

MITER SAW SAFETY

(Reviewed 9/27/2007)

1. Tool Use and Care

- **Use clamps or other practical way to secure and support the work piece to a stable platform.** Holding the work by hand or against you body is unstable. It allows for work to shift, causes binding of the tool and loss of control.
- **Do not force tool. Use correct tool for you application.** The correct tool will do the job better and safer at the rate for which it is designed. Do not use the tool for purposes not intended – for example; do not use the miter saw for slicing meat.
- **Do not use tool if switch does not turn it “ON” or “OFF”.** Any tool that cannot be controlled with the switch is dangerous.
- **Disconnect the plug from the power source before making any adjustments for changing accessories.** Such prevention safety measures reduce the risk of starting the tool accidentally.
- **Keep cutting tools sharp and clean.** Properly maintained tools, with sharp cutting edges, are less likely to bind and easier to control. When mounting saw blades be certain that the arrow on the blade matches the direction of the arrow marked on the tool and that the teeth are also pointing in the same direction.
- **Inspect guards before using.** Keep guards in place. Check moving parts for binding or any other condition that may affect the normal operation of safety features of the tool. If damaged, have tool serviced before using the tool. Many accidents are caused by poorly maintained tools.
- **Do not alter or misuse tool.** Any alteration or modification is a misuse and may result in serious personal injury.
- **The use of any other accessories not specified may create a hazard.** Accessories that may be suitable for one type of tool may become hazardous when used on an inappropriate tool.
- **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel may result in misplacing internal wires and components which could cause serious hazard.

- **When servicing a tool, use only identical replacement parts.** Follow instructions as found in the manual accompanying the tool. Use of unauthorized parts or failure to follow maintenance instructions may create a hazard.

2. Safety Rules For Miter Saws

- **Use clamps to support workpiece whenever possible.** If supporting the workpiece by hand, you must always keep hand outside of “No Hand” area. Do not use this saw to cut pieces that are too small to be securely clamped. Your hand if placed inside the “No Hand” region can easily slip or be pulled into the blade.
- **Do not reach in back of the saw blade behind the fence with either hand to hold down or support the workpiece, or remove wood scraps, or for any other reason.** The proximity of the spinning saw blade to your hand may not be obvious and you may be seriously injured.
- **Never cross your hand over intended line of cutting.** Supporting the workpiece “cross-handed” i.e. holding the left side of the workpiece with your right hand is very dangerous.
- **Always disconnect the power cord from the power source before making any adjustments or attaching any accessories.** You may unintentionally start the saw, leading to serious personal injury.
- **Miter saws are intended to cut wood or wood like products, they cannot be used with abrasive cutoff wheels for cutting ferrous materials such as bars, rods, studs, etc.** However, if cutting materials like aluminum or other non-ferrous metals, use only saw blades specifically recommended for non-ferrous metal cutting. Cutting ferrous materials causes excessive sparking and will damage the lower guard and will overload the motor.
- **Inspect your workpiece before cutting.** If workpiece is bowed or warped, clamp it with the outside bowed face toward the fence. Always make certain that there is no gap between the workpiece, fence and table along the line of cut. Bent or warped workpieces can twist or rock and may cause binding on the spinning saw blade while cutting. Also, make sure there are no nails or foreign objects in the workpiece.
- **Do not use the saw until the table is clear of all tools, wood scraps, etc., except the workpiece.** Small debris or loose pieces of wood or other objects that contact the revolving blade can be thrown with high speed at the operator.

