

Wheelchair and occupant restraints

Products to safely secure people and
mobility aids for transport.



A brief introduction to WTORS

Wheelchair tie-down and occupant restraint system

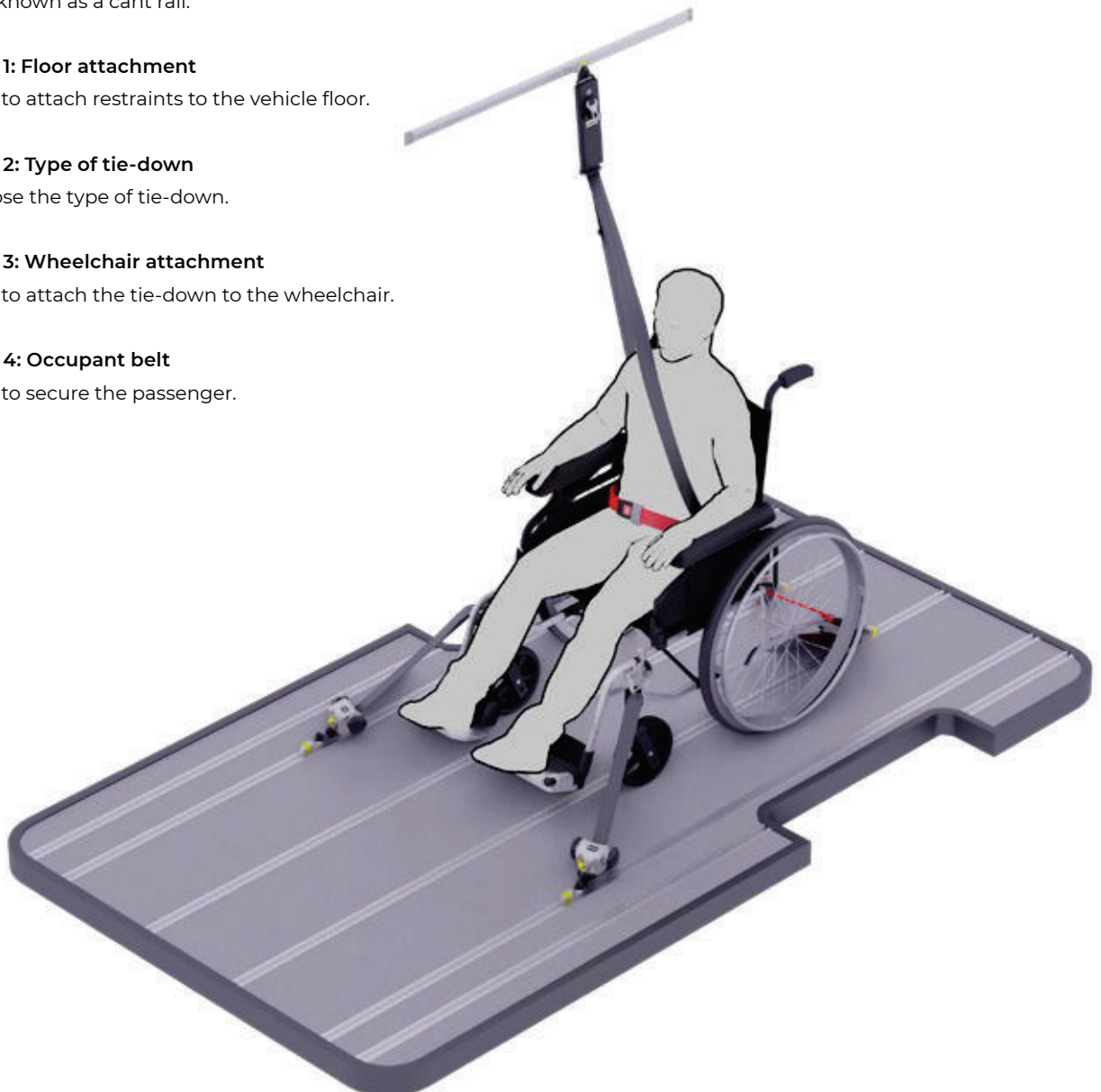
A wheelchair is secured by using four tie-downs. Two in the front and two in the back. These can be webbing straps or retractors. For the front tie-downs, you also have the option of electric reels.

Each tie-down (2) is then attached to the wheelchair using wheelchair fixing (3), either a strap with tongue and buckle, a hook or a karabiner.

