

**ASSEMBLY INSTRUCTIONS & PARTS DIAGRAMS**  
**Ice Auger**



***B43Z08/B43Z10/B52Z08/B52Z10***  
***MODEL # S PFPX-438,PFPX-4310,PFPM-528,PFPM-5210***

## CONGRATULATIONS...

on purchasing your new **POLAR FIRE** Power Ice Auger. We know that you are anxious to get right to work, but before you do, it is important that you take a few moments and familiarize yourself with your new Ice Auger and its operating instructions. We have worked to ensure that the ice auger meets high standards for usability and durability. With proper care, your ice auger will provide many years of service. Please take the time to register your new purchase as well as read this manual carefully to learn how to correctly operate and maintain your equipment.

## CONTENTS

Introduction & Registration .....	2
Safety .....	3-4
Operation.....	5-8
Maintenance & Storage .....	8
Troubleshooting .....	9-10
Parts Diagrams & Parts Lists.....	11-16

## INTRODUCTION

### OWNER'S RESPONSIBILITY

**CORRECT AND ACCURATE ASSEMBLY AND SAFE AND EFFECTIVE USE OF THE POWERHEAD IS THE OWNER'S RESPONSIBILITY!**

- READ AND FOLLOW ALL SAFETY INSTRUCTIONS
- CAREFULLY FOLLOW ALL ASSEMBLY INSTRUCTIONS
- MAINTAIN POWERHEAD ACCORDING TO DIRECTIONS AND SCHEDULE IN YOUR OPERATOR'S MANUAL
- ENSURE THAT ANYONE WHO USES THE POWERHEAD IS FAMILIAR WITH ALL CONTROLS AND SAFETY PRECAUTIONS



## WARNING

WARNING SIGNIFIES A DANGER WHERE YOU COULD BE SERIOUSLY INJURED OR HAVE AN ACCIDENT THAT COULD RESULT IN DEATH, IF NOT AVOIDED.

## CAUTION

CAUTION SIGNALS YOU CAN BE HURT OR THE EQUIPMENT SERIOUSLY DAMAGED, IF THE SAFETY INSTRUCTIONS THAT FOLLOW THIS SIGNAL WORD ARE NOT OBEYED

## IMPORTANT

IMPORTANT MEANS "READ THIS"! HELPFUL INFORMATION FOR CORRECT OPERATION, ASSEMBLY AND MAINTENANCE OF THE EQUIPMENT IS LISTED HERE.

## CALIF WARNING

CALIFORNIA PROPOSITION 65 STATES ENGINE EXHAUST FROM THIS PRODUCT CONTAINS CHEMICALS KNOWN TO CAUSE CANCER, BIRTH DEFECTS, OR OTHER REPRODUCTIVE HARM.



This symbol points out important safety instructions which if not followed could endanger your personal safety. Read and follow all instructions in this manual before attempting to operate this equipment.

**TAKE NOTE OF ALL WARNING LABELS ATTACHED TO AUGER UNIT. IT IS IMPORTANT TO READ ALL SAFETY PRECAUTIONS AND LOCATE ALL WARNING LABELS BEFORE OPERATING THIS PRODUCT.**

## SAFETY

### OWNER'S RESPONSIBILITY

It is the owner's responsibility for accurate assembly and safe, effective use of the auger.

- Read and follow all safety instructions.
- Carefully follow all assembly instructions.
- Maintain the auger according to directions and schedule included in this operator's manual.
- Ensure that anyone who uses the auger is familiar with all controls and safety precautions.

### SPECIAL MESSAGES

Throughout your manual you will find special messages to help bring potential safety concerns to your attention. Please read the entire manual carefully to help avoid injury and machine damage. Your manual is meant to be a helpful tool in preventing machine damage and personal injury. It also provides helpful operating tips and service information.

NOTE: Throughout the Manual, you will find general information that may help you in the operation and service of the powerhead

## VITAL SAFETY PRECAUTIONS

Please read this section carefully. Operate the auger according to the safety instructions and recommendations outlined here and inserted throughout the text. Anyone who uses this auger must read the instructions and be familiar with the controls.

- The ice blades are very sharp. Use extreme caution when drilling a hole or replacing the blades. Put blade guard on after each use.
- Do not carry the auger powerhead between holes with the engine running.
- The auger should not rotate when the engine is idling.
- Always keep hands, feet, hair and loose clothing away from any moving parts on engine and auger.
- Do not allow children to operate this power auger. Do not allow adults to operate the auger without proper instruction.
- Do not operate any power equipment under the influence of alcohol or drugs.
- Keep all screws, nuts and bolts tight.
- Engine should be turned off and cool, spark plug wire must be removed from spark plug before any repairs are attempted.
- Temperature of muffler and nearby areas may exceed 150° F (65° C). Avoid these areas.
- Never run engine indoors or in an enclosed area. Engine exhaust contains carbon monoxide, an odorless and deadly gas.
- If the ice auger becomes unturnable in a hole, turn engine off and allow to cool before attempting to remove it manually.



## CAUTION

HOT GASES ARE A NORMAL BY-PRODUCT OF A FUNCTIONING CATALYTIC CONVERTER. FOLLOW ALL SAFETY INSTRUCTIONS TO PREVENT BURNS AND FIRES.

## CAUTION

TAKE GREAT CAUTION WITH MUFFLER, MUFFLER GUARD & OTHER PARTS OF ENGINE AS THEY BECOME EXTREMELY HOT DURING OPERATION. THESE PARTS REMAIN EXTREMELY HOT EVEN AFTER ENGINE HAS STOPPED.

