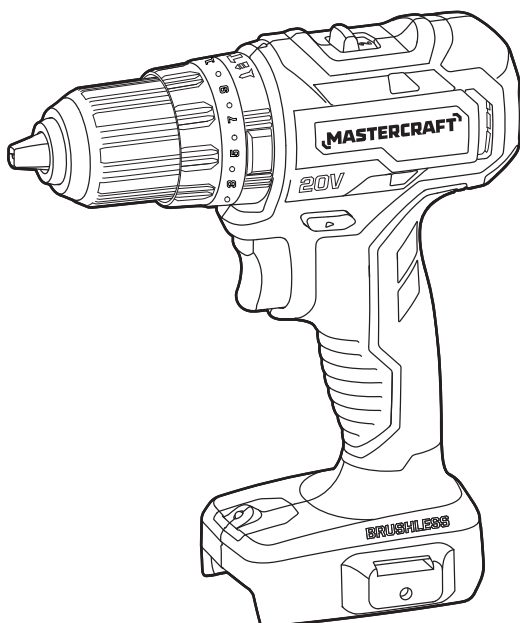


# MASTERCRAFT™/MC

## BRUSHLESS 1/2" (13 MM) HAMMER DRILL

21013



### IMPORTANT:

Read and understand this instruction manual thoroughly before using the product.

## INSTRUCTION MANUAL



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### NOTE:

If any parts are missing or damaged, or if you have any questions, please call our toll-free helpline at 1-800-689-9928.



### SAVE THESE INSTRUCTIONS

- This manual contains important safety and operating instructions. Read all instructions and follow them with use of this product.

**TECHNICAL SPECIFICATIONS**

Rated Voltage	20 V d.c. max*
Chuck Capacity	1/2" (13 mm)
No-load Speed	0 – 450 /min / 0 – 1700 /min
Impact Rate	0 - 6750 BPM / 0 – 25500 BPM
Max. Torque	180 in-lb

\*Maximum battery voltage without workload; with workload nominal voltage is 18 V.

Recommend using tool with Mastercraft® and PWR POD™ 20 V max\* Lithium-ion 2.0 Ah battery (054-7553-4 and 054-7563-0; sold separately) for optimal performance.

**COMPATIBLE BATTERIES AND CHARGERS**

Brand	Battery Pack	Charger
PWR POD™	2.0 Ah: 054-7563-0	90 W Fast Charger: 054-7565-6
	4.0 Ah: 054-7564-8	60 W x2 Dual-Port Charger: 054-7567-2
	5.0 Ah: 054-7558-4	150 W Four Port Fast Charger: 054-7571-0
	8.0 Ah: 054-7569-8	
Mastercraft®	1.5 Ah: 054-3124-0	45 W Charger: 054-3126-6
	2.0 Ah: 054-7553-4	90 W Fast Charger: 054-7559-2
	4.0 Ah: 054-7557-6	60 W x2 Dual-Port Charger: 054-8299-4
	5.0 Ah: 054-2434-8	

Batteries with an Ah of 2.0 or higher are recommended for optimal runtime and performance.

### SAFETY GUIDELINES



#### WARNING!

Safety symbols in this Instruction Manual are used to flag possible dangers. The safety symbols and their explanations require your full understanding. The safety warnings do not, by themselves, eliminate any danger, nor are they substitutes for proper accident prevention measures.



#### WARNING!

This Safety Alert Symbol indicates caution, warning, or danger. Failure to obey a safety warning can result in serious injury to yourself or others. To reduce the risk of injury, fire, or electric shock, always follow the safety precautions.

### KNOW YOUR TOOL

To operate this tool, carefully read this Instruction Manual and all labels affixed to the brushless hammer drill before using. Keep this instruction manual available for future reference.

### IMPORTANT

This tool should only be serviced by a qualified service technician. For more information, call the toll-free helpline at 1-800-689-9928.

### READ ALL INSTRUCTIONS THOROUGHLY.

### SAVE THESE INSTRUCTIONS.

### GENERAL POWER TOOL SAFETY WARNINGS



#### WARNING!

**Read all safety warnings, instructions, illustrations and specifications provided with this power tool.** Failure to follow all instructions listed below 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.

### WORK AREA SAFETY

- **Keep work area clean and well lit.** Cluttered or 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 the dust or fumes.

