

# Penn State Industries KWL-1018VS Turncrafter Commander 10 in. Variable Speed Midi Lathe User Manual

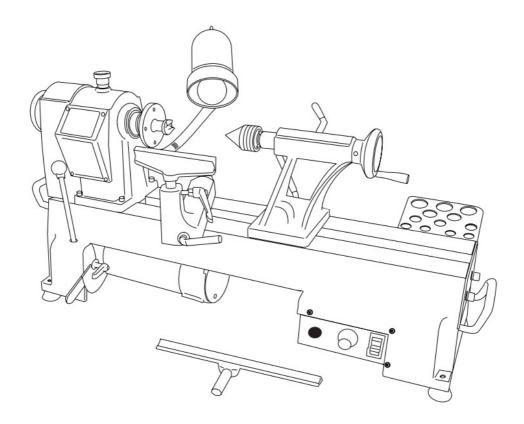
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Penn State Industries KWL-1018VS Turncrafter Commander 10 in. Variable Speed Midi Lathe



# **GENERAL & SPECIFIC SAFETY RULES**

- 1. KEEP GUARDS IN PLACE and in working order.
- 2. KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents.
- 3. DON'T USE IN DANGEROUS ENVIRONMENT. Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted.
- 4. KEEP CHILDREN AWAY. All visitors should be kept safe distance from work area.
- 5. MAKE WORKSHOP KID PROOF removing starter keys.
- 6. DON'T FORCE TOOL. It will do the job better and safer at the rate for which it was designed.
- 7. USE RIGHT TOOL. D on't force tool or attachment to do a job for which it was not designed.
- 8. USE PROPER EXTENSION CORD. M ake 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 shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

# Minimum gage for cord<sup>a</sup>

		Volts	Total length of cord in feet			
Amper	e Rating	120 V	0 V 25 ft 50 ft 100 ft 150			
More Than	Not More Than	AWG				
0	6		18	16	16	14

		Volts		Total length	of cord in feet	
Amper	re Rating	120 V	25 ft	50 ft	100 ft	150 ft
More Than	Not More Than			AWG	•	
6	10		18	16	14	12
10	12		16	16	14	12
12	16		14	12	Not Reco	mmended

- 9. 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.
- 10. ALWAYS USE SAFETY GLASSES. Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
- 11. DON'T OVERREACH. Keep proper footing and balance at all times.
- 12. MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
- 13. DISCONNECT TOOLS before servicing; when changing accessories, such as blades, bits, cutters, and the like.
- 14. REDUCE THE RISK OF UNINTENTIONAL STARTING. Make sure switch is in off position before plugging in.
- 15. USE RECOMMENDED ACCESSORIES. Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.
- NEVER STAND ON TOOL. Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
- 17. 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.
- 18. NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF. Don't leave tool until it comes to a complete stop.

#### SPECIFIC SAFETY RULES FOR WOOD LATHES

- WARNING No adjustment should be made until the tool has been stopped.
- WARNING Risk of injury due to accidental starting. Do not use in an area where children may be present.
- WARNING For Your Own Safety Read Instruction Manual Before Operating Lathe.
  - Wear eye protection.
  - Do not wear gloves, necktie, or loose clothing.
  - Tighten all locks before operating.
  - Rotate workpiece by hand before applying power.
  - Rough out workpiece before installing on faceplate.
  - Do not mount split workpiece or one containing knot.
  - Use lowest speed when starting new workpiece.
- WARNING: DO NOT EXPOSE TO RAIN OR USE IN DAMP LOCATIONS.

#### ADDITIONAL SAFETY RULES FOR WOOD LATHES

- 1. Do not allow the turning tools to bite into the wood. The wood could split or be thrown from the lathe.
- 2. Always position the tool rest above the centreline of the lathe when shaping a piece of stock.
- 3. Do not operate the lathe if it is rotating in the wrong direction. The workpiece must always be rotating toward
- 4. Before attaching a workpiece to the faceplate, always rough it out to make it as round as possible, this minimizes the vibrations while the piece is being turned. Always fasten the workpiece securely to the faceplate, failure to do this could result in the workpiece being thrown away from the lathe.

