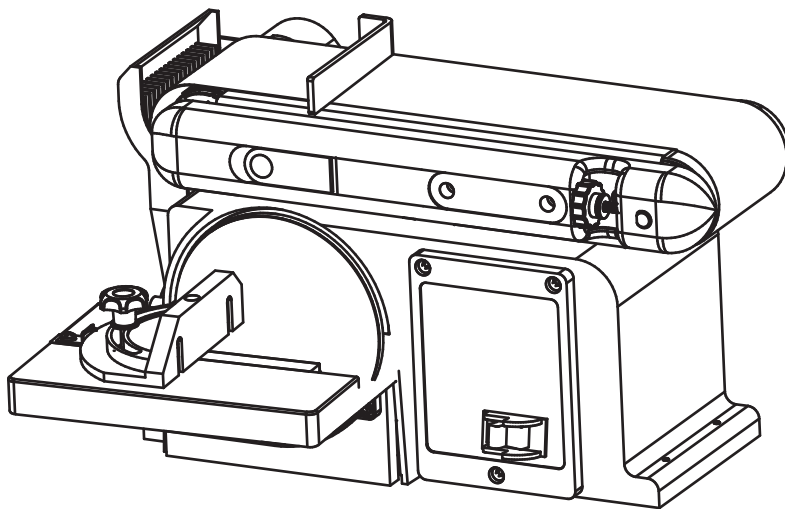


model no. 055-3559-4

**Mastercraft™**

## **BELT/DISC SANDER**



### **IMPORTANT:**

For your own safety, read and follow all of the Safety Guidelines and Operating Instructions before operating this belt/disc sander.

**OPERATING  
MANUAL**

TABLE OF CONTENTS

Specifications	4
Safety Guidelines	5
Package Contents	6
Assembly Preparation	7
Assembly Instructions	9
Key Parts Diagram	11
Operating Instructions	12
Maintenance	14
Exploded View	16
Parts List	17
Troubleshooting	19
Warranty	21

SPECIFICATIONS

Model :	055-3559-4
Motor :	120 V AC, 4.3A, 60 Hz, 1/2 HP
Disc size :	6" (15.2 cm)
Belt size :	4 x 36" (10.2 x 91.4 cm)
Belt speed :	1900 SFM (no load)
Belt titl :	0-90°
Net weight :	38 lb 10 oz (17.5 kg)

- Always wear eye protection that complies with a recognized standard (CSA or ANSI).
- Wear a mask or respirator when dust is generated.
  - Some dust created by power sanding contains chemicals that may cause cancer, birth defects or other harm. Some examples of these chemicals are: lead from lead-based paint, and arsenic and chromium from chemically treated lumber. To reduce exposure to these chemicals, work in a well-ventilated area; use approved safety equipment; and use dust masks that are specially designed to filter out microscopic particles.
  - Keep bystanders out of the work area while operating the tool.
  - Always ensure that the work area is clear of any flammable materials, liquids or gasses, because the use of this tool may create sparks.
  - Keep guards in place and working properly.
  - Keep hands clear of sanding areas.
  - Ensure sanding belt runs in the proper direction. Sanding belt must travel down at the front of the machine.
  - Ensure sanding belt is tracking properly so that it does not come off the pulleys.
  - Unplug from power supply before adjusting or servicing.
  - To avoid electric shock, DO NOT use in damp conditions or expose to rain.
  - Use only accessories that are recommended by the manufacturer for your model.
  - Grounded tools must be plugged into an outlet that has been properly installed and grounded in accordance with all local codes and ordinances. Never remove the grounding prong from the plug or modify it in any way. Do not use adaptor plugs. If in doubt as to whether the outlet is properly grounded, consult a qualified electrician.
  - Do not use the tool when tired or under the influence of drugs, alcohol or medication.
  - Do not wear loose clothing or jewellery. Keep hair tied back.
  - Ensure the power switch is off prior to plugging in the tool.
  - Ensure sanding belt or disc is not torn or loose.
  - Hold workpiece firmly while sanding.
  - Firmly support workpiece with mitre gage, backstop, jig or worktable when sanding with the belt.
  - Avoid kickback by sanding in accordance with directional arrows. Sand on downward side of disc only!
  - DO NOT attempt to hold pieces of material that are too small to be safely supported by hand. Utilize special jigs or hand tools.
  - Remove scrap pieces and other loose objects from the belt and disc tables before turning the machine on.
  - When sanding metal, move the metal across the belt or disc and cool it when it becomes hot.
  - WARNING! Do not operate your belt/disc sander until it is completely assembled and installed according to the instructions.
  - Service on these tools should only be performed by an authorized, qualified technician.