- **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

## 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 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.
- **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 cord away from heat, oil, sharp edges 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.

## 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 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.
- **Use personal protective equipment. Always wear eye protection.** Protective equipment such as a dust mask, non-skid 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 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.
- **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.
- **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 jewellery. Keep your hair and clothing away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
- **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.

- **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

### 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 safer at the rate for which it was designed.
- **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 remove the battery pack, if detachable, 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 and accessories. 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 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.
- **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

### BATTERY TOOL USE AND CARE

- **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
- **When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.
- **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.

- **Do not use a battery pack or tool that is damaged or modified.** Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.
- **Do not expose a battery pack or tool to fire or excessive temperature.** Exposure to fire or temperature above 265°F (130°C) may cause explosion.
- **Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions.** Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

## 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.
- **Never service damaged battery packs.** Service of battery packs should only be performed by the manufacturer or authorized service providers.

## HAMMER DRILL SAFETY WARNINGS

### SAFETY INSTRUCTIONS FOR ALL OPERATIONS

- **Wear ear protectors when impact drilling.** Exposure to noise can cause hearing loss.
- **Hold power tools by insulated gripping surfaces, when performing an operation where the cutting accessory or fasteners may contact hidden wiring.** Cutting accessory or fasteners contacting a “live” wire may make exposed metal parts of the power tool “live” and could give the operator an electric shock.

### SAFETY INSTRUCTIONS WHEN USING LONG DRILL BITS

- **Never operate at higher speed than the maximum speed rating of the drill bit.** At higher speeds, the bit is likely to bend if allowed to rotate freely without contacting the workpiece, resulting in personal injury.
- **Always start drilling at low speed and with the bit tip in contact with the workpiece.** At higher speeds, the bit is likely to bend if allowed to rotate freely without contacting the workpiece, resulting in personal injury.
- **Apply pressure only in direct line with the bit and do not apply excessive pressure.** Bits can bend causing breakage or loss of control, resulting in personal injury.

### ADDITIONAL SAFETY GUIDELINES FOR HAMMER DRILL

The label on your tool may include the following symbols. The symbols and their definitions are as follows:

V .....	Volts
A .....	Amperes
Hz .....	Hertz
W .....	Watts
min .....	Minutes

/min ..... Revolutions or reciprocations per minute

— or d.c. .... Direct current

$n_0$  ..... No-load speed

RPM ..... Revolutions per minute

BPM ..... Beats per minute



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



WARNING – To reduce the risk of injury, always wear eye protection.



WARNING – To reduce the risk of injury, always wear ear protection.



### WARNING!

To reduce the risk of electric shock or damage to the charger and battery, use only the Mastercraft® and PWR POD™ batteries and chargers listed.

Brand	Battery Pack	Charger
PWR POD™	2.0 Ah: 054-7563-0	90 W Fast Charger: 054-7565-6
	4.0 Ah: 054-7564-8	60 W x2 Dual-Port Charger: 054-7567-2
	5.0 Ah: 054-7558-4	150 W Four Port Fast Charger: 054-7571-0
	8.0 Ah: 054-7569-8	
Mastercraft®	1.5 Ah: 054-3124-0	45 W Charger: 054-3126-6
	2.0 Ah: 054-7553-4	90 W Fast Charger: 054-7559-2
	4.0 Ah: 054-7557-6	60 W x2 Dual-Port Charger: 054-8299-4
	5.0 Ah: 054-2434-8	

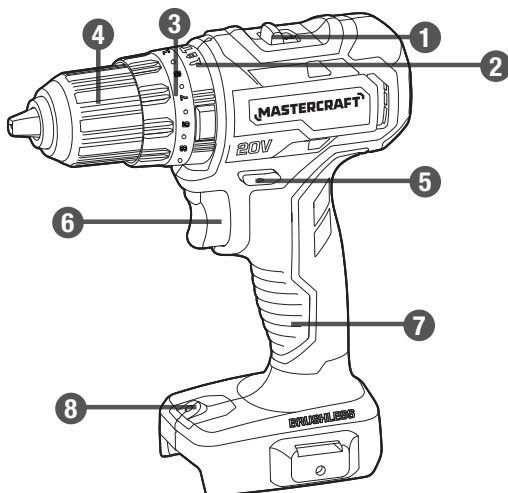
Batteries with an Ah of 2.0 or higher are recommended for optimal runtime and performance.

