

Operator's Manual

TABLE SAW



W452

SB-12

5/6/2013

CAUTION: Read and follow all Safety Rules and Operating Instructions before First Use of this Product.

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PRODUCT SPECIFICATIONS

Model		TJZ10/2	TJZ12/2
Motor		2200W (3HP)	2200W (3HP)
Table Size		1030x685 mm	1030x685 mm
Saw Blade		Φ 254 mm	Φ 305 mm
Max Cutting thickness		90° 80mm / 45° 55mm	90° 105mm / 45° 70mm
Blade angle		90° ~45°	90° ~45°
Blade Speed	50Hz	3800 r / min	3800 r / min
	60Hz	4560 r / min	4560 r / min

WARNING: To avoid electrical hazards, fire hazards, or damage to the machine, use proper circuit protection. Use a separate electrical circuit for your machines. To avoid shock or fire, replace power cord immediately if it is worn, cut or damaged in any way.

Application conditions

This table saw is designed for operating under ambient temperatures between +5⁰C and 40⁰C and for installation at altitudes no more than 1000m above M.S.L. The surrounding humidity should less than 50% at 40⁰C. It can be stored or transported under ambient temperatures between -25⁰C and 55⁰C.

SAFETY

GENERAL

- | Before putting into use, fault loop impedance and suitability of over current protective devices need to be approved according to your safety standards.
- | Read through the entire operating instructions before putting into operation.
- | In addition to the safety requirements contained in these operating instructions, you must be careful to observe your country's applicable regulations.
- | The operating instructions must always be near the machine put them in a plastic folder to protect them from dirt and humidity. They must be read by every operator before beginning work and observed conscientiously. Only persons who have been trained in the use of the machine and have been informed of the various dangers may work with the machine. The required minimum age must be observed.
- | In addition to the safety requirements contained in these operating instructions and your country's applicable regulations, you should observe the generally recognized technical rules concerning the operation of woodworking machines.
- | The machine must only be used in technically perfect condition in accordance with its designated use and the instructions set out in the operating manual, and only by safety-conscious persons who are fully aware of the risk is involved in operating the machine. Any functional disorders, especially those affecting the safety of the machine; should therefore be rectified immediately.
- | Observe all safety instructions and warnings attached to the machine.
- | See to it that safety instructions and warnings attached to the machine are always complete and perfectly legible.
- | Caution when working, There is a danger to fingers and hands from rotating cutting tools.
- | Make sure that machine stand is stable on firm ground.
- | Check all power supply lines. Do not use defective lines.
- | Keep children away from the machine when it is connected to the power supply.
- | Operating personnel must be at least 18 years of age.
- | Persons working on the machine must not be distracted from their work
- | The machine must be equipped with a table length extension if second person is working at the circular saw removing cut work pieces. The second person must not stand anywhere else but at the take-off table end.
- | The working space on the machine must be free of chips and wood scrap.
- | Wear only close-fitting clothes. Remove rings, bracelets and other jewelry.
- | Always wear a dust mask, safety goggles and hearing protection when operating the machine..
- | The work area should be properly lit.
- | Pay attention to the rotational direction of the motor - see Electrical Connection.
- | The safety mechanisms on the machine must not be removed or rendered unusable.
- | Cleaning, changing, calibrating, and setting of the machine must only be carried out when the motor is switched off and the machine is disconnected from its power source. Remove power supply plug from socket and wait for the rotating blade to completely stop.
- | Pay attention to the hazard of cutting when handling saw blades, grooving tools feeding wood into the machine or conducting maintenance.
- | Never try removing chips whilst the saw blade is running and the saw blade is not in the rest position.
- | Never try using the machine unless all of the guards and other safety devices necessary for safety are in good working order.
- | Switch the machine off and remove power supply plug from socket when rectifying any malfunctions.
- | When working on the machine, all safety mechanisms and covers must be mounted.
- | Use only sharpened, nick-free and non-deformed saw blades.

- | The splitting wedge is an important safety feature. The work piece is fed through the splitting wedge which prevents the cut from closing behind the saw blade and also prevents the work piece from kicking back.
- | Lower the blade guard onto the work piece during every working operation. It must stand horizontally above the saw blade.
- | Always use a push-stick for longitudinal cuts of narrow work pieces (less than 120 mm). The push-stick must be used to prevent you from having to work with your hands near the saw blade. Stop the machine and disconnect the mains plug to repair a failure or remove pieces of wood which have become jammed.
- | The table insert must be renewed when the saw slot is worn. Remove power supply plug from socket.
- | When leaving the work place, switch the motor off. Remove power supply plug from socket.
- | Cut off the external power supply of the machine or plant even if only minor changes of place are envisaged. Properly reconnect the machine to the supply mains before recommissioning.
- | Connection and repair work on the electrical installation must be carried out by a qualified electrician only.
- | All protection and safety devices must be replaced after completing repair and maintenance procedures.
- | Adequate lighting shall be provided when working.

Use only as authorized

- | The machine has been built in accordance with state of the art standards and the recognized safety rules. Nevertheless, its use may constitute a risk to life and limb of the user or of third parties or cause damage to the machine and to other material property.
- | The table saw is constructed exclusively for the sawing of wood. The required saw blade should be inserted according to the cut type and the wood type (solid wood, chip board or plywood).
- | The machine must only be used in a technically perfect condition in accordance with its designated use and the instructions set out in the operating manual, and only by safety-conscious persons who are fully aware of the risks involved in operating the machine. Any functional disorders, especially those affecting the safety of the machine, should therefore be rectified immediately.
- | Any other use exceeds authorization. The manufacturer is not responsible for any damages resulting from unauthorized use; risk is the sole responsibility of the operator.
- | The safety work and maintenance instructions of the manufacturer as well as the technical data given in the calibrations and dimensions must be adhered to.
- | Relevant accident prevention regulations and other, generally recognized safety-technical rules must also be adhered to.
- | The Table Saw may only be used, maintained, and operated by persons familiar with and instructed in its operation and procedures. Arbitrary alterations to the machine release the manufacturer from all responsibility for any resulting damages.
- | The Table Circular Saw must only be used with original accessories and saw blades from the manufacturer.

Remaining hazards

The machine has been built using modern technology in accordance with recognized safety rules. Some remaining hazards however, may still exist.

- | The rotating saw blade can cause injuries to fingers and hands if the work piece is incorrectly fed.
- | Thrown work pieces can lead to injury if the work piece is not properly secured or fed due to working without a limit stop.
- | Noise can be a health hazard. The permitted noise level is exceeded when working. Be sure to wear personal protective equipment such as ear protection.
- | Defective saw blades can cause injuries. Regularly inspect the integrity of saw blades.
- | The operating instructions supplied with the special accessories must be observed and carefully read when they are used.

- I Even when all safety measures are taken, some remaining hazards which are not yet evident may still be present

Electrical Connection

The electric motor is connected in a ready to operate state.