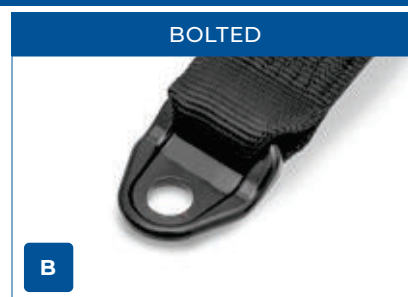
Each tie-down (2) is also attached to the vehicle floor using a floor fitting (1), either via a solo anchor, in a rail or directly bolted to the floor.

The occupant belt (4) consists of a shoulder belt and a lap belt. The occupant belt can share the floor fitting with one of the rear tie-downs or have its own. A shoulder belt does, however, require the attachment of the upper anchorage (or 3rd point) in the vehicle, this is usually in the form of a piece of rail known as a cant rail.

- Step 1: Floor attachment**
How to attach restraints to the vehicle floor.
- Step 2: Type of tie-down**
Choose the type of tie-down.
- Step 3: Wheelchair attachment**
How to attach the tie-down to the wheelchair.
- Step 4: Occupant belt**
How to secure the passenger.



STEP 1: FLOOR ATTACHMENT



STEP 2: TYPE OF TIE-DOWNS



manual tensioning buckle



manual tensioning retractors

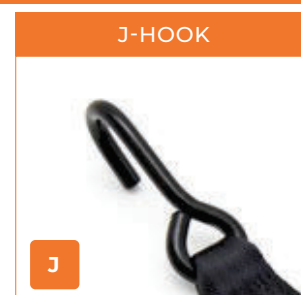
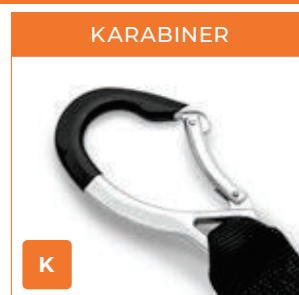
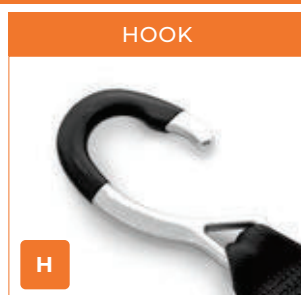


self-tensioning retractors



electric front reels

STEP 3: WHEELCHAIR ATTACHMENT



STEP 4: OCCUPANT BELT

OCCUPANT BELT FLOOR CONNECTION



Stalk - Classic Range



Tongue - Compact Range

STATIC OCCUPANT BELTS



Static 3-point belt



Static lap belt

RETRACTABLE OCCUPANT BELTS



Double Inertia



WAV belt

SHOULDER BELTS - COMPACT RANGE



Fixed height



Adjustable height

Kits to help you choose

With the industry's largest product portfolio we certainly have something for everyone. But, having much to choose from also increases complexity. To remedy this, we've put together a number of kits. A set of products that work for a particular type of use and vehicle.



Classic range kits

These are our tried and tested workhorses for wheelchair and occupant securement. It's also our most complete range. The most significant difference from the Compact range is that the ends of the occupant restraints have a metal tongue. These tongues are then connected to a buckle on a stalk or webbing.



Compact range kits

A full kit in the Compact range is leaner than its counterpart from our Classic range. Instead of a stalk, all retractors come with a metal tongue and the buckle is located on the occupant restraint. This eliminates the need for a separate stalk and gives you a more compact system.

Secure wheelchairs and occupants

Safely transporting a wheelchair in a vehicle requires four tie-downs, two in the front and two in the rear. Additionally, any person seated in the wheelchair will need a 3 point seat belt. Anything less just isn't safe.

We firmly believe that everyone is entitled to equal safety. As a driving force in this industry since the early '60s, we're certainly not unfamiliar with breaking new ground and helping to usher in standards and regulations. In short, we have a deep understanding of the needs of safely transporting people and wheelchairs which is mirrored in our wide range.

Our product portfolio covers all sorts of wheelchair securement systems, from the floor fittings in the vehicle to the occupant belt. Making sure you can enjoy a safe ride. Naturally, our range of wheelchair tie-downs comply with or exceed the minimum requirements of ISO 10542.









Electric front reels

Electric reels can only be used as the two front tie-downs. However, they can be very beneficial in terms of space. Electric reels can be built into the vehicle and thereby making the dedicated wheelchair space substantially smaller. Electric Reels can also be used as an aid for the operator when loading the wheelchair.

