

EG4[®] POWERLIFT PRO

USER MANUAL



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1. ABBREVIATIONS

- AWG – American Wire Gauge
- A – Amps
- Ah – Amp hour(s)
- AC – Alternating Current
- AFCI – Arc-Fault Circuit Interrupter
- AHJ – Authority Having Jurisdiction
- kAIC – kilo-Amp Interrupting Capability
- ANSI – American National Standards Institute
- BAT – Battery
- BMS – Battery Management System
- COM – Communication
- CT – Current Transformer
- DC – Direct Current
- DIP – Dual In-line Package
- DOD – Depth of Discharge
- EG – Equipment Ground
- EGS – Equipment Grounding System
- EMC – Electromagnetic Compatibility
- EPS – Emergency Power System
- ESS – Energy Storage System
- E-Stop – Emergency Stop
- FCC – Federal Communication Commission
- GE – Grounding Electrode
- GEC – Grounding Electrode Conductor
- GFCI – Ground Fault Circuit Interrupter
- GFDI – Ground Fault Detector/Interrupter
- Imp – Maximum Power Point Current
- IEEE – Institute of Electrical and Electronic Engineers
- IP – Ingress Protection
- Isc – Short-Circuit Current
- In-lbs. – Inch Pounds
- kW – Kilowatt
- kWh – Kilowatt-hour
- LCD – Liquid Crystal Display
- LFP – Lithium Iron Phosphate
- L1 – Line 1
- L2 – Line 2
- mm – Millimeters
- MPPT – Maximum Power Point Tracking
- mV – Millivolt
- N – Neutral
- NEC – National Electric Code
- NEMA – National Electrical Manufacturers Association
- NFPA – National Fire Prevention Association
- Nm – Newton Meters
- NOCT – Normal Operating Cell Temperature
- PC – Personal Computer
- PCB – Printed Circuit Board
- PE – Protective Earth
- PPE – Personal Protective Equipment
- PV – Photovoltaic
- RSD – Rapid Shut Down
- SCC – Standards Council of Canada
- SOC – State of Charge
- STC – Standard Testing Conditions
- UL – Underwriters Laboratories
- UPS – Uninterrupted Power Supply
- V – Volts
- VOC – Open-Circuit Voltage
- VMP – Voltage Maximum Power

2. TECHNICAL SPECIFICATIONS

GENERAL PARAMETERS	
MAXIMUM LIFTING WEIGHT	441 lbs. (200 kg)
MAXIMUM LIFTING HEIGHT	31.9 in. (810 mm)
DIMENSIONS (H x W x D)	60.0 in. x 20.2 in. x 21.2 in. (1525 mm x 513 mm x 538 mm)
FORK LENGTH	10 in. (254 mm)
FORK WIDTH	9 in. (228 mm)
ELEVATOR DRIVER	18V Drill
BRAKE TYPE	Hydraulic
WHEEL TYPE	Rubber
LIFTING MECHANISM	Lifting Screw
COMPATIBLE BATTERY TYPES	EG4 WallMount All Weather 280Ah, EG4 WallMount Indoor 280Ah
POWERLIFT WEIGHT	101.4 lbs. (46 kgs)



NOTE:

Failure to adhere to the maximum weight and height capacity may result in personal injury or damage to the equipment.

3. GENERIC SAFETY

3.1 SAFETY INSTRUCTIONS

Before beginning any work, carefully read all safety instructions, and always observe them when working on the system. The installation must follow all applicable national or local standards and regulations.

Incorrect installation may cause:

- Injury or death to the installer, operator or third party
- Damage to the equipment

3.2 IMPORTANT SAFETY NOTIFICATIONS



DANGER: *Hazardous Voltage Circuits!*

There are various safety concerns that must be carefully observed before, during, and after operation, as well as during future operation and maintenance. The following are important safety notifications for the installer and any end users of this product under normal operating conditions.

