

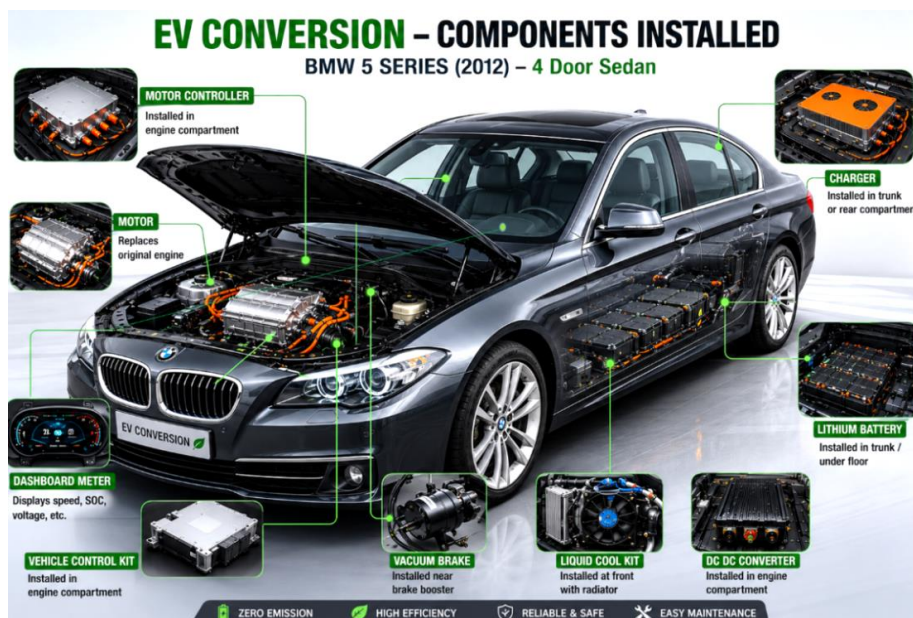
Malaysia 1st ICE Cars-to-EV Conversion Technology

Gasoline / Diesel to Electric Operation Manual

MTS EV Energy. is a licensed Exclusive Distributor in the sales and installation for all types of ICE vehicles conversions to Electric Vehicle in Malaysia. And with the increasing awareness of environmental protection and the rapid development of electric vehicle technology, more and more car enthusiasts and environmental pioneers choose to convert traditional fuel vehicles to electric vehicles, a process known as EV Conversion. In this process, choosing a high-quality electric vehicle Conversion kit (Best EV conversion kit) is particularly important. This article will give you an insight into how to understand and convert ICE cars to the best electric vehicle using our conversion kit and how it can help you easily achieve a green transformation of your ICE vehicle to EV vehicles. Our EV conversion technology uses Lithium Iron Phosphate (LiFePO4) batteries that are globally recognized for exceptional safety and near-zero fire risk. LiFePO4 chemistry is inherently stable and highly resistant to thermal runaway.



First of all: you need to have a preliminary understanding of the space of your own vehicle, and make a preliminary arrangement for the location of each component when refitting; The space in the vehicle where the battery is placed will affect the capacity of the battery.



Secondly, you need to confirm your own needs and fully understand some of the technical parameters of your vehicle. In order to combine the parameters of the conversion kit, We choose the most suitable conversion kit for your vehicle. We have all EV conversion kits for Gasoline/ Diesel ICE cars Conversion to full EV of any size vehicles from 1 ton up to 400 tons (Sedan, Sports, SUV, MPV, Van, Bus, Trucks and Heavy Trucks) of any European, British, Japanese, Korean, and US vehicle models

A, Your required distance range, average speed and maximum speed of your car after the conversion.

B, The space is calculated for the battery to be fitted correctly is provided to our factory that provides the conversion kit in order to calculate the battery power and distance range you need.

C, If you want to extend the original car accessories details: such as accelerator pedal, gear box, etc. please let us know in details. We have complete EV conversion parts and supply.

The installation information been provided here is just an example of a mid-size 4 doors passenger cars specification as stated below to be converted to EV using our kits.

The weight of the body unloaded, the weight of the full vehicle load, the original drive mode is front drive, rear drive, four-wheel drive. The gearbox speed ratio of the original car, wheel distance, whether the original car is an automatic or a manual transmission. We handle all.

An example of an EV Conversion Kit specification for mid-size sedan car.