- **For best results, battery and tool should be charged, stored and used in a location where the temperature is more than 41°F (5°C) but less than 104°F (40°C).** Do not store outside or in vehicles.

**SAVE THESE INSTRUCTIONS!**

**PACKAGE CONTENTS:**

Brushless hammer drill, screwdriver bit (x2), bit holder, belt clip, screw (x2) and instruction manual

**KEY PARTS DIAGRAM**

No.	Description
1	Two-speed Switch
2	Mode-selector Ring
3	Torque-adjustment Ring
4	Keyless Chuck

No.	Description
5	Direction-of-rotation Selector
6	Variable-speed Trigger Switch
7	Handle Grip
8	LED Worklight

Before attempting to use this tool, become familiar with all of its operating features and safety requirements. For optimum performance and safety, read the following operating instructions carefully before using.

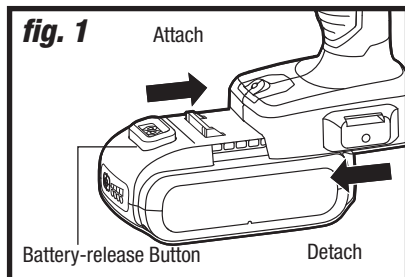
**WARNING!**

- Remove the hammer drill from the package and examine it carefully. Do not discard the carton or any packaging material until all parts have been examined.
- If any part of the hammer drill is missing or damaged, do not attach the battery pack to the tool or use the tool until the part has been repaired or replaced. Failure to heed this warning could result in serious injury.
- Do not let familiarity with the hammer drill cause a lack of alertness. A fraction of a second of carelessness is enough to cause severe injury.
- Do not attempt to modify this tool or create accessories not recommended for use with this tool. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious injury.
- To prevent accidental starting that could cause serious personal injury, always remove the battery pack from the tool when assembling parts.

## OPERATING INSTRUCTIONS

### ATTACH THE BATTERY PACK (fig. 1)

1. Lock the variable-speed trigger switch "OFF" on the tool by placing the direction-of-rotation selector in the centre position.
2. Align the raised rib on the battery pack with the grooves in the tool, and then slide the battery pack onto the tool.
3. Make sure that the latch on the battery pack snaps into place, and that the battery pack is attached securely to the tool before beginning operation.



### DETACH THE BATTERY PACK (fig. 1)

1. Lock the variable-speed trigger switch "OFF" on the tool by placing the direction-of-rotation selector in the centre position.
2. Depress the battery-release button, located on the front of the battery pack, to release the battery pack.
3. Pull the battery pack out and remove it from the tool.

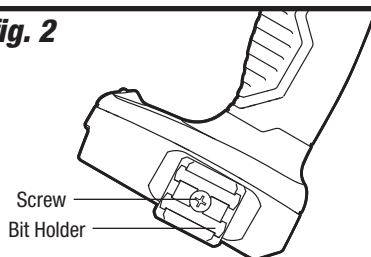


### WARNING!

- Avoid the possibility of accidental starting. Always take care not to activate the variable-speed trigger switch when you are attaching the battery pack or performing other adjustments to the tool.

**INSTALL THE BIT HOLDER (fig. 2)**

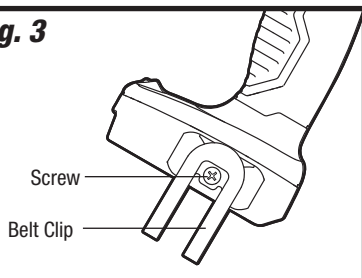
1. Remove the battery from the tool.
2. Align the rib of the bit holder with the hole on the base of the hammer drill.
3. Insert the screw (included) and tighten the screw securely with a screwdriver (not included). The bit holder can be positioned on either side of the tool.

**fig. 2****REMOVE THE BIT HOLDER (fig. 2)**

1. Remove the battery from the tool.
2. Use a screwdriver (not included) to loosen the screw that attaches the bit holder to the hammer drill.
3. Remove the screw and the bit holder.

**INSTALL THE BELT CLIP (fig. 3)**

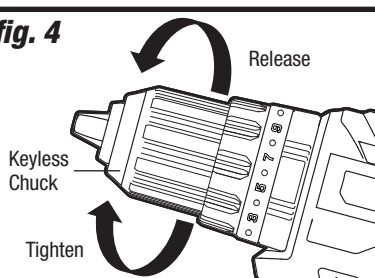
1. Remove the battery from the tool.
2. Align the rib of the clip with the hole on the base of the hammer drill.
3. Insert the screw (included) and tighten the screw securely with a screwdriver (not included). The belt clip can be positioned on either side of the tool.

