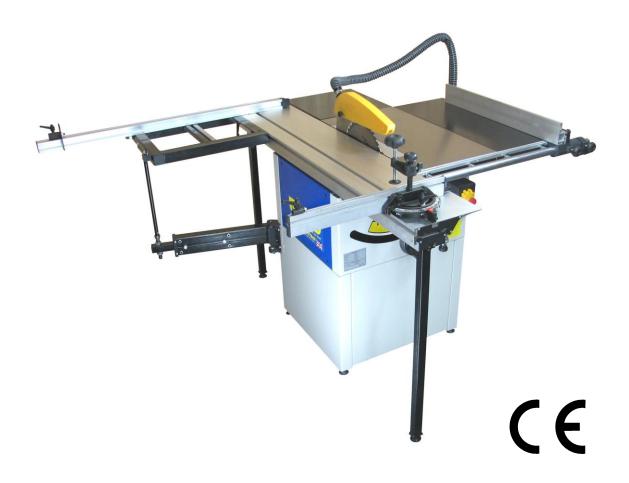


Woodworking machinery at its best!

10" PANEL SAW **OWNERS MANUAL**

MODEL: W660



Charnwood, Cedar Court, Walker Road, Hilltop Industrial Estate, Bardon, 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 from the work area.
- 8. Make workshop childproof. Use padlocks, master switches and remove starter keys.
- 9. Do not force the machine. It will do the job better and be safer at the rate for which it is designed.
- 10. 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.
- 11. 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.
- 12. Always use safety glasses. Normal spectacles only have impact resistant lenses. They are not safety glasses.
- 13. Do not over-reach. Keep proper footing and balance at all times.

- 14. Maintain the machine in good condition. Keep the machine clean for best and safest performance. Follow instructions for lubrication and changing accessories.
- 15. Disconnect the machine from power source before servicing and when changing the blade.
- 16. Never leave the machine running unattended. Turn the power off. Do not leave the machine until it comes to a complete stop.
- 17. Do not use any power tools while under the effects of drugs, alcohol or medication.
- 18. 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.

ADDITIONAL RULES FOR CIRCULAR SAWS

- 1. Ensure that the saw table is clear of off-cuts, tools or anything else that might foul the work-piece.
- 2. If your saw has a dust extractor hose connected to the crown guard, ensure that it is held clear of the table and will not foul the work-piece as it passes over the table.
- 3. When cutting large sheets of material or long boards use one or more roller stand(s) to support the work or have a competent helper to support it as it feeds off the rear of the table.
- 4. Never use the saw without the riving knife and check that it is in line with the blade before using the saw.
- 5. Always use a brush to clear the table of dust or debris. NEVER use your hands, especially when the machine is running.
- 6. ALWAYS USE A PUSH STICK WHEN IT IS NECESSARY TO PUSH ANY PIECE OF MATERIAL OF SUCH SIZE THAT IT WOULD BRING YOUR HANDS WITHIN 30cm OF THE BLADE.
- 7. Do not cut material that is badly warped or which has screws or nails in it
- 8. Be extra vigilant when cutting stock which has loose knots in it as these may fly out of the saw.
- 9. NEVER remove the table insert when the saw is running.
- 10. To avoid exposure to hazardous dust, do not use this saw without connecting it to a suitable dust extractor.
- 11. Always work with a sharp saw blade and feed the work at a rate suited to the thickness and hardness of the material.

Note: This table saw has been designed and built solely as a woodworking machine.

Do not modify it in any way or use for anything other than its designated purpose.

Neither the manufactures nor the supplies are liable for any damage or injury caused by incorrect assembly, operation or electrical connection of this machine.



Risk of Injury! Never reach into the running saw blade.



Eye Protection



Rating Description

Trade: Suitable for daily use by professional woodworkers.

Continuously rated, high power and a heavy duty construction. Typically used by several different operators in a small or medium sized business. Will be used up to the machines maximum limit with some long work periods. Expected maximum use of 1000 hours annually.

Specification

Main table size $650(w) \times 620(d) \text{ mm}$ Support table size $350(w) \times 450 \text{ (d) mm}$

Table height 830mm

Motor (induction) 2200W (3hp), 240v single phase

Blade diameter and bore 254mm (10") x 30mm

Blade rotation speed (no load) 4000 rpm Maximum depth of cut at 90 75mm Maximum depth of cut at 45 45mm

Maximum ripping width using fence 610 mm (24") Maximum cross cutting width 1225mm (48")

Dust extractor hose connection 100mm

Dimensions (WxDxH) 1320mm x 1500mm x 1130mm

Weight 175 kg

Unpacking



The saw is shipped in two parts. Open both packing cases and carefully unpack all of the contents.



Familiarise yourself with the parts

You will find these parts and the sliding table (not shown) packed at the sides of the machine.



Open the blue access panel and retrieve the items shown in the picture above. You should find two hand wheels, a crown guard with extractor hose, a complete mitre fence, a hose support and a bag of fittings.



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.



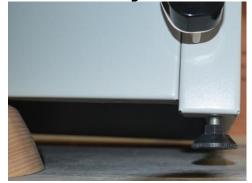
Only for EU countries

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.

Assembly



Tilt the machine to one side and prop it up securely. Screw in 2 feet, repeat for the other side and adjust them so that the saw is level and stable. The feet have spanner flats to assist.



You will have to remove this fixing plate from one corner. It is secured with a cap head bolt, which can be undone with an 8mm Allen key.

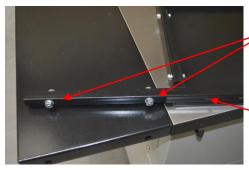


Remove the protective paper and clean the protective grease from the table.

Unscrew these three bolts and use them with their washers, to secure the side extension table to the main table, by passing them through the holes in the extension table.



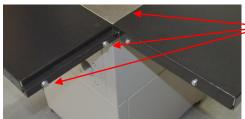
Using the long fence as a guide, level up the tables before tightening the bolts. Take the time to get this right as it is important to the accuracy of the saw.



Take the rear extension table and remove these two bolts.

Use them to fix the rear extension to the back of the side extension.

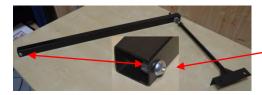
Use four bolts and washers provided to fix the rear extension to the main cast iron table.



The final table assembly should look like this, with four bolts securing the rear extension table to the cast iron table and two bolts securing the rear extension table to the side extension table.



Use the long fence again to check the level of all 3 tables.



Take the sliding beam support arm and remove the setscrew and nut from its end.



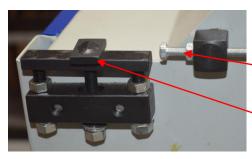
Insert the support arm into the hinged arm, as shown. You may feel a slight resistance as it engages with the internal bearings.

Replace the setscrew and nut. These form the stop which prevents the support arm from sliding out of the hinged arm.



Take the sliding beam assembly and lay it, inverted on the table.

-Do **NOT** move this cap head bolt. It is there to help you position the beam correctly.



At the front and back of the saw, you will find an assembly like this.

This locking bolt can be use to adjust the beam so that it is exactly parallel to the blade.

The centre Tee bolt at each end, secures the beam in place.



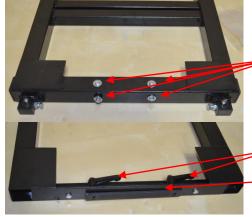
Loosen the nuts on the Tee bolts allowing them to lift enough to slide the head into the slot on the underside of the sliding beam assembly.

From the font of the saw, slide the beam assembly onto the front Tee bolt, then the rear Tee bolt. Push the sliding beam until the front Tee bolt locates against the cap head bolt.



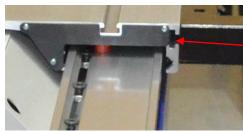
Tighten the Tee bolt nuts.

The outer threaded rods facilitate adjustment of the beam, so that it is level with the table. These are factory preset and should not need adjustment.



Remove the four bolts from the sliding table.

Using the ratchet locking levers, loosen this Teebar and pull it out from the table so that the gap between it and the table is at least 5mm.



Slide the Tee-bar into this slot on the sliding beam and leave the leading edge of the sliding table aligned with the front edge of the sliding beam.



Support the sliding table with your hand and position the bracket at the top of the support arm underneath, fixing it with the four bolts that you have just removed. Tighten the two ratchet levers.



Place one hand wheel on the spindle protruding from the front of the saw.

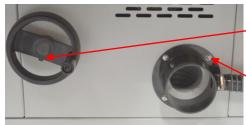
Rotate it so that the locking screw is in line with the flat on the spindle and tighten the screw.

This wheel controls the rise and fall of the blade.



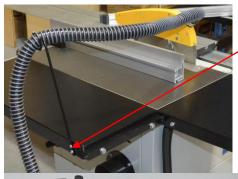
Raise the blade, loosen the nut and bolt through the crown guard and fit it over the riving knife.

Tighten the black nut so that the guard is secure.

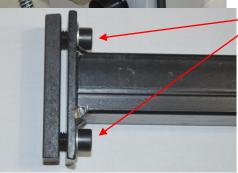


Fit the second hand wheel to the spindle protruding from the right hand side of the saw. This controls the blade angle.

Remove the four setscrews by the exhaust vent and use them to fix the outlet, as shown.

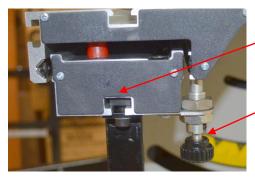


Attach the hose hook, using the two setscrews and nuts that you will find on the edge of the side extension table. Clip in the hose, as shown, so that it is clear of the table and will not foul any timber that is being cut.



Take one of the two legs and loosen the cap head setscrews so that there is a gap of about 4mm between the locking bar and the top of the leg.

Slide the bar into the slot in the underside of the beam. Make sure that the whole locking bar is in the slot and then tighten the setscrews. Adjust the screw-in foot at the bottom of the leg and repeat these steps with the second leg.



Here you can see the top of the leg, locked in place.

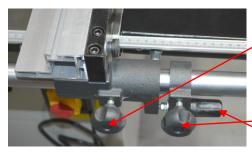
This is the retractable stop, which can lock the Sliding beam in either of two positions. Pull it down and twist it to lock it down to free the beam. Twist and push up to lock the beam.

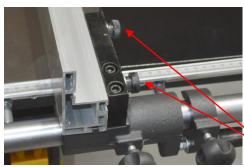


Using the four bolts in the front of the table, attach the scale. Measure off the right hand side of the blade to ensure the accuracy of the scale before tightening the bolts.

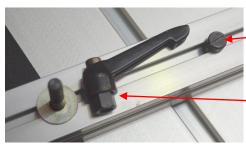












Take the rip fence guide rail and remove one nut and washer from each stud. Ensure that the hole in one end of the guide is on the right. Place the studs through the holes in the front of the table and replace the nuts and washers. This double nut arrangement can be adjusted so that the rip fence is parallel to the blade.

Slide the rip fence onto the guide rail. The fence can be locked into position with this knob.

A fine adjustment system is also provided. Slide the fence into the approximate position required. Lock the fine adjuster with the round knob. Then use the adjuster on the end to guide the fence to the exact position that you want.

The rip fence may be fitted in 2 ways. The low face, as in the previous picture, is used when cutting narrow material, close to the blade.

The high face, is used for general cutting, as shown here.

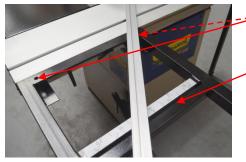
To change between the two, slacken these two knurled nuts, slide the aluminium extrusion off and replace it in the position preferred. Slide the mitre fence into the tee slot of the sliding beam and lock it into position.

The fence can be set at any angle from -45° to +45°. There are preset stops at -45, 90, +45. Any other angle can be located form the scale.

This fence also has a built-in vertical work clamp.

-On the underside of the crosscut fence you will find a stud and a bolt, fitted with a Ratchet lever.

Remove the ratchet lever and washer.





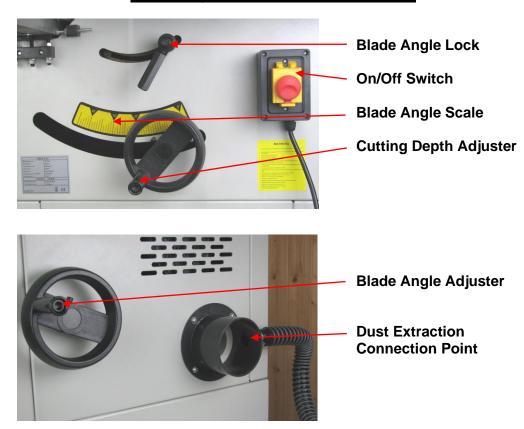
Locate the stud into hole at the back right hand corner of the sliding table.

The bolt should then be passed into the slot between the two table rails. Fit the washer and ratchet lever back on. The fence can now be pivoted to the desired angle, which is reads off the scale.

The fence can also slide towards and away from the blade as required.

A retractable stop is located at the back left corner of the sliding table. Push the slot into the upper position to locate the fence at 90 degrees. The stop is mounted into an eccentric dial and can be adjusted as necessary.

Using the Table Saw



On/Off Switch

Slide the red section upwards and then lift the hinged cover. This will give you access to the green start and red stop buttons. Pressing the red section of the cover will stop the saw.

To turn the saw on, press the green button. Wait for the blade to reach its maximum speed of rotation before commencing with the cut.

The machine is fitted with an NVR (No Voltage Release) switch. This type of switch is designed so that if the machine is disconnected from the mains whilst running and then reconnected, the motor will not automatically restart.

Cutting Depth

Adjustments to the cutting depth should be made only when the saw is not running. Turn the round hand wheel on the front, to set the blade to the required depth. Turn anticlockwise to lower the blade, turn clockwise to raise the blade. The blade height should always be set so that only the carbide tips of the blade (approx. 5mm) projects above the wood.

Angle of Cut

Adjustments to the angle of cut should be made only when the saw is not running. To tilt the blade for making bevel cuts, undo the locking lever, rotate the hand wheel to the required angle using the scale provided for guidance. Lock the angle by tightening the lever.

Making a cut

Ensure there is enough space around the table for the work piece before starting the cut. Position your feet in a stable and balanced stance.

When feeding the timber, place your hands on the section of timber being kept. Never hold the waste part of the timber.

Never force timber through the saw, always let it cut at its own speed.

When cutting narrow pieces - use the push stick provided.

Ripping Cut

The rip fence is used to make longitudinal (with the grain) cuts. Set the fence to the required dimension using the scale provided.

To avoid kickback, the far end of the fence extrusion should be set correctly.

The fence extrusion should be set so that the end is level with the centre of the saw blade.

This allows the timber space to expand into, after the cut has been made.

When cutting wider pieces the fence extrusion can be moved further towards the back of the blade, in a line projecting at roughly at 45 degrees out from the centre of the blade.

Cross Cutting

This saw has 2 options for making cross cuts: Using the mitre fence or using the sliding beam.

Mitre Fence

The mitre fence is most suitable for cutting small pieces. It fits into the T-shaped channel in the sliding beam and is then locked into place. To set 90 degrees or any other angle, undo the locking handle and rotate the quadrant to the desired angle. Lock the angle setting with the plastic handle. The fence extrusion can then be adjusted so that the end is close to the blade, giving better support to the work piece. When setting the fence, take care to ensure the fence will not contact the blade.



Sliding Beam

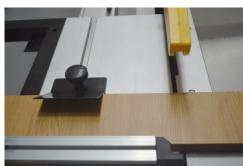
The sliding beam is most suitable when working with large flat panels.

When working with large panels, pull the sliding beam all the way forward and engage the lock to hold it there. Set the flip over stop to the desired width of cut. Load the panel onto the saw table.

Press the start button, release the beam lock and push the panel through the saw blade.



An alternative configuration is available for the sliding table. The fence can be assembled onto the front of the frame, so that the work piece is loaded against the back edge of the fence and then fed onto the blade. Using this configuration, the crosscut capacity is reduced, however some people to prefer to work this way.



There is a stop provided, which fits on to the sliding beam. The angled configuration is well suited to bull nosed boards and round stock.

Changing The Blade



Unplug the saw from the power source.

Raise the blade height to its maximum and remove the crown guard.

Undo the three set screws securing the table insert and remove it.



Slide the beam all the way to the front position.

If the whole of the saw blade is not now accessible:

Loosen the 2 locking bolts (1 front and 1 rear), then slide the beam carrier forward until complete access to the saw blade is gained.



By hand, rotate the blade until the hole in the collar on the right hand side of the blade can be accessed.

Insert the end of the tommy bar into the hole to act as a spindle lock.



Please Note: The Nut is Left Hand Thread (Turn clockwise to undo)

Use the 17mm spanner provided to unlock the nut on the saw spindle. Remove the nut, the washer, the saw flange and the blade.

Troubleshooting

Saw vibrates Check all nuts and bolts for tightness and

check that blade is not damaged.

Cuts are slow, wood is blackened Examine the blade. If any Tungsten tips are

missing or broken the blade should be replaced. If the tips are blunt, the saw blade

may to be professionally sharpened.

Saw stalls Feed rate too high, slow down.

Rip fence is not parallel to blade Bring the fence up to the blade and re-align

the fence so it is parallel, by adjusting the 4 fixing studs which hold the round guide rail

onto the table.

Lower saw guard fills with dust

It is essential to use a vacuum extractor or

chip collector with this machine. If one is being used, check for blockages in the hose.

When pressing start, nothing happens Check power supply, fuse in plug and switch.

Declaration of Conformity for CE Marking

Charnwood Declare that Woodworking Circular Saw, Model W660

Conforms with the following Directives: Machinery Directive 2006/42/EC

Low Voltage Directive 2006/95/EC

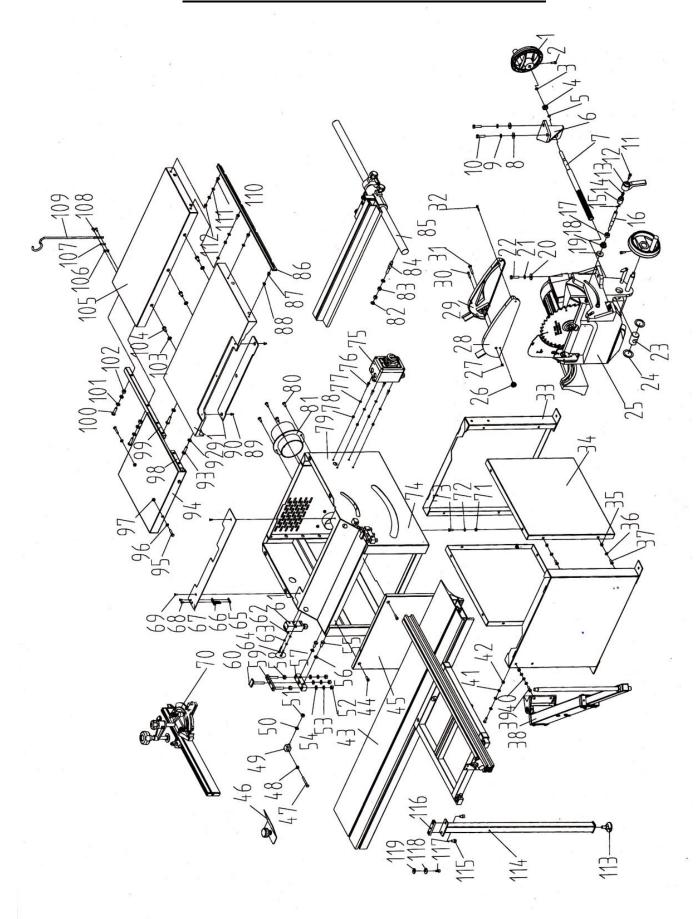
And further conforms to the machinery example for which the EC type examination Certificate No. BM 50188738, AN 50188739 have been issued by TUV Rheinland LGA Products GmbH, Tillystrasse 2, 90431, Nurnberg.

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: 01/10/2011 Location: Leicestershire

Richard Cook, Director

CHARNWOOD W660 PARTS DIAGRAM A

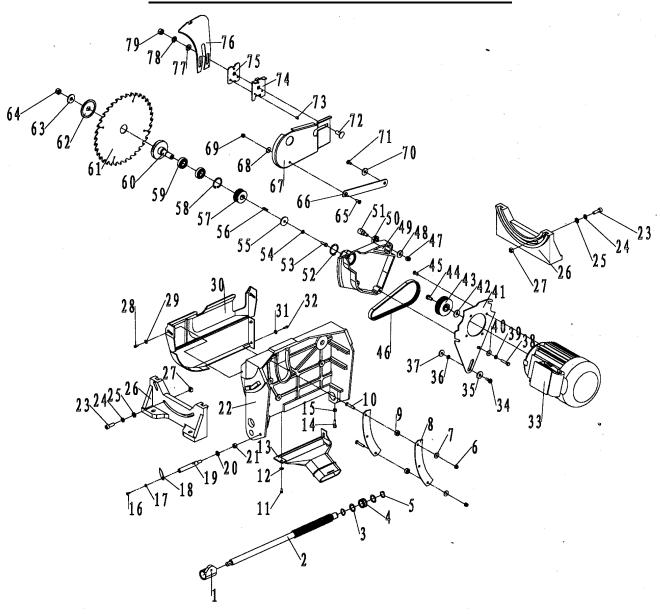


CHARNWOOD W660 PARTS LIST A

A001	Hand Wheel	A002	Screw M6 x 16mm
A001		A002	
A005	C Ring, 12 C Ring, 22	A004	Bearing GE12E Bracket
A005		A008	
	Thread Spindle	A008	Large Washer 8mm
A009	Spring Washer 8mm		Hex Bolt M8 x 65mm
A011	Screw	A012	Locking Handle
A013	Spring	A014	Locking Bush
A015	Spring Pin 3 x 20mm	A016	Locking Spindle
A017	Hex Nut M12	A018	Hex Flange Nut M12
A019	Large Washer 8mm	A020	Large Washer M8
A021	Spring Washer 8mm	A022	Hex Bolt M8 x 65mm
A023	Thread Nut	A024	Plastic Washer
A025	Saw Assembly	A026	Locking Button
A027	Locking Nut M5	A028	Left Blade Guard
A029	Right Blade Guard	A030	Screw M5 x 30mm
A031	Square Neck Bolt M6 x 40mm	A032	Screw M3.5 x 25mm
A033	Lower Leg	A034	Cover Board
A035	Hex Nut M6	A036	Washer M6
A037	Hex Bolt M6 x 16mm	A038	Sliding Arm
A039	Hex bolt M6 x 20mm	A040	Washer M6
A041	Spring Washer M6	A042	Hex Nut M6
A043	Sliding Beam Table	A044	Screw M6 x 16mm
A045	Protective Cover	A046	Stopping Plate
A047	Hex Bolt M6 x 50mm	A048	Hex Nut M6
A049	Supporting Block	A050	Spring Washer M8
A051	Hex Nut M8	A052	Hex Nut M8
A053	Spring Washer M8	A054	Washer M8
A055	Hex Bolt M8 x 20mm	A056	Spring Washer M8
A057	Square Block	A058	Hex Nut M8
A059	Adjusting Block	A060	T Bolt
A061	Interlock Switch	A062	Hex Nut M4
A063	Washer M4	A064	Hex Bolt M4 x 30mm
A065	Key Plate	A066	Key
A067	Guard Plate	A068	Screw M4 x 10mm
A069	- Guara Franc	A070	Mitre Gauge Assembly
A071	Hex Nut M6	A072	Washer M6
A073	Hex Bolt M6 x 16mm	A074	Box Assembly
A075	Switch Assembly	A076	Screw M4 x 12mm
A077	Screw M6 x 10mm	A078	Tool Box
A077	Box	A080	Screw M6 x 16mm
A079	Suction Tube	A082	Washer M8
A083	Hex Nut M8	A084	Dual Head Bolt
A085	Leader Pole		
		A086	Ruler Support
A087	Screw M6 x 10mm	A088	Washer M6
A089	Screw M5 x 10mm	A090	Insert MA
A091	Table	A092	Washer M8

A093	Hex Bolt M8 x 30mm	A094	Rear Extension Table
A095	Hex Bolt M6 x 30mm	A096	Washer M6
A097	Hex Nut M6	A098	Square Supporting
A099	T Supporting	A100	Hex bolt M8 x 30mm
A101	Washer M8	A102	Hex Nut M8
A103	Washer M8	A104	Hex Bolt M8 x 16mm
A105	RH Extension Table	A106	Hex Nut M5
A107	Washer M5	A108	Screw M5 x 12mm
A109	Support Bracket	A110	Screw M6 x 16mm
A111	Washer M6	A112	Hex Nut M6
A113	Underprop	A114	Support Column
A115	Screw M8 x 12mm	A116	Fixing Plate
A117	Screw M6 x 12mm	A118	Very Large Washer M6
A119	Square Nut		

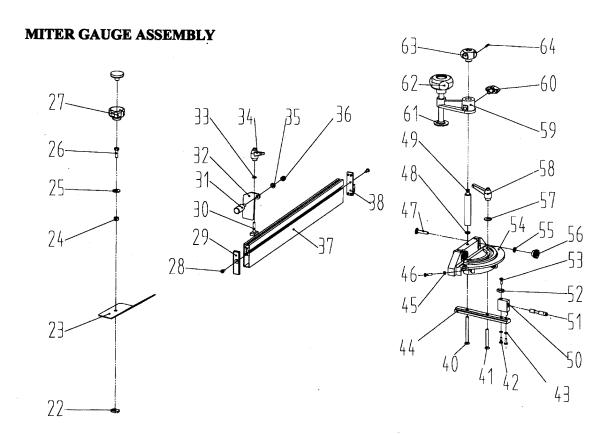
CHARNWOOD W660 PARTS DIAGRAM B



CHARNWOOD W660 PARTS LIST B

B01	Thread Nut	B02	Thread Spindle
B03	Bush Washer	B04	Bush
B05	C Ring 8	B06	Hex Locking Nut M6
B07	Large Washer M6	B08	Limited Plate
B09	Space Bush	B10	Screw M6 x 3.5mm
B11	Screw M4 x 10mm	B12	Large Washer M4
B13	Dust Collector	B14	Screw M6 x 20mm
B15	Hex nut M6	B16	Screw M4 x 8mm
B17	Washer M4	B18	Pointer
B19	Pointer Support	B20	Washer M8
B21	Hex Nut M8	B22	Circumrotate Bracket
B23	Screw M8 x 25mm	B24	Spring Washer M8
B25	Washer M8	B26	Circumrotate Support
B27	Square Nut	B28	Screw M4 x 10mm
B29	Large Washer M4	B30	Dust Collector Plate
B31	Large Washer M4	B32	Screw M4 x 10mm
B33	Motor 240v, 2200w	B34	Sliding Bolt
B35	Large Washer M8	B36	Sliding Bush
B37	Large Washer M8	B38	Hex Bolt M6 x 30mm
B39	Spring Washer M6	B40	Large Washer M6
B41	Motor Supporting Plate	B42	Large Washer M8
B43	Motor Pulley	B44	Left Hand Hex Bolt M8 x 16mm
B45	Screw M6 x 16mm	B46	Drive Belt
B47	Hex Locking Nut M8	B48	Large Washer M8
B49	Circumrotate Plate	B50	Thin Hex Nut M16
B51	Thread Bolt	B52	C Ring 32
B53	Hex bolt M6 x 20mm	B54	Spring Washer M6
B55	Large Washer	B56	Key 5 x 20
B57	Driven Pulley	B58	C Ring 35
B59	Bearing 6003	B60	Saw Axis
B61	TCT Saw Blade 250 x 30mm	B62	Saw Flange
B63	Large Washer M10	B64	Left Hand Hex Nut M10
B65	Screw M6 x 16mm	B66	Linking Plate
B67	Parallel Plate	B68	Large Washer M6
B69	Hex Locking Nut M6	B70	Large Washer M8
B71	Pin	B72	Square Neck Bolt M10 x 25mm
B73	Set Screw M5 x 10mm	B74	Interior Clamp Plate
B75	Outer Clamp Plate	B76	Riving Wedge
B77	Washer M10	B78	Spring Washer M10
B79	Hex Nut M10		

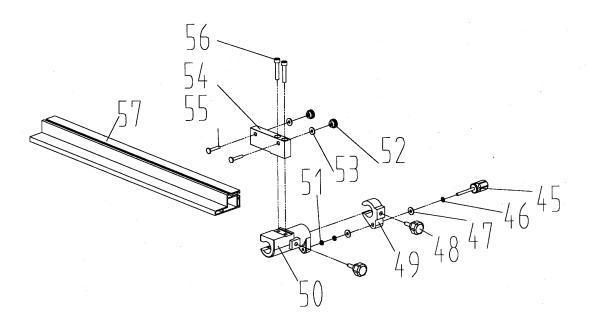
CHARNWOOD W660 PARTS DIAGRAM C



CHARNWOOD W660 PARTS LIST C

		T	1
C21		C22	Square Nut
C23	Stopping Plate	C24	Hex Nut M6
C25	Large Washer M6	C26	Hex Bolt M6 x 20mm
C27	Handle Assembly	C28	Screw M4 x 10mm
C29	Fence Insert	C30	T shaped Bolt
C31	Stopping Bolt	C32	Locking Plate
C33	Washer M5	C34	Small Handle
C35	Washer M6	C36	Locking Hex Nut M6
C37	Fence	C38	Fence Insert
C39		C40	Screw M6 x 70mm
C41	Screw M5 x 50mm	C42	Screw M4 x 12mm
C43	Spring Washer M4	C44	T Shaped Runner
C45	Hex Nut M4	C46	Screw M4 x 16mm
C47	Square Neck Bolt M6 x 30mm	C48	Washer M6
C49	Clamp Shaft	C50	Fixed Support
C51	Stopping Pole	C52	Pointer
C53	Screw M4 x 12mm	C54	Mitre Gauge
C55	Washer M6	C56	Locking Button
C57	Large Washer M6	C58	Small Handle
C59	Clamp Arm	C60	Thumb Screw
C61	Clamp Plate	C62	Clamp Handle
C63	Handle	C64	Spring Pin M3 x 16mm

CHARNWOOD W660 PARTS DIAGRAM D



CHARNWOOD W660 PARTS LIST D

D45	Micro Adjust Handle	D46	Wave Washer M6
D47	Large Washer M6	D48	Locking Handle
D49	Micro Adjust Support	D50	Clamp
D51	Thin Hex Nut M6	D52	Thumb Nut
D53	Large Washer M6	D54	Linking Plate
D55	Square Neck Bolt M6 x 35mm	D56	Cap Head Bolt M8 x 45mm

Updated 20/12/2019