

909[®]

NINE ZERO NINE

INSTRUCTION MANUAL
CD142L



14.4V
LITHIUM-ION
CORDLESS
DRILL-DRIVER

| | | | | |
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Warranty Power Tools

For full details please visit us at www.909.com

Introduction

Your new 909 power tool will more than satisfy your expectations. It has been manufactured under stringent 909 Quality Standards to meet superior performance criteria.

You will find your new tool easy and safe to operate, and, with proper care, it will give you many years of dependable service.

CAUTION. Carefully read through this entire Instruction Manual before using your new 909 Power Tool. Take special care to heed the Cautions and Warnings.

Your 909 power tool has many features that will make your job faster and easier. Safety, performance, and dependability have been given top priority in the development of this tool, making it easy to maintain and operate.

Environmental protection



Recycle unwanted materials instead of disposing of them as waste. All tools, hoses and packaging should be sorted, taken to the local recycling centre and disposed of in an environmentally safe way.

Description of symbols

The rating plate on your tool may show symbols. These represent important information about the product or instructions on its use.



Wear hearing protection.
Wear eye protection.
Wear breathing protection.



Double insulated for additional protection.



N25652

Conforms to relevant standards for electromagnetic compatibility.



For safe operation read instruction manual.

Specifications

| | |
|-------------------------|----------------------------|
| Nominal battery charge: | 14.4V |
| Battery cells: | Lithium 1.3Ah |
| Charger: | 230 – 240V ~ 50Hz 0.4A |
| Charging time: | 3 – 5 Hour |
| Drill no load speed: | 0 – 600min ⁻¹ |
| Torque settings: | 21 + 1 drill |
| Drill chuck capacity: | 0.8-10mm Keyless |
| Weight: | 1.2kg |
| Drilling capacity: | - Steel 8mm - Wood 15mm |
| Charger model No | 144LPP35 |
| Charger base adaptor | 144LA |
| Battery pack | 144LB |

General safety rules

WARNING. Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term “power tool” in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

1) Work area safety

- a) **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- b) **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.
- c) **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

2) Electrical safety

- a) **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.
- b) **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.
- c) **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- d) **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.
- e) **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.

3) Personal safety

- a) **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.
 - b) **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
 - c) **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
 - d) **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.
 - e) **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
 - f) **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.
 - g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.
- #### 4) Power tool use and care
- a) **Do not force the 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 was designed.

- b) **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
- e) **Maintain power tools. 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.
- f) **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g) **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.
- h) **This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge,** unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- i) **Children should be supervised to ensure that they do not play with the appliance.**

5) Battery tool use and care

- a) **Ensure the switch is in the off position before inserting battery pack.** Inserting the battery pack into power tools that have the switch on invites accidents.

- b) **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.

- c) **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.

- d) **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.

- e) **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.

6) Service

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

Additional safety instructions for drills

Wear ear protectors with impact drills.

Exposure to noise can cause hearing loss.

Use auxiliary handles supplied with the tool.

Loss of control can cause personal injury.

- If possible, always use clamps or a vice to hold your work.
- Always switch off before you put the drill down.
- Ensure that the lighting is adequate.
- Do not put pressure on the drill, such that it slows the motor down. Allow the drill bit to cut without pressure. You will get better results and you will be taking better care of your tool.
- Keep the area free of tripping hazards.
- Do not let anyone under 18 years operate this tool.

- Only use accessory bits in good condition.
- Before drilling, check that there is sufficient clearance for the drill bit under the workpiece.
- Do not touch the bit after operation. It will be very hot.
- Keep your hands away from under the workpiece.
- Never use your hands to remove sawdust, chips or waste close by the bit.
- Rags, cloths, cord, string and the like should never be left around the work area.
- Support the work properly.
- If you are interrupted when operating the drill, complete the process and switch off before looking up.
- Periodically check that all nuts, bolts and other fixings are properly tightened.
- When using the drill, use safety equipment including safety glasses or shield, ear defenders, and protective clothing including safety gloves. Wear a dust mask if the drilling operation creates dust.

If in doubt, do not plug in the tool. Using a power source with a voltage less than the nameplate rating is harmful to the motor.

The tool must be used only for its prescribed purpose. Any use other than those mentioned in this Manual will be considered a case of misuse. The user and not the manufacturer shall be liable for any damage or injury resulting from such cases of misuse.

To use this tool properly, you must observe the safety regulations, the assembly instructions and the operating instructions to be found in this manual. All persons who use and service the machine have to be acquainted with this Manual and must be informed about its potential hazards.

