



LFA

Inside the LFA



LFA

Preface

This booklet is an LFA-exclusive supplement to the Owner's Manual designed to help you get the most out of your LFA ownership experience. It contains fundamental operating procedures, the vehicle's response to these operations, and why these operations are needed.

The information contained within this booklet is designed to help enrich the LFA ownership experience.

For detailed information on operating the vehicle as well as important warnings and notices, please consult the Owner's Manual.

Contents

Section 01

Basic operations	P.8
Engine protection mechanisms	P.16
Ideal driving position	P.20
Operating the driving mode selector switch	P.26
Accelerating	P.32
Shifting	P.36
Steering	P.44
Braking	P.50
Checking the engine	P.56
Using the meter	P.66

Section 02

Maintaining the vehicle's exterior P.78

Maintaining the vehicle's interior P.82

Section 03

Advice for long-term storage P.92

If the vehicle battery is discharged P.94

When transporting the vehicle P.100

Section 04

Technical information P.108

Section 01

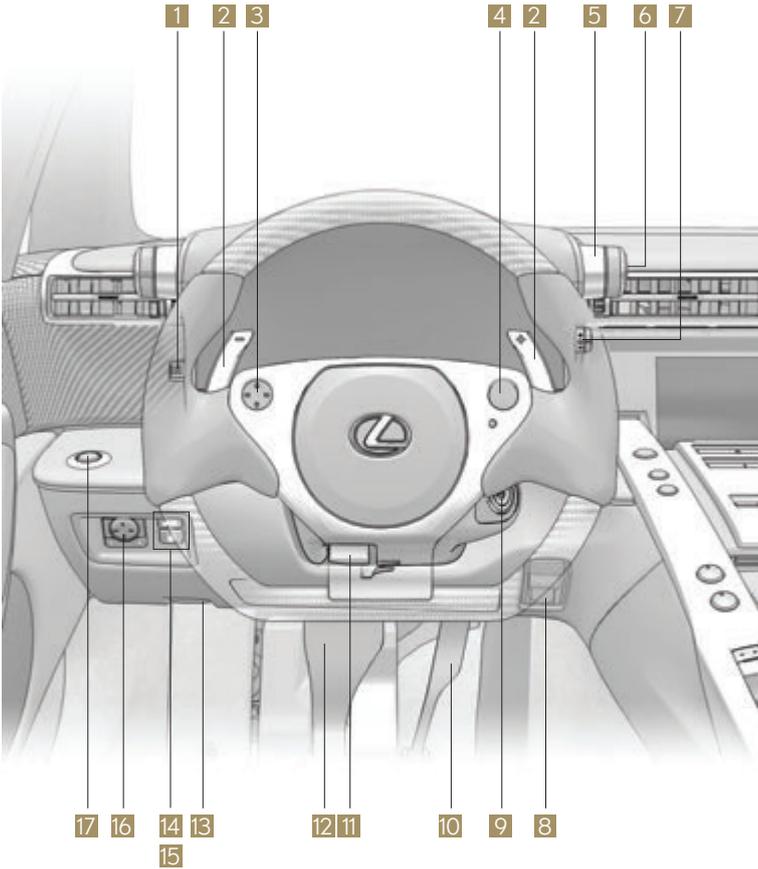
- Basic operations
- Engine protection mechanisms
- Ideal driving position
- Operating the driving mode selector switch
- Accelerating
- Shifting
- Steering
- Braking
- Checking the engine
- Using the meter





Basic operations

Main switch layout



S101-31L

1 Reverse selector switch

Pull the switch to select Reverse (R).

2 Paddle shift switches (→P. 40)

Pull the right paddle shift switch to upshift and the left paddle shift switch to downshift. Pull both paddle shift switches at once to select Neutral (N).

3 Control pad (→P. 66)**4 “ENGINE START” switch****5 Driving mode selector switch (→P. 26)****6 AUTO driving mode button (→P. 27)****7 Shift speed selector (→P. 41)**

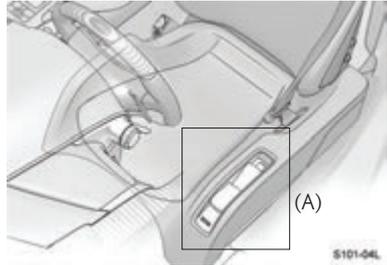
Allows the driver to choose their desired shift speeds for the manually shifted SPORT, NORMAL, and WET driving modes.

8 Parking brake switch**9 Ignition switch****10 Accelerator pedal (→P. 32)****11 Tilt and telescopic steering lock release lever****12 Brake pedal (→P. 50)****13 Hood release lever (→P. 12)****14 Rear hatch opener switch (→P. 12)****15 Fuel filler door opener switch (→P. 12)****16 Outside rear view mirror switches****17 VSC off switch**

Turns VSC and TRAC off. Press the switch again to turn VSC and TRAC back on.

Driving position adjustment

- 1 Insert the key into the ignition switch and then turn the key to the "ACC" position.
- 2 Use the seat adjustment switches (A) to move the driver seat. You should be able to fully depress the brake pedal with your knees slightly bent.
- 3 Adjust the height of the seat and the position of the steering wheel. You should be able to grip the top of the steering wheel with your elbows slightly bent and your back at a comfortable angle.
- 4 If necessary, readjust the seat position.
- 5 Adjust the mirrors to ensure that you have a good view of the area behind the vehicle.



Starting the engine

- 1 With the brake pedal depressed, turn the key to the "ON" position.
- 2 Pull both paddle shift switches at the same time to select Neutral.
- 3 Press the "ENGINE START" switch to start the engine.

■ Starting off

- 1 With the brake pedal depressed, pull the right paddle shift switch to select 1st gear.
- 2 Pull the parking brake switch to release the parking brake.
- 3 Release the brake pedal and then slowly depress the accelerator pedal.

■ Reversing

- 1 With the vehicle stationary, depress the brake pedal and check the gear indicator in the meter to ensure that Neutral is selected.
- 2 Pull the reverse selector switch to select Reverse.
- 3 Release the brake pedal and then slowly depress the accelerator pedal.

It is not possible to change directly from Reverse to any of the forward gears. Select Neutral first and then select a forward gear.

■ Parking

- 1 Depress the brake pedal until the vehicle comes to a complete stop.
- 2 Press the parking brake switch to set the parking brake.
- 3 Ensure that "D1", "1" or "R" is displayed on the gear indicator.
- 4 Push in the key and turn it to the "LOCK" position to stop the engine.

The "ENGINE START" switch is for starting the engine. It cannot be used to stop the engine.

■ Opening and closing each door

■ Rear hatch

Press the opener switch and then manually lift up the rear hatch.

If the rear hatch opener switch is inoperable (→P. 95)



■ Fuel filler door

Press the opener switch.

Fuel type	Unleaded gasoline only
Fuel tank capacity (Reference)	19.3 gal. (73 L, 16.1 Imp. gal.)

If the fuel filler door opener switch is inoperable (→P. 95)



■ Hood

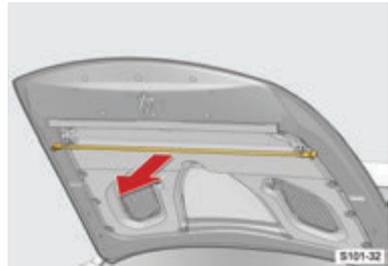
- 1 Pull the hood release lever.



- 2 Press the auxiliary catch lever to the left and lift the hood.

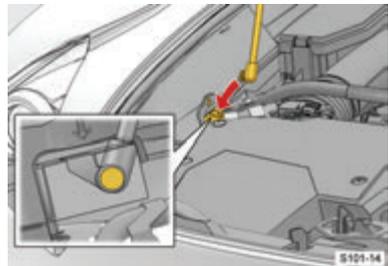


- 3 Take out the supporting rod.

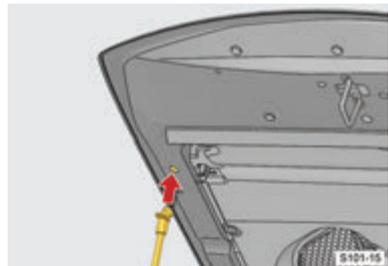


- 4 Insert the supporting rod into the slot positioned on the side of the engine compartment.

Be sure that the supporting rod is fully inserted into the slot.



- 5 Insert the supporting rod into the slot on the hood.







Engine protection mechanisms

The LFA's 1LR-GUE engine generates a maximum output of 412 kW (553 HP) at 8,700 rpm and delivers 90% or more of its peak torque of 354 ft•lbf (480 N•m, 48.9 kgf•m) between 3,700 and 9,000 rpm. The engine features a number of protection mechanisms to ensure longevity and maintain peak performance.

A number of driving restrictions will be in place until the total mileage shown on the odometer exceeds 310 miles (500 km). This break-in period serves not only to protect the engine, but also to preserve the transmission, suspension and the vehicle as a whole. It is recommended that during this time the owner become familiar with the LFA and avoid high-load driving maneuvers.

One engine protection mechanism in place beyond the break-in period is the limiting of maximum engine speed when the engine is cold. When the vehicle is cold started, various components within the engine begin to warm up and expand at different rates. Forcing the engine to operate at high speeds in this condition can cause accelerated engine wear. For this reason, the maximum engine speed is limited when manually shifted driving modes (SPORT, NORMAL, WET) are selected and restricted to a set range when AUTO mode is selected.

This engine speed limitation does not indicate a malfunction with the vehicle. Warming the engine up by driving, rather than extended idling, is recommended.

■ Limited maximum engine speed during break-in period

The maximum engine speed is limited to 7,400 rpm if the total mileage shown on the odometer is less than 310 miles (500 km).

■ Engine starting restrictions in extremely low temperatures

In extremely low temperatures, such as when the coolant or oil temperature gauge shows a reading of -13°F (-25°C) or below, the engine will not be allowed to start. This mechanism is designed to protect the engine.

■ Restricted maximum engine speed in extremely low temperatures

When the engine is started with the coolant temperature gauge showing a reading of 5°F (-15°C) or below, the maximum engine speed will be limited to 4,400 rpm for approximately eight minutes.

■ Variable maximum engine speed during warm-up

When the engine is started with the coolant temperature gauge showing a reading of 176°F (80°C) or below, the maximum engine speed will vary according to the coolant temperature.

■ Limited maximum engine speed in neutral gear

The maximum engine speed will be limited to 5,100 rpm when neutral gear is selected and the accelerator pedal is continuously depressed.





Ideal driving position

An ideal driving position allows for smooth operational inputs and also helps to reduce injuries in the event of a collision. Although the driving position employed by racing drivers in competition offers maximum car control, it is not always practical for use on public roads.

While the ideal driving position will vary depending on individual requirements and driving conditions, please observe the following points in order to ensure a safe and comfortable driving position:

■ Seat slide adjustment

When sliding your seat back and forth, aim for a position that allows you to fully depress the brake pedal with your knees slightly bent. Also, to ensure that you have enough leverage to depress the brake pedal, make sure that your back rests firmly against the seatback.

If your leg is fully extended to depress the brake pedal and a collision occurs, your knee will not be able to help absorb any impact force. Instead, the full force of the impact will be transferred to your lower back, possibly resulting in spinal injuries.

■ Seat angle adjustment

When adjusting the seatback, aim for an angle that allows you to rest your back firmly against the seatback with your hands gripping the top of the steering wheel and your elbows slightly bent. Resting your back firmly against the seatback offers better body support.

To maintain an adequate level of support, it is essential to make sure that your arms are not over-reaching to touch the top of the steering wheel. Sitting too far away will force you to lean forward when turning, compromising the support offered by the seatback. Finally, make sure that the seatback is not reclined excessively, as this may result in your body slipping under the seat belt in the event of a collision.

The seats in the LFA employ a racing bucket seat-inspired design and frames made from CFRP (Carbon Fiber Reinforced Plastics) to ensure a highly rigid and supportive construction.

To ensure that the seats are used to their maximum potential, always maintain an appropriate driving position.

■ Seat adjustment range

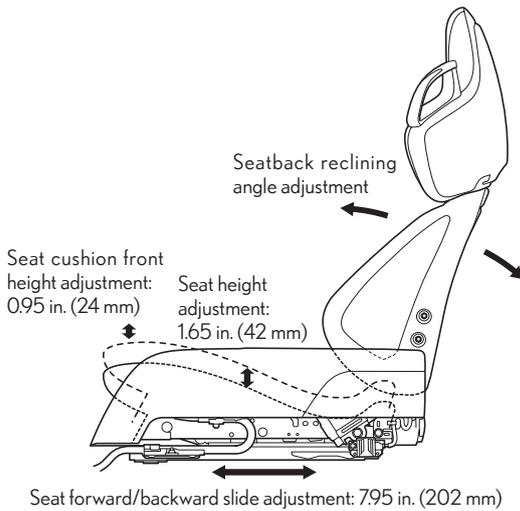
The following seat adjustments are available:

Seat forward/backward slide

Seat height

Seatback reclining angle

Seat cushion front height

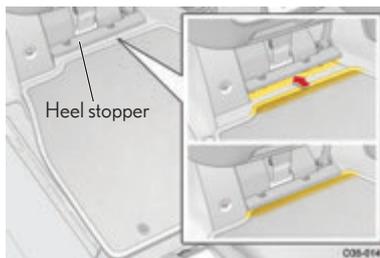


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■ Using the floor mats

The floor mats and installation hardware have been designed specifically for use with the LFA.

When installing the LFA-specific floor mats, ensure that the front edge of the floor mat is securely inserted under the heel stopper.



After inserting the front edge of the floor mat securely under the heel stopper, fix the rear edge of the floor mat to the carpet using the retaining hooks (clips). If the floor mats are not securely fixed in place, they may interfere with operation of the pedals and increase the risk of an accident.



