

# AMPERA

Range Highlights



Proud Sponsor of Home Nations Football



# WELCOME TO AN ELECTRIFYING NEW ERA

**Welcome to an entirely new category of alternative propulsion.** The Ampera packs the punch you'd expect from a V6 and does it with whisper-quiet power. So you get all the performance, with none of the noise. Delivering a dynamic, fun driving experience, only the Ampera makes it exhilarating to be 'eco', with 370 Nm torque powering you from 0 to 60mph in less than nine seconds.

To find out more about the electrifying, exhilarating and well-equipped Ampera models, visit [www.vauxhall-ampera.co.uk](http://www.vauxhall-ampera.co.uk)

The vehicles illustrated and the information contained within this brochure may not necessarily represent the final UK specification. In addition, not all the features and options described are available on every model and may not be available from launch. For full details please refer to the Ampera Price and Specification Guide.



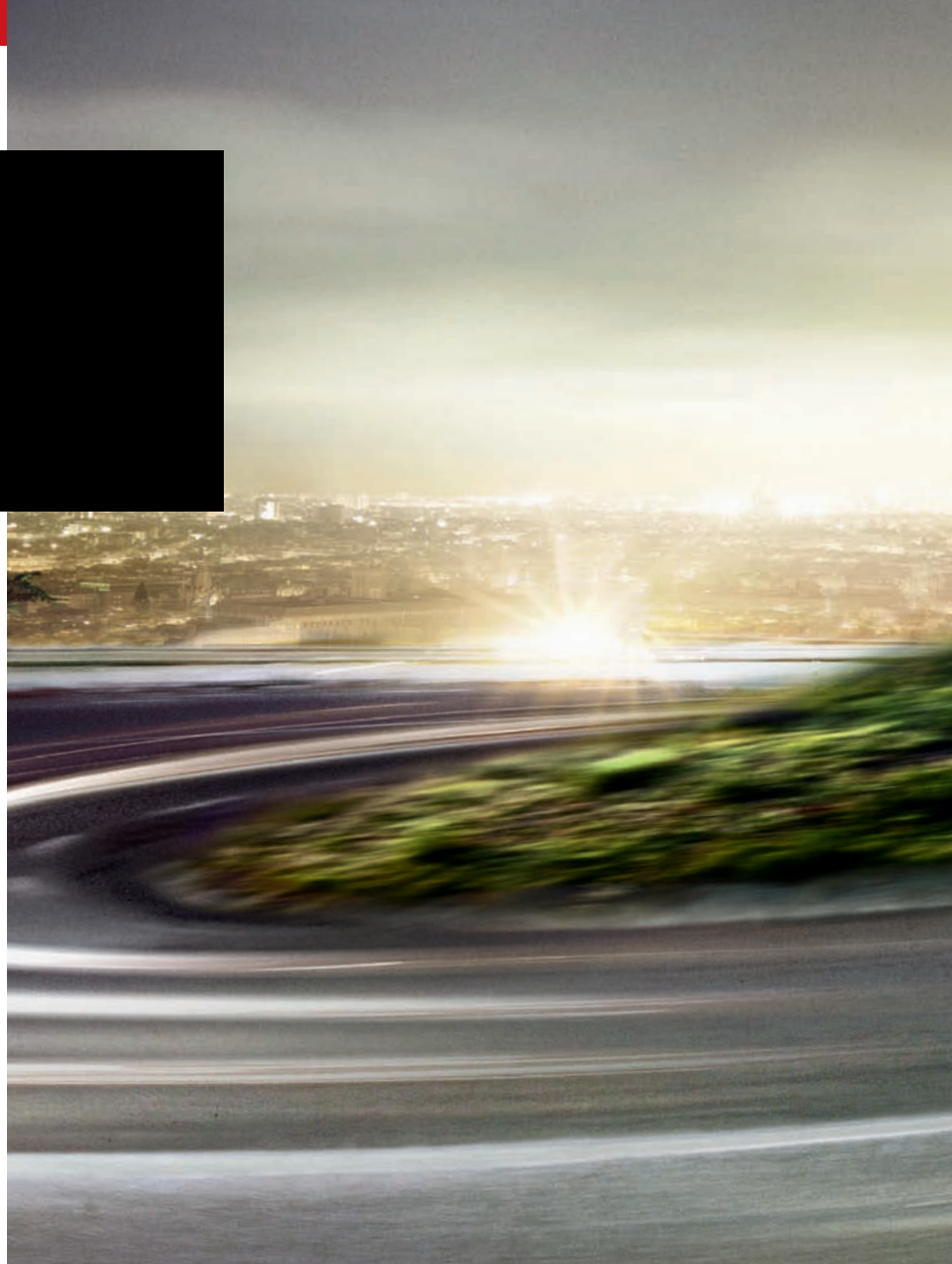


# LEADING FROM THE FRONT

**Change the game, change the world.** This philosophy has put Vauxhall at the forefront of developing alternative propulsion that uses renewable resources, reduces our dependency on oil and offers you numerous benefits. The Vauxhall Ampera is an Extended-Range Electric Vehicle (E-REV) – the first of its kind. And it succeeds where pure battery cars fail, by combining extended-range with improved performance, reliability and handling.

The lightweight 16 kWh rechargeable lithium-ion battery powers the Ampera for up to 50 miles\* of cost-effective battery powered motoring – making it ideal for commuting. For longer trips, the innovative petrol-powered generator provides the electricity to power the drive unit, allowing you to drive another 310 miles\* without having to recharge or refuel.

\*For details and determination methods, see technical data on page 17.





