

# Costco<sup>®</sup> Wholesale

*Ishida IP-Ai-P*

# Preventative Maintenance Guide



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[www.ricelake.com](http://www.ricelake.com)

# Revision History

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

Revision	Date	Description
A	January 6, 2023	Initial document release; firmware version C2194F

*Table i. Revision Letter History*



*Technical training seminars are available through Rice Lake Weighing Systems. Course descriptions and dates can be viewed at [www.ricelake.com/training](http://www.ricelake.com/training) or obtained by calling 715-234-9171 and asking for the training department.*

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# 1.0 Introduction

The following information is provided by Rice Lake Weighing Systems to assist Authorized Service Offices to perform preventive maintenance on Rice Lake Weighing Systems wrapping and weighing equipment in Costco Wholesale Warehouses. This Ishida IP-Ai-P Preventative Maintenance Guide is divided into three intervals - daily, 6-month, yearly. The daily maintenance is the responsibility of the end-user.



**NOTE:** It is recommended that the servicing technician review these daily maintenance checks with the appropriate manager.

UNI-9 DB/XL Inspection	
Inspection Date:	Service Company:
Costco Store Number:	Technician(s):
Serial Number:	Head Usage Distance:
<b>Overall Condition</b>	<b>Bakery Manager Signature</b>
Good / Fair / Poor	

Table 1-1. Inspection Confirmation

Page 6 – Page 8 should be printed, filled, scanned and returned to Rice Lake Weighing Systems along with photographic documentation of all issues such as: user damage, water damage/corrosion, premature failures, etc).



**NOTE:** Allow 30 minutes for a 6-month inspection and 45 minutes for a yearly inspection.

## 1.1 Safety

### 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.**

## 1.2 Required Materials

- Isopropyl alcohol
- Wrench set, metric
- Clean, lint-free rags
- Compressed air
- Socket set, metric (optional)
- Screwdrivers (assorted)
- Allen wrench set, metric
- Machinist ruler
- Adhesive remover (for labels)
- Thermal head cleaning kit
- White Grease PN 77933 or CRC SL35600
- USB flash drive (8 GB or smaller, FAT32format, USB 3.0)

## 2.0 Preventative Maintenance Guide

### 2.1 Screen Display

See [Section 3.1 on page 10](#) for assembly.

Check Points	Comments	Tool/Grease/ Program	Replacement Parts	Check Frequency			✓
				D	6M	Y	
Contrast - LCD Display (#504) - P-1102 Display Control Bd (#501)	- Verify brightness of the display - Replace inverter or display as needed	Adjust Menu, Display Check	158278 (#504) 171882 (#501)		X	X	
Touchscreen Operation - Touch Panel (#503) - Sheet (#4)	- Confirm accuracy - Calibrate or replace as needed	Adjust Menu, Touch Screen	171883 (#503) 171880 (#4)		X	X	
Touchscreen Cleaning	- Clean touchscreen display	Cloth		X	X	X	

Table 2-1. Screen Display Maintenance

### 2.2 Keyboard Assembly

See [Section 3.2 on page 10](#) for assembly.

Check Points	Comments	Tool/Grease/ Program	Replacement Parts	Check Frequency			✓
				D	6M	Y	
Keyboard - Keyboard Assy (#100)	- Confirm all keys function and show as dark squares	Adjust Menu, Key Check	171884 (#100)		X	X	
Keyboard - Transparent cover - Cover 10 Key (Keyboard #Not shown)	- Clean keyboard cover - Replace as needed	Cloth	187336 (#Not shown)	X	X	X	

Table 2-2. Keyboard Assembly Maintenance

### 2.3 Printer

See [Section 3.3 on page 11](#), [Section 3.4 on page 11](#) and [Section 3.5 on page 12](#) for assembly.

Check Points	Comments	Tool/Grease/ Program	Replacement Parts	Check Frequency			✓
				D	6M	Y	
Printing Quality - Print Head (Printer Unit: #7)	- Verify print is complete and legible - Clean print head	Adjust Menu, Printer, Head tab, Test Print: Checker. Cloth. Isopropyl alcohol	171875 (Printer Head Unit #7)		X	X	
Label Feeding Print Roller (Printer Cassette #9 and #10)	- Check if printing expands or contracts - Check and clean print roller - Check for cuts - Remove paper dust	Cloth Isopropyl alcohol Vacuum	175001 (Printer Cassette #9) 175002 (Printer Cassette #10)		X	X	
Label Gap Sensor - Gap Sensor Assy (Printer Cassette #100)	- Check that sensor readings are normal (baseline near 60, spike near 160) - Clean, calibrate, or replace sensors and prism as needed	Adjust Menu, Printer, Label Feed tab	175007 (#100)		X	X	
Peel sensor - Photo Interrupter Reflect (Keyboard #102)	- Check that sensor readings are normal (over 200 when blocked and under 40 when open) - Clean, calibrate, or replace sensors as needed	Adjust Menu, Printer, Peel Sensor tab	175000 (#102)		X	X	

