



# ISHIDA WPL-3000 Installation Notes



Revised May 2004

# ISHIDA WPL-3000 Installation Notes

## **WPL-3000 SYSTEM COMPONENTS**

### Standard

Main Conveyor Body

Printer Unit

Printer Arm

Display / Keyboard Unit

Display / Keyboard Mount Kit

Power cord

Stand w/ telescoping legs, leveling legs, casters, and rubber anti-vibration strips

### Optional

Roller Conveyors: Infeed & Exit

Power Exit Conveyor

Power Infeed Conveyor w/ Stand (I-Line only)

Rotary Catch Bin

Air Compressor

## **INSTALLATION**

### Stand Assembly

1. Secure rubber strips to stand using silicone or double backed tape.

Note: Be sure to align holes in strips with holes in stand.

### WPL Assembly

1. Place the WPL on the stand.

Note: Main power switch faces the side with printer arm mounting plates.

2. Bolt WPL to stand: 4 corners from under side.

Note: Bolts provided in stand hardware kit.

3. Attach infeed roller assembly brackets ("L" configuration only).

4. Bolt printer arm to stand: 6 bolts.

Note: Bolts provided in stand hardware kit.

5. Bolt printer unit to printer arm.

6. Adjust stand to proper height.

7. Level stand and tighten all leg extensions and leveling feet in place.

Note: Be sure to also tighten set screws in each leg.

8. Connect air lines.

### Roller Assemblies

1. Attach infeed roller assembly ("L" configuration only).

2. Attach exit roller assembly.

# ISHIDA WPL-3000 Installation Notes

## Infeed Power Conveyor

1. Mount infeed conveyor to stand.
2. Connect 4 cables to WPL: remove WPL infeed end panel to access connections.
3. Set height and level conveyor.

## Exit Power Conveyor

1. Mount exit conveyor bracket to WPL stand: 4 bolts.
2. Mount exit conveyor to bracket: 4 bolts from underside.
3. Connect cable to WPL: located behind the WPL infeed end panel.

## Programming

1. Install and configure labels.
2. Load PLU file.

## General Settings

ROM Switches [See pages 5 & 6 for details]

- a. Select conveyor timeout, switch 0039.
- b. Select if shelf life calculations will count today as one day, switch 003B.
- c. For use with an automatic wrapper set the following switch values:
  - i. 003C = 03
  - ii. 003D = 03
  - iii. 003E = 03

Note: These changes MUST be registered to the A/D Board NV RAM.

## Weight Calibration

Follow the procedure in the Service Manual.

Note: Take care that the weights touch only the scale rollers and backstop.

## Conveyor Timing

Follow the setup sequence listed below to optimize the conveyor timings.

### **“L” Configuration**

1. Memory Clear: TEST MENU C02
  - a. C02-01 – Ram Clear
  - b. C02-02 – E2ROM Clear
  - c. C02-03 – Test Set (Optional)
2. Set “L” Configuration: TEST MENU C06 (ROM Switch) [Page 6]  
Set address 003A = 01
3. Assign ROTATE function key: TEST MENU C10 [Page 7]  
Assign PF4 = 19 (rotate)

## ISHIDA WPL-3000 Installation Notes

4. Label Format
  - a. SETUP MENU B01
    - i. Select format number: B01-01
    - ii. Set text area: B01-06
    - iii. Set label length + gap: B01-07
    - iv. Set Sensor 2 (B01-09) to ensure label comes free of the backing paper
  - b. TEST MENU C07
    - i. Modify label format as needed
5. Set Applicator Stroke: SETUP MENU B16-03 [Page 9]
  - a. Applicators
    - i. Standard = 08 (typical setting)
    - ii. Extended = 05 (typical setting)
  - b. Test and adjust as necessary for maximum travel but no delay in up stroke
6. Delay Package on Scale: SETUP MENU B16-01 / B16-02 [Page 9]
  - a. Set B16-01 = 100
  - b. Set B16-02 = 100