Children and frail people must not use this tool. Children should be supervised at all times if they are in the area in which the tool is being used. It is also imperative that you observe the accident prevention regulations in force in your area. The same applies for general rules of occupational health and safety.

The manufacturer shall not be liable for any changes made to the tool nor for any damage resulting from such changes.

Even when the tool is used as prescribed it is not possible to eliminate all residual risk factors. The following hazards may arise in connection with the tool's construction and design:

- Damage to the lungs if an effective dust mask is not worn.
- Damage to hearing if effective ear defenders are not worn.

Additional safety instructions for the charger

- Your 909 tool with Lithium Ion batteries may only be charged with the specific designed 909 Lithium Ion battery charger purchased with the tool. **IT IS DANGEROUS TO USE ANY OTHER BATTERY CHARGER TO CHARGE YOUR TOOL.** Do not attempt to charge the battery pack with any other charger than the one supplied.
- If there is a problem with the battery or the tool, take it to your nearest Authorised Service centre or phone and speak with an experienced 909 Customer Service Representative for assistance in rectifying your problem.
- Before using the charger, read all the instructions, labels and cautionary markings on the charger and battery pack as well as the instructions on using the battery pack.
- Do not use the charger if it has been subjected to a heavy knock, dropped or otherwise damaged in anyway. Take the charger to an authorised service centre for a check or repair.
- Do not disassemble the charger. Phone and speak with an experienced 909 Customer Service Representative or contact an Authorised Service centre for assistance. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electric shock when you use the tool or charger again. Take the charger to an authorised service centre when service or repair is required. Incorrect re-assembly may result in the risk of fire, electric shock or electrocution. To reduce the risk of electric shock, do not disassemble any part of the product.

- **DANGER.** If the battery pack is cracked or damaged in any other way, do not insert it in the charger
- Do not plug anything other than your 909 tool into the charger, as other objects may touch dangerous voltage points or short out parts, which could result in fire or electric shock.
- Do not place the tool or charger on an uneven surface, as a fall may cause serious damage.
- Never place the tool or charger near or over a heat source such as a radiator or heater.
- Do not operate the charger in a cabinet or other enclosure unless proper ventilation is provided.
- Use the battery charger indoors only.

WARNING. Do not allow any liquid to come into contact with the charger. There is a danger of electric shock. Do not position the tool or battery charger near water; for example, near a sink, wash bowl or toilet. Do not spill liquid of any kind on the tool or charger. Doing so may short out parts, causing damage to the product and creating the risk of fire or electric shock.

Take the tool or charger to your nearest Authorised Service centre or phone and speak with an experienced 909 Customer Service Representative for assistance in these circumstances:

- If liquid has been spilled into the tool or charger, or if rain or water has touched the tool, Battery Pack or charger.
- If the tool or charger does not operate normally after you follow the operating instructions.
- If the tool or charger has been dropped or damaged.
- If the tool or charger exhibits a distinct degradation in performance.
- If the tool or charger is damaged in any way.
- If the battery pack is not charged within the time frame as specified in this manual, turn charger off.
- To reduce the risk of an electric shock, unplug the charger from the power supply before attempting to clean it. To clean tool or charger, wipe with a damp cloth. Use

of any other cleaners is not recommended.

- Do not place any object on to, or allow anything to rest on the charger.
- Make sure that the charger cable is positioned where it will not be stepped on, tripped over or otherwise subjected to damage or stress. Keep the lead away from operating machinery.
- Do not pull on the lead of the charger to disconnect it from the mains power socket.
- Do not use an extension cord unless it is absolutely necessary. The use of an improper extension cord could cause the risk of fire, electric shock or electrocution.
- Never attempt to connect two chargers together.
- Do not charge batteries or use the tool and battery pack in locations where the temperature may be below 0°C or exceed 40°C such as alongside sheds or metal structures.
- The battery can be charged or operated at temperatures between 0° C and 40° C.

NEVER CHARGE YOU LITHIUM ION BATTERY BELOW OR ABOVE TEMPERATURES RECOMMENDED OTHERWISE FIRE OR SERIOUS DAMAGE TO THE BATTERY PACK MAY OCCUR.

The most suitable temperatures to charge the battery pack are between 20 - 25° C.

- If you wish to charge a second battery pack, unplug the charger from the mains supply and leave it for at least 15 minutes. After this time you can charge a second battery pack.

