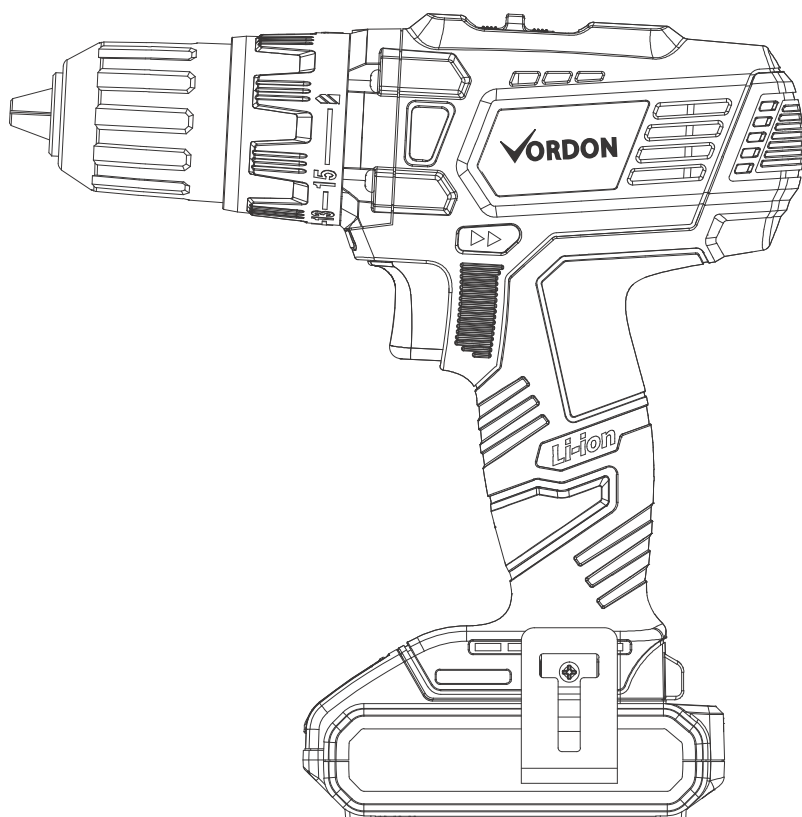




Cordless Drill

18V Lithium - Ion



English, Polski, Deutsch, Français
Italiano, Español, Русский

Drill warnings:

WARNING: Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock and/or injury. Save all warnings and instructions for future reference.

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 dust or fumes.
- Keep bystanders and children away while operating a power tool. Distractions can cause you to lose control.
- 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 to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately. Damaged cords increase the risk of electric shock.
- When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
- If operating a power tool in a damp location is unavoidable, use a Ground Fault Circuit Interrupter (GFCI) protected supply. Use of a GFCI reduces the risk of electric shock.

Electrical safety

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- Avoid bodily contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is grounded.

Personal safety

- Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use the tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.
- Use personal protective equipment. Always wear eye protection. Safety equipment such as a dust mask, non-slip safety shoes, hard hat, or hearing

protection used for appropriate conditions will reduce personal injuries.

- Prevent unintentional starting. Ensure the switch is in the off-position before connecting to the power source and/or battery pack, picking 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.
- Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewellery, or long hair can be caught in moving parts.
- Remove adjusting keys or spanners before turning the tool on. A spanner or a key that is left attached to a rotating part of the tool may result in personal injury.
- Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- Only use safety equipment that has been approved by an appropriate standards agency. Unapproved safety equipment may not provide adequate protection.

Power tool use and care

- Do not force tools. Use the correct tool for your application. The correct tool will do the job better and safer at the rate for which it is designed.
- Do not use a power tool if the

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 and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing the tool. Such preventive safety measures reduce risk of starting the tool accidentally.
- Store idle power tools out of the reach of children and other untrained persons. Power tools are dangerous in the hands of untrained users.
- Maintain tools with care. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- Keep cutting tools sharp and clean. Properly maintained tools with sharp cutting edges are less likely to bind and are easier to control.
- Use only accessories that are recommended by the manufacturer for your model. Accessories that may be suitable for one tool may become hazardous when used on another tool.

Battery tool use and care

- Ensure the switch is in the off position before inserting the battery pack. Insert the battery

pack into power tools that have the switch on invites accidents.

- 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.

Service

- Have your power tool service by qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

Additional warnings applicable for drills

- Use auxiliary handles supplied with the tool. Loss of control can cause personal injury.
- Hold power tools by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord. Contact with a “live” wire will make exposed metal parts of the tool “live” and shock the operator.
- Use clamps or other practical way to secure and support the work piece to a stable platform. Holding the work by hand or against your body is unstable and may lead to loss of control.
- Do not drill, fasten or break into existing walls or other blind areas where electrical wiring may exist. If this situation is unavoidable, disconnect all fuses or circuit breakers feeding this work site.
- Always wear safety goggles or eye protection when using this tool. Use a dust mask or respirator for applications which generate dust.
- Use thick cushioned gloves and limit the exposure time by taking frequent rest periods. Vibration caused by hammer-drill action may be harmful to your hands and arms.
- Secure the material being drilled. Never hold it in your hand or across legs. Unstable support can cause the drill bit to bind causing loss of control and injury.
- Disconnect battery pack from tool before making any assembly, adjustments or changing accessories. Such preventive safety measures reduce the risk of starting the tool accidentally.

- Position the cord clear of rotating bit. Do not wrap the cord around your arm or wrist. If you lose control and have the cord wrapped around your arm or wrist it may entrap you and cause injury.
- Position yourself to avoid being caught between the tool or side handle and walls or posts. Should the bit become bound or jammed in the work, the reaction torque of the tool could crush your hand or leg.
- If the bit becomes bound in the work piece, release the trigger immediately, reverse the direction of rotation and slowly squeeze the trigger to back out the bit. Be ready for a strong reaction torque. The drill body will tend to twist in the opposite direction as the drill bit is rotating.
- Do not grasp the tool or place your hands too close to the spinning chuck or drill bit. Your hand may be lacerated.
- When installing a drill bit, insert the shank of the bit well within the jaws of the chuck. If the bit is not inserted deep enough, the grip of the jaws over the bit is reduced and the loss of control is increased.
- Do not use dull or damaged bits and accessories. Dull or damaged bits have a greater tendency to bind in the work piece.
- When removing the bit from the tool avoid contact with skin and use proper protective gloves when grasping the bit or

accessory. Accessories may be hot after prolonged use.

