Automatic Wheelchair Securement
In Under 25 Seconds without Driver Assistance
Combining transportation insight, intelligent technology and high quality construction, Quantum lets wheelchair and scooter passengers board the bus or train, position their chair and simply push a button to secure themselves in a stable and safe rear-facing position. All in under 25 seconds — without requiring the driver to leave their seat to help.

By securing the chair within its arms and continually adjusting its grip as needed during the ride, Quantum virtually eliminates the risk of wheelchair tip-over.

Operators will benefit immediately and profoundly with reduced dwell time when securing passengers in mobility devices -- resulting in more reliable schedules. Eliminating manual tie-downs puts an end to intrusive and challenging securement maneuvers that upset passengers and put drivers at risk of personal injury. By safely securing wheelchairs and scooters, Quantum ultimately reduces liability exposure for injuries to mobility passengers as well as to seated or standing commuters who could be injured by unsecured mobility devices.
Compatible with Systems You Already Use, Compliant with Standards that are on the Way

Designed to international standards and built with transportation industry-standard technologies, Quantum is ideal for both new fleet or retrofit applications in bus, light rail and rail. Quantum meets or exceeds all current and proposed ISO 10865 regulations for rear-facing transit, European directives and the latest ADA and CSA revisions. Plus it can help systems fulfill the accessibility objectives of the new BRT Standard 2013 for bus rapid transit. Quantum can be installed in virtually any bus or rail car, integrates with existing rear-facing wheelchair station backrests and complements current OEM stanchions by adding the missing critical element of actual wheelchair securement. Integration with existing vehicle electrical and interlock systems prevents accidental release of a secured wheelchair while the vehicle is in motion.

A More Equal and Respectful Experience

Beyond improving passenger safety and helping to keep buses on time, Quantum brings a more human experience to the process of wheelchair securement.

Wheelchair passengers have the freedom to board the vehicle and take their place like any other passenger and automatically self-secure without drawing attention to themselves or disrupting anyone’s schedule. Rather than drivers leaving their seats to affix straps — and potentially invade the passenger’s personal space — safe and stable securement happens at the push of a button, without a requirement for driver involvement.

Let Everyone Enjoy the Ride

Improve passenger safety, eliminate tip-overs and reduce operator involvement by deploying Quantum — the world’s first automatic wheelchair securement system. To learn more, contact Q’Straint today.

“It's a little bit unnerving when you don’t have anything to protect you or hold on to because you’re worried that the scooter is going to pull you over when the bus makes a turn or on twisty roads. I never want to tip over and hurt myself or others. We had a pole on this bus, but it was awkward to get around and it wasn’t very secure. With the Quantum I feel I have more security and that it is very stable — so I’m safe and everybody else is too.”

-Quantum User

“One of our goals is ensuring the integration of people with disabilities into society and transportation is a key enabler. No one enjoys being singled out when a driver must come back and secure a wheelchair because it always takes time. People with disabilities just want to get on the bus and go.”

-Jim Franklin, Advocate Action Committee of People with Disabilities
SAFE SECUREMENT AND RELEASE BECOMES A SIMPLE THREE-STEP PROCESS

**STEP 1**
With the vehicle safely stopped, the Quantum unit is ready for the wheelchair passenger. Once the passenger’s wheelchair is centered against the backrest, the press of a button engages the automatic locking sequence.

**STEP 2**
Quantum’s arms move to secure the wheelchair in place, and continually adjust their grip as needed throughout the journey.

**STEP 3**
Only when the bus stops at the destination can the Quantum release sequence be engaged so the passenger can disembark.

Q’Straint engineers applied the highest levels of industrial design to ensure Quantum delivers the performance to keep passengers safe and operators productive.

Transportation-industry-proven electronics are used for its controllers, switches and sensors. The rubber in the retaining arms has been specifically selected to maintain grip through many seasons of use. Its stainless steel framework withstands the harshest environments. And the entire system has been engineered to simplify and minimize maintenance over a lifetime of many thousands of cycles.

The intelligent design approach in Quantum includes visual and auditory indicators to signal the arm is moving and automatic sensing that recognizes the difference between an obstacle vs. a wheelchair and stops the arms from applying the final securement pressure if something is not right. The optional Q’Straint backboard is designed to reduce head and neck injuries.

As with all Q’Straint systems, the Quantum has been designed with aesthetics in mind, with an appearance that is unimposing and approachable, and as a thoughtful addition to any modern bus.

Q’Straint engineers applied the highest levels of industrial design to ensure Quantum delivers the performance to keep passengers safe and operators productive.

