FlexWeigh System 102

Automatic Fill, Automatic Discharge Filler

Operation Manual

920i FlexWeigh Systems

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Revision History

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

Revision	Date	Description
F	April 12, 2024	Established revision history; updated drawings and replacement parts
G	November 8, 2024	Updated electrical drawings

Table i. Revision Letter History

Contents

*Rice Lake continually offers web-based video training on a growing selection of product-related topics at no cost. Visit **www.ricelake.com/webinars***

1.0   Introduction

This manual is intended for use by service technicians and operators responsible for installing and operating the FlexWeigh System 102 Automatic Fill, Automatic Discharge Controller.

Additional information on the actual hardware features of the 920i are explained in the 920i Installation and Operation Manual (PN 67887) and is included with this product.

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

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

Safety Definitions:

DANGER: Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. Includes hazards that are exposed when guards are removed.

WARNING: Indicates a potentially hazardous situation that, if not avoided, could result in serious injury or death. Includes hazards that are exposed when guards are removed.

CAUTION: Indicates a potentially hazardous situation that, if not avoided, could result in minor or moderate injury.

IMPORTANT: Indicates information about procedures that, if not observed, could result in damage to equipment or corruption to and loss of data.

General Safety

Do not operate or work on this equipment unless this manual has been read and all instructions are understood. Failure to follow the instructions or heed the warnings could result in injury or death. Contact any Rice Lake Weighing Systems dealer for replacement manuals.

⚠ WARNING

Failure to heed could result in serious injury or death.

Failure to heed may result in serious injury of death.

Some procedures described in this manual require work inside the indicator enclosure. These procedures are to be performed by qualified service personnel only.

Do not allow minors (children) or inexperienced persons to operate this unit.

Do not operate without all shields and guards in place.

Do not step on the unit.

Do not jump up and down on the scale.

Do not use for purposes other then weight taking.

Do not place fingers into slots or possible pinch points.

Do not use any load bearing component that is worn beyond 5% of the original dimension.

Do not use this product if any of the components are cracked.

Do not exceed the rated load limit of the unit.

Do not make alterations or modifications to the unit.

Do not remove or obscure warning labels.

Do not use near water.

Before opening the unit, ensure the power cord is disconnected from the outlet.

Keep hands, feet and loose clothing away from moving parts.

1.1   Disposal

Product Disposal

The product must be brought to appropriate separate waste collection centers at the end of its life cycle.

Proper separate collection to recycle the product helps prevent possible negative effects on the environment and to health, and promotes the recycling of the materials. Users who dispose of the product illegally shall face administrative sanctions as provided by law.

1.2   Standard Features

The FlexWeigh System 102 comes with the following standard features:

- Wall mount NEMA 4Xstainless steel enclosure
- Front panel switches including E-Stop, Reset/Resume, Start
- Softkeys for presets, CN#, Alpha-numeric ID#1, Alpha-numeric ID#2, and Totals
- Accumulating subtotal and total registers
- Transmitted audit trail
- Digital I/O board
- Relay rack and SSR relay outputs
    - Fast feed
    - Slow feed
    - Fill complete (optional)
    - Zero tolerance (optional)
- Automatic Discharge

NOTE: The iRite program and source code that make up the 920i FlexWeigh 102 Basic Filler are property of the manufacturer. Modifications to this program and equipment must be performed by Rice Lake Weighing Systems.

For more information on the iRite compiler utility program, refer to the 920i Installation and Operation Manual (PN 67887) and is included with this product.

1.3   FCC Compliance

United States

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Canada

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la Class A prescites dans le Règlement sur le brouillage radioélectrique edicté par le ministère des Communications du Canada.

1.4   Radio Certificate Numbers

- US: R68WIPORTG
- Canada: 3867A-WIPORTG

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1.5 Key Functions

The functions of the front panel keys for the System 102 are listed in Table 1-1.
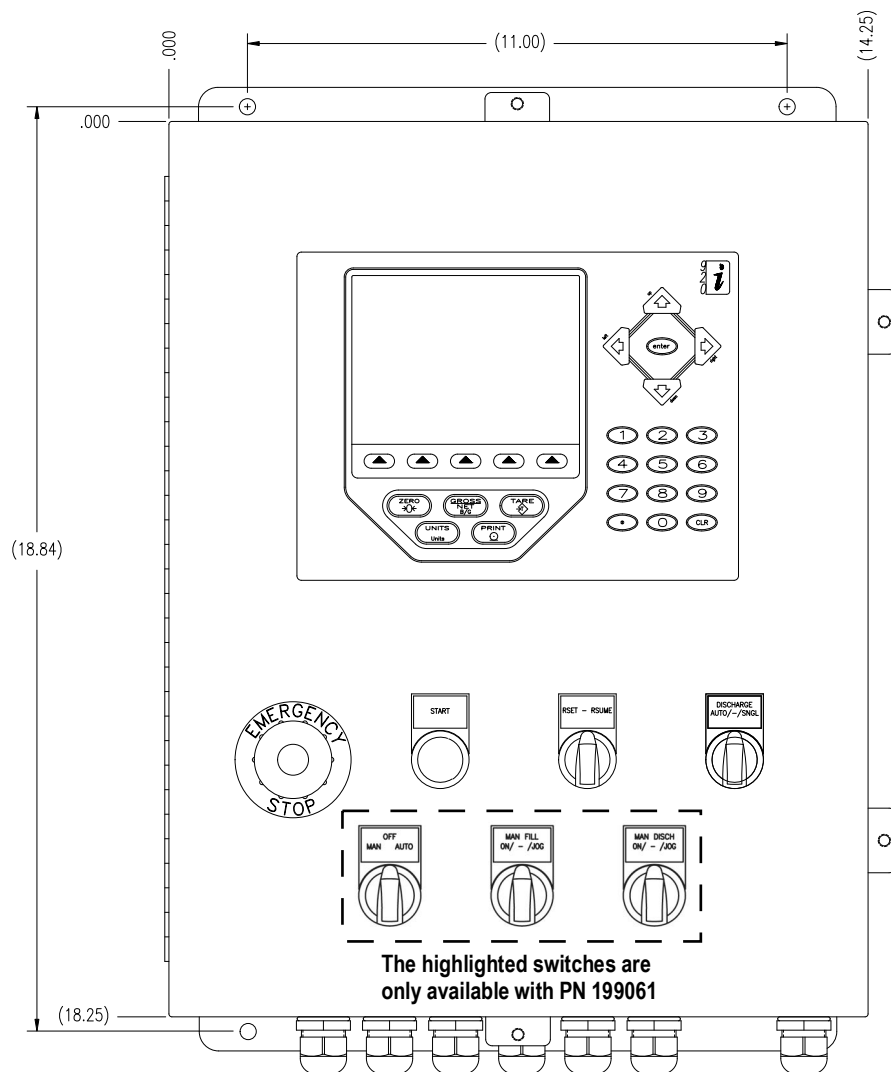
Figure 1-1. FlexWeigh System 102

Key	Function
E-Stop	Stops the filling process and removes power from the relays; It also puts the process into a paused state
Start	Starts the filling process
Reset	Aborts the fill process; This requires that the E-Stop button is in a stopped position
Resume	Starts the fill process from a paused state; This requires that the E-Stop is in a run position
Auto Discharge	Maintains position to automatically discharge product after fill cycle is complete
Single Discharge	Allows manual control of product discharge ***NOTE: Move switch to momentary position after fill cycle is complete to discharge scale***
Manual	Allows manual control using the manual control operators
Auto	Allows automatic control after start is pressed
Manual Fill: On	Maintained selection, energizes the fill output on continuously
Manual Fill: Jog	Momentary selection, energizes the fill output when the operator holds the switch in this position
Manual Discharge: On	Maintained selection, energizes the discharge output on continuously
Manual Discharge: Jog	Momentary selection, energizes the fill output when the operator holds the switch in this position

Table 1-1. Front Panel Button Functions

1.6   Operation Menu Softkeys

Operation menu softkeys are defined to provide flexibility of operator functions for specific applications. Softkey assignments are listed on the tabs shown at the bottom of the LCD display and softkey functions are activated by pressing the arrow keys below the softkey tabs (Figure 1-2). They are password protected and offer access to the following:

- Presets
- ID #1
- ID #2
- Totals
- Setup Menu
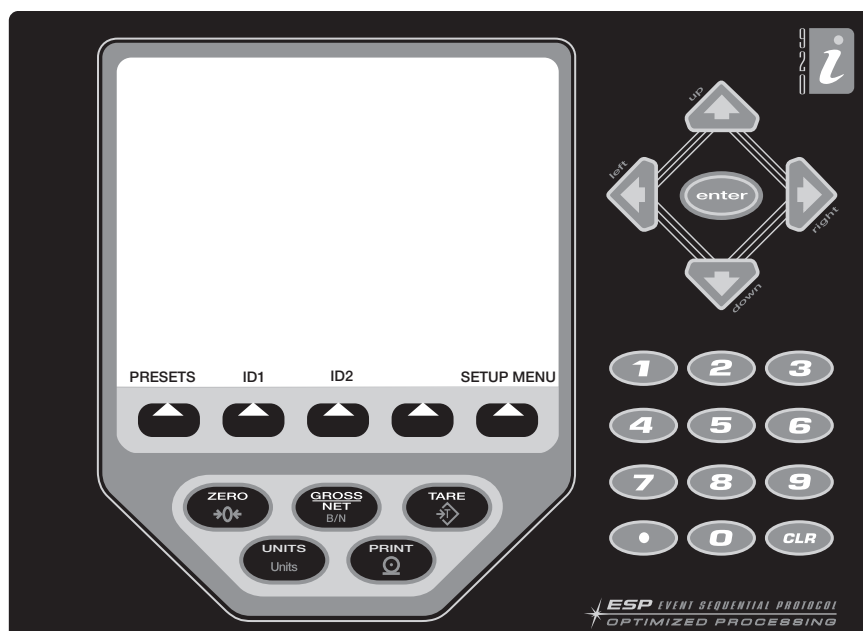
Figure 1-2. 920i Front Panel

The softkeys shown on the display are determined by the indicator configuration and program.

Softkey	Default	Softkey	Description
Time/Date	Current	Time/Date	Time and date of 920i
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 Setup Menu softkey is pressed
Enabling/Disabling ID#1	-	ID #1	This allows the operator to log an extra data field; A softkey will appear on the main screen to allow the operator to enter more data (ie: formula, ID Truck, container, operator)
Enabling/Disabling ID#2	-	ID #2	This allows the operator to log an extra data field; A softkey will appear on the main screen to allow the operator to enter more data (ie: formula, ID Truck, container, operator)
Filling Speeds	Single Speed	Single, Dual or Parallel	Allows the operator to change the filling speed operations
Auto Tare Feature	Enabled	Auto Tare Enabled/Disabled	Allows the operator to enable/disable the auto tare feature
Auto Print Feature	Enabled	Auto Print Enabled/Disabled	Allows the operator to enable/disable the auto print feature
Delay After Discharge	-	Delay After Discharge	Allows the operator to enter a time in seconds to delay after completion of Discharge before a new Start input is enabled

Table 1-2. Configurable Softkeys

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2.0   Installation

This section describes procedures for setting up the FlexWeigh System 102 to weigh.

⚠️ *CAUTION: Use a wrist strap to ground yourself and protect components from electrostatic discharge (ESD) when working inside the indicator enclosure.*

The supply cord serves as the power disconnect for the unit. The power outlet supplying the indicator must be installed near the unit and be easily accessible.

⚠️ *WARNING: The FlexWeigh System 102 has no on/off switch. Before opening the unit, ensure the power cord is disconnected from the power outlet.*

2.1   Unpacking and Assembly

Immediately after unpacking, visually inspect the unit to ensure all components are included and undamaged.

The shipping carton should contain the FlexWeigh System 102 unit and this manual. If any parts were damaged in shipment, notify Rice Lake Weighing Systems and the shipper immediately.

2.2   Enclosure Disassembly

The FlexWeigh System 102 must be opened to install option cards and to connect cables for installed option cards.

Ensure power to the indicator is disconnected, then open the enclosure.

2.3   Cable Connections

The FlexWeigh System 102 provides eleven cord grips for cabling into the indicator. The parts kit includes cord grip plugs to prevent moisture from entering the enclosure. Install these plugs into all cord grips that will not be used in your application. Use the cable grounding instructions for wiring into the indicator.

📝 *NOTE: An additional adhesive label (PN 121109) is included in the parts kit and can be installed at the installer's discretion indicating correct terminal block numbering.*
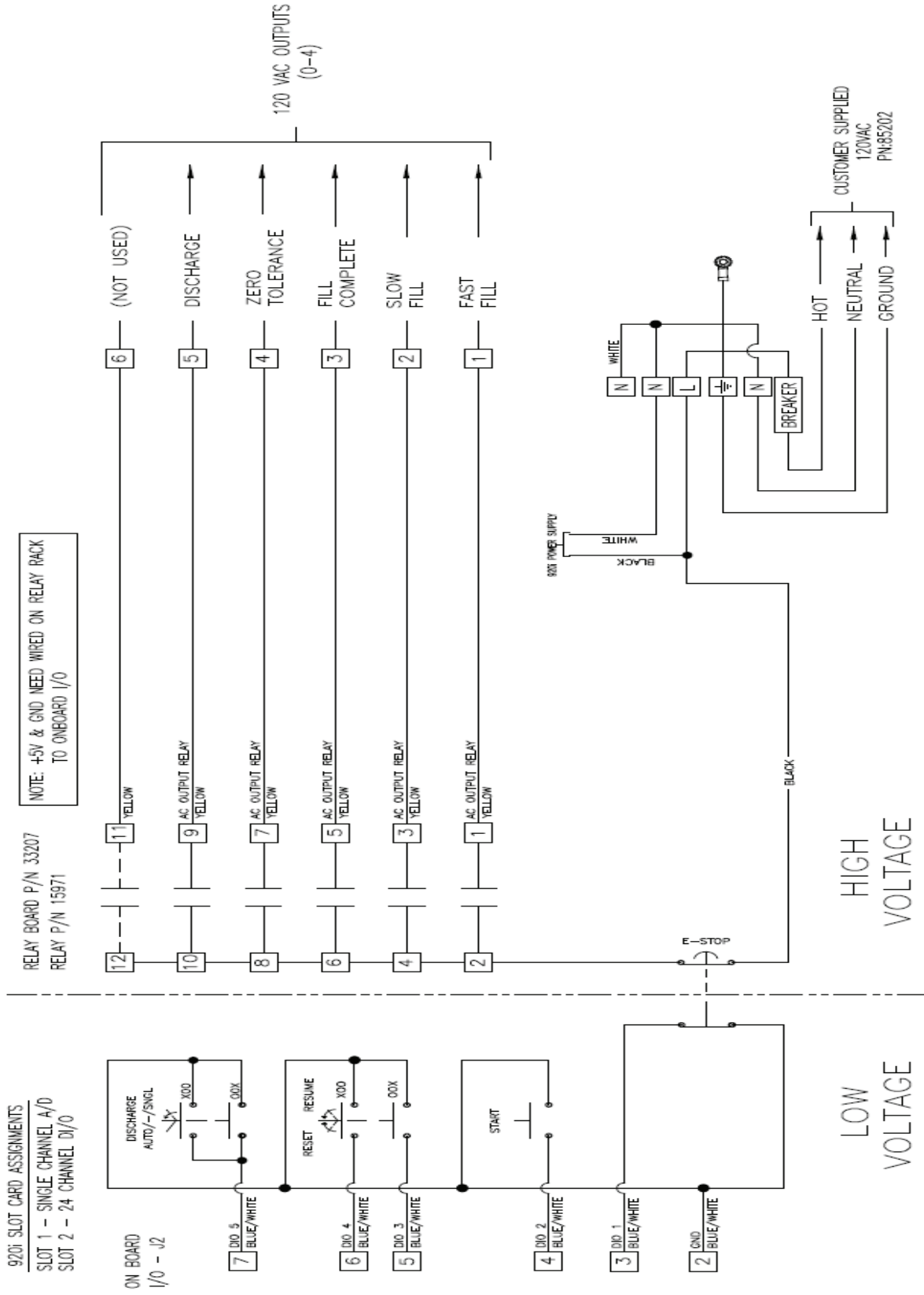
Figure 2-1. Block Wiring Diagram

