



Prius PHV

Plug-in Hybrid Vehicle



Line-off



TOYOTA



Line-off: December 2009

Today
Tomorrow
Toyota

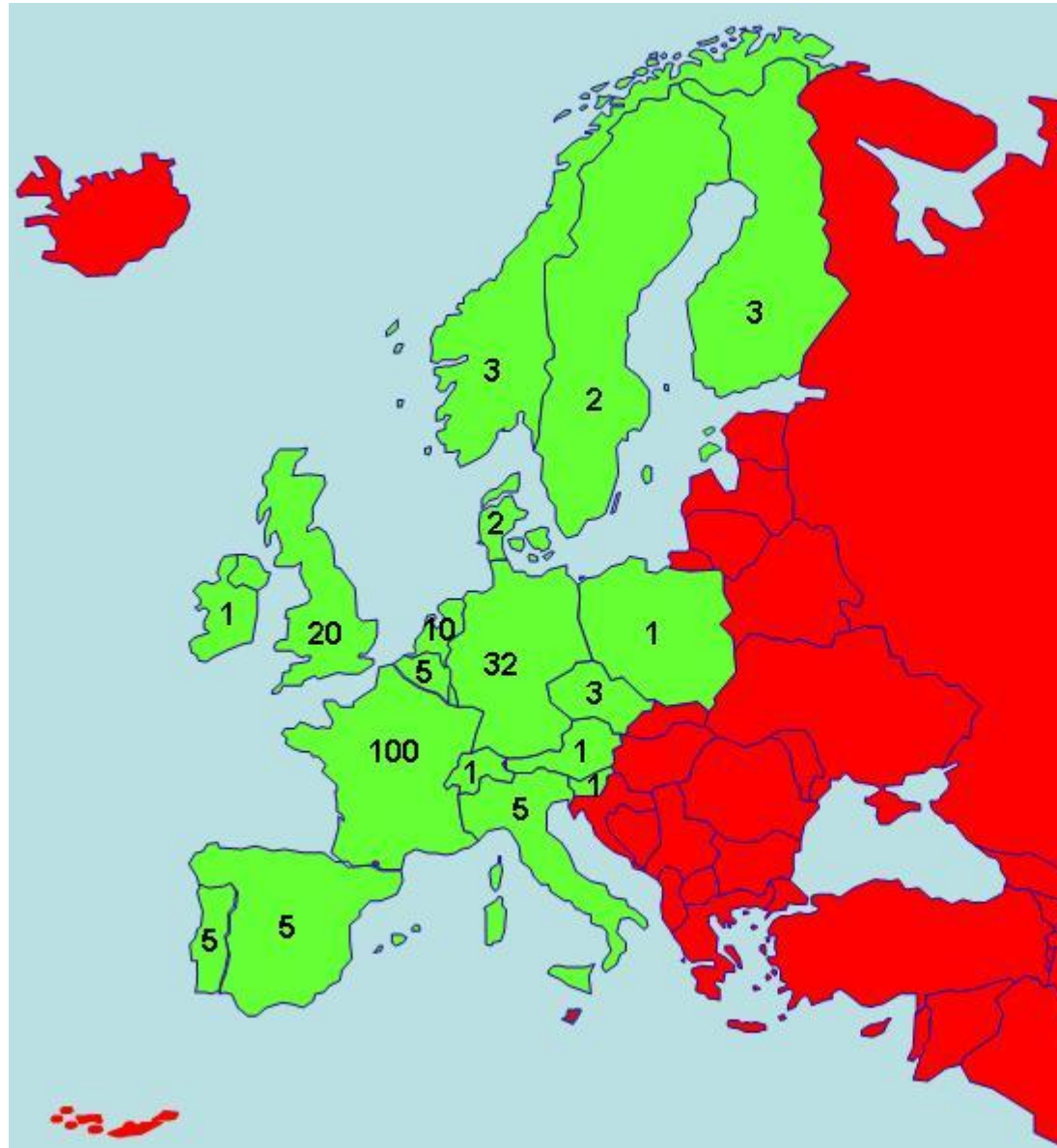
PHV Countries



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600 PHV's

Japan: 230
Europe: 200
USA: 150
Canada: ?
Australia: ?
New-Zealand: 5



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Model code



ZVW35 **L** — **B** **H** **X** **E** **B** **A**
1 2 3 4 5 6 7 8

1	Basic Model Code
	ZVW35: With 2ZR-FXE Engine

2	Steering Wheel Position
	L: Left-hand Drive R: Right-hand Drive

3	Model Name
	B: PRIUS Plug-in

4	Body Type
	H: 5-door Hatchback

5	Gear Shift Type
	X: Electrically-controlled Continuously Variable Transmission (E-CVT), Floor

6	Grade
	E: -

7	Engine Specification
	B: Atkinson

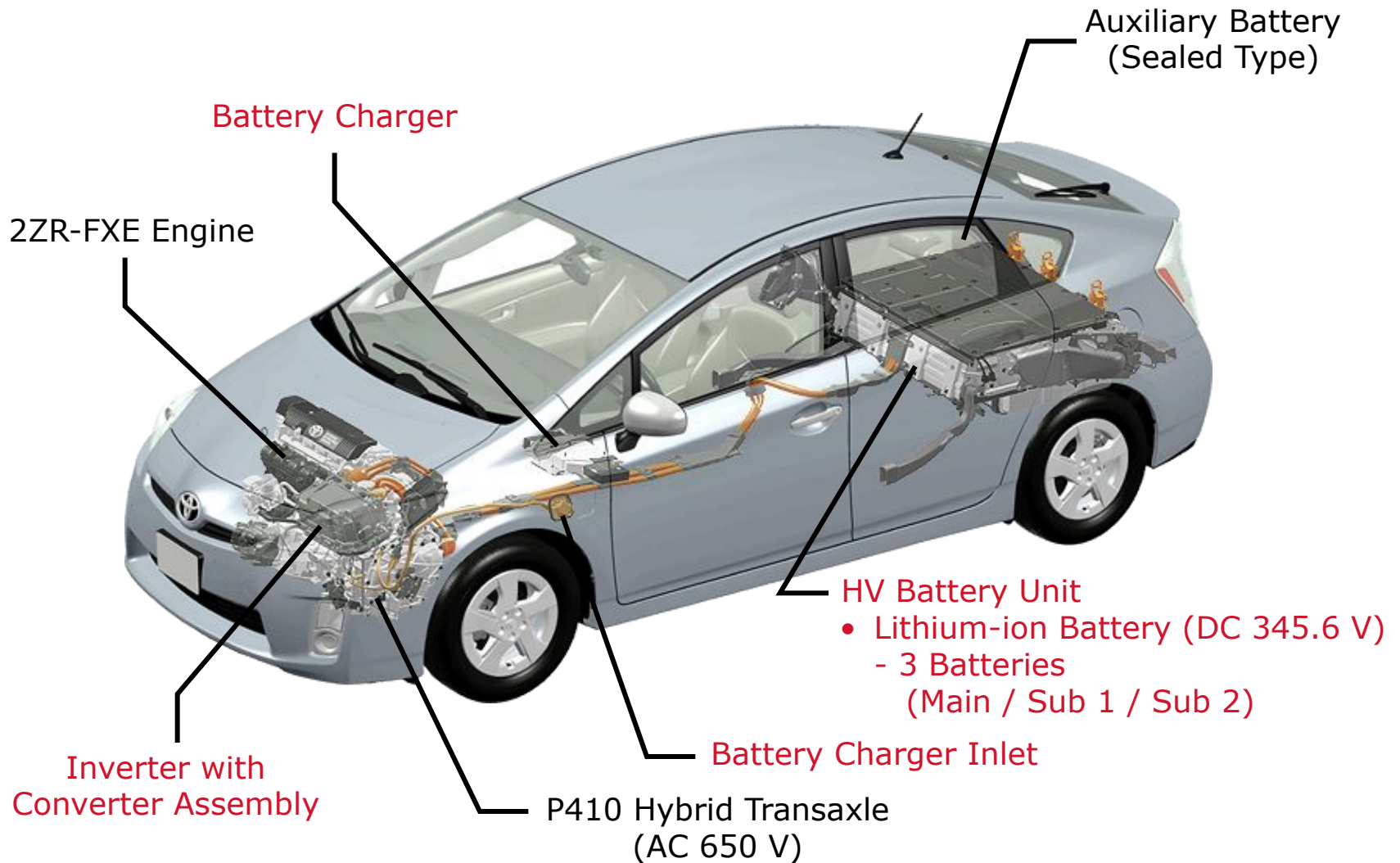
8	Destination
	A: U.S.A. K: Canada W: Europe

Exercises

PHV Touch & Feel



Prius PHV vs Prius3



PHV performance