**DANGER!**  
Failure to observe any of the following instructions could result in severe personal injury to tool user and bystanders or cause damage to tool and property!

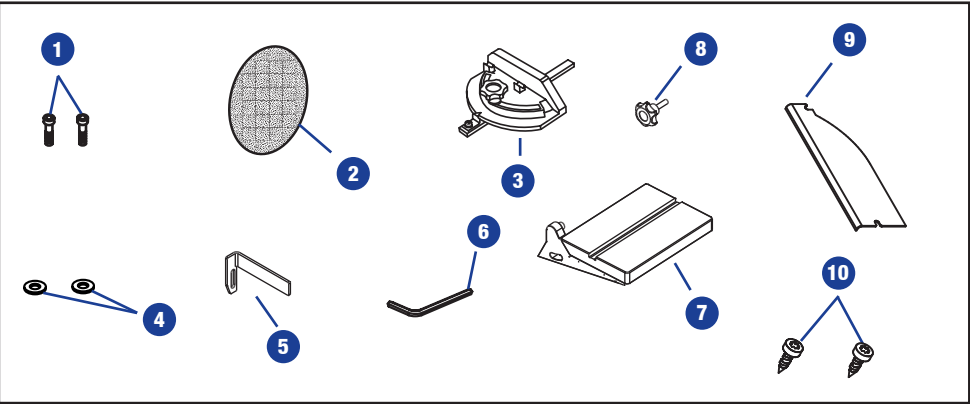
**WARNING!**  
Read, understand and observe all instructions in this manual before using or operating the tool for which it is written and supplied. Ensure that anyone who is to use the tool has read and understood the instructions provided.

Before You Start-Unpacking

Your Mastercraft belt/disc sander has been shipped completely assembled with the exception of the sanding disc, disc guard, mitre gauge, work support and worktable. Carefully remove all parts from the shipping carton. Do not discard the packing material until you have carefully inspected the belt & disc sander, identified and located all parts, and satisfactorily operated your new tool. If all parts are present, proceed to assembly. Examine all parts to ensure no breakage has occurred during shipping. Missing or damaged parts should be replaced before use. Should you discover or suspect that parts are missing or damaged, do not return to the store. Call (toll-free) the number on the front of this Operating Manual.

Package contents

No.	Description	Qty
1	Socket head screws	2
2	Sanding disc	1
3	Mitre gauge	1
4	Washer	2
5	Limiting plate	1
6	Hex key 15/64" (6 mm)	1
7	Worktable	1
8	Adjustment knob	1
9	Disc guard	1
10	Screw (ST 4.2 x 10 mm)	2

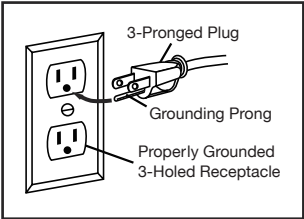


**WARNING!**  
Always ensure the sander is unplugged prior to attempting any assembly, installation or changing of parts and accessories.

Before You Start – Electrical

In the event of a malfunction or short circuit, grounding provides the path of least resistance for electrical current and reduces the risk of electric shock for the operator. This tool is equipped with an electric cord that has an equipment grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances. DO NOT MODIFY THE PLUG PROVIDED. If it will not fit the outlet, have the proper outlet installed by an electrician. IMPROPER CONNECTION of the equipment grounding conductor can result in increased risk of electric shock. The conductor with the green insulation (with or without yellow stripes) is the equipment grounding conductor. If repair or replacement of the electric cord or plug is necessary, DO NOT connect the equipment grounding conductor to a live terminal. CHECK with a qualified electrician or service personnel if you do not completely understand the grounding instructions, or if you are not sure if the tool is properly grounded.

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated. The original tool has a grounding plug that looks like the plug illustrated as the shown.



Use of Extension Cords

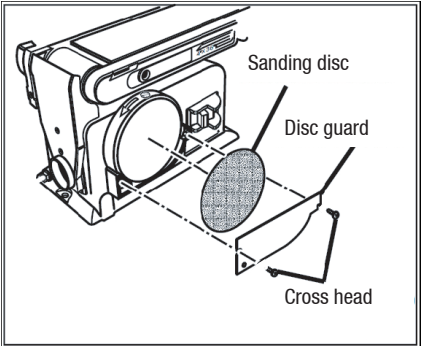
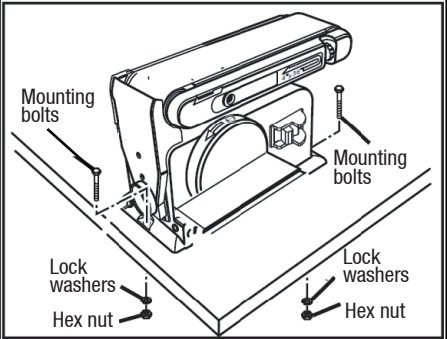
USE ONLY THREE-WIRE EXTENSION CORDS that have 3-pronged plugs and 3-hole outlets that accept the tool's plug. Repair or replace damaged or worn cords immediately. Be sure your extension cord is properly wired and in good condition. Do not use damaged extension cords. Always replace a damaged extension cord. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage, resulting in loss of power and overheating. The table below shows the correct size to use according to the cord length and the amperage draw of the tool (specified on the nameplate). When in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord. (AWG = American Wire Gauge).

