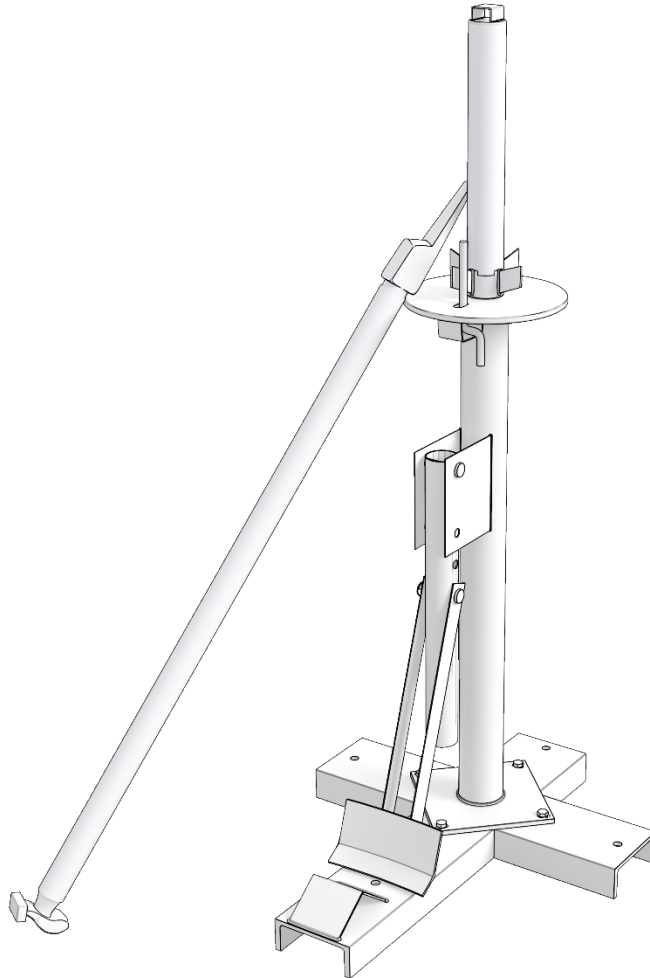


Manual Tire Changer Assembly and Operation Manual

Manual P/N 5900975 Revision B— June 2025

Model:

- RWS-3TC



⚠ DANGER

Read the *entire* contents of this manual *before* using this product. Failure to follow the instructions and safety precautions in this manual can result in serious injury or death. Make sure all other operators also read this manual. Keep the manual near the product for future reference. By proceeding with installation and operation, it is agreed that all operators fully understand the contents of this manual.

⚠ WARNING

California Proposition 65. This product can expose operators to chemicals including styrene and vinyl chloride which are on the list of over 900 chemicals identified by the State of California to cause cancer, birth defects or reproductive harm. **ALWAYS** use this product in accordance with BendPak / Ranger's instructions. For more information go to www.P65Warnings.ca.gov.

Manual. RWS-3TC Manual Tire Changer, P/N 5900975, Revision B, Released June 2025.

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Limitations. Every effort has been made to use complete and accurate instructions in this manual. However, product updates, revisions, and/or changes may have occurred since this manual was published. BendPak Ranger reserves the right to change any information in this manual without incurring any obligation for equipment previously or subsequently sold. BendPak / Ranger is not responsible for typographical errors. Feel free to contact us at any time to get the latest information about any product at rangerproducts.com.

Warranty. The BendPak / Ranger warranty is a commitment to the quality value of this product. For full warranty details, contact the nearest BendPak / Ranger dealer or visit bendpak.com/support/warranty.

