AXMINSTER Trade SERIES

Code: **502703**

AT1628VS Variable Speed Wood Lathe

Axminster Tool Centre,
Unit 10 Weycroft Avenue, Axminster, Devon EX13 5PH

www.axminster.co.uk

Index of Contents

Declaration of Conformity

Copied from CE Certificate
The undersigned, authorised by Calvin Chon

Manufactured by Kingcraft Machinery Company Limited/NO.26, Gong Yeh 12 Rd., Da-Li City, Taichung County, Taiwan., manufacturer, declares that the machine described hereafter:

WOOD TURNING LATHE

manufactured byKingcraft Machinery Company Limited., is in compliance with the standards determined in the following Council Directive.

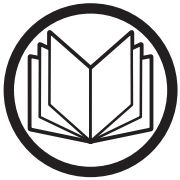
- **EN ISO 12100-1: 2003 + A1: 2009**
- **EN ISO 12100-2: 2003 + A1: 2009**
- **EN ISO 1412-1: 2007**
- **EN 60204-1: 2006 + A1: 2009**
- **EN 61000-6-2: 2005**
- **EN 61000-6-4: 2007**

Model Number: 1417-1430-1443-1643-1417INV-1430INV-1443INV-1643INV-1628INV-4224B-1642VS

Please read the Instruction Manual prior to using your new machine; as well as the operating procedures for your new machine, there are numerous hints and tips to help you to use the machine safely and to maintain its efficiency and prolong its life. Keep this Instruction Manual readily accessible for any others who may also be required to use the machine.

Warning

The symbols below advise that you follow the correct safety procedures when using this machine.



Fully read manual and safety instructions before use

Ear protection should be worn

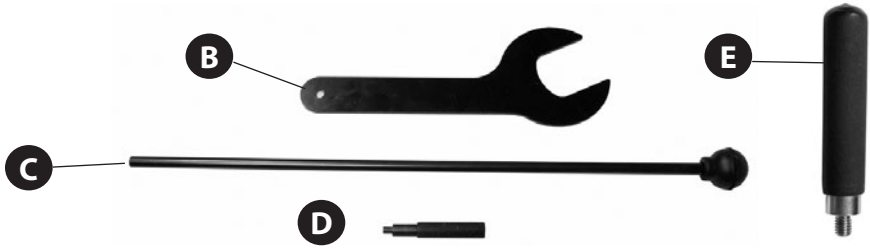
Eye protection should be worn

Dust mask should be worn

Two Man Assembly

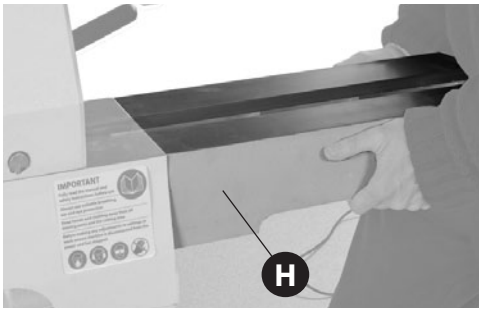
What's Included

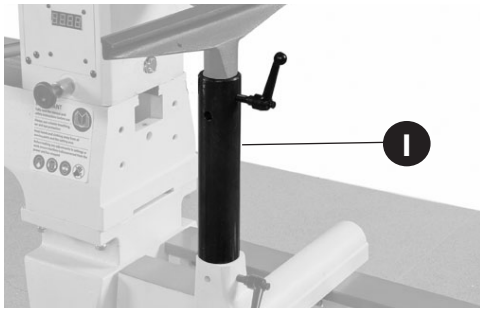
Quantity	Item	Part	Model Number 1628INV
1 No	Variable Speed Wood Lathe	**A**	
1 No	Spanner	**B**	
1 No	Push Rod	**C**	
1 No	Spindle Lock Pin	**D**	
1 No	Motor Plate Handle	**E**	
1 No	Instruction Manual		



Optional Accessories

Quantity	Item	Part	Code Number
1 No	Lathe Extension	**H**	502704
4 No	3/8″ x 1 3/4″ Hex Bolts & 8 No 3/8″ Washers		
1 No	Tool Rest Extension	**I**	
2 No	Lathe Stand	**F**	502705
8 No	3/8" x 11/2" Bolts & 16 No 3/8" Washers		
4 No	Feet	**G**	





Good Working Practices/Safety

The following suggestions will enable you to observe good working practices, keep yourself and fellow workers safe and maintain your tools and equipment in good working order.

WARNING!! KEEP TOOLS AND EQUIPMENT OUT OF THE REACH OF YOUNG CHILDREN

Primary Precautions

These machines are supplied with a moulded 13 Amp. Plug and 3 core power cable. Before using the machine inspect the cable and the plug to make sure that neither are damaged. If any damage is visible, have the tool inspected/repaired by a suitably qualified person. If it is necessary to replace the plug, it is preferable to use an 'unbreakable' type that will resist damage. Only use a 13 Amp plug, and make sure the cable clamp is tightened securely. Fuse as required. If extension leads are to be used, carry out the same safety checks on them, and ensure that they are correctly rated to safely supply the current that is required for your machine.

Work Place/Environment

Make sure when the machine is placed that it sits firmly on the bench or stand, that it does not rock, that it is sufficiently clear of adjacent obstacles so that you have unimpeded access to all parts of the machine. The machine is designed for indoor use, do not use when or where it is liable to get wet. Keep the machine clean; it will enable you to more easily see any damage that may have occurred. Clean the overall machine with a damp soapy cloth if needs be, do not use any solvents or cleaners, as these may cause damage to any plastic parts or to the electrical components. Clean the machine components with a lightly oiled cloth. If the machine is liable to be standing idle for any length of time a light coat of machine or spray oil will minimise rusting.

Keep the work area as uncluttered as is practical, this includes personnel as well as material. Under no circumstances should CHILDREN be allowed in work areas.

It is good practice to leave the machine unplugged until work is about to commence, also make sure to unplug the machine when it is not in use, or unattended. Always disconnect by pulling on the plug body and not the cable. Once you are ready to commence work, remove all tools used in the setting operations and place safely out of the way. Re-connect the machine.

Carry out a final "tightness" check e.g. chuck or face plate, workpiece, tool rest, etc., check that the correct speed has been selected.

Make sure you are comfortable before you start work, balanced, not reaching etc. If the work you are carrying out is liable to generate flying grit, dust or chips, wear the appropriate safety clothing, goggles, gloves, masks etc. If the work operation appears to be excessively noisy, wear ear-defenders. If you wear your hair in a long style, wearing a cap, safety helmet, hairnet, even a sweatband, will minimise the possibility of your hair being caught up in the rotating parts of the tool, likewise, consideration should be given to the removal of rings and wristwatches, if these are liable to be a 'snag' hazard. Consideration should also be given to non-slip footwear, etc.

DO NOT work with cutting tools of any description if you are tired, your attention is wandering or you are being subjected to distraction. A deep cut, a lost fingertip or worse; is not worth it! Above all, **OBSERVE….** make sure you know what is happening around you, and **USE YOUR COMMON SENSE.**

Specific Safety Instructions for Woodturning Lathes

1. Do not use 'split' work pieces.

2. Always start at the lowest speed when starting a new task.

3. Check that the tool rest is at or slightly below the centre line of the workpiece.

4. Check the workpiece is securely mounted in the lathe before switching on the power.

5. Rotate the workpiece by hand, to check that it is centralised, clear of the tool rest, not 'split' or has loose knots.

