

CLARKE®

WOODWORKER



216MM SLIDING MITRE SAW

MODEL NO: CMS216S

PART NO: 6461525

OPERATION & MAINTENANCE INSTRUCTIONS



ORIGINAL INSTRUCTIONS

GC0422 -Rev 1

INTRODUCTION

Thank you for purchasing this CLARKE Sliding Mitre Saw.

Before attempting to use this product, please read this manual thoroughly and follow the instructions carefully. In doing so you will ensure the safety of yourself and that of others around you, and you can look forward to your purchase giving you long and satisfactory service.

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

IMPORTANT

Please pay particular attention to all sections of this user guide that display warning symbols and notices.



WARNING: THIS IS A WARNING SYMBOL. THIS SYMBOL IS USED THROUGHOUT THE USER GUIDE WHENEVER THERE IS A RISK OF PERSONAL INJURY. ENSURE THAT THESE WARNINGS ARE READ AND UNDERSTOOD AT ALL TIMES.

The work piece must have a minimum height of 3mm and a minimum width of 10mm. Make sure that the workpiece is always secured with the clamping device.

GUARANTEE

This product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt which will be required as proof of purchase.

This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended.

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission.

This guarantee does not affect your statutory rights.

SAFETY WARNINGS

WORK AREA

1. **Keep the work area clean and well lit.** Cluttered and dark areas invite accidents.
2. **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.
3. **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

ELECTRICAL SAFETY

1. **Power tool plugs must match the outlet. NEVER modify the plug in any way. DO NOT use adapter plugs with earthed (grounded) power tools.** Unmodified plugs & matching outlets will reduce the risk of electric shock.
2. **DO NOT expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
3. **DO NOT abuse the power cable. NEVER use it for carrying, pulling or unplugging the power tool. Keep the power cable away from heat, oil, sharp edges or moving parts.** Damaged or entangled cables increase the risk of electric shock.
4. **When operating a power tool outdoors, use an extension cable suitable for outdoor use.** Use of a cable suitable for outdoor use reduces the risk of electric shock.
5. **If operating the power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.**

PERSONAL SAFETY

1. **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 personal injury.
2. **Use safety equipment. Always wear eye protection.** Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
3. **Avoid accidental starting.** Ensure the switch is in the off position before plugging in. Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.
4. **Remove any wrench before turning the power tool on.** A wrench left attached to a rotating part may result in personal injury.

5. **DO NOT overreach.** Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
6. **Dress properly.** Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
7. A laser beam can cause serious eye injury. **DO NOT** look into the laser outlet.

POWER TOOL USE AND CARE

1. **DO NOT force the power tool.** Use the correct accessories for your application. The correct power tool will do the job better and safer at the rate which it was designed.
2. **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.
3. **Disconnect the plug from the power source before changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
4. **Store idle tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate it.** Power tools are dangerous in the hands of untrained users.
5. **Maintain power tools.** 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.
6. **Use the power tool and accessories in accordance with these instructions and in the manner intended, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from intended could result in a hazardous situation.

ADDITIONAL SAFETY RULES FOR MITRE SAWS

1. 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.
2. The workpiece must be stationary and clamped or held against both the fence and the table.

3. **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.
4. 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.
5. **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.
6. **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.
7. 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.
8. **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.
9. 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.
10. 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.
11. 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.
12. 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.

13. **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.
14. 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.
15. **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.
16. Let the blade reach full speed before contacting the workpiece. This will reduce the risk of the workpiece being thrown.
17. 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. Then work to free the jammed material.
18. 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.
19. 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.

SAFETY FOR THE HANDLING OF SAW BLADES

1. Check the condition of the blade before using the saw.
2. **DO NOT** use damaged or deformed saw blades.
3. **ONLY** use saw blades recommended by the manufacturer.
4. Saw blades designed to cut wood and similar materials must comply with EN 847-1.
5. **DO NOT** use saw blades made of high-speed alloy steel (HSS steel). Only use replacement blades from your CLARKE dealer.
6. Observe the saw blade direction of rotation.
7. Clean any grease, oil and water off of the clamping surfaces.

8. **ONLY** use the saw blade supplied for cutting wood, never for the cutting of metals.
9. **ONLY** use saw blades with diameters in accordance with the markings on the saw.
10. Use additional workpiece supports, if required for workpiece stability.
11. Workpiece support extensions must always be secured and used during work.
12. Replace table inserts when worn.
13. Avoid overheating of the saw teeth.
14. When sawing plastic take care not to melt the plastic.
15. Use the appropriate saw blades for this purpose. Replace damaged or worn saw blades immediately.
16. When the saw blade overheats, stop the machine. Allow the saw blade to cool down before using the machine again.

LASER SAFETY



CAUTION: METHODS OTHER THAN THOSE SPECIFIED HERE CAN RESULT IN DANGEROUS RADIATION EXPOSURE.

-
1. **DO NOT** look directly into the laser beam with unprotected eyes.
 2. **NEVER** look into the path of the beam.
 3. **NEVER** point the laser beam towards reflecting surfaces and persons or animals. Even a laser beam with a low output can cause damage to the eyes.
 4. **NEVER** open the laser module. Unexpected exposure to the beam can occur.
 5. The laser may not be replaced with a different type of laser.
 6. Repairs of the laser may only be carried out by the laser manufacturer or an authorised representative.







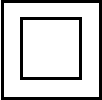
RESIDUAL RISKS

1. Despite all precautions having been met, some non-obvious residual risks may still remain.
2. Residual risks can be minimised if the safety warnings are observed along with the whole of the operating instructions.
3. **DO NOT** load the machine unnecessarily. Excessive pressure when sawing will quickly damage the saw blade which results in reduced output of the machine in the processing and in cut precision.
4. When cutting plastic material, please always use clamps: the parts being cut must always be fixed between the clamps.
5. Avoid accidental starting of the machine: the operating button may not be pressed when inserting the plug in an outlet.
6. Hands must never enter the cutting zone when the machine is in operation.



WARNING: THIS ELECTRIC TOOL GENERATES AN ELECTROMAGNETIC FIELD DURING USE. THIS FIELD CAN IMPAIR ACTIVE OR PASSIVE MEDICAL IMPLANTS UNDER CERTAIN CONDITIONS. IN ORDER TO PREVENT THE RISK OF SERIOUS OR DEADLY INJURIES, WE RECOMMEND THAT PERSONS WITH MEDICAL IMPLANTS CONSULT WITH THEIR PHYSICIAN AND THE MANUFACTURER OF THE MEDICAL IMPLANT PRIOR TO OPERATING THE SAW.

