

# 1280 Recipe Batching

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## Software User Guide



## Scope

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”.

## Sequence of Operation

The buttons on powerup and exit configuration are **Setup Menu**.

### Recalling the Recipe

1. Operator presses the **Recipe** button
2. System prompts – “Enter Recipe ID”
3. Operator enters the RECIPE ID and presses the **ENTER** key.
4. System queries the RECIPE database table and performs one of the following:
  - a. ID NOT FOUND
    - i. Prompts – “Recipe NOT Found - Retry”
  - b. ID FOUND
    - i. Recalls all of the recipe information and updates the display.

Ingredient ID - Name	Target Weight	Actual Weight
1 - beans	50 lb	0 lb
2 - corn	75 lb	0 lb
3 - wheat	100 lb	0 lb
4 - soybeans	45 lb	0 lb

### Processing a Batch

- System stops the batch if the **Emergency Stop Mushroom** input is OFF while running a batch and turns off ALL outputs.
- If **Emergency Stop Mushroom** input is ON and pressing the **Abort-Run-Start** button during a paused batch will cause the system to restart the batch at the paused step.
- If **Emergency Stop Mushroom** input is OFF and pressing the **Abort-Run-Start** button during a paused batch will abort and exit the batching sequence. System will not store or print any data.

Ingredient ID - Name	Target Weight	Actual Weight
1 - beans	50 lb	0 lb
2 - corn	75 lb	0 lb
3 - wheat	100 lb	0 lb
4 - soybeans	45 lb	0 lb

Filling beans to 50 lb

1. Scales is empty and sitting at zero.
2. Operator performs the **Recalling the Recipe** procedure if the displayed recipe is incorrect.
3. Operator pulls out the **Emergency Stop Mushroom** switch and momentarily turns the **Abort-Run-Start** switch to **Start**.
4. System verifies the weight is below the **Empty Weight** value.
5. System tares the scale.
6. System activates the output for the 1<sup>st</sup> ingredient until its **Target Weight – Preact Weight** value is met.
7. System captures and records the stable weight of the just added ingredient.
8. System returns to STEP 5 if there are more ingredients left; otherwise it continues with STEP 9.
9. 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 will skip to STEP 10 and not perform a discharge.
10. System prints a Ticket and returns to STEP 1.

## Serial Communications – Tickets, PC

### Batch Ticket

The program uses the Auxiliary Print Format #1, 2 and 3 so that the dealer may modify the print format thru the 920i front panel or by using iRev PC software.

Recipe ID:	1	
Recipe Name:	Fall Blend	
Ingredient	Target	Actual
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Corn	200 lb	192 lb
Winter Wheat	300 lb	323 lb
Chicory	222 lb	318 lb
Total	722 lb	833 lb
Printed @ 09:36AM 09/15/2014		

## Application Setup & Configuration

The **Setup Menu** button is password-protected and offers access to the following:

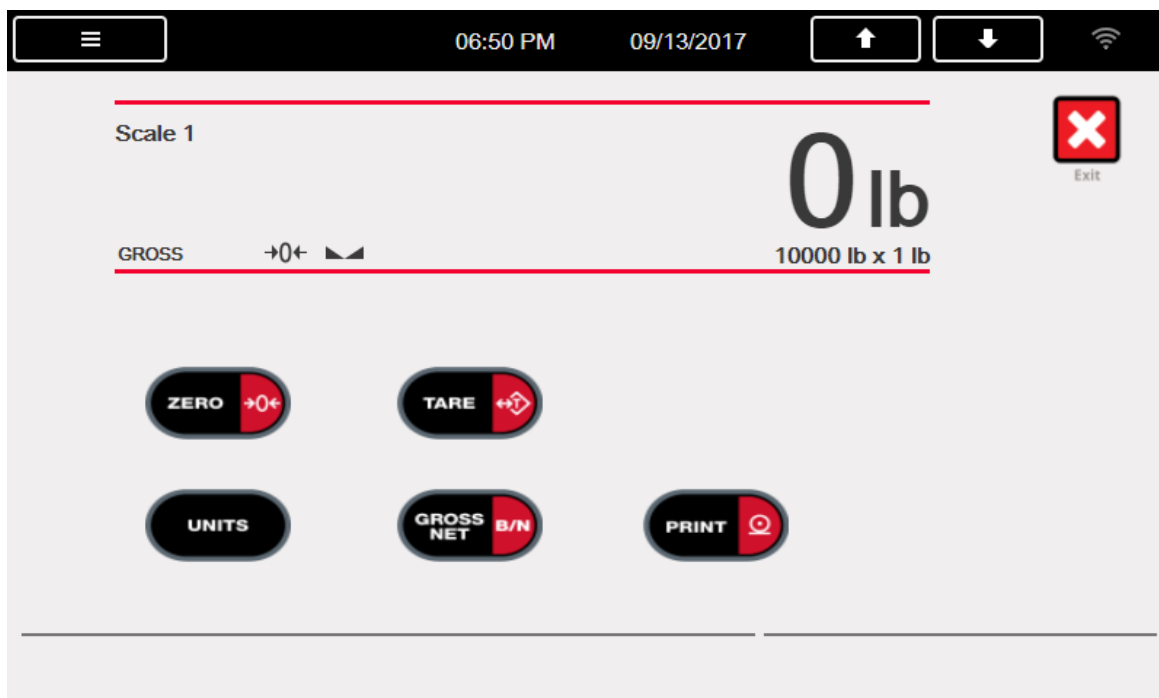
- Display Program Name & Version
- Display a weight widget

