FlexWeigh System 211

Manual Batching Software
Version 1

Software Manual

Revision History

This section tracks and describes manual revisions for awareness of major updates.

Revision	Date	Description
A	July 7, 2023	Initial manual release with product launch

Table i. Revision Letter History

Contents

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1.0 Introduction

This manual is intended for service technicians and FlexWeigh System 211 operators. The FlexWeigh System 211 manual guides the user through weight additions based on a pre-entered formula. 20 ingredients are available for use in up to 100 formulas.

NOTE: 920i hardware information is explained in the 920i Installation and Operation Manual (PN 67887).

Manuals are available from Rice Lake Weighing Systems at **www.ricelake.com/manuals**

Warranty information is available at **www.ricelake.com/warranties**

1.1 Operation Menu Softkeys

Operation menu softkeys provide flexibility of operator functions for specific appliactions. Softkey assignments are listed on the the tabs shown at the bottom of the LCD display and are activated by pressing the ▲ below the softkey tables (see Figure 1-1). They are password protected and offer access to the following:

- Formula
- ID1
- ID2
- Totals
- Setup Menu

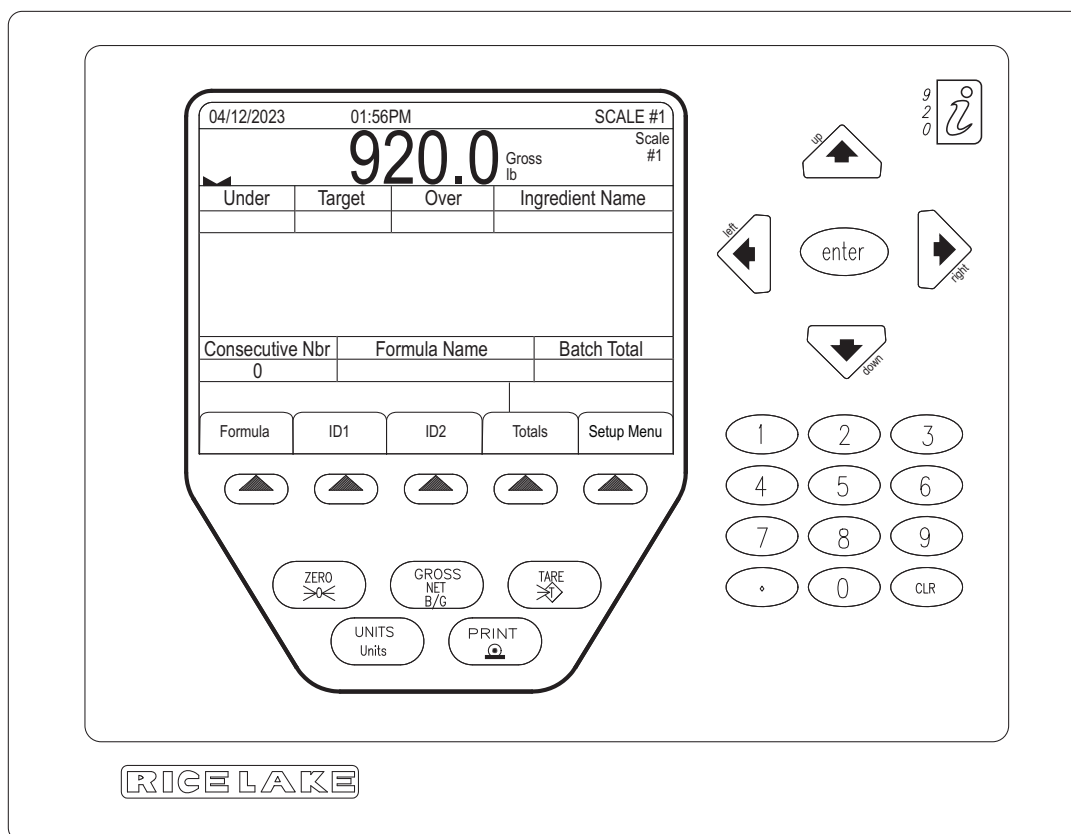*NOTE: ID1 and ID2 softkeys appear only when configured.*

