



TiLite **AERO X** Transit Tie-Down Option

SERIES 2

TiLite has crash tested its Aero X and Depth Adjustable Aero X with Transit Tie-Down Option in accordance with Section 5.2 and Annex A of ISO 7176-19 (ISO 7176-19) and with RESNA WC-4:2012 Section 19 (WC19). The TiLite Aero X with Transit Tie-Down Option has been found to meet or exceed the performance requirements of ISO 7176-19¹. ISO 7176-19 requires that transit wheelchairs be frontal impact tested to 30 mph (48 km/h). In such testing, a wheelchair is loaded with a suitable crash test dummy, accelerated to 30 mph and brought to a controlled stop, simulating an impact generating 20 g on the crash test dummy. Therefore, the TiLite Aero X with Transit Tie-Down Option was designed to be secured facing forward when used as a seat in a motor vehicle.

TiLite has crash tested its Aero X and Depth Adjustable Aero X with Transit Tie-Down Option in one configuration. In this configuration, the chair tested was compliant with ISO 7176-19 and WC19. The Aero X wheelchair was tested under ISO 7176-19 and WC19 utilizing a 170-lb (77 kg) test dummy, which corresponds to a weight of 165 to 300 pounds (75 to 136 kg). It was tested using a vehicle-anchored shoulder belt and a wheelchair-mounted pelvic belt. The chair tested was configured as follows: 80° Fixed Front End, 16" Seat Width, 16" Seat Depth, Medium Frame Length, 17.5" Front Seat Height, 15.5" Rear Seat Height, Flip Up Footrest set at 15°, Tall Fixed Angle Backrest with Integrated Push Handles and Folding Stabilizer Bar set at 20°, 2° (Aero X) & 0° (Depth Adjustable Aero X) camber, 5" Performance Billet Aluminum Casters with Polyurethane Tires, 24" wire wheels with stainless axles and treaded tires, Tension Adjustable by Straps back upholstery, Tension Adjustable seat sling.

This option is labeled "Transit Tie-Down Option" on the TiLite Aero X order form. When this option is ordered, the product ships with four factory-installed transit tie-down brackets for securing the wheelchair within the vehicle and the Folding Stabilizer Bar. The four tie-down brackets are used to secure the wheelchair within the vehicle using a four-point, strap-type wheelchair tie-down system. The occupant is to be secured within the wheelchair using a two-point, vehicle-anchored shoulder belt and a wheelchair-mounted pelvic belt. TiLite recommends that the chair be used with a vehicle-anchored shoulder belt and wheelchair-mounted pelvic belt.



While the Transit Tie-Down Option is compatible with, and can be purchased with, additional seat sizes, optional components and varied configuration, TiLite makes no claims that any other components or configurations have been tested beyond the above-described ISO 7176-19 and WC19 conforming configuration. **Please refer to the TiLite Aero X/2GX Owner's Manual available at www.tilite.com for full information, including all warnings and restrictions, regarding the TiLite Aero X Transit Tie-Down Option.** TiLite does not claim that its Transit Tie-Down Option will prevent injury or death in the event of a motor vehicle accident.

Annex D of ISO 7176-19 provides a method of testing a wheelchair for its ability to accommodate vehicle-anchored pelvic and shoulder belts. The TiLite Aero X and Depth Adjustable Aero X had an overall score of 14, for a rating of "C", when tested in accordance with Annex D of ISO 7176-19.

The ease of access to, and maneuverability in, motor vehicles can be significantly affected by wheelchair size and turning radius. Smaller wheelchairs and/or wheelchairs with a shorter turning radius will generally provide greater ease of vehicle access and maneuverability to a forward-facing position.

¹ Crash testing is a simulation of a frontal impact only. It does not simulate any other type of impact. Furthermore, TiLite wheelchairs are highly customized and can be ordered in millions of combinations and it is impossible to test every conceivable combination. Therefore, TiLite recommends that wheelchair users transfer to the vehicle seat when being transported in a vehicle. The vehicle seat offers the greatest degree of safety because it is secured to the chassis of the vehicle and is designed with the primary purposes of protecting the occupant in a crash. By contrast, the primary purpose of any wheelchair is to maximize mobility, which in turn requires that the product be as light as possible. As of this date, the U.S. Department of Transportation has not approved any tie-down system for transportation of a user while in a wheelchair in a moving vehicle of any type.