- Do not run the drill while carrying it at your side. A spinning drill bit could become entangled with clothing and injury may result.
- **WE RECOMMEND THAT THE OPERATOR WEARS HEARING PROTECTION.**
- The declared vibration total value has been measured in accordance with standard test method and may be used for comparing one tool with another.
- The declared vibration total value may also be used in a preliminary assessment of exposure.
- **Warning:** The vibration emissions during actual use of the power tool can differ from the declared total value depending on the ways in which the tool is used, and of the need to identify safety measures to protect the operator that are based on an estimate of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as times when the tool is switched off and when it is running idle in addition to trigger time).

L _p A (acoustic pressure)	77.8dB(A) (K _{WA} =3 dB)
L _w A (acoustic pressure)	88.8dB(A) (K _{WA} =3 dB)
Vibration	0.670m/s ² (K=1.5m/s ²)

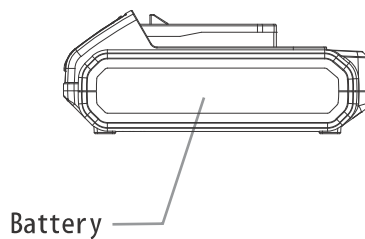
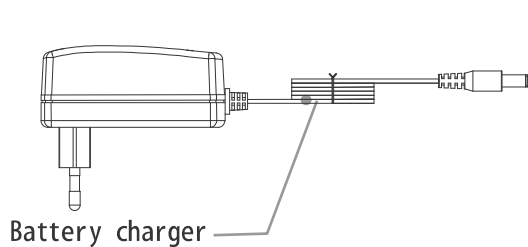
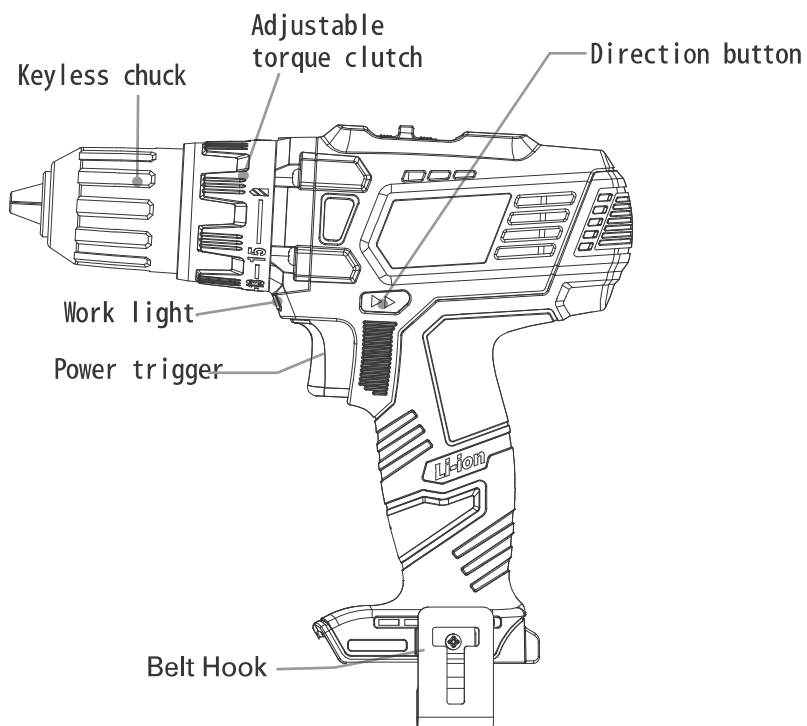
Battery warnings:

- Before using battery charger, read all instructions and cautionary markings on battery charger, battery pack, and product using battery.
- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instructions concerning use of the appliance in a safe way and understanding the hazards involved. Children shall not play with the appliance.
- Cleaning and user maintenance shall not be made by children without supervision.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or a similarly qualified person in order to avoid a hazard.
- Use only the charger which accompanied your product or direct replacement as listed in the catalogue or this manual. Do not substitute any other charger. Use only same supplier approved chargers with your product. See Technical Specifications.
- Do not disassemble charger or operate the charger if it has received a sharp blow, been dropped or otherwise damaged in any way. Incorrect reassembly may result in a risk of electric shock, electrocution or fire.
- Do not recharge battery in damp or wet environment. Do not expose charger to rain or snow. If battery case is cracked or otherwise damaged, do not insert into charger. Battery short or fire may result.
- Charge only same supplier approved rechargeable batteries (BP09 - 180). See Technical Specifications. Other types of batteries may burst causing personal injury and damage.
- Charge battery pack in temperatures above 0°C and below 45°C. Store tool and battery pack in locations where temperatures will not exceed 45°C. This is important to prevent serious damage to the battery cells.
- Pull the plug rather than cord when disconnecting charger or when disconnecting cords using the daisy chain feature. This will reduce risk of damage to electric plug and cord.
- Make sure that cord is located so that it will not be stepped on, tripped over, or otherwise subjected to damage or stress.
- Do not use an extension cord unless it is absolutely necessary. Use of improper extension cord could result in risk of fire, electric shock.
- Disconnect the charger from the outlet before attempting any cleaning. This will reduce the risk

of electric shock. Removing the battery pack will not reduce this risk.

