

OUTLANDER PHEV



OPERATION GUIDE

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PLUG-IN HYBRID
EV

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PLUG-IN HYBRID EV SYSTEM

WHAT ARE THE KEY FEATURES OF THE PLUG-IN HYBRID EV SYSTEM?

The PHEV system fitted to the Outlander PHEV is one of the most advanced available today. It utilises three distinct driving modes that are automatically selected depending on the driving conditions and the battery charge level. The changes between modes are virtually seamless, so the instrument cluster in front of the driver includes a display showing when each mode is engaged and the flow of energy.



EV DRIVE MODE

The vehicle is driven purely by the electric motors using the electricity stored in the drive battery. The driver display uses an arrow to indicate the flow of energy from the battery to the motors.



SERIES HYBRID MODE

When the drive battery level is low or when powerful thrust is required during rapid acceleration, the battery is supplemented with electricity generated by the petrol engine. The flow of energy in Series Hybrid mode is displayed on the instrument cluster.



PARALLEL HYBRID MODE

During high-speed driving the petrol engine operates more efficiently than pure electric power, so the front wheels are driven directly by the engine and assisted by the electric motors. The arrow on the display changes colour to indicate that the petrol engine is directly connected to the wheels.

In addition to these three main drive modes, the Outlander PHEV also benefits from two other important features that improve driving efficiency even further.

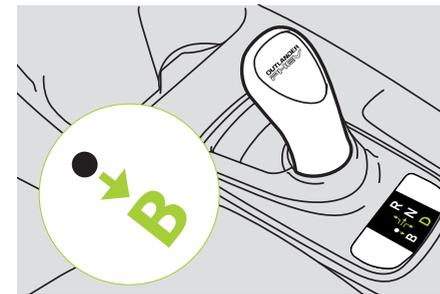


REGENERATIVE BRAKE SYSTEM

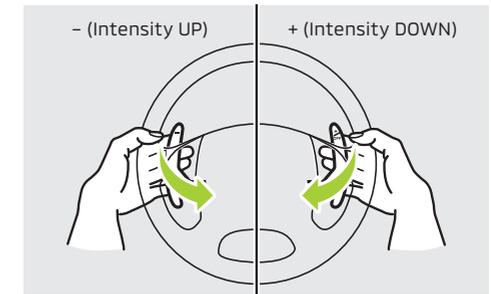
Similar to engine braking on traditional vehicles, the motors act as generators when the accelerator pedal is released while driving. Kinetic energy produced during this process is used to charge the drive battery. This is particularly useful while driving downhill.

The intensity of regenerative braking can be increased or reduced through six levels using the steering column-mounted paddles, or three levels using the joystick selector lever.

SELECTOR LEVER (JOYSTICK TYPE)



PADDLE



ROLES OF MOTORS AND ENGINE IN VARIOUS MODES

MODE	MOTORS	ENGINE	TYPICAL DRIVING CONDITIONS
EV Drive mode	Drive the vehicle	Stationary	City driving, commuting, etc.
Series Hybrid mode	Drive the vehicle	Generate power	Powerful acceleration, hill climbing
Parallel Hybrid mode	Drive the vehicle	Drive the front wheels + Generate power	High-speed driving



PLUG-IN MAINS CONNECTION

The drive battery can be charged by the petrol motor during normal driving, but to obtain the most efficient and cost effective performance the drive battery should be charged from the mains supply before your journey. Additional charging during longer journeys, though not necessary, will improve efficiency even further.

The drive battery can be charged via a dedicated 240V/13 Amp socket which we recommend uses a dedicated electrical circuit, checked by a qualified electrician; or preferably a professionally fitted 240V/16 Amp charge point. Alternatively, the battery can also be charged to 80% capacity in 25 minutes utilising public rapid charge points that comply with the CHAdeMO standard.



