

C2150x MAIN FIRMWARE RELEASE NOTES

WM-Ai & WM-Ai-P Auto Wrappers and IP-Ai Pre-Pack Scale

Procedure to install new WM-Ai / IP-Ai firmware. Refer to the appropriate *Service Manual* for additional information.

1. Copy the firmware folder "Soft" onto an empty USB memory stick.
 - The "Soft" folder itself must not be zipped even if some files in the folder are.
 - The "Soft" folder must be the only data on the USB memory stick.
2. Power up the machine. On the wrapper press the yellow **RETURN** button at the 0322 Go Back to Original Position screen to return all mechanical components to their home position.
3. Press the green **ENTER** button at the Date/Time confirm screen.
4. WM-Ai: Remove the access panel located on the upper right side behind the display.
IP-Ai: Remove the plastic cover on the upper left.
5. Insert the USB memory stick into any of the four USB ports.
 - No other USB devices should be connected.
6. Press the **RETURN ARROW** key (upper right) to enter the Main menu.
7. Enter **495344** and press the **PLU** key to access hidden menu steps.
8. Press the **ADJUST** menu button.
9. Select **DOWNLOAD**.
10. Select the firmware version to be installed. It will be highlighted in yellow.
11. Press **EXEC** to confirm the selection.

Note: If message 15036-0000 *Database Version Is Different* is displayed a memory clear will be required after installing the firmware. Press **STOP** and make a USB backup (Setup menu > File Save/Load) if necessary, otherwise press **EXEC** to continue.
12. Press **EXEC** to begin the firmware download.
13. The screen will show the firmware download progress. The download will take several minutes to complete.
14. When Re-Boot Check message 15029 is displayed, the firmware download is complete.
15. WM-Ai: Power off the wrapper. Wait 30 seconds and switch on the power.
IP-Ai: The scale will automatically reboot.
16. On the wrapper press the yellow **RETURN** button at the 0322 Go Back to Original Position screen to return all mechanical components to their home position.
17. Press the green **ENTER** button at the Date/Time confirm screen.
18. If prompted enter the Adjust menu and perform a Master Data memory clear. Then enter the Setup menu and load the backup from step 10.
19. Press the **RETURN ARROW** key (upper right) to enter the Main menu.
20. Enter **495344** and press the **PLU** key to access hidden menu steps.
21. Press the **ADJUST** menu button, then select **DOWNLOAD**.
22. Press the **SUB APP** tab.
23. Select the program to be installed. It will be highlighted in yellow. Select only one Sub App program at a time.
24. Press **EXEC** to confirm the selection. Press **EXEC** to begin the firmware download.
25. The screen will show the firmware download progress. The download may take several minutes to complete.
26. When Re-Boot Check message 15029 is displayed, the firmware download is complete.
27. WM-Ai: Power off the wrapper. Wait 30 seconds and switch on the power.
IP-Ai: The scale will automatically reboot.
28. On the wrapper press the yellow **RETURN** button at the 0322 Go Back to Original Position screen to return all mechanical components to their home position.
29. Press the green **ENTER** button at the Date/Time confirm screen.
30. Repeat steps 19 ~ 28 to load any remaining Sub App and Sub Boot programs as needed.
31. Remove the USB memory stick.

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Version C2150M features & changes [9 April 2019]

Use with SLP-5 **2.20f** or later (**strongly recommended** for compatibility)

Note: Campaign support for 16:U/P and 17:PRICE is available from SLP-5 2.40c.

Related programs

Main:	C2151L
Scale Driver:	J0834 (J0835)
OS:	J0829E
BIOS:	J0825
FPGA App.:	J0910B (J0824)
Keyboard:	J0823B
Scale:	J0776G or later
Wrap App.:	C2006S (J0860A)
Camera App.:	J0884D (J0846)
Printer App:	
WM-Ai:	J0909F (J0827)
IP-Ai:	J0911A (J0827)
Pop Printer App.:	J0949C (J0926) [J0935A] {WM-Ai-P only}

C2150x MAIN FIRMWARE RELEASE NOTES

WM-Ai & WM-Ai-P Auto Wrappers and IP-Ai Pre-Pack Scale

NOTES:

1. After downloading the Main App program download the Printer (EC), Wrapper (Pack Machine), Pop Printer, Camera, and FPGA sub-app and sub-boot programs one at a time as needed.
2. If upgrading from C2150L or earlier be sure to upgrade the WM-Ai Wrapper App to C2006S.



Caution

Memory initialization may be required when upgrading to this firmware version. Create a USB backup or use SLP-5 Maintenance Utility and SLP-5 to backup the wrapper before upgrading from firmware **C2150G** or an earlier version. Due to significant changes in the memory structure, after firmware installation a standard memory clear will be necessary: **Master Data Clear** (Adjust menu > Memory Clear) & **System Data Init.** (Setup menu > File Save/Load > Scale Init. tab). **[8.5.0.3]**

The following lists the main changes from the previous version (C2150J)

