

novaTM

Smart Tools, Powerful Solutions

COMET 14DR LatheTM

OPERATION MANUAL



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Models:
46900 - USA

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General Safety Rules



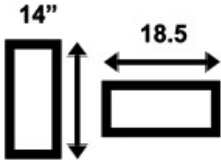
Failure to follow these rules may result in serious personal injury or death.

❖ **IMPORTANT:** Before switching the lathe on, **ALWAYS** check the machine for the correct setting and speed

1. **BEFORE OPERATING THE TOOL READ THE MANUAL!** Learn the machine's application and limitations, plus the specific hazards particular to it.
2. **ALWAYS USE SAFETY GLASSES** (must be ANSI approved) Everyday eyeglasses usually are only impact resistant and safety glasses only protect eyes. A full-face shield will protect the eyes and face. Also use face or dust mask if sanding operation is dusty.
3. **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.
4. **USE EAR PROTECTORS.** Use ear muffs for extended period of operation. Use muffs rated to 103 DBA LEQ (8 hour).
5. **DO NOT USE IN DANGEROUS ENVIRONMENT.** Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted. The NOVA COMET 14DR is intended for indoor use only. Failure to do so may void the warranty.
6. **KEEP WORK AREA CLEAN.** Cluttered areas/benches invite accidents. Build-up of sawdust is a fire hazard.
7. **KEEP CHILDREN AND VISITORS AWAY.** The NOVA COMET 14DR is **not recommended** for children and ailing persons. Such personnel and onlookers should be kept a safe distance from work area.
8. **MAKE WORKSHOP CHILDPROOF** with locks, master switches, or by removing starter keys.
9. **GROUND ALL TOOLS.** If the tool is equipped with a three-prong plug, it should be plugged into a three-hole electrical receptacle. If an adapter is used to accommodate a two-prong receptacle, the adapter plug must be attached to a known ground. Never remove the third prong and add surge protection.
10. **MAKE SURE TOOL IS DISCONNECTED FROM POWER SOURCE** whilst in service/maintenance mode.
11. **DISCONNECT TOOLS FROM WALL SOCKET** before servicing and when changing accessories such as bits, cutters, fuses, etc.
12. **AVOID ACCIDENTAL STARTING.** Make sure switch is in the "Off" position before plugging in power cord.
13. **NEVER LEAVE MACHINE RUNNING UNATTENDED.** Do not leave machine unless it is turned off and has come to a complete stop.
14. **KEEP GUARDS IN PLACE** and in working order.
15. **USE CORRECT TOOLS.** Do not use a tool or attachment to do a job for which it was not designed.
16. **USE RECOMMENDED NOVA ACCESSORIES.** The use of improper accessories may cause hazards.
17. **DO NOT FORCE THE TOOL.** It will do the job better and be safer at the rate for which it was designed.
18. **MAINTAIN TOOLS IN TOP CONDITION.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
19. **NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted.
20. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form a habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
21. **DO NOT OVERREACH.** Keep proper footing and balance at all times.
22. **DIRECTION OF FEED.** Mind the direction of spindle/chuck/work to ensure a safe environment.
23. **PAY ATTENTION TO WORK.** Concentrate on your work. If you become tired or frustrated, leave it for a while and rest.
24. **SECURE WORK.** Use clamps or a vice to hold work when practical. Severe injury or death can occur if an object comes free as it can become a dangerous projectile.
25. **CHECK DAMAGED PARTS.** Before further use of the tool, any part that is damaged should be carefully checked to ensure that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, mounting, and any other conditions that may affect its operation. Any damaged part should be properly repaired or replaced.
26. **DRUGS, ALCOHOL, MEDICATION.** Do not operate machine while under the influence of drugs, alcohol, or any medication.
27. **DUST WARNING.** The dust generated by certain woods and wood products can be harmful to your health. Always operate machinery in well-ventilated areas and provide means for proper dust removal. Use wood dust collection systems whenever possible.
28. **DO NOT MODIFY OR USE THE LATHE FOR USES OTHER THAN FOR WHICH IT WAS DESIGNED.**
29. **CALIFORNIA PROPOSITION 65 – SEE PAGE 22**

NOVA COMET 14DR Features

Lathe Features

Icon	Feature	Description
	Versatile Variable Speed Range	2-step Electronic Variable Speed range. Low range: slower speeds from 250 RPM up to 1100 RPM for larger spindle and bowl work. Fast range: from 750 RPM up to 3450 RPM for miniature turning work.
	Dial-In easy to use speed adjustment with speed screen	Quickly dial-in the correct speed for the job, material and conditions. you're not limited to potentially dangerous fixed-speed steps. The NOVA Comet 14DR is the perfect solution for a wide variety of projects from small pens to larger bowls and platters. The easy to read screen lets you know at what speed you are turning.
	Forward and reversing function	Quickly and easily change direction between forward and reverse. This offers you additional flexibility and allows you to achieve a superior finish, reducing the need for extensive sanding.
	Flexible capacity to match your project	• 14"/355mm Capacity Over Bed • 18.5"/469mm Between Centres standard • 44.1"/1120mm between Centres with ONE extra accessory bed extension (extra purchase) to extend the beds as long your project demands.
	Solid, precision cast iron for durability, stability and vibration dampening	CAD designed webbing to absorb vibration throughout the bed length. Exceptional structural strength, precision machined for superior fit and finish.
	Easy belt/pulley access	Quick and fast to lift cover and adjust belt.
	Strong 2MT spindles	The precision machined 2MT allows for quick and secure mounting of accessories onto the lathe.
	Quick action cam controls	With comfortable rubber grip for fast and secure locking
	Large range of NOVA accessories	NOVA Chucks and Jaws, Faceplates, Chisels, Centers all enhance your use of the NOVA Comet 14DR Midi Lathe.

Lathe Specifications

	Metric	Imperial
Swing Over Bed	177.8mm	7"
Distance Between Centres	469.9mm	18.5"
Swing Over Tool Rest Base	285.75mm	11.25"
Maximum distance Tool rest to spindle centre	217.49mm	8.5625"
Floor to Centre Height	381mm	15"
Overall Size	920mm(l) x 330mm(w) x 510mm(h)	32.7" (l) x 12.99" (w) x 20" (h)
Footprint	822.32mm (l) x 215.9mm(w)	32.375" (l) x 8.5" (w)
Weight	47 Kg	103.61 lb

Headstock		
Spindle Thread	1" x 8TPI (Right Hand Thread)	
Headstock Spindle Taper	Morse Taper #2 (MT2)	
Spindle Bore	10.31mm	13/32" or .40"

Tailstock		
Quill Taper	Morse Taper #2 (MT2)	

Tool Rest		
Width	152.4mm	6"
Shaft Diameter	25.4mm	1"
Post Length	88.9mm	3.5"
Base Height	84.14mm	3.3125"

Construction		
Bed	Precision – Ground Cast Iron	
Frame	Cast Iron & Steel	
Headstock	Cast Iron & Steel	
Tailstock	Cast Iron & Steel	
Pain Type/ Finish	Enamel/Powder Coat	

Other Specification		
Bed Width	203.2mm	8"
Faceplate Size	80mm	3 - 9/64"

Electrical Specifications		
Input Voltage	120V	
Input Frequency	60Hz	
Full Load Input Current Rating	7.3A	
Power Input Plug Type	NEMA 5-15P	

Motor Specifications		
Motor Type	Universal Brush Type	
Motor power output	0.75KW (1HP)	
Phase	Single Phase	
Input Current	7.3A	

IMPORANT NOTE

Due to NOVA's continuous product improvement and development policy, specifications, features and images contained in this manual may change without notice. Teknatool is not responsible for omissions or errors herein or for incidental damages in connection with the furnishing of this information.

