Insulated Socket Set 3/8"D 16pc

Fully insulated socket set, for live working up to 1000V AC / 1500V DC, from 8mm - 22mm in single Hex profile.

- 8 x 3/8"D sockets: 8, 10, 12, 13mm (length: 44mm); 14, 17, 19, 22mm (length: 46mm).
- Accessories: 3/8"D 45 teeth ratchet; T-handle, 2 x extension bars (150mm & 250mm long); 4 x Hex bit sockets: 4, 5, 6, 8mm.
- VDE/GS approved insulated socket set.



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5481

Insulated Torque Wrench 3/8"D 5 - 25Nm

A fully insulated torque wrench manufactured to IEC60900 standards for 1000vAC / 1500vDC live working. Ideal for use on hybrid and electric vehicles.

- Range: 5 - 25Nm (4 - 18lb-ft).
- 43 teeth ratchet mechanism; 3/8"D x 265mm long.
- Reversible ratchet with quick release function, suitable for both RH & LH applications.
- Accuracy: $\pm 6\%$ tolerance from the set scale value.
- Supplied in blow mould case with calibration certificate.



7560

Digital Magnetic Angle Gauge

Digital magnetic angle gauge, for application of torque angle to a fastener once the applied torque value has been reached.

- For use with metallic ratchets or swivel bar, including insulated ratchets on high voltage applications.
- Angle measurement: 0 - 360° (+/- 2% accuracy).
- Self-calibrating.
- EN61326-1 & 2 approved and EU2004, 108, EC compatible.
- Supplied in moulded case with calibration certificate.

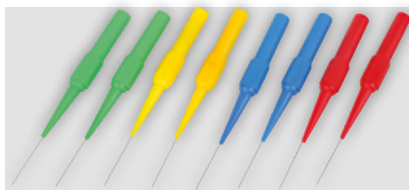


7948

Insulated Torque Screwdriver 1 - 6Nm

Torque driver with slipper clutch action to prevent over tightening of low torque screws and bolts. Ideal for use on hybrid and electric vehicle applications when working on mechanically sensitive small fixings such as power controller boards.

- Range: 1 - 6Nm in 0.1Nm increments; tolerance $\pm 6\%$.
- Overall length: 205mm, with 6.3mm (1/4") Hex drive for bits.
- Safe operator use for live voltages up to 1000V AC / 1500V DC (VDE / IEC60900 approved).
- ISO6789:2017 with certificate of conformity.



6544

Back Probes 8pc

Suitable for use with leads with 4mm banana connections.

- Ideal for connecting to MAP and TPS sensors / fuel injectors.
- Easy access back probes.
- Contents: 2 x yellow, 2 x green, 2 x red, 2 x blue.
- Resistant to Automotive solvents.



6543

Electrical Test Leads

For use with most multimeters and other Laser Tools electrical accessories.

- Length 48"/122cm, OD 3.8mm; rating 1000V/10 amps.
- For use with most other accessories with 4mm banana sockets.
- Manufactured from silicone material. Test leads are CAT III 1000V.



6542

Crocodile Clips 2pc

Fully insulated crocodile clips with 4mm female banana plug connector.

- Red and black.
- 1000V/10 amp.
- For use with any lead with a 4mm banana plug.
- Wide opening jaws.

6549

High Voltage Insulation Tester CAT III

Compact and easy to use insulation tester for testing high voltage cables up to 1000V (DC) or 750V (AC).

- Tests insulation resistance across three voltage ranges 250V, 500V, 1000V.
- Large LCD display with backlight, low battery indication and overload protection on all ranges.
- Supplied with manual, test leads, carrying case and batteries.
- CE & RoHS compliant. EMC, LVD and meets IEC10101, CAT III 1000V.



Complete with stand

6550

Insulation Resistance Multimeter CAT III

Part of the Laser range of tools for Hybrid vehicles

- Features high voltage insulation resistance test, true RMS, continuity test and diode test.
- Auto ranging, min/max data hold, data logging, LCD backlight and low battery indication.

SPECIFICATION

- Voltmeter Specification = AC/DC volts to 1000V, 0V to 600mV, mA, Amps to 10A, Resistance, Frequency, Temperature.
- Insulation test voltages: 50V, 100V, 250V, 500V, 1000V.
- Supplied with test leads and clips, temperature probe, manual & batteries.



6551

Mini AC/DC Digital Clamp Meter CAT III 80A

Digital Clamp Meter suitable for use on all 12v system vehicles, as well as modern Hybrid & EV's.

- Digital clamp tester for AC/DC current measurement - CAT III 600V rated.
- Special low amps range model for diagnostic work on 4A/80A ranges with 1mA resolution.
- Small clamp probe for ease of access 0.5" jaw aperture.

