STS Electronics Ltd.
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LABEL APPLICATOR
STS 808-V

User Guide

V.1.02

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Content

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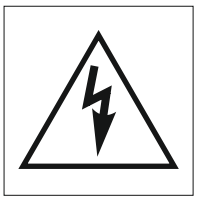
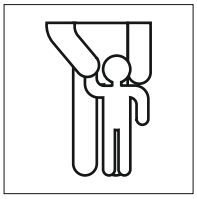
The following symbols are found in this user guide:-

Read the user guide!

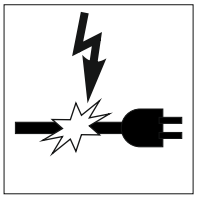
Follow safety warnings and instructions!



Protect yourself from electric shock.



Keep the children away from the machine!



Risk of life from electric shock when a power cord or plug is damaged!

Dispose the packaging and the appliance in accordance with environmental regulations!

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1. Introduction

Read the user guide carefully before operating the applicator for the first time. Be sure to follow all instructions carefully. When handling the applicator to a third party, be sure to include all documentations.

Proper use of the Applicator

This applicator is designed to apply self-adhesive labels on a cylindrical container of different length and diameter. The applicator is capable of applying 1 or 2 labels (front or front and back labels) on the container at one go. For applying 2 labels at one go, the labels must be arranged consecutively on the label roll.

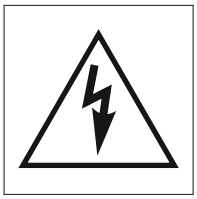
To apply label(s), place the container horizontally on the machine shafts, between the detents. Press the start button or foot pedal. The applicator rotates the container while applying the label on the container. When done, the applicator will stop automatically. Remove the container.

Use the applicator only as intended. Any other use is considered unlawful and generates significant risks of accident. The manufacturer accepts no responsibility for faults and damages caused by use contrary to the indicated instructions.

The electrical protection of the applicator is accomplished by protective sheath of the current-carrying parts and by grounding of the metal housing. This requires the use of a straight electrical outlet (socket). Overcurrent protection is provided by fuses built into the applicator. Their replacement should by performed qualified personnel.

Attention !

- Do not place containers that are larger or smaller than specified in the technical specification.
- Do not place damaged containers or containers that are of irregular shapes. These could result in injury.
- Do not place containers that are full and not sealed. It could result in electric shock.



- Do not use labels that are larger or smaller than specified in the technical specification.
- Power off the applicator during maintenance, cleaning or initial setting up of the applicator for labeling job. This includes loading and / or threading of labels through the applicator.
- Do not cover the ventilation openings of the applicator.
- Do not spill liquid on the applicator.
- Do not insert objects into the opening of the applicator. This could result in electric shock.
- Do not place your hands or fingers on the shafts of the applicator. This could result in injury.

Attention !

- In case of electric shock, remove the plug out of the electric socket to disconnect the applicator from electrical power. Seek immediate medical attention.

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This Applicator comes with:
- Quick start guide / User guide
- 1 Applicator
- 1 power cable
- 1 start pedal with connection cable and coupling M12-4P

Description of Equipment (see Figure 1.1 and Figure 1.2)

1. Supporting shaft.
2. Driving shaft.
3. Stoppers (detents).
4. Pull shaft.
5. Pressing shaft.
6. Clamping mechanism
7. Stopper (detent) of label roll .
8. Label roll holder.
9. Brake of the label roll.
10. Control panel.
11. Start button.
12. Sensor for labels.
13. Power switch.
14. Power supply coupling.
15. Driving shaft.
16. Label roll driver.
17. Foot pedal connector.

Technical data.

Supply voltage:	220V AC, 50Hz.
Power consumption:	<100VA.
Electrical connection:	grounded power cable
Dimensions:	365mmW, 245mmH, 330mmD.
Applicator weight:	12kg.
Diameter of the container:	25 ... 160mm.
Length of the container:	30 ... 240mm. /distance between stoppers/ *note: the length of the container should not be smaller than the half of its diameter*
Diameter of the label roll:	<200mm.
Label core diameter:	46 ... 76mm.
Label width:	25 ... 150mm.
Label length:	25 ... 500mm.
Label Gap:	>2,5mm.
Applicator speed:	0.1m/sec.
Noise level	<70dB.

