DRAPER

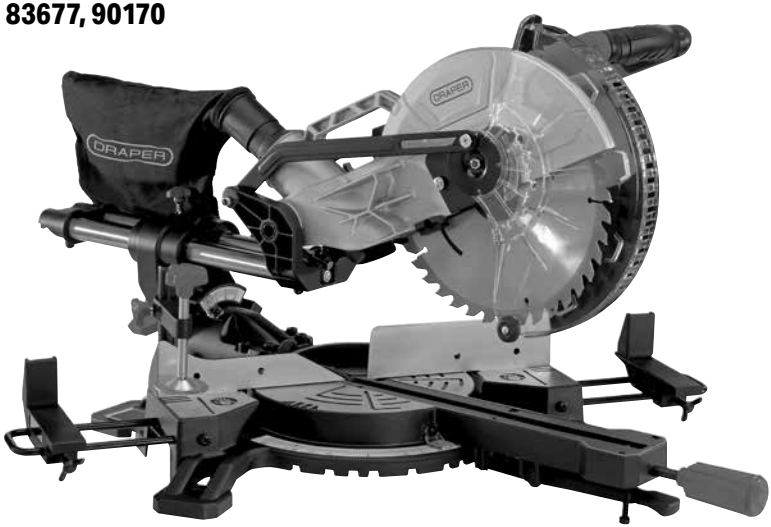
EN

Original Instructions
Version 3 – January 2025

230V 210/255mm

SLIDING COMPOUND MITRE SAW

83677, 90170



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1. Preface

These are the original product instructions. This document is part of the product; retain it for the life of the product, passing it on to subsequent holders. Read this manual in full before attempting to assemble, operate, or maintain this product.

This Draper Tools manual describes the purpose of the product and contains all the necessary information to ensure its correct and safe use. Following all the instructions and guidance in this manual will ensure the safety of both the product and the operator and increase the lifespan of the product.

All photographs and drawings within this manual are supplied by Draper Tools to help illustrate correct operation of the product.

Every effort has been made to ensure the information contained in this manual is accurate. However, Draper Tools reserves the right to amend this document without prior warning. Always use the latest version of the product manual.

1.1 Product Reference

User Manual for: 230V 210/255mm Sliding Compound Mitre Saw

Stock No: 83677, 90170

Part No: SMS210B, SMS250D1800

1.2 Revisions

Version 1: February 2019
1st release.

Version 2: June 2022

Version 3: January 2025

As our manuals are continually updated, always ensure that the latest version is used.

Download the latest version from:
drapertools.com/manuals

1.3 Understanding the Safety Content of This Manual

WARNING! – Situations or actions that may result in personal injury or death.

CAUTION! – Situations or actions that may result in damage to the product or surroundings.

Important: – Information or instructions of particular importance.

1.4 Copyright © Notice

2. Contents

3. Product Introduction

3.1 Intended Use

This machine is designed to cut wood; for example, timber frames and roof frames, etc.

As part of our core range, this product is suitable for enthusiasts and tradespeople alike.

Any application other than that it was intended for, is considered misuse.

Read this manual in full before attempting to assemble, operate or maintain the product, and retain it for later use.

3.2 Specification

Stock No	83677	90170
Part No	SMS210B	SMS250D1800
Motor:		
Rated voltage	230V~	230V~
Rated frequency	50Hz	50Hz
Rated input	1500W	1800W
Speed (no load)	4500r/min	5000r/min
Blade diameter	210mm	255mm
Blade thickness	2.4mm	3.0mm
Bore diameter	30mm	30mm
Mitre table angles	0 – 45° left/right	0 – 45° left/right
Bevel cut	0 – 45° left	0 – 45° left
Cross cut:		
0 × 0°:	70 × 220mm	75 × 305mm
Mitre cut:		
45 × 0° (left and right):	70 × 155mm	75 × 210mm
Bevel cut:		
0 × 45° (left only):	35 × 220mm	38 × 305mm
Compound mitre cut:		
45° × 45° (left only):	35 × 155mm	38 × 210mm
Laser guide:		
Classification	Class 2	Class 2
Certification	EN62841	EN62841
Output power	<1mW	<1mW
Wavelength	650nm	650nm
Sound pressure level (LpA)*:	93.6dB(A)	94.3dB(A)
Sound power level (LWA)**:	106.6dB(A)	107.3B(A)
Uncertainty (K):	3dB(A)	3dB(A)
Net weight	10.5kg	14kg

Important: The declared vibration total values and the noise emissions values have been measured in accordance with a standard test method and may be used for comparing one tool with another. These values may also be used in a preliminary assessment of exposure.

WARNING! The vibration and noise emissions during actual use of the product can differ from the declared values depending on the type of work and the area upon which it is used. Before each use, estimate the likely exposure resulting from the actual conditions of use. Take into account all parts of the operation cycle in order to identify any safety measures required to protect the operator.

4.1 General Health and 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.

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.

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.

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.
- **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.
- **Prevent unintentional starting. Ensure the switch is in the 'OFF' position before connecting to power source, 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.
- **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.
- **DO NOT overreach. Keep proper footing and balance at all times.**
  - This enables better control of the power tool in unexpected situations.
- **Dress properly. DO NOT wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.**
  - Loose clothes, jewellery or long hair can be caught in moving parts.
- **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.

- **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.

Power Tool Use and Care

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

Service

- 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.

4.2 Safety Instructions for Mitre Saws

- **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.
- **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.
- **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.
- **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.

4. Health and Safety Information

- **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.
- **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.
- **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.
- **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.
- **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.
- **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.
- **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 ensure there will be no interference or danger of cutting the fence.
- **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.
- **DO NOT use another person as a substitute for a table extension or as additional support.**
  - Unstable support for the workpiece can cause the blade to bind or the workpiece to shift during the cutting operation pulling you and the helper into the spinning blade.
- **The 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.
- **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.
- **Let the blade reach full speed before contacting the workpiece.**
  - This will reduce the risk of the workpiece being thrown.
- **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.
- **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.
- **If the machine is equipped with a brake.**
  - 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.

