NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:
Computing Scale
Digital Electronic
Models: MFQ and PC Series
n_{max}: 3500 to 8000 (See Table on Page 2)
e_{min}: 0.005 lb / 0.005 kg (See Table on Page 2)
Capacity: Up to 80 lb / 40 kg (See Table on Page 2)
Platform Size: 11.5 in x 15 in
Accuracy Class: III

Submitted By:
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Standard Features and Options

Models with a "T" suffix includes an alphanumeric customer tower display
For new models with an "X" suffix see "Sealing" section

See table on Page 2 for specific model features and options

Semi-automatic (push-button) zero
Initial zero setting mechanism (IZSM)
Alphanumeric display and customer display
Battery powered
Low battery indicator
Semi-automatic (push-button) tare
Automatic zero setting mechanism (AZSM)
Liquid crystal display (LCD)
Gross/net weight display
Internal AC TO DC power supply (MFQ-40L, LX, LT and LT-X Models)
External AC to DC power supply (PC- 40, PC-20, PC-35, L, LX, LT and LT-X 3 Models)
USB Communication Port

Load Cells Used:

MFQ-40L/LT: Tedea-Huntleigh, Model 1022 (NTEP CC 96-122)
PC-40L/LT: Medidata, Model M022-20kg (non-NTEP)
PC-20/T and PC-35/T: HBM, Model PW6K (NTEP CC 02-094)
MFQ and PC Series: Medidata, Model M022-40kg (non-NTEP)

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: January 18, 2019

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Fabricantes de Basculas Torrey, S.A. de C.V.
Computing Scale / MFQ and PC Series

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	MFQ-40L/LT*	PC-40L/LT		PC-20/T	PC-35/T*
Maximum price display	$249.99	$999.99		$999.99	$999.99
Center of zero annunciator	Yes	No		Yes	Yes
Discount/refund function	Yes	No		Yes	Yes
Weighed/non-weighed product item totalizer	Yes	No		Yes	Yes
n_{max}	4 000	8 000	4 000	4 000	3 500
Capacity x Division	40 lb x 0.01 lb	40 lb x 0.005 lb	40 lb x 0.01 lb	20 kg x 0.005 kg	35 kg x 0.01 kg
Platform size	15-in x 11.5-in	14-in x 11.5-in		15-in x 11.5-in	15-in x 11.5-in
PLU	No	100 PLU memory		100 PLU memory	100 PLU memory
	MFQ-40/T	**MFQ-80L/LT***		**PC-40/T***	**PC-80L/LT**
Capacity x Division	40 kg x 0.01 kg	80 lb x 0.02 lb		40 kg x 0.01 kg	80 lb x 0.02 lb
RS-232	Yes	Yes		Yes	Yes
n_{max}	4 000	4 000		4 000	4 000
Maximum price display	$999.99	$999.99		$999.99	$999.99
Platform size	11.5-in x 15-in	11.5-in x 15-in		11.5-in x 14-in	11.5-in x 14-in
AC Adapter/ Rechargeable battery	Yes	Yes		Yes	Yes
PLU	100 PLU memory	100 PLU memory		100 PLU memory	100 PLU memory

*Models submitted for evaluation.

Application: For use in direct sales in supermarkets and delicatessens.

Identification: Earlier versions of the Model MFQ-40L have the identification plate riveted on the right side of the device or underneath the platter. On the PC-40L, the identification plate is a pressure sensitive self-destructive label located under the platter.

Sealing: For models with the "X" suffix a cover plate preventing access to the calibration switch inside may be sealed by a wire security seal threaded through two plastic screws with holes in them. The cover plate and screws are located at the bottom of the scale.

Models without the "X" suffix utilize a Category 1 audit trail security system with calibration and configuration event counters.

Sealing: (Continued)

To access the calibration counter:
- Turn the scale on
- During the initial countdown, for the MFQ-40L/LT press "M", "C", "1", "0", "0", "0"; and for the PC-40L/LT press "STO", "C", "1", "0", "0", "0"
- The scale display will read "CA" and display the calibration count

To access the configuration counter:
- Turn the scale on
- During the initial countdown, for the MFQ-40L/LT press "M", "C", "1", "0", "0", "1"; and for the PC-40L/LT press "STO", "C", "1", "0", "0", "1"
- The scale display will read "CF" and display the configuration count

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Turn the scale off and then back on to return to the normal weighing mode.

