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# JIGSAW 20V POWXB50020

## 1 INTENDED USE

The power tool is intended for sawing wood, metal and plastics. Not suitable for professional use.



**WARNING! Read this manual and general safety instructions carefully before using the appliance, for your own safety. Your power tool should only be passed on together with these instructions.**

## 2 DESCRIPTION (FIG. A)

- |                              |   |
|------------------------------|---|
| 1. ON/OFF switch             | 8. Charger                                      |
| 2. LED work light            | 9. Battery pack with battery capacity indicator |
| 3. Pendulum switch           | 10. Battery pack release button                 |
| 4. Guide roller              | 11. Adjustable base                             |
| 5. Quick-release blade clamp | 12. Lock knob for edge guide                    |
| 6. Saw blade                 | 13. Edge guide                                  |
| 7. Safety guard              |   |

## 3 PACKAGE CONTENT LIST

- Remove all packaging materials.
- Remove remaining packing and package inserts (if included).
- Check that the package contents are complete.
- Check the appliance, the power cord, the power plug and all accessories for transportation damage.
- Keep the packing materials as far as possible till the end of the warranty period. Dispose it into your local waste disposal system afterwards.



**WARNING: Packaging materials are not toys! Children must not play with plastic bags! Danger of suffocation!**

1x Machine  
1x Manual  
1x edge guide  
1x battery

1x charger  
1x dust connector  
1x hex key  
9x cutting blades










**If any parts are missing or damaged, please contact your dealer.**

## 4 SYMBOLS

In this manual and/or on the machine the following symbols are used:

	Denotes risk of personal injury or damage to the tool.		In accordance with essential requirements of the European directive(s)
	Read manual before use		"Class II - The machine is double insulated; Earthing wire is therefore not necessary (only for charger)

	Ambient temperature 40°C max. (only for battery)		Do not expose charger and battery pack to water
	Use battery and charger only in closed rooms		Do not incinerate battery pack or charger
	Wear noise protection		Wear a mask In dusty conditions
	Mandatory use of eye protection.		

## 5 GENERAL POWER TOOL SAFETY WARNINGS

Read all safety warnings and instructions. Failure to heed warnings and follow instructions may result in electric shock, fire and/or serious injury. Keep safety warnings and instructions for future reference. The term "power tool" in the safety warnings refers to your mains-operated (corded) power tool or battery- operated (cordless) power tool.

### 5.1 Working area

- Keep working area clean and well lit. Untidy and dark areas can lead to accidents.
- Do not operate power tools in potentially explosive surroundings, for example, in the presence of inflammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- Keep children and bystanders at a distance when operating a power tool. Distractions can cause you to lose control of it.

### 5.2 Electrical safety

- Always check that the power supply corresponds to the voltage on the rating plate.
- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use adapter plugs with earthed power tools. Unmodified plugs and matching outlets will reduce the risk of an electric shock.
- Avoid body contact with earthed surfaces such as pipes, radiators, kitchen ranges and refrigerators. There is an increased risk of an electric shock if your body is earthed.
- Do not expose power tools to rain or wet conditions. If water gets inside a power tool, it will increase the risk of an electric shock.
- Do not damage the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep the cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of an electric shock.
- When operating a power tool outdoors, use an extension cable suitable for outdoor use. Using a cord suitable for outdoor use reduces the risk of an electric shock.
- If operating a power tool in a damp location is unavoidable, use a power supply protected by a residual current device (RCD). Using an RCD reduces the risk of an electric shock.

### 5.3 Personal safety

- Stay alert, watch what you are doing and use common sense 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 when operating a power tool may result in serious personal injury.