5. Position your hands so that they will not slip onto the workpiece.

#### SPECIFICATIONS OF THE TURNCRAFTER COMMANDER MIDI LATHE

Turncrafter Commander Specification	10" Swing Commander	12" Swing Commander
Item No.	#KWL-1018VS	#KWL-1218VS
Motor Speeds	Variable Speed 110v	1Variable Speed 110v
Motor Power	1HP -7.4A	1.5HP -11.19A
Belt Positions	2	2
Spindle Speeds (Variable)	Variable 450-1700 RPM & 950-3800 RPM	Variable 450-1600 RPM & 950-3600 RPM
Headstock/Tailstock	1" x 8tpi / #2 MT	1" x 8tpi / #2 MT
Between Centers	18"	18"
Construction	Cast Iron	Cast Iron
Swing over bed	10"	12"
Weight	82 lbs.	106 lbs.
Footprint	31" x 7-1/4"	31" x 9-1/2"
Tailstock Triavel	4"	4"

#### **WARRANTY**

Turncrafter Commander Lathes are warranted against defects in materials and workmanship for a period of three (3) years from the date of purchase. This warranty applies to the purchaser of this product, and is limited to repair or replacement of the product or it's parts at PSI Woodworking Products' discretion. Excluded are parts, which have been misused, abused, altered, or consumed by normal operation of the machine. Also excluded are direct or consequential damages to the persons, prop-erty, and/or materials. Your invoice serves as proof of purchase and must be referenced prior to return authorization. Contact your dealer where you purchased your lathe for service or repair issues.

#### **RECEIVING**

- 1. Remove all parts and components from shipping carton. Remove all the packing and locate all loose parts.
- 2. Inspect the contents of the carton for shipping damage. Compare the contents of the loose parts to the list provided. Report any missing or damaged parts to your distributor.
- 3. Keep the carton and packing material in case you need to pack and move the lathe.
- 4. Some metal surfaces on the lathe may have been treated with a protective coating prior to shipping. Clean them with a soft rag prior to use. DO NOT use paint thinner, gasoline, or any other heavy solvents to remove the protective coating or you will damage the lathe's painted surface. Clean the lathe using only a damp cloth or a very mild solvent.

#### Loose Parts Included with Lathe (Box no.2)

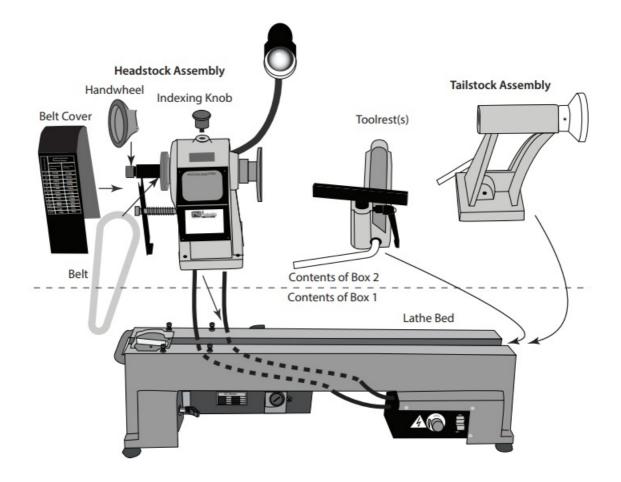


- A. Tool rest (6") and (12")
- B. Faceplate (3" pre-installed)
- C. Spur Drive Center (#2 MT)
- D. Hex wrench (set of 4)
- E. Rubber feet (4) (if not installed)
- F. Safety Goggles
- G. Knock out rod
- . H. Tool Caddy
- I. Phillips Screw Driver
- J. Heavy duty tailstock live center
- K. Tailstock Handle and bolt

# **ASSEMBLY OF MAJOR COMPONENTS**

• The packing of the KWL1218VS is in two boxes. The first box contains the lathe bed with motor assembly and switch box (mounted). The second contains the headstock assembly, toolrest and tailstock assembly.

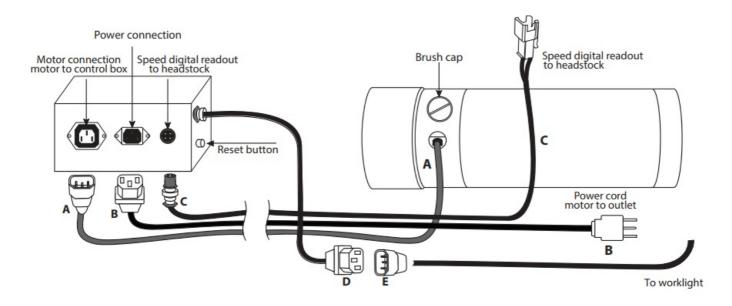
NOTE: KWL1018VS is delivered in one box



 We recommend installing the headstock assembly first. Attach headstock using the four screws and washers (packed in box#1).

