



14CX

METAL & WOOD VERTICAL BANDSAW

INSTRUCTIONAL MANUAL



 **WARNING!** Read and understand all instructions and responsibilities before operating. Failure to follow safety instructions and labels could result in serious injury.

Laguna Tools, Inc.
744 Refugee Way
Suite 200
Grand Prairie TX, 75050
Phone: 800.332.4094
Website: lagunatools.com
Email: customer_service@lagunatools.com

Dake Corporation
1809 Industrial Park Dr.
Grand Haven MI, 49417
Phone: 800.937.3253
Website: www.dakecorp.com
Email: customerservice@dakecorp.com



Table of Contents

RETURN & WARRANTY POLICY	3
SPECIFICATIONS	5
SAFETY	6
UNPACKING	10
MACHINE ASSEMBLY	11
Before First Time Start	12
Testing the Saw	13
Blade Installation	14
Tensioning the Blade	14
Blade Tracking / Top Idler Wheel Camber Adjustment.....	15
Blade Guide Adjustment.....	15
FIRST TIME OPERATION	15
First Run Checks:.....	15
High to Low Setting & FPM setting:.....	16
Blade Speed Chart	17
ADJUSTMENTS	17
Adjusting Fence for Drift.....	17
Blade Guidepost Adjustment:	17
Squaring Table to Blade	18
Adjusting Table Tilt:	18
Fence Assembly Adjustment:	18
OPTIONAL LIGHT KIT INSTALLATION.....	19
BLADE SELECTION	20
Tell-tale Metal Chips.....	20
Material Hardness & Pitch	20
Causes of Blade Breakage.....	20
Causes of Blade Dulling	21
TROUBLESHOOTING	21
MAINTENANCE	25
Tire Maintenance.....	26
Replacing the Drive Belt.....	27
Adjusting the Brake	27
WIRING DIAGRAMS:	28
PARTS LIST	30
Upper Wheel Assembly:	30
Lower Wheel & Motor Assembly:	33
Table and Fence Assembly	36
Upper & Lower Blade Guides Assembly.....	38
ORDERING INFORMATION	39



RETURN & WARRANTY POLICY

All requested warranty claims must be communicated to the distributor or representative responsible for the sale.

Laguna Tools, Inc.

744 Refugee Way, Grand Prairie TX, 75050

Phone: 800.332.4094

Email: customer_service@lagunatools.com

Dake Corporation

1809 Industrial Park Dr., Grand Haven MI, 49417

Phone: 800.937.3253

Email: customerservice@dakecorp.com

New wood/metal working saws sold by Laguna Tools carry a one-year warranty that is effective from purchase date. the date of shipping. Machines sold through dealers must be registered with Laguna Tools within 30 days of purchase to be covered by this warranty. Laguna Tools guarantees all new machines sold are free of manufacturers' defective workmanship, parts, and materials.

We will repair or replace, without charge, any parts determined by Laguna Tools, Inc. to be a manufacturer's defect. We require that the defective item/part be returned to Laguna Tools with the complaint. The end-user must request an RMA (return material authorization) number from Customer Service and include the (RMA) number with any and all returned parts/components requesting warranty coverage.

In the event the item/part is determined to be damaged due to lack of maintenance, cleaning, and/or misuse/abuse, the customer will be responsible for the cost to replace the item/part, plus all related shipping charges.

This limited warranty does not apply to natural disasters, acts of terrorism, normal wear and tear, product failure due to lack of maintenance or cleaning, damage caused by accident, neglect, lack of or inadequate dust collection, and/or misuse/abuse or damage caused where repair or alterations have been made or attempted by others.

All items being returned to Laguna Tools must have a return merchandise authorization number (RMA) issued by the Customer Service Department. Products must be returned within 30 days from the delivery date. No merchandise shall be returned without an RMA number.

Any machines returned to Laguna Tools must be returned with packaging in the same manner in which it was received. If a part or blade is being returned it must have adequate packaging to ensure no damage is received during shipping.

Unapproved returns are subject to a 25% stocking fee plus round-trip shipping charges. Laguna Tools, Inc. is not responsible for additional tools or modifications sold or performed (other than from/by Laguna Tools, Inc.) on any Laguna Tools, Inc. woodworking machine. Warranty may be voided upon the addition of such described tools and/or modifications, determined on a case-by-case basis by Laguna Tools, Inc.



Normal user alignment, adjustment, tuning, and machine settings are not covered by this warranty. It is the responsibility of the user to understand basic woodworking machinery settings and procedures and to properly maintain the equipment in accordance with the standards provided by the manufacturer. Parts, under warranty, are shipped at Laguna Tools, Inc.'s cost either by common carrier, FEDEX ground service, or a similar method.

Technical support to install replacement parts is primarily provided by phone, fax, e-mail, or Laguna Tools Customer Support Website. The labor required to install replacement parts is the responsibility of the user. Laguna Tools is not responsible for damage or loss caused by a freight company or other circumstances not in our control.

All claims for loss or damaged goods must be notified to Laguna Tools within twenty-four hours of delivery. Please contact our Customer Service Department for more information. Only new machines sold to the original owner are covered by this warranty. For warranty repair information, contact respective company subsidiary the saw was purchased from. When a return merchandise authorization number (RMA) is issued, the customer has 30 days to return the part; otherwise, that number is canceled and the return will not be accepted. No merchandise shall be returned without an RMA number.

IMPORTANT – PLEASE READ

Replacement parts/ accessories/ machines are sent free of charge providing the item being replaced is RETURNED to Laguna Tools Inc., within 30 days. Please KEEP ALL the packaging materials to repack the parts/accessories/machine being replaced. If the item is a small item a return label will be enclosed in your package. DO NOT THROW THIS AWAY.

Please package the item and write both INSIDE and OUTSIDE of the box the RMA number which was provided through an email and or verbally at the time of the request. In the event that the item (machine) is not returned to Laguna Tools Inc., YOU WILL BE responsible for the cost of the item. Your credit card will be charged and or your account will be billed. NO SERVICE will be given until this balance is PAID or the item returned in good condition.

LATEST MANUAL:

Below is a QR code and URL which will direct you to the DAKE manual reference page, where the latest version of the manual is located on the DAKE website. The online manual may have updates and information added after the printed copy was released. Scan the code with your smartphone or copy the URL link to be directed to the latest manual page to reference your specific machine and model.

<https://www.dakecorp.com/manuals>





SPECIFICATIONS

14CX Bandsaw	
Motor voltage/HP	166VDC / 1 3/4 HP
Supply Voltage	110V Single Phase
Throat	13 5/8" (346mm)
Table, cast iron	16" x 21 1/2" (406.4mm x 546mm)
Table tilt	- 7 degrees + 45 degrees
Miter slot	3/8" x 3/4" (9.525mm x 19.05mm)
Table height	38" (965mm)
Blade Speed Range High	160 – 4400 FT/MIN
Blade Speed Range Low	60 – 1600 FT/MIN
Fly wheel	Cast iron
Resaw capacity	13" (330.2mm)
Minimum blade length	114 3/4" (2,914mm)
Maximum blade length	116" (2,946mm)
Maximum blade width	3/4" (19mm)
Minimum blade width	1/8" (3mm)
Guides	Laguna ceramic
Height	70 1/2" (1,790mm)
Machine Dimensions (W x D)	29-3/4" x 28" (755mm x 712mm)
Base Footprint	22-11/16" x 17-9/16" (576mmx446mm)
Machine Dimensions with mobility kit (W x D)	36 5/8" x 28" (930mm x 712mm)
Base Footprint with mobility kit	33" x 20 1/2" (838mm x 521mm)
Weight, gross	286 lbs. (130 kg)
Weight, net	264 lbs. (120 kg)
Package size (W x D x H)	73 1/8" x 26 1/2" x 24 5/16" (1857mm x 673mm x 618mm)
Mobility kit	Optional "MBA14/12 Wheel System"
Industrial work light	Optional

In the space provided, record the serial number and model number of the machine. This information is only found on the black Dake tag. If contacting Dake this information must be provided to assist in identifying the specific machine.

14CX Bandsaw 	
Model	MB14CX
Power Requirements	115V, 1Ph, 14.5A, 60Hz 60-4400 FPM
Blade Length	Min: 114-3/4" Max: 116"
Serial No.	
Taiwan TCP	

SAFETY

**Failure to comply with all warnings could lead to serious injury or death.
Employer is responsible to perform a hazard/PPE assessment before work activity.**

English	French
<p>WARNING: For your own safety, read instruction manual before operating bandsaw</p> <ol style="list-style-type: none"> 1. Wear eye protection. 2. Do not remove jammed cut off pieces until blade has stopped. 3. Maintain proper adjustment of blade tension, blade guides and thrust bearings. 4. Adjust upper guide to just clear workpiece. 5. Hold workpiece firmly against table. 6. ALWAYS USE A PUSH STICK. Never allow your hands/ fingers to come close to the bandsaw blade. 	<p>AVERTISSEMENT: Pour votre securite, lisez le manuel d'instruction attentivement avant d'utiliser la scie a ruban.</p> <ol style="list-style-type: none"> 1. Portez des lunettes de protection . 2. Ne tentez pas d'enlever une piece coincée avant l'arret complet de la lame. 3. Assurez-vous que les guides et la tension sur la lame soient toujours correctement ajustés. 4. Ajustez la hauteur du guide superieur de fa on a passer juste au-dessus de la piece . 5. Tenez la piece fermement sur la table. 6. UTILISEZ TOUJOURS UN POUSSOIR - N'approchez jamais vos doigts, ou vos main, de la lame .
Safety Rules	
<ol style="list-style-type: none"> 1. KEEP GUARDS IN PLACE and in working order. 2. REMOVE ADJUSTING KEYS AND WRENCHES. Form a habit of checking to see that the keys and adjusting wrenches are removed from tool before turning it on. 3. KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents. 4. DON'T USE IN DANGEROUS ENVIRONM ENT. Do not use power tools in damp or wet locations or expose them to rain. Keep work area well lighted. 5. KEEP CHILDREN AWAY. All visitors should be kept safe distance from work area. 6. MAKE WORKSHOP KID PROOF with padlocks, master switches or by removing starter keys. 7. DON'T FORCE TOOL. It will do the job better and safer at the rate for which it was designed. 8. USE RIGHT TOOL. Do not force tool or attachment to do a job for which it was not designed. 9. USE PROPER EXTENSION CORD. Make sure your extension cord is in good condition. 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. Table A shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord. 10. WEAR PROPER APPAREL. Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry that may get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair. 11. ALWAYS USE SAFETY GLASSES. Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact-resistant lenses; they are NOT safety glasses. 	<ol style="list-style-type: none"> 1. CONSERVEZ TOUSLES DISPOSITIFS DE PROTECTION EN PLACE et en bon etat de fonct ionnement . 2. ENLEVEZ LES CLES ET OUTILS. Prenez l'habitude de verifier si les cles et autres outils ne sont pas trop pres de la machine avant de la demarrer. 3. CONSERVEZ LA SURFACE DE TRAVAIL PROPRE ET LIBRE D'ENTRAVES. Les endroits encombrés augmentent le risque d'accident. 4. NE PAS UTILISER DANS LES ENVIRONNEMENTS DANGEREUX. N'utilisez pas d'outils electriques dans les endroits humides, detrempés, ou sous la pluie. Conservez l'espace de travail bien eclaire. 5. TENEZ LES ENFANTS A L'ECART. Tousles visiteurs doivent etre tenus a une distance securitaire de l'aire de travail. 6. RENDEZ L'ATELIER A L'EPREUVE DES ENFANTS avec des verrous, des interrupteurs principaux ou en enlevant les cles de demarrage sur les outils. 7. NE FORCEZ PAS L'OUTIL. L'outil effectuera un meilleur travail et de fa on securitaire s'il est utilise au rythme pour lequel ii a ete con u. 8. UTILISEZ L'OUTIL APPROPRIE. Ne forcez pas un outil ou un accessoire pour effectuer un travail pour lequel ii n'a pas ete con u. 9. UTILISEZ UNE RALLONGE ELECTRIQUE APPROPRIEE. Assurez-vous que votre rallonge electrique est en bon etat et que le calibre du filage soit adequat pour transporter le courant que la machine a besoin. Une rallonge de trop faible calibre induira une perte d'intensite du voltage, ce qui provoquera une surchauffe et une perte de puissance . Le tableau A indique le bon calibre a utiliser en fonction de la longueur de la rallonge et de la demande en intensite du moteur. En cas de doute, utilisez la rallonge de calibre plus fort . Plus le numero est petit , plus la rallonge est de fort calibre . 10. PORTEZ DES VETEMENTS APPROPRIES. Ne portez pas de vetements ampies, des gants, des colliers, des

