



Robotic
Mobilization Device

USER MANUAL

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CAUTION: Federal law restricts this device to sale by or on the order of a licensed healthcare practitioner.

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DO NOT use this device without first carefully reading and understanding the instructions contained in this manual. If you are unable to understand any part of the warnings, cautions, or instructions, contact the dealer, healthcare practitioner, or technical personnel before attempting to use this device. Otherwise, damage or injury may occur. The device is not intended for the users, which are under 22 years of age

SUPPLIER: This user manual **MUST** be given to the user of the device.

USER: Please read this user's manual carefully before using your Tek RMD as it contains important information necessary for the safe and successful use of your Tek RMD. Before using the Tek RMD, the potential user should consult with their trained physicians to ensure that they are a good fit for the Tek RMD.

Intended Use: The Tek RMD (Robotic Mobilization Device) is a stand-up electrical power wheelchair. The product changes peoples position from sitting to standing and standing to sitting. This device is intended to afford mobility to disabled persons in daily life for indoor activities. The user is supported by the vehicle in an adjustable seating and standing position.

All of the information and specifications contained in this user manual are current at the time of printing. However, because it is the policy of Matia Robotics to continually improve the reliability and quality of all our products, we reserve the right make any changes at any time without notice. Before using this device, check all parts for shipping damage.

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Foreword

Thank you for choosing a Matia Robotics product. The Tek Robotic Mobilization Device (RMD) is a device intended to afford mobility to disabled persons in daily life for indoor activities, it gives them the ability to safely navigate indoor environments.

Please read this user's manual carefully before using your Tek RMD. It contains important information necessary for successful use of your Tek RMD. If you are visually impaired, request the PDF or large text format of this document from Matia Robotics at info@matiarobotics.com

Intended Use

The Tek RMD (Robotic Mobilization Device) is a stand-up electrical power wheelchair. The product changes people's position from sitting to standing and standing to sitting. This device is intended to afford mobility to disabled persons in daily life for indoor activities. The user is supported by the vehicle in an adjustable seating and standing position



WARNING:

- The Tek RMD is not designed for outdoor use.
- The device cannot cross thresholds safely.
- Before using Tek RMD, the potential users should consult with their trained physicians to see if they are a good fit to use Tek RMD.
- The Tek RMD should only be used by persons who are trained properly by authorized Matia Representative.
- The Tek RMD can only be used with the accessories mentioned in the user manual or web site. Matia Robotics assumes no liability if the device is used with accessories from other manufacturers.
- Matia Robotics is not liable for any personal injury or damage to property resulting from improper use; in such cases, the user has sole liability.
- Under no circumstances can the user transport in a motor vehicle while on a Tek RMD. The user must always get off the TEK RMD, transfer to the seats installed in the motor vehicle and tie the Tek RMD into the vehicle with a proper tie down system.

Field of Application

Before using Tek RMD, the potential users should consult with their trained physicians to see if they are a good fit to use Tek RMD. The device is intended as a custom-prescription device. Some features can be adjusted according to user size in order to enable a better use. The device can be used as defined within the user manual by patients, who have a body weight between 88.1 – 264.5 lbs (40 -120 kg) and body height 4.6 - 6.2 feet (140 - 190 cm).

NOTE: Users must fit all the categories below before using the device:

- ✓ Body Weight - Minimum: 40Kg (88.1lbs) Maximum: 120Kg (264.5lbs).
- ✓ Body Height - Minimum: 140cm (4.6ft) Maximum: 190cm (6.2ft).
- ✓ Difference in leg length: less than 5cm (2in).
- ✓ Should not have restrictions in hand function that interfere with operation/control of the device.
- ✓ Should not have restrictions in force or range of motion in the shoulders and upper extremities that interfere with autonomous verticalization in the device.
- ✓ Should not have severe contractures at hip, knee, or ankle joint that prevent verticalization in the device (> 30% of normal range of movement).
- ✓ Should not have osteoporosis in lower legs or spine.
- ✓ Should not have autonomic dysreflexia, hypotension, dizziness.
- ✓ Should not have history of epilepsy.
- ✓ Should not have cognitive restrictions that interfere with the safe use of the device.
- ✓ Should not be pregnant.
- ✓ Should not be visually impaired (blind).



WARNING:

- DO NOT use Tek RMD without consulting your physician, failure to do so could lead to severe medical problems. Candidate users with other disabilities or illnesses which are not listed above should inform their physician before using the device. The physician should establish a standing program for the user and supervise it periodically. Prior to using the user should have proper training from the authorized Matia Representative
- Matia Robotics reserves the right to make changes to the device. Pictures and illustrations used through this manual may differ from the actual device.

Technical Service

The technical service of Tek RMD should only be provided by the authorized Matia representative. Please contact to your supplier for any questions that arise. The maintenance instructions are detailed in later sections of this user manual.

General Information

As the Tek RMD was ordered to accommodate your personal measurements, it should fit your personal constitution at the time of delivery. Before using the Tek RMD, however, your authorized Matia representative must fine-tune the device to ensure a proper fit. Please listen carefully to his/her instructions on the safe operation of your device. It is also highly recommended that your first use of the Tek RMD be performed in the presence of your personal physician.

If there are any changes in your measurements, please contact your authorized Matia representative for further instructions for adjusting your Tek RMD.

Component	Specifications
WEIGHT (EMPTY):	260 lbs (118 kg)
TOTAL WIDTH WHEELBASE/HANDLES:	16.5" (420 mm)/19.7" (500 mm)
TOTAL LENGTH OF WHEELBASE:	33.4" (850 mm)
TOTAL HEIGHT:	59" (1500 mm)
TOTAL HEIGHT (FOLDED):	38.2" (970 mm)
MAX SAFE SLOPE:	3°
MAXIMUM HEIGHT OF CURB WHICH THE WHEELCHAIR CAN DESCEND SAFELY:	0.47" (12 mm)
TYPE OF TIRES:	Foam Filled Tire
TIRE SIZE Front Rear	7.9" (200mm) 3.93" (100mm)
DRIVING DISTANCE RANGE:	Approximately 3.72 miles (6 km)
BREAKING DISTANCE	40.9 inches (1.04m)
BATTERY TYPE:	Valve Regulated Lead Acid
POWER:	DC 24 V (2x12V) 22Ah
CHARGER:	24V Charger
THE MASS OF THE HEAVIEST PART, EXPRESSED IN KILOGRAMS: (IF THE WHEELCHAIR CAN BE DISMANTLED OR HAS ANY REMOVABLE PARTS)	N/A
THE MASS OF THE TEST DUMMY USED IN THE PERFORMANCE TEST	264.5 lbs (120 kg)
MAXIMUM SPEED	2.8 mph (4.5 km/h)
PERMISSIBLE TOTAL WEIGHT	529 lbs (240 kg)
PERMISSIBLE AXEL LOAD	Front 440 lbs (200 kg), Back 330 lbs (150 kg)
TURNING DIAMETER	43.3 inches (1100 mm)

This device meets the strength requirements of ISO 7176 - 8

Explanation of Symbols

 **WARNING:**

Warning indicates a potentially hazardous situation which, if not avoided, could result in death or injury.