Figure 1-1. Startup Display

The indicator's configuration and program determines the provided softkey set. The standard stoftkey set is described below:

Softkey	Parameter	Description
Formula	Page Up	Allows an operator to select the desired formula.
	Page Down	
Totals	Consecutive Number	Allows operator to edit the Consecutive Number.
	Print Sub Total	Prints the sub total with an option to clear to the sub total for the selected ingredient.
	Print Total	Prints the sub total and total with an option to clear to both totals for the selected ingredient.
	Print All Usage	Prints the usage for each material with an option to clear.
Seup Menu	Time/Date	Time and date of 920i.
	Setup Password	Changes the password that is required for entry into the Setup menu. Setting the password to nothing will cause the system to not prompt for a password when the **Setup Menu** softkey is pressed.
	ID #1	Allows an operator to log an extra data field. A softkey will appear on the main screen to allow the operator to enter more data (Ex. Formula, ID, Truck, Container, Operator, etc). Enabled/**Disabled**
	ID #2	Allows an operator to log an extra data field. A softkey will appear on the main screen to allow the operator to enter more data (Ex. Formula, ID, Truck, Container, Operator, etc). Enabled/**Disabled**
	Auto Print Enabled	Auto Print **Enabled**/Disabled - Allows an operator to enable/disable the auto print feature.
	Database Setup	Add/Edit/Delete Ingredients - Allows an operator to add, edit or delete ingredients.
		Add/Edit/Delete Formulas - Allows an operator to add, edit or delete formulas.

Table 1-1. Softkey Descriptions

2.0   Setup & Configuration

This section describes the various setup parameters for the FlexWeigh System 211.

2.1   Entering the Setup Menu

1. Press the **Setup Menu** softkey on the main menu screen and the system performs one of the following actions:
    *   If a system password is entered, proceed to Step 2
    *   If no system password is entered, the Setup Menu Main Screen displays (Figure 2-2)

Figure 2-1. Setup Menu Enter Password

2. The system prompts *Enter Password*. Enter the password and press the **Enter** key. The system verifies the password and performs one of the following actions:
    *   If the password is valid, the Setup Menu Main Screen displays (Figure 2-2)
    *   If the password is invalid, *Invalid password* displays momentarily and 920i exits the operation

Figure 2-2. Setup Menu Main Screen

2.2   Setting the System Time and Date

Perform the following steps to set up the system time and date.

1. From the Setup Menu Main Screen, press the **Time/Date** softkey.

| 04/12/2023 | 01:56PM | SCALE #1 |

920.0 Gross lb

Scale #1

Setup Menu
Program : Express 211 1.00

ID #1 (Disabled)
ID #2 (Disabled)
Auto Print Enabled

| Time/Date | Setup Password | ID #1 | ID #2 | More => |

Figure 2-3. Setup Menu Main Screen

2. Use the arrow keys and numeric keypad to modify the time and date.
3. Press the **Enter** key to save the settings.

03:52 PM

06/09/2023

| | | Cancel | | |

Figure 2-4. Time and Date Main Screen

NOTE: Press the Cancel softkey to exit without saving changes.

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2.3   Changing the Setup Password

Use the following steps to change the setup password.

1.   From the Main Setup Menu Screen, press the **Setup Password** softkey.

2.   The system prompts, *Enter New Password*.

Figure 2-5. Enter New Password

3.   Key in the new password and press the **Enter** key.

4.   The system prompts *Re-enter password* to verify.

5.   Re-enter the password and press the **Enter** key again. The system performs one of the following actions:
     • If passwords match, the system displays *Password Changed*.
     • If passwords do not match, the system displays *Passwords Did Not Match* and exits the operation.

3.0   Operation

The section describes the basic sequence of operation for the FlexWeigh System 211. Follow the procedure below to print and clear accumulators.

Consecutive Number

1. Press the **Totals** softkey to display the Printing and Clearing Accumulators Menu (see Figure 3-1).
2. Press the **Consecutive Number** softkey to enter the next number to be weighed (see Figure 3-2). The system keeps incrementing every time a batch is running (counter).

