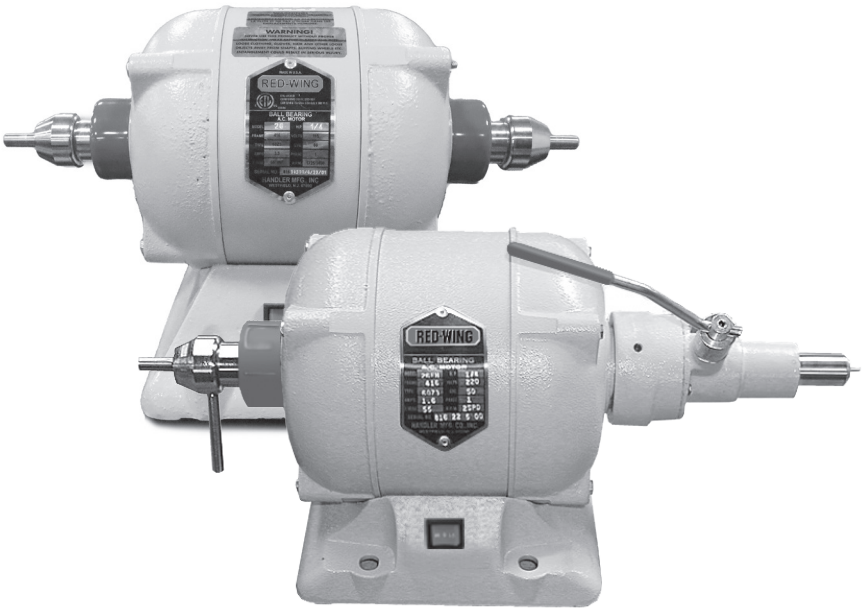
HANDLER®

Red Wing Lathe Manual

Models: 26, 26A, 16B, 16B-1,
26-TS, 26A-TS, 26A-KIT and 26-KIT



For Your Safety:

Read this Manual before operating your Handler Lathe.

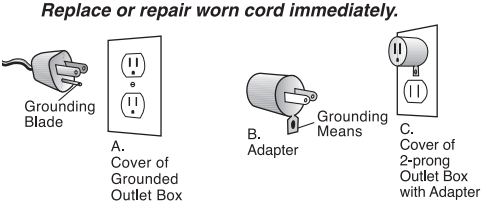
Always wear eye protection while using power tools.

Safety Instructions

Before using your Handler products, please read safety instructions. They are for your protection and should always be followed to reduce the risk of personal injury or damage to the unit.

- Always wear proper eye and face protection. Wear safety glasses or face shields whenever you operate a Handler product or any power tool to prevent serious eye or face injuries.
- Always disconnect the power cord before removing or replacing the filter, servicing the unit or when not in use.
- Always wear a face or dust mask to prevent the inhalation of dust particles, or other debris into the lungs.
- Keep the work area clean. Cluttered areas and benches invite accidents.
- Don't abuse the cord. Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.
- Secure the work piece. Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
- Don't Overreach. Keep proper footing and balance at all times.
- Never use in an area where flammable vapors are present.
- Use proper grounding procedures. This tool should be grounded while in use to protect the operator from electric shock. The tool is equipped with an approved 3-conductor cord and a 3-prong grounding type plug to fit the proper grounding receptacle. The green (or green and yellow) conductor in the cord is the grounding wire. Never connect the green (or green and yellow) wire to a live terminal. If your unit is for use on less than 150 volts, it has a plug that looks like sketch A below. An adapter (sketches B and C) can be used for connecting plugs as shown in sketch A to 2-prong receptacles. The green colored rigid ear, lug, etc., Extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box. Some jurisdictions, including Canada, prohibit the use of 3 to 2 prong adapters. Where prohibited, they should not be used. Use only 3-wire extension cords that have 3-prong grounding type plugs and 3-pole receptacles that accept the tool's plug.

Replace or repair worn cord immediately.



Store your Handler tools in a DRY, clean, dust-free area, and out of the reach of children.