6. Where lathes have the facility to be reversed; check the machine is rotating in the correct direction.

7. If your lathe has the facility to run in reverse, you must ensure that the mounting accessories (chucks, faceplates etc.,) can be 'locked' onto the lathe mandrel, and in the case of chucks have some form of security device to prevent them 'unwinding' during reverse operation.

8. Make sure your tools are stored/racked away from the turning area of the lathe. Do not reach over a rotating workpiece at any time.

9. Do not 'dig in' or try to take too large a cut.

10. Do not leave the lathe running unattended; or leave the machine until everything is stopped.

11. Some turning tools may have specific sharpening angles that have been determined by the manufacturers; when re-sharpening, adhere to these angles to maximise the finish of your work.

Specification

Code	502703
Model	AT1628VS
Rating	Trade
Power	230V 50Hz 1.5kW
Speed	Low 0-1,600rpm High 300-3,750rpm
Spindle Taper	MT2
Spindle Thread	M33x3.5mm (Ref T38)
Taper Tailstock	MT2
Distance Between Centres	700mm
Max Diameter Over Bed	203mm
Overall L x W x H	1115 x 450 x 460mm
Weight	96kg

Assembly Instructions

Please take some time to read the section entitled "Illustration and Description" to identify the various parts of your machine so that you are familiar with the terminology we will use to enable you to set up and operate your table lathe safely and correctly.

The lathe and its accessories will arrive coated with corrosion preventative grease. This will need to be cleaned from the lathe, its components and accessories prior to it being set up.
Use degreaser to remove the barrier grease. Be warned, it will stain if you splash it on clothing etc., wear overalls, rubber gloves are also a good idea, as is eye protection. After cleaning, lightly coat the machine with a thin layer of light wax. If you used paraffin/kerosene make sure you apply this thin film sooner rather than later.

WARNING: The wood lathe is a heavy machine, it is advisable to use a lifting device such as a hoist, scissor lift or seek help when assembling the lathe.

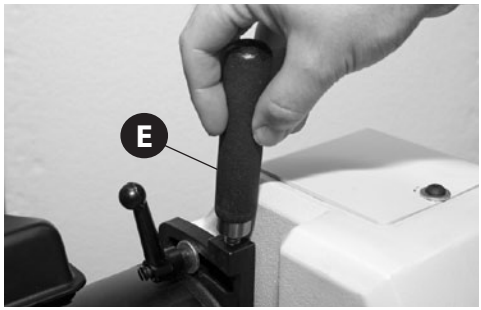
Unpack your new 1628 Variable Speed Lathe and recycle the packaging responsibly.
The cardboard packaging is biodegradable.

Lathe Assembly (Code: 502703)

The majority of the machine comes fully assembled, the remaining items to be assembled is described below.

Locate the motor plate handle **(E)** and screw it into the pre-drilled hole in the motor tension bracket, see figure 1

Figure 01



We recommend you remove the headstock, tool rest and tailstock from the lathe bed before lifting the lathe assembly off the pallet as the lathe is very heavy.

1. Loosen the headstock stop bracket **(a)**, to the left side of the lathe bed and with help slide the headstock off the lathe bed and place safely aside, see figures 2-3.

2. Remove the tailstock stop bolt **(b)** from the right hand side of the lathe bed and remove both the tailstock and tool rest assembly and place safely aside. (See figures 4-5-6)

Figure 02

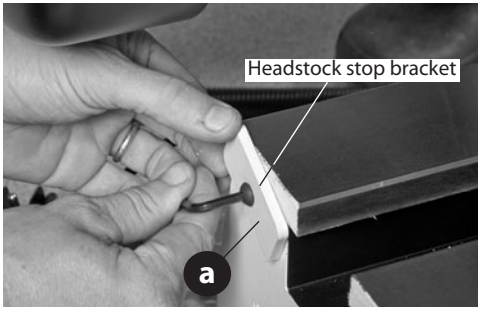


Figure 03

Remove the headstock from the lathe bed

Figure 04

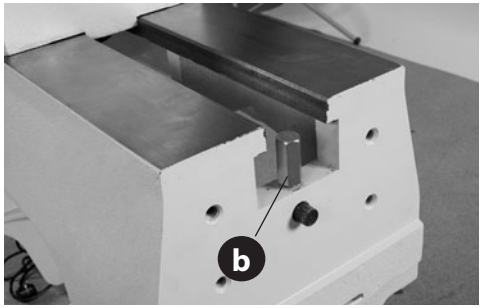


Figure 05

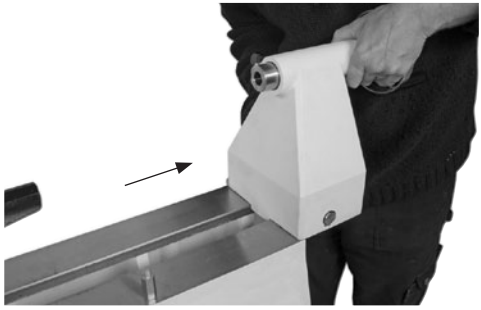
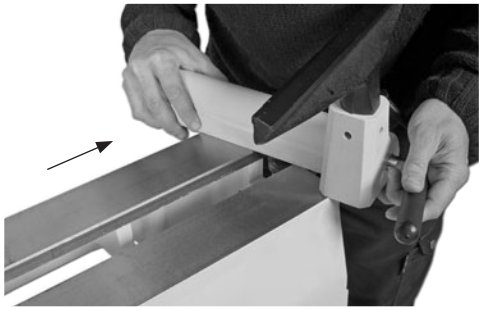


Figure 06



3. Lift the lathe bed from the pallet onto a work bench, see figs 7 then refit the headstock, tool rest and tailstock as described in steps 1 and 2, see figure 8

Lathe Stand Assembly (Code: 502705)

1). Locate the two lathe stands **(F)** and the four feet **(G)**.Screw the threaded feet into the pre-drilled holes to the base of the stands. (See figure 9)

Figure 07

Figure 08

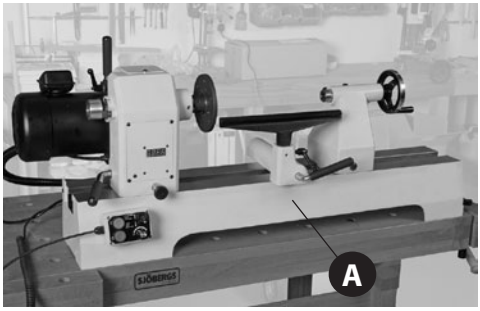
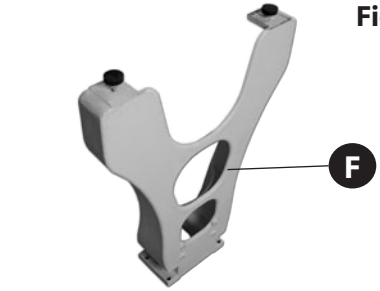
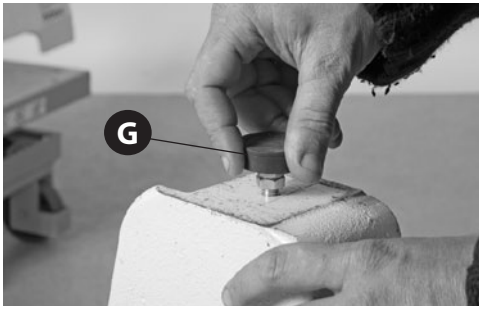


Figure 09





Continues Over...