NOTE: Circuit breaker = 4 A. All wires are 18 AWG unless otherwise specified. Dashed lines represent field wiring.
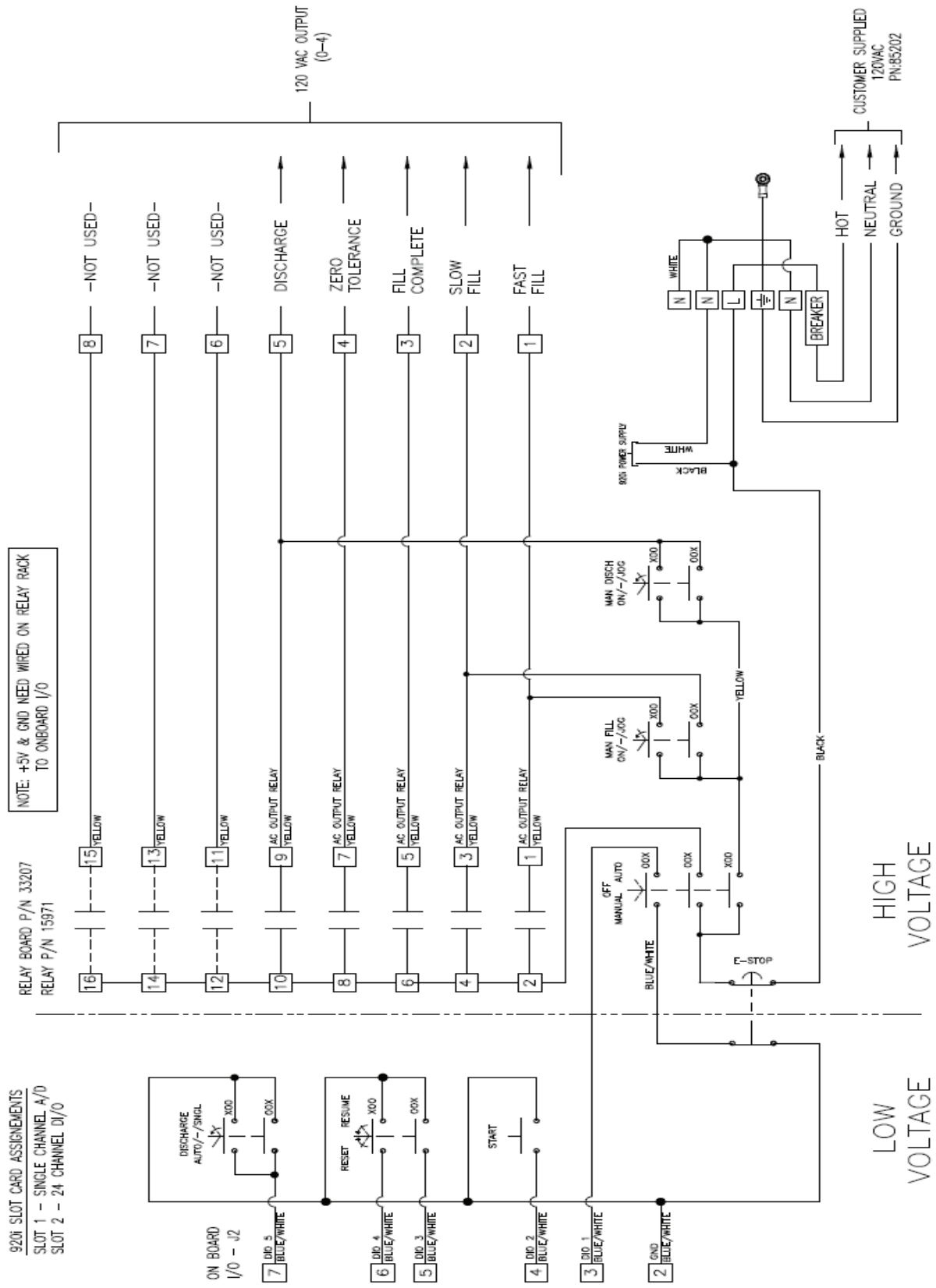
Figure 2-2. Block Wiring Diagram with Additional Controls

NOTE: Circuit breaker = 4 A. All wires are 18 AWG unless otherwise specified. Dashed lines represent field wiring.

2.3.1 Cable Specifications

Cord Grip	Part Number	Diameter Range
PG9	15626	0.138 - 0.315 in (3.5 - 8 mm)
PG11	68600	0.197 - 0.394 in (5 - 10 mm)

Table 2-1. Cord Grip Specifications

Connector	Torque
Around cables	22 in-lb
Cord grip to enclosure	33 in-lb

Table 2-2.   Cord Grip Torque Specifications

2.4   Cable Grounding

Cables routed through the cord grips should be grounded against the indicator enclosure. Follow cable grounding instructions in the 920i Installation and Operation Manual (PN 67887) which is also included with this product.

2.5   Parts Kit Contents

Table 2-3 lists the parts kit contents for the FlexWeigh System 102.

Part No.	Description	Qty.
14626	Kep nuts, 8-32NC (6)	6
15133	Lock washers, No. 8, type A (6)	6
15631	Cable ties (4 single A/D, 6 dual A/D)	4
15665	Reducing glands for 1/2 NPT cord grips (11)	11
15887	6-position screw terminal for load cell connection (1-single A/D, 2-dual A/D)	1
19538	Cord grip plugs (10-single A/D, 9-dual A/D)	10
94422	Capacity Label (1-single A/D, 2-dual A/D)	1
53075	Cable shield ground clamps (6)	6
70599	6-position screw terminals for J2 and J10 (2)	2
71125	3-position screw terminal for J11 (1)	1
71126	4-position screw terminal for J9 and optional keyboard connection (2)	2
121108	Label, Terminal Block Identification (1)	1

Table 2-3. Parts Kits Contents (PN 121143)

NOTE: See *Figure 5-2 on page 29* for a complete list of replacement parts.

2.6   Option Cards

Table 2-4 list the available option card that are used in the FlexWeigh System 102. The single channel A/D card can be installed in slot 1 and the 24 channel I/O card in slot 2.

Slot	Type
1	Single Channel A/D Card
2	24 Channel I/O Card

Table 2-4. Option Card Locations

Digital I/O

Slot	Bit	Type	Function
0	1	Programmability	E-Stop
0	2		Start
0	3		Resume
0	4		Reset
0	5-6	Off	Currently not used
2	1	Output	Fast Fill
2	2		Slow Fill
2	3		Fill Complete
2	4		Zero Tolerance
2	5		Discharge
2	6-24	Off	Currently not used

Table 2-5. Digital I/O Assignments

Serial Ports

Port	Type	Description	Setup
1	CMD	Currently not used	9600 baud 8 bit None 2
2	CMD/KEYBOARD	iRev downloads/operator input	115200 8 bit None 2
3	CMD	Audit trail printer	9600 baud 8 bit None 2
4	CMD	Currently not used	9600 baud 8 bit None 2

Table 2-6. Serial Port Setup

3.0   Setup Menu

This section describes the various setup parameters for the FlexWeigh System 102.

3.1   Entering the Setup Menu

NOTE: The front panel E-stop button must be in the stopped position (pushed in) to enable the following keypad entries.

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 3-2).
2. Press the **Setup Password** softkey. The system prompts with **Enter Password**.

