

MOTOR STEP USA

USER MANUAL

MS600 FREEDOM & MS800 FREEDOM



Overcome the obstacles

MotorStep offers a simple, reliable way to navigate steps at home or at your vehicle with greater ease and control. By removing the need for bulky ramps or expensive construction, **MotorStep** provides an affordable and effective solution for accessing challenging areas around your home and vehicle.

INTRODUCTION

Please read all parts of this manual for your **MotorStep MS600/MS800 FREEDOM STAND ON STEP LIFT** and observe all warnings and assembly instructions for your own safety and to prevent damage to the unit. **The MotorStep MS600/MS800 STAND ON STEP LIFT** is a self supporting, free standing, portable unit intended for use by individuals who require assistance to negotiate a step up to 24 inches / 32 inches. The lift must be operated on a firm level ground. If intended to be used on grass or loose gravel its is important that the lift is placed on a treated ply board or equivalent of a suitable size and thickness. The **MotorStep MS600/MS800 STAND ON STEP LIFT** is supplied for personal use only and not for public use or lifting goods/freight.

The maximum rated load is 280lb. (350lb. available), one person standing or a maximum load specified by **MotorStep**.

DO NOT ALLOW CHILDREN TO PLAY WITH THE UNIT. We recommend the key switch is turned to the off position and removed to prevent unauthorized use.

We trust the **MotorStep MS600/MS800 STAND ON STEP LIFT** will give you many more years of mobility, independence and enjoyment.

Thank you.

GENERAL DESCRIPTION

1) THE MAIN MAST Made from extruded anodized aluminum with A.B.S plastic panels. This encloses and provides support for the operating mechanism and lifting carriage to which the platform is attached. The carriage is raised and lowered by an electrically driven screw actuator which is a sealed unit requiring no maintenance. The actuator is rated to lift at a duty cycle of 10% (1 minute in 10) at a full load. Limit switches within the unit are present at the top and bottom travel limits.

(2) THE FOLDING STAND ON PLATFORM Constructed with a steel frame and aluminum top plate that is attached to the lifting carriage. The underside of the front and sides of the platform are fitted with pressure sensitive safety edges which will stop the descent of the platform if any obstruction is detected.

(3) THE FOLDING SUPPORT LEG SYSTEM Made from powder coated steel; the leg assembly supports the lift assembly during operation. Fixed to the main mast and locked into position with support struts. Small wheels at the rear of the assembly aid transportation.

SET UP OF THE MS600/MS800 FREEDOM

When shipped, each of the folding support legs are set in the transit/storage position with the top joint of the strut set at the top fixing point in the rear support tube/axle (See FIG; A)

To set up for the lifting operation the top joint of the strut must be moved to the bottom fixing point in the rear support tube/axle. (See FIG; B)

When moving the strut to the bottom fixing point, the legs will drop into their operating position. Ensure that the lower leg guide bracket is located inside the washer. (See FIG; C)

The strut must be secured in its position with the threaded knob ensuring it is fully secured in position but not over tightened. Fold down the platform and move to your desired position.

! Ensure the position of the lift will not cause trapping between the platform and the step.

IF USED OUTSIDE THE UNIT MUST BE OPERATED ON FIRM LEVEL GROUND.

On grass or gravel, place the unit on a treated ply board or equivalent of a suitable thickness and size. Use packing to level if required.

FIG A

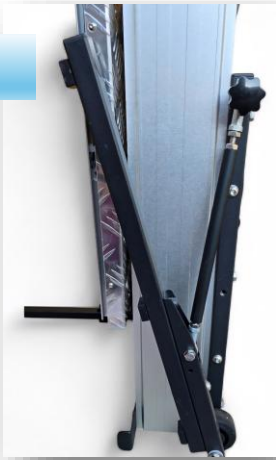
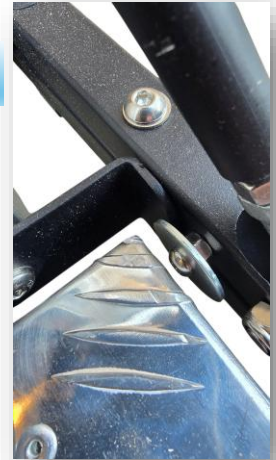


