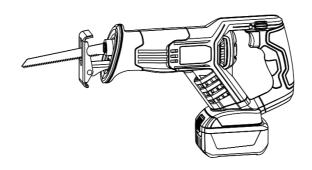


# **INSTRUCTION MANUAL**

# **20 V Cordless Reciprocating Saw**

Model # PS76415A





Have product questions or need technical support? Please feel free to contact us!

Website: <a href="www.Amerisuninc.com">www.Amerisuninc.com</a>.
<a href="www.powersmartusa.com">www.powersmartusa.com</a>.

Toll free: 1-800-791-9458 M-F 9-5 EST

Email: support@amerisuninc.com

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# **TECHNICAL DATA**

Cordless Reciprocating Saw Model # PS76415A

Rated Voltage 20V

Variable Speed: 0 - 3000 spm

Stroke length: 22 mm

Battery type: 20V Lithium-ion, 1.5 Ah

Battery model: PS76018B
Charge time: 1 hour
Charger model: PS76018C

Package dimensions (L x W x H): 14.8 x 3.3 x 9.3 inches

Weight: 5.4 lb.

# **INTRODUCTION**

Thank You for Purchasing a PowerSmart® Product. This manual provides information regarding the safe operation and maintenance of this product. Every effort has been made to ensure the accuracy of the information in this manual. PowerSmart® reserves the right to change this product and specifications at any time without prior notice.

Please keep this manual available to all users during the entire life of the power tool.



This manual contains special messages to bring attention to potential safety concerns, power tool damage as well as helpful operating and servicing information. Please read all the information carefully to avoid injury and machine damage.

#### **QUESTIONS? PROBLEMS?**

Please contact our Customer Service Dept. with any questions and/or comments, either by Email: support@amerisuninc.com, or Toll Free at (800)791-9458. We are available Mon-Fri 9am-5pm EST to help solve any issues that you might encounter.

# **SAFETY INFORMATION**

Before operating this power tool, read and observe all warnings, cautions, and instructions on the power tool and in this Owner's Manual.

NOTE: The following safety information is not meant to cover all possible conditions and situations that may occur. Read the entire Owner's Manual for safety and operating instructions. Failure to follow instructions and safety information could result in serious injury or death.

This safety alert symbol is used to identify safety information about hazards that can result in personal injury.



A signal word (DANGER, WARNING, or CAUTION) is used with the alert symbol to indicate the likelihood and the potential severity of injury. In addition, a hazard symbol may be used to represent the type of hazard.

**DANGER** Indicates a hazard, which, if not avoided, will result in death or serious injury.

WARNING Indicates a hazard, which, if not avoided, could result in death or serious injury.

**CAUTION** Indicates a hazard, which, if not avoided, might result in minor or moderate injury.

**CAUTION** Without the alert symbol, indicates a situation that could result in damage.

# **GENERAL SAFETY RULES**

Safety is a combination of common sense, staying alert, and knowing how your power tool works.

#### SAVE THESE SAFETY INSTRUCTIONS.



**WARNING:** Do not operate this unit until you read this instruction manual for safety, operation and maintenance instructions. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious personal injury.

#### WORK AREA SAFETY

- Keep your work area clean and well lit. Cluttered benches and dark areas invite accidents.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. Power tools create sparks which may ignite the dust or fumes.
- Keep bystanders, children, and visitors away while operating a power tool. Distractions can cause
  you to lose control.

#### **ELECTRICAL SATETY**

- 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 risk
  of electric shock.
- Avoid body 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.

#### PERSONAL SAFETY

- Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use
  a power tool while 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 safety equipment. Always wear eye protection. Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.
- Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts.
- Avoid accidental starting. Be sure switch is off before connecting to power source and/or battery
  pack, pick up or carrying the tool. Carrying power tools with your finger on the switch or energizing
  power tools that have the switch on invites 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 overreach. Keep proper footing and balance at all times. Proper footing and balance enable better control of the power tool in unexpected situations.
- If devices are provided for the connection of dust extraction and collection facilities, ensure theses are connected and properly used. Use of dust collection can reduce dust-related hazards.