Additional safety instructions related to the battery pack and battery safety

- Use only the 909 batteries supplied with the 909 Tool or 909-approved replacements.
- Do not use the battery to power any device other than the 909 tool it was sold with.

- Charge the battery only with the 909 charger supplied with the tool or 909-approved replacements and according to the instructions in the 909 Instruction Manual.
- Do not charge the battery in a place where static electricity is generated nor let the battery touch something that is statically charged.
- The battery can be stored at temperatures between – 20° C and 40° C.

NEVER STORE OR LEAVE YOUR LITHIUM ION BATTERY IN TEMPERATURES OVER THAT RECOMMENDED OTHERWISE FIRE MAY OCCUR.

Do NOT store the Lithium Ion battery anywhere that the temperature can easily reach higher temperatures than recommended - this includes garden type sheds, and Vehicles where the inside temperature can climb to dangerous levels in the direct sunlight and on high temperature days. **THINK BEFORE LEAVING YOUR LITHIUM ION BATTERY PACK IN STORAGE.**

- The battery can be charged or operated at temperatures between 0° C and 40° C.

NEVER CHARGE YOU LITHIUM ION BATTERY BELOW OR ABOVE TEMPERATURES RECOMMENDED OTHERWISE FIRE OR SERIOUS DAMAGE TO THE BATTERY PACK MAY OCCUR.

The most suitable temperatures to charge the battery pack are between 20 - 25° C.

- Always allow the battery pack to cool down after charging, do not place it in a hot environment such as a metal shed or open trailer left in the sun.
- Take care where the tool is stored. Do not store in areas of corrosive fumes, or salt air or similar conditions. Try and store the tool in the packaging supplied with the tool.
- Do not dispose of the battery in a fire or put the battery into a microwave oven, conventional oven, dryer, or high-pressure container. Under these conditions, the battery may explode.
- Never attempt to open the battery pack, puncture the battery or subject the battery to strong physical shock.

- If the plastic housing of the battery pack breaks open or cracks, immediately discontinue its use and do not recharge it. Ensure the battery pack clip is in good condition and will not allow the pack to fall free from the tool. If the clip is damaged or for any reason is not locking the pack in place Do Not continue to use.
- Stop using the battery if it exhibits abnormal heat, odour, colour, deformation, or is in an abnormal condition.
- If you detect leakage or a foul odour, it is especially important to keep the battery away from fire. If battery liquid leaks onto your skin or clothes, wash well with clean water immediately. If liquid leaking from the battery gets into your eyes, do not rub your eyes. Rinse your eyes well (for at least 10 minutes) with clean water, and consult a doctor immediately. Do not use a leaking battery.
- Handle batteries with care to avoid shorting the battery with conducting materials, such as nails, screws, metal watch bands, rings, bracelets, and keys. The battery may overheat and could burn you.
- After the battery has reached the end of its useful life, we recommend recycling the materials at your local municipal council recycling centre. DO NOT attempt to replace the battery cells in the battery pack, repair or modify any part of the battery pack assembly
- When recycling, make it nonconductive by applying insulating tape to the terminals located on the battery.

When to charge the battery

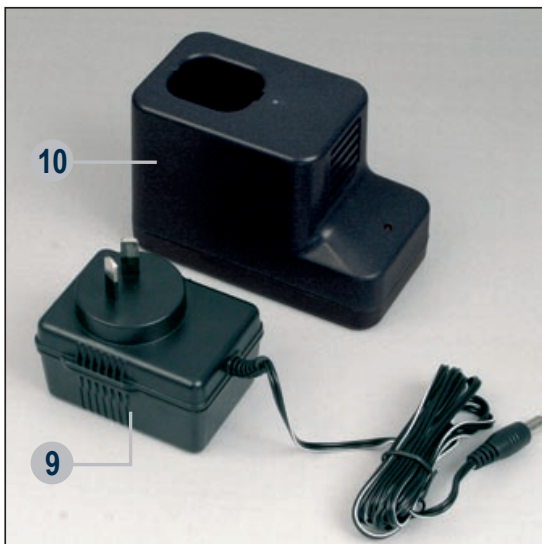
New battery packs are shipped in a low charge condition and must be fully charged before use. It takes approximately 8 hours to fully charge a new battery and 3 – 5 hours once the battery has been used in the tool a few times.

Charging of batteries should not be undertaken casually. Through the charging cycle the condition of the battery pack should be monitored and the charge cycle turned off at completion or at the end of the recommended time.