Minimum Gauge for Extension Cords (AWG)  
(when using 120 V only)

Ampere Rating		Total Length of Cord in Feet (meters)			
More Than	Not More Than	25' (7.6 m)	50' (15 m)	100' (30.4 m)	150' (45.7 m)
0	6	18	16	16	14
6	10	18	16	14	12
10	12	16	16	14	12
12	16	14	12	Not Recommended	

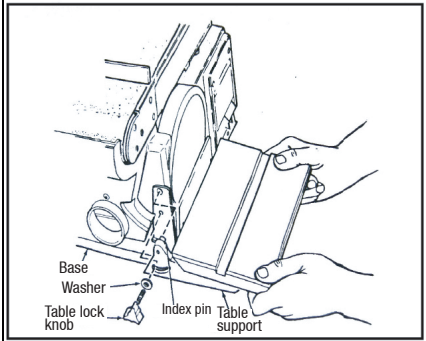
Use a separate electrical circuit for your tools. This circuit should not be less than a #12 gauge wire, and should be protected with a 15 A time-lag fuse. Before connecting the motor to the power line, ensure the switch is in the "0" position and the electric current is rated the same as the current stamped on the motor's nameplate. Running at a lower voltage will damage the motor and is not covered by warranty.

- 1 Mark the workbench through the mounting holes located in the sander base. Drill holes in the workbench at the marks. Using long bolts, washers, locking washers and nuts, as shown (not supplied), secure the sander to the workbench.

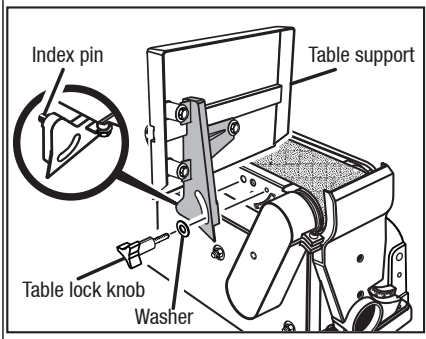


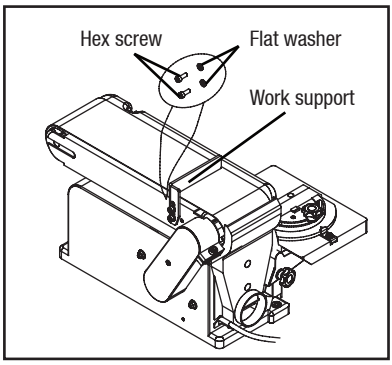
- 2 Peel backing away from sanding disc. Align perimeter of disc with plate, and press disc firmly into position on plate, leaving no loose edges. Position disc guard against lower 1/3 of disc, aligning holes as shown. Use a screwdriver to fasten the provided screws securely.

- 3 a. Locate table-lock knob and washer in parts bag. Position table-support bracket so that "index pin" fits into corresponding hole on sander frame and semi-circular hole aligns with threaded hole in frame. Place washer on threaded shaft of table-lock knob, insert through semi-circular slot, and tighten into threaded hole. Adjust table to level or to angle desired for sanding.



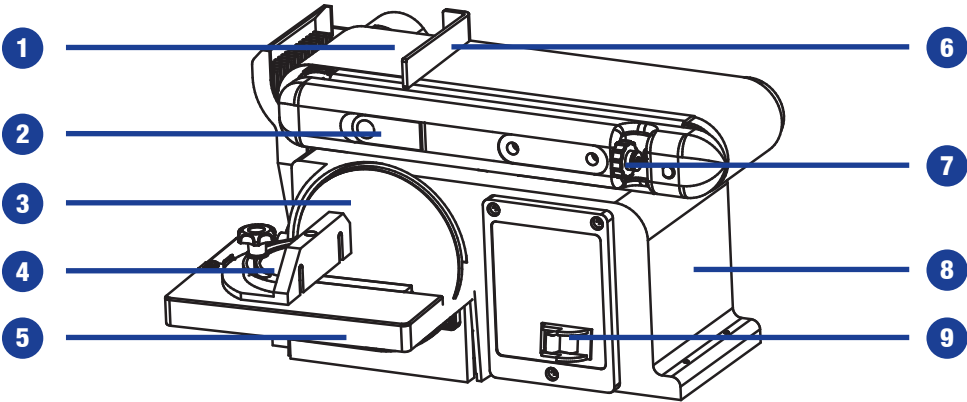
- b. Work table also could be mounted to end of sanding belt. Insert the work table index pin into the hole in the sanding belt arm. Position a washer over the table lock knob, then tighten the table lock knob securely.