The screenshot shows the 'Setup Menu' interface. At the top, there is a status bar with a menu icon, the time '06:49 PM', the date '09/13/2017', and navigation buttons (up, down, and a Wi-Fi icon). Below the status bar, the title 'Setup Menu' is displayed, followed by 'Program: Recipe 1.02'. To the right of the title, there is a 'Scale 1 GROSS' display showing '0 lb' and a red 'X' icon labeled 'Exit'. The main area contains several buttons: 'Setup Password', 'Empty Weight' (showing '5 lb'), 'Add/Edit Ingredients', 'Add/Edit Recipes', 'Import / Export', 'Discharge Time' (showing '3.0 Sec'), 'Delete Ingredients', and 'Delete Recipes'. Below these buttons, there is a section for 'Inputs' and 'Outputs'. The 'Inputs' section has an 'Emergency Stop' button (a circle with a dot) and an 'Abort/Run/Start' button (a circle). The 'Outputs' section has four buttons labeled '1', '2', '3', and '4', each with a checkbox below it, and a 'Discharge' button with a checkbox below it. The 'Ingredients 1-4' label is positioned above the numbered buttons.

Parameter	Default	Button	Description
System Password	""	Setup Password	Changing 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 <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.

## Application Setup & Configuration

- Pressing the scale widget on the main screen will go to a screen where you can use the main keypad keys.
- Pressing the Exit button will go back to the main screen.



## Database Tables

RECIPE ("RECIPE") Database Table – 200 Records		
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

INGREDIENT ("INGRED") Database Table – 4 Records		
Field	Type	Description
ID	Integer	Unique numeric ingredient identifier (1-4 & Ingredient Output)
Name	String	Ingredient name – up to 15 characters
Preact	Real	Preact weight

## Hardware Setup

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

Digital I/O			
Slot	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	Output	Currently Not Used

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

## Version Changes

Version	Changes	Date	Firmware
1.00	<ul style="list-style-type: none"> <li>Initial Release</li> </ul>	3/1/2015	1.00
1.01	<ul style="list-style-type: none"> <li>Added Import/Export option.</li> <li>Added Setup Menu touch buttons.</li> <li>Added Recipe select button</li> </ul>	12/06/2016	1.04
1.02	<ul style="list-style-type: none"> <li>Remved softkeys and made touch buttons</li> </ul>	05/15/2017	1.06
Download: <input checked="" type="checkbox"/> <b>SC</b> <input checked="" type="checkbox"/> <b>N</b> <input checked="" type="checkbox"/> <b>TF</b> <input checked="" type="checkbox"/> <b>SP</b> <input checked="" type="checkbox"/> <b>W</b> <input checked="" type="checkbox"/> <b>DB</b> <input checked="" type="checkbox"/> <b>COD</b> <b>SC</b> = Standard Configuration <b>N</b> = Network Configuraiton <b>TF</b> = Ticket Formats <b>SP</b> = Setpoints <b>W</b> = Widgets <b>DB</b> = Database Tables <b>COD</b> = Program			