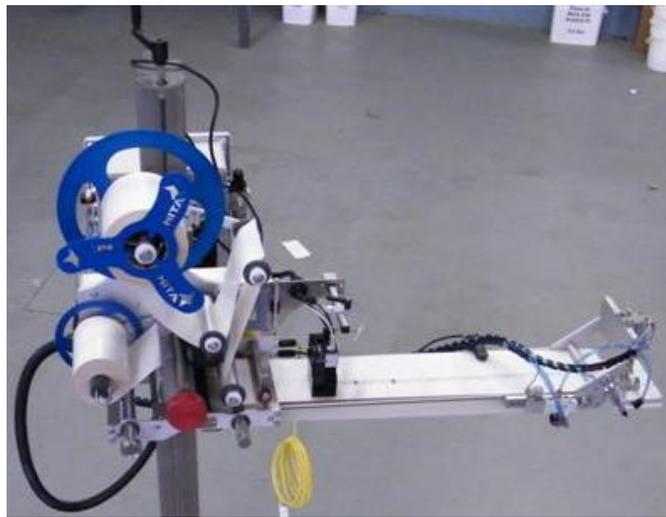




# AE612-MKII Tamp Blow Without Encoder



## Quick start guide

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## **1. GUIDE PREFACE**

This guide will provide instruction's on basic setup of the machine.  
The information's contained in this guide will help the user in his/her operation.  
After reading this guide, the user should be able to perform setup of new container/label.

Information's, illustration's and specification's contained in this manual are bases on the latest product information available at the time of this manual release. Nita Labeling Equipment, Inc. reserves the right to alter and substitute information contained herein at anytime.

This equipment is intended to be used only as described in this document. NITA Labeling Equipment, Inc. cannot be held responsible for the improper use or functioning of non-described functions of this machinery. Liability for any personal injury, loss of production or revenues, or property damage occasioned by the use of this manual in effect maintenance; operation, or repair of the equipment is in no way assumed by NITA Labeling Equipment, Inc. Anyone using a procedure not recommended by the end user should first completely satisfy himself/herself that personal safety and equipment integrity will not be jeopardized in the method selected.

### **All rights reserved**

While every precaution has been taken in the preparation of this manual, Nita Labeling Equipment, Inc. assumes no responsibility for errors or omissions. Neither is any liability assumed for damages, loss or production, or revenues resulting from the use of the information contained herein.

## 2. SHIPMENT/RECEPTION - uncrating

For shipping purposes, the T-base foot stand and the labeling head are crated together. This avoids any damage to the device as well as protects the adjustment settings allowing for a very stable product once installed in its final destination.

The crate is generally pop-nailed together and can be taken apart by using a simple hammer or a nail crowbar. Proceed in removing the side wood panels from the crate and work your way inward.



**WARNING** - Always be vigilant while using any tools as they can result in body injuries.

### Positioning and caster wheels

Once the labeler is wheeled in proper position, you can proceed and level it with the pads.

Screw the leveling pads CW to move peg leg up-wards into the T-base and CCW to move the peg leg out towards the floor. Set as desired. It is recommended that this equipment be used on its leveling pads during operation. Use the caster wheels **ONLY** to move the stand from one area to the next when not in use.

