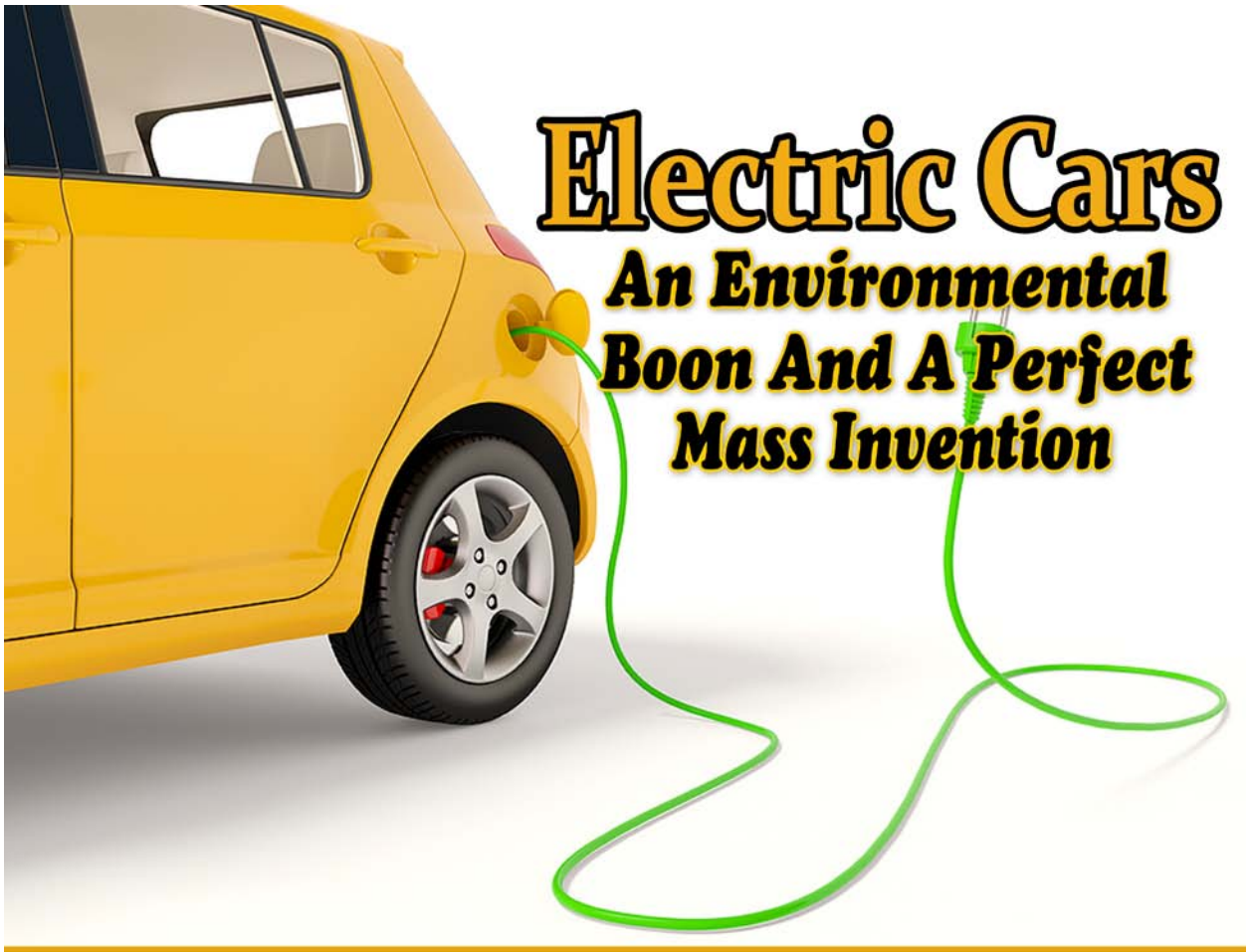

Electric Cars

An Environmental Boon And A Perfect Mass Invention

Electric Cars Are A Savior From Pollution And Can Be A Laudable Investment For You!

Electric Cars

An Environmental Boon and a Perfect Mass Invention!!!

