

CLARKE®



BELT & DISC SANDER

MODEL NO: CS48

PART NO: 6500430

OPERATION & MAINTENANCE INSTRUCTIONS

UK
CA | CE



ORIGINAL INSTRUCTIONS

DL1022 - ISS 5

INTRODUCTION

Thank you for purchasing this CLARKE product.

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.

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 effect your statutory rights.

IN THE BOX

The following should be supplied inside the box.

If any parts are missing, please contact your local CLARKE dealer.

- 1 x Belt disc sander
- 1 x 200mm P80 sanding disc (Fitted)
- 1 x 100mm x 914mm 4"x 36" Sanding belt (Fitted)
- 1 x Disc table 265x150
- 1 x Belt table 170 x 125
- 1 x Dust bag
- 1 x Wrench
- 1 x Angle Gauge
- 1 x Instruction manual

GENERAL SAFETY RULES

1. **ALWAYS** learn the machines applications, limitations and the specific potential hazards. Read and become familiar with the entire operating manual.
2. **ALWAYS** use a face or dust mask if the operation is particularly dusty.
3. **ALWAYS** check for damage before using the machine, check for alignment of moving parts, breakage of parts, and any other condition that may affect the machines operation. Damage should be properly repaired or the part replaced. If in doubt, **DO NOT** use the machine. Consult your local dealer.
4. **ALWAYS** disconnect the machine from the power supply before servicing and when changing accessories.
5. **ALWAYS** wear safety goggles, manufactured to the latest European Safety Standards. Everyday eyeglasses do not have impact resistant lenses, and are not safety glasses.
6. **ALWAYS** keep work area clean. Cluttered areas and benches invite accidents.
7. **ALWAYS** ensure that adequate lighting is available. Ensure that lighting is placed so that you will not be working in your own shadow.
8. **ALWAYS** keep children away. All visitors should be kept a safe distance from the work area, especially when the machine is being used.
9. **ALWAYS** maintain machine in top condition. Keep tools/machines clean for the best and safest performance. Follow maintenance instructions.
10. **ALWAYS** handle with extreme care and do not carry the tool/machine by its electric cable, or pull on the cable to disconnect it from the power supply.
11. **ALWAYS** ensure the switch is off before plugging in to mains. Avoid accidental starting.
12. **ALWAYS** concentrate on the job in hand, no matter how trivial it may seem. Be aware that accidents are caused by carelessness due to familiarity.
13. **ALWAYS** keep your proper footing and balance at all times - don't overreach. For best footing, wear rubber soled footwear. Keep floor clear of oil, scrap wood, etc.
14. **ALWAYS** dress properly. Loose clothing or jewellery may get caught in moving parts. Wear protective hair covering to contain long hair.
15. **ALWAYS** guard against electric shock. Avoid contact with earthed surfaces - pipes, radiators etc.

16. **NEVER** operate machine while under the influence of drugs, alcohol or any medication.
17. **NEVER** leave machine running unattended. Turn power off. Do not leave the machine until it comes to a complete stop.
18. **NEVER** force the machine, it will do a better and safer job at the rate for which it was designed.
19. **NEVER** use power tools in damp or wet locations or expose them to rain. Do not use in an explosive atmosphere (around paint, flammable liquids etc.). Avoid dangerous environments.
20. If the tool begins to make an abnormal noise, or produce excessive vibrations, smoke or burning odour, turn the tool off immediately and do not operate, until repaired.

EXTRA PRECAUTIONS FOR BELT/DISC SANDERS

1. **ALWAYS** wear ear protectors/defenders when using this machine.
2. **ALWAYS** wear a dust mask when using this machine. Be aware that harmful or toxic dust could be produced when sanding some timbers.
3. **ALWAYS** use the table to support the workpiece.
4. **ALWAYS** make sure the table and attachments are secure before starting.
5. **ALWAYS** maintain a clearance of 1.6 mm between table and sanding disc.
6. **ALWAYS** hold the workpiece firmly so that it cannot be torn from your hands.
7. **ALWAYS** feed the workpiece against the direction of rotation of the disc. i.e the right side of the disc.
8. **ALWAYS** keep the mains cable well away from the machine and ensure an adequate electrical supply is close at hand so that the operation is not restricted by the length of the cable.
9. **ALWAYS** use a dust extraction bag connected to the dust extraction port.
10. **ALWAYS** ensure that nails or foreign objects have been removed from a workpiece beforehand. Nails etc. will destroy the belt or disc.
12. **NEVER** sand pieces which cannot be held firmly by hand.



WARNING: WARNING: USE ONLY FOR SANDING WOOD. DO NOT USE FOR MATERIALS CONTAINING ASBESTOS, PAINTED SURFACES OR MATERIALS WHICH EMIT TOXIC PARTICLES.

ELECTRICAL CONNECTIONS



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

Connect the mains lead to a standard, 230 Volt (50Hz) electrical supply through an approved 13 amp BS 1363 plug, or a suitably fused isolator switch.

