NIO ES8

Standard Safety Equipment

2021

Adult Occupant	Child Occupant	Vulnerable Road Users	Safety Assist
82%	84%	72%	92%

SPECIFICATION

Tested Model	NIO ES8, 6 seat, LHD
Body Type	- 5 door SUV
Year Of Publication	2021
Kerb Weight	2435kg
VIN From Which Rating Applies	- all ES8s
Class	Large Off-Road

Version 200821

SAFETY EQUIPMENT

	Driver	Passenger	Rear
FRONTAL CRASH PROTECTION			
Frontal airbag	●	●	–
Belt pretensioner	●	●	●
Belt loadlimiter	●	●	●
Knee airbag	✖	✖	–
LATERAL CRASH PROTECTION			
Side head airbag	●	●	●
Side chest airbag	●	●	✖
Side pelvis airbag	●	●	✖
Centre Airbag	✖	✖	–

SAFETY EQUIPMENT (NEXT)

	Driver	Passenger	Rear
CHILD PROTECTION			
Isofix	—	✖	●
Integrated CRS	—	✖	✖
Airbag cut-off switch	—	●	—
SAFETY ASSIST			
Seat Belt Reminder	●	●	●

OTHER SYSTEMS	
Active Bonnet	✖
AEB Vulnerable Road Users	●
AEB Pedestrian - Reverse	✖
AEB Car-to-Car	●
Speed Assistance	●
Lane Assist System	●

Note: Other equipment may be available on the vehicle but was not considered in the test year.

● Fitted to the vehicle as standard ○ Fitted to the vehicle as part of the safety pack

○ Not fitted to the test vehicle but available as option or as part of the safety pack ✖ Not available — Not applicable

ADULT OCCUPANT

Total 31.5 Pts / 82%

GOOD | ADEQUATE | MARGINAL | WEAK | POOR

Frontal Impact — 13.3 / 16 Pts

Mobile Progressive Deformable Barrier

Full Width Rigid Barrier

Lateral Impact — 12.5 / 16 Pts

Side Mobile Barrier

Side Pole

Far-Side Excursion

Occupant Interaction

Rear Impact — 3.7 / 4 Pts

Rear Seat

Front Seat

ADULT OCCUPANT

Total 31.5 Pts / 82%

GOOD ADEQUATE MARGINAL WEAK POOR

Rescue and Extrication	2.0 / 2 Pts
Rescue Sheet	Available, ISO compliant
Advanced eCall	Available
Multi Collision Brake	Available

Comments

The passenger compartment of the ES8 remained stable in the frontal offset test. Dummy numbers showed good protection of the knees and femurs of both the driver and passenger. NIO showed that a similar level of protection would be provided to occupants of different sizes and to those sitting in different positions. Analysis of the deceleration of the impact trolley during the test, and analysis of the deformable barrier after the test, revealed that the ES8 would be a aggressive impact partner in a frontal collision. In the full-width rigid barrier test, good or adequate protection was provided to all critical body areas, for both the driver and rear passenger. In the film of the test, it can be seen that part of the B-pillar trim becomes detached during the test. This was due to incorrect re-fitting of the trim by the test laboratory after acceleration sensors were installed, and is not a characteristic of the vehicle. Dummy readings were unaffected by the detached trim and a re-test was deemed unnecessary. In the side barrier test, protection of all critical body areas was good and the car scored maximum points in this part of the assessment. In the more severe side pole impact, protection of the driver's chest was rated as marginal, based on dummy readings of rib compression. Excursion (the extent to which a body is thrown from one side of the vehicle to the other when it is struck on the far side) was marginal. The ES8 is not equipped with a counter-measure to protected against occupant to occupant injury in such impacts. Tests on the front seats and head restraints demonstrated good protection against whiplash injuries in the event of a rear-end collision. A geometric analysis of the rear seats also indicated good whiplash protection. The ES8 is equipped with multi-collision braking, to prevent secondary impacts, and has an advanced eCall system which alerts the emergency services of the vehicle's location in the event of a serious accident.