Warning Symbols and Type Plates

On the Tek RMD, you will find the following symbols and labels attached:



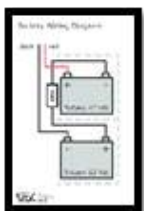
A. Risk of pinching: Make sure no body parts or other items (clothing) get jammed.



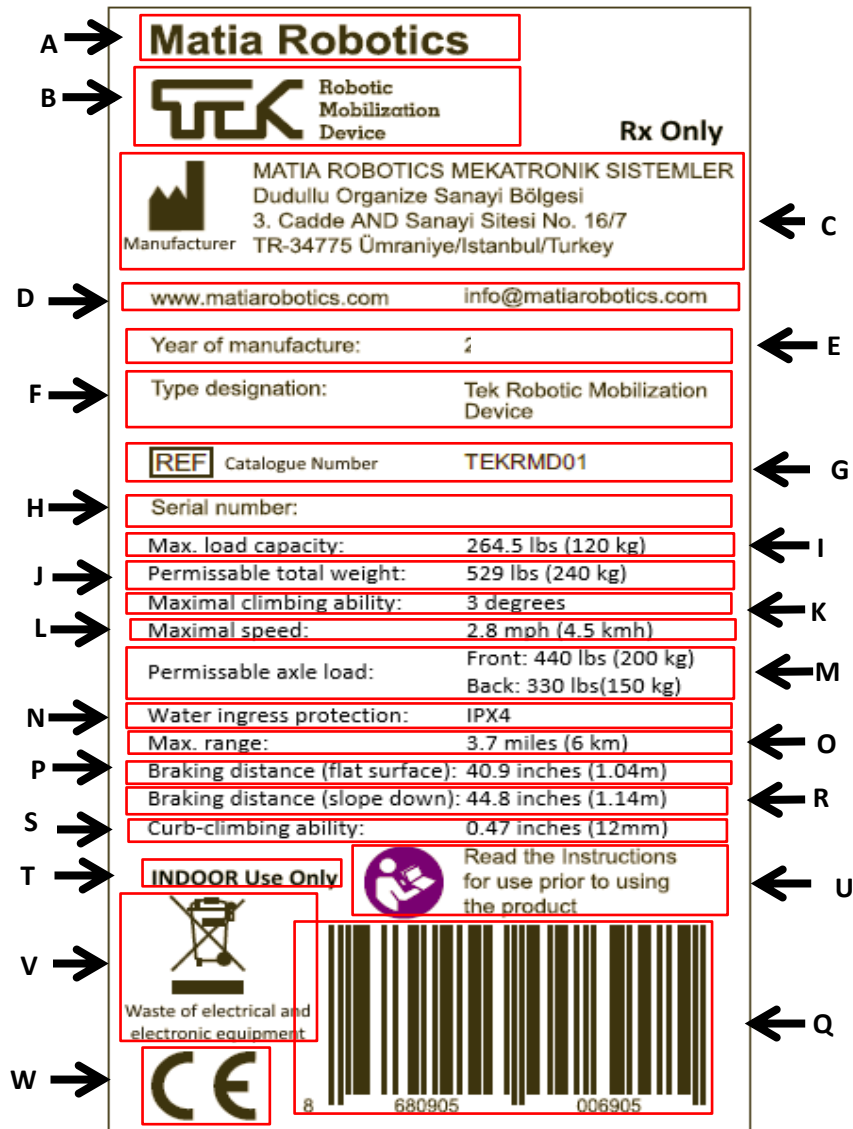
B. Warning: Under no circumstances you are allowed to open this box it should only be opened by the authorized Matia service personnel.



C. Battery wiring diagram: Shows how to wire the batteries.



D. Main Label: Placed inside the main arm



Item	Description	Item	Description
A.	Company Name	M.	Permissible Axle Load, Front / Back
B.	Product Logo	N.	Water Ingress Protection
C.	Legal Manufacturer Information	O.	Max. Range
D.	Web Mail/Info Email	P.	Braking Distance (Flat Surface)
E.	Year of Manufacture	Q.	Barcode
F.	Type Designation	R.	Braking Distance (Slope Down)
G.	Reference number	S.	Curb-Climbing Ability
H.	Serial Number	T.	Indoor Use Only
I.	Maximal Load Capacity	U.	Read the Instructions for use prior to using the product.
J.	Permissible Total Weight	V.	Symbol for Separate Collection of Electric and Electronic Devices.
K.	Maximal Climbing Ability	W.	CE Mark
L.	Maximal Speed		

E. Warning: Radio wave sources may affect TEK RMD control



WARNING: Radio wave sources may affect TEK RMD control

Radio wave sources, such as radio stations, TV stations, amateur radio (HAM) transmitters, two-way radios, and cellular phones, can affect powered wheelchairs. Following the warnings listed below should reduce the chance of unintended TEK RMD movement which could result in serious injury.

- 1) **DO NOT** turn ON hand-held personal communication devices, such as citizens band (CB) radios and cellular phones, while TEK RMD is turned ON;
- 2) Be aware of nearby transmitters, such as radio or TV stations and try to avoid coming close to them;
- 3) If unintended movement or brake release occurs, turn off TEK RMD as soon as it is safe;
- 4) Be aware that adding accessories or components, or modifying TEK RMD, may make it more susceptible to interference from radio wave sources (Note: There is no easy way to evaluate their effect on the overall immunity of TEK RMD);
- 5) Report all incidents of unintended movement or brake release to TEK RMD manufacturer, and note whether there is a radio wave source nearby.

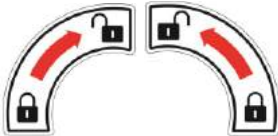
Important Information

- 1) 20 volts per meter (V / m) is a generally achievable and useful immunity level against interference from radio wave sources (as of May 1994) (the higher the level, the greater the protection)
- 2) This product is in compliance with the specified requirements of ISO 7176-21:2009
- 3) The operation range of Tek RMD remote controller is approximately 5 meters (16 feet)

Note

Tek RMD might disturb the operation of devices in its environment that emit electromagnetic fields (e.g. alarm systems of shops, automatic doors etc.)