04/28/2011	02:15PM	SCALE #1
	Gross	SCALE #1
— — — — — Lb		

Setup Menu

Program: Express 102 PN120597 (V 1.00)

ID #1 (disabled)	Start	O	Zero Tol
ID #2 (disabled)	Resume	O	Fill Copt
Dual Speed (enabled)	Reset	O	Slow Fill
Auto Tare (enabled)	Stop	O	Fast Fill
Auto Print (disabled)	Discharge	O	Discharge

Delay After Discharge (sec) :30

Enter New Password:
=> █

| Home | | Cancel | | End |

Figure 3-1. Setup Menu Enter Password

3. Enter the password and press the **Enter** key on the 920i. The system checks the entered value against the system password and performs one of the following actions:
   - If the password is valid, the **Setup Menu Main Screen** displays (Figure 3-2)
   - If the password is invalid, **Invalid password** displays momentarily and display exits the operation

04/28/2011	02:15PM	SCALE #1
	Gross	SCALE #1
– – – – – Lb		

SETUP MENU

Program: Express 102 PN120597 (V 1.00)

ID #1 (disabled)	Start	O	Zero Tol
ID #2 (disabled)	Resume	O	Fill Copt
Dual Speed (enabled)	Reset	O	Slow Fill
Auto Tare (enabled)	Stop	O	Fast Fill
Auto Print (disabled)	Discharge	O	Discharge

Delay After Discharge (sec) :30

Setup Menu:

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

Figure 3-2. Setup Menu Main Screen

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3.2 Setting the System Time and Date

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

1. From the ***Main Setup Menu Screen***, press the **Time/Date** softkey.
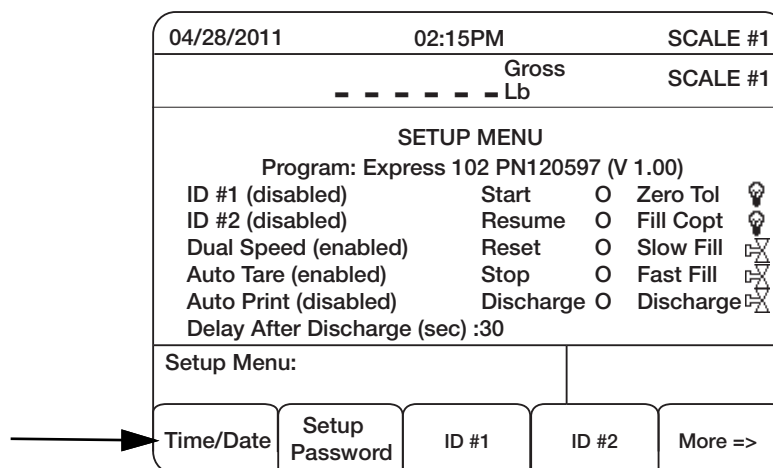
Figure 3-3. Select Time/Date Softkey

2. Use the arrow keys on the 920i and the numeric keypad to modify the time and or date.
3. Press the **Enter** key to save the settings.
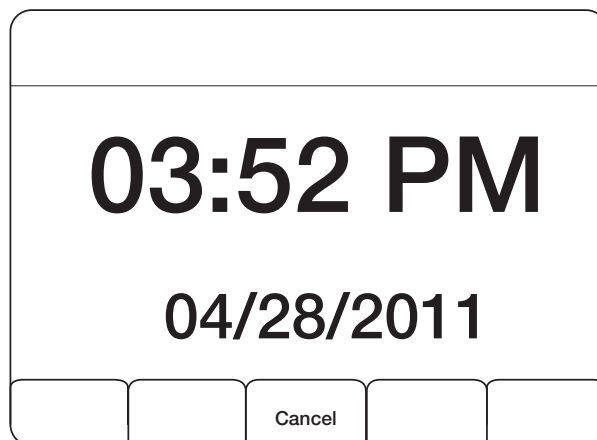
Figure 3-4. Time and Date Main Screen

NOTE: *The Cancel softkey can be pressed at any time to exit this sequence without saving any changes.*

3.3 Modifying the Setup Password

Use the following steps to modify the setup password.

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

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


```
04/28/2011              02:15PM              SCALE #1
                              Gross          SCALE #1
              — — — — —  Lb
                         Setup Menu
           Program: Express 102 PN120597  (V 1.00)
     ID #1 (disabled)          Start      O   Zero Tol
     ID #2 (disabled)          Resume     O   Fill Copt
     Dual Speed (enabled)      Reset      O   Slow Fill
     Auto Tare (enabled)       Stop       O   Fast Fill
     Auto Print (disabled)     Discharge  O   Discharge
     Delay After Discharge (sec) :30
     Enter New Password:
     =>  |

     Home              Cancel              End
```

Figure 3-5. Enter New Password

3. Enter 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 the passwords match, the system displays ***Password Changed.***

   • If the passwords do not match, the system displays ***Passwords Did Not Match*** and exits the operation.

3.4 Enabling/Disabling Additional Data Fields

Use the following steps to enable or disable additional data fields.

1. From the ***Main Setup Menu Screen***, press the **Setup Password** softkey (Figure 3-2 on page 14).

NOTE: *A setup password is not required if it has never been set or if you are already in Setup mode.*

2. Press the **ID #1** or **ID #2** softkey. The system displays ***Enable Extra Data #1*** or ***Extra Data #2*** while displaying **Yes** or **No** softkeys.

```
04/15/2011          02:15PM              SCALE #1
                          Gross
                136.8 Lb                 SCALE #1

                    SETUP MENU
           Program: Express 102 PN120597 (V 1.00)
        ID #1 (disabled)        Start      O   Zero Tol
        ID #2 (disabled)        Resume     O   Fill Copt
        Dual Speed (enabled)    Reset      O   Slow Fill
        Auto Tare (enabled)     Stop       O   Fast Fill
        Auto Print (disabled)   Discharge  O   Discharge
        Delay After Discharge (sec) :30
        Enable ID #1:
        => ▋

          Yes                                      No
```

Figure 3-6. Enabling IDs

3. The operator does one of the following:

   Press the **Yes** softkey, the system prompts ***Enter Extra Data #1 Name***. Enter the name and press the **Enter** key on the 920i. A new data field appears on the main display and as a softkey so that the operator can change it.

   Press the **Yes** softkey and this returns the operator back to Step 1.

3.5 Modifying the Filling Speeds

Use the following steps to modify the filling speeds.

1. From the ***Main Setup Menu Screen*** (Figure 3-7), press the **Setup Password** softkey (a password is not required).

2. Press the **More =>** softkey to access the second and third menu screens.

```
04/28/2011          02:15PM              SCALE #1
                          Gross
        - - - - - -       Lb              SCALE #1

                    SETUP MENU
           Program: Express 102 PN120597 (V 1.00)
        ID #1 (disabled)        Start      O   Zero Tol
        ID #2 (disabled)        Resume     O   Fill Copt
        Dual Speed (enabled)    Reset      O   Slow Fill
        Auto Tare (enabled)     Stop       O   Fast Fill
        Auto Print (disabled)   Discharge  O   Discharge
        Delay After Discharge (sec) :30
        Setup Menu:

        <= More | Dual Speed | Auto Tare | Auto Print | More =>
                | Enabled    | Enabled   | Disabled   |
```

Figure 3-7. Setup Main Menu Screen #2

3. Press the **Single Speed Enabled**, **Dual Speed Enabled** or **Parallel Speed Enabled** softkey. The system will toggle between the three modes of operation (Section 4.3 on page 25) and will display the selected filling speed.

3.6 Modifying the Auto Tare

Use the following steps to modify the auto tare.

1. From the ***Main Setup Menu Screen*** (Figure 3-7 on page 17), press the **More =>** softkey to access the second setup menu screen.

Auto Tare
Enabled

Figure 3-8. Auto Tare Softkey

2. Press the **Auto Tare Enabled** or **Auto Tare Disabled** softkey. The system will toggle between the two modes of operation.

3.7 Modifying Auto Print

Use the following steps to modify the auto print.

1. From the ***Main Setup Menu Screen*** (Figure 3-7 on page 17), press the **More =>** softkey to access the second setup menu screen.

2. Press the **Auto Print Enabled** or **Auto Print Disabled** softkey. The system toggles between the two modes of operation.

Auto Print
Disabled

Figure 3-9. Auto Print Disabled Softkey

3.8 Delay After Discharge

Use the following steps to modify the delay after discharge.

1. From the ***Main Setup Menu Screen*** (Figure 3-7 on page 17), cycle through pressing the **More =>** softkey to access the third setup menu screen which includes the **Delay After Discharge** softkey.

