

**DEWALT®**

**WWW.DEWALT.COM**

**DWS778**



Figure 1

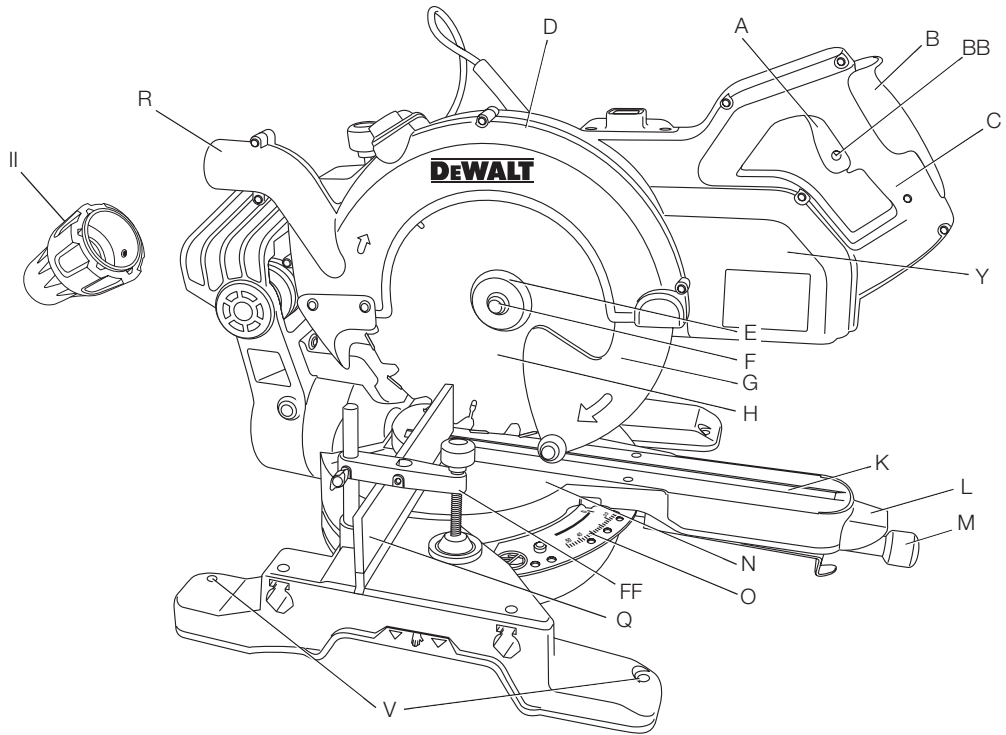


Figure 2

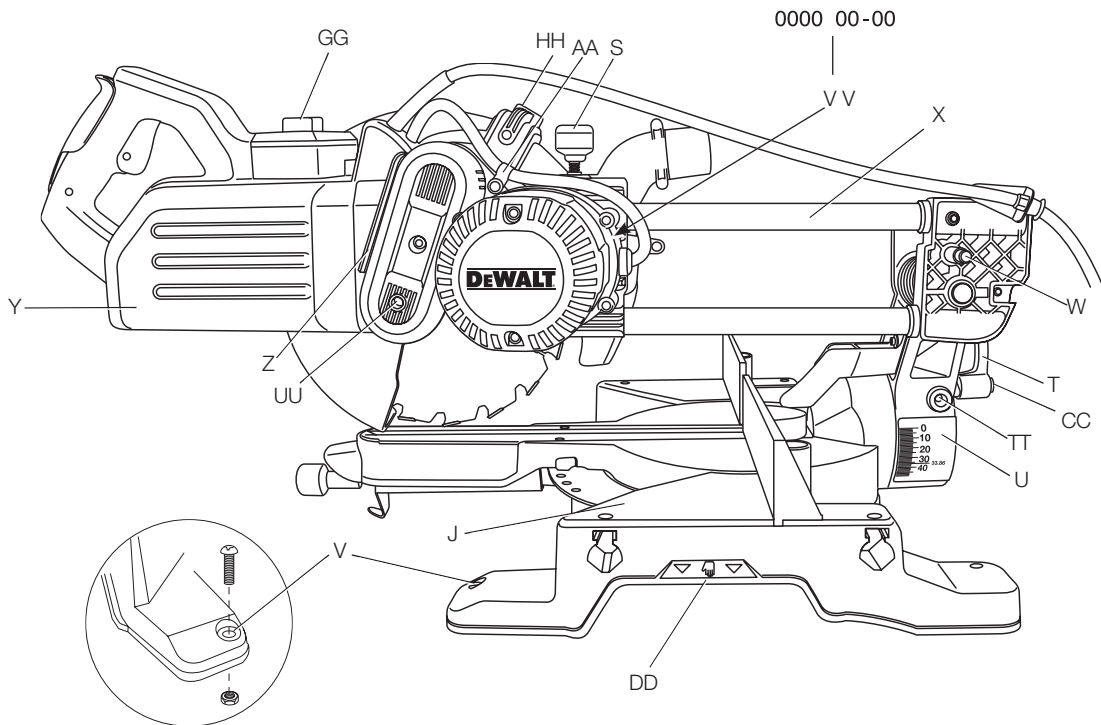


Figure 3

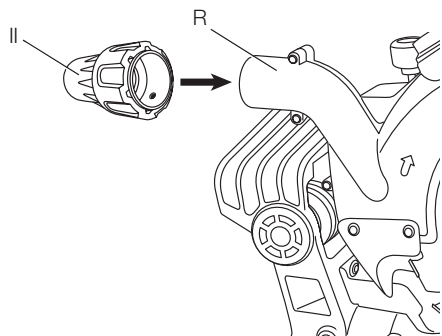


Figure 4

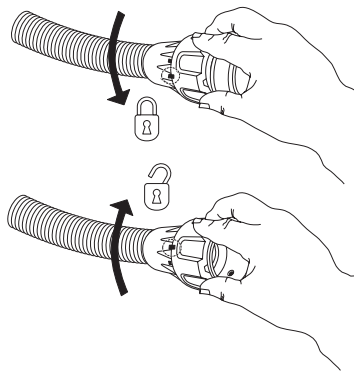


Figure 5

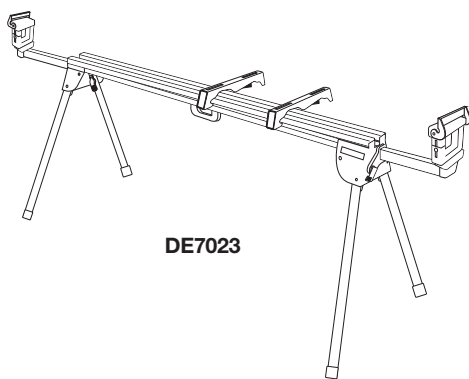


Figure 6

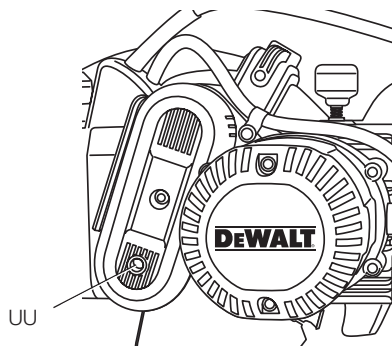


Figure 7

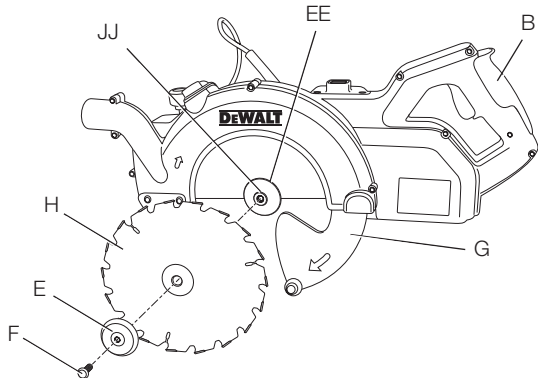


Figure 8

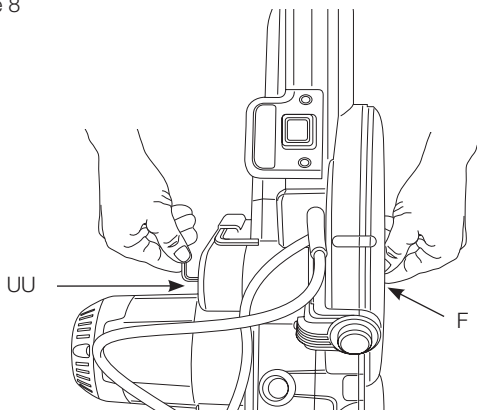


Figure 9

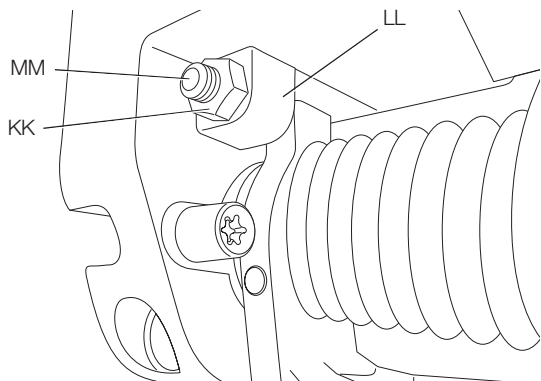


Figure 10

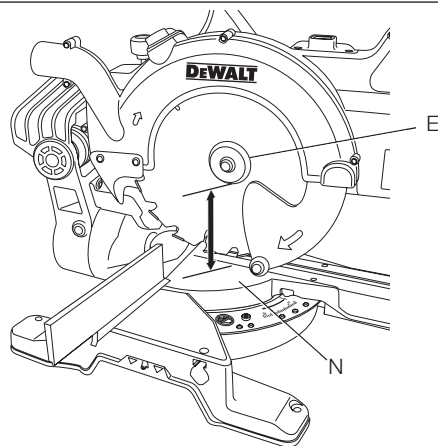


Figure 11

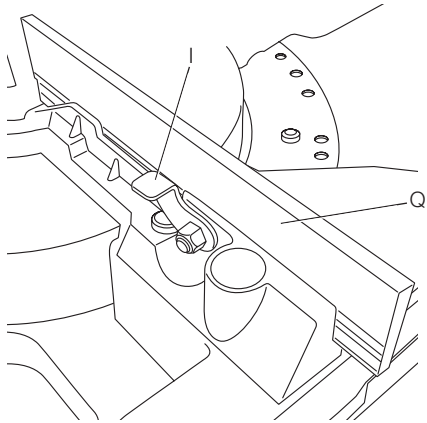


Figure 12

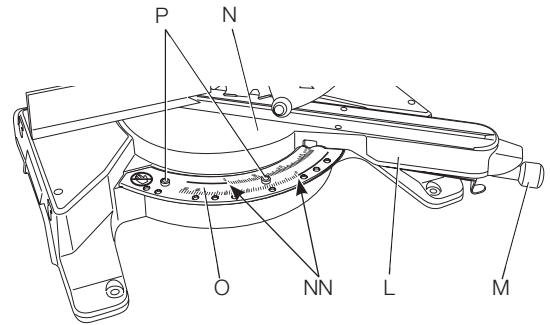


Figure 13

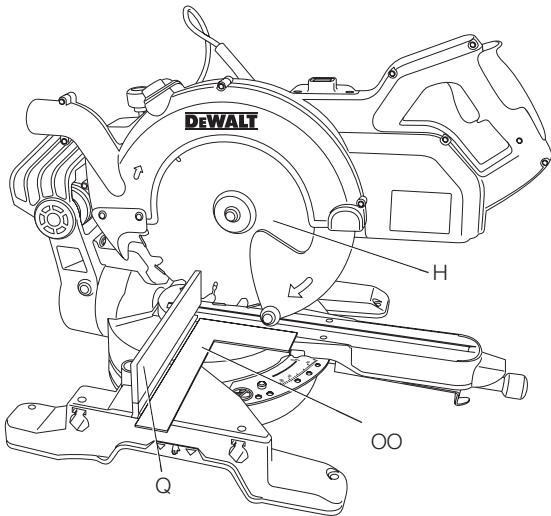


Figure 14

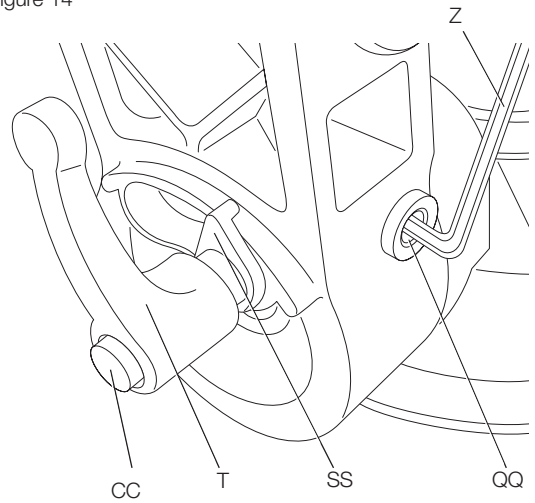


Figure 15

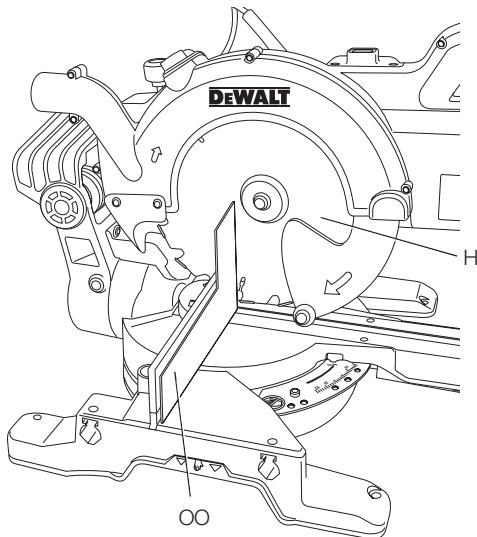


Figure 16

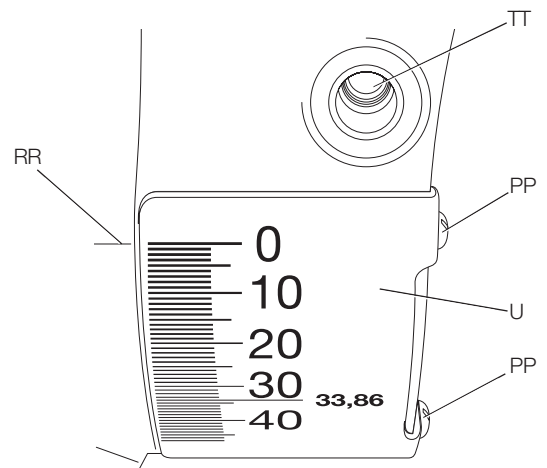


Figure 17

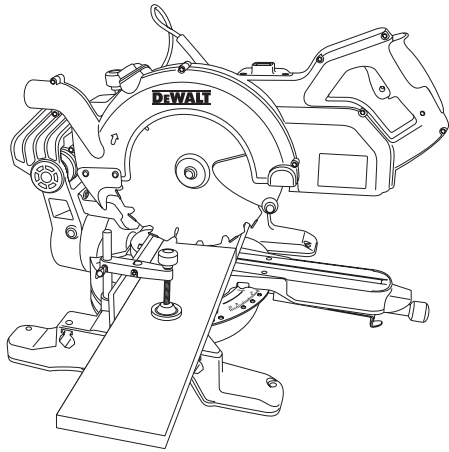


Figure 18

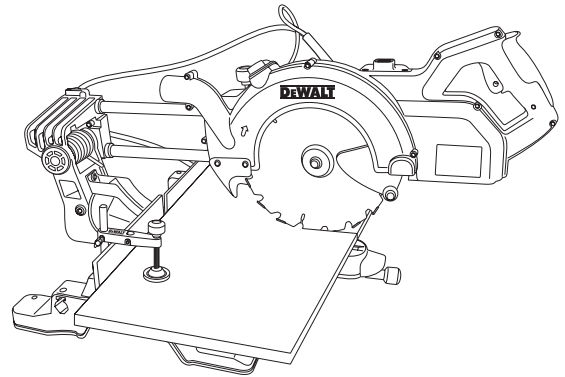


Figure 19

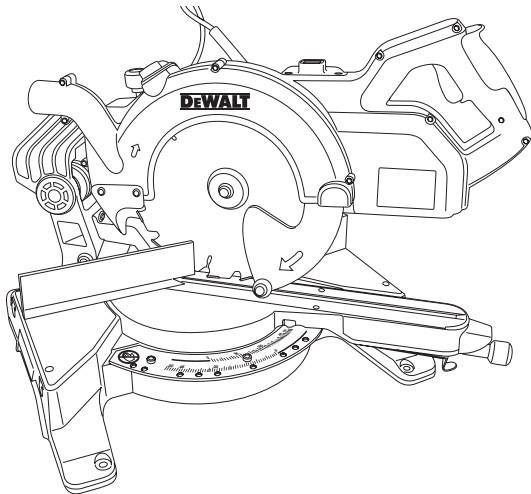


Figure 20

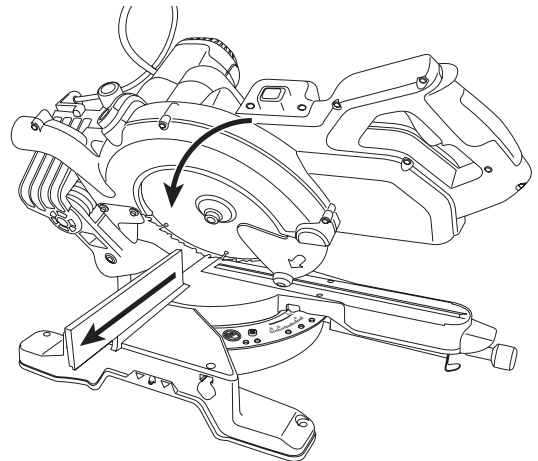


Figure 21

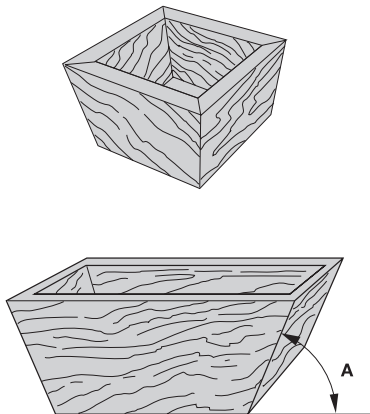


Figure 22

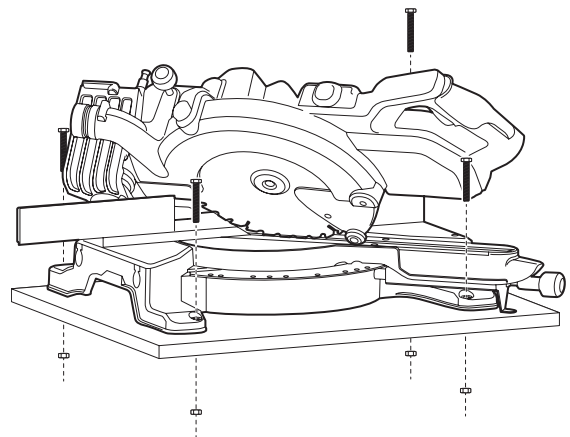


Figure 23

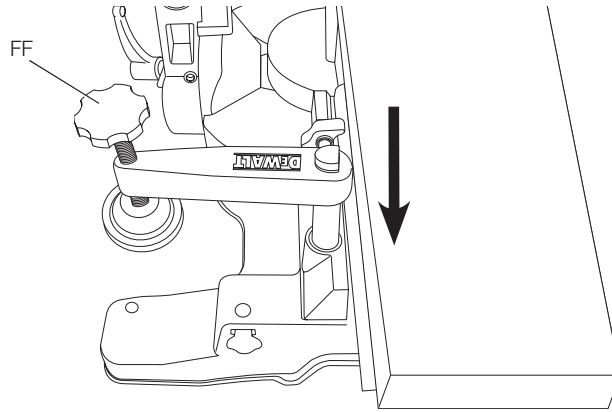


Figure 24

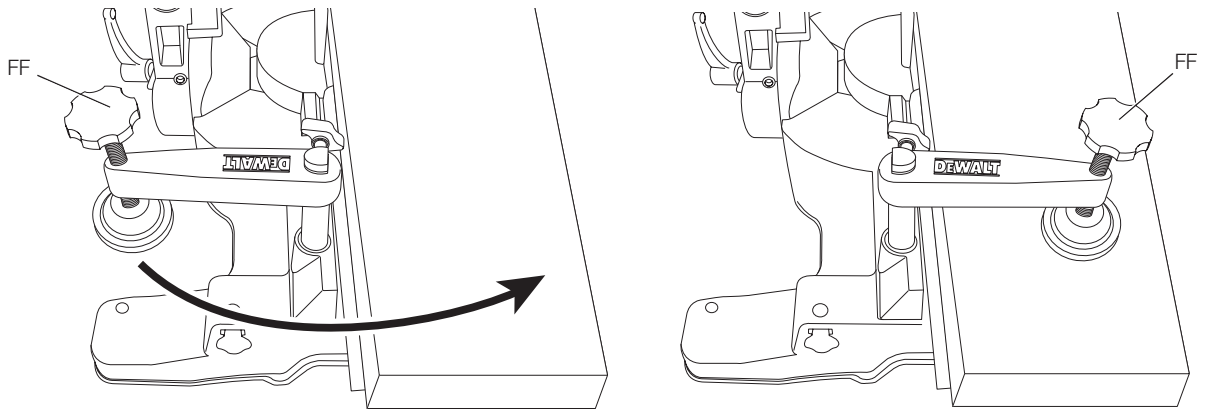
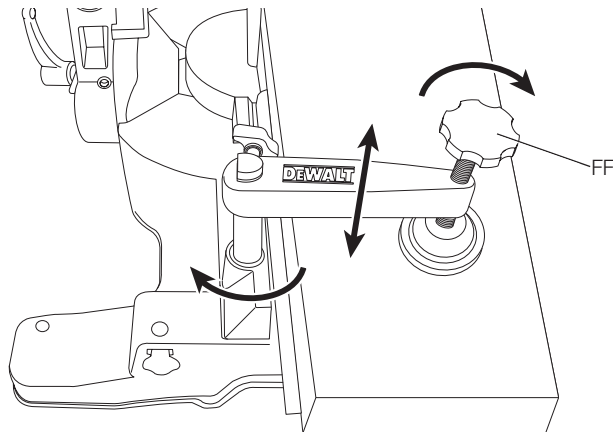


Figure 25



