

C2194x MAIN FIRMWARE RELEASE NOTES

Ishida IP-Ai-P Printer

Procedure to install IP-Ai-P firmware. Refer to the *IP-Ai Service Manual* or *Uni-9 Setup Manual* for complete information.

1. Copy the printer 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 printer and press the green **ENTER** button at the Date/Time confirm screen.
3. Remove the upper left cover and insert the USB memory stick into any of the four USB ports.
 - No other USB devices should be connected.
4. Press the **RETURN ARROW** key (upper right) to enter the Main menu.
5. Press the **LOGIN** key (lower left).
6. Enter **495344** and press the **PLU** key to access hidden menu steps.
7. Press the **ADJUST** menu button.
8. Select **DOWNLOAD**.
9. Press the firmware version to be installed. It will be highlighted in yellow.
10. Press **EXEC** to confirm the selection.
11. Press **EXEC** to begin the firmware download.
12. The screen will show the firmware download progress. The download will take several minutes to complete.
13. When the Re-Boot Check message 15029-0002 is displayed, the firmware download is complete. The printer will automatically reboot.
14. Press the green **ENTER** button at the Date/Time confirm screen.
15. Press the **RETURN ARROW** key (upper right) to enter the Main menu. Then press the **LOGIN** key (lower left).
16. Enter **495344** and press the **PLU** key to access hidden menu steps.
17. Press the **ADJUST** menu button, then select **MEMORY CLEAR**.
18. Press **CLEAR** to ensure there is no unintended data resulting from the new firmware.
19. Press **EXEC** to confirm the memory clear.
20. Press the **RETURN ARROW** key (upper right) after the result of **OK** is displayed.
21. From the **ADJUST** menu select **DOWNLOAD**.
22. Press the **SUB APP** tab.
23. Press 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 will take several minutes to complete.
26. When the Re-Boot Check message 15029-0002 is displayed, the firmware download is complete. The printer will automatically reboot.
27. Press the green **ENTER** button at the Date/Time confirm screen.
28. Press the **RETURN ARROW** key (upper right) to enter the Main menu.
29. Press the **LOGIN** key (lower left).
30. Enter **495344** and press the **PLU** key to access hidden menu steps.
31. Repeat steps 21 ~ 27 to load the remaining Sub App programs.
32. Remove the USB memory stick and reattach the cover.

Procedure to convert to 2020 Nutrition data format. See [C2194E item 1h](#) for detailed step by step instructions.

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Version C2194F features & changes [11 November 2020]

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

Note: 2020 Nutrition data entry is supported from SLP-5 **2.40t**. See the SLP-5 Release Notes for additional details.

Related programs

MAIN: C2195F
OS: J0829D or later
BIOS: J0825
FPGA App.: J0820C (J0824)
Keyboard: J0823B
Printer App: C2196 or later (J0827)

NOTE: After downloading the Main program download the Printer Sub App and FPGA Sub App programs one at a time as needed.



Caution

Memory initialization may be required when upgrading to this firmware version. If upgrading from firmware **C2194D** or an earlier version or from standard IP-Ai firmware, a standard memory clear will be necessary after firmware installation due to significant changes in the memory structure: **Master Data Clear** (Adjust menu > Memory Clear) & **System Data Init.** (Setup menu > File Save/Load > Scale Init. tab). [8.6.1921.3]

The following lists the main changes from the previous version (C2194E)

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]
2. Fixed a bug where the fixed weight entry screen did not display when a PLU was changed to Fix UPR (Case Weight) mode. The **Fix UPR Pop Up** setting is in the Setup menu > Operation Settings > Prod. tab.

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3. Added support for VNC+SSH secure remote connection. The setting is in the Setup menu > Machine No. > Global Sv. tab.
 - a. The scale must be powered off after setting Remote Operation as ENABLE VNC+SSH to recognize the change.
 - b. An operating system patch must be Z1760A must be installed to support the secure connection.
 - c. Two Windows software programs are used to configure the connection and then connect to the machine: *Tera Term* and *UltraVNC*.
 - d. Refer to the **TB_Remote_VNC_Connection_With_SSH_TB20201207** technical bulletin for complete details.

