

DRAPER[®]

D20
MULTI-TOOL BATTERY SYSTEM

GB ORIGINAL LANGUAGE

20V 185mm BRUSHLESS
**SLIDING COMPOUND MITRE
SAW**

55588



F **SCIE À ONGLET AVEC
TABLE COULISSANTE**

SANS BALAI 20V 185mm
55588

E **SIERRA ELÉCTRICA
COMBINADA DESLIZABLE**

ESCOBILLAS DE 20V 185mm
55588

P **SERRA ESQUADRIA COM
COMPOSIÇÃO DESLIZANTE**

SEM ESCOVAS DE 20V 185mm
55588

D **BÜRSTENLOSER 20V 185mm
GEHRUNGSZUGSÄGE**

55588

NL 185mm 20V BORSTELLOZE
SCHUIFVERSTEKZAAG

55588

1. INTRODUCTION



1.1 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 intended for domestic and infrequent light trade use only. Any application other than that it was intended for, is considered misuse.

This product is not a toy and must not be used by children or any person with reduced physical, sensory or mental capabilities or lack of experience and knowledge, or people unfamiliar with these instructions.

Local regulations may restrict the age of the operator.

1.2 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.

1.3 EXPLANATION OF SYMBOLS



Read the instruction manual.



Wear face mask and safety glasses.



Wear ear defenders.



Wear protective gloves.



Long hair must be tied back.



Do not abandon into the environment.



Keep out of the reach of children.



Warning!



Class 2 laser product.



Do not stare into beam.



Blade diameter.



Blades bore diameter.



Speed (no load).



Cross cut.



Mitre cut.



Bevel cut.



Compound mitre cut.



BSI British Standards.
Electric motor-operated hand-held tools.



Tool weight.



Continuous A-Weighted Sound
Pressure Level.



Class II construction
(Double insulated).



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



Lithium-ion product.



Do not incinerate or throw
onto fire.



For indoor use only.
Do not expose to rain.



Fuse protective device.



Polarity indication.



Rated voltage.



European conformity.

2. SPECIFICATION



2.1 SPECIFICATION

Stock No. 55588

Part No. D20MS185

Saw blade:

Diameter 185mm

Blade thickness 1.8mm

Bore 25.4mm

Mitre table angles 0° – 45° left/right

Bevel cut 0° – 45° left

When sawing in wood:

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

Revolutions per minute (no load) 4000r/min

Laser guide:

Classification Class 2

Certification EN62841

Output power <5mW

Wavelength 630 – 660nm

Sound pressure level (LpA): 81.2dB(A)

Sound power level (LWA): 101.2dB(A)

Uncertainty (K): 3dB(A)

Weight (machine only): 9.9kg

3. HEALTH AND SAFETY INFORMATION



3.1 GENERAL SAFETY INSTRUCTIONS FOR POWER TOOL USE

⚠ 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 tools” in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

1) Work area safety

- a) **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.

- b) **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.

- c) **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

2) Electrical safety

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

3) Personal safety

- a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- b) **Use personal protective equipment Always wear eye protection.** Protective equipment such as a dust mask, non-skid safety shoes, hard hat or hearing protection use for appropriate conditions will reduce personal injuries.
- c) **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the

switch or energising power tools that have the switch on invites accidents.

- d) **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- e) **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair and clothing away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
- g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.
- h) **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

4) Power tool use and care

- a) **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
- b) **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) **Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
- e) **Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
- f) **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp

cutting edges are less likely to bind and are easier to control.

- g) **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.
 - h) **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.
- #### 5) Service
- a) **Have your power tool serviced by a qualified repair person using only identical replacements parts.** This will ensure that the safety of the power tool is maintained.

3.2 ADDITIONAL SAFETY INSTRUCTIONS FOR ALL SAWS CUTTING PROCEDURES

Warning!

1) Safety instructions for all operations

- a) **DANGER: Keep hands away from cutting area and the blade. Keep your second hand on auxiliary handle, or motor housing.** If both hands are holding the saw, they cannot be cut by the blade
- b) **Do not reach underneath the workpiece.** The guard cannot protect you from the blade below the workpiece.
- c) **Adjust the cutting depth to the thickness of the workpiece.** Less than a full tooth of the blade teeth should be visible below the workpiece.
- d) **Never hold the workpiece in your hands or across your leg while cutting. Secure the workpiece to a stable platform.** It is important to support the work properly to minimise body exposure, blade binding, or loss of control.
- e) **Hold the power tool by insulated gripping surfaces, when performing an operation where the cutting tool may contact hidden wiring or its own cord.** Contact with a "live" wire will also make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- f) **When ripping, always use a rip fence or straight edge guide.** This improves the accuracy of cut and reduces the chance of blade binding.
- g) **Always use blades with correct size and shape (diamond versus round) of arbour**

holes. Blades that do not match the mounting hardware of the saw will run off-centre, causing loss of control.

