



Volvo EC40 (formerly C40 Recharge)
Standard Safety Equipment

2022



Adult Occupant



92%

Child Occupant



89%

Vulnerable Road Users



70%

Safety Assist



89%

SPECIFICATION

Tested Model	Volvo C40 Recharge
Body Type	- 5 door hatchback
Year Of Publication	2022
Kerb Weight	2149kg
VIN From Which Rating Applies	- all EC40s and C40 Recharge
Class	Small SUV

General comments

The Volvo EC40 was known as the Volvo C40 Recharge until February 2024.

SAFETY EQUIPMENT

	Driver	Passenger	Rear
FRONTAL CRASH PROTECTION			
Frontal airbag	●	●	✘
Belt pretensioner	●	●	●
Belt loadlimiter	●	●	●
Knee airbag	●	✘	✘
SIDE CRASH PROTECTION			
Side head airbag	●	●	●
Side chest airbag	●	●	✘
Side pelvis airbag	●	●	✘
Centre Airbag	●	●	—
CHILD PROTECTION			
Isfix/i-Size	—	●	●
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 35.3 Pts / 92%


 GOOD  ADEQUATE  MARGINAL  WEAK  POOR

Frontal Impact 13.7 / 16 Pts




Mobile Progressive Deformable Barrier Full Width Rigid Barrier

Lateral Impact 16.0 / 16 Pts



Side Mobile Barrier Side Pole Far-Side Excursion Occupant Interaction

Rear Impact 3.6 / 4 Pts



Rear Seat Front Seat

 ADULT OCCUPANT

Total 35.3 Pts / 92%

 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 EC40 remained stable in the frontal offset test. Protection of all critical body areas was good for both driver and front passenger and the EC40 scored maximum points in this part of the assessment. Volvo showed that a similar level of protection would be provided to the knees and femurs of 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 EC40 would be an aggressive impact partner in a frontal collision. With the exception of the chest of the rear passenger, protection of which was adequate, all critical body areas of both the driver and rear seat passenger were well protected. In both the side barrier test and the more severe pole impact, protection of all critical body areas was good and the car scored maximum points. Control of excursion (the extent to which a body is thrown to the other side of the vehicle when it is hit from the far side) was found to be adequate. The EC40 has a counter-measure to mitigate against occupant to occupant injuries in such impacts and this performed well in Euro NCAP's test. 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 EC40 has an advanced eCall system which alerts the emergency services in the event of a crash. The car also has a system which applies the brakes after an impact, to avoid secondary collisions.

CHILD OCCUPANT

Total 44.0 Pts / 89%

■ GOOD
 ■ ADEQUATE
 ■ MARGINAL
 ■ WEAK
 ■ POOR

Crash Test Performance based on 6 & 10 year old children

24.0 / 24 Pts



Restraint for 6 year old child: *Volvo KidFix SL*
 Restraint for 10 year old child: *Graco booster*

Safety Features

8.0 / 13 Pts

	Front Passenger	2nd row outboard	2nd row center
Isofix	●	●	✘
i-Size	●	●	✘
Integrated CRS	✘	✘	✘

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

CRS Installation Check

12.0 / 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 44.0 Pts / 89%

■ Universal Belted CRS

Maxi Cosi Cabriofix (Belt)



Maxi Cosi Cabriofix & EasyFix (Belt)



Britax Römer King II LS (Belt)



Cybex Solution Z i-Fix (Belt)



Comments

In both the frontal offset test and the side barrier impact, protection of all critical body areas was rated as good, for both the 6 and 10 year dummies and the car scored maximum points. 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. All of the child restraint types for which the car is designed could be properly installed and accommodated.

CHILD OCCUPANT

Total 44.0 Pts / 89%

	Seat Position			
	Front	2nd row		
	PASSENGER	LEFT	CENTER	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)	●	●	●	●

● Easy ● Difficult ● Safety critical ✘ Not allowed — Not available

Comments

In both the frontal offset test and the side barrier impact, protection of all critical body areas was rated as good, for both the 6 and 10 year dummies and the car scored maximum points. 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. All of the child restraint types for which the car is designed could be properly installed and accommodated.

