

# 1280 Recipe/Batching

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*Custom 1280 Program*

## Operation Manual



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# 1.0 Introduction

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This manual provides operation instructions for the 1280 recipe/batching software. The 1280 Recipe Batching application is included with the 1280 standard firmware and is loaded by importing the application from the Configuration menu *Import Files*.



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## 1.1 Overview

Recipe batching system is used to fill a container that is placed on a scale. It offers user simplicity of one-button operation and automatically tares the empty container, automatically begins and ends filling of the container and automatically stores, display and transmit each fill weight and ongoing production accumulations. Built-in safety interlocks prevent startup of a fill cycle if an empty container is not in place, or if the previously filled container has not been removed.



## 2.0 Operation

The **Setup** icon displays on power up and exit configuration.

### 2.1 Recall Recipe

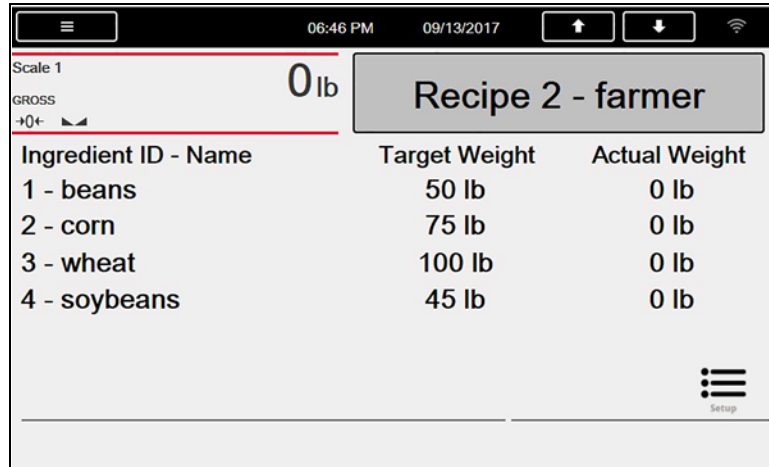


Figure 2-1. Recall Recipe

1. Press . *Enter Recipe ID* displays.
2. Enters the *RECIPE ID* and press  or .
  - A. System queries the *RECIPE* database table and performs one of the following:
    - i. **ID NOT FOUND** – *Recipe NOT Found - Retry* displays.
    - ii. **ID FOUND** – recalls recipe information and updates display.

### 2.2 Process Batch

- If **Emergency Stop** button input is **OFF**, system stops the batch, while running a batch and turns off all outputs
- If **Emergency Stop Mushroom** input is **ON**, pressing the **Abort-Run-Start** button during a paused batch causes the system to restart the batch at the paused step.
- If **Emergency Stop Mushroom** input is **OFF**, pressing the **Abort-Run-Start** button during a paused batch aborts and exits the batching sequence. System does not store or print any data.

