TAL-3000R
ROUND
PRODUCT LABELER
Section 1 (Introduction)

General Page 1.1

Section 2 (System Operation)

Machine Start Up Page 2.1
Label Threading Page 2.2
Label Tensioning Page 2.3
Product Carriage Adjustment Page 2.4
Product Carriage Adjustment Page 2.5
Product Drive Head Adjustment Page 2.6
Product Drive Head Adjustment Page 2.7
Label Position Page 2.8
Photo Eye Adjustment Page 2.9
Label Sensor Adjustment Page 2.10
Label Sensor Adjustment Page 2.11
Pinch Roll Cam Lock Adjustment Page 2.12
Product Drive Head Thrust Bearing Adjustment Page 2.13
Product Drive Head Thrust Bearing Adjustment Page 2.14
Section 3  (*Maintenance Procedures*)

General Maintenance  Page 3.1

General Maintenance  Page 3.2

General Maintenance  Page 3.3

Preventive Maintenance  Page 3.4

Preventive Maintenance  Page 3.5

Spare Parts List  Page 3.6

Troubleshooting Guide  Page 3.7

Section 4  (*Machine Component Description*)

Electrical Schematics  Page 4.1

3000R Assembly Table of Contents  Page 4.2

3000R Assembly Drawings  Page 4.3 Thru 4.11

Section 5  (*Optional Assembly Instructions*)
Introduction
General

Thank you for purchasing the TAL-3000R Round Product Labeler. The TAL-3000R system is known for its high quality and operating simplicity. With proper maintenance it will provide years of dependable and trouble free service.

Our equipment is manufactured to the strictest standard; and is thoroughly tested before being released into the field. However, sometimes a problem may arise that is not covered by the scope of this manual. If a situation as such occurs, further technical support is just a phone call away.

**Power Requirements:** 110 VAC 15 Amps 60 Hz, Grounded
60 PSI; Clean, Dry Air

**System Weight:** 75 lbs.

**Unit Dimensions:** 34” L X 18” W X 16” H
34” L X 18” W X 25” H with Hot Stamp

**Maximum Roll Size:** 12” converted on a standard 3” diameter core.
System Operation

Section #2
Machine Startup

1. Unpack the TAL-3000R system from the shipping container.
2. Inspect the labeler for damage. If you see any damage, please notify the shipping company and TAL before setting the labeler up and using it.
3. Set labeler on an appropriate stand or table.
4. Plug the labeler directly into a 110 VAC 15 AMP (GROUNDED) outlet. Do not use an extension cord.
   **Note:** Extension cords may result in improper labeler operation and are not recommend by TAL.
4. Install the label roll and thread the labeler. (See page 2.2)
   **WARNING:** To avoid inadvertent operation, always thread the machine with the power switch in the off position.
5. Adjust the position of the Round Product Carrier. (See page 2.4-2.5 Product Carriage Adjustment).
6. Turn the power switch on. The red LED in the switch will light when the power is on.
7. Using the LABEL ADVANCE +/- dial, adjust the label advance position. (See page 2.8 Label Position).
8. Adjust the tension of the label web tensioner see. (See page 2.3 Label Threading and Tensioning).
**Label Threading**

1. **Turn labeler off.**
2. Remove the outer unwind disk.
3. Install a new label roll on unwind shaft.
4. Replace the unwind disk.
5. Thread the labeler as shown in the diagram above until the label material reaches the pinch roller and traction roller. Be sure to thread the label web through the label sensor.
6. Lift the cam lock to release the pinch roller.
7. Thread the label web around the pinch roller and cam rollers as shown in the diagram above.
8. Pull enough of the label material through the pinch and traction rollers to attach it to the rewind mandrel.
9. Lower the cam lock, locking the pinch roller down.
10. Remove the rewind clip from the rewind mandrel, wrap the label web around the bottom of the mandrel, and reattach the clip.
Label Tensioning

**Tensioning:**

1. Begin dispensing labels.
2. Unlock set screw on tension knob.
3. Slowly turn the tension knob on the unwind until the take-up starts a slight rocking motion as labels are dispensing.
4. Tighten set screw on tension knob.
**Product Carriage Adjustment**

**Adjusting Product Carriage:**

1. Loosen the setscrews on both sides of one of the rollers, adjust the roller so your product is in the center of the traction roller. Note: the product must not be too low. Product line will vary depending on the product.
2. Loosen the other side the same way. Note: the same product line.
3. The product should be setting on the rollers so it will roll easily, keeping the center line on center to slightly behind, and the product line not too deep in the product carriage. Too deep will cause pinching of the product not allowing it to roll smoothly.
Product Carriage Adjustment

1. Raise or lower the product carriage by loosening the product carriage bolts. Move the product carriage to make a gap of 1/2” between the traction roller and your product.