Package Contents



Package Items	Description	SKU	Quantity
1	COMET 14-DR Lathe	46900	1
2	Faceplate	4718066	1
3	Spanner	46041	1
4	Heavy Duty Live Centre	4718069	1
5	Live Centre	46503	1
6	Spur Centre	46502	1
7	3mm Hex Key	AK03	1
8	5mm Hex Key	AK05	1
9	8mm Hex Key	AK08	1
10	Operating/Knock Out Bar	46032	1
11	Tailstock Handwheel	4718034	1
12	Handwheel Handle	4718035	1
13	Handwheel Handle Screw	4718036	1
14	Power Cord	4718063	1
15	Tool Holder	4718072	1
16	Tool Rest Post	9095	1
17	Tool Rest Bar	9027	1

Connecting to Power



Improper power connection may result in a risk of electrical hazard

Before plugging the NOVA COMET 14DR lathe, shut off the power source



Figure 1 - 110v Outlet



Figure 2- 220v Outlet

The power cord installed on the NOVA COMET 14DR lathe will have a grounding three-prong plug. The plug must be connected to a matching outlet that is properly installed and grounded in accordance with local electrical codes.

For 115V outlet only:

A temporary adapter can be used to plug into a two-pole outlet if a three-prong outlet is unavailable in your environment. The ground tab on the adapter must be connected to the screw on the outlet for proper grounding. This adaptor should only be used until a qualified electrician can install a properly grounded outlet.

- **Note:** If an extension cable is required, make sure to check the following:
1. Extension cable gauge
 2. Is the cable properly insulated?

If in any doubt, please contact your local electrician to inspect the cord according to the local electrical standards before using it.

Surge Protection (Ground Fault Interrupters (GFI) / Residual Current Detectors (RCD))

It is recommended to use a surge protection device rated to 15A for the best protection of the lathe. GFI and RCD are the recommended standard type of surge protection device.

Setting up your NOVA COMET 14DR lathe

Setting up your workshop environment

Your workshop should be set up appropriately for you to effectively use the lathe. The workshop should be setup with the following factors taken into consideration:

1. Lathe location

Position the *NOVA COMET 14DR* lathe close to a power source, and in an area with enough clearance for workloads. Other machines in the workshop should not interfere with the movement/power of the lathe.

2. Lighting

The work shop should have adequate lighting, with enough lighting around the lathe not to cast shadows upon the workpiece. If possible, locate the lathe near a window. A portable spotlight might be helpful.

3. Ventilation

Workshop must have an adequate level of ventilation. The level of required ventilation depends on the size of the workshop and the amount of work that is done within the workshop. The use of dust collectors and filters will minimize your health risk.

4. Elements/Environment

Every shop environment is different. The physical environment where the machine is operated is important for safe operation and longevity of machine components. For best results, operate this machine in a dry environment that is free from excessive moisture, hazardous chemicals, airborne abrasives, or extreme conditions. Extreme conditions for this type of machinery are generally those where the ambient temperature range exceeds 41° – 104°F (5° - 40°C); the relative humidity range exceeds 20%–95% (non-condensing). Failure to do so could result in serious personal injury, damage to equipment, and/or poor work results.

Motor Break-in Operation

Run the lathe motor without any load for approximately 30~45 minutes before start using the lathe to cut wood/apply significant load. The motor and bearings break-in should be done at the fastest speed possible and not be unattended.

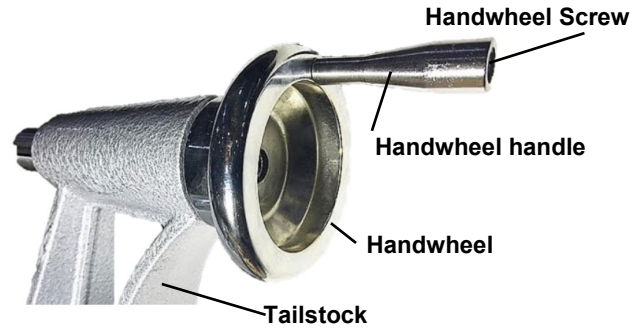
The *NOVA COMET 14DR* features a variable speed DC motor that contains brushes that make physical contact with the motor rotor. For the best motor performance and life, the motor brushes should be slightly worn out to ensure the brushes are making good contact.

➤ **Note:** A clicking/swishing noise in the motor is normal which will reduce as the brushes wear in.

Assembling the NOVA COMET 14DR Lathe

Assembling the Tailstock

1. Insert the wheel handle screw into the handwheel handle
2. Use a flat head screw driver to screw on the handwheel handle onto the quill adjusting wheel and tighten.



Installing the quill lock handle

1. Turn the tailstock quill so the machined slot is in line with the quill lock handle hole.
2. Thread the tailstock quill lock handle into the tailstock body.
3. Make sure the tailstock quill does not rotate with the handle rotation.



Operating the NOVA COMET 14DR Lathe

Turning the lathe ON / OFF

The LCD digital speed readout will light up and display "0" when the lathe is plugged into the power source and "FWD" LED light of the left side of the will begin to flash.

LED flashing



Press the **<FWD/ REV>** key once and the LED light will become solidly lit.

LED solid lit after pressing **<FWD/ REV>** key



Press the green **<ON>** button located on the lower half of the lathe control panel when the LED light is solid lit to start the motor.

Press to start the motor when LED is lit solid



Press the red **<OFF>** button to turn the motor off while running.

Press to stop the motor while running.



➤ **Note:** The lathe motor will not turn on when the **<ON>** button is pressed while the LED light is flashing however, the motor will start immediately after the **<FWD/ REV>** key is pressed.

Switching between Forward and Reverse Modes

The forward and reverse can be switched by holding down the **<FWD/ REV>** key until the LED light starts flashing on the alternative line.

