

Assessment 2024

Section	Item	Page
i	Cover	1
ii	Index	2
1	Vehicle Selection	3
2	Variant selection	
2.1	when all safety features are standard	
2.2	when not all safety features are standard	
3	Assessment	
3.1	Safe Behaviour	
3.2	Emergency Intervention	4
3.3	Occupant Protection	5
3.4	Overall Rating	7
4	Visual identity	
4.1	Logo	
4.2	Rating plate	8
4.3	Colours	

## 1 Vehicle Selection

All M1 category vehicles are eligible for assessment as long as they are fully homologated\* for sale in India.

## 2 Variant selection

Since it is impractical to rate each variant of a car model, up to two ratings may be published for each model.

### 2.1 when all safety features are fitted as standard

When all safety features available in the variant range are standard equipment, a single rating 'all variants' will be published.

### 2.1 when not all safety features are fitted as standard

When some safety features are available only on select variants, two ratings will be published.

#### 2.1.1 'with standard equipment'

The test car for ratings 'with standard equipment' will be the variant with the least safety equipment available for the model. In case there is no clear variant with least safety equipment (for example, in cases where two different technologies are available exclusively on two separate variants) the final rating will be the worse of that allowed by both cases.

#### 2.2.2 'with optional equipment'

The test car for ratings 'with optional equipment' will be the variant with the highest level of safety equipment available for the model.

## 3 Assessment Criteria

There are three areas of assessment that make up the rating criteria: Safe Behaviour, Emergency Intervention and Occupant Restraint. Each area is awarded a 'status', which then contributes to overall rating.

### 3.1 Safe Behaviour

*This section of the assessment criteria includes features that encourage safe behaviours like the use of safety belts, the correct installation of child restraints, and the proper inflation of tyres.*

#### 3.1.1 Requirements for **POOR** status

Assigned when requirements for higher statuses are not met.

#### 3.1.2 Requirements for **MODERATE** status

The test variant must be fitted with ALL of the following:

-safety belt reminders (SBRs) for ALL seating positions, including a third row, if available.

*Concepts:*

*SBRs: Some vehicle users who do not wear their safety belts are not opposed to the idea, and will do so when given some incentive like law enforcement or persistent warnings.*

*Reminders for the front safety belts have been required for homologation under AIS-145 since October 2019, but those for the rear seats are required by neither regulations nor official local consumer tests.*

#### 3.1.3 Requirements for **ADEQUATE** status

The test variant must be fitted with ALL of the following:

-safety belt reminders (SBRs) for ALL seating positions, including a third row, if available.  
-ISOFIX anchorages in at least both second-row outboard seating positions.

##### 3.1.3.1 Requirements for **ADEQUATE+** status

In addition to meeting requirements for **ADEQUATE** status, the test variant must be fitted with at least one i-Size seating position. During assessment, i-Size seating positions will be identified by the presence of Figure 4 in Annex 5 of ECE R145 on the ISOFIX anchorages in the seating position.

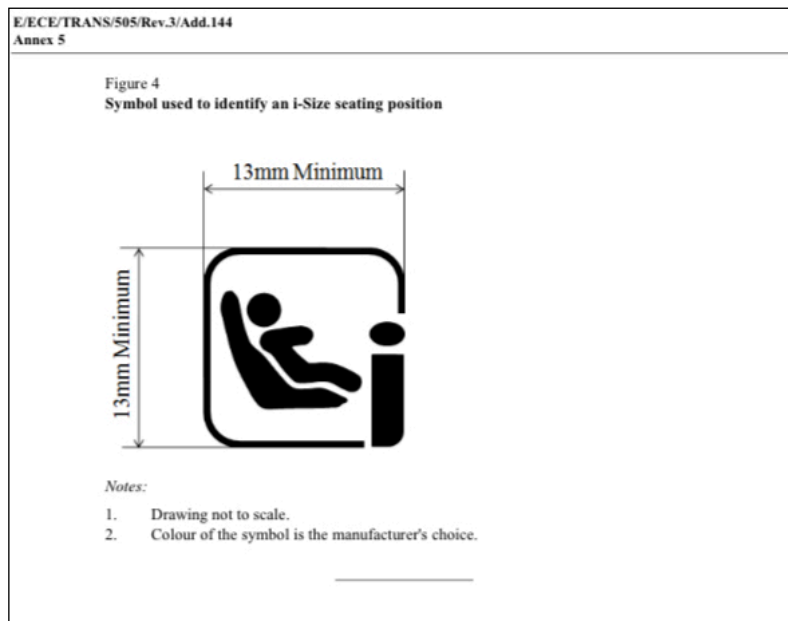


Fig 1: i-Size logo as shown in ECE R145

*Concepts:*

*SBRs: see 3.1.2*

*ISOFIX anchorages: ISOFIX anchorages reduce the risk of incorrect installation of ISOFIX child restraints for smaller children.*

