

Analog Durometer

Model AD-100



Operating Instructions

Table of Contents

| | | |
|---|-------|---|
| 1.0 Introduction | | 2 |
| 1.1 Unpacking | | |
| 1.2 Complete Kit | | |
| 2.0 Testing Procedure | | 3 |
| 3.0 Memory Pointer | | 4 |
| 4.0 Specifications | | 5 |
| 4.1 Conforms to International Standards | | |
| 4.2 Dimensional Drawings | | |
| 5.0 Calibration & Repair | | 7 |
| 6.0 Warranty | | 8 |

1.0 Introduction

The new Check-Line AD-100 analog durometer is the ideal choice for a wide range of Shore hardness measuring applications. The AD-100 displays hardness readings on an easy-to-read analog scale calibrated in 0 to 100 Shore units. Seven scales are available: A, B, C, D, DO, O, OO.

The AD-100 conforms to:

- ASTM D-2240
- DIN 53505
- ISO 868
- ISO 7619

1.1 Unpacking

Unpack the durometer and inspect it for any shipping damage. Notices of defect must be filed immediately, in writing, at the latest within 10 days on receipt of the goods.

1.2 Complete Kit

The AD-100 is supplied as a complete kit including the durometer, instruction manual and NIST-traceable calibration certificate all in a foam-fitted metal carrying case.



2.0 Testing Procedure

1. Place the instrument on the material to be tested. The durometer must be level and perpendicular to the specimen.

Any angle other than perpendicular (90°) may cause errors.

NOTE: If the gauge is equipped with the Memory Pointer option make sure the pointer is returned to zero before starting.

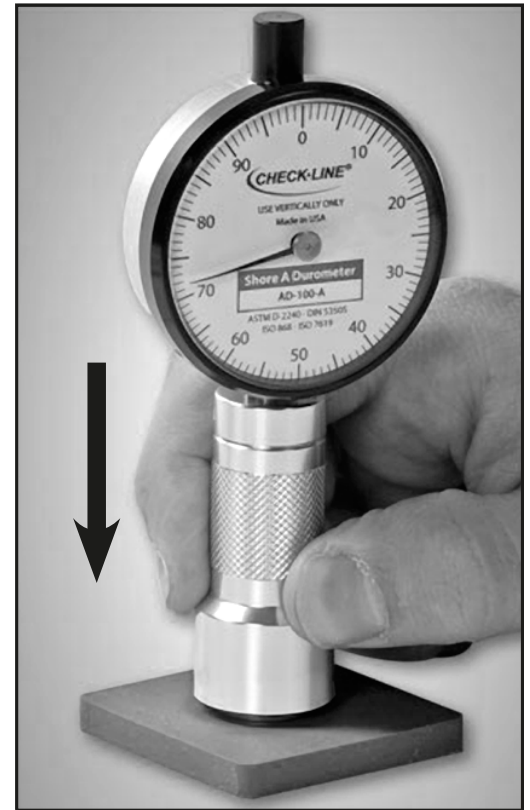
2. Press the foot of the gauge firmly against the specimen, but not so firmly as to imbed the foot into the surface of the material.
3. Maintain pressure for 2 to 3 seconds. The dial hand gives the reading in durometer points.

IMPORTANT: After the initial reading has been noted, continue maintaining pressure for several more seconds. Creep or cold-flow of the specimen, if present, will be evident by receding action of the dial hand.

4. Repeat above steps for each use.

An example of a properly noted durometer reading:

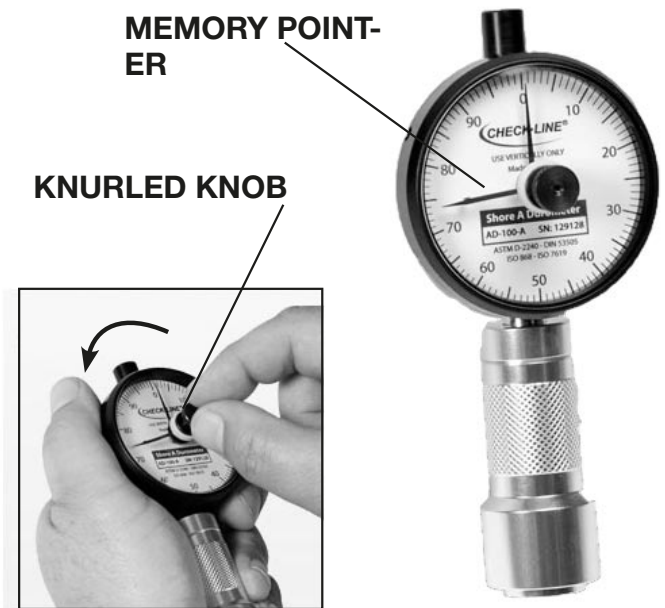
“Durometer A 61, Creep 7 at 15 seconds, 73°F.”



3.0 Memory Pointer (optional)

The Memory Pointer moves with the measurement pointer when a measurement is taken. However, when pressure on the specimen is released, and the measurement pointer returns to zero, the Memory Pointer remains in position, marking the last measurement.

To return the Memory Pointer to the zero position prior to taking another measurement, rotate the knurled knob on the face of the instrument counter-clockwise until the pointer has been reset.



4.0 Specifications

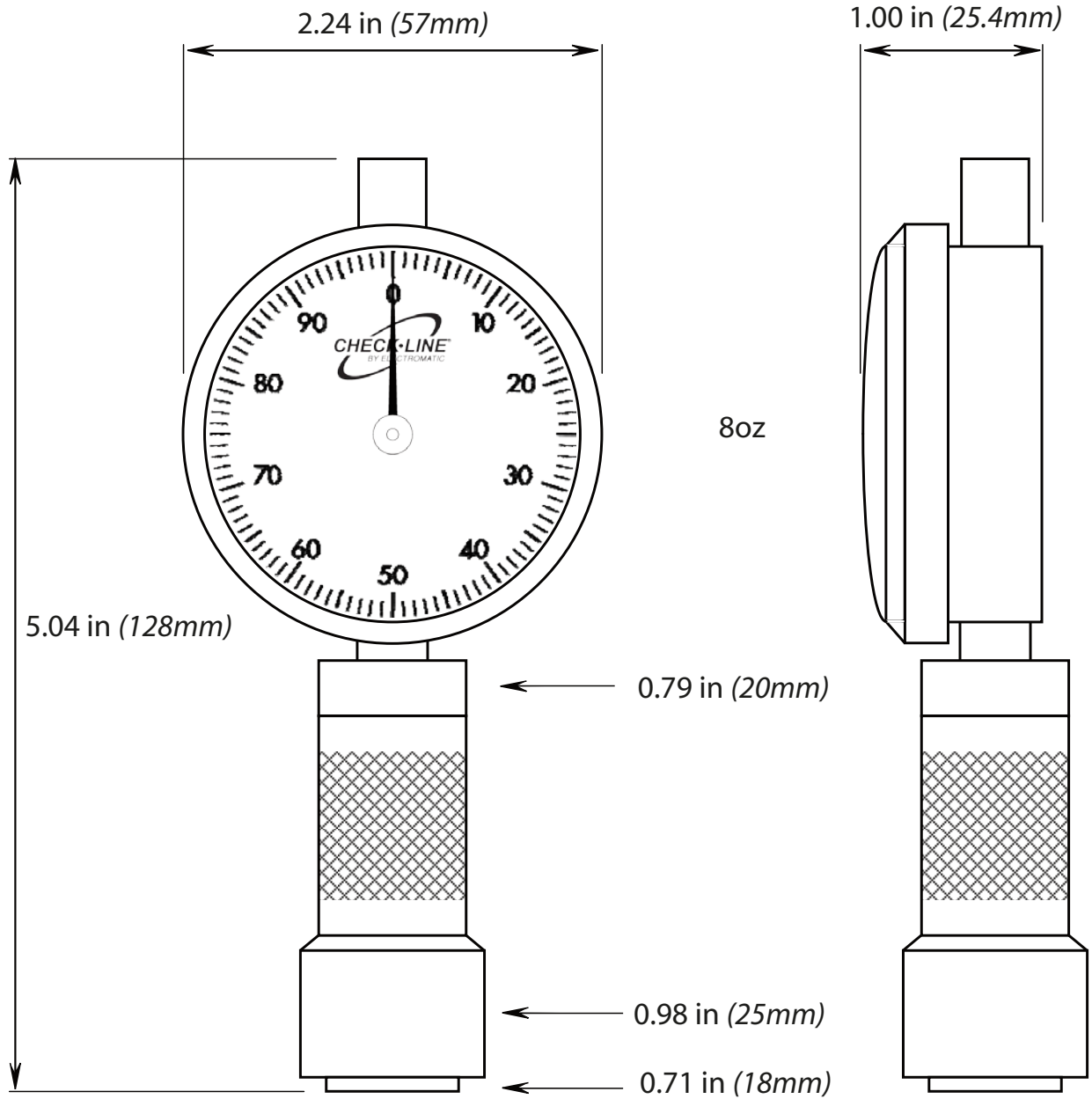
| | |
|------------------------|--|
| Measuring Range | 0 to 100 units |
| Accuracy* | ±1 durometer unit (A, B, C, D, O, DO) ±2 durometer units (OO) |
| Dial Size | 1.97" (50mm) diameter |
| Dimensions | 5.04" x 2.24" x 1.18" (128 x 57 x 30 mm) |
| Weight | 7 ounces (200 grams) |
| Warranty | 1 year |