Table 2-3. Printer Maintenance

Check Points	Comments	Tool/Grease/ Program	Replacement Parts	Check Frequency			✓
				D	6M	Y	
Drive Gears - Gear Idler 25 (Printer Cassette #26) - Gear Flat (Printer Cassette #27) - Gear Flat (Printer Cassette #28)	- Clean debris - Examine gears and belt for cracks or chips	White grease	187354 (#26) 187355 (#27) 187356 (#28)			X	
Home position - Catch Ball (Printer Cassette Unit #52)	- Inspect catch ball for wear - Verify that catch ball holds and printer drive gears mesh well at home position. - Verify that the Head Up Sensor tips while closed.		175006 (#52)			X	
Head Up Sensor - Sensor Assembly (Main Body Frame #101)	- Remove left side cover, clean and inspect - Test and verify that the sensor trips in conjunction with the Catch Ball referred to under "Home Position"		174983 (#101)		X	X	

Table 2-3. Printer Maintenance (Continued)

## 2.4 Data Backup

Check Points	Comments	Tool/Grease/ Program	Replacement Parts	Check Frequency			✓
				D	6M	Y	
	- All file backup: - Insert a blank USB stick of 8 gig or less, into the access hatch on the upper left side. - Create and name a backup location under "OUTPUT SELECT"	Setup Menu, File Save/Load, Scale USB tab, Output Select, Exec, All Sel, Exec, Exec. Also possible with SLP-5.			X	X	

