

# The **Bøttom Feeder**

*“It sucks to clean pools!”<sup>®</sup>*



**OWNER'S MANUAL**

**US PATENT # 9828785, 9963896**

▲ Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

# *The* **Bottom Feeder**

*“It sucks to clean pools!”®*

## **OWNER’S MANUAL**

**⚠ CAUTION** READ MANUAL in its entirety before use. Take proper precautions when handling Lithium-ion (Li-ion) batteries, as they are different than NiMH or NiCd batteries! Failure to follow these instructions can result in severe or permanent damage to battery, cause serious personal injury, or lead to fire.

### **SAFETY GUIDELINES - DEFINITIONS**

It is important for you to read and understand this manual. The information it contains relates to protecting YOUR SAFETY and PREVENTING PROBLEMS. The symbols below are used to help you recognize this information.

**⚠ DANGER** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

**⚠ WARNING** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**⚠ CAUTION** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

**NOTICE** Used without the safety alert symbol indicates potentially hazardous situation which, if not avoided, may result in property damage.

## Safety Guidelines

*Thank you for purchasing The Bottom Feeder with Rechargeable Lithium-ion (Li-ion) Battery Pack. By purchasing this product, the buyer/user agrees that he/she has read and understood the safety precautions printed in this document, that he/she bears full responsibilities of these risks, and does not hold HEF Pool Corp, its distributors, or its retailers responsible for any accidents, injury to persons, or property damage that may occur. Damage from misuse or modifications can cause serious injury.*

**⚠️ WARNING BATTERY PACK CONTAINS LITHIUM-ION BATTERIES WHICH MAY IGNITE AND/OR EXPLODE CAUSING PROPERTY DAMAGE, BODILY INJURY & DEATH. CHARGE & STORE ON NON-FLAMMABLE SURFACE ONLY & AWAY FROM ANY FLAMMABLE SUBSTANCES AND/OR EXCESSIVE HEAT. DO NOT CHARGE UNMONITORED INSIDE A LIVING AREA. HANDLE WITH CARE.**

### **GENERAL SAFETY GUIDELINES**

1. NEVER use a NiCd/NiMH charger to charge Li-ion batteries. Use the charger provided with The Bottom Feeder Lithium-Ion Battery pack only.
2. ALWAYS inspect the battery pack to ensure there are no signs of damage, deformity, or swelling before and after charging. If there are, do not continue charging the battery, and follow the proper procedures to dispose of the battery.
3. ALWAYS charge batteries in a fireproof container and away from combustible material. Do not charge on surfaces that can catch fire – this includes: wood, cloth, carpet, paper, plastic, upholstery.
4. NEVER charge batteries unattended, especially in a living space. Always remain in constant observation of the charging process & react to potential problems that may occur.
5. NEVER charge a deformed, swollen or ballooned battery. Continuing to charge a battery that has begun to swell will result in a fire.

### **⚠️ IF THE BATTERY IS DEFORMED OR SWOLLEN WHILE CHARGING, FOLLOW THESE STEPS:**

- a. **STOP the charging process by unplugging the charger, and disconnect the battery from it immediately.**
- b. **Disconnect battery from the charging device immediately.**
- c. **Place it in an open non-flammable area.**
- d. **Watch it for approx. 30 minutes from a safe distance.**
- e. **Follow proper procedure to dispose of battery.**
6. NEVER allow the battery's positive and negative leads to touch. This can cause the batteries to short and lead to fire!
7. Store Li-ion batteries in a cool, dry place between 40-80° F.
8. NEVER store Li-ion batteries in any locations that can exceed these temperatures such as a vehicle, garage, or in the sun.
9. Keep your batteries out of reach of children and pets.

## Safety Guidelines

### **AVOID OVER-DISCHARGING LI-ION BATTERIES**

Over-discharging a Li-ion Battery, or continuing to use the battery even after it is fully depleted (e.g. when it is below its minimum voltage level), can cause permanent damage to your battery. Disconnect battery pack from bottom feeder immediately after propeller rotation noticeably slows down.

- ⚠ While you're not able to visibly detect the internal damage to the battery, it can eventually cause a fire when attempting to re-charge at a later time.