4 Locate work support and hex screw and washer . Hold work support in position and fasten as shown. Do not overtighten.

No.	Description	Qty.	No.	Description	Qty.
1	Sanding belt	1	7	Tracking control knob	1
2	Belt Tension Lever	1	8	Base	1
3	Sanding Disc	1	9	I/O switch	1
4	Mitre Gauge	1			
5	Work table	1			
6	Limiting plate	1			



### Safety – Locking ON/OFF Switch

The rocker I/O power switch is located on the front of the sander, and incorporates a removable safety switch.

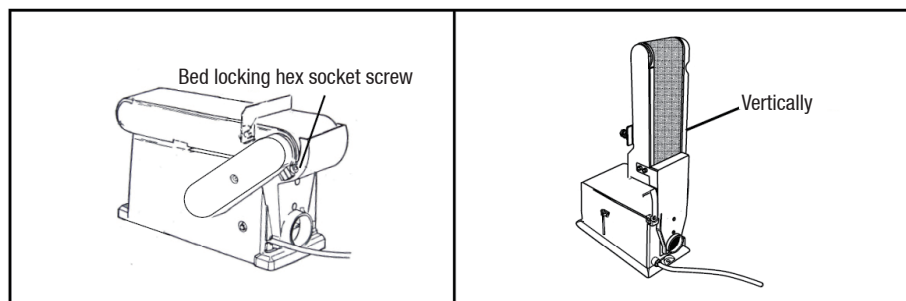
1. Press the side marked I to turn the sander on.
2. Press the side marked O to turn the sander off.

In situations where the sander may be left unattended, the operator has the option of removing the “yellow” safety portion of the ON/OFF switch to render the sander inoperable. When the operator is ready to use the machine again, the “yellow” safety portion of the switch may be reinstalled simply by inserting it into the opening in the switch and pushing it in until it “seats.”

### Belt Sander – Horizontal and Vertical Sanding

Your Mastercraft belt/disc sander can sand vertically as well as horizontally. Depending on operator needs and the workpiece, the work support can be used in either a horizontal or vertical position. To change from one position to the other:

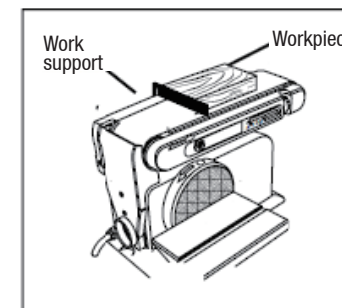
1. Locate the 15/64” (6 mm) hex wrench
2. Loosen the bed-locking hex socket screw by turning it counter-clockwise.
3. Manually move the work support station into the vertical or horizontal position, as required.
4. Retighten the bed-locking hex socket screw by turning it clockwise (using the 15/64” (6 mm) hex wrench).



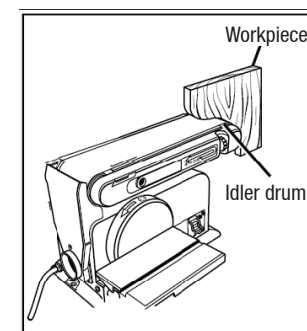
### Surface Sanding on the Sanding Belt

When sanding flat, broad surfaces on the belt sander, hold the workpiece firmly but lightly onto the surface of the belt and against the work support (work rest), keeping fingers away from the sanding belt. Consider using a push or hold-down stick.

Apply only enough pressure to allow the sanding belt to remove material.



### Sanding Curved Pieces

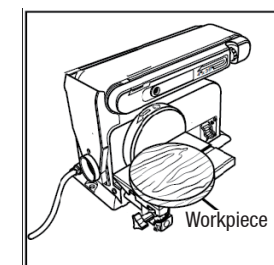


When sanding inside curves on the belt sander, always sand on the idler drum end of the work-support station (right side of the machine as shown in diagram).

Hold the workpiece firmly, keeping fingers away from the sanding belt. Keep the curve pressed firmly against the idler drum, moving the work evenly back and forth across the drum.