CHILD OCCUPANT

Total 41.5 Pts / 84%

GOOD | ADEQUATE | MARGINAL | WEAK | POOR

Crash Test Performance based on 6 & 10 year old children

24.0 / 24 Pts

Frontal Impact	16 Pts

Lateral Impact	8 Pts

Restraint for 6 year old child: *Britax Römer KidFix II S*
Restraint for 10 year old child: *Britax Römer KidFix II S*

Safety Features

6.0 / 13 Pts

	Front Passenger	2nd row outboard	2nd row center	3rd row outboard
Isofix	✖	●	✖	●
i-Size	✖	●	✖	✖
Integrated CRS	✖	✖	✖	✖

● Fitted to test car as standard ○ Not on test car but available as option ✖ Not available

CRS Installation Check

11.5 / 12 Pts

Install without problem | Install with care | Safety critical problem | Installation not allowed

i-Size CRS

Maxi Cosi 2way Pearl & 2wayFix (i-Size)

Maxi Cosi 2way Pearl & 2wayFix (i-Size)

BeSafe iZi Kid X2 i-Size (i-Size)

Britax Römer TriFix2 i-Size (i-Size)

BeSafe iZi Flex FIX i-Size (i-Size)

ISOFIX CRS

BeSafe iZi Combi X4 ISOfix (ISOFIX)

Cybex Solution Z i-Fix (ISOFIX)

CHILD OCCUPANT

Total 41.5 Pts / 84%

Universal Belted CRS

Maxi Cosi Cabriofix (Belt)

Maxi Cosi Cabriofix & EasyFix (Belt)

Britax Römer King II LS (Belt)

Cybex Solution Z i-Fix (Belt)

CHILD OCCUPANT

Total 41.5 Pts / 84%

	Seat Position					
	Front	2nd row			3rd row	
	PASSENGER	LEFT	CENTER	RIGHT	LEFT	RIGHT
Maxi Cosi 2way Pearl & 2wayFix (i-Size)	—	●	—	●	—	—
Maxi Cosi 2way Pearl & 2wayFix (i-Size)	—	●	—	●	—	—
BeSafe iZi Kid X2 i-Size (i-Size)	—	●	—	●	—	—
Britax Römer TriFix2 i-Size (i-Size)	—	●	—	●	—	—
BeSafe iZi Flex FIX i-Size (i-Size)	—	●	—	●	—	—
BeSafe iZi Combi X4 ISOfix (ISOFIX)	—	●	—	●	●	●
Cybex Solution Z i-Fix (ISOFIX)	—	●	—	●	●	●
Maxi Cosi Cabriofix (Belt)	●	●	●	●	●	●
Maxi Cosi Cabriofix & EasyFix (Belt)	●	●	✖	●	✖	✖
Britax Römer King II LS (Belt)	●	●	●	●	●	●
Cybex Solution Z i-Fix (Belt)	●	●	●	●	●	●

● Install without problem ● Install with care ● Safety critical problem ✖ Installation not allowed

— Not available

Comments

In both the frontal offset test and the side barrier impact, the ES8 provided good protection to all critical body areas of both the 6 year and 10 year dummy, and scored maximum points in this part of the assessment. The front passenger airbag can be disabled to allow a rearward facing child restraint to be used in that seating position. Clear information is provided to the driver regarding the status of the airbag and the system was rewarded. The user manual states that child restraints that make use of a support leg should not be used in the third row seats. A seven seat variant is available, with three seats in the second row. The centre seat of this second row cannot accommodate universal child restraints. With these exceptions, all child restraints could be properly installed and accommodated in the car.

VULNERABLE ROAD USERS

Total 39.3 Pts / 72%

GOOD ADEQUATE MARGINAL WEAK POOR

Pedestrian

26.2 / 36 Pts

Head Impact	15.6 Pts
Pelvis Impact	5.1 Pts
Leg Impact	5.5 Pts

Vulnerable Road Users

13.1 / 18 Pts

System Name	AEB
Type	Auto-Brake with Forward Collision Warning
Operational From	6 km/h