- The charger is designed to operate on standard household electrical power (220-240 volts, 50-60 Hz AC only). Do not attempt to use it on any other voltage.
- This power unit is intended to be correctly orientated in a vertical or floor mount position.
- Do not incinerate the battery pack even if it is severely damaged or is completely worn out. The battery pack can explode in a fire. Toxic fumes and materials are created when lithium ion battery packs are burned.
- Do not charge or use battery in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Inserting or removing the battery from the charger may ignite the dust or fumes.
- If battery contents come into contact with the skin, immediately wash area with mild soap and water. If battery liquid gets into the eye, rinse water over the open eye for 15 minutes or until irritation ceases. If medical attention is needed, the battery electrolyte is composed of a mixture of liquid organic carbonates and lithium salts.
- Contents of opened battery cells may cause respiratory irritation. Provide fresh air. If symptoms persist, seek medical attention.
- **WARNING:** Burn hazard. Battery liquid may be flammable if exposed to spark or flame.
- Charge the battery packs only in the charger which accompanied your product.
- **DO NOT** splash or immerse in water or other liquids. This may cause premature cell failure.
- Do not store or use the tool and battery pack in locations where the temperature may reach or exceed 45°C (such as outside sheds or metal buildings in summer).
- When batteries are not in tool or charger, keep them away from metal objects. For example, to protect terminals from shorting **DO NOT** place batteries in a tool box or pocket with nails, screws, keys, etc. Fire or injury may result.
- **DO NOT** put batteries into fire or expose to high heat. They may explode.

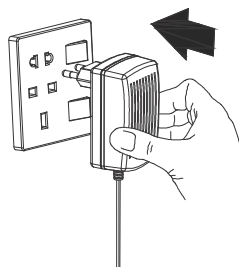
Parts of your drill



Charging a battery

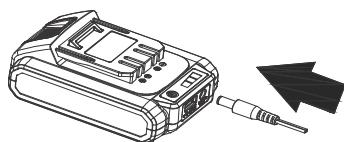
WARNING: Place the battery pack and charger on a flat non-flammable surface and away from ammable material when re-charging the battery pack

1. Insert the plug on the charging unit into a power socket and turn the power on if required.



2. The charging output interface insert battery of charging port.

Note: The battery will require 1 hours charging time after normal use. If the battery is fully run down the charging time will be 1 hours.

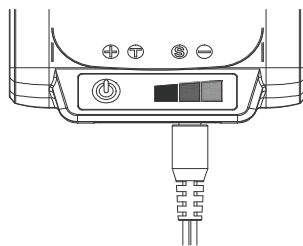


3. The process of charging battery pack, red light and yellow light and green light in turn.

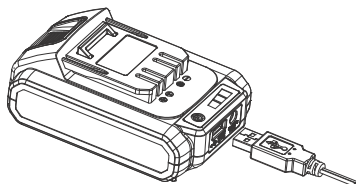
Note: When the red light alone, said battery pack less power.

When red and yellow lights, said battery pack more than half of the electricity.

When red light and yellow light and green light on, said battery pack is fully charged



4. Charging treasure function:
Insert the USB interface, the other end connected to mobile phone LED lights, fan, etc., according to the  used



Using your drill

IMPORTANT: Before starting inspect your drill bit to ensure there is no excessive wear and that it is sharp. Never use a drill bit if it is damaged or blunt.

Check that the drill bit is correctly fitted in the chuck and is the correct type for the material you wish to drill a hole in.

Drilling wood

Ensure the piece of work you want to drill into is firmly anchored in place. Hold the drill in a straight line with the end of the drill bit.

Apply enough pressure to keep the drill bit cutting through the wood.

When drilling through wood with a twist bit it may over heat if you do not clean any chips and wood dust out of the flutes (grooves in the drill bit). To do this:

1. Stop the drill by taking your finger off the power trigger.
2. Switch the direction button into reverse then press the trigger until the drill bit is clear of the wood.
3. Use a brush to remove any scraps or dust from the drill bit. **DO NOT** use your fingers.
4. Switch the direction button into forward to continue drilling into piece of work.

Note: If you are drilling into a piece of wood that is likely to splinter you may want to use a 'back-up' block of wood place behind the piece you are drilling.

You will drill a cleaner hole if you ease up on the pressure just before the bit breaks through the back of the wood. Turn the wood over and complete the hole.

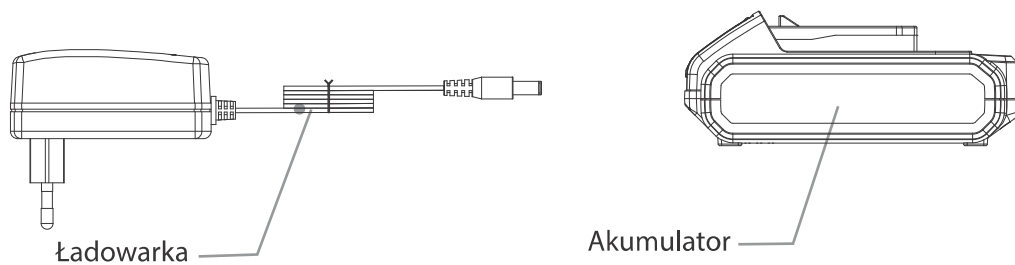
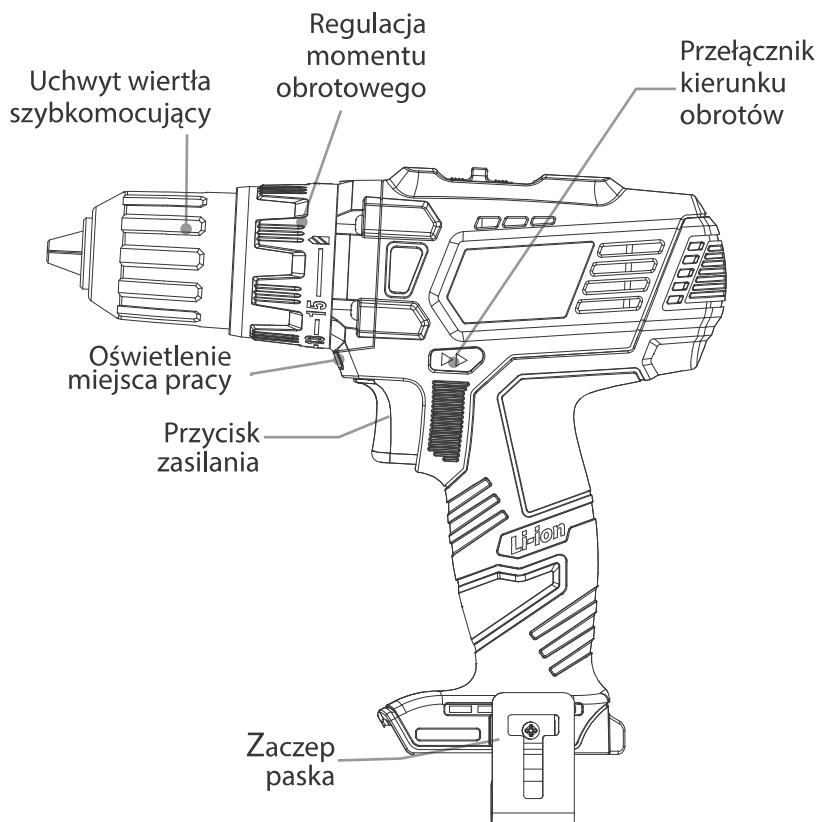
Drilling metal

