

KATOOL KT-B700 Computer Wheel Balancer Instruction Manual

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KT-B700 Computer Wheel Balancer

Computer Wheel Balancer Operation Instructions

with Maintenance Instructions

READ these instructions before placing the unit in service KEEP these and other materials delivered with the unit in a binder near the machine for ease of reference by supervisors and operators.

IMPORTANT SAFETY INSTRUCTIONS

- 1. Read all instructions
- 2. Do not operate equipment with a damaged cord or if the equipment has been dropped or damaged until it has been examined by a qualified serviceman.
- 3. Do not let the cord hang over the edge of the table, bench, or counter, or come in contact with hot manifolds or moving fan blades.
- 4. If an extension cord is necessary, a cord with a current rating equal to or more than that of the equipment should be used. Cords rated for less current than the equipment may overheat. Care should be taken to arrange the cord so that it will not be tripped over or pulled.
- 5. Always unplug equipment from the electrical outlets when not in use. Never use the cord to pull the plug from the outlet. Grasp plug and pull to disconnect.
- 6. To reduce the risk of fire, do not operate equipment in the vicinity of open containers or flammable liquids (gasoline).
- 7. Adequate ventilation should be provided when working on internal combustion engines.
- 8. Keep hair, loose clothing, fingers, and all body parts away from moving parts.
- 9. To reduce the risk of electrical shock, do not use on wet surfaces or exposed it to rain.
- 10. Use only as described in this manual. Use only the manufacturer's recommended attachments.
- 11. ALWAYS WEAR SAFETY GLASSES. Everyday glasses only have impact-resistant lenses, they are NOT safety glasses.
- 12. Do not disable the hood safety interlock system, or in any way shortcut safety controls and operations.
- 13. Be sure wheels are mounted properly, the hub nut engages the arbor not less than 4 turns, and the hub nut is firmly tightened before spinning the wheel.
- 14. Maintain all electrical cords in good repair. Do not operate damaged equipment until it has been examined by a

qualified service technician.

- 15. Be sure the balancer is properly connected to the power supply and electrically grounded.
- 16. Read and understand this manual before operating. Abuse and misuse will shorten functional life.
- 17. Keep guards and safety features in place and in working order.
- 18. Wear proper clothing. Safety toe, non-slip footwear, and protective hair covering to contain hair are recommended. Do not wear jewelry, loose clothing, neckties, or gloves when operating the balancer.
- 19. Keep the work area clean and well-lighted. Cluttered and/or dark areas invite accidents.
- 20. Disconnect the balancer before servicing.
- 21. Repair or replace any part that is damaged or worn and that may cause unsafe balancer operation. Do not operate damaged equipment until it has been examined by a qualified service technician.
- 22. Never overload or stand on the balancer.
- 23. Do not allow untrained persons to operate machinery.

SAVE THESE INSTRUCTIONS

Definitions of Hazard Levels

Identify the hazard levels used in this manual with the following definitions and signal words:



DANGER Watch for this symbol:

It Means Immediate hazards which will result in severe personal injury or death.



WARNING Watch for this symbol:

It Means Hazards or unsafe practices which could result in severe personal injury or death.



It Means Hazards or unsafe practices which could result in minor personal injury or product or property damage.



Watch for this symbol. It means BE ALERT! Your safety, or the safety of others, is involved.



🕰 Owner's Responsibility 🕰



To maintain machine and user safety, the responsibility of the owner is to read and follow these instructions:

- Follow all installation instructions and make sure installation conforms to all applicable Local, State, and National Codes, Rules, and Regulations.
- Carefully check the unit for the correct initial function.
- Read and follow the safety instructions. Keep them readily available for machine operators.
- · Make certain all operators are properly trained, know how to safely and correctly operate the unit, and are properly supervised.
- Allow unit operation only with all parts in place and operating safely.
- Carefully inspect the unit on a regular basis and perform all maintenance as required.
- Service and maintain the unit only with authorized or approved replacement parts
- Keep all instructions permanently with the unit and all decals/labels/notices on the unit clean and visible.