SPECIFICATION

- AC/DC current to 80A, AC/DC voltage 400mV-600V, resistance 400-40, frequency, duty cycle, capacitance, diode & continuity check
- Supplied with test leads, carry case & battery



6552

AC/DC Digital Clamp Meter CAT III 1000A

Digital Clamp Meter suitable for use on all 12v system vehicles, as well as modern Hybrid & EV's.

- Digital clamp tester for AC/DC current measurement - CAT III 600V rated.
- True RMS current and voltage readings regardless of waveforms.
- 30mm clamp jaw opening.

SPECIFICATION

- AC/DC current to 1000A, AC/DC voltage to 600V, AC/DC power to 240kw, resistance to 40m, frequency to 10MHz, continuity and diode check, low battery indicator, data hold facility, auto power off
- Supplied with test leads, carry case & battery.



7917

Test Probe Kit - Slim Fit

Two multi-meter test probes supplied with removable tip covers. They are designed for areas with restricted access where standard width probes may struggle. Designed to be used with 4mm banana style test cables.

- Levels of protection are: CAT III 1000V (cap fitted), CAT II 1000V (cap removed).
- Equipped with 4mm banana plug socket to work with 4mm banana plug leads. Recommended for use with 4mm banana socket equipped test leads.
- Length: 120mm. Ergonomic shape with fingertip protector.
- Ideal for use with multimeters and insulations tester. Extra slim design for better access in tight spaces.





6843

High Voltage Tester CAT IV 1000V

High voltage tester CAT IV 1000V for checking the high voltage on electric hybrid vehicles

- Voltage tester to check for the existence and/or absence of high voltage on hybrid/ electric vehicles.
- CAT IV 1000V suitable for both DC and AC voltage testing: DC 6- 1000V / AC 24- 1000V.
- LCD display resolution to 1V. Bar graph displays voltage range 6, 12, 24, 50, 120, 230, 400, 690, 1000V.
- Includes a self test function and illumination light. Checks DC voltage polarity and continuity.
- EN61243-3, IP65, CE compliant. Requires 2 x AAA batteries.



Both parts clip together for storage



7803

Two Pole Voltage Tester 12 - 600V

Two pole voltage tester 12-600V DC/AC CAT III. Designed to be used to prove the absence or presence of voltage in a circuit before and after working on the circuit. Can be used on circuits up to 600 volts found on hybrid and battery electric vehicles.

- Two pole voltage tester. Used to prove absence &/or presence of voltage on hybrid and battery electric vehicles.
- CAT III 12-600V DC/AC with LED display.
- Simple and easy to use; no batteries required.
- Always perform self test on known voltage source before use.
- CE compliant; GS certified.



Follow us on YouTube!



YouTube

www.youtube.com/TheToolconnection

Our in-house Videography and 3D animation team create exciting videos showing our latest products in action, giving you the run down on features and applications.

PART NO.

7971-7976

1000V INSULATED

LASER
TOOLS

PAST • PRESENT • FUTURE

ELEC EV SAFETY WORK BOOTS

NEW

Fully Compliant Safety Boots
AND Fully Electrically Insulated.
Perfect for enhanced safety when
working on high voltage vehicles, as
well as for everyday workshop use.

FULLY COMPLIANT FOR USE IN
HIGH VOLTAGE ENVIRONMENTS*



SEE OUR LATEST
YOUTUBE VIDEO



Darren Turner
Official Hybrid Development Driver,
BTCC

Full grain
leather outer

Energy impact
absorbing heel

Full length memory
foam in-sole for
added comfort

Composite toe and
midsole protection

SRC slip, oil and acid
resistant outsole

COMFORTABLE
FOR EVERYDAY
WORKSHOP USE

*Meets all UK & EU standards (ISO20345:2011), along with international standards for high voltage (1000v) protection (EN50321:2000/ASTM F2413-18).

For more information or to order:

Tel: +44 1926 815000 Email: sales@toolconnection.co.uk

www.lasertools.co.uk

ELEC EV Safety Work Boots

A fully compliant, full leather workshop safety boot (to ISO/EN20345), with the addition of an electrically insulated 1000V safe sole (to Class 0 : 1000V ISO/EN50321) - ideal for workshop safety when working on/around High Voltage vehicles such as Hybrid's, PHEV's, BEV's etc.



Composite toe cap and mid-sole

- Suitable for dry working environments; slip resistant; oil and acid resistant.
- Composite toe cap & mid-sole - no metal components. Includes full length memory foam in-sole for added comfort.
- Safety certified to ISO 20345:2011 (SBP, NM, SRC) for workshop safety footwear.