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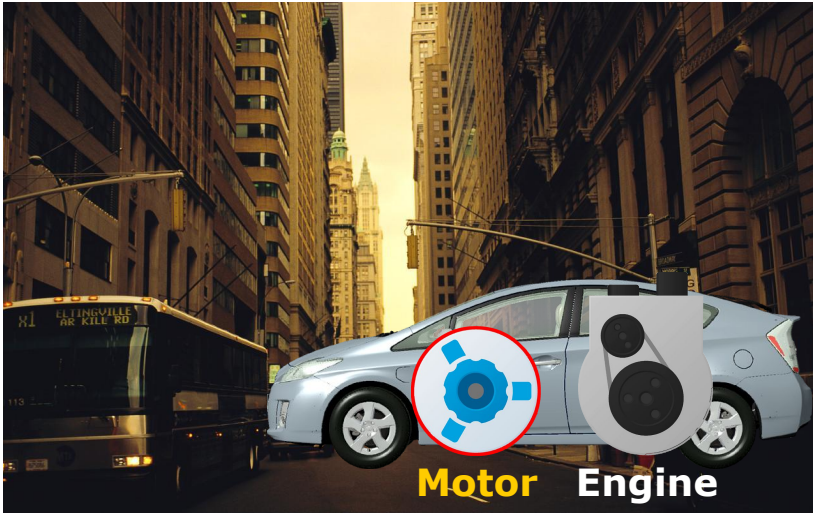
			PRIUS Plug-in	PRIUS (ZVW30)	
Hybrid System			Series / Parallel-type	←	
Engine	Type		2ZR-FXE	←	
	No. of Cyls & Arrangement		4-cylinder, In-line	←	
	Displacement [cm ³ (cu. in.)]		1798 (109.7)	←	
	Max. Output		73 kW (98 HP) @ 5200 rpm	←	
	Max. Torque		142 N·m (105 ft·lbf) @ 4000 rpm	←	
MG (Motor Generator)	MG1	Max. System Voltage	AC 650 V	←	
	MG2	Max. Output	60 kW (80 HP)	←	
		Max. Torque		207 N·m (153 ft·lbf)	←
			*	546 N·m (403 ft·lbf)	←
	Max. System Voltage		AC 650 V	←	
HV Battery		Nominal Voltage	DC 345.6 V	DC 201.6 V	
		Cell Quantity	288 cells (32 cells x 3 stacks x 3 packs)	168 cells (6 cells x 28 modules)	
Maximum System Output			100 kW (134 HP)	100 kW (134 HP)	

Driving with a Prius PHV

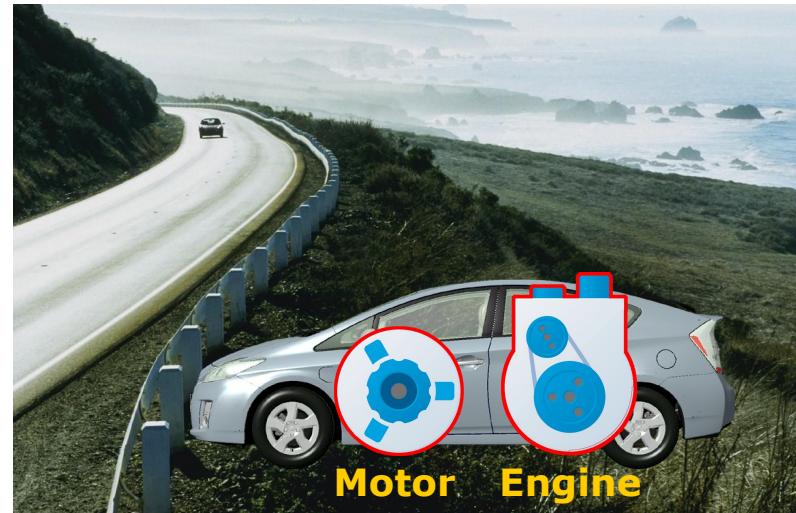


EV mode

HV mode



Drive range: ~20 km



Drive range: ~800 km

Engine running:

- Temp set to "HIGH"
- High 12V load
- Hybrid temp < 0°C
- Hybrid temp too high
- ...