MARNING Failure to follow danger, warning, and caution instructions may lead to serious personal injury to the operator or bystander, or damage to property. Do not operate this machine until you read and understand all the dangers, warnings, and cautions in this manual. For additional copies of either or further information, contact local retailer.

Before You Begin

Receiving

The shipment should be thoroughly inspected as soon as it is received. The signed bill of lading is acknowledgment, by the carrier, of receipt in good condition of the shipment covered by our invoice. If any of the goods called for on this bill of lading are shorted or damaged, do not accept them until the carrier makes a notation of the shorted or damaged goods on the freight bill. Do this for your own protection.

NOTIFY THE CARRIER AT ONCE if any hidden loss or damage is discovered after receipt and request him to make an inspection.

Specifications

Cycle time	8 seconds (avg.)
Tire/Wheel Weight	65 kgs max.
Wheel Diameter	25.4 inches max.
Rim Diameter	12 to 24 inches
Rim Width	1.5 to 12 inches
Power supply	100V 50/60HZ
Working noise	70dB

Shipping Weight165 kgs

Electrical Requirements

The balancer requires a 100 VAC, 50/60Hz, single phase power supply and properly grounded three-pin safety outlet.

Features

- Balances Most Automotive Wheels
- · Vertical Wheel Mounting
- · Back Cone and Front Cone Mounting
- · Easy-to-Read LEDs and Displays
- · Automatic Calibration
- Removable Shaft Stud(Adapter)
- Dynamic, Static, and Alloy Operating Modes

Standard Accessories

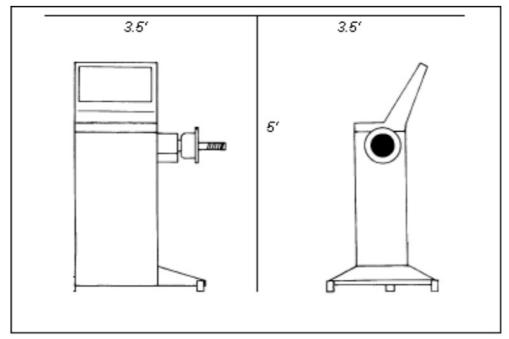
- 4 Back Cones
- 100g Weight
- Back Cone Spring
- · Quick Nut
- · Rim Width Calipers
- · Wheel Weight Hammer
- · Balance Bowel

Assembly and Setup

Floor and Space Requirements

The floor must be solid and flat concrete. The balancer needs to be bolted to the floor in normal service. The

balancer may be bolted to the floor with anchor bolts through the three support feet but will require an alternate electrical connection method. Sufficient space must be provided above and around the balancer for mounting and demounting wheels.



Unpacking the Unit

- 1. Remove the shipping carton from the pallet.
- 2. Remove all loose parts and accessories packed around the unit. Remove Balancer from Palle
- 3. Remove the shipping bolts that hold the balancer to the pallet.

CAUTION Do not use the control pod, control pod arm, faceplate, hood or stub shaft to lift the balancer.



CAUTION Use help to remove the balancer from the pallet.

The unit is heavy and the weight is not evenly distributed. Dropping the unit may cause personal injury or equipment damage.

- 4. Lift the balancer off the pallet and place it in its operating location.
- 5. Install and tighten the threaded stud (adapter)into the end of the motor shaft.

Connecting to Power

Consult a licensed electrical contractor for a proper connection that meets local electrical codes. Power outlets must be located in a floor raceway or overhead drop if pedestrians or equipment traffic pose a threat of damage to the power cord.

The balancer requires a nominal 100 VAC, 50/60 Hz, single-phase power supply with a three-pin safety outlet. Electrical outlets must have a solid connection of less than 1 ohm between the ground pin and the building ground.