*i-Size compatibility: i-Size child restraints are universally compatible with i-Size compatible vehicles, eliminating the need for child restraint manufacturers to maintain a high-maintenance, often incomplete compatibility list that adds an unnecessary step for parents.*

### 3.1.4 Requirements for **GOOD** status

The test variant must be fitted with ALL of the following:

- safety belt reminders (SBRs) for ALL seating positions, including a third row, if available
- ISOFIX anchorages in both second-row outboard seating positions
- an audio-visual tyre deflation warning

#### 3.1.4.1 Requirements for **GOOD+** status

In addition to meeting requirements for **GOOD** status, the test variant must be fitted with AT LEAST ONE of the following:

- at least one i-Size seating position, identified by the presence of Figure 4 in Annex 5 of ECE R145 on the ISOFIX anchorages in the seating position.
- a tyre pressure monitor with individual pressure readouts for each tyre.

*Concepts:*

*SBRs: see 3.1.2*

*ISOFIX anchorages: see 3.1.3*

*i-Size compatibility: see 3.1.3*

*Tyre deflation warning: Proper inflation of tyres reduces the risk of tyre bursts and the crashes arising from them.*

## 3.2 Emergency Intervention

*This section of the assessment criteria includes safety systems that detect when a collision is imminent and either alert the driver or intervene.*

### 3.2.1 Requirements for **POOR** status

Assigned when requirements for higher statuses are not met.

### 3.2.2 Requirements for **MODERATE** status

The test variant must be fitted with ALL of the following:

-an electronic stability control system that meets the *definition* criteria in section 2.25 of ECE R13-H

*Concepts:*

*ESC: Electronic stability control systems have been known to reduce the risk of crashes related to loss of control due to skidding*

### 3.2.3 Requirements for **ADEQUATE** status

The test variant must be fitted with ALL of the following:

- an electronic stability control system that meets the *definition* criteria in section 2.25 of ECE R13-H
- a blind spot monitoring system that performs at least one of the following tasks:
  - illuminates a warning lamp (for instance, in a wing mirror) when there is a vehicle in the driver's blind spot ("*blind spot detection*")
  - relays a live camera feed of the passenger-side blind spot to the driver through the instrument cluster or central entertainment system when at least the left turn signal is engaged ("*blind spot camera*")

*Concepts:*

*ESC: see 3.2.2*

*Blind spot monitoring: Blind spot information/warning systems are of particular importance in countries where riders of motorised two-wheeled vehicles form a significant fraction of vulnerable road users.*

### 3.2.4 Requirements for **GOOD** status

The test variant must be fitted with ALL of the following:

- an electronic stability control system that meets the *definition* criteria in section 2.25 of ECE R13-H
- a blind spot information/warning system that performs at least one of the following tasks:
  - illuminates a warning lamp (for instance, in a wing mirror) when there is a vehicle in the driver's blind spot ("*blind spot detection*")
  - relays a live camera feed of the passenger-side blind spot to the driver through the instrument cluster or central entertainment system when at least the left turn signal is engaged ("*blind spot camera*")
- a forward collision warning and an automatic emergency braking system

*Concepts:*

*ESC: see 3.2.2*

*Blind spot monitoring: see 3.2.3*

*FCW/AEB: These systems warn the driver or intervene to prevent or mitigate rear-end crashes with other vehicles and are often capable of detecting vulnerable road users.*

## 3.3 Occupant Protection

*This section of the assessment criteria covers the vehicle's capability to protect its occupants from the risk of injury during a collision.*

### 3.3.1 Requirements for **POOR** status

Assigned when requirements for higher statuses are not met.

### 3.3.2 Requirements for **MODERATE** status

The test variant must be fitted with ALL of the following:

- three-point safety belts for all seats
- frontal airbags for the driver and front passenger

*Concepts:*

*Three-point safety belts: Two-point static lap-only safety belts — still allowed by Indian regulation for non-outboard seats — have frequently been associated with submarining, jackknifing, and other seatbelt-related injuries.*

*Frontal airbags: When survival space is maintained and safety belts are used, properly timed and sized frontal airbags can reduce the risk of hard head contacts with the steering wheel*

and dashboard and the corresponding risk of serious skull fracture, and reduce sternal safety belt loads.

