Insurance Institute for Highway Safety
Highway Loss Data Institute

2018 TOP SAFETY PICK+

2018 Genesis G80

Large luxury car

2018 Genesis G80

CRASHWORTHINESS	
Small overlap front	
Driver-side	G
Passenger-side	G
Moderate overlap front	G
Side	G
Roof strength	G
Head restraints & seats	G
CRASH AVOIDANCE & MITIGATION	
Front crash prevention	SUPERIOR
Headlights	G only certain trims/options
CHILD SEAT ANCHORS (LATCH) EASE OF USE	M

Check for NHTSA **recalls**

The photos and videos shown here may be of a different model, model year or body type from the one selected. The ratings of one vehicle often apply to other models if they are built on the same platform. In addition, a test of a vehicle from one model year may apply to earlier or later model years if the vehicle hasn't been significantly redesigned.

Small overlap front: — Driver-side —
Action shot taken during the small overlap frontal crash test.

Small overlap front: — Driver-side —
The dummy's position in relation to the door frame, steering wheel, and instrument panel after the crash test indicates that the driver's survival space was maintained well.

Small overlap front: — Driver-side —
The frontal and side curtain airbags worked well together to keep the head from coming close to any stiff structure or outside objects that could cause injury.

Small overlap front: — Driver-side —
The driver's space was maintained well, and risk of injuries to the dummy's legs and feet was low.

2015 Hyundai Genesis driver-side small overlap test

Applies to 2017-18 models

Other model years

Model year	Small overlap front		Moderate overlap front	Side	Roof strength	Head restraints & seats	Front crash prevention	Headlights	LATCH ease of use
	Driver	Passenger							
2018	G	G	G	G	G	G	SUPERIOR	G	M
2017	G	G	G	G	G	G	SUPERIOR	A	M

Small overlap front: Driver-side

TEST DETAILS

Applies to 2017-18 models

Overall evaluation	G
Structure and safety cage	G
Injury measures	
Head/neck	G
Chest	G
Hip/thigh	G
Lower leg/foot	G
Restraints and dummy kinematics	G

Important: Frontal crash test ratings should be compared only among vehicles of similar weight.

This rating applies to vehicles other than the specific model and body style tested.

The Hyundai Genesis was redesigned for the 2015 model year.

Hyundai created a new luxury division known as "Genesis" beginning with the 2017 model year. The Hyundai Genesis therefore was renamed the Genesis G80 in the same year. Small overlap frontal ratings carry over unchanged to the G80.

Structure

The driver space was maintained well, with maximum intrusion of the lower interior of 19 cm at the footrest. Upper interior intrusion measured 3-4 cm at the upper hinge pillar and instrument panel.

Injury measures

Measures taken from the dummy indicate a low risk of any significant injuries in a crash of this severity.

Restraints and dummy kinematics

The dummy’s movement was well controlled. The dummy’s head loaded the frontal airbag, which stayed in front of the dummy until rebound. The side curtain airbag deployed and has sufficient forward coverage to protect the head from contact with side structure and outside objects. The side torso airbag also deployed.

Tested vehicle specifications

Tested vehicle	2015 Hyundai Genesis 3.8 4-door
Weight	4,345 lbs.
Side airbags	front and rear head curtain airbags and front and rear seat-mounted torso airbags
Wheelbase	119 in.
Length	196 in.
Width	74 in.
Engine	3.8 L V6
EPA ratings	18 mpg city / 29 mpg highway

How this test is conducted

TECHNICAL MEASUREMENTS

Measures of occupant compartment intrusion on driver side

Test ID	CEN1419
Lower occupant compartment	
Lower hinge pillar max (cm)	5
Footrest (cm)	19
Left toepan (cm)	13
Brake pedal (cm)	5
Parking brake (cm)	
Rocker panel lateral average (cm)	1
Upper occupant compartment	
Steering column	0
Upper hinge pillar max (cm)	3
Upper dash (cm)	4
Lower instrument panel (cm)	4

Driver injury measures

Test ID	CEN1419

Head	
HIC-15	106
Peak gs at hard contact	no contact
Neck	
Tension (kN)	0.8
Extension bending moment (Nm)	12
Maximum Nij	0.18
Chest maximum compression (mm)	20
Femur (kN)	
Left	0.4
Right	0.5
Knee displacement (mm)	
Left	2
Right	2
Knee-thigh-hip injury risk (%)	
Left	0
Right	0
Maximum tibia index	
Left	0.54
Right	0.31
Tibia axial force (kN)	
Left	2.0
Right	1.1
Foot acceleration (g)	
Left	94
Right	44

Small overlap front: Passenger-side

TEST DETAILS

Applies to 2017-18 models

Overall evaluation	G
Structure and safety cage	A
Passenger injury measures	
Head/neck	G
Chest	G
Hip/thigh	G
Lower leg/foot	G
Passenger restraints and dummy kinematics	G
Driver injury measures	
Head/neck	G
Chest	G
Hip/thigh	G
Lower leg/foot	G
Driver restraints and dummy kinematics	G

Important: Frontal crash test ratings should be compared only among vehicles of similar weight.

The Genesis G80 was introduced in the 2017 model year as part of the new luxury division created by Hyundai named "Genesis." Passenger-side small overlap frontal ratings are assigned by the Institute based a test conducted by Hyundai as part of **frontal crash test verification**.

Structure

The passenger space was maintained reasonably well overall, despite maximum intrusion of the lower interior of 30 cm at the rightmost portion of the toepan. Maximum upper interior intrusion measured 9 cm at the dashboard.

Passenger injury measures

Measures taken from the dummy indicate a low risk of any significant injuries in a crash of this severity.

Passenger restraints and dummy kinematics

The dummy's movement was well controlled. The dummy's head loaded the frontal airbag, which stayed in front of the dummy until rebound. The side curtain airbag deployed and has sufficient forward coverage to protect the head from contact with side structure and outside objects. The side torso airbag also deployed.

Driver injury measures

Measures taken from the dummy indicate a low risk of any significant injuries in a crash of this severity.

Driver restraints and dummy kinematics

The dummy's movement was well controlled. The dummy's head loaded the frontal airbag, which stayed in front of the dummy until rebound.

Tested vehicle specifications

Tested vehicle	2018 Genesis G80 Premium 4-door
Weight	4,317 lbs.
Side airbags	front and rear head curtain airbags and front and rear seat-mounted torso airbags
Wheelbase	119 in.
Length	196 in.
Width	74 in.
Engine	3.8 L V6
EPA ratings	19 mpg city / 27 mpg highway

How this test is conducted

TECHNICAL MEASUREMENTS

Measures of occupant compartment intrusion on passenger side

Test ID	VTP1715
Lower occupant compartment	
Lower hinge pillar max (cm)	6
Footrest (cm)	30
Right toepan (cm)	21
Center toepan (cm)	8
Rocker panel lateral average (cm)	0
Upper occupant compartment	
Center dash (cm)	4
Upper hinge pillar max (cm)	1
Upper dash (cm)	7
Right lower dash (cm)	9

Passenger injury measures

Test ID	VTP1715
Head	
HIC-15	138
Peak gs at hard contact	no contact
Neck	
Tension (kN)	1.8
Extension bending moment (Nm)	12
Maximum Nij	0.27
Chest maximum compression (mm)	19
Femur (kN)	
Left	0.2
Right	0.3
Knee displacement (mm)	
Left	0
Right	1
Knee-thigh-hip injury risk (%)	
Left	0
Right	0
Maximum tibia index	
Left	0.33
Right	0.46
Tibia axial force (kN)	
Left	1.5
Right	2.2
Foot acceleration (g)	
Left	38
Right	85

Driver injury measures

Test ID	VTP1715
Head	
HIC-15	52
Peak gs at hard contact	no contact
Neck	
Tension (kN)	0.6
Extension bending moment (Nm)	9
Maximum Nij	0.17
Chest maximum compression (mm)	22
Femur (kN)	
Left	0.1
Right	0.3
Knee displacement (mm)	
Left	1
Right	1
Knee-thigh-hip injury risk (%)	
Left	0
Right	0
Maximum tibia index	
Left	0.40
Right	0.27
Tibia axial force (kN)	
Left	0.1

Right	1.1
Foot acceleration (g)	
Left	33
Right	40

Moderate overlap front

TEST DETAILS

Applies to 2017-18 models

Overall evaluation	G
Structure and safety cage	G
Injury measures	
Head/neck	G
Chest	G
Leg/foot, left	G
Leg/foot, right	G
Restraints and dummy kinematics	G

Important: Frontal crash test ratings should be compared only among vehicles of similar weight.