Each pair of tie-downs comes with a choice of four types of wheelchair fixings; tongue and buckle (**T**), hook (**H**), karabiner (**K**) or J-hook (**J**). The fixings connect the tie-downs to their load.



Electric reels Electric tensioning front reels with LED-lights available in two lengths and without cover if space is limited.				
 <p>2 x Electric front reel, cover (front only) Add Electric reel fixing kit (103463) to secure electric reels and spread their pulling load.</p>	<p>EF3CT 105261</p> <p>EF4CT 105490</p>	<p>EF3CH 105262</p> <p>EF4CH 105257</p>	<p>EF3CK 105237</p> <p>EF4CK 105258</p>	<p>EF3CJ 441608</p> <p>EF4CJ 441609</p>
 <p>2 x Electric front reel, no cover (front only) Add Electric reel fixing kit (103463) to secure electric reels and spread their pulling load.</p>	<p>EF3T 105263</p> <p>EFP4T 442062</p>	<p>EF3H 105255</p> <p>EFP4H 442063</p>	<p>EF3K 105256</p> <p>EFP4K 442064</p>	<p>EF3J 441606</p> <p>EFP4J 442065</p>

EF=electric reel, 3=3.2 metre webbing, 4=4 metre webbing, C=cover, T=tongue & buckle, H=hook, K=karabiner, J=J-hook

Solo floor anchors

Single anchorage points for a dedicated wheelchair space.



Solo floor anchor

A spring loaded floor anchor to be used with compatible tie-downs. The system consists of a patented, flush mounting floor anchor permanently fixed to the vehicle floor, and a fixing cleat fitted to the wheelchair tie-down. Made from stainless steel for longer lasting benefits, the floor anchor is quick, easy to use and very effective.

The floor anchors are available in three depth sizes.

- 103395** Floor anchor, 30 mm (SAS)
- 103393** Floor anchor, 50 mm (SA)
- 103394** Floor anchor, 90 mm (SAL)



Solo floor anchor (High Viz)

A yellow fluorescent highly visible spring loaded floor anchor to be used with compatible tie-downs. The system consists of a patented, flush mounting floor anchor permanently fixed to the vehicle floor, and a fixing cleat fitted to the wheelchair tie-down. Made from stainless steel for longer lasting benefits, the floor anchor is quick, easy to use and very effective.

The high viz floor anchors are available in three depth sizes.

- 105336** High viz floor anchor, 30 mm (HVSAS)
- 103397** High viz floor anchor, 50 mm (HVSA)
- 103398** High viz floor anchor, 90 mm (HVLSA)



Solo static floor anchor

A static floor anchor to be used with compatible tie-downs. The system comes with a patented static floor anchor permanently fixed to the vehicle floor and a fixing cleat which is fitted to the wheelchair tie-downs. Made from stainless steel, the raised mounting floor anchor is quick and easy to use and very effective.

The static floor anchor comes with a M10 tap screw and can easily be fitted to the vehicle floor.

- 103396** Static floor anchor, 10 mm bolt (S10)

Restraint kits: Classic range

Combinations for wheelchairs and occupants.



KIT 1 (105230)

2 x adjustable strap with tongue & buckle
2 x static strap with tongue & buckle

(ROBT + RFT)



KIT 2 (105229)

2 x adjustable strap with karabiner
2 x static strap with tongue & buckle

(ROBK + RFT)



KIT 3 (105228)

1 x 3-point belt*
2 x adjustable strap with karabiner
2 x static strap with tongue & buckle

(DI + ROBK + RFT)

**to optimise safety, we recommend combining the 3-point belt with a 3rd point upper anchorage.*



KIT 4 (105227)

1 x upper anchorage (rail)
1 x 3-point belt
2 x adjustable strap with karabiner
2 x static strap with tongue & buckle

(3PTR + DI + ROBK + RFT)



KIT 5 (105331)

1 x upper anchorage (rail)
2 x adjustable strap with karabiner and 3-point belt
2 x static strap with tongue & buckle

(3PTR + DI-ROBK + RFT)



KIT 6 (105330)

1 x upper anchorage (rail)
1 x 3-point belt
2 x Quattro retractor with karabiner
2 x static strap with tongue & buckle

(3PTR + DI + RQPK + RFT)

Visit our website for the complete product portfolio

www.braunability.eu/wtors

**KIT 7 (105034)**

1 x upper anchorage (rail)
1 x 3-point belt
4 x Quattro retractor with karabiner

(3PTR + DI + 2 x RQPK)

