## IS350/250

# **OUTLINE OF NEW FEATURES**

The following changes have been made for the 2011 model year.

#### 1. Model Line-up

An AWD model has been added to IS350 for models for U.S.A. and the destination package for Canada.

## 2. Package Options

- For IS350/250 2WD automatic transmission models, an F-SPORT package has been added for models for U.S.A.
- For IS250 2WD automatic transmission models, an F-SPORT package has been added as a package for South Korea.

#### 3. Exterior

- The exterior has been changed. For details, see page 11.
- The rear Lexus emblem has been discontinued for models for U.S.A and the destination package for Canada.

#### 4. Exterior Color

- A total of 7 exterior colors; 6 carryover colors and 1 new color, are available for the F-SPORT package.
- A total of 10 exterior colors; 7 carryover colors and 3 new colors, are available for standard models.

			Package		
Color No.	Color Name	Note	F-SPORT Package	Others	
074	Bluish Pearl Crystal Shine	Carryover	-	×	
077	White Pearl Crystal Shine	Carryover	×	×	
1G0	Dark Gray Mica	Carryover	×	×	
1G1	Silver Mica Metallic	Carryover	×	×	
212	Black	Carryover	×	×	
217	Starlight Black Glass Flake	New	×*1	×*2	
3R1	Red Mica Crystal Shine	Carryover	×	×	
8U1	Exceed Blue Metallic	Carryover	×	_	
8U9	Silvery Blue Metallic	New	-	×	
8V3	Lapis Lazuli Mica	New	-	×	
9AL	Cattleya Mica Metallic	Carryover	-	×*1	

×: Available –: Not Available

\*1: Destination package for South Korea

\*2: Destination package for South Korea and Canada

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#### 5. Tire and Wheel

- The 17-inch aluminum wheel and 18-inch aluminum wheel design have been changed.
- Exclusive 18-inch aluminum wheels are installed on the F-SPORT package.

Front		ont	205/55R16	225/45R17	225/4	0R18
Tire Size Rear		205/55R16	P225/45R17 P245/45R17*2	255/40R18		
	C:	Front	$16 \times 7 JJ$	$17 \times 8J$	$18 \times 8J$	
Wheel	Size	Rear	$16 \times 7 JJ$	$17 \times 8J$	18×8	3 1/2J
	Mat	erial	Aluminum	Aluminum	Alum	inum
P.C.D.*1	]	mm (in.)	114.3 (4.5)	114.3 (4.5)	114.3 (4.5)	
Incot	Front		45 (1.8)	45 (1.8)	45 (1.8)	
Inset mm (in.) Rear		Rear	45 (1.8)	45 (1.8)	50 (2.0)	
Wheel Design						
		1660IN01C	1660IN02C	1660IN03C	1660IN04C	
Note		Carryover	Changed	Changed	New*3	

\*1: Pitch Circle Diameter

\*2: 2WD Models

\*3: F-SPORT Package

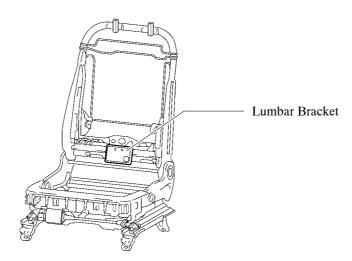
#### 6. Interior

The interior has been changed. For details, see page 14.

#### 7. Seat

A lumbar bracket has been adopted for each of the front seat frames on models for U.S.A and Canada\* and the driver's seat frame on the F-SPORT package.

\*: Except destination package for South Korea



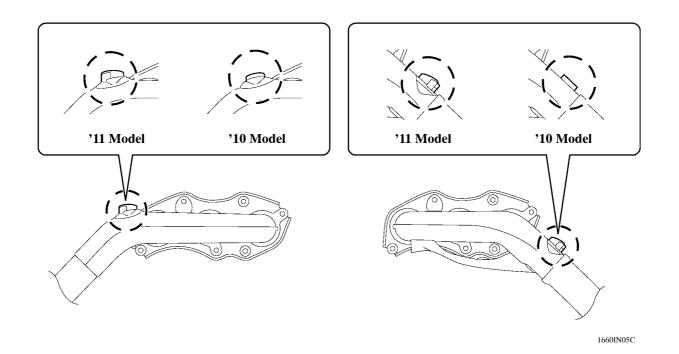
1660IN06C

#### 8. Audio

An 8-speaker LEXUS premium sound system has been added. For details, see page 15.

#### 9. 4GR-FSE Engine

The shape of the exhaust manifold has been changed due to the mounting position change of the air fuel ratio sensor.



## 10. 2GR-FSE Engine

Along with the addition of the AWD model, the shape of the oil pan and oil filter has been changed. For details, see page 16.

#### 11. A760H Automatic Transmission

The A760H automatic transmission has been adopted on AWD models with the 2GR-FSE engine. The basic structure and operation are the same as the A760H installed on the AWD IS250.

#### 12. UF1AE Transfer

The UF1AE transfer has been adopted on AWD models with the 2GR-FSE engine. The basic structure and operation are the same as the UF1AE transfer installed on the AWD IS250.