**Leveling plate**

**Caster wheels**

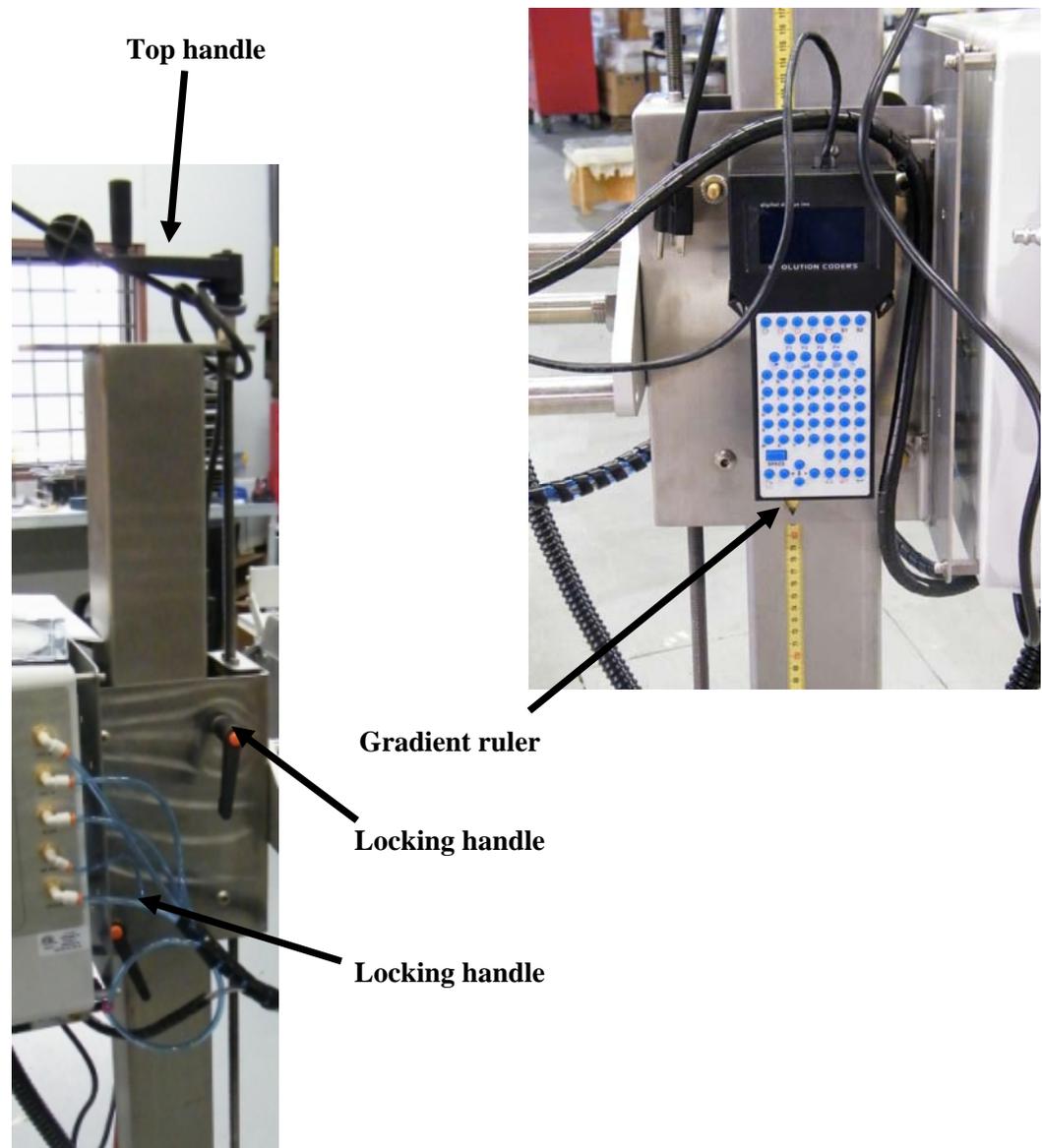


### 3. MECHANICAL GUIDE:

#### 3.1 Vertical Up/Down adjustment

For height adjustments: The system is equipment with ratchet type handles. Lift the handle with the orange center by pressing down on the center to access the unlocking mechanism of the handle. Loosening this ratchet handle will allow you to unlock the up/down movement. Next, using the top handle turn it CW to raise the label head and CCW to lower the label head. Use the ruler to obtain perfect positioning as per your requirements.

Once in desired position, proceed in locking the handle once more by tightening and using the orange button to enable CW rotation of handle. Rulers make it easy to position in same area time and time again.

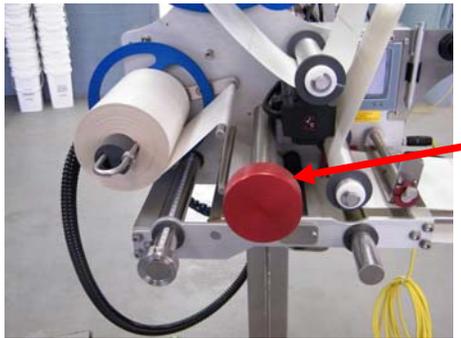
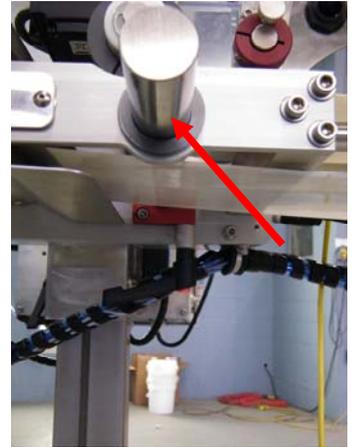


### 3.2 Lateral adjustment

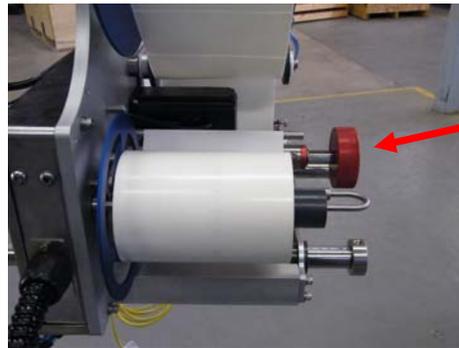
The lateral adjustment is a shaft that runs through the labeling head and is identified by a red anodized knob (seen below).

It is used to slide the labeling head across the product (across the conveyor) In order to be able to use this lateral adjustment, you must first locate the locking ratchet handle, it is the one with the orange center.(on the underside of the labeling head).

Pull on the handle to access the unlocking mechanism, turn it CCW to loosen. Turn the red anodized knob (lateral adjustment) CCW to move the labeler closer to you or CW to move further away from you. Use the ruler to obtain perfect positioning as per your requirements and save its value a recipe setting in the HMI touch screen. (see the recipe section)



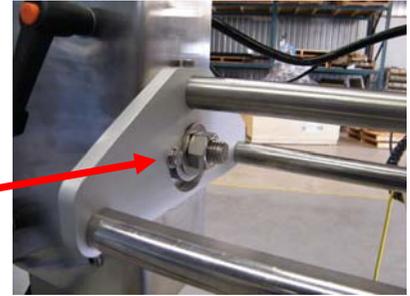
Front view



Side view

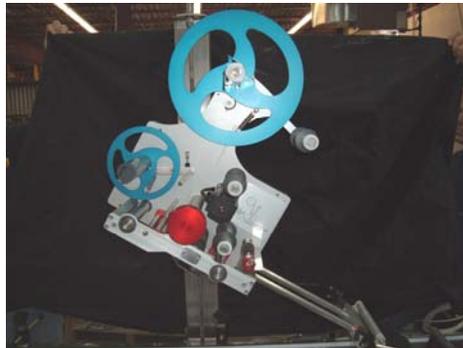
### 3.3 Angle adjustments

The labeler head is factory angled for test use but can be adjusted as desired. To achieve this, you will need an adjustable wrench to un-screw the big nut on the backside of the labeler. Unscrew the nut slightly, position the labeler and re-fasten the nut. It is recommended that the downward angle not be more than 89 degrees to the T-Base pole.

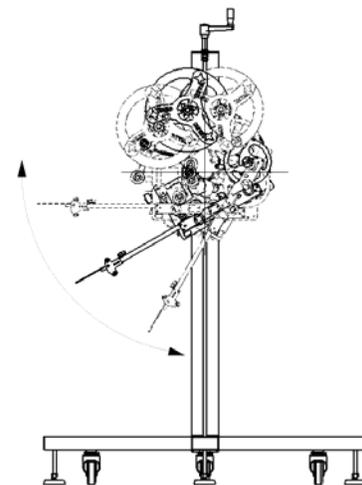


#### **WARNING - TO AVOID INJURY**

(NB this is usually a two person job), One person moves and holds the labeler in desired position while the other secures the nut.