The intelligent design approach in Quantum includes visual and auditory indicators to signal the arm is moving and automatic sensing that recognizes the difference between an obstacle vs. a wheelchair and stops the arms from applying the final securement pressure if something is not right. The optional Q’Straint backboard is designed to reduce head and neck injuries.

As with all Q’Straint systems, the Quantum has been designed with aesthetics in mind, with an appearance that is unimposing and approachable, and as a thoughtful addition to any modern bus.

Q’Straint engineers applied the highest levels of industrial design to ensure Quantum delivers the performance to keep passengers safe and operators productive.

The intelligent design approach in Quantum includes visual and auditory indicators to signal the arm is moving and automatic sensing that recognizes the difference between an obstacle vs. a wheelchair and stops the arms from applying the final securement pressure if something is not right. The optional Q’Straint backboard is designed to reduce head and neck injuries.

As with all Q’Straint systems, the Quantum has been designed with aesthetics in mind, with an appearance that is unimposing and approachable, and as a thoughtful addition to any modern bus.

Q’Straint engineers applied the highest levels of industrial design to ensure Quantum delivers the performance to keep passengers safe and operators productive.

The intelligent design approach in Quantum includes visual and auditory indicators to signal the arm is moving and automatic sensing that recognizes the difference between an obstacle vs. a wheelchair and stops the arms from applying the final securement pressure if something is not right. The optional Q’Straint backboard is designed to reduce head and neck injuries.

As with all Q’Straint systems, the Quantum has been designed with aesthetics in mind, with an appearance that is unimposing and approachable, and as a thoughtful addition to any modern bus.

Q’Straint engineers applied the highest levels of industrial design to ensure Quantum delivers the performance to keep passengers safe and operators productive.

The intelligent design approach in Quantum includes visual and auditory indicators to signal the arm is moving and automatic sensing that recognizes the difference between an obstacle vs. a wheelchair and stops the arms from applying the final securement pressure if something is not right. The optional Q’Straint backboard is designed to reduce head and neck injuries.

As with all Q’Straint systems, the Quantum has been designed with aesthetics in mind, with an appearance that is unimposing and approachable, and as a thoughtful addition to any modern bus.

Q’Straint engineers applied the highest levels of industrial design to ensure Quantum delivers the performance to keep passengers safe and operators productive.

The intelligent design approach in Quantum includes visual and auditory indicators to signal the arm is moving and automatic sensing that recognizes the difference between an obstacle vs. a wheelchair and stops the arms from applying the final securement pressure if something is not right. The optional Q’Straint backboard is designed to reduce head and neck injuries.

As with all Q’Straint systems, the Quantum has been designed with aesthetics in mind, with an appearance that is unimposing and approachable, and as a thoughtful addition to any modern bus.

Q’Straint engineers applied the highest levels of industrial design to ensure Quantum delivers the performance to keep passengers safe and operators productive.

The intelligent design approach in Quantum includes visual and auditory indicators to signal the arm is moving and automatic sensing that recognizes the difference between an obstacle vs. a wheelchair and stops the arms from applying the final securement pressure if something is not right. The optional Q’Straint backboard is designed to reduce head and neck injuries.

As with all Q’Straint systems, the Quantum has been designed with aesthetics in mind, with an appearance that is unimposing and approachable, and as a thoughtful addition to any modern bus.

Q’Straint engineers applied the highest levels of industrial design to ensure Quantum delivers the performance to keep passengers safe and operators productive.

The intelligent design approach in Quantum includes visual and auditory indicators to signal the arm is moving and automatic sensing that recognizes the difference between an obstacle vs. a wheelchair and stops the arms from applying the final securement pressure if something is not right. The optional Q’Straint backboard is designed to reduce head and neck injuries.

As with all Q’Straint systems, the Quantum has been designed with aesthetics in mind, with an appearance that is unimposing and approachable, and as a thoughtful addition to any modern bus.

Q’Straint engineers applied the highest levels of industrial design to ensure Quantum delivers the performance to keep passengers safe and operators productive.

The intelligent design approach in Quantum includes visual and auditory indicators to signal the arm is moving and automatic sensing that recognizes the difference between an obstacle vs. a wheelchair and stops the arms from applying the final securement pressure if something is not right. The optional Q’Straint backboard is designed to reduce head and neck injuries.

As with all Q’Straint systems, the Quantum has been designed with aesthetics in mind, with an appearance that is unimposing and approachable, and as a thoughtful addition to any modern bus.