Revision B 2024-05-28

INSTRUCTION MANUAL

Original Instructions

Circular Table Saw

MODEL : HW110SE-36 HW110SE-36T

HW110SE-52 HW110SE-52T

CE

298008101

Contents

1. Foreword 1

2. Warranty Information 1

3. Machine Description 2

3.1 Technical Parameters 2

3.2 Feature Identification 3

3.3 Optional Equipment 3

3.4 Intended Use 4

3.5 Electrical Power Requirements 4

4. Safety Regulations 5

4.1. General Safety Instructions 5

4.2. Table Saw Safety Instructions 5

4.3. Residual Risks 6

4.4. Safety Eequipment 6

5. Installation of the Machine 7

5.1 Transportation of Machines 7

5.2 Unpacking 7

5.3 Contents 7

5.4 Installation 9

6. Adjustment 15

6.1 Adjusting the Rip Fence 15

6.2 Aligning the Table T-slot Parallel with the Blade 15

6.3 Adjusting the 45°and 90°Positive Stops 15

6.4 Aligning Riving Knife with the Blade 16

7. Operations 17

7.1 Electrical Operation 17

7.2 Blade Elevation and Tilting Adjustment 17

7.3 Crosscutting 17

7.4 Ripping 17

8. Maintenance 18

9. Trouble Shooting 19

1. Vorwort 20
2. Garantieinformationen 20
3. Maschinenbeschreibung 21
3.1 Technische Parameter 21
3.2 Merkmalidentifikation 22
3.3 Optionale Ausstattung 22
3.4 Vorgesehene Verwendung 23
3.5 Elektrische Strombedarf 23
4. Sicherheitsvorschriften 24
4.1. Allgemeine Sicherheitsanweisungen 24
4.2. Sicherheitshinweise für Tischkreissägen 25
4.3. Restrisiken 25
4.4. Sicherheitsausrüstung 26
5. Installation der Maschine 26
5.1 Transport von Maschinen 26
5.2 Auspacken 26
5.3 Inhalt 27
5.4 Installation 29
6. Einstellung 35
6.1 Einstellen des Schnittanschlags 35
6.2 Ausrichten der T-Nut des Tisches parallel zum Blatt 35
6.3 Einstellen der 45°- und 90°-Festanschläge 35
6.4 Ausrichten des Spaltkeils mit dem Blatt 36
7. Operationen 37
7.1 Elektrische Operation 37
7.2 Einstellung der Sägeblatt-Höhe und -Neigung 37
7.3 Querschneiden 37
7.4 Längsschneiden 37
8. Wartung 38
9. Fehlerbehebung 39

10.Exploded View and Parts List 41

1. Foreword

This manual contains basic information for qualified operators and describes the normal usage of this machine in a typical shop environment.

This machine is equipped with various safety features intended to protect the operator. This manual cannot cover all potential safety aspects and the operator should be familiar with the operation of this type of machine and also read the entire manual before starting.

Any operation and installations errors discovered in this manual will be corrected immediately.

2. Warranty Information

Limited Warranty

Two years.

Proof of Purchase

Please keep your dated proof of purchase for warranty and servicing purposes.

Limited Tool Warranty

We make every effort to ensure that this product meets high quality and durability standards. We warrant that this product is free from manufacturing defects for two-year under the terms of a limited warranty. The two year term begins at the time of the retail purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, normal wear and tear, negligence or accidents, repairs done by an unauthorized service center, alterations or lack of maintenance. We shall in no event, be liable for death, injuries to persons or property or for incidental, special or consequential damages arising from the use of our products. To take advantage of this limited warranty, contact with your local distributor or our customer service center. After examination, we will repair or replace the product or any part(s) covered under this warranty due to defective workmanship or material(s) during the warranty period.

⚠WARNING

This product contains nickel, which is a known allergen. Prolonged or frequent contact may lead to skin irritation or allergic reactions in some individuals. If you have a known allergy to nickel, please take appropriate precautions. Use protective gloves if necessary and wash hands thoroughly after handling. If you experience symptoms of an allergic reaction such as a rash, itching, or swelling, seek medical attention promptly.

3. Machine Description

3.1 Technical Parameters

For European Market：

ITEM		HW110SE-36(T)	HW110SE-52(T)
Product Dimensions	Weight	262 kg (Approx.)	275 kg (Approx.)
	Length/Width/Height (mm)	1760x1050x1220mm	2165x1050x1220mm
	Footprint	533 x 560 mm	
Switch	Switch type	Magnetic with Thermal Overload Protection	
	Standard	CE	
Motor	Type	TEFC, Capacitor Start, Induction	
	Horsepower, Voltage, Phase, Amps	4kW, 380 V, 3PH, 8.3 A 2.2kW, 230 V, 1PH, 12 A	
	Speed	2850 RPM	
	Power Transfer	V-Ribbed Belt Drive	
Blade Information	Maximum Blade Diameter	250 mm	
	Riving Knife Thickness	2.5 mm	
	Maximum Width of Dado	20.3 mm	
	Blade Tilt	Left 0-45°	
	Arbor Diameter at Blade	30 mm	
	Arbor Speed	4000 RPM	
	Arbor Bearings	Sealed and Permanently Lubricated	
Cutting Capacities	Maximum Depth of Cut at 90°	70 mm	
	Maximum Depth of Cut at 45°	50 mm	
	Maximum Rip, Right of Blade	915 mm	1320 mm
	Maximum Rip, Left of Blade	228mm	
Table Information	Height	860mm	
	Cast Iron Table	800 x 1120 x 46.5 mm	
Miter Gauge	Miter Gauge Slot Type	T-Shape	
	Miter Gauge Size - Width/Height	19.05 × 9.525 mm	
Blade Guard	Type	CE Version Saw Blade Guard	
Fence	Fence Type	T-Square High and Low Fence	
	Fence Size	87mm x 50mm	
Other Information	Finish	Powder Coated	
	Dust Port Size	100mm	

3.2 Feature Identification

Refer to ***Fig.1.***

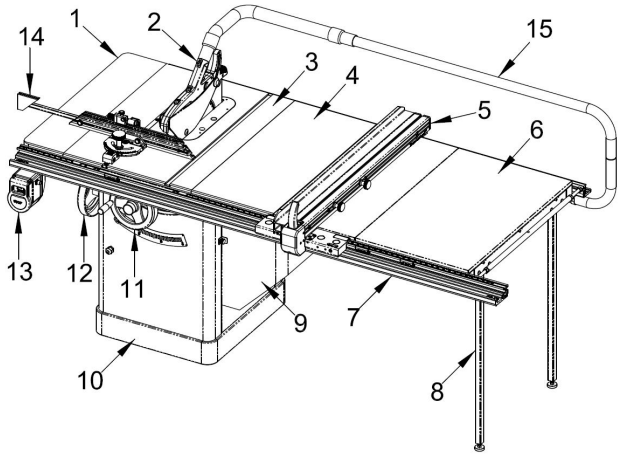


Fig.1

1	Left Extension Wing
2	Blade Guard
3	Main Table
4	Right Extension Wing
5	Fence Assembly
6	Extension Table
7	Rail Assembly
8	Support Leg
9	Motor Cover
10	Cabinet
11	Blade Elevation Hand Wheel
12	Blade Tilt Hand Wheel
13	On/Off Switch
14	Miter Gauge
15	Over Arm Dust Collection (system)

NOTE:

Fig.1 is only for illustration, and the actual object shall prevail.

3.3 Optional Equipment

Sliding table

Model: ST-1500

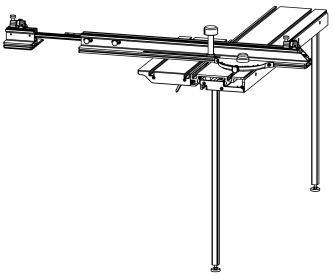


Fig.1-1

Universal Overhead Guard

Model: S-12S

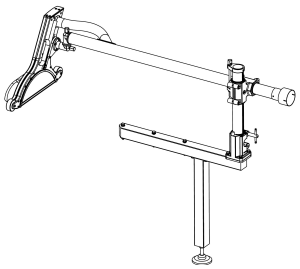


Fig.1-2

Universal Mobile Base

Model: MB-600

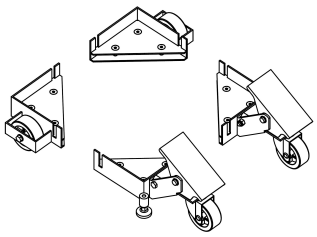


Fig.1-3

3.4 Intended Use

This table saw and the workpiece guide equipment supplied with it are intended to be used exclusively for the following purposes:

- Laminated and unlaminated board materials (e.g. chipboard, coreboard, MDF board, ...)
- Solid wood
- Gypsum plasterboard, Cardboard, Veneer with a suitable clamping device
- Dimensionally stable plastics (thermoset plastics, thermoplastics).