Thank you for Choosing the Handler Red Wing Lathe. Open the package and inspect its contents. The product has been inspected prior to being shipped. If damage has occurred in transit, contact the carrier immediately. Do not contact the shipper as the customer receiving the product must file a damage claim if necessary. Be certain to note any damage which may have occurred, and report it promptly to the carrier. Failure to file a claim in a timely manner could result in the loss of your rights of recovery for possible damages. Should you require assistance, please contact Handler Manufacturing at
1-908-233-7796 or 1-800-274-2635.

IMPORTANT

1. Never attempt to use a polishing motor without proper instruction.
2. Never use a polishing motor unless the motor has been fitted with polishing splash hoods or a similar protective device containing a protective shield.
3. Always use a dust collector when performing polishing or grinding operations.
4. Read and follow all instructions contained in this manual regarding "tool safety." Handler manufactures a full line of Chucks, Splash Hoods, Dust Collectors, and Protective Shields. Contact us at the number below to request a Handler

Setting Up

1. Remove the lathe from the carton and place it in a suitable location on a sturdy horizontal surface.

NOTE: The unit must be **bolted to the tabletop**. Bolting the unit securely to a solid tabletop will prevent possible lathe movement during operation and possible operator injury.

2. Plug the lathe's cord set into a grounded 115 Volt/60 Hz electrical socket only. Do not utilize a 3-2 prong adapter. Failure to plug the lathe into a properly grounded receptacle may result in operator injury.

Your lathe is now ready for operation with the aid of chucks placed on the shaft (see instructions below).

NOTE: The No. 26, 26A, lathes are constructed to function on two speeds. Low speed is 1725 RPM and high speed is 3450 RPM. The lathe shaft is provided with special dental tapered shafts which will accept chucks which fit onto a tapered shaft only.

See Below for Chuck installation for all models.

See Page 4-7 for Chuck/Changer information.

Chuck Installation and Removal Instructions

For all Models

CHUCK INSTALLATION:

1. Make certain both the lathe's shaft and the arbor hole of the chuck to be placed onto the shaft are clean of any dust and debris. Be certain the chuck remover on each side is in place.

NOTE: Each Chuck is labeled "L" for the left shaft and "R" for the right shaft. It is important to install them on the correct corresponding shaft.

2. With the lathe turned "OFF", place the chuck onto the right or left shaft of your lathe. DO NOT place a chuck labeled "R" or "L" on the opposite shaft.

3. Push the chuck onto the shaft as far as it will go. Since the chucks fit onto tapered shafts via friction fit, make certain the chuck is placed securely on the lathe shaft. It may be necessary to tap the end of the chuck onto the lathe shaft with the aid of a soft rubber, plastic, or leather mallet. Do not use a metal hammer or mallet as this will damage the chuck.

4. After the chuck has been placed securely on the lathe shaft, place the buff, brush, abrasive wheel, bur, or mandrel onto the chuck. Secure this in place as per the manufacturer's suggestions.

5. Turn the lathe on and make certain the accessory which has been placed on the lathe chuck is securely in position. If either the chuck or accessory have not been secured to the lathe shaft, secure It now.

NOTE: Many Red Wing polishing motors are shipped with 1/2" straight shafts. Chucks used on Red Wing Polishing motors equipped with a 1/2" straight shaft utilize a set screw to hold the chuck in position. Make certain to tighten this securely.

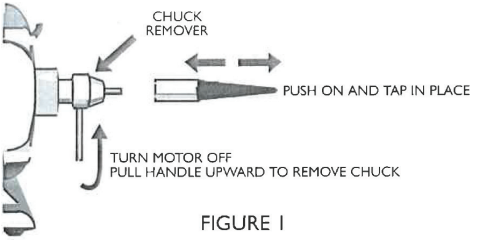


FIGURE I

CHUCK REMOVAL:

After finishing and completing a polishing or grinding operation, you may wish to remove the chuck accessory and change to another type of chuck or accessory. This is completed as follow:

1. Turn the lathe off and allow the shaft to come to a complete stop.

2. Using the chuck remover located on the left or right side of the lathe, pull upward on the remover's handle. This will push the remover outward, and push the chuck from the lathe shaft,

NOTE: A few chucks may require the chuck remover to be rotated 360 Degrees before the chuck accessory is removed. Chucks fitted to polishing motors containing a 1 /2" shaft are removed by loosening the set screw which holds it in position.

