

***National Type Evaluation Program
Certificate of Conformance
for Weighing and Measuring Devices***

For:

Bench Scale
Digital Electronic
Model: HD Series
 n_{\max} : 6000
Capacity: See Page 2
Platform: 300 x 380 mm (11.81" x 14.96")

Accuracy Class: III

Submitted by:

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Standard Features and Options

Model	Capacity (kg)	Capacity (lb)
HD-12KA	12 kg x 0.002 kg	30 lb x 0.005 lb
HD-12KB	12 kg x 0.002 kg	30 lb x 0.005 lb
HD-30KA	30 kg x 0.005 kg	60 lb x 0.01 lb
HD-30KB	30 kg x 0.005 kg	60 lb x 0.01 lb
HD-60KA	60 kg x 0.01 kg	120 lb x 0.02 lb
HD-60KB	60 kg x 0.01 kg	120 lb x 0.02 lb

Note: A versions have single LCD display and do not have 10 key pad.
B versions have dual LCD displays and 10-key pad for unit weight entry.

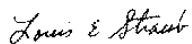
Net display indication
Semi-automatic zero and tare with motion detection
Automatic zero setting mechanism
Gravity correction capability
AC power adapter
Level indicator
Carrying handle

Option: Rechargeable battery pack. An "LB" low battery indication replaces the weight display.

Temperature Range: -10 °C to 40 °C (14 °F to 104 °F)

This device was evaluated under the National Type Evaluation Program (NTEP) and was found to comply with the applicable technical requirements of Handbook 44, "Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices." Evaluation results and device characteristics necessary for inspection and use in commerce are on the following pages.

Effective Date: April 24, 1998



Louis E. Straub
Chairman, NCWM, Inc.



G. Weston Diggs
Chairman, National Type Evaluation Program Committee

Issue date: June 30, 1998

Note: The National Conference on Weights and Measures does not "approve", "recommend", or "endorse" any proprietary product or material, either as a single item or as a class or group. Results shall not be used in advertising or sales promotion to indicate explicit or implicit endorsement of the product or material by the NCWM.

This is a reissuance by the NCWM of a Certificate of Conformance already issued by the National Institute of Standards and Technology.

A and D Engineering
Bench Scale, Digital Electronic
Model: HD Series

Application: General purpose bench scale. The scale has a counting feature and is labeled “**Counting feature not legal for trade.**”

Identification: The required information is on a pressure sensitive self-destructive label located on the right side of the scale.

Sealing: The device can be sealed with of a wire security seal threaded through a tab in the back of the display head to prevent access to the calibration switch.

Test Conditions: The emphasis of the evaluation was on the device design, marking, and compliance with influence factor requirements. The Models HD-12KB (30 lb x 0.005 lb) and HD-60KA (120 lb x 0.02 lb) scales were submitted for evaluation. Several increasing/decreasing load and shift tests were conducted. The scales were tested over a temperature range of $-10\text{ }^{\circ}\text{C}$ to $40\text{ }^{\circ}\text{C}$ ($14\text{ }^{\circ}\text{F}$ to $104\text{ }^{\circ}\text{F}$). Additionally, tests were conducted with a power supply of 100 VAC and 130 VAC. A load of approximately one-half capacity was placed on each scale 100,000 and 100,800 times, respectively. The scales were tested periodically during this time.

The results of the evaluation indicate the devices comply with the applicable requirements of NIST Handbook 44.

Type Evaluation Criteria Used: NIST Handbook 44, 1998 Edition

Tested By: A. McCoy (OH), W. West (OH), S. Smith (OH)