The following circumstances may result in the floor mats interfering with operation of the pedals, increasing the risk of an accident:

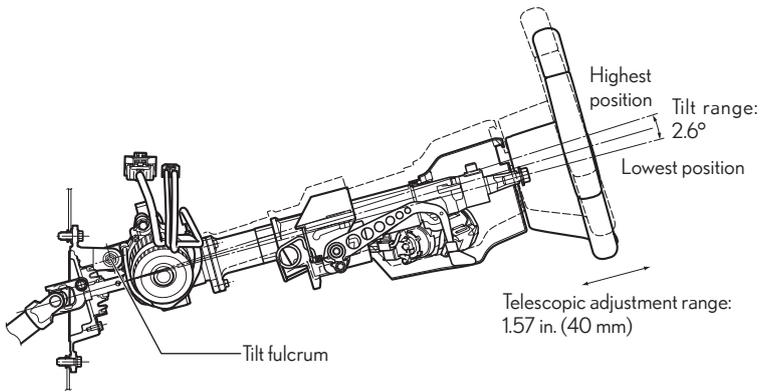
- When an all-weather or similar type of floor mat is placed on top of the LFA-specific floor mat.
- When using floor mats other than the LFA-specific units.
- When using the passenger side floor mat on the driver side.

Steering wheel adjustment range

The LFA has a tilt and telescopic steering column that allows you to manually adjust the longitudinal and vertical position of the steering wheel.

The tilt fulcrum has been placed a significant distance away from the steering wheel itself in order to minimize the change in steering wheel angle when adjusting its vertical position. Minimizing the change in steering wheel angle prevents the top of the steering wheel from moving too far away from the driver.

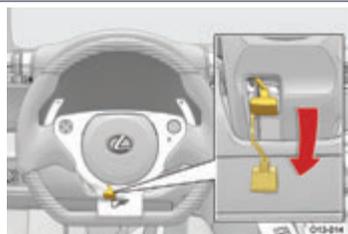
Meanwhile, the telescopic adjustment allows the steering wheel and column to be moved as a whole so that the distance between the steering wheel and the paddle shift switches remains the same.



S103-05

Adjusting the steering wheel position

Pull the tilt and telescopic steering lock release lever down while moving the steering wheel longitudinally and vertically into the desired position. After adjustment, push the lever up and check that the steering wheel is securely fixed in place.





LFA





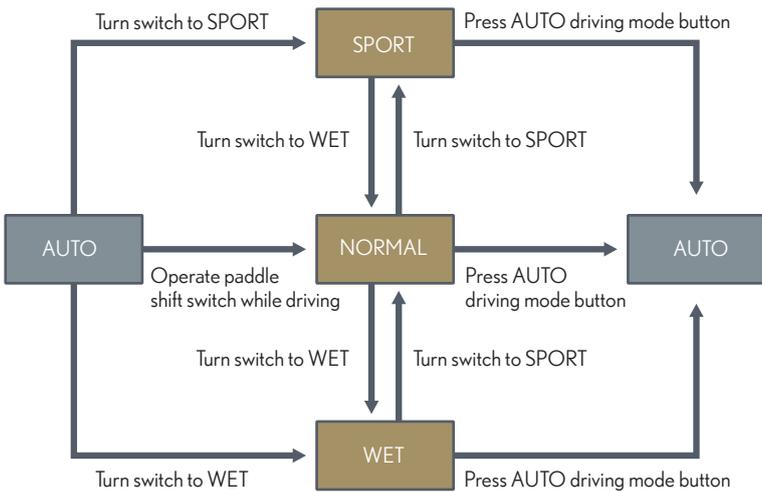
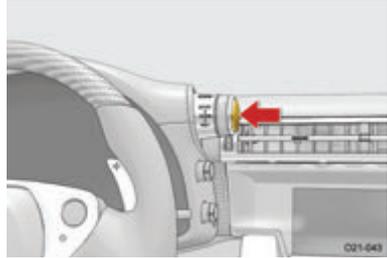
Operating the driving mode selector switch

Driving modes can be selected by operating the driving mode selector switch. Driving characteristics and controls change according to the driving mode selected.

Change according to selected driving mode Control characteristics (Driving mode selector switch position)	Driving mode			
	Automatic (AUTO)	Sport (SPORT)	Normal (NORM)	Wet (WET)
Shift mode (→ P. 41)	Automatic	Manual		
Default shift speed	Level 2	Level 5	Level 3	Level 1
Shift speed adjustment (→ P. 41)	Fixed	Adjustable from Level 1 to Level 7		
Active rear wing Raise operation speed (→ P. 28)	81 mph (130 km/h)	50 mph (80 km/h)		
Throttle valve characteristics (→ P. 33)	Exclusive to AUTO mode	Exclusive to SPORT mode	Exclusive to NORMAL mode	Exclusive to WET mode
Maximum throttle valve angle	Restricted	Unrestricted		
Meter display (→ P. 58)	Exclusive to AUTO mode	Exclusive to SPORT mode	Exclusive to NORMAL mode	Exclusive to WET mode
VDIM control (→ P. 29)	NORMAL	SPORT	NORMAL	

Selecting a driving mode

The automatically shifted AUTO mode or a manually shifted SPORT, NORMAL or WET mode can be selected. The driving mode selector switch will automatically return to its original position after being operated.



S104-04

■ Active rear wing

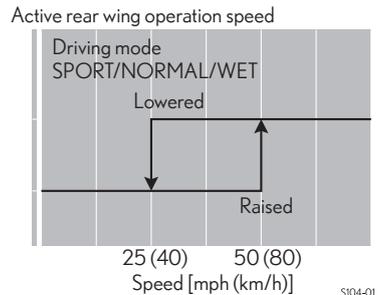
The LFA's active rear wing operates on a speed-linked schedule in accordance with the selected driving mode. Control is performed by the ECU (Electronic Control Unit).

Vehicle speed-linked active control allows for a reduced drag coefficient (C_d value) when the wing is stowed. The wing is automatically raised to control airflow and provide an appropriate level of downforce ($-C_l$ value) at higher speeds, contributing to handling stability.

Depending on the driving mode, the active rear wing will rise in approximately 5 seconds when the vehicle speed exceeds 50 mph (80 km/h) or 81 mph (130 km/h) respectively.

The wing will automatically lower in approximately 7 seconds when the vehicle slows to 25 mph (40 km/h) or less.

The difference in rising and lowering speeds is intended to minimize undesired aerodynamic changes due to frequent operation.



■ VDIM

The LFA employs VDIM (Vehicle Dynamics Integrated Management), a dynamic control program that integrates braking and drive torque control to help ensure overall vehicle stability and secure handling. VDIM also features vertical acceleration and roll rate sensors, added exclusively for the LFA. The addition of these sensors increases the precision and response of road camber estimation on banked roads, such as "The Carousel" at the Nürburgring, to determine the vehicle's performance limits. This prevents excessive intervention on banked roads.

The LFA's VDIM system allows for two individual control modes selected by the driver using the driving mode selector switch.

When in SPORT mode, VDIM control is modified in order to enhance driving pleasure and the driver's confidence in the vehicle.

When not in SPORT mode, VDIM returns to NORMAL mode, designed to intervene seamlessly as the vehicle reaches its performance limits, thereby realizing smoother driving dynamics.

This helps ensure both overall vehicle stability and secure handling.





Accelerating

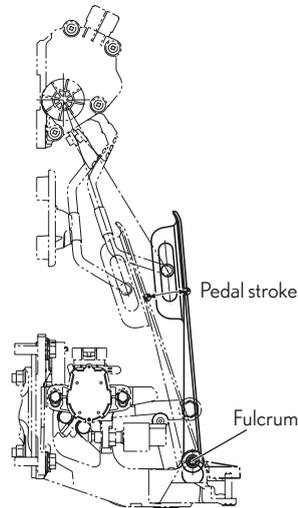
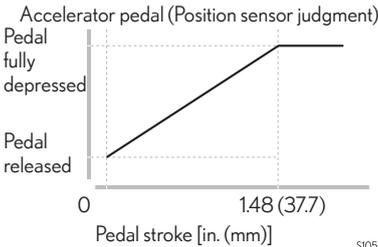
When the driver depresses the accelerator pedal, a signal is sent to the ECU where it is interpreted and used to control the throttle valve angle. This is all performed electronically without a conventional cable linkage.

The throttle valves are opened and closed by a pair of electric motors, one for each bank of cylinders. There are a total of 10 individual throttle valves, one for each cylinder. This configuration minimizes the amount of air between each combustion chamber and its corresponding independent throttle valve, promoting instantaneous throttle action for outstanding engine response.

Furthermore, this drive-by-wire technology is able to tailor specific throttle valve angle strategies to each available driving mode. Depending on which driving mode is selected, depressing the accelerator pedal the same amount will result in a different throttle valve angle. This variable control results in engine characteristics better suited to the driver's intentions and driving conditions.

Accelerator pedal mechanism

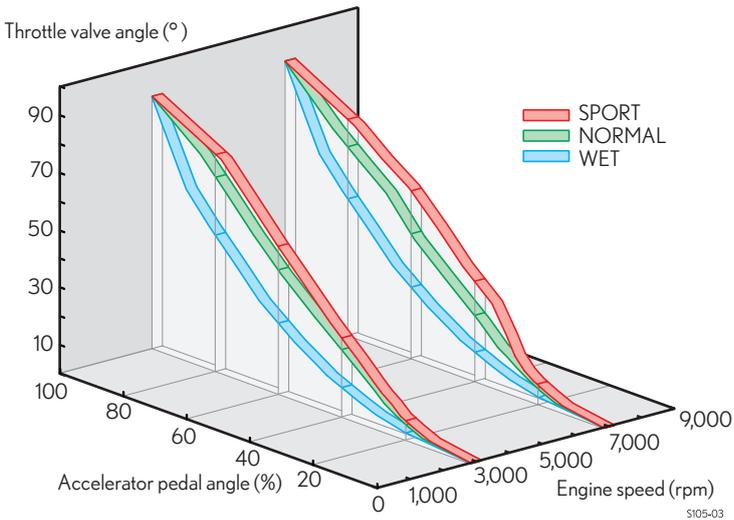
A floor-mounted accelerator pedal allows the fulcrum to be moved closer to the floor and the driver's heel. Depressing the pedal actuates a rod, which moves through a sensor. The pedal has a 1.48 in. (37.7 mm) stroke and the sensor is able to precisely detect movement down to 0.03 in. (0.8 mm) in order to provide a more direct feel.



■ Driving mode-linked variable throttle response

The ratio between how far the accelerator pedal is depressed and the amount that the throttle valves open is varied to suit the individual driving modes chosen by the driver using the driving mode selector switch.

In AUTO mode, the maximum throttle valve angle is lowered in order to better facilitate conservative engine speeds. This control logic was designed to promote more efficient driving in urban situations and on long distance trips. In SPORT, NORMAL or WET mode, the maximum throttle valve angle is unrestricted.



Regarding launch control:

Designed to make the most of the LFA's abilities, launch control has been adopted to automatically hold the engine speed at 4,000 rpm when starting off. Prior to enjoying launch control, make absolutely certain to read the appropriate section in the Owner's Manual.





Shifting

With regards to the drivetrain, the steering wheel-mounted paddle shift switches command the automated dry single-plate clutch and rear-mounted ASG (Automated Sequential Gearbox) transaxle. This fully automated configuration allows the driver to upshift (+) or downshift (-) while keeping both hands on the steering wheel.

When the driver initiates a gear change using the paddle shift switches, the ASG computer automatically controls and coordinates clutch engagement, engine speed, torque transfer and gear select and shift operations.

The engine-mounted dry single-plate clutch and rear-mounted transaxle are connected via torque tube to provide the direct feel of a manual gearbox.

The ECU manages gear changes to provide intuitive response to the driver's acceleration demands. Doing so allows gear changes to be carried out instantaneously, providing a nearly uninterrupted flow of power. The engine speed is computer controlled on upshifts and downshifts in order to ensure smooth clutch engagement.

Naturally, shifting can be accomplished manually via the paddle shift switches. However, shifting can also be performed automatically in AUTO mode. Switching to a different driving mode using the driving mode selector switch or operating the paddle shift switches will resume manual operation.

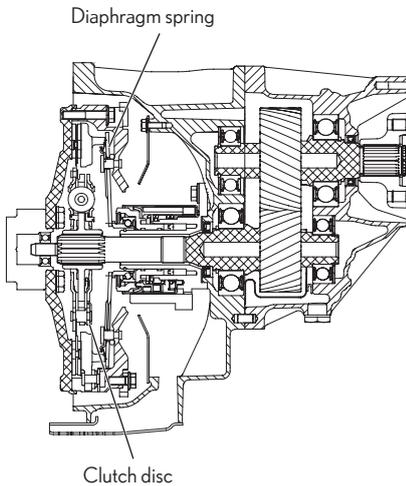
When in a manually shifted driving mode, the shift speeds may be tailored to the driver's preferences. Using the shift speed selector, the shift speed can be adjusted in 7 stages to a minimum shift time of approximately 0.15 seconds.

■ Dry single-plate clutch

A dry single-plate clutch has been adopted to enable a direct engagement feel. The clutch in the LFA is a hydraulically actuated unit controlled by the ECU in order to ensure quick and precise operation.

A pump within the hydraulic power unit generates the hydraulic pressure needed to operate the clutch. This pump is powered by an electric motor to ensure a stable supply of hydraulic pressure. In some cases, one can hear the sound of this electric motor operating prior to the engine starting. This operation provides the hydraulic pressure needed to disengage the clutch prior to starting the engine.

Because the LFA employs a dry single-plate clutch, it will not exhibit the slow speed creep associated with a conventional automatic transmission. The driver must normally depress the accelerator pedal to accelerate, even in ultra-slow speed situations such as a traffic jam.



The clutch disc is a compact size [9.45 in. (240 mm) diameter] and features friction material designed specifically to comply with the engine's high-output characteristics. The clutch cover is constructed from aluminum for a precisely balanced, low-inertia design that contributes to outstanding engine response.