A good adjustment is when the exit of the label is tangent of the surface of application

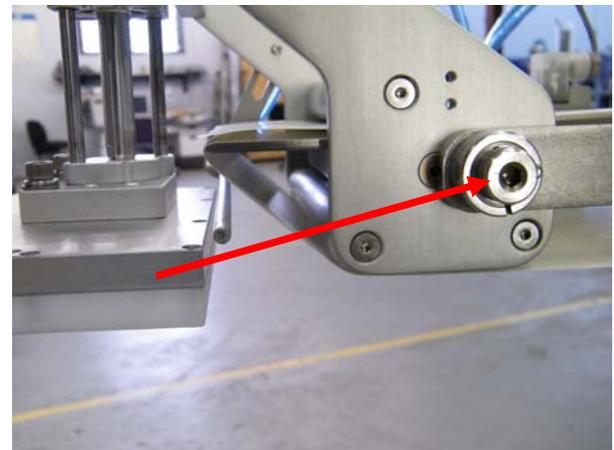


STAND ALONE AE-612 M2/1001 (AE-612 M2 ON U-ARM & T-BASE, PIVOTING SCHEMATICS)

### 3.4 Peel plate angle adjustments

The peel plate is also angle adjustable. Use an Allen key to loosen the screw on the side of the peel plate, place the angle as desired and re-fasten the screw.

**HINT:** A good adjustment is when the exit of the label is tangent of the surface of application



### 3.5 Loading & unloading the label stock roll



**CAUTION - To avoid injuries, you must keep the unit in MANUAL mode!**

Just follow these quick easy steps. Identify the media support holder

Media support holder



- 1) Place the label stock roll on the label support cylinder. **Make sure that the label stock is completely against the back disk**

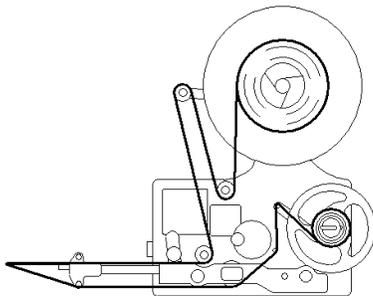


**CAUTION - To avoid injuries, do not run hands against the center media retaining blades**

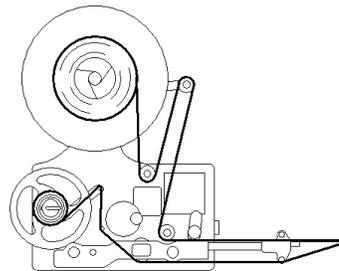
- 2) Place the holder disk over the stock roll and push down firmly
- 3) Pull approximately 36 inches of stock from label stock roll and remove the labels from the liner (if not already done)



- 4) Follow the webbing diagram as shown below or on the id plate of the device itself.



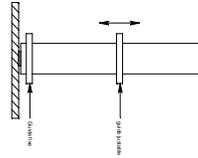
8400044A LH



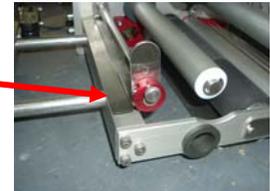
8400045A RH

***Refer to the bigger webbing diagram in the appropriate section herein***

- 5) For different label widths, slide the ring guides on each of the available rollers to the right width in order to avoid label swirling. **Do not move the ring guides that are fastened with set screws (the ones closest to the main plate)**, these are the zero point and must always remain in the same location as preset by factory.



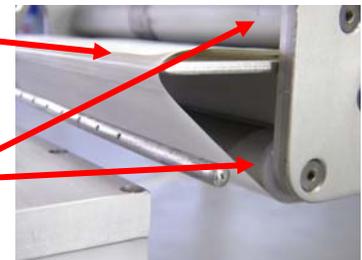
- 6) Release the spring-loaded tension plate by gently pulling the lock.



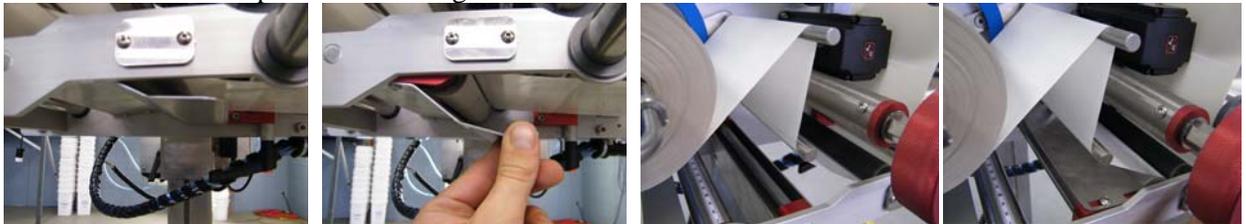
- 7) Thread the label stock webbing over the peel plate and then under the peel plate rollers

Peel Plate

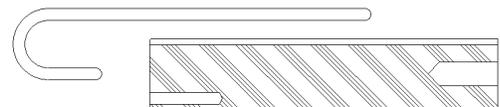
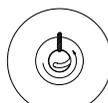
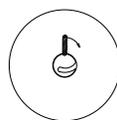
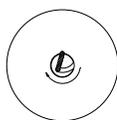
Peel Plate Rollers



- 8) Release the pressure on the feed roll by pulling the door. Feed the label webbing through all the way to the peel plate and back then close the door, there will be some pressure that will allow tension to be kept on the webbing



- 9) Wind the label stock on the re-winder and lock it in place with the u-shaped hook. Release the U-shaped pin by simply turning counter clockwise, gently pull away at the U-pin and remove waste. To reload the pin, place the pin into slot with the flat portion of pin guided throughout the core, and simply twist clockwise into rounded slot to lock down.