# **MOTOR CONNECTION (Both Models)**

Lead the digital readout cable (C) from the switch box, through the lathe bed and attach to circut board inside the bottom of the headstock. Please note your lathe is delivered with the motor cable (A) and power cord (B) already plugged into control box.

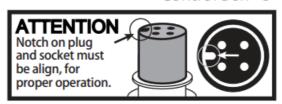


#### To make connection to the control box

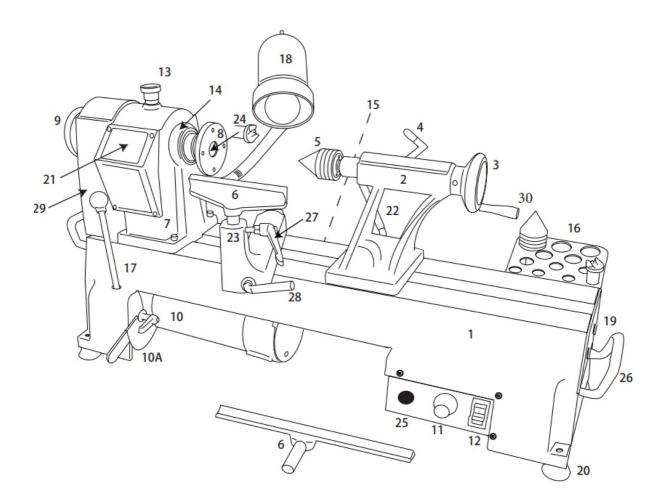
1. Plug the wire from the motor to the box (A) CAUTION: DO NOT PLUG A into B

- 2. Plug power cord into control box. (B) CAUTION: DO NOT PLUG INTO OUTLET.
- 3. Plug in cord from switch box to headstock (C)
- 4. Plug power cord into outlet. (B)
- 5. Plug worklight wire from switch box (D) to female socket (E) of worklight wire from headstock.

# Control Box c



# **LATHE COMPONENTS**



- 1. Lathe Bed
- 2. Tailstock
- 3. Hand Wheel (Quill Adjustment)
- 4. Quill Tightening Lever
- 5. Live Tailstock Center
- 6. 6" Toolrest, 12" Toolrest (6A)
- 7. Headstock
- 8. Faceplate (Installed for shipping)
- 9. Headstock Hand Wheel
- 10. Motor & Adjustment lever (10A)

- 11. Speed Control
- 12. Power Switch
- 13. Spindle Lock Knob
- 14. Index Indicator
- 15. Cord Wrapping Supports
- 16. 16. Tool Caddy
- 17. Knockout Rod
- 18. Work Light (BULB INCLUDED)
- 19. Mounting Holes for extension bed
- 20. Rubber Feet (4)
- 21. Variable Speed Indicator Window
- 22. Tailstock tightening lever
- 23. Tool rest holder Assembly
- 24. Spur Drive Center
- 25. Reset Button
- 26. Carry Handles
- 27. Tool rest post tightening lever
- 28. Tool rest holder tightening lever
- 29. Belt Cover
- 30. Tailstock handle

#### Mounting Lathe to worksurface:

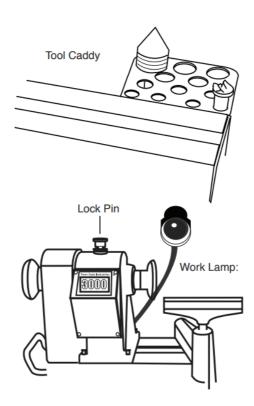
The lathe can be permanently attached to a work surface by inserting screws through the holes in the base instead of rubber feet. Be sure to position the lathe so that there is an open space directly beneath the motor and work surface to prevent shavings from building up and fouling the motor or switch box (about the thickness of rubber feet between lathe bed feet and work surface). For general tabletop work, install the four rubber feet (20).

#### Install Tool Caddy: (16)

Using the two pan head screws, install the tool caddy on the rear of the lathe bed.

Lock Pin: (13)

**IMPORTANT** – When NOT using the indexing feature, Pull up the pin and rotate it to the UNLOCK position and drop it in place. Check the lathe's spindle to make sure it is spinning freely. The pin MUST BE UNLOCKED with the spindle spinning freely before turning on your Lathe – neglecting to do this may damage your lathe when you next turn it on. See page 9 for indexing feature.