VULNERABLE ROAD USERS

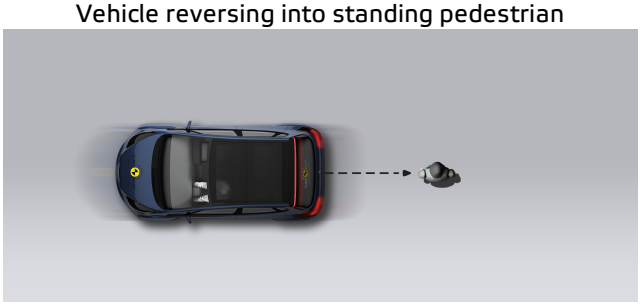
Total 39.3 Pts / 72%

AEB Pedestrian

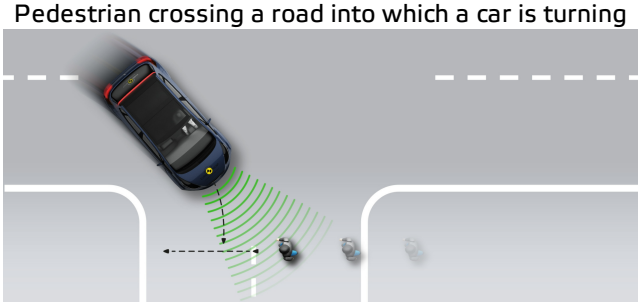
6.8 / 9 Pts

- **Day time**

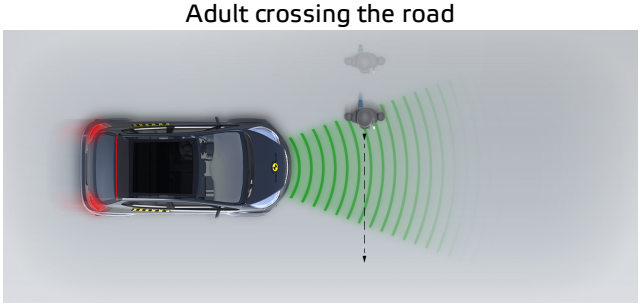
Vehicle reversing into standing pedestrian



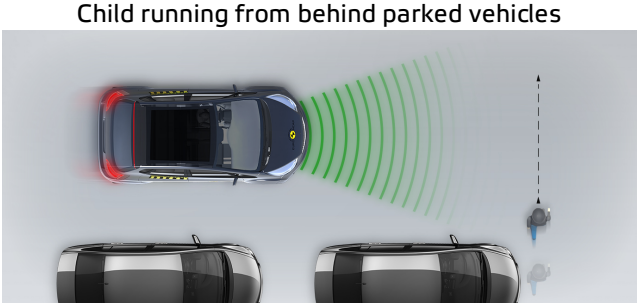
Pedestrian crossing a road into which a car is turning



