

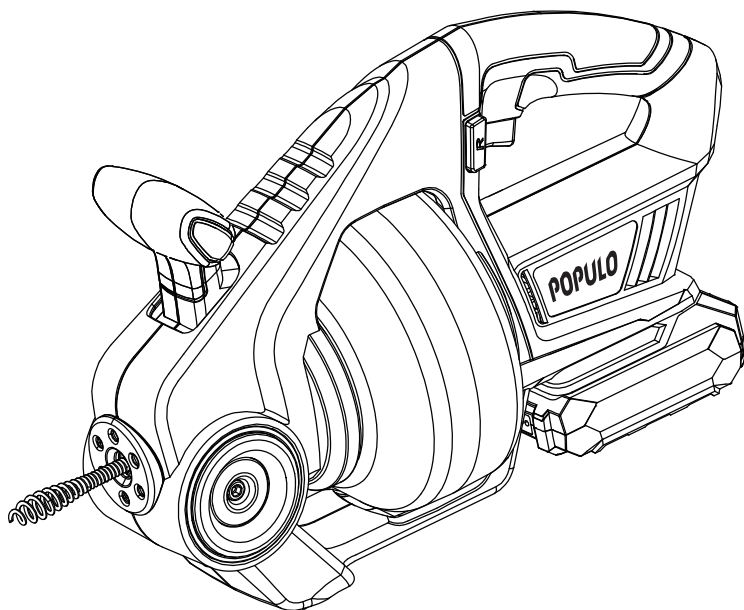
# POPULO

BY THE PEOPLE | FOR THE PEOPLE

## USER MANUAL

### 20V MAX LITHIUM-ION DRAIN AUGER KIT

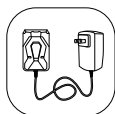
**CDAL-2004**



#### WHAT'S IN THE BOX



Battery Pack



Battery Charger



Tool Bag



Please carefully read this user manual before operating the drain auger.

Made in China

# ELECTRICAL SAFETY WARNINGS



**WARNING! When using mains powered tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock, personal injury and material damage.**

Before operating the unit, carefully read the entire manual and be certain you know how to switch the unit off in case of an emergency. Be sure to save these instructions and any other documents supplied with this unit for future reference.

**Note:** Populo cordless tools are interchangeable for use in the United States and Canada.

**Note:** The power outlet used for the power tools/charger must be protected by a 30mA ground fault circuit interrupter or earth leakage circuit breaker. If the supply cord is damaged, it must be replaced by an electrician or a power tool repairer in order to avoid a hazard.

**Note:** Double insulation does not take the place of normal safety precautions when operating this tool. The insulation system is added to prevent against potential injury should an electrical failure occur within the tool.

# GENERAL POWER TOOL SAFETY WARNINGS



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

Save all warnings and instructions for future reference. The term "power tool" in the warnings refers to your mains operated (corded) power tool or battery operated (cordless) power tool.

## Work area safety

- Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- Do not operate power tools in explosive atmosphere, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- Keep children and bystanders at a safe distance while operating a power tool. Getting distracted while using the tool may lead to injury for the operator or bystanders if not exercising proper safety.

## Electrical safety

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce the risk of electric shock.
- Avoid bodily contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
- If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply with a rated leakage current of 30 mA or less. Use of a GFCI reduces the risk of electric shock.

## Personal safety

- Always be sure to pay close attention to what you are doing when operating a power tool. Do not use a power tool when you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- Use personal protective equipment. Always wear eye protection. Under the appropriate condition, protective equipment such as a dust mask, non-skid safety shoes, hard hat, or hearing protection can reduce personal injuries.
- Prevent unintentional starting. Make sure the switch is in the off-position before picking up or carrying the tool or connecting the unit to a power source/battery pack. Carrying power tools with your finger on the switch or energizing power tools that have the switch on may lead to accidents.
- Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- Do not over reach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair, can get caught in moving parts resulting in serious injury.
- If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.