# CROSS-CUT MITRE SAW

## DWS778

### 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

		DWS778	
		QS/GB	LX
Voltage	V	230	115
(U.K. & Ireland only)	V	230	115
Type		2	2
Power input	W	1850	1650
Blade diameter	mm	250	250
Blade bore	mm	30	30
Max. blade speed	min <sup>-1</sup>	4300	4100
Cutting depth	mm	85	85
Max. blade thickness	mm	1.75	1.75
Mitre (max. positions)	left and right	50°	50°
Bevel (max. positions)	left	48°	48°
Compound mitre	bevel	45°	45°
	mitre	45°	45°
Capacities			
cross-cut 90°	mm	85 x 305	
mitre 45°	mm	85 x 215	
mitre 48°	mm	85 x 204	
bevel 45°	mm	58 x 305	
bevel 48°	mm	54 x 305	
Overall dimensions	mm	465 x 615 x 390	
Weight	kg	17.2	
Noise values and vibration values (tri-ax vector sum) according to EN61029			
L <sub>PA</sub> (emission sound pressure level)	dB(A)	94	94
L <sub>WA</sub> (sound power level)	dB(A)	107	107
K (uncertainty for the given sound level)	dB(A)	3.0	3.0
Vibration emission value a <sub>h</sub> =	m/s <sup>2</sup>	2.4	2.4
Uncertainty K =	m/s <sup>2</sup>	1.5	1.5

The vibration emission level given in this information sheet has been measured in accordance with a standardised test given in EN61029 and may be used to compare one tool with another. It may be used for a preliminary assessment of exposure.