04/12/2023	01:56PM	SCALE #1

Ingredient Totals

Name	Sub Total : Total
→ 1	100 : 1000
2	200 : 4000
98	10000 : 10000
99	0 : 0

Select an Ingredient

Consecutive Number	Print Sub Total	Print Total	Print All Usage	Exit

Figure 3-1. Printing and Clearing Accumulators Menu

04/12/2023	01:56PM	SCALE #1

Ingredient Totals

Name	Sub Total : Total
→ 1	100 : 1000
2	200 : 4000
98	10000 : 10000
99	0 : 0

Enter Consecutive Number
=>

Home		Cancel		Exit

Figure 3-2. Enter Consecutive Number

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Print Sub Total

1. Press the **Totals** softkey to access the Print Sub Total softkey.
2. Press the **Print Sub Total** softkey to print a sub total report.

```
04/12/2023          01:56PM                    SCALE #1
                    Ingredient Totals
         Name              Sub Total : Total
    →    1             100   :   1000
         2             200   :   4000
         98            10000   :   10000
         99            0   :   0



Clear Sub Total?

   Yes                                            No
```

Figure 3-3. Clear Sub Total Screen

3. *Clear Sub Total?* prompt displays. Press the **Yes** softkey to clear the subtotal of the screen. Press the **No** softkey to exit out of the screen.

Print Total

1. Press the **Totals** softkey to access the Print Total softkey.
2. Press the **Print Total** softkey to print a total report.

```
04/12/2023          01:56PM                    SCALE #1
                    Ingredient Totals
         Name              Sub Total : Total
    →    1             100   :   1000
         2             200   :   4000
         98            10000   :   10000
         99            0   :   0



Clear Total?

   Yes                                            No
```

Figure 3-4. Clear Total Screen

3. *Clear Total?* prompt displays. Press the **Yes** softkey to clear the total and sub-total of the batch. Press the **No** softkey to exit out of the screen.

Print All Usage

1.   Press the **Totals** softkey to access the Print All Usage softkey.

2.   Press the **Print All Usage** softkey to print a usage report.

04/12/2023	01:56PM	SCALE #1

Ingredient Totals

Name	Sub Total : Total
→ 1	100 : 1000
2	200 : 4000
98	10000 : 10000
99	0 : 0

Clear Everything?

Yes				No

Figure 3-5. Clear All Usage Screen

3.   *Clear Everything?* prompt appears. Press the **Yes** softkey to clear the total and sub-total of the batch. Press the **No** softkey to exit out of the screen.

3.1   Selecting a Formula

Follow the procedure below to select a formula.

1.   Press the **Formula** softkey. System displays a list of all configured formulas.

2.   Press **Page Up** and **Page Down** softkeys to select the desired formula.

04/12/2023	01:56PM	SCALE #1

Formula Display

Id	Name
→ 100	Formula 100
101	Formula 101
102	Formula 102
999	Formula 999

Select a Formula

Page Up	Page Down			Exit

Figure 3-6. Formula Display

3. Press the **ENTER** key.

4. Enter the Formula ID and press the **ENTER** key. System queries the Formula database table with the entered ID and displays one of the following messages:

   • ID NOT FOUND – Displays *Error: Invalid Formula ID*. Display returns to Step 2.

   • ID FOUND – Press the **Exit** softkey to exit this sequence of operation. The system performs the following actions:

      A. Displays the selected Formula ID and Name.

      B. Displays the first Ingredient ID, Name, Target, Over and Under Tolerances.

      C. Displays *New Batch -- Press Accept to begin*.

3.2   Running a Formula

Use the following procedure to run a formula.

1. Verify the displayed information is correct.

2. Press the **ACCEPT** button to begin batching the first ingredient. The system performs the following actions:

   A. Increments the Consecutive Number by 1.

   B. *Start Batch* message prints if enabled (see Section 2.0 on page 7).

   C. *Place Empty Container on Scale - Press Accept* displays.

   D. Continues with next step.

3. Place an empty container on the scale.

4. Press the **ACCEPT** button. The system performs the following actions:

   A. Tares the scale to net zero.

   B. Message *Fill XX lb of YY – Press Accept* displays where XX = ingredient target and YY = the ingredient name.

5. Press **ACCEPT** button when satisfied with the filled weight.

   A. The Ingredient #, Name and filled weight are added to the audit trail batch report. If Accept is pressed when not within tolerance, Off Tolerance Accept with Time and Date will be noted on the printed audit trail batch report.