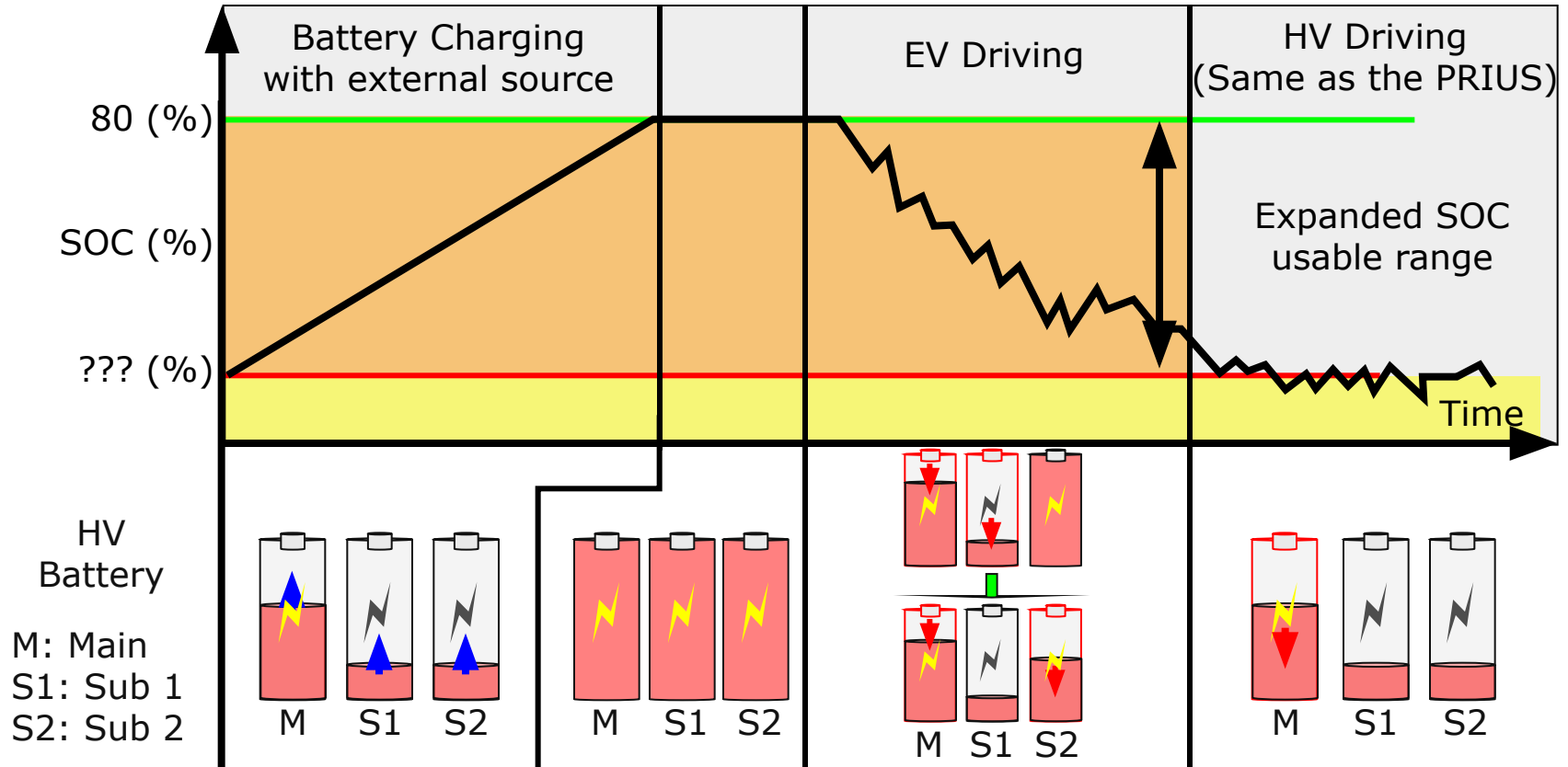


- >100 km/hr
- Heavy acceleration
- SOC too low

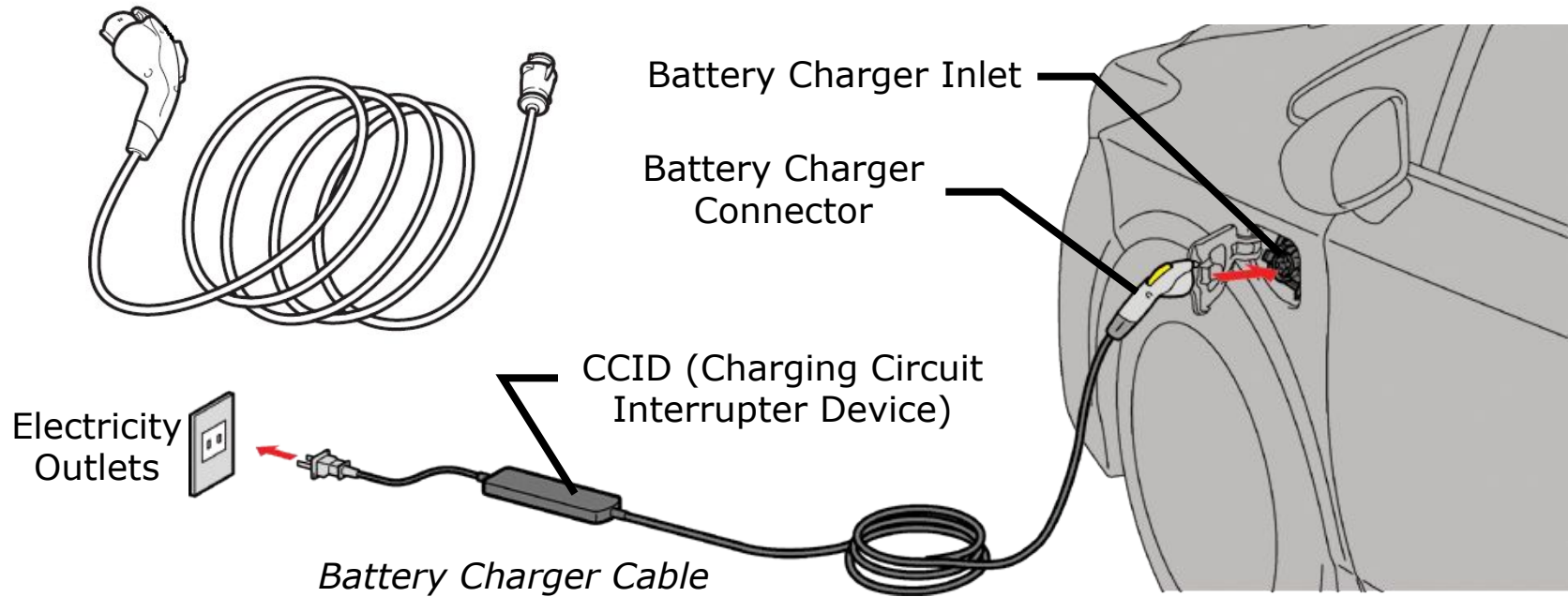
Engine **not** running:

- SOC main battery high
- Low load
- Starting to drive
- ...

Driving with a Prius PHV

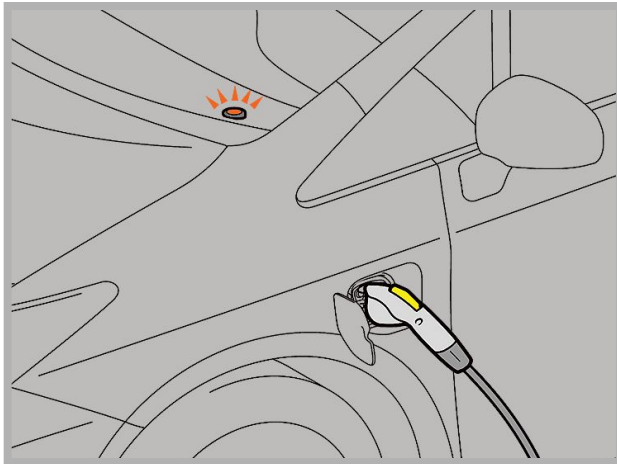


Charging a Prius PHV



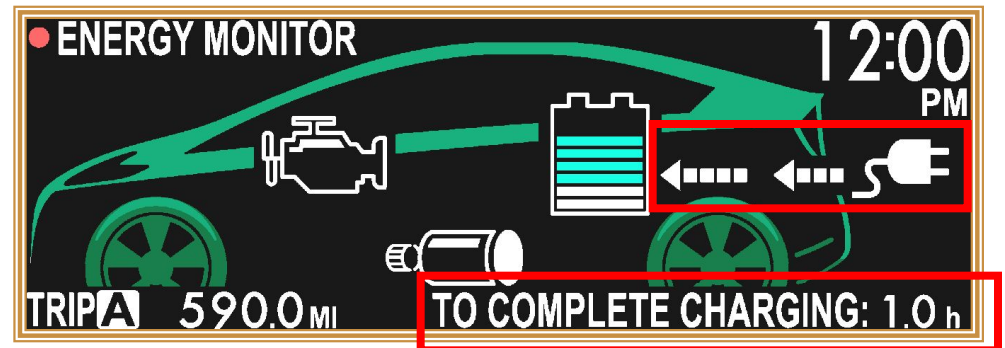
Input	Related Input Voltage	AC 100 V to AC 240V
	Input Current	Up to 12 A
Output	Rated Power	2.0 kW (AC 200 V) / 1.0 kW (AC 100 V)
Charging time		1~1.5 hr (AC 200V) / 3~4 hr (AC 100 V)

Charging a Prius PHV



Charger Indicator

- Illuminate: Recharging
- OFF: Charge completion
- Blink: Problem

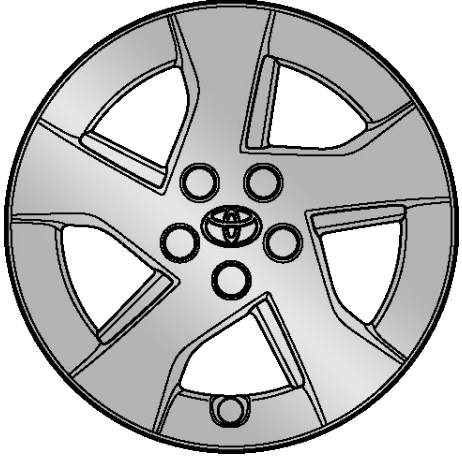


Energy Monitor (Power Switch ON [IG])

- Plug-in connection status
- Remaining charging time

Wheels and tires



Tire Size		195/65R15
Disc	Wheel Size	15 x 6J
	Wheel Material	Aluminum
Pressure		260 kPa
Wheel Design		



Puncture Repair Kit



Tire pressure Prius3:

17" F: 230 kPa R: 220 kPa

15" F: 220 kPa R: 220 kPa

PHV Combination meter

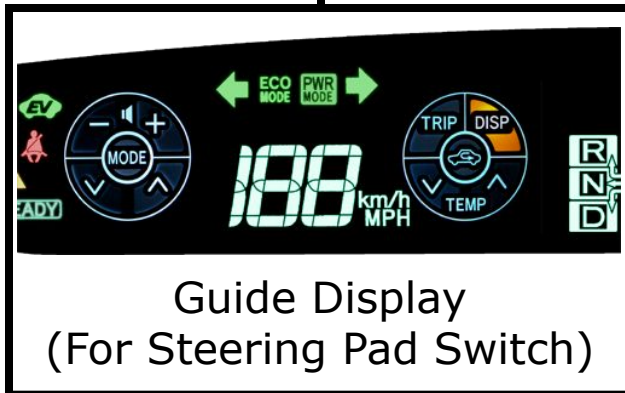


EV Mode Indicator Light

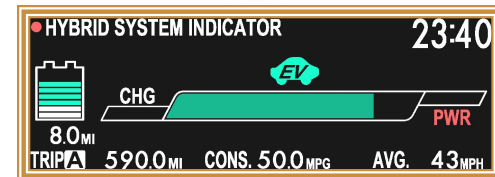


READY Indicator

Multi-information Display

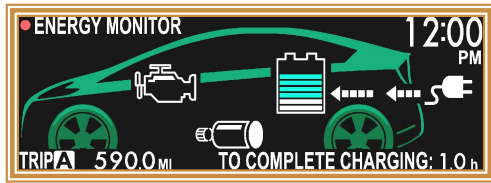


Guide Display
(For Steering Pad Switch)