# THE FUTURE STARTS HERE

**Step into a new world.** The interior of the Ampera combines elegant comfort and roominess with state-of-the-art functionality and usability. From its interactive colour central instrument display to voice recognition technology, all contained within the dynamic flow of the wrap-around cockpit. Two high-definition displays and superb in-car ergonomics offer you a clear view of the gauges and easy access to functions and controls. Standard features include a leather-trimmed interior, with a choice of complementary interior colours, a leather-covered steering wheel and Electronic Climate Control.





# ➤ FOR MORE RANGE WE WENT THE EXTRA MILE

**E-REV stands for Extended-Range Electric Vehicle. It's an all-new propulsion system for an all-new car. The Ampera's E-REV technology delivers up to 50 miles\* of battery electric driving, plus an extended-range of 310 miles\* using its on-board petrol-powered generator. So it offers all the convenience of a conventional car engine, but with significantly lower emissions and running costs.**

The Ampera has two driving modes: Electric and Extended-Range Electric. In Electric Mode, the Ampera is powered by its battery and can drive in this mode for between 25-50 miles\*. Then when the battery runs low, the Ampera seamlessly switches to Extended-Range Electric Mode and its petrol-driven generator takes over. The generator produces the electricity for the motor and increases the range by a further 310 miles\*. Thanks to this innovative system, you can be entirely confident that you'll reach your destination – just as if you were driving a conventionally-powered car.







Left hand drive model illustrated.

The E-REV system has three key components: the electric drive unit, the battery system and the generator. All three can be monitored on the centre console display.

**1. The 150PS electric drive unit.** Together with the battery system or generator, the electric drive unit produces 370 Nm of torque and accelerates the Ampera from 0-60mph in less than nine seconds, with a top speed limited to 100 mph in both Electric and Extended-Range Electric Modes.

**2. The long-life battery system** is durable and powerful. Mounted centrally under the floor, it gives the Ampera a low centre of gravity and generous boot space. Unlike other systems that are temperature sensitive, the Ampera's battery features an effective cooling and heating system that can withstand extremes of hot and cold.

To ensure long battery life, it is never fully charged or fully depleted and this 'smart' use cycle is so reliable that it comes with a 100,000 mile or eight-year warranty\*\*. The battery level benefits from energy recycled by the Ampera's regenerative braking system. When the car is braking or slowing down, forward motion produces kinetic energy that the Ampera converts into electricity and stores in the battery.

**3. The generator** is powered by a 1.4 litre, 16-valve VVT ECOTEC® petrol engine that generates 86PS. This fuel-efficient, low-emission unit kicks in once the battery reaches its minimum state of charge or when the driver selects Hold Mode†. On a full tank, it'll be at least another 310 miles before you need to refuel to continue your journey.

\*For details and determination methods, see technical data on page 17. \*\*Subject to the warranty conditions as outlined in the Vauxhall Ampera service booklet. †See page 17 for details.

## ➤ PLUG AND GO

**Charging the Ampera battery is simple. Just plug one end of the charge cable into the charge port on the passenger side front wing, and the other into a standard 240 volt power socket\* or the accessory home charge station\*\*, and you can charge the vehicle at home.**

To make sure charging goes without a hitch, the Ampera's charge cable is fitted with LED status indicators. If all the lights are green you know it's safe to go ahead and charge the Ampera. If any flash red, due to voltage or other electrical outlet faults, the car won't charge. In the cabin, lights mounted on the dash just inside the windscreen show the charge status.



There are three charging modes, designed to let you charge the Ampera when it suits you best. Immediate Mode charges the battery as soon as you plug the Ampera into a 240 volt socket. Delayed Departure Time Mode calculates when to start charging according to the departure time you enter on the centre console display. Delayed Rate and Departure Time Mode lets you charge the Ampera when it's least expensive – for instance using an overnight 'economy' tariff. The system will even work out the best charging time, using a combination of the utility rate information and your chosen departure time.

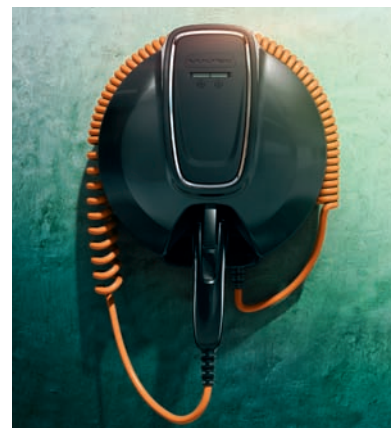
Battery charging times	Hours
Standard charge cable using 240 volt socket*	6 <sup>†</sup>
Accessory 240 volt/16amp home charge station**	4 <sup>†</sup>



**The charge port** is conveniently located on the kerbside of the vehicle, and is safe and simple to use. Just flip back the lid and plug in the supplied charge cable set. At home, just plug into a standard 240 volt socket\* or the accessory home charge station\*\*. It's as simple as that. When you're out and about you can plug into a dedicated charging point<sup>††</sup>.



**The standard charge cable set** comes with a practical handle and fits easily into the boot of the car. It has a six-metre cable that rolls up tightly for easy storage.



**The 16amp home charge station** will become available as an accessory during 2012. This wall-mounted charging kit has an extra-long, extendable cable and can be installed in your home or garage\*\*.

\*Before charging at home with the standard charge cable, ensure that the capacity of the electrical circuit and socket that you intend to use has been inspected and approved by a qualified electrician.

\*\*The home charging station must be connected direct to the power supply and the work must be carried out by a qualified electrician.

†Average charging time required under average weather and temperature conditions. Actual charging time will depend on factors such as temperature and the specification of the electrical installation.

††Care must be taken not to leave the charging cable where it could become a trip hazard.

# ➤ JUST SCIENCE, NO FICTION

Two high-definition displays are the interface between you and your Ampera. The Driver Instrument Panel is all about peace of mind. The centre console touchscreen gives you access to infotainment, satellite navigation and climate control features, as well as power flow information and charging schedules.