4.3 Additional Safety Instructions for Circular Saw Blades

- **Maximum speed.** The maximum speed marked on the tool shall not be exceeded. Where stated, the speed range shall be adhered to.
  - **Use of loose rings or bushes to "make up" bore sizes on circular saw blades shall not be permitted.**

4.4 Additional Safety Instructions for Laser Products

The laser used in this product is a Class 2 laser with a maximum power of <5mW and a wavelength of 630 – 650nm.

WARNING! Avoid direct eye contact with the laser. The laser should not normally present an optical hazard, however, there is a risk of flash blindness when staring directly at the beam.

Please observe the following safety rules:

- The laser must be operated and maintained in accordance to the manufacturer's guidelines and instructions.
- **NEVER** switch the laser guide on until the tool is in the correct cutting position.

- **NEVER** aim the beam into the eyes of any person, animal, or any other object other than the workpiece.
- Always ensure the laser is aimed at suitable workpiece that has non-reflective surfaces, such as wood or other similar rough-coated surfaces. Reflective metallic surfaces such as sheet steel, or similar, are not suitable as the laser beam guide could be reflected back at the operator.
- **DO NOT** modify or adjust the laser light assembly. Repairs must only be carried out by the manufacturer or an authorised agent. **DO NOT** fit a different type of laser to the product.

WARNING! Use of controls, adjustments or performance of procedures other than those specified herein could result in hazardous radiation exposure.

4.5 Residual Risk

The safety instructions in this manual cannot account for all possible conditions and situations that may occur. Exercise common sense and caution when using this product and protect against any additional conceivable risks.

4.6 Connection to the Power Supply

CAUTION: Risk of electric shock.
DO NOT OPEN.

This product is supplied with an approved plug and cord for your safety.

If the power supply cord is damaged, it must be replaced by Draper Tools, an authorised service agent or similarly qualified personnel in order to avoid a hazard.

The damaged or incomplete plug, when cut from the cord, shall be disabled to prevent connection to a live electrical outlet.

This appliance is Class II† and is designed for connection to a power supply matching that detailed on the rating label and compatible with the plug fitted.

The value of the fuse fitted is marked on the pin face of the plug. Should the fuse need replacing, ensure the substitute is of the correct rating, approved to BS1362 and ASTA or BSI Kite marked.

ASTA

BSI

The fuse cover is removable with a small plain slot screwdriver. Ensure the fuse cover is replaced before attempting to connect the plug to an electrical outlet.

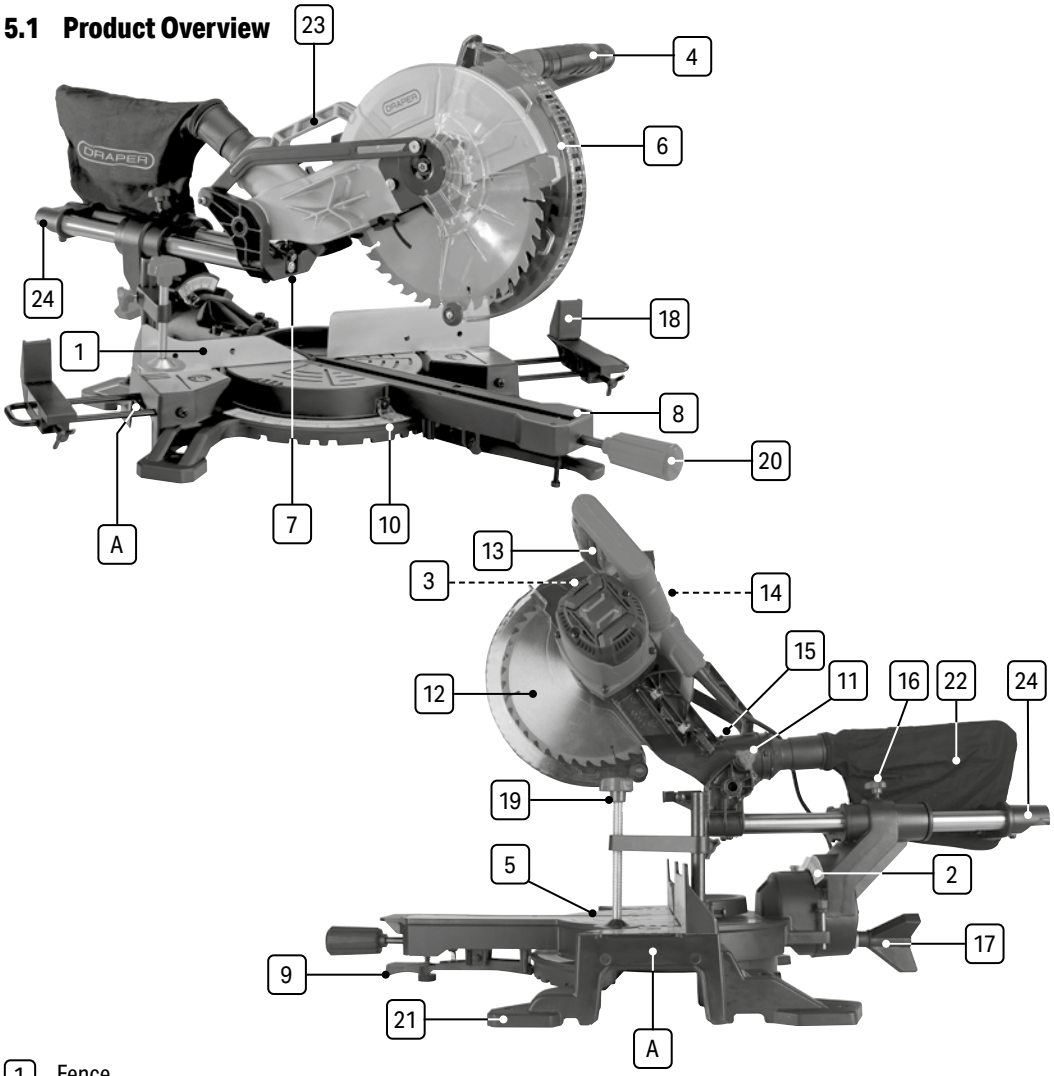
If an extension lead is required, use an approved and compatible lead rated for this appliance. Follow all the instructions supplied with the extension lead.

†Double insulated ⧈: This product requires no earth connection as supplementary insulation is applied to the basic insulation to protect against electric shock in the event of failure of the basic insulation.