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Chapter 1 - Birth of Hybrid Electric Cars and Their Purpose

The most explicable definition of a hybrid car is essentially one which unites more than one sources of power. Hybrid electric cars seem to be the most feasible option as the most fuel efficient automobiles on the way. Hybrid cars are an amazing result of experimentation and research and development carried through years in the auto industry. From solar energy to hydrogen gas cells, numerous arrangements have been discovered and tested in the past decades. At the moment, hybrid cars merge motorized power from a gas-fueled inner combustion engine with an electrical motor which is run by battery. The combination of gasoline and electric battery gives an electric vehicle better mileage and effectiveness compared to a vehicle run by gasoline alone.

Working of an electric engine in an HEV

In an electric car, a set of batteries empowers the electrical motor which is propelled and the car starts. In a gas-driven car the heat generated by the propelling and the transmissions swivels the wheels of the car, while the engine in an electric car is impelled when the battery passes energy on to the electric motor. Therefore, there is negligible or no release of any poisonous gases and substances from an electric engine. In essence, the internal ignition switches mechanical energy into electrical energy which drives the electric engine.

There is a generator in the interior of the car which is used for charging batteries or propelling the engine which compels the transmissions. This type of configuration enables the engine to run at best possible rotations every minute, offering superior performance, cheap expenditure and minimal toxin venting. The electric motor apart from supplying acceleration also charges the batteries and plays the role of a generator. Unlike the old models the present day HEV’s (hybrid electricity vehicles) need not be capped in between journeys.

Rationale of HEV’s

It all began as a quick-fix answer to boost the variety of electric cars; now, it has become the best choice to improve fuel economy and plummeting carbon gas emissions in the transport industry. Electric cars are a brilliant way to lessen augmented pollution levels caused by prolonged and large scale uncontrollable use of green-house gases. Gas-driven locomotives are to blame for more than half of the damage caused to the ozone layer due to carbon gas emissions. The dirt free and reinforcing power of electricity is combined with gasoline engines of a longer shelf life to generate lesser noxious emissions and improved mileage.

Chapter 2 - Environmental Benefits Of Electric Cars

In the past century, the amount of fossil fuel drawn on has swelled five to six times more than the world population! There are more than five hundred billion automobiles in the world and they are run by the existing power source-oil. Excessive release of carbon dioxide and other harmful green house gases in the atmosphere leads to sluggish diminution of the ozone layer. The disparaging effects of the greenhouse gases led to the origin of a popular word which we hear every now and then called-global warming. There can be grave repercussions of global warming like ecological calamities, diseases and agricultural devastation.

Go green with electric cars

Oil is good for us only, because we use it for running our cars. But oil does not only effect the atmospheric quality, its extraction leads to fuel tank leaks, oil spills and forest wild fire, to name a few. With escalating number of automobiles, the efforts to diminish automobile pollutants have gone in vain. It is hard to believe but when your car starts, every second, thousands of gallons of petroleum are burned. Apart from vehicles, there are power stations where coal is used as an energy source. Fact of the matter remains, that burning coal is more toxic than burning oil! In some countries coal is still used in trains; especially in goods trains. There have been plentiful automotive revolutions in the past where passenger

trains, trams and trolleys which were earlier run on coal, are now run on electricity. It is time, we stopped using coal and utilize solar energy driven electric motors.

Pitfalls of IC engine

The power corporations generate excess electricity at night which can be used to plug in millions of electric cars. Most of this electricity produced goes waste; that is why there is a pressing need for realizing proper harnessing of energy from different natural resources. It is fairly known that an electric engine is superior to an IC (internal combustion) engine and that is why there are is no direct release of gases when the engine starts. Not all HEV’s are perfect but in comparison to internal combustion engines, as the brunt of battery engines is low and mild compared to the drawbacks of a gas engine. These days, rising fuel prices and a motivational push towards a cleaner environment have reduced the carbon gas emission and people have begun to settle on bringing the electric car craze back. HEV’s will help you to drive on roads with a plain conscience, unsoiled air and significantly more cash in the pockets!