**WARNING:** The declared vibration 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 emission may differ. This may significantly increase the exposure level over the total working period.

An estimation of the level of exposure to vibration 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 such as: maintain the tool and the accessories, keep the hands warm, organisation of work patterns.

### Fuses

Europe	230 V tools	10 Amperes, mains
U.K. & Ireland	230 V tools	13 Amperes, in plugs

**NOTE:** This device is intended for the connection to a power supply system with maximum permissible system impedance Z<sub>max</sub> of 0.25 Ohm at the interface point (power service box) of user's supply.

The user has to ensure that this device is connected only to a power system which fulfils the requirement above. If necessary, the user can ask the public power supply company for the system impedance at the interface point.

### 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.



Denotes sharp edges.

### EC-Declaration of Conformity

#### MACHINERY DIRECTIVE



#### CROSS-CUT MITRE SAW DWS778

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

2006/42/EC, EN61029-1:2009 +A.11:2010, EN61029-2-11:2012 +A11:2013.



These products also comply with Directive 2014/30/EU and 2011/65/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  
Director Engineering  
DeWALT, Richard-Klinger-Straße 11,  
D-65510, Idstein, Germany

20.04.2016

## Safety Instructions



**WARNING!** When using electric tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury including the following.

Read all these instructions before attempting to operate this product and save these instructions.

### SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

## General Safety Rules

### 1. Keep work area clear.

Cluttered areas and benches invite injuries.

### 2. Consider work area environment.

Do not expose the tool to rain. Do not use the tool in damp or wet conditions. Keep the work area well lit (250 - 300 Lux). Do not use the tool where there is a risk of causing fire or explosion, e.g., in the presence of flammable liquids and gases.

### 3. Guard against electric shock.

Avoid body contact with earthed surfaces (e.g., pipes, radiators, cookers and refrigerators). When using the tool under extreme conditions (e.g., high humidity, when metal swarf is being produced, etc.), electric safety can be improved by inserting an isolating transformer or a (FI) earth-leakage circuit-breaker.

### 4. Keep other persons away.

Do not let persons, especially children, not involved in the work, touch the tool or the extension cord and keep them away from the work area.

### 5. Store idle tools.

When not in use, tools must be stored in a dry place and locked up securely, out of reach of children.

### 6. Do not force the tool.

It will do the job better and safer at the rate to which it was intended.