CCID CONTROL BOX SUPPORT

When charging the Outlander PHEV using the cable supplied with the vehicle, it is very important not to leave the control box hanging from the plug – doing so can cause damage to the cable and the control box itself. The loop on top of the control box should be used to safely support its weight on a suitably positioned hook. **Never use extension cables or multi-plug adapters for charging your Outlander PHEV.**

EV SYSTEM/SELECTOR LEVER OPERATION

STARTING THE PLUG-IN HYBRID EV SYSTEM

- Step 1** Ensure that the charging cable is disconnected from the vehicle.
- Step 2** Ensure that the parking brake is applied.
- Step 3** Depress the brake pedal completely.
- Step 4** Press the power switch completely.
 - ➔ Do not release the brake pedal until the system has successfully started.
- Step 5** Ensure that the **READY** indicator is illuminated.
 - ➔ Do not operate the selector lever until the **READY** indicator is illuminated. If the selector lever is operated while the **READY** indicator is still blinking, the system will not start.



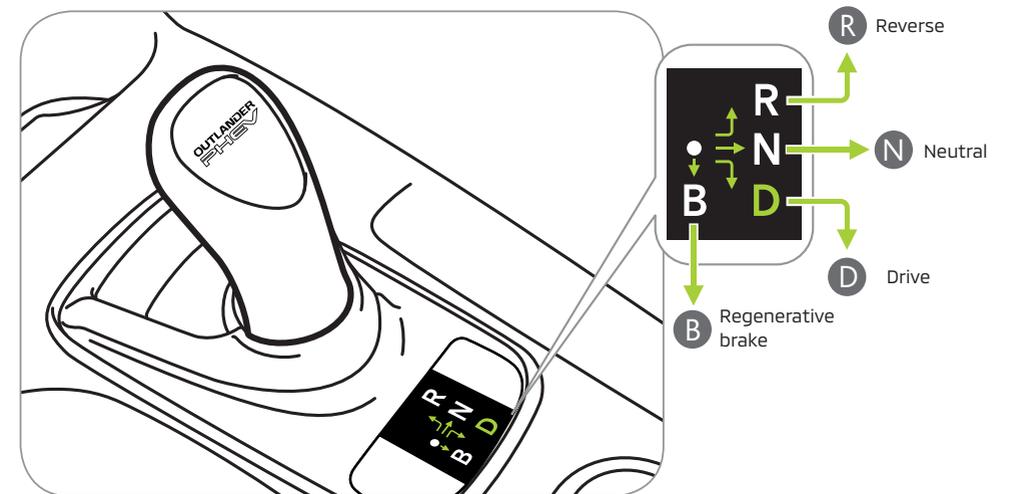
IS SOMETHING REALLY WRONG?

- If the plug-in hybrid EV system cannot be started, return the power switch to OFF. Wait for more than 10 seconds and then repeat the startup steps 1 to 5.
- If position **D** or **R** cannot be selected (display not changing to **D** or **R**) using the selector lever when the **READY** indicator is illuminated, the brake pedal may not be depressed completely. Depress the brake pedal completely and then repeat the start-off steps 1 to 4 before selecting **D** or **R**.

OPERATING THE SELECTOR LEVER

To start the vehicle from a standstill, follow the steps below.

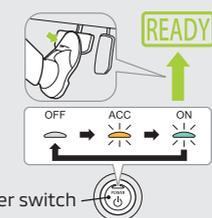
- Step 1** Ensure that the **READY** indicator is illuminated.
 - ➔ You cannot shift into **D** or **R** even if you move the selector to those positions while the **READY** indicator is extinguished or blinking. The selected position display will not change to **D** or **R**, either.
- Step 2** Depress the brake pedal completely.
- Step 3** Move the selector lever to **D** or **R**.
- Step 4** Ensure that the selected position display shows **D** or **R**.



- Use position **B** when powerful braking is needed such as when driving down a steep hill. Position **B** is only selectable from position **D**.

IMPORTANT POINTS!

- To enter **READY** mode, press the power switch while holding down the brake pedal.
- To put the power switch to OFF, press the switch once when the indicator lamp is blue (DN) or twice when the lamp is orange (ACC) while the brake pedal is released.



WARNING!

- While driving, do not put any object near the selector lever. It may accidentally push against the selector and move it into **N**.

CHARGING

In addition to using the engine to charge the drive battery, it can also be charged from a charging source using one of the three methods shown below, using the dedicated charge port on the vehicle.

