Power Tool Safety Rules

⚠ WARNING **Read and understand all instructions.** Failure to follow all instructions listed below, may result in electric shock, fire and/or serious personal injury.

SAVE THESE INSTRUCTIONS

Work Area

Keep your work area clean and well lit. Cluttered benches and 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 by-standers, children, and visitors away while operating a power tool. Distractions can cause you to lose control.

Electrical Safety

Double Insulated tools are equipped with a polarized plug (one blade is wider than the other.) This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way. Double Insulation ⧈ eliminates the need for the three wire grounded power cord and grounded power supply system. *Before plugging in the tool, be certain the outlet voltage supplied is within the voltage marked on the nameplate. Do not use "AC only" rated tools with a DC power supply.*

Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is grounded. If operating the power tool in damp locations is unavoidable, a Ground Fault Circuit Interrupter must be used to supply the power to your tool. Electrician's rubber gloves and footwear will further enhance your personal safety.

Don't 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 to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately. Damaged cords increase the risk of electric shock.

When operating a power tool outside, use an outdoor extension cord marked "W-A" or "W." These cords are rated for outdoor use and reduce the risk of electric shock. Refer to "Recommended sizes of Extension Cords" in the Accessory section of this manual.

Personal Safety

Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.

Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts. Keep handles dry, clean and free from oil and grease.

Avoid accidental starting. Be sure switch is "OFF" before plugging in. Carrying tools with your finger on the switch or plugging in tools that have the switch "ON" invites accidents.

Remove adjusting keys or wrenches before turning the tool "ON". A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.

Do not overreach. Keep proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.

Use safety equipment. Always wear eye protection. Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

Tool Use and Care

Use clamps or other practical way to secure and support the workpiece to a stable platform. Holding the work by hand or against your body is unstable and may lead to loss of control.

Do not force tool. Use the correct tool for your application. The correct tool will do the

job better and safer at the rate for which it is designed.

Do not use tool if switch does not turn it "ON" or "OFF". Any tool that cannot be controlled with the switch is dangerous and must be repaired.

Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the tool. Such preventive safety measures reduce the risk of starting the tool accidentally.

Store idle tools out of reach of children and other untrained persons. Tools are dangerous in the hands of untrained users.

Maintain tools with care. Keep cutting tools sharp and clean. Properly maintained tools, with sharp cutting edges are less likely to bind and are easier to control. Any alteration or modification is a misuse and may result in a dangerous condition.

Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tools operation. If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools. Develop a periodic maintenance schedule for your tool.

Use only accessories that are recommended by the manufacturer for your model. Accessories that may be suitable for one tool, may become hazardous when used on another tool.

Service

Tool service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury. For example: internal wires may be misplaced or pinched, safety guard return springs may be improperly mounted.

When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual. Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of electric shock or injury. Certain cleaning agents such as gasoline, carbon tetrachloride, ammonia, etc. may damage plastic parts.

Abrasive Cut-Off Machine Safety Rules

Always use wheel guard, foot plate and auxiliary handle with this abrasive cut off machine. The guard must always be securely attached to the tool and positioned for maximum safety, so the least amount of wheel is exposed on the operators side of the tool. A guard protects operator from broken wheel fragments. The foot plate and auxiliary handle provide additional guarding, stability and control in cut off applications.

Always be certain that the wheel guard, foot plate and auxiliary handle are reassembled and securely fastened to the machine when changing the point of operation from *fire forward* to *fire reverse* or after changing the wheels. A tool missing an essential safety component is dangerous to operate.

Hold tool by insulated gripping surfaces when performing an operation where the abrasive wheels may contact hidden wiring or its own cord. Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.

Wear proper apparel while using an abrasive cut off machine. Face shield or at least safety goggles, dust mask, leather gloves and shop apron capable of stopping small wheel or workpiece fragments.

This machine is not intended to be used with Wet Diamond Wheels. Using water or other liquid coolants with this machine may result in electrocution or shock. Use of Dry Diamond Wheels is acceptable.

Use only Type 1 abrasive cut off wheels with the correct size arbor hole. Never use damaged or incorrect wheel flanges or round nut. Other types of wheels are not intended to apply load on periphery and may shatter. Wheels with arbor holes that do not match the mounting hardware of the tool will run eccentrically, vibrate excessively and will cause loss of control.

Do not grind on the side of Type 1 abrasive cut off wheels. Side forces applied to these wheels may cause them to shatter.

Do not use this tool with "Woodcarving" blade or standard wood cutting toothed blades. These blades are not intended for this machine and can create loss of control during use.

Abrasive Cut Off Wheels must have a maximum safe operating speed greater than the "no load RPM" marked on the tool's nameplate. Wheels running over the rated speed can fly apart and cause injury.

Before each use inspect the cut off wheel for chips and cracks. Do not use a wheel that may be damaged. Install a new wheel if tool was dropped. When installing a new wheel carefully handle individual cut off wheels to avoid chipping or cracking. Run the tool at no load for one minute, holding the tool in the direction away from people. Wheels with flaws will normally break apart during this time. Fragments from a wheel that bursts during operation will fly away at great velocity possibly striking you or bystanders.