Gasoline Basic parameter		Electric version parameter	
Engine	1.6L 100 HP L4	Driving Modes Power Rating (kW)	30
Maximum power(kW)	74(100Ps)	Peak Power (kW)	60
Maximum power speed(rpm)	6000	Maximum power speed(rpm)	9000
Maximum torque(Nm)	145	Maximum torque(Nm)	220
Automobile transmission	5-speed manual	Automobile transmission	Keep the original transmission
Maximum speed(km/h)	186	Maximum speed(km/h)	up to 120km/h
Curb weight(kg)	1270	Endurance Mileag (km)	up to 200km
Tyre size	195/65 R15	Curb weight(kg)	1200

In addition to understanding our own requirements, we also need to have a certain understanding of the conversion kit parameters. Factors to consider in choosing the best kit are:

1. Motor type and performance

- Power and torque: We will advise the selection of the right power motor according to the original vehicle weight and expected performance to ensure adequate power output.
- Efficiency and durability: We will choose high performance, low maintenance motors, such as permanent magnet synchronous motors or AC induction motors, to ensure long-term benefits.

2. Battery Pack and Management System (BMS)

- Capacity and battery life: We will advise the appropriate battery capacity according to daily driving needs to ensure sufficient range.
- Safety: High-quality BMS can effectively monitor the battery status, prevent overcharge, over discharge, and ensure safety.

3. Motor controller

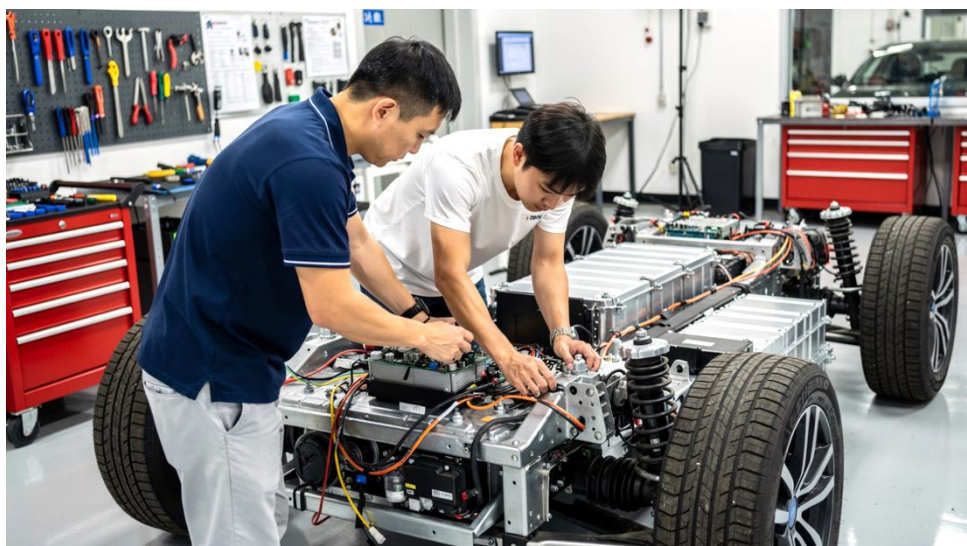
- Compatibility and tuning: The motor controller to be perfectly matched to the motor and battery pack to support precise speed and torque control.
- Intelligent: Controllers with intelligent control and fault diagnosis to enhance the driving experience and ease of maintenance.

4. Our Easy installation and technical support

- Installation guides and accessories: Choosing a kit that offers detailed installation guides and a full range of accessories is crucial, especially for DIY enthusiasts.
- Our after-sales service: good technical support and after-sales guarantee, can provide timely help and support.

To sum up, Choosing the best electric vehicle conversion kit is not only about technical specifications and performance, but also a comprehensive consideration of personal preferences, budgets and environmental concepts. As the technology continues to mature and the market continues to expand, more and more high-quality conversion kits are appearing on the market, providing you with a wealth of options for those who want to embrace green travel. By starting your electric vehicle conversion installation stations project, you can not only give your customers old car a new lease of life, but also contribute to the global effort to save energy and reduce emissions and move towards a more sustainable future.

The significance of modification is far more than the environmental protection by itself, it gives every business owner of EV Conversion sales and installation stations in Malaysia an unprecedented sense of participation and achievement. At every step from selecting each kit to implementing the modification, you are not only the owner of the installation stations but of the pride of conversion your customers vehicles, but also the director of its transformation journey. Witness their own car under the magic of your team's hands, gradually radiate a new life, this change from the inside out, so that every turn of the key to start the moment, is full of personalized temperature and story. This is not just the green rebirth of a car, but a journey of self-realization and creative expression.



