

# GRABO

PATENTED

THE WORLD'S  
FIRST PORTABLE  
ELECTRIC VACUUM



**Nemo**  
POWER TOOLS

NG-14.8-2Li

Distributed by

**Eddy Floor Tools**

## Functional Description and Specifications

### Intended Use

Grabo Plus is a fully portable battery-powered vacuum lifter, intended to lift, move, and place everything from tiles and drywall to furniture and large appliances.

Grabo Plus features an inbuilt pressure sensor with an automatic start/stop pump. When the vacuum in the base of the suction cup reaches -65 kPa, the tool will automatically stop the pump after a 5-second delay. When the vacuum level drops below -65 kPa, it will automatically restart the pump, thereby achieving the required pressure when in use.

Grabo Plus features up to 170 kg (375 lbs) of grabbing force, and can secure to almost any surface, enabling you to handle unwieldy loads quicker and more safely than ever before, all while minimizing the risk of damage to expensive materials.

### Packing List

Your Grabo Plus is packaged together with the following accessories:

- Battery pack
- Battery charger
- Replacement rubber foam seal
- Carry bag
- Filter

## Technical Specifications

### Grabo Plus

Battery voltage	14.8V Li-ion
Battery cell specification	2.6Ah
Rated power	16W
Dimensions	297 x 181 x 115mm (11.7 x 7.1 x 4.5 inches)
Net weight (with battery)	1.5kg (3.3lbs)
Working temperature	0°C - 60°C (30°F - 140°F)
Working time (full charge)	1.5 hours

### Max Lifting Force

	<b>Perpendicular Hold</b>	<b>Parallel Hold</b>
<b>Glass</b>	170kgf / 375lbsf	120kgf / 265lbsf
<b>Metal</b>	110kgf / 242lbsf	110kgf / 242lbsf
<b>Plastic</b>	100kgf / 220lbsf	100kgf / 220lbsf
<b>Wood</b>	100kgf / 220lbsf	65kgf / 143lbsf
<b>Ceramic Tile</b>	170kgf / 375lbsf	120kgf / 265lbsf
<b>Rough Concrete</b>	80kgf / 176lbsf	80kgf / 176lbsf
<b>Dry Wall</b>	75kgf / 165lbsf	65kgf / 143lbsf
<b>Rough Slate</b>	80kgf / 176lbsf	80kgf / 176lbsf

### **Pressure to perpendicular lifting force conversion**

For a more accurate estimation, check the pressure gauge on your Grabo Plus and use the table below to convert pressure values to max lifting force values. (Parallel holding force values can be calculated using the P/P ratio provided above for different materials.)

Pressure (bar)	Max perpendicular holding force
-0.8	170kgf / 374 lbf
-0.6	128kgf / 281 lbf
-0.4	85kgf / 187 lbf
-0.2	43kgf / 94 lbf
-0.1	21kgf / 46 lbf

### **Battery Charger**

Model	XVE-1680150
Charging output voltage	DC16.8V 1.5A
Charging input voltage	100V-240VAC 50/60Hz 1.5A max

## Safety Warnings



**Warning:** Read all safety warnings and instructions, and save them for future reference. Failure to adhere to these warnings can result in serious injury and damage to equipment.

### Grabo Plus Safety

- ◆ The grabo plus is not designed or intended for climbing or securing people in any way. Using this product for climbing or any other unintended purpose may result in injury or death.
- ◆ If the grabo plus sealing force begins to noticeably decrease while the battery is fully charged, check the rubber foam seal for wear and tear or damage. Do not attempt to lift anything with the grabo plus until you have replaced the seal.

### Rechargeable Battery Safety

- ◆ Use only the battery packs supplied with your power tool.
- ◆ When the batteries are not in use, keep them away from other metal objects like paper clips, coins, keys, nails, and screws, which can make a connection from one terminal to another.
- ◆ Store the batteries within a temperature range of 0°C - 45°C (32°F - 113°F).
- ◆ Do not open the batteries.
- ◆ Protect the batteries against heat, including continuous sun irradiation and fire.
- ◆ When a battery is defective, liquid can escape and come into contact with adjacent components.
- ◆ The battery charger is not waterproof.
- ◆ Before use, always check the battery charger, cable, and plug. If you detect defects, do not use the battery charger. Never open the battery charger. Instead, have it opened and repaired only by qualified personnel who will use original spare parts.