F. Brake release levers: To release the brakes manually turn the levers left and right.

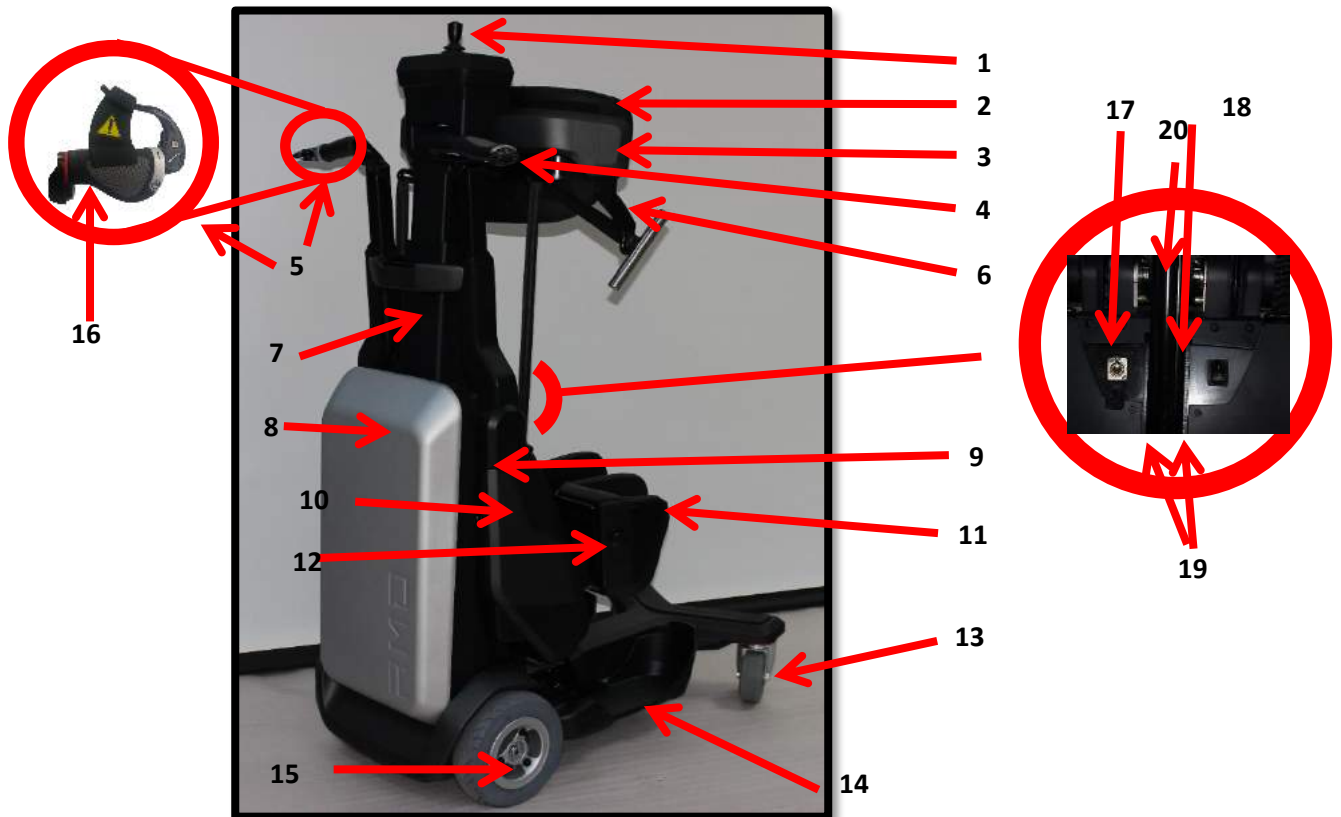


G. Warning Label: Not intended to be used as a seat in a motor vehicle. The device is for indoor use only.



The Tek RMD

Main Components



No.	Component	No.	Component
1.	User Panel	11.	Knee Pads
2.	Chest Plate	12.	Knee Support Hooks
3.	Additional Chest Supports	13.	Rear Casters
4.	Handle Brake Lever	14.	Foot Plate
5.	Gas Spring Brake Lever	15.	Front Wheels
6.	Handles	16.	Gas Spring Brake Locking Part
7.	Main Arm	17.	Charger plug
8.	Front Cover	18.	Main switch
9.	Main Body	19.	Gas Springs
10.	Small Side Covers	20.	Shock Absorber

User Panel



No.	Component
1.	User Panel Activation Button: This button activates the Tek RMD.
2.	Joystick: The joystick controls the direction and motion of the Tek RMD. It is a 360 degree, proportional joystick. The user can push the joystick half-way or full way, depending on how fast they would like to travel. The user can also fine tune the direction they would like to travel by pressing the joystick a few degrees to the left or right. When the user lets go of the joystick, the device will stop and the platform's brakes will engage.
3.	Accelerate: Increases the maximum speed level.
4.	Right Belt Tightening Button: Tightens the right belt.
5.	Speed Indicator: Shows how fast the device is going on a scale of 1 (slowest) to 5 (fastest).
6.	Decelerate: Decreases the maximum speed level.
7.	Right Belt Loosening Button: Loosens the right belt.
8.	Left Belt Loosening Button: Loosens the left belt.
9.	Belt Activation Button: Activates the belt motors, when belts activated the belt lights go on. Do not activate the belts when the device is moving.
10.	Battery Indicator: The battery indicator displays the amount of power left in the device's batteries.
11.	Left Belt Tightening Button: Tightens the left belt.
12.	Remote Control Activation Button: Activates the remote control.
13.	Horn: Activates the horn when pressed.



WARNING:

- **DO NOT** activate the belts when the device is moving.
- When the battery indicator displays a red light, charge the batteries ASAP.
- **DO NOT** activate the remote when you are on the device.
- **DO NOT** switch on the device if the joystick is not in the neutral position.
- **DO NOT** use the device with a broken or missing joystick knob or if the joystick feels sluggish.
- **DO NOT** use the device if the joystick does not spring back to the neutral position when released.
- **DO NOT** use if joystick boot is torn or damaged.

Chest Plate

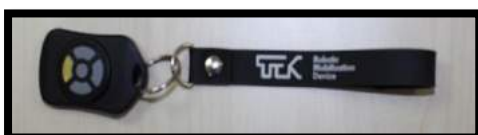


No.	Component
1.	Chest Plate Cushion
2.	Upper Belt/Back Belt
3.	Hip Adjustment
4.	Sling Cushion Lock
5.	Sling Cushion
6.	Sling Cushion Bottom Side Spring - Belts

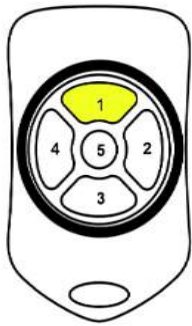
Remote Control

The Remote Control allows the user to remotely maneuver the Tek RMD once activated from the User Panel. The Remote Control’s use is limited to positioning the device for boarding and storage. It is not intended to drive the device.

Note: Controls on the User Panel will always override the Remote Control. An alert will sound if the Remote Control is not deactivated from the User Panel via the Remote Control Activation Button after 30 seconds of nonuse. In this case you have to call the device to yourself and shut down from the main switch.



Wrist band: The user can place the band over their wrist to secure the Remote Control.



Button	Direction
1.	Go Forward: (Yellow Button) The device moves straight ahead.
2.	Turn Right: The device turns right.
3.	Go Back: The device moves backward.
4.	Turn Left: The device turns left.
5.	Horn: The horn will sound when pushed.

Note: To move the device in an angle, simultaneously press the 2 directions you would like to move the device (e.g. front and left).

