



# PB-7 Repair Stand and Truing Stand Kit for PB-1 Portable Workbench

Park Tool Co. 6 Long Lake Rd. St. Paul, MN 55115 (USA) [www.parktool.com](http://www.parktool.com)

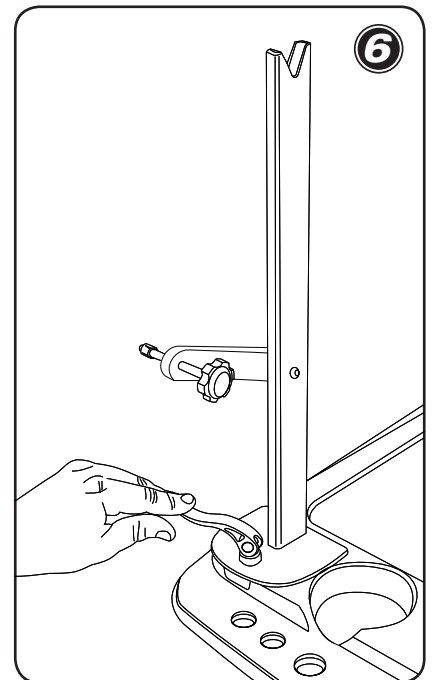
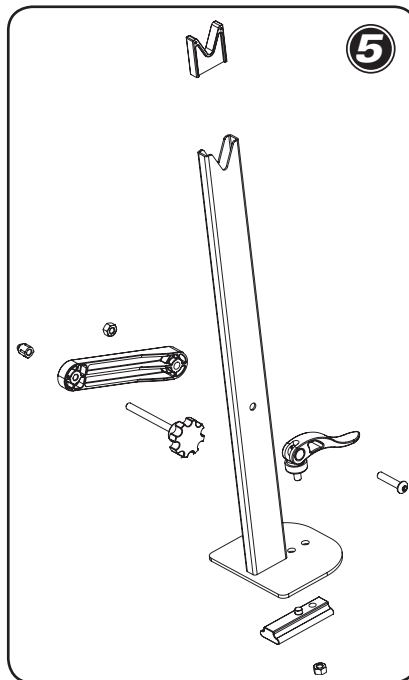
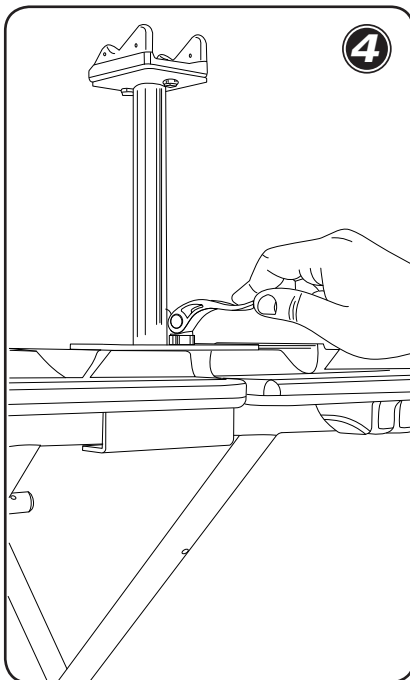
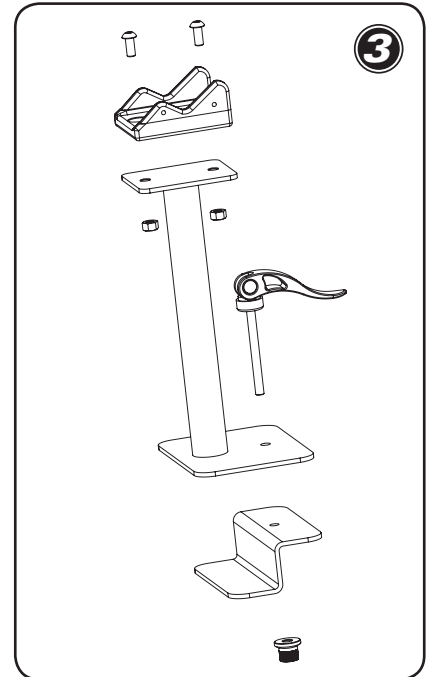
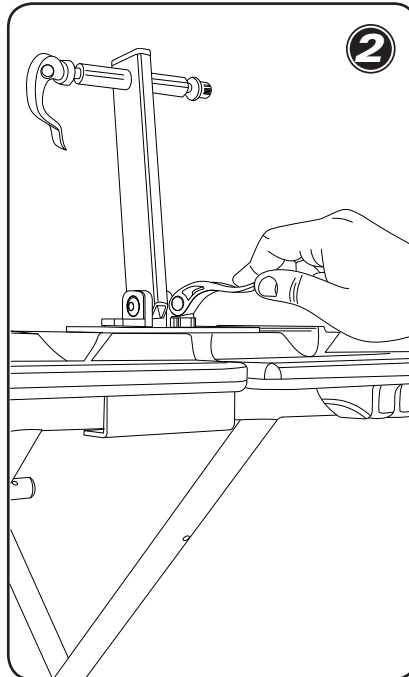
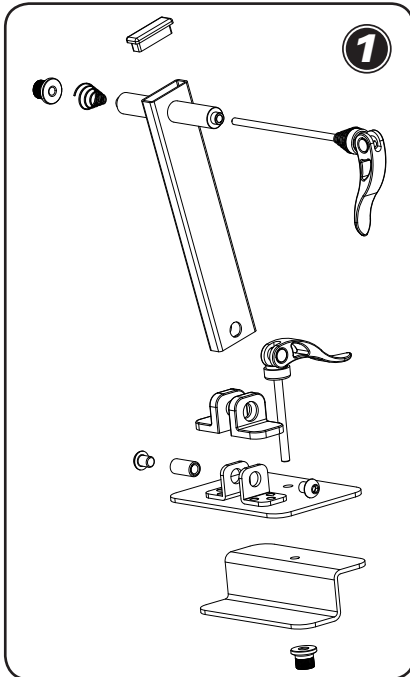
## Assembly and Set Up

