



# OPERATORS MANUAL

## T-150 MRI Wheelchair



MRI CONDITIONAL  
TO 3 T.0 TESLA

### Troyka Med Inc

IOSB Mah. 2284. Cad No: 48 ANKARA-TURKIYE

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T-150 MRI Wheelchair Op. Man. Pub. 022018 Pub. No: 0 Rev:0



ISO 13485:2016

## Introduction

Thank you for purchasing the T-150 MRI conditional wheelchair. This product is manufactured and tested to the highest standards and is guaranteed MR Conditional up to 3 Tesla.







This product is manufactured by Troyka Med Inc. at our factory based in Ankara, Turkey, to BS EN ISO 13485:2016

To ensure that you obtain maximum benefit from the T-150 MRI-Wheelchair, please take a few minutes to read the enclosed information regarding the operation, service and maintenance. After reading this manual, store it in a safe place for future reference.

If you have any problems in the meantime or would like any advice about this or any other MRI products from the Troyka Med range. Please contact us at the following address.

### Troyka Med Inc.




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	Protect from direct sunlight		Protect from rain and humidity		MRI conditional up to 3 Tesla
	Read user manual		Manufacturer		ISO13485 ISO 9001 Class I medical devices





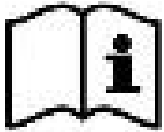


## 1 Safety Instructions

### 1.1. MRI SAFETY DEFINITION FOR MRI AS DEFINED BY INTERNATIONAL STANDARDS ASTM F2503-13








	<p><b>MR SAFE</b> An item that poses no known hazards resulting from exposure to any MR environment MR SAFE items are composed of materials that are electrically nonconductive, non-metallic, and nonmagnetic.</p>
	<p><b>MR CONDITIONAL</b> An item with demonstrated safety in the MR environment within defined conditions. At a minimum, address the conditions of the static magnetic field, the switched gradient magnetic field and the radiofrequency fields. Additional conditions, including specific conditions of the item, may be required.</p> <p>Supplementary marking – additional information that, in association with marking as “MR CONDITIONAL” states via additional language the conditions in which an item can be used safely within the MR environment.</p>
	<p><b>MR UNSAFE</b> An item with poses unacceptable risks to the patient, medical staff or other persons within the MR environment.</p>

### 1.2 Symbol Legend

	<p><b>DANGER!</b> Warning messages regarding possible risks of accident or injury.</p>
	<p><b>CAUTION!</b> Warning messages regarding possible technical damages.</p>
	<p><b>INFORMATION!</b> Information for operating the product.</p>
	<p><b>INFORMATION!</b> Information for service staff.</p>
	<p><b>ATTENTION!</b> Read information for use first.</p>



### 1.3 General Safety Instructions

	<p><b>DANGER!</b> All brakes acting on the tires do not serve as service brake but are only designed as parking brake (wheel lock).</p>
	<p><b>DANGER!</b> Don't use the footplates as a step stool when getting into or out of your wheelchair. These should be flipped and swung out of the way first, if possible.</p>
	<p><b>DANGER!</b> Depending on the diameter and setting of the casters as well as the setting of the wheelchairs center of gravity, the casters may flutter when driving at higher speeds. This can lead to blocking of the casters and cause the wheelchair to tip over. Therefore, ensure that the casters are properly adjusted.</p>
	<p><b>DANGER!</b> Get to know how the wheelchair reacts when the center of gravity shifts; for example on slopes or inches or when clearing obstacles such as steps and curbs. This should be done only with assistance from another person.</p>
	<p><b>DANGER!</b> When reaching for objects in front, to the side or behind the wheelchair, do not lean out of the wheelchair too far as this will shift the center of gravity and cause the chair to tilt or tip over.</p>
	<p><b>DANGER!</b> Lift the wheelchair only by parts that are firmly attached. For example, don't lift the wheelchair from footrest or the flip-up side panels.</p>
	<p><b>DANGER!</b> To avoid hand injuries, don't grasp between the rear wheel and the wheel lock when driving the wheelchair.</p>
	<p><b>DANGER!</b> Always make sure that the quick-release axles are correctly set on the rear wheel. The rear wheel must not be removable without the button of the quick-release axle being depressed.</p>



## 2 General Specifications

The T-150 MRI Wheelchair is designed to be MRI Conditional and is manufactured and tested to the highest standards.

