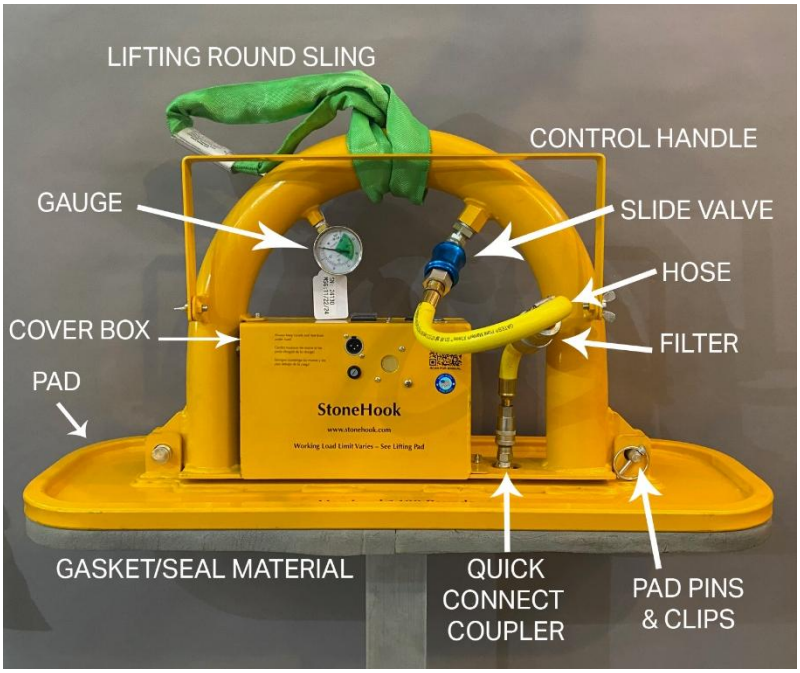
StoneHook Manual

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Thank you for buying a StoneHook vacuum lifter. With periodic maintenance it will provide many years of time saving service.

The StoneHook is excellent for lifting all natural stone and wet cast steps and pavers. It is not suited to lift dry cast pavers.

1. SAFETY

Safety is the most important consideration when using the StoneHook.

Always keep hands and feet from under load!

Always leave unit turned on while lifting!

Before each day's work, look the unit and pad over for cuts in the gasket material, make sure the pins are secured, and that the red and green indicator lights are working.

The battery should be fully charged the night before you use the StoneHook. If the battery is 100% dead – which is uncommon - it will take 6 hours for a complete charge. In normal use, charging to full takes around an hour after a day's work. The charger that comes with your StoneHook is "smart" - there is no risk of overcharging.

It is good to leave the charger on if you won't be using the lifter for extended periods, that will save the battery from aging.

Always leave the power turned ON while lifting. If the buzzer or red light comes on while lifting, immediately lower the load to the ground.

Never lift anything above a person and try to keep the load near to the ground if possible; that reduces bounce radius if something drops.

Always wear steel toe boots, a hard hat, and safety glasses on the job site.

Never connect one round sling to another by choking. Use a load rated shackle instead. When choked around something as small as a round sling, the other round sling's breaking point drops hugely. When the cover of the round sling has worn through to the point that you can see white fibers, it is time to replace it. We offer a variety of round slings at affordable prices.

Connecting a sling to your excavator or crane or whatever is best done with a hook suited to the purpose. Connecting to a bucket tooth is less secure.

2. USING YOUR STONEHOOK

2.1 Equipment Check

Check that all parts are intact and that the gasket is flexible and has no gaps. Connect the unit to the pad with two pins and connect the yellow hose to the pad, making sure coupler is fully engaged.

2.2 Weights of Stone

Before you lift, determine that the weight of what you are lifting is OK for the pad you have installed.

SWEEP OFF SURFACES BEFORE LIFTING. The vacuum pump will wear out very fast if lots of dust or moisture gets sucked through the unit. It is okay to lift wet surfaces but sweep away excess water to prevent wear of the vacuum pump.

Thickness of Natural Stone	Approximate Weight – Per Square Foot
2”	28 lbs/sq ft
3”	42 lbs/sq ft
4”	55 lbs/sq ft
5”	69 lbs/sq ft
6”	83 lbs/sq ft
7”	96 lbs/sq ft
8”	110 lbs/sq ft
10”	138 lbs/sq ft
12”	165 lbs/sq ft

2.3 Lifting with the StoneHook

Choke a round sling rated for lifting the material + StoneHook around the top of the upside down "U". Fasten the round sling to your excavator, crane, or other machine, preferably with a hook.

Slide the blue valve at the top of the yellow hose all the way up.