Do not use a cut off wheel that is larger than the maximum recommended size for your tool, or worn down damaged wheels from larger abrasive cut off machines. Wheels intended for larger tools are not suitable for the higher speed of a smaller tool, these wheels may easily burst and the fragments strike you or bystanders.

Position the cord clear of the spinning wheel. Do not wrap the cord around your arm or wrist. If you lose control and have the cord wrapped around your arm or wrist, it may entrap you and cause injury.

Keep your body positioned to either side of the wheel, but not in line with the wheel. It is important to support the tool properly and to position your body such as to minimize body exposure from the possible wheel binding and the recoil of the tool.

Keep hands away from cutting area and wheel. Keep your second hand on auxiliary handle. Hold the machine firmly to prevent loss of control. NEVER place your hand behind the wheel since the machine may recoil over your hand. Do not attempt to remove cut material when wheel is moving. If both hands are holding the machine, they cannot be cut by the wheel

Do not "jam" the abrasive wheel into the work, apply excessive pressure or attempt to use large depths of cut while using this machine. Let the rotating wheel do the work, Abrasive Cut Off Machines are intended to "cut" the material in a series of shallow depth of cuts. See the instructions for depth of cut later in this manual.

Avoid bouncing and snagging the wheel, especially when working corners, sharp edges etc. This can cause loss of control and machine's recoil.

Do not run the machine while carrying it at your side. Accidental contact with the spinning wheel could result in serious personal injury.

Never lay the tool down until the motor has come to a complete standstill. The spinning wheel can grab the surface and pull the tool out of your control.

Do not use the abrasive cut off machine near flammable materials. Sparks from the wheel could ignite these materials.

Never cut or attempt to cut magnesuum with this tool. The dust generated when cutting magnesuum is highly flammable and may be explosive under certain conditions.

Regularly clean the tool's air vents by compressed air. Excessive accumulation of powdered metal inside the motor housing may cause electrical failures.

Causes and Operator Prevention of Recoil:
Recoil *is a sudden reaction to a pinched, bound or misaligned rotating wheel. The wheel may stall and cause an uncontrolled machine to* ***back out*** *of the kerf toward the operator when the machine is in the "fire forward" position, if the machine is set in the "reverse fire" position the machine may tend to* ***walk away*** *from the operator.*

If an abrasive wheel or diamond wheel becomes twisted or misaligned in the cut, the side of the wheel that is entering into the material can dig into the top surface of the material causing the wheel to ***climb out or recoil out*** *of the kerf either toward or away from the operator, depending on the* ***fire forward or reverse fire*** *orientation.*

Abrasive wheels may also shatter under these conditions causing pieces or fragments to strike or impale the operator and bystanders. Recoil or shattered wheels are the result of tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below:

Maintain a firm grip with both hands on the machine handles and position your body and arm to allow you to resist *recoil* forces. *Recoil* forces can be controlled by the operator, if proper precautions are taken.

When wheel is binding, or when interrupting a cut for any reason, release the trigger and hold the machine motionless in the material until the wheel comes to a complete stop. Never attempt to remove the machine from the work while the wheel is in motion or *recoil* may occur. Investigate and take corrective action to eliminate the cause of wheel binding.

When restarting a machine in a workpiece, center the wheel in the kerf and check that the sides of the wheel are not engaged into the material. If wheel is binding, it may walk up or *recoil* from the workpiece as the machine is restarted.

Support large panels to minimize the risk of wheel pinching and *recoil*. Large panels tend to sag under their own weight. Supports must be placed under the panel on both sides, near the line of cut and near the edge of the panel.

Wheel depth adjusting locking levers/nuts must be tight and secure before making a cut. If depth adjustment shifts while cutting, it may cause binding and *recoil*. Using the machine with an excessive depth of cut setting increases loading on the unit and susceptibility to twisting of the wheel in the kerf. It also increases the surface area of the wheel available for pinching under wheel twisting conditions or misalignment.

Use extra caution when making a "Pocket Cut" into existing walls or other blind areas. The protruding wheel may cut objects that can cause *recoil*.

⚠ WARNING 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 paints,
- 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.

Assembly

⚠ WARNING To prevent serious personal injury, always disconnect the plug from power source before changing wheels, or making any adjustments.

INSTALLING ABRASIVE WHEELS

Always use the arbor nut that has same thread size as spindle.

1. Install inner flange onto spindle, with recess in back side of flange engaging matching area on spindle.
2. Install abrasive wheel onto spindle.
3. Install outer flange with flat side out.
4. Thread arbor nut provided onto spindle finger tight, depress spindle lock and tighten wheel with the wrench provided.

⚠ WARNING Do not overtighten. Cracks in the wheel can occur if overtightened.

⚠ CAUTION Do not depress spindle lock while the tool is running.