SAFETY SYMBOLS

	<p>Read instruction manual and safety instructions</p>
	<p>Wear safety goggles</p>
	<p>Wear ear defenders</p>
	<p>Wear a dust mask</p>
	<p>Important! Risk of injury. Never touch the moving saw blade!</p>
	<p>Laser Radiation, Class 2 Laser: Do not stare into the beam.</p>
	<p>Protection Class II (double shielded)</p>

ELECTRICAL CONNECTIONS



WARNING: READ THESE ELECTRICAL SAFETY INSTRUCTIONS THOROUGHLY BEFORE CONNECTING THE PRODUCT TO THE MAINS SUPPLY.

Before switching the product on, make sure that the voltage of your electricity supply is the same as that indicated on the rating plate. This product is designed to operate on 230VAC 50Hz. Connecting it to any other power source may cause damage.

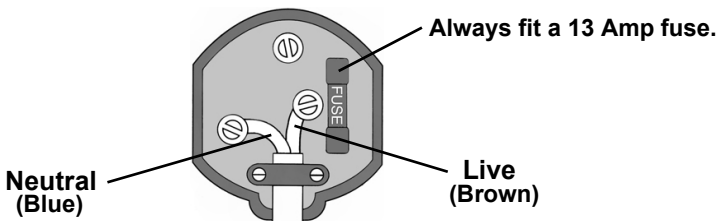
This product may be fitted with a non-rewireable plug. If it is necessary to change the fuse in the plug, the fuse cover must be refitted. If the fuse cover becomes lost or damaged, the plug must not be used until a suitable replacement is obtained.

If the plug has to be changed because it is not suitable for your socket, or due to damage, it should be cut off and a replacement fitted, following the wiring instructions shown below. The old plug must be disposed of safely, as insertion into a mains socket could cause an electrical hazard.

If the colours of the wires in the power cable of this product do not correspond with the markings on the terminals of your plug, proceed as follows.

- The **Blue** wire must be connected to the terminal marked **N** or coloured **Black**.
- The **Brown** wire must be connected to the terminal marked **L** or coloured **Red**

Plug must be BS1363/A approved.



Ensure that the outer sheath of the cable is firmly held by the clamp

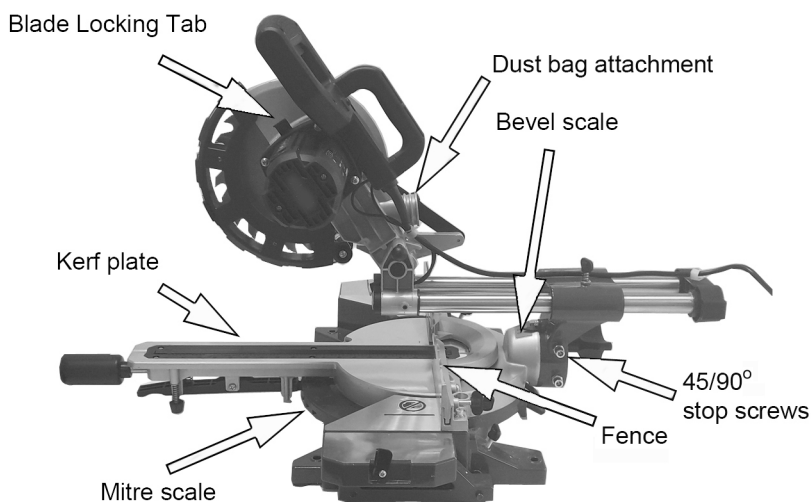
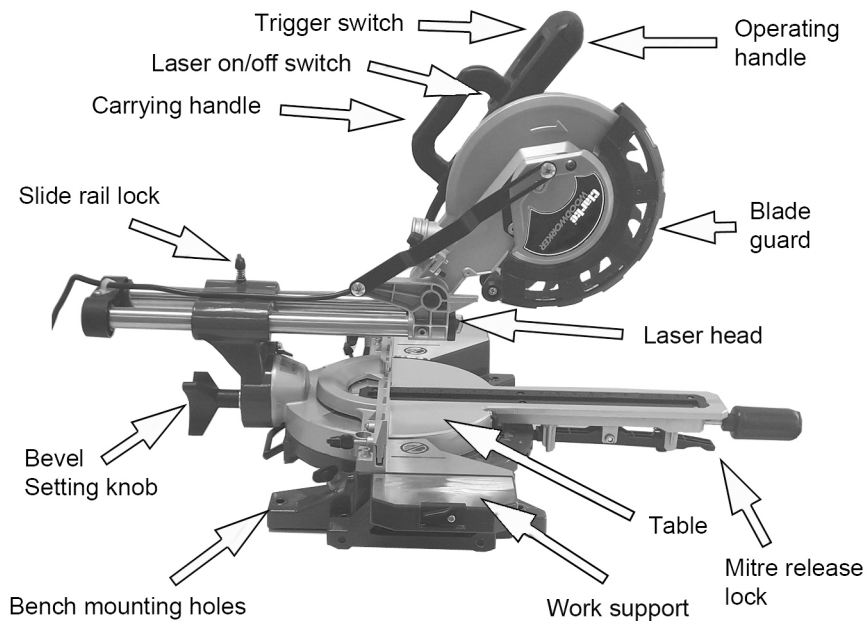
We strongly recommend that this machine is connected to the mains supply via a Residual Current Device (RCD)

If in any doubt, consult a qualified electrician. DO NOT attempt any repairs yourself.



This symbol indicates that this is a Class II product, and does not require an earth connection.

OVERVIEW



BEFORE USE

1. Remove the saw from the packing material carefully.
 - The following should be supplied. If anything is missing speak to your CLARKE dealer.

1 x Cross-Cut Mitre Saw with Laser Guide	1 x Sawdust Bag
1 x Clamping Device (fitted).	1 x 6 mm Hex Key
2 x Workpiece Supports (fitted).	1 x 3 mm Hex Key
1 x Blade - 216 mm x 30 mm x 2.8 mm x 24 TCT (fitted)	1 x Blade - 216 mm x 30 mm x 2.8 mm x 48 TCT (in box).

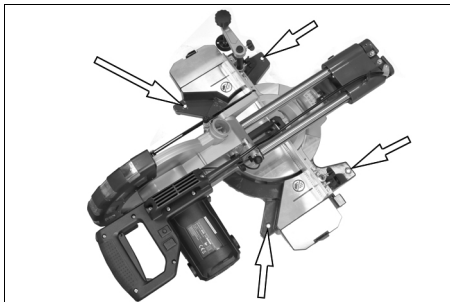
BENCH MOUNTING

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

- Always mount your saw firmly on a level surface to prevent movement.

The saw can also be mounted to a piece of 12.5 mm or thicker plywood which can then be clamped to your work surface.