# GENERAL POWER TOOL SAFETY WARNINGS (CONT.)

## Power tool use and care

- Do not force the power tool. Use the correct power tool for your application. The correct power tool will do a better and safer job when used for its designed purpose.
- Do not use the power tool if the on/off switch is malfunctioning. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. This helps reduce the risk of starting the power tool accidentally.
- Store idle power tools out of the reach of children. Do not allow persons unfamiliar with the power tool to operate it without first reading these instructions. Power tools are dangerous in the hands of untrained users.
- Properly maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- Use the power tool, accessories, and tool bits, etc. by following these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could create a hazardous situation.

## Service

- Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the power tool is properly and safely maintained.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons to prevent any potential hazard.

# DRAIN AUGER SAFETY WARNINGS

This tool should only be used by able-bodied individuals. Younger persons should only use the tool when supervised by a responsible person who can ensure the tool is being used safely. Young children should not be allowed to use the tool - it is not a toy!



**WARNING! Read all safety warnings and instructions listed below. Failure to follow the warnings and instructions may result in serious injury.**

- Always wear safety goggles or eye protection with side shields marked to comply with ANSI Z87.1 when assembling parts, operating the tool, or performing maintenance. Following this rule will reduce the risk of serious personal injury.
- Position the the drain auger within four inches of the drain or inlet being cleared. Operating the tool at greater distances can result in the cable twisting or binding.
- Avoid running the tool in reverse for extended periods of time as this can damage the cable.
- Never place your hand near the drum or the cable as it is rotating. Following this rule will reduce the risk of serious personal injury.
- Clogged drains may contain bacteria, cleaning solutions, or other potentially harmful substances. Always wear protective clothing, eye protection, and gloves while operating this tool to prevent these substances from contacting your skin and eyes.
- When removing the cable from a drain, remove it slowly to avoid "splash back". Use warm, soapy water to clean hands and other body parts that may have been exposed to potentially harmful substances.
- Do not attempt to modify this product or create accessories or attachments not recommended for use with this product. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious personal injury.
- Do not use this product if it is not completely assembled or if any parts appear to be missing or damaged. Use of a product that is not properly and completely assembled or with damaged or missing parts could result in serious personal injury.
- Do not wear loose clothes or gloves, if clothes or gloves are drawn into the rotating parts, will cause injury to fingers, hands, arms or other body parts etc.
- Do not use soft gloves or cloth to hold the rotating cable, which may cause serious injury if twined in the cable.
- The function of this tool is to clean and dredge the pipes. Please follow the instructions in the operation manual. Wrong use can cause injury.
- Save these instructions. Refer to them frequently and use them to instruct others who may use this tool. If you loan someone this tool, loan them these instructions too.

# BATTERY PACK AND CHARGER SAFETY WARNINGS



**WARNING! This manual contains important safety and operating instructions for your battery pack and charger.**

**Before using the charger, read all instructions and cautionary markings on the charger, battery pack and the product using the battery pack.**

- This charger is not intended for any uses other than charging rechargeable batteries. Any other use may result in risk of fire, electric shock or electrocution.
- Since battery tools do not have to be plugged into an electric outlet, they are always in an operational condition. Be aware of possible hazards when not using the battery tool or when changing accessories. Following this rule will reduce the risk of electric shock, fire and serious personal injury.
- Do not place battery tools or batteries near fire or heat. This will reduce the risk of explosion and possibly injury.
- Do not crush, drop or damage battery pack. Do not use a battery pack or charger that has been dropped or has received a sharp blow. A damaged battery is subject to explosion. Properly dispose of a dropped or damaged battery immediately.
- To avoid damage to the electric plug and cord when disconnecting the charger, be sure to pull by the plug and not the cord. Make sure the cord is placed where it will not be stepped on, tripped over, or otherwise subjected to damage or stress.
- To reduce risk of electric shock, unplug the charger from the outlet before attempting any cleaning. Removing the battery pack will not reduce this risk.
- A battery can explode if set near a source of ignition, such as a pilot light. To reduce the risk of serious personal injury, never use any cordless product near an open flame. If a battery explodes, it can propel debris and hazardous chemicals. If exposed to debris or chemicals, use water immediately to flush away particles/residue.
- Do not charge battery tool in a damp or wet location. Do not use, store or charge battery packs or products in locations where the temperature is less than 50°F or more than 100°F.
- Under extreme usage or temperature conditions, battery leakage may occur. If liquid comes in contact with your skin, wash immediately with soap and water. If liquid gets into your eyes, flush them with clean water for at least 10 minutes, then seek immediate medical attention. Following this rule will reduce the risk of serious personal injury.
- Never attempt to open the battery pack or charger for any reason. If the plastic housing of the battery pack or charger breaks or cracks, immediately discontinue use and do not recharge.
- The battery pack is not fully charged out of the carton. First read the safety instructions and then follow the charging notes and procedures.
- Save these instructions. Refer to them frequently and use them to educate others who may use this tool. If you loan this tool to someone, be sure they are familiar with these instructions too.



