Original User's Manual

Installation, Setup, Operation and Maintenance

Geset 141

Article number of documentation 40020664

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Table of content

1. General information

Overview

Congratulations! You are now the owner of a high-quality labeling station. Our desire is for you to experience the full benefit of this system to your complete satisfaction for many years. As a prerequisite, we recommend system installation by one of our experienced specialists (for instructions, see page 30). Contact our service hotline (page 8); we are available in 24 hours a day, Monday through Friday.

Liability restrictions

All of the information and directions in these instructions were compiled with reference to applicable standards and regulations, the state-of-the-art as well as our years of accumulated experience.

The manufacturer assumes no liability for damage arising from the following:

- Nonobservance of operating instructions
- Improper use
- Use of untrained personnel
- Independent changes to the system
- The use of spare parts that have not been approved by the manufacturer

The following apply: The obligations agreed in the supply contract, general terms and conditions, the manufacturer's delivery conditions, as well as the statutory regulations applicable upon the conclusion of the contract. We retain the right to make technical changes to improve usefulness and for the sake of development.

Warranty provisions

The warranty conditions are conform to the valid General Trading Conditions of Bluhm Systeme GmbH at the moment of purchase.

Copyright

Purpose and overview of the operating instructions

These operating instructions will help you get to know the system Geset 141 and use it properly.

They contain important instructions for the user on how to use the system safely and correctly. Its consideration helps to:

- Avoid hazards,
- Minimize repair costs and outages and
- Increase the reliability and service life of the machine.

The operating instructions are for the system identified in the title with the stated type number.

The operating instructions must always be available wherever the system is used. They must be read and used by everyone assigned to work with the system.

Printing mistakes, errors, and changes to maintain the state-of-the-art may occur. Illustrations without protection devices may be presented for the sake of illustration.

How to use the operating instructions

Detailed explanations are offered below of the conventions for the text and illustrations which are used in this manual.

- Buttons, switches and pushbuttons that need to be pressed are placed in brackets.

Ex.: Press the [Start] button to accept the changes.

- Menu points and links to chapters and keywords are places in "…"

Ex.: The pushbutton "Turning plate infeed/outfeed passage"…

- Procedures that need to be performed in a fixed sequence have to be numbered.

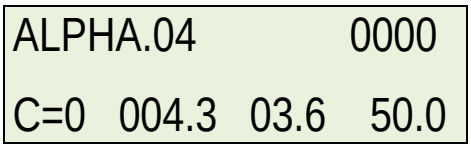
Step	Procedure
1	Pull the power plug ...

- Special information is in bold and/or has a gray background.

This is an example of special information!

- All figures (Fig.) are numbered sequentially for each chapter. This means that the reference "Fig. 2-1" corresponds to the first figure in chapter 2.
- Illustrations are frequently shown with only the essential information and may therefore deviate from the original. Illustrations are therefore shown without covers or protection device for the sake of clarity.
- Illustrations limit itself partly to the depiction of one variant (e. g. only RH, only LH, or only [System1]…). It is particularly valid for example figures if the information content is transferred logically to other system versions.

- Messages that are shown in a display, appear in a box.



Service-Hotline

The technical service hotline is available 24 hours a day, Monday through Friday. In emergencies, parts may be shipped as late as approximately 10:00 p.m.

Tel :	**+49 (0)2224 - 7708 - 440**
Fax :	**+49 (0)2224 - 7708 - 21**
E-Mail :	**hotline-ed@bluhmsysteme.com**

If you want to discuss labeling system malfunctions, have the following information ready for the hotline:

- Detailed description of the problem.
- All the information from the labeling system rating plate.
- Did the problem arise for the first time after the following?
  - After inserting a new role of labels or ribbon.
  - After changing the system configuration.
- If the malfunction arose in the print-apply cycle, all of the information about the PLC signal status.

Before contacting our hotline, check if the operating instructions (chapter titles, trouble-shooting) has information to help you deal with the problem.

We would like to keep our hotline available for our customers as much as possible. Please be aware that our hotline may also refer you to written information in the operating instructions.

Explanation of technical terms

Technical Term	Explanation
3-roll system	Is used for label around of rouns products.
Adhesive Strings	Leaked adhesive at the label edge may adhere the label at the label liner. The printed label adheres to the liner and can thus not be fed to the Tamp.
Air Assist	A stream of air pushing against the bottom of the Tamp/blow box during label feed until label is fixed by vacuum.
Air Assist Tube	The air assist tube directs air assist by one or more drillings to the bottom side of the label. It is mounted in the section of the peeler bar and can be adjusted.
Air Blast	The streams of air effusing from the Tamp drill holes during labeling in order to blow the label by air pressure onto the product (blow box by tube nozzles).
Application Mode	see explanations: Tamp On, Tamp Blow, Blow On.
Applicator	Description for label applicator respectively mimic that moves the Tamp.
Applying Cycle	An entire working sequence of the labeler ((e.g. print label if applicable), peeling off the label and feeding the label to the applicator up to product labeling).
Blow-On	A contact free application mode in which the Tamp takes the printed label by a stationary vacuum grid and applies with air pressure without moving the Tamp.
Cycle	Sequence of a labeling procedure, from product detection to product labeling until the Tamp arrives in home position.
Default	See factory setting.
Dancer Arm	Arm, tensing the label web via spring tension.
Display	Display providing information on status for the user.
Display-Controller	Controller with integrated display for text information (s. Display) and key panel for operation and programming.
Edge Detection	The edge (front or back) of a product or label that will cause the detector to send a detection signal.
Factory Setting	Comprises all basic adjustments of the system after manufacturing which may differ from the condition after a system set-up. Software parameters are reset by a reset to the factory setting (default values) and formerly adjusted values are lost.
HMI	Abbreviation for Human-Labeling Station-Interface, input device for a labeling station or for a controller of components.
Home Position	Basic or home position of the Tamp at the peeler bar.
Home-Position-Sensor	Sensor for detection of home position when the Tamp is in home position.
Hotline	Customer support for a fast diagnosis by phone.

Technical Term	Explanation
Label Feed	Feeding of a label. By pressing the [Feed] key of the print engine, the drive motor is activated and transport of the label web is started (dancer arm loosens the unwinder brake band). The fed label is printed on within the print engine and peeled off at the peeler bar.
Label Gap	Gap between two labels on the label web. The gap is identified by a sensor on the applicator.
Labeling Station	The labeling station is used for automatic labeling of products and consists of several parts (assembly groups), e.g. 3-roll system, labeler.
Label Liner	Siliconized liner paper that the labels are affixed to before they are applied to the product.
Label Out	An optical sensor (reflective light sensor) for identifying the end of the label.
Label Sensor	An optical sensor for identifying the label gap.
Labeler	Applicator system to apply labels automatically.
Labeling operation	Normal operating conditions. The labeler is ready to print and apply labels.
LED	Light Emitting Diode.
Low Label Warning	An optical sensor (reflective light sensor) for identifying a preset minimum of the (adjusted) label roll diameter for a warning.
Mandrel	A driven axis with a device for fixing the label web. The mandrel serves for unwinding the label web.
Opacity	The transparency of a material is measured by a light barrier, and is referred to as opacity. When measuring the amount of light emitted by the incoming will be taken into consideration. The lower the ratio the lower the opacity.
Poti / Potentiometer	Changeable resistance (regulator) for analog regulation of adjustments at the labeler (e.g. time performance of the Tamp movement depending on the rotational position of the potentiometer).
Product-Sensor (Product Detector)	A sensor for detection of the product. Mostly, optical sensors are used (photocells, light barriers or reflective sensors)
PSI	The American measure of air pressure (Pounds per Square Inch Gauge). 1 bar = 14.7 PSI.
Re- and Unwinder	See re- resp. unwinder.
Rewinder	Roll holder (normally for 3 inch cardboard cores) for rewinding the label web. The rewinder winds up the web coming from the print engine. It is triggered by a dancer arm (see dancer arm). Rewinders are powered by a motor.
Stroke	Distance which the retracted Tamp covers towards the product.
Tamp	A mechanical device that receives a label and moves the label to a position where it is applied to a product.

Technical Term	Explanation
Tamp Pad	Drilled plate of the Tamp on which the peeled off label is transferred.
Tamp-Blow	Contact free application mode where the Tamp takes the printed label by vacuum, feeds it to the product and blows it on the product.
Tamp Movement Time	Duration of the Tamp movement (extension and retraction) at labeling cycle.
Tamp-On	Application mode where the Tamp takes on the label by a vacuum, feeding it and pressing it onto the product.
Trigger-Signal	Signal of a sensor or a PLC, activating the application cycle.
Unwinder	Roll or paper holders for rewinding or unwinding the print medium (normally for 3 inch cardboard cores). The unwinder enables a smooth-running unwinding without shock of the label roll and is controlled by a roller brake (see also dancer arm). Rewinder and unwinder can also be powered by motors.
VAC	Volts AC (Alternating Current). Also designated as ~
Vacuum Generator (Venturi)	Unit using air pressure for creating a vacuum.
Variable Stroke Sensor	A proximity sensor mounted on the Tamp for identifying the product. On identifying the product the label is either blown on or peeled off.
VDC	Volts DC (Direct Current).
Wipe-On	Labeling procedure, where the label is peeled off at a peeler plate and applied directly to the product. Label feed and speed product must be identical.

2. Safety regulations

Behavior in an emergency

The operating personnel must know the location of and how to use safety equipment, alarms, first aid and rescue equipment.

What to do in an emergency?

- If individuals, body parts or objects become caught in the moving parts of the labeling system, immediately disconnect the compressed air and power supply to the labeling system.
- Immediately perform all necessary first-aid on injured persons. Observe the applicable safety regulations to prevent additional personal injury.
- Obtain medical help for injured persons.
- Eliminate all the causes of the accident.

Basic safety guidelines

Safety guidelines offer information the form of text and symbols to warn of hazards and provide instruction for preventing any personal injury and property damage.

Safety instructions are introduced by keywords that express the extent of the danger.

Safety instructions can be affixed directly on the labeling system or in documents pertaining to the labeling system.

Meaning of the hazard levels

	The symbol indicates a hazardous situation that will cause serious injury or death. To prevent personal injury, all safety instructions must be observed.
	The symbol indicates a hazardous situation that can lead to serious injury or death. To prevent personal injury, all safety instructions must be observed.
	The symbol indicates a hazardous situation that can lead to moderate or light injury. To prevent personal injury, all safety instructions must be observed.
	The symbol indicates a hazardous situation that can lead to property damage. To prevent property damage, all warnings must be observed.

Intended use

The operational safety of the system Geset 141 is guaranteed only if it is used as intended.

Intended use consists of the following …

- The labeling system may only be used for automatically labeling moving and stationary products.
- The labeling system may only be worked on manually after it stops.
- The labeling system is used for the specific products agreed with the customer with the specific, agreed labels. In every way, the products and labels must satisfy the documented* specifications agreed between the machine manufacturer and customer.

  * “Documented specifications“ are normally laid down in the LSS (Labeling-Systems-Survey) and this document

- the labeling system is operating in explosion-proof environments (not intended for explosion-risk areas) !
- the labeling system does not come in direct contact with food products.
- the labeling system is not operating outdoors.
- the labeling system is used with an additional pneumatic shutter at the aperture for the tamp when operating in a wet environment.
- the labeling system has additional air conditioning features in the stainless steel cabinet for use in an aggressive air environment (e.g. salted air).
- the labeling system has additional air conditioning features in the stainless steel cabinet for use in a dusty environment with unadjusted particles.
- the labeling system is used exclusively for industrial purposes.
- all working conditions and instructions, prescribed in this manual, will be observed.
- failures at the labeling system affecting the safety have to be reported and immediately resolved by trained and briefed personnel.
- maintenance is kept and performed correctly.
- the labeling system is used exclusively under faultless conditions.
- safety equipment is not by-passed or abrogated.
- arbitrary changes at the machine are omitted.
- the labeling system is used or operated by adequate personnel, refer to “Authorized persons” (s. page 19).These persons must have read and have to be familiar with the content of the manual.

Handling the labeling system without considering one of these points is not for the intended purpose and can cause serious damages to persons or properties.

Reasonably foreseeable misuse

Usage different than or going beyond that specified under "Intended use" is considered unauthorized.

The operator bears sole responsibility for

- Damage arising from improper use.
- Furthermore, the manufacturer assumes no liability for such use.

Improper use can cause exposure to risk!

Improper use includes e.g. the following:

- Operating in an explosive atmosphere
- When the labeling system comes into contact with food…

Modifications and alterations to the labeling station

If the machine is independently modified and altered, all of the manufacturer's liability and warranties will expire. This also holds true for modifications and changes to the programs of the programmable control system as well as changes to the parameters to control devices not described in these operating instructions.

The electromagnetic behavior of the machine can be impaired by additions or changes.

Do not change or modify the machine without first consulting the manufacturer and obtaining the written approval.

Hazards to the labeling system

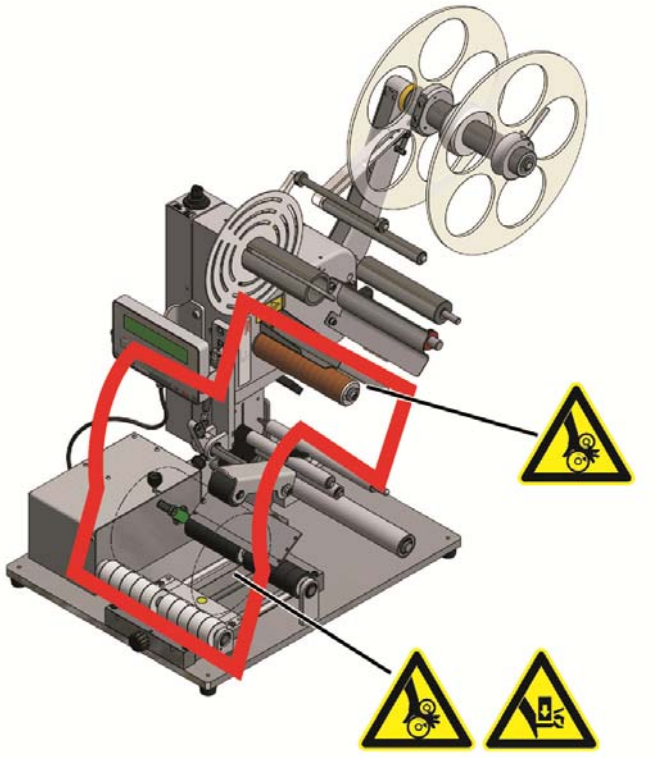


Fig. 2-1: Hazards to the labeling system

Following assembly groups provide hazards of crushing or entanglement:

- 3-roll system
- Pivoting peeler plate
- Friction roller of labeler.

The rollers of the drive unit rotate in opposite directions so that objects can be caught and pulled between the rollers.
Protective plates and a head plate provide an effective access protection and prevent the user from injuries.

Crushing hazard in swing area of tamp plate when the tamp moves. Protective plates and a head plate provide an effective access protection and prevent the user from injuries.

Possible injuries caused by the labeler are normally reversible.

Warnings on the labeling station

Special hazards arising from the labeling system are identified with yellow stickers. The pictograms indicate hazards:

	**Danger**
	**Life-threatening hazard due to electrical power**
	**Crushing hazard**
	**Entanglement hazard**
	**Observe manual**

Remaining risks

The labeler is constructed in a way that makes it safe for use. Some hazards are inherent in the design and construction but can be minimized with the corresponding safety mechanisms and equipment. A certain residual risk always exists when operating machinery. Knowledge about residual risks of the system helps you to increase your safety awareness and avoid accidents. To prevent hazards, observe the special safety instructions and each chapter. When connecting the labeler to the customer's conveying system, there may arise hazard areas at the transitions. Suitable protection measures have to be arranged in this case.

Safety instructions

Hazard from direct or indirect contact with voltage-conducting parts.

 DANGER TO LIFE!

When individuals touch parts that conduct electricity arising from malfunctions.

- Only electricians may work on the switch cabinet and electrical equipment.
- Regularly check the electrical equipment of the labeling system. Immediately take care of loose connections and damaged cables.
- Always keep the switch cabinet locked.
- Before working on electrical equipment, switch the miniature circuit breaker to "0" position and secure it against being accidentally turned on. If possible, disconnect the power.

⚠CAUTION

Hazard from easily flammable label material.

 FIRE HAZARD!

The ribbon and labels are easily flammable. Potential injury from fire and smoke.

- Keep away from sources of ignition and open fire.

⚠CAUTION

Hazard from rotating elements.

 ENTANGLEMENT HAZARD!

Rotating elements at the labeling station, like rewinder, driving- and transport rollers are driven by a motor.

- Do not grip in, at or between the moving parts.

⚠CAUTION

Hazard from actively controlled movements.

 CRUSHING HAZARD!

The movements of the labeling station are motor-driven by an automatic controller.

- Maintain a distance from moving parts.

⚠CAUTION

Danger to health from the improper use of lubricants and cleaners.

 HEALTH HAZARD!

Improper handling may lead to health hazards.

- The instructions in the manufacturer's current safety data sheets for the specific lubricants and cleaners that are used must be observed along with the applicable safety and disposal regulations.

⚠CAUTION

Tripping hazard from connecting lines.

 RISK OF INJURY!

Connecting lines for power, compressed air and computer and signal lines can pose a tripping hazard, causing serious injury.

- Release the tension of connecting lines to the system and run them so that they do not pose a hazard.

⚠CAUTION

Danger of injury from corners and edges.

⚠ RISK OF INJURY!
Scrapes and cuts can result from sharp edges and pointed corners. Always keep the work area clean. The label web forms sharp edges.

Observe caution when working close to sharp edges and pointed corners. Remove unnecessary objects.
- In case of doubt, wear protective gloves.
- Be careful when inserting and exchanging the label web

NOTICE

Labeler (motor) and controller have to be grounded.The used plug socket has to provide an effective protective conductor. Short circuits against the cover influence the internal direct-current voltage in a negative way (chassis on 0V potential) and should be avoided.

Protection devices

Operate the system only if all safety- and protection devices are completely available and functional. Check the protection devices for its function:

- At first operation.
- At regular routine test.
- After exchange of security-relevant components and parts.

If deficiencies occur during operation at the protection devices, stop the system immediately and remedy the deficiencies! Do not change or remove any protection devices. Do not take the protection devices out of operation by any change.

Protection devices may only be removed when the system is stopped and safeguarded against re-starting of the system (e.g. padlock at main switch, disconnect power plug from power connection). If subcomponents are supplied, the protection devices have to be installed according to the regulations by the operator.

Main switch

Fig. 2-2: Main switch

The main switch serves for switching the system on and off and emergency stop. In position "0" it interrupts the power supply to the system but however the supply in front of the switch can be energized.

Obligations of the operator

This manual is a part of the system and has to be available always within reach.

To guarantee a safe operation of the labeling station, the operator is obliged to …

- Ensure always the safety for the persons working at the labeling station.
- The technical data and information about the installation-, connection-, surrounding- and operational conditions have to be observed consequently.
- The safety regulations that are special for the labeling station are observed.
- The use of personal protective gear is observed.
- Signposting and marking of hazard areas have to be renewed if damaged or lost.
- Personal to be trained or instructed or apprentices work only under constant supervision of experienced persons.
- All work at the electrical equipment is only arranged by qualified Electricians.
- All failures at the labeling station are repaired by trained personnel or by Technicians of the Bluhm Weber Group.
- The qualified personnel is trained in handling the integrated controller before parameterizations may be arranged.