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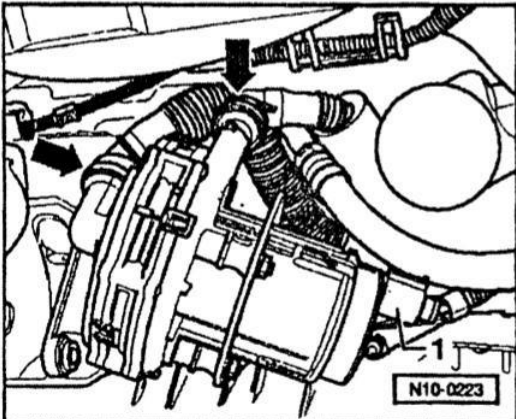
Safety precaution of use

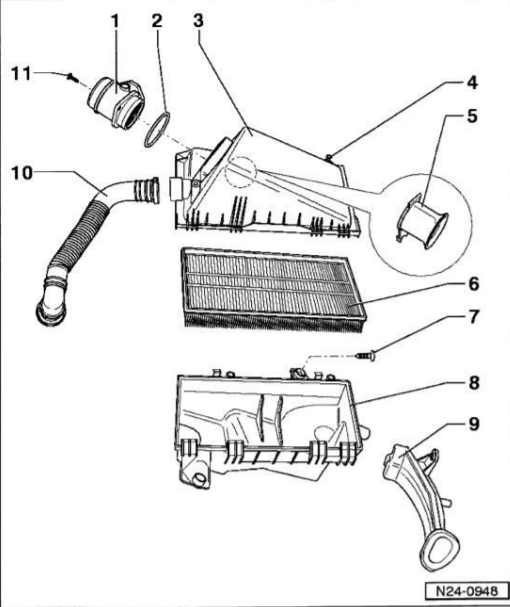
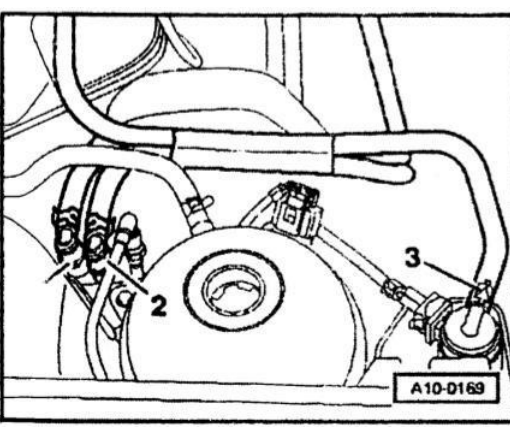
An example of a typical 4 Doors passenger car conversion to EV guideline:

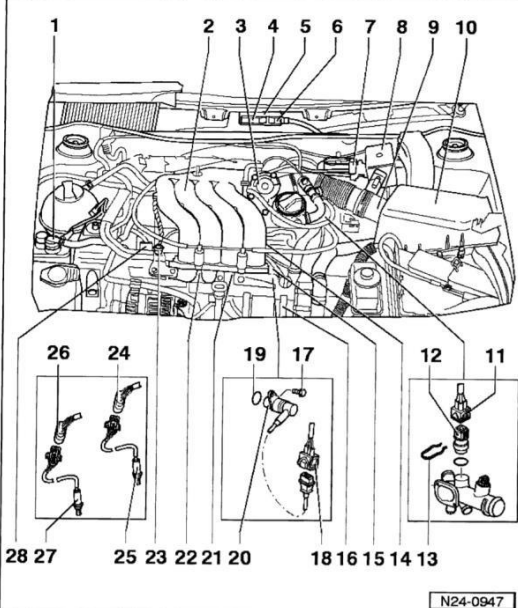
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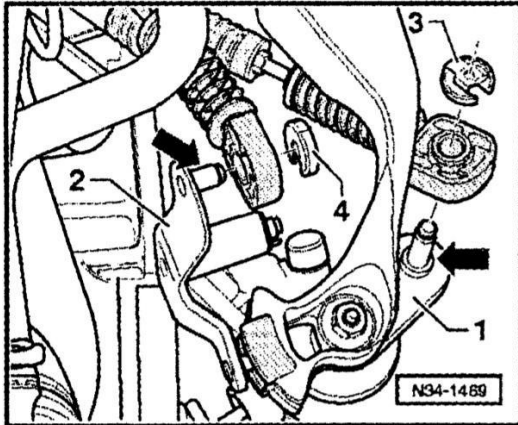
1 Disassemble related parts from the original vehicle

