

# LEXUS ES300h

SEPTEMBER 2018 - ONWARDS  
ALL VARIANTS



TESTED  
2018



91%

ADULT OCCUPANT  
PROTECTION



86%

CHILD OCCUPANT  
PROTECTION



90%

VULNERABLE ROAD USER  
PROTECTION



76%

SAFETY  
ASSIST



LEXUS ES300h

## OVERVIEW

The Lexus ES300h was introduced in Australia and New Zealand in September 2018. This ANCAP safety rating applies to all variants.

Dual frontal airbags, driver and passenger knee airbags, front and rear chest-protecting side airbags and head-protecting side airbags (curtains) are standard equipment.

All three grades of autonomous emergency braking (City, Interurban and Vulnerable Road User), and lane keep assist (LKA) with lane departure warning (LDW), are standard on all variants.

ANCAP SAFETY RATING



RATING YEAR (DATESTAMP)

2018

VEHICLE TYPE

Medium Car

AIRBAGS

Dual frontal, side chest (front & rear), side head, knee (driver & front passenger)

## RATING APPLICABILITY

VARIANT	BODY TYPE	ENGINE	DRIVETRAIN	AUS	NZ
Lexus ES300h Luxury	4 door sedan	2.5 litre hybrid	FWD	✓	-
Lexus ES300h Sports Luxury	4 door sedan	2.5 litre hybrid	FWD	✓	-
Lexus ES300h	4 door sedan	2.5 litre hybrid	FWD	-	✓
Lexus ES300h Limited	4 door sedan	2.5 litre hybrid	FWD	-	✓

✓ COVERED BY THIS RATING

✗ NOT COVERED BY THIS RATING

◆ TESTED VARIANT

# ADULT OCCUPANT PROTECTION



**91%**

34.72 POINTS  
OUT OF 38

The passenger compartment remained stable in the frontal offset test. Dummy readings showed ADEQUATE protection for the chest of the driver and the lower legs of both the driver and passenger. GOOD protection was offered to all other critical body regions.

In the full width frontal test, protection of the driver dummy was ADEQUATE for the chest and GOOD for all other critical body regions. Protection of the rear passenger was GOOD or ADEQUATE except for the pelvis area which was rated as POOR. The pelvis slipped beneath the lap section of the seatbelt and was not restrained properly during the crash. The side curtain airbag did not deploy correctly in the full width test and, as a result, a penalty was applied to the scores in the side impact and oblique pole tests.

In the side impact test and the oblique pole test, protection of all critical body regions was GOOD. However, with the penalty applied for incorrect airbag deployment in the full-width frontal test, protection of the head was downgraded to ADEQUATE.

The autonomous emergency braking (AEB) system scored maximum points with GOOD performance in low-speed test scenarios typical of city driving.

<b>FRONTAL OFFSET#</b>	7.51 (out of 8)
<b>FULL WIDTH FRONTAL#</b>	6.61 (out of 8)
<b>SIDE IMPACT#</b>	7.50 (out of 8)
<b>OBLIQUE POLE#</b>	7.50 (out of 8)
<b>WHIPLASH PROTECTION</b>	1.60 (out of 2)
<b>AEB - City</b>	4.00 (out of 4)

# Scaled scores. Total test scored out of 16.00 points.

## FRONTAL OFFSET TEST (64 KM/H)



**Driver**

Head / neck:	4.00 points
Chest:	3.64 points
Upper legs:	4.00 points
Lower legs:	3.82 points
Deductions:	Nil



**Front Passenger**

Head / neck:	4.00 points
Chest:	4.00 points
Upper legs:	4.00 points
Lower legs:	3.37 points
Deductions:	Nil

## FULL WIDTH FRONTAL TEST (50 KM/H)



**Driver**

Head:	4.00 points
Neck:	4.00 points
Chest:	3.47 points
Upper legs:	4.00 points
Deductions:	Nil



**Rear Passenger**

Head:	4.00 points
Neck:	4.00 points
Chest:	2.99 points
Upper legs:	0.00 points
Deductions:	-4.00 points (submarining)