1. **Personal Protective Equipment (PPE):** Always wear appropriate PPE, including, but not limited to, protective gloves, safety goggles, hearing protection, and dust masks as needed, to protect from injury.
2. **Hazard.** Risk of back injury or strains from improper lifting techniques. Always lift with your legs, not your back and do not exceed personal lifting capabilities.
3. **Team Lifting:** For heavy items such as batteries or other system components, always use team lifting approach. Do not attempt to lift heavy objects alone.
4. **Clear Path:** Ensure the path the PowerLift Pro will travel is clear of obstacles before moving. Look for and avoid uneven surfaces or debris that could cause trips or falls.
5. **Avoid Loose Clothing:** Do not wear loose clothing or jewelry and ensure long hair is properly contained as not to become caught in drill or other moving parts.
6. **Pinch Point Hazard:** Always be aware of structural pinch points where fingers, hands, or other body parts can become pinched or trapped.
7. **Before Each Use:** It is important to inspect all components to ensure they meet the appropriate specifications and conditions for use.



WARNING:

Perform the following steps before using the PowerLift Pro to avoid serious damage or injury.

1. Inspect the hardware for evidence of damage, including dents or significant wear.
2. Inspect the drill strap, confirming it is free of tears.
3. Inspect the lift's brakes, brake lines, and calipers for leaks or damage; squeeze the brake handle and confirm that the brakes work.
4. Inspect the lift's tires for debris and significant wear and confirm proper inflation.
5. Inspect the lifting screw and lifting forks.
 - a. Confirm no parts are bent.
 - b. Using the drill, raise the lifting forks to their upper limit, then lower it all the way back down; ensure the lifting motion is smooth and there is no binding.
6. Inspect the battery strap and strap protector, confirming they are free of tears.
7. Ensure all screws, nuts, and bolts are tightened down.



WARNING!

Cancer and Reproductive Harm – See www.P65Warnings.ca.gov for more details.

DISCLAIMER

EG4 reserves the right to make changes to the material herein at any time without notice.

Please refer to www.eg4electronics.com for the most updated version of our manuals/spec sheets.

4. SÉCURITÉ GÉNÉRIQUE

4.1 INSTRUCTIONS DE SÉCURITÉ

Avant de commencer tout travail, lisez attentivement toutes les instructions de sécurité et respectez-les toujours lorsque vous travaillez sur ou avec le système. L'installation doit suivre toutes les normes et réglementations nationales ou locales applicables.

Une installation incorrecte peut causer :

- Des blessures ou la mort de l'installateur, de l'opérateur ou d'un tiers.
- Des dommages à l'équipement.

4.2 NOTIFICATIONS DE SÉCURITÉ IMPORTANTES



DANGER : Circuits à Haute Tension !

Divers risques de sécurité doivent être soigneusement pris en compte avant, pendant et après l'installation, ainsi que pendant l'exploitation et la maintenance futures. Les notifications suivantes sont importantes pour l'installateur et tout utilisateur final de ce produit dans des conditions normales de fonctionnement.

1. **Équipement de protection individuelle (EPI) :** Portez toujours une EPI appropriée, incluant mais sans s'y limiter : gants, lunettes de sécurité, protection auditive et masque anti-poussière, afin de réduire les risques de blessure.
2. **Risque de blessure :** Risque de blessure au dos ou d'entorses en raison de mauvaises techniques de levage. Soulevez toujours avec les jambes, jamais avec le dos, et ne dépassez pas vos capacités personnelles de levage.
3. **Levage en équipe :** Pour les sacs de béton, les composants du système et la pose des panneaux solaires, utilisez toujours une technique de levage en équipe. Ne tentez jamais de soulever seul des objets lourds.
4. **Chemin dégagé :** Assurez-vous que le chemin que doit emprunter le chariot est dégagé de tout obstacle. Vérifiez l'absence de surfaces inégales ou de débris pouvant causer des chutes.
5. **Évitez les vêtements amples :** Ne portez pas de vêtements amples ni de bijoux, et attachez correctement les cheveux longs afin qu'ils ne soient pas pris dans la perceuse ou d'autres pièces mobiles.
6. **Points de pincement :** Faites toujours attention aux zones structurales où les doigts, mains ou autres parties du corps peuvent être coincés ou pincés.
7. **Sécurité électrique :** Considérez toujours que tous les fils sont sous tension. Les panneaux solaires exposés à la lumière du soleil génèrent une tension électrique. Respectez toutes les exigences de sécurité des fabricants lors du câblage des panneaux.
8. **Avant l'installation, l'utilisation ou la maintenance :** Il est important d'inspecter tous les composants afin de s'assurer qu'ils répondent aux spécifications et conditions appropriées pour l'utilisation.