Loading re-winder

Un-loading re-winder

**PRACTICAL HINTS:**

Set the machine in manual mode, this will avoid any undesired signals from the product sensor.  
Turn CCW and gently pull the hook to remove the waste on the re-winder roll.

**Don't forget to re-clip the tension plate**

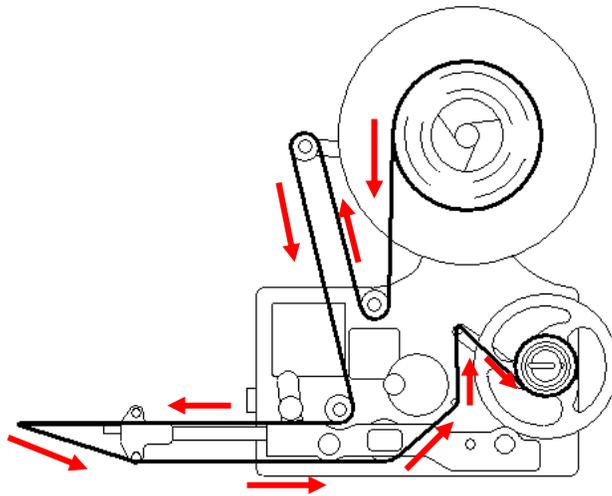


### 3.6 Label threading

Look carefully at the diagram and follow the threading procedures indicated below.

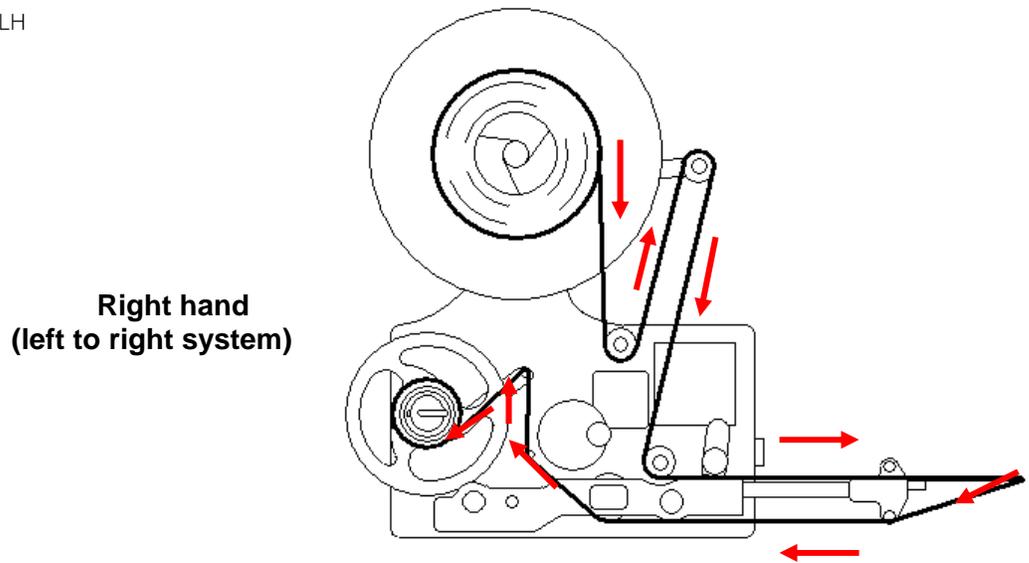


**CAUTION - To avoid injuries, you must keep the unit in MANUAL mode!**



**Left hand  
(Right to left system)**

8400044A LH



**Right hand  
(left to right system)**

8400045A RH

### 3.7 GAP Sensor - Calibration

- Make sure power is applied to sensor.
- Red L.E.D, should be on when it sees a label.
- Red L.E.D, should not be on when in between label.  
(Gap)

#### **Invert output**

The status of the red led and output transistors can be inverted

by pressing both buttons simultaneously.

When the output status has been inverted, the red led and the output transistors will turn off when the label comes into view.

#### **First,**

peel a label and teach the sensor how the gap looks like.

At this point, since it is not calibrated,

it might be possible the RED L.E.D, is not responding as it should.



#### **Then,**

Once the sensor "See" the gap, press and hold the first bottom. (GREEN L.E.D should flicker and stop)

Release the bottom once the GREEN L.E.D stop flickering.



#### 4. HMI - Operator interface

What you need to know about the HMI (human machine interface)

PLEASE READ CAREFULLY

The HMI operator interface allows you to:

Adjust your equipment for various products, (speeds, gradient ruler positions etc)  
Get feedback about the process as well as the problems incurred  
Get a global control of the equipment.

It is a smart interface that allows you to touch the screen for you to change the parameters without the use of a computer. There are many small menus or windows that allow the system to run more efficiently. Some screens or menus require a password in order to allow only authorized personnel to change parameters. **The initial password should be identified with a sticker close to the screen.** Here then is an outlook of the screens, an explanation for each and their roles.

NOTE: ANYTIME YOU SEE A QUESTION MARK ON THE SCREEN

The question marks keys lead to a 'help' screen which provides a brief explanation or tips on the adjustment method of the specific setting. This helps to minimize the time taken to make adjustments. 

The different functions on all the screens are activated by simple touch of the keys on the screen. Almost each screen has these keys.

Press either to navigate from screen to screen



##### 4.1 Start up screen

The system will turn on when you turn the main power switch clockwise. (BIG, black dial-like knob located on the front of the electrical box). The opening screen (Nita's coordinates & logo) will appear. **Use the provide stylus pen and press gently to avoid damaging the screen. Common sense must apply.**

Press the 'Press to start' key to begin.



#### 4.2 Main menu screen.

**AUTO:** The product detection gets done automatically and the label gets the trigger signal to shoot whenever a product passes in front of the sensor's beam.

**MAN:** you will need to manually press the FEED. Manual modes are generally used when we would like to troubleshoot or test.