# KNOW YOUR PRODUCT

## SPECIFICATIONS

Voltage: 20VDC Max

Rated Speed: 0-560/min

Dredging Capability: 3/4"~2"

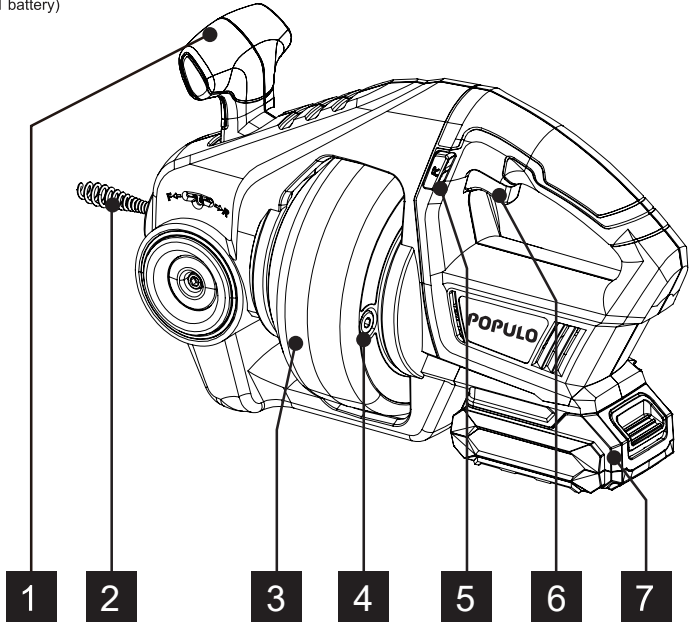
Cable Diameter: 0.275"

Cable Length: 25ft

Battery Pack: 20V Max, 1.5Ah Li-ion

Charger Time: Approx. 60-min.

Weight: 8.2 lbs. (Including 1 battery)



1. Front Operating Handle

2. Cable

3. Drum

4. Rear Drain Port

5. Forward and Reverse Lever

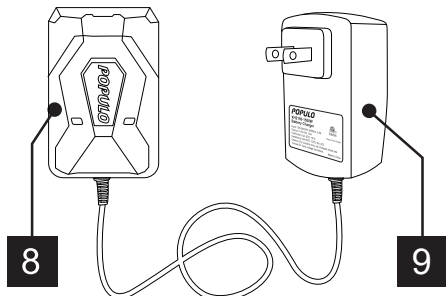
6. Variable Speed Trigger

7. Battery Pack

## Battery Charger

8. Charging Base

9. AC/DC Charging Adaptor



# UNPACK AND SET-UP

## BATTERY PACK AND CHARGING



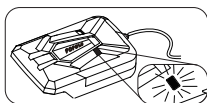
**CAUTION:** The charger for this product should be protected by a leakage current device (rated at 30mA or less).

The purchased battery will be shipped in a low charge condition, and requires charging prior to use. Allow several cycles of charging and discharging (through use of the tool) for the battery to reach its optimum performance/runtime.

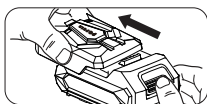
### Charging Your Lithium-ion Battery

1. Connect the AC/DC charging adaptor into a mains power outlet.

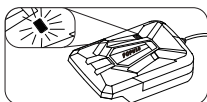
2. The charger LED will illuminate green showing power is being supplied to the charger.



3. With the battery pack sitting on a flat surface, align the raised ribs on the battery with the recesses in the charging base and slide onto the battery ensuring a firm connection.