- h) **Never use damaged or incorrect blade washers or bolt.** The blade washers and bolt were specially designed for your saw, for optimum performance and safety of operation.

Further safety instructions for all saws

Kickback causes and related warnings

- Kickback is a sudden reaction to a pinched, jammed or misaligned saw blade, causing an uncontrolled saw to lift up and out of the workpiece toward the operator;
- When the blade is pinched or jammed tightly by the kerf closing down, the blade stalls and the motor reaction drives the unit rapidly back toward the operator;
- If the blade becomes twisted or misaligned in the cut, the teeth at the back edge of the blade can dig into the top surface of the wood causing the blade to climb out of the kerf and jump back toward the operator.

Kickback is the result of saw misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

- a) **Maintain a firm grip with both hands on the saw and position your arms to resist kickback forces. Position your body to either side of the blade, but not in line with the blade.** Kickback could cause the saw to jump backwards, but kickback forces can be controlled by the operator, if proper precautions are taken.
- b) **When blade is binding, or when interrupting a cut for any reason, release the trigger and hold the saw motionless in the material until the blade comes to a complete stop. Never attempt to remove the saw from the work or pull the saw backward while the blade is in motion or kickback may occur.** Investigate and take corrective actions to eliminate the cause of blade binding.
- c) **When restarting a saw in the workpiece, centre the saw blade in the kerf so that the saw teeth are not engaged into the material.** If a saw blade binds, it may walk up or kickback from the workpiece as the saw is restarted.
- d) **Support large panels to minimise the risk of blade pinching and kickback.** Large panels tend to sag under their own weight. Supports must be placed under the panel on both sides, near the line of cut and near the edge of the panel.
- e) **Do not use dull or damaged blades.** Unsharpened or improperly set blades

produce narrow kerf causing excessive friction, blade binding and kickback.

- f) **Blade depth and bevel adjusting locking levers must be tight and secure before making the cut.** If blade adjustment shifts while cutting, it may cause binding and kickback.
- g) **Use extra caution when sawing into existing walls or other blind areas.** The protruding blade may cut objects that can cause kickback.

Lower guard function

- a) **Check the lower guard for proper closing before each use. Do not operate the saw if the lower guard does not move freely and close instantly. Never clamp or tie the lower guard into the open position.** If the saw is accidentally dropped, the lower guard may be bent. Raise the lower guard with the retracting handle and make sure it moves freely and does not touch the blade or any other part, in all angles and depths of cut.
- b) **Check the operation of the lower guard spring. If the guard and the spring are not operating properly, they must be serviced before use.** Lower guard may operate sluggishly due to damaged parts, gummy deposits, or a build-up of debris.
- c) **The lower guard may be retracted manually only for special cuts such as “plunge cuts” and “compound cuts”. Raise the lower guard by the retracting handle and as soon as the blade enters the material, the lower guard must be released.** For all other sawing, the lower guard should operate automatically
- d) **Always observe that the lower guard is covering the blade before placing the saw down on bench or floor.** An unprotected, coasting blade will cause the saw to walk backwards, cutting whatever is in its path. Be aware of the time it takes for the blade to stop after switch is released.

3.3 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, cable and charger casing are in good condition. If any are damaged, have the defective part(s) replaced immediately 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 its corresponding battery pack (consult the Draper website for more information or to find your local 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.
- Inspect the battery pack for damage, if it is undamaged, plug it into the charger, ensuring the correct orientation.
- 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, disconnect from power supply, remove the battery pack and store.

Battery packs

- Before charging, read the instructions.
- 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 batteries with Draper chargers. Any other application is considered misuse.
- The charger must be disconnected from the power supply before removing the battery.
- The battery must be removed from the appliance before it is recycled.
- The battery is to be disposed of in-line with local authority procedures.
- 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 designated charger for the 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 clean water, pat dry and seek medical attention 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 immediate medical attention, relaying the information above.


3.4 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.



3.5 CONNECTION TO THE POWER SUPPLY

Caution: Risk of electric shock. Do not open.


This appliance is supplied with an approved plug and cable for your safety.

Never use a damaged or incomplete plug.

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.

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

Keep extension leads away from moving hazardous parts to avoid damages to the cable which can lead to contact with live parts. Position cable safely to avoid tripping over.

[†]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.

4. UNPACKING AND CHECKING



4.1 PACKAGING

Carefully remove the product from the packaging and examine it for any sign of damage. Check contents against the parts shown in Fig A. If any part is damaged or missing, please contact the Draper Help Line (see back page). Do not attempt to use the product!

The packaging material should be retained during the warranty period, in case the product needs to be returned for repair.

Warning!

- Some of the packaging materials may be harmful to children. Do not leave any of these materials in reach of children.
- If any of the packaging is to be thrown away, make sure they are disposed of correctly, according to local regulations.

5. IDENTIFICATION – FIG.A (GB)

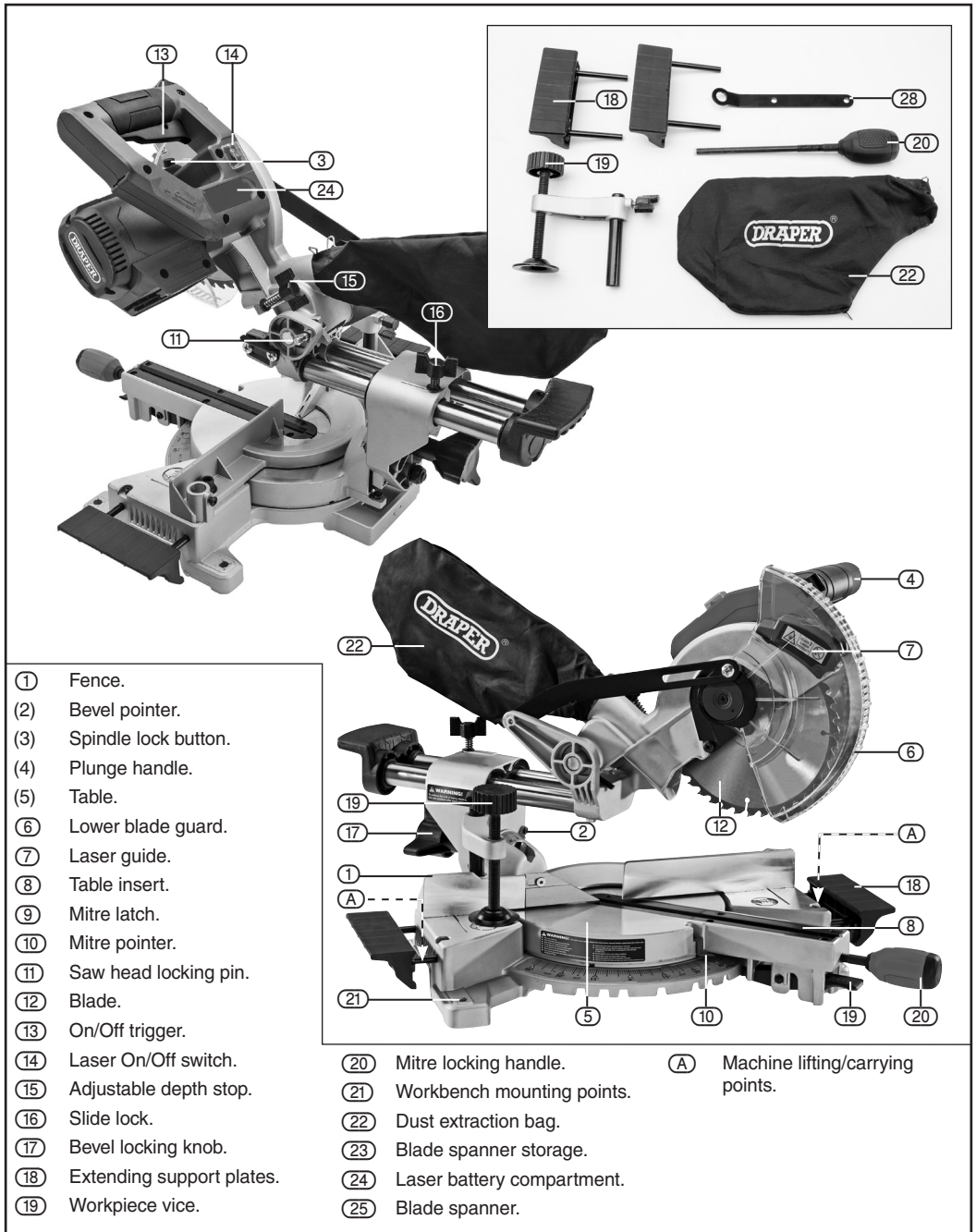


FIG.A

Note: For details of our full range of accessories and consumables, please visit drapertools.com

