

DEWALT®

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DWS780
DWS780N

Fig. A1

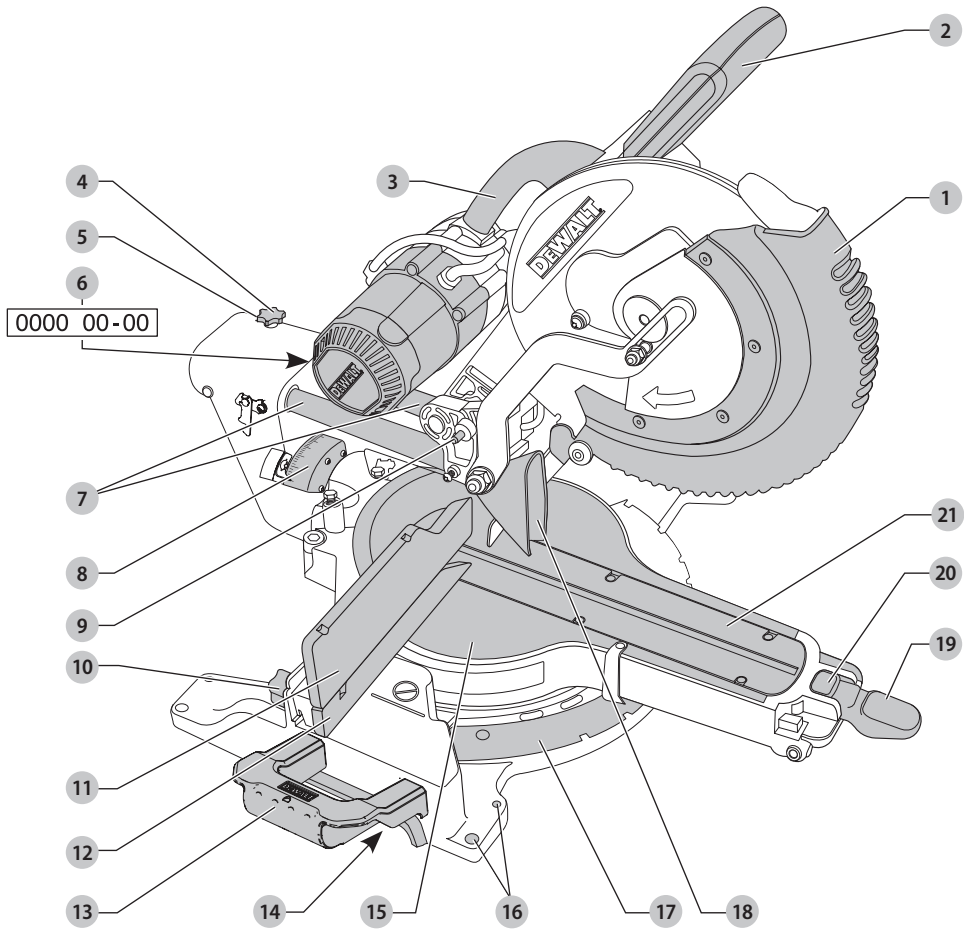


Fig. A2

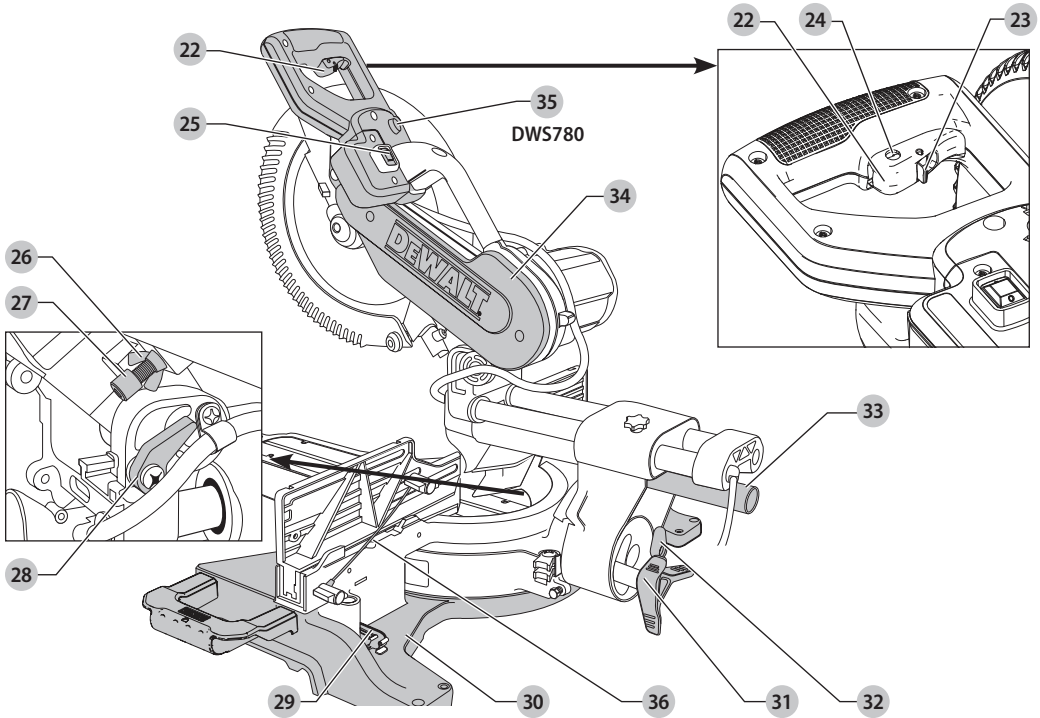


Fig. B

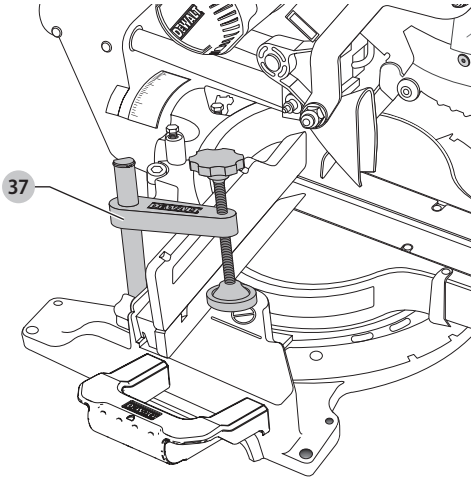


Fig. C

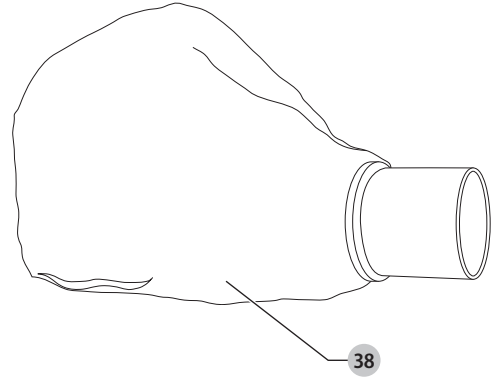


Fig. D

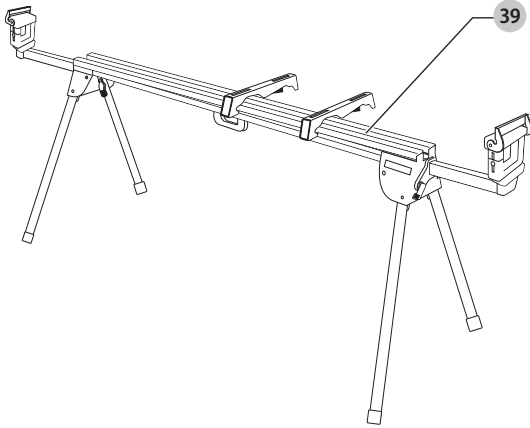


Fig. E

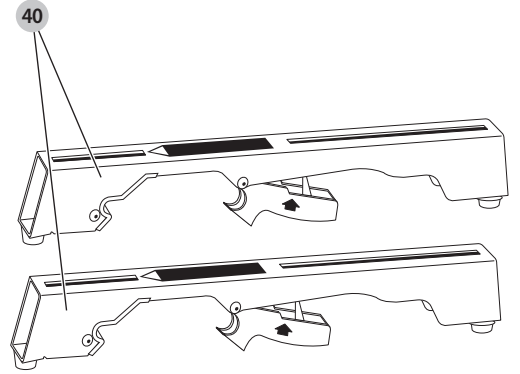


Fig. F

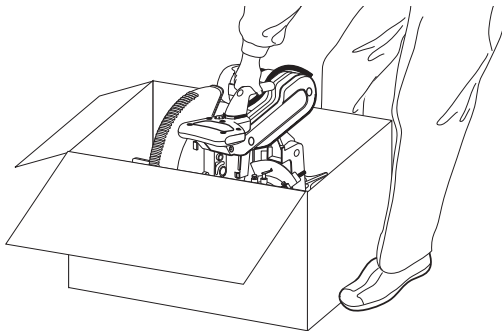


Fig. G1

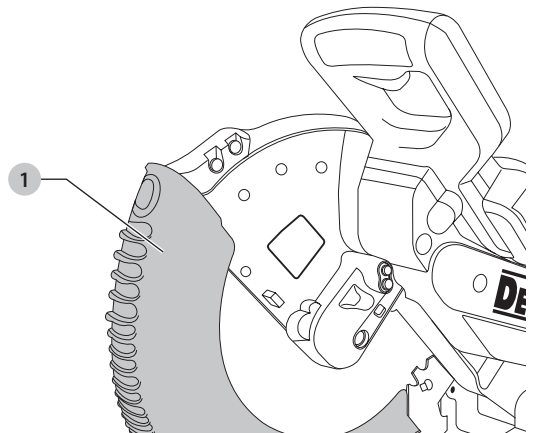


Fig. G2

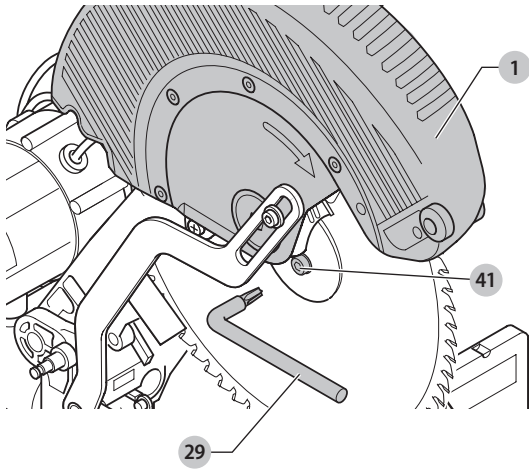


Fig. G3

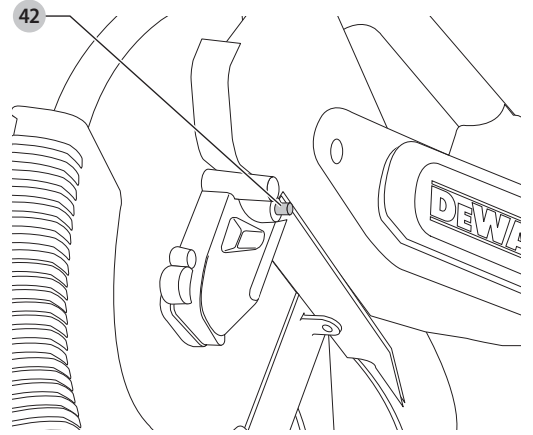


Fig. G4

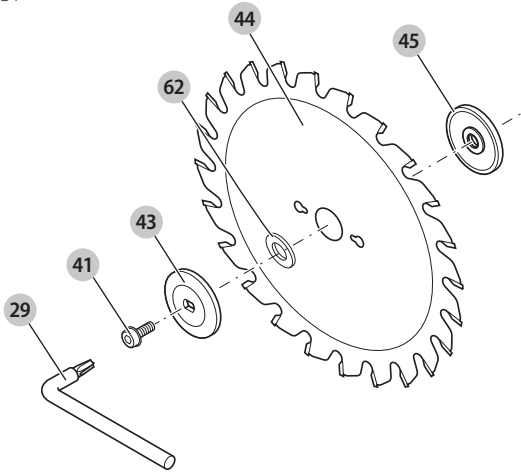


Fig. H

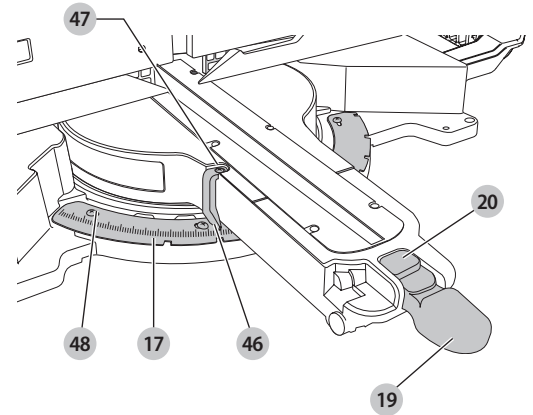


Fig. I

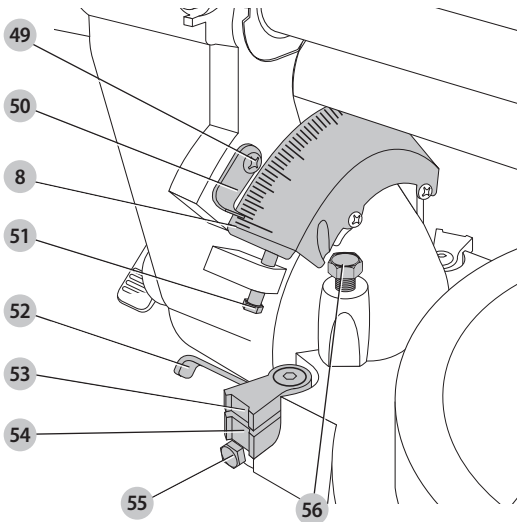


Fig. J

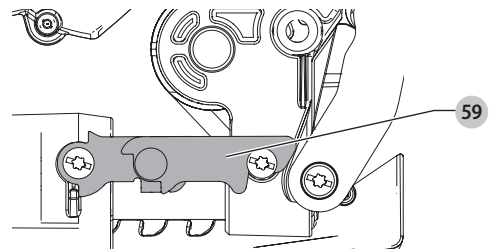


Fig. K

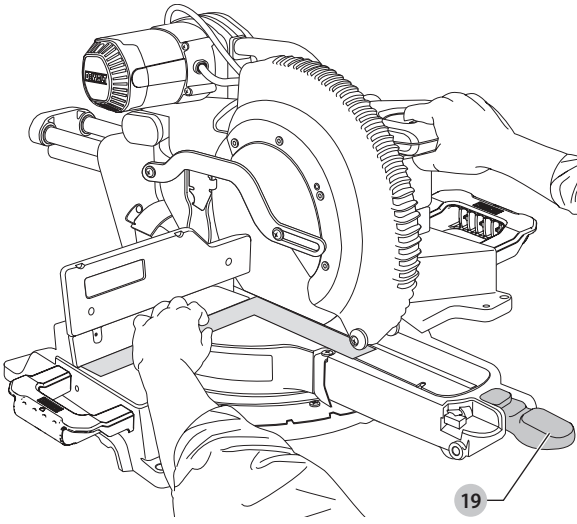


Fig. L

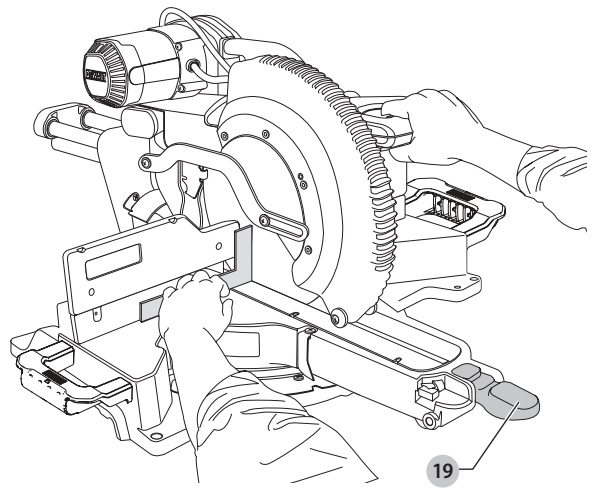


Fig. M

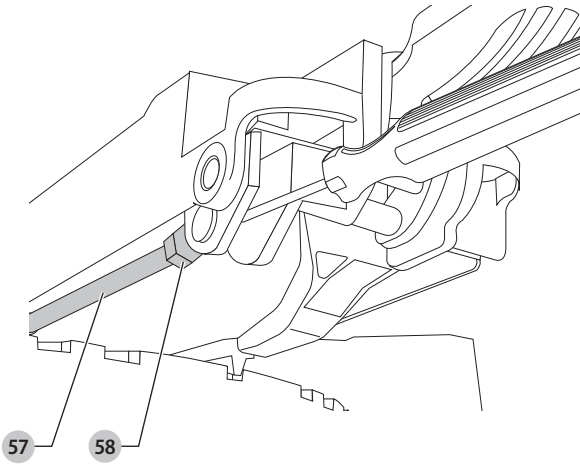


Fig. N1

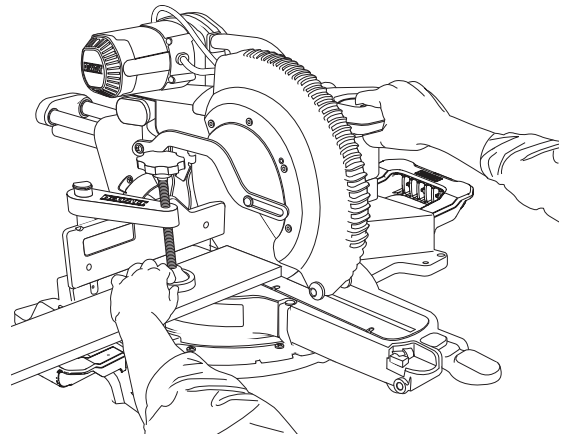


Fig. N2



Fig. O

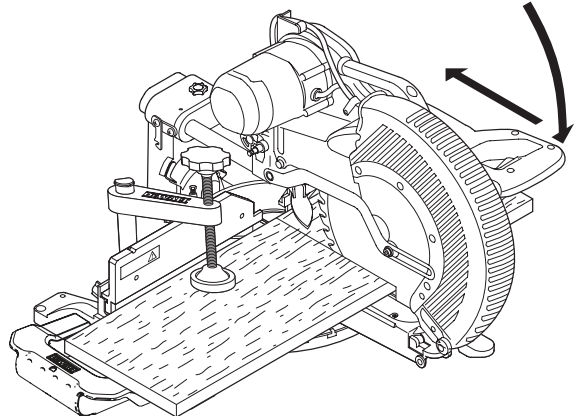


Fig. P

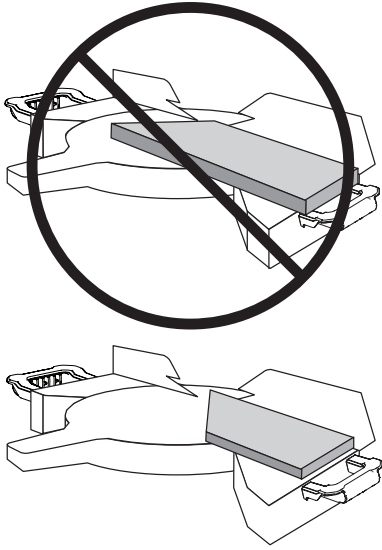


Fig. Q

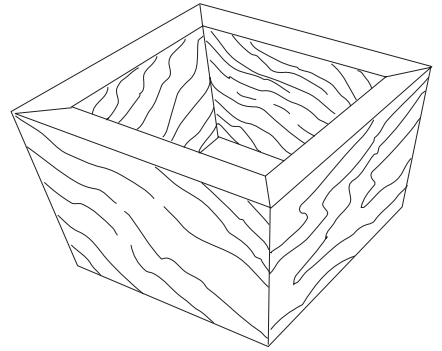


Fig. R

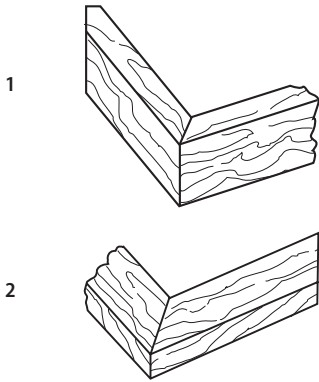


Fig. S



Fig. T

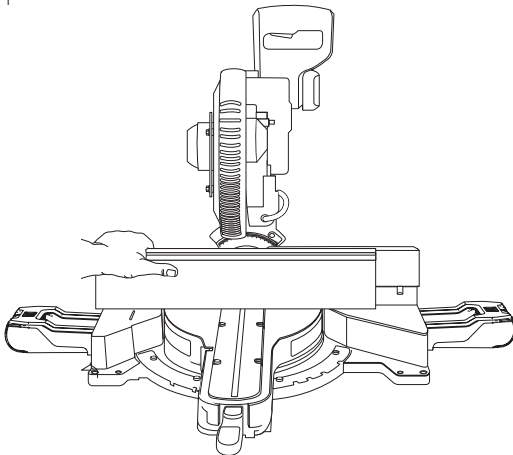


Fig. U1

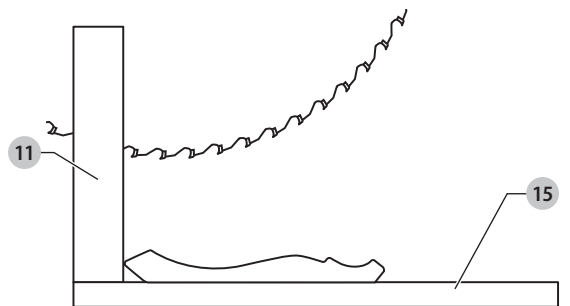


Fig. U2

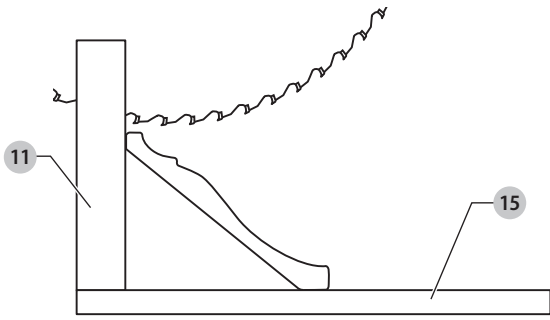


Fig. V1

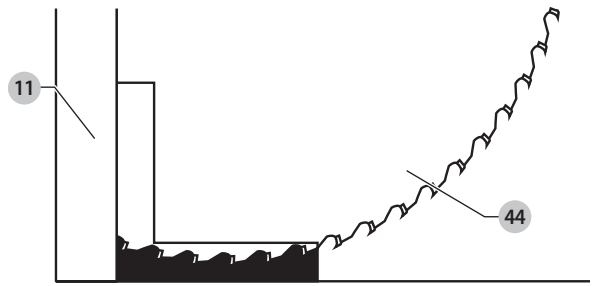


Fig. V2

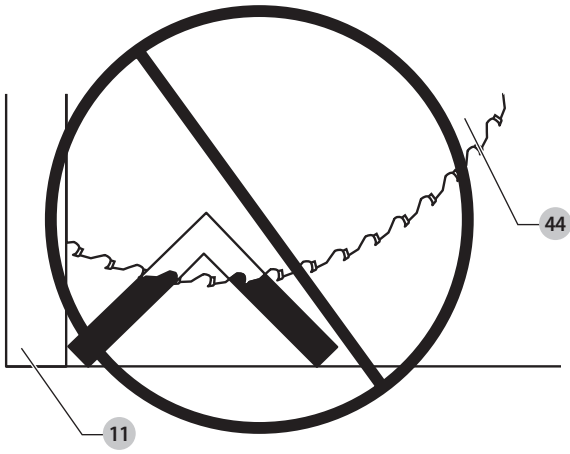


Fig. W1

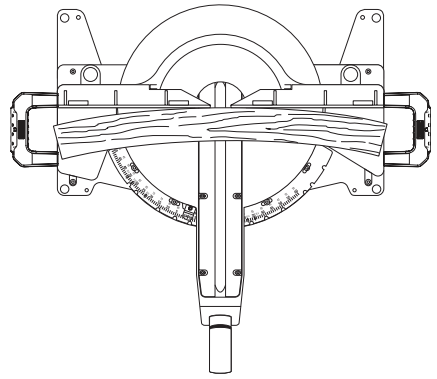


Fig. W2

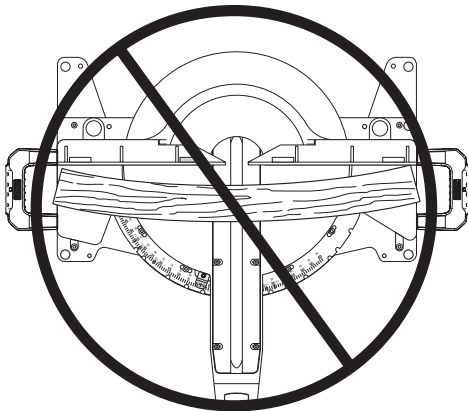


Fig. X

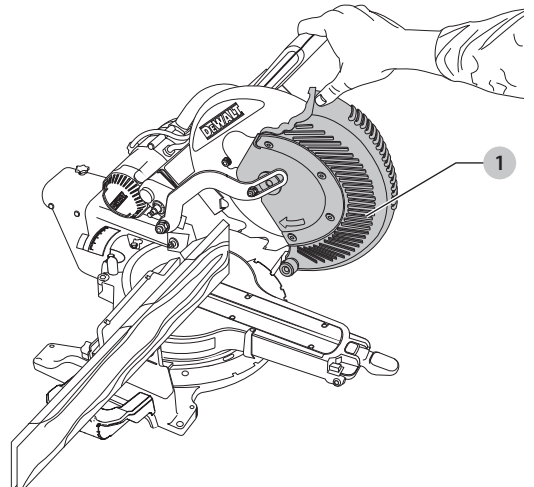
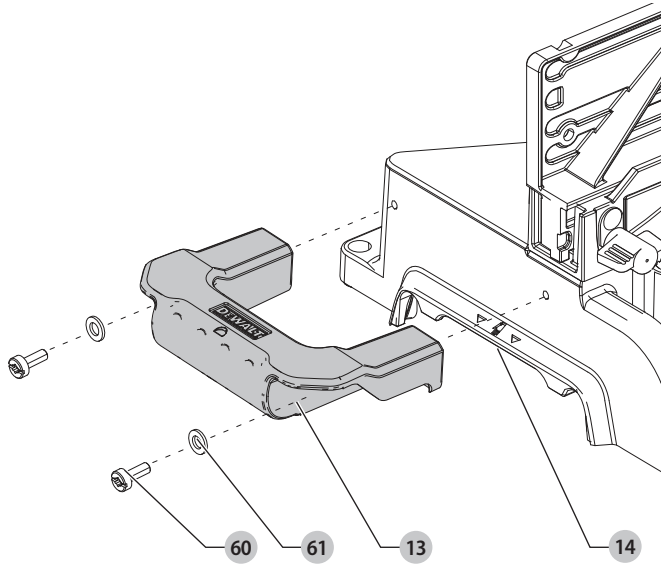


Fig. Y



MITRE SAW

DWS780, DWS780N

Congratulations!

You have chosen a DEWALT tool. Years of experience, thorough product development and innovation make DEWALT one of the most reliable partners for professional power tool users.

Technical Data

		DWS780	DWS780	DWS780N	DWS780N
		QS/GB	LX	QS/GB	LX
Voltage	V _{AC}	230	115	230	115
Type		12	12	10	10
Power input	W	1675	1675	1675	1675
Blade diameter	mm	305	305	305	305
Blade bore	mm	30	30	30	30
Blade body thickness	mm	1.8	1.8	1.8	1.8