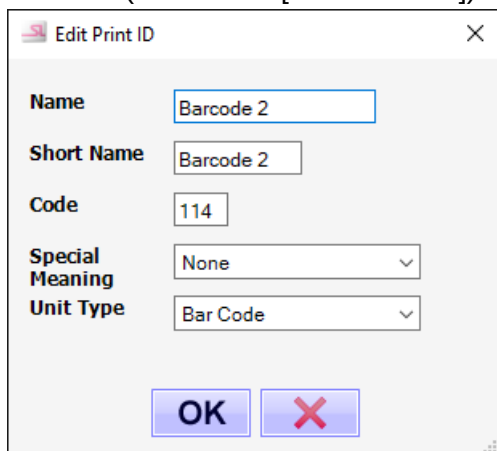
1. Modified the rear wrap plate operation in Label only mode to move forward to help support heavy trays and prevent them from tipping. This is part of Wrap App. C2006S.
2. Added an alternate method to enter and print a Lot Number using the Trace function key.
 - a. The Trace function key (key type 79) must be configured as a split key with areas for a title (upper) and data (lower).
 - b. Up to a six-digit Lot Number may be entered.
 - c. The Lot Number is cleared for the current PLU when the next PLU is called.
 - d. The PLU must be enabled for traceability, otherwise the Trace key is not available and shaded out. At the WM-Ai the setting is in the PLU on the Scheme tab > Trace Enable. In SLP-5 the field is Trace Flag.
 - e. If the split Trace function key is pressed without entering a number first, the standard Traceability edit/save screen is not displayed.
 - f. If the Trace function key is not split (title only), the standard Traceability edit screen is displayed when the key is pressed.
 - g. Label format Print ID 134: BSP LOT (308 in SLP-5) is used to print the Lot Number. The field is changed from Numeric to Variable Text for this version of Lot Number.

3. Added a feature to switch between UPC and GS1 barcode formats based on the total price. When the total price is 4-digits or less the standard UPC barcode format prints. For a 5-digit or 6-digit total price the GS1 barcode prints.
 - a. Added Print ID BARCODE2 72 (114 in SLP-5)
 - b. If the price exceeds 4-digits, Barcode2 will not print if it is not included in the label format.
 - c. When the total price is 7-digit or more neither barcode is printed.

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- d. BARCODE2 prints a custom barcode but operates separately from the standard Custom Barcode (Print ID 71 [113 in SLP-5])



Edit Print ID

Name: Barcode 2

Short Name: Barcode 2

Code: 114

Special Meaning: None

Unit Type: Bar Code

OK Cancel

Version C2150L features & changes [24 May 2018]

This version was not released for the USA as there were no relevant changes.

Version C2150K features & changes [1 May 2018]

This version was not released for the USA as there were no relevant changes.

Version C2150J features & changes [20 March 18]

Use with SLP-5 2.20f or later (**strongly recommended** for compatibility)

Note: Campaign support for 16:U/P and 17:PRICE is available from SLP-5 2.40c.

Related programs

Main: C2151J
Scale Driver: J0834 (J0835)
OS: J0829E
BIOS: J0825
FPGA App.: J0910B (J0824)
Keyboard: J0823B
Scale: J0776G or later
Wrap App.: C2006R (J0860A)
Camera App.: J0884D (J0846)
Printer App:
 WM-Ai: J0909F (J0827)
 IP-Ai: J0911A (J0827)
Pop Printer App.: J0949C (J0926) [J0935A] {WM-Ai-P only}

NOTES:

1. After downloading the Main App program download the Printer (EC), Wrapper (Pack Machine), Pop Printer, Camera, and FPGA sub-app and sub-boot programs one at a time as needed.

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WM-Ai & WM-Ai-P Auto Wrappers and IP-Ai Pre-Pack Scale



Caution

Memory initialization may be required when upgrading to this firmware version. Create a USB backup or use SLP-5 Maintenance Utility and SLP-5 to backup the wrapper before upgrading from firmware **C2150G** or an earlier version. Due to significant changes in the memory structure, after firmware installation a standard memory clear will be necessary: **Master Data Clear** (Adjust menu > Memory Clear) & **System Data Init.** (Setup menu > File Save/Load > Scale Init. tab). [8.5.0.3]

The following lists the main changes from the previous version (C2150H)

1. Fixed a bug where a tray could be weighed and labelled even if it was outside the upper/lower weight check range. This could occur if the stable weight was received at the exact time the previous tray was being discharged.

Version C2150H features & changes [13 November 2017]

Use with SLP-5 **2.20f** or later (strongly recommended for compatibility)

Note: Campaign support for 16:U/P and 17:PRICE is available from SLP-5 2.40c.

Related programs

Main:	C2151H
Scale Driver:	J0834 (J0835)
OS:	J0829E
BIOS:	J0825
FPGA App.:	J0910B (J0824)
Keyboard:	J0823B
Scale:	J0776G or later
Wrap App.:	C2006R (J0860A)
Camera App.:	J0884D (J0846)
Printer App:	
WM-Ai:	J0909F (J0827)
IP-Ai:	J0911A (J0827)
Pop Printer App.:	J0949C (J0926) [J0935A] {WM-Ai-P only}

NOTES:

1. After downloading the Main App program download the Printer (EC), Wrapper (Pack Machine), Pop Printer, Camera, and FPGA sub-app and sub-boot programs one at a time as needed.