**Driver Instrument Panel** operates in two modes. In Electric Mode (far right), it highlights the battery level, expected range and speed on the left of the screen. In Extended-Range Electric Mode, when the car is using the petrol-powered generator, the fuel gauge is more prominent and the battery gauge is greyed out. There's also a choice of two views. The simple Configuration View displays the battery level and remaining range, along with the speedometer. Enhanced View switches to a real-time driving efficiency gauge that shows you how efficiently you are driving the Ampera.





## ➤ KNOWLEDGE IS POWER

Electricity makes cars fit for the 21st century, and the Ampera's interactive centre console screen does the same for in-car displays. If you get a kick out of the latest electronic gadgets, you'll love using the Ampera's control centre. It does more than just give you access to key information and features. At the touch of a finger it brings the whole car to life.

**The seven-inch centre console display** couldn't be clearer or more intuitive to use. With just a few touches you can choose music and the best route, programme the Ampera's charging schedule, and monitor power flow. Your options and choices show up clearly as attractive coloured graphics. This central display also serves as the control panel for the Electronic Climate Control (ECC). Since air conditioning uses power and can therefore affect the Ampera's range – in electric mode – the ECC offers three different climate modes: Fan Only, Eco and Comfort. You select the ideal trade-off for your needs. A climate efficiency gauge shows you in real time how your ECC choices affect power consumption – and there's even efficiency tips to ensure you get the best range possible.



**1. The Power Flow display.** The centre console gives you a clear animated overview of the Ampera's drive systems, so you always know exactly which power source you're using, as well as how long it will be before you need to recharge or fill up. A simple touch of the power field (top left) activates the display. In Electric Mode the battery glows green.

**2.** When the engine engages the petrol-powered generator, the battery animation fades out and the generator glows instead.

**3. The charging display.** When the system needs recharging, you can pick a charging mode and programme the charging schedule on the centre console display. Once charging begins, the charge status and current driving range in Electric Mode appear on the Driver Instrument Panel.

**4. The Rear Vision Camera.** Mounted above the Ampera's rear number plate, this camera shows the area behind the car on the centre console display, to help you reverse safely, using your rear bumper as a point of reference. The screen shows overlaid graphic lines indicating the reversing path based on the steering wheel's angle. Working in conjunction with the front and rear parking sensors, you quickly appreciate just how easy it is to reverse the car safely. Especially at night, when it combines with the rear central reversing light, to fully illuminate your path.



# ▶ PERFORMANCE STILL COMES FIRST

The Ampera is quick and power efficient. With a torque of 370 Nm you can accelerate from 0 to 60mph in less than nine seconds with the almost silent electric drive unit. Whether you're in Electric Mode or Extended-Range Electric Mode, the 150PS electric drive unit powers the wheels at all times, with instant torque and a limited top speed of 100mph.





Engineered to perform, the Ampera features four performance modes for varying driving conditions and styles:

**Normal Mode:** The default setting and most efficient driving mode, using the lithium-ion cells.

**Sport Mode:** Automatically reconfigures the response of the accelerator pedal to provide quicker torque application for dynamic driving situations.

**Mountain Mode:** Automatically adjusts the system for efficient performance in extreme gradients, keeping the battery charge at a higher state of charge for when supplementary power is required.

**Hold Mode:** Allows you to drive using the petrol-powered generator to conserve the energy of the battery, then switch to battery for inner-city driving.

**The suspension** is tuned for responsive driving dynamics. The Ampera's lightweight suspension system and extremely stiff body structure connect the driver to the road. The independent McPherson strut-type front suspension improves stability whilst at the rear there's a semi-independent, torsion beam set up. For optimised control and agile handling, the Ampera features the latest steering technology – a rack-mounted electric power steering system.

**The braking system** draws on two different technologies: regenerative braking and disc brakes. Regenerative braking can handle more than 90% of braking situations. It harnesses the kinetic energy generated by deceleration and converts it into electricity that can be stored in the battery. For more extreme braking, the Ampera automatically combines the regenerative and more powerful disc brakes. For emergency braking, Brake Assist is automatically engaged and the system switches immediately to 100% disc braking.

**The Electric Parking Brake (EPB)** takes the work out of using the handbrake and is released automatically when pulling away. You can also turn it on and off with a switch on the centre console.

## TECHNICAL DATA

### PROPULSION SYSTEM

ELECTRIC DRIVE UNIT:	
Power	150PS (111kW)
Torque	370Nm (273 lb.ft)
Lithium-ion battery	16 kWh
Range-extender petrol engine	1.4i 16v (86PS) (63kW)
FUEL ECONOMY MPG (LITRES/100KM)*:	
Urban driving	313.9 (0.9)
Extra-urban driving	217.3 (1.3)
Combined figure	235.4 (1.2)
TYPICAL ECONOMY MPG (LITRES/100KM)*:	
Condition A	0 (0.0)
Condition B	56.5 (5.0)
CONSUMPTION AND EMISSIONS*:	
CO <sub>2</sub> emissions g/km	27 g/km
RANGE:	
Typical electric range**	25-50 miles
Total range <sup>†</sup>	360 miles

### COMPANY CAR DRIVERS

VED AND BENEFIT IN KIND TAX:	
VED (2011/12) – first year and standard	£0
Benefit in kind tax band (2011/12 tax year)	5%

All information was accurate and up to date at the time of publication (January 2012). The company reserves the right to alter engine specifications at any time, which may influence the content of the shown data. Please consult your Vauxhall retailer for the latest information.