Max. kerf thickness	mm	3.0	3.0	3.0	3.0
Max. blade speed	min ⁻¹	1900–3800	1900–3600	4100	3900
Max. cross-cut capacity 90°	mm	349	349	349	349
Max. mitre capacity 45°	mm	244	244	244	244
Max. depth of cut 90°	mm	112	112	112	112
Max. depth of bevel cross-cut 45°	mm	56	56	56	56
Mitre (max. positions)	left	50°	50°	50°	50°
	right	60°	60°	60°	60°
Bevel (max. positions)	left	49°	49°	49°	49°
	right	49°	49°	49°	49°
0° mitre					
Resulting width at max. height 112 mm	mm	299	299	299	299
Resulting width at max. height 110 mm	mm	303	303	303	303
Resulting height at max. width 345 mm	mm	76	76	76	76
45° mitre left					
Resulting width at max. height 112 mm	mm	200	200	200	200
Resulting height at max. width 244 mm	mm	76	76	76	76
45° mitre right					
Resulting width at max. height 112 mm	mm	211	211	211	211
Resulting height at max. width 244 mm	mm	76	76	76	76
45° bevel left					
Resulting width at max. height 63 mm	mm	268	268	268	268
Resulting height at max. width 345 mm	mm	44	44	44	44
45° bevel right					
Resulting width at max. height 62 mm	mm	193	193	193	193
Resulting height at max. width 345 mm	mm	28	28	28	28
Automatic blade brake time	s	< 10	< 10	< 10	< 10
Weight	kg	25.5	25.5	25.5	25.5
XPS Energy Efficiency		F	F	F	F
Noise values and/or vibration values (tri-ax vector sum) according to EN62841					
L _{PA} (emission sound pressure level)	dB(A)	92	90	92	92
L _{WA} (sound power level)	dB(A)	105	102	105	102
K (uncertainty for the given sound level)	dB(A)	3	3	3	3

The vibration and/or noise emission level given in this information sheet has been measured in accordance with a standardised test given in EN62841 and may be used to compare one tool with another. It may be used for a preliminary assessment of exposure.



WARNING: The declared vibration and/or noise emission level represents the main applications of the tool. However if the tool is used for different applications, with different accessories or poorly