### **CHARGING BATTERIES**

#### **⚠ CAUTION Before Charging**

1. Visually inspect your Li-ion battery for any damaged leads, connectors, casing, swelling or other irregularities.
2. If you find any of the above issues with your pack, stop using it at once.

#### **⚠ WARNING Charging Li-Ion Batteries**

1. NEVER leave batteries charging unattended. Always remain in constant observation of the charging process and react to potential problems that may occur.
2. Only charge batteries in a fireproof location in a fireproof container. Never charge on wooden surfaces, cloth, carpet, or materials that can catch fire.
3. Allow the battery to cool down to ambient temperature before charging.
4. Charge each battery pack individually.
5. Use only the charger provided with your battery pack for The Bottom Feeder.

### **BATTERY MAINTENANCE & HANDLING**

#### **Operating Temperatures**

- Charge: 32 to 113°F
- Discharge: 32 to 140°F
- Let battery cool down to ambient temperature before charging.
- During discharge and handling of batteries, do not exceed 160°F.

#### **Storage & Transportation**

- ⚠ Never store batteries near an open flame or heater.
- ⚠ Store battery at room temperature between 40 and 80°F for best results.
- ⚠ Do not expose battery pack to direct sunlight (heat) for extended periods of time
- ⚠ When transporting or temporarily storing in a vehicle, temperature range should be greater than 20°F but no more than 150°F.
- ⚠ Storing battery at temperature greater than 150°F for extended periods of time (more than 2 hours) may cause damage to battery and possible fire.
- ⚠ For long term storage, do not store them fully charged; it is recommended to fully charge and then discharge it to 50-60% of their capacity.

## Safety Guidelines

### **BATTERY LIFE & DISPOSAL OF LI-ION BATTERIES**

Rechargeable Li-ion batteries do not last indefinitely. ***Batteries that have lost 20% of their initial capacity should be removed from service and disposed of properly. This will be at around 500 charge cycles for The Bottom Feeder 2.5 Hr. Battery pack.***

⚠ If at any time you detect any physical damage to a Li-ion battery pack such as swollen or cracked casing, STOP and do not continue discharging or charging the battery.

#### **Proper Disposal of Li-ion Batteries**

Regulations and laws pertaining to the recycling and disposal of Li-ion batteries vary from country to country as well as by state and local governments. You should check the laws and regulations where you live.

There are a number of facilities that recycle Li-ion batteries. The Rechargeable Battery Recycling Corporation's web site, [www.rbrc.org](http://www.rbrc.org), is an excellent source for finding a facility to handle these types of batteries. If you are not sure if your waste facility can handle Li-ion batteries, contact them and verify if they are permitted or not.

Remember that before any type of disposal the batteries should be discharged completely. Tape the contacts with electrical tape and package so as to prevent contacts accidentally coming together at any time.

For disposal, many stores offer free recycling of rechargeable batteries. It is NOT safe to dispose

of these batteries in your regular trash as fire or explosion may occur. As always, check with your local laws to make sure that you are disposing of your Li-Ion battery in a safe way and observing all related regulations correctly. For any additional questions or information call **833-433-7665**.

### **BATTERY SAFETY CHECKLIST**

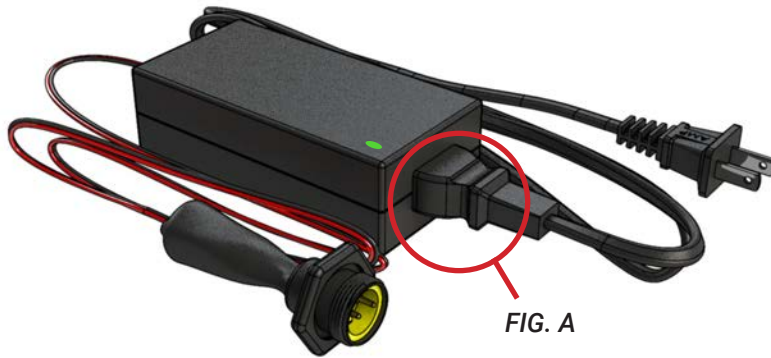
⚠ **WARNING** If The Bottom Feeder stops abruptly and doesn't start again after power has been disconnected and reconnected, monitor battery by feeling along the "tubes" for hotspots and/or deformations such as bumps or blisters. If any hotspots, bumps, or blisters are found, **DO NOT CONNECT TO A CHARGER**. Call The Bottom Feeder Tech Support Line @ 833-433-7665 immediately for further safety instruction.\*