FIG B



FIG C



FUSE

Use 8-amp fuse for MotorStep Freedom 24v Lithium-ion Battery.
Refer to page 4 for fuse location on battery



BATTERY PACK CONTENTS

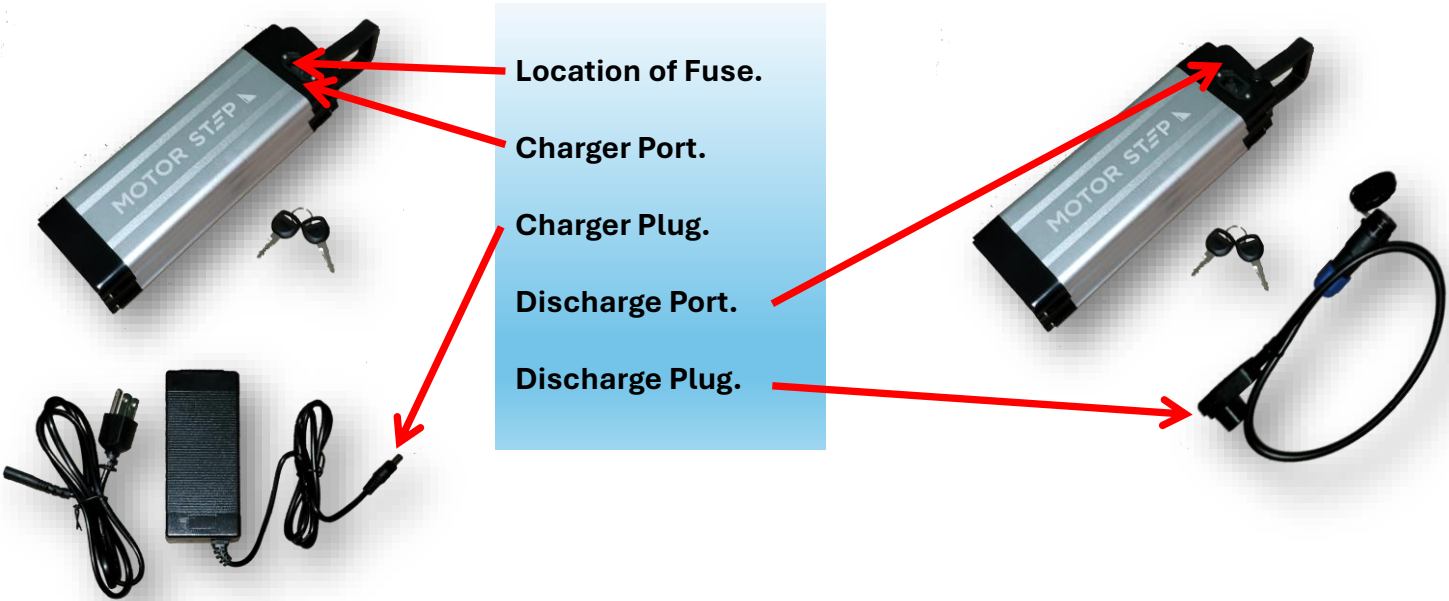


1. **Battery**
2. **Mounting Bracket** — May come pre-installed.
3. **Keys**
4. **Battery Charger**
5. **Discharge Cable**