If you do not understand parts of this manual, we kindly ask you to contact immediately your contact person at Bluhm Weber.

Authorized persons

Authorized persons according to this manual are following persons:

Operators are persons who …

- have been instructed to the use of the labeling system.
- have completed the minimum age permitted by law.
- have read and understood this manual.

Operators are allowed ,…

- to start or stop the labeling operation.
- to replace label rolls.
- to arrange daily accumulating cleaning works at the labeling system according to the chaper maintenance.

Qualified personnel are operators who …

- have terminated a professional technical training (Electrician, Mechanist).
- have terminated a training at the Bluhm-Weber-Group successfully.

Qualified personnel are allowed are allowed,…

- to arrange repair- and maintenance works at the labeling station and its components according to their professional qualification.

Personal protective gear

Wear the following protective gear when working on the machine:

PROTECTIVE FOOTWEAR

To protect against falling parts and slipping.

PROTECTIVE WORK CLOTHES

Protective work clothes fit snugly, tear easily, have tight-fitting sleeves and no projecting parts.

- Wear a hair net if necessary.
- Do not wear jewelry, wristlets, watches or similar.

SAFETY GLASSES

Wear safety glasses to protect from splashing cleanser and flying parts.

PROTECTIVE GLOVES

Wear protective gloves to protect from sharp-edged objects and irritating detergents.

Wear personal protective gear for the following activities	Protective work clothes	Protective footwear	Protective gloves	Safety goggles
				
Transport labeling station	X	X	X	
Put up labeling station and connect it	X	X		
Put labeling station into operation	X	X		
Arrange maintenance work	X	X	X	X
Ensure product operation	X	X		
	Observe the manufacturer's documentation for the individual components of the machine!			

Working places for the operator personnel

The labeling station is an automated system and does not require operation while labeling. Inserting the products and replacing consumable material, the operation is only permitted to one person. To insert and remove the products, the 3-roll system is used as operator station. Only one person is permitted to .Replacing the consumable material is only permitted when the labeling system has stopped operation.

For servicing, repairing and troubleshooting (remove the label from the applicator), etc., the labeling system can be operated from all sides.

Waste disposal

This label is in compliance with RoHS 2 EU Directive 2011/65/EG given observance of the prohibitions on use are and avoidance of pollutants.

3. Specifications

Dimensions (L x W x H):	appr. 830 x 400 x 730 mm
Weight:	appr. 35 kg (without label roll)
Power connection:	90-264 VAC / 47-63 Hz
Power consumption:	300 W
Ambient temperature:	10 - 38 °C
Protection class	IP40
Surrounding conditions :	20 - 90 % relative air humidity (non condensing)

Information on further dimensions

Min. label size (W x H):	50 x 20 mm
Max. label size (W x H):	150 x 300 mm 200 x 300 mm (optional)
Label roll outside diameter:	Ø =300 mm (corresponds to appr. 450 running meters) core = 76 mm (3 “)

Performance data

Application rate	Up to 30 labels/min (depending on label size)
Application accuracy	+/- 0,8 mm

Information on operator elements

Triggering of labeling	Foot switch
HMI-Display	LC-Display with background lighting, 2-lines, 16-digits and 5 buttons

Noise level

The A-evaluated equivalent permanent noise level at the working places of this station is maximum 75db (A).

4. Description of the labeling station

Function and area of application of the labeling station

Area of application

This labeling station is a manual working station and is used to label round products automatically. This labeling station forms a hand-work place and is used to label round products automatically.

Depending on kind and dimension of the product, different label sizes are used.

Optional a front side- or a backside label (same length) can be applied in a certain distance to each other onto the product.

Construction and scope of the labeling station

The machine consists of a base plate, a labeler , a 3-roll system and foot switch. Furthermore the labeling station provides a mechanical mandrel adjustment for adaption to the different product dimensions. Segmented pusher rollers enable the processing of products with projecting edges.

Functional sequence and handling

The labeling station is loaded with the product-specific labels and aligned to the product. The products are placed manually on the roll system and fixed by the upper pusher roller. The products are fixed in longitudinal direction by an adjustable stop.The labeling cycle is started by pushing the foot switch.

The label roll is unwound by a motor-powered unit (friction rollers) and wrapped around by a peeler plate . Thus the labels peel off from liner and are applied laterally in the 3-roll system and are pushed onto the skin surface of the product by to rotating rolls. The remaining backing paper is rewound by a motor.

The product can be removed after labeling.

Complete overview

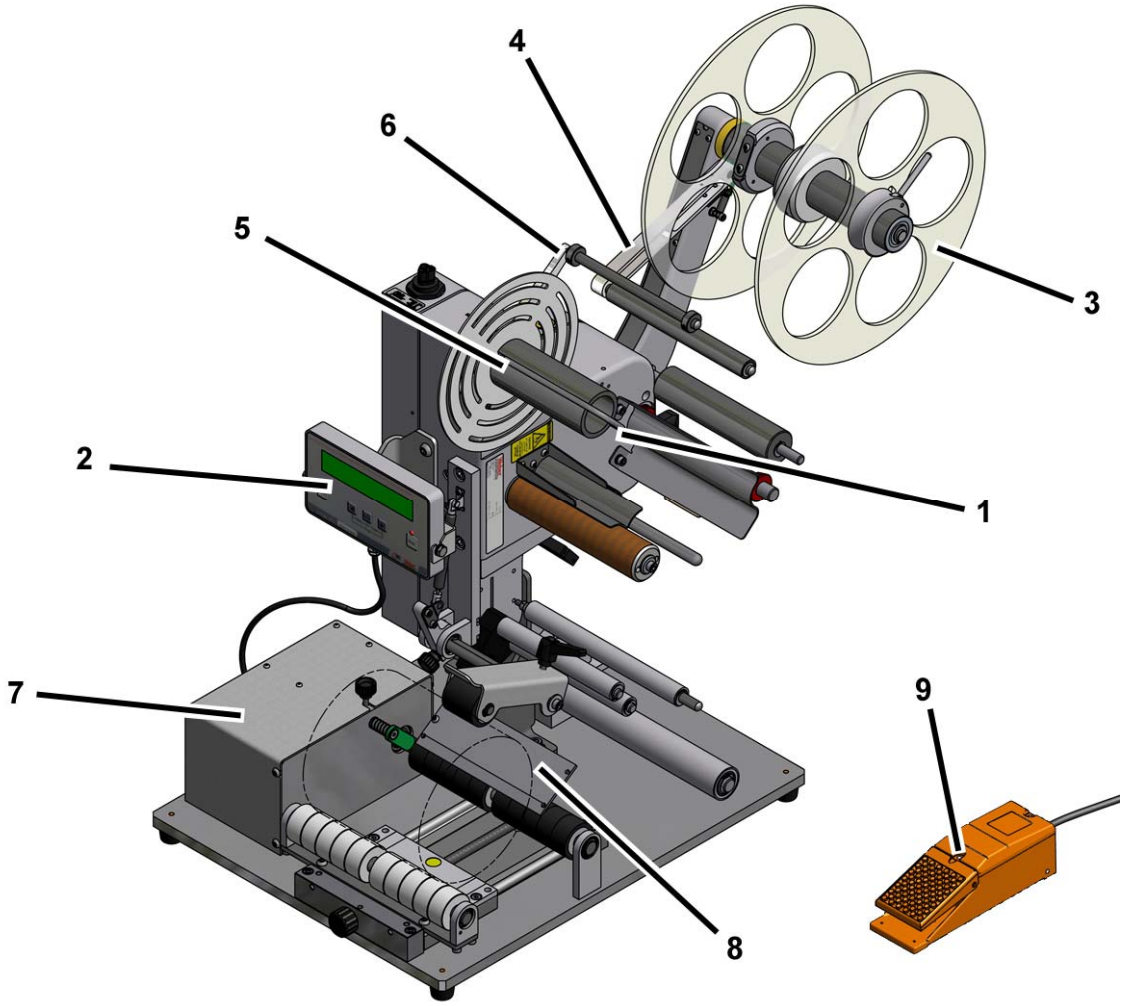


Fig. 4-1: Overview of labeling station

No.	Description
1	ALPHA COMPACT
2	DISPLAY
3	UNWINDER
4	DANCER ARM UNWINDER
5	REWINDER
6	DANCER ARM REWINDER
7	SWITCH- AND DRIVE GEAR BOX
8	PEELER PLATE
9	FOOT SWITCH

5. Transport

Delivery

The labeling station is normally delivered by a haulage contractor. Check the package for any damage. If you notice anything unusual, notify the haulage contractor immediately and note it on the delivery slip.

Scope of the delivery

The elements of the system delivery depend on the selected options and the customer's specific application. When the system is delivered, check to see if everything is there against the delivery slip.

Transportation and unpackaging

Safety instructions

WARNING

Hazard from lifted loads.

RISK OF INJURY!

Falling loads can cause severe injury or death.

- Do not walk under a lifted load. The load may not be tilted.
- The location of the center of gravity must be taken into account when transporting the system.

CAUTION

Hazard from tight straps.

RISK OF INJURY!

The straps are secured tightly and can snap off if they are cut and cause severe injury.

- Wear protective glasses and gloves.
- Stand to the side outside of the hazard zone.

CAUTION

Hazard from falling parts.

RISK OF INJURY!

Falling parts can cause injuries.

- Wear protective footwear.

NOTICE

Remove the packaging material and the transport securing devices only at the site of use, and transport the labeling system in its original packaging to the labeling site. If the labeling system is not secured, it can tip over easily when transported.

Requirements

The labeling system is packed when delivered (with possible exceptions), that is:

- It is standing on a pallet
- It may be wrapped with stretch film
- It may be secured with additional straps and the plate feet may be screwed to the pallet

Required equipment

- Suitable means transport (double pallet trucks or forklifts) with a sufficient lifting force (weight s. chapter “Specifications”). When using a forklift, drive slowly!
- To unlift the system from pallet a double pallet truck or a forklist or …
- 2 – 3 persons who have to wear safety shoes.
- Stable support for the system.
- Use a steel strapping cutter to remove the straps
- A crescent wrench for the transport securing devices.

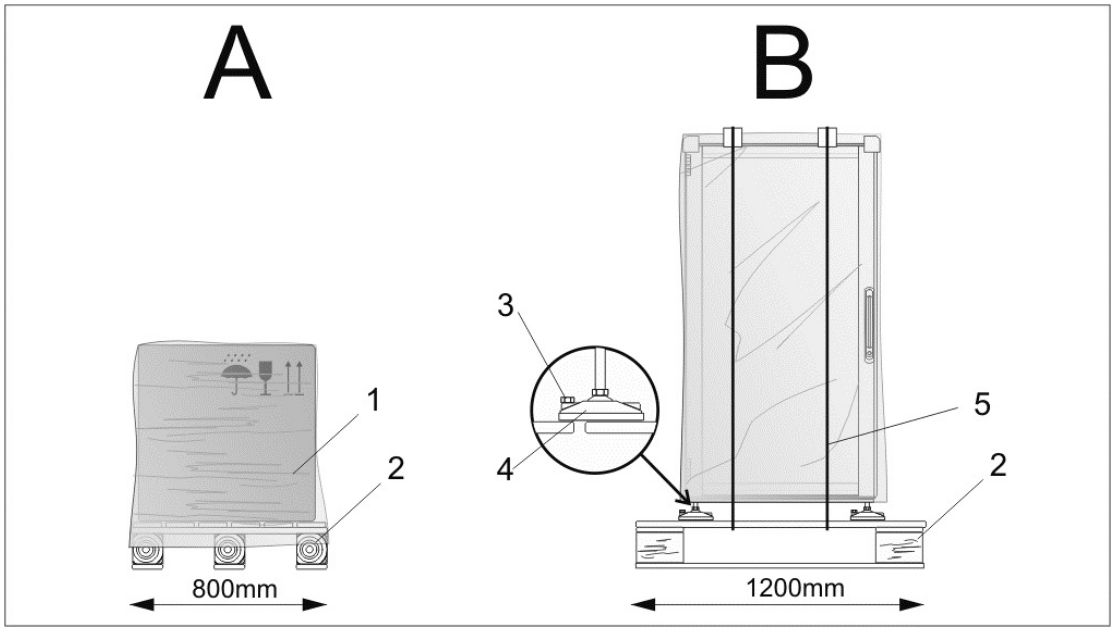


Fig. 5-1: Examples of packaging

No.	Description
A	PACKAGING EXAMPLE: CARTON
B	PACKAGING EXAMPLE: SWITCH CABINET
1	STRETCH FOIL
2	PALLET
3	TRANSPORT SECURING SCREW
4	RUBBER FEET
5	STRAP

Instruction

Use the following procedure to transport the labeling system to its site of use .

Step	Procedure
1	Transport the labeling system to its site of use (within 3 m). The labeling system is precisely positioned during installation by a Technician from the Bluhm Weber Group.
⚠CAUTION	Risk of injury! The straps are secured tightly and can fly back when they are cut and cause injury.
2	Remove any film and straps (if available).
3	Remove, if available, all transport securing devices from the rubber feet.

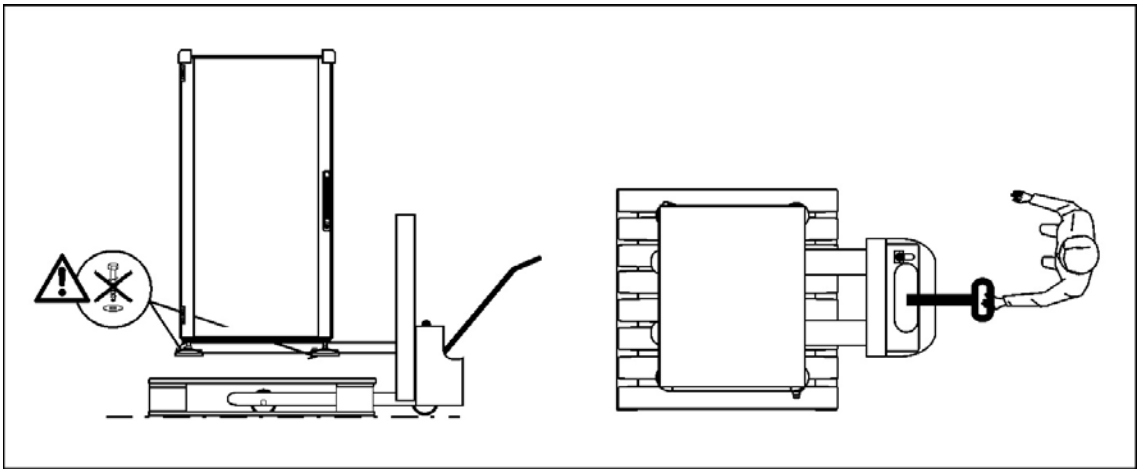


Fig. 5-2: Lift labeling station from pallet

4	Lift the labeling system with a suitable material handling equipment in shown way from the pallet.
5	Open the carton or the box and remove the filling and additional material.
6	Lift the system with at least two persons at cabinet and at base plate from packaging and place it on a stable support.
7	Before startup, remove all transport securing devices (identified red tie wrap).

Storage conditions

The conditions for storing a labeling station are the same as those of normal operation. For details see the chapter: "Specifications" on page 22**.**

Instruction

Store the labeling system securely as follows.

Step	Procedure
1	Remove the label material from the system.
2	Transport the system to its storage location. For securing and transporting the labeling system, follow the safety instructions in the above section "Transportation and unpackaging".
3	To protect from dust, cover the labeling system with a cotton or paper cloth. To prevent the formation of condensate, do not use film.
4	Climatize the storage location like written in chapter “Specifications“.
5	Before restarting the labeling system, check the system.

6. Installation and initial startup

Safety instructions

WARNING

Hazard from direct or indirect contact with voltage-conducting parts.

 DANGER TO LIFE!

When individuals touch parts that conduct electricity arising from malfunctions can lead to death.

- Only electricians may work on the switch cabinet and electrical equipment.
- Regularly check the electrical equipment of the labeler.
- Immediately take care of loose connections and damaged cables.
- Always keep the switch cabinet locked.
- Before working on electrical equipment, switch the miniature circuit breaker to "0" position and secure it against being accidentally turned on. If possible, disconnect the power.

CAUTION

Hazard from easily flammable label material.

 FIRE HAZARD!

The ribbon and labels are easily flammable. Potential injury from fire and smoke.

- Keep away from sources of ignition and open fire..

CAUTION

Hazard from rotating elements.

 ENTANGLEMENT HAZARD!

Rotating elements at the labeler like label liner rewinder and label feed are powered by motors.

- Do not grip in, at or between the moving parts.

CAUTION

Tripping hazard from connecting lines.

 RISK OF INJURY!

Connecting lines for power, compressed air and computer and signal lines can pose a tripping hazard, causing serious injury.

- Release the tension of connecting lines to the system and run them so that they do not pose a hazard.

CAUTION

Danger of injury from corners and edges.

 RISK OF INJURY!

Scrapes and cuts can result from sharp edges and pointed corners. Always keep the work area clean.

- Observe caution when working close to sharp edges and pointed corners. Remove unnecessary objects.
- In case of doubt, wear protective gloves.

Installation

Continuous operation with minimal wear and downtime can only be ensured when the system is installed properly. Fine adjustments to the conditions of use are essential when installing the system. These fine adjustments are adapted to the surrounding conditions. To make these fine adjustments, detailed professional knowledge is necessary that arises from experience with labeling systems.

This required professional knowledge cannot be completely communicated by the operating instructions; therefore a Technician from the **Bluhm Weber Group** needs to perform the installation or accept the labeling system in a final inspection. The warranty does not cover damage or consequential damage arising from improper installation lacking the necessary fine adjustments.

Requirements to the installation site

- An enclosed and clean room.
- Flat, solid base, any unevenness may not exceed 5 mm when stands from the Bluhm Weber Group are used.
- Sufficient bearing capacity: 1,500 kg/m².
- Low vibration environment.
- Sufficient lighting: 500 Lx.
- No direct exposure to sunlight or a radiator.
- The machine may not be operated within electrostatic or magnetic fields. This can cause the controls to malfunction.
- A proper energy supply (electricity and compressed air) according to the chapter, "Specifications" on page 22.

Placing the labeling system

- The labeling machine is designed for a table workplace. It has to be adapted to the operator under ergonomic aspects.
- The installed position must allow sufficient access for users and Service Technicians. In particular at all times, the mains switch / plug must be freely accessible to disconnect the power supply.
- Make sure that all fasteners are sufficiently tight.
- Observe all of the items under "Intended use" in the chapter “Safety regulations” on page 13.

Setting up the labeling system

Requirements

- The labeling system is unpacked and prepared (see the chapter: "Transport" on page 25) near the labeling site in the area of the installation site.
- The base is solid, level and flat.
- The labeling system must be completely installed.
- The connections for the compressed air and electricity are close to the labeling site (maximum distance of 1.5 m) as specified in the chapter: "Specifications“ on page 22).

Required equipment

- Flat wrench
- Spirit level

Instruction

Set a labeling system up as follows.

