

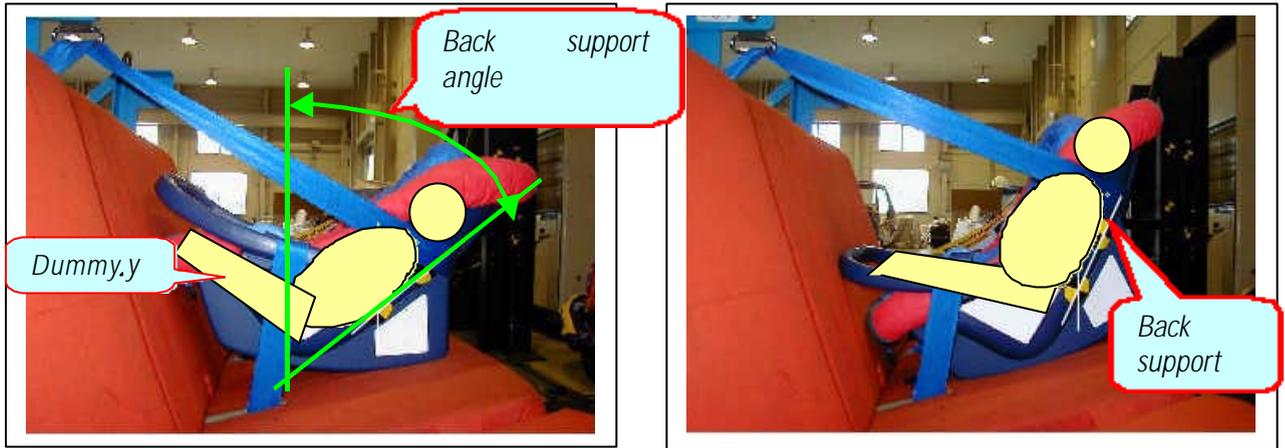
## **Document concerning Japan's Proposed Revision of Rearward-facing Child Restraint System Requirements**

### 1. Fundamental Conditions Necessary for Rearward-facing CRS

- (1) Be usable with both 2-point and 3-point safety belts.  
Reasons: Vehicles equipped only with 2-point safety belts on the rear seat still remain in the field.
- (2) Whether with a 2-point or a 3-point safety belt, be installable in such a position that the angle of the back support can be increased to more than 45° from vertical. 45° or over for newborn child→ Angle reduced with child's age
- (3) Both forward- and rearward-facing installation possible.  
Reasons: The dual-facing type is more economical and predominant in the market.
- (4) Be installable firmly when using a safety belt attached in the vehicle.
- (5) Be installable in most of the vehicles in the field, using their existing seat belts.

### 2. Necessary Conditions for Compliance with Rearward-facing CRS Requirements of ECE R.44

- (1) In the case of using a 2-point safety belt, it is not possible to comply with ECE R.44 paragraph 7.1.4.4.1.2 (displacement amount and chest vertical acceleration). That is, CRS will have to be specialized to 3-point safety belts.
- (2) Even in the case of using a 3-point safety belt, CRS is usable only with a long 3-point safety belt. Nearly 70% of the safety belts fitted on the rear seats of vehicles in Japan are not long enough to accommodate ECE R.44-compliance CRS.
- (3) The CRS position should be such that the back support angle cannot exceed 30° from vertical. Any angle over 30° cause failure to comply with the displacement amount requirement of ECE R.44 paragraph 7.1.4.4.1.2.
- (4) It is practically impossible to introduce a lock-off device so that it will not be possible to install the CRS securely.
- (5) The size of dual (forward and rearward) facing CRS will have to be reduced and the child will be given only a very small space to be seated.



.Back support angle: 45° .Back support angle: 25°

### 3. Reason for Japan's Revision Proposal

It is physically not possible to use ECE R.44-compliance rearward-facing CRS in nearly 70% of vehicles operating in Japan. In proposing revision of the rearward-facing CRS requirements, Japan has the following specific justifications:

- (1) The rearward dynamic requirements of the U.S. CRS regulation (FMVSS 213) were introduced simultaneously with the introduction of dynamic tests. Consequently, the long history and continuous enforcement of these requirements serve to prove the safety of rearward-facing CRS.
- (2) Those CRS manufactured in Europe and exported to the U.S. have a modified design to comply with FMVSS 213 and to enable the use of a 2-point safety belt.
- (3) Japan's proposal is in conformity to the rearward dynamic requirements of FMVSS 213. Japan urges that option be permitted between the proposed requirements and existing requirements of ECE R.44.