





# 20V 185mm BRUSHLESS SLIDING COMPOUND MITRE SAW

55588



These instructions accompanying the product are the original instructions. This document is part of the product, keep it for the life of the product passing it on to any subsequent holder of the product. Read all these instructions before assembling, operating or maintaining this product.

This manual has been compiled by Draper Tools describing the purpose for which the product has been designed, and contains all the necessary information to ensure its correct and safe use. By following all the general safety instructions contained in this manual, it will ensure both product and operator safety, together with longer life of the product itself.

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

Whilst every effort has been made to ensure the accuracy of information contained in this manual, the Draper Tools policy of continuous improvement determines the right to make modifications without prior warning.

# TITLE PAGE

#### 1.1 INTRODUCTION:

USER MANUAL FOR: 20V 185mm Brushless Sliding Compound Mitre Saw

Stock No: 55588 Part No: D20MS185

1.2	REVISIONS:	
Date	first published July 2019.	

As our user manuals are continually updated, users should make sure that they use the very latest version.

Downloads are available from: http://drapertools.com/manuals

Draper Tools Limited Hursley Road Chandler's Ford Eastleigh Hampshire SO53 1YF UK

Website: drapertools.com

**Product help line:** +44 (0) 23 8049 4344 **General Fax:** +44 (0) 23 8026 0784

#### 1.3 UNDERSTANDING THIS MANUALS SAFETY CONTENT:

**WARNING!** – Information that draws attention to the risk of injury or death.

**CAUTION!** – Information that draws attention to the risk of damage to the product or surroundings.

### 1.4 COPYRIGHT © NOTICE:

Copyright © Draper Tools Limited.

Permission is granted to reproduce this publication for personal and educational use only. Commercial copying, redistribution, hiring or lending is prohibited.

No part of this publication may be stored in a retrieval system or transmitted in any other form or means without written permission from Draper Tools Limited.

In all cases this copyright notice must remain intact.

# 2. CONTENTS

1	TITLI	E PAGE	
	1.1	INTRODUCTION	
	1.2	REVISION HISTORY	
	1.3	UNDERSTANDING THIS MANUAL	2
	1.4	COPYRIGHT NOTICE	2
2	CON	TENTS	
	2.1	CONTENTS	3
3		RANTY	
	3.1	WARRANTY	5
4		ODUCTION	
	4.1	SCOPE	
	4.2	SPECIFICATION	
	4.3	HANDLING AND STORAGE	6
5		LTH AND SAFETY INFORMATION	
	5.1	GENERAL SAFETY INSTRUCTIONS FOR POWER TOOL USE	
	5.2	SAFETY INSTRUCTIONS FOR MITRE SAWS	
	5.3	ADDITIONAL SAFETY INSTRUCTIONS FOR CIRCULAR SAW BLADES	
	5.4	ADDITIONAL SAFETY INSTRUCTIONS FOR LASER PRODUCTS	
	5.5	RESIDUAL RISK	10
	5.6	SAFETY INSTRUCTIONS FOR MAINS POWERED CHARGERS	40
	E 7	& BATTERY PACKSCONNECTION TO THE POWER SUPPLY (CHARGER)	10
_	5.7	,	12
6	6.1	HNICAL DESCRIPTION IDENTIFICATION	10
_			13
7	7.1	ACKING AND CHECKING PACKAGING	1./
	7.1 7.2	D20 MULTI-TOOL INTERCHANGEABLE BATTERY SYSTEM	
_		A DINO THE COMPOUND METER CAM	
8	8.1	PARING THE COMPOUND MITRE SAW  BATTERY PACK CHARGING	15
	8.2	BATTERY PACK PROTECTION FEATURES	15
	8.3	BATTERY PACK CHARGE STATUS	
	o.s 8.4	BATTERY LIFE EFFICIENCY AND CHARGING ADVICE	
	6.4 8.5	TRANSPORTATION	
		BENCH MOUNTING	
	8.6 8.7	MITRE HANDLE	
		MOUNTING THE EXTENDING SUPPORT PLATES	
	8.8	WORKPIECE VICE	
	8.9	SAW HEAD LOCKING PIN	
	8.10		
	8.11	MITRE LOCKING ASSEMBLY	
	8.12	CHECKING THE FENCE TO BLADE ALIGNMENT	
	8.13	MITRE POINTER ADJUSTMENT	
	8.14	DEPTH OF CUT STOP	
	8.15	BEVEL ADJUSTMENT	
	8.16	CHECKING AND ADJUSTING THE 90° AND 45° BEVEL STOPS	
	8.17	90° BEVEL POINTER ADJUSTMENT	
	8.18	SLIDING LOCK	21

# 2. CONTENTS (continued)

	8.19	DUST EXTRACTION	21	
	8.20	BATTERY INSTALLATION/REPLACEMENT FOR LASER GUIDE	21	
	8.21	BLADE SPANNER STORAGE COMPARTMENT2	22	
	8.22	BLADE REMOVAL	22	
	8.23	BLADE INSTALLATION	23	
9	BASI	C COMPOUND MITRE SAW OPERATIONS		
	9.1	USING THE LASER GUIDE		
	9.2	STARTING THE MITRE SAW2	24	
	9.3	BODY AND HAND POSITION	25	
	9.4	MITRE CUT2	25	
	9.5	BEVEL CUT2	25	
	9.6	COMPOUND CUT		
	9.7	CUTTING CURVED OR WARPED MATERIAL		
	9.8	CUTTING CROWN MOULDINGS	26	
10	MAIN	ITENANCE AND TROUBLESHOOTING		
	10.1	TABLE INSERT REPLACEMENT		
	10.2	BLADE GUARD2		
	10.3	SAWDUST2		
	10.4	RECOMMENDED ACCESSORIES		
	10.5	PROHIBITED ACCESSORIES		
	10.6	LUBRICATION		
	10.7			
		TROUBLESHOOTING GUIDE	28	
11		ONAL ACCESSORIES		
		OPTIONAL ACCESSORIES	29	
12		OSAL		
	. —	DISPOSAL		
		BATTERY DISPOSAL INFORMATION	30	
13		LANATION OF SYMBOLS		
		EXPLANATION OF SYMBOLS		
DE	DECLARATION OF CONFORMITY ENCLOSED			

# WARRANTY

#### 3.1 WARRANTY

Draper tools have been carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship.

