The new Outlander PHEV.
A power-generating
4WD SUV plug-in hybrid EV.
MITSUBISHI
OUTLANDER PHEV
THINK FORWARD - DRIVE FORWARD

Zero emissions in EV mode

52km EV mode cruising range

824km total cruising range

1.9L/100 km fuel economy (combined)

€170 Annual Road Tax

€1.20 cost to charge EV battery*

Self-charging for zero range anxiety. Charge-on-the-go function.

Equipment high standard of equipment

4WD technology from Lancer Evolution – Super All Wheel Control (S-AWC)

SUV Space, Versatility & Cargo capacity.

* Based on Electric Ireland ValueSaver NightSaver price plan. Valid as of 3rd February 2014.
Source: www.electricireland.ie
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Environment friendly

New comfort and driving pleasure

Travel further

Enjoy a more creative life

Generate electricity
Ecology

High fuel efficiency and eco-friendly performance

- Clean electric power with zero CO₂ emissions and zero fuel consumption in EV Drive mode
- Plug-in Hybrid EV system for combined 1.9 liter/100 km fuel efficiency
  Note: EU mode, combined cycle

Quality

Dynamic and sophisticated technology

- Elegantly refined interior and exterior
- A quiet, comfortable cabin via advanced insulation
- Lowered center of gravity
- Smooth, powerful and predictable motor-driven acceleration with instant maximum torque

Safety

Stable and reliable driving

- Twin Motor 4WD for excellent handling and powerful response
- Innovative active safety technology helps prevent accidents and reduce damage in the unfortunate event of an accident
- 7 SRS airbags including side, curtain and knee airbags for the driver
Clean styling heralds the arrival of a new era

Exterior

1. **Upper and mid grilles**
The upper grille and mid grille, with chrome plated molding, project a look of understated elegance.

2. **Body-colored lower bumper**
The front lower bumper and side sill garnish are body-colored.

3. **Chrome-plated belt-line moldings**
[Availability may vary.]

4. **Chrome-plated outer door handles**
[Availability may vary.]

5. **Side PHEV logo**

6. **Clear LED rear combination lamp**
[higher grades only]
Light guide and curtain with LED source for advanced styling.

7. **Rear PHEV logo**

8. **Charging lid**

9. **Body-colored lower bumper**

10. **18-inch alloy wheels (sharp-edged spokes and coating)**
Lightweight alloy wheels with deep spokes enhance styling on the lower half of the body.

**Body colors**

**New**

- Technical silver metallic [main image color]
- Silky white pearl
- Polar white solid
- Titanium grey metallic
- Amethyst black mica

[Reference mode]
New Outlander
**Interior**

**Instrument panel**
- **Selector lever (joystick type)**
  - The dynamic gearshift selector always returns to the center position like a joystick and features an advanced, lustrous silver and black design.

**Decoration panel**
- A crystal-fiber tone panel on the front doors and glovebox contributes to an advanced, premium feeling. Higher grades only.
- Sporty silver decoration panel with embossed texture.

**Seats**
- Artificial leather and fabric combination
- Artificial leather and fabric seats
  - The seats are meticulously finished in artificial leather and fabric with silver stitching.
- Real leather seats [option]
  - Real leather seating with silver stitching is available in your choice of black or off-white (except in Japan) for a cool, sporty image. The driver’s seat provides power adjustment and both front seats feature a heater and seatback pocket for enhanced convenience.
The same cabin and luggage space as the Outlander (standard version).

A slimmer drive battery, rear-positioned fuel tank, etc. help maintain the same level of space as the Outlander.

### Occupant space

The five-passenger PHEV is just as roomy as the Outlander and provides the same rear passenger space as when the seven-seater’s rear seat is in the rearmost position.

### Luggage space

The same storage capacity as the gasoline-powered Outlander.

