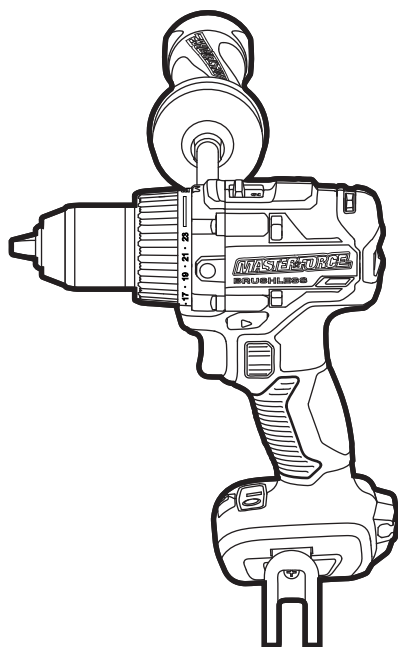


MASTERFORCE®

BRUSHLESS DRILL/DRIVER



241-0485

OPERATOR'S MANUAL

⚠ CAUTION: To Reduce the Risk of Injury, User Must Read and Understand the Operator's Manual. Save These Instructions For Future Reference.

For questions / comments, technical assistance or repair parts –
Please Call Toll Free: 1-866-917-4374. (M-F 8:30am-5:00pm Est.)

TABLE OF CONTENTS

Safety Symbols.....	Page 2
Safety Instructions.....	Page 4
Overview/Specifications.....	Page 8
Assembly.....	Page 9
Operation.....	Page 9
Maintenance.....	Page 16
Troubleshooting.....	Page 17
Warranty.....	Page 18

SAFETY SYMBOLS

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 more safely.


Symbol	Name	Designation / Explanation
V	Volts	Voltage
A	Amps	Current
Hz	Hertz	Frequency (cycles per second)
W	Watts	Power
lbs	Pounds	Weight
n_o	No-load Speed	Rotational speed at no load
RPM	Revolutions per Minute	Unit of speed
— or d.c.	Direct Current	Type of characteristic of current




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


SAFETY INSTRUCTIONS


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 tool. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious personal injury.

SYMBOL MEANING

 **SAFETY ALERT SYMBOL:** Indicates DANGER, WARNING, OR CAUTION. May be used in conjunction with other symbols or pictographs.

 **DANGER:** Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.

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


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

NOTICE: (Without Safety Alert Symbol) Indicates a situation that may result in property damage.

SAVE THESE INSTRUCTIONS!

SAFETY 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

1. Keep work area clean and well lit. Cluttered or dark areas invite accidents.
2. 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.
3. Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

ELECTRICAL SAFETY

1. 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.
2. 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.
3. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.

4. 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.

5. 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.

6. If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply. Use of an GFCI reduces the risk of electric shock.

PERSONAL SAFETY

1. 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.
2. 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.
3. 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.
4. 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.
5. Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.

SAFETY INSTRUCTIONS

6. 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.

7. 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.

8. 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

1. 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.

2. 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.

3. 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.

4. 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.

5. 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.

6. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

7. 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.

8. 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

1. 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.

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

3. 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.

SAFETY INSTRUCTIONS

4. 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.

5. 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.

6. Do not expose a battery pack or tool to fire or excessive temperature. Exposure to fire or temperature above 130 °C (265 °F) may cause explosion.

7. 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

1. 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.

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

SAFETY INSTRUCTIONS FOR ALL OPERATIONS

1. Use the auxiliary handle. Loss of control can cause personal injury.

2. Hold the power tool by insulated gripping surfaces, when performing an operation where the cutting accessory 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.

SAFETY INSTRUCTIONS

IMPORTANT SAFETY INSTRUCTIONS

1. To reduce the risk of electric shock or damage to the chargers and batteries, use only with the MASTERFORCE® FLEXPPOWER® battery packs and chargers listed.

Battery pack	Charger
252-8029 (1.5Ah)	252-8025
252-8031 (2.0Ah)	252-8037
252-8030 (2.5Ah)	252-8026
252-8034 (4.0Ah)	252-8043
252-8035 (5.0Ah)	
252-8027 (7.5Ah)	
252-8003 (2.5Ah)	
252-8007 (7.5Ah)	
252-8005 (5.0Ah)	
252-8013 (4.0Ah)	
252-8014 (8.0Ah)	

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

⚠ DANGER: People with electronic devices, such as pacemakers, should consult their physician(s) before using this product. Operation of electrical equipment in close proximity to a heart pacemaker could cause interference or failure of the pacemaker.

⚠ WARNING: Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm. Some examples of these chemicals are:

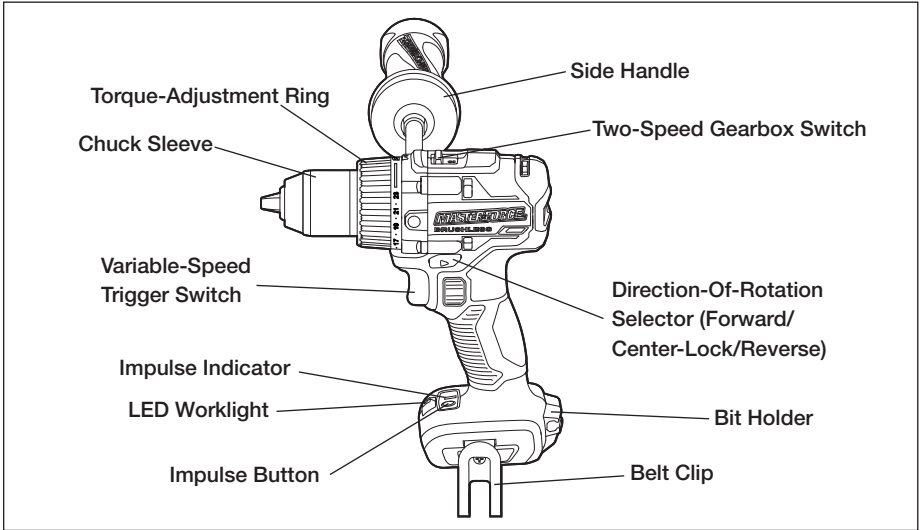
- Lead from lead-based paints
- Crystalline silica from bricks, cement, and other masonry products
- Arsenic and chromium from chemically-treated lumber

Your risk from these exposures varies, depending upon how often you do this type of work. To reduce your exposure to these chemicals:

- Work in a well-ventilated area.
- Work with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.
- Avoid prolonged contact with dust from power sanding, sawing, grinding, drilling, and other construction activities. Wear protective clothing and wash exposed areas with soap and water. Allowing dust to get into your mouth or eyes or to lie on the skin may promote absorption of harmful chemicals.

SAVE THESE INSTRUCTIONS!