## ENGINE SAFETY PRECAUTIONS

### Warning Carbon Monoxide Poisoning

All engines contain carbon monoxide in their exhaust. Carbon monoxide is a deadly, colorless, tasteless, odorless gas which may be present even if you do not smell or see any engine exhaust. Levels of carbon monoxide, which can be deadly, can be present for days in an enclosed area that has poor ventilation. Any level of carbon monoxide, if inhaled, can cause headaches, drowsiness, nausea, dizziness, confusion and eventually death. If you experience any of these symptoms, **seek fresh air and medical attention immediately.**

### Preventing Carbon Monoxide Poisoning

- Never run engine indoors.
- Never try to ventilate engine exhaust indoors. Carbon monoxide can reach dangerous levels very quickly.
- Never run engine outdoors where exhaust fumes may be pulled into a building.
- Never run engine outdoors in a poorly ventilated area where the exhaust fumes may be trapped and not easily taken away. (Examples include: in a large hole or areas where hills surround your working area.)
- Never run engine in an enclosed or partially enclosed area. (Examples include: buildings that are enclosed on one or more sides, under tents, car ports or basements.)
- Always run the engine with the exhaust and muffler pointed in the direction away from the operator.
- Never point the exhaust muffler towards anyone. People should always be many feet away from the operation of the engine and its attachments.

### Gasoline Fires or Handling Fuel Safely

Fuel and fuel vapors are highly flammable. Never use fuel where a spark or flame may be present. Never use fuel where a potential source of ignition could occur. (Examples include: water or space heaters, clothes dryer, electric motors, etc.) Keep flames and sparks away from engine and fuel to prevent fires. Fuel fires spread very quickly and are highly explosive.

### Prevention of Gasoline Fires

- Never fill your fuel tank with fuel indoors. (Examples include: basement, garage, barn, shed, house, porch, ice shelter, etc.)

- Always fill fuel tank outside in a well ventilated area.
- Never remove the fuel cap or add fuel with the engine running. Stop engine and allow to cool before filling.
- Never drain fuel from engine in an enclosed area.
- Always wipe up excess (spilled) fuel from engine before starting. Clean up spilled fuel immediately.
- Allow spilled fuel to dry, after wiping and before starting.
- Allow fuel fumes/vapors to escape from the area before starting engine.
- Test the fuel cap for proper installation before starting and using engine.
- Always run the engine with fuel cap properly installed on the engine.
- Replace fuel cap that allows gas to spill or leak.
- Never smoke while refilling engine fuel tank.
- Prevent fire and explosion caused by static electric discharge. Use only non-metal, portable fuel containers approved by the Underwriter's Laboratory (U.L.) or the American Society for Testing & Materials (ASTM).
- Do not store engine with fuel in fuel tank indoors. Fuel and fuel vapors are highly explosive.
- Never pour fuel from engine fuel tank.
- Never siphon fuel by mouth to drain fuel tank.
- Always have an adult fill the fuel tank.
- Never allow a child or anyone under the influence of alcohol to fill the fuel tank.
- Never allow children to fill the fuel tank.

### Prevention of Burns and Fires

- Never remove the muffler guard from the engine.
- Never touch the muffler guard because it is extremely hot and will cause severe burns.
- Never touch parts of the engine that become hot after operation.
- Always keep materials and debris away from muffler guard and other hot parts of the engine to avoid fires.



## CAUTION

**NEVER ALTER/MODIFY ENGINE OR AUGER**  
 IN NO WAY ALTER OR MODIFY THE ENGINE FROM HOW IT CAME FROM THE FACTORY. SERIOUS INJURY OR DEATH MAY OCCUR IF IT IS ALTERED IN ANY WAY. ALWAYS DISCONNECT SPARK PLUG WIRE FROM SPARK PLUG WHEN WORKING ON OR REPLACING PARTS FOR THE ENGINE OR AUGER AND KEEP IT AWAY FROM THE SPARK PLUG. WHEN OPERATING ENGINE, ALWAYS WEAR HEARING PROTECTION!



PLEASE DO NOT START YOUR ICE AUGER UNTIL YOU HAVE READ THE PREVIOUS SECTION OF THIS MANUAL IF YOU HAVE READ THESE, FOLLOW THE STEPS BELOW TO START YOUR ICE AUGER. NEVER STORE ENGINE WITH GAS IN THE TANK INDOORS. FUEL AND FUEL VAPORS ARE HIGHLY FLAMMABLE. NEVER MIX FUEL AND OIL DIRECTLY IN ENGINE GAS TANK USE ONLY NON-METAL, PORTABLE FUEL CONTAINERS APPROVED BY THE UNDERWRITER'S LABORATORY (U.L.) OR THE AMERICAN SOCIETY FOR TESTING & MATERIALS (ASTM). AN ADULT MUST ALWAYS HANDLE AND FILL THE ENGINE WITH FUEL. ALWAYS HANDLE FUEL IN A WELL VENTILATED AREA, OUT DOORS AWAY FROM FLAMES OR SPARKS.



## IMPORTANT

**NEVER RUN ENGINE ON STRAIGHT GAS ONLY. THIS ENGINE USES A GAS/OIL MIXTURE. FAILURE TO RUN ON FACTORY RECOMMENDED MIXTURE WILL RESULT IN ENGINE DAMAGE**

## OPERATION

### STEPS FOR WORKING ON ENGINE OR AUGER

- Turn off engine switch.
- Disconnect the spark plug wire from the spark plug.
- Securely place the disconnected spark plug wire away from the spark plug and any metal parts. This must always be done or arcing may occur between spark plug wire and metal parts.
- Replace or repair the part on the engine or auger.
- Check all parts that were repaired, or removed during repair, that they are secure and fit correctly.
- Replace spark plug wire.

### PREPARING ENGINE FOR STARTING

Make sure the black throttle cable housing is seated all the way into the brass ferrule at the engine side of the cable before attempting to start your powerhead engine.

### GAS AND OIL QUALITY

To operate the engine, we recommend using A premium 2-cycle oil to ensure that the engine operates correctly during the break-in period and the life of the engine. Use unleaded regular gas only.