Delay After
Discharge

Figure 3-10. Delay After Discharge Softkey Location

2. Press the **Delay After Discharge** softkey to access that softkey.

```
04/28/2011              02:15PM              SCALE #1
                                  Gross
  ▬  ▬  ▬  ▬  ▬  ▬     Lb          SCALE #1

                    SETUP MENU
          Program: Express 102 PN120597 (V 1.00)
    ID #1 (disabled)        Start     O    Zero Tol    ♀
    ID #2 (disabled)        Resume    O    Fill Copt   ♀
    Dual Speed (enabled)    Reset     O    Slow Fill
    Auto Tare (enabled)     Stop      O    Fast Fill
    Auto Print (disabled)   Discharge O    Discharge
    Delay After Discharge (sec) :30

    Delay After Discharge (sec):
    => .30

     Home              Cancel               End
```
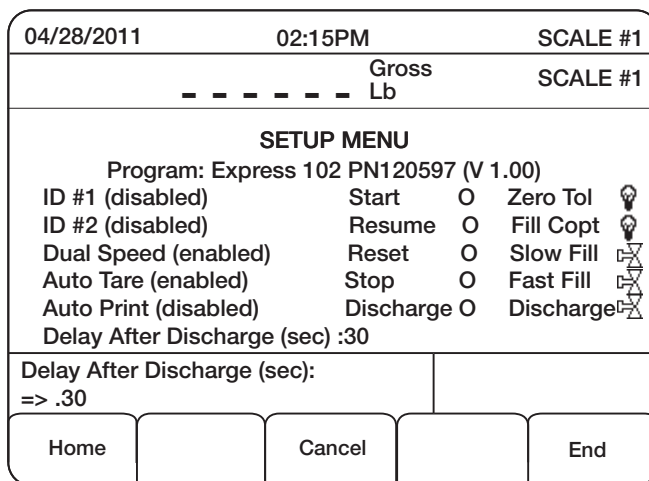
Figure 3-11. Enter Time

3. Enter in the time in seconds to delay the discharge time.

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3.9　Test Digital I/O

Press the **Test Digital I/O** softkey to test the Fill Complete, Slow Fill and Fast Fill relay outputs.


```
04/15/2011              02:15PM              SCALE #1
                                Gross
- - - - - -    Lb            SCALE #1

                    SETUP MENU
          Program: Express 102 PN120597 (V 1.00)
  ID #1 (disabled)      Start      O   Zero Tol
  ID #2 (disabled)      Resume     O   Fill Copt
  Dual Speed (enabled)  Reset      O   Slow Fill
  Auto Tare (enabled)   Stop       O   Fast Fill
  Auto Print (disabled) Discharge  O   Discharge
  Delay After Discharge (sec) :30

  Setup Menu:

    Fill
  Complete  Slow Fill  Fast Fill  Discharge   Exit
```

Figure 3-12. Test Digital I/O

Fill Complete

Press the **Fill Complete** softkey to test the digital I/O.

Slow Fill

By pressing the **Slow Fill** softkey, the digital I/O is tested and the Slow Fill icon on the setup menu screen is darkened while it's being tested. Press the **Slow Fill** softkey again and the icon clears again.

Fast Fill

By pressing the **Fast Fill** softkey, the digital I/O is tested and the Fast Fill icon on the setup menu screen is darkened while it's being tested. Press the **Fast Fill** softkey again and the icon clears again.

4.0   Operation

The section describes the basic sequence of operation for the FlexWeigh System 102.

4.1   Entering Presets Softkey Menu

The FlexWeigh System 102 has the capability to allow the operator to modify the presets/weights. See the following procedure:

NOTE: The front panel E-stop button must be in the stopped position (pushed in) to enable the following keypad entries.

Figure 4-1. Presets Menu Screen

1. Press the **Presets** softkey. Softkeys in Figure 4-2 are displayed.

Figure 4-2. Presets Softkey Parameters

2. Press the corresponding softkey to edit the data. Parameters that can be edited include:
    - Target weight
    - Dribble weight
    - Preact weight
    - Zero tolerance weight

Target Weight

This is the desired weight value for a final fill weight. The existing number needs to first be cleared by using the **Clear** key.

1. Enter the target weight using the arrow keys and the numeric keypad.
2. Press **Enter** on the 920i to save that value.

4/28/2011	10:23AM		SCALE #1
		Gross Lb	SCALE #1
Target	Dribble	Preact	Near Zero
200.0 Lb	75	0.0	10.0

Enter Target Weight

Consec. #	Subtotal	Total
23	1687 Lb	3468 Lb

Enter Target Weight
=> 100.0

Home		Cancel		End

Figure 4-3. Enter Target Weight

Dribble Weight

When a 2-speed fill is enabled (either Parallel or Sequential), this is the desired weight value below the Target Weight that the cycle switches from Fast Feed to Dribble Feed.

1. Enter the dribble weight using the arrow keys and the numeric keypad.
2. Press **Enter** on the 920i to save that value.

04/28/2011	10:36AM		SCALE #1
		Gross Lb	SCALE #1
Target	Dribble	Preact	Near Zero
200.0 Lb	75	0.0	10.0

Enter Dribble Weight

Consec. #	Subtotal	Total
23	1687 Lb	3468 Lb

Enter Dribble Weight
=> 12.0

Home		Cancel		End

Figure 4-4. Enter Dribble Weight

Preact Weight

Preact weight allows material to cut off prior to the original target value to allow for free fall material to settle onto the scale.

1. Enter the preact weight using the arrow keys and the numeric keypad.
2. Press **Enter** on the 920i to save that value.

04/28/2011	10:25AM		SCALE #1
		Gross Lb	SCALE #1
Target	Dribble	Preact	Near Zero
200.0 Lb	75	0.0	10.0
	Enter Preact Weight		
Consec. #	Subtotal		Total
23	1687 Lb		3468 Lb
Enter Preact Weight => 0.0			
Home		Cancel		End

Figure 4-5. Enter Preact Weight

Zero Tolerance Weight

This is the weight under which the system considers the scale to be empty. The scale weight must be within the gross weight value before the FlexWeigh System 102 will start a batch.

1. Enter the zero tolerance weight using the arrow keys and the numeric keypad.
2. Press **Enter** on the 920i to save that value.

04/28/2011	10:38AM		SCALE #1
	89	Gross Net	SCALE #1
Target	Dribble	Preact	Near Zero
200.0 Lb	75	0.0	10.0
Consec. #	Subtotal		Total
23	1687 Lb		3468 Lb
Enter Zero Tolerance Weight => 110			
Home		Cancel		Exit

Figure 4-6. Enter Zero Tolerance Weight

Exit

Press the **Exit** softkey to leave the presets menu parameters.

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4.2 Entering Totals Softkey Menu

📝 **NOTE: The front panel E-stop button must be in the stopped position (pushed in) to enable the following keypad entries.**

1. Press the **Totals** softkey.

Figure 4-7. Printing and Clearing Accumulators Menu

2. The operator can print and reset the consecutive number, subtotal and totals by pressing the appropriate softkey. Parameters that can be edited include:

   • Consecutive Number
   • Print Sub Total
   • Print Total

Consecutive Number

Press the **Consecutive Number** softkey to enter the next number to be weighed. The system keeps incrementing every time a batch is running (counter).

Figure 4-8. Enter Consecutive Number

Print Sub Total

1. Press the **Totals** softkey (Figure 4-7 on page 23) to access the **Print Sub Total** softkey.

2. Press the **Print Sub Total** softkey to access the following screen.

04/28/2011	10:52AM		SCALE #1
		Gross	SCALE #1
	_ _ _ _	Net	
Target	Dribble	Preact	Near Zero
200.0 Lb	75	0.0	10.0

Clear Sub Total?

Consec. #	Subtotal	Total
23	1687 Lb	3468 Lb

Yes				No

Figure 4-9. Clear Sub Total Screen

3. Press the **Yes** softkey to clear the subtotal of the batch.
   - Press the **No** softkey to exit out of the screen

Print Total

1. Press the **Totals** softkey (Figure 4-7 on page 23) to access the **Print Total** softkey.

2. Press the **Print Total** softkey to access the following screen.

04/28/2011	10:50AM		SCALE #1
		Gross	SCALE #1
	_ _ _	Net	
Target	Dribble	Preact	Near Zero
200.0 Lb	75	0.0	10.0

Clear Total?