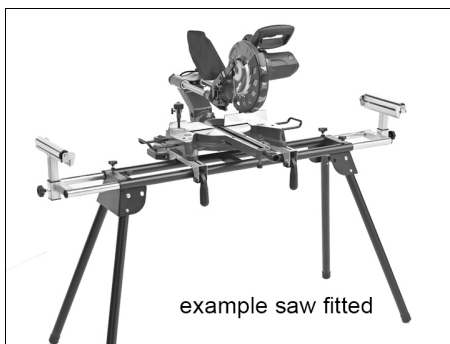
- When mounting your saw to a piece of plywood, make sure that the mounting screws do not protrude from the bottom of the wood.



MITRE SAW STAND (NOT SUPPLIED)

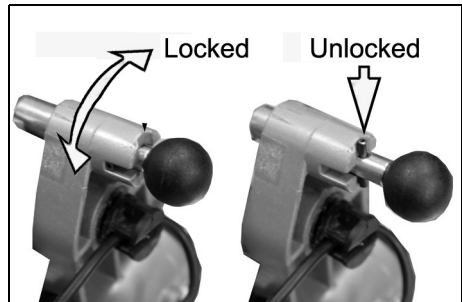
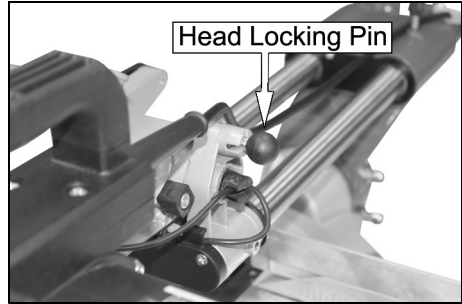
You can also mount the machine to a mitre saw stand available from your local CLARKE dealer.

CUTS Mitre Saw Stand Part No 6500944.



LOCKING / RELEASING THE SAW HEAD

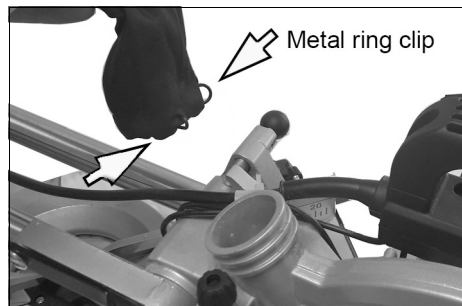
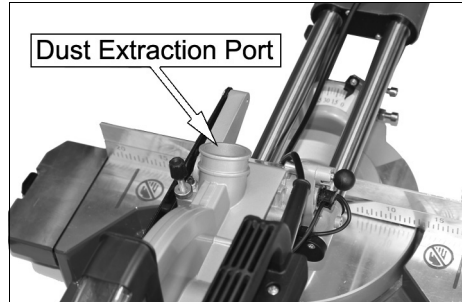
1. Push down slightly on the operating handle and pull out the head locking pin and rotate it 90° degrees as shown so that the small pin rests on the grooves that hold the head locking pin in the unlocked position.
2. Carefully release the downward pressure on the operating handle and allow the head to rise to its full height.



DUST EXTRACTION

This machine is provided with a dust extraction port for connection to a dust bag (supplied).

1. Squeeze together the metal ring clip on the dust bag and place it over the dust extraction port.
2. To empty the dust bag, use the zipper on the bottom of the dust bag.
3. The dust extraction port can also be connected to an extraction system using a suitable hose (not supplied)
 - The extraction system must be suitable for the material being worked.
 - Use appropriate filters when vacuuming dust as this is dangerous to your health or carcinogenic.



OPERATION

ALWAYS follow the safety instructions and applicable regulations.

BODY AND HAND POSITION

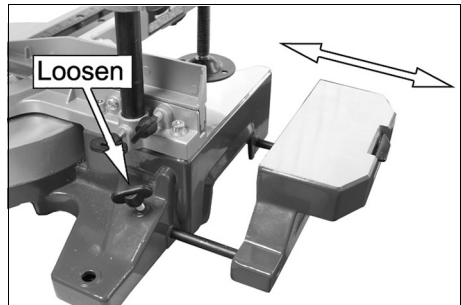
Correct positioning of your body and hands when you operate the mitre saw will make cutting easier and safer.

- DO NOT put your hands near the blade.
- Clamp the workpiece tightly to the table and the fence when making cuts.
- Release the trigger switch and keep your hands in position until the blade stops.
- ALWAYS make dry runs (without power) before cuts so that you can check the path of the blade.
- Do not cross your hands.

WORKPIECE SUPPORTS

To extend the supports.

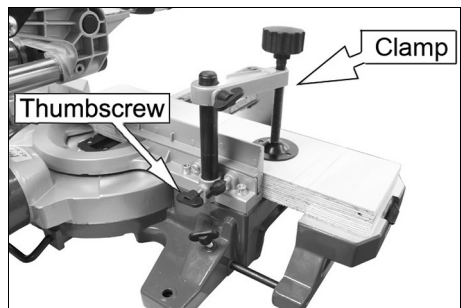
1. Loosen the thumbscrew.
2. Pull out the support as far as necessary.
3. Tighten the thumbscrew again.



CLAMP POSITION

The clamp can be attached to either side of the saw table.

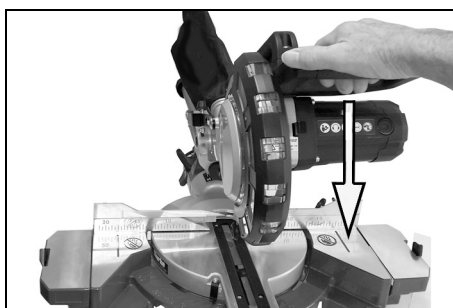
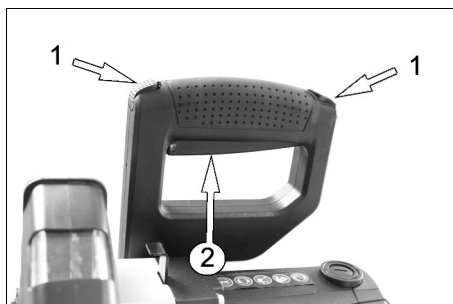
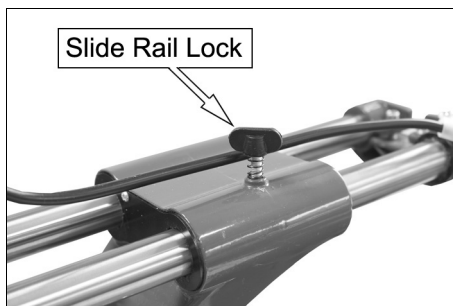
Insert the clamp in the holes behind the fence and secure it with the thumbscrew.



BASIC SAW CUTS

VERTICAL STRAIGHT CROSS CUT

1. Check and adjust the mitre table angles are correct as shown on page 21 / 22.
2. Release the slide rail lock, and push the saw head back to the rear position.
3. Retighten the slide rail lock.
4. Place the wood to be cut against the fence and secure with the clamp.
5. Press the trigger release (1) with your thumb and squeeze the trigger (2).
 - Let the motor reach full speed before cutting.
6. Lower the head slowly, allowing the blade to cut through the timber and enter the kerf plate.
 - **DO NOT** force the saw.
7. After the cut is complete, release the trigger and allow the head to return the head to its upper rest position.