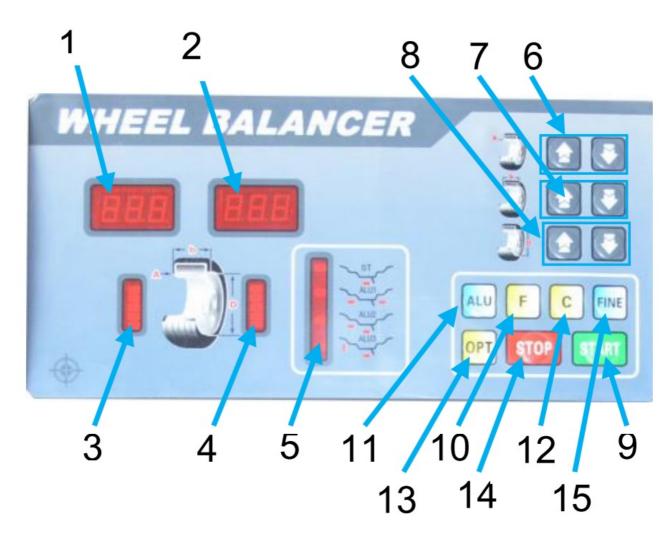
WARNING Operation with a defective ground circuit will create a shock hazard for the operator, damage the unit electronics, and will void the warranty.

Power and ground requirements must be verified by the installer or an inspector before connecting the balancer. Failure to observe this precaution may void the warranty. If the balancer is bolted to the floor, a licensed electrical contractor must be consulted. Most electrical codes require "hard" wiring when the balancer is bolted down. **Initial Testing**

- 1. Plug the unit into an appropriate power outlet. If the circuit breaker for the outlet is off, turn it on.
- 2. Turn the balancer on. The power switch is on the side of the unit.

Control panel and display

1.



Inner unbalance value and parameter of the tire display

- 2. Outside unbalance value and tire parameter display
- 3. Inner unbalanced position lamp.
- 4. Outside unbalance position lamp.
- 5. .Balancing modes display lamp
- 6. A value input key
- 7. B value input key
- 8. D value input key
- 9. Start key
- 10. Dynamic/Static Balancing mode selection key
- 11. Balancing mode selection key
- 12. Self-calibration key
- 13. OPT key
- 14. Emergency stop key
- 15. Residual unbalance value display key.

Function key combination

Remain set after the power is turned off.

To change from grams to ounces, press Button F, A+, and A- Button at the same time once.

(F)(STOP), Lower down the cover, the machine starts automatically.

Loose set after the power is turned off.

(F)(b), MM / INCH SELECTION "b" SETTING / WHEEL WIDTH

(F)(d), MM / INCH SELECTION "d" SETTING / WHEEL DIAMETER

Balancing mode selection key

Press (F) key to change from Dynamic balancing to Static Balancing Press ALU to select different balancing modes (ALU1, ALU2, ALU3)

Operating the Balancer

Switch on the main switch on the left side of the machine the display will display "A-8.0"

Wheel Mounting

Preparation before the test check and clean the dust and mud and if there are foreign bodies, such as metal and stone, clipped on the surface of the tire. And also check the air pressure of the tire is according to the specified value. Check if there is deformations on the rim positioning surface and installation hole.

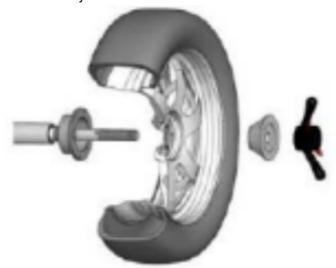
Check if there are any foreign bodies in the tire.

Take off the original weight.

The installation methods of the wheel are Positive positioning, negative positioning & flange disk when handling the middle and big sizes of tires. You can select the methods according to the different conditions.

SMALL CAR WHEEL POSITIVE POSITION

Positive positioning is the normal method. It is featured with a simple and quick operation. It is mainly suitable to the common steel rim and aluminum alloy rim with small deformation.