#### POWER TOOL USE AND CARE

- Do not force power tool. Use the correct power tool for your application. The correct power tool will
  do the job better and safer at the rate for which it is designed.
- Do not use the power tool if switch does not turn it on or off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the power tool. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- Store idle power tools out of reach of children and other untrained persons. Power tools are
  dangerous in the hands of untrained users.
- Maintain power tools with care. Keep cutting tools sharp and clean. Properly maintained power tools, with sharp cutting edges are less likely to bind and are easier to control.
- Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the power tools operation. If damaged, have the power tool serviced before using.
- Use the power tool, accessories and tool bits etc. in accordance with 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 result in a hazardous situation.

#### BATTERY TOOL USE AND CARE

- Recharge only with the charger specified by the manufacturer. A charger that is suitable for one type
  of battery pack may create a risk of fire when used with another battery pack.
- Use power tools only with specifically designated battery packs. Use of any another battery packs my create a risk of injury and fire. Use only POWERSMART battery (Model#PS76018B)
- When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.
- Under extreme usage or temperature conditions, battery leakage may occur. If liquid comes in contact
  with your skin, wash immediately with soap and water, then neutralize with lemon juice or vinegar. 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.

#### SERVICE

- Tool service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.
- When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual. Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of electric shock or injury.

# SPECIFIC SAFETY RULES FOR RECIPROCATING SAW

- Hold power tool by insulated gripping surfaces, when performing an operation where the cutting
  accessory may contact hidden wiring. Cutting accessory contacting a "live" wire may make exposed
  metal parts of the power tool "live" and could give the operator an electric shock.
- Use clamps or another practical way to secure and support the workpiece to a stable platform.
   Holding the work by hand or against your body leaves it unstable and may lead to loss of control.
- Know your power tool. Read operator's manual carefully. Learn its applications and limitations, as
  well as the specific potential hazards related to this power tool. Following this rule will reduce the
  risk of electric shock, fire, or serious injury.

- Always wear eye protection with side shields marked to comply with ANSI Z87.1. Following this
  rule will reduce the risk of serious personal injury.
- Protect your lungs. Wear a face or dust mask if the operation is dusty. Following this rule will reduce the risk of serious personal injury.
- Protect your hearing. Wear hearing protection during extended periods of operation. Following this
  rule will reduce the risk of serious personal 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 also to prevent misuse of the product and possible injury.

## **SYMBOLS**

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the product better and safer.

SYMBOL	NAME	DESIGNATION/EXPLANATION
V	Volts	Voltage
A	Amperes	Current
Hz	Hertz	Frequency (cycles per second)
W	Watts	Power
MIN	Minutes	Time
<b>♠</b>	Safety Alert	Precautions that involve your safety.
	Read the user's manual	To reduce the risk of injury, user must read and understand user's manual before using this product.
	Eye protection	Wear eye protection when operating this equipment.
	Wet conditions alert	Do not expose to rain or use in damp locations.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	Electric shock alert	Beware of electric shock hazard.

# KNOWING YOUR CORDLESS RECIPROCATING SAW

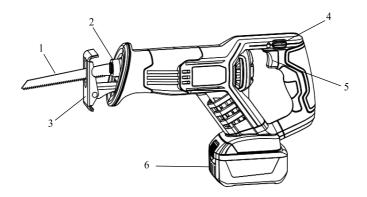


Fig.1

- 1. Saw blade
- 2. Locking sleeve
- 3. Saw frame

- 4. Lock-off button
- 5. On/Off Switch
- 6. Battery pack

### Unpacking

Unpack the power tool and all its parts, and compare against the list below. Do not discard the carton or any packaging materials. Please call 1-800-791-9458 or E-mail us at support@amerisuninc.com if any parts are damaged or missing.

Including: Cordless reciprocating saw/ Saw blade / Battery and Charger /User manual

# ASSEMBLY INSTRUCTION



#### WARNING:

Do not use this product if any parts on the packing list are already assembled to your product when you unpack it. Parts on this list are not assembled to the product by the manufacturer and require customer installation. Use of a product that may have been improperly assembled could result in serious personal injury.



#### WARNING:

If any parts are damaged or missing do not operate this product until the parts are replaced. Use of this product with damaged or missing parts could result in serious personal injury.



#### WARNING:

Do not attempt to modify this product or create accessories 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.