Should the tool develop a fault, please return the complete tool to your nearest distributor or contact

Draper Tools Limited, Chandler's Ford, Eastleigh, Hampshire, SO53 1YF. England. Telephone Sales Desk: (023) 8049 4333 or Product Help Line (023) 8049 4344.

A proof of purchase must be provided with the tool.

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 covering labour is 12 months from the date of purchase except where tools are hired out when the warranty period is 90 days from the date of purchase. The warranty is extended to 24 months for parts only. This warranty does not apply to any consumable parts, any type of battery 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 warranty repair agent.

**Note:** If the tool is found not to be within the terms of warranty, repairs and carriage charges will be quoted and made accordingly.

This warranty applies in lieu of any other warranty expressed or implied and variations of its terms are not authorised.

Your Draper warranty is not effective unless you can produce upon request a dated receipt or invoice to verify your proof of purchase within the warranty period.

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

**Draper Tools Limited.** 

### 4. INTRODUCTION

#### 4.1 SCOPE

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.

#### 4.2 SPECIFICATION

Stock No	55588
Part No	
Revolutions per minute (no load)	4000r/min
Blade diameter	185mm
Blade thickness	1.8mm
Bore diameter	25.4mm
Mitre table angles	0° – 45° left/right
Bevel cut	0° – 45° left
Cross cut: 0° × 0°:	50 × 210mm
Mitre cut:	
45° × 0° (left and right):	50 × 105mm
Bevel cut:	
0° × 45° (left only):	35 × 210mm
Compound mitre cut:	
45° × 45° (left only):	35 × 105mm
Laser guide:	
Classification	
Certification	EN62841
Output power	<5mW
Wavelength	630 – 660nm
Sound pressure level (LpA)*:	81.2dB(A)
Sound power level (LWA)**:	101.2dB(A)
Uncertainty (K):	
Weight (nett)	

Continuous A-Weighted Sound Pressure Level at the workstation in accordance to and declared according to EN60745.

#### 4.3 HANDLING AND STORAGE

- Care must be taken when handling this product.
  - Dropping this power tool could have an effect on its accuracy and could also result in personal injury. This product is not a toy and must be respected.
- Environmental conditions can have a detrimental effect on this product if neglected.
  - Exposure to damp air can gradually corrode components.
  - If the product is unprotected from dust and debris, components will become clogged.
  - If not cleaned and maintained correctly or regularly, the machine will not perform at its best.

<sup>\*\*</sup> The typical A-weighted noise level determined according to EN60745.

#### 5.1 GENERAL SAFETY INSTRUCTIONS FOR POWER TOOL USE

When using any type of power tool there are steps that should be taken to make sure that you, as the user, remain safe.

Common sense and a respect for the tool will help reduce the risk of injury.

**Read the instruction manual fully.** Do not attempt any operation until you have read and understood this manual.

Most important you must know how to safely start and stop this machine, especially in an emergency.

Keep the work area tidy and clean. Attempting to clear clutter from around the machine during use will reduce your concentration. Mess on the floor creates a trip hazard. Any liquid spilt on the floor could result in you slipping.

**Find a suitable location.** If the machine is bench mounted, the location should provide good natural light or artificial lighting as a replacement. Avoid damp and dust locations as it will have a negative effect on the machine's performance. If the machine is portable do not expose the tool to rain. In all cases do not operate power tools near any flammable materials.

**Keep bystanders away.** Children, onlookers and passers by must be restricted from entering the work area for their own protection. The barrier must extend a suitable distance from the tool user.

**Unplug and house all power tools that are not in use.** A power tool should never be left unattended while connected to the power supply. They must be housed in a suitable location, away locked up and from children. This includes battery chargers.

**Do not overload or misuse the tool.** All tools are designed for a purpose and are limited to what they are capable of doing. Do not attempt to use a power tool (or adapt it in any way) for an application it is not designed for. Select a tool appropriate for the size of the job. Overloading a tool will result in tool failure and user injury. This covers the use of accessories.

**Dress properly.** Loose clothing, long hair and jewellery are all dangerous because they can become entangled in moving machinery. This can also result in parts of body being pulled into the machine. Clothing should be close fitted, with any long hair tired back and jewellery and neck ties removed. Footwear must be fully enclosed and have a non-slip sole.

Wear personal protective equipment (PPE). Dust, noise, vibration and swarf can all be dangerous if not suitably protected against. If the work involving the power tool creates dust or fumes wear a dust mask. Vibration to the hand, caused by operating some tools for longer periods must be protected against. Wear vibration reducing gloves and allow long breaks between uses. Protect against dust and swarf by wearing approved safety goggles or a face shield. These are some of the more common hazards and preventions, however, always find out what hazards are associated with the machine/work process and wear the most suitable protective equipment available.

**Do not breathe contaminated air.** If the work creates dust or fumes connect the machine (if possible) to an extraction system either locally or remotely. Working outdoors can also help if possible.

**Move the machine as instructed.** If the machine is hand held, do not carry it by the power supply cable. If the product is heavy, employ a second or third person to help move it safely or use a mechanical device. Always refer to the instructions for the correct method.

**Do not overreach.** Extending your body too far can result in a loss of balance and you falling. This could be from a height or onto a machine and will result in injury.

**Maintain your tools correctly.** A well maintained tool will do the job safely. Replace any damaged or missing parts immediately with original parts from the manufacturer. As applicable, keep blades sharp, moving parts clean, oiled or greased, handles clean, and emergency devices working.