maintained, the vibration and/or noise emission may differ. This may significantly increase the exposure level over the total working period. An estimation of the level of exposure to vibration and/or noise should also take into account the times when the tool is switched off or when it is running but not actually doing the job. This may significantly reduce the exposure level over the total working period. Identify additional safety measures to protect the operator from the effects of vibration and/or noise such as: maintain the tool

and the accessories, keep the hands warm (relevant for vibration), organisation of work patterns.

EC-Declaration of Conformity

Machinery Directive



Mitre saw

DWS780, DWS780N

DeWALT declares that these products described under **Technical Data** are in compliance with:

2006/42/EC, EN62841-1:2015/AC:2015; EN62841-3-9:2020 + A11:2020.

These products also comply with Directive 2014/30/EU; 2011/65/EU; 2019/2020/EU and 2019/2015/EU. For more information, please contact DeWALT at the following address or refer to the back of the manual.

The undersigned is responsible for compilation of the technical file and makes this declaration on behalf of DeWALT.

Markus Rompel
Vice President of Engineering PTE Europe
DeWALT, Richard-Klinger-Straße 11,
65510, Idstein, Germany
26.01.22

DECLARATION OF CONFORMITY

THE SUPPLY OF MACHINERY (SAFETY) REGULATIONS



Mitre saw

DWS780, DWS780N

DeWALT declares that these products described under "technical data" are in compliance with:

The Supply of Machinery (Safety) Regulations, 2008, S.I. 2008/1597 (as amended),

EN62841-1:2015/AC:2015; EN62841-3-9:2020 + A11:2020.

These products also conform to the following UK Regulations:

Electromagnetic Compatibility Regulations, 2016, S.I.2016/1091 (as amended).

The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012, S.I. 2012/3032 (as amended).

The Ecodesign for Energy-Related Products and Energy Information (Lighting Products) Regulations 2021, S.I. 2021/1095 (as amended).

For more information, please contact DeWALT at the following address or refer to the back of the manual.

The undersigned is responsible for compilation of the technical file and makes this declaration on behalf of DeWALT.

Karl Evans
Vice President Professional Power Tools EANZ GTS
DeWALT UK,
270 Bath Road, Slough
Berkshire SL1 4DX
England
26.01.22



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

Definitions: Safety Guidelines

The definitions below describe the level of severity for each signal word. Please read the manual and pay attention to these symbols.



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**.

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



Denotes risk of electric shock.



Denotes risk of fire.

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

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

2) Electrical Safety

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

3) Personal Safety

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

- b) **Use personal protective equipment. Always wear eye protection.** Protective equipment such as a dust mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.
- 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 energising 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 jewellery. Keep your hair and clothing away from moving parts.** Loose clothes, jewellery 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 remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- 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 and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
- 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 situation.
- 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 Mitre Saws

- a) **Mitre 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 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 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 mitre saw is mounted or placed on a level, firm work surface before use.** A level and firm work surface reduces the risk of the mitre saw becoming unstable.
- k) **Plan your work. Every time you change the bevel or mitre angle setting, make sure the adjustable fence is set correctly to support the workpiece and 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 mitre 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 mitre 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 mitre 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 Mitre Saws



WARNING: Do not connect to the mains power supply into the unit until complete instructions are read and understood.

