

LAGUNA REVO 114

Woodturning Lathe

Electronic Variable Speed



OWNERS MANUAL



SKU: MLAREVO10A

Laguna takes pride in our products and stands behind them with continuing service and support for our customers. Your Laguna machine was designed to bring a new dimension of productivity to your shop.

Before using your machine for the first time, learn how to use it. This manual covers a step-by-step process of assembly and machine operation. If you have any questions, this manual will provide answers.

LATEST MANUAL: Below is a QR code which will direct you to the manual reference page, where the latest version of the REVO 10|14 manual is located on the Laguna Tools website. The online manual may have updates and information added after the printed copy was released. Scan the code with your smartphone to be directed to the latest manual page to reference your specific machine and model.



Videos

In most cases, a video is the best media to cover a setup or help topic. All videos made by Laguna are uploaded and stored to youtube.com where they are then linked to websites. <https://www.youtube.com/user/LagunaTools>

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WARRANTY & REGISTRATION

Thank You!

Welcome to the Laguna Tools® group of discriminating industrial machinery owners. We understand that you have a choice of where to purchase your machines and appreciate the confidence you have in the Laguna Tools® brand.

Through hands-on experience, Laguna Tools® is constantly working hard to make innovative, precision products. Products that inspire you to create works of art are a joy to operate and encourage your best work.

Laguna Tools®
Imagination, Innovation, and Invention at Work

Warranty & Registration

Every product sold is warranted to be free of manufacturer's defective workmanship, parts, and materials. For any questions about this produce, the intended use or what it was designed for, customer service, or replacement parts, please contact our customer service department:

Laguna Tools® Customer Service
744 Refuge Way, Grand Prairie, Texas 75050, USA
1-800-234-1976
customerservice@lagunatools.com
www.lagunatools.com/why/customer-service/
8AM. To 5PM PSF. Monday through Friday

For warranty claims or to report damage upon receiving-please reach out to our warranty department:

Laguna Tools® Warranty Service
744 Refuge Way, Grand Prairie, Texas 75050, USA
1-800-234-1976
customerservice@lagunatools.com
www.lagunatools.com/policies/warranty
8AM to 5PM PST, Monday through Friday

Registration

To prevent voiding this warranty, all products sold must be registered within thirty (30) days of receiving the product. Registering the product will enable the original purchaser to receive notifications about important product changes, receive customer service, and be able to file a warranty claim against defective workmanship, parts, or materials.



Who is Covered

The applicable warranty covers only the initial purchaser of the product from the date of receiving the product. To file such claims, the original purchaser must present the original receipt as proof of purchase.

What is Covered

The warranty covers any defects in the workmanship of all parts and materials that make up the machine unless otherwise specified. Any part determined by Laguna Tools® to have a defect will be repaired or replaced (and shipped), without charge. The defective item/part must be returned to Laguna Tools® with the complaint and proof of purchase in the original packaging that it was received in. In the event the item/part is determined to be not covered by this warranty, the customer will be responsible for the cost to replace the item/part and all related shipping charges.

Warranty Limitations

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, or lack-of inadequate dust collection. The warranty may be voided against proof of misuse/abuse, damage caused where repair or alterations have been made or attempted by others, using the product for purposes other than those described as intended use (unless with consent by Laguna Tools®), modification to the product, or use with an accessory that was not designed for the product. 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 in this manual.

Length of Warranty

All new machines and optional accessories sold through an authorized dealer carry a two-year warranty effective from the date of receiving the product. Machines sold for either commercial or industrial use have a one-year warranty. Wearable parts like throat plates, bandsaw guides, etc., have a ninety-day warranty.

Table A-1 Warranty Lengths

2 Year – New Machines Sold Through an Authorized Dealer
2 Year – Accessories Sold as Machine Options (excluding blades)
1 Year – Machines Sold for Commercial or Industrial Use
1 Year – Blades and Accessories outside of Machine Options
90 Days – Wearable Parts

Aside from being free of defects upon receiving, consumable parts, like cutters and abrasives, are not covered by this warranty unless otherwise stated by Laguna Tools®. These parts are designed to be used at the expense of the operator and are available for replacement or inventory purchase. The determination of a consumable part will be made on a case-by-case basis by Laguna Tools®.

Shipping Damage

Laguna Tools® is not responsible for damage or loss caused by a freight company or other circumstances not in the direct control of Laguna Tools®. All shipping-related claims for loss or damage to goods must be made to Laguna Tools® within twenty-four hours of delivery.

How to Receive Support

To file a warranty claim, please contact the warranty department at 1-800-234-1976. To receive customer service or technical support, please contact the customer service department at 1-800-332-4094. Parts, under warranty, are shipped at the expense of Laguna Tools® either by common carrier, FedEx ground services, or similar method. Technical support to install replacement parts is primarily provided by phone, fax, email, or the Laguna Tools® Customer Service Support Website.



Safety

Read and understand all warnings and operation instructions before using any tool or equipment. Always follow basic safety precautions to reduce the risk of personal injury. Improper operation, maintenance or modification of tools or equipment could result in serious injury and property damage. There are certain applications for which tools and equipment are designed. This product should NOT be modified and/or used for any application other than for which it was designed.

It is important for you to read and understand this manual. The information it contains relates to protecting your safety and preventing problems.

Safety Guidelines - Definitions

This manual contains information that is important for you to know and understand. This information relates to protecting your safety and preventing equipment problems. To help you recognize this information, we use the symbols below. Please read the manual and pay attention to these sections.

⚠ DANGER! or **DANGER!** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING! or **WARNING!** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION! or **CAUTION!** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

TECH TIP Indicates a helpful tip from our technical staff.

Important Safety Instructions

⚠ WARNING! Read and understand all warnings and operating instructions before using this equipment. Failure to follow all instructions listed below, may result in electric shock, fire, and/or serious personal injury or property damage.

Woodworking can be dangerous if safe and proper operating procedures are not followed. As with all machinery, there are certain hazards involved with the operation of the product. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result. Safety equipment such as guards, push sticks, hold-downs, feather boards, goggles, dust masks and hearing protection can reduce your potential for injury. But even the best guard won't make up for poor judgment, carelessness, or inattention. Always use common sense and exercise caution in the workshop. If a procedure feels dangerous, don't try it. Figure out an alternative procedure that feels safer. **REMEMBER:** Your personal safety is your responsibility.

⚠ WARNING! This machine was designed for certain applications only. We strongly recommend that this machine not be modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, do not use the machine until you have first contacted the manufacturer to determine if it can or should be performed on the product.

If you have any questions relative to its application do not use the product until you have contacted the manufacturer and we have advised you.

General Safety Rules

⚠ WARNING! FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY.

FOR YOUR OWN SAFETY, READ AND UNDERSTAND THE INSTRUCTION MANUAL BEFORE OPERATING THE MACHINE. Learn the unit's application and limitations as well as the specific hazards peculiar to it.

KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents.

DON'T USE IN DANGEROUS ENVIRONMENT. Don't use this unit in damp or wet locations or expose it to rain. Keep work area well-lighted.

KEEP CHILDREN AND VISITORS AWAY. All children and visitors should be maintain a safe distance from work area.

DISCONNECT UNIT before servicing.

CHECK DAMAGED PARTS. Before further use of the unit, properly repair or replace any part that is damaged.

Manufacture Lathe Safety Rules

WARNING! For Your Own Safety Read Instruction Manual before Operating Lathe

- (a) Wear eye protection.
- (b) Do not wear gloves, a necktie, or loose clothing.
- (c) Tighten all locks before operating.
- (d) Rotate work piece by hand before applying power.
- (e) Rough out work piece before installing on faceplate.
- (f) Do not mount split work piece or one containing a knot.
- (g) Use lowest speed when starting new work piece.

SAFETY RULES

1. KEEP GUARDS IN PLACE and in working order.
2. REMOVE ADJUSTING KEYS AND WRENCHES. Form habit of checking to see that 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 A DANGEROUS ENVIRONMENT. Don't 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 at a safe distance from the work area.
6. MAKE YOUR 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. Don't 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 gauge. The smaller the gauge number, the heavier the chord.
10. WEAR PROPER APPAREL Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which 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 a face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
12. SECURE WORK. Use clamps or a vise to hold the work when practical. It's safer than using your hand and it frees both hands to operate the tool.
13. DON'T OVERREACH. Keep proper footing and balance at all times.
14. MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
15. DISCONNECT TOOLS before servicing and when changing accessories, such as blades, bits, cutters, and the like.
16. REDUCE THE RISK OF UNINTENTIONAL STARTING. Make sure power switch is in the OFF position before plugging the machine in.
17. USE RECOMMENDED ACCESSORIES. Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.
18. NEVER STAND ON TOOL Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
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.
20. DIRECTION OF FEED. Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
21. NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF. Don't leave tool until it comes to a complete stop.

-
- AVERTISSEMENT!** Pour votre sécurité, lire le manuel d'instru on a en vement avant d' liser le tour à bois.
- (a) Portez des lune es de protec
 - (b) Ne pas porter de gants, de cravate, ou de vêtements amples.
 - (c) Serrer tous les verrous avant d'opérer la machine.
 - (d) Tourner la pièce à la main avant d'appliquer le courant.
 - (e) Débiter grossièrement la pièce avant de l'installer sur le plateau de montage.
 - (f) Ne pas monter une pièce fendue ou comportant un noeud.

(g) Utiliser la vitesse la plus lente au démarrage d'une nouvelle pièce.

RÈGLES DE L'OPÉRATEUR

1. CONSERVEZ TOUS LES DISPOSITIFS DE PROTECTION EN PLACE et en bon état de fonctionnement.
2. ENLEVEZ LES CLÉS ET OUTILS. Prenez l'habitude de vérifier si les clés et autres outils ne sont pas trop près de la machine avant de la démarrer.
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 électriques dans les endroits humides, détrempés, ou sous la pluie. Conservez l'espace de travail bien éclairé.
5. TENEZ LES ENFANTS À L'ÉCART. Tous les visiteurs doivent être tenus à une distance sécuritaire de l'aire de travail.
6. RENDEZ L'ATELIER À L'ÉPREUVE DES ENFANTS avec des verrous, des interrupteurs principaux ou en enlevant les clés de démarrage sur les machines.
7. NE FORCEZ PAS L'OUTIL. L'outil effectuera un meilleur travail et de façon sécuritaire s'il est utilisé au rythme pour lequel il a été conçu.
8. UTILISEZ L'OUTIL APPROPRIÉ. Ne forcez pas un outil ou un accessoire pour effectuer un travail pour lequel il n'a pas été conçu.
9. UTILISEZ UNE RALLONGE ÉLECTRIQUE APPROPRIÉE. Assurez-vous que votre rallonge électrique est en bon état et que le calibre du filage soit adéquat pour transporter le courant que la machine a besoin. Une rallonge de trop faible calibre induira une perte d'intensité du voltage, ce qui provoquera une surchauffe et une perte de puissance. Le tableau A indique le bon calibre à utiliser en fonction de la longueur de la rallonge et de la demande en intensité du moteur. En cas de doute, utilisez la rallonge de calibre plus fort. Plus le numéro est petit, plus la rallonge est de fort calibre.
10. PORTEZ DES VÊTEMENTS APPROPRIÉS. Ne portez pas de vêtements amples, des gants, des colliers, des bracelets, ou tout autre bijou ou accessoire qui pourrait être entraîné par des pièces mobiles. Des souliers à semelle antidérapante sont également recommandés. Coupez les cheveux longs et portez un bonnet pour contenir la chevelure trop abondante.
11. PORTEZ DES LUNETTES DE PROTECTION. Portez également un masque contre la poussière si le travail exécuté dégage de la poussière. Veuillez prendre note que les lunettes de prescription ordinaire ne résistent pas aux impacts et qu'elles ne sont pas homologuées à des fins de sécurité.
12. IMMOBILISEZ VOTRE TRAVAIL. Utilisez des serres ou un étau pour immobiliser votre travail lorsque c'est possible. C'est plus sécuritaire que d'utiliser votre main, et ça permet de libérer vos deux mains pour opérer confortablement.
13. NE VOUS ÉTIREZ PAS AU-DESSUS DE LA MACHINE. Demeurez solidement en équilibre sur vos pieds en tout temps.
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.
15. DÉBRANCHEZ LES OUTILS avant d'en effectuer l'entretien ou lors du changement d'accessoires tels que lames ou couteaux.
16. RÉDUISEZ LES RISQUES DE DÉMARRAGE NON INTENTIONNEL. Assurez-vous que l'interrupteur est en position fermée avant le branchement d'un outil.
17. UTILISEZ LES ACCESSOIRES RECOMMANDÉS. Consultez le manuel d'instruction pour connaître les accessoires recommandés. L'utilisation d'accessoires inappropriés pose des risques de blessures aux utilisateurs.
18. NE VOUS TENEZ JAMAIS DEBOUT SUR UNE MACHINE. Des blessures graves pourraient survenir si la machine bascule ou si les outils coupants sont touchés accidentellement.
19. VÉRIFIEZ LES PIÈCES ENDOMMAGÉES. Avant de poursuivre l'utilisation d'un outil, tout dispositif de protection ou toute pièce endommagée devra être inspecté pour déterminer si elle peut fonctionner correctement et selon l'utilisation qui en est prévue. Vérifiez l'alignement des pièces mobiles à savoir s'il y a un blocage, un bris, ou toute autre condition qui nuirait à son utilisation. Une pièce ou un protecteur endommagé doit être réparé ou remplacé.
20. SENS D'ALIMENTATION. Alimentez la pièce vers la lame ou le couteau dans le sens contraire de sa rotation seulement.
21. NE LAISSEZ JAMAIS UN OUTIL FONCTIONNER DANS SURVEILLANCE – ÉTEIGNEZ L'OUTIL. Ne laissez pas l'outil sans surveillance jusqu'à ce qu'il s'arrête complètement.