#### **WARNING:**

Do not connect to power supply until assembly is complete. Failure to comply could result in accidental starting and possible serious personal injury.

#### INSERTING AND REMOVING SAW BLADE

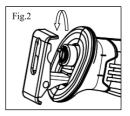


**WARNING:** Before any work on the power tool, remove the battery.

When mounting the saw blade, wear protective gloves. Danger of injury when touching the saw blade. Use only saw blades suitable for the material being worked.

#### To install the saw blade

- Turn the locking sleeve approx. 90° in the direction of the arrow and hold (see fig.2).
- 2. Push the saw blade into the saw blade holder.
- 3. Release the locking sleeve again.
- Check the tight seating of the saw blade.
   For certain work, the saw blade can also be turned through 180° (with the teeth pointed upwards) and re-inserted again.



#### To remove the saw blade

- 1. Turn the locking sleeve approx.90° in the direction of the arrow and hold.
- 2. Remove the saw blade.

#### CONNECTING AND REMOVING BATTERY

#### IMPORTANT!

The battery pack is not charged when it is purchased. Before using the power tool for the first time, place the battery pack in the battery charger and charge. Make sure to read all safety precautions, and follow the instructions in the battery charger section.

#### To install the battery pack

To install the battery pack into the bottom of the handle, align the rails of the battery pack with the rails in the handle and push the battery into the handle. To connect the battery, slide the battery pack fully forward. Until the latch locks into place.

### To remove the battery pack

Press the battery release button ,Slide the battery pack backward, and then pull or lift the battery out of the tool .



#### WARNING:

Follow these instructions in order to avoid injury and to reduce the risk of electric shock or fire:

- · Replace the battery pack or the charger immediately if the battery case or charger cord is damaged.
- Verify that the battery pack is removed before inspecting, adjusting, or performing maintenance on any part of the power tool.
- Read, understand, and follow the instructions.

# **OPERATING INSTRUCTION**

#### SWITCH ON AND OFF

Press the lock-off button to the left. To switch on the power tool, press the On/Off switch and keep it pressed (see fig.3).

To switch off the machine, release the On/Off switch. Then press the lock-off button to the right again.

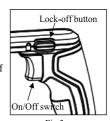


Fig.3

# CONTROLLING THE STROKE RATE

Increasing or reducing the pressure on the On/Off switch enables stepless stroke-rate control of the switched-on machine



**CAUTION:** The required stroke rate is dependent on the material and the working conditions and can be determined by a practical trial. Reducing the stroke rate is recommended when the saw blade engages in the material as well as when sawing plastic and aluminum.

#### TEMPERATURE CONTROL /OVERLOAD PROTECTION

When the temperature of battery is too high and the machine switches off automatically.

- Switch the power tool off.
- Allow the battery to cool down before continuing to work.

When the power tool is blocked and switches off automatically.

- Remove the power tool from the workpiece.
- As soon as the blockage is corrected, the power tool will continue to work at the set stroke rate.

#### **CUTTING TIPS**



#### WARNING:

- Before any work on the machine itself, remove the battery from the power tool. There is danger of injury when unintentionally actuating the On/Off switch.
- When sawing light building materials, observe the statutory provisions and recommendations of the
  material suppliers. Check the wood, press boards, building materials, etc. for foreign objects such
  as nails, screws or similar, and remove them, if required.
- If the saw blade should jam, switch the machine off immediately. Widen the gap somewhat with a
  suitable tool and pull out the machine.

#### **General Cutting:**

Hold the saw firmly in front and clearly away from you. Make sure saw blade is clear of any foreign material. Be sure material to be cut is held firmly. Small work pieces should be securely clamped in a vise or with clamps to the work bench or table. Mark the line of cut clearly. Depress the lock-off button, the pull the power switch to start the cutting action. Place the base assembly against the work, then move the blade into the work. DO NOT FORCE. Use only enough pressure to keep the saw cutting. Allow the blade and saw to do the work.

#### Plunge Cutting:

Clearly mark the line of cut. From a convenient starting point within the cut out area, place the tip of the blade over that point with saw parallel to the line of cut. Slowing lower the saw until the button edge of the shoe rests on the workpiece. Start the saw and allow it to attain full speed. With the saw resting on the shoe, slowly let the saw forward to lower the blade onto the cut line. Continue this motion until the saw blade is perpendicular to the workpiece.