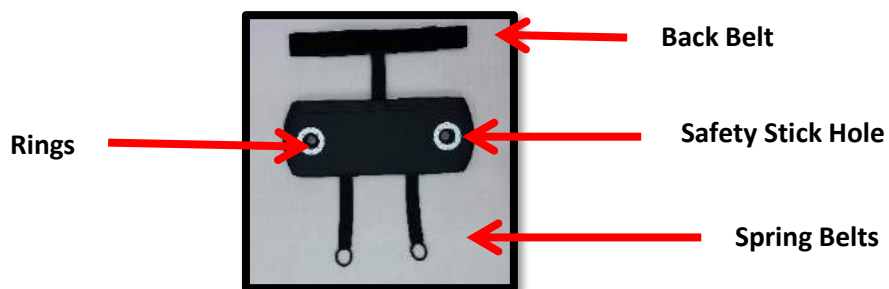


WARNING:

- **DO NOT** activate the Remote Control while on the device.
- Always deactivate the Remote Control when not in use.

Sling Cushion

The Sling Cushion has a soft interior and a relatively harder exterior. The cushion’s soft interior should always face toward the body of the user. There are two Spring Belts located at the bottom of the sling cushion (as demonstrated in the figure below) which are designed to be attached to the device’s Knee Support Side Hooks. These Spring Belts are used both as a support mechanism for the user to pull the sling cushion under the hips and as supplemental safety belts. There are holes on either side of the Sling Cushion for Safety Sticks to pass through for securing the Sling Cushion to the device (see below). These Safety Sticks are tied into the device with a motorized belt mechanism. To pass the safety sticks comfortably through the sling cushion holes, the user can loosen the belts by activating the belt mechanism on the User Panel. For detailed information on how to use the Safety stick hole, please see User Manual’s Operation part step 12.



Product Description

The Tek RMD device is an indoor device designed to provide mobility-restricted individuals. Tek Robotic Mobilization Device can be maneuvered by the joystick or the remote control easily by the user and the user can board the device securely from its back.

Getting on and off the device can be done successfully in a much safer way and independently since the user is doing so while in a seated position. It is very easy and quick to stand up and sit down with Tek Robotic Mobilization Device. The suspension system utilizes a gas spring, balancing the weight of the user so that standing up requires just a gentle pull.

The Tek Robotic Mobilization Device holds the user in an upright position while leaving the hands free, making it possible for the user to perform many daily tasks comfortably in environments that are typically not set up for people with physical handicaps, such as cooking, washing dishes, ironing, etc.

Additionally, the user can enjoy the benefit of being at eye level with other people in his/her daily life.

Operation

Getting on the Tek RMD

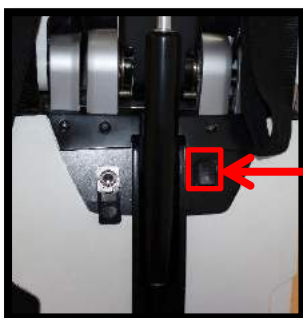
1. Before mounting the Tek RMD, ensure that the device is in start-up position (shown in the Figure below). If not, press handle brake lever and gas spring brake lever simultaneously and pull it down).



WARNING:

- DO NOT get on and off the device on inclines and declines.
- If you feel any unwanted movements or hear unusual noises while using the device, please contact a Matia service representative.
- Tek RMD can only be used to transport one person at a time.
- Only drive while standing up.
- During the getting on process do not use the joystick or remote control and do not drive the device, other than the steps where you have been told below.

2. Switch on the device via the Main Switch.



Main Switch

3. Activate the User Panel via the User Panel Activation Button. If necessary, activate the Remote Control.



User Panel Activation Switch

4. Maneuver the device so that the rear of the Tek RMD is positioned in front of you using either the Remote Control or User Panel.



5. Remove the Sling Cushion from the device.



6. While in a seated position, move slightly forward so that you can leave enough space to position the cushion behind you. Place the sling cushion behind your back.



7. Place your feet on the foot plates with the help of your hands. Secure your feet with Velcro bands if necessary. Always use the device with your shoes on.



8. Make sure the device's speed is set to level 1. Position the device in front of you using joystick.



9. Hook the Sling Cushion's Bottom Side Spring Belts to the Knee Support Side Hooks.



10. Gently lift up your body with your hands. The Sprig Belts will automatically pull the Sling Cushion under your hip until it touches your hands.



11. Gently lift your body up few more times, if needed, until the Sling Cushion is placed at the correct position. Before getting on the device, make sure that you are sitting correctly on the Sling Cushion with the holes of the cushion at the sides of your body.



12. Pass a Sling Cushion Safety Stick through the hole in the Sling Cushion. Follow the same instruction on the opposite side.



13. Maneuver the device to yourself using the joystick until the chest plate lightly touches your stomach and the knee pads lightly touch your knees.



14. Press the belt activation button on the user panel (red led will light up).



Belt Activation Button

15. Tighten the belts until you are securely tied to the chest plate from both sides (right and left) with the help of the belt tightening buttons. Make sure that you are pulling the belts on in the desired direction. Once you are securely tied to the device, press the belt activation button to inactivate the belt tightening system (red led will light off).



Belt Tightening Buttons

16. If necessary, adjust the back belt and make sure that the Velcro is securely tightened to the additional chest supports.



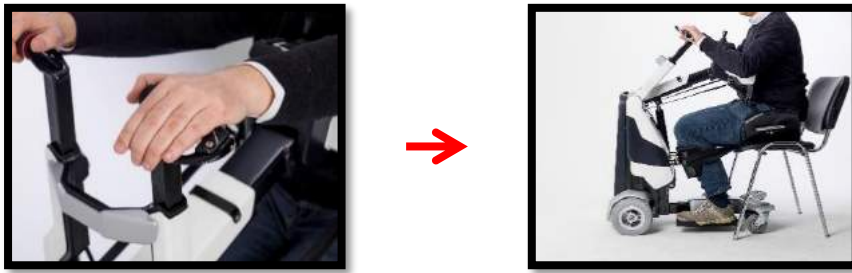
17. Remove the Gas Spring Handle Lock.



WARNING:

- Check the gas spring hose before every use and make sure that it is not jammed.
- Put on the gas spring locking part after every use.
- Remove the gas spring locking part on before every use.

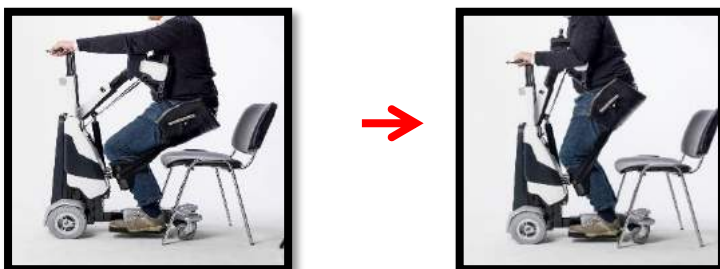
18. Press the handle brake lever and push the handles up as high as you can.