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 gauge 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	

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 a 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 between 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. 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.

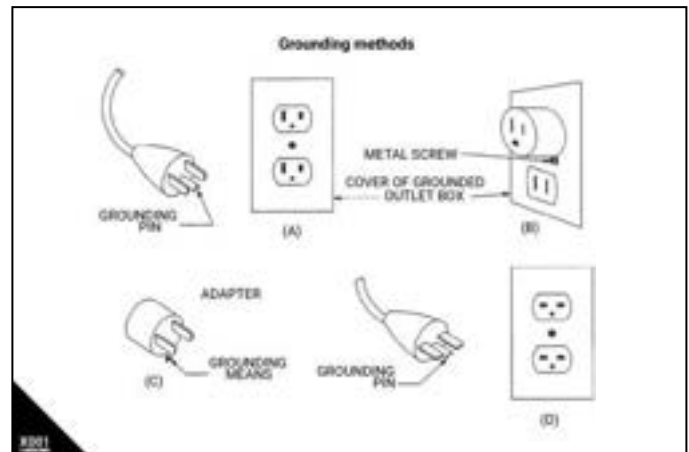


Fig X001: Grounding Methods Provided by CSA Group. (A) Receptacle with nominal rating less than 150 volts. (B) 150 volt receptacle without grounding pin fitted with adapter. (C) Grounding receptacle adapter. (D) Receptacle with nominal rating between 150 - 250 volts.

LOCKING THE LATHE

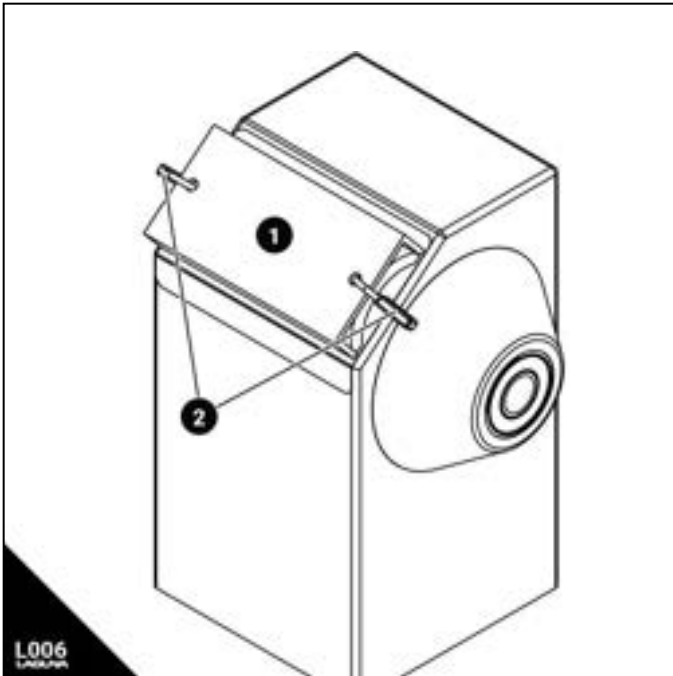


Fig L006 - Method of locking the Laguna Revo Lathe. (1) Constructed 3 side box with padlock holes. (2) Padlocks.

It is strongly recommended that the lathe is never left unattended in an unlocked condition. To lock the machine, it is recommended that a cover (not supplied) is constructed according to the supplied concept displayed in Fig L006.

Noise Emission

	No load	Load
Sound Pressure Level	< 80dB(A)	< 90dB(A)
Sound Power Level	< 90dB(A)	< 100dB(A)

Given that there exists a relationship between noise level and exposure times, it is not precise enough to determine the need for supplementary precautions. The factors affecting the true level of exposure to operators are clearly the amount of time exposed, the characteristics of the working environment, other sources of dust and noise etc. For example, adjacent machines in other words the level of ambient noise. It is possible that exposure level limits will vary from country to country. Nevertheless, this information allows the user of the machine to better evaluate the dangers and risks.

Other factors which reduce exposure to noise are:

- correct tool choice
- tool and machine maintenance
- use of hearing protection systems (e.g. headsets, earplugs,...)

⚠ WARNING! Use the hearing protection systems if the above mentioned noise levels exceed 95dB(A).

PROPOSITION 65 WARNING OF HARMFUL EXPOSURE

Some dust created by power sanding, sawing, grinding, drilling and other construction activities contains 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.

Save these instructions.

Refer to them often and use them to instruct others

Specifications

Specifications

NAME	Laguna REVO 10 14 Woodturning Lathe
SKU	MLAREVO10A
MPN:.....	MLAREVO10A
Volts,Phase,Amps,Hertz:.....	110-120 V, 1 Phase, 4A, 60 Hz
Motor Power Output	1 HP, TEFC
Package Dimensions (LxWxH)	L35" W19.3" H11.2"
Product Assembled Dimensions (LxWxH):.....	L35.4" W10.4" H16.8"
Package Weight.....	103LB (46.6KG)
Product Weight.....	95LB (43KG)
Product Category.....	Turning Machines
Product Subcategory	Woodworking Lathe Machines
Certifications	C-ETL-US 5022108

Dimensions

Overall Size	L41.5" W18.8" H16.8"(1055mm,478mm, 425mm)
Floor to bed height.....	7.08" (180mm) no pads
Floor to Spindle Center.....	12.09" (307mm) no pads
Bed Length	30.79" (782mm)
Tool Rest Length.....	6" (152.4mm)
Tool Rest Post Dia.....	1" (25.4mm)
Faceplate Dia.....	3 1/8" (79.4mm)

Lathe Specifications

Speed (no load).....	3200 RPM
Speed Range High.....	.950 - 3200 RPM
Speed Range Mid.....	.430 - 1450 RPM
Speed Range Low.....	.250 - 850 RPM
Distance Between Centers.....	14" (356mm)
Swing Over Bed.....	10"(254mm)
Swing Over Banjo.....	7.3"(185mm)
Spindle Bore	7/16"(11mm)
Spindle Taper	MT2
Spindle Thread	1" x 8 TPI
Front Bearing	6006LLU
Rear Bearing.....	6005LLU
Indexing	24 positions w/ Lock
Inverter	PWM inverter
Drive belt.....	5 Groove Poly-V Belt
Tail stock quill travel.....	3-1/2"(88.9mm)
Tail stock taper	MT2
Head stock taper	MT2
Headstock Bore.....	7/16" (11mm)
Tailstock Bore.....	3/8" (10mm)

Materials

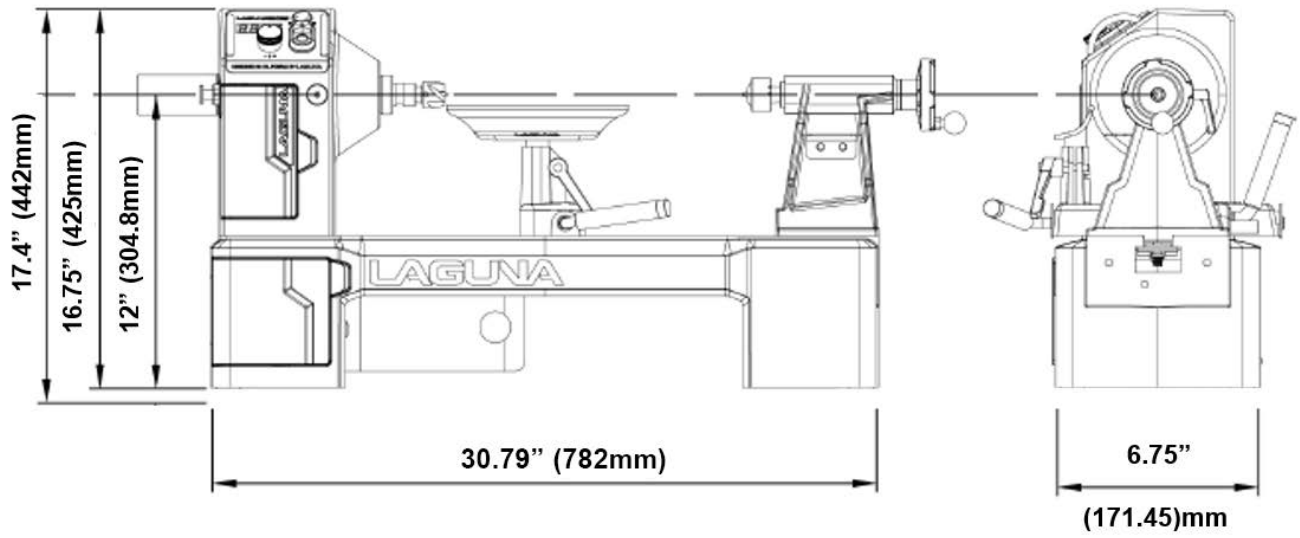
BED	Cast Iron
Head/tail Stock.....	Cast Iron
Legs or Base (optional)	Steel
Tool Rest	1045 Steel
Tool Rest Contact Rod.....	10mm (DIA) Hardened 1045 Steel
Banjo	Cast Iron

Features

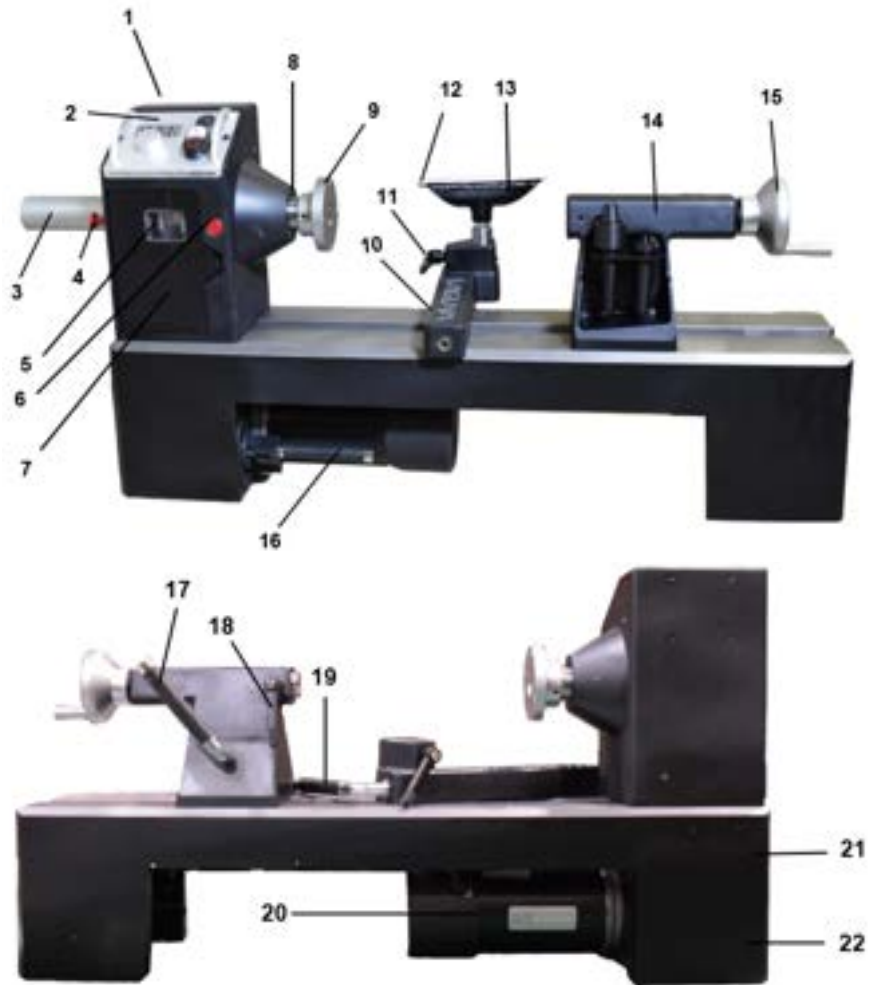
Spring Loaded Spindle Lock.....	Standard
Outboard Turning	Optional
Self-Ejecting Tail stock Removal.....	Standard
Tool Storage	Standard
Live Center	Standard
Drive Center.....	Standard
Faceplate.....	Standard
Reverse Rotation	Standard
Operator Height Adjustment	Optional

Dimensions

Laguna Revo 10|14 Woodturning Lathe



External Map



- | | |
|------------------------|----------------------------------|
| 1 — Headstock | 12 — Hardened Steel Leading Edge |
| 2 — Control Panel | 13 — Tool Rest |
| 3 — Spindle Hand Brake | 14 — Tail Stock |
| 4 — Indexing Lock | 15 — Hand Wheel |
| 5 — Indexing View Port | 16 — Belt Tensioner Handle |
| 6 — Spindle Lock | 17 — Tail Stock Lock |
| 7 — Upper Belt Door | 18 — Quill Lock |
| 8 — Spindle | 19 — Banjo Lock |
| 9 — Faceplate | 20 — Motor |
| 10 — Banjo | 21 — Expansion Mount |
| 11 — Tool Rest Lock | 22 — Lower Access Door |

Setup

⚠ WARNING! Never perform any setup, maintenance or adjustments with the machine connected to the power source!