 **VULNERABLE ROAD USERS**

Total 37.9 Pts / 70%



VRU Impact Protection

24.4 / 36 Pts



Head Impact	15.7 Pts
Pelvis Impact	2.7 Pts
Leg Impact	6.0 Pts

Vulnerable Road Users


13.5 / 18 Pts

System Name	Safety Assistance
Type	Auto-Brake with Forward Collision Warning
Operational From	4 km/h

 VULNERABLE ROAD USERS

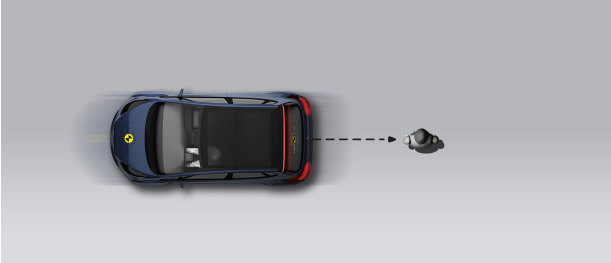
Total 37.9 Pts / 70%

AEB Pedestrian

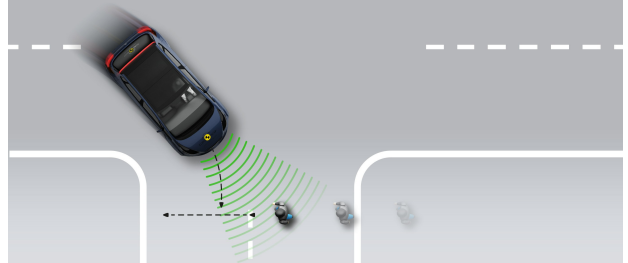
 6.0 / 9 Pts

■ Day time

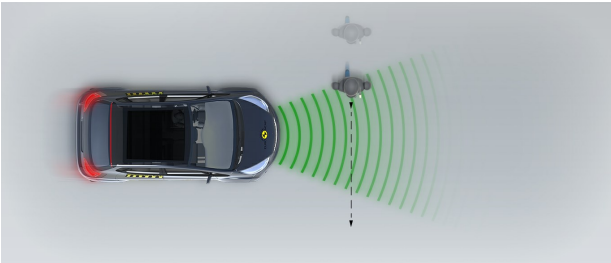
Vehicle reversing into standing pedestrian



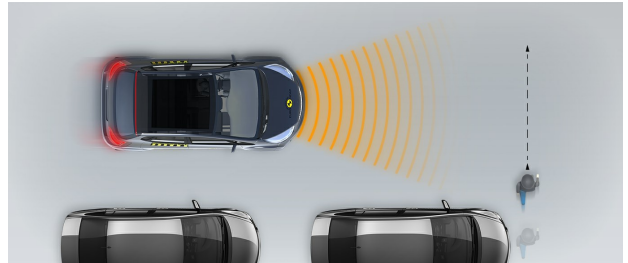
Pedestrian crossing a road into which a car is turning