AVERTISSEMENT :

Effectuez les étapes suivantes avant d'utiliser le PowerLift Pro afin d'éviter tout dommage grave ou toute blessure.

1. Inspectez le matériel pour détecter toute trace de dommage, incluant bosses ou usure importante.
2. Vérifiez la sangle de perceuse, et assurez-vous qu'elle ne présente aucune déchirure.
3. Vérifiez les freins du chariot, les conduites et les étriers de frein pour détecter toute fuite ou tout dommage ; pressez le levier de frein et assurez-vous que les freins fonctionnent.
4. Vérifiez les pneus du chariot pour détecter les débris ou une usure excessive, et assurez-vous qu'ils sont correctement gonflés.
5. Inspectez la vis de levage et les fourches de levage.
 - a. Assurez-vous qu'aucune pièce n'est tordue.
 - b. À l'aide de la perceuse, levez les fourches jusqu'à leur limite supérieure, puis redescendez-les complètement ; le mouvement doit être fluide et sans blocage.
6. Vérifiez la sangle de batterie et le protège-sangle, et assurez-vous qu'ils ne présentent aucune déchirure.
7. Assurez-vous que toutes les vis, écrous et boulons sont bien serrés.



AVERTISSEMENT !

Cancer et dommages au système reproductif–Voir www.P65Warnings.ca.gov pour plus de détails.

DISCLAIMER

EG4® se réserve le droit de modifier le contenu de ce document à tout moment sans préavis. Veuillez consulter www.eg4electronics.com pour la version la plus récente de nos manuels/fiches techniques.

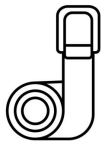
5. INTRODUCTION

The EG4® PowerLift Pro is designed to lift and transport WallMount batteries across smooth and moderately uneven or disheveled surfaces, such as transitions, thresholds, or drops up to 3 inches. However, it is not intended for use on unstable, pitted, or heavily sloped terrain where there is a risk of tipping. Interfaces directly with WallMount batteries, and a battery powered drill drives the lifting mechanism to raise and lower the batteries with ease. This manual provides an overview of using the PowerLift Pro, as well as maintenance information.

- **Designed for EG4® WallMount Batteries:** Modular fit for EG4 280Ah WallMount batteries.
- **Durable Build:** SPCC material with 441 lbs. (200 kg) capacity and brake-equipped all terrain wheels.
- **Secure & Adjustable:** Cam buckle strap adjusts to fit various battery dimensions.
- **Reliable Mobility:** Lightweight and built to assist in mounting of WallMount batteries.

6. PACKING LIST

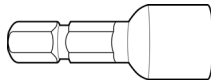
The following items are included with the PowerLift Pro. Before assembly and installation, please inspect the contents to ensure no components were damaged or lost in transit.



Drill Strap x1



Snap rings x6



10 mm bit x1



Replacement Wheel x2

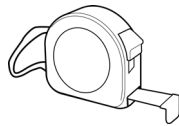


Battery Strap x1

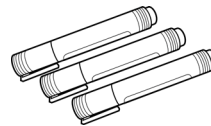
6.1 RECOMMENDED TOOLS



18V Drill & Bits



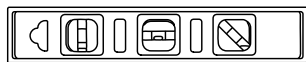
Tape Measure



Marking Pen



Gloves



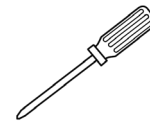
Level



Safety Goggles



Composite Toe Shoes



Phillips Head Screwdriver

6.2 PROHIBITED OPERATIONS



DANGER:

The following operations are strictly prohibited:

- **DO NOT:** Overload - over 441 lbs. (200 kg).
- **DO NOT:** Use on stairs, slopes or slippery ground.
- **DO NOT:** Use as transport for people or non-battery items.
- **DO NOT:** Modify or remove any safety features on the lift.
- **DO NOT:** Use on soft or uneven surfaces that may cause sinking or tipping of the lift with or without battery.