Remove the headstock, tool rest assembly and tailstock from the lathe bed as before to make it easier to assemble the stands

2. After removing the above lift the lathe bed using a scissor lift, lifting host or seeking help.

3. Place the stands **(F)** to each end of the lathe bed and line up the holes in the stands with threaded holes in the lathe bed, secure using the 3/8" bolts and washer **(c)**,see figures 10-11-12-13.

4. Replace the headstock, tool rest and tailstock. (See figure 14)

Figure 10

Figure 11

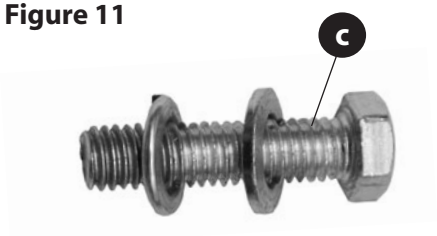


Figure 12

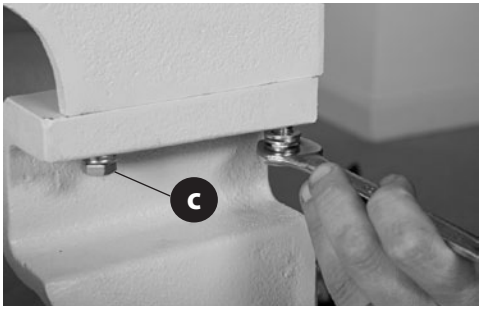
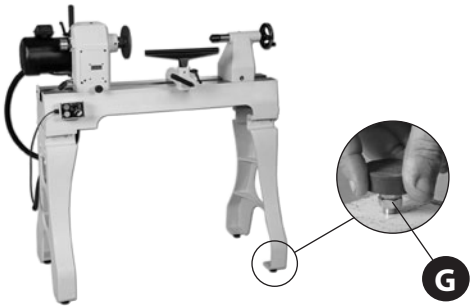


Figure 13

Use a lifting device as a scissor lift for example to raise the lathe bed to mount the lathe stands

Figure 14



Adjust the feet **(G)** until the lathe is level

Lathe Extension Assembly (Code: 502704)

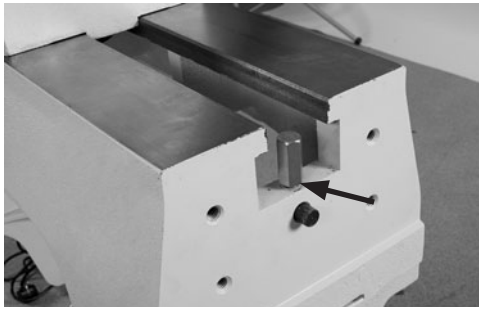
The lathe extension **(H)** bolts onto either end of the lathe bed which increases the length of the lathe for turning larger projects. The lathe extension can also be mounted to the stands for turning large diameter projects.

Assembly 1

1. Locate the lathe extension **(H)** and 3/8" Hex bolts and washers **(d)**. Remove the tailstock stop pin from the end of the lathe, see figure 15 and place safely aside.

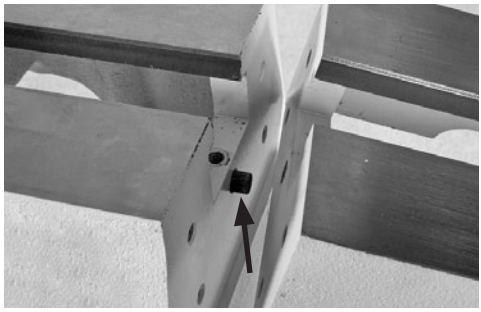
2. Line up the centre hole in the lathe extension **(H)** with the lathe bed centre pin, see figure 16, push on the lathe extension so it's flush against the lathe bed, line up the holes and secure using the 3/8" Hex bolts and washers **(d)**. (See figure 17)

Figure 15



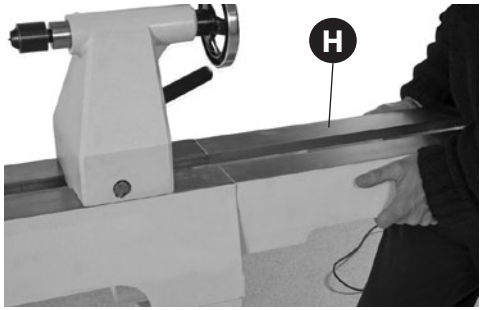
Remove the tailstock stop "PIN" and place safely aside

Figure 16



Slot the centre pin into the centre hole in the lathe extension **(H)**

Figure 17

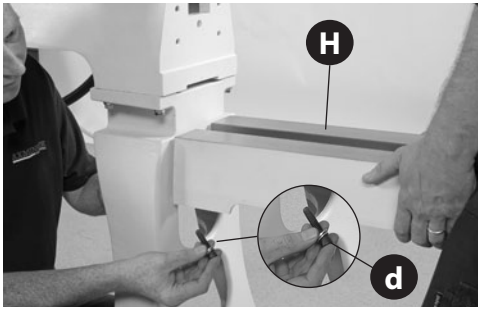


Holding the lathe extension, secure in place using the 3/8" Hex bolts and washers (d)

Assembly 2

1. Line up the holes in the lathe extension **(H)** with the threaded holes in lathe stand **(F)** and secure using the 3/8" Hex bolts and washers **(d)**, see figure 18.

Figure 18



Using the 3/8" Hex bolts and washers **(d)**, secure the lathe extension in position

2. Release the headstock lock and slide the headstock down to the end of the lathe bed and lock in position. Slide the tool rest assembly onto the lathe extension **(H)**, undo the tool rest locking handle and remove tool rest. Locate the tool rest extension **(I)**, slot the tool rest extension into the machined recess and tighten the clamping handle.