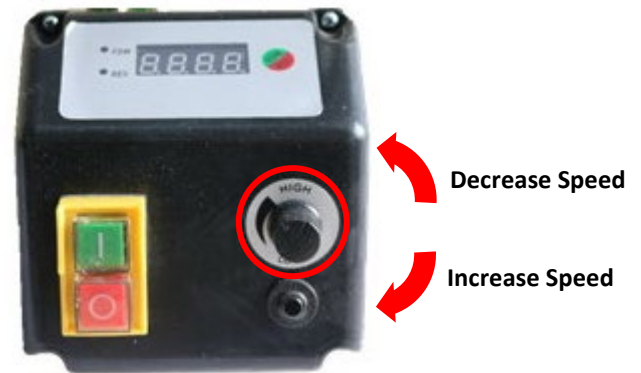
Press the **<FWD/ RED>** key once before to make the LED solidly lit before pressing the **<ON>** button to start the lathe motor



Changing the Speed

The motor speed can be controlled by turning the control knob.

1. Turn the speed control knob in the clockwise direction to increase spindle speed.
2. Turn the speed control knob in anti-clockwise direction to reduce the spindle speed.



NOVA COMET 14DR features 2 speed positions as shown below:

Speed Band	RPM Range	Type of Work
1 (Motor pulley small, Spindle pulley big)	250 ~ 1100	Large faceplate and spindle work
2 (Motor pulley big, Spindle pulley small)	750 ~ 3450	Small turning and miniature turning work

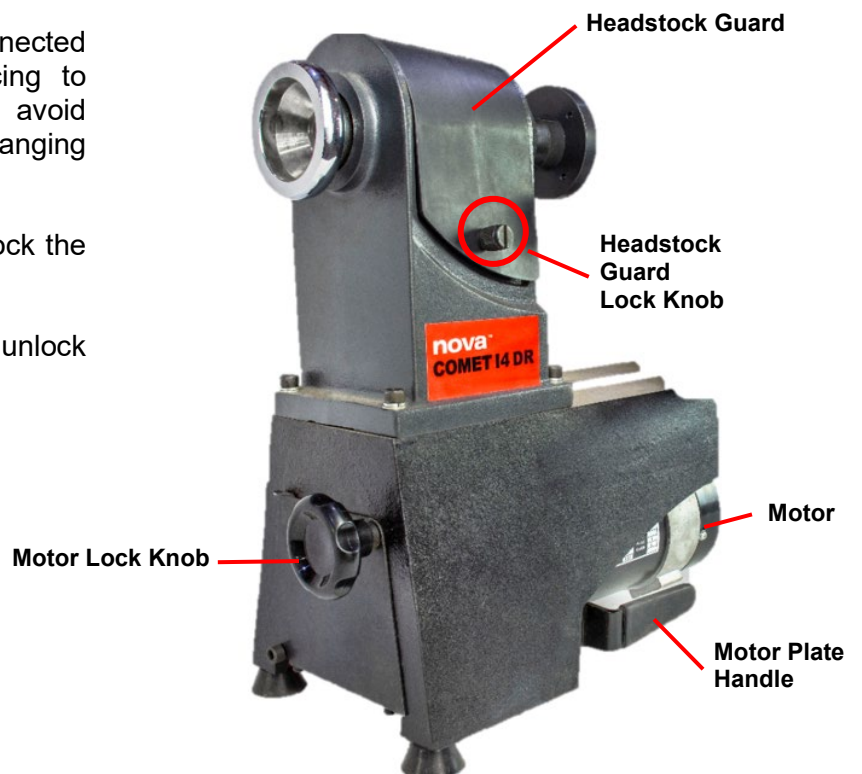
This speed range can be selected by changing the belt pulley position.

Changing Belt Positions

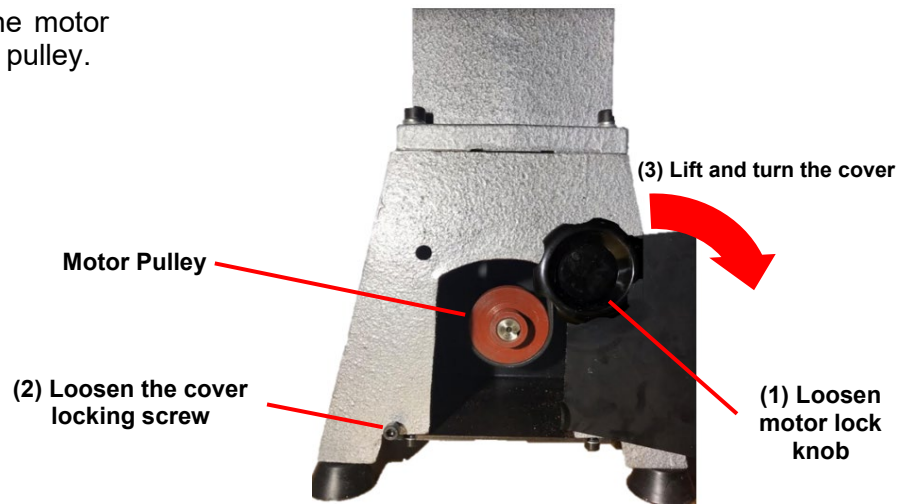
Ensure the lathe is powered off and disconnected from the power source before commencing to change the belt positions on the lathe to avoid accidental motion during the belt changing procedure.

Lift the Motor Plate Handle upwards to unlock the motor relieving tension on the belt

Unscrew the headstock guard lock knob to unlock the headstock guard.

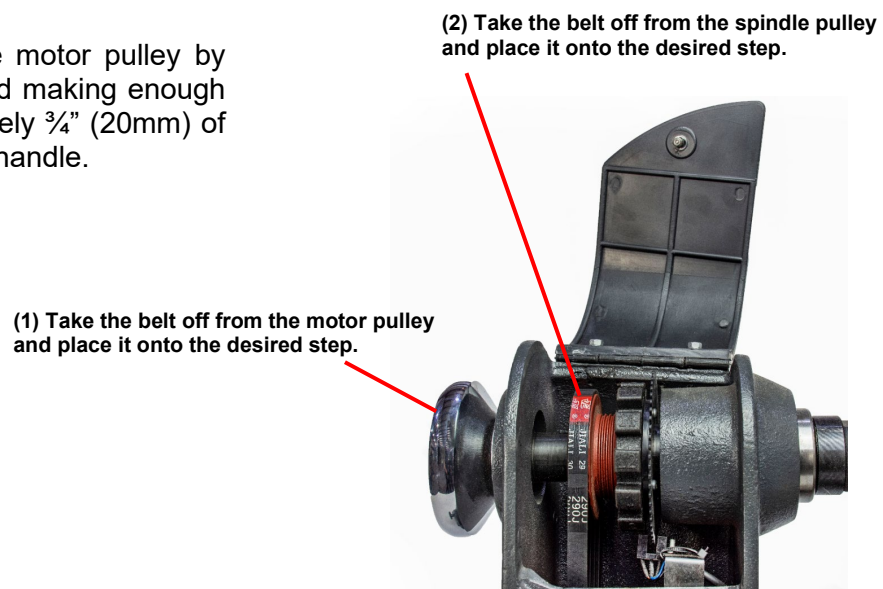


Open the bed belt cover by loosening the motor lock knob to gain access to the motor belt pulley.