OVERVIEW



SPECIFICATIONS

Rated Voltage	20 V d.c.
No-load Speed	0-550/0-2,000 RPM
Chuck Capacity	1/2" (13mm)
Max. Torque	800 in. lbs.
Clutch	23+1 positions
Weight (without battery)	3 lb 8oz

ASSEMBLY

CONTENTS

Cordless drill/driver, bit, belt clip, screw, side handle, and instruction manual.

UNPACKING

1. Carefully remove the tool and any accessories from the carton. Make sure that all items listed in the packing list are included.
2. Inspect the tool carefully to make sure that no breakage or damage occurred during shipping.
3. Do not discard the packing material until you have carefully inspected and satisfactorily operated the tool.

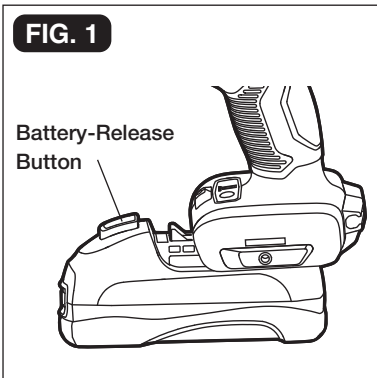
WARNING: If any part is broken or missing, **DO NOT** attach the battery pack or operate the tool until the broken or missing part is replaced. Failure to do so could result in possible serious injury.

WARNING: 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.

WARNING: Your tool should never be connected to the battery pack when you are assembling parts, making adjustments, cleaning, or when it is not in use. Disconnecting the tool will prevent accidental starting, which could cause serious personal injury.

OPERATION

TO ATTACH BATTERY PACK (FIG.1)



1. Align the raised rib on the battery pack with the grooves on the bottom of the tool, then slide the battery pack onto the tool.

2. Ensure that the battery-release button on the battery pack snaps into place and the battery pack is secured to the tool before beginning operation.

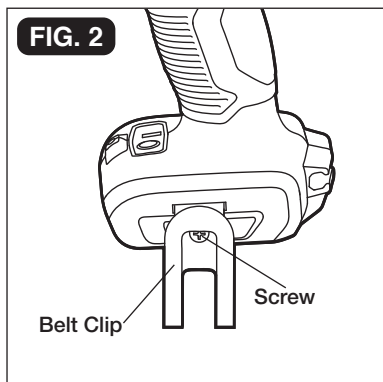
NOTICE: When placing the battery pack on the tool, be sure that the raised rib on the battery pack aligns with the groove on the tool and the latches snap into place properly. Improper assembly of the battery pack can cause damage to internal components.

TO DETACH BATTERY PACK (FIG.1)

1. Press the battery-release button to release the battery pack.
2. Pull the battery pack to remove it from the tool.

OPERATION

INSTALL THE BELT CLIP (FIG.2)

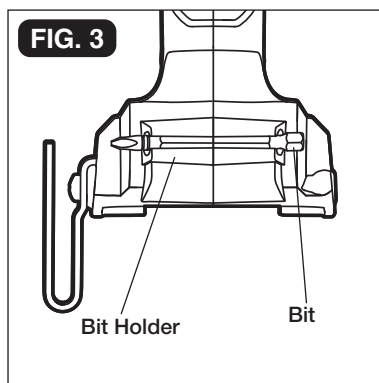


1. Align the rib of the clip with the hole on the base of the drill/driver.
2. Insert the screw and tighten the screw securely with a screwdriver. The belt clip can be positioned on the left side of the tool.

REMOVE THE BELT CLIP (FIG.2)

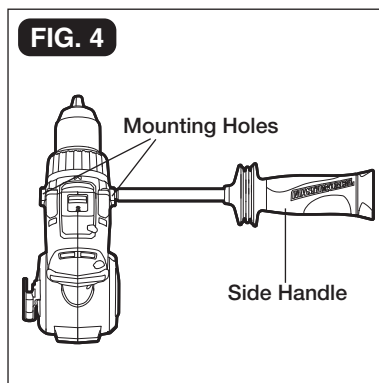
1. Use a screwdriver to loosen the screw that attaches the belt clip to the drill/driver.
2. Remove the screw and the belt clip.

STORE THE BIT (FIG.3)



Your drill/driver is equipped with a bit holder on the heel of the tool. After using the bit, you can insert the bit into the bit holder for convenient storage.

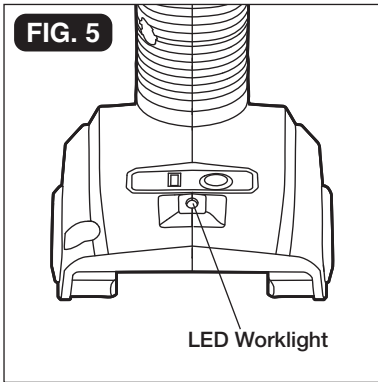
INSTALL/REMOVE THE SIDE HANDLE (FIG.4)



1. Align the side handle with either the left or right mounting hole in the housing of the tool.
2. Turn the side handle clockwise to tighten the side handle.
3. Turn the side handle counterclockwise to loosen and remove the side handle.

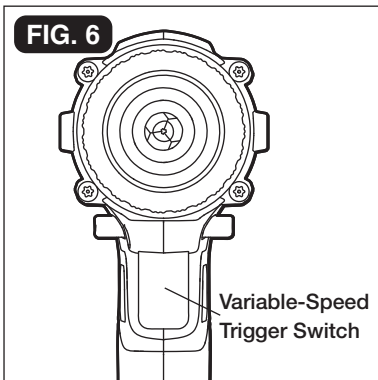
OPERATION

LED WORKLIGHT (FIG.5)



The LED worklight, located on the base of the drill/driver, will illuminate when the trigger switch is depressed before the drill/driver is running. This provides additional light on the surface of the workpiece. The light will automatically turn off within 10 seconds after trigger is released.

VARIABLE-SPEED TRIGGER SWITCH (FIG. 6)



1. To turn the drill/driver ON, press the variable-speed trigger switch.
2. To turn the drill/driver OFF, release the variable-speed trigger switch.

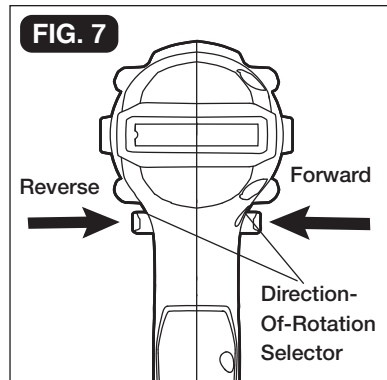
3. The variable-speed trigger switch delivers higher speed with increased trigger pressure and lower speed with decreased trigger pressure.

WARNING: Allow the motor to come to a complete stop before setting the drill/driver down.

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 the trigger switch is released.