\* = Fuel consumption data, CO<sub>2</sub> emission data, official electrical consumption data and official electrical range data are determined according to regulation R (EC) No. 715/2007 (in the version respectively applicable), taking into consideration the vehicle weight in running order, as specified by the regulation. Additional equipment may lead to slightly higher results than the stated consumption and CO<sub>2</sub> figures. Condition A is the vehicle driving on Battery supplied electricity only. Condition B: is the vehicle running on Combustion Engine supplied electricity. Combined: is the vehicle running on combination of both. On average, each kilowatt / hour (kWh) of electricity generated in the UK emits 545g of CO<sub>2</sub>; (02 November 2011, *Autocar*) – this is not included within the EU Type Approval figures.

\*\* = Typical electrical range means the range achievable in battery modus with a fully charged battery under typical everyday driving conditions, modest use of engine performance and in average weather conditions (without use of additional electrical consumers). The range is substantially influenced by the driving style.

† = Cumulated range from battery electric and range-extender operation, based on the respective official combined consumption figures according to regulation R (EC) No.715/2007 (in the version respectively applicable). The figures for fuel consumption, electrical consumption, range and CO<sub>2</sub> emissions do not relate to a specific vehicle and are not part of an offer. They are provided only for the purpose of comparison between different vehicle variants. Additional equipment may increase the weight of the vehicle when empty, which may lead to a reduction in top speed and increased acceleration time. The published performance figures assume a 75 kg driver plus 125 kg load.

# ➤ GENERATE ATTENTION

The Ampera is available in a range of exterior colours and finishes – all electrifying in their own way.

SOLID



Black

BRILLIANT\*

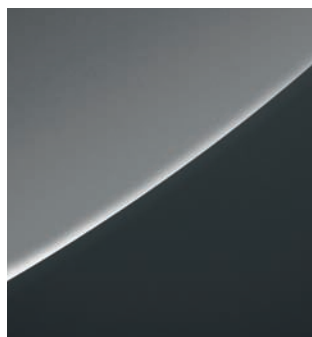


Summit White

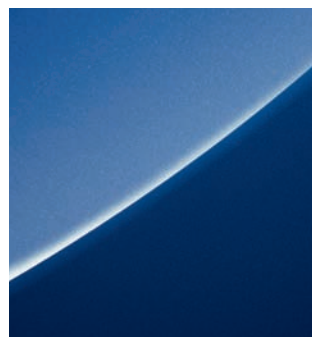
TWO-COAT METALLIC\*



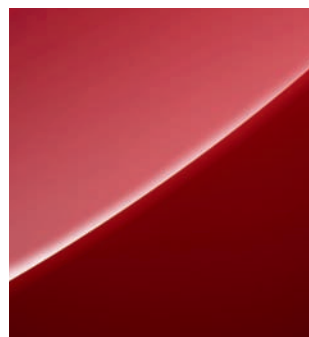
Sovereign Silver



Cyber Grey



Power Blue\*\*



Crystal Red\*\*



Lithium White

TRI-COAT METALLIC\*

\*Optional at extra cost. \*\*Spice Red trim is not available in conjunction with Power Blue or Crystal Red metallic paints.

The colours reproduced may vary slightly from the actual paint colour and trim material. As a result, they should be used as a guide only. Your Vauxhall retailer has a comprehensive display of our paint samples and trim swatches.

## ➤ CURRENT CHOICES

A choice of interior trims – including the option of red or white style inserts for the leather seats – means the interior of your Ampera can be as individual as the car itself.

SPICE RED TRIM\*\*



Black leather seat trim with Spice Red inserts, dash inserts and front door panels.

CERAMIC WHITE TRIM



Black leather seat trim with Ceramic White inserts, dash inserts and front door panels.



Knee airbags.



Passenger safety cell.



Instrument display.

## Safety

### Standard features

**Airbags:** • Driver's and front passenger's airbags • Driver's and front passenger's knee airbags • Front seat side-impact airbags • Full-size curtain airbags • Deactivation switch for front passenger's front and knee airbags – Ensures front passenger airbags do not inflate when a child seat is fitted to the front passenger's seat

**Seating:** • Active-safety front seat head restraints • Height-adjustable front and rear seat head restraints • Four lap and diagonal inertia-reel seatbelts (height-adjustable front) • Front seatbelt body-lock pretensioner system • Drivers and front passenger's seatbelt pretensioner system • Front seatbelt force limiters • Anti-submarining ramps in front seats • ISOFIX child seat restraint system for rear seats incorporating top tether (does not include child seat) – Secures specially designed ISOFIX child safety seats to the vehicle itself, virtually eliminating the dangers that can result from improper installation

**Electronic:** • Electronic Stability Programme-plus (ESP-plus) • Anti-lock Braking System (ABS) • Electronic Brakeforce Distribution (EBD) • Cornering Brake Control (CBC) • Hydraulic Brake Fade Assist • Emergency Brake Assist • Straight Line Stability control • Traction control • Adaptive brake lights

**Body:** • Energy-absorbing steering column • Pedal release system • Laminated windscreen • Side-impact protection beams • Reinforced passenger safety cell • Deformation zones front and rear • Burst-proof door locks and anti-jam door design

**Pedestrian:** • Multi-pivot bonnet hinges • Collapsible windscreen wiper system • Low density foam near front bumper crossmember • Plastic lower front bumper stiffener

### Additional features

	Positiv	Electron
LED daytime running lights	●	●
Pedestrian alert system – warns pedestrians of the approaching vehicle by emitting a 'chirping' sound	●	●
Rear vision camera showing overlaid graphic indicating steering wheel angle	●	●
Tyre pressure monitoring system	●	●

## Security

**Standard features** • Driver's internal central locking switch • Electronic theft protection for audio equipment • Remote control central deadlocking (doors, tailgate) • Electronic immobiliser • Visible Vehicle Identification Number (VIN) plate • Freewheeling door locks • Locking wheel nuts for alloy wheels