* **NOTE:** per ASTM D 2240-05, Sect 9.3: It is accepted that durometer readings below 20 or above 90 are not considered reliable. It is suggested that readings in these ranges be omitted.

4.1 Conformance to International Standards

| Model | ASTM D2240 | DIN 53505 | ISO 868 | ISO 7619 |
|-----------|------------|-----------|---------|----------|
| AD-100-A | ● | ● | ● | ● |
| AD-100-B | ● | | | |
| AD-100-C | ● | | | |
| AD-100-D | ● | ● | ● | ● |
| AD-100-DO | ● | | | |
| AD-100-O | ● | | | |
| AD-100-OO | ● | | | |

4.1 Dimensional Drawings



5.0 Calibration and Repair

All Check Line durometers requiring calibration and/or certification should be sent directly to ELECTROMATIC Equipment Co., Inc.

6.0 Warranty

ELECTROMATIC Equipment Co., Inc. (ELECTROMATIC) warrants to the original purchaser that this product is of merchantable quality and conforms in kind and quality with the descriptions and specifications thereof. Product failure or malfunction arising out of any defect in workmanship or material in the product existing at the time of delivery thereof which manifests itself within one year from the sale of such product, shall be remedied by repair or replacement of such product, at ELECTROMATIC's option, except where unauthorized repair, disassembly, tampering, abuse or misapplication has taken place, as determined by ELECTROMATIC. All returns for warranty or non-warranty repairs and/or replacement must be authorized by ELECTROMATIC, in advance, with all repacking and shipping expenses to the address below to be borne by the purchaser.

THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE WARRANTY OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE OR APPLICATION. ELECTROMATIC SHALL NOT BE RESPONSIBLE NOR LIABLE FOR ANY CONSEQUENTIAL DAMAGE, OF ANY KIND OR NATURE, RESULTING FROM THE USE OF SUPPLIED EQUIPMENT, WHETHER SUCH DAMAGE OCCURS OR IS DISCOVERED BEFORE, UPON OR AFTER REPLACEMENT OR REPAIR, AND WHETHER OR NOT SUCH DAMAGE IS CAUSED BY MANUFACTURER'S OR SUPPLIER'S NEGLIGENCE WITHIN ONE YEAR FROM INVOICE DATE.

Some State jurisdictions or States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you. The duration of any implied warranty, including, without limitation, fitness for any particular purpose and merchantability with respect to this product, is limited to the duration of the foregoing warranty. Some states do not allow limitations on how long an implied warranty lasts but, notwithstanding, this warranty, in the absence of such limitations, shall extend for one year from the date of invoice.

Every precaution has been taken in the preparation of this manual. Electromatic Equipment Co., Inc., assumes no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from the use of information contained herein. Any brand or product names mentioned herein are used for identification purposes only, and are trademarks or registered trademarks of their respective holders