#### Mixture

Run ice auger with a 40:1 ratio.

GAS	OIL	RATIO
1 gallon	3.2 ounces	40:1
2 gallons	6.4 ounces	40:1
5 gallons	16 ounces	40:1

### MIXING FUEL AND FILLING GAS TANK

#### Mixing Fresh Fuel

- Fuel must be mixed in a container outside in a well ventilated area.
- Fill certified fuel container 1/4 full of recommended fuel.
- Add recommended amount of 2-cycle oil with fuel stabilizer.
- Screw container cap on straight and tight.
- Shake the container to mix fuel and oil.
- Unscrew gas cap slowly to vent, add the remainder of fuel requirements.
- Wipe away any spilled fuel or oil and allow to evaporate before moving or transporting.



## CAUTION

**ALWAYS HANDLE FUEL IN A WELL VENTILATED AREA, OUTDOORS, AWAY FROM FLAMES OR SPARKS.**

**DO NOT START ENGINE IF FUEL IS SPILLED. WIPE OFF EXCESS FUEL AND ALLOW TO DRY. REMOVE ENGINE FROM AREA TO AVOID SPARKS.**

### **Filling Gas Tank**

- Shut-off engine and allow engine to completely cool before refilling the gas tank.
- Move to a well ventilated area, outdoors, away from flames and sparks.
- Clean debris from area around the gas cap.
- Loosen gas cap slowly. Place the cap on a clean, dry surface.
- Carefully add fuel without spilling.
- Do not fill gas tank completely full, allow space for fuel to expand.
- Immediately replace gas cap and tighten. Wipe off spilled fuel and allow to dry before starting engine.

### **NORMAL OPERATION**

- The clutch will transfer maximum power after about two hours of normal operation. During this break-in period clutch slippage may occur. The clutch should be kept free of oil or other moisture for efficient operation.
- Drill holes without placing excessive body weight on the unit. The auger operates most efficiently with a shaving action caused by the weight of the unit itself.
- Never run engine indoors. Exhaust fumes are deadly.
- Do not use an ice auger in the earth.
- The ice auger blade protector should be attached to the auger head when not in use. This will protect the cutting edge of the ice auger blades.
- To attach auger to powerhead if not done, align hole at top of shaft with output shaft hole. Insert bolt and secure bolt with provided allen wrench.

***NOTE: The ends of the bolt should be flush with auger collar. Bolt head and thread end should never go beyond ice collar.***



## WARNING

MAKE SURE THE UNIT IS IN A STABLE POSITION BEFORE PULLING STARTER.

WHEN THE UNIT STARTS TO FIRE OR RUN, RELEASE THE THROTTLE CONTROL MOMENTARILY WITH YOUR RIGHT HAND AND RETURN YOUR LEFT HAND TO THE HANDLEBAR POSITION TO MAINTAIN CONTROL AND STABILITY OF THE UNIT WITH BOTH HANDS



## CAUTION

ALWAYS HANDLE FUEL IN A WELL VENTILATED AREA, OUT DOORS, AWAY FROM FLAMES OR SPARKS.

ALWAYS WEAR A PROTECTIVE HEARING DEVICE.

DO NOT START ENGINE IF FUEL IS SPILLED.

WIPE OFF EXCESS FUEL AND ALLOW TO DRY REMOVE ENGINE FROM AREA TO AVOID SPARKS.

IF AUGER IS MOUNTED TO ENGINE, ALL SAFETY GUARDS MUST BE SECURELY ON TO AVOID SERIOUS INJURY.

STARTER ROPE CAN CAUSE AN UNANTICIPATED JERK TOWARDS ENGINE PLEASE FOLLOW INSTRUCTIONS TO AVOID INJURY.

NEVER LEAVE ENGINE RUNNING WHILE UNATTENDED.

TURN OFF AFTER EVERY USE.

NEVER CARRY POWERHEAD AND AUGER BETWEEN HOLES WHILE ENGINE IS RUNNING.

## STARTING AND STOPPING ENGINE

- Move engine to a well ventilated area, outdoors, to prevent carbon monoxide poisoning.
- Move to an area away from flames or sparks to avoid ignition of vapors if present.
- Remove all debris from air cleaner holes and gas cap to ensure proper air flow.

### COLD ENGINE START

Starting engine for first time or after engine has cooled off or after running out of fuel.

1. Move choke lever **to RUN**

**NOTE:** Choke must be in the RUN position when pushing or using the primer bulb.

2. Prime unit until primer tube is filled with gas.  
**NOTE:** When using the primer bulb allow the bulb to return completely to its original position between pushes.
3. Press the extra fuel device "**RED COLOR**" lever all the time by left hand, and press bulb 2~3 times by right hand;
4. Move choke lever to **CHOKE** position.  
**NOTE:** Choke position is defined by moving the choke lever as far to the ON position as possible.
5. Push toggle switch to the **ON** position.
6. Grasp starter handle and pull out slowly, until it pulls slightly harder. Without letting starter handle retract, pull rope with a rapid full arm stroke. Let it return to its original position very slowly until the engine fires or runs, engage the throttle.  
Repeat this step everytime the starter rope is pulled.  
**NOTE:** If engine fails to start after 5-6 pulls ,left hand holds the extra fuel device lever push primer 1 time and pull starter rope again.
7. After engine starts running, move choke lever to **HALF CHOKE** position until unit runs smoothly.  
**NOTE:** **HALF CHOKE** is defined when the choke lever is between **CHOKE** and **RUN** .
8. Move choke lever to **RUN** position and move throttle to desired speed.  
**NOTE:** Run at full throttle when possible. Do not let unit idle for extended periods of time.

9. To stop engine, push toggle switch to **OFF** position.
10. When the weather is extremely cold and the engine is difficult to start, turn on start switch, turn off choke, press the pumping installation on carburetor by hand, then pull start rope to start engine. After the success of start, open choke and start drilling ice when the rotation speed of engine is stable.