<p>12. SECURE WORK. Use clamps or a vise to hold work when practical. It is safer than using your hand, and it frees both hands to operate tool.</p> <p>13. DON'T OVERREAC H. always Keep proper footing and balance.</p> <p>14. MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.</p> <p>15. DISCONNECT TOOLS before servicing, when changing accessories such as blades, bits, and cutters.</p> <p>16. REDUCE THE RISK OF UNINTENTIONAL STARTING. Make sure switch is in off position before plugging in.</p> <p>17. USE RECOMMENDED ACCESSORIES. Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.</p> <p>18. NEVER STAND ON TOOL Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.</p> <p>19. CHECK DAMAGED PARTS. Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function - check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.</p> <p>20. DIRECTION OF FEED. Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.</p> <p>21. NEVER LEAVE TOOL RUNNING UNATTENDED TURN POWER OFF. Do not leave tool until it comes to a complete stop.</p>	<p>bracelets, ou tout autre bijou ou accessoire qui pourrait etre entra1ne par des pieces mobiles . Des souliers a semelle antiderapante sont egalement recommandes . Attachez les cheveux longs et portez un bonnet pour contenir la chevelure trop abondante.</p> <p>11. PORTEZ DES LUNETTES DE PROTECTION. Portez egalement un masque contre la poussiere si le travail execute degage de la poussiere. Veuillez prendre note que les lunettes de prescription ordinaire ne resistant pas aux impacts et qu'elles ne sont pas homologuees a titre de lunettes de securite.</p> <p>12. IMMOBILISEZ VOTRE TRAVAIL. Utilisez des serres ou un etau pour immobiliser votre travail lorsque c'est possible. C'est plus securitaire que d'utiliser votre main, et <;a permet de liberer vos deux mains pour operer l'outil confortablement.</p> <p>13. NE VOUS ETIREZ PAS AU-DESSUS DE LA M ACHINE. Demeurez solidement en equilibre sur vos pieds en tout temps.</p> <p>14. ENTRETENEZ LES OUTILS AVEC SOIN. Gardez les outils de coupe tranchants et propres pour en tirer les meilleures performances. Suivez les instructions du fabricant pour la lubrification et l'entretien des accessoires .</p> <p>15. DEBRANCHEZ LES OUTILS avant d'en effectuer l'entretien ou lors du changement d'accessoires tels que lames ou couteaux.</p> <p>16. REDUISEZ LES RISQUES DE DEMARRAGE NON INTENTIONNEL. Assurez-vous que l'interrupteur est en position fermee avant le branchement d'un outil.</p> <p>17. UTILISEZ LES ACCESSOIRES RECOMMANDES. Consultez le manuel d'instruction pour conna1tre les accessoires recommandes. L'utilisation d'accessoires inappropriés pose des risques de blessures aux utilisateurs .</p> <p>18. NE VOUS TENEZ JAMAIS DEBOUT SUR UNE MACHINE. Des blessures graves pourraient survenir si la machine bascule ou si les outils coupants sont touches accidentellement .</p> <p>19. VERIFIEZ LES PIECES ENDOM M AGEES. Avant de poursuivre !'utilisation d'un outil, tout dispositif de protection ou toute piece endommagee devra etre inspecte pour determiner si elle peut fonctionner correctement et selon !'utilisation qui en est prevue . Verifiez l'alignement des pieces mobiles a savoir s'il ya blocage, un bris, ou toute autre condition qui nuirait a son utilisation . Une piece ou un protecteur endommage doit etre repara OU remplace.</p> <p>20. SENS D'ALIMENTATION. Alimenter la piece vers la lame ou le couteau dans le sens contraire de sa rotation seulement.</p> <p>21. NE LAISSEZ JAMAIS UN OUTIL FONCTIONNER DANS SURVEILLANCE - ETEIGNEZ L'OUTIL. Ne laissez pas l'outil sans surveillance jusqu'a ce qu'il s'arrete completement .</p>
---	---

GROUNDING INSTRUCTIONS**1. All grounded, cord-connected tools:**

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having 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 a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green 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 qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.

Use only 3-wire extension cords that have 3-prong grounding plugs and 3 pole receptacles that accept the tool's plug.

Repair or replace damaged or worn cord immediately.

2. Grounded, cord-connected tools intended for use on a supply circuit having a nominal rating less than 150 volts:

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in Sketch A in Fig. 1. The tool has a grounding plug that looks like the plug illustrated in Sketch A in Fig. 1. A temporary adapter, which looks like the adapter illustrated in Sketch B and C, may be used to connect this plug to a 2-pole receptacle as shown in Sketch B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. This adapter is not permitted in Canada. The green-colored rigid ear, lug, and the like, extending from the adapter, must be connected to a permanent ground such

as a properly grounded outlet box.

3. Grounded, cord-connected tools intended for use on a supply circuit having a nominal rating of 150–250 volts, inclusive:

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in Sketch D. The tool has a grounding plug that looks like the plug illustrated in Sketch D on next page. Make sure the tool is connected to an outlet having the same configuration as the plug. No adapter is available or should be used with this tool. If the tool must be reconnected for use on a different type of electric circuit, the reconnection should be made by qualified service personnel; and after reconnection, the tool should comply with all local codes and ordinances.

Grounding methods

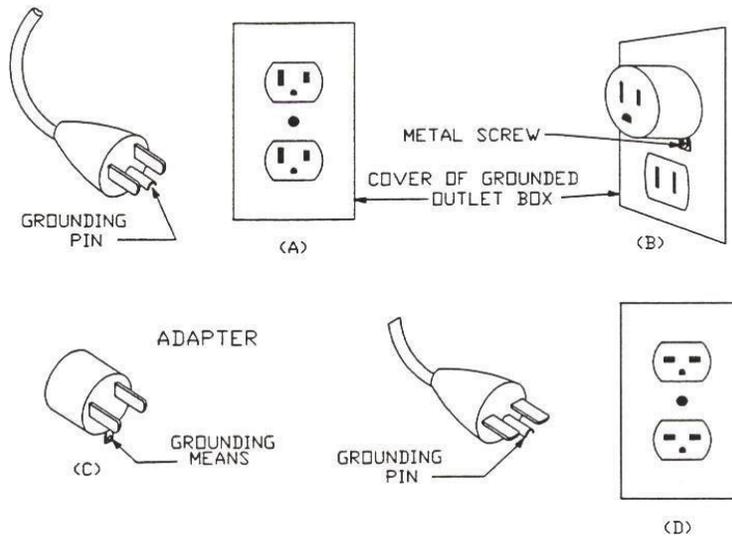
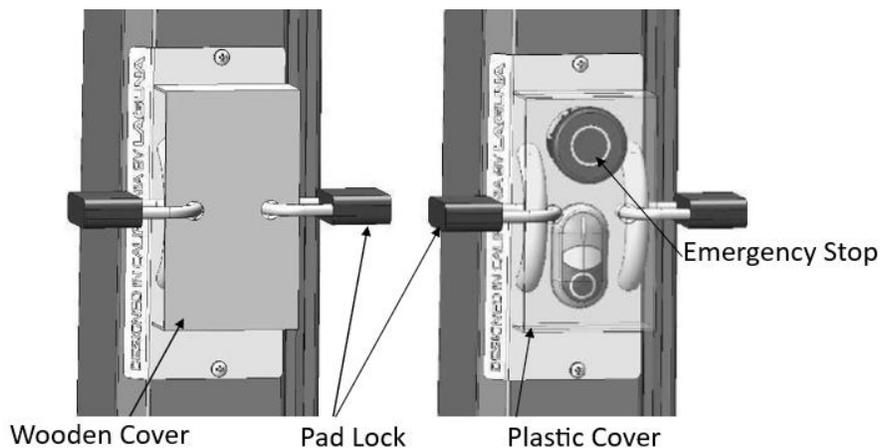


Table A						
Ampere Rating		Volts	Total length of cord in feet			
		120	25	50	100	150
		240	50	100	200	300
More Than	Not More Than		Minimum gage for cord			
0	6		18	16	16	14
6	10		18	16	14	12
10	12		16	16	14	12
12	16		14	12	Not Recommended	

LOCKING OUT BANDSAW

It is strongly recommended that the bandsaw is never unattended and unlocked. To lock the machine; fabricate a cover (not supplied) to cover the control panel. Below are two concepts for locking the panel. The cover can be made from wood or plastic.

Push down the emergency stop. Lock the cover together by attaching padlocks (not included) on the two handles of the control panel. To safeguard your machine from unauthorized operation and accidental starting by young children, the use of padlocks is strongly recommended



UNPACKING

Before unpacking your machine ensure that there is no visible damage to the packaging. All damages must be noted on delivery documents signed by user and driver. Must report damages within 24 hours of delivery.

Unpacking requires; tin snips, knife, and wrench.

Note: The machine is heavy, and if you have any doubt about the described procedure, seek professional assistance. Do not attempt any procedure that you feel is unsafe or that you do not have the physical capability of achieving.

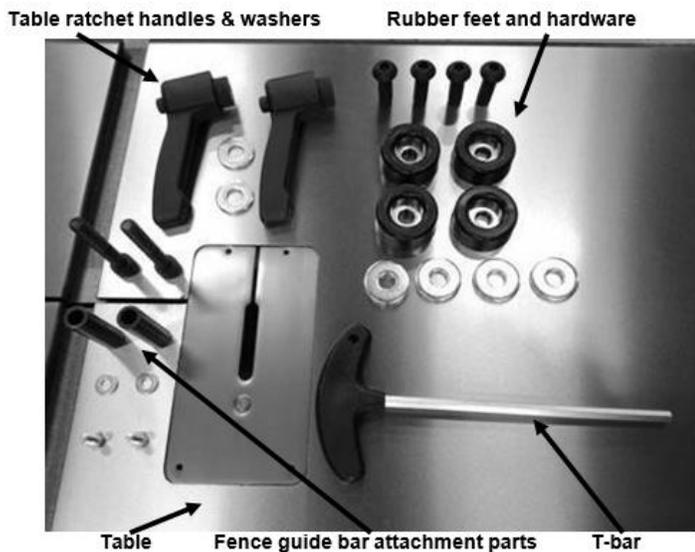
Using the tin snips, cut the banding that is securing the machine to the pallet (if fitted).

 **WARNING: EXTREME CAUTION MUST BE USED BECAUSE THE BANDING WILL SPRING AND COULD CAUSE INJURY.**

Your bandsaw will be shipped in custom packaging consisting of a heavy-duty cardboard box and Styrofoam internal packaging.

1. Open the cardboard box, remove the loose parts, and top Styrofoam.
2. Lift the bandsaw out of the packaging. You will need two or more people, as the bandsaw is heavy.
3. Lift the bottom Styrofoam out and remove the parts that are packaged under the bandsaw and packaging.

Parts Included:



MACHINE ASSEMBLY

For instructional video follow link: <https://www.youtube.com/watch?v=6zrMJ1aCrgI>
Or scan the QR code!



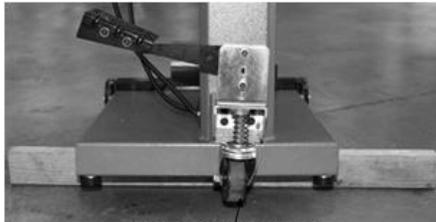
1. After making sure there is no damage to the outside of the packaging, proceed to open packaging and inspect internal contents for damage.
2. Remove all components from box, starting with this manual. Box contents include: user manual, fence, fence knuckle, hardware, cast iron table and the main saw assembly. NOTE: lift assist with cast iron table = 50lbs.
3. Remove packaging from main saw assembly, make sure to get all of the loose Styrofoam.
4. In the hardware kit locate rubber feet along with hardware (shown above). Install with hex T-bar. NOTE: Optional mobility kit available: "MBA14/12 Wheel System".

Follow link for installation video:

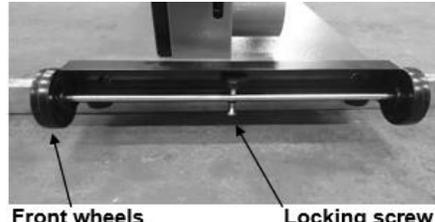
https://www.youtube.com/watch?v=IdImqjeTBgw&ab_channel=LagunaTools



- a. Support the bandsaw on wooden blocks.
- b. Fit the swivel assembly to the back of the bandsaw with the provided bolts.
- c. Fit the front wheels to the front of the bandsaw with the bolts provided and remove the two rubber feet that are close to the front wheels.