Step	Procedure
1	Move the labeling system to installation site. Move labelers without rolls piece by piece diagonally. Consider all points for "Placing the labeling system" on page 30.
2	Adjust the labeling system with an air lever horizontally.

Overview of the connections

The labeling station provides different electrical connections depending on machine configuration that are located laterally at the cabinet.

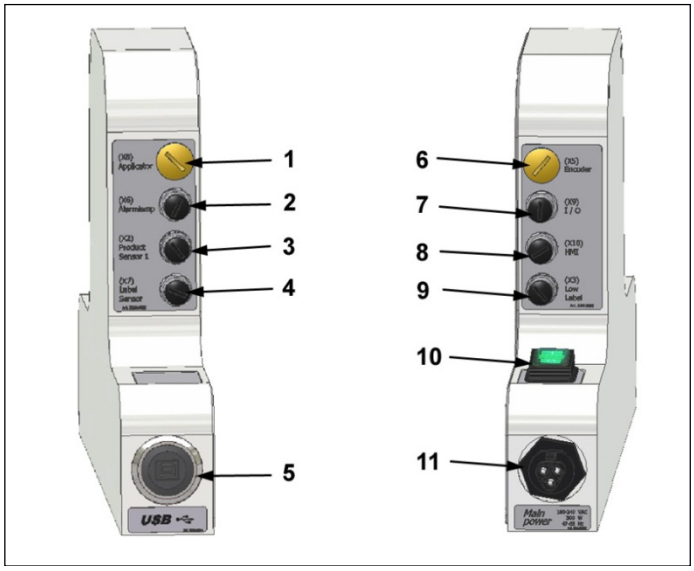


Fig. 6-1 Electrical connections

No.	Description
1	(X8) APPLICATOR → DRIVE UNIT → INSTALLED FIX
2	(X6) ALARM LAMP
3	(X2) PRODUCT SENSOR 1 → FOOT SWITCH
4	(X7) LABEL SENSOR
5	USB
6	(X5) ENCODER → DISABLED
7	(X9) I/O
8	(X10) HMI
9	(X3) LOW LABEL
10	ON- / OFF SWITCH
11	MAINS SUPPLY

Connection to supply voltage

Requirements

- Power supply according to "Specifications" is installed close (max. 1,5 m away) to the labeling site
- Power switch is OFF (in "0"-position)
- Power voltage cable is available

Instruction

The labeler is connected to supply voltage as follows .

Step	Procedure
1	Connect the power voltage cable with the power socket.
2	Turn on the main switch.
3	Turn on the machine and control the running directions of the drives. If the drives run against the intended driving direction, turn off the system immediately. The electrical rotating field must be changed in this case by an Electrician.
4	Stop the labeling station and turn off the main switch.

Configuration interfaces

(X7) Label Sensor

The label sensor is used for label detection.

Positioning and adjustment label sensor

Information on positioning of label sensor

If the detection of the label's leading edge should be problematic during calibration , the sensor will be positioned on a possbily free (non-printed) area of the label. Thus, a measurement error is avoided by the alternation of light and dark in a printed area. The sensor is moved to the „straightest" label edge (diagonally) at a cut-out label.

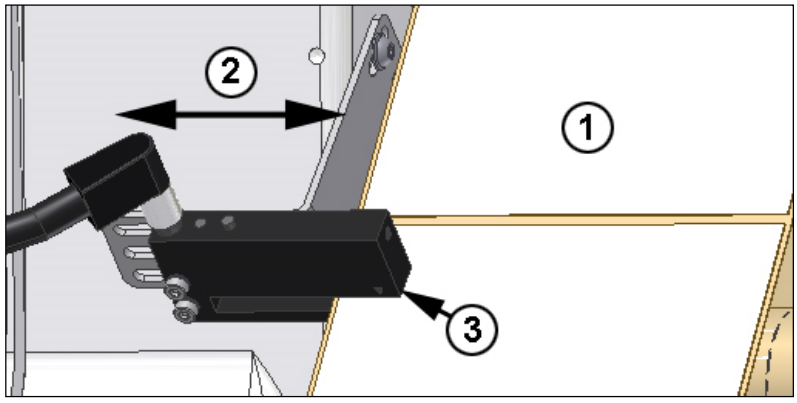


Fig. 6-2 Positioning label sensor Oguti

No.	Description
1	LABEL WEB
2	DIRECTION OF THE ADJUSTMENT
3	LABEL GAP SENSOR

Requirements

- Label web is inserted.
- No transportation of products.
- Power supply is off (in „0"-position).

Required equipment

- Hexagon socket wrench

Instruction

Please position the sensor as follows.

Step	Procedure
1	Loosen both screws under the sensor's bracket.
2	Move the sensor to desired position and tighten again the screws.
3	Arrange then a label calibration (see p. 48).

Information on balancing of label sensor to label

If the Teach-In-button is pushed longer than 6 seconds, the bright/dark detection (NO/NC) is switched over at the sensor. For balancing of the label, push the Teach-In button only 2 seconds.

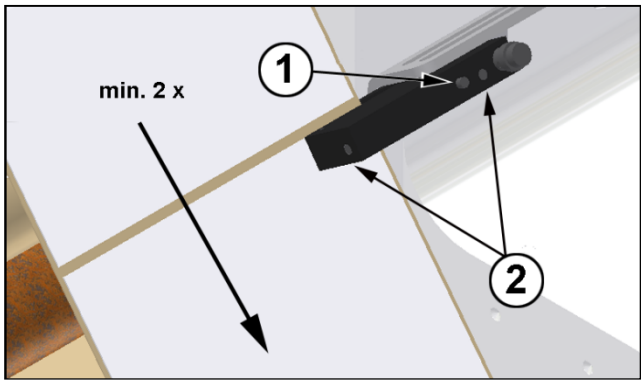


Fig. 6-3 Balance label

Nr.	Description
1	TEACH-IN BUTTON
2	LED DISPLAY

Requirements

- Label web is inserted
- No transportation of products
- Labeling system is turned on

Instruction

How to teach the label gap sensor to the product.

Step	Procedure
1	Push the Teach-button for 2 seconds, until the LED flashes up continuously.
2	Guide in the following 2-8 seconds the label web with at least 2 labels through the sensor fork. The LED signalizes the teach-procedure by a fast flashing frequency.
3	After teach-procedure the LED informs by flashing about the result. **2x Flashing** → teach-Procedure is terminated successfully. **4x Flashing** → teach-Procedure was not terminated successfully, repeat the teach-procedure.
4	Arrange then a label calibration (see p. 48).

Positioning and adjustment Ultra Sonic Sensor (USGT)

The optional ultra sonic sensor is used for transparent labels.

Information on positioning of ultra sonic sensor

The label web has to run about the surface of the sensor to ensure the sensor's function.

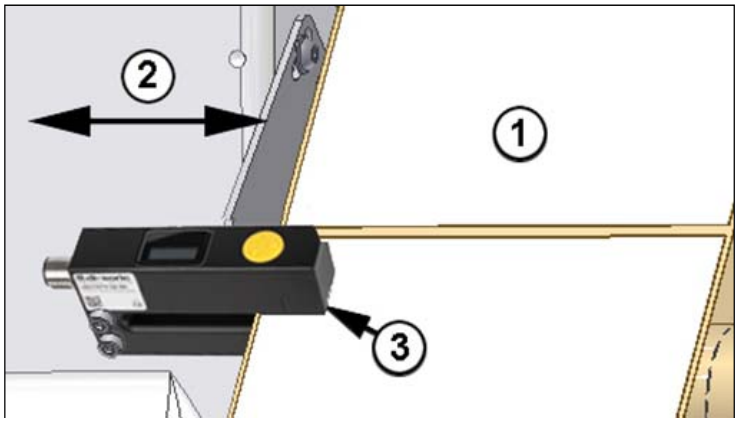


Fig. 6-4 Label sensor adjustment

No.	Description
1	LABEL WEB
2	DIRECTION OF ADJUSTMENT
3	LABEL SENSOR

Requirements

- Label web is inserted.
- No transportation of products.
- Power supply is off (in „0"-position).

Required equipment

- Hexagon socket wrench

Instructions

Please position the sensor as follows.

Step	Procedure
1	Loosen both screws below the sensor's bracket.
2	Move the sensor in desired position and tighten again the screws.
3	Arrange then a label calibration.

Information on balancing of label sensor to label

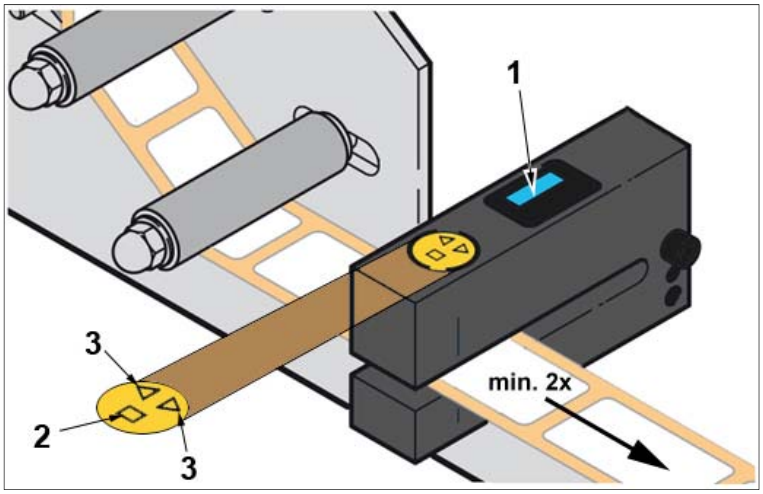


Fig. 6-5 Balance label sensor USGT

No.	Description	Specification
1	Display	Display of information
2	■	The confirmation button has 2 functions: • Call up of menus. • Confirm inputs.
3	▲ ▼	The buttons [▲] / [▼] have 2 functions: • Navigation in menus • Change of parameter values ([▲] = increases/ [▼] = reduces).

The sensor calibration can be arranged in automatic mode resp. manually in Teach mode.

Requirements

- Label web is inserted
- No transportation of products
- Labeling system is ready for operation.

Instruction

How to teach the ultra sonic sensor by automatic mode.

Step	Procedure
1	Push 2x the button [■]. Firstly the main menu is displayed, then the automatic mode.
2	Push again the button [■] to start automatic balancing.
3	Guide in the following 2-4 seconds the label web with at least 2 labels through the fork light barrier. After successful balancing, the display shows the symbol [✓].
4	Push the button [▲] and stop the balancing by pushing the button [■].

5	Arrange then a label calibration.

Instruction

How to teach the ultra sonic sensor by manual mode.

Step	Procedure
1	Push 2x the button [■].Firstly the main menu is displayed, then the automatic mode.
2	Push the button [▼]. The Teach mode is displayed.
3	Push the button [■] to start manual balancing.
4	Guide the label web with a gap between the fork light barrier and confirm the shown max.-value with the button [■].
5	Guide the label web with a label between the fork light barrier and confirm the shown min.-value with the button [■].
6	Push 2x the button [■] to store the values. The display shows the symbol [✓].
7	Push 2x the button [▲] and stop balancing by pushing the button [■].
8	Arrange then a label calibration.

(X2) Foot switch (Product Sensor 1)

The foot switch starts a labeling cycle. The start of the 3-roll system, the labeling as well as the stopping and approval of the product belong to the labeling cycle.

(X10) Display (HMI)

NOTICE Connect the HMI- display only when the labeler is turned off or disconnect the power to avoid damages at the system.

A display is connected to the labeling station. For further information on display s. page 56.

When using an optional USB-connection, the adjustments can also be arranged by a PC.

(X3) Low Label Sensor (Option)

The reflective sensor scans the label roll. A signal is fowarded, if the label roll under-runs a certain diameter. In connection with the 3-colored alarm option the signal is shown by the yellow lamp. The labeler remains ready for use until the programmed remaining label length has run out. Then the labeler changes to error condition and stops.

Information on adjustment of reflective sensor

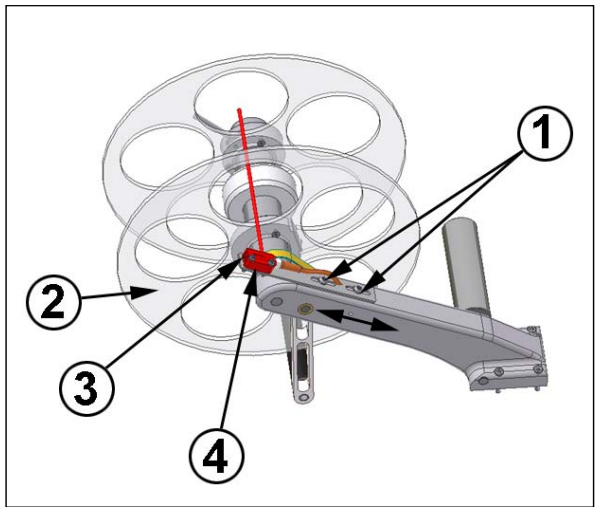


Fig. 6-6: Low label prewarning

No.	Description
1	SCREWS FOR ADJUSTMENT
2	TABLE DISC
3	SENSOR
4	RANGE OF HEADLIGHTS‘ ADJUSTMENT

Requirements

- The sensor for low label warning is installed.
- Label roll
- No transportation of products
- Labeler is ready for operation

Required equipment

- Hexagon socket wrench
- Screw driver

Instructions

Please adjust the low label prewarning as follows.

Step	Procedure
1	Turn the table disc (Pos. 2, Fig. 6-6) so that the light beam of the sensor (Pos. 3, Fig. 6-6 lights between the gaps.
2	Turn with the screw driver the range of headlights adjustment (Pos. 4, Fig. 6-6) counter clockwise down until the label roll is not detected anymore by the sensor (display LED goes out).

3	Turn the headlights adjustment clockwise appr. 1 rotation until the label roll is safely detected by the sensor. Observe that no objects are detected in the background by the sensor.
4	Loosen the adjustment screws (Pos. 1, Fig. 6-6) with the hexagon socket wrench.
5	Adjust the sensor so that the light beam of the sensor detects the label roll's end. The farther you move the sensor to the roll's beginning, the earlier the low label prewarning is carried out.
6	Tighten again the screw for adjustment (Pos. 1, Fig. 6-6) clockwise.

(X6) Alarm lamp (Option)

The connection of the optional alarm lamp is arranged by a M12, 8-pin plug.

Please note the warnings with the appropriate meanings as follows.

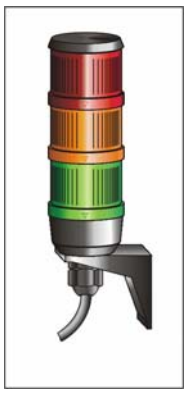


Fig. 6-7 Signal lamp

Light	Meaning
Red (continuous light)	Appears when the machine is in error condition (READY-Signal is reset). Possible causes: low label or applicator failure.
Yellow (continuous light)	Appears at low label or low ribbon warning.
Green (continuous light)	Appears when the machine is in operating mode (READY-Signal is true).

USB connection (Option)

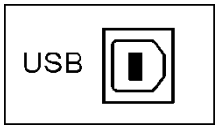


Fig. 6-8: USB connection

The labeling station can optionally be equipped with an USB 2.0 connection. The labeling station will be programmed and operated with software and PC. Additionally extensive diagnosis and error detections can be evaluated.

(X9) I/O-Signal interface (Option)

The I/O interface serves for the connection of the labeling station with new machine options or the customer`s controller. The PIN 4 is not used for the external trigger. It has the same function as the [Start] button of the HMI Panel. A signal will be activated and maybe failure messages will be reset by pushing.

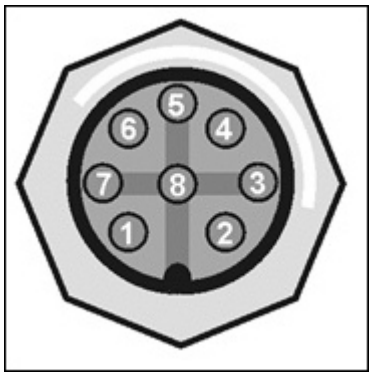


Fig. 6-9 PIN assignment X9 I/O

* All outputs which are supplied via (P 24) are not alowed to consume together more than max. 500mA

No.	Description
1	OUTPUT SIGNAL: **READY**, (N.O.) MAX. 200MA, MAX. 30V
2	OUTPUT SIGNAL: **LOW LABEL SENSOR**, (N.O.) MAX. 200MA, MAX. 30V
3	OUTPUT SIGNAL: **SYNC**, (N.O.) MAX. 200MA, MAX. 30V
4	INPUT SIGNAL: **REMOTE START** MAX. 10MA, LOW < 3VDC, HIGH > 15VDC
5	COM INPUT SIGNAL
6	COM OUTPUT SIGNAL
7	+24V (P24)
8	0V TO EARTH