2. Tighten the product carriage bolts. Adjust the air pressure on the product drive head (see page 2.6).
Product Drive Head Adjustment

Adjusting Product Drive Head:

1. The air pressure adjustment on the 3000R Round Product Labeler is set to only apply enough pressure to the product drive head to turn the product.
Product Drive Head Adjustment

*Adjusting Product Drive Head Up:*

Adjust the flow control, so the head returns smoothly. (Air doesn’t pull the head up, a spring pulls the head up.) To adjust the speed of the head return, insert an allen wrench into the set screw in the flow control, loosen the nut on the outside of the set screw. Turn it clockwise to slow the head return, counterclockwise to increase the head return. Tighten the nut when you have it in the desired position.
Label Position

**Label Advance Position:**

Before being dispensed, each label should stop near to the edge of the peel plate, but should not come off the peel plate. Adjust the label advance as follows:

1. Unlock the LABEL ADVANCE +/- dial. The dial is located on top of the labeler’s control unit.
2. Dispense a single label.
3. Note; if the dispensed label advanced completely off the peel plate, and note the position of the next label still on the peel plate.
4. Turn the LABEL ADVANCE +/- dial in small amounts to adjust the label advance position.
   - If the dispensed label does not come off the label web, turn the dial to the right (to + for longer advance distance).
   - If the next label on the peel plate extends over the peel plate edge, turn the dial to the left (to – for shorter advance distance).
   - If the dispensed label comes off the label web and the next label is close to the peel plate edge, the advance distance is correct. No adjustment is necessary.
5. Repeat steps 2 through 4 until the label advances to the correct position.
6. Once desired position is achieved, lock the LABEL ADVANCE dial in position.
Photo Eye Adjustment

Photo Eye Mode:

1. Insert liner only into the photo eye.

2. Press and hold the “normal” button for three seconds. The red light will shut off, then the green light will begin to flash. When the red light comes on the photo eye has been taught, release the button.
**Pinch Roll Cam Lock Adjustment**

Adjustment is necessary if the backing is not being pulled through the labeler smoothly.

**Cam Lock Adjustment:**

1. Turn the **power off to labeler and unplug it from the power source**.
2. Unlock the cam as if you were going to thread the labeler.
3. Remove the electrical housing cover.
4. Insert an allen wrench into the allen bolt in the cam lock.
5. Locate the nut that is holding the cam lock.
6. Insert a thin wrench onto the nut and loosen it (You might have to remove the electrical board to reach the nut.).
7. Move the cam down towards the pinch roll (Remember that you have to lock it so don’t move it down too far.).
8. Tighten the cam lock nut and try the labeler again.
9. Repeat if necessary.
**Product Drive Head Thrust Bearing Adjustment**

Thrust Bearing Adjustment Nut

*Bearing Adjustment:*

1. The thrust bearing adjustment nut should be checked periodically.
2. With labeler unplugged you should to tighten the nut with a little pressure on the thrust bearing so everything is snug; however not too tight. **Do Not** over tighten this bearing it will cause the bearing to wear out prematurely.
3. Always make sure that the bearings have plenty of grease in them.
Product Drive Head Thrust Bearing Adjustment

Checking Bearings And Lubing:

1. Turn power off; unplug the labeler.
2. Locate the screws around the product drive motor housing and remove.
3. Note; the motor leads, unplug the motor leads and set the housing down.
4. Remove the thrust-bearing nut. Note; the thrust bearings under the washer, remove the thrust-bearing make sure not to get dirt in the bearing.
5. Using care, slide the product drive head, note the pivot shaft spacer.
6. Also be careful the set of thrust bearings on the inside (note: Washer, Bearing, and Washer per set).
7. Clean, inspect and / or replace all the bearings and washers.
8. Do Not replace only part of the set.
9. Grease the bearings and pivot shaft (using a good grade of regular grease), reassemble.
The TAL-3000R Round Product Labeler is designed and built with the finest components, but proper preventative maintenance will help add to the life of your system. With the proper maintenance, you may enjoy years of trouble free operation.

A. **Label Rollers:** Clean and check for wear every 500 hours of operation. To clean the rollers, use a mild detergent or isopropyl alcohol.

B. **Label Sensor:** Clean and inspect every 500 hours of operation or if erratic label placement / operation occurs. Use clean dry compressed air or clean dry soft rag to clean dust and dirt off the fiber optic ends.

C. **Pinch Roller:** Inspected for unwanted debris each time the system is re-threaded. Use isopropyl alcohol to remove adhesive build up.

**CAUTION:** Never use a knife or any sharp object to remove labels or adhesive from the pinch roller. The roller will be damaged.