#### Work Lamp: (18)

Use only a 40 watt or smaller bulb in the work lamp. Position the lamp to prevent shavings from accumulating in the housing. Bulb not included.

# **Tool Rest & Tailstock Assembly:**

From the opposite end of the lathe bed, attach the toolrest (23) first, then follow with the tailstock assembly (2). Make sure all connections are tight and secure.

#### **INSTRUCTIONS Prior to use**

- 1. Install loose parts as indicated in the Assembly Diagram on pg.5.
- 2. Inspect Tailstock (2): Verify that all knobs and handles work properly and that the tailstock slides along bed and live center bearings spin freely and locks with lock knobs
- 3. Tool rest: (6) Verify all handles work properly and assembly (23) slides and locks properly along bed.
- 4. Headstock: (7) Belt is attached and tight. Door levers and bearings operate properly and spindle turns freely.
- 5. Control Box: (11) Check that the knob and switch are intact and operate without power.
- 6. Indexing Spindle Lock: (13) Make sure it engages and disengages and it properly locks spindle at indexing indicator.
  - **IMPORTANT** When NOT using the indexing feature, Pull up the pin and rotate it to the UNLOCK position and drop it in place. Check the lathe's spindle to make sure it is spinning freely. The pin MUST BE UNLOCKED with the spindle spinning freely before turning on your Lathe neglecting to do this may damage your lathe when you next turn it on. Unlock knob before turning on lathe.
- 7. Turn Power switch (12) to off position. Plug in lathe. Test work light switch. (with power switch in off position)
- 8. Dial speed to lowest speed. Make sure spindle turns freely and does not interfere with loose parts or obstructions. Turn on lathe. Test speed knob (11) from slow to fast.

#### **USING YOUR LATHE**

#### Powering the Lathe:

turning and reach its full speed within a few seconds. The time the motor takes to reach its full speed will depend on the size of the work piece and the speed setting. Toggle the switch to the OFF position to stop the lathe. Wait for the tool to come to a complete stop before at-tempting any further operation.

#### **Variable Speeds**

The speed control knob (11) determines the rate at which the lathe will turn. Turn the knob clockwise to increase speed control and counter clockwise to decrease speed. Always set this to the lowest setting prior to turning on the lathe. The lathe speed is indicated digitally through the window. (21)

#### **Changing Belt Speeds**

Make sure the lathe is unplugged. Loosen the knob on the cover plate. Slide the cover up and off the lathe. Loosen the motor plate ratchet handle (10a) to allow the motor plate to swivel upwards. To change the speed, move the belt drive from one pulley to another. (Note, Always go from the headstock pulley to the motor pulley) After moving the belt, tighten the motor pulley with the ratchet handle (10a); this also tightens the belt. Turn your lathe's power on, and make sure that the belt is running consistently in its parallel groove. If all is smooth, turn the power off, reattach the cover.

# Maximum Speeds for Balanced Turning

Work piece Diameter	Max RPM Roughing	Max RPM Finishing
1"	MAX	MAX
2"	3000	MAX
3"	2000	2600
4"	1500	2000
5"	1200	1600
6"	1000	1330
7"	850	1100
8"	750	1000
9"	660	900
10"	600	800
11"	540	735
12"	600	660

MAX = Maximum Lathe Speed 3600

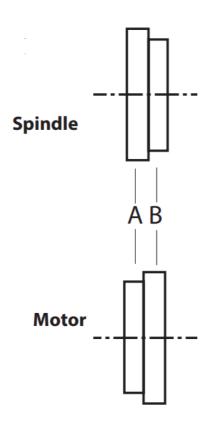
#### Replacing the Belt

The Turncrafter Commanders are designed with a special feature that allows quick and easy belt changes.

- · Remove belt cover
- Loosen motor plate handle (10a)
- · Loosen belt and remove old belt
- Slide the new belt over the headstock spindle pulley and onto the motor pulley.
- Tighten belt with motor plate handle (10a)

#### **Pulley Positions and Speeds:**

Remove the belt cover (29). Loosen motor racket handle (10). Move belt to speed position as indicated in illustration below.



