ATD-8658
Electronic Digital Drum Gauge
Owner's Manual

FEATURES:

- 6"-20.65" (150mm-515mm) range, .0005" (.01mm) graduations
- Easy to read digital display with SAE/Metric conversion
- Selectable depth stops for easier use
- Measure automotive and heavy-duty drums
- Pointed anvils and 4.25" long arms to inspect drums before turning or replacing
- Powered by (1) SR44/357/303 battery

⚠ WARNING ⚠

WARNING: This product contains chemicals, including lead, known to the State of California to cause cancer, birth defects or other reproductive harm. ***Wash hands after handling.***

Made in China to ATD Tools, Inc. Specifications
Visit us at www.atdtools.com

ATD8658_rev_0218

IMPORTANT

PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS, AND CAUTIONS.
USE THIS PRODUCT CORRECTLY AND WITH CARE, FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY.

SAFETY INSTRUCTIONS

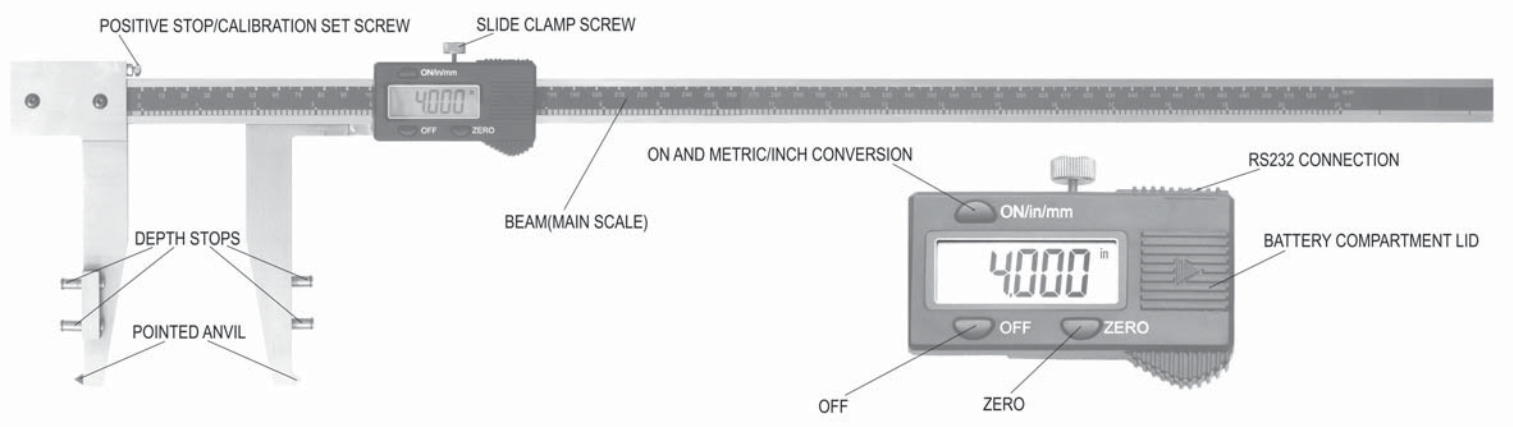
Maintain caliper in good and clean condition for best performance, **DO NOT** use caliper if damaged. **DO NOT** use the caliper for any other use than for which it was designed. **DO NOT** get the caliper wet, or use on wet or damp locations or areas where there is condensation. Keep caliper clean and dry using a dry cotton cloth only. **DO NOT** dip or submerge the caliper in any type of liquid. **DO NOT** expose caliper to bright sunlight or dust. **DO NOT** disassemble the caliiper, it must be maintained by qualified service personnel only. **DO NOT** apply any voltage to the caliper. When not in use, turn off and store caliper in a safe, dry, childproof location.

SPECIFICATIONS AND FUNCTIONS

Your digital caliper was constructed with quality materials and will give you years of trouble free service when cared for as described in the "Care & Maintenance" section.

