

Method of securing KARMA KM -7520 series manual  
Wheelchairs For Transportation using  
Unwin Four point webbing & Karabiner system

1. Front of wheelchair.  
Loop webbing around front lower frame at junction of the castor housing and the front down tube ensuring that the webbing encircles the front down tube, the lower mainframe tube and the castor housing. Engage quick release buckle.
2. Rear of wheelchair.  
Clip Karabiner over rear wheelchair frame above wheel mounting block ensuring spring clip is in closed position.
3. Locking into place.  
Slide front and rear ATF rail clips into place on floor of vehicle and secure. Tension front adjustable straps and clip overcentre buckles into place. Tension rear adjustable straps and clip overcentre buckles into place.
4. Engage occupant seat belt.



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## USER INSTRUCTION MANUAL

KARMA KM-7520  
Self-Propelled & Attendant  
Folding Wheelchair



# KM-7520

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# 1 Introduction

Model KM-7520 is a self-propelled chair for children- that is it can either be pushed by attendants or propelled by the user themselves.

## 1.1 Model KM-7520 Wheelchair

The wheelchair is suitable for users weighing up to 50kgs. Parking brakes are provided for both rear wheel and the chair can be folded for stowing in vehicles. Model KM-7520 has quick-release for both rear wheels.

Rear wheels are 20 or 22 inches in diameter and 1 3/8 inches in width with pneumatic tyres as standard. Solid tyres are available as an option.

## 1.2 Parameters for use

This chair is designed for both indoor and outdoor use. It can be used in a broad spectrum of weather and ground conditions.

It is rust proof, has pneumatic tyres for traction and comfort. (solid tyres are available as an optional extra), an extremely durable aluminum alloy frame, tough accessories and does not suffer in climatic extremes of temperature. Rain, snow, wind and other environmental hardships (within reason) are acceptable to the product provided the occupant and attendant exercise the necessary caution and are not physically too discomforted.

# 2 Safety & Consumer Information

## 2.1 General

Only maintenance and service as described in this manual should be carried out. Use only genuine replacement parts.

## 2.2 Using the KM-7520

Always make sure both brakes are applied before getting into or out of the chair.

Never stand on the footplates when getting in or out of the chair.

Always take care when climbing kerbs or turning on slopes.

Never go down steps forward.

Never carry more than one passenger.

## 2.3 Notes for attendants and occupants

Do ensure that the brakes are always on when the chair is not being pushed.

Always make sure that both feet are safely on the footplates and that clothing is safely tucked out of the way and can not catch in the wheels.

Always use both hands on the push handles to control the chair. Always look well ahead to anticipate hazards such as furniture, doors or pot holes.

Always avoid steep or uneven surfaces because the chair may tip over.

Always be careful not to go too fast or turn too quickly and try to achieve a smooth steady ride.

Please keep in contact with the person in the chair. If you stop to look in shop windows or talk to people remember to turn the chair so that the person in the chair does not have to turn.

Never put on the brakes too suddenly or too firmly as this may tip the patient out of the chair.

#### 2.4 General 'Mis-Use'

Please note that our "USER GUIDE" contains a number of cautions, any vehicle can cause injury, if misused but will be safe, if it is used within our guidelines and with reasonable care.

## 3 Specifications

### 3.1 Description and Features

The chair consists of an aircraft aluminum alloy frame with pneumatic tyres front and rear. Solid tyres are available as an optional extra.

Seat and backrest materials are polyester coated canvas.

The chair can be folded for stowing in an average sized car boot.

Special features are as follows:

- Anti-tipping levers
- Adjustable castors
- Calf strap
- Height adjustable armrest
- Removable armrest
- Padded seat and backrest
- Quick-release rear wheel
- Seat wallet
- Adjustable height footrest
- Height adjustable push handles

### 3.2 Dimensional Specifications

1. Seat widths available	31 cm	34cm	28cm
2. Seat depth available	32	35	30
3. Seat height at front	46	46	48
4. Overall length	77	80	84.5
5. Overall width	53.5	56.5	48.5
6. Overall height	85-93	85-93	85-96
7. Folded width	32	32	33
8. Weight	14kgs	14kgs	14kgs
9. Seat plane angle	5 deg.	5 deg.	5 deg.
10. Backrest height	42	42	39
11. Seatrest height	19-30	19-30	21-30

Please note: we reserve the right to change the specifications if necessary without notice.

## 4 Wheelchair Operation

### 4.1.1 Unfolding the chair

Step 1: With the chair in front of you and facing away, take hold of both push handles and pull up into position  
(Ensure that the Sprung lever are locked into position)

Step 2: Take hold of both armrest pads and pull them apart until the backrest is mostly open.

Step 3: Place hands on the seat with fingers pointing inwards and push down until the seat is completely open.

Step 4: Turn the footplates down. Alternatively, you can stand at the side of the chair and complete step 2 by pulling the nearest armrest toward you and pushing the other away.

