

## Powerwall Dolly User Manual

The Powerwall dolly is custom-designed to lift and transport Powerwall. Pneumatic wheels, hydraulic disc brakes, and slide rails ensure the dolly can cross rough terrain and descend stairs. The dolly interfaces directly with Powerwall to hold it secure, and a battery-powered drill drives the lifting mechanism to raise and lower Powerwall with ease.

This manual provides an overview of using the Powerwall dolly, as well as inspection and maintenance information.

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## POWERWALL DOLLY SPECIFICATIONS

<b>Dolly Dimensions</b>	1690 x 593 x 461 mm
<b>Dolly Weight</b>	24 kg
<b>Maximum Install Height</b>	686 mm to base of Powerwall
<b>Maximum Lift Capacity</b>	136 kg
<b>Lifting Mechanism</b>	Lifting screw via 19 mm socket
<b>Lifting Power Source</b>	Battery-powered drill (no impact drivers) <sup>1</sup>
<b>Brake Type</b>	Single lever actuated dual hydraulic disc brakes
<b>Wheel Type</b>	Pneumatic tires
<b>Model Number</b>	1856187-xx-y
<b>Powerwall Compatibility</b>	All Powerwall models

<sup>1</sup>Drill not included with dolly.



## POWERWALL DOLLY COMPONENTS



1	<b>Hand Brake</b>	Use the hand brake to maintain control of the unit during transportation and mounting
2	<b>Drill Strap</b>	Holds the drill in place
3	<b>Lifting Screw</b>	Requires a 19 mm socket, attached to a standard drill. Operate the drill to raise and lower the base plate.
4	<b>Lift Handles</b> ( <i>Powerwall 3 Only</i> )	Two lift handles are removed from the dolly and temporarily secured to Powerwall 3 for transport and mounting. Once mounted on Powerwall 3, the lift handles engage with the locking plate, securing Powerwall to the dolly.
5	<b>Locking Plate</b> ( <i>Powerwall 3 Only</i> )	This is the attachment point between the transport tool and Powerwall 3 unit. It is spring loaded to stay in the lower position and can be lifted to engage the lift handles on Powerwall 3.



## POWERWALL DOLLY COMPONENTS

6	<b>Ratchet Strap and Protector Sleeve</b> <i>(Powerwall 2 Only)</i>	Used to secure Powerwall 2 to the dolly for transport and mounting
7	<b>Lifting Plate</b>	The lifting plate holds the weight of Powerwall during transportation and mounting. The lifting plate can be raised and lowered with a lifting screw on the back of the tool.
8	<b>Bumpers</b> <i>(Powerwall 2 Only)</i>	The yellow top bumpers and black bottom bumper help stabilize Powerwall 2, holding the unit in place while the dolly is in motion