3. Loosen the clamping handles on the tool rest extension **(I)** and slot the tool rest into the extension, tighten the tool rest locking handle. (See figure 19)

Figure 19

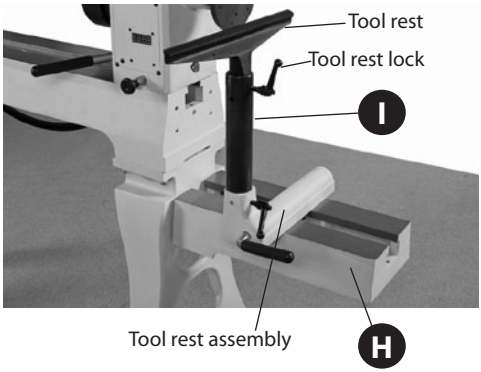
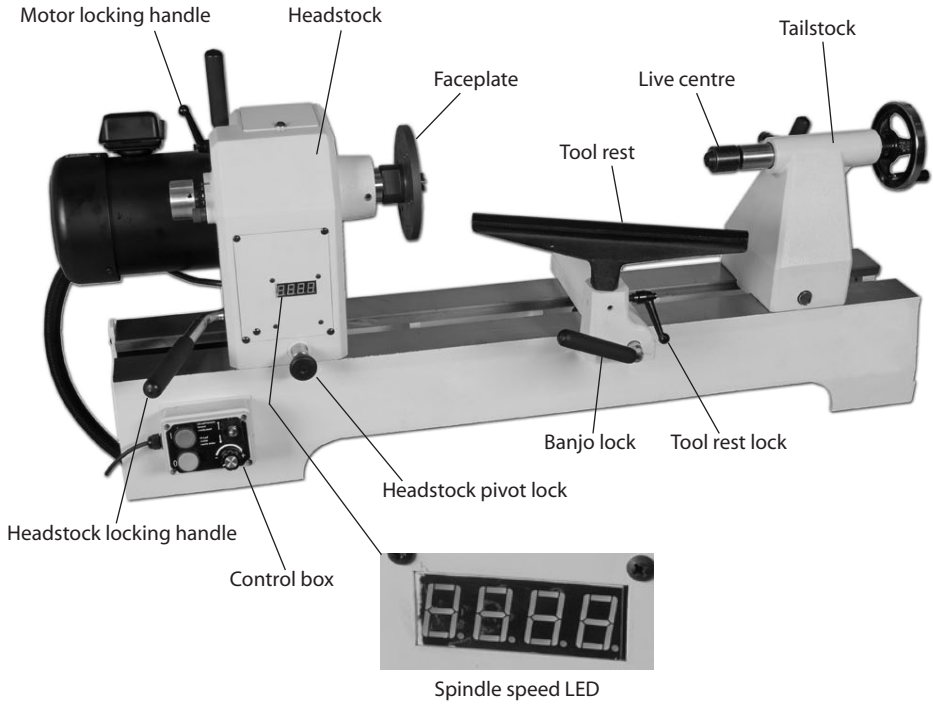
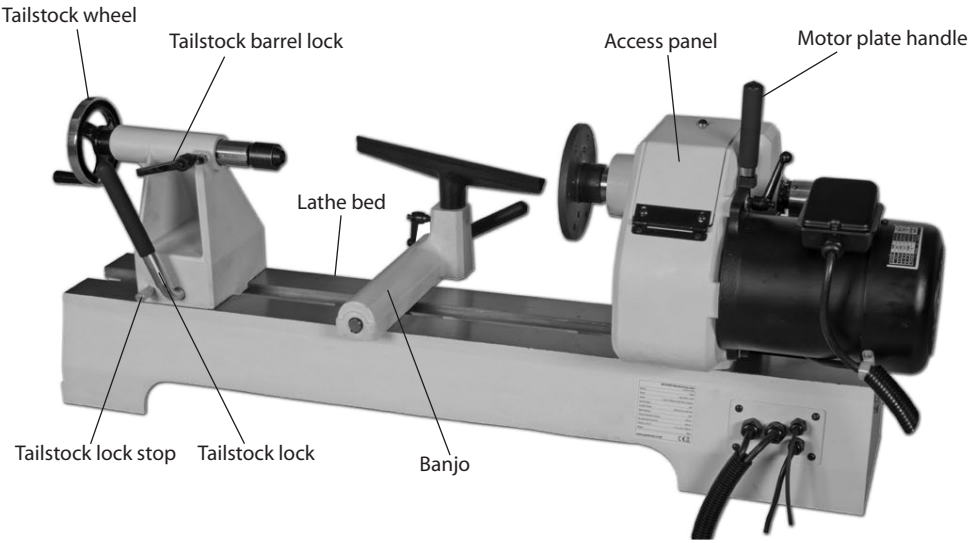


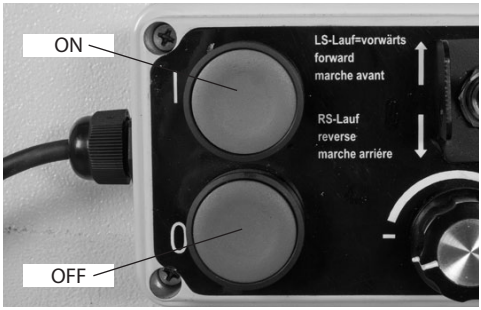
Illustration and Description



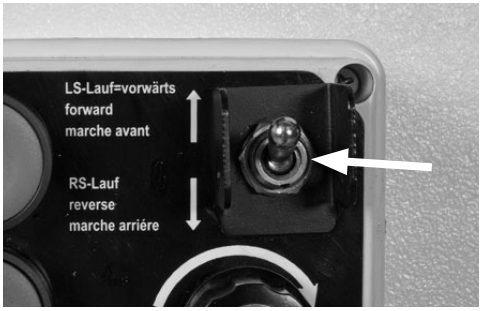
Spindle speed LED



The control box has a magnetic base enabling it to be positioned anywhere on the lathe

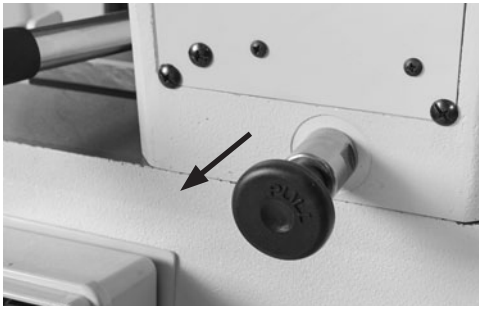


ON (Green) and OFF (Red) buttons

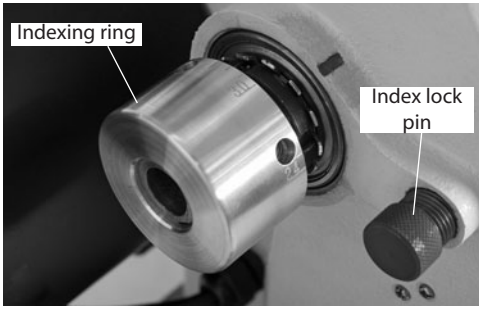


Forward and Reverse switch

The Speed Control Knob, enables you to increase or decrease the speed of the spindle



Headstock Pivot Lock, pull this knob to rotate the headstock to the desired position



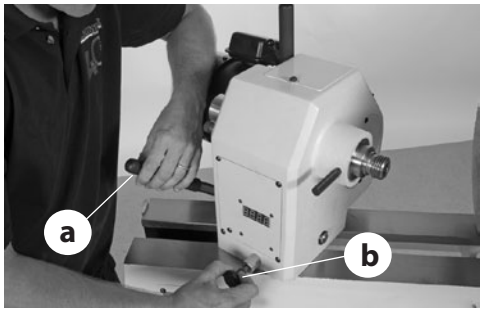
Indexing ring facility and locking pin is used for fluted columns, clock faces and accurate hole positioning

Rotating the Headstock

The Headstock can be swivelled in any position by lifting up the Headstock locking handle **(a)** and pulling the Headstock pivot lock **(b)** out, swivel the Headstock to the desired position is reached, lock in place by pushing down the headstock locking handle **(a)**. (See figure 18)