Wait for the machine to stop. Unless the machine is fitted with a safety brake, some parts may continue to move due to momentum. Wait for all parts to stop, then unplug it from the power supply before making any adjustments, carrying out maintenance operations or just finishing using the tool.

**Remove and check setting tools.** Some machinery requires the use of additional tools or keys to set, load or adjust the power tool. Before starting the power tool always check to make certain they have been removed and are safely away from the machine.

**Prevent unintentional starting.** Before plugging any machine in to the power supply, make sure the switch is in the OFF position. If the machine is portable, do not hold the machine near the switch and take care when putting the machine down, that nothing can operate the switch.

Carefully select an extension lead. Some machines are not suitable for use with extension leads. If the tool is designed for use outdoors, use an extension lead also suitable for that environment. When using an extended lead, select one capable of handling the current (amps) drawn by the machine in use. Fully extend the lead regardless of the distance between the power supply and the tool. Excess current (amps) and a coiled extension lead will both cause the cable to heat up and can result in fire.

**Concentrate and stay alert.** Distractions are likely to cause an accident. Never operate a power tool if you are under the influence of drugs (prescription or otherwise), including alcohol or if you are feeling tired. Being disorientated will result in an accident.

**Have this tool repaired by a qualified person.** This tool is designed to conform to the relevant international and local standards and as such should be maintained and repaired by someone qualified, using only original parts supplied by the manufacturer. This will ensure the tool remains safe to use.

#### 5.2 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.

**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 assure 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.

### 5.3 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.

#### 5.4 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.

Please refer to the relevant EN standards; EN60825-1:2014 for more information on lasers.

#### 5.5 RESIDUAL RISK

**Important note:** Although the safety instructions and operating manuals for our tools contain extensive instructions of safe working with power tools, every power tool involves a certain residual risk which can not be completely excluded by safety mechanisms. Power tools must therefore always be operated with caution!

# 5.6 SAFETY INSTRUCTIONS FOR MAINS POWERED CHARGERS & BATTERY PACKS

#### Chargers

- The charger is for indoor use only.
- Prior to plugging the charger in to the supply, check that the plug and the cable are in good repair.
   If either are damaged, have the defective item replaced immediately by a suitably qualified person.
   If the casing of the battery charger is damaged, it is good policy to have the charger checked over by a suitably qualified person.
- Only use a correctly rated mains outlet to provide power, do not plug into site generators, attach to
  engine generators or D.C. sources. Do not use a mains socket outlet that is not switched.
- Use the correct Draper charger in conjunction with it's corresponding battery pack (consult the Draper website for more information or to find your local Draper stockist).
- Do not charge any other batteries with Draper chargers. Any other application is considered misuse.
- Do not attempt to charge battery packs that are too hot (over 30°C) or too cold (under 5°C), if these
  conditions apply set the battery pack aside to "normalise" before proceeding with the charging
  operation.
- Set up the charger and cable in a safe place where it won't be knocked, tripped over, stepped on, etc. and where it is well ventilated. Make sure the ventilation slots in the charger case are not obstructed, plug the charger into the socket outlet.



- Inspect the battery pack for damage, if it is undamaged, plug it into the charger, ensuring the
  correct orientation. (Most chargers and batteries have 'keys' etc, to make sure the battery pack is
  not inserted incorrectly, if you are having to 'force' the battery pack into the charger, the chances
  are you have it the wrong way round, check and try again.)
- Switch the charger on and check that the correct indicators illuminate, allow the battery pack to charge (see the specific instructions for your charger). Once charging is complete, switch the charger off, remove the battery pack and store, repeat the procedure if you have more than one battery pack to charge.

**Caution:** When the battery charger has been continuously used, the battery charger will be hot. Once the charging has been completed, give 15 minutes rest until the next charge.

- After charging is complete, unplug the charger from the socket outlet by pulling on the plug. Do
  not pull on the cable. Store the charger in a dry secure place.
- If, when the charger was switched on, the correct indications did not occur, leave for two or three minutes to allow the charger to stabilise, if the correct indications occur, allow the charging cycle to proceed as normal. If no indication appears at all, switch off, remove the battery pack, unplug the charger, check that the charger contacts and the battery contacts are clean and repeat the process. If there is still no indication, switch off, remove the battery pack, unplug the charger and check the fuse. If the fuse is blown, replace and repeat the process. If the fuse blows again, or if the fuse was intact, attempt no further action. Refer the charger to a suitably qualified person for repair.

#### **Battery packs**

- Before charging, read the instructions.
- For indoor use. Do not expose to rain.
- Only use Draper D20 battery packs with this product. Consult your Draper stockist for details.
- Do not charge any other manufacturer's battery packs using Draper chargers. Any other application is considered misuse.
- The battery must be removed from the appliance before it is recycled.
- The charger must be disconnected from the supply mains when removing the battery.
- The battery is to be disposed of in-line with local authority procedures.
- Do not use any other than the designated Draper batteries/chargers with this product.
- Do not crush, open or burn the battery. Exposure to potentially harmful materials may occur.
- In case of fire use CO2 or dry chemical extinguisher.
- Do not expose to high temperatures >50°C. The battery may degrade at high temperatures.
- Charge battery in conditions between 5°C to 30°C with the specified charger designed for this battery.
- Do not use battery if it has been stored at 5°C or less. Allow it to "normalise" at room temperature before usage/charging.

#### Warning!

- Leaking battery packs
  - The electrolyte in battery packs is corrosive. Avoid contact with the skin.
  - If contact is made, flush the area with running water, pat dry and seek medical attention and advice at the earliest opportunity.
  - Inform medical personnel that the contaminant is a "high alkaline, corrosive liquid".
  - If electrolyte comes into contact with the eyes, flush with copious amounts of water only.
     Seek medical attention immediately, relaying the information above.

### 5.7 CONNECTION TO THE POWER SUPPLY (CHARGER)

Caution: Risk of electric shock. Do not open.

