

Other Precision Tools from



"Your Automotive Measuring People"

Manufacturer approves  
of the following  
batteries only:

Toshiba CR2032

Renata B/CR2032

Vcar CR2032

Rayovac CR2032

Maxell CR2032

Sanyo CR2032

Panasonic CR2032

Varta CR2032

Eveready CR2032

- Micrometers
- Brake Force
  - Rotor Gage
  - Drum Gage
  - Rotor/Ball Jt. Gage
  - Wheels On Rotor Gage
  - Wheels On Drum Gage
- Dial Indicator Sets
- Magnetic Bases
- Machinists Tools
- Dial Callipers
- Digital Callipers
- Torque Wrenches
- Straight Edges

Write for Catalog

 **Central Tools, Inc.**

456 Wellington Avenue  
Cranston, Rhode Island 02910

06635-64-000 4/98

Copyright Central Tools, Inc.

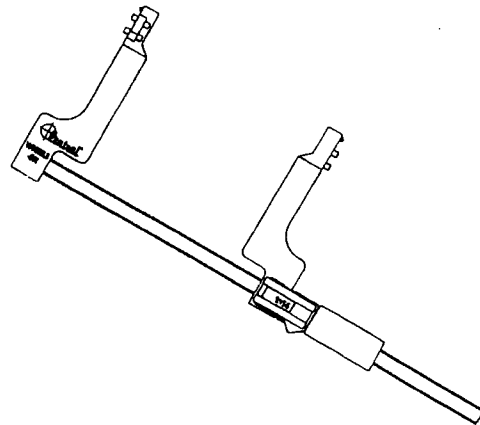
Printed in U.S.A.



The **BRAKE FORCE**

No. 6635

**Wheels On Drum Gage**



- Domestic & Foreign Vehicles
- Heavy Duty Truck & Trailer
- Fleet Inspections

 **Central Tools, Inc.**  
Cranston, Rhode Island 02910

**MEASURING  
RANGE:  
MEASURING  
DEPTH:  
ANVILS:  
BATTERY:**

**6635**  
6-16.500" + &  
150-419MM+  
3.250" (82mm)  
POINTED  
CR2032 (CENTRAL #4103)

## INSTRUCTIONS FOR USE

1. Before using your gage, it must be calibrated. Secure the 10" Calibration Gage to the work bench with a #8 Screw or Bolt, or clamp in a soft-jawed vice at the middle of the gage. With the drum gage display in Inches and showing "SET" mode, simply slide the moving arm to the left so that it engages the Positive Stop on the fixed arm. Depress the zero button. Open the arms and set the pointed anvils onto the gaging surfaces of the calibration gage. The display should now read 10.000". If it does not, refer to steps 7 through 9 below.
2. Select Inch or metric measurement by depressing the mm/in button. This switch may be depressed at any time while in the "SET" mode to convert measurements.
3. With scored surfaces, place the gage in the drum and, with the fixed arm anvil held against one side, bring the movable arm anvil into contact with the drum at the point of greatest diameter. In this manner, measurements may easily be made of the depths of scores with the pointed anvils.
4. Unscored surfaces are measured in the same manner except that the anvils must be kept parallel to the drum mounting face within 1/8" to assure an accurate reading. This is most quickly done by measuring the brake drum at its furthest depth using the ends of the arms as depth stops, or by extending two of the built in selectable depth stops to contact the drum face.
5. If the digital readout indicates a measurement approaching the limit over standard, the brake drum should be pulled and measured in a more controlled environment. A reading greater than the limit over standard disqualifies the drum from further safe use. It should be replaced with a new brake drum which meets the original equipment manufacturer's specifications.
6. To measure score depth only, measure the drum diameter adjacent to the score, press the zero button, measure the drum diameter in the score and divide by two. This is the score depth.
7. In order to adjust the mechanical calibration: place the pointed anvils onto the gaging surfaces of the calibration gage and depress the zero button. Slide the moving arm to the left until it engages the Positive Stop on the fixed arm. The reading on the display will now be a negative value which is approximately -10.
8. Using the hex wrench provided, loosen the set screw on the Positive Stop. Turn the Positive Stop in or out as required until the display reads precisely -10.000. Press the zero button to zero the display.
9. Open the arms and insert the anvils back into the calibration gage. The reading should now be 10.000". If not, repeat Steps 8&9. When the reading is correct, tighten the calibration set screw to lock in the calibration setting.
10. Use a light but firm gaging pressure to hold the anvils against the piece being measured. Consistent gaging pressure will result in repeatable measurements.