Note: these delays are necessary to set the correct times for the next step.
7. Label Placement - Standard: SETUP MENU B16-04 [Page 9]
  - a. Test label placement
  - b. Adjust B16-04 setting as needed
    - i. a lower value moves the label to the leading edge of the package
    - ii. a higher value moves the label to the trailing edge of the package
8. Set Delay of package on scale to minimum: SETUP MENU B16-01 / B16-02 [Page 9]
  - a. Test delay
  - b. Set B16-01 to the minimum time that allows the label to be completely printed
  - c. Set B16-02 by the same method.
9. Switch to "Rotate" label position
  - a. Turn the printer 90 degrees
  - b. Press the ROTATE function key
10. Label Placement - 90 degree Placement: SETUP MENU B16-06 [Page 10]
  - a. Test label placement
  - b. Adjust B16-06 setting as needed
    - i. a higher value moves the label to the trailing edge of the package
    - ii. a lower value moves the label to the leading edge of the package
11. Lower Conveyor as soon as possible: SETUP MENU B16-07 [Page 10]
  - a. Test lowering time of conveyor using the widest tray available
  - b. Adjust B16-07 as low as possible to allow the tray to be moved off the scale area

Note: lowering quickly ensures the scale is ready to accept the next package

### "I" Configuration

1. Memory Clear: TEST MENU C02
  - a. C02-01 – Ram Clear
  - b. C02-02 – E2ROM Clear
  - c. C02-03 – Test Set (Optional)

## ISHIDA WPL-3000 Installation Notes

2. Set "I" Configuration: TEST MENU C06 (ROM Switch) [Page 6]
  - Set address 003A = 00
3. Assign ROTATE function key: TEST MENU C10 [Page 7]
  - Assign PF4 = 19 (rotate)
4. Label Format
  - a. SETUP MENU B01
    - i. Select format number: B01-01
    - ii. Set text area: B01-06
    - iii. Set label length + gap: B01-07
    - iv. Set Sensor 2 (B01-09) to ensure label comes free of the backing paper
  - b. TEST MENU C07
    - i. Modify label format as needed
5. Set Applicator Stroke: SETUP MENU B16-03 [Page 9]
  - a. Applicators
    - i. Standard = 08 (typical setting)
    - ii. Extended = 05 (typical setting)
  - b. Test and adjust as necessary for maximum travel but no delay in up stroke
6. Set Conveyor timing to Lower packages on to Scale: SETUP MENU B16-05 [Page 9]
  - a. Test lowering time of conveyor using the widest tray available
  - b. Adjust B16-05 such that trays are fully on the scale roller assembly
    - i. a higher value provides the package more travel on to the scale
    - ii. a lower value provides the package less travel on to the scale

Note: if sensors are mounted on the leading edge of the WPL-3000, typical setting is 0
7. Delay Package on Scale: SETUP MENU B16-01 / B16-02 [Page 9]
  - a. Set B16-01 = 100
  - b. Set B16-02 = 100

Note: these delays are necessary to set the correct times for the next step.
8. Label Placement - Standard: SETUP MENU B16-04 [Page 9]
  - a. Test label placement
  - b. Adjust B16-04 setting as needed
    - i. a lower value moves the label to the leading edge of the package
    - ii. a higher value moves the label to the trailing edge of the package
9. Set Delay of package on scale to minimum: SETUP MENU B16-01 / B16-02 [Page 9]
  - a. Test delay
  - b. Set B16-01 to the minimum time that allows the label to be completely printed
  - c. Set B16-02 by the same method.
10. Switch to "Rotate" label position
  - a. Turn the printer 90 degrees
  - b. Press the ROTATE function key
11. Label Placement - 90 degree Placement: SETUP MENU B16-06 [Page 10]
  - a. Test label placement
  - b. Adjust B16-06 setting as needed
    - i. a higher value moves the label to the trailing edge of the package
    - ii. a lower value moves the label to the leading edge of the package

## ISHIDA WPL-3000 Installation Notes

***PLEASE REFER TO DP-3000 MANUALS EXCEPT FOR THE FOLLOWING POINTS.***

### TEST MENU

Enter Test Mode by turning the **POWER-ON** while holding down the **1** key.  
Use **DOWN ARROW** to move to the desired menu option then press **ENTER**.