4. The charger LED will illuminate red signifying that the battery is charging.

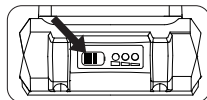


5. When removing the charging base from the battery, first press the battery release button, then slide the charging base from its position.



### Battery Gauge Indicator

The purchased battery is equipped with a battery gauge indicator to show the charged state of the battery. Press the indicator button and look to see which LED illuminate.



Red (illuminated), battery requires immediate charging.



Green (illuminated), low-state of charge, requires charging soon.



Green (illuminated), mid state of charge.



Green (illuminated), fully charged.

Charger LED Indicator (on the charging base)	
LED Indicator	Situation
GREEN	Stand by (no battery pack is inserted)
RED (illuminated)	Battery is charging (low charge)
GREEN (illuminated)	Battery is fully charged
GREEN (illuminated)	Battery or charger fault. (If charging a partially drained battery, the charger LED indicator could not turn from green to red.)

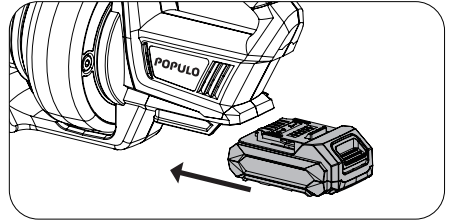
**NOTE:** The battery needs to be removed from the tool to check the state of charge.

# UNPACK AND SET-UP ( CONT.)

## INSTALLING/REMOVING BATTERY PACK

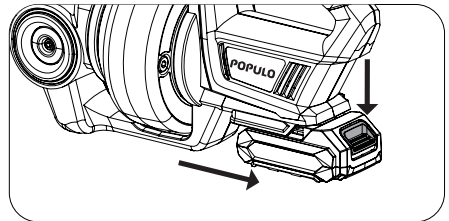
### Installing the Battery Pack

Slide the battery into the drill base until it clicks into place.



### Removing the Battery Pack

1. Hold down the battery pack and release button.
2. Slide the battery pack out.



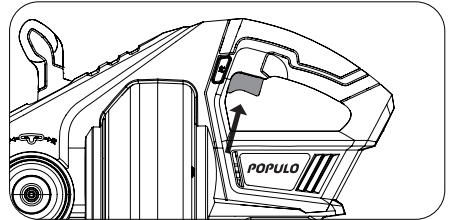
## CONTROLS

### Variable Speed Switch Trigger

The variable speed switch trigger delivers higher speed with increased trigger pressure and lower speed with decreased trigger pressure.

To turn the tool ON, depress the switch trigger.

To turn it OFF, release the switch trigger and allow the cable to come to a complete stop.



### Direction of Forward/Reverse Lever

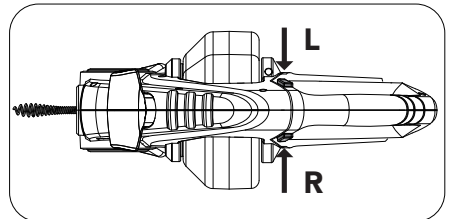
(Forward/Reverse/Center Lock)

Position the direction of forward/reverse lever to the left of the switch trigger (press the L) for forward operation.

Position the direction of forward/reverse lever to the right of the switch trigger (press the R) to reverse the direction.

Set the forward/reverse lever in the middle then the switch is locked (center lock).

Position the lock the switch trigger and help prevent accidental starting when not in use.



### NOTICE:

To prevent gear damage, always allow the cable to come to a complete stop before changing the direction of rotation.

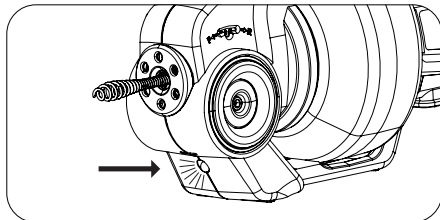
# UNPACK AND SET-UP ( CONT. )

## CONTROLS

### LED Work Light

When depress the switch trigger, the LED work light ON, when the switch trigger is released, the LED work light will be shut-off automatically in a few seconds.

**NOTE:** Do not stare at light or light source.  
Use a clean cloth when wiping the lamp holder to avoid scratching which can reduce luminance.