## SIDE IMPACT TEST (50 KM/H)



**Driver**

Head:	3.00 points
Chest:	4.00 points
Abdomen:	4.00 points
Pelvis:	4.00 points
Deductions:	-1.00 point (incorrect airbag deployment)



**Driver**

Head:	3.00 points
Chest:	4.00 points
Abdomen:	4.00 points
Pelvis:	4.00 points
Deductions:	-1.00 point (incorrect airbag deployment)

## OBLIQUE POLE TEST (32 KM/H)

## WHIPLASH (REAR IMPACT) PROTECTION TEST



**Rear Passenger**

Rear:	0.38 points
Front:	1.22 points



**Driver / Front Passenger**

## AEB - CITY (10-50 KM/H)

Score: 4.00 points

OVERLAP	-50%	-75%	100%	75%	50%
PERFORMANCE	GOOD				

GOOD ADEQUATE MARGINAL WEAK POOR

# CHILD OCCUPANT PROTECTION



**86%**

42.22 POINTS  
OUT OF 49

In both the frontal offset and side impact test, protection was GOOD for all critical body areas for the 6 year and 10 year child dummies.

The Lexus ES300h is fitted with lower ISOFix anchorages on the rear outboard seats and top tether anchorages on all rear seats.

Installation of typical child restraints available in Australia and New Zealand showed that most child restraints could be accommodated in most rear seating positions, though neither booster seat could be correctly installed in the centre rear position, and one of the two selected convertible seats could not be correctly installed in rearward-facing mode using the ISOFix anchorages.

<b>DYNAMIC TEST (FRONT)</b>	16.00 (out of 16)
<b>DYNAMIC TEST (SIDE)</b>	8.00 (out of 8)
<b>RESTRAINT INSTALLATION</b>	11.22 (out of 12)
<b>ON-BOARD SAFETY FEATURES</b>	7.00 (out of 13)

## FRONTAL OFFSET TEST (64 KM/H)



6 year old

10 year old

## SIDE IMPACT TEST (50 KM/H)



10 year old

6 year old

## ON-BOARD SAFETY FEATURES

FEATURE	FRONT PASSENGER	2nd ROW OUTBOARD	2nd ROW CENTRE	3rd ROW OUTBOARD	3rd ROW CENTRE
ISOFix	-	●	✘	-	-
Integrated child restraints	-	✘	✘	-	-
Top tether anchorage	-	●	●	-	-
Airbag disabling	✘	-	-	-	-

● FITTED TO TEST CAR AS STANDARD   ● NOT FITTED TO TEST CAR BUT AVAILABLE AS AN OPTION   ✘ NOT AVAILABLE   - NOT APPLICABLE

**NOTE:** The child restraints fitted to vehicles tested by Euro NCAP are relevant to the European market. For Australasian consumers, this information should be used as a guide to vehicle features only. For more detailed information about Australian child restraints visit [www.childcarseats.com.au](http://www.childcarseats.com.au).

GOOD   ADEQUATE   MARGINAL   WEAK   POOR

# CHILD OCCUPANT PROTECTION



86%

42.22 POINTS  
OUT OF 49

## CHILD RESTRAINT INSTALLATION\*

	CHILD RESTRAINT (CRS) TYPE <sup>^</sup>	FRONT ROW	2nd ROW			3rd ROW			
		PASSENGER	LEFT	CENTRE	RIGHT	LEFT	CENTRE	RIGHT	
BELTED	TYPE A	Rearward facing capsule	×	●	●	●	-	-	-
		Rearward facing with harness - convertible (Model A)	×	●	●	●	-	-	-
		Rearward facing with harness - convertible (Model B)	×	●	●	●	-	-	-
	TYPE B	Forward facing with harness - convertible (Model A)	×	●	●	●	-	-	-
		Forward facing with harness - convertible (Model B)	×	●	●	●	-	-	-
	TYPE E	Booster - 4 to 8 years	×	●	●	●	-	-	-
TYPE F	Booster - 4 to 10 years	×	●	●	●	-	-	-	
ISOFIX	TYPE A	Rearward facing capsule	×	●	-	●	-	-	-
		Rearward facing with harness - convertible (Model A)	×	●	-	●	-	-	-
		Rearward facing with harness - convertible (Model B)	×	●	-	●	-	-	-
	TYPE B	Forward facing with harness - convertible (Model A)	×	●	-	●	-	-	-
		Forward facing with harness - convertible (Model B)	×	●	-	●	-	-	-

\* Installation of each child restraint is assessed separately in each position. Installation of multiple restraints has not been assessed and may not be possible.