This rating applies to vehicles other than the specific model and body style tested.

The Hyundai Genesis was redesigned for the 2015 model year. Moderate overlap frontal ratings are assigned by the Institute based on a test conducted by Hyundai as part of **frontal crash test verification**. (The car tested by Hyundai was designated as a 2014 model but was fully representative of the redesigned 2015 model.)

Hyundai created a new luxury division known as "Genesis" beginning with the 2017 model year. The Hyundai Genesis therefore was renamed the Genesis G80 in the same year. Moderate overlap frontal ratings carry over unchanged to the G80.

Injury measures

Measures taken from the dummy indicate a low risk of any significant injuries in a crash of this severity.

Restraints and dummy kinematics

Dummy movement was well controlled. The driver side curtain and side thorax airbags deployed during the crash. After the dummy moved forward into the frontal airbag, it rebounded into the seat without its head coming close to any stiff structure that could cause injury.

Tested vehicle specifications

Tested vehicle	2015 Hyundai Genesis 5.0 4-door
Weight	4,572 lbs.
Side airbags	front and rear head curtain airbags and front and rear seat-mounted torso airbags
Wheelbase	119 in.
Length	196 in.
Width	74 in.
Engine	5.0 L V8
EPA ratings	15 mpg city / 23 mpg highway

How this test is conducted

TECHNICAL MEASUREMENTS

Measures of occcupant compartment intrusion on driver side

Test ID	VTF1319
Footwell intrusion	
Footrest (cm)	1
Left (cm)	2
Center (cm)	2
Right (cm)	3
Brake pedal (cm)	3
Instrument panel rearward movement	
Left (cm)	-1
Right (cm)	0
Steering column movement	
Upward (cm)	-4
Rearward (cm)	-6
A-pillar rearward movement (cm)	0

Driver injury measures

Test ID	VTF1319
Head	
HIC-15	154
Peak gs at hard contact	no contact
Neck	
Tension (kN)	1.3
Extension bending moment (Nm)	17
Maximum Nij	0.27
Chest maximum compression (mm)	30
Legs	
Femur force - left (kN)	1.3
Femur force - right (kN)	1.9
Knee displacement - left (mm)	4
Knee displacement - right (mm)	3
Maximum tibia index - left	0.44
Maximum tibia index - right	0.65
Tibia axial force - left (kN)	2.1
Tibia axial force - right (kN)	3.4
Foot acceleration (g)	
Left	55
Right	82

Side

TEST DETAILS

Applies to 2017-18 models

Overall evaluation	G
Structure and safety cage	G
Driver injury measures	

Head/neck	G
Torso	G
Pelvis/leg	G
Head protection	G
Rear passenger injury measures	
Head/neck	G
Torso	G
Pelvis/leg	G
Head protection	G

Side crash test ratings can be compared across vehicle categories.

This rating applies to vehicles other than the specific model and body style tested.

The Hyundai Genesis was redesigned for the 2015 model year. Side ratings are assigned by the Institute based on a test conducted by Hyundai as part of **side crash test verification**. (The car tested by Hyundai was designated as a 2014 model but was fully representative of the redesigned 2015 model.)

Hyundai created a new luxury division known as "Genesis" beginning with the 2017 model year. The Hyundai Genesis therefore was renamed the Genesis G80 in the same year. Side ratings carry over unchanged to the G80.

Injury measures

Driver — Measures taken from the dummy indicate a low risk of any significant injuries in a crash of this severity.

Passenger — Measures taken from the dummy indicate a low risk of any significant injuries in a crash of this severity.

Head protection

Driver — The dummy's head was protected from being hit by any hard structures, including the intruding barrier, by a side curtain airbag that deployed from the roof and a side airbag that deployed from the seat.