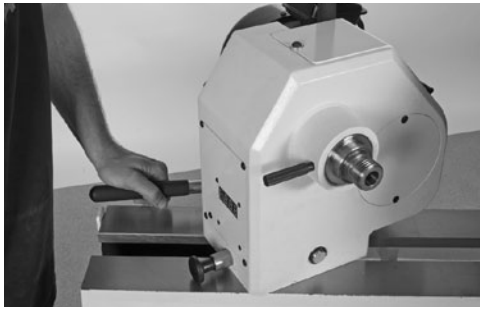
The Headstock incorporates two index positions 45˚and 90˚, swivel the headstock until it locks in place to allow bowls to be turned in front of the lathe. (See figures 19-20)

Figure 18



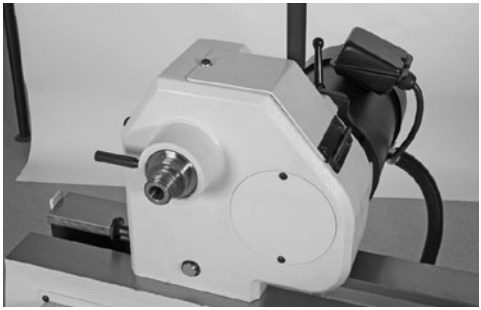
Lift up the Headstock locking handle **(a)**, pull the Headstock pivot lock **(b)** out and swivel the Headstock to the desired position

Figure 19



The Headstock locked in the 45˚ index position

Figure 20



The Headstock locked in the 90˚ index position

Removing the faceplate

Locate the spindle lock pin **(D)** and the spanner **(B)**, inset the locking pin **(D)** into the pre-drilled hole in the headstock and using a Hex key loosen the grub screw on the spindle, see figure 21. Using the spanner **(B)** remove the faceplate, see figure 22.

Figure 21

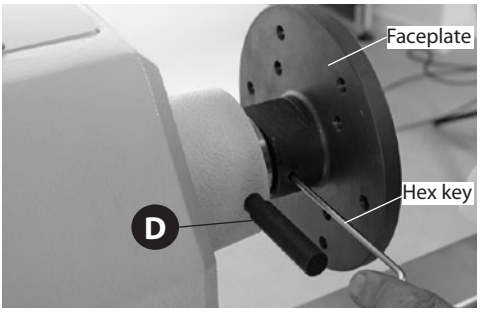
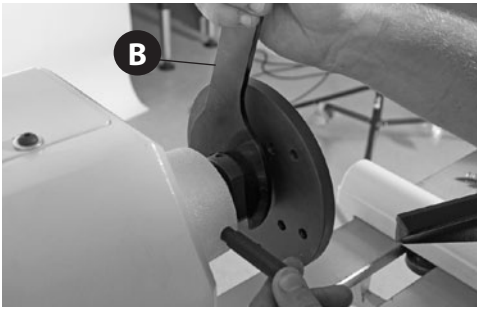


Figure 22

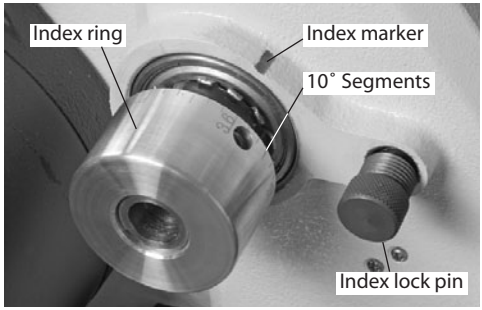


Indexing facility

DISCONNECT THE LATHE FROM THE MAINS SUPPLY

The Indexing ring is situated to the left side of the headstock which incorporates 36 positions at (10˚) segments. To the side of index ring is the index locking pin to lock the spindle in position. The indexing facility is useful for fluted columns, clock faces and accurate hole positioning. (See figure 23)

Figure 23



Line up the measurement you require on the index ring with the index marker on the headstock and screw in the index locking pin to lock the spindle in position. (See figure 24)

NOTE: Make sure the measurement is in line with the index marker otherwise the locking pin may not in gauge properly.

Figure 24

Removing the Drive Centre

To remove the drive centre from the spindle, locate the push rod **(C)**, insert it through the index ring assembly and push the drive centre out, see figure 25.

Figure 25

Repeat the procedure for the live centre in the tailstock.

Changing the belt speed

Note: The lowest speed pulley combination is furthest from the faceplate, the smallest motor pulley diameter to largest spindle pulley diameter.

DISCONNECT THE LATHE FROM THE MAINS SUPPLY BEFORE CHANGING THE BELT

Open up the pulley access panel on top of the headstock by removing the Hex screw. Slacken the belt by loosening the motor locking handle **(a)**, move the motor until the belt is slack enough to be reposition. (See figure 26)

Figure 26

Loosen the motor locking handle (a) enough to allow the pulley to be repositioned

Continues Over...

Figure 27

Reposition the belt, making sure the groves in the belt slot into the groves in the pulleys. Pull/push the motor assembly until the belt is under tension, retighten the motor locking handle **(a)**. (See figure 27)

Close the pulley access panel and replace the Hex screw.

Maintenance

The woodturning lathe has little maintenance, but it is advised to do the following checks to keep the lathe in good working order.

After every use

• Clean wood shavings away from the lathe bed and tool rest

• Smear a light coat of wax (Protec Tool Wax Polish, Code. 211835) over the lathe bed to allow the Banjo and Tailstock to run smoothly over the lathe bed and to prevent corrosion.

Monthly check

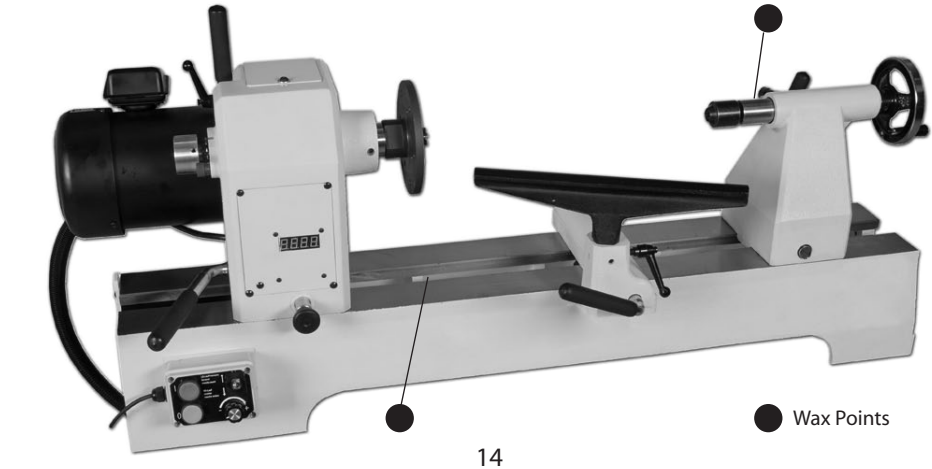
• Check the tension of the belt and adjust, see previous page for changing the belt speed.

• Check any build up of wood shaving on the motor and spindle pulley's and clean if necessarily.

