

DEWALT®



**Instruction Manual
Guide D'utilisation
Manual de instrucciones**

DWS780

12" (305 mm) Double Bevel Sliding Compound Miter Saw

Scie coulissante à onglet mixte 305 mm (12 po)

Sierra ingletadora compuesta deslizante de doble bisel de 305 mm (12")

www.DEWALT.com

**If you have questions or comments, contact us.
Pour toute question ou tout commentaire, nous contacter.
Si tiene dudas o comentarios, contáctenos.**

1-800-4-DEWALT

English <i>(original instructions)</i>	1
Français <i>(traduction de la notice d'instructions originale)</i>	15
Español <i>(traducido de las instrucciones originales)</i>	30



Definitions: Safety Alert Symbols and Words

This instruction manual uses the following safety alert symbols and words to alert you to hazardous situations and your risk of personal injury or property damage.



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**.



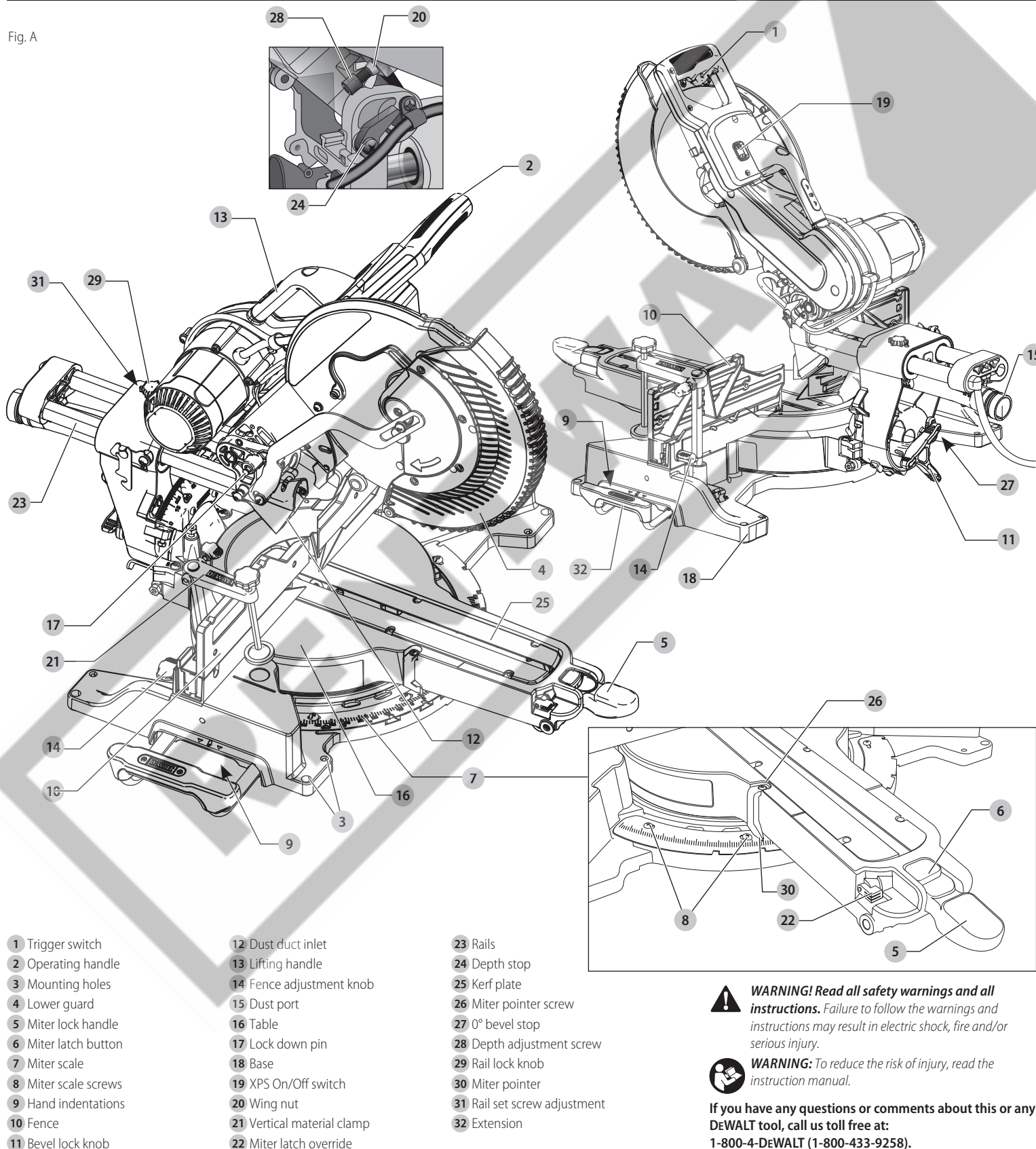
CAUTION: Indicates a potentially hazardous situation which, if not avoided, **may** result in **minor or moderate injury**.



(Used without word) Indicates a safety related message.

NOTICE: Indicates a practice **not related to personal injury** which, if not avoided, **may** result in **property damage**.

Fig. A



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



WARNING: To reduce the risk of injury, read the instruction manual.

If you have any questions or comments about this or any DEWALT tool, call us toll free at: 1-800-4-DEWALT (1-800-433-9258).

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.

1) Work Area Safety

- a) **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- b) **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.
- c) **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

2) Electrical Safety

- a) **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.
- b) **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.
- c) **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- d) **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.
- e) **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.
- f) **If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply.** Use of a GFCI reduces the risk of electric shock.

3) Personal Safety

- a) **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.
- b) **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) **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.
- d) **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.
- e) **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- f) **Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewelry or long hair can be caught in moving parts.
- g) **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.
- h) **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.

4) Power Tool Use and Care

- a) **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.
- b) **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.
- c) **Disconnect the plug from the power source and/or the battery pack 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.
- d) **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.
- e) **Maintain power tools. 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.

- f) **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g) **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 situations.
- h) **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.

5) Service

- a) **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.

Safety Instructions for Miter Saws

- a) **Miter saws are intended to cut wood or wood-like products, they cannot be used with abrasive cut-off wheels for cutting ferrous material such as bars, rods, studs, etc.** Abrasive dust causes moving parts such as the lower guard to jam. Sparks from abrasive cutting will burn the lower guard, the kerf insert and other plastic parts.
- b) **Use clamps to support the workpiece whenever possible. If supporting the workpiece by hand, you must always keep your hand at least 4" (100 mm) from either side of the saw blade. Do not use this saw to cut pieces that are too small to be securely clamped or held by hand.** If your hand is placed too close to the saw blade, there is an increased risk of injury from blade contact.
- c) **The workpiece must be stationary and clamped or held against both the fence and the table. Do not feed the workpiece into the blade or cut "freehand" in any way.** Unrestrained or moving workpieces could be thrown at high speeds, causing injury.
- d) **Push the saw through the workpiece. Do not pull the saw through the workpiece. To make a cut, raise the saw head and pull it out over the workpiece without cutting, start the motor, press the saw head down and push the saw through the workpiece.** Cutting on the pull stroke is likely to cause the saw blade to climb on top of the workpiece and violently throw the blade assembly towards the operator.
- e) **Never cross your hand over the intended line of cutting either in front or behind the saw blade.** Supporting the workpiece "cross handed" i.e. holding the workpiece to the right of the saw blade with your left hand or vice versa is very dangerous.
- f) **Do not reach behind the fence with either hand closer than 4" (100 mm) from either side of the saw blade, to remove wood scraps, or for any other reason while the blade is spinning.** The proximity of the spinning saw blade to your hand may not be obvious and you may be seriously injured.
- g) **Inspect your workpiece before cutting. If the 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 the cut. Bent or warped workpieces can twist or shift and may cause binding on the spinning saw blade while cutting.** There should be no nails or foreign objects in the workpiece.
- h) **Do not use the saw until the table is clear of all tools, wood scraps, etc., except for the workpiece.** Small debris or loose pieces of wood or other objects that contact the revolving blade can be thrown with high speed.
- i) **Cut only one workpiece at a time.** Stacked multiple workpieces cannot be adequately clamped or braced and may bind on the blade or shift during cutting.
- j) **Ensure the miter saw is mounted or placed on a level, firm work surface before use.** A level and firm work surface reduces the risk of the miter saw becoming unstable.
- k) **Plan your work. Every time you change the bevel or miter angle setting, make sure the fence will not interfere with the blade or the guarding system.** Without turning the tool "ON" and with no workpiece on the table, move the saw blade through a complete simulated cut to assure there will be no interference or danger of cutting the fence.
- l) **Provide adequate support such as table extensions, saw horses, etc. for a workpiece that is wider or longer than the table top.** Workpieces longer or wider than the miter saw table can tip if not securely supported. If the cut-off piece or workpiece tips, it can lift the lower guard or be thrown by the spinning blade.
- m) **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.
- n) **The cut-off piece must not be jammed or pressed by any means against the spinning saw blade.** If confined, i.e. using length stops, the cut-off piece could get wedged against the blade and thrown violently.
- o) **Always use a clamp or a fixture designed to properly support round material such as 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.
- p) **Let the blade reach full speed before contacting the workpiece.** This will reduce the risk of the workpiece being thrown.
- q) **If the workpiece or blade becomes jammed, turn the miter saw off. Wait for all moving parts to stop and disconnect the plug from the power source and/or remove the battery pack. Then work to free the jammed material.** Continued sawing with a jammed workpiece could cause loss of control or damage to the miter saw.

- r) **After finishing the cut, release the switch, hold the saw head down and wait for the blade to stop before removing the cut-off piece.** Reaching with your hand near the coasting blade is dangerous.
- s) **Hold the handle firmly when making an incomplete cut or when releasing the switch before the saw head is completely in the down position.** The braking action of the saw may cause the saw head to be suddenly pulled downward, causing a risk of injury.