This appliance is supplied with a moulded 3 pin mains plug for your safety. 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 the cover is missing, a replacement must be obtained or the plug replaced with a suitable type.

If a replacement plug is to be fitted this must be carried out by a qualified electrician.

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

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

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.

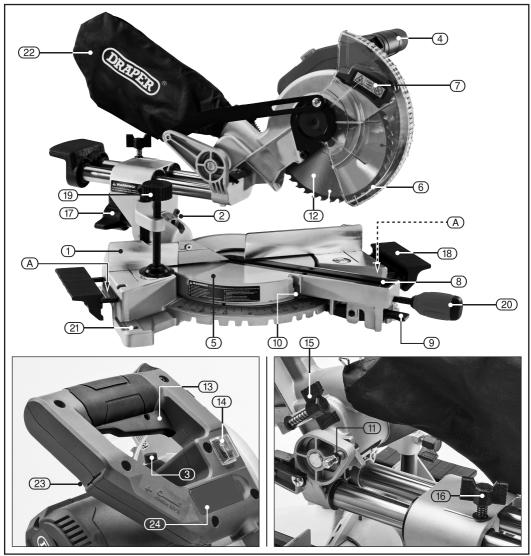
†Double insulated [ ]: This product requires no earth connection as supplementary insulation is applied to the basic insulation to protect against electric shock in the event of failure of the basic insulation.

#### **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.

#### **TECHNICAL DESCRIPTION** 6.

### **6.1 IDENTIFICATION**



- Fence.
- Bevel pointer.
- Spindle lock button.
- Plunge handle.
- Table.
- Lower blade guard.
- 123456789 Laser guide.
- Table insert.
- Mitre latch.

- (10) Mitre pointer.
- Saw head locking pin. (11)
- (12)Blade.
- (13) On/Off trigger.
- Laser On/Off switch. (14)
- (15) Adjustable depth stop.
- $\overline{(16)}$ Slide lock.
- (17) Bevel locking knob.
- (18) Extending support plates.

- Workpiece vice. (19)
- Mitre locking handle. (20)
- Workbench mounting (21)points.
- (22) Dust extraction bag.
- 23) Blade spanner storage.
- (24) Laser battery compartment.
- (A) Machine lifting/carrying points.

### 7. UNPACKING AND CHECKING

#### 7.1 PACKAGING

Carefully remove the product from the packaging and examine it for any sign of damage that may have happened during shipping. Lay the contents out and check them against the parts shown below. If any part is damaged or missing, please contact the Draper Help Line (the telephone number appears on the Title page) and do not attempt to use the product.

The packaging material should be retained at least during the guarantee period, in case the machine needs to be returned for repair.

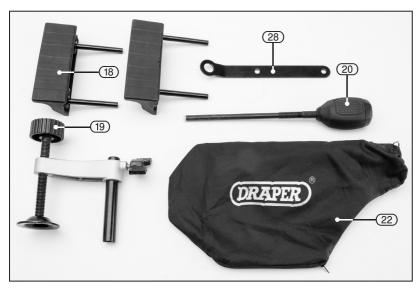
**Warning!** Some of the packaging materials used may be harmful to children. Do not leave any of these materials in the reach of children.

If any of the packaging is to be thrown away, make sure they are disposed of correctly, according to local regulations.

# 7.2 D20 MULTI-TOOL INTERCHANGEABLE BATTERY SYSTEM

The D20 range of tools are a range of tools suitable for enthusiasts and tradespersons alike, featuring a wide array of machines all running from the same range of batteries. Many different capacity batteries are available making sure you can balance tool weight with longevity and find a battery that meets your needs. To find out the latest range of accessories including batteries and chargers please consult the Draper website for more information or to find your local Draper stockist.





55588 is supplied as 'Bare Machine' with no batteries or charger.

If you have purchased one of our 'kit' variations, the box will also include charger and battery or batteries.

- (18) Extending support plates.
- Workpiece vice.
- 20 Mitre locking handle.
- 22 Dust extraction bag.
- 28) Blade spanner.

# 8.1 BATTERY PACK CHARGING – FIGS. 1 – 2

This power product is supplied "bare", without battery pack or charger. Compatible batteries, chargers and accessories are available through Draper Tools stockists.

**Important:** Only Draper D20 designated battery packs and chargers can be used in conjunction with this product. Use of any other third party battery packs/chargers with this product is considered misuse and will invalidate the product's warranty.

Once connected to the mains supply, recharging of the battery can be left generally unsupervised, requiring minimal attention. Complex circuit construction monitors the battery condition, adjusting the recharge current to suit. When the recharge cycle is complete, to maintain the full capacity, a low output current will continue as required.

**Warning!** Check the condition of the charger and battery prior to each charge. If there is any sign of damage then do not commence charging, seek advice from Draper Tools.

The battery pack is supplied un-charged and must be charged before initial use.

To charge the battery pack (26), it must first be removed from the tool.

To release the battery pack:

- Press the battery release button (26.1) and gently slide the battery pack off (Fig.1).
- Plug the battery charger (27) unit into a 230V/AC
   13amp three pin supply socket.
- The red LED (27.1) will illuminate to show the charger has power.
- Slide the battery into the charger (the battery is shaped to fit into the charger one way only.
- After a few seconds delay, the red LED (27.1) will flash to show that charging has begun, then illuminate solid red.



FIG.1



FIG.2 Figs.1,2 and 3 show D20 3.0Ah battery pack (00649) and battery charger (60559), available separately.

- Whilst the battery is charging, the green LED (27.2) will flash, (the red LED will go from flashing to constant red.
- When the battery is fully charged the green LED stops flashing and remains a constant green.
   The red LED will extinguish.

**Caution:** Do not pull the plug out of the power supply by pulling on the cord. Make sure to grasp the plug when removing from power supply to avoid damaging the cord.

To remove the battery from the battery charger:

Supporting the battery charger with hand, pull out the battery from the battery charger.

**Caution:** If the battery charger has been in continuous use it will be hot. Once the charging has been completed, leave the charger 15 minutes to cool until next use.

If the battery is charged when it is warm due to battery use or exposure to sunlight, the battery will not be recharged. In such a case, let the battery cool before charging.

If the red indicator flickers rapidly at 0.2 second intervals, check or and remove any foreign objects in the charger's battery slot. If there are no foreign objects, it is probable that the battery or charger is malfunctioning. Allow battery/charger to normalise and try again. If a fault remains after trying this then contact Draper Tools.

# 8.2 BATTERY PACK PROTECTION FEATURES

Overcharging protection: This feature that ensures that the battery pack can never be overcharged. When the battery pack reaches full charge capacity, the transformer/charger will automatically shut off, protecting the internal components from being damaged.

**Over-discharging protection:** This feature will stop the battery pack from discharging beyond the recommended lowest safety voltage.

Overheating protection: The battery pack contains an internal thermistor cut-off sensor which shuts off the battery pack should it become too hot during operation. This can happen if the tool is overloaded or being used for extended periods. Up to 30 minutes cooling time may be required, depending on ambient temperature.

**Current protection:** Should the battery be overloaded and the maximum current draw be exceeded, the battery will shut off to protect the internal components. The battery pack will resume working once excessive current draw has returned to normal, safe level.



Charge level indicator	Amount of charge remaining
	0 – 10%
	10 – 25%
	25 – 50%
	50 – 75%
ш	75 – 100%

FIG.3

**Short circuit protection:** If, for any reason, the battery pack was to short circuit, the short circuit protection would immediately stop the battery pack from operating.

### 8.3 BATTERY PACK CHARGE STATUS - FIG. 3

To display the amount of charge left in the battery pack, press the charge level indicator button (26.2).

#### 8.4 BATTERY LIFE EFFICIENCY AND CHARGING ADVICE

- Avoid recharging at high temperatures.
  - A rechargeable battery will be hot immediately after use. If such a battery is recharged immediately after use, its internal chemical substance will deteriorate, and the battery life will be shortened. Leave the battery and recharge it after it has cooled for a while.
- The battery should only be used and/or charged when battery temperature is between 5°C and 30°C.
- The battery needs to be warmed-up or cooled down in order to prevent damage to the batteries internal components,

Note: If battery is too hot or too cold, allow it to 'normalise' before use or charging.

Note: Failure to warm up or cool down a battery could result in serious damage to the battery, charger and user.

- 16 -

#### 8.5 TRANSPORTATION

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

The saw can be lifted and carried using the handling points located at the outer castings of the machine base.

 Section 6.1 Identification, on page 13 indicates the two handling points, marked (A).

#### 8.6 BENCH MOUNTING - FIG.4

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

- Using the 4 workbench mounting points located in the base (21) and 4 suitable bolts (not supplied), secure the saw to the workbench.
- Avoid mounting the saw where large workpieces will be difficult to manoeuvre or support.

#### 8.7 MITRE HANDLE - FIG.5

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

**Note:** Before making any cuts, make sure the handle is tightened preventing any movement.

# 8.8 MOUNTING THE EXTENDING SUPPORT PLATES – FIG.6

 Mount the extension plates (23) to each end of the base using the two screws (23.1) supplied. It is important to use these to avoid unwelcome movement of the workpiece during cutting.

#### 8.9 WORKPIECE VICE - FIG.7

- The workpiece vice (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.

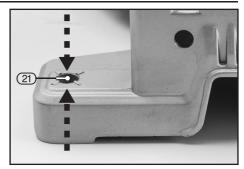


FIG.4

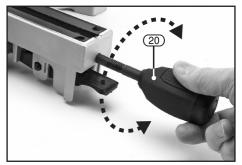


FIG.5

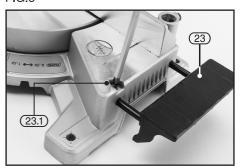


FIG.6

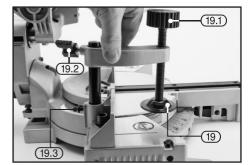


FIG.7

#### 8.10 SAW HEAD LOCKING PIN - FIG.8

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 sprung loaded 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.

# 8.11 MITRE LOCKING ASSEMBLY – FIG.9

The mitre locking assembly can be adjusted to achieve mitre angles from 0° to 45° at both left and right hand positions.

The mitre saw has nine of the most common angle settings with positive stops at 0°, 15°, 22.5°, 31.6° and 45°. The blade can be positioned at the desired angle quickly and accurately.

To adjust the mitre angle:

- Unlock the mitre angle by turning the mitre handle (20) anti-clockwise.
- Move the turntable while lifting up on the mitre latch (9).
- Turn the blade to the desired angle. If the angle is one of the nine positive stops, release the mitre latch, making sure it snaps into position.
- Secure by tightening the mitre handle in a clockwise direction.
- If the mitre angle desired is not one of the nine positive stops, simply lock the mitre handle at the desired angle by turning in a clockwise direction.

**Note:** Never make any cuts until the mitre handle (20) is fully tightened.

# 8.12 CHECKING THE FENCE TO BLADE ALIGNMENT – FIGS.10 – 11

**Note:** Isolate the power source by either removing the power supply plug from the socket, or battery from the tool, 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 (1) and the blade (12) making sure that the square contacts the flat side of the blade and not the teeth.

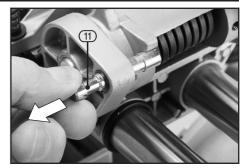


FIG.8

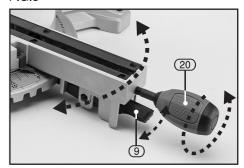


FIG.9

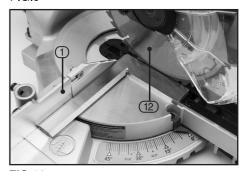


FIG.10



**FIG.11** 

- The edge of the square should be parallel to the blade. If any adjustment is required loosen the hex. socket bolts (1.1) at the rear of the fence.
- Position the fence against the square and re-tighten.
- After the fence has been aligned, make a cut at 90° using a scrap piece of wood and check squareness of the workpiece. Re-adjust if necessary.

# 8.13 MITRE POINTER ADJUSTMENT – FIG.12

- Move the table to the 0° positive stop.
- Using a cross-slot screwdriver, loosen the screw that holds the mitre pointer(10) in place.
- Adjust the pointer to the 0° mark and re-tighten the screw.

### 8.14 DEPTH OF CUT STOP - FIG.13

#### Setting the cutting depth:

The depth of cut can be preset for even and repetitive shallow cuts.

- Adjust the cutting head down until the teeth of the blade are at the desired depth.
- While holding the upper arm in that position, turn the stop knob (15) until it touches the stop plate (15.1).
- Re-check the blade depth by moving the cutting head front to back through the full motion of a typical cut along the control arm.

#### Maximum cutting depth:

The maximum depth travel of the cutting head was set at the factory. Check that the blade does not extend more than 1/4" below the table insert and does not touch the control arm throat or any part of the base or table. If the maximum depth needs readjusting:

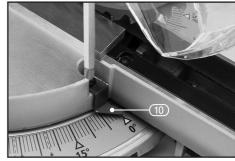


FIG.12

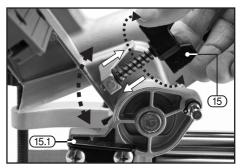


FIG.13

- Loosen the bolts of the stop plate (15.1).
- Move the cutting head down until the blade extends just 1/4" below the table insert.
- Adjust the stop place to touch the bottom of the stop knob when the stop knob (15) is fully raised.
- Re-check the blade depth by moving the cutting head front to back through the full motion of a
  cut along the control arm. If the blade touches the inside of the control arm, re-adjust the
  setting.

### 8.15 BEVEL ADJUSTMENT - FIG.14

It is possible to set the bevel angle from 0° to 45°.

 Loosen lock (17) and adjust the bevel angle as indicated on scale (2). Tighten locking knob (17) to secure.

# 8.16 CHECKING AND ADJUSTING THE 90° AND 45° BEVEL STOPS – FIGS.15 – 16

**Note:** Isolate the power source by either removing the power supply plug from the socket, or battery from the tool, before carrying out adjustment, servicing or maintenance.

#### Checking the 90° (0°) angle.

- Loosen the bevel locking knob (17) and tilt the cutting arm completely to the right. Tighten the bevel lock knob.
- 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.

If the blade is not 90° square with the mitre table:

- Loosen the bevel locking knob (17) and tilt the cutting head to the left.
- Loosen the locknut (17.3) and turn the 90° bevel adjustment stop (17.1) in or out (clockwise or anticlockwise) using a 10mm spanner until the blade is square to the table.

#### Checking the 45° angle stop.

For checking and adjustment of the 45° bevel angle:

- Loosen the bevel locking knob (17) and tilt the cutting head completely to the left.
- Use a combination square or engineers protractor To check If the blade is 45° to the table.
- If the blade is not 45° to the mitre table, tilt the cutting arm to the right, Loosen the locknut (17.4)





FIG.15

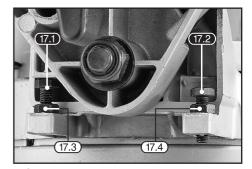


FIG.16

- and turn the 45° bevel adjustment stop (17.2) in or out (clockwise or anticlockwise) to increase or decrease the bevel angle.
- Tilt the cutting arm back to the 45° bevel and re-check for alignment.
- Repeat the above steps until the blade is 45° to the mitre table.
- Tighten bevel locking knob (17) and the lock nut of the 45° bevel adjustment stop (17.2), when the correct angle is achieved.

# 8.17 90° BEVEL POINTER ADJUSTMENT – FIG.17

- When the blade is exactly 90° to the table, loosen the bevel indicator screw using a cross-slot screwdriver (not supplied).
- Adjust the bevel indicator to the "0" mark on the bevel scale and re-tighten the screw.

#### 8.18 SLIDING LOCK - FIG.18

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 locking knob (16).

#### 8.19 DUST EXTRACTION - FIG.19

The mitre saw is supplied with a dust extraction cloth baq. To fit the baq:

- Pinch the spring clip (22.1) open and slide the bag (22) over the neck of the dust extraction port.
- Release the clip slowly.

To empty the dust bag:

- Pinch the metal spring clip and slide the bag off of the exhaust port.
- Open the zipper on the underside of the bag and empty into a suitable waste container.

**Note:** You can also connect powered extraction to the machine by removing the dust bag and connecting an extractor. An adaptor may also be required.

**Note:** Check the bag frequently when using and empty before it fills completely.

**Warning!** Never use this saw to cut and/or grind metals. Hot chips or sparks could ignite sawdust from the bag material.

# 8.20 BATTERY INSTALLATION/REPLACEMENT FOR LASER GUIDE – FIGS.20 – 21

**Note:** Isolate the power source by either removing the power supply plug from the socket, or battery from the tool, before carrying out adjustment, servicing or maintenance.

**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.

- Open the battery cover located on the switch handle (24).
- Continued overleaf.



FIG.17

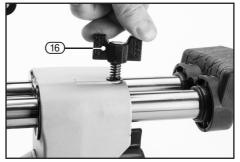


FIG.18

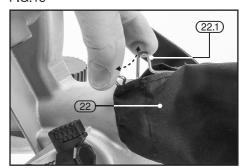


FIG.19



FIG.20

- Insert two AAA batteries, as indicated. If replacing the batteries, take out the old batteries and replace with new ones. Always dispose of exhausted batteries in line with local authority guidelines.
- Close the battery cover.