19. Press the gas spring brake and pull yourself gently toward the handles.



Repeat these two steps until you are on a fully upright position. Once you are on a fully upright, control your posture using a mirror if necessary.



20. Make sure that you are standing correctly and that the belts are neither too loose nor too tight. If so, adjust them with the belt tightening and loosening buttons. Make sure that you are pulling the belts on in the desired direction.





WARNING:

- The stand-up sitting functions may be used only on level ground, when the device is not moving. There must not be any interfering objects or obstacles near the device.
- Once you stand up, always check the back belt, sling cushions, knee attachments and the back belt (if you are using) are at the right position. If not, you must reposition them.
- Be sure to follow the instructions strictly while getting on and off of the device.
- The user is obligated to ensure that the device and its safety functions are in safe and proper condition before every use. The device may only be operated if all safety features function properly.
- **DO NOT** get on or off of the device on the inclines and declines.

Driving

1. Arrange the speed of the device with speed up and down buttons. Speed 1 is not for driving, it is to maneuver the device while getting on and off.
2. Joystick is a 360-degree joystick. The user can direct the angle they would like to go (sides, corners) and push the joystick to forward to go to that direction.



WARNING:

- Make sure that the remote control button is switched off (red led light off).
- This device can be used at temperatures between -25 to 50 °C (-13 to 112 °F).
- **DO NOT** drive over mats, cables, or other material that can entangle the wheels.
- Operating the device on wet, icy, and/or slippery surfaces is not permitted. The device is intended for indoor use only.
- Operating the Tek RMD on stairs or steps is not permitted.
- The Tek RMD has been approved for ascending or descending inclines no greater than 3°.
- The critical obstacle height of the Tek RMD is 0.47 inches (1.2 cm). Crossing obstacles higher than 0.47 inches (1.2 cm) is not permitted.
- Reduce the driving speed when travelling downhill (e.g. set the device to speed level 1).
- Slightly tilt your position to the rear when driving downhill.
- Always approach obstacles at a right angle and cross over them without stopping.
- Make sure that your body is in the correct position before driving the Tek RMD.
- Make sure the sling belt motors are inactivated while using the Tek RMD.
- **DO NOT** pull the brake arms while the device is moving.
- Make sure not to hit your body to something while passing through narrow spaces.
- While using the device, wear comfortable shoes to protect your feet and prevent slipping.
- While using the device wear comfortable clothes. Do not drive the device while naked.

Standing up and Sitting down with the Tek RMD

To get to seating position on the TEK RMD

1. Make sure that the belt activation button and remote control activation buttons are switched off (red LED will light off).
2. Press the gas spring handle lever and gently push yourself backwards until you are sitting down at your preferred location. (Gas spring handle lever does not contain gas, it is lever)
3. Leave the gas spring lever and press the handle brake left lever.
4. Pull down the handles and release the handle brake lever at your preferred position.
5. Repeat the steps until you are in a desired seating position.

To get to stand up position on the TEK RMD

1. While in a seated position, press the handle arm lever.
2. Push the handle arms upwards with your both hands at your arm's length, while still pressing the handle arm lever.
3. Leave the handle lever and press the gas spring lever.
4. Pull yourself up with the handle arms while still pressing the gas spring lever.
5. Leave the gas spring lever.
6. Repeat the steps until you are on a fully upright position.



WARNING:

DO NOT press the 2 levers together.

Getting off of the Tek RMD:

During the getting off process do not use the joystick or remote control and do not drive the device, other than as instructed below:

1. Move backwards until you are right in front of a chair or a bed.
2. Get on a seating position until the sling cushion touches the chair or bed.
3. If necessary, remove the back belt (please see "Using the Device without the Back Belt).
4. Press the belt activation button on the user panel.
5. Loosen the belts until they are very loose. Do not to press the buttons in reverse direction.
6. Take one of the sling belt safety sticks and untie it from the sling belt by passing it back from the sling cushion hole. Follow the same instruction on the opposite side.
7. Remove the straps that are hooked into the knee supports.
8. If necessary, untie your feet by removing the Velcro bands.
9. Make sure that the device is set to speed level 1.
10. Using the joystick, slowly move the device forward until you have enough space to remove your legs. With the help of your hands, remove your legs out of the device.
11. Activate the remote control (red LED will light up)
12. With the use of either the remote control or the joystick, move the device to a side that you can reach to switch it off.
13. Switch the device off.
14. Using your hands, remove the sling cushion from under your hip.

Placing the Sling Cushion under Your Hip

The users can place the sling cushion on their bottom in a couple of ways:

A. Using knee support side hooks to place the sling cushion

1. While in a seated position, move slightly forward so that you can leave enough space to place the sling cushion behind you. Place the sling cushion behind your back.
2. Place your feet to the foot plates with the help of your hands.
3. Position the device in front of you.
4. Hook the sling cushions bottom side spring - belts to the knee support side hooks.
5. Gently lift your body up with your hands. The elastic ropes will automatically pull the sling cushion under your hip until it touches your hands.
6. Gently lift your body up few more times if needed until the sling cushion is correctly positioned.
7. Before getting on the device, make sure you are sitting correctly on the sling cushion.

B. Using your hands to place the sling cushion

1. While in a seated position, move forward so that you can leave enough space to place the sling cushion horizontally behind you.
2. Place the sling cushion behind you.
3. Lift your body up with your arms and place your body on the sling cushion.
4. While gently bending to the sides, and holding your body with one hand, gently move the other side of the sling cushion to the front or back.
5. Hook the sling cushion's bottom side spring - belts to the knee support side hooks.
6. Before getting on the device, make sure you are sitting correctly on the sling cushion.

C. Rolling on the sling cushion





1. While on a bed, place the sling cushion where you would like to get on the device.
2. Move your body next to the sling cushion.
3. With the help of your hands, gently move your body on the sling cushion.
4. Hook the sling cushion's bottom side spring - belts to the knee support side hooks.
5. Before getting on the device, make sure that you are sitting correctly on the sling cushion.

Using the Device with or without the Back Belt

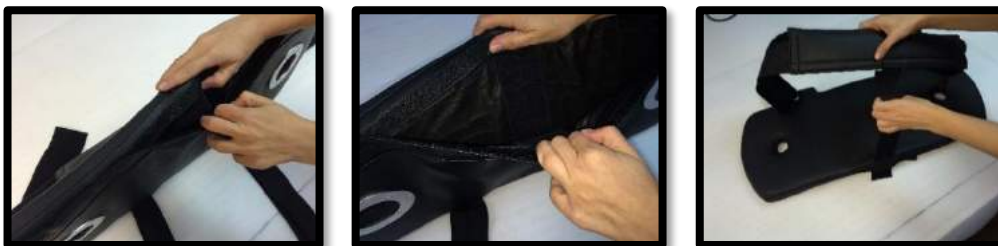
The Back Belt comes in standard size.