**fig. 3****REMOVE THE BELT CLIP (fig. 3)**

1. Remove the battery from the tool.
2. Use a screwdriver (not included) to loosen the screw that attaches the belt clip to the hammer drill.
3. Remove the screw and the belt clip.

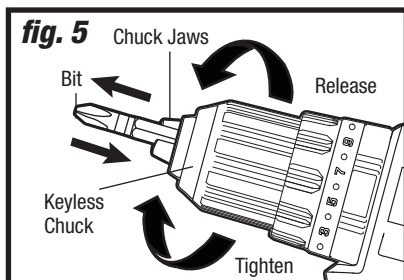
**KEYLESS CHUCK (fig. 4)**

The arrows in fig. 4 indicate the direction of rotation of the body of the chuck to tighten or release the jaws of the chuck on the bit.

**fig. 4**

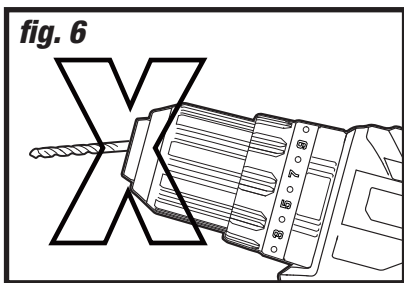
### INSTALL A BIT (fig. 5 – fig. 6)

1. Remove the battery pack from the hammer drill.
2. Rotate the chuck by following the arrow in fig. 5 to release the jaws of the chuck.
3. Insert the drill bit. Be sure to insert the drill bit straight into the chuck jaws.
4. Rotate the chuck in the reverse direction to tighten the jaws of the chuck securely on the bit.



### REMOVE A BIT (fig. 5 – fig. 6)

1. Remove the battery pack from the hammer drill.
2. Rotate the chuck by following the arrow in fig. 5 to release the jaws of the chuck.
3. Remove the drill bit.



### WARNING!

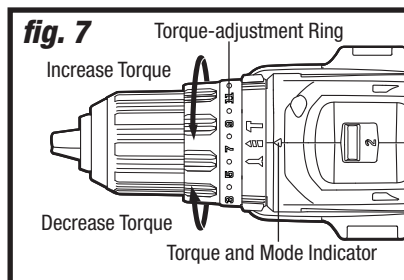
- Do not hold the body of the chuck with one hand while using the power of the hammer drill to tighten the jaws of the chuck on the drill bit. The body of the chuck could slip in your hand, or your hand could slip and come into contact with the rotating bit. This could cause an accident and result in serious personal injury.
- Be sure to insert the drill bit straight into the jaws of the chuck. Do not tighten the jaws of the chuck with the drill bit inserted at an angle, as shown in fig. 6. Doing so could cause the drill bit to be thrown from the hammer drill, which could result in possibly serious personal injury or damage to the chuck.
- Use protective gloves when removing the bit from the tool, or first allow the bit to cool down. The bit may be hot after prolonged use.

**ADJUSTABLE TORQUE CLUTCH (fig. 7)**

The torque clutch can be adjusted to any of 17 different settings. The higher the torque setting, the more force the hammer drill produces to turn an object in either low or high rotation speed.

When using the hammer drill for driving applications, it is necessary to increase or decrease the torque to help prevent damage to screw heads, threads, and the workpiece. 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, but 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.


**WARNING!**

- Do not change the torque setting when the tool is running.

### MODE SELECTION (fig. 8)

Your tool has three operating modes: drilling with hammering action, drilling only, and driving screws. To set the operating mode, rotate the mode-selector ring and torque-adjustment ring to the desired settings.

To use the hammer drilling mode:


1. Rotate the mode-selector ring until the hammer symbol  appears in line with torque and mode indicator.

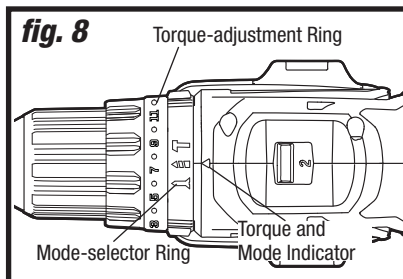
2. Apply pressure to the bit during operation to engage the hammering mechanism.