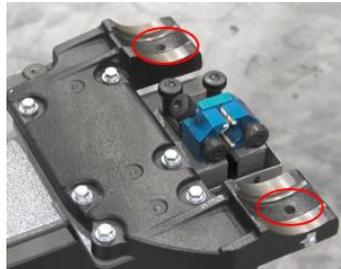
Rear swivel wheel



Front wheels

Locking screw

5. Carefully stand the saw upright on a flat, level surface.
6. Unwrap the bottom side of the table (ungreased side) and inspect the 2 bolts on the underside of the table, make sure they can pivot freely in their slots.
7. With assistance lift and flip over the table so that these 2 bolts line up with the 2 holes on the table mount.
8. Check to make sure the bolts are all the way through before releasing table top. In the hardware kit locate 2 washers and 2 adjusting handles. Add the washer followed by the adjusting handle. Tighten on adjusting handle by pushing the button and turning the hub that extends out when button is pushed. After tightened let go of button and use handle to lock in table tilt.



Trunnion clamp stud



Ratchet handle

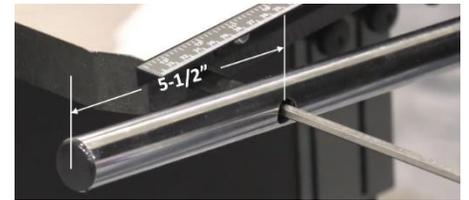
NOTE: The table has a reference stop bolt that is used to quickly align the table after tilting. The stop bolt hits the tilt-blanking disc when it is positioned over the table tilt hole. When the tilt blanking disc is moved away from the hole, it allows the tilt stop bolt to pass through the table tilt hole, and the table can be moved to the maximum amount of tilt (-7 degrees).

9. Locate black plastic handle in hardware bag and use 14mm wrench to attach this handle to the handwheel on the top right of the machine.
10. Remove plastic from table & remove protective oil on table top. Recommended: WD-40.



11. Install the front fence scale, using 2 Hex Cap Screw (M5x0.8x10) to the upper holes on the front of the table. Later when blade is installed adjust scale so 0 is equal to the blades path.

12. From your hardware package, using x2 Socket Head Cap Screw (5/16"-18x2") and x2 spacers. Attach fence rail to table using the cap screw and stand-off bolts.



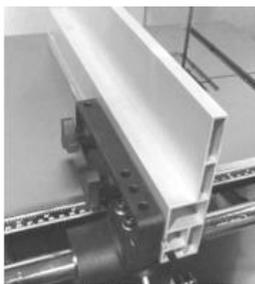
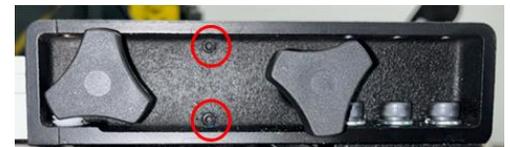
NOTE: Hole 5-1/2" from end should be on the left side.

13. Take fence knuckle and back-off the lock knob enough to fit it onto the fence rail.

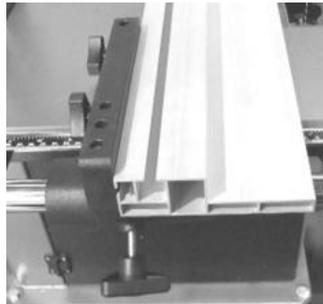
14. Aluminum fence may now be added to the fence knuckle. Fence can be mounted high or low. To mount, loosen the smaller lock knobs on side of fence knuckle and slide T-slot over the bracket on the fence knuckle. Lock knobs when in place. Make sure fence is square



NOTE: If fence needs to be adjusted, nylon slider nut on the inside of the casting to adjust fence up or down. There are also 2 set screws on the side of the casting that adjust the angle of the fence.



Fence in "high" position



Fence in "low" position



Before First Time Start

1. If you are still not thoroughly familiar with the operation of the bandsaw, get advice from a qualified person.
2. Make sure the machine is properly grounded and that the wiring codes are followed.
3. Do not operate the bandsaw while under the influence of drugs, alcohol, or medicine or if tired.
4. Always wear eye protection, safety glasses or a safety shield, and hearing protection.
5. Wear a dust mask; long-term exposure to the fine dust created by the bandsaw is not healthy.
6. Remove your tie, rings, watch and all jewelry. Roll up your sleeves to prevent catching clothes in the saw.
7. Make sure that the guards are in place and always use them. The guards protect you from contacting the blade.

8. Make sure that the saw blade teeth point downward toward the table.
9. Adjust the upper blade guard so that it is just clearing the material being cut.
10. Make sure that the blade has been properly tensioned and tracked.
11. Stop the machine before removing the scrap piece from the table.
12. Always keep your hands and fingers away from the blade.
13. Make sure that you use the proper size and type of blade.
14. Hold the work piece firmly against the table. Do not attempt to saw stock that does not have a flat surface facing down unless a suitable support is used.
15. Use a push stick at the end of a cut. This is the most dangerous time because the cut is complete, and the blade is exposed. Push sticks are commercially available.
16. Hold the wood firmly and feed it into the blade at a moderate speed.
17. Turn off the machine if you must back the material out of an uncompleted or jammed cut.

Testing the Saw

1. Close the doors.
2. Check that the red Emergency Stop Button is in the fully out position.
3. Check that the machine is clear of all tools and other loose objects.
4. Check that all the adjusting and locking handles are tight.
5. Check that there is no blade installed; it is far safer to test the machine without a blade fitted.
6. Connect the bandsaw to the electricity supply.
7. Start the bandsaw by pressing the “I” start button.
8. The lower flywheel is now turning.
9. Now is the time to check that the Stop Switch is functioning correctly.
10. With the machine running (no blade installed), operate the “O” Stop Switch by pressing in, toward the machine. The motor should have the power turned off and slowing down.
11. If the switches fail to operate correctly, do not use the machine until the fault has been corrected.
12. With the motor running, press the red emergency stop button. The motor should have the power turned off and slowing down.
13. With the motor running, press the foot brake pedal. The motor should have the power disconnected and come to a stop.



 **Should the bandsaw fail the test, it must not be used until the fault has been corrected.**

Blade Installation

Disconnect the machine from the power source before making any adjustments.

1. Open the top door to the machine. Located on the back side saw head locate tensioner lever.
2. Lower the tension lever handle down to the minimum position. This will allow the wheel to drop.

NOTE: (Sometimes, the upper wheel might stick in place over time after the tension handle is compressed. Spray WD-40 or PB-Blaster where the tensioning slot is located occasionally to prevent this from happening. If the wheel is still stuck, pull downward on the wheel to be released).

3. Loosen the blade guides upper and lower blades guides.
4. On the top section door, open the red magnetic blade guard to expose the blade cavity. Finally open the bottom cabinet door to expose the drive pulley of the saw.
5. With the bottom door open, locate the plastic blade guide slider that slide between the bandsaw blade and remove.
6. Remove the throating plate that is surrounding the blade on the worktable.
7. Carefully unravel the blade and slide the blade into the slot leading to the worktable throat plate area with the blade teeth facing you (teeth should be pointing downward). Finally slide the blade into the left-hand side groove located on the main frame of the bandsaw.
8. Work the blade around the upper and lower pulley wheels. Make sure the blades are as evenly centered around the wheels as best as you can.
9. Raise the blade tensioner lever handle to the maximum position to tighten the blade.



Tensioning the Blade

Always use good judgement when tensioning a blade. The scale is only a guide to get close to correct tension quickly.

1. The scale inside the top half door of the bandsaw is a good reference to use determining what tensions are good based off the width of the blades for many applications.
2. To make your final adjustments, the adjusting wheel that is facing upward above the worktable adjusts your final blade tension. The wheel has a reverse thread, therefore turning the wheel to the left will tighten the blade tension and turning the wheel to the right will loosen the blade tension.
3. When proper tensioning is achieved, lock blade in place using lock knob below the blade/wheel adjusting knob.
4. Looking at the top wheel, place your finger at the 9 o'clock position. Move your finger down 6", and, using moderate pressure with your thumb, press on the flat of the blade. You should get 3/16" to 1/4" of deflection.
5. Make sure blade is tracking correctly on wheels before operating the saw. Continue to next steps to for properly blade tracking adjustments.



Blade Tracking / Top Idler Wheel Camber Adjustment

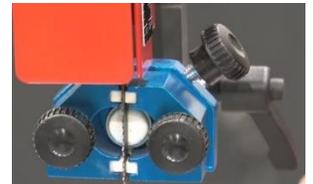
This adjustment aligns the tilt of the idler pulley with the drive pulley. If the wheel seems to be off centered, making noise, follow these steps to properly align the blade.

1. With your hand, rotate the upper wheel while looking through the window at how the blade tracks. Blade should track in the middle of wheels. If the blade is not in centered continue to next steps to adjust.
2. On the back side of the bandsaw, loosen the locking nut located above the tensioning lever.
3. If the adjusting screw-wheel is turned clockwise the blade will move further back on the wheel, and turning the screw-wheel counter-clockwise moved the blade towards the front of the wheel.
4. Make adjustments while you turn the upper wheel by hand, continue to adjust until proper blade tracking is achieved. Lock blade down using the lower locking knob.



Blade Guide Adjustment

1. Loosen the guide assembly by turning the small knob.
2. With the blade guides loose pull both of them back to expose the rear thrust bearing.
3. Unlock the guide post lock handle and move guide assembly forward until back of blade is barely touching the ceramic thrust bearing surface. Lock in place using the guide post locking handle.
4. Slide right and left blade guide forward until ceramic guides are about 1/8" from the gullets of the blade. Lock in position using the small knob on the right.
5. Move right and left blade guide in so that both sides are barely touching the blade. Lock into position using the 2 adjustment knobs in the front of the guide assembly. **NOTE:** Do not deflect or pinch the blade!
6. Using your hand track the blade through the guides to make sure the blade is not binding and that the weld can pass through the guides. Make sure to do at least 2 full revolutions. **NOTE:** If the weld is binding between the guide adjust the guides wider by about the width of a piece of paper. Re-test blade by hand to re-check.
7. Repeat steps for lower blade guide assembly. Lower guide is easier to access when table is adjusted to 45°. **Note:** Rotate the back guide by approximately 15 degrees after every 8 hours of use. This will extend the life of the back blade guide, as it will even out the wear.



FIRST TIME OPERATION

First Run Checks:

1. Make sure the blade is properly adjusted for tension and tracking. And make sure table is square with blade.
2. Connect machine to power and make sure the toggle is switched on, on the converter at the bottom rear of the machine.
3. On the control panel on the left of the machine make sure the E-stop is not depressed. Push the on button to start the saw.
4. Adjust speed with speed adjustment knob.
5. Press the off button to stop blade movement. E-Stop and Foot brake with also stop blade operation and cut power to the saw.

General Instructions:

1. Adjust blade guide assembly so that the blade guides are just above the workpiece (about 3/16") allowing minimum exposure to the blade.
2. If using the fence, move it into position and lock it to the guide rail. If you are using the miter gauge for a crosscut, the fence should be moved safely out of the way.
3. Turn the machine on and wait a few seconds for the machine to fully get up to speed.
4. Place the straightest edge of the workpiece against the fence and push the workpiece slowly into the blade. Do not force the workpiece into the blade. Let the blade do the work.
NOTE: (DO NOT over feed that bandsaw blade. This will reduce blade life and have a greater chance of breaking the blade).
5. When cutting long stock, the operator should use roller stands, support tables, or an assistant to help stabilize the workpiece.
6. When cutting at an angle with a tilted table, provide a guide against which the material being cut can rest. Freehand cutting at an angle can result in injury, and maintaining an accurate cut is difficult.

High to Low Setting & FPM setting:

First we'll explain the procedure to change the 14CX from high gear to low gear or vice versa. The same procedure applies both ways.

 **Disconnect the machine from the power source before making any adjustments.**

1. Turn the machine off and unplug from the power source.
NOTE: (The motor MUST BE OFF before going to the next step)
2. Once the motor is completely off, open the bottom door. In the back of the machine use the adjusting handle to unlock motor position. Lift the motor adjustment lever to raise the motor and give the belt slack.
3. The belt can now be moved on the lower and upper pulleys. Belt on back pulleys for high speed and front pulleys for low speed.
4. Make sure belt is fully on the pulley before loosening the adjustment handle and lowering the motor by pushing down on the motor adjustment lever.

Blade Speed Ranges (FPM)		
Rear Pulleys	High Gear Range	160 – 4400 FPM
Front Pulleys	Low Gear Range	60 – 1600 FPM

Below is the procedure to change the speed (FPM) of the bandsaw (**SAW ON, AND RUNNING**).