Consec. #	Subtotal	Total
23	1687 Lb	3468 Lb

Yes				No

Figure 4-10. Clear Total Screen

3. Press the **Yes** softkey to clear the total and sub-total of the batch.
   - Press the **No** softkey to exit out of the screen

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4.3   Filling a Container

Use the following steps to fill a container on the scale.

1. Place a container on the scale.
2. Press the **Start** button on the unit. The system verifies if:
   - Gross weight is within the zero tolerance
   - E-Stop is pulled out
   - A valid target weight is entered

The system increments the Consecutive Number by 1 on the main display.

The system tares the scale if Auto Tare is enabled (shown in the setup menu).

04/28/2011 11:35AM			SCALE #1
	89 Gross Net		SCALE #1
Target	**Dribble**	**Preact**	**Near Zero**
200.0 Lb	75	0.0	10.0

Fast Filling

Consec. #	**Subtotal**	**Total**
23	1687 Lb	3468 Lb

Figure 4-11. Fill Screen Example

The system begins filling either of three speeds and displays a basic filling screen although this screen will change depending up what kind of filling is being done.

- Single Speed Filling - The system turns on fast fill until the target weight-preact weight is satisfied
- Parallel Speed Filling - Turns on the fast fill and slow fill until the dribble weight is satisfied; The system then turns off the fast fill and leaves the slow fill on until the target weight-preact weight is satisfied
- Dual Speed Filling - Turns on the fast fill until the dribble weight is satisfied; The system turns on the slow fill until the target weight-preact weight is satisfied

System does the following when the target is reached:

- Capture a stable net weight
- Updates the sub total weight and number of fills
- Updates the total and number of fills
- Turns on the Fill Complete Output

The system has two modes for discharge:

- Auto Discharge - The system automatically discharges batch into the container
- Single Discharge - The operator manually controls when batch is discharged into the container

The system is ready to being a new cycle starting at Step 1 again.

4.4   Pausing/Resume/Reset a Fill

1. Press the E-Stop button. System turns off all outputs and displays ***System Paused***.
2. Press the **Resume** switch. The system resumes where the current batch left off.
   - Press the **Reset** switch; The system returns back to Step 1 to start over

4.5 Audit Trail Print

Record keeping is an important part of any system. The FlexWeigh System 102 has the ability to be connected to a printer for retaining detailed records on batches, cycle runs, cycle paused, etc.

The preferred printer to integrate with the FlexWeigh System 102 is the TMU-220 Tape Printer but will easily integrate with any strip printer.

Hook up the printer to the FlexWeigh System 102 per printer manual instructions.

Shown below are tape samples that can be printed using the FlexWeigh System 102 and the TMU-220 Ticket Printer.

```
Start Cycle    6 04:31PM 04/27/2011
Id AB123 Location Rice Lake

End Cycle
 111.2 lb  04:31PM 04/27/2011

Start Cycle    7 04:32PM 04/27/2011
Id AB123 Location Rice Lake

Cycle Stopped  04:32PM 04/27/2011

Cycle Resumed 04:32PM 04/27/2011

End Cycle
 116.0 lb  04:32PM 04/27/2011

Start Cycle    8 04:32PM 04/27/2011
Id AB123 Location Rice Lake

Cycle Stopped  04:32PM 04/27/2011

Cycle Reset    04:32PM 04/27/2011
```
Batch Stopped & Resume & Reset Print

```
Sub Total      04:32PM 04/27/2011
Id AB123 Location Rice Lake
   7 cycles        755.8 lb
```
Sub Total Printout

```
Total          04:34PM 04/27/2011
Id AB123 Location Rice Lake
   9 cycles       1022.9 lb
```
Total Printout

```
Start Cycle    1 04:03PM 04/27/2011


End Cycle
 111.1 lb  04:03PM 04/27/2011

Start Cycle    2 04:03PM 04/27/2011


End Cycle
 104.9 lb  04:03PM 04/27/2011
```
No Extra ID Fields Running Batch Print

```
Start Cycle    3 04:07PM 04/27/2011
Id AB123 Location Rice Lake

End Cycle
 100.7 lb  04:07PM 04/27/2011

Start Cycle    4 04:07PM 04/27/2011
Id AB123 Location Rice Lake

End Cycle
 109.1 lb  04:07PM 04/27/2011

Start Cycle    5 04:07PM 04/27/2011
Id AB123 Location Rice Lake

End Cycle
 102.9 lb  04:08PM 04/27/2011
```
2 Extra ID Fields Running Batch Printout

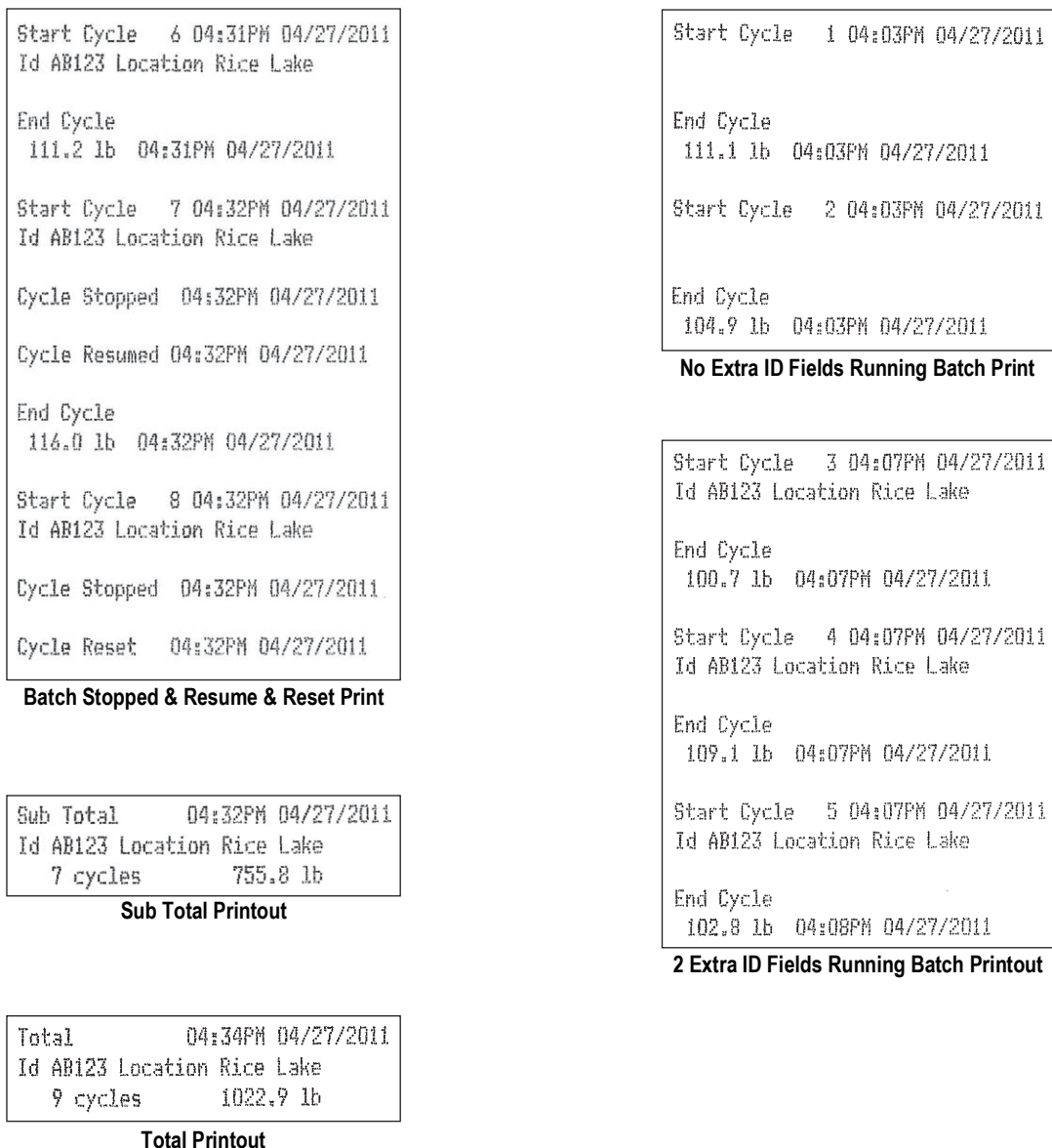*Figure 4-12. Tape Printer Examples*

5.0   Appendix

The section provides additional information for the FlexWeigh System 102.