DIRECTION-OF-ROTATION SELECTOR (FORWARD/CENTERLOCK/REVERSE) (FIG. 7)



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

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

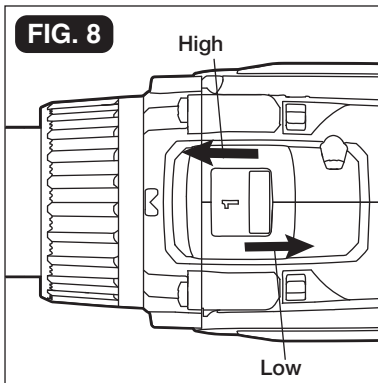
OPERATION

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

NOTICE: To prevent gear damage, always allow the drill/driver 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.

TWO-SPEED GEARBOX (FIG. 8)



The drill/driver has a two-speed gearbox for drilling or driving at either low or high speeds. A slide switch is located on the top of the drill/driver to select either low or high speed. The required speed is adjusted depending on the material and the working conditions.

Use low speed for high-power and high-torque applications and high speed for fast drilling or driving applications.

When using drill/driver in the low-speed range, the speed will decrease and the drill/driver will have more power and torque. Use low speed for starting holes without a center punch, drilling metals or plastic, drilling ceramics, or in applications requiring a higher torque.

High speed is better for drilling wood and wood composites.

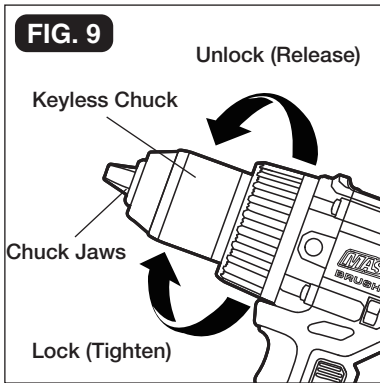
NOTICE: Avoid running the drill/driver at high speed for extended periods of time. Running at high speed under constant usage may cause the drill/driver to become overheated.

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

NOTICE: Never adjust the speed while the tool is running. Failure to obey this caution could result in serious damage to the drill/driver.

OPERATION

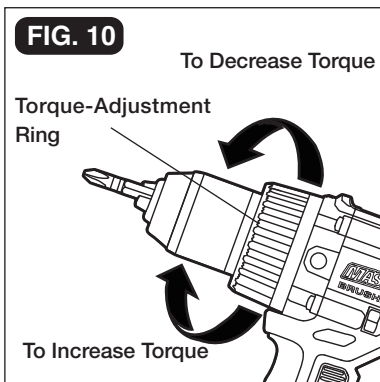
KEYLESS CHUCK (FIG.9)



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 in order to LOCK (tighten) or UNLOCK (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 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.

ADJUST THE TORQUE (FIG. 10)



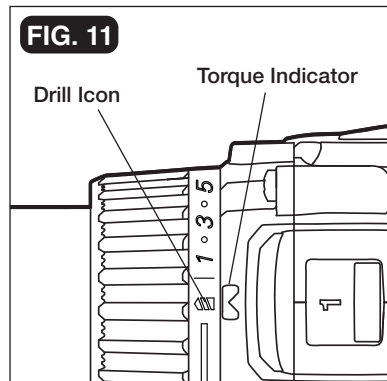
The torque clutch can be adjusted to any of 24 different settings (23 driving and 1 drilling). The higher the torque setting, the more force the drill/driver produces to turn an object in either low or high rotation speed.

When using the drill/driver for different driving applications, increase or decrease the torque in order to help prevent damage to the 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: Do not change the torque setting when the tool is running.

DRILL MODE (FIG. 11)

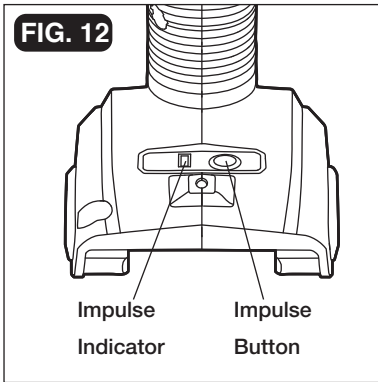


Select the drill mode for drilling and other heavy-duty applications.

To select drill mode, rotate the torque-adjustment ring until the drill icon aligns with the torque indicator.

OPERATION

IMPULSE MODE (FIG.12)



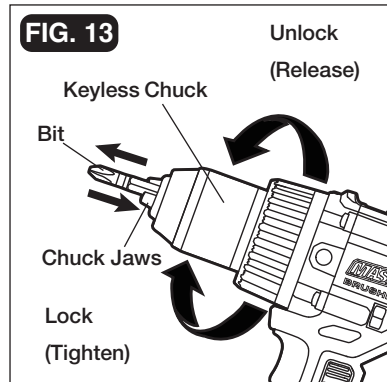
1. Impulse mode creates a pulsating on-off-on motor power cycle, which leads to a short impulse of torque, together with low speed, that can be more effective than a pure rotational motion for certain applications. The impulse mode can be used to remove stubborn screws and prevent the bit tip from walking when drilling into smooth surfaces, such as ceramic tiles and steel pipes.
2. Attach the battery to the tool.
3. Turn the direction-of-rotation selector fully to the left or right and then press the trigger switch to shine the LED worklight.
4. If the impulse indicator is off, you can press the impulse button to turn on the impulse indicator. If the impulse indicator is on, it indicates that the impulse mode has been turned.

WARNING: Do not work for long periods with the impulse mode activated as the motor can be overheated.

NOTICE: The impulse mode has a memory function. If the impulse mode is activated and not turned off, you can continue to use the mode directly next time.

NOTICE: With the impulse mode on, the impulse indicator will be automatically turn off about 1 minute after the trigger switch is released.

INSTALL THE BIT (FIG.13)



1. Remove the battery pack from the drill/driver.
2. Open the chuck jaws until the opening is slightly larger than the bit you intend to use and raise the front of the drill/driver slightly to keep the bit from falling out of the chuck jaws.
3. Insert the bit into the chuck.
4. Rotate the chuck in the direction of the arrow marked LOCK to close the chuck jaws.
5. Tighten the chuck jaws securely on the bit.

REMOVE THE BIT (FIG.13)

1. Remove the battery pack from the drill/driver.
2. Open the chuck jaws.
3. Rotate the chuck in the direction of the arrow marked UNLOCK to loosen the chuck jaws.
4. Remove the bit.

OPERATION

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. This could cause the bit to be thrown from the drill/driver, resulting in possibly serious personal injury or damage to the chuck.

WARNING: 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.