Chapter 3 - Electric Cars- Save Your Money and Environment

A new technology always starts with soaring prices and gradually plummets. If you buy a HEV, you will save a fortune from daily refilling of gas. Depending on the extent to which your vehicle is utilized, if you add up the total costs that you save on gas, it will be more than the highest costs of a hybrid car! If you are thinking to switch over to an electric vehicle then you are on the right track as it will largely save your hard earned money and lessen the carbon trail. You can go for electric car conversion at home which is possible without expert help and you could bring alterations with limited budget also. It is a great way to save thousands of dollars. Electric car conversion is no rockets science and all you have to do is pre arrange a kit. It is often called as a ‘do it yourself’ task! In electric car conversion, the non-engine parts remain untouched and the internal combustion engine(IC) is replaced by an electrical engine.

Inadequacy in the battery life of electric cars

There are shortcomings in the concept of electric cars also. Range limitations, soaring battery prices and low battery life are a few of them. The maintenance and repair costs of electric vehicles are lower than regular cars. Moreover, a gas-engine car has more mechanical components which require a sustenance check at short intervals contrary to EV’s which have significantly few and easier-to-deal-with parts. By the end of the 19^{th} century,

customer demand stayed consistent to bring electric cars into the international market, the technology to bring this budding transformational creation in the market. After a decade, with more advanced technology and state of the art methods, the economic impact of electric cars has changed.

HEV’s are perfect when searching for a substitute

Thrilling developments in the form of electric cars can put battery driven cars everywhere on the roads and the know-how fuelling the transition could push higher, the shares of car manufacturers. Among a few automotives manufactured, electric cars are a viable solution to combat rising fuel rates. There is good news for the owners of HEV’s that the government gives tax credit for driving a ‘green’ car. It is a myth that electric cars are slow. The fact is that the batteries placed inside require timely charging like our mobile phones, but as far as speed and fuel efficiency is concerned, HEV’s are not behind their conventional counterparts. The cars that utilize both power and battery are called hybrids and possess the pros and cons of both electric and gas engines.

Chapter 4 - Significance Of Electric Car Components In Hybrid Cars

Electric cars have become routine owing to their fuel efficient quality and cheap sustenance costs. Just like conventional gas driven automobiles, even electric cars suffer from common wear and tear and their parts need to be replaced. We already know that the maintenance costs of electric cars are low and the repair hassles are less compared to its equivalents. With expanding demand of electric kits and car parts, most auto parts vendors sell electric kits and superior quality components for revamping and replacement.

Factory made electric car parts are accessible with creative equipment producers

HEV parts are divided into two categories. Firstly, the parts which constitute an electric car conversion kit and secondly, the ones manufactured in factories for electric automobile models. The most vital electric car component is the battery. If you know the right places where you can search and buy a battery at reasonable rates then nothing like it! Battery costs are usually high, so if someone is selling you a battery at delusional rates then it is suspect that it is of inferior quality. These car parts are licensed by car quality assurance agencies after they undergo a number of tests and rigid quality trials. If you buy the car parts from a sanctioned dealer then the authenticity of the car part is almost every time certain. If the creative equipment manufacturers stop producing these car

parts then it may become impossible to find them in the market as the technology involved is free holding and the parts are not openly obtainable in the auto market.

Market study is a must before purchasing electric car parts

The other kinds of electric car parts are the ones which we get in electric car kits. Except it is a specific car part, the electric car parts are available with a bunch of electric car kit manufacturers. Make certain that the parts you buy are not substandard and if these parts are candidly available in the market, be sure to exercise caution while buying them. It is a must that before purchasing electric car parts, whether specific parts or electric car kits, you consult experts and do enough market research. The worth of the product should never be compromised upon and the buyer should always do some labor to make a well-versed choice. Most of the repair and maintenance costs on your car are incurred due to the old gasoline engine. Electric car parts are easier to handle and the only wear and tear that you will experience regarding your HEV will be in tires and brakes. There is no oil, no coolant and no exhaust system unlike the conventional vehicles which makes only one active maneuvering part in the electric vehicle; the electric motor.

Chapter 5 - Easy Steps to Build an Electric Car

So, have your folks gifted you a brand new car on your birthday? This is the time to throw the old gasoline car in the junkyard and go for a newfangled, environmental, easy to build electric car! Your hard earned money and labor offered by friends is checked and you have aligned the major resources to start the wonder ‘green’ project, but the question that must be troubling you is ‘what is the next step’?