## PRE-USE INSPECTION

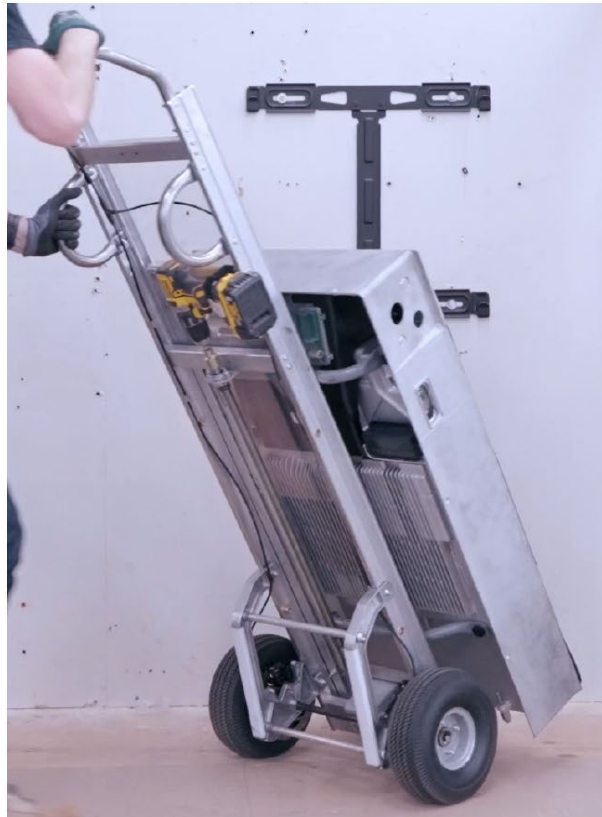


**WARNING:** Perform the following steps before using the dolly to avoid serious damage or injury.

1. Inspect the dolly for any evidence of damage, including dents or significant wear.
2. Inspect the drill strap, confirming it is free of tears.
3. Inspect the dolly brakes, brake lines, and calipers for leaks or damage; squeeze the brake lever and confirm the brakes work.
4. Inspect the dolly tires for debris and significant wear, and confirm proper inflation (see [Maintenance on page 24](#) for instructions on filling the tires).
5. Inspect the lifting screw and lifting plate:
  - a. Confirm neither parts are bent.
  - b. Using the drill, raise the lifting plate to its upper limit, then lower it all the way back down; ensure the lifting motion is smooth and there is no binding (see [Maintenance on page 24](#) for instructions on applying grease to the lifting screw).
6. Inspect the Powerwall 2 strap and strap protector, confirming they are free of tears.
7. Inspect the Powerwall 3 locking plate, confirming the springs offer resistance when the plate is lifted.
8. Inspect the Powerwall 3 lift handles, confirming neither handles nor fasteners are damaged or bent.
9. Ensure all screws, nuts, and bolts are tightened down.



## USING DOLLY WITH POWERWALL 3




Refer to the online version of the [Powerwall Dolly User Manual](#) for a video with instructions on mounting Powerwall 3 using the Powerwall dolly.

### Preparing to Use Dolly

Before operating the dolly or handling Powerwall, wear all required PPE (personal protective equipment):

- Safety glasses
- Gloves
- Protective footwear

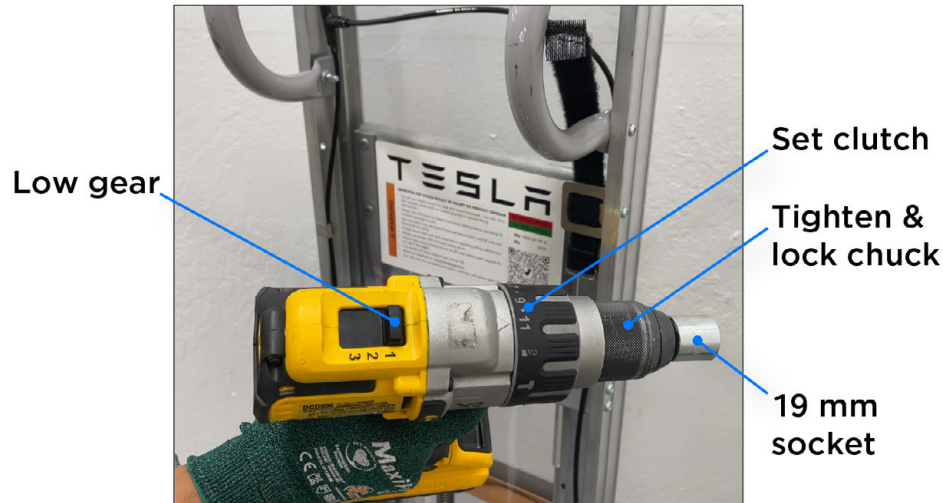
 **WARNING:** Do not use the dolly to transport or mount Powerwall without PPE, especially protective footwear. Failure to do so could result in serious injury.

### Prepare the Drill

1. Install the 19 mm socket.
2. Tighten the drill chuck.
3. Lock the drill chuck (turn it clockwise until it clicks once).
4. Set the clutch one level below the maximum setting.
5. Set the drill to low gear.