6. BASIC OPERATIONS

(GB)

6.1 TRANSPORTATION – FIG.1

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

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

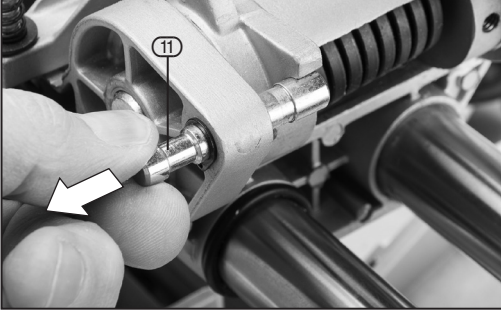


FIG. 1

- 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.

6.2 BENCH MOUNTING – FIG.2

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 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.

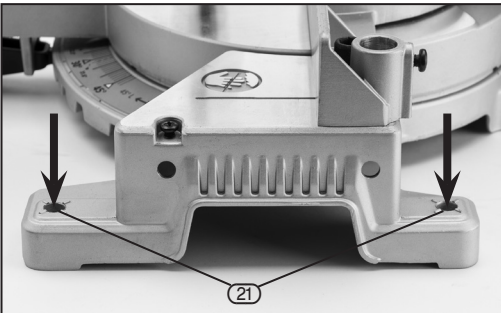


FIG. 2

6.3 MITRE HANDLE – FIG.3

- 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.

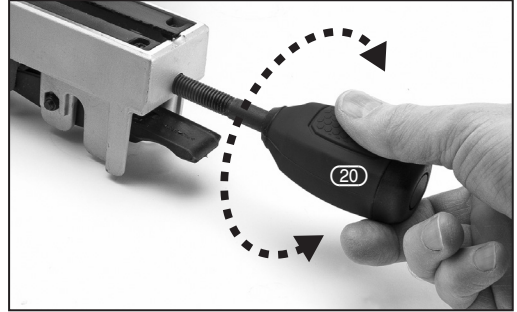


FIG. 3

6.4 MOUNTING THE EXTENDING SUPPORT PLATES – FIG.4

- 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 movement of the workpiece during cutting.



FIG. 4

6.5 WORKPIECE VICE – FIG.5

- 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.

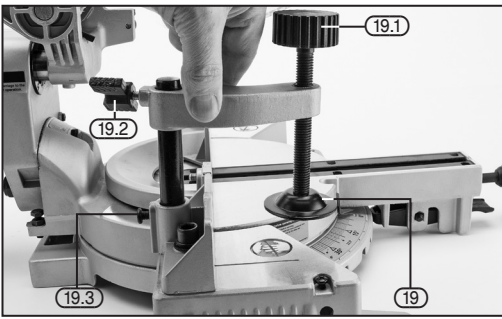


FIG. 5

6.6 MITRE LOCKING ASSEMBLY – FIG.6

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.

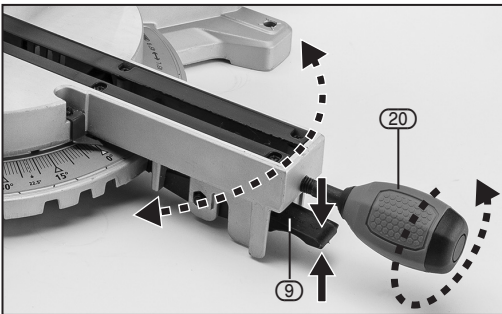


FIG. 6

6.7 CHECKING THE FENCE TO BLADE ALIGNMENT – FIGS.7 – 8

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.
- 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.

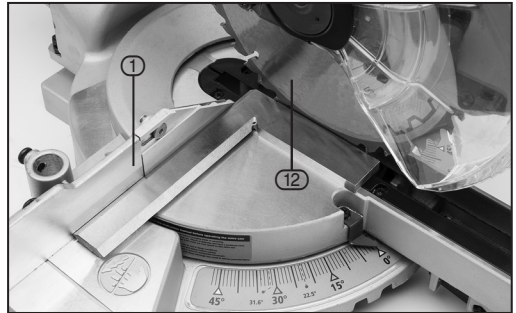


FIG. 7

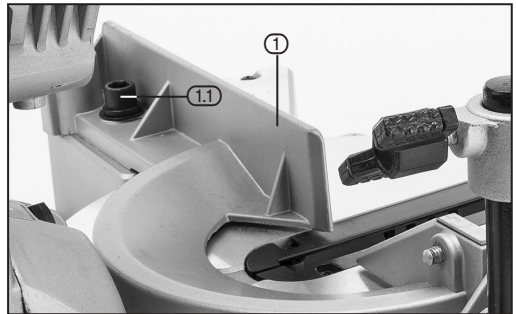


FIG. 8

6.8 MITRE POINTER ADJUSTMENT – FIG.9

- 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.