Know your product

This drill is mainly used for drilling in wood or metal sheet and screwdriving. Use the tool and accessories only for intended applications. All other applications are expressly ruled out.

1. Keyless chuck
2. Handle
3. Variable speed trigger switch with electric brake
4. Forward/Reverse control
5. Rechargeable Lithium-ion battery pack
6. LED battery indicators
7. Battery pack release button
8. Torque adjustment collar
9. Charger power pack/Charger pack
10. Charger base



Unpacking

Due to modern mass production techniques, it is unlikely that your 909 Power Tool is faulty or that a part is missing. If you find anything wrong, do not operate the tool until the parts have been replaced or the fault has been rectified. Failure to do so could result in serious personal injury.

Important information – Product care

This drill driver uses Lithium Ion Battery Cells. Care MUST be taken to ensure both the safety and life of the pack is maintained. Ensure you have read all of the safety notes in the previous pages before using the drill/driver.

Safety devices and circuitry for this tool are located in the battery pack of this tool. The battery pack is a vital component, not just for the power source, but also for the full safety control for both the charging and also the tool operation. Treat the battery pack with care and within the guidelines of this manual. If the pack does become immersed in water or any fluids, or is subject to a severe drop etc, or it does not operate within the guidelines of this manual, immediately STOP using the battery pack and have it checked.

During operation avoid overloading the drill driver. If the drill driver is overloaded it will automatically STOP. Overloading may occur for a number of reasons including when the drill driver is pushed too hard or when using a drill bit or attachment greater than what is specified. If you do overload the drill driver during operation refer to the “Overload” section in this manual.

Note: When the battery of the drill is at the lower end of the charge, the drill is more susceptible to the overload condition.

As mentioned above the battery pack is an integral component of this tool and it is fitted with thermal safety devices. Running the drill at close to maximum load, or continual resetting of the overload will cause the battery pack to over heat. When a preset cell temperature is detected, the battery pack will automatically STOP operating and will not restart until the battery pack has cooled to a safe level.

In this condition, DO NOT force cool the pack by placing in a freezer or similar device. Refer to the “Overload” section in this manual.

Another feature of the drill/battery pack is the **low voltage cut out** feature. This feature operates when the voltage drops below a pre set value. When this occurs the tool will automatically stop operating. To correct the situation you need to either insert another charged battery into the drill or recharge the existing battery, and then proceed with the drilling/driving application.

Note: Attempting to restart the tool in this condition without either recharging the battery or installing a battery with charge will lead to drill restarting and then stopping again after only a few seconds of operation.

These safety devices have been fitted for the safety, reliability and life of the tool.

Fitting and removing the battery pack

To remove the battery pack from the drill firmly press the battery release button (7) at the front of the battery pack, and pull the battery downwards out of the tool.

To install the battery pack into the base of the drill, you need to align the location rib on the battery pack with the engagement groove located on the base of the drill. Push battery pack upwards into the handle of the drill. Ensure the battery pack locks into position, you will hear a “click”.



Battery charging

IMPORTANT. Before plugging in the power supply from the charger adaptor (9) to the charger base (10) always ensure that the plug is switched off at the mains.

IMPORTANT. The battery will be fully charged after approx 3-5 hours, remove it from the charger after this time. Do not leave a battery charging for longer than 24 hours.

1. Align the battery pack (5) with the charger base (10) as per the picture shown. Insert the battery pack (5) and slide it firmly into position as shown.



Note: If the battery pack is incorrectly orientated the battery will not fully enter the base as depicted.

2. Connect the power supply from the charger adaptor (9) to the charger base (10) via plugging the socket from the charger adaptor (9) into the side of the charger base (10) housing.



3. Plug in the charger and switch on at the power supply. The red LED indicator located on the charger base (10) will indicate that the charger base has power connected to it. The flashing lights on the battery pack will indicate the battery status while the battery is charging. Refer to the below table:

| Battery indicator while charging | | | | |
|-----------------------------------|----------|------------|------------|--|
| Status | Red LED | Yellow LED | Green LED | Charging status/indicator description |
| Charging | ON ● | FLASH ⊕ | FLASH ⊕ | Yellow and green LED lights flash one after the other during the 3 – 5 hour charging duration |
| Fully charged | OFF ○ | OFF ○ | ON ● | Battery pack is fully charged |
| High temperature or defective | OFF ○ | ON ● | OFF ○ | High temperature. The battery pack temperature is too high and needs to be cooled down. Once the battery pack has been cooled down to an appropriate level the battery will continue to charge. If the battery pack cools down and the status remains unchanged then the battery pack is defective/damaged and should not be used. WARNING: Never use a damaged battery pack. |
| Battery conditioning or defective | OFF ○ | OFF ○ | OFF ○ | Battery conditioning occurs when the battery pack has low charge left in its cells. It may take around 90 minutes for the battery to be conditioned before commencing the charging process. If the status remains unchanged then the battery pack is defective/damaged and should not be used. WARNING: Never use a damaged battery pack. |

