

This is a translation to English for reference purpose of JNCAP test method which is originally prescribed in Japanese language.  
Please be sure to refer to the Japanese test method if you need to be precisely correct.

## SEATBELT REMINDER EVALUATION TEST PROCEDURE

Created: April 1, 2011

Revised: May 2, 2024

April 25, 2023

March 31, 2020

March 15, 2019

### 1. Dates Effective

This testing procedure went into effect on April 1, 2011. The changes made on May 2, 2024 went into effect starting May 2, 2024.

### 2. Scope of Application

This test procedure, "Seat Belt Reminder Evaluation Test Procedure", applies to the seats (except folding seats for commercial vehicles), other than the driver seat, of passenger vehicles with 9 occupants or less and commercial vehicles with gross vehicle mass of 2.8 tons or less conducted by the National Agency for Automotive Safety and Victims' Aid (hereinafter referred to as "NASVA") in the new car assessment program information supply project.

### 3. Definition of Terms

The terms used in this test procedure are defined as follows:

- (1) **"Front Seatbelt Reminder (SBR)":** The reminding system activated when front passengers do not wear seatbelts while the vehicle is running.
- (2) **"Initial Front Seatbelt Reminder":** The reminding system activated when front passengers do not wear seatbelts when the vehicle starts.
- (3) **"Rear Seatbelt Reminder":** The reminding system activated when rear passengers do not wear seatbelts when the vehicle starts and when the vehicle is running.
- (4) **"Visual Signal Reminder":** The reminding system by means of a flashing light, a warning light, or text message, etc.
- (5) **"Audible Signal Reminder":** The reminding system by means of a chime, buzzer, melody, or voice message.
- (6) **"Language Indication Reminder":** The reminding system by means of text message on the screen, or voice message.
- (7) **"Buckled State":** If the occupant(s) is wearing a seatbelt.
- (8) **"Unbuckled State":** If the occupant(s) is not wearing a seatbelt, or the length of webbing pulling out from the retractor is 10 cm or less and there is no occupant other than in the specified seat, or the other occupants are in a buckled state.

- (9) **"SBR System for Change of Status"**: The reminding system that activates when the vehicle accelerates over 25km/h and an occupant switches from "buckled state" to "unbuckled state."
- (10) **"Vehicle Speed Measurement Device"**: A device measuring test vehicle speed.
- (11) **"UN-R16-07"** : The 7 revised edition of the Regulation No.16 concerning a seatbelt (the Regulation pertaining to the agreement regarding the conditions for mutual recognition of adoption of the uniformed technical provisions of the United Nations as well as of authorization based on such uniformed technical provisions of the United Nations, with regard to vehicles, equipments and parts that can be attached to vehicles or that can be used with vehicles).

#### 4. Provision of Data from Vehicle Manufacturer

The vehicle manufacturer shall provide the NASVA with the following data necessary for preparing the test vehicle properly:

- (1) Special confirmation items relating to preparation of the test. (Confirmation items for the test vehicle preparation of assessment testing for the concerned vehicle.)
- (2) Appendix 1 "Test Vehicle Specification and Seatbelt Reminder (SBR) Data sheet (for entry by the vehicle manufacturer)"
- (3) In case the test vehicle conforms to UN-R16-07, either one of the following documents that articulates its conformity with the Regulation (However, this is limited to cases in which NASVA has requested submission.)
  - Copy of the specification sheet
  - Copy of the certificate based on UN-R16-07

#### 5. Testing Facilities, etc.

##### 5.1 Test Track

The test track shall be a paved road and have a flat surface.

The test site for visual signal reminder shall be flat and leveled.

##### 5.2 Vehicle Speed Measuring Device

Accuracy of the vehicle speed measuring device for the tests shall be maintained with the tolerance of  $\pm 1\%$  of the test speed.

##### 5.3 3-D Measuring Devices

Accuracy of the three-dimensional measuring device used to measure the dimensions of the test vehicle, seating position of the HP-manikin, and routing of the seatbelts shall be 0.5mm/m or less.

#### 6. Test Procedure and Recording the Test Results

The testing institute shall conduct a test based on the following procedure, as per the Appendix 1 submitted from the vehicle manufacturer, etc. for each seat equipped with [Front Seatbelt Reminder], [Rear Seatbelt Reminder] and [SBR System for Change of Status], and then record the results in the Appendix 2.

Except for vehicles that are recognized by NASVA as not conforming to the standard, the tested vehicles shall be deemed to conform to UN-R16-07 in principle, it is assumed that it conforms to the tests pertaining to [confirmation from the boarding position of the driver seat] as per the following 6.1, 6.1.1, 6.2.1 and therefore those tests shall not be required and regarded as passed.