Tools:

- The chosen saw blade must be suitable both for the specific work cycle and for the specific material.
- Only circular blades which are solid chrome vanadium (CV) or tungsten carbide tipped (TCT) and have a diameter of 254mm (10”), arbor size of 15.875 mm (5/8”) or 30mm, as well as a maximum mounting width of 20.3 mm are allowed for the main saw.

Site of installation / use:

- The machine is not suitable for use outdoors, or in rooms that are subject to moisture or the risk of explosions.
- The intended use of the machine involves connection to a suitably dimensioned dust extraction system .
- Intended use also involves compliance with our specified operating, maintenance and repair conditions and the safety information contained in the operating instructions.
- The table saw may only be used, set up and maintained by persons who are familiar with the machine and aware of the dangers.
- The pertinent accident prevention regulations as well as any other generally recognized technical safety and industrial health rules must be observed.
- Repair work must be carried out by our own customer service or by an authorized repair center. Only original spare parts are allowed to be used on this machine. We will assume no warranty for any damage that is caused by using non-original spare parts.

⚠WARNING

The machine is prohibited from being used in a potentially explosive atmosphere!

3.5 Electrical Power Requirements

List of the motor usage & pre-wired voltage

Item	Motor	
	2.2kW	4 kW
Voltage(V)	230 V	380 V
Phase	1 PH	3 PH
Freq.(Hz)	50 Hz	50 Hz
Current A	12 A	8.3 A
Pre-Wired	220 V/1 PH	380 V/3 PH
Cords	3	5
Circuit Break	20A	

⚠WARNING

To avoid the accidental injury and damage to the machine, please check the name plate of the machine carefully to identify the power supply demand of the machine.

The Circuit Breaker with RCD module (30mA) shall be installed for supplying electric power to this machine, in order to protect people against electrical shock due to indirect shock。

4. Safety Regulations

4.1 General Safety Instructions

1. KNOW YOUR MACHINE.

Read and understand the owner's manual and labels affixed to the machine. Learn its application and limitations as well as its specific potential hazards;

2. GROUND THE MACHINE.

In the event of an electrical short, grounding reduces the risk of electrical short;

3. KEEP THE BLADE GUARDS IN PLACE.

Keep in good working order, properly adjusted and aligned;

4. REMOVE THE ADJUSTING TOOLS

Form a habit of checking that the key and adjusting wrenches are removed from the machine before turning it on;

5. KEEP THE WORK AREA CLEAN.

Cluttered areas and benches invite accidents. Make sure the floor is clean and not slippery due to wax and sawdust build-up;

6. AVOID A DANGEROUS ENVIRONMENT.

Don't use machines in damp or wet locations or expose them to rain. Keep the work area well lit and provide adequate surrounding work space;

7. KEEP CHILDREN AWAY.

All visitors should be kept a safe distance from work area;

8. MAKE WORKSHOP CHILD-PROOF.

With padlocks, master switches or by removing starter keys;

9. USE THE PROPER SPEED.

A machine will do a better and safer job when operated at the proper speed;

10. USE THE RIGHT MACHINE.

Don't force the machine or the attachment to do a job for which it was not designed;

11. WEAR THE PROPER APPAREL.

Do not wear loose clothing, gloves, neckties or jewelry (rings, watch) because they could get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair. Roll up long sleeves above the elbows;

12. MAINTAIN PROPER FOOTING.

Keep proper footing and balance at all time. Do not over-reach to perform an operation;

13. MAINTAIN THE MACHINE WITH CARE.

Keep tools sharp and clean for the best and safest performance;

14. DISCONNECT MACHINES.

Before servicing, when changing accessories or attachments;

15. AVOID ACCIDENTAL STARTING.

Make sure the switch is in the "OFF" position before plugging in;

16. USE RECOMMENDED ACCESSORIES.

Consult the manual for recommended accessories. Follow the instructions that accompany the accessories. The use of improper accessories may cause hazards;

17. NEVER STAND ON THE MACHINE.

Serious injury could occur if the machine tips over. Do not store materials such that it is necessary to stand on the machine to reach them;

18. CHECK FOR DAMAGED PARTS.

Before further use of the machine, a guard or other parts that are damaged should be carefully checked to ensure that they will operate properly and perform their intended function. Check for alignment of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other parts that are damaged should be properly repaired or replaced;

19. NEVER LEAVE THE MACHINE RUNNING UNATTENDED.

Turn the power to "off". Do not walk away from the machine until it comes to a complete stop;

20. ADEQUATE LIGHT

Ensure that adequate general or localized lighting is provided in work area;

4.2 Table Saw Safety Instructions

1. ALWAYS USE A GUARD.

Always use a guard, splitter on all "thru-sawing" operations. Thru-sawing operations are those when the blade cuts completely through the work piece as in ripping or crosscutting;

2. ALWAYS HOLD THE WORK.

Always hold the work firmly against the miter gauge or fence;

3. ALWAYS USE A PUSHSTICK OR PUSH BLOCKS.

Push blocks or push sticks shall be used when cutting small workpieces and in circumstances where it is necessary to push the workpiece against the fence;

4. NEVER PERFORM UNSAFE OPERATIONS.

Never perform any operations "free-hand" which means using your hands to support or guide the work piece. Always use either the fence or the miter gauge to position and guide the work piece;

5. STAND TO THE SIDE WHEN FEEDING MATERIAL.

Never stand or have any part of your body in line with the path of the saw blade;

6. USE CAUTION WHEN REACHING FOR OBJECTS.

Never reach behind or over the cutting tool with either hand for any reason;

7. SAFE CROSSCUTTING OPERATIONS.

Move the rip fence out of the way when crosscutting;

8. ENSURE CORRECT FEEDING OF MATERIAL.

Feed the work into the blade against the direction of rotation;

9. CORRECT USAGE WITH THE FENCE.

Never use the fence as a cut-off gauge when you are cross-cutting;

10. ALWAYS TURN THE POWER TO THE "OFF" POSITION.

When attempting to free a stalled saw blade, always turn the saw to the "off" position;

11. PROVIDE ADEQUATE SUPPORT.

To the rear and sides of the table saw for wide or long work pieces;

12. AVOID KICKBACKS.

Avoid kickbacks (work thrown back towards you) by keeping the blade sharp, by keeping the rip fence parallel to the saw blade, by keeping the splitter and guard in place and operating, by not releasing work before it is pushed all the way past the saw blade, and by not ripping work that is twisted or warped or does not have a straight edge to guide along the fence;

13. AVOID AWKWARD OPERATIONS.

Avoid awkward operations and hand positions where a sudden slip could cause your hand to move into the spinning blade;

14. CORRECT SAW BLADE USAGE.

No saw blade shall be used where the maximum marked speed is lower than the maximum rotational speed of the saw spindle;

15. CHIP AND DUST.

The machine shall be connected to an external chip and dust extraction system;

The dust extraction equipment is to be switched on before commencing machining;

4.3 Residual Risks

1. Take precautions to reduce the hazard of inhalation of harmful dust (e.g. wearing a dust mask);
2. Wear ear protection to prevent hearing loss;
3. Always wear safety glasses. Also, use a face or dusk mask if the cutting operation is dusty;
4. Protect against the hazard of being cut when handling saw blades in the machine or while performing maintenance on the machine;
5. Do NOT try to remove chips while the saw is running or the saw blade is moving;
6. Do NOT use the machine unless all of the guards and other safety devices necessary for the particular operation are in good working order and in place.

4.4 Safety Equipment

When cutting narrow workpieces, a Push Block must be used. Push the work piece against the fence if necessary. A push block can be easily made by the operator as shown in *Fig.2*.

If the workpieces is less then 4-3/4” (120 mm), you must use the push stick, as shown in Fig.3, to prevent your hands from getting too close to the saw blade.