5.1   Options

Several options are available with the FlexWeigh System 102. Those options that are available include:

- Three Position Selector Switch
- Manual-Mode Front Panel Controls
- Optional Front Panel Pilot Lights

Three Position Selector Switch

Includes:

- Manual/Off/Auto

Manual Mode Front Panel Push Button

Includes:

- Manual Fill
- Manual Discharge

Maintained/Off/Spring Return Manual Switches

- Fill - On/Jog
- Fill - Fast/Slow
- Discharge - On/Jog
- Discharge - Fast/Slow

Optional Front Panel Event Pilot Lights

Includes:

- Green Ready
- Red Fill Complete
- Amber Filling
- Amber Filling Fast
- Amber Filling Slow
- Blue Discharging
- Blue Discharging Fast
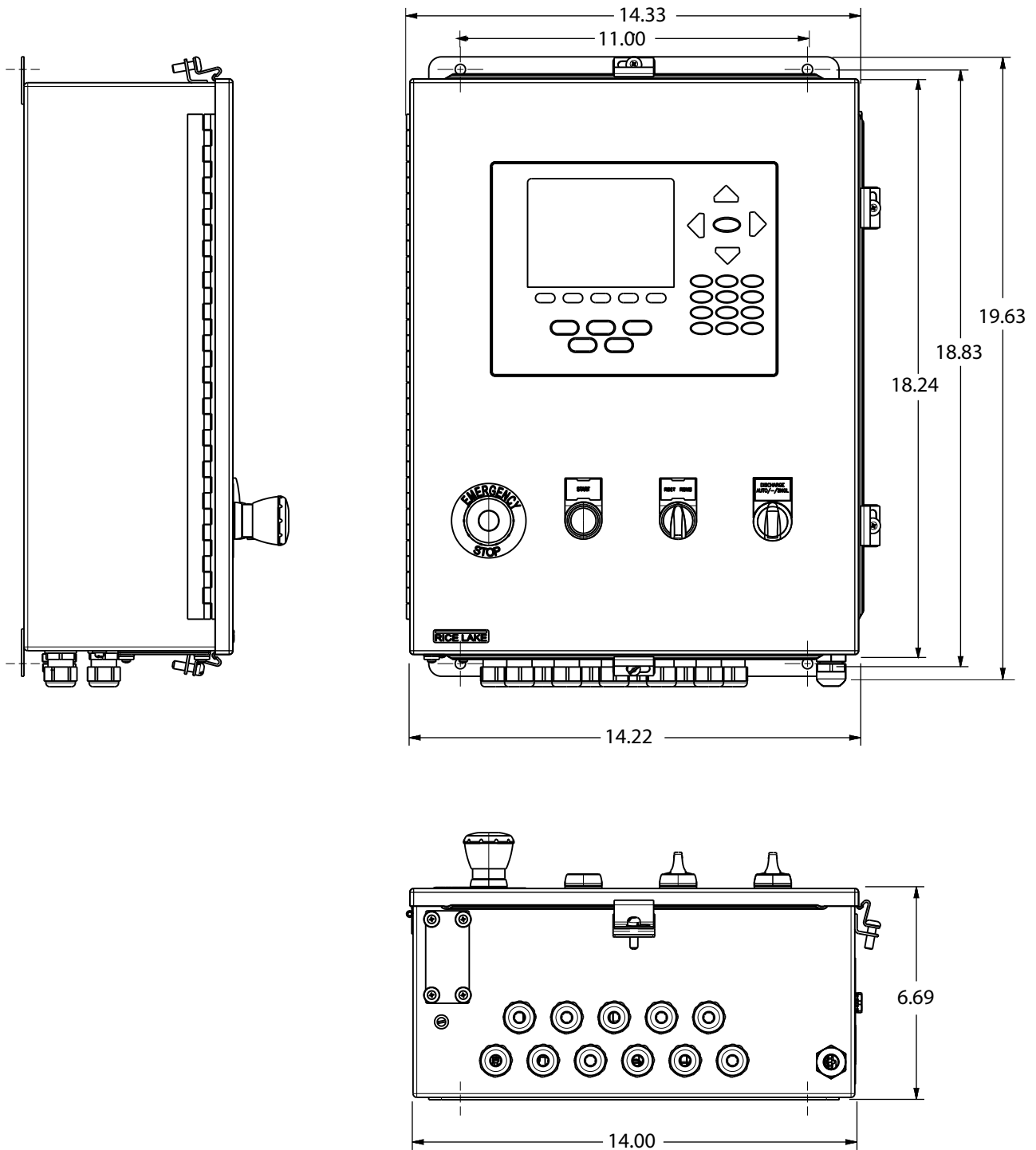- Blue Discharging Slow

5.2   Product Dimensions

Figure 5-1. FlexWeigh System 102 Automatic Fill, Automatic Discharge Controller Enclosure Dimensions
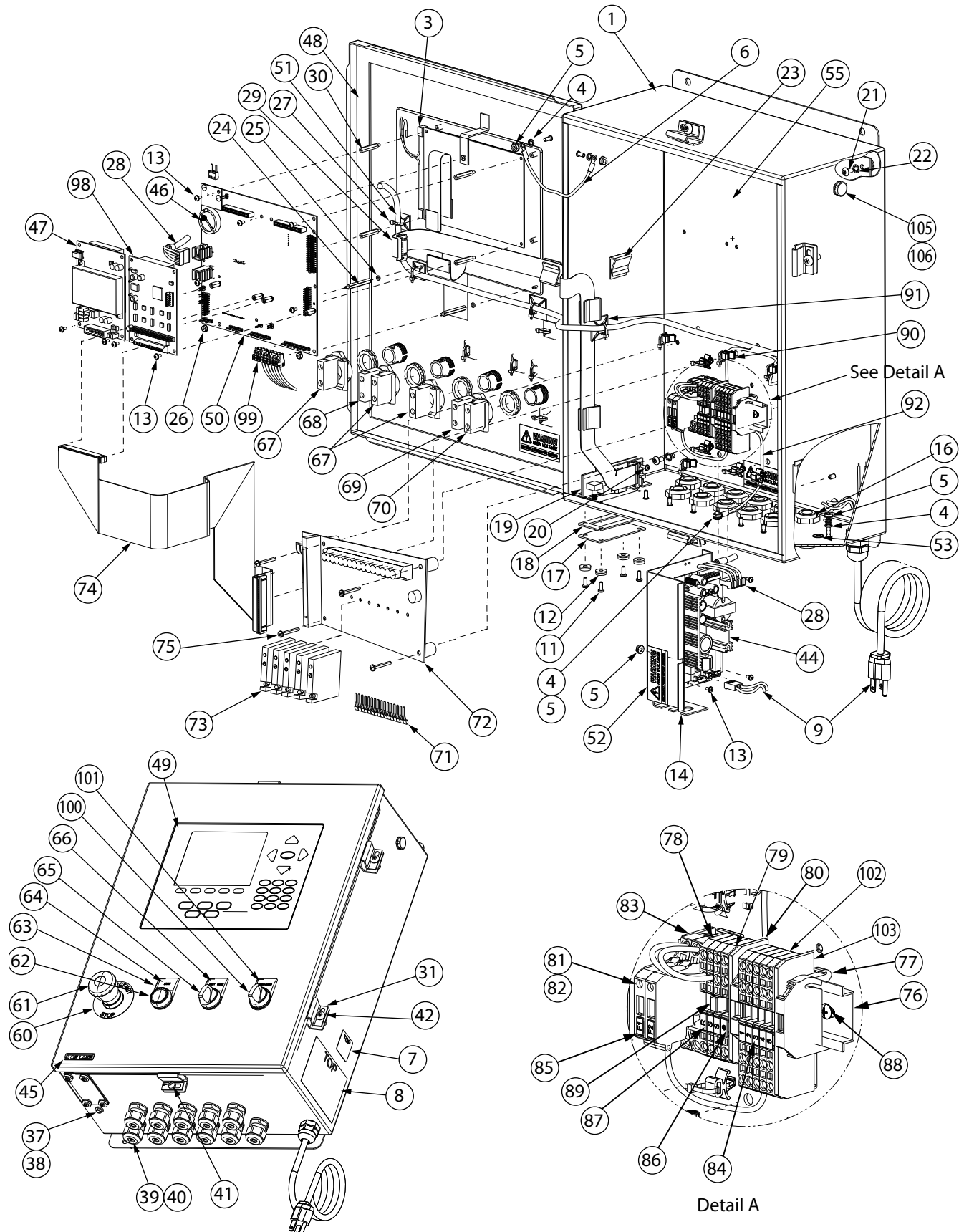
5.3   Replacement Parts