**KIT 8 (105337)**

1 x upper anchorage (rail)
2 x Quattro retractor with hook and 3-point belt
2 x static strap with tongue & buckle

(3PTR + DI-SQMK + SFT)

**KIT 9 (105855)**

6 x adjustable strap with karabiner (Titan)
1 x upper anchorage (rail)
1 x 3-point belt

(OR03 + OF08 + 3PTRN + DI)

**KIT 10 (442055)**

6 x adjustable strap with karabiner (Titan)
2 x upper anchorage (bolt)
1 x 3-point belt

(OR03 + OF08 + 2 x 3PTFN + DI)

**KIT 11 (442056)**

6 x adjustable strap with karabiner (Titan)
1 x upper anchorage (bolt)
1 x 3-point belt

(OR03 + OF08 + 3PTFN + DI)

**KIT 13 (442003)**

1 x 3-point belt with upper anchorage (rail)
2 x Quattro Express retractor with J-hook and stalk
2 x Quattro Express retractor with J-hook

(PSR-11470-A + SBT-07892-A + SBT-07893-A + K-RQE10MJ + RQE10MJ)

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Restraint kits: Compact range

Combinations for wheelchairs and occupants.



KIT 15 (106094)
1 x WAV belt with bolts
4 x Quattro retractor with tongue & buckle
(T-WBB + 2 x T-RQ10PT)



KIT 16 (106095)
1 x WAV belt for rail
4 x Quattro retractor with tongue & buckle
(T-WRR + 2 x T-RQ10PT)



KIT 17 (106096)
1 x WAV belt with bolts
4 x Quattro Express retractor with tongue & buckle
(T-WBB + 2 x T-RQE10MT)



KIT 18 (106097)
1 x WAV belt for rail
4 x Quattro Express retractor with tongue & buckle
(T-WRR + 2 x T-RQE10MT)



KIT 19 (106098)
1 x WAV belt with bolts
4 x Quattro retractor with J-hook
(T-WBB + 2 x T-RQ10PJ)



KIT 20 (106099)
1 x WAV belt for rail
4 x Quattro retractor with J-hook
(T-WRR + 2 x T-RQ10PJ)

**KIT 21 (106100)**

1 x WAV belt with bolts
4 x Quattro Express retractor with J-hook

(T-WBB + 2 x T-RQE10MJ)

**KIT 22 (106101)**

1 x WAV belt for rail
4 x Quattro Express retractor with J-hook

(T-WRR + 2 x T-RQE10MJ)

**KIT 23 (106102)**

1 x WAV belt with bolts
4 x Quattro Express retractor with tongue & buckle

(T-WBB + 2 x T-SQE10MT)

**KIT 24 (106103)**

1 x WAV belt with bolts
4 x Quattro retractor with J-hook

(T-WBB + 2 x T-SQ10PJ)

**KIT 25 (106104)**

1 x WAV belt with bolts
4 x Quattro Express retractor with J-hook

(T-WBB + 2 x T-SQE10MJ)

Heavy Duty and **DIN-compatible**
kits on the next page →



DIN-KIT 1 (106123)

- 1 x Static lap belt
- 1 x Shoulder belt with adjustable height for rail
- 2 x Quattro Express retractor with J-hook
- 2 x Quattro Express HD retractor with karabiner

(T-LBS + T-SARR + 2 x T-RQE10MJ + 2 x RQE16MK)



DIN-KIT 2 (106124)

- 1 x Static lap belt
- 1 x Shoulder belt with adjustable height for rail
- 2 x Quattro retractor with tongue & buckle
- 2 x Quattro Express HD retractor with karabiner

(T-LBS + T-SARR + 2 x T-RQ10MT + 2 x RQE16MK)



DIN-KIT 3 (106125)

- 1 x Static lap belt
- 1 x Shoulder belt with adjustable height for rail
- 2 x Quattro retractor with J-hook
- 2 x Quattro Express HD retractor with karabiner

(T-LBS + T-SARR + 2 x T-RQ10MJ + 2 x RQE16MK)

HD is for Heavy Duty

The standard weight capacity for wheelchair tie-downs required by ISO 10542 is 85 kg. We test all our tie-downs to 100 kg and up which means they are well within the ISO 10542 requirements.

In some cases, the wheelchair you need to transport weighs more than 85 kg. For those wheelchairs, we have our HD (heavy duty) retractors, capable of securing wheelchairs weighing up to 160 kg.

Visit our website for the complete product portfolio

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