**Recipe:** Bring to the recipe screen. (See recipe section)

**Calibrate:** initialize calibration.

**Offset:** gives you access to the labeler head parameter.  
(See offset section)

**Ruler values:** bring the ruler settings screen.  
(See ruler section)

**General settings:** Bring to general settings screen.  
(See general settings section)

**Advanced setting:** Bring to advanced setting.  
(See advanced setting section)

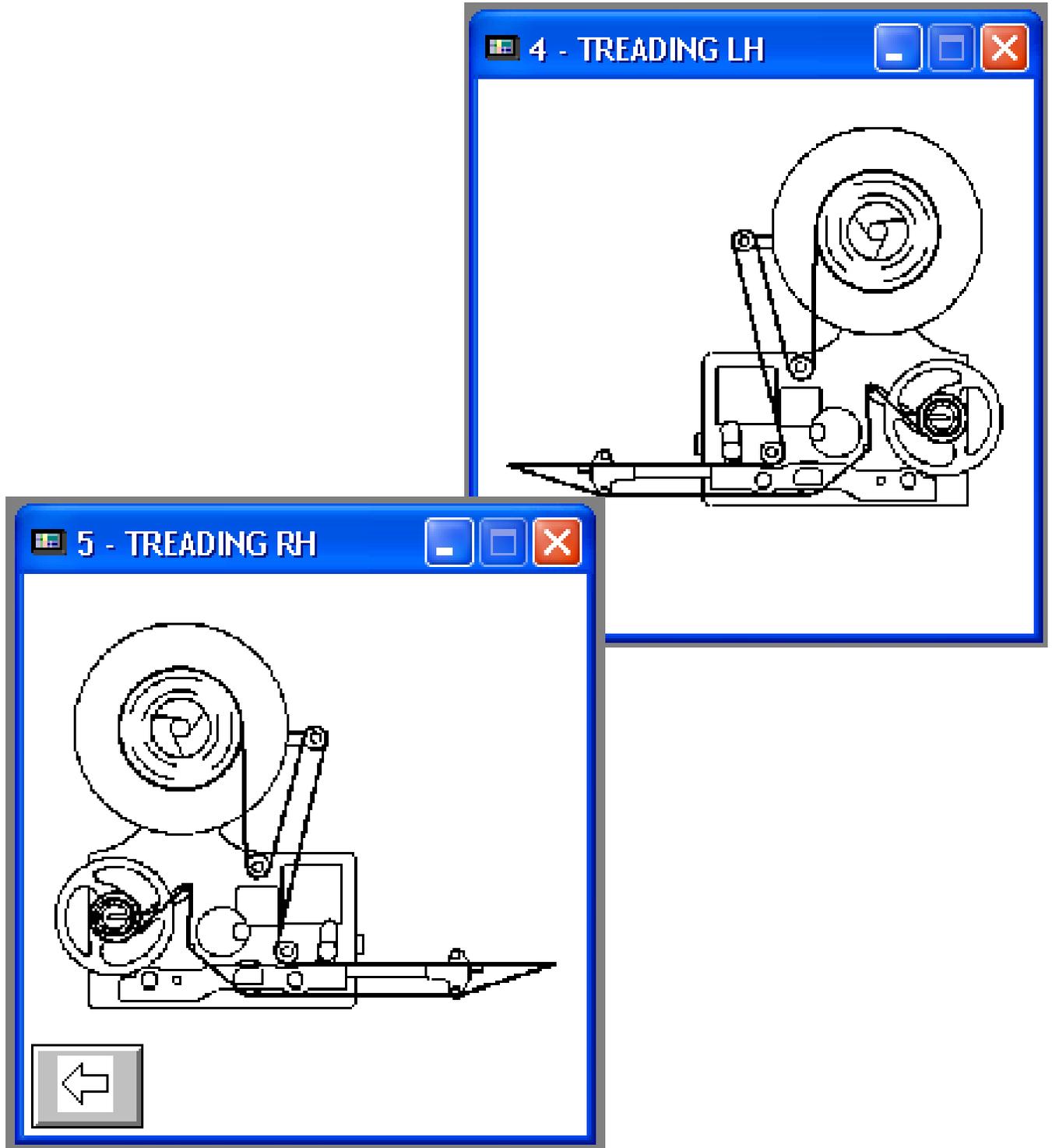
**Reset:** Reset the counter to zero.



**The threading schematic can be obtained by pressing the label roll icon on the top of the screen. For more information also refer to the threading diagram in this manual.**

### 4.3 Threading screen

This is the labeling head threading screens that can be accessed from the main menu.



#### 4.4 Recipe section

If you are on this screen it is simply because you have chosen to save an existing recipe or enter a new one.

**Saving** a recipe means that you will be transferring entered parameters into the HMI memory. In order to do that make sure you select the desired recipe to be overridghted. Then press save, a confirmation screen will appear. Confirm your selection and a progress bar will appear.

When creating a new recipe, **ALWAYS** start with an existing one, make change to parameters and then save it as the new receipe.



**Retrieving** existing recipe is simple, just select the desired recipe to be opened, and click retrieve.

#### 4.5 Offset section

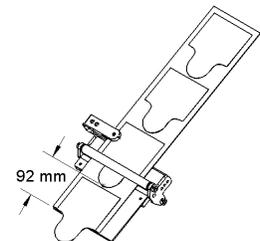
##### Label Flag mm:

In normal mode the usual way of setting the gap offset is to enter ZERO.

However when the label has a shape other than a square edge (or right angle) It will be unconventional and this will need to be set as a trial and tune the value.

The more inconsistent the shape, the more you will need to compensate this value.

For example, we will need to enter 92 as the ideal offset. Once this is done, you will need to save this new setting for the appropriate product name to always obtain the proper calibration when recalled from memory. It is very important that the value entered does not exceed the total length of the label or you will obtain double label feeds resulting in a label out alarm.



