



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Computing Scale
Load Cell, Electronic
Model: S2000 Jr
 n_{max} : 3000
Capacity: See Below
 e_{min} : See Below
Platform: 8.66 inch x 12 inch (220 mm x 304 mm)
Accuracy Class: III

Submitted By:

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Standard Features and Options

Standard Features:

- Display: Dual LCD or VFD, Base Mount or Pole Displays
- PLU Capability, 199 Numbers, 28 Names
- Tare: Platter, Keyboard, Programmed with PLU
- Annunciators for: lb, oz, or kg and \$/lb, \$oz or \$/kg
- Multiplier Keys for ¼ and ½ Pricing (where permitted)
- AC Power Supply with Internal Recharging DC Battery with Low Battery Indicator
- Automatic Zero Setting Mechanism (AZSM)
- Initial Zero Setting Mechanism (IZSM)
- Semi-Automatic (push button) Zero
- Back Light and Power Saver Options

Options:

- Thermal Printer, External, CAS model DLP-50 or Equivalent, using RS232 Communication

Load Cells:

CAS Non-NTEP / TP 6L, 6 kg / TP 15L, 15 kg / TP 30L, 30 kg

Available with Multi-interval of:

Capacity, lb	d = e	Capacity, oz	d=e	Capacity, kg	d = e
0-6 / 6-15 lb	0.002 / 0.005 lb	0-80/80-160 oz	0.05/0.1 oz	0-3 / 3-6 kg	0.001 / 0.002 kg
0-15 / 15-30 lb	0.005 / 0.01 lb	0-200/200-400 oz	0.1/0.2 oz	0-6 / 6-15 kg	0.002 / 0.005 kg
0-30 / 30-60 lb	0.01 / 0.02 lb	0-400/400-1000 oz	0.2/0.5 oz	0-15 / 15-30 kg	0.005 / 0.01 kg

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

This device was evaluated under the National Type Evaluation Program and was found to comply with the applicable technical requirements of "NIST 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.

Randy Jennings
Chairman, NCWM, Inc.

Judy Cardin
Chairman, National Type Evaluation Program Committee
Issued: September 3, 2009

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**CAS USA, Corporation**

Computing Scale / S2000 Jr

Application: General purpose computing scale for direct sale of commodities in stores such as: supermarkets, delicatessens and groceries.

Identification: A metallic Identification tag is riveted to the left side of the scale.

Sealing: This scale utilizes a category one sealing method. The scale may be sealed with a wire security seal. This seal is threaded through two sealing bolts which secure a sealing plate that prevents access to the calibration switch. The seal is located under the scale in a recessed area in front of the DC battery compartment.

Operation: Model S2000 Jr. available in several different configurations, they include three multi-interval capacities and two display configurations. This scale has an external lb/oz/kg conversion switch which only operates at gross load zero. The scale has dual markings and the lb/oz/kg switch changes enunciators for proper indications. Tare weight may be entered using: platter tare, key board tare and tare programmed with a PLU. When a programmed PLU is utilized and a tare value is programmed with the PLU, this weight value will lock the device into a specific weight range (oz, lb, or kg). This scale has $\frac{1}{4}$ and $\frac{1}{2}$ lb multiplier keys that are protected by the security seal and maybe activated in those jurisdictions that allow that method of sale. Weight labels issued from a remote printer connected to this scale, must meet all the applicable requirements of NIST Handbook 130.

Test Conditions: This certificate supersedes Certificate of Conformance Number 06-013 and is issued to add an ounce feature, switch from internal AC/DC converter to an external AC/DC adaptor and the addition of programmable PLU's with tare. The emphasis of this evaluation was on device design, operation and marking requirements. A 0-15/15-30lb x 0.005/ 0.01 lb scale was used submitted for this evaluation. Several increasing/decreasing load and shift tests were conducted in all ranges. Power supply voltages from 100 to 130 VAC and battery voltages from 5.6 VDC to 13.2 VDC were tested. A remote printer was connected through the RS232 port to evaluate the new weight format. Previous test conditions are listed below for reference.

Certificate of Conformance 06-013: Two multi-interval versions model S2000 Jr. were evaluated; a 0-6 /6-15 lb x 0.002 / 0.005 lb and a 0-30 / 30-60 lb. x 0.01 / 0.02 lb. The emphasis of the evaluation was on device design, operation, and compliance with influence factor requirements. Both devices were tested over a temperature range of 0 °C to 40 °C. Loads of approximately one-half capacity were applied to the 0-6 /6-15 lb version over 100 000 times. Increasing and decreasing loads, and shift tests were conducted periodically during this time. In addition, 0-30/30-60 lb scale was evaluated with power supply voltages of 100 and 130 VAC and the DC battery voltage from 6 VDC to 4 VDC. A remote printer was connected to the scale through the RS232 communication port, to evaluate the print format.

Evaluated By: B. Fishman (NY), 06-013, E.A. Payne, Jr. (MD) 06-013A1

Type Evaluation Criteria Used: NIST, Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices, 2009. NCWM, Publication 14: Weighing Devices, 2009.

Conclusion: The results of the evaluation and information provided by the manufacturer indicate the device complies with applicable requirements.

Information Reviewed By: S. Patoray (NCWM), L. Bernetich (NCWM) 06-013; J. Truex (NCWM) 06-013A1

Example of Device:

Model S2000 Jr