DRILLING

1. Check that the direction-of-rotation selector is at the forward setting.
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 variable-speed trigger switch to start the drill/driver.
5. Move the drill bit into the workpiece, applying only enough pressure to keep the bit drilling. Do not force the drill or apply side pressure to elongate a hole. Let the tool do the work.
6. When drilling hard and 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 stalls, stop the tool immediately. Remove the bit from the workpiece and determine the reason for jamming.

DRILLING IN WOOD

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

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. Begin drilling at a very low speed to prevent the bit from slipping off the starting point.
3. Increase speed as the drill bit bites into the material.

DRILLING IN METAL

For maximum performance, use high-speed-steel bits (available separately) for metal or steel drilling. It’s recommended to use the impulse mode to drill into the steel pipes.

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 that 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

OPERATION

DRILLING IN CERAMIC TILES


For maximum performance, use carbide-tipped masonry bits (available separately) for ceramic tile drilling. It's recommended to use the impulse mode to drill into the ceramic tiles.

1. Use just enough force on the drill to keep it from bouncing excessively. Too much force will cause slower drilling speeds, overheating and a lower drilling rate.
2. Do not exert side pressure on the bit when drilling, as this will cause clogging of the bit flutes and a slower drilling speed.
3. If the drill speed starts to drop off when drilling deep holes, pull the bit partially out of the hole with the tool still running to help clear debris from the hole.


SCREWDRIVER OPERATION


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

MAINTENANCE

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

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

 **WARNING:** 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 a clean cloth to remove dirt, dust, oil, grease, etc.

 **WARNING:** Using compressed air may be the most effective cleaning method. Always wear safety goggles when cleaning tools with compressed air.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
The drill/driver does not work.	The battery is depleted.	Charge the battery.
The bit cannot be installed.	The chuck sleeve is not released.	Release the chuck sleeve.
	The bit does not fit the sleeve.	Use a suitable bit.
Motor is overheating.	The cooling vents may be obstructed.	Clean and clear the vents. Do not cover the vents with your hand during operation.



1/2" BRUSHLESS DRILL/DRIVER

**3-YEAR
LIMITED WARRANTY**

This MASTERFORCE® brand power tool carries our famous No Hassle 3-Year Limited Warranty to the original purchaser. If, during normal use, this MASTERFORCE® power tool breaks or fails due to a defect in material or workmanship within three (3) years from the date of original purchase, simply bring the tool with the original sales receipt back to your nearest MENARDS® retail store. At its discretion, MASTERFORCE® agrees to have the tool or any defective part(s) repaired or replaced with the same or similar MASTERFORCE® product or part free of charge, within the stated warranty period, when returned by the original purchaser with original sales receipt. Notwithstanding the foregoing, this limited warranty does not cover any damage that has resulted from abuse or misuse of the Merchandise.

This warranty: (1) excludes expendable parts including but not limited to blades, brushes, belts, bits, light bulbs, and/or batteries; (2) shall be void if this tool is used for commercial and/or rental purposes; and (3) does not cover any losses, injuries to persons/property or costs. This warranty does give you specific legal rights and you may have other rights, which vary from state to state. Be careful, tools are dangerous if improperly used or maintained. Seller's employees are not qualified to advise you on the use of this merchandise. Any oral representation(s) made will not be binding on seller or its employees. The rights under this limited warranty are to the original purchaser of the merchandise and may not be transferred to any subsequent owner. This limited warranty is in lieu of all warranties, expressed or implied including warranties or merchantability and fitness for a particular purpose. Seller shall not be liable for any special, incidental, or consequential damages. The sole exclusive remedy against the seller will be for the replacement of any defects as provided herein, as long as the seller is willing or able to replace this product or is willing to refund the purchase price as provided above. For insurance purposes seller is not allowed to demonstrate any of these power tools for you.

For questions / comments, technical assistance or repair parts -
Please call toll free at: **1-866-917-4374** (M-F 8:30am-5:00pm Est.)

**SAVE YOUR RECEIPTS
THIS WARRANTY IS VOID WITHOUT THEM**

MASTER★FORCE®

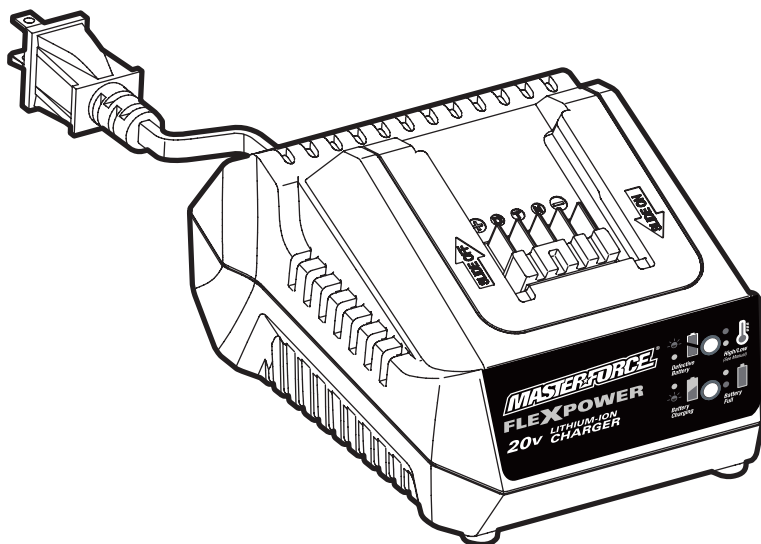
MENARDS®

MASTERFORCE®

FLEXPOWER®

CHOOSE YOUR TOOL. CHOOSE YOUR POWER.

20 Volt LITHIUM-ION CHARGER



252-8025

OPERATOR'S MANUAL

⚠ CAUTION: To Reduce The Risk Of Injury, User Must Read And Understand Operator's Manual. Save These Instructions For Future Reference.





For questions / comments, technical assistance or repair parts –
Please Call Toll Free: 1-866-917-4374. (M-F 8:30am-5:00pm Est.)

TABLE OF CONTENTS

Safety Symbols	Page 2
Safety Instructions	Page 3
Overview/Specifications	Page 6
Assembly	Page 7
Operation	Page 8
Maintenance	Page 10
Troubleshooting	Page 10
Warranty	Page 14

SAFETY SYMBOLS

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 more safely.

Symbol	Name	Designation / Explanation
V	Volts	Voltage
A	Amperes	Current
Hz	Hertz	Frequency (cycles per second)
W	Watts	Power
~	Alternating current	Type of current
—	Direct current	Type or characteristic of current
n_0	No-load speed	Rotational speed at no load
lbs	Pounds	Weight
	Class II construction	Double insulated construction
.../min	Per minute	Revolutions, strokes, surface speed orbits, etc., per minute
	Wear safety goggles	 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 shields 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.
BFP	Backfeed protection	It is a protection required by the safety regulation, which function is to avoid the current flowing from the battery to the charger to bring safety risks.
	UL mark	This symbol designates that this tool is listed by Underwriters Laboratories.