To use the drilling mode:

1. Rotate the mode-selector ring until the drill symbol  appears in line with the torque and mode indicator.

To use the driving screws mode:

1. Rotate the mode-selector ring until the driving symbol  appears in line with the torque and mode indicator.
2. Then rotate the torque-adjustment ring until the desired clutch setting appears in line with the indicator. The torque-adjustment ring, when properly adjusted, will slip at a preset torque to prevent driving the screw too deeply into different materials and to prevent damage to the screw or tool.



### NOTICE:

- The number selected on the torque-adjustment ring has no effect on the operation while in the drilling mode or hammer drilling mode.

**TWO-SPEED SWITCH (fig. 9)**

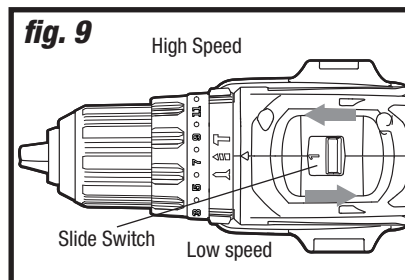
This hammer drill features a two-speed switch that is designed for drilling or driving at speed “1” (low speed range) or at speed “2” (high speed range). A slide switch is located on the top of the hammer drill to select either low or high speed.

When using the hammer drill in the low speed range, the hammer drill will have more power and torque.

When using the hammer drill in the high speed range, the hammer drill will have less power and torque.

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

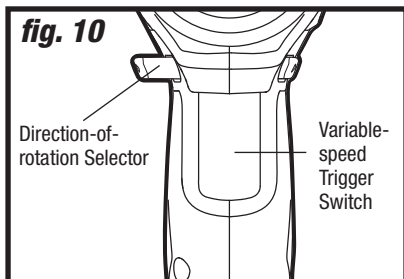
High speed is better for drilling wood and wood composites.

**NOTICE:**

- Make sure that the two-speed switch is fully adjusted at the front or the back position.

### TURN THE TOOL ON/OFF (fig. 10)

Position the direction-of-rotation selector to the left or right depending on the working situation. To turn the hammer drill ON, depress the variable-speed trigger switch. To turn it OFF, release the variable-speed trigger switch. Reposition the direction-of-rotation selector to the centre to lock the tool off.



### VARIABLE SPEED (fig. 10)

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

### DIRECTION-OF-ROTATION SELECTOR

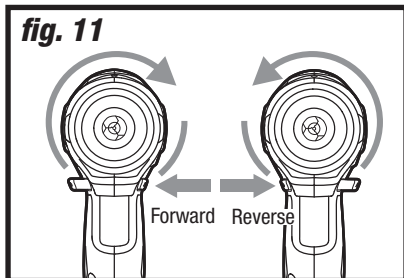
#### (FORWARD/CENTRE-LOCK/REVERSE) (fig. 10 – fig. 11)

The direction of rotation of the bit is reversible and is controlled with a selector located above the variable-speed trigger switch. With the hammer drill held in normal operating position:

Position the direction-of-rotation selector to the left of the tool for forward rotation.

Position the direction-of-rotation selector to the right of the tool for reverse rotation.

Position the direction-of-rotation selector in the centre to lock the tool off.

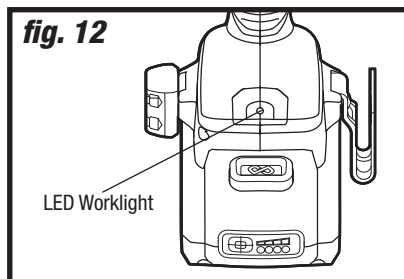


### NOTICE:

- To prevent gear damage, always allow the hammer drill to come to a complete stop before changing the direction of rotation.
- The hammer drill will not operate unless the direction-of-rotation selector is engaged fully to the left or right.

**LED WORKLIGHT (fig. 12)**

The LED worklight, located on the base of the hammer drill, will illuminate when the variable-speed trigger switch is slightly pressed before the tool starts running and turn off approximately 10 seconds after variable-speed trigger switch is released. This provides additional light on the surface of the workpiece for operation in lower light situations.