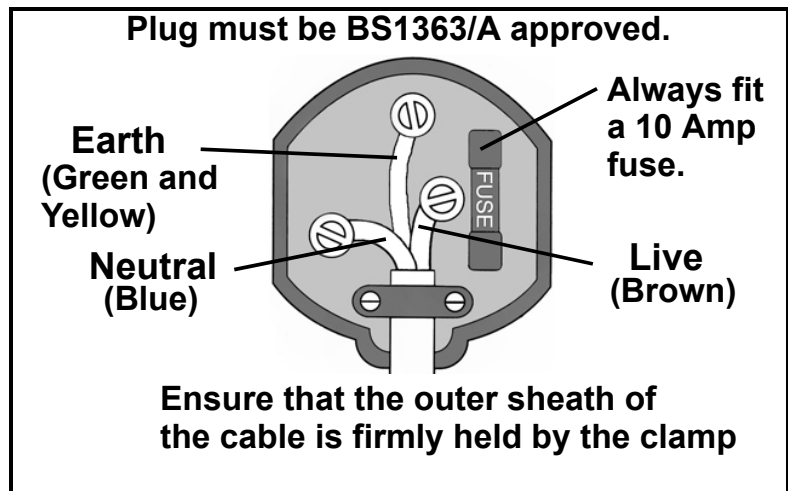
If the plug has to be changed because it is not suitable for your socket, or because of damage, it must be removed and a replacement fitted, following the wiring instructions shown below. The old plug must be discarded safely, as insertion into a power socket could cause an electrical hazard.



**WARNING: THE WIRES IN THE POWER CABLE OF THIS PRODUCT ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE:
BLUE = NEUTRAL BROWN = LIVE YELLOW AND GREEN = EARTH**

If the colours of the wires in the power cable do not agree with the markings on the plug.

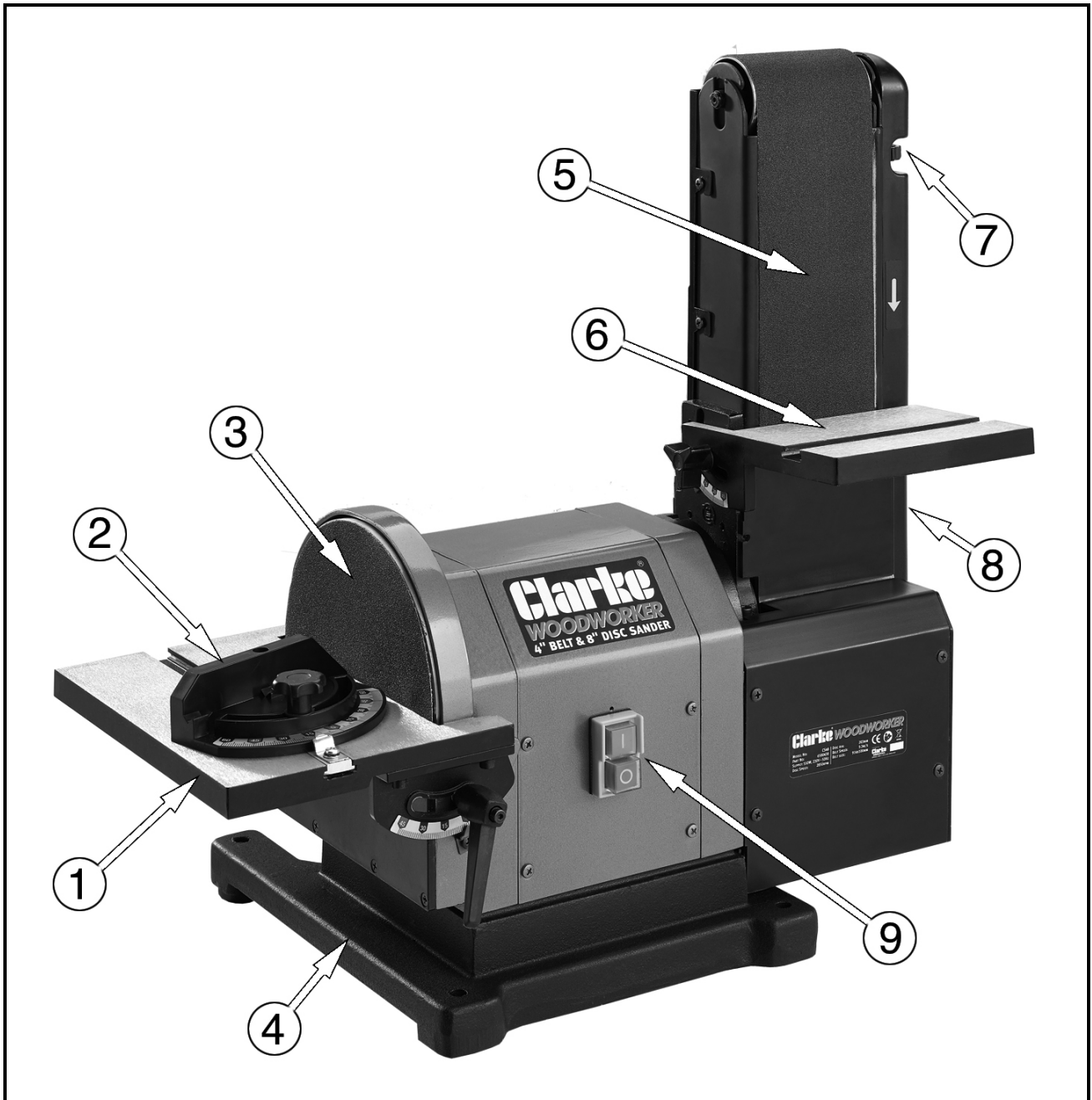
- The **BLUE** wire must be connected to the terminal which is marked **N** or coloured black.
- The **BROWN** wire must be connected to the terminal which is marked **L** or coloured red.
- The **YELLOW AND GREEN** wire must be connected to the terminal which is marked **E** or \perp or coloured green.