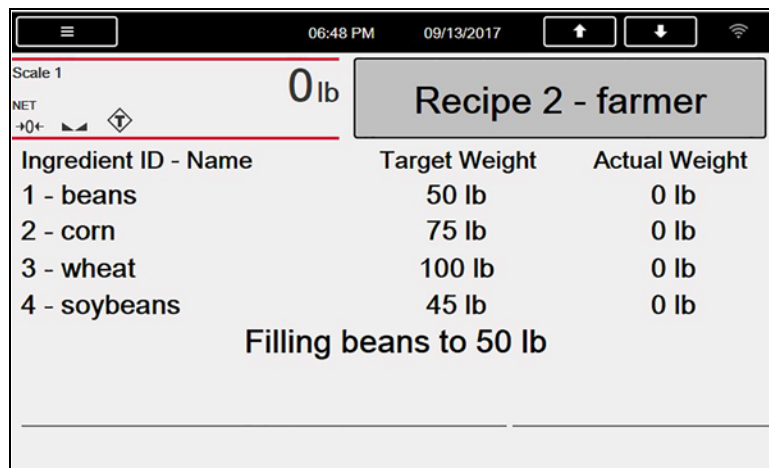


Figure 2-2. Process Batch



1. Ensure the scale is empty and display is at zero.
2. Perform the **Recall Recipe** procedure if the displayed recipe is incorrect.
3. Pull out the **Emergency Stop Mushroom** switch and momentarily to turn the **Abort-Run-Start** switch to **Start**.
  - A. System verifies the weight is below the **Empty Weight** value.
  - B. System tares the scale.
  - C. System activates the output for the 1<sup>st</sup> ingredient until its **Target Weight – Preact Weight** value is met.
  - D. System captures and records the stable weight of the just added ingredient.
  - E. System returns to **Letter B** if there are more ingredients left; otherwise it continues with **Letter F**.
  - F. System activates the **Discharge Scale** output until the weight drops below the **Empty Weight** value. It then maintains the output for the **Discharge Time**. Setting the **Discharge Time** to **Zero** skips to **Letter G** and not perform a discharge.
  - G. System prints a Ticket and returns to **Step 1**.

## 3.0 Serial Communications - Tickets, PC

### 3.1 Batch Ticket

The program uses the Auxiliary Print Format #1, 2 and 3 so that a dealer can modify the print format through the 1280 front panel or by using Revolution.

Recipe ID:	1	
Recipe Name:	Fall Blend	
Ingredient	Target	Actual
-----		
Corn	200 lb	192 lb
Winter Wheat	300 lb	323 lb
Chicory	222 lb	318 lb
Total	722 lb	833 lb

Figure 3-1. No Extra ID Fields Running





## 4.0 Application Setup & Configuration

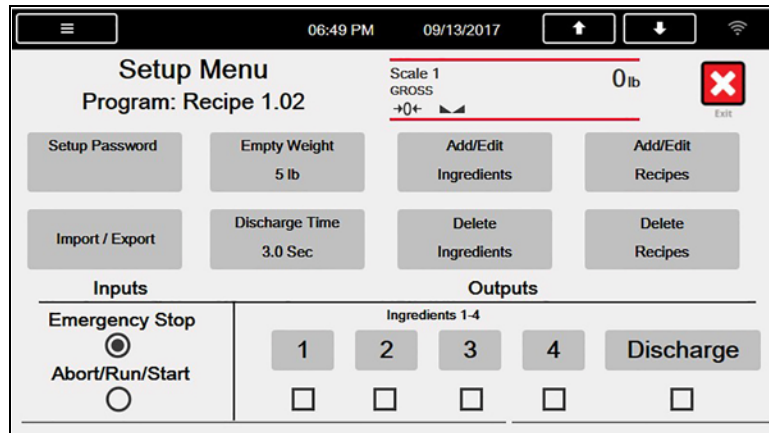



Figure 4-1. Configuration Menu

Parameter	Default	Button	Description
System Password	" "	Setup Password	Changing the password required to display the Setup menu; setting the password to nothing removes the prompt that displays the <b>Setup Menu</b> softkey is pressed
Empty Weight	5.0 lb	Empty Weight	Minimum amount of weight to recognize the scale is empty
Discharge Time	3.0 sec	Discharge Time	Length of time the discharge output remains on after reaching the empty weight
Import/Export	-	Import/Export	Used to export database to micro SD or USB driver
Add/Edit Ingredients	-	Add/Edit Ingredients	Ability to add/edit ingredients from the INGREDIENT database table
Delete Ingredient	-	Delete Ingredients	Ability to delete ingredients from the INGREDIENT database table
Add/Edit Recipes	-	Add/Edit Recipes	Ability to add/edit Recipes from the RECIPE database table
Delete Recipe	-	Add/Edit Recipes	Ability to delete Recipe from the RECIPE database table
Digital IO Testing	-	Ingredients 1/2/3/4 Discharge	Ability to turn off and on digital outputs.

Table 4-1. Setup Menu Parameters

Press the scale icon on the main screen to go to a screen that can be used like the front panel buttons.

Press  to return the display to the main menu.