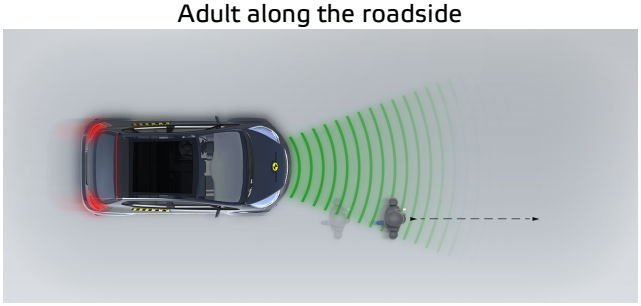
Adult crossing the road



Child running from behind parked vehicles

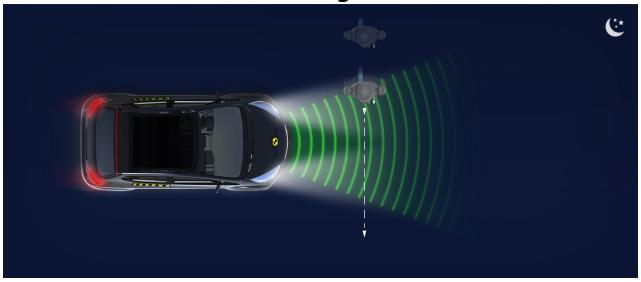


Adult along the roadside

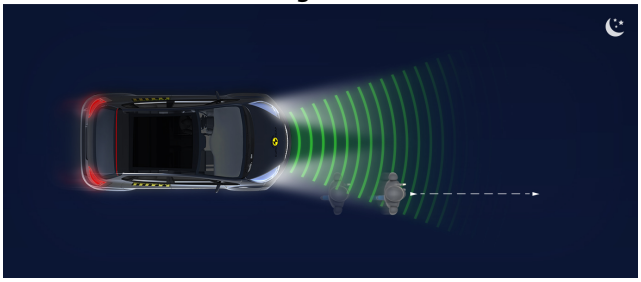


- **Night time**

Adult crossing the road



Adult along the roadside



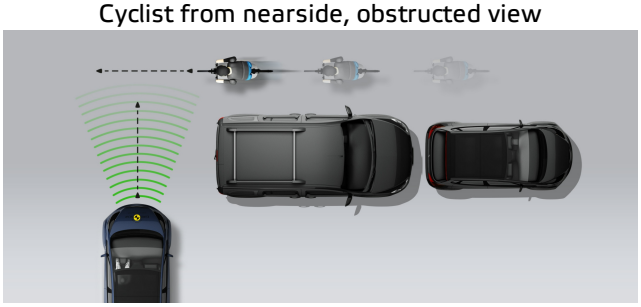
VULNERABLE ROAD USERS

Total 39.3 Pts / 72%

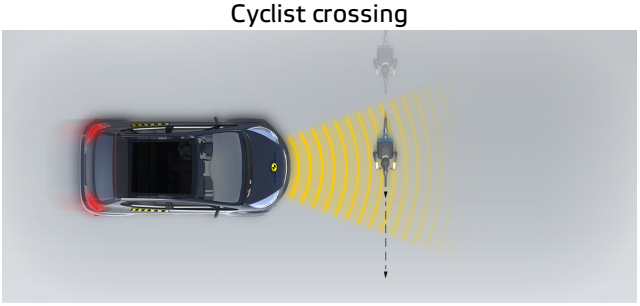
AEB Cyclist

6.3 / 9 Pts

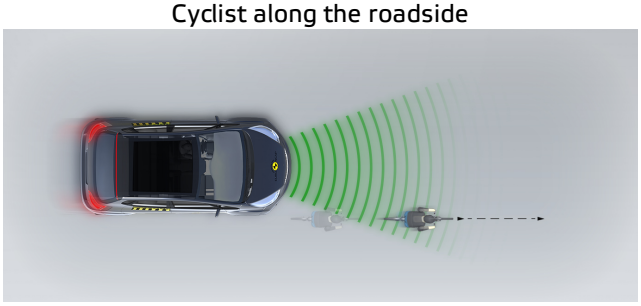
Cyclist from nearside, obstructed view



Cyclist crossing



Cyclist along the roadside



Comments

The bonnet surface provided mostly good or adequate protection to the head of a struck pedestrian but poor results were recorded on the stiff windscreen pillars. Protection of pedestrians' legs was predominantly good, although areas of marginal protection were also recorded. Likewise, protection of the pelvis was generally good but with some areas offering weak protection. The autonomous emergency braking (AEB) system of the ES8 can detect vulnerable road users such as pedestrians and cyclists, as well as other vehicles. In tests of its response to pedestrians, it performed well, with collisions avoided in most situations. The system does not include 'AEB reverse' functionality. In tests of the system's reaction to cyclists, it performed adequately.

SAFETY ASSIST

Total 14.8 Pts / 92%

GOOD ADEQUATE MARGINAL WEAK POOR

Speed Assistance

3.0 / 3 Pts

System Name	Speed Assist System
Speed Limit Information Function	Camera & Map, subsigns supported
Speed Limitation Function	System advised (accurate to 5km/h)

Occupant Status Monitoring

3.0 / 3 Pts

Seatbelt Reminder

2.0 / 2 Pts

Applies To	Front and rear seats, including optional third row		
Warning	Driver Seat	Front Passenger(s)	Rear Passenger(s)
Visual	●	●	●
Audible	●	●	●
Occupant Detection	—	●	●

● Pass ● Fail — Not available

Driver Monitoring

1.0 / 1 Pts

System Name	Driver Monitoring System (DMS)
Type	Direct eye monitoring and steering inputs
Operational From	22 km/h

Version 200821

SAFETY ASSIST

Total 14.8 Pts / 92%

Lane Support

4.0 / 4 Pts

System Name	LSS
Type	LKA and ELK
Operational From	65 km/h
PERFORMANCE	
Emergency Lane Keeping	GOOD
Lane Keep Assist	GOOD
Human Machine Interface	GOOD

AEB Car-to-Car

4.8 / 6 Pts

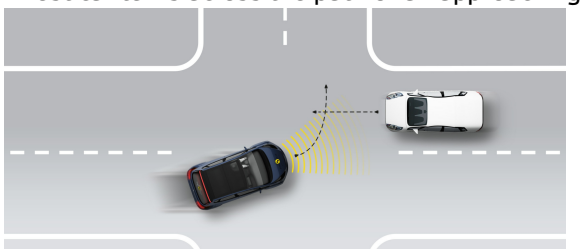
System Name	AEB
Type	Autonomous emergency braking and forward collision warning
Operational From	6 km/h
Sensor Used	camera and radar