1. Assemble repair stand fork mount.
2. Attach fork mount to PB-1 Workbench using quick release.  
Note: Locking clips on PB-1 Portable Workbench must be removed before attaching repair stand fork and bottom bracket mounts.
3. Assemble repair stand bottom bracket mount.
4. Attach bottom bracket mount to PB-1 Workbench using quick release.

5. Assemble truing stand.
6. Attach truing stand to PB-1 Workbench using quick release.

## Mounting Bike in the PB-7 Repair Stand

1. Remove front wheel from bike.
2. Rest bottom bracket shell of bike into saddle of bottom bracket mount.
3. Lock fork dropouts of bike into fork mount using quick release.





# Truing Wheels in the PB-7 Truing Stand

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## Lateral Truing Basics:

### Correcting Side to Side Errors

1. Remove tire (if desired). Place wheel into "V" notch of truing stand upright and lock with wheel's quick release or axle nut.
2. Position gauge tip to sidewall of rim. Spin wheel slowly and look for side to side wobbles. Locate largest wobble.
3. If rim wobbles to the right, tighten left side nipples within area of wobble 1/4 turn. If rim wobbles to the left, tighten right side nipples within area of wobble 1/4 turn. Spin wheel and note impact. Repeat as needed to remove wobble. Note: If further tightening could cause nipple damage or create uneven spoke tension, similar results can be achieved by loosening the opposite side nipples 1/4 turn within area of wobble (for example, if rim wobbles to the right, loosen right side nipples within area of wobble).
4. Repeat procedure on other wobbles until wheel runs straight.

## Radial Truing Basics:

### Correcting Roundness Errors

1. Remove tire. Place wheel into "V" notch of upright and lock with wheel's quick release or axle nut.
2. Position gauge tip to rest just under outside edge of rim. Spin wheel slowly and look for areas where rim moves toward gauge tip (high spot) or dips away from gauge tip (low spot).
3. If rim has a high spot, it needs to be pulled away from the gauge tip. Tighten nipples within area of high spot 1/4 turn. Check result and repeat as needed until high spot is removed.
4. If rim has a low spot, it needs to be pushed toward the gauge tip. Loosen nipples within area of low spot 1/4 turn. Check result and repeat as needed until low spot is removed.
5. Adjustments made to correct high and low spots may have affected lateral true of wheel. Re-true as needed until wheel is both straight and round.

## Wheel Dishing Basics:

### Centering Rim Between Hub Locknuts

1. Remove tire. Place wheel into "V" notch of upright and lock with quick release or axle nut. Wheel must be laterally true before checking dish.
2. Position tip of gauge to sidewall of rim.
3. Without changing position of gauge, loosen quick release lever (or axle nuts) and lift wheel from stand.
4. Flip wheel and return to stand. Tighten quick release or axle nuts.

5. If tip of gauge just touches sidewall of rim (as in step 2), rim is centered between hub locknuts and wheel is properly dished. If there is a gap between gauge tip and rim, or if gauge tip pushes against rim, the rim must be moved left or right in order to center it between locknuts of hub.
6. To move rim to the right, tighten all right side nipples 1/4 turn. To move rim to the left, tighten all left side nipples 1/4 turn. If further tightening could cause nipple damage or create uneven spoke tension, similar results can be achieved by loosening opposite side nipples 1/4 turn (for example, to move rim to the right, loosen all left side nipples).
7. If necessary, repeat steps 1 – 6 until wheel is properly dished.

Note: An alternative to using the "flip" technique described above is to use a wheel dishing tool, such as the Park Tool WAG-3 or WAG-4 Wheel Dishing Gauge.

## Pre-Stressing:

### Relieving Spoke Wind-Up

After truing, spokes should be pre-stressed in order to relieve spoke wind-up that occurs as nipples are turned. To pre-stress, tightly squeeze parallel pairs of spokes all the way around wheel. This may cause wheel to go slightly out of true. If so, re-true as needed.

## Spoke Tension Basics:

### The Key to a Reliable Wheel

Wheels that are strong, reliable and long lasting have spokes that are properly tensioned. Too little tension results in shortened spoke life and frequent re-truing. Too much tension can result in deformed and/or cracked spoke nipples, rim holes, and hub flanges. Relatively great differences in tension between spokes will result in a wheel that is not laterally stable and that will go out of true frequently. While it is possible to "feel" spoke tension by squeezing pairs of spokes, tension is best determined by use of a tension meter, such as the Park ToolTM-1 Spoke Tension Meter.

**Visit [www.parktool.com](http://www.parktool.com) for additional information on wheel truing and bicycle repair.**