## USING DOLLY WITH POWERWALL 3



6. Mount the drill to the lifting screw.
7. Secure the drill with the included drill strap.



**WARNING:** Not strapping the drill may result in injury.

8. Drill forward to raise the base plate.
9. Drill in reverse to lower the base plate.

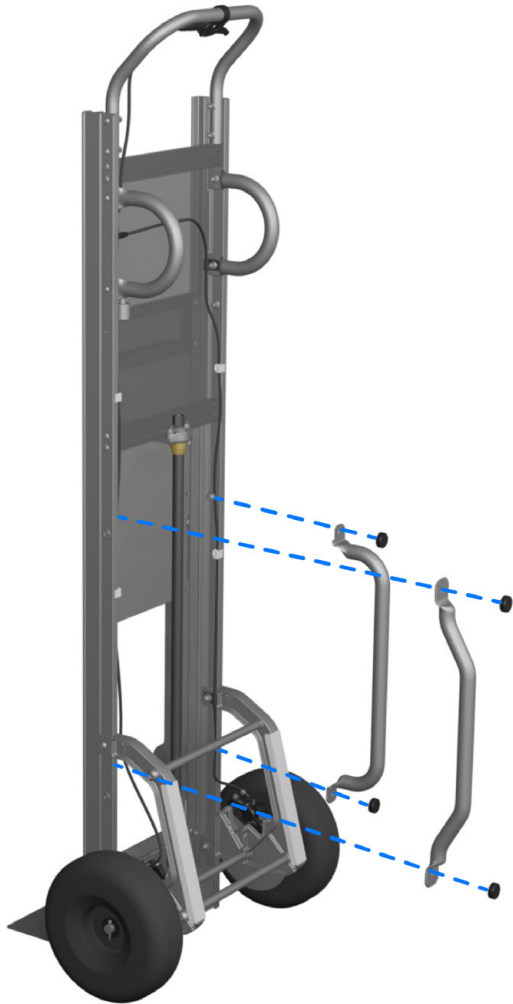
### Secure Powerwall to the Dolly

1. Unscrew and remove the lift handles from the dolly.





## USING DOLLY WITH POWERWALL 3



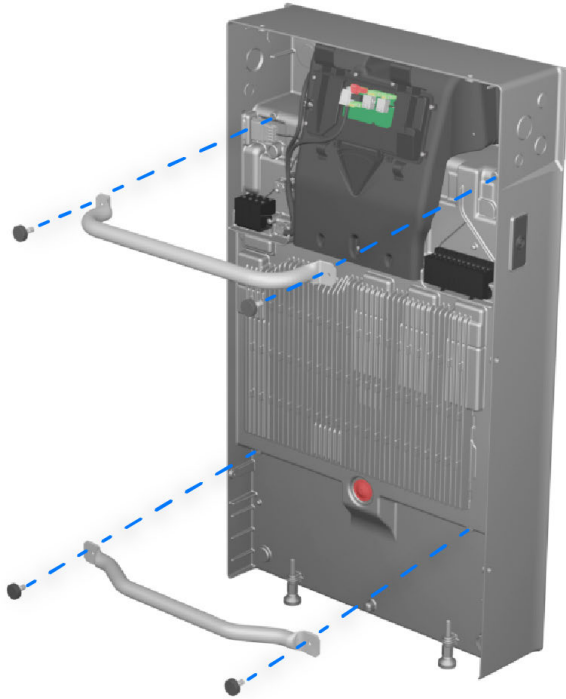
2. Attach the lift handles to Powerwall with the included fasteners, tightening the fasteners until hand tight.
  - a. Attach the **larger rounded handle** to the *top* of Powerwall.
  - b. Attach the **smaller angled handle** to the *bottom* of Powerwall.



**CAUTION:** Do not use a wrench or other tools to tighten the fasteners. Only hand tighten the fasteners.



## USING DOLLY WITH POWERWALL 3



**WARNING:** Confirm the fasteners are fully threaded and the lift handles are secured to Powerwall before proceeding.

3. Engage the dolly on Powerwall while the unit is still in the box:
  - a. Insert the lifting plate between the bottom of Powerwall and the bottom of the packaging.