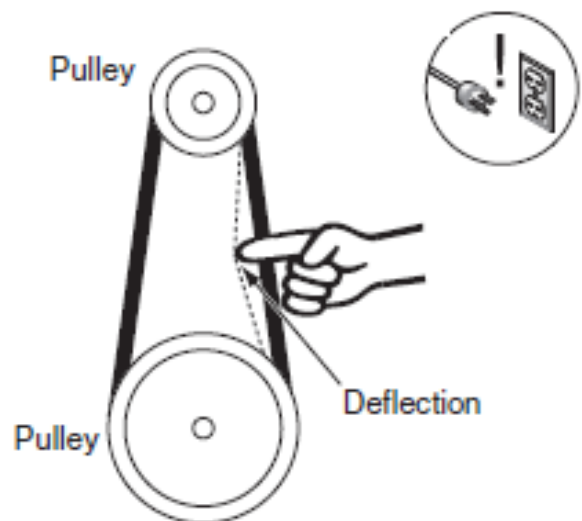


Lift the headstock guard to open and gain access to the spindle pulley + belt.

Remove the drive belt from the motor pulley by lifting the motor handle plate and making enough space. There will be approximately $\frac{3}{4}$ " (20mm) of vertical movement on the motor handle.



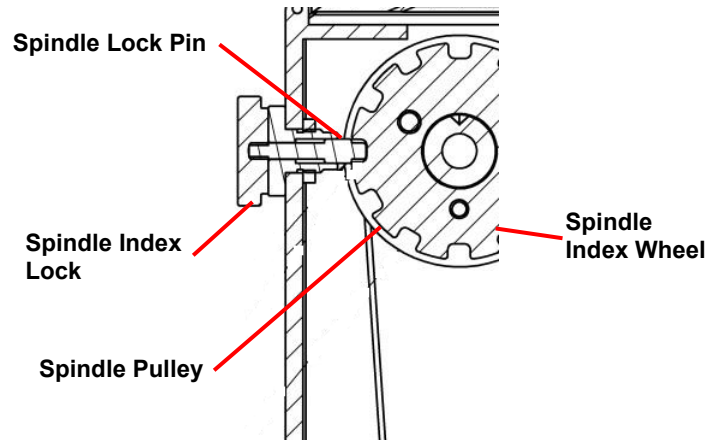
1. Place the belt onto the desired spindle pulley once the belt is removed from the motor pulley.
2. Place the belt on the corresponding step on the motor pulley.
3. Apply a firm downwards force by a thumb onto the motor handle plate to tension the belt.
4. **Caution:** Excessive belt tension may cause the belt or the pulleys to break.
5. Turn the bed belt cover to close and relock the cover.
6. Tighten the motor locking knob while applying correct tension.



Check the belt tension by applying moderate pressure at approximately halfway between the spindle pulley and the motor pulley. The belt should have a deflection of approximately $\frac{1}{2}$ " (13mm) when an appropriate tension is applied on the belt.

Using the spindle index

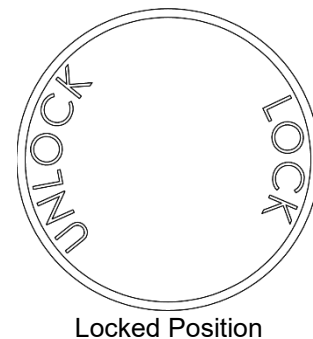
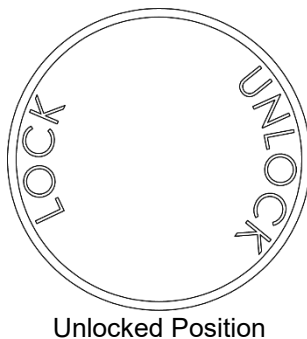
There are 12 index positions on the *NOVA COMET 14DR* spindle; 30 degrees apart.



Locking and Unlocking the Spindle

Pull the lock pin away from the headstock and turn the lock pin 180 degrees to switch between the lock and unlock positions.

Looking from the back side of the lathe, the state that is described on the right-hand side shows the spindle lock state:



Mounting a Faceplate or Chuck onto the lathe

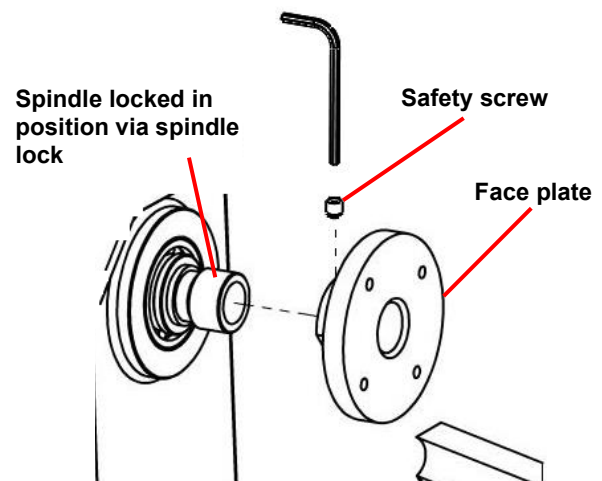
Ensure to lock the spindle using the spindle lock function before commencing the procedure.

Use the Allen key to loosen/ remove the safety screw from the faceplate before installing the faceplate.

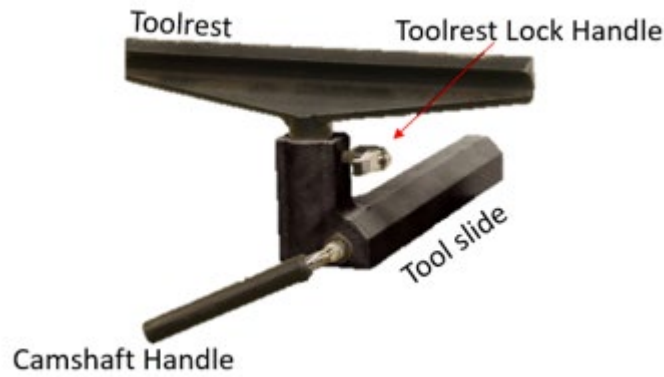
Thread the faceplate onto the spindle thread all the way. Ensure the faceplate meets the spindle bearings.

Thread/tighten the safety screw on the face plate to lock the face plate in place.

Unlock the spindle before turning the machine on.