⚠ WARNING! 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.

⚠ WARNING! When removing packaging banding, extreme caution must be used as the banding will spring when cut.

⚠ CAUTION! The machine is heavy. Ensure that you have enough people to do the job safely.

TECH TIP ⚙ There may be sawdust in or around your new machine as a result of thorough testing.

TECH TIP ⚙ The indexing numbers used to describe images are not the same as those indexing numbers used to describe the individual parts in the Parts Section exploded views. This is done solely to help with assembly and give better instructions to those receiving the machine new. When ordering replacement parts, please only consult the part numbers and reference images in the Parts Section.

The machine comes as assembled as possible without impacting shipping costs. With this, there will always be some setup procedures and adjustments that the craftsman must perform prior to using the machine. Those setup sections that must be done to complete the assembly of the machine are in the General Setup sub-section. Those help topics for making operational changes to the machine to set up for a different function are in the Functional Setup Section. All help topics pertaining to the proper setup of accessories are in the Accessories & Options Setup sub-section.

Receiving

It is likely that your machine will be delivered by a third party. Before unboxing, be sure to inspect the packaging and shipping documents supplied by the driver. Ensure that there is no visible damage to the shipment. If any damage has occurred because of shipment, note the damage on the bill of lading or refuse the shipment. Immediately call the dealer store where the machine was purchased.

1. Never accept a shipment that is damaged or partial without notifying the shipping company and the purchasing store.

Placement

Prior to removing the machine from the packaging, decide the operating location of the machine. The dimensions and floor space can be found here: Dimensions.

1. There should be sufficient area at the front of the machine to allow you to work on it comfortably.
2. There should be sufficient area at the back of the machine to allow access for adjustments and maintenance to be conducted.
3. The better the lighting the more accurately and safely you will be able to work.

Setup

4. You should select a solid flat floor, preferably one made of concrete or something similar.
5. Locate it close to a power source and dust collection (If Applicable).
6. When moving the lathe, DO NOT use the headstock assembly, motor, tool rest or tailstock as this may damage the machine. Hold under the lathe's bed to lift and move the machine. Straps or battens placed under the lathe bed can also be used to move the machine.
7. Position the machine on a solid stand, or bench, that is located in an area that has ample space in front and in back of the lathe for working and moving around the lathe.
8. For best power and safety, the lathe should be plugged directly into a dedicated grounded electrical outlet that is within the supplied cord length of the machine. The use of an extension cord is not recommended.
9. Align the machine so that during use, any turning debris or kickback will not face aisles, doorways, or other work areas that bystanders may be in. Do not locate or use the machine in damp or wet conditions.
10. Once in place in your shop, make sure that the machine is level. If possible, secure the machine, or stand to the floor, or bench, with lag screws (not supplied). This will reduce any possible vibration during use.

Unboxing

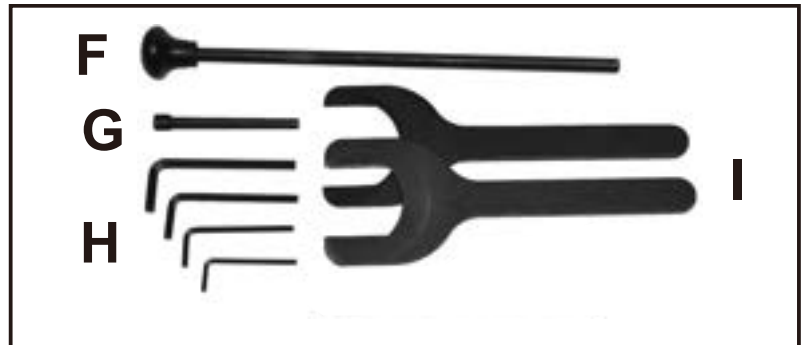
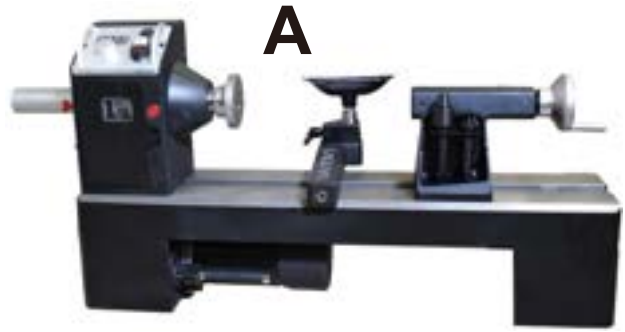
Once in place, carefully unbox and remove all components. Un-boxing guidelines:

1. Do not cut deep into a box with a blade as it could scratch the paint, only cut deep enough to cut the tape or use a dull edge.
2. Organize the hardware and setup tools needed (at beginning of each set-up section) prior to proceeding with setup.

Inventory

Contents, Parts, and Hardware

- A. Revo 10|14 Woodturning Lathe
- B. 3" Faceplate
- C. 8" Pro Tool Rest
- D. Spur Center
- E. Live Center
- F. Long Knockout Bar
- G. Short Knockout Bar
- H. Hex Wrenches (2.5, 3, 4, 5 mm)
- I. Wrenches (38 & 46 mm)
- J. Tool Holder, Screws & Washers (2)
- K. Outboard Hand Wheel
- L. Tailstock Hand Wheel

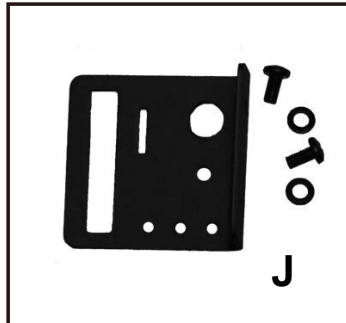


ADDITIONAL TOOLS REQUIRED FOR ASSEMBLY & ADJUSTMENTS

#2 Phillips Screwdriver



Adjustable Wrench



Installing Rubber Leveling Pads

You may want to install the included rubber pads on the lathe to reduce vibrations and protect the base from the floor. You should not install the rubber pads if you are planning to use the 10 Lathe Stand. If using the stand, these rubber pads will be used on the stand.

TECH TIP Tools Needed: 6mm Allen Wrench

1. Make sure Lathe is unplugged and cannot be powered on.
2. Remove the Tail Stock and Banjo (tool rest) from the lathe by releasing the cam lock and sliding off the end. NOTICE: You do not need to unbolt anything to remove banjo or tail stock.
3. CAREFULLY tilt the lathe on its side - use a moving blanket or other soft thing to cushion the side of the lathe in contact with floor.
4. Install a washer, rubber pad, and screw on each corner.

Installing/Removing Face Plate & Hand Wheel

WARNING! Unplug machine from power prior to proceeding!

TECH TIP Do not over torque the threading, firm pressure is all that is required.

TECH TIP Do not attempt to remove the faceplate without removing set screws. The set screws are set on a flat part of the spindle. Forcing the faceplate off while set screws are set or not completely removed away from threading can damage the lathe spindle.

TECH TIP Tools Needed: 3mm Allen Key, Faceplate Wrench

1. Make sure the lathe is unplugged and cannot be powered on.
2. Position the Banjo out of the way to prevent damage.

3. Use a 3mm Allen key to loosen the set screws that are in the faceplate. Do not remove them, but loosen them to where they are outside of the faceplate.



6. Use the Allen key to tighten both set screws. Do not over tighten.



TECH TIP The face plate wrench is not needed to install, if you over-tighten, the set screw flats (on spindle) may not line up and you could damage the threading. Hand tightening is usually enough.

4. Press and hold the spindle lock inward to lock the spindle. You may need to rotate the spindle a bit to line up the pin hole.
 - a. With the spindle lock engaged and set screws loosened, fit the faceplate onto the spindle.



5. Turn faceplate clockwise until faceplate is tightened all the way.

7. Faceplate removal is the reverse steps of installation. If the faceplate is difficult to remove, use supplied faceplate wrench as shown below.



8. Use a 3mm Allen key to loosen both set screws that are in the handwheel. Do not remove them, but loosen them to where they are outside of the handwheel.



9. Press and hold the spindle lock inward to lock the spindle. You may need to rotate the spindle a bit to line up the pin hole.
a. With the spindle lock engaged and set screws loosened, fit the handwheel onto the spindle.



10. Turn handwheel clockwise until faceplate is tightened all the way.

11. Use the Allen key to tighten both set screws. Do not overtighten.



Installing/Removing Drive Center and Live Center

⚠ WARNING: Unplug machine from power prior to proceeding!

TECH TIP Do not attempt to remove the tail stock center with tools, simply reverse the quill until it pops out.

TECH TIP The centers come out quickly, prevent them from dropping.



Fig 2: Live center installation



Fig 2.1: Live center installation



Fig 3: Drive center installation



Fig 3.1: Drive center installation

Fig L013 - Center Installation. (1) Knock-out Rod. (2) Drive Center. (3) Quill Hand Wheel. (4) Live Center.

To install the centers, simply press them into the boring. When the workpiece is loaded both centers will be pressed into a sturdy position.

When installing the live center (Fig 3), unlock the quill lock and use the handwheel to adjust the quill length if desired. Lock the quill lock when finished.

Removing (Drive Center) From Headstock

TECH TIP Tools Needed: Center Knock-Out Rod

1. Make sure Lathe is unplugged and cannot be powered on.
2. Lightly grasp the center tool with your free hand prior to step 3 - it will pop out unexpectedly.
3. Use the Center Knock-out Rod and lightly tap the center loose.

Removing (Live Center) From Tailstock

TECH TIP Tools Needed: N/A

1. Lightly grasp the center tool with your free hand prior to step 2 - it will pop out unexpectedly.
2. Turning the (Key 3) quill hand wheel counterclockwise will retract quill and release the live center from quill.

Removing (Drive Center) From Headstock

TECH TIP Tools Needed: Center Knock-Out Rod

1. Make sure Lathe is unplugged and cannot be powered on.
2. Lightly grasp the center tool with your free hand prior - it will pop out unexpectedly.
3. Use the Center Knock-out Rod and lightly tap the center loose.



Removing (Live Center) From Tailstock

TECH TIP Tools Needed: N/A

1. Lightly grasp the live center with your free hand prior to step 2 - it will pop out unexpectedly.
2. Turning the quill hand wheel counterclockwise will retract quill and release the live center from quill.
 - a. If the drive center will not come out, use the center knockout rod to tap the drive center loose.



Changing Between Speed Groups (Pulley Steps)

- ⚠ DANGER!** Unplug machine from power prior to proceeding!
- ⚠ CAUTION!** Pinching hazard. Do not rotate spindle with hands in the belt cabinet.
- TECH TIP** Do not attempt any other pulley configurations than those described below.

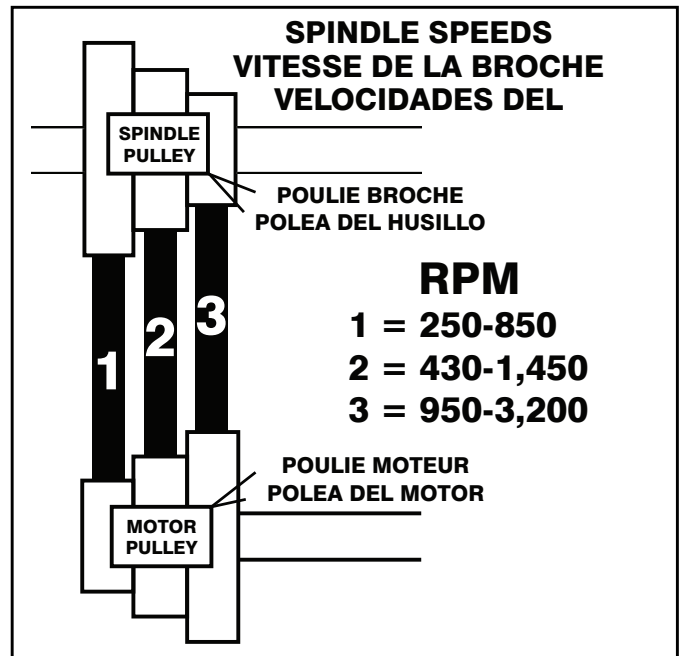


Fig L014 - Changing between speed groups. (1) Low Speed Configuration: 250-850 RPM. (2) Mid Speed Configuration: 430-1450 RPM. (3) High Speed Configuration: 950-3200 RPM. (4) Belt Tension Cam Handle. (5) Drive (Lower) Pulley. (6) 6 Groove Poly-V Belt. (7) Driven (Upper) Pulley.

The lathe has three sets of pulleys for high, medium, and low as described above. The belt should be tensioned so that there is approximately 1/8 to 1/4 " deflection when the belt is pressed with moderate thumb pressure. To adjust the amount of tension, see the Adjustments section. To adjust between the speed ranges, follow these steps:



Loosening the Belt Tension

TECH TIP Tools Needed: N/A

1. Disconnect the electric supply to the lathe.
2. Open both pulley covers to access upper and lower pulleys.
3. To loosen the belt tension, turn the belt tension cam handle towards you, and then lift the handle up.
4. Move the drive belt to the required set of pulleys 1, 2, or 3.
5. Give Tension back to the Belt by returning the belt tension cam handle to the original position.
6. Test that the belt is set correctly by inspection and manually turning the spindle prior to returning power to the lathe.