CHARGING METHOD	CHARGE PORT	CHARGE CONNECTOR	CHARGING SOURCE	CHARGING TIME* 1
Normal (AC240V/10A) When using a dedicated domestic socket				About 5 hours
Fast (AC 240V/16A) When using a home or public charging device (EVSE ²)			 Home or public charging device	About 3.5 hours
Rapid (CHAdeMO standard) When using a public rapid charging point			 EV	About 25 minutes (25 minutes to 80% when charging by a Rapid Charger with 50kW power supply)

*1: Charging time may vary depending on the condition of the battery, driving environment and the specifications of the rapid charger.

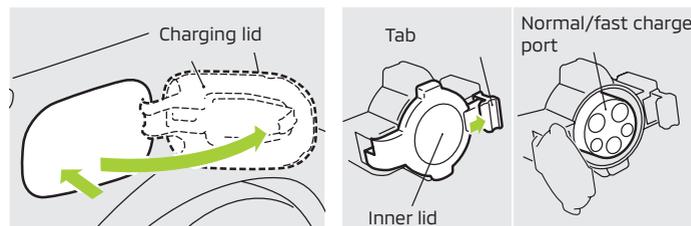
*2: EVSE = Electric Vehicle Supply Equipment.

DO NOT TOUCH THE METALLIC TERMINALS ON THE NORMAL CHARGE PORT OR CONNECTOR, OR THOSE ON THE RAPID CHARGE PORT OR CONNECTOR. OTHERWISE, ELECTRIC SHOCK AND/OR COMPONENT FAILURE MAY RESULT.

NORMAL AND FAST CHARGING

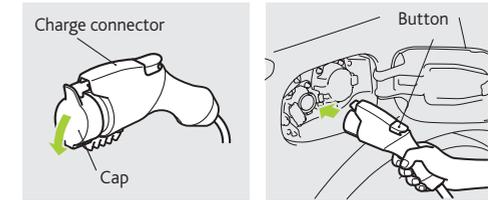
BEFORE INSERTING THE CHARGE CONNECTOR INTO THE PORT, SET THE VEHICLE POWER SWITCH TO OFF. THE BATTERY CANNOT BE CHARGED WHEN THE READY INDICATOR IS ILLUMINATED OR THE POWER SWITCH IS SET TO ON (BLUE).

- Engage the parking brake, press the electrical parking switch and set the selector position to in instrument panel display.
- Turn off the lights and other electric systems. Press the power switch to OFF.
- Open the charging lid until it clicks. Release the tab to open the inner lid.

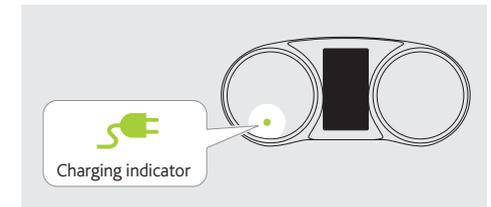


- Insert the plug on the normal/fast charging cable into the mains supply (Fast charging stations may have a tethered cable).

- Open the cap on the charge connector. Hold the handle of the connector and, without pressing the button, insert the connector until it clicks.



- Switch on the power at the mains supply. The charging indicator on the instrument cluster should illuminate. The charging indicator goes out when charging is completed.

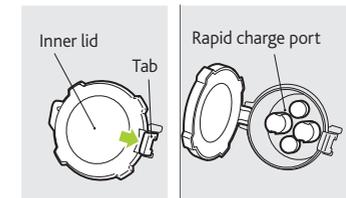


Avoid 'top-up' charging when the drive battery is already close to fully charged - repeatedly doing so can reduce the efficiency of the battery.

Note: During charging the cooling fans under the bonnet may operate automatically even if the power switch is set to OFF.

RAPID CHARGING

- Carry out Steps 1 to 3 described in 'Normal and Fast Charging'. In Step 3, open the rapid charge port lid instead of the normal charge port lid.