# Speeds RPM\*

	KWL1018VS		KWL1218V	
Position	A	В	A	В
Minimum	450	950	450	950
Maxium	1700	3800	1600	3600

# • Faceplate (8)

**Note:** The faceplate is pre-installed with your lathe. Remove it prior to using the lathe. The faceplate screws directly on to the headstock spindle. Use brass wood screws (not included) to secure your work piece to the face plate. Use screws that are not overly long to ensure that they do not enter the portions of the work piece where you plan to remove the material. To remove the faceplate from the spindle, hold the headstock hand wheel, unscrew the faceplate.

#### Tool Rest (6)

The tool rest is used to steady the cutting tool while the lathe is in operation. You can position the tool rest by releasing the lock handle (28) positioned on the side of the rest and sliding the rest into the desired position. Tighten the lock handle to secure the tool rest into position. The height of the tool rest can be adjusted releasing the lock handle (27) located on the front of the rest and adjusting the height to the desired position and then tightening the lock handle. The position of the tool rest locking handle can be adjusted by reaching under the bed and loosening the clamp nut. Slide the handle into position. Tighten the clamp nut. The tool rest should be positioned just above the center line of the work piece.

#### • Spur Center (24)

The spur drive center locks into the headstock with a #2 Morse Taper and holds the work piece in place while the spindle is in operation. The knockout rod (17) slides into the headstock from the rear to tap the spur center free. The knockout rod can be stored in the hole (17) in the front of the lathe. When performing this operation,

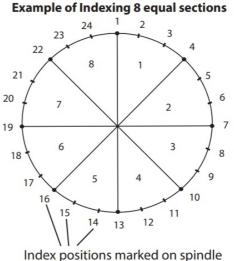
be sure to hold the spur center to prevent it from falling and damaging the tip. Use the dead safety center (31) to help avoid catches.

**Warning** – Be sure to clean both the taper on the spur center and the inside of the headstock spindle prior to mounting the spur center. Failure to do so may cause the two components to separate causing possible injury or damage to the tool.

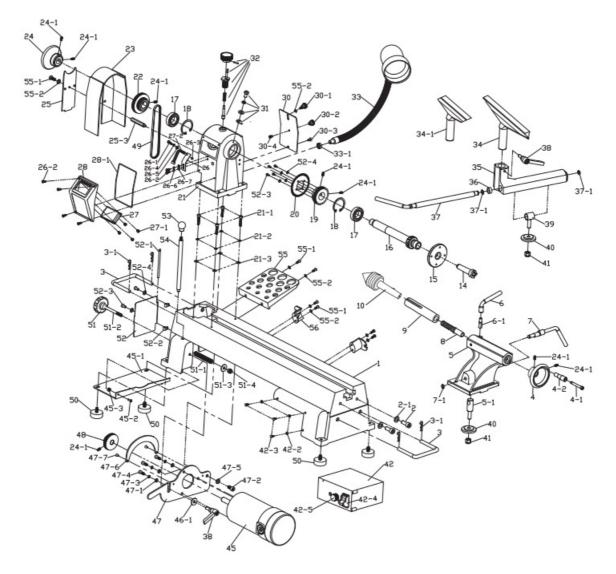
#### **Indexing Operation:**

- The indexing knob (13) allows you to make evenly spaced cuts on a work piece while keeping the headstock spindle locked. The spindle index indicator (14) points to 24 grooves available on the spindle so the turning's sections can be made in multiples of 24, 12, 8, 6, 4, 3, and 2. For example, to make 8 equal sections, mark your work at 1, 4, 7, 10, 13, 16, 19, and 22.
- To use the lathe's indexing feature you need to use the lock pin (13). Pull up on the spring indexing position. Rotate and drop the pin into the "LOCK" position and perform your indexing operation while the spindle is locked in place. Use the index indicator to locate the index stops you want. Continue to pull up the pin and rotate the spindle to subsequent index po-sitions and drop the pin to secure the spindle until all indexing operations are completed. IMPORTANT When NOT using the indexing fea-ture, Pull up the pin and rotate it to the UNLOCK po-sition and drop it in place. Check the lathe's spindle to make sure it is spinning freely. The pin MUST BE UNLOCKED with the spindle spinning freely before turning on your Lathe neglecting to do this may damage your lathe when you next turn it on.