The mains connection at the customer's work place and the extension cable used must correspond to these regulations.

Faulty electrical connecting leads

Insulation damage often occurs at electrical connecting leads.

Causes include:

- I Pressure marks caused when connecting leads are run through windows or the cracks of doors.
- I Folds caused by the improper attachment of running of the connecting leads.
- I Cuts resulting from the crossing of the connecting lead.
- I Insulation damage caused by the ripping out of the connecting lead from the wall socket.
- I Cracks due to the ageing of the insulation.

Faulty electrical connecting leads such as these must not be used and are highly dangerous due to the insulation damage.

Check electrical connecting leads regularly for damage. Ensure that the connecting lead is not attached to the mains supply when you are checking it.

Please choose proper power source, voltage and frequency that are shown on the label for your drill press.

Extension leads up to 25m in length must have a minimum cross-section of 1.5mm². Extension leads whose length is over 25m must have a cross-section of at least 2.5mm².

Connections or repairs on the electrical equipment must only be carried out by an electrician.

ACCESSORIES AND ATTACHMENTS

RECOMMENDED ACCESSORIES

To avoid injury:

- Use only accessories recommended for this machine.
- Follow instructions that accompany accessories. Use of improper accessories may cause hazards.
- Use only accessories designed for this table saw to avoid injury from thrown broken parts or work pieces.
- Do not use any accessory unless you have completely read the instructions or operator's manual for that accessory.

CARTON CONTENTS

UNPACKING AND CHECKING CONTENTS

Carefully unpack the table saw and all its parts, and compare against the illustration following.

WARNING:

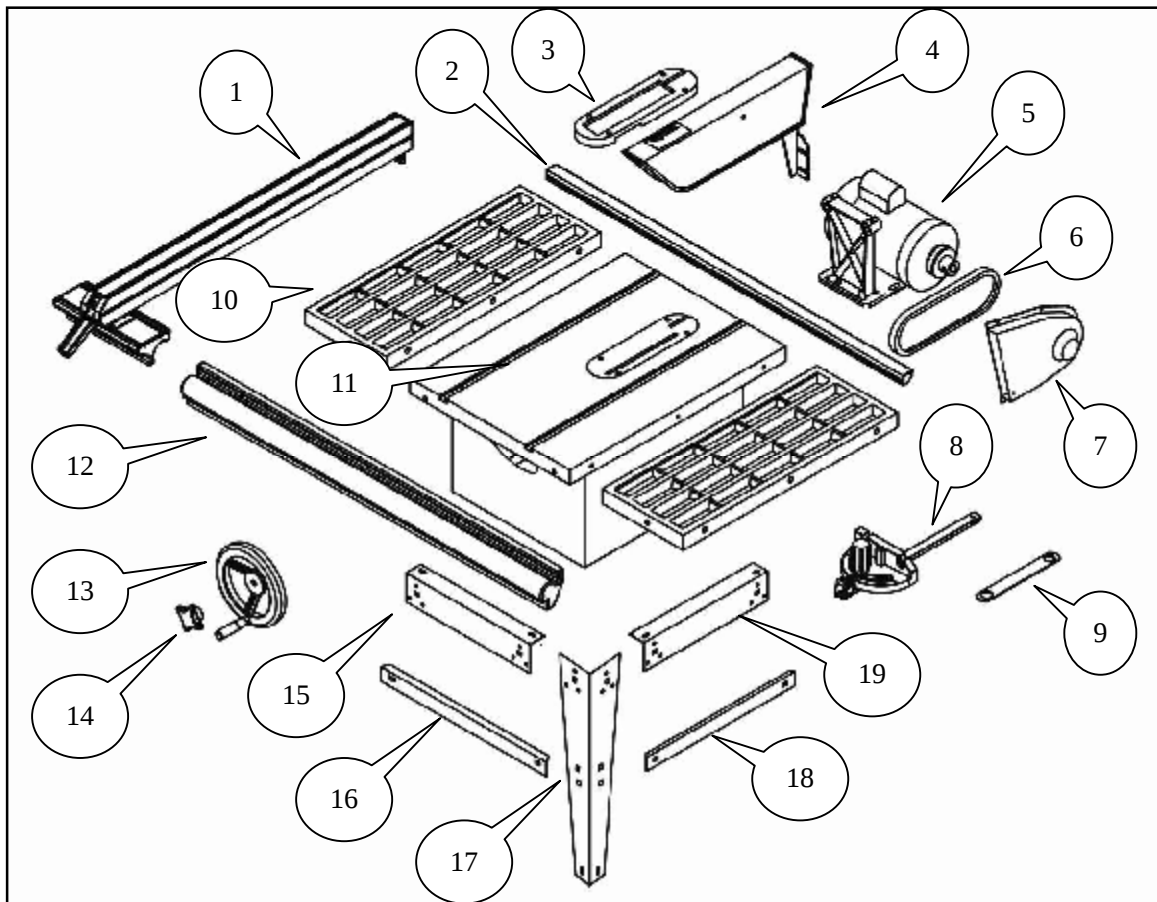
- To avoid injury from unexpected starting, do not plug the power cord into a power source receptacle during unpacking and assembly. This cord must remain unplugged whenever you are assembling or adjusting the machine.
- If any part is missing or damaged, do not plug the machine until the missing or damaged part is replaced, and assembly is complete.
- To protect the table saw from moisture, a protective coating has been applied to the machined surfaces.

Remove this coating with a soft cloth moistened with kerosene.

WARNING: To avoid fire or toxic reaction, never use gasoline, naphtha, acetone, lacquer thinners or similar highly volatile solvents to clean the table saw.

TABLE OF LOOSE PARTS

Unpack carton; check you machine to see parts listed below:

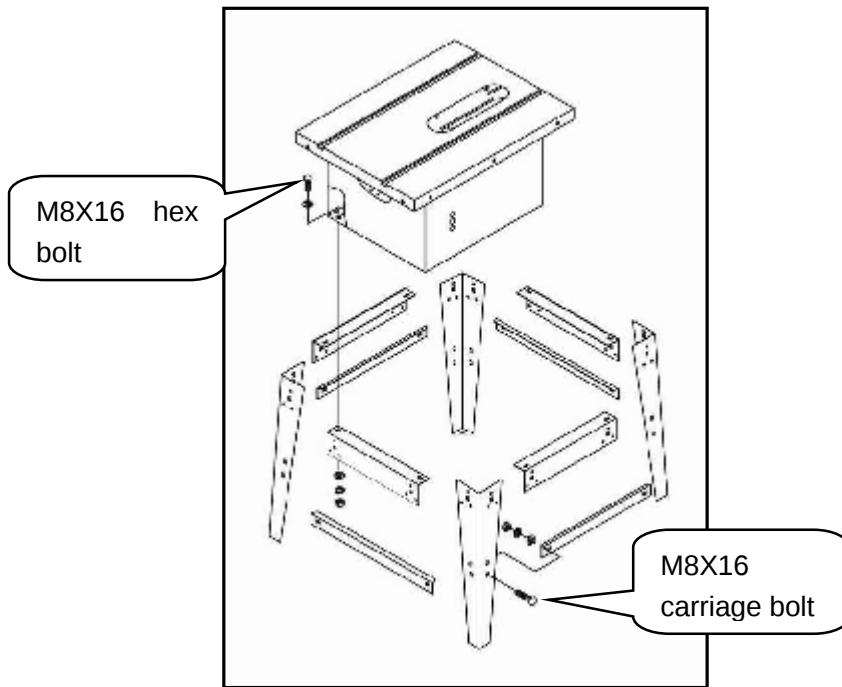


1. Rip fence	1pc
2. Back fence support	1pc
3. Dado insert	1pc
4. Blade guard assembly	1pc
5. Motor assembly	1pc
6. V-belt	1pc
7. Belt guard	1pc
8. Miter gauge	1pc
9. Wrench	1pc
10. Extension table	2pcs
11. Table cabinet assembly	1pc
12. Front fence support	1pc
13. Hand wheel	2pcs
14. Lock knob	2pcs
15. Front/rear top frame	2pcs
16. Front/rear brace	2pcs
17. Leg	4pcs
18. Side brace	2pc s
19. Side top frame	2pcs
20. Hardware bag (not shown)	1pc
21. Operator' manual (not shown)	1pc

Assembly

Important: When unpacking, take care to locate all the small parts of the machine supplied inside the carton box.

Assemble stand with M8 hex nuts, 8mm flat washers and M8X16 carriage bolts. Then install the table cabinet assembly to the stand and secure it with M8X16 hex head bolt, 8mm flat washer and M8 hex nut.

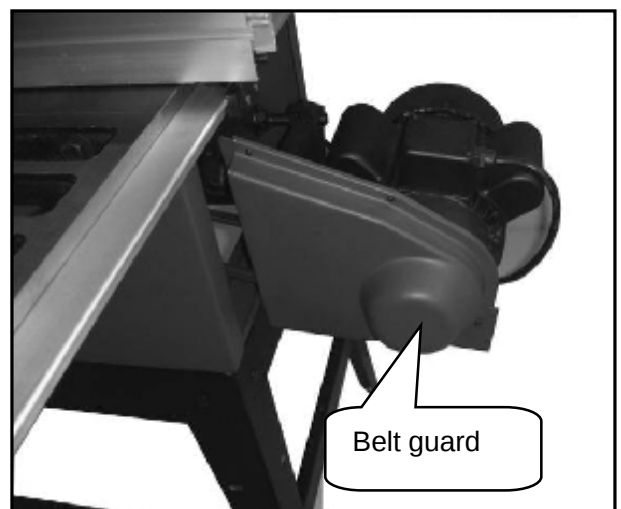
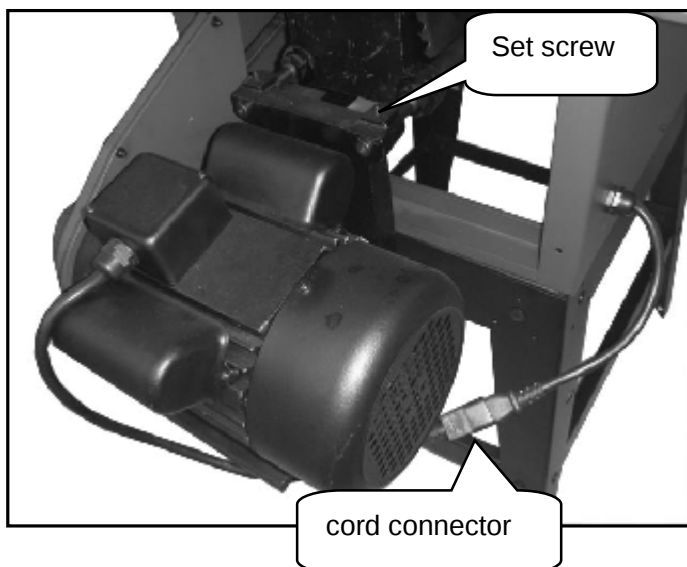


Assemble the motor assembly to the two support shafts of the machine, Fix it by tightening the set screw. Adjust motor to align the motor pulley with blade driving pulley.

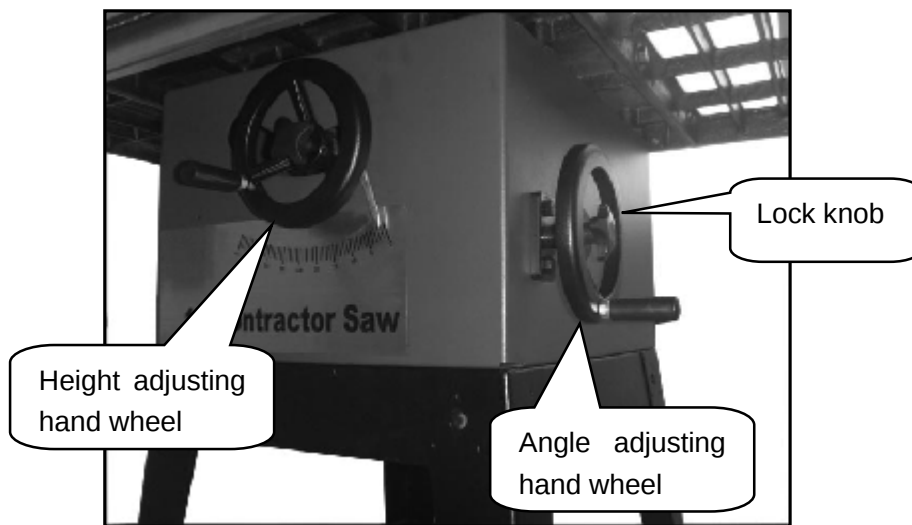
Install the v-belt

Assemble the belt guard.