Figure 1. Lifting Plate in Gap Below Powerwall



- b. Raise and then release the lifting attachment to allow the locking plate to engage the lift handles on Powerwall.



## USING DOLLY WITH POWERWALL 3

Figure 2. Locking Plate Being Raised to Engage Lift Handles

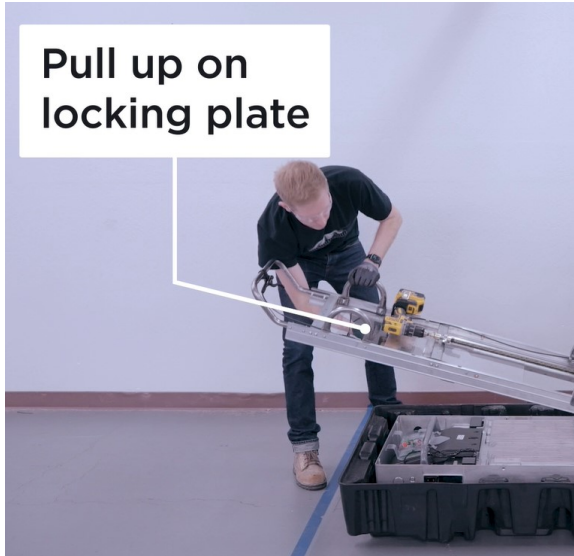
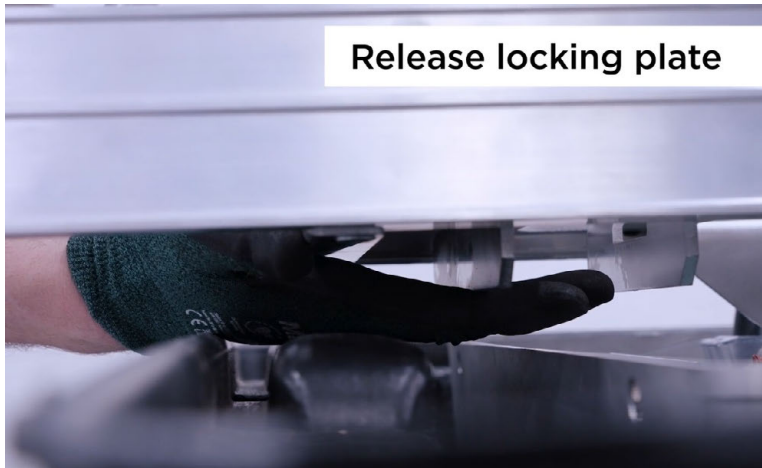


Figure 3. Locking Plate Being Released to Engage Lift Handles



- c. Verify that both sets of lift handles are locked into the dolly.

Figure 4. Lift Handles Securely Locked to the Locking Plate on Top and Bottom



- d. With a partner, stand the unit:



**WARNING:** Always work with a partner to stand the unit up. Failure to do so could result in serious injury.

- i. Place a foot behind Powerwall to assist in tilting the unit upward.



## USING DOLLY WITH POWERWALL 3

- ii. Engage the brake before the wheels contact the ground to keep the dolly from rolling.

Figure 5. Tilting the Dolly and Powerwall Up with the Brake Engaged



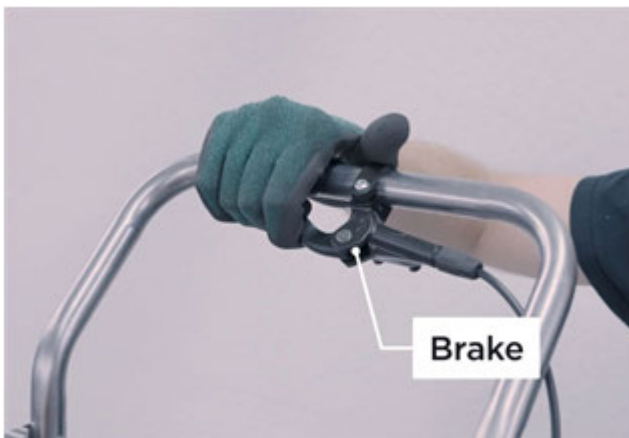
4. Once the dolly and Powerwall are stood up, remove the packaging from Powerwall.