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

SAFETY INSTRUCTIONS

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 tool. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious personal injury.

SYMBOL MEANING



SAFETY ALERT SYMBOL: Indicates DANGER, WARNING, OR CAUTION. May be used in conjunction with other symbols or pictographs.



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



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



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

NOTICE: (Without Safety Alert Symbol) Indicates a situation that may result in property damage.

SAVE THESE INSTRUCTIONS!

SAFETY INSTRUCTIONS

FCC STATEMENT

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1) This device may not cause harmful interference.

2) This device must accept any interference received, including interference that may cause undesired operation.

2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTICE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection

against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. Consult the dealer or an experienced radio/TV technician for help.

SAFETY INSTRUCTIONS

⚠ WARNING: Read all safety warnings and 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.

⚠ WARNING: Risk of fire and electric shock. Dry location use only. Do not expose to rain. Risk of injury.

GENERAL SAFETY RULES

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

IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS

1. This manual contains important safety and operating instructions for battery charger Model 252-8025.
2. Before using battery charger, read all instructions and cautionary markings on battery charger, battery, and product using battery.
3. Dry location use only.
4. Do not expose to rain.

5. **⚠ CAUTION:** To reduce risk of injury, charge only Masterforce® Li-ion type rechargeable batteries. Other types of batteries may burst, causing personal injury and damage.

6. To reduce risk of battery explosion, follow these instructions and those marked on the battery.

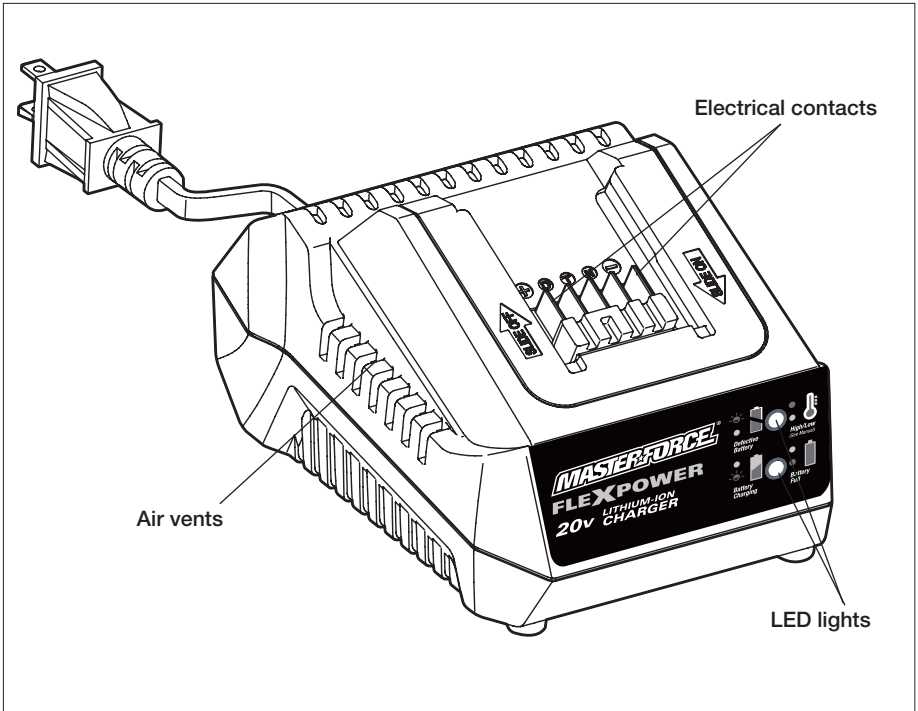
7. Never charge a frozen battery.

8. Do not operate charger in a closed-in area or restrict ventilation in any way.

9. Save these instructions. Refer to them frequently and use them to instruct others who may use this tool. If you lend this tool to someone else, also lend these instructions to them to prevent misuse of the product and possible injury.

⚠ DANGER: People with electronic devices, such as pacemakers, should consult their physician(s) before using this product. Operation of electrical equipment in close proximity to a heart pacemaker could cause interference or failure of the pacemaker.

OVERVIEW



SPECIFICATIONS

Charger Input	120V~ 60 Hz 45W	
Charging Time For Batteries	70 minutes	20V 2.0Ah Li-Ion (252-8031)
	90 minutes	20V 2.5Ah Li-Ion (252-8030, 252-8003)
	140 minutes	20V 4.0Ah Li-Ion (252-8034)
	140 minutes	20V 4.0Ah Li-Ion (252-8013)
	170 minutes	20V 5.0Ah Li-Ion(252-8035, 252-8005)
	250 minutes	20V 7.5Ah Li-ion (252-8007)
	270 minutes	20V 8.0Ah Li-Ion (252-8014)
Charger Weight	1 lb. (0.45kg)	
Optimum Charging Temperature	41-104°F (5-40°C)	

ASSEMBLY

⚠ WARNING: If any part is broken or missing, **DO NOT** attempt to plug in the power cord, attach the battery, or operate the tool until the broken or missing part is replaced. Failure to do so could result in possible serious injury.

⚠ WARNING: 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.

⚠ WARNING: Your tool should never be connected to the power source when you are assembling parts, making adjustments, installing or removing application tools, cleaning, or when it is not in use. Disconnecting the tool will prevent accidental starting, which could cause serious personal injury.

CONTENTS

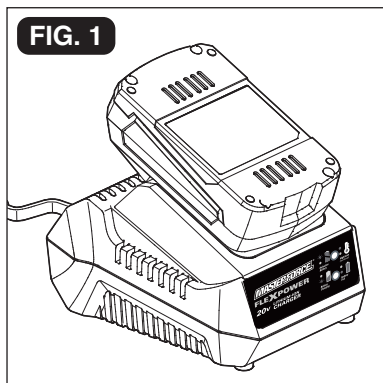
Battery charger and instruction manual

UNPACKING

1. Carefully remove the tool and any accessories from the carton. Make sure that all items listed in the packing list are included.
2. Inspect the tool carefully to make sure no breakage or damage occurred during shipping.
3. Do not discard the packing material until you have carefully inspected and satisfactorily operated the tool.

OPERATION









HOW TO CHARGE THE BATTERY PACK (FIG. 1)



1. Connect the charger to a correct power supply (120V~ 60Hz).
2. Attach the battery pack to the charger by aligning the raised ribs of the battery pack with the slot in the charger. Slide the battery pack onto the charger (FIG. 1).
3. The charger will communicate with the battery pack circuitry to evaluate the condition of the battery pack.
4. The green LED light will flash continuously during normal charging.
5. After charging is complete, the green LED on the charger will remain on.
6. The battery pack will fully charge, but will not overcharge, if left on the charger.

A fully discharged battery pack will charge in about 70-270 minutes, depending on the battery, at a temperature between 41-104°F (5-40°C).