##### 6.1 Front Seatbelt Reminder (SBR)

- (1) Out of the three following items, if the conditions specified in Appendix 1 (provided by the vehicle manufacturer)

are all met, the vehicle will pass the test. However, if the vehicle is traveling backwards or traveling forwards at less than 10 km/h, then the front seatbelt reminder need not be activated.

- ① Within 60 second after forward motion
- ② Within 500m after forward motion
- ③ Within 25 km/h after forward motion

(2) The type of reminder (visual, audible, or language indication).

(3) The testing institute shall confirm and record as a "pass" if the working time is more than 30 seconds (deduct relative downtime if it exceeds 3 seconds) and if the conditions specified in 6.1 (1) were met. If the system has more than 30 seconds of continuous downtime, the testing institute shall record it as a "fail."

(4) If the SBR can be confirmed from either the driver's seat or the seat in question, a "pass" grade will be recorded in all the rows.

For "visual signal reminders," the testing institute shall confirm and record whether or not the signal could be differentiated from the others during the daylight by an occupant in the driver's seat or by the occupant in the seat in question (except other SBR.)

For the "audible signal reminders," the testing institute shall confirm and record whether or not the signal could be confirmed from the driver's seat or the seat in question.

(5) The testing institute shall confirm and record as a "pass" if the system stops reminding after the occupant is in a buckled state.

(6) If the SBR does not stop reminding after the occupants are in a "buckled" state during an "Initial Front Seatbelt Reminder" test, 6.1(1)'s operations are already beginning. (However, if 6.1(3)'s operations have been running longer than 30 seconds after starting, this shall be confirmed and recorded.)

#### **6.1.1 SBR System for Change of Status**

(1) The testing institute shall confirm activation of reminder if the vehicle manufacturer submits Appendix 1 including the description of Initial Front Seatbelt Reminder.

(2) The testing institute shall confirm and record the activated type of reminder (visual signal reminder, audible signal reminder, or language indication reminder).

(3) If the conditions in 6.1.1(1)'s operation commencement requirements are met, and if it's confirmed that the SBR operates more than 30 seconds after commencing (excluding cases where there's more than 3 seconds of downtime), the test shall be recorded as a "pass." If the downtime is consistently longer than 30 seconds, the test will be recorded as a "fail."

(4) The testing institute shall confirm and record that the reminder can be confirmed from the driver's seat or from the seat in question.

Additionally, the testing institute shall confirm that the "visual signal reminder" is located in a position that can be confirmed by the driver and is clearly identified (excluding the other occupants) under daylight conditions.

For the "audible signal reminder," the institute shall confirm and record that the driver can identify the reminder.

(5) If the occupant becomes in a "buckled state" during the SBR and the reminder is confirmed to stop, the test shall be recorded as "pass."

#### **6.2 Rear Seatbelt Reminder**

(1) Of the following operating conditions, according to Appendix 1 provided by the vehicle manufacturer, if all of the operating requirements are met, the test shall be recorded as "pass." However, if the vehicle is traveling backwards or traveling forwards at less than 10 km/h, then the front seatbelt reminder need not be activated.

- ① Within 60 second after forward motion
- ② Within 500m after forward motion
- ③ Within 25 km/h after forward motion
- ④ When the ignition is switched on
- ⑤ When the doors are opened and closed

(2) The type of reminder (visual, audible, or language indication).

(3) The testing institute shall confirm and record as a pass if the working time is more than 30 seconds (deduct relative downtime if it exceeds 3 seconds) and if the conditions specified in 6.2(1) were met. If the system has more than 30 seconds of continuous downtime, the testing institute shall record it as a fail.

(4) If the SBR can be confirmed from either the driver's seat or the seat in question, a "pass" grade will be recorded in the corresponding rows.

For "visual signal reminders," the testing institute shall confirm and record whether or not the signal could be differentiated from the others during the daylight by an occupant in the driver's seat or by the occupant in the seat in question (except other SBR.)

For the "audible signal reminders," the testing institute shall confirm and record whether or not the signal could be confirmed from the driver's seat or the seat in question.

(5) The testing institute shall confirm and record as a "pass" if the system stops reminding after the occupant is in a buckled state.

#### **6.2.1 SBR System for Change of Status**

(1) For the rear seats, the test will be recorded as "pass" if the reminder activates when the vehicle is traveling at a speed greater than 25 km/h and an occupant in the rear seat changes from a "buckled state" to an "unbuckled state."

(2) The type of reminder (visual, audible, or language).

(3) The testing institute shall confirm and record as a pass if the working time is more than 30 seconds (deduct relative downtime if the downtime exceeds 3 seconds) and if the conditions specified in 6.2(1) were met. If the system has more than 30 seconds of continuous downtime, the testing institute shall record it as a fail.

(4) If the SBR can be confirmed from either the driver's seat or the seat in question, a "pass" grade will be recorded in the corresponding rows.