Additional Safety Rules for Miter Saws

- WARNING:** Do not allow familiarity (gained from frequent use of your saw) to replace safety rules. Always remember that a careless fraction of a second is sufficient to inflict severe injury.
- WARNING:** Never modify the power tool or any part of it. Damage or personal injury could result.
- DO NOT OPERATE THIS MACHINE** until it is completely assembled and installed according to the instructions. A machine incorrectly assembled can cause serious injury.
 - OBTAIN ADVICE** from your supervisor, instructor, or another qualified person if you are not thoroughly familiar with the operation of this machine. Knowledge is safety.
 - FOLLOW ALL WIRING CODES** and recommended electrical connections to prevent shock or electrocution. Protect electric supply line with at least a 15 ampere time-delay fuse or a circuit breaker.
 - MAKE CERTAIN** the blade rotates in the correct direction. The teeth on the blade should point in the direction of rotation as marked on the saw.
 - TIGHTEN ALL CLAMP HANDLES**, knobs and levers prior to operation. Loose clamps can cause parts or the workpiece to be thrown at high speeds.
 - BE SURE** all blade and blade clamps are clean, recessed sides of blade clamps are against blade and arbor screw is tightened securely. Loose or improper blade clamping may result in damage to the saw and possible personal injury.
 - DO NOT OPERATE ON ANYTHING OTHER THAN THE DESIGNATED VOLTAGE** for the saw. Overheating, damage to the tool and personal injury may occur.
 - DO NOT WEDGE ANYTHING AGAINST THE FAN** to hold the motor shaft. Damage to tool and possible personal injury may occur.
 - NEVER CUT FERROUS METALS** or masonry. Either of these can cause the carbide tips to fly off the blade at high speeds causing serious injury.
 - NEVER PLACE HANDS CLOSER THAN 4" (100 mm) FROM THE BLADE.**
 - NEVER HAVE ANY PART OF YOUR BODY IN LINE WITH THE PATH OF THE SAW BLADE.** Personal injury will occur.
 - NEVER APPLY BLADE LUBRICANT TO A RUNNING BLADE.** Applying lubricant could cause your hand to move into the blade resulting in serious injury.
 - DO NOT** place either hand in the blade area when the saw is connected to the power source. Inadvertent blade activation may result in serious injury.
 - NEVER REACH AROUND OR BEHIND THE SAW BLADE.** A blade can cause serious injury.
 - DO NOT REACH UNDERNEATH THE SAW** unless it is unplugged and turned off. Contact with saw blade may cause personal injury.
 - SECURE THE MACHINE TO A STABLE SUPPORTING SURFACE.** Vibration can possibly cause the machine to slide, walk, or tip over, causing serious injury.
 - USE ONLY CROSSCUT SAW BLADES** recommended for miter saws. For best results, do not use carbide tipped blades with hook angles in excess of 7 degrees. Do not use blades with deep gullets. These can deflect and contact the guard, and can cause damage to the machine and/or serious injury.
 - USE ONLY BLADES OF THE CORRECT SIZE AND TYPE** specified for this tool to prevent damage to the machine and/or serious injury.
 - INSPECT BLADE FOR CRACKS** or other damage prior to operation. A cracked or damaged blade can come apart and pieces can be thrown at high speeds, causing serious injury. Replace cracked or damaged blades immediately.
 - CLEAN THE BLADE AND BLADE CLAMPS** prior to operation. Cleaning the blade and blade clamps allows you to check for any damage to the blade or blade clamps. A cracked or damaged blade or blade clamp can come apart and pieces can be thrown at high speeds, causing serious injury.
 - DO NOT USE WARPED BLADES.** Check to see if the blade runs true and is free from vibration. A vibrating blade can cause damage to the machine and/or serious injury.
 - DO NOT** use lubricants or cleaners (particularly spray or aerosol) in the vicinity of the plastic guard. The polycarbonate material used in the guard is subject to attack by certain chemicals.
 - KEEP GUARD IN PLACE** and in working order.
 - ALWAYS USE THE KERF PLATE AND REPLACE THIS PLATE WHEN DAMAGED.** Small chip accumulation under the saw may interfere with the saw blade or may cause instability of workpiece when cutting.
 - USE ONLY BLADE CLAMPS SPECIFIED FOR THIS TOOL** to prevent damage to the machine and/or serious injury.
 - CLEAN THE MOTOR AIR SLOTS** of chips and sawdust. Clogged motor air slots can cause the machine to overheat, damaging the machine and possibly causing a short which could cause serious injury.
 - NEVER LOCK THE SWITCH IN THE "ON" POSITION.** Severe personal injury may result.

- NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
- ADDITIONAL INFORMATION** regarding the safe and proper operation of power tools (i.e., a safety video) is available from the Power Tool Institute, 1300 Sumner Avenue, Cleveland, OH 44115-2851 (www.powertoolinstitute.com). Information is also available from the National Safety Council, 1121 Spring Lake Drive, Itasca, IL 60143-3201. Please refer to the American National Standards Institute ANSI 01.1 Safety Requirements for Woodworking Machines and the U.S. Department of Labor OSHA 1910.213 Regulations.

WARNING: Cutting plastics, sap coated wood, and other materials may cause melted material to accumulate on the blade tips and the body of the saw blade, increasing the risk of blade overheating and binding while cutting.

WARNING: ALWAYS use safety glasses. Everyday eyeglasses are NOT safety glasses. Also use face or dust mask if cutting operation is dusty. **ALWAYS WEAR CERTIFIED SAFETY EQUIPMENT:**

- ANSI Z87.1 eye protection (CAN/CSA Z94.3),
- ANSI S12.6 (S3.19) hearing protection,
- NIOSH/OSHA/MSHA respiratory protection.

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 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.

- 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, eyes, or lay on the skin may promote absorption of harmful chemicals.

WARNING: Use of this tool can generate and/or disperse dust, which may cause serious and permanent respiratory or other injury. Always use NIOSH/OSHA approved respiratory protection appropriate for the dust exposure. Direct particles away from face and body.

WARNING: Always wear proper personal hearing protection that conforms to ANSI S12.6 (S3.19) during use. Under some conditions and duration of use, noise from this product may contribute to hearing loss.

- Air vents often cover moving parts and should be avoided.** Loose clothes, jewelry or long hair can be caught in moving parts.
- An extension cord must have adequate wire size (AWG or American Wire Gauge) for safety.** The smaller the gauge number of the wire, the greater the capacity of the cable, that is, 16 gauge has more capacity than 18 gauge. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. When using more than one extension to make up the total length, be sure each individual extension contains at least the minimum wire size. The following table shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The lower the gauge number, the heavier the cord.

Minimum Gauge for Cord Sets

Volts	Total Length of Cord in Feet (meters)				
	25 (7.6)	50 (15.2)	100 (30.5)	150 (45.7)	200 (61.0)
120 V	25 (7.6)	50 (15.2)	100 (30.5)	150 (45.7)	200 (61.0)
240 V	50 (15.2)	100 (30.5)	200 (61.0)	300 (91.4)	
Ampere Rating		American Wire Gauge			
More Than	Not More Than				
0	6	18	16	16	14
6	10	18	16	14	12
10	12	16	16	14	12
12	16	14	12	Not Recommended	

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

V	 volts	~	or AC..... alternating current
Hz	 hertz	⎓	or AC/DC..... alternating or direct current
min	 minutes	□	 Class II Construction (double insulated)
—	or DC..... direct current	n ₀	 no load speed
Ⓢ	 Class I Construction (grounded)	n	 rated speed
.../min	 per minute	⊕	 earthing terminal
BPM	 beats per minute	⚠	 safety alert symbol
IPM	 impacts per minute	☀	 visible radiation
RPM	 revolutions per minute	☑	 wear respiratory protection
sfpm	 surface feet per minute	☑	 wear eye protection
SPM	 strokes per minute	☑	 wear hearing protection
A	 amperes	📖	 read all documentation
W	 watts		

For your convenience and safety, the following warning labels are on your miter saw.

ON MOTOR ENDCAP:

TO REDUCE THE RISK OF INJURY, USER MUST READ INSTRUCTION MANUAL. WEAR EYE PROTECTION AND RESPIRATORY PROTECTION. USE ONLY IDENTICAL REPLACEMENT PARTS. DO NOT EXPOSE TO RAIN OR USE IN DAMP LOCATIONS.

ON FENCE:

ALWAYS ADJUST FENCE PROPERLY BEFORE USE. CLAMP SMALL PIECES BEFORE CUTTING. SEE MANUAL.

ON GUARD:

DANGER—KEEP AWAY FROM BLADE.

ON UPPER GUARD:

PROPERLY SECURE BRACKET WITH BOTH SCREWS BEFORE USE.

ON TABLE: (2 PLACES)

WARNING: KEEP HANDS AND BODY OUT OF THE PATH OF THE SAW BLADE. CONTACT WITH BLADE WILL RESULT IN SERIOUS INJURY. DO NOT OPERATE SAW WITHOUT GUARDS IN PLACE. CHECK GUARDING SYSTEM TO MAKE SURE IT IS FUNCTIONING CORRECTLY. DO NOT PERFORM ANY OPERATION FREEHAND. NEVER REACH IN BACK OF SAW BLADE TURN OFF TOOL AND WAIT FOR SAW BLADE TO STOP BEFORE MOVING WORKPIECE OR CHANGING SETTINGS OR MOVING HANDS. NEVER CROSS ARMS IN FRONT OF BLADE. ALWAYS TIGHTEN ADJUSTMENT KNOBS BEFORE EACH USE. DISCONNECT POWER BEFORE CHANGING BLADE OR SERVICING.



ON TABLE: (2 PLACES)

Double Insulation

Double insulated tools are constructed throughout with two separate layers of electrical insulation or one single layer of reinforced insulation between you and the tool's electrical system. Tools built with this insulation system are not intended to be grounded. As a result, your tool is equipped with a two prong plug which permits you to use extension cords without concern for maintaining a ground connection.

NOTE: Double insulation does not take the place of normal safety precautions when operating this tool. The secondary insulation system is for protection against injury resulting from a possible failure of the primary insulation within the tool.

CAUTION: WHEN SERVICING USE ONLY IDENTICAL REPLACEMENT PARTS. Repair or replace damaged cords.

Polarized Plugs

Polarized plugs (one blade is wider than the other) are used on equipment to reduce the risk of electric shock. When provided, this plug will fit in the 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 the proper outlet. Do not change the plug in any way.

Electrical Connection

Be sure your power supply agrees with the nameplate marking. 120 volts, AC means that your saw will operate on alternating current only. A voltage decrease of 10 percent or more will cause a loss of power and overheating. All DeWALT tools are factory tested. If this tool does not operate, check the power supply.

Specifications

Capacity of cut

50° miter left and 60° miter right	
49° bevel left and right	
0° miter	
Max. Height 4.4" (112 mm)	Resulting Width 9.1" (231 mm)
Max. Width 13.75" (349 mm)	Resulting Height 3.0" (76 mm)
45° miter	
Max. Height 4.4" (112 mm)	Resulting Width 5.8" (147 mm)
Max. Width 9.6" (244 mm)	Resulting Height 3.0" (76 mm)
45° bevel - Left	
Max. Height 3.1" (79 mm)	Resulting Width 11.4" (290 mm)
Max. Width 13.75" (349 mm)	Resulting Height 1.7" (43 mm)
45° bevel - Right	
Max. Width 2.2" (56 mm)	Resulting Height 11.4" (290 mm)
Max. Height 13.75" (349 mm)	Resulting Width 1.1" (28 mm)

Your saw is capable of cutting baseboard moldings 0.75" (19 mm) thick by 6.5" (165 mm) tall on a 45° right or left miter.

Drive

120 Volt motor
15 Amp motor
3800 RPM
Cut helical gears
Multi-V belt
Carbide tooth blade
Automatic electric brake

Unpacking Your Saw

Check the contents of your miter saw carton to make sure that you have received all parts. In addition to this instruction manual, the carton should contain:

- 1 DWS780 miter saw
- 1 DeWALT 12" (305 mm) diameter saw blade

In bag:

- 2 Base extensions
- 2 Extension clamps
- 2 Washers
- 2 Wing nuts

In bag:

- 1 Blade wrench
- 1 Material clamp
- 1 Instruction manual

Intended Use

This heavy duty miter saw is designed for professional wood cutting applications.

DO NOT use under wet conditions or in presence of flammable liquids or gases.

This miter saw is a professional power tool. **DO NOT** let children come into contact with the tool. Supervision is required when inexperienced operators use this tool.

Familiarization (Fig. A, B)

Your miter saw is not fully assembled in the carton. Refer to the **Assembly** section for assembly instructions. Open the box and lift the saw out by the convenient carrying handle **13**, as shown in Figure B.

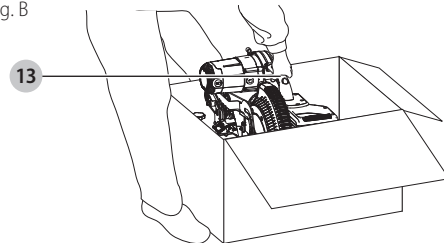
Place the saw on a smooth, flat surface such as a workbench or strong table.

Examine Figure A to become familiar with the saw and its various parts. The section on adjustments will refer to these terms and you must know what and where the parts are.

CAUTION: Pinch Hazard. To reduce the risk of injury, keep thumb underneath the handle when pulling the handle down. The lower guard will move up as the handle is pulled down which could cause pinching. The handle is placed close to the guard for special cuts.

Press down lightly on the operating handle **2** and pull lock down pin **17**. Gently release the downward pressure and hold the arm allowing it to rise to its full height. Use the lock down pin when carrying the saw from one place to another. Always use the lifting handle **13** to transport the saw or the hand indentations **9** shown in Figure A.