### Sanding Disc Station – Sanding Outside Curves

Always sand outside curves using the sanding disc and moving the workpiece from the left side of centre, as shown. Keep the curve pressed firmly against the sanding disc, moving the work evenly from the left side of the sanding disc. Be sure to hold the workpiece firmly onto the surface of the sanding-disc table.



### Mitre Gauge – Disc Sander

A mitre gauge is supplied with your sander, and can be used on the disc table. The mitre gauge head can be set anywhere up to 60° (right or left) by loosening the lock-knob, setting the mitre gauge head to the desired angle, and retightening the lock-knob.

### Sanding Small End Grain and Other Small Surfaces Using the Mitre Gauge

Use of the mitre gauge is recommended for sanding small end surfaces on the sanding disc. Always move the workpiece across the sanding disc from the left side towards the right side, and be sure to hold the workpiece down tightly onto the table surface.



#### NOTE:

Sand long workpieces with the sanding belt in the vertical position by moving the work evenly across the sanding belt.

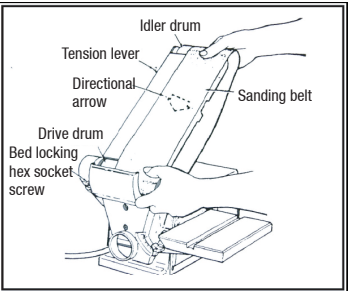


Maintenance Required	Frequency
Check power cord	Before each use
Check sanding belts and discs for damage	Before each use
Check moving parts for alignment and binding issues	Before each use
Dress sanding surfaces	As needed
Replace sanding belts or discs	As needed
Clean and vacuum dust	As needed
Replace work light bulb	As needed

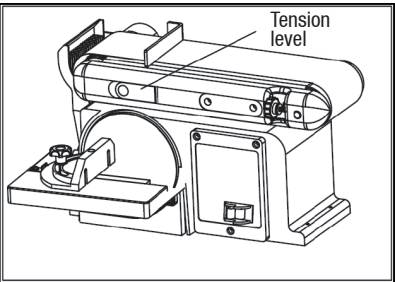
Installing or Changing Accessories – Sanding Belts

Removal

- 1. Slide tension lever to the right to release the belt tension.
- 2. Slide the used sanding belt off of the rotating mechanism.



Installation:

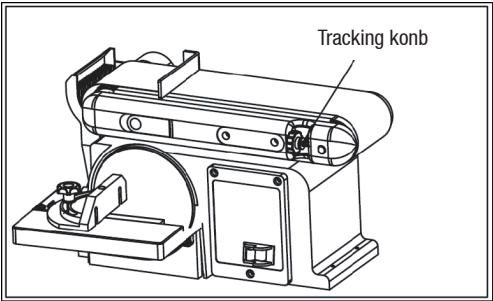


- 1. Slide new belt over the belt rotating mechanism – sanding drums. Ensure the belt is centred on both drums (ends of mechanism).
- 2. Slide the tension lever to the left to apply tension to the belt.
- 3. Before using, check belt tracking as described in “Belt Tracking” section, and adjust as necessary.

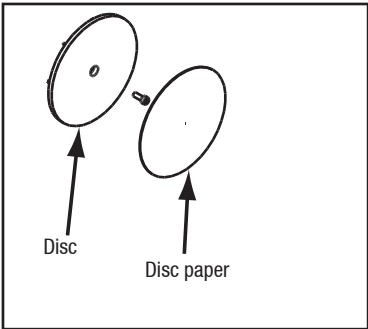
The belt-tracking adjustment is set at the factory so that the abrasive belt will run true on the drums. If, however, the belt should track to one side or the other, an adjustment can be made by turning the tracking knob, which is located on the front right-hand side of the machine. Turning the knob clockwise will cause the belt to track to the right (towards the disc sander mechanism). Turning the knob counter clockwise will cause the belt to track to the left side of the machine.

To properly track the sanding belt

- 1. Plug in the sander.
- 2. Turn power switch ON, then immediately OFF, noting whether the belt tends to slide off its track, and to which side (front or back) of the sander.
- 3. If the sanding belt did not tend to either side, it is tracking properly.
- 4. If the sanding belt moves towards the disc (the front side of the sander), turn the tracking knob clockwise ¼ turn.
- 5. If the sanding belt moves away from the disc (towards the back side of the sander), turn the tracking knob counter clockwise ¼ turn.
- 6. Turn power switch ON, then immediately OFF again, again taking note of any belt movement.
- 7. Readjust tracking knob another ¼ turn, as necessary.



Installing or Changing Accessories – Sanding Discs



- 1. Remove and set aside mitre gauge.
- 2. Completely remove the work table. Sanding discs are adhered to the plate using a “pressure-sensitive adhesive.” Remove sanding disc from disc plate.
- 3. Ensure disc plate is clean. Peel backing from new sanding disc. Press new sanding disc firmly onto disc plate.