For "visual signal reminders," the testing institute shall confirm and record whether or not the signal could be differentiated from the others during the daylight by an occupant in the driver's seat or by the occupant in the seat in question (except other SBR.)

For the "audible signal reminders," the testing institute shall confirm and record whether or not the signal could be confirmed from the driver's seat or the seat in question.

(5) The testing institute shall confirm and record as a "pass" if the system stops reminding after the occupant is in a buckled state.

#### **6.2.2 Rear Seat Visibility Test**

A visibility test shall be conducted only for the visual signal reminder, which is located on the center console. If the reminder could be detected by the occupant in the target seat, the test shall be recorded as "pass."

##### **6.2.2.1 Test Seats**

Applicable test seats are the rear seats. (All 2<sup>nd</sup> row seats.)

If a seat is identical to another and the data from one can be carried over to the other, that seat's test may be

skipped.

### **6.2.2.2 Seat Adjustments**

#### **6.2.2.3 The Front Seats (seats in the first row)**

- (1) If the front seats can be adjusted in the fore-aft direction by a seat rail, they shall be adjusted to the middle position.  
If they cannot be positioned in the middle, they shall be adjusted to the closest point just behind the mid-position.
- (2) If the front seats can be adjusted vertically (excluding adjusters that also affect the angle of the seat at the same time), the seats shall be adjusted to the lowest position.
- (3) If the front seats' seatback angles can be adjusted, they shall be adjusted to their design standard angles. If the lumbar support (backrest) can be adjusted, it shall be adjusted to the lowest position.
- (4) If the front seats' headrests can be adjusted vertically, they shall be locked at their highest positions.
- (5) For any other adjustment functions not mentioned in 6.2.2.3 (1) through (4), set them to their design standard positions or angles.

#### **6.2.2.4 The Rear Seats (seats in the second row)**

- (1) If the rear seats can be adjusted in the fore-aft direction by a seat rail, they shall be adjusted to the design standard position.
- (2) If the rear seats can be adjusted vertically (excluding adjusters that also affect the angle of the seat at the same time), the seats shall be adjusted to the lowest position.
- (3) If the rear seats' seatback angles can be adjusted, they shall be adjusted to their design standard angles. If the lumbar support (backrest) can be adjusted, it shall be adjusted to the lowest position.
- (4) If the rear seats' headrests can be adjusted vertically, they shall be locked at their highest positions.
- (5) For any other adjustment functions not mentioned in 6.2.2.4 (1) through (4), set them to their design standard positions or angles.

#### **6.2.2.5 Preparing for Measurements**

- (1) The vehicle shall be adjusted as parallel with the ground as possible so that the load will not affect the vehicle posture.
- (2) So that the seat occupant's center plane and the HP manikin's (legs need not be attached) center plane are consistent, a 100N aft horizontal load shall be placed when the HP manikin is installed. Right after, 8 weights shall be attached equally on either side of the dummy's hips. A 10N aft horizontal load shall be hung at the same height as the hanger bar to stabilize the dummy's torso. Right after installation, the dummy's torso angle shall be measured. If the dummy is prone to slipping, a slip-proof mat can be attached on top of the seat (as long as it is made of a material thin enough not to affect the test results).
- (3) Once the vehicle is set, its slope shall be measured using a 3-D measuring device and the HP manikin's hanger bar angle shall be corrected.
- (4) For the visibility evaluation test, a jig shall be attached to the hanger bar at the eye point. Aforementioned "eye point" is the line between the eyellipses center point in accordance with SAE 941/ISO 4513 and the seating reference point, corrected for Japanese people (-15mm), and then 25mm above or below the line made from that point to another eyellipses center point and seating reference point. The distance between these points shall be 65 mm.
- (5) Measure the eye points set on the HP manikins with a 3-D measuring device. If there is no written data provided from 4.(1), the test may be conducted without taking this measurement.  
If the measurement results are within  $\pm 10\text{mm}$  of the standard design eye point in the fore-aft, lateral, and vertical

directions, the test may be conducted. If the measurements are not within  $\pm 10\text{mm}$ , the vehicle manufacturer and NASVA shall discuss how to proceed.