**KWL PARTS DIAGRAM** 



Part No.	KWL1018VS	KWL1218VS	Description	QTY
1	ZTCLC1	ZTCLC1Z	Bed	1
2	ZTCLC2	ZTCLC2	Hex socket screw M10x25	2
2-1	ZTCLC2-1	ZTCLC2-1	Washer Ø10	2
3	ZTCLC3	ZTCLC3Z	Handle	2
3-1	ZTCLC3-1	ZTCLC3-1	Retaining ring	4
4	ZTCLC4	ZTCLC4	Quill adjusting wheel	1
4-1	ZTCLC4-1	ZTCLC4-1	Bushing	1
4-2	ZTCLC4-2	ZTCLC4-2	Screw	1
5	ZTCLC5-10L	ZTCLC5Z-12L	Long Tailstock Red	1
5	ZTCLC5-10S	ZTCLC5Z-12S	Short Tailstock Red	1
5-1	ZTCLC5-1	ZTCLC5-1	Cam follower tailstock	1
6	ZTCLC6	ZTCLC6	Handle Assy. w/point (old)	1
6	ZTCLC6Z	ZTCLC6Z	Handle Assy. (new)	1
6-1	ZTCLC6-1	ZTCLC6-1	Lock bolt	1
7	ZTCLC7	ZTCLC7Z	Eccentric axis	1
7-1	ZTCLC7-1	ZTCLC7-1	Tailstock retaining ring	1
8	ZTCLC8Z	ZTCLC8Z	Tailstock axis Long 5-5/8"	1
8	ZTCLC8	ZTCLC8	Tailstock axis Long 3-9/16"	1
9	ZTCLC9Z	ZTCLC9Z	Tailstock quill /assy.	1
10	LCENTLT2	LCENTLT2	Tailstock Center	1
14	ZTCLC14	ZTCLC14	Headstock spur center	1
15	CF3J	CF3J	Face plate	1

Part No.	KWL1018VS	KWL1218VS	Description	QTY
30-3	ZTCLC30-3	ZTCLC30-3	Screw	1
30-4	ZTCLC30-4	ZTCLC30-4	Screw	1
31	ZTCLC31	ZTCLC31	Connecting stand Assembly	1
32	ZTCLC32	ZTCLC32Z	Stop bolt Assembly	1
33	ZTCLC33	ZTCLC33	Work light	1
33-1	ZTCLC33-1	ZTCLC33-1	Hex nut M12	1
34	ZTCLC34	ZTCLC34Z	Tool rest 6"	1
34-1	ZTCLC34-1	ZTCLC34-1Z	Tool rest 12"	1
35	ZTCLC35	ZTCLC35Z	Tool rest base	1
36	ZTCLC36	ZTCLC36	Bushing	1
37	ZTCLC37	ZTCLC37Z	Lock handle for tool rest base	1
37-1	ZTCLC37-1	ZTCLC37-1	Tool rest retaining ring	2
38	ZTCLC38	ZTCLC38	Toolrest/Motor Locking Handle assy	2
39	ZTCLC39	ZTCLC39	Tool rest cam follower	1
40	ZTCLC40	ZTCLC40	Step washer	2
41	ZTCLC41	ZTCLC41	Lock nut M10	2
42	ZTCLC10VSB	ZTCLC10VSB	Control Switch box	1
42-2	ZTCLC42-2	ZTCLC42-2	Washer Ø4	3
42-3	ZTCLC42-3	ZTCLC42-3	R.H. machine screw M4x25	3
42-4	ZTCLC42-4	ZTCLC42-4	Control box switch	1
42-5	ZTCLC42-5	ZTCLC42-5	Control box speed control knob	1
45	ZTCLC10VMO	ZTCLC12VMO	Motor	1

