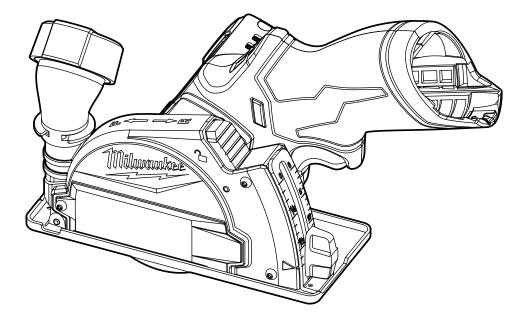


OPERATOR'S MANUAL



Cat. No. 2522-20

M12 FUEL™ 3" CUT OFF TOOL

WARNING To reduce the risk of injury, user must read and understand operator's manual.

GENERAL POWER TOOL SAFETY WARNINGS

AWARNING 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 mainsoperated (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 an 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 jewelry. Keep your hair and clothing away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
- •If devices are provided for the connection of dust extraction and collection facilities, 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 behavior 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.

SPECIFIC SAFETY RULES FOR CUT OFF TOOLS

Cut-Off Machine Safety Warnings

- •The guard provided with the tool must be securely attached to the power tool and positioned for maximum safety, so the least amount of wheel is exposed towards the operator. Position yourself and bystanders away from the plane of the rotating wheel. The guard helps to protect operator from broken wheel fragments and accidental contact with wheel.
- •Use only bonded reinforced or diamond cut-off wheels for your power tool. Just because an accessory can be attached to your power tool, it does not assure safe operation.
- •The rated speed of the accessory must be at least equal to the maximum speed marked on the power tool. Accessories running faster than their rated speed can break and fly apart.
- •Wheels must be used only for recommended applications. For example: do not grind with the side of cut-off wheel. Abrasive cut-off wheels are intended for peripheral grinding, side forces applied to these wheels may cause them to shatter.
- •Always use undamaged wheel flanges that are of correct diameter for your selected wheel. Proper wheel flanges support the wheel thus reducing the possibility of wheel breakage.
- •Do not use worn down reinforced wheels from larger power tools. Wheels intended for a larger power tool are not suitable for the higher speed of a smaller tool and may burst.
- •The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool. Incorrectly sized accessories cannot be adequately guarded or controlled.
- The arbour size of wheels and flanges must properly fit the spindle of the power tool. Wheels and flanges with arbour holes that do not match the mounting hardware of the power tool will run out of

balance, vibrate excessively and may cause loss of control.

•Do not use damaged wheels. Before each use, inspect the wheels for chips and cracks. If power tool or wheel is dropped, inspect for damage or install an undamaged wheel. After inspecting and installing the wheel, position yourself and bystanders away from the plane of the rotating wheel and run the power tool at maximum no load speed for one minute. Damaged wheels will normally break apart during this test time.

•Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and shop apron capable of stopping small abrasive or workpiece tragments. The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtrating particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.

•Keep bystanders a safe distance away from work area. Anyone entering the work area must wear personal protective equipment. Fragments of workpiece or of a broken wheel may fly away and cause injury beyond immediate area of operation.

- •Hold the power tool by insulated gripping surfaces only, when performing an operation where the cutting accessory may contact hidden wiring. Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- Never lay the power tool down until the accessory has come to a complete stop. The spinning wheel may grab the surface and pull the power tool out of your control.
- •Do not run the power tool while carrying it at your side. Accidental contact with the spinning accessory could snag your clothing, pulling the accessory into your body.
- •Regularly clean the power tool's air vents. The motor's fan can draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.

•Do not operate the power tool near flammable materials. Do not operate the power tool while placed on a combustible surface such as wood. Sparks could ignite these materials.

- Kickback and Related Warnings
- -Kickback is a sudden reaction to a pinched or snagged rotating wheel, backing pad, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory which in turn causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation at the point of the binding.

For example, if an abrasive wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel's movement at the point of pinching. Abrasive wheels may also break under these conditions.