General Care and Maintenance

For all Models

For all Models

CLEAN COLLETS EVERY 30 DAYS

1. With lathe switch OFF and clutch handle straight down, (collets open) unscrew outer collet with collet wrench. Unscrew counter-clockwise.
2. Remove both inner and outer collets
3. Thoroughly clean collet, you may use solvent to clean collets, however, you must remove all traces of solvent before replacing. Thoroughly clean collet body hole by using pipe cleaner or small cloth on end of instrument. Do not use any solvents in this hole. Put a thin film of grease on outside of both collets. (This purpose of this cleaning is to lubricate and prevent rust. Failure to clean and grease will cause collets to slip and stick.)
4. Replace collets, with collet wrench, screwing clockwise.

REPLACING WORN COLLETS

When tools (chucks) burrs, etc. Begin to slip, collets should be replaced. When replacing collets, always use the shortest possible stop that will still allow the tools to slip into the master collet.

HOW TO REMOVE A STUCK COLLET

A collet may get rusty or dirty and stick if it is not cleaned and greased regularly, or it may stick if collet is closed without a tool in the collet. Open collet by moving handle straight down (collet open). Put collet wrench in collet and tap lightly on the end of the collet wrench and at the same time attempt to unscrew the collet. If this does not loosen the collet, with the handle in the same position, remove the four screws that hold the chuck on the adapter and remove chuck. Caution: be sure not to move the handle during this procedure. **See instructions under removing chuck from lathe page 3.** Grasp the steel clutch plate to keep it from turning while you remove the collet.

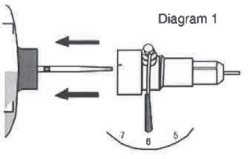
CARE AND MAINTENANCE

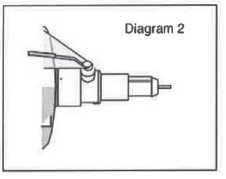
Your Red Wing polishing motor has been fitted with ball bearings. No further lubrication is necessary during the life of your motor. Occasionally remove the motor's cord set from its electrical source and wipe the unit clean with a clean, soft cloth. DO NOT use abrasive or liquid cleaners. Read, fully, the safety instructions.

Adjusting the Chuck/Changer Tension to Collets

Chuck/Changer Comes Installed on models 16B and 16B-1. Kit available for purchase separately SKU:16

The alignment of the Chuck/ Changer to the clutch will alleviate slipping clutch noise problems and tension collets. Please follow the instructions, below, to alleviate these problems.



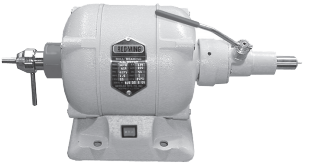


1. Remove the plug which connects the lathe from the electrical source.
2. Move the activating handle on the Chuck/Changer to the six o'clock (open collet position as seen in diagram 1
3. Loosen the top set screw and the two lower set screws, which are found on the 2-1 /2" adapter, which hold the Chuck/Changer onto the lathe.
4. Place your left hand on the left hand side of the lathe and your right hand on the nose section of the Chuck/ Changer, and push the Chuck/Changer in toward the lathe as far as it will go. It will move approximately 1 /32-1 /16 of an inch inward toward the lathe.
5. Holding the Chuck/Changer in your right hand, move the activating handle clockwise to the 9:30- 10:00 o'clock position. The Chuck/Changer will move outward, slightly. Tighten the three set screws on the adapter which were previously loosened, holding the Chuck/Changer in

NOTE: If you have another person available to assist you in this short procedure, ask them to tighten the set screws. If you do not, make certain that you hold the Chuck/ Changer inward toward the lathe when you tighten the set screws on the adapter. This should alleviate the squeaking-grinding noise you are hearing by the lathe Chuck/ Changer combination and place proper tension on collets.