Fig. B



Bench Mounting (Fig. A)

Mounting holes **3** are provided in all 4 feet to facilitate bench mounting, as shown in Figure A. (Two different-sized holes are provided to accommodate different sizes of screws. Use either hole, it is not necessary to use both.) Always mount your saw firmly to a stable surface to prevent movement. To enhance the tool's portability, it can be mounted to a piece of 1/2" (12.7 mm) or thicker plywood which can then be clamped to your work support or moved to other job sites and reclamped.

NOTE: If you elect to mount your saw to a piece of plywood, make sure that the mounting screws don't protrude from the bottom of the wood. The plywood must sit flush on the work support. When clamping the saw to any work surface, clamp only on the clamping bosses where the mounting screw holes are located. Clamping at any other point will surely interfere with the proper operation of the saw.

CAUTION: To prevent binding and inaccuracy, be sure the mounting surface is not warped or otherwise uneven. If the saw rocks on the surface place a thin piece of material under one saw foot until the saw sits firmly on the mounting surface.

Transporting the Saw (Fig. A)

WARNING: To reduce the risk of serious personal injury, turn off the tool and disconnect it from the power source before attempting to move it, change accessories or make any adjustments.

WARNING: To reduce the risk of serious personal injury, always lock the rail lock knob 29, miter lock handle 5, bevel lock knob 11, lock down pin 17 and fence adjustment knobs 14 before transporting saw.

In order to conveniently carry the miter saw from place to place, a carrying handle 13 has been included on the top of the saw arm and hand indentations 9 in the base, as shown in Figure A. To transport the saw, lower the arm of the saw and press in the lock down pin 17 to secure the arm.

ASSEMBLY AND ADJUSTMENTS

WARNING: To reduce the risk of serious personal injury, turn unit off and disconnect it from power source before making any adjustments or removing/installing attachments or accessories. An accidental start-up can cause injury.

NOTE: Your miter saw is fully and accurately adjusted at the factory at the time of manufacture. If readjustment due to shipping and handling or any other reason is required, follow the steps below to adjust your saw.

Once made, these adjustments should remain accurate. Take a little time now to follow these directions carefully to maintain the accuracy of which your saw is capable.

Assembling the Base Extensions (Fig. C1, C2)

WARNING: Base extensions must be assembled to both sides of the saw's base before using the saw.

1. Locate the preassembled threaded stud 54 underneath the saw's base.
2. The extension 32 should be oriented as shown in Figure C2, sliding fully into the U-shaped supports, ensuring the bolt 61 is between the clamp and the outer edge of the base.
3. Clamp the extension's rods against the miter saw base by inserting the clamp 55 over the threaded stud 54, followed by the washer 56, and tightening the wing nut 33. Ensure the extension is secure by pulling on the extension to verify no movement.
4. Repeat steps 1 through 3 on the other side.

Fig. C1

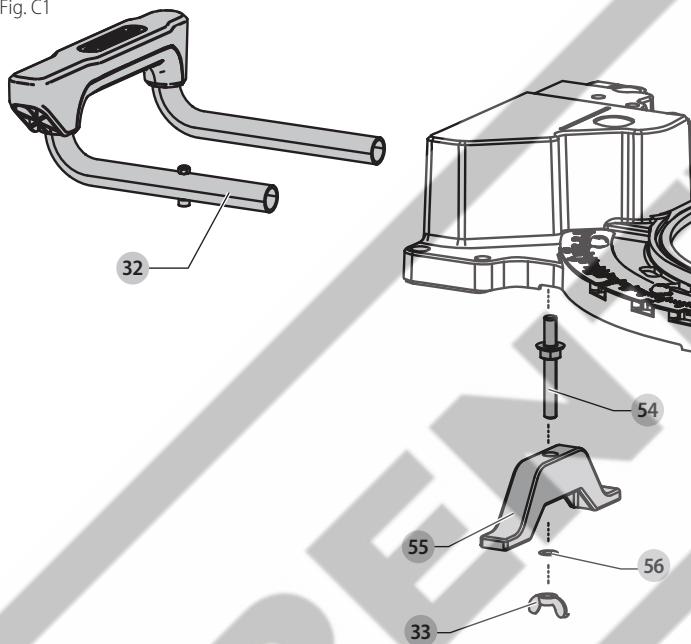
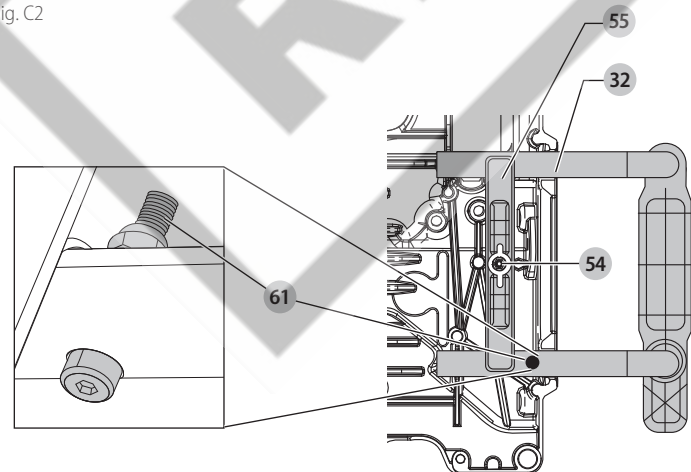


Fig. C2



Changing or Installing a New Saw Blade (Fig. A, D–F)

WARNING: To reduce the risk of serious personal injury, turn off the tool and disconnect it from the power source before attempting to move it, change accessories or make any adjustments.

CAUTION:

- Never depress the spindle lock button while the blade is under power or coasting.
- Do not cut ferrous metal (containing iron or steel) or masonry or fiber cement product with this miter saw.

Removing the Blade

1. Unplug the saw.
2. Raise the arm to the upper position and raise the lower guard 4 as far as possible.
3. Loosen, but do not remove guard bracket screw 58 until the bracket can be raised far enough to access the blade screw 34. Lower guard will remain raised due to the position of the guard bracket screw.
4. Depress the spindle lock button 35 while carefully rotating the saw blade by hand until the lock engages.
5. Keeping the button depressed, use the other hand and the blade wrench 36 provided to loosen the blade screw. (Turn clockwise, left-hand threads.)

Fig. D

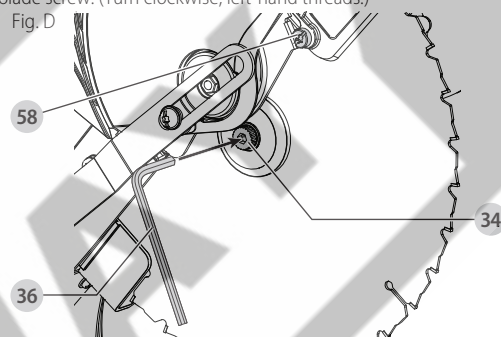
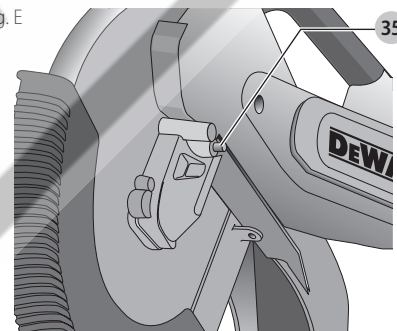


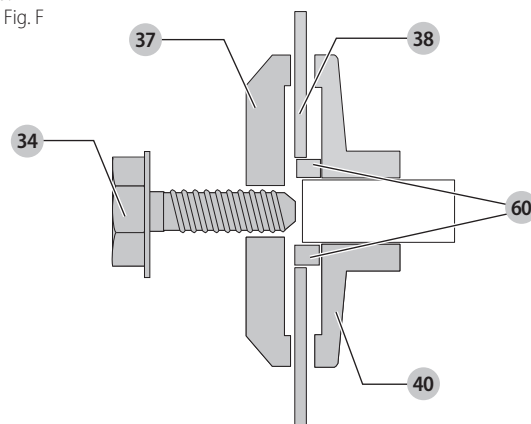
Fig. E



6. Remove the blade screw 34, outer blade clamp 37, and blade 38. The inner blade clamp 40 and if used, the 1" (25.4 mm) blade adapter, may be left on the spindle.

NOTE: For blades with a blade hole of 5/8" (15.88 mm), the 1" (25.4 mm) blade adapter 60 is not used.

Fig. F



Installing a Blade

1. Unplug the saw.
2. With the arm raised, the lower guard held open and the guard bracket raised, place the blade on the spindle, onto the blade adapter [if using a blade with a 1" (25.4 mm) diameter blade hole] and against the inner blade clamp with the teeth at the bottom of the blade pointing toward the back of the saw.
3. Assemble the outer blade clamp onto the spindle.

4. Install the blade screw **34** and, engaging the spindle lock, tighten the screw firmly with the blade wrench provided. (Turn counterclockwise, left-hand threads.)

NOTE: When using blades with a 5/8" (15.88 mm) diameter blade hole, the blade adapter **60** will not be used and should be stored in a safe place for future use.

5. Return the guard bracket to its original position and firmly tighten the guard bracket screw **58** to hold bracket in place.

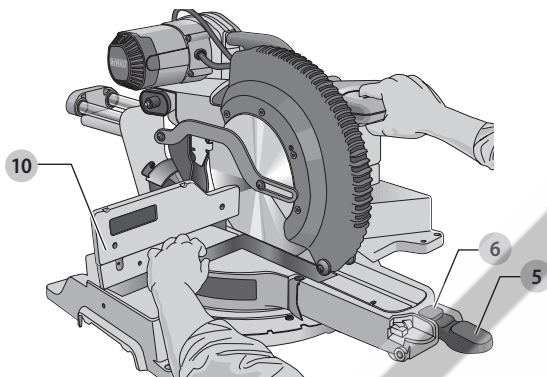
WARNING:

- The guard bracket must be returned to its original position and the screw tightened before activating the saw.
- Failure to do so may allow the guard to contact the spinning saw blade resulting in damage to the saw and severe personal injury.

Miter Scale Adjustment (Fig. A, G)

Unlock the miter lock handle **5** and swing the miter arm until the miter latch button **6** locks it at the 0° miter position. Do not lock the miter lock handle. Place a square against the saw's fence and blade, as shown. (Do not touch the tips of the blade teeth with the square. To do so will cause an inaccurate measurement.) If the saw blade is not exactly perpendicular to the fence **10**, loosen the four miter scale screws **8** that hold the miter scale and move the miter lock handle and the scale left or right until the blade is perpendicular to the fence, as measured with the square. Retighten the four screws. Pay no attention to the reading of the miter pointer at this time.

Fig. G



Miter Pointer Adjustment (Fig. A)

Unlock the miter lock handle **5** to move the miter arm to the zero position. With the miter lock handle unlocked, allow the miter latch to snap into place as you rotate the miter arm to zero. Observe the miter pointer **30** and miter scale **7** shown in Figure A. If the pointer does not indicate exactly zero, loosen the miter pointer screw **26** holding the pointer in place, reposition the pointer and tighten the screw.

Bevel Square to Table (Fig. A, H, I)

To align the blade square to the table **16**, lock the arm in the down position with the lock down pin **17**. Place a square against the blade, ensuring the square is not on top of a tooth. Loosen the bevel lock knob **11** and ensure the arm is firmly against the 0° bevel stop. Rotate the 0° bevel adjustment screw **41** with the 1/2" blade wrench as necessary so that the blade is at 0° bevel to the table.