Easy ways to build your personal electric car

- Search on different web portals using appropriate key words, about how an electric vehicle can be made at home. Ask your friends and other car passionate contacts if they have additional constructive information to give before you start the course of action. There are auto magazines and manuals available in the markets which have insider tips and instructive information on how to assemble car parts in HEV’s.
- Another ‘must have’ is electric cat software. You can easily buy it from the market or simply download it free of cost from the internet. There are videos available on the internet for learning the basics on how to build an electric car. The guidelines and directions stated in these are incredibly functional for amateur car builders. Be watchful regarding bugs and hacker prior to downloading. If you are unsure about downloading from unidentified software then, you can browse for a website of your choice which

gives you ample education on the latest car models best for conversion and the tools which can be used to make the car function better.

- Focus on websites which are specifically meant to show you doable methods to construct DIY cars. For some, the technicalities in software may be convoluted and people can have a tough time following it. Just enter the correct keyword and you will come into the domain of HEV’s.
- Visit online forums on electric cars. You will discover some cautionary suggestions and chalk talk, that will be exceedingly advantageous for you project.

Electric car conversion is no big deal!

An important thing to note here is that the power regulator which controls the energy into an electric motor should be placed properly. After reading the easy way to build a HEV, it is apparent that you need to have an alive and kicking plan, a comprehensive study and loads of fun to build an electric car at home! You need the right supervision and directions for this tech-project. Advertisements and car fanatics are a good address for your apprehensions.

Chapter 6 - What Are the Gains of Electric Car Conversion?

Before you start darting your car on electricity, you must know the benefits of electric car conversion. The best part about electric car conversion is that once you spend a slightly higher amount on it, think that it is the last time you will do so unlike gas driven cars which require frequent expenditure on wear and tear. The fundamental feature of conversion is removing the IC (internal combustion) engine and installing an electric motor. The expenses incurred by you include the costs of batteries and the electric car part kit. Once the conversion is done and you have abandoned that old petrol drinking engine you don’t have to be troubled about fuel expenditure and lubrication of engine.

Save the environment with electric car switch

Besides, saving on finances, electric cars are an outstanding way to preserve the milieu. These cars lessen the use of diesel and petrol; therefore there is scope of low energy consumption. Electricity driven engines are smoke and pollution free and eradicate prolonged release of noxious substances and gases in the air. Are you annoyed by the constant honking and jarring noise of the cars out on the roads? Well, for peace and quiet lovers there is some good news! Electric cars are less deafening, as the engine runs smoothly. So while you are on an excursion you could enjoy a tranquil moment as you drive and enjoy the long drive.

Say goodbye to the conventional gas guzzler

It is a myth that electric cars are slow compared to gas-driven cars. In-fact, an engine run by electricity gives you a better mileage. The speed limit of electric car is in no way slower than conventional cars. In actual fact, the shelf life of batteries placed in the car can have a longer shelf-life if they are charged every so often. Unlike regular cars, electric cars are recyclable. Once your gas-engine car is old and unappealing, there is no need to dispose it off; only essential facts and a set of batteries are needed to switch the old car in to an electric car.

The efficiency of electric cars is higher as they have rationally light weight parts. The internal combustion engine adds on the extra weight of the car as it is finished up with weighty components. There are softer brakes and smooth acceleration due to nonexistence of some gears. Some of the energy utilized in acceleration is recuperated when the car stops. It is encouraging building an electric car of your own rather than buying one!

Chapter 7 - Buying Fuel Efficient Cars

Fuel Substitute Fuel Vehicles

A fuel efficient and cost-friendly car is on everybody’s list today! You can save on the life of the automobile considerably and also do your bit to save the milieu by cutting down on toxic car smoke. When do we say this repeatedly that smaller engines are low on cost and fuel proficient, it is so because there is no need of octane gas in them? It largely depends on the purpose behind driving a vehicle. Sometimes, a smaller engine can burn up more gas if it is being used to haul heavy loads or the vehicle is running above the normal conditions.