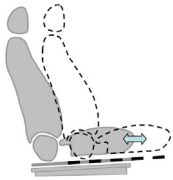
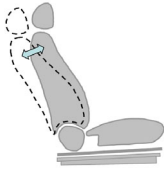
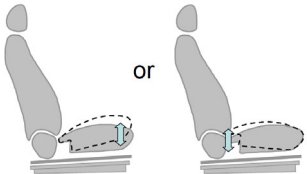
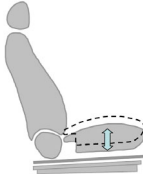
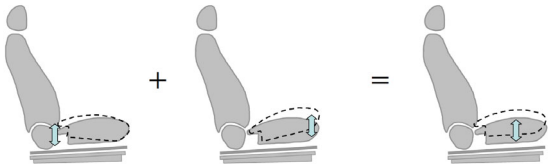
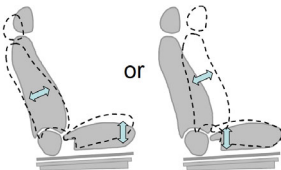
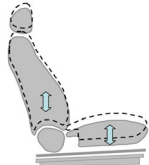
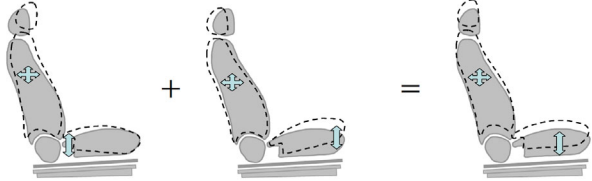
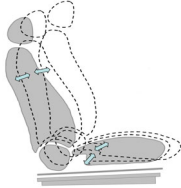
(6) If the HP manikin needs to be reinstalled, and if even after two re-installations, the  $\pm 10\text{mm}$  margin still is not met, the test may be carried out with the manikin in that state.

(7) If the HP manikin's eye point cannot be determined due to the nature of the test vehicle's construction, the eye point shall be set using the standard design seating reference point.

#### **6.2.2.6 Confirmation Methods**

Confirm and record whether the readability of visual reminders was either by a lit display or by a camera, and, for both of these methods, if it was confirmed from a male eye point (25mm above) or a female eye point (25mm below).

Regarding Seat Positions from Seat Adjustment Devices

|                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p align="center">Fore-aft direction by the seat rail<br/>(6.2.2.3(1))</p>  <p align="center">Mid-point of fore-and-aft direction (5.2.2.3)<br/>Design standard angle (5.2.2.4)</p> | <p align="center">Seatback angle adjustment<br/>(6.2.2.3(3))</p>  <p align="center">Design standard position</p>                                      |
| <p align="center">Seat surface angle adjustment (tilt or lifter)<br/>(6.2.2.3(5))</p>  <p align="center">Design standard position</p>                                               | <p align="center">Seat surface adjustment in vertical direction (lifter)<br/>(6.2.2.3(2))</p>  <p align="center">Lowest vertical position</p>         |
| <p align="center">Seat surface angle, vertical adjustment (other)<br/>(6.2.2.3(5))</p>  <p align="center">Design standard position</p>                                            | <p align="center">Seat lower and seat back angle adjustment<br/>(6.2.2.3(5))</p>  <p align="center">Design standard position</p>                     |
| <p align="center">Seat lower and seat back in vertical angle adjustment<br/>(lifter)<br/>(6.2.2.3(2))</p>  <p align="center">Lowest vertical position</p>                         | <p align="center">Seat lower (angle, vertically) and seat back angle adjustment<br/>(6.2.2.3(5))</p>  <p align="center">Design standard position</p> |
| <p align="center">Fore-aft, vertical, and angle change at once<br/>(6.2.2.3(5))</p>  <p align="center">Design standard position</p>                                               | <p align="center">Fore-aft and vertical change at once (lifter)<br/>(6.2.2.3(2))</p>  <p align="center">Lowest vertical position</p>                |

## Annex 1 CORRECTION ANGLE OF HANGER BAR

| Hanger bar angle: $\theta$ (deg) | Corrected angle: $\delta$ (deg) |
|----------------------------------|---------------------------------|
| 15                               | 1.4                             |
| 16                               | 2.1                             |
| 17                               | 2.8                             |
| 18                               | 3.5                             |
| 19                               | 4.2                             |
| 20                               | 4.9                             |
| 21                               | 5.6                             |
| 22                               | 6.3                             |
| 23                               | 7.0                             |
| 24                               | 7.7                             |
| 25                               | 8.4                             |
| 26                               | 9.1                             |
| 27                               | 9.8                             |
| 28                               | 10.5                            |
| 29                               | 11.2                            |
| 30                               | 11.9                            |

Correction

angle of hanger bar is calculated by the formula below.

$$\delta = 0.698\theta - 9.09 \quad (\text{Note})$$

(Note) SAE J 941 Revised MAR2010 APPENDIX B ISO 4513:2010 Annex B

Fixed seat 95th and 99th percentile tangent cut-off eyellipses for an adult population at a 50/50 gender mix

## APPENDIX 1 Test vehicle specifications and Seatbelt Reminder (SBR) Data sheet

[For entry by vehicle manufacturer]

### 1. Vehicle Specifications

|                                |                              |
|--------------------------------|------------------------------|
| Name / Type / Model            |                              |
| Body Style / Transmission Type |                              |
| UN-R16-07 Conformance Status   | Conform    •    Incompatible |