7. POWERLIFT PRO OVERVIEW



NO.	ITEM	DESCRIPTION
1	Brake Handle	Used to engage the brake and maintain control of the unit during transportation and mounting/positioning of battery.
2	Lifting Screw	Used to raise and lower the forks. Requires a 10 mm socket, attached to a standard 18V drill.
3	Cam Strap Location	Used to secure strap and battery to the lift for transporting and mounting/positioning of the battery.
4	Bumpers	Help to stabilize the WallMount battery and hold it in place while the lift is in motion.
5	Hydraulic Brake	Used by the brake handle to stop wheels from moving.
6	Lifting Forks	Hold the weight of the battery during transportation and mounting.

8. PREPARING TO USE POWERLIFT PRO

Before operating the PowerLift Pro or handling the WallMount batteries, utilize all required PPE:

- Safety Glasses/Goggles
- Protective Gloves (Leather, Nitrile, Neoprene)
- Composite Toe Shoes

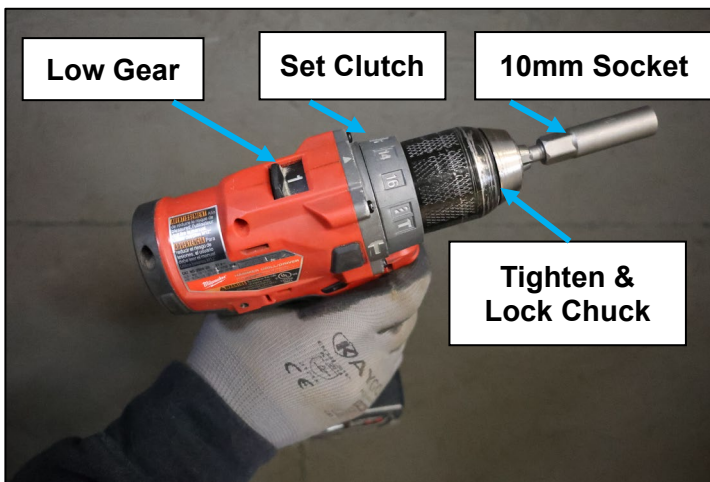


DANGER:

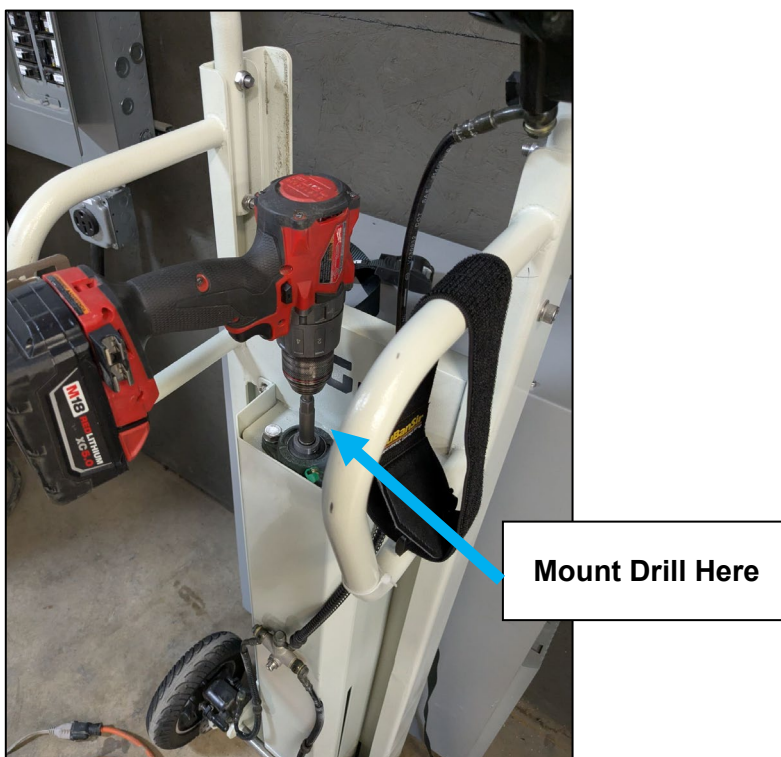
Do not use the PowerLift Pro to transport or mount WallMount batteries without PPE, especially protective footwear. Failure to do so could result in serious injury.

9. PREPARE THE DRILL

1. Install the 10 mm socket into the drill.
2. Lock the drill chuck into place.
3. Set the clutch one level below the maximum setting.
4. Set the drill to low gear.



