

LS430

OUTLINE OF NEW FEATURES

The following changes are made for the previous LS430.

1. Model Code

In accordance with the change of automatic transmissions from A650E to A761E, the model code has been changed as follows.

► Model Code ◀

Model		New	Previous
Automatic Transmission		A761E	A650E
Destination	Europe	UCF30L-AETGKW UCF30R-AETGKW	UCF30L-AEAGKW UCF30R-AEAGKW
	Australia	UCF30R-AETGKQ	UCF30R-AEAGKQ
	G.C.C. Countries	UCF30L-AETGKV	UCF30L-AEAGKV

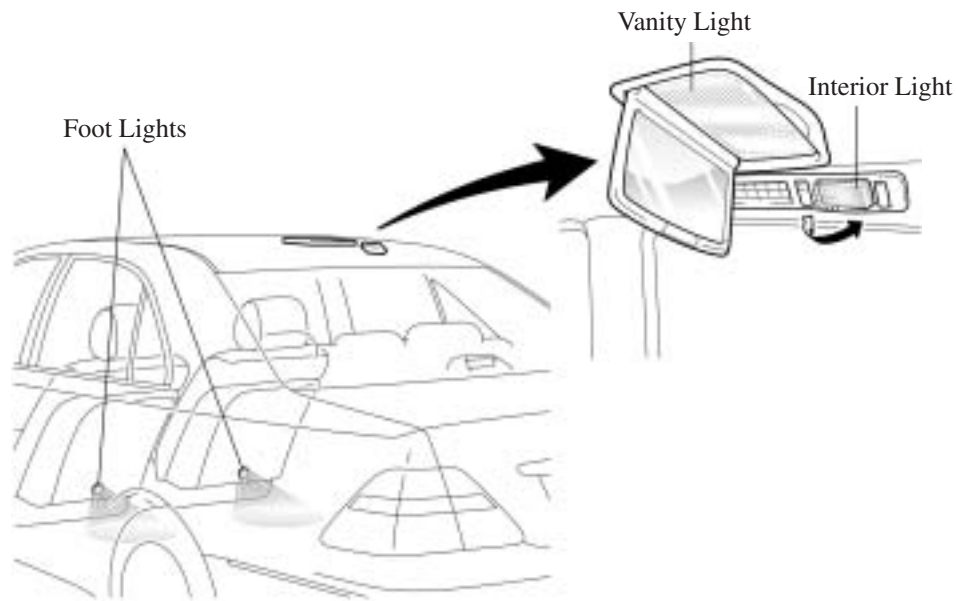
2. Exterior

- The front and rear exteriors have been changed. For details, [see page 14](#).
- Total of ten exterior colors – five carryover colors and five new colors:

Color No.	Color Name	Note
062	White Pearl Crystal	Carryover
072	Silky White Pearl Crystal	New
1E0	Dark Gray Mica	New
1F2	Premium Silver	New
202	Black	Carryover
3P2	Bordeaux Mica	Carryover
4P7	Beige Metallic	Carryover
4S1	Grayish Brown Mica Metallic	New
6T1	Olive Mica Metallic	New
8P8	Dark Blue Mica	Carryover

3. Interior

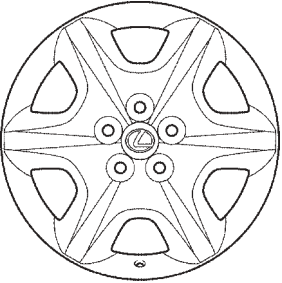
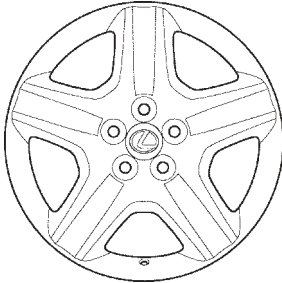
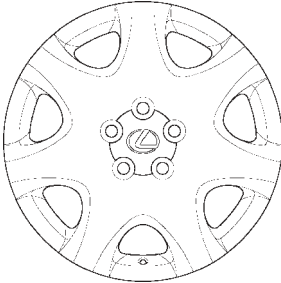
- Two carryover colors (Ecru, Black) and two new colors (Gray, Ivory) are used for the interior colors.
- Foot and vanity lights for rear passengers have been adopted for enhanced comfort. On the VIP package model, movable rear interior lights that can adapt to the seating posture or position of the rear passengers have been adopted.



