National Conference on Weights and Measures

15245 Shady Grove Road, Suite 130 • Rockville, MD 20850

Certificate Number: 91-141A2

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

For:

Computing Scale Digital Electronic Model: S-2000

n_{max}: 3000 (S-1000 n_{max}:1500) Capacity: See Below Platform: 14.5" x 11"

Accuracy Class: III

Submitted by:

CAS (USA) Corporation 99 Murray Hill Parkway East Rutherford, NJ 07073 Tel: (201) 933-9002 Fax: (201) 933-9025

Contact: Michael Ohm Email: ohm@cas-usa.com

Standard Features and Options	Model S-1000	Model S-2000	Model S-2000-60
Capacity	15 lb x 0.01 lb	30 lb x 0.01 lb	0-30x 0.01 / 30-60 x 0.02 lb
Multi-interval			/
Automatic zero setting mechanism (AZSM)	~	V	V
Semi-automatic(push-button) zero setting mechanism	V	V	/
Initial zero setting mechanism (ISZM) (on/off switch)			/
Semi-automatic (push-button) tare	~	V	V
Tare save key	~	V	V
Keyboard tare	V	V	/
Pre-pack mode	V	V	
Price accumulation key	~	V	
Memory recall	'	✓	
1/2 and 1/4 multiplier keys	✓	✓	✓
Percentage tare key	~	✓	

Standard Features and Options

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

RS232 uni-directional communication (printer)

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.

Ross J. Andersen Chairman, NCWM, Inc.

Customer display

200 Programmable PLU codes

Louis E. Straub

Chairman, National Type Evaluation Program Committee

Issue date: June 20, 2003

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.

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CAS (USA) Corporation Electronic Computing Scale Model: S-2000

Application: General purpose computing scale for direct sale or pre-pack use.

<u>Identification:</u> The metal identification plate is riveted to the left side of the scale housing.

<u>Sealing:</u> The calibration switch is located under a metal plate, beneath the scale platter. Undetected access to the switch can be prevented by threading a wire security seal through two sealing screws.

Operation: Model S-2000 (30 lb)

To Program the Percentage Tare Feature:

- Press the "%SET"
- The device will briefly display "PrCnt", "tARE" and "ProG" in the weight, total price and unit price displays, respectively
- The device will then display the programmed percentage tare in the unit price display
- Press the "%TARE" key again to display the programmed unit price
- Press the "%TARE" key again to display the programmed tare, in addition to the percentage tare
- Press the "%TARE" key again to return to the weigh mode

To Use the Percentage Tare Feature:

- Press the "%TARE" key
- If a percentage tare has been programmed, the device will briefly display "PrCnt" and "tARE" in the weight and total price displays, respectively
- Press the "PRE-PACK" key and the "TARE SAVE" key to maintain the percentage tare mode
- To deactivate the percentage tare mode, press the "%TARE" key

<u>Test Conditions:</u> This certificate supersedes Certificate of Conformance Number 91-141A1 and is issued to add a 60 lb capacity multi-interval model and RS232 printing capability. The emphasis of this evaluation was on device design, operation, marking, and performance. The CAS S2000-60 multi-interval model was tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). A load of approximately one half scale capacity was placed on the device 100 000 times. Increasing/decreasing load and shift tests were conducted periodically during this time. The scale was tested interfaced with a Nuri Data Systems model ND-192 tape printer via RS232 port. Price computations were evaluated and the scale was tested over a voltage range of 100 to 132 VAC. The CAS model S2000-60 multi-interval scale was equipped with a CAS Model BC-30A (30 kg) load cell (non NTEP). Previous test conditions are listed below for reference.

<u>Certificate of Conformance Number 91-141A1:</u> This Certificate supersedes Certificate of Conformance Number 91-141 and is issued to add the percentage tare feature. The emphasis of the evaluation was on the design and operation of the percentage tare feature. The device was tested over its percentage tare operating range of 1% to 99%.

<u>Certificate of Conformance Number 91-141:</u> The emphasis of the examination was on the device design and operation. A load of approximately one-half capacity was applied to the device 100 000 times. The scale was tested periodically during this time. Voltage variation tests were conducted with a power supply of 100 VAC and 130 VAC. The scale was tested over a temperature range of -10 °C to 40 °C.

The results of the evaluations indicate that the device complies with the applicable requirements of NIST Handbook 44.

Type Evaluation Criteria Used: NIST Handbook 44, 2003 Edition

Tested By: Gary Castro (CA) 91-141, A. P. Buié (MD) 91-141A1, J. T. Price (MD) 91-141A2

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