Passenger — The dummy's head was protected from being hit by any hard structures, including the intruding barrier, by a side curtain airbag that deployed from the roof.

Tested vehicle specifications

Tested vehicle	2015 Hyundai Genesis 5.0 4-door
Weight	4,586 lbs.
Side airbags	standard front and rear head curtain airbags and standard front and rear seat-mounted torso airbags
Wheelbase	119 in.
Length	196 in.
Width	74 in.
Engine	5.0 L V8
EPA ratings	15 mpg city / 23 mpg highway

How this test is conducted

TECHNICAL MEASUREMENTS

Measures of occupant compartment intrusion on driver side

Test ID	VTS1401
B-pillar to longitudinal centerline of driver's seat (cm)	-15.5

Negative numbers indicate the amount by which the crush stopped short of the seat centerline.

Driver injury measures

Test ID	VTS1401
Head HIC-15	172
Neck	
Tension (kN)	0.4
Compression (kN)	0.6
Shoulder	
Lateral deflection (mm)	22
Lateral force (kN)	1.0
Torso	
Maximum deflection (mm)	27
Average deflection (mm)	25
Maximum deflection rate (m/s)	4.14
Maximum viscous criterion (m/s)	0.45
Pelvis	
Iliac force (kN)	1.3
Acetabulum force (kN)	1.7
Combined force (kN)	2.9
Left femur	
L-M force (kN)	0.1
L-M moment (Nm)	98
A-P moment (Nm)	36

Passenger injury measures

Test ID	VTS1401
Head HIC-15	29
Neck	
Tension (kN)	0.3
Compression (kN)	0.2
Shoulder	
Lateral deflection (mm)	15
Lateral force (kN)	0.6
Torso	
Maximum deflection (mm)	16
Average deflection (mm)	9
Maximum deflection rate (m/s)	2.47
Maximum viscous criterion (m/s)	0.15
Pelvis	
Iliac force (kN)	0.3
Acetabulum force (kN)	1.2
Combined force (kN)	1.3
Left femur	
L-M force (kN)	0.4
L-M moment (Nm)	50
A-P moment (Nm)	24

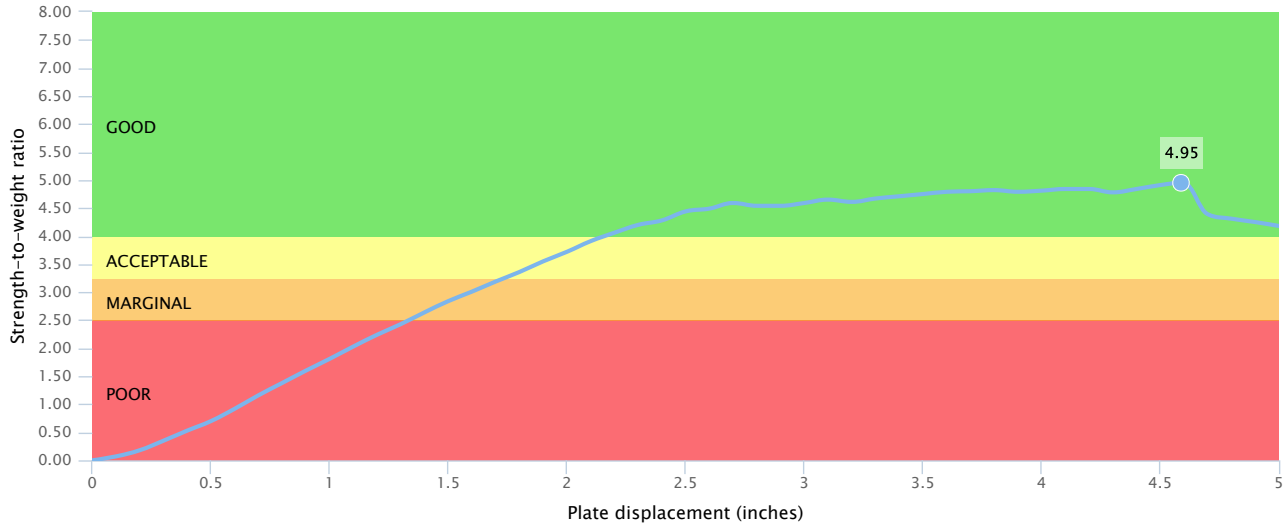
Roof strength

TEST DETAILS

Applies to 2017-18 models

Overall evaluation	G
Curb weight	4,323 lbs
Peak force	21,387 lbs
Strength-to-weight ratio	4.95
Tested vehicle Rating also applies to the Genesis G80 beginning with the 2017 model year.	2015 Hyundai Genesis 3.8 4-door

Roof strength test ratings can be compared across vehicle categories.