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

If you are not sure, consult a qualified electrician. **DO NOT** try to do any repairs.

OVERVIEW



1	Disc Sander Table
2	Adjustable Mitre Gauge
3	8" Disc Sander
4	Base With Mounting Holes
5	4" Sanding Belt

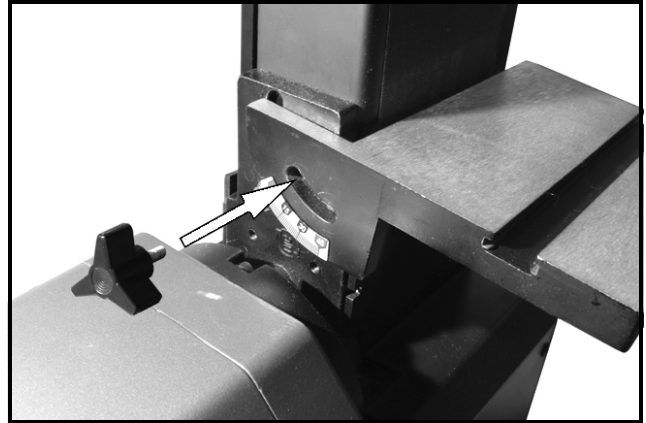
6	Sanding Belt Table
7	Tracking Adjustment Dial
8	Belt Tensioning Lever
9	On/off Button

ASSEMBLY

CAUTION: THE SANDER MUST ASSEMBLED BEFORE USE. DO NOT PLUG UNIT INTO POWER SOURCE UNTIL THE MACHINE HAS BEEN COMPLETELY ASSEMBLED.

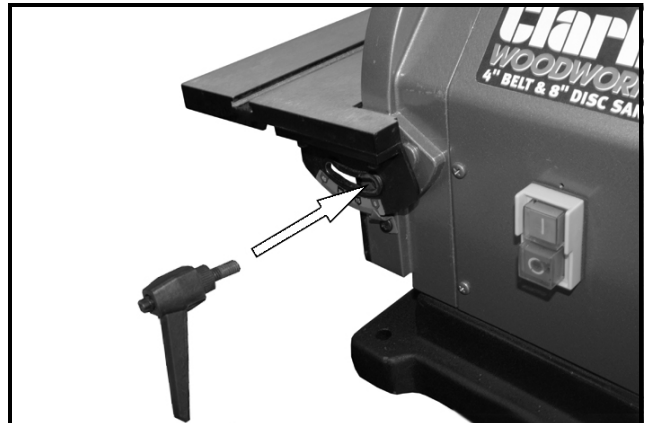
Installing The Belt Sander Table

1. Attach the belt sander table to frame with the handwheel and washer supplied.
 - Do not overtighten the handwheel.



MOUNTING THE DISC SANDER TABLE

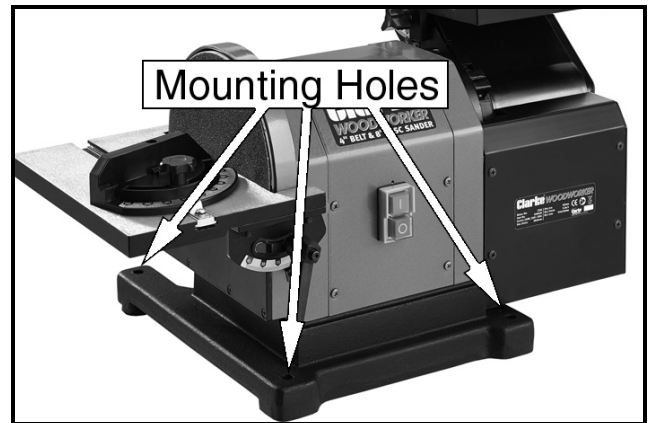
1. Put the disc sander table into position as shown.
2. Put a washer on to the thread of the locking handle and insert the thread through the radius slot.
3. Turn the locking handle clockwise to tighten.
4. Repeat on the other side.



MOUNTING THE SANDER ON TO A WORKBENCH

Attach the machine to a workbench or stand before use.

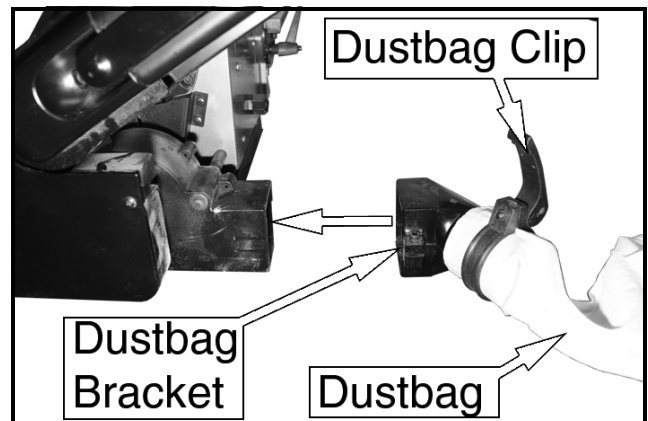
1. Position the machine on the workbench.
2. Mark the workbench through the mounting holes in the sander base.
3. Drill holes in the workbench at the marks.
4. Use long bolts, spring washers and nuts (not supplied), to secure the machine to the workbench.