#### Test Menu 1:HARDWARE TEST

##### Step C01-01 Altering Weight Stabilization Parameters

1. Make changes in Test Mode 6: ROM SWITCH to addresses 3C, 3D, 3E (see table below for details).
2. Enter the weight calibration step C01-01 [A/D CHECK].
3. Press **ZERO** to set counts to 0 and 2000.
4. Press **FEED** to send ROM SWITCH data to the A/D board.
5. Press the Memory Switch on the A/D board (same as during calibration).
6. Exit Test Mode, turn WPL off/on and check operation.

##### Step C01-01 Calibration

Use the **COUPON TEXT** key to raise and lower the conveyor.

- The conveyor must not touch the "live" scale section of the WPL.
- The displayed A/D scale counts should not change.

##### Step C01-06 Conveyor components test.

Press **PRINT** key to trigger the label applicator (plunger).

Press **PLU** key to raise/lower the scale conveyor.

## ISHIDA WPL-3000 Installation Notes

### Test Menu 6:ROM SWITCH

Use **RIGHT ARROW** to move to the desired address.  
Enter the new data then press **ENTER**.

Address	Default	Description
0039	00	<u>Conveyor "Time Out"</u> . 00 = No, Conveyor run continuously. 01 = Yes, Conveyor stops after 10 minutes of non-use.
003A	01	<u>Configuration</u> . 00 = Straight through. 01 = "L" shape.
003B	00	<u>Shelf Life</u> 00 = Today counted as one day. 01 = Today not counted (add one day to shelf life).
003C*	04	<u>Stabilization Lock Count</u> How many weight samples must match before weight reading is accepted. Note: Decrease the value for faster operation.
003D*	02	<u>A/D Conversion Speed</u> 01 = Slow: slower throughput, most reliable. 02 = Medium: average. 03 = Fast: fastest throughput.
003E*	02	<u>Width of Stabilization Window</u> Difference in number of raw counts from previous sample that will be accepted as the same weight. Example: 02 = $\pm 2$ count difference from last sample. Note: Increase the value for faster operation.

\* These changes must be registered to the A/D Board NV RAM.  
See step C01-01 above for the procedure.

\* Typical "Speed Up" settings are: 003C = 03, 003D = 03, and 003E = 03.

# ISHIDA WPL-3000 Installation Notes

## Test Menu 10:PRESET FUNCTION KEY

Use **DOWN ARROW** to select function key to be setup [PF(1) - PF(4)].  
Use **RIGHT ARROW** to view available settings.  
Enter the selected function number then press **ENTER**.

The following programmable function key selections have been added to the WPL.

- 16:ADD - add / do not add transactions to totals [use for rewraps].
- 17:START - start conveyor.
- 18:STOP - stop conveyor.
- 19:ROTATE - label applicator activated by trailing edge of tray (rotate printer unit).
- 20:TRAY - select tray size [as programmed in Setup Mode B15:TRAY MASTER].
- 21:UPPER - set upper weight limit for check weighing.
- 22:LOWER - set lower weight limit for check weighing.
- 23:BARCODE - select barcode printing (on / off).

### Function Key positions

PF(1)	
PF(2)	
PF(3)	PF(4)
DATE	X MULTIPLY

### Default Settings

- PF(1) - START
- PF(2) - STOP
- PF(3) - LOWER LIMIT
- PF(4) - TARGET QNTY

## Test Menu 11:PASSWORD

Change the value of the Setup Menu password. **Default value is 6000.**



# ISHIDA WPL-3000 Installation Notes

## SETUP MENU

Access the Setup Mode by entering **6000** then pressing **MODE** key.  
Use **DOWN ARROW** to move to the desired menu option then press **ENTER**.