The T-150 is constructed from 3 main materials 304 stainless steel, aluminum and plastic.

This heavy-duty, non-magnetic wheelchair, is an ideal unit for MRI patient transport. Finished in attractive gray powder coat, it comes complete with matters, restraining straps and retractable guard rails. Although light in weight for easy, controlled mobility, the MRI Wheelchair accommodates up to 140 Kg patient safely and comfortably.

It rolls on 24'' ball-bearing swivel casters that lock firmly to secure the wheelchair in place when positioned.

The MRI wheelchair is designed solely for people who are unable to walk or who have a walking impediment. The wheelchairs can be moved either by the patients themselves or by another person.

This product meets the requirements of the 93/42/EWG guidelines for medical products. This product has been classified as a Class I product according to the classification criteria outlined in appendix IX of the guidelines. The declaration of conformity was therefore created by Troyka Med Inc. with sole responsibility according to VII of the guidelines.




## 2.1 Technical Specifications

<b>Manufacturer</b>	Troyka Med Inc.
<b>Model</b>	T-150
<b>Standard Seat Width</b> Contact Troyka Med for other seat width options.	45,5 cm
<b>Overall length</b> (rear axle position, front axle position)	104 cm, 94cm
<b>Overall width</b> standard rear wheel max., Rear wheel with drum brake max.	64.5 cm , 67 cm
<b>Rear wheel size</b>	24x1 3/8''
<b>Caster diameter</b>	7''
<b>Main construction material:</b>	Aluminum, stainless steel and plastic
<b>Weight capacity</b>	140 Kg ± 10
<b>Weight</b>	16 kg
<b>Origin</b>	Turkey

## 3 Delivery, Preparing the MRI Wheelchair for Use

When the T-150 MRI Wheelchair arrives, inspect all shipping containers for evidence of physical damage. If there are any dents, screeches or other evidence of physical damage to the boxes, contact Troyka Med or your local dealer, note the damage on the shipper's copy of the bill of lading and file a claim against the shipper.

In the case of shortages or malfunctions, notify Troyka Med immediately to arrange for replacement or repair. If purchased through a distributor please contact them for assistance. Save all packing containers and materials for the Troyka Med MRI wheelchair in the event it needs to be returned to Troyka Med for replacement or repair.

	<p><b>DANGER!</b> Risk of injury: Do not hold on to other moveable parts than the ones described.</p>
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T-150 MRI wheelchairs are generally delivered completely assembled and folded. Three simple steps to prepare it for use.


1. When folding or unfolding the wheelchair, hold it only at the indicated positions.
2. While standing next to the wheelchair, tip it slightly toward you and press on the edge of the seat upholstery closest to you. The wheelchair will unfold up to its entire seat width
3. Mount and push the footplates down

The overhang of the back upholstery attaches easily to the seat upholstery with a hook-and-loop closure. We recommend keeping the overlong attached at all times.





## 4 Adjustment/Assembly Instructions

T-150 MRI wheelchair has many options by which it can be customized to your needs and preferences. We recommend consulting with your distributor or service team of Troyka Med to determine which wheelchair settings will work best for you.

	<p><b>INFORMATION!</b></p> <p>The following tools are required for repair and maintenance:</p> <ul style="list-style-type: none"> <li>• Allen wrenches, size 4 and 5 mm</li> <li>• Torx allen wrenches sizes x 30</li> <li>• Open-end wrenches, sizes 19 and 24 mm</li> <li>• Socket wrenches size 10 and 19 mm</li> <li>• Philips head screwdriver</li> <li>• Tire levers</li> <li>• Torque wrench</li> </ul>
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### 4.1 Adjusting seat height and seat inclination

The higher the rear wheel is attached to the frame, the more the seat inclines downward. This positions the user deeper and more firmly into the seat. However, rear wheels that are attached high at the frame also make the wheelchair more prone to tilt backward. A careful and synchronized height adjustment of both the rear wheels and the casters will allow adapting the seat height to the users' requirements.