### 7. Use the right tool.

Do not force small tools to do the job of a heavy duty tool. Do not use tools for purposes not intended; for example do not use circular saws to cut tree limbs or logs.

### 8. Dress properly.

Do not wear loose clothing or jewellery, as these can be caught in moving parts. Non-skid footwear is recommended when working outdoors. Wear protective hair covering to contain long hair.

### 9. Use protective equipment.

Always use safety glasses. Use a face or dust mask if working operations create dust or flying particles. If these particles might be considerably hot, also wear a heat-resistant apron. Wear ear protection at all times. Wear a safety helmet at all times.

### 10. Connect dust extraction equipment.

If devices are provided for the connection of dust extraction and collecting equipment, ensure these are connected and properly used.

### 11. Do not abuse the cord.

**Never yank the cord to disconnect it from the socket.** Keep the cord away from heat, oil and sharp edges. Never carry the tool by its cord.

### 12. Secure work.

Where possible use clamps or a vice to hold the work. It is safer than using your hand and it frees both hands to operate the tool.

### 13. Do not overreach.

Keep proper footing and balance at all times.

### 14. Maintain tools with care.

Keep cutting tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tools periodically and if damaged have them repaired by an authorized service facility. Keep handles and switches dry, clean and free from oil and grease.

### 15. Disconnect tools.

When not in use, before servicing and when changing accessories such as blades, bits and cutters, disconnect tools from the power supply.

### 16. Remove adjusting keys and wrenches.

Form the habit of checking to see that adjusting keys and wrenches are removed from the tool before operating the tool.

### 17. Avoid unintentional starting.

Do not carry the tool with a finger on the switch. Be sure that the tool is in the "off" position before plugging in.

### 18. Use outdoor extension leads.

Before use, inspect the extension cable and replace if damaged. When the tool is used outdoors, use only extension cords intended for outdoor use and marked accordingly.

### 19. Stay alert.

Watch what you are doing. Use common sense. Do not operate the tool when you are tired or under the influence of drugs or alcohol.

### 20. Check for damaged parts.

Before use, carefully check the tool and mains cable to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service centre unless otherwise indicated in this instruction manual. Have defective switches replaced by an authorized service centre. Do not use the tool if the switch does not turn it on and off. Never attempt any repairs yourself.



**WARNING!** The use of any accessory or attachment or performance of any operation with this tool other than those recommended in this instruction manual may present a risk of personal injury.

#### 21. Have your tool repaired by a qualified person.

This electric tool complies relevant safety rules. Repairs should only be carried out by qualified persons using original spare parts; otherwise this may result in considerable danger to the user.

### Additional Safety Rules for Mitre Saws

- The machine is provided with a special configured power supply cord which can only be replaced by the manufacturer or its authorised service agent.
- Do not use the saw to cut other materials than those recommended by the manufacturer.
- Do not operate the machine without guards in position, or if guards do not function or are not maintained properly.
- Ensure that the arm is securely fixed when performing bevel cuts.
- Keep the floor area around the machine level, well-maintained and free of loose materials, e.g., chips and cut-offs.
- Select the correct blade for the material to be cut.
- Use correctly sharpened saw blades. Observe the maximum speed mark on the saw blade.
- Make sure all locking knobs and clamp handles are tight before starting any operation.
- Never place either hand in the blade area when the saw is connected to the electrical power source.
- Never attempt to stop a machine in motion rapidly by jamming a tool or other means against the blade; serious accidents can occur.
- Before using any accessory consult the instruction manual. The improper use of an accessory can cause damage.
- Use a holder or wear gloves when handling a saw blade or rough material.
- Ensure that the saw blade is mounted correctly before use.
- Make sure that the blade rotates in the correct direction.
- Do not use blades of larger or smaller diameter than recommended. For the proper blade rating refer to the **technical data**. Use only the blades specified in this manual, complying with EN 847-1.
- Consider applying specially designed noise-reduction blades.
- Do not use HIGH SPEED STEEL blades.
- Do not use cracked or damaged saw blades.
- Do not use any abrasive or diamond discs.
- Use only saw blades where the marked speed is at least equal to the speed marked on the saw.
- Never use your saw without the kerf plate.
- Raise the blade from the kerf in the workpiece prior to releasing the switch.
- Before each cut ensure that the machine is stable.
- Do not wedge anything against the fan to hold the motor shaft.
- The blade guard on your saw will automatically raise when the arm is brought down; it will lower over the blade when the guard lock-up release lever (B) is pushed.
- Never raise the blade guard manually unless the saw is switched off. The guard can be raised by hand when installing or removing saw blades or for inspection of the saw.
- Check periodically that the motor air slots are clean and free of chips.
- Replace the kerf plate when worn.
- Disconnect the machine from the mains before carrying out any maintenance work or when changing the blade.
- Never perform any cleaning or maintenance work when the machine is still running and the head is not in the rest position.
- When fitted with a laser or LED, no exchange with a different type of laser is permitted. Repairs shall only be carried out by the laser manufacturer or an authorized agent.
- Connect the saw to a dust collection device when sawing wood. Always consider factors which influence exposure of dust such as:
  - type of material to be machined (chip board produces more dust than wood);
  - sharpness of the saw blade;
  - correct adjustment of the saw blade;
  - dust extractor with air velocity not less than 20 m/s.

Ensure that the local extraction as well as hoods, baffles and chutes are properly adjusted.
- Please 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.
- Machine maintenance shall be conducted periodically.
- Provide adequate general or localized lighting.
- Ensure the operator is adequately trained in the use, adjustment and operation of the machine.
- Ensure that any spacers and spindle rings are suitable for the purpose as stated in this manual.
- Refrain from removing any cut-offs or other parts of the workpiece from the cutting area while the machine is running and the saw head is not in the rest position.
- Never cut workpieces shorter than 150 mm.
- Without additional support the machine is designed to accept the maximum workpiece size of:
  - Height 85 mm by width 305 mm by length 400 mm;
  - Longer workpieces need to be supported by suitable additional table, e.g. DE7023. Always clamp the workpiece safely to the saw table.
- In case of an accident or machine failure, immediately turn the machine off and disconnect machine from the power source.
- Report the failure and mark the machine in suitable form to prevent other people from using the defective machine.
- When the saw blade is blocked due to abnormal feed force during cutting, turn the machine off and disconnect it from power supply. Remove the workpiece and ensure that the saw blade runs free. Turn the machine on and start new cutting operation with reduced feed force.
- Never cut light alloy, especially magnesium.
- Whenever the situation allows, mount the machine to a bench using bolts with a diameter of 8 mm and 80 mm in length.



**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 unprotected saw 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.