Caution

Memory initialization is required when upgrading to this firmware version. Create a USB backup or use SLP-5 Maintenance Utility and SLP-5 to backup the wrapper before upgrading from firmware **C2150G** or an earlier version. Due to significant changes in the memory structure, after firmware installation a standard memory clear will be necessary: **Master Data Clear** (Adjust menu > Memory Clear) & **System Data Init.** (Setup menu > File Save/Load > Scale Init. tab). [8.5.0.3]

The following lists the main changes from the previous version (C2150G)

1. Eliminated case sensitive searches. This is only available when the configuration is set to search "ALL" text. [Setup menu > Operation Settings > Call1 tab > Find PLU = ALL]

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2. Added support for standard prices in Campaign. Selections 16: U/P and 17: Price are added for Weighed and Fixed Price items respectively.
 - a. These selections can be used to increase or decrease the price.
 - b. The pre-markdown price fields do not print on the label with these selections.**Note:** From SLP-5 2.40c standard prices 16: U/P and 17: Price are supported.
3. Added the ability to change the Store Name and Address in operation mode by Shop No. preset function key.
 - a. Preset key 258: Shop No. is added.
 - b. Error 0219-0000 "Store Master Is Not Programmed" is displayed if the entered store number is not programmed.
 - c. If the Shop No. preset is pressed without a numeric entry a list of store names is displayed.
 - d. The selected store is set as the default and saved even after the machine is powered down.
 - e. Error 0341-0000 "Product Is Remaining On The Lift" occurs if the Shop No. preset is pressed while a tray is being wrapped.
4. Eliminated the need to enter a 6-digit password to access the menus or disable the Keylock.
 - a. In the Setup menu the Password and Keylock passwords are displayed as ***** regardless of the number of digits.
 - b. To eliminate a Password or Keylock password a single "0" may be entered.
5. Added a Movie preset function key to display videos. [Preset key 423: Movie.]
 - a. If added manually set the movie file name as "IMGSV****" where "****" is a unique number between 001 and 999.
 - b. When programming the Movie preset key enter the number in the Data field.
6. Removed the Film Tension adjustment from the Dial function key. [Preset key 267: Dial].
7. Improved the wording on various message screens.
8. Corrected the portion of the wrapper image that was highlighted during film loading [message 0597-0000].
9. Fixed a bug where foreign (2-byte) characters sent in the Nutrition data caused corrupted data.

Version C2150G features & changes [19 October 2017]

Use with SLP-5 **2.20f** or later ([strongly recommended](#) for compatibility)

Related programs

Main:	C2151G
Scale Driver:	J0834 (J0835)
OS:	J0829E
BIOS:	J0825
FPGA App.:	J0910B (J0824)
Keyboard:	J0823B
Scale:	J0776G or later
Wrap App.:	C2006R (J0860A)
Camera App.:	J0884D (J0846)
Printer App:	
WM-Ai:	J0909F (J0827)
IP-Ai:	J0911A (J0827)
Pop Printer App.:	J0949C (J0926) [J0935A] {WM-Ai-P only}

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WM-Ai & WM-Ai-P Auto Wrappers and IP-Ai Pre-Pack Scale

NOTES:

1. After downloading the Main App program download the Printer (EC), Wrapper (Pack Machine), Pop Printer, Camera, and FPGA sub-app and sub-boot programs one at a time as needed.
2. If upgrading from C2150F or earlier be sure to upgrade the WM-Ai Wrapper App to C2006R, the Camera App to J0884D, and the Printer App to J0909F.



Caution

Memory initialization is required when upgrading to this firmware version. Create a USB backup or use SLP-5 Maintenance Utility and SLP-5 to backup the wrapper before upgrading from firmware **C2150F** or an earlier version. Due to significant changes in the memory structure, after firmware installation a standard memory clear will be necessary: **Master Data Clear** (Adjust menu > Memory Clear) & **System Data Init.** (Setup menu > File Save/Load > Scale Init. tab).
[8.5.0.2]

The following lists the main changes from the previous version (C2150F)

1. Updated the Wrapper App to version C2006R including multiple incremental changes.
C2006N
 - Changed the film roll brake timing: a setting of 0 (zero) is equivalent to the previous setting of -5.
 - Modified the allowed film roll brake setting range from -8 ~ +16 to -12 ~ +16.
NOTE: Readjustment of the film roll brake stop position and film centering / length is required after firmware update.
 - Added running the film feed belts for 0.5 second after a film load to ensure the green belts are returned to the correct position.
 - Reduced the film roll rotation speed for the first two film feeds after installing a new roll to more accurately measure the roll diameter.
 - Modified the film roll brake logic to reduce the braking as the roll diameter decreases to maintain a relatively constant peeling position.
 - Added 41: Film Belt to Adjust menu > Unit Action. This function is provided to check and adjust the alignment pulleys that center the green Film Feeder belts.C2006P
 - Fixed a bug where the insertion plate moved forward when not in the correct horizontal position and made contact with the Cutter Guard. This could cause the Cutter home position sensor flag to be bent.C2006R
 - Added error 0421-3*** Infeed Pusher Bar Motor Is Abnormal where 3*** indicates excessive resistance at startup. This is to prevent premature wearing of the Centering Conveyor shaft and sprockets.
CAUTION: Align or replace the Centering Conveyor shaft and sprockets as needed.
 - Improved control of the Lift change solenoid.
2. Fixed a bug in the communication protocol where 7-digit and 8-digit Extra Messages 1-3 were not received correctly.
3. Fixed a bug where the Screen Capture feature did not work.
4. Fixed a bug where error 0448-0001 "Do Not Put Your Hand Into The Machine" occurred when wrapping large trays at high speed.
5. Fixed a bug where large trays wrapped at low speed with a pop label would stop infeeding and wrapping.
6. Fixed a bug where wrapping and labeling would stop with a No Response From Scale error when using a 101.5mm label.