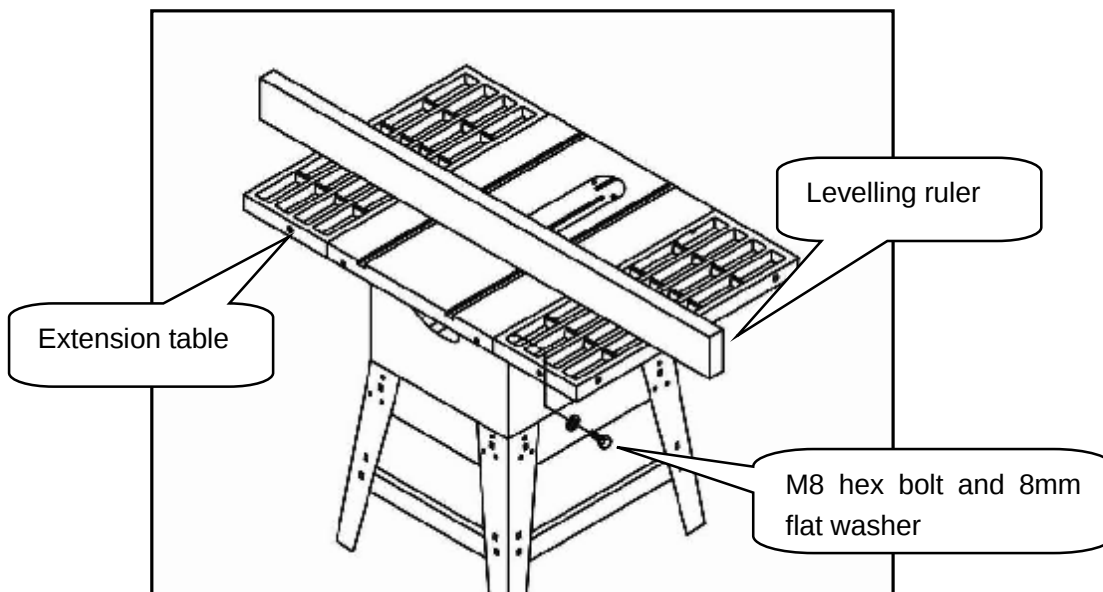
Connect the connectors of the cord.



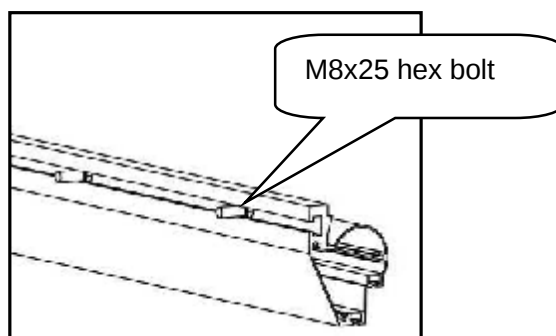
Assemble the height adjusting hand wheels and angle adjusting hand wheel.
Attach the two lock knobs.

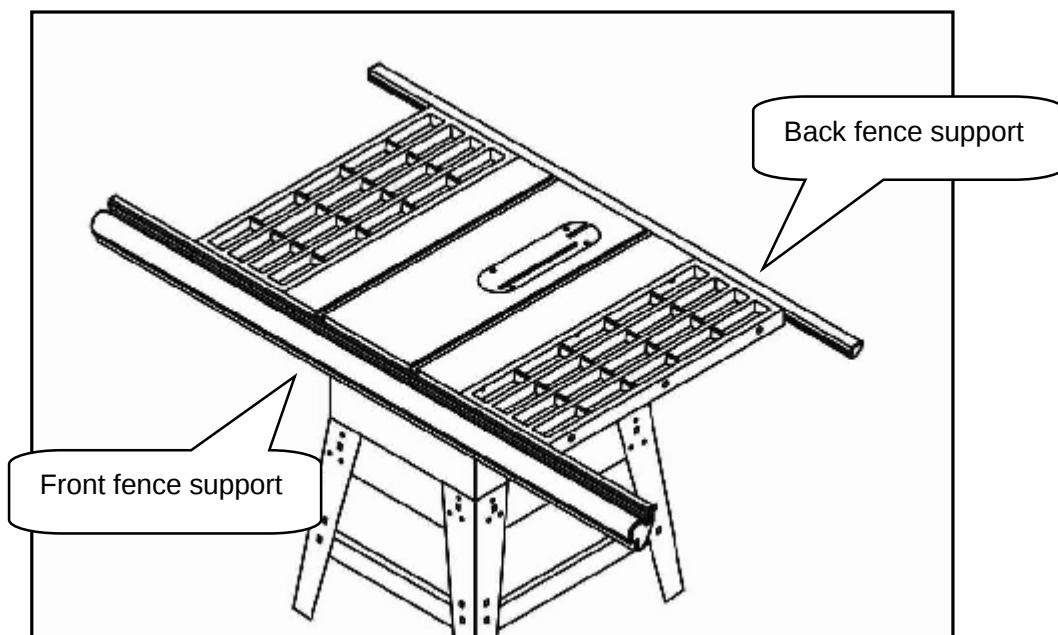


Assemble the extension table with M8 hex head bolts and 8mm flat washers.
Adjust set screws to make tables flush and level. Then tighten the bolts.

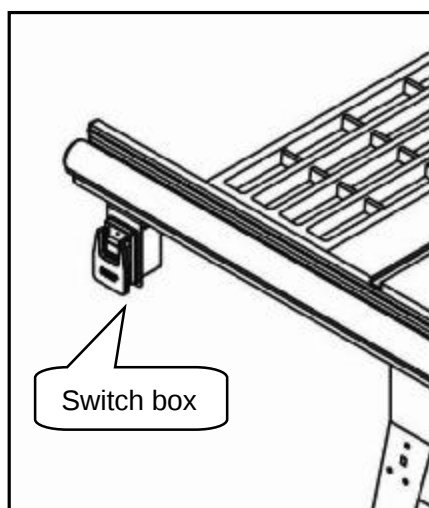


Slide four M8X25 hex bolts into the front fence support, then fix the front fence support assembly to the table by four M8 nuts and four 8mm flat washers.
In the same way, fix the back fence support to the table



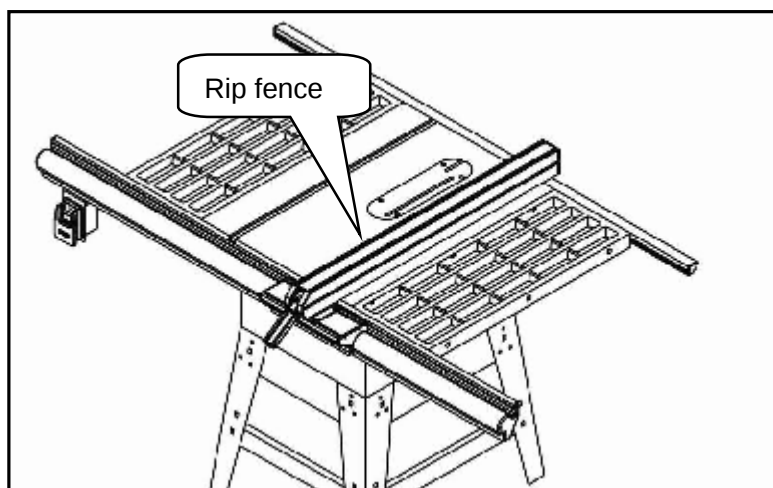
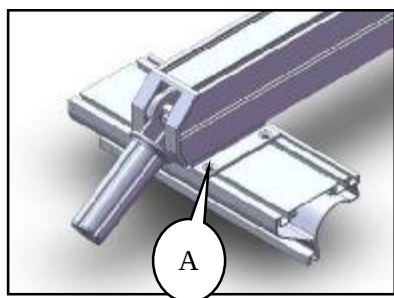


