

Clarke®



MULTI PURPOSE CIRCULAR SAW

Model No: CMSF110

Part No: 6462162

OPERATING & MAINTENANCE INSTRUCTIONS

CE



GC0111

INTRODUCTION

Thank you for purchasing this CLARKE multi purpose circular saw. The saw can be used for cutting almost any material up to a thickness of 35 mm, including ferrous and non-ferrous metals, timber, plywood man made boards, bakelite and plastics etc.

Before attempting to operate the saw, it is essential that you read this manual thoroughly and carefully follow all instructions given. In doing so you will ensure the safety of yourself and that of others around you, and you can also look forward to the saw giving you long and satisfactory service.

GUARANTEE

This CLARKE product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt 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 effect your statutory rights.

ENVIRONMENTAL PROTECTION



Do not dispose of this product with general household waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of appropriately.

PARTS & SERVICE

For parts & Servicing, please contact your nearest dealer, or CLARKE International, on one of the following numbers.

PARTS & SERVICE TEL: 020 8988 7400

PARTS & SERVICE FAX: 020 8558 3622

or e-mail as follows:

PARTS: Parts@clarkeinternational.com

SERVICE: Service@clarkeinternational.com

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GENERAL SAFETY PRECAUTIONS

Important Note: Although the operation manual contains extensive instruction on safe working with power tools, every power tool involves a certain residual risk which cannot be completely excluded. Power tools must therefore always be operated with caution.

WORK AREA SAFETY

1. Keep work area clean and well lit. Cluttered or 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 any adaptor plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
2. 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.
3. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
4. Do not abuse the cable. Never use the cable for pulling or unplugging the power tool. Keep cable away from heat, oil, sharp edges or moving parts. Damaged or entangled cables increase the risk of electric shock.
5. If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply. Use of an RCD reduces the risk of electric shock.

PERSONAL SAFETY

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 may result in serious personal injury.
2. Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask or non-skid safety shoes used in appropriate conditions will reduce personal injuries.
3. 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.

4. 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.
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.

POWER TOOL USE AND CARE

1. 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.
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, when changing accessories or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
4. Store 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.
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. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
7. 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.
8. Never abuse the power cable. Never pull on the cable when removing the plug from the socket, or lift the compressor by the power cable.
9. Only use extension leads that are of an appropriate power rating and suitable for the work environment. Extension leads must have an earth connection. Inspect the extension lead regularly and replace if damaged.

SERVICE

1. Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

PRECAUTIONS SPECIFIC TO CIRCULAR SAWS

1. **ALWAYS** wear ear protectors/defenders during continuous use as the noise level of this machine can exceed 85dB (A). The use of safety glasses and a respiratory mask as protection from airborne particles is recommended.
2. **ALWAYS** keep the mains cable well away from the saw blade and ensure an adequate electrical supply is close at hand so that the operation is not restricted by the length of the cable.
3. **ALWAYS** switch the machine OFF immediately the task is completed.
4. **ALWAYS** allow sufficient clearance beneath the work to ensure the blade does not come into contact with the work bench etc.
5. **ALWAYS** use only the correct blade for this saw and ensure the blade is fully tightened before use.
6. **ALWAYS** let the saw stop completely before putting down.
7. **ALWAYS** check blade guard has closed before putting the saw down.
8. **ALWAYS** hold the workpiece securely when cutting. The workpiece should always be fixed to a stable platform to avoid loss of control.
9. **NEVER** operate the saw when the blade guard is not working properly. Guard should be checked for correct operation before each use.
10. **NEVER** start the saw when the blade is in contact with the work.
11. **DO NOT** use the saw if the electric cable, plug or motor is in poor condition.
12. **NEVER** reach underneath the workpiece while the saw is running. The guard will be withdrawn and giving no protection while cutting is in progress.
13. **ALWAYS** hold the saw with both hands to keep them away from the blade.
14. **NEVER** touch the saw blade or cut line immediately after cutting in case the surface remains hot.
15. **NEVER** try to override the trigger safety switch by securing it in the power-on position.