MOUNTING THE DUSTBAG TO THE SANDER

The sander is provided with a dust extraction facility. Please note however, that this does not preclude the user from wearing a face mask to prevent the inhalation of dust particles

1. Use the dustbag clip to secure the dustbag to the dustbag bracket as shown,
2. Fit the dustbag bracket over the dust extraction port as indicated.



OPERATION



WARNING: NEVER TOUCH THE SANDING DISC OR BELT WHILE IT IS MOVING, DO NOT TOUCH THE WORK PIECE AFTER SANDING, IT COULD BE VERY HOT.

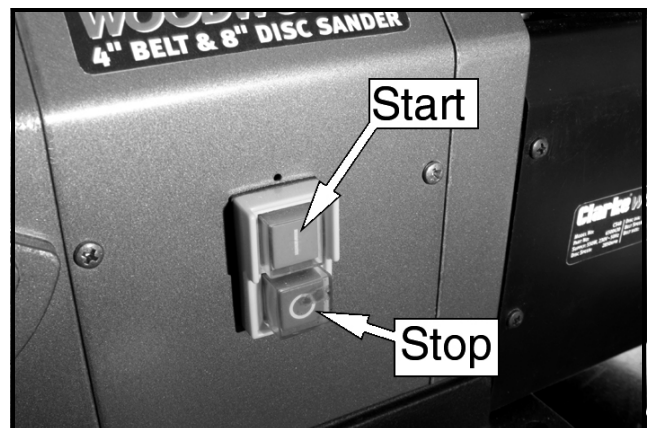
WARNING: ALWAYS WEAR SAFETY GLASSES WHEN OPERATING THE SANDER

CAUTION: ALWAYS MAKE SURE THE DISC SANDER TABLE AND BELT SANDER TABLE ARE PROPERLY ADJUSTED AND SECURE BEFORE USE.

ON/OFF BUTTONS

The On/Off buttons are located on the front of the machine.

1. Push the GREEN button (I) to turn the machine on.
2. Push the RED button (O) to turn the machine off.
 - If a failure occurs in the power supply the machine will stop automatically. It will be necessary to push the GREEN button again to continue work.



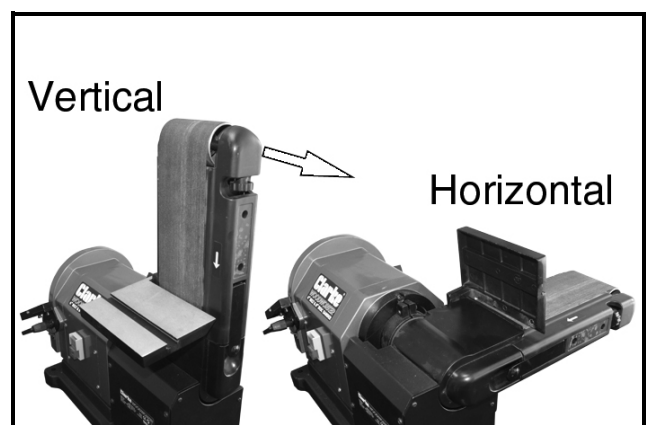
BELT SANDING

HORIZONTAL AND VERTICAL SANDING

You can use the sanding belt in the vertical or horizontal position.

To change from one position to the other:

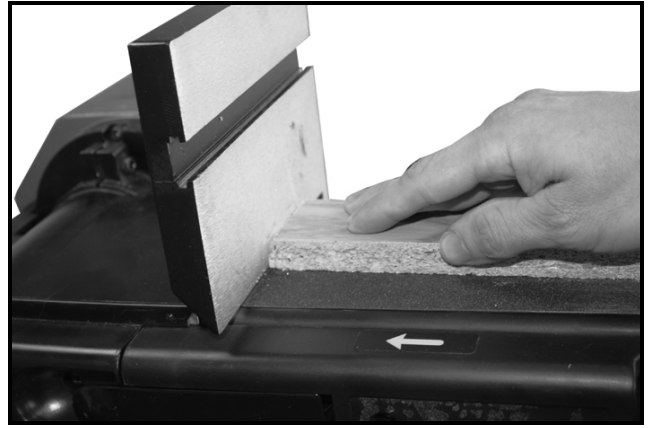
1. Manually move the sanding belt to the necessary position.



SURFACE SANDING ON THE BELT

When sanding flat wide surfaces hold the work tightly to the surface of the belt and against the belt sander table. Keep your fingers away from the sanding belt and use a push or hold-down stick if possible.