There are two main things to remember when drilling through metal.

1. The harder the material, the greater the pressure you need to apply to the drill.
2. The harder the material, the slower the speed of the drill needs to be.

Below are a few tips to help when drilling through metal.

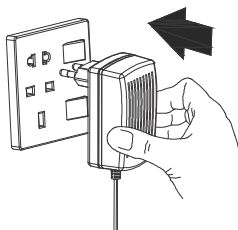
1. Lubricate the tip of the drill bit occasionally with cutting oil except when drilling soft metals such as aluminium, copper or cast iron.
2. If the hole you wish to drill is quite large, drill a smaller hole first then enlarge to the final size. This is generally a faster method in the long run.
3. Maintain enough pressure to assure that the drill bit does not just spin in the hole. This will make the drill bit blunt and shorten its life.



Ładowanie akumulatora

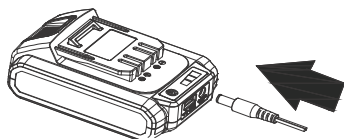
OSTRZEŻENIE: Podczas ponownego ładowania akumulatora, umieścić akumulator i ładowarkę na płaskiej niepalnej powierzchni z dala od materiałów łatwopalnych.

1. Włożyć wtyczkę ładowarki do gniazdka i w razie potrzeby włączyć zasilanie.



2. Włożyć wtyczkę przewodu zasilacza do gniazda w ładowarce.

Uwaga: Przy normalnym użytkowaniu, wymagany czas ładowania wynosi 1 godzinę. Jeżeli akumulator jest całkowicie rozładowany, to czas ładowania może być powyżej 1 godziny.

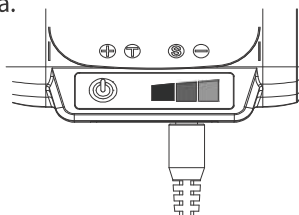


3. Podczas procesu ładowania akumulatora, kolejno zapalają się czerwona, żółta i zielona dioda.

Uwaga: Gdy świeci się tylko czerwona dioda, oznacza to niski poziom naładowania akumulatora.

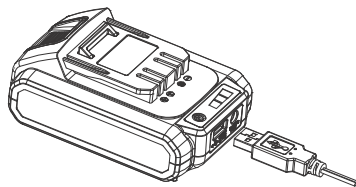
Gdy świeci się tylko dioda czerwona i żółta, oznacza to połowę poziomu naładowania akumulatora.

Gdy świecą się wszystkie diody czerwona, żółta, i zielona oznacza to pełne naładowanie akumulatora.



4. Funkcja ładowania akcesoriów USB:

Podłączyć przewód USB, który drugim końcem jest połączony z telefonem komórkowym, lampką diodową, wentylatorem, itp.



Używanie wiertarki

WAŻNE: Przed rozpoczęciem użytkowania, sprawdzić wiertło, aby upewnić się, czy nie jest nadmiernie zużyte i czy jest ostre. Nigdy nie należy używać wiertła, jeśli jest ono uszkodzone lub stępione.

Sprawdzić, czy wiertło jest prawidłowo zamocowane w uchwycie i czy jest odpowiedniego typu dla materiału, w którym chcemy wiercić otwór.

Wiercenie w drewnie

Upewnić się, że przedmiot, w którym chcemy wiercić otwór jest mocno zamocowane w miejscu. Trzymać wiertarkę w linii prostej z końcem wiertła.

Przyłożyć siłę dociskającą wystarczającą do wykonywania otworu w drewnie przez wiertło.

Podczas wiercenia w drewnie wiertłem śrubowym może się on przegrzewać, jeśli nie oczyścimy go z wiórów i pyłu drzewnego (rowków wiertła). Aby to zrobić:

1. Wyłączyć wiertarkę zdejmując palec z przycisku włącznika zasilania.
2. Przełączyć przyciskiem kierunek obrotów na przeciwny, następnie nacisnąć przycisk zasilania włączając wiertarkę celem oczyszczenia wiertła.
3. Usunąć wióra lub pył z wiertłem za pomocą szczotki. **NIE UŻYWAĆ** do tego palców.
4. Przełączyć kierunek obrotów na celom kontynuowania wiercenia w drewnie.

Uwaga: W przypadku wiercenia w kawałku drewna, które może pękać można podeprzeć go od tyłu drewnianym blokiem.

Celem uzyskania gładkiego otworu, należy wycofać wiertło z drewna tuż przed przebiciem się przez jego tył, obrócić obrabiany przedmiot i skończyć otwór od drugiej strony.