- **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.
- **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.
- **AVOID UNCONTROLLED RELEASE OF THE SAW HEAD FROM FULLY DOWN POSITION.** Otherwise, there is a risk that the machine will tip over.
- **BE SURE** all blade and blade clamps are clean, recessed sides of blade clamps are against blade and arbour 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 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 mitre 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 (complying with EN847:2017).
- **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. Observe the maximum speed marked on the saw blade.
- **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.
- **THE MAXIMUM SPEED OF THE SAW BLADE** shall always be greater than or at least equal to the speed marked on the rating plate of the tool.
- **THE SAW BLADE DIAMETER** must be in accordance with the markings on rating plate of the tool.
- **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.
- **MAKE SURE** to use the correct saw blade for the material to be cut.
- **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.



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 wear proper personal hearing protection. Under some conditions and duration of use, noise from this product may contribute to hearing loss. Be aware of the following factors influencing exposure to noise:

- Use saw blades designed to reduce the emitted noise,
- Use only well sharpened saw blades, and
- Use specifically designed noise-reduction saw blades.



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



WARNING: Use of this tool can generate and/or disperse dust, which may cause serious and permanent respiratory or other injury.



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

- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber.

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

area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

- **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 approved respiratory protection appropriate for the dust exposure.



WARNING: We recommend the use of a residual current device with a residual current rating of 30mA or less.

Residual Risks

The following risks are inherent to the use of saws:

- Injuries caused by touching the rotating parts.

In spite of the application of the relevant safety regulations and the implementation of safety devices, certain residual risks cannot be avoided. These are:

- Impairment of hearing.
- Risk of accidents caused by the uncovered parts of the rotating saw blade.
- Risk of injury when changing the blade.
- Risk of squeezing fingers when opening the guards.
- Health hazards caused by breathing dust developed when sawing wood, especially oak, beech and MDF.

The following factors increase the risk of breathing problems:

- No dust extractor connected when sawing wood.
- Insufficient dust extraction caused by uncleaned exhaust filters.

Electrical Safety

The electric motor has been designed for one voltage only. Always check that the power supply corresponds to the voltage on the rating plate.



Your DEWALT tool is double insulated in accordance with EN62841; therefore no earth wire is required.

If the supply cord is damaged, it must be replaced only by DEWALT or an authorised service organisation.

Mains Plug Replacement (U.K. & Ireland Only)

If a new mains plug needs to be fitted:

- Safely dispose of the old plug.
- Connect the brown lead to the live terminal in the plug.
- Connect the blue lead to the neutral terminal.



WARNING: No connection is to be made to the earth terminal.

Follow the fitting instructions supplied with good quality plugs.

Recommended fuse: 13 A.

Using an Extension Cable

If an extension cable is required, use an approved 3-core extension cable suitable for the power input of this tool (see **Technical Data**). The minimum conductor size is 1.5 mm²; the maximum length is 30 m.

When using a cable reel, always unwind the cable completely.

Package Contents

The package contains:

- 1 Assembled mitre saw
- 2 Base extensions and installation hardware
- 1 Blade wrench (see placement in Fig. A2)
- 1 Saw blade
- 1 Dustbag
- 1 Material clamp
- 1 Instruction manual

- Check for damage to the tool, parts or accessories which may have occurred during transport.
- Take the time to thoroughly read and understand this manual prior to operation.

Markings on Tool

The following pictograms are shown on the tool:



Read instruction manual before use.



Wear ear protection.



Wear eye protection.



Keep hands away from blade.



Keep hands 100 mm from either side of saw blade.



Do not stare directly into the light source.



Carrying point.

Date Code Position (Fig. A1)

The date code **6**, which also includes the year of manufacture, is printed into the housing.

Example:

2022 XX XX
Year of Manufacture

Description (Fig. A1–E)



WARNING: Never modify the power tool or any part of it. Damage or personal injury could result.

Fig. A1

- 1 Lower guard
- 2 Operating handle
- 3 Carrying handle
- 4 Rail lock knob
- 5 Rail set screw adjustment
- 6 Date code
- 7 Rails
- 8 Bevel scale
- 9 Lock down pin
- 10 Fence adjustment knob
- 11 Fence
- 12 Base fence
- 13 Base extension handles
- 14 Hand indentation
- 15 Table
- 16 Bench mounting holes
- 17 Mitre scale
- 18 Dust duct inlet
- 19 Mitre lock handle
- 20 Mitre latch button
- 21 Kerf plate
- 24 Padlock hole
- 25 XPS on/off switch
- 26 Wing nut
- 27 Depth adjustment screw
- 28 Grooving stop
- 29 Blade wrench
- 30 Base
- 31 Bevel lock knob
- 32 0° bevel stop override
- 33 Dust extraction port
- 34 Belt cover
- 35 Electronic speed control dial (DWS780 Only)
- 36 Fence lanyard
- 37 Workpiece clamp (Fig. B)

Optional accessories

Fig. C

- 38 DW7053-XJ Dustbag

Fig. D

- 39 DE7023-XJ / DE7033-XJ Leg stand

Fig. E

- 40 DE7025-XJ Clamp brackets

Fig. A2

- 22 Trigger switch
- 23 Lock-off lever

Intended Use

Your DEWALT DWS780, DWS780N mitre saws have been designed for professional cutting of wood, wood products and plastics. When using the appropriate saw blades, sawing aluminium is also possible. It performs the sawing operations of cross-cutting, bevelling and mitring easily, accurately and safely.

This unit is designed for use with a nominal blade diameter 305 mm carbide tip blade.

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

These mitre saws are professional power tools.

DO NOT let children come into contact with the tool. Supervision is required when inexperienced operators use this tool.

! **WARNING:** Do not use the machine for purposes other than intended.

- This product is not intended for use by persons (including children) suffering from diminished physical, sensory or mental abilities; lack of experience, knowledge or skills unless they are supervised by a person responsible for their safety. Children should never be left alone with this product.

ASSEMBLY AND ADJUSTMENTS

! **WARNING:** To reduce the risk of injury, turn unit off and disconnect machine from power source before installing and removing accessories, before adjusting or changing set-ups or when making repairs. Be sure the trigger switch is in the OFF position. An accidental start-up can cause injury.

Unpacking (Fig. A1, F)

1. Open the box and lift the saw out by the convenient carrying handle **3**, as shown in Figure F.
2. Place the saw on a smooth, flat surface.
3. Release the rail lock knob **4**, and push the saw head back to lock it in the rear position.
4. Press down lightly on the operating handle **2** and pull out the lock down pin **9**.
5. Gently release the downward pressure and hold the operating handle, allowing it to rise to its full height.

Bench Mounting (Fig. A1)

Holes **16** are provided in all four feet to facilitate bench mounting. 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 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 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.

Kerf Plate Replacement (Fig. A1)

To remove the kerf plate **21**, remove the screws holding the kerf plate in place and replace with a new one.

Assemble the screws back in by following this sequence: first through the round holes located halfway from the ends, then through the slots at the ends. No adjustment is necessary.

Assembling the Base Extensions (Fig. Y)

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

! **WARNING:** Be sure to adjust the base extensions using the mounting slots so they are level with the saw's base.

1. Locate the holes above the hand indentations **14** on the side of the base.
2. Using a hex wrench, attach the screw **60** through the washer **61**, through the base extension **13**, and into the holes on the base.
3. Ensure the extension is secure by pulling on the extension to verify no movement.
4. Repeat steps 1 through 3 on the other side.

NOTE: Make sure the extensions are level with the work surface so that the workpiece rests evenly. A straight workpiece should have no gap between it and the base extensions.

Changing or Installing a New Saw Blade

Removing the Blade (Fig. G1–G4)

! **WARNING:** To reduce the risk of injury, wear gloves when handling the saw blade.

! **WARNING:** To reduce the risk of injury, turn unit off and disconnect machine from power source before installing and removing accessories, before adjusting or changing set-ups or when making repairs. Be sure the trigger switch is in the OFF position. An accidental start-up can cause injury.

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

1. Unplug the saw.
2. Raise the arm to the upper position and raise the lower guard **1** as far as possible.
3. Depress the spindle lock button **42** while carefully rotating the saw blade **44** by hand until the lock engages.
4. Keeping the button depressed, use the other hand and the wrench provided **29** to loosen the blade screw **41**. (Turn clockwise, left-hand threads.)
5. Remove the blade screw **41**, outer clamp washer **43** adaptor ring **62** and blade **44**. The inner washer **45** may be left on the spindle.