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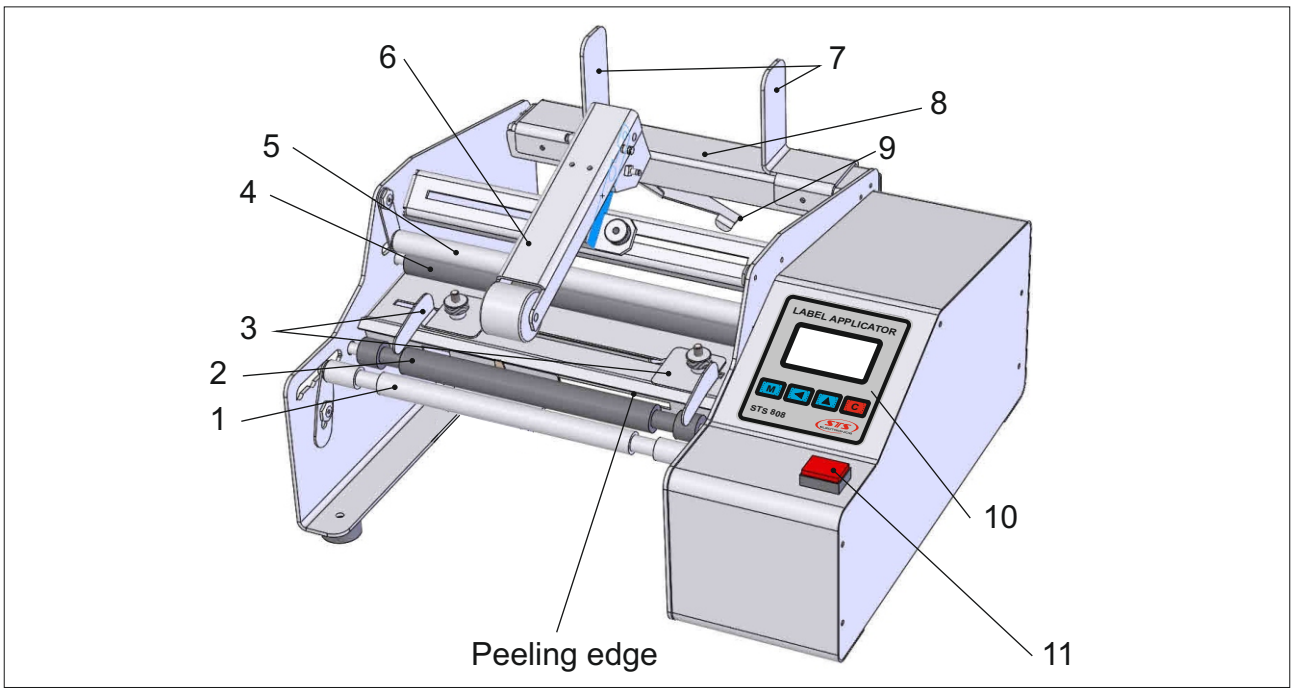

Figure 1.1

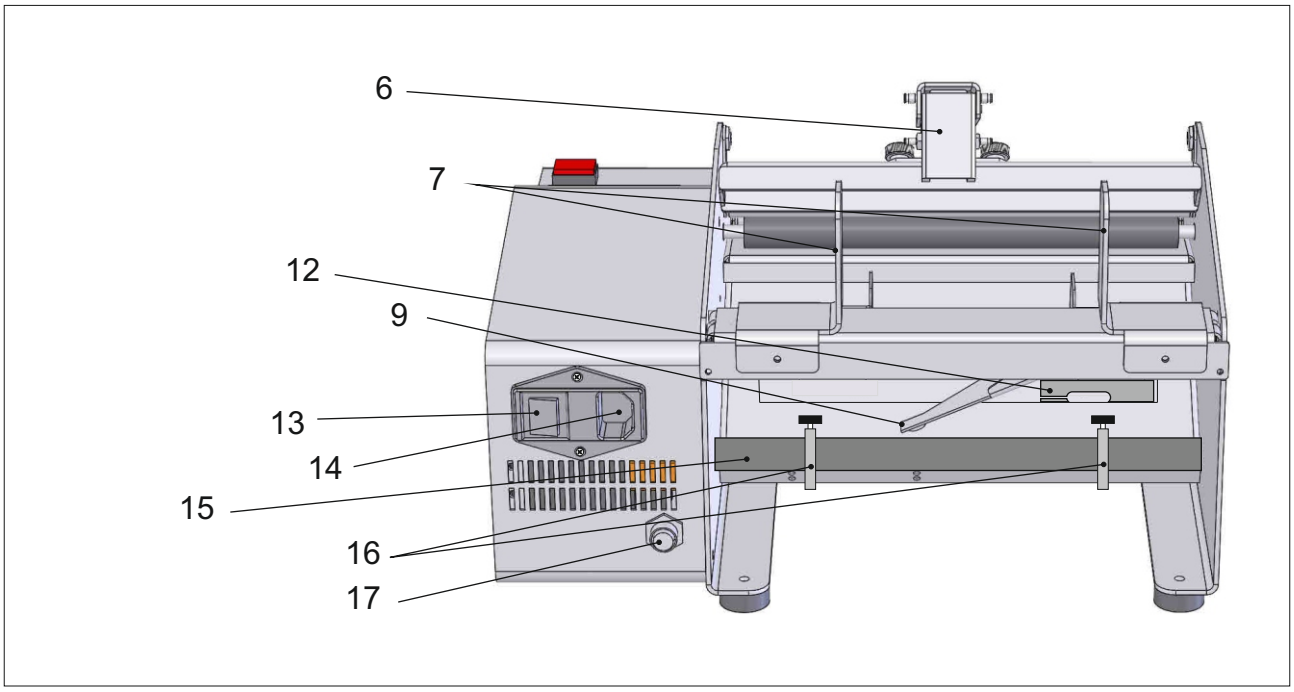

Figure 1.2

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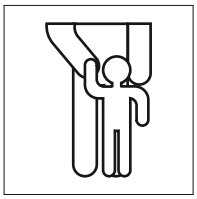
2. General safety instructions for handling electrical appliances.

Attention!

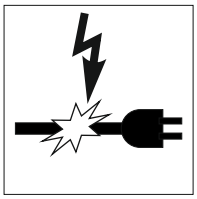
Please read and observe the following safety precautions to protect yourself against the risks of electric shock, injury and fire. We recommend that you familiarize with all the instructions in this manual before using the applicator.