D. **Traction Roller:** Inspect for unwanted debris each time the system is re-threaded. Use isopropyl alcohol to remove adhesive build up.
**General Maintenance**

**E. Peel Plate:** Inspect the peel edge for wear every 500 hours of operation. Check for adhesive buildup each time the system is rethreaded. Use isopropyl alcohol to remove adhesive buildup. Also check the UHMW covering on the edge of the peel plate for wear.

**F. Felt Unwind Pad:** This braking surface, located on the unwind shaft, should be periodically checked to ensure that the felt disk is clean and dry. If the felt pad has excessive dirt or oil, replace it with part #75806.
G. **Product Drive Thrust Adjustment:** Inspect and grease thrust bearings every 500 hours of operation. Also grease pivot shaft at the same time.
Preventive Maintenance

The TAL–3000R is designed and built with the finest components, but proper preventative maintenance will help add to the life of your system. With the proper maintenance you should enjoy years of trouble free operation.

- Check main line air filter before startup of each shift. If there is any condensation, open the manual water drain and remove dampness prior to operation.
- Main line air filter element should be changed every six months of operation.
Preventive Maintenance

Fuse Installation:

1. Disconnect power from the labeler by unplugging the labeler.
2. Remove the fuse cap from the labeler by rotating the fuse cap counterclockwise.
3. Inspect fuse, if it needs replacing. Use 5 amp fuse, install fuse in cap and replace fuse cap.

Check Peel Edge Covering:

- Check the peel edge covering every 500 hours of operation, replace if necessary.
## Recommended Spare Parts List TAL-3000R

<table>
<thead>
<tr>
<th>Qty.</th>
<th>Description</th>
<th>Part #</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Spring/ Dancer roll</td>
<td>31365</td>
<td>$9.00</td>
</tr>
<tr>
<td>1</td>
<td>Spring/ Drive roller</td>
<td>31357</td>
<td>$6.00</td>
</tr>
<tr>
<td>2</td>
<td>Drive belt/ Waist wind</td>
<td>31374</td>
<td>$19.00</td>
</tr>
<tr>
<td>1</td>
<td>Air Cylinder</td>
<td>31347</td>
<td>$68.00</td>
</tr>
<tr>
<td>1</td>
<td>Motor</td>
<td>76800</td>
<td>$184.00</td>
</tr>
<tr>
<td>1</td>
<td>Product Drive Motor</td>
<td>31341</td>
<td>$151.00</td>
</tr>
<tr>
<td>1</td>
<td>Foot Switch</td>
<td>30110</td>
<td>$65.00</td>
</tr>
<tr>
<td>1</td>
<td>Product Drive Belt</td>
<td>31348</td>
<td>$9.00</td>
</tr>
<tr>
<td>1</td>
<td>Circuit Board</td>
<td>31255</td>
<td>$378.00</td>
</tr>
<tr>
<td>1</td>
<td>Unwind Felt Pad</td>
<td>75806</td>
<td>$6.00</td>
</tr>
<tr>
<td>1</td>
<td>Main Fuse</td>
<td>31367</td>
<td>$2.00</td>
</tr>
<tr>
<td>1</td>
<td>Peel Edge Cover</td>
<td>31375</td>
<td>$15.00</td>
</tr>
</tbody>
</table>

Depending on frequency of use and importance of the machine function, this list may need to be modified to include more of each part to prevent any down time.
## Troubleshooting Guide

<table>
<thead>
<tr>
<th><strong>PROBLEM</strong></th>
<th><strong>PROBABLE CAUSE</strong></th>
</tr>
</thead>
</table>
| No Power                             | 1. Machine Not Plugged In  
2. No Main Power  
3. Fuse Blown (*See page 3.5*)                                                                                                                   |
| Label Will Not Feed                  | 1. Label Sensor Set Up Incorrectly (*See page 2.9 or 2.10*)  
2. No Power (*See Above*)                                                                                                                          |
| Labels Feed Out Non-Stop             | 1. Label Sensor Set Up Incorrectly (*See page 2.9 or 2.10*)  
2. Label Sensor Blocked  
3. Fiber Optic Cables Damaged Check For Kinks In Cables  
4. Label Sensor Fiber Optic Cables Not Aligned (*See page 2.10*)                                                                 |
| Erratic Label Feed                   | 1. Label Sensitivity Incorrect (*See page 2.9 or 2.10*)  
2. Pinch Roller Not Locked  
3. Worn Or Dirty Traction Roller  
4. Dirty Fiber Optic Ends  
5. Pinch Cam Lock Needs Adjusting (*See page 2.12*)                                                                                                 |
| Label Not Aligned On Product         | 1. Check Product Carriage Rollers  
2. Check The Product To Be Sure Its Not Trying To Roll Out Of Carriage  
3. Check Air Pressure On Product Drive Head (*See page 2.6*)                                                                                       |
| Label Dispensing Too Little/Too Much | 1. Use Label Advance +/- Function On Housing of Labeler To Adjust. (*See page 2.8*)                                                                        |
| Liner Keeps Ripping Or Braking       | 1. Check The Peel Edge Covering  
2. Check Label Web For Die Cut Too Deep                                                                                                               |
Machine Component Description
<table>
<thead>
<tr>
<th>ITEM</th>
<th>QUAN</th>
<th>DESCRIPTION</th>
<th>PART</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>Roller cage</td>
<td>30353</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>Roller shaft</td>
<td>32296</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>Roller bearing</td>
<td>31070</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>Retainer Ring cage</td>
<td>31838</td>
</tr>
</tbody>
</table>
TAKE-A-LABEL