**CAUTION:** When completing step 3 never put your fingers around the sides of or under the chair as they can be trapped between the seat and the frame.

#### 4.1.2 Folding the chair

Step 1: Turn the footplates up.

Step 2: Put fingers under the middle of the seat at both front and rear, grasp and give a sharp pull upwards until the chair is half to three quarters closed. Never grasp from the sides.

Step 3: Push the armrests together.

Step 4: Folding is completed by releasing the sprung levers and folding down the push handles.

#### 4.1.3 Adjustments

To adjust footplate height:

Step 1: To adjust footplate height use tool provided to loosen the bolt at the bottom of the frame tube.

Step 2: Adjust to required height and retighten.

To adjust overall chair height for KM-7520

Step 1: castors: Loosen the three side bolts with tool provided. Adjust castor angle with the two rear facing bolts. Retighten side bolts.

Step 2: Support the weight of the chair with one hand by holding the push handle. Depress the hub cover and hold down the quick release mechanism and remove the wheel.

Step 3: One rear wheel at a time. Remove axle block nuts. Having decided desired seat height and angle, then position axle block and replace the nuts in the relevant holes, There are three possible settings for the rear wheel height. The choice of setting for the of the seat wheels controls rear height and front to rear angle.

Step 4: Finally, after replacing rear wheels, ensure that the upper part of the castor fork is set in the vertical; there are a total of five nuts attaching the castor to the frame; if a change need to be made.

(i) Loosen all nuts.

(ii) The castor block pivots around the center nut of the three nuts. When the upper part of the forks is at 90 degrees to the ground tighten all these three nuts.

(iii) Tighten the remaining two nuts to lock the assembly in place.

To adjust height of armrest pad for KM-7520

Step 1: Pull the locking buttons, raise or lower the pad to desired height.

Step 2: Press the locking button into the nearest available hole.

#### 4.2.1 Getting in:

Step 1: Engage both parking brakes.

Step 2: Turn up the footplates and swing to the side when necessary.

Step 3: The occupants lower themselves into the seat using the armrests for support.

Step 4: Turn the footplates back down and the user places his feet on them. Ensure that the feet rest against the calf strap to prevent contact with the castors.

Step 5: Release parking brake.

**Caution:** Never stand on the footplates when getting into (or out of) the chair.

Always ensure that the front castors are in line with the rear wheels and pointing forwards, and that the back of the chair is secure either against a wall or firmly held by an attendant.

#### 4.2.2 Getting out:

Step 1: Make sure that the chair is near your final destination.

Step 2: Back the chair sufficiently to ensure that the castors are pointing forward, i.e. in line with the rear wheels and usually with the castor forks pointing forward. Ensure that where possible the rear of the chair is against a wall. If not, it must be firmly held by an attendant.

Step 3: Engage both parking brakes.

Step 4: Turn up the footplates and swing to the side when necessary.

Step 5: Slide forwards on the seat.

Step 6: Place one foot firmly on the ground with the knee bent and the other foot slightly to the side and further back.

Step 7: Place your hands on the front of the armrests and, moving your weight forwards, bring your head and shoulders up over your knees as you push yourself up.

Caution: Never stand on the footplate when getting out of (or into) the chair.

#### 4.2.3 Transferring sideways:

Step 1: Maneuver the chair close to the final destination.

Step 2: Turn up the footplates and swing to the side.

Step 3: Move the chair flush against the destination and engage both parking brakes.

Step 4: Move forwards in the chair.

Step 5: Remove the relevant armrest.

Step 6: Place one hand on the remaining armrest, the other hand and most of your weight on the place you are moving to.

Step 7: Leaning slightly forwards, push upwards and slide sideways.

#### 4.3 General use

##### 4.3.1 Attendant pushing and self propulsion

Do ensure that the brakes are always on when the chair is not being pushed.

Always make sure that both feet are safely on the footplates and that clothing is safely tucked out of the way and can not catch in the wheels.

Always use both hands on the push handles to control the chair.

Always look well ahead to anticipate hazards such as furniture, doors or potholes.

Always avoid steep or uneven surfaces because the chair may tip over.

Always avoid soft surfaces because the castors may get bogged down.

Always be careful not to go too fast or turn too quickly and try to achieve a smooth steady ride.

Please keep in contact with the person in the chair. If you stop to look in shop windows or talk to people, remember to turn the chair so that the person in the chair does not have to turn.

Never put parking brakes on too suddenly or too firmly as this may tip the occupier out of the chair.

##### 4.3.2 Tilting by attendant

Step 1: Make sure both the occupier's feet are on the footplates and will not slip off. Make sure the handgrips are secure and cannot slip off.

Step 2: Release both brakes.

Step 3: Grasp both push handles firmly.

Step 4: Put your stronger foot on the relevant tipping lever at the back of the chair.