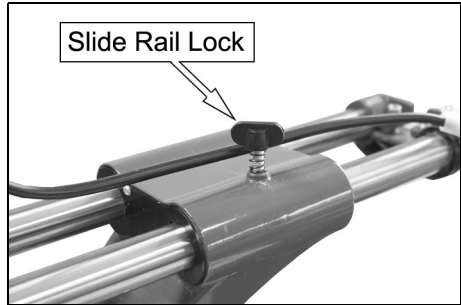


WARNING: THE BLADE WILL CONTINUE TO TURN FOR A SHORT WHILE AFTER YOU RELEASE THE TRIGGER.

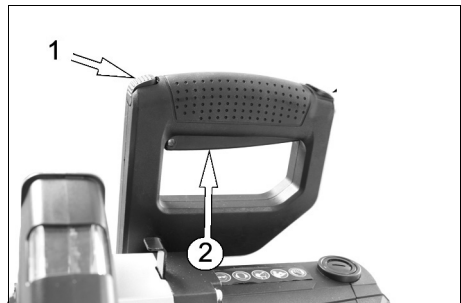
PERFORMING A SLIDING CUT

The slide rail lets you cut larger workpieces up to 340mm x 65mm using an out-down-back sliding motion.

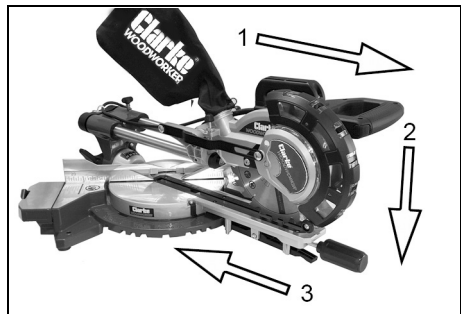
1. Release the slide rail lock.



2. Push the trigger release (1) with your thumb and squeeze the trigger (2).
 - Let the motor reach full speed.

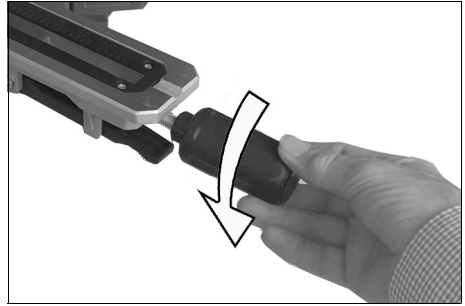


3. Pull the saw head towards you (1).
4. Lower the saw blade (2) into the workpiece.
5. Push the saw head back (3) to complete the cut.
 - Do not perform sliding cuts on workpieces smaller than 50 x 100mm.
 - Lock the saw head in the rear position when the sliding cuts are complete.

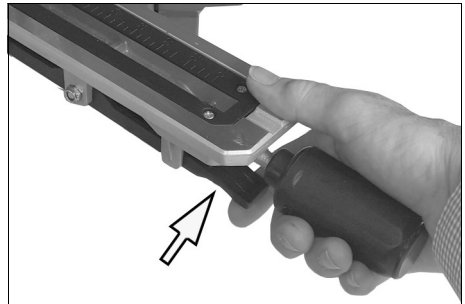


PERFORMING A MITRE CUT

1. To adjust the mitre saw table, loosen the handle approximately 2 turns counter clockwise.



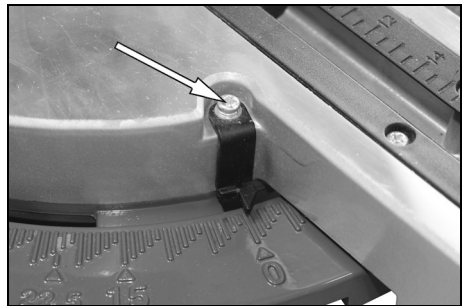
2. Pull up the locking lever.



3. Turn the table and pointer to the necessary angle (0° to 45° left or right).

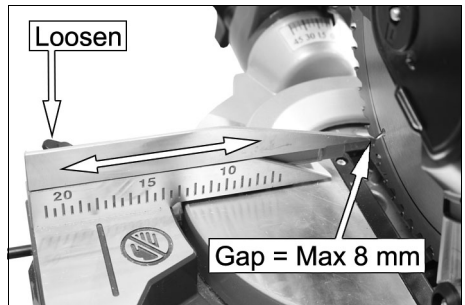
- The angle is shown on the scale.

4. Release the locking lever and tighten the handle clockwise to secure it.



5. Every time you change the mitre angle, make sure the adjustable fences are set correctly to support the workpiece and will not interfere with the blade or the guard.

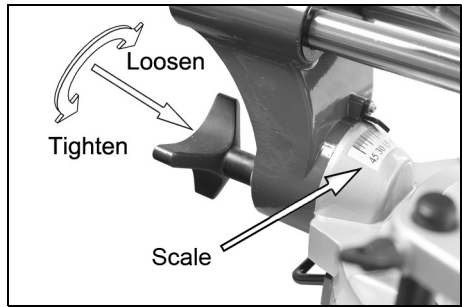
- The gap between the fence and the blade should be a maximum of 8mm.



BEVEL CUTS

Bevel angles can be set from 45° left to vertical.

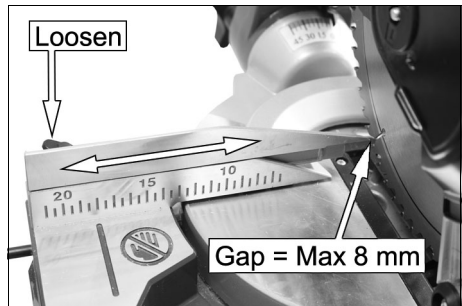
1. Loosen the bevel adjustment handle.
2. Set the bevel to the correct angle as shown on the scale.
3. Tighten the bevel adjustment handle.
4. Continue as for a vertical straight cross-cut.



- For bevel cuts, the clamp must only be attached to the right side of the table.

5. Every time you change the bevel angle, make sure the adjustable fences are set correctly to support the workpiece and will not interfere with the blade or the guarding system.

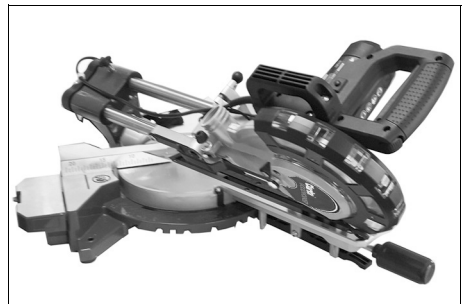
- The gap between the fence and the blade should be a maximum of 8mm.