**fig. 12****ELECTRIC BRAKE**

To stop the tool, release the variable-speed trigger switch and allow the chuck to come to a complete stop. The electric brake quickly stops rotation. This feature engages automatically when you release the variable-speed trigger switch.

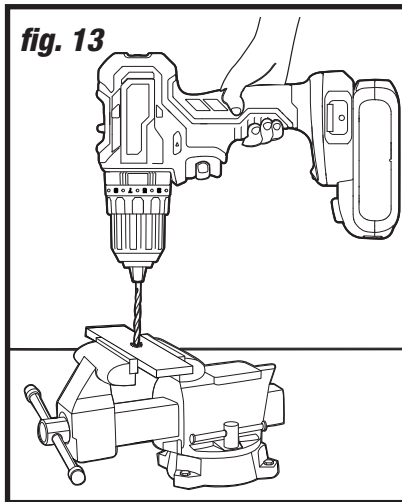
**NOTICE:**

- The worklight is for lighting the immediate work surface and is not intended to be used as a flashlight.

## GENERAL DRILLING (fig. 13)

1. Check that the direction-of-rotation selector is at the forward setting.
2. Use a vise or clamps to secure the material to be drilled to keep it from turning as the drill bit rotates.
3. Hold the hammer drill firmly, and place the bit at the point to be drilled.
4. Depress the variable-speed trigger switch to start the hammer drill.
5. Move the drill bit into the workpiece, applying only enough pressure to keep the bit rotating.
6. Do not force the hammer drill or apply sideways pressure to elongate a hole. Allow the tool to do the work.
7. When drilling hard, smooth surfaces, use a centre punch to mark the desired location of the hole. This will prevent the drill bit from slipping off-centre when the hole is started.
8. When drilling metal, use light oil on the drill bit to prevent it from overheating. The oil will prolong the life of the bit and will increase the drilling efficiency.
9. If the bit jams in the workpiece, or if the hammer drill stalls, stop the tool immediately. Reverse the direction of rotation and gently squeeze the trigger to remove the bit from the workpiece. Investigate and correct the cause of jamming before resuming work.

**fig. 13**



### WARNING!

- Always wear safety goggles or safety glasses with side shields during power tool operation or when blowing dust. If the operation is dusty, also wear a dust mask.
- Be prepared for binding when the bit breaks through the workpiece because the hammer drill has a tendency to grab and kick opposite to the direction of rotation, which could cause a loss of control. If the operator is not prepared, this loss of control could result in serious injury.

## DRILLING MODE OPERATION

### FOR DRILLING IN WOOD, USE TWIST BITS, SPADE BITS, POWER AUGER BITS OR HOLE SAWS.

1. 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.
2. Select the desired speed range to match the planned operation.
3. Begin drilling at a very low speed to prevent the bit from slipping off of the starting point, and then increase the speed as the drill bit bites into the material.
4. If the hammer drill stalls, it is usually because it is being overloaded. Release the variable-speed trigger switch immediately, remove the drill bit from the work, and determine the cause of stalling.
5. Keep the motor running when pulling the bit back out of the drilled hole. This will prevent jamming.

### FOR DRILLING IN METAL, USE HIGH-SPEED, STEEL TWIST DRILL BITS.

1. 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. When drilling a large hole, first use a smaller bit to drill a small pilot hole to prevent the larger bit from slipping.
3. Select the desired speed to match the planned operation.
4. Begin drilling at a very low speed to prevent the bit from slipping off the starting point. Maintain a speed and pressure that allows cutting without overheating the bit.
5. If the drill stalls, it is usually because it is being overloaded. Release the variable-speed trigger switch immediately, remove the drill bit from the work, and determine the cause of stalling.
6. Keep the motor running when pulling the bit back out of the drilled hole. This will prevent jamming.

### FOR DRILLING IN MASONRY, USE CARBIDE-TIPPED MASONRY BITS

1. When drilling in masonry, select the **hammer drilling mode**.
2. Drilling soft masonry materials, such as cinder block, requires little pressure. Hard materials, like concrete, require more pressure.
3. A smooth, even flow of dust indicates the proper drilling rate. Do not let the bit spin in the hole without cutting. Do not use water to settle dust or to cool the bit.

**SCREWDRIVER OPERATION**

1. Select the desired speed/torque range to match the planned operation.
2. Attach the desired driving bit into the chuck.
3. Make a few practice runs in a scrap piece before working.