Repeatability: 0.01 mm or 0.0005"
Accuracy : ± 0.02mm (0.001in) @ <100mm
± 0.03mm (0.001in) @ >100mm, <200mm
± 0.04mm (0.0015in) @ >200mm
Maximum measuring speed: 1.5m/sec or 60"/sec.
Measuring system: Non-contaction linear CAP measuring system
Display: LCD display, minus sign "-", character in 6.35mm/0.25" height for 5 digits, small digit "5" and "IN" sign for inch measuring unit.
Battery: One silver oxide SR44/357/303 battery 1.5V for one year of continuous use. Low battery indicated by flashing display.
Operating temperature: 0 ℃ ~ +40 ℃
Storage temperature: -20 ℃ ~ +70 ℃
Influence of humidity: Not important within 0 to 80% of relative humidity.
Data output: Serial output for interface with host computer or printer
Data processing interface(option): Functions: data storage, processing & priniting.
Auto power off

CALIPER FEATURES



OPERATION

1 General

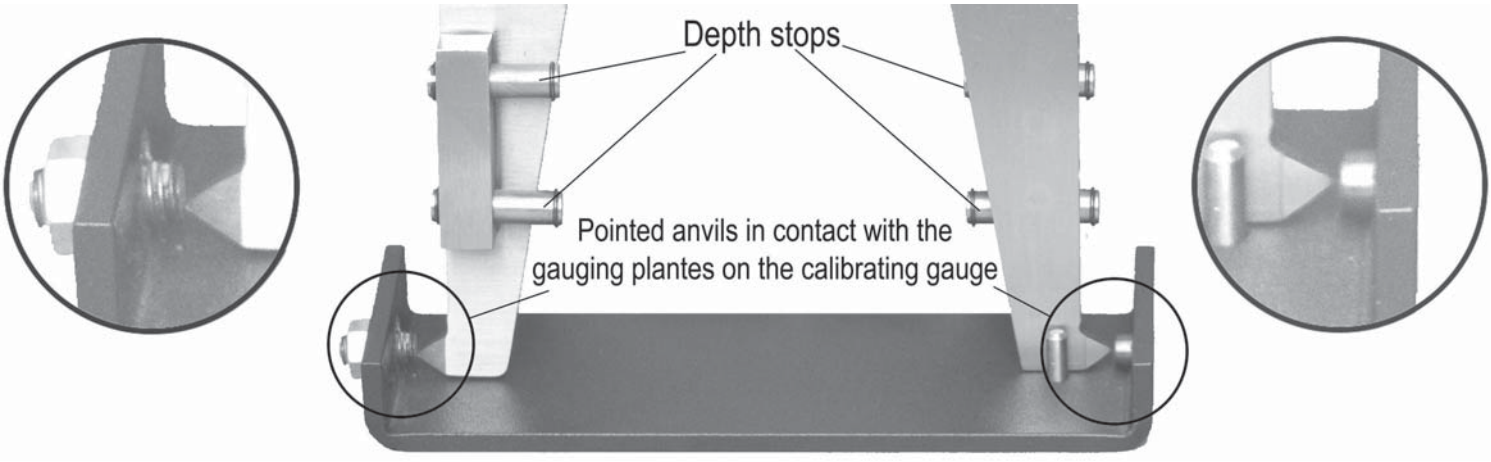
1.1 Ensure all measuring surfaces are clean and then turn on caliper by pressing "On/in/mm" switch. Wait at least one second before use.
1.2 Use the "On/in/mm" button to toggle between inches and mm at any time.
1.3 Press the "Zero" button at any time to zero the reading.
1.4 Press the "OFF" button to switch the caliper off.

WARNING! *Ensure that you have read and understood The Section "CARE & MAINTENANCE" before commencing.*

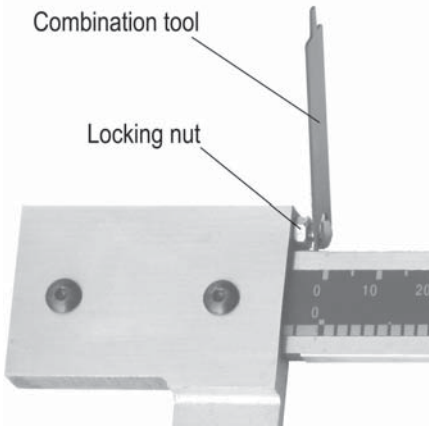
OPERATION CONTINUED

2 Setup

2.1 Check your calibration, and recalibrate periodically after use.
2.2 Turn the caliper on, set the display to inches using "On/in/mm" button.
2.3 Slide the moving arm to the left until it is against the positive stop screw and press the "zero" button.
2.4 Open the caliper so the pointed anvils mate with the gauging plates on the calibrating gauge.