**WARNING:** Make sure the blade does not touch the workpiece until the saw reaches its max speed set on the speed Adjust Dial. Failure to comply could cause loss of control and result in serious injury.

#### **Metal Cutting:**

When cutting metallic material with this tool, be sure to use a sharp blade designed for this purpose. We recommend lubricating the cutting surface with cutting oil to avoid heat buildup. Follow general cutting procedure. Do not force tool. Use only enough pressure to keep the saw cutting.



WARNING: Never use gasoline since normal sparking of motor could ignite fumes.

#### IMPORTANT CHARGING NOTES



**WARNING:** Battery packs are shipped in a low charge condition to prevent possible problems. Therefore, you should charge them before first use.

- Use only POWERSMART battery charger (Model#PS76018C)
- Charge time is approximately 1hour, and is dependent upon the type of battery pack.
- Make sure the power supply is normal household voltage, 120V, AC only, 60HZ.
- Attach the battery pack to the charger by aligning the raised ribs on the battery pack with the grooves in the charger, then slide the battery pack onto the charger.

- Press down on the battery pack to be sure contacts on the battery pack engage properly with contacts in the charger. Latches should snap into ensure charger is correctly connected.
- Do not place the charger in an area of extreme heat or cold. It will work best at normal room temperature.
- The battery pack may become slightly warm to the touch while charging. This is normal and does not
  indicate a problem.
- The red LEDs will remain on while charging.
- When the green LEDs is light, this indicates the battery is fully charged.
- To remove the battery pack from the charger, depress latches and pull up on the battery pack.
- When the battery pack is fully charged, remove it from the charger.

## **MAINTENANCE**



**WARNING:** In order to avoid personal injury and the risk of fire and electric shock, remove the battery pack before adjusting, inspecting, or cleaning the power tool.



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

Clean the saw blade holder preferably with compressed air or a soft brush. Remove the saw blade from the power tool for this. Ensure proper operation of the saw blade holder by applying a suitable lubricant. Heavy contamination of the machine can lead to malfunctions. Therefore, do not saw materials that produce a lot of dust from below or overhead.

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 clothes to remove dirt, oil, grease, etc.

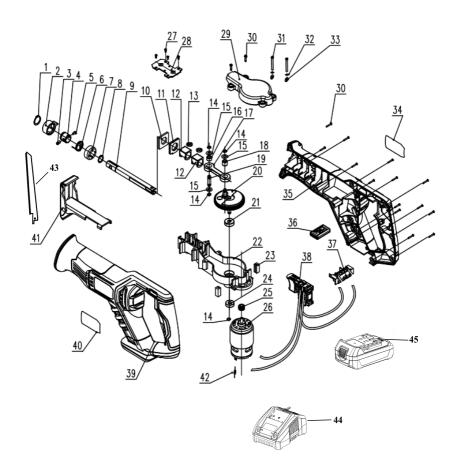
# TROUBLE SHOOTING



**WARNING:** Read instruction manual first! Remove battery pack from the tool before making adjustments or assembling accessories.

TROUBLE: T	OOL WILL NOT START		
	1. Battery pack not charged.		
	2. Battery pack not installed properly.		
PROBLEM	3. Battery pack temperature is too hot or cold for operation.		
	4. Burned out switch.		
	I. If equipped, check battery charge condition lights for charge status. Charge battery if needed.		
REMEDY	2. Confirm battery is locked and secured to the tool.		
	3. Let battery sit a few minutes or until it reaches normal operating temperature.		
	4. Replace the switch provided by POWERSMART.		
TROUBLE: B	ATTERY PACK WILL NOT CHARGE		
	1. Charger not plugged into outlet.		
PROBLEM	2. Battery pack not completely inserted into charger.		
	1. Confirm charger is plugged into outlet.		
REMEDY	2. Confirm battery pack is inserted into charger completely.		