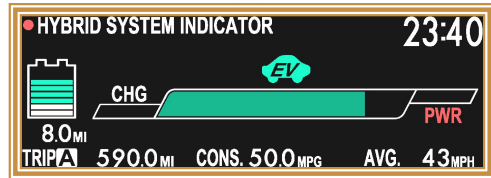


Hybrid System Indicator
(for EV / HV Mode)

PHV Multi Information Display



Energy Monitor



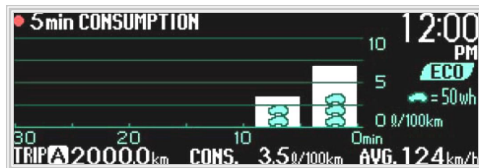
Hybrid System Indicator
(for EV / HV Mode)



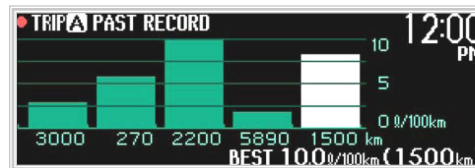
Settings Display



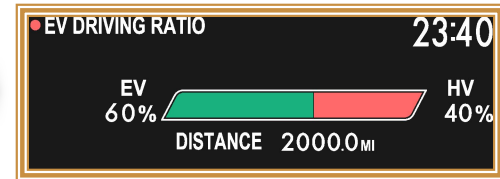
Rear Seat Belt Warning (-W)



5 min. / 1 min.
Consumption Record



Past Trip Fuel
Consumption Record

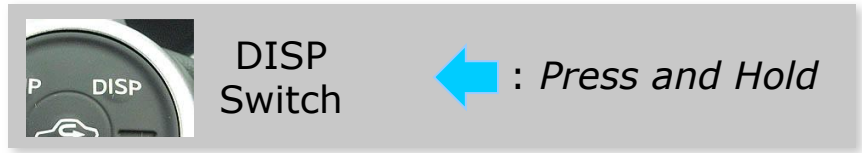


EV Driving Ratio



Warning
Message
Display Today
Tomorrow
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PHV Multi Information Display

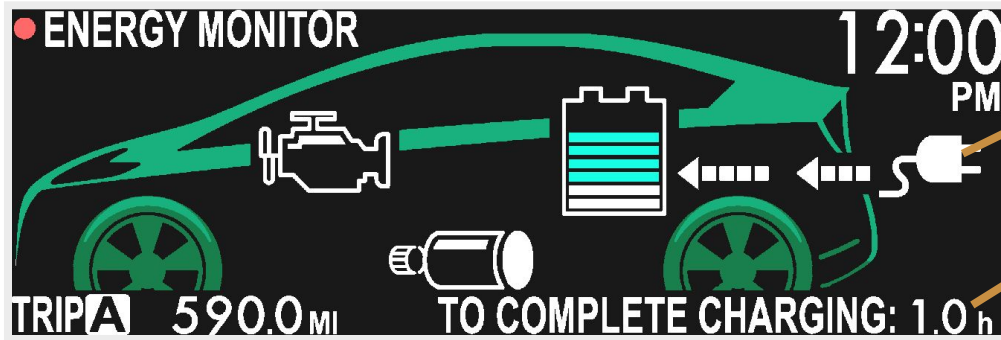


Settings Display



Item	Contents	Setting Value
ECO / EV	Selects the Eco / EV driving Indicator mode	ON / OFF
STEERING SWITCH	Selects the guide display mode	ON / OFF
CLOCK	Selects the time display mode	12h / 24h
LANGUAGE	Selects the display language	<i>Differs depending on the countries</i>
SCREEN OFF	Turns on/off the multi-information display	ON /OFF

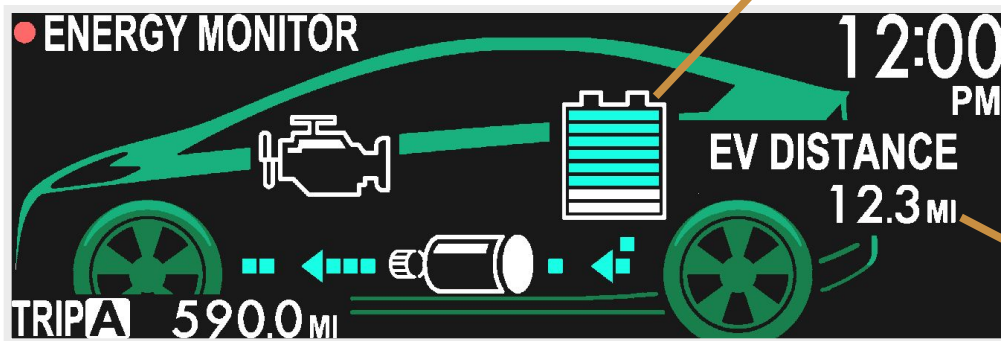
PHV Multi Information Display



Plug-in connection status

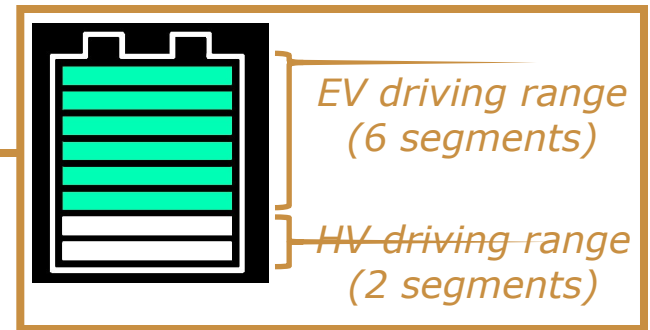
Remaining charging time

While recharging
(Power switch is turned on (IG))

