

**GEMINI
G2, G2T, GW, GWT, G140, G140T**

USER MANUAL



Read instructions fully before use.

It is recommended that training be given on the proper use of this product.

Retain this manual for future reference.
Include it with the product in the event of transfer to new users.
Additional copies are available upon request.

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A. LIMITATION OF USE

1. These products have been designed to restrain wheelchair weighing up to 140kg and includes a passenger restraint for the wheelchair occupant.
2. Some wheelchairs need specific restraints, this is often true of buggy-type wheelchairs. If in doubt please contact us or the wheelchair manufacturer.
3. Unwin products are extensively tested using Unwin Rail and our full warranty applies to Unwin equipment fitted and used in accordance with our instructions. Unwins have also participated in test programs with other manufacturers and will support warranty on the Unwin products when used in conjunction with such jointly tested systems. For further details on specific applications please contact the Sales Office. In other situations where Unwin has not participated in joint test programs, a limited Unwin warranty will apply.

B. GENERAL GUIDANCE

1. Please read this manual before using the equipment.
2. Regular inspection of all parts is recommended and only use the equipment if all mechanical parts are functioning smoothly and all components are in good condition.
3. Replace parts where the webbing is contaminated or frayed.
4. Items attached to the wheelchair in front of the occupant, other than footrests should be removed and secured in the vehicle during transport. This reduces the potential for injury
5. Any restraints which have been subjected to a crash situation, should in the interest of safety, be replaced immediately.

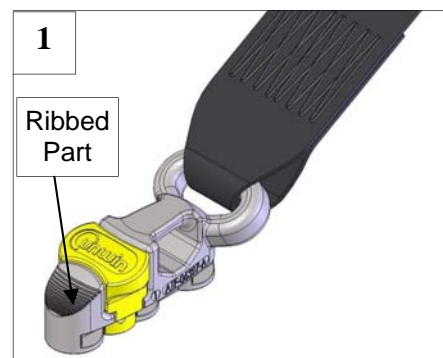
6. Do not attempt to modify the equipment. If there is a problem refer back to Unwin Safety Systems.
7. If the proposed installation cannot be made to meet the following requirements, refer to Unwin Safety Systems.

C. BEFORE USING GEMINI

1. Ensure that the tiedown is appropriate for the wheelchair being used.
2. Position the wheelchair, facing forward, symmetrically about the two rails. If the vehicle is positioned on a slope, ensure the wheelchair cannot roll.
3. To minimise the potential for head injuries in an impact, it is recommended to allow a clear space of at least 400 mm behind and 650 mm for 3 point systems or 950mm for 2 point systems in front of the head of the wheelchair user when positioning the chair for transit. A height provision ranging from 1200mm to 1550mm should be made, depending on the size of the passenger. There should also be 200 mm of clear space either side of the wheelchair centre line. If these clear space dimensions cannot be provided, then any object that protrudes into the wheelchair space should be well padded.
4. When using a 3 point inertia passenger restraint, the inertia reel must always be fitted beneath the upper anchorage point. With the new Unwin reversible stalk, the third point fixing position can now be located on either side of the vehicle.
5. Electric wheelchairs may require an additional strap to secure the batteries.