### 2. Front Passenger SBR    【 Present / Absent 】

|                                           |                                                                                                                    |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| Visual Signal Reminder's Display Position | A : Driver's Seat Front, B : Fr. Passenger's Seat Front, C : Center Console, F : Ceiling, G : Room Mirror H: Other |
| Visual Signal Reminder's Visibility Range | A : Driver's Seat and Target Seat, B : Driver's Seat Only, C : Target Seat Only                                    |

| Activation Requirements<br>(when the vehicle starts running)                                      |      | Presence of<br>Reminder<br>Function | Reminder Type ※1<br>(Visual (lit/flashing), audible, language cue) |
|---------------------------------------------------------------------------------------------------|------|-------------------------------------|--------------------------------------------------------------------|
| Speed at Activation<br>(Less than 1~10km/h)                                                       | km/h |                                     |                                                                    |
| (i) Within 60 seconds (# of seconds from the vehicle starting to travel to the device activating) | Sec. | Yes / No                            | Visual: Lit / Flashing / Language Cue (text message)               |
|                                                                                                   |      | Yes / No                            | Audible: Sounds / Language Cue (voice message)                     |
| (ii) Within 500m (# of meters from the vehicle starting to travel to the device activating)       | m    | Yes / No                            | Visual: Lit / Flashing / Language Cue (text message)               |
|                                                                                                   |      | Yes / No                            | Audible: Sounds / Language Cue (voice message)                     |
| (iii) Within 25 km/h (# of km/h from the vehicle starting to travel to the device activating)     | km/h | Yes / No                            | Visual: Lit / Flashing / Language Cue (text message)               |
|                                                                                                   |      | Yes / No                            | Audible: Sounds / Language Cue (voice message)                     |

### 3. SBR System for Change of Status (Front Passenger)    【 Present / Absent 】

|                                           |                                                                                                                  |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| Visual Signal Reminder's Display Position | A: Driver's Seat Front, B: Front Passenger's Seat Front, C: Center Console, F: Ceiling, G: Room Mirror, H: Other |
| Visual Signal Reminder's Visibility Range | A: Driver's Seat and Target Seat, B: Driver's Seat Only, C: Target Seat Only                                     |

| Type of SBR System for Change of Status, etc. | Presence of<br>Reminder<br>Function | Reminder Type ※1<br>(Visual(lit/flashing), audible, language cue) |
|-----------------------------------------------|-------------------------------------|-------------------------------------------------------------------|
|                                               | Yes / No                            | Visual: Lit / Flashing / Language Cue (text message)              |
|                                               | Yes / No                            | Audible: Sounds / Language Cue (voice message)                    |

4. Initial Front Seatbelt Reminder 【 Present / Absent 】

| Activation Requirements<br>(when the vehicle starts running) | Deactivation Requirements | Presence of Reminder Function | Reminder Type ※1<br>(Visual(lit/flashing), audible, language cue)) |
|--------------------------------------------------------------|---------------------------|-------------------------------|--------------------------------------------------------------------|
|                                                              |                           | Yes / No                      | Visual: Lit / Flashing / Language Cue (text message)               |
|                                                              |                           | Yes / No                      | Audible: Sounds / Language Cue (voice message)                     |

5. Rear SBR 【 Present / Absent 】

|                                           |                                                                                                                                                                              |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Visual Signal Reminder's Display Position | A : Driver's Seat Front, B : Fr. Passenger's Seat Front, C : Center Console, D: In front of rear seat window, E: Rear-Center Section, F : Ceiling, G : Room Mirror, H: Other |
| Visual Signal Reminder's Visibility Range | A : Driver's Seat and Target Seat, B : Driver's Seat Only, C : Target Seat Only                                                                                              |

| Activation Requirements<br>(when or after the vehicle starts running)                                                         |                                   | Presence of Reminder Function | Reminder Type ※1<br>(Visual(lit/flashing), audible, language cue) |
|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------------------------|-------------------------------------------------------------------|
| ① Within 60 seconds<br>(# of seconds from the vehicle starting to travel to the device activating)                            | (Activation Requirements)<br>Sec. | Yes / No                      | Visual: Lit / Flashing / Language Cue (text message)              |
|                                                                                                                               |                                   | Yes / No                      | Audible: Sounds / Language Cue (voice message)                    |
| ② Within 500m<br>(# of meters from the vehicle starting to travel to the device activating)                                   | (Activation Requirements)<br>m    | Yes / No                      | Visual: Lit / Flashing / Language Cue (text message)              |
|                                                                                                                               |                                   | Yes / No                      | Audible: Sounds / Language Cue (voice message)                    |
| ③ Within 25 km/h<br>(# of km/h from the vehicle starting to travel to the device activating)                                  | (Activation Requirements)<br>km/h | Yes / No                      | Visual: Lit / Flashing / Language Cue (text message)              |
|                                                                                                                               |                                   | Yes / No                      | Audible: Sounds / Language Cue (voice message)                    |
| ④ When the ignition is on (measured value between activation requirements or activation start time to SBR activation)         | (Activation Requirements)         | Yes / No                      | Visual: Lit / Flashing / Language Cue (text message)              |
|                                                                                                                               |                                   | Yes / No                      | Audible: Sounds / Language Cue (voice message)                    |
| ⑤ When doors are opened or closed (measured value between activation requirements or activation start time to SBR activation) | (Activation Requirements)         | Yes / No                      | Visual: Lit / Flashing / Language Cue (text message)              |
|                                                                                                                               |                                   | Yes / No                      | Audible: Sounds / Language Cue (voice message)                    |
| ⑥ Other (measured value between activation requirements or activation start time to SBR activation) ※2                        | (Activation Requirements)         | Yes / No                      | Visual: Lit / Flashing / Language Cue (text message)              |
|                                                                                                                               |                                   | Yes / No                      | Audible: Sounds / Language Cue (voice message)                    |