<table>
<thead>
<tr>
<th></th>
<th>L1 (mm)</th>
<th>L2 (mm)</th>
<th>Capacity (liter, VDA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHEV (five passenger)</td>
<td>852</td>
<td>1241</td>
<td>453</td>
</tr>
<tr>
<td>Gasoline (five passenger)</td>
<td>802</td>
<td>1191</td>
<td>477</td>
</tr>
</tbody>
</table>

**Spacious luggage floor box**

The positioning of EV components and an auxiliary battery has reduced floor space.

### Differences with the gasoline-powered Outlander

There are minimal differences in occupant and luggage space thanks to layout improvements including a rear-positioned fuel tank and slimmer drive battery and charger.
Remarkable fuel efficiency and environmental performance

Plug-in hybrid EV system

The world’s first* 4WD SUV plug-in hybrid to
generate electricity via engine.

A high-capacity drive battery under the floor, coupled with front and rear high-output motors, extends the EV
cruising range and contributes to the kind of torqueful acceleration that only electric motors are expected to deliver.

Component layout

Storing the drive battery under the floor improves
safety by lowering the center of gravity and reducing
roll moment, without affecting SUV functionality.

- **Twin motors**
The front and rear axles are each equipped with their own high-output
motor to deliver acceleration even more powerful than a 3.0-liter
gasoline engine while maintaining incredibly responsive 4WD
performance.

- **2.0-liter engine**
The 2.0-liter engine is designed to generate electricity for quiet PHEV
cruising.
  - A balance shaft contributes to ultra-quiet operation
  - Optimized engine specs and reduced friction

Remarkable fuel efficiency

Enjoy the remarkable fuel efficiency that only plug-in hybrids can offer. The 52-kilometer* range during purely
battery-powered operation can handle almost all everyday driving.

<table>
<thead>
<tr>
<th>Driving distance under charged battery power</th>
<th>Combined fuel efficiency</th>
<th>Hybrid fuel efficiency</th>
<th>Total cruising range</th>
<th>CO₂ emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>European EU mode</td>
<td>52 km*</td>
<td>1.9 liter/100 km*</td>
<td>5.8 liter/100 km*</td>
<td>824 km*</td>
</tr>
</tbody>
</table>

* Subject to final EU homologation
Electrical generation brings peace of mind when traveling far from the usual charging environment.

Drivers can enjoy electric-powered driving (in Battery Charge mode) without ever plug-in charging the battery. The engine supports the motors by generating electricity and supplying drive power when needed.

Three automatically selected drive modes ensure optimal performance

The best driving mode is automatically selected for comfort and fuel efficiency based on driving conditions and drive battery level.

1. **EV Drive Mode:**
   Electric power only
   The motors power the vehicle using electricity from the battery, resulting in zero fuel consumption and zero CO₂ emissions. This drive mode is quiet, clean and powerful. Max. speed is 120 km/hr.

2. **Series Hybrid Mode:**
   Electric power + engine assistance
   The motors power the vehicle using engine-generated electricity. The engine also adds power when accelerating, climbing hills, the battery level is low, etc.

3. **Parallel Hybrid Mode:**
   Engine power + motor assistance
   The engine powers the vehicle (at high speeds, etc.) when engine efficiency is high; with assistance from the motors when extra power is required.

Switching modes to match driving conditions

- In Battery Charge mode, the engine generates electricity that charges the battery
  In this mode, the engine continuously charges the battery even when the vehicle is stopped. Recharging the battery to a level of 80% takes about 40 minutes (depending on initial battery level) and 3 hours of gasoline while the vehicle is stopped (idling).
  Drivers can travel in EV Drive Mode as much as they like without ever plug-in charging because the battery is charged while driving. No home charging environment is necessary.
  Important: Charging time is affected by external temperature, air conditioning use and other factors. Driving conditions also greatly affect charging time and can raise fuel consumption. Driving requires energy, so please note that charging may not be possible in certain situations. The engine runs at about 1000 rpm while in Battery Charge mode.

- **Battery Save mode reduces battery power usage**
  Drivers can manually select HV drive mode to preserve remaining drive battery power.
  Saving battery power during city driving allows longer EV driving when needed (such as in quiet residential neighborhoods).