D. FITTING GEMINI - WHEELCHAIR TIFEDOWN

1. Position the wheelchair over the rail and apply the brakes.
2. If applicable attach the front straps into rail, match feet of the ATF with the cut-out sections of the rail and locate into the rail.
3. Press on the ribbed part of the ATF (Fig 1) and push firmly towards the wheelchair until the yellow clip drops and locks into the rail. Install the second clip. The position of this must be in line with the first. **IMPORTANT: Check the plungers are fully engaged on both sides.**
4. With buckles facing outwards, connect the front straps to the front vertical frame of the wheelchair above the front castoring wheels. **IMPORTANT: Check both sets of buckle and tongue are fully clipped together.**
5. Pull the wheelchair back to tension front straps and apply the wheelchair brakes..
6. Place the rear restraint into the rail behind the wheelchair. **It is acceptable to use restraint either for left hand or right hand use. The double inertia reel should be fitted to the rail adjacent to the 3rd point anchorage.**
4. Remove the webbing from the Velcro and release the over-centre buckle, by pressing down the spring loaded bar.
5. If using a Karabiner system, attach the Karabiner Hook to the wheelchair main frame creating an angle of about 45°. If using Snaplock system, unfasten Snaplock, fit the webbing around the wheelchair main frame and refasten the Snaplock buckle, creating an angle of about 45°.
6. Pull the webbing gently through the over-centre buckle to remove any slack. Close the buckle using both hands and re-secure the Velcro. (Fig 2).
8. The occupant restraint should now be fitted.



E. FITTING GEMINI - OCCUPANT RESTRAINT (2 POINT)

IMPORTANT:

Before fitting the occupant restraint, ensure that the reversible stalk orange button is facing outside in relation to the wheelchair. If the reversible stalk orange button faces inside, turn the reversible stalk 180° to sit in the right position (Fig 3).



Wheelchairs without armrest or with armrest removed.

1. Ensure the Comfort Clip is released (Fig 4) and press the buckle to release the lap belt.
2. Pull the metal tongue on the black webbing upwards to release the webbing from both inertia reels.
3. Position the webbing across the occupant with the black webbing forming the lap belt and the red webbing forming the shoulder belt.
4. Insert the tongue fixed to the black webbing into the reversible stalk buckle. Adjust for comfort by raising the webbing on the shoulder by two finger widths, unlock the Comfort Clip to take up the slack, then re-lock the clip so that it rests on the reel cover.



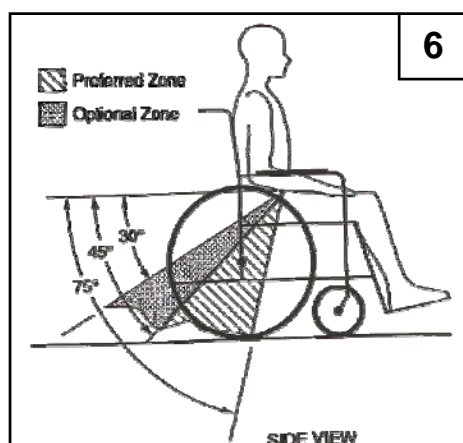
Wheelchairs with fixed armrests

1. Ensure the Comfort Clip is released (Fig 4) and undo the buckle to separate the lap and shoulder belts.
2. Position the black webbing around the occupant's pelvic area, threading it through the armrests if necessary and fit to the metal tongue into the lap belt.
3. Pull all of the red webbing out of the inertia reel and secure with the Comfort Clip.
4. Position the shoulder belt on the occupant at about mid shoulder point (Fig 5).



Adjust for comfort by raising the webbing on the shoulder by two finger widths, unlock the Comfort Clip to take up the slack, then re-lock the clip so that it rests on the reel cover.

5. It is essential that the lap belt anchor point should be positioned to achieve belt angles of 30° or more to the horizontal and preferably between 45° and 75° , in order to fit low across the pelvis and/or over the upper thighs to reduce the possibility of the seat belt loading the abdomen (Fig 6).



F. FITTING GEMINI - OCCUPANT RESTRAINT (3 POINT)

IMPORTANT: Before fitting the occupant restraint, ensure that the reversible stalk orange button is facing outside in relation to the wheelchair. If the reversible stalk orange button faces inside, turn the reversible stalk 180° to sit in the right position (Fig 1).