Controls and Components Functions

TAILSTOCK CONTROLS

1. **TAILSTOCK LOCK HANDLE:** (FIG. 5.3, D) Locks the tailstock in position along the length of the lathe bed. Unlock the cam lever handle to position the tool rest to move the tailstock. Tighten handle when properly positioned. See page 12 for adjusting clamping pressure.
2. **TAILSTOCK QUILL LOCK HANDLE:** (E) Secures the tailstock quill in position. Unlock the handle to move the quill, with live center, forward or backwards. Tighten the locking handle when the quill is finally positioned.
3. **TAILSTOCK QUILL HANDWHEEL:** (F) The handwheel advances or retracts the quill 0 to 3-1/2". The tailstock quill lock handle (E) must be loose to move the quill.
4. **TAILSTOCK LIVE CENTER:** (G) Used for turning be-tween centers. The Live Center (#20C) and the Quill (#6C) have MT-2 tapers. Remove the live center by retracting the quill until the center loosens, or use the knockout bar.

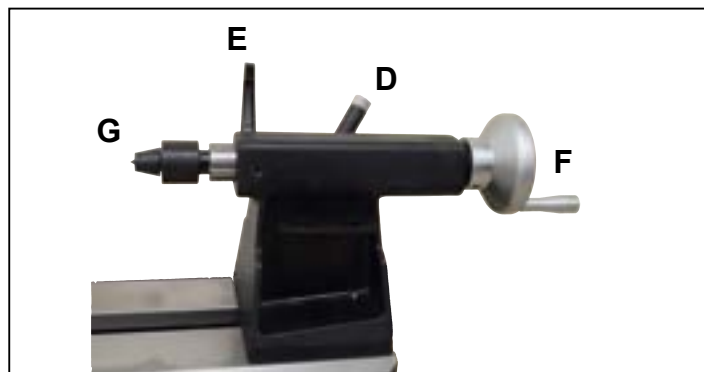


Fig.5.3

ELECTRONIC CONTROLS

The lathe features Control Box (FIG. 5.4) with multiple functions on it.

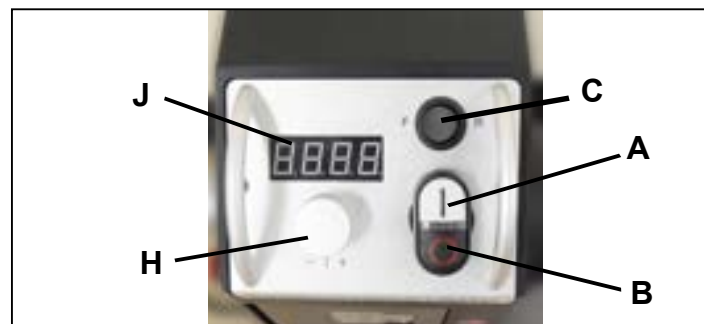


Fig.5.4

1. **'ON' BUTTON:** (FIG. 5.4, A) Push the upper button so that it turns the lathe ON. Push the lower button (B) to turn the lathe OFF.
2. **'OFF' BUTTON:** (B) Push in the lower button to stop the lathe. To restart the lathe, press the ON button rotate the
3. **FORWARD / REVERSE SWITCH:** (FIG. 5.4, C) This selector switch will change the direction that the spindle turns - clockwise (forward) or counter-clockwise (reverse). [Left side depressed= Forward, Right side depressed= Reverse. *The digital readout flashes repeatedly when in reverse*]
4. **SPEED RPM DIGITAL READOUT:** (J) Displays the spindle's RPM as set by the RPM Knob (D). NOTE: Speeds displayed may vary + - 5% due to difference in input voltage.
5. **SPEED RPM KNOB:** (FIG. 5.4, H) This knob controls the desired spindle revolutions per minute (RPM). The lathe has three speed ranges - 250-850, 430-1450, 950-3200 RPM. Spindle speeds are shown on the LCD Display (E).

See the Speed Chart (GENERAL LATHE SPEEDS FOR WORKPIECE DIAMETERS, page 9) for recommended speeds based on the diameter of the workpieces.



WARNING

Only change rotation direction when the spindle has completely stopped. Should the switch be changed while the lathe is operating, the machine will automatically turn off in 'protection' mode. The Digital Readout will show an error code reading.

Turn off the lathe by pushing the large red OFF button (B) and the digital reading will go out, and the control box will reset. Rotate the Off button clockwise and it will pop out to reset itself. Then put the forward/reverse switch to the desired setting (FWD or REV) and the lathe can be turned back on to continue your work.

NOTE: See the Troubleshooting section for a list of Electronic Digital Codes.

2. HEADSTOCK INDEXING HOLES: (FIG. 5.1.1, B) The largest Spindle Pulley (#7B) has 24 positioning ‘holes’ located around its left side. Each index hole is 15° apart, and marked for reference around the pulley perimeter. Insert the Indexing Pin (A) into one of these holes, and the spindle will be locked so that work can be done on the workpiece. See page 14 for additional information.

 **WARNING**

Never start the lathe with the index pin engaged in the spindle, or damage to the lathe will result.

- Never engage the spindle lock while the spindle is turning, or damage to the lathe will result.

3. HEADSTOCK FACEPLATE: Faceplates (#22B, FIG. 5.1.2, C) are used for turning bowls and plates. The screw holes in the plate are for mounting the workpiece for turning.

- To install the faceplate, thread the faceplate onto the spindle in a clockwise direction, and secure it in place with the set screws that are located on the back hub of the faceplate.

- To remove the faceplate, loosen the set screws. Use the supplied 38mm Wrench on the flat portion of the spindle (FIG. 5.1.2, X) and the 46mm Wrench on flats of the face-plate’s rear hub, then loosen the faceplate from the spindle. Rotate the faceplate counter-clockwise to fully remove it from the spindle.

4. HEADSTOCK SPUR CENTER: The Spur Center (#23B, FIG. 5.1.2, D) is used for turning between centers. It fits into the spindle. Both the spindle and spur center have matching MT-2 tapers. The spur center can be removed from the spindle with the long Knockout Bar (K) inserted through the outboard left end of the spindle. NOTE: Be careful and hold the spur center during this process so it does not fly out onto the floor. A short Knockout Bar (L) is supplied to remove the Spur Center’s Center Point, if it needs replacing.

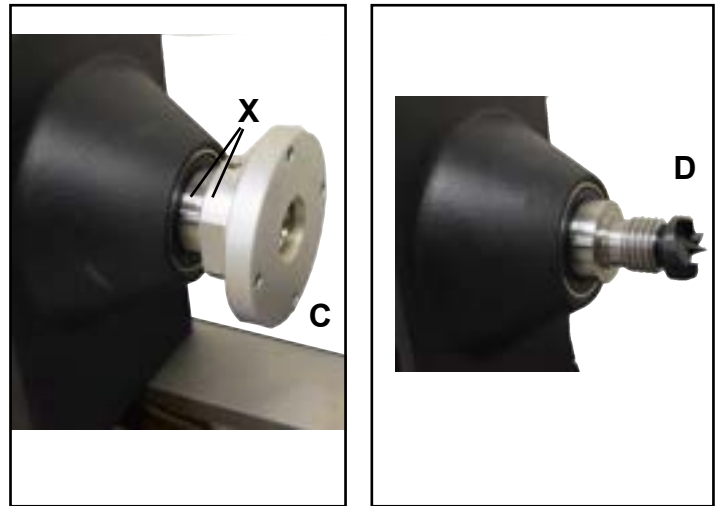


Fig.5.1.2

GENERAL LATHE SPEEDS FOR WORKPIECE DIAMETERS

DIAMETER OF WORK	ROUGHING RPM	GENERAL CUTTING RPM	FINISHING RPM
Under 2"	1520	3200	3200
2 to 4"	750	1600	2480
4 to 6"	510	1080	1650
6 to 8"	380	810	1240
8 to 10"	300	650	1000
10 to 12"	255	540	830
12 to 14"	220	460	710
14 to 16"	190	400	620

TOOL REST CONTROLS

1. TOOL REST BODY LOCK HANDLE: (FIG. 5.2, A) This cam action lever handle locks the tool rest base (B) down in position on the lathe bed. Unlock handle to position the tool rest in any location along the lathe bed. Tighten the handle when the tool rest is properly located for safe turning of the workpiece.

2. TOOL REST LOCK HANDLE: (C) Locks the tool rest in position for supporting your tools during turning. Unlock the handle to adjust the tool rest at a specific angle, or height. Tighten handle when properly positioned.

 **WARNING**

NOTE: The handle is spring loaded on its internal bolt. To change the handle position, pull the handle out, rotate it to the position you desire, then release the handle and it will align itself back onto the bolt.

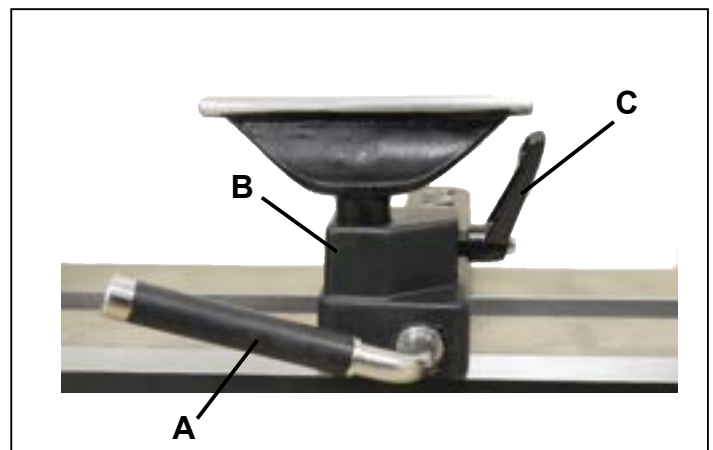


Fig.5.2

Spindle Indexing and Adjustments

1. HEADSTOCK SPINDLE LOCK: The spring loaded Index Pin Assembly is used to position the spindle for making accurate, spaced pattern work on projects such as straight fluting, grooving, drilling, detail carving, wood burning patterns and laying out designs. See next page for more information on indexing.

NOTE: DO NOT use the Index Pin to remove accessories from the lathe, or damage to the pin, or spindle pulley may result. Use the wrenches provided with the lathe.

The Index Pin is spring loaded. Pull the index Lever (A) and rotate it 180 degrees to engage the indexing pin. This will insert the index pin's shaft end into one of the spindle pulley's 24 numbered holes (B), locking the spindle in place. To disengage the indexing pin, pull out the index lever and rotate it 180 degrees, catching the side tabs on the pin.

NEVER START THE LATHE WITH THE INDEX PIN ENGAGED IN THE SPINDLE, OR DAMAGE TO THE MACHINE WILL RESULT.

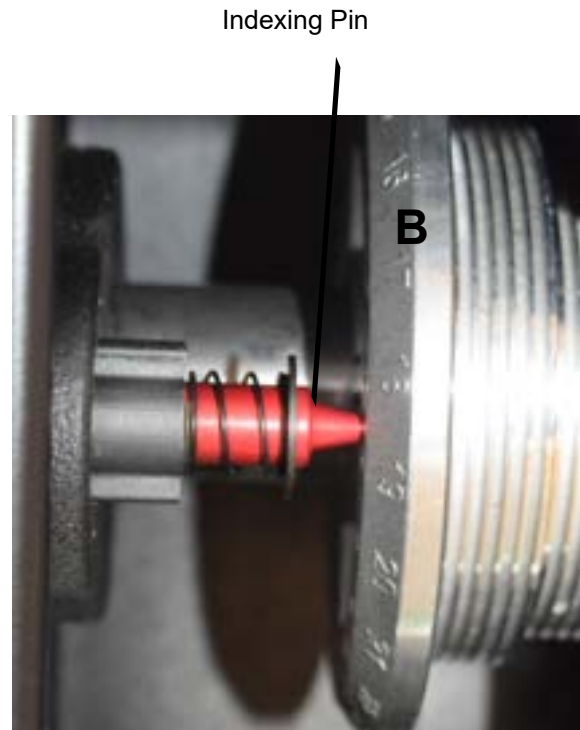
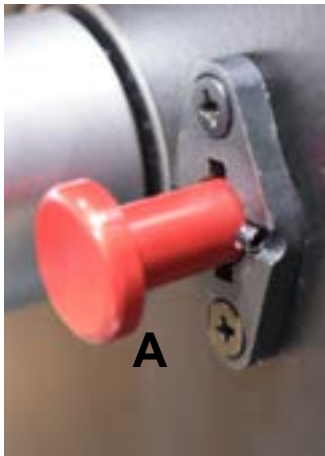


Figure 4



Disengaged Index Pin



Engaged Index Pin

2. HEADSTOCK INDEXING HOLES: (FIG. 4, B) The largest Spindle Pulley (#7B) has 24 positioning 'holes' located around its left side. Each index hole is 15° apart, and marked for reference around the pulley perimeter. Insert the Indexing Pin (A) into one of these holes, and the spindle will be locked so that work can be done on the workpiece. See page 14 for additional information.