16	ZTCLC16	ZTCLC16	Headstock spindle	1
17	ZTCLC17	ZTCLC17	Ball bearing 80105	2
18	ZTCLC18	ZTCLC18	Head stock retaining ring	2
19	ZTCLC19	ZTCLC19	Gear	1
20	ZTCLC20	ZTCLC20Z	Round plastic plate	1
21	ZTCLC21	ZTCLC21Z	Headstock assy.	1
21-1	ZTCLC21-1	ZTCLC21-1	Hex socket screw M8x30	4
21-2	ZTCLC21-2	ZTCLC21-2	Spring washer	4
21-3	ZTCLC21-3	ZTCLC21-3	Washer Ø8	4
22	ZTCLC22	ZTCLC22	Drive pulley	1
23	ZTCLC23	ZTCLC23Z	Side protection guard	1
24	ZTCLC24	ZTCLC24	Hand wheel	1
24-1	ZTCLC24-1	ZTCLC24-1	Socket set screw M6x12	8
25	ZTCLC25	ZTCLC25	Side plate	1
25-3	ZTCLC25-3	ZTCLC25-3	Connecting rod	1
26	ZTCLC26	ZTCLC26	Connecting plate	1
26-1	ZTCLC26-1	ZTCLC26-1	Round head bolt M3x12	1
26-2	ZTCLC26-2	ZTCLC26-2	Round head bolt M4x10	6
26-3	ZTCLC26-3	ZTCLC26-3	Hex nut M3	1
26-4	ZTCLC26-4	ZTCLC26-4	Spring washer Ø3	1
26-5	ZTCLC26-5	ZTCLC26-5	Washer Ø3	1
26-6	ZTCLC26-6	ZTCLC26-6	Spring washer Ø4	2
26-7	ZTCLC26-7	ZTCLC26-7	Washer Ø4	2
27	ZTCLC27	ZTCLC27	Display plate	1
27-1	ZTCLC27-1	ZTCLC27-1	Tapping screw	4
27-2	ZTCLC27-2	ZTCLC27-2	Connector	1
28	ZTCLC28	ZTCLC28Z	Display housing	1
28-1	ZTCLC28-1	ZTCLC28-1Z	Seal ring	1
30	ZTCLC30	ZTCLC30Z	Rear plate	1
30-1	ZTCLC30-1	ZTCLC30-1	Moving knob	1
30-2	ZTCLC30-2	ZTCLC30-2	Stationary knob	1

45-1	ZTCLC45-1	ZTCLC45-1Z	Motor guard	1
45-2	ZTCLC45-2	ZTCLC45-2	Round head bolt M4x10	1
45-3	ZTCLC45-3	ZTCLC45-3	Nut M6	1
46-1	ZTCLC46-1	ZTCLC46-1	Lock Washer	1
47	ZTCLC47	ZTCLC47Z	Motor plate with notch	1
47-1	ZTCLC47-1	ZTCLC47-1	Washer Ø6	1
47-2	ZTCLC47-2	ZTCLC47-2	Hex socket screw M8x16	1
47-3	ZTCLC47-3	ZTCLC47-3	Spring washer Ø4	3
47-4	ZTCLC47-4	ZTCLC47-4	Hex socket screw M6x16	3
47-5	ZTCLC47-5	ZTCLC47-5	Washer Ø8	1
47-6	ZTCLC47-6	ZTCLC46-6Z	Guard	1
47-7	ZTCLC47-7	ZTCLC47-7	Round head bolt M4x16	2
48	ZTCLC48	ZTCLC48Z	Motor pulley	1
49	ZTCLC1049W	ZTCLC1249W	Drive belt	1
50	ZTCLC50	ZTCLC50	Adjustable Rubber Feet	4
51	ZTCLC51	ZTCLC51	Knob	1
51-1	ZTCLC51-1	ZTCLC51-1	Spring	1
51-2	ZTCLC51-2	ZTCLC51-2	Bolt M8	1
51-3	ZTCLC51-3	ZTCLC51-3	Washer Ø8	1
51-4	ZTCLC51-4	ZTCLC51-4	Nut M8	1
52	ZTCLC52	ZTCLC52	Mounting plate	1
52-1	ZTCLC52-1	ZTCLC52-1	Pin hinge	1
52-2	ZTCLC52-2	ZTCLC52-2	Hinge	2
52-3	ZTCLC52-3	ZTCLC52-3	R.H. machine screw M4x8	6
52-4	ZTCLC52-4	ZTCLC52-4	Washer Ø4	6
53	ZTCLC53	ZTCLC53	Ball	1
54	ZTCLC54	ZTCLC54	Knock-out rod	1
55	ZTCLC55	ZTCLC55	Tool rack	1
55-1	ZTCLC55-1	ZTCLC55-1	R.H. machine screw M5x12	7
55-2	ZTCLC55-2	ZTCLC55-2	Washer Ø5	7
56	ZTCLC56	ZTCLC56	Cable Support	2