### WARM ENGINE START:

1. Move choke lever to **CHOKE** position.  
**NOTE:** **CHOKE** position is defined by moving the choke lever as far to the **ON** position as possible.
2. Continue with Step 6 of Cold Engine Starting.



## **⚠ CAUTION**

### **TO PREVENT ACCIDENTAL STARTING:**

**AVOID INJURY! ENGINE MUST BE TURNED OFF AND COOL, AND SPARK PLUG WIRE MUST BE REMOVED FROM SPARK PLUG BEFORE CHECKING AND ADJUSTING ENGINE OR EQUIPMENT.**

**AVOID INJURY! TEMPERATURE OF MUFFLER AND NEARBY AREAS MAY EXCEED 150° F (65° C). AVOID THESE AREAS.**

**AVOID INJURY! CHECK AUGER OFTEN FOR LOOSE NUTS AND BOLTS. KEEP THESE ITEMS TIGHTENED.**

**AVOID INJURY! NEVER STORE ENGINE WITH FUEL IN THE TANK INSIDE A BUILDING. POTENTIAL SPARKS MAY BE PRESENT FOR IGNITION OF FUEL AND FUEL VAPORS.**

**AVOID INJURY! AN ADULT MUST ALWAYS DO MAINTENANCE AND REPAIR ON ENGINE AND AUGER.**

**AVOID INJURY! ENGINE MUST BE SHUT-OFF, COOL, AND SPARK PLUG WIRE REMOVED BEFORE ANY REPAIR OR MAINTENANCE CAN BE DONE.**

### **HOT ENGINE START:**

1. Continue with Step 6 of Cold Engine Starting.
2. If engine does not fire, refer to Step 1 of Warm Engine Starting.

### **DO NOT ATTEMPT TO START ENGINE IN THE FOLLOWING WAYS:**

- **DO NOT use starting fluid.**
- **DO NOT spray flammable liquids or vapors into air cleaner, carburetor or spark plug chamber.**
- **DO NOT remove spark plug and pull on starter rope. Flammable fuel can spray out & ignite from a spark from spark plug.**

## **MAINTENANCE AND STORAGE**

### **AUGER MAINTENANCE**

1. The gear case has 4 oz. of grease installed at the factory. It is recommended that once a year the gear case be split and the grease level checked. Add grease only if level of grease is below top of the gears. **DO NOT OVERFILL.**
2. Keep all screws, nuts, and bolts tight.
3. For cold weather operation, store the unit in a cool environment. Transferring the unit from a warm to a cold place can cause the build up of harmful condensation.
4. Always replace blade protector when power auger is not in use.
5. If blade performance decreases, turn unit off and disconnect spark plug wire. Carefully inspect cutting edge of blades for any knicks or shiny areas. If blades show any of these signs, they need to be resharpened or replaced.

### **ENGINE MAINTENANCE**

#### **COOLING FINS**

Cooling fins, air inlets and linkages must be free from any debris before each use.

#### **AIR FILTER**

Never run engine without air cleaner properly installed. Added wear and engine failure may occur if air cleaner is not installed on engine.

Service air cleaner every 3 months or after 20 hours of operation. Clean filter daily in extremely dusty conditions.

#### **STEPS FOR CLEANING AIR FILTER**

1. Wash in warm water with mild soap until dirt and debris are removed. Press filter when washing, do not twist.
2. Rinse in warm water until soap and dirt are removed.
3. Dry filter by wrapping in a clean cloth and pressing filter until it is dry.
4. Apply oil to the entire filter.
5. Remove excess oil.
6. Attach the filter and air cleaner cover to the engine.



## STEPS FOR CLEANING BLOCK STYLE FOAM AIR FILTER

**NOTE: SEE PARTS EXPLOSION ON PAGE 16**

1. Before removing the air filter cover, move the choke lever to the choke position. **(Figure 1)**
2. To remove air filter cover, loosen and remove the bolt on the cover and squeeze the latch tabs on both sides of the cover. **(Figure 2)**
3. Once the latch tabs are released, remove the air filter cover by rotating the cover away from the engine. **(Figure 3)**
4. Remove the white plastic cover and the foam filter element **(Figure 4, 5)** and replace with a new oiled filter, or clean the original foam filter with warm water and mild soap by following the previous steps for Cleaning Air Filter. Remember to thoroughly oil the foam filter with 30 or 40 weight motor oil and squeeze out any excess oil.
5. Reinstall the foam filter and white plastic cover, pressing it in place to ensure that the foam is fully seated into its sealed position. **(Figure 6)**
6. Replace the air filter cover so that it fully snaps into place and is secured by the latch tabs. Screw bolt back into the hole and tighten snugly, but do not over tighten. Check that the cover is securely attached by pulling slightly on the cover. If the cover doesn't move when pulled, it is secure.