SPINDLE INDEXING ADJUSTMENTS

The Headstock Spindle has 24 indexing holes, each 15° apart, which allows accurate pattern work on projects such as straight fluting, grooving, drilling, detail carving, wood burning patterns, laying out designs and more. The Indexing Chart, FIG. 6.5.1, shows how to rotate the spindle to access any of the 24 indexing holes. The 8 primary settings are listed in FIG. 6.5.2, however, other indexing/design settings are possible. Vary the index combinations to make non-equal, spaced patterns. Also, by rotating/re-positioning your work while it is being held between centers, in a chuck or on a faceplate, new orientation points for the index holes will be set for your work.

To Use: Insert the Indexing Pin into one of the 24 spindle's positioning holes according to the chart, and the number of setting you need for your workpiece. Make sure that the pin locates and securely enters into one of the indexing holes so that there is no accidental slipping.

With the Indexing Pin in the first spindle hole setting, do your work (drilling /marking/etc.), then rotate the spindle to the next index setting noted on the chart. Work through all of the designated index setting numbered positions and complete the remaining markings, or work, on your workpiece.



WARNING

NEVER START THE LATHE WITH THE INDEX PIN ENGAGED IN THE SPINDLE, OR DAMAGE TO THE MACHINE WILL RESULT.



WARNING

See page 22 for additional information on the lathe's head-stock and indexing.

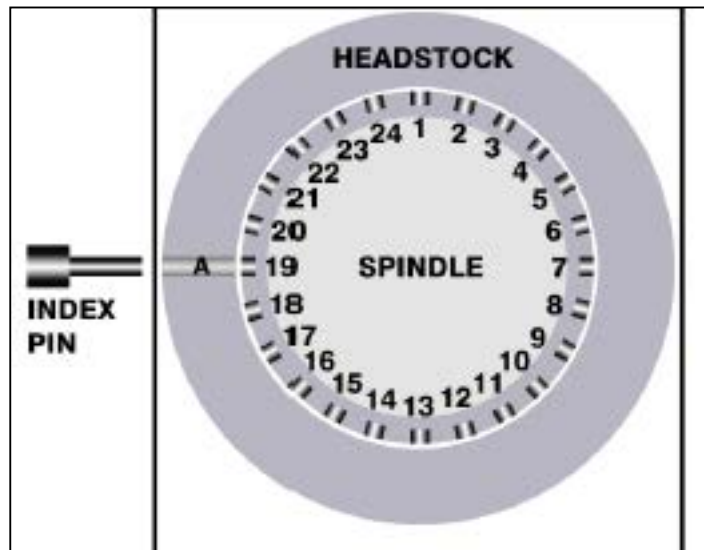


Fig.6.5.1

NUMBER OF INDEX POSITIONS	ANGLE BETWEEN POSITIONS	HEADSTOCK INDEX LETTER	SPINDLE INDEX NUMBER
1	360°	A	1
2	180°	A	1,13
3	120°	A	1,9,17
4	90°	A	1,7,13,19
6	60°	A	1,5,9,13,17,21
8	45°	A	1,4,7,10,13,16,19,22
12	30°	A	1,3,5,7,9,11,13,15,17,19,21,23
24	15°	A	1 to 24

Fig.6.5.2

First Use

⚠ WARNING! Read the entire owner's manual prior to using this machine.

⚠ WARNING! Never load or adjust the loading of a workpiece with the machine powered on.

⚠ CAUTION! The workpiece must be balanced to limit vibrations!

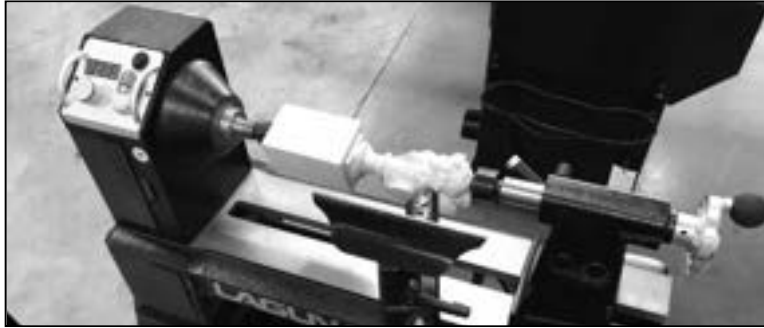


Fig L015 - 10 lathe first use.

Loading a workpiece

1. With the Lathe still turned off, prepare to load a workpiece by installing the live center into the tail stock spindle.
2. Find the center of the workpiece to be mounted with either the faceplate or the drive center. NOTE: A wood lathe chuck can also be used to load a workpiece. The chuck must fit the 1"x 8 TPI spindle threading to be compatible.
3. Fasten the workpiece to the faceplate or drive the drive center into the center mark of workpiece with a rubber mallet (NOTICE: do not use a metal hammer) or clamp the workpiece in the jaws of the chuck (skip step 4).
4. Thread or insert the faceplate or drive center into the spindle. NOTE: You may need to remove the tail stock to fit.
5. Replace the tail stock if removed.
6. Fully release the quill (plunge) of the tailstock by reversing the hand-wheel counter-clockwise.
7. Move the tailstock to the workpiece such that the live center is 1/2" away from the workpiece.
8. Lock the tailstock in place with the large cam lever.
9. Turn the hand wheel clockwise to seat the live center into the center of the workpiece.
TECH TIP About 1/2 turn beyond contact is enough, but it depends on the hardness of the workpiece.
10. Tighten the quill locking handle.
11. Check that the workpiece rotates freely without any obstructions by using the handbrake (on head stock) prior to turning on the machine.

⚠ CAUTION! The workpiece must be balanced. If unbalanced, the lathe may vibrate too heavily and cause problems. Especially with "live edge" pieces, remove any large abnormalities prior to loading stock workpieces. A balanced workpiece will not assume any rotation orientation.

Personal Protection Equipment & Safety

Make sure to completely read and understand the Safety Sections of this manual prior to proceeding. It is vital to follow these instructions to limit danger when using this machine.

Turning on the machine

1. Confirm that the belt is in the correct speed range. See Changing between speed groups.
2. Confirm that the appropriate personal protective equipment is being used.
3. Confirm that all chisels and wok tools are within close range and DO NOT require any reaching over the workpiece.
4. Plug in the machine to the appropriate receptacle as denoted on the machine information plate.
5. Double check the workpiece balancing and rotation.
6. Turn on the machine.

⚠ CAUTION! Do not start the lathe at maximum speed with a workpiece mounted. Start at lowest speed within that range and gradually increase to a higher speed.

Accessories & Options

12" LATHE BED EXTENSION (Fig 10.2)

This short, cast iron extension bolts to the left, head-stock end of the WL1216B Lathe for outboard turning. It extends the lathe's swing diameter capacity from 12" to 15-1/2". It also fits onto the left end of the lathe to extend spindle length capacity to 30".

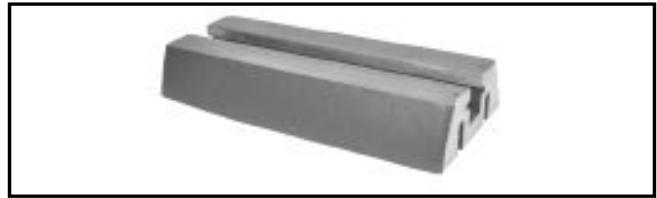


Fig.10.2

LATHE STAND (Fig 10.3)

Universal, all-steel Stand adjusts from 23-1/4" to 37-1/4" long, and 24-1/2" to 34-1/2" working height.



Fig.10.3

TOOL RESTS (Fig. 10.5)

Interchangeable turning Tool Rest Tops and Posts let you mix and match parts to meet the tool rest sizes that you need.

Posts have M12 x1.25 threaded ends that install into the base of the Tool Rest Tops. The Spring Washer secures the post and top together.

- | | | |
|------------------------|--------------------------------|--|
| A. Tool Rest Tops only | B. Compression Spring nut only | C. Tool Rest Posts only (includes nut) |
| 4" (102mm) Long | 1" (25.4mm) diameter | 2.16" (55mm) Long x 1" (25.4mm) diameter |
| 6" (152mm) Long | | |
| 8" (203mm) Long | | |
| 12" (305mm) Long | | |

TOOL REST EXTENSION (Fig 10.6)

Increases the reach of tool rests for turning surfaces not possible with standard tool rests. Has 1" post and hole, with 7-1/2" reach.



Fig.10.5



Fig.10.6

FACE PLATES (Fig 10.7)

Have holes for screw mounting of projects. For lathes with 1" x 8 TPI (threads per inch) spindle threading.

- 3-3/8" Diameter
- 6" Diameter

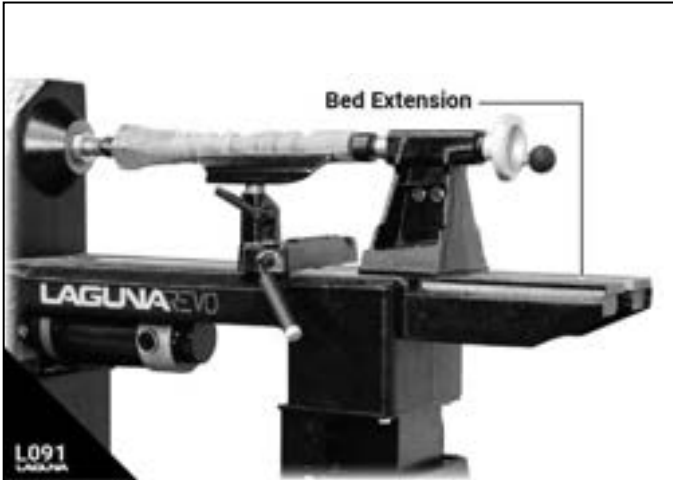


Fig.10.7

Set Up Procedure

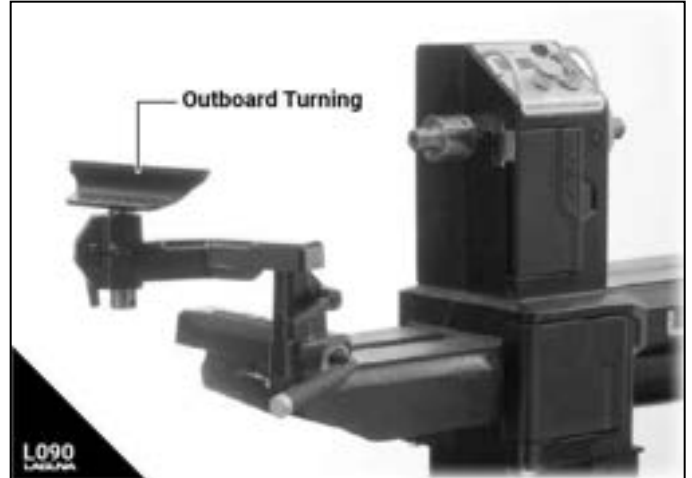
1. Make sure Lathe is unplugged and cannot be powered on.
2. Remove the tail stock, banjo (tool rest) from the lathe bed by releasing the cam locks and carefully sliding out the right side of the lathe bed.

As Bed Extension:



3. The bolt holes on the REVO 10|14 bed are pre-tapped to accept the extension. Using the three (Key 2.3) Allen screws, fasten the extension to the right side (of the bed) extension mounts.
4. Reverse step 2.

As Outboard Turning Bed:



5. Replace the tailstock on the main bed for safe keeping, it will not be used for outboard turning.
6. The bolt holes on the REVO 10|14 bed are pre-tapped to accept the extension. Using the three (Key 2.3) Allen screws, fasten the extension to the left of the lathe.
7. Remove handwheel or faceplate from left spindle threading.
8. Loosen outboard adapter set screws, lock spindle, and screw on the Outboard Adapter.
9. Install the banjo on the extension by carefully sliding it into the left side of the (just mounted) extension.
10. Install the (fig 10.6) tool-rest extension into the neck of the banjo.
11. Install the lock handle into the (fig 10.6) tool-rest extension.
12. Install the tool-rest into the (fig 10.5) tool-rest extension.

Maintenance

⚠ WARNING! Never perform and setup, maintenance or adjustments with the machine connected to the power source!

⚠ WARNING! 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.

⚠ WARNING! When removing banding, extreme caution must be used as the banding will spring when cut.

⚠ CAUTION! The machine is heavy. Ensure that you have enough people to do the job safely.

TECH TIP ⚙ There may be sawdust in or around your new machine as a result of thorough testing.

General

Keep your machine clean. At the end of each day, clean the machine. Wood contains moisture, and if sawdust or wood chips are not removed, they will cause rust. In general, we recommend that you only use a Teflon-based lubricant on the lathe. Regular oil attracts dust and dirt. Teflon lubricant tends to dry and has less of a tendency to accumulate dirt and saw dust. Periodically check that all nuts and bolts are tight.

Drive belt

The drive belt should last for many years (depending on the usage) but needs to be inspected regularly for cracks, cuts and general wear. If damage is found, replace the belt.

Bearings

All bearings are sealed for life and do not require any maintenance. If a bearing becomes faulty, replace it.

Rust

The lathe is made from steel and cast iron. All non-painted surfaces will rust if not protected. It is recommended that they be protected by applying wax or a Teflon- based lubricant to them.

