ITM INDUSTRIAL PRODUCTS ®

GS4591C BELT GRINDER

OPERATOR'S MANUAL

PART NO. GS4591C

Ver: 1.0

TO PREVENT SERIOUS INJURY OR DAMAGE TO YOUR BELT GRINDER, READ AND UNDERSTAND ALL WARNINGS AND INSTRUCTIONS BEFORE USE

CONTENTS

TECHNICAL DATA / GETTING TO KNOW YOUR MACHINE 3
UNPACKING AND ASSEMBLY OF FITTINGS..... 4
ADJUSTMENT OF SANDING BELT..... 5
REPLACEMENT OF BELT/IMPORTANT NOTICE FOR CE 6
REPLACEMENT OF PRIME WHEEL 7
EXAMPLE OF OPERATING / ADJUSTMENT OF WORKING ANGLES..... 8
ELECTRICAL CONNECTION / DISCONNECTION & OPERATION 9
DIAGRAM.....10
PARTS LIST.....11
ELECTRICAL COMPONENT PART LIST & CIRCUIT DIAGRAM.....12

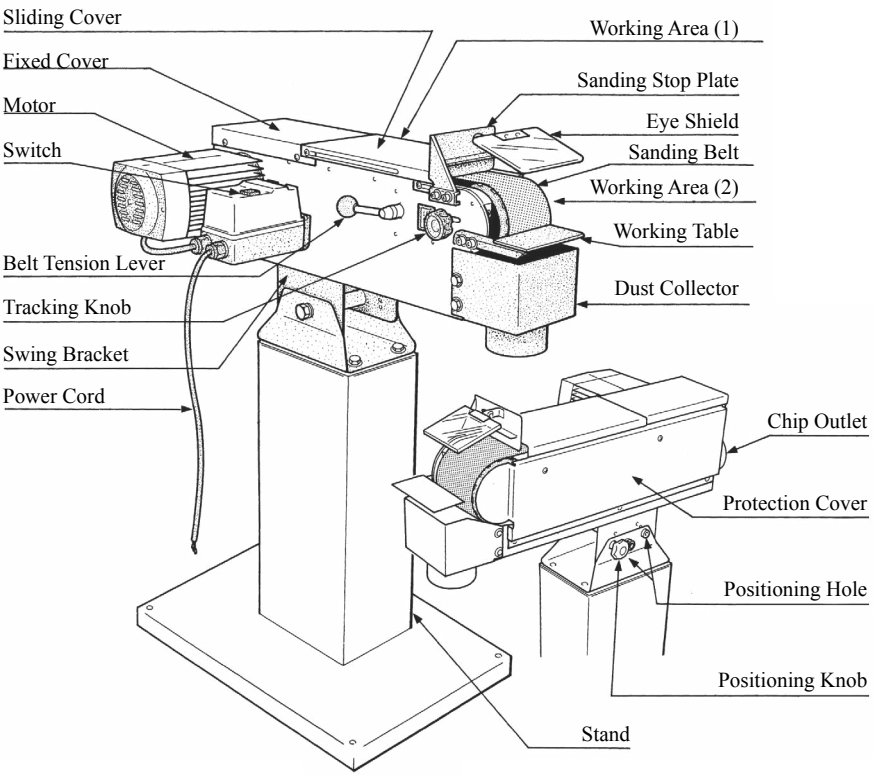
SAFETY RULES FOR ALL POWER TOOLS

1. Read and become familiar with the entire instruction manual. Learn the tool's applications. limitations and possible hazards.
2. Earth all tools. If the tool is equipped with a three-prong plug, it must be plugged into a three-contact electric outlet. The third prong is a ground to provide protection against accidental electrical shock. If an adapter is used to accommodate a two-contact outlet, the adaptor's grounding lug must be connected to a known ground. Never remove the thrid prong on a three-prong plug.
3. Check damaged parts. A guard or any other part that is damaged should be checked to ensure that it will operate properly and perform its intended function before the tool is used further. Check for proper alignment of moving parts and for possible broken parts, loose mountings, or any other condition that could affect the tool's operation. A guard or other damaged part should be properly repaired or replaced.
4. Disconnect power before servicing and when changing accessories such as blades, cutters.
5. Keep guards in place and in working order.
6. Protect your eyes from being injured by objects thrown by a power tool. Always wear safety glasses or safety goggles.
7. Wear a face mask or dust mask if the cutting operation produces dust.
8. Don't force the tool. It will give a better and safer performance when used on jobs for which it was designed.
9. Avoid accidental starting. Ensure that the power switch is in the OFF position before plugging in the power cord.' Remove the switch when the tool is not being used.
10. Remove adjusting keys and wrenches. Ensure that keys and adjusting wrenches are removed from the tool before turning it on.
11. Drugs, alcohol, and medication. Do not operate tool if you are under the influence of drugs, alcohol, or medication that could effect your ability to use the tool properly.
12. Use recommended accessories. Using improper accessories can be hazardous. If in doubt, check the instruction manual.
13. Never stand on a tool. Falls can result in injury.
14. Never leave a tool running unattended. Turn the power switch OFF. Don't leave the tool until it has come to a complete stop.
15. Always remove the power cord plug from the electric outlet when making adjustments, changing parts, cleaning, or working on the tool. 7
16. Avoid dangerous conditions. Don't use power tools in wet or damp areas or expose them to rain. Keep your work area clean and well-lightedDo not use power tools in areas where fumes from paint, solvents, or flammable liquids pose a potential hazard.
17. Keep visitors and children away. Other people should keep a safe distance from the work area, especially when the tool is operating.
18. Use the proper tool.Don't force a tool to do a job for which it was not designed.
19. Keep tools in top condition. Keep them clean and sharp for the best and safest performance. Follow the instructions for changing accessories and lubricating.
20. Secure all work. When practical use clamps or a vise to hold work. It is safer than using your hands and prevents round or odd-shaped pieces from turning.
21. Don't overreach. Keep proper footing and balance at all times. Wear oil-resistant rubber-soled footwear. Keep the floor clear of oil, scrap wood, and other debris.
22. Wear proper clothing and , if necessary, protective hair covering. Loose clothing or jewelry can get caught in moving parts.
23. Make the workshop childproof with padlocks, master switches, or by removing starter keys.

TECHNICAL DATA

MODEL	GS4591
Motor (Output)	1.5 kW
Phase	Single
Sanding Belt	100 x 1500 mm
Belt Speed	25m/sec (50Hz)
Driving Wheel	Ø 170 x 106mm
Flat Grindlng Surface	405 x 103mm
Dimensions (L x W x H)	820 x 480 x1100mm
Weight (Net/Gross)	67.5/74 kgs

GETTING TO KNOW YOUR MACHINE



※ GS4593, 333C Power cord connect to hand-operated disconnecting device.

Noise Level: About 82 dB (A)

UNPACKING AND ASSEMBLY OF FITTINGS

After unpacking carton, check first if all accessories are correct. Make assembly of machine by order instructed in this manual.

7. To set up eye shield

Ref. No.	Parts Name /Description	Q'ty
1	Eye Shield	1
2	Support Plate	1
3	Hex. Bolt 1/4" x 1/2"L	1
4	Washer Ø6.5 x Ø18 x 2	1
5	Spring Washer 1/4"	1
6	Wing Nut 1/4"	1
7	Screw 3/16" x 7/16"L	2
8	Washer Ø5 x Ø12 x 0.8	2
9	Hex. Nut 3/16"	2

6. To set up sanding stop plate

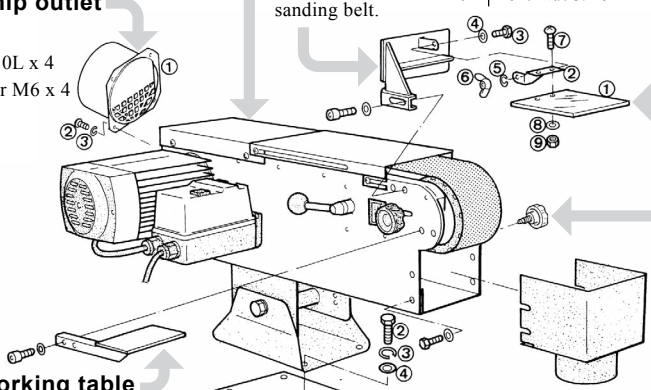
Install the sanding stop plate and make sure it does not touch sanding belt.

9. Main body

For your Safety, must have someone help to hold main body when you mount it to the stand.

8. To set up chip outlet

① Chip Outlet
② Screw M6 x 10L x 4
③ Spring Washer M6 x 4



4. To set up working table

Turn this belt tension lever counterclockwise making belt in working condition, this would allow the correct mounting and adjustment of other related accessories. Put working table at correct position and keep proper distance to the sanding belt.

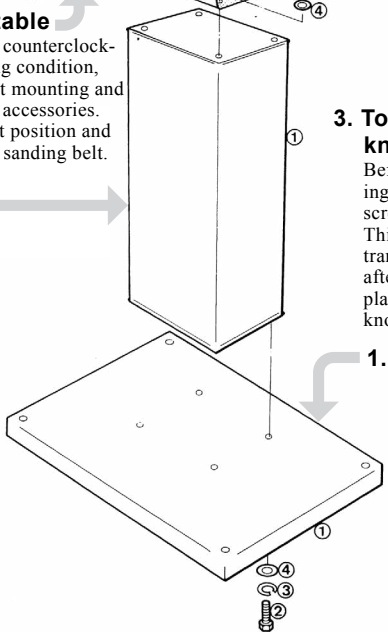
5. To set up dust collector

3. To set up positioning knob

Before put on the positioning knob. take off the small screw preset in this hole. This small screw is only for transportation, it's useless after your assembly and replaced by the positioning knob.

2. To set up stand

① Stand
② Hex. Bolt
5/16" x 3/4"L x 4
③ Spring Washer
5/16" x 4
④ Washer
Ø8 x Ø18 x 2 x 4

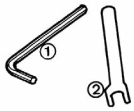


1. To set up bottom plate

① Bottom Plate
② Hex. Bolt
5/16" x 3/4"L x 4
③ Spring Washer
5/16" x 4
④ Washer
Ø8 x Ø30 x 3 x 4

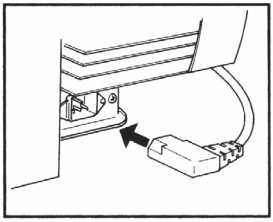
10. Accessories

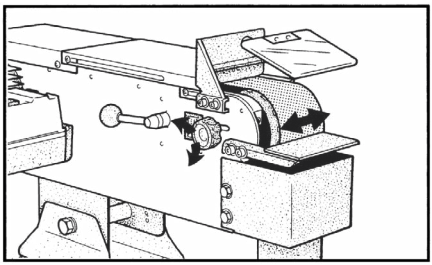
① 6mm Hex. Wrench
② 12mm Open Spanner



ADJUSTMENT OF SANDING BELT

Belt Tracking Adjustment

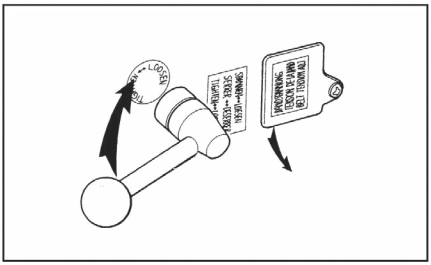




1.Plug into an electrical inlet on machine body before connect with power supply.
2.Turn tracking knob clockwise to make sanding belt toward left side or turn counter-clockwise to make belt toward right side. Note: It is only allowed a tiny adjustment at each turn.
3.Rotate belt by hand, meanwhile adjust tracking knob.
4.Control the switch for a short on/off starting with left hand, meanwhile put right hand on tracking knob for clockwise or counter turnning till the belt runs stably between the two rollers.

Belt Tension Adjustment

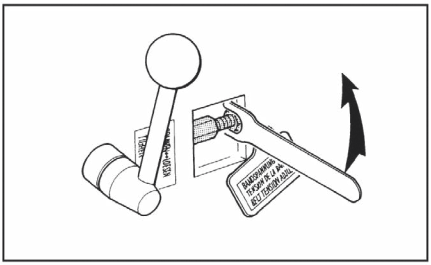
Be sure the switch is on OFF position.
Measure the belt tension from the bottom by thumb press. The tension was always well adjusted before delivery ex works. The adjustment is required when belt was used for a period of time and get loosed or when renewing the belt.



The Procedure for Belt Tension Adjustment.

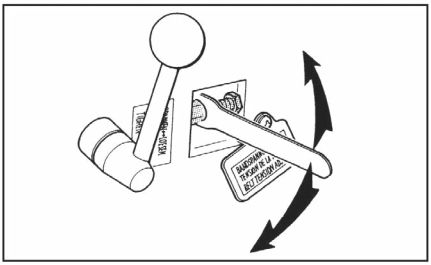
1.open the steel cover.

2.Turn the belt tension lever clockwise about 120° to release the tension.



3.The hex. nut is designed to hold the adjusting rod in position against the vibration during operation. This nut needs to be loosened before making adjustment, and tightened after adjustment.

4.If the belt tension is too low.
Turn adjusting rod (part No. 15) upward to gain tension.
If the belt tension is too high.
Turn adjusting rod (parts No. 15)downward to release tension.



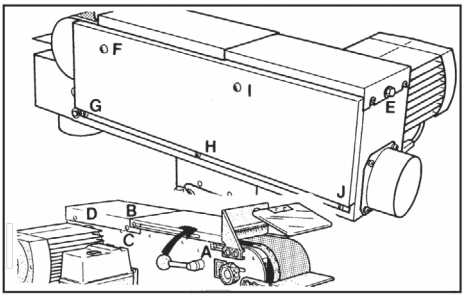
5.Tips for adjustment.
Each turning of adjusting rod makes rubber roller outward (of inward) about 2.5mm.
A micro adjustment, 0.42mm for each phase turning of adjusting rod, is recommended.

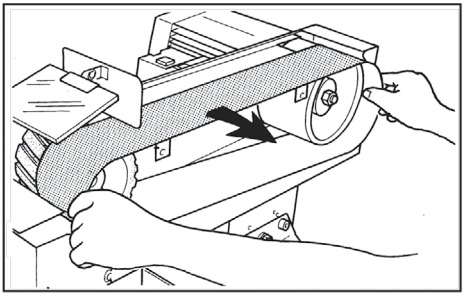
6.Close the steel cover and push down the belt tension lever.

7.After this adjustment, try with Tracking Adjustment.

REPLACEMENT OF BELT

1. Pull belt tension lever upward.
2. Loosen 5 screws (A/B/C/D/E), take off the belt protection covers completely. Take off 5 screws (F/G/H/I/J), remove the side protection cover, and remove the used belt.
3. Locate the new belt on two rollers.
4. Push belt tension lever downward.
5. Rotate belt by hand, meanshile adjust tracking knob as a pretest before power test.
6. Locate protection cover then use left hand to control the switch with a short on/off starting, meanwhile put right hand on tracking knob for clockwise or counter turning till the belt runs stably between the two rollers.
7. Check belt tension. If the tension is improper for working, then begin the adjustment procedures (see page 3) until the tension is satisfactory.
8. Repeat the procedures of hand test and power test for belt runs stably between the two rollers.





IMPORTANT NOTICE FOR CE

Handling of Machine

1.The total weight of this machine must be ensured before handling.
2.It is better to handle this machine with the help of lifting tools.

Environment Requirements for Installation.

1.Be sure to provide sufficient light for operation according to the codes or regulations published for local area. If you do not get the information about lighting, a light intensity of 300 Lux is the least value to be supplied.
2.The place where machine install must be flat and big enough for the operation.

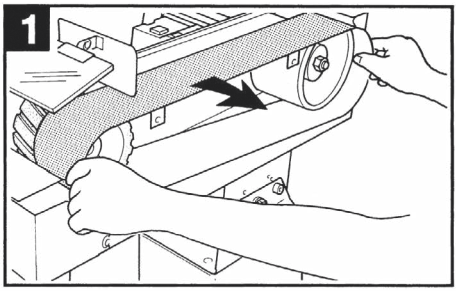
Noise Level

1.The noise level of this machine is about 82 db(A) during operation.
2.While taking provisions for the risk of noise, the noise level of working environment should be taken into consideration also.

REPLACEMENT OF PRIME WHEEL

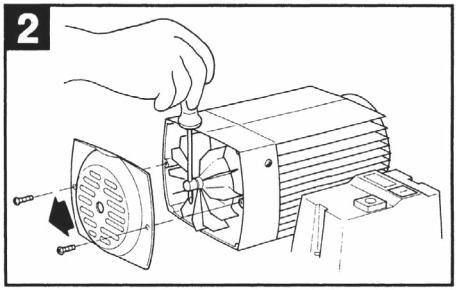
1 Move the belt

Take off the sliding cover, fixed cover and the protection cover. (refer to page 4) then remove the belt.



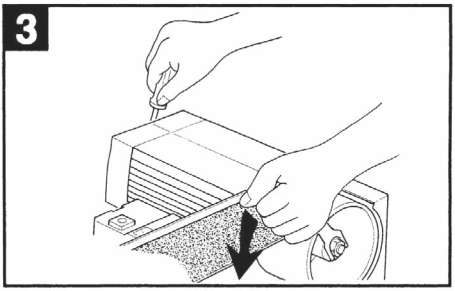
2 Remove the motor rear cover

Remove the motor rear cover by remove two screws.
Use screwdriver or steel bar to insert the hole at the end of motor shaft, then hold the bar tighten and keep motor shaft steady.



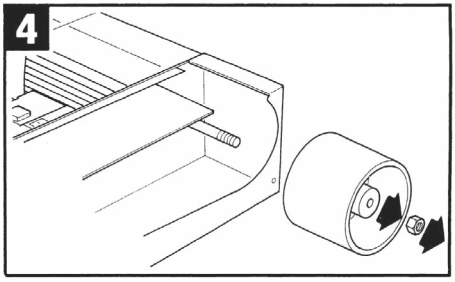
3 Loosen the nut of roller

Use spanner hold the nut at the other end of motor shaft. Turn screwdiver and spanner at reversed direction, this will loosen the nut of roller.



4 Reload new prime roller

Take off the nut, used prime (aluminium) roller is removed.
Reload new prime roller.



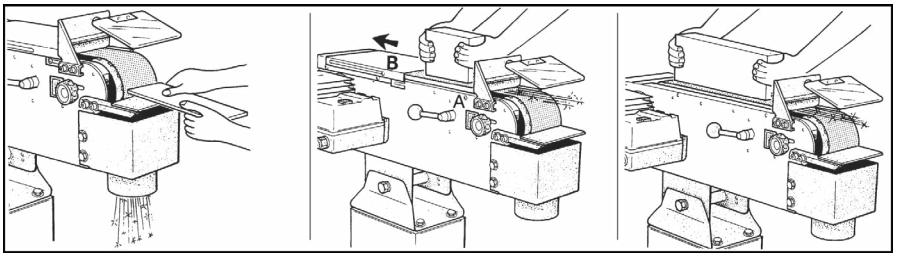
EXAMPLE OF OPERATION

Example

Roller sanding
Hold workpiece firmly by hand and use working table as support for roller sanding.

For small job. loosen screws A and B to open the sliding cover to the proper position. Tighten screw B before working. Hold workpiece firmly by hands against sanding belt.

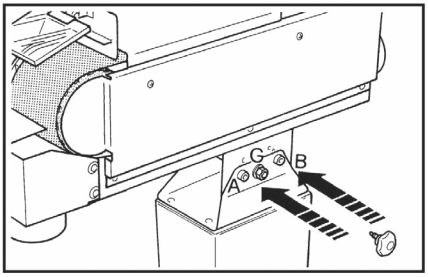
If you have one big workpiece, remove blet covers completely (it's a sliding cover and one fixed cover by 5 pieces of screws). Be sure to hold workpiece tightly

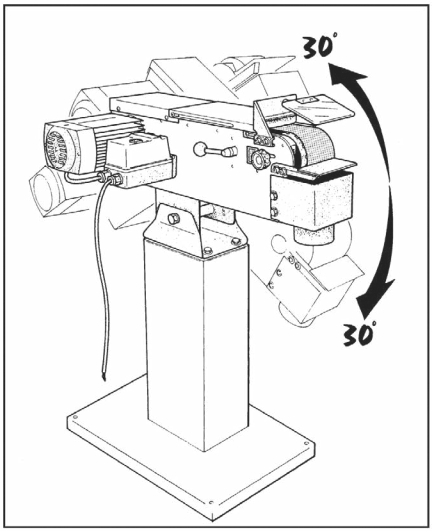


ADJUSTMENT OF WORKING ANGLES

This machine is designed for the adjustment of working angles from -30 to +30 degree. Users are able to choose the most comfortable and efficient working angle in this range.

1. Loosen hex nut G about half or one turn.
2. Hold main body by one hand, release the positioning knob completely by another hand. Swivel main body to the desired working angle, insert the positioning knob and fixed it. For the angles of 0/15/30 degrees, insert positioning knob to hole A. For the angles of 7.5/22.5 degrees, use hole B.
3. Tighten nut G. This machine is ready for work.





ELECTRICAL CONNECTION/DISCONNECTION & OPERATION

FOR THREE PHASE

1 . ***Electrical connection:***

1.1.A cable with four wires is equipped to connect your machine into the 3 phase power supply. ***Please connect your machine into the power supply with hand-operated disconnecting device,*** which is in compliance with subclause 5.3 of EN60204-1, such as no fuse breaker or plug/socket combination.

1.2.For the protection of control device, we recommend the operator to supply ***a fuse with 6 amp. current rating of fuse,*** and the total length between fuse and connection terminal shall not exceed 1.5 m.

1.3. ***The exact power source voltage. frequency, and number of phase*** shall be checked according to the installation diagram and circuit diagram.

1.4. ***The correct direction of sander should be checked after connecting.***

2. ***Electrical disconnection:***

2.1.The disconnection is carried out by hand-operated disconnecting device.

2.2.Be sure to disconnect this machine from power source, when you want to stop the job, maintenance, and adjustment.

3. ***Grounding.***

The grounding of the sander is carried out ***by connecting the Yellow/green terminal of supply cable*** to.the grounding terminal of power source. Be sure to ground your machine before connecting machine to power source in any situation.

WARNING!

Do not disconnect grounding terminal before disconnecting power source.

FOR SINGLE PHASE.

1. The connection, disconnection, and grounding is carried out through the plug, equipped on the sander. For the safety reason, ***Do not change this plug into any the other type in any situation.***
2. For the protection of control device, we recommend the operator to supply ***a fuse with 2oA current rating of fuse.*** and the total length between fuse and connection terminal shall not exceed 1.5 m.
3. The ***exact power source voltage, frequency, and number of phase*** shall be checked according to the installation diagram and circuit diagram.

WARNING!

Ensure that the power switch is in OFF position before electrical connection and disconnection.

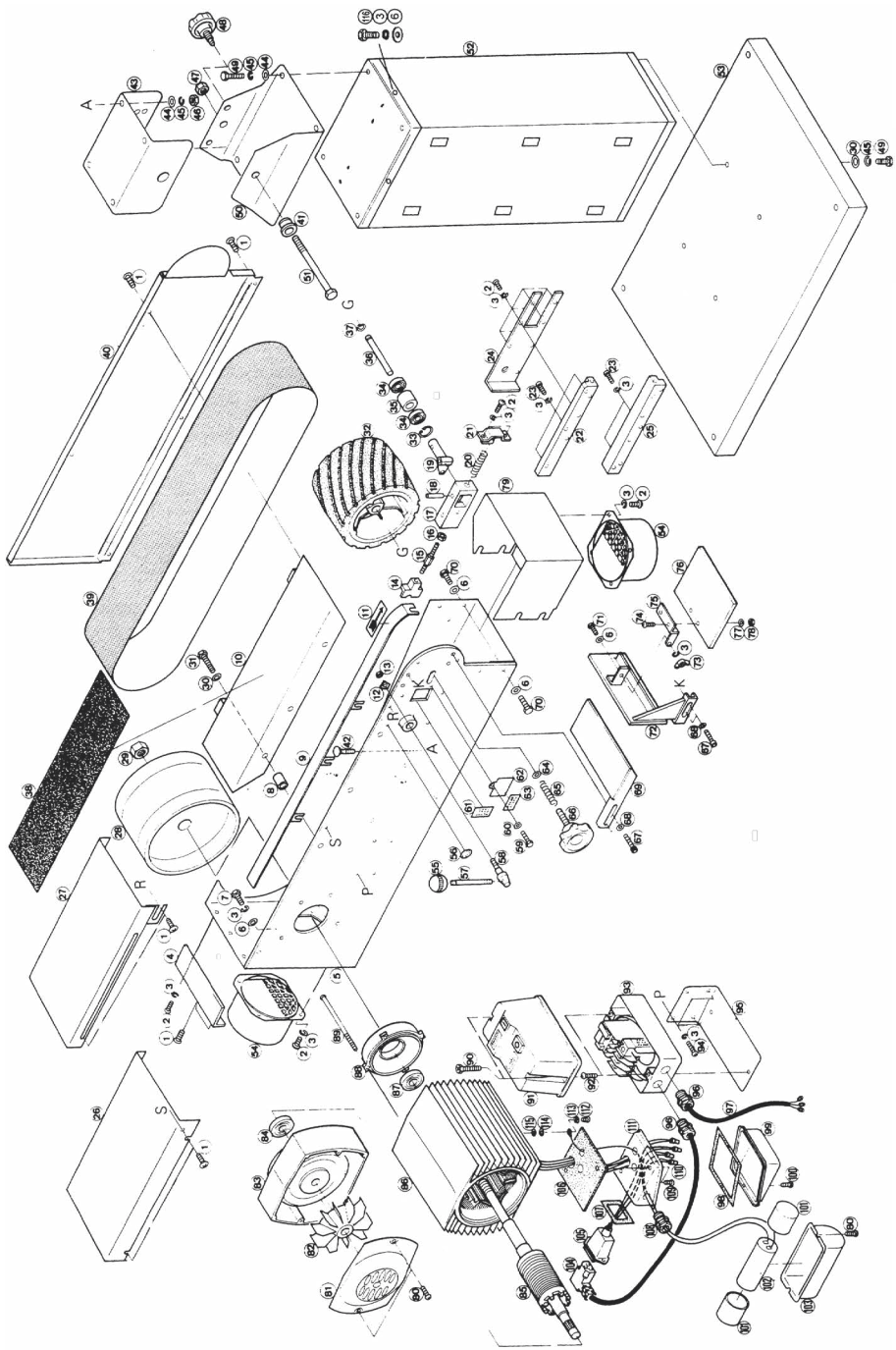
OPERATION.

l. ***"START":*** Push the button marked with " I ".
2. ***"STOP":*** Push the button marked with " O ".

MAINTENANCE:

1.Be sure to disconnect the sander from power source.
2.If motor being overload, the overload relay will be active.
If you want to reset sander. open control enclosure and then push the reseted button of overload relay.

DIAGRAM



PARTS LIST

REF. NO.	PARTS NAME
1	Screw
2	Screw
3	Spring Washer
4	Dust Proof Cover
5	Base
6	Washer
7	Hex. Bolt
8	Bush
9	Dust Proof Plate
10	Belt Support
11	Arrow Mark
12	Cam
13	Hex. Nut-Looseproof
14	Press Block
15	Adjusting Rod
16	Hex. Nut
17	Sliding Block
18	Pin
19	Adjusting Block
20	Spring
21	Spring Stop Plate
22	Upper Support
23	Cap Screw
24	Block Stop Plate
25	Lower Support
26	Fixed Cover
27	Sliding Cover
28	Aluminum Roller
29	Hex. Nut

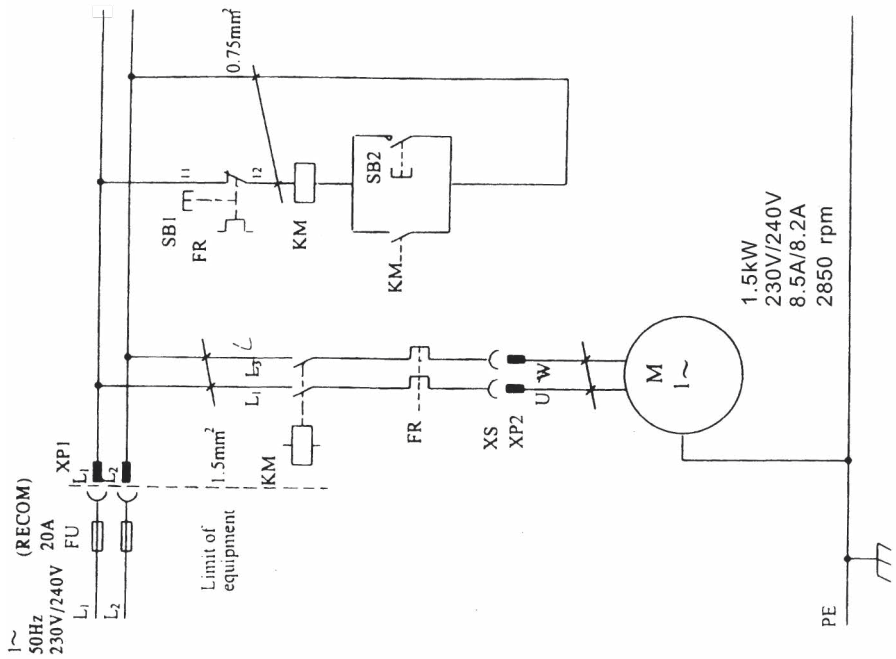
REF. NO.	PARTS NAME
30	Washer
31	Hex. Bolt
32	Rubber Roller
33	Snap Ring
34	Ball Bearing
35	Bush
36	Shaft
37	Snap Ring
38	Graphite Packing
39	Sanding Belt
40	Protection Cover
41	Bush
42	Square Neck Bolt
43	Upper Bracket
44	Washer
45	Spring Washer
46	Hex. Nut
47	Hex. Nut
48	Positioning Knob
49	Hex. Bolt
50	Lower Bracket
51	Hex. Bolt
52	Stand
53	Bottom Plate
54	Chip Outlet
55	Ball Knob
56	Loosen-Tighten Plate
57	Screw Shaft
58	Cam Shaft

REF. NO.	PARTS NAME
59	Cover Screw
60	Wave Washer
61	Adjusting Plate
62	Cover
63	Cover Plate
64	Washer
65	Spring
66	Tracking Knob
67	Cap Screw
68	Washer
69	Working Table
70	Hex. Bolt
71	Hex. Bolt
72	Sanding Stop Plate
73	Wing Nut
74	Screw
75	Support Plate
76	Eye Shield
77	Washer
78	Hex. Nut
79	Dust Collector
80	Screw
81	Rear Protector
82	Fan
83	Rear Support
84	Ball Bearing
85	Rotor
86	Stator Housing
87	Ball Bearing

REF. NO.	PARTS NAME
88	Front Support
89	Screw
90	Screw
91	Switch Box Cover
92	Screw
93	Switch Box
94	Screw
95	Supporting Plate
96	Strain Relief
97	Power Cord
98	Packing
99	Wiring Box Cover
100	Screw
※ 101	Capacitor Sleeve
※ 102	Running Capacitor
※ 103	Capacitor Cover
104	Plug
105	Plug Socket
106	Packing
107	Packing
※ 108	Strain Relief
109	Screw
110	Wire Connector
111	Wiring Box
112	Screw
113	Int. Washer
114	Copper Set
115	Ext. Washer
116	Hex. Bolt

※ Parts No. 101, 102, 103, 108 for 1 phase electricity only.

Electrical circuit diagram.



Electrical components Parts List.

Item Designation	Designation & Function	Technical Data	Remark
	D.O.L. starter	IP 54	VDE 0660 IEC 947
KM	Magnetic contactor	600 Vac, 20A	
FR	Overload relay for three phase	$\frac{2.8\sim4.2}{3.5}$ A	
FR	Overload relay for single phase	$\frac{7-11}{9}$ A	
SB1	push button for OFF		
SB2	push button for ON		
XS	Socket for three phase Socket for single phase	500 Vac, 10A 250 Vac, 15A	CSA UL
XP	Plug for three phase	500 Vac, 10A	
XP1 **XP2**	Plug for single phase	250 Vac, 16A	
	Cable for 3~ Cable for 1~	VCTF, 4 x 0.75mm² H07RN-F, 3 x 1.5mm²	

LIMITED WARRANTY

Industrial Tool & Machinery Sales (hereinafter referred to as ITMS) will, within twelve (12) months from the original date of purchase, repair or replace any goods found to be defective in materials or workmanship.
This warranty is void if the item has been damaged by accident, neglect, improper service or other causes not arising out of defects in materials or workmanship.
This warranty does not apply to machines and/or components which have been altered, changed, or modified in any way, or subjected to overloading or use beyond recommended capacities and specifications. Worn componentry due to normal wear and tear is not a warranty claim. Goods returned defective shall be returned prepaid freight to ITMS or agreed repair agent, which shall be the buyer's sole and exclusive remedy for defective goods. ITMS accepts no additional liability pursuant to this guarantee for the costs of travelling or transportation of the product or parts to and from ITMS or the service agent or dealer, such costs are not included in this warranty.

Our goods come with guarantees which cannot be excluded under the Australian Consumer Law. You are entitled to replacement or refund for a major failure and to compensation for other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

THE MANUFACTURER RESERVES THE RIGHT TO MAKE IMPROVEMENTS AND MODIFICATIONS TO DESIGN WITHOUT PRIOR NOTICE.

PRODUCTS IMPORTED AND DISTRIBUTED NATIONALLY BY:

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