Workplace Environment

- Keep your workplace clutter free.
- Ensure good lighting in the workplace.
- Do not use the applicator in humid conditions.
- Do not use the applicator in places where there is a risk of fire or explosion.
- Keep bystanders, especially children, away from the applicator when operating the appliance.
- Do not use the applicator for purposes other than those intended.



- Do not pull the plug from the wall socket by the power cord. Protect the cable from oil, heat, and sharp edges.
- Ensure you are in a safe and balanced position when operating the appliance.
- Maintain your applicator with care in accordance to the manufacturer's instruction.



- When you are not using the applicator, be sure to turn off the power and remove the power plug from the wall socket.
- Do not use the applicator with a damaged power switch. Please repair the switch before using.
- Do not use the applicator when you are not feeling well.
- Keep the applicator in proper working condition at all times. Ensure that all parts are installed correctly and there are no damaged parts.
- Please find a certified electrician to repair and replace damaged safety components and parts. Damaged circuit breakers must be replaced by a workshop.

Safety instructions when using the STS 808-V label applicator

To operate the applicator, place the container (bottle) squarely onto the applicator and press the "Start" button or the "Start" pedal if it is connected.

For your safety,

1. Do not place the container (bottle) while the machine shafts are rotating.
2. Do not start the machine unless you have placed the container correctly.
3. Do not remove the container until the shafts stop rotating.

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3. Operating instructions

Attention !

Please read and understand how to operate the label applicator properly before using it.

Installation

Place the applicator on a flat surface with sufficient space for you to operate safely and service the machine.Next, connect the applicator to the power supply and attach the pedal to the machine.

Setup and preparation

- Position the container (bottle) onto the work area. Orientate the bottle (i.e. facing left or right) such that the applicator will apply the label correctly or right side up.
- Adjust the clamping mechanism and the supporting shaft so that it fit the bottle.
- Adjust the stoppers to keep the bottle in the middle of the work area.
- Load the roll of labels (the label image should be facing down when it enters the applicator). Fix the position of label roll using the 2 magnetic stoppers. Ensure the brake is positioned at the middle of the roll.
- Unlock the pressing shaft by pulling it forward.
- Guide the label along the label path as shown by the red path in the diagram below (Figure 3.1).
- Ensure that the label is positioned under the sensor area.
- Set up the sensor to detect the inter-label gap and the label according to the instructions in Appendix 1.
- Ensure that the leading label is positioned next to the peeling edge so that it will peel off from the liner.
- Push the pressing shaft forward to lock.
- Position the driver/drive shaft over the label. Ensure that pressing the label with enough friction to roll the label up to the peeling edge of the applicator.

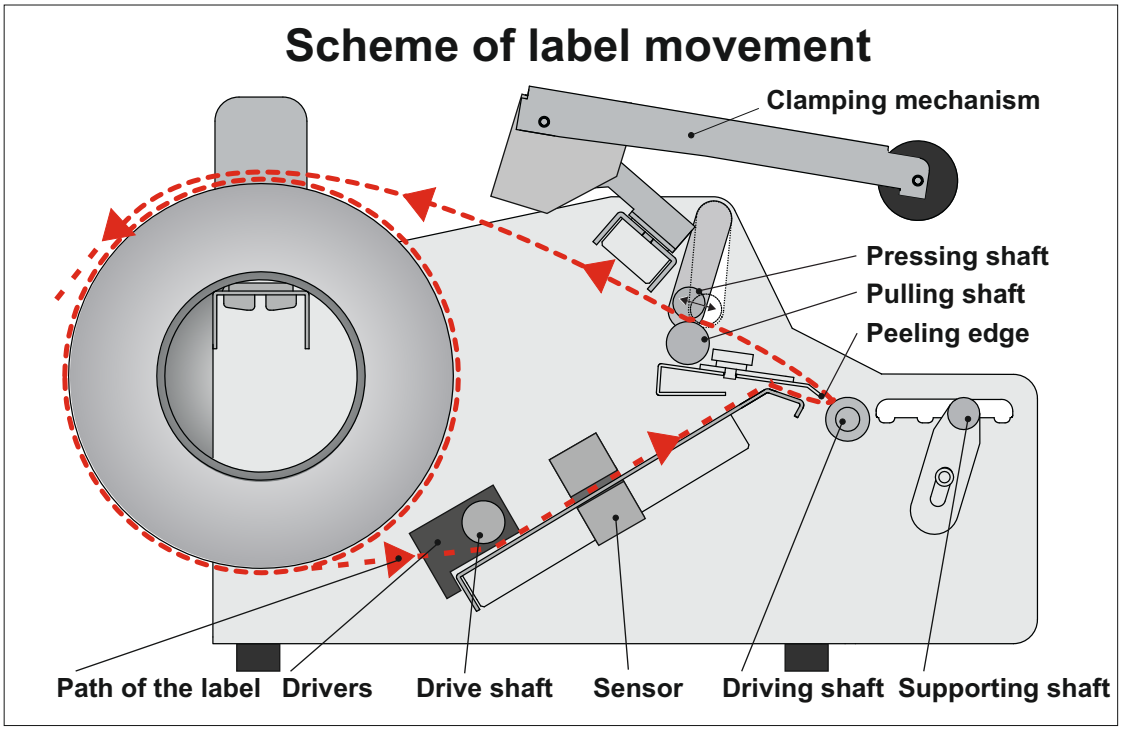

Figure 3.1

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Turn on the applicator

Power on the applicator. The Front Panel LCD will light up displaying the applicator model followed by the main screen.