Important: If using an extension lead, follow the instructions that came with your lead regarding maximum load while cable is wound. If in doubt, ensure that the entire cable is unwound. Using a coiled extension lead will generate heat which could melt the lead and cause a fire.

5. Identification and Unpacking

5.1 Product Overview



1. Fence.
2. Bevel pointer.
3. Spindle lock button.
4. Plunge handle.
5. Table.
6. Lower blade guard.
7. Laser guide.
8. Table insert.
9. Mitre latch.
10. Mitre pointer.
11. Saw head locking pin.
12. Blade.
13. On/Off trigger.
14. Laser On/Off switch.
15. Adjustable depth stop screw.
16. Slide lock.
17. Bevel locking knob.
18. Extending support wings (Stock No.90170 only).
19. Workpiece clamp.
20. Mitre locking handle.
21. Work bench mounting points.
22. Dust extraction bag.
23. Top carry handle (Stock No.90170 only).
24. Rear carry handle. (Stock No.90170 only).

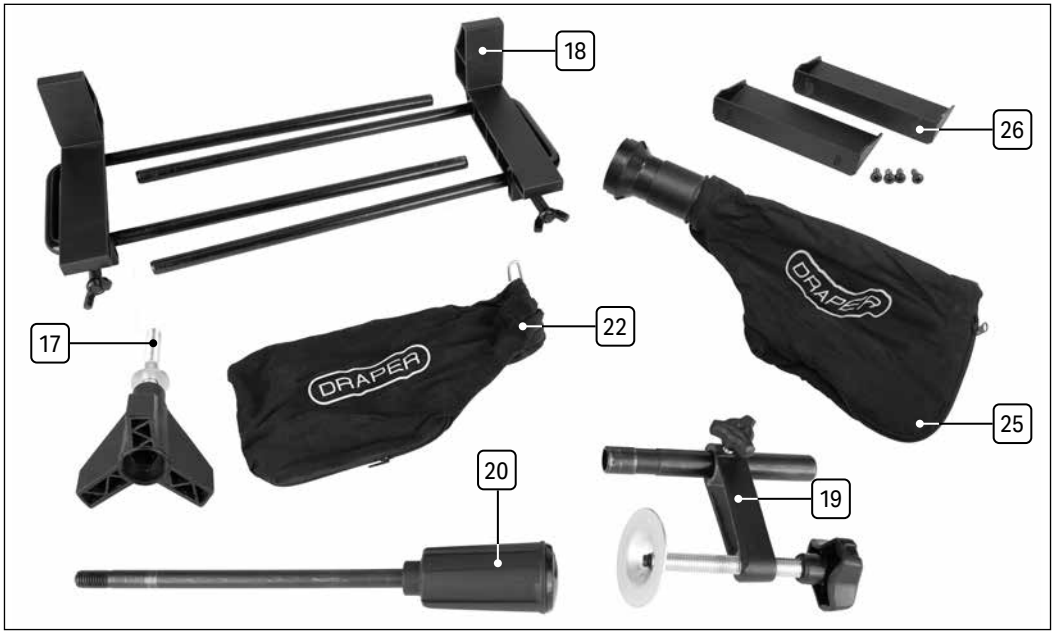
A. Machine lifting/carrying points. (Stock No.83677 only).

5. Identification and Unpacking

5.2 What's in the Box?

Carefully remove the product from the packaging and examine it for any signs of damage that may have occurred during shipment.

Before assembling the product, lay the contents out and check them against the parts shown below. If any part is damaged or missing, **DO NOT** attempt to use the product. Please contact the Draper Helpline; contact details can be found at the back of this manual.



17 Bevel locking knob.

18 Extending support wings (Stock No.90170).

19 Workpiece clamp.

20 Mitre locking handle.

22 Dust extraction bag (Stock No.83677).

25 Dust extraction bag (Stock No.90170).

26 Extension plates (Stock No.83677).

5.3 Packaging

Keep the product packaging for the duration of the warranty period for reference should the product need to be returned for repair.

WARNING! Keep packaging materials out of reach of children. Dispose of packaging correctly and responsibly and in accordance with local regulations.

Please visit **drapertools.com** for our full range of accessories and consumables.

Note: Always unplug the tool from the electrical supply before carrying out any adjustments, servicing or maintenance .

6.1 Transportation

Always transport the mitre saw with the sliding mechanism locked and the saw head locked down.

Note: DO NOT lift the saw by the guard or plunge handle.

Stock No.83677: The saw can be lifted and carried using the handling points located at the outer castings of the machine base.

- Refer to section 5.1 Overview for the location of the two handling points marked (A).

Stock No.90170: The saw can be lifted and carried using the rear carry handle (24) together with the top carry handle (23).

6.2 Bench Mounting – Fig.1

Note: For safe working practice the saw must be mounted on a secure level surface.

- Using the four workbench mounting points (21) in the base and four suitable bolts (not supplied), secure the saw to the workbench.
- Avoid mounting the saw where large workpieces will be difficult to manoeuvre or support.

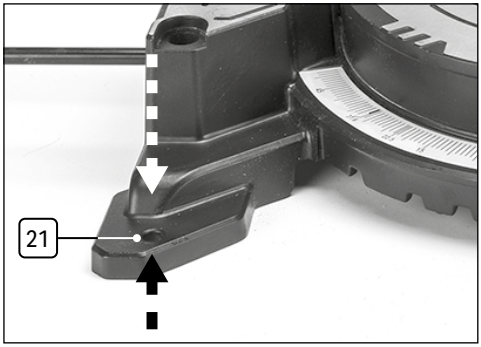


Fig. 1

6.3 Mitre Handle – Fig.2

- Attach the mitre handle (20) by screwing it into position. When tight, this handle stops the table from rotating.

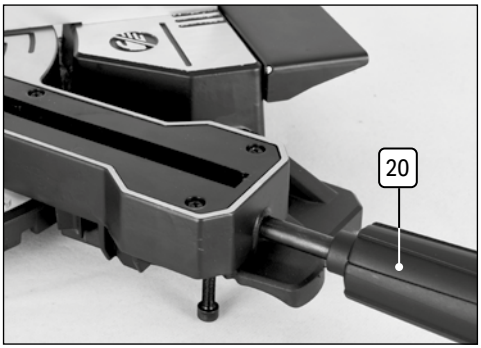


Fig. 2

– **Note:** Before making any cuts, ensure the handle is tightened to prevent any movement.