4. The battery charging time is approximately 3 – 5 hours. When the red and yellow LED go out leaving the green LED glowing the charging cycle is complete. Turn off the charger power supply from the mains and then remove the battery pack (5) from the charger base (10). During the charging cycle, you will hear a clicking noise coming from the battery pack. This is normal and is not an issue of concern. Both the battery pack and the charger may become warm to touch. This is also normal and not an issue of concern. Both the battery pack and charger are fitted with thermal safety devices and they will shut down if the temperatures become too high.

To obtain the best life for the battery

Never allow the drill to come to a complete stand still before recharging. The battery should be placed on charge whenever the battery is noticeably running down or the drill no longer performs a task it previously performed. For

storage, charge between 50 and 75%. Avoid allowing loose items like screws or nails etc. to be stored with battery packs as these or similar items can short battery packs and cause a fire or explosion.

Always unplug the charger when not in use and store in a dry secure place.

Avoid charging or storing your battery in temperatures below 0°C and above 40°C.

Battery indicator

The battery indicator automatically operates when the trigger switch (3) is pressed in/activated and displays the LED lights. The LED lights indicate the level of charge remaining in the battery.

The table below explains the levels of charge (low, medium and high).



| Battery indicator under no-load | | | |
|---------------------------------|------------|-----------|---|
| Red LED | Yellow LED | Green LED | Battery status indicator/description |
| ON ● | ON ● | ON ● | High: Battery is fully charged |
| ON ● | ON ● | OFF ○ | Medium: Battery has less than 50% charge capacity. |
| ON ● | OFF ○ | OFF ○ | Low: Battery has less than 30% charge capacity. |
| OFF ○ | ON ● | OFF ○ | High temperature. The battery pack temperature is too high and needs to be cooled down. Note: In this condition the battery will not operate the drill or recharge. Once the battery pack has cooled down to an appropriate level the battery will be suitable to for reuse or recharging. If the task is being carried on with the cooled down battery you must first reduce the load being applied to the drill, which would have caused the overheating of the pack (use a new drill bit or sharpen the drill bit and allow the bit to do the cutting and reduce the amount of force placed on the drill). If the battery pack cools down and the status remains unchanged then the battery pack is defective/damaged and should not be used. WARNING: Never use a damaged battery pack. |

Using the drill

Trigger switch

Use the forward/reverse switch (4) to select the direction of rotation, then pull the trigger (3). This trigger switch is an electronic variable speed control which enables the user to vary the speed continuously. The speed varies according to how far the trigger switch is depressed. The further it is depressed the faster the chuck will rotate and the lighter it is depressed, the slower it will rotate.

To stop the drill, release the trigger switch.



Note. The variable Speed control fitted to this drill is NOT intended to be used for long periods of time during the operation of the task being performed. Use the variable speed to start drilling and screwing tasks, and then fully depress the trigger once the task has started.

CAUTION. Extended use of the variable speed under load will overload and then permanently damage the speed control.

Drill Overload

This drill is fitted with an overload protection. If the drill is excessively forced, or the task being performed is too great for the drill, the drill will automatically go into an overload mode. When the drill goes into overload, the drill will automatically and suddenly STOP. To reset the overload, simply release the trigger. When the trigger is pressed again, the drill will restart. Resume work after the overload has been reset, but reduce the load by using a smaller drill bit or re-sharpen the existing drill bit and reduce the amount of force placed on the drill.

CAUTION. Do not continue to overload the drill and constantly reset the overload. Doing this will cause the battery cells to over heat.

Temperature Cut Out

If the drill is constantly overloaded, or the drill is used constantly at maximum rating in high ambient conditions, the battery cells may over heat causing the battery pack to shut down.

The yellow indicator on the battery pack will stay illuminated in this condition. When this occurs you will need to immediately stop drilling and allow the battery cells to reduce the temperature.

To reduce the temperature of the cells remove the battery pack from the drill and place the battery pack in a free air environment, out of direct sunlight or any other heat source.