Safety. This product was designed and manufactured with safety in mind. Operator safety also depends on proper training and thoughtful operation. Do not set up, operate, maintain, or repair the Tire Changer without reading and understanding this manual and the labels on the product. ***Do not use this product unless it can be done so safely!***

Owner Responsibility. In order to properly maintain the Tire Changer and to ensure the operator's safety, it is the responsibility of the product owner to read and follow these instructions:

- Follow all installation, operation, and maintenance instructions.
- Make sure the product setup conforms to all applicable local, state, and federal codes, rules, and regulations, such as state and federal OSHA regulations.
- Read and follow all safety instructions. Keep them readily available for all operators.
- Make sure all operators are properly trained, know how to safely operate the Floor Jack, and are properly supervised.
- Do not operate the product until it is certain that all parts are in place and operating correctly.
- Service and maintain the unit only with approved replacement parts.
- Keep the manual with the product and make sure all labels on the product are clean and visible.

 **DANGER** Calls attention to an immediate hazard that **will** result in death or severe injury.

 **WARNING** Calls attention to a hazard or unsafe practice that could result in death or severe personal injury.

 **CAUTION** Calls attention to a hazard or unsafe practice that could result in minor personal injury, product or property damage.

Technical support is available by calling **Ranger Products at (800) 253-2363** and follow the prompts. More information about the full line of Ranger Products is also available at rangerproducts.com.

This product was designed and engineered by BendPak Inc. in Southern California, USA. Made in China.

Introduction

This manual describes the Ranger RWS-3TC Manual Tire Changer assembly and operation. ***This manual is mandatory reading for all RWS-3TC Manual Tire Changer operators.***

Shipping Information

- This Tire Changer was carefully checked before shipping. Nevertheless, it should be thoroughly inspected before signing to acknowledge that it has been received.
- Signing the bill of lading tells the carrier that the items on the invoice were received in good condition. ***Do not sign the bill of lading until after the shipment has been inspected.*** If any of the items listed on the bill of lading are missing or damaged, do not accept the shipment until the carrier makes a notation on the bill of lading that lists the missing or damaged goods.
- If missing or damaged goods are discovered after receiving the shipment and the bill of lading has been signed, notify the carrier at once and request that the carrier perform an inspection. If the carrier will not perform an inspection, prepare a signed statement to the effect that the carrier has been notified (on a specific date) and that the carrier has failed to comply with the request.
- It is difficult to collect for loss or damage after giving the carrier a signed bill of lading. If this happens, file a claim with the carrier promptly. Support the claim with copies of the bill of lading, freight bill, invoice, and photographs, if available. Our willingness to assist in helping process the claim does not make us responsible for collection of claims or replacement of lost or damaged materials.

Liability Information

BendPak / Ranger assumes no liability for damages resulting from:

- Use of the equipment for purposes other than those described in this manual.
- Modifications to the equipment without prior, written permission from BendPak / Ranger.
- Damage to the equipment from external influences.
- Incorrect operation of the equipment.