5. Mount the drill to the lifting screw via the 10 mm socket.



6. Secure the drill with the included drill strap. Loop the Velcro strap around the chassis of the lift and drill handle, then, bring the tail of the strap up and through the loop, then, tighten and pull so that the Velcro lines up and adheres.



7. Activate drill in the forward (clockwise) direction to elevate the base plate.
8. Activate drill in reverse (counterclockwise) to lower the base plate.



WARNING:

Failure to strap in the drill may result in injury!

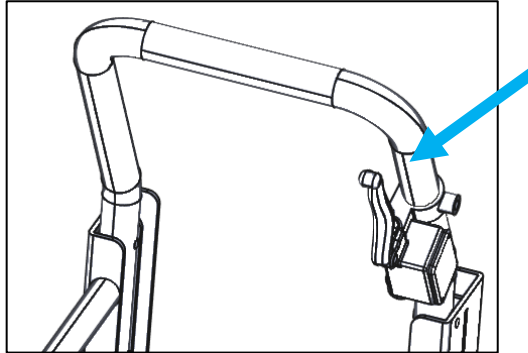
10. SECURING WALLMOUNT BATTERY TO POWERLIFT PRO

The following steps outline how to use the lift with the battery.

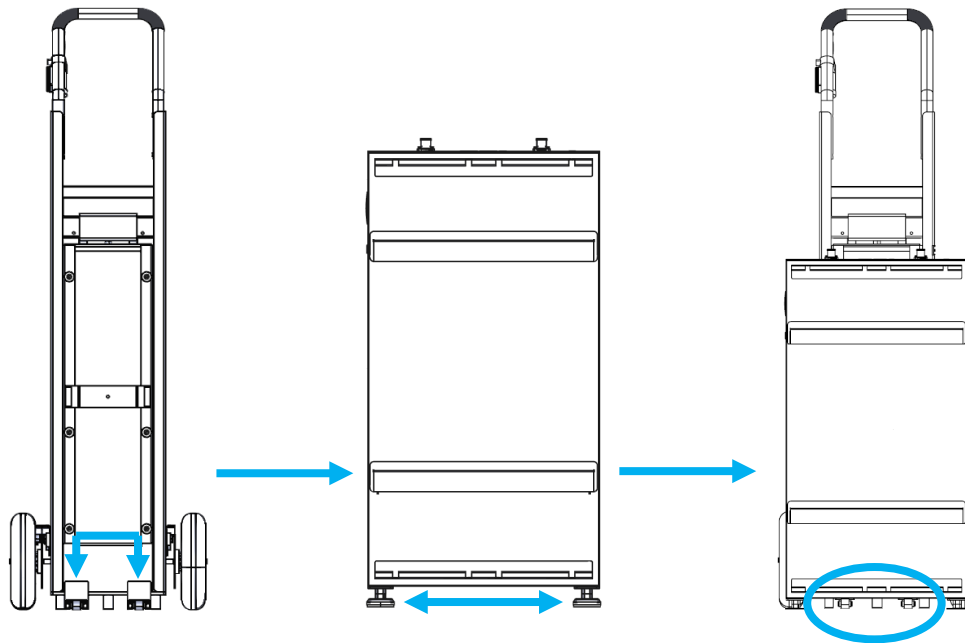


WARNING:

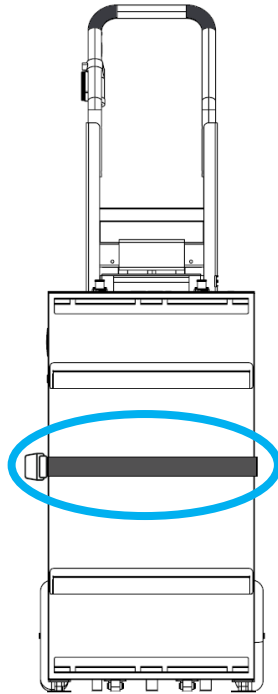
Always have one hand ready to operate the brake during battery transport.