	UF1AE		
Drive Type	Full-time AWD		
Gear Ratio	1.000		
Center Differential	Gear Type	Planetary Gear	
Center Differential	Differential Limiting Device Type	Limited Slip Differential	
Fluid Type	Toyota Genuine ATF WS		

## 13. Propeller Shaft

- A cross-groove type, 2-joint propeller shaft has been adopted as the front propeller shaft of AWD models with the 2GR-FSE engine.
- A 3-joint propeller shaft has been adopted for the rear propeller shaft of AWD models. The No. 1 and No. 2 joints are shell-cup type joints, and the No. 3 joint is a flexible-type joint.

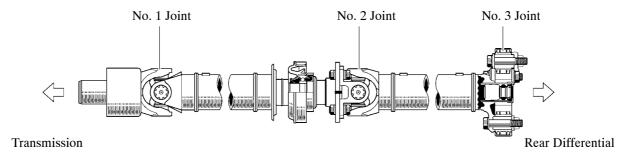
#### ► Front Propeller Shaft ◄



AWD with 2GR-FSE Engine

0140CH43Z





AWD with 2GR-FSE Engine

03A3IN01C

#### 14. Differential

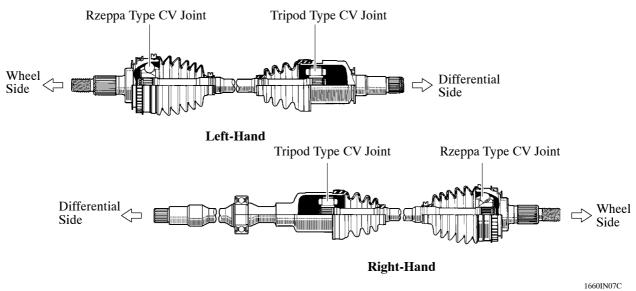
- The SD18B type differential has been adopted as the front differential of AWD models with the 2GR-FSE engine. The basic structure and operation are the same as the SD18B differential installed on the AWD IS250.
- The FD21A type differential has been adopted as the rear differential of AWD models with the 2GR-FSE engine. The basic structure and operation are the same as the FD20A differential installed on the AWD IS250.

Differential		Front		Rear	
		SD18B		FD21A	FD20A
Model	Model		IS250 AWD	IS350 AWD	IS250 AWD
Differential Gear	Ratio	3.769	4.100	3.769	4.100
	Drive Pinion	13	10	13	10
No. of Teeth	Ring Gear	49	41	49	41
Ring Gear Size mm (in.)		180 (7.09)	180 (7.09)	208 (8.19)	205 (8.07)
No. of Differential Pinion		2			
Oil Capacity Liters (US qts, Imp. qts)		0.7 (0.74, 0.62)	0.7 (0.74, 0.62)	1.35 (1.43, 1.19)	1.15 (1.22, 1.01)
Oil Viscosity		SAE 85W-90 SAE 75W-85			
Oil Grade		API GL-5			

#### 15. Drive Shaft

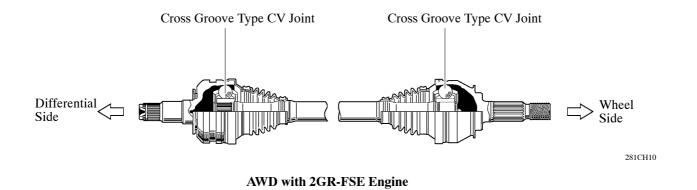
- The front drive shaft of AWD models with the 2GR-FSE engine uses a tripod type Constant Velocity (CV) joint on the differential side and an Rzeppa type CV joint on the wheel side.
- The rear drive shaft of AWD models with the 2GR-FSE engine uses cross groove type Constant Velocity (CV) joints.

#### ► Front Drive Shaft ◄



AWD with 2GR-FSE Engine

## ▶ Rear Drive Shaft ◀



# 16. Suspension

The wheel alignment specifications for AWD models with the 2GR-FSE engine are as follows:

Engine			2GR-FSE	
Drive Type			AWD	
Front Tire Size		225/45R17		
	Туре		Double-Wishbone	
	Tread*	mm (in.)	1535 (60.4)	
Front Wheel	Caster*	degrees	4° 38'	
Alignment	Camber*	degrees	-0° 25'	
	Toe-in*	mm (in.)	1.0 (0.04)	
	King Pin Inclination*	degrees	11° 16'	
Rear Tire Size		225/45R17		
	Туре		Multi-Link	
Rear Wheel Alignment	Tread*	mm (in.)	1535 (60.4)	
	Camber*	degrees	-0°45'	
	Toe-in*	mm (in.)	3.0 (0.12)	

\*: Unloaded Vehicle Condition

#### 17. Brake

- Skid control buzzer has been discontinued on all models. For details, see page 17.
- The brake system for AWD models with the 2GR-FSE engine is as follows:

Maatar Culindar	Туре		Tandem (Plunger)
Master Cylinder	Diameter	mm (in.)	22.22 (0.87)
Brake Booster	Туре		Single, Tie rod Type
Diake Doostel	Size	in.	10
	Front Brake Type		Ventilated Disc
Front Brake	Pad Area	$cm^{2}(in.^{2})$	56.6 (8.77)*1, 56.2 (8.71)*2
FIOIIL DIAKE	Wheel Cylinder Dia.	mm (in.)	42.85 (1.69) × 4
	Rotor Size $(D \times T)^*3$	mm (in.)	334 × 30 (13.15 × 1.2)
	Rear Brake Type		Ventilated Disc
Rear Brake	Pad Area	$cm^{2}(in.^{2})$	27.7 (4.29)
Real Diake	Wheel Cylinder Dia.	mm (in.)	44.45 (1.75)
	Rotor Size $(D \times T)^*3$	mm (in.)	$310 \times 18 (12.2 \times 0.71)$
	Operation Type		Pedal Type
Parking Brake	Туре		Duo Servo Drum
	Drum Inner Dia.	mm (in.)	190.0 (7.48)
Brake Control System			Vehicle Dynamics Integrated Management (VDIM)
Brake Control Valve			EBD
Brake Actuator	Supplier		ADVICS
Brake Fluid Type			SAE J1703 or FMVSS NO. 116 DOT3

\*1: Models for U.S.A. and destination package for South Korea

\*2: Models for Canada

\*3: (Diameter × Thickness)

#### 18. Steering

The steering system specifications for AWD models with the 2GR-FSE engine are as follows:

Engine	2GR-FSE
Power Steering Type	Electric Power Steering (EPS)
Gear Ratio (Overall)	14.1
No. of Turns Lock to Lock	2.96
Rack Stroke mm (in	) 153 (6.02)

#### **19. Multiplex Communication**

In accordance with change in the memory system and the discontinuance of the pre-collision system and the intelligent Adaptive Front-lighting System (AFS), the seat ECU (front passenger), distance control ECU and AFS ECU have been discontinued. For details, see page 19.

## 20. Lighting

The following lighting system items have been changed or discontinued:

Item	Changed/Discontinued		
Design	The design of the High Intensity Discharge (HID) headlights and rear combination lights has been changed. For details, see page 20.		
Daytime Running Light System	<ul><li>The following point has been changed due to the adoption of LED type daytime running lights. For details, see page 22.</li><li>System diagram has been changed.</li></ul>		
High Intensity Discharge (HID) Headlight System	The bi function has been discontinued.		
Intelligent Adaptive Front-lighting System (AFS)	The Intelligent Adaptive Front-lighting System (AFS) has been discontinued.		
Automatic Headlight Beam Level Control System	<ul> <li>The following points have been changed due to the intelligent Adaptive Front-lighting System (AFS) being discontinued. For details, see page 23.</li> <li>System diagram has been changed.</li> <li>Control ECU has been changed from the AFS ECU to the headlight leveling ECU.</li> </ul>		

#### 21. Combination Meter Assembly

The design and function of the combination meter assembly have been changed. For details, see page 26.

#### 22. Air Conditioning

The A/C switch condition (on/off) has been added to the operating conditions for automatic recirculation control on the IS350.

#### 23. Intuitive Parking Assist-sensor

The detection area at the front corners has been changed due to reduction in ultrasonic sensor size.

			Changed : Changed			
		Detection Distance [cm (in.)]				
Detecti	on Area	New	Previous			
	Long	50 +/- 5 to 40 +/- 5 (19.7 +/- 2 to 15.7 +/- 2)	50 +/- 5 to 37.5 +/- 5 (19.7 +/- 2 to 14.8 +/- 2)			
Front Corner	Middle	40 +/- 5 to 30 +/- 5 (15.7 +/- 2 to 11.8 +/- 2)	37.5 +/- 5 to 25 +/- 5 (14.8 +/- 2 to 9.8 +/- 2)			
Short	Short	30 +/- 5 or less (11.8 +/- 2 or less)	25 +/- 5 or less (9.8 +/- 2 or less)			
	Long	50 +/- 5 to 37.5 +/- 5 (	19.7 +/- 2 to 14.8 +/- 2)			
Rear Corner	Middle	37.5 +/- 5 to 25 +/- 5 (14.8 +/- 2 to 9.8 +/- 2)				
comer	Short	25 +/- 5 or less	(9.8 +/- 2 or less)			
	Longest	150 +/- 15 to 60 +/- 6 (59 +/- 5.9 to 23.6 +/- 2.4)				
Rear Long		60 +/- 6 to 45 +/- 5 (23.6 +/- 2.4 to 17.7 +/- 2)				
Center	Middle	45 +/- 5 to 35 +/- 5 (17.7 +/- 2 to 13.8 +/- 2)				
	Short	35 +/- 5 or less (13.8 +/- 2 or less)				

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## 24. Smart Access System with Push-button Start

The trunk oscillator has been discontinued on all models.

## 25. Pre-collision System

The pre-collision system has been discontinued on all models.

## 26. Cruise Control System

The dynamic radar type cruise control system has been discontinued on all models.

## 27. Memory System

The memory function of the front passenger seat has been discontinued on all models.