While charging (especially in 1st hour) feel along the "tubes" of the battery for hotspots or deformations such as bumps or blisters. If any are found, then disconnect from charger immediately and contact The Bottom Feeder Tech Support @ 833-433-7665 for further safety instruction.\*

Store and charge batteries only on non-flammable surfaces away from any flammable surface or substance, preferably in a metal fire-proof container.

*\* If hotspots, bumps, or blisters are found, then place battery in a metal fire-proof container or submerge battery pack in a container full of water, outside and away from anything flammable.*

## Charging Instructions



1.

FIG. A. When recharging the lithium-ion battery, make sure the outlet cord is pushed all the way into the transformer box and that the connection is secure. A loose connection will prevent the battery from recharging while illuminating the green LED light, giving a false indication that the battery is fully charged.



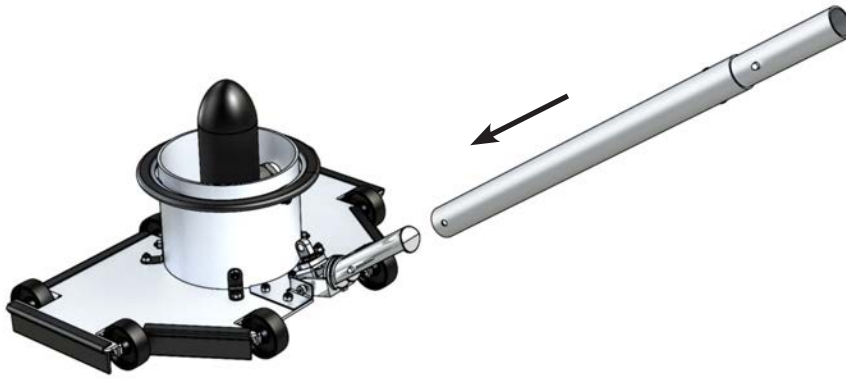
## Fully charge your Battery Pack before the initial operation of The Bottom Feeder

**⚠** Be sure battery pack is placed on non-flammable surface away from any flammable substances. (See Li-Ion **GENERAL SAFETY GUIDELINES** at beginning of this manual for more safety information.)

1. Plug battery charger into outlet. (Indicator light on charger should turn green.)
2. Plug battery cord into charger receptacle. If using Switch Cord, make sure switch is turned to "ON" or "I" position. (Indicator light on charger should turn red if pack is not fully charged to 16.8v.)
3. Allow up to 8 hours charge time on fully depleted battery pack. (Indicator light on charger should turn green when fully charged.)

## Assembly

### Attaching Portability Handle, Pole Extension, and Battery Pack



1.

1. Slide Pole Extension down to attach to base of Swivel Handle until clip pegs click securely into place

2. Slide Battery Pack onto Pole Extension. Lower the battery flap so the twist lock eyelet passes through the notch of the hasp.

3. Turn twist lock eyelet 90° to secure battery to unit.



2.



3.

## Installing Portability Switch Cord, securing to Battery Pack, and connecting to the Motor



1.



2.



3.

1. Attach Portability Switch Cord to battery. Be careful not to screw on threaded coupling too tight as it may damage the connectors. Finger-tight is good enough for a secure connection.

2. Feed other end of Portability Switch Cord through rubber bands (included). Secure Switch between bands to make sure there is enough slack between Switch and Battery.