Operating the Tool slide



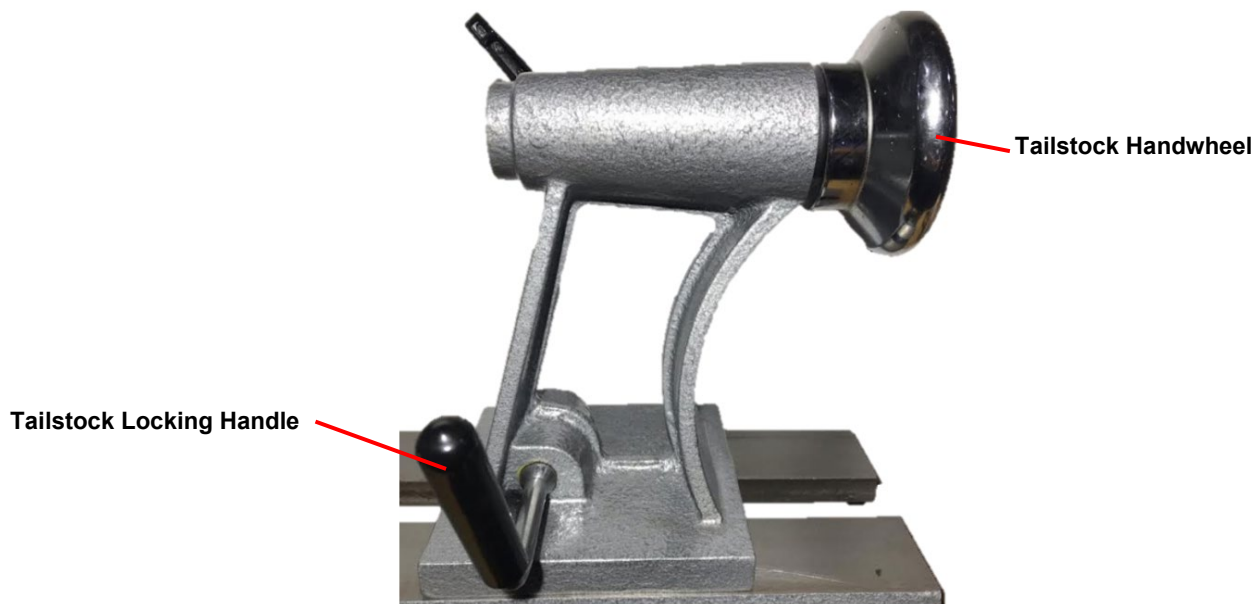
Positioning the tool slide

1. Turn the cam shaft handle in either clockwise or anti-clockwise direction to loosen the tool slide.
 - *Note: The handle should be free to turn around when the tool slide is loose.*
2. The tool slide can be positioned anywhere along the lathe bed once the cam shaft handle is loosened
3. Lock the tool slide at the desired position by turning the cam shaft handle in one direction until it becomes firm.
 - ❖ ***Tip:*** Do not position the tool slide so most of the tool rest body is hanging off from the lathe bed, as this will impose a higher chance of the tool rest breaking when there is a catch during turning.

Adjusting the tool rest height

1. Loosen the tool reset locking handle to free the tool rest.
2. Pull out/ push in the tool rest into the tool slide body to adjust the tool rest to the desired height.
3. Tighten the tool rest locking handle to lock the tool rest height into place.

Operating the Tailstock



Positioning the tailstock

1. Loosen the tailstock locking handle to loosen the tailstock body so it can slide along the lathe bed.
2. Slide the tailstock along the body to the desired location on the lathe bed.
3. Lock the tailstock in position by tightening the tailstock lock handle.

Extending / Contracting the tailstock quill

1. Make sure to loosen the tailstock quill lock before extending/ contracting the tailstock quill to prevent damage to the quill.
2. (Looking from the tailstock towards the headstock) Turn the tailstock handwheel in the clockwise direction to extend the tailstock quill.
3. (Looking from the tailstock towards the headstock) Turn the tailstock handwheel in the counter-clockwise direction to contract the tailstock quill.

Locking the tailstock quill in position

Tighten the tailstock quill lock on the rear of the tailstock to lock the tailstock quill in position.

Mounting accessories into the tailstock quill

1. The tailstock quill has a Morse Taper (MT) #2. Any accessory tool with MT2 can be attached to the tailstock quill.
2. Slide the tool into the quill taper to attach the MT2 tool to the tailstock quill. Press in firmly to ensure it is firmly mounted.

Dismounting the accessories from the tailstock quill

1. The *NOVA COMET 14DR* tailstock features a self-ejecting function allowing for easy tool removal.
2. Retract the tailstock quill all the way to eject the attached tool. The attached tool will fall out once the tailstock quill is retracted all the way.

Maintaining the NOVA Lathe



WARNING



**Always isolate the NOVA lathe from its power source
before carrying out any maintenance procedure**

Regular maintenances are essential when considering the long-term use of the lathe.

Maintenance after each use

1. Clean the work area and lathe
2. Vacuum shavings and dust from the headstock, table and base

Monthly maintenance

1. Wax coat the exposed cast iron parts with a good quality paste wax. Buff off thoroughly.
2. Check tightness of nuts and bolts
3. Clean all tapers to ensure a secure fit

6-months Maintenance

1. Lubricate the tailstock quill and its inside threads with a light coat of light weight oil.
2. Check for any rusts on underneath the tool rest, tailstock and on the lathe bed. If there is rust on the surface, remove it by using a rust removal agent with an abrasive sponge.
 - **Note:** *Some rust removal agents may leave a stain on the metal surface. Please check on an area where stains are not easily visible before applying on the actual metal surface.*

Cleaning the Tool slide

If the tool slide becomes hard to move and adjust, cleaning and lubricating are required.

1. To make the tool slide move more freely along the bed, make sure the bed rails are clean. Apply some paste wax to the rails.
2. If the tool slide is hard to move towards or away from you, remove the tool slide from the lathe bed. Clean the tool slide camshaft (round eccentric rod) with a petroleum-based solvent. Lubricate the rod with lightweight oil or a silicone spray.
3. Slide the base back onto the lathe bed.

Cleaning the Tailstock

If the tailstock quill becomes hard to use or the Handwheel is hard to turn, cleaning and lubricating are required.

1. Remove the 6mm set screw from the tailstock handwheel. If needed, turn the handwheel to expose the set screw.
2. Using a screwdriver, remove the keeper plate from the tailstock body.
3. Remove the quill by unscrewing the tailstock quill lock handle off from the tailstock body and extending the quill out all the way. Remove handwheel from the tailstock body.
4. Wipe clean all parts including the inside of the tailstock slot.
5. Lubricate the quill, quill lead screw and tailstock slot with lightweight oil, apply small amount of oil to the quill threads.
6. Reassemble.