- Use safety equipment. Always wear eye protection. Using safety equipment such as a dust mask, non-skid safety shoes, a hard hat, or hearing protection whenever it is needed will reduce the risk of personal injury.
- Avoid accidental starts. Ensure the switch is in the off position before inserting the plug. Carrying power tools with your finger on the switch or plugging in power tools when the switch is in the on position makes accidents more likely.
- Remove any adjusting keys or spanners before turning on the power tool. A spanner or key left attached to a rotating part of the power tool may result in personal injury.
- Do not reach out too far. Keep your feet firmly on the ground at all times. This will enable you retain control over the power tool in unexpected situations.
- Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from the power tool. Loose clothes, jewellery or long hair can become entangled in the moving parts.
- If there are devices for connecting dust extraction and collection facilities, please ensure that they are attached and used correctly. Using such devices can reduce dust-related hazards.

#### **5.4 Power tool use and care**

- Do not expect the power tool to do more than it can. Use the correct power tool for what you want to do. A power tool will achieve better results and be safer if used in the context for which it was designed.
- Do not use the power tool if the switch cannot turn it on and off. A power tool with a broken switch is dangerous and must be repaired.
- Disconnect the plug from the power source before making adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- Store power tools, when not in use, out of the reach of children and do not allow people who are not familiar with the power tool or these instructions to operate it. Power tools are potentially dangerous in the hands of untrained users.
- Maintain power tools. Check for misalignment or jammed moving parts, breakages or any other feature that might affect the operation of the power tool. If it is damaged, the power tool must be repaired. Many accidents are caused by using poorly maintained power tools.
- Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to jam and are easier to control.
- Use the power tool, accessories and cutting tools, etc., in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work which needs to be done. Using a power tool in ways for which it was not intended can lead to potentially hazardous situations.

#### **5.5 Service**

- Your power tool should be serviced by a qualified specialist using only standard spare parts. This will ensure that it meets the required safety standards.

## **6 SPECIAL SAFETY INSTRUCTIONS FOR JIG SAWS**



**Important! Use of any accessories or attachments other than those supplied or recommended in these operating instructions can mean the risk of injury.**

- When using jig saws ear protectors and a face mask should be worn. Exposure to noise can cause damage to hearing.

- Do not use the jig saw to cut asbestos or materials containing asbestos.
- Do not leave power tools running unattended. Always switch off and do not put down or leave until it has stopped completely.
- Long hair must be covered. Do not work in loose fitting clothing.
- Be careful when working on walls. Damage to power supply lines, gas or water pipes can lead to dangerous situations. Use appropriate detectors to establish whether there are concealed wires or pipes in the working area.
- Secure the work piece. The work piece is only secure if it is held by work-holding devices or in a vice.
- Caution: saw blades can get very hot.
- Saw blades must be kept sharp and in good condition. Replace partially fractured and broken saw blades immediately.
- Work calmly and evenly with the jig saw. You will thus avoid accidents and the saw blades and the jig saw will last longer.
- Do not use for cutting pipes or cables.
- Do not use cracked, blunt or damaged blades.
- Do not start the saw if no blade is fitted.
- Check there are no obstructions in/on the surface under the item to be cut.
- Do not attempt to cut items thicker than the maximum cutting depth of the blade, or where there is insufficient space for the blade under the item.
- The saw's metal parts may become conductive if the saw comes into contact with a live wire. Therefore only hold the saw by its insulated handle.
- Check that the ventilation slots are not blocked.
- Never remove dust, obstructions or the like from the work area while the blade is operating.
- Never stop the saw blade by applying pressure to the saw or to the side of the blade.
- Do not lift the saw from the item being cut if the blade is still running.
- Never place the saw on a table or workbench if it has not stopped completely.
- The saw blade will continue to run a short time after the machine has been switched off.
- Hold power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring or its own cord. Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.