Connection examples

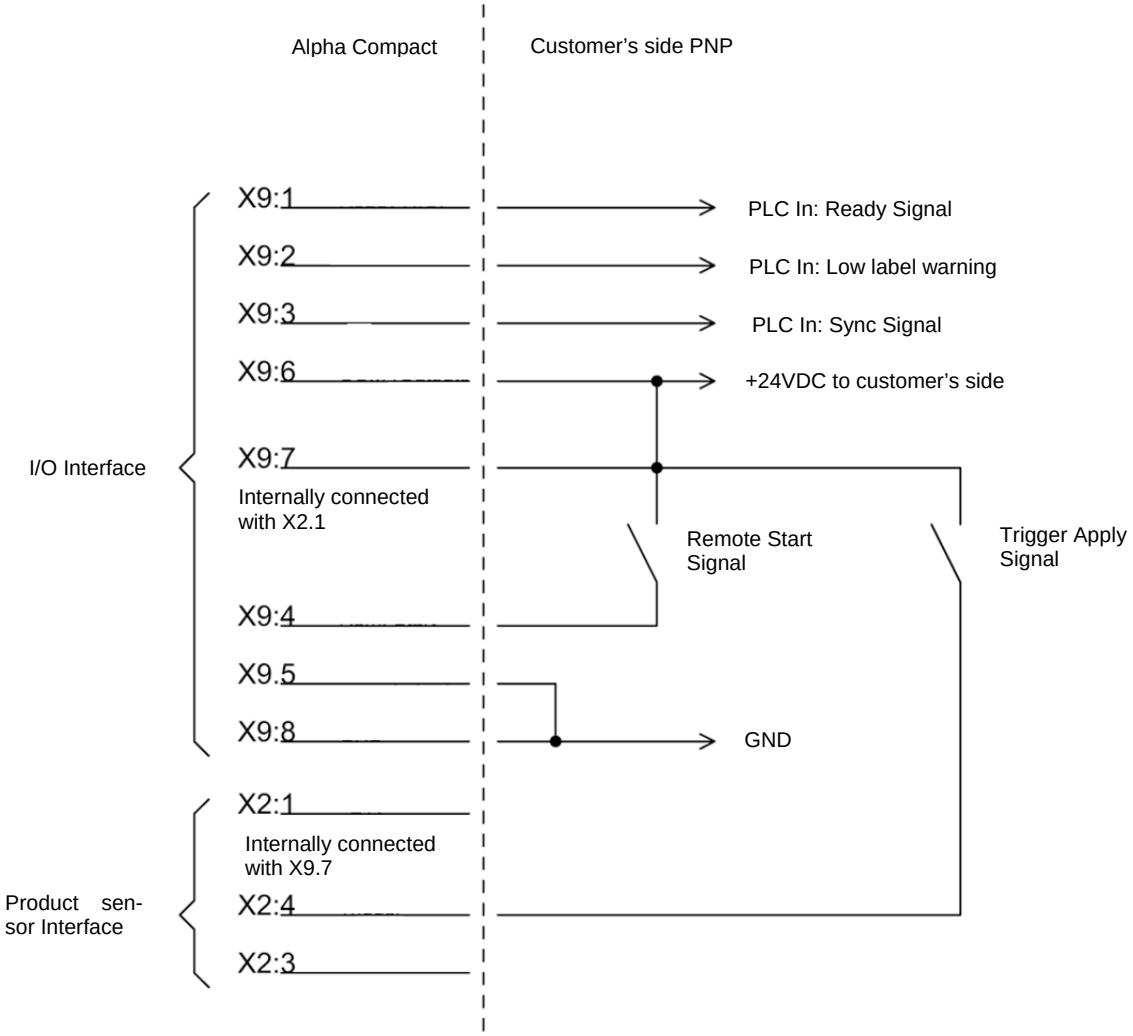


Fig. 6-10 PIN Customer's side passive PNP

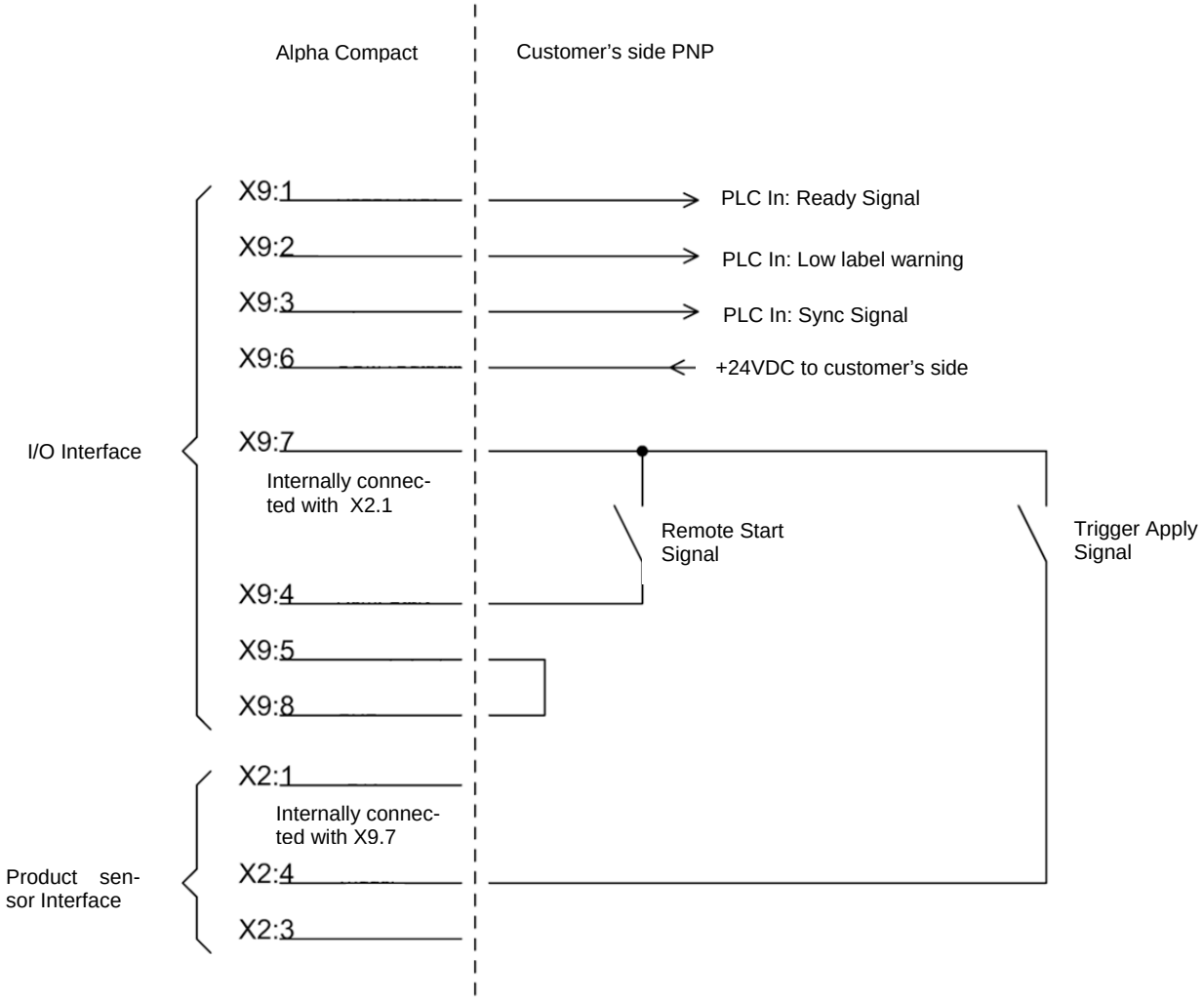


Fig. 6-11 : Customer's side active PNP

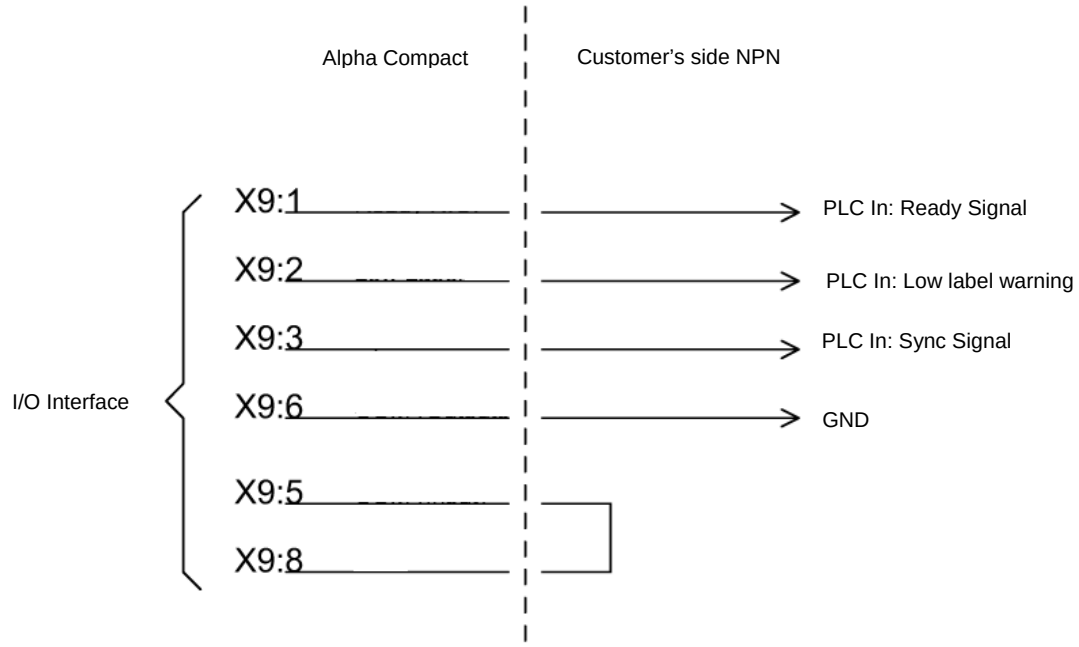
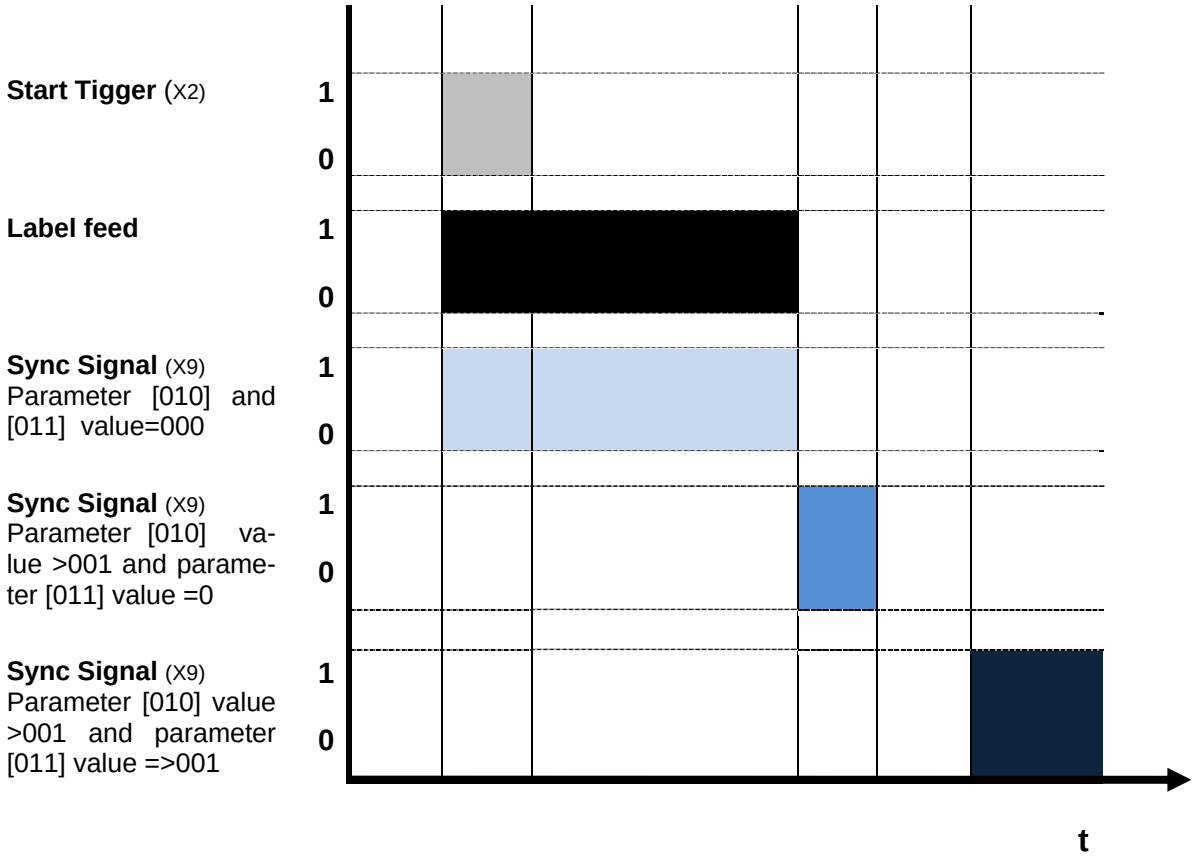


Fig. 6-12 Customer's side active NPN

Following graphics shows the correlation between the Start Trigger Signal and the SYNC-PULSE TIME depending on parameter setting 010 and 011 in configuration menu (see p 73).



7. Adjustment and initial operation

Safety instructions

CAUTION

Hazards from actively controlled movements.


RISK OF INJURY FROM CRUSHING!
The movements of the labeling system are motor-driven by an automatic controller in automatic operation.
- Maintain a distance from moving parts.

CAUTION

Entanglement hazard by rotating elements.


ENTANGLEMENT HAZARD!
Rotating elements at the labeling machine, backing rewinder, label feed, *²conveyor belt and *²top conveyor are driven by a motor.
- Do not grip in, at or between the moving parts.

Adjustment and initial operation

The labeling system has to be re-adjusted at initial operation or at a product change. Arrange the necessary works in listed sequence. Works that need to be explained in this chapter.

Possibly there are several test labelings und repetitions of the adjustments necessary until the desired result is reached.

Requirements

- Labeling station is turned off.
- One or more sample products.
- Labels are loaded correctly.

Instructions

Please put the labeling system Geset 141 into operation as follows.

Step	Procedure
1	Adjust labeler to label roll width (s. from page 46)
2	Insert label roll in labeler (s. from page 47)
3	Arrange label calibration (s. from page 48)
4	Adjust 3-roll system (s. from page 49)
5	Adjust product stop (s. from page 51)
6	Adjust parallelism to product (s. from page 52)

Adjust labeler to label roll width

The labeler has to be adapted to the guiding of the web brake and to the dancer arm of the unwinding in the label roll's width. For adjustment, only the guide ring (Pos. 1, Fig. 7-1) and the adjusting ring (Pos. 2, Fig. 7-1) are moved. The position of the label web to the cabinet's side is adjusted ex-factory. The adjustment is arranged to „label roll width plus 2 mm".

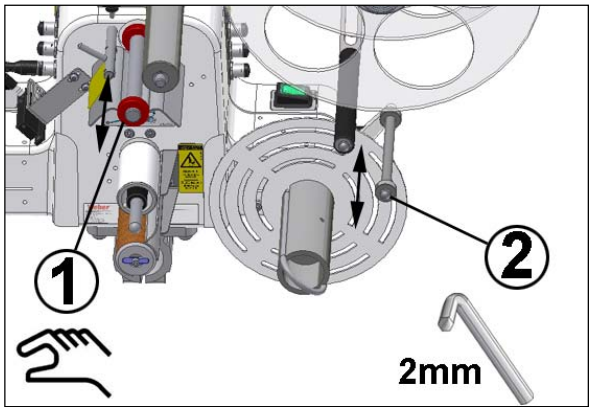


Fig. 7-1 Adjust labeler to label roll width

No.	Description
1	GUIDE RING
2	ADJUSTING RING

Requirement

- Power supply is off (in „0"-position).
- Label roll

Required equipment

- Hexagon socket wrench

Instruction

Please adjust the labeler to the label roll's width as follows.

Step	Procedure
1	Move the outer guide ring by means of the label material to the required criteria (s. section above).
2	Loosen the setscrew at adjusting ring and adjust it with label material onto the required criteria (s. section above).
3	Tighten again the setscrew.

Label loading

Requirement

- Power supply is off (in „0“-Position).

Instruction

Please insert the label web as follows.

Step	Procedure
1	Open the clamp lever of the unwind disc and take it off. If there is still a label roll at the unwind mandrel remove it.
2	Please put the label roll onto the adapter ring (round aluminium ring) and the unwind core. If applicable fix the unwind core centered to the axis and fix it.
3	Put the unwinder disc again at the unwind axis and fix it with the clamping lever.
4	Put the label web around the deflection roller.
5	Guide the label web around the dancer arm. Loosen the brake belt at unwinder by pushing the dancer arm.
6	Guide the label web according to the following figures (Fig. 7-2) through the guiding plate and through the opening of the label sensor to peeler plate and put it around the peeler plate. **The loading diagram sticks at the labeler**.

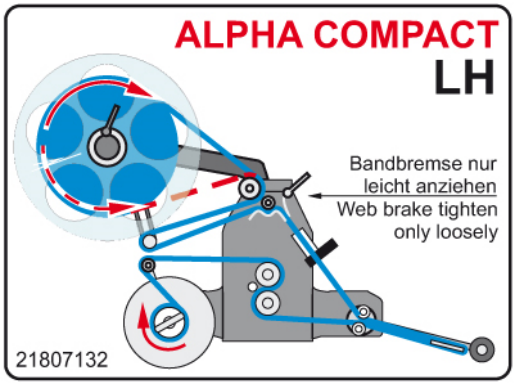


Fig. 7-2: Alpha Compact LH

7	Remove all labels from label liner from the peeler plate on.
8	Guide the label web according to the figures (Fig. 7-2) over the friction roller and the dancer arm to the rewinder.
NOTICE	The rewinder axis has a free-wheeling that avoids the unwinding of the liner material. By violent turning counter the rewind direction the free-wheeling can be damaged.
9	Wrap the backing paper onto the rewinder’s axis by means of the hook.
10	Turn the rewinder axis until the backing paper is pulled straight between peeler plate and rewinder.
11	Adjust the web brake to a low brake power.
12	Make sure that the label web runs from the peeler plate to the rewinder in a straight line.

Arrange label calibration

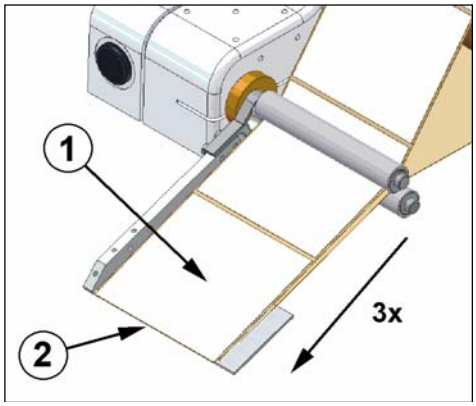


Fig. 7-3 Calibrate labels

No.	Description
1	LABEL
2	PEELER BAR

The labeler provides a calibration function. This function enables the labeler to detect independently the label length and the application position.

If a different label position is required, in the HMI-display connected at labeler, the label position can be adjusted in functions menu [102 LABEL POSITION] (s. page 67).

Requirements

- Label web is inserted.
- Product feed is stopped.
- Labeler is connected to mains voltage.

Instructions

Please calibrate the labeling system as follows.

Step	Procedure
⚠CAUTION	Entanglement hazard! Maintain a distance from moved parts.
NOTICE	During calibration process, the labeling system forwards three labels that have to be removed manually. Glued labels may lead to system failures.
1	If you are not in start mode, push the [Start] button.
2	Push simulltaneously the buttons [◀] + [▶]. After calibration the last label stops flush with the peeler bar.

Adjust 3-roll system

The 3-roll system applies labels exactly onto cylindrical products. It possesses one fixed powered roll and two running rolls.

