

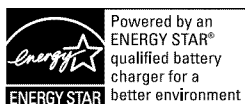
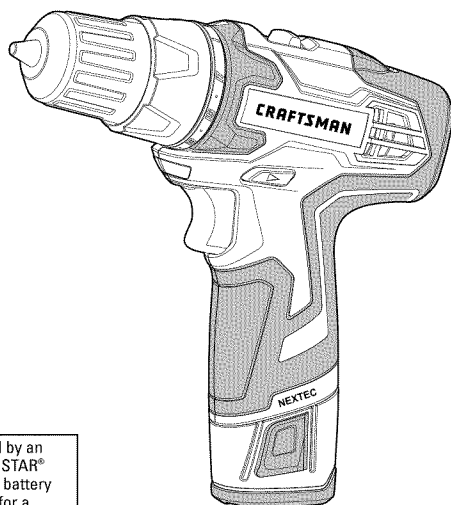
Operator's Manual

CRAFTSMAN®

NEXTEC

12.0-Volt Lithium-Ion Cordless 3/8 in. Reversible Drill/Driver

Model No. 320. 30565



Powered by an
ENERGY STAR®
qualified battery
charger for a
better environment



⚠ WARNING: To reduce the risk of injury, the user must read and understand the Operator's manual before using this product.

- Warranty
- Safety
- Assembly
- Operation
- Maintenance
- Español

Charge battery
before first use.

Sears Brands Management Corporation, Hoffman Estates, IL 60179
U.S.A.

www.craftsman.com

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CRAFTSMAN ONE YEAR LIMITED WARRANTY

FOR ONE YEAR from the date of purchase, this product is warranted against any defects in material or workmanship. With proof of purchase, defective product will be replaced free of charge.

For warranty coverage details to obtain free replacement, visit the web site: www.craftsman.com

This warranty does not cover the bit, which is an expendable part that can wear out from normal use within the warranty period.

This warranty is void if this product is ever used while providing commercial services or if rented to another person.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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INTRODUCTION

SAVE THESE INSTRUCTIONS

This cordless drill/driver has many features for making its use more pleasant and enjoyable. Safety, performance, and dependability have been given top priority in the design of this product making it easy to maintain and operate.

⚠ WARNING: Some dust created by using power tools contains chemicals known to the state of California to cause cancer and birth defects or other reproductive harm.

SAFETY SYMBOLS

The purpose of safety symbols is to attract your attention to possible dangers.

The safety symbols and the explanations with them deserve your careful attention and understanding. The symbol warnings do not, by themselves, eliminate any danger. The instructions and warnings they give are no substitutes for proper accident prevention measures.

⚠ WARNING: Be sure to read and understand all safety instructions in this manual, including all safety alert symbols such as “DANGER,” “WARNING,” and “CAUTION,” before using this drill/driver. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious personal injury.

SYMBOL SIGNAL MEANING

⚠ DANGER: Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING: Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION: Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

Damage Prevention and Information Messages

These inform the user of important information and/or instructions that could lead to equipment or other property damage if they are not followed. Each message is preceded by the word “NOTICE,” as in the example below:

NOTICE: Equipment and/or property damage may result if these instructions are not followed.




⚠ WARNING: To ensure safety and reliability, all repairs should be performed by a qualified service technician.



⚠ WARNING: The operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, always wear safety goggles or safety glasses with side shield and a full face shield when needed. We recommend a Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shields. Always use eye protection which is marked to comply with ANSI Z87.1.

SAVE THESE INSTRUCTIONS

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

SYMBOL	NAME	DESIGNATION/EXPLANATION
V	Volts	Voltage
A	Amperes	Current
Hz	Hertz	Frequency (cycles per second)
W	Watt	Power
min	Minutes	Time
~	Alternating Current	Type of current
≡	Direct Current	Type or a characteristic of current
n_0	No Load Speed	Rotational speed, at no load
	Class II Construction	Double-insulated construction
.../min	Per Minute	Revolutions, strokes, surface speed, orbits, etc., per minute
	Wet Conditions Alert	Do not expose to rain or use in damp locations.
	Read The Operator's Manual	To reduce the risk of injury, user must read and understand operator's manual before using this product.
	Eye Protection	Always wear safety goggles or safety glasses with side shields and a full face shield when operating this product.
	Safety Alert	Precautions that involve your safety.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	Hot Surface	To reduce the risk of injury or damage, avoid contact with any hot surface.

SAFETY INSTRUCTIONS

GENERAL POWER TOOL SAFETY WARNINGS

⚠ WARNING: Read and understand all instructions. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious personal injury. The term “power tool” in all of the warnings listed below refers to corded power tools or battery-operated (cordless) power tools.

READ AND SAVE THESE INSTRUCTIONS

WORK AREA SAFETY

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

ELECTRICAL SAFETY

- **Avoid body contact with grounded surfaces, such as pipes, radiators, ranges, and refrigerators.** There is an increased risk of electric shock if your body is grounded.
- **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with grounded power tools.** Unmodified plugs and matching outlets will reduce the risk of electric shock.
- **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- **Do not abuse the cord. Never use the cord for carrying, pulling, or unplugging the power tool. Keep the cord away from heat, oil, sharp edge, or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- **If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply.** Use of a (GFCI) reduces the risk of electric shock.
- Use the battery pack only with the charger listed below:

BATTERY PACK	CHARGER
320.11221	320.10006 320.14300 320.29497

PERSONAL SAFETY

- **Stay alert, watch what you are doing, and use common sense when operating a power tool. Do not use a power tool while 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 dust mask, non-skid safety shoes, hard hat, and hearing protection, when used for appropriate conditions, will reduce personal injuries.
- **Prevent unintentional starting. Ensure that the switch is in the OFF-position before connecting to a power source and/or battery, picking up or carrying the tool.** Carrying power tools with your finger on the switch or plugging in power tools that have the power switch “ON” invites accidents.
- **Remove any adjusting key or wrench before turning the power tool on.** A wrench or key left attached to a rotating part of the power tool may result in personal injury.
- **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- **Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.
- **If devices are provided for the connection of dust extraction and collection facilities, make sure that these are connected and properly used.** Use of these devices can reduce dust-related hazards.