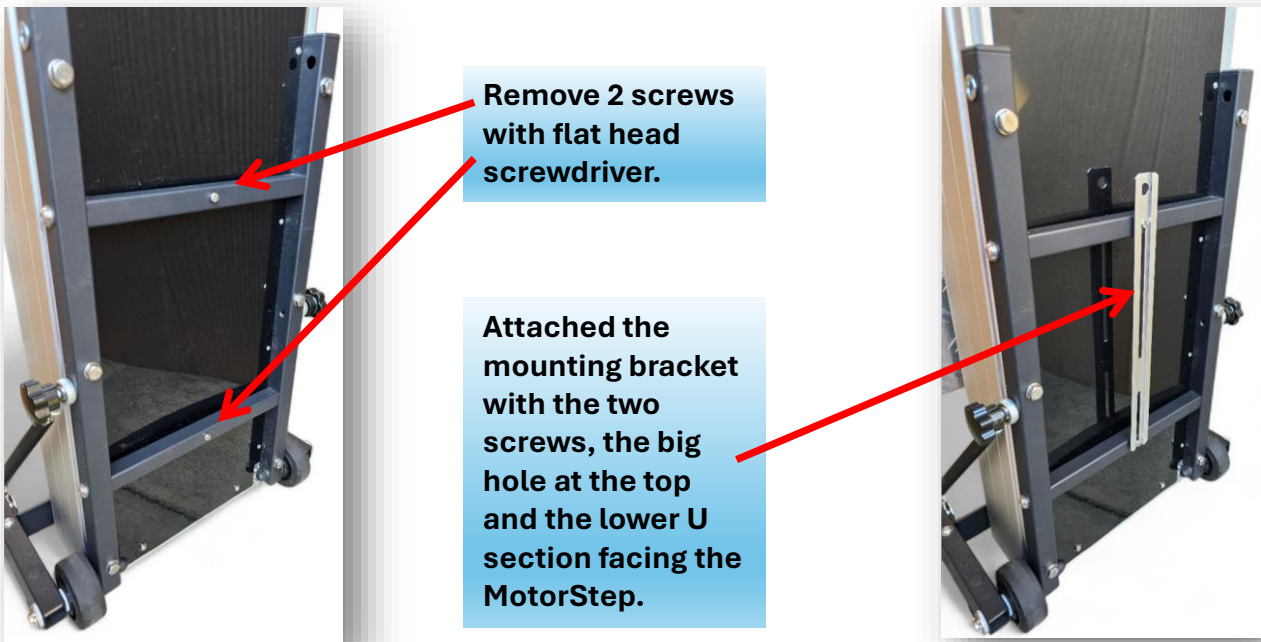
! IMPORTANT

On first receiving your battery from **MotorStep** it must be given a full charge of at least 7 hours. Please refer to further instructions in this manual for taking care of your battery and trouble shooting on page 9.

LOCATION OF CHARGING & DISCHARGE PORTS



INSTALLATION OF BATTERY MOUNTING BRACKET



MOUNTING THE BATTERY



Slide battery down onto mounting bracket and turn the key clockwise to lock into position.

! To remove battery for charging:
Depress and turn the key fully anti-clockwise to unlock and release holding pin.



Attach discharge cable and plug into **MotorStep** input cable.

Insert the key and turn clockwise **two times** to the ON position.

SPECIAL INSTRUCTIONS FOR BATTERY CARE

1. This battery pack is only suitable for a **MotorStep MS600/MS800 FREEDOM STAND ON STEP LIFT** model.
2. Never fully drain the battery. When the LED shows low power, stop and recharge. Allowing the battery to go flat can cause serious damage.
3. Keep the battery topped up. Charge at least twice a month when not in use. **Do not** leave the battery connected to the **MotorStep** during charging.
4. Unplug the battery as soon as charging is complete. **Do not** leave it charging overnight. Batteries and chargers can get hot.
5. Avoid exposing the battery to extreme temperatures. Ensure good ventilation during charging.
- 6. Do not** expose the battery to fire or water.
7. Prevent impact damage—avoid dropping or accidents.
8. Mount the battery securely on the **MotorStep**.
9. Take care not to apply pressure or force to the discharge port, which may loosen or break it.
10. Charge the battery at least once or twice a month when not in use. Batteries lose charge over time and prefer regular charge/discharge cycles. Batteries left uncharged for over a month may be permanently damaged.
11. For issues, refer to troubleshooting info on pages 9 and 10.