1.1 Engine Removal

	● First check whether the car is equipped with a coded radio, if so, first check the anti-theft code ● The engine should be removed with the gearbox ● Turn off the ignition switch and remove the ground cable from the battery ● Remove the hood cover
	● Remove connecting hose between secondary air pump/combination valve and secondary air pump/air filter (arrow) ● Remove plug '1' from secondary air pump

	● Remove the air filter: (Figure N24-0948) 1- Air flow meter 2- Sealing ring 3- Upper body of air filter 4- Set screws 5- Air duct 6- Filter element 7- Fixing screws 8- Lower body of air filter 9- Air duct 10- Intake hose 11- Fixing screws Remove the vacuum and vent hoses from the engine
	● Remove oil supply hose '1' and return hose '2', and wipe the drained fuel with a rag (Figure A10-0169) ● Remove solenoid valve hose '3' (Figure A10-0169) Attention! Pressure in the fuel line! Before loosening the hose connector, place the rag at the separation point and carefully pull out the hose to relieve pressure!

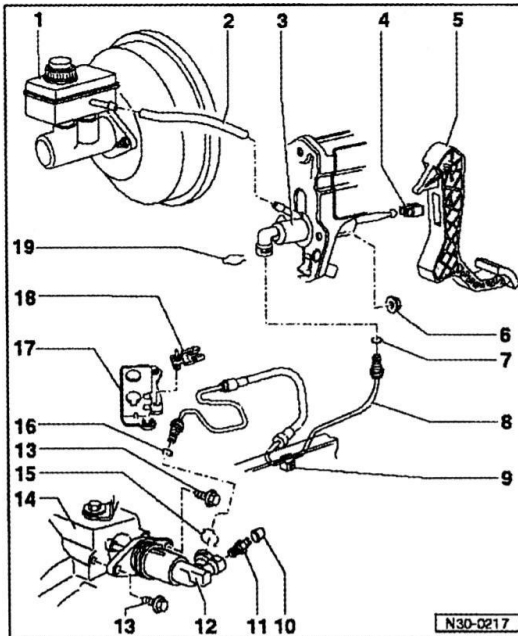
	● Remove the intake hose between the air flow meter and throttle control unit/turbocharger: ● (Figure 24-0947) 1- Activated carbon filter solenoid valve 2- Intake manifold 3- Throttle control unit 4- 52 pin plugs 5- Engine control unit 6- 28 pin plugs 7- Secondary air intake valve 8- Secondary air pump motor 9- Air flow meter 10- Air filter 11-4 pin plug 12- Coolant temperature sensor 13-Tighten the clamp 14-Fuel nozzle 15-Ignition coil 16-Secondary air pump motor 17-Fixing screws 18-3 pin plug 19-0 seal ring 20-Engine speed sensor 21-Knock sensor 1 22-Knock sensor 2 23-Fuel pressure regulator 24-4 pin plug 25- λ sensor in front of catalytic purifier 26-4 pin plug 27- λ sensor after catalytic purifier 28-Hall sensor
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- Unscrew the shift control on the transmission: (Figure N34-1469)
 - In order to remove the stop cable from the stop rod '1', first remove the safety clamp '3'
 - In order to remove the selector cable from the transmission rod '2', first remove the safety steel frame '4'
 - Remove the pin from the head of the pick cable and the catch cable (arrow)

- Remove the hydraulic clutch sub-pump: (Figure 30-0217)

- 1- Brake fluid reservoir
- 2- Liquid supply hose
- 3- Main pump
- 4- Fastener
- 5- Clutch pedal
- 6- Self-locking hexagon nut
- 7- O ring
- 8- Pipe/hose assembly
- 9- Support
- 10- Dust cover
- 11- Exhaust valve
- 12- Split pump
- 13- Flange fastening bolt
- 14- Gearbox
- 15- Circlip
- 16- O ring
- 17- Fixed bracket
- 18- Hose bracket
- 19- Circlip



Attention!

Do not depress the clutch pedal!



For a complete MTS EV Energy – Operation Manual of a total 34 pages, please email us your inquiry: support@mtsbizhub.com or visit our website www.mtsbizhub.com at Contact Us page for a physical or online meeting appointment.

THANK YOU.