LED FUNCTIONS OF CHARGER

LED INDICATOR	BATTERY PACK	RED LED	GREEN LED	ACTION
 High/Low <i>(See Manual)</i> 	Hot/Cold battery	On	Off	Fast charge will begin when the battery returns to desired temperature.
 Defective Battery 	Defective	Flashing	Off	Battery pack or charger is defective.
 Battery Charging 	Charging	Off	Flashing	Charging
 Battery Full 	Fully charged	Off	On	Charging is complete.

OPERATION

CHARGING A HOT BATTERY PACK

If the battery pack is above the normal temperature range, the red LED will illuminate and the green LED will be off. When the battery pack cools down to approximately 104°F (40°C), the charger will automatically begin charging.

CHARGING A COLD BATTERY PACK

If the battery pack is below the normal temperature range, the red LED will illuminate and the green LED will be off. When the battery warms to a temperature of 41°F (5°C), the charger will automatically begin charging.

DEFECTIVE BATTERY

If the charger detects a problem, the red LED will begin flashing and the green LED will be off.

1. If registering as defective, remove and reinsert the battery pack in the charger. If the LED status reads “defective” a second time, try to charge a different battery pack.
2. If a different battery pack charges normally, dispose of the defective battery pack (see Maintenance section).
3. If a different battery pack also indicates “defective,” the charger may be defective.

BATTERY CHARGING

If the battery pack is within the normal temperature range, the green LED will begin flashing and the red LED will be off.

BATTERY FULL

After the battery is fully charged, the green LED light on the charger will be on and the red LED light will be off.

NOTICE: The battery pack will fully charge, but will not overcharge, if left on the charger.

NOTICE: Charger may warm with several continuous charge cycles. This is part of the normal operation of the charge. Always charge in a well-ventilated area.

MAINTENANCE

⚠ WARNING: To avoid serious personal injury, always disconnect the plug from the power source when cleaning or performing any maintenance. Contact a qualified service technician for all repairs.

⚠ WARNING: When servicing, use only identical replacement parts. Use of any other parts may create a hazard or cause product damage. For more information, call the toll-free helpline, at 1-866-917-4374.

⚠ WARNING: 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 a clean cloth to remove dirt, dust, oil, grease, etc.

⚠ WARNING: If the supply cord is damaged, it must be replaced by a specially prepared cord available through the service organization.

TROUBLESHOOTING

PROBLEM	CAUSE OF THE PROBLEM	SOLUTION
The battery pack isn't charging.	Unconnected to charger.	Attach the battery pack to the charger.



20 Volt LITHIUM-ION CHARGER

3-YEAR LIMITED WARRANTY

This MASTERFORCE® brand power tool carries our famous No Hassle 3-Year Limited Warranty to the original purchaser. If, during normal use, this MASTERFORCE® power tool breaks or fails due to a defect in material or workmanship within three (3) years from the date of original purchase, simply bring the tool with the original sales receipt back to your nearest MENARDS® retail store. At its discretion, MASTERFORCE® agrees to have the tool or any defective part(s) repaired or replaced with the same or similar MASTERFORCE® product or part free of charge, within the stated warranty period, when returned by the original purchaser with original sales receipt. Notwithstanding the foregoing, this limited warranty does not cover any damage that has resulted from abuse or misuse of the Merchandise.

This warranty: (1) excludes expendable parts including but not limited to blades, brushes, belts, bits, light bulbs, and/or batteries; (2) shall be void if this tool is used for commercial and/or rental purposes; and (3) does not cover any losses, injuries to persons/property or costs. This warranty does give you specific legal rights and you may have other rights, which vary from state to state. Be careful, tools are dangerous if improperly used or maintained. Seller's employees are not qualified to advise you on the use of this merchandise. Any oral representation(s) made will not be binding on seller or its employees. The rights under this limited warranty are to the original purchaser of the merchandise and may not be transferred to any subsequent owner. This limited warranty is in lieu of all warranties, expressed or implied including warranties or merchantability and fitness for a particular purpose. Seller shall not be liable for any special, incidental, or consequential damages. The sole exclusive remedy against the seller will be for the replacement of any defects as provided herein, as long as the seller is willing or able to replace this product or is willing to refund the purchase price as provided above. For insurance purposes seller is not allowed to demonstrate any of these power tools for you.

For questions / comments, technical assistance or repair parts -
Please call toll free at: **1-866-917-4374** (M-F 8:30am-5:00pm Est.)

**SAVE YOUR RECEIPTS
THIS WARRANTY IS VOID WITHOUT THEM**

MASTER★FORCE®

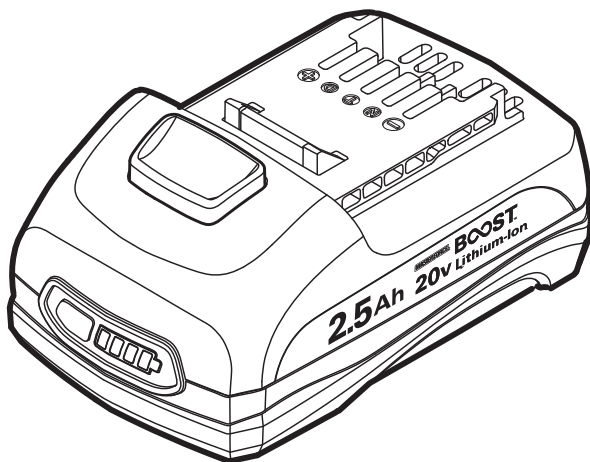
MENARDS®

MASTERFORCE®

FLEXPOWER®

CHOOSE YOUR TOOL. CHOOSE YOUR POWER.

20V Boost Lithium-Ion Battery Pack



252-8003

OPERATOR'S MANUAL

⚠ CAUTION: To Reduce The Risk Of Injury, User Must Read And Understand Operator's Manual. Save These Instructions For Future Reference.




For questions / comments, technical assistance or repair parts –
Please Call Toll Free: 1-866-917-4374. (M-F 8:30am - 5:00pm Est.)


TABLE OF CONTENTS

Safety Symbols	Page 2
Safety Instructions	Page 3
Overview/Specifications	Page 6
Assembly	Page 7
Operation	Page 8
Maintenance	Page 11
Troubleshooting	Page 12

SAFETY SYMBOLS

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 more safely.

Symbol	Name	Designation / Explanation
V	Volts	Voltage
A	Amperes	Current
Hz	Hertz	Frequency (cycles per second)
W	Watts	Power
~	Alternating current	Type of current
---	Direct current	Type or characteristic of current
n_0	No-load speed	Rotational speed at no load
lbs	Pounds	Weight
	Class II construction	Double insulated construction
.../min	Per minute	Revolutions, strokes, surface speed orbits, etc., per minute
	Wear safety goggles	 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 shields and a full-face shield when needed. We recommend a Wide Vision Safety Mask for use over eye-glasses or standard safety glasses with side shields. Always use eye protection which is marked to comply with ANSI Z87.1.