Assemble the switch box to the front fence support and fix it with screws and nuts



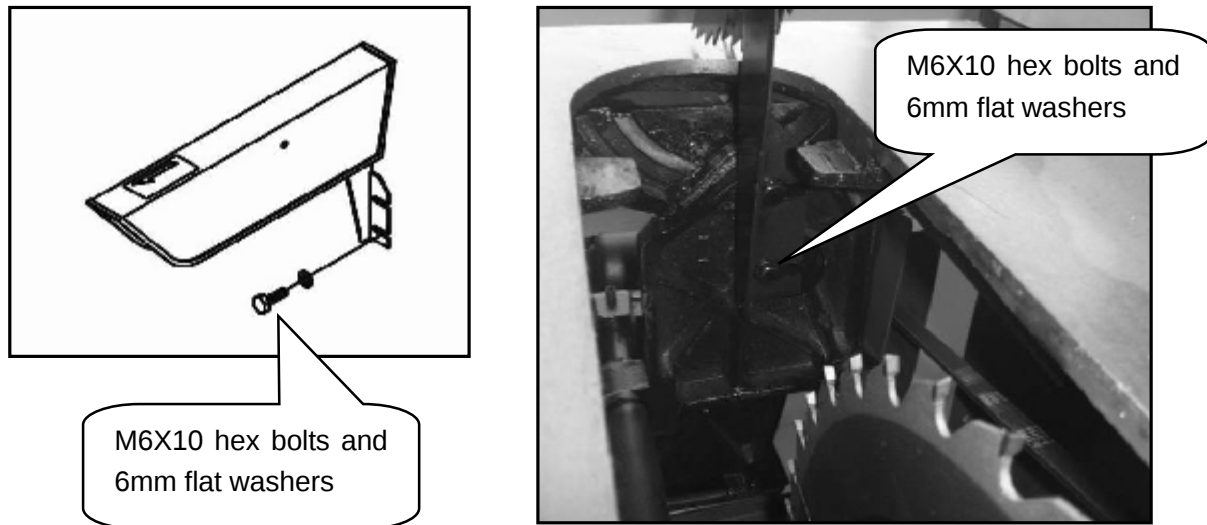
Place the rip fence upon the fence support. Ensure the fence bottom surface is parallel with the table surface by adjusting the height of the fence support.

Adjust the four screws (A) to make fence parallel with the blade. Move the fence to touch the blade and adjust the scale indicator to zero.



Remove the table insert.

Assemble the blade guard assembly with two M6X10 hex bolts and 6mm flat washers. Align the riving knife with the blade and tighten the bolts.



After all these steps, the machine's assembly is finished.

Operation

Prepare the workplace where the machine is to be placed. Insure sufficient room to allow safe work without interference. The machine is designed to operate in closed rooms.

Important: The machine must only be brought into service complete with protection devices.

Before switching on the machine, all safety and protection devices have to be installed according to the instructions.

Always check timber, which has been processed before, for foreign objects (nails, screws, etc.). Remove all foreign matter.

Before turning on the power supply, make sure that the saw blade is installed correctly and that all moving components can move freely.

Warning: If in doubt, have the machine set by a qualified person. It is too dangerous to work on assumptions.

Saw Blade – Diagonal Adjustment

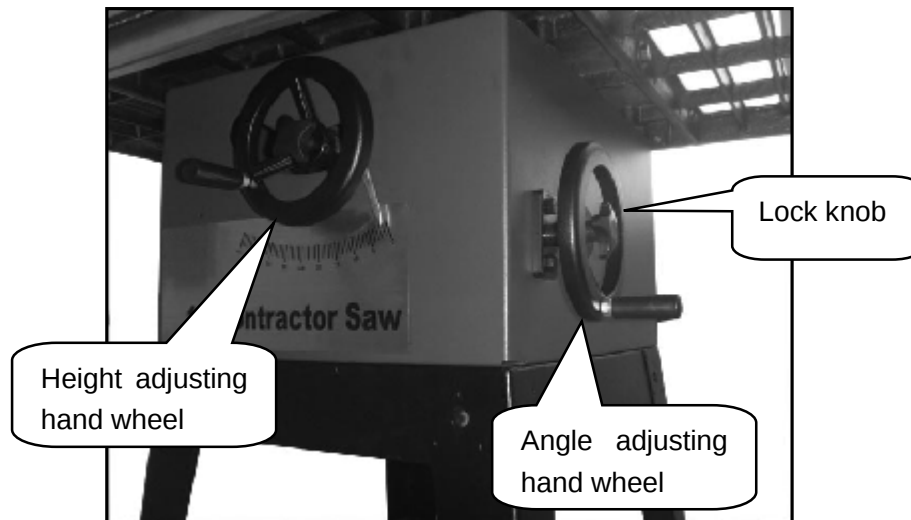
The saw blade may be swiveled from 90° to 45° by turning the hand wheel after the locking knob has been loosened.

Check the 90° and the 45° position before the first and each subsequent startup.

Saw Blade Height Adjustment

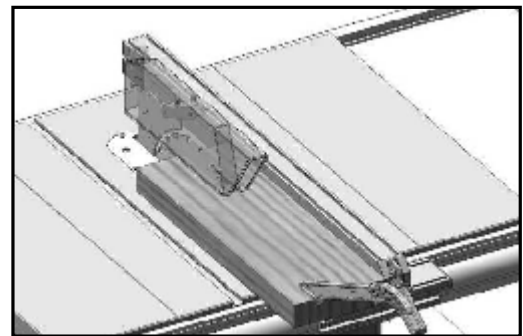
The saw blade is adjustable from 0 to 100 mm cutting height

For safe and clean working, choose the minimal saw blade projection for the work piece.



Parallel cuts

Adjust the rip fence in accordance with the width of work piece. With both hands (use the push-stick in the region of the saw blade) and push the work piece until it is behind the riving knife. Use the push – stick to feed the work piece right from the beginning of the cutting process if short work pieces are being used..

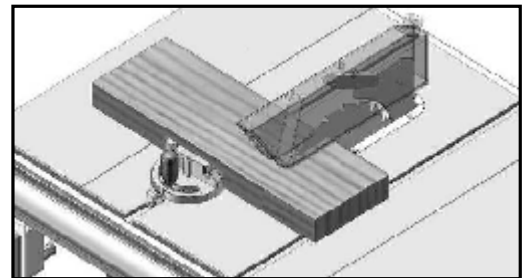


Cross cuts

Warning: the work piece must be secured against rotation by using a suitable jig or holder when cross-cutting round stock. At the same time a suitable saw blade shall be used.