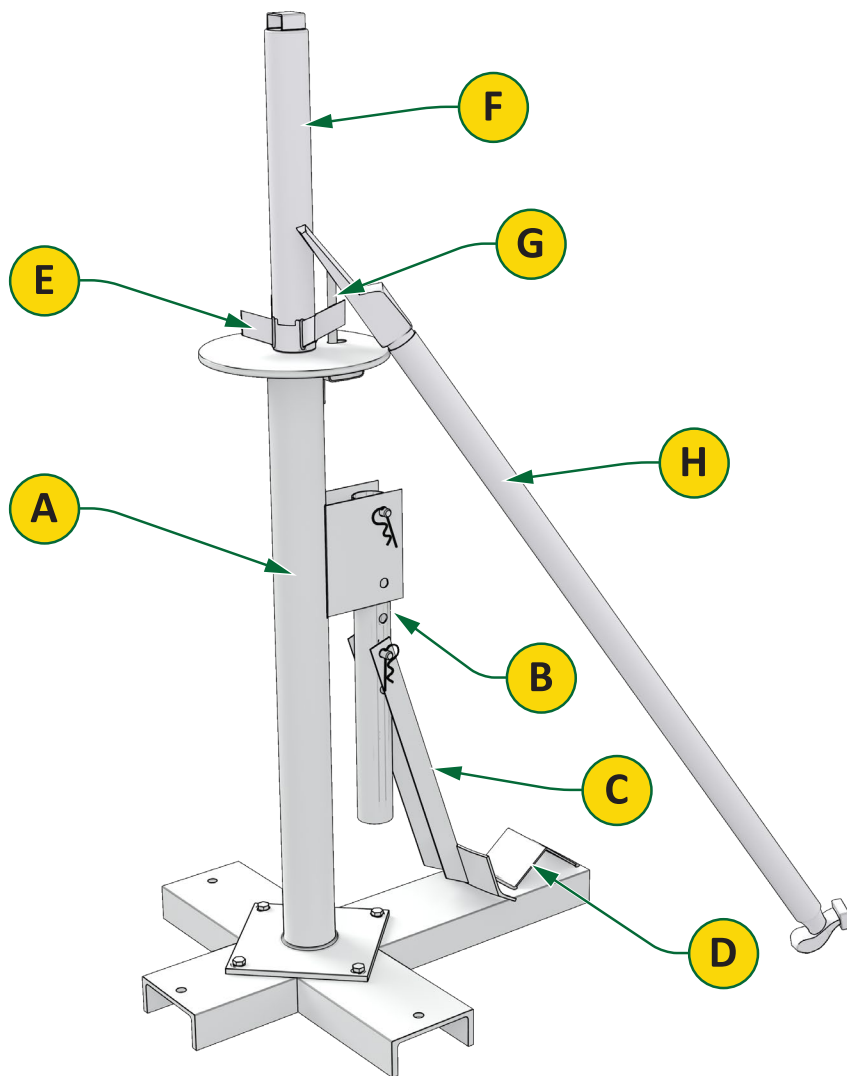
Safety Information

⚠ DANGER Be very careful when setting up, operating, maintaining, or repairing this equipment. Failure to do so could result in property or product damage, injury, or (in very rare cases) death. Make sure only **authorized** personnel operate this equipment. All repairs must be performed by an authorized technician. Make sure to read and follow the instructions on the labels on the unit.

Read this manual carefully before using the RWS-3TC Manual Tire Changer. Do not use the product until all users are familiar with all operating instructions and warnings.

- The product is a manual tire changer. Use it only for its intended purpose.
- The Tire Changer should only be operated by authorized and experienced personnel. Keep children and untrained personnel away from the product.
- When using the product, wear appropriate work clothes: steel-toed boots, leather gloves, and ANSI-approved safety goggles.
- **Do not make any modifications to the Tire Changer as this voids the warranty.**
- Make sure all operators read and understand the *Operation Manual*. Keep the manual near the device at all times.
- Make a visual inspection of the Tire Changer *before* using it. Do not use the Tire Changer if any missing or damaged parts are found. Instead, take the unit out of service, contact an authorized repair facility, the distributor, or Ranger Products at **(800) 253-2363**, then follow the prompts.