# **EXPLODED VIEW**



# **PARTS LIST**

Item	Stock#	Description	Qty
1	PS76415A-001	Ring 16	1
2	PS76415A-002	Out ring	1
3	PS76415A-003	Ball	2
4	PS76415A-004	Inner ring	1
5	PS76415A-005	Pin	1
6	PS76415A-006	Torsional spring	1
7	PS76415A-007	Plastic ring	1
8	PS76415A-008	Ring 12	1
9	PS76415A-009	Recip lever	1
10	PS76415A-010	Woolpad	1
11	PS76415A-011	Ring clamp	1
12	PS76415A-012	Bearing	2
13	PS76415A-013	O type ring	2
14	PS76415A-014	Ring 6	4
15	PS76415A-015	Washer ring	3
16	PS76415A-016	Small steel bushing	1
17	PS76415A-017	Connecting rod	1
18	PS76415A-018	Bearing sleeve HK0609	1
19	PS76415A-019	Round pin	1
20	PS76415A-020	Big gear	1
21	PS76415A-021	Bearing 626-2Z	1
22	PS76415A-022	Movement stents	1
23	PS76415A-023	Damping groove	2

Item	Stock#	Description	Qty
24	PS76415A-024	Bearing 606-2Z	1
25	PS76415A-025	Small gear	1
26	PS76415A-026	Motor	1
27	PS76415A-027	Screw ST2.9x1 2	4
28	PS76415A-028	Cover	1
29	PS76415A-029	Cover	1
30	PS76415A-030	Screw ST4.2x14	16
31	PS76415A-031	Screw M4x30	2
32	PS76415A-032	Spring washer 4	2
33	PS76415A-033	Washer 4	2
34	PS76415A-034	Label	1
35	PS76415A-035	Right housing	1
36	PS76415A-036	Button	1
37	PS76415A-037	Metal pin	1
38	PS76415A-038	Switch	1
39	PS76415A-039	Left housing	1
40	PS76415A-040	Label	1
41	PS76415A-041	Saw frame	1
42	PS76415A-042	Resistance	2
43	PS76415A-043	Saw blade	1
44	PS76018C	Charger	1
45	PS76018B	Battery pack	1

## TWO (2) YEARS LIMITED WARRANTY

PowerSmart® is committed to building tools that are dependable for years. Our warranties are consistent with our commitment and dedication to quality.

TWO (2) YEARS LIMITED WARRANTY OF POWERSMART PRODUCTS FOR HOME USE.

PowerSmart ("Seller") warrants to the original purchaser only, that all PowerSmart consumer power tools will be free from defects in material or workmanship for a period of two (2) years from date of purchase. Ninety (90) days for all PowerSmart Products, if the tool is used for professional or commercial use.

SELLER'S SOLE OBLIGATION AND YOUR EXCLUSIVE REMEDY under this Two (2) Years Limited Warranty and, to the extent permitted by law, any warranty or condition implied by law, shall be the repair or replacement of parts, without charge, which are defective in material or workmanship and which have not been misused, carelessly handled, or misrepaired by persons other than Seller or Authorized Service Center. To make a claim under this Limited Warranty, you must return the entire power tool product; transportation prepaid, to PowerSmart Include a legible copy of the original receipt, which lists the date of purchase (month and year) and the name of the company purchased from.

THIS LIMITED WARRANTY DOES NOT APPLY TO ANY ACCESSORY ITEMS INCLUDED WITH THE TOOL SUCH AS CIRCULAR SAW BLADES OTHER RELATED ITEMS OR TO ANY REPLACEMENT PARTS LISTED UNDER MAINTENANCE.

ANY IMPLIED WARRANTIES SHALL BE LIMITED IN DURATION TO TWO (2) YEARS FROM DATE OF PURCHASE. SOME STATES IN THE U.S. AND SOME CANADIAN PROVINCES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

IN NO EVENT SHALL SELLER BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING BUT NOT LIMITED TO LIABILITY FOR LOSS OF PROFITS) ARISING FROM THE SALE OR USE OF THIS PRODUCT. SOME STATES IN THE U.S. AND SOME CANADIAN PROVINCES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE IN THE U.S., PROVINCE TO PROVINCE IN CANADA AND FROM COUNTRY TO COUNTRY.

For questions / comments, technical assistance or repair parts – Please call toll free at: 1-800-791-9458 (M-F 9am – 5pm EST)

Email: support@amerisuninc.com

SAVE YOUR RECEIPTS. THIS WARRANTY IS VOID WITHOUT THEM.