Determine and adjust the offset stops parameter

The sensor is fixed 100mm away from the peeling edge of the applicator.

To operate the applicator correctly, you are required to enter the <offset stop> parameter(s) from the Front Panel.

If you are applying only one label at a time or using the single-label mode, you will need to enter <offset stop> parameter. If you are applying 2 labels or using the two-label mode, you will need to enter the <offset-stop 1> and <offset-stop 2> parameters. These parameters are used to advance the label so that it will peel off correctly at the peeling edge.

The parameter value is determined by the label length(s) and the inter-label gap. Hence, you will first need to measure the label length and gap physically. This should be done before you mount/load the labels onto the applicator.

Please follow the instruction outlined in **Appendix 2** (single-label mode) or **Appendix 3** (two-label mode) to determine the proper offset-stop parameter(s). You can also visit our website at www.vipcoloreurope.com and select the appropriate language. Look for the calculator application. It will guide you through and calculate all the necessary parameters for you

Entering and changing the parameters on the Front Panel

At the main screen, press and hold the [M] key until you enter the select mode menu.
For the one-label mode, enter the offset-stop and the additional label movement time.
For the two-label mode, enter the inter-label gap, offset-stop 1 and offset stop 2.
Please refer to **Appendix 4** for more details on operating the Front Panel.

Applying the label on the container

Before we can use the applicator for mass production, we need to conduct a test-run and make fine adjustment to the parameters, if needed. The objective is to ensure the label can be peeled and apply consistently.

To apply a label, press the <Start> red button or press the pedal if you are using one.
The Front Panel display will show the number of (application) cycles completed.
To reset this counter, press and hold the [C] key for 3 seconds.

Adjusting the display.

The brightness and the contrast of the display can be adjusted if needed. Menu access and operation are described in **Appendix 5.**

Memory Locations

There are 29 memory locations that can be used to store job parameters. You first select the memory location and then enter the job parameters. Once the parameters are saved, you can recall the memory location to restore the job parameters for any job in the future. The default memory location is 00.

To enter memory location menu, press and hold [◄] key until you are in the menu. Use [▲] key to change the value and [◄] key to change the digit. [M] key select the location. To recall a previously saved job, select the memory location menu and do as describe above to recall the memory location.

Note that you will need to record which jobs are associated with which memory locations.

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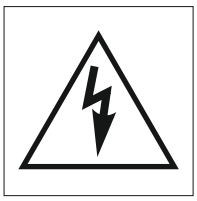
4. Maintenance and cleaning



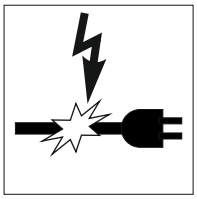
Attention! Risk of injury!

- Always disconnect the plug from the socket before performing any work on the machine.
- The applicator does not require any technical maintenance within the specified service life.
- Clean the machine after the job finished.
- Use a brush or a dry cloth. Do not use solvents for cleaning.
- Alcohol may be used to clean the shafts. Be careful that no liquid drips into the interior of the applicator.
- Make sure the vents are not obstructed.

If detergent gets into your eyes, wash it immediately with water!
If discomfort or vision problems continue, seek medical attention!

In the event of electric shock or injury, disconnect the power supply immediately by pulling the plug out of the socket!
Get medical attention immediately

5. Service



Attention!

- Have the machine serviced by qualified personnel only.
- Use only original spare parts.
- Always replace damaged power cord to avoid electric shock.

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6. Warranty

General conditions

STS Electronics warrants that every applicator is tested before leaving the factory and is free from defects in materials and workmanship.It is intended for use in normal climatic conditions, in an environment with normal fire safety, without liquids and gases aggressive to the housing material. In case of a warranty event, contact a certified service center.

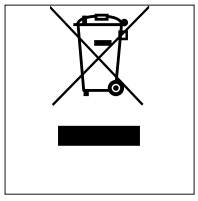
Warranty conditions

This product carries a 24 month warranty from date of purchase.
The warranty is void if the product was misused or if the product was altered, modified, or serviced by unauthorized service personnel.

7. Transportation

Attention!
The applicator should be shipped in the original packaging.
Avoid tilting or tipping the machine. Keep away from getting wet and hit.
The weight of the machine together with the package is 14 kg.

8. Disposal of the machine



The packaging is made from environmentally friendly materials that you can hand over for recycling.

Do not dispose of electrical appliances with household waste!

According to European Union Directive 2002/96 / EU, end-of-life electrical appliances must be collected separately and disposed of for recycling in accordance with environmental protection requirements.