 -Kickback is the result of power tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

- •Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces. Always use auxiliary handle, if provided, for maximum control over kickback or torque reaction during start-up. The operator can control torque reactions or kickback forces, if proper precautions are taken.
- •Never place your hand near the rotating accessory. Accessory may kick back over your hand.
- Do not position your body in line with the rotating wheel. Kickback will propel the tool in direction opposite to the wheel's movement at the point of snagging.
- Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory. Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.
- Do not attach a saw chain, woodcarving blade, segmented diamond wheel with a peripheral gap greater than 10 mm or toothed saw blade. Such blades create frequent kickback and loss of control.
- •Do not "jam" the cut-off wheel or apply excessive pressure. Do not attempt to make an excessive depth of cut. Overstressing the wheel increases the loading and susceptibility to twisting or binding of the wheel in the cut and the possibility of kickback or wheel breakage.
- •When wheel is binding or when interrupting a cut for any reason, switch off the power tool and hold the power tool motionless until the wheel comes to a complete stop. Never attempt to remove the cut-off wheel from the cut while the wheel is in motion otherwise kickback may occur. Investigate and take corrective action to eliminate the cause of wheel binding.
- •Do not restart the cutting operation in the workpiece. Let the wheel reach full speed and carefully reenter the cut. The wheel may bind, walk up or kickback if the power tool is restarted in the workpiece.
- •Support panels or any oversized workpiece to minimize the risk of wheel pinching and kickback. Large workpieces tend to sag under their own weight. Supports must be placed under the workpiece near the line of cut and near the edge of the workpiece on both sides of the wheel.
- •Use extra caution when making a "pocket cut" into existing walls or other blind areas. The protruding wheel may cut gas or water pipes, electrical wiring or objects that can cause kickback.

Safety Warnings Common for Abrasive Cutting-Off Operations:

- •This power tool is intended to function as a cutoff tool. 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.
- •Operations such as grinding, sanding, wire brushing, or polishing are not recommended to be performed with this power tool. Operations for which the power tool was not designed may create a hazard and cause personal injury.
- •Do not use accessories which are not specifically designed and recommended by the tool manufacturer. Just because the accessory can be attached to your power tool, it does not assure safe operation.

- •The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool. Incorrectly sized accessories cannot be adequately guarded or controlled.
- •The arbour size of wheels, flanges, backing pads or any other accessory must properly fit the spindle of the power tool. Accessories with arbour holes that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.

Additional Safety Warnings

- •Use clamps or another practical way to secure and support the workpiece to a stable platform. Holding the work by hand or against your body leaves it unstable and may lead to loss of control.
- •To reduce the risk of explosion, electric shock and property damage, always check the work area for hidden gas pipes, electrical wires or water pipes when making blind or plunge cuts.
- •Keep hands away from all cutting edges and moving parts. Do not reach underneath the workpiece.

AWARNING To reduce the risk of injury in applications that produce a considerable amount of dust, use an OSHA compliant dust extraction solution in accordance with the solution's operating instructions.

- •Always use common sense and be cautious when using tools. It is not possible to anticipate every situation that could result in a dangerous outcome. Do not use this tool if you do not understand these operating instructions or you feel the work is beyond your capability; contact Milwaukee Tool or a trained professional for additional information or training.
- Maintain labels and nameplates. These carry important information. If unreadable or missing, contact a MILWAUKEE service facility for a free replacement.
- AWARNING Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
- lead from lead-based paint
- •crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber. Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

SYMBOLOGY

Volts

Direct Current

n XXXX min⁻¹ Rated Revolutions per Minute (RPM)



Read operator's manual

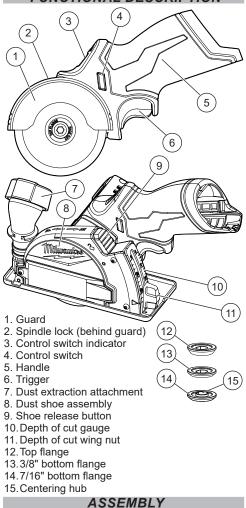
Wear eye and respiratory protection.