Installing a Blade (Fig. G1–G4)

1. Unplug the saw.
2. With the arm raised and the lower guard held open, place the blade with the adaptor ring, on the spindle, and seat it on the inner blade clamp with the teeth at the bottom of the blade pointing toward the back of the saw.
3. Assemble the outer clamp washer **43** onto the spindle.
4. Install the blade screw **41** and, engaging the spindle lock, tighten the screw firmly with wrench provided (turn counterclockwise, left-hand threads).

! **WARNING!** Be aware the saw blade shall be replaced in the described way only. Only use saw blades as specified under **Technical Data**; Cat. no.: DT4260 is suggested.

Transporting the Saw (Fig. A1, A2)


! **WARNING:** To reduce the risk of serious personal injury, ALWAYS lock the rail lock knob, mitre lock handle, bevel lock handle, lock down pin and fence adjustment knobs before transporting saw. Never use guards for transporting or lift up.

In order to conveniently carry the mitre saw, a carrying handle **3** has been included on the top of the saw arm.

- To transport the saw, lower the head and depress the lock down pin **9**.

- Lock the rail lock knob with the saw head in the front position, lock the mitre arm in the full left mitre angle, slide the fence **11** completely inward and lock the bevel lock knob **31** with the saw head in the vertical position to make the tool as compact as possible.
- Always use the carrying handle **3** or the hand indentations **14**.

Features and Controls

 **WARNING:** To reduce the risk of injury, turn unit off and disconnect machine from power source before installing and removing accessories, before adjusting or changing set-ups or when making repairs. Be sure the trigger switch is in the OFF position. An accidental start-up can cause injury.

Mitre Control (Fig. H)

The mitre lock handle **19** and mitre latch button **20** allow you to mitre your saw to 60° right and 50° left. To mitre the saw, lift the mitre lock handle, push the mitre latch button and set the mitre angle desired on the mitre scale **17**. Push down on the mitre lock handle to lock the mitre angle.

Bevel Lock Knob (Fig. A2)

The bevel lock allows you to bevel the saw 49° left or right. To adjust the bevel setting, turn the bevel lock knob **31** 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. A2)

The 0° bevel stop override **32** 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 stop override **32**. Once it is released, the override will be reengaged. The bevel stop override 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, one on each side of the saw.

To bevel the saw, left or right, past 45°, push the 45° bevel override lever **52** 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 **54** can be rotated to contact the crown adjustment screw.

To reverse the crown bevel pawl, remove the retaining screw, the 22.5° bevel pawl **53** and the 30° crown bevel pawl **54**. Flip the crown bevel pawl **54** so the 33.86° 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 **53** can be rotated to contact the crown adjustment screw **51**.

Rail Lock Knob (Fig. A1)


The rail lock knob **4** allows you to lock the saw head firmly to keep it from sliding on the rails **7**. This is necessary when making certain cuts or when transporting the saw.

Grooving Stop (Fig. A2)

The grooving stop **28** 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 grooving stop forward and adjust the depth adjustment screw **27** to set the desired depth of cut. To secure the adjustment, tighten

the wing nut **26**. Rotating the grooving stop to the rear of the saw will bypass the grooving stop feature. If the depth adjustment screw is too tight to loosen by hand, the provided blade wrench **29** can be used to loosen the screw.

Lock Down Pin (Fig. A1)

 **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 **9** 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. J, T)

The slide lock lever **59** places the saw in a position to maximize cutting of base moulding when cut vertically as shown in Figure T.

Adjustment

Your mitre 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 instructions below to adjust your saw. Once made, these adjustments should remain accurate.

Mitre Scale Adjustment (Fig. H, K)

1. Unlock the mitre lock handle **19** and swing the mitre arm until the mitre latch button **20** locks it at the 0° mitre position. Do not lock the mitre lock handle.
2. 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.)
3. If the saw blade is not exactly perpendicular to the fence, loosen the four screws **48** that hold the mitre scale **17** and move the mitre lock handle and the scale left or right until the blade is perpendicular to the fence, as measured with the square.
4. Retighten the four screws. Pay no attention to the reading of the mitre pointer **46** at this time.

Mitre Pointer Adjustment (Fig. H)

1. Unlock the mitre lock handle **19** to move the mitre arm to the zero position.
2. With the mitre lock handle unlocked, allow the mitre latch to snap into place as you rotate the mitre arm to zero.
3. Observe the mitre pointer **46** and mitre scale **17** shown in Figure H. If the pointer does not indicate exactly zero, loosen the mitre pointer screw **47** holding the pointer in place, reposition the pointer and tighten the screw.

Bevel Square to Table Adjustment (Fig. A1, A2, I, L)

1. To align the blade square to the table, lock the arm in the down position with the lock down pin **9**.
2. Place a square against the blade, ensuring the square is not on top of a tooth (Fig. L).
3. Loosen the bevel lock knob **31** and ensure the arm is firmly against the 0° bevel stop.
4. Rotate the 0° bevel adjustment screw (**56** Fig. I) with the 6 mm hex blade wrench **29** as necessary so that the blade is at 0° bevel to the table.

Bevel Pointer Adjustment (Fig. I)

If the bevel pointers **50** do not indicate zero, loosen each screw **49** that holds each bevel pointer in place and move them as necessary. Ensure the 0° bevel is correct and the bevel pointers are set before adjusting any other bevel angle screws.

Bevel Stop 45° Right and Left Adjustment (Fig. A2, I)

To adjust the right 45° bevel stop:

1. Loosen the bevel lock knob **31** and pull the 0° bevel stop override **32** to override the 0° bevel stop.
2. When the saw is fully to the right, if the bevel pointer **50** does not indicate exactly 45°, turn the left 45° bevel adjustment screw **55** with the 6 mm hex blade wrench **29** until the bevel pointer indicates 45°.

To adjust the left 45° bevel stop:

- a. Loosen the bevel lock knob and tilt the head to the left.
- b. If the bevel pointer does not indicate exactly 45°, turn the right 45° bevel adjustment screw until the bevel pointer reads 45°.

Adjusting the Bevel Stop to 22.5° (or 30°) (Fig. A2, 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 **53**.

Loosen the bevel lock knob **31** and tilt the head fully to the left. If the bevel pointer **50** does not indicate exactly 22.5°, turn the crown adjustment screw **51** contacting the pawl with a 10 mm 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 **32** 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 **51** contacting the pawl with a 10 mm wrench until the bevel pointer indicates exactly 22.5°.

Fence Adjustment (Fig. A1)

The upper part of the fence can be adjusted to provide clearance, allowing the saw to bevel to a full 49° both left and right.

1. To adjust each fence **11**, loosen the fence adjustment knob **10** and slide the fence outward.
2. Make a dry run with the saw turned off and check for clearance.
3. 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.
4. Tighten the fence adjustment knob securely.
5. When the bevel operations are complete, relocate the fence.

For certain cuts, it may be desirable to bring the fences closer to the blade. To do so, loosen the fence adjustment knobs **10** and slide the fences closer to the blade past the normal limit, then tighten the fence adjustment knobs. Make a dry cut first to ensure the blade does not contact the fences.

For certain cuts it may be desirable to remove the sliding fence. To do so, loosen the fence adjustment knobs **10** and slide the fence completely free of the base fence. The fence lanyard **36** prevents the fence from being removed completely from the saw or being lost. Once the cut is complete, replace the sliding fence.

NOTE: The tracks of the fences can become clogged with sawdust. Use a brush or some low pressure air to clear the guide grooves.

Guard Actuation and Visibility (Fig. X)

The lower guard **1** 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.

Rail Guide Adjustment (Fig. A1)

Regularly check the rails **7** for play or clearance.

The right rail can be adjusted with the set screw **5**. To reduce clearance, use a 4 mm hex wrench and rotate the set screw clockwise gradually while sliding the saw head back and forth.

Mitre Lock Adjustment (Fig. A1, M)

The mitre lock rod **57** should be adjusted if the table of the saw can be moved when the mitre lock handle is locked (down).

1. Put the mitre lock handle **19** in the unlocked (up) position.

2. Using a 13 mm open end wrench, loosen the lock nut **58** on the mitre lock rod.
3. Using a slotted screwdriver, tighten the mitre lock rod by turning it clockwise as shown in Figure M. Turn the lock rod until it is snug, then turn counterclockwise one turn.
4. Re-lock the mitre lock to a non-detented measurement on the mitre scale – for example, 34° – and make sure the table will not rotate.
5. Tighten lock nut.