Turn the unit on by lifting the switch cover and depressing the switch button. The button will glow indicating power is on. Close the switch cover - this keeps dirt out and prevents accidental powering off.

Using your excavator or crane, etc. lift the StoneHook on to the slab or step you want to lift and center it in the middle.

Engage the vacuum by sliding the blue valve all the way down. The red light and buzzer will go on, indicating not safe to lift. After a few seconds, the buzzer and red light will turn off and the green light will go on - safe to lift. The vacuum gauge will be in the green also, further indicating safe to lift.

Lift the slab step slowly and without jerky movements and lower it in place.

Slide the blue valve all the way up. The vacuum lifter will disengage from the surface. Proceed to the next slab or step, and repeat the above steps, always keeping feet and hands from under the stone.

If the pump runs constantly, most of the time it is worn out from sucking up dust, dirt, and bits of rock. This can happen in as little as a few months if customers do not sweep surfaces before they lift. Constant Running can also be caused by the vacuum sensor being out of adjustment. See: TROUBLESHOOTING

3. CHARGING AND STORAGE

3.1 Battery Care

The StoneHook is powered by a 12V lead acid battery. This is the same type of battery found in motorcycles and similar sized equipment. Give your StoneHook battery the same care and maintenance you would with any other 12V battery. Store your StoneHook inside during cold temperatures. Charge the battery fully or keep the unit plugged into the charger when storing your StoneHook for long periods without use. The lifespan for these 12V batteries is up to 3 – 5 years. Replacement batteries can be purchased from StoneHook or your nearest auto parts store.

3.2 How to Use the Charger

The StoneHook charger will charge your unit in 12V Mode. When you plug in your StoneHook for the first time, press the mode button until the red light over the 12V label

illuminates. The light will turn green when the battery is fully charged. The charger goes into maintenance/tender mode when the light turns green.

Make sure the charger is in 12V mode when charging and maintaining your StoneHook.

3.3 Storage

When not using the StoneHook, STORE PADS ON A BLOCK, UPSIDE DOWN, OR PROPPED 90 DEGREES TO PREVENT CRUSHING THE RUBBER SEAL UNDER THE WEIGHT OF THE STONEHOOK. The rubber gasket seal can last multiple years if stored correctly and handled delicately.

4. MAINTENANCE

4.1 Daily checks

Check seals for localized damage & wear. Badly worn & damaged seals should be replaced prior to use. New seals can be inserted into seal profile using insert bar at an angle of 45 deg. Check that alarm system is operating correctly – warning beep should stop after gauge reaches -70 to -80 kPa. If alarm is not working it should be repaired immediately. Check the suspension points for damage.

4.2 Weekly Checks

Check that quick connect couplers and o rings are clean, if necessary clean or replace female coupler. Check legibility of all warning & information labels. Check vacuum reservoir for water - remove gauge and turn upside down. Check yellow hose with filter. Fully charge battery after long periods of use or if not going to use StoneHook for long lengths of time.

4.3 Monthly Maintenance

In between periods of use, fully charge the battery or keep the charger plugged into the StoneHook when the charger is in fully charged/tender mode (solid green light below 12V label). Replace air filter on hose annually, if using the StoneHook regularly. Store pads so there is no weight on the rubber gasket. Set pads on a block or lean them on their sides so gasket does not touch anything.

5. REPLACING GASKET/SEAL

The StoneHook comes with a T shaped yellow tool that is used to replace the rubber gasket/seal in the pads. To replace the gasket material, start by setting a corner of the gasket in the channel of the pad. Hold the material at a 45 degree angle in the channel. Use the T shaped tool to push the other side of the gasket into the channel. See Figure A. Move to the side and press the material into the channel until about half of the height of the strip is in the channel. See Figure B.

Full strips of gasket material are 6 feet long. This means that smaller strips are necessary to complete the larger pads. Cut the filler strips with a sturdy pair of scissors about an inch longer than the gap it needs to fill, so there is some compression in the seam.

Call us at 603-323-2323 for help with gasket replacement. We can send instructional videos as well.