## CARE OF YOUR GAGE

1. Your new BRAKE FORCE Wheels On Drum Gage is a highly precise yet extremely simple to use measuring instrument. Care of this gage will assure its utility for years to come.
2. Do not apply any voltage to the gage, such as marking it with an electric marking pen.
3. Do not tamper with the electronics. return to the factory for service.
4. Keep the gage free from solvents, water and oil. Do not immerse in any liquids.
5. Prevent the accumulation of contaminants on the measuring bar by periodically wiping the bar with a clean, dry cloth.
6. Do not apply excessive force or shock to the gage.
7. When not in use, return the gage to its protective case.
8. Do not store in direct sunlight or near a heat source.
9. Avoid quick temperature changes, such as going from an air conditioned office to a hot shop floor. Condensation may result, fogging up display and causing damage to the electronics.
10. For technical assistance, call 1-800-866-5287.

## **Modes**

The unit has two functional modes. The first is the normal measuring mode, and the second allows a reading to be held on the display. To change between modes, press and hold button #2.

**The word "SET" in the lower right corner of the display indicates the normal measuring mode is selected.**

**The word "REF 1" in the upper left corner of the display indicates the memory mode is selected.**

### **Normal Measuring Mode - Inches and Millimeters**

The word "SET" should appear in the lower right corner of the display which indicates the normal measuring mode is selected. Prior to taking a measurement, the calibration of the caliper should be checked as follows: completely close the jaws, and briefly press button #1 to reset the display to zero.

To switch the measurement units between inches and millimeters, briefly press button #2. The display changes between inches and millimeters each time the button is depressed. This button may be pressed at any time. Once a measurement has been taken, pressing button #2 will convert between millimeters and inches.

### **Memory Mode**

The memory mode may be used to hold a particular measurement on the display. (Note that the tool cannot be recalibrated to zero while in the memory mode, so, it is usually best to begin in the "Normal Measuring Mode" - see above.) Enter the memory mode after the tool has been reset to zero, as explained above. The memory mode is useful, for example, when a measurement must be taken in a position where it is difficult to read the display directly. In a case such as this, the measurement can be "frozen" on the display and read after the tool has been removed from the difficult position.

To enter memory mode, press and hold button #2 until the word "REF 1" appears in the upper left corner of the display. It is now possible to perform a measurement, and a brief press of button #1 will cause the measurement to be held on the display. "HOLD" will be displayed in the upper right corner of the display.