259LSW05

4. Tire and Wheel

- The wheel design for 17 in. has been changed.
- 245/45R18 tires with 18 x 7 1/2 JJ wheels have been adopted.

Model		New		Previous	
Tire Size		2255/55R17	245/45R18	225/55R17	
Wheel	Size	17 x 7 1/2 JJ	18 x 7 1/2 JJ	17 x 7 1/2 JJ	
	Plated	—	—	—	Chrome
	Equipment	Standard*2	Option*2/Standard*3	Standard	Option
	Material	Aluminum		←	
	Off Set	45 mm		←	
	P.C.D.*1	114.3 mm		←	
	Design				
	259LSW01	259LSW02	187M003		

*1: P.C.D.: Pitch Circle Diameter *2: Australia and G.C.C. Countries Model *3: Only for Europe Model

5. 3UZ-FE Engine

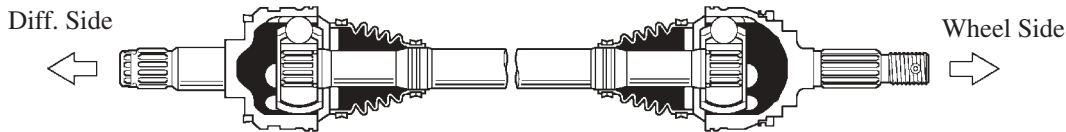
Item	Outline	See Page
Cooling System	The engine coolant has been changed to extend the maintenance interval from TOYOTA Genuine LLC (Long Life Coolant) to TOYOTA Genuine SLLC (Super Long Life Coolant).	See page 2
Engine Control	The engine ECU software has been changed in conjunction with the changes made to the automatic transmission.	—
	The knock sensor has been changed from the resonant type to the non-resonant type.	See page 15
	Protocol of engine ECU has been changed from BEAN (Body Electronics Area Network) to CAN (Controller Area Network).	See page 95
	Because the engine ECU effects diagnosis communication through CAN protocol, a conventional hand-held tester cannot be used to read the DTC (Diagnostic Trouble Codes). Instead, an Intelligent Tester II is required in order to read the DTC. For details, see the LEXUS LS430 Repair Manual Supplement (Pub. No. RM1048E).	—

6. A761E Automatic Transmission

A newly developed A761E 6-speed automatic transmission [6 Super ECT (Electronic Controlled Transmission)] has been adopted. For details, [see page 17](#).

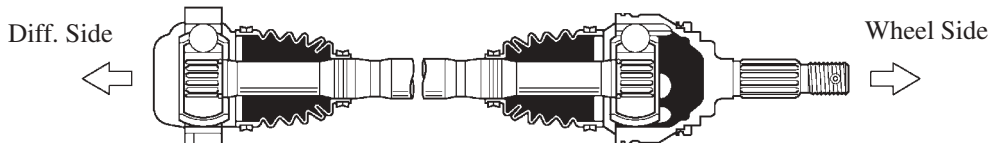
7. Drive Shaft

The drive shaft and the differential side gear, which were previously joined with bolts, have been changed to an integrated construction of the differential side gear shaft.



259LSW09

New



259LSW10

Previous

Service Tip

Along with the aforementioned change, the procedure for removing the drive shaft and differential has been changed. For details, see the LEXUS LS430 Repair Manual Supplement (Pub. No. RM1049E).

8. Differential

The differential type has been changed from F20SZ to F21SF. For details, [see page 61](#).

9. Suspension

Item		Outline
Front and Rear Suspension	Shock Absorber	The construction of the shock absorber has been changed from the twin-tube type to a mono-tube type.
Electronically Modulated Air Suspension [See page 65]	System Diagram	CAN (Controller Area Network) communication has been adopted.
	Front Left Acceleration Sensor	The front left acceleration sensor has been included to the air suspension ECU.
	Diagnosis	Along with the adoption of CAN communication, DTC (Diagnostic Trouble Codes) have been partially changed, and the some DTC of the input signal check have been discontinued.

10. Brake

Item		Outline
Master Cylinder		To improve the feel when depressing the brake pedal, the diameter of the master cylinder has been increased from 22.22 mm (0.87 in.) to 23.81 mm (0.94 in.).
Brake Control System [See page 68]	Outline of Brake Assist System	Brake booster failure control in Brake Assist function has been adopted.
	System Diagram	CAN communication has been adopted.
	Brake Actuator	The brake actuator has been changed to the new construction, and integrated with the skid control ECU.
	Diagnosis	Some DTC (Diagnostic Trouble Codes) have been added and some discontinued.