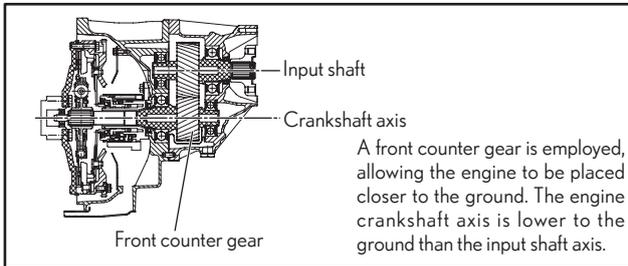
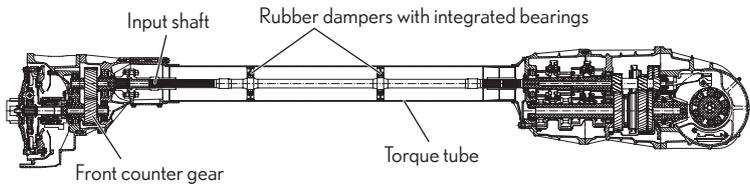
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Torque tube

Employing a torque tube to unite the front-mounted engine with the rear-mounted transaxle creates an outstanding level of powertrain rigidity.

This aspect is essential in order to extract the most performance out of a vehicle. A rigid powertrain reduces parasitic losses that occur from unwanted engine movement and input from the wheels, allowing a greater amount of power to be sent to the road and a more direct response.

Torque is transferred by means of an input shaft housed within the torque tube. This fast-spinning shaft is mounted using rubber insulators with integrated bearings to ensure quietness.



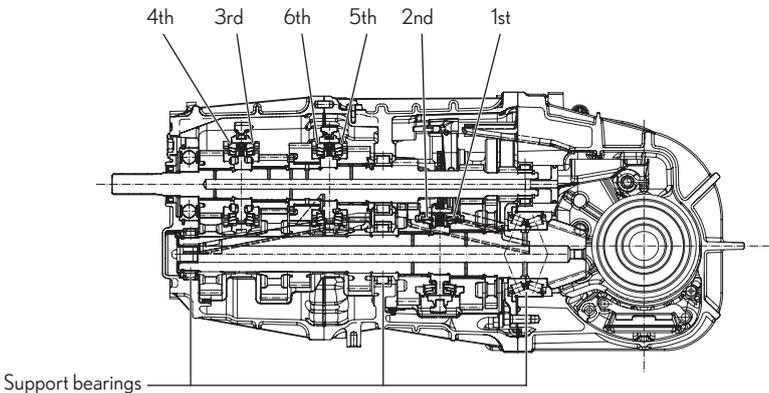
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Rear transaxle

The LFA's gear change mechanism consists of a parallel two-shaft layout often used in modern manual transmissions. In the LFA, the transmission and differential are integrated and placed near the rear axle, thus realizing a rear transaxle configuration. Gear shift and select commands are sent by the ECU to a hydraulically operated shift mechanism for fast and precise operation.

To ensure ample strength and the ability to handle the engine's broad torque curve, various areas throughout the transaxle have been reinforced and high-capacity three-point contact bearings have been adopted. Furthermore, each synchronizer ring employs a high-friction carbon material to realize quicker engagement and faster shifts. Additionally, the teeth of all speed gears have been micro-polished for precise engagement and reduced gear whine.

The transaxle employs its own oil pump and oil cooling system to ensure a constant supply of oil at a stable temperature even under demanding endurance conditions.

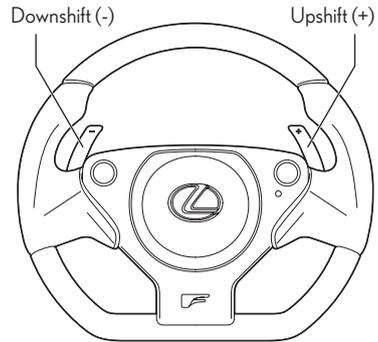


Regarding synchronizers, 1st through 4th gears employ triple-cone units while 5th and 6th gears are double-cone. A TORSEN[®] LSD (Limited Slip Differential) with a specific amount of preload dialed in has been adopted to ensure excellent traction and handling stability. S106-02

TORSEN[®] LSD is a registered trademark of JTEKT.

■ Paddle shift switches

It is understood that drivers tend to anticipate downshifts more than upshifts. To mechanically reflect this phenomenon, the downshift paddle shift switch (-) has a comparatively higher force pull than the upshift paddle switch (+) to foster a greater sense of excitement when stepping down a gear.



S106-03

Automatic processes that occur during gear changes

Engine speed control

When the driver commands an upshift, the ECU will automatically lower the engine speed to facilitate the gear change without requiring the driver to release the accelerator pedal.

Blipping control

When the driver commands a downshift, the ECU will automatically raise the engine speed in order to match the speed of the transaxle, ensuring smoother clutch engagement.

Automatic downshift control

The ECU will automatically downshift when the vehicle slows to below a predetermined speed. This will occur even in a manually shifted driving mode.

Driving mode-specific shift characteristics

The driving mode selector switch allows the driver to choose the automatically shifted AUTO mode or a manually shifted SPORT, NORMAL or WET mode and their corresponding default shift speed level. The driver may perform gear changes using the paddle shift switches while driving in a manually shifted driving mode. While the shift speed is adjustable using the shift speed selector, each driving mode has its own default shift speed setting. Shift speeds are determined by how quickly the following operations are carried out: Clutch disengagement, gear select, gear shift and clutch engagement.

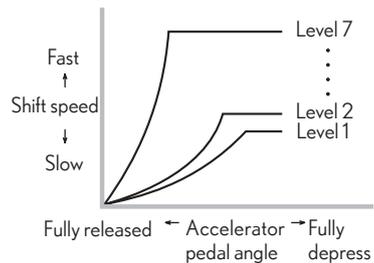
Selecting a faster shift speed will shorten the time it takes from the moment the paddle shift switch is pulled until the shift is totally completed. Faster shift speeds allow for enhanced response and near-seamless power delivery, but will also result in a greater amount of shift shock due to the speed at which the aforementioned operations are carried out. Selecting a slower shift speed will allow the clutch and gear shift/select mechanisms to operate at a more gentle pace, leading to a smoother application of torque and less shift shock.

Driving mode	Driving mode default shift speed	
AUTO	■ ■	2/7 (Non-adjustable)
SPORT	■ ■ ■ ■ ■ □ □	5/7
NORMAL	■ ■ ■ □ □ □ □	3/7
WET	■ □ □ □ □ □ □	1/7
Shift characteristics	Level 1 ↔ Level 7	
Shift speed	Slow (approx. 1 sec.) ↔ Fast (approx. 0.15 sec.)	
Shift shock	Less ↔ More	

Shift speed selector

When in a manually shifted driving mode (SPORT, NORMAL or WET), the shift speed can be adjusted from level 1 to 7 using the shift speed selector.

Shift speed is also determined by the accelerator pedal angle. The more the accelerator pedal is depressed, the shorter the shift times will be.



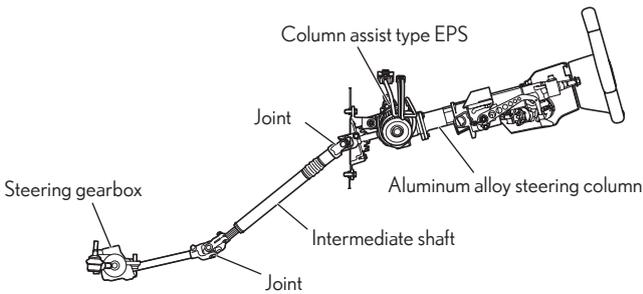
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Steering

The driver's steering inputs are conveyed by a large-diameter main shaft housed within an aluminum alloy steering column, then through a joint made as straight as possible onto the intermediate shaft. From here, inputs are mechanically transferred to the wheels by an aluminum alloy monoblock steering gearbox. This efficient flow of steering commands helps ensure a direct steering feel and precise wheel placement.

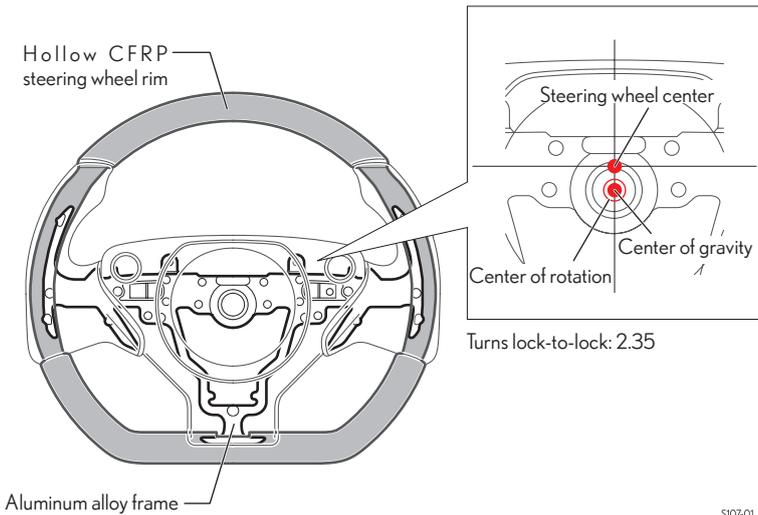


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The LFA's power steering system features a column-assist type EPS (Electric Power Steering) system. This computer-controlled system takes into account factors such as vehicle speed, steering effort and steering rate in order to provide linear steering feedback. Furthermore, the teeth of the reduction gear, a section of the motor responsible for sending large amounts of torque to the main shaft, have been coated with power grease to reduce torque fluctuations and provide smoother steering feel.

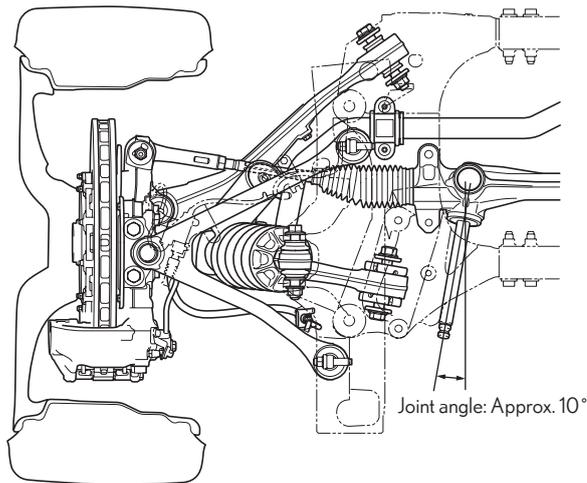
Steering wheel

The steering wheel features a flat-bottomed design that has 1.10 in. (28 mm) of the lower half cut away. This reduces the steering wheel's inertial moment and locates the wheel's rotational center and its center of gravity in almost the same place, almost completely eliminating any imbalance within the steering wheel itself, reducing the amount of steering fluctuations imparted by lateral and vertical forces. Ultimately this provides the driver with a more natural and accurate steering feel. Furthermore, the use of an aluminum alloy frame and hollow CFRP rim reduces the inertial force generated by steering inputs.



■ Steering rack and gearbox

The steering gearbox consists of a monoblock aluminum alloy rack and pinion unit mounted to the front suspension member using four rigid mounts. This allows the driver to feel as if they are solidly connected to the road. An overall steering ratio of 14.3:1 allows the driver to precisely follow their intended line through a corner.

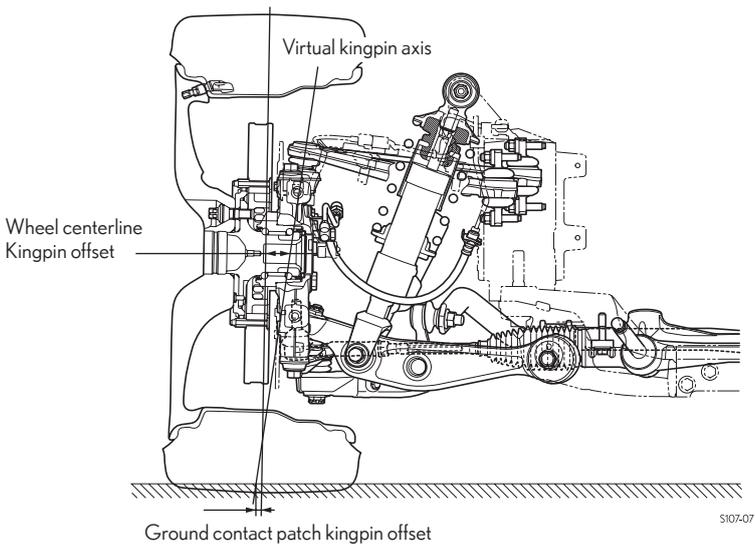


The joint between the steering shaft and gearbox is set at a narrow angle (approx. 10°) ^{S107-06} for a highly efficient connection that allows even subtle steering inputs to be accurately conveyed, keeping the LFA directly on the driver's intended path no matter what the situation, whether it be a winding road or an extremely fast straightaway.

Suspension

The LFA is equipped with a double wishbone front suspension and multi-link rear suspension.

The front suspension features two independent lower arms that shorten the offset of the virtual kingpin axis from the wheel centerline along with a slightly negative kingpin offset in order to ensure ample stability under braking. Furthermore, the low offset between the kingpin axis and wheel centerline allows for excellent road compliance and outstanding stability.



Regarding suspension adjustments:

The LFA is equipped with adjustable coil spring perches in order to allow for any fine tuning needed to keep the geometry optimized at all times. Each LFA is shipped from the factory with the suspension adjusted to the optimal settings.





Braking

The LFA is equipped with an ECB (Electronically Controlled Brake) system. When the brake pedal is depressed, information on how much force is being used to depress the pedal and the amount it is depressed is sent to the ECB computer. This computer takes into account the vehicle's overall condition using inputs from various sensors and distributes the optimal amount of brake force to each individual wheel.

The ECB system uses an electric pump to generate hydraulic pressure, thereby providing braking power without relying on engine vacuum. The use of this technology ensures a consistent supply of effective braking power.

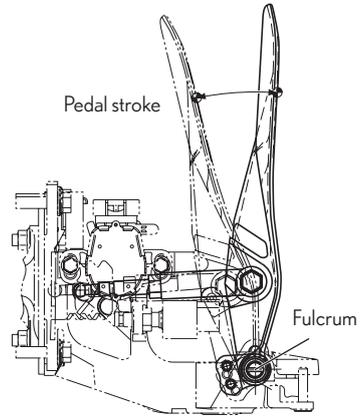
However, the detail behind the LFA brake system does not end with the ECB system. Monoblock calipers and CCM (Carbon Ceramic Material) discs are just a few of the other components that give the LFA its generous braking power. Furthermore, large brake ducts have been proactively integrated in order to feed the brakes fresh, cold air to keep them working at their optimum temperature for consistent performance.