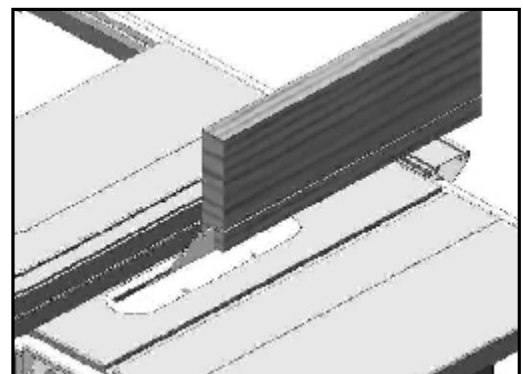
Adjust the miter gauge to not touch the saw blade. Only feed the work piece by means of a cross slide.

Do not remove wood chippings from the region of the work piece with your hands.



Concealed cutting, rebating

When performing rebating work at the fence rail, select the cutting sequence which ensures that the cut-off strip falls onto the side of the saw blade facing away from the fence rail. Remove the blade guard and the riving knife to perform concealed cutting or rebating work. Ensure that the work piece is guided properly. Re-install the guard when finished.



Maintenance

Warning: Before performing any maintenance, make sure the machine is unplugged from the power supply.

Wear goggles when cleaning the machine.

Caution: Do not clean synthetic components of the bench using aggressive cleaning agents. We recommend a mild dish washing liquid. The machine must not get into contact with water.

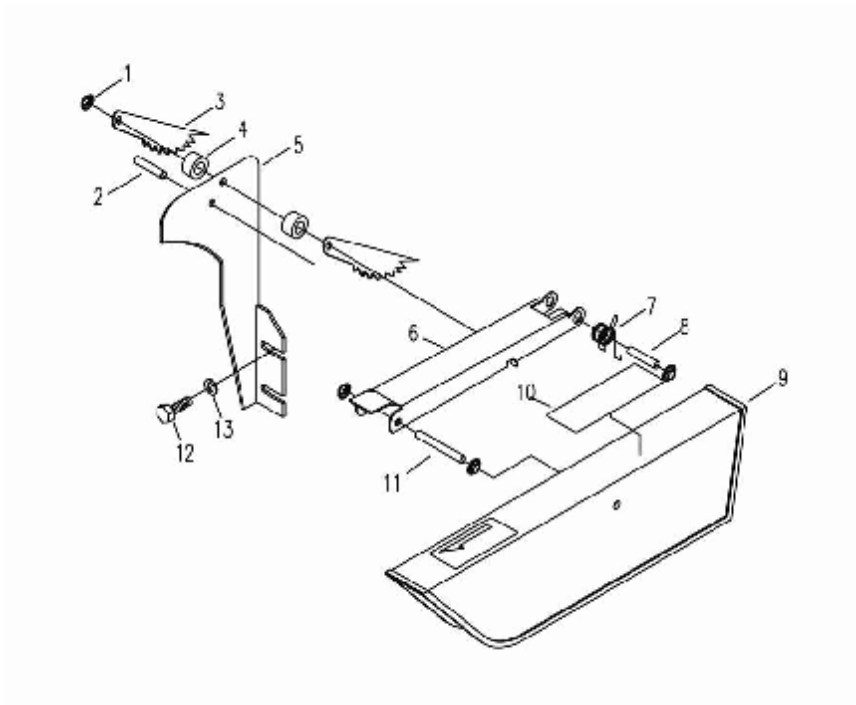
- I Turn on and then off to check the brake stops the blade within 10S every week. If not, check and repair the mechanical brake.
- I Check the saw blade regularly. Use only well sharpened, crack-free and un-distorted blades.
- I Always keep table surface free from resins.
- I Clean regularly the inside of the machine from wood and chips.. Clean out the saw dust in the blade teeth by using a soft brush.
- I Remove possible sawdust blockages at the discharge.
- I Check push block handles and push sticks before each use of the machine. Changed them if they are damaged.
- I If a blockage occurs, turn off the machine and remove power supply plug from socket. Remove the blockage by using the push stick when the saw blade is stationary.

Trouble Shooting Chart

Warning: in the interests of operational safety, always switch off the saw and disconnect the mains plug before carrying out maintenance work.

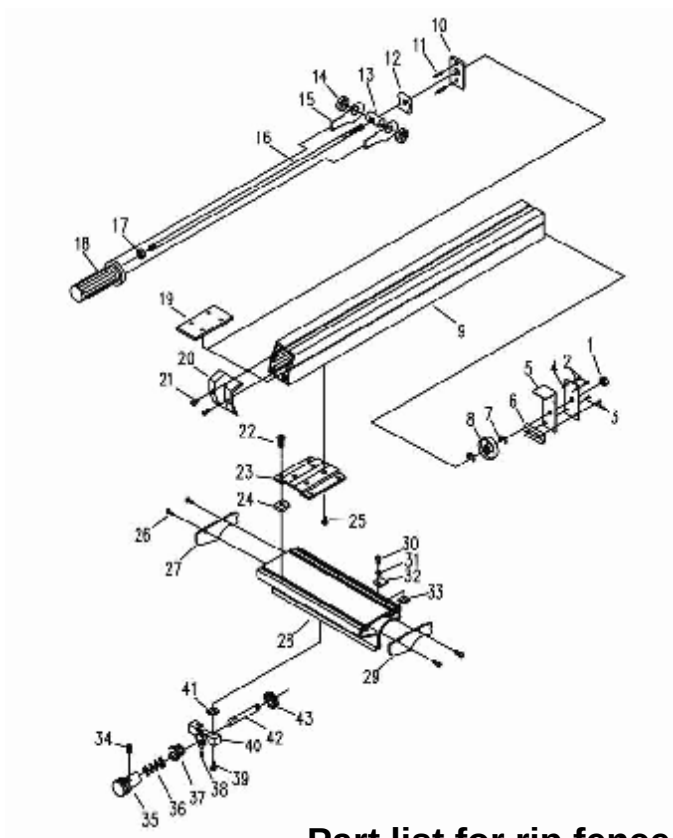
Problem	Possible cause	Corrective Action
Excessive vibration	1. Blade out of balance 2. Damage V-belt pulleys or poor belt	1. Discard blade and use a different blade 2. Replace as indicated
Cannot make square cut when crosscutting	Mitre gauge not adjusted properly	Adjust mitre gauge
Blade stalls (however, motor turns)	1. Belts not tight 2. Belt worn	1. Adjust belt tension 2. Replace belt
Cut binds, burns or stalls when ripping	1. Dull blade with improper tooth set 2. Blade is binding at one end of cut(heeling) 3. Warped board 4. Rip fence not parallel to blade. 5. Spreader out of alignment	1. Sharpen or replace blade 2. Adjust table and rip fence parallel to blade 3. Make sure concave or hollow side is facing down; feed slowly 4. Adjust rip fence 5. Adjust spreader to fall in line with blade
Tilt and elevating hand wheel difficult to turn	Sawdust on rack and worm gears	Clean and re-lubricate
Frequent blowing of fuses or tripping of circuit breakers	1. Motor overloaded 2. Fuses or circuit breakers do not have sufficient capacity	1. Feed work slower into blade 2. Install proper size fuses or circuit breakers