Part No.	Size	Part No.	Size
7971	7 (UK) / 41 (EU).	7974	10 (UK) / 44 (EU).
7972	8 (UK) / 42 (EU).	7975	11 (UK) / 45 (EU).
7973	9 (UK) / 43 (EU).	7976	12 (UK) / 46 (EU).



Protective Arc Flash Face Shield - 1000V rated

Protective face screen for use without helmet.

- Protects against electric arcs caused by short circuits.
- Polycarbonate screen with anti-mist treatment.
- Adjustable headband for comfort.
- CE compliant with EN166/EN170, 1000V rated.

Part No.	Description
6636	Face Shield
6637	Face Shield Bag

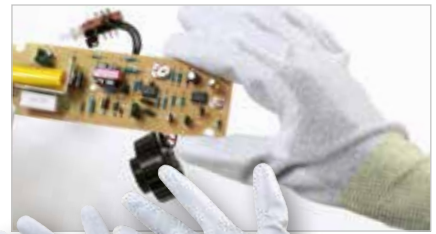


7492

Arc Flash Shield with Helmet and Chin Protection

Safety rated at 11Cal/cm².

- Shield thickness 1.5mm.
- Certified EN166,GS-ET-29.
- Certified to Arc Flash Class 1 (4kA).



connect

Antistatic Gloves - Pack 10

Designed to prevent the transfer of static electricity whilst handling sensitive parts / circuit boards.

- Lint free nylon with integral carbon filaments create the antistatic glove.
- Compatible with touch screen technology.
- Coating - Polyurethane, Liner - Nylon carbon antistatic.



Part No.	Size
37311	Medium
37312	Large
37313	X Large



Long Hooded Arc Flash Jacket

3/4 length with fitted hood for protection against thermal arc hazards when working on live circuits.

- Rated for Thermal Arc Flash at 12cal/cm² protection level.
- CE compliant: approved to IEC61482-2:1009/NFPA70E/ASTM1959.

Part No.	Size
7571	Small
7572	Medium
7573	Large

Simple pump inflates whilst rubber seal grips glove



6624

Pneumatic Glove Tester

Designed to test electrical insulating gloves for damage and subsequent leaks.

- Electrical insulating gloves should be disposed of immediately if leaks are discovered.
- The tester provides a simple visual test by inflating the glove to detect air leaks.
- The test is to EN60903 standard which recommends regular inspection and testing for all electrical insulating gloves.



Part No.	Size
6704	Medium
6705	Large
6706	X Large

Insulated Gloves Pack

Includes one pair of Leather overgloves, one pair of fully insulating electrical safety gloves and a storage bag.

- Fully insulating electrical safety gloves are Class 0 rated for 1000V working voltage



6625

Glove Storage Bag

Individual personal storage bag.

- Holds 1 pair electrical insulating gloves and 1 pair leather overgloves.
- Dimensions: 410mm x 200mm x 70mm.



Fully Insulating Electrical Safety Glove

Fully insulating electrical safety gloves. Class 0 rated for 1000V working voltage

- Each pair of gloves is individually tested and marked to EN60903 standard which advises regular testing by inflation to check for air leaks.
- Length: 360mm, thickness 1.0mm.
- Leather overgloves are recommended to protect from mechanical hazards and electrical arcing.



Part No.	Size
6626	Medium
6627	Large
6628	X Large

Flex & Grip Electrical Insulating Gloves

Fully insulating electrical safety gloves. Class 0 rated for 1000V working voltage.

- Flex and grip style with non slip characteristics.
- Each pair of gloves is individually tested and marked to EN60903 standard.
- EN60903 standard advises regular testing by inflation to check for air leaks.
- Length: 410mm, thickness 2.1mm.



Part No.	Size
6629	Medium
6630	Large
6631	X Large

Leather Overgloves

Leather overgloves are worn over insulating gloves to protect against mechanical hazards and electrical arcing.

- Insulating gloves should be protected against risk of damage by mechanical parts and sharp objects.
- Length: 300 - 330mm.



6632

Cotton Underliner Gloves - Pack of 10 Pairs

For use with electrical insulating gloves.

- Provides added comfort in warm and humid conditions.
- Absorbs extra moisture.
- One size fits all.



Part No.	Size
6619	Medium
6620	Large
6621	X Large

Tool Connection has created a number of packages of Hybrid & EV Safety products, in conjunction with leading industry experts on the subject, in order to provide a wide variety of options for professional Service Workshops and Bodyshops. In all of our packages, the Safety of the Technician and other Employees is of primary importance, and this is reflected in the contents of each package.