Wiercenie w metalu

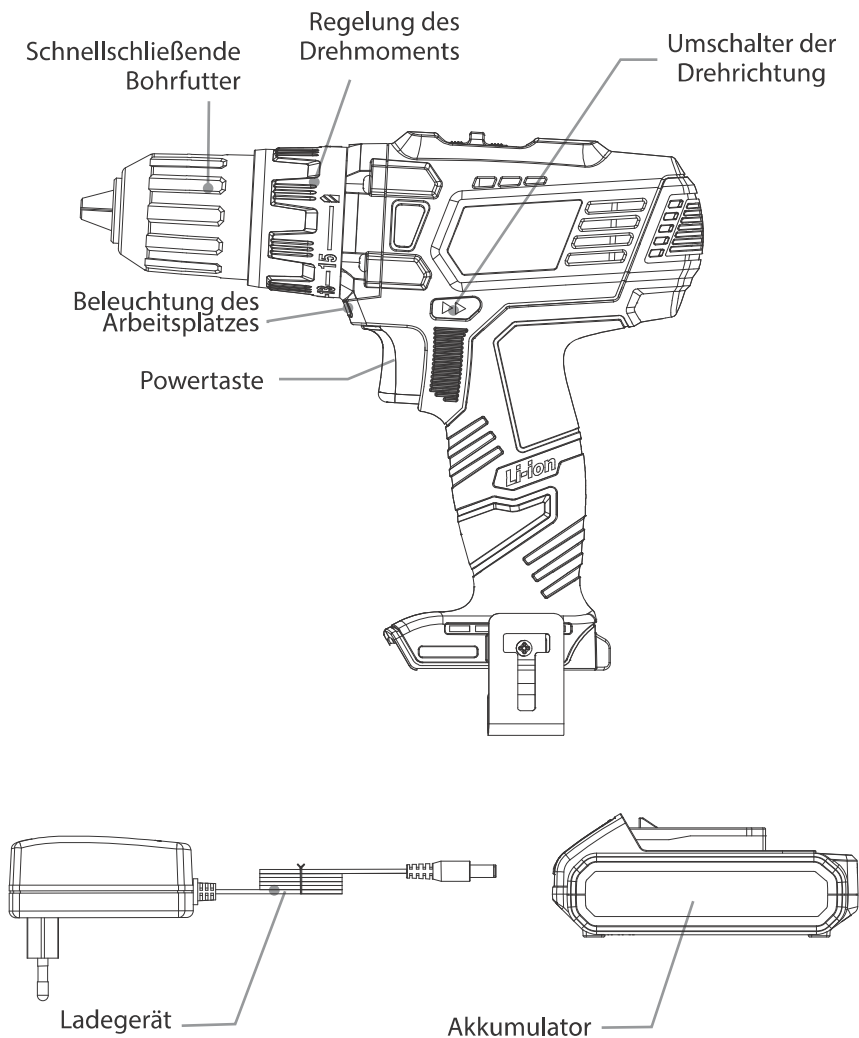
Istnieją dwie główne rzeczy, o których należy pamiętać podczas wiercenia w metalu.

1. Ze wzrostem twardości materiału, należy przykładać większy nacisk na wiertło.
2. Ze wzrostem twardości materiału, należy zmniejszać prędkość obrotową wiertła.

Poniżej przedstawiamy kilka wskazówek, które pomogą przy wierceniu w metalu.

1. Okresowo nasmarować wierzchołek wiertła cieczą chłodząco-smarującą z wyjątkiem wiercenia w metalach miękkich takich, jak aluminium, miedź lub żeliwo.
2. Jeżeli otwór, który chcemy wywiercić jest duży, wpierw wywiercić otwór mniejszy a następnie powiększyć do ostatecznej wielkości. Na ogół jest to szybszy sposób.
3. Utrzymywać nacisk na wiertło taki, aby nie powodować jego zacinania się w otworze. Zacinanie spowoduje stępienie wiertła i skróci jego żywotność.

BOHRMASCHINE MIT LITHIUM-IONEN-AKKUMULATOR 18 V



Verwendung der Bohrmaschine

WICHTIG: Den Bohrer vor dem Gebrauch überprüfen, um sicherzustellen, dass er nicht übermäßig verschliffen ist und scharf ist. Niemals einen beschädigten oder abgestumpften Bohrer verwenden.

Überprüfen, ob der Bohrer richtig im Bohrfutter sitzt und für das zu bohrende Material geeignet ist.

Bohren im Holz

Sicherstellen, dass der zu bohrende Gegenstand richtig befestigt ist. Die Bohrmaschine gerade in einer Linie mit dem Bohrerende halten.

Eine Druckkraft ausüben, die zur Herstellung einer Bohrung mit dem Bohrer im Holz ausreichend ist.

Beim Bohren im Holz mit einem Spiralbohrer kann sich dieser erwärmen, wenn er (die Nuten) von Spänen und Holzstaub nicht gesäubert wird. Bohrer reinigen:

1. Bohrer durch Loslassen der Powertaste ausschalten.
2. Die Drehrichtung mit der Taste umschalten, dann die Powertaste drücken, um die Bohrmaschine einzuschalten und den Bohrer zu reinigen.
3. Späne oder Staub vom Bohrer mit einer Bürste, NICHT MIT FINGERN, entfernen.
4. Die Drehrichtung umschalten, um das Bohren im Holz fortzusetzen.

Bemerkung: Beim Bohren in einem Holzstück, welches reißen kann, kann dieses von hinten durch ein Holzstück abgestützt **werden**.

Um eine glatte Bohrung zu erhalten, den Bohrer unmittelbar vor dem Durchbohren aus dem Holz herausziehen, das Werkstück

umdrehen und die Öffnung von der anderen Seite zu Ende bohren.