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7. Fixed a bug where the wrapper would lock up if the model was set as AT type (two printers) when the wrapper was an AS type (single printer). If the second main printer is not connected it will be ignored.
8. Updated firmware loading to check for compatibility. Error 0116 Wrong Software Was Installed occurs when attempting to download firmware between the Ishida WM-Ai and MT880.

Version C2150F features & changes [26 September 2017]

Use with SLP-5 **2.20f** or later (strongly recommended for compatibility)

Related programs

Main:	C2151F
Scale Driver:	J0834 (J0835)
OS:	J0829E
BIOS:	J0825
FPGA App.:	J0910B (J0824)
Keyboard:	J0823B
Scale:	J0776G or later
Wrap App.:	C2006L (J0860A)
Camera App.:	J0884C (J0846)
Printer App:	
WM-Ai:	J0909E (J0827)
IP-Ai:	J0911A (J0827)
Pop Printer App.:	J0949C (J0926) [J0935A] {WM-Ai-P only}

NOTES:

1. After downloading the Main App program download the Printer (EC), Wrapper (Pack Machine), Pop Printer, Camera, and FPGA sub-app and sub-boot programs one at a time as needed.



Caution

Memory initialization may be required when upgrading to this firmware version. Create a USB backup or use SLP-5 Maintenance Utility and SLP-5 to backup the wrapper before upgrading from firmware **C2150** or an earlier version. Due to significant changes in the memory structure, after firmware installation a standard memory clear will be necessary: **Master Data Clear** (Adjust menu > Memory Clear) & **System Data Init.** (Setup menu > File Save/Load > Scale Init. tab). **[8.5.0.1]**

The following lists the main changes from the previous version (C2150E)

1. Fixed a bug where a temporary Pack Date change made when a PLU was set for Rewrap mode did not revert to the clock's internal date after calling the next item.

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Version C2150E features & changes [16 February 2017]

Use with SLP-5 2.20f or later (strongly recommended for compatibility)

Related programs

Main: C2151E
Scale Driver: J0834 (J0835)
OS: J0829E
BIOS: J0825
FPGA App.: J0910B (J0824)
Keyboard: J0823B
Scale: J0776G or later
Wrap App.: C2006L (J0860A)
Camera App.: J0884C (J0846)
Printer App:
 WM-Ai: J0909E (J0827)
 IP-Ai: J0911A (J0827)
Pop Printer App.: J0949C (J0926) [J0935A] {WM-Ai-P only}

NOTES:

1. After downloading the Main App program download the Printer (EC), Wrapper (Pack Machine), Pop Printer, Camera, and FPGA sub-app and sub-boot programs one at a time as needed.
2. If upgrading from C2150D or earlier be sure to upgrade the Wrapper App to C2006L.



Caution

Memory initialization may be required when upgrading to this firmware version. Create a USB backup or use SLP-5 Maintenance Utility and SLP-5 to backup the wrapper before upgrading from firmware C2150 or an earlier version. Due to significant changes in the memory structure, after firmware installation a standard memory clear will be necessary: **Master Data Clear** (Adjust menu > Memory Clear) & **System Data Init.** (Setup menu > File Save/Load > Scale Init. tab). [8.5.0.1]

The following lists the main changes from the previous version (C2150D)

1. Modified communication download to ignore the following PLU settings sent from the PC and maintain the current settings.

PRINT tab:

- a. 1st Label Attach Type
- b. 1st Label Bar Print
- c. Print Mode
- d. 1st Label Print

WRAP tab:

- a. Tray No.
- b. Wrap Mode
- c. Volume
- d. Paste Mode
- e. Direction
- f. Tray Vol. Detect.
- g. Feed Speed
- h. Wrap Speed
- i. Tray Auto Detect.

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- j. Tray Centering
 - k. Tray Outfeed Stop
 - l. Tray Hold
2. Fixed a bug where the Tare Adjust setting was named incorrectly (Setup menu > Machine No. > PC Com).
3. Added support for GS1 to Custom Barcode and Label Format (Setup menu).
- Note:** When the barcode is less than 14 digits, "(01)" is automatically added in front of the OCR numbers.
- a. Enabled printing of custom barcode with GS1 Expanded format.
 - b. Added **3E: GS1 Expanded** to the Unit Type list in Label Format. Print ID is 71 (113 in SLP-5): Custom Barcode.
 - c. Setting details for GS1 MAX SEGMENTS:
 - i. Valid values are 0 (default), 2, 4, 6, and 8. Any higher value is treated as 8 due to print head width limitation.
 - ii. Examples:
 - Barcode data: (01) 000000000000000 (3203) 0012340
- | Segment | Barcode printing |
|---------|------------------|
| 8 | 1 layer |
| 6 | 2 layers |
| 4 | 2 layers |
- Barcode data (01) 000000000000000 (3922) 012345(15) 130906
- | Segment | Barcode printing |
|---------|------------------|
| 8 | 2 layers |
| 6 | 2 layers |
| 4 | 3 layers |
- iii. The maximum number of layers has been increased from two (2) to eleven (11) for GS1 EXPANDED STACKED. If the number of layers exceeds eleven (11) the OCR will print but the barcode will be blank.
- | Segment | OCR Max. Digits |
|---------|-----------------|
| 8 | 40 |
| 6 | 30 |
| 4 | 18 * |
| 2 | 10 |
- * When the number of segments is four (4) the OCR Max. Digit is 18 rather than 20 for legibility.
- iv. The barcode length (height) includes the barcode and OCR.
 - v. The barcode will adjust automatically based on the barcode unit length.
 - vi. When the barcode exceeds the maximum lines, it will not print but the OCR numbers will print.
 - vii. A setting for "OCR Yes/No" is available in the GS1 Expanded field parameters in the label format.
- d. Limitations.
- i. When the barcode length setting in the label format is smaller than the minimum print height for the barcode and OCR, the OCR printing will overlap the barcode.
 - ii. When the barcode length setting in the label format is smaller than the minimum print height the barcode will print at the minimum height.