Regarding the brake override system:

If the driver depresses the brake and accelerator pedals at the same time or if the ECU judges that both acceleration and braking commands are being issued, braking will be prioritized. The system will ignore the signal from the accelerator pedal, close all throttle valves and provide the appropriate amount of braking force demanded by the driver's braking effort.

■ Brake pedal

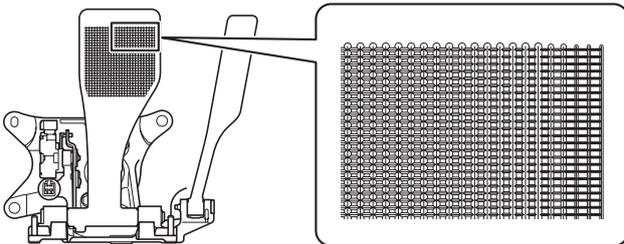
The LFA employs a floor-mounted brake pedal. The pedal has been designed to rest solidly against the sole of the driver's foot for enhanced pedal feel, while the floor-mounted fulcrum is positioned in close proximity to the driver's heel, stabilizing ankle movement and allowing the pedal to move in a more natural-feeling arc. These aspects make the pedal feel as if it is an extension of the driver's own foot, enabling precise control and modulation.



S108-01

Anti-slip pattern:

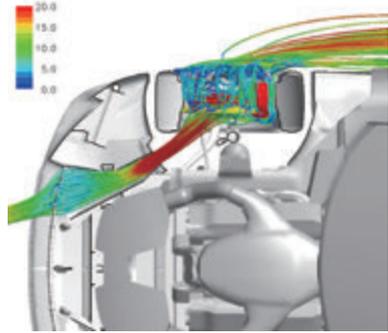
The pedal features a rough textured section, which is thicker in the center for a firm grip and tapers down towards the sides to allow the driver to switch between the brake and accelerator pedals easily.



S108-06

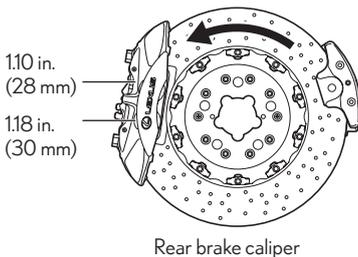
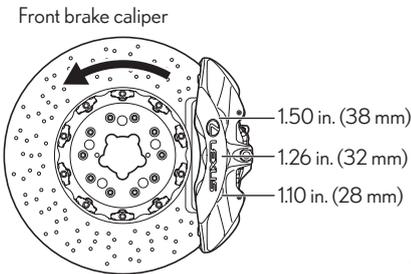
■ Brake caliper

The LFA features front 6-piston and rear 4-piston aluminum alloy monoblock calipers with differential piston bore sizing. This design takes advantage of what is known as the 'self-servo effect', allowing pressure from the unequally sized pistons to push the pad against the rotor in a progressive pattern, with the leading piston applying the least force and the trailing edge applying the most. This wedge shape uses the rotational movement of the disc to help the brake pads 'bite' into the disc with more effective pressure distribution, optimized pressure equalization that helps realize a more consistent supply of stopping power. The LFA also features track-bred brake cooling ducts in the front bumper and aerodynamic under covers designed to channel fresh, cool air to the brake system.

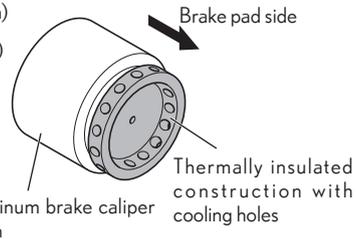


The shape of the cooling ducts in the front bumper and contours of the under covers have been designed to direct cool air directly at the brake discs.

S108-03



Each brake caliper piston (Front: 12 Rear: 8) employs a thermally insulated aluminum construction with cooling holes to help prevent the brake fluid from boiling for enhanced high-temperature endurance.



Parking brake calipers have been adopted in order to lower vehicle weight. A switch-operated EPB (Electric Parking Brake) function has been adopted.

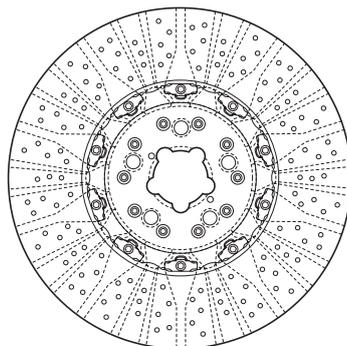
S108-04

■ Brake discs

Each brake disc is made from CCM (Carbon Ceramic Material) and features a two-piece floating construction with an aluminum center hat. With this construction, disc deformation due to expansion at high temperatures is more effectively mitigated; thereby enabling a more consistent application of pressure from the brake pads for stable and confidence-inspiring brake performance under any circumstances.

CCM discs provide the high stopping power and thermal capacity needed to provide consistent braking at high speeds.

The discs are impregnated with silicone material to ensure outstanding stopping power and endurance when they are not yet at optimal operating temperature or in wet conditions. However, one should avoid spraying water directly onto a hot brake disc. Furthermore, CCM discs are susceptible to microscopic cracking and local damage resulting from a direct impact. Care is required when installing a tire and wheel as accidental contact may result in damage.

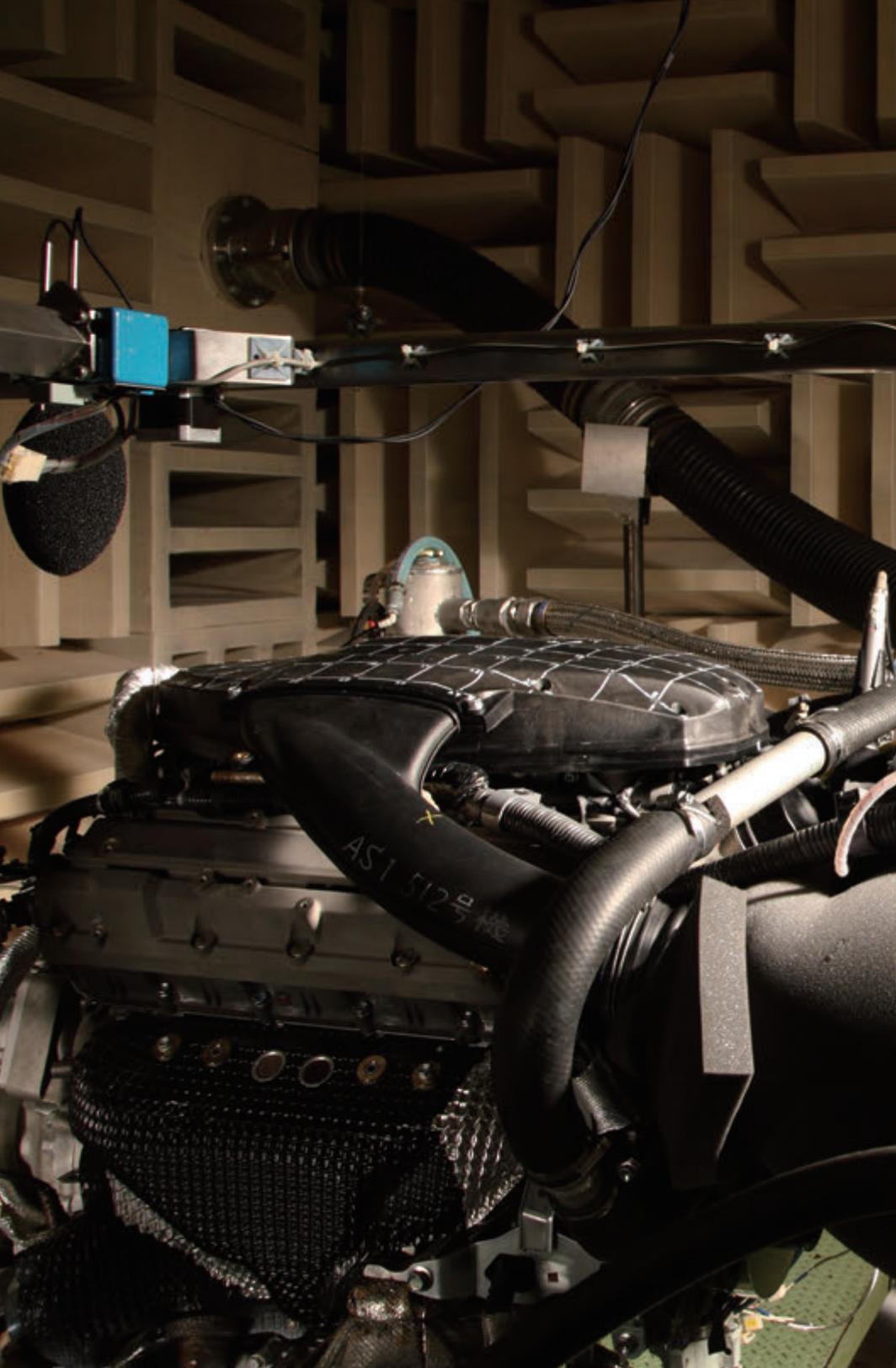


The disc diameters are 15.35 in. (390 mm) for the front and 14.17 in. (360 mm) for the rear. Both front and rear discs are ventilated with 0.20 in. (5 mm) diameter drilled cooling holes. The adoption of CCM as opposed to conventional cast-iron results in a reduction in unsprung weight of approximately 11.03 lb. (5 kg) per wheel.

S108-05

Bedding-in new brake pads or rotors:

In order to ensure maximum performance from a set of replacement CCM discs or brake pads, it is necessary to bed them in. Please consult your Lexus dealer regarding the appropriate bedding procedure. The LFA is shipped from the factory with pre-bedded CCM discs and brake pads.





Checking the engine

Components expected to operate at high speeds have been made as light and precise as possible, realizing a superfast engine capable of revving from idle to 9,000 rpm in only 0.6 seconds.

In order to ensure adequate lubrication under high G-loads, a dry sump lubrication system has been adopted.

The engine oil is cooled by a liquid-cooled oil cooler located in the valley between each bank of cylinders and an air-cooled oil cooler housed within the front overhang. In addition, two high-performance radiators have been housed within the rear overhang for an optimal front-rear weight balance.

A TFT LCD panel has been adopted to accurately transmit various information from the engine to the driver. An analog-style digital tachometer displays engine speed while other real-time engine information is displayed digitally for both superior visual clarity and response.

An acrylic lens with a metal ring is positioned at the center of the meter to clearly display the primary instruments and to create a three-dimensional appearance.

Meter layout

The speedometer and tachometer are located in the center of the meter, serving as the primary interface between the vehicle and the driver. The engine coolant temperature and the engine oil temperature gauges are located at the top of each corner, while the engine oil pressure gauge is located below the engine oil temperature gauge. This minimizes eye motion, allowing the driver to understand the vehicle's condition at a glance.



- 1 Speedometer
- 2 Tachometer
- 3 Engine coolant temperature gauge
- 4 Engine oil temperature gauge
- 5 Engine oil pressure gauge
- 6 Fuel gauge
- 7 Oil level display (selectable from the menu display)

Tachometer

A TFT LCD panel allows for the tachometer needle to be ultra-responsive while retaining an analog look. This allows the driver to witness the amazing response of the engine visually while also being treated to its exhilarating acoustics.

To protect the engine when the coolant temperature is low, the tachometer red zone display changes from between 4,400 to 9,000 rpm.



The maximum engine speed is displayed.



One of three colors can be chosen for the tachometer needle.

Digitalization with the looks of an analog tachometer

When idling, the tachometer display is not digitally processed in order to express the raw, characteristic fluctuations of a traditional analog needle.

When the needle needs to keep up with fast response, the tachometer display is digitally processed to create smooth needle movement with an afterimage of the needle.

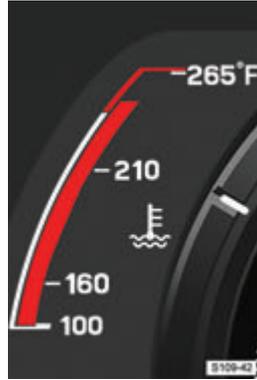


■ Engine coolant temperature gauge

The engine coolant temperature gauge displays the coolant temperature between 100 and 265°F (40 and 130°C). When the coolant temperature exceeds 244°F (118°C), a buzzer will sound and the bar display will blink in red and white to inform the driver of abnormally high coolant temperatures.



During high-speed driving: approximately 176 to 194°F (80 to 90°C)
Idling: approximately 203°F (95°C)
[Outside air temperature approximately 68°F (20°C)]



Blinks when temperature exceeds 244°F (118°C)

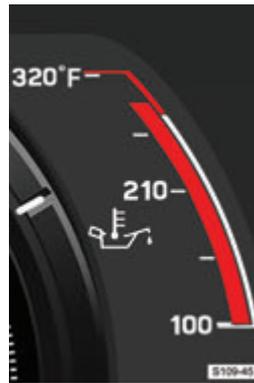
Each bank of cylinders has its own engine coolant temperature sensor. The ECU calculates the engine coolant temperature from both of these sensors and informs the driver using the engine coolant temperature gauge.

■ Engine oil temperature gauge

The engine oil temperature gauge displays the oil temperature from 100 to 320°F (40 to 160°C). When the oil temperature exceeds 284°F (140°C), a buzzer will sound and the bar display will blink in red and white to inform the driver that the oil temperature is abnormally high and that the performance and lifespan of the oil is severely compromised. Allowing the engine oil to cool and maintain a stable temperature helps to stabilize its performance.



During high-speed driving: approximately 176 to 194°F (80 to 90°C)
[Outside air temperature approximately 68°F (20°C)]



Blinks when temperature exceeds 284°F (140°C)

An oil temperature sensor is installed near the oil filter to monitor the temperature of the engine oil supplied by the oil pump. The ECU processes the engine oil temperature from this sensor and informs the driver using the engine oil temperature gauge.