Bohren im Metall

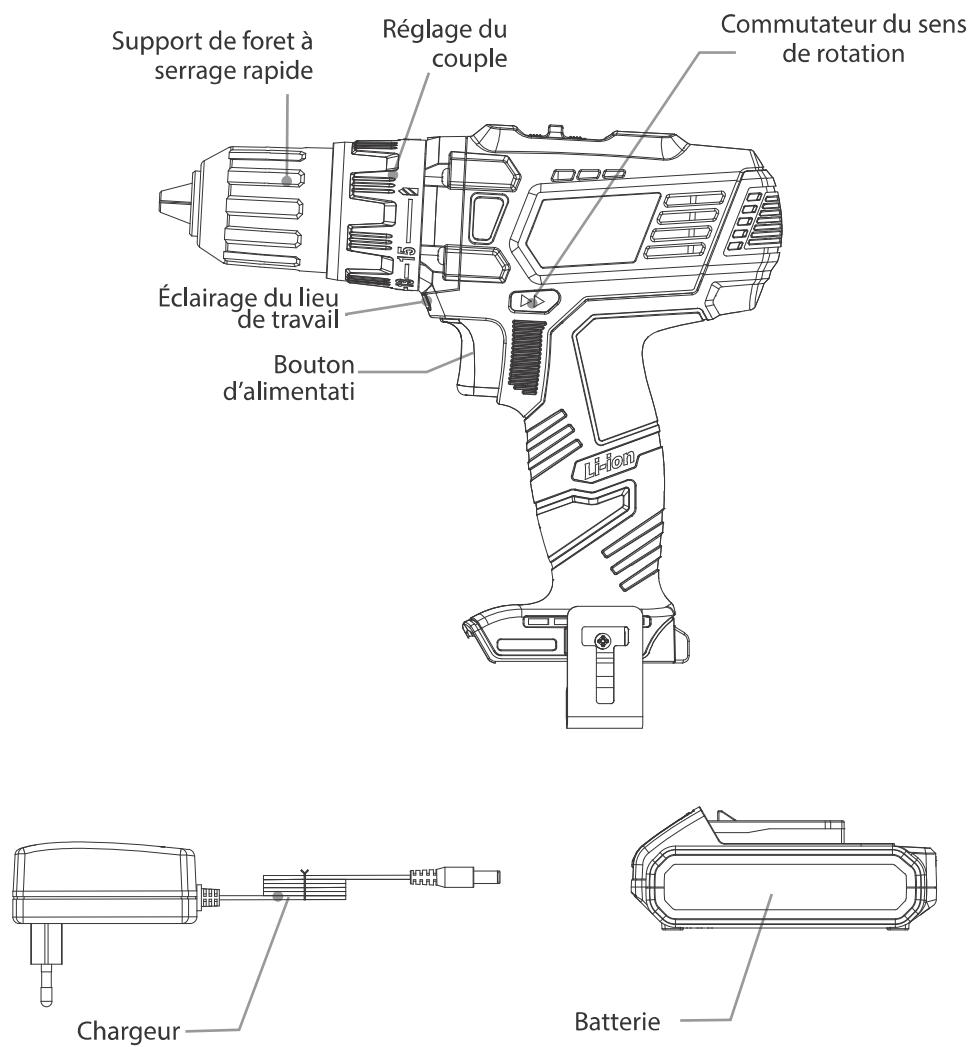
Beim Bohren im Metall ist Folgendes zu beachten:

1. Je größer die Materialhärte ist, desto größer muss der auf den Bohrer ausgeübte Druck sein.
2. Je größer die Materialhärte ist, desto kleiner muss die Drehgeschwindigkeit sein.

Praktische Hinweise für das Bohren im Metall:

1. Die Bohrerspitze soll zeitweise mit Kühlschmiermittel geschmiert werden, mit Ausnahme des Bohrens in Weichmetallen, wie Aluminium, Kupfer oder Gusseisen.
2. Ist die zu bohrende Öffnung groß, zuerst eine kleinere Öffnung bohren und dann die Öffnung auf gewünschte Größe fertigbohren. Dies dauert meistens schneller.
3. Den auf den Bohrer ausgeübte Druck so aufrechterhalten, dass der Bohrer in der Öffnung nicht klemmt. Das Klemmen bewirkt eine Verstumpfung des Bohrers und verkürzt seine Lebensdauer.

PERCEUSE AVEC BATTERIE LITHIUM-ION 18 V



IMPORTANT: Avant l'utilisation, vérifier l'état du foret, pour s'assurer s'il n'est pas excessivement usé et est forte. Ne jamais utiliser un foret, s'il est endommagé ou émoussé.

Vérifier si le foret est correctement monté dans le support et s'il est approprié pour le type de matériau dans lequel vous voulez percer un trou.

Perçage dans le bois

S'assurer que l'élément où vous voulez percer le trou est fixé solidement en place. Tenir la perceuse en ligne droite avec le bout du foret.

Appliquer une force d'appui suffisante pour faire un trou dans le bois par le foret.

Lors du perçage dans le bois avec un foret hélicoïdal, il peut surchauffer s'il n'est pas nettoyé de copeaux et poussières de bois (cannelures de foret). Pour le faire:

1. Éteindre la perceuse en retirant le doigt de l'interrupteur d'alimentation.
2. Mettre le bouton dans le sens de rotation inverse, puis appuyer sur le bouton d'alimentation pour nettoyer le foret.
3. Enlever les copeaux ou la poussière de foret avec une brosse. **NE PAS UTILISER** de doigts.
4. Mettre le sens opposé de rotation pour poursuivre le perçage dans le bois.

Remarque: Dans le cas de perçage dans un morceau de bois qui peut briser, vous pouvez le soutenir à l'arrière par un bloc de bois.

Pour obtenir un trou lisse, retirer le foret du bois peu avant de passer à travers son dos, tourner la pièce à usiner et terminer le trou de l'autre côté.