Main shaft—→ wheel (direction of the rim installation surface is inside)—→ cone—→ quick nut

When the deformation of the outside of the wheel, adopt this method to positioning to grantee the accurate positioning of the steel rim inner hole and main shaft. It is suitable to the steel rim, especially the thick ALU



Main shaft —→lower spring —→ suitable cone wheel —→ bowl —→ quick nut

FLANGE DISK POSITIONING OPTIONAL

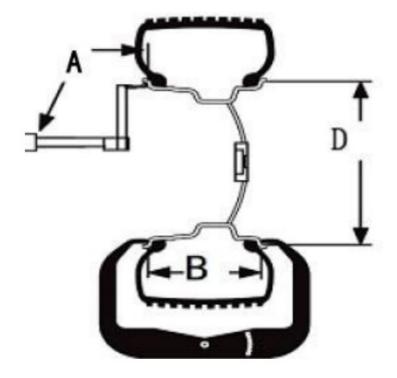
Suitable to the big tire assemble



Main shaft — → flange disk (fixed on the main shaft) wheel — → cone — → quick nut

NOTE: The choice on the cone should be adapted to the rim center hole and pay attention to its direction. Or it will cause inaccurate measurement.

Entering Wheel Measurements



Input A value

Pull the scale to the inner position to add the weight and press the key A+ or A- to input the A value into the display.

At this moment, the display will display "A""XX" And the default system is inch.

Input Br (RIM Breadth) Value

Use the Br measurement caliper to measure the Br of the rim, and press the key B+ or B- to input the Br value into the display. At this moment, the display will display "B""XX" **Input the DiA(Diameter)Tire Diameter Value**After confirming the rim diameter, press the key D+ or D- to input the rim diameter into the display. At this moment, the display will display "D" XX"

BALANCE MODE SELECT

This wheel balancer 'S Default model is clamp weighs for the rim it is not be shown on the Control panel .please learned of the matte. After inputting three values and rotate the wheel you can Select the balance mode according to the weight-adding position and the balance mode. Press the key" F "to select the "ST "balance mode direct, Press the key" ALU" to select the ALU balance mode. When you switch on the machine, the machine will automatically enter into the dynamic balance mode, and no need to select it. **DYNAMIC-clip** the weight on both sides of the rim dynamic balance test once start

For balancing standard steel or alloy wheels



Static-This function is used if stick-on weights are to be mounted to the center plane (hidden) and not to either the inner or outer edges of the wheel.



ALU1 – to balance the light aluminum alloy rim. This function is used if stick-on weights are to be mounted to both the inner and outer planes of the wheel.



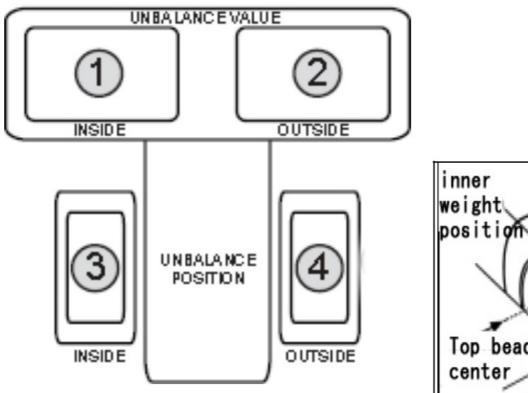
ALU2 - for the ALU rim, the hidden weight inside. This function is used if stick-on weights are to be mounted to

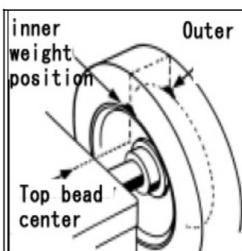
the inner and center planes of the wheel.



ALU3 – clip the weight inside and the position to add weight outside is the same as ALU2.

Balance the Wheel





- 1. Plug in the unit and turn on the Power Switch
- 2. Mount the Wheel following
- 3. Enter the rim data
- 4. Pull the Hood over the wheel and press Start on the Control Board. The wheel will begin to spin. 5. When the cycle is finished, the wheel will stop spinning and the Control Board will display the amount of weight needed to attach to the wheel on the Inner and Outer UNBALANCE VALUE displays.
- 5. Hand rotates the wheel, watching the Inside UNBALANCE POSITION display. Stop rotating the wheel when all the display leds flash. Attach the weight to the top center of the rim's inner edge.
- 6. Continue rotating the wheel, until all the outside UNBALANCE POSITION display leds flash. Attach the weight to the top center of the rim Outer edge
- 7. Lower the Hood and press Start on the Control Board. The wheel will begin to spin.
- 8. When the cycle is finished, the wheel will stop spinning. If the UNBALANCE VALUE in the Inner and Outer displays are both [00], then the wheel is balanced. If there are other values, then repeat the steps to re-balance the wheel until a [00] reading is achieved.