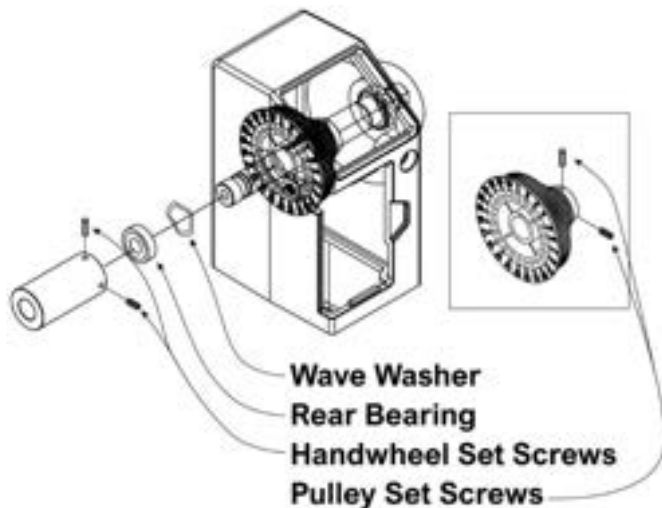
Changing the Belt and Bearings

⚠ WARNING! Unplug machine from power prior to proceeding!

TECH TIP Do not over torque the threading, firm pressure is all that is required.

TECH TIP Do not attempt to remove pulleys without removing set screws.

1. Disconnect the machine from the power source!
2. Open lower door and loosen the tension handle to remove tension from the poly v-belt.
3. Remove the belt from the lower pulley.



4. Remove two set screws in the hand-wheel.
5. Un-thread the hand-wheel off the spindle by pushing in the spindle lock and turning the hand-wheel counter-clockwise.
6. Loosen four set screws in the upper (spindle) pulley.
7. Use a wood dowel, or aluminum stock to knock spindle towards the tailstock. Use a material that is softer than the spindle, so you do not mushroom the end of spindle. Go only far enough to remove the belt from spindle.
8. Now you can replace the belt or bearings.
9. To reassemble reverse the procedure.

TECH TIP There is a wave washer in between the right side of the upper pulley and the black magnetic ring on the spindle. The black magnetic ring is seated on the shoulder of the spindle and is for the spindle speed sensing. Make sure the upper pulley is pushing against the wave washer to avoid the black magnetic ring to be slipping on the spindle while you are tightening the set screws in the upper pulley. It will cause the spindle speed readout (DRO on the control panel) to be inaccurate if the black magnetic ring is slipping on the spindle.

TECH TIP Do not over-tighten the (Key 3) hand-wheel against to the rear ball bearing when you are threading the hand-wheel back to the spindle. Hand-tight is enough. There is a wave washer in between the headstock and the rear ball bearing as a floating design.

Maintenance

General.

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Rust.

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Center point alignment and slide clearance adjustment.

The center point alignment and slide clearance are adjusted at the factory and no adjustment should be required. Should movement or wear have taken place, make adjustments until centered.

Note. The slide clearance of the headstock and the tailstock must be checked and adjusted should it be needed prior to adjusting the center point alignment.



Center points aligned

Troubleshooting

Problem	Probable Cause	Remedy
Lathe will not start	<ol style="list-style-type: none"> 1. Start switch in incorrect position. 2. Power cord not plugged in. 3. Electrical supply is not on. 4. Incorrect wiring to plug. 5. Faulty connection. 	<ol style="list-style-type: none"> 1. Check that the start switch is in the correct position. 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. With the power disconnected from the machine, check that the wiring to the plug is correct. 5. Check that the rubber insulation is stripped enough and does not cause a bad connection. Check that all the screws are tight.
<p>The machine will not stop</p> <p>This is a rare occurrence as the machine is designed to be fail-safe. If it happens and you can't fix it, seek professional help. Disconnect the machine from power and do not use it until the fault is fixed.</p>	<ol style="list-style-type: none"> 1. The stop switch is faulty 	<ol style="list-style-type: none"> 1. Replace the stop switch
Motor Tries to start but will not turn	<ol style="list-style-type: none"> 1. Spindle is jammed 2. Faulty Capacitor 3. Motor Faulty 4. Overloaded power line. 5. Low voltage 	<ol style="list-style-type: none"> 1. With the power disconnected from the machine, try to turn the spindle by hand. If the spindle will not turn, check the reason for jamming. 2. Capacitor faulty. Replace the capacitor. 3. Motor faulty. Replace the motor. 4. Power line overloaded. Correct overloaded condition. 5. Low voltage. Correct low voltage condition.
Squeaking noise	<ol style="list-style-type: none"> 1. Worn bearings 2. Drive belt incorrect tension 	<ol style="list-style-type: none"> 1. Check the bearings. 2. Check the drive belt is tensioned correctly
Spindle slows down during a cut.	<ol style="list-style-type: none"> 1. Dull cutting tools 2. Feeding the wood to fast 3. Oil or dirt on the drive belt. 4. Drive belt loose. 	<ol style="list-style-type: none"> 1. Replace the tool or have it resharpened. 2. Slow down the feed rate. 3. Clean or replace the drive belt. 4. e-tension drive belt.
Machine Vibrates	<ol style="list-style-type: none"> 1. Machine not level on floor. 2. Damaged drive belt. 3. Stock is not balanced 4. Damaged pulley 5. Worn spindle bearing 	<ol style="list-style-type: none"> 1. e-level the machine ensuring that it has no movement. 2. Replace the belt. 3. Change to slower speed and/or balance the job. 4. Replace the pulley. 5. Worn spindle bearing. Replace the bearing.

<p>Digital Read Out (DRO) is displaying an error</p>	<p>Err1: Over-current mode If the operating current of the motor exceeds 18 Amps for 30 seconds, the control board goes into Over-current protection mode. Over-current mode is to stop the motor immediately and the display shows Err1.</p>	<p>Err1: Over-current mode Release the Over-current mode steps: • Press the stop button to release the Overcurrent mode. • Press the Start button again and the control board restarts the motor</p>
	<p>Err2: Motor work fail mode After pressing the start button, if the motor is not running after 25 seconds, the control board enters the Motor work fail mode. In the motor work fail mode, the control board immediately stops the motor operation and the display shows Err2.</p>	<p>Err2: Motor work fail mode Release the Motor work fail mode steps: • Press the stop button to release the Motor work fail mode. • Press the Start button again and the control board restarts the motor</p>
	<p>Err3: Spindle work fail mode After pressing the start button, if the control board detects that the spindle is not running for 30 seconds after the motor runs normally, it will enter the Spindle work fail mode. In the Spindle work fail mode, the control board immediately stops the motor operation and the display shows Err3.</p>	<p>Err3: Spindle work fail mode Release the Spindle work fail mode steps: • Press the stop button to release the Spindle work fail mode. • Press the Start button again and the control board restarts the motor.</p>

PROBLEM	PROBABLE CAUSE	REMEDY
Motor will not start	<ol style="list-style-type: none"> 1. Machine is not plugged in 2. Low voltage 3. Loose connection 	<ol style="list-style-type: none"> 1. . Plug in machine 2. . Check fuses 3. . Check plug and all connections
Motor fails to develop full power.	<ol style="list-style-type: none"> 1. Powerline is overload 2. Undersize wires in supply system 3. Drive belt tension is too high 4. Low voltage 5. Worn motor 	<ol style="list-style-type: none"> 1. Correct the overload condition 2. Increase supply wire size or eliminate extension cord if one is used 3. Adjust belt tension 4. Have voltage checked by an electrician and corrected, if necessary 5. Replace the motor
Motor or Spindle Stalls or will not start	<ol style="list-style-type: none"> 1. Excessive depth of cut 2. Loose or broken belt 3. Worn spindle bearings 4. Improper cooling of motor 5. Worn motor 	<ol style="list-style-type: none"> 1. Reduce cutting depth 2. Check tension or replace drive belt 3. . Replace bearings 4. . Clean motor to increase air flow, or reduce motor running time 5. . Replace Motor
Motor overheats	<ol style="list-style-type: none"> 1. . Motor is overloaded 2. Air flow restricted on the motor 	<ol style="list-style-type: none"> 1. . Reduce load on the motor 2. . Clean motor to increase air flow
Excessive Vibration.	<ol style="list-style-type: none"> 1. Workpiece is warped, out of round, has major flaw, or was improperly prepared or centered for turning 2. Worn spindle bearings 3. Worn belt 4. Motor mount bolt or handles are loose 5. Lathe is on an uneven surface 	<ol style="list-style-type: none"> 1. Correct problem by planing, band sawing, or discard the workpiece 2. Replace the bearings 3. Replace the belt 4. Tighten all bolts or handles 5. Shim the lathe stand, or adjust the feet on the stand for stability
Tailstock Moves when applying pressure	<ol style="list-style-type: none"> 1. Excessive pressure being applied by the tailstock onto the workpiece 2. Tailstock is not secured in place 3. . Lathe bed and tailstock mating surfaces are greasy or oily. 	<ol style="list-style-type: none"> 1. Apply only sufficient force with the tailstock to hold the workpiece securely between centers. 2. Tighten tailstock locking lever 3. Remove tailstock and clean bed surfaces with cleaner degreaser
Tailstock or Tool Rest Base do not lock in place	<ol style="list-style-type: none"> 1. Incorrect adjustment on locking lever mechanism 	<ol style="list-style-type: none"> 1. Adjust the nut under the clamping plate to increase (or decrease) the clamping pressure of the lock levers
Machine bogs down during cutting	<ol style="list-style-type: none"> 1. . Excessive depth of cut is taken 2. Turning tools are dull 	<ol style="list-style-type: none"> 1. . Decrease the depth of cut 2. . Sharpen the turning tools
Tools tend to grab or dig in.	<ol style="list-style-type: none"> 1. Dull turning tools 2. Tool rest is set too low 3. Tool rest is set too far from the workpiece 4. Improper turning tool is being used 	<ol style="list-style-type: none"> 1. Sharpen the tools 2. Reposition the tool rest height 3. Set the tool rest closer to the workpiece 4. Use the correct tool for operation
Digital readout does not work	<ol style="list-style-type: none"> 1. Digital readout sensor out of position 	<ol style="list-style-type: none"> 1. Contact Technical Support

Wiring

⚠ WARNING: VOLTAGE. Before connecting this tool to a power supply (receptacle, outlet, etc.) make sure that the voltage supplied is the same that is specified on the nameplate of the tool. IF IN DOUBT, DO NOT PLUG IN THE MACHINE. Using this tool with a voltage different than that stated on the nameplate can damage the electrical components of this machine and any such damage will not be covered by a warranty.

⚠ WARNING: CIRCUIT BREAKER. Also make sure that the power supply is equipped with the appropriate breaker and plug according to your local electrical code. To do this, first check the motor plate to get the FLA amperage of the machine, if worn out or not present refer to the specifications sheet. If there is any doubt in choosing the appropriate circuit breaker, please consult an electrician or an electrical supply source.

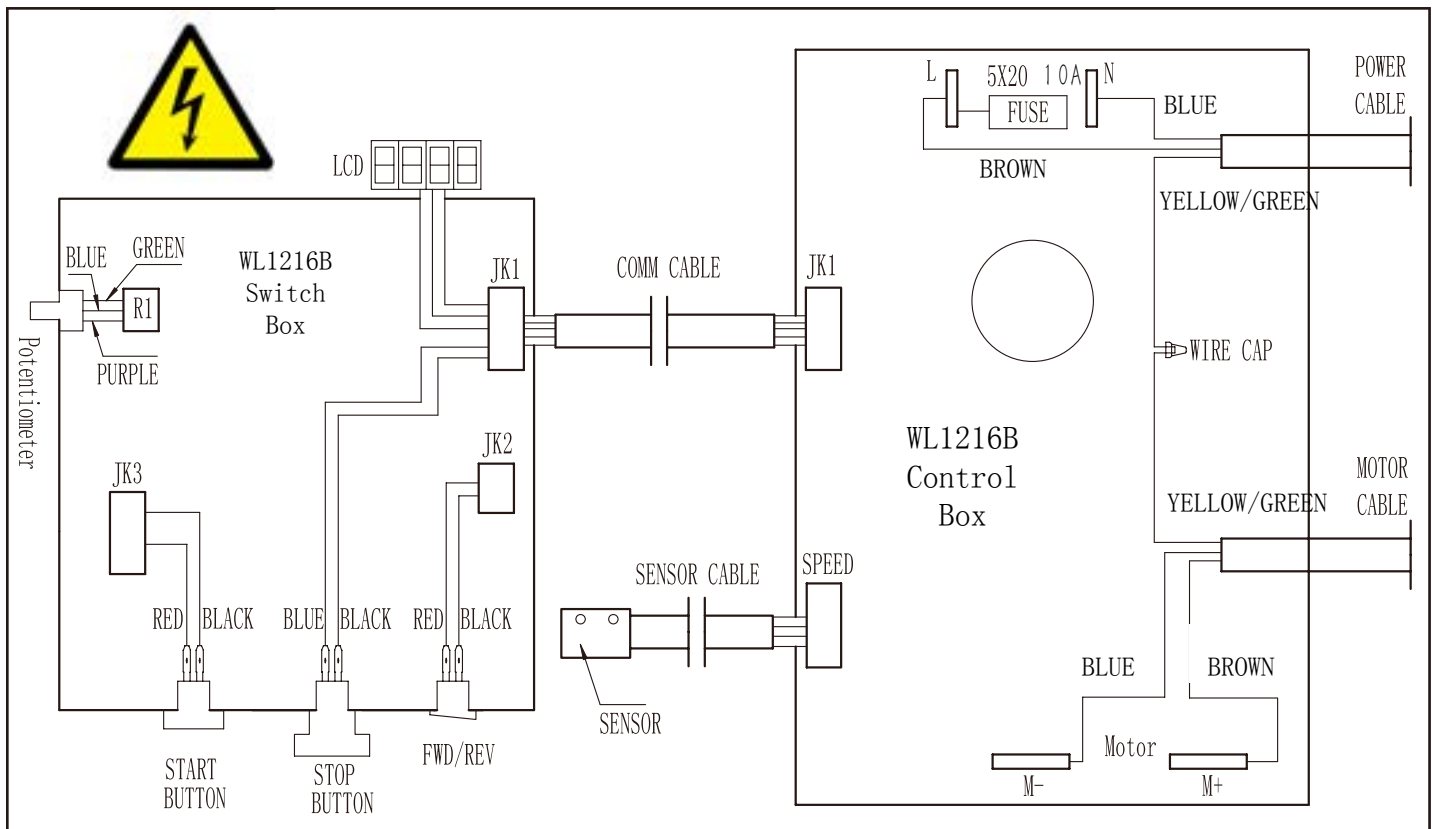
⚠ WARNING: ELECTRICAL SHOCK. It is extremely dangerous to work on live wires and/or electrical systems that are connected to a power source. ALWAYS disconnect the power from the machine prior to performing any maintenance or adjustments work.