Fig. H

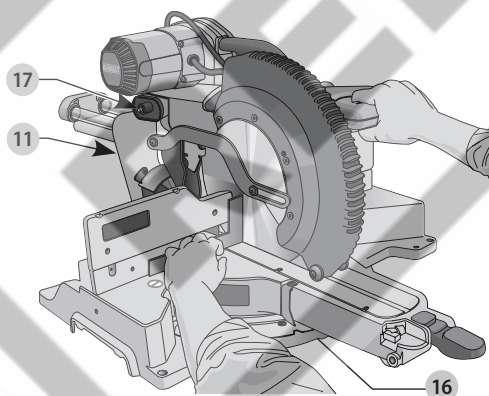
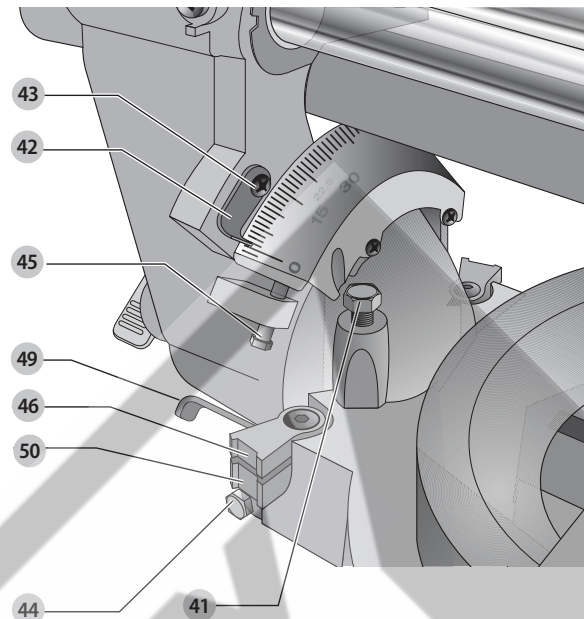


Fig. I



Bevel Pointer (Fig. I)

If the bevel pointer **42** does not indicate zero, loosen the screw **43** that holds it in place and move the pointer as necessary. Ensure the 0° bevel is correct and the bevel pointers are set before adjusting any other bevel angle screws.

Adjusting the Bevel Stop to 45° Left or Right (Fig. A, I)

To adjust the right 45° bevel angle, loosen the bevel lock knob **11** and pull the 0° bevel stop to override the 0° bevel stop. When the saw is fully to the right, if the bevel pointer does not indicate exactly 45°, turn the left 45° bevel adjustment screw **44** with the 1/2" blade wrench until the bevel pointer indicates 45°.

To adjust the left 45° bevel stop, first loosen the bevel lock knob and tilt the head to the left. If the bevel pointer does not indicate exactly 45°, turn the right 45° bevel adjustment screw **44** until the bevel pointer **42** reads 45°.

Adjusting the Bevel Stop to 22.5° (or 33.9°) (Fig. A, I)

NOTE: Adjust the bevel angles only after performing the 0° bevel angle and bevel pointer adjustment.

- To set the left 22.5° bevel angle, flip out the left 22.5° bevel pawl **46**. Loosen the bevel lock knob **11** and tilt the head fully to the left. If the bevel pointer does not indicate exactly 22.5°, turn the crown adjustment screw **45** contacting the pawl with a 7/16" wrench until the bevel pointer reads 22.5°.
- To adjust the right 22.5° bevel angle, flip out the right 22.5° bevel pawl. Loosen the bevel lock knob and pull the 0° bevel stop to override the 0° bevel stop. When the saw is fully to the right, if the bevel pointer does not indicate exactly 22.5°, turn the crown adjustment screw contacting the pawl with a 7/16" wrench until the bevel pointer indicates exactly 22.5°.

Fence Adjustment (Fig. A)

In order that the saw can bevel to many bevel positions, one of the fences may have to be adjusted to provide clearance. To adjust each fence, loosen the fence adjustment knob **14** and slide the fence outward. Make a dry run with the saw turned off and check for clearance. Adjust the fence to be as close to the blade as practical to provide maximum workpiece support, without interfering with arm up and down movement. Tighten the fence adjustment knob securely. When the bevel operations are complete, don't forget to relocate the fence.

For certain cuts, it may be desirable to bring the fences closer to the blade. To use this feature, back the fence adjustment knobs out two turns and move the fences closer to the blade past the normal limit, then tighten the fence adjustment knobs to keep the fences in this location. When using this feature, make a dry cut first to ensure the blade does not contact the fences.

NOTE: The tracks of the fences can become clogged with sawdust. If you notice that they are becoming clogged, use a brush or some low pressure air to clear the guide grooves.

Guard Actuation and Visibility (Fig. A, Z)

CAUTION: Pinch Hazard. To reduce the risk of injury, keep thumb underneath the handle when pulling the handle down. The lower guard will move up as the handle is pulled down which could cause pinching.

The lower guard **4** on your saw has been designed to automatically uncover the blade when the arm is brought down and to cover the blade when the arm is raised.

The guard can be raised by hand when installing or removing saw blades or for inspection of the saw. NEVER RAISE THE LOWER GUARD MANUALLY UNLESS THE BLADE IS STOPPED.

NOTE: Certain special cuts of large material will require that you manually raise the guard. Refer to **Cutting Large Material** under *Special Cuts*.

The front section of the guard is louvered for visibility while cutting. Although the louvers dramatically reduce flying debris, they are openings in the guard and safety glasses should be worn at all times when viewing through the louvers.

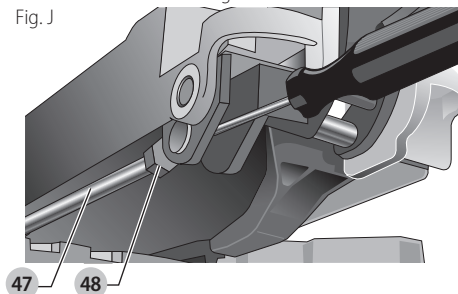
Rail Guide Adjustment (Fig. A)

Periodically check the rails **23** for any play or clearance. The right rail can be adjusted with the rail set screw **31** shown in Figure A. To reduce clearance, use a 4 mm hex wrench and rotate the rail set screw clockwise gradually while sliding the saw head back and forth. Reduce play while maintaining minimum slide force.

Miter Lock Adjustment (Fig. A, J)

The miter lock rod **47** should be adjusted if the table of the saw can be moved when the miter lock handle **5** is locked (down). To adjust the miter lock, put the miter lock handle in the unlocked (up) position. Using a 1/2" open end wrench, loosen the lock **48** nut on the miter lock rod. Using a slotted screwdriver, tighten the miter lock rod by turning it clockwise. Turn the lock rod until it is snug, then turn counterclockwise one turn. To ensure the miter lock is functioning properly, re-lock the miter lock to a non-detented measurement on the miter scale – for example, 34° – and make sure the table will not rotate. Tighten lock nut.

Fig. J



Controls

Your compound miter saw has several main controls, which will be discussed briefly here. For more information on these controls, see the respective sections later in the manual.

Miter Control (Fig. A)

The miter lock handle **5** and miter latch button **6** allow you to miter your saw to 60° right and 50° left. To miter the saw, lift the miter lock handle, push the miter latch button and set the miter angle desired on the miter scale **7**. Push down on the miter lock handle to lock the miter angle.

Trigger Switch (Fig. A)

The trigger switch **1** turns your saw on and off. A hole is provided in the trigger for insertion of a padlock to secure the saw.

Miter Latch Override (Fig. A)

The miter latch override **22** allows your saw to override the common stop angles. To override the common stop angles, push the miter latch button **6** and flip the miter latch override lever to the vertical position.

Bevel Lock Knob (Fig. A)

The bevel lock knob **11** allows you to bevel the saw 49° left or right. To adjust the bevel setting, turn the knob counterclockwise. The saw head bevels easily to the left or to the right once the 0° bevel override knob is pulled. To tighten, turn the bevel lock knob clockwise.

0° Bevel Override (Fig. A)

The bevel stop override allows you to bevel the saw to the right past the 0° mark. When engaged, the saw will automatically stop at 0° when brought up from the left. To temporarily move past 0° to the right, pull the bevel lock knob **11**. Once the knob is released, the override will be reengaged. The bevel lock knob can be locked out by twisting the knob 180°. When at 0°, the override locks in place. To operate the override, bevel the saw slightly to the left.

45° Bevel Stop Override (Fig. I)

There are two bevel stop override levers **49**, one on each side of the saw. To bevel the saw, left or right, past 45°, push the 45° bevel override lever rearward. When in the rearward position, the saw can bevel past these stops. When the 45° stops are needed, pull the 45° bevel override lever forward.

Crown Bevel Pawls (Fig. I)

When cutting crown molding laying flat, your saw is equipped to accurately and rapidly set a crown stop, left or right (refer to *Instructions for Cutting Crown Molding Laying Flat and Using the Compound Features*). The crown bevel pawl **50** can be rotated to contact the crown adjustment screw **45**. The saw is factory set to be used for typical crown in North America (52/38), but can be reversed to cut non-typical (45/45) crown. To reverse the crown bevel pawl, remove the retaining screw, the 22.5° bevel pawl and the 33.9° crown bevel pawl. Flip the crown bevel pawl so the 30° text is facing up. Reattach the screw to secure the 22.5° bevel pawl and the crown bevel pawl. The accuracy setting will not be affected.

22.5° Bevel Pawls (Fig. I)

Your saw is equipped to rapidly and accurately set a 22.5° bevel, left or right. The 22.5° bevel pawl **46** can be rotated to contact the crown adjustment screw.

Rail Lock Knob (Fig. A)

The rail lock knob **29** allows you to lock the saw head firmly to keep it from sliding on the rails. This is necessary when making certain cuts or when transporting the saw.

Depth Stop (Fig. A)

The depth stop **24** allows the depth of cut of the blade to be limited. The stop is useful for applications such as grooving and tall vertical cuts. Rotate the depth stop forward and adjust the depth adjustment screw **28** to set the desired depth of cut. To secure the adjustment, tighten the wing nut **20**. Rotating the depth stop to the rear of the saw will bypass the depth stop feature. If the depth adjustment screw is too tight to loosen by hand, the provided blade wrench can be used to loosen the screw.

Lock Down Pin (Fig. A)



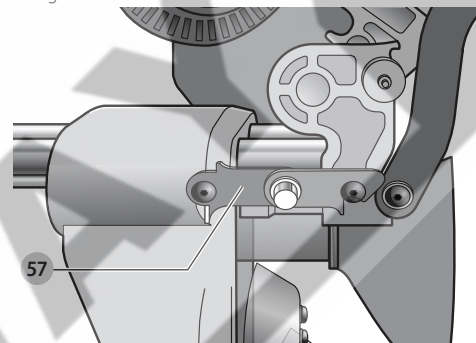
WARNING: The lock down pin should be used only when carrying or storing the saw. NEVER use the lock down pin for any cutting operation.

To lock the saw head in the down position, push the saw head down, push the lock down pin **17** in and release the saw head. This will hold the saw head safely down for moving the saw from place to place. To release, press the saw head down and pull the pin out.

Slide Lock Lever (Fig. K)

The slide lock lever **57** places the saw in a position to maximize cutting of base molding when cut vertically as shown in Figure K.

Fig. K



Automatic Electric Brake

Your saw is equipped with an automatic electric blade brake which stops the saw blade within 5 seconds of trigger release. This is not adjustable.

On occasion, there may be a delay after trigger release to brake engagement. On rare occasions, the brake may not engage at all and the blade will coast to a stop.

If a delay or "skipping" occurs, turn the saw on and off 4 or 5 times. If the condition persists, have the tool serviced by an authorized DeWALT service center.

Always be sure the blade has stopped before removing it from the kerf. The brake is not a substitute for guards or for ensuring your own safety by giving the saw your complete attention.

OPERATION



WARNING: To reduce the risk of serious personal injury, turn unit off and disconnect it from power source before making any adjustments or removing/installing attachments or accessories. An accidental start-up can cause injury.



WARNING: Always use eye protection. All users and bystanders must wear eye protection that conforms to ANSI Z87.1 (CAN/CSA Z94.3).

Plug the saw into any household 60 Hz power source. Refer to the nameplate for voltage. Be sure the cord will not interfere with your work.

Body and Hand Position (Fig. L1–L4)



WARNING: To reduce the risk of serious personal injury, ALWAYS use proper hand position as shown.