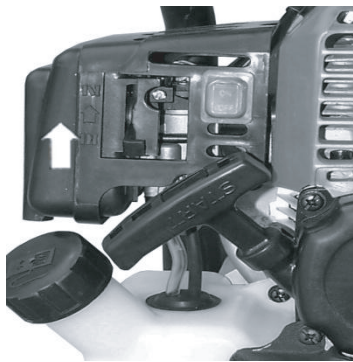


Figure 1

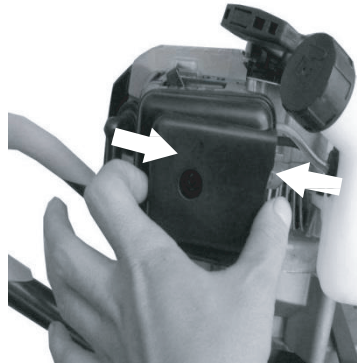


Figure 2

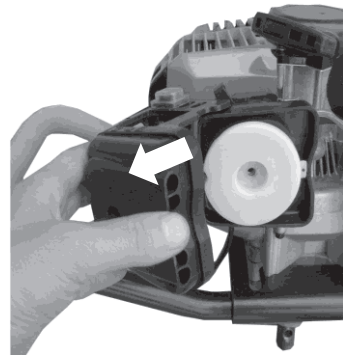


Figure 3



Figure 4

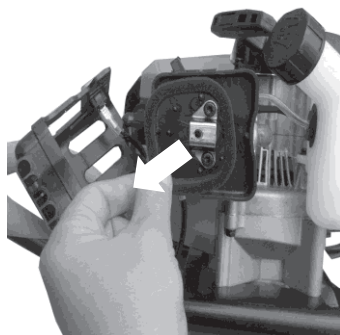


Figure 5

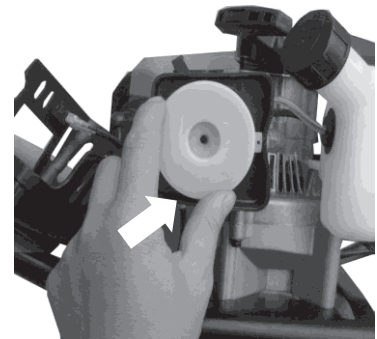


Figure 6



## **CAUTION**

**AVOID INJURY! TO AVOID INJURY OR DEATH, NEVER SIPHON FUEL BY MOUTH.**

**AVOID INJURY! NEVER STORE ICE AUGER WITH FUEL IN THE GAS TANK INSIDE AN ENCLOSED AREA OR BUILDING.**

### **TO PREVENT ACCIDENTAL STARTING:**

**AVOID INJURY! ENGINE MUST BE TURNED OFF AND COOL, AND SPARK PLUG WIRE MUST BE REMOVED FROM SPARK PLUG BEFORE CHECKING AND ADJUSTING ENGINE OR EQUIPMENT.**

**AVOID INJURY! AN ADULT MUST ALWAYS DO MAINTENANCE AND REPAIR ON ENGINE AND AUGER.**

**AVOID INJURY! ENGINE MUST BE SHUT-OFF, COOL, AND SPARK PLUG WIRE REMOVED BEFORE ANY REPAIR OR MAINTENANCE CAN BE DONE.**

### **Spark Plug**

The recommended spark plug is a L8RTC.

1. Check spark plug every 50 operating hours.
2. Disconnect the spark plug cap, and clean any debris from around the spark plug area.
3. Remove spark plug and replace if any of the following occur; pitted electrodes, burned electrodes, cracked porcelain, or deposits around electrodes.
4. After analysis, seat spark plug and tighten with spark plug wrench.
  - Reinstall original spark plug, tighten additional 1/2 turn.
  - Installing new spark plug, adjust spark plug gap to .028" and tighten additional 1/8 – 1/4 turn .

**NOTE: Loose spark plug may overheat and damage engine. Over tightened spark plug may damage threads in the cylinder head.**

### **TRANSPORTING YOUR ICE AUGER**

1. Never transport engine inside an enclosed space or vehicle. Fuel or fuel vapors may ignite causing serious injury or death.
2. If fuel is present in the fuel tank, transport in an open vehicle in an upright position.
3. If an enclosed vehicle must be used, remove gas into an approved red fuel container. **DO NOT siphon by mouth.**
4. Run engine to use up the fuel in the carburetor and fuel tank. Always run engine in a well ventilated area.
5. Wipe away any spilled fuel from engine and ice auger. Allow to dry.

### **LONG TERM STORAGE**

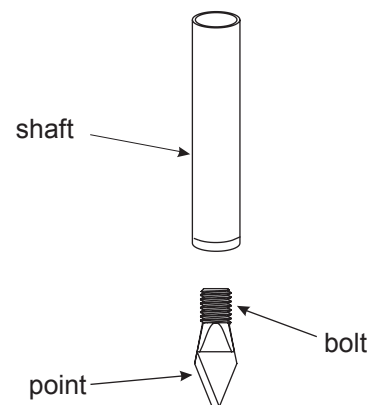
- If your ice auger will not be ran for more than one month, prepare it for long term storage.

#### **Steps for Long Term Storage**

1. Add fuel stabilizer according to manufacturer's instructions.
2. Run engine for 10-15 minutes to ensure that the stabilizer reaches the carburetor.
3. Remove the remainder of the fuel from the gas tank into an approved fuel container.
4. Remove auger from powerhead and apply a thin layer of grease to the output shaft .
5. Store auger and powerhead (engine) in a vertical position.
6. Remove all debris from auger and powerhead (engine).
7. Attach blade protector to bottom of auger.

### **ICE POINT REPLACEMENT**

1. Remove blade protector and both blades.
2. Using a locking pliers, grasp point and turn clockwise to screw the center point blade out.
3. With locking pliers screw in new center point in auger shaft.  
**DO NOT damage end of point.**
4. Re-attach both blades and put blade protector back on.



**⚠ CAUTION**

PRACTICE SAFETY AT ALL TIMES. BEFORE ATTEMPTING ANY MAINTENANCE OR REPAIR, SPARK PLUG WIRE MUST BE DISCONNECTED AND ENGINE MUST BE TURNED OFF AND ALLOWED TO COOL.