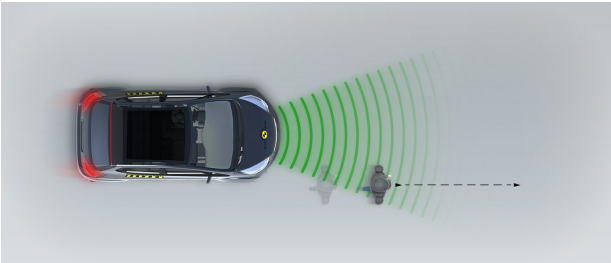
Adult crossing the road



Child running from behind parked vehicles



Adult along the roadside

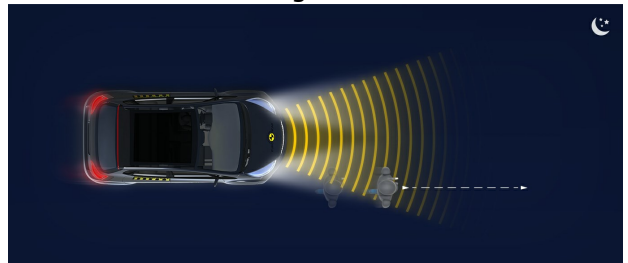


■ Night time

Adult crossing the road



Adult along the roadside

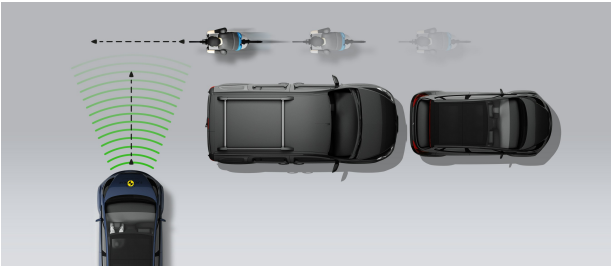


VULNERABLE ROAD USERS

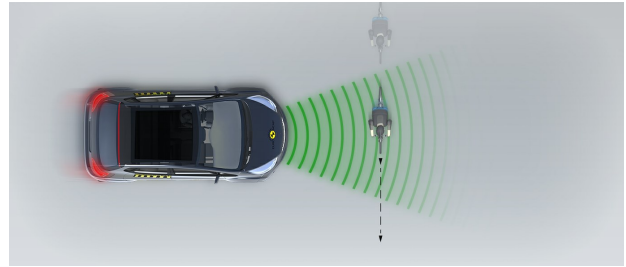
Total 37.9 Pts / 70%

AEB Cyclist
7.5 / 9 Pts

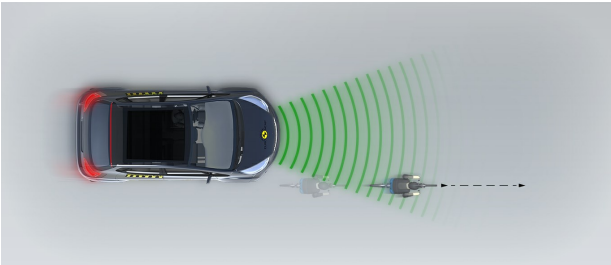
Cyclist from nearside, obstructed view



Approaching a crossing cyclist



Cyclist along the roadside

**Comments**

The protection offered by the bonnet to the head of a struck pedestrian was predominantly good or adequate. The bumper provided good protection to pedestrians' legs at all test points but the protection provided to the pelvis by the front edge of the bonnet was mixed, with areas of good and poor performance. The EC40 has an autonomous emergency braking (AEB) system which can respond to vulnerable road users as well as to other vehicles. The system performed adequately in tests of its response to pedestrians. The system's response to cyclists was good, with collisions avoided in many test scenarios.

SAFETY ASSIST

Total 14.2 Pts / 89%

GOOD
 ADEQUATE
 MARGINAL
 WEAK
 POOR

Speed Assistance 2.5 / 3 Pts

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

Occupant Status Monitoring 2.0 / 3 Pts

> Seatbelt Reminder 1.0 / 2 Pts

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

● Pass
 ● Fail
 — Not available


> Driver Monitoring 1.0 / 1 Pts




System Name	Driver Alert Control
Type	Lane position
Operational From	65 km/h

 SAFETY ASSIST


Total 14.2 Pts / 89%

Lane Support

 4.0 / 4 Pts

System Name	Safety Assistance
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

 5.7 / 6 Pts

System Name	Safety Assistance
Type	Autonomous emergency braking and forward collision warning
Operational From	4 km/h
Sensor Used	camera and radar