WARNING: To reduce the risk of serious personal injury, ALWAYS hold securely in anticipation of a sudden reaction.

Proper positioning of your body and hands when operating the miter saw will make cutting easier, more accurate and safer. Never place hands near cutting area. Place hands no closer than 4" (100 mm) from the blade. Hold the workpiece tightly to the table and the fence when cutting. Keep hands in position until the trigger has been released and the blade has completely stopped. ALWAYS MAKE DRY RUNS (UNPOWERED) BEFORE FINISH CUTS SO THAT YOU CAN CHECK THE PATH OF THE BLADE. DO NOT CROSS ARMS, AS SHOWN IN FIGURE L3.

Keep both feet firmly on the floor and maintain proper balance. As you move the miter arm left and right, follow it and stand slightly to the side of the saw blade. Sight through the guard louvers when following a pencil line.

Fig. L1

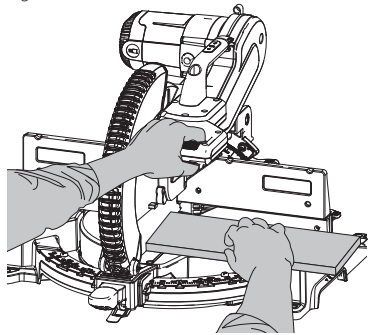


Fig. L2

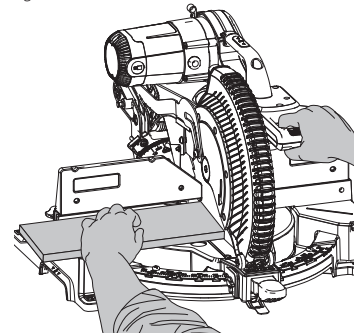
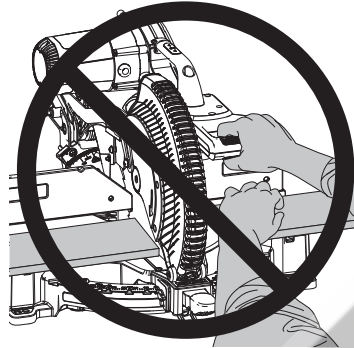


Fig. L3



Fig. L4

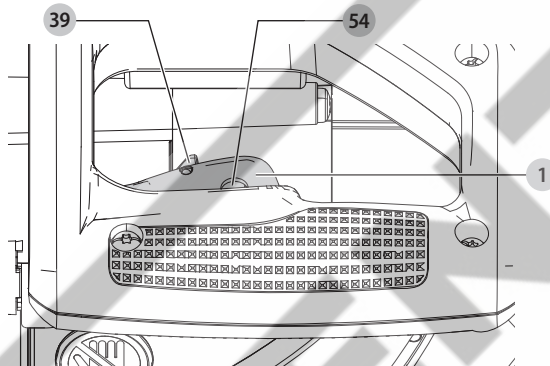


Trigger Switch (Fig. M)

To turn the saw on, push the lock-off lever **39** to the left, then depress the trigger switch **1**. The saw will run while the switch is depressed. Allow the blade to spin up to full operating speed before making the cut. To turn the saw off, release the switch. Allow the blade to stop before raising the saw head. There is no provision for locking the switch on. A hole **54** is provided in the trigger for insertion of a padlock to lock the switch off.

Always be sure the blade has stopped before removing it from the kerf.

Fig. M



Dust Extraction (Fig. N)

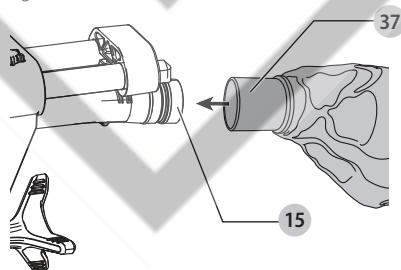
Your saw has a built-in dust port **15** that allows either the supplied dust bag or a shop vacuum system to be connected.

NOTE: This saw has a dust port equipped with an AirLock™ fitting, which is a universal system that connects tools to dust extraction shrouds to minimize cleanup on the jobsite.

To Attach the Dust Bag

1. Fit the dust bag **37** to the dust port **15** as shown in Figure N.

Fig. N



Use of XPS™ LED Worklight System (Fig. A)

NOTE: The miter saw must be connected to a power source.

The XPS™ LED Worklight System is equipped with an ON/OFF switch **19**. The XPS™ LED Worklight System is independent of the miter saw's trigger switch.

The light does not need to be on in order to operate the saw.

To cut through an existing pencil line on a piece of wood, turn on the XPS™ system, then pull down on the operating handle to bring the saw blade close to the wood. The shadow of the blade will appear on the wood. This shadow line represents the material that the blade will remove when performing a cut. To correctly locate your cut to the pencil line, align the pencil line with the edge of the blade's shadow. Keep in mind that you may have to adjust the miter or bevel angles in order to match the pencil line exactly.

Through-Cutting Operations (Fig. A)

If the slide feature is not used, ensure the saw head is pushed back as far as possible and the rail lock knob is tightened. This will prevent the saw from sliding along its rails as the workpiece is engaged.

NOTE: Although this saw will cut wood and many non-ferrous materials, we will limit our detailed discussion to the cutting of wood only. The same guidelines apply to the other materials. **DO NOT CUT FERROUS (IRON AND STEEL) MATERIALS OR MASONRY WITH THIS SAW.** Do not use any abrasive blades.

NOTE: Refer to **Guard Actuation and Visibility** in the **Adjustments** section for important information about the lower guard before cutting.

Crosscuts (Fig. A, O)

A crosscut is made by cutting wood across the grain at any angle. A straight crosscut is made with the miter arm at the zero degree position. Set and lock the miter arm at zero, hold the wood firmly on the table and against the fence. With the rail lock knob tightened, turn on the saw by squeezing the trigger switch **1** shown in Figure A.

When the saw comes up to speed (about 1 second) lower the arm smoothly and slowly to cut through the wood. Let the blade come to a full stop before raising arm.

When cutting anything larger than a 2 x 8 (51 x 203 mm [2 x 6 (51 x 152) at 45° miter]) use an out-down-back motion with the rail lock knob loosened. Pull the saw out, toward you, lower the saw head down toward the workpiece, and slowly push the saw back to complete the cut. Do not allow the saw to contact the top of the workpiece while pulling out. The saw may run toward you, possibly causing personal injury or damage to the workpiece.

Cutting of multiple pieces is not recommended but can be done safely by ensuring that each piece is held firmly against the table and fence.

NOTE: To provide greater crosscut capacity with reduced stroke, the blade on the DWS780 extends deeper into the table. As a result, a greater lifting force on the workpiece may be experienced during the cut.

CAUTION: Always use a work clamp to maintain control and reduce the risk of workpiece damage and personal injury, if your hands are required to be within 6" (152 mm) of the blade during the cut.

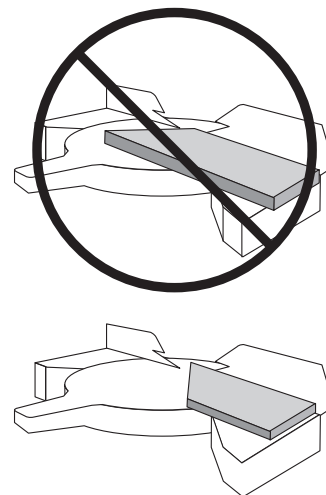
NOTE: The rail lock knob **29** shown in Figure A must be loose to allow the saw to slide along its rails **23**.

Miter crosscuts are made with the miter arm at some angle other than zero. This angle is often 45° for making corners, but can be set anywhere from zero to 50° left or 60° right. Make the cut as described above.

When performing a miter cut on workpieces wider than a 2 x 6 that are shorter in length, always place the longer side against the fence **10** (Figure O).

To cut through an existing pencil line on a piece of wood, match the angle as close as possible. Cut the wood a little too long and measure from the pencil line to the cut edge to determine which direction to adjust the miter angle and recut. This will take some practice, but it is a commonly used technique.

Fig. O



Bevel Cuts

A bevel cut is a crosscut made with the saw blade leaning at an angle to the wood. In order to set the bevel, loosen the bevel lock **11**, and move the saw to the left or right as desired. (It is necessary to move the fence to allow clearance.) Once the desired bevel angle has been

set, tighten the bevel lock firmly. Refer to the **Controls** section for detailed instructions on the bevel system.

Bevel angles can be set from 49° right to 49° left and can be cut with the miter arm set between 50° left or 60° right. At some extreme angles, the right or left side fence might have to be removed. To remove the left or right fence, unscrew the fence adjustment knob 14 several turns and slide the fence out.

NOTE: Refer to **Fence Adjustment** in the **Adjustments** section for important information on adjusting the fences for certain bevel cuts.

Quality of Cut

The smoothness of any cut depends on a number of variables. Things like material being cut, blade type, blade sharpness and rate of cut all contribute to the quality of the cut.

When smoothest cuts are desired for molding and other precision work, a sharp (60 tooth carbide) blade and a slower, even cutting rate will produce the desired results.

Ensure that the material does not move or creep while cutting; clamp it securely in place. Always let the blade come to a full stop before raising arm.

If small fibers of wood still split out at the rear of the workpiece, stick a piece of masking tape on the wood where the cut will be made. Saw through the tape and carefully remove tape when finished.

For varied cutting applications, refer to the list of recommended saw blades for your saw and select the one that best fits your needs. Refer to **Saw Blades** under **Accessories**.

Non-Through-Cutting (Grooving and Rabbeting)

Instructions in the **Crosscuts**, **Bevel Cuts** and **Cutting Compound Miters** sections are for cuts made through the full thickness of the material. The saw can also perform non-through cuts to form grooves or rabbets in the material.

Groove Cut (Fig. A)

Refer to **Depth Stop** for detailed instructions for setting depth of cut. A piece of scrap wood should be used to verify the desired depth of cut.

Hold the wood firmly on the table and against the fence 10. Align the cut area underneath the blade. Position the saw arm fully forward, with blade in down position. Turn on the saw by squeezing the trigger switch 1 shown in Figure A. Smoothly, push saw arm rearward to cut a groove through the workpiece.

Release the trigger switch with the saw arm down. When saw blade has completely stopped, raise the saw arm. Always let the blade come to a full stop before raising the arm.

To widen the groove, repeat steps 1–4 until the desired width is obtained.

Clamping the Workpiece (Fig. A)

WARNING: To reduce the risk of serious personal injury, turn off the tool and disconnect it from the power source before attempting to move it, change accessories or make any adjustments.

WARNING: A workpiece that is clamped, balanced and secure before a cut may become unbalanced after a cut is completed. An unbalanced load may tip the saw or anything the saw is attached to, such as a table or workbench. When making a cut that may become unbalanced, properly support the workpiece and ensure the saw is firmly bolted to a stable surface. Personal injury may occur.

WARNING: The clamp foot must remain clamped above the base of the saw whenever the clamp is used. Always clamp the workpiece to the base of the saw—not to any other part of the work area. Ensure the clamp foot is not clamped on the edge of the base of the saw.

CAUTION: Always use a work clamp to maintain control and reduce the risk of workpiece damage and personal injury.

If you cannot secure the workpiece on the table and against the fence by hand, (irregular shape, etc.) or your hand would be less than 4" (100 mm) from the blade, a clamp or other fixture must be used.

For best results use the vertical material clamp 21 provided with your saw. Additional DW7082 clamps can be purchased at your local retailer or DeWALT service center.

Other aids such as spring clamps, bar clamps or C-clamps may be appropriate for certain sizes and shapes of material. Use care in selecting and placing these clamps. Take time to make a dry run before making the cut. The left fence will slide from side to side to aid in clamping.