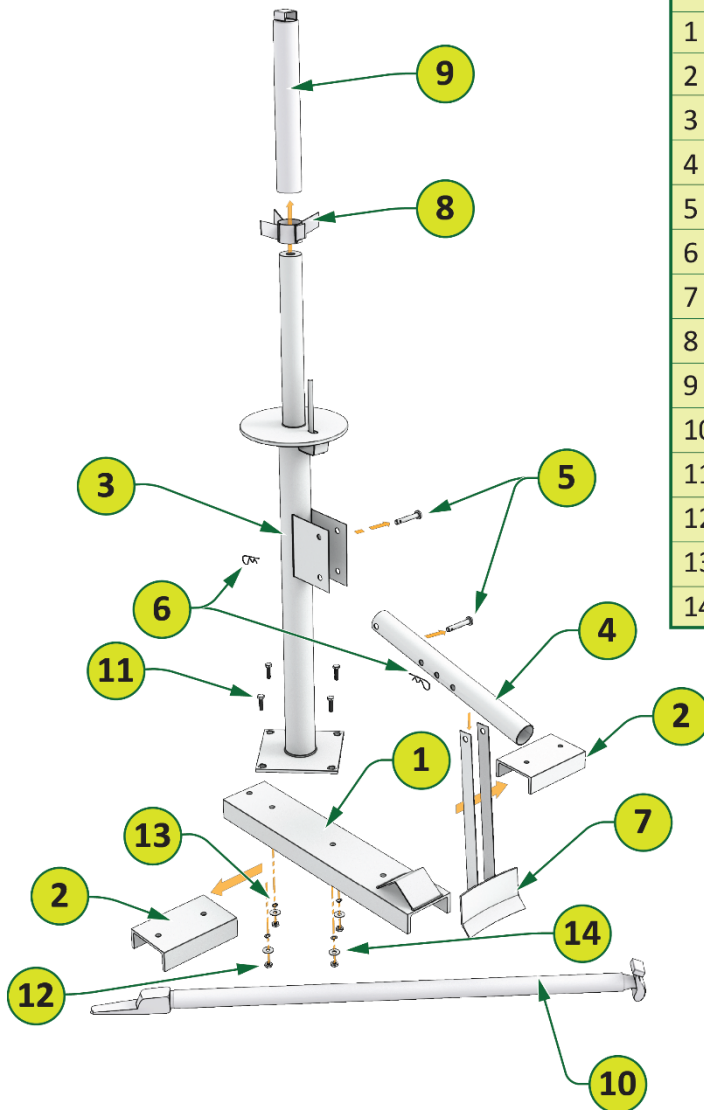
Components



Callout	Description	Use
A	Main Post & Feet	Fulcrum, station base, wheel holder
B	Bead Breaker Arm	With mount/demount bar inserted, pushes Bead Breaker to break bead
C	Bead Breaker	Pushes down on tire to break bead
D	Tire Stop	Holds wheel steady for bead breaking
E	Spider Wheel Clamp	Applies pressure to wheel rim
F	Threaded Rod	Applies pressure to Spider Wheel Clamp
G	Lug Pin	Slides through lug hole; holds rim steady
H	Mount / Demount Bar	Acts as lever; has mount/demount tips

Assembly & Exploded Parts:

1. Using the hex head bolts, washers and nuts (parts 11,12 and 13) bolt the center post (part 3) to the long foot section (part 1).
2. Ensure the bead breaker assembly, on the center post (part 4) is *directly in front* of the triangular tire stop of the long foot (part 1).
3. Now attach the two short feet (part 2) and tighten all bolts.
4. Now attach the Bead Breaker Arm to the Post, using a lock pin and a cotter pin; to this assembly, now connect the Bead Breaker with the other lock pin and cotter pin. The manual tire changer is now ready for operation.



Part No	Description	Quantity
1	Long Foot	1
2	Short Foot	2
3	Post	1
4	Bead Breaker Arm	1
5	Lock Pin	2
6	Cotter Pin / Hair Pin	2
7	Bead Breaker	1
8	Spider Wheel Clamp	1
9	Threaded Rod	1
10	Mount / Demount Bar	1
11	Bolt M10 x 30	4
12	Nut M10	4
13	Lock Washer ø10	4
14	Flat Washer ø10	4

Operation

⚠ DANGER DO NOT BREAK BEAD OF A TIRE WHICH IS NOT COMPLETELY DEFLATED! REMOVE VALVE CORE & FULLY DEFLATE TIRE FIRST!

When preparing to remove a tire from a rim, *first remove the valve core* and allow tire to fully deflate. Use care with any tire which includes a Tire Pressure Monitoring System: when these are present be sure to break the bead on the *opposite side* of the tire.