Note: The guard is operating correctly when it moves freely and readily returns to closed position.

Please keep these instructions in a safe place for future reference.

ELECTRICAL CONNECTIONS



WARNING! Read these electrical safety instructions thoroughly before connecting the product to the mains supply.

Before switching the machine 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 using 230 VAC mains power. 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.



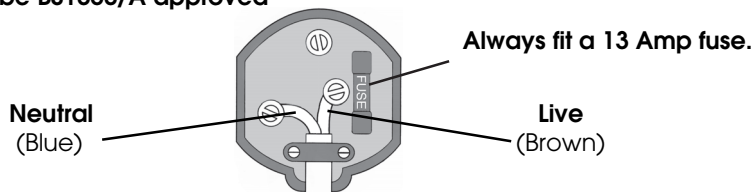
WARNING! The wires in the power cable of this product are coloured in accordance with the following code:

Blue = Neutral Brown = Live

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

- The wire which is coloured Blue must be connected to the terminal which is marked N or coloured Black.
- The wire which is coloured Brown must be connected to the terminal which is 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

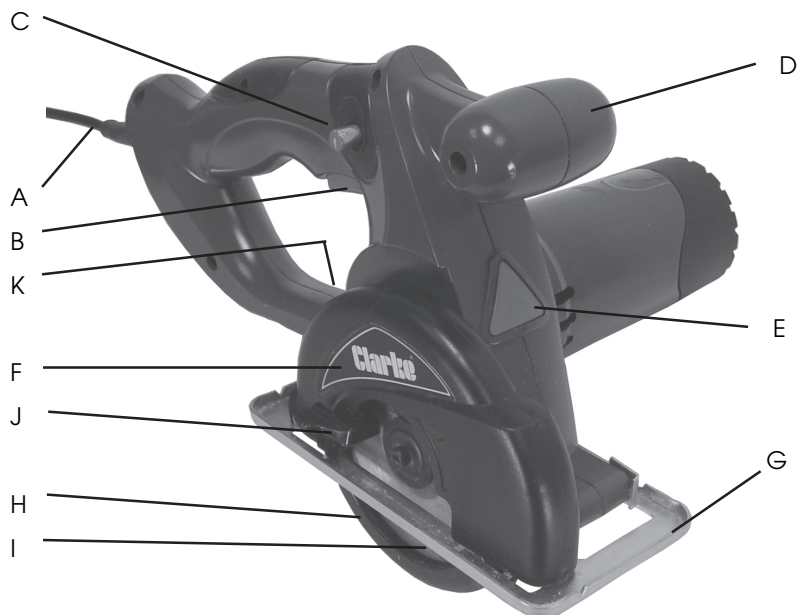
We strongly recommend that this machine is connected to the mains supply via a Residual Current Device (RCD).

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



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

INTRODUCTION



CONTENTS

- 1 x Multi-Purpose Circular Saw
- 1 x 110 mm dia Blade (fitted)
- 1 x 4.0 mm Hexagon Key (in storage socket)
- 1 x Instruction Manual

A	Power Cable	G	Sole Plate
B	Trigger	H	Lower Blade Guard
C	Trigger Safety Button	I	Saw Blade
D	Front Handle	J	Lower Guard Lever
E	Spindle Lock	K	Hex Key Storage Socket
F	Upper Blade Guard		

PREPARATION FOR USE



WARNING! THIS APPLIANCE SHOULD NOT BE USED BY ANYONE NOT EXPERIENCED IN THE USE AND OPERATION OF POWER TOOLS

BEFORE STARTING WORK

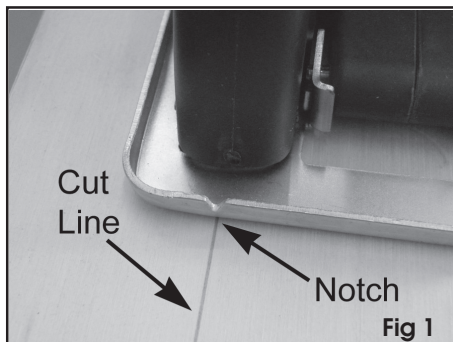
IMPORTANT! Before use, ensure the workpiece is perfectly secure, and there is sufficient clearance BENEATH the workpiece so that there is no possibility of the saw blade coming into contact with any other object.