1. To change to the desired speed on the bandsaw, the bandsaw MUST be on and the blade rotating.
2. The speed adjuster knob is located on the control panel on the left-hand side of saw. Above this knob displays current blade speed.
3. Slowly rotate the speed adjuster knob CW to increase the blade speed, or CCW to decrease the blade speed.  **USE CAUTION: Never start the 14CX bandsaw with any slack in the drive belt. Doing so can cause machine damage as the belt is forced to pull through the slack.**

Blade Speed Chart

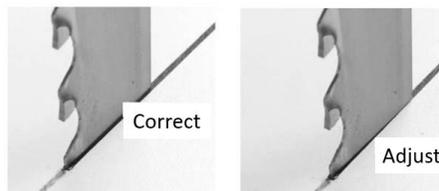
Material	Speed Range (FPM)
Structural Steel Shapes	165
Low Carbon Steel	160-165
Medium Carbon Steel	115
High Carbon Steel	90-100
Cr-moly Steel	105-135
Ni-Cr-moly Steel	90-115
Chromium Steel	80-140
Cr-vanadium Steel	105-115
Tool Steel	40-80
Stainless Steel	40-70
Free Machining Steel	80-100
Cast Iron	55-90
Copper Alloy (Cu-Zn)	55

Material	Speed Range (FPM)
Bronze	90
Al-Bronze	40
Monel	40-45
Titanium Alloy	25-40
Aluminum (soft)	3000
Aluminum (T-6+)	3000
Carbon	3000
Slate	80-160
PTFE Sheet, Rod, Rounds	3000
Hard Rubber	3000
Plywood	3000
Other Woods	3000

ADJUSTMENTS

Adjusting Fence for Drift

1. Make a straight pencil line on the edge of a board.
2. Feed the wood into the blade cutting next to the pencil mark. If the blade is drifting, you will have to compensate by angling the wood to keep the cut straight.
3. Stop the cut in the middle of the wood and mark (with pencil) the angle on the table. This is the angle of drift, and you will have to set the fence to the pencil line.
4. To adjust the fence, loosen the clamp bolts that attach it to the cast bracket. Move the fence so that it lines up with the pencil mark on the table and retighten the clamp screws.



Blade Guidepost Adjustment:

1. Locate the guidepost locking screw located on the rear top half of the bandsaw. To make any adjustments, loosen the locking screw to allow the blade guidepost to freely move vertically.
2. The hand wheel located above the blade guidepost on the side of the machine adjusts the vertical movement of the guidepost.

NOTE: (Maintain a clearance of 3/16 inch between the blade guidepost and the workpiece to allow minimum exposed blade to prevent injury).

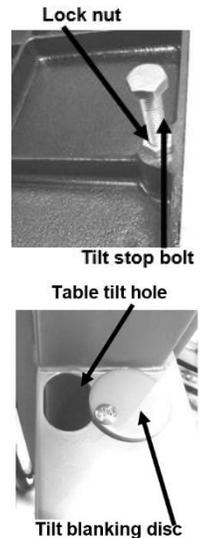
3. After correctly adjusting the height of the blade guidepost, ALWAYS tighten the guidepost screw for the guide will stay in the desired position.

Squaring Table to Blade

1. Check that the stop bolt is in contact with the tilt-blanking disc.
2. Place a square on the tabletop and bring it up to the side of the blade.
3. Check if the blade is square to the table.
4. If adjustment is required loosen the lock nut on the tilt-stop bolt and adjust in the required direction.

NOTE: Only adjust the tilt-stop bolt in small increments.

5. Tighten the lock nut and re-check the blade squareness to the table.
6. If additional adjustment is required repeat the above steps.



Adjusting Table Tilt:

1. Loosen lock nut and stop bolt until it does not contact the table underneath the worktable.
2. On both side of the worktable, there are 2 locking levers. Loosen them both then the table is free to move to the desired angle of cut.
3. Pivot the worktable referencing to the protractor angle to set the angle of cut.
4. Tighten the level handles, stop bolt, and locking nut to secure the wanted angle. CW is 45 degrees, CCW is 7 degrees degree of freedom.

Fence Assembly Adjustment:

This will change the accuracy length cut of the workpiece. Check the clearance between the table and the fence. The fence should not rub against the table surface but be slightly above it. This gap should be the same at the front of the table as it is at the rear.

1. Loosen the fence locking wheel located on the fence assembly.
2. The fence is now free to move vertically along the worktable.
3. Once in the desired spot, lock the fence in place by tightening the locking screw.

OPTIONAL LIGHT KIT INSTALLATION

Laguna Part No: ALEDMACH

Dake Part No: 303815

The light is attached to the top of the bandsaw as shown. The light is supplied with a three-pin plug to suit either 110V or 220V depending on machine voltage. The cable must be held in position with the clips provided and positioned so that the cable is safe and will not in any way come close to the blade or cabinet door. Below is the suggested cable route. Use the sticky cable clamps to secure the cable along the top of the bandsaw. Ensure that the cable is not over the vertical shaft hole, as it could be damaged when the shaft exits the hole.



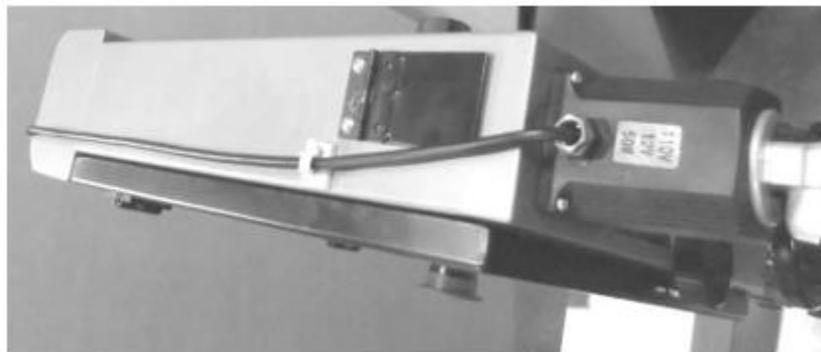
Cable clips & hardware



Light plugged into socket



Light installed



Suggested cable route

BLADE SELECTION

This section of the manual is meant to be a reference guide only. If you are unsure which blade to use please contact your local blade supplier.

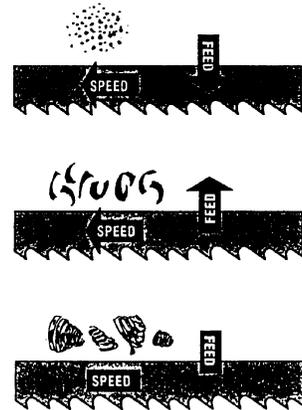
Tell-tale Metal Chips

Chips are the best indicator of correct feed force. Monitor chip information and adjust feed accordingly.

Thin or powdered chips – increase feed rate or reduce blade speed.

Burned heavy chips – reduce feed rate and/or blade speed.

Curly silvery and warm chips – optimum feed rate and blade speed.



Material Hardness & Pitch

When choosing the blade with the proper pitch, one factor you should consider is the hardness of the material that is being cut: the harder the material, the finer the pitch that is required.

Having a variety of tooth configurations in the same width will give you an acceptable choice for a particular job. There are certain things that indicate if a blade has a proper pitch, too fine a pitch or too coarse a pitch. Some are listed below:

Proper Pitch:

- Blades cut quickly.
- A minimum amount of heat is created when the blade cuts. Minimum feeding pressure is required.
- Minimum horsepower is required.
- The blade makes quality cuts for a prolonged period.

Pitch Is Too Fine:

- The blade cuts slowly.
- There is excessive heat, which causes premature breakage or rapid dulling.
- Unnecessarily high feeding pressure is required.
- Unnecessarily high horsepower is required. The blade wears excessively.

Pitch Is Too Coarse:

- The blade has a short cutting life.
- The teeth wear excessively.
- The bandsaw vibrates.

Causes of Blade Breakage.

1. Excessive blade thickness in relation to the flywheel diameter.
2. Defective weld.
3. Incorrect tension, particularly if the blade is over tensioned; the tension spring no longer fulfills its function.
4. After use it is recommended that you slacken the tension, especially overnight. (Be sure to place a clearly visible note on the machine that you have done this).
5. Misalignment of the flywheels.
6. Irregularity of flywheel surface, for instance, an accumulation of chips while cutting.

You can correct these problems by readjusting the machine, changing the way you operate it or by changing the blade. Try only one change at a time.

Causes of Blade Dulling prematurely.

1. Poorly set side guides or rear thrust guide.
2. Poor blade tracking.
3. Wrong blade selection. If the blade is too narrow, it will flex more easily and decrease the quality of the cut. The blade should also have the correct pitch and width.
4. The tooth pitch is too fine (too many teeth per inch).
5. Certain woods and metals will dull a steel blade very quickly. Check your cutting material.
6. On certain exotic woods, the ends have been painted. This is done to control the drying. The paint is very abrasive and will dull the blade as you cut through it. It is recommended that you cut the painted ends off your wood.

TROUBLESHOOTING

 **Before performing any maintenance to the machine, make sure to unplug the cord from the power source before cleaning.**

Bandsaw will not start.

1. Check that the (red) Emergency switch is fully pulled out.
2. Check that the electrical power cord is plugged into the power outlet.
3. Check that the electrical supply is on (reset the breaker).
4. Check that you have the correct supply power. 110V Single Phase.

Squeaking noise.

1. Check the bearings.
2. Check the drive belt.
3. Check that the guides are adjusted correctly.

Upper guide shaft is tight or loose.

1. Clean and lubricate.
2. Adjust rack and pinion.
3. Bent rack. Replace the rack.

Blade slows down during a cut.

1. Loose drive belt. Re-tension the belt.
2. Dull blade. Replace the blade or have it re-sharpened.
3. Feeding material too fast. Slow down the feed rate.
4. Insufficient set on the teeth (nipping the blade). Change blade for a blade with the correct set.
5. Oil or dirt on the drive belt. Clean or replace the drive belts.
6. Fence not aligned correctly. Align fence.

Blade will not track on flywheels.

1. Bad blade. Change the blade.
2. Crown on the wheels worn or damaged tire. Dress the tires.

The blade kicks.

1. Bad blade. Replace the blade.

The blade makes a clicking noise.

1. Bad weld. Dress the weld or change the blade.

Blade overheats.

1. Dull blade. Change the blade or sharpen the blade.
2. Pitch is too small for the depth of cut. Change to a blade with the correct pitch.
3. Guides too tight. Adjust the guides.
4. Material too hard for the selected blade. Change the blade.
5. Blade too thick for the diameter of the wheels. Change the blade.

Machine vibrates.

1. Machine not level on the floor. Re-level the machine ensuring that it has no movement.
2. Damaged drive belt. Replace the belt.

The machine will not stop.

This is a rare occurrence, as the machine is designed to be fail-safe. If it should occur, and you cannot fix the fault, seek professional assistance. The machine must be disconnected from the power and not run until the fault has been rectified.

1. Stop switch faulty. Replace the stop switch.
2. Internal breaker faulty. Replace the breaker.

Motor attempts to start but will not turn.

1. With the power disconnected from the machine, open the doors, and try to turn the wheel by hand. If the wheel is not turning, check the reason for the jamming. Typical reasons are guides too tight; wood jammed in the wheel. Adjust guides or remove jammed wood. Brake engaged. Disengage brake.

Digital Read Out (DRO) is displaying an error**Err1: Over-current protection mode**

If the operating current of the motor exceeds 18 Amps for 30 seconds, it goes into Over-current protection mode.

Over-current mode is to stop the motor immediately and the display shows Err1.

Reset the Over-current mode steps:

- Press the Stop button to reset the Over-current protection mode.
- Press the Start button again and the control board restarts the motor.

Err2: Motor or Spindle sensor fail mode

After pressing the start button, if the motor stops to run around 10 seconds or the spindle sensor (yellow proximity sensor) located at rear of the lower saw frame has not detected with proper speed around 5 seconds, it goes into Motor or Spindle sensor fail mode.

In the motor or spindle sensor fail mode, the display shows Err2.

Solutions:

- The connector of motor hall sensor cable is not inserted proper into the PWM control board. (It displays with Err5 first, then displays with Err2 finally. The motor stops to run around 10 seconds.)

Open the PWM control board box to make sure the connector of the cable inserted secure into the connector on the PWM control board.

- Magnetic ring at rear of the motor for the motor hall sensor has broken. (It displays with Err5 first, then displays with Err2 finally. The motor stops to run around 10 seconds.)

Replace with a new magnetic ring Part # PB14CX-2-45-1.

- Motor hall sensor failed. (It displays with Err5 first, then displays with Err2 finally. The motor stops to run around 10 seconds.)

Replace with a new motor hall sensor cable Part # PB14CX-2-45-3.

- The connector of spindle sensor (yellow proximity sensor) cable in not inserted proper into the DRO board. (It displays with Err2 around 5 seconds. The motor is still running.)

