



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:
 Computing Scale
 Digital Electronic
 Model: BC-4000 Series, UNI-3 Series & ASTRA II
 n_{max}: 3000
 Capacity: 0-15 lb x 0.005 lb / 15-30 lb x 0.01 lb
 0-6 kg x 0.002 kg / 6-15 kg x 0.005 kg
 0-60 lb x 0.02 lb, 0-30 kg x 0.01 kg
 Platform: 14" x 9.5" (BC-4000 series),
 14.5" x 10" (UNI-3 series), or 14" Diameter (L2H)
 Class III

Submitted By:
 Ishida Co., Ltd.
 44, Sanno-cho, Shogoin, Sakyo-ku
 Kyoto, 606-0832
 JAPAN
 Tel: 81-75-771-4141
 Fax: 81-75-751-1634
 Contact: Masako Asahina
 Email: kikaku-g@ishida.co.jp
 Web site: www.ishida.com

Standard Features and Options

Standard Features for all Models:


Preprogrammed commodity keys Semi-automatic (push-button) zero (SAZSM) Integral printer
 Price look-up (PLU) capability Automatic zero setting mechanism (AZSM) Free formatting labels
 Programmed tare with PLU Initial zero setting mechanism (IZSM) Proportional tare
 Semi-automatic (push-button) tare

Additional Features	BC-4000S BC-4000S2 BC-4000TEC BC-4000Si BC-4000TECi	BC-4000L1, BC-4000L1i, UNI-3 L1, UNI-3 L1i, UNI-3 L1EV, UNI-3 L1EVi, ASTRA II	BC-4000L2 BC-4000L2i UNI-3 L2 UNI-3 L2i UNI-3 L2EV UNI-3 L2EVi	BC-4000E BC-4000Ei	BC-4000L2H UNI-3 L2H
Remote weighing element	O (i)	O (i)	O (i)	O (i)	----
Network communications	S	S	S	S	S
Remote display	O	O	O	O	----
LCD display, alphanumeric	----	S	S	----	S
LED Display, alphanumeric	----	----	----	S	----
VFD 7 segment display, numeric	S	----	----	----	----
VFD Dot display, alphanumeric	O	----	----	----	----
Multi-interval	S	S	S	S	S
Single interval	O	O	O	O	O
Remote Operation	----	O	O	----	----

S = Standard O = Optional ---- = not available in that model L1/L2 = Liquid Crystal Display, E = Light Emitting Diode, L2H Hanging Liquid Crystal Display, S/TEC = Vacuum Florescent Display, (i) = indicating element only Note: Auto-Tare prohibited for direct sales to the public
 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.


 Brett Gurney
 Chairman, NCWM, Inc.


 James Cassidy
 Committee Chair, National Type Evaluation Program Committee
 Issued: June 12, 2019

1135 M Street, Suite 110 / Lincoln, Nebraska 68508

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Ishida, Co., Ltd.

Computing Scale / BC-4000 Series, UNI-3 Series & ASTRA II

Application: For direct sale or prepackaging applications use in supermarkets, delicatessens and commodity processing locations. Labels printed on prepackaged weight items and items sold by count must conform to the regulations adopted under the Fair Packaging and Labeling Act.

Identification: The identification tags on all one-piece devices are riveted or a foil adhesive badge that will show "VOID" upon removal and is attached to the left side of the device base. The identification tag for model BC-4000L2H and UNI-3 L2H is located on the opposite side of the operator's keyboard. The identification tag for model UNI-3L2H may be located on the left side of the device.

Sealing: The device is sealed by means of a wire security seal threaded through two flat head screws in the bottom of the device and then threaded through a plastic plug on the side of the device. Seal model BC-4000L2H and UNI-3L2H with one wire security seal through two sealing screws located on the lower left side of the device, this prevents access to the calibration button and protects the integrity of the case.

Operation: All models in the BC-4000 series and UNI-3 series may be networked in a LAN TCP/IP 10/100baseT network and can be used as a data management system. This feature does not affect the metrological integrity of any scale in the system and updated information will not affect the status of an active transaction.

Test Conditions: This certificate supersedes Certificate of Conformance number 07-005A3 and is issued without additional tests to update the contact information for the certificate holder. Previous test conditions are listed below for reference.

Certificate of Conformance Number: 07-005A3: This certificate supersedes Certificate of Conformance Number 07-005A2 and is issued to add the ASTRA II version. The manufacturer provided evidence that the ASRTA II was identical to the UNI-3 device. Previous test conditions were reviewed by NTEP and no additional testing was deemed necessary. Previous test conditions are stated below for reference.

Certificate of Conformance Number: 07-005A2: This certificate supersedes Certificate of Conformance Number 07-005A1 and is issued to add Model UNI-3 Series. A model UNI-3 L1 (pole type) 0-15 kg x 0.005 kg / 15-30 kg x 0.01 kg multi-interval device and a UNI-3 L2 (bench type) 0-6 kg x 0.005 kg / 6-15 kg x 0.01 kg multi-interval device was submitted for evaluation. The emphasis of the evaluation was on the device marking requirements, performance, operation, and compliance with influence factor requirements. Several increasing, decreasing, and eccentric loading tests were conducted to evaluate the performance of the scale. The scale 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 applied to the scale over 100 000 times. The scale was tested periodically during this time. Tests were also conducted with a power supply of 100VAC and 130VAC.

Certificate of Conformance Number: 07-005A1: This certificate supersedes Certificate of Conformance Number 07-005 and is issued to indicate an alternative adhesive foil badge for the identification of the device. The foil identification badge was evaluated and found to meet all NTEP requirements for permanence. No additional testing was required.

Certificate of Conformance Number: 07-005: A model BC-4000L2 0-15lb x 0.005lb / 15-30lb x 0.01lb multi-interval device was submitted for the evaluation with the pedestal mounted indicator. The emphasis of the evaluation was on the device marking requirements, tare operation, weight, and money displays. Several different tares were entered and various prices computed to verify the operation of both tare and computing functions. Several increasing/decreasing load and shift tests were performed. The scale 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 applied to the scale over 100,000 times. The scale was tested periodically during this time. Tests were also conducted with a power supply of 100VAC and 130VAC.

Evaluated By: W West (OH); T Wiseman (OH); J Morrison (OH) 07-005, 07-005A1, 07-005A2

Type Evaluation Criteria Used: *NIST Handbook 44 Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices*, 2016 Edition. *NCWM Publication 14 Weighing Devices*, 2016 Edition.

Conclusion: The results of the evaluations and information provided by the manufacturer indicate the devices comply with applicable requirements of NIST Handbook 44.

Information Reviewed By: S. Patoray, L. Bernetich (NCWM) 07-005, 07-005A1; J. Truex (NCWM) 07-005A2, 07-003A3; D. Flocken (NCWM) 07-005A4



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Computing Scale / BC-4000 Series, UNI-3 Series & ASTRA II

Examples of Device:

BC-4000L2



BC-4000Ei (Indicator with dead deck and remote base)



UNI-3 L1 or UNI-3 L2 (pole type)



UNI-3 L1 or UNI-3 L2 (bench type)



UNI-3 L1EV or UNI-3L2EV



UNI-3 L2H