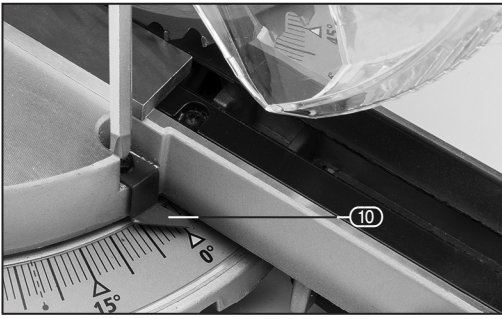


FIG. 9

6.9 DEPTH OF CUT STOP – FIG.10

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:

- 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.

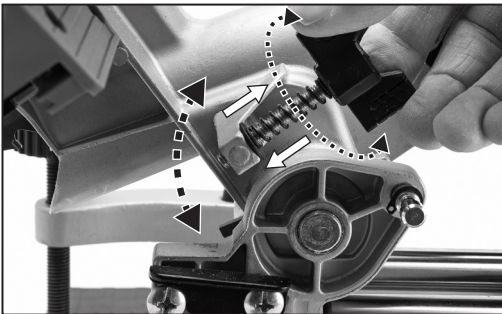


FIG. 10

6.10 BEVEL ADJUSTMENT – FIG.11

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.



FIG. 11

6.11 CHECKING AND ADJUSTING THE 90° AND 45° BEVEL STOPS – FIGS.12 – 13

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.



FIG. 12

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) 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.

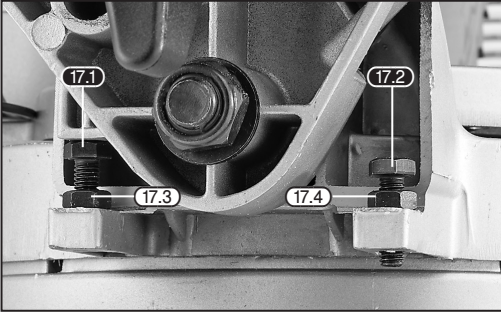


FIG. 13

6.12 90° BEVEL POINTER ADJUSTMENT – FIG.14

- When the blade is exactly 90° to the table, loosen the bevel indicator screw (2.1) using a cross-slot screwdriver (not supplied).
- Adjust the bevel indicator to the “0” mark on the bevel scale and re-tighten the screw.



FIG. 14

6.13 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 locking knob (16).

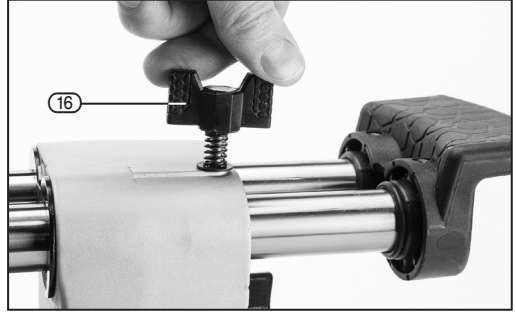


FIG. 15

6.14 DUST EXTRACTION – FIG.16

The mitre saw is supplied with a dust extraction cloth bag.

To fit the bag:

- 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.

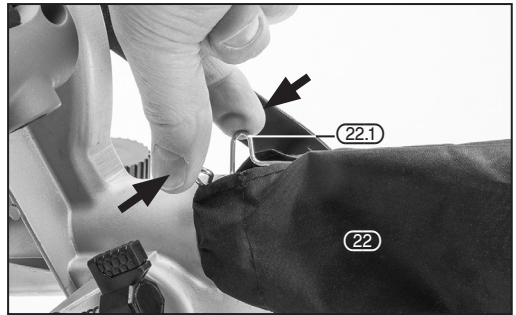


FIG. 16

6.15 BATTERY INSTALLATION/ REPLACEMENT FOR LASER GUIDE – FIGS. 17 – 18

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).