### Advancing/Retracting the Cable

**To advance the cable manually:**

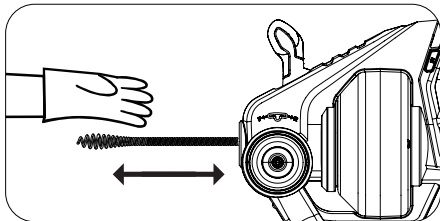
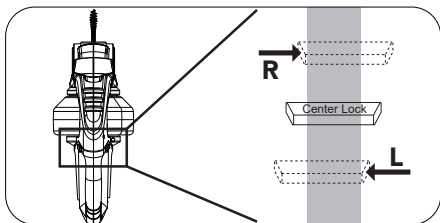
Lock the switch trigger by placing the forward/reverse lever in center position.

Set the front operation handle on the position of "0".  
Hold the tool body by one hand and advance the cable with the other.

To retract the cable, hold the tool body with one hand and pull the cable back with the other.

(If set the front operation handle on the position of "0", using the switch trigger, the cable stops advance or retract, no matter in forward or reverse rotation.)

**NOTE:** Always wear gloves when advancing/retracting the cable manually.



**To advance the cable using the switch trigger:**

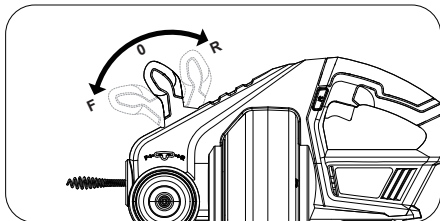
Place the direction of forward/reverse lever in forward position (press the L).

Set the front operation handle on the position of "F".  
Squeeze and hold the switch trigger to advance the cable.

To retract the cable use the switch trigger:

Place the direction of forward/reverse lever in forward position (press the L).

Set the front operation handle on the position of "R"  
Squeeze and hold the switch trigger to retract the cable.



If the cable is trapped in the pipe that is, it can not dredge or be retracted, press the forward/reverse level to "R", then set the front operation handle on the position of "F" to retract the cable. (Only use this setting when the cable is twisted, knotted or can not be retracted in the pipe etc.)

If set the front operation handle on the position of "0", using the switch trigger, the cable stops advance or retract, no matter in forward or reverse rotation.

**NOTICE:**

DO NOT advance or retract the cable using the switch trigger unless the cable is in a drain pipe.

# OPERATION



**WARNING! DO NOT allow familiarity with this product to make you careless. Remember that a careless fraction of a second is sufficient to inflict serious injury.**

- Always remove battery pack from the tool when you are assembling parts, making adjustments, cleaning or when not in use. Removing battery pack will prevent accidental starting that could cause serious personal injury.
- Always wear eye protection with side shields marked to comply with ANSI Z87.1. Failure to do so could result in objects being thrown into your eyes and other possible serious injuries.
- DO NOT use any attachments or accessories not recommended by the manufacturer of this product. The use of attachment or accessories not recommended can result in serious personal injury.

## Using the Drain Auger

The drain auger can be used to clear obstructions from a variety of drains including sink, bathtub, and toilet drains.

**NOTE:** This product can be used to clear drain pipes with minimum diameters of 0.75 in and maximum diameters of 2 in.

### To clear obstructions:

When removing an obstruction from a sink or a bathtub, it may be necessary to remove the stopper or overflow cover to gain access to the drain pipe. Toilet drains can be accessed directly through the base of the bowl.

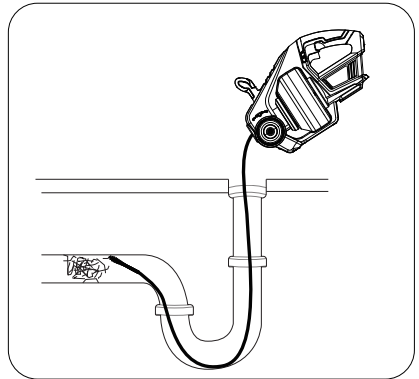
Hold the drain auger within four inches of the drain or overflow, and manually feed the cable into the drain pipe.

(**Note:** Advance the cable slowly at first. Advancing it too rapidly can result in twisting or binding.)

After feeding about six inches of cable into the drain, you may begin advancing the cable using the switch trigger or continue advancing it manually.