3. Connect end of Switch Cord to Motor and fasten the threaded coupling until finger-tight

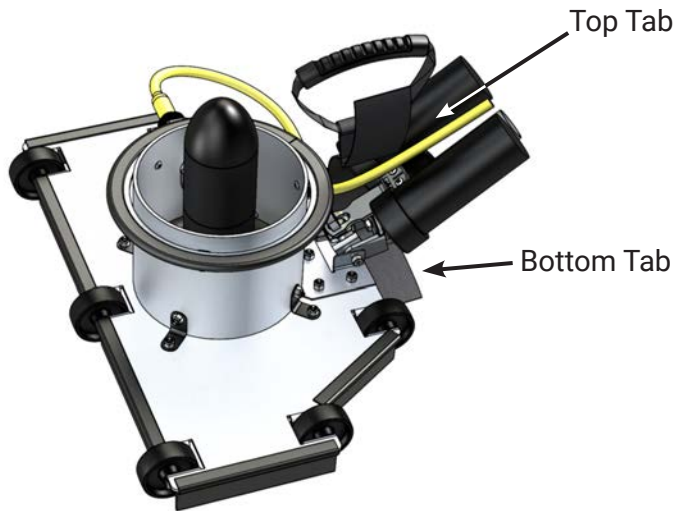
**⚠ CAUTION** Be careful to keep hands, etc. away from propeller, as power switch may be set to "ON" when connecting. When using the regular Battery Cable, the propeller will start spinning at the moment of contact. Always use care. Keep hands and objects clear of propeller.

Do not over tighten or wiggle connector on battery cable or internal damage may occur causing failure.

***Do not run dry more than a minute or Motor will overheat.***



## Assembly



2.



3.

## Installing the Portability Handle

1. Open handle by unfastening top and bottom velcro tabs. Slide under Swivel Handle joint.
2. Fold up bottom tab, then fold over top tab, pressing securely to fasten velcro.
3. Angle to secure tabs between Battery tubes.

## Maintenance

### Propeller/Motor Maintenance and additional Attachments

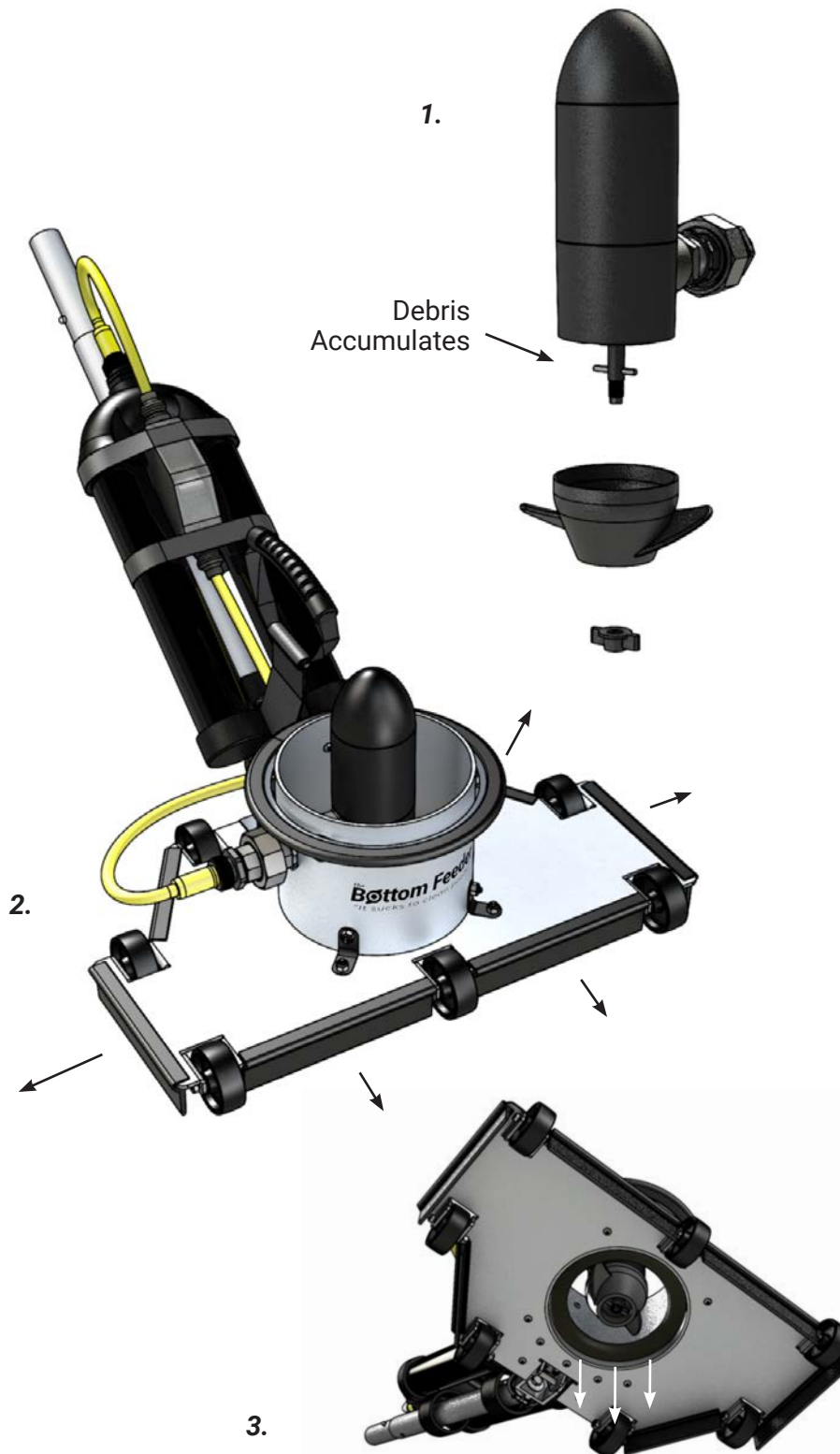
1. Debris can accumulate under the propeller, so it is recommended to check every 1-2 weeks by removing the propeller to inspect. To remove the propeller:

- Loosen and remove plastic retaining Wing Nut
- Pull propeller off shaft and slide shaft pin out. Take care where placing shaft pin while out - it is easy to lose
- When assembling and disassembling, it is recommended to use needle-nose pliers

2. Remember bumper flaps are removable. If you need to pick up more debris from sides, front or back, then just remove appropriate flap. The bumper flap has aluminum ribs, so you can give it a little squeeze before re-mounting for a snug fit

3. The Thruster Ring gives the propeller more thrust. It is simply pressure fit around propeller's travel radius. It is removable. Take it out for pools with bigger debris.

*Heads up: Be sure thruster ring is adjusted around propeller so it does not make contact*



## Product Limited Warranty

One-year warranty from proven date of purchase on head unit and components not including debris bags, charge cables, wheels, and propellers.

6-month prorated warranty coverage for the Portability Switch Cord includes the following: If your switch fails\* in the first 60 days, 100% of the cost is covered for replacement. After that, coverage will decrease each successive month by 20% of the current replacement cost until the expiration of warranty. See table below:

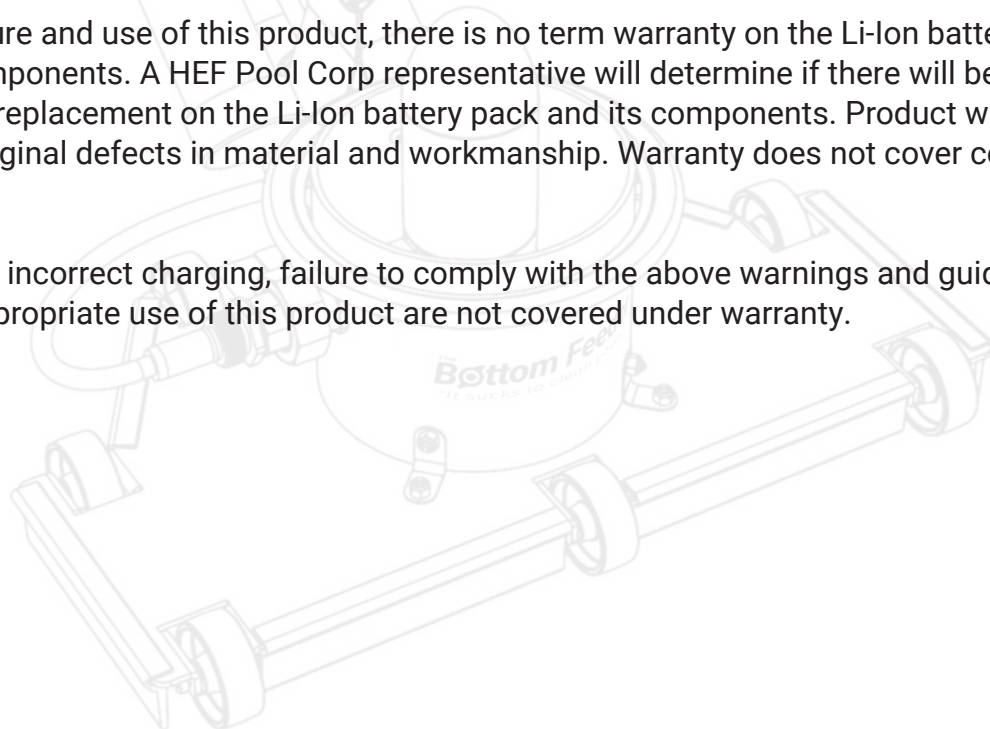
60 – 90 days	80% cost covered
90 – 120 days	60% cost covered
120 – 150 days	40% cost covered
150 – 180 days	20% cost covered