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- e. The weight value will print correctly in a custom barcode in the lower weight range (0.005 Lb increments). In the upper weight range (0.01 Lb increments), however, the weight will print as "0" (zero).
4. Added label format Print ID 283 (643 in SLP-5): GTIN (CUSTOM) to support a 12-digit OCR. The OCR prints independent of the barcode in the following data format:
FCCCCPPPPc/d, where:
F: flag code (1 digit)
C: POS code (5 digits)
P: price (5 digits)
c/d: check digit (1 digit)
Notes:
 - a. In the label format, change the Unit Type from "020: Text Variable" to "001: Standard Numeric" to print the OCR field.
 - b. Change the OCR Style setting to "UPC 12" (Setup menu > Barcode > POS Code tab).
 - c. The contents of the OCR format are fixed.

Version C2150D features & changes [15 January 2017]

Use with SLP-5 **2.20f** or later ([strongly recommended](#) for compatibility)

Related programs

Main:	C2151D
Scale Driver:	J0834 (J0835)
OS:	J0829E
BIOS:	J0825
FPGA App.:	J0910B (J0824)
Keyboard:	J0823B
Scale:	J0776G or later
Wrap App.:	C2006K (J0860A)
Camera App.:	J0884C (J0846)
Printer App:	
WM-Ai:	J0909E (J0827)
IP-Ai:	J0911A (J0827)
Pop Printer App.:	J0949C (J0926) [J0935A] {WM-Ai-P only}

NOTES:

1. After downloading the Main App program download the Printer (EC), Wrapper (Pack Machine), Pop Printer, Camera, and FPGA sub-app and sub-boot programs one at a time as needed.
2. If upgrading from C2150C or earlier be sure to upgrade the WM-Ai Printer App to J0909E.



Caution

Memory initialization may be required when upgrading to this firmware version. Create a USB backup or use SLP-5 Maintenance Utility and SLP-5 to backup the wrapper before upgrading from firmware **C2150** or an earlier version. Due to significant changes in the memory structure, after firmware installation a standard memory clear will be necessary: **Master Data Clear** (Adjust menu > Memory Clear) & **System Data Init.** (Setup menu > File Save/Load > Scale Init. tab). [\[8.5.0.1\]](#)

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The following lists the main changes from the previous version (C2150C)

1. Modified the on-line status check to use a basic Ping. The machine is judged to be on-line when a reply to the Ping is received. Previously the on-line check expected a reply from host software.

- Notes:**
- a. The on-line status is automatically checked based on the Com Check Time Out setting (Setup menu > Machine No. > PC Com tab). The interval range is 30-999 seconds. If changed, the machine must be rebooted to be recognized.
 - b. A manual ping check at the wrapper or from a PC will not change the status indicator.
 - c. The status indicator is green when connected and orange when not connected.
 - d. If the Com Check Time Out interval is set to "0" the status indicator will remain green.

Version C2150C features & changes [21 December 2016]

Use with SLP-5 **2.20f** or later (strongly recommended for compatibility)

Related programs

Main:	C2151C
Scale Driver:	J0834 (J0835)
OS:	J0829E
BIOS:	J0825
FPGA App.:	J0910B (J0824)
Keyboard:	J0823B
Scale:	J0776G or later
Wrap App.:	C2006K (J0860A)
Camera App.:	J0884C (J0846)
Printer App:	
WM-Ai:	J0909D (J0827)
IP-Ai:	J0911A (J0827)
Pop Printer App.:	J0949C (J0926) [J0935A] {WM-Ai-P only}

NOTES:

1. After downloading the Main App program download the Printer, Wrapper (Pack Machine), Pop Printer, Camera, and FPGA sub-app and sub-boot programs one at a time as needed.
2. If upgrading from C2150B or earlier be sure to upgrade the Pop Printer App to J0949C.



Caution

Memory initialization may be required when upgrading to this firmware version. Create a USB backup or use SLP-5 Maintenance Utility and SLP-5 to backup the wrapper before upgrading from firmware **C2150** or an earlier version. Due to significant changes in the memory structure, after firmware installation a standard memory clear will be necessary: **Master Data Clear** (Adjust menu > Memory Clear) & **System Data Init.** (Setup menu > File Save/Load > Scale Init. tab). **[8.5.0.1]**

The following lists the main changes from the previous version (C2150B)

1. Added a preset key to display the date and time of the last PLU file and/or Ingredient file update received by the scale. Preset key ID is 505: MASTER RECEIVE TIME.

- Notes:**
- a. The date and time status is updated only when the PLU file or Ingredient (Extra Message 2) file is received.