- **ECO mode switch**
  ECO mode puts the air conditioner in energy-efficient mode and moderates acceleration to improve fuel efficiency.

- **Regenerative braking uses the motor as a generator**
  Regenerative braking uses the motor as a generator. The driver can control the degree of regenerative braking via selector lever and paddle selector.
  **Selector lever:** Moving the selector lever from the D position to the B position increases regenerative braking strength and provides two strength settings.
  **Paddle selector:** Regenerative braking strength can be adjusted to any of six levels with this selector on the steering wheel.
  Note: Regenerative braking cannot be controlled when Adaptive Cruise Control (ACC) is active.
EV driving delivers clean, efficient performance that helps keep the air fresh and clean.

**PHEV**

**DRIVE MODE PATTERN**

- START
- CITY DRIVING
- UPHILL DRIVING
- DRIVING UP TO 120 KM/H
- HIGHWAY DRIVING ABOVE 120 KM/H
- DOWNHILL DRIVING
- OVERTAKING BELOW 120 KM/H
- CHARGING

**MODES**

- EV MODE
- SERIES HYBRID MODE
- PARALLEL HYBRID MODE
- REGENERATIVE BRAKING / CHARGING
Charging system

Charge your car as easily as a mobile phone. Quick charge in around 30 minutes.

The on-board charger and attached charging cable easily plug into a 230V household outlet. The quick charger (manufacturer’s option) makes speedy recharging even easier at any of the many charging stations throughout the country.

Two-way charging system

- **Regular charging**
  - [AC230V/10A]
  - About 5 hours
  - (full charge)

- **Quick charging**
  - About 30 minutes
  - (approx. 80% charge)

Quick charging will fully charge the battery, but charging speed decreases once the battery becomes 80% full.

More reliable quick charging (manufacturer’s option)

A special battery cooling unit, operated through the electrical air conditioning system, keeps the drive battery cool even when the engine is stopped. This system reduces wear on the drive battery during rapid charging and other high-temperature situations.

Charge ports

The Outlander PHEV is equipped with both a regular charge port and a quick charge port inside the charging lid on the right side of the vehicle. A courtesy lamp comes on automatically when the lid is opened for convenient nighttime charging. A charging indicator (on/off lamp) and energy level gauge show charging status and level.

Charging cable (230V 5m standard)

Charging cables include heat insulation, GND OPEN detector features (not available in Japan) and a safety gauge.

Remote smartphone operation (See Mitsubishi Remote Control on P15 for details)

Drivers can use their smartphone like a remote controller to set the charging timer from a remote location. Scheduling charges for late at night when power demand is low can lower electricity fees* and reduce energy consumption during peak hours. This feature also allows monitoring of the battery level or remaining charge time information from anywhere.

* Requires separate late-night power usage contract.
Front and rear power distribution combine with brake integrity control to support stability in various road and driving conditions.

The world’s first plug-in hybrid SUV, the Outlander PHEV, uses its twin motors and unique 4WD system to deliver highly stable handling and all-terrain performance.

**Twin Motor 4WD**

Twin Motor 4WD employs independent motors to drive the front and rear wheels. The elimination of the propeller shaft (or connective mechanism) lowers friction-induced power loss while greatly enhancing response and control. By taking advantage of the inherent ability of electric motors to instantly deliver maximum torque, this configuration delivers acceleration on par with a 3.0-liter engine for superior driving performance and eco efficiency at the same time.

**S-AWC (Super All Wheel Control), an integrated vehicle motion control system**

Based on the Twin Motor 4WD system, the new yaw control function regulates the brakes and distributes power to the front and rear wheels, as well as the left and right wheels, to improve driving stability and handling precision.

**4WD LOCK**

Switching to 4WD LOCK mode via floor console button distributes torque and limits wheel spin to improve traction and straight-line stability on snow, dirt and other slippery road surfaces.

- **Improved stability**
  Drivers can enjoy precise cornering with minimal steering effort thanks to optimally controlled yaw (turning) moment and highly responsive transfer of drive power.