Assembly Diagram



Part list for blade guard

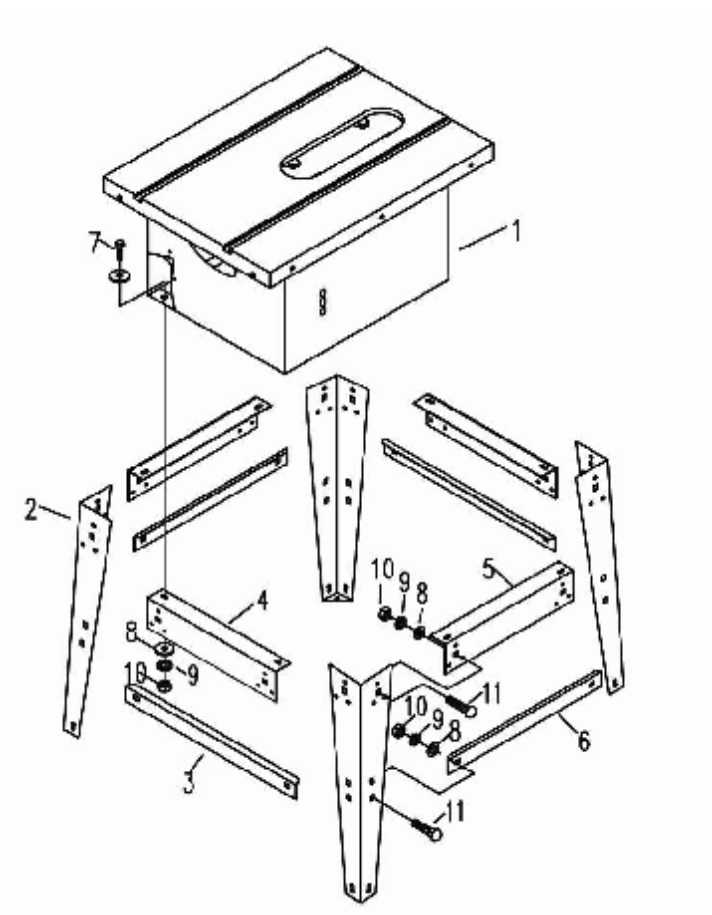
Reference number	Description	Quantity
1	Push nut	4
2	Spring pin	1
3	Anti-kickback pawl	2
4	Bushing	2
5	Riving knife	1
6	Guard support	1
7	Spring	1
8	Pin	1
9	Blade guard	1
10	Label	1
11	Pin	1
12	M6X10 Hex bolt	2
13	6 mm flat washer	2



Part list for rip fence

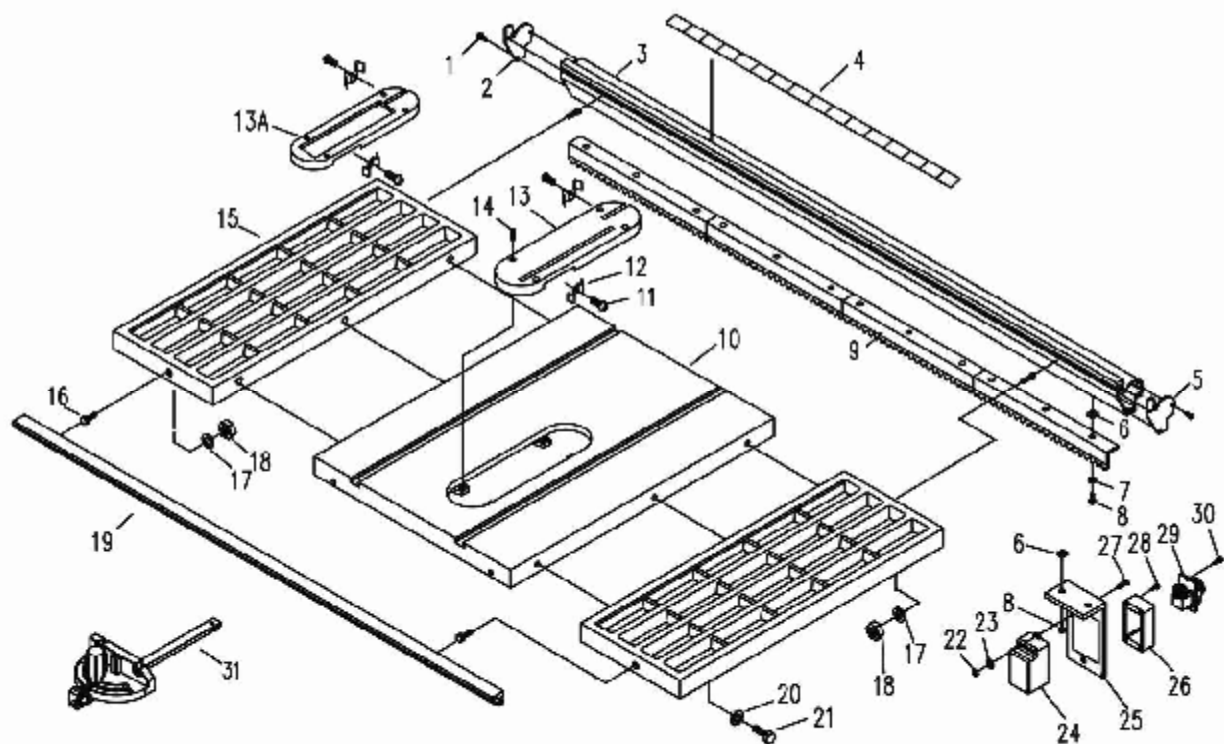
Reference number	Description	Quantity
1	Lock nut	1
2	Rivet	2
3	Rivet	2
4	Flitch plate	1
5	Clamp	1
6	Plastic bracket	1
7	Ring	2
8	Idler wheel	1
9	Fence	1
10	Support plate	1
11	Spring pin	2
12	Guide plate	1
13	Short shaft	1
14	Bushing	2
15	Handle plate	2
16	Threaded rod	1
17	Nut	1
18	Clamp handle	1
19	Space plate	1
20	Fence cover	1
21	Screw	2
22	Pan head screw	4

Reference number	Description	Quantity
23	Junction plate	1
24	Nut	4
25	Screw	4
26	Screw	42
27	Left cover	1
28	Bracket	1
29	Right cover	1
30	Pan head screw	1
31	Flat washer	1
32	Pointer	1
33	Nut	1
34	Set screw	1
35	Adjusting handle	1
36	Spring	1
37	Bushing	1
38	Set screw	1
39	Pan head screw	2
40	Gear bracket	1
41	Nut	2
42	Gear shaft	1
43	Gear	1