6. SBR System for Change of Status (Rear Passenger) 【 Present / Absent 】

|                                           |                                                                                                                                                                         |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Visual Signal Reminder's Display Position | A: Driver's Seat Front, B: Fr. Passenger's Seat Front, C: Center Console, D: In front of rear seat window, E: Rear-Center Section, F: Ceiling, G: Room Mirror, H: Other |
| Visual Signal Reminder's Visibility Range | A: Driver's Seat and Target Seat, B: Driver's Seat Only, C: Target Seat Only                                                                                            |

| Type of SBR System for Change of Status, etc. | Presence of Reminder Function | Reminder Type ※1<br>(Visual(lit/flashing), audible, language cue) |
|-----------------------------------------------|-------------------------------|-------------------------------------------------------------------|
|                                               | Yes / No                      | Visual: Lit / Flashing / Language Cue (text message)              |
|                                               | Yes / No                      | Audible: Sounds / Language Cue (voice message)                    |

※1 If the SBR's condition is abnormal for the various seats, record the details in the "Reminder Type" block.

※2 For new activation requirements, consult NASVA before the test.

7. Special Verification Items for Test Preparation for Rear Seat Visibility Test (Optional Form)

1. Seat Position

| Adjustment Position                                                      | Reference Position                              | Row1                             |             | Row2                             |             | Row3                             |             |
|--------------------------------------------------------------------------|-------------------------------------------------|----------------------------------|-------------|----------------------------------|-------------|----------------------------------|-------------|
| Adjustment of seat in fore-and-aft direction (seat rail)                 | From the front end of the adjustment range      | Mid position                     | ( mm stage) | Design standard position         | ( mm stage) | Design standard position         | ( mm stage) |
| Adjustment of seat in up-and-down direction (only can adjust vertically) |                                                 | Present ▪ absent                 |             | Present ▪ absent                 |             | Present ▪ absent                 |             |
| Adjustment of seat back angle                                            | Design standard angle                           | ( ° stage)                       |             | ( ° stage)                       |             | ( ° stage)                       |             |
| Adjustment of head-rest height                                           | Location of topmost lock, etc.                  | ( mm stage)                      |             | ( mm stage)                      |             | ( mm stage)                      |             |
| Other adjustment mechanism                                               | Adjustment mechanism name and adjustment method | Design standard position / Angle |             | Design standard position / Angle |             | Design standard position / Angle |             |
|                                                                          |                                                 |                                  |             |                                  |             |                                  |             |
| Seating posture                                                          | Design standard torso angle                     |                                  |             | ( °)                             |             | ( °)                             |             |

Note) Enter the number of position adjusting stages counting the first locking position as 0

2. Design Standard Eyepoint

①Reference Points of Vehicle (Coordinate)

| Part | X | Y | Z |
|------|---|---|---|
|      |   |   |   |
|      |   |   |   |
|      |   |   |   |

②Eye Point Coordinates for Each Seat

| Target seat       | Part                          | X | Y | Z |
|-------------------|-------------------------------|---|---|---|
| Row2 (right side) | Male right eye (upper 25mm)   |   |   |   |
|                   | Male left eye (upper 25mm)    |   |   |   |
|                   | Female right eye (lower 25mm) |   |   |   |
|                   | Female left eye (lower 25mm)  |   |   |   |
| Row2 (middle)     | Male right eye (upper 25mm)   |   |   |   |
|                   | Male left eye (upper 25mm)    |   |   |   |
|                   | Female right eye (lower 25mm) |   |   |   |
|                   | Female left eye (lower 25mm)  |   |   |   |
| Row2 (left side)  | Male right eye (upper 25mm)   |   |   |   |
|                   | Male left eye (upper 25mm)    |   |   |   |
|                   | Female right eye (lower 25mm) |   |   |   |
|                   | Female left eye (lower 25mm)  |   |   |   |
| Row3 (right side) | Male right eye (upper 25mm)   |   |   |   |
|                   | Male left eye (upper 25mm)    |   |   |   |
|                   | Female right eye (lower 25mm) |   |   |   |
|                   | Female left eye (lower 25mm)  |   |   |   |
| Row3 (middle)     | Male right eye (upper 25mm)   |   |   |   |
|                   | Male left eye (upper 25mm)    |   |   |   |
|                   | Female right eye (lower 25mm) |   |   |   |
|                   | Female left eye (lower 25mm)  |   |   |   |
| Row3 (left side)  | Male right eye (upper 25mm)   |   |   |   |
|                   | Male left eye (upper 25mm)    |   |   |   |
|                   | Female right eye (lower 25mm) |   |   |   |
|                   | Female left eye (lower 25mm)  |   |   |   |