Perçage dans le métal

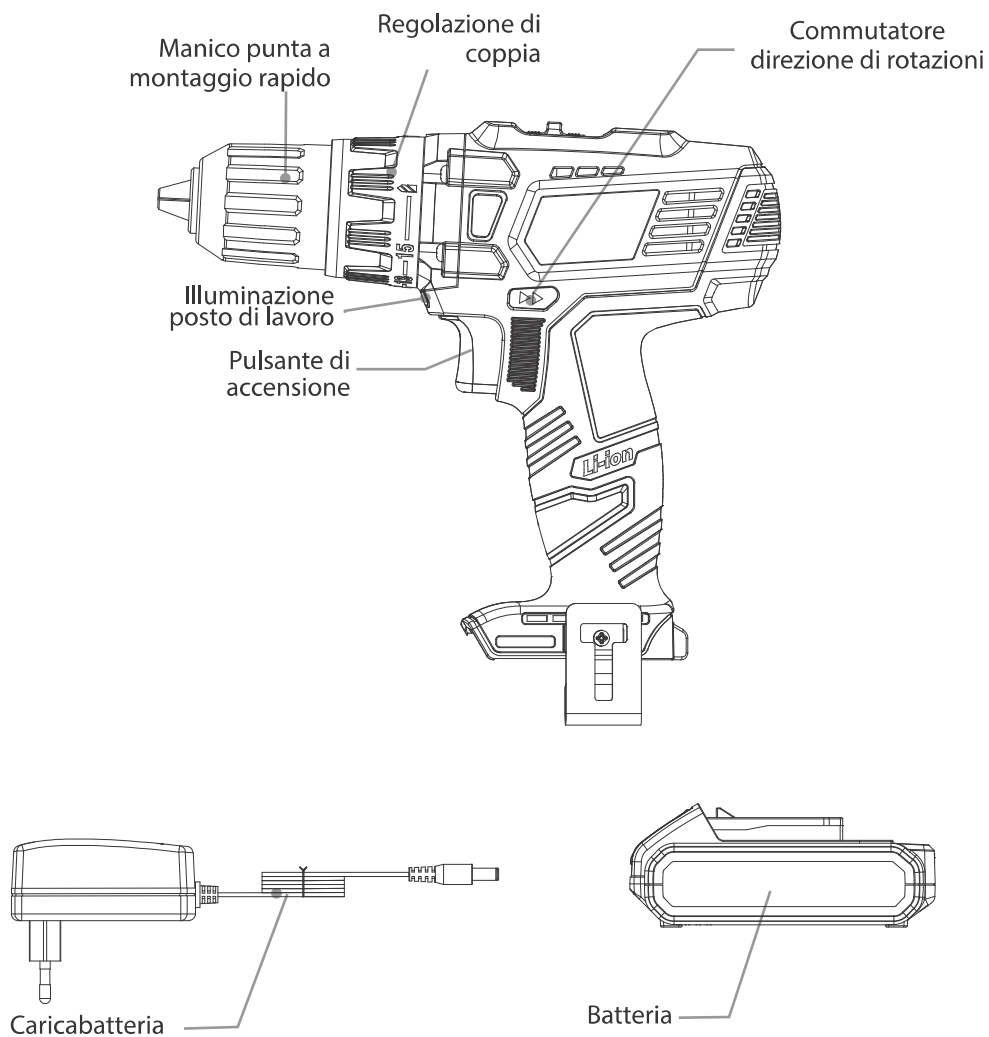
Il y a deux principales choses à garder à l'esprit lors du perçage dans le métal.

1. Avec l'augmentation de la dureté du matériau, il faut appliquer plus de pression sur la perceuse.
2. Avec l'augmentation de la dureté du matériau, il faut réduire la vitesse de perçage.

Voici quelques conseils qui vous aideront lors du perçage dans le métal.

1. Périodiquement lubrifier la pointe du foret avec un liquide de refroidissement et de lubrification, sauf le perçage dans les métaux mous tels que l'aluminium, le cuivre ou la fonte.
 2. Si le trou que vous voulez percer un grand, percer d'abord un trou plus petit, puis l'agrandir à la taille finale. Ceci est généralement une façon plus rapide.
 3. Maintenir la pression sur le foret de manière à ne pas provoquer un bourrage dans le trou. Le bourrage va émousser le foret et raccourcir sa durée de vie.
- umdrehen und die Öffnung von der anderen Seite zu Ende bohren.

TRAPANO CON LA BATTERIA AGLI IONI DI LITIO 18V



Uso del trapano

IMPORTANTE! Prima dell'uso, controllare la punta, per assicurarsi che non sia eccessivamente usurata e che sia affilata. Non usare mai la punta se è danneggiato o smussata.

Verificare che la punta sia montata correttamente in manico e se è appropriata per il tipo di materiale in cui si vuole eseguire il foro.

Foratura in legno

Assicurarsi che l'oggetto in cui si desidera eseguire il foro è fissato saldamente al suo posto. Tenere il trapano in linea retta all'estremità della punta.

Applicare la forza di serraggio sufficiente ad eseguire un foro nel legno con la punta.

Durante la foratura in legno con la punta a vite essa potrebbe surriscaldarsi se non viene purificata dai trucioli e polvere di legno (scanalature di punta). Per fare questo:

1. Spegnerne il trapano rimuovendo il dito dal pulsante interruttore di alimentazione.
2. Commutare col pulsante il senso di rotazione all'opposto, quindi premere il pulsante di accensione per accendere il trapano per pulire la punta .
3. Rimuovere i trucioli o la polvere con la punta con una spazzola. **NON FARLO** con le dita.
4. Commutare il senso di rotazione allo scopo di continuare la foratura in legno.

Nota: In caso di foratura di un pezzo di legno il quale può rompersi, si può sostenerlo da dietro con un blocco di legno.

Al fine di ottenere un foro liscio, ritirare la punta del trapano dal

legno poco prima della foratura, attraverso la sua parte posteriore, ruotare il pezzo da lavorare e finire il foro dall'altra parte.