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Appendix 1 - label sensor Calibration

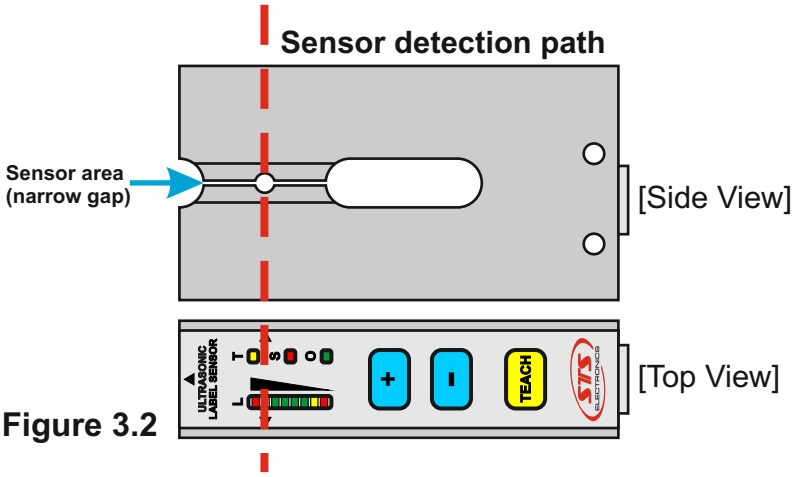

Figure 3.2

The sensor must first be calibrated to distinguish the liner from the label. For successful calibration, the label roll must move through the narrow gap (see Figure 3.2 side view) and must completely cover the sensor area. In the case of irregularly shaped labels, cut off parts must not pass through the sensor area. The sensor and the label roll must be at rest during adjustment. There are 2 parts to this calibration process, the liner (gap in-between label) and the label itself.

1. Part 1: Position the roll so that the liner (the gap between the labels) is under the sensor - see Figure 3.3

2. Press and hold TEACH key for more than 3 seconds, the LED '**T** ' will light up in yellow indicating the sensor is in setting mode. When the key is released, the LED starts blinking and auto calibration beings.At the same time, the signal level indicated by the LED '**L**' will increase until the LED '**T**' indicator signal goes out.

3. Part 2: Now move the roll so that the label is now under the sensor - see Figure 3.4.

4. Press and hold TEACH key for more than 3 seconds, the LED '**T** ' will light up in yellow indicating the sensor is in setting mode. When the key is released, the LED starts blinking and auto calibration beings.At the same time, the signal level indicated by the LED '**L**' will increase until the LED '**T**' indicator signal goes out.

5. When the steps 1 -4 is completed, the sensor are calibrate successfully.

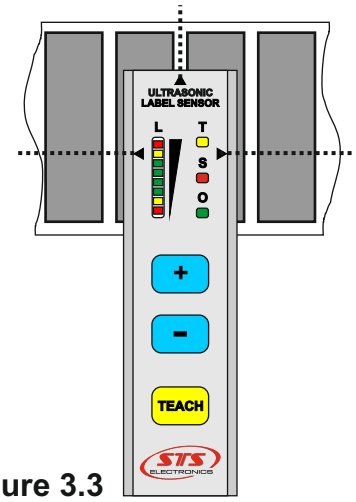

Figure 3.3

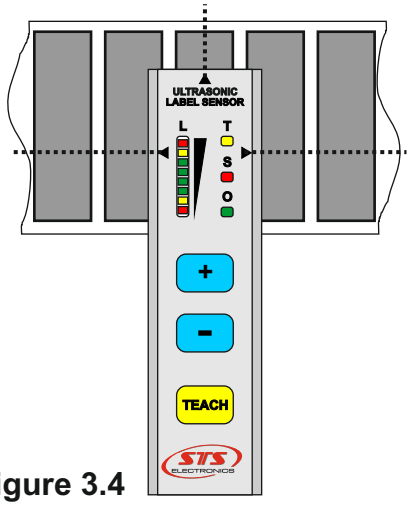

Figure 3.4

Error during the calibration:

LED " L" indicator may not increase to the top and starts blinking.Restart the applicator then repeat Step 1-4 for calibration.Possible reasons for error:

1. The liner (the gap between labels) is not wide enough.
2. The label may not be suitable for this application.

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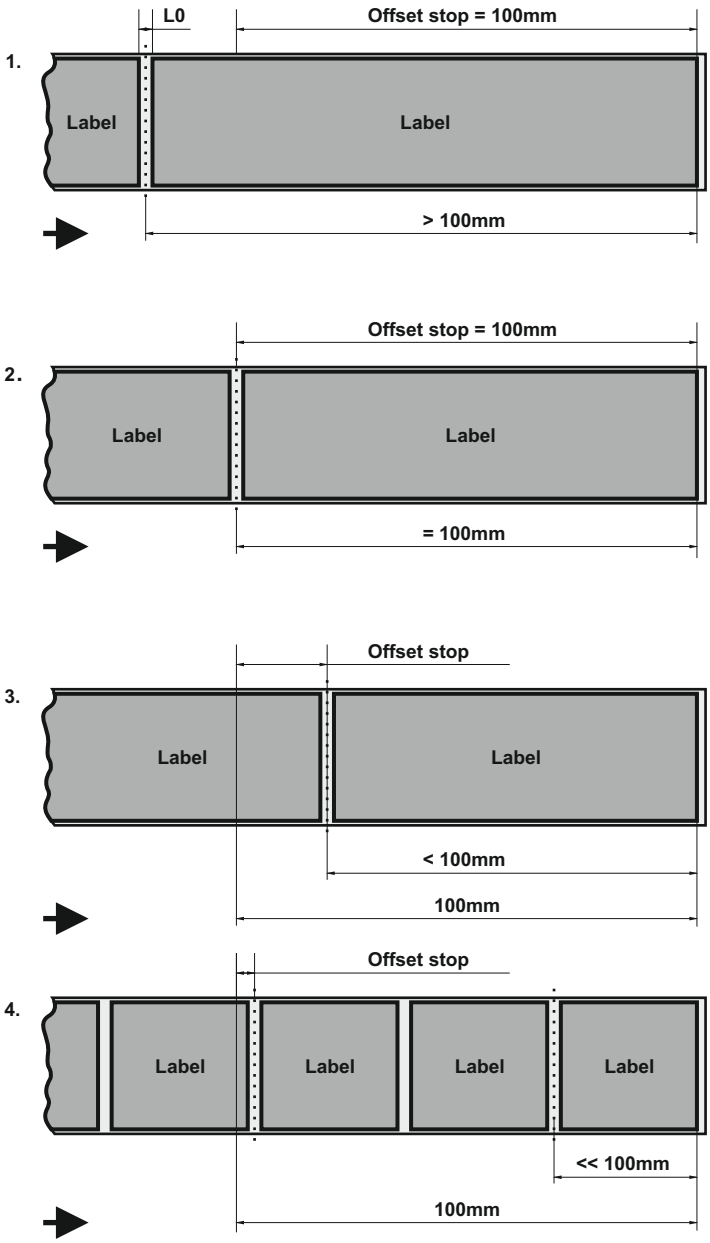
Appendix 2
To determinate the parameter value for Offset stop for one label mode.