### Transport Powerwall

Before tilting back the dolly, squeeze the hand brake. Use the brake to control the dolly when Powerwall is raised, or when the dolly is moving.



**WARNING:** Always have one hand ready to operate the brake during Powerwall transport.





## USING DOLLY WITH POWERWALL 3



### Mount Powerwall



**WARNING:** Never release the brake lever while mounting Powerwall. If adjustments are needed during mounting, be sure-footed and keep both hands on the dolly, with one hand on the brakes at all times.

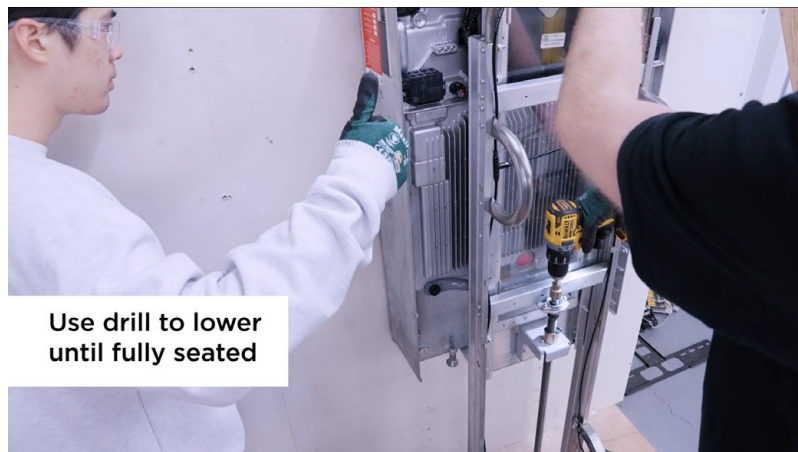
1. Position Powerwall and align with the wall bracket.
2. Hold the hand brake when lifting or adjusting Powerwall.
3. Tilt the dolly back and drill forward to raise Powerwall until the mounting cleats are positioned above the flanges on the bracket.



## USING DOLLY WITH POWERWALL 3



4. Confirm Powerwall is aligned with the bracket.
5. Tilt the dolly forward and drill in reverse to lower Powerwall until the mounting cleats engage the bracket flanges.



6. Once Powerwall is seated on the bracket, remove the lift handles and pull up on the locking plate to disengage it from the unit.
7. Reattach the lift handles to the dolly and drill in reverse until the lifting plate is fully lowered.



## USING DOLLY WITH POWERWALL 2




Refer to the online version of the [Powerwall Dolly User Manual](#) for a video with instructions on mounting Powerwall 2 using the Powerwall dolly.

### Preparing to Use Dolly

Before operating the dolly or handling Powerwall, wear all required PPE (personal protective equipment):

- Safety glasses
- Gloves
- Protective footwear

 **WARNING:** Do not use the dolly to transport or mount Powerwall without PPE, especially protective footwear. Failure to do so could result in serious injury.