FIG. 17

- 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.

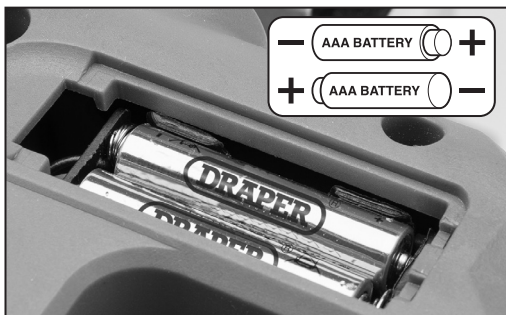


FIG. 18

6.16 BLADE SPANNER STORAGE COMPARTMENT – FIG.19

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

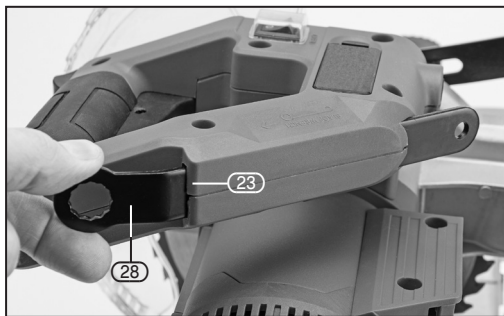


FIG. 19

6.17 BLADE REMOVAL – 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.

- 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.

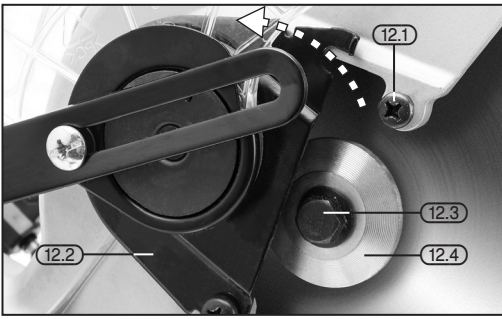


FIG. 20

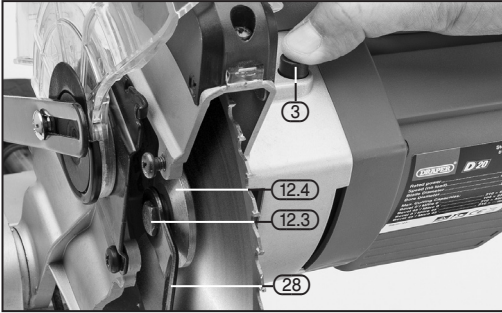


FIG. 21

8.23 BLADE INSTALLATION – FIGS. 22 – 24

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. 22

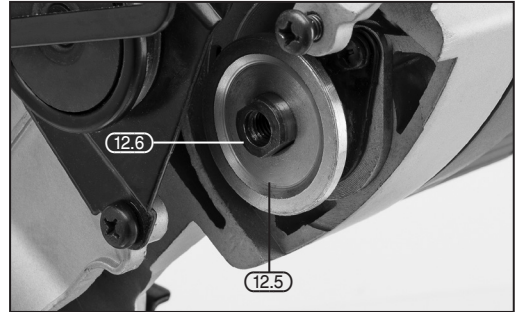


FIG. 23

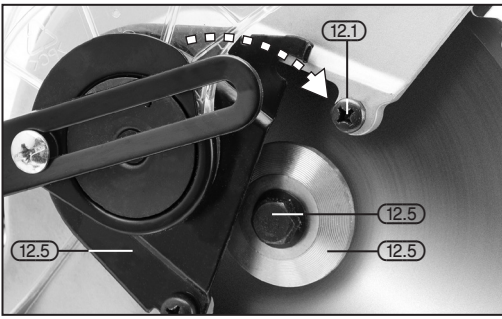


FIG. 24

7. BASIC COMPOUND MITRE SAW OPERATIONS (GB)

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.

7.1 USING THE LASER GUIDE – FIGS. 25 – 26

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.