Table 2-4. Data Backup Maintenance



## 2.6 Sample Labels

## 3.0 Reference Drawings

### 3.1 Screen Display

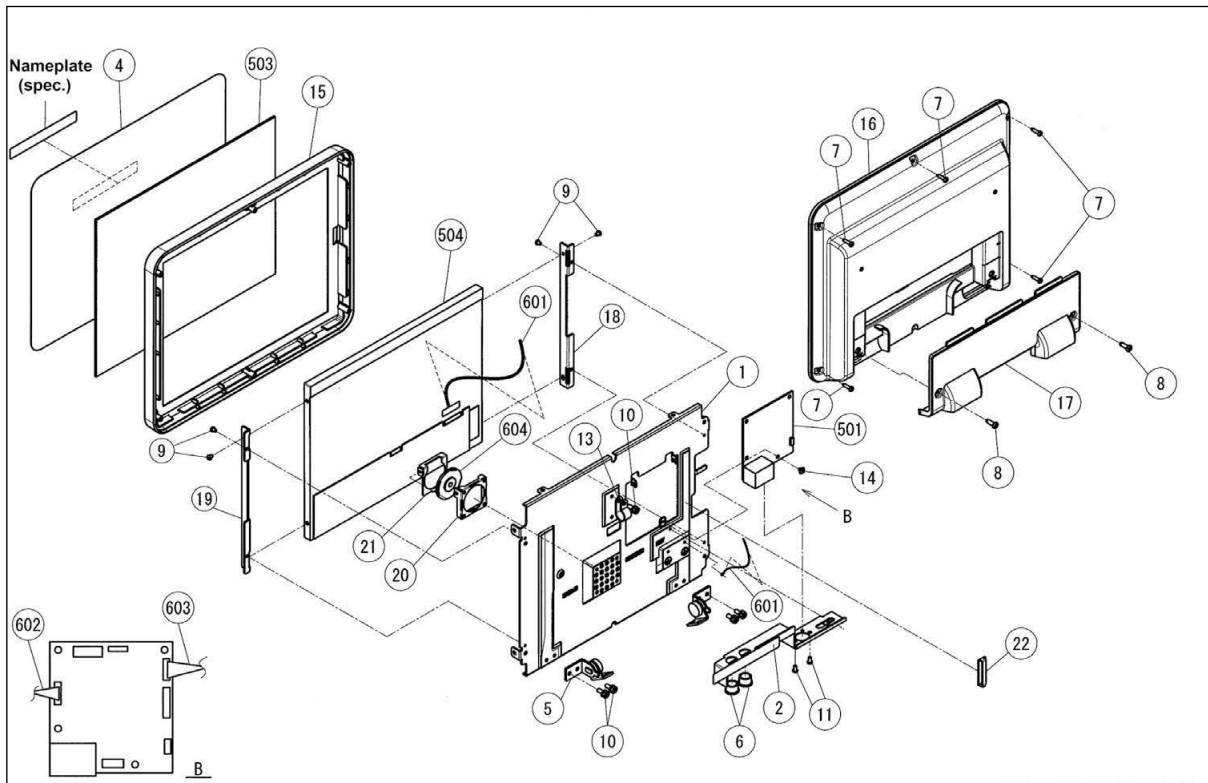


Figure 3-1. Screen Display Assembly

### 3.2 Keyboard Assembly

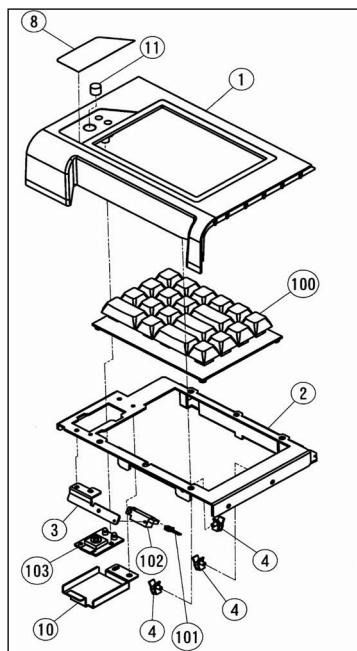


Figure 3-2. Keyboard Assembly

### 3.3 Printer Unit

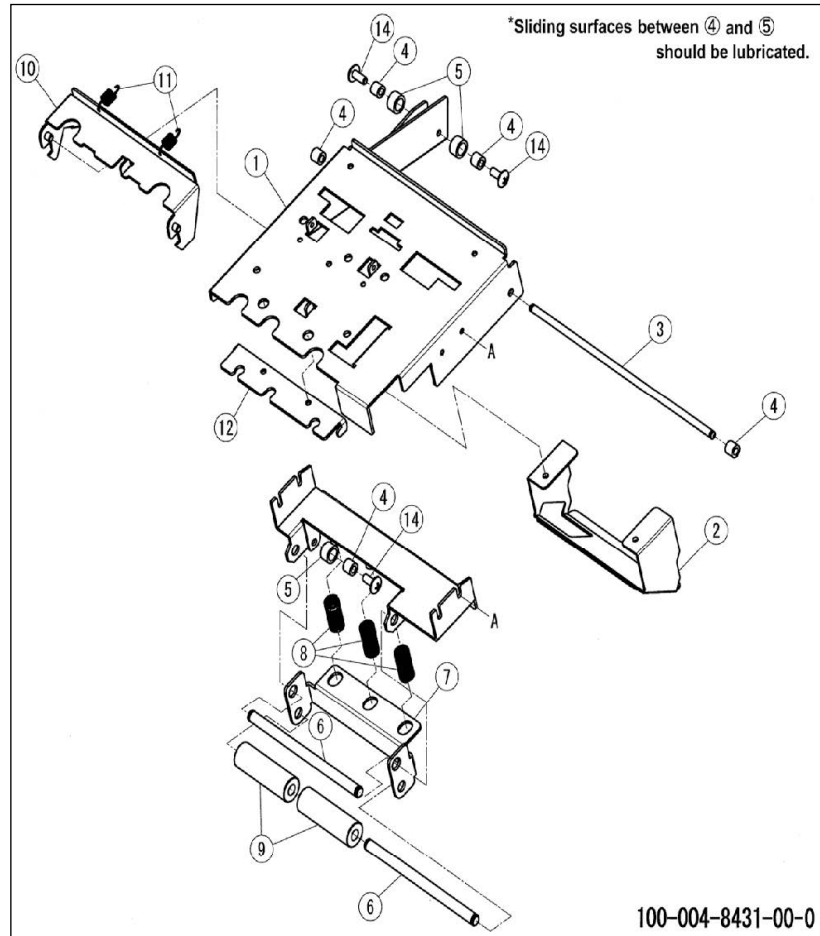


Figure 3-3. Printer Unit Assembly