POWER TOOL USE AND CARE

- **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and more safely at the rate for which it was designated.
- **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.
- **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.
- **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.
- **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.

- **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- **Use the power tool, accessories, blades, 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 to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.

BATTERY TOOL USE AND CARE

- **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
- **When the battery pack is not in use, keep it away from other metal objects, such as 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 serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.
- **Follow instructions in the Maintenance section of this manual.** Use of unauthorized parts or failure to follow Maintenance instructions may create a risk of shock or injury.

SPECIFIC SAFETY RULES FOR CORDLESS DRILL/DRIVER

- Know your drill. Read operator's manual carefully. Learn the applications and limitations, as well as the specific potential hazards related to this tool. Following this rule will reduce the risk of electric shock, fire or serious injury.
- Hold power tools by their 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 also make exposed metal parts of the tool "live" and shock the operator.
- Remove the battery pack from the drill/driver before performing any routine maintenance or cleaning.
- Do not disassemble the drill/driver.

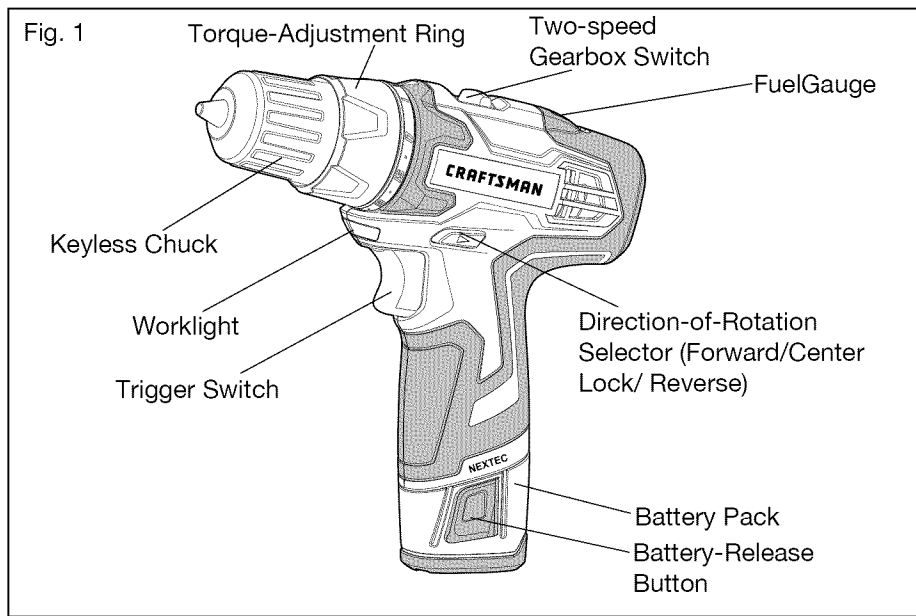
- Do not place the drill/driver or battery pack near fire or heat. They may explode.
- Use only the recommended the battery pack 320.11221 and charger 320.29497, 320.14300, 320.10006. Any attempt to use another battery pack will cause damage to the drill/driver; it could possibly explode or cause a fire or personal injury.
- Use auxiliary handle(s), if supplied with the tool. Loss of control can cause personal injury.
- Secure the workpiece. Clamping devices or a vise will hold the workpiece in place better than the hand.
- Always wait until the machine has come to a complete stop before placing it down. The tool insert can jam and lead to loss of control over the power tool.
- Before performing any kind of work on the tool (e. g. maintenance, bit change, etc.) or when transporting and storing it, always set the rotational direction switch to center off position. Unintentional activation of the On/Off switch may result in personal injury.
- Use protective gloves when removing the bit from the tool, or first allow the clamp to cool down. The bit may be hot after prolonged use.
- Do not dispose of a worn out battery pack by incinerating. Do not incinerate the battery, even if it is severely damaged or completely worn out. The battery may explode in fire.
- Do not operate the drill/driver or the charger near flammable liquids or in a gaseous or explosive environment. Internal sparks may ignite fumes.
- To reduce the risk of electric shock, do not put the drill/driver, battery, or charger in water or other liquid. Do not place or store the product where it can fall or be pulled into a tub or sink.
- Do not store the drill/driver in a damp or wet location. Do not store in locations where temperature is less than 32°F (0°C) or more than 104°F (40°C). Do not store outside or in vehicles.
- Do not permit children to use the drill/driver; it is not a toy.
- The drill/driver worklight lens may produce sufficient heat to melt some fabrics. To avoid serious personal injury, keep the Drill worklight free from contact with other items.
- Keep the drill/driver dry, clean and free from oil and grease. Always use a clean cloth when cleaning. Never use brake fluids, gasoline, petroleum-based products, or any strong solvent to clean the drill/driver.
- Do not expose the drill/driver to rain or wet conditions. Water entering the tool will increase the risk of electric shock.

- Do not overreach. Keep proper footing and balance at all times. This enables better control of the drill/driver in unexpected situations. Do not use on a ladder or unstable support.
- For best results, your battery pack should be charged in a location where the temperature is more that 32°F (0°C) but less that 104°F (40°C). Do not store outside or in vehicles.
- Save these instructions. Refer to them frequently and use them to instruct others who may use this tool. If you loan someone this tool, also loan them these instructions.