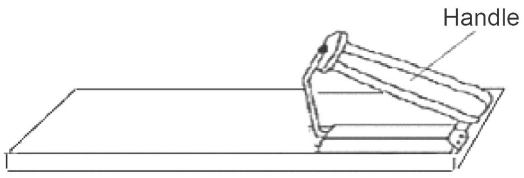


Fig.2

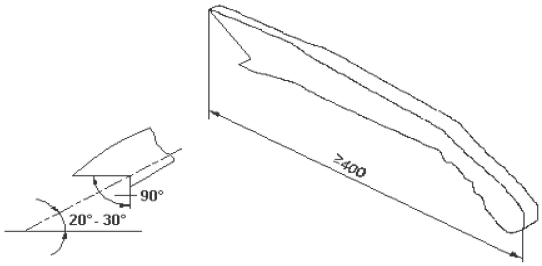


Fig.3

5. Installation of the Machine

5.1 Transportation of Machines

5.1.1 Transportation and store

This machine has been well packaged and rust preventive measures have been taken at the factory. Care should still be taken to insure that no damage comes from rough handling while moving. Ambient temperatures of -10 to 130 ℉ (-25 to 55 ℃) can be endured by this machine.

Be careful not to expose this machine to rain or other severe weather.

⚠ WARNING

While transporting or handling the machine, be careful and let the activity be done by qualified personnel especially trained for this kind of activity!

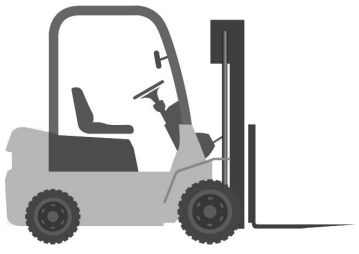
While the machine is being loaded or unloaded, make sure all persons are out of the way so that no person is crushed by the machine.

Select the proper transportation device according to the weight of the machine. Make sure the lifting capacity of the transportation device is sufficient for the weight of the machine.

5.1.2 Transportation before unpacking

This machine is packed in a robust cardboard box. ***Fig.4*** shows the device which can be used to transport the packed crate.

Fig.4



5.2 Unpacking

Your machine was carefully packaged for safe transportation. Remove the packaging materials from around your machine and inspect it. If you discover that the machine is damaged, please immediately call Customer Service for advice.

Save the containers and all packing materials for possible inspection by the carrier or its agent. Otherwise, filing a freight claim can be difficult.

Note: If you can't find an item on this list, check the mounting location on the machine or examine the packaging materials carefully. Occasionally we pre-install certain components for shipping purposes, or in other packing.

5.3 Contents

The product is packed by four individual boxes as follows:

Main machine box contents:
(Fig.5-1-----Fig.5-6)

A. Main table saw unit.....1
B. Motor cover.....1
C. Left extension wing.....1
D. Right extension wing.....1
E. Extension table (width 365 mm).....1
(Only for HW110S-52)
F. Extension table (width 505 mm).....1
G. /
H. Saw blade.....1
I. Wrench open-ends 22-24 mm.....1
J. Wrench open-end 18-27 mm.....1
K. Push stick.....1
L. Hex wrench set (eight pieces).....1
M. Dado table insert.....1
N. Handwheel handle.....1
O1. Blade guard assembly.....1
(CE Version saw blade guard)
O2. Blade guard assembly.....1
(GLIDER saw blade guard)
P. Miter gauge.....1
Q.Leg.....2

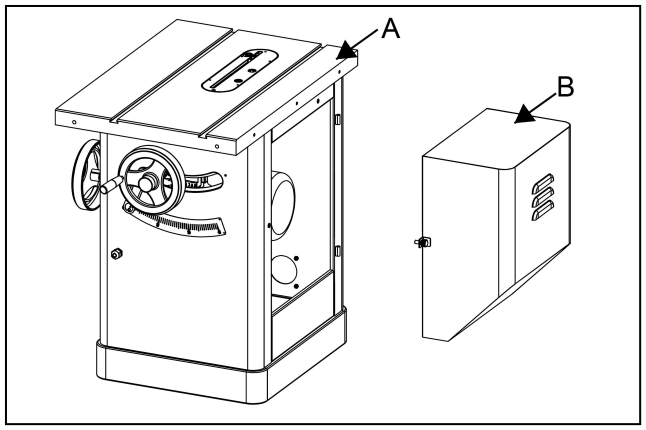


Fig.5-1

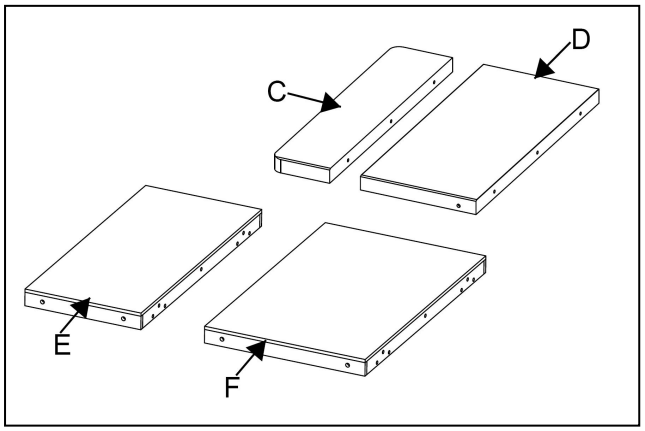


Fig.5-2

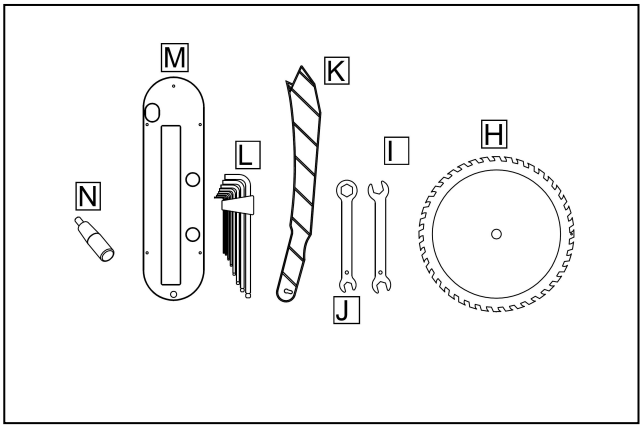


Fig.5-3

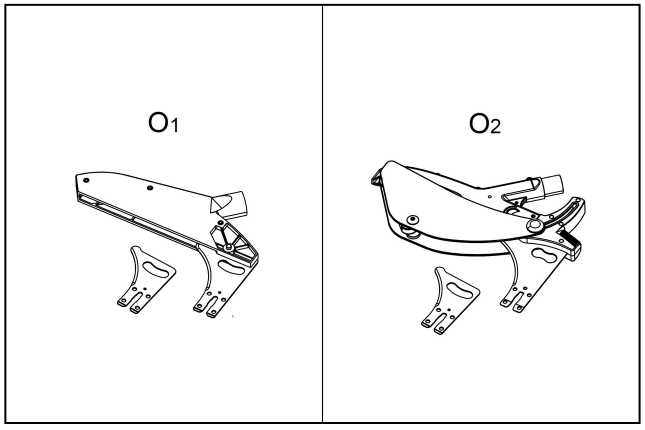


Fig.5-4

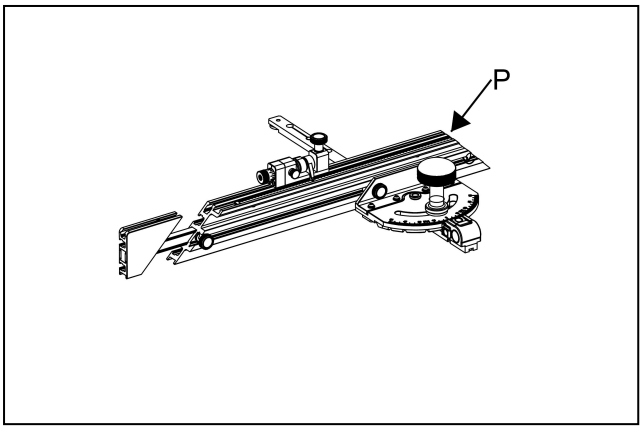


Fig.5-5

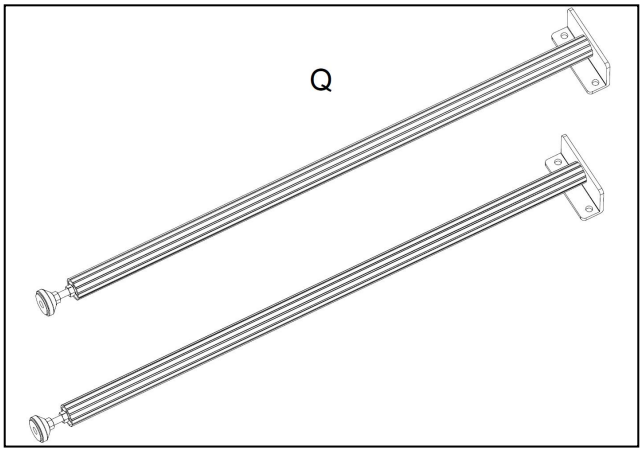


Fig.5-6

Fence box contents: (Fig.5-7)

Please refer to the Instruction Manual of BIG EYE RIP FENCE SYSTEM for the list.