## APPENDIX 2 Recording SBR Test Results

[For entry by the testing institute]

| Vehicle Name / Model Name | Model | Frame No. | Test Date | Overseer |
|---------------------------|-------|-----------|-----------|----------|
|                           |       |           |           |          |

### Front Passenger Seat

#### 【Front Passenger SBR】

| Target Seat                  | SBR Pass/Fail    |                  |                           | Visual Reminder              |                                        |                 |                        |                              |                              |                                        |
|------------------------------|------------------|------------------|---------------------------|------------------------------|----------------------------------------|-----------------|------------------------|------------------------------|------------------------------|----------------------------------------|
|                              | Time             | Distance         | Speed                     | Lit                          | Flashing                               | Text (Language) | Display Position (A~H) | Visibility Range (A~C, Fail) | Reminder Time (Over 30 sec.) | Deactivation After Seatbelt is Buckled |
| Front Passenger Seat (outer) |                  |                  |                           |                              |                                        |                 |                        |                              |                              |                                        |
|                              |                  |                  |                           |                              |                                        |                 |                        |                              |                              |                                        |
|                              |                  |                  |                           |                              |                                        |                 |                        |                              |                              |                                        |
| Target Seat                  | Audible Reminder |                  |                           |                              |                                        | Notes           |                        |                              |                              |                                        |
|                              | Sound            | Voice (language) | Audible Range (A~C, Fail) | Reminder Time (Over 30 sec.) | Deactivation After Seatbelt is Buckled |                 |                        |                              |                              |                                        |
| Front Passenger Seat (outer) |                  |                  |                           |                              |                                        |                 |                        |                              |                              |                                        |
|                              |                  |                  |                           |                              |                                        |                 |                        |                              |                              |                                        |
|                              |                  |                  |                           |                              |                                        |                 |                        |                              |                              |                                        |

#### 【SBR Change of Status】

| Target Seat                  | SBR Pass/Fail    | Visual Reminder  |                           |                              |                                        |                              |                              |                                        |  |
|------------------------------|------------------|------------------|---------------------------|------------------------------|----------------------------------------|------------------------------|------------------------------|----------------------------------------|--|
|                              |                  | Lit              | Flashing                  | Text (Language)              | Display Position (A~H)                 | Visibility Range (A~C, Fail) | Reminder Time (Over 30 sec.) | Deactivation After Seatbelt is Buckled |  |
| Front Passenger Seat (outer) |                  |                  |                           |                              |                                        |                              |                              |                                        |  |
|                              |                  |                  |                           |                              |                                        |                              |                              |                                        |  |
|                              |                  |                  |                           |                              |                                        |                              |                              |                                        |  |
| Target Seat                  | Audible Reminder |                  |                           |                              |                                        |                              | Notes:                       |                                        |  |
|                              | Sound            | Voice (Language) | Audible Range (A~C, Fail) | Reminder Time (Over 30 sec.) | Deactivation After Seatbelt is Buckled |                              |                              |                                        |  |
| Front Passenger Seat (outer) |                  |                  |                           |                              |                                        |                              |                              |                                        |  |
|                              |                  |                  |                           |                              |                                        |                              |                              |                                        |  |
|                              |                  |                  |                           |                              |                                        |                              |                              |                                        |  |

\* The "Display Position" box shall be filled by one of the following symbols. If "H" is recorded, specifics about the position shall be written in the "notes" box.

A : Driver's Seat Front, B : Fr. Passenger's Seat Front, C : Center Console, D: In front of rear seat window, E: Rear-Center Section,  
F : Ceiling, G : Room Mirror, H: Other

\* The "Visibility Range" and "Audible Range" boxes shall be filled by one of the following symbols.