Dust Chute/Port – Operation

Sanding operations are inherently dusty. To help minimize the amount of dust that escapes into the surrounding air, this Mastercraft sander is equipped with a 2 1/4" (57 mm) dust chute/port that can be easily connected to a dust-collection system. It is strongly recommended that users employ a dust-collection system when using this belt/disc sander.

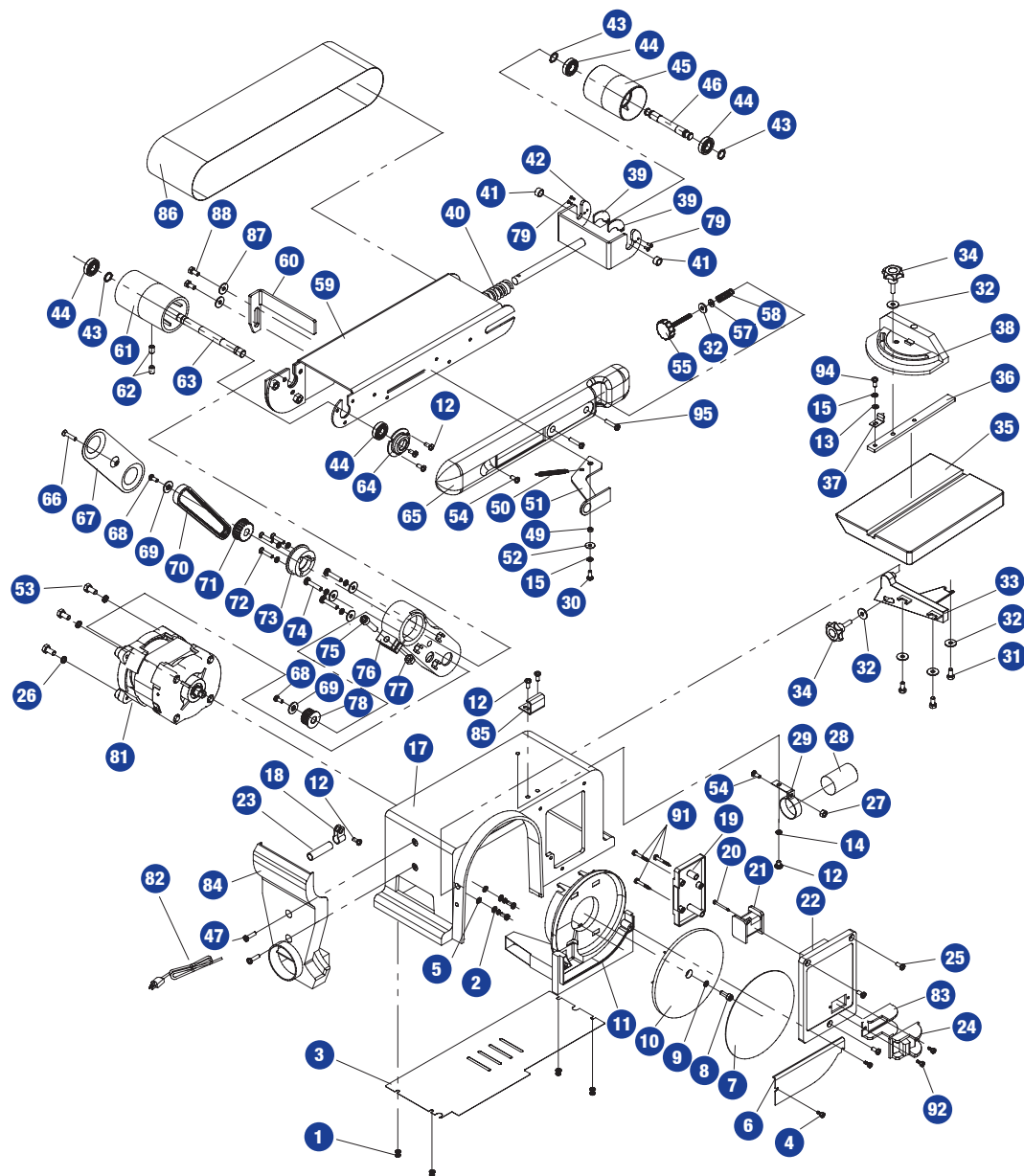
Use of a mask or respirator is still recommended even when a dust-collection system is in use.



WARNING!

Turn the power off and remove the plug from the outlet before changing the accessories.





No.	Description	Qty.	No.	Description	Qty.
1	Screw+flat washer M4X6	4	35	Work table	1
2	Screw+spring washer+ flat washer M4X8	2	36	Miter gauge bar	1
3	Base cover	1	37	Point of miter gauge	1
4	Screw ST4.2X10	2	38	Miter gauge of work table	1
5	Toothed lock washer D4	2	39	Pulley guard plate	2
6	Disc cover	1	40	Tension spring	1
7	Disc paper 80#	1	41	Bushing	2
8	Hex socket round head screw M6X16	1	42	Guide support	1
9	Toothed lock washer D6	1	43	Spring retaining ring for shaft D12	3
10	Disc plate	1	44	Bearing	4
11	Wheel box	1	45	Idler drum	1
12	Screw M5x8	7	46	Idler shaft	1
13	Flat washer D5	1	47	Screw M5X20	2
14	Flat washer D5	1	49	Screw bushing	1
15	Toothed lock washer D5	2	50	Draw extend spring	1
17	Base	1	51	Belt tension lever	1
18	Cord clip	1	52	Big flat washer D5	1
19	Wire connection box cover	1	53	Hex bolt M6X20	3
20	Self-tapping screw ST2.9X30	1	54	Screw M5X16	2
21	Relay	1	55	Tracking knob	1
22	Wire connection box	1	57	Rubber washer	1
23	Alkyd paint glass tube	1	58	Adjust spring	1
24	Switch	1	59	Belt support	1
25	Screw M4x10	3	60	Limiting plate	1
26	Spring washer D6	3	61	Driving drum	1
27	Hex nut, type I M5	1	62	Inner hex socket set screw M8X12	2
28	Capacitor	1	63	Driving shaft	1
29	Capacitor support	1	64	Bearing cap	1
30	Screw M5X12	1	65	Support cover	1
31	Hex bolt M6X12	3	66	Screw M5X10	1
32	Big flat washer D6	6	67	Cog belt guard cover	1
33	Work table support	1	68	Screw M5X16 LEFT	2
34	Miter gauge knob	2	69	Special locked washer	2

No.	Description	Qty.	No.	Description	Qty.
70	Cog belt	1	82	Cord & plug	1
71	Idler pulley	1	83	Switch cover	1
72	Screw M5X25	3	84	Duct connector	1
73	Bearing base	1	85	Support cushion	1
74	Screw M6X25	3	86	Belt	1
75	Hex socket round head screw M8X25	1	87	Flat washer D8	2
76	Cog belt guard cover	1	88	Hex socket round head screw M8X16	2
77	Square nut M8	1	91	Self-tapping screw ST4.2X20	3
78	Motor arbour wheel	1	92	Self-tapping screw ST2.9X8	2
79	Screw (small) M4x10	4	94	Screw M5X8	1
81	Motor assy.	1	95	Screw M5X25	2

Service on these tools should only be performed by an authorized, qualified technician.

SYMPTOM	PROBABLE CAUSE	CORRECTIVE ACTION
Sanding grains easily rub off belt or discs.	1. Sanding belt/disc has been stored in an incorrect environment. 2. Sanding belt/disc has been damaged or folded.	1. Ensure sanding accessories are stored away from extremely hot or dry temperatures. 2. Store sanding accessories flat-not bent or folded.
Deep sanding grooves or scars in workpiece.	1. Sanding belt/disc grit is too coarse for the desired finish. 2. Workpiece sanded across the grain. 3. Too much sanding force on the workpiece. 4. Workpiece held still against the belt-disc for too long.	1. Use a finer grit sanding accessory. 2. Sand with the grain of the wood. 3. Reduce pressure on workpiece while sanding. 4. Keep workpiece moving while sanding on the sanding accessory.
Sanding accessories clogs quickly.	1. Too much pressure against belt/disc. 2. Sanding soft wood.	1. Reduce pressure on workpiece while sanding. 2. Use different stock, different sanding accessories, or accept that this will happen and plan on cleaning or replacing belts/discs frequently.
Burns on workpiece.	1. Using a sanding grit that is too fine. 2. Using too much pressure. 3. Work held still for too long.	1. Use a coarser grit sanding accessory. 2. Reduce pressure on workpiece while sanding. 3. Do not keep workpiece in one place for too long.
Motor will not start.	1. Low voltage. 2. Open circuit in motor or loose connections. 3. Blown fuse or breaker.	1. Check power source for proper voltage. 2. Inspect all lead connections on motor for loose or open connections. (Send for Servicing) 3. Change fuse or reset breaker (Send for Servicing.)
Motor will not start; fuses or circuit breakers tripping or blowing.	1. Short circuit in line, cord or plug. 2. Short circuit in motor or loose connections. 3. Incorrect fuses or circuit breakers in power line.	1. Inspect cord or plug for damaged insulation and shorted wires. 2. Inspect all connections on motor for loose or shorted terminals and/or worn insulation. 3. Install correct fuses or circuit breakers or switch tool to an appropriately sized circuit.

SYMPTOM	PROBABLE CAUSE	CORRECTIVE ACTION
Motor overheats.	1. Motor overloaded.  2. Extension cord too long and of insufficient gauge (weight).	
Motor stalls (resulting in blown fuses or tripped circuit).	1. Short circuit in motor or loose connections.  2. Low voltage.  3. Incorrect fuses or circuit breakers in power line.  4. Motor overload.	1. Inspect connections on motor for loose or shorted terminals or worn insulation. (Send for Servicing.) 2. Correct low voltage conditions (for example: improper extension cord length and/or gauge). 3. Install CORRECT fuses or circuit breakers or plug tool into an appropriate circuit, matched to an appropriate fuse or breaker. 4. Reduce the load on the motor.
Machine slows when operating.	1. Feed rate too great. 2. Undersized circuit or use of undersized extension cord.	1. Reduce the rate at which the workpiece is fed into the working area of the tool. 2. Ensure circuit wires or extension cords are proper gauge, or eliminate use of extension cords.
Machine vibrates excessively.	1. Incorrect motor mounting.  2. Incorrect sanding-belt tension.  3. Weak or broken tension spring. 4. Idler roller is too loose. 5. Broken/defective sanding accessories.	1. Have motor mountings inspected by service technician. 2. Adjust tension adjustment lever. Follow belt-tensioning/tracking instructions in this manual. 3. Have tension spring replaced by service technician. 4. Have service technician adjust idler roller. 5. Replace sanding belt/disc.
Workpiece frequently gets pulled out of operator's hands.	1. Not supporting the workpiece against the stop. 2. Attempting to sand (unaided) a workpiece that is too small.	1. Use the platen (backstop) or mitre gauge to support the workpiece. 2. Use another hand tool or jig to grasp or hold the workpiece.
Workpiece lifts up from the sanding disc/table.	1. Sanding on the "up" side of the wheel.	1. Sand on right side of sanding disc (as operator faces the disc).

3-Year Limited Warranty

This Mastercraft product is guaranteed for a period of 3 years from the date of original retail purchase against defects in workmanship and materials, except for the following component:

Component A: Accessories, which are guaranteed for a period of 1-year from the date of original retail purchase against defects in workmanship and materials.

Subject to the conditions and limitations described below, this product, if returned to us with proof of purchase within the stated warranty period and if covered under this warranty, will be repaired or replaced (with the same model, or one of equal value or specification), at our option. We will bear the cost of any repair or replacement and any costs of labour relating thereto.

These warranties are subject to the following conditions and limitations:

- a) a bill of sale verifying the purchase and purchase date must be provided;
- b) this warranty will not apply to any product or part thereof which is worn or broken or which has become inoperative due to abuse, misuse, accidental damage, neglect or lack of proper installation, operation or maintenance (as outlined in the applicable owner's manual or operating instructions) or which is being used for industrial, professional, commercial or rental purposes;
- c) this warranty will not apply to normal wear and tear or to expendable parts or accessories that may be supplied with the product that are expected to become inoperative or unusable after a seasonable period of use;
- d) this warranty will not apply to routine maintenance and consumable items such as, but not limited to, fuel, lubricants, vacuum bags, blades, belts, sandpaper, bits, fluids, tune-ups or adjustments;
- e) this warranty will not apply where damage is caused by repairs made or attempted by others (i.e. persons not authorized by the manufacturer);
- f) this warranty will not apply to any product that was sold to the original purchaser as a reconditioned or refurbished product (unless otherwise specified in writing);
- g) this warranty will not apply to any product or part thereof if any part from another manufacturer is installed therein or any repairs or alterations have been made or attempted by unauthorized persons;
- h) this warranty will not apply to normal deterioration of the exterior finish, such as, but not limited to, scratches, dents, paint chips, or to any corrosion or discolouring by heat, abrasive and chemical cleaners;
- i) this warranty will not apply to component parts sold by and identified as the product of another company, which shall be covered under the product manufacturer's warranty, if any.

Additional Limitations

This warranty applies only to the original purchaser and may not be transferred. Neither the retailer nor the manufacturer shall be liable for any other expense, loss or damage, including, without limitation, any indirect, incidental, consequential or exemplary damages arising in connection with the sale, use or inability to use this product.

Notice to Consumer

This warranty gives you specific legal rights, and you may have other rights, which may vary from province to province. The provisions contained in this warranty are not intended to limit, modify, take away from, disclaim or exclude any statutory warranties set forth in any applicable provincial or federal legislation.