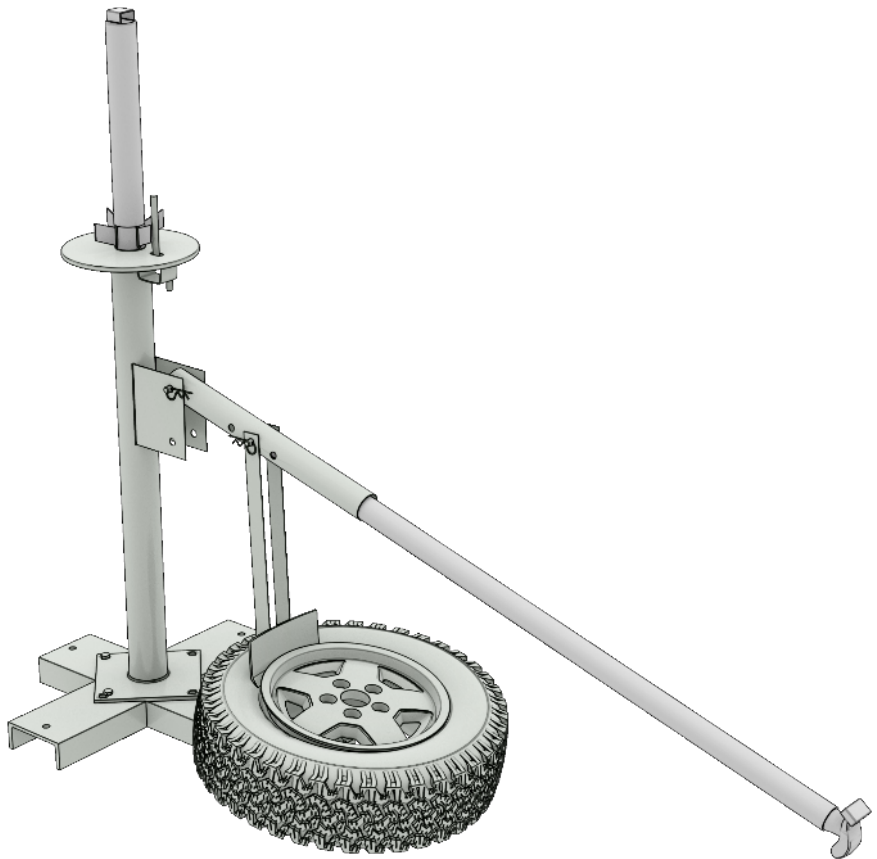
⚠ DANGER Prior to use, make sure the tire size does not exceed the Manual Tire Changer's size limit of 16 in (406 mm).

⚠ CAUTION Keep hands and feet away from the Manual Tire Changer's Bead Breaker Arm hinge, and all other pinch-points.



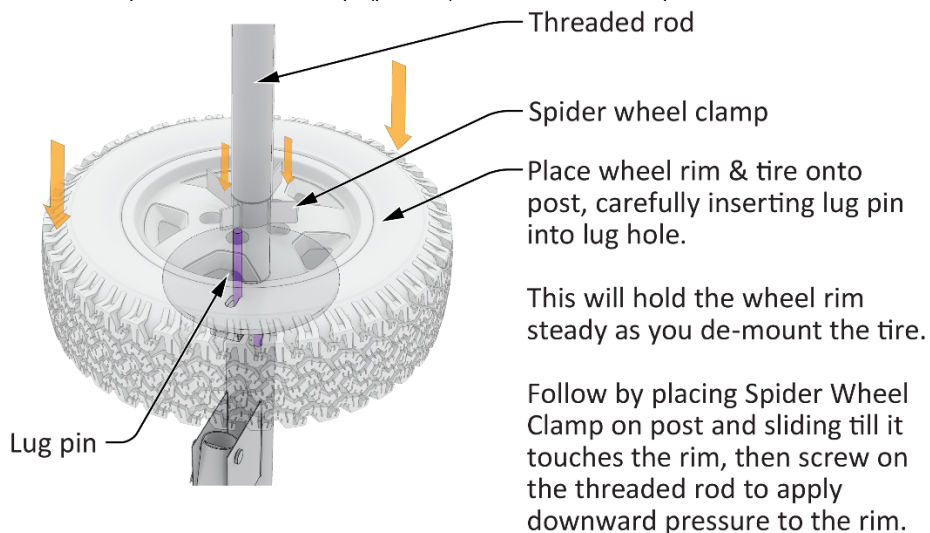
Bead Breaking:

1. To break the bead from the rim, lay the tire flat on the long base (part 1). The triangular tire stop is used to keep the tire from sliding.
2. Insert the flat end of the mount/de-mount bar (part 10) into the bead breaker handle (part 4).
3. Set the breaker blade on the tire against the edge of the rim. Working with different sized tires may require to adjusting the blade height by removing the clevis pin (part 5) and moving the blade (part 7) to the appropriate height and reinserting the pin.
4. Push down the mount/de-mount bar forcing the bead off the rim. If the bead does not come off all at once, turn the tire and try again in several different locations.
5. Turn the tire over and repeat the operation.



De-Mounting And Mounting:

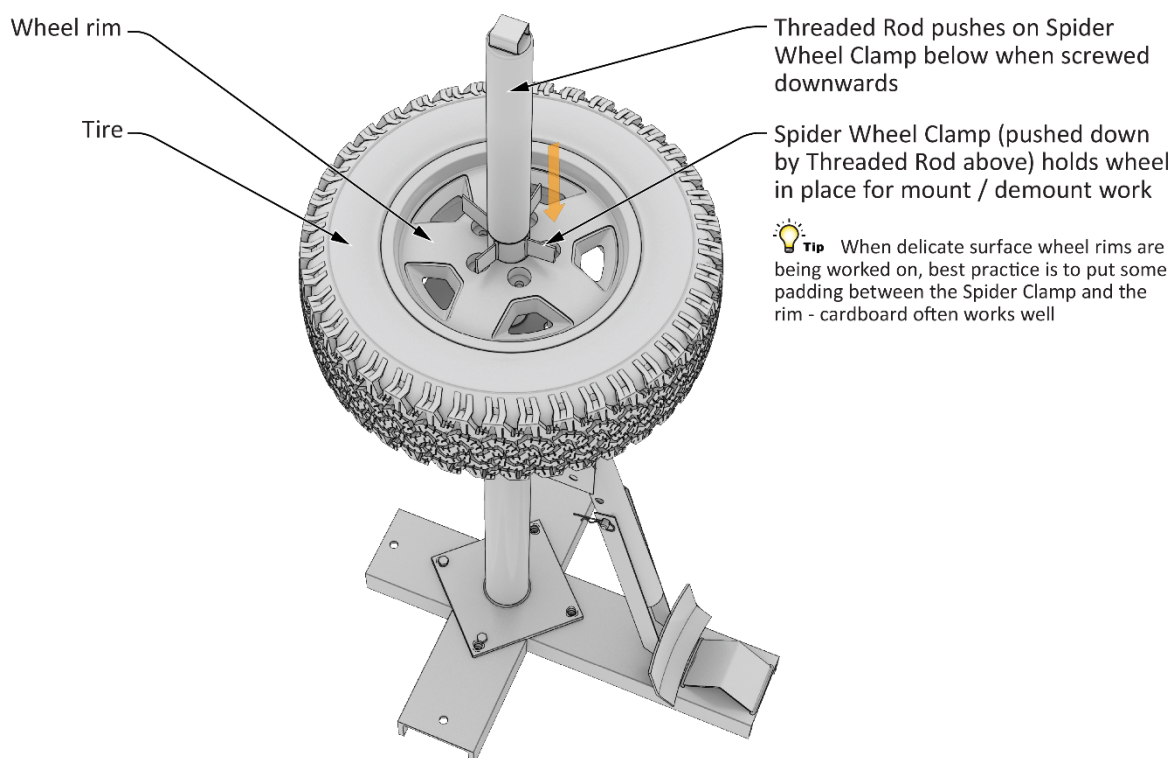
1. After the bead is broken, place the tire up on the machine with the valve stem facing up and the lug pin sticking up through the lug hole of the rim.
2. Place the spider wheel clamp (part 8) over the center post.