**⚠ IMPORTANT**

WHEN CALLING FOR SERVICE, WITH QUESTIONS REGARDING YOUR AUGER OR FOR PARTS, PLEASE HAVE THE FOLLOWING INFORMATION AVAILABLE WITH YOUR REQUEST:

1. AUGER MODEL NUMBER
2. AUGER SERIAL NUMBER
3. IF PARTS ARE NEEDED, PLEASE PROVIDE PART NUMBERS AND QUANTITIES

## SERVICE INFORMATION

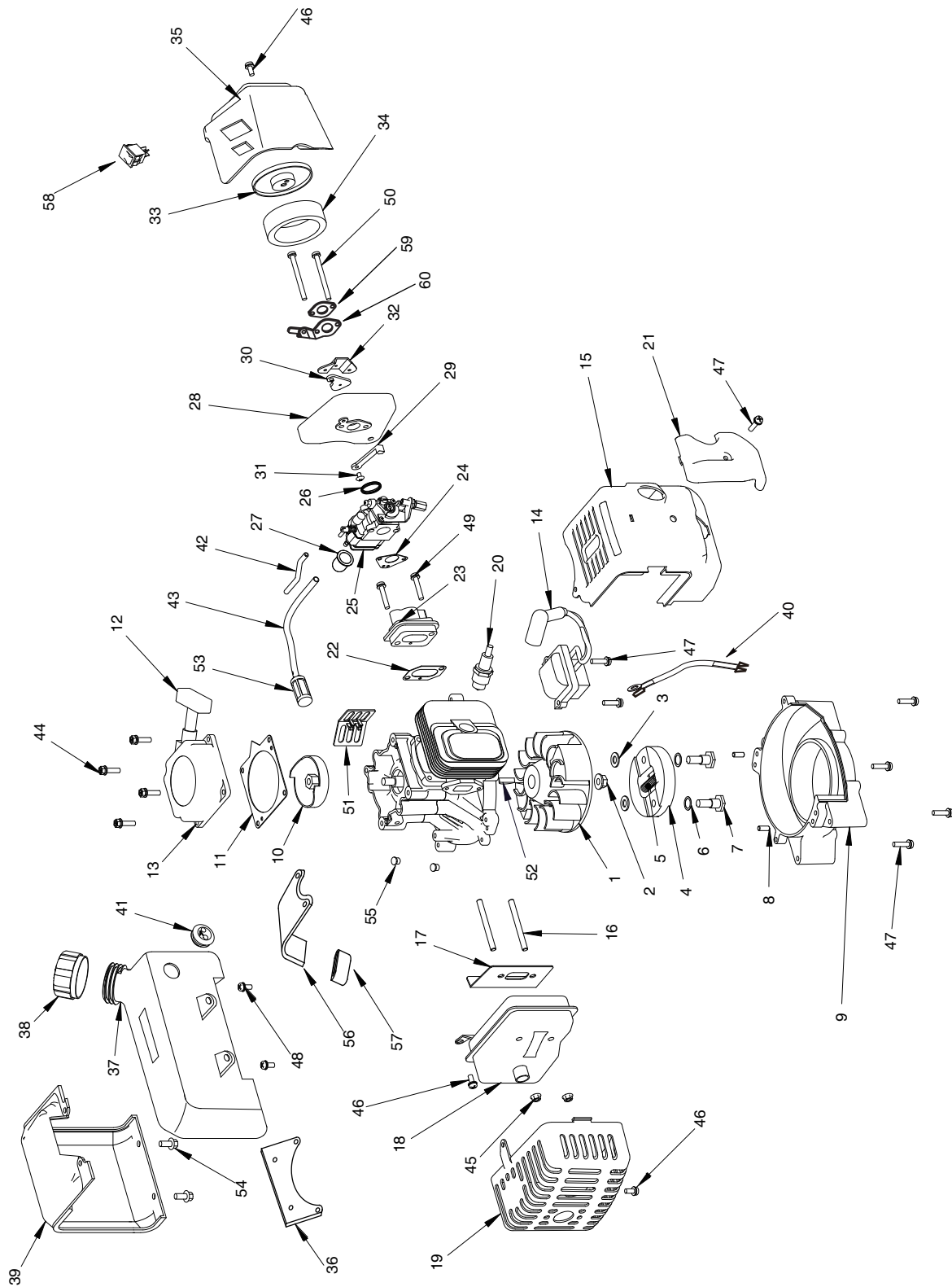
**POLAR FIRE** TAKES PRIDE IN EACH AND EVERY UNIT WE PRODUCE. WE BUILD QUALITY AND DURABILITY INTO THE DESIGN OF OUR PRODUCTS. HOWEVER, NO AMOUNT OF CAREFUL DESIGN ON OUR PART AND NO AMOUNT OF CAREFUL MAINTENANCE BY YOU, CAN GUARANTEE A REPAIR-FREE LIFE FOR YOUR MACHINE. MOST REPAIRS WILL BE MINOR AND EASILY FIXED BY FOLLOWING THE SUGGESTIONS IN THE TROUBLESHOOTING SECTION OF THE MANUAL.

THIS SECTION WILL HELP YOU LOCATE AND ISOLATE THE CAUSES OF COMMON PROBLEMS AND IDENTIFY HOW TO BEST FIX YOUR UNIT.

WE WILL ALWAYS BE GLAD TO ANSWER ANY QUESTIONS YOU HAVE, OR HELP YOU FIND SUITABLE ASSISTANCE. TO ORDER PARTS OR INQUIRE ABOUT WARRANTY, CALL, WRITE OR E-MAIL US AT THE ADDRESS FOUND BELOW, UNDER THE SECTION ORDERING REPAIR PARTS.

CALL, WRITE OR E-MAIL US BY GOING TO THE WEB ADDRESS FOUND BELOW, CLICK ON THE TAB THAT SAYS " POWER AUGER WARRANTY INFO" AND FOLLOW THE PROMPTS FROM THERE. THANK YOU.