3000K Manual Page 4.7

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QUANTITY</th>
<th>DESCRIPTION</th>
<th>PART No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Brake Rotor</td>
<td>71690</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>Brake Rotor Housing</td>
<td>3604</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>Brake Support Screw</td>
<td>30686</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>Brake Rotor</td>
<td>71695</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>Brake Support Nut</td>
<td>31345</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>Brake Support Nut</td>
<td>31345</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>Brake Housing</td>
<td>30676</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Brake Housing Screws</td>
<td>30692</td>
</tr>
<tr>
<td>9</td>
<td>2</td>
<td>Brake Housing Set Screw</td>
<td>30675</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>Brake Rotor Shelf</td>
<td>31601</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>Brake Rotor Seal</td>
<td>30617</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>Brake Lock Housing</td>
<td>30617</td>
</tr>
</tbody>
</table>

DATE: 09/15/99


NOTE: The information contained herein is confidential and proprietary to the manufacturer of the product and shall not be disclosed to others without written authorization from the manufacturer.
## Miscellaneous Parts

<table>
<thead>
<tr>
<th>Part Description</th>
<th>Part Number</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control Board</td>
<td>31255</td>
<td>1</td>
</tr>
<tr>
<td>V Belt Tensioner</td>
<td>31282</td>
<td>1</td>
</tr>
<tr>
<td>Shoulder Bolt</td>
<td>31283</td>
<td>1</td>
</tr>
<tr>
<td>V Belt Tensioner Roller</td>
<td>31380</td>
<td>1</td>
</tr>
<tr>
<td>Extended Scammer Bracket</td>
<td>31047</td>
<td>1</td>
</tr>
<tr>
<td>Fiber Optics Cable</td>
<td>30090</td>
<td>1</td>
</tr>
<tr>
<td>Clamp 3/8 x 3/8</td>
<td>31370</td>
<td>2</td>
</tr>
<tr>
<td>Extension Rod</td>
<td>31366</td>
<td>3</td>
</tr>
<tr>
<td>Clamp 3/8 x 1/2</td>
<td>31369</td>
<td>1</td>
</tr>
<tr>
<td>Solenoid Valve</td>
<td>31339</td>
<td>1</td>
</tr>
<tr>
<td>Silencer</td>
<td>60061</td>
<td>3</td>
</tr>
<tr>
<td>Filter Regulator</td>
<td>30124</td>
<td>3</td>
</tr>
<tr>
<td>Filter</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Flow Control</td>
<td>31372</td>
<td>1</td>
</tr>
<tr>
<td>On/Off Switch</td>
<td>25119</td>
<td>1</td>
</tr>
</tbody>
</table>
## Miscellaneous Parts

<table>
<thead>
<tr>
<th>Part</th>
<th>Code</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motor Cover</td>
<td>31379</td>
<td>1</td>
</tr>
<tr>
<td>Motor Housing</td>
<td>31055</td>
<td>1</td>
</tr>
<tr>
<td>Motor Housing Cover Plate</td>
<td>31054</td>
<td>1</td>
</tr>
<tr>
<td>Amplifier Unit</td>
<td>30106</td>
<td>1</td>
</tr>
<tr>
<td>Small Cord Grip</td>
<td>81912</td>
<td>2</td>
</tr>
<tr>
<td>Foot Switch</td>
<td>30110</td>
<td>1</td>
</tr>
</tbody>
</table>

## Not Shown

<table>
<thead>
<tr>
<th>Part</th>
<th>Code</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Cord</td>
<td>45152</td>
<td>1</td>
</tr>
<tr>
<td>Power Cord Grip</td>
<td>45153</td>
<td>1</td>
</tr>
</tbody>
</table>
Optional Assembly Instructions

Section #5