- **Do not feed workpiece into the blade or cut “freehand” in any way. Workpiece must be stationary and clamped or braced by your hand.** Saw must be fed through the workpiece smoothly and at a rate which will not overload the saw’s motor.
- **Cut only one piece at a time.** Multiple workpieces cannot be adequately clamped or braced and may bind on the blade or shift during cutting.
- **Be certain the miter saw is mounted or placed on a level, firm work surface before using.** A level and firm work surface reduces the risk of the miter saw becoming unstable.
- **Plan your work.** Provide adequate support accessories such as tables; saw horses, table extensions, etc. for workpieces wider or longer than the table top. Workpieces longer or wider than the miter saw table can tip if not securely supported. If the cutoff piece or workpiece tips it can lift the lower guard or be thrown by the spinning blade.
- **Do not use another person as a substitute for a table extension or as additional support.** Unstable support for the workpiece can cause the blade to bind or the workpiece to shift during the cutting operation pulling you and the helper into the spinning blade.
- **The cutoff piece must not be jammed against or pressured by any other means against the spinning saw blade.** If confined, i.e. using length stops, it could get wedged against the blade and thrown violently.
- **Always use a clamp or a fixture designed to properly support round material such as dowel rods, or tubing.** Rods have a tendency to roll while being cut, causing the blade to “bite” and pull the work with your hand into the blade.
- **When cutting irregularly shaped workpieces, plan your work so it will not slip and pinch the blade and be torn from your hand.** A piece of molding, for example, must lie flat or be held by a fixture or jig that will not let it twist, rock or slip while being cut.
- **Let the blade reach full speed before contracting the workpiece.** This will help avoid thrown workpieces.
- **If the workpiece or blade becomes jammed or bogged down, turn miter saw “OFF” by releasing the switch.** Wait for all moving parts to stop and unplug the miter saw, then work to free the jammed material. Continued sawing with jammed workpiece could cause loss of control or damage to miter saw.

- **Breaking action of the saw causes the saw head to jerk downward.** Be ready for this reaction when making an incomplete cut or releasing the switch before the head is completely in the down position.
- **After finishing the cut, release the switch, hold the saw arm down and wait for blade to stop before removing work or cutoff piece.** If blade does not stop within five (5) seconds, unplug the saw. REACHING WITH YOUR HAND UNDER A COASTING BLADE IS DANGEROUS!
- **For slide action cutting, first PULL saw head assembly away from the fence, until blade clears the workpiece or to its maximum extension if blade cannot clear the workpiece.** Make certain the clamp does not interfere with the guard and head assembly. Second, turn the saw “ON” and lower the saw to the table. Then PUSH saw through the workpiece. Release the switch and wait for the blade to completely stop before raising the head assembly and removing the workpiece. Never “PULLCUT” since blade may climb the workpiece causing KICKBACK.
- **For chop action cutting, slide the head assembly to the rear as far as it will go and tighten slide lock knob.** Then turn the saw “ON” and lower the head assembly to make the cut. Release the switch and wait for the blade to completely stop before raising the head assembly and removing the workpiece. Failure to tighten the slide knob can cause the blade to suddenly climb up on the top of the workpiece and force itself toward you.

3. Body And Hand Position

- Position your body and hands properly to make cutting easier and safer. Observe the following instructions.
 - A. Never place hands near cutting area. Keep hands outside the “No Hands” zone.
 - B. The “No Hands” zone is defined as the area between marked lines on the left and right side of the base, including the entire table and portions of the fence within these marked lines. This zone may be labeled by “No Hands” symbols placed just inside the marked lines on the base.
 - C. Hold workpiece firmly to the fence to prevent movement.
 - D. Keep hands in position until trigger has been released and blade has stopped completely.
 - E. Never Place hands on slide rails.

- The lower guard may not automatically open under certain cutting conditions. If this occurs:
 - A. Typically this may occur when trying to cut workpieces that are near the maximum cutting height capacity. Under these conditions, the workpiece can stop the lower guard movement before the downward motion of the arm could pre-open the lower guard.
 - B. If this occurs, the workpiece must be securely clamped. This frees a hand to raise the guard by the lip just enough to clear the workpiece.
 - C. Start the saw and begin your cut.
 - D. Once you have cleared the position where the lower guard may bind, release the guard and it will continue to operate automatically as you cut.