### Additional features

	Positiv	Electron
Keyless entry and start system	●	●
Power start/stop button	●	●
Remote control ultrasonic security alarm system	●	●
Alarm protection for charge cord	●	●
Remote release for electric charge point flap and petrol flap	●	●

## Facia, instruments and controls

**Standard features** • Electronic cruise control • Electronic odometer and trip odometer • Instrument panel light dimmer • Parking brake-on/low brake fluid level and low fuel level warning for petrol generator • Service interval monitor • Seatbelt unfastened warning light

<b>Additional features</b>	Positiv	Electron
Instrument display: seven-inch colour LCD monitor showing speed, battery level, projected range, fuel gauge (when range extending petrol generator in use). Alternative enhanced view includes driving-efficiency display	●	●
Three-spoke chrome-bezelled leather-covered steering wheel adjustable for reach and rake	●	●
Centre console: seven-inch colour LCD touchscreen monitor controlling audio, climate control, vehicle personalisation, power flow information, charging settings, energy information	●	●
Multi-function trip computer (instantaneous fuel consumption, average fuel consumption, range remaining, two trip odometers running concurrently, instantaneous speed, average speed)	●	●
Electric parking brake	●	●

## Interior lighting

**Standard features** • Fade up/fade down courtesy lights operated by door switches • Illuminated glovebox and luggage area

<b>Additional features</b>	Positiv	Electron
Ambient lighting in roof	●	●
Ambient lighting in centre console surround and front doors	●	●
Front and rear reading lights	●	●

## Seating and upholstery

<b>Features</b>	Positiv	Electron
<b>Ceramic White interior</b> • Black Leather seat facings with white seat back accent panels • White dash trim insert • White front door panel inserts	N/C	N/C
<b>Spice Red interior</b> • Black Leather seat facings with red seat back accent panels • Red dash trim insert • Red front door panel inserts	N/C	N/C
Heated front seats with variable temperature settings and remote start function	●	●
Driver's seat with height, reach and recline adjustment	●	●
Front passengers seat with reach and recline adjustment	●	●
Two individual folding rear seats	●	●
Driver's and front passenger's under seat storage facility	●	●
Storage pockets on front seat backs	●	●

● = Standard equipment N/C = No cost option.



Battery level indicator.



Front centre armrest storage.



Exterior charge socket.



240V charge cord and reel.



Rear view camera with overlaid guide.

## Additional interior features

**Standard features** • Twin sunvisors incorporating illuminated driver's and front passenger's vanity mirrors with covers • Chrome-effect internal door handles • Two centre front cup holders • Front door pockets • Carpeted passenger compartment and load area • Load restraint lashing eyes • Luggage compartment cover

<b>Additional features</b>	Positiv	Electron
Central lidded storage on fascia top with 12v auxiliary power socket	●	●
Front central storage facility under armrest with 12v auxiliary power socket and USB/aux-in audio connectors	●	●
Rear central storage facility with 12v auxiliary power socket and two cup holders	●	●

## Heating and ventilation

**Standard features** • Side window demist vents and adjustable face-level air vents • Interior pollen filter

<b>Additional features</b>	Positiv	Electron
Electronic Climate Control (ECC) incorporating air conditioning with humidity sensor	●	●
Programmable pre-start cabin temperature and heated front seats (available whilst charging)	●	●

## Exterior lighting

**Standard features** • Dark-style headlights • Ellipsoid headlights • Lights-on audible warning • LED centre brake light • Reversing light, rear fog light, hazard warning lights, side repeat indicators • Electric headlight beam levelling

<b>Additional features</b>	Positiv	Electron
Automatic lighting control with tunnel detection	●	●
Dark-style LED rear lights	●	●

## Exterior and convenience features

**Standard features** • Electrically operated front and rear windows with child safety locking • Twin electrically adjustable/heated door mirrors (wide angle on driver's side) • Manually foldable door mirrors • Tinted glass • Windscreen wipers with variable intermittent facility and flick-wipe • Twin-jet windscreen washer nozzles • Heated rear window with automatic timed cut-off

<b>Additional features</b>	Positiv	Electron
Rain-sensitive windscreen wipers	●	●
Front and rear parking distance sensors	●	●

## Mechanical

Features	Positiv	Electron
Electric drive selector with Park/Reverse/Neutral/Drive/Low	●	●
Four independent drive modes – Normal/Sport/Mountain/Hold	●	●
Regenerative braking system	●	●
Recharging lead (6m) on reel with integral power feed indicator	●	●
Programmable charging management for low-tariff electricity	●	●

## Audio, communication and navigation

Features	Positiv	Electron
<b>CD/MP3 CD player/AM/FM/DAB digital radio</b> <ul style="list-style-type: none"> <li>● CD/MP3 CD player</li> <li>● USB connection with iPod control and aux-in socket</li> <li>● AM/FM/DAB digital radio with 36 station presets</li> <li>● RDS with Traffic Programme</li> <li>● Six speakers</li> <li>● Roof mounted flexible aerial</li> </ul>	●	
<b>Satellite navigation/CD/MP3 CD/DVD player/AM/FM/DAB digital radio</b> <ul style="list-style-type: none"> <li>● Satellite navigation system with voice activation</li> <li>● 'Pseudo 3D' street level mapping for 20 European countries</li> <li>● CD/MP3 CD/audio DVD/video DVD (when vehicle stationary) player</li> <li>● Hard Drive Device (HDD) with 30GB music file capacity</li> <li>● USB connection with iPod control and aux-in socket</li> <li>● AM/FM/DAB digital radio with 36 station presets</li> <li>● RDS with Traffic Programme</li> <li>● Bose 'Energy Efficient Series' sound system with six high performance speakers and single subwoofer</li> <li>● Roof mounted flexible aerial</li> </ul>		●
Steering wheel mounted audio controls	●	●
Embedded hands-free Bluetooth® mobile phone system with voice activation (does not include phone)	●	●

● = Standard equipment



Satellite navigation with voice activation.