All products in the Tool Connection Hybrid & EV Safety programme, meet or exceed the latest International Standards for High Voltage Live Working and Safety.



Kit shown here with Shadow Board

Premier Hybrid & EV Safety Packages

Our 'Premier' packages consists of a comprehensive set of safety products, including workshop, vehicle & personal safety items, along with a range of Insulated tools and test instruments for working on hybrid & electric vehicles.

- Created in collaboration with one of the UK's leading insurance groups.
- Includes safety barriers, signage, and vehicle lockout products.
- Personal safety (PPE) for 1000V safe working.
- Wide selection of insulated tools & testers (IEC60900 for Tools & CAT III/IV for insulation testing).
- Ask about own branding opportunities when ordering in quantity.

Part No.	Description
92575	Premier Hybrid & EV Safety Package complete with Shadow Board
91609	Premier Hybrid & EV Safety Package







Part No.	Description	Item
6620	Leather Overgloves, Large (10)	
6627	Fully Insulating Electrical Safety Glove, Large (10)	
6632	Cotton Underliner Gloves (Pack of 10 pairs)	
6625	Glove Storage Bag	
6618	Insulated Safety Clamp 1000V	
6622	High Voltage Floor Matting - 1 Metre	
6676	Transparent Insulating Shrouding 1000V	
6636	Protective Arc Flash Face Shield	
6637	Protective Faceshield Bag	
6638	Insulated Rescue Pole	
6639	High Voltage/No Admittance Sign	
6640	Steering Wheel Lockout Cover 400mm	
6641	Nylon Bodied Safety Lockout Padlock	
6675	Safety Tag - DO NOT START	
6150	Insulated Tool Kit 3/8"D 25pc	
6549	High Voltage Insulation Tester CAT III	
6843	High Voltage Tester CAT IV 1000V	
7211	Insulated Magnetic Pick Up Tool	
5986	Screwdriver Set - VDE 7pc	
7490	Plastic Folding Safety Barrier	
7550	Terminal/Cable End Insulated Covers 10pc	
7551	Insulated Trim Removal Tool Kit 1000V 4pc	
7574	High Voltage Sign (double sided)	
7575	Electric Shock First Aid Poster	

60625

Hybrid & EV Master Safety Package

Part No.	Description	Item
6638	Insulated Rescue Pole	
6627	Fully Insulating Electrical Safety Glove, Large (10)	
6620	Leather Overgloves, Large (10)	
6625	Glove Storage Bag	
6643	Chain Support Post c/w Cap	
6644	Safety Post Support Base	
6645	Plastic 6mm Chain 25m	
6639	High Voltage/No Admittance Sign	
6622	High Voltage Floor Matting - 1 Metre	
6636	Protective Arc Flash Face Shield	
6637	Protective Faceshield Bag	
6640	Steering Wheel Lockout Cover 400mm	
6843	High Voltage Tester CAT IV 1000V	



Part No.	Description	Item
6549	High Voltage Insulation Tester CAT III	
6146	Insulated Tool Kit 3/8"D 22pc	
6048	Insulated Wrench Set 7pc	
5481	Insulated Torque Wrench 3/8"D 5-25Nm	

A set of safety products aimed at professional bodyshops and workshops, including workshop, vehicle & personal safety items, along with a range of insulated tools and test instruments for working on hybrid & electric vehicles.

- Safety posts & chain, signage and vehicle lockout products.
- Personal safety (PPE) for 1000V safe working.
- Selection of insulated tools & testers (IEC60900 for Tools & CAT III/1V for insulation testing).
- Suitable for both bodyshop and service workshop requirements.



91162

Hybrid & EV Bodyshop Safety Package

Part No.	Description	Item
6675	Safety Tag - DO NOT START	
6632	Cotton Underliner Gloves (Pack of 10 pairs)	
6146	Insulated Tool Kit 3/8"D 22pc	
6048	Insulated Wrench Set 7pc	
3292	Plastic Tool Box	
6843	High Voltage Tester CAT IV 1000V	
6636	Protective Arc Flash Face Shield	
6637	Protective Faceshield Bag	
6627	Fully Insulating Electrical Safety Glove, Large (10)	
6620	Leather Overgloves, Large (10)	
6625	Glove Storage Bag	
6622	High Voltage Floor Matting - 1 Metre	
6638	Insulated Rescue Pole	
6639	High Voltage/No Admittance Sign	
6642	Danger High Voltage Sign	



Part No.	Description	Item
6643	Chain Support Post c/w Cap	
6644	Safety Post Support Base	
6645	Plastic 6mm Chain 25m	
6641	Nylon Bodied Safety Lockout Padlock	

Our standard set of safety products for the bodyshop market, including workshop, vehicle & personal safety items, along with a range of insulated tools and test instruments for working on hybrid & electric vehicles.