OPERATING INSTRUCTIONS

- ❖ Make sure the platform is fully lowered, stand centrally on the platform so that your feet do not overhang the platform, particularly on the step side.
- ❖ Turn the key switch to the 'ON' position, hold onto the handles so that you can press the control buttons.
- ❖ To ascend, press the upper green button until the platform reaches the required height or the maximum travel height. The limit switch will operate automatically when the lift reaches maximum height.
- ❖ To descend, reverse the procedure, pressing the lower yellow button. The platform can be stopped at any position by releasing the control button. The platform can be used as an interim step if left in the halfway position, if required.

In the event of the lift failing to rise or lower due to an electrical failure, the platform can be moved manually as described on page 7.

Do not operate the lift electrically with the winding handle fitted for manual operation as it could rotate quickly and cause injury.

The platform should only be folded up to body of the lift when it is at the fully lowered position. The lift can be moved on its wheels with the legs unfolded if it's tipped back far enough, but it's easier to move with the legs folded into the transit/storage position.

! Do not allow children to play with the lift unit.

TRANSPORTATION AND STORAGE

! REMOVE BATTERY BEFORE TRANSPORTATION.

Transportation of the **MotorStep MS600/MS800 FREEDOM STAND ON STEP LIFT** is best carried out with the legs and platform folded up.

Storage of the MotorStep should be either vertical or laid down on the back of the **MotorStep MS600/MS800 FREEDOM STAND ON STEP LIFT** with battery removed.

! DO NOT LAY THE MotorStep ON THE SAFETY EDGES OF THE PLATFORM.

! DO NOT STRAP ACROSS THE SAFETY EDGES OF THE PLATFORM.

POWER FAILURE

A manual winding system is built into the **MotorStep MS600/MS800 FREEDOM STAND ON STEP LIFT** to allow manual operation in the event of a power failure. This is operated by removing the plastic cap at the top of the column handle tube (see Fig; A)

Turn the key switch to the off position (refer to the diagram inside the cap.) Pull out the winding handle and socket (see Fig; B)
Refit the socket only over the inner nylon boss ensuring the drive pins locate in the slots of the socket (see Fig; C)

Turn anti-clockwise to raise the platform and clockwise to lower.

! WARNING

The hand winding tool must be replaced in its original position with the handle engaged in its storage hole and the drive pins located before using the lift power. Refit the plastic cap. Failure to do so will not allow the lift to rise. It may also damage the lifting mechanism and may cause injury as the handle will rotate quickly.

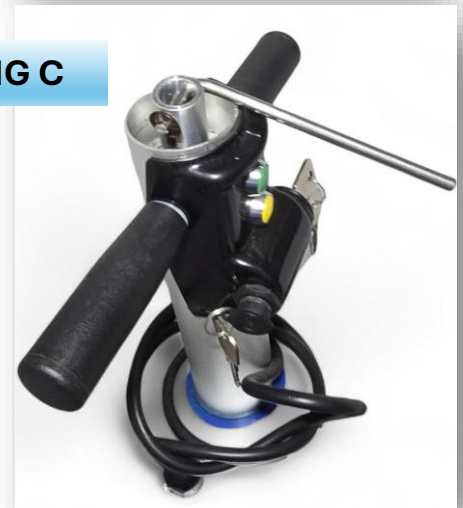
FIG A



FIG B



FIG C



The **MotorStep** can also be manually operated with the emergency hand wind drill socket included with your **MotorStep**. Firstly, remove winding handle (See Fig; B). Insert the drill socket into any standard battery drill as seen in picture. Set the drill at its slowest speed and locate the socket over the nylon boss ensuring the drive pins locate in the slots of the socket as seen in (Fig; C). Operate drill, forward for up, reverse for down.

! Warning, the manual hand winding tool MUST be replaced before normal operation is resumed, refer to the warning above.