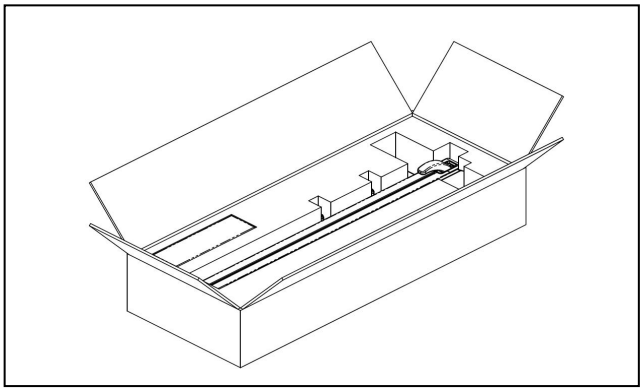


Fig.5-7

Rail box contents: (Fig.5-8)

Please refer to the Instruction Manual of BIG EYE RIP FENCE SYSTEM for the list.

Note：

The assembly contains the corresponding hardware which is not shown in the figure, and can be checked with the exploded view.

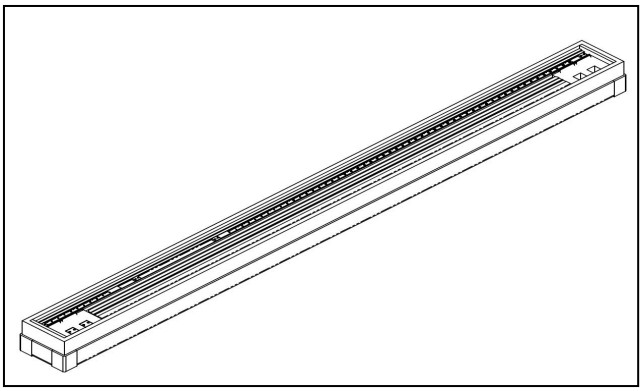


Fig.5-8

Note：

There are two types of the guide rails, please have a check according to the name plate of the machine:

1. 36” guide rail is for HW110S-36.

2. 52” guide rail is for HW110S-52.

Over arm box contents: (Fig.5-9)

A. Over arm……1
B. Flexible hose (length 0.6 m)……1
C. Flexible hose(length 1 m)……1
D. Bracket……2
E. Support legs……2

Note：

The assembly contains the corresponding hardware which is not shown in the figure, and can be checked with the exploded view.

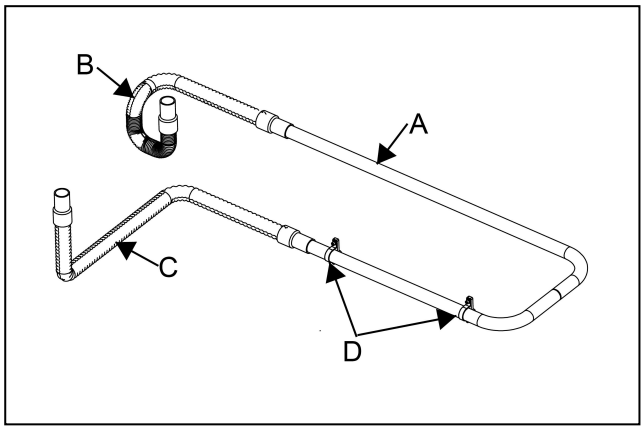


Fig.5-9

5.4 Installation

Before beginning assembly, take note of the following precautions and suggestions:

FLOOR: This tool distributes a large amount of weight over a small area. Make certain that the floor is capable of supporting both the weight of the machine and the operator. The floor should also be a level surface. If the unit wobbles or rocks once in place, be sure to eliminate the wobble by using shims.

WORKING CLEARANCES: It is important to maintain a free area of 31-1/2” (0.8 m) around the machine, which is required for the working area. If any long material is to be cut, it is necessary to have sufficient room both in front of the machine as well as behind it for material infeed and outfeed.

OUTLET PLACEMENT: Outlets should be located close enough to the machine so that the power cord or extension cord is not in an area where it would cause a tripping hazard.

⚠WARNING

DO NOT assemble the machine until you are certain that the machine is not plugged in and the power switch is in the OFF position.

DO NOT connect the machine to the power source until you read and understand the entire User Manual.

5.4.1 Remove the pallet

The machine is fixed on the pallet by M8 hex bolts. Before installing, please take off the accessories on the pallet and in the cabinet. Then move the machine out after removing the set bolts under the pallet, as shown in **Fig.6**. Locate the machine at appropriate place.

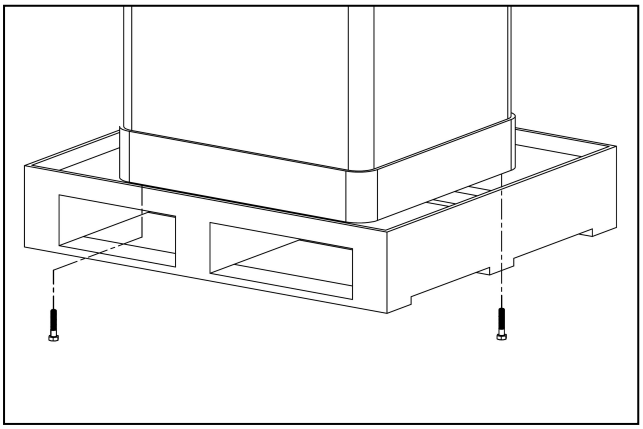


Fig.6

5.4.2 Hand-wheel handle installation

Install the handle into the Blade Tilt hand-wheel as shown in **Fig.*7.***

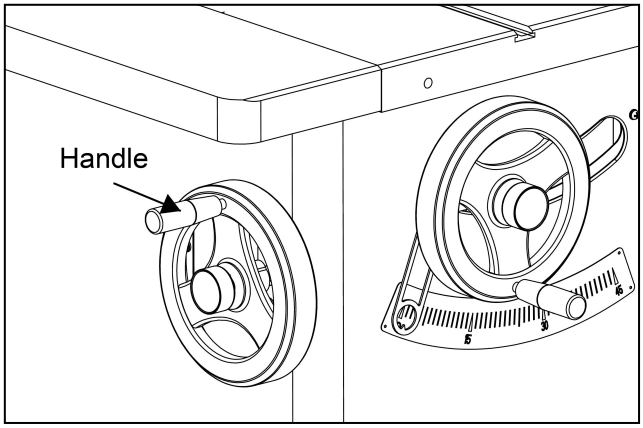


Fig.7

5.4.3 Extension wings installation（Fig.8）

The machine is equipped with a cast iron extension wing on each side of the main table. The mounting bolts of extension wings are pre-mounted in the threaded holes on the main table sides. Install the extension wings as follows:

1. Remove the screws from the sides of the main table;

2. Inspect the extension wings and main table mating surfaces for burrs or foreign materials that may inhibit assembly; the mating edges of the tables must be clean and flat, use a wire brush or sand paper if necessary to clean up the edges;

3. Attach the wings to the main table by using the screws removed in step 1;

4. Use a straightedge to check whether that the main table is coplanar with the extension wing. If not, use a strip of masking tape to shim the extension wing up or down, as directed by the arrow in Fig.8 .

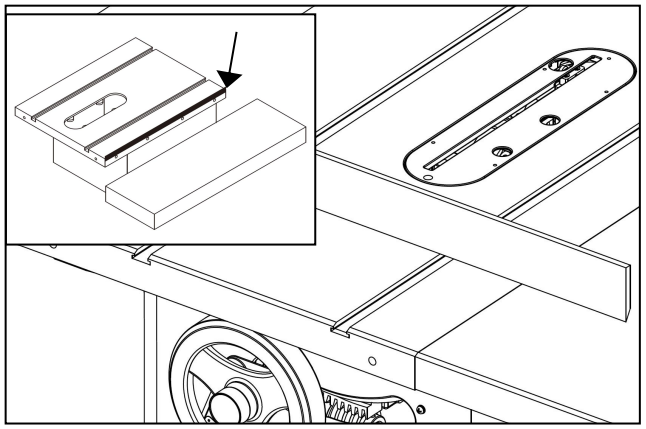


Fig.8

5.4.4 Install the rail & extension table

Please refer to the Instruction Manual of BIG EYE RIP FENCE SYSTEM for detailed operation.