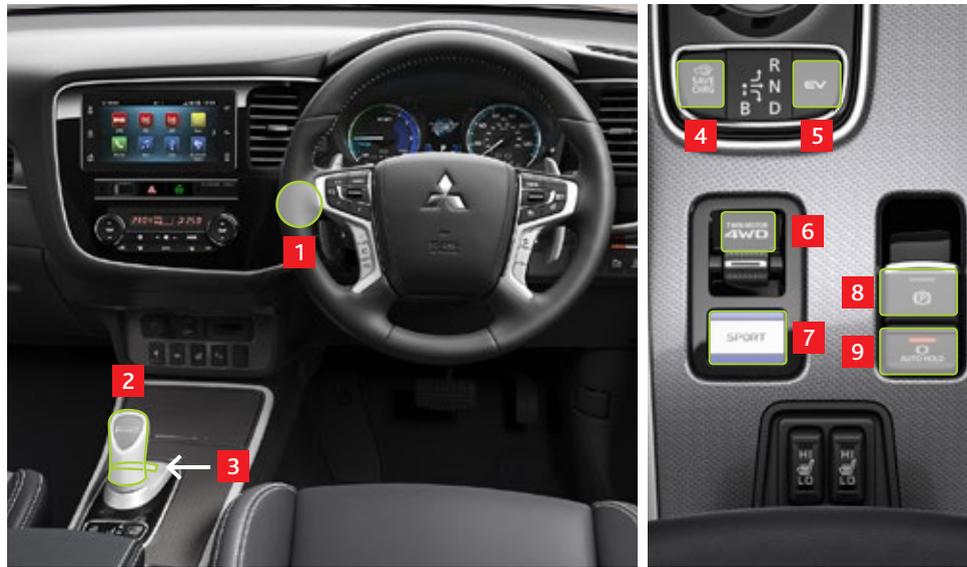


- Insert the rapid charge connector into the rapid charge port to start charging. Follow the instructions of the rapid charger manual for correct connection and disconnection of the charger.
- The charging indicator on the instrument cluster should illuminate. The charging indicator goes out and charging stops when an 80% charge level has been achieved.

■ MITSUBISHI Remote Control* enables timed charging, heating and air conditioning on your OUTLANDER PHEV. For details, please refer to the owner's manual or go to the following MITSUBISHI MOTORS web site. www.mitsubishi-motors.com/en/products/outlander_phev/app/remote/index.html

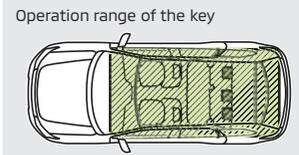
*MITSUBISHI Remote Control is standard on all models and enables you to remotely control your OUTLANDER PHEV using dedicated applications over a connection between your vehicle and a wireless LAN device.

AROUND THE STEERING WHEEL



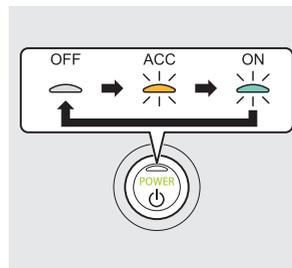
1 Power Switch

Using the keyless operation key, you can start or stop the plug-in hybrid EV system if the key is located within its **operation range** shown on the right.



- To start the plug-in hybrid EV system, engage the parking brake, depress the brake pedal, and then press the power switch. The READY indicator on the instrument cluster should stop blinking and stay constantly illuminated, indicating that the startup has been completed.
- To stop the plug-in hybrid EV system, stop the vehicle, press the electrical parking switch, set the selector position to **P** in the instrument panel display and then press the power switch.
*If the plug-in hybrid EV system needs to be stopped immediately in an emergency while driving, press and hold the power switch for more than 3 seconds or press it at least three times in quick succession. (This should not be carried out except in an emergency.)
- To switch between the power modes (OFF/ACC/ON), press the power switch without depressing the brake pedal. The selected power mode can be identified by the colour of the indicator lamp on the switch. The indicator lamp on the switch is not illuminated while the plug-in hybrid EV system is off.
- If you cannot start the plug-in hybrid EV system or switch between the power modes, the keyless operation key may be in a place where the signal is poor or the key's battery may have run out.

OFF: Lamp extinguished
ACC: Lamp illuminated in orange
ON: Lamp illuminated in blue



2 Selector Lever

- R** (Reverse) : The vehicle moves in reverse.
- N** (Neutral) : No drive is transmitted to the wheels, which are not locked (see item 3).
- D** (Drive) : The vehicle moves forward.
- B** (Regenerative brake) : The intensity of regenerative braking increases.