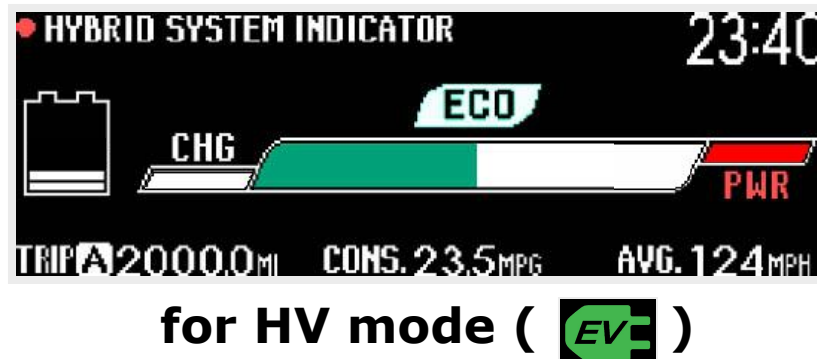
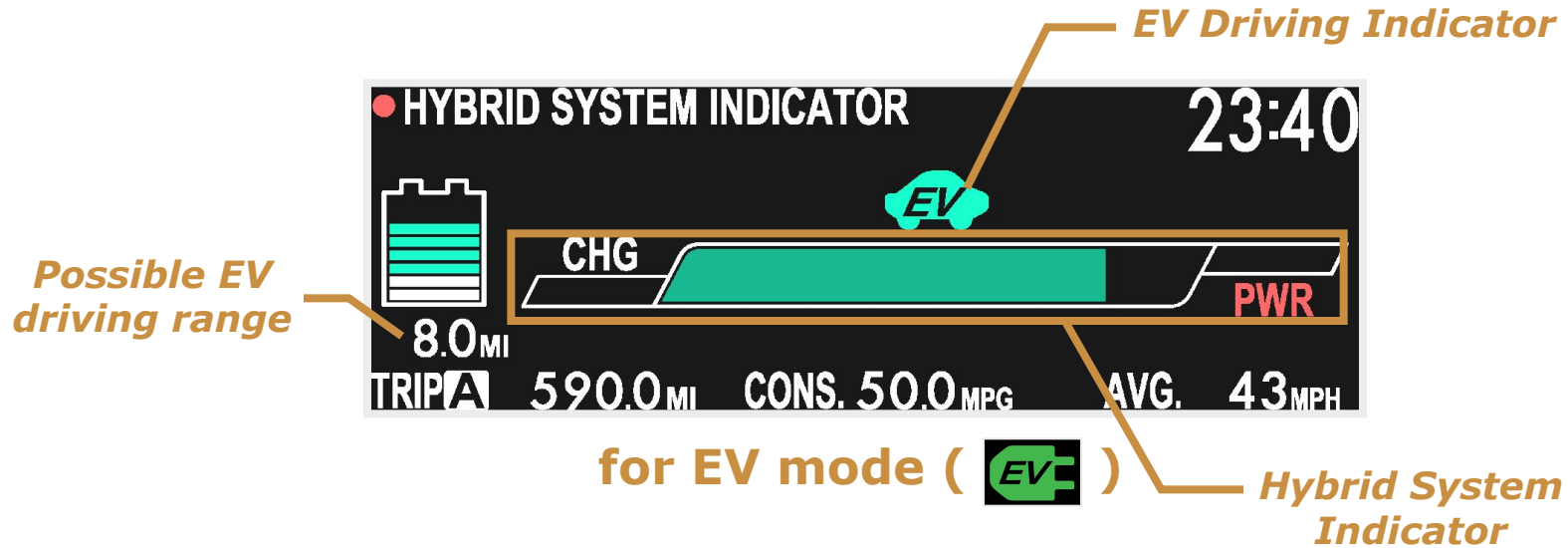