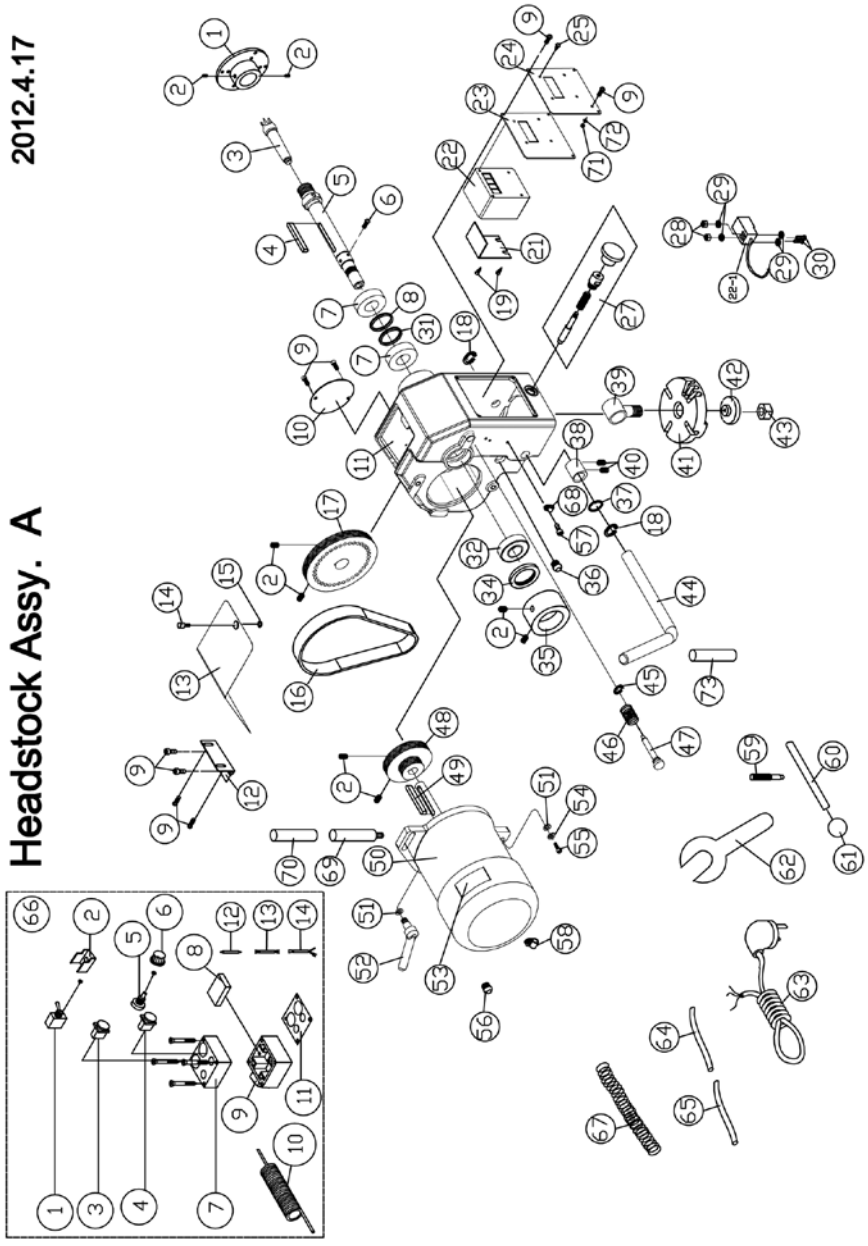
• Using a airline, blow out the motor's air vents.

NOTE: Always use a dust mask and eye protection

NOTE: If the lathe not going to be used for a period of time, smear a light coat of wax over the lathe bed and place a dust sheet over the lathe.



Headstock Assembly A



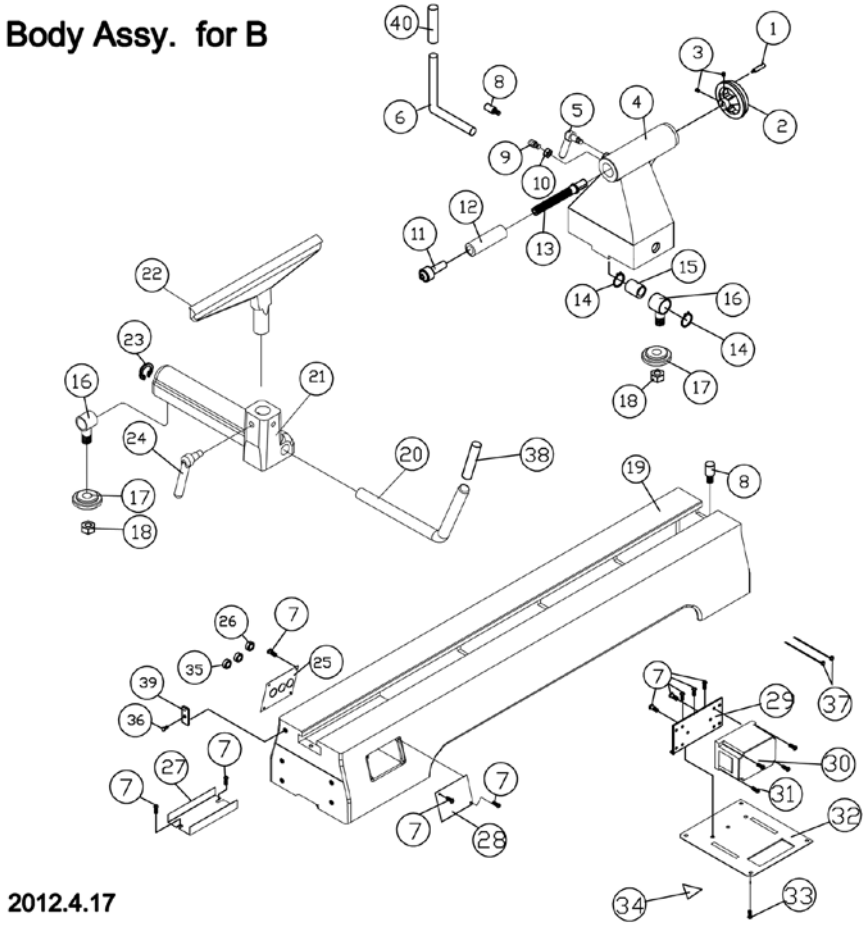
Headstock Assembly A

PART NO.	DESCRIPTION	SPECIFICATION	Q'ty
1628-A01	Face plate	6"	1
1628-A02	set screw	1/4*3/8"	8
1628-A03	Spur center	MT2	1
1628-A04	Key	8 * 8*90	1
1628-A05	Spindel	M33*P3.5	1
1628-A06	Round Head Screw	1/4"*5/16"	4
1628-A07	Bearing	6007	2
1628-A08	bearing bush-big		1
1628-A09	Big Round Head Screw	#10-24unc*3/8"	11
1628-A10	cover		1
1628-A11	Headstock		1
1628-A12	Latter Niu		1
1628-A13	belt cover		1
1628-A14	screw	1/4x1/2	1
1628-A15	Nut	CSTW-5	1
1628-A16	belt	220J-10	1
1628-A17	Spindle Pully		1
1628-A18	C ring	S-19	2
1628-A19	tap screw	1/4x1/2	1
1628-A21	cover plate		1
1628-A22	Digital readout		1
1628-A23	control plate		1
1628-A24	control panel acrylic		1
1628-A25	tap screw	M3*10	4
1628-A27	postion set		1
1628-A28	Nylo Nut	M3	2
1628-A29	Washer	M3	4
1628-A30	Round Head Screw	M3*35	2
1628-A31	bearing bush-small		1
1628-A32	Bearing	6205	1
1628-A34	nylon Nut	GUK M25x1.5P	1
1628-A35	hand wheel		1
1628-A36	cord protector	PG11-L	1
1628-A37	wave washer	BBW-629	1
1628-A38	bush		1
1628-A39	bolt		1
1628-A40	set screw	1/4"*1/4"	2
1628-A41	headstock base		1
1628-A42	fixing piece		1
1628-A43	nylo nut	3/4"-10unc	1
1628-A44	headstock shaft		1
1628-A45	C-ring	S-9	1
1628-A46	Spring		1
1628-A47	lock pin		1