**Note:** Remove the batteries during long periods of non-use to prevent corrosion and damage to the mitre saw.

# 8.21 BLADE SPANNER STORAGE COMPARTMENT – FIG.22

For convenience, a slot (23) is located on the side of the plunge handle to utilise storage for the blade spanner (28) provided.

#### 8.22 BLADE REMOVAL - FIGS.23 - 27

**Note:** Isolate the power source by either removing the power supply plug from the socket, or battery from the tool, before carrying out adjustment, servicing or maintenance.

- Raise the cutting head to the upright position.
- Raise the lower blade guard 6 to the 'up' position.
- Loosen the outer-most screw (12.1) securing the blade bolt cover plate (12.2).
  - Note: Do not remove the screw.
- The cover plate is now free to rotate on the remaining screw. Rotate the cover plate (12.2) upwards to expose the blade bolt (12.3) and outer blade collar (12.4).
- Place the blade spanner (28) onto the blade bolt (12.3).
- Locate the spindle lock button ③, situated on the back of the motor unit, below the switch handle.
- Press the spindle lock button (3) while turning the blade spanner (28) clockwise. The spindle lock will engage when turning the spanner.
- Continue to hold the spindle lock button whilst turning the spanner to loosen the blade bolt (12.3).
- Remove the blade bolt, outer blade collar (12.4) and the blade itself. Do not remove the inner blade collar (12.5).

**Note:** Examine the pieces removed, paying attention to their original locations and orientation. Wipe the blade outer blade collar (12.4) clean of any sawdust before installing a new blade.

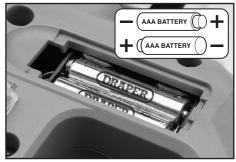


FIG.21

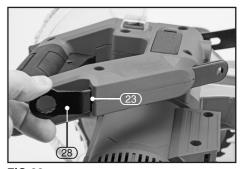


FIG.22

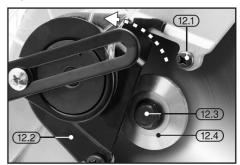


FIG.23

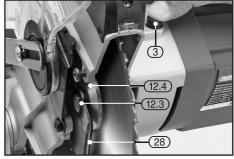


FIG 24

# 8.23 BLADE INSTALLATION – FIGS.25 – 27

**Note:** Isolate the power source by either removing the power supply plug from the socket, or battery from the tool, before carrying out adjustment, servicing or maintenance.

- Raise the cutting head to the upright position.
- Raise the lower blade guard 6 to the 'up' position.
- Make sure the rotational arrows marked on the blade, match the clockwise directional arrow shown on the upper guard.
- Place the blade onto the drive shaft (12.6).
- Place the outer blade collar (12.4) against the blade and thread the blade bolt through the outer collar.
- Screw the blade bolt anti-clockwise until secured hand tight.

**Important:** Make sure the flats of the inner and outer blade collars are engaged with the flats on the drive shaft. Make sure the flat side of the outer blade collar (12.4) is against the blade.

- Locate the blade spanner (28) onto the blade bolt (12.3) and press down on the spindle lock button (3). Turn the spanner anti-clockwise to start tightening up the blade bolt.
- When the spindle lock engages, continue to press in firmly whilst fastening the blade bolt until fully tightened and secure.
- Rotate the cover plate (12.2) to its original position until the slot in the cover plate engages with the outer-most screw (12.1).
- Rotate the cover plate (12.2) to its original position until the slot in the cover plate engages with the outer-most screw (12.1).
- Tighten the screw with a cross slot screwdriver.
- Lower the blade guard checking that there is no binding or sticking.

Warning! To avoid serious or fatal injury:

- Never use the saw without the cover plate securely in place. The cover plate keeps the blade bolt from falling out if accidentally loosened and helps prevent the spinning blade from coming off the saw.
- Make sure the inner and outer blade collars are clean and properly arranged. Lower the blade to the table and check for any contact with the metal base or the mitre table.

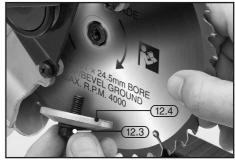


FIG.25

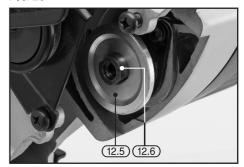


FIG.26

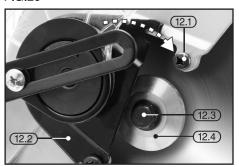


FIG.27

#### BASIC COMPOUND MITRE SAW OPERATIONS 9.

Warning! Never connect the plug to a power source outlet until all the preliminary adjustment steps are complete and you have read and understood the safety and operational instructions.

#### 9.1 USING THE LASER GUIDE - FIGS.28 - 29

#### Warning! DO NOT stare into beam. Class 2 Laser product.

This mitre saw is equipped with a laser guide utilising a Class 2 laser beam. The laser beam enables you to preview the saw blade cutting path on the workpiece to be cut before starting the saw.

- Mark the line of the cut on the workpiece.
- Adjust the mitre and/or bevel angles of the cut as required before clamping the workpiece in position using the vertical vice.
- 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.
- When the blade is at its maximum speed (approx. 2 sec.) lower the blade through the workpiece.
- Switch off the laser guide system on completion of the cut (after the blade has stopped rotating).

**Note:** The laser is factory set to project to the right 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.

#### Warning!

- The use of optical instruments with this product poses an increased risk of hazardous eye exposure.
- Do not attempt to repair or disassemble the laser. Unqualified persons attempting to repair this laser product could result in serious injury.
- Any such repair must be performed by authorised service personnel.

### 9.2 STARTING THE MITRE SAW -FIGS.30 - 31

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

With the safety switch (13.1) pressed in, squeeze the trigger (13) to start the saw.

Note: As an added safety feature, there is a hole (13.2) located in the trigger switch enabling the insertion of a padlock or locking chain (supplied separately), to prevent children or unauthorised users from operating the saw.

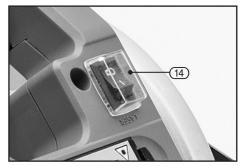


FIG.28



FIG.29



FIG.30



FIG 31

# 9. BASIC COMPOUND MITRE SAW OPERATIONS

#### 9.3 BODY AND HAND POSITION

Proper 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 4" 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, hold down the workpiece by hand *and* keep your hand the required distance from the blade.

When using the sliding mechanism, the correct procedure is as follows:

- Slide the saw towards you.
- Start the saw.
- Pull downwards and push the saw towards the fence.

**Warning!** Failure to follow the above procedure could cause the saw to bite into the workpiece, resulting in potentially serious injury through high speed 'kick back' of the workpiece into the user.

#### 9.4 MITRE CUT - FIG.32

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.

#### 9.5 BEVEL CUT - FIG.33

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.

#### 9.6 COMPOUND CUT - FIG.34

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.32



FIG.33

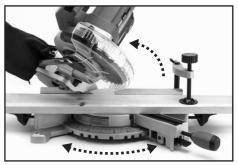


FIG.34

# 9. BASIC COMPOUND MITRE SAW OPERATIONS

# 9.7 CUTTING CURVED OR WARPED MATERIAL – FIGS.35 – 36

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.

- 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.

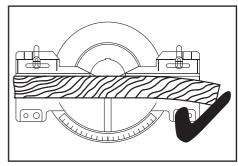


FIG.35

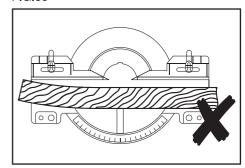


FIG.36

#### 9.8 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.

FENCE

# SAVE LEFT

#### To cut the right 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.

FENCE

SAVE LEFT

#### 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.

**FENCE** 

SAVE RIGHT

#### 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.

FENCE

SAVE RIGHT

### 10. 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 replacement of the supply cord is necessary, this has to be done by the manufacturer or his agent in order to avoid a safety hazard.

Always unplug the power cable before any maintenance check on this saw.

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

**Warning!** To avoid injury from unexpected starting or electrical shock, unplug the power cable before working on the saw.

**Warning!** For your safety, this saw is double insulated. To avoid electrical shock, fire or injury, use only parts identical to those identified in the parts list, reassemble exactly as original assembly to avoid electrical hazards.

# 10.1 TABLE INSERT REPLACEMENT – FIG.39

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.

#### 10.2 BLADE GUARD

Do not use the saw without the lower guard. The lower blade guard is attached to the saw for protection. Should the lower guard become damaged, do not use the saw until damaged guard has been replaced. Develop a regular check to

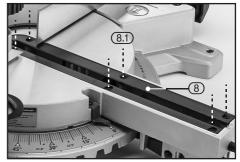


FIG.39

make sure the lower guard is working properly. Clean the lower guard of any dust or build up with a damp cloth, with the power supply disconnected.

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.

#### 10.3 SAWDUST

Periodically, sawdust will accumulate under the worktable, base and around the switch mechanisms. This could cause difficulty in the movement of the worktable when setting up a mitre cut or switching operations. Frequently vacuum up the sawdust.

#### 10.4 RECOMMENDED ACCESSORIES

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

#### 10.5 PROHIBITED ACCESSORIES

The use of any cutting tool except saw blades which meet the requirement under recommended accessories is prohibited. 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.

#### 10.6 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.

# 10. MAINTENANCE AND TROUBLESHOOTING

#### 10.7 CLEANING

After use, wipe off chips and dust adhering to the tool with a cloth or the like. 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.

#### 10.8 TROUBLESHOOTING GUIDE

Note: Remove the plug from the socket before carrying out adjustment, servicing or maintenance.

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

# 11. OPTIONAL ACCESSORIES

### 11.1 OPTIONAL ACCESSORIES

A full range of accessories are available from Draper Tools. Please visit our website for details: **www.drapertools.com** 

# 12. DISPOSAL

#### 12.1 DISPOSAL

- At the end of the machine's working life, or when it can no longer be repaired, ensure that it is disposed of according to national regulations.
- Contact your local authority for details of collection schemes in your area.

In all circumstances:

- Do not dispose of power tools with domestic waste.
- Do not incinerate.
- Do not dispose of WEEE\* as unsorted municipal waste.



\* Waste Electrical & Electronic Equipment.

### 12.2 BATTERY PACK DISPOSAL INFORMATION

#### Warning!

- Do not put battery pack in fire or mutilate cells may burst or release toxic materials.
- Do not short circuit cells, may cause burns.
- The battery pack must be removed from the appliance before it is scrapped.
- The battery pack is to be disposed of safely.
- Do not mutilate batteries, corrosive electrolyte will be released.
- Do not dispose of batteries or cells in a charged condition.

Expired batteries must be recycled/disposed of in accordance with the appropriate regulation or legislation. They should be returned to your local warranty agent/stockist.

# 13. EXPLANATION OF SYMBOLS

### 13.1 EXPLANATION OF SYMBOLS



Read the instruction manual.



Wear face mask and safety glasses.



Wear ear defenders.



Wear protective gloves.



Do not abandon into the environment.



Keep out of the reach of children.



Warning!



Class II construction (Double insulated).



WEEE – Waste Electrical & Electronic Equipment.

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



Warning! Class 2 laser product.

# **CONTACTS**

Draper Tools Limited, Hursley Road, Chandler's Ford, Eastleigh, Hampshire. SO53 1YF. U.K.

Help line: (023) 8049 4344

Sales Desk: (023) 8049 4333

Internet: drapertools.com

E-mail: sales@drapertools.com

General Enquiries: (023) 8026 6355

Service/Warranty Repair Agent:

For aftersales servicing or warranty repairs, please contact the Draper Tools Help line for details of an agent in your local area.

YOUR DRAPER STOCKIST		

TACH0719

©Published by Draper Tools Limited.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical photocopying, recording or otherwise without prior permission in writing from Draper Tools Ltd.