



Woodworking machinery at its best!

**BELT & DISC SANDER
OWNERS MANUAL
MODEL: BD46**



**Charnwood Machinery Ltd, Cedar Court, Walker Road,
Bardon Hill, Leicestershire, LE67 1TU
Tel. 01530 516 926 Fax. 01530 516 929
email: sales@charnwood.net website: www.charnwood.net**

GENERAL SAFETY RULES



WARNING: Do not attempt to operate the machine until you have read thoroughly and understood completely all instructions, rules, etc. contained in this manual. Failure to comply may result in accidents involving fire, electric shock, or serious personal injury. Keep this owner's manual and review frequently for continuous safe operation.

1. Know your machine. For your own safety, read the owner's manual carefully. Learn its application and limitations, as well as specific potential hazards pertinent to this machine.
2. Make sure all tools are properly earthed.
3. Keep guards in place and in working order. If a guard must be removed for maintenance or cleaning, make sure it is properly replaced before using the machine again.
4. Remove adjusting keys and spanners. Form a habit of checking to see that the keys and adjusting spanners are removed from the machine before switched it on.
5. Keep your work area clean. Cluttered areas and workbenches increase the chance of an accident.
6. Do not use in dangerous environments. Do not use power tools in damp or wet locations, or expose them to rain. Keep work areas well illuminated.
7. Keep children away. All visitors should be kept a safe distance
8. from the work area.
9. Make workshop childproof. Use padlocks, master switches and remove starter keys.
10. Do not force the machine. It will do the job better and be safer at the rate for which it is designed.
11. Use the right tools. Do not force the machine or attachments to do a job for which they are not designed. Contact the manufacturer or distributor if there is any question about the machine's suitability for a particular task.
12. Wear proper apparel. Avoid loose clothing, gloves, ties, rings, bracelets, and jewellery which could get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.
13. Always use safety glasses. Normal spectacles only have impact resistant lenses. They are not safety glasses.
14. Do not over-reach. Keep proper footing and balance at all times.
15. Maintain the machine in good condition. Keep the machine clean for best and safest performance. Follow instructions for lubrication and changing accessories.
16. Disconnect the machine from power source before servicing and when changing the blade.
17. Never leave the machine running unattended. Turn the power off. Do not leave the machine until it comes to a complete stop.
18. Do not use any power tools while under the effects of drugs, alcohol or medication.
19. Always wear a face or dust mask if operation creates a lot of dust and/or chips. Always operate the tool in a well ventilated area and provide for proper dust removal. Use a suitable dust extractor.



Risk of Injury.
Never reach into
a moving part



Wear Eye
Protection



Wear Ear
Protection

BD46 Belt & Disc Sander Overview



Specification

Disc Diameter	150mm (6")
Disc Speed	2850rpm
Belt Size	100mm x 915mm (4" x 36")
Belt Speed	550m/min
Motor (Induction) 240v 50hz	450w (0.6hp)
Dust Extraction Port Diameters (Belt & Disc)	37mm External / 31mm Internal
Weight	14kg
Manufacturer's Warranty	1 year
Rating	Hobby

Rating Description

Hobby: Suitable for Weekend DIY'ers and woodworking enthusiasts.

Generally lighter weight machines with lower power ratings and smaller tooling capacities. Typically only ever used by one person for short periods of time or longer periods of time infrequently. Machinery should be well maintained in a clean, dry environment such as a home workshop, garage or timber shed.

Expected maximum use of 100 hours annually.

Please Note: Using a product in excess of its rating will void the manufacturer's free warranty.

Unpacking

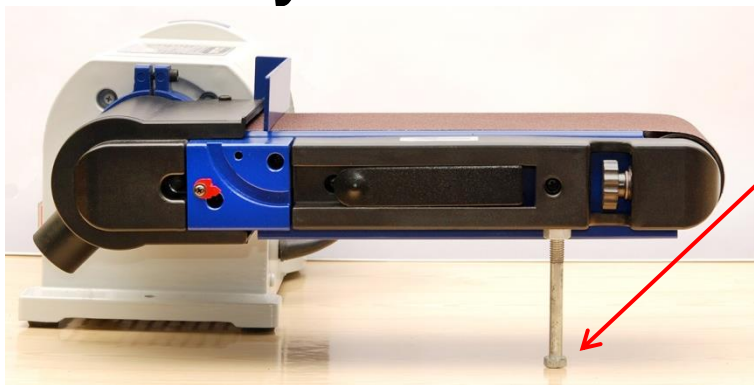


All items are contained in one carton.



Carefully unpack and check that all the items are present.

Assembly



Place the sander on a flat surface.

Use a 14mm spanner to adjust the supporting leg so that the belt bed is horizontal.

To do this you might need to loosen the hex head bolt which clamps the bed in position.

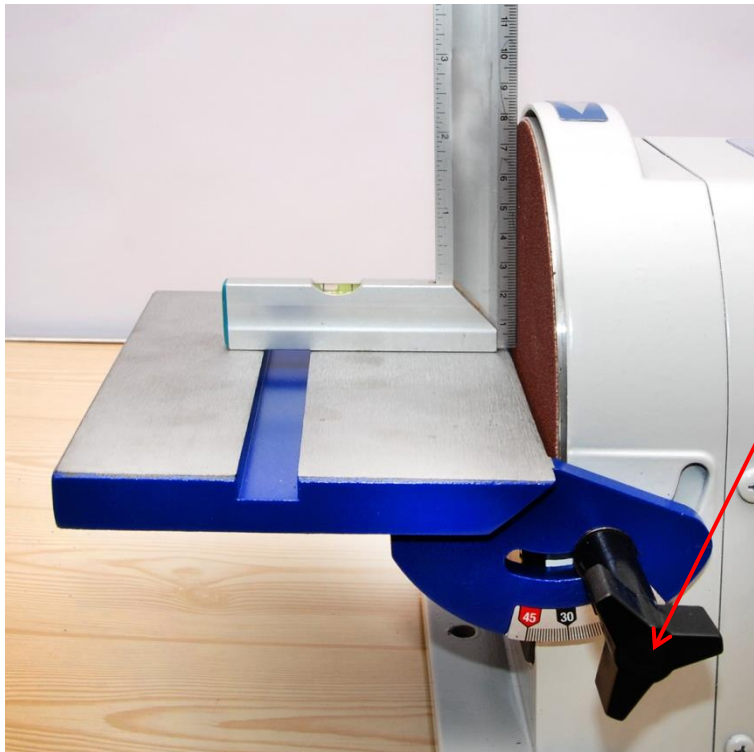


The table can be fitted in either of two positions, depending upon whether you are using the sanding disc or the sanding belt.

To attach the table when using the sanding disc:

Locate the table bracket into the curved slot next to the disc.

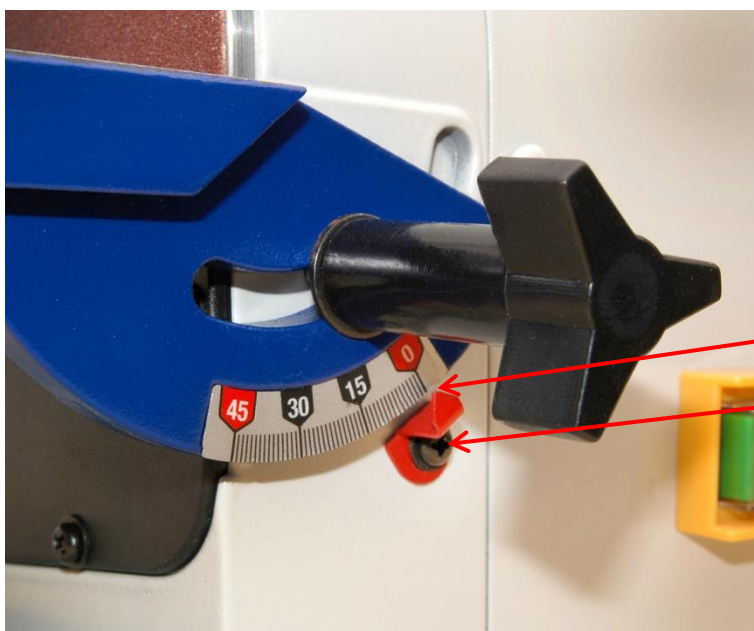
Fix in place using the clamping screw & washer provided.



Adjust the angle of the table using a set square so that it is at right angles to the disc.

Ensure that the gap between table & disc is no more than 1.6mm. This will prevent fingers from becoming trapped when sanding.

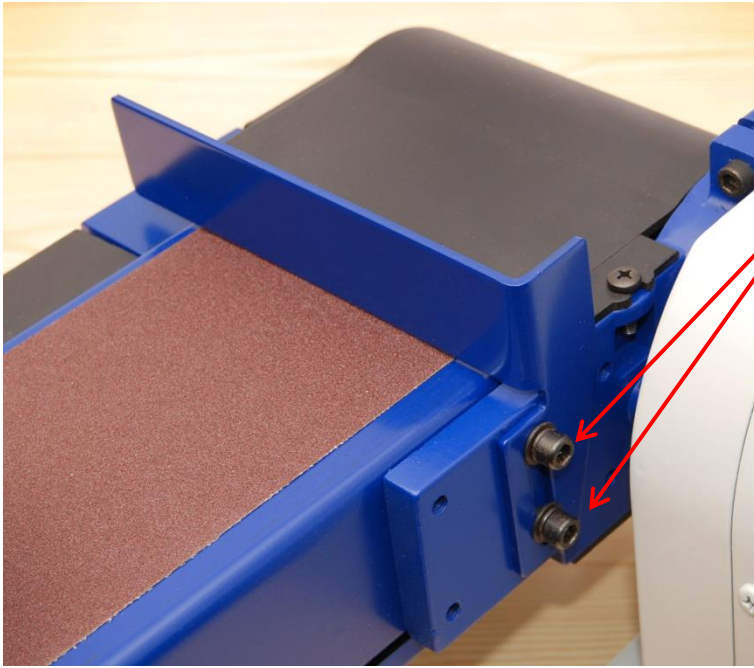
Tighten the clamping screw.



Use a cross head screwdriver to adjust the red pointer to '0' degrees against the scale.

Pointer

Locking screw

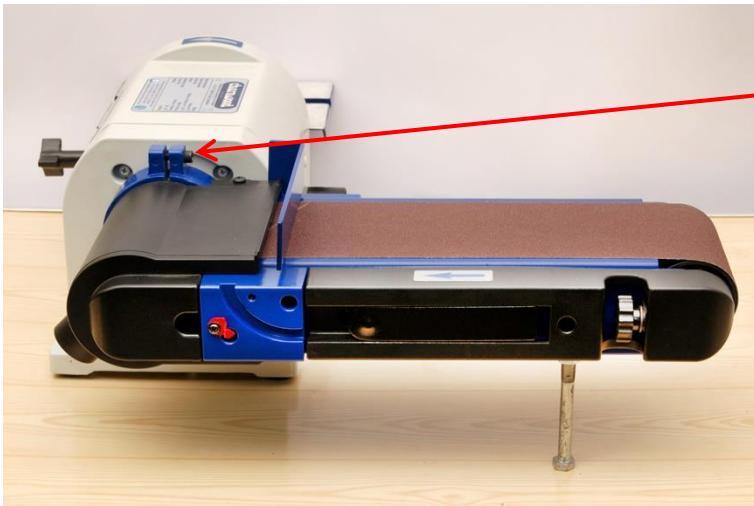


The sanding belt can be used in the vertical or horizontal position - or any angle in between.

When using the belt sander, either the back stop or the sanding table must be fitted.

The back stop is attached using the two socket head screws and washers provided.

Adjust the stop so that there is a maximum gap of 1.6mm to the belt.

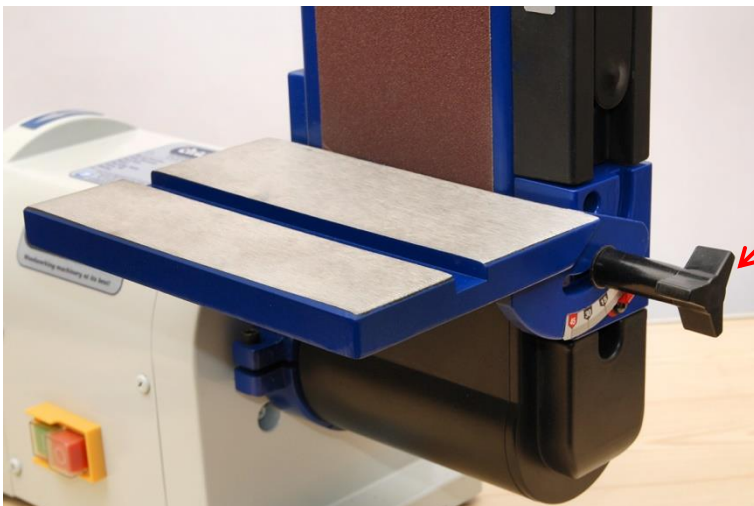


To adjust the angle of the sanding belt:

Loosen the hex socket clamping bolt

Lift the sanding belt into the vertical position.

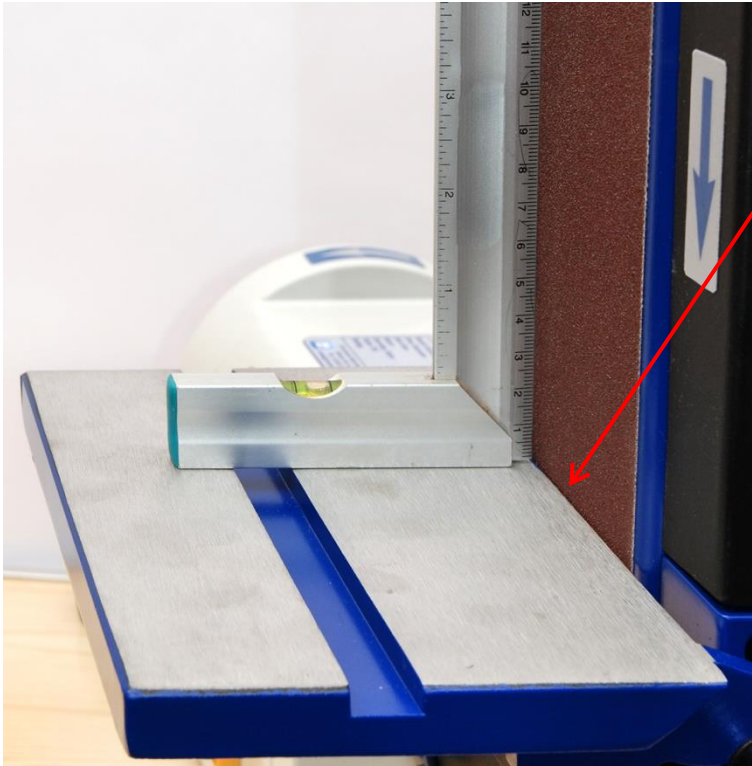
Re-tighten the bolt.



Remove the back stop.

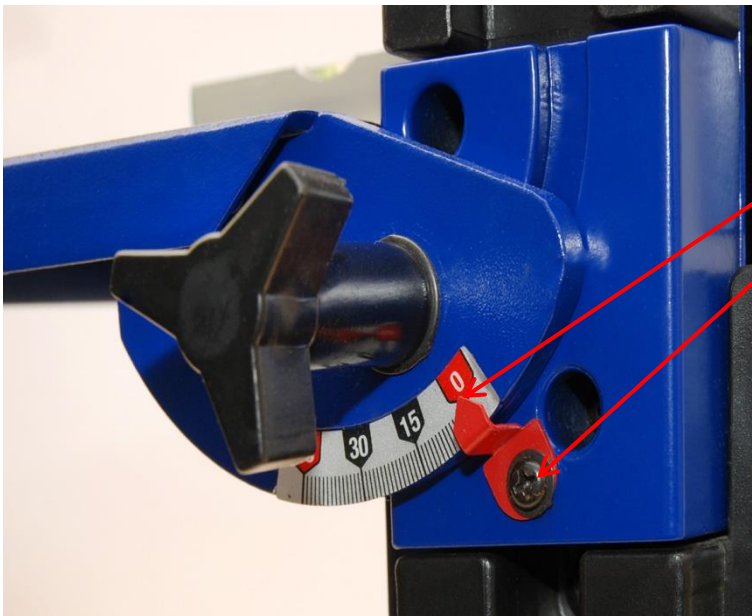
Fit the sanding table in the same manner as when using it with the sanding disc.

Secure using the clamping screw/washer.



Adjust the table so that it is at 90 degrees to the belt.

Ensure a maximum gap of 1.6mm.



Adjust the red pointer so that it indicates '0' degrees against the scale.

Pointer

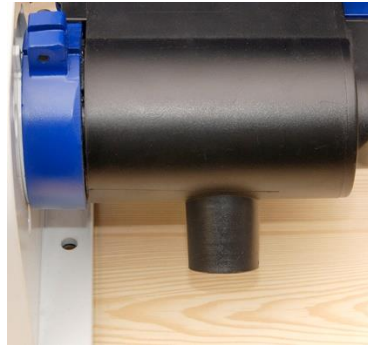
Locking screw



The mitre guide is fitted to the slot in the table.

It can be adjusted to any angle in a 120 degree range.

It is used to guide the work piece and give an accurate angle.



It is advisable to use dust extraction when using your sander. There are separate extraction ports for the belt and disc with an outside diameter of 37mm.

An appropriate adapter may be required.

Setting Up



Tracking the belt

Ensure the machine is disconnected from the power supply.

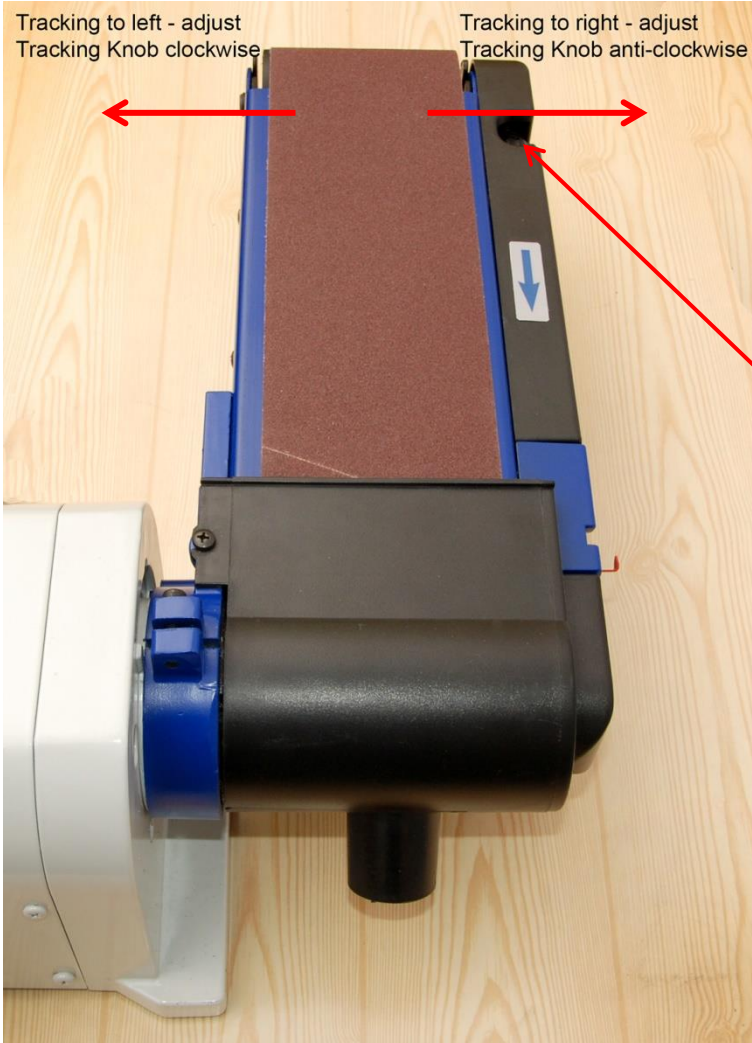
Slowly rotate the belt by hand in the direction shown.

If the belt moves off to one side it requires a tracking adjustment.

If the belt stays central it is already correctly tracked.

Tracking to left - adjust Tracking Knob clockwise

Tracking to right - adjust Tracking Knob anti-clockwise



Viewed from the switch end – if the belt moves sideways towards the disc, turn the tracking knob clockwise (1/4 turn is usually sufficient).

If the belt moves sideways away from the disc, turn the knob anti-clockwise.

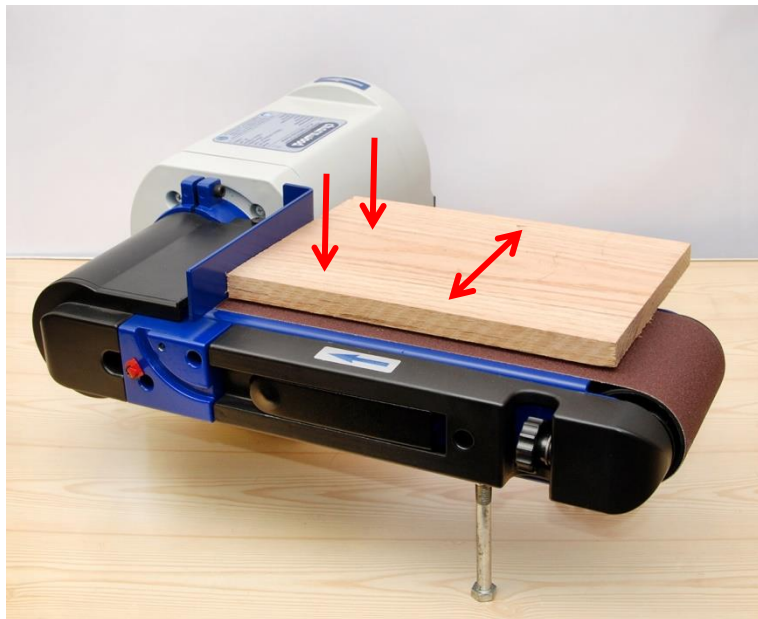
Continue adjustments until the belt remains central on the rollers.

Tracking knob.

Using the Sander

This sander is designed for use with wood and wood-based products only. It should not be used for sanding metal and any such use would invalidate the warranty.

The machine should be placed on a firm level surface before use.



Sanding with the belt in the horizontal position

The work table or back stop must always be used as a support when carrying out edge or face sanding in the horizontal position.

Move the workpiece across the belt while keeping one edge against the stop.

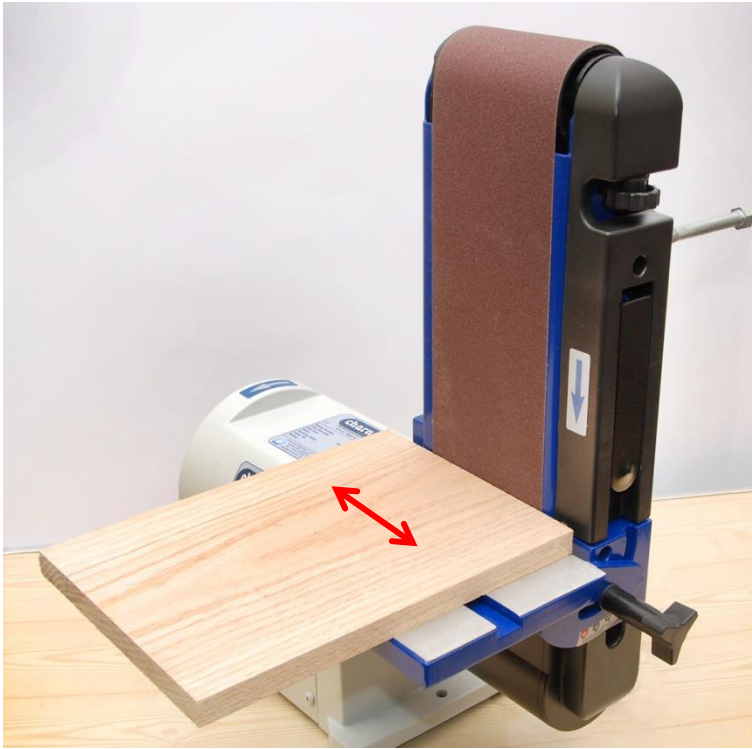
Do not use excessive pressure and take extra care when sanding thin material.



Sanding internal curves

With care the idler drum end of the sanding belt can be used for smoothing & shaping the inside of curved workpieces.

Never present the end of a workpiece to the drum as this can cause it to kick back.

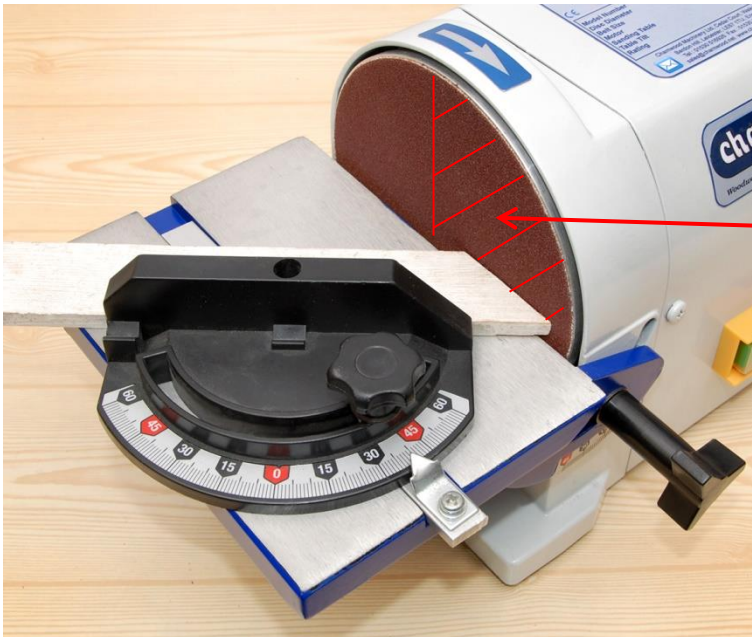


Sanding with the belt in the vertical position

Sometimes sanding on the belt is more convenient when it is positioned vertically – or at any angle in between 0 & 90 degrees.

To adjust, loosen the locking screw using the 5mm hex key. Position the belt bed as required and then re-tighten the screw.

Always use the work table or back stop to support the workpiece.



Sanding with the Disc

The disc sander is ideally suited to smoothing end grain and fine-tuning angled cuts with the aid of the mitre guide.

Whenever possible use the front half of the exposed disc as this will hold the workpiece down against the table.

If it is necessary to use the full width of the disc, care must be taken to hold the workpiece firmly as the rear half will tend to cause it to lift off the table.

Keep the workpiece moving to achieve the best finish.

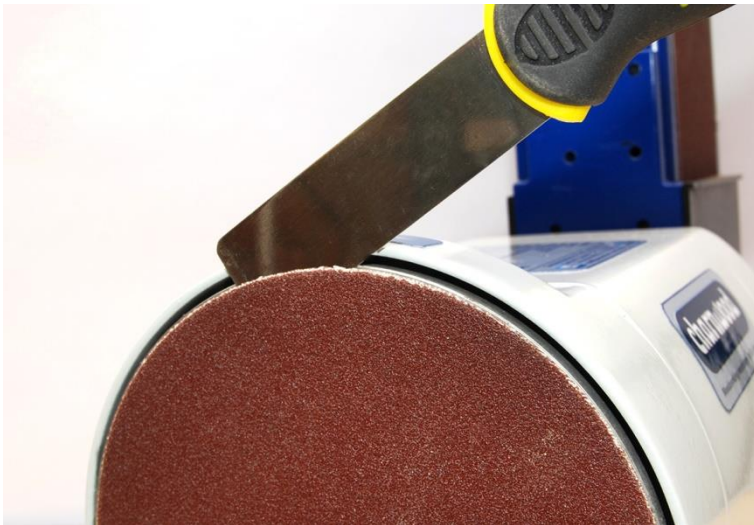
Maintenance



Replacing the Sanding Disc

Always ensure the machine is disconnected from the power supply before changing the sanding disc.

Remove the disc work table and then the disc cover which is secured with four screws.



Carefully remove the existing self-adhesive sanding disc using a flat-bladed scraper.

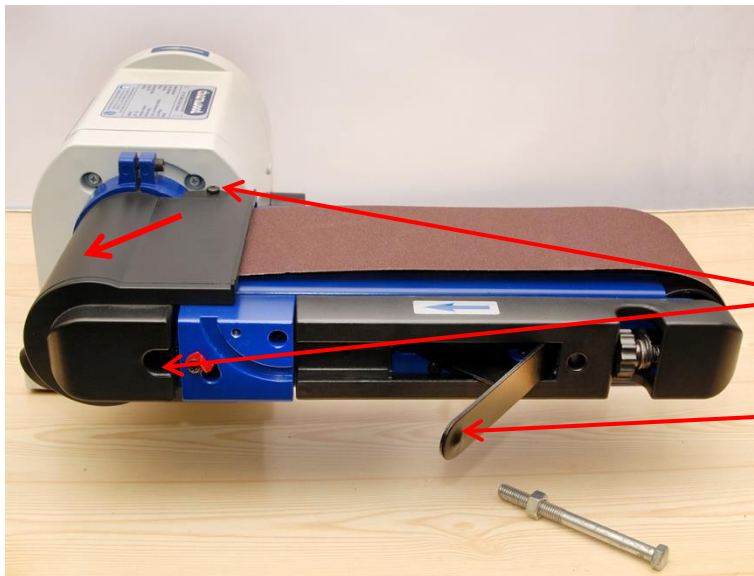
Remove any residue from the sanding plate using mineral/methylated spirit.

Peel the backing from the new sanding disc and apply to the sanding plate. Ensure that it is positioned centrally on the plate, then press firmly into place.

Re-fit the disc cover and tighten both screws. Re-attach the work table.

The sanding disc can be converted to use the Hook & loop type discs.

A conversion backing pad (VB150) can be attached to the plate, then allowing Velcro-backed sanding discs to be used. The great advantage of this system is that discs can be swapped in seconds and discs can be remounted multiple times, allowing the user to work through different grits to achieve the desired finish.



Replacing the Sanding Belt

Remove the bed support bolt using a 14mm spanner.

Remove the work table or tool rest if fitted.

Loosen the two screws indicated and slide off the drum dust cover.

Release the tension on the sanding belt by pulling out the tension lever.



Loosen the two screws at the rear of the belt which hold the bottom tray.

Slide and remove the tray.

It is now possible to remove the sanding belt.



Locate the new belt over the two rollers. Ensure that the arrow on the inside of the belt corresponds to the direction marked on the machine.

Replace the drum dust cover and bottom tray, refitting/tightening all screws.

Re-tension the belt by closing the lever.

Track the belt.

Re-fit the bed support bolt and re-attach the work/table or tool rest as required.

The life of the belts and discs can be greatly extended by regular cleaning with the BC01 Abrasive Disc & Belt Cleaner which will remove any build-up of sawdust and resin.

Troubleshooting

Problem	Cause	Remedy
Machine does not start	Blown House Fuse	Replace Fuse
	Loose switch terminal	Inspect back of switch
	Faulty switch	Replace switch
	Failed Motor	Replace Motor
Only starts when Green button is held down	Faulty switch	Replace switch
Machine Slows Down when Sanding	Operator applying too much pressure to work Piece	Use less pressure when applying work piece to sanding surface
Sanding Belt Runs Off Pulleys	Not tracked correctly	Adjust sanding belt tracking
Wood burns while sanding	Sanding surface clogged	Clean or replace disc or belt
	Excessive pressure being applied to work piece	Use less pressure when applying work piece to sanding surface
Motor overheats	Motor overloaded	Allow to cool, restart with reduced load



Please dispose of packaging for the product in a responsible manner. It is suitable for recycling. Help to protect the environment, take the packaging to the local amenity tip and place into the appropriate recycling bin.



Only for EU countries

Do not dispose of electric tools together with household waste material!

In observance of European Directive 2002/96/EC on waste electrical and electronic equipment (EEE) and its implementation in accordance with national law, electric tools that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.



Your local refuse amenity will have a separate collection area for EEE goods

Declaration of Conformity for CE Marking

Charnwood Declare that Belt & Disc Sander, Model BD46

Conforms with the following Directives: Machinery Directive 2006/42/EC
EMC Directive 2014/30/EU

And further conforms to the machinery example for which the EC type examination Certificate No. BM 50329827 and AE50419568 have been issued by TUV Rheinland LGA Products GmbH, Tillystrasse 2, 90431 Nurnberg, Germany.

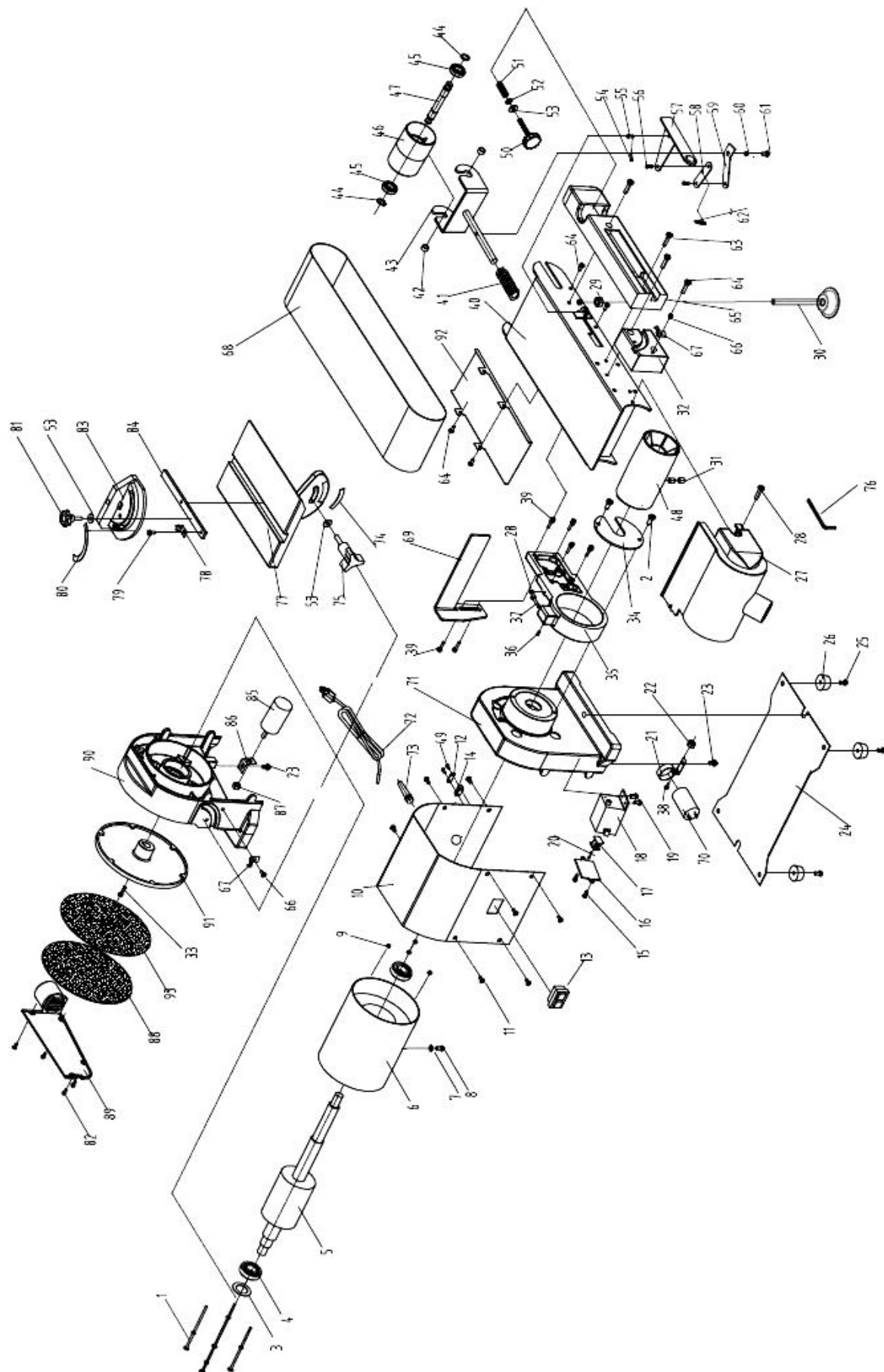
I hereby declare that equipment named above has been tested and found to comply with the relevant sections of the above referenced specifications. The machinery complies with all essential requirements of the directive.

Signed:

Dated: 27/04/2016 Location: Leicestershire

Richard Cook, Director

BD46 Belt & Disc Sander Parts Drawing



BD46 Belt & Disc Sander Parts List

Part No.	Description	Part No.	Description
001	Screw	002	Screw
003	Washer	004	Bearing
005	Rotor	006	Stator
007	Washer	008	Screw
009	Washer	010	Motor Cover
011	Screw	012	Cable Clamp
013	Switch	014	Cable Clamp
015-020	Suppressor		
021	Capacitor mounting plate	022	M5 Nut
023	M6 x 10mm Screw	024	Base Plate
025	Screw	026	Rubber Foot
027	Belt End Cover	028	Screw
029	Bush	030	Support Leg
031	M6 Grub Screw x 2	032	Table Support Bracket
033	Screw	034	Round Plate
035	Belt Pivot Housing	036	Washer
037	Washer	038	M5 x 20mm Bolt
039	Screw	040	Sanding Belt Body
041	Spring	042	Rubber Sleeve
043	Idler Drum Bracket	044	Circlip
045	Bearing	046	Idler Drum
047	Idler Shaft	048	Driven Drum
049	M5 x 20mm Screws x 2	050	Tracking Adjuster
051	Spring	052	Washer
053	Washer	054	Screw
055	Screw	056	Screw
057	Belt Tension Lever	058	Link Bar
059	Link Arm	060	Washer
061	Screw	062	Screw
063	Screw	064	Screw
065	Belt Tension Cover	066	Screw
067	Angle Pointer	068	Sanding Belt
069	Sanding Belt Fence	070	Capacitor 100uf 250v 50mm x 40mm
071	Motor Housing Right	072	Cable & Plug
073	Cable Protector	074	Table Angle Scale
075	Table Angle Locking Knob	076	Allen Key
077	Work Table	078	Angle Pointer
079	Screw	080	Mitre Gauge Scale
081	Mitre Gauge Locking Knob	082	Screw
083	Mitre Gauge	084	Runner
085	Capacitor 10uf 450v M8 50mm x 40mm	086	Capacitor Mounting Bracket
087	M8 Nut	088	Sanding Disc
089	Disc Cover	090	Motor Housing Left
091	Sanding Plate	092	Belt Cover Plate
093	Sanding Disc		

Updated February 2019

Charnwood Machinery Ltd, Cedar Court, Walker Road, Bardon Hill, Leicestershire, LE67 1TU, England

Tel. 01530 516 926 email: sales@charnwood.net website: www.charnwood.net