## Markings on Tool

The following pictograms are shown on the tool:



Read instruction manual before use



Wear ear protection



Wear eye protection



Carrying point



Keep hands away from blade

### DATE CODE POSITION (FIG. 2)

The Date Code (V V), which also includes the year of manufacture, is printed into the housing.

Example:

2016 XX XX

Year of Manufacture

## Package Contents

The package contains:

- 1 Partly assembled cross-cut mitre saw
  - 2 Hex keys 4/6 mm
  - 1 250 mm TCT saw blade
  - 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.

## Description (Fig. 1, 2, 7, 11, 12)



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

- Trigger switch
- Guard lock-up release lever
- Operating handle
- Fixed upper guard
- Outer flange
- Blade bolt
- Lower blade guard
- Saw blade
  - Sliding fence lock lever (Fig. 11)
- Fixed table
- Kerf plate
- Mitre arm
- Mitre latch
- Rotating table/mitre arm
- Mitre scale
- Mitre scale screws (Fig. 12)
- Sliding fence
- Dust extraction nozzle
- Traverse lock
- Bevel clamp handle
- Bevel scale
- Bench mounting holes
- Lock-down button
- Traverse bars
- Saw head
- Hex keys
- Cable clamp
- Padlock hole
- Override button
- Carrying indentations (left and right)
- Inner flange (Fig. 7)
- Material clamp
- XPS™ Worklight on/off switch
- XPS™ Worklight
  - Twist lock connector (DWW9000, optional accessory)

### INTENDED USE

Your DeWALT Cross-Cut Mitre Saw has been designed for professional cutting of wood, wood products, plastics and aluminium. It performs the sawing operations of cross-cutting, bevelling and mitring easily, accurately and safely.

When assembled with a suitable saw blade, this machine is designed for cutting aluminium profiles up to a maximum thickness of 4.0 mm. **NEVER** cut magnesium.

This unit is designed for use with a nominal blade diameter 250 mm carbide tip blade.

**DO NOT** use under wet conditions or in 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.

- **Young children and the infirm.** This appliance is not intended for use by young children or infirm persons without supervision.
- 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.

## 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 tool is double insulated in accordance with EN61029; therefore no earth wire is required.



**WARNING:** 115 V units have to be operated via a fail-safe isolating transformer with an earth screen between the primary and secondary winding.

If the supply cord is damaged, it must be replaced by a specially prepared cord available through the DeWALT service organisation.

In case of cord replacement, the tool must only be repaired by an authorized service agent or by qualified electrician.

The following cords are mandatory:

DWS778: H05RN-F, 2x1.0 mm<sup>2</sup>  
DWS778 LX: H05RR-F, 2x1.5 mm<sup>2</sup>

## 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.

## Fitting a Mains Plug to 115 V Units (U.K. and Ireland Only)

- The plug fitted should comply with BS EN 60309 (BS4343), 16 Amps, earthing contact position 4h.



**WARNING:** Always ensure that the cable clamp (AA) is correctly and securely fitted to the sheath of the cable.

## 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 mm<sup>2</sup>; the maximum length is 30 m.

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

## ASSEMBLY



**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

The motor and guards are already assembled onto the base.

## Bench Mounting (Fig. 2)

1. Holes (V) are provided in all four feet to facilitate bench mounting. Two different sized holes are provided to accommodate different sizes of bolts. Use either hole; it is not necessary to use both. Always mount your saw firmly to prevent movement. To enhance the portability, the tool can be mounted to a piece of 12.5 mm or thicker plywood which can then be clamped to your work support or moved to other job sites and reclamped.
2. When mounting your saw to a piece of plywood, make sure that the mounting screws do not 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.
3. 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 is firm on the mounting surface.

## Mounting the Saw Blade (Fig. 2, 6–8)



**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:** The teeth of a new blade are very sharp and can be dangerous.



**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.: DT4282 is suggested.

**IMPORTANT:** The saw head (Y) must be in its highest position to install a new blade.

1. To raise the saw head (Y) to its highest position, push down on the saw head (Y) and pull out the lock-down button (W).
2. Release the downward pressure and allow the saw head to rise to its full height.
3. Insert the 6 mm hex key (Z) deeply into the spindle lock (UU), found opposite the blade shaft, and hold it (Fig. 6, 8).
4. Insert the other 6 mm hex key (Z) into the blade bolt (F) and loosen it by turning clockwise. Remove the blade bolt (F) and the outer flange (E).
5. Press the lower guard lock-up release lever (B) to raise the lower blade guard (G) and remove the saw blade (H).
6. Install the new saw blade onto the shoulder provided on the inner flange (EE) (Fig. 7) making sure that the teeth at the bottom edge of the blade are pointing towards the fence (away from the operator).
7. Replace the outer flange (E), making sure that the location lugs (JJ) are engaged correctly, one on each side of the motor shaft.

8. Insert the blade bolt (F) and tighten it with the 6 mm hex key (Z) by turning anti-clockwise while holding the 6 mm hex key (Z) engaged with your other hand (Fig. 8).
9. Remove the two hex keys (Z) and fit them back into their holder.

## 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.

Your mitre saw was accurately adjusted at the factory. 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.

### Adjusting the Traverse Bars for Constant Cutting Depth (Fig. 1, 2, 9, 10)

The blade must run at a constant cutting depth along the full length of the table and must not touch the fixed table at the rear of the slot or at the front of the rotating arm. To achieve this, the traverse bars (X) must be perfectly parallel to the table when the saw head (Y) is fully depressed.

1. Press the lower guard lock-up release lever (B) (Fig. 1).
2. Press the saw head fully to the rear position and measure the height from the rotating table (N) to the bottom of the outer flange (E) (Fig. 10).
3. Turn the saw head traverse lock (S) (Fig. 2).
4. Keeping the saw head fully depressed, pull the head to the end of its travel.
5. Measure the height indicated in Figure 10 again. Both values should be identical.
6. If adjustment is required, proceed as follows (Fig. 9):
  - A. Loosen the locknut (KK) in the bracket (LL) under the upper dust extraction nozzle (R) (Fig. 1) and adjust the screw (MM) as required, proceeding in small steps.
  - B. Tighten the locknut (KK).



**WARNING:** Always check that the blade does not touch the table at the rear of the slot or at the front of the rotating arm at 90° vertical and 45° bevel positions. Do not switch on before having checked this!

### Adjusting the Fence (Fig. 11)

Lift the sliding fence lock lever (I) anti-clockwise to loosen. Move the sliding fence (Q) to a position that avoids the blade, then tighten the fence lock lever by turning clockwise.

### Checking and Adjusting the Blade to the Fence (Fig. 2, 12, 13)

1. Slacken the mitre latch (M).
2. Place your thumb on the mitre arm (L) and squeeze the mitre latch (M) to release the rotating table/mitre arm (N).
3. Swing the mitre arm until the latch locates it at the 0° mitre position.
4. Pull down the head and lock it in this position using the lock-down button (W).