Troubleshooting

Mechanical Issue

Symptom	Place to check	How to resolve
Excessive Vibration	1. Work attached to the lathe 2. Lathe Mounting (either on bench or stand)	1. Slow the lathe speed down 2. Add weight to the machine or bolt the machine down to a solid platform. 3. Check the spindle runout by using a *DTI.
Faceplate/chuck not running true	1. Back of face plate 2. Threads (Inner threads on faceplate and spindle thread on headstock)	1. Check the lathe spindle thread by using a *DTI to ensure the spindle itself is running true. 2. Ensure the back of the faceplate is making firm contact with the spindle base.
Turning tools not sliding smoothly across Tool rest	Tool rest surface	Ensure the tool rest surface is smooth without any chips, cracks or burrs.
Spur drive centre/live centre not holding into the spindle taper/quill taper when turning	Morse Taper surface	Clean the Morse Taper surfaces (both tool and spindle) with a cleaning agent.
Tailstock and Headstock centre not lining up correctly	Headstock alignment	Loosen the headstock casing from the bed and make the required adjustment.
Tailstock Handwheel hard to turn or will not turn	1. Quill lock 2. Inside the tailstock quill housing 3. Quill internal threads	Check if the quill lock is not engaged. 1. Remove the tailstock quill from the tailstock body and inspect both quill surface and quill housing surface. 2. Clean the quill and quill housing to ensure no foreign materials exist. 3. Lubricate both quill and housing surface and reassemble the tailstock.
Tailstock binds	1. Lathe bed 2. Tailstock adjustment plate	1. Slide off the entire tailstock from the lathe bed and inspect the top lathe bed surface and bottom tailstock surface. 2. Apply light lubricant to the top lathe surface if there are no defects on both surfaces.

*Dial Test Indicator

Electrical Issue

Symptom	Place to check	How to resolve
Lathe does not turn on (No lights on the control panel)	1. Power source 2. Fuse/Reset button 3. Controller	1. Check power source is providing power 2. Check the fuse/reset button is not popped out. Press the reset switch and repower on the lathe 3. If the above 2 solutions did not resolve the problem, may require replacing the controller. Please contact our customer services: service@teknatool.com

NOVA Teknatool Warranty



NOVA Limited Warranty

4499 126th St North, Clearwater, Florida 33762
teknatool.com | 727.954.3433

This NOVA product is backed by a registered warranty from the date of purchase and only to the original purchaser. These limited warranties are non-transferable. Under no circumstances will Teknatool International Ltd or Teknatool USA Inc. be liable for incidental, special, indirect, and consequential damages or expenses, including loss of profits or loss of operations.

INSPECTION: Buyer shall inspect all goods within thirty (30) days of receiving product confirming all parts are in good condition and accounted.

GUARANTEE: Teknatool International Ltd and Teknatool USA Inc. will repair or replace, at its expense and option, a NOVA product which under normal use and intended operation, has proven to be defective in workmanship or material. Teknatool will be granted a reasonable opportunity to verify the alleged defect by inspection and testing. Teknatool will not be responsible for any asserted defect, which has resulted from normal wear, misuse, abuse, power surges or excess voltage fluctuation, or using in a manner or with material not consistent with proper use, repair or alteration made by anyone other than an authorized service facility or representative.

Under these Limited Warranties, the sole liability of Teknatool is limited to repair, or at its option, replacement the applicable product or part not in conformity with these Limited Warranties. REFUNDS ARE NOT AVAILABLE. If within the warranty period, identical materials are unavailable at the time of repair or replacement, **IN NO EVENT SHALL NOVA TEKNATOOL'S RESPONSIBILITY EXCEED THE PURCHASE PRICE OF THE PRODUCT OR ITS REPLACEMENT AND RESERVES THE RIGHT TO USE REFURBISHED PARTS.**

CONDITIONS: Prior warranty registration is not required but advised via <https://www.teknatool.com/register-your-warranty/>; however, documented proof of purchase (sales receipt/invoice showing date, location, and purchase price paid) must be provided at the time of claim. **Repairs are charged hourly. In addition, customer pays for shipping to/from and provides own shipping contain; **Warranty Repairs: customer pays for shipping to/from and provides own shipping container; repairs are covered within warranty.*

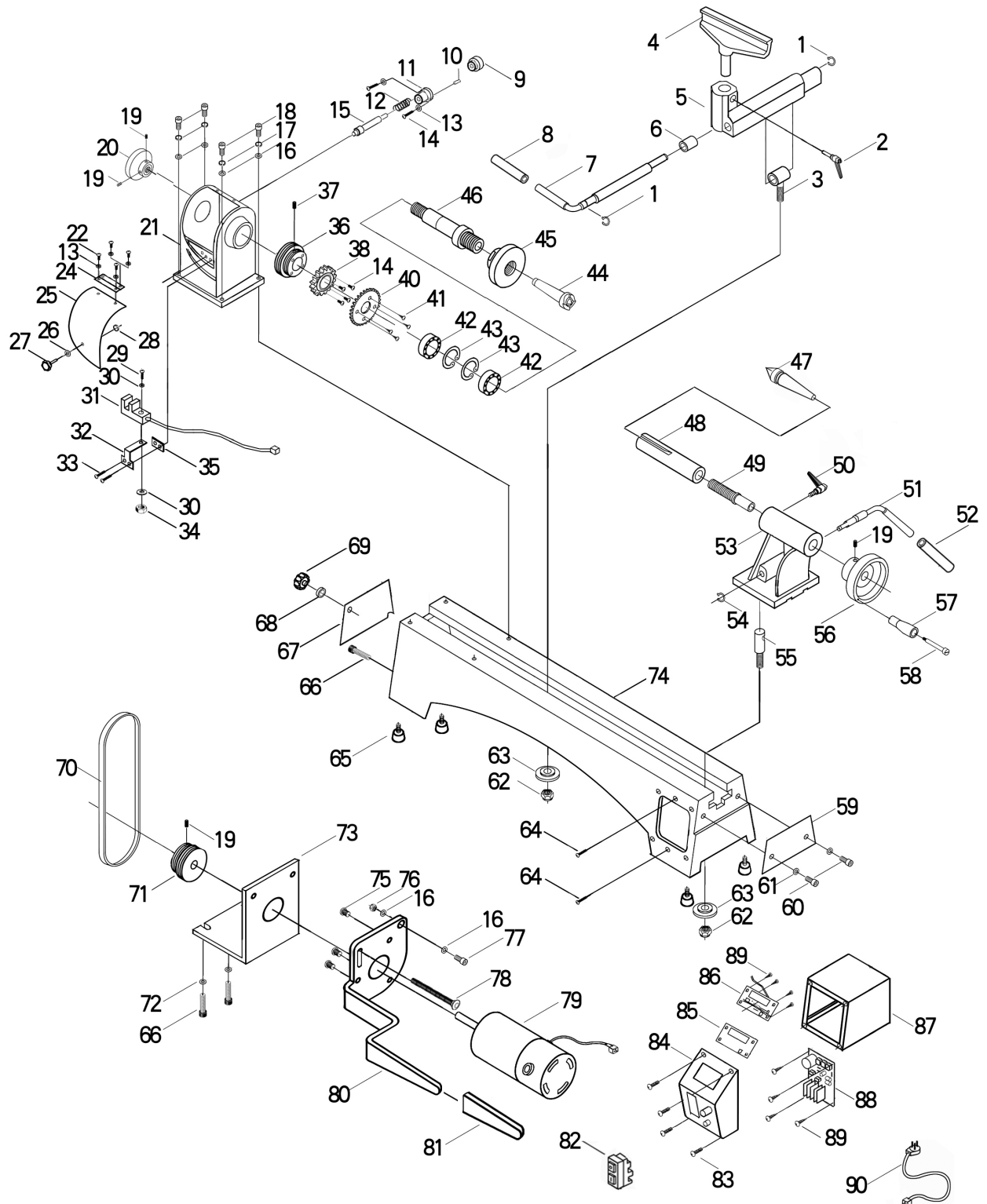
OVERSEAS CUSTOMERS: Our NOVA Distributors and agents will issue their own warranty to cover this product. Terms may vary from those stated above; please check with your dealer. In North America, the warranty covers the Continental USA only. For Alaska, Hawaii and other areas, warranty covers replacement of parts only and excludes transport costs.