## **7 ADDITIONAL SAFETY INSTRUCTIONS CONCERNING KICKBACK**

### **7.1 Causes of kickback:**

- Kickback is a sudden reaction to a pinched, bound or misaligned saw blade, causing an uncontrolled saw to lift up and out of the work-piece toward the operator;

### **7.2 Prevention of kickback:**

- Maintain a firm grip with both hands on the saw and position your arms to resist kickback forces. Position your body to either side of the blade, but not in line with the blade.
- When blade is binding, or when interrupting a cut for any reason, release the trigger and hold the saw motionless in the material until the blade comes to a complete stop. Never attempt to remove the saw from the work or pull the saw backward while the blade is in motion or kickback may occur.
- When restarting a saw in the work-piece, centre the saw blade in the kerf and check that saw teeth are not engaged into the material.
- Support large panels to minimize the risk of blade pinching and kickback.
- Do not use dull or damaged blades. Unsharpened or improperly set blades produce narrow kerf causing excessive friction, blade binding and kickback.
- Blade depth and bevel adjusting locking levers must be tight and secure before making cut. If blade adjustment shifts while cutting, it may cause binding and kickback.

- Use extra caution when sawing into existing walls or other blind areas. The protruding blade may cut objects that can cause kickback.

## **8 ADDITIONAL SAFETY INSTRUCTIONS FOR BATTERIES AND CHARGERS**

### **8.1 Batteries**

- Never attempt to open for any reason.
- Do not store in locations where the temperature may exceed 40 °C.
- Charge only at ambient temperatures between 4 °C and 40 °C.
- Store your batteries in a cool dry place (5 °C-20 °C). Never store batteries in discharged state.
- It is better for Li-ion batteries to discharge and reload them regularly (at least 4 times a year). The ideal charge for long-term storage of your Li-ion battery is 40% of capacity.
- When disposing of batteries, follow the instructions given in the section "Protecting the environment".
- Do not cause short circuits. If connection is made between the positive (+) and negative (-) terminal directly or via accidental contact with metallic objects, the battery is short circuited and an intense current will flow causing heat generation which may lead to casing rupture or fire.
- Do not heat. If batteries are heated to above 100 °C, sealing and insulating separators and other polymer components may be damaged resulting in electrolyte leakage and/or internal short circuiting leading to heat generation causing rupture or fire. Moreover do not dispose of the batteries in fire, explosion and/or intense burning may result.
- Under extreme conditions, battery leakage may occur. When you notice liquid on the battery, proceed as follows:
  - Carefully wipe the liquid off using a cloth. Avoid skin contact.
  - In case of skin or eye contact, follow the instructions below:
    - ✓ Immediately rinse with water. Neutralize with a mild acid such as lemon juice or vinegar.
    - ✓ In case of eye contact, rinse abundantly with clean water for at least 10 minutes. Consult a physician.



**Fire hazard! Avoid short-circuiting the contacts of a detached battery. Do not incinerate the battery.**

### **8.2 Chargers**

- Never attempt to charge non-rechargeable batteries.
- Have defective cords replaced immediately.
- Do not expose to water.
- Do not open the charger.
- Do not probe the charger.
- The charger is intended for indoor use only.

## **9 CHARGING AND INSERTION OR REMOVAL OF BATTERY**

### **9.1 Charger indications (Fig. 1)**

Connect the charger to the power outlet socket

- Solid green: ready to charge
- Solid red: charging
- Solid green: charged
- Solid green and red: battery or charger damaged



**Note: if the battery does not fit properly, disconnect it and confirm that the battery pack is the correct model for this charger as shown on the specification chart. Do not charge any other battery pack or any battery pack that does not securely fit the charger.**

1. Frequently monitor the charger and battery pack while connected
2. Unplug the charger and disconnect it from the battery pack when finished.
3. Allow the battery pack to cool completely before using it.
4. Store the charger and battery pack indoors, out of reach of children.



**NOTE: If battery is hot after continuous use in the tool, allow it to cool down to room temperature before charging. This will extend the life of your batteries.**

## **9.2 Removal / insertion of battery (Fig. 2)**



**WARNING: Before making any adjustments ensure the jig saw is switched off or remove the battery pack.**

- Hold the tool with one hand and the battery pack (9) with the other.
- To install: push and slide battery pack into battery port, make sure the release latch on the rear side of the battery snaps into place and battery is secure before beginning operation.
- To remove: Press the battery release latch and pull the battery pack out at the same time.

## **9.3 Battery capacity indicator (Fig. 3)**

There are battery capacity indicators on the battery pack, you can check the capacity status of the battery if you squeeze the button. Before using the machine, please press switch trigger to check if the battery is full enough for properly working.

Those 3 LED might show the status of the capacity level of the battery:

3 LED's are litt: Battery fully charged

2 LED's are litt: Battery 60% charged

1 LED is litt: Battery almost discharged

# **10 OPERATION**

## **10.1 Replacing saw blades (Fig. 4)**

Disconnect the battery pack (9) from the cordless jig saw.

- Pull the lever of quick-change blade clamping holder.
- Slide the saw blade (6) into the locating groove with teeth pointing forward. Make sure that the back edge of the blade fits into the blade clamping holder (5) and then release the lever of quick-change blade clamping holder.



**NOTE: Make sure that the back of the saw blade engages in the slot of the guide roller (4).**

- Mounting battery pack (9) onto jig saw's body and runs smoothly before using it to cut any materials.

## **10.2 Angle cutting adjustment (Fig 5)**

- Loosen the screws of shoe by using wrench for angle cutting adjustment which is located on the bottom of the tool.



- Move the shoe left or right and tilt it until the desired angle (from 0° to 45°) as shown on the tilt angle scale.
- Retighten the screws of shoe by using wrench.
- Check whether the shoe is fixed firmly.

### **10.3 Switch on and off (Fig. 6)**

- Connect the battery pack (9) to the cordless jig saw and ensure it firmly.
- To switch on the jig saw, press the ON/OFF switch (1)
- When you change the position of the switch trigger (1) again, the tool turns off.

### **10.4 Adjusting the pendulum regulation knob (Fig. 7)**

This jig saw is equipped with four cutting actions, one straight and three orbital. Orbital action has a more aggressive blade motion and is designed for cutting in soft materials like wood or plastic. Orbital action provides faster cut, but with a rougher cut across the material. In orbital action, the blade moves forward during the cutting stroke in addition to the up and down motion.



**Note: Metal or hardwoods should never be cut in orbital action.**

To adjust the cutting action, moves the orbital switch knob between the four cutting positions: 0, I, II, and III. Position 0 is the straight cutting. For this "0" position the knob must be turned downward. Positions I, II and III are orbital cutting. The aggressiveness of the cut increase as the knob is moved from one to three, with three being the most aggressive cut.

### **10.5 LED work light (Fig. 8)**

The LED work light (2) can light if you turn the tool on, which keep the work area to be lighted for checking clearly at first, and it lights also during your operation.



**WARNING: Do not stare directly at the light beam. Never aim the beam at any person or an object other than the work piece.**



**Do not deliberately aim the beam at personnel and ensure that it is not directed towards the eye of a person for longer than 0.25s.**

### **10.6 Adjusting the parallel guide (Fig. 9)**

With the edge guide (a) you can saw parallel to an edge. The maximum distance is 15 cm.

- Loosen the lock knob (12) and insert the parallel guide into the holders in the saw/base-plate (11).
- Tighten the lock knob for edge guide.

## **11 OPERATION**

Never use a blade unsuitable for the task and item to be cut.

Hold the saw in front of you with a firm grip on the handle. Ensure that the saw blade is not touching anything when starting the saw. Make sure that the item is clamped tight, and that the saw line is clearly marked. Connect the vacuum extractor nozzle to an extractor system where possible. Start the saw.

Place the soleplate on the item, and let the saw blade touch the saw line. Saw, but do not place more pressure on the blade than is necessary. Avoid lateral pressure on the blade.

### 11.1 *Special notes on jig sawing*

Place the base on the item so the saw blade is vertical and correctly positioned in relation to the saw line without touching it. Start the saw and tilt it carefully while supporting it using the soleplate until the blade touches the item at the saw line. Let the blade work through the item, continuing to tip the saw downwards until the sole is flush to the item and the blade is perpendicular to it. If necessary, drill a hole of suitable diameter in the item for use as starting point.

#### 11.1.1 Sawing wood

Check that the item does not contain nails or other metal objects. Always wear a mask.

#### 11.1.2 Sawing metal

We recommend lubricating the material and saw blade with cutting oil to protect the tool and avoid overheating. Support the item with wooden blocks on either side.

#### 11.1.3 Sawing plastic

Make a test cut first to check if the material can tolerate the heat generated by sawing.



**Important! Check all screws on the saw regularly, particularly those that hold the blade. Tighten if required.**

## 12 CLEANING AND MAINTENANCE

### 12.1 *Cleaning*

- Keep the ventilation slots of the machine clean to prevent overheating of the engine.
- Regularly clean the machine housing with a soft cloth, preferably after each use.
- Keep the ventilation slots free from dust and dirt.
- If the dirt does not come off use a soft cloth moistened with soapy water.
- Never use solvents such as petrol, alcohol, ammonia water, etc. These solvents may damage the plastic parts.

### 12.2 *Maintenance*

- Our machines have been designed to operate over a long period of time with a minimum of maintenance. Continuous satisfactory operation depends upon proper machine care and regular cleaning.

## 13 TECHNICAL DETAILS

Rated voltage	20V
Rotation speed	1000-3000min-1
LED worklight	Yes
Number of LED's	1
Pendular positions	4
Adjustable base	Yes
Stroke height	25.4mm
Cutting depth steel	6mm
Cutting depth wood	100mm
Cutting depth plastic	10mm
Connection type	T-shank
Quick change blades	Yes

Base material	Iron
Battery connection	Slide-on
Battery capacity	20V-2000mAh
Charger rating output	20V-2A

## 14 WARRANTY

- This product is warranted for a 36-month period effective from the date of purchase by the first user.
- This warranty covers all material or production flaws excluding : batteries, chargers, defective parts subject to normal wear & tear such as bearings, brushes, cables, and plugs, or accessories such as drills, drill bits, saw blades, etc. ; damage or defects resulting from maltreatment, accidents or alterations; nor the cost of transportation.
- Damage and/or defects resulting from inappropriate use also do not fall under the warranty provisions.
- We also disclaim all liability for any bodily injury resulting from inappropriate use of the tool.
- Repairs may only be carried out by an authorised customer service centre for Powerplus tools.
- You can always obtain more information at the number 00 32 3 292 92 90.
- Any transportation costs shall always be borne by the customer, unless agreed otherwise in writing.
- At the same time, no claim can be made on the warranty if the damage of the device is the result of negligent maintenance or overload.
- Definitely excluded from the warranty is damage resulting from fluid permeation, excessive dust penetration, intentional damage (on purpose or by gross carelessness), inappropriate usage (use for purposes for which the device is not suitable), incompetent usage (e.g. not following the instructions given in the manual), inexperienced assembly, lightning strike, erroneous net voltage. This list is not exhaustive.
- Acceptance of claims under warranty can never lead to the prolongation of the warranty period nor commencement of a new warranty period in case of a device replacement.
- Devices or parts which are replaced under the warranty therefore remain the property of Varo NV.
- We reserve the right to reject a claim whenever the purchase cannot be verified or when it is clear that the product has not been properly maintained. (Clean ventilation slots, carbon brushes serviced regularly, etc.).
- Your purchase receipt must be kept as proof of date of purchase.
- Your appliance must be returned undismantled to your dealer in an acceptably clean state, (in its original blow-moulded case if applicable to the unit), accompanied by proof of purchase.
- Your tool must be charged at least 1x per month to ensure optimal operation of this tool.

## 15 ENVIRONMENT



Should your appliance need replacement after extended use, do not dispose of it with the household refuse, but in an environmentally safe way.

Waste produced by electrical machine items should not be handled like normal household rubbish. Please recycle where recycle facilities exist. Check with your Local Authority or retailer for recycling advice.