In the test, the strength of the roof is determined by pushing a metal plate against one side of it at a slow but constant speed. The force applied relative to the vehicle's weight is known as the strength-to-weight ratio. This graph shows how the ratio varied as the test of this vehicle progressed. The peak strength-to-weight ratio recorded at any time before the roof is crushed 5 inches is the key measurement of roof strength.

A good rating requires a strength-to-weight ratio of at least 4. In other words, the roof must withstand a force of at least 4 times the vehicle's weight before the plate crushes the roof by 5 inches. For an acceptable rating, the minimum required strength-to-weight ratio is 3.25. For a marginal rating, it is 2.5. Anything lower than that is poor.

How this test is conducted

Head restraints & seats Power leather seat

TEST DETAILS

Applies to 2017-18 models

Overall evaluation	G
Dynamic rating	G
Seat/head restraint geometry	G

Important: Ratings for head restraints & seats should be compared only among vehicles of similar weight.

Seat type

Power leather seat

How this test is conducted

TECHNICAL MEASUREMENTS

Seat type	Power leather sea
Geometry	
Backset (mm)	15
Distance below top of head (mm)	-12
Seat design parameters	
Pass/fail	Pass
Max T1 acceleration (g)	17.1
Head contact time (ms)	56
Force rating	1
Neck forces	
Max neck shear force (N)	0
Max neck tension (N)	281

Front crash prevention

DETAILS

Applies to 2018 models

System details

- standard Autonomous Emergency Braking

Overall evaluation

SUPERIOR

6 points total

Forward collision warning

This system meets the National Highway Traffic Safety Administration's criteria for forward collision warning.

1 point

Low-speed autobrake

In the 12 mph IIHS test, this vehicle avoided a collision.

2 points

High-speed autobrake

In the 25 mph IIHS test, this vehicle avoided a collision.

3 points

How this rating is determined

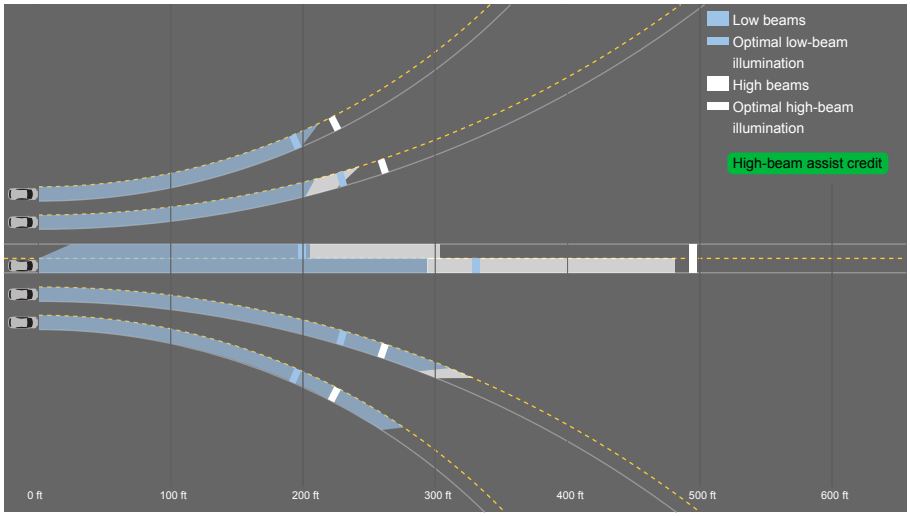
Headlights

TEST DETAILS

Ratings are given for 2 different headlight variations available for this vehicle.