- Created in collaboration with one of the leading bodyshop training organisations for hybrid & EV safety.
- Safety posts & chain, signage & vehicle lockout products.
- Personal safety (PPE) for 1000V safe working.
- Selection of insulated tools & testers (IEC60900 for Tools & CAT III/1V for Insulation Testing).
- Supplied with plastic storage case for tools & test instruments.





- Made up of all 4 Safety packs available - 6769, 6770, 6771, 6772
- **6769 Workshop Pack:** High voltage floor matting (1m), insulated rescue pole, high voltage/no admittance signage, danger high voltage sign, posts, bases and 25m plastic chain
- **6770 Vehicle Safety Pack:** Insulated safety clamps, transparent insulating shrouding 1000V (1.4m x 1m), steering wheel lockout cover 400mm, Nylon bodies safety lockout padlock, safety tag (Do not start) and set of 3 insulating shrouds (15mm, 25mm, 35mm)
- **6771 Personnel Safety Pack:** Protective arc flash face shield, carrying bag and insulating glove set (Large)
- **6772 Safety Tools Pack:** CAT III multimeter and high voltage insulation tester, insulated socket and tools set 3/8" D VDE Hex key set 6pc and VDE Star* key set 9pc

Part No.	Description	Item	Part No.	Description	Item
6675	Safety Tag - DO NOT START		6620	Leather Overgloves, Large (10)	
6640	Steering Wheel Lockout Cover 400mm		6625	Glove Storage Bag	
6146	Insulated Tool Kit 3/8"D 22pc		6622	High Voltage Floor Matting - 1 Metre	
6618	Insulated Safety Clamp 1000V		6638	Insulated Rescue Pole	
6703	Cable End Shrouds 3pc		6639	High Voltage/No Admittance Sign	
5515	Extra Long Insulated Hex Key Set 6pc		6642	Danger High Voltage Sign	
5516	Extra Long Insulated Star Key Set 5pc		6643	Chain Support Post c/w Cap	
6549	High Voltage Insulation Tester CAT III		6644	Safety Post Support Base	
6636	Protective Arc Flash Face Shield		6645	Plastic 6mm Chain 25m	
6637	Protective Faceshield Bag		6641	Nylon Bodied Safety Lockout Padlock	
6627	Fully Insulating Electrical Safety Glove, Large (10)				

6769

Hybrid Workshop Safety Pack

Workshop protection when working on Hybrid or Electric cars.

- High voltage floor matting - 1m
- Insulated rescue pole
- High voltage / no admittance sign plus danger high voltage sign
- Safety post support base and chain support post c/w cap
- Plastic 6mm chain - 25m



OPTIONAL UPGRADE (Part No. 8157)

Part No.	Description	Item	Part No.	Description	Item
7521	Hybrid/EV Floor Warning Signs 2pc		7477	Disconnect Shut Down Timer	
7574	High Voltage Sign (Double Sided)		7561	High Voltage Self-Adhesive Labels 12pc	
7575	Electric Shock First Aid Poster		8049	Hybrid/EV Warning Sign 10pc	



OPTIONAL UPGRADE (Part No. 8157)

Part No.	Description	Item	Part No.	Description	Item
7521	Hybrid/EV Floor Warning Signs 2pc		7477	Disconnect Shut Down Timer	
7574	High Voltage Sign (Double Sided)		7561	High Voltage Self-Adhesive Labels 12pc	
7575	Electric Shock First Aid Poster		8049	Hybrid/EV Warning Sign 10pc	

6770

Hybrid Vehicle Safety Pack

Hybrid and Electric Vehicle protection pack.

- Insulated safety clamp 1000V
- Transparent insulating shrouding 1000V
- Steering wheel lockout cover 400mm
- Nylon bodied safety lockout padlock and safety tag: DO NOT START
- 3 x cable end shroud with grip collar: 15mm, 25mm, 35mm


6771

Hybrid Personal Safety Pack

Stay safe while carrying out work on Hybrid and electric cars with safety packs from Laser Tools.

- Includes Protective Arc Flash Face Shield
- Carrying Bag for Face Shield
- Fully Insulating Glove Set (Large 10)
- Leather Overgloves (Large 10)
- Glove Storage Bag



OPTIONAL UPGRADE (Part No. 8158)

Part No.	Description	Item
7573*	Long Hooded Arc Flash Jacket, Small	
7492	Arc Flash Shield with Helmet and Chin Protection	
7973*	ELEC EV Safety Work Boots	

*When purchasing this kit, please specify Jacket and Boot size required


6772

Hybrid Tools Safety Pack

Stay safe while carrying out work on hybrid and electric cars with safety packs from Laser Tools.