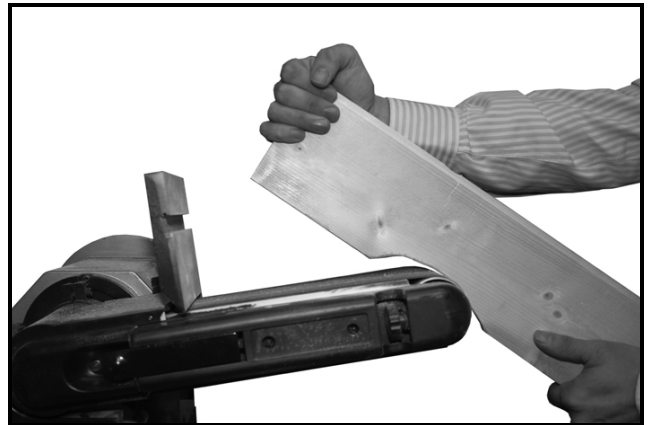
- Exercise extra care when working with very thin pieces.
- Only apply sufficient pressure to allow the sanding belt to remove material.



SANDING INSIDE CURVES

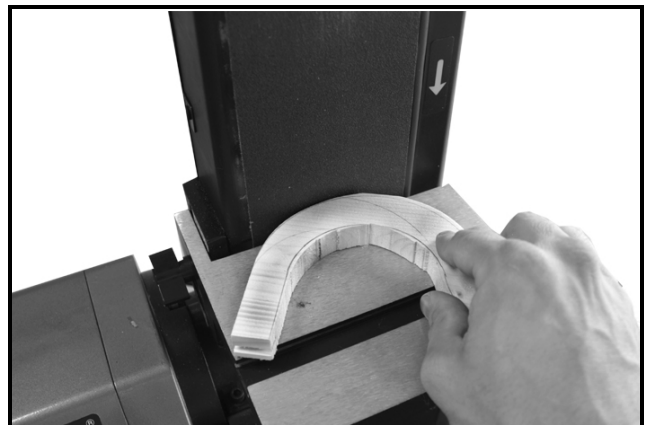
You can sand inside-curves using the idler drum end of the belt.

- Hold the work tightly.
- Keep fingers away from the sanding belt.
- Keep the curve held against the idler drum, moving the work gradually back and forth across the drum.



SANDING OUTSIDE CURVES

- Keep the curve pressed against the sanding belt, moving the work from left to the right of the belt.
- Make sure that you hold the work tightly against the surface of the table.



SANDING DISC

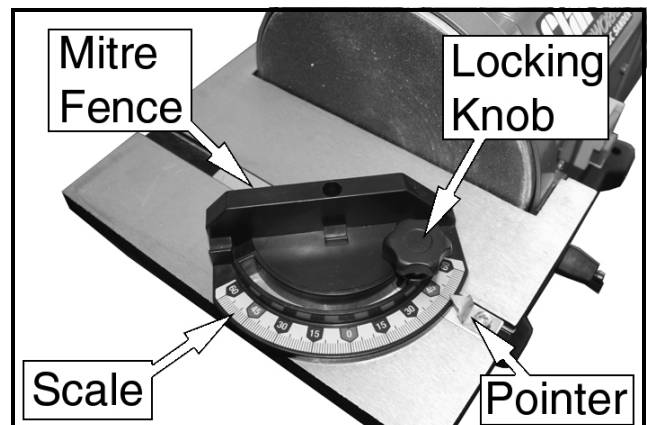
- To stop the work from lifting, only use the right hand side of the sanding disc.
- Keep the work pressed against the sanding disc, moving from the centre of the disc to the right hand edge.
- Make sure that you hold the work tightly against the surface of the table.



MITRE GAUGE

The mitre gauge can be used on both tables,

1. Loosen the locking knob.
2. Set the mitre fence to the necessary angle.
 - You can adjust the mitre gauge 60° (right or left).
3. Tighten the locking knob.



SANDING SMALL SURFACES USING THE MITRE GAUGE

Use the mitre gauge for sanding small end surfaces on the sanding disc.

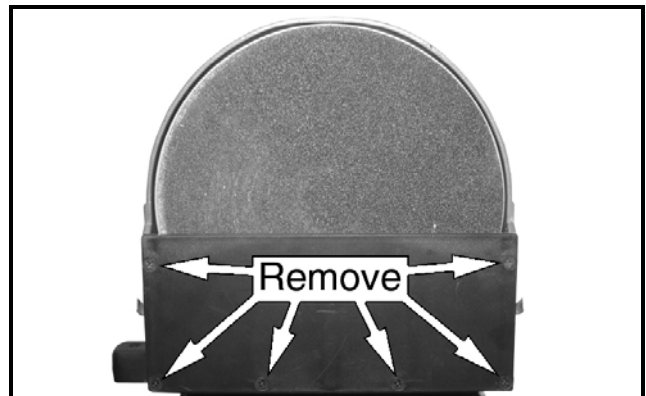
NOTE: Always move the workpiece across the right side of the sanding disc and hold the work down tightly onto the table surface.

CHANGING THE SANDING DISCS



WARNING: TURN THE POWER OFF AND REMOVE THE PLUG FROM THE OUTLET BEFORE CHANGING THE SANDING DISC.

1. Remove the mitre gauge and work table. See "Mounting The Disc Sander Table" on page 7.
2. Remove the disc guard screws and disc guard.



3. Remove the sanding disc from the disc plate.
 - The abrasive discs are attached to the plate with a pressure-sensitive adhesive.
4. Make sure that the disc plate is clean.
 - Replacement sanding discs are available from your Clarke dealer.



Grit	Part number
Fine	6500440
Medium	6500441
Coarse	6500442

NOTE: 'Hook and loop' sanding discs **cannot** be used with this machine.