 **WARNING:** To reduce the risk of injury, the user must read the instruction manual.

DESCRIPTION

KNOW YOUR REVERSIBLE DRILL/DRIVER (Fig.1)



PRODUCT SEPCIFICATION

Chuck	3/8-in.
Motor	12 Volt DC
No-Load Speed	LO 0-400/HI 0-1300 RPM
Clutch	18 Position (17 Torque and 1 Drill)
Torque	260 in.lbs
Drill/driver Weight (with battery)	1.8 lbs
Battery Type	Lithium-Ion
Battery Voltage	12.0 Volt DC
Charger Input	120-Volts, 60 Hz AC only
Optimum Charging Temperature	32°F (0° C) - 104°F (40°C)

⚠ WARNING: The safe use of this product requires an understanding of the information on the tool and in this operator's manual, as well as knowledge of the project you are attempting. Before use of this product, familiarize yourself with all operating features and safety rules.

ADJUSTABLE TORQUE

The drill/driver has an 18-position clutch. There is 1 drill and 17 Torque positions.

TWO-SPEED GEARBOX

The two-speed gearbox is designed for drilling or driving at LO or HI speeds. A slide switch is located on top of your drill/driver for selecting the appropriate speed.

VARIABLE SPEED

The variable-speed trigger switch delivers higher speed with increased trigger pressure and lower speed with decreased trigger pressure.

KEYLESS CHUCK

The keyless chuck allows you to hand-tighten or release the drill bit in the chuck jaws.

FORWARD/REVERSE/CENTER LOCK

The drill/driver has a direction-of-rotation selector located above the trigger switch for changing the direction of bit rotation. Setting the trigger switch in the OFF (center lock) position helps reduce the possibility of accidental starting when not in use.

LED WORKLIGHT

The LED worklight, located on the front of the drill/driver, illuminates when the trigger switch is depressed. This feature provides extra light for increased visibility.

FUELGAUGE

The FuelGauge indicates the battery-pack charge level.

ASSEMBLY

⚠ WARNING: If any parts are broken or missing, do not attempt to plug in the power cord or operate the drill/driver until the broken or missing parts are replaced. Failure to do so could result in possible serious injury.

⚠ WARNING: Do not attempt to modify this drill/driver or create accessories not recommended for use with this drill/driver. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious injury.

⚠ WARNING: To prevent accidental starting that could cause serious personal injury, always remove the battery pack from the drill/driver when changing bits.

UNPACKING

This product has been shipped completely assembled.

- Carefully remove the tool and any accessories from the box. Make sure that all items listed in the packing list are included.
- Inspect the tool carefully to make sure no breakage or damage occurred during shipping.
- Do not discard the packing material until you have carefully inspected and satisfactorily operated the tool.
- If any parts are damaged or missing, please refer to the numbers listed on the back page of operator's manual.

PACKING LIST

Drill/driver, double-ended bit, Quickboost charger, soft bag, operator's manual.

OPERATION

LOW-BATTERY CAPACITY INDICATOR

- If the FuelGauge shines red when the trigger switch on the drill/driver is depressed it means that the battery pack power has run out and the battery pack should be recharged.
- Unlike other battery-pack types, Lithium-Ion battery packs deliver fade-free power for their entire run time. The tool will not experience a slow, gradual loss of power as you work. To signal that the battery pack is at the end of its run time and needs to be charged, the power to the tool will drop quickly.

NOTICE: The work light may also flash due to an overload or high temperature (see BATTERY PROTECTION).

BATTERY PROTECTION

The battery circuitry protects the battery pack from extreme temperature, over-discharge, and over-charge. To protect the battery from damage and prolong its life, the battery pack circuitry will turn off the battery pack if it becomes overloaded or if the temperature becomes too high during use. This may happen in extremely high torque, binding, and stalling situations. This intelligent system will shut down your battery pack if its operating temperature exceeds 176°F (80°C) and will begin normal operation when it returns to when it returns to approximately 122° F (50° C).

The LED worklight light will begin flash slowly if the battery circuitry detects a momentary overload.

NOTICE: The battery can automatically reset. If the LED continues to flash rapidly, it is indicating that the charge is substantially diminished. Place the battery into the charger for charging. (See BATTERY CAPACITY INDICATOR, above.)

NOTICE: A significantly reduced run time after fully charging the battery pack indicates that the battery is near the end of its usable life and must be replaced.

COLD WEATHER OPERATION

This Lithium-Ion battery pack will provide optimal performance in temperatures between 32°F (0°C) and 104°F (40°C). When the battery pack is very cold, it may “pulse” for the first minute of use to warm itself. Put the battery pack on a tool and use the tool in a light application. After about a minute, the battery pack will have warmed itself and will operate normally.

WHEN TO CHARGE THE BATTERY PACK

It is not necessary to run down the battery pack charge before recharging. The Lithium-Ion battery can be charged at any time and will not develop a “memory” that reduces total charge when recharged after a partial discharge.

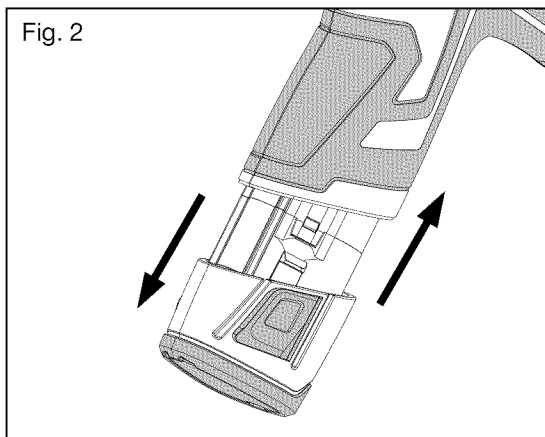
Remove the battery pack from the tool when convenient for you and your job. “Top off” the battery pack charge by charging it for a time before starting a big job or long period of use.