1. Check that all parts are secure, including the saw blade.
2. Ensure the power cable is well away from the saw blade and not looped under the workpiece, then plug into the mains supply.
3. Always support work as near as possible to the cut.
4. Support the work so that the off-cut will be on your right hand side.
5. Clamp the workpiece so that it will not move during the cut.
6. Support large panels to minimise the risk of the blade being pinched in the cut if the panel should sag during cutting. Place the supports as close to the cut as possible.
7. The side of the workpiece on which, the finished appearance is seen, should be face down while cutting.
8. Always ensure that the blade you are about to use is sharp.
9. Always check that the lower saw guard moves freely and closes instantly before starting work.

OPERATION

STARTING A CUT

1. Place the leading edge of the sole plate on the top face of the workpiece, ensuring the saw blade is NOT making contact.
2. Push IN and hold the trigger safety button on the side of handle to either the left or right side. At the same time squeeze the trigger and keep it depressed to start the saw.
3. When the motor has reached maximum speed, line up the notch on the cutting line as shown in fig 1. Then move the saw slowly forward.
 - There is a second notch in the rear of the sole plate which also aligns with the cutting blade.
4. Always cut in forward direction and feed the saw into the work firmly and at a slow rate. Do not force the saw and keep it in a straight line while cutting. Always use the saw by holding it firmly with both hands.
5. Be aware that dust or sparks will be emitted depending on the material being cut, and suitable precautions should be taken to protect the operator from airborne particles.



FINISHING THE CUT

1. Release the trigger and allow the saw blade to stop completely before withdrawing the saw from the cut.
2. NEVER attempt to remove the saw with the blade rotating and NEVER attempt to stop the blade by lateral pressure.

CONTROLLING THE SAW

Kickback can occur when the blade stalls suddenly and the saw is driven back towards you. Blade stalling is caused by any action which pinches the blade into the material being cut.

Kickback could cause you to lose control of the saw and could result in personal injury. Release the trigger immediately if blade binds or stalls.

COMMON CAUSES OF KICKBACK

- a. Twisting the blade while making cut.
- b. Sawing with a dull, gummed up, or improperly set blade.

- c. Not supporting the workpiece securely.
- d. Cutting warped or wet timber.
- e. Forcing the saw through the cut.
- f. Failure to fit the saw blade correctly.
- g. Using the wrong saw blade.

To reduce the possibility of kickback occurring, always maintain a firm grip on the saw and position yourself to resist kickback forces. Using a fence or straight edge guide will improve accuracy and reduce the chance of binding and kickback.

If a cut is to be interrupted, release the switch to stop the saw but do not remove it from the workpiece. Investigate the cause of binding or kickback before continuing.

When re-starting, ensure that the saw is in the centre of the cut line and check that the saw teeth are not engaged into the material. If the saw is binding in this way, it may kick back or try to climb out of the workpiece when being restarted.

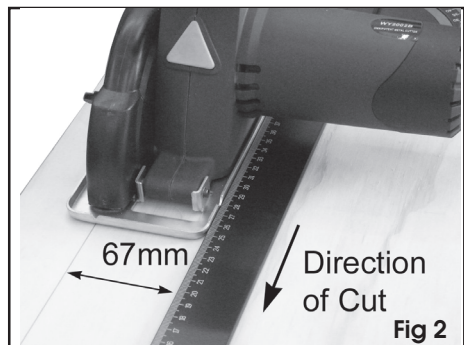
Always stop cutting if the saw becomes hot, and investigate the cause before continuing.

USING A FENCE OR GUIDE

MARKING OUT

1. Before beginning work, draw a guide line along the desired line of cut.

A low profile cutting guide can be used, suitably positioned approximately 67mm to the left of the cut line (assuming that the 'waste side' is to the right). This will allow the left-hand edge of the sole plate to run against the guides' straight edge and so ensure a straight cut at the required position (as shown in Fig 2).