Prior to Operation

- Install the base extensions to both sides of the saw's base. Refer to **Assembling the Base Extensions** section.
- Check the protective belt cover for damage and the proper functioning of the lower guard.
- Make sure to use the kerf plate. Do not operate the machine if the kerf slot is wider than 12 mm.
- Install the appropriate saw blade. Do not use excessively worn blades. The maximum rotation speed of the tool must not exceed that of the saw blade.
- Make sure all locking knobs and clamp handles are tight.
- Use personal protective equipment and connect the saw to an external dust extractor.
- Although this saw will cut wood and many nonferrous materials, these operating instructions refer to the cutting of wood only. The same guidelines apply to the other materials. Do not cut ferrous (iron and steel) materials, fibre cement or masonry with this saw!
- Do not attempt to cut excessively small pieces.
- Secure the workpiece.
- Allow the blade to cut freely. Do not force.
- Allow the motor to reach full speed before cutting.

OPERATION

Instructions for Use



WARNING: Always observe the safety instructions and applicable regulations.



WARNING: To reduce the risk of injury, turn unit off and disconnect machine from power source before installing and removing accessories, before adjusting or changing set-ups or when making repairs. Be sure the trigger switch is in the OFF position. An accidental start-up can cause injury.

Refer to **Saw Blades** under **Optional Accessories** to select the blade that best fits your needs.

Ensure the machine is placed to satisfy your ergonomic conditions in terms of table height and stability. The machine site shall be chosen so that the operator has a good overview and enough free surrounding space around the machine that allows handling of the workpiece without any restrictions. To reduce effects of vibration, make sure the environment temperature is not too cold, the machine and accessories are well maintained and the workpiece size is suitable for this machine.

Be sure the cord will not interfere with your work.

Proper Body and Hand Position (Fig. N1, N2)



WARNING: To reduce the risk of serious personal injury, ALWAYS use proper hand position as shown in Figure N1.



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

- Never place hands near cutting area. Place hands no closer than 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 HANDS, AS SHOWN IN FIGURE N2.
- Keep both feet firmly on the floor and maintain proper balance. As you move the mitre 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.

Trigger Switch (Fig. A2)

To turn the saw on, push the lock-off lever **23** to the left, then depress the trigger switch **22**. 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 **24** is provided in the trigger for insertion of a padlock to lock the switch off.

Your saw is not equipped with an automatic electric blade brake, but the saw blade should stop within 10 seconds of trigger release. This is not adjustable. If the stop time repeatedly exceeds 10 seconds, have the tool serviced by an authorised DEWALT service centre.

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

Setting the Variable Speed (Fig. A2)

DWS780 Only

The speed control dial **35** can be used for advance setting of the required range of speed.

- Turn the speed control dial **35** to the desired range, which is indicated by a number.
- Use high speeds for sawing soft materials such as wood.
Use low speeds for sawing metal.

Dust Extraction (Fig. A2, C)



WARNING: Certain dust, such as oak or beech dust, is considered carcinogenic, especially in connection with wood-treatment additives.

- Always use dust extraction.
- Provide for good ventilation of the work space.
- It is recommended to wear an appropriate respirator.

Your saw has a built-in dust port **33** that allows either a dust bag **38** or a shop vacuum system to be connected.

To Attach the Dust Bag

1. Fit the dust bag **38** to the dust port **33**.

To Empty the Dust Bag

1. Remove dust bag **38** from the saw and gently shake or tap the dust bag to empty.
2. Reattach the dust bag back onto the dust port **33**.

You may notice that all the dust will not come free from the bag. This will not affect cutting performance but will reduce the saw's dust collection efficiency. To restore your saw's dust collection efficiency, depress the spring inside the dust bag when you are emptying it and tap it on the side of the trash can or dust receptacle.



CAUTION: Never operate this saw unless the dust bag or DEWALT dust extractor is in place. Wood dust may create a breathing hazard.

Use of XPS LED Worklight System (Fig. A1, A2)

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

The XPS LED Worklight System is equipped with an on/off switch **25**. The XPS LED Worklight System is independent of the mitre 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:

1. Turn on the XPS system, then pull down on the operating handle **2** to bring the saw blade close to the wood. The shadow of the blade will appear on the wood.

2. Align the pencil line with the edge of the blade's shadow. You may have to adjust the mitre or bevel angles in order to match the pencil line exactly.

NOTE: If the LED is damaged, it must be replaced only by DEWALT or an authorised service organisation.

Through-Cutting Operations (Fig. A1, A2, O, P)

If the slide feature is not used, ensure the saw head is pushed back as far as possible and the rail lock knob **4** is tightened. This will prevent the saw from sliding along its rails as the workpiece is engaged.

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.

Straight Vertical Crosscut

1. Set and lock the mitre arm at zero, and hold the wood firmly on the table **15** and against the fence **11**.
2. With the rail lock knob **4** tightened, turn on the saw by squeezing the trigger switch **22**.
3. When the saw comes up to speed, lower the arm smoothly and slowly to cut through the wood. Let the blade come to a full stop before raising arm.

Sliding Crosscut (Fig. O)

When cutting anything larger than a 51 x 150 mm (51 x 105 mm at 45° mitre) workpiece, use an out-down-back motion with the rail lock knob **4** 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.

Mitre Crosscut (Fig. P)

The mitre angle is often 45° for making corners, but can be set anywhere from zero to 50° left or 60° right. Proceed as for a straight vertical crosscut. When performing a mitre cut on workpieces wider than 51 x 105 mm that are shorter in length, always place the longer side against the fence.

Bevel Cut (Fig. A1, A2)

Bevel angles can be set from 49° right to 49° left and can be cut with the mitre arm set between 50° left or 60° right. Refer to the **Features and Controls** section for detailed instructions on the bevel system.

1. Loosen the bevel lock knob **31**, and move the saw to the left or right as desired. It is necessary to move the fence **11** to allow clearance. Tighten the fence adjustment knob **10** after positioning the fences.
2. Tighten the bevel lock firmly.

At some extreme angles, the right or left side fence might have to be removed. Refer to **Fence Adjustment** in the **Adjustments** section for important information on adjusting the fences for certain bevel cuts.

To remove the left or right fence, unscrew the fence adjustment knob **10** several turns and slide the fence out. The fence lanyard **36** prevents the fence from being removed completely from the saw or being lost.

Once the bevel operations are completed, reposition the fences.

Quality of Cut

The smoothness of any cut depends on a number of variables, such as the material being cut, blade type, blade sharpness and rate of 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.



WARNING: 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.

Non-Through-Cutting (Grooving and Rabbeting)

Your saw is equipped with a grooving stop **28**, depth adjustment screw **27** and wing nut **26** to allow for groove cutting. 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.

Grooving (Fig. A1, A2)

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

1. Hold the wood firmly on the table and against the fence **11**. 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 **22** shown in Figure A2. Smoothly, push saw arm rearward to cut a groove through the workpiece.
2. 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.
3. To widen the groove, repeat steps 1–2 until the desired width is obtained.

Clamping the Workpiece (Fig. B)



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 personal injury and workpiece damage.

Use the material clamp **37** provided with your saw. The left or right fence will slide from side to side to aid in clamping. Other aids such as spring clamps, bar clamps or C-clamps may be appropriate for certain sizes and shapes of material.

To Install Clamp

1. Insert it into the hole behind the fence. The clamp should be facing toward the back of the mitre 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 mitre saw. If the groove is visible, the clamp will not be secure.
2. Rotate the clamp 180° toward the front of the mitre 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 (Fig. D)

ALWAYS SUPPORT LONG PIECES.

For best results, use the DE7023-XJ or DE7033 leg stands **39** to extend the table width of your saw. 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. Q, R)

Try a few simple projects using scrap wood until you develop a “feel” for your saw. Your saw is the perfect tool for mitring corners like the one shown in Figure Q.

Sketch 1 in Figure R shows a joint made with the bevel adjustment method. The joint shown can be made using either method.

- Using bevel adjustment:
 - The bevel for the two boards is adjusted to 45° each, producing a 90° corner.
 - The mitre arm is locked in the zero position and the bevel adjustment is locked at 45°.
 - The wood is positioned with the broad flat side against the table and the narrow edge against the fence.
- Using mitre adjustment:
 - The same cut can be made by mitring right and left with the broad surface against the fence.

Cutting Trim Molding and Other Frames (Fig. R)

Sketch 2 in Figure R shows a joint made by setting the mitre arm at 45° to mitre the two boards to form a 90° corner. To make this type of joint, set the bevel adjustment to zero and the mitre 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 R are for four-sided objects only. As the number of sides changes, so do the mitre and bevel angles. The chart below gives the proper angles for a variety of shapes, assuming that all sides are of equal length.