- **Improved driving performance**
  AYC (Active Yaw Control) reduces differential limiting force and front-wheel slippage while optimizing front-rear power distribution to ensure powerful takeoff acceleration. 4WD LOCK empowers the AYC to further reduce differential limiting force and enhance response through front-rear drive power transfer that greatly improves driving performance.
The Outlander PHEV’s unique features make it easier to operate and more comfortable to drive.

Meters and displays enable easy confirmation of wide-ranging data, including PHEV energy use, while enhanced air conditioning and comfort contribute to a pleasant ride.

1. **Power gauge**
   The power gauge has three zones (Power, Eco, and Charge) that indicate changes in motor and engine output in response to accelerator operation.
   - When the needle is in the Eco zone, the driver can use EV Drive to limit energy consumption and drive longer distances.
   - When the needle is in the Charge zone, the battery is charging via regenerative braking.

2. **Multi-information Display**
   The large, easy-to-read 4.2-inch color LCD screen shows various PHEV driving support functions. A unique animation welcomes the driver four seconds after startup and the driver can toggle between display functions using a switch on the instrument panel.

<table>
<thead>
<tr>
<th>Special PHEV display functions</th>
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<tbody>
<tr>
<td>Drive-by-wire shift indicator (always displayed)</td>
</tr>
<tr>
<td>Battery Charge mode indicator (Shows the percentage of total charge that uses power from electricity)</td>
</tr>
<tr>
<td>EV Drive ratio indicator (Regular operation) (Regular operation)</td>
</tr>
<tr>
<td>Note: Does not show combined consumption rate</td>
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**Acoustic Vehicle Alerting System (AVAS) activates when approaching pedestrians**

An alarm function alerts pedestrians near the vehicle when driving with the engine off (because the vehicle runs so quietly). The alarm has a different pitch depending on vehicle speed (an acceleration alarm sounds at speeds up to 30 km/h, and a deceleration alarm sounds at speeds below 32 km/h).

**Fully automatic air conditioning with separate left-right temperature controls (and Clean Air Filter)**

Both the driver and passenger have their own temperature controls for maximum comfort. An electric AC compressor ensures occupants stay cool even when the engine is off.

**Electric hot water-powered heater (manufacturer’s option)**

The heating system usually uses heat from the engine but can also keep occupants warm when the engine is off by circulating hot water through an electric water pump. The pump also supplements the heat generated by the engine in cold weather and can be operated via Mitsubishi Remote Control (manufacturer’s option).

**Driver and front passenger seat heaters (manufacturer’s option)**

The two-stage (Hi/Lo) seat heaters keep occupants warm, reduce vehicle heater use and contribute to more efficient EV driving, as well as lower fuel consumption.
Advances in body construction enhance reliability and deliver a safer, more comfortable driving experience.

Reinforced body construction supports the extra weight of the drive battery and additional on-board motor, delivering the superior quietness and advanced driving comfort that drivers have come to expect from a PHEV.

Drive battery safety features

- **New sealed drive battery pack construction**
  The watertight battery pack meets tough SUV driving standards.

- **Metal battery pack tray**
  Rigid sheet metal and solid frame-weld construction strengthen battery pack durability while also sufficiently blocking electromagnetic waves.

- **Protective battery pack tray coating**
  A special undercoating helps protect the battery from flying rocks and other debris.

Improved body rigidity

Reinforced underbody construction, coupled with a four-member battery frame directly connected with the chassis, strengthens the entire body and improves collision protection.

Much quieter than a gasoline-powered vehicle

Both the gasoline-powered and PHEV versions of the Outlander now feature a thicker windshield (3.5 mm → 4.0 mm), but the new PHEV uses soundproof glass as well. New flat wiper blades cut down on wind noise and damping materials cover more of the floorboards. Additional sound-absorbing and insulating materials in the engine compartment, wheel housing and other areas also help cut back on noise.