- CAT III multimeter and high voltage insulation tester
- Insulated socket and tool set 3/8"D 25pc
- VDE Hex key set - extra long 6pc
- VDE Star* key set - double ended 9pc

3/8"


OPTIONAL UPGRADE (Part No. 8159)

Part No.	Description	Item	Part No.	Description	Item
6843	High Voltage Tester CAT IV 1000V		7917	Test Probe Kit - Slim Fit	
7469	Insulated Long Nose Pliers 200mm		6543	Electrical Test Leads	
7423	Insulated Wire Stripping Pliers 160mm		7211	Insulated Magnetic Pick Up Tool	
7939	Insulated Screwdriver Set 13pc		7885	1000V Insulated Inspection Mirror 50mm	
7482	Insulated Nut Driver Set - Metric				



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8150

Padlock Station Kit, Option 1

Ideal for any garage or bodyshop working on hybrid/EV vehicles allowing easy access, storage and identification of what locks are in use.

Kit comprises of:

- 1 x Padlock Station
- 2 x Long Shackle Safety Lockout Padlocks
- 2 x Safety Lock Out Padlocks
- 2 x Nylon Lock Out Hasps



8151

Padlock Station Kit, Option 2

Ideal for any garage or bodyshop working on hybrid/EV vehicles allowing easy access, storage and identification of what locks are in use.

Kit comprises of:

- 1 x Padlock Station
- 6 x Long Shackle Safety Lockout Padlocks

8153

Combination Lockout Station Kit

Combination lockout station kit supplied with padlocks, hasps, lockout/warning tags and lockout bag. A useful kit for the safe storage and accessibility of lockout products for workshops or bodyshops working on multiple hybrid/EV repair jobs.

Kit comprises of:

- 1 x Combined Lockout Station
- 2 x Safety Lockout Padlocks
- 2 x Long Shackle Safety Lockout Padlocks
- 2 x Nylon Lock Out Hasps
- Lockout Tags (pack of 10)
- Hybrid EV Warning Signs (pack of 10)
- 1 x Lockout Bag



8152

Locking Tag Station Kit

The kit allows the logical management of safety tags to enforce safe removal and return of assigned tags. Ideal for any large bodyshop or workshop with multiple trained technicians working on multiple repair jobs on Hybrid/EV vehicles.

Kit comprises of:

- 1 x Locking Tag Station
- Lockout Tags (total of 20 tags)
- Hybrid EV Warning Signs (total of 20 signs)



8154

Lockout Management Station Pack

Lockout management station kit allows tags and padlocks to be assigned per trained technician and accountability to be adhered to. Addition of lock out hasp ensures that no interference to assigned technicians vehicle should occur. Ideal for any large workshop with multiple trained technicians working on Hybrid/EV vehicles.

Kit comprises of:

- 1 x Lockout Management Station
- 1 x Lockout Bag
- 1 x Long Shackle Safety Lockout Padlock
- 2 x Danger High Voltage Signs - without text
- High Voltage Self-Adhesive Labels 150 x 75mm (pack of 12)
- Hybrid/EV Warning Signs (pack of 10)
- Lockout Tags (pack of 10)



8155

Master Lockout Management Station Pack

This comprehensive kit covers the full range of lockout areas - both storage and lockout products, allowing tags and padlocks to be assigned per trained technician and accountability to be adhered to. Ideal for large workshops with multiple trained technicians working on Hybrid/EV vehicles.

Kit comprises of:

- 1 x Lockout Management Station
- 1 x Locking Tag Station
- 3 x Padlock Stations
- 1 x Lockout Bag
- 6 x Long Shackle Safety Lockout Padlocks
- 6 x Safety Lockout Padlocks
- 6 x Nylon Lock Out Hasps
- 2 x Danger High Voltage Signs - without text
- High Voltage Self-Adhesive Labels 150 x 75mm (pack of 12)
- Hybrid/EV Warning Signs (pack of 10)
- Lockout Tags (pack of 10)



8156

Roadside Recovery Safety Pack

A kit designed for mobile based technicians who are required to attend a hybrid/EV vehicle on the roadside. Includes safety barriers for technician and owner protection, safety signage, master insulated toolkit and all relevant products to make safe and provide safety to technician. The voltage tester contained in the kit to shut vehicle down in event of car needing to be relocated if required.