■ Engine oil pressure gauge

The engine oil pressure gauge displays the engine oil pressure from 0 to 800 kPa. The rapid response of the TFT LCD panel allows for the fluctuations in engine oil pressure that occur with engine speed to be displayed instantly. The engine oil pressure is also affected by other factors such as engine oil type, temperature and deterioration. If the engine oil pressure is too low, the master warning light comes on and the “Engine oil pressure low” warning message is displayed. Checking the engine oil pressure regularly aids understanding of the condition of the engine and engine oil.



During high-speed driving: approximately 400 to 800 kPa
(changes depending on driving conditions)
[Outside air temperature approximately 68°F (20°C)]



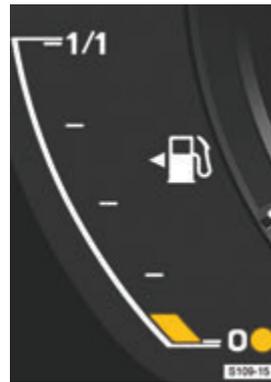
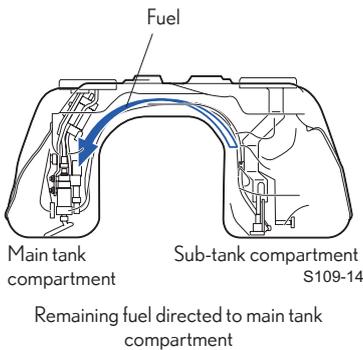
When oil pressure is insufficient

An oil pressure sensor is installed near the oil filter.

The oil pressure measurements are processed by the ECU and displayed by the engine oil pressure gauge.

Fuel gauge

The fuel gauge displays the amount of fuel remaining on a scale of 0 to 1/1. The saddle-shaped fuel tank consists of a main tank compartment and a sub-tank compartment. When the fuel level drops to approximately 2.9 gal. (11 L, 2.4 Imp. gal.) between both compartments, the bar display will blink in amber to inform the driver that the remaining fuel level is low. In this state, the remaining amount of fuel is directed into the main tank compartment in order to ensure a stable supply of fuel to the engine even under high cornering G-loads.



Blinks when remaining fuel drops to approx. 2.9 gal. (11 L, 2.4 Imp. gal.)

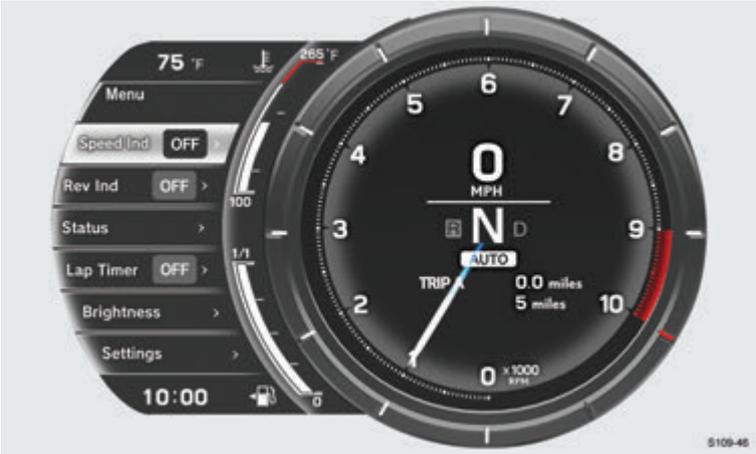
The main tank compartment and sub-tank compartment each have their own individual sender gauges to monitor the fuel levels. The ECU calculates the total amount of fuel remaining from both of these sensors and informs the driver using the fuel gauge. The ECU digitally processes the fuel level data in order to display a clear and accurate fuel level even when the fuel level fluctuates under high cornering G-loads.





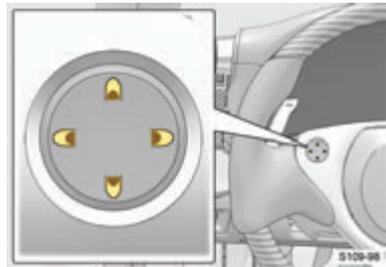
Using the meter

When the control pad on the steering wheel is pressed to the right, the ring moves with the display to the right of the screen in order to accommodate the menu. The meter can be customized to display various functions.



Using the menu

- 1 Press right on the control pad to show the menu display.
- 2 Press up and down on the control pad to select the menu item.
- 3 Press right on the control pad to go to the next display. Follow the instruction shown on the display.
- 4 When setting is complete, press and hold left on the control pad to return to the normal display.



Pressing left once on the control pad shows the previous display.

Menu structure

Speed Ind		The color will change and a buzzer will sound when the vehicle reaches a set speed.
Rev Ind		The color will change and a buzzer will sound when the engine speed reaches a set speed.
Status	Trip Info	Indicates the instantaneous fuel consumption, average vehicle speed, average fuel consumption, and driving range.
	Oil Level	Shows the amount of engine oil in the oil tank.
	Oil Maintenance	Indicates engine oil replacement timing. (Be sure to reset after replacing the oil.)
	Tire Pressure	Shows inflation pressure of each tire.
Lap Timer		Measures and shows lap times.
Brightness		Allows driver to adjust the brightness of the meter and interior illumination.
Settings	Needle	Allows driver to change the color of the tachometer needle.
	Rev Peak	Retains an image of the tachometer needle at the highest engine speed attained prior to an upshift or deceleration.
	Clock	Allows driver to adjust the displayed time and choose between 12-hour (12H) and 24-hour (24H) mode.
	Shortcut	Allows driver to jump to a preset display.
	Units	Changes units of the displayed speed, odometer readings and fuel consumption between MPG, L/100 km and km/l.
	Temp	Changes the display temperature between Celsius and Fahrenheit.
	Language	Changes the language displayed.

When a warning is displayed on the meter, the "Menu" text at the top of the menu screen will change to "Warning".

Oil level

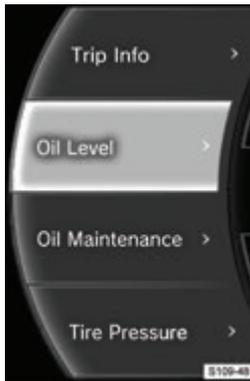
An oil level sensor is installed in the oil tank to measure the amount of oil present. The reading from this sensor is displayed to the driver. This allows the engine oil level to be checked simply by operating the control pad, without needing to get out of the vehicle.

Measurement

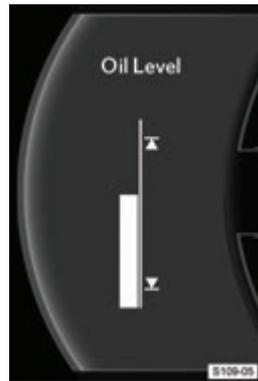
1 Select "Status"



2 Select "Oil Level"

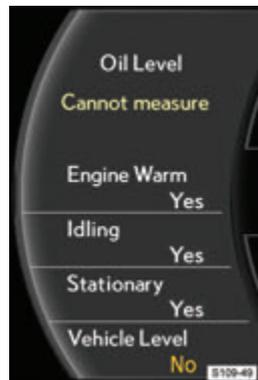


3 Displays measurement result



Measurement is possible when the following conditions are met:

1. Engine oil temperature: Between 203 and 230 °F (95 and 110°C)
2. Engine speed: Between 900 and 1,100 rpm
3. Vehicle status: Stationary and idling
4. Vehicle level: Allowable inclination of 4 degrees or less.



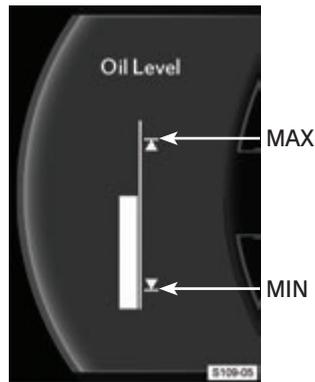
Example of display when conditions are not met

Checking and topping up the oil level

The LFA uses a dry-sump oil system to circulate the engine oil between the engine and the oil tank. Therefore, depending on the conditions, the level of oil in the oil tank can vary greatly.

Cautions when checking the oil level

- In order to attain the most accurate measurement, leave the engine running after driving and check the oil level while the engine is idling. The oil level will take time to stabilize if the engine is stopped and started again.
- As the engine oil level in the oil tank varies depending on the driving condition of the vehicle immediately before measurement, the results may vary even if the overall oil amount is constant.



Cautions when topping up the oil level

- Ensure that the oil level does not fall below the MIN marking.
- The space between the MAX and MIN markings represents approximately 2.1 qt. (2.0 L, 1.8 Imp. qt.). While the oil may be topped up as required, never add more than 0.5 qt. (0.5 L, 0.4 Imp. qt.) at one time.
- Even if the oil level is below the MAX mark, do not add more oil than necessary.

Oil level gauge

- The oil level gauge installed on the oil tank is for oil changes. Do not use it to check the current oil level.

■ Over rev warning

When the engine speed enters the red zone, a red ring will appear within the tachometer display area to warn the driver even if they are focused solely on the road.



■ Rev Indicator (Except in auto mode)

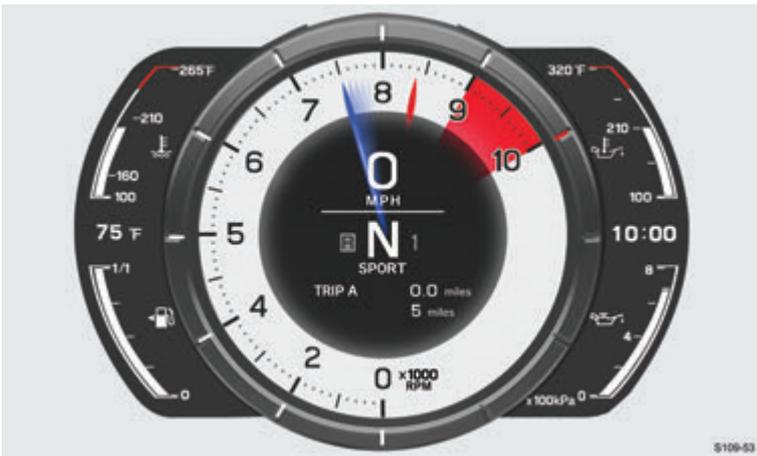
When the engine reaches a set speed, a green or amber ring will appear within the tachometer. The selectable engine speed range is between 4,000 and 9,000 rpm. (Green or amber indicators can be selected to show according to set engine speeds.) This visual indication allows the driver to quickly grasp the engine speed without having to read the tachometer needle and time their upshifts accordingly even when they are focused solely on the road.



■ Rev Peak

An afterimage of the tachometer needle at the highest engine speed attained prior to an upshift or deceleration will be retained for approximately 0.5 seconds. This function simulates the “telltale needle” used in traditional analog racing tachometers to help the driver time their upshifts and check over-revs on downshifting etc.

The Rev Peak function can be turned on or off from “Settings” on the menu display.



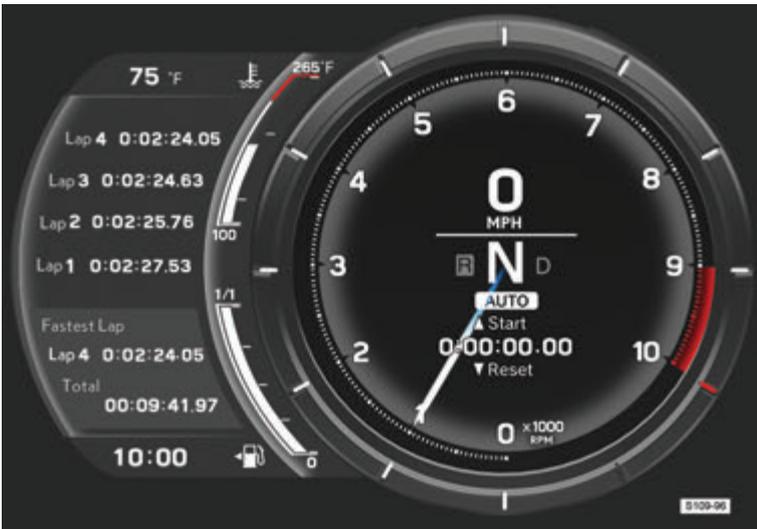
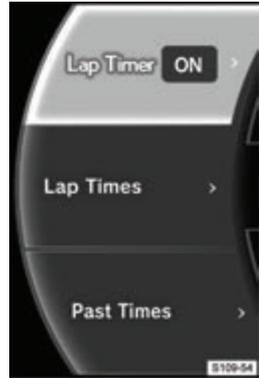
The color of the tachometer needle afterimage will change in accordance with that of the actual tachometer needle.

Tachometer needle color	Tachometer afterimage needle color
Blue	Red
Red	Blue
White	Blue

Lap Timer

The stopwatch function is available by selecting “Lap Timer” from the menu.

In addition to the stopwatch function, lap time list, fastest lap time and total time can also be displayed. Measurement of time to destination, section time, etc. is also available.







Section 02

- Maintaining the vehicle's exterior
- Maintaining the vehicle's interior

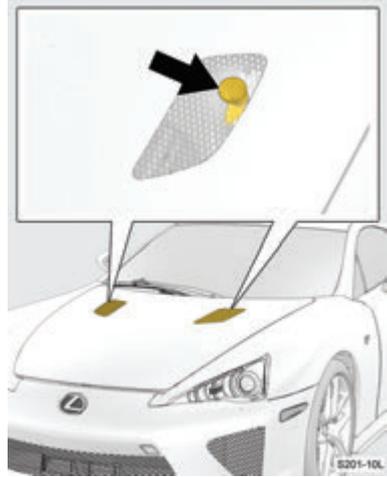
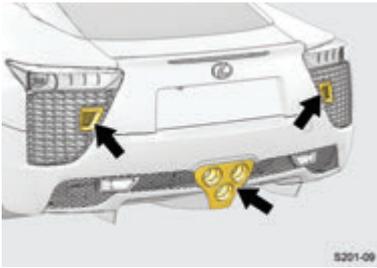
Maintaining the vehicle's exterior

■ Washing the vehicle

To prevent paint deterioration and corrosion on the body and components (wheels etc.), wash the vehicle immediately if it becomes dirty. Hand washing is recommended to preserve the paint finish.