Always prioritize the type of automobile you want to buy. Whether it is a compact, sports utility vehicle, mid-sized or a tow truck, ensure that you browse through car manuals, auto magazines and check out all the popular websites which offer such information. Various new ways of collecting public opinion have come up on the internet today. You can simply put up your question on a website or a public forum and all car crazy people will redress your query. Quite a few websites compare the fuel utilization rankings and mileage ratings of cars.

Handy tips to save that prized fuel

A slightly compromising way to reduce fuel consumption is to buy a less luxurious car. The more extravagance in the car, lesser is the fuel efficiency. Most recent luxury car models are equipped with power seats and windows, mirror and

seats. Air conditioners and eat warmers are installed in every car today including the low-on-luxury models. The fuel consumption in them is more as there is extra weight or aero-dynamic haul or regulation of added power. A smart way to cut fuel consumption and minimize weight on the engine is by using aluminum wheels. HEV’s are another fine option that can be considered if you are looking for fuel efficient cars.

With swelling prices of oil boost fuel utility

You can cut burning up of fuel by driving slow. When you drive fast there is an aerodynamic lug that decreases the fuel mileage. It is not only advisable to drive in speed limit for increasing fuel efficiency but also to be safe on the road. By ensuring timely maintenance of your car you can increase the fuel efficiency. Do not forget to assess air filters and ascertain inflated tires consistently. Use only graded car oil and batteries and go for superior quality gas. It is not mandatory to fill up your engine with super high octane gas. Lastly, do not keep your engine started when the car is in idle condition.

Chapter 8 - Intensifying Popularity of Electric Cars

It is a common belief that electric cars are a new invention. The purpose of keeping big and expensive cars is not for mere travelling but it is has become more like a status symbol. Believe it or not but in the early 1900’s more than 40,000 cars ran on the roads of the United States.

Electric cars were well-liked in the past century

The truth is that electric cars were used in the early years of the 20th century. Starting a gas engine was quite a dreary process as unlike today there was not system of inserting a key in the ignition. In fact, a rod had to be used and turned around many times to get the engine started. It seems that people were more aware about the conservation of the ecology. The working of an electric car is similar to that of a remote-directed car we played with as toddlers, which functions by chargeable batteries and the wheel rotates when the electric motor is turned on. The batteries can be charged overnight or have to be plugged into a standard electric wall socket.

Electric car batteries are charged in the same way as electric clothes dryer or an electric dish washer. Batteries are of two types; firstly the standard lead based batteries used in flashlights or the cadmium-nickel acid batteries which are used

in portable video games or tape recorders. The mounting popularity of electric vehicles has pressed for the up gradation of technology used in batteries. The electric engine is popular as it tackles two key issues in the present day scenario, namely hike in fuel prices and deteriorating milieu.

Is electric car a niche product?

The question arising frequently today is whether electric cars are a perfect ‘people’s product’ or niche? Truth is that these cars will not be more than niche products unless the proper bedrock for their servicing them is available. In Most developed countries automobile companies have special electrical charging stations which are either erected at gas stations or constructed as separate outlets. There is a facility of 24-hour charging with aligned car parking, supermarkets and grocery stores to add to the vitality of these stations. Another concern among car drivers is that what if the battery charge is over before reaching the destination and there is no gas engine to bail you out? That is why it is understood that even though electric batteries are fuel efficient, clean, swift, and guarantee a smooth ride; a cutting edge technology is needed with respect to electrical batteries for providing back-up when the car breaks down in the middle of the night and you find out that the batteries have completely drained out!

Chapter 9 - Build Your Own Electric Car At Home

If price is still a problem for you while buying electric cars then worry not! Who says that you need to buy an electric vehicle when you can easily convert a conventional gas engine into an electric engine? The process is not at all wearisome and requires a few directions and instructions to begin with. The electric car parts are readily accessible in the market. You can purchase parts from an independent authorized dealer or an auto company’s showroom depending upon your convenience. You can buy a specific car part or an electric car parts kit which is manufactured and assembled by authentic car companies or wholesalers.

Who can help?