To Install Clamp (Fig. A)

1. Insert it into the hole behind the fence 10. The clamp should be facing toward the back of the miter saw. The groove on the clamp rod should be fully inserted into the base. Ensure this groove is fully inserted into the base of the miter saw. If the groove is visible, the clamp will not be secure.
2. Rotate the clamp 180° toward the front of the miter saw.
3. Loosen the knob to adjust the clamp up or down, then use the fine adjust knob to firmly clamp the workpiece.

NOTE: Place the clamp on the opposite side of the base when beveling. ALWAYS MAKE DRY RUNS (UNPOWERED) BEFORE FINISH CUTS TO CHECK THE PATH OF THE BLADE. ENSURE THE CLAMP DOES NOT INTERFERE WITH THE ACTION OF THE SAW OR GUARDS.

Support for Long Pieces

WARNING: To reduce the risk of serious personal injury, turn off the tool and disconnect it from the power source before attempting to move it, change accessories or make any adjustments.

ALWAYS SUPPORT LONG PIECES.

Never use another person as a substitute for a table extension; as additional support for a workpiece that is longer or wider than the basic miter saw table or to help feed, support or pull the workpiece.

For best results, use the DW7080 extension work support to extend the table width of your saw, available from your dealer at extra cost.

Support long workpieces using any convenient means such as sawhorses or similar devices to keep the ends from dropping.

Cutting Picture Frames, Shadow Boxes And Other Four-Sided Projects (Fig. P, Q)

To best understand how to make the items listed here, we suggest that you try a few simple projects using scrap wood until you develop a "feel" for your saw.

Your saw is the perfect tool for mitering corners like the one shown in Figure P. Sketch 1 in Figure Q shows a joint made by using the bevel adjustment to bevel the edges of the two boards at 45° each to produce a 90° corner. For this joint the miter arm was locked in the zero position and the bevel adjustment was locked at 45°. The wood was positioned with the broad flat side against the table and the narrow edge against the fence. The cut could also be made by mitering right and left with the broad surface against the fence.

Fig. P

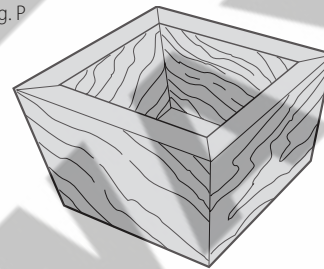
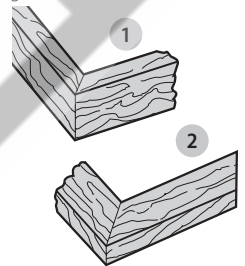


Fig. Q



Cutting Trim Molding And Other Frames (Fig. Q)

Sketch 2 in Figure Q shows a joint made by setting the miter arm at 45° to miter the two boards to form a 90° corner. To make this type of joint, set the bevel adjustment to zero and the miter arm to 45°. Once again, position the wood with the broad flat side on the table and the narrow edge against the fence.

The two sketches in Figure Q are for four-sided objects only.

As the number of sides changes, so do the miter and bevel angles. The chart below gives the proper angles for a variety of shapes.

– EXAMPLES –

NUMBER OF SIDES	MITER OR BEVEL ANGLE
4	45°
5	36°
6	30°
7	25.7°
8	22.5°
9	20°
10	18°

The chart assumes that all sides are of equal length. For a shape that is not shown in the chart, use the following formula: 180° divided by the number of sides equals the miter (if the material is cut vertically) or bevel angle (if the material is cut laying flat).

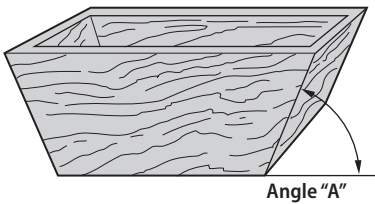
Cutting Compound Miters (Fig. R)

A compound miter is a cut made using a miter angle and a bevel angle at the same time. This is the type of cut used to make frames or boxes with slanting sides like the one shown in Figure R.

NOTE: If the cutting angle varies from cut to cut, check that the bevel lock knob and the miter lock handle are securely locked. These must be locked after making any changes in bevel or miter.

The chart at the end of this manual (Table 1) will assist you in selecting the proper bevel and miter settings for common compound miter cuts. To use the chart, select the desired angle A (Fig. R) of your project and locate that angle on the appropriate arc in the chart. From that point follow the chart straight down to find the correct bevel angle and straight across to find the correct miter angle.

Fig. R



Set your saw to the prescribed angles and make a few trial cuts. Practice fitting the cut pieces together until you develop a feel for this procedure and feel comfortable with it.

Example: To make a 4-sided box with 26° exterior angles (Angle A, Fig. R), use the upper right arc. Find 26° on the arc scale. Follow the horizontal intersecting line to either side to get miter angle setting on saw (42°). Likewise, follow the vertical intersecting line to the top or bottom to get the bevel angle setting on the saw (18°). Always try cuts on a few scrap pieces of wood to verify the settings on the saw.

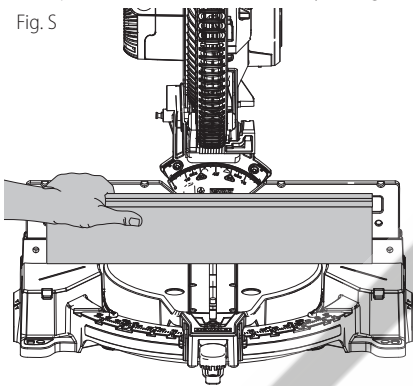
Cutting Base Molding (Fig. S)

ALWAYS MAKE A DRY RUN WITHOUT POWER BEFORE MAKING ANY CUTS.

Straight 90° cuts:

Position the wood against the fence and hold it in place as shown in Figure S. Turn on the saw, allow the blade to reach full speed and lower the arm smoothly through the cut.

Fig. S



Cutting Base Molding up to 6.75" (171 mm) Vertically Against the Fence (Fig. K, S)

NOTE: Use the slide lock lever, shown in Figure K, when cutting base molding measuring from 3" to 6.75" (76 mm to 171 mm) high vertically against the fence.

Position material as shown in Figure S.

All cuts should be made with the back of the molding against the fence and with the bottom of the molding against the table.

	Inside corner	Outside corner
Left side	1. Miter left 45° 2. Save left side of cut	1. Miter right 45° 2. Save left side of cut
Right side	1. Miter right 45° 2. Save right side of cut	1. Miter left 45° 2. Save right side of cut

Material up to 6.5" (165 mm) can be cut as described above.

Cutting Crown Molding

Your miter saw is better suited to the task of cutting crown molding than any tool made. In order to fit properly, crown molding must be compound mitered with extreme accuracy.

The two flat surfaces on a given piece of crown molding are at angles that, when added together, equal exactly 90°. Most, but not all, crown molding has a top rear angle (the section that fits flat against the ceiling) of 52° and a bottom rear angle (the part that fits flat against the wall) of 38°.

Your miter saw has special pre-set miter latch points at 31.6° left and right for cutting crown molding at the proper angle and bevel stop pawls at 33.9° left and right. There is also a mark on the bevel scale at 33.9°.

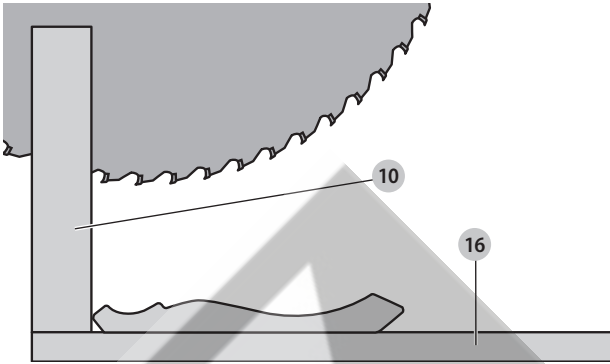
The chart below gives the proper settings for cutting crown molding. (The numbers for the miter and bevel settings are very precise and are not easy to accurately set on your saw.) Since most rooms do not have angles of precisely 90°, you will have to fine tune your settings anyway.

PRETESTING WITH SCRAP MATERIAL IS EXTREMELY IMPORTANT!

Instructions for Cutting Crown Molding Laying Flat and Using the Compound Features (Fig. A, T)

- 1. Molding laying with broad back surface down flat on saw table 16.

Fig. T



- 2. Top of molding against fence 10.
- 3. The settings below are for all standard (U.S.) crown molding with 52° and 38° angles.

	Inside corner	Outside corner
Left side	1. Bevel left 33.9° 2. Miter table set at right 31.62° 3. Save left end of cut	1. Bevel right 33.9° 2. Miter table set at left 31.62° 3. Save left end of cut
Right side	1. Bevel right 33.9° 2. Miter table set at left 31.62° 3. Save right end of cut	1. Bevel left 33.9° 2. Miter table set at right 31.62° 3. Save right end of cut

When setting bevel and miter angles for all compound miters, remember that: The angles presented for crown moldings are very precise and difficult to set exactly. Since they can easily shift slightly and very few rooms have exactly square corners, all settings should be tested on scrap molding.

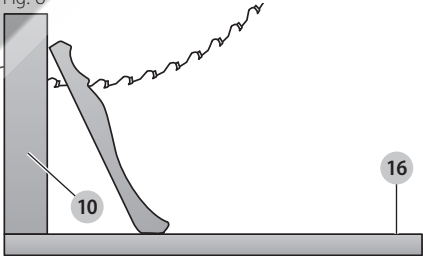
PRETESTING WITH SCRAP MATERIAL IS EXTREMELY IMPORTANT!

Alternative Method for Cutting Crown Molding (Fig. U)

Place the molding on the table at an angle between the sliding fence 10 and the saw table 16, as shown in Figure U. Use of the crown molding fence accessory (DW7084) is highly recommended because of its degree of accuracy and convenience. The crown molding fence accessory is available for purchase from your local dealer.

The advantage to cutting crown molding using this method is that no bevel cut is required. Minute changes in the miter angle can be made without affecting the bevel angle. This way, when corners other than 90° are encountered, the saw can be quickly and easily adjusted for them. Use the crown molding fence accessory to maintain the angle at which the molding will be on the wall.

Fig. U



Instructions for Cutting Crown Molding Angled Between the Fence and Base of the Saw for All Cuts

- 1. Angle the molding so the bottom of the molding (part which goes against the wall when installed) is against the fence and the top of the molding is resting on the base of the saw, as shown in Figure U.
- 2. The angled "flats" on the back of the molding must rest squarely on the fence and base of the saw.

	Inside corner	Outside corner
Left side	1. Miter right 45° 2. Save right side of cut	1. Miter left 45° 2. Save right side of cut
Right side	1. Miter left 45° 2. Save left side of cut	1. Miter right 45° 2. Save left side of cut

Special Cuts

NEVER MAKE ANY CUT UNLESS THE MATERIAL IS SECURED ON THE TABLE AND AGAINST THE FENCE.

Aluminum Cutting (Fig. A, V, W)

ALWAYS USE THE APPROPRIATE SAW BLADE MADE ESPECIALLY FOR CUTTING ALUMINUM. These are available at your local DeWALT retailer or DeWALT service center. Certain workpieces, due to their size, shape or surface finish, may require the use of a clamp or fixture to prevent movement

during the cut. Position the material so that you will be cutting the thinnest cross section, as shown in Figure V. Figure W illustrates the wrong way to cut these extrusions. Use a stick wax cutting lubricant when cutting aluminum. Apply the stick wax directly to the saw blade **38** before cutting. Never apply stick wax to a moving blade.

The wax, available at most hardware stores and industrial mill supply houses, provides proper lubrication and keeps chips from adhering to the blade.

Be sure to properly secure workpiece.