### Secure Powerwall to the Dolly

1. Place the protector sleeve on the ratchet strap, with the ratchet positioned in the center of the protector sleeve.




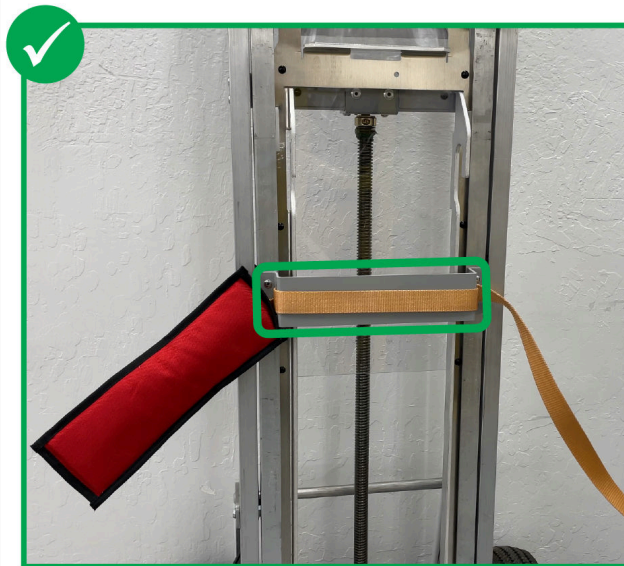
## USING DOLLY WITH POWERWALL 2

Figure 6. Ratchet Strap in Protector Sleeve



2. Install the ratchet strap on the dolly:
  - a. Run the ratchet strap through the dedicated slots on the dolly.
  - b. Wrap the ratchet strap around the support and run it through the slots a second time.

 **NOTE:** It is critical that the ratchet strap be run through the slots twice to ensure Powerwall is secured and will not shift side-to-side during transport.

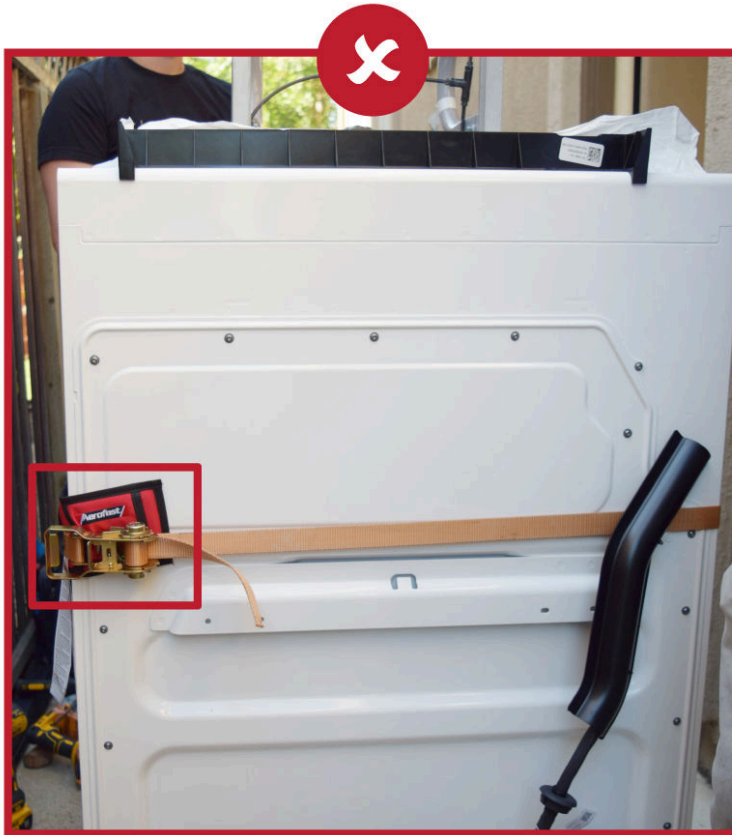


3. Position the dolly in front of Powerwall, sliding the base plate underneath Powerwall.
4. Wrap the end of the strap around Powerwall and insert it in the ratchet:
  - a. Ensure the strap is positioned above the upper bracket cleat.
  - b. Ensure the protector sleeve wraps around the corner of Powerwall and the ratchet itself is positioned on the front of Powerwall (not the side or corner).