 SAFETY ASSIST

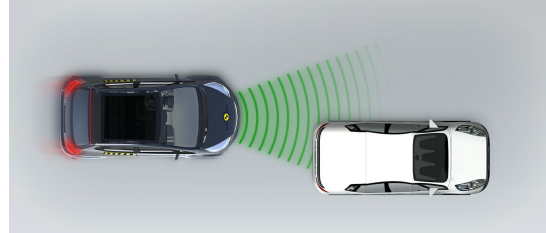
Total 14.2 Pts / 89%

■ Autobrake function only

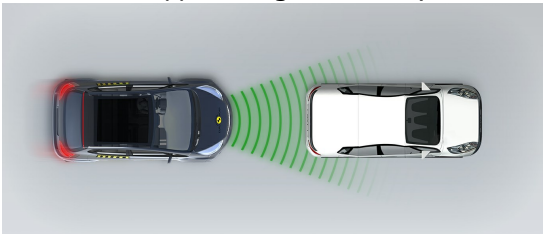
Car turning across the path of an oncoming car



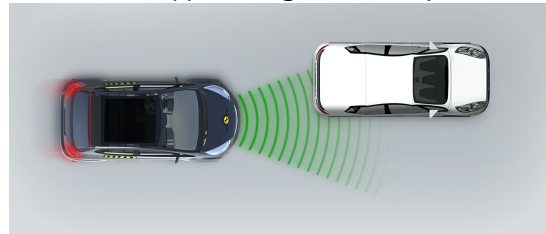
Approaching a stationary car



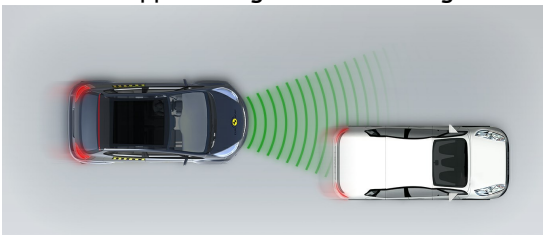
Approaching a stationary car



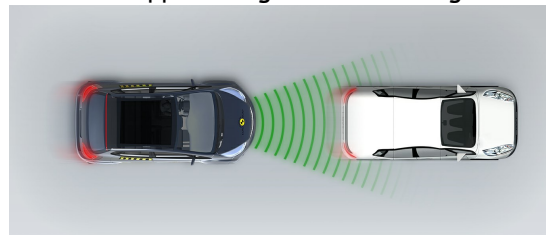
Approaching a stationary car



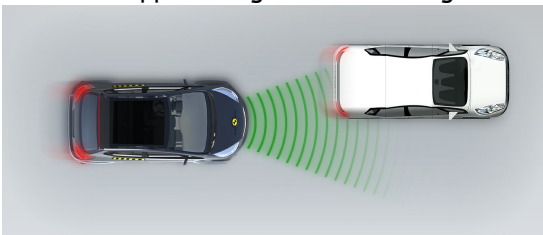
Approaching a slower moving car



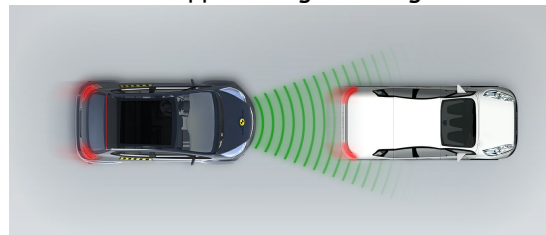
Approaching a slower moving car



Approaching a slower moving car



Approaching a braking car

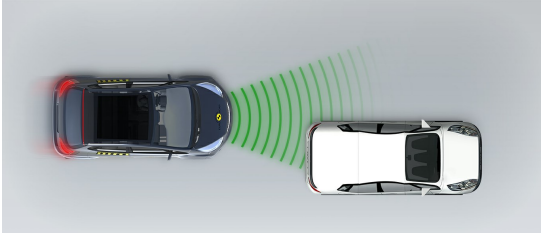


 SAFETY ASSIST

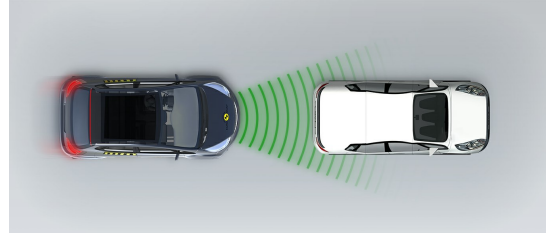
Total 14.2 Pts / 89%

■ Driver reacts to warning

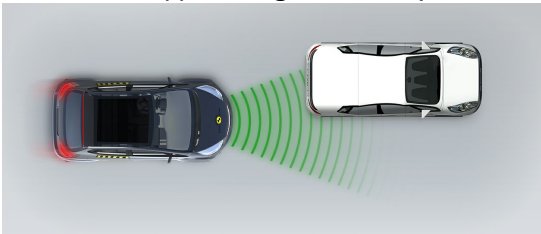
Approaching a stationary car



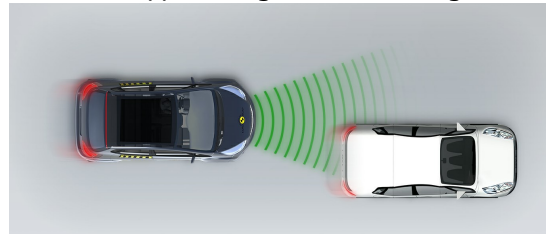
Approaching a stationary car



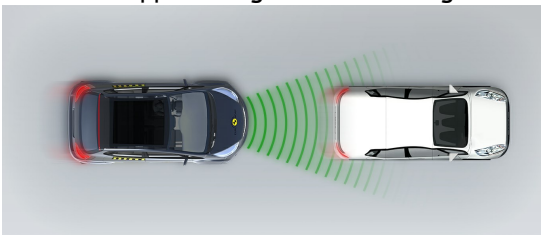
Approaching a stationary car



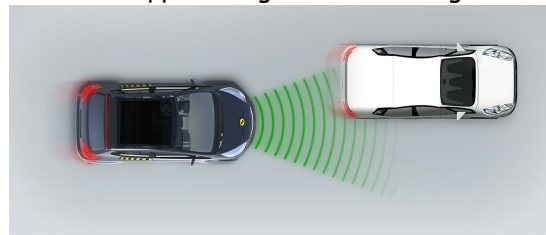
Approaching a slower moving car



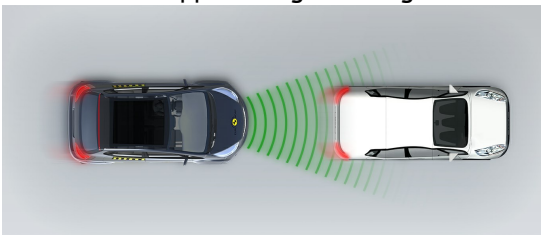
Approaching a slower moving car



Approaching a slower moving car



Approaching a braking car





SAFETY ASSIST

Total 14.2 Pts / 89%

Comments

The EC40 has a seatbelt reminder system on the front and rear seating positions. The AEB system performed well in tests of its response to other vehicles, with impacts avoided in most test scenarios. A speed assistance system combines camera information with digital mapping to identify local speed limits and presents this information to the driver, allowing the limiter to be set appropriately. A lane support system gently corrects the vehicle's path if it is drifting out of lane and intervenes more aggressively in some more critical situations.

RATING VALIDITY

Variants of Model Range

Body Type	Engine & Transmission	Model Name/Code	Drivetrain	Rating Applies	
				LHD	RHD
5 door hatchback	Electric (twin motor)	Volvo C40 Recharge	4 x 4*	✓	✓
5 door hatchback	Electric (single motor)	Volvo C40 Recharge	4 x 2	✓	✓

* Tested variant

Annual Reviews and Facelifts

Date	Event	Outcome
May 2022	Rating Published	2022 ★ ★ ★ ★ ★ ✓
February 2024	Change of name from C40 Recharge to EC40	2022 ★ ★ ★ ★ ★