Version C2194E features & changes [20 September 2019]

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

Note: 2020 Nutrition data entry is supported from SLP-5 **2.40t**. See the SLP-5 Release Notes for additional details.

Related programs

MAIN: C2195E
OS: J0829D or later
BIOS: J0825
FPGA App.: J0820C (J0824)
Keyboard: J0823B
Printer App: C2196 or later (J0827)

NOTE: After downloading the Main program download the Printer Sub App and FPGA Sub App programs one at a time as needed.



Caution

Memory initialization is required when upgrading to this firmware version. If upgrading from firmware **C2194D** or an earlier version or from standard IP-Ai firmware, a standard memory clear will be necessary after firmware installation due to significant changes in the memory structure: **Master Data Clear** (Adjust menu > Memory Clear) & **System Data Init.** (Setup menu > File Save/Load > Scale Init. tab). [8.6.1921.3]

The following lists the main changes from the previous version (C2194D)

1. Added support to print the new 2020 Nutrition data.
 - a. Nutrition editing screens (Program menu > Nutrition) are changed to two forms listing the new nutrition data fields plus a "free" table that can be used for miscellaneous additional values.
 - Form 1 tab – for single column format
 - Form 2 tab – for dual column format
 - Free tab – for miscellaneous fields
 - b. All values are converted to text to support decimals, percent symbols, etc.
 - c. When nutrition data is sent from SLP-5 in the old numeric format, it is converted and stored in the 2020 text format. The appropriate unit is automatically added: g, mg, or %.
 - d. The following nutrition data from the old format that are no longer required in the new 2020 Nutrition format are saved as follows.
 - Calorie From Fat → Nutr.Free1
 - Protein (%) → Nutr.Free2 (%)

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- Sugars (%) → Nutr.Free3 (%)
 - Vitamin A (%) → Nutr.Free4 (%)
 - Vitamin C (%) → Nutr.Free5 (%)
 - Sugar Alcohol → Nutr.Free1 (%)
- e. After installing C2150R it is not possible to receive nutrition data in the old numeric format in to SLP-5.
 - f. If SLP-5 is configured for the old nutrition format and nutrition data are requested from a wrapper with C2150R installed, no data will be received in to SLP-5. There is no error.
 - g. SLP-5 can be changed between the old and new 2020 Nutrition format as follows: Open SLP-5 Setup Utility > General > General #2 tab > Enable "Nutrition: USA format (2020)"?
 - h. It is not possible to transfer old nutrition data by USB backup to the machine after a firmware update to C2150R. SLP-5 must be used to receive the old nutrition data **before** the update. And then send the nutrition data from SLP-5 after the update. Refer to the following steps.
 - i. Create a full USB backup.
 - ii. Configure SLP-5 for the original nutrition format. See step g. above.
 - iii. Receive all data into SLP-5.
 - iv. Install C2150R or later firmware.
 - v. Clear the printer's memory: Adjust menu > Memory Clear.
 - vi. Reconfigure the printer for USA, etc. as needed.
 - vii. Load the full USB backup. The old style nutrition data will fail to load.
 - viii. Send nutrition data from SLP-5 to the printer.
 - ix. Reconfigure SLP-5 for the 2020 Nutrition format
 - x. Receive the converted nutrition data from the printer. See step g. above.
 - xi. Download updated label formats as needed to print the 2020 Nutrition format.
2. Added 2020 Nutrition Print IDs 2C0 to 2EE (704 to 750 in SLP-5).
 3. Converted all original nutrition fields (Print IDs) to text format. This allows the option to print both the original and 2020 Nutrition data and formats during a transition period.
 4. Added support for an Ext. Format field in label formats. This field refers to another label format that overlays the main label format when more than the maximum 63 fields are required. There are two methods of overlaying a second "external" format on the original format.
 - a. Create the overlay format large enough for the required data - such as a nutrition panel. Then place the Ext. Format field where needed on the main label format. This is the method Rice Lake plans to use in the updated label library files.
 - b. Create the overlay format the same size as the original format. Then place the Ext. Format field at the top left corner of the main label format. That is, set the X Position as 0.0 and the Y Position as the label format height.
- Notes:**
- i. An Ext. Format button has been added to the Unit Type buttons on the left side of the SLP-5 Maintenance Utility label format editing screen. This is only available when using the default setup file provided with SLP-5 2.40t or later. If the previous setup file is selected when updating SLP-5 the Ext. Format field, as well as the 2020 Nutrition fields, will not be supported.
 - ii. The Ext. Format field can be made any size. Only the X and X coordinates are used to align the overlay label format. It is possible to set the X and X coordinates as zero to avoid confusion or unintentionally moving the field. In that case, the Ext. Format field can be edited by double clicking it in the List Units table. The List Units icon is at the top of the Maintenance Utility screen.