Tip When de-mounting or mounting a tire, use an **approved tire lubricant**.

Soapy water, though often used, is a poor choice, as water inside the tire can cause damage to the rim, the tire, and make wheel balancing challenging

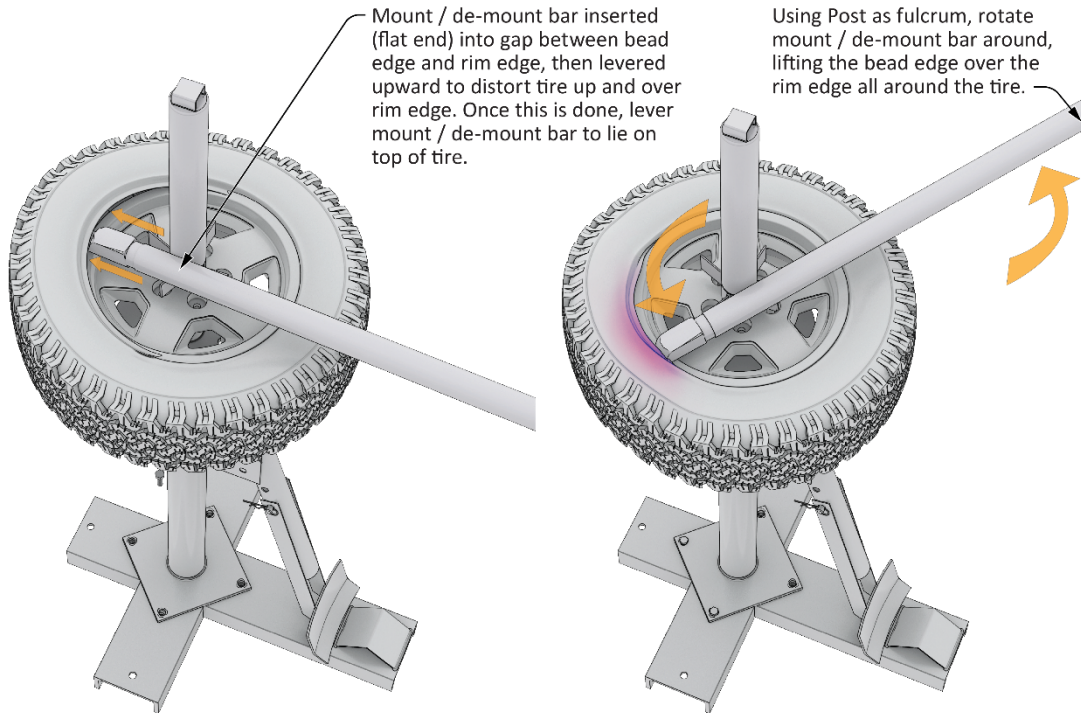
3. Screw the threaded rod (part 9) onto the center post. Lock spider clamp in place by hand tightening. Hand tightening snugly should be enough; if more pressure is required, place flat end of de-mount bar through the cap of the threaded rod and use the leverage to tighten further.



Tip When delicate surface wheel rims are being worked on, best practice is to put some padding between the Spider Clamp and the rim - cardboard often works well

4. Once the tire is held securely in place, force the de-mount (flat end) bar in between the tire and the rim, pull the bar toward you across the tire to force the edge of the bead over the rim.