The height of the guide should not exceed 15mm, to allow sufficient clearance below the motor housing.

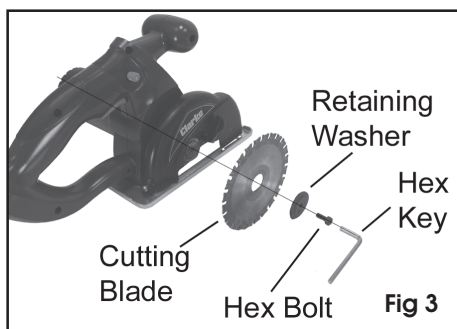
IMPORTANT! When marking your guideline, you must take into account the thickness of the saw blade. This must be added to your desired width.

Always test on a scrap piece of material first to determine how much, if any, the guideline must be offset to produce your desired width.

CHANGING THE BLADE

REMOVING THE BLADE

1. Ensure the power cable is disconnected from the power supply.
2. Press the spindle lock to prevent movement of the saw blade.
3. Loosen the hex bolt using the hex key.
4. Remove the hex bolt and outer retaining washer.
5. Hinge away the lower guard and remove the blade.



INSTALLING THE BLADE

1. Ensure the power cable is disconnected from the power supply.
2. Press the spindle lock to prevent movement of the saw blade.
3. Install the blade in the orientation shown in fig 4 when viewed from the right hand side of the saw. Do not use a blade with no markings but if they have become worn away during previous use, inspect the blade and note the position of the cutting teeth. The teeth must face in the direction of rotation as shown by the arrow on the blade in fig 4 when viewed from the right-hand side of the saw.
4. Install the retaining washer and hex bolt.
5. Tighten the hex bolt using the hex key. Return the hex key to its storage socket in the saw body.



CAUTION; INSTALLING THE BLADE THE WRONG WAY ROUND MAY RESULT IN DAMAGE TO THE BLADE.

Note: Replacement blades are available from your CLARKE dealer; part no 6462168.

MAINTENANCE

For any problems requiring the dismantling and overhaul of the saw, contact your CLARKE International Service Department on 020-8988-7400.

Always inspect the saw before use and ensure it is in top condition.

Ensure all air vents are clear of debris, (use compressed air to clean the machine where possible). Ensure that the lower guard can spring freely back to its closed position and clean out any debris lodged behind it.

Check the power cable to ensure it is sound and free from cracks, bare wires etc. Avoid using solvents when cleaning plastic parts, most plastics are susceptible to damage from various types of commercial solvents.

Check the operation of the lower guard, ensuring it springs freely to and fro.

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

STORAGE

Store in a clean, dry environment protected from the weather.

TROUBLESHOOTING

SAW OVERHEATS

Clean the motor ventilation holes, and blow out with compressed air or clean with a dry cloth.

Overloading the machine will also cause overheating. Do not use for heavy duty work and do not apply excessive pressure.

EXCESSIVE SPARKING OCCURS

This indicates worn brushes which can be easily replaced by your CLARKE dealer.

SAW DOES NOT OPERATE WHEN SWITCHED ON

Check to ensure the fuse is sound and replace if necessary. If the fuse is sound or blows repeatedly, consult your CLARKE dealer.

TECHNICAL SPECIFICATION

Feature	Specification
Weight	2.4 kg
Dimensions (L x W x H)	363 x 222 x 210 mm
Max Cutting Depth	35 mm
Materials suitable for cutting	Ferrous/Non ferrous Metals, Plastics, Timber, Man-made Boards, Bakelite etc
Cutting Blade Diameter	110 mm
No Load Blade Speed	4500 rpm
Number of Teeth	24 TCT
Sound Pressure Level	87.8 dB LpA
Sound Power Level	98.8 dB LwA
Guaranteed Sound Power	95 dB LwA
Uncertainty Value	3 dB LwA
Duty Cycle	S1 (continuous)
Operating Power Supply	230V @ 50Hz

Please note that the details and specifications contained herein, are correct at the time of going to print. However, CLARKE International reserve the right to change specifications at any time without prior notice.