Foratura in metallo

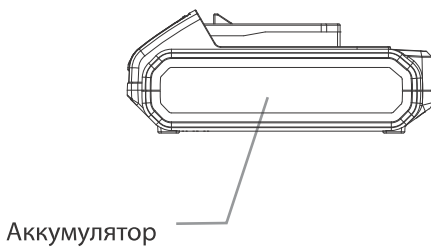
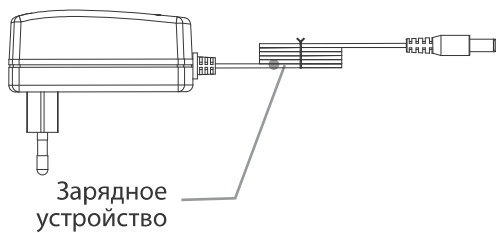
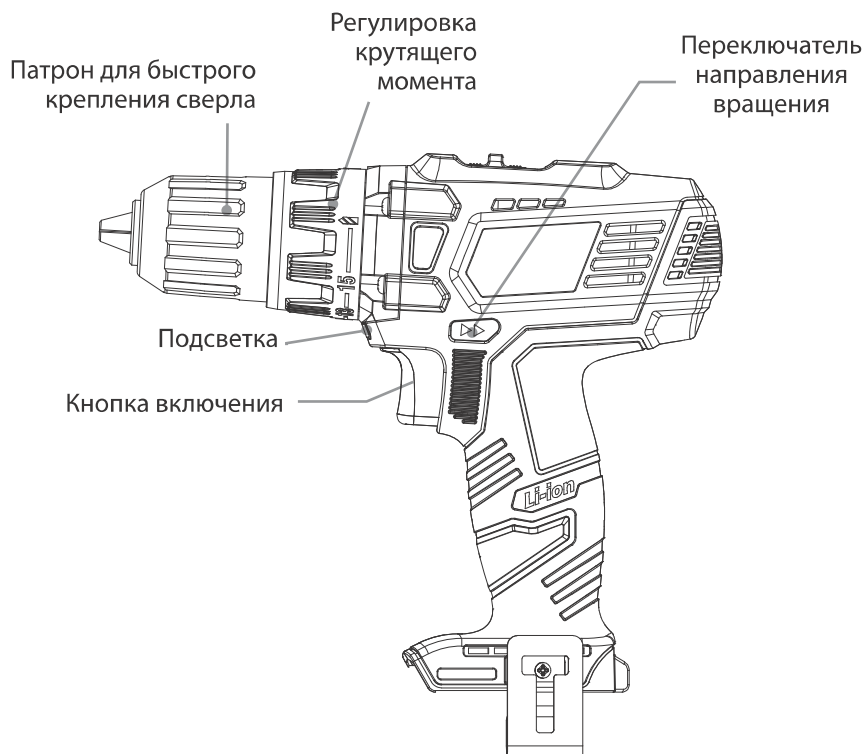
Ci sono due cose principali da tenere a mente durante la foratura in metallo.

1. Con un aumento della durezza del materiale applicare più pressione sulla punta.
2. Con un aumento della durezza del materiale ridurre la velocità della punta.

Qui di seguito ci sono alcuni consigli che vi aiuteranno durante la foratura in metallo.

1. Lubrificare periodicamente la punta del trapano con il liquido lubrificante raffreddante con l'eccezione di foratura in metalli teneri come alluminio, rame o ferro.
2. Se vogliamo fare un foro grande, prima praticare con un foro più piccolo e quindi aumentare ad una dimensione finale. In genere questo è il modo più veloce.
3. Mantenere sul trapano la pressione sufficiente per non causare inceppamenti nel foro. L'inceppamento farà smussare il trapano ed accorciare la sua vita di servizio.

ДРЕЛЬ С ЛИТИЙ-ИОННЫМ АККУМУЛЯТОРОМ 18V



Обслуживание дрели

ВАЖНО: Перед началом работы проверьте состояние сверла, убедитесь, что оно острое и не слишком изношено. Запрещается работать поврежденными и тупыми сверлами.

Убедитесь, что сверло правильно закреплено в патроне и соответствует материалу, в котором необходимо просверлить отверстие.

Сверление в дереве

Убедитесь, что предмет, в котором необходимо просверлить отверстие, надежно закреплен. Дрель, на протяжении всего сверления, необходимо держать ровно, так, чтобы рука располагалась по оси сверления.

Приложите усилие, достаточное для того, чтобы просверлить отверстие в дереве.

При сверлении в дереве при помощи винтового сверла оно может перегреваться, если не очищать его и отверстие от стружки и древесной пыли. Для этого необходимо:

1. Выключить дрель, снимая палец с кнопки включения.
2. Переключить при помощи переключателя направление вращения на противоположное, затем нажать на кнопку включения, включая дрель с целью очистки сверла.
3. Очистить сверло от стружки и древесной пыли при помощи щетки. **КАТЕГОРИЧЕСКИ ЗАПРЕЩАЕТСЯ** удаление стружки и пыли руками.
4. Переключить направление вращения с целью продолжения сверления в дереве.

Внимание: В случае сверления в куске дерева, который может растрескаться, можно подпереть его сзади деревянным бруском.

Чтобы получить гладкое отверстие, необходимо вынуть сверло из отверстия, не досверливая до конца, после чего перевернуть обрабатываемый предмет и досверлить отверстие с другой стороны.

Сверление в металле

При сверлении в металле необходимо помнить о двухглавных вещах.

1. Чем тверже металл, в котором нужно выполнить сверление, тем большее усилие необходимо приложить.
2. Чем тверже металл, тем ниже должна быть скорость сверления.

Ниже приводим несколько рекомендаций, которые помогут при сверлении в металле.

1. Необходимо периодически смазывать конец сверла охлаждающей смазкой, за исключением сверления в чугуне и таких мягких металлах, как алюминий, медь.
2. Если необходимо просверлить отверстие большого диаметра, то сначала нужно сделать меньшее отверстие, а потом рассверлить его сверлом большего диаметра. Обычно это самый быстрый способ.
3. Нажим на сверло должен быть таким, чтобы сверло незаклинило в отверстии. Заклинивание приводит к затуплению сверла и сокращению его срока службы.