SAFETY ASSIST

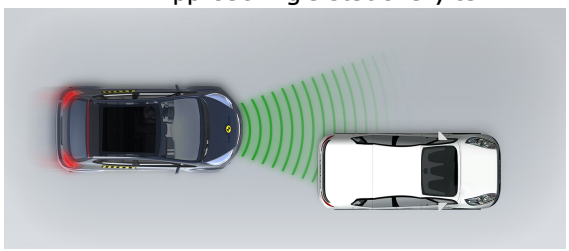
Total 14.8 Pts / 92%

- **Autobrake function only**

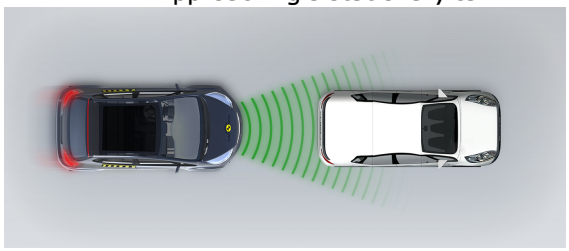
Test car turns across the path of an approaching car



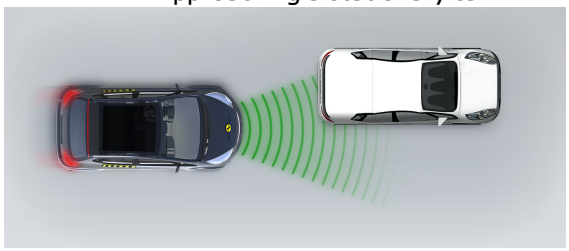
Approaching a stationary car



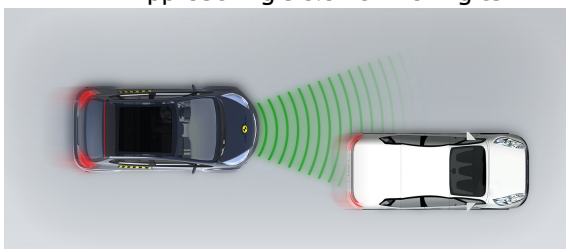
Approaching a stationary car



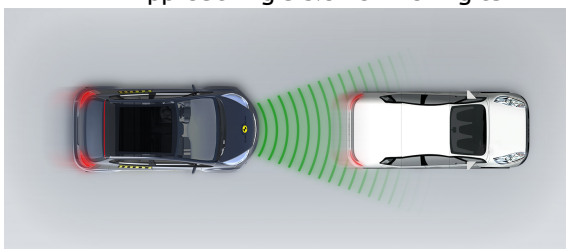
Approaching a stationary car



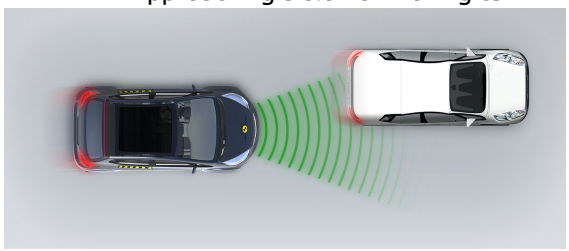
Approaching a slower moving car



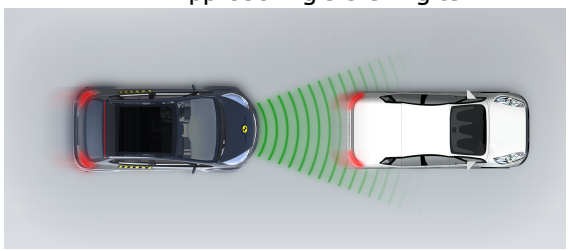
Approaching a slower moving car



Approaching a slower moving car



Approaching a braking car

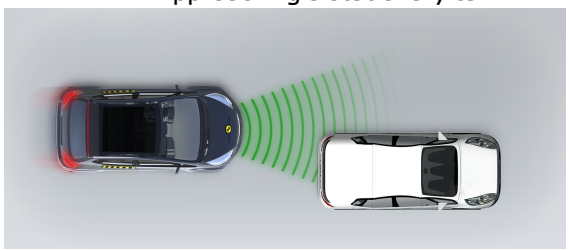


SAFETY ASSIST

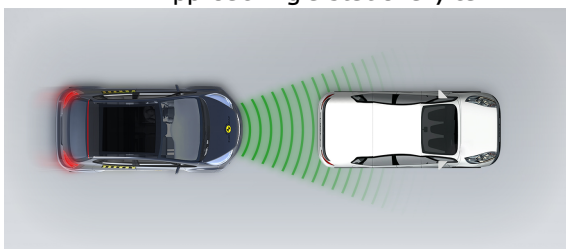
Total 14.8 Pts / 92%

- **Driver reacts to warning**

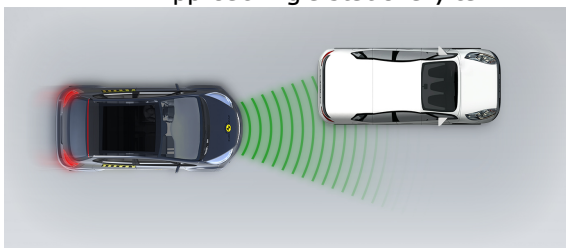
Approaching a stationary car



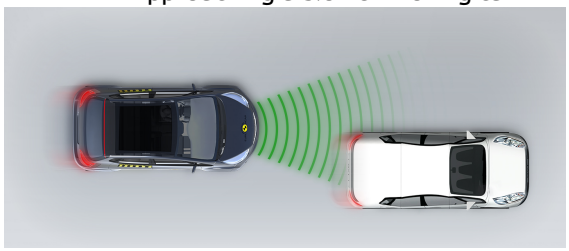
Approaching a stationary car



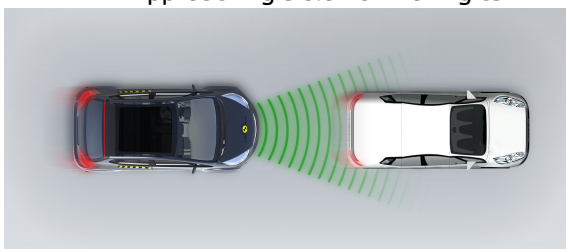
Approaching a stationary car



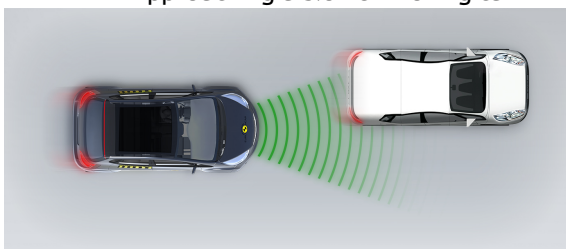
Approaching a slower moving car



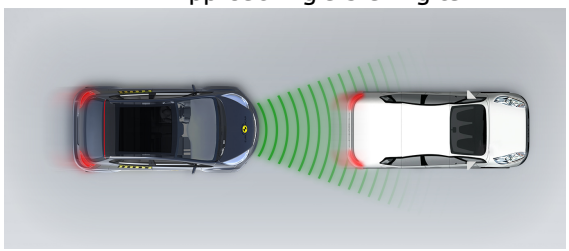
Approaching a slower moving car



Approaching a slower moving car



Approaching a braking car



SAFETY ASSIST

Total 14.8 Pts / 92%

Comments

The ES8's AEB system performed well in tests of its response to other vehicles, with collisions avoided or mitigated in the great majority of test situations. The car is equipped with a seatbelt reminder system, including occupant detection, for the front and rear seats and also monitors the driver's eyes and steering inputs for signs of fatigue or impaired driving. Speed assistance is provided by a system which uses a camera and digital mapping to ascertain the local limit, and presents this information to the driver, allowing the speed limiter to be set appropriately. The lane support system gently corrects the vehicle's path if it is drifting out of lane and also intervenes in some more critical situations to prevent the vehicle from leaving the road.

RATING VALIDITY

Variants of Model Range

Body Type	Engine	Model Name	Drivetrain	Rating Applies	
				LHD	RHD#
5 door SUV 6 seat*, 7 seat	electric	ES8	4 x 4	✓	-

* Tested variant
# Available as LHD only

Annual Reviews and Facelifts

Date	Event	Outcome	
September 2021	Rating Published	2021 ★★★★★	✓