COMPOUND MITRE CUTS

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

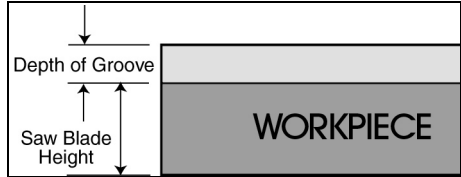
1. Set your saw to the necessary angles.
 - Always try cuts on scrap pieces of wood to verify the settings on the saw.
2. Practice fitting the cut pieces together.



LIMITING THE DEPTH OF CUT (GROOVE CUTTING)

1. Subtract the depth of your groove from the thickness of your workpiece.

- This will give you the height above the table surface at which the saw blade must be set.

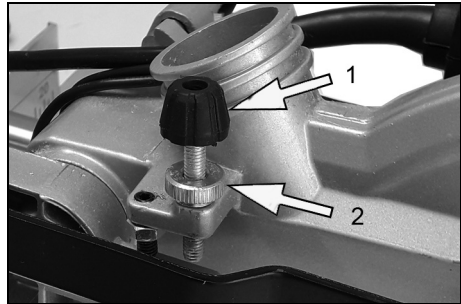


- For example if you want a 6 mm deep groove in a 18 mm thick piece of wood, you need a saw blade height of 12mm (18mm - 6mm).
2. Put a template or a piece of wood, the same thickness as the saw blade height setting, on the table, below the saw blade.
 - As an example a piece of wood 12mm thick.
 3. Lower the head until it lightly touches the template.

4. Loosen the locking ring (2) if required, screw down the adjuster (1) until it touches the ledge, then finally tighten the locking ring (2).

- The saw blade is now set to cut your groove, using the sliding feature.

- The width of the groove will, of course, be the width of the saw blade. However, if you move the workpiece along the table in small increments, it is possible to cut grooves to any width.



5. Before reverting to normal cutting, remember to reset the position of the adjuster to its normal position.

THE LASER GUIDE



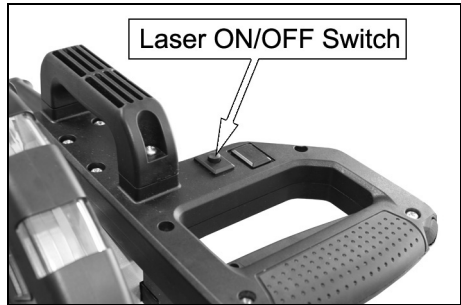
Laser Radiation, Class 2 Laser: Do not stare into the beam.

TO SWITCH ON:

1. Push the laser ON/OFF switch once.
 - A laser line is projected onto the material, providing an accurate guide for the cut.

TO SWITCH OFF:

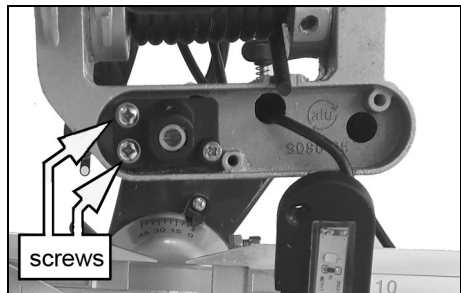
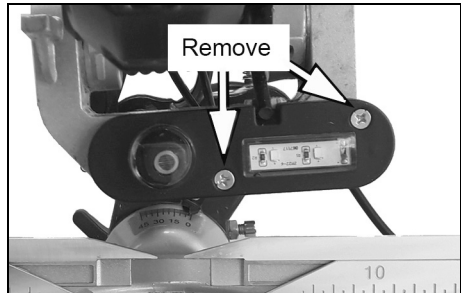
1. Push the laser ON/OFF switch again.



ADJUST THE LASER

If the laser does not show the correct cut line, you can use the following procedure to adjust the laser.

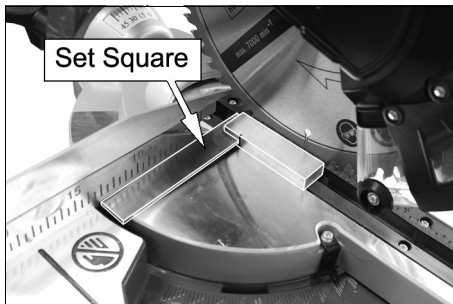
1. Turn the laser on.
2. Remove the screws shown.
3. Remove the front cover.
4. Loosen the cross head screws and adjust the laser by moving sideways until the laser beam hits the teeth of the saw blade.
5. Retighten the cross head screws.
6. Replace the front cover and tighten the two screws.



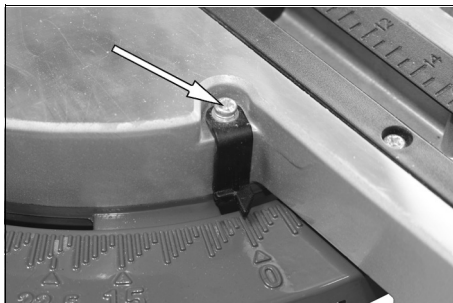
ADJUSTMENTS

CHECK AND ADJUST THE MITRE ANGLE

1. Lock the saw head in the down position see page 13.
2. Put a set square up against the left side of the fence and blade.
3. Adjust the mitre arm if necessary until the blade is perfectly square to the fence.

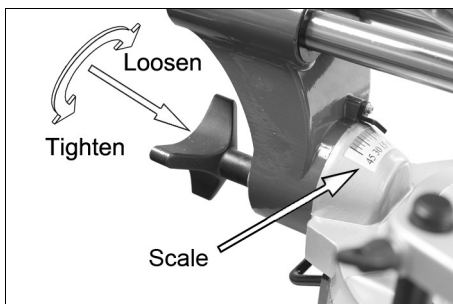


4. If pointer does not point to zero on the mitre scale, loosen the screw that attaches the pointer and move the pointer as necessary.



CHECK AND ADJUST THE BEVEL ANGLE

1. Loosen the bevel adjustment handle.
2. Push the saw head to the right to vertical and tighten the bevel clamp handle.
3. Lock the saw head in the down position see page 13.



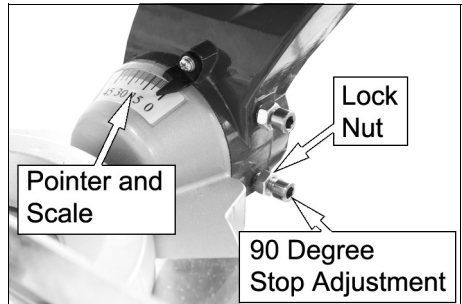
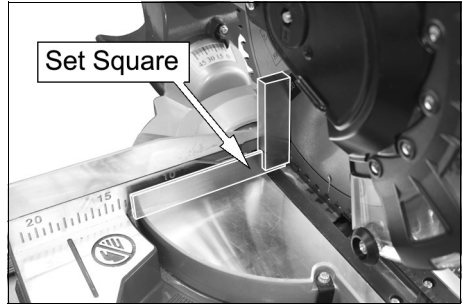
90 DEGREE STOP ADJUSTMENT

- Put a set square on the table and up against the blade.