11. Tire Pressure Warning System

A tire pressure warning system has been adopted as standard equipment. For details, [see page 87](#).

12. Steering

Item	Outline
Steering Gear	The gear ratio and number of turns lock to lock have been changed. <ul style="list-style-type: none"> ● Gear Ratio: 15.7 → 16.4 ● No. of turns lock to lock: 3.53 → 3.57
Vehicle Speed Sensing Type Progressive Power Steering [See page 93]	<ul style="list-style-type: none"> ● Due to the integration of the skid control ECU and the brake actuator, the power steering ECU, which was previously enclosed in the skid control ECU, is now separated. ● DTC (Diagnostic Trouble Codes) have been discontinued.

13. Multiplex Communication

In the multiplex communication on the new LS430, CAN (Controller Area Network) has been added with the BEAN (Body Electronics Area Network) and AVC-LAN (Audio Visual Communication – Local Area Network). For details, [see page 95](#).

14. Lighting

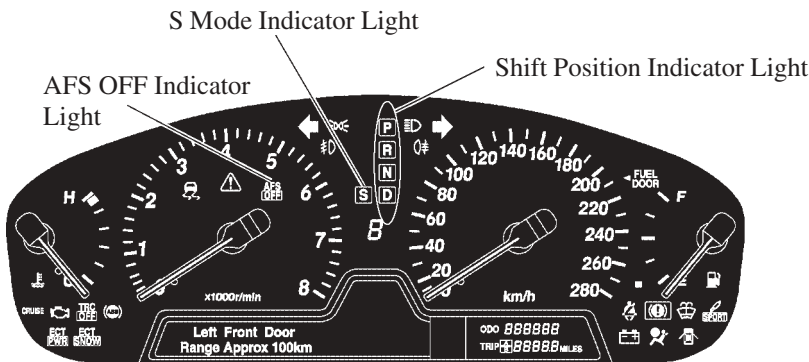
The following changes have been made to the lighting system.

System	Specification	Outline
Illuminated Entry	Standard	Rear passenger foot light has been added.
Automatic Headlight Beam Level Control System	Standard	The automatic headlight beam level control ECU has been integrated with the AFS ECU. For details, see page 115 .
Intelligent AFS (Adaptive Front-Lighting System)	Standard	Intelligent AFS has been adopted. For details, see page 117 .

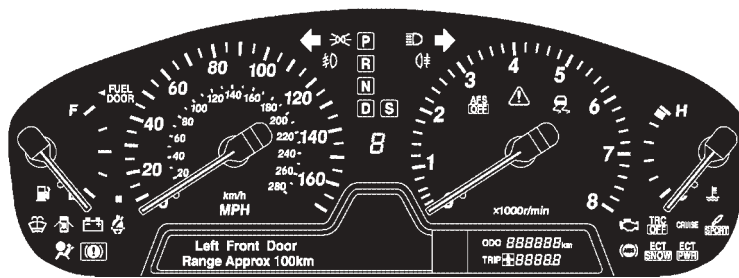
15. Combination Meter

The following changes have been made to the combination meter. For details, [see page 124](#).

Item	Outline
Indicator Light	Along with the installation of the A761E automatic transmission, the shift position indicator light has been changed. Also, to support the multi-mode automatic transmission, shift range and S mode indicator lights have been added.
Multi-information Display	Warning messages for the dynamic laser cruise control system have been added only for Australia model.



LHD Model



RHD Model

16. Air Conditioner

Item	Outline
A/C Unit (for Front)	<ul style="list-style-type: none"> ● In the rear center register of the previous model, only cool air was possible in the FACE and BI-LEVEL modes. In the rear center register on the new model, cool air and warm air can be output in all air outlet modes other than DEF mode. ● When the setting is AUTO FACE mode, slight cool air blows out to the footwell. ● The lower register has been discontinued.
A/C Unit (for Rear)* ¹ [See page 126]	<ul style="list-style-type: none"> ● A clean air filter with photo catalyst has been adopted for the rear air conditioner and air purifier. No changes have been made to their maintenance intervals. ● Along with the adoption of the clean air filter with a photo catalyst, a xenon tube that emits ultraviolet rays has been provided.
A/C Compressor* ²	<ul style="list-style-type: none"> ● Type of compressor has been changed from the 7SBU16 type to the 6SEU16 type. ● The A/C compressor pulley has adopted the DL (Damper Limiter) type, and discontinued on the magnetic clutch. For details, see page 127.
Smog Ventilation Sensor* ²	Its construction has been made compact and lightweight.