REMEMBER: Clean collets every 30 days.

Chuck/Changer Installation



Chuck/Changer Comes Installed on models 16B and 16B-1.
Kit available for purchase separately SKU:16

Fig 1

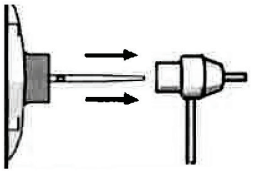


Fig 2

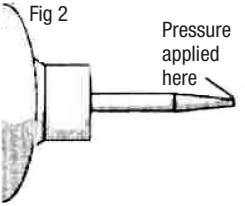
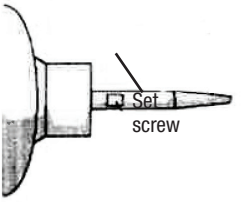


Fig 3



1. Remove the chuck remover completely from the right side (or for the left handed Chuck/ Changer) of the lathe (See Fig. 1)

2. Remove the red polymer cap from the motor hub. Sand and/or scrap all paint from 2" diameter lathe hub using the emery cloth provided. (See Fig, 3)

3. Using emery cloth remove burs, rust or paint from the 1 /2" portion of the motor shaft.

4. Slide clutch onto the right side shaft of the motor. The large diameter of the aluminum portion of the clutch should be positioned approximately 1/16" from the 2" hub. (See Fig. 4)

5. Tighten set screw to mark the shaft slightly. Loosen set screw and remove clutch. File a small flat section where clutch screw. Lightly sand tiled portion to remove the bur, caused by filing. Replace clutch tightening set screw securely.

Fig 4

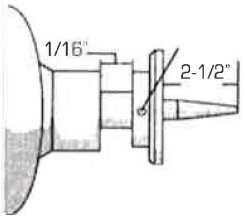


Fig 5

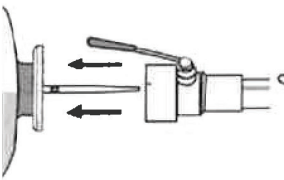
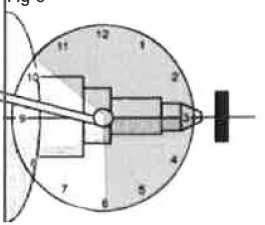


Fig 6



6. With Chuck/Changer handle in 6 o'clock position, place Chuck/ Changer with hub adapter on to lathe hub.

NOTE: A slight pressure may be necessary to accomplish this procedure Tighten set screw in Chuck/ Changer's hub adapter, evenly

7. Slowly rotate chuck handle clockwise, to 9:30 o'clock position Allow handle to ease into position. Should the handle stop beyond the 10:30 o'clock position, the chuck has not been "slid" on to the hub properly. (Place the handle in the 6 o'clock position and repeat Step 6 above, pushing the entire assembly towards the lathe.

8. Having adjusted the clutch handle into the proper position, secure all set screws on the adapter.

9. The operating range of the clutch handle is 6:00 o'clock counter-clockwise to **OPEN** the collets and 9:30-10:30 o'clock to **CLOSE** collets **MAKE CERTAIN** never to close the collets without a tool in it

10. Clean collets every 30 days. Lubricating outside of collets with a **LIGHT** coat of silicone grease- **ONLY.** Always keep a tool in the collets so the hardened collets will not take a smaller diameter set

See video on YouTube https://www.youtube.com/watch?v=3dH1F-eu8DU

Chuck/Changer Kit Care and Other Information

CAUTION

DO NOT attempt to operate Chuck/Changer unless it is properly installed on lathe.

NEVER oil or use solvents of any kind on Chuck/Changer

NEVER close collet without a tool (chuck.burr, etc) in the collet. Allow clutch spring to engage clutch (Never push up on handle or let handle snap up.l

DO NOT remove or attempt to defeat the purpose of the safety strap.