Headstock Assembly A

1628-A48	motor pully		1
1628-A49	key	6*6*55	1
1628-A50	motor	230V 50HZ	1
1628-A51	washer	3/8"XØ 21X2.5	2
1628-A52	handle	3/8"	1
1628-A53	Motor Label		1
1628-A54	spring washer	3/8"	1
1628-A55	Cap screw	3/8-16uncx1-1/4	1
1628-A56	cord protector	PG13.5	1
1628-A57	screw	#10-24*7/8"	1
1628-A58	wire fixing piece		4
1628-A59	lock pin		1
1628-A60	tapered shaft		1
1628-A61	knob		1
1628-A62	SPANNER		1
1628-A63	POWER CABLE		1
1628-A64	POWER WIRE		1
1628-A65	MOTOR EIRE		1
1628-A66	control box		1
1628-A66-1	fed/rev switch		1
1628-A66-2	protector		1
1628-A66-3	switch-green		1
1628-A66-4	switch-red		1
1628-A66-5	VR control		1
1628-A66-6	VR nut		1
1628-A66-7	box		1
1628-A66-8	magnet		1
1628-A66-9	cord protector	PG11	1
1628-A66-10	single wire		1
1628-A66-11	control acrylic		1
1628-A66-12	wire 1		1
1628-A66-13	wire 2		1
1628-A66-14	wire 3		1
1628-A67	corrugated tubing		1
1628-A68	cable tie		1
1628-A69	motor handle		1
1628-A70	sleeve-short	19-100	1
1628-A71	Nut	#10-24	2
1628-A72	tooth washer	#10-24	1
1628-A73	sleeve-long	19-140	1

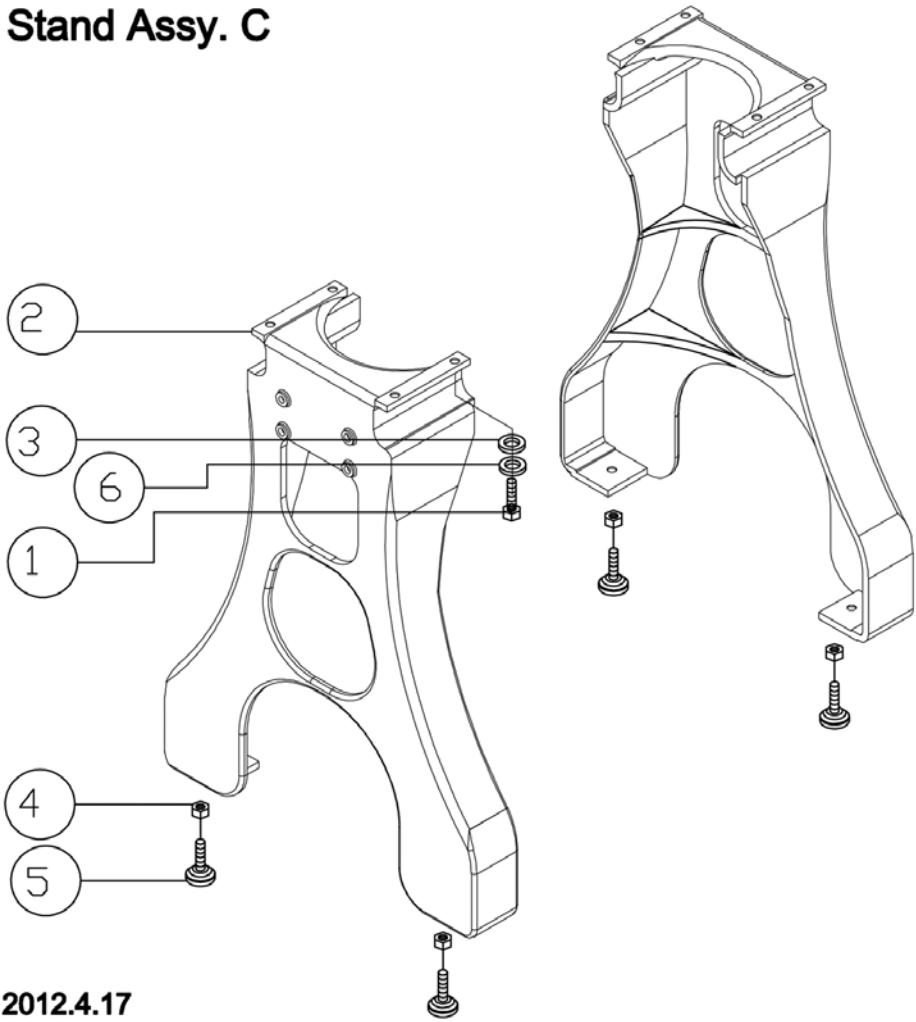
Body Assembly B



Body Assembly B

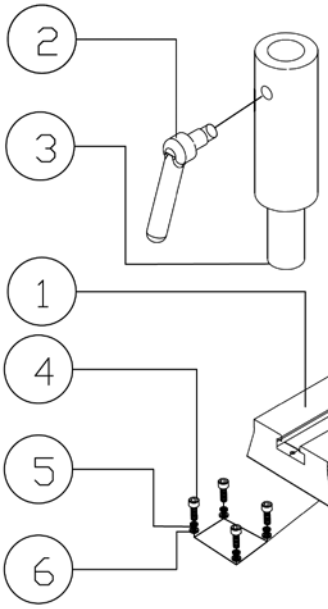
PART NO.	DESCRIPTION	SPECIFICATION	Q'ty
1628-B01	Handle		1
1628-B02	Handwheel	6"*19	1
1628-B03	Set screw	1/4*1/4	2
1628-B04	Tailstock		1
1628-B05	Lever	5/16"	2
1628-B06	Eccentric shaft		1
1628-B07	Big Round Head Screw	#10-24unc*5/16"(Black)	13
1628-B08	stop rod		2
1628-B09	Set screw	M10x30	1
1628-B10	nut	M10	1
1628-B11	Live Ceter	MT2	1
1628-B12	Tailstock Spindle		1
1628-B13	Tailstock Screw	5/8-18UNF	1
1628-B14	C ring	S-19	2
1628-B15	Bushing		1
1628-B16	Bolt		2
1628-B17	Fixing Piece		2
1628-B18	Nylon nut	3/4" *10unc	2
1628-B19	Bed		1
1628-B20	Eccentric shaft		1
1628-B21	Toolrest Carriage		1
1628-B22	Tool rest	14"	1
1628-B23	C ring	S-18	1
1628-B24	Lever	3/8"	1
1628-B25	Plate-Rear		1
1628-B26	Strain Relief Bushing	PG11	2
1628-B27	Channel Cover		1
1628-B28	Plate-Front		1
1628-B29	Plate-Side		1
1628-B30	Inverter		1
1628-B31	Round Head Screw	#10-24unc*3/4"(Black)	4
1628-B32	Plate-Bottom		1
1628-B33	Flate Head Screw	#10-24unc*5/16"(Black)	4
1628-B34	Label		1
1628-B35	Strain Relief Bushing	PG9	1
1628-B36	Round Head Screw	1/4"-20UNC*3/8"(Black)	1
1628-B37	Band		2
1628-B38	Sleeve-S	17-100	1
1628-B39	Block Pad		1
1628-B40	Sleeve-L	19-140	1