Kit comprises of:

- 1 x Hybrid / EV Folding Barrier
- 1 x Hybrid / EV Floor Warning Signs - 2pc
- 1 x Insulated Tool Kit 3/8"D 50pc
- 1 x Hybrid Disconnect & Shut Down Kit
- 1 Pair Elec EV Safety Work Boots*

**When purchasing this kit, please specify boot size required*



8328

Insulated Tool Kit - 3 Drawer Toolbox 27pc

This robust 3 drawer tool box contains a selection of fully insulated tools to suit the needs of any mechanic working on hybrid and electric vehicles, or by electricians.

Kit comprises of:

- Insulated combination pliers (35mm jaw opening) & side cutters (19mm jaw opening) both with two colour VDE insulated handles with slip guards; insulated screwdrivers: Ph2 x 100mm long, flat 5.5mm x 125mm long; 5x insulated open ended spanners: 8, 10, 12, 14, 17mm.
- Insulated 3/8"D ratchet (72 teeth); 9x 3/8"D insulated sockets: 7, 8, 10, 12, 14, 15, 17, 19, 22mm; length 71mm. 100mm extension bar providing greater access; insulated cable knife ideal for stripping standard cables; 420mm long flexible magnetic pick up tool, with 250g pick up capacity.
- CAT IV 1000V voltage tester to check for the existence &/or absence of high voltage on hybrid & electric vehicles.
- Disconnect and shut down digital timer and 3 x cable end shrouds.



Each drawer can be customised with the tools you require all set in EVA foam for tidy storage and easy identification of missing tools.



Customisable Hybrid/EV Tool Cabinet

Use the knowledge and expertise of the Laser Tools team to help create your own bespoke Hybrid/EV product tool cabinet to suit your needs.

In addition to the standard packages on offer, Laser Tools offers a bespoke solution to hybrid/EV product requirements. A fully customisable tool cabinet, including foam inserts to meet exacting customer needs.

This lockable tool cabinet will hold all hybrid/EV products in once place and can incorporate EVA foam tray inserts to not only provide safe storage, but allows quick identification of any missing tools.

This customisable solution can include any hybrid/EV tools within the Laser Tools range, including any that customers already own.

For further information or to build your customised tool cabinet, please contact your local sales rep, or email sales.support@toolconnection.co.uk

OEM Solutions

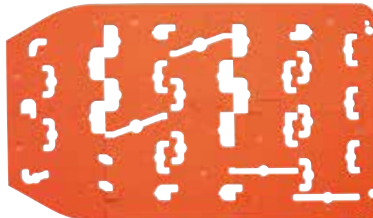


HYBRID & EV SAFETY

OE DESIGN SOLUTIONS

CUSTOM MANUFACTURING

BESPOKE HAND TOOL PACKAGES



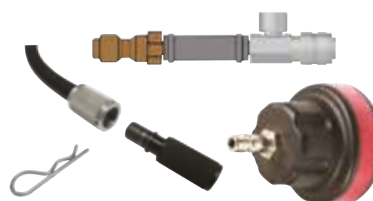
EV Battery Foam Template with Bus-Bar Cut-Outs

To protect technicians, and insulate the High Voltage Battery, when working on individual cells within the battery.



EV Battery Overlay with Printed Battery Layout Plan

To assist technicians in identifying the relevant battery cells when diagnosing faults.



EV Battery Coolant System Cap and Connectors

For testing and refilling the battery cooling circuits.



EV Battery Bus-Bar Storage Module

For storage of individual bus-bars when removed from the battery, and to protect them against possible damage.



EV Battery Pressure Test Kit

To test the integrity of the battery seals after maintenance work, to ensure there are no leakage points.

1000v Insulated Special Tools

A selection of innovative tool solutions, where special tools were required to be developed, and insulated against high-voltage risks.



Tool Connection has worked closely with leading UK Vehicle Manufacturers and Importers, to develop unique, tailored solutions for the challenges presented to workshops and technicians, by today's modern Electric and Hybrid High Voltage vehicles. Our development engineers have worked hand-in-hand with the OE vehicle engineers to create these solutions, which in many cases are bespoke to the vehicle in question. Some recent examples of completed projects are shown right, and we are always keen to hear from OEM's about the challenges such vehicles present, and to work on developing unique solutions, in whatever materials may be appropriate.



The Renault ZOE Project

The numbers of electric vehicles (EVs), hybrid vehicles (HEVs) and plug-in hybrid electric vehicles (PHEVs) available are growing on a daily basis driven by the environmental issues of the day. These vehicles are powered by an electric motor and large traction battery pack housed safely within the insulated framework of the car. Great for safety. More challenging for understanding the working fundamentals and identifying the associated tool equipment required to support them.