Test Conditions: This certificate supersedes Certificate of Conformance Number 95-041A11 and is issued to include the use of a capacitive keyboard with all models. A model PC-40L was submitted for evaluation and a number of tests were performed to verify that Price Computations, Tare and Zeroing were performed correctly. No additional testing was deemed necessary. Previous test conditions are listed below for reference.

Certificate of Conformance 95-041A11: This certificate supersedes Certificate of Conformance Number 95-041A10 and was issued to recognize a sale of the company to Fabricantes de Equipos para Refrigeracion S.A. de C.V., recognized in the Submitted By: box on page one. Information provided by the manufacturer was reviewed. No additional testing was deemed necessary.

Certificate of Conformance Number 95-041A10: This certificate supersedes Certificate of Conformance Number 95-041A9 and is issued to include USB Communication Port to the list of Standard Features and Options. A model PC 40L was submitted for evaluation and was connected via the USB Port to a PC that had the Torrey computer program Scale v2.2 loaded. A number of loads were applied to the scale to verify correct transmittal of data to the computer. No additional testing was deemed necessary. Previous test conditions are repeated below for reference.

Certificate of Conformance Number 95-041A9: This certificate supersedes Certificate of Conformance Number 95-041A8 and is issued to include the Models MFQ and PC Series with 40 kg x 0.01 kg and 80 lb x 0.02 lb capacities, a RS-232 communication port, and a folding customer display turret. The emphasis of this evaluation was on device design, operation, performance, marking requirements, and compliance with influence factor requirements. Several increasing/decreasing load and shift tests were conducted. The device was tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). A load of approximately one-half capacity was applied to the scale more than 100 000 times. The scale was tested for accuracy approximately every 25 000 times. Additionally, tests were conducted using 100 VAC, 130 VAC, 5.4 VDC and 7.0 DC.

Certificate of Conformance Number 95-041A8: This certificate superseded Certificate of Conformance Number 95-041A7 and was issued to change the load cell in the PC-40-L/LT from Celtron Technologies Model LPS to Medidata Model M022-20kg. The Model PC-40L was submitted for evaluation. The emphasis of this evaluation was on device design, operation, performance, marking requirements, and compliance with influence factor requirements. Several increasing/ decreasing load and shift tests were conducted. The device was tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). A load of approximately one-half capacity was applied to the scale more than 100 000 times. The scale was tested for accuracy approximately every 25 000 times. Additionally, tests were conducted using 100 VAC, 130 VAC, 7.5 VDC, and 9.9 VDC.

Certificate of Conformance Number 95-041A7: This certificate superseded Certificate of Conformance Number 95-041A6 and was issued to add a smaller n_{max}, and a smaller scale division for Model PC-40L/LT. No additional testing was required.

Certificate of Conformance Number 95-041A6: This certificate superseded Certificate of Conformance Number 95-041A5 and was issued to add Models PC-20, PC-20T, PC-35 and PC-35T. The Model PC-35T was submitted for evaluation. The emphasis of this evaluation was on device design, operation, performance, marking requirements, and compliance with influence factor requirements. Several increasing/decreasing load and shift tests were conducted. The device was tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). A load of approximately one-half capacity was applied to the scale more than 100 000 times. The scale was tested periodically during these times. Additionally, tests were conducted using 100 VAC, 130 VAC, 7.5 VDC, and 9.9 VDC.

Certificate of Conformance Number 95-041A5: This certificate superseded Certificate of Conformance Number 95-041A4 and was issued to change the method of sealing. New scales will be manufactured with a physical seal over a calibration switch instead of a Category 1 audit trail and will be marked with an "X" suffix in the part number.

Certificate of Conformance Number 95-041A4: This certificate superseded Certificate of Conformance Number 95-041A3 and was issued to add the Models PC-40L and PC-40LT. The Model PC-40LT was submitted for evaluation. The emphasis of this evaluation was on device design, operation, performance, marking requirements, and compliance with influence factor requirements. Several increasing/decreasing load and shift tests were conducted. The device was tested over a temperature range of –10 °C to 40 °C (14 °F to 104 °F). A load of approximately one-half capacity was applied to the scale more than 100 000 times. The scale was tested for accuracy approximately every 25 000 times. Additionally, tests were conducted using 100 VAC, 130 VAC, 7.5 VDC, and 9.9 VDC.

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Certificate of Conformance Number 95-041A3: This certificate superseded Certificate of Conformance Number 95-041A2 and was issued without further testing to correct information contained in the identification section of the certificate and to correct the contact information.