	<p><b>INFORMATION!</b></p> <p>Please note: when the rear wheel position is changed, the angle of the caster axle in relation to the ground also changes. Ensure that this angle is always approx. 90 degree wide. The wheel lock must be re-adjusted as well.</p>
	<p><b>INFORMATION!</b></p> <p>Make sure to firmly retighten all screw and nuts after making adjustments. The proper torque for the screw connection of the rear wheel adapter is 8 Nm. The proper torque for the screw connection of the fitting is 50 Nm.</p>

### 4.2 Changing the Wheelbase

Shifting the rear wheel backward lengthens the wheelbase and thus provides for greater stability of the wheelchair. Shifting the rear wheel forwards relieves the load on the casters. This increases the maneuverability of the wheelchair. The caster wheels can then also be lifted more easily to clear obstacles such as curbs or steps

	<p><b>DANGER!</b></p> <p>Please note: if the rear wheels are in a more forward position and the user's body is not appropriately positioned, the user may tip backward-even on level ground!</p>
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	<p><b>INFORMATION!</b> Make sure to firmly retighten all screws and nuts after making adjustments. The proper torque of the screw connection of the rear wheel adapter is 8 Nm.</p>
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### 4.3 Adjusting the caster wheel journal angle



After the rear wheels have been mounted in the appropriate position, the caster wheel journal angle must be readjusted.

The treaded axle should be as horizontal as possible in relation to the ground to ensure optimal driving behavior of the wheelchair. The caster adapter allows for continuous angle adjustment.

	<p><b>INFORMATION!</b> Loosen the two screws between caster adapter and frame. Now you can move the caster adapter along with the frame tube. The level (included in delivery) will help you position the threaded axle as vertically to the ground as possible.</p>
	<p><b>INFORMATION!</b> Make sure to firmly retighten all oval head screws. The proper torque is 8 Nm.</p>

### 4.4 Wheel Lock

To change the position of the rear wheels, first, loosen the attachment screws of the clamping adapter of the wheel lock and push the wheel lock forward. Then reposition the rear wheels. The wheel lock should then be remounted such that the distance between the tires and wheel lock bolts is maximum 4 mm when the wheel lock is not activated. Check the effectiveness of the lock devices regularly. To ensure MRI safety and sufficient braking effect, use only original rear wheels with an appropriate radial excursion of maximally  $\pm 1\text{mm}$ .

	<p><b>INFORMATION!</b> Make sure to firmly retighten all screws and nuts after making the adjustment!</p>
	<p><b>INFORMATION!</b> Tighten the wheel lock attachment with a torque of 10 Nm.</p>





## 5 Maintenance, Cleaning and Care

The T-150 MRI wheelchair has been provided with the CE marking. The manufacturer herewith guarantees that this medical product as a whole conforms to the requirements of the European Directive for Medical Products 93/42/EEC.

The proper function of the wheelchair, especially of the breaks, should be checked before every use. Safety nuts should be used only once. If they have been loosened several times, they must be replaced only with the non-magnetic one.

The following table lists functions which the user must check at the indicated intervals.


Check	Before each use	Monthly quarterly	Quarterly
Function test of the wheel locks/brakes	X		
Sagging of the seat or back upholstery		X	
The setting of the caster journal bearing		X	
Sight-check of wearing parts (tires, bearings)		X	
Dirt on bearings		X	
Folding mechanism for wear and tear		X	
Spoke tension of the rear wheels			X
Screw connections			X

To ensure smooth operation at all times, some parts of the wheelchair can be maintained by users with minimal technical skills:

- Hair and dirt frequently collect between the caster forks and the casters; over time, they make the caster stiff to operate. Remove the casters and thoroughly clean the forks and casters using a mild household cleaner.
- If the wheelchair gets wet, it is recommended to dry it off as soon as possible.
- Screw connections should be periodically checked for tightness, especially during the initial period of use or after making adjustments to the wheelchair. If a screw connection comes loose repeatedly, please consult your local distributor or Troyka Med service team.


### Cleaning and Disinfection

Clean the cushions and upholstery with warm water and mild detergent. Remove spots with a sponge or a soft brush. Rinse with clear water and left the components dry.

	<p><b>Note!</b> Don't use any aggressive cleaners, solvents, or hand brushes etc.</p>
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Water-based disinfectants (e.g. Sagrotan original concentrate) should be used for disinfection.

The manufacturer's instruction for use must be observed.

	<p><b>Note!</b> Before disinfecting, the pats and handles must be cleaned.</p>
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Plastic parts, frame parts, and the chassis and wheels can be cleaned with a mild cleaner and a damp cloth. Dry thoroughly afterward.

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