Due to Lithium-Ion fade-free properties, the only time it is necessary to charge the Lithium-Ion battery pack is when the pack has reached the end of its charge. To signal the end of charge, power to the tool will drop quickly and the FuelGauge LED will flash rapidly. Charge the battery pack as needed.

TO ATTACH BATTERY PACK (Fig. 2)

1. Make sure that the drill/driver is "OFF".
2. Align the raised ribs on the battery pack with the grooves of the drill/driver, and then attach the battery pack to the drill/driver.

NOTICE: Make sure that the latch on the battery pack snaps into place and the battery pack is secured to the tool before beginning operation.



TO DETACH BATTERY PACK (Fig. 2)

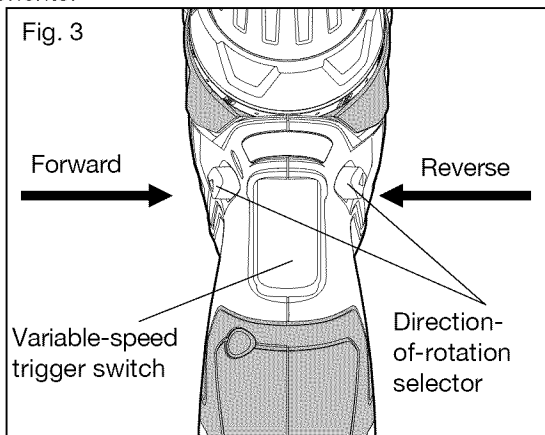
1. Lock the trigger switch on the drill/driver by placing the direction of rotation (forward/center lock/reverse) selector in center position.
2. Depress the battery release buttons located on the both sides of the battery pack to release the battery pack.
3. Pull the battery pack out and remove it from the tool.

CAUTION: When placing the battery pack in the tool, be sure that the raised ribs on the battery pack align with the grooves inside the drill/driver and the latches snap into place properly. Improper assembly of the battery pack can cause damage to internal components.

WARNING: Battery tools are always in operating condition. Therefore, the direction-of-rotation selector should always be locked when not in use or carrying the tool at your side.

TRIGGER SWITCH (Fig. 3)

To turn the drill/driver ON, depress the trigger switch. To turn it OFF, release the trigger switch.



VARIABLE SPEED (Fig.3)

The variable-speed trigger switch delivers higher speed with increased trigger pressure and lower speed with decreased trigger pressure.

DIRECTION-OF-ROTATION SELECTOR (FORWARD/CENTER LOCK/REVERSE) (Fig. 3)

The direction of bit rotation is reversible and is controlled by a selector located above the trigger switch.

With the drill/driver held in normal operating position:

1. Position the direction-of-rotation selector to the left of the tool for drilling.
2. Position the direction-of-rotation selector to the right of the tool for reverse.
3. Setting the switch in the OFF (center lock) position helps reduce the possibility of accidental starting when not in use.

▲ CAUTION: To prevent gear damage, always allow the chuck to come to a complete stop before changing the direction of rotation.

NOTICE: The drill/driver will not run unless the direction-of-rotation selector is engaged fully to the left or right.

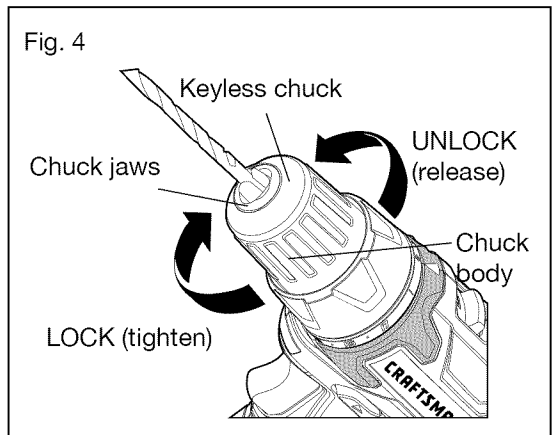
ELECTRIC BRAKE

To stop the drill/driver, release the trigger switch and allow the chuck to come to a complete stop. The electric brake quickly stops the chuck from rotating. This feature engages automatically when you release the trigger switch.

KEYLESS CHUCK (Fig. 4)

The drill/driver has a keyless chuck to tighten or release bits in the chuck jaws. The arrows on the chuck indicate the direction in which to rotate the chuck body in order to GRIP (tighten) or OPEN (release) the chuck jaws on the bit.

▲ WARNING: Do not hold the chuck with one hand and use the power of the drill/driver to tighten the chuck jaws on the drill bit. The chuck body could slip in your hand, or your hand could slip and come in contact with the rotating bit. This could cause an accident resulting in serious personal injury.



TWO-SPEED GEARBOX (Fig. 5)

The drill/driver has a two-speed gearbox for drilling or driving at LO or HI speeds. A slide switch is located on the top of the drill/driver to select either LO or HI speed.

When using drill/driver in the LO speed range, the speed will decrease and the drill/driver will have more power and torque. Ann, your question is correct! I've updated the sentence here.

Use LO speed for high power and torque applications and HI speed for fast drilling or driving applications.

Use LO speed for starting holes without a center punch, drilling metals or plastic, drilling ceramics, or in applications requiring a higher torque.

HI speed is better for drilling wood and wood composites and for using abrasive and polishing accessories.

NOTICE: Avoid running the drill/driver at HI speed for extended periods of time. Running at HI speed under constant usage may cause the drill/driver to become overheated. If this occurs, cool the drill/driver by running it without a load at LO speed.

CAUTION: Never change gears while the tool is running. Failure to obey this caution could result in serious damage to the drill/driver.