# USING DOLLY WITH POWERWALL 2



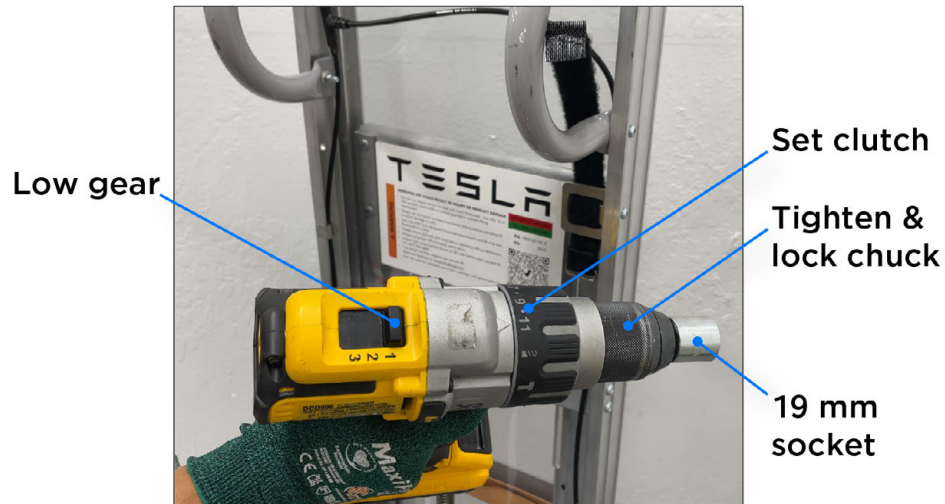
5. Tighten the ratchet strap.



## USING DOLLY WITH POWERWALL 2

### Prepare the Drill

1. Install the 19 mm socket.
2. Tighten the drill chuck.
3. Lock the drill chuck (turn it clockwise until it clicks once).
4. Set the clutch one level below the maximum setting.
5. Set the drill to low gear.



6. Mount the drill to the lifting screw.
7. Secure the drill with the included drill strap.



**WARNING:** Not strapping the drill may result in injury.

8. Drill forward to raise the base plate.
9. Drill in reverse to lower the base plate.



## USING DOLLY WITH POWERWALL 2

### Transport Powerwall

Before tilting back the dolly, squeeze the hand brake. Use the brake to control the dolly when Powerwall is raised, or when the dolly is moving.



**WARNING:** Always have one hand ready to operate the brake during Powerwall transport.



Hand  
brake

### Mount Powerwall



**WARNING:** Never release the brake lever while mounting Powerwall. If adjustments are needed during mounting, be sure-footed and keep both hands on the dolly, with one hand on the brakes at all times.

1. Position Powerwall and align with the wall bracket.
2. Hold the hand brake when lifting or adjusting Powerwall.
3. Tilt the dolly back and drill forward to raise Powerwall until the mounting cleats are positioned above the flanges on the bracket.



## USING DOLLY WITH POWERWALL 2



4. Confirm Powerwall is aligned with the bracket.
5. Tilt the dolly forward and drill in reverse to lower Powerwall until the mounting cleats engage the bracket flanges.






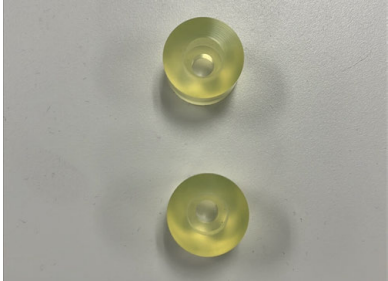
## USING DOLLY WITH POWERWALL 2



6. Ensure Powerwall is properly seated on the bracket. Use visual checks and confirmations to confirm alignment.
7. Remove the ratchet strap and drill in reverse until Powerwall is fully secured.




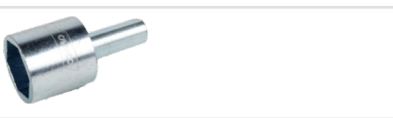






## SERVICEABLE PARTS

Tesla Part Number	Description	Vendor Link to Order	Notes	Image
1856187-00-x	Powerwall dolly	-	Top level part number for dolly	
1991156-00-A	Ratchet strap (Powerwall 2 Only)	<a href="#">McMaster 8842T895</a>	Used to retain Powerwall 2 - should always be paired with 1991187-00-A	
1991187-00-A	Strap protector (Powerwall 2 Only)	<a href="#">Aerofast AM PS30</a>	Used to cushion ratchet strap - should always be used with 1991156-00-A	
1985402-00-A	Yellow top bumper(s) (Powerwall 2 Only)	<a href="#">Misumi U-AZFH-D1-V0.3-H0.25-G0.5-L0.69-N</a>	-	