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Version C2194D features & changes [15 May 2018]

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

Related programs

MAIN: C2195D
OS: J0829D or later
BIOS: J0825
FPGA App.: J0820C (J0824)
Keyboard: J0823B
Printer App: C2196 or later (J0827)

NOTE: After downloading the Main program download the Printer Sub App and FPGA Sub App programs one at a time as needed.



Caution

Memory initialization may be required when upgrading to this firmware version. If upgrading from standard IP-Ai firmware C2150x or C2158x a standard memory clear will be necessary after firmware installation due to significant changes in the memory structure: **Master Data Clear** (Adjust menu > Memory Clear) & **System Data Init.** (Setup menu > File Save/Load > Scale Init. tab). [8.6.1921.2]

The following lists the main changes from the previous version (C2194C)

1. Fixed a bug that could cause the printer to lockup due to noise on the power line caused by other motorized equipment. Delayed or missed communication between the operator and customer display resulted in non-response at the touchscreen.
2. 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.
3. Fixed a bug where the Previous Page key always jumped to page 1 – even when on page 3, 4, or higher. This also affected Group and Page in Preset Key programming.
4. Added a Communication Log feature for troubleshooting (Setup Menu > Error Log > Save tab). Communication data between the Uni-9 and PC are recorded.

- Notes:**
- a. The Communication Log is selectable: No / Yes (default).
 - b. When the Communication Log is enabled it may slow down the printer in operation mode. If the following features are used disable the log:
 - Frequent Shopper markdowns
 - Playing videos
 - File maintenance upload/download is performed during use
 - c. Communication Log files are deleted after 30 days.
 - d. Operation Log Save is change to always save. The save period is extended to 30 days.
 - e. Contact Rice Lake regarding the details to retrieve the Communication Log.
5. Added an option for a Master printer to send a delete command before performing Data Distribution to the Satellite printers (Setup menu > Operation Settings > Input tab > Distribution Input).

Notes:

 - a. The Distribution Input is selectable: Add (default) / Delete+Add.
 - b. When Delete+Add is selected only these four files are deleted before sending:
 - PLU File
 - Extra Message 1 File
 - Ingredient File (Extra Message 2)

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- Extra Message 3 File
 - c. Any Satellite printer receiving data Distribution must be updated to the same firmware version to support this new feature and avoid communication errors.
6. Added a Lower Case function key on the PLU Search screen in Self-Serve mode.
 7. Fixed a bug in Self-Serve mode where error message 1857 "Please Remove the Product on the Scale" was displayed if a number was entered before the PRINT key was pressed. Operation is changed to not print a label if a number has been entered before the PRINT key is pressed.

Version C2194C features & changes [1 April 2017]

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

Related programs

OS: J0829D or later
BIOS: J0825
FPGA App.: J0820C (J0824)
Keyboard: J0823B
Printer App: C2196 or later (J0827)

NOTE: After downloading the Main program download the Printer Sub App and FPGA Sub App programs one at a time as needed.



Caution

Memory initialization may be required when upgrading to this firmware version. If upgrading from standard IP-Ai firmware **C2150x** or **C2158x** a standard memory clear will be necessary after firmware installation due to significant changes in the memory structure: **Master Data Clear** (Adjust menu > Memory Clear) & **System Data Init.** (Setup menu > File Save/Load > Scale Init. tab). [8.6.1921.2]

The following lists the main changes from the previous version (C2194B)

1. Fixed a bug where the "12" hour was printed as "00" when the Pack Time and Sell By Time were set as 12-hour format with AM/PM.