6.4 Fitting the Extension Plates (Stock No.83677) – Fig.3

- Fit the extension plates (26) to each end of the base using the four screws (26.1) supplied.

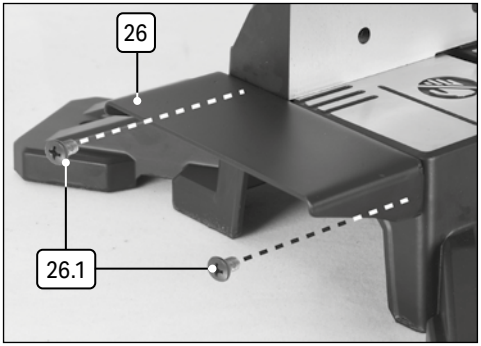


Fig. 3

6.5 Extending Workpiece Support Wings (Stock No.90170) – Fig.4

- Locate the extension wings (18) through the mounting holes in each side of the base.
- Push them in completely and lock in place with the grub screws. Ensure the screws are tight.

6. Preparing The Compound Mitre Saw

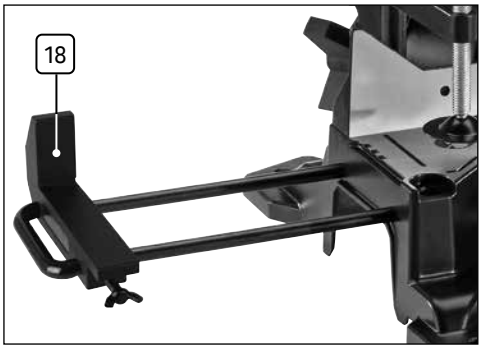


Fig. 4

6.6 Workpiece Clamp – Fig.5

- The workpiece clamp [19] can be attached either side of the table on the rear fence.
- Insert the rod on the appropriate side of the cutting head and secure by tightening locking screw [19.3].
- To set the correct height use locking knob [19.2]. Turn knob [19.1] to make the fine height adjustments.

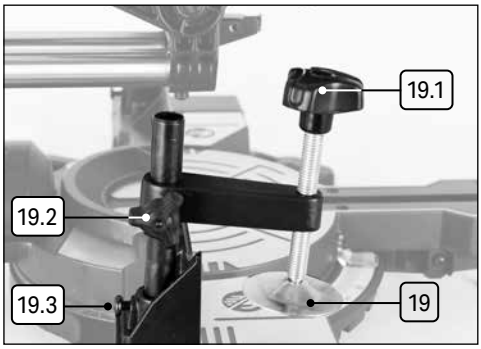


Fig. 5

6.7 Saw Head Locking Pin – Fig.6

The saw head is locked in the down position for transport purposes and should be returned to this position when not in use.

- To release the saw head, slightly press down on the saw head before pulling out the locking pin [11].
  - **Note:** The pin does not detach from the saw.
- The saw head can now be raised up fully. Only carry the saw with the head locked in the down position.

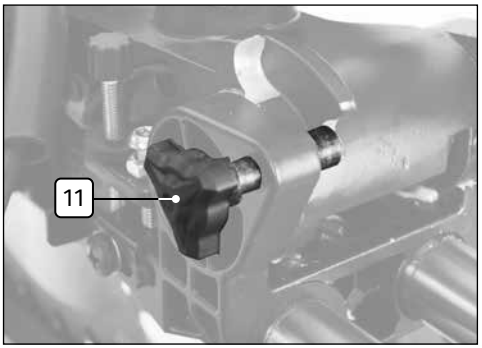


Fig. 6

6.8 Mitre Locking Assembly – Fig.7

- The mitre angle can be set from 0˚ to 45˚ on both the left and right side with quick stops [10.1] set at 0˚, 15˚, 22.5˚, 31.6˚ and 45˚.
- Operate the mitre latch [9] and with the locking handle [20] loose , rotate the table.
- If the mitre latch [9] is released while the table is rotated it will automatically engage in the next quick stop position. To avoid this keep the mitre latch [9] pressed while rotating the table.
- When the desired angle is set, tighten locking handle [20] to secure.
- **Note:** Never make any cuts until the locking handle [20] is fully tightened.

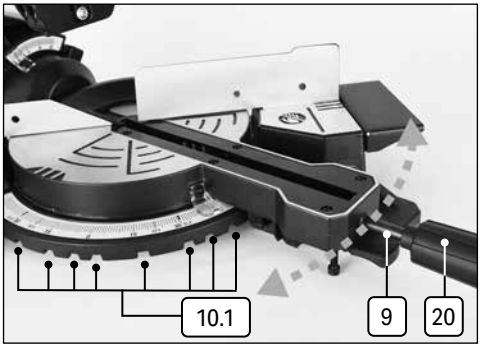


Fig. 7

6.9 Dust Extraction – Figs.8 – 9

Both models feature dust extraction capabilities and are supplied with dust extraction cloth bags.

Stock No.83677 (Fig.8):

- Pinch the spring clip 22.1 open and slide bag onto extraction port, release clip slowly.

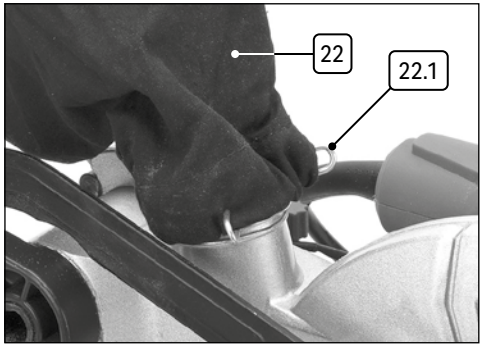


Fig. 8

Stock No.90170 (Fig.9):

- Slot the bag assembly 25 over the dust extraction outlet 25.1.
- Twist to secure in place.
- Empty the dust bag regularly.
- When cutting large pieces of material or cutting for a longer period, exchange the dust bag with a dust extractor to allow more efficient removal of harmful airborne dust particles.
- It may be necessary to source an appropriate adaptor to adjust the dust outlet size to suit the vacuum hose.