# ACCESSORIES AVAILABLE FROM PSI WOODWORKING PRODUCTS FOR YOUR COMMANDER LATHE

Item	Description	Typical Products
Lathe Extension Bed	Extends the lathe and Spindle you can turn to 42"	#TCLC12XB for 12" Style
Duplicating Attachment	Enables duplicating small projects to 9" long. Makes fast and easy copies.	#CMLDUPMAX for 12" Style
Chucks	To mount up a variety of work on to your headstock.  Styles include drill chucks, mini chucks, screw chucks, collet chucks and chuck styles for larger work.	#CSC3000C Versatile self centering multi component system. Plus many other styles available.
Pen Mandrels	Essential for making pens and other small projects on your lathe. Mounts pen blanks for turning and finishing.	#PKM-FLC - Fits into the #MT2 opening in the headstock
Lathe Tools	Skew Chisels - for final finishing and smooth cuts and beading	#LX010 1/2" plus others
	Parting Tools - to trim off waste establish a diameter or cut flat areas	#LX410 1/2" plus others
	Roughing Gouges- For aggressively taking square spindles to a round	#LX260 1" plus others
	Spindle Gouges - For general purpose turning a spindle from rough round to a near finish. A favorite for pens.	#LX320 3/8" plus others
	Scrapers - For smoothing and for interior clean up inside a bowl after gouge work is completed.	#LX120 1" plus others

	Bowl Gouges - Used for hollowing out bowl centers. Used on most faceplate work.	#LX210 3/8" plus others	
	Lathe Tool sets - Include a variety of sizes and styles of the above.	#LCHSS8 - 8 pc variety Other specialty sets available	
	Specialty Tools for: Making beads and coves, interior and exterior bowl finishing, bowl hollowing, making tenons and dovetails and more.	#LCHOLSET - Bowl hollowing set with replaceable cutters and others	
Faceplates	For Mounting bowls. Many sizes are available depending	#CF2 - 6" faceplate many other sizes	
	on the size of the bowl being turned.	available	
Drive Centers	Many styles available for special applications	#LCENTSS21 - Super drive	
		multi prong style plus others	
Toolrests	Many special profiles available for bowl turning, longer	#CLTSJ - "S" toolrest for bowl	
	work, shorter work.	turning plus others	
Other Equipment	Specialty items to use with your lathe include: sanding systems, special chuck jaws, measuring		
	and marking products, tailstock centers, mandrel saver and more.		

#### **TYPICAL LATHE OPERATIONS**

NOTE: Remove Faceplate (8) prior to using lathe

# Spindle Turning

- Work mounted between headstock spur center and live tailstock center
- Requirements: no additional accessories
- Optional headstock mounting with lathe chuck

# Bowl Turning

- Mount work to faceplate with screws
- Requirements: no additional accessories
- Lathe chuck optional

#### Pen Making

- Work mounts on pen mandrel secured with live tailstock center
- Requirements: pen mandrel

# Drilling

- Work mounted in headstock chuck
- #2MT drill chuck mounted in tailstock
- Requirements: lathe chuck, #2MT drill chuck, drill bit

#### Sanding

Use the fastest speed possible without burning the wood. Use graduated grits from 150 grit for best results.

#### Finishing

Generally finishing can be done at faster speeds than turning. Finish using finishing polishes, waxes and buffing compounds on or off the lathe.

# **UL MARKS**

- The ETL Listed Mark is an alternative to the CSA and UL marks.
- ETL Testing Laboratories has been conducting electrical performance and reliability tests since 1896. Intertek
  Testing Services (ITS) acquired ETL from Inchcape in 1996. ITS is recognized by OSHA as a Nationally
  Recognized Testing Laboratory (NRTL), just as Underwriters Laboratories (UL), Canadian Standards

Association (CSA) and several other independent organizations are recognized.

- ITS tests products according to nearly 200 safety and performance standards. The ETL Listed Mark and C-ETL Listed Mark are accepted throughout the United States and Canada when denoting compliance with nationally recognized standards such as ANSI, IEC, UL and CSA.
- This certification mark indicates that the product has been tested to and has met the minimum requirements of a widely recognized (consensus) U.S. Product safety standard, that the manufacturing site has been audited, and that the applicant has agreed to a program of periodic factory follow-up inspections to verify continued conformance.
- If the mark includes a small US and/or C, it follows product safety standards of United States/or Canada, respectively.

#### **Documents / Resources**



Penn State Industries KWL-1018VS Turncrafter Commander 10 in. Variable Speed Midi La the [pdf] User Manual

KWL-1018VS, KWL-1018VS Turncrafter Commander 10 in. Variable Speed Midi L athe, Turncrafter Commander 10 in. Variable Speed Midi Lathe, Variable Speed Midi Lathe, Mid i Lathe

# References

User Manual

Manuals+