It is the target that the product touches the drive roller completely in longitudinal direction. (ref. Fig. 7-4). Use therefore …

- The adjustment of the transport roller (Pos. 3) to the powered roller (Pos. 2)
- The height adjustment of the pusher roller (Pos. 1)

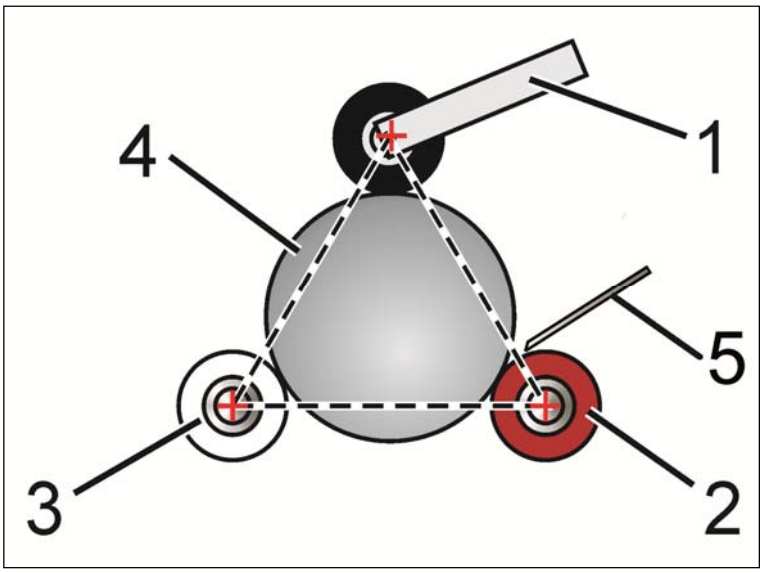


Fig. 7-4: Adjust 3-roll system

No.	Description
1	PUSHER ROLLER
2	DRIVE ROLLER OF 3-ROLL SYSTEM
3	TRANSPORT ROLLER OF 3-ROLL SYSTEM
4	PRODUCT
5	PEELER PLATE

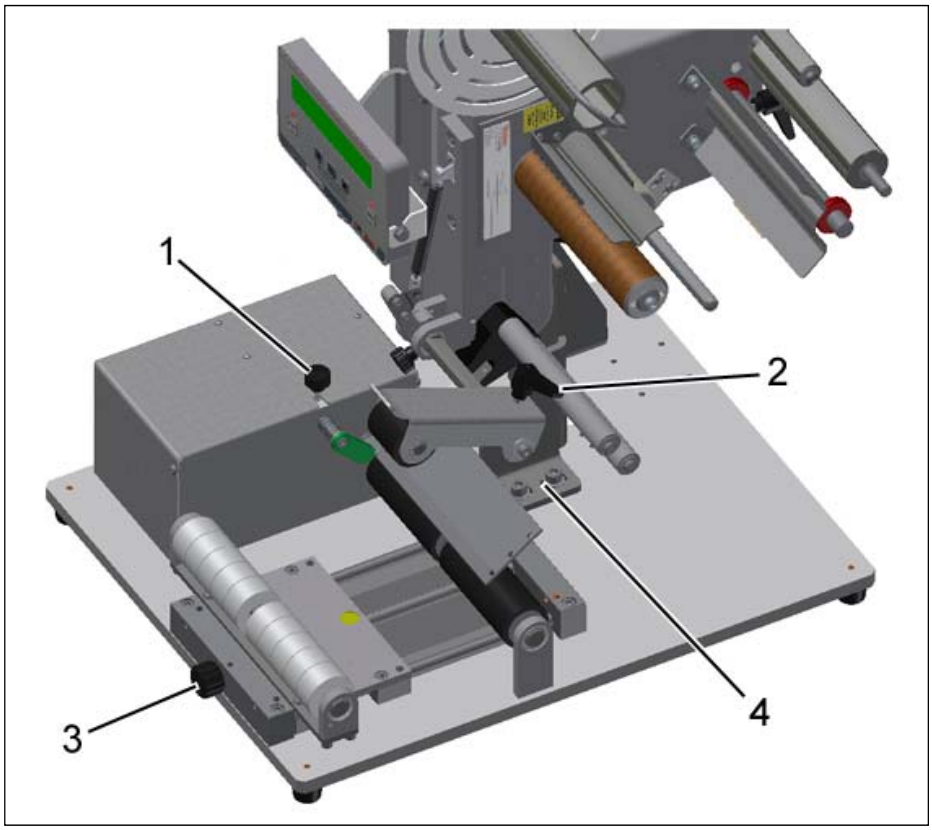


Fig. 7-5: Adjustment of 3-roll system

No.	Description
1	KNURLED SCREW FOR HEIGHT ADJUSTMETN OF PUSHER ROLLER
2	CLAMPING LEVER FOR AXIAL ADJUSTMENT OF PUSHER ROLLER
3	ADJUSTMENT MANDREL TO TRANSPORT ROLLER
4	FIXING PLATE TO LABELER

Requirements

- Labeling station is turnd off.
- One or more sample products.

Instructions

Please adjust the 3-roll system as follows.

Step	Procedure
1	Put a sample product in the 3-roll system.
2	Position the transport roller by mandrel adjustment (Pos. 3, Fig. 7-5), to the required criteria (s. section above).
3	Loosen the knurled screw and the clamping lever of the pusher roller (Pos 1 and 2, Fig. 7-5).
4	Position the pusher roller axial to product's center and lock the pusher roller.

Adjust product stop

If the label material was properly inserted for the product to be labeled, the product stop can be adjusted. The product stop ensures a repeat accuracy position of the label on the product. The printing of the label layout determines if the product is placed to the stop with top or bottom end.

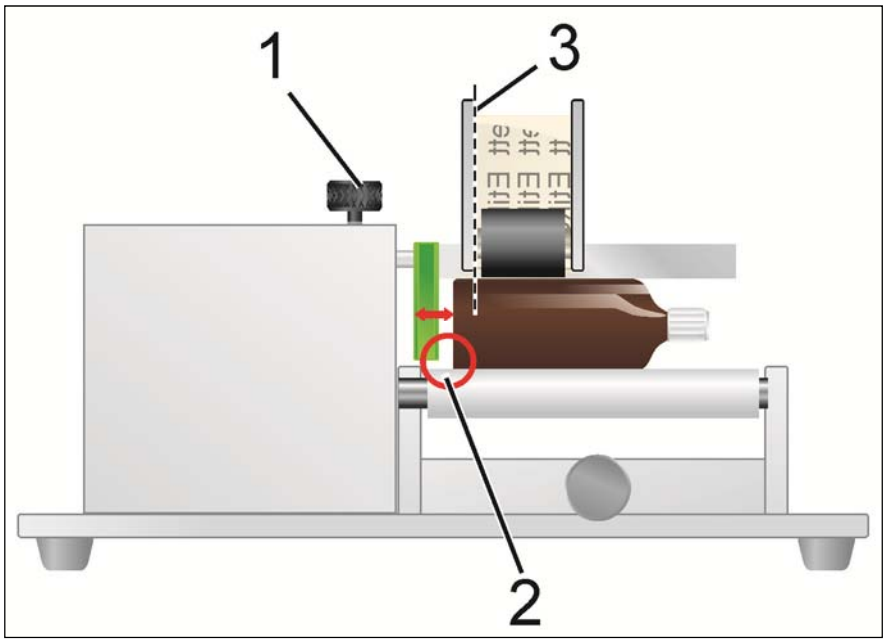


Fig. 7-6: Example figure for adjustment of product stop

No.	Description
1	LOCK OF PRODUCT STOP
2	PRODUCT STOP
3	LABEL ZERO EDGE

Requirements

- Labeling station is turned off.
- One or more sample products.
- Labels are inserted correctly.
- 3-roll system is correctly adjusted (s. from page 49)

Instructions

Please adjust the product stop as follows.

Step	Procedure
1	Place the product in the 3-rolls system. The pusher roller rests on the product.
2	Loosen the interlock (Pos. 1, Fig. 7-6) and move the stop depending on the label zero edge (Pos. 3, Fig. 7-6) in required position.
3	Move the product to the stop (Pos. 2, Fig. 7-6)
4	Lock this adjustment (note if applicable the scale value)

Adjust parallelism to product

The parallelism of the labeler (peeler plate) to the 3-roll system was adjusted optimally ex-factory. If the labeling should however result in a spiralization“ of the labels, i.e. label beginning- and end are shifted to each other (s. Fig. 7-7), the parallelism of the labeler (peeler plate) has to be corrected.

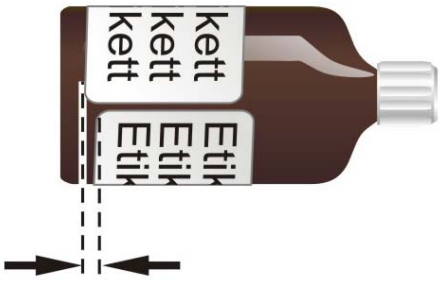


Fig. 7-7: Spiralization

This adjustment requires experience and „intuition“. It is advisable to mark the front surfaces of the mounting plate with a marking line to be able to re-establish the original position at any time.

Requirements

- One or more sample products.
- Labels are inserted correctly.
- 3-roll system and product stop are adjusted correctly (s. from page 49).
- Machine is ready for labeling.

Instructions

Please adjust the parallelism to the labeler as follows.

Step	Procedure
1	Loosen both screws to the Alpha-mounting (s. Pos. 4 in Fig. 7-5).
2	Swing the labeler! Notice the rotating direction.
⚠CAUTION	Hazard from actively controlled movements. Maintain a distance from moved parts.
3	Arrange several sample labelings. If the result is satisfying, please go on with step 5.
4	Check the label on the product, if the offset… • Has increased, swing the labeler in opposite direction. • Has decreased, swing the labeler in same direction on. Please go on with step 3.
5	Lock this adjustment by fixing the screws.

8. Operation

Safety instructions

⚠CAUTION

Hazard from actively controlled movements.


CRUSHING HAZARD!
Movements of the labeling station are powered automatically by the controller in automatic operation.
- Maintain a distance from moving parts.

⚠CAUTION

Entanglement hazard by rotating elements.


ENTANGLEMENT HAZARD!
Rotating elements at the labeling machine, backing rewinder, label feed are driven by a motor.
- Do not grip in, at or between the moving parts.

Turn on and off labeling machine

Fig. 8-1: Main switch

For operation, the power switchs of labeler and labeling station have to be turned on.
Turn on the power supplies in position „I“. Labeler and labeling station are turned off in position “0“.

Start labeling cycle


Fig. 8-2: Foot switch

About the foot switches a labeling cycle is started. The start of the 3-roll system, labeling and stopping and the release of the product belong to the labeling cycle.

Start labeling operation

Requirements

- Labeling station is turned off.
- Labeling station is connected to power.
- Labeling station was adjusted correctly to the product (see chapter “Adjustment and initial operation“ from page 45).

Instructions

Please turn on the labeling system for operation as follows.

Step	Procedure
1	Turn on the power supply of the labeling station.
2	Turn on the labeler (s. section above). Then the applicator changes to idle mode and firstly following text message appears in display:  X stands for the version number of the Firmware installed in the controller. In this condition the applicator does arrange any activities. When pushing any button the applicator changes to its „standard“ operational state.
3	Push the [Start]-button to enable labeling operation. Presumed that the start procedure of the labeler is terminated, the labeler has been calibrated on the labels and no further failures are available.
4	Put a product into the 3-roll system.
5	Start a labeling cycle by pushing the foot switch.

Stop labeling operation

Requirements

- Labeling station is in labeling operation (s.a.)

Instructions

Please stop labeling operation as follows.

Step	Procedure
1	Turn off the labeler.
2	Turn off the labeling station.
3	Remove manual or faulty applied labels if applicable.
4	Observe the remarks „Putting the system out of service“ (s.page 55)

Putting the system out of service

NOTICE When turning off the system for several hours, the label web has to be removed from the applicator to prevent failures at restart.

The label material running around the deflection rollers is curved which can cause problems with the operation mode. This characteristic of the labels as well as the retained curvature depend on the material which can vary significantly between the different print media. The ambient conditions such as high temperatures and humidity enhance this effect.

Remove critical label material before long breaks and after end of work from labeler!

Instructions

Please put the labeler out of service as follows.

Step	Procedure
1	Stop labeling operation (s. page 54)
2	Disconnect the power supply.
3	Protect the labeling station from dust with a cotton or linen cloth.
4	If the labeling station should be stored and/or transported, please observe the remark for… • Transport (page 25) • Storage conditions (page 28)
5	Transport the labeling station like in chapter “Transport“ to its storage place.

Operation of the Display

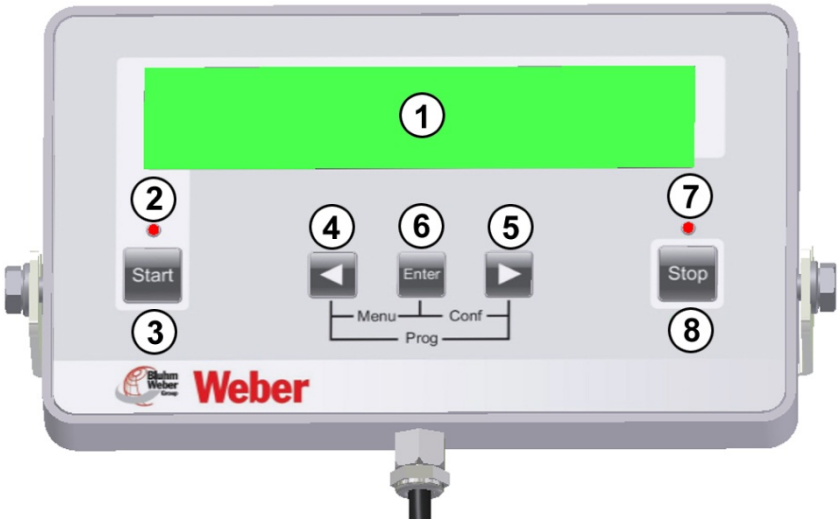


Fig. 8-3: Display

The display consists of a LC display and 5 buttons and 2 status-LEDs. It comprises a connection cable with a 5-pin M12 industry plug and it is connected at the labeler's side (s. page 38). The installation position can be freely selected and should be at a well accessible place near the labeler. The display offers in contrast to the panel extended display, operation, and service opportunities. Status and error messages are displayed with a short text message. Trained service personnel can take additional options in operation with the display.

No.	Description	Specification
1	**Display**	Displays the different pieces of information.
2	**LED START**	If the green LED lights above the [Start]-buttons, the "Labeling readiness" is signalized.
3		The [**Start**]-button is used to start the labeler. The labeling operation is activated by pushing and resp. error messages are acknowledged.
4 5	 	The buttons [◀] / [▶] possess respectively 3 functions: • In combination with further buttons to call up menus. • For navigation in menus. • To change parameter values ([◀] = reduces/ [▶] = increases). The autorepeat-function of the buttons enables a quick change of high values when you hold on pushing the certain button.

No.	Description	Specification
6	⚠CAUTION Enter	Entanglement hazard! Via [Jog] function an applying cycle is performed. Maintain a distance from moving parts. The [**Enter**] key has 3 functions: • JOG-function: during labeling operation the Alpha Compact can be triggered by this key. • In combination with further keys for calling up menus. • In the menus, the [Enter] key serves for changing a parameter or to confirm inputs
7	**LED Stopp**	If the red LED above the [**Stop**]-button lights, the "labeler's standby status" is interrupted.
8	Stop	The [**Stop**]-button is used to terminate the labeling operation. After pushing the button, the labeler changes to standby mode.
3+5	◀ + ▶	Pushing simultaneously pushing of the [◀] + [▶] –buttons in function mode is used to calibrate the labeler. Three label-application procedures are arranged, thus the label position is aligned to peeler bar.

Program menus

NOTICE

The PROGRAMMING MODE may only be operated by trained personnel! Wrong programmings may cause malfunctions!

The display of the **Geset 141** comprises three menu modes that can be reached and left by key combinations. Push in stand-by-condition the following buttons simultaneously to reach the following menu:

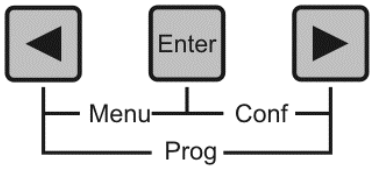


Fig. 8-4: Buttons below Display

[◀] + [Enter] = Functions menu

[Enter] + [▶] = Configuration mode *

[◀] + [▶] = Programming mode *

* Password protected

For more explanation here an example of a display message:

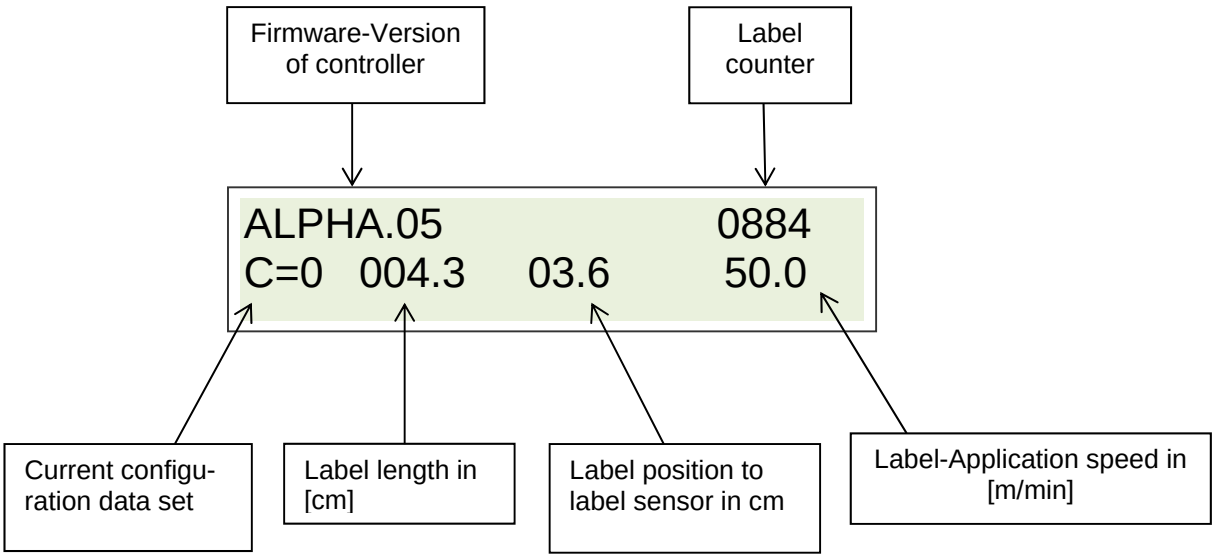


Fig. 8-5: Display explanation

Indication of firmware version

The current firmware version (firmware = operating system) of the controller is displayed.

Current configuration set

The **Geset 141** provides the opportunity to store resp. call up in memory up to 9 different configuration sets. Each set can be used for an individual parameterization of the labeler (e.g. for different label sizes).

Label length

The adjusted label length in [cm] is shown.

Label position

The current value in [cm] to label position is shown.

Label application speed

Currently adjusted speed that a label is fed with.

Label counter

The number with 5 digits indicates the number of the completely performed application cycles of one operation phase. The counter is reset to "0000" automatically when switching on the machine. If a negative number with 4 digits is displayed, the counter works in “Countdown” mode.

Status line

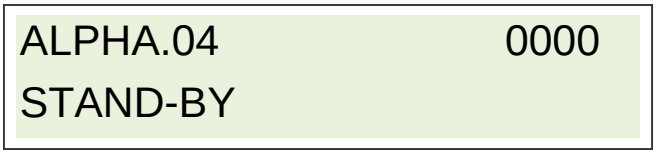
The status line keeps you informed about the current conditions of the labeler and its activities. (Details see error-/status messages in chapter Troubleshooting). In labeling operation the status line provides at one glance the four most important information on current configuration set.