The device can be used with the larger chest plate by affixing the back belt or with the smaller chest plate without the back belt. In order to use the device without the back belt, the user has to have a good upper-body control, be very comfortable using the Tek RMD, and get his physician’s approval. To use the device with the smaller chest plate and without the back belt, follow these steps:



<p>Step 1: Begin by removing the large chest cushion by pulling it from the corner.</p> 	<p>Step 2: Unscrew the screws of the additional chest supports.</p> 
<p>Step 3: Remove the additional chest supports.</p> 	<p>Step 4: Place the small chest cushion by pushing it to the chest plate.</p> 

Step 6: Separate the upper belt from the sling cushion by reaching in the connecting point and pulling the Velcro.



! WARNING:

Using the device without the upper belt is only suggested for users with high upper body control. Ask to your physician if it is safe for you to remove the upper belt.

Emergency Shutoff

In emergency situations, the Tek RMD can be turned off at any time using the device’s Main Switch. Once the switch is flipped, the Tek RMD’s brakes will immediately engage and all electric functions will cease.

If any malfunctions occur, such as an excessive supply of energy to the system or a communications disruption, the software will disengage the Tek RMD and trigger the platform’s emergency brake system. After each emergency stop, the controls of the Tek RMD must be reactivated. If the driving function is still not available after switching the controls on, a caregiver must unlock the brakes to activate the platform’s Push Mode. In this circumstance, contact a specialist dealer as soon as possible.



Main Switch

After each emergency stop, please ensure that the Sling Cushion’s Safety Sticks are snugly secured.

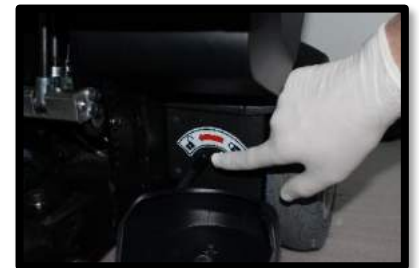


WARNING:

If the batteries are fully discharged, the platform’s automatic motor brake system will activate. In such circumstances, a caregiver must reach the motors, release the motor release arms, and push the Tek RMD user backwards to a seating position by holding the device firmly by the handles.

- Make sure that the brake lever is either locked or released.
- Make sure the brake lever is not stuck between positions.

Once seated, loosen the belts by unscrewing the Sling Safety Stick as shown in the pictures below. The Safety Stick will no longer be attached to the belt and should easily slide from the sling cushion hole. Repeat for the opposite side.

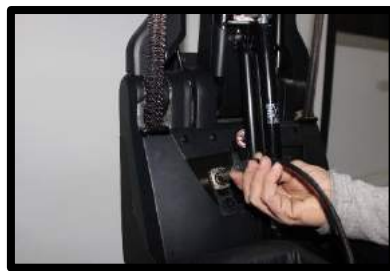


Charging the Batteries

Before using charger, please read the user manual of the charger. The battery indicator on the device display's the current charge of the platform's batteries. The battery indicator has 5 levels. While a single red light blinking indicates that the batteries need charging, 1 red and 4 white lights indicate that the batteries are fully charged.



The battery charger is compatible with 115V and 230V outlets. To charge the Tek RMD, turn the device off and insert the main plug of the charger into the correct socket. Connect the other end of the charger plug to the TEK RMD and charge fully.



The device can only be charged when the device is switched on. When the device is switched off, and the battery charger plugged in, the charger has bicolor indicator and it will show the following conditions:

- When the batteries are charging, it shows Red Light , it means Charging process on(Fan On)
- Bi-color flash : On the transition period between charging and full charged.
- Green light : Battery full charged and stays in floating-charging mode (Fan Off)
- Green light flash : charger is not connected to battery or charger is in the maintenance / pulse



Note: The power supply voltage switch is a small switch located on the side of your charger. There is a small plastic switch that shows the switch's position (115V-230V). Please make sure it is in the correct position. If not, ask your distributor to switch it to the correct input as using the device with incorrect power settings can damage both your platform's power supply and the Tek RMD.

We recommend charging the batteries at least every 2 months if the device is not regularly being used.



WARNING:

Batteries can develop explosive gases during charging. To prevent injuries to the user/device, the following precautions must be followed when charging the batteries.

- This device can be used at temperatures between -25 °C to 50 °C (-13 to 122 °F).
- Always wear safety glasses and protective gloves while working with batteries.
- Always charge batteries in a well-ventilated room.
- Smoking near the device is not permitted.
- Open flames (candles, lighters, etc.) and sparks are not permitted near the batteries.



WARNING:

In case of a battery acid leak from the device's venting holes:

- If the acid smeared on your clothes or your skin, immediately neutralize with acid converter or soap then rinse with water.
- In case of swallowing, immediately contact a medical specialist.
- In case of eye contact, immediately rinse with water and contact a medical specialist.
- Ensure sufficient ventilation when charging the batteries in closed rooms.
- DO NOT attempt to recharge the batteries and operate the Tek RMD at the same time.
- DO NOT be on the Tek RMD while charging the batteries.
- NEVER attempt to recharge the batteries by attaching cables directly to the battery terminals.
- DO NOT operate Tek RMD with extension cord attached to the AC cable.
- Ensure the pins of the extension cord plug are the same number, size, and shape as those on the charger.
- DO NOT under any circumstances cut or remove the round grounding plug from the charger's AC cable plug or the extension cord plug.
- When the user panel is deactivated, the battery light on the user panel is not lit, the user understands the device is charging by looking at the battery picture on the charger.

Maintenance, Cleaning and Disinfection

Maintenance Intervals

The Tek RMD should be periodically serviced by qualified Matia service personnel. Please contact your supplier for any questions that arise.



WARNING:

- Assembly and disassembly of the motors, joystick, and other elements on the device by the user is not recommended. In these cases, the device will lose its warranty and Matia does not assume any responsibility on any harm or injuries may arise due to this.
- Please check the Tek RMD's belts, cushions, screws, wheels, and gas springs on a weekly basis to ensure that they are in good condition.
- Please check brakes before every use by moving the device forward with the joystick and then allowing the joystick to return to a resting position. The brakes should activate and the device should quickly stop. Repeat this test for each direction.
- DO NOT change the adjustments on the knee pads or the chest plate without the supervision of a physician and authorized Matia representative.
- In case of a malfunction, stop using the device immediately and contact your authorized Matia service representative. Uncontrolled movements or defects can cause to severe injury to the user and others.
- Check the tires visually before every use. Contact to your authorize service personnel if you see a deformation.
- Matia Robotics highly recommends the users to replace the tires every two years.
- Not moving the device for a long period of time can cause to permanent damage on the tires. To prevent the damage, move the device occasionally, jack up the device while storing it.
- Heating the tires strongly can cause to permanent damage on the tires. Make sure the device is not under the sunlight for long period of time, or do not park near radiators or other heat sources.
- Also bear in mind that certain surfaces on the wheelchair can be heated up or cooled down in the event of prolonged exposure to intense sunlight or cold respectively.

