

NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance for Weighing and Measuring Devices

For: Non-computing Scale Digital Electronic Model: 67xxU* n_{max}: 1920 to 5000 (See Page 2) e_{min}: See Page 2 Capacity: See Page 2 Platform Size: 6 in x 10 in to 12 in x 14 in (See Page 2) Accuracy Class: III Submitted By: Brecknell 1000Armstrong Drive Fairmont, Minnesota 56031 USA Tel: 1-800-637-0529 Fax: 507-238-8258 Contact: Jerome Lager Email: jlager@awtxglobal.com Web site: www.salterbrecknell.com

Standard Features and Options

- Automatic Zero Tracking Mechanism (AZT)
- Initial Zero Setting Mechanism (IZSM)
- Semi-Automatic Zero (Push Button)
- Semi-Automatic Tare (Push Button)
- RS-232 / Bi-directional USB Communication
- Optional Pedestal Display / Customer Display
- Motion detection

- External Unit Key: lb, oz, kg, g
- Linearity Calibration Points (4)
- Gross/Net Display
- Integral / Remote Customer Display
- Liquid Crystal Display
- AC / DC Adaptor
- Power Saving Feature/ Auto Shut off

Version: 01.01 (Version Number is displayed upon powering up the device)

Load Cells Used: Zemic Model L6D (NTEP Certificate Number 11-012) or NTEP certified metrological equivalent.

*The "xx" in the models represent numerical variables not affecting the metrological characteristics of the device

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.

June Brett Gurnev

Chairman, NCWM, Inc

James P. Cassi James Cassidv

Committee Chair, National Type Evaluation Program Committee Issued: December 6, 2018

1135 M Street, Suite 110 / Lincoln, Nebraska 68508

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Brecknell Non-Computing Scale / 67xxU

Capacity	e = d	n _{max}	Platform Size
5 lb	0.001 lb	5000	6 in x 10 in
80 oz	0.02 oz	4000	6 in x 10 in
2.5 kg	0.0005 kg	5000	6 in x 10 in
2500 g	0.5 g	5000	6 in x 10 in
10 lb	0.002 lb	5000	6 in x 10 in / 10 in x 10 in
160 oz	0.05 oz	3200	6 in x 10 in / 10 in x 10 in
5 kg	0.001 kg	5000	6 in x 10 in / 10 in x 10 in
5000 g	1 g	5000	6 in x 10 in / 10 in x 10 in
15 lb	0.005 lb	3000	6 in x 10 in / 10 in x 10 in / 12 in x 14 in
240 oz	0.1 oz	2400	6 in x 10 in / 10 in x 10 in / 12 in x 14 in
7.5 kg	0.002 kg	3750	6 in x 10 in / 10 in x 10 in / 12 in x 14 in
7500 g	2 g	3750	6 in x 10 in / 10 in x 10 in / 12 in x 14 in
30 lb	0.01 lb	3000	6 in x 10 in / 10 in x 10 in /12 in x 14 in
480 oz	0.2 oz	2400	6 in x 10 in / 10 in x 10 in /12 in x 14 in
15 kg	0.005 kg	3000	6 in x 10 in / 10 in x 10 in /12 in x 14 in
15000 g	5 g	3000	6 in x 10 in / 10 in x 10 in /12 in x 14 in
60 lb	0.02 lb	3000	12 in x 14 in
960 oz	0.5 oz	1920	12 in x 14 in
30 kg	0.01 kg	3000	12 in x 14 in
30 000 g	10 g	3000	12 in x 14 in
150 lb	0.05 lb	3000	12 in x 14 in
2400 oz	1 oz	2400	12 in x 14 in
68 kg	0.02 kg	3400	12 in x 14 in
68000 g	20 g	3400	12 in x 14 in

Application: Digital non-computing scale used for general purpose weighing applications.

Identification: The G.S.1 information is located underneath the scale and is composed of a self-destructive label.

<u>Sealing</u>: Access to the calibration push button is located underneath the scale and is sealed with a lead and wire physical seal passed through two pre drilled screw heads, or by means of a self-destructive security seal. The scale also has a category 1 audit trail with two event counters one for calibration parameters and one for configuration parameters.

To access the Calibration counter:

- 1. Press [HOLD] and [ON/OFF] keys for three consecutive seconds
- 2. Press [HOLD] key to select CAL menu

3. Press [TARE] to view Calibration counter

To access the Configuration counter:

- 1. Press [HOLD] and [ON/OFF] keys for three consecutive seconds
- 2. Press [TARE] key to view Configuration counter



Brecknell Non-Computing Scale / 67xxU

To exit Calibration or Configuration counter, press [ON/OFF] key until exited.

<u>Test Conditions</u>: This Certificate of Conformance supersedes Certificate of Conformance 13-074 and is issued to add additional sizes for some capacities. The sizes are within parameters already certified, so NCWM Pub 14 technical policy required no additional testing. Previous test conditions are listed below for reference.

<u>Certificate of Conformance 13-074A1</u>: This Certificate of Conformance supersedes Certificate of Conformance 13-074 and is issued to increase the capacity of this family to 150 lb. The emphasis of this evaluation was on device design, operation, performance, marking requirements, and compliance with influence factors. A Brecknell Model 67xxU (150 lb x 0.05 lb) was submitted for evaluation. Several increasing/decreasing, shift, and discrimination (zone of uncertainty) tests were performed. Power interruption, unit conversion, and warm up tests were also conducted. The device was tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). Voltage test were conducted using 102 VAC and 132 VAC, as well as 4.1 VDC and 6.6 VDC. A test load of approximately $\frac{1}{2}$ capacity was applied to the device over 100 000 times. The device was tested periodically during this time.

<u>Certificate of Conformance 13-074</u>: The emphasis of this evaluation was on device design, performance, operation, marking requirements and compliance with influence factor requirements. Three 67xxU non-computing scales (5 lb x 0.001 lb, 15 lb x 0.005 lb, and 60 lb x 0.02 lb) were submitted for evaluation. The devices were tested over a temperature range of $-10^{\circ}C$ to $40^{\circ}C$ (14°F to 104°F). A load of approximately one-half capacity was applied over 100,000 times and each device was tested periodically during this time. Several increasing, decreasing, motion detection and shift tests were performed. Voltage tests were conducted using 100 V AC and 130 V AC, as well 6.6 V DC and 4.1 V DC. Receipts from a Brecknell printer were evaluated for appropriate unit abbreviations.

Evaluated By: E. A. Payne, Jr. (MD), Z. Tripoulas (MD) 13-074; J. Gibson (OH), T. Buck (OH) 13-074A1

Type Evaluation Criteria Used: NIST Handbook 44 Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices, 2015 Edition. NCWM Publication 14 Weighing Devices, 2014 Edition.

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

Information Reviewed By: J. Truex (NCWM) 13-074, 13-074A1, 13-074A2

Examples of Device:

