

IMPACT DRILL 20V
POWDP15210

1 APPLICATION
The power tool is intended for driving and drilling through wood, metal, plastics and masonry. 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. Keyless chuck
2. Torque adjustment ring
3. Two speed selector
4. On/off switch trigger
5. Battery pack
6. Forward/reverse knob
7. LED work light
8. Battery pack release button
9. Battery capacity indicator
10. Button for battery capacity indicator
11. Belt clip
12. Function mode selector

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!

1 Impact drill
1 Battery
1 Charger
1 Instruction manual

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

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 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 other battery packs may create a risk of injury and fire.
- 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 abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.
- Do not use a battery pack or tool that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.
- Do not expose a battery pack or tool to fire or excessive temperature. Exposure to fire or temperature above 130 °C may cause explosion.
- Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions. Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

5.6 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 ADDITIONAL SAFETY INSTRUCTIONS FOR DRILLS

- Hold power tools by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring. Contact with a ″live″ wire will make exposed metal parts of the tool ″live″ and shock the operator.

- Let bit cool before touching, changing or adjusting it. Bits heat up dramatically while in use, and can burn you.
- Avoid unintentional starting. Prepare to begin work before turning on the tool.
- Do not lay the tool down until it has come to a complete stop. Moving parts can grab the surface and pull the tool out of your control.
- When using a handheld power tool, maintain a firm grip on the tool with both hands to resist starting torque.
- Do not leave the tool unattended when the Battery Pack is connected. Turn off the tool, and remove the Battery Pack before leaving.
- The battery Charger gets hot during use. The Charger's heat can build up to unsafe levels and create a fire hazard if it does not receive adequate ventilation, due to an electrical fault, or if it is used in a hot environment. Do not place the Charger on a flammable surface. Do not obstruct any vents on the Charger. Especially avoid placing the Charger on carpets and rugs; they are not only flammable, but they also obstruct vents under the Charger. Place the Charger on a stable, solid, nonflammable surface (such as a stable metal workbench or concrete floor) at least 1 foot away from all flammable objects, such as drapes or walls. Keep a fire extinguisher and a smoke detector in the area. Frequently monitor the Charger and Battery Pack while charging.
- This product is not a toy. Keep it out of reach of children.
- The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

7 ADDITIONAL SAFETY INSTRUCTIONS FOR BATTERIES AND CHARGERS

Use only batteries and chargers applicable for this machine.

7.1 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 file. 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.

7.2 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.

8 FEATURES

8.1 Li-ion battery (5)

Advantages of Li-ion batteries:

- Li-ion batteries have a higher capacity/weight ratio (more power for less heavy, more compact, battery)
- No memory effect (capacity loss after several charge/discharge cycles) like other type batteries. (Ni-Cd, Ni-MeH ..).
- Limited self discharge. (also see chapter : Storage)

8.2 Keyless chuck (1)

Your drill has a keyless chuck that allows you to hand tighten or release drill bit in the chuck jaws.

8.3 Torque adjustment ring (2)

The drill has a torque adjustment ring. It allows you to select the desired torque depending on the task you have to perform (drilling / screwing different types of screws into different materials). The proper setting depends on the type of material and the size of screw you are using.

8.4 Forward/reverse selector (right/left rotation selector) (6)

The drill has a forward/reverse selector located above the switch trigger.
CAUTION: To prevent damage to the gearbox, always allow the chuck to come to a complete stop before changing the direction of rotation or selecting another speed (HI-LO). To stop, release the trigger switch.

8.5 Variable speed

Your cordless drill has a variable speed switch. The rotational speed and torque will in-/ decrease equivalently to applied trigger pressure. This drill has an electric brake, when the trigger switch is released, the chuck stops turning.

8.6 Speed selector (3)

Your cordless drill has a two-speed gear, designed for drilling or driving at LO (1) or HI (2) speed. A slide switch is located on top of your drill to select either LO (1) or HI (2) speed.

8.7 LED light (7)

Your cordless drill is equipped with an LED light at the front, above the battery pack

8.8 TPR soft grip

Your cordless drill is equipped with TPR soft grip and protective parts. TPR (Thermoplastic rubber) is elastic, chock absorbing and environmental friendly (recyclable).

9 OPERATION

9.1 Charging the battery pack

The battery pack for this tool is supplied in a low charge condition to prevent possible problems, therefore, you have to charge the battery before first use.

Note: Batteries will not reach full charge the first time they are charged. Allow several cycles for the item to fully charge. The battery should only be charged indoors.

After normal use, about 1 hour of charging time is required for the battery to be fully charged. The battery pack will become slightly warm while charging, this is normal and does not indicate a problem.
Do not place the charger in an area of extreme heat or cold. Best is at normal room temperature. When the battery becomes fully charged, unplug your charger from the power supply and remove the battery pack from the charger.
Note:

1. Allow the battery pack to cool completely before charging
2. Inspect the battery pack before charging, do not charge a cracked or leaking battery pack.

9.1.1 Charging indication (Fig 1)

Connect the charger to the power outlet socket

- Solid green: ready to charge
- Flickering 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.

NOTE: Remove battery pack from charger stand which use your thumb or fingers, press the battery's release button in and pull the battery pack off at the same time.

9.2 Battery capacity indicator (Fig. 1a)

There are battery capacity indicators on the battery pack, you can check the capacity status of the battery if you squeeze the button (12). 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

9.3 Inserting and removing the battery (Fig 2)

WARNING: Before making any adjustments ensure the drill is switched off with the direction of rotation selector in the centre position

- Remove the battery: press the battery release latch in and at the same time pull the battery pack off.
- To insert the battery, push the battery pack onto the contacts of the tool.

9.4 Installing and Removing a Bit and a Drill (Fig 3)

This drill has a keyless chuck to prevent the bit or drill from loosening and allows you to hand tighten or release drill bit in the chuck jaws

- Turn ring A anticlockwise with the other hand until the drill chuck opening is large enough to accept the tool.
- Insert the drill or the screwdriver bit into the drill chuck.
- Turn ring A clockwise until the tool is clamped tightly.

Remove the tool in the opposite way.

9.5 Switch (4)

The drill is started and stopped by depressing and releasing the ON/OFF switch trigger.

9.5.1 Switch lock (Fig 4)

The switch trigger can be locked in the center position.
This helps to reduce the possibility of accidental starting when not in use. To lock the switch trigger, place the direction of rotation selector in the center position.

9.5.2 Direction of rotation (Fig 5)

Direction of rotation is controlled by the direction of rotation selector located above the switch trigger.

9.5.2.1 Clockwise rotation:

Right: To select forward rotation, release the on/off switch and push the forward/reverse lever to the left side of the tool.

9.5.2.2 Anticlockwise rotation:

Left: To select reverse rotation, push the lever to the right side of the tool.

9.5.3 Variable speed

This tool has a variable speed switch that delivers higher speed and torque with increased trigger pressure.
Speed is controlled by the amount of switch trigger depression.

9.6 Adjusting the torque

The torque is adjusted by rotating the torque setting ring; the torque is greater when the torque setting is set on a higher position. The torque is less when the torque setting ring is set on a low position "1" denote lowest and "23" denote highest.

Torque is set by means of a torque setting according to different screw and different material, you can adjust suitable torque, if the screw is long and material is hard, you can adjust the bigger setting.

Remark:

The torque setting function works only in combination with the screw driver mode.

9.7 Function mode selector

- Turn the function mode selector and let the pointer align to the impact mode that selects the impact mode of action.
- Turn the function mode selector and let the pointer align to the drill mode that selects the drill mode of action.
- Turn the function mode selector and let the pointer align to the screwdriver mode that selects the screwdriver mode of action.

9.8 Speed selector (Fig 6)

NOTE: Mark "1" is Low speed position, mark "2" is High speed position that moulding onto the button of two speed selector.

The drill has a two-speed gear train designed for drilling at 1 (LOW) or 2 (HIGH) speed. A gear selector is located on top of the drill to select either low or high speed. When you push the button forward and select low speed range, the speed will decrease but will provide more power and torque. When using drill in the high speed range. Speed will increase but will provide less power and torque. Use low speed for high power and torque application and high speed for fast drilling applications.

Important: NEVER adjust this two speed selector whilst the drill is running. Always let it come to a complete stop first.

9.9 LED light (Fig 7)

The LED work-light can light prior to motor running if you press the switch lightly, 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 DRILLING

10.1 Drilling

Before use for drilling, the function mode selector should be set on drill position " ".

When drilling hard smooth surface, use a center punch to mark the desired hole location. This will prevent the drill bit from slipping off center as the hole is started. Hold the tool firmly and place the tip of the drill or bit into the work piece, applying only enough pressure to keep the bit cutting. Do not force or apply side pressure to elongate a hole.

10.2 Wood drilling

For maximum performance, use high speed steel bits for wood drilling. Turn the function mode selector on the drill mode "  ". Begin drilling at a very low speed to prevent the bit from slipping off the starting point. Increase the speed as the drill bit bites into the material. When drilling through holes, place a block of wood behind the workpiece to prevent ragged or shintered edges on the back side of the hole.

10.3 Metal drilling

For maximum performance, use high speed steel bits for metal or steel drilling. . Turn the function mode selector on the drill mode "  ". Begin drilling at a very low speed to prevent the bit from slipping off the starting point. Maintain a speed and pressure which allows cutting without overheating the bit.

Applying too much pressure will:

- Overheat the drill
- Wear the bearings
- Bend or burn bits
- Produce off-center or irregular shaped holes

When drilling large holes in metal, it is recommended that you drill with a small bit at first, then finish with a large bit. Also, lubricate the bit with oil to improve drilling action and increase bit life.

10.4 Driving screw

- For maximum performance, use good quality bits for driving screws , turn the function mode selector on the screwdriver mode position"21".
- Fix the torque setting low enough to allow a safety margin. Use a very low torque setting when first driving small screws into soft materials. Then adjust the setting as the proper force required is determined.

NOTE: The torque setting required depends on the item being driven. In the case of screws, consider the size, length, and type of material.

10.5 Hammer Setting

- For maximum performance, use a good quality masonry bit for hammer drill, turn the function mode selector on the impact mode position"  ".
- Only use this setting to bore or drill into stone/concrete. The Hammer setting works well when drilling/chipping into materials.
- The tip of tool MUST be firmly depressed for the hammer action to engage.

NOTE: Only use a masonry bit when drilling into masonry materials.

11 CLEANING AND MAINTENANCE

11.1 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.

11.2 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.

12 TECHNICAL DETAILS

Chuck	13 mm keyless
Power supply	20 Volt DC
Gear Train	2 Speed
No Load Speed	0-450/0-1800 min-1
Clutch	23+1+1 Positions
Torque	50Nm (MAX.)

13 NOISE

Noise emission values measured according to relevant standard. (K=3)

Acoustic pressure level LpA	76 dB(A)
Acoustic power level LwA	87 dB(A)

ATTENTION! Wear hearing protection when sound pressure is over 85 dB(A).

aw (Vibration)	Max 6,7 m/s²	K = 1,5 m/s²

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), inexpert assembly, lightning strike, erroneus 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.

16 DECLARATION OF CONFORMITY

CE

varo

VARO – Vic. Van Rompuy N.V. - Joseph Van Instraat 9 - BE2500 Lier - BELGIUM, declares that,

Product:	Impact drill 20V
Trade mark:	PowerPlus
Model:	POWDP15200

is in conformity with the essential requirements and other relevant provisions of the applicable European Directives, based on the application of European harmonized standards. Any unauthorized modification of the apparatus voids this declaration.

European Directives (including, if applicable, their amendments up to the date of signature);

2011/65/EU
2006/42/EC
2014/30/EU

European harmonized standards (including, if applicable, their amendments up to the date of signature);

EN62841-1 : 2015
EN62841-2-1 : 2018
EN55014-1 : 2017
EN55014-2 : 2015

Keeper of the Technical Documentation : Philippe Vankerkhove, VARO – Vic. Van Rompuy N.V.

The undersigned acts on behalf of the company CEO,

Ludo Mertens
Regulatory Affairs – Compliance Manager
15/07/2020, Lier - Belgium