Product	Electrical	Mechanical
All Lathes and *Accessories (except COMET) COMET I & II Drill Presses and *Accessories <i>*Excludes belts and consumables</i>	2 years 1 year 2 years	5 years 2 years 5 years
All Chucks & Accessories Jaws	- -	6 years 6 years
Chisels: -Dovetail -Smart Chisel Handle	- -	2 years 1 year

TO FILE A CLAIM: Contact CUSTOMER SERVICE via <https://www.teknatool.com/contact-us/> or support@teknatool.com with a full description for claim to include pictures/videos. All claims must include the original bill of sale, the product serial number, and be filed within the applicable warranty period. Teknatool reserves the right to require defective parts be returned upon request. You must make arrangements with Teknatool to schedule the transportation of the parts from your home to the retailer or from the retailer to your home. A RETURN GOODS (RG) form will be sent to you via email. Items shipped to Teknatool without a Return Authorization (RA) form will be refused at shipper's expense. If the retailer from which you purchased the product is not able to service your product, contact Teknatool in writing at service@teknatool.com.

Our policy is one of continuous improvement. We therefore reserve the right to change specification/design without notice. This warranty is Teknatool International Ltd and Teknatool USA Inc. sole warranty whether written or verbal, whether expressed or implied by law, trade, custom, or otherwise, whether of merchantability, fitness for purpose, or otherwise, except for remedies available to customers under the Consumer Guarantees Act or other legislation

NOVA COMET 14DR – EXPLODED PARTS



NOVA COMET 14DR – PARTS LIST

Key No.	Description	SKU	QTY
1	External Circlip 12	EC12	2
2	Tool Rest Lock Handle	46031	1
3	Tool Rest Lock Pin	4718041	1
4	Tool Rest	9095 + 9027	1
5	Tool Slide	4718038	1
6	Tool Rest Bushing	4718042	1
7	Tool Rest Cam Shaft	4718043	1
8	Handle Sleeve	4718044	1
9	Index Pin Knob	46043	1
10	Tension Pin 4x14	TP0414	1
11	Index Pin Housing	46012	1
12	Index Pin Spring	46014	1
13	4mm Washer	FW04	6
14	Pan Head Screw M4x16	MPB0416	2
15	Index Pin	46011	1
16	8mm Washer	FW08	4
17	8mm Spring Washer	SW08	4
18	Hex Socket Screw M8x30	C08030	4
19	Hex Socket Screw M6x12	C06012	3
20	Spindle Handwheel	4718067	1
21	Headstock	4718011	1
22	Pan Head Screw M4X12	MPB0412	4
24	Headstock Guard Hinge	4718012	1
25	Headstock Guard	4718013	1
26	Washer	RW06	1
27	Headstock Guard Locking Screw	4718014	1
28	4mm E Ring	EC04	1
29	Pan Head Screw M3x12	MPB0312	1
30	3mm Washer	FW03	2
31	Speed Sensor	4718015	1
32	Speed sensor mount	4718016	1
33	Countersunk screw M4x10	CM0410	2
34	Nut M3	NH03	1
35	Speed Sensor Mounting Plate	4718017	1
36	Spindle Pulley	4718018	1
37	Spindle Pulley Set Screw	SZ0612	1
38	Spindle Index Wheel	4718019	1
40	Encoder wheel	4718020	1
41	Tap Screw 4x10	MPB0410	4
42	Spindle Bearing	6005ZZ	2
43	Circlip 47	IC47	2
44	Spur Centre	46502	1
45	Faceplate	4718066	1
46	Spindle	4718021	1

Key No.	Description	SKU	QTY
47	Live Centre	46503	1
48	Tailstock Quill	4718027	1
49	Tailstock Leadscrew	4718028	1
50	Tailstock Quill Lock Handle	46025	1
51	Tailstock Lock Lever	4718030	1
52	Tailstock Lock Lever Sleeve	4718032	1
53	Tailstock	4718026	1
54	External Circlip 10	EC10	1
55	Tailstock Lock Pin	4718033	1
56	Tailstock Handwheel	4718034	1
57	Handwheel Handle	4718035	1
58	Handwheel Handle Screw	4718036	1
59	Tailstock Retaining Plate	4718046	1
60	Hex Socket Screw M10x12	C10012	2
61	10mm Washer	FW10	2
62	M10 Locknut	NN10	2
63	Tailstock Locking Plate	4718037	2
64	Tap Screw 4x20	MPB0420	2
65	Rubber Foot	46007	4
66	Hex Socket Screw M5x12	C05012	3
67	Bed Belt Cover	4718048	1
68	Motor Locking Handle Washer	4718053	1
69	Motor Locking Handle	4718052	1
70	Belt	4718055	1
71	Motor Pulley	4718054	1
72	5mm Washer	FW05	2
73	Motor Mounting Plate	4718050	1
74	Main Bed	4718045	1
75	Countersunk Screw M6x12	CM0612	3
76	Locknut M8	NN08	1
77	Hex Socket Screw M8x30	C0830	1
78	Carriage Bolt M8x120	4718057	1
79	Motor	4718049	1
80	Belt Tension Lever	4718051	1
81	Belt Tensioning Lever Rubber Sleeve	4718056	1
82	Switch	4718075	1
83	Tap Screw 4x24	MPB0424	4
84	Plastic Control Panel	4718058	1
85	Display Membrane	4718060	1
86	LCD Display Screen	4718062	1
87	Control Circuit Housing	4718059	1
88	Control Board	4718061	1
89	Tap Screw 3x10	MPB0310	8
90	Power Cord	4718063	1