Version C2194B features & changes [22 February 2017]

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

Related programs

OS: J0829D or later
BIOS: J0825
FPGA App.: J0820C (J0824)
Keyboard: J0823B
Printer App: C2196 or later (J0827)

NOTE: After downloading the Main program download the Printer Sub App and FPGA Sub App programs one at a time as needed.

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Caution

Memory initialization may be required when upgrading to this firmware version. If upgrading from standard IP-Ai firmware **C2150x** or **C2158x** a standard memory clear will be necessary after firmware installation due to significant changes in the memory structure: **Master Data Clear** (Adjust menu > Memory Clear) & **System Data Init.** (Setup menu > File Save/Load > Scale Init. tab). [8.6.1921.2]

The following lists the main changes from the previous version (C2194A)

1. Corrected the image displayed when the Label Change function key is pressed.
2. Fixed a bug that caused the printer to lockup after it was powered on and left setting unused for a while.
3. Fixed a bug causing a conflict between the Linux OS and printer application regarding DHCP that could cause Master/Satellite or PC communication to fail after the printer was powered on and left setting unused for a while. The printer application now has priority for the DHCP or static IP Address setting.
4. Fixed a bug where the menu screen was called when the border of the price display area was pressed.
5. Fixed a bug that caused the printer to lockup when the upper part of the display was pressed in Self-Serve mode.

Version C2194A features & changes [30 January 2017]

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

Related programs

OS: J0829D or later

BIOS: J0825

FPGA App.: J0820C (J0824)

Keyboard: J0823B

Printer App: C2196 or later (J0827)

NOTE: After downloading the Main program download the Printer Sub App and FPGA Sub App programs one at a time as needed.



Caution

Memory initialization may be required when upgrading to this firmware version. If upgrading from standard IP-Ai firmware **C2150x** or **C2158x** a standard memory clear will be necessary after firmware installation due to significant changes in the memory structure: **Master Data Clear** (Adjust menu > Memory Clear) & **System Data Init.** (Setup menu > File Save/Load > Scale Init. tab). [8.6.1921.2]

The following lists the main changes from the previous version (C2194)

1. Modified the on-line status check to use a basic Ping. The printer 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 printer must be rebooted for a change in the interval to be recognized.
 - b. A manual ping check at the printer or from a PC will not change the status indicator.

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- c. The status indicator is green when connected and red when not connected.

Version C2194 features & changes [4 January 2017]

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

Related programs

OS: J0829D or later

BIOS: J0825

FPGA App.: J0820C (J0824)

Keyboard: J0823B

Printer App: C2196 or later (J0827)

NOTE: After downloading the Main program download the Printer Sub App and FPGA Sub App programs one at a time as needed.



Caution

Memory initialization may be required when upgrading to this firmware version. If upgrading from standard IP-Ai firmware **C2150x** or **C2158x** a standard memory clear will be necessary after firmware installation due to significant changes in the memory structure: **Master Data Clear** (Adjust menu > Memory Clear) & **System Data Init.** (Setup menu > File Save/Load > Scale Init. tab). [8.6.1921.2]

The following lists the main changes from the previous version (C1921U).

Note: Refer to the C1921x Release Notes for previous update details.

1. C2194 is the initial release of IP-Ai-P firmware. It is based on Uni-9 firmware and modified to work on the IP-Ai hardware.
2. Configure SLP-5 or other third-party software to communicate with the IP-Ai-P as a Uni-9.
3. IP-Ai-P firmware does not support a scale. If a scale is connected it will not be recognized.
4. Added a preset key to display the date and time of the last PLU file and/or Ingredient file update received by the printer. 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.

b. When no updates have been received the preset key displays "No Receive".

c. The date and time format is the same as the current date and time displayed in the upper right of the main display.

d. The date and time indicate the end of the transmission.

e. The date and time will be updated even when only partial data is successfully received.

5. 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.