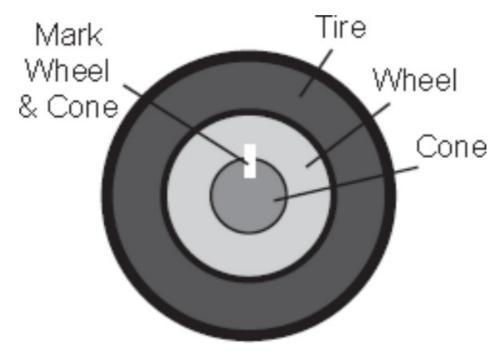


- 1. When power starts, push the wheel by hand to assist in starting which will extend the motor's life.
- 2. Make sure the wheel value is correct.
- 3. Make sure the rim structure is suitable for the balancing mode
- 4. Make sure the quick nut is well tightened
- 5. As the balance is over, unload the tire, pay attention to handling with care, and don't strike the main shaft.
- 6. Weights must be attached securely to wheel surfaces and cleaned according to the weight manufacturer's recommendation. Failure to do so may cause weight to come loose during a spin, resulting in personal injury.

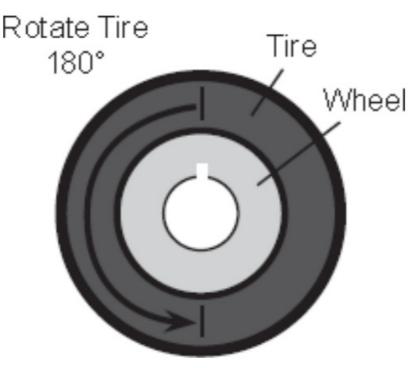
Optimize Balancing Function (OPT)

This function is recommended only when the weight displayed to balance the wheel is over 30 grams (1.06 oz). Use the following procedure to adjust the tire and wheel so that less weight is needed to complete the process. To begin, the tire should be mounted with the Hood down after completing a cycle.

- 1. Press the [OPT] key. [OPT][] will be displayed.
- 2. Press [START] to activate a spin cycle. When finished the display will read: [I] [180] 180 displayed means the tire and the rim need to be rotated by 180 degrees away from each other and remounted.



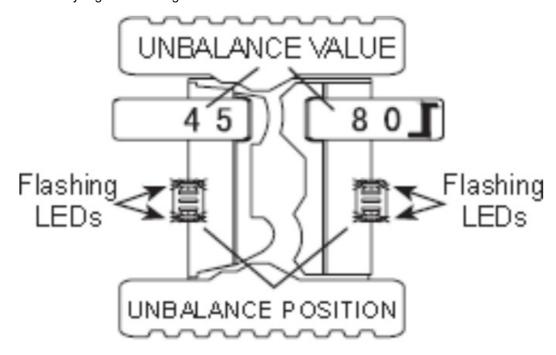
3. Before unmounting the wheel from the balancer, mark the rim and the cone with chalk (sold separately) so that the same mounting position can be re-mounted for the next operation.



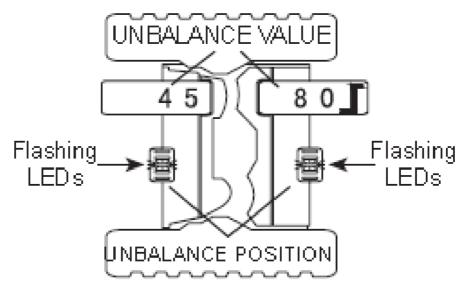
- 4. Remove the wheel from the Balancer and use a tire changer (sold separately) to remove the tire from the rim, rotate it 180°, and remount it on the rim. Fully inflate the tire and mount the Wheel
- 5. on the Balancer in the same location as the previous cycle. Press [START] to activate a spin cycle.
- 6. When finished the display will read: [45][80]

 The left reading shows the amount of weight originally needed to balance the wheel: 45 grams. The right reading shows the amount to reduce the weight after rotating and remounting the wheel:

This means that only 9 grams of weight are needed to balance the wheel.