Fig. V

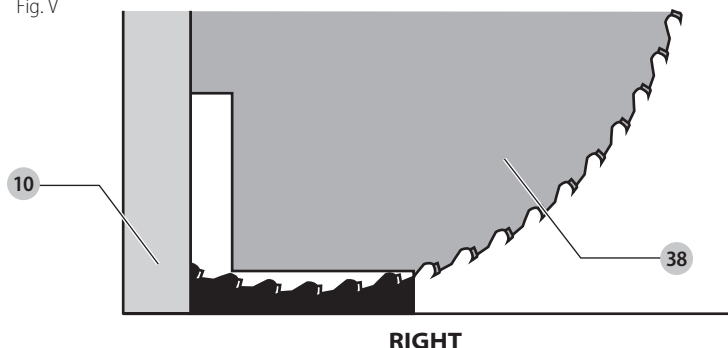
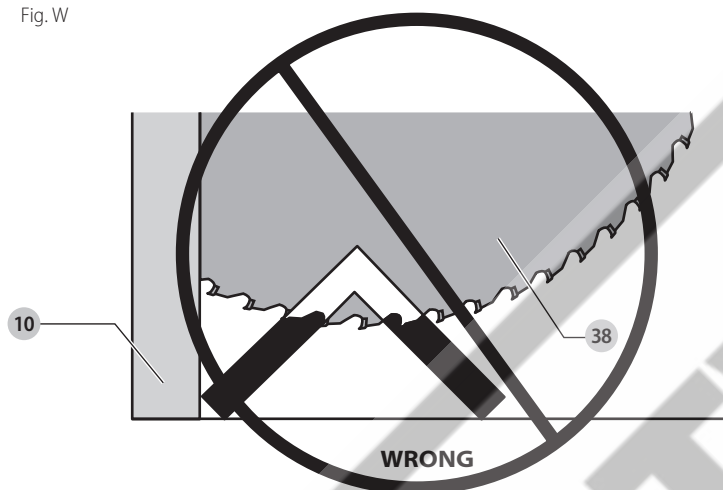


Fig. W



Refer to **Saw Blades** under **Accessories** for correct saw blade.

Bowed Material (Fig. X, Y)

When cutting bowed material always position it as shown in Figure X and never like that shown in Figure Y. Positioning the material incorrectly will cause it to pinch the blade near the completion of the cut.

Fig. X

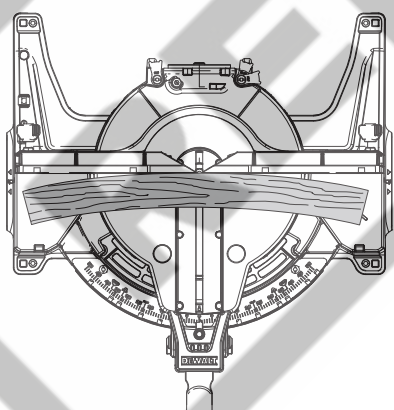
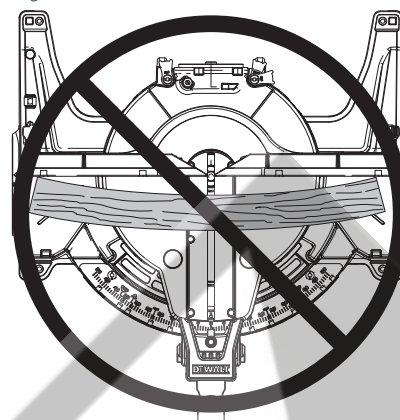


Fig. Y



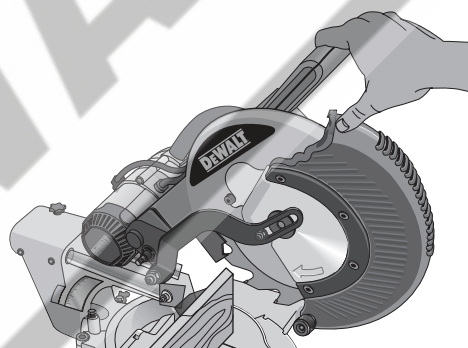
Cutting Plastic Pipe or Other Round Material

Plastic pipe can be easily cut with your saw. It should be cut just like wood and **CLAMPED OR HELD FIRMLY TO THE FENCE TO KEEP IT FROM ROLLING**. This is extremely important when making angle cuts.

Cutting Large Material (Fig. Z)

Occasionally you will encounter a piece of wood a little too large to fit beneath the lower guard. If this occurs, simply place your right thumb on the upper side of the guard and roll the guard up just enough to clear the workpiece, as shown in Figure Z. Avoid doing this as much as possible, but if need be, the saw will operate properly and make the bigger cut. NEVER TIE, TAPE, OR OTHERWISE HOLD THE GUARD OPEN WHEN OPERATING THIS SAW.

Fig. Z



MAINTENANCE

! WARNING: To reduce the risk of serious personal injury, turn unit off and disconnect it from power source before making any adjustments or removing/installing attachments or accessories. An accidental start-up can cause injury.

! WARNING: To reduce the risk of serious personal injury, DO NOT touch the sharp points on the blade with fingers or hands while performing any maintenance.

DO NOT use lubricants or cleaners (particularly spray or aerosol) in the vicinity of the plastic guard. The polycarbonate material used in the guard is subject to attack by certain chemicals.

1. All bearings are sealed. They are lubricated for life and need no further maintenance.
2. Periodically clean all dust and wood chips from around AND UNDER the base and the rotary table. Even though slots are provided to allow debris to pass through, some dust will accumulate.
3. The brushes are designed to give you several years of use. To replace the brushes return the tool to the nearest service center for repair. A list of service center locations is packed with your tool.

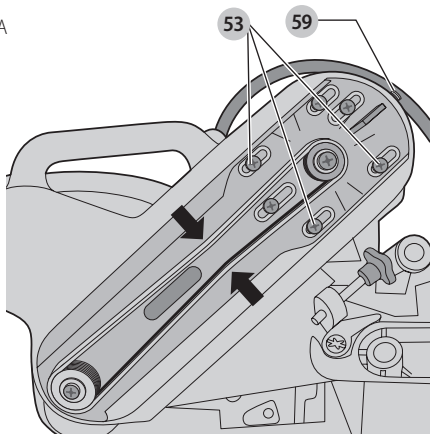
Removing and Replacing Belt (Fig. AA)

The belt is designed to last the life of the tool. However, abuse of the tool could cause the belt to fail.

If the blade does not turn when the motor is running, the belt has failed. To inspect or replace the belt, remove the belt cover screws **53**. Remove the belt cover **59**. Inspect the ribs of the belt for wear or failure. Check belt tension by squeezing the belt as shown in Figure AA. The belt halves should almost touch when squeezing firmly with the thumb and index finger. To adjust the tension, loosen, but do not remove, the four crosshead screws shown. Then rotate the set screw on the top of the motor plate casting until the proper tension is achieved. Tighten the four screws securely and replace the belt cover.

NOTICE: Overtightening the belt will cause premature motor failure.

Fig. AA



Worklight Cleaning

For the best worklight performance, perform the following maintenance regularly.

1. Carefully clean sawdust and debris from worklight lens with a cotton swab.
2. DO NOT use solvents of any kind, they may damage the lens.
3. Dust build-up can block the worklight and prevent it from accurately indicating the line of cut.
4. Follow miter saw's instruction manual to remove and install blade.
5. With blade removed from saw, clean pitch and build-up from blade. Pitch and debris can interfere with the worklight and prevent it from accurately indicating the line of cut.

SPECIFICATIONS	
Light source	Power LED
Worklight	3.3 V DC
Power Supply	Input: 120–240 V AC; 50/60Hz Output: 5 V DC; 0.45 A
Operating Temperature	14°F to 104°F (-10°C to 40°C)
Storage Temperature	-22°F to 176°F (-30°C to 80°C)
Environmental	Water resistant

Dust Duct Cleaning

Depending on your cutting environment, saw dust can clog the dust duct and may prevent dust from flowing away from the cutting area properly. With the saw unplugged and the saw head raised fully, low pressure air or a large diameter dowel rod can be used to clear the dust out of the dust duct.

Cleaning

WARNING: Blow dirt and dust out of all air vents with clean, dry air at least once a week. To minimize the risk of eye injury, always wear ANSI Z87.1 approved eye protection when performing this procedure.

WARNING: Never use solvents or other harsh chemicals for cleaning the non-metallic parts of the tool. These chemicals may weaken the plastic materials used in these parts. Use a cloth dampened only with water and mild soap. Never let any liquid get inside the tool; never immerse any part of the tool into a liquid.

Accessories

WARNING: Since accessories, other than those offered by DeWALT, have not been tested with this product, use of such accessories with this tool could be hazardous. To reduce the risk of injury, only DeWALT recommended accessories should be used with this product.

Recommended accessories for use with your tool are available at extra cost from your local dealer or authorized service center. If you need assistance in locating any accessory, please contact DeWALT Industrial Tool Co., 701 East Joppa Road, Towson, MD 21286, call 1-800-4-DeWALT (1-800-433-9258) or visit our website: www.dewalt.com.

Optional Accessories

The following accessories, designed for your saw, may be helpful. Use care in selecting and using accessories.

Extension Work Support: DW7080

Used to support long overhanging workpieces, the work support is user assembled. Your saw base is designed to accept two work supports, one on each side.

Adjustable Length Stop: DW7051

Requires the use of one Extension Work Support (DW7080). It is used to make repetitive cuts of the same length from 0 to 42" (107 cm).

Clamp: DW7082

Used for firmly clamping workpiece to the saw fence for precision cutting.

Dust Bag: DW7053

Equipped with a zipper for easy emptying, the dust bag will capture the majority of the sawdust produced.

Crown Molding Fence: DW7084

Used for precision cutting of crown molding.

Saw Blades

ALWAYS USE 12" (305 mm) SAW BLADES WITH 1" (25.4 mm) ARBOR HOLES. SPEED RATING MUST BE AT LEAST 4800 RPM. Never use a smaller diameter blade. It will not be guarded properly. Use crosscut blades only! Do not use blades designed for ripping, combination blades or blades with hook angles in excess of 7°.

BLADE DESCRIPTIONS		
APPLICATION	DIAMETER	TEETH
Construction Saw Blades (maximum thin kerf with anti-stick rim)		
General Purpose	12" (305 mm)	32/40
Fine Crosscuts	12" (305 mm)	60
Woodworking Saw Blades (provide smooth, clean cuts)		
Fine crosscuts	12" (305 mm)	80
Non-ferrous metals	12" (305 mm)	96

NOTE: For cutting non-ferrous metals, use only saw blades with TCG teeth designed for this purpose.

Repairs

WARNING: To assure product SAFETY and RELIABILITY, repairs, maintenance and adjustment (including brush inspection and replacement, when applicable) should be performed by a DeWALT factory service center or a DeWALT authorized service center. Always use identical replacement parts.

Register Online

Thank you for your purchase. Register your product now for:

- **WARRANTY SERVICE:** Registering your product will help you obtain more efficient warranty service in case there is a problem with your product.
- **CONFIRMATION OF OWNERSHIP:** In case of an insurance loss, such as fire, flood or theft, your registration of ownership will serve as your proof of purchase.
- **FOR YOUR SAFETY:** Registering your product will allow us to contact you in the unlikely event a safety notification is required under the Federal Consumer Safety Act.

Register online at www.dewalt.com/register.

Three Year Limited Warranty

DeWALT will repair, without charge, any defects due to faulty materials or workmanship for three years from the date of purchase. This warranty does not cover part failure due to normal wear or tool abuse. For further detail of warranty coverage and warranty repair information, visit www.dewalt.com or call 1-800-4-DeWALT (1-800-433-9258). This warranty does not apply to accessories or damage caused where repairs have been made or attempted by others. THIS LIMITED WARRANTY IS GIVEN IN LIEU OF ALL OTHERS, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND EXCLUDES ALL INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so these limitations may not apply to you. This warranty gives you specific legal rights and you may have other rights which vary in certain states or provinces.

In addition to the warranty, DeWALT tools are covered by our:

1 YEAR FREE SERVICE

DeWALT will maintain the tool and replace worn parts caused by normal use, for free, any time during the first year after purchase.