Operating Instructions

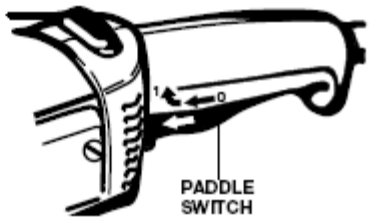
⚠ WARNING Always use wheel guard, foot plate and auxiliary handle with this abrasive cut off machine.

PADDLE SWITCH WITH "LOCK-OFF" FEATURE

The Paddle Switch enables the operator to control switch functions of "Lock-OFF", and "ON/OFF".

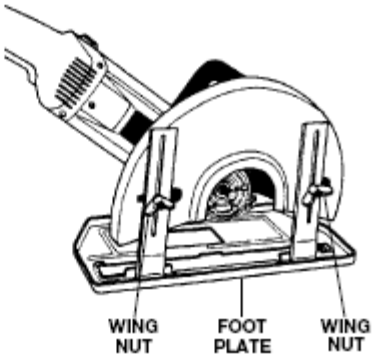
TO UNLOCK SWITCH AND TURN TOOL "ON": Push the paddle lever FORWARD (toward the spindle) then squeeze the paddle lever.

TO SWITCH TOOL "OFF": Release pressure on the paddle lever. The switch is spring loaded and will return to "OFF" position automatically.



SIDE HANDLE

The side handle, used to guide and balance the tool can be bolted to either side of the spindle housing depending on personal preference and comfort. Always use the side handle for maximum control and ease of operation.



ADJUSTING DEPTH OF CUT

Loosen wing nuts, raise or lower foot plate to desired depth, and securely tighten wing nuts by hand.

⚠ WARNING To prevent recoil and damage to the tool, always adjust the foot plate to a depth of so the inner or outer flanges never contacts the workpiece surface.

OPERATING THE TOOL

Following a few simple tips will reduce wear on the tool and it will reduce the chance of injury to the operator.

⚠ WARNING **This machine is not intended to be used with Wet Diamond Wheels.** Using water or other liquid coolants with this machine may result in electrocution or shock. Use of Dry Diamond Wheels is acceptable.

APPLICATIONS

This tool is intended for cutting the following materials.

1/8˝ maximum thick sheet steel.

Concrete cinder blocks and bricks.

Reinforcing rod-generally under 3/4˝ diameter.

1/8˝ concrete wire mesh.

Corrugated floor and ceiling forms (concrete forms).

Electrical conduit 1/8˝ wall thickness.

1/8" maximum thick structural forms such as: channels, angles, plate and etc.

ABRASIVE WHEELS

Use aluminum oxide wheels for cutting metal.

Use silicon carbide wheels for cutting masonry.

Use dry diamond wheels for cutting concrete. Dry diamond wheel stay cooler, clogs less and last longer.

1 Before running a cut-off machine, inspect the cutting wheel for chips or cracks. Replace bad wheels immediately. New wheels should be run in at no load or at least a minute in direction away from the presence of other people. Imperfect wheels will normally break apart during this time.

2. An abrasive cut-off machine must NEVER be operated without the attached guard secured in place. The guard should be rotated into the position where maximum protection is provided for the operator from sparks and wheel periphery.

3. Proper apparel for operating the tool includes eye protection, leather gloves, dust mask and a shop apron.

4. With the tool in the "OFF" position, become familiar with handling the tool. Control the head of the tool with the side handle. Control the cutting edge of the wheel with the switch handle. Always use both hands when operating the tool.

5. Never drop the tool. Set the tool down gently, but never on the wheel.

6. CUTTING CONCRETE will throw large amounts of dust into the surrounding area.

Protective dust masks are strongly recommended for breathing protection for the operator and other nearby workers.

7. Due to the size and weight of the cut-off machine it is not recommended to be used overhead or in any position that would not allow proper control. Ladders or scaffolding are not considered solid support structures.

8. Avoid overloading tool. Do not allow the wheel to bind or stall. Many cuts, especially into solid concrete, require successive passes. Do not expose any more abrasive wheel than necessary to cut with normal amount of pressure applied to tool. Begin cutting from the edge of the material, starting with about 1" wheel exposed. Do not force the tool; load it normally. Depending on material hardness and density, make successively deeper passes until cut is complete.

FIRE FORWARD/FIRE REVERSE

Models 1364 & 1365 are shipped with abrasive Cutoff Machine set up in fire forward position. Both can be easily converted to fire reverse position without any additional accessories.

Fire forward position directs sparks, dust and debris away from the operator.

Fire reverse position changes direction of rotation so sparks, dust and debris are thrown toward the operator.

The proper fire position depends on how the tool is being held, direction of travel, and personal preference. Always remember the reason for this feature is to direct sparks, dust and debris away from the operator.

FIRE REVERSE APPLICATIONS

Below are a few examples of when you may want to change your tool to the reverse fire position.

- When cutting in a vertical position to direct debris toward your feet instead of you face.
- When pulling the tool through the workpiece instead of pushing the tool.
- When working in confined areas close to a wall.
- Personal comfort.