*¹: Except Europe Model

*²: Except G.C.C. Countries Model

17. Multi Display

Item	Outline
Screen Display	Along with the functions that have been added or changed, the screen design has been changed.
LEXUS Navigation System	<ul style="list-style-type: none"> ● In the navigation ECU, the process for calculating the information that is input from the GPS (Global Positioning System) satellites has been revised in order to improve the accuracy of the present location. ● The voice guidance volume can now be adjusted at the steering pad switch (Audio Volume). ● Numerous additions and changes have been made to the display. For details, see page 128.
LEXUS Parking Assist System (See page 130)	<ul style="list-style-type: none"> ● The LEXUS parking assist system has adopted a rear view monitor function except Europe model. ● The LEXUS parking assist system has adopted a back guide monitor function on Europe model.
Cellular Phone	A function that supports the Bluetooth* type cellular phone, which is available as optional equipment at LEXUS dealers, has been adopted.
Diagnosis Screen Display	Diagnosis items have been added for the LEXUS parking assist system and the cellular phone. For details, see page 129.

— REFERENCE —

*: Bluetooth:

Bluetooth is a low-power wireless data communication system that utilizes radiowaves in the 2.4 GHz frequency range. Bluetooth SIG (Special Interest Group), which is an organization composed of major players in the electronic communication, CPU, and network fields, promotes the standardization of this technology.

By utilizing Bluetooth, users can make hands-free telephone calls without requiring a cable connection.



New Model



Previous Model

259LSI44

18. LEXUS Parking Assist System

The following changes have been made to the LEXUS parking assist system.

Function	Outline
Clearance Sonar (See page 130)	<ul style="list-style-type: none"> To determine an open or frozen condition, the warning messages for the clearance sonar sensors have been changed. Sensors that are not required while driving forward or reverse have been disabled.
Rear View Monitor (See page 131)	This function is optional equipment on Australia model and standard equipment on G.C.C. countries model.
Back Guide Monitor (See page 135)	This function is optional equipment on Europe model.

- The LEXUS parking assist system provides the following functions:

Destination	Function		
	Clearance Sonar	Rear View Monitor	Back Guide Monitor
Europe	Option	—	Option*
Australia	Standard	Option*	—
G.C.C. Countries	Standard	Standard	—

*: The option is set together with a multi display.

19. Wireless Door Lock Remote Control System

The memory call function has been adopted. For details, see page 147.

20. Smart Key System

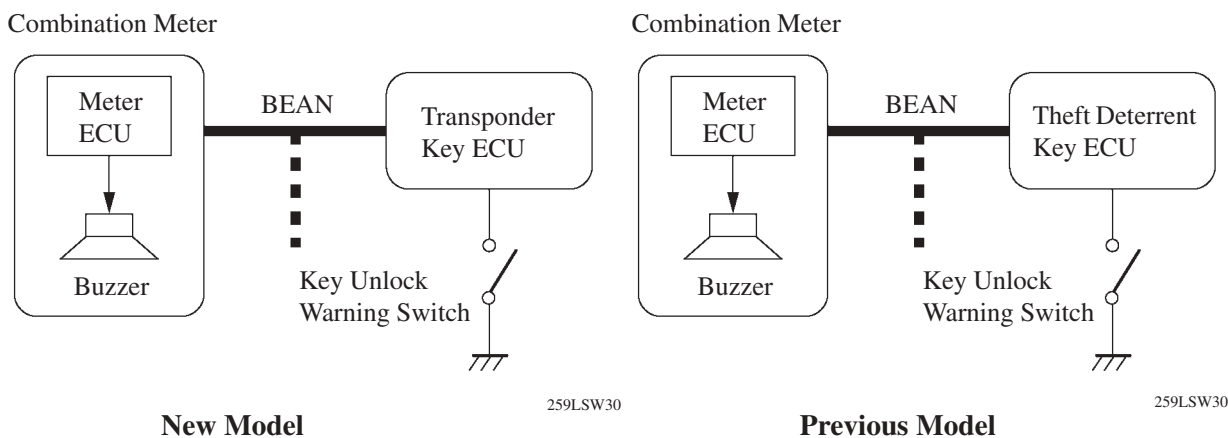
The following changes have been made to the smart key system. For details of the smart key system, [see page 152](#).