THE PROJECT

In 2019, when the opportunity presented itself to buy an accident damaged Renault, the 'Naked Zoe' project was born!

A collaboration of our senior technical experts from across the business took on the challenge. A skeletal frame was created from 25mm tubing on to which was hung the wheels, suspension, traction battery, battery cooling systems, traction motor and voltage controller. When all assembled the result is a space framed "buggy" that showcases the main components of an electric vehicle in a clear and easy to see package. It even rolls and steers.

Luckily, with Laser having an extensive knowledge of EV's as well as a vast range of hybrid and electric vehicle safety tools, it was possible for every step of the project to be undertaken by the professionally qualified team, using 1000v certified, fully insulated tools and associated PPE.

Having debuted at the 2019 Birmingham Automechanika show the Zoe is proudly housed in our showroom, where customers are free to visit to develop a greater understanding of the intricacies of working on electric vehicles safely and understand the tools required to work on such vehicles. We also take Zoe out on the road to exhibitions and shows, providing information and demonstrations of the correct tools to safely use.



TOOL CONNECTION SHOWROOM & TECH CENTRE

Centrally located and with easy motorway access, the Tool Connection's showroom and Tech Centre facility is located at the company's headquarters in Southam, Warwickshire. We make available an impressive range of services that is offered to our customers: this includes a fully stocked showroom, together with our Tech Centre, which is a combined conference centre and technical demonstration and training area.

SHOWROOM

The showroom is an Aladdin's Cave that showcases 1,000's of products across all the Tool Connection brands. From the smallest precision screwdriver to larger items like our pneumatic coil spring compressors to engine and panel stands, the whole Tool Connection range is on display. With many new products being introduced every month, the showroom reflects the Tool Connection's commitment to being first to market with tools and solutions required by this fast-changing automotive industry, particularly in the increasingly important area of hybrid and electric vehicles.

TECH CENTRE

The adjacent Tech Centre is where the company's research, development, product testing and product-video filming takes place. Many of our tools are designed and developed in-house and produced at our manufacturing plant in Sheffield.

This facility is used by the Tool Connection's customers in a variety of ways: it is a conference centre, and the Warwickshire address makes it the ideal central location for national and regional sales and management meetings. Technical training: new tools and products can be explained and demonstrated to members of our sales force giving them an understanding and firm technical knowledge of the tools that they sell. Similarly, our customer training sessions allow the staff of Tool Connection customers to be fully trained on all aspects of identifying the correct tool for the job and how to use them efficiently and safely.

Anything from a brake caliper rewind tool, to engine timing tool kits for the latest Ford EcoBoost or Jaguar/Land Rover petrol and diesel engines are demonstrated on the actual vehicle or engine. Increasingly, with our extensive range of insulated VDE-certified tools, demonstrations and training seminars on electric and hybrid vehicles are proving popular. Particularly since the company has invested in and designed, a cutaway rolling-chassis Renault Zoé EV, where all the electric vehicle battery and control systems are in plain sight, making these complex vehicles easy to understand.

Full blown bodywork repairs are also carried out in the Tech Centre using the latest of the Tool Connection's Power-TEC professional bodyshop equipment.



To book our Tech Centre conference facilities, arrange technical training or simply arrange to visit our impressive showroom, please email: sales.support@toolconnection.co.uk or speak to your local Tool Connection Representative.



LASER[®]

Have you seen our other ranges from Laser Tools?

We have a broad range of specialist automotive tools and garage equipment, supporting the newest vehicles on the road to classic motor cars, motorcycles and HGV's.

Our ever growing range covers every aspect of the automotive industry to enable the modern technician to carry out service and repair to any vehicle with confidence.

- HGV
- MOTORCYCLE
- CAR & VAN
- TIMING TOOLS
- HAND TOOLS
- WORKSHOP
- **CATACLEAN.**
- HYBRID & EV



LASER[®] *Racing*
TOOLS

PROUD SPONSORS OF



BTCC 2020 INDEPENDENT TEAM'S CHAMPIONSHIP WINNER:
LASER TOOLS RACING

BTCC 2020 DRIVERS CHAMPION:
ASH SUTTON

BTCC 2020 INDEPENDENT DRIVERS CHAMPION:
ASH SUTTON

**Huge congratulations to
Ash Sutton, Aiden Moffat &
The Laser Tools Racing Team!**

#wearelasertoolsracing





LASER[®]

THE AUTOMOTIVE TOOL SPECIALIST

PAST • PRESENT • FUTURE

HYBRID & ELECTRIC TOOLS & SAFETY EQUIPMENT