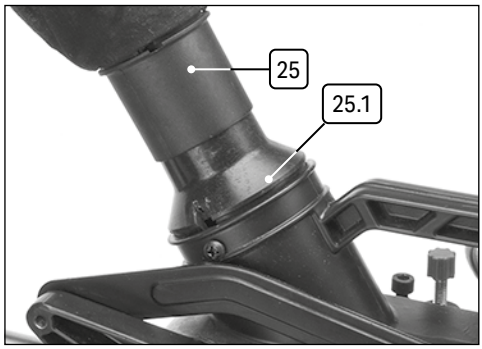


Fig. 9

Note: A dust mask must be worn for any cutting operations.

6.10 Depth of Cut Stop – Fig.10

- In its normal position, the depth of cut stop 15.2 permits the saw blade to cut right through a workpiece.
- When the saw arm is lifted, the depth of cut stop 15.2 can be pulled out so that the depth adjustment screw 15 contacts the stop as the saw arm is lowered.
- This restricts the cut to an adjusted depth in the workpiece. The depth of cut can be adjusted with the adjustment screw 15 and locked in position with lock nut 15.1.

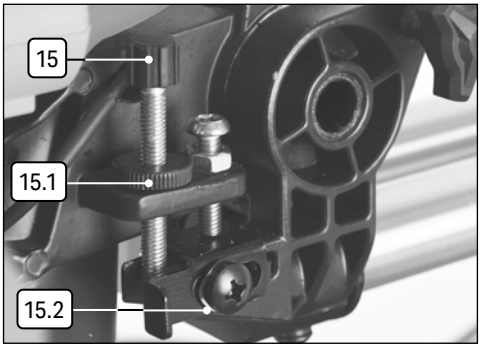


Fig. 10

6.11 Bevel Adjustment – Fig.11

The bevel angle can be set from 0˚ to 45˚.

- Loosen lock 17 and adjust the bevel angle as indicated by the bevel pointer 2 on the bevel scale 2.1. Tighten locking knob 17 to secure.

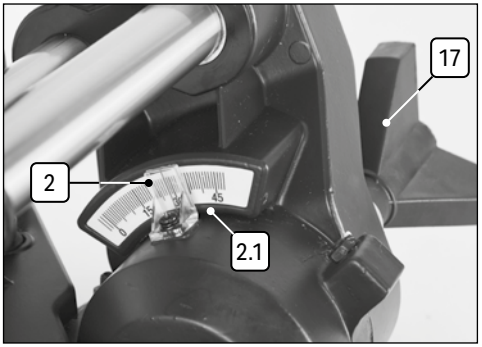


Fig. 11

6.12 Checking the Table to Blade Alignment – Figs.12 – 13

Note: Unplug the tool from the socket before carrying out adjustment, servicing or maintenance.

- Lower and lock the saw head. Set the mitre and bevel angles to zero and lock.
- Place a small engineers square flat against the table and the blade making sure that the square contacts the flat side of the blade and not the teeth.

Fig. 12

Note: The saw head may need to be unlocked and raised up slightly to accommodate the square.

- The edge of the square should be parallel to the side of the blade. If any adjustment is required loosen the bevel locking knob.
- Adjust the 90˚ stop by turning grub screw (2.1) which is slightly recessed in the housing. Move the screw anti-clockwise to angle the blade away from the square and clockwise to angle toward the square.
- If required move the pointer to correct. It is possible to check the 45˚ bevel end stop (2.2) using an engineers protractor in place of the square. If necessary adjust the 45˚ stop by turning grub screw.

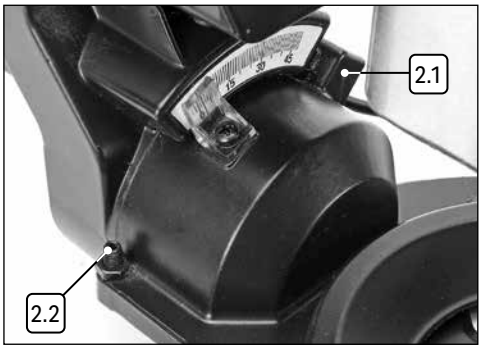


Fig. 13

6.13 Checking the Fence to Blade Alignment – Fig.14

Note: Unplug the tool from the socket before carrying out adjustment, servicing or maintenance.

- Lower and lock the saw head. Set the mitre and bevel angles to zero and lock.
- Place a small engineers square flat against the fence and the blade making sure that the square contacts the flat side of the blade and not the teeth.
- The edge of the square should be parallel to the blade. If any adjustment is required loosen the hex. socket bolts at the rear of the fence.
- Position the fence against the square and re-tighten.

Fig. 14

6.14 Sliding Lock – Fig.15

- For most operations the sliding feature will be required to allow full capacity cutting, however it is possible to lock the sliding bars by tightening slide lock (16).

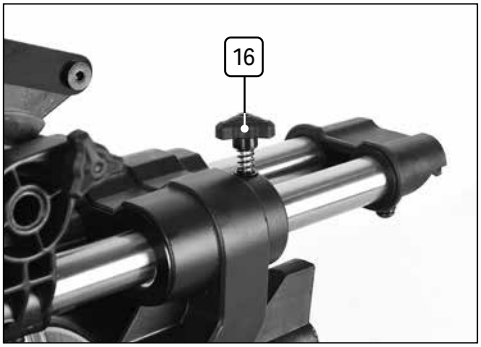


Fig. 15

6.15 Laser Guide – Figs.16 – 17

WARNING! DO NOT stare into beam.
Class 2 Laser product.

1. Mark the line of the cut on the workpiece.
2. Adjust the mitre and/or bevel angles of the cut as required before clamping the workpiece in position using the vertical vice.

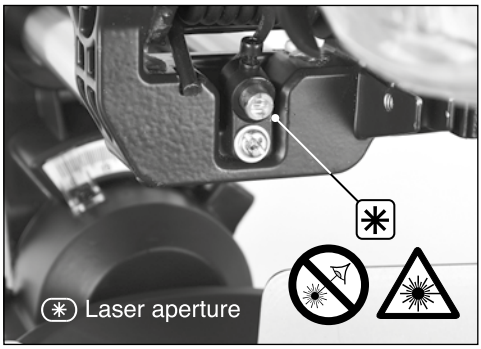


Fig. 16

3. Turn on the laser guide system by operating the switch (14) and align the line of the cut on the workpiece with the laser guide beam.
4. When the blade is at its maximum speed (approx. 2 sec.) lower the blade through the workpiece.
5. Switch off the laser guide system on completion of the cut (once the blade has stopped rotating).

