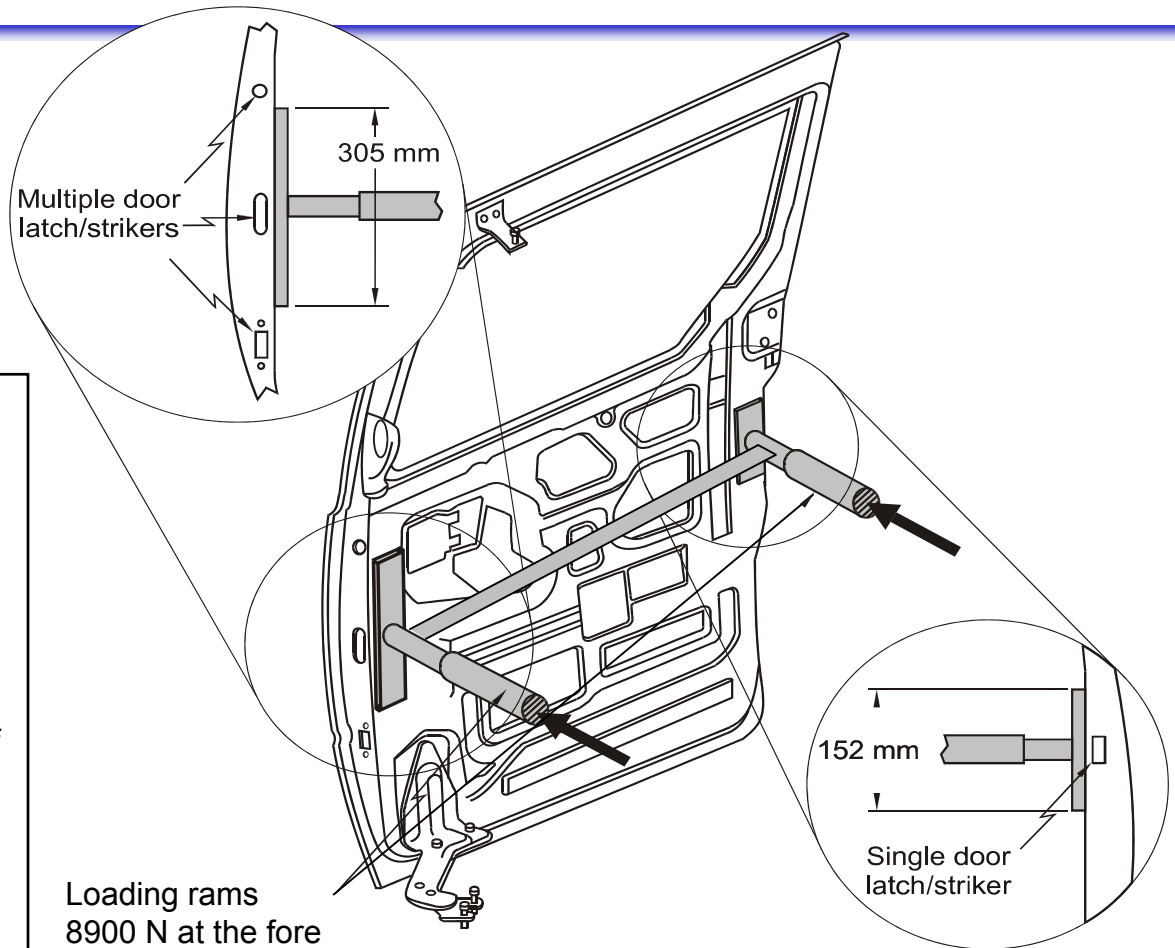


Full Vehicle Sliding Door Test

- Overview
 - Quasi-static full vehicle test (includes full vehicle and stresses the sliding door, latch, striker and other door support members)
 - Tests sliding doors in the fully latched position
 - Develop to re-define sliding door test in standard
 - Current tests have inadequate requirements and no test procedures
 - Insufficient information defining force application (consequently, no compliance procedure developed)
 - Manufacturers currently use their own validation tests
 - Developed by Transport Canada (based on GM internal procedure)
 - Replaces door-in-frame and full vehicle sliding door testing; maintains 17,800 N load force requirement in the standard
- Performance requirement
 - The track and slide combination or other supporting means for each sliding door, while in the closed position, cannot separate from the door frame by more than 10 cm when a lateral force of 8,900 N is applied to the forward and aft sides of the door (a total lateral force of 17,800 N) for a period not less than 10 seconds after the load is achieved. The total displacement of each of the loading devices is also limited to 460 mm.
- Test Procedure
 - The sliding door test is conducted using two force application devices capable of applying a combined outward lateral forces of 17,800 N (8,900 N each) at a constant rate of displacement of 5 mm per minute (The force application system consists of two plates joined by a longitudinal spacer that is attached to the centers of the force application members, two load cells capable of measuring the applied force, two linear displacement measurement devices, and equipment for recording the applied force and displacement rate.) Loads are applied to the door at its forward and aft edges. The force application devices and associated support structure are mounted to the floor of the test vehicle, and the force application plate is positioned as close to the edge of the door as possible.
- Canadian Testing (1998-2000)
 - 11 full vehicle tests (1995-2000 sliding doors)
 - Average test failure load = 20,485 N
 - Minimum test failure load = 14,067 N (combined front and aft loading device measurements)
 - Maximum test failure load = 26,676 N (combined front and aft loading device measurements)
- Reports
 - Pending docketing in NHTSA-1998-3705

New Full Vehicle Test for Sliding Doors

While in the vehicle, the sliding door track and slide combination or other supporting means shall not separate from the door frame by more than 10cm for at least 10 seconds after achieving a combined lateral force of 17,800 N (8,900 N from each of the loading rams) and each of the the force application plates not displacement more than 460mm.



Loading rams
8900 N at the fore
and aft ends of the
doors