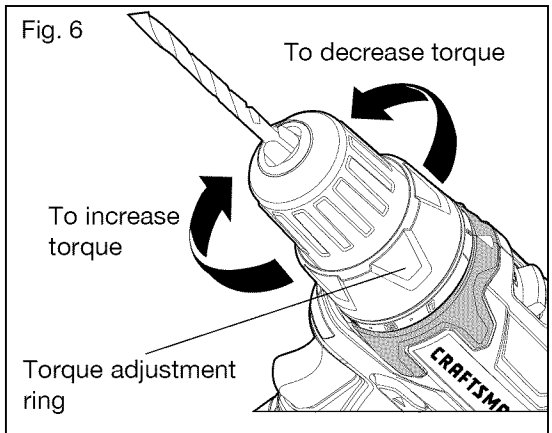
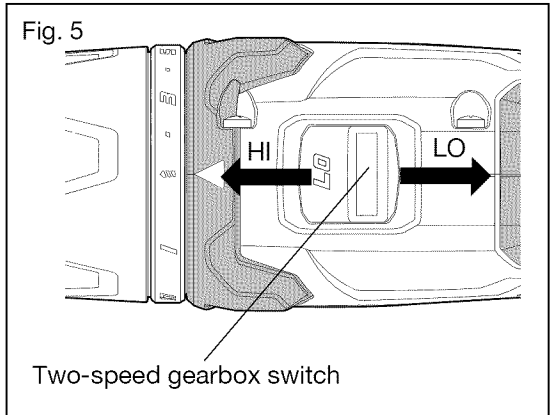
ADJUSTABLE-TORQUE CLUTCH (Fig. 6)

The Torque clutch can be adjusted to 17 different settings. The higher the torque drill setting, the more force the drill/driver produces to turn an object in either LO or HI rotation speed.

When using the drill/driver for different driving applications, increase or decrease the torque in order to help prevent damaging screw heads, threads, workpiece, etc.

Adjust the torque by rotating the torque-adjustment ring.

The proper setting depends on the job and the type of bit, fastener, and material you will be using. In general, use greater torque for larger screws. If the torque is too high, the screws may be damaged or broken.



For delicate operations, such as removing a partially stripped screw, use a low torque setting. For operations such as drilling into hardwood, use a higher torque setting.

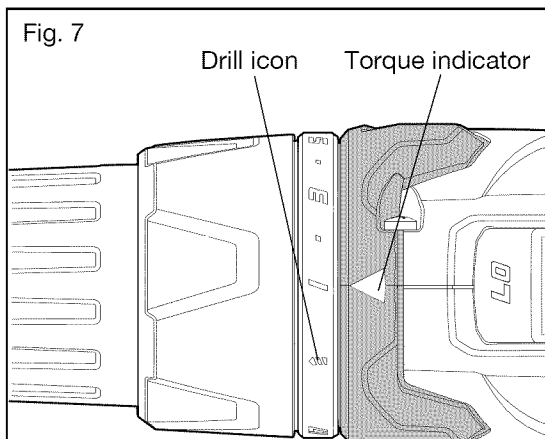
NOTICE: When adjusting the torque clutch make sure that the speed switch is either completely in the LO or HI Position.

CAUTION: Do not change the torque setting when the tool is running.

DRILL MODE (Fig. 7)

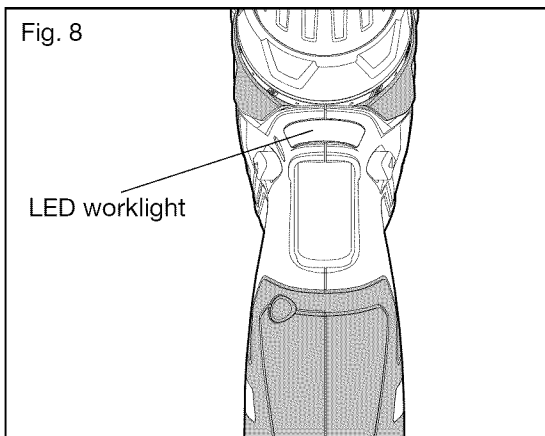
Select the drill mode for drilling and other heavy duty applications.

To select Drill mode, rotate the torque-adjustment ring until the icon aligns with the torque indicator and clicks into position.



LED WORKLIGHT (Fig. 8)

The LED worklight, located on the base of the drill/driver, will illuminate when the trigger switch is depressed. This provides additional light on the surface of the workpiece for operation in lower-light areas. The LED worklight will turn off when the trigger switch is released.



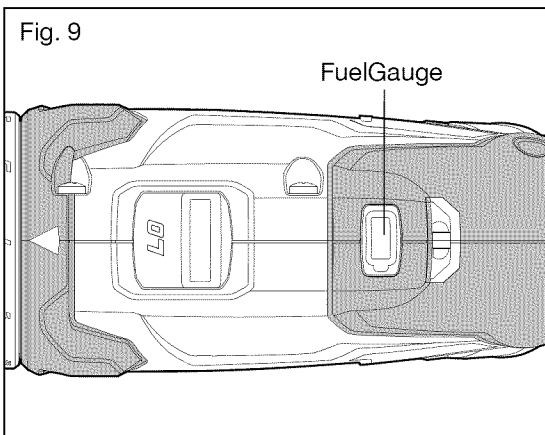
FUELGAUGE (Fig. 9)

This tool is equipped with a FuelGauge, which indicates the battery-pack charge level.

The green LED on the FuelGauge indicates that the battery is fully charged.

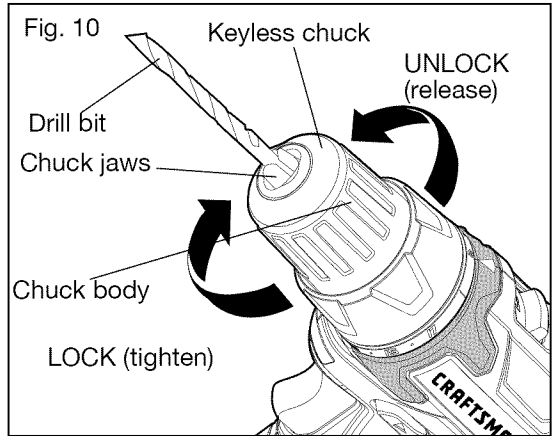
The orange LED on the FuelGauge indicates that the battery has used approximately one half of its charge.