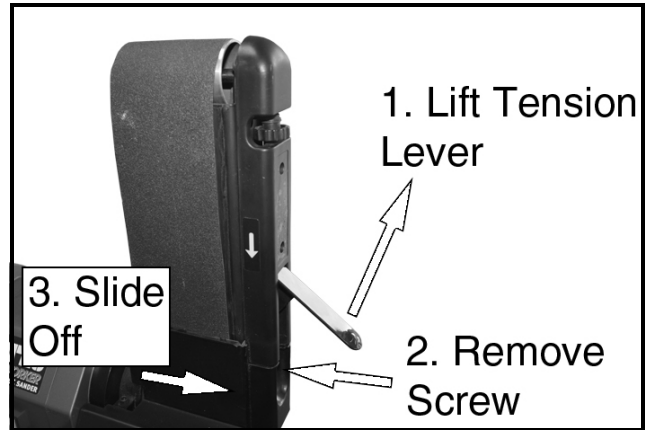
5. Remove the paper backing from the new abrasive disc.
6. Align the edge of the abrasive disc with the plate and press the disc into position, leaving no loose edges.
7. Replace the disc guard, disc guard screws and work table.

NOTE: 'Hook and loop' sanding discs **cannot** be used with this machine.

CHANGING THE SANDING BELTS

CAUTION: CHECK THE INSIDE OF THE BELT FOR A "DIRECTION ARROW". IF PRESENT, INSTALL THE BELT WITH THE ARROW POINTING IN THE SAME DIRECTION AS THE DIRECTION INDICATOR ON THE HOUSING.

1. Remove the table See "Installing The Belt Sander Table" on page 7.
2. Pull the bottom of the tension lever out to release the belt tension.
3. Remove the screw from the lower cowling and slide the cowling off.

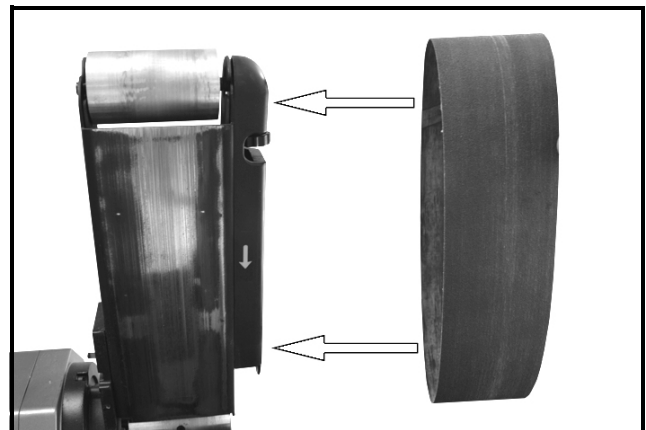


4. Loosen the screws shown and lift off the rear plate.
5. Remove the sanding belt from the rollers.
 - Replacement sanding belts are available from your Clarke dealer.



Grit	Part number
Fine	6502096
Medium	6500808
Coarse	6502101

6. Fit the new belt onto the rollers.
7. Replace all the parts removed in reverse order.
8. Engage the tension lever to apply tension to the belt.
9. Check the belt tracking (described in "Belt Tracking" on page 14) before use and adjust if necessary.



BELT TRACKING

The belt-tracking adjustment is set at the factory so that the abrasive belt will run true on the drums. If, however, the belt should track to one side or the other, an adjustment can be made by turning the tracking knob.

TO TRACK THE SANDING BELT

1. Use your hand to roll the belt towards the belt sander table.
 - If the sanding belt does not move to either side after several full turns, it is tracking correctly.
 - If not adjust the belt tracking dial slightly and roll the belt again.
 - Repeat as necessary.



NOTE: Do not make large adjustments to the belt tracking dial and remember it may take some time for the belt to react to any change you make.

MAINTENANCE



WARNING: ALWAYS DISCONNECT TOOL FROM POWER SOURCE BEFORE MAKING ANY ADJUSTMENTS, INSTALLING OR PERFORMING MAINTENANCE.

CAUTION: TOOL SERVICING MUST BE PERFORMED ONLY BY QUALIFIED REPAIR PERSONNEL. SERVICE OR MAINTENANCE PERFORMED BY UNQUALIFIED PERSONNEL COULD RESULT IN A RISK OF INJURY. WHEN SERVICING A TOOL, USE ONLY IDENTICAL REPLACEMENT PARTS.