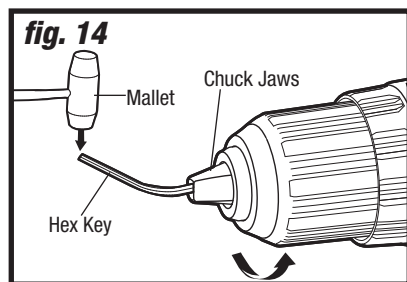
**MAINTENANCE****BEFORE EACH USE**

1. Inspect the hammer drill, the variable-speed trigger switch and the battery pack for damage.
2. Check for damaged, missing, or worn parts.
3. Check for loose screws, misalignment or binding of moving parts, or any other condition that may affect the operation.
4. If abnormal vibration or noise occurs, turn the tool off immediately and have the problem corrected before further use. Remove the battery from the power tool before cleaning or performing any maintenance.

**CHUCK REMOVAL (fig. 14)**

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

1. Remove the battery.
2. Lock the variable-speed trigger switch by placing the direction-of-rotation selector in the centre position.
3. Open the chuck jaws. Using a screwdriver (not included), remove the chuck screw by turning it clockwise.
4. Insert a 5/16" (8 mm) or larger hex key (not included) into the chuck of the hammer drill and tighten the chuck jaws securely.
5. Tap the hex key sharply with a mallet (not included) in a counter-clockwise direction. This will loosen the chuck for easy removal.
6. Attach a new chuck to the spindle and tighten the chuck screw.

**CLEANING**

Using compressed air may be the most effective cleaning method. Always wear safety goggles when cleaning tools using compressed air.

**STORAGE**

Store the tool indoors in a place that is inaccessible to children. Keep away from corrosive agents.

**WARNING!**

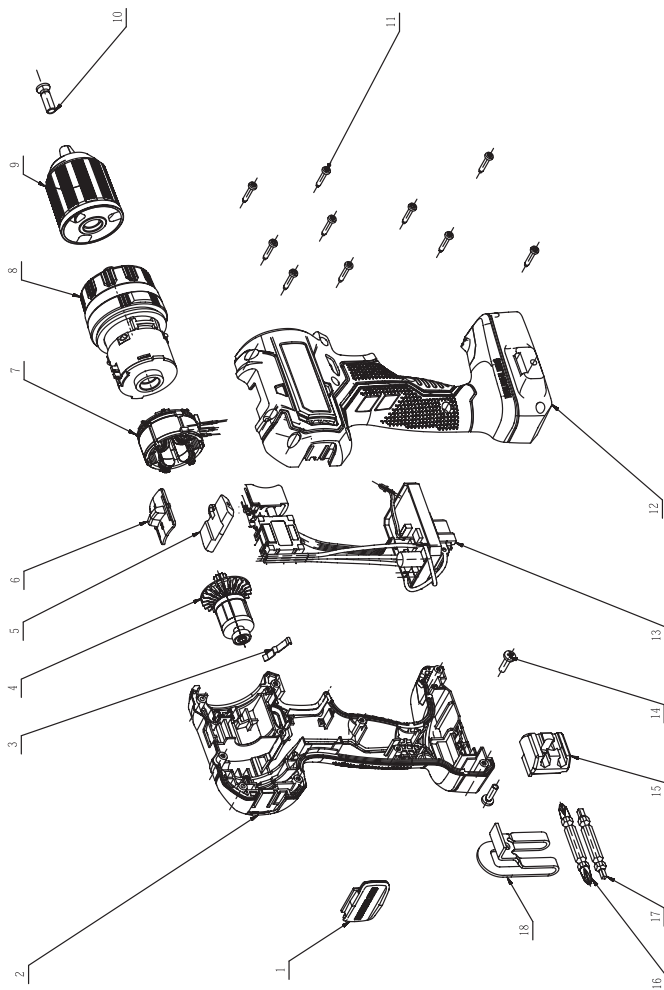
- To avoid personal injury, always remove the battery pack from the tool when cleaning or performing any maintenance.
- Do not let brake fluids, gasoline, petroleum-based products, penetrating oil, etc., come into contact with plastic parts. These substances contain chemicals that can damage, weaken, or destroy plastic.
- When servicing, use only identical replacement parts. The use of any other parts may create a hazard or cause damage to the product.
- Use only accessories that are recommended for this hammer drill by the manufacturer. Accessories that may be suitable for one tool may become hazardous when used with another tool.
- To ensure safety and reliability, all repairs should be performed by a qualified service technician.