Cleaning and Care Instructions

- Do not immerse the Tek RMD in water. It may not be cleaned with a jet of water or a pressure washer under any circumstances.
- Always clean the Tek RMD and remote control with soft and damp cloths. Use mild detergent or disinfectant (not bleach). Dry with a towel.
- Consult your Matia Service Representative if/when damaged or worn out parts such as the belt, cushion, wheels, casters, buttons, etc. are discovered when cleaning.
- Keep dust and grime to a minimum.
- Do not allow moisture of any kind (urine, vomit, water, juice to come in contact with electric parts

Changing the Batteries

The device's batteries can only be changed once the device has been switched off. The Battery Charger's characteristic curve is set at the factory according to the battery used in the Tek RMD. DO NOT change the device's characteristic curve as doing so incorrectly can permanently damage the batteries.

Only use batteries supplied by Matia Robotics. You can order the batteries with product code BE11.

The batteries are Panasonic LC type (LC- XC1222P) Valve Regulated Lead Acid. The battery size is 7.1 x 3 x 6.5 inches (181 x 76 x 167 mm). The 5 hour capacity of the battery is 17,5 ampere hours.

To change the batteries:

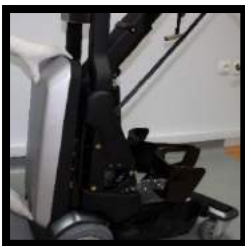
- Switch of the device from the main switch
- Open the front cover as described below;
- Remove the small covers on the two sides of the device



- Unscrew the 3 screws seen at each side



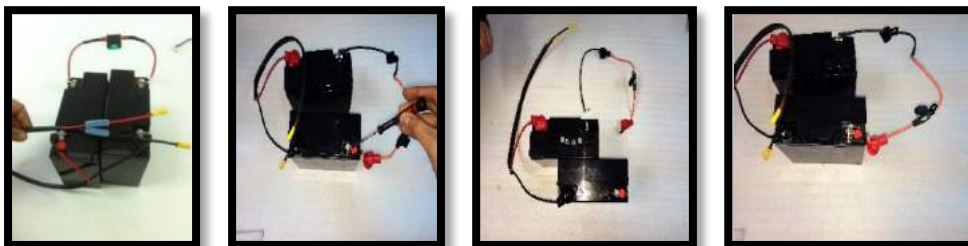
- There is a small opening at the bottom where you can grab the front cover. Push the front cover up a few centimeters and pull it to yourself.



- Unfasten the rubber belt which is holding the upper battery located in the battery compartment.
- Take out the upper battery and unfasten the connectors.
- Take out the lower battery by moving it up and front. Unfasten the connectors.



Fasten the connectors with correct colors to a new battery and place the new battery to the lower compartment. Cable plus labeled should fasten to positive (red) side and minus labeled should fasten to negative (black) side.



- Fasten the rubber belt which is holding the upper battery
- Place the front cover by pushing it gently to the device and sliding down, screw the 3 screws on each side, and put the small side covers on.

Changing Back Wheels (casters)

Only use wheels supplied by Matia Robotics. You can order the back wheels with product code BM03.



- Pull the rubber piece up.
- Unscrew the bolt.
- Unscrew the screws.
- Remove the caster by pulling it down.
- Remove the cover by pulling it up.
- Place the new caster and screw the bolt back on.



Changing the front wheels

Only use wheels supplied by Matia Robotics. You can order the front wheels with product code BM04.



! **WARNING:**

- Make sure the motor brakes are locked, and wheels are not freely turning.
- Unscrew the knot.
- Tilt the device to the opposite side by the help of a support person. Make sure the support person holds the device on the tilted position for the steps after this
- Remove the front wheel by pulling it out
- Place the new wheel back on
- Put the knot back on and screw it tightly
- Repeat for the other side.



Safety

This section contains important information for the safe use and operation of this device.

Always follow the safety instructions provided in this user manual. Failure to do so could cause severe injury to you or people around you or damage to your device. Where safety is concerned, only an excellent condition of the device is acceptable.

Safety calls for constant attention of the user. Matia Robotics strongly recommends that you learn and employ safe methods of carrying out basic daily activities. Always consult your physician to determine the methods most suitable for your personal abilities. Protect your device and yourself by having your Tek RMD serviced on a regular basis. Contact your Matia Representative immediately whenever any part of your Tek RMD fails to function properly as a hazardous situation could cause damage to your device and/or personal injury.

Regular inspection, adjustment, and replacement of worn parts of the device will provide for many years of excellent performance. Safety precautions contained in this manual are general warnings meant to be used only as safety guidelines. Do not hesitate to contact your personal physician for advice on safety and/or assistance. The expected service life of this product is 5 years. Spare parts and accessories must be ordered through Matia Robotics. Only Matia Robotics authorized technical service operators may change a part of the device.

Standards and Directives

Tek RMD is CE Marked and complies with EU medical device directive 93/42/EEC. The device has been classified as a Class I device according to Rule 12 Annex IX. It complies with the applicable requirements of ISO 7176 series standards.

General Safety Instructions & Warnings

- Tek RMD is a prescription (Rx) use device. Federal law restricts this device to sale by or on the order of a licensed healthcare practitioner.
- The device is not intended for the users, which are under 22 years of age.
- **DO NOT** use Tek RMD without consulting your physician, failure to do so could lead to severe medical problems. The physician should establish a standing program for the user and supervise it periodically. Prior to using the user should have proper training from the authorized Matia Representative.
- All safety instructions contained in these instructions for use and in all other applicable documents must be observed and complied with. The instructions for use must be available to the user at all times. Matia Robotics does not assume any liability for the injuries and damages that caused from improper use or in cases where the user or a third party ignores the warnings or instructions in this user manual.
- The Tek RMD should only be used by persons who are properly trained by an authorized Matia Representative. For this purpose, the user and any attendants must receive instruction in the use of the device from specialists trained and authorized by Matia Robotics. The user must have read and understood all the information in the instructions for use.