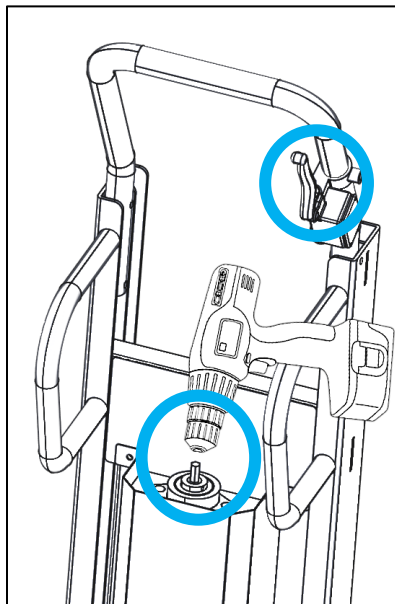
Step 1: Set the battery down on a secure, level location with the feet touching the ground. Align the bottom of the lift so that the forks are in between the feet of the WallMount battery then secure the hand brake. Carefully walk the battery forward onto the lifting forks, ensuring it is centered evenly across both forks and positioned flush against the bumpers.



Step 2: Secure the battery to the lift using the included cam buckle strap.



Step 3: With the drill mounted to the lifting screw and secured via the included strap (see section 9 for more details), set it to one gear below the maximum setting. Keep brake engaged/locked while drilling forward to raise the battery slightly. Once the battery has enough clearance, stop lifting, disengage brake, then move battery and lift to the desired location. **NEVER** use the lift to raise the WallMount battery to the full desired mounting height prior to or during transit!



IMPORTANT:

Do not raise the battery to the maximum desired height before or during transit. The weight can cause the lift to become unbalanced and may cause injury or damage. Never raise or lower the battery while lift is in motion!

11. MOUNTING AN EG4 WALLMOUNT USING POWERLIFT PRO

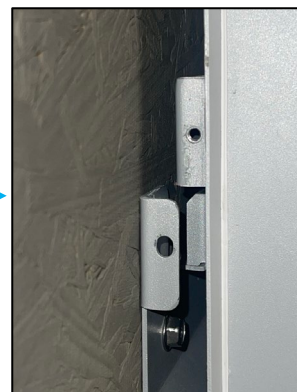
Step 1: With the battery loaded onto the Powerlift Pro, position the WallMount battery in-line with the wall bracket.



Step 2: Always engage the hand brake when lifting or adjusting the battery and/or the PowerLift Pro, such as when aligning the battery to wall bracket.



Step 3: With the battery aligned, and lift brake engaged, carefully drill forward to raise the WallMount battery a few inches at a time until the mounting cleats on the battery are positioned above the flanges on the wall bracket.



Step 4: Confirm the WallMount battery is in line with the bracket.



Align battery and wall bracket as shown here.

Step 5: With mounting brackets and cleats aligned, carefully drill in reverse to lower the WallMount battery until the mounting cleats engage the bracket flanges. Using a Phillips head screwdriver, install bracket screws to secure the WallMount battery to the bracket.



Be sure bracket and flanges fully engage before installing screw.

Step 6: Once the WallMount battery is installed on the bracket, disengage the lift from the battery via the included cam buckle strap.



CAUTION:

Always ensure that the WallMount battery is fully supported by the mounting bracket before releasing the cam buckle strap.



Step 7: Always ensure that the WallMount battery is fully supported by the mounting bracket before releasing the cam buckle strap. Move the dolly away from the battery and drill in reverse until the lifting forks are fully lowered before moving the lift to the next location.



