



***Model 650 Digital  
Counting Scale***

**Operation & Calibration Manual**

Revision 1.0  
July, 2003

Contents subject to change without notice.

Salter Brecknell Weighing Products.  
1000 Armstrong Drive  
Fairmont, MN 56031  
Tel (800) 637-0529  
Tel (507) 238-8702  
Fax (507) 238-8271

E-mail: [sales@salterbrecknell.com](mailto:sales@salterbrecknell.com)

Web: [www.salterbrecknell.com](http://www.salterbrecknell.com)

# TABLE OF CONTENTS

	<u>Page</u>
Chapter 1: Introduction to the Salter Brecknell 650 Series Digital Counting Scale .....	7
Chapter 2: Getting Started.....	8
Chapter 3: Basics of Operation.....	10
3.1 Display .....	10
3.1.1 Liquid Crystal Display (LCD) .....	11
3.2 Keyboard.....	11
3.2.1 Soft Keys.....	11
3.2.2 Function and Numeric Keys.....	11
3.3 General Scale Operation .....	12
3.3.1 Weighing an Item.....	12
3.3.2 Taring an Item of Unknown Weight .....	12
3.3.3 Taring an Item of Known Weight .....	12
3.3.4 Clearing a Tare .....	13
3.3.5 Piece Counting.....	13
3.3.6 Clearing the Piece Count.....	13
Chapter 4: Advanced Features and Operation.....	14
4.1 Unit Weight Entry.....	14
4.1.1 Unit Weight Entry.....	14
4.2 Item ID Storage.....	15
4.2.1 Recalling an Existing Item Entry .....	15
4.2.2 Adding a New Item Entry .....	16
4.2.3 Editing an Item Entry.....	16
4.2.4 Deleting an Item Entry .....	18
4.2.5 Deleting All Item Entries.....	18
4.3 Memory Accumulator .....	18
4.3.1 Displaying the Memory Accumulator .....	19
4.3.2 Adding to the Memory Accumulator.....	19
4.3.3 Clearing the Memory Accumulator.....	19
4.4 Using the Target Value .....	19
4.5 Charging the battery .....	21
CHAPTER 5 Setup .....	22
5.1 Setup Overview.....	22
5.2 Configuration Sub-Menu .....	22
5.3 Super Sub Menu.....	23

5.3.1	Accuracy .....	23
5.3.2	Minimum Sample Size .....	24
5.3.3	Local & Remote Filter .....	24
5.4	Service Sub-Menu .....	24
5.4.1	Calibration – Three Point .....	25
5.4.2	Calibration – Single Point.....	25
5.4.3	KCalZR .....	26
5.4.4	KCalSP .....	26
5.4.5	Local .....	26
5.4.6	Remote .....	26
5.4.7	Setcom.....	27
5.4.8	Restore System defaults.....	28
5.4.9	Light .....	28
5.5	Print Format	
5.5.1	Margins .....	29
5.5.2	Header .....	29
5.5.3	Print Model.....	29
5.5.4	Fields .....	29
5.5.5	Label .....	30
5.5.1	Download from PC.....	30
5.5.6	Diagnostics .....	30
5.6	Item ID Sub-menu.....	32
5.6.1	Initial Item.....	32
5.6.2	Enable Save.....	32
5.6.3	Downlaod & Upload .....	32
5.6.4	Print.....	32
5.6.5	List .....	32
Chapter 6:	Calibration.....	33
6.1	Calibration Overview .....	33
6.2	Calibration Menu.....	33

Appendix A: Specifications .....	35
Appendix B: Serial Port Information .....	36
B.1    COM1 Serial Port .....	36
B.1.1    Connecting the Serial Printer .....	36
B.1.2    Default Print Format .....	37
B.1.3    Connecting to MP-20 .....	37
B.2    COM2 Serial Port .....	37
B.2.1    Connecting the Scanner, Remote Display or Computer .....	37
B.2.2    Full Duplex Modes for COM2 .....	38
B.2.2.1    Demand Mode .....	38
B.2.2.2    Continuous Mode .....	39
B.2.3    Connection to a 610 or 630 .....	40
Appendix C: Error Messages .....	42
C.1    Error Messages .....	42
C.1.1    Operator Errors .....	42
C.1.2    Calibration Errors .....	43
Appendix D: Remote Scale Wiring .....	44
D.1    Remote Scale Wiring .....	44

## LIST OF FIGURES

1-1    650 Series Front Panel .....	7
2-1    650 Back Panel .....	8
3-1    650 Display Detail .....	10
3-2    Function and Numeric Keys Layout .....	11
4-1    Item ID List Screen .....	16
4-2    Edit Item ID Screen .....	17
B-1    Pin Assignments for COM1 Serial Port .....	36
B-2    Cable Diagram for Scale to Dot Matrix Printer .....	36
B-3    Cable Diagram for Scale to Thermal Printer .....	36
B-4    Default Print Format for Thermal Printer .....	36
B-5    Pin Assignments for COM2 Serial Port .....	38
B-6    Cable Diagram for Scale to Computer .....	38
B-7    Cable Diagram for Scale to Scanner .....	38
B-8    Consolidated Controls Demand Mode .....	38
B-9    Consolidated Controls Continuous Mode .....	39
D-1    Color Codes for Shielded Load Cell Cable .....	44
D-2    Pin Assignments for the Load Cell Port .....	44

## LIST OF TABLES

1-1	650 Series Product Matrix .....	7
3-1	650 Series Annunciator Definitions.....	10
4-1	Entering Alphanumeric Characters.....	17
5-1	Configuration Sub-Menu Items.....	22
5-2	Supervisor Sub-menu Items .....	23
5-3	Sample weight required for minimum controlled accuracy.....	23
5-4	Service Sub-menu Items .....	25
5-5	Local/Remote Scale Sub-menu Items.....	26
5-6	COM1 and COM2 Sub-Menu Items .....	28
5-7	Print commands for formatting a label with WYSIWYG software.....	30
5-8	Diagnostic submenu.....	31
6-1	Minimum / Recommended Calibration Test Weights for Local Scale .....	34
B-1	Cable Diagram for Scale to Printer.....	36

This is a “Table of Contents preview” for quality assurance

The full manual can be purchased from our store:

<https://the-checkout-tech.com/manuals/Salter Brecknell/650 operation and calibration ma>

And our free Online Keysheet maker:

<https://the-checkout-tech.com/Cash-Register-Keysheet-Creator/>

[HTTPS://THE-CHECKOUT-TECH.COM](https://THE-CHECKOUT-TECH.COM)