3 Electrical Parking Switch

Press the switch to lock the wheels when you are parking your vehicle. The indicator lamp on the switch illuminates in **GREEN**.

4 Battery Save/Charge Switch

Pressing this switch when the READY indicator is illuminated maintains the existing drive battery charge level while driving (SAVE); pressing it again starts the engine and charges the drive battery to nearly full (CHRG).

5 EV Priority Mode Switch

Pressing this switch ensures the vehicle runs in EV mode. The petrol engine will not start while accelerating, climbing hills or during cold weather. However, it will start automatically if the drive battery's charge drops to an excessively low level, or high power output demands are made. The Battery Charge/Save functions also override the EV switch setting. Please note that as the battery capacity decreases in this mode, the drive performance can decrease and the engine may start more frequently as power output is required.

6 4WD Mode Switch

Pressing the switch while driving or at a standstill shifts your vehicle into SNOW mode, which provides easier starts and more secure cornering on snow-covered roads; pressing it again engages 4WD LOCK mode which offers the highest traction and stability typical of a 4WD SUV from low to high speed range – ideal for low-to-medium speed driving on low-friction dirt roads and for driving on rain-soaked highways. Pressing the switch again puts the vehicle back in NORMAL.

7 Sport Mode

Pressing this switch provides a quicker response from the electric motors on dry winding roads.

8 Electronic Parking Brake

This feature replaces the conventional hand brake lever and is activated in a similar manner – pull the switch up to apply the parking brake. The system applies the optimum brake force depending on the angle of slope. It is cancelled automatically by pressing the accelerator pedal, or manually by pressing the switch down.

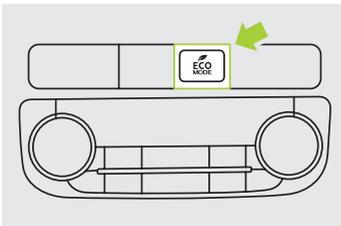
9 Brake Auto Hold

This system avoids the need to keep the brake pedal depressed while stationary at traffic lights or in heavy traffic stop/start driving conditions. It can be activated while driving or stationary by pressing the AUTO HOLD switch. When the vehicle has been brought to a stop using the foot brake, Brake Auto Hold maintains brake pressure even when your foot is removed from the brake pedal. The rear brake lights are also activated. The brakes are automatically released by pressing the accelerator pedal. The system can be cancelled while stationary by pressing and holding down the brake pedal and pressing the AUTO HOLD switch again.

AROUND THE STEERING WHEEL



10 ECO Mode Switch



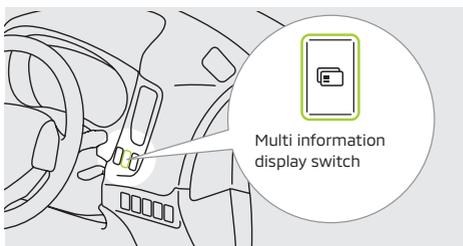
The ECO mode supports fuel-efficient eco driving by automatically controlling the plug-in hybrid EV system and the air conditioner.

When the READY indicator is illuminated, pressing the ECO mode switch activates the ECO mode.

Pressing the switch again deactivates the ECO mode. While the ECO mode is active, the relevant indicator lamp on the instrument cluster stays illuminated.

11 Multi Information Display

Every time the multi information display switch is pressed, a beep sounds. The display shows a wide range of information including warnings, service reminder, average fuel consumption, EV cruising range, and energy flow.



Information screen pop-up

Fuel remaining amount, selector lever position, regenerative braking level, drive battery level

Odometer, outside temperature



12 Acoustic Vehicle Alerting System (AVAS) OFF Switch



Pressing the switch deactivates the acoustic vehicle alerting system.

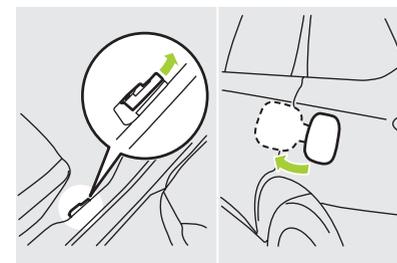
The AVAS OFF indicator comes on. Pressing the switch again reactivates the alerting system.

Do not turn the system off when there is a possibility of pedestrians on the road.