<sup>^</sup> The above list of child restraints has been selected to provide a general indication of the rated vehicle's ability to accommodate various CRS types. ANCAP does not endorse or recommend any one CRS brand or model, nor does it rate the safety of child restraints.


● INSTALL WITHOUT PROBLEM   ● INSTALL WITH CARE   ● CANNOT BE FITTED SAFELY   × INSTALLATION NOT ALLOWED   - NOT APPLICABLE

**NOTE:** The above list of child restraints has been selected to provide a general indication of the rated vehicle's ability to accommodate various CRS types. ANCAP does not endorse or recommend any one CRS brand or model, nor does it rate the safety of child restraints.

The Child Restraint Evaluation Program (CREP) provides an independent assessment on the safety of Australasian child restraints - see [www.childcarseats.com.au](http://www.childcarseats.com.au).

The child restraints fitted to vehicles tested by Euro NCAP are relevant to the European market. For Australasian consumers, this information should be used as a guide to vehicle features only. For more detailed information about Australian child restraints visit [www.childcarseats.com.au](http://www.childcarseats.com.au).

# VULNERABLE ROAD USER PROTECTION



**90%**  
43.66 POINTS  
OUT OF 48

The Lexus ES300h has an 'active' bonnet. Sensors detect when a pedestrian is struck and actuators lift the bonnet to provide greater clearance to stiff components in the engine bay. The vehicle was tested with the bonnet in the raised position and GOOD or ADEQUATE results were recorded over most of the bonnet area, however some POOR results were recorded around the windscreen pillars. The bumper provided GOOD protection to pedestrians' legs and protection of the pelvis was also GOOD.

The autonomous emergency braking (AEB) system is capable of detecting and reacting to vulnerable road users such as pedestrians and cyclists. The AEB system showed GOOD performance in pedestrian test scenarios, in both daylight and low light, earning full points. GOOD performance was also seen in cyclist test scenarios, with collisions avoided or mitigated in most scenarios.

<b>HEAD IMPACTS</b>	20.32 (out of 24)
<b>UPPER LEG IMPACTS</b>	6.00 (out of 6)
<b>LOWER LEG IMPACTS</b>	6.00 (out of 6)
<b>AEB - Pedestrian</b>	6.00 (out of 6)
<b>AEB - Cyclist</b>	5.33 (out of 6)

## PEDESTRIAN IMPACT TEST (40 KM/H)



## AUTONOMOUS EMERGENCY BRAKING (PEDESTRIAN & CYCLIST)

**SYSTEM NAME:** Pre-Collision System with cyclist detection (Lexus Safety System +)  
**TYPE:** Autonomous emergency braking with forward collision warning  
**OPERATIONAL FROM:** 10-180 km/h  
**DESCRIPTION:** Defaults ON for every journey. System detects pedestrians and cyclists and functions in both day and night.

TEST SCENARIO	AEB - Pedestrian										AEB - Cyclist						
	Adult crossing towards kerb (50%)		Adult crossing from kerb (25%)		Adult crossing from kerb (75%)		Child running (obstructed)		Adult walking along road		FORWARD COLLISION WARNING		Cyclist crossing from kerb		Cyclist travelling along road (50%)		Cyclist travelling along road (25%)
	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	NIGHT	DAY	DAY	DAY		
PERFORMANCE	GOOD		GOOD		GOOD		GOOD		GOOD		GOOD		GOOD		GOOD		

■ GOOD 
 ■ ADEQUATE 
 ■ MARGINAL 
 ■ WEAK 
 ■ POOR

# SAFETY ASSIST



76%

9.90 POINTS  
OUT OF 13

The Lexus ES300h is fitted with autonomous emergency braking (AEB) and a lane support system (LSS) with lane keep assist (LKA) and lane departure warning (LDW). A blind spot monitoring system (BSM) is available on some variants.