**Warning:** Keep away from flammable objects while charging.

## Getting Started with the Grabo Plus

Your Grabo Plus includes the following main components:



## Connecting a Strap to the Grabo Plus

1. Locate the four holes around the handle of the grabo plus. You can connect the strap to any two of these holes.
2. Secure each of the clips at the ends of the strap into a hole.



### **Replacing the Rubber Foam Seal**

1. Remove the rubber foam seal that has become worn or damaged by pulling it out of the grabo plus.
2. Gently press the new rubber foam seal into position, ensuring that it fits snugly and securely.



### **Replacing the filter**

1. Turn the Grabo plus upside down to reveal its suction pad.



2. Using the tip of a screwdriver remove the rubber plug and the filter (located underneath the motor).



3. Replace the filter and push the rubber plug to secure the filter.





## Changing the Battery

- ◆ To remove the battery pack from the grabo plus, slide it forward, away from the body of the grabo plus to release it, and then lift it up and out of the battery compartment.
- ◆ To replace the battery pack in the grabo plus, insert it into the battery compartment, then slide it back, toward the body of the grabo plus, to lock it into position.

## Charging the Battery

The batteries are supplied partially charged, and must be charged to full capacity before using the grabo plus for the first time. When the batteries are fully charged, which takes approximately two hours from empty, the grabo plus motor can run for up to 1.5 hours.



**Caution:** Only use a battery charger designed for the batteries supplied with your grabo.



**Danger:** Ensure that the power supply voltage corresponds with the data on the nameplate of the battery charger.



**Danger:** Only use the charger in a dry environment. The charger is not waterproof.



**Danger:** Keep away from flammable objects.

The batteries can be charged at any time without reducing their service life. The battery charger detects the charging condition of the batteries, and charges them with the optimum current. Interrupting the charging procedure does not damage the batteries.

1. Connect the mains plug of the battery charger to an electrical outlet.
2. Connect the charger to the battery.

The battery begins charging as soon as it is connected to the charger, and stops charging as soon as it is full.



### Operating the Grabo Plus

1. Slide the power switch to the left, to the ON position, to power on the grabo plus. The power indicator below the power switch lights up to show you the amount of charge you have available. The power indicator will flash if the battery is low and needs to be charged before the grabo plus can be used.



**Caution:** Using the grabo while the battery is low may result in injury and damage to the materials being lifted.

2. Position the grabo plus flush against the surface of the item you want to lift.
3. Press the green button to turn on the motor and create a seal to the surface of the item you want to lift. The seal is created within a second.
4. When the sensor detects that pressure is being lost, the start/stop pump will automatically turn on to create the required pressure. The pump will automatically turn off when the required pressure is reached.

5. When you are done, press the red button to break the seal and release the item.

## Troubleshooting

If you have any questions about operating or troubleshooting the grabo plus, visit the FAQ and troubleshooting sections at [www.GRABO.com](http://www.GRABO.com)

## Maintenance

### Servicing the Grabo Plus

If your grabo plus is damaged or faulty, have it repaired by an authorized service technician.



**Caution:** Under no circumstances should the grabo be opened for repairs or any other purpose by anyone other than an after-sales service technician authorized by Nemo Power Tools. Opening the grabo invalidates the manufacturer warranty.

### Transporting the Grabo Plus

The battery pack has effective protection against internal over-pressure and short-circuiting, as well as devices preventing violent rupture and dangerous reverse current flow.

The lithium-equivalent content in the batteries is below applicable limit values. Therefore, the batteries are not subject to national or international regulations pertaining to dangerous mediums, either as individual components or when inserted into a grabo plus.

However, the regulations governing dangerous goods may be relevant when transporting several batteries. In this case, it might

be necessary to comply with special conditions, such as those governing packaging.

### **Disposing of the Grabo Plus**

At the end of its lifecycle, the grabo plus, its accessories, and packaging should be sorted for environmentally friendly recycling.

Do not dispose of the batteries in household waste, fire, or water. Batteries should be collected, recycled, or disposed of in an environmentally friendly manner.

# **Nemo Power Tools Ltd**

**[www.GRABO.com](http://www.GRABO.com)**



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