## TROUBLESHOOTING

Problem	Possible Causes	Solution
Tool will not start.	Battery pack is depleted.	Charge the battery.
	The battery is over-temperature.	Cool the battery pack under air flow.
The bit cannot be installed.	The chuck is not opened.	Open the chuck.
	The bit does not fit the chuck.	Use a suitable bit.
The motor is overheating.	Be sure cooling vents are free from dust and obstacles.	Clean and clear the vents. Do not cover with your hand during operation.

If the problem remains unsolved after performing the checks described above, call the toll-free helpline at 1-800-689-9928.

## EXPLODED VIEW



No.	Part No.	Description
1	3134620001	Logo
2	3323554001	Left Housing
3	3667795001	Leaf Spring
4	2790764001	Motor & Gear Assembly
5	3127638003	F/R Button
6	2829616002	Speed Change Assembly
7	2740693003	Stator
8	2790745001	Gear Case Assembly
9	3860145001	Chuck

No.	Part No.	Description
10	5620556001	Screw (L.H.)
11	5610241004	Screw
12	3323553001	Right Housing
13	2831545001	Electric Assembly
14	5620041005	Screw
15	3323396001	Bit Holder
16	3810461003	Screw Bit
17	3810405003	Screw Bits
18	3705301001	Hook

If any parts are missing or damaged, or if you have any questions, please call the toll-free helpline at 1-800-689-9928.

This Mastercraft® product is guaranteed for a period of **three (3) years from the date of original retail purchase** against defects in workmanship and materials, except for the following components:

- a) Component A: Batteries, chargers and carrying case, which are guaranteed for a period of two (2) years from the date of original retail purchase against defects in workmanship and materials;
- b) Component B: Accessories, which are guaranteed for a period of one (1) year from the date of original retail purchase against defects in workmanship and materials.

Subject to the conditions and limitations described below, this product, if returned to us with proof of purchase within the stated warranty period and if covered under this warranty, will be repaired or replaced (with the same model, or one of equal value or specification), at our option. We will bear the cost of any repair or replacement and any costs of labour relating thereto.

**These warranties are subject to the following conditions and limitations:**

- a) a bill of sale verifying the purchase and purchase date must be provided;
- b) this warranty will not apply to any product or part thereof which is worn or broken or which has become inoperative due to abuse, misuse, accidental damage, neglect or lack of proper installation, operation or maintenance (as outlined in the applicable owner's manual or operating instructions) or which is being used for industrial, professional, commercial or rental purposes;
- c) this warranty will not apply to normal wear and tear or to expendable parts or accessories that may be supplied with the product that are expected to become inoperative or unusable after a reasonable period of use;
- d) this warranty will not apply to routine maintenance and consumable items such as, but not limited to, fuel, lubricants, vacuum bags, blades, belts, sandpaper, bits, fluids, tune-ups or adjustments;
- e) this warranty will not apply where damage is caused by repairs made or attempted by others (i.e., persons not authorized by the manufacturer);
- f) this warranty will not apply to any product that was sold to the original purchaser as a reconditioned or refurbished product (unless otherwise specified in writing);
- g) this warranty will not apply to any product or part thereof if any part from another manufacturer is installed therein or any repairs or alterations have been made or attempted by unauthorized persons;
- h) this warranty will not apply to normal deterioration of the exterior finish, such as, but not limited to, scratches, dents, paint chips, or to any corrosion or discolouring by heat, abrasive and chemical cleaners; and
- i) this warranty will not apply to component parts sold by and identified as the product of another company, which shall be covered under the product manufacturer's warranty, if any.

## Additional Limitations

This warranty applies only to the original purchaser and may not be transferred. Neither the retailer nor the manufacturer shall be liable for any other expense, loss or damage, including, without limitation, any indirect, incidental, consequential or exemplary damages arising in connection with the sale, use or inability to use this product.

## Notice to Consumer

This warranty gives you specific legal rights, and you may have other rights, which may vary from province to province. The provisions contained in this warranty are not intended to limit, modify, take away from, disclaim or exclude any statutory warranties set forth in any applicable provincial or federal legislation.

Made in China

Imported by

Mastercraft Canada Toronto, Canada M4S 2B8