Certificate of Conformance Number 95-041A2: This certificate superseded Certificate of Conformance Number 95-041A1 and was issued to include the internal AC to 9 VDC power adapter and the limitation of total price display. The Model MFQ-40L was submitted for evaluation. The emphasis of this evaluation was on device design, operation, performance, marking requirements, and compliance with influence factor requirements. Several increasing/decreasing load and shift tests were conducted. The device was tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). A load of approximately one-half capacity was applied to the scale more than 100 000 times. The scale was tested periodically during this time. Additionally, tests were conducted using 100 VAC, 130 VAC, and a range of DC power supplies.

Certificate of Conformance Number 95-041A1: This certificate superseded Certificate of Conformance Number 95-041 and was issued to add the Model MFQ-40LT. The Model MFQ-40LT with a tower mounted alphanumeric liquid crystal display (LCD) was submitted for evaluation. The emphasis of this evaluation was on device design and agreement of metrologically significant information between the operator and customer display.

Certificate of Conformance Number 95-041: The emphasis of the evaluation was on device design, operation performance, marking requirements, and compliance with influence factor requirements. Several increasing/decreasing load and shift tests were conducted. The device was tested over a temperature range of -10 °C to 40 °C (14 °F to 104 °F). A load of approximately one-half capacity was applied to the scale more than 100 000 times. The scale was tested periodically during this time. Additionally, performance characteristics and power voltage variation tests were conducted at 100 VAC to 130 VAC and 5.88 VDC to 6.12 VDC.

Type Evaluation Criteria Used: *NIST Handbook 44 Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices*, 2017 Edition. *NCWM Publication 14 Weighing Devices*, 2017 Edition.

Evaluated By: J. Cipollone (CA) 95-941; S. Chan (CA) 95-041A1; G. Castro (CA), D. Parks (CA) 95-041A2; K. Jones (CA) 95-041A3, 95-041A4, 95-041A5; S. Boyd (CA) 95-041A6, 95-041A8, 95-041A9; E. Morabito (NY) 95-041A10, 95-041A11.

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

Information Reviewed By: S. Patoray, L. Bernetich (NCWM) 95-041A6, 95-041A7, 95-041A8, 95-041A9; J. Truex (NCWM) 95-041A10

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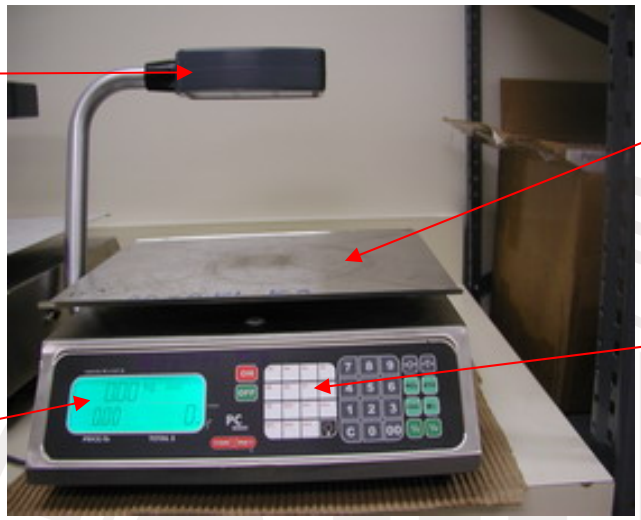
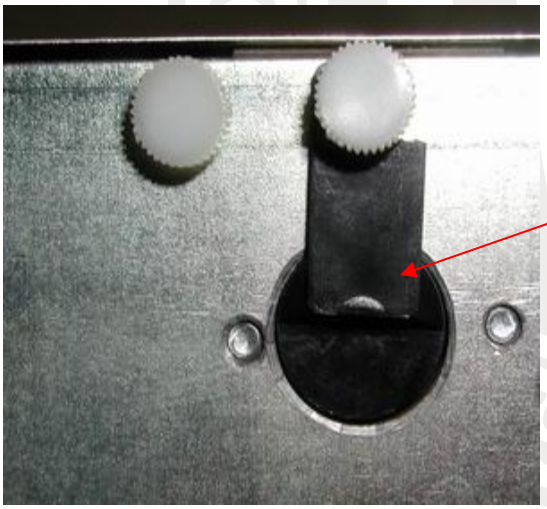
Examples of Device:

Front View





Model PC-40L with Capacitive Keyboard