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- b. The date and time indicate the end of the transmission.
 - c. The date and time will be updated even when only partial data is successfully received.
 - d. Until the first file download is received the preset key displays "No Receive".
 - e. The date and time format is the same as the current date and time displayed in the upper right of the main display.
2. Added a setting to display a calendar when making a temporary date change. The calendar is called by pressing Pack Date or Sell By Date preset keys. The new Calendar Input setting is in the Setup menu > Operation Setting > Input tab.
Notes:
 - a. Default setting is No.
 - b. The Pack Date and Sell By Date are set separately.
 - c. Press the OK button to accept the change or the Return Arrow to quit.
 - d. Use the "<" (previous) and ">" (next) buttons to change the month.
 - e. The calendar range is limited to one year from the current date.
 - f. A future Pack Date cannot be selected.
3. Modified the Meat Cut Test data entry screen to prevent entering a value in for Product Cost. The field is grayed out and the default is fixed at \$1.00.
4. Fixed a bug where the wrapper operates incorrectly when a Film Over error occurs.
5. Fixed a bug where a "Set Scale Plate" message was displayed with any error message if the tare weight was more than 0.300 lb.
6. Fixed a bug where the firmware could not be updated in the A100 I/O board when it was replaced. An incorrect response will be ignored at power up to allow firmware to be downloaded to the A100 board.

Version C2150B features & changes [7 November 2016]

Use with SLP-5 **2.20f** or later (**strongly recommended** for compatibility)

Related programs

Main:	C2151B
Scale Driver:	J0834 (J0835)
OS:	J0829E
BIOS:	J0825
FPGA App.:	J0910B (J0824)
Keyboard:	J0823B
Scale:	J0776G or later
Wrap App.:	C2006K (J0860A)
Camera App.:	J0884C (J0846)
Printer App:	
WM-Ai:	J0909D (J0827)
IP-Ai:	J0911A (J0827)
Pop Printer App.:	J0949B (J0926) [J0935A] {WM-Ai-P only}

NOTES:

1. After downloading the Main App program download the Printer (EC), Wrapper (Pack Machine), Pop Printer, Camera, and FPGA sub-app and sub-boot programs one at a time as needed.
2. If upgrading from C2150 or earlier be sure to upgrade the Wrapper App to C2006K, the Pop Printer App to J0949B, and the Pop Printer FPGA App to J0935A.

C2150x MAIN FIRMWARE RELEASE NOTES

WM-Ai & WM-Ai-P Auto Wrappers and IP-Ai Pre-Pack Scale



Caution

Memory initialization may be required when upgrading to this firmware version. Create a USB backup or use SLP-5 Maintenance Utility and SLP-5 to backup the wrapper before upgrading from firmware **C2150** or an earlier version. Due to significant changes in the memory structure, after firmware installation a standard memory clear will be necessary: **Master Data Clear** (Adjust menu > Memory Clear) & **System Data Init.** (Setup menu > File Save/Load > Scale Init. tab). **[8.5.0.1]**

The following lists the main changes from the previous version (C2150)

1. Added a Tare Adjust setting to determine if the tare weight sent as dual-range is to be converted to single-range. The default setting is No. (Setup menu > Machine No. > PC Com tab).
2. Modified communications to stop checking if the Tare Weight value received in the PLU file is valid.
3. Modified the Fixed Weight in ounces programmed in a Fixed Price item to convert to decimal pounds and print in the standard weight field. The original "Weight Lb Oz" fixed weight Print ID 10C (268 in SLP-5) is still available and, if assigned to a label format, will simultaneously print the fixed weight in ounces.
4. Fixed a bug where the fixed weight amount entered for a Case Weight (Fixed UPR) item was not accumulated in the totals.
5. Modified the LEFT(-) / RIGHT(+) ADJ. values for the Pop Label Applicator Paste Position Adjust from $\pm 8\text{mm}$ to $\pm 12\text{mm}$. The increased values are due to the additional length of the Pop Applicator shaft compared to the main Applicator. The main Applicator adjustment values remain at $\pm 8\text{mm}$.
6. Fixed a bug where the rotation selected on the Label Applicator Pos. tab was not carried to the Label Applicator Action tab. Previously, the rotation on the Label Applicator Action tab always started at 0 Deg.
7. Fixed a bug where the Applicator would stop mid-cycle for the last tray when the "Target Completed" message was displayed in target mode.
8. Changed the background color when editing reverse text to prevent white characters from matching the background and being "invisible".
9. Updated the Wrapper App C2006K with the following changes.
 - Fixed a bug where error 0402-0000 No Response From Wrapper occurred with model WM-Ai-P for a very specific set of circumstances:
 - Film Width: 250mm
 - Film Material: PVC3
 - Tray Size: approximately 200mm x 120mm x 30mm
 - Wrapping Speed: Middle
 - Outfeed Speed: High
 - Modified the discharge pusher travel distance to push large trays out farther.
 - Changed the threshold for automatic selection of Large Lift from tray width (front to back) more than 165mm to more than 170mm to reduce film tearing. A similar change was made for torque wrapping mode from more than 170mm to 180mm.
10. Added automatic backup and restore of settings stored in the wrapper and applicator control boards. When a board is replaced, saved backup settings will download to the new board automatically.
 - Automatic settings backup occurs in the following cases.
 1. After the initial installation of main firmware C2150B or later is complete and the wrapper is rebooted.
 2. Any time a change is made to the wrapper and applicator settings that are saved in the backup.

C2150x MAIN FIRMWARE RELEASE NOTES

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- Automatic settings restore occurs in the following cases.
 1. After a wrapper or applicator board is replaced and the firmware sub app is installed.
 - a. After installing a sub app message 15064-0001 Execute Data Restore is displayed.
 - b. Restore executes automatically after memory is initialized on the replacement wrapper or applicator board.
 - c. Rebooting the WM-Ai is not necessary after the restore is complete.