- 1 Working from top to bottom, liberally apply water to the vehicle body, wheel wells and underside of the vehicle to remove any dirt and dust.
- 2 Wash the vehicle body using a sponge or soft cloth, such as a chamois.
- 3 For hard-to-remove marks, use a neutral detergent and rinse thoroughly with water.
- 4 Wipe away any water.

When washing the vehicle, be careful not to touch the hood grilles, bezels in the radiator grilles, or exhaust pipes and surrounding area until they have cooled sufficiently, as these components may cause burns.



- Do not apply water to the inside of the engine compartment. Doing so may cause the electrical components etc. to catch fire.
- Do not flush water over or into the hood grilles (especially the arrowed portion in the illustration).
- Do not flush water over or into the exhaust pipes and surrounding area or the bezels in the radiator grilles until they have cooled sufficiently.

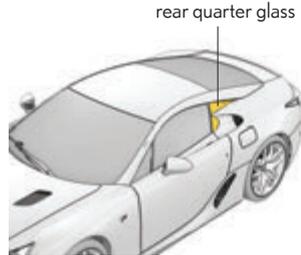
When using a high-pressure washer

- Do not aim the head of the nozzle at the hood grilles or radiator grilles. Doing so may negatively affect the engine or cause a malfunction in the electric cooling fan motors that may result in overheating.
- Do not allow the nozzles of the car wash to come within close proximity of the windows or rear hatch.

Do not use automatic car washes as they may scratch the vehicle body and damage the paint.

■ Rear quarter glass

The rear quarter glass is made from polycarbonate resin. As this material is easily scratched compared to conventional glass, observe the following procedure when cleaning:



S201-12L

- 1 Remove dust and dirt on the surface with plenty of water.
- 2 Clean the surface using a mild soap or neutral detergent.
- 3 Rinse it with adequate water.

When cleaning the rear quarter glass:

- Do not use wax, window cleaner or abrasive cleaner.
- Do not touch glass surface with anything hard or sharp.
- Do not use window scraper or deicer.

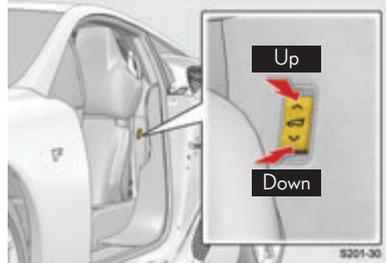
Do not attach stickers or apply water repellent coating to the rear quarter glass. Contact with glue or other agents may cause the glass to become cloudy or blemished.

■ Active rear wing

The active rear wing can be manually operated to allow excess water to be removed after the vehicle is washed.

Manual operation is only possible when the vehicle is stationary with the ignition switch in the "ON" position.

If the active rear wing is left in the raised position, it will automatically retract when the vehicle speed exceeds 16 MPH (25 km/h).



S201-30

Before operating the switch to manually retract the active rear wing, make sure that the area surrounding the wing is clear. Watch the active rear wing while operating the switch to ensure that the operation proceeds smoothly.

■ Waxing the vehicle

When water no longer clearly beads on the vehicle's painted surfaces, apply a non-abrasive wax.

Using waxes that contain abrasive compounds may damage the paint finish.

Do not use wax on vehicles painted "Matte Black".

Special selection color "Matte Black"

The special selection color "Matte Black" overlays a black base with a clear coating. This coating is made up of microscopic silica particles mixed into a clear resin that cancels out shine.

Applying excessive pressure to the painted surfaces may damage the resin coating and result in an uneven or marred finish. To prevent this from occurring, rinse the vehicle using a liberal amount of water and make sure to only use a soft sponge or chamois when washing the vehicle.

Do not apply wax.

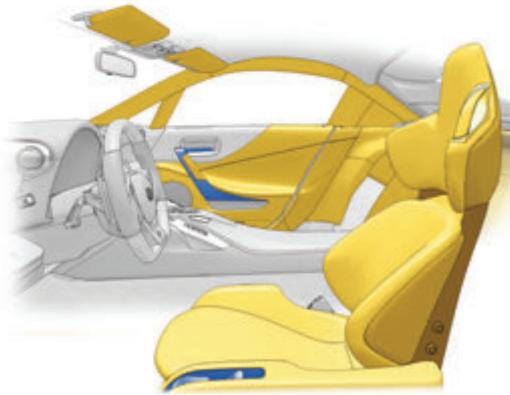
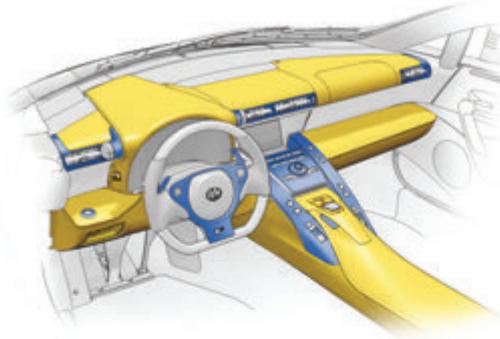
Doing so will leave a thin layer of wax on the clear resin coating that cannot be evenly removed, causing the matte finish to appear blemished and uneven.

Quickly wipe away anything that adheres to the painted surfaces

Leaving alkaline liquids such as washer fluid on the paint surface may leave marks or otherwise damage the paint. Quickly wipe away anything that adheres to the painted surfaces.

Maintaining the vehicle's interior

Materials used for each component



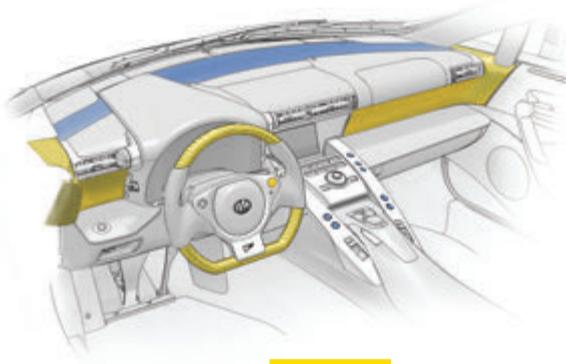
Genuine leather and Alcantara®



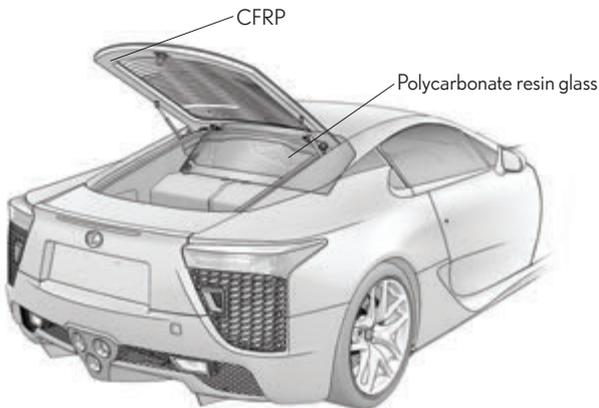
Satin finish metal accent

5202-11L

"Alcantara®" is a registered trademark of Alcantara S.p.A.



-  Clear-coated CFRP
-  Matte-coated CFRP



■ Maintaining the genuine leather areas

The leather areas throughout the interior are colored with water-soluble dyes and feature a light pigmentation applied to the outer surface.

The leather is dyed to the desired hue from its original color of grey and then imbedded with pigments to increase its durability. As a natural material, the leather is supple and comfortable, breathable and moisture permeable.

■ Daily maintenance

Remove dirt and dust using a vacuum cleaner and then wipe with a soft, dry cloth. For cleaning, follow the procedure below:

- 1 Wipe off any excess dirt and dust with a soft cloth dampened with diluted detergent. Use a diluted water solution of approximately 5% neutral wool detergent.
- 2 Wring out any excess water from the cloth and thoroughly wipe off all remaining traces of detergent.
- 3 Wipe the surface with a dry, soft cloth to remove any remaining moisture. Allow the leather to dry in a shaded and ventilated area.

Do not use any protective agents (coatings etc). Doing so may cause the instrument panel to reflect onto the windshield, obstructing the front view.

■ Maintaining the Alcantara® areas

Alcantara® is an artificial leather made from nonwoven micro fiber impregnated with synthetic resins.

Durable, dirt proof and fire-resistant, this material offers suede-like softness with ample breathability and moisture permeability.

■ Daily maintenance

Brush the surfaces using a soft brush. Do not brush hard as doing so may cause damage. For difficult to clean areas, follow the procedure below:

- 1 Wipe the surfaces clean with a soft cloth that has been dampened in cold or lukewarm water and squeezed out.
- 2 Allow the artificial leather to dry in a shaded and ventilated area.

"Alcantara®" is a registered trademark of Alcantara S.p.A.

■ Maintaining the CFRP (Carbon Fiber Reinforced Plastics) areas

Some interior components such as the instrument panel and rear hatch are made from the same CFRP material as the main body shell. These exposed components feature a deep and three-dimensional presence with a special clear coating.

Additionally, panels underneath the windows have a matte coating to prevent glare and reflections.

■ Daily maintenance

For cleaning, follow the procedure below:

- 1 Wipe dirty surfaces with a dampened soft cloth or synthetic chamois.
- 2 Wipe away any remaining moisture with a soft, dry cloth.

- Do not rub the matte coated surfaces strongly as doing so may damage the surface or cause it to shine.
- Do not use wax, polish or polishing cleaners. Especially use caution around the instrument panel, as improper care may cause the instrument panel to reflect off of the windshield, obstructing the driver's front view.

■ Maintaining the Satin finish metal accent

Areas such as the console and air vents feature satin-finish metal accents.

■ Daily maintenance

For cleaning, follow the procedure below:

- 1 Wipe dirty surfaces with a dampened soft cloth or synthetic chamois.
- 2 Wipe away any remaining moisture with a soft, dry cloth.

■ Maintaining the polycarbonate resin glass

The partition glass is made from the same polycarbonate resin glass as the rear quarter glass.

■ Daily maintenance

Wipe with a soft, damp cloth.

If cleaning is necessary, follow the procedure below:

- 1 Remove dust with a soft, damp cloth.
- 2 Clean the surface using a mild soap or neutral detergent.
- 3 Remove residual soap or detergent with a dampened cloth.
- 4 Wipe away any remaining moisture with a soft, dry cloth.

- Do not use wax, window cleaner or abrasive cleaner.
- Do not touch glass surface with anything hard or sharp.
- Do not attach stickers to the partition glass. Contact with glue or other agents may cause the glass to become cloudy or blemished.





Section 03

- Advice for long-term storage
- If the vehicle battery is discharged
- When transporting the vehicle

Advice for long-term storage

Refer to the following points in order to preserve the performance and appearance of the LFA during long-term storage. These points are only guidelines. To ensure that appropriate steps are taken in consideration of the storage duration and environment, consult your Lexus dealer in advance.

■ Storage environment

A dry, covered, flat location away from natural elements such as wind, rain and direct sunlight is ideal.

Exposure to the elements can cause corrosion and scratches, while long-term exposure to direct sunlight can cause the interior and exterior finish to fade or become discolored. Additionally, as moisture from the ground may cause corrosion even if the vehicle is stored in a covered location, a dry place is ideal.

■ Cleaning

As dirt becomes harder to remove with time, both the vehicle's interior and exterior should be cleaned before the vehicle is put into long-term storage.

■ Tires

Inflate the tires to approximately 44 psi (300 kPa, 3.0 kgf/cm² or bar,) and use wheel chocks to prevent the vehicle from moving.

In order to help reduce flat spots from occurring during storage, regularly rotate the tires so that the same point is not always resting on the ground. Additionally, if the tires develop flat spots during the storage interval, drive the vehicle slowly until any flat spot-induced vibrations are no longer felt before resuming normal use.

■ Parking brake

Use wheel chocks to prevent the vehicle from moving as it should be stored with the parking brake disengaged.

Battery

Removing the specified fuse helps to suppress parasitic current.

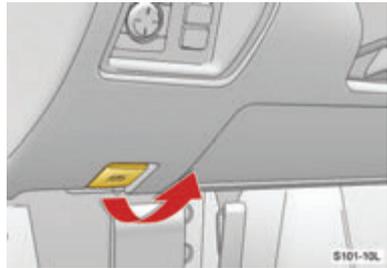
However, as the battery naturally loses its charge over time, it may become discharged if the vehicle is stored for more than several months.

If the vehicle battery is discharged (→ P. 94)

Remove the fuse

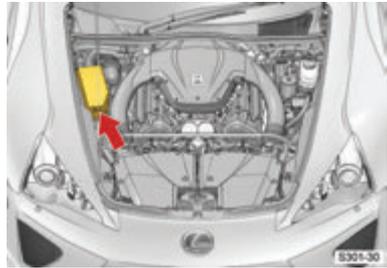
- 1 Turn the ignition switch to the "LOCK" position.
- 2 Open the hood.

Hood (→P. 12)



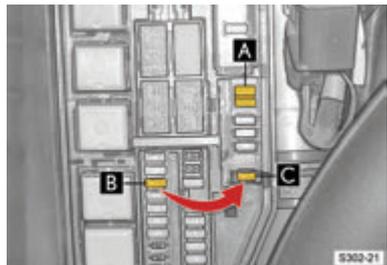
- 3 Open the fuse box lid in the engine compartment.

Push the tabs in and lift the lid off.



- 4 While referring to the back of the fuse box lid for the location, use the pull-out tool A to remove the "D/C CUT" fuse B and put it into C.

Make sure that the fuse is firmly inserted.



If the vehicle battery is discharged

If the battery is fully discharged or has insufficient charge, perform the following procedures to gain vehicle access, release the parking brake and use another live battery to start the engine:

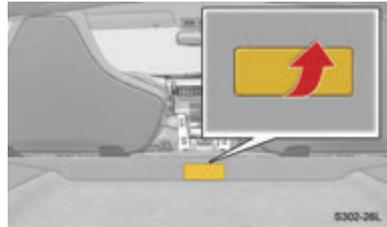
■ Unlocking the doors

The doors can be unlocked using the master or valet keys.