90 DAY MONEY BACK GUARANTEE

If you are not completely satisfied with the performance of your DeWALT Power Tool, Laser, or Nailer for any reason, you can return it within 90 days from the date of purchase with a receipt for a full refund – no questions asked.

LATIN AMERICA: This warranty does not apply to products sold in Latin America. For products sold in Latin America, see country specific warranty information contained in the packaging, call the local company or see website for warranty information.

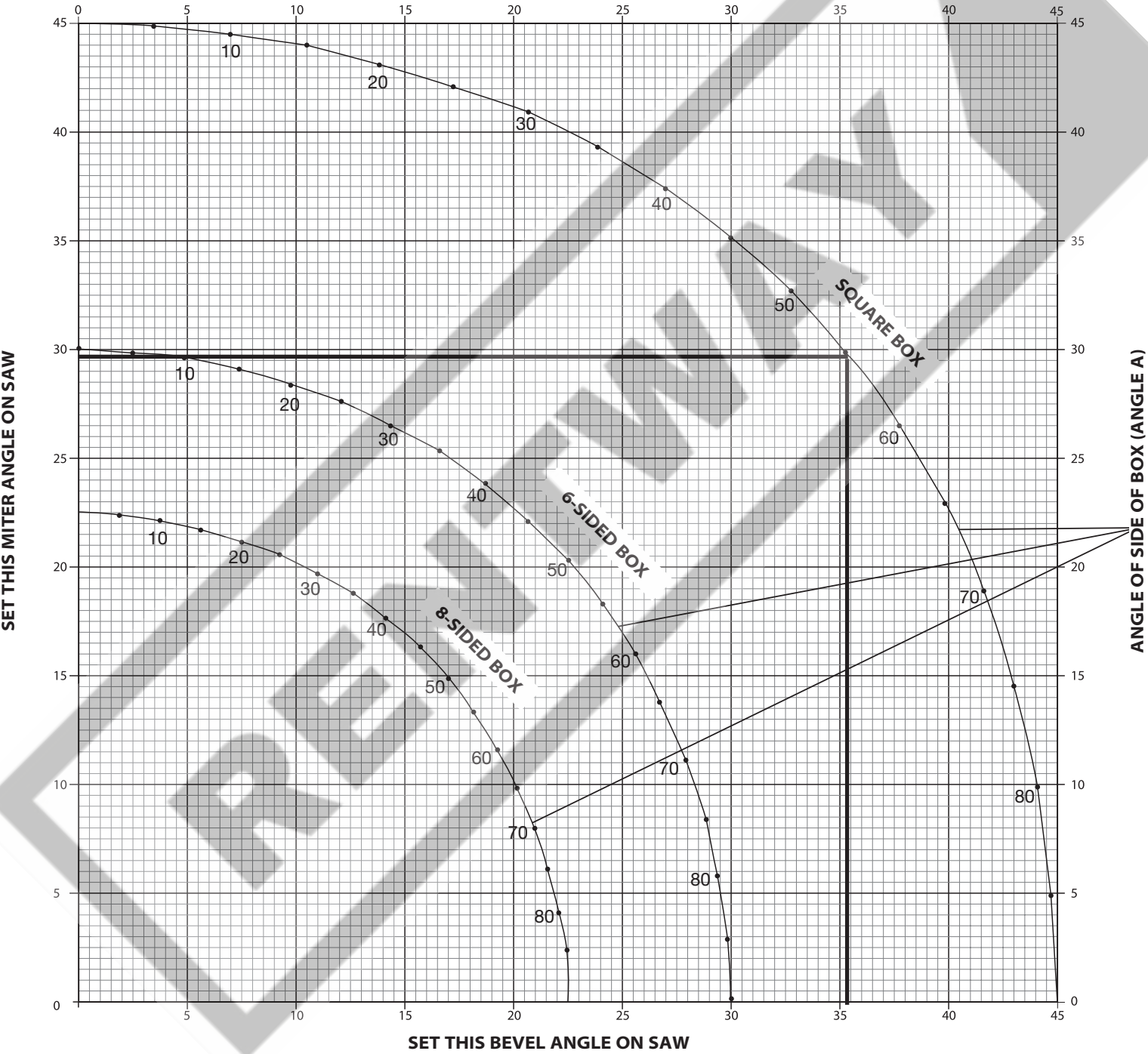
FREE WARNING LABEL REPLACEMENT: If your warning labels become illegible or are missing, call 1-800-4-DeWALT (1-800-433-9258) for a free replacement.

Troubleshooting Guide

BE SURE TO FOLLOW SAFETY RULES AND INSTRUCTIONS

TROUBLE!	WHAT'S WRONG?	WHAT TO DO
Saw will not start	Saw not plugged in	Plug in saw.
	Fuse blown or circuit breaker tripped	Replace fuse or reset circuit breaker.
	Cord damaged	Have cord replaced by authorized service center.
	Brushes worn out	Have brushes replaced by authorized service center.
Saw makes unsatisfactory cuts	Dull blade	Replace blade. Refer to Changing or Installing a New Saw Blade .
	Blade mounted backwards	Turn blade around. Refer to Changing or Installing a New Saw Blade .
	Gum or pitch on blade	Remove blade and clean with turpentine and coarse steel wool or household oven cleaner.
	Incorrect blade for work being done	Change the blade type. Refer to Saw Blades under Accessories .
Blade does not come up to speed	Extension cord too light or too long	Replace with adequate size cord. Refer to Additional Safety Rules for Miter Saws .
	Low house current	Contact your electric company.
Machine vibrates excessively	Saw not mounted securely to stand or work bench	Tighten all mounting hardware. Refer to Bench Mounting .
	Stand or bench on uneven floor	Reposition on flat level surface. Refer to Familiarization .
	Damaged saw blade	Replace blade. Refer to Changing or Installing a New Saw Blade .
Does not make accurate miter cuts	Miter scale not adjusted correctly	Check and adjust. Refer to Miter Scale Adjustment under Assembly and Adjustments .
	Blade is not square to fence	Check and adjust. Refer to Miter Scale Adjustment under Assembly and Adjustments .
	Blade is not perpendicular to table	Check and adjust fence. Refer to Bevel Square to Table under Assembly and Adjustments .
	Workpiece moving	Clamp workpiece securely to fence or glue 120 grit sandpaper to fence with rubber cement.
Material pinches blade	Cutting bowed material	Refer to Bowed Material under Special Cuts .

TABLE 1: COMPOUND MITER CUT
(POSITION WOOD WITH BROAD FLAT SIDE ON THE TABLE AND THE NARROW EDGE AGAINST THE FENCE)



Définitions : symboles et termes d'alarmes sécurité

Ces guides d'utilisation utilisent les symboles et termes d'alarmes sécurité suivants pour vous prévenir de situations dangereuses et de risques de dommages corporels ou matériels.

! **DANGER** : indique une situation dangereuse imminente qui, si elle n'est pas évitée, **entraînera la mort ou des blessures graves**.

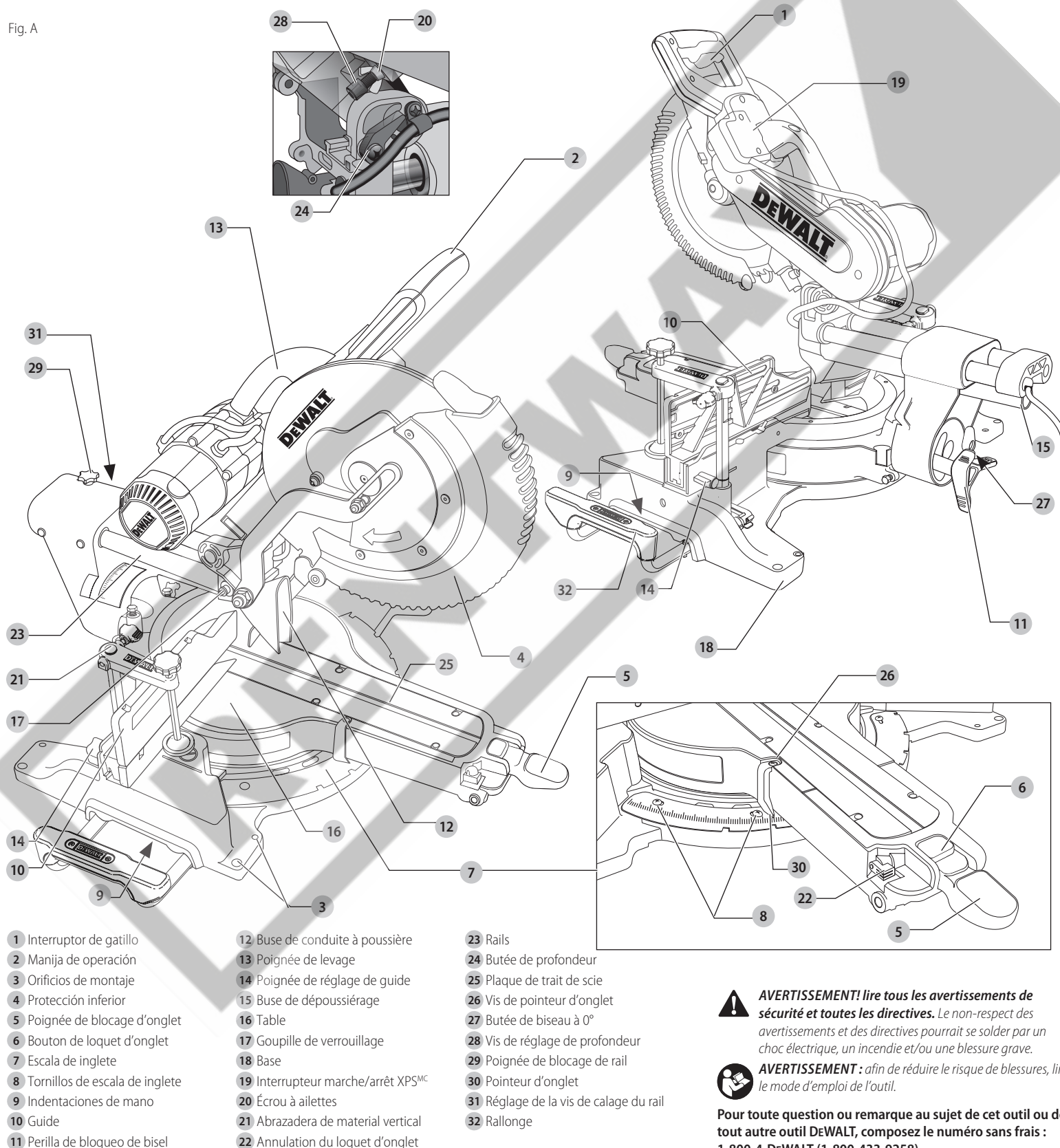
! **AVERTISSEMENT** : indique une situation potentiellement dangereuse qui, si elle n'est pas évitée, **pourrait entraîner la mort ou des blessures graves**.

! **ATTENTION** : indique une situation potentiellement dangereuse qui, si elle n'est pas évitée, **pourrait entraîner des blessures légères ou modérées**.

! (Si utilisé sans aucun terme) Indique un message propre à la sécurité.

AVIS : indique une pratique ne posant **aucun risque de dommages corporels** mais qui par contre, si rien n'est fait pour l'éviter, **pourrait poser des risques de dommages matériels**.

Fig. A



! **AVERTISSEMENT! lire tous les avertissements de sécurité et toutes les directives.** Le non-respect des avertissements et des directives pourrait se solder par un choc électrique, un incendie et/ou une blessure grave.

! **AVERTISSEMENT** : afin de réduire le risque de blessures, lire le mode d'emploi de l'outil.

Pour toute question ou remarque au sujet de cet outil ou de tout autre outil DeWALT, composez le numéro sans frais : 1-800-4-DeWALT (1-800-433-9258).