Front and rear suspension improvements for a more comfortable ride

The addition of rebound springs and other specialty tuning contribute an additional level of quietness to the Outlander PHEV’s ride comfort and stability. The rear suspension also features an extra anti-vibration bush and special newly designed cross-members that cut back on mechanical and road noise.
Terminology Index

Acoustic Vehicle Alerting System (AVAS)
A system that alerts pedestrians with a sound when the vehicle is approaching silently because the engine is not running.

Battery charge mode
A mode that keeps the engine running, whether stopped or traveling, to continuously charge the drive battery.

Battery save mode
When traveling in this mode, the driver can activate a hybrid drive mode at any time to save battery power.

Hot-water heater [manufacturer's option]
This system generates heat by circulating hot water heated by engine exhaust and an electric heater. It allows heating of the cabin even when the engine is off in the EV Drive mode. During very cold weather, the engine automatically runs to supplement heat generation and sufficiently raise the interior temperature.

Energy flow diagram
A diagram showing how power flows within PHEV systems depending on driving conditions.

Energy usage indicator
This meter indicates vehicle power output, which varies depending on accelerator pedal operation. It features three zones: (Power, Eco/Charge).

EV: Electric Vehicle
A vehicle powered by battery-driven electric motors. Emissions are zero when driving in the EV Drive mode.

HV: Hybrid Vehicle
A vehicle powered by a combination of electric motors and gasoline engine.

Hybrid fuel efficiency (HV fuel efficiency)
Fuel efficiency when both the engine and electric motors are driving the vehicle in a hybrid drive mode.

Mitsubishi [manufacturer's option]
Any smartphone installed with a specially developed app can be used to remotely control the vehicle’s battery charging timer and acquire information on recharging status, etc., via wireless LAN at any distance from the vehicle.

PHEV: Plug-in Hybrid Electric Vehicle
PHEV is a hybrid vehicle driven by electric motors and a gasoline engine. The drive battery can be recharged by the engine to enable continuous electric motor driven cruising or by a home electric outlet. Conventional plug-in hybrid vehicles (PHEV) cannot recharge the drive battery via engine and must rely solely on engine power once the drive battery loses its charge (until recharged through an outlet).

Plug-in hybrid fuel efficiency (combined fuel consumption)
A measure of fuel efficiency for hybrid vehicles with plug-in power recharging capabilities. The figure is calculated using an equation* defined by the Ministry of Land, Infrastructure, Transport and Tourism in Japan. Actual fuel efficiency may vary depending on usage conditions.

Quick charging [manufacturer's option]
Quick charging shortens battery recharging time to enhance fuel efficiency and enable more convenient recharging in remote venues. Quick charging can be used until the battery is 100% charged, but charging becomes slower after reaching 80%.

Regenerative braking system
The vehicle enters this mode whenever the driver's foot leaves the accelerator pedal. At that moment, the electric motor begins recovering the kinetic energy generated by the vehicle during deceleration by converting it into electricity and storing it in the drive battery. Since the electric motor behaves like an engine brake while recovering energy, this mode also enhances safety when traveling downhill. Moreover, pressing the brake pedal generates even more energy.

Regenerative level selector (paddle type)
This selector switch on the steering wheel allows the driver to select the level of energy recovery in six steps.

Twin Motor 4WD
A 4WD system that powers the front and rear wheels separately via independent motors. Since no propeller shaft or other mechanism is required to couple the motors, they perform more efficiently and provide better response with more subtle control and less friction-induced power loss.
Driving

Q. What's the difference between a PHEV, HV, and PHV?

A. PHEV and PHV vehicles feature a drive battery that can be charged directly from an external power source. For this reason, they have a longer cruising range under electric power than HV vehicles. PHEV vehicles can also use the engine as a generator to charge the drive battery, but PHV vehicles cannot. If the battery runs down on a PHV vehicle, it must operate in HV mode until it is charged from an external source.