The red LED on the FuelGauge indicates that the battery pack is depleted and needs to be charged.



INSTALLING BITS (Fig. 10)

1. Lock the trigger switch by placing the direction-of-rotation selector in the OFF (center lock) position.
2. Open or close the chuck jaws to a point where the opening is slightly larger than the bit size you intend to use.
3. Raise the front of the drill/driver slightly to keep the bit from falling out of the chuck jaws.
4. Insert a bit.



NOTICE: Rotate the chuck body in the direction of the arrow marked GRIP to close the chuck jaws. Do not use a wrench to tighten or loosen the chuck jaws.

5. Tighten the chuck jaws securely on the bit.

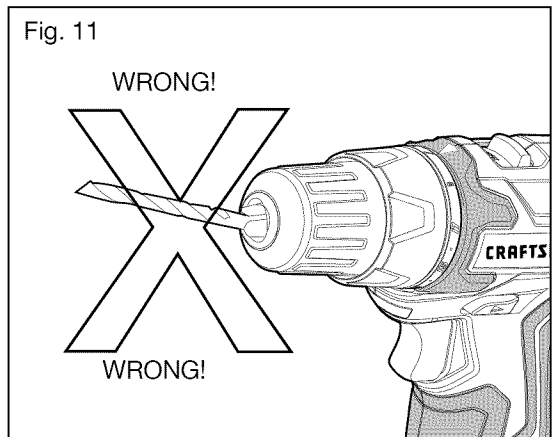
REMOVING BITS (Fig. 11)

1. Lock the trigger switch by placing the direction-of-rotation selector in the OFF (center) position.
2. Open the chuck jaws.

NOTICE: Rotate the chuck body in the direction of the arrow marked OPEN to loosen the chuck jaws. Do not use a wrench to tighten or loosen the chuck jaws.

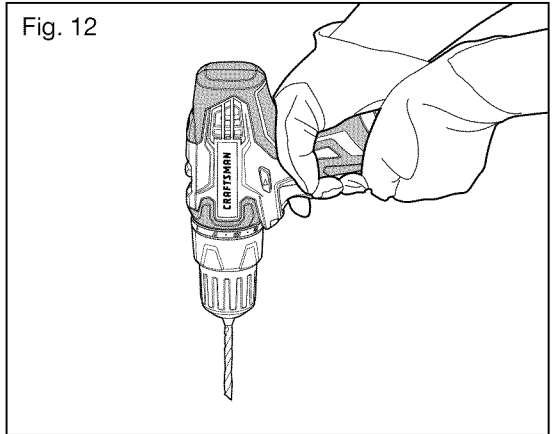
3. Remove the bit.

WARNING: Make sure to insert the bit straight into the chuck jaws. Do not insert the bit into the chuck jaws at an angle and then tighten, as shown in figure 12. This could cause the bit to be thrown from the drill/driver, resulting in possible serious personal injury or damage to the chuck.



DRILLING (Fig. 12)

1. Check that the direction-of-rotation selector is at the correct setting (forward or reverse).
2. Secure the material to be drilled in a vise or with clamps to keep it from turning as the drill bit rotates.
3. Hold the drill/driver firmly, and place the bit at the point to be drilled.
4. Depress the trigger switch to start the drill/driver.
5. Move the drill bit into the workpiece, applying only enough pressure to keep the bit cutting. Do not force the drill/driver or apply side pressure to elongate a hole. Let the tool do the work.
6. When drilling hard, smooth surfaces, use a center punch to mark the desired location of the hole. This will prevent the drill bit from slipping off-center as the hole is started.
7. When drilling metals, use light oil on the drill bit to keep it from overheating. The oil will prolong the life of the bit and increase the drilling action.
8. If the bit jams in the workpiece or if the drill/driver stalls, stop the tool immediately. Remove the bit from the workpiece and determine the reason for jamming.



NOTICE: This drill/driver is equipped with an electric brake. When the brake is functioning properly, sparks may be visible through the vent slots in the housing. This is normal and results from the action of the brake.

WOOD DRILLING

For maximum performance, use high-speed steel or brad-point bits for wood drilling.

1. Begin drilling at a very low speed to prevent the bit from slipping off the starting point.
2. Increase speed as the drill bit bites into the material.
3. When drilling “through” holes, place a block of wood behind the workpiece to prevent ragged or splintered edges on the back side of the hole.

METAL DRILLING


For maximum performance, use high speed steel bits for metal or steel drilling.


1. When drilling metals, use light oil on the drill bit to keep it from overheating. The oil will prolong the life of the bit and increase the drilling action.
2. Begin drilling at a very low speed to prevent the bit from slipping off the starting point.
3. Maintain a speed and a pressure which allow cutting without overheating the bit. Applying too much pressure will:
 - Overheat the drill/driver
 - Wear the bearings
 - Bend or burn bits
 - Produce off-center or irregularly shaped holes

MASONRY DRILLING

For maximum performance, use carbide-tipped masonry bits when drilling holes in brick, tile, concrete, etc.

1. Maintain a speed and a pressure which allow cutting without overheating the bit or Drill. Applying too much pressure will:
 - Overheat the drill/driver
 - Wear the bearings
 - Bend or burn bits
 - Produce off-center or irregular-shaped holes
2. Apply light pressure and medium speed for best results in brick.
3. Apply additional pressure for hard materials such as concrete.
4. When drilling holes in tile, practice on a scrap piece to determine the best speed and pressure.
5. Begin drilling at a very low speed to prevent the bit from slipping off the starting point.