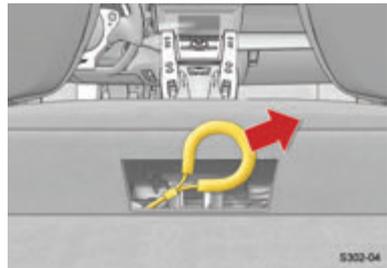


Manually unlocking the rear hatch

- 1 Remove the cover.



- 2 Pull the cable.



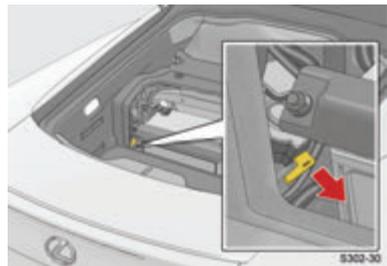
Manually unlocking the fuel filler door

- 1 Open the rear hatch and remove the cover.

Manually unlocking the rear hatch
(→ P.95)



- 2 Pull the lever.



■ Manually releasing the parking brake

Apply wheel chocks before manually releasing the parking brake.

- 1 Open the rear hatch and remove the cover.

Manually unlocking the rear hatch
(→ P. 95)



- 2 Release the belt and take out the tool bag.

Take the parking brake release tool and the screwdriver handle out of the tool bag.

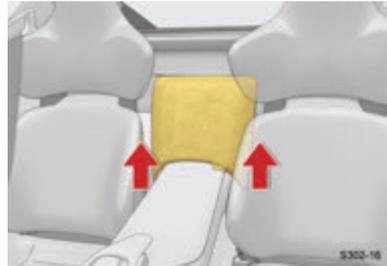


- 3 Install the parking brake release tool into the screwdriver handle.

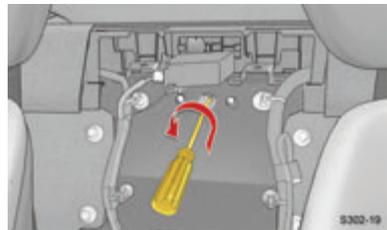


- 4 Remove the cover.

Hold both sides of the bottom edge and raise the cover.



- 5 Insert the tool and press it down firmly while turning it counterclockwise until it stops.



Starting the engine by connecting an external battery

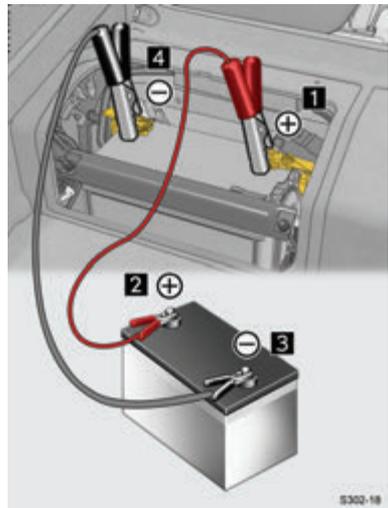
- 1 Open the rear hatch and remove the battery cover.

Manually unlock the rear hatch (→ P. 95)



- 2 After removing the positive (+) battery terminal cover and checking that the negative (-) terminal is securely fixed in place, connect the jumper cables in the following order:

1. Connect the positive (+) jumper cable to the LFA battery's positive (+) terminal.
2. Connect the other end of the positive (+) jumper cable to the external battery's positive (+) terminal.
3. Connect the negative (-) jumper cable to the external battery's negative (-) terminal.
4. Connect the other end of the negative (-) jumper cable to the LFA battery's negative (-) terminal.



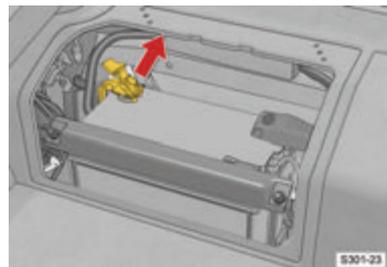
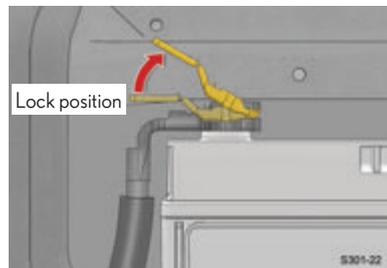
To prevent thermal damage to the LFA's CFRP (Carbon Fiber Reinforced Plastics) body, ensure that the jumper cables are securely attached to the battery terminals and are not in contact with any CFRP parts.

- 3 Allow the battery to charge for a while, and then start the engine.
- 4 When the engine has started, remove the jumper cables in the exact reverse order of how they were connected.

Negative battery terminal structure

The LFA's battery terminals can be disconnected by raising the lever and disconnecting the terminal.

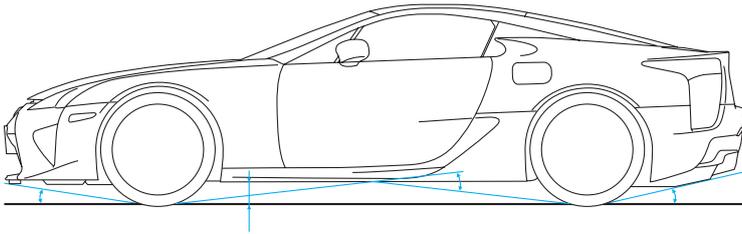
When reconnecting the terminal, make sure that the lever is lowered into the lock position.



When transporting the vehicle

Use a flatbed truck suitable for vehicles with low ground clearance. To prevent body damage, do not tow with a wheel-lift or sling type truck. We recommend having your Lexus dealer or a commercial towing service load and unload the vehicle whenever possible.

Please refer to the following dimensions when choosing an appropriate tow/transport vehicle.



Approach angle	Minimum ground clearance	Break-over angle	Departure angle
7.1 degrees	4.3 in. (110 mm)	11.1 degrees	11.6 degrees

Loading the vehicle onto a transport vehicle

- 1 Open the rear hatch and remove the cover.

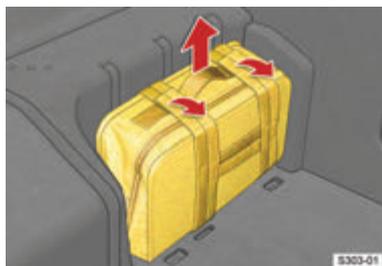
Rear hatch opener switch (→ P. 12)

Manually unlock the rear hatch (→ P. 95)



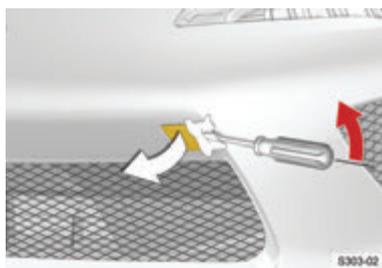
- 2 Release the belt and take out the tool bag.

Take the towing eyelet and flathead screwdriver.



- 3 Remove the eyelet cover using a flathead screwdriver.

To protect the bodywork, place a rag between the screwdriver and the vehicle body, as shown in the illustration.



- 4 Insert the towing eyelet into the hole and tighten partially by hand.



- 5 Completely lower the transport vehicle's flatbed and attach its cable to the towing eyelet.

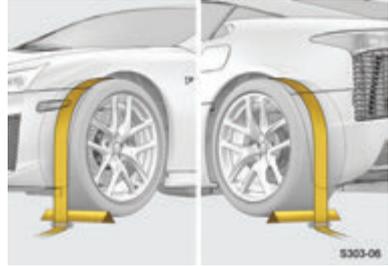
- 6 Slowly wind up the transport vehicle's cable, being careful to avoid contact between the LFA and the flatbed.

Use additional ramps if necessary.



- 7 Select Neutral, engage the parking brake, and turn the ignition switch to the "LOCK" position.
- 8 When the LFA is completely loaded onto the transport vehicle, secure it with tire belts and chocks.

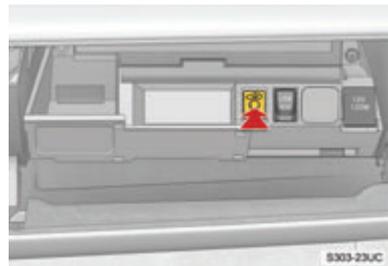
Be careful not to damage the tires with the edge of the chocks.



Disabling the tilt sensor

If the tilt sensor is left on when loading the LFA onto a transport vehicle, the auto alarm may activate.

- 1 Stop the engine and remove the key.
- 2 Press the tilt sensor cancel switch located inside the glove box.
- 3 While the indicator is flashing faster than normal, close all the doors and lock the vehicle using the wireless remote control.







FLAGSTICK TIME LAP



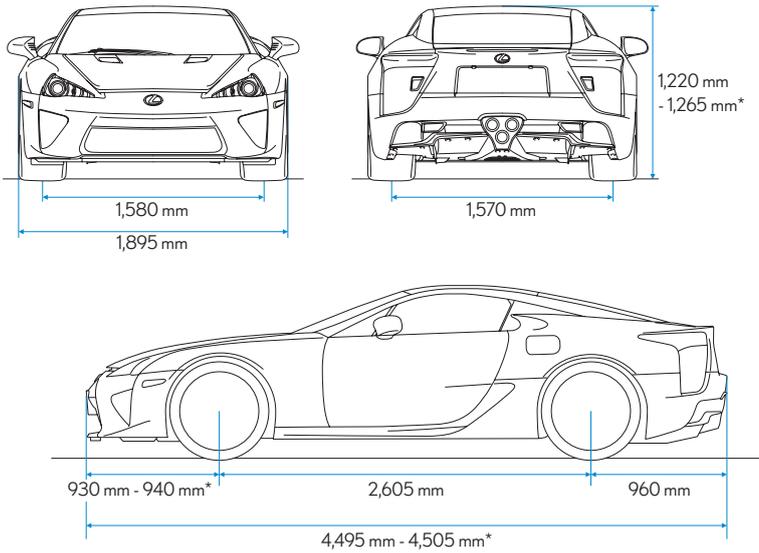
Section 04

 Technical information

Technical information

Major Dimensions & Vehicle Weights

Seating Capacity	2
Minimum Ground Clearance	110 mm
Drag coefficient	0.31
Curb Weight	1,480 kg-1,590 kg*
Gross Vehicle Weight Rating	1,660 kg-1,755 kg*
Fuel Tank Capacity (Reference)	73 L (19.3 gal., 16.1 Imp. gal.)

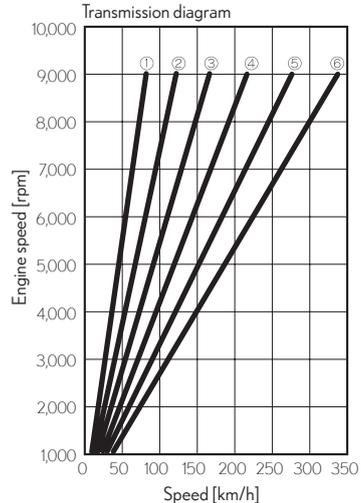
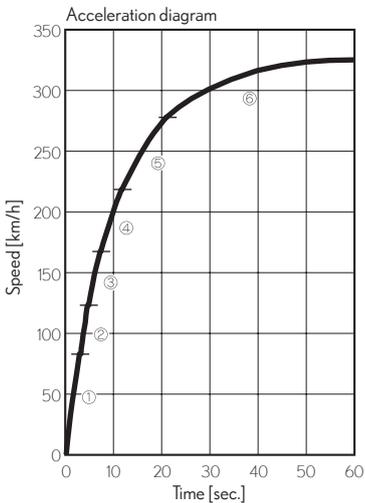


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*: Figures vary according to equipment and destination.

Performance

Max. Speed		325 km/h
Acceleration (with two occupants)	0 to 100 km/h	3.7 sec.
Max. Allowed Speed	1st	83 km/h
	2nd	123 km/h
	3rd	167 km/h
	4th	218 km/h
	5th	277 km/h
	6th	-
Turning Diameter (outside front)	Wall to Wall	6.1 m
Fuel Consumption	At 60km/h (Japanese models)	10.5 km/L
	Advertised Mileage (North American models)	11 mpg/16 mpg (city/highway)
	CO ₂ Emissions (European models)	379 g/km

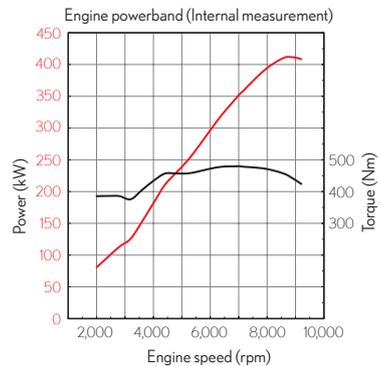
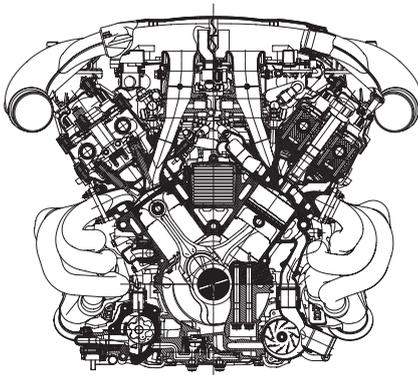


Engine

Engine Type	1LR-GUE	
No. of Cyls. & Arrangement	10-cylinders, 72°V type	
Valve Mechanism	40-valve DOHC, Rocker Arm Type	
Bore x Stroke	88.0 mm x 79.0 mm	
Displacement	4,805 cm ³	
Compression Ratio	12.0:1	
Spark Plug Type ¹	PK22HTBR-L8 (DENSO)	
Engine Oil	"Mobil 1 5W-50" API SM or SN	
Engine Oil Capacity ²	Single Oil Cooler	13.5 L (14.2 qt., 11.9 Imp. qt.)
	Twin Oil Cooler	14.5 L (15.3 qt., 12.8 Imp. qt.)
Lubrication Type	Dry Sump	
Coolant Type	Super Long Life Coolant	
Coolant Capacity	25.5 L (26.9 qt., 22.4 Imp. qt.)	
Max. Output (SAE-NET)	412 kW (560 PS) 8,700 rpm	
Max. Torque (SAE-NET)	480 Nm (48.9 kgf·m) 7,000 rpm	
Maximum Engine Speed	9,000 rpm	

¹: The spark plugs have been developed exclusively for the 1LR-GUE engine.