MAINTENANCE

The **MotorStep MS600/MS800 FREEDOM STAND ON STEP LIFT** requires minimal maintenance. The actuator/motor is a sealed unit and pre-lubricated.

The lifting carriage incorporates roller bearings which are pre-lubricated.

The electrical circuit uses sealed relays, IP67-rated push buttons, and platform microswitches sealed in silicon.

Follow the battery maintenance instructions as advised on page 5.

External connections are covered by heat-shrink sleeving and weatherproof plug-and-socket connectors.

The external surfaces should be cleaned with a non-abrasive cleaner if required.

IT IS RECOMMENDED THAT REGULAR CHECKS ARE MADE TO ENSURE STABILITY, SAFETY, AND CORRECT OPERATION OF THE MS600/MS800 FREEDOM.

The important items to check are:

1. The condition of the threaded knobs that fix the support struts in position.
2. The fixing bolts in the rear support tube/axle are tight.
3. The operation of the safety edges and switches.
4. The operation of the upper and lower limit switches.
5. The manual winding system is operational.
6. The battery mounting bracket is secure.

TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	SUGGESTED TEST AND REMEDIES
<p>I have just received my battery and compatible charger, and it will not charge.</p>	<p>The charger could be faulty.</p>	<p>Check the charger is working correctly by checking the charger's fuse and that the mains supply is good. The fuse can be found in the plug that connects to the mains socket.</p> <p>Check the connection point to the battery to ensure the connection is good.</p> <p>Check the terminals of both the battery and the charger are clean. With the battery disconnected from the charger, place an electrical tester onto the charging plug terminals to test the output from the charger. The reading should be a few volts higher than the stated battery voltage. For example, if the battery is 24 volts, the output should be about 27 volts from the charger. A lower or significantly higher reading indicates a possibly faulty charger.</p> <p>Check fuse in battery.</p>
	<p>The battery could be faulty.</p>	<p>The battery voltage can be checked in two places, firstly by checking the charger terminals of the battery and secondly by checking the discharge terminals. The two voltages should match. If there is a significant difference the battery could be faulty.</p>
<p>The battery is fully charged but will not work on the MotorStep.</p>	<p>Check Fuse in battery located under handle.</p> <p>Fault with discharge cable.</p> <p>MotorStep not switched on.</p> <p>Battery not fully switched on.</p>	<p>Replace fuse in battery with spare fuse provided.</p> <p>Check condition of discharge cable.</p> <p>Make sure discharge cable and MotorStep input cable are connected properly.</p> <p>Check battery key is fully turned to the on position.</p> <p>Check the MotorStep is switched on at the key switch.</p>

TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	SUGGESTED TEST AND REMEDIES
<p>My battery and/or charger get very hot while charging.</p>	<p>The connections from charger to battery could be dirty.</p>	<ul style="list-style-type: none"> -Clean all the connections and ensure the connection is firm at all connection points. Allow both items to fully cool then retry the charging process. -Allow both items to fully cool then retry the charging process -check the fuse in the plug and battery where there is one to confirm it is the correct size for the charger and battery. -This could indicate a problem with the battery or battery charger. Replace the battery charger first, then if the problem continues refer to MotorStep.
	<p>The battery charger and/or battery have exceeded the temperature at which they can recharge.</p>	
	<p>The battery may have come to the end of its life.</p>	<p>All batteries have a life cycle which can be affected by the use, charging and battery age. Generally, you should get 500-1000 charges from a lithium battery, but this can seriously be affected by the use they get. Generally, a battery that is regularly worked hard should last longer. A battery that does not get used much or either does not receive regular charging (at least twice a month) may lose its ability to cycle charge itself back up to full power. A battery that is either 3 years old or that has received over 500 charges could simply require replacement. These values may vary depending on usage conditions and the level of care provided by the user.</p>

TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	SUGGESTED TEST AND REMEDIES
<p>My battery charger will not display the correct lights when charging.</p>	<p>This could be caused by a poor connection.</p>	<p>Remove all plugs and connection and begin the process again. If after repeating this process the charger light does not illuminate contact MotorStep.</p>
	<p>The charger could be faulty.</p>	<p>Check the charger is working correctly by checking the charger's fuse and mains supply is good. The fuse can be found in the plug that connects to the mains socket.</p> <p>Check the connection point to the battery to ensure the connection is good.</p> <p>Check the terminals of both the battery and the charger are clean.</p> <p>With the battery disconnected from the charger place an electrical tester onto the charging plug terminals to test the output from the charger, the reading should be a few volts higher than the stated battery voltage. For example, if the battery is 24 volts the output should be about 27 volts from the charger. A lower or significantly higher reading indicates a possibly faulty charger.</p> <p>Check the fuse in the battery. Replace the charger or contact MotorStep.</p>
	<p>The battery could be faulty.</p>	<p>The battery voltage can be checked in two places, firstly by checking the charger terminals of the battery and secondly by checking the discharge terminals. The two voltages should match. If there is a significant difference the battery could be faulty.</p>
	<p>The battery could have deteriorated beyond an operational condition.</p>	<p>Lithium batteries must be charged at least twice a month and should never be completely discharged. The charger will fail to charge a battery that has been left without charge and may not display the charging lights when attempting to charge the battery. Replace the battery. Refer to MotorStep for assistance.</p>

WARRANTY

WARRANTY SUMMARY

Two-Year Limited Factory Warranty: Applies to **MotorStep 600 Freedom** and **MotorStep 800 Freedom** models.

One-Year Limited Factory Warranty: Applies to all accessories, chargers, and lithium batteries (excluding covers).

WARRANTY DETAILS

MotorStep will provide up to 2-year warranty from the date of purchase if any part is found to be defective due to faulty manufacture and will affect the repair or replacement free of charge providing:

- (1) The fault is immediately reported directly to **MotorStep** or distributor.
- (2) The machine is returned to **MotorStep** or distributor.
- (3) All operating, safety and assembly instructions as described in the user manual have been observed.
- (4) The max load as specified by **MotorStep** has not been exceeded. (5) Failure has not occurred due to misuse, neglect or normal wear and tear. (6) The machine has not been repaired or a repair attempted by anyone other than a **MotorStep** or a **MotorStep** appointed representative. (7) The machine has only been used for domestic/personal use. (8) The machine is still the property of the original purchaser.

This guarantee is additional to and in no way diminishes the customer's statutory rights.

Failures due to the following are not covered by the **MotorStep** warranty:

- (1) The **MotorStep** has been used commercially for hire.
- (2) Animals, flood or act of god has damaged the **MotorStep**.
- (3) Failure has occurred by accidental or malicious damage or vandalism.
- (4) Failure as a result of not reporting the initial fault.
- (5) Failure as a result of not using the **MotorStep** in accordance with the instructions and recommendations as contained within the user manual.

! MOTORSTEP AND ITS DISTRIBUTORS WILL NOT BE HELD RESPONSIBLE FOR ANY LOSS, DAMAGE OR PERSONAL INJURY TO THE USER OR ANY THIRD PARTY AS A RESULT OF FAILURE TO FULLY COMPLY WITH THE INSTRUCTIONS OR RECOMMENDATIONS AS CONTAINED WITHIN THIS USER MANUAL.

Disclaimer: All information contained in this user manual, including specifications and warranty terms, is subject to change at the manufacturer's sole discretion and may be modified at any time without prior notice or further obligation.

Online Trouble Shooting & Help

This QR code provides additional troubleshooting support. It includes pictures and videos, and new items are added and updated periodically.



MOTOR STEP USA 

Authorized USA Distributor
VIRGINIA STAIRLIFT COMPANY
www.motorstepusa.com
www.stairsbegone.com
434.975.5438 (Call or Text)
contact@va-stairlift-company.com

Manufactured in the United Kingdom