# SERVICEABLE PARTS

Tesla Part Number	Description	Vendor Link to Order	Notes	Image
1983545-00-A	Black bottom bumper ( <i>Powerwall 2 Only</i> )	-	-	
1900175-00-A	Powerwall dolly top handle ( <i>Powerwall 3 Only</i> )	-	Included in top level assembly	
1900176-00-A	Powerwall dolly bottom handle ( <i>Powerwall 3 Only</i> )	-	Included in top level assembly	
1985406-00-A	19 mm hex socket	<a href="#">Camco 57363</a>	Recommended nutdriver to operate tool	
1985386-00-A	Drill strap to secure drill to dolly	<a href="#">McMaster 3955T271</a>	-	
2032027-00-A	4.10/3.50-4 tire inner tube	<a href="#">Grainger 1NWX4</a>	Tube should be replaced in event of a flat tire	
2064129-00-A	Magnalube G	<a href="#">McMaster 1243K31</a>	Recommended lifting screw grease	
1985769-00-A	160 mm brake disc rotor	<a href="#">Shimano SM-RT56</a>	Brake rotor can be replaced if rotor is bent or damaged	



# SERVICEABLE PARTS

Tesla Part Number	Description	Vendor Link to Order	Notes	Image
1880769-00-A	Powerwall Dolly stair wear strip	-	-	





## MAINTENANCE

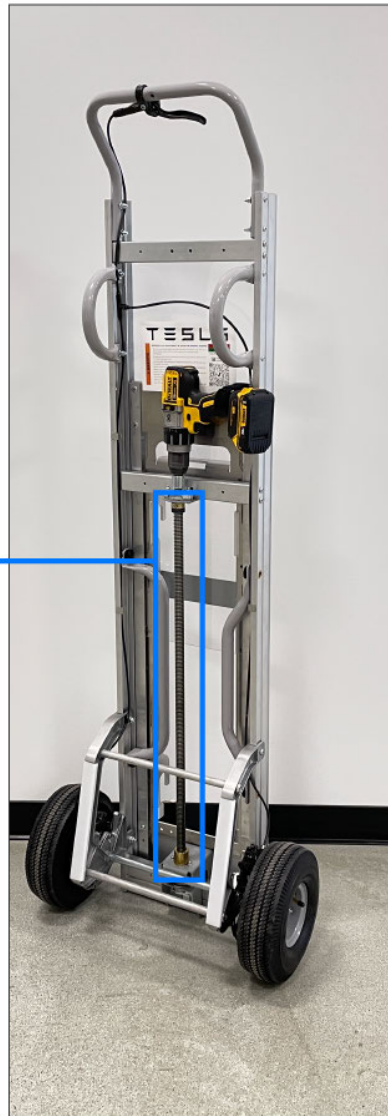
### 1. Inspect the lifting screw:

- a. Apply grease to the lifting screw if needed (should be done annually or for every 250 Powerwalls installed, whichever comes first). To apply grease, use a small amount along the entire threaded surface of the screw, and cycle the carriage up and down a few times.



**NOTE:** The recommended lifting screw grease is the McMaster 1243K31 Magnalube G as outlined in [Serviceable Parts on page 21](#).

Apply grease  
here



- b. Confirm the lifting screw is not bent.
- c. Confirm that only the Camco 19 mm hex socket is being used to run the lifting screw.



**NOTE:** The recommended hex socket is the Camco 57363 19 mm hex socket as outlined in [Serviceable Parts on page 21](#).



## MAINTENANCE

2. Inspect the dolly tires:
  - a. Fill the tires if needed (recommended pressure is 45 psi).



- a. Confirm the tires are free of debris and significant wear.



## REVISION HISTORY

Revision	Date	Description
1.1	2024-08-14	<ul style="list-style-type: none"><li>• Updated <a href="#">Serviceable Parts on page 21</a> with latest links to order service parts</li><li>• Updated to include instructions for using Powerwall dolly with Powerwall 3</li></ul>
1.0	2024-05-21	Initial publication