A : The driver and the target seat B : The driver only C : The target seat only Fail : Not detectible anywhere

## Rear Seats

### 【Rear SBR】

| Target<br>Seat    | SBR Pass/Fail    |          |                     |                        |                                       |       | Visual Reminder                 |               |                                           |                              |                                 |                                    |                                              |
|-------------------|------------------|----------|---------------------|------------------------|---------------------------------------|-------|---------------------------------|---------------|-------------------------------------------|------------------------------|---------------------------------|------------------------------------|----------------------------------------------|
|                   | Time             | Distance | Speed               | When<br>ignition is on | When doors<br>are opened<br>or closed | Other | Lit                             | Flash-<br>ing | Text                                      | Display<br>Position<br>(A~H) | Visible<br>Range<br>(A~C, Fail) | Reminder<br>Time<br>(Over 30 sec.) | Deactivation<br>after seatbelt<br>is buckled |
|                   |                  |          |                     |                        |                                       |       |                                 |               |                                           |                              |                                 |                                    |                                              |
|                   |                  |          |                     |                        |                                       |       |                                 |               |                                           |                              |                                 |                                    |                                              |
| Row 2<br>(left)   |                  |          |                     |                        |                                       |       |                                 |               |                                           |                              |                                 |                                    |                                              |
| Row 2<br>(center) |                  |          |                     |                        |                                       |       |                                 |               |                                           |                              |                                 |                                    |                                              |
| Row 2<br>(right)  |                  |          |                     |                        |                                       |       |                                 |               |                                           |                              |                                 |                                    |                                              |
| Target<br>Seat    | Audible Reminder |          |                     |                        |                                       |       |                                 |               |                                           |                              |                                 | Notes:                             |                                              |
|                   | Sound            |          | Voice<br>(Language) |                        | Audible Range<br>(A~C, Fail)          |       | Reminder Time<br>(Over 30 sec.) |               | Deactivation after<br>seatbelt is buckled |                              |                                 |                                    |                                              |
| Row 2<br>(left)   |                  |          |                     |                        |                                       |       |                                 |               |                                           |                              |                                 |                                    |                                              |
| Row 2<br>(center) |                  |          |                     |                        |                                       |       |                                 |               |                                           |                              |                                 |                                    |                                              |
| Row 2<br>(right)  |                  |          |                     |                        |                                       |       |                                 |               |                                           |                              |                                 |                                    |                                              |

### 【SBR Change of Status】

| Target Seat    | SBR Pass/Fail    | Visual Reminder |                  |                 |                           |                           |                              |                                        |  |
|----------------|------------------|-----------------|------------------|-----------------|---------------------------|---------------------------|------------------------------|----------------------------------------|--|
|                |                  | Lit             | Flashing         | Text (Language) | Display Position (A~H)    | Visible Range (A~C, Fail) | Reminder Time (Over 30 sec.) | Deactivation after seatbelt is buckled |  |
| Row 2 (left)   |                  |                 |                  |                 |                           |                           |                              |                                        |  |
| Row 2 (center) |                  |                 |                  |                 |                           |                           |                              |                                        |  |
| Row 2 (right)  |                  |                 |                  |                 |                           |                           |                              |                                        |  |
| Target Seat    | Audible Reminder |                 |                  |                 |                           |                           |                              | Notes:                                 |  |
|                | Sound            |                 | Voice (Language) |                 | Audible Range (A~C, Fail) |                           | Reminder Time (Over 30 sec.) |                                        |  |
|                |                  |                 |                  |                 |                           |                           |                              |                                        |  |
| Row 2 (left)   |                  |                 |                  |                 |                           |                           |                              |                                        |  |
| Row 2 (center) |                  |                 |                  |                 |                           |                           |                              |                                        |  |
| Row 2 (right)  |                  |                 |                  |                 |                           |                           |                              |                                        |  |

### 【Visibility of Visual SBR from Rear Seats】

| Target Seat    | Design Standard Eye Point | Measured Eye Point (±10mm fore-aft, lateral, vertical) | Confirm Visibility |        | Notes |
|----------------|---------------------------|--------------------------------------------------------|--------------------|--------|-------|
|                |                           |                                                        | Light Display      | Camera |       |
| Row 2 (left)   |                           |                                                        |                    |        |       |
| Row 2 (center) |                           |                                                        |                    |        |       |
| Row 2 (right)  |                           |                                                        |                    |        |       |

\* The "Display Position" box shall be filled by one of the following symbols. If "H" is recorded, specifics about the position shall be written in the "notes" box.

A : Driver's Seat Front, B : Fr. Passenger's Seat Front, C : Center Console, D: In front of rear seat window, E: Rear-Center Section,

F : Ceiling, G : Room Mirror, H: Other

\* The "Visibility Range" and "Audible Range" boxes shall be filled by one of the following symbols.

A: The driver and the target seat B: The driver only C: The target seat only Fail: Not detectable anywhere

\* For the "Confirm Visibility" box in the [Visibility of Visual SBR from Rear Seats] table, the boxes shall be filled by one of the following symbols.

A: Male or Female B: Male Only C: Female Only Fail: Unable to confirm