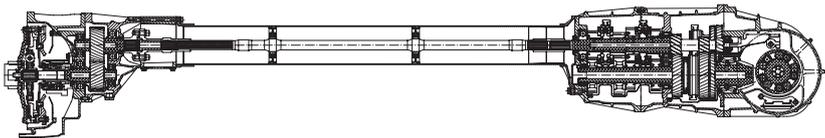
²: The figure shown is the total amount of oil contained in the engine, and not the amount of oil required for an oil change.



Clutch and Transaxle

Clutch	Type	Dry Single-Plate Clutch Diaphragm Spring
	Operation	Hydraulic Cylinder
Clutch Cover	Type	Diaphragm Spring Turnover
Clutch Disc Diameter		240 mm
Transaxle Type		ASG (Automated Sequential Gearbox)
Transaxle Model		RB60M
Front Counter Gear Ratio*		1.259
Transaxle Gear Ratios	1st	3.231
	2nd	2.188
	3rd	1.609
	4th	1.233
	5th	0.970
	6th	0.795
Rev		3.587
Differential Gear Ratio		3.417
Differential Type		TORSEN® LSD
Rear Transaxle Gear Oil	Oil Viscosity	"LT 75W-85" API GL-5
Rear Transaxle Gear Oil Capacity		5.3 L (5.6 qt., 4.7 Imp. qt.)

*: The front counter gear is lubricated by engine oil.



Brake and Tires

Brake Calipers	Front	Opposed 6-piston monoblock
	Rear	Opposed 4-piston monoblock
Brake Rotors		CCM (Carbon Ceramic Material)
Brake Rotor (diameter)	Front	φ390 mm x 34V
	Rear	φ360 mm x 28V
Brake System		ECB (Electronically Controlled Brake)
Brake Fluid Type		FMVSS No.116 DOT3
Brake Fluid Capacity	RHD	1.2L (1.3 qt., 1.1 Imp. qt.)
	LHD	1.1L (1.2 qt., 1.0 Imp. qt.)
Parking Brake		EPB (Electric Parking Brake)
Wheel Size	Front	20 x 9.5J +45
	Rear	20 x 11.5J +45
Tire Size	Front	265/35ZR20 (95Y)
	Rear	305/30ZR20 (99Y)
Suspension Type	Front	Double Wishbone
	Rear	Multi-link
Steering Gear Type		Rack and Pinion
Steering Gear Ratio		14.3
Lock to Lock		2.35
Power Steering Type		EPS (Electric Power Steering)
Stability control		VDIM (Vehicle Dynamics Integrated Management)

Electrical System

Battery Size	S75D31R
Voltage & Amp.hr. (5HR)	12V-56AH
Alternator Output	2,640 W
Starter Output	1.7 kW

Index

A	Accelerating	32	Battery dark current	93
	Accelerator pedal mechanism	32	Battery terminal disconnection	99
	Active rear wing (maintenance)	80	Bedding-in new brake pads or rotors	53
	Active rear wing (manual operation)	80	Blipping control	40
	Active rear wing (operation)	28	Bonnet	12
	Adding fuel	12	Bonnet stay	12
	Adding gasoline	12	Boot	12
	Adding petrol	12	Brake caliper	52
	Adjusting the steering wheel position	23	Brake discs	53
	Advice for long-term storage	92	Brake override system	50
	Alcantara® care	85	Brake pad bedding	53
	Alcantara® cleaning	85	Brake pad bed-in	53
	Alcantara® maintenance	85	Brake pad replacement	53
	Alignment	47	Brake pedal	51
	Aluminum center hat	53	Brake rotors	53
	Analog gauge	59	Brake system	50
	Approach angle	100	Braking	50
	AUTO mode	58	Break-over angle	100
	AUTO mode (control characteristics)	26	Brightness	67
	AUTO mode (selection)	27	C	
	Automated car-wash	79	Carbon fiber care	86
	Automatic	41	Carbon fiber cleaning	86
	Automatic downshift control	40	Cardan shaft	38
B			CCM (Carbon Ceramic Material) discs	53
	Back door	12	Ceramic brake discs	53
	Backing up	11	Ceramic brake rotors	53
	Battery		CFRP (Carbon Fiber Reinforced Plastics) maintenance	86
	(vehicle long-term storage)	93	Changing gears	36

Checking the oil level	69	Double wishbone front suspension	47
Clock	67	Downshift	40
Clutch	37	Driving mode	58
Clutch disc	37	Driving mode selection	27
Cold starting restrictions	17	Driving mode selector switch	41
Combination meter	57	Driving mode selector switch operation	23
Connecting an external battery to start the engine	98	Driving mode-linked variable throttle response	33
Control characteristics depending on driving mode	23	Driving position	20
Control pad	66	Driving position adjustment	10
Coolant temperature	60	Dry single-plate clutch	37
Coolant temperature gauge	60	Dual shaft transmission	39
Crankshaft	38		
Creep phenomenon	37	E ECB (Electronically Controlled Brake)	50
D Dark current (parasitic current)	93	Emergency brake	9
Dead battery	94	Engine	56
Default shift speed setting	41	Engine code	16
Departure angle	100	Engine coolant	60
Diaphragm spring	37	Engine coolant temperature gauge	60
Differential	39	Engine coolant temperature sensor	60
Differential oil cooler	39	Engine limiters	16
Digital display	56	Engine oil pressure	62
Disabling the theft deterrent system	102	Engine oil pressure gauge	62
Disabling the tilt sensor	102	Engine oil temperature gauge	61
Discharged battery	94	Engine overspeed	70
Disconnecting the negative (-) battery terminal	99	Engine protection mechanisms	16
Door mirror switches	9		

Engine response	56	Fuel level units selection	67
Engine speed control	40	Fuel tank	63
Engine speed limiters	16, 17	Fuel tank cap	12
Engine starting restrictions in extremely low temperatures	17	Fuel tank volume	12
"ENGINE START" switch	9	Fuel type	12
Engine switch	9	Fuelling up	12
Engine type	16	Fuse	93
EPB (Electric Parking Brake)	52	G Gas	63
EPS (Electric Power Steering) system	44	Gas filler door	12
Exterior care	78	Gas filler door manual unlock	95
Exterior maintenance	78	Gas level units selection	67
F Flat bed transporting	100	Gas tank	63
Flat-bottomed steering wheel	45	Gas tank cap	12
Floating disc	53	Gas tank volume	12
Floating rotor	53	Gas type	12
Floor mat usage	22	Gauge	57
Floor-mounted brake pedal	51	Gauge cluster	57
Front brake caliper	52	Gauges	57
Front brake rotor	53	Gear selection	36
Front counter gear	38	Genuine leather maintenance	84
Front disc	53	H Handbrake	9
Front rotor	53	Heel stopper	22, 51
Front suspension	47	Hood	12
Fuel	63	Hood stand	12
Fuel filler door	12	I Ideal driving position	17
Fuel filler door manual unlock	95	If the vehicle battery is discharged	94
Fuel gauge	63	Ignition switch	9

Inclination sensor deactivation	102	M Maintaining the Alcantara® areas	85
Independent throttle bodies	32	Maintaining the CFRP (Carbon Fiber Reinforced Plastics) areas	86
Independent throttle valves	32	Maintaining the genuine leather areas	84
Individual throttle bodies	32	Maintaining the polycarbonate resin glass	87
Input shaft	38	Maintaining the rear quarter window	80
Instrument cluster	57	Maintaining the resin areas	87
Insufficiently charged battery	94	Maintaining the Satin finish metal accent	87
Interior care	82	Maintaining the vehicle's exterior	78
Interior materials	82	Maintaining the vehicle's interior	82
J Jumping the vehicle	98	Manual	41
Jump-starting the vehicle	98	Manual transmission	39
K Kingpin inclination	47	Manually accessing the fuel filler	95
L Lap Time	72	Manually releasing the parking brake	96
Lap Timer	67, 72	Manually shifted driving mode	27
Launch control	33	Manually unlocking the fuel filler door	95
LCD	56	Manually unlocking the rear hatch	95
Leather care	84	Matte Black	81
Leather cleaning	84	Matte finish	81
LFA-specific floor mats	22	Meter	66, 57
Limited maximum engine speed during break-in period	17	Minimum ground clearance	100
Limited maximum engine speed in extremely low temperatures	17	Minimum turning diameter	46
Limited maximum engine speed in neutral gear	17	Multi-link rear suspension	47
Limited slip function	39		
Lock-to-lock	45		
Long term storage	92		

N	Needle	67		Parking brake (vehicle long-term storage)	92	
	Negative battery terminal structure	99		Parking brake calipers	52	
	NORMAL mode	58		Parking brake switch	9	
	NORMAL mode (control characteristics)	26		Partition glass care	87	
	NORMAL mode (selection)	27		Partition glass cleaning	87	
				Partition glass maintenance	87	
O	Oil change interval	67		Peak-hold	67	
	Oil inspection	67		Pedal anti-slip pattern	51	
	Oil level	67, 68		Pedal texture	51	
	Oil level gauge	68, 69		Petrol	63	
	Oil level sensor	68		Petrol filler door	12	
	Oil Maintenance	67		Petrol level units selection	67	
	Oil pressure sensor	62		Petrol tank	63	
	Oil replacement	67		Petrol tank cap	12	
	Oil tank	68		Petrol tank volume	12	
	Oil temperature sensor	61		Petrol type	12	
	Operating the driving mode selector switch	26		Polycarbonate resin glass maintenance	87	
	Optimum driving position	20		Powertrain	56	
	Outer rear view mirror switches	9		Propeller shaft	38	
	Outside rear view mirror switches	9				
	Overall gear ratio	46		R	Rack and pinion gearbox	46
	Over-rev	70			Rear brake caliper	52
P	Paddle shift switches	40, 41			Rear brake rotor	53
	Paddle shifters	40, 41			Rear disc	53
	Parasitic current (dark current)	93			Rear hatch	12
	Parking	11			Rear hatch access	95
	Parking brake	9, 52			Rear hatch manual unlock	95
					Rear quarter window care	80

Rear quarter window cleaning	80	RPM/Rev memory indicator	71
Rear rotor	53	RPM/Rev memory needle	71
Rear suspension	47	S Scrub radius	47
Rear wing (operation)	28	Seat adjustment	21
Rear wing cleaning	80	Seat adjustment range	21
Rear wing manual operation	80	Seat angle adjustment	20
Rear-mounted transaxle	39	Seat cushion front edge height adjustment	21
Red zone	59, 70	Seat forward/backward slide adjustment	21
Refueling	12	Seat height adjustment	21
Regarding launch control	33	Seat position	20
Regarding suspension adjustments	47	Seat slide adjustment	20
Regarding the brake override system	50	Seat switch	10
Remove the fuse	93	Seatback angle adjustment	21
Response	56	Seatback reclining angle adjustment	21
Restricted maximum engine speed during break-in period	17	Selecting a driving mode	27
Restricted maximum engine speed in extremely low temperatures	17	Settings	67
Restricted maximum engine speed in neutral gear	17	Shift down	40
Rev counter	57	Shift paddles	40, 41
Rev Indicator	67, 70	Shift shock	41
Rev limiters	16	Shift speed	41
Rev Peak	67, 71	Shift speed selector	41
Reverse selector switch	9	Shift up	40
Reversing	11	Shifting	36
Ride height	47	Side mirror switches	9
RPM peak-hold	67	Spare tools	100
		Special selection color "Matte Black"	81

Speed Indicator	67
Speedometer	57, 67
SPORT mode	58
SPORT mode (control characteristics)	26
SPORT mode (selection)	27
Starting off	11
Starting the engine	9, 10
Starting the engine by connecting an external battery	98
Status	67
Steering	44
Steering adjustment	23
Steering column adjustment	9
Steering column shaft-mounted EPS (Electric Power Steering) system	44
Steering rack and gearbox	46
Steering system	44
Steering wheel adjustment	23
Steering wheel adjustment lever	9
Steering wheel adjustment range	23, 45
Steering wheel position adjustment	23
Steering wheel shape	45
Steering wheel telescoping range	23
Steering wheel tilt range	23
Stop and go traffic	37
Stopwatch	67, 72

Suppressing dark current (parasitic current)	93
Suspension adjustment	47
Suspension geometry	47
Synchronizer rings	39
Synchronizers	39
Synchros	39
T Tachometer	59
Telescopic adjustment range	23
Telltale needle	71
Temperature display units selection	67
TFT LCD panel	56
Throttle body valve opening angle	33
Throttle response	33, 56
Throttle response adjustment	33
Throttle valve opening angle	33
Tilt and telescopic steering control lever	9
Tilt range	23
Tilt sensor deactivation	102
Tires (vehicle long-term storage)	92
Tool bag	100
Topping up the oil level	69
Torque tube	38
TORSEN® LSD	39
Tow hook	100
Tow truck selection	100
Towing eyelet	100

Transaxle	39	W Washing the vehicle	78
Transaxle oil cooler system	39	Waxing the vehicle	81
Transaxle shaft	38	WET mode	58
Transmission	39	WET mode (control characteristics)	26
Transmission oil cooler	39	WET mode (selection)	27
Transporting the vehicle	100	Wheel center kingpin offset	47
Trip Info	67	When transporting the vehicle	100
Trunk	12	When using a high-pressure car wash	79
Turns lock-to-lock	45		
Twin shaft transmission	39		
U Upshift	40	10 individual throttle valves	32
Using the floor mats	22	1LR-GUE engine	16
Using the meter	66		
V Variable maximum engine speed during warm-up	17		
VDIM control characteristics (NORMAL)	29		
VDIM control characteristics (SPORT)	29		
VDIM (Vehicle Dynamics Integrated Management)	29		
Virtual kingpin axis	47		
VSC off switch	9		



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