NOVA COMET 14DR – Subassembly List

4698001 Headstock Subassembly			
Key No.	Description	SKU	QTY
	Index Lock Assembly	46056	1
13	4mm Washer	FW04	6
14	Pan Head Screw M4x16	MPB0416	2
21	Headstock	4718011	1
22	Pan Head Screw M4X12	MPB0412	4
24	Headstock Guard Hinge	4718012	1
25	Headstock Guard	4718013	1
26	Washer	RW06	1
27	Headstock Guard Locking Screw	4718014	1
28	4mm E Ring	ER04	1
29	Pan Head Screw M3x12	MPB0312	1
30	3mm Washer	FW03	2
31	Speed Sensor	4718015	1
32	Speed Sensor Mount	4718016	1
33	Countersunk Screw M4x10	CM0410	2
34	Nut M3	NH03	1
35	Speed Sensor Mounting Plate	4718017	1
36	Spindle Pulley	4718018	1
37	Spindle Pulley Set Screw	SZ0612	1
38	Spindle Index Wheel	4718019	1
40	Encoder Wheel	4718020	1
41	Tap Screw 4x10	MPB0410	4
42	Spindle Bearing	6005ZZ	2
43	Circlip 47	IC47	2
46	Spindle	4718021	1

4698004 HMI Subassembly			
Key No.	Description	SKU	QTY
82	Switch	4718075	1
84	Plastic Control Panel	4718058	1
85	Display Membrane	4718060	1
86	LCD Display Screen	4718062	1

4698005 Controller Subassembly			
Key No.	Description	SKU	QTY
87	Control Circuit Housing	4718059	1
88	Control Board	4718061	1
89	Tap Screw 3x10	MPB0310	8
90	Power Cord	4718063	1

46056 Index Lock Subassembly			
Key No.	Description	SKU	QTY
9	Index Pin Knob	46043	1
10	Tension Pin 4x14	TP0414	1
11	Index Pin Housing	46012	1
12	Index Pin Spring	46014	1
15	Index Pin	46011	1

4698002 Tailstock Subassembly			
Key No.	Description	SKU	QTY
19	Hex Socket Screw M6x12	C06012	3
48	Tailstock Quill	4718027	1
49	Tailstock Leadscrew	4718028	1
50	Tailstock Quill Lock Handle	46025	1
51	Tailstock Lock Lever	4718030	1
52	Tailstock Lock Lever Sleeve	4718032	1
53	Tailstock	4718026	1
54	External Circlip 10	EC10	1
55	Tailstock Lock Pin	4718033	1
56	Tailstock Handwheel	4718034	1
57	Handwheel Handle	4718035	1
58	Handwheel Handle Screw	4718036	1
62	M10 Locknut	NN10	2
63	Tailstock Locking Plate	4718037	2

4698003 Tool Rest Subassembly			
Key No.	Description	SKU	QTY
1	External Circlip 12	EC12	2
2	Tool Rest Lock Handle	46031	1
3	Tool Rest Lock Pin	4718041	1
5	Tool Slide	4718038	1
6	Tool Rest Bushing	4718042	1
7	Tool Rest Camshaft Handle	4718043	1
8	Handle Sleeve	4718044	1
62	M10 Locknut	NN10	2
63	Tailstock Locking Plate	4718037	2

Appendix

Using the included knockout bar accessory

The included knockout bar is a tool which is intended to be used for removing the Morse Taper accessory attached to the lathe spindle.

To remove the Morse Taper accessory from the lathe spindle by using the knockout bar:

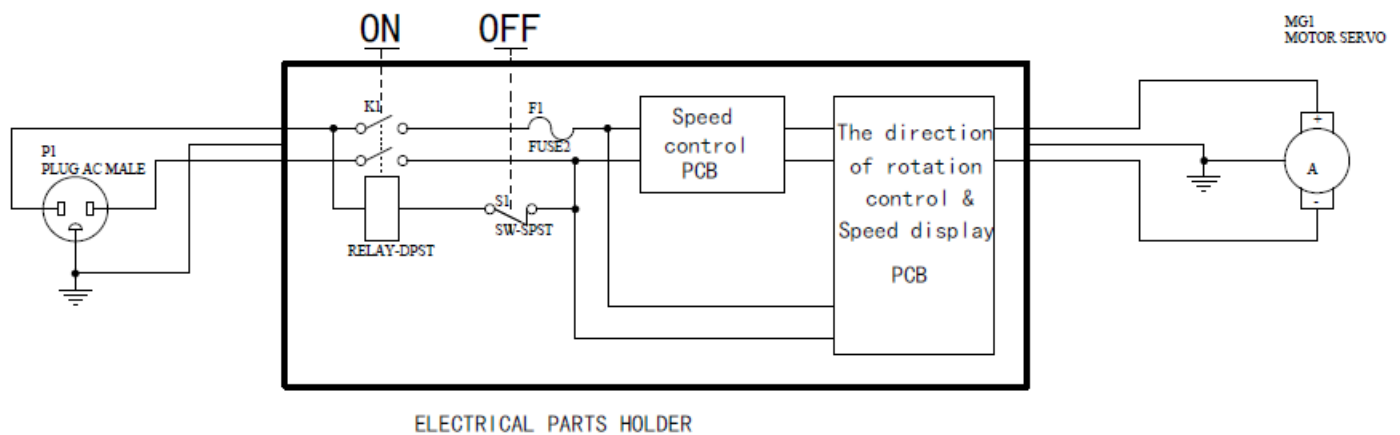
1. Insert the knockout bar from the headstock handwheel side.
2. Using a soft hammer to firmly strike the knockout bar towards the tailstock side to knock any Morse Tapered tools out.

Tip: Be cautious when striking the knockout bar with a metal hammer as it will potentially crack the plastic head on the bar.

Strike into the headstock



Controller Wiring Diagram



CALIFORNIA RESIDENTS PROPOSITION 65

Attention California Residents

California's Proposition 65 entitles California consumers to special warnings for products that contain chemicals known to the state of California to cause cancer and birth defects or other reproductive harm if those products expose consumers to such chemicals above certain threshold levels. We care about our customers' safety and hope that the information below helps with your buying decisions. The general Proposition 65 notice is as follows:

-  **WARNING:** Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Your risk from exposure to these chemicals varies, depending on how often you do this type of work. To reduce your exposure, work in a well-ventilated area and with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles.
-  **WARNING:** This product can expose you to chemicals (Rust Prevention Oil) which are known to the State of California to cause cancer. Do not touch your eyes or face after unpacking until you have washed your hands. It is advised to wear disposable gloves while unpacking and while cleaning the product down for first use. Always unpack and clean in a well-ventilated area. Always wash your hands after unpacking the product for first use. Dispose of packaging bags thoughtfully. Read the Safety Data Sheet for this Rust Protectant Oil here: [MSDS for rust protection](#)

For more information go to www.P65Warnings.ca.gov



**NOVA COMET 14DR Lathe Manual
127-1019-002**

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