##### Label position on product ms:

This is measured in time. This value should reflect the time elapsed between the moment where the product is detected by the product sensor and the moment where the label begins its application feed. Never moving the sensor AGAIN, this setting will allow the product to always be positioned in the same location on the product when you recall the recipe from memory at a later time. It is recommended to keep the product sensor closer to the peel plate as possible and never to move it again to avoid label positioning errors.

**Blow time ms:**

This is measured in time. Changing this value will modify the blowing time off the label pad. The label will be vacuumed on the pad and in the application process, the label is shoot toward the product. This is where you adjust the time of blowing, to fine tune the labeling position result.

**Cyl. Dwell ms:**

This is measured in time. When in **timer mode**, in advance setting cylinder stroke setting is selected, changing this value will set the stroke length of the cylinder. If the cylinder stroke is controlled by the reed switch, changing this value **will not** affect the cylinder stroke.

**Product sensor:**

Having set the product sensor into leading mode, mean that the unit will trigger a label when ever it receives a product signal.

Setting the product sensor to trailing will trigger a label every time it lost the product signal.

Note that if you are using a reflective type product sensor you will have to invert the explanation above.

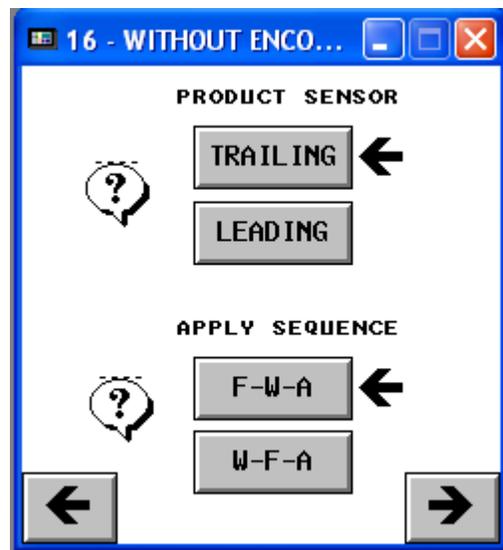
**If you would be sending an external signal (dry contact) to the unit as product sensor:**

**Black wire: Signal at input 3**

**Brown wire: 24+VDC**



Customer dry contact



**Apply sequence:**

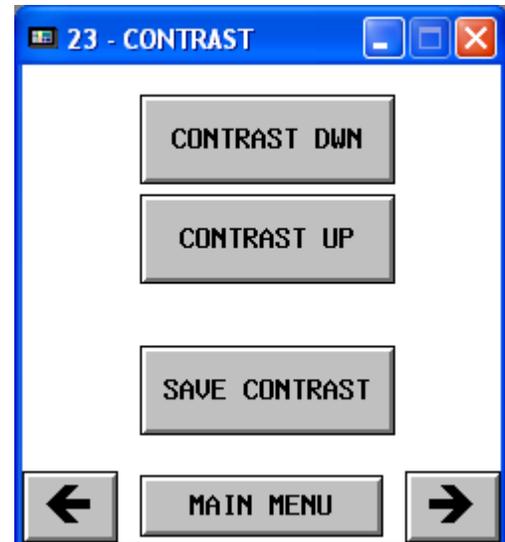
In **Feed-Wait-Apply**, the printed label will be set on the vacuum pad and waiting for the product sensor to trigger the application of that label onto the product.

In **Wait-Feed-Apply**, the printed label won't go to the vacuum pad until the unit get the product signal and then be applied on the product.

Note that a **F-W-A** application act a little faster then **W-F-A** when set in a fast applying application. Make sure that if you are running at slow rate and in **F-W-A** mode, that your label does not get dirty and wont stick onto the product anymore. In that case a **W-F-A** mode would be preferable.

#### 4.6 General settings screen

These screens will allow the access to settings like the language displayed, contrast of the screen, and the setting of time and date. Simply navigate from one screen to the next using the arrows.



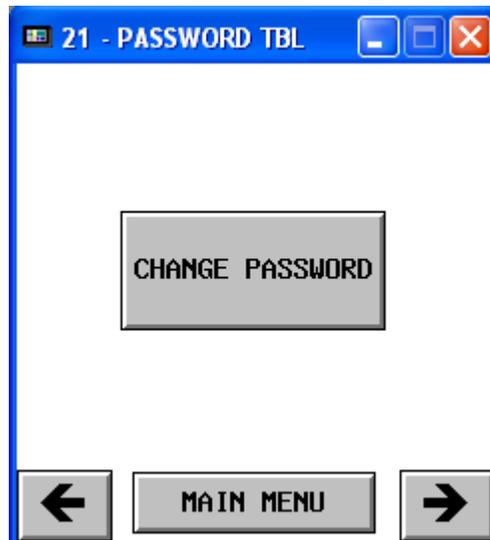
#### 4.7 Advanced settings

From the main screen, you can reach the *Advanced Settings* screen that greatly affect the parameters of the entire system. Therefore, they are password protected to avoid changes made by error. These have been entered by Nita and should not be accessed unless authorized by manufacturer. Qualified technicians can use this screen to help with troubleshooting.

##### Change password:

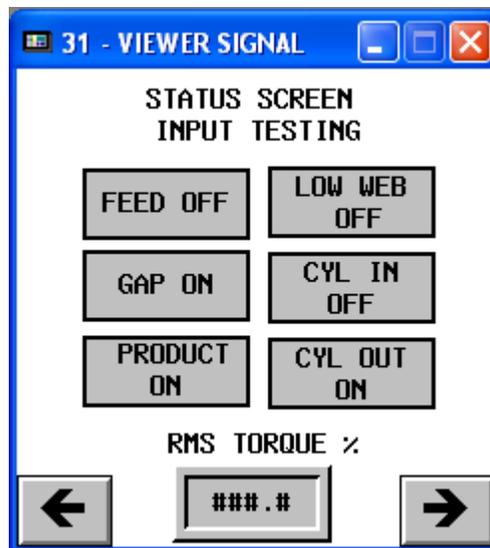
This will perform a password change.