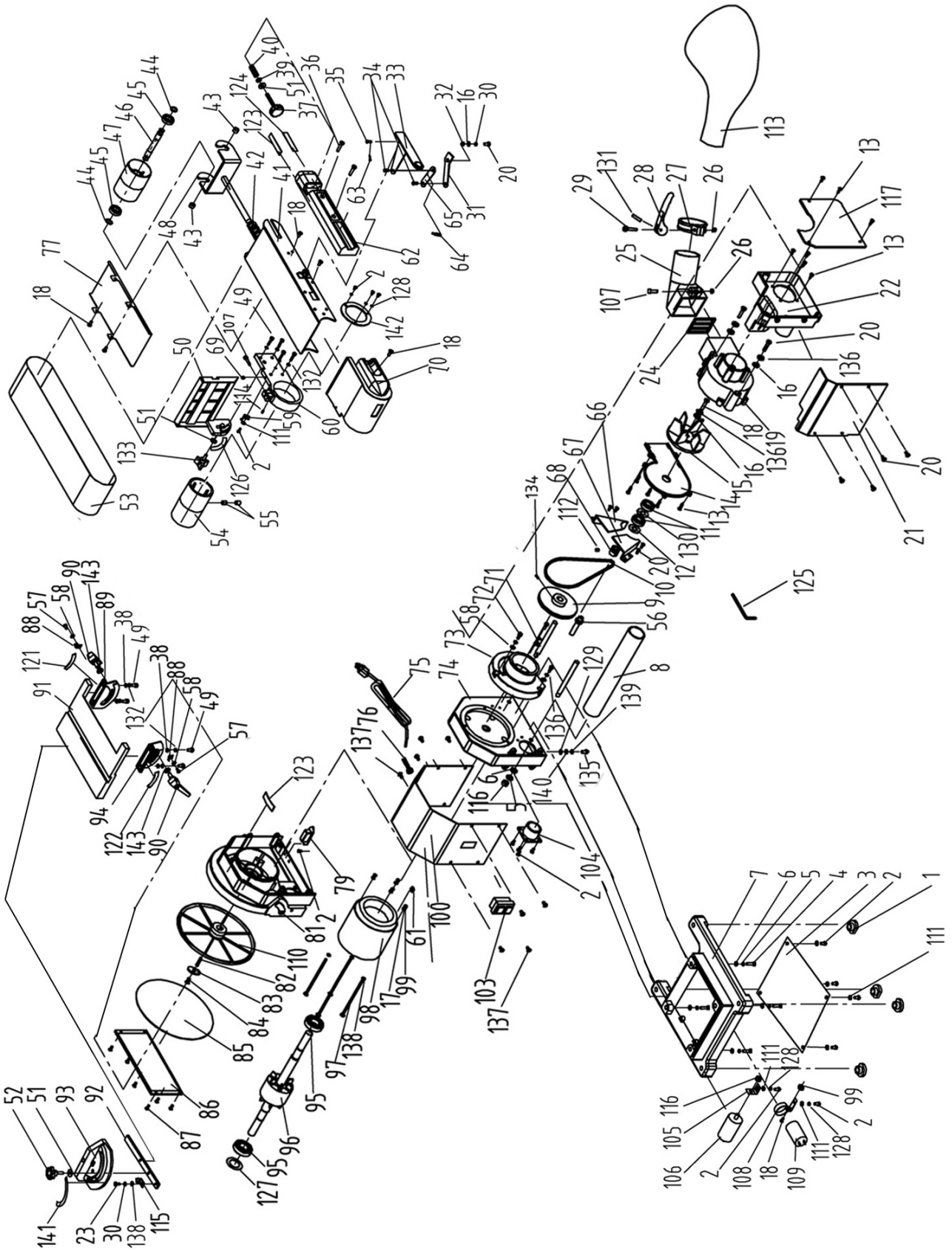
CAUTION: FOLLOW INSTRUCTIONS IN THE MAINTENANCE SECTION OF THIS SERVICE MANUAL. USE OF UNAUTHORISED PARTS OR FAILURE TO FOLLOW MAINTENANCE INSTRUCTIONS MAY CREATE A RISK OF ELECTRIC SHOCK OR INJURY.

1. Clean the machine, belt and disc after each use.
2. Keep the machine dry, clean and free of oil and grease.
3. Keep the machine in a safe and dry area, out of reach of children.
4. During use, sanding belts and discs can become dirty with sanding debris. Use a stick belt cleaner (available at most hardware stores) to remove unwanted material from the belt/disc.

SPECIFICATIONS

Motor	230V, 50Hz, 1ph
Input Power	500 Watts
Fuse Rating	10 Amps
Sanding Disc Diameter	8" (203 mm)
Sanding Belt Size (W x L)	4" x 36" (914 x 100 mm)
Sanding Belt Speed	9.3 m/s
Sanding Table Dimensions (L x W)	265 x 150 mm
Table Angle Range	0-45 degrees
Mitre Guide Angle Range	0-60 degrees (left and right)
Net Weight	23.3 kg
Dimensions (LxWxH)	550 x 590 x 380 mm
Sound Pressure Level dB L_{pA}	77.9 dB (A) (No Load)
Sound Power Level dB L_{WA}	90.5 dB (A) (No Load)
Vibration	<2.5 m/s ²
Part No	6500430