Figure 5-2. Replacement Parts Illustration

Detail A

Item No.	Part No.	Description	Qty.	Item No.	Part No.	Description	Qty.
1	120426	Enclosure, Wall Mount	1	55	120423	Back Panel Component	1
3	67614	Display, LCD Module, 920i	1	60	94274	Legend Plate, Emergency Stop	1
4	15134	Lock Washers, No 8, Type A	4	61	94273	Red Mushroom Switch	1
5	14626	Kep Nuts, 8-32NC Hex	4	62	94277	Switch, Push Button Green	1
6	15601	Ground Wire, 6 in w/No. 8	1	63	94316	Legend Plate Holder	3
7	53308	Label, 1.25 x 1.25 8000T	1	64	114695	Legend Plate, Start	1
8	53307	Label, 4.000 x 2.875	1	65	94298	3-Position Switch	1
9	85202	Power Cord Assembly, 120 VAC	1	66	120728	Legend Plate, Reset/Resume	1
11	14845	Machine Screws, 6-32NC x 3/8	8	67	94310	Contact Block	2
12	45042	Washer, Bonded Sealing SS	8	68	94311	Contact Block, Switch On	1
13	14822	Machine Screws, 4-40NC x 1/4	13	69	94312	Contact Block, Switch On	1
14	69538	Power Supply Bracket	1	70	94313	Contact Block, Switch On	1
16	15630	Locknuts, 1/2 NPT Black	11	71	41035	16 Position Jumper Strap	1
17	67530	Interface Board Plate	1	72	33207	8-Channel Mounting Relay Board	1
18	67535	Interface Board Gasket	1	73	15971	Output Relay Module	5
19	67869	920i Inteface Board	1	74	70780	50 Pin Flat Ribbon Cable	1
20	55708	Machine Screws, 4-40NC x 3/8	2	75	120762	Machine Screw, 6-32NC x 1 - 1/4	4
21	14875	Machine Screws, 10-32NF x 3/8	4	76	43636	DIN Rail	1
22	15140	Lock Washer, No. 10, Type A	4	77	61141	Screwless WAGO End Stop	3
23	46192	Flat Ribbon Cable Clamp	4	78	62964	WAGO Terminal Block	7
24	68661	Standoffs, Male-FEM, 4-40NC	2	79	62966	WAGO Terminal Block	1
25	69898	Nylon Washer ID 0.112	2	80	62968	Intermediate End Plate	3
26	14618	Kep Nuts, 4-40NC Hex	2	81	62969	WAGO Fuse Terminal Block	2
27	15631	Cable Tie, 3 in Nylon	18	82	54215	Time Delay Fuse, 3.15 amp	2
28	71431	Cable Assembly, 65W power	1	83	66190	Intermediate End Plate	1
29	71436	Ribbon Cable Assembly, 28 in	1	84	62959	Label, WAGO Terminal Strip	1
30	67886	Standoffs, Long, Male 4-40NC	4	85	65007	Label, WAGO Terminal Block	1
31	71739	Cinching Enclosure Clip	4	86	62967	Label, WAGO Terminal Block	1
37	42640	Machine Screw, 1/4 - 28NF x 1	1	87	66034	Label, WAGO Terminal Block	1
38	59250	Washer, .255 ID x .437 OD	1	88	22087	Machine Screw, 6-32NC x 3/8	2
39	30376	Sealing Ring, 1/2 NPT, Nylon	11	89	55337	Jumper, Series 280, Insulated	1
40	15628	Cord Grip, 1/2 NPT, Black	11	90	80590	Arrowhead Cable Tie Mount	8
41	71455	Machine Screws, 1/4-28NF x .75	1	91	15658	1 Inch Cable Tie Mount	2
42	71447	Machine Screws 1/4-28NF	3	92	121069	9 Inch Ground Assembly Wire	1
44	71333	920i Power Supply Board	1	98	67608	Card, Digital I/O	1
45	68216	Metal Nameplate	1	99	77180	Conn, 8 Pos Screw Terminal	1
46	69290	3V Coin Lithium Batter	1	100	94299	Switch, Knob 3 Position	1
47	67610	Single Channel A/D Card	1	101	223805	Legend Plate, Discharge Auto-/-/Sngl	1
48	68724	920i Cover Gasket	1	102	62975	Plate, End Intermediate	1
49	66502	Overlay, Membrane Switch	1	103	62973	Block, Terminal WAGO 4	6
50	109549	920i CPU Board Assembly	1	105	88733	Vent, Breather Sealed	1
51	15650	Cable Tie Mount 3/4 in	7	106	88734	Nut, Breather Vent	1
52	16861	Label, High Voltage	3	–	54215	Fuse Between Din Rail/Relay Rack	1
53	16892	Label, Earth Ground	1	–	117901	Foam, Mixture High Density	1

Table 5-1. Replacement Parts List

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6.0   Compliance

$\mathsf{C}\,\mathsf{E}$

EU DECLARATION OF CONFORMITY

EU-KONFORMITÄTSERKLÄRUNG
DÉCLARATION UE DE CONFORMITÉ

Rice Lake Weighing Systems
230 West Coleman Street
Rice Lake, Wisconsin 54868
United States of America

RICE LAKE
WEIGHING SYSTEMS

Type/Typ/Type: 820i and 920i series

English   We declare under our sole responsibility that the products to which this declaration refers to, is in conformity with the following standard(s) or other regulations document(s).

Deutsch   Wir erklären unter unserer alleinigen Verantwortung, dass die Produkte auf die sich diese Erklärung bezieht, den folgenden Normen und Regulierungsbestimmungen entsprechen.

Francais   Nous déclarons sous notre responsabilité que les produits auxquels se rapporte la présente déclartion, sont conformes à la/aux norme/s suivante ou au/aux document/s normatif/s suivant/s.

EU Directive	Certificates	Standards Used / Notified Body Involvement
2014/30/EU EMC	-	EN 61326-1:2013, EN 55011:2009+A1:2010, EN 61000-6-1:1995, EN 61000-6-2:2007
2014/35/EU LVD	-	IEC 60950-1 ed.2
2011/65/EU RoHS	-	EN 50581:2012

Signature: *Richard Shipman*

Type Name: Richard Shipman

Title: Quality Manager

Place: Rice Lake, WI   USA

Date: May 3, 2019

RICE LAKE
WEIGHING SYSTEMS

UK DECLARATION OF CONFORMITY

UK CA

Rice Lake Weighing Systems
230 West Coleman Street
Rice Lake, Wisconsin 54868
United States of America

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W E I G H I N G   S Y S T E M S

Type: 820i and 920i series

English   We declare under our sole responsibility that the products to which this declaration refers to, is in conformity with the following standard(s) or other regulations document(s).

UK Regulations	Certificates	Standards Used / Approved Body Involvement
2016/1101 Low Voltage	-	IEC 60950-1 ed.2
2016/1091 EMC	-	EN 61326-1:2013, EN 55011:2009+A1:2010, EN 61000-6-1:1995, EN 61000-6-2:2007
2012/3032 RoHS	-	EN 50581:2012

Signature: *Brandi Harder*

Name: Brandi Harder

Title: Quality Manager

Place: Rice Lake, WI   USA

Date: December 30, 2021

Form 0291 New 07/2021

Approved by: Quality Department

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