Stand Assembly C (Optional)

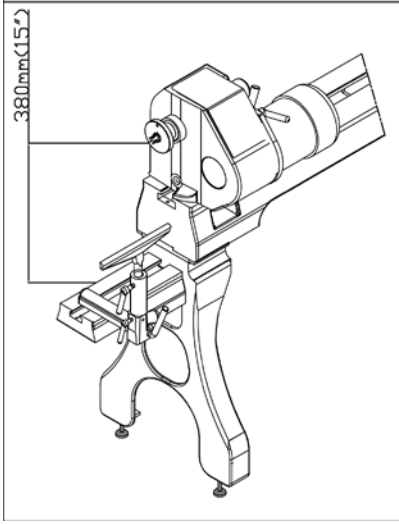


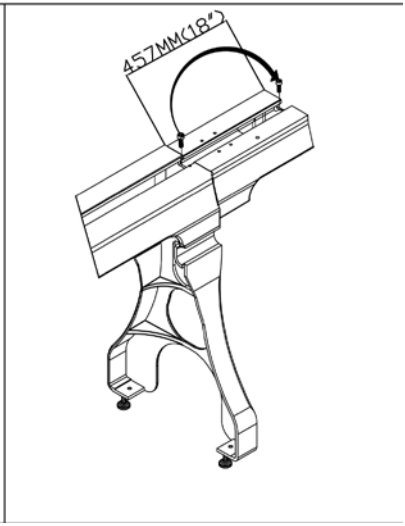
PART NO.	DESCRIPTION	SPECIFICATION	Q'ty
1628-C01	Hex Head Screw	3/8"-16*1-1/4	8
1628-C02	Stand	22"	2
1628-C03	Washer	3/8"x18x2	8
1628-C04	Nut	3/8"	4
1628-C05	Adjustable Leveler	3/8"	4
1628-C06	spring washer	3/8"	8

25-310 18"Extension Bed

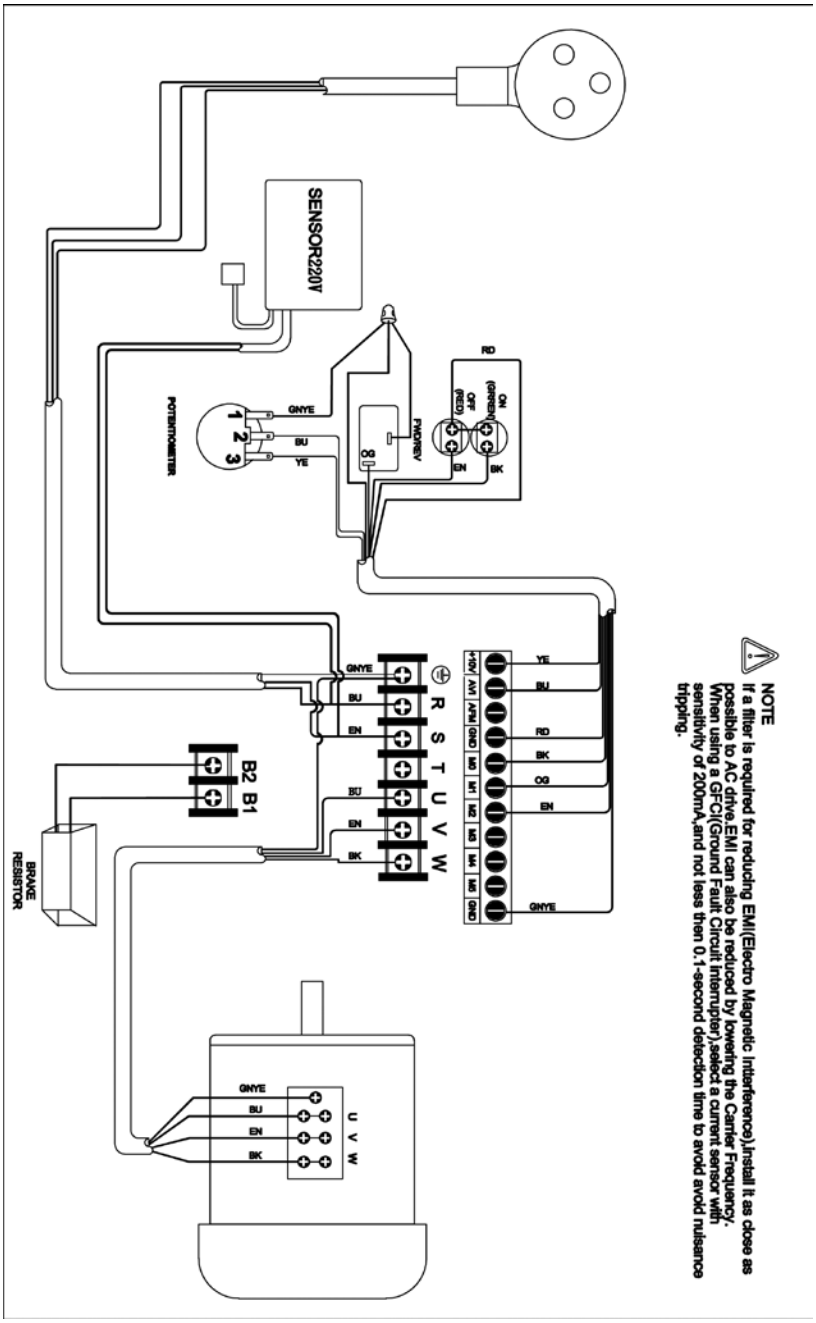


No.	Part No.	Description	Size	Qty
1	25-618	Extension bed	18"	1
2	25650-30	Handle	3/8"	1
3	3520B-310	Extension Post	ø 25.4	1
4	Screw Package	3/8"Cap screw	1-1/4"	4
5	Screw Package	Spring Washer	3/8"	4
6	Screw Package	Washer	3/8"	4





Wiring Diagram



Please dispose of packaging for the product in a responsible manner. It is suitable for recycling. Help to protect the environment, take the packaging to the local recycling centre and place into the appropriate recycling bin.

Only for EU countries

Do not dispose of electric tools together with household waste material. In observance of European Directive 2002/96/EC on waste electrical and electronic equipment and its implementation in accordance with national law, electric tools that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.