Part list for stand

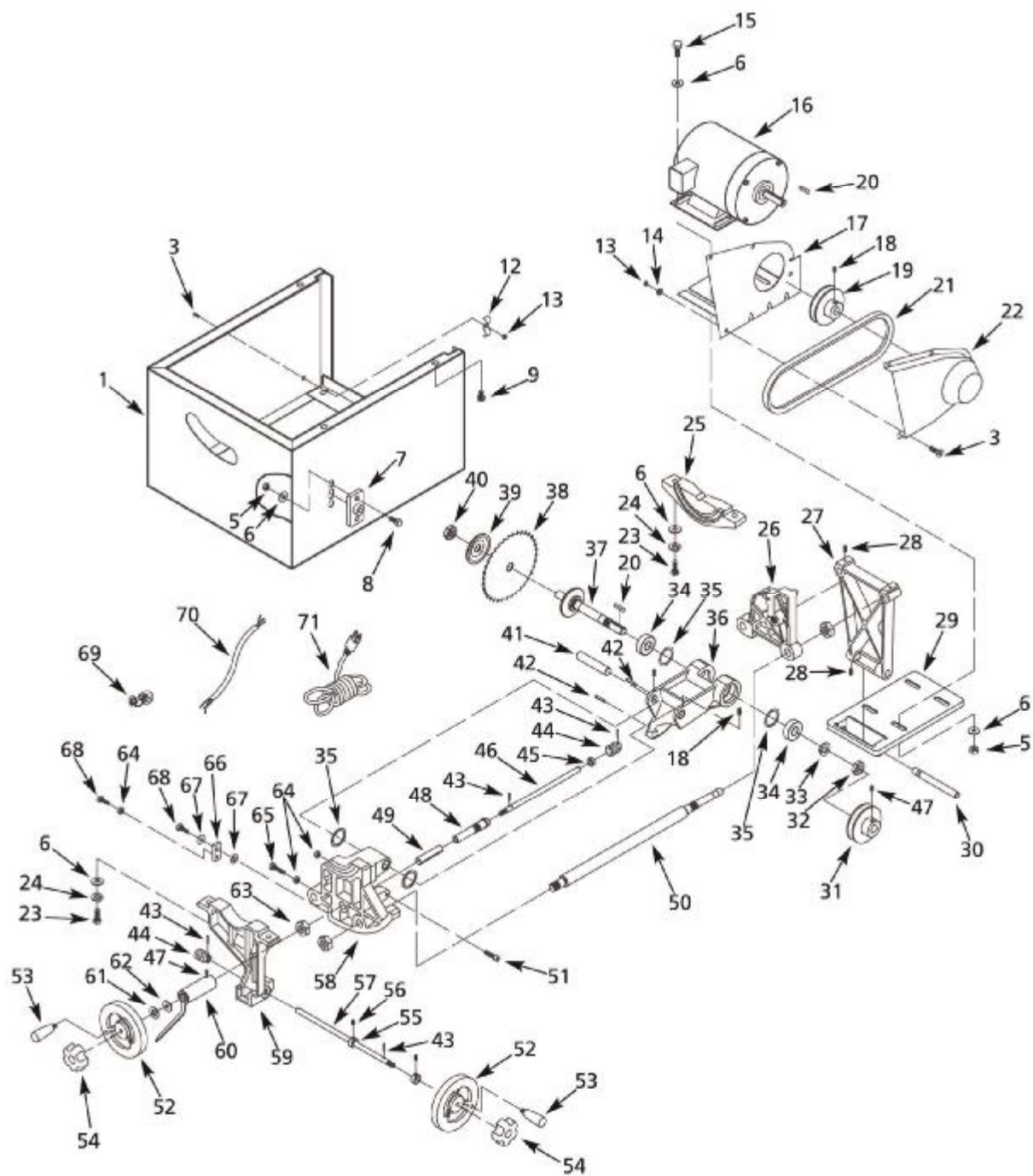
Reference number	Description	Quantity
1	Table cabinet assembly	1
2	Leg	4
3	Front/rear brace	2
4	Front/rear top frame	2
5	Side top frame	2
6	Side brace	2
7	M8X16 hex bolt	4
8	Flat washer	24
9	Lock washer	24
10	Hex nut	24
11	Carriage bolt	16



Part list for table

Reference number	Description	Quantity
1	Screw	4
2	Fence support cover	1
3	Front fence support	1
4	Scale	1
5	Fence support cover	1
6	Nut	14
7	Flat washer	12
8	Pan head screw	14
9	Rack	4
10	Table	1
11	Screw	4
12	Spring plate	4
13	Table insert	1
13A	Dado insert	1
14	Set screw	4
15	Extension table	2

Reference number	Description	Quantity
16	Hex bolt	4
17	Flat washer	4
18	Hex nut	4
19	Back fence support	1
20	Flat washer	6
21	Hex bolt	6
22	Nut	1
23	Washer	1
24	Switch box cover	1
25	Support plate	1
26	Switch box	1
27	Pan head screw	2
28	Screw	4
29	Switch	1
30	screw	3
31	Miter gauge assembly	1



Parts list for blade drive and tilt mechanism

Reference number	Description	Quantity
1	Cabinet	1
3	Pan head screw	6
5	Hex nut	6
6	Flat washer	20
7	Support	1
8	Hex bolt	2
9	Hex bolt	4
12	Cord clamp	2
13	Hex nut	6
14	Flat washer	4
15	Hex bolt	4
16	Motor	1
17	Pulley cover bracket	1
18	Set screw	3
19	Motor pulley	1
20	Key	1
21	V-belt	1
22	Pulley cover	1
23	Socket head bolt	4
24	Lock washer	4
25	Rear bracket	1
26	Rear trunnion	1
27	Motor bracket	1
28	Set screw	3
29	Motor plate	1
30	Pivot shaft	1
31	Drive pulley	1
32	Hex nut	1
33	Lock washer	1
34	Ball bearing	2
35	Wavy washer	4
36	Arbor bracket	1
37	Arbor	1
38	Blade	1

Reference number	Description	Quantity
39	Blade flange	1
40	Arbor nut	1
41	Pin	1
42	Spring pin	2
43	Spring pin	4
44	Worm gear	2
45	Spacer	1
46	Elevation shaft	1
47	Set screw	2
48	Eccentric sleeve	1
49	sleeve	1
50	Linking bar	2
51	Socket head bolt	1
52	Hand wheel	2
53	Handle	2
54	Locking knob	2
55	Collar	2
56	Set screw	2
57	Tilt shaft	1
58	Front trunnion	1
59	Front bracket	1
60	Indicator	1
61	Spacer	1
62	Flat washer	1
63	Hex nut	5
64	Hex nut	3
65	Hex bolt	1
66	Set plate	1
67	Flat washer	2
68	Hex bolt	2
69	Strain relief	1
70	Motor cord	1
71	Line cord	1