5. Check that the two 0° markings (NN) on the mitre scale (O) are just visible.
6. Place a square (OO) against the left side of the fence (Q) and blade (H).



**WARNING:** Do not touch the tips of the blade teeth with the square.

7. If adjustment is required, proceed as follows:
  - A. Loosen the mitre scale screws (P) (Fig. 12) and move the scale/mitre arm assembly left or right until the blade is at 90° to the fence as measured with the square (OO) (Fig. 13).
  - B. Retighten the mitre scale screws (P).

### Checking and Adjusting the Blade to the Table (Fig. 2, 14–16)

1. Loosen the bevel clamp handle (T) (Fig. 14).
2. Press the saw head (Y) to the right to ensure it is fully vertical and tighten the bevel clamp handle.
3. Place a square (OO) on the table and up against the saw blade (H) (Fig. 15).



**WARNING:** Do not touch the tips of the blade teeth with the square.

4. If adjustment is required, proceed as follows:
  - A. Loosen the bevel clamp handle (T) and using a hex key (Z), turn the vertical position adjustment stop screw (QQ) in or out until the blade is at 90° to the table as measured with the square.
  - B. If the bevel pointer (RR) does not indicate zero on the bevel scale (U), loosen the bevel scale screws (PP) that secure the scale and move the scale as necessary.

### Checking and Adjusting the Bevel Angle (Fig. 2, 14, 16)

The bevel override allows the maximum bevel angle to be set at 45° or 48° as required.

1. Make sure the override knob (SS) is located in the left position.
2. Loosen the bevel clamp handle (T).
3. Standing in front of the machine, move the saw head (Y) to the left.
4. This is the 45° bevel position.
5. If adjustment is required, turn the 45° bevel adjustment stop screw (TT) using a 4 mm hex key (Z), in or out as necessary until the bevel pointer (RR) indicates 45°.



**WARNING:** The guide grooves can become clogged with sawdust. Use a stick or some low pressure air to clear the guide grooves.

### Prior to Operation



**WARNING:**

- 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.
- Do not attempt to cut excessively small pieces.
- Allow the blade to cut freely. Do not force.
- Allow the motor to reach full speed before cutting.

- Make sure all locking knobs and clamp handles are tight.
- Secure the workpiece.
- 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 or masonry with this saw! Do not use any abrasive discs!
- Make sure to use the kerf plate. Do not operate the machine if the kerf slot is wider than 10 mm.

## 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.

The attention of UK users is drawn to the "woodworking machines regulations 1974" and any subsequent amendments.

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 increased vibration, make sure the environment is not too cold, the machine and accessory are well maintained and the workpiece size is suitable for this machine.

### Switching On and Off (Fig. 1)

A hole (BB) is provided in the trigger switch (A) for insertion of a padlock to lock the tool.

1. To run the tool, press the trigger switch (A).
2. To stop the tool, release the switch.

### Use of XPS™ LED Worklight System (Fig. 1)

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

The XPS™ LED Worklight System (HH) is equipped with an on/off switch (GG). 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 (C) to bring the saw blade (H) 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.

### Body and Hand Position

Proper positioning of your body and hands when operating the mitre saw will make cutting easier, more accurate and safer.



**WARNING:**

- Never place your hands near the cutting area.

- Place your hands no closer than 150 mm from the blade.
- Hold the workpiece tightly to the table and the fence when cutting. Keep your hands in position until the switch has been released and the blade has completely stopped.
- Always make dry runs (without power) before finish cuts so that you can check the path of the blade.
- Do not cross your hands.
- Keep both feet firmly on the floor and maintain proper balance.
- As you move the saw arm left and right, follow it and stand slightly to the side of the saw blade.

### Basic Saw Cuts

#### VERTICAL STRAIGHT CROSS-CUT (FIG. 1, 2, 17)

**NOTE:** Use 250 mm saw blades with 30 mm arbor holes to obtain the desired cutting capacities.

1. Raise the saw head (Y) to its highest position by pushing down on the saw head (Y) and pulling out the lock-down button (W). Release the downward pressure and allow the saw head to rise to its full height.
2. Squeeze the mitre latch (M) then move the arm to the 0° position.
3. Release the mitre latch.
4. Always ensure that the mitre latch is locked tightly before cutting.
5. Place the wood to be cut against the sliding fence (Q) and secure it with the material clamp (FF).
6. Take hold of the operating handle (C) and press the guard lock-up release lever (B) to release the guard. Press the trigger switch (A) to start the motor. It is recommended to start the cut near the fence.
7. Depress the head to allow the blade to cut through the timber and enter the plastic kerf plate (K).
8. After completing the cut, release the switch and wait for the saw blade to come to a complete standstill before returning the head to its upper rest position.



**WARNING:**

- For some types of plastic profiles, it is advisable to follow the sequence in reverse order.
- The lower blade guard is designed to close quickly when the lever (B) is released. If it does not, have the saw serviced by an authorized DeWALT repair agent.

#### PERFORMING A SLIDING CUT (FIG. 1, 2, 18)

1. Turn the saw head traverse lock (S) to loosen.
2. Push down the saw head (Y), pull out the lock-down button (W) and let the saw head rise to its highest position.
3. Place the wood to be cut against the sliding fence (Q) and secure it with the material clamp (FF).
4. Lower the saw head then pull it to the end of its travel.
5. Press the guard lock-up release lever (B) to release the guard. Press the trigger switch (A) to start the motor.
6. Totally depress the head to allow the blade to cut through the timber and push the head back to complete the cut.
7. After completing the cut, release the switch and wait for the saw blade to come to a complete standstill before returning the head to its upper rest position.



**WARNING:** Remember to lock the saw head in the rear position when the sliding cuts are finished.

**VERTICAL MITRE CROSS-CUT (FIG. 1, 19)**

1. Squeeze the mitre latch (M). Move the arm left or right to the required angle.
2. The mitre latch will automatically locate at 0°, 15°, 22.5°, 31.62°, 45° and 50° both left and right. If any intermediate angle is required hold the head firmly and lock by fastening the mitre latch.
3. Always ensure that the mitre latch is locked tightly before cutting.
4. Proceed as for a vertical straight cross-cut.



**WARNING:** When mitring the end of a piece of wood with a small off-cut, position the wood to ensure that the off-cut is to the side of the blade with the greater angle to the fence, i.e.:

left mitre, off-cut to the right  
right mitre, off-cut to the left

**BEVEL CROSS-CUTS (FIG. 11, 14, 20)**

Bevel angles can be set from 0° to 48° to the left. Bevels up to 45° can be cut with the mitre arm set between zero and a maximum of 45° mitre position right or left.