Tests of the AEB system showed GOOD performance with collisions avoided or mitigated in most test scenarios. Tests of the LSS functionality showed some GOOD performance, however the system does not intervene in more critical emergency lane keeping scenarios and overall performance was classified as ADEQUATE.

A speed assistance system (SAS) is also standard equipment. A seatbelt reminder system with occupancy detection is fitted to all seating positions.

<b>SPEED ASSISTANCE SYSTEMS</b>	2.25 (out of 3)
<b>SEAT BELT REMINDERS</b>	3.00 (out of 3)
<b>LANE SUPPORT SYSTEMS</b>	2.25 (out of 4)
<b>AEB - Interurban</b>	2.40 (out of 3)

## LANE SUPPORT SYSTEMS (LSS)

**SYSTEM NAME:** Lane Tracing Assist (Lexus Safety System +)  
**OPERATIONAL FROM:** 50-200 km/h

EMERGENCY LANE KEEPING (ELK)						
TEST SCENARIO	Oncoming vehicle	Overtaking vehicle (GVT at 72 km/h)		Overtaking vehicle (GVT at 80 km/h)		Road edge
		UNINTENTIONAL	INTENTIONAL	UNINTENTIONAL	INTENTIONAL	
PERFORMANCE	-	-	-	-	-	-
[NOT AVAILABLE]						

LANE KEEP ASSIST (LKA)										
TEST SCENARIO	Dashed Line				Solid Line				Road Edge	
PERFORMANCE	GOOD									

HUMAN MACHINE INTERFACE (HMI)		
FUNCTION	Lane Departure Warning (LDW)	PASS
	Blind Spot Monitoring (BSM)	[NOT STANDARD]

GOOD ADEQUATE MARGINAL WEAK POOR

# SAFETY ASSIST



76%

9.90 POINTS  
OUT OF 13

## AUTONOMOUS EMERGENCY BRAKING (INTERURBAN)

**SYSTEM NAME:** Pre-Collision System (Lexus Safety System +)  
**TYPE:** Autonomous emergency braking with forward collision warning  
**OPERATIONAL FROM:** 10-180 km/h  
**DESCRIPTION:** Defaults ON for every journey.

HUMAN MACHINE INTERFACE (HMI)	
FUNCTION	Supplementary warning [NOT FITTED] Restraint activation / dynamic retractors [NOT FITTED]

FORWARD COLLISION WARNING (FCW)		
TEST SCENARIO	Driving towards a stationary car	Driving towards a slower moving car
PERFORMANCE	GOOD	

AUTONOMOUS EMERGENCY BRAKING - Interurban										
TEST SCENARIO	Toward car braking lightly		Toward car braking heavily		Driving towards a slower moving car					
	12m HEADWAY	40m HEADWAY	12m HEADWAY	40m HEADWAY						
PERFORMANCE	GOOD				GOOD		GOOD		GOOD	

## SPEED ASSISTANCE SYSTEMS (SAS)

**SYSTEM NAME:** Dynamic Radar Cruise Control with Road Sign Assist (Lexus Safety System +)

SAS FEATURE	DESCRIPTION
Speed Limit Information Function (SLIF)	Camera based
Speed Limitation Function	System advised

## SEAT BELT REMINDERS (SBR)

WARNING TYPE	DRIVER	FRONT PASSENGER	REAR PASSENGERS
Occupant Detection	-	●	●
Visual	●	●	●
Audible	●	●	●