OPERATION

Normal running position, handle 9: 15 o'clock to 10:30 o'clock.

To disengage clutch, bring handle down to 8:00 o'clock position, counter-clockwise.

To apply brake, bring handle down to approximately 7:00 o'clock position, counter-clockwise.

NOTE: Brake position is used for changing arbor bands, buffing wheels, etc. To open collet, bring handle straight down to 6:00 o'clock position, Tools (chucks) burrs, etc., may be changed while handle is in straight down (6:00 o'clock) position.

USE OF 3/32" DIAMETER SHANK TOOLS IN Chuck/ CHANGER

1. With handle straight down, insert tool in inner collet to desired depth.
2. Move handle clockwise to approximately 8:00 o'clock position. Remove hand from tool and allow clutch spring to return handle to running position.
3. Never push up on handle.

USE OF 1/4" DIAMETER SHANK TOOLS IN Chuck/ CHANGER

1. With handle straight down, insert chuck shank into outer collet.

NOTE: The inner collet will be pushed back inside Chuck/ Changer

2. While holding tool in collet, move handle clockwise to approximately 8:00 o'clock position.
3. Remove hand from tool and allow clutch spring to return handle to running position.
4. Never push up on handle.

OVERHEATING

A new or rebuilt Chuck/Changer will normally run quite warm (very uncomfortable to the touch) during the break in period. The break in period will usually last several weeks depending upon speed and amount of use. Worn collects, collets not screwed in all the way or too long a stop will cause overheating, especially in the front portion of the Chuck/Changer.

REMOVE CHUCK FROM LATHE

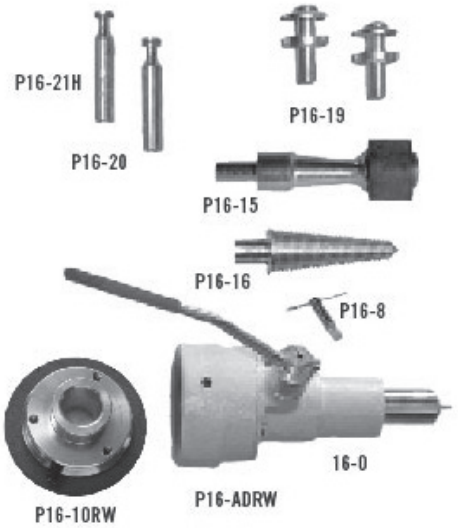
Always move handle straight down (6:00 o'clock) and leave it in this position if you have any reason to remove the chuck from the lathe. If handle is moved, the clutch spring may be damaged or clutch spring tension may be released. When clutch spring is damaged or tension released clutch will not engage properly. See instructions under Clutch Spring Adjustment and replacing clutch spring. Normally it is not necessary to remove the adapter or clutch from the lathe when you return the chuck to the factory for repair. If it is necessary to remove adapter or clutch refer to the installation instructions for your particular model lathe. Serious damage to clutch or adapter will result if instructions are not followed.

SQUEAKING CLUTCHES

After several months of service, a clutch may glaze and develop a squeak. The squeak is usually most noticeable as the lathe is coasting to a stop. Remove chuck from lathe (see instructions under removing chuck from lathe) and lightly sand both fiber and steel clutch surfaces. If squeaking persists and there is a presence of excessive amounts of dust around the clutch area, the adapter is improperly mounted, causing misalignment of the clutches. Refer to installation instructions for your model lathe.

Additional Accessories for all models

Additional accessories and lathes sold with accessories available. Handlermfg.com



The Handler Chuck/Changer was designed to provide full automatic, precision changing of 1/4" [6.3mm] and 3/32" [2.4mm] diameter burs, mandrels and chuck accessories with the slight movement of a handle while the motor is turning. The Chuck/Changer provides the technician with exacting concentricity and quick, easy changing of various chucks which greatly speeds grinding, polishing and finishing procedures.

The 16 Chuck/Changer is installed on the right side of the lathe and is adaptable to most types of dental motors, including Red Wing and Baldor (special adapter required).