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

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

Cutting Compound Mitres (Fig. S)

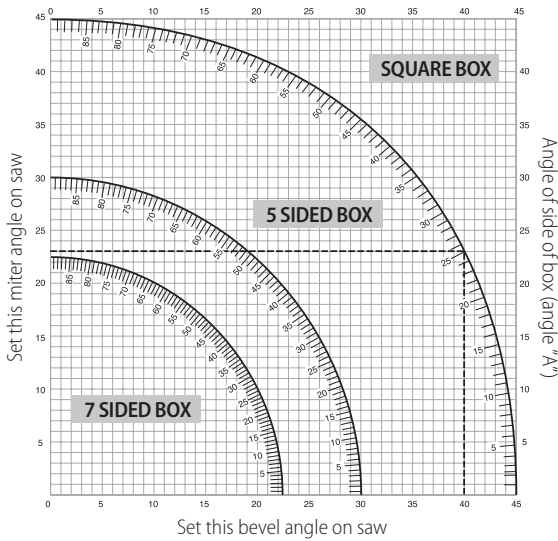
A compound mitre is a cut made using a mitre angle and a bevel angle at the same time. This is the type of cut used to make frames or boxes with slanting sides like the one shown in Figure S.



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

The chart shown below will assist you in selecting the proper bevel and mitre settings for common compound mitre cuts.

- Select the desired angle A (Fig. S) 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 mitre angle.
- Set your saw to the prescribed angles and make a few trial cuts. Practise fitting the cut pieces together.



Example: To make a 4-sided box with 26° exterior angles (Angle A, Fig. S), use the upper right arc. Find 26° on the arc scale. Follow the horizontal intersecting line to either side to get mitre 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 Moulding (Fig. J, T)

To complete straight 90° cuts, position the wood against the fence and hold it in place as shown in Figure T. Turn on the saw, allow the blade to reach full speed and lower the arm smoothly through the cut.

Cutting Base Moulding from 76 mm up to 171 mm High Vertically Against the Fence (Fig. J, T)

NOTE: Use the slide lock lever 59, shown in Figure J, when cutting base moulding measuring from 76 mm to 171 mm high vertically against the fence.

Position material as shown in Figure T.

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

	Inside Corner	Outside Corner
Left side	Mitre left 45° Save left side of cut	Mitre right 45° Save left side of cut
Right side	Mitre right 45° Save right side of cut	Mitre left 45° Save right side of cut

Material up to 171 mm can be cut as described above.

Cutting Crown Moulding (Fig. A1, U1, U2)

Your mitre saw is well suited to the task of cutting crown moulding. In order to fit properly, crown moulding must be compound mitred with extreme accuracy.

Your mitre saw has special pre-set mitre latch points at 31.62° left and right for cutting crown moulding at the proper angle and bevel stop pawls at 33.86° left and right. There is also a mark on the bevel scale 8 at 33.9°. The chart below gives the proper settings for cutting crown moulding.

NOTE: Pretesting with scrap material is extremely important!

Instructions for Cutting Crown Moulding Laying Flat and Using the Compound Features (Fig. U1)

- Moulding should lay flat with the broad back surface down on the saw table 15.
- Place the top of the moulding against the fence 11.
- The settings below are for 45° sprung crown moulding.

	Inside Corner	Outside Corner
Left side	Bevel left 30° Mitre table set at right 35.26° Save left end of cut	Bevel right 30° Mitre table set at left 35.26° Save left end of cut
Right side	Bevel right 30° Mitre table set at left 35.26° Save right end of cut	Bevel left 30° Mitre table set at right 35.26° Save right end of cut

4. The settings below are for crown moulding with 52° angles at the top and 38° angles at the bottom.

	Inside Corner	Outside Corner
Left side	Bevel left 33.9° Mitre table set at right 31.62° Save left end of cut	Bevel right 33.9° Mitre table set at left 31.62° Save left end of cut
Right side	Bevel right 33.9° Mitre table set at left 31.62° Save right end of cut	Bevel left 33.9° Mitre table set at right 31.62° Save right end of cut

Alternative Method for Cutting Crown Moulding

Cutting crown moulding using this method does not require a bevel cut. Minute changes in the mitre angle can be made without affecting the bevel angle. When corners other than 90° are encountered, the saw can be quickly and easily adjusted for them.

Instructions for Cutting Crown Moulding Angled Between the Fence and Base of the Saw for All Cuts (Fig. U2)

- Angle the moulding so the bottom of the moulding (the part which goes against the wall when installed) is against the fence 11 and the top of the moulding is resting on the saw table 15.
- The angled "flats" on the back of the moulding must rest squarely on the fence and saw table.

	Inside Corner	Outside Corner
Left side	Mitre right at 45° Save right side of cut	Mitre left at 45° Save right side of cut
Right side	Mitre left at 45° Save left side of cut	Mitre right at 45° Save left side of cut

Special Cuts

WARNING: Never make any cut unless the material is secured on the table and against the fence.

Aluminum Cutting (Fig. V1, V2)

ALWAYS USE THE APPROPRIATE SAW BLADE MADE ESPECIALLY FOR CUTTING ALUMINUM.

Certain workpieces 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 V1. Figure V2 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 44 before cutting. Never apply stick wax to a moving blade. The wax provides proper lubrication and keeps chips from adhering to the blade.

Bowed Material (Fig. W1, W2)

When cutting bowed material always position it as shown in Figure W1 and never like that shown in Figure W2. Positioning the material incorrectly will cause it to pinch the blade.

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. X)

Occasionally you will encounter a piece of wood a little too large to fit beneath the lower guard. If this occurs, place your right thumb on the

upper side of the guard ① and roll the guard up just enough to clear the workpiece, as shown in Figure Y. 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.

MAINTENANCE

Your DeWALT power tool has been designed to operate over a long period of time with a minimum of maintenance. Continuous satisfactory operation depends upon proper tool care and regular cleaning.



WARNING: To reduce the risk of injury, turn unit off and disconnect machine from power source before installing and removing accessories, before adjusting or changing set-ups or when making repairs. Be sure the trigger switch is in the OFF position. 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.



Lubrication

Your power tool requires no additional lubrication.



Cleaning

Before use, carefully check the upper guard, lower guard and dust duct to determine that they will operate properly. Ensure that chips, dust or workpiece particles do not block one of the functions.

In case of workpiece fragments jammed between the saw blade and guards, disconnect the machine from the power supply and follow the instructions given in **Changing or Installing a New Saw Blade**. Remove the jammed parts and reassemble the saw blade.

Periodically clean all dust and wood chips from around AND UNDER the base and the rotary table.



WARNING: Blow dirt and dust out of the main housing with dry air as often as dirt is seen collecting in and around the air vents. Wear approved eye protection and approved dust mask 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 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.

Worklight Cleaning

- Carefully clean sawdust and debris from worklight lens with a cotton swab. Dust build-up can block the worklight and prevent it from accurately indicating the line of cut.
- DO NOT use solvents of any kind; they may damage the lens.
- With blade removed from saw, clean pitch and build-up from blade.

Dust Duct Cleaning (Fig. A1)

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 inlet 18.

Optional Accessories (Fig. B–E)



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.

Dust Bag: DW7053-XJ (Fig. C)

Equipped with a zipper for easy emptying, the dust bag 38 will capture the majority of the sawdust produced.

Leg Stands: DE7023-XJ, DE7033-XJ (Fig. D)

The leg stand 39 is used to extend the table width of the saw.

Clamp Brackets: DE7025-XJ (Fig. E)

The clamp brackets 40 are used for mounting the saw to a stand.

SAW BLADES: ALWAYS USE 305 mm SAW BLADES WITH 30 mm ARBOUR 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 5°.

BLADE DESCRIPTIONS

APPLICATION	DIAMETER	TEETH
Construction Saw Blades (<i>thin kerf with anti-stick rim</i>)		
General Purpose	305 mm	40
Fine Crosscuts	305 mm	60
Woodworking Saw Blades (<i>provide smooth, clean cuts</i>)		
Fine Crosscuts	305 mm	80
Non-ferrous Metals	305 mm	96

Consult your dealer for further information on the appropriate accessories.

Protecting the Environment



Separate collection. Products and batteries marked with this symbol must not be disposed of with normal household waste.

Products and batteries contain materials that can be recovered or



recycled reducing the demand for raw materials. Please recycle

electrical products and batteries according to local provisions. Further information is available at www.2helpU.com.

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