We strongly recommend to note down that new password.



##### Status screen input testing:

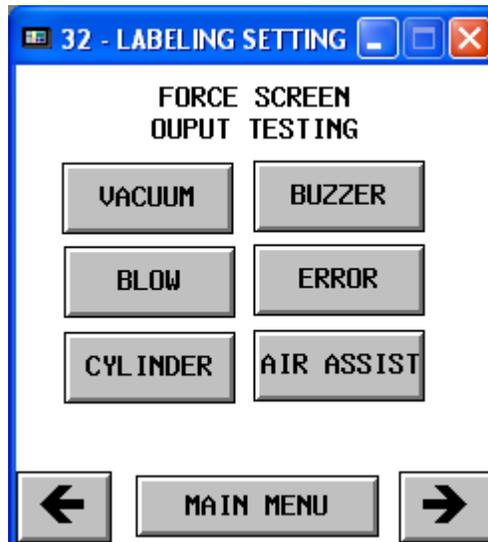
In this screen you will be able to see the states of all the input.



The RMS Torque % allows for the adjustment of the tension plate

**Force screen output testing:**

In this screen, you will be able to manually force the output of the unit.



**Feed rate trim:**

Works with the encoder. At 100% the speeds of the labeling head is synchronized 1:1 with the conveyor speed. If the value is augmented, the labeler will be faster than the conveyor. If the value is lower than 100%... the labeler will be slower than the conveyor speed.

**This should be 100% always if your unit DOES NOT have an encoder.**

**Limit distance:**

This value corresponds to the maximum distance traveled before a "label out" alarm will sound.

**Man velocity:**

This corresponds to the labeler speed.

**Gap sensor to peel dist:**

Corresponds to the distance between the label Gap sensor and the peel plate's edge.

The distance value may change if the angle of the peel plate has been moved, in this case you can compensate on a case by case or re-save with the new values.

**Distance (product to peel plate):**

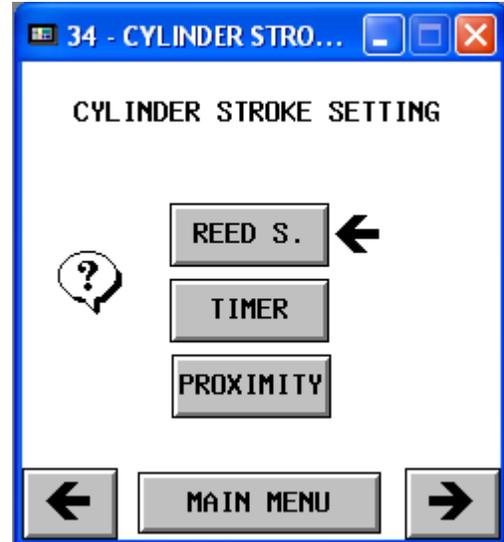
This is the distance between the product sensor and the peel plate edge.

**This will have no influence if your system DOES NOT has an encoder.**



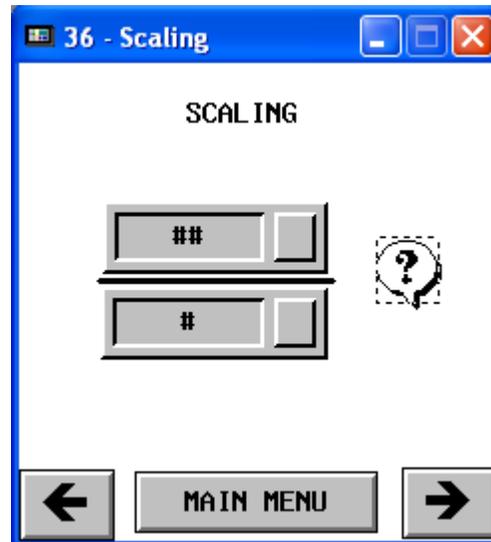
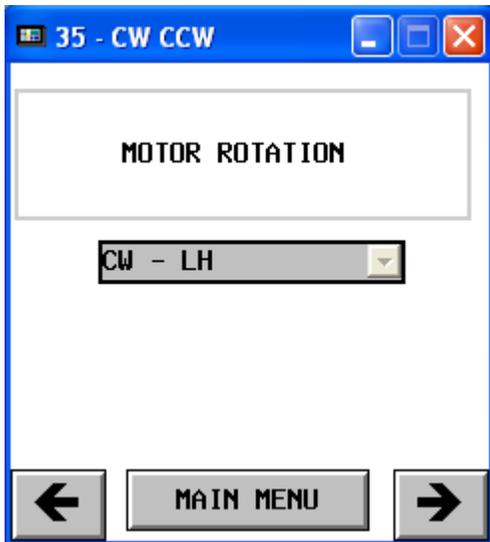
**Cylinder stroke setting**

This will set how the cylinder stroke will be determined.



**Motor rotation:**

The direction of rotation is changeable from clockwise to counter clockwise (LH or RH). This adjustment is only necessary once and it is factory set.

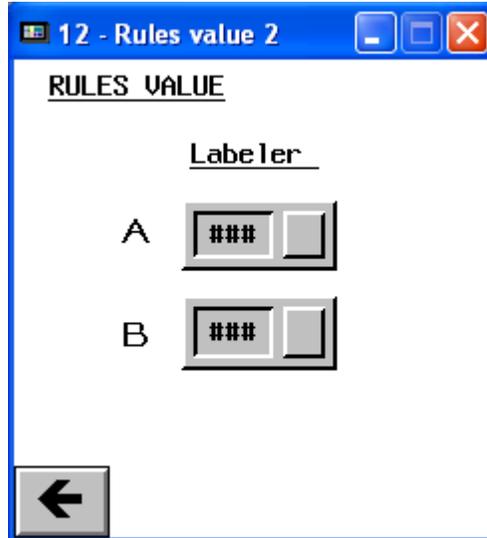


**Scaling:**

Scaling is a gear ratio that should not be changed. It is factory set.