### 3.4 Printer Head Unit

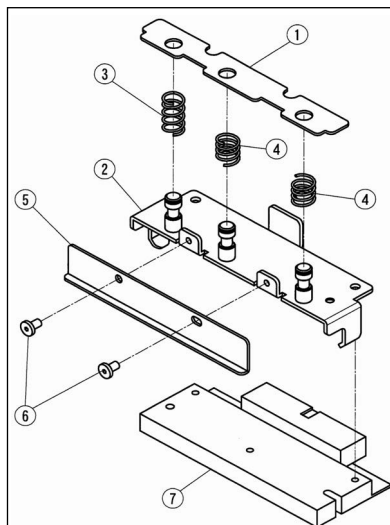


Figure 3-4. Printer Head Unit Assembly

### 3.5 Printer Cassette

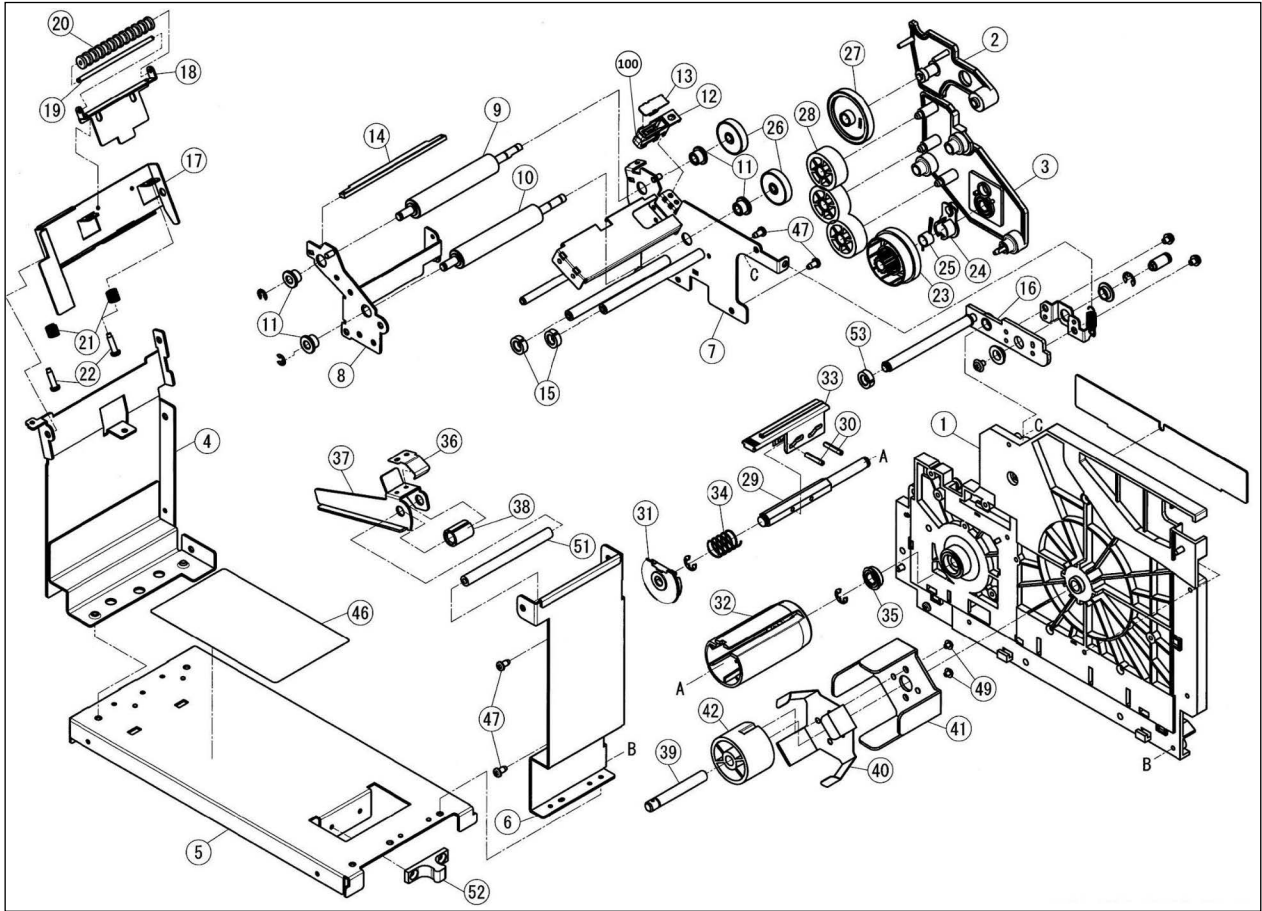


Figure 3-5. Printer Cassette Assembly





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230 W. Coleman St. • Rice Lake, WI 54868 • USA

U.S. 800-472-6703 • Canada/Mexico 800-321-6703 • International 715-234-9171 • Europe +31 (0)26 472 1319