15064-0001 EXECUTE DATA RESTORE
FOLLOWING PROCESSES ARE COMPLETED.

 1. DOWNLOAD: APPLICATOR APP AND WRAPPER APP TO A NEW CIRCUIT BOARD.
 2. INITIALIZE: MEMORIES OF A NEW CIRCUIT BOARD.
 3. DATA RESTORE: BACKUP DATA TO WRAPPER AND APPLICATOR.

[OK]
 2. When the Restore button is pressed at the Init. Tab.
 - a. Backed up settings will be restored when the Restore button is pressed followed by the Exec button.
 - b. Message 15064-0000 Check Data Restore is displayed.

15064-0000 CHECK DATA RESTORE
IS IT OK TO RESTORE DATA OF WRAPPER AND APPLICATOR FROM BACKUP DATA?
[EXEC] [STOP]
 - c. When the wrapper or applicator is initialized the following message appears. These can be selected whether initializing backup data or not.
- Wrapper Initialization
- 15024-0001 CHECK INITIALIZATION
IS IT OK TO INITIALIZE DATA OF WRAPPER?
IT ALSO CLEARS BACKUP DATA.
[EXEC] [STOP]
- Applicator Initialization
- 15027-0001 CHECK INITIALIZATION
IS IT OK TO INITIALIZE DATA OF APPLICATOR?
IT ALSO CLEARS BACKUP DATA.
[EXEC] [STOP]
- The following wrapper and applicator settings are automatically backed up and available for restore.
 1. Machine Details
 - a. Adjust > Machine Type > Detail
 - Variation
 - Centering
 - Change Film
 - Non-Film Error
 - Ejection Dir.
 - Film Set Pos. Sel.
 - Printer 1 Pos. Sel.
 2. Wrapping Settings
 - a. Adjust > Wrapping (Film)

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- Upper Film Width
- Lower Film Width
- b. Adjust > Wrapping (Lift)
 - Original Lift Pos.
- c. Adjust > Wrapping (Roll)
 - Upper Roll Stop Pos.
 - Lower Roll Stop Pos.
 - Upper Roll Pos.
 - Lower Roll Pos.
 - Plate Return Delay
 - Lower Roll Load Pos.
- 3. Applicator Settings
 - a. Adjust > Label Applicator (Pos.)
 - Paste Pos.
 - X
 - Y
 - Z
 - b. Adsorb Pos. Adj.
 - Left(-)/Right(+) Adj.
 - Front(-)/Back(+) Adj.
 - Left(-)/Right(+) Adj.
 - Upper(-)/Lower(+) Adj.
 - c. Paste Pos. Adj.
 - Left(-)/Right(+) Adj.
 - Front(-)/Back(+) Adj.
 - Left(-)/Right(+) Adj.
 - d. Printer settings for the following angles.
 - Printer 1: 0° and -90°
 - POP Printer: 0°, 90°, 180°, and -90°
 - e. Adjust > Label Applicator (Init.)
 - Fan Off Time
 - Volume
 - Paste Ctrl.
 - Paste H Adj.
 - Label Wait Stand

Version C2150A

C2150A was not released.

C2150x MAIN FIRMWARE RELEASE NOTES

WM-Ai & WM-Ai-P Auto Wrappers and IP-Ai Pre-Pack Scale

Version C2150 features & changes [15 April 2016]

Use with SLP-5 **2.20f** or later (**strongly recommended** for compatibility)

Related programs

Main: C2151
Scale Driver: J0834 (J0835)
OS: J0829E
BIOS: J0825
FPGA App.: J0910B (J0824)
Keyboard: J0823B
Scale: J0776G or later
Wrap App.: C2175 (J0860A)
Camera App.: J0884C (J0846)
Printer App:
 WM-Ai: J0909D (J0827)
 IP-Ai: J0911A (J0827)
Pop Printer App.: C2162 (J0926) [J0935] {WM-Ai-P only}

NOTES:

1. C2150 supports only the WM-Ai-P. It does not support the standard WM-Ai or the IP-Ai pre-pack scale.
2. After downloading the Main App program download the Printer (EC), Wrapper (Pack Machine), Pop Printer, Camera, and FPGA sub-app and sub-boot programs one at a time as needed.



Caution

Memory initialization is required when upgrading to this firmware version.

Create a USB backup or use SLP-5 Maintenance Utility and SLP-5 to backup the wrapper before upgrading from previous firmware. Due to significant changes in the memory structure, after firmware installation a standard memory clear will be necessary: **Master Data Clear** (Adjust menu > Memory Clear) & **System Data Init.** (Setup menu > File Save/Load > Scale Init. tab). **[8.4.0.1]**

The following lists the main changes from the previous version (B0752P)

1. This is the initial release to support the Pop Label printer and applicator.
Note: Some label application positions are not available due to the possibility the main and pop label applicators may contact each other (error 0623).
2. Added firmware download for the Pop Label printer when Pop Printer Connect is set as Yes (Adjust menu > Machine Type > Auto Single).
 - a. Pop Printer App (Sub App tab)
 - b. Pop Printer FPGA (Sub Boot tab)
3. Modified or added firmware sub apps to support the Pop Label printer (Adjust menu > Download):
 - a. Wrapper: C2175 (Sub App tab: "Pack Machine")
 - b. Pop Printer: C2162 (Sub App tab)
 - c. Pop Printer FPGA: J0935 (Sub Boot tab)
4. Added Pop Label printer and applicator settings to various menus.
 - a. Adjust menu > Printer: Printer = POP
 - b. Adjust menu > Label Applicator: Printer = POP
 - c. Adjust menu > Unit Action > Label App tab:
 - i. 14: Left and Right Move (5)