- Consult your physician before using the Tek RMD. It is encouraged that your physician be present during your first use of the device. Have a caregiver present at all times until you are used to the device.
- An authorized Matia representative MUST carry out the initial setup of this Tek RMD. Also an authorized Matia Representative MUST carry out all the procedures specifically indicated in this user manual.
- Packaging materials must be kept out of reach of children.
- The device may not be operated in cases of exhaustion or under the influence of alcohol or medications.
- The Tek RMD can only be used with the accessories mentioned in the user manual or web site. Matia Robotics assumes no liability if the device is used with accessories from other manufacturers.
- The user must not have any mental limitations which can temporarily or permanently restrict attentiveness and judgment when driving.
- If you have a skin allergy, always cover your body parts that are touching the device. DO NOT let the device touch to your skin.
- DO NOT try to fall down by swinging to the sides of the device.
- While getting on and getting off the device, make sure your foot, knees, back belt, and the sling cushion are at the right places.
- After getting off the device always check your body for rashes and for pressure sores.
- If you will sit somewhere for a long period of time remove the sling cushion from under you.
- Due to the construction of the device, there are pinch points between the main arm and the handle. To avoid injuries, the user should make sure no parts of body, objects or persons are in these danger zones.
- While parking the device, at all times keep it at a distance that either you or someone assisting you can reach.
- When placing the remote control, make sure the front part is facing up.
- Never place the remote control in your pocket/bag when activated.
- Do not use the Tek RMD on escalators or on any lifting devices which may affect the stability of the device
- Do not use the Tek RMD with excess load which may affect the stability of the device (such as weight training)

Transportation

Under no circumstances shall the user transport the Tek RMD in a motor vehicle while on the device. The users must always dismount the TEK RMD, transfer to the seats installed in the motor vehicle, and tie the Tek RMD into the vehicle with a proper tie-down system. During transport on lifting platforms or in lifts, ensure that the Tek RMD is centered on the lifting platform and take necessary safety precautions. During transport, the device must be turned off via the main switch. The main arms must be folded down when transporting the device in a motor vehicle.

**WARNING:**

Tek RMD is not designed as a car seat and cannot offer the same degree of safety that is offered by standard car seat

Storage

Make sure the device is turned off from the main switch. We recommend charging the batteries at least every 2 months if the chair is not used. The device shall be stored between -40 F⁰ and 149 F⁰ (-40 C⁰ and +65 C⁰).

Disposal

If the device (all or part of the device) is not being used, it must be disposed of according to national environmental regulations. Components of The Power Wheelchair and The Batteries Must Not Be Disposed of Like Regular Domestic Waste. Old and/or defective batteries must be disposed according to national environmental regulations.

Limited Warranty

This warranty is only for the original buyer of the Tek RMD, who purchases this device new and unused from Matia Robotics or its authorized dealer. The warranty becomes void with the resale or the transfer of the device.

Matia Robotics warrants Tek RMD for a period of one (1) year from the purchase date Matia Robotics or its authorized dealer. The buyer may also have other legal rights based on the country of purchase. If the device is proven defective within the warranty period, Matia Robotics will repair or replace the device.

This warranty does not cover devices:

- Defective/removed serial numbers
- Devices subject to improper use or maintenance or modifications
- Devices subject to storage or accident or damaged due to reasons beyond Matia Robotics' control
- Devices used with unauthorized accessories or parts

Information Related to IEC 60601-1-2 Medical electrical equipment – Part 1-2: General requirements for basic safety and essential performance – Collateral Standard: Electromagnetic disturbances – Requirements and tests

IEC 60601-1-2 Table 1 – Power input voltages and frequencies during the tests

Test	Power input voltage	Line frequency
Mains terminal disturbance voltage (conducted EMISSIONS) CISPR 11	230 Vac	50 hz
Electromagnetic radiation disturbance (radiated EMISSIONS) CISPR 11	230 Vac	50 hz
Harmonic current EMISSIONS IEC 61000-3-2	230 Vac	50 hz
Voltage changes, voltage fluctuations and flicker EMISSIONS IEC 61000-3-3	230 Vac	50 hz
ELECTROSTATIC DISCHARGE IMMUNITY IEC 61000-4-2	230 Vac	50 hz
Radiated RF electromagnetic field IMMUNITY IEC 61000-4-3	230 Vac	50 hz
IMMUNITY to proximity fields from RF wireless communications equipment IEC 61000-4-3 (interim method)	230 Vac	50 hz
Electrical fast transient/burst IMMUNITY – a.c. mains IEC 61000-4-4	230 Vac	50 hz
Electrical fast transient/burst IMMUNITY – I/O SIP/SOP PORTS IEC 61000-4-4	230 Vac	50 hz
Surge IMMUNITY IEC 61000-4-5	230 Vac	50 hz
IMMUNITY to conducted DISTURBANCES induced by RF fields (conducted RF DISTURBANCE IMMUNITY) – a.c. mains IEC 61000-4-6	230 Vac	50 hz
IMMUNITY to conducted DISTURBANCES induced by RF fields (conducted DISTURBANCE IMMUNITY) – SIP/SOP PORTS IEC 61000-4-6	230 Vac	50 hz
Power frequency magnetic field IMMUNITY IEC 61000-4-8	230 Vac	50 hz
Voltage dips, short interruptions and voltage variations IMMUNITY IEC 61000-4-11	230 Vac	50 hz

IEC 60601-1-2 Table 2 – EMISSION limits per environment

Phenomenon	Professional healthcare facility environment	HOME HEALTHCARE ENVIRONMENT
Conducted and radiated RF EMISSIONS	CISPR 11	CISPR 11
Harmonic distortion	See IEC 61000-3-2	See IEC 61000-3-2
Voltage fluctuations and flicker	See IEC 61000-3-3	See IEC 61000-3-3

IEC 60601-1-2 Table 4 – ENCLOSURE PORT

Phenomenon	Basic EMC standard or test method	IMMUNITY TEST LEVELS	
		Professional healthcare facility environment	HOME HEALTHCARE ENVIRONMENT
ELECTROSTATIC DISCHARGE	IEC 61000-4-2	+/- 8 kV contact +/-2 kV, +/-4 kV, +/-8 kV, +/-15 kV air	
Radiated RF EM fields	IEC 61000-4-3	3 V/m 80 MHz – 2,7 GHz 80 % AM at 1 kHz	10 V/m 80 MHz – 2,7 GHz 80 % AM at 1 kHz
Proximity fields from RF wireless communications	IEC 61000-4-3	See 8.10. of IEC 60601-1-2	
RATED power frequency magnetic fields	IEC 61000-4-8	30 A/m 50 Hz or 60 Hz	

IEC 60601-1-2 Table 6 – Input d.c. power PORT

Phenomenon	Basic EMC standard	IMMUNITY TEST LEVELS	
		Professional healthcare facility environment	
Electrical fast transients /bursts	IEC 61000-4-4	+/-2 kV 100 kHz repetition frequency	
Surges Line-to-line	IEC 61000-4-5	+/-0,5 kV, +/-1 kV	
Surges Line-to-ground	IEC 61000-4-5	+/- 0,5 kV, +/- 1 kV, +/- 2 kV	
Conducted disturbances induced by RF fields	IEC 61000-4-6	3 V 0,15 MHz – 80 MHz 6 V in ISM bands between 0,15 MHz and 80 MHz 80 % AM at 1 kHz	3 V 0,15 MHz – 80 MHz 6 V in ISM and amateur radio bands between 0,15 MHz and 80 MHz 80 % AM at 1 kHz
Electrical transient conduction along supply lines	ISO 7637-2	Not applicable	As specified in ISO 7637-2

The logo consists of the letters 'TEK' in a stylized, white, blocky font. The 'T' and 'E' are connected at the top, and the 'K' is positioned to the right of the 'E'.

**Robotic
Mobilization
Device**

MATIA ROBOTICS

www.matiarobotics.com