NOTE: DO NOT touch the tips of the blade teeth with the square.

If adjustment is necessary, continue as follows:

- Loosen the lock nut and turn the 90° adjustment stop screw in or out until the blade is at 90° to the table as shown by the set square.
- If the bevel pointer does not point to zero on the bevel scale, loosen the screw that secures the bevel pointer and move the pointer as necessary.

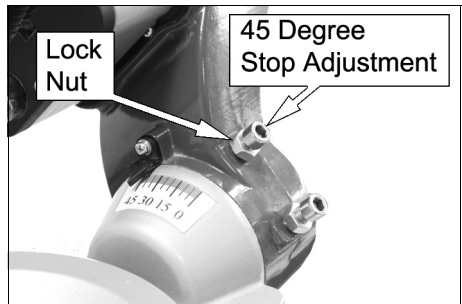


45 DEGREE STOP ADJUSTMENT

- Loosen the bevel adjustment handle and set the saw head as far to the left as possible (this should be the 45° angle)
- Put a 45° set square on the table and up against the blade.

NOTE: DO NOT touch the tips of the blade teeth with the square.

- Loosen the lock nut and turn the 45° adjustment stop screw in or out until the blade is at 45° to the table as measured with the square.
- Adjust the bevel pointer if necessary as shown in point 6 above.



TRANSPORTING

- Lower the head and lock it down using the head lock pin. (see page 13)
- Slide the head towards you and secure in position using the slide rail lock.
- Lock the mitre arm with the table mitre lock.
- Lock the bevel adjustment handle with the saw head in the vertical position to make the tool as compact as possible.

MAINTENANCE



WARNING: MAKE SURE THAT THE SAW IS SWITCHED OFF AND UNPLUGGED FROM THE MAINS SUPPLY BEFORE FITTING OR REMOVING THE BLADE.

WARNING: WEAR SAFETY GLOVES WHEN CHANGING THE SAW BLADE.

WARNING: THE REPLACEMENT BLADE MUST BE RATED TO AT LEAST 4700 RPM.

CLEANING

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

- Regularly clean the table top.
- Regularly empty the dust collection bag.
- Keep the ventilation slots clear and regularly clean the motor housing with a soft cloth.

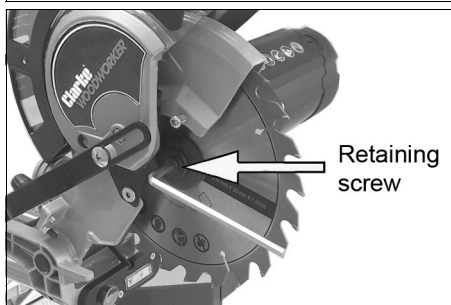
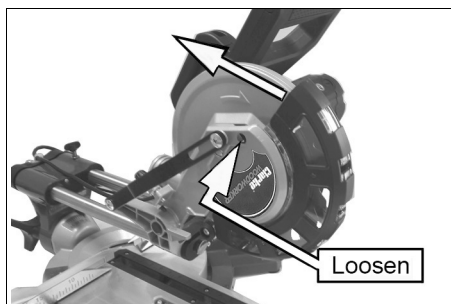
Avoid the use of cleaners or lubricants. In particular spray and aerosol cleaners may chemically attack the plastic lower guard.

CHANGING THE SAW BLADE

1. Loosen the retaining screw of the cover using a screwdriver.

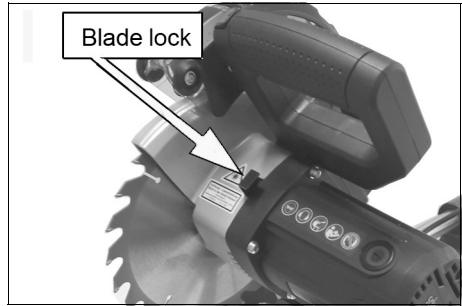
NOTE: Do not fully remove this screw.

2. Fold the saw blade guard upwards until the saw blade guard is above the retaining screw.
3. Insert the hex key supplied in the retaining screw.



4. Depress the blade lock and slowly rotate the retaining screw using the hex key in clockwise direction.

- The blade lock engages after no more than one rotation
- **WARNING: NEVER PUSH THE BLADE LOCK IN WHEN THE MOTOR IS RUNNING.**



5. Remove the screw and outer blade retaining disc.

6. Remove the blade from the shaft.

7. Carefully clean the retaining screw/outer and inner disc.

8. Fit the new saw blade in reverse order.

- Make sure that all parts are perfectly clean and the blade teeth point down at the front.
- Every time that you change the saw blade, check to see that it spins freely in the table insert in both perpendicular and 45° angle settings.

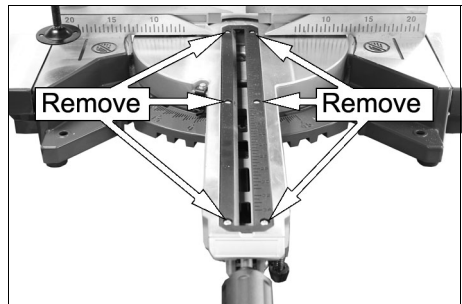
9. Before continuing to work make sure that all guards are in good working condition.

REPLACING THE TABLE INSERT



WARNING: IF THE TABLE INSERT IS DAMAGED THERE IS A RISK OF SMALL PARTS GETTING STUCK BETWEEN TABLE INSERT AND BLADE, BLOCKING THE BLADE. REPLACE A DAMAGED TABLE INSERT IMMEDIATELY.

1. Remove screws at table insert. If required, turn rotary table and incline saw head to be able to reach the screws.
2. Remove table insert.
3. Install new table insert.
4. Tighten the screws at table insert.



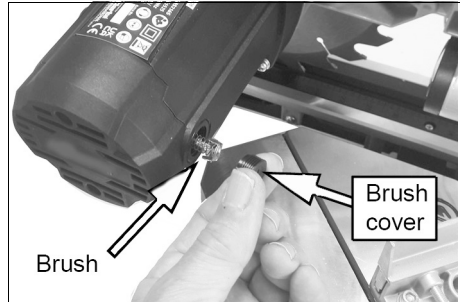
CHANGING THE CARBON BRUSHES



WARNING: MAKE SURE THAT THE SAW IS SWITCHED OFF AND UNPLUGGED FROM THE MAINS SUPPLY BEFORE INSPECTING OR CHANGING THE CARBON BRUSHES.

After extensive use, the carbon brushes will become worn and should be checked if the motor seems to be lacking power. Replacements are available from your dealer.