UL Listing for Canada and U.S.

SPECIFICATIONS

Cat. No	2522-20
Volts	12 DC
Battery Type	M12™
Charger Type	
RPM	
Wheel Size	
Arbor Size	3/8" or 7/16"
Maximum Wheel Thickness	
Maximum Cutting Depth	0.64"
Recommended Ambient	
Operating Temperature	0°F to 125°F

FUNCTIONAL DESCRIPTION



AWARNING Recharge only with the charger specified for the battery. For specific charging instructions, read the operator's manual supplied with your charger and battery.

Removing/Inserting the Battery To **remove** the battery, push in the release buttons and pull the battery pack away from the tool. AWARNING Always remove battery pack before changing or removing accessories.

To **insert** the battery, slide the pack into the body of the tool. Make sure it latches securely into place.

AWARNING Only use accessories specifically recommended for this tool. Others may be hazardous.

Wheel Selection

AWARNING To reduce the risk of injury, only use Type "1" abrasive and diamond wheels with a maximum 1/8" thickness, rated with a maximum safe operating speed at least 20,000 RPM. Type 1 wheels are for side grinding only, not surface grinding. Read all safety information supplied with cut-off wheels.

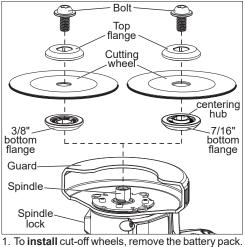
Always wear proper safety equipment, including a dust mask. Protect everyone in the area from sparks. Use the chart below to choose the correct wheel. Different types of wheels work best for different materials. Follow the use recommendations from the wheel manufacturer.

Wheel Type:	Recommended for Cutting:
Carbide Abrasive Wheel	Drywall, Fiber Cement, Plastic
Abrasive Cut-off wheel	Steel, Stainless Steel, Non-Ferrous Materials
Diamond Abrasive Wheel	Tile, Ceramics

AWARNING only the proper wheel made for this tool. Do NOT use any type of saw blade. Use only abrasive and diamond wheels. To ensure the wheel is properly secured, always use the mounting hardware supplied with your tool.

Do not touch the cut-off wheel or workpiece immediately after cutting; they may be hot and could burn skin.

Installing and Removing Cut-Off Wheels Before operating the tool, make sure the wheel is in good condition (see "Specific Safety Rules").



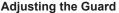
 Io Install cut-off wheels, remove the battery pack.
 Place tool on a firm surface with the guard surface facing up.

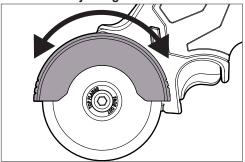
- Remove the dust shoe assembly (see "Installing, Removing, and Adjusting the Dust Shoe Assembly").
- Remove dust and debris from the flanges, cut-off wheel, bolt, spindle, and guard.
- 5. Place a 3/8" or 7/16" bottom flange on the spindle in the orientation shown, with the flat side towards the cut-off wheel. The text "BOTTOM FLANGE-FACE BLADE" will be visible when installed correctly. Always select the flange that matches the arbor of the cut-off wheel.
- Inspect the cut-off wheel for damage, and replace if necessary. Place the wheel onto the spindle. For wheels with a 7/16" arbor, ensure the flange's centering hub fits inside the wheel's arbor.
- When installing a diamond wheels, match direction of rotation of the wheel to the desired direction of rotation of the tool. Diamond wheels will not cut effectively unless the direction marked on the wheel matches the direction of rotation.
- Place the top flange on the spindle in the orientation shown, with the flat side towards the cut-off wheel. The text "TOP FLANGE-FACE OUT" will be visible when installed correctly.
- Insert the bolt into the spindle and, while holding in the spindle lock, tighten the bolt securely with the 3/16" hex wrench.

NOTE: Bolt has a left hand thread. To tighten, turn bolt counterclockwise.