12. MAINTENANCE

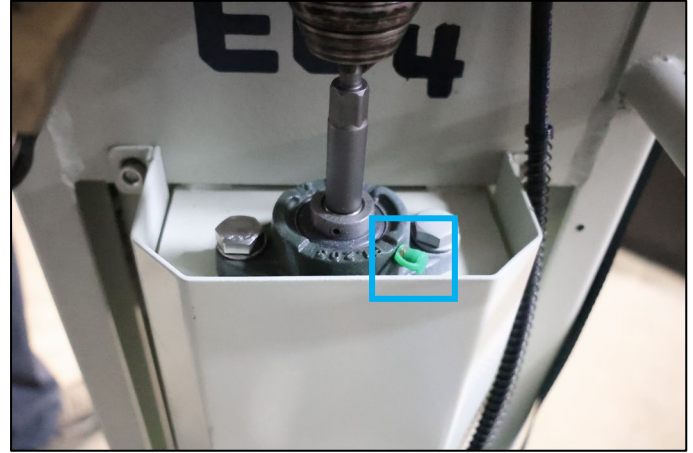
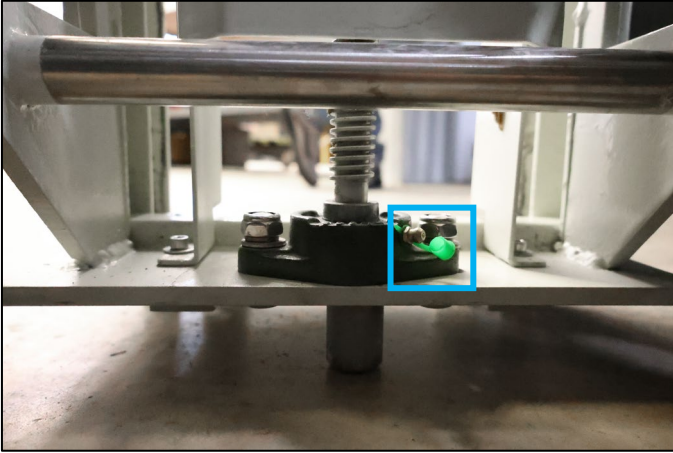
1. Inspect the lifting screw:

- Apply general purpose grease to the lifting screw as needed. Generally, this should be done annually or for every 250 WallMount batteries installed, whichever comes first. To apply grease, use a small amount along the entire threaded surface of the screw using a brush, and cycle the forks up and down a few times.
- Confirm the lifting screw is not bent and that there are no damaged threads along it.
- Confirm that only the 10 mm hex socket is being used to run the lifting screw.

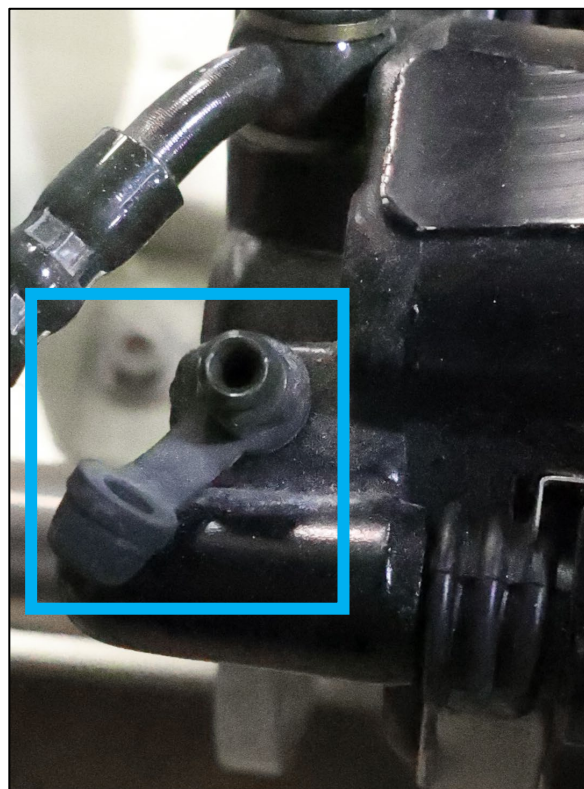


- Inspect the lift's tires:
 - Check wheels for damage such as chips, cracks, or hard breaks.
 - **Avoid prolonged exposure to the sun.**
 - Do not operate the lift with damaged wheels.

- Grease the lift bearings:
 - Locate the grease fitting, pull off the cap, and attach the end of the hose of the grease gun to the nozzle and then apply general purpose grease. Once filled, release and wipe off the excess grease with paper towel or rag and then recap the nozzle.



- Grease the hydraulic brakes:
 - Locate the grease fitting, pull off the cap, and attach the end of the hose of the grease gun to the nozzle and then apply general purpose grease. Once filled, release and wipe off the excess grease with paper towel or rag and then recap the nozzle.



13. WARRANTY INFORMATION

For information regarding warranty registration on EG4® Electronics products, please navigate to <https://eg4electronics.com/warranty/> and select the corresponding product to begin the registration process.

14.CHANGELOG

V1.0

- Published v1.0



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