Offset stop determines the correct positioning of the next label to the peeling edge after the previous one is pasted on the bottle.Below are the following offset measurements settings.

L = 100mm - distance between the label sensor and the peeling edge.



1. If the length of the label is more then 100mm. Set the parameter value of Offset to100 [mm].

2. If the length of the label, plus the measurement of half of the gap between the label, adds up to 100mm. Set the parameter value of Offset to100 [mm].

3. If the length of the label is less than 100mm. The offset value shall be determined by subtracting from 100[mm] the length of the label plus the measurement of half of the gap between the label.

4. If the length of the labels is several times less than 100mm .The offset value is determined by subtracting from 100 [mm] the sum of all lengths of the fitted labels, plus the measurement of half of the gap between the label.

Figure 3.5

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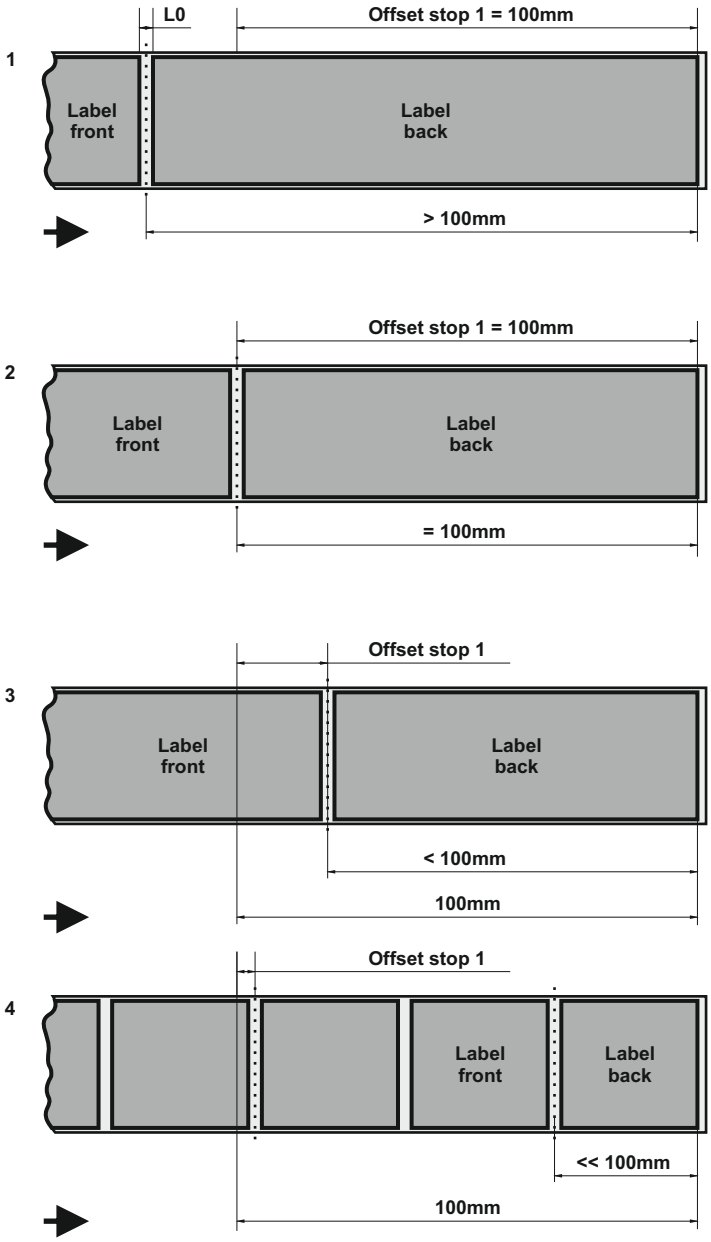
Appendix 3
To determinate the parameter value for Offset stop 1 for TWO label mode.

Offset stop 1 determines the correct positioning of the next label to the peeling edge after the previous one is pasted on the bottle

.Below are the following offset measurements settings.



L = 100mm - distance between the label sensor and the peeling edge.

1. If the length of the label is more then 100mm. Set the parameter value of Offset to100 [mm].

2. If the length of the label, plus the measurement of half of the gap between the label, adds up to 100mm. Set the parameter value of Offset to100 [mm].