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- ii. 15: Up and Down Move (5)
- iii. 16: Axis Direction Move (5)
- iv. 17: Appl (5) All
- d. Setup menu > Label Format: Printer = POP
- e. Setup menu > Label Comb: Label Group = Sub
- f. Program menu > Tray
- g. Operation mode > instructions and images for label loading
- 5. Added default data for the Pop Label printer and applicator.
 - a. Added format 45 with Logo Image 2 as a default label format.
 - b. Added Pop Label configuration (Setup menu > Label Comb.). Label format 45 is set as the default for the Pop Label printer.
 - c. Added Logo Image 2 function key to the default right side keyboard.
- 6. Added a new printing parameter to support poor quality thermal Pop labels. Select 150LA-1 in Label Type for Pop Label printer (Adjust menu > Printer > Label Type tab)
- 7. Changed the display and printing of SubTotal (Run Total) data in operation mode.
 - a. Display the SubTotal function key even when there are no data.
 - b. Allow printing of a SubTotal label even when there are no data. If there are no data "0" is printed.
 - c. SubTotal data are automatically cleared when a new PLU is called.
 - d. The following fields are printed on the SubTotal label.
 - PLU Description
 - Pack Date, Pack Time, and Sell By Date
 - Pack Date and Pack Time are printed even if disabled in the PLU.
 - SubTotal Quantity, SubTotal Weight, and SubTotal Price
 - Unit Price
 - Print the current unit price when the SubTotal function key is pressed.
 - Weighed and Case Weight items: print the programmed unit price.
 - Fixed Price items: print the calculated unit price.
 - Fixed Price and Weigh items: no not print a unit price.
 - Use the markdown unit price if set.
 - Do not print the calculated unit price if it is less than 0.01 or more than 999.99.
 - The Cal Unit Price and Markdown Unit Price fields are not required on the SubTotal label.
 - Store Name and Address
 - Barcode
 - Print the same barcode format as the standard label.
- 8. Add a setting to display a pop-up screen to enter the weight when a PLU set as Fix UPR (Case Weight) is called.
 - a. Setup menu > Operation Setting > Prod. tab > Fix UPR Pop Up
 - b. Default = No.
- 9. Added a Calculated Unit Price for fixed price items.
 - a. The Cal. Unit Price field must be added to a label format.
 - b. Label Format Print ID is: 1A8 (424 in SLP-5) with Unit Type set as Numeric.
 - c. The Calculated Unit Price is determined by dividing the total price by the fixed weight.
 - d. The price does not print if it is less than 0.01 or more than 999.99.
 - e. If a markdown price is set it is used for the calculation.
 - f. The Calculated Unit Price will display and print in the Label Format menu.
 - g. The Calculated Unit Price is not displayed in operation mode.
- 10. Added the ability to print the 10-digit barcode programmed in the PLU as a separate field. Label Format Print ID is: 1A9 (425 in SLP-5) with Unit Type set as Numeric.

C2150x MAIN FIRMWARE RELEASE NOTES

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11. Modified "M" mark to print when a price or tare weight change is made in operation mode. Even if the original value is re-entered prior to printing the "M" mark will print on the label.
 - a. Label Format Print ID is: 1AA (426 in SLP-5) with Unit Type set as Fixed Text (Title).
 - b. Changes to any of the following will trigger the "M" mark print
 - Sales mode
 - Unit price
 - Fixed price
 - Markdown price
 - Tare weight
12. Modified the display during a Meat Cut Test. The title bar across the top of the display is changed to yellow. A CUT TEST END button has been added at the upper right.
13. Modified the Meat Cut Test data entry screen to support Product Cost. Entry range is \$1.00 to \$999999.99.
14. Modified communication to ignore the Open Price setting when a PLU file download is received. Existing PLUs maintain the current setting. New PLUs use the PLU Initial Data setting (Setup menu).
15. Modified the Production Mode to always return to "Today" when a PLU is called. Previously "Rewrap" would remain selected when a new PLU was called.
16. Changed the process for sending and receiving PLU Tare values. To support the machine set to single-range weighing while the PLU management software is dual-range the last digit of Tare and Tare2 is modified.

Examples. PC send to machine: Last digit is cut and the value divided by 10.

 - Tare 0.120 Lb. is converted and saved as 0.12 Lb.
 - Tare 0.015 Lb. is converted and saved as 0.02 Lb.

PC receive from machine: Zero (0) digit is added.

 - Tare 0.12 Lb. is converted and received as 0.120 Lb.
 - Tare 0.02 Lb. is converted and received as 0.020 Lb.
17. Removed the option to temporarily disable printing the Weight and/or Price. When the Weight or Price area on the display is touched without entering a numeric value an error beep occurs.
18. Modified the temporary Pack Date change to prevent entering a future date.
19. Modified the temporary date entry to allow setting Pack Date and Sell By Date in the past. It is not possible to set the Sell By Date earlier than the Pack Date.
20. Added support to allow transaction data to be received in to the host PC. Prod. Tran. Send must be set to "No Send" (Setup menu > Machine No. > PC Com tab). If set to "Send" an error will occur.