EXPLODED DIAGRAM



No	Description	No	Description
1	Rubber Foot	34	Pin 5x8
2	Philips Screw M4x10	35	Pin 5x10
3	Bottom Plate	36	Philips Screw M5x25
4	Philips Screw (White) M8x25	37	Belt Tracking Knob
5	Lock Washer (White)	38	Flat Washer
6	Flat Washer (White)	39	Rubber Washer
7	Base	40	Adjuster Spring
8	Connecting Tube	41	Belt Frame
9	Driven Pulley	42	Tension Spring
10	Poly-v- Belt	43	Sleeve
11	Bearing 6000rz	44	Spring Washer D12
12	Spring Washer D26	45	Bearing 6001rz
13	Philips Screw St4.2x15	46	Idler Shaft
14	Fan Cover	47	Idler Pulley
15	Fan	48	Belt Tension Assembly
16	Big Washer	49	Inner Hex Screw M6x12
17	Standard Spring Washer	50	Belt Working Table
18	Philips Screw M5x16	51	Big Washer
19	Fan Housing	52	Mitre Gauge Knob
20	Philips Screw M5x10	53	Sanding Belt
21	Front Cover	54	Drive Pulley
22	Dust Storage Box	55	Inner Hex Screw M8x12
23	Philips Screw (White) M5x8	56	Collector Shaft
24	Exhaust Cover	57	Philips Screw M5x8
25	Dust Exhaust	58	Flat Washer
26	I Type Hex Nut M6	59	Work Table Angle Point
27	Dust Bag Clamp	60	Belt Frame Connect
28	Clamp Handle	61	Cable Gland Bushing
29	Screw M6x40	62	Belt Cover
30	Tooth Lock Washer	63	Pin 2x10
31	Belt Tension Lever	64	Spring Washer
32	Sleeve	65	Connecting Plate
33	Tension Handle	66	Right Cover

No	Description	No	Description
67	Left Cover	103	Switch
68	Small Pulley Drive	104	Tube Connector
69	Phillips Screw & Flat Washer Assembly M4x12	105	Capacitor Support1
70	Belt Exhaust	106	Capacitor
71	Collector Mounting Shaft	107	Inner Hex Screw M6x25
72	Inner Hex Screw M5x20	108	Capacitor Support 2
73	Belt Mounting Plate	109	Capacitor
74	End Cap	110	Disc Plate
75	Power Cord	111	Flat Washer
76	Strain Relief	112	Inner Hex Screw M5x8
77	Belt Protection Plate	113	Dust Bag
79	Relay	114	Position Shaft
81	Left End Cap	115	Mitre Gauge Pointer
82	Key 5x5x15	116	I Type Hex Nut M8
83	Washer	117	Dust Box Cover
84	Phillips Screw M6x16 Left	121	Scale Label Left
85	Abrasive Disc	122	Scale Label Right
86	Disc Cover	123	Rotation Label
87	Phillips Screw M4x10	124	Belt Tension Label
88	Angle Pointer	125	Inner Hex Wrench S=5
89	Disc Left Support	126	Scale Label
90	Handle Assembly	127	Spring Washer D40
91	Disc Work Table	128	Standard Spring Washer
92	Mitre Gauge Bar	129	Tooth Lock Washer
93	Mitre Gauge	130	Bearing Bushing
94	Disc Right Support	131	Spring Pin 4x22
95	Bearing 6203rz	132	Standard Spring Washer
96	Rotor	133	Disc Work Table Knob
97	Phillips Screw M5x180	134	Inner Hex Screw M5x12
98	Stator	135	Phillips Screw M4x10
99	I Type Hex Nut M5	136	Standard Spring Washer
100	Motor Cover	137	Phillips Screw M5x10

No	Description	No	Description
139	Lock Washer(White)	142	Support Board
140	Flat Washer(White)	143	Flat Washer
141	Quadrent Scale Lable		

DECLARATION OF CONFORMITY

UK
CA

Clarke
INTERNATIONAL
Hemnell 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 statutory requirement(s):


Electromagnetic Compatibility Regulations 2016
Supply of Machinery (Safety) Regulations 2008
The Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment Regulations 2012

The following standards have been applied to the product(s):
EN 55014-1:2017 + A11, EN 55014-2:2015, EN IEC 61000-3-2:2019, EN 61000-3-3:2013 + A1,
EN 62841-1:2015, EN 62321-1:2013, EN 62321-2:2014, EN 62321-3-1:2014, EN 62321-4:2014,
EN 62321-5:2014, EN 62321-6:2015, EN 62321-7-1:2015, EN 62321-7-2:2017, EN 62321-8:2017

The technical documentation required to demonstrate that the product(s) meet(s) the requirement(s) of the aforementioned legislation has been compiled and is available for inspection by the relevant enforcement authorities.

The UKCA mark was first applied in: 2022

Product Description: Belt and Disc Sander
Model number(s): CS48
Serial / batch Number: N/A
Date of Issue: 26/09/2022

Signed: 
J.A. Clarke
Director

CS48 UKCA Clarke DDC 090222 Page 1 of 1

CE

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 the Use of Certain Substances in Electrical & Electronic Equipment (RoHS) Directive*
2015/863/EU *RoHS Amendment Directive*

The following standards have been applied to the product(s):
EN 55014-1:2017 + A11, EN 55014-2:2015, EN IEC 61000-3-2:2019, EN 61000-3-3:2013 + A1,
EN 62841-1:2015, EN 62321-1:2013, EN 62321-2:2014, EN 62321-3-1:2014, EN 62321-4:2014,
EN 62321-5:2014, EN 62321-6:2015, EN 62321-7-1:2015, EN 62321-7-2:2017, EN 62321-8:2017

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: 2013

Product Description: Belt and Disc Sander
Model number(s): CS48
Serial / batch Number: N/A
Date of Issue: 26/09/2022

Signed: 
J.A. Clarke
Director

CS48 CE Clarke DDC 090222 Page 1 of 1

A SELECTION FROM THE VAST RANGE OF

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PARTS & SERVICE: 0208 988 7400

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