Error reset

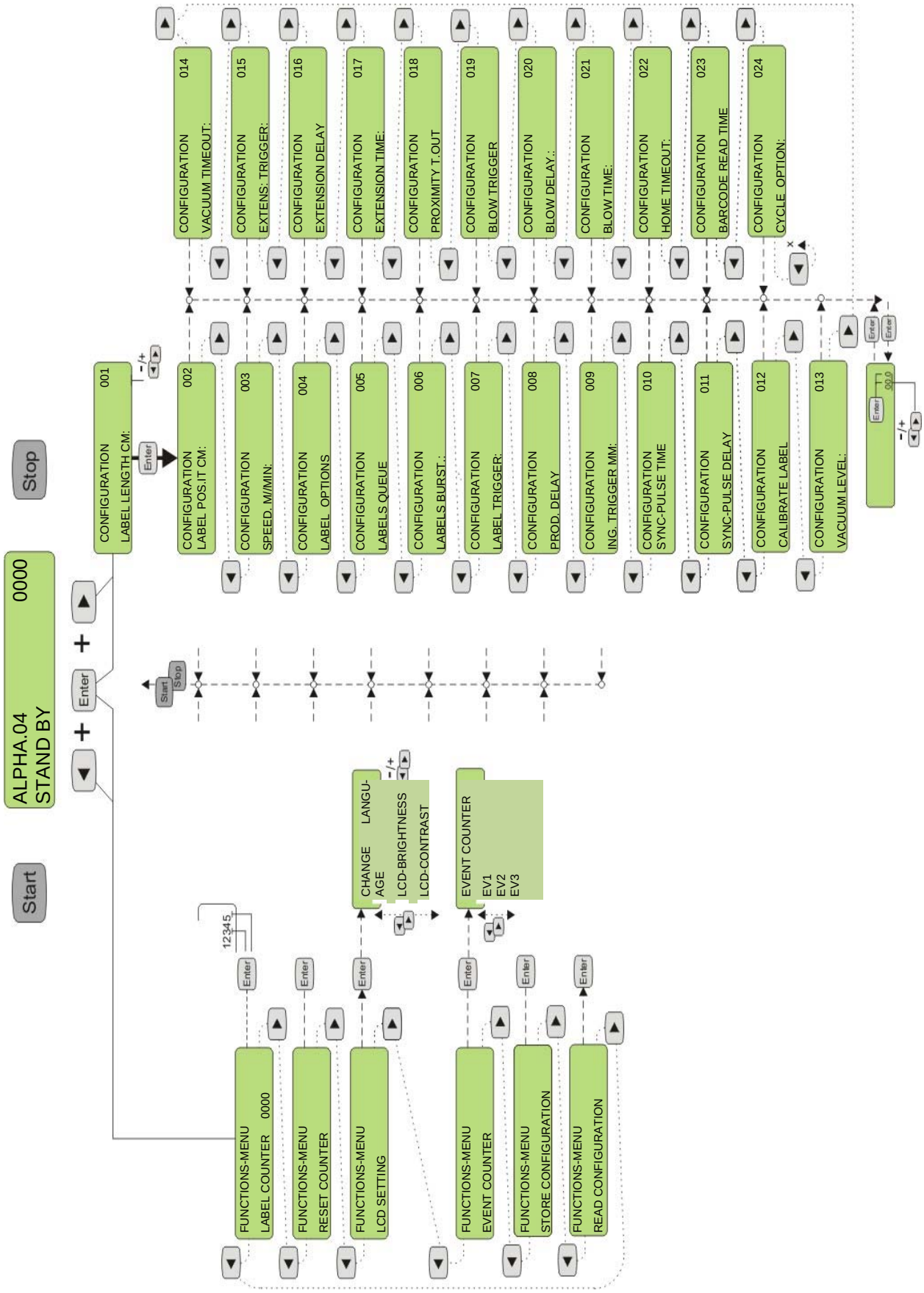
By pushing [Start] or [Stop] button the current error messages are reset assuming that the reason for the error was corrected.

STAND-BY-Mode

After interruption of the labeling operation (e.g. [Stop]-button was pushed, failure is available) the labeler changes to Stand-by mode. A menu in the applicator’s controller can only be selected from Stand-by mode. If no error message is available, “STAND-BY” appears in display.

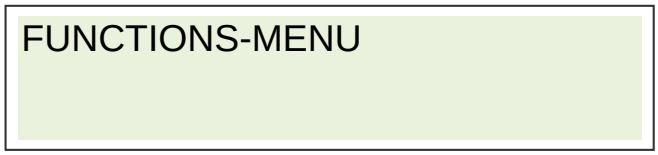


Menu diagram



Functions menu

The functions menu is reached by pressing the [◀] und [Enter] key simultaneously, assuming the labeler is in emergency stop/standby condition (see above). This menu contains some basic settings of the labeler with following sub menus:



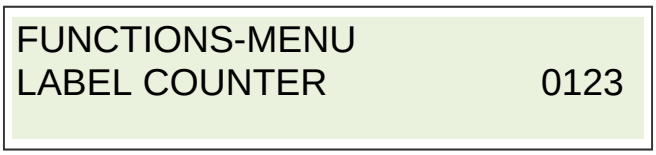
LABEL COUNTER:
RST LABEL COUNT
LCD-SETTING

- LANGUAGE
- LCD-BRIGHTNESS
- LCD-CONTRAST

EVENT COUNTER
STORE CONFIG.
READ CONFIG.

LABEL COUNTER

This provides the opportunity to set a value in the range of 0 to 9999 for the label counter. If a value above "0000" is entered, the countdown function is activated. That means in normal operating conditions the entered value is decremented. The display shows a minus sign in front, for the remaining application cycles. If "-0000" is reached, the machine automatically stops the execution of labeling.



- Press either [◀] or [▶] key* to move to the next parameter.
- Press the [Enter] key to edit the fore digits resp. press again [Enter] to change to the last digits.
- Then press either [◀] or [▶] key to move to the editing parameter values (corresponding cursor is flashing) in order to increase and/or reduce
- To confirm your settings, please press [Enter]
- To exit parameter settings, press the [Start] or [Stop] key.

RESET LABEL COUNTER

The counter reading of the label counter will be reset by this function.

```
FUNCTIONS-MENU
RESET LABEL COUNTER
```

- Press either [◀] or [▶] key* to move to the next parameter
- Press [Enter] to reset the counter to "00000".
- To exit parameter settings, press the [Start] or [Stop] key.

LCD -SETTING

This sub menu covers the display settings. Not only contrast and brightness can be changed but also the menu language.

Depending on language package, the following languages are available:

Language package 1 (22800870): English, German, Italian, French, Dutch, Norwegian, Swedish, Turkish

Language package 2 (22800871): English, Greek, Russian, Czech, Latvian, Polish, Spanish, Portuguese

```
FUNCTIONS-MENU
LCD-SETTING
```

- LANGUAGE SELECTION	>>	Selecte the appropriate language.
- LCD-BRIGHTNESS	>>	Brightness of background lighting Value range between 001-040.
- LCD CONTRAST	>>	Contrast setting between 001-100

```
LCD-SETTING

  LANGUAGE SELECTION
  LCD-BRIGHTNESS:        015
  LCD-CONTRAST:          030
```

- Press either [◀] or [▶] to reach the next display setting.
- Push [Enter] to change the parameter.
- At language selection the setting is changed directly with the [Enter] button.
- Push the * buttons [◀] or [▶] to increase or reduce the edited parameter value (cursor flashes).
- Push [Enter] to store the value.
- Push [Start] or [Stop] to leave the parameter settings.

EVENT-COUNTER(EVENT-COUNTER)

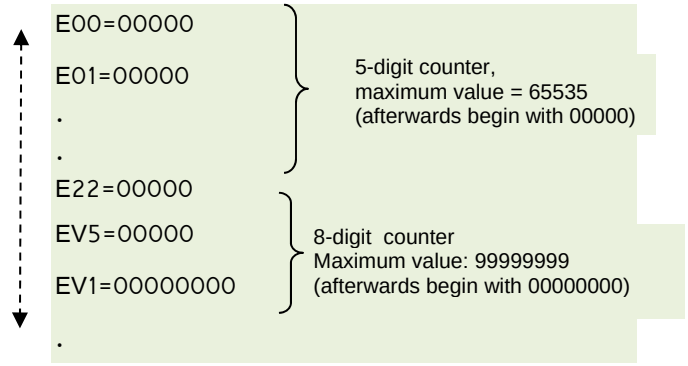
Using this function a number of different event counters can be called up. These provide useful statistic information about the events which are counted automatically during labeling operation.

Event	Counter Information
E00	Number of all stopped applying cycles without failures
E01 to E22	Number of failures of the certain error code
EV1	*Number of printed labels
EV2	*Number of all extension movements of the cylinder.
EV3	*Number of blow off events
EV4	*Number of all communication failures (incl. autom. restored failures)
EV5	*Maintenance counter increases by 1 after the completion of 256 applying cycles

* All counter values are stored in the memory of the labeler. The time at which to store the counter reading happens during a failure or in stand-by mode. This means if the system is switched off in “READY”-Mode, the counter reading of EV1-EV5 can differ extremely from the actual counted values.

FUNCTIONS-MENU
EVENT-COUNTER

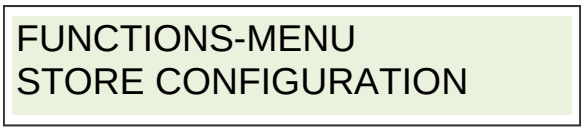
- Push the *buttons [◀] or [▶] to change to the next parameter.
- Push [Enter] to get to the event counters.



- Push the buttons [◀] or [▶] to get to the next event counter.
- Push [Start] or [Stop] to exit the parameter settings.

STORE CONFIGURATION (CONFIG. STORE)

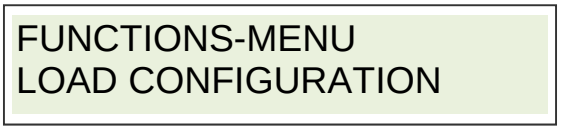
The Alpha Compact's controller is able to store up to 9 different configurations. This feature provides the opportunity to the user for a fast product change. Thus all topical settings (also the settings from configuration menu) are stored not only temporally.



- Press either [◀] or [▶] key* to move to the next parameter.
- Push [Enter] to select "save configuration". A number will flash in the display. This number is the number of data set in which the configuration should be saved.
- Press either [◀] or [▶] to select the required data set.
- Push [Enter] to save the configuration in the selected data set.
- Push [Start] or [Stop] to exit the parameter setting.

LOAD CONFIGURATION

If a configuration is saved, it can be loaded in the controller and then be activated.



- Press either [◀] or [▶] key* to move to the next parameter.
- Push [Enter] to load the required data set in the controller again. A number will flash in the display. This number is the number of the data set.
- Press either [◀] or [▶] to select the required data set.
- Push [Enter] to load the configuration of the selected data set in the controller.
- Push [Start] or [Stop] to exit the parameter setting.

CONFIGURATION-Menu

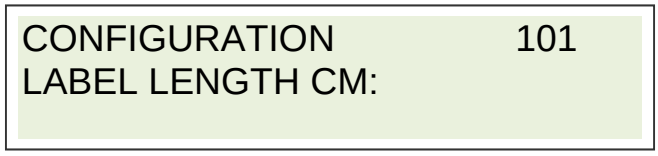
The configuration menu can be reached by pushing the buttons [Enter] and [▶] at the same time assuming that the labeler is in stand-by.

This menu includes parameter settings for the complete labeler configuration which determine the sequence of events during an applying cycle.

On page 82 you have the opportunity to enter your parameters in a list.

CONFIGURATION-Address

The display shows in the first line behind "CONFIGURATION" a number with 3 digits (e.g. "101"). Thus the number represents the currently selected address. In line 2 the respectively selected parameter is noted.



LABEL LENGTH CM:	101
LABEL POSITION CM:	102
SPEED M/MIN	103
LABEL OPTIONS	104
WAITING QUEUE	105
LABELS PER TRIG.	106
LABEL TRIGGER	107
PROD. DELAY	108
ING. TRIGGER	109
SYNC-PULSE TIME	110
SYNC-PULSE DELAY	111
CALIBRATE LABEL	112
VACUUM LEVEL:	113
VACUUM TIMEOUT:	114
APPLIC-TRIGGER:	115
EXTENSION DELAY	116
EXTENSION TIME	117
PROXIMITY T. OUT	118
BLOW TRIGGER:	119
BLOW DELAY	120
BLOW TIME	121
HOME TIMEOUT:	122
BARCODE READING TIME	123
CYCLE OPTION:	124

000 PASSWORD

If a configuration parameter is called up for editing by [Enter], you will have to enter a password in order to grant access only to authorized persons.

The code is “123”, the access is valid for all parameters, but only as long as you do not push 2 times the [Stop]-button or switch off and on the labeler.

CONFIGURATION	101
PASSWORD:	000

- Press either [◀] or [▶] to increase or reduce the value.
- Press [Enter] to confirm the password entry.
  - If password is correct you will return to configuration-parameter.
  - If password is incorrect, "PASSWORD INCORRECT E15"will appear.
- Press [Start] or [Stop] to exit the parameter setting.

101 LABEL LENGTH (LABEL LEN.)

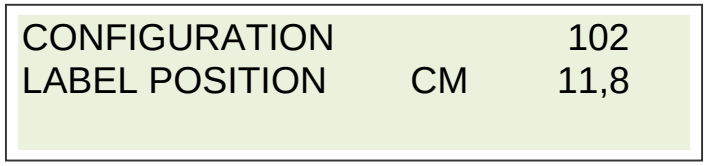
Herewith the label length (label length with a gap) is manually adjusted. The adjustment range is 0 – 255,9 cm. This value is automatically detected with the calibration function (see p. 48).

CONFIGURATION	001
LABEL LENGTH CM:	4,2

- [Stop]. Press [Enter] to change the configuration parameter.
- Press either [◀] or [▶]to increase or reduce the value.
- Press [Enter] to change to decimal place or to confirm the entry.
- Press [Start] or [Stop] to exit the parameter setting.

102 LABEL POSITION (LBL. POSIT)

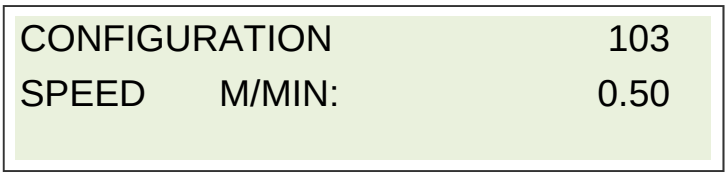
Herewith the label position to the peeler bar is adjusted manually, i.e. the label stops flush with the peeler bar. The calibration function determines this value automatically (see p. 48).



- Press [Enter] to edit the configuration parameter.
- Press either [◀] or [▶] to increase or reduce the value.
- Press [Enter] to confirm the entry.
- Press [Start] or [Stop] to exit the parameter setting.

103 LABEL SPEED (SPEED)

If the speed is not regulated automatically, a fix value for the feed speed of the labels can here be adjusted. For optimum results, label and product speed have to be almost equally.
The adjustment value „0“ corresponds to a speed of 0,053 m/min. The highest value corresponds to 69,9 m/min. Thus it is not guaranteed that the label speed is actually reached. As motor startup and braking reduce the effective speed. This has a considerable effect particularly at short labels (Details s. page 64). It can be balanced by an increase of the label feed speed normally.



- Press [Enter] to edit the configuration parameter.
- Press either [◀] or [▶] to increase or reduce the value.
- Press [Enter] to confirm the entry.
- Press [Start] or [Stop] to exit the parameter setting.

Adjusted and effective label speeds

The label feed is subdivided in an acceleration ramp, a constant part and a delay ramp.
The Fig. 8-6 clarifies how the effective value
($V_{1eff.}$) or the originally adjusted speed (V_1) is reduced.
The labeler enables the parameterization of different ramps (s. page 69).
Although combinations are possible where the brake ramp is exactly as steep or doubled steep as the acceleration ramp that may lead to a higher effective value.

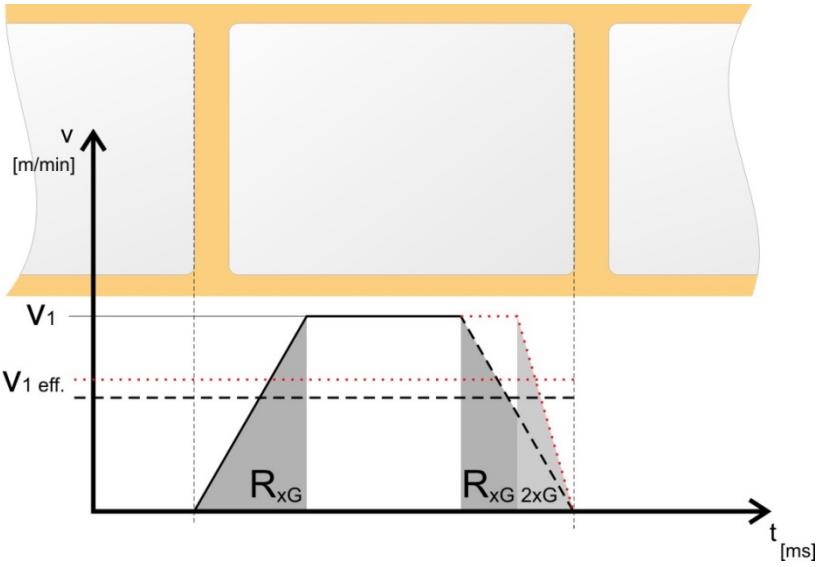


Fig. 8-6: Label feed

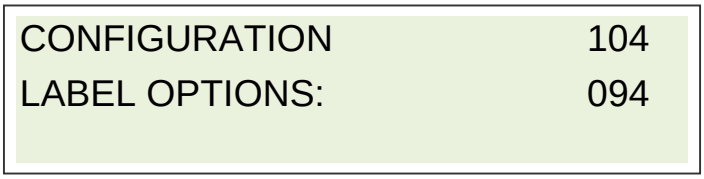
Following table shows subject to the adjusted speed (V_1) the required way (R_l) and duration (R_t) of an accleration resp. brake ramp.

R_{xG} >	**2G**		**3G**		**4G**		**5G**	
V_1 [m/min]	**R_l [mm]**	**R_t [ms]**	**R_l [mm]**	**R_t [ms]**	**R_l [mm]**	**R_t [ms]**	**R_l [mm]**	**R_t [ms]**
10	0,8	7	0,6	5	0,5	3	0,3	2
20	2,9	15	2,0	10	1,5	7	1,2	6
30	6,6	24	4,4	15	3,2	11	2,6	9
40	11,6	32	7,7	212	5,8	15	4,6	12
50	18,2	41	12,1	27	8,9	19	7,2	15
60	26,2	50	17,3	32	12,9	24	10,3	19
70	35,5	58	23,6	38	17,5	28	13,9	22

Standard ramp setting is 2 G. Higher ramp settings indicate thermic and mechanical stress for the labeler and may lead to an extensive wear. This may only be arranged in agreement with the manufacturer (contact s. page 8).

104 LABEL OPTIONS (LABEL OPTIONS)

These parameter can select functions that concern the label feed. If different functions should be combined, it is possible by addition of the single values.
Example: doubled delay (brake ramp) and SE-function should be enabled. Please generate the arithmetic sum (of 004 + 064) and enter the parameter value = "068".



- Press [Enter] to edit the configuration parameter.
- Press either [◀] or [▶]to increase or reduce the value.
- Press [Enter] to confirm the entry.
- Press [Start] or [Stop] to exit the parameter setting.

Parameter	Function
000	(Default) Acceleration- and brake ramp 2G is selected (s. page 99).
+1	Acceleration- and brake ramp 3G is selected (s. page 99).
+2	Acceleration- and brake ramp 4G is selected (s. page 99).
+3	Acceleration- and brake ramp 5G is selected (s. page 99).
+4	Doubles the delay for abbreviation of the brake ramp.
+32	* selects the pneumatic peeler blade.
+64	Enables the shaft encoder input for automatic regulation of the label feed speed.
+128	Adjusts the label sensor to trailing edge, i.e. the rear edge is used as reference edge. (Useful with detection problems with critical labels (e.g. label form …).