 **WARNING:** Always wear safety goggles or safety glasses with side shields during power tool operation or when blowing dust. If operation is dusty, also wear a dust mask.

 **WARNING:** To ensure safety and reliability, all repairs should be performed by a qualified service technician.

MAINTENANCE

⚠ WARNING: To avoid serious personal injury, always remove the battery pack from the tool when cleaning or performing any maintenance.

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

⚠ WARNING: It is not recommended to use compressed dry air as cleaning method for the drill/driver. If cleaning with compressed air is the only method to apply, always wear safety goggles or safety glasses with side shields when using compressed air to clean the tool. If the operation is dusty, also wear a dust mask.

GENERAL MAINTENANCE

Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use clean cloths to remove dirt, dust, oil, grease, etc.

⚠ WARNING: Do not at any time let brake fluids, gasoline, petroleum-based products, penetrating oils, etc. to come in contact with plastic parts. Chemicals can damage, weaken or destroy plastic which may result in serious personal injury.

⚠ WARNING: When servicing, use only identical replacement parts. Use of any other parts may create a hazard or cause product damage. To ensure safety and reliability, all repairs should be performed by a qualified service technician.

BATTERIES:

The battery pack is equipped with Lithium-Ion rechargeable batteries. The duration of use from each charge will depend on the type of work performed.

The batteries in this tool have been designed to provide maximum trouble-free life. Like all batteries, they will eventually wear out. Do not disassemble the battery pack or attempt to replace individual batteries in the pack. Handling of the batteries, especially when wearing rings and jewelry, could result in a serious burn.

To obtain the longest possible battery life, read and understand the operator's manual.

- It is good practice to unplug the Charger and remove the Lithium-Ion battery pack when not in use.

For Lithium-Ion battery pack storage longer than 30 days:

- Store the Lithium-Ion battery pack where the temperature is below 80°F (26°C) and free of moisture.
- Store Lithium-Ion battery packs in a 30%-50% charged condition.
- Every six months of storage, fully charge the Lithium-Ion battery pack.

- Exterior may be cleaned with a cloth or soft non-metallic brush.

BATTERY PACK REMOVAL AND PREPARATION FOR RECYCLING

To preserve natural resources, please recycle or dispose of batteries properly. This product contains lithium-ion batteries. Local, state, or federal laws may prohibit disposal of lithium-ion batteries in ordinary trash. Consult your local waste authority for information regarding available recycling and/or disposal options.



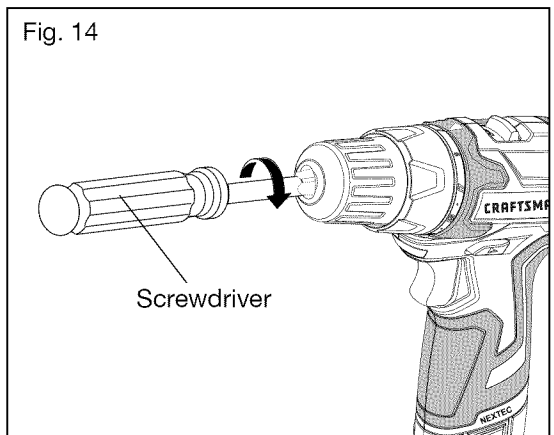
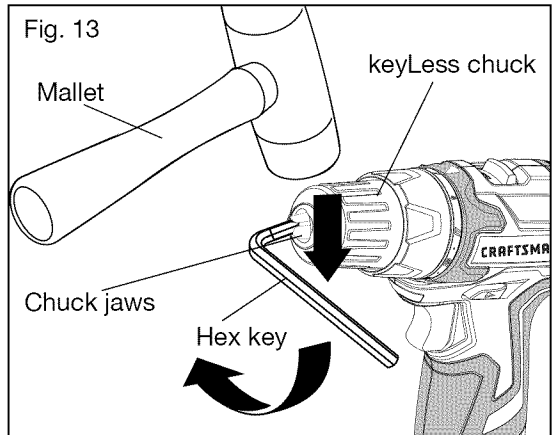
⚠ WARNING: Upon removal of the battery pack for disposal or recycling, cover the battery pack's terminals with heavy-duty adhesive tape. Do not attempt to destroy or disassemble the battery pack or remove any of its components. Lithium-Ion batteries must be recycled or disposed of properly. Also, never touch the terminals with metal objects and/or body parts as a short circuit may result. Keep away from children. Failure to comply with these warnings could result in fire and/or serious injury.

CHUCK REMOVAL (Fig. 13-15)

The chuck can be removed and replaced with a new one.

1. Lock the trigger switch by placing the direction-of-rotation selector in the center position.
2. Open the chuck jaws.
3. Insert a 5/16-in. or larger hex key into the chuck of the drill/driver and tighten the chuck jaws securely.
4. Tap the hex key sharply with a mallet in a clockwise direction. This will loosen the screw in the chuck for easy removal.
5. Open the chuck jaws and remove the hex key. Using a screwdriver, remove the chuck screw by turning it in a clockwise direction.

NOTICE: The chuck screw has left-handed threads.



6. Insert the hex key into the chuck and tighten the chuck jaws securely. Tap sharply with a mallet in a counterclockwise direction. This will loosen the chuck on the spindle. It can now be unscrewed by hand.

TO RETIGHTEN A LOOSE CHUCK

The chuck may become loose on the spindle and develop a wobble. Also, the chuck screw may become loose, causing the chuck jaws to bind and prevent them from closing.