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

SAFETY INSTRUCTIONS

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 tool. Failure to following all instructions listed below may result in electric shock, fire, and/or serious personal injury.

SYMBOL MEANING



SAFETY ALERT SYMBOL: Indicates DANGER, WARNING, OR CAUTION. May be used in conjunction with other symbols or pictographs.



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



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



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

NOTICE: (Without Safety Alert Symbol) Indicates a situation that may result in property damage.

SAVE THESE INSTRUCTIONS!

SAFETY INSTRUCTIONS



WARNING: Read all safety warnings and 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.



WARNING: Risk of fire and electric shock. Dry location use only. Do not expose to rain. Risk of injury.

WORK AREA SAFETY

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

ELECTRICAL SAFETY

1. **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.
2. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.

BATTERY TOOL USE AND CARE

1. **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.
2. **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
3. **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.
4. **Under abusive conditions, liquid may be ejected from the battery; avoid contact.** If contact accidentally occurs, flush with water. If liquid contacts eyes, also seek medical help. Liquid ejected from the battery may cause irritation or burns.

SERVICE

1. **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.

SPECIFIC SAFETY RULES FOR BATTERY PACK

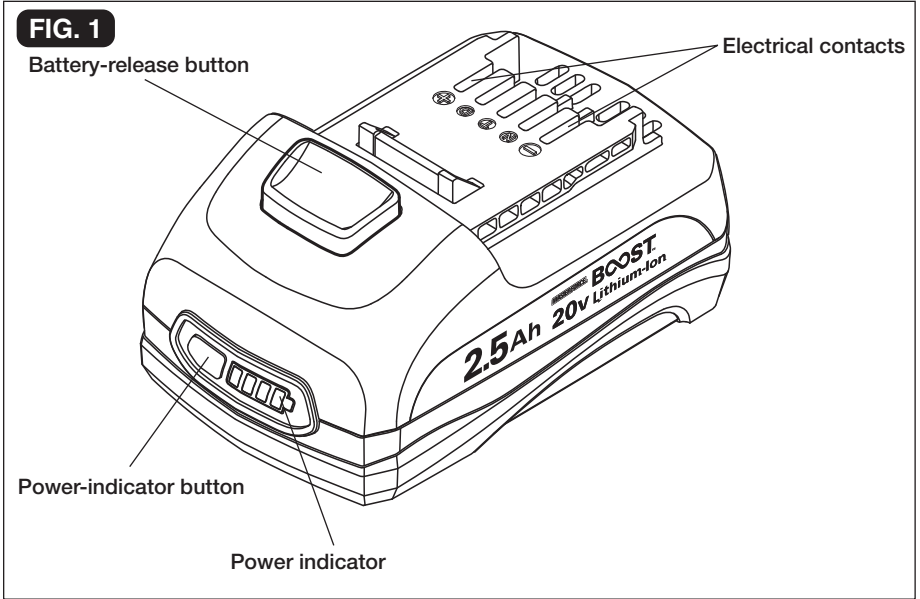
1. **Use battery only with chargers listed.**

Battery pack	Charger
252-8003	252-8025
	252-8026
	252-8037

SAFETY INSTRUCTIONS

- 2. Know your power tool.** Read the Instruction Manual carefully. Learn the tool's 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, and serious injury.
- 3. Do not place the battery near fire or heat.** This will reduce the risk of explosion and possible injury.
- 4. Do not crush, drop or damage the battery pack.** Do not use a battery pack or charger that has been dropped or received a sharp blow. A damaged battery is subject to explosion. Properly dispose of a dropped or damaged battery immediately.
- 5. Batteries vent hydrogen gas and can explode in the presence of a source of ignition, such as a pilot light.** To reduce the risk of serious personal injury, never use any cordless product in the presence of an open flame. An exploded battery can propel debris and chemicals. If exposed, flush the exposed area with water immediately.
- 6. Do not charge the battery in a damp or wet location.** Following this rule will reduce the risk of electric shock.
- 7. For best results, your battery should be charged in a location where the temperature is more 41°F (5°C) but less than 104°F (40°C).** Do not store outside or in vehicles.
- 8. Under extreme usage or temperature conditions, battery leakage may occur.** If liquid comes in contact with your skin, wash immediately with soap and water, then neutralize with lemon juice or vinegar. If liquid gets in your eyes, flush them with clean water for at least 10 minutes, and then seek immediate medical attention. Following this rule will reduce the risk of serious personal injury.
- 9. Do not let gasoline, oils, petroleum-based products, etc. come in contact with plastic parts.** They contain chemicals that can damage, weaken or destroy plastic.
- 10. Have your battery pack serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the battery pack is maintained.
- 11. Save these instructions.** Refer to them frequently and use them to instruct others who may use this tool. If you lend someone this tool, lend these instructions also to prevent misuse of the product and possible injury.

OVERVIEW



SPECIFICATIONS

Battery Type	Lithium-Ion
Battery Voltage	20V DC
Battery Weight	1.0 lbs. (0.46kg)
Battery Capacity	2.5Ah
Operating Temperature	-4°F (-20°C)–104°F (40°C)

ASSEMBLY

⚠ WARNING: If any part is broken or missing, **DO NOT** attempt to plug in the power cord, attach the battery, or operate the tool until the broken or missing part is replaced. Failure to do so could result in possible serious injury.

⚠ WARNING: 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.

⚠ WARNING: Your tool should never be connected to the power source when you are assembling parts, making adjustments, installing or removing application tools, cleaning, or when it is not in use. Disconnecting the tool will prevent accidental starting, which could cause serious personal injury.

CONTENTS

Battery pack and instruction manual

UNPACKING

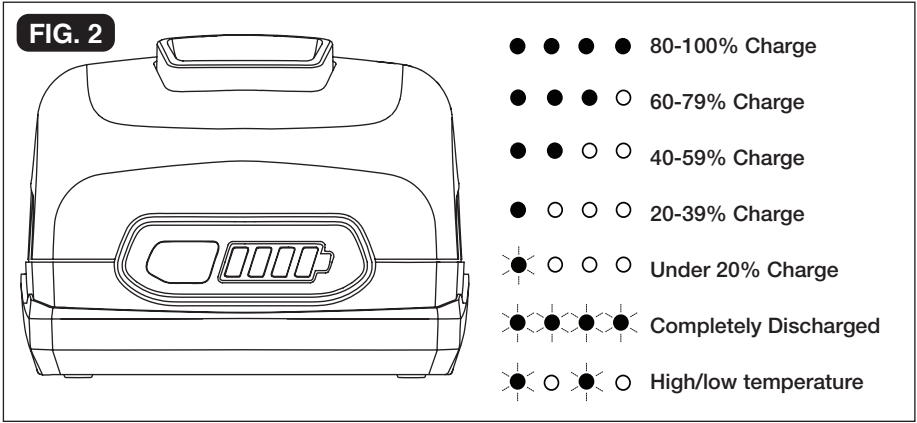
1. This product has been shipped completely assembled.
2. Carefully remove the tool and any accessories from the box. Make sure that all items listed in the packing list are included.
3. Inspect the tool carefully to make sure that no breakage or damage occurred during shipping.
4. Do not discard the packing material until you have carefully inspected and satisfactorily operated the tool.