Q. When does the engine come on?

A. The gasoline engine comes on when the drive battery level becomes low and requires charging or when a large amount of drive power is needed. The vehicle can continue running in EV Drive mode while the engine is charging the battery, and the engine can supply drive power to assist the electric motors. The engine may sometimes come on to supply heat when the air conditioning system is in use.

Q. The engine comes on automatically when I start up the vehicle, even though the battery is fully charged. Why?

A. To prevent engine damage caused by fuel deterioration, the engine comes on to consume fuel if no more than 10 liters of gasoline have been added to the fuel tank in three straight months. The engine will continue turning on automatically while driving (in HV mode) until the fuel tank is filled with at least 15 liters of gasoline.

Q. Why does my cruising range decrease when I turn the air conditioning (AC) on?

A. Just like your home air conditioner, the on-board AC unit consumes electricity. Because this electricity is supplied by the drive battery, cooling the interior (for example, keeping the interior at 25°C when it is 35°C outside) reduces EV cruising range by about 30%, while heating the interior (for example, keeping the interior at 25°C when it is -10°C outside), reduces it by about 40%.

Q. How often should I change the oil?

A. Just like a gasoline-powered vehicle, you should change your oil every 20,000 km or every year.

Q. When the drive battery is low, is it more efficient to drive in charging/EV mode or HV mode?

A. Repeatedly switching between Battery Charge mode and EV mode deteriorates mileage by 20% in comparison with HV mode.

Q. What happens if I run out of gas and the drive battery runs down?

A. Even if you run out of gas, you can still drive the vehicle as long as the drive battery still has power. However, because the drive motor is also used to start the engine in PHEV vehicles, if you are out of both gasoline and drive battery power, the drive motor will not be able to start the engine even if you fill up with gas. If you run both completely down, you will need to charge the drive battery using an external power source before you can drive again.

Q. Do I need to operate the Selector Lever or anything else when I'm starting up or shutting down the vehicle?

A. Startup: Press the power switch once while pressing the brake pedal to start up the PHEV system. When the gauge says READY, move the Selector Lever to D while keeping your foot on the brake. Release the brake pedal and press the accelerator to begin driving.

Shutdown: To stop the vehicle, hold down the brake pedal while pressing the Parking Switch. When the gauge indicates that the Selector Lever is in the P position, turn the power switch to OFF and the PHEV system will shut down.

If you turn the power switch OFF while in any position besides P during shutdown, the vehicle will automatically return to the P position and the automatic parking lock feature will engage.

Note: The automatic parking lock feature is a supplementary feature only. Press the Parking Switch to shut down the vehicle.

Q. What is the maximum grade I can climb?

A. About 30%.
**Battery and charging**

Q. How can I determine the remaining drive battery capacity?
A. The Multi Information Display in the middle of the dual meter cluster shows how much charge is left in the drive battery.

Q. Can I charge the PHEV from a regular home outlet?
A. The PHEV can be charged from a 3 Pin 13A socket however it is recommended that you run a special line from your breaker's switchboard.

Q. Can I get a different charging cable besides the standard 5-meter, 230V cable?
A. A 10-meter/230V charging cable is available as a manufacturer's option.

Q. What is the life of the drive battery?
A. Like any lithium ion battery, the drive battery will gradually lose its charge and cruising range over time in accordance with how it is used. This is an inherent feature of lithium ion batteries and is therefore not covered by the regular warranty.

**Electricity supply**

Q. What is the Vehicle to Home (V2H) power supply function?
A. We are still examining legality and other issues. However, the vehicle already supports this feature that technically enables energy from the drive battery to be used to power a home. It requires the factory-installed quick-charge feature.

**Other questions**

Q. Can I check my combined fuel consumption on the Multi Information Display or by using the MMCS?
A. No, but you can check the average fuel consumption separately for EV Drive and HV Drive by using the MMCS.

Q. Can I use a trailer hitch?
A. A trailer hitch can be used in the EU. Up to 1.5t towing is permitted.

Q. Where can I get the Mitsubishi Remote Control app?
A. The application can be purchased from the Mitsubishi Motors website, the Apple Store or Google Play.