   B. The ingredient's usage is added to the Ingredient SubTotal and Total register.

   C. The formula sequence advances to the next step.

6. Repeat Step 3 through Step 5 for the subsequent Ingredients in the formula.

7. Upon completing Step 5 for the last ingredient of the formula:

   A. Message *Batch Complete – Press Accept* displays.

   B. The audit trail batch report is closed with a summed Batch Total Weight of all ingredients, plus Time and Date.

8. System resets to Step 1.

9. Press **ACCEPT** button to repeat the same formula, or press the **Formula** softkey to choose another formula.

3.3   Serial Communication

Record keeping is an important part of any system. The FlexWeigh System 211 connects to a printer for retaining detailed records on batches, cycle runs, totals, etc. The preferred printer to integrate with the FlexWeigh System 211 is the Epson TM-U220 Tape Printer but will integrate with any roll-tape printer.

Connect the printer to the FlexWeigh System 211 per printer manual instructions.

Figure 3-7 shows tape samples that can be printed using the FlexWeigh System 211 and the TM-U220 Tape Printer.

```
Start Batch   1 11:40AM 09/22/2015



 1 Apples              35.4 lb UT
 2 Corn                18.7 lb
 3 Sweet Corn           3.8 lb OT


 Batch Total           57.9 lb


Batch Complete  11:40AM 09/22/2015
```

```
Total             11:25AM 09/22/2015

 1  254.8 lb
```

```
Usage Report 11:26AM 09/22/2015
 1  254.8 lb  254.8 lb
 2   37.9 lb   37.9 lb
 3   26.8 lb   26.8 lb
 4    0.0 lb    0.0 lb
 5    0.0 lb    0.0 lb
 6    0.0 lb    0.0 lb
 7    0.0 lb    0.0 lb
 8    0.0 lb    0.0 lb
 9    0.0 lb    0.0 lb
10    0.0 lb    0.0 lb
11    0.0 lb    0.0 lb
12    0.0 lb    0.0 lb
13    0.0 lb    0.0 lb
14    0.0 lb    0.0 lb
15    0.0 lb    0.0 lb
16    0.0 lb    0.0 lb
17    0.0 lb    0.0 lb
18    0.0 lb    0.0 lb
19    0.0 lb    0.0 lb
```

Figure 3-7. Printout Examples

4.0   Appendix

4.1   Database Tables

Field	Type	Description
ID	Integer	Ingredient ID
Name	String	Alphanumeric ingredient name (up to 15 characters)
STotal	Real	Sub Total Ingredient Usage
TTotal	Real	Total Ingredient Usage

Table 4-1. Ingredient Database Table - 20 Records Max

Formula	Type	Description
ID	Integer	Unique alphanumeric formula identifier
Name	String	Alphanumeric formula name (up to 30 characters)
Ingred	Integer	Ingredient identifier
TWgt	Real	Target weight
UWgt	Real	Under weight
OWgt	Real	Over weight
Order	Integer	Order in batching sequence

Table 4-2. Formula Database Table - 100 Records Max

4.2   Hardware

4.2.1   Option Card Location

Slot	Type
1	Single Channel A/D Card
2	Currently Not Used

Table 4-3. Option Card Locations

4.2.2   Digital I/O

Port	Bit	Type	Function
0	1	Programmability	Accept
0	2-6	Off	Currently Not Used

Table 4-4. Digital I/O

4.2.3   Serial Port

Port	Type	Description	Setup
1	CMD	Currently Not Used	9600,8,N,2
2	CMD	iRev Connection	115200,8,N,2
3	CMD	Audit Trail Printer	9600,8,N,2
4	CMD	Currently Not Used	9600,8,N,2

Table 4-5. Serial Ports

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