- The key design has been changed.
- The smart memory call function has been adopted.
- The smart power window and moon roof close function has been discontinued.
- The touch sensor has been relocated from the outside of the outside door handle to the inside.
- The number of days of operation of the vehicle battery saving function has been changed.

Condition	Control
No smart unlock operation for more than 10 days → 5 days	Signal transmission interval is extended from 300 ms to 600 ms.
No smart unlock operation for more than 20 days → 14 days	Automatically deactivates the smart key system.

21. Key Reminder

Master ECU has been changed from the theft deterrent ECU to the transponder key ECU.



22. SRS Airbag System

The SRS airbag system has been changed as follows. For details, [see page 185](#).

Item	Outline
Airbag Sensor Assembly	The circuits have been changed due to the adoption of CAN (Controller Area Network) communication
Airbag for Frontal Collision	<ul style="list-style-type: none"> • Knee airbag for the driver and front passenger have been adopted. • A SRS knee airbag is added to the undeployed airbag controlled by the conventional airbag limit function for front passenger. <p>Airbag Limit Function (for Front Passenger): Detects if the seat belt is used and an occupant sit in the front passenger seat. If the occupant does not sit in the front passenger seat, the function does not allow the airbag (without curtain shield) and seat belt pretensioner for front passenger.</p>
Airbag for Side Collision	The size of the side airbag has been increased.
Diagnosis	As the communication speed of diagnosis has been increased, all DTC (Diagnostic Trouble Codes) have been reassigned. For details, see the LEXUS LS430 Repair Manual Supplement (Pub. No. RM1049E).

23. Cruise Control System

- Along with the adoption of the A761E automatic transmission, the control of the conventional cruise control system has been changed.

Control	Outline																						
Set Control	<p>A portion of the set control conditions has been made to support the A761E 6-speed automatic transmission.</p> <ul style="list-style-type: none"> • While the shift lever is in position D or S mode, and the shift range is in 4th, 5th, or 6th. 																						
Manual Cancel Control	<p>A portion of the manual cancel control conditions has been made to support the A761E 6-speed automatic transmission.</p> <ul style="list-style-type: none"> • D position circuit in neutral start switch OFF signal (Shift the transmission shift lever from D, 6, 5 or 4to N, 3, 2 or 1) • When 3rd, 2nd, 1st range is selected in S mode position. 																						
Diagnosis	<p>The following changes have been made to the 5-digit DTC (Diagnostic Trouble Codes).</p> <table border="1"> <thead> <tr> <th colspan="2">DTC No. (5 digit)</th> <th rowspan="2">DTC No. (2 digit)</th> <th rowspan="2">Detection Item</th> </tr> <tr> <th>New</th> <th>Previous</th> </tr> </thead> <tbody> <tr> <td>P0500</td> <td rowspan="2">P0500</td> <td>21</td> <td>Vehicle speed sensor circuit open</td> </tr> <tr> <td>P0503</td> <td>23</td> <td>Vehicle speed signal abnormal</td> </tr> <tr> <td>P0571</td> <td>P1520</td> <td>52</td> <td>Stop light switch circuit (open or short)</td> </tr> <tr> <td rowspan="2">P0607</td> <td rowspan="2">P1566</td> <td rowspan="2">54</td> <td>Stop light switch input signal faulty</td> </tr> <tr> <td>Cancel circuit faulty</td> </tr> </tbody> </table>	DTC No. (5 digit)		DTC No. (2 digit)	Detection Item	New	Previous	P0500	P0500	21	Vehicle speed sensor circuit open	P0503	23	Vehicle speed signal abnormal	P0571	P1520	52	Stop light switch circuit (open or short)	P0607	P1566	54	Stop light switch input signal faulty	Cancel circuit faulty
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- Dynamic laser cruise control system has been adopted as optional equipment on the Australia model. For details, [see page 189](#).

24. Climate Control Seat (for Rear Seat)

Climate control, which is used in the front seats, is now available as optional equipment in the rear seats. For details, [see page 211](#).