Embedded Bluetooth® system.



Bose speakers and subwoofer.

## E-REV Power

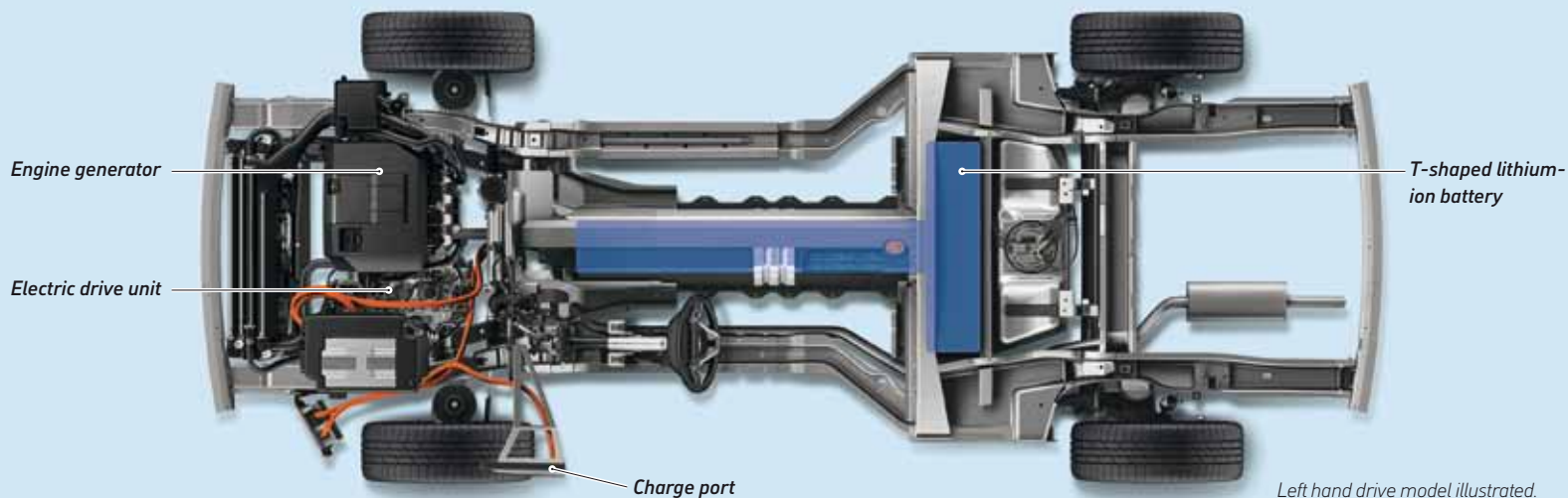
	Electric drive unit	Battery	Range extending petrol generator	
Type	E-FLEX motor	Lithium-ion	1.4i 16v VVT ECOTEC petrol engine coupled to electric generator	
Maximum power	150PS (111kW) @ 5000rpm	16kWh	Petrol engine: 86PS (63kW) @ 4500rpm	Generator: 73PS (54kW)
Maximum torque	370Nm (273lb.ft.) @ 250-2800rpm	-	126Nm (93lb.ft.) @ 4250rpm	-
Configuration	Permanent magnet electric propulsion motor. Located in multi-mode transaxle	45Ah battery pack with integral heating/cooling system. 6 hour recharge time (240v)	4-cylinder in-line petrol engine	Permanent magnet electric generator. Located in multi-mode transaxle

## Performance, fuel economy, emissions and VED rates (Provisional data)

	Performance (manufacturer's figures)		Fuel economy mpg (litres/100km)			CO <sub>2</sub> emissions g/km	VED* First year rate	Standard rate
	Maximum speed (mph)	Acceleration 0-60mph (sec)	Urban driving	Extra-Urban driving	Combined figure			
Ampera	100	8.7	313.9 (0.9)	217 (1.3)	235.4 (1.2)	27	£0	£0

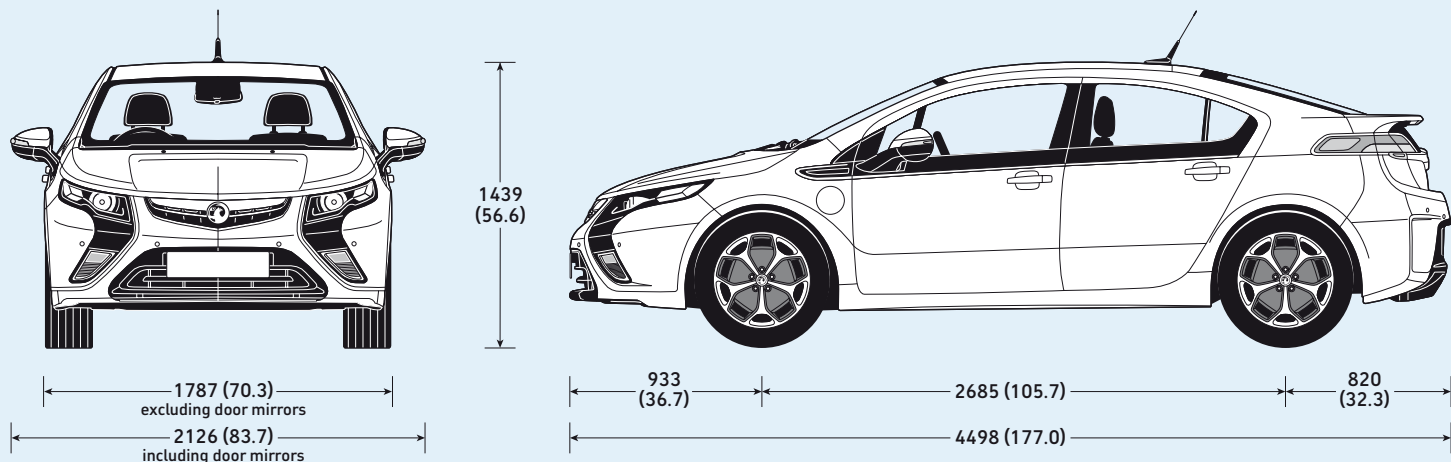
\*VED = Vehicle Excise Duty. Correct at time of publication (January 2012).