- Run the tool under no-load to ensure the cut-off wheel moves freely and does not contact other parts.
- To remove, reverse the procedure.
 NOTE: Bolt has a left hand thread. To loosen, turn bolt clockwise.

AWARNING To reduce the risk of injury when grinding, ALWAYS adjust the guard to provide the best control and protection. Wear gloves to protect hands when adjusting the guard.





To adjust the guard:

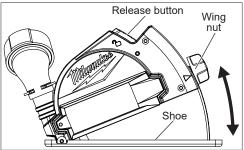
- 1. Remove the battery pack.
- Grasp the guard and rotate forward or backward (45° range). Always position the guard in the location which offers best control and protection.

Installing, Removing, and Adjusting the Dust Shoe Assembly

The dust shoe assembly provides cutting stability, depth of cut control, and provisions for dust extraction.

1. To **install** the dust shoe assembly, remove the battery pack.

- 2. Install the correct wheel for the job, and rotate the guard all the way forward.
- Loosen the depth of cut wing nut and fully extend the shoe. Hand-tighten the wing nut.



- 4. Maneuver the upper guard and wheel into the dust shoe assembly and rotate tool to lock in place. The front of the guard will rest against the stop inside the assembly, and the back of the guard will catch the release tab.
- 5. To **remove** the dust shoe assembly, remove the battery pack.
- 6. Loosen the depth of cut wing nut and fully extend the shoe. Hand-tighten the wing nut.
- 7. Press in the shoe release button and rotate the tool out of the dust shoe assembly.
- 8. To adjust the depth of cut, loosén the depth of cut wing nut and slide the shoe up or down. Use the markings on the depth of cut gauge to help determine proper depth. Adjust the cutting depth to the thickness of the workpiece. Less than 1/4" of the wheel should be visible below the workpiece.

Using the Control Switch

The control switch may be set to three positions: forward, reverse and lock. The indicator on the top of the tool will display the current position. Due to a lockout mechanism, the control switch can only be adjusted when the ON/OFF switch is not pressed. Always allow the motor to come to a complete stop before using the control switch.

Some applications or accessories may require the tool to be run in forward or reverse. When making a cut, select the direction of cut that allows the tool to be pushed away from your body. When installing a diamond wheel, select the rotation that matches the arrow on the wheel.

- 1. For **forward** (clockwise) rotation, push the control switch from the left side of the tool.
- 2. For **reverse** (counterclockwise) rotation, push the control switch from the right side of the tool.
- 3. To lock the trigger, push the control switch to the center position. The trigger will not work when the control switch is in the locked position. Always remove the battery pack before performing maintenance, changing accessories, storing the tool and any time the tool is not in use.

AWARNING To reduce the risk of injury when working in dusty situations, wear appropriate respiratory protection or use an OSHA compliant dust extraction solution.

Always keep dust extractor hose out of the path of cut and away from the cut-off wheel. Ensure the dust extractor hose does not interfere with the operator or workpiece. When dust extraction is not in use, always replace the cap to avoid dust and debris from being directed up and toward the operator.

Dust Collection

- To use a dust extractor:
- 1. Install the dust shoe assembly.
- 2. Remove the cap from the dust extraction attachment.
- 3. Twist the dust extractor hose (DEK26 or 1.25" diam.) into the opening to make a tight fit. **WARNING!** Always keep dust extractor hose out of the path of cut and away from the cut-off wheel.
- 4. To remove, twist the dust extractor hose and remove. Replace the cap. WARNING! Always replace the cap to avoid dust and debris from being directed up and toward the operator.

OPERATION

AWARNING To reduce the risk of injury, always wear proper eye protection marked to comply with ANSI Z87.1.

When working in dusty situations, wear appropriate respiratory protection or use an OSHA compliant dust extraction solution.

Remove the battery pack before changing accessories or making adjustments.

This tool is designed to cut metal and nonmetallic materials. To reduce the risk of injury, DO NOT use a toothed blade.

For wet/dry diamond abrasive wheels, use only clean water and avoid over-wetting the workpiece. Never immerse your tool or battery pack in liquid or allow a liquid to flow inside them.