**4.8 Ruler values section**

This is where you get the ruler value from previous saved recipe.  
The letter displayed on screen match the colored letter on the unit.

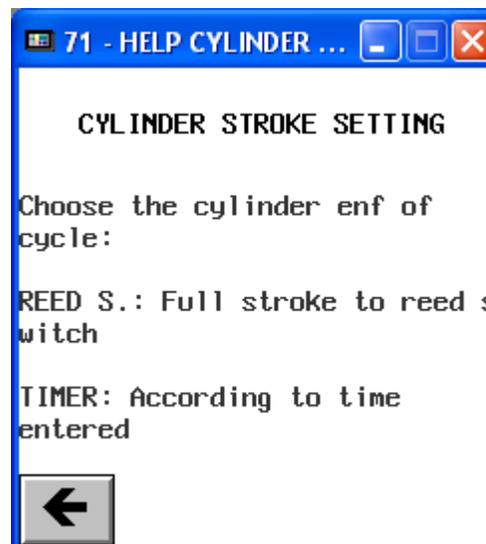
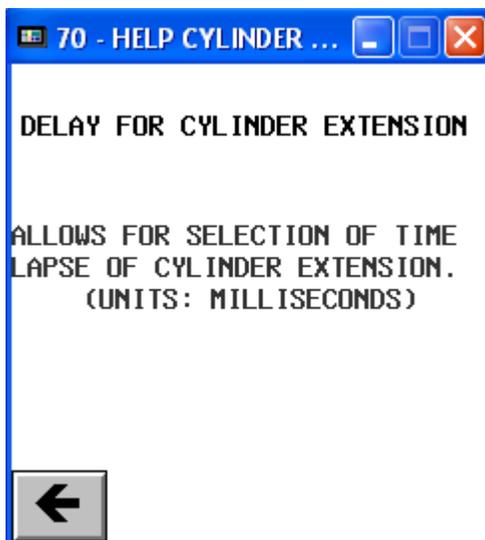
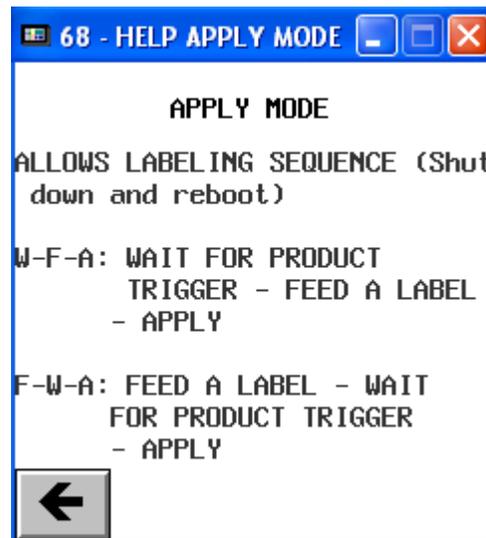


#### 4.9 Help screens

Each time that an icon with a QUESTION MARK is available, you can obtain hints and explanation about the setting. Simply press the icon with the « ? ».

These screens will appear when you press on this key:

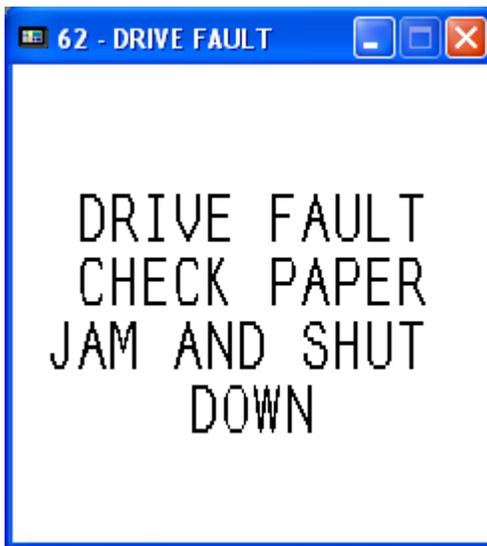
Here are examples of screens which will guide you to perform the right adjustments. They will indicate how to adjust the various settings in the most effective way possible and provide hints.



#### 4.10 Alarm screens

These screens appears when a problem with the unit occurs.  
There might be an audible alarm will also sound at the same time.

To reactivate the system, after solving the problem, simply press the Reset key. It will stop the audible alarm. You will have to reposition the web (or tend to empty roll) and restart the system.



## 5. **QUICK GUIDE – New label/product walkthrough:**

In this guide you will find information's on how to setup the unit to label a new container.

- Plug the power supply cable to the panel.
- Make sure air pressure is set at the regulator input.
- Adjust air to recommended pressure (serial plate of unit)
- Turn unit ON.
- Make sure ink cartridge is installed on printer.
- Setup on the printer the desired variables.
- Thread machine with label. **SEE PAGE 10**
- Adjust labeler angle according to product. **SEE PAGE 6-7**
- Adjust peel plate according to product. **SEE PAGE 7**
- Calibrate gap sensor. **SEE PAGE 11**
- Calibrate labeling machine. **SEE PAGE 13**
- Set the Offset parameters as desired. **SEE PAGE 16**
- Test the unit and adjust until perfect.
- Enter ruler values for future references. **SEE PAGE 23**
- Set the unit to desired operational state (AUTO-MAN). **SEE PAGE 13**
- Save the recipe. **SEE PAGE 15**



## **7. MANUFACTUER'S COORDINATES**

Ultimately, the dealer which sold the dive to you should be your first contact as they have been trained to perform any work on these devices and troubleshooting. Should you require any additional information about our equipment, feel free to call us

**NITA LABELING EQUIPMENT INC.  
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