Refuelling

Fuel Lid (for refuelling)

The fuel lid is located towards the rear end of the vehicle on the left side. Pull up the floor lever to open the lid.



- Use unleaded petrol (do not use diesel fuel).
- Fuelling should be conducted by single person and others should keep away from the fuel filler opening. Stay close to the fuel filler opening until fuelling is finished.
- Slowly open the fuel cap and insert the fuel nozzle into the fuel filler opening.
- Do not attempt to refuel more after the fuel nozzle has stopped refuelling.
- Observe precautions posted at the fuel station.

■ If the fuel remains unused in your vehicle for a long time due to infrequent use of the vehicle, the quality may degrade and then damage the engine and fuel system parts. To avoid this, do the following:

- Once every 3 months, start and run the engine by pressing the battery charge switch.
 - Refer to "Battery Save/Charge Switch" on Page 10.
- Refuel your vehicle with at least 20 litres every 6 months.

■ If the recommended rate of refuelling is not possible for any reason, consult your Mitsubishi Motors Authorised Service Point.

MITSUBISHI REMOTE CONTROL APP

To use the Mitsubishi Remote Control App, register your wireless device and your vehicle.

REGISTRATION PROCEDURE

- Step 1** Setup your vehicle and wireless device so they can be registered.
- Step 2** Setup your vehicle and wireless device to communicate wirelessly.
- Step 3** Register wireless device with your vehicle.

Your vehicle and wireless device communicate directly.

You do not have to access a public Wi-Fi spot or prepare any Wi-Fi routers at your home.

Step 1 Setup your vehicle and wireless device so they can be registered.

(Perform this operation while the driver's side door is closed.)

Turn the power switch to ACC, then within 10 seconds, press LOCK and UNLOCK on the key fob alternately 10 times in total.



REGISTRATION STATE STATUS

A beep sounds according to the number of registered wireless devices.

Registration State ends 5 minutes after the beep sounds. (Up to 2 devices can be registered.)

- No registration = 1 beep
- 1 device has been registered = 2 beeps
- 2 devices have been registered = 3 beeps



START OF WIRELESS COMMUNICATION

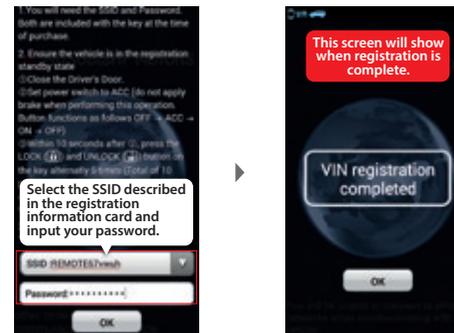
WHEN YOU SEARCH FOR THE NETWORK THROUGH YOUR WIRELESS DEVICE, SSID 'REMOTEXXXXX' IS DISPLAYED. IT MAY TAKE A FEW MINUTES BEFORE THE SSID IS DISPLAYED.

Step 2 Start of Wireless Communication

iOS



Android



Password and SSID (Network Name) are described in the registration information card included in your vehicle document pack.



Registration information card. The actual SSID is 'REMOTEXxxxxx', not 'REMOTE-xxxxxx'

Step 3 Register wireless device with your vehicle

This operation differs between iOS and Android. Please follow directions corresponding to your wireless device.

iOS Device

Connect wireless device to your car.

When you search the network with your wireless device, you can find SSID 'REMOTEXxxxx'.

Then, you can input your password. (SSID and password are described in the registration information card.)

Start up MITSUBISHI REMOTE-CONTROL.

Registration starts automatically.

(It may take about 1 minute before the registration is completed.) After the registration is completed, the registration completion screen is displayed on the application.

Android Device

Start up MITSUBISHI REMOTE-CONTROL.

Select SSID, and input your password.

(SSID and password are described in the registration information card.)

Registration starts automatically.

(It may take about 1 minute before the registration is completed.)

After the registration is completed, the registration completion screen is displayed on the application.

REGISTRATION HAS BEEN COMPLETED

A registration completed message is displayed on wireless device.

Turn off the power switch of your vehicle to complete the registration.

To register a 2nd device, exit the application once or terminate the connection to Wi-Fi communication, then conduct the same registration operation for the next wireless device.