### 3.3.3 Requirements for **ADEQUATE** status

The test variant must be fitted with ALL of the following:

- three-point safety belts for all seats
- frontal airbags for the driver and front passenger
- side thorax airbags for the driver and front passenger
- side curtain airbags or another side head protection device with coverage for the driver and front passenger

#### 3.3.3.1 Requirements for **ADEQUATE+** status

In addition to meeting requirements for **ADEQUATE** status, the test variant must be fitted with AT LEAST ONE of the following:

- side thorax airbags for second-row seats
- pyrotechnic pretensioners for the second-row safety belts
- a centre airbag between the front seats

*Concepts:*

*Three-point safety belts: see 3.3.2*

*Frontal airbags: see 3.3.2*

*Side thorax airbags: Properly timed side airbags and well-managed intrusion of the side structure can protect occupants' torsos from serious injury arising from contact with the intruding door trim.*

*Side curtain airbags: Properly timed side curtain airbags can protect occupants' heads from hard contact with intruding objects like tall vehicles or fixed roadside objects.*

### 3.3.4 Requirements for **GOOD** status

The test variant must be fitted with ALL of the following:

- three-point safety belts for all seats
- frontal airbags for the driver and front passenger
- side thorax airbags for the driver and front passenger
- side curtain airbags with coverage for all rows
- head restraints for all seats

Additionally, the test vehicle must have a safety rating from Global NCAP or Bharat NCAP published no more than 4 years before the date of rating by Gobar NCRAP, with the following requirements:

- In the front offset deformable barrier test, protection of the driver and front passenger's heads and necks must be rated 'good' or 'adequate'.
- In the front offset deformable barrier test, protection of the driver's chest must be rated 'good', 'adequate' or 'marginal' if rated by Global NCAP after July 2022 or by Bharat NCAP. If rated by Global NCAP before July 2022, protection of the driver's chest must be rated 'good' or 'adequate'.
- In the side mobile barrier test, protection of the driver's head, chest, abdomen and pelvis must be rated 'marginal' or better.
- In the side pole test, dummy readings of head deceleration from the driver SID must not exceed 80g at any point during the pulse, otherwise readings of HIC must indicate no more than a 5% probability of AIS3+ skull fracture.

#### 3.3.4.1 Requirements for **GOOD+** status

In addition to meeting requirements for **GOOD** status, the test variant must be fitted with AT LEAST ONE of the following:

- side thorax airbags for second-row seats
- pyrotechnic pretensioners for the second-row safety belts
- a centre airbag between the front seats

*Concepts:*

*Three-point safety belts: see 3.3.2*

*Frontal airbags: see 3.3.2*

Side thorax airbags: see 3.3.3

Side curtain airbags: see 3.3.3

Head restraints: Well-positioned head restraints reduce the risk of whiplash-related injuries in rear-end crashes.

NCAP: Independent consumer test results validate the effective performance of restraint systems and the vehicle structure in well-known, reproducible test scenarios. New local testing is a less expensive option for vehicle manufacturers so consumer tests are included in this assessment starting 2024.

### 3.4 Overall rating

A score is assigned to each category of assessment using the following rule:

Status	Score (max. 7)
POOR	0
MODERATE	2
ADEQUATE	4
ADEQUATE+	5
GOOD	6
GOOD+	7

An overall score is then generated using the expression (rounded down to two decimal places):

$$\frac{1 \times score_{safe\ behaviour} + 1 \times score_{emergency\ intervention} + 2 \times score_{occupant\ protection}}{4}$$

#### 3.4.1 Requirements for **NOT RECOMMENDED** rating

When requirements for all higher ratings are not met, a 'Not Recommended' rating is assigned.

#### 3.4.2 Requirements for **FAIR** rating

-an overall score of at least 1.50

#### 3.4.3 Requirements for **RECOMMENDED** rating

-an overall score of at least 3.00

-each individual status must be no lower than **MODERATE**

#### 3.4.4 Requirements for **BEST PICK** rating

-an overall score of at least 4.50

-each individual status must be no lower than **ADEQUATE**


## 4 Visual identity

### 4.1 Logo

The Gobar NCRAP logo is a symbol of a crash test target made of a circle with the top left and bottom right quadrants in a display colour of RGB (142,82,0) "Mocha" and the other quadrants transparent, with the words GOBAR and NCRAP on the left and right respectively in bold uppercase text of font 'Avenir'.



4.2 Rating plate

GOBAR  NCRAP	Make MODEL
Equipment level	
Image	
Datestamp	
RATING	
Segment	

4.3 Colours

- Green: 97, 216, 54
- Yellow: 255, 217, 50
- Orange: 242, 114, 0
- Red: 238, 34, 12