1. Unscrew the carbon brush cover using a screwdriver.
2. The carbon brush should spring out.
 - If the carbon is worn to a length of 6mm or less, or if the spring or contact wire is burned or damaged, replace both brushes.
3. Replace each carbon brush cover, taking care not to cross thread it.



ENVIRONMENTAL PROTECTION



Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted and taken to a recycling centre for disposed in a manner compatible with the environment.

By purchasing this product, the customer is taking on the obligation to deal with its safe disposal in accordance with the Waste Electrical and Electronic Equipment (WEEE).

In effect, this means that this product must not be disposed of with general household waste. It must be disposed of according to the laws governing Waste Electrical and Electronic Equipment (WEEE) at a recognised disposal facility. If disposing of this product or any damaged components, do not dispose of with general waste. This product contains valuable raw materials. Metal products should be taken to your local civic amenity site for recycling of metal products.

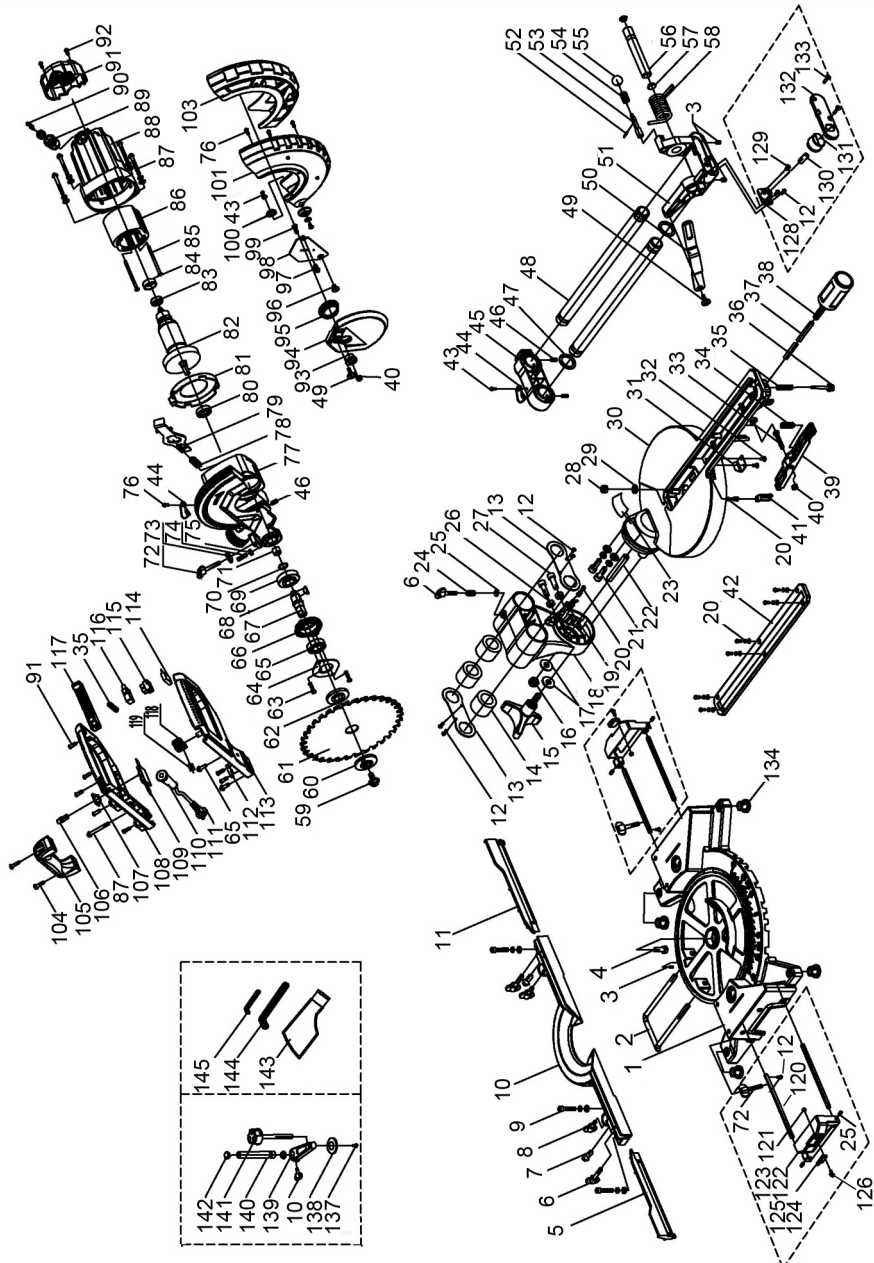
SPECIFICATIONS

Model Number	CMS216S
Part Number	6461525
Rated Voltage	230 V AC @ 50Hz
Input Wattage	2000 W
Ingress protection	IP 0X
Blade Diameter	216 mm
Blade bore	30 mm
Max. blade thickness	2.8 mm
Max. no load machine speed	4700 rpm
Max. cross-cut capacity at 90°	340 mm x 65 mm
Max. Mitre cut 45°	240 mm x 65 mm
Max Bevel cut 2 x 45°	240 mm x 38 mm
Max compound cut	340 mm x 65 mm
Max Bevel Angle	0-45° to the left
Sound pressure (L_{pA})	96.5 dB (A)
Sound power (L_{WA})	109.5 dB (A)
Uncertainty Factor (K)	3
Dimensions (Length x Width x Height)	735 x 593 x 505 mm
Weight	11.7 kg



WARNING: THE NOISE EMISSIONS DURING THE ACTUAL USE OF THE MITRE SAW MAY DIFFER FROM THE ABOVE-MENTIONED VALUES DEPENDING ON THE TYPE OF WORKPIECE BEING CUT.

EXPLODED DIAGRAM



PARTS LIST

No	Description
1	Base
2	Rear support bar
3	Socket set screw M6 x 8
4	Hexagon bolt M8 x 20
5	Left fence
6	Butterfly screw
7	Cross recessed pan head screw
8	M6 x 15 wing screw
9	Hexagon socket screw M6 x 30
10	Fence support
11	Right fence
12	Pan head screw
13	Linear bearing end cover
14	Linear bearing
15	Angle lock knob
16	Type 2 non-metallic lock nut
17	Washer
18	Connecting body
19	Mitre angle pointer
20	Pan head screw
21	Hexagon socket set screw
22	Socket head cap screw
23	Connecting base scale
24	Rod locking spring
25	Washer
26	Nut M8
27	Socket head screw M8 x 25
28	Type 2 non-metallic locknut
29	Washer
30	Disc
31	Disc locking plate