3. If the length of the label is less than 100mm. The offset value shall be determined by subtracting from100[mm] the length of the label plus the measurement of half of the gap between the label.

4. If the length of the labels is several times less than 100mm .The offset value is determined by subtracting from 100 [mm] the sum of all lengths of the fitted labels, plus the measurement of half of the gap between the label.

Figure 3.6

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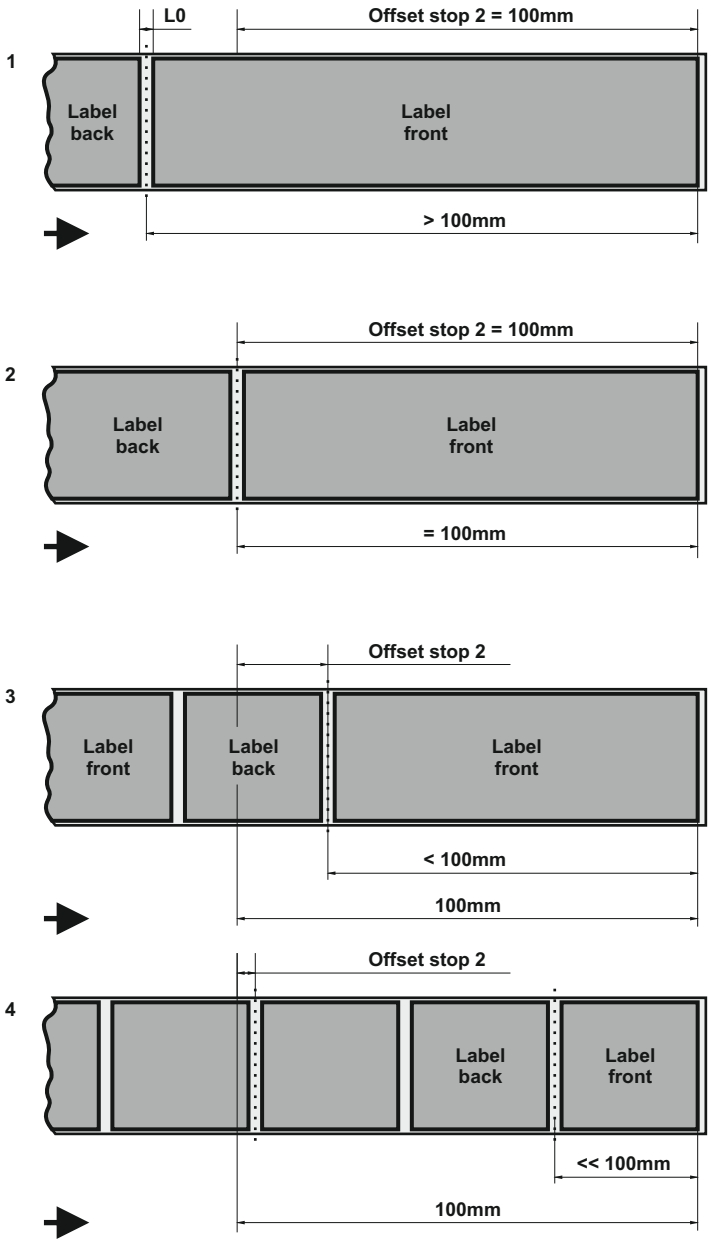
To determinate the parameter value for Offset stop 2 for TWO label mode.

Offset stop 2 determines the correct positioning of the next label to the peeling edge after the previous one is pasted on the bottle.

Below are the following offset measurements settings.

L = 100mm - the distance between the label sensor and peeling edge



1. If the length of the label is more then 100mm. Set the parameter value of Offset to100 [mm].

2. If the length of the label, plus the measurement of half of the gap between the label, adds up to 100mm. Set the parameter value of Offset to100 [mm].

3. If the length of the label is less than 100mm. The offset value shall be determined by subtracting from 100[mm] the length of the label plus the measurement of half of the gap between the label.

4. If the length of the labels is several times less than 100mm .The offset value is determined by subtracting from 100 [mm] the sum of all lengths of the fitted labels, plus the measurement of half of the gap between the label.

Figure 3.7

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Appendix 4 - Access Menu to Change Parameters

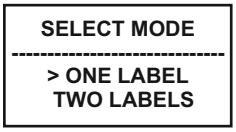


Figure 3.11

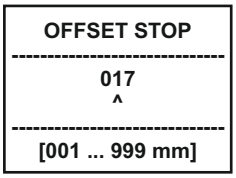


Figure 3.12

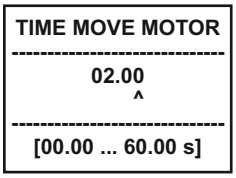


Figure 3.13

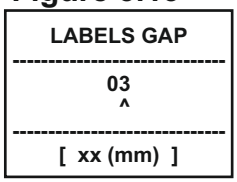


Figure 3.14

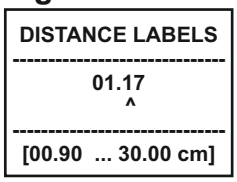


Figure 3.15

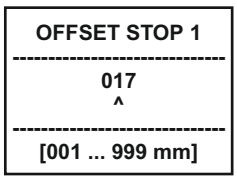


Figure 3.16

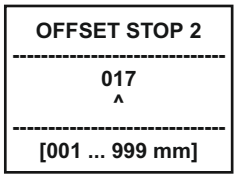
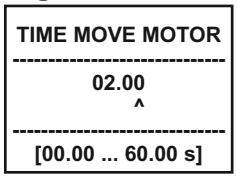


Figure 3.17



Figue 3.18

You will be working with 4 keys for menu selections.