⚠ WARNING: MOTOR WIRING: The information in this manual was current at the time of printing but may be different than the diagram on your machine. ALWAYS use the supplied wiring diagram with the machine or motor (under the electrical covering) if present.

Customer Support: (800)-332-4094 or customerservice@lagunatools.com

- **Electrical installation should be carried out by competent, qualified personnel.**
- **The mains connection should be made using the terminal box.**
- **Replacement of the power supply cable should only be done by a qualified electrician.**

⚠ WARNING! To avoid electrocution or fire, any maintenance or repair to electrical system should be done only by qualified electricians using genuine replacement parts.



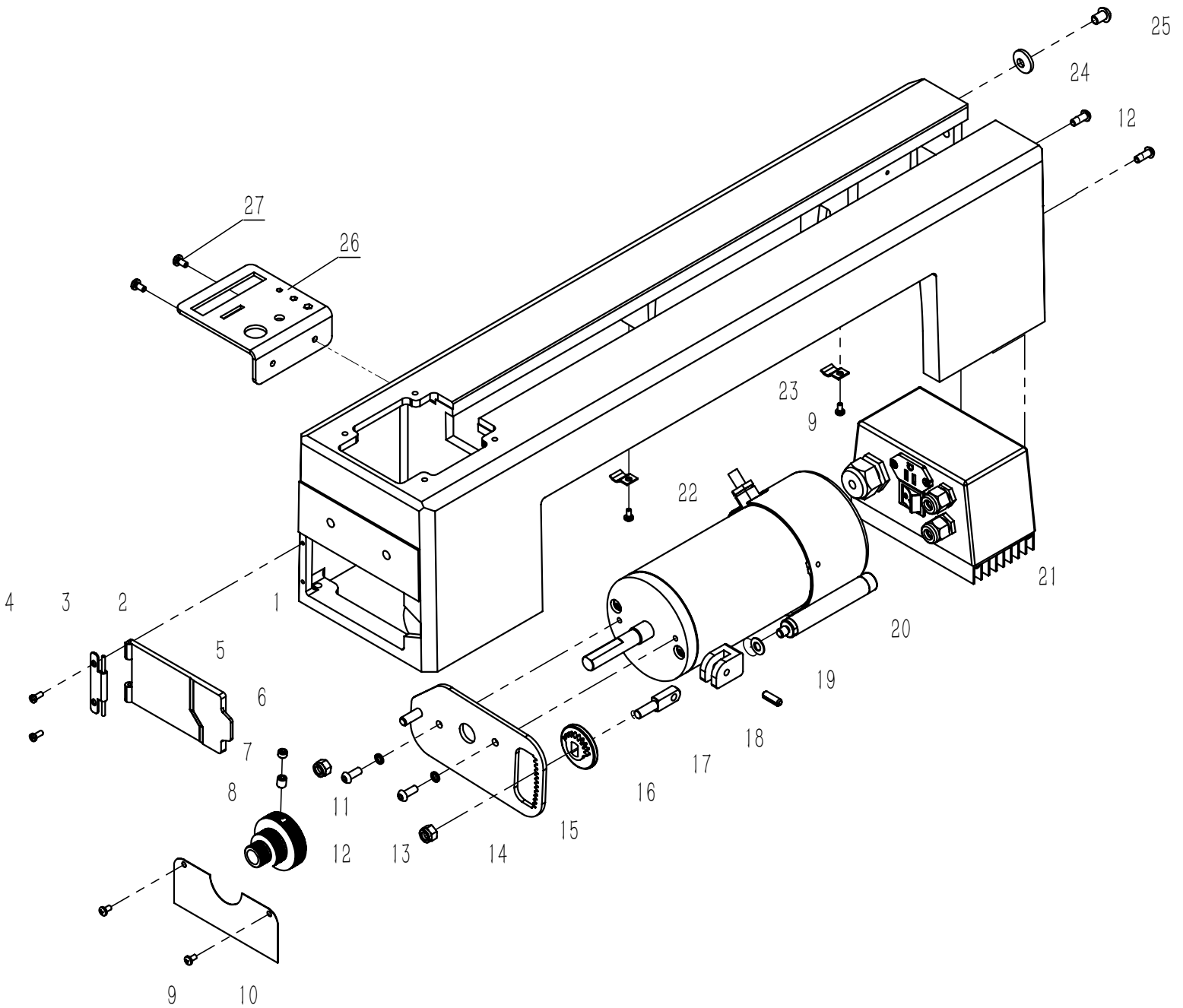
Parts

⚠ WARNING: Never perform and setup, maintenance or adjustments with the machine connected to the power source!

TECH TIP: Use authentic Laguna Tools parts for replacements.

Customer Support: (800)-332-4094 or customerservice@lagunatools.com

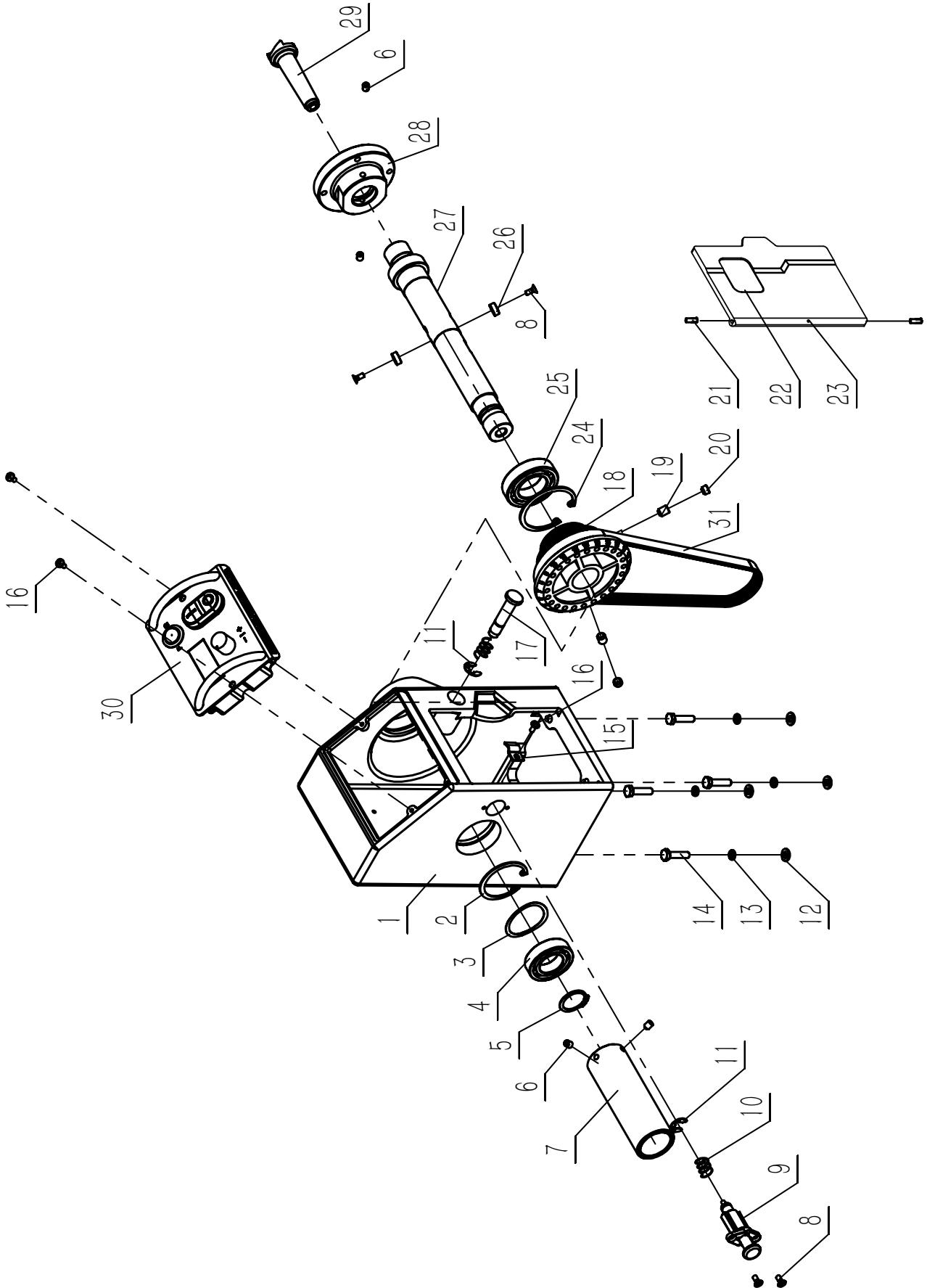
Revo 10|14 Bed Assembly



Revo 10|14 Bed Assembly Parts List

NO.	Description	Specification	Quantity	Part Number
1	Bed Extension		1	1-WL1014A010001-001L
2	Hinge shaft		1	1-WL1216B020003
3	Hinge		1	1-WL1216B020002
4	Small Cross Recessed Pan Head Screw	M4X10	2	1-M4X10GB823B
5	Bed Cover Plate Door		1	1-WL1014A010002-001S
6	Hexagon Socket Set Screw	M8X6	1	1-M8X6GB80B
7	Hexagon Socket Set Screw	M8X10	1	1-M8X10GB80B
8	Motor Pulley		1	1-WL1216B010004
9	Cross Recessed Pan Head Screw	M4X8	4	1-M4X8GB818B
10	Fence		1	1-WL1216B010003
11	Standard Spring Washer	M6	2	1-WSH6GB93B
12	Hexagon round screw	M6X16	4	1-M6X16GB70D2B
13	Hex Nut	M6	2	1-M8GB889D1ZF
14	Motor Connecting Plate		1	1-WL1216B010001
15	Rotating Gear		1	1-WL1216B010010
16	Square Head Screw		1	1-WL1216B010005
17	Locking Cam		1	1-WL1216B010006
18	Roll Pin	6X20	1	1-PIN6X20GB879D1B
19	Disc Springs(A)		1	1-A16-1GB1972B
20	Tension Handle		1	1-WL1014A010004
21	Control Assembly		1	1-WL1014A091000
22	Motor		1	1-ZYT-101SR-9-230
23	Cable Clamp		2	1-1502014-02
24	Eccentric Washer		1	1-WL3040A010009
25	Hexagon Round Screw	M8X12	1	1-M8X12GB70D2B
26	Tool Bracket		1	1-WL1014A010003-001Z
27	Cross Recessed Pan Head Screw	M4X8	2	1-M4X8GB818B