Fuel consumption data, CO<sub>2</sub> emission data, official electrical consumption data and official electrical range data are determined according to regulation R (EC) No. 715/2007 (in the version respectively applicable), taking into consideration the vehicle weight in running order, as specified by the regulation. Additional equipment may lead to slightly higher results than the stated consumption and CO<sub>2</sub> figures. On average, each kilowatt/hour (kWh) of electricity generated in the UK emits 545g of CO<sub>2</sub> (2 November 2011, *Autocar*) – this is not included within the EU Type Approval figures.





## Exterior dimensions millimetres (inches)



### Transmission

- Front wheel drive multi-mode transaxle containing E-FLEX electric drive unit and generator (powered by petrol engine)
- Electric drive unit features Park, Reverse, Neutral, Drive or Low modes, controlled by selector level
- Additional dash-mounted 'Drive Mode' button allows selection of Normal, Sport or Mountain modes

### Suspension

**Front:** Independent. MacPherson strut suspension with gas-pressure dampers and coil springs. Anti-roll bar.

**Rear:** Lightweight compound crank rear axle with trailing arms. Built-in anti-roll bar. Progressive-rate springs with and gas-pressure dampers.

### Fuel tank capacity

35.2 litres (7.7 gallons)

### Steering

- Power-assisted steering
- Turning circle (kerb-to-kerb): 10.9m (35.7ft)

### Brakes

- Anti-lock Braking System (ABS)
- Electronic Brakeforce Distribution
- Hydraulic Brake Fade Assist
- Cornering Brake Control
- Emergency Brake Assist
- Electric parking brake with Hill Start Assist (HSA)
- Electrically-operated handbrake
- Front and rear disc brakes
- Regenerative braking system

### Electrics (petrol generator)

- 165A alternator
- 60Ah battery

### Body

Aerodynamic drag co-efficient:  
– Cd 0.275

### Wheels/tyres

- 17-inch alloy wheels with aerodynamic polycarbonate inserts
- 215/55 low rolling resistance tyres

### Vauxhall Assistance and warranties

**LIFETIME**  
WARRANTY 100,000 MILE

See back cover for details of our comprehensive warranties.

- Battery – 100,000 mile or eight year warranty\*\*

\*\* = Subject to the warranty conditions as outlined in the Vauxhall Ampera service booklet.

**Is the Ampera an electric vehicle?**

Yes. The Ampera is a full-performance battery electric vehicle with extended-range operation. The Ampera can achieve full performance on battery power alone.

**Why is the Ampera not considered a hybrid?**

Unlike traditional hybrids, which use electric power to supplement the mechanical power provided by the engine, the Ampera leads with the battery power, which is then supplemented by electricity generated by the on-board 1.4 ECOTEC® engine. The Ampera cannot operate solely on power provided by the engine and as such it is not a hybrid in the conventional sense.

**In what condition and how often is the Ampera powered by both electrical and mechanical power?**

The electric drive unit always requires the use of electricity, which under specific conditions can also be combined with mechanical power to the electric motors that drive the wheels to provide a significant improvement in efficiency. The unique balance of power in extended-range high-speed operation also helps to boost fuel economy by upwards of 15%.

**What incentives are expected for the customer?**

The Ampera qualifies for the Government Plug In Car Grant (PICG) which provides a discount on the purchase price of 25% up to £5,000. The Ampera also falls into tax band A with zero VED\*. In London the Ampera will be congestion charge exempt (on payment of a £10 registration fee).

\* = Current at time of publication.

**How many vehicles will be available for UK launch?**

The first RHD Amperas will arrive in the UK in May 2012. So we will be faced with limited product availability in the early launch phase.

**Is there a special infrastructure regarding the dealer/service support?**

Yes. Vauxhall will have specially qualified dealers and service partners who are trained in the revolutionary propulsion system. We will announce the details at a later date.

**What is the battery recycling plan at the end of the battery's life cycle? Any European specific recycling plan since Europe has different infrastructure?**

The batteries will have a significant amount of energy storage remaining at the conclusion of their automotive life cycle. The energy storage that remains will have an economical value to a variety of industries (most notably the power industry). Processes for recycling lithium-ion batteries for consumer goods such as mobile phones occur today with very little environmental impact. The batteries, following their post-automotive application life cycle, will be recycled in a similar manner.

**Wouldn't a diesel engine be more efficient than a petrol engine?**

In an EV with extended-range capability like the Ampera, the engine generator runs like a stationary engine in the most efficient areas of the fuel map. In those areas the petrol engine is as efficient as a diesel engine. Also, the emissions of petrol engines are much lower than those of diesel engines, which need more sophisticated after-treatment systems.

**What do the Ampera Fuel and CO<sub>2</sub> figures really mean?**

Fuel Consumption and CO<sub>2</sub> figures are obtained from a standard test driving regime on a rolling road in laboratory conditions. Each vehicle manufacturer has to test a new car they bring to market or a new engine variant to receive a European Type Approval Certificate before the vehicle can effectively be sold in Europe and Registered with the Country Authorities. This enables a customer to compare all vehicles and their performance in this test as each vehicle is tested in an identical way.