Possible EV driving range

While EV mode



PHV Multi Information Display



Function is the same as PRIUS

PHV Navigation with AV system



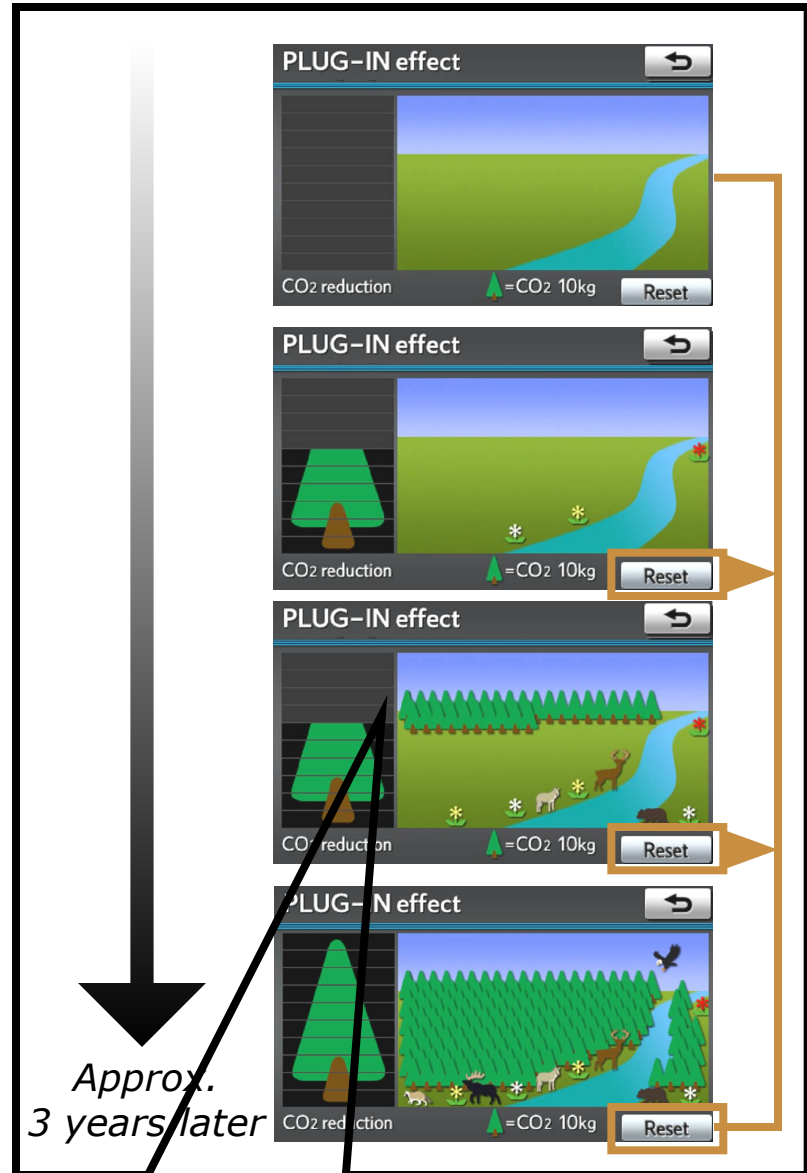
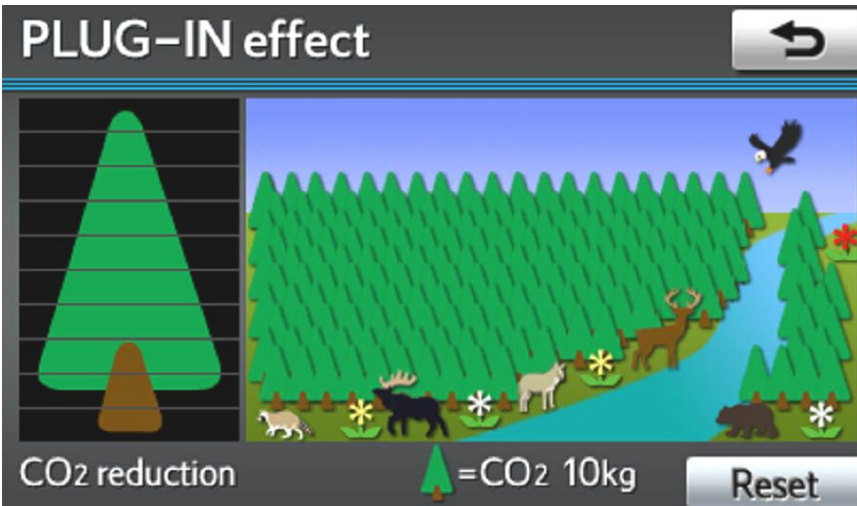
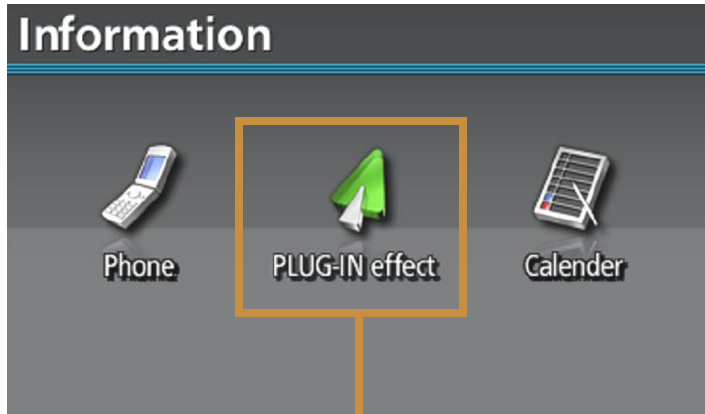
	Feature
Display	7.0-inch Wide LCD
	Pressure sensitive touch panel
Navigation System	08CY (Mid Type) HDD Navigation System
	Manufactured by AISIN AW
	Displays gas stations with plug-in battery charger units on the map
Bluetooth Hands-free	Equipped
Bluetooth Audio	Equipped
Sound Library	Equipped
PLUG-IN-EFFECT Display	Equipped
Charge advise	Equipped



PHV Navigation with AV system

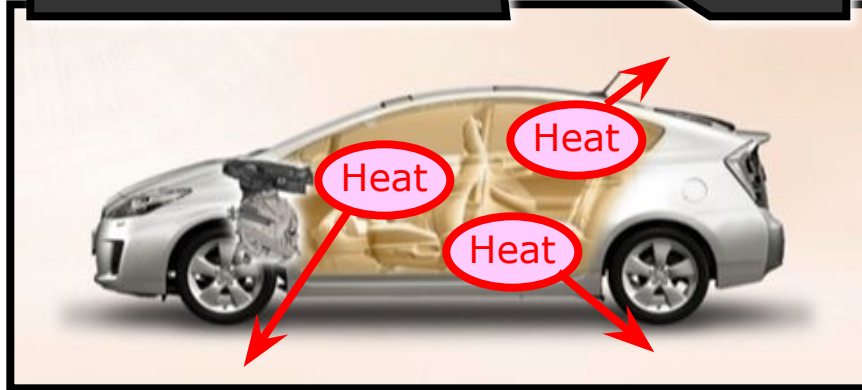
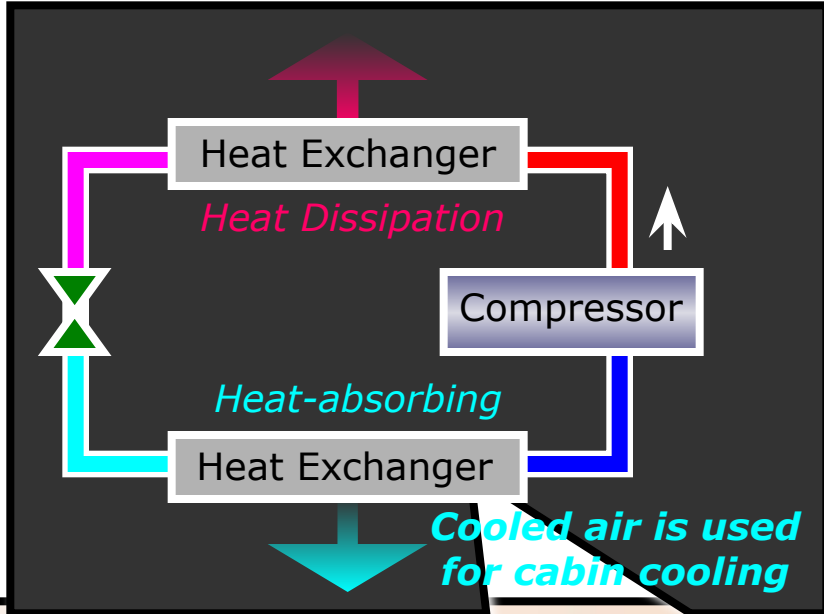