*If the parameter +32 pneumatic peeler blade is selected, triggering occurs at the abatement of the pneumatic peeler blade. After that the label is applied. The time of applying the label can be set by parameter TRIGGER DELAY (TRIGGER DELAY) (see page 72). Default parameter is 4+32=36.

For some applications it is reasonable when label application and abatement of pneumatic peeler blade occur at the same time. In this case parameter +32 is not selected.

The duration of abatement of the pneumatic peeler blade has to be set with parameter SYNC-PULSE-TIME (SYNC PULSE TIME) (see page 73).

105 LABEL QUEUE

Herewith the number of labels between peeler bar and label sensor is adjusted manually. Thus the labeler is able to compensate a missing label by feeding the gap to the next label. The calibration function determines this value automatically.

CONFIGURATION	105
LABEL QUEUE	002

- Press [Enter] to edit the configuration parameter.
- Press either [◀] or [▶]to increase or reduce the value.
- Press [Enter] to confirm the entry
- Press [Start] or [Stop] to exit the parameter setting.

106 LABELS BURST(LABELS BURST)

Herewith the number of label application per start signal (trigger signal) is adjusted. If the parameter is set on 000, 1 label per start signal will be applied.

CONFIGURATION	106
LABELS BURST	001

- Press [Enter] to edit the configuration parameter.
- Press either [◀] or [▶]to increase or reduce the value.
- Press [Enter] to confirm the entry
- Press [Start] or [Stop] to exit the parameter setting.

107 LABEL TRIGGER (LABEL TRIGGER)

Herewith it is determined which sensor input and what kind of signal generates the start signal for labeling. The functions are combined with each other with the help of arithmetic sum or are activated separately.

CONFIGURATION	107
LABEL TRIGGER	001

- Press [Enter] to edit the configuration parameter
- Press either [◀] or [▶]to increase or reduce the value.
- Press [Enter] to confirm the entry
- Press [Start] or [Stop] to exit the parameter setting.

Parameter	Function
001	The first (primary) product sensor input is selected as start sensor.
002	The second (secondary) product sensor input is selected as start sensor.
+4	As start signal not a switching edge is used but an input level. As long as an input level is available, the application cycle is repeated. This enables e. g. the multiple labeling of products with different lengths.
+8	A start signal is only accepted after terminated labeling applying cycle for an again label application. If the label applying cycle is not yet terminated, an early start signal leads to error message E07. This function cannot be combined with parameter +004.
+16	Selects leading edge as starting signal.
+32	Enables the connection of a NPN sensor as start signal-sensors. (Standard is a PNP sensor).

108 TRIGGER DELAY (TRIGGER DELAY)

With this parameter, the labeling procedure may be delayed. From trigger event on the label will be applied onto the product according to the set distance (value x 1 mm) shifted. The set value is valid for each label speed. The delay may be from 0 to appr.255 mm.
A higher value also increases the stopping time of the driven roller in the 3-roller system; for safe pressing of the label on the product.

CONFIGURATION	108
TRIGGER DELAY	001

- Press [Enter] to edit the configuration parameter.
- Press the *buttons [◀] or [▶] to increase or reduce the value.
- Press [Enter] to confirm the entry
- Press [Start] or [Stop] to exit the parameter setting.
- Is the rate of application not reached, the delay settings are too high. Set the sensor close to the labeler for getting a low delay and a high clock speed.

109 TRIGGER BLANK (TRIGGER BLANK)

This parameter is used for debouncing of sensor input i.e. after a trigger event, subsequent trigger signals are ignored. This setting is particularly useful for products with irregular shapes or foil packagings that may lead to multiple triggerings. Incoming trigger pulses are skipped for the here adjusted length (value x 1mm).

If in parameter „106 LABELS PER TRIG“. More than one label per triggering was selected, with parameter 109 IGN TRIGGER the distance between the single label applications is adjusted.

If a shaft encoder is connected, the adjustment is arranged in millimeters. If there is no shaft encoder connected, the adjustment is arranged in milliseconds.

CONFIGURATION	109
TRIGGER BLANK MM:	000

- Press [Enter] to edit the configuration parameter.
- Press either [◀] or [▶]to increase or reduce the value.
- Press [Enter] to confirm the entry
- Press [Start] or [Stop] to exit the parameter setting.

110 SYNC PULSE TIME (SYNC PULSE TIME)

Herewith the duration of the synchronization output signal is determined. This signal serves for triggering further peripheries like rotating tamp, printer etc. The signal is activated for the adjusted time at the end of an applying cycle. The time can be adjusted from 1 up to 255ms. The pulse time is corresponding to each entered value x 10ms. If the value is set on “000” and the SYNC PULSE DELAY 111 as well on zero. The SYNC signal will be activated with the beginning of the applying cycle and deactivated at the end of the applying cycle.

CONFIGURATION	110
SYNC PULSE TIME:	000

- Press [Enter] to edit the configuration parameter.
- Press either [◀] or [▶] to increase or reduce the value.
- Press [Enter] to confirm the entry.
- Press [Start] or [Stop] to exit the parameter setting.

111 SYNC PULSE DELAY (SYNC PULSE DELAY)

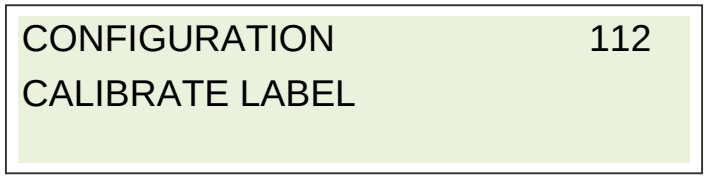
With this option, the duration of a delay of the synchronization output signal after the labeling procedure is determined. It is used to calibrate the triggering of further peripherals like rotating tamp, printer aso. The duration can be adjusted from 0 until 255ms. The length of the pulse corresponds to the entered value x 10 ms. If the SYNC-PULSE TIME is set to “000“, this function can be used to evaluate „Labeling cycle in progress“.

CONFIGURATION	111
SYNC PULSE DELAY	000

- Press [Enter] to edit the configuration parameter.
- Press either [◀] or [▶] to increase or reduce the value.
- Press [Enter] to confirm the entry
- Press [Start] or [Stop] to exit the parameter setting.

112 CALIBRATE LABEL (CALIBRATE LABEL)

This function is used to perform an automatic label calibration. An application of several labels takes place. Thereby parameters like label position and label length will be determined. If a calibration is successfully finished, the values will be indicated in the second line. If the calibration is not finished successfully, “CALIBRATE LABEL” remains in the second line and the process will have to be repeated.



- Press [Enter] to start calibration.
- Press [Start] or [Stop] to exit the parameter setting.

113 VACUUM LEVEL

This parameter determines the threshold for label presence detection on tamp. A value of 0 to 255 can be entered. If the value "003" is entered a sufficient vacuum check is realized. Values beyond, belong to the sensitive or high-sensitive measure range. If the value is adjusted to 000, there is no vacuum check active.

- Press [Enter] to edit the configuration parameter.
- Press then the buttons [◀] or [▶] to increase or reduce the value. (unit = value x 1/33 bar).
- Press [Enter] to confirm the entry
- Press [Start] or [Stop] to exit the parameter setting.

114 VACUUM TIMEOUT

This parameter determines the maximum time delay the Alpha Compact will try to detect label presence on tamp by sensing the vacuum in the tamp before generating an error message. This means the achievable vacuum has to be complete within the adjusted time, otherwise an error occurs. Normally the vacuum is controlled after printing procedure. For particular applications, the value can be set to “000” whereby the examination of the vacuum is started together with printing.

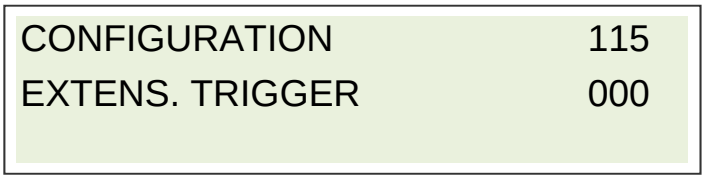
CONFIGURATION	114
VACUUM TIMEOUT	200

- Press [Enter] to edit the configuration parameter.
- Press the *buttons [◀] or [▶] to increase or reduce the parameter value. (unit = value x 10ms, value = "0" abrupt vacuum testing, in case of value = "255" the labeler waits indefinitely until the vacuum was set up (200 = 2 seconds = default).
- Press [Enter] to save the value.
- Press [Start] or [Stop] to exit the parameter setting.

115 EXTENSION TRIGGER (EXTENS. TRIGGER)

Herewith the trigger signal for the extension of the applicator is parameterized. After the label was detected at the tamp, the date is in the labeling cycle at which the trigger is expected.

Parameter value	Connection	Function
00		Immediate extension of applicator.
01	Product Sensor 1 (J14)	Edge triggering (leading edge): Triggering in case of a rising edge, means the change from "low" to "high". Only in case of indication "Wait Trig." A trigger is accepted. Outside this phase all triggers are ignored.
02	Product Sensor 2 (J9)	
03	Aux.-input at I/O-interface: J16	
04	Applicator J3	
05	Product Sensor 1 (J14)	Level triggering (leading edge): Triggering in case of "high"-signal. Repetition of applying cycle as long as signal is active (high).
29 - 32	No permitted parameterization	



- Press [Enter] to edit the configuration parameter.
- Push the *buttons [◀] or [▶] to increase or reduce the parameter value (valid range: 000-032).
- Press [Enter] to save the value.
- Press [Start] or [Stop] to exit the parameter setting.

116 EXTENSION DELAY (EXTENSION DELAY)

This parameter enables the programming of a delay value between trigger signal and actual tamp movement. The delay starts with triggering (external or autom.). The EXTENS: DELAY will be ignored, if the parameter APPLICATOR TRIGGER has the value “000”. (ref. page 76).

CONFIGURATION	116
EXTENS. DELAY	000

- Press [Enter] to edit the configuration parameter.
- Push the *buttons [◀] or [▶] to increase or reduce the parameter value. (unit = value x 10ms, value "000" = no delay).
- Press [Enter] to save the value.
- Press [Start] or [Stop] to exit the parameter setting.

117 EXTENSION TIME

The „EXTENSION TIME“ defines the time that passes from the beginning of the stroke movement until the beginning of blow-action. You set the labeler in Blow-On mode via the value “000”. The label will be blown off directly without movement of the applicator.

The dimensioning of the adjusted time (unit = value x 10ms) should correspond to the actual time for the extension of the whole stroke. If the specified value is exceeded because of another parameter configuration, the label will be blown off immediately onto the product, unless the labeler waits of a trigger signal (e.g. “BLOW TRIGGER” or from the sensor “variable stroke”). When using the option “variable stroke” normally the EXTENSION TIME is set on a low value (e.g. “002”) to continue with the variable range of the stroke after a constant extension length.

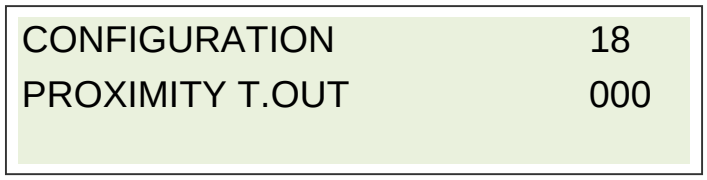
CONFIGURATION	117
EXTENSION TIME	080

- Press [Enter] to edit the configuration parameter.
- Push the *buttons [◀] or [▶] to increase or reduce the parameter value. (unit = value x 10ms, value "000" = Blow-On mode).
- Press [Enter] to save the value.
- Press [Start] or [Stop] to exit the parameter setting.

118 TIME OUT VARIABLE STROKE (T.OUT VAR. STROKE)

Any parameter value higher “000” activates the function “variable stroke” which requires an optional sensor at the tamp pad. The value you enter defines the maximum period the applicator waits during extension, in which the variable stroke sensor has to detect a product. Otherwise an error message will result. The waiting time will be displayed and counted down.

In case of a parameter value of „255“ it will be waited indefinitely for a triggering of the proximity sensor (no time is displayed).



- Press [Enter] to edit the configuration parameter.
- Push the *buttons [◀] or [▶] to increase or reduce the parameter value. (unit = value x 100ms, value has to be "000" when the option „variable stroke“ is not installed, in case of value "255" = waits indefinitely).
- Press [Enter] to save the value.
- Press [Start] or [Stop] to exit the parameter setting.

119 BLOW TRIGGER

Herewith the trigger signal for the blow-off of a label is adjusted. In case of value “000” the label will be blown off without delay or rather automatically. Higher values stop the applying cycle at this point and the applicator waits for the pre-defined trigger signal.

Depending on the configuration additionally the trigger can be used for the control of the external stop function or rather for starting the labeling operation.

If the Alpha Compact operates with a variable stroke, the value has to be “000” according to factory setting.

Parameter value	Connection	Function
00		Automatic blow-off of the label.
01	Product sensor 1 (J14)	Edge triggering (leading edge): Triggering in case of a rising edge, means the change from "low" to "high". Only in case of indication "Wait. Trig." A trigger is accepted. Outside this phase all triggers are ignored.
02	Product sensor 2 (J9)	
03	Aux.-input at I/O-interface: J16	
04	Applicator J3	
05	Product sensor 1 (J14)	Level triggering (leading edge): Triggering in case of "high"-signal. Repetition of applying cycle as long as signal is active (high).
29 - 32	No permitted parameterization	

CONFIGURATION	119
BLOW-TRIGGER	000

- Press [Enter] to edit the configuration parameter.
- Push the *buttons [◀] or [▶] to increase or reduce the parameter value. (valid range: 000-032).
- Press [Enter] to save the value.
- Press [Start] or [Stop] to exit the parameter setting.

120 BLOW DELAY (BLOW DELAY)

This configuration parameter delays the blow-off by the adjusted value. The adjustment will be ignored when the previous parameter 119 „BLOW TRIGGER“ is set on “000“.

CONFIGURATION	120
BLOW DELAY	000

- Press [Enter] to edit the configuration parameter.
- Push the *buttons [◀] or [▶] to increase or reduce the parameter value. (unit = value x 10ms, value "000" = no delay).
- Press [Enter] to save the value.
- Press [Start] or [Stop] to exit the parameter setting.

121 BLOW TIME

The blow time and thus the duration of the blow-off valve`s activation for the transfer of the label on to the product is determined. The allowed range is between 010 and 255 (value x 1ms).

CONFIGURATION	121
BLOW TIME	000

- Press [Enter] to edit the configuration parameter.
- Push the *buttons [◀] or [▶] to increase or reduce the parameter value. (unit = value x 1ms, value "000" Tamp-On mode).
- Press [Enter] to save the value.
- Press [Start] or [Stop] to exit the parameter setting.

122 HOME TIMEOUT

This adjustment determines the maximum time the applicator waits for the signal of the home position sensor during retraction movement before an error message is indicated. This is also valid after switching on the labeler in case the tamp does not move to home position because e.g. air pressure has not yet been connected.

CONFIGURATION	122
HOME TIMEOUT	000

- Press [Enter] to edit the configuration parameter.
- Push the *buttons [◀] or [▶] to increase or reduce the parameter value (unit = value x 100ms, value "000" = no query of home position, value "255" = waits indefinitely for home position signal)
- Press [Enter] to save the value.
- Press [Start] or [Stop] to exit the parameter setting.

123 BARCODE READ TIME

This adjustment determines the maximum time the applicator waits for the signal of the BARCODE reader before an error message is indicated.

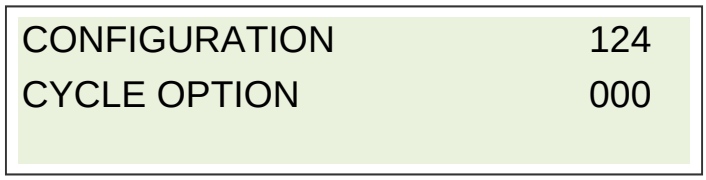
CONFIGURATION	123
BARCODE READ TIME	000

- Press [Enter] to edit the configuration parameter.
- Push the *buttons [◀] or [▶] to increase or reduce the parameter value (unit = value x 100ms, value "000" = no query of home position, value "255" = waits indefinitely for home position signal).
- Press [Enter] to save the value.
- Press [Start] or [Stop] to exit the parameter setting.

124 CYCLE OPTION

Pre-defined program processes can be selected here. The processes can be combined or activated separately with the help of arithmetic sums:

Parameter	Function
000	No program sequence selected.
+ 001	Deactivates the timeout "variable stroke“ and generates an error if the label is lost during tamp movement (vacuum loss).
+ 002	Delays the tamp retraction at the end of a blow-off sequence (normally the tamp moves back concurrently with the blow-off valve’s activation).
+ 004	Deactivates the timeout "variable stroke“ and ignores vacuum loss during tamp movement.
+ 008	Activates corner wrap application function for systems with 90°-180° rotating tamp (option).
+ 016	Activates the vacuum or rather “label on pad“ query after label transfer (during tamp retraction) in case of Tamp-On mode (if blow time = “000”).
+ 032	Activates the function for the control of RFID reject unit.
+ 064	Deactivates the error “timeout label“ (useful function to correct errors of vacuum, to switch-off the vacuum check).
+ 128	Deactivates the timeout-error in case of variable stroke.



- Press [Enter] to edit the configuration parameter.
- Push the *buttons [◀] or [▶] to increase or reduce the parameter value (value: "000" = no program sequence selected, "001" = 1st function; "002" = 2nd function, "003" = 1st and 2nd function…)
- Press [Enter] to save the value.
- Press [Start] or [Stop] to exit the parameter setting.

Parameter list configuration

Here all parameter of the configuration-menu can be entered. In total 9 parameter sets are available.

Product / Charge										
Parameter										
101	LABEL LENGTH CM:									
102	LABEL POSIT CM:									
103	SPEED M/MIN									
104	LABEL OPTIONS									
105	LABELS QUEUE									
106	LABELS BURST									
107	LABEL TRIGGER									
108	PROD. DELAY									
109	IGN. TRIGGER MM									
110	SYNC-PULSE TIME									
111	SYNC-PULSE DELAY									
112	CALIBRATE LABEL									
113	VACUUM LEVEL:									
114	VACUUM TIMEOUT:									
115	EXTENS.-TRIGGER:									
116	EXTENSION DELAY:									
117	EXTENSION TIME:									
118	PROXIMITY T.OUT									
119	BLOW-TRIGGER:									
120	BLOW DELAY:									
121	BLOW TIME:									
122	HOME TIMEOUT:									
123	BARCODE READ TIME									
124	CYCLE OPTION:									

PROGRAMMING

NOTICE

Wrong parameters can lead to bugs and improper functions, also possibly leading to mechanical damage.
This applies also in changes of reserved or undocumented parameters as well as entering values outside the valid ranges.
- The parameterization should only be edited by authorized and trained personnel!

The programming mode can be reached by pushing simultaneously the buttons [◀] and [▶] presumed the labeler is in stand-by-mode. The PROGRAMMING mode allows the consideration of all 256 service parameters

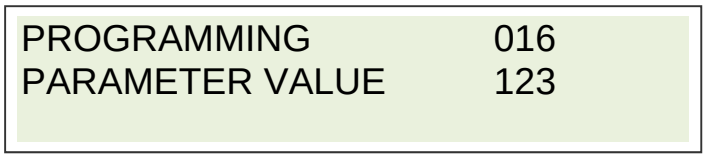
A further simultanous pushing of the buttons [◀] and [▶] grants access to further submenu with 4 additional functions that concern the total configuration of the labeler.