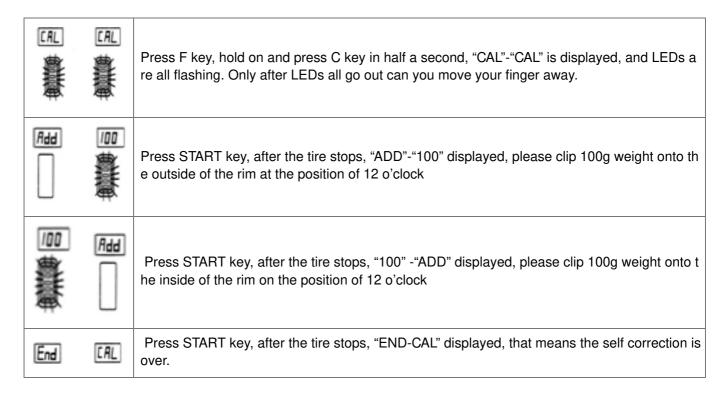
7. Rotate the wheel counterclockwise, slowly by hand, until the Control Board display flashes as shown above. Make a mark at the top of the tire (12 0'clock positions), and label "P-tire".



- 8. Rotate the wheel counterclockwise, slowly by hand again, until the Control Board display flashes as shown above. Make a mark at the top of the Rim (12 O'clock position), and label "P-rim".
- 9. Remove the wheel from the Balancer and use the tire changer to re-mount the rim with the rim and tire markings aligned.
- 10. Place a 10-gram weight on the marking and press [START] to activate the spin cycle.
- 11. Check to see if the wheel is balanced. Repeat as needed.
- 12. When finished using the Wheel Balancer, Turn the Power Switch OFF, and unplug the machine.

Maintenance And Servicing

Self-calibration Self-calibration has been finished in the factory. If you use it for a period of time or change part inside or the result of the balance is not correct, you can self-correct it again. (Choose one medium-size tire to install on the main shaft, 13 or14 inches are perfect). Input correct data of this tire A, L, D. Attention: Fail to input the correct size will lead to the machine working wrong.



Lamps are all on when 100g counterbalance is rightly under the main shaft.

Don't move away the weight from the tire. Press the START key, after the tire stops, if it shows "100"-"00", that

means the self-calibration is successful.

A wellbalanced tire will show "100"-"00" ($\pm 4g$) after self-calibration. 100g counterbalance is rightly under main shaft when outside lamps are all on ($4^{\circ}e$ rror is allowed), this proves the phase angle is correct. Two key elements to judge if self-calibration is accurate or not 1. Accurate data indication 2. Show that phase is right (namely outside lamps are all lightning and 100g counterbalance is rightly under shaft).

Problems that occur after self-calibration:

Malfunctioning: "Err. -8-" showed Cause:

- A. Problems with the computer board.
- B. The circuit of the sensor is broken.

Malfunctioning: Data indicated has a big deviation Cause:

- A. The edge outside the wheel is irregular and under bad condition,
- B. Parameter data loss or error

Accessories













No.1 Cone

No.2 Cone





No_3 Cone

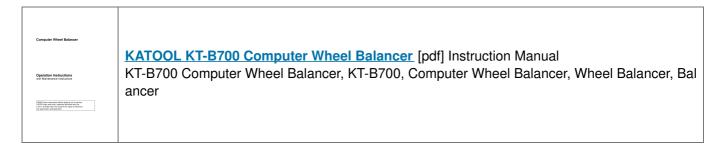
No_4 Cone







Documents / Resources



Manuals+,