ACCESSORIES

Replacement Cutting Blade Part No: 6462168

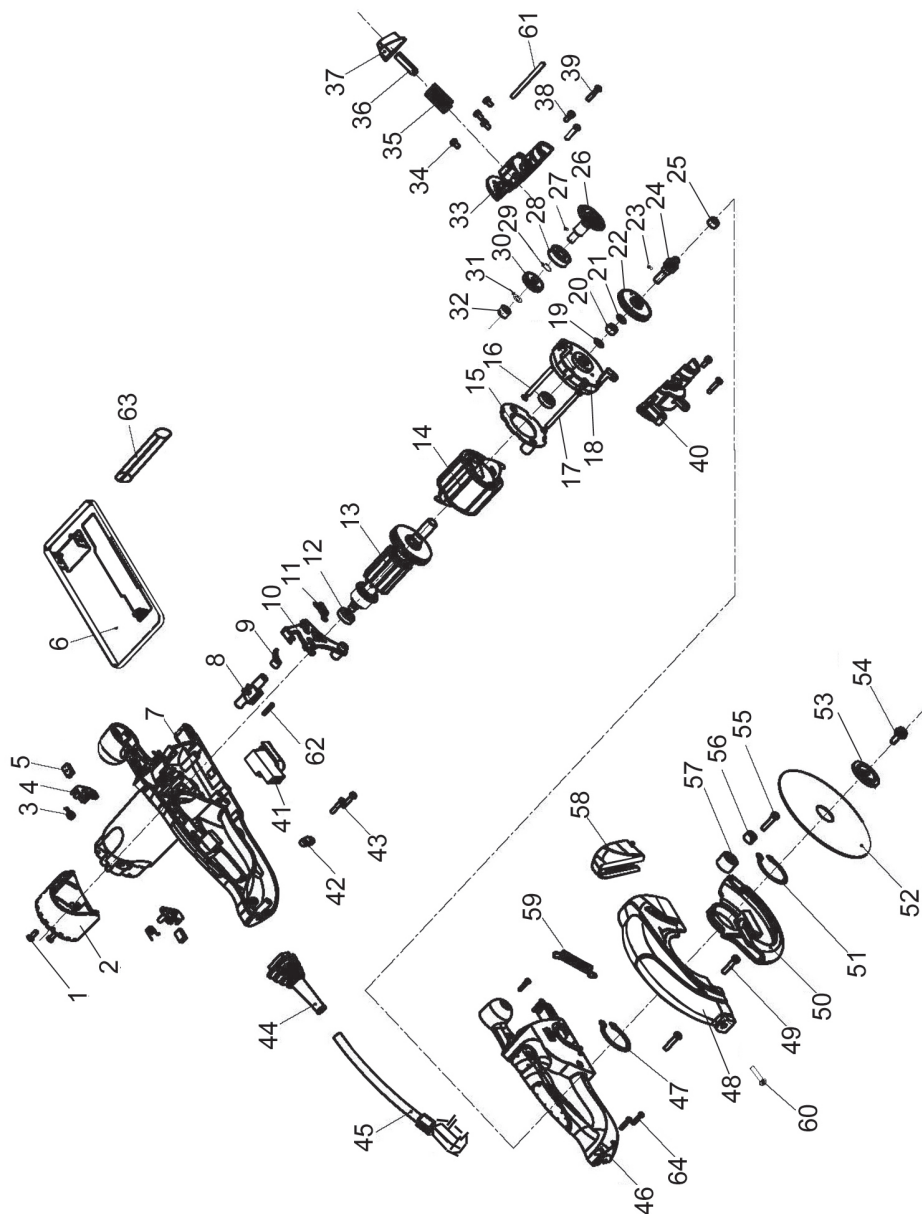
The use of parts other than genuine Clarke replacement parts may result in possible safety hazards or decreased machine performance, and will invalidate your warranty. Contact your Clarke dealer for further information.