2.5 If the display does not read 4.000in ± .001in proceed as follows.
2.6 Place the caliper on the calibrating gauge as shown above, and press the zero button.
2.7 Slide the moving arm to the left until it reaches the positive stop screw, the reading will now display a minus figure of approximately -4in.
2.8 Using the combination tool provided, loosen the locking nut and turn the calibration set screw in or out until the display reads exactly -4.000in ± .001in. Press the zero button to zero the display.
2.9 Open the arms again and check that the reading now reads exactly 4.000in± .001in when checked against the calibrating gauge, if not, repeat the process again until the correct reading is obtained. Lock the set screw and check the reading again.



3 Measuring Drum.

3.1 To measure unscored surfaces:
3.1.1 Close the caliper and zero the reading. Extend the caliper jaws so the pointed anvils make contact with each side of the drum. The anvils must be kept parallel with the drum face to within 3mm to obtain an accurate reading.
3.1.2 To achieve this, measure the drum using the ends of the arms as depth stops, or use either the upper or lower of the depth stops on the drum face.
3.1.3 The displayed reading will be the drum diameter.
3.2 To measure scored surfaces.
3.2.1 Close the calipers and zero the reading, open the calipers in the drum with the fixed arm against one side of the drum and the pointed anvil in the score, extend the moveable arm to the other side and place the pointed anvil in the score at the point of greatest diameter and take a reading.
3.2.2 The displayed reading will be the total drum diameter inclusive of the score.

CARE & MAINTENANCE

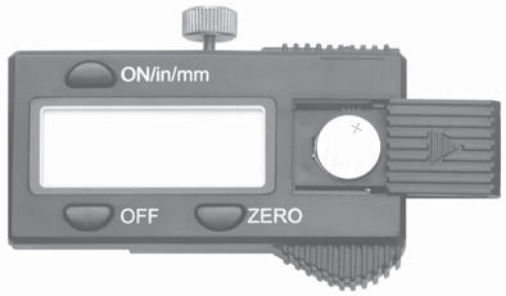
1. The caliper is a precision instrument, treat with care, avoid using force and do not subject to knocks or shocks.
2. Keep body face clean, prevent liquid material from getting into slider as it will destroy the electronics.
3. Face should be cleaned with a clean, dry, lint-free cloth. Lubricate body with a few drops of clock oil. Acetone & alcohol must not be used.
4. Keep battery compartment clean and free of corrosion.

TROUBLESHOOTING

PROBLEM:	**SOLUTION:**
Every second 5 digits jump simultaneously	Battery voltage is under 1.45V. Remove cover and replace battery.
Display will not count	Faulty circuit. Remove battery, after 30 sec. Put battery back into compartment.
Display shows 000.00 or IN 00.000	Function buttons and sliders signal end may have shorted out. Remove the cover, put the button springs in place with rubber covers. Contact must be unobstructed.
Function buttons not active	Springs or rubber covers may be out of shape due to excessive pressing. See solution above for tips.
Reading error for full length is ≥ 0.1mm	Sensor may have dirt or deposits in it. Remove cover and slider assembly. Blow off sensor face with clean pressurized air (≥5kg/cm squared), clean with a dry, lint-free cloth.
No display on LCD screen	1.) Poor battery contact. Check battery compartment, clean if necessary. 2.) Battery voltage is under 1.3V. Replace with correct battery.

BATTERY REPLACEMENT

Take off the battery cover in the direction shown by the arrow and replace the battery (positive side facing out) as shown below.



*****ONE YEAR LIMITED WARRANTY*****

Your ATD-8658 is warranted for a period of 12 months from the original purchase date.

For a period of one (1) year from your purchase date, ATD Tools Inc. will repair or replace (at its option) without charge, your ATD product if it was purchased new and the product has failed due to a defect in material or workmanship which you experienced during normal use of the product. This limited warranty is your exclusive remedy.

To access the benefits of this warranty, contact your supplier, or point of sale directly. You may be advised to return the product under warranty, freight prepaid, to your supplier for warranty determination.