*\* Any User Modifications or Tampering Will Void Warranty*

Purchaser is responsible for any fees incurred for shipping defective product or parts to HEF Pool Corp for inspection and repair. If HEF Pool Corp finds a warranty repair is legitimate and necessary, HEF Pool Corp will pay the shipping to return repaired or replaced item back to the Purchaser.

Due to the nature and use of this product, there is no term warranty on the Li-Ion battery pack or its components. A HEF Pool Corp representative will determine if there will be a warranty repair or replacement on the Li-Ion battery pack and its components. Product warranty is limited to original defects in material and workmanship. Warranty does not cover collateral damage.

Misuse, abuse, incorrect charging, failure to comply with the above warnings and guidelines, and other inappropriate use of this product are not covered under warranty.



## Tips & Troubleshooting

If your problem is not resolved from referring to this section, please call (833) 433-7665 or email at [sales@thebottomfeeder.com](mailto:sales@thebottomfeeder.com)

### PROPELLER STOPS DUE TO LARGE DEBRIS IMPACT

**⚠️ WARNING** ALWAYS DISCONNECT BATTERY BEFORE PUTTING ANYTHING NEAR PROP.)

- Disconnect Battery from head.
- If debris is still wedged in propeller, remove debris.
- If no debris present, go on to next step.
- Plug battery pack back into head unit.
- If prop does not resume spinning, a longer cool down time may be required.
- If prop will not spin after more than 15 minutes, recharge battery fully and try again.

### REMOVING NICKS & DENTS FROM PROPELLER BLADE GEL COAT

(Nicks and dents can affect vacuum suction of head unit.)

- Simply use a 100-150 grit sandpaper or a file to smooth front edge of prop.
- AVOID VACUUMING UP ROCKS OVER ½" DIAMETER.

### SHALLOW WATER VACUUMING

- When vacuuming in less than 5" of water, keeping head in constant motion will allow more water to get to the propeller.
- Make sure to keep end of debris bag from feeding into propeller intake

### BATTERY CHARGING

**⚠️ WARNING** Battery pack contains lithium-ion batteries which may ignite and/or explode, causing property damage, bodily injury & death. Charge & store on non-flammable surface only away from any flammable substances. Do not charge unmonitored inside a living area. Handle with care.

- MAKE SURE OUTLET PLUG IS COMPLETELY AND SECURELY INSERTED INTO THE TRANSFORMER BOX (see "Charging Instructions, FIG. 3")
- Charge battery fully before initial use.
- LED on charger lights up green when charger is plugged in.
- LED on charger lights up red when depleted battery is plugged into charger.
- Charger gets hot while charging. This is normal.
- LED turn from red to green when battery is fully charged, charger then cuts power to battery.
- Up to 10hrs to charge when battery fully drained.
- Battery pack is Li-Ion, so there is no memory effect.
- Charge after any amount of use. Does not need to be fully drained.
- After 500 charges battery pack capacity is at 80% of initial capacity.