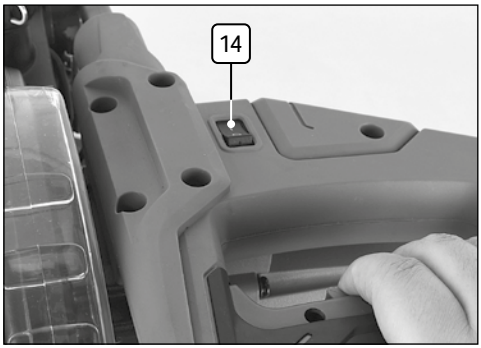


Fig. 17

Note: The laser is set to the centre of the blade, so an allowance will need to be made for the width of the saw tips. Make a test cut first on a piece of scrap wood.

6.16 Blade Replacement – Figs.18 – 20

Note: Unplug the tool from the socket before carrying out adjustment, servicing or maintenance.

1. With the saw head in the raised position, swing the lower blade guard assembly clear of the blade fixing.

Fig. 18

2. Press the spindle lock button (3). Loosen and remove the blade securing bolt using a hex key (clockwise to loosen as the bolt has a left-hand thread).
3. Remove the clamping flange, taking note of the correct orientation for re-assembly and remove the blade.
4. Ensure the specification of the replacement blade conforms with the machine (i.e. outer diameter, width, RPM and type, e.g. woodcutting etc).

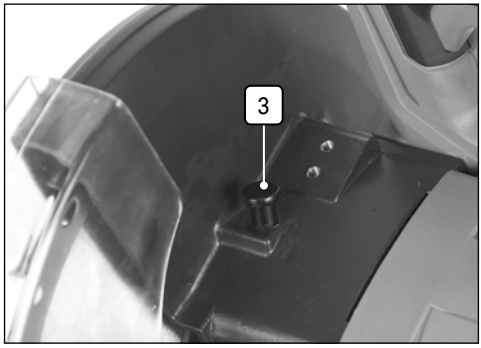


Fig. 19

5. Before fitting the new blade wipe a drop of oil on the inner and outer flanges where the arbor locates.
6. Re-assemble the flanges and blade and secure.

   Note: Install the blade with the direction of rotation arrow matching the direction of rotation arrow on the blade guard. The teeth face downward at the front of the saw.

Fig. 20

- **Note:** This saw is not designed to cut metal or masonry.

Important: Before operating this tool, read and understand all the safety instructions listed in this manual. Ensure that the tool is fully assembled and correctly prepared for use.

7.1 Starting the Mitre Saw – Fig.21

The mitre saw is fitted with a safety switch to prevent accidental starting. To start the mitre saw:

- Move the lever (13.1) in the centre of the **'ON/OFF'** trigger (13) to the left, then depress the trigger.
- To stop the mitre saw, release the trigger.

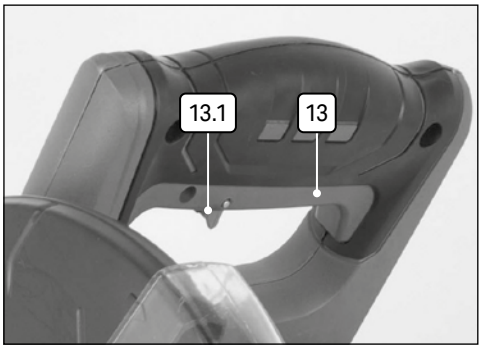


Fig. 21

7.2 Body and Hand Position – Fig.22

Correct positioning of your body and hands when operating the mitre saw will make cutting easier and safer.

- Never place hands near cutting area. Place hand at least 100mm from path of blade. Hold workpiece firmly to the fence to prevent movement towards the blade.
- Keep hands in position until trigger has been released and the blade has completely stopped. Before making a cut, make a "dry run" with the power off so you can see the path of the blade.

WARNING! DO NOT try to cut short pieces, you cannot properly support the workpiece and hold down the workpiece by hand and keep your hand the required distance from the blade.

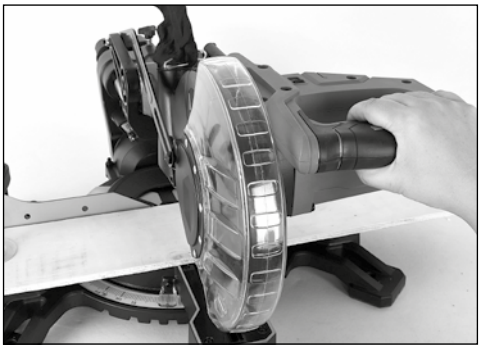


Fig. 22

7.3 Mitre Cut – Fig.23

When a mitre cut is required, move the saw to the desired angle. **DO NOT** stand in front of the saw table. Move with the handle to the mitre angle to make the cut.

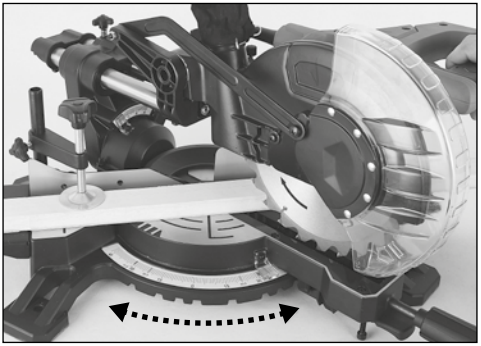


Fig. 23

7.4 Bevel Cut – Fig.24

When a bevel cut is required, tilt the blade to the desired bevel angle. Stand to the left side of the handle to make the cut.

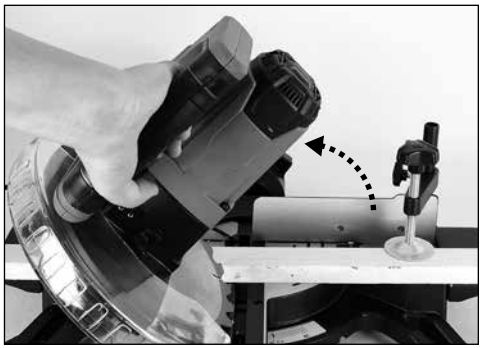


Fig. 24

7.5 Compound Cut – Fig.25

When a compound cut is required, select the correct bevel and mitre position. Move with the handle to the mitre angle to make the cut.