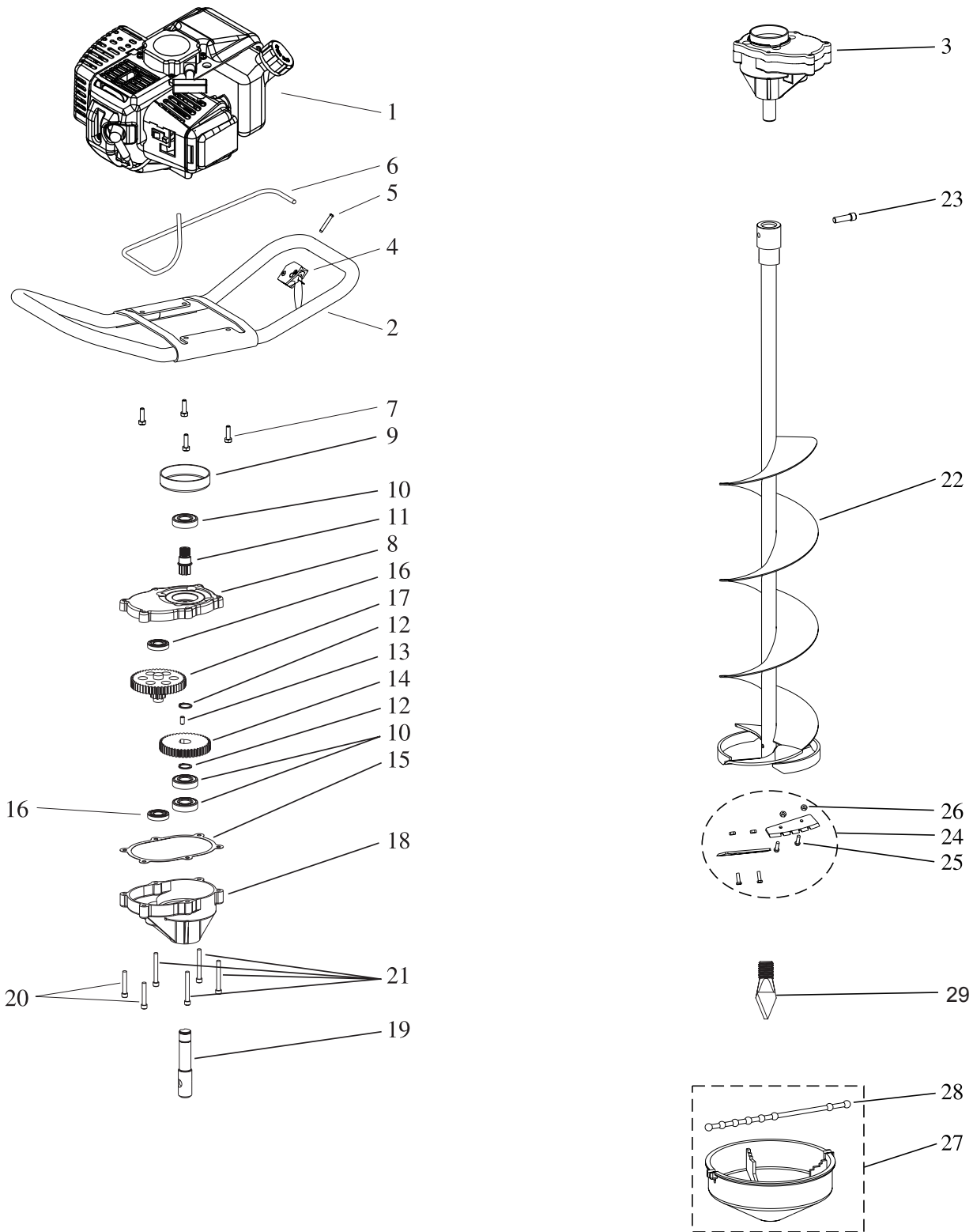
PROBLEM	POSSIBLE CAUSE	REMEDY/ACTION
Engine will not start	1. Power switch off	1. Flip switch to <b>ON</b> position
	2. Spark plug wire disconnected	2. Connect spark plug wire to spark plug
	3. Out of fuel	3. Refuel
	4. Spark plug wet, faulty or improperly gapped	4. Clean, replace or gap spark plug
	5. Throttle control not held open	5. Squeeze throttle control when pulling recoil handle
	6. Fuel line hose not positioned in bottom of gas tank	6. Push fuel line down into fuel in gas tank
Engine runs rough, floods during operation	1. Dirty air filter	1. Clean or replace air filter
	2. Choke partially engaged	2. Turn off choke
	3. Carburetor out of adjustment	
Engine is hard to start	1. Stale fuel	1. Drain old fuel and replace with fresh fuel. Use gas stabilizer additive at end of season.
	2. Spark plug wire loose	2. Make sure spark wire is securely attached to spark plug
	3. Dirty carburetor	3. Clean carburetor, use gas stabilizer, new gas can
	4. Throttle control not held open	4. Prime unit 3 more times, squeeze throttle when pulling recoil handle
Engine misses or lacks power	1. Clogged gas tank	1. Remove and clean
	2. Clogged air filter	2. Clean or replace
	3. Carburetor out of adjustment or bad	3. Consult Service Center
	4. Spark plug wet, faulty or improperly gapped	4. Clean, replace or gap spark plug
Engine runs, then quits	1. Gas cap not venting	1. Open manual venting gas cap screw all the way open (counterclockwise)
	2. Plugged fuel filter	2. Clean or replace
	3. Carburetor out of adjustment or bad	
Engine revs too high	1. Carburetor out of adjustment	
Auger turns at idle	1. Idle speed too high	1. Adjust idle speed lower
	2. Broken clutch spring	2. Replace spring
Auger turns, but has no power	1. Choke on	1. Turn off choke after engine is running
	2. Carburetor out of adjustment	2. Consult Service Center
	3. Broken transmission	3. Consult Service Center
	4. Worn clutch shoes	4. Replace clutch shoes and spring
	5. Worn engine lower seat	
Auger jumps	1. Blade damaged	1. Replace with new blade
Auger cuts slowly	1. Dull blade	1. Buy new blade, or have blade sharpened at factory
	2. Damaged point	2. Replace point