The 16 Chuck/Changer Kit is shipped complete with chuck accessories as follows:

16 Chuck/Changer kit includes:

P16-21H Mandrel (1/32)

P16-20 Mandrel (1/64)

P16-15 Arbor Band Chuck

P16-16 Spiral Tapered Chuck

P16-19 Stone Chucks

P16-10RW Clutch

P16-8 Collet Wrench

7 Tapered Steel Chuck

The 7 tapered chuck is designed specifically for use with buffing wheels, brushes and lead centered wheels. Precision manufactured of alloy steel, this chuck is built for placement onto lathes and polishing motors containing standard dental tapered shafts. Specify 7L (Left) or 7R (Right) when ordering.

Shipping Wgt.: 6 oz [107 g]
Unit Dimensions: 5/8"
Shank Diameter x 3 5/8" L [2cm x 9cm]

7B Tapered Brass Chuck

The 7B tapered chuck is designed specifically for use with buffing wheels, brushes and lead centered wheels. The 7B Tapered chuck is made of brass to provide easier on/off placement onto tapered dental shafts, causing less shaft wear. Specify 7BL (Left) or 7BR (Right) when ordering.

Shipping Wgt.: 6 oz [107 g]
Unit Dimensions: 5/8" Shank Diameter x 3 5/8" L [2cm x 9 cm]

18 Atlas Precision Chuck

The 18 Atlas chuck is a precise "Jacobs type" chuck for use with chuck accessories having a diameter of .001" [0.03mm] to .250" [6.4mm]. The 18 Atlas chuck attaches to the right shaft of a dental lathe with standard dental tapered shafts. Machined to precision limits, the 18 Atlas provides the technician with concentricity unmatched by any other adjustable chuck with no run-out and no vibration. For Right shaft only.

Shipping Wgt.: 1 lb [0.5 Kg]
Unit Dimensions: 2 1/2" L x 1 1/4"
Shank Diameter [6cm x 3cm]

550 Porta-Vac Bench Top Dust Collector

A favorite of dental offices, the 550 Porta-Vac is perfect for bench top light grinding and polishing with a hand piece or lathe.

62-II Super Sucker II

The 62-II Super Sucker develops 110 CFM (cubic feet / minute) at a static pressure of 63" of H20 and is one of the most powerful single station dust collectors available. Designed for continuous duty, the disposable HEPA filter bag is easily removed.

86D Splash Hood - 6" wide

Safety in the lab is essential. The 86D Splash Hood is the definitive answer when polishing prosthetics or appliances. Its contemporary design and features contain pumice and other polishing agents for a safer and healthier workplace

LIMITED WARRANTY

Warranty period is 2 year for Handler Red Wing Lathes.

Handler manufacturing, LLC warrants, to the original purchaser only, that its products will be free from defects in material or workmanship for the applicable period of time indicated above following the purchase date. During the warranty period, the defective product will be repaired or replaced without charge or, at our sole option; the purchase price will be refunded. This warranty does not cover damage caused in tran sit or by accident, misuse or ordinary wear.

ALL IMPLIED WARRANTIES INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY, ARE LIMITED IN DURATION TO THE APPLICABLE WARRANTY PERIOD. IN NO EVENT WILL WE BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusion may not apply to you.

At our sole option, repair, replacement or refund will be made if the product is returned. **You must call or email Handler to obtain the Return Merchandise Authorization number before returning the item. See below.**

All warranty repairs must be done at our factory at the above address. We will not pay any shipping or transportation charges.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Please retain your proof of purchase for warranty repairs.

Repair Services and Returns.

Authorized repair service is available. **You must call or email Handler to obtain the Return Merchandise Authorization number before returning the item.** Send items for repair to the factory marked:

"Attention: RMA No." Handler Manufacturing LLC 159 Grassy Plain Street Bethel, CT 06801 USA

Enclose the item(s), a packing list, a description of the problem or repairs needed, daytime phone number and email address. Estimates of repair cost will be made upon request.

HANDLER®

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