Open the control panel to make sure the connector of the cable inserted secure into the connector on the DRO board.

- The spindle sensor (yellow proximity sensor) located at rear of the lower saw frame has been moved to an improper distance or misaligned to the four sensing holes on the Part # PB14CX-2-75 fixed plate. (It displays with Err2 around 5 seconds. The motor is still running.)

Keep 1/32" to 1/8" (1 to 3 mm) distance between the spindle sensor and the fixed plate. The spindle sensor should be centered/ aligned to the four sensing holes on the fixed plate.

- Spindle sensor (yellow proximity sensor) failed. (It displays with Err2 around 5 seconds. The motor is still running.)

Replace with a new spindle sensor Part # PB14CX-2-36.

- PWM control board failed. (Motor stops to run directly. Then it displays with Err5 first and displays with Err2 finally.)

Replace with a new PWM control board Part # PB14CX-2-87-1.

- Motor failed. (Motor stops to run directly. Then it displays with Err5 first and displays with Err2 finally.)

Check the two carbon brushes on the motor first. Replace with a new motor Part # PB14CX-2-45 if the two carbon brushes work normal without either broken or worn out.

Reset the Motor or Spindle sensor fail mode steps:

- Press the Stop button to reset the Motor or Spindle sensor fail mode.
- Press the Start button again and the control board restarts the motor.

Err3: Overvoltage mode

It is possible causing by inputting with a wrong voltage likes 220V. The PWM control board probably has been damaged by inputting with a wrong voltage. Replace with a new PWM control board Part # PB14CX-2-87-1 if necessary.

Reset the Overvoltage mode steps:

- Press the Stop button to reset the Overvoltage mode.
- Press the Start button again and the control board restarts the motor.

Err4: Undervoltage mode

A blown fuse on the PWM control board. Replace with a new 30A 250V time-delay ceramic tube fuse 6 x 30mm (1/4" x 1-1/4", D x L).

Reset the Undervoltage mode steps:

- Press the Stop button to reset the Undervoltage mode.
- Press the Start button again and the control board restarts the motor.

Err5: Communication between PWM control board and DRO board fail mode

Solutions:

- The connectors of control cable are not inserted proper into either the PWM control board or the DRO board. (It displays with Err5 around 5 seconds and the motor is still running if the connectors of control cable disconnected during operations. Or motor stops to run directly. Then it displays with Err5 around 5 seconds if the connector of control cable disconnected or removed away from the PWM control board before operations.)

Open both PWM control board box and control panel to make sure the two connectors of the control cable inserted secure into the connectors on both the PWM control board and the DRO board.

- Control cable failed. (It displays with Err5 around 5 seconds and the motor is still running if the connectors of control cable disconnected during operations. Or motor stops to run directly. Then it displays with Err5 around 5 seconds if the connector of control cable disconnected or removed away from the PWM control board before operations.)

Replace with a new control cable Part # PB14CX-37.

- PWM control board failed. (Motor stops to run directly. Then it displays with Err5 around 5 seconds.)
Replace with a new PWM control board Part # PB14CX-2-87-1.

Reset the fail mode steps:

- Press the Stop button to reset.
- Press the Start button again and the control board restarts the motor.

Err6: Motor runs under one speed only and the speed control fail mode

Solution:

- PWM control board failed. Replace with a new PWM control board Part # PB14CX-2-87-1.

Reset the fail mode steps:

- Press the Stop button to reset.
- Press the Start button again and the control board restarts the motor.

MAINTENANCE

⚠ Before performing any maintenance to the machine, make sure to unplug the cord from the power source before cleaning.

- Maintain bearing guides clean and free of build-up.
- All bearings are sealed for life and do not require any maintenance. Replace bearings when faulty.
- Check that the cleaning brush over the band wheel is working properly and remove any deposits from the band wheels to avoid vibration and blade breakage.
- The table surface should always be kept clean and free of rust for best results. Talcum powder applied with a blackboard eraser rubbed in vigorously once a week; this will fill casting pores and form a moisture barrier. This method provides a tabletop that is slick and allows rust rings to be easily wiped from the surface.
- Protect all non-painted surfaces with a Teflon based lubricant.
- Clean & grease all mechanical movement components such as gears, bars, if it becomes difficult to adjust.
- Clean and oil the tensioning mechanism if it becomes difficult to adjust.
- Check the drive V-belt for cracks overtime. Replace if any irregular wear is present.

Item	Action	Interval	Maintenance
Saw Blade	Listen for sound of missing teeth.	Saw running	Replace blade when teeth are broken.
	Observe cutting action for cleanness and accuracy.	Saw running	Replace blade when bent or worn; use a wider blade for more accurate straight cuts.
	Listen for a poor weld – a “click” as it passes through the guide bearings.	When changing blade Saw running	Use a different blade or dress the weld with a grinder.
	Watch for signs of slippage on the drive wheels (blade occasionally slows or comes to a stop while sawing).	Saw running	Be sure you are using the correct blade tension; check rubber tires for cleanliness and adherence to drive wheel – replace if necessary.
Lower Drive Wheel	Check bearing area for leakage of lubricant.	Monthly	Replace bearing if leakage occurs.
Upper Drive Wheel	Check bearing area for leakage of lubrication.	Monthly	Replace bearing if leakage occurs.
Drive Wheel Rubber Tires	Check for cleanliness.	Daily & when changing blade	Wipe or brush clean.
Drive Belt	Check for smooth surfaces and adherence to drive wheel. Check for glazing. Check for cracks and cuts.	Monthly or when blade slippage occurs (squealing belt)	Clean when necessary – replace if damaged or excessively worn. Replace a glazed belt – DO NOT USE BELT DRESSING.
Ceramic Blade Guides	Check upper and lower guides for cleanliness	Daily	Clean blade guides, lubricate with Teflon based lubricant
	Check for excessive wear.	When changing blade	Replace if excessively worn.

Tire Maintenance

One of the major concerns regarding the maintenance of the bandsaw is how clean the tires are. As the saw cuts, some of the material lands on the tire of the lower wheel. As the wheel rotates, the material becomes compressed on the tire. The compressed material could have a negative effect, such as vibration, short blade life and drifting of the blade.

A brush contacts the lower wheel and helps to prevent build-up. You should inspect the tires regularly to check that build-up is not happening, especially the lower wheel. The tires are made of rubber and wear just like car tires. They wear in the middle, which causes a concavity/deformation in the tire.

Tire deformation makes it hard to track the blades, and for this reason it is important to maintain the original shape of the tire. The best way to clean the tire surface and maintain the original shape is to sand it with sandpaper. The old tire surface often hardens and glazes over and should be redressed occasionally. This can be done by sanding the wheel with 100-grit sandpaper. This will take off a little of the rubber and expose the new rubber. Rotate the wheels by hand with the blade removed.



Replacing Tires

When tires have significant wear or are damaged, they should be replaced. The link below offers assistance with the process to change tires.

<https://youtu.be/hqbP-U-0PSE>

Remove the new tire(s) from the packaging and allow to rest overnight.

1. Turn OFF bandsaw and disconnect power!
2. Remove bandsaw blade. See “Removing the blade from bandsaw”.
3. Remove the wheel(s) of the bandsaw by removing the nut securing the wheel.
4. Place the wheel flat on a workbench. It can be helpful to place the bandsaw wheel onto a wood dowl placed into the workbench or end vise.
5. Remove the old tire using a scrap of wood to pry up the tire (or being very careful with a slotted screwdriver not to damage the wheel). Clean and wipe the wheel.
6. Install the new tire. It can be helpful to use two spring clamps (soft pads) to hold the tire while placing it around the wheel.
7. Using the dowl (or screwdriver) between the new tire and wheel, move it around the circumference of the wheel to help seat the new tire properly.
8. Install the wheel(s) back into the bandsaw.

Replacing the Drive Belt

1. Loosen the motor clamp bolts and move the motor so that the tension is completely removed from the drive belt. Remove the blade. Loosen the two hex nuts that hold the brake to the bandsaw frame and slide it out of the way of the disc.
2. Remove the flywheel shaft nut that clamps the wheel axle (front of the flywheel).
3. Pull the lower flywheel off the bandsaw. You may have to use a gear puller to remove the lower wheel.
4. Replace the drive belt.
5. Refit the lower wheel and re-clamp with the flywheel shaft nut.
6. Tension the drive belt and tighten the motor clamping bolts.

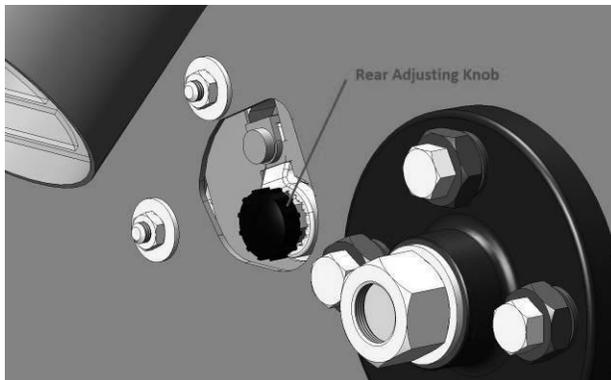
Note: It is better to replace the drive belt early than to have a breakdown during an important job.

Note: Take great care not to damage the bearings when taking the flywheel off and reassembling.

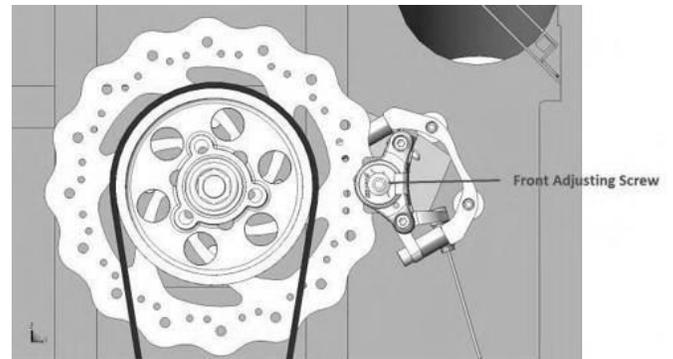
Adjusting the Brake

The back brake adjuster moves clockwise to remove slack in the brake pad.

The front brake adjuster is rotated clockwise with an Allen key to remove slack in the brake pad.