### Setup Menu 1:Label Format

Added Format #7: 64mm x 59mm, Safe Handling

### Setup Menu 15:TRAY MASTER

Step	Tray Size	Timing (msec)
B15-01	6 inch	50
B15-02	7 inch	45
B15-03	8 inch	40
B15-04	9 inch	35
B15-05	10 inch	30
B15-06	11 inch	25
B15-07	12 inch	20
B15-08	13 inch	15
B15-09	14 inch	10
B15-10	15 inch	5
B15-11	16 inch	0

## ISHIDA WPL-3000 Installation Notes

### Setup Menu 16:CONVEYOR SETUP

Step	Default	Range	Description
B16-01	01	1-256	<p><u>Delay Timer (Label ≤ 60mm)</u>            Increase if product reaches labeling position before printing is completed.            Time between A and B where:            A = Weighing completed,            B = Conveyor lifts to move product.            Note: 10 = 1/10 th second delay.</p>
B16-02	32	1-256	<p><u>Delay Timer (Label &gt; 60mm)</u>            Increase if product reaches labeling position before printing is completed.            Time between A and B where:            A = Weighing completed,            B = Conveyor lifts to move product.            Note: 10 = 1/10 th second delay.</p>
B16-03	05	1-10	<p><u>Plunger Timing (Solenoid ON)</u>            The length of the Label Applicator Stroke.            Note: 1 = approximately 0.5", default = 2"</p>
B16-04	20	1-256	<p><u>Label Placing (Type/Normal)</u>            Time between A and B where:            A = Product breaks photo eye,            B = label applicator fires.            Note: 1 = approximately 1/8 th inch distance.            Increase = slower, move label left.</p>
B16-05	10	1-256	<p><u>Conveyor Delay Timer</u> (<i>"Straight" configuration only</i>)            Time between A and B where:            A = <b>Trailing edge</b> of product passes photo eye,            B = Conveyor lowers package on to scale.            Note: 1 = approximately 1/8 th inch distance.            Increase = package travels farther.</p>

## ISHIDA WPL-3000 Installation Notes

Step	Default	Range	Description
B16-06	01	1-256	<u>Label Placing (Type/90 Degree)</u> Time between A and B where: A = <b>Trailing edge</b> of product passes photo eye, B = label applicator fires. Note: 1 = approximately 1/8 th inch distance. Increase = slower, move label up. Use <b>ROTATION</b> function key.
B16-07	50	1-256	<u>Conveyor Timer (L Type) ("L" configuration only)</u> Time between A and B where: A = Conveyor lifts after weighing is completed, B = Conveyor lowers for next product. Note: 10 = 1/10 th second delay.
B16-08	00	1-256	<u>Delay Timer (Non-Weigh &gt; 60mm)</u> Increase if product reaches labeling position before printing is completed. Time between A and B where: A = Label begins printing, B = Conveyor lifts to move product. Note: 10 = 1/10 th second delay.

### PROGRAMMING MENU

Access the Programming Mode by entering **9000** then pressing **MODE** key.  
 Use **DOWN ARROW** to move to the desired menu option then press **ENTER**.

#### Programming Menu 1:PLU FILE

Use the **ENTER** and **DOWN ARROW** keys to navigate through PLU programming.

The following items have been added to PLU programming for the WPL-3000.

Step	Description
P01-26	Label Format (0-4)
P01-28	Label Print (0:Reference, 1:Straight, 2:Rotate)
P01-29	Upper Weight Limit
P01-30	Lower Weight Limit
P01-31	Tray Number

# ISHIDA WPL-3000 Installation Notes

## OPERATION

### Transfer Mode

With no active PLU (display reads "KEY IN PLU NUMBER") press the **START** function key to move packages across the conveyor system without weighing or labeling.

### Error Codes

The following error codes have been added to the WPL-3000.

Number	Display	Cause	Solution
17	WEIGHT IS OVER LIMIT Err--17	Package exceeds programmed upper weight limit.	<ul style="list-style-type: none"><li>• Remove package from scale.</li><li>• Change weight limit.</li></ul>
18	WEIGHT IS BELOW LIMIT Err--18	Package is less than programmed lower weight limit.	<ul style="list-style-type: none"><li>• Remove package from scale.</li><li>• Change weight limit.</li></ul>
19	LABEL REMAINING ON APPLICATOR Err--19	Label cannot be printed until previous label is removed from label applicator.	<ul style="list-style-type: none"><li>• Remove label from applicator.</li><li>• Check/clean label sensor.</li></ul>
20	WEIGHT EXCEEDS CONVEYOR CAP. Err--20	Package weight is more than 10 pounds.	<ul style="list-style-type: none"><li>• Reduce weight of the package.</li><li>• Change to Manual weighing/labeling with the PREPACK key.</li></ul>