5.4.5 Install the switch（*Fig.9*）

The switch is mounted on the lower left side of the guide rail by using two sets of bolts which placed in the fence packaging box.

For North America area, it is equipped with the 6-20P plug;

For other areas, **Single-phase electric system** is equipped with the industrial plug of European standard. If there’ s no matched outlet, you can change the plug to a new one of 16A which meets the local power regulation.**The three-phase system** has no plug.

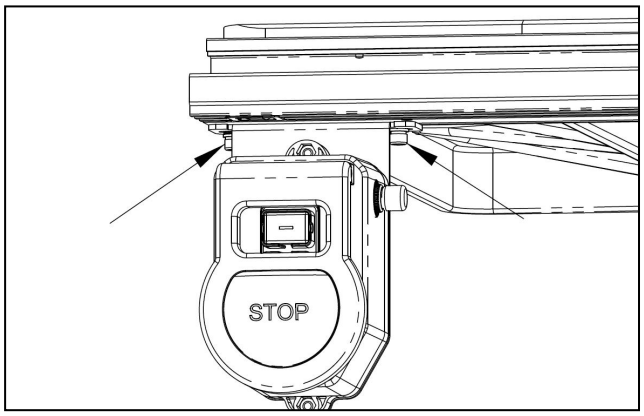


Fig.9

5.4.6 Install the blade

1. Remove the table insert;

2. Rise the arbor all the way up and set the blade angle at 0º;

3. Remove the arbor nut and arbor flange from the arbor, slide the saw blade onto the arbor, making sure the teeth face the front of the saw, then install the arbor flange and arbor nut onto the blade;

4. Use the included wrenches to tighten the arbor nut (turn clockwise to tighten), refer to ***Fig.10.***

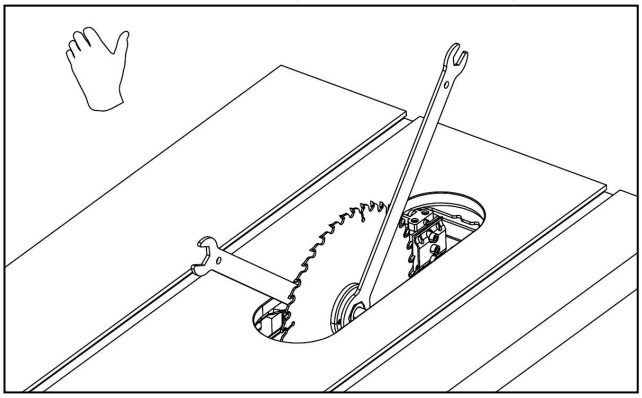


Fig.10

5.4.7 Install the blade guard

1. Slide the knurled knob out (refer to ***Fig.11)*** and rotate it forward so it engages the upper bracket.

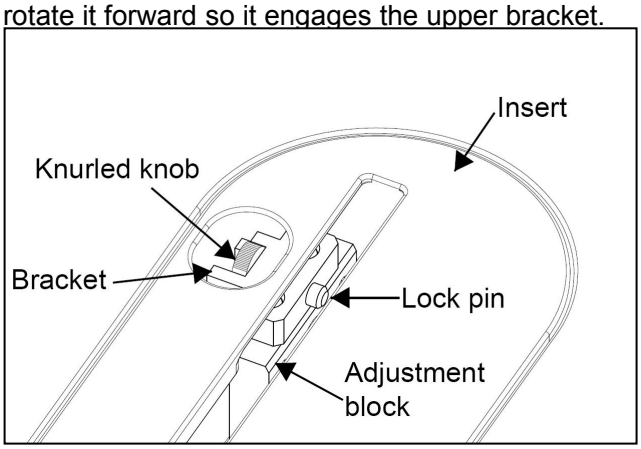


Fig.11

2. Slide the blade guard spreader all the way down into the block, then rotate the knurled knob so it disengages the bracket and the locking pin engages the hole in the center of the spreader.

3. Fig.12 (A) shows the blade guard, meeting the UL62841 standard, is suitable for the North American market. Fig.12(B) shows the blade guard meeting the CE standard. For different markets, the machine is equipped with different blade guards, please refer to the chapter “3. Machine Description” for detailed information.

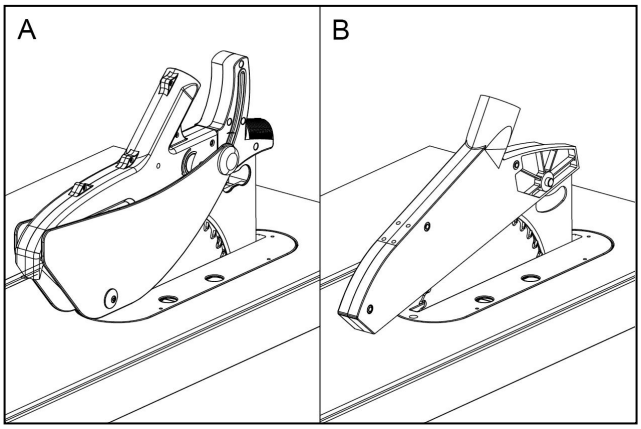


Fig.12

⚠WARNING

Check if the saw blade is tightened before operating the machine.

Give the spreader an upward tug to verify if it is locked in place.

5.4.8 Extraction system

⚠NOTICE

A dust collection device should be used by the customer，the dust extraction equipment must be switched on before commencing machining.

1. Installation of the Dust Outlet (Fig.13).

As shown in **Fig.13**, secure the dust outlet to the cabinet, and then connect the bellows to the dusto utlet.

Note: The mounting hardware of the dust outlet is pre-mounted on the cabinet.

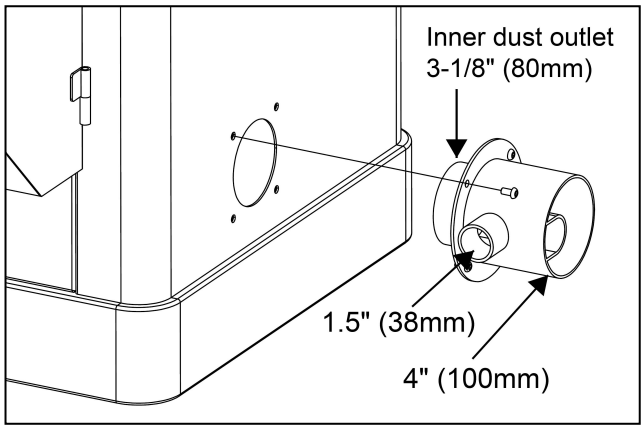


Fig.13

2. Installation of the over arm(Fig.14):

a. Fit the bracket (A) to the rear rail with screw (B).

b. Fit the over arm to the bracket (A) with clip (C).
(Total 2 sets of clasps)

c. Connect the pipe (1.5”) provided by us to the dust outlet as **Fig.14** shows.

Note：All the hardware here is pre-mounted on the over arm assembly.