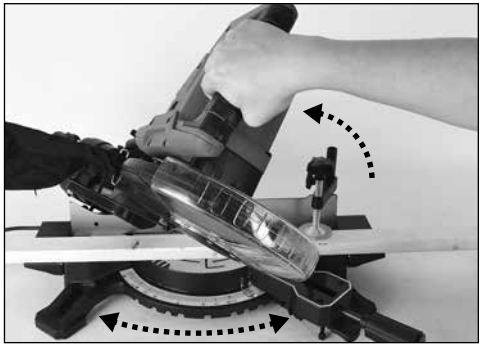


Fig. 25

7.6 Cutting Curved or Warped Material – Figs.26 – 27

- Before cutting a workpiece, check to make sure it is flat. If it is curved or warped, the workpiece must be positioned and cut as illustrated.

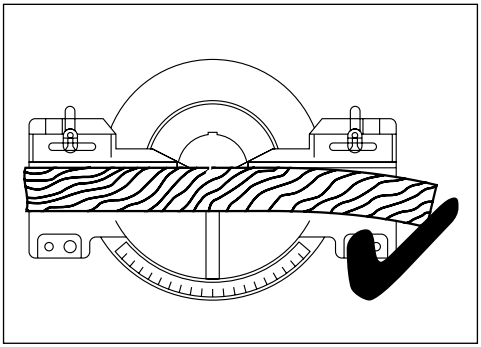


Fig. 26

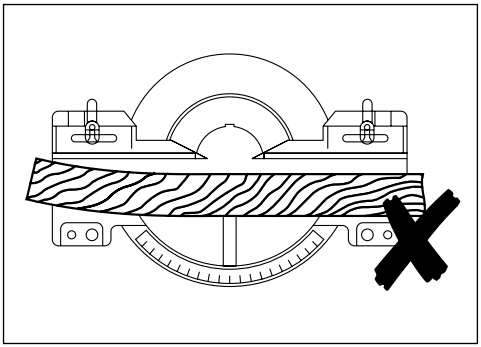


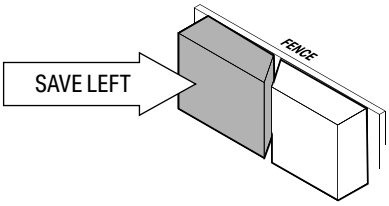
Fig. 27

- **DO NOT** position workpiece incorrectly or try to cut the workpiece without the support of the fence. This will cause pinching of the workpiece on the blade.
- The workpiece could suddenly jump or move and your hand could hit the blade.

7.7 Cutting Crown Mouldings

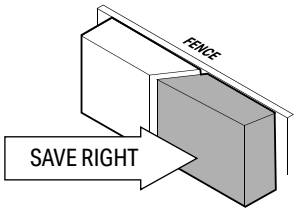
To cut an inside corner:

- Cut the left side by aligning the top of the moulding against the fence.
- Set the bevel to 33.9°.
- Set the mitre to 31.6° to the right hand side.
- Make the cut and save the piece to the left of the cut line.



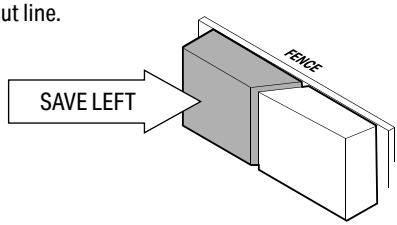
To cut an outside corner:

- Cut the left side by aligning the bottom of the moulding against the fence.
- Set the bevel to 33.9°.
- Set the mitre to 31.6° to the left hand side.
- Make the cut and save the piece to the right of the cut line.



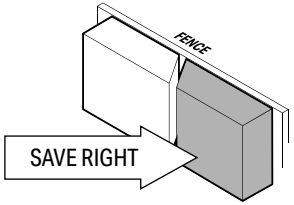
To cut the left side:

- Align the bottom of the moulding against the fence.
- Set the bevel to 33.9°.
- Set the mitre to 31.6° to the left hand side.
- Make your cut and again save the piece to the left of the cut line.



To cut the right side:

- Align the top of the moulding against the fence.
- Set the bevel to 33.9°.
- Set the mitre to 31.6° to the right hand side.
- Make your cut and again save the piece to the right of the cut line.



7.8 Extending Workpiece Support Wings (Stock No.90170) – Fig.28

Long workpieces need extra support during cutting.

Stock No.83677

- Extra support must be placed under the workpiece so the workpiece does not sag and the hand holding the workpiece is positioned 100mm or more from the blade path.
- The support must let the workpiece lay flat on the machine table and be worktable during the cutting operation.

Stock No.90170

- This model is supplied with extending workpiece support wings (18) for the above purpose.

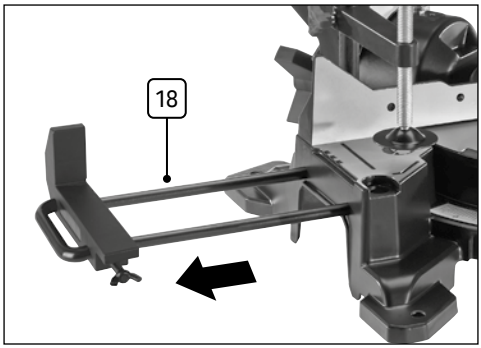


Fig. 28

8. Maintenance and Troubleshooting

Regular inspection and cleaning reduces the necessity for maintenance operations and will keep your tool in good working condition.

The motor must be correctly ventilated during tool operation. For this reason avoid blocking the air inlets. After use disconnect the tool from the power supply and vacuum the ventilation slots.

If the power supply cord is damaged, it must be replaced by Draper Tools, an authorised service agent or similarly qualified personnel in order to avoid a hazard.

WARNING! Never put lubricants on the blade whilst it is spinning.

WARNING! To avoid injury from unexpected starting or electrical shock, unplug the power cord before working on the saw.

WARNING! For your safety, this saw is double insulated. To avoid electrical shock, fire or injury, use only parts recommended by the manufacturer. Reassemble exactly as original assembly to avoid electrical hazards.