The cable should advance freely through the drain pipe until it contacts the obstruction or is caught in a P-trap.

If the cable is caught in a P-trap, additional force or increased trigger pressure should be enough to advance it past the bend in the pipe.



If the cable has contacted an obstruction, there are two ways to remove it:

1. Advance the cable by squeezing the switch trigger. Hold the trigger for several seconds allowing the tip of the cable to bore into the obstruction. **If the cable stop the rotating, release the switch trigger to avoid kinking or damaging the cable.** Then slowly retract the cable from the drain pipe.
2. Set the front operation handle in the position of "O", squeezing the switch trigger, the cable will rotate but not advance. Hold the switch trigger for several seconds allowing the obstruction to wrap around the cable. **If the cable stop the rotating, release the switch trigger to avoid kinking or damaging the cable.** Then slowly retract the cable and pull the obstruction through the drain.

Once the obstruction is cleared, attempt to flush your toilet or run water through your drain to confirm that the water is flowing freely. Meanwhile please be sure the cable is cleaned properly as described in the section of Cleaning the Drain Auger.

In case of obstruction or hooked cornering of the cable, pull front operating handle back to "R" to retract for a certain distance, and then pull the operation handle forward to "F" to advance again. Repeatedly move forward and backward the operating handle to dredge the pipe and move through the corners.

# OPERATION (CONT.)

## NOTICE:

Situation of pipe blockage are varied, it is necessary to lightly depress the switch trigger (low speed) to closely observe the situation of the cable when using it. If it is distorted or blocked, stop the machine immediately, and then take different operations according to the actual situation. If the pipe can not be dredged, please ask professional for help. DO NOT force the operation and cause unnecessary troubles.

## CAUTION:

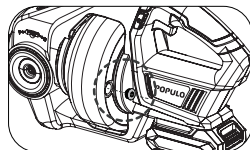
DO NOT force the delivery of the cable, otherwise the cable will be twisted, knotted or broken and cause serious injury. DO NOT advance or retract the cable using the switch trigger unless the cable is in a drain pipe. When removing the cable from a drain, remove it slowly to avoid "Splash back".

# CLEANING THE DRAIN AUGER

The drain auger should be cleaned after each use to prevent contamination and residue build up.

## To drain the drum:

- Remove the battery pack from the tool.
- Hold the tool at an angle and remove the drain port plug on the back of the drum with allen wrench.
- Allow any liquids inside the drum to pour down a drain or into a container approved for liquid waste.



## To clean the cable:

- Remove the battery pack from the tool.
- Using a clean cloth and warm soapy water, pull the cable out from the tool, cleaning it as it advances. Continue until the cable has been fully advanced and completely cleaned.
- Using a clean, dry cloth, pull the cable back into the tool, drying it as it retracts. Continue until the cable has been fully retracted.
- To ensure that no water entered the tool, drain the drum as described earlier.

## NOTICE:

Do not advance or retract the cable using the switch trigger unless the cable is in a drain pipe.

# MAINTENANCE



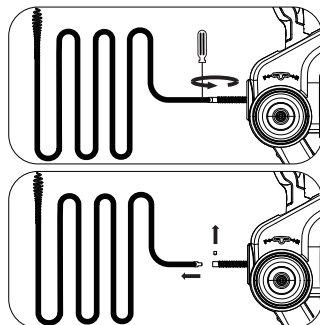
**WARNING! When servicing, use only identical replacement parts. Use of any other parts could create a hazard or cause product damage.**

## General Maintenance

Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use clean cloths to remove dirt, dust, oil, grease, etc.

## How to Replace the Cable

- Please check if the battery pack is unplugged before replacing it. Populo drain auger provides a quick cable replacement device.
  - 1. Place the front operating handle in the O position.
  - 2. Take out the cable to expose the connector.
  - 3. Unscrew the M4 screw with a screwdriver and remove the unwanted cable.
  - 4. Insert the new cable into the connector, align the screw holes, and tighten the M4 screw again.
  - 5. Push the cable manually to the inside of the drum.
- If the cable can not be replaced normally, please contact Populo customer service center.



**WARNING:** Do not start the tool to retract the cable, because the exposed cable can lead to unpredictable personal injury, tool damage, damage to indoor objects, fire, electric shock and other dangerous situations.