KEY NO.	PART NO.	DESCRIPTION	QTY.
1	Y430001	FLYWHEEL, MAGNETO	1
2	Y430002	NUT, FLANGE M8	1
3	Y430003	WASHER, ROTOR	2
4	Y430004	CLUTCH ROTOR ASSEMBLY	1
5	Y430005	SPRING, CLUTCH	1
6	Y430006	WASHER, SPRING	2
7	Y430007	BOLT, SHOULDER	2
8	Y430008	PIN, LOCATING	2
9	Y430009	MOUNT RING & SHROUD	1
10	Y430010	RECOIL CLUTCH	1
11	Y430011	PLATE, RECOIL	1
12	Y430012	HANDLE, RECOIL (STANDARD)	1
13	Y430013	RECOIL ASSEMBLY WITH STANDARD HANDLE	1
14	Y430014	IGNITION COIL	1
15	Y430015	SHROUD, ENGINE	1
16	Y430016	BOLT, STUD M6 X 62MM	2
17	Y430017	GASKET, MUFFLER	1
18	Y430018	MUFFLER	1
19	Y430019	COVER, MUFFLER	1
20	Y430020	SPARK PLUG	1
21	Y430021	COVER, ENGINE SHROUD	1
22	Y430022	GASKET, INTAKE	1
23	Y430023	WINDPIPE, INTAKE 43CC/51CC	1
24	Y430024	GASKET, CARBURETOR	1
25	Y430025	CARBURETOR	1
26	Y430026	O-RING, CARBURETOR	1
27	Y430027	PRIMER BULB	1
28	Y430028	BASE, INTAKE	1
29	Y430029	CHOKE LEVER, SIDE MOUNT	1
30	Y430030	CHOKE COVER	1
31	Y430031	SCREW, THROTTLE LEVER	1
32	Y430032	PLATE, INTAKE COVER ADAPTER	1
33	Y430033	COVER, AIR FILTER	1
34	Y430034	AIR FILTER	1
35	Y430035	COVER, INTAKE	1
36	Y430036	GAS TANK PLATEK	1

KEY NO.	PART NO.	DESCRIPTION	QTY.
37	Y430037	GAS TANK	1
38	Y430038	GAS CAP, MANUAL VENTING	1
39	Y430039	SHROUD, GAS TANK	1
40	Y430040	ENGINE WIRE	1
41	Y430041	GROMMET, 2-HOLE GAS TANK	1
42	Y430042	HOSE, PRIMER LINE	1
43	Y430043	HOSE, FUEL LINE	1
44	Y430044	BOLT W/WASHER PHILLIPS HH	4
45	Y430045	NUT, FLANGE M6	2
46	Y430046	BOLT W/WASHER M5 X 16MM	1
47	Y430047	BOLT W/WASHER PH M5 X 20MM	1
48	Y430048	BOLT HH M5 X 16MM	2
49	Y430049	BOLT W/WASHER M5 X 25MM	2
50	Y430050	BOLT M5 X 60MM	2
51	Y430051	GUARD, SCREW	1
52	Y430052	KEY, FLYWHEEL	1
53	Y430053	FILTER, FUEL	1
54	Y430054	SCREW ST5X12	2
55	Y430055	GAS TANK RUBBER PLATE	2
56	Y430056	GAS TANK BOARD	1
57	Y430057	RUBBER BUSHING	1
58	Y430058	SWITCH, ROCKER	1
59	Y430059	GASKET	1
60	Y430060	DEEPEN HANDLE FOR CARBURETOR	1





## POWERHEAD & AUGER PARTS LIST

KEY NO.	PART NO.	DESCRIPTION	QTY.
1	B43.01	GAS ENGINE, 43CC/52CC	1
2	B43.03A	HANDLEBAR	1
3	Y43.05	TRANSMISSION COMPLETE	1
4	Y43.03	TRIGGER ASSEMBLY, LONG THROW	1
5		BOLT 10-24 X 1-1/4 PPH	1
6	Y43.02	THROTTLE CABLE	1
7		BOLT 1/4-20 X 3/4 HH GR5 BLK ZN W/PATCH	4
8	Y43.05-01	GEAR CASE TOP	1
9	Y43.04	CLUTCH DRUM	1
10		BALL BEARING R12 DOUBLE LIP	3
11	Y43.05-04	GEAR 7T PINION THREADED	1
12	Y43.05-05	SNAP RING	2
13	Y43.05-03	DOWEL PIN STEEL 1/4" X 1/2"	1
14	Y43.05-06	GEAR 44T 3/4" HOLE	1
15	Y43.05-02	GASKET	1
16		BALL BEARING R10	2
17	Y43.05.01	GEAR 10T/48T ONE-PIECE CLUSTER	1
18	Y43.05-08	GEAR CASE BOTTOM	1
19	Y43.05-07	SHAFT OUTPUT 7/8"	1
20		BOLT 1/4-20 X 1-1/2 SHCS	2
21		BOLT 1/4-20 X 2 SHCS F-T W/PATCH	4
22	BZ08	ICE AUGER 8"	1
	BZ09	ICE AUGER 9"	1
	BZ10	ICE AUGER 10"	1

KEY NO.	PART NO.	DESCRIPTION	QTY.
23		BOLT 3/8-16 X 1-1/4 SHCS	1
24	BD08	ICE BLADES 8" COMPLETE SET OF 2 BLADES	1
	BD09	ICE BLADES 9" COMPLETE SET, SET OF 2 BLADES	1
	BD10	ICE BLADES 10" COMPLETE SET OF 2 BLADES	1
25		BOLT 5MM X 0.8 X 16MM HH	4
26		NUT-NYLOC 5MM X 0.8	4
27	BT08	BLADE PROTECTOR KIT 8"	1
	BT09	BLADE PROTECTOR KIT 9" & 10"	1
28	BZ08.00-04	RUBBER STRAP	1
29	BZ08FRA.00-03	CENTER POINT BLADE W/SCREW INTHREAD	1