For protection of the parameters, the programming mode is password protected.

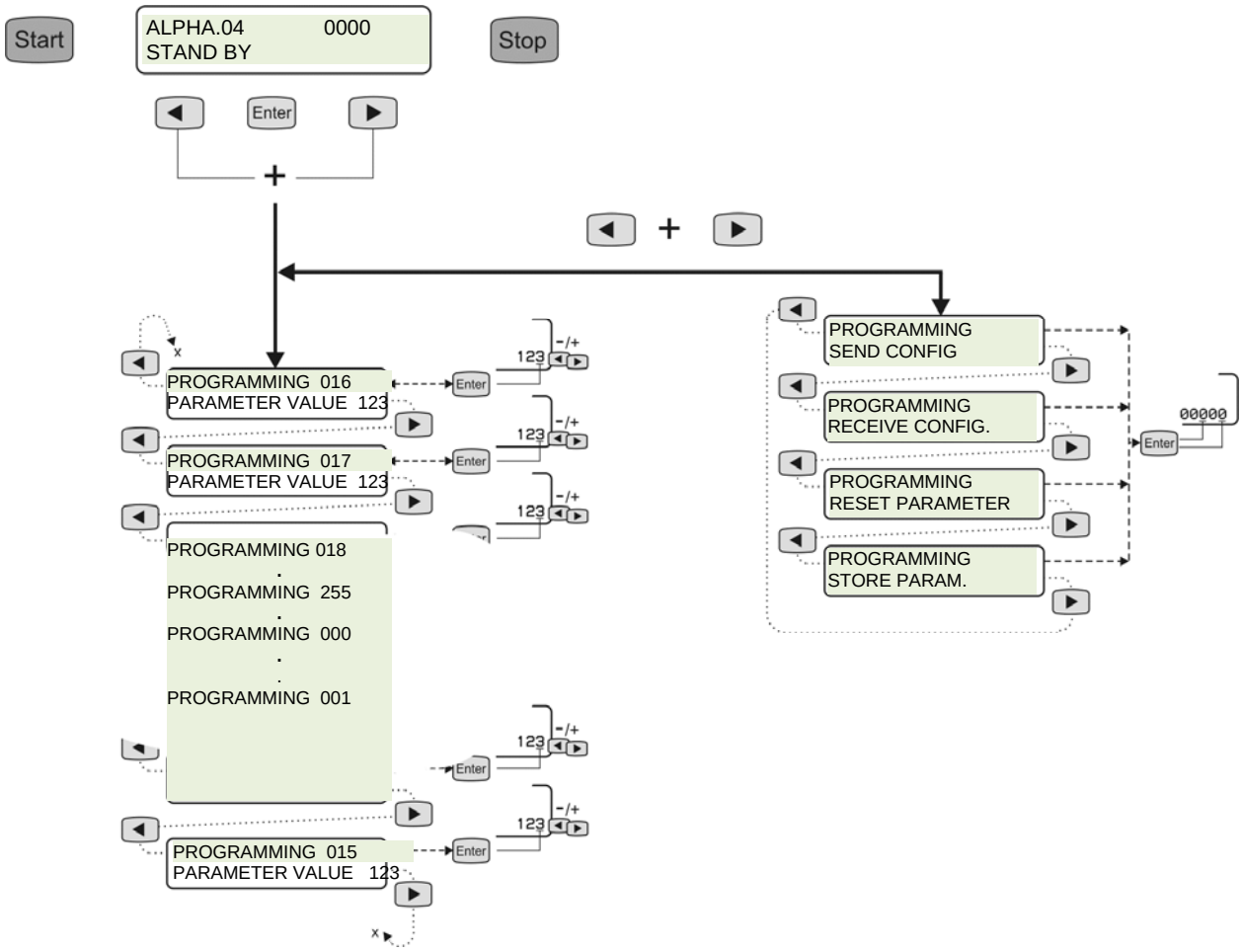
Most of these parameters remain unchanged in their factory settings (shortly "default"). But few of them may need to be adapted to specific requirements (probably just once during installation).

Programming-Address

The display shows in line 1 after "PROGRAMMING" a three digit number (e. g. "016"). Although the number for the currently selected parameter. In line 2 there is respectively the value (resp. content) of the parameter.

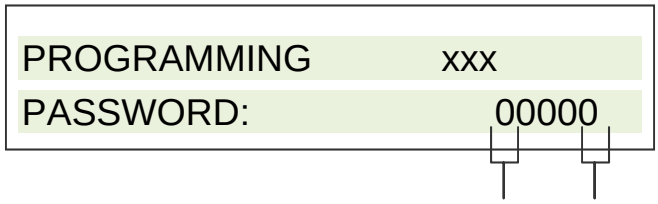


Overview chart



PASSWORD

If in programming a parameter is called up with [Enter] in order to change it, the machine asks for a PASSWORD to proceed, in order to limit access only to authorized personnel. The access code is "**01234**", once correctly entered it remains valid until the machine is switched off or reset by pressing [Stop] key two times.



- Press the [Enter] key to edit the fore digits resp. press again [Enter] to change to the last digits. Press either [◀] or [▶] key* in order to increase or reduce the value (corresponding cursor is flashing)
- Press [Enter] to confirm your input

  With the valid password you will return to the configuration parameter.

  With the invalid password appears "WRONG PASSWORD E15" in display
- To exit settings, press the [Stop] key (for stand-by)

TRANSMIT PARAMETERS (TRANSMIT PARAMETERS)

This function allows the Alpha Compact to send its configuration parameters completely to an external PC linked to the USB port.

By pushing the [Enter] button, the data will be transmitted to USB port.

To clone the configuration of a master unit, the output may be stored as a text file and re-transmitted to other Alpha Compact machines. The text files can be edited on a PC and retransmitted to the labeler and thus an external service programming is possible.

PROGRAMMING
TRANSMIT PARAM.

- Press either [◀] or [▶] key* to move to the next parameter.
- Press [Enter] to transmit the configuration parameters.
- Press either [◀] and [▶] simultaneously to exit this submenu.
- To exit PROGRAMMING press the [Start] or [Stop] key.

RECEIVE PARAMETERS (RECEIVE PARAMETERS)

NOTICE **Improper data received through this function may lock-up the machine or cause unpredictable behavior!**

This function sets the machine in a waiting condition to receive configuration parameters from an external PC linked to the USB port.

The function is activated by pushing the [Enter] button. A 5-digit password has to be entered. The receiving mode is terminated automatically by transmission of the last data file. It is also possible to terminate the receiving mode by pushing the [Stop]-button.

PROGRAMMING
RECEIVE PARAM.

- Press either [◀] or [▶] key* to move to the next parameter.
- Press [Enter] to receive the configuration parameters (if password is requested, see page 84). [Stop] interrupts receiving mode
- Press either [◀] and [▶] simultaneously to exit this submenu.
- To exit PROGRAMMING press the [Start] or [Stop] key.

RESET PARAMETER

This function allows to reset the operating parameters to default values that are initially pre-defined from factory, but that may also be later customized according to specific application requirements (s. "STORE PARAMETERS" on page 86). It is useful to restore a known and safe configuration in case of improper parameter modifications.

To execute the function, the 5-digits password is required (default value: 01234). Only parameters 000 to 188 are restored, the others (event counter and checksum) remain unchanged. After execution, the machine is automatically restarted and will generally show an error message (E02), due to the wrong checksum: this is normal and happens only when switching on the labeler for the first time, then the correct parameters checksum is automatically recalculated.

To help recovering operation on a machine locked due to improper configuration, it is also possible to activate this function when switching on the Alpha Compact by pressing simultaneously the [Start] + [Stop] keys for at least 5 seconds.

PROGRAMMING
RESET PARAMETER

- Press either [◀] or [▶] key* to move to the next parameter.
- Press [Enter] to reset parameters (password request s. page 84).
- To exit PROGRAMMING press the [Start] or [Stop] key.

STORE PARAMETERS (STORE PARAMETERS)

This function allows customizing the default parameter set by changing the factory predefined values. Before executing this function, it is necessary to ensure that the current working parameters have been carefully tested to ensure proper and reliable machine operation (once executed, the original default values are overwritten). Being potentially dangerous, this function requires the 5-digit password (default 01234) to be executed, but it can also be totally disabled (refer to Service manual under chapter "Extended Configuration") by setting bit 1 of parameter 004.

Once executed, its correct execution is confirmed by a single "beep".

PROGRAMMING
STORE PARAM.

- Press either [◀] oder [▶] key* to move to the next parameter.
- Press [Enter] to store parameters (password request s. page 84)
- To exit PROGRAMMING press the [Start] or [Stop] key

9. Maintenance and Service

Safety Instructions

WARNING

Hazard from direct or indirect contact with voltage-conducting parts.

DANGER TO LIFE!

When individuals touch parts that conduct electricity arising from malfunctions.

- Before performing any work at the labeling station, disconnect it from electrical power.

CAUTION

Danger to health from the improper use of lubricants and cleaners.

HEALTH HAZARD!

Improper use may lead to health hazards.

- The instructions in the manufacturer's current safety data sheets for the specific lubricants and cleaners that are used must be observed along with the applicable safety and disposal regulations.

NOTICE

Damages of machines and machine parts.

Failed or faulty maintenance- and repair works reduce the operational availability of the machine. This may result in subsequent damages and exclusion from warranty claims.
The machine functions must be continuously monitored.
Unusual noise or movements (such as bucking, hammering, etc.) are indicative of malfunctions and must be investigated.

- All noticed defects have to be eliminated immediately and professionally.
- The operation of the machine is forbidden particularly at defects at safety equipment until the defects are repaired correctly.
- The labeler's maintenance/service of the labeler is only permitted to experts. Only cleaning work may be arranged by the operator (Authorized persons s. page 19).

Daily maintenance/service (After approx. 8 hours of operation)

Requirements

- Labeling station is disconnected from power

Required equipment

- Alcohol (*21800915) or roller solvent (*21800977)
- Lint-free cloth (*21800978)
- Label remover (*21800771)

* Product recommendation! Can be ordered at the Bluhm Weber Group by 8-digit article number.

Instruction

Please arrange the daily maintenance/service as follows.

Step	Procedure
1	Clean either daily or each time you change the label roll the drive rollers. When using the recommended sprays, please spray only a slight quantity onto a lint-free cloth. Clean with the cloth then the appropriate roller and wait until it is completely dried. Only then the label web may be inserted again.
2	Examine the label guidings and deflection rollers as well as the peeler bar for excessive adhesive build up/label rests. Clean if necessary, with label remover or alcohol
3	Check moving or rotating machine parts for freedom of movement and free-wheeling and tightness of the attachment parts. Even slight stress marks or -noises must be observed. Possible repairs have to be arranged professionally.

Weekly maintenance/service (After approx. 40 hours of operation)

Requirements

- Labeling station is disconnected from power

Required equipment

- Lint-free cloth (*21800978)
- Label remover (*21800771)
- Compressed air spray (*21800768)
- Soft brush (round or flat, appr. 100 mm)

* Product recommendation! Can be ordered at the Bluhm Weber Group by 8-digit article number

Instruction

Please arrange the weekly maintenance/service as follows.

Step	Procedure
NOTICE	Do not use aggressive detergents or scrubbing agents or hard or sharp-edged objects.
1	Clean all sensors (product sensor, low label sensor and label gap sensor) carefully with a soft brush and compressed air spray.
2	Check lines, tubes, screw connections, valves, cylinders and motors for leakage and/or fixed seat. Possible repairs have to be arranged immediately and professionally.
3	Remove possible dust deposits from the labeling station.

Yearly maintenance/service (After approx. 2000 hours of operation)

Requirements

- Labeling station is disconnected from power

Instruction

Please arrange the yearly maintenance/service as follows.

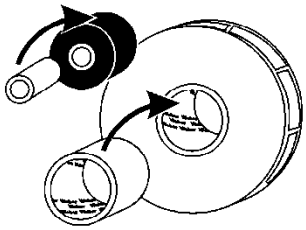
Step	Procedure
1	Examine label liner rewinder and the brake belt for excessive wear. Check all timing belts for wear and correct tension. Exchange all parts that are necessary for a correct function.
2	Check all drive belts, deflection rollers, pusher rollers for wear and bearing clearance. Replace if worn
3	Examine all screw connections for fixed seat.
4	Examine all electric connections.
5	Exchange all parts that are necessary for a correct function.

Cleaning notes

D/GB

SERVICE-HOTLINE:
☎ +49 (0) 2224/ 7708 - 440
hotline-ed@bluhmsysteme.com

REINIGUNG NACH JEDEM ROLLENWECHSEL !



CLEANING AFTER EACH ROLL CHANGE !

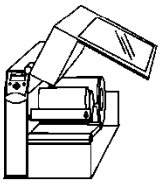
BESTELL-NUMMERN / *ORDER NUMBERS*

21800771	21800915	21800768	21800977	21800978	21800921
ETIKETTEN-LÖSER *LABEL REMOVER*	ALKOHOL *ALCOHOL*	DRUCKLUFT *COMPRESSED AIR*	WALZENREINIGER *ROLLER-SOLVENT*	FLUSENFREIES TUCH *LINT-FREE CLOTH*	REINIGUNGSFOLIE *LAP SHEET*
1	2	3	4	5	6

BESTELLANNAHME *ORDER PROCESSING* ☎ **+49 (0)2224/ 7708-672** ✉ **bestellung@bluhmsysteme.com**

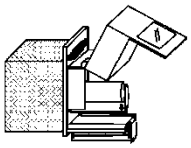
a

TISCHDRUCKER *DESKTOP PRINTER*



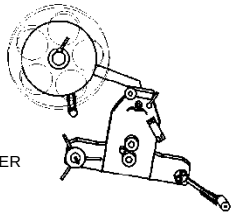
b

DRUCKMODULE *PRINT MODULES*



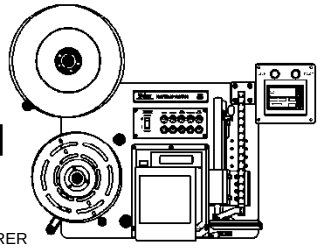
c

ETIKETTIERER *LABELER*



d

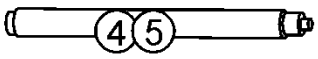
ETIKETTIERER *LABELER*



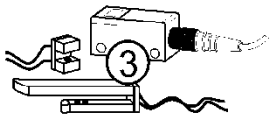
a ✓ b ✓ c d — DRUCKKOPF / *PRINTHEAD*

a b c d — FRIKTIONSEINHEIT / *FRICTION UNIT*

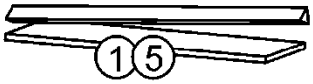
a ✓ b ✓ c d — GUMMIWALZEN / *PLATEN ROLLERS*



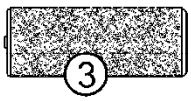
a ✓ b ✓ c ✓ d ✓ — SENSOREN/ *SENSORS*



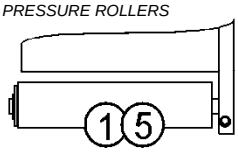
a ✓ b ✓ c ✓ d — SPENDEKANTEN / *PEELER BARS*



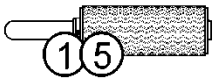
a b c ✓ d — ANTRIEBSWALZE / *DRIVER ROLLER*



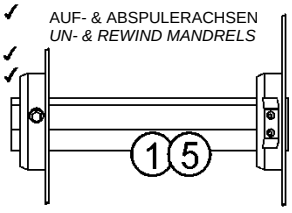
a b c d ✓ — ANDRÜCKWALZEN *PRESSURE ROLLERS*



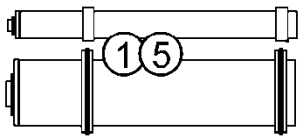
a b c ✓ d — FRIKTIONSWALZE / *FRICTION ROLLER*



a ✓ b c ✓ d ✓ — AUF- & ABSPULERACHSEN *UN- & REWIND MANDRELS*

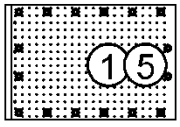


a b ✓ c ✓ d ✓ — FÜHRUNGSROLLEN/ *GUIDE ROLLERS*



a b c ✓ d ✓ — STÜTZLUFT-EINHEIT *AIR ASSIST ASSEMBLY*

a b c ✓ d ✓ — STEMPELPLATTE /*TAMP PLATE*



Artikel-Nr./ Part-No.: 55203819 /18.08.2010

Spare parts

Safety regulations

CAUTION

Hazard from incorrect spare parts!

HEALTH HAZARD!
Incorrect or faulty spare parts can impair safety and cause injury or damage to the machine.

- Only use original spare parts or parts that are specifically approved by the Bluhm Weber Group.

The (standard) spare parts of the labeling station are named in a separated documentation that belongs to the scope of supply.

Wiring diagram

The wiring diagram is included in switch cabinet (if available).

10. Troubleshooting

Safety instructions

WARNING

Hazard from direct or indirect contact with voltage-conducting parts.


DANGER TO LIFE!
When individuals touch parts that conduct electricity arising from malfunctions.
- Disconnect the labeler from power supply voltage before starting any work at electrical equipment.

CAUTION

Hazard from rotating elements.


ENTANGLEMENT HAZARD!
Rotating elements at the labeler like label liner rewinder, web brake and rollers of the drive unit are powered by motors.
- Do not grip in, at or between the moving parts.

Error description

This chapter is divided into 2 parts; “Mechanic Failures” and “Messages by Display”.The possible causes and their elimination is explained in the following two sequences.

Mechanic errors

Problem	Possible cause	Solution
Label liner tears	Damage of label roll: • Nicks or label cutter-die damage on liner. • Dents/damages at the side of the label roll. • Liner width varies significantly.	Exchange label roll.
	Label web is not loaded correctly.	Load label web correctly.
	Adhesive residues in the area of the peeler bar.	Remove adhesive residues and check the label roll for damages caused by adhesive residues. Otherwise exchange roll.
Label placement on the product is consistently poor.	Slip due to dirt or wear.	Clean the drive rollers, check them for wear. Replace them if applicable or inquire Service-Technician by Hotline (s. page **7**).
	Label with not suitable adhesive, insufficient initial adhesion.	Change label quality.

Problem	Possible cause	Solution
	Wrong parameterization.	Check the configuration parameter for ramp values. Observe the influence of label length to feed speed or inquire Service-Technician by Hotline (s. page **7**).
Improper label stop-position (to peeler bar)	High label speed or high Start-/stop-ramps (> G2) at low value for „label postion“.	Change of position of label sensor to achieve a higher value for label position.
		Reduction of start-/stop-ramp values or label speed.
	Label sensor is dirty.	Clean label sensor.
	Web brake is adjusted too tightly.	Check adjustment.
	When the label stop is scanned mechanically: Label is not detected correctly.	Load label web again if applicable or check position of the label sensor.
		Remove adhesive residues at the scanning roll.
	Label length is more than 300mm.	Adjust the label length in configuration menu in parameter [01 Label Length] accordingly.
Labels run without stop thorugh resp. the