PARTS LIST

No	Description	Part No
1	Screw ST4.2 x 14	CMSF11001
2	Rear Cover	CMSF11002
3	Brush Spring	CMSF11003
4	Brush Holder	CMSF11004
5	Carbon Brush	CMSF11005
6	Sole Plate	CMSF11006
7	Drive Housing	CMSF11007
8	Switch Locking Pin	CMSF11008
9	Rod	CMSF11009
10	Switch Locking Lever	CMSF11010
11	Spring	CMSF11011
12	Bearing 6207	CMSF11012
13	Motor Rotor	CMSF11013
14	Motor Stator	CMSF11014
15	Securing Ring	CMSF11015
16	Bearing 6801	CMSF11016
17	Screw ST4.2 x 60	CMSF11017
18	Central Cover	CMSF11018
19	Washer 7 mm	CMSF11019
20	Oilite Bearing 7 mm	CMSF11020
21	Washer 7 mm	CMSF11021
22	Primary Gear	CMSF11022
23	3mm Ball	CMSF11023
24	Secondary Shaft	CMSF11024
25	Oilite Bearing 7mm	CMSF11025
26	Spindle	CMSF11026
27	Bearing 6901	CMSF11027
28	Ball 3 mm	CMSF11028
29	Spring Ring	CMSF11029
30	Secondary Gear	CMSF11030
31	Washer 8 mm	CMSF11031
32	Oilite Bearing 8mm	CMSF11032

No	Description	Part No
33	Gearbox Cover- L/H	CMSF11033
34	Screw M4 x 10	CMSF11034
35	Compression Spring	CMSF11035
36	Pin	CMSF11036
37	Spindle Lock Button	CMSF11037
38	Screw M4 x 8	CMSF11038
39	Screw ST4.2 x 14	CMSF11039
40	Gearbox Cover - R/H	CMSF11040
41	Power Switch	CMSF11041
42	Cable Clip	CMSF11042
43	Screw ST4.2 x 14	CMSF11043
44	Cable Entry	CMSF11044
45	Power Cable	CMSF11045
46	Left Casing	CMSF11046
47	Circlip	CMSF11047
48	Fixed Blade Guard	CMSF11048
49	Screw ST4.2 x 30	CMSF11049
50	Lower Blade Guard	CMSF11050
51	Circlip	CMSF11051
52	Saw-blade	6462168
53	Retaining Washer	CMSF11053
54	Socket Bolt M5 x 12	CMSF11054
55	Screw ST4.2 x 40	CMSF11055
56	Stopper Bush	CMSF11056
57	Locating Block	CMSF11057
58	Locating Cover	CMSF11058
59	Guard Closing Spring	CMSF11059
60	Screw M5 x 12	CMSF11060
61	Locking Shaft	CMSF11061
62	Spring	CMSF11062
63	Roll Pin	CMSF11063
64	Screw ST4.2 x 14	CMSF11064

PARTS DIAGRAM



When ordering spare parts for this product, please quote the prefix TMC ahead of the part number listed above.

DECLARATION OF CONFORMITY



Clarke[®]
INTERNATIONAL

Hemndall Street, Epping, Essex CM16 4LG

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):

2004/108/EC *Electromagnetic Compatibility Directive.*

2006/42/EC *Machinery Directive.*

2006/95/EC *Low Voltage Equipment Directive.*

2002/95/EC *Restriction of Hazardous substances.*

The following standards have been applied to the product(s):

EN 60745-1:2009, EN ISO 12100-2/A2:2009, EN 55014-1:2006, EN 55014-2/A: 2001,

EN61000-3-2:2006, EN 61000-3-3/A2:2005.

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: 2008

Product Description: Multi function Circular Saw

Model number(s): CMSF110

Serial / batch Number: n/a

Date of Issue: 24/09/2010

Signed:

J.A. Clarke
Director

NOTES

[illegible]

A SELECTION FROM THE VAST RANGE OF

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QUALITY PRODUCTS

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PARTS & SERVICE: 0208 988 7400

E-mail: Parts@clarkeinternational.com or Service@clarkeinternational.com

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

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