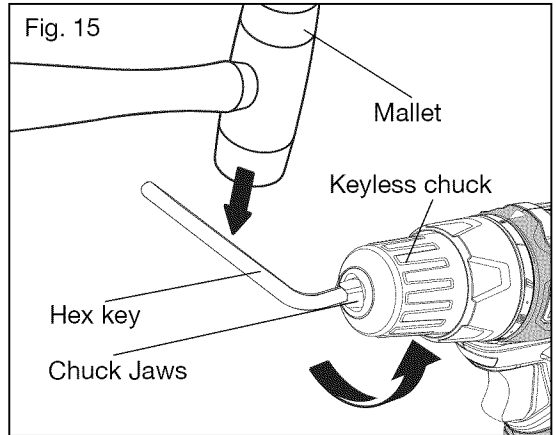
To tighten a loose chuck or chuck screw:

1. Lock the trigger switch by placing the direction-of-rotation selector in the center position.
2. Open the chuck jaws.
3. Insert the hex key into the chuck and tighten the chuck jaws securely. Tap the hex key sharply with a mallet in a clockwise direction. This will tighten the chuck on the spindle.
4. Open the chuck jaws and remove the hex key.
5. Use a screwdriver to turn the chuck screw counterclockwise to tighten it.

⚠ WARNING: Always wear safety glasses with side shields during maintenance.

⚠ WARNING: To ensure safety and reliability, all repairs should be performed by a qualified service technician.

⚠ WARNING: To avoid serious personal injury, always remove the battery pack from the tool and unplug the Charger when cleaning or performing any maintenance.



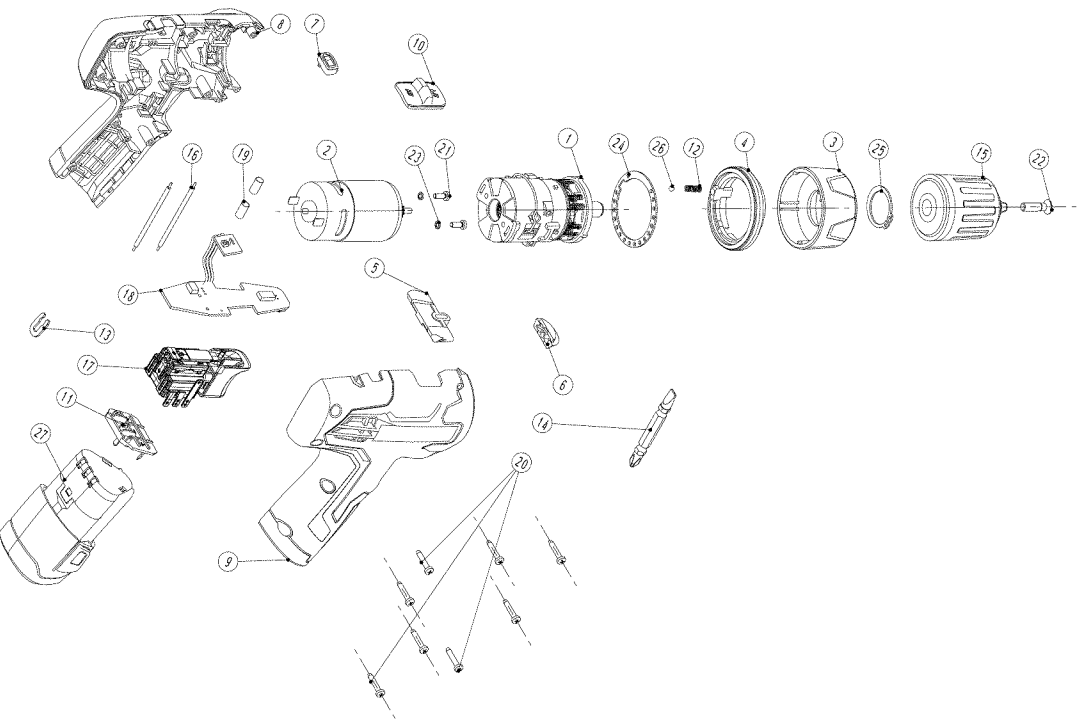
TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
The drill/driver does not work	Battery is depleted	Charge the battery
Bit cannot be installed	Chuck is not open	Open the chuck
Motor overheating	Be sure cooling vents are free from saw dust and obstacles	Clean, clear vents. Do not cover vents with hand during operation

PARTS LIST

12.0 VOLT LITHIUM-ION CORDLESS 3/8-IN. REVERSIBLE DRILL/DRIVER MODEL NO. 320, 30565

The Model Number will be found on the Nameplate attached to the both sides of the drill. Always mention the Model Number when ordering parts for this tool.



PARTS LIST

12.0 VOLT LITHIUM-ION CORDLESS 3/8IN. REVERSIBLE DRILL MODEL NO. 320. 30565

The Model Number will be found on the Nameplate attached to the handle of the Worklight. Always mention the Model Number when ordering parts for this tool.

No	Part No	Part Name	QTY
1	2790263000	Gear Case Assembly	1
2	2790265000	Motor and Gear Assembly	1
3	3126210000	Clutch Cap	1
4	3126211000	Decorate Ring	1
5	3126214000	F/R Button	1
6	3126216000	LED Cover	1
7	3126217000	Light Guide Pole	1
8	3321309000	Left Housing Assembly	1
9	3321310000	Right Housing Assembly	1
10	3321319000	Speed Change Button	1
11	3402296000	Contact Receptacle Assembly	1
12	3660466000	Compression Spring	1
13	3704254000	Handle Hoop	1
14	3810357000	Screw Bit	1
15	3860104000	Chuck	1
16	4860004000	Inner Wire	2
17	4870380000	Switch	1
18	4890828000	PCB Assembly	1
19	4920156000	Shrinkable Tube	2
20	5610013000	Tapping Screw	8
21	5620032000	Screw	2
22	5620179000	Screw (L.H)	1
23	5650003000	Spring Washer	2
24	5650420000	Washer	1
25	5660176000	Circlip for Shaft	1
26	5700178000	Steel Ball	1
27	2770153000	5120 Battery Pack	1

NOTE

NOTE