No	Description
32	Countersunk screw
33	Pan head screw
34	Bar lock spring
35	Switch trigger spring
36	Lock knob
37	Disc locking lever
38	Side handle
39	Fixed link
40	Type 2 non-metallic hex locknut
41	Pointer
42	Kerf plate
43	Cross pan head screws
44	Linear bearing tie
45	Rod cover
46	Allen screw M6 x 10
47	Rod gasket
48	Bearing rod
49	Pan head screw
50	Connecting rod
51	Bracket
52	Roll pin
53	Lock pin
54	Spring
55	Ball nut
56	Connecting shaft
57	Connecting shaft cover
58	Large torsion spring
59	Blade securing screw
60	Outer retaining disc
61	Saw blade
62	Inner retaining disc




No	Description
63	Screw M5 x 16
64	Gland
65	Bearing 6003Z2
66	Cover plate
67	Output shaft
68	Woodruff key
69	Large gear
70	Bearing retainer
71	Needle roller bearing
72	Butterfly screw
73	Knurled nut
74	Allen set-screw M6 x 20
75	Nut M6
76	Pan head screw
77	Head and shell
78	Shaft locking spring
79	Shaft lock
80	Roller bearing 6001z3
81	Fan shroud
82	Rotor
83	Roller bearing 608z3
84	Bearing sleeve
85	Cross head pan head s/t screw
86	Stator
87	Screw M5 x 40
88	Chassis
89	Brush holder
90	Carbon brush
91	Rear cover
92	Cross head pan head s/t screw
93	Transparent cover plate
94	Transparent cover
95	Transparent cover spring
96	Socket head cap screw

No	Description
97	Screw
98	Side plate (Large hood)
99	Large Hood
100	Pulley wheel
101	Transparent cover
102	N/a
103	Transparent cover coat hood
104	Cross head pan head s/t screw
105	Lifting handle
106	Top fixing
107	Ejector pawl
108	Upper handle
109	Circuit board
110	Cable sleeve
111	Cable
112	Tension disc
113	Lower handle
114	Capacitor
115	Wiring block
116	Micro switch
117	Trigger
118	Switch lock button
119	Spring
120	Extension rod
121	Locknut
122	Left wing body
123	Right wing body
124	Left end tab
125	Right end tab
126	Screw
127	n/a
128	Laser frame
129	Countersunk screw
130	Laser unit

No	Description
131	Laser transparent cover
132	LED lamp holder
133	Countersunk screw
134	Foot
135	n/a
136	n/a
137	Screw M5 x 7
138	Locking disc


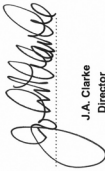

No	Description
139	Clamping block
140	Fixed link
141	Handwheel
142	Fixed rod cover
143	Dust bag
144	3mm Hex key
145	6mm Hex key

DECLARATION OF CONFORMITY

 Clarke [®] INTERNATIONAL Hemmill Street, Epping, Essex, CM16 4JG	DECLARATION OF CONFORMITY This is an important document and should be retained.
We hereby declare that this product(s) complies with the following UK legislation: Supply of Machinery (Safety) Regulations 2008. Electromagnetic Compatibility Regulations 2016. The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012.	This is an important document and should be retained.
The following standards have been applied to the product(s): EN 55014-1:2017, EN 55014-2:2019, EN 61000-3-11:2000, EN 62841-1:2015, EN 62841-3-9:2015+A11:2017.	We hereby declare that this product(s) complies with the following directive(s): 2014/30/EU Electromagnetic Compatibility Directive. 2006/42/EC Machinery Directive. 2011/65/EU Restriction of Hazardous Substances, (amended by 2015/863).
The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the current UK legislation has been compiled and is available for inspection by the relevant enforcement authorities. This product was placed onto the market: 2021	The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned directive(s) has been compiled and is available for inspection by the relevant enforcement authorities. The CE mark was first applied in: 2021
Product Description: Sliding Mitre Saw with Laser Model number(s): CMS216S Serial / batch Number: N/A Date of issue: 03/03/2021	Product Description: Sliding Mitre Saw with Laser Model number(s): CMS216S Serial / batch Number: N/A Date of issue: 03/03/2021
Signed:  J.A. Clarke Director	Signed:  J.A. Clarke Director

Page 1 of 1

UKCA (20-022) CMS216S Mitre Saw (rev 0)N21 0818UK

 Clarke [®] INTERNATIONAL Fitzwilliam Hall, Fitzwilliam Place, Dublin 2	DECLARATION OF CONFORMITY This is an important document and should be retained.
We hereby declare that this product(s) complies with the following directive(s): 2014/30/EU Electromagnetic Compatibility Directive. 2006/42/EC Machinery Directive. 2011/65/EU Restriction of Hazardous Substances, (amended by 2015/863).	This is an important document and should be retained.
The following standards have been applied to the product(s): EN 55014-1:2017, EN 55014-2:2019, EN 61000-3-11:2000, EN 62841-1:2015, EN 62841-3-9:2015+A11:2017.	We hereby declare that this product(s) complies with the following directive(s): 2014/30/EU Electromagnetic Compatibility Directive. 2006/42/EC Machinery Directive. 2011/65/EU Restriction of Hazardous Substances, (amended by 2015/863).
The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned directive(s) has been compiled and is available for inspection by the relevant enforcement authorities. The CE mark was first applied in: 2021	The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned directive(s) has been compiled and is available for inspection by the relevant enforcement authorities. The CE mark was first applied in: 2021
Product Description: Sliding Mitre Saw with Laser Model number(s): CMS216S Serial / batch Number: N/A Date of issue: 03/03/2021	Product Description: Sliding Mitre Saw with Laser Model number(s): CMS216S Serial / batch Number: N/A Date of issue: 03/03/2021
Signed:  J.A. Clarke Director	Signed:  J.A. Clarke Director

Page 1 of 1

D O C (20-003) CMS216S Mitre Saw (rev 0)N21 0018

A SELECTION FROM THE VAST RANGE OF

Clarke®

QUALITY PRODUCTS



AIR COMPRESSORS

From DIY to industrial, Plus air tools, spray guns and accessories.

GENERATORS

Prime duty or emergency standby for business, home and leisure.

POWER WASHERS

Hot and cold, electric and engine driven - we have what you need

WELDERS

Mig, Arc, Tig and Spot. From DIY to auto/industrial.

METALWORKING

Drills, grinders and saws for DIY and professional use.

WOODWORKING

Saws, sanders, lathes, mortisers and dust extraction.

HYDRAULICS

Cranes, body repair kits, transmission jacks for all types of workshop use.

WATER PUMPS

Submersible, electric and engine driven for DIY, agriculture and industry.

POWER TOOLS

Angle grinders, cordless drill sets, saws and sanders.

STARTERS/CHARGERS

All sizes for car and commercial use.

PARTS & SERVICE: 0208 988 7400

Parts Enquiries
Parts@clarkeinternational.com

Servicing & Technical Enquiries
Service@clarkeinternational.com

SALES: UK 01992 565333 or Export 00 44 (0)1992 565335

Clarke INTERNATIONAL Hemnall Street, Epping, Essex CM16 4LG
www.clarkeinternational.com