OPERATION

POWER INDICATOR (Fig. 2)

This Lithium-Ion battery pack is equipped with a power indicator that displays the battery pack's charge status. Press the power-indicator button to display the LED lights. The LED lights will stay lit for approximately 4 seconds.

NOTICE: The power indicator can be used whether the battery is attached to or removed from the tool.



LOW CAPACITY WARNING

If one LED on the power indicator begins to flash, the battery pack's charge is under 20% capacity and should be recharged soon.

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, power to the tool will drop quickly.

The power indicator will begin to display four flashing LED lights when it is completely discharged. When this happens, remove the tool from the workpiece and charge the battery pack as needed.

BATTERY PROTECTION

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. The battery pack will begin normal operation when it cools down.

The power indicator will display four flashing LED lights if the circuitry detects a momentary overload. You can conveniently reset the battery pack by releasing the power-tool trigger. Press the power-indicator button again to display the remaining charge.

NOTICE: If the power indicator continues to flash four LED lights after resetting, place the battery pack on the charger to evaluate the battery condition.

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.

OPERATION

COLD WEATHER OPERATION

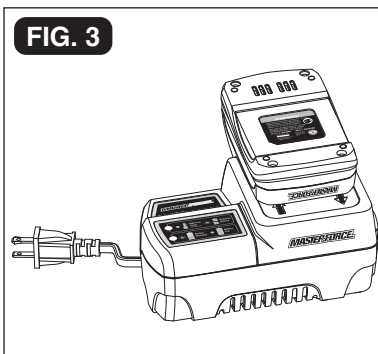
When the battery pack is very cold, it may “pulse” for the first minute of use to warm itself. Put the battery pack on a tool and use the tool in a light application. After about a minute, the battery pack will have warmed itself and will operate normally.

WHEN TO CHARGE THE BATTERY PACK

The Lithium-Ion battery can be charged at any time and will not develop a “memory” when charged after only a partial discharge. It is not necessary to run down the battery pack charge before recharging. Remove the battery pack from the tool when it is convenient for you and your job.

1. Use the power indicator to determine when you need to recharge the battery pack.
2. You can “top-off” your battery pack’s charge before starting a big job or long period of use.
3. Due to Lithium-Ion’s 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. Charge the battery pack as needed.

HOW TO CHARGE THE BATTERY PACK (FIG. 3)



1. Charge the battery pack with the correct charger.
2. Connect the charger to a power supply .
3. Attach the battery pack to the charger by aligning the raised ribs of the battery pack with the slot in the charger. Slide the battery pack onto the charger.
4. The charger will communicate with the battery pack’s circuitry to evaluate the condition of the battery pack.
5. During normal charging, the green LED on the charger will flash continuously.
6. After charging is complete, the green LED on the charger will be on. The power indicator LED lights will not be displayed when the power-indicator button is pressed while the battery pack is on the charger.
7. The battery pack will fully charge, but will not overcharge, if left on the charger.

HOW TO KNOW THE CHARGE CONDITION OF BATTERY PACK DURING CHARGING









The LED lights on the battery pack are displayed as the pack is being charged, indicating how fully charged the pack is.

- The first LED light on the battery pack flashes to indicate that the battery pack is 0%-25% charged.
- The first LED light on the battery pack is solid and the second flashes to indicate that the battery pack is 25%-50% charged.
- The first two LED lights on the battery pack are solid and the third flashes to indicate that the battery pack is 50%-75% charged.
- The first three LED lights on the battery pack are solid and the fourth flashes to indicate that the battery pack is 75%-100% charged.
- When it is fully charged, all the LED lights on the battery pack will be solid for about 30 minutes then will turn off.

OPERATION

LED FUNCTIONS OF CHARGER (FIG. 4)

FIG. 4

LED INDICATOR	BATTERY PACK	RED LED	GREEN LED	ACTION
 HI / LO TEMP. 	Hot/Cold battery	On	Off	Fast charge will begin when battery returns to between 41°F (5°C) and 104°F (40°C)
 DEFECTIVE BATTERY 	Defective	Flashing	Off	Battery pack or charger is defective
 BATTERY CHARGING 	Charging	Off	Flashing	Charging
 BATTERY FULL 	Fully charged	Off	On	Charging is complete

CHARGING A HOT BATTERY PACK

If the battery pack is above the normal temperature range, the red LED will illuminate and the green LED will be off. When the battery pack cools down to approximately 104°F, the charger will automatically begin charging.

CHARGING A COLD BATTERY PACK

If the battery pack is below the normal temperature range, the red LED will illuminate and the green LED will be off. When the battery warms to a temperature of more than 41°F (5°C), the charger will automatically begin charging .

DEFECTIVE BATTERY

If the charger detects a problem, the red LED will begin flashing and the green LED will be off.

1. If registering as defective, remove and reinsert the battery pack in the charger. If the LED status indicates “defective” a second time, try to charge a different battery pack.
2. If a different battery pack charges normally, dispose of the defective battery pack (see Maintenance section).
3. If a different battery pack also indicates “defective,” the charger may be defective.

MAINTENANCE

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

WARNING: Always wear safety goggles or safety glasses with side shields when using compressed air to clean tool. If the operation is dusty, also wear a dust mask.

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

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 the batteries. Handling 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 it is not in use. For Lithium-Ion battery pack storage longer than 30 days:

1. Store the Lithium-Ion battery pack where the temperature is below 80°F (26°C) and free of moisture.
2. Store Lithium-Ion battery packs in a 30%-50% charged condition.
3. Every six months of storage, fully charge the Lithium-Ion battery pack.
4. The 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 battery pack or remove any of its components. Lithium-Ion batteries must be recycled or disposed of properly. Never touch both terminals with metal objects and/or body parts as short circuit may result. Keep away from children. Failure to comply with these warnings could result in fire and/or serious injury.



TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
The battery pack isn't charging	Poor connected to charger.	Reconnected the battery pack to the charger.
	The battery pack or charger is too hot.	Allow the battery pack and charger to cool down.

MASTER★FORCE®

MENARDS®