1. Unlock the sliding fence lever (I) and move the fence away from the blade.
2. Loosen the bevel clamp handle (T) and set the bevel as desired.
3. Set the override button (CC) if required.
4. Hold the head firmly and do not allow it to fall.
5. Tighten the bevel clamp handle (T) firmly.
6. Slide the fence towards the blade making sure it does not touch the blade, then tighten the fence lock lever by turning clockwise.
7. Proceed as for a vertical straight cross-cut.

**Cutting Non-Ferrous Metals**

When cutting non-ferrous metals, the machine is only to be used to perform vertical straight and mitre cross-cuts in the mitre saw mode. We recommend that bevel and compound mitre cuts should not be performed in non-ferrous metals. The machine is not to be used for cutting ferrous metals.

- Always use a material clamp when cutting non-ferrous metals. Make sure that the workpiece is clamped securely.
- Only apply saw blades that are qualified for cutting non-ferrous metals.
- When using lubricants, only apply wax or separation spray. Do not use emulsions or similar fluids.

The smoothness of any cut depends on a number of variables, i.e., the material being cut. When smoothest cuts are desired for moulding 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 creep while cutting; clamp it securely in place. Always let the blade come to a full stop before raising the arm. If small fibres 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.

**Clamping the Workpiece (Fig. 23–25)**



**WARNING:** Always use a material clamp.

For best results use the material clamp (FF) made for use with your saw.

Always use a material clamp when cutting non-ferrous metals. Make sure that the workpiece is clamped securely.

**TO INSTALL CLAMP**

1. Insert it into the hole behind the fence. The clamp (FF) should be facing toward the back of the mitre saw. Ensure the groove on the clamp rod 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 right 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.

**Compound Mitre (Fig. 21, 22)**

This cut is a combination of a mitre and a bevel cut. This is the type of cut used to make frames or boxes with slanting sides like the one shown in Figure 21.

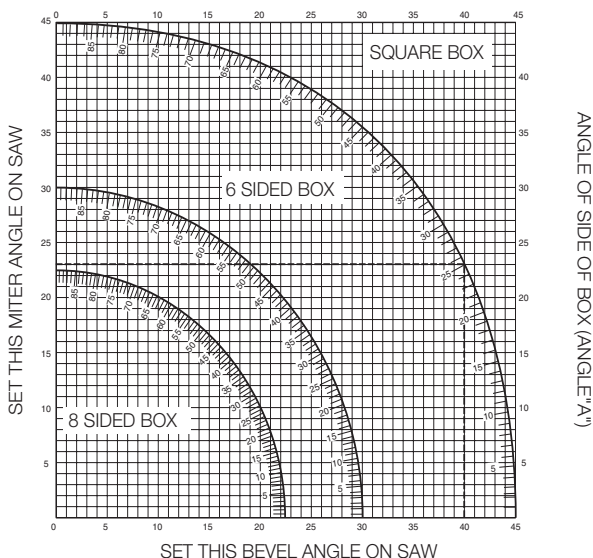


**WARNING:** If the cutting angle varies from cut to cut, check that the bevel clamp handle and the mitre clamping knob are securely tightened. These must be tightened after making any changes in bevel or mitre.



**WARNING:** The saw must be fixed on a base support when performing compound cuts to prevent tip over (Fig. 22). Refer to **Bench Mounting**.

- The chart shown below will assist you in selecting the proper bevel and mitre settings for common compound mitre cuts.
- To use the chart, select the desired angle "A" (Fig. 21) 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.



ANGLE OF SIDE OF BOX (ANGLE "A")

1. Set your saw to the prescribed angles and make a few trial cuts.
2. Practice fitting the cut pieces together.

Example: To make a four-sided box with 25° exterior angles (angle "A") (Fig. 21), use the upper right arc. Find 25° on the arc scale. Follow the horizontal intersecting line to either side to get the mitre angle setting on the saw (23°). Likewise follow the vertical intersecting line to the top or bottom to get the bevel angle setting on the saw (40°). Always try cuts on a few scrap pieces of wood to verify the settings on the saw.



**WARNING:** Never exceed the compound mitre limits of 45° bevel with 45° left or right mitre.



## Dust Extraction (Fig. 1, 3, 4)



**WARNING:** Whenever possible, connect a dust extraction device designed in accordance with the relevant regulations regarding dust emission.

Connect a dust collection device designed in accordance with the relevant regulations. The air velocity of externally connected systems shall be 20 m/s +/- 2 m/s. Velocity to be measured in the connection tube at the point of connection, with the tool connected but not running.

**NOTE:** The DWV9000 twist-lock quick connector (II) is recommended as an optional accessory to connect to the dust extraction device.

## Transporting (Fig. 1, 2)



**WARNING:** In order to conveniently carry the mitre saw, the base is provided with two hand indentations (DD). Never use guards to lift or transport the mitre saw.

1. To transport the saw, set the bevel and mitre positions to 0°.
2. Press the lower guard lock-up release lever (B) (Fig.1).
3. Press the saw head down and push in the lock-down button (W) (Fig. 2).
4. Bring the saw head to rest position and tighten the traverse lock (S).

## 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:** If the saw blade is worn, replace it with a new sharp blade.



## Lubrication

Your power tool requires no additional lubrication.



## Cleaning

Before use, carefully check the upper blade guard, movable lower blade guard as well as the dust extraction tube to determine that it will operate properly. Ensure that chips, dust or workpiece particle cannot lead to blockage of one of the functions.

In case of workpiece fragments jammed between saw blade and guards disconnect the machine from the power supply and follow the instructions given in section **Mounting the Saw Blade**. Remove the jammed parts and reassembling the saw blade.



**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.



**WARNING:** To reduce the risk of injury, regularly clean the table top.



**WARNING:** To reduce the risk of injury, regularly clean the dust collection system.

## Optional 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.

### SUPPORT FOR LONG PIECES (FIG. 5)

- Always support long pieces.
- For best results, use the extension work support (DE7023) to extend the table width of your saw (available from your dealer as an option). Support long workpieces using any convenient means such as saw-horses or similar devices to keep the ends from dropping.

### RANGE OF SAW BLADES AVAILABLE (RECOMMENDED BLADES)

Type of blade	Blade dimensions	Usage
DT1158 series 30	250 mm	For general purpose, ripping and cross-cutting of wood and plastics
DT4282 series 40	250 mm	TCG for use with aluminum
DT4226 series 40	250 mm	ATB for fine cutting of manmade and natural wood
DT4287 series 40	250 mm	TCG for extra fine cutting of manmade and natural wood
DT4282 series 40	250 mm	Aluminium cutting

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](http://www.2helpU.com).





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