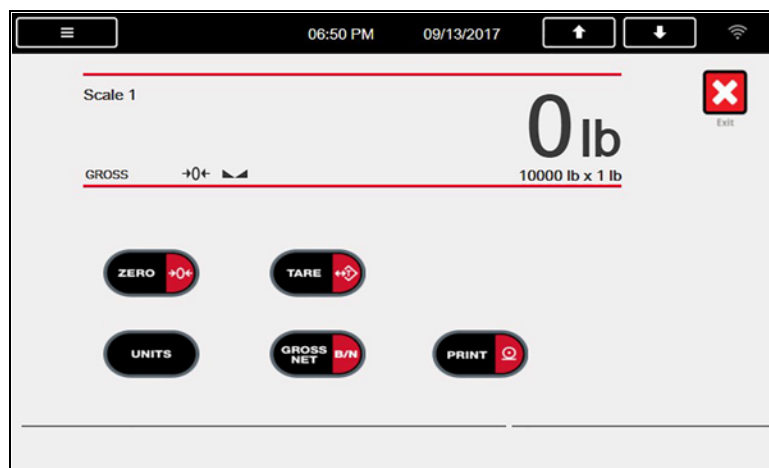


Figure 4-2. Front Panel Key Icons

## 5.0 Database Tables

Field	Type	Description
ID	Integer	Unique numeric recipe identifier
Name	String	Recipe name – up to 15 characters
Ingred1	Integer	Ingredient #1 Number
Target1	Real	Ingredient #1 Target Weight
Ingred2	Integer	Ingredient #2 Number
Target2	Real	Ingredient #2 Target Weight
Ingred3	Integer	Ingredient #3 Number
Target3	Real	Ingredient #3 Target Weight
Ingred4	Integer	Ingredient #4 Number
Target4	Real	Ingredient #4 Target Weight

*Table 5-1. Recipe Database (500 Records)*

Field	Type	Description
ID	Integer	Ingredient ID (1-4)
Name	String	Alphanumeric ingredient name (up to 15 characters)
Preact	Real	Preact weight

*Table 5-2. Ingredient (INGRED) Database (4 Records Max)*



## 6.0 Hardware Setup

### 6.1 Option Card Location

Slot	Type
1	Single Channel A/D Card
2-6	Currently Not Used

Table 6-1. Option Card Locations

### 6.2 1280 Screen Size/Type

NIT	1280 Screen Size/Type (12" or 7.5")
500	7.5"

Table 6-2. 1280 Screen Size/Type

### 6.3 Digital I/O

Port	Bit	Type	Function
0	1	Programmability	Batch Abort-Run-Start switch
0	2	Programmability	Batch Emergency Stop Mushroom switch
0	3	Output	Ingredient 1 Output
0	4	Output	Ingredient 2 Output
0	5	Output	Ingredient 3 Output
0	6	Output	Ingredient 4 Output
0	7	Output	Discharge Output
0	8	Off	Currently Not Used

Table 6-3. Digital I/O

### 6.4 Serial Ports

Port	Type	Description	Setup
1	CMD	Ticket Printer	9600,8,N,2
2	CMD	Currently Not Used	9600,8,N,2

Table 6-4. Serial Port

### 6.5 Ethernet TCP/IP Port

Port	Type	Description	Setup
10001	CMD	Waits for connection from software/device i.e. Revolution or Interchange	TCP Server
10001	CMD	Currently Not Used	TCP Client1
10002	CMD	Currently Not Used	TCP Client 2
3000	CMD	Web Server	Web Server

Table 6-5. Ethernet TCP/IP Port

### 6.6 USB Port

Port	Type	Description	Setup
3	CMD	Currently Not Used	-

Table 6-6. USB Device Port

## 6.7 USB Type-A Port

Port	Type	Description	Setup
-	CMD	Currently Not Used	-
-	CMD	Currently Not Used	-

Table 6-7. USB Type-A Port

## 6.8 SD Card Slot



**Note** The SD Card is required.

Port	Type	Description	Setup
-	CMD	8GB Micro SD Card	Images
-	CMD	Currently Not Used	-

Table 6-8. SD Card Slot

## 6.9 Bluetooth Port

Port	Type	Description	Setup
4	CMD	Currently Not Used	-

Table 6-9. Bluetooth Port







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