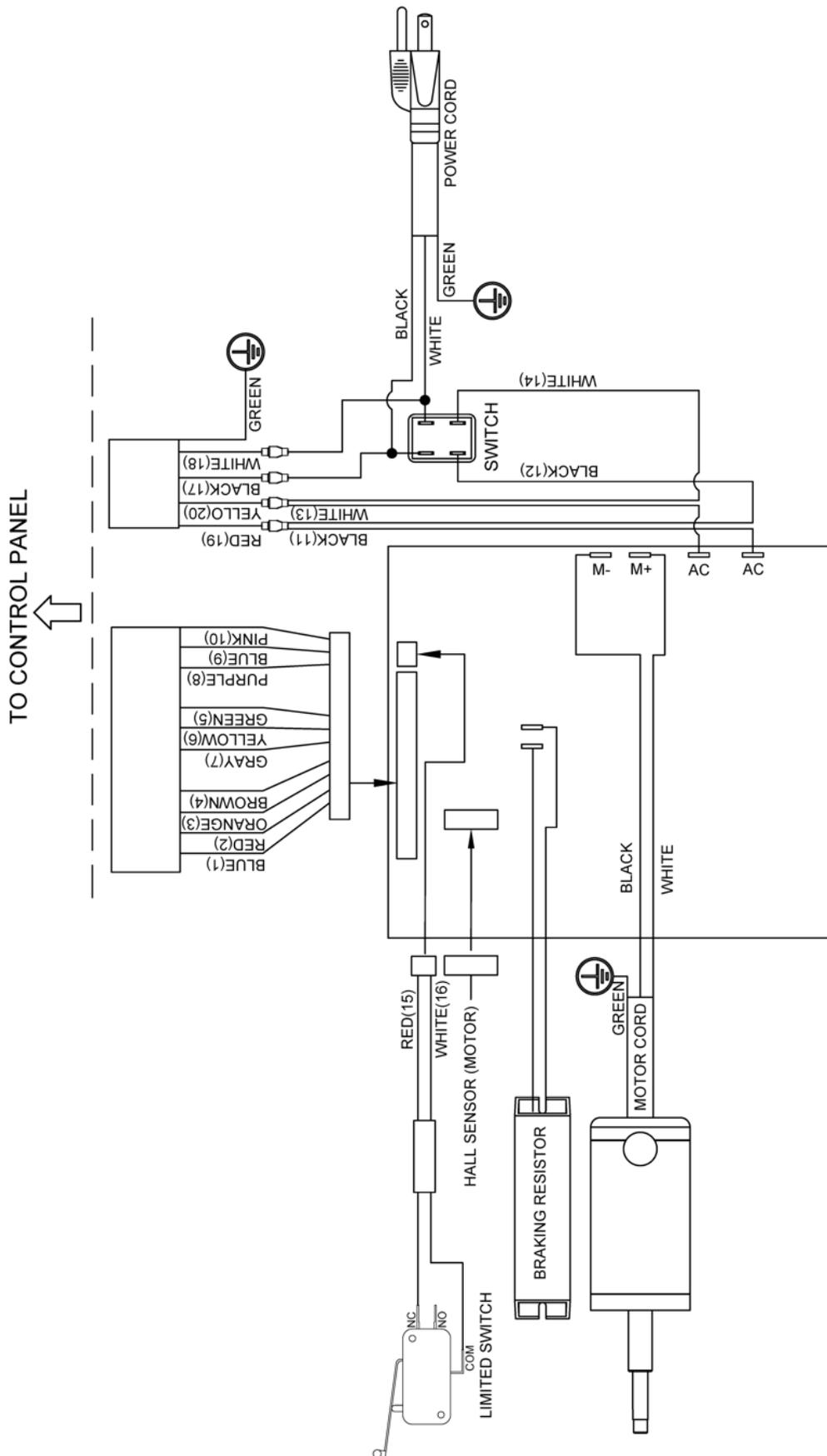


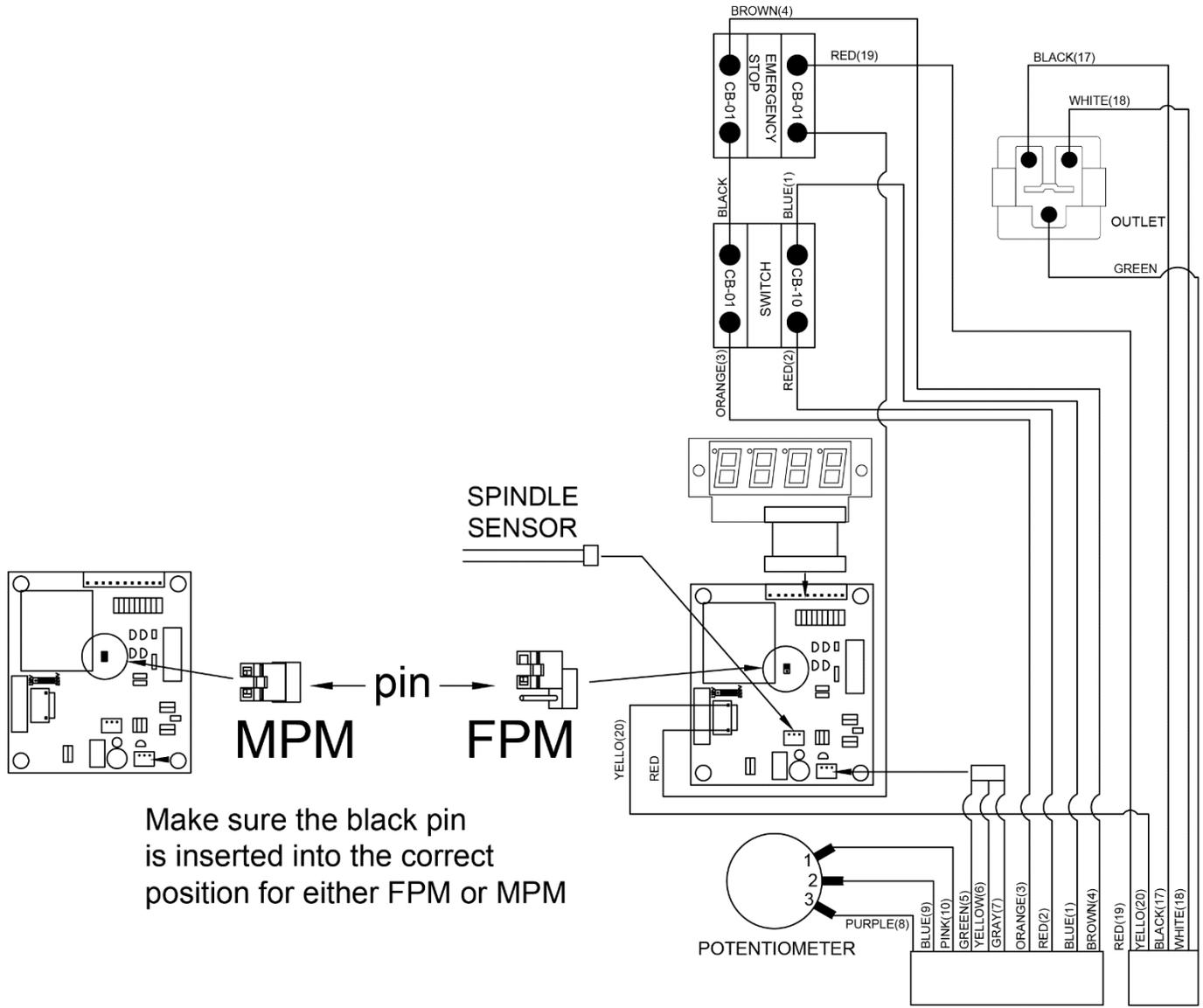
Back brake adjuster



**Front brake adjuster
(Flywheel not shown for clarity)**

WIRING DIAGRAMS:

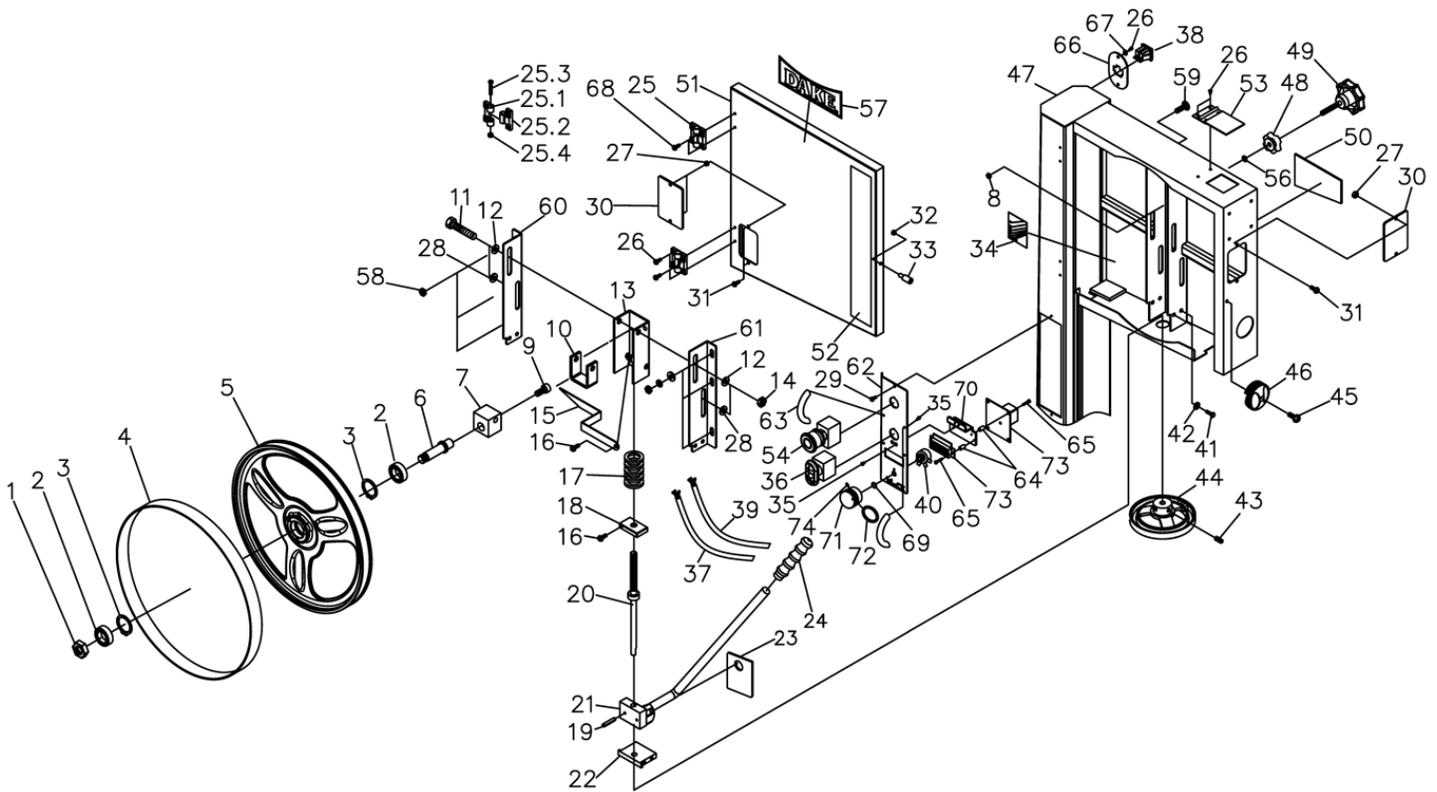




Make sure the black pin is inserted into the correct position for either FPM or MPM

TO CONTROL BOX

PARTS LIST

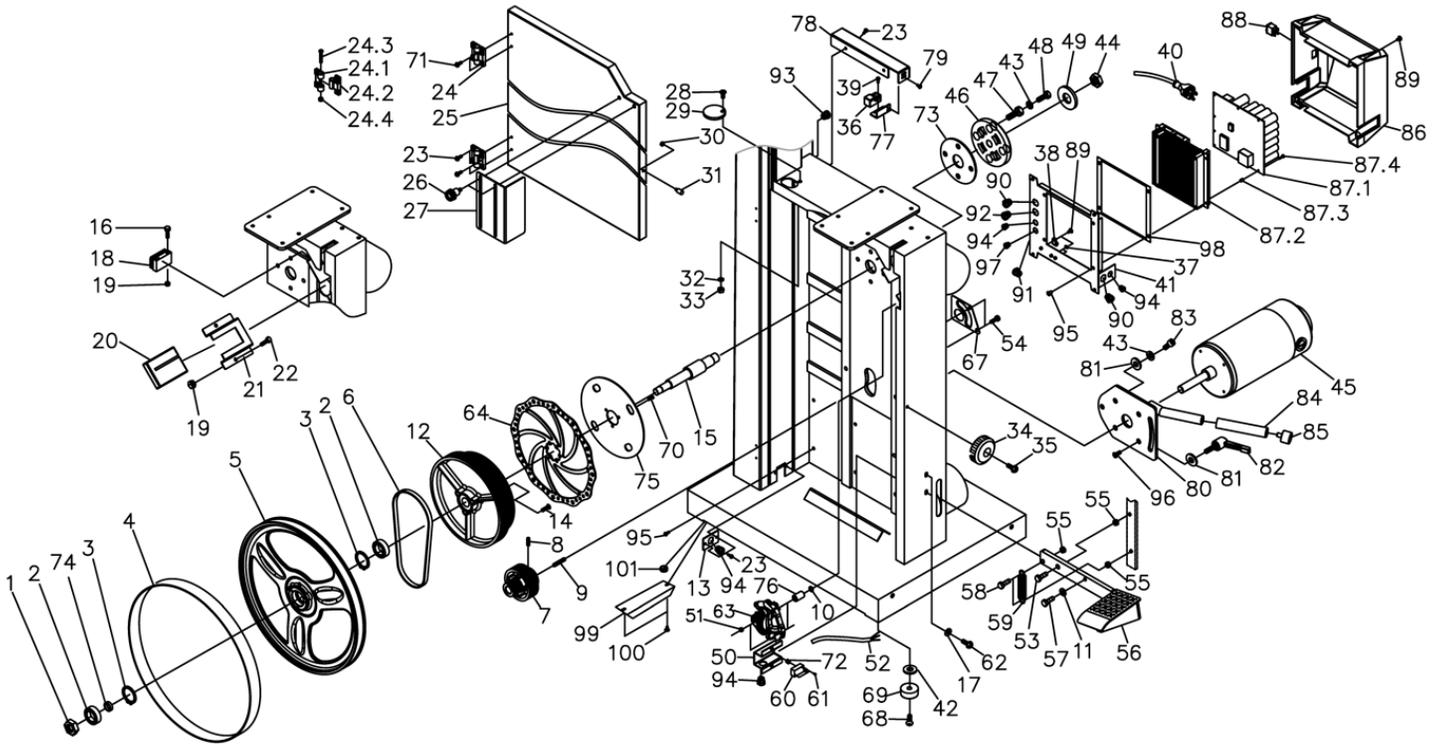


Upper Wheel Assembly:

Pos.	Part #	Description	Qty
1	PBAND1412-175-1	Hex Nut (M14x1.5-LH)	1
2	PBAND1412-175-2	Ball Bearing (6202LLU)	2
3	PBAND1412-175-3	C-Ring (R35)	2
4	PBAND1412-175-4	PU Tire	1
5	PBAND1412-175-5	Upper Wheel	1
6	PBAND1412-175-6	Upper Wheel Shaft	1
7	PBAND1412-175-7	Upper Wheel Shaft Bracket	1
8	PBAND1412-175-8	Special Nut	1
9	PBAND1412-175-9	Socket Head Cap Screw (3/8"-16x5/8")	1
10	PBAND1412-175-10	Support Bracket	1
11	PBAND1412-175-11	Hex Cap Screw (M10x1.5x80)	2
12	PBAND1412-175-12	Flat Washer (3/8")	2
13	PBAND1412-175-13	Upper Wheel Bracket Base	1
14	PBAND1412-175-14	Nylon Inserted Lock Nut (M10x1.5)	2
15	PBAND1412-175-15	Pointer	1
16	PBAND1412-175-16	Special Bolt	2
17	PBAND1412-175-17	Spring	1
18	PBAND1412-175-18	Bracket	1
19	PBAND1412-175-19	Pin (Ø4x20)	1
20	PBAND1412-175-20	Adjusting Screw	1
21	PBAND1412-175-21	Blade Tension Arm Assembly	1

Pos.	Part #	Description	Qty
22	PBAND1412-175-22	Support Block	1
23	PBAND1412-175-23	Plate	1
24	PBAND1412-175-24	Handle	1
25	PBAND1412-175-25	Door Hinge Set	2
25.1	PBAND1412-175-25-1	Door Hinge, Left	2
25.2	PBAND1412-175-25-2	Door Hinge, Right	2
25.3	PBAND1412-175-25-3	Socket Head Cap Screw (M5x0.8x35)	2
25.4	PBAND1412-175-25-4	Nylon Inserted Lock Nut (M5x0.8)	2
26	PBAND1412-175-26	Screw (M3.5x10mm)	8
27	PB14CX-27	Flange Nut (#10-24)	4
28	PB14CX-28	Flat Washer (3/8")	2
29	PB14CX-29	Screw (M3.5x10mm)	2
30	PBAND1412-175-30	Tracking Window	2
31	PBAND1412-175-31	Screw (#10-24x1/2")	4
32	PBAND1412-175-32	Hex Nut (1/4"-20)	1
33	PBAND1412-175-33	Door Stud	1
34	PBAND1412-175-34	Tension Gauge	1
35	MBAND14BX110-175-35	Phillips Flat Head Screw (M3x0.5x6)	6
36	MBAND14BX110-175-36	ON/ OFF Switch	1
37	PB14CX-37	Control Cord	1
38	PBAND1412-175-38	Outlet(110V)	1
39	PB14CX-39	Power cord, DRO& Outlet	1
40	PLAREVO1836-169	Control Pot Assembly	1
41	PBAND1412-175-41	Hex Cap Screw (1/4"-20x1/2")	4
42	PBAND1412-175-42	Lock Washer (1/4")	4
43	PBAND1412-175-43	Set Screw (1/4"-20x3/8")	2
44	PBAND1412-175-44	Hand wheel	1
45	PBAND1412-175-45	Screw (1/4"-20x3/4")	1
46	PBAND1412-175-46	Lock Knob	1
47	PB14CX-47	Saw Body	1
48	PBAND1412-175-48	Lock Knob	1
49	PBAND1412-175-49	Adjusting Knob	1
50	PBAND1412-175-50	Tension Label	1
51	PBAND1412-175-51	Upper Door	1
52	PB14CX-52	Logo Label, LAGUNA	1
53	PBAND1412-175-53	Hinge Cover	1
54	PB14CX-54	Emergency Stop	1
55	PBAND1412-175-55	Warning Label (not shown)	1
56	PBAND1412-175-2-13	Lock Washer (5/16")	1
57	PB14CX-57	Logo Label, DAKE	1
58	PB14CX-58	Flange Nut (5/16"-18)	6
59	PBAND1412-175-59	Carriage Bolt (5/16-18x5/8")	6
60	PBAND1412-175-60	Upper Wheel Bracket-Left	1
61	PBAND1412-175-61	Upper Wheel Bracket-Right	1
62	PB14CX-62	Control Panel	1

Pos.	Part #	Description	Qty
63	MBAND14BX110-175-63	Handle	2
64	PB14CX-64	Spacer	4
65	PB14CX-65	Screw (M3x0.5x15)	4
66	MBAND14BX110-175-66	Plate(110V)	1
67	MBAND14BX110-175-67	Washer, Lock-Int. Tooth (M4)	2
68	MBAND14BX110-175-68	Screw (M4x0.7x8)	4
69	PLAREVO1836-1156	O-Ring (P14)	1
70	PB14CX-70	Bracket	1
71	PLAREVO1836-159	Speed Knob	1
72	PLAREVO1836-1143	O-Ring (P29)	1
73	PB14CX-73	Digital Readout	1
74	PLAREVO1836-1100	Set Screw (M4x0.7x4)	1



Lower Wheel & Motor Assembly:

Pos.	Part #	Description	Qty
1	PBAND1412-175-1	Hex Nut (M14x1.5-LH)	1
2	PBAND1412-175-2	Ball Bearing (6202LLU)	2
3	PBAND1412-175-3	C-Ring (R35)	2
4	PBAND1412-175-4	PU Tire	1
5	PBAND1412-175-5	Upper Wheel	1
6	PB14CX-2-6	Poly-V Belt	1
7	PB14CX-2-7	Motor Pulley	1
8	PBAND1412-175-2-8	Set Screw (5/16"-18x3/8")	2
9	PB14CX-2-9	Key (5x5x60)	1
10	PB14CX-2-10	Flat Washer (1/4")	2
11	PBAND1412-175-2-11	Flat Washer (5/16")	1
12	PB14CX-2-12	Spindle Pulley	1
13	PB14CX-2-13	Plate	1
14	PB14CX-2-14	Phillips Flat Head Screw (5/16"-18x3")	3
15	PB14CX-2-15	Lower Spindle	1
16	PBAND1412-175-2-16	Hex Cap Screw (M5x0.8x30)	2
17	PBAND1412-175-3-24	Flat Washer (1/4")	2
18	PBAND1412-175-2-18	Brush	1
19	PB14CX-2-19	Flange Nut (M5x0.8)	4
20	PBAND1412-175-2-20	Insert Block	1
21	PB14CX-2-21	Shelf	1
22	PBAND1412-175-2-22	Hex Cap Screw (M5x0.8x8)	2
23	PBAND1412-175-26	Screw (M3.5x10mm)	8
24	PBAND1412-175-25	Door Hinge Set	2
24.1	PBAND1412-175-25-1	Door Hinge, Left	2

Pos.	Part #	Description	Qty
24.2	PBAND1412-175-25-2	Door Hinge, Right	2
24.3	PBAND1412-175-25-3	Socket Head Cap Screw (M5x0.8x35)	2
24.4	PBAND1412-175-25-4	Nylon Inserted Lock Nut (M5x0.8)	2
25	MBAND14BX110-175-2-25	Lower Door	1
26	PBAND1412-175-2-26	Lock Knob	2
27	PBAND1412-175-2-27	Lower Blade Guard	1
28	PBAND1412-175-2-28	Screw (1/4"-20x3/4")	1
29	PBAND1412-175-2-29	Plate	1
30	PBAND1412-175-32	Hex Nut (1/4"-20)	1
31	PBAND1412-175-33	Door Stud	1
32	PBAND1412-175-2-32	Flat Washer (1/4")	1
33	PBAND1412-175-2-33	Nylon Inserted Lock Nut (1/4"-20)	1
34	PBAND1412-175-46	Lock Knob	1
35	PBAND1412-175-45	Screw (1/4"-20x3/4")	1
36	PB14CX-2-36	Digital Readout Sensor	1
37	MBAND14BX110-175-67	Washer, Lock-Int. Tooth (M4)	2
38	PB14CX-2-38	Cord Holder	1
39	PB14CX-2-39	Screw (M3x0.5x15)	2
40	PB14CX-2-40	Power Cord(110V)	1
41	PB14CX-2-41	Bottom Plate, Control Board Box	1
42	PBAND1412-175-2-42	Flat Washer (3/8")	4
43	PBAND1412-175-2-43	Lock Washer (3/8")	5
44	PBAND1412-175-2-44	Hex Nut (M14x1.5)	1
45	PB14CX-2-45	DC Motor	1
45.1	PB14CX-2-45-1	Magnetic ring (not shown)	1
45.2	PB14CX-2-45-2	Carbon brush (not shown)	2
45.3	PB14CX-2-45-3	Motor Sensor (not shown)	1
46	PBAND1412-175-2-46	Spindle Holder	1
47	PBAND1412-175-2-47	Adjusting Screw	4
48	PBAND1412-175-2-48	Hex Cap Screw (3/8"-16x1-3/4")	4
49	PBAND1412-175-2-49	Flat Washer (D20xD36.5x3t)	1
50	PB14CX-2-50	Switch Cover	1
51	MBAND14BX110-175-2-51	Hex Nut (M6x1.0)	2
52	PB14CX-2-52	Limit Switch Cord	1
53	MBAND14BX110-175-2-53	Hex Cap Screw (3/8"-16x3/4")	1
54	MBAND14BX110-175-2-54	Hex Cap Screw (M6x1.0x35)	2
55	PBAND1412-175-3-36	Hex Nut (3/8"-16)	3
56	MBAND14BX110-175-2-56	Foot Brake	1
57	MBAND14BX110-175-2-57	Socket Head Cap Screw (5/16"-18x1/2")	1
58	MBAND14BX110-175-2-58	Hex Cap Screw (3/8"-16x1-1/4")	2
59	MBAND14BX110-175-2-59	Spring	1
60	MBAND14BX110-175-2-60	Limit Switch	1
61	MBAND14BX110-175-2-61	Screw (M3x0.5x20)	2
62	MBAND14BX110-175-2-62	Screw (1/4"-20x3/8")	2
63	MBAND14BX110-175-2-63	Brake Assembly	1

Pos.	Part #	Description	Qty
	MBAND14BX110-175-2-63P	Brake Pad (not shown), 2 pieces	1
64	PB14CX-2-64	Disc	1
65	MBAND14BX110-175-2-65	Inner Cable (not shown)	1
66	MBAND14BX110-175-2-66	Housing (not shown)	1
67	MBAND14BX110-175-2-67	Plate	1
68	PBAND1412-175-5-7	Socket Head Button Screw (3/8"-16x1")	4
69	PBAND1412-175-5-8	Rubber Pad	4
70	MBAND14BX110-175-2-70	Socket Head Button Screw (M5x0.8x12)	3
71	MBAND14BX110-175-68	Screw (M4x0.7x8)	4
72	MBAND14BX110-175-2-72	Spacer	2
73	MBAND14BX110-175-2-73	Plate	1
74	14BX110-175-274	Spacer	1
75	PB14CX-2-75	Plate	1
76	MBAND14BX110-175-2-76	Spacer	2
77	PB14CX-2-77	SENSOR Bracket	1
78	PB14CX-2-78	SENSOR Guard	1
79	PB14CX-2-79	Socket Head Button Screw (M3x0.5x6)	2
80	PB14CX-2-80	Motor Plate	1
81	PBAND1412-175-12	Flat Washer (3/8")	2
82	PB14CX-2-82	Lock Handle	1
83	PLAREVO1836-195	Socket Head Cap Screw (3/8"-16x1")	1
84	PLAREVO1836-160	Rubber Sleeve	1
85	PLAREVO1836-1145	Cap	1
86	PB14CX-2-86	Cover, Control Board Box	1
87	PB14CX-2-87	Control Board Assembly	1
87.1	PB14CX-2-87-1	Control Board	1
87.2	PB14CX-2-87-2	Heat Sinks	1
87.3	PB14CX-2-87-3	Spacer	8
87.4	PLAREVO1836-1127	Screw (M3x0.5x12)	8
88	PB14CX-2-88	Main Switch	1
89	PLAREVO1836-1103-1	Screw (M4x0.7x8)	7
90	PB14CX-2-90	Strain Relief (6N-4)	2
91	PLAREVO1836-1117	Strain Relief (7N-2)	1
92	PBAND1412-175-2-38	Strain Relief (6N3-4)	1
93	PB14CX-2-93	Strain Relief (3W-1)	1
94	415241-1125	Strain Relief (SB5M-1)	4
95	PB14CX-2-95	Screw (M5x0.8x10)	8
96	415241-143	Phillips Flat Head Screw (M5x0.8x15)	4
97	PB14CX-2-97	Strain Relief (3P-4)	1
98	PB14CX-2-98	Pad	1
99	PB14CX-2-99	Braking Resistor	1
100	PB14CX-2-100	Screw (M4x0.7x6)	2
101	PB14CX-2-101	Rubber Bushing	1
102	PB14CX-2-102	Saw Blade (not shown)	1