8.1 Table Insert Replacement – Fig.29

If the table insert becomes worn or damaged it must be replaced. Remove the screws (8.1) securing the table insert (8). Ensure the replacement table insert is fitted before attempting to operate the saw.

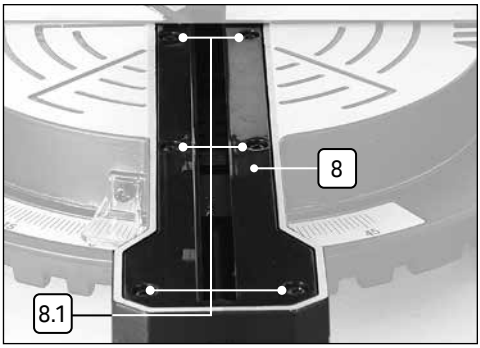


Fig. 29

8.2 Blade Guard

- **DO NOT** use the saw without the lower guard. The lower blade guard is attached to the saw for protection.
- If the lower guard become damaged, **DO NOT** use the saw until the damaged guard has been replaced.
- Regularly check to ensure the lower guard is working properly.
- With the power supply disconnected, clean the lower guard of any dust or build up with a damp cloth.

Caution! DO NOT use solvents on the guard. They could make the plastic 'cloudy' and brittle.

WARNING! When cleaning lower guard, unplug the saw from the outlet to avoid unexpected start-up or electrical shock.

8.3 Sawdust

- Frequently vacuum up the sawdust to prevent it accumulating around the worktable, base and switch mechanisms.

8.4 Recommended Accessories

WARNING! To avoid injury from unsafe accessories, use only Draper accessories.

8.5 Prohibited Accessories

DO NOT use accessories such as shaper cutters or dado sets. Ferrous and non-ferrous metal cutting and the use of abrasive wheels are prohibited.

8.6 Lubrication

All the motor bearings in this tool are lubricated with a sufficient amount of high grade lubricant for the life of the unit under normal operating conditions, therefore, no further lubrication is required.

All the ball bearings are sealed and lubricated for life and will require no maintenance.

8.7 Cleaning

After use, wipe off chips and dust adhering to the tool with a cloth. Keep the blade guard clean. Lubricate the sliding portions with machine oil to prevent rust.

To maintain product safety and reliability, repairs and, any other maintenance or adjustment should be performed by your nearest authorised service centre.

8.8 Troubleshooting Guide

Problem	Possible Cause	Remedy
Motor does not start.	1. Fuse.	1. Replace/reset time delay fuse or circuit breaker.
	2. Brushes worn.	2. Have brushes replaced by an authorised service agent.
	3. Other.	3. Contact Draper Tools for advice.
Sliding action stiff or binding.	1. Slide lock engaged.	1. Loosen slide lock.
	2. Build up of sawdust.	2. Vacuum up sawdust and lubricate mechanism.
Poor cutting performance.	1. Saw blade blunt.	1. Stop machine immediately. Replace saw blade.
	2. Saw blade incorrectly mounted.	2. Stop machine immediately. Remove and refit saw blade.
	3. Incorrect saw blade selection.	3. Contact Draper Tools for advice.
Saw vibrates.	1. Saw blade distorted.	1. Stop machine immediately and replace blade.
	2. Saw blade incorrectly mounted.	2. Stop machine immediately. Remove and refit saw blade.
Mitre position difficult to move.	Build up of sawdust under table.	Vacuum up sawdust.

9. Explanation of Symbols


Read the instruction manual .


Mandatory action required .


Warning!


Warning! Class 2 laser product.


Warning! Class 2 laser product.


Wear face mask, safety glasses and ear defenders.


Wear protective gloves.

Rated voltage.

Rated input.

Blade diameter.

Bore diameter.

Revolutions per minute (no load).

EN Compliancy rating.

Cross Cut.

Mitre Cut.

Bevel Cut.

Compound Cut.


Class II construction
(Double insulated).

Net product weight.


WEEE –

Waste Electrical & Electronic Equipment

Do not dispose of Waste Electrical & Electronic Equipment in with domestic rubbish


European conformity.


UK Conformity Assessed.

10. Spares, Returns and Disposal

For spare parts, servicing, and repair and replacement options, please contact the Draper Tools Product Helpline for details of your nearest authorised agent.

Draper Tools will endeavour to hold any spare parts, if applicable, for seven years from the date that it sells the final matching stock item.

Any servicing or repairs carried out by unauthorised personnel or installation of spare parts not supplied by Draper Tools will invalidate your warranty.

At the end of its working life, dispose of the product responsibly and in line with local regulations. Recycle where possible.

DO NOT burn or mutilate batteries; this may release toxic or corrosive substances.

DO NOT dispose of this product with domestic waste; most local authorities provide appropriate recycling facilities.

11. Warranty

Draper Tools products are carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship.

Should the tool develop a fault, return the complete tool to your nearest distributor or contact Draper Tools directly. Contact information can be found at the back of this manual.

Proof of purchase must be provided.

If, upon inspection, it is found that the fault occurring is due to defective materials or workmanship, repairs will be carried out free of charge. This warranty period covers parts and labour for 24 months from the date of purchase. Where tools have been hired out, the warranty period covers 90 days from the date of purchase.

This warranty does not apply to any consumable parts, batteries or normal wear and tear, nor does it cover any damage caused by misuse, careless or unsafe handling, alterations, accidents, or repairs attempted or made by any personnel other than the authorised Draper Tools repair agent.

In all cases, to make a claim for faulty workmanship or materials within the standard warranty period, please contact or return the product to the place of purchase. Proof of purchase may be required.

If the place of purchase is no longer trading or if you experience any difficulties with your warranty, please contact Customer Services with the product details and your proof of purchase. Contact details can be found at the back of this manual.

If the tool is not covered by the terms of this warranty, repairs and carriage charges will be quoted and charged accordingly.

This warranty supersedes any other guarantees expressed or implied and variations of its terms are not authorised.

Your Draper Tools guarantee is not effective until you can produce, upon request, a dated receipt or invoice to verify your purchase within the guarantee period.

Please note that this warranty is an additional benefit and does not affect your statutory rights.

Draper Tools Limited

Contact Details

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Please contact the Draper Tools Product Helpline for repair and servicing enquiries.