

Easy Woodturning

EASY CHUCK

Patent No.: US 9,370,826 B2

OWNER'S MANUAL



EASY CHUCK

Just like every product we have ever made, your Easy Chuck" is 100% designed and manufactured in America by Easy Wood Tools'. The Easy Chuck" will allow you to spend more time turning and less time adjusting and messing around with jaw changes.

Please read this manual carefully and become thoroughly familiar with the operation of the chuck before use.

"The easiest Chuck you'll ever use!"

The Easy Wood Tools Team

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This is what makes your Easy Chuck™ the best chuck on the planet...

Snap Lock Technology — Easy JawsTM snap securely in place yet release instantly with the provided tool.



Zoom Ring — Fingertip control for quick and easy jaw adjustment.

Top Jaws Not Numbered — It makes no difference which top jaw goes in which slot.

Strong Jaw Design — Easy JawsTM are held in place by the chuck body, not small screws that are susceptible to shearing.

Safety Corners — Rounded outer corners of Easy Jaws™ reduce chance of injury.

Hub Set Screws — Provided for locking chuck to lathe spindle for sanding in reverse.

Easy JawTM **Sets** — A size for every project so you can chuck your project safely.

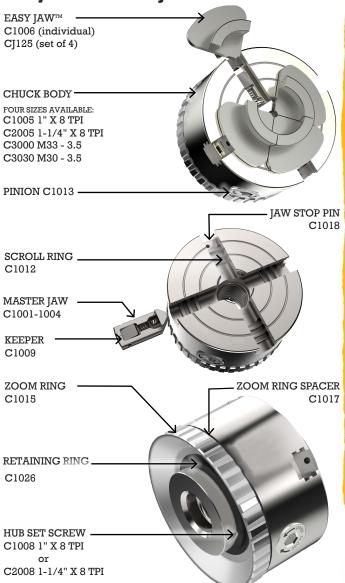
Quality — Made in U.S.A. manufacturing to the highest standards, assures you the best possible quality.



Please be sure the following contents are included in your Easy Chuck" box. If there are any missing components, please contact us toll free 866-963-0294.

- One 4" Easy Chuck with 1 3/8" Dovetail Jaws
- Easy Chucking Screw
- One Chuck Key 5/16" Hex T-Handle
- One Jaw Key 1/8" Hex Ball Driver
- One Spindle Washer
- Two Spare Hub Set Screws
- Two Spare Master Jaw Springs Under normal usage we do not anticipate the need to replace a Master Jaw Spring, but if you ever do damage a spring, you will need to replace it.

M Easy Chuck's Major Parts



Safety First

General Woodturning Safety

- 1. PLEASE READ AND UNDERSTAND YOUR LATHE'S INSTRUCTION MANUAL BEFORE OPERATING.
- 2. Always wear eye protection also using a face shield is recommended.
- 3. Never wear gloves, neckties, jewelry or loose clothing.
- **4.** Never operate the lathe without guards in place.
- 5. Never run the lathe without a workpiece in the chuck.
- 6. Never mount a workpiece with a split or a large, loose knot.
- 7. Tighten all locks at the lathe before operating.
- 8. Rotate the workpiece by hand before applying power to ensure proper clearance.
- 9. Use the slowest lathe RPM when starting a new workpiece and do not exceed permitted speed.
- 10. Disconnect machine from power source before making repairs, adjustments or removing/mounting your Easy Chuck."
- 11. Never operate machinery while impaired under the influence of drugs, alcohol, or medication.
- 12. Remove the tool rest before sanding or polishing your workpiece.

Easy Chuck Safety

The Easy Chuck'is manufactured from the highest quality materials to ensure a safe and durable working life. To operate your Easy Chuck'in the safest manner, confirm the following with each use:

- The Easy Chuck is tightly threaded onto lathe spindle
- Both Hub Set Screws are tightened against your lathe spindle
- The Easy Jaws[™] are securely locked in place
- The Jaw Stop Pin is securely installed in Jaw Slot #4 of the Chuck Body
- You have selected the proper size/type of Easy JawsTM for your project

Always contact us directly at (866) 963-0294 for any concerns or issues you have with the use or safety of your Easy Chuck™.
We are always glad to

help you!

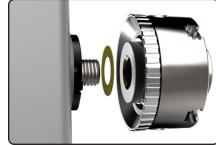
Using Your Easy Chuck™

Mounting your Easy Chuck on the Lathe

The Easy Chuck directly fits lathes with a 1" - 8 TPI or 1 1/4" - 8 TPI spindle (depending on model purchased). Other spindle diameters may be utilized with the use of an available Easy Spindle Adapter".

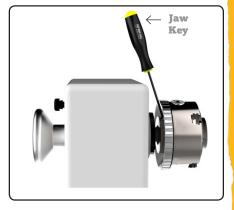
Do not use the Easy Chuck on lathe spindles smaller 3/4" diameter.

- 1. Make sure spindle threads and Chuck Body threads are free of dust and debris.
- 2. Slip the supplied Spindle Washer onto your lathe spindle to prevent binding.
- 3. Screw Easy Chuck™ onto lathe spindle until tight.
- 4. Then tighten Hub Set Screws against lathe spindle using supplied Jaw Key. Do not to overtighten these screws or spindle threads will be damaged.



NOTE — The Jaw Key has a hex ball end which allows the tool to be used at up to a 15° angle.

Never turn wood with your lathe running in reverse. Even with the hub set screws, the Easy Chuck can only be used in reverse for sanding, not turning



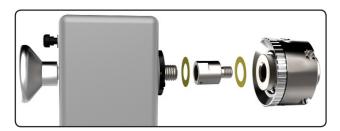
™ Using an Easy Spindle Adapter™

The Easy Chuck^{∞} is available with body threads to directly fit lathes with a 1"-8 TPI OR 1 1/4" -8 TPI. When needed, select the appropriate Easy Spindle Adapter^{∞} to adapt your chuck to other spindle sizes (sold separately).

To use Easy Spindle Adapter™ —

- 1. Slip on the provided Spindle Washer onto your lathe spindle to prevent binding.
- 2. Slip the 1" Spindle Adapter Washer onto the threaded post of your Spindle Adapter
- 3. Screw into the threads of the Easy Chuck.™
- 4. Finally, screw this assembly onto the lathe spindle until tight; then tighten the set screws on the Spindle Adapter™ and chuck hub with the Jaw Key.

Do not over-tighten these screws or spindle threads will be damaged.



™Chucking with Easy Dovetail Jaws

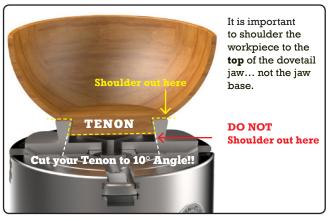
The Easy Chuck comes stock with 1 3/8" Easy Dovetail Jaws.

The stock jaws and most Easy Jaw[™] sets are made with a 10 degree (10°) dovetail gripping feature. Easy Dovetail jaws can chuck your work by both **gripping** onto tenons and **expanding** into recesses.

Details are as follows:

Chucking onto Tenons

This refers to the closing of the jaws onto a workpiece tenon. Cut your tenon no longer than the height of the jaw so you always shoulder out on the top of the jaws and not the jaw base.



(One Jaw removed for clarity)

Tenon Safety

It is important to use the right jaws for your project. See page 16 for the chart to select the tenon diameter for the jaw set you are using. See the "Tenon" diameter and cut your tenon to no smaller than the size listed and no more than 1/4" larger than the size listed.

The jaws shown here INCORRECTLY contact the tenon only on the jaw corners. Select the appropriate size of Easy Jaws™ to ensure full jaw contact for maximum safety.



In this illustration, either a smaller tenon should be turned or a larger jaw set should be selected in order for the jaws to make full contact with the tenon diameter.

This refers to the closing of the jaws onto a workpiece tenon. Cut your tenon no longer than the height of the jaw so you always shoulder out on the top of the jaws and not the jaw base.

Chucking into a Recess

Another way to hold your project is to cut an angled recess in the bottom of your project and open the dovetail jaws into the recess. This works great but is not as strong as a tenon and some additional safety quidelines must be followed.

It is safest to not exceed 1250 RPM for this operation



(One law removed for clarity)

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Care must be taken to cut the recess correctly. You must cut the recess at a ten-degree angle (10°) to match the ten-degree angle (10°) of the dovetail jaws.

It is important to use the right jaws for your project. See page 12 for the chart to select the recess diameter for the jaw set you are using. See the "Recess" diameter and cut your recess to no smaller than the size listed and no more than 1/4" larger than the size listed.

Recess Safety

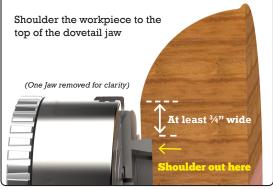
Cut your recess in the bottom of your project no deeper than the height of the jaws so you shoulder out on the top of the jaws and not the jaw base.

A good rule of thumb is to leave ¾" or more material past the outside of the recess so you don't suffer a breakout of the recess when expansion pressure is applied. Also cut the foot shape at a flatter angle beyond the recess for maximum strength.

Cut your recess to more closely match the top half of this illustration for strength and safety!

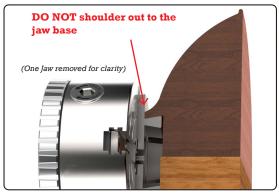


Recess cut properly with a strong foot shape





Recess cut too deep with a weak foot shape



Easy Chucking Screw

Overview

There are several different ways to begin your woodturning projects and one of the simplest is by using the Easy Chucking Screw.



Mount the chucking screw into your chuck and drill a specific size hole into your work piece. Screw the work piece onto the chucking screw. Cut your tenon and shape the outside of you project while you have it on the chucking screw. Flip your project over and do the inside of your bowl or hollow form while gripping the tenon with your Easy Chuck."

W Using The Right Jaws

The Easy Chucking Screw is only compatible with the Easy Chuck, and as of July 2015, only with the two Easy Jaw™ sets below:



- CJ125 1 ¾" Easy Dovetail Jaws (came on your Easy Chuck™)
- CJ150 2 ¾" Easy Dovetail Jaws

Choosing Chucking Screw Size

You need to determine which screw size you need to use in order for you to keep working safely.

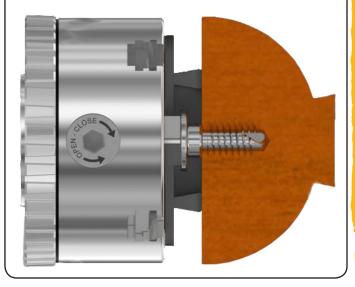
Using the 3/4" screw end, you can do projects up to 12" diameter OR up to 4" long

3%" Diameter Screw		
Diameter	Length	
12"	2"	
10"	2½"	
8"	3"	
6"	31/4"	
4"	3½"	
2"	4"	

NOTE - As your project diameter is bigger, the length needs to get shorter or the forces will be unsafe.

Using the ½" screw end, you can do projects up to 18" diameter OR up to 6" long

½" Diameter Screw			
Diameter	Length		
18"	2"		
16"	2½"		
14"	3"		
12"	3½"		
10"	4"		
8"	4½"		
6"	5"		
4"	5½"		
2"	6"		



Installing Screw Into Easy Chuck™

- 1. With your Easy Chuck™mounted on your lathe spindle, open the jaws until the inner most part of the jaws are beyond the center bore hole. Be sure all components are clean.
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- 2. Insert the Easy Chucking Screw into the chuck bore hole.
- 3. Tighten the Easy Chuck slowly as you make sure the jaws come into square contact with the chucking flats of the Easy Chucking Screw.
- 4. Final tighten with the Chuck Key.
- 5. Turn your lathe on a slow speed and confirm that the end of the screw doesn't wobble. If the screw wobbles, loosen the chuck and repeat procedure #4.



Preparing Your Work Piece

Determine which side of your blank you want to end up being the bottom of your bowl and drill your screw hole on the other side. Know that the hole you drill will be gone when you hollow out the inside of your bowl or hollow form.

Locate the center of your work piece and drill your hole as follows:

- For the $\frac{1}{2}$ "screw end drill a $\frac{5}{16}$ " hole to at least 1 $\frac{1}{4}$ " deep.
- For the 5/16" screw end drill a 1/4" hole to at least 1" deep.
- For easier mounting of dry or extremely hard (exotic) wood you may need to increase drill diameter up to 1/s2" larger.

- 1. Position the hole in your work piece on the chucking screw pilot and align the hole axis to the screw.
- 2. Turn the lathe spindle with left hand, while holding your work piece in place with your right hand.
- 3. After a few turns, the force required will be greater than you can exert on the spindle hand wheel.
- 4. Engage the lathes' spindle lock and turn the work piece, using both hands, until it is seated firmly against all 4 jaw faces.
- FOR YOUR SAFETY The face of your wood
 must contact at least
 3 jaw faces when
 mounted on chucking
 screw. This means the
 surface of your wood
 must be reasonably flat
 and the hole you drill
 must be perpendicular
 to the face to within 5

degrees.



™ Tips For Ease & Safety

- NEVER turn on the lathe to screw on your work piece.
- NEVER use a chucking screw with your lathe running in reverse.
- \bullet The Easy Chucking Screw can only be used with the CJ125 or CJ150 jaws.
- The face of your wood must contact at least 3 jaw faces when mounted on chucking screw.
- Do not use the Easy Chucking Screw with wood that is cracked or rotten.
- When possible, use the additional support of your tailstock for added safety.

Removing Your Work Piece

Insert the Chuck Key into chuck pinion and hold with your left hand to keep the chuck from unscrewing from the lathe spindle as you unscrew your blank from the chucking screw.

Easy Jaws™

Stock Easy Jaws™ (C125 jaws come on your Easy Chuck™)



CJ125 – 1 3/8" Easy Dovetail Jaws Projects – Up to 6" bowls and platters Grips 1 3/8" Tenon Expands 2" Recess Jaw Length 7/16"



™ Easy Jaw[™] Sets Sold Separately

When you are ready to hold onto a different part of your project, you will need to change to a different size or different shape jaw set.

Having a selection of Easy Jaws[™] at hand so you can swap out jaws and be back to turning in less than a minute is ideal. Easy Wood Tools[®] has anticipated many types of projects and has designed jaws that fit your needs.

Item#	Bowl or Platter Size	Grips (tenons)	Expands (Recess)	Jaw Length
CJ150	up to 12" bowls	2 3/8"	3"	7/16"
CJ210	up to 5" small projects	1/2" straight	1 1/4"	1 1/4"
CJ225	up to 6" bowls	1 3/8"	2"	1 1/4"
CJ350	up to 24" bowls	3 1/2"	4 1/4"	1"
CJ450	up to 20" bowls	2 1/2", 3", 3 1/2"	4 1/4"	1"

™ Easy Jaws[™] Sold Separately

(not shown to scale)



CJ150 – 2 3/8" Easy Dovetail Jaws

Projects - Up to 12" bowls and platters Grips 2 3/8" Tenon Expands 3" Recess Jaw Length 7/16"





CJ210 - 1/2" Easy Reach Dovetail Jaws

Projects - Small projects and bowls/platters up to 5" Grips 1/2" Tenon (Straight) Expands 1 1/4 "Recess Jaw Length 1 1/4"





CJ225 - 1 3/8" Easy Reach Dovetail Jaws

Projects - Up to 6" bowls and platters Grips 1 3/8" Tenon Expands 2" Recess Jaw Length 1 1/4"





CJ350 - 3 1/2" Easy Reach Dovetail Jaws

Projects - Up to 24" bowls and platters Grips 3 1/2 "Tenon Expands 4 1/4 " Recess Jaw Length 1"







CJ450 - 3 ½" Easy Stepped Dovetail Jaws

Projects - Up to 20" bowls and platters Grips 2 1/2 ", 3", 3 1/2 "Tenon Expands 4 1/4 "Recess Jaw Length 1"



As with the Easy Chuck, all Easy Jaw™ Sets and other accessories are 100% designed and manufactured in America by Easy Wood Tools®. Check for more jaw sizes and shapes through your local retailer or at our website www.easywoodtools.com.

™ Changing Out Easy Jaw Sets

When you are ready to grip a different part of your project, you will need to change to a different size or different shape jaw set.

Quick Change Jaws - With Snap Lock Technology

Additional Easy Jaw sets are available for most any turning project (see Pages 12-13). No wrenches or screws are needed, just the included Jaw Key.



To change to a different jaw set:

1. RELEASE JAW — Insert the provided Jaw Key into the angled jaw hole until it bottoms out. The insertion angle is about 15 degrees relative to the chuck face. There will be a slight resistance as you disengage the Keeper mechanism. When you remove the tool, the jaw will pop out about ¼".



Slide the jaw out and use compressed air (and a small paint brush) to clean wood dust from the chuck slot and snap lock components. Be sure to also clean the jaw you are about to install.





**PLEASE NOTE **

Our top jaw sets are not numbered and can be used in any order

3. SNAP IN NEXT JAW ---

Now you're clear to slide in your next jaw until you hear the 'snap'. The snap lets you know you have locked the jaw into place correctly. Always try to pull the jaw back out to confirm the Keeper has fully engaged.

WARNING - If you do not hear the snap, or the jaw pops back up when you pull on it, this means you have debris keeping the keeper from engaging. Clean components more thoroughly and retry.

4. REPEAT — Now you're ready to change the other 3 jaws by repeating steps 1-3 for each jaw.

WARNING – Grab each jaw by hand and attempt to slide it out of the chuck forcefully to ensure all the Keepers have definitely engaged.

DO NOT USE THE CHUCK IF ANY JAW IS NOT FULLY LOCKED INTO PLACE.



Zoom Ring

When you need to move your jaws a long distance, such as when going from a large diameter to small diameter, instead of rotating the Chuck Key dozens of times, simply rotate the Zoom Ring by hand in the direction you need to open or close. This will position the jaws to another diameter.

The Zoom Ring is only used for jaw positioning, NOT for final clamping.



General Maintenance

Before the chuck is mounted on the lathe, make sure that all the threads are clean and free of debris. This will ensure the chuck will run true and balanced.

Your new Easy Chuck™ is engineered and manufactured to very close tolerances and may initially be stiff to operate. With use, movement will become easier. To maintain, periodically remove the Easy Jaws™ and Master Jaws and keep clean and dry.

Wood dust build up can make the jaws difficult to move. If it becomes difficult to rotate the Zoom Ring by hand, you will likely need to remove the Master Jaws to clean out the dust and sap build up.

Master Jaw REMOVAL Sequence

1. Remove the Jaw Stop Pin from Jaw Slot #4. The hole for the stop pin is drilled all the way through the outer wall of the Chuck Body.

To access this hole, simply turn the body over and locate the hole in the Zoom Ring.

Using a 1/8" punch, line up the holes in the Zoom Ring, Zoom Ring Spacer and Chuck Body (rotate Zoom Ring with the punch

and feel when aligned). Then tap out the stop pin from the bottom end.

2. To remove the Master Jaws, simply rotate the Zoom Ring in the 'Open" direction until all the Master Jaws drop out of their respective slots.

Tap out Jaw Stop Pin from bottom with a 1/8" punch and small hammer

- **3.** Use a piece of wood (match stick size), insert in the bottom of the scroll and rotate the scroll by turning the Zoom Ring. This will scrape out build-up of wood dust.
- **4.** Use compressed air to clean out all other areas including the Top Jaw and the Keeper in each Master Jaw.
- 5. Reinstall Master Jaws as follows in next section.

Clean Scroll Ring Grooves with small piece of wood





Clean out the Keeper and the teeth at the bottom of the Master Jaw



Master Jaw INSTALLATION Sequence

Orient the #1 Master Jaw and insert into the jaw slot #1 as show (See circles in picture for jaw and slot # locations)

- 1. Lightly push the Master Jaw inward as you rotate the Zoom Ring in the "Close" direction.

 STOP when the Scroll Ring tooth just engages the first tooth of the Master Jaw. To determine if the Master Jaw has engaged, try to pull the jaw out. If it pulls out, rotate Zoom Ring back a bit and retry.
- 2. Push Master Jaw #2 (in slot #2) against the Scroll Ring and again turn (close) the Zoom Ring until the first tooth of this jaw engages.
- 3. Repeat for jaws #3 and #4 until all jaws are engaged.
- 4. Continue closing now and observe that all jaws are moving inward at the same time.
- 5. Confirm all Master Jaws are installed properly by running jaws in until they are nearly touching at the center. Look for an equal gap at the intersection points. If not equal, reinstall all Master Jaws.
- 6. Now install the Jaw Stop Pin in Jaw Slot #4 by tapping into place from the top until tooth notch in #4 jaw just passes over (no higher than 3/32").
- 7. You are now ready to install the Easy Jaws™ best suited for your project. Note that Top Jaws are not numbered because they can go in any jaw slot.



The number on each Master Jaw corresponds to the number in each jaw slot of the Chuck Body



Rotate the Zoom Ring as you insert the Master Jaw

Tap Jaw Stop into place with a hammer



CHUCK PARTS

The following table shows the part numbers, names and quantity for each Easy Chuck "assembly.

Part Number	Part Name	Quantity per Chuck
C1001	Master Jaw #1	1
C1002	Master Jaw #2	1
C1003	Master Jaw #3	1
C1004	Master Jaw #4	1
C1005	Chuck Body	1
C1006	Top Jaw(CJ125fora setof4)	4
C1007	Master Jaw Spring	4
C1008	Hub Set Screw	2
C1009	Keeper	4
C1010	Keeper Spring	4
C1011	Keeper Pin	4
C1012	Scroll Ring	1
C1013	Pinion	2
C1014	Pinion Pin	2
C1015	Zoom Ring	1
C1026	Retaining Ring	1
C1017	Zoom Ring Spacer	1
C1018	Jaw Stop Pin	1
C1026.020	Shim	1
C1020	Chuck Key - 5/16" T-Handle Hex	1
C1021	Jaw Key - 1/8" Hex Ball Driver	1

Warranty

The Easy Chuck carries a 2-year warranty from time of purchase covering defective parts and labor. This warranty does not cover costs or damage arising from the mishandling or misuse of this product.

Please keep your receipt of purchase for any warranty claims.

Questions

Please contact Easy Wood Tools® at

customerservice@easywoodtools.com

or by calling toll free

1-866-963-0294

with questions or any assistance on your Easy ChuckTM



For more information on this product scan this QR Code with your smart phone.