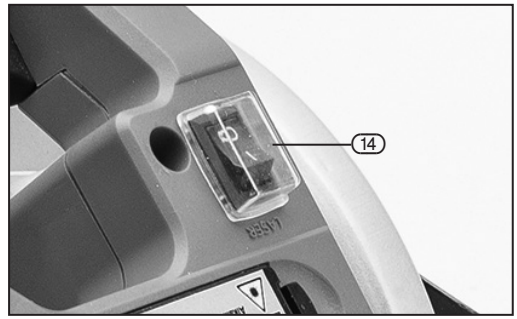


FIG. 25

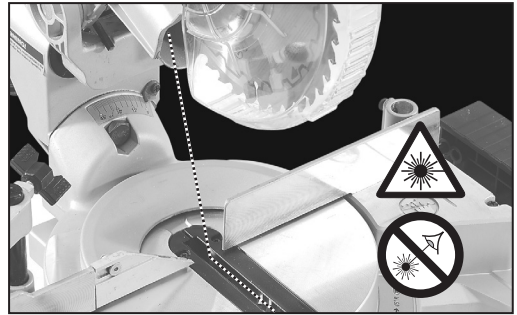


FIG. 26

7.2 STARTING THE MITRE SAW – FIG. 27

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.

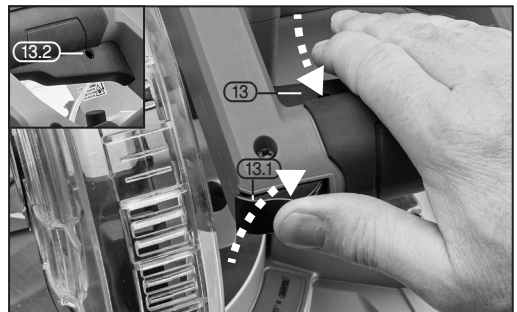


FIG. 27

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.

7.3 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.

7.4 MITRE CUT – FIG.28

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.

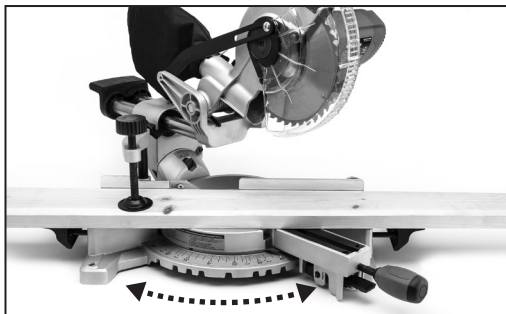


FIG. 28

7.5 BEVEL CUT – FIG.29

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.

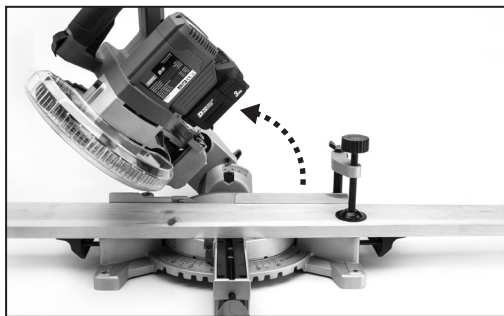


FIG. 29

7.6 COMPOUND CUT – FIG.30

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.

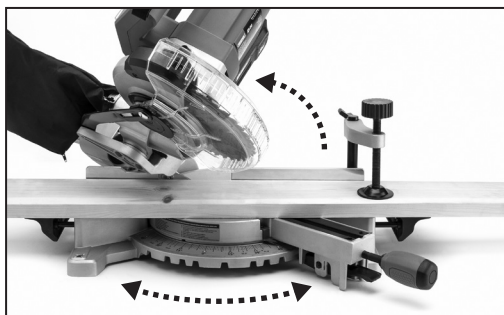


FIG. 30

7.7 CUTTING CURVED OR WARPED MATERIAL – FIGS.31 – 32

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.

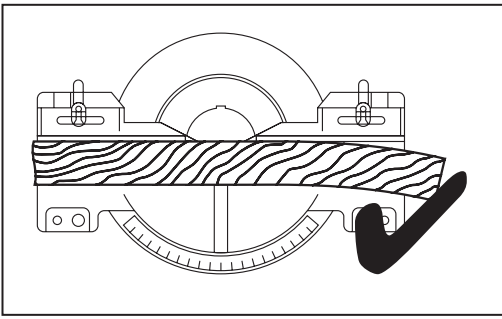


FIG. 31

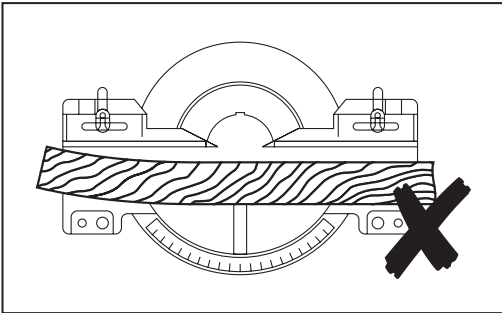
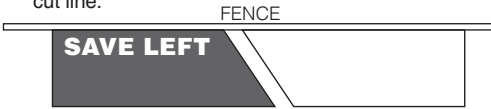


FIG. 32

7.8 CUTTING CROWN MOULDINGS

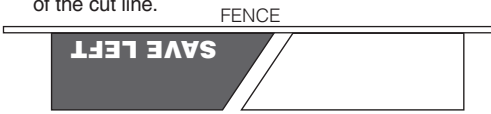
To cut an inside corner:

- 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.