# MAINTENANCE (CONT.)

## Storage and Maintenance of the Machine

- Before inspection and maintenance, please switch off tool power and take off the battery pack!
- After each use, rotate manually the drum until the rear drain port is exposed out of the housing and remove the drain port plug with allen wrench so that liquid inside the drum will drain out and reinstall the drain port plug.
- Do remember to take off the wrench in case of tossing out when started next time, causing personal injuries.
- Please clean the cable and drum carefully. If it is not to be used for a long time, please apply butter on the surface of the cable to prevent rust.

**Note:** Populo will not be held responsible for any damage or injury caused by mishandling the drill or any repair made by an unauthorized person.

## Battery Protection System

The tool is equipped with the battery protection system, which helps to ensure a long service life.

The output power automatically cuts off if the tool and/or battery gets overload or when the remaining battery capacity becomes low.

If the tool gets overload, release the trigger switch and remove the cause of the overload. Depress the switch trigger again to restart.

If the remaining battery capacity becomes low, recharge the battery pack.

**Note:** The battery protection system does not in any way damage the tool.

**Note:** The indicated capacity may be lower than the actual level during use or immediately after using the tool.

# TROUBLESHOOTING

## LED lights do not illuminate on charger

Check the charging adaptor is securely plugged into the wall outlet.

Check the battery is firmly connected to the charging base.

## The battery has a short runtime

Ensure the battery is properly charged. It will take 4-5 charging cycles before the battery reaches optimum charge and runtime.

## Variable speed trigger is locked

Ensure that the forward/reverse lever is in the correct position, pressed left for forwards direction, press right for backwards direction. If it is in between the two settings, the variable speed trigger will be locked.

## Cable can not be advancing or retracting

Check the front operating handle is at correct setting.

## Drain auger has cut out during use

The battery capacity could be completely depleted. Place the battery pack on the charger for recharge.

The drain auger may have been overloaded and stopped by the over current protection system. Reduce hand pressure to continue operation.

## Cable worn or broken

Stop working and replace the cable immediately according to the section of How to Replace the Cable described in this manual.

## Sparking visible through the housing air vents

A small amount of sparking may be visible through the housing vents. This is normal and does not indicate a problem.

# WARRANTY

YOUR PRODUCT IS GUARANTEED FOR A MAXIMUM PERIOD OF 24 MONTHS FROM THE ORIGINAL DATE OF PURCHASE AND IS INTENDED FOR DIY (DO IT YOURSELF) USE ONLY. Warranty excludes consumable parts (For example, bearings and O-rings, etc.).

## **30-DAY MONEY BACK GUARANTY**

Within the first 30 days of purchase, you are allowed to return your product for a full refund.

## **30 DAYS TO 90 DAYS (3 MONTHS)**

A defective unit will be replaced with a new one in accordance with the terms of this warranty, due to manufacturing fault.

## **90 DAYS TO 24 MONTHS**

Up to 24 months after purchase, we will provide speedy and effective online service.



## **WARNING !**

**The following actions will result in the warranty becoming void.**

- If the tool has been operated on a supply voltage other than that specified on the tool
- If the tool shows signs of damage or defects caused by or resulting from abuse, accidents or alterations
- Failure to perform maintenance as set out within the user manual
- If the product is disassembled or tampered with in any way
- Professional, industrial or high frequency use

ANY QUESTIONS, PLEASE CONTACT OUR CUSTOMER SERVICE CENTER:

[support@populotools.com](mailto:support@populotools.com)

TO ENSURE THE QUICKEST RESPONSE POSSIBLE, PLEASE HAVE THE MODEL NUMBER AND DATE OF PURCHASE AVAILABLE SO OUR CUSTOMER SERVICE REPRESENTATIVE CAN ANSWER ANY QUESTIONS YOU MAY HAVE RELATING TO THE WARRANTY POLICY OR PROCEDURE.

[www.populotools.com](http://www.populotools.com)

HANGZHOU AVANT GLOBE ECOMMERCE CO., LTD  
3F, Bldg 9, Xixi Xintiandi Commercial Center, Wenyi West  
Road, Hangzhou, Zhejiang, P. R. China 310012