With Ampera, a test has been done using the lithium-ion pack and there are no emissions whilst the car is being driven. A further test was conducted when the petrol engine was used alone to generate electricity to power the electric drive system and as it burns petrol CO<sub>2</sub> emissions are generated. Within the test this provides a result of 56.5mpg and 116g/km. So how efficient is this?

Take an Astra 1.4 VVT (87PS), this has a Combined fuel efficiency of 51.4mpg and CO<sub>2</sub> of 129g/km. As the Ampera engine is not attached to a conventional gearbox, it sits generating electricity alone rather than driving the wheels and subsequently will be more fuel efficient.

This can also be viewed in terms of the relative weights of the Ampera versus an Astra, i.e. it is carrying a lithium-ion drive unit which is some 198kg of additional weight, so in a heavier vehicle this fuel efficiency is more impressive. However, remember, the 1.4 16v VVT (86PS) engine from Ampera is generating electricity for the 150PS electric drive unit, so the customer always drives with the 150PS.

Many owners will aim to drive their Ampera on battery energy as much as possible and where 85% of the UK commuting population driving less than 25 miles per day (*EcoAuto*, May 2010), then they will achieve their goal of not having to generate additional electrical energy from the petrol engine.

When an Ampera owner wants to drive a considerable distance, e.g. on holiday from Yorkshire to Cornwall, they still have that ability in the one car they have purchased, with the generation of electric by the petrol engine. Ampera can be your only car.

The EU Type Approval figures do not take account of the CO<sub>2</sub> generated by the UK and European power stations that feed the UK national grid. On average, each kilowatt/hour (kWh) of electricity generated in the UK emits 545g of CO<sub>2</sub> (2 November 2011, *Autocar*) – this is not included within the EU Type Approval figures.

**Will the launch of electric vehicles not require the production of more electricity?**

The first generation of electric vehicles will have a limited volume and therefore the impact on the electricity grid will be extremely small.

**Are lithium-ion batteries safe? Is there a risk they will catch on fire?**

We will not introduce a vehicle that has any sort of safety issue. All of us are drivers of these vehicles and so we want to take care of our friends and our families as well.

**Will the Ampera support AC or DC quick charging?**

No, quick charging is not supported by the Ampera.

**Can you choose between an automatic and manual gearbox?**

There is no manual gearbox. The Ampera drives like a car with automatic transmission.

**Is the Ampera available with a tow bar?**

The Ampera is not engineered to tow a trailer. The vehicle is designed to be aerodynamic and to achieve the maximum range possible.

**Can I put a ski box or a ski rack on the roof?**

The Ampera is not designed for roof loading. The vehicle is designed to be aerodynamic and to achieve the maximum range possible.

**Can I install child seats in the car?**

Vauxhall offers a range of child seats and child seat restraint systems for children of all age groups that comply with the latest EU safety standards including side-impact protection. For easy installation and safety child seats can be fixed with ISOFIX attachments and/or the standard lap and diagonal seatbelts.

# Trust Vauxhall

## Vauxhall Insurance

Available for new and used Vauxhalls, a Vauxhall Insurance policy offers a unique package designed specifically for Vauxhall drivers. For a highly competitive quotation, call **0844 463 2670**. Or just visit our website at [www.vauxhall.co.uk](http://www.vauxhall.co.uk)

## Fleet Customer Services

Our dedicated support services for fleet managers includes factory demonstrators, a three-day test drive programme and information on whole life costs, company car taxation and finance. For further information please call **0870 010 0651**.

## Buying your car

GMAC offers one of the most comprehensive and competitive ranges of financing plans in the UK. Contact your local Vauxhall retailer for details or call the GMAC customer service centre on **0845 712 3444**.

## Servicing and maintenance

The best way to maximise the performance and reliability of your Vauxhall is to have all routine servicing and maintenance carried out at one of around 400 Vauxhall retailers. To find your nearest retailer call **0845 600 1500**.

## In the event of an accident...

Vauxhall Accident Support helps keep you mobile following an accident. Benefits include scene-of-accident advice, message service, assistance with claims and vehicle recovery. For further details call **0800 010 304**.

## For more information...

For a brochure on any Vauxhall model (up to a maximum of three per caller) or location of your nearest Vauxhall retailer please call **0845 600 1500**.

Alternatively, details can be found on our website at [www.vauxhall.co.uk](http://www.vauxhall.co.uk)

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\*Vauxhall Lifetime Warranty covers lifetime ownership of first car owner, 100,000 mile limit, annual check required. Ampera battery is subject to a separate eight-year/100,000 mile warranty, subject to the conditions outlined in the Ampera service booklet. The warranty excludes wear and tear and serviceable items and the vehicle must be serviced in accordance with the manufacturer's servicing schedule to continue the lifetime warranty. Terms and conditions apply. Offer available to all Vauxhall passenger cars (this offer does not apply to car-derived vans) from 1st August 2010.

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## Vauxhall Lifetime Warranty

We're so confident in Vauxhall quality and reliability that we are now able to offer a lifetime warranty. Available to the first owner of all new Vauxhall passenger cars, it's valid for the lifetime of the vehicle up to a maximum of 100,000 miles\*. In addition, our warranty also includes Vauxhall Assistance for 12 months from first registration and six years body panel anti-perforation warranty. Ampera battery is covered by a separate eight year warranty. Full details of Vauxhall's warranties including terms, conditions and exclusions can be obtained through any authorised Vauxhall retailer or go to: [www.vauxhall.co.uk/warranty](http://www.vauxhall.co.uk/warranty)

**LIFETIME**  
WARRANTY 100,000 MILE



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