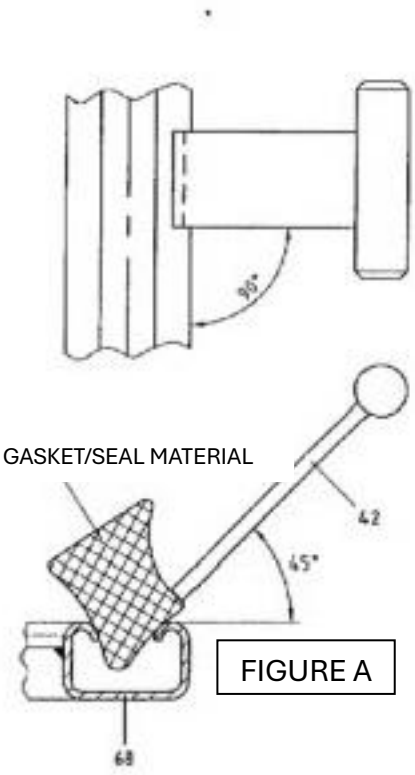


FIGURE A

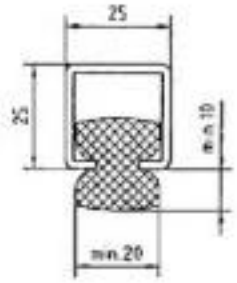


FIGURE B

6. TROUBLESHOOTING

Worn out battery

- If there are signs the battery is low or worn out: Charge to 100%. If problem persists, test the battery with a multimeter. If the voltage reads less than 12V, the battery should be replaced. The lifespan for these 12V batteries is up to 3 – 5 years. Replacement batteries can be purchased from StoneHook or your nearest auto parts store.

Power doesn't come on

- Blown fuse. Check fuse, if blown: replace with 6 Amp slow blow 3AG fuse.
- Dead battery. Charge battery; replace battery with a new one. See: Worn out battery
- Loose connection inside the unit. Take the unit off the pad, and remove the screw underneath the unit and on top of the case, slide the case to the right, and look for a loose wire.

Pump runs constantly

- Check to make sure quick connect coupler is secure.
- Adjust pump sensor: Remove cover box by taking out screws with allen wrench. The sensor is the hexagonal piece on the side of the yellow chassis. The screw that adjusts the sensor is in between the red and orange wires coming out of the sensor. Use a small screw driver to adjust the sensor. Turn on the StoneHook and slide the blue slide valve up towards the top of the unit. While the StoneHook pump is running, very slowly tighten the adjuster screw until pump stops running. When the pump stops running, tighten the screw an additional 1/8 turn. Make sure that the buzzer is not sounding and the green light is illuminated. If the buzzer sounds or the red light is on, the pump does not have the power to lift.
  Test the unit by pulling the slide valve down as if you were engaging the StoneHook to lift. The StoneHook should run until it reaches a point where the pumps stops constantly running. It may intermittently run for short spurts to maintain vacuum pressure, this is normal.
  IF THE BUZZER SOUNDS AND DOES NOT SHUT OFF, THE RED LIGHT STAYS ON, OR THE GREEN LIGHT DOESN'T COME ON, THE PUMP DOES NOT HAVE THE POWER TO LIFT. See: Worn out pump
- Air leak: Contact us at 603-323-2323. Hours are 8 AM to 5:30 PM EST Monday-Friday, 8 AM to 12 PM EST Saturday.

Pump has noticeably decreased power & sounds different than normal

- See: Worn out battery
- See: Worn out pump
- Often the pump can be worn out from sucking up dust, dirt, and bits of rock. This can happen in as little as a few months if users do not sweep surfaces before they lift. Call us at 603-323-2323 for replacement parts or repair information.

Worn out Pump

- Often the pump can be worn out from sucking up dust, dirt, and bits of rock. This can happen in as little as a few months if users do not sweep surfaces before they lift. Call us at 603-323-2323 for replacement parts or repair information.

Charger not working

- Press the mode button until red light illuminates under the 12V label. When red light turns green, the unit is fully charged.
- If charger is plugged into StoneHook and the green light under the 12V label (or other label) is flashing, the fuse may be blown in the StoneHook. See: Fuse is Blown
- Battery issue. See: Worn out battery

Fuse is Blown

- Replace with 6 Amp slow blow 3AG fuse. If fuse keeps blowing:
- Loose wires/damaged wiring harness. Check for loose wiring in the cover box.
- Pump Seized. Debris in pump bearing can cause seized pump. Contact your nearest dealer or call us at 603-323-2323 for pump repair options.

StoneHook is not making a seal strong enough to lift

- Gasket/seal may be worn out. If the material is squished into channel of pad, so that less than ½" of gasket is revealed, consider replacing the gasket. An alternative fix is to pull out the gasket, inspect it for damage, and install it so that the gasket that was in the channel is now outside the channel. This can temporarily prolong the life of a gasket. See: 5. REPLACING GASKET MATERIAL. See: Worn out pump

Gasket won't engage with uneven stone surface

- Step on the pad to squeeze the gasket material to make full contact
- See: Worn out battery
- See: Worn out pump
- See: StoneHook is not making a seal strong enough to lift

Call us 603-323-2323 8AM - 5:30 PM M-F and 8AM - Noon Saturdays Eastern time.