Wheelchairs without armrests or with armrest removed

1. Position the third point fixing into the wall rail so that it is vertically above the inertia reel casing fixed onto the floor anchor.
2. Ensure the Comfort Clip (Fig 2) is released, and the tongue & buckle separating the lap and shoulder belts is disengaged.
3. Release the third point tongue from the buckle.
4. If applicable, remove black plastic cover off the tongue on the red webbing of the double inertia and pull both tongues upwards to release the webbing from the inertia reel.
5. Insert the first tongue fixed to the red webbing into the buckle on the third point fixing.
6. Position the webbing across the passenger, with the black webbing forming the lap belt and the red webbing the shoulder belt.
7. Insert the second tongue into the reversible stalk buckle. Adjust the height of the shoulder belt so that it clears the occupant's shoulder by approximately one inch.
8. Unlock the Comfort Clip to take up the slack, then re-lock the clip so that it rests on the reel cover.

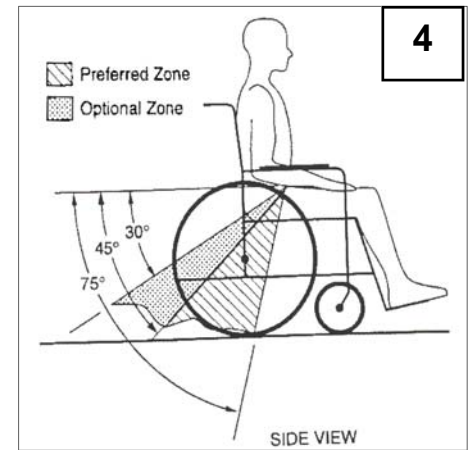


Wheelchairs with fixed armrests

1. Release the Comfort Clip (Fig 2) and the buckle separating the lap and shoulder belts.
2. Undo the third point tongue from the buckle.
3. Position the black webbing around the occupant's pelvic area, threading it through the armrests if necessary.
4. If applicable, remove the black plastic cover off the tongue on the red webbing of the double inertia and insert into the buckle on the third point fixing.



1. Position the red shoulder belt on the occupant at about mid shoulder point (Fig 3) and adjust the height so that it clears the occupant's shoulder by approximately one inch.
2. Unlock the Comfort Clip to take up the slack, then re-lock the clip so that it rests on the reel cover.
3. It is essential that the lap belt anchor point should be positioned to achieve belt angles of 30° or more to the horizontal and preferably between 45° and 75° in order to fit low across the pelvis and/or over the upper thighs to reduce the possibility of the seat belt loading the abdomen (Fig 4).



G. REMOVING AND STORING

1. Release the Comfort Clip and disconnect the tongue from the stalk. Remove the passenger restraint, unclipping the lap and shoulder belt as necessary. If applicable disconnect the shoulder belt from the third point fixing and allow the webbing to retract back into the reels evenly.
2. Keeping control, release the over-centre buckle on the rear strap, loosen the webbing and remove the Karabiner or Snaplock fixings from the wheelchair. Close the over-centre buckle and return webbing to Velcro.
3. Lift the plunger on the rear restraint and remove from the rail. Repeat with opposite fitting.
4. If applicable, push the chair forward to loosen the front straps.
5. Release the buckle on the front straps, remove the strap from the wheelchair frame and clip back together. Lift the yellow retaining clip fully and pull away from the wheelchair to remove the front straps from the rail. Repeat on opposite strap.
6. Store the restraint safely off the floor to avoid damage and so that it can not become a projectile in an accident. This can be achieved by using wall mounted storage rails or a stowage box.

H. MAINTENANCE

1. Regularly inspect Gemini for damage, wear or malfunction. If any problems are identified replace it immediately.
2. All webbing and components can be cleaned as necessary, care should be to prevent contamination of the webbing with polish, oils and chemicals.
3. To clean the Gemini use warm soapy water and a clean soft cloth. Rinse with clear water, and allow to air dry. To disinfect use a mild spray disinfectant - do not use products containing bleach. **IMPORTANT: when cleaning or disinfecting do not immerse buckles or rail fittings in disinfectant or water.**
4. Avoid contact with corrosive liquids and keep the webbing away from sharp edges. Care should be taken to prevent contamination of the webbing with polishes, oils and chemicals.
5. If the vehicle is involved in an accident when any restraints are deployed, remove them from service and replace immediately. If in doubt please contact Unwin Safety Systems.



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