Trim level(s)	3.3T Sport trim 3.8L trim equipped with Ultimate package 5.0L trim equipped with Ultimate package
Low-beam headlight type	LED projector
High-beam headlight type	LED projector
Curve-adaptive?	Yes
Automatically switches between low beams and high beams (high-beam assist)?	Yes
Overall rating	G

Distance at which headlights provide at least 5 lux illumination:



Low beams

On the straightaway, visibility was good on the left side of the road and fair on the right side. On curves, visibility was good on the sharp left and both right curves and fair on the gradual left curve.

The low beams never exceeded glare limits.

High beams

On the straightaway, visibility was good on the right side of the road and inadequate on the left side. On curves, visibility was good on both right curves and fair on both left curves.

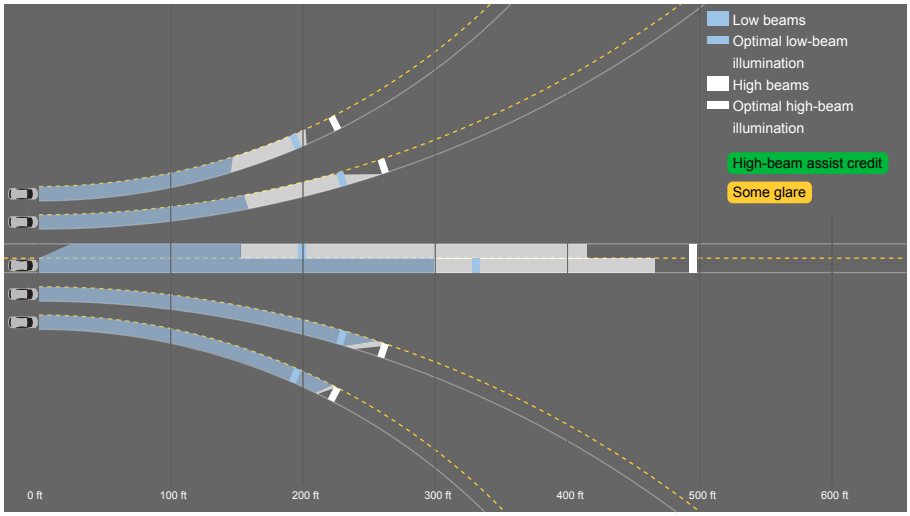
High-beam assist compensates for some limitations of this vehicle's low beams on the straightaway and on the gradual left curve.

How this test is conducted

Trim level(s)	3.8L Standard trim 3.8L Premium trim
Low-beam headlight type	HID projector
High-beam headlight type	HID projector

Curve-adaptive?	No
Automatically switches between low beams and high beams (high-beam assist)?	Yes
Overall rating	A

Distance at which headlights provide at least 5 lux illumination:



Low beams

On the straightaway, visibility was fair on both sides of the road. On curves, visibility was good on both right curves and inadequate on both left curves.

The low beams created some glare.

High beams

On the straightaway, visibility was fair on the right side of the road and inadequate on the left side. On curves, visibility was good on the sharp right curve and fair on the gradual right and both left curves.

High-beam assist compensates for some limitations of this vehicle's low beams on the straightaway and on both left curves.

How this test is conducted

TECHNICAL MEASUREMENTS

Trim level(s)	3.3T Sport trim 3.8L trim equipped with Ultimate package 5.0L trim equipped with Ultimate package
Low-beam headlight type	LED projector
High-beam headlight type	LED projector
Curve-adaptive?	Yes
High-beam assist?	Yes
Overall rating Applies to 2018 models	G

LOW BEAMS	Average minimum useful illumination distance (5 lux)	Amount glare exceeded threshold
Straightaway right edge	89.7 m	None
Straightaway left edge	62.6 m	None
250m radius right curve, right edge	90.1 m	None

250m radius left curve, right edge	61.7 m	None
150m radius right curve, right edge	84.5 m	None
150m radius left curve, right edge	61.6 m	None

HIGH BEAMS	Average minimum useful illumination distance (5 lux)
Straightaway right edge	146.6 m
Straightaway left edge	92.3 m
250m radius right curve, right edge	94.7 m
250m radius left curve, right edge	69.2 m
150m radius right curve, right edge	83.1 m
150m radius left curve, right edge	60.7 m