● PASS ● FAIL ✗ NOT AVAILABLE - NOT APPLICABLE

GOOD ADEQUATE MARGINAL WEAK POOR

# SAFETY FEATURES & TECHNOLOGIES

FEATURE / TECHNOLOGY~	AVAILABILITY	
	AUS	NZ
Seat belts (three-point) for all forward-facing seats	●	●
Seat belt pre-tensioners (front)	●	●
Seat belt pre-tensioners (rear outboard)	●	●
Seat belt pre-tensioners (rear centre)	✗	✗
Intelligent seat belt reminder (driver)	●	●
Intelligent seat belt reminder (front passenger)	●	●
Intelligent seat belt reminder (2nd row seats)	●	●
Intelligent seat belt reminder (3rd row seats)	-	-
Airbag - frontal (driver)	●	●
Airbag - frontal (passenger)	●	●
Airbags - side, chest protection (front seats)	●	●
Airbags - side, chest protection (2nd row seats)	●	●
Airbags - side, chest protection (3rd row seats)	-	-
Airbags - side, head protection (front seats)	●	●
Airbags - side, head protection (2nd row seats)	●	●
Airbags - side, head protection (3rd row seats)	-	-
Airbag - knee (driver)	●	●
Airbag - knee (front passenger)	●	●
Airbag disabling switch - automatic (front passenger)	✗	✗
Airbag disabling switch - manual (front passenger)	✗	✗
Head restraints for all seats	●	●
Active bonnet	●	●
Adaptive cruise control (ACC)	●	●
Adaptive headlights	●	●
Anti-lock braking system (ABS)	●	●
Autonomous emergency braking (AEB) - City	●	●
Autonomous emergency braking (AEB) - Interurban	●	●
Autonomous emergency braking (AEB) - VRU	●	●
Automatic emergency call (eCall)	✗	✗
Automatic headlights	●	●
Automatic high beam	●	●

FEATURE / TECHNOLOGY~	AVAILABILITY	
	AUS	NZ
Blind spot monitor (BSM)	●	●
Child presence alert	✗	✗
Daytime running lights (DRL)	●	●
Electronic brakeforce distribution (EBD)	●	●
Electronic data recorder (EDR)	●	●
Electronic stability control (ESC)	●	●
Emergency brake assist (EBA)	●	●
Emergency stop signal (ESS)	●	●
Fatigue reminder	●	●
Fatigue detection	●	●
Forward collision warning (FCW)	●	●
Hill launch assist	●	●
Integrated child seat / restraint	✗	✗
ISOFix	●	●
Lane departure warning (LDW)	●	●
Lane keep assist (LKA)	●	●
Pre-crash systems	●	●
Rear cross-traffic alert (RCTA)	●	●
Reversing collision avoidance (camera)	●	●
Reversing collision avoidance (auto brake)	✗	✗
Roll stability system	✗	✗
Secondary / multi-collision brake	●	●
Speed assistance - auto / intelligent speed limiter	●	●
Speed assistance - manual speed limiter	●	●
Speed assistance - speed sign recognition & warning	●	●
Smart (intelligent) key	✗	✗
Trailer stability control	✗	✗
Tyre pressure monitoring system (TPMS)	●	●
Vehicle-to-infrastructure communication (V2I)	✗	✗
Vehicle-to-vehicle communication (V2V)	✗	✗

~ Specifications & availability subject to change. Please check with the vehicle manufacturer for confirmation of vehicle specification.

● STANDARD   ● NOT AVAILABLE ON BASE VARIANT BUT STANDARD OR OPTIONAL ON HIGHER VARIANTS   ● OPTIONAL   ✗ NOT AVAILABLE

## MODEL VARIANTS:

ANCAP safety ratings do not automatically extend to variants that have different body styles, engine configurations, driven wheels or occupant restraint systems (e.g. fewer airbags). In these cases, ANCAP considers technical evidence submitted by manufacturers before deciding on the extension of a rating to additional variants of a model.

## RATING YEAR (DATESTAMP):

The Rating Year denotes the year requirements against which a vehicle has been assessed. The Rating Year is determined by ANCAP and, for vehicles rated from 2018, the Rating Year is the year in which the vehicle was tested.

## ASSESSMENT DETAILS

TESTED MAKE / MODEL	Lexus ES300h Comfort 2.5L LHD
TESTED VEHICLE(S) BUILT	2018
TESTED BODY TYPE	4 door sedan
TESTED VEHICLE ENGINE	2.5 litre petrol hybrid
RATING PUBLISHED	24 October 2018
RATING UPDATED	n/a