Step 5: Tell the person in the chair that you are about to tilt the chair backwards.

Step 6: Pull back with both hands and push down and forwards with your foot. This will bring the chair onto the back wheels.

Caution: When a chair is tilted to about 25 degrees, it will balance on its rear wheels and be easy to hold. If it is tilted further back it will be difficult to hold and the person in the chair will feel unsafe. Lower with a straight back, keep your foot on the tipping lever and lower the chair slowly forwards to the ground without a bump.

#### 4.3.3 Going down kerbs

Please note: It is always better to avoid kerbs where possible or to use ramped kerbs or slopes and this operation is best attempted with the aid of an attendant.

Going down kerbs forwards with attendant:

Caution: This is the more difficult method and can jar the occupant but allows a better view of traffic.

Never allow the chair to tip forwards when going down a kerb.

Step 1: Position the chair so that the front castors are near the edge of the kerb and make sure that the road is clear.

Step 2: Tilt the chair as described in 4.3.2.

Step 3: Move the chair slowly and carefully forwards. Be ready to take the weight when the rear wheels cross the kerb edge. Ensure that both rear wheels touch the ground at the same time to avoid tipping the chair.

Step 4: Gently lower the front castors. Try to avoid jarring the occupant.

Going down kerbs backwards with attendant:

Caution: This is the easier and smoother method but it requires the attendant to step backwards into the road.

Step 1: Back the chair to the kerb edge and be careful that the back wheels are equally near the edge.

Step 2: Grasping the push handles, gently lower the rear wheels onto the road. Be prepared to control the weight as it descends and ensure that the back wheels touch the ground at the same time.

Step 3: Tilt the chair slightly (as described in 4.3.2) and pull the tilted chair far enough into the road that the castors and footrests can be lowered clear of the kerb.

#### 4.3.4 Going up kerbs

Please note: This operation is best attempted with the aid of an attendant and the best method is to go up kerbs forwards as this maintains direction of travel and is physically less demanding of the attendant.

Going up kerbs forwards with attendant:

Step 1: As the toes or footrests approach the kerb, tilt the chair as described in 4.3.2.

Step 2: The chair should be tilted just high enough to allow the front castors to roll smoothly onto the pavement.

Step 3: Push the chair forward until the rear wheels are touching the kerb then, continuing the movement, lift the push handles while moving the chair forwards.

Going up kerbs backwards with attendant:

Please note: For safety's sake we recommend against using this method.

#### 4.3.5 Steps

Please note: Avoid flights of steps, particularly if no further aid is available. Use ramps or lifts if available.

Down steps or up steps:

Two attendants are necessary, each capable of carrying at least half of the combined weight of the person and the wheelchair. Each helper should bend at the knees and grip the main frame; with the front hand just under the front seat, with the back hand holding the push handles. Never hold on to movable parts. All lifting should be done with a straight back. Straighten legs to lift the chair. Carefully carry it up or down steps; be aware of how you place your feet, do not cross them and trip yourself.

## 5 Fault checking & maintenance

Maintaining the chair in its correct working order is always necessary; the frame is of an extremely durable aluminum alloy and the accessories are designed for strength. There are no especially weak parts, but checks should still be made to ensure long term performance.

Below is a list of checks and the frequency with which we recommend they should be made, following these guide lines and exercising common sense prevents problems arising.

Replace worn or damaged parts, wash fabrics.

Checks should be carried out every month.

- Open the chair-all movements should be free throughout the folding range.
- Examine the seat and backrest covers for wear, damage or staining.
- Examine retaining screws for tightness and general condition.
- Examine armrests for ease of height adjustment.
- Examine armrest locking assembly for damage or wear and check that the armrest is securely retained.

- Make sure footplate adjustment screws are secured.
- Examine calf strap for damage or excessive wear, particularly the strength of the calf strap's adhesive pads.
- Examine the push handle spring lever for effective locking.
- Examine structure of frame for damage.
- Check pivot points for undue slackness due to loose nuts or worn parts.
- Check castors for free rotation of castor wheel and castor assembly.
- Examine castors for wear in the bearings/ mountings.
- Check rear wheels for free rotation and for wear in the bearings / mountings.
- Examine each spindle for bending in the frame.
- Check tyres for tread depth.

Checks should be carried out every week.

- Examine brake assemblies for wear, damage or misalignment. The brake can be adjusted on the KM-7520 by loosening the round head screw M8x 30 with a small 5mm allen key. The brake assembly slides along the frame to the desired position. Maneuver the mechanism until the gear tube of the brake is 5mm from the tyre and is horizontal. It must be parallel to the face of the tyre. Retighten securely after adjustment and check the brake operates correctly.
- Check that the hand grips are not damaged and are securely bonded to the push handle.
- Check anti-tips are not damaged and are securely bonded to the tipping levers.

Checks should be carried out every time the chair is used.

- Check tyre pressure.