Preventing Kickback

Kickback is the sudden reaction to a pinched wheel which could cause a cut off tool that is not under control to lift up and out of the workpiece towards the user. Take the precautions below to help prevent kickback.

- Maintain a firm grip and correct body position. Position arms and body to control the backward and upward reaction force of kickback. Control the cut off tool at all times.
- Set the depth of cut for no more than necessary. The less wheel exposed, the less chance of binding and kickback. Before cutting, be sure dust shoe assembly is tight.
- Always allow the wheel to come to a full stop before removing the cut off tool from the workpiece. Never remove the cut off tool from a cut while the wheel is moving. If restarting or correcting direction in mid-cut, allow the wheel to coast to a stop, back the cut off tool up a few inches and center it in the kerf before restarting.
- Stay alert. Any distraction can cause twisting or binding. Repetitive cuts may lull the user into careless movements.
- Do not force the tool. Forcing a cut off tool reduces control and cutting efficiency.

If kickback should occur, continue to grip the cut off tool firmly and immediately release trigger.

Making a Cut

- 1. Remove the battery pack.
- 2. Install the correct cut-off wheel for the material and adjust the guard. Install the dust shoe assembly when possible.

- 3. Adjust the depth of cut when using the dust shoe assembly.
- 4. Insert the battery pack.
- 5. Line up the cut but do not allow the cut-off wheel to contact the workpiece.
- 6. To start the tool, pull the trigger and allow the tool to reach full speed before beginning the cut. Slowly move the tool through the workpiece. NOTE: Always start the cut gently pushing the tool through the workpiece. Do not bang or bump a cut-off wheel when starting or during a cut. Always push the tool away from you.
- 7. While cutting, keep the shoe flat against the workpiece and maintain a firm grip. Do not force the cut off tool through the workpiece. Forcing a cut off tool can cause kickback.
- 8. To **stop** the tool, release the trigger. Allow the cut-off wheel to come to a complete stop before removing the tool from a cut.
- 9. If making a partial cut, restarting a cut or correcting cut direction, allow the wheel to come to a complete stop. To resume cutting, center the wheel in the kerf (cutting slot), back the saw away from cutting edge, pull the trigger and re-enter the cut slowly.
- 10. When cutting plastic, avoid overheating the blade to prevent melting the workpiece.
- 11. If the cut off tool stalls or overheats, maintain a firm grip and release the trigger immediately. Allow the tool to cool before continuing.

MAINTENANCE

AWARNING In reduce the risk of injury, always unplug the charger and remove the battery pack from the charger or tool before performing any maintenance. Never disassemble the tool, battery pack or charger. Contact a MILWAUKEE service facility for ALL repairs.

Maintaining Tool

Keep your tool, battery pack and charger in good repair by adopting a regular maintenance program. Inspect your tool for issues such as undue noise, misalignment or binding of moving parts, breakage of parts, or any other condition that may affect the tool operation. Return the tool, battery pack, and charger to a MILWAUKEE service facility for repair. After six months to one year, depending on use, return the tool, battery pack and charger to a MILWAUKEE service facility for inspection.

If the tool does not start or operate at full power with a fully charged battery pack, clean the contacts on the battery pack. If the tool still does not work properly, return the tool, charger and battery pack, to a MILWAUKEE service facility for repairs.

AWARNING To reduce the risk of personal injury and damage, never immerse your tool, battery pack or charger in liquid or allow a liquid to flow inside them.

Cleaning

Clean dust and debris from vents. Keep handles clean, dry and free of oil or grease. Use only mild soap and a damp cloth to clean, since certain cleaning agents and solvents are harmful to plastics and other insulated parts. Some of these include gasoline, turpentine, lacquer thinner, paint thinner, chlorinated cleaning solvents, ammonia and household detergents containing ammonia. Never use flammable or combustible solvents around tools.

Rely on premium power tools by Milwaukee if you're looking for quality and efficiency.