DO NOT force cool the pack in any way. Do not place in refrigerators or freezers.

When the battery pack has cooled down it can again be used to operate the drill, as long as the load or the conditions causing the original excessive temperature has been corrected.

Low voltage cut out

The battery pack used on this tool is fitted with a **low voltage cut out** feature within the circuitry.

The **low voltage cut out** feature operates when the voltage drops below a pre set value. This feature automatically stops the drill from operating (similar to that of the overload condition). When this condition occurs you will need to either insert another battery into the drill or recharge the existing battery.

The **low voltage cut out** feature has been added to maximise the tools life. When this occurs, recharge the battery pack by following the battery charging section in this manual.

Note: Attempting to restart the tool without either recharging the battery or installing another battery (with charge) will lead to drill restarting and then stopping again, after only a few seconds of operation.

Forward/reverse switch

Note. You can only change the direction of rotation of the drill using the forward/reverse switch when the trigger is NOT depressed.

This switch (4) will allow you to change the direction of the motor while the trigger switch is not depressed.

Drilling uses the forward mode. The reverse mode is intended for the removal of screws and assisting to remove jammed drill bits.

Adjustable torque

This drill is equipped with 21 torque settings plus one drill setting which are controlled by the torque collar (8). All of the torque settings are clearly identified on the torque collar. To adjust the torque setting you rotate the torque collar. Rotate the torque collar clockwise to increase the torque setting and rotate it anti-clockwise to decrease the torque setting.

Controlling the torque allows for better control when using the drill on specific tasks and prevents over-fastening and over-tightening.



For drilling, always use the use the Drill position by aligning the Drill symbol with the triangular indicator on the front face of the drill near the torque collar.

For setting the torque position, select a low setting on the torque collar and align the selected symbol with the triangular indicator on the top of the drill. Increase gradually to set the correct torque. It is better to use a scrap piece of material if possible to set the torque.

Inserting and removing bits

This drill has a keyless chuck, which means that a chuck key is not needed to secure a bit in the drill.



1. Open the chuck by holding the rear section of the chuck firm and rotating the front section in a anti-clockwise direction, sufficiently enough to allow the drill bit required to fully enter the jaws of the chuck.
2. Ensure the drill bit is fully inserted, so that the chuck jaws grip the straight section of the bit.
3. Holding the rear section of the chuck firmly, rotate the front section of the chuck clock-wise until the jaws tighten on the drill bit. The front section of the chuck needs to be tightened firmly to ensure the drill bit is held securely.
4. To remove the drill bit, hold the rear section of the chuck firmly and rotate sharply the front section of the chuck in a anti-clockwise direction, sufficiently enough to allow the drill bit to be removed.

Drilling

Drilling metals

- Always clamp sheet metal.
- Support thin metal with a block of wood to avoid distorting it.
- Use a punch to mark the centre of the hole.
- Use a suitable lubricant for the material you are working on,

USE:

Oil
Turpentine or paraffin
Do not lubricate

FOR:

Steel
Aluminium
Brass, copper or cast iron

Drilling plastics and plastic coated chipboard

- Use high speed drill bits
- See drilling wood below

Drilling masonry

- This drill is not designed for drilling masonry. Purchase or hire a Hammer drill.

Drilling wood

- Clamp a piece of scrap wood to the back of your work to prevent splintering.

All drilling operations

- Mark off the centre of the hole using a centre punch or nail.
- Don't force the drill, let it work at its own pace
- Keep the drill bit sharp.
- Reduce pressure, as the drill is about to break through the item being drilled.

Chuck replacement

The chucks of reversible drills are always fixed by a screw with a left-hand thread. The screw, which is located in the centre of the chuck, must be removed before the chuck can be removed. To remove the screw, turn it in a clockwise direction. The chuck can now be removed by unscrewing it anti-clockwise. If you have trouble removing the chuck take the drill to your nearest authorised service centre for chuck replacement.

CAUTION. Always ensure that the drill is switched off and the battery pack is removed before making any adjustments.

Maintenance

- Store the tools, instruction manual and where necessary the accessories in the original packaging. In this way you will always have all the information and parts ready to hand.
- Do not throw used batteries into fire or water. There is a danger of explosion! Please hand in non-working or used batteries, or tools with built-in batteries, to the environmentally-safe disposal unit at a municipal waste-disposal centre, or to your dealer.
- If the cordset of the charger is damaged or worn, have it repaired or replaced by an authorised service centre.

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