Basic amenities and essential commodities have become so expensive today. T it is difficult to buy even the indispensable items from the market, let alone paying for car fuel and sustenance costs. If you can afford to pay a professional then go ahead and hire one for electric car conversion. You will have to shelf out a little more cash and then sit back comfortably when your friends are facing trouble with fuel rates. For starters, there is no better way to learn the process of electric car conversion than the online software, videos and articles which are of great assistance in understanding the technical jargon of auto magazines. Externally, electric cars appear same as conventional fuel cars but once you open the hood you will see the difference. The fundamental step to electric car conversion is reinstating the internal combustion engine with an electric one.

The batteries are connected to controllers which are attached to an electric motor. As soon as the ignition burns, the batteries start and activate the motor which in turn propels the engine.

Go for ‘zero emission vehicles’ (ZEV’s)

There is electric car conversion software available online which is straightforwardly downloadable. If you are uncertain about the source or ingenuity then go for a professional help. This might be the best investment you make because after observing the plight of the world environment and rising climatic temperature, the time is near when the world will look like a science fiction movie where there are flying cars propelled by batteries and solar energy.

Once you do essential groundwork and build your own electric car, you must keep it in good shape. Replace the old batteries depending upon the nature of acids used in them and keep the car-tyres properly puffed up. There are numerous exciting hybrid electric car models available. You can buy the unveiled models also by simply searching on the internet.

Chapter 10 - The Future Prospects of Electric Cars

The future of the age-old automobile industry is here! With steep fuel prices and constant pressure to reduce green house gas emissions, electric vehicles seem to be the viable solution apart from horse carts! The debate over electric cars being a forte product is going on since years but there seems to be no better explanation to the ever rising problems of pollution and energy consumption. The oil producing countries hiked the fuel prices more than ever because the precious energy source is on the verge of depletion. Thus, to reduce dependency on these countries, negate the affects of global warming and save on personal expenses, a scientific revolution is called for. Why don't we learn something from the previous generations who utilized electricity for running their beautiful vintage cars?

Save something for future generations!

If everyone started building their own electric cars or recycled their conventional gas-guzzling cars into 'green cars' then the hefty amount of money saved can be used where it is needed the most; that is, essential commodities and food. Simultaneously, they can uphold the energy sources for the upcoming generations to enjoy. Why cannot we compromise on fuel vehicles and leave the energy resources like oil for a situation where there is no back-up except oil. Automobiles can be run, choosing another option but the sane does not go in all scenarios.

If you are apprehensive that the appearance of your conventional car will change after conversion then you need not be bothered. The external structure of the car will remain unchanged whilst the internal anatomy will be slightly modified. Therefore, if you want to flaunt your flashy expensive car; do that but with a difference inside!

Hydrogen gas power may be the new wave

While a breakthrough in electric car batteries is awaited, hydrogen power may well be a wiser way to go over chargeable batteries. The hydrogen powered fuel chip can be used to turn out electricity and propel the motor. Moreover, when hydrogen burns all you get is water vapor so there are practically no toxic emissions. Yet, huge strides have to be taken to harness hydrogen gas cells for generation of electricity. You could customize your car as per your fancies and enjoy an even, peppy and zero-toxins ride. It is time we found an alternative for the existing fuel sources and stop being salves to the oil cartels. It is not a mere option but a necessity to save mother earth and get a feel of freedom from reigning oil cartels.

Conclusion

Presently, electric cars and HEV’s show the most probability for prolonged existence and incorporation in the automobile industry. Government gives tax relief as incentives to encourage people to buy electric vehicles and HEV’s. The sustenance costs of electric cars are very less contrasted to gas engine vehicles as there are lesser parts in it; also, finances and manual efforts are saved. In point of fact, slighter engines in electric vehicles have better fuel competence and economy contrasted to the bigger and heavier ones, beneath standard driving conditions. The fuel engines are hazardous if kept in high temperature. Apart from engines there are radiators which are under extreme pressure due to boiling water. There can be fatal accidents where the engine or radiator can explode due to heat and continuous pressure.

It is noteworthy that oil does not pollute only when used as fuel in automobiles, but also when it is extracted or shipped from one country to another. There have been oil spills which have largely harmed aquatic and human life, deep oil well mining accidents and worse of all uncontrollable tropical forest fire. The ZEV’s or ‘zero emission vehicles’ are not totally emission free but they release a trifling quantity of chemical substances. So now you and I well understand why electric car conversion can be smart move!