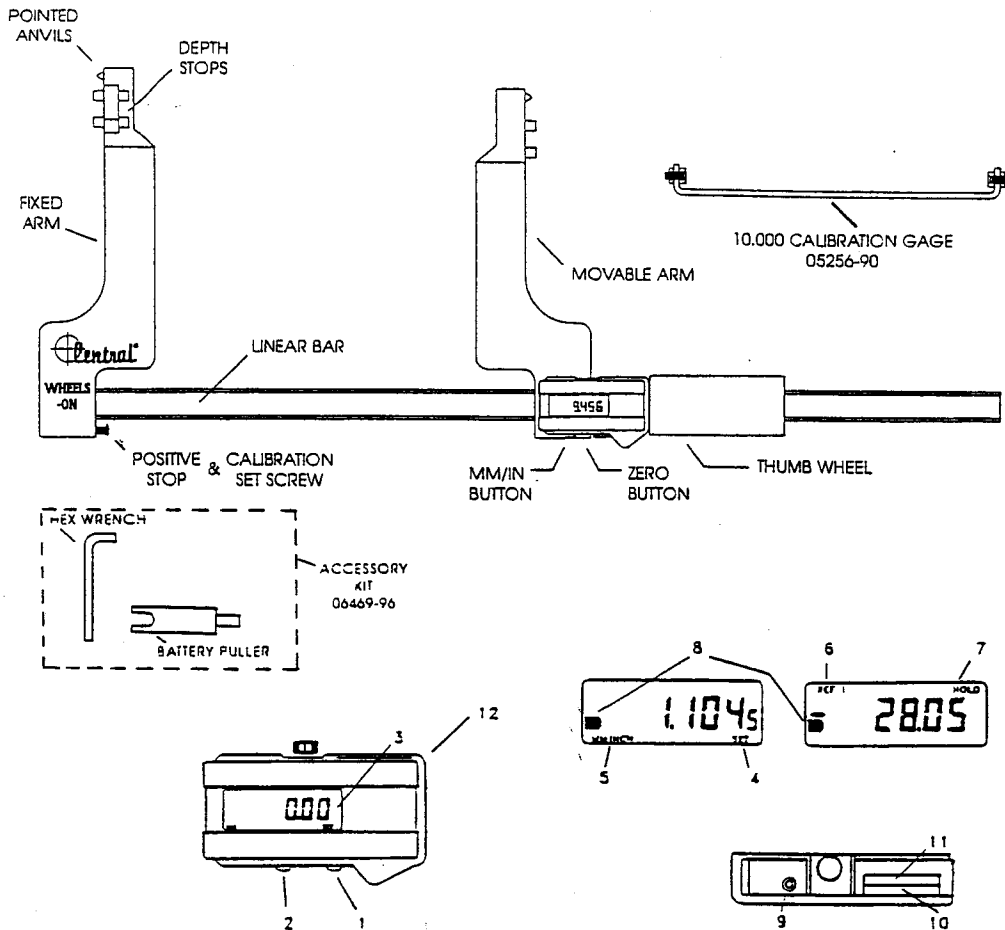
If the jaws are moved while a value is being held on the display, the display will not change; however, once the memory is cleared with another brief press of button #1, the display will update with the correct new value based on the new position of the jaws.

### **Battery Replacement - Important!**

When the low battery indicator (#8) appears on the display, the battery should be replaced. Carefully pry off the two slender rectangular rubber plugs (#10 and #11) on the upper surface of the display cover. The old battery may be removed by *carefully* prying it out with the accessory tool provided, a jeweler's screwdriver, or the like. When inserting the new battery, be sure the positive (+) pole is facing outward. (If the battery is accidentally inserted backward, it will not cause damage; however the unit will not function). The unit will automatically reset itself - the word "rESEt" will flash very briefly on the display. Replace the two rubber plugs.

### **Troubleshooting**

If the tool does not seem to be operating correctly - digits not responding to jaw movement, "Err", "Mode", or other unfamiliar messages on the display, it can be reset as follows: Simultaneously press and hold both buttons. After a few seconds the display will go completely blank. At this point, release both buttons. The word "rESEt" will flash very briefly on the display, and normal operation will be restored.



1. Pushbutton for ON/OFF, zero set, and memory ("HOLD")
2. Pushbutton for mm/inch conversion and mode selection
3. Display
4. "SET" indicator
5. Measurement units indicator
6. "REF 1" indicator
7. "HOLD" (memory) indicator
8. Low battery indicator
9. Reset port
10. Port for optional RS232 computer interface cable (not available from Central Tools, Inc.)
11. Battery compartment
12. Cover assembly

### Turning the Display On/Off

A brief press of button #1 will switch ON the display. A prolonged press of button #1 will switch OFF the display.