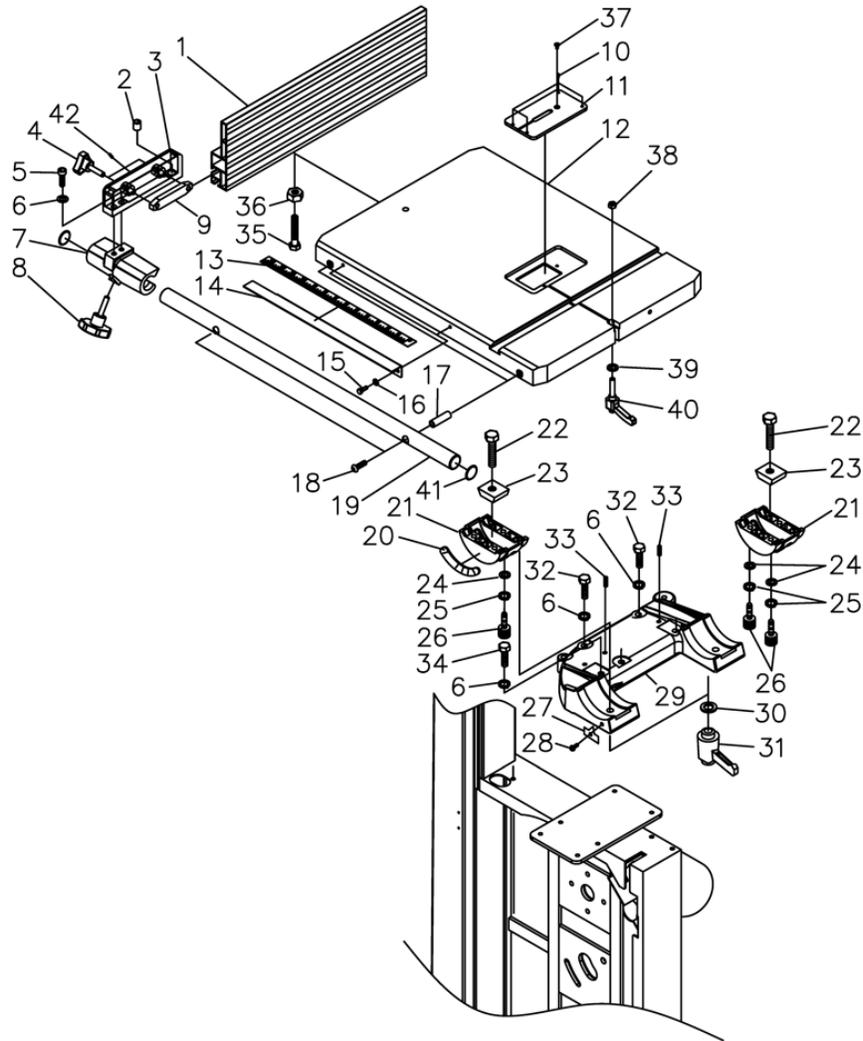
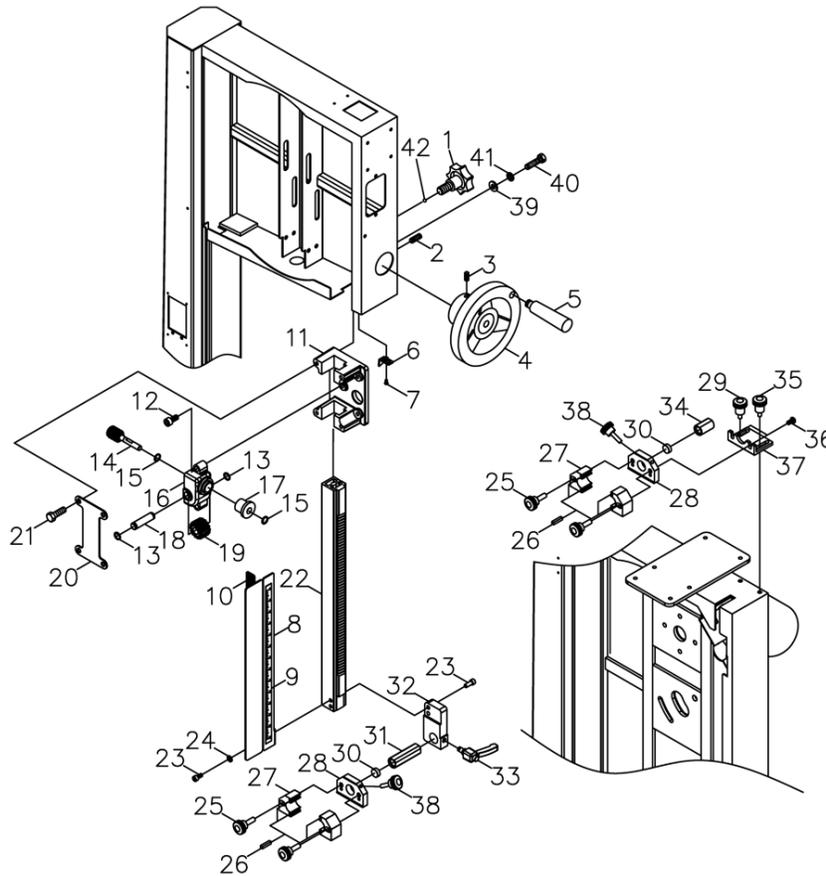


Table and Fence Assembly

Pos.	Part #	Description	Qty
1	PBAND1412-175-3-1	Aluminum Fence	1
2	PBAND1412-175-3-2	Plastic Adjusting Screw	1
3	PBAND1412-175-3-3	Fence Body	1
4	PBAND1412-175-3-4	Lock Knob	2
5	PBAND1412-175-3-5	Socket Head Cap Screw (5/16"-18x3/4")	3
6	PBAND1412-175-2-13	Lock Washer (5/16")	10
7	PBAND1412-175-3-7	Fence Head	1
8	PBAND1412-175-3-8	Lock Knob	1
9	PBAND1412-175-3-9	Lock Bar	1
10	PBAND1412-175-3-10	Set Screw (M4x0.7x4)	4
11	PBAND1412-175-3-11	Table Insert	1
12	PBAND1412-175-3-12	Table	1
13	PBAND1412-175-3-13	Scale	1
14	PBAND1412-175-3-14	Scale Plate	1
15	PBAND1412-175-3-15	Hex Cap Screw (M5x0.8x10)	2
16	PBAND1412-175-29	Flat Washer (#10)	2

Pos.	Part #	Description	Qty
17	PBAND1412-175-3-17	Bushing	2
18	PBAND1412-175-3-18	Socket Head Cap Screw (5/16"-18x2")	2
19	PBAND1412-175-3-19	Steel Tube	1
20	PBAND1412-175-3-20	Scale	1
21	PBAND1412-175-3-21	Trunnion	2
22	PBAND1412-175-3-22	Hex Cap Screw (M10x1.5x50)	2
23	PBAND1412-175-3-23	Slide Block	2
24	PBAND1412-175-3-24	Flat Washer (1/4")	6
25	PBAND1412-175-42	Lock Washer (1/4")	6
26	PBAND1412-175-3-26	Socket Head Cap Screw (M6x1x16)	6
27	PBAND1412-175-3-27	Pointer	1
28	PBAND1412-175-3-28	Screw (M5x0.8x8)	1
29	PBAND1412-175-3-29	Bracket	1
30	PBAND1412-175-2-42	Flat Washer (3/8")	2
31	PBAND1412-175-3-31	Lock Handle	2
32	PBAND1412-175-3-32	Hex Cap Screw (5/16"-18x1-1/4")	3
33	PBAND1412-175-3-33	Set Screw (5/16"-18x5/8")	2
34	PBAND1412-175-3-34	Hex Cap Screw (5/16"-18x1-1/2")	3
35	PBAND1412-175-3-35	Hex Cap Screw (3/8"-16x2")	1
36	PBAND1412-175-3-36	Hex Nut (3/8"-16)	1
37	PBAND1412-175-3-37	Phillips Flat Head Screw (M4x0.7x8)	1
38	PBAND1412-175-3-38	Hex Nut (5/16"-18)	1
39	PBAND1412-175-2-11	Flat Washer (5/16")	1
40	PBAND1412-175-3-40	Lock Handle	1
41	PBAND1412-175-3-41	Rubber Cover	2
42	PBAND1412-175-3-42	Screw (1/4"-20x1/4")	2



Upper & Lower Blade Guides Assembly

Pos.	Part #	Description	Qty
1	PBAND1412-175-4-1	Lock Knob	1
2	PBAND1412-175-2-8	Set Screw (5/16"-18x3/8")	2
3	PBAND1412-175-4-3	Set Screw (1/4"-20x3/8")	1
4	PBAND1412-175-4-4	Hand wheel	1
5	PBAND1412-175-4-5	Handle	1
6	PBAND1412-175-4-6	Pointer	1
7	PBAND1412-175-4-7	Screw (1/4"-20x3/8")	1
8	PBAND1412-175-4-8	Upper Blade Guard	1
9	PBAND1412-175-4-9	Height Scale	1
10	PBAND1412-175-4-10	Magnet	1
11	PBAND1412-175-4-11	Guide Bar Bracket	1
12	PBAND1412-175-4-12	Socket Head Cap Screw (5/16"-18x1-1/4")	2
13	PBAND1412-175-4-13	C-Ring (S12)	2
14	PBAND1412-175-4-14	Worm	1
15	PBAND1412-175-4-15	E-Ring (E8)	2
16	PBAND1412-175-4-16	Gear Base	1
17	PBAND1412-175-4-17	Bushing	1
18	PBAND1412-175-4-18	Shaft	1
19	PBAND1412-175-4-19	Gear	1
20	PBAND1412-175-4-20	Plate	1
21	PBAND1412-175-4-21	Screw (5/16"-18x1/2")	4



Pos.	Part #	Description	Qty
22	PBAND1412-175-4-22	Guide Bar	1
23	PBAND1412-175-4-23	Socket Head Cap Screw (1/4"-20x5/8")	4
24	PBAND1412-175-4-24	Lock Washer (1/4"-20)	2
25	PBAND1412-175-4-25	Lock Knob	4
26	PBAND1412-175-4-26	Ceramic Guide	8
27	PBAND1412-175-4-27	Adjusting Block	4
28	PBAND1412-175-4-28	Fixed Block	2
29	PBAND1412-175-4-29	Lock Knob	1
30	PBAND1412-175-4-30	Ceramic Guide	2
31	PBAND1412-175-4-31	Support Shaft	1
32	PBAND1412-175-4-32	Guide Bracket	1
33	PBAND1412-175-4-33	Lock Handle	1
34	PBAND1412-175-4-34	Support Shaft	1
35	PBAND1412-175-4-35	Lock Knob	1
36	PBAND1412-175-4-36	Socket Head Button Screw (1/4"-20x1/2")	2
37	PBAND1412-175-4-37	Base	1
38	PBAND1412-175-4-38	Special Bolt	2
39	PBAND1412-175-2-11	Flat Washer (5/16")	4
40	PBAND1412-175-4-40	Hex Cap Screw (5/16"-18x1")	4
41	PBAND1412-175-2-13	Lock Washer (5/16")	4
42	PBAND1412-175-4-42	Steel Ball	1

To order parts please contact the distributor or representative responsible for the sale

ORDERING INFORMATION

Parts are available for direct purchase from Dake/Laguna or through a distributor. When placing a parts order, you will need to provide the part number, name of part, and model number.

Proposition 65 Warning

Some dust created by power sanding, sawing, grinding, drilling and other construction activities contain chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- **Lead** from lead based paint.
- **Crystalline silica** from bricks, cement, and other masonry products.
- **Arsenic and chromium** from chemically treated lumber.

Your risk of exposure varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area and work with approved safety equipment, such as face or dust masks that are specifically designed to filter out microscopic particles.



Laguna Tools, Inc.
744 Refugee Way
Suite 200
Grand Prairie TX, 75050
Phone: 800.332.4094
Website: lagunatools.com
Email: customer_service@lagunatools.com

Dake Corporation
1809 Industrial Park Dr.
Grand Haven MI, 49417
Phone: 800.937.3253
Website: www.dakecorp.com
Email: customerservice@dakecorp.com