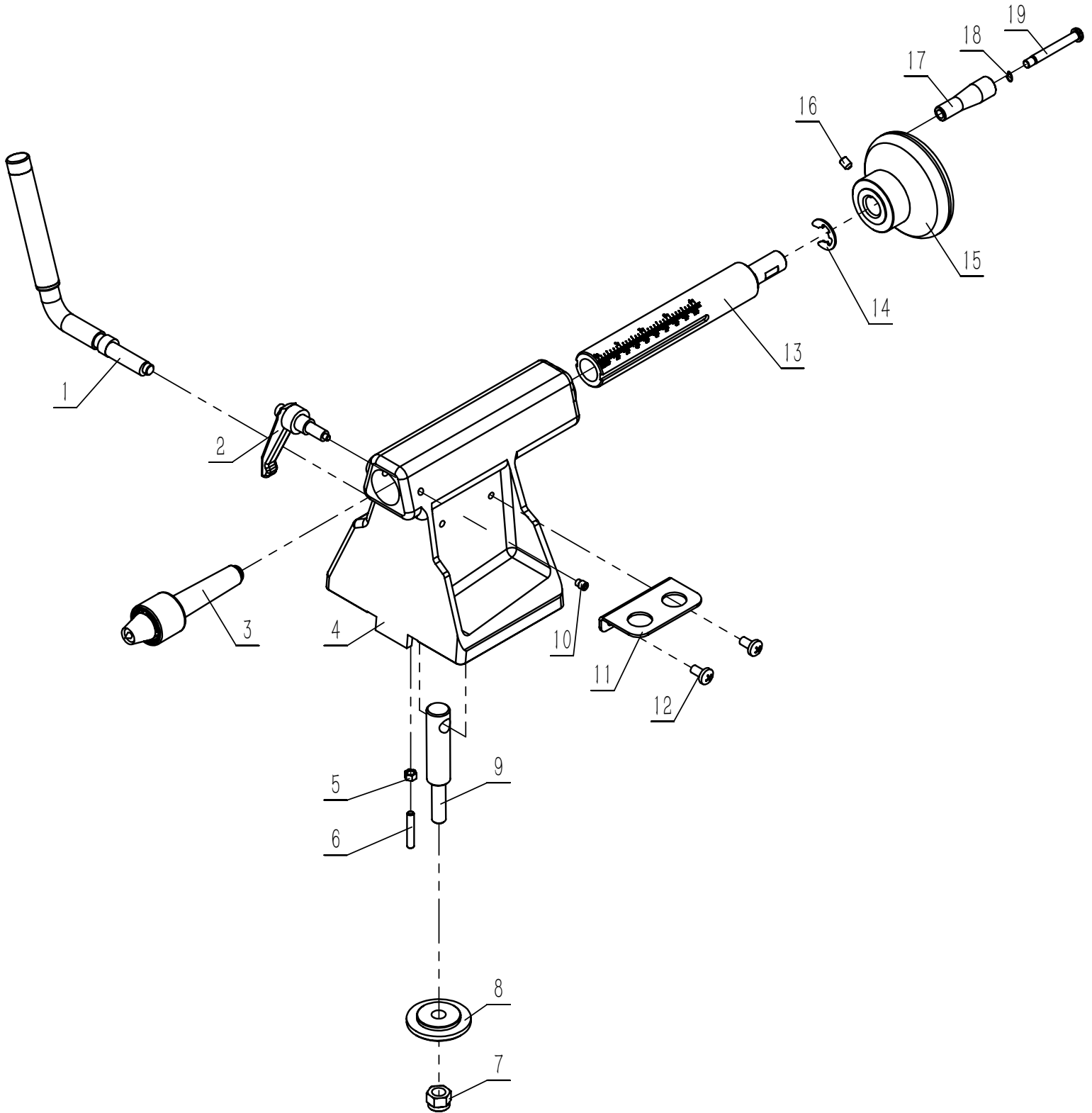
Revo 10|14 Headstock Assembly



Revo 10|14 Headstock Assembly Parts List

NO.	Description	Specification	Quantity	Part Number
1	Headstock		1	1-WL1014A020001-001L
2	Spring Circlip	47	1	1-CLP47GB893D1B
3	Corrugated Washer		1	1-JL93010008
4	Deep Groove Ball Bearing	6005	1	1-BRG6005-2RS-V2GB276
5	Type A Circlip	25	1	1-CLP25GB894D1B
6	Hexagon Socket Set Screw	M6X8	4	1-M6X8GB80B12D9
7	Handwheel		1	1-WL1014A020008
8	Screw	M4X10	4	1-M4X10GB819D1B
9	Pin Shaft assembly		1	1-WL1014A021000
10	Spring		2	1-JMBS1403014008
11	Split Washer	9	2	1-CLP9GB896B
12	Flat Washer (Class A)	M6	4	1-WSH6GB97D1B
13	Standard Spring Washer	M6	4	1-WSH6GB93B
14	Hex Bolt (Full Thread)	M6X25	4	1-M6X25GB5783B
15	Cable Clamp		1	1-1502014-02
16	Cross Recessed Pan Head Screw	M4X8	3	1-M4X8GB818B
17	Guide Pin		1	1-WL1014A020004
18	Spindle Pulley		1	1-WL1014A020003
19	Hexagon Socket Set Screw	M8X10	2	1-M8X10GB80B
20	Hexagon Socket Set Screw	M8X6	2	1-M8X6GB80B
21	Hexagon Socket Set Screw	M5X10	2	1-M5X10GB79B12D9
22	Window		1	1-JMBS1001010004
23	Change Belt Plate		1	1-WL1014A020006-001S
24	Spring circlip	55	1	1-CLP55GB893D1B
25	Deep Groove Ball Bearing	6006	1	1-BRG6006-2RS-V2GB276
26	Magnetic steel		2	1-JMWL1203010006
27	Main Spindle		1	1-WL1014A020002
28	3" Face Plate		1	1-WL1014A020011
29	Spur Center		1	1-JL93011100
30	Switch Assembly		1	1-WL1014A092000
31	Poly V-Belt	SPJ-650	1	1-5PJ650GB16588

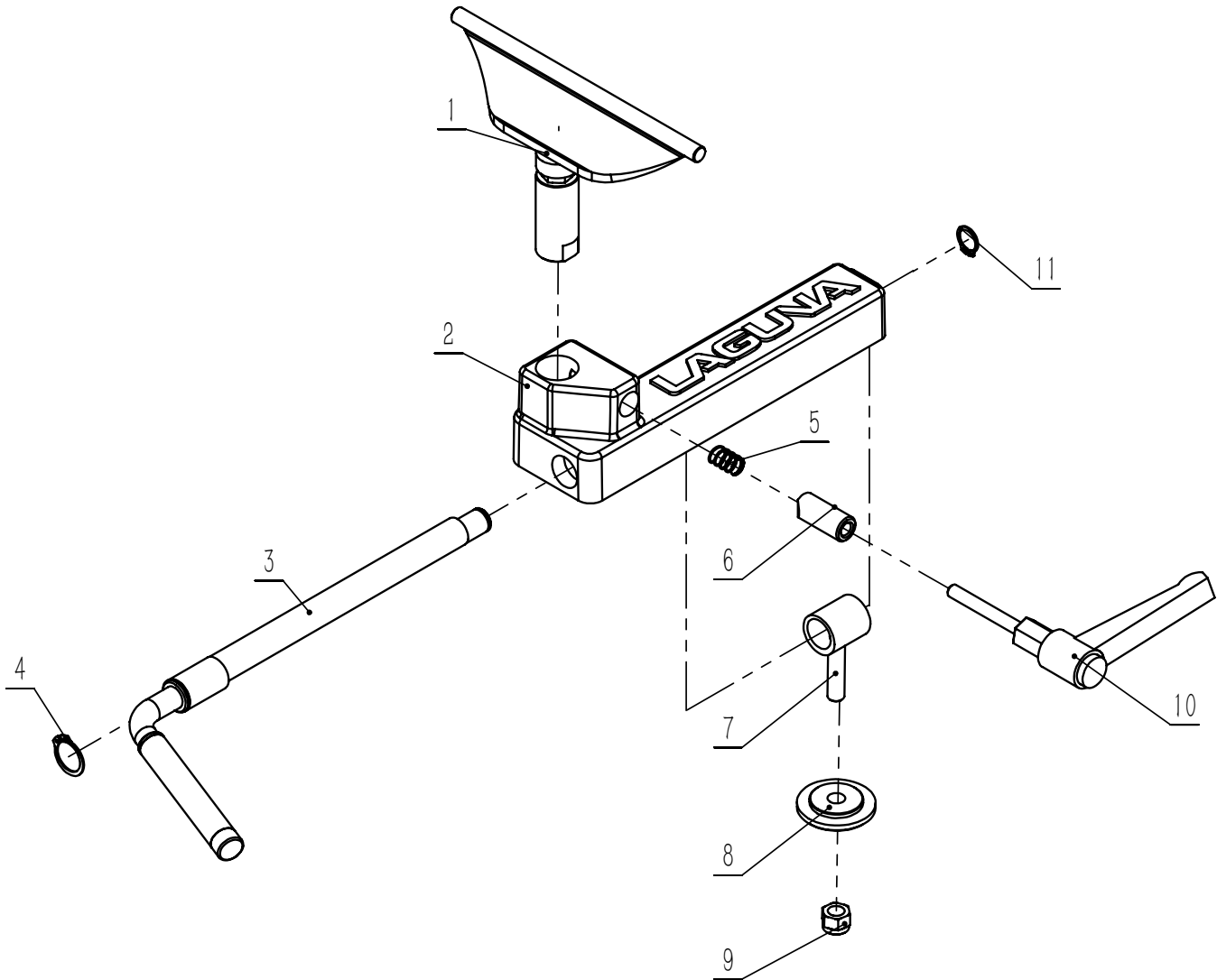
Revo 10|14 Tailstock Assembly



Revo 10|14 Tailstock Assembly Parts List

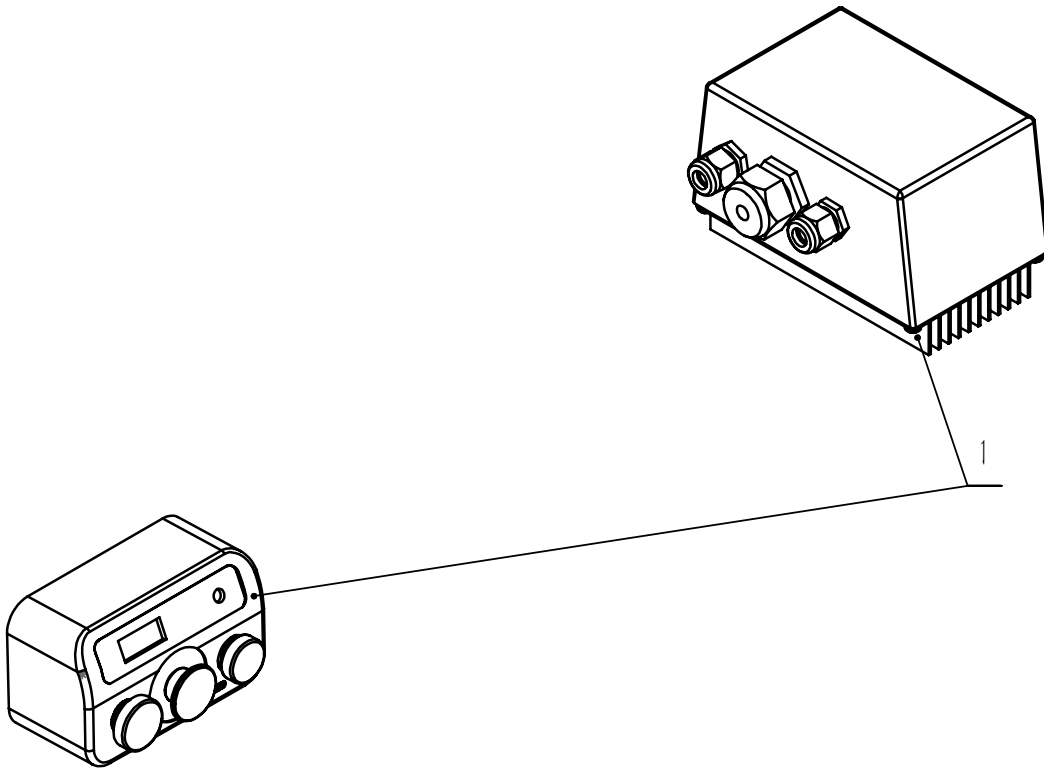
NO.	Description	Specification	Quantity	Part Number
1	Repalced Tailstock Handle		1	1-WL1014A040002
2	Locking Handle		1	1-JMWL1203041100
3	Center Assembly		1	1-JL93031000A
4	Tailstock		1	1-WL1014A040001-001L
5	Hex Nut	M5	1	1-M5GB6170B
6	Hex Socket Set Screw	M5X25	1	1-M5X25GB77B12D9
7	Hex Nut	M10	1	1-M10GB889D1ZF
8	Clamping Plate		1	1-JL93030012
9	Stud		1	1-WL1014A040003
10	Hexagon Socket Set Screw	M6X8	1	1-JMWL1203040010
11	Tool Bracket		1	1-WL1014A040004-001Z
12	Cross Recessed Pan Head Screw	M6X12	2	1-M6X12GB818B
13	Tailstock Spindle Assembly		1	1-JMWL1203041100
14	Split Washer	12	1	1-CLP12GB896B
15	Tailstock Hand Wheel		1	1-WL1014A040005
16	Hexagon Socket Set Screw	M6X8	1	1-M6X8GB80B12D9
17	Rotating Handle		1	1-WL1014A040006
18	Spring Circle		1	1-JMWL1203040007
19	Screw		1	1-JL93030008
20	Compression Spring		1	1-JMWL1203040004

Tool Rest Assembly Parts List



NO.	Description	Specification	Quantity	Part Number
1	6" Tool Rest		1	1-WL1014A051000-001Z
2	Tool Rest Base		1	1-WL1014A050001-001L
3	Replaced Handle		1	1-WL1014A050002
4	Type A Circlip	21	1	1-CLP21GB894D1B
5	Spring		1	1-JL91012003
6	Locking Block		1	1-WL1014A050003
7	Threaded Shaft & Sleeve		1	1-JMWL1203050002
8	Clamping Plate		1	1-JL93030012
9	Hex Nut	M10	1	1-M10GB889D1ZF
10	Adjustable Handle		1	1-KTSB-1-B-M8X63X60
11	Type A Circlip	15	1	1-CLP15GB894D1B

Controller Assembly



No.	Description	Part number
1	Controller	1-WL1216B093000A

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