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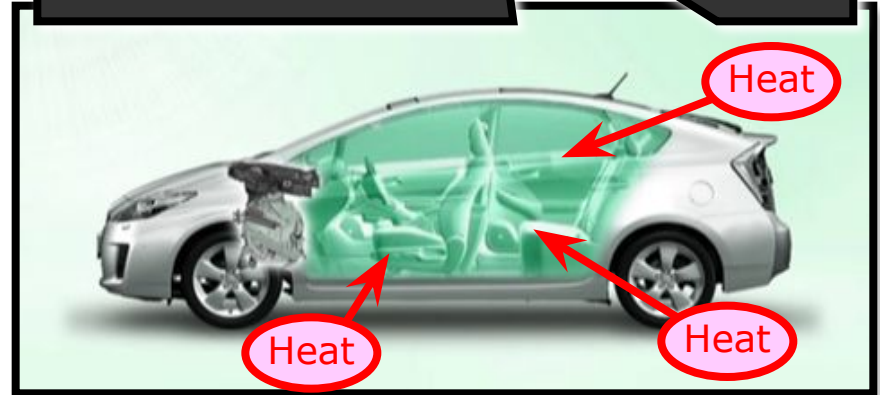
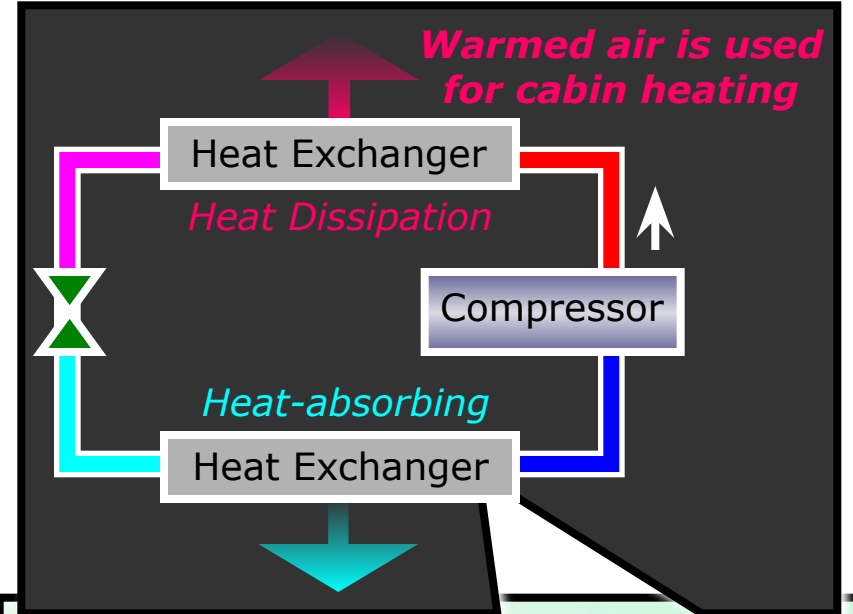


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PHV Air Conditioning

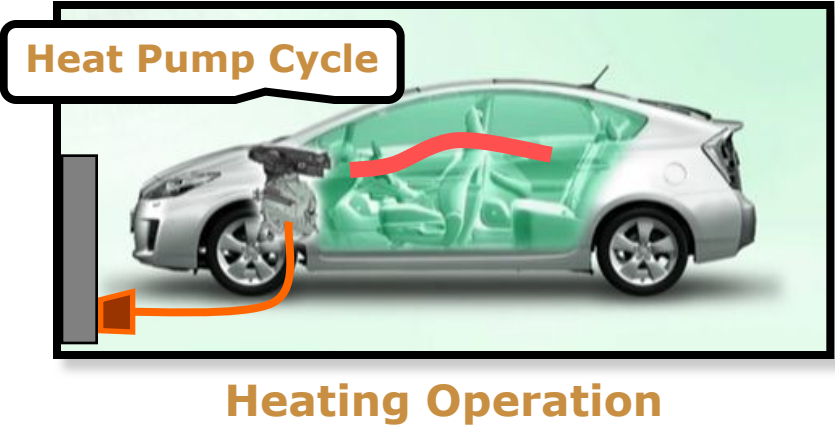
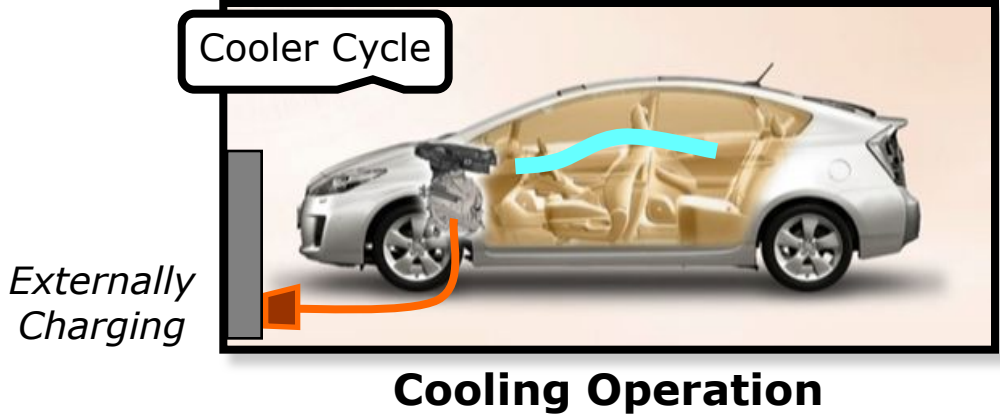


Cooler Cycle



Heat Pump Cycle

PHV Air Conditioning



PHV Auxiliary Battery



Auxiliary Battery: S34B20R

Location of
Auxiliary Battery



Luggage Room



Auxiliary Battery (Sealed-type)

Charge at 5.0 A or less for max. 12 hrs.



Charging aux. battery:

Prius 2: 3.5 A or less

Prius 3: 4.2 A or less

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