Trim level(s)	3.8L Standard trim 3.8L Premium trim
Low-beam headlight type	HID projector
High-beam headlight type	HID projector
Curve-adaptive?	No
High-beam assist?	Yes
Overall rating Applies to 2017-18 models	A

LOW BEAMS	Average minimum useful illumination distance (5 lux)	Amount glare exceeded threshold
Straightaway right edge	91.3 m	None
Straightaway left edge	46.6 m	None
250m radius right curve, right edge	72.1 m	3.8 %
250m radius left curve, left edge	47.9 m	None
150m radius right curve, right edge	66.8 m	None
150m radius left curve, right edge	44.5 m	None

HIGH BEAMS	Average minimum useful illumination distance (5 lux)
Straightaway right edge	142.1 m
Straightaway left edge	126.3 m
250m radius right curve, right edge	74.5 m
250m radius left curve, left edge	68.6 m
150m radius right curve, right edge	67.4 m
150m radius left curve, right edge	62.9 m

Child seat anchors (LATCH) ease of use 3.8 — leather seats

DETAILS

Applies to 2017-18 models

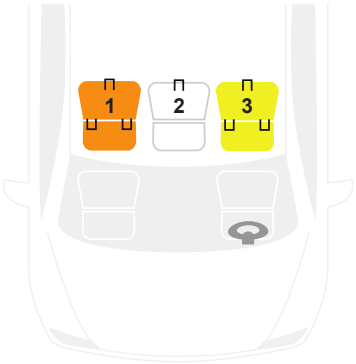
Overall evaluation M

How this rating is determined

Vehicle trim	3.8
Seat type	leather

This vehicle has 2 rear seating positions with complete child seat attachment (LATCH) hardware.

It has 1 additional seating position with a tether anchor only.



Good
Acceptable
Marginal
Poor
Seating positions that rely on borrowed lower anchors or have only a tether anchor available are not rated.
Tether anchor
Lower anchors
Lower anchor(s) can be borrowed from adjacent positions(s)
No hardware available

Details by seating position

1	**Tether anchor**
	easy-to-find location
	no other hardware could be confused for anchor
	Lower anchors
	too deep in seat
	not too much force needed to attach
	difficult to maneuver around anchors
2	**Tether anchor**
	easy-to-find location
	no other hardware could be confused for anchor
	Lower anchors
	none available
3	**Tether anchor**
	easy-to-find location
	no other hardware could be confused for anchor
	Lower anchors
	too deep in seat
	not too much force needed to attach
	easy to maneuver around anchors

TECHNICAL MEASUREMENTS

Seat position 21 **3**

Lower anchor A	
Open access rated	No

Depth (cm)	2-4
Force (lbs)	16
Clearance angle (degrees)	60
Lower anchor B	
Open access rated	No
Depth (cm)	2-4
Force (lbs)	15
Clearance angle (degrees)	76
Tether anchor	
Location	Rear deck
Confusing hardware present	No
Has contrasting label within 3 inches of tether anchor	No

Seat position 22 **2**

Lower anchor A	
No lower latch for this seat position	
Lower anchor B	
No lower latch for this seat position	
Tether anchor	
Location	Rear deck
Confusing hardware present	No
Has contrasting label within 3 inches of tether anchor	No

Seat position 23 **1**

Lower anchor A	
Open access rated	No
Depth (cm)	2-4
Force (lbs)	19
Clearance angle (degrees)	71
Lower anchor B	
Open access rated	No
Depth (cm)	2-4
Force (lbs)	20
Clearance angle (degrees)	50
Tether anchor	
Location	Rear deck
Confusing hardware present	No
Has contrasting label within 3 inches of tether anchor	No

Other safety features

Side airbags: front and rear head curtain airbags and front and rear seat-mounted torso airbags
Rollover sensor: designed to deploy the side curtain airbags in the event of an impending rollover
Driver knee airbag: a separate airbag in the lower instrument panel designed to minimize knee injuries in frontal crashes
Electronic stability control
Antilock brakes
Daytime running lights