▲ to change the value

◄ to move to the digit position

C to reset values

M to confirm and move to the next parameter setting.

To skip through any mode, use the M key.

Selecting the ONE LABEL mode

Select the ONE LABEL mode as shown in Figure 3.11. Use the ◄ key to select the mode and the M key to enter the mode.

Two parameters are required in the ONE LABEL mode - OFFSET STOP and TIME MOVE MOTOR. TIME MOVE MOTOR is the length of time to rotate the container. Refer to Appendix 2 and 3 on how to determine the value.

The following 4 keys are used in these 2 operations:

▲ to change the value

◄ to move to the digit position

C to reset values

M to confirm and move to the next parameter setting.

You will first set the OFFSET STOP followed by TIME MOVE MOTOR

Selecting TWO LABELS mode

Five parameters are required in the TWO LABELS mode as shown in Figures 3.14 to 3.18.

In the select mode menu, select TWO LABELS mode and press the M key. You can refer to Appendix 2, 3 and 6 to determine the values for each parameter, or use the online calculator tool. Visit vipcoloreurope.com.

The same 4 keys ▲ ◄ C M should be used to move through each parameter settings as described in the ONE LABEL mode.

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Appendix 5 - Setting Contrast and Brightness of the Display

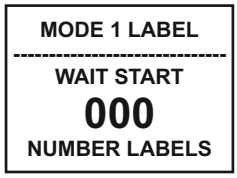

Figure 3.18

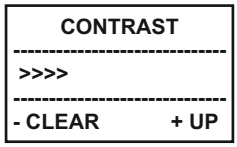

Figure 3.19

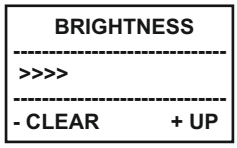

Figure 3.20

To access menu for display setting start from operating mode - Figure 3.18.

Press and hold for the [▲] key for more than 3 seconds will enter the contrast adjustment mode - Figure 3.19. Adjust by pressing [C] key to decrease and [▲] key to increase. Press the [M] key to store the desired contrast setting and continue to brightness setting mode - Figure 3.20. Adjust by pressing [C] key to decrease and [▲] key to increase. Press the [M] key to return to operating mode - Figure 3.18.

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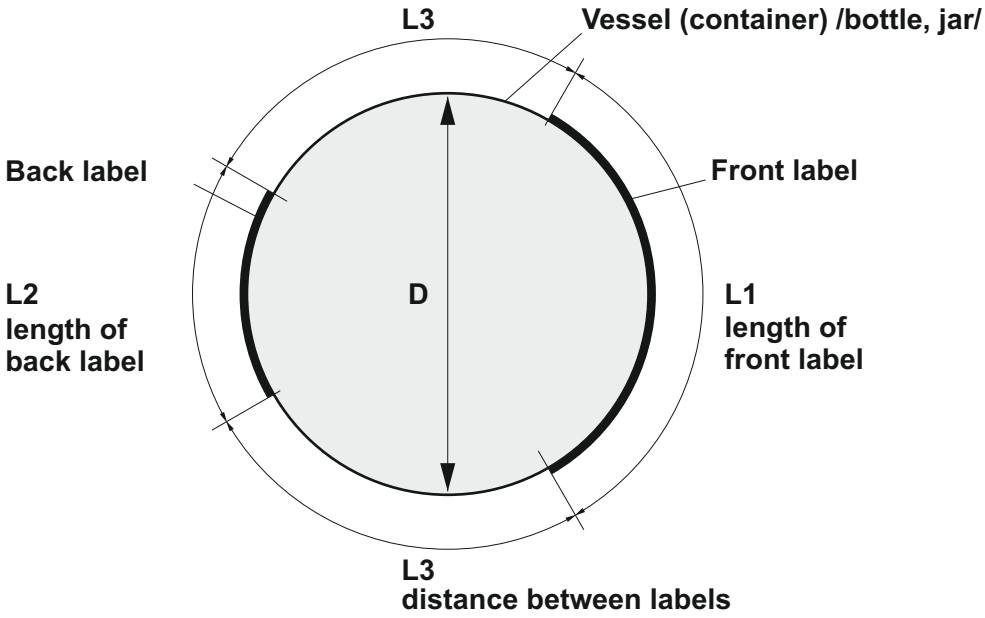
Appendix 6
For Two Label Mode - Determine the Distance Between Labels

When using the Two label mode, the distance between labels must be entered.
To calculate this, use the web link tool https://vipcoloreurope.com/ to determine the distance.

To calculate the distance manually, follow the illustration below.



L1 - length of front label [mm]
L2 - length of back label [mm]
L3 -distance between front and back label [cm]
D - diameter of the vessel /container/ [mm]

$$L3 = ((D*3,14 - L1 - L2) / 2) /10 \quad [cm]$$

Example:
Container diameter of 73mm with front label length of 85mm and back label length of 55mm, the distance between the labels is as follows:

L3 = ((73*3,14 - 85 - 55) /2) /10 [cm]
L3 = 4,461 [cm] .

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