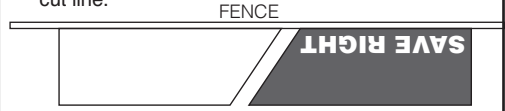
To cut the right side:

- 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.



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 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.



8. BATTERY CHARGING



Note: For details of our full range of accessories, please visit drapertools.com

8.1 BATTERY PACK CHARGING – FIGS. 33 – 34

55588 is supplied “bare”, without battery pack or charger. For compatible batteries, chargers and accessories please visit www.drapertools.com.

Important! Draper designated battery packs and chargers must only be used with this product. Use of any other third-party battery packs/chargers is considered misuse and will invalidate the warranty.

Once connected to the mains supply, recharging of the battery can be left generally unsupervised.

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. 33

- 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.
- 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.



FIG. 34

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.

9.2 BATTERY PACK PROTECTION FEATURES

Overcharging protection: When the battery pack is fully charged, the transformer/charger will automatically shuts off, protecting the internal components.

Over-discharging protection: Stops the battery pack from discharging beyond the recommended lowest safety voltage.

Overheating protection: An internal thermistor cut-off sensor shuts off the battery pack should it become too hot during operation. For example, if the tool is overloaded or used for extended periods. 30 minutes cooling time may be required.

Current protection: If the battery is overloaded or the maximum current draw exceeded, the battery will shut off to protect internal components. The battery pack will resume operation once the current draw is at a safe level.

Short circuit protection: The battery pack will stop operating immediately if it was to short circuit.

9.3 BATTERY PACK CHARGE STATUS – FIG.35

Press the charge level indicator button (26.2) to display the battery charge level.

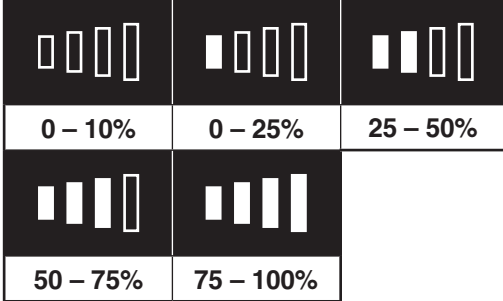


FIG. 35

9.4 BATTERY LIFE EFFICIENCY AND CHARGING ADVICE

- A rechargeable battery will be hot immediately after use. If such a battery is recharged immediately after use the battery life will be shortened. Leave the battery and recharge it after it has cooled.
- The battery needs to be warmed-up or cooled down to prevent damaging to the batteries internal components.

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.36

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.

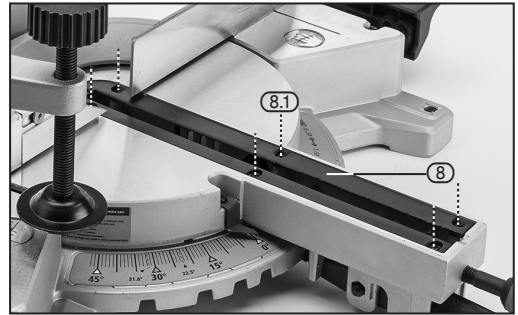


FIG. 36

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 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.

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.

8.8 TROUBLESHOOTING GUIDE

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

Problems	Possible cause	Required action
Motor does not operate.	– Brushes worn.	– Have brushes replaced by an authorised service agent.
	– Battery pack faulty or damaged.	– Replace battery pack.
Sliding action stiff or binding.	– Slide lock engaged.	– Loosen slide lock.
	– Build up of sawdust.	– 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.

8.7 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.

9. WARRANTY



9.1 WARRANTY

Draper power tools have been carefully tested & inspected and are guaranteed to be free from defective materials or workmanship.

For details of warranty and terms and conditions please visit the Draper Tools website at www.drapertools.com/warranty

10.1 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.



Li-ion

* Waste Electrical & Electronic Equipment.

10.2 BATTERY PACK DISPOSAL INFORMATION

Warning!

- Do not put battery packs in a 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.