5. Work the bar all the way around the center post to de-mount the bead completely.

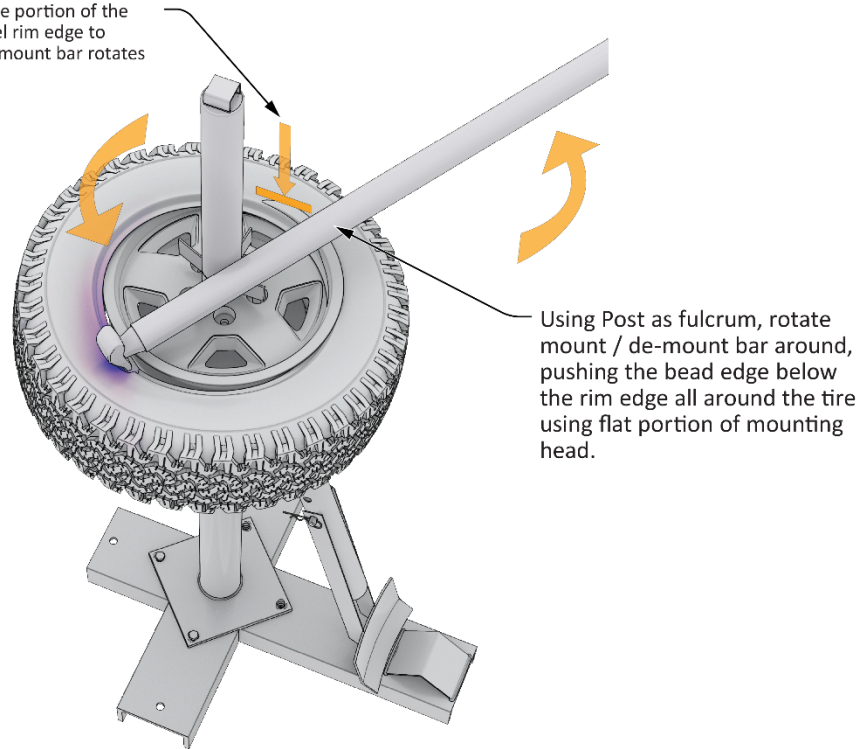


6. Pull the tire up toward the top bead.
7. Place the flat end of the de-mounting bar between the tire rim and repeat as before.
8. To mount the tire back on the rim, set the tire on the rim.
9. Hook the mount end of the mount/de-mount bar over the edge of the rim.
10. Push the tire forward over the rim at the place the mounting bar is.
11. Position the bead so it will slide across the flat portion of the hook.

12. Press down on the tire with one hand against the rim and with the other hand pull the bar clockwise around the center post until the bead begins to mount on to the rim. It should only have to move a few inches before you can release the tire and use both hands on the bar. Continue around the rim until tire mounts over the edge of the bead.



Tip Maintain downward pressure on the portion of the tire already pressed down under the wheel rim edge to prevent it popping out as the mount / de-mount bar rotates around the post



13. Repeat the procedure on the second bead to completely mount the tire. If the bead begins to seat while you are mounting the tire, it will need to stretch more and will be difficult to mount. To prevent this, *push **down** on the tire* so that it will not sit on the upper edge of the tire during mounting.

ATV (ALL TERRAIN VEHICLE) TIRES:

- ATV tires are hard to work with because of their small diameter.
- In addition the tires are soft and bend easily when breaking bead.
- If the bead breaker blade slides off the tire, hold the blade in place and work around the rim breaking the bead a little at a time.
- Apply enough approved tire lubricant between the tire and the rim to make it slide easily.
- If the wheel has a tall rim with a small inside diameter, the rim does not go over the round plate on the changer center post, do not use the pedestal spider to de-mount and mount the tire. Most rims are held in place enough by tightening the center post cap down snugly. With the cap in place you should still be able to hold the rim to mount and de-mount the tire as discussed above.

Maintenance Log

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Maintenance Log

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