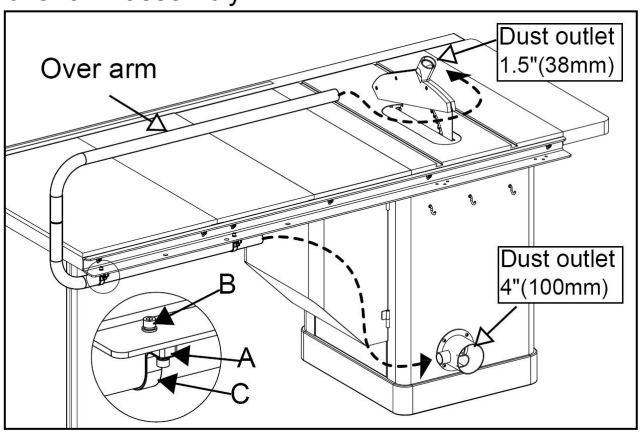


Fig.14

Requirements for the dust collector:

1. Required air flow: 470 CFM (800 m³/h).

2. Ensure pressure drop of each dust collector outlet carrying air current speed: 1100Pa

3. Dry chips: 3937 FPM (20 m/s).

4. Wet chips: 5511 FPM (28 m/s). (water content is equal to 18%)

5.4.9 Motor cover installation

Install the motor cover by inserting the door pins into the hinge sockets on the cabinet as shown in **Fig.15.**

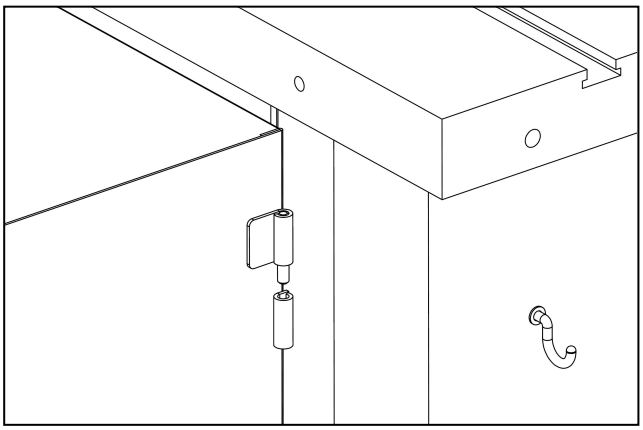


Fig.15

5.4.10 Miter gauge installation

This machine is equipped with the MG-36 Miter Gauge. This miter gauge is mainly used for guiding workpiece while cross cutting and miter cutting.
Please refer to the MG-36 Miter Gauge Manual for detailed installation.

5.4.11 Electrical installation

⚠WARNING

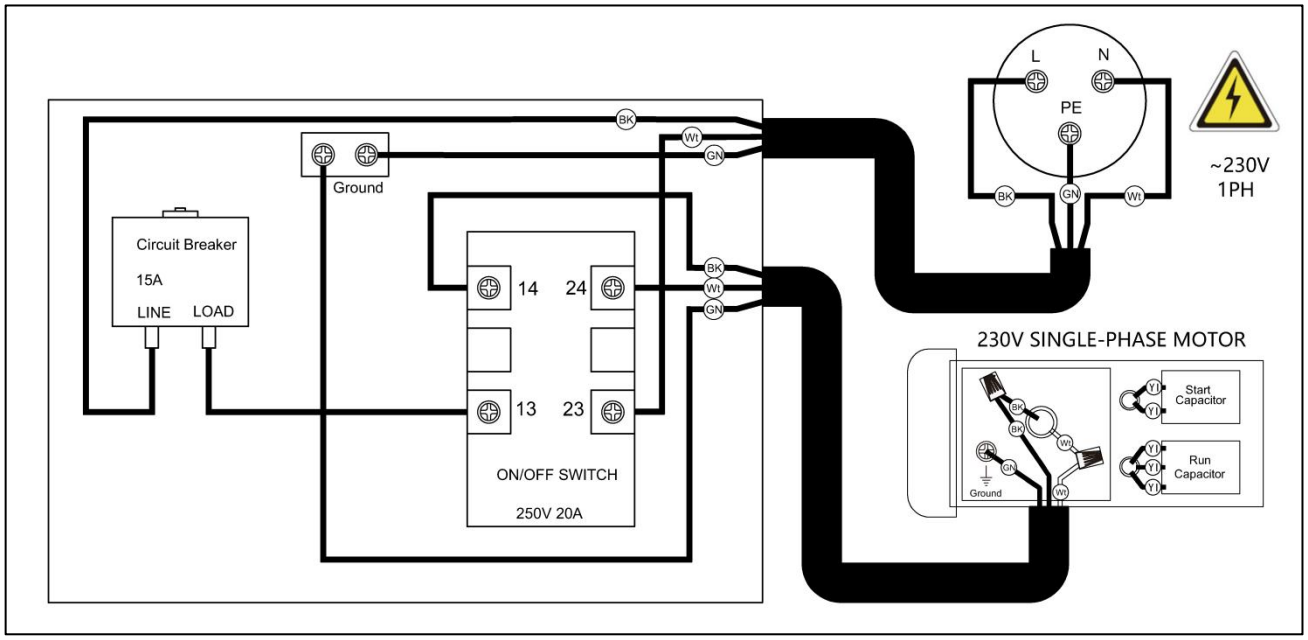
Wiring should only be done by professional electricians.
Always make sure the machine is properly grounded. All exposed conductive parts should be connected to the protective ground circuit.
An over-voltage protection device should be provided by end user.
The circuit breaker shall be installed to supply electric power to this machine, in order to protect people against electrical shock due to incidental contact.

Check that the voltage and frequency required by the machine, which is shown on the machine's name plate, correspond to the electric power supply voltage and frequency.
Ensure IP54 protection class for the incoming cable when the finished installation is in place.
For single-phase motor, the equipment is equipped with a plug.
For there-phase motor, only power cables are reserved.

Checking:
After finishing wiring in place, at minimum, check the following items:
1. Check the direction of motor and change the wiring if necessary.
2. Check the components for defects, such as damaged cable or plug.
3. Check the function of the "OFF" button.

ELECTRICAL DIAGRAM

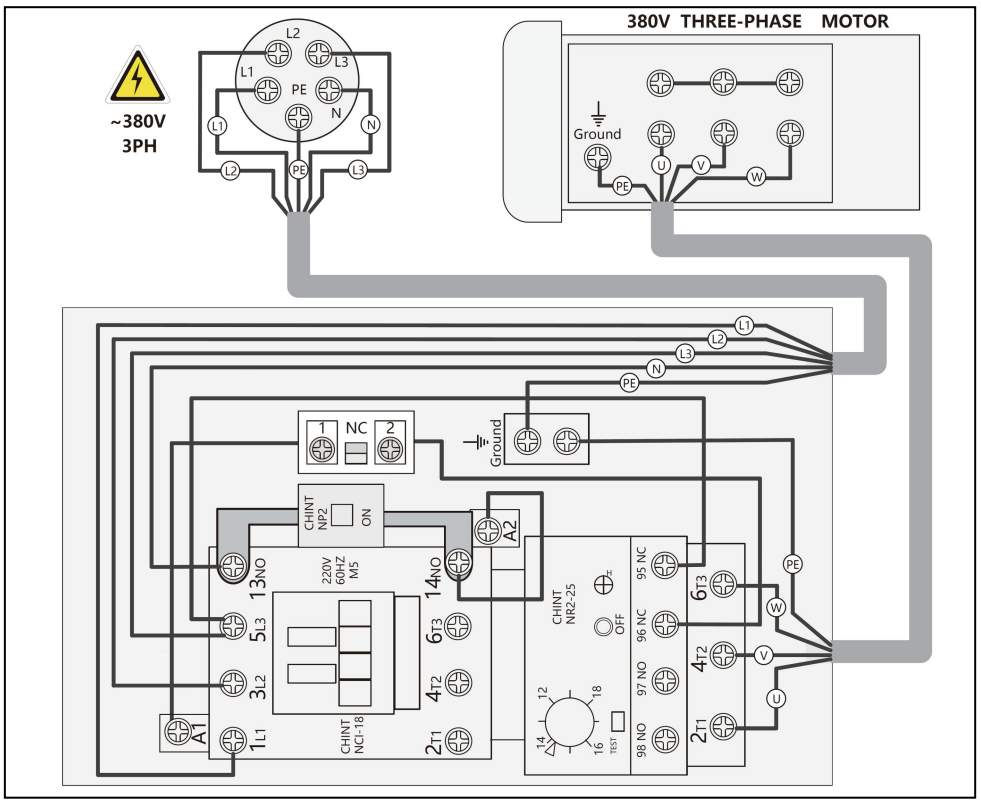
2.2kW/230V/50Hz/1PH



Remark:

1. The colour of single core may differ with the illustration above in different areas.
2. Single-phase power supply range: 200-240 V.
3. Meeting the CE standard, this electrical diagram is designed for European and Asian areas.

4kW/380V/50(60)Hz/3PH



Remark:

1. The colour of single core may differ with the illustration above in different areas.

2. Three-phase power supply range: 380-415 V.

3. Meeting the CE standard, this electrical diagram is designed for European and Asian areas.

4. There is no plug involved for three-phase electric equipment. Customers need to configure the plug that meets local standard or directly connect the equipment to the electrical box.

6. Adjustment

⚠ NOTICE

Before operation, Please make adjustments as followings:

6.1 Adjusting the Rip Fence

Before using the rip fence, the parallelism and perpendicularity must be aligned correctly. Please refer to the Instruction Manual of BIG EYE RIP FENCE SYSTEM for detailed operation.

6.2 Aligning the Table T-slot Parallel with the Blade

1. The table T-slot must be aligned parallel with the blade. Using a combination square measure the distance from the back edge of the blade to the table T-slot. Pivot blade forward 180º and re-measure the distance using the exact same point on the blade. The difference between both measurements must be less than 0.2mm. Refer to ***Fig.16.***

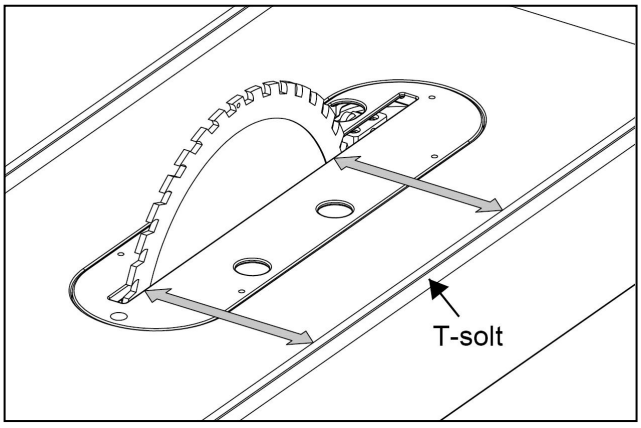


Fig.16

2. If an adjustment is necessary, loosen the screws identified in **Fig.17** which mount the table to the cabinet. Make the needed adjustment until both measurements are equal or less than 0.2 mm. and re-tighten the screws.

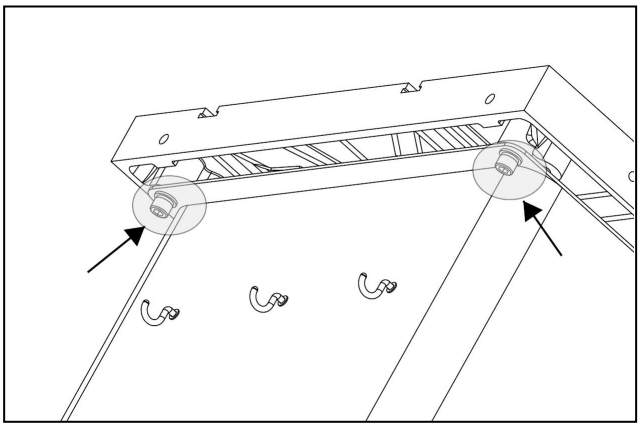


Fig.17

6.3 Adjusting the 45° and 90° Positive Stops

The tilt mechanism has adjustable stops for 45° and 90°. The machine comes factory-set but should any positioning deviation of the blade occur, you can re-adjust the stops. Refer to **Fig.18**.

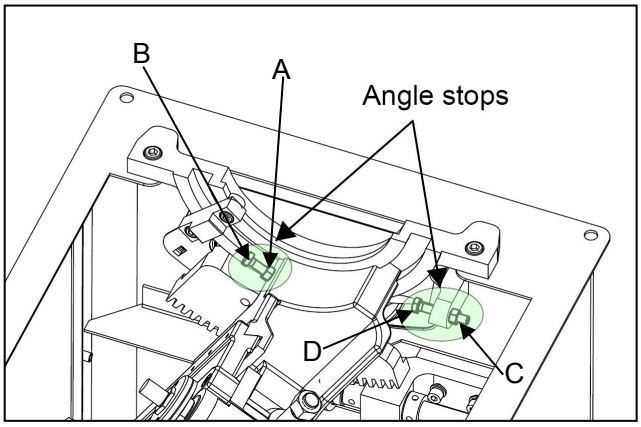


Fig.18

To adjust the 45° Positive Stop: open the motor cover on the right side of the machine. Then loosen the locking nut (A) and adjust the limit screw (B) until it contacts with the positive stop. Tighten the locking nut(A).

To adjust the 90° Positive Stop: loosen the screws of the repair panel on the left side of the machine and take off the repair panel. Then loosen the locking nut(C) and adjust the limit screw (D) until it contacts with the positive stop. Tighten the locking nut(C).

6.4 Aligning the Riving Knife with Blade

The riving knife must be aligned with the blade. If not properly aligned, the riving knife will force the workpiece sideways during the cut, increasing the risk of kickback. Place a straightedge against the blade and the riving knife and check if the riving knife is in the "alignment zone," refer to **Fig.19**.

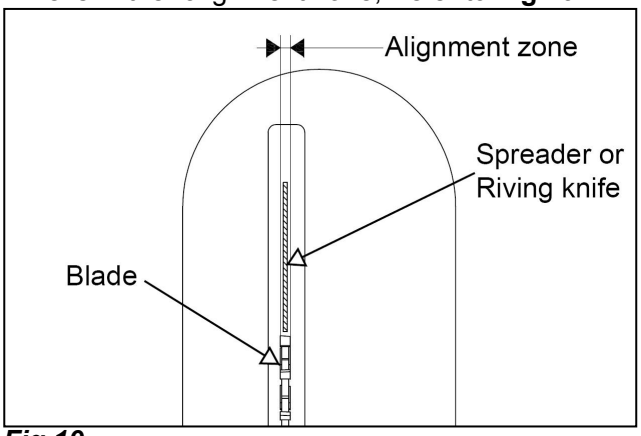


Fig.19

If it is not aligned properly, please adjust as following (**Fig.20**):

1. Disconnect the saw from the power source.

2. Remove the table insert.

3. Loosen the upper and lower cap screws (B), then adjust the set screws (A) in or out until the alignment is perfectly parallel, then tighten the screws (A) and (B).

4. Re-install the table insert.

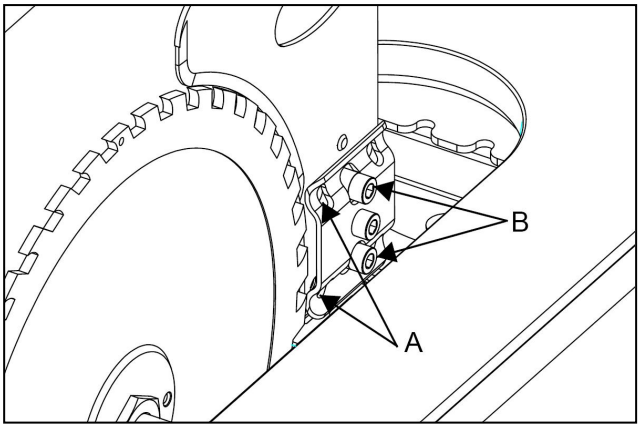


Fig.20

⚠ NOTICE

1. Riving knives shall be manufactured from steel with an ultimate tensile strength of 580 N/mm^2 or of a comparable material, have flat sides (within 0.1 mm per 100 mm) and shall have a thickness less than the width of a cut (kerf) and at least 0.2mm greater than the saw blade plate. As shown in ***Fig.21.***

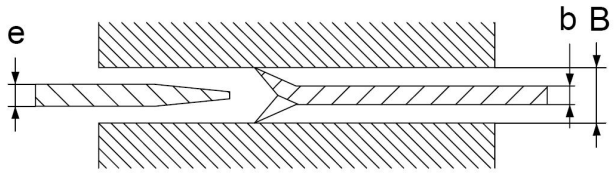


Fig.21

Key:

e riving knife thickness

b saw blade base

B kerf (width of saw blade cut)

2. The distance of the riving knife from the gear rim must be between 3 mm and 8 mm measured radially through the center of the saw spindle. As shown in **Fig.22**.

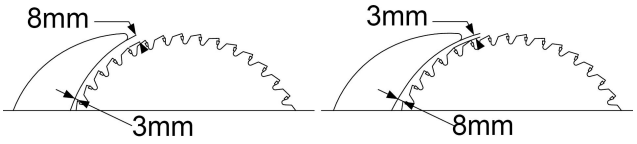


Fig.22

3. The highest point of the riving knife must be set beneath the topmost teeth.

7. Operations

7.1 Electrical Operation

The actual object shall prevail. Refer to ***Fig.23.***

"ON" Button: Start the machine.

"OFF" Button: Stop the machine.

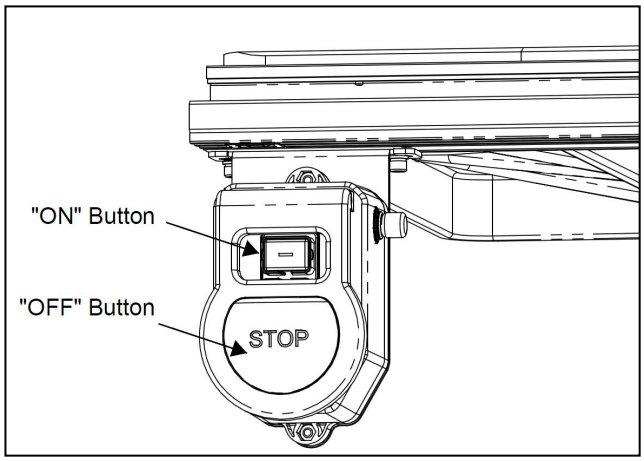


Fig.23

7.2 Blade Elevation and Tilting Adjustment

To adjust the blade elevation : Loosen the lock knob (C) as shown in ***Fig.24*** and turn the elevation hand wheel (D). When the desired height is obtained, re-tighten the knob (C). The blade should be raised 1/8" to 1/4" above the top surface of the material being cut.

To adjust the blade tilting : Loosen the lock knob (B) and turn the hand wheel (A). When the desired angle is obtained, re-tighten the knob (B). Refer to ***Fig.24.***

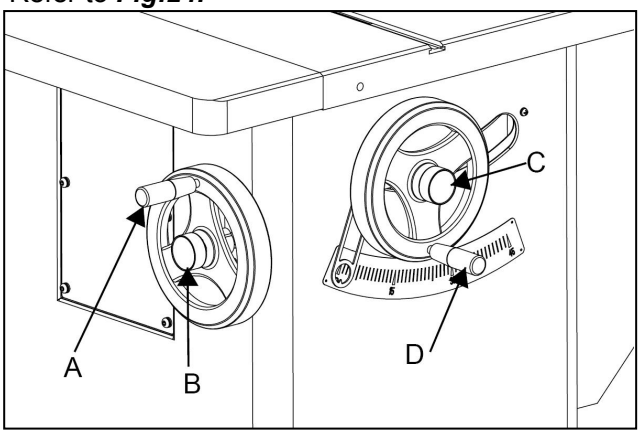


Fig.24

7.3 Crosscutting

"Crosscutting" means cutting across the grain of a natural wood workpiece. In other man-made materials, such as MDF or plywood, crosscutting means cutting across the width of the workpiece.

Crosscutting requires the use of the miter gauge to position and guide the work. Place the work against the miter gauge and advance both the miter gauge and work toward the saw blade.

Start the cut slowly and hold the work firmly against the miter gauge and the table. One of the rules in running a saw is that you never hang onto or touch a free piece of work. Hold the supported piece, not the free piece that is cut off. The feed in crosscutting continues until the work is cut in two, then the miter gauge and work are pulled back to the starting point. Before pulling the work back, it is good practice to give the work a little sideways shift to move the work slightly away from the saw blade. Never pick up any short length of free work from the table while the saw is running. A smart operator never touches a cut-off piece unless it is at least a foot long. Never use the fence as a cut-off gauge when crosscutting. Never use the miter gauge in combination with the rip fence.

7.4 Ripping

"Ripping" means cutting with the grain of a natural wood workpiece. In other man-made materials such as MDF or plywood, ripping simply means cutting lengthwise.

The rip fence is used to position and guide the work. One edge of the work rides against the rip fence while the flat side of the board rests on the table. Since the work is pushed along the fence, it must have a straight edge and make solid contact with the table. The saw guard must be used. The guard has a splitter to prevent the saw kerf from closing.

Start the motor and advance the work holding it down and against the fence. Never, stand in the line of the saw cut when ripping. Hold the work with both hands and push it along the fence and into the saw blade..

Alternately, the feed can continue to the end of the table, after which the work is lifted and brought back along the outside edge of the fence. The waste stock remains on the table and is not touched with the hands until the saw is stopped unless it is a large piece allowing safe removal.

8. Maintenance

This table saw has TEFC motor and sealed lubricated bearings, which requires very little maintenance other than minor lubrication and cleaning. Please do the maintenance as following contents.

LUBRICATION

Clean off the wood chips on the worm gears and trunnions and apply the grease to keep them lubricated.

Lubricate once a month.

CLEANING

Clean the wood chips on the table surface and in the cabinet.

Clean once a day.

CHANGING BELT

⚠WARNING

Make sure the power cord is disconnected from the power source!

1. Lower the blade completely, then open the motor cover (right side), remove the repair panel (left side), refer to ***Fig.25.***

2. Loosen the hex bolt that secures the motor and raise the motor fully to remove tension on the V-Ribbed belt. Roll the V-Ribbed belt off.

3. Raise the motor and install a new V-Ribbed belt onto the pulleys, lower the motor to tension the V-Ribbed belt, then tighten the hex bolt.

4. Close the motor cover and repair panel.

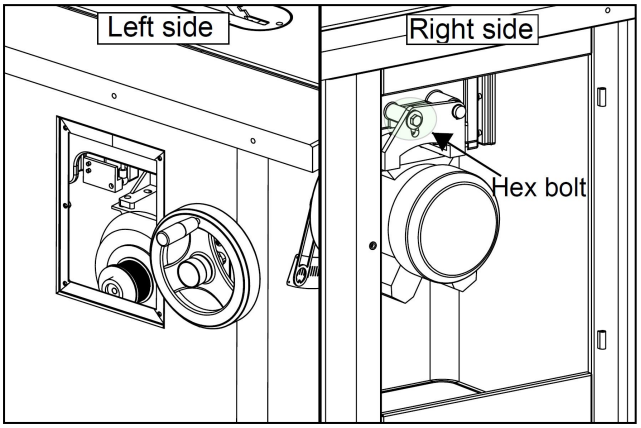


Fig25

9. Trouble Shooting

PROBLEM	SOLUTION
SAW WILL NOT START	
1. Saw not plugged in.	1. Plug in saw.
2. Fuse blown or circuit breaker tripped.	2. Replace fuse or reset circuit breaker.
3. Cord damaged.	3. Have cord replaced by a certified electrician.
OVERLOAD KICKS OUT FREQUENTLY	
1. Extension cord too long or gauge size too small.	1. Replace with adequate size cord
2. Feeding stock too fast.	2. Feed stock more slowly.
3. Blade in poor condition (dull, warped, gummed).	3. Clean or replace blade.
4. Blade binding due to misaligned rip fence.	4. Check and adjust the rip fence. Refer to rip fence instructions.
5. Blade binding due to warped wood.	5. Select another piece of wood.
6. Low house current.	6. Contact your electrical company.
DOES NOT MAKE ACCURATE 45 AND 90 RIP CUTS	
1. Positive stop(s) not adjusted properly.	1. Check blade with square and adjust positive stop.
2. Tilt angle pointer not set properly.	2. Check blade with square and adjust pointer to zero.
MATERIAL PINCHES BLADE WHEN RIPPING	
1. Rip fence not aligned with blade.	1. Check and adjust rip fence.
2. Warped wood.	2. Select another piece of wood.
MATERIAL BINDS ON SPLITTER	
1. Splitter not aligned correctly with blade.	1. Check and align splitter with blade.
SAW MAKES UNSATISFACTORY CUTS	
1. Dull blade.	1. Replace blade.
2. Blade mounted backwards.	2.Turn blade around.
3. Gum or pitch on blade.	3. Remove blade and clean with terpentine and steel wool.
4. Incorrect blade for work being done.	4. Change the blade.
5. Gum or pitch on table causing erratic feed.	5. Clean the table with turpentine and steel wool.
BLADE DOES NOT COME UP TO SPEED	
1. Extension cord too light or too long.	1. Replace with adequate size extension cord.
2. Low house current.	2. Contact your electric company.
3. Motor not wired for correct voltage.	3. Refer to motor and /or nameplate.
MACHINE VIBRATES EXCESSIVELY	
1. Table not mounted securely to cabinet stand.	1. Tighten all mounting hardware.
2. Stand is on uneven floor.	2. Reposition on flat level surface.
3. Damaged saw blade.	3. Replace blade.
4. Bad V-Ribbed belt.	4. Replace V-Ribbed belt.
5. V-Ribbed belt is not tensioned properly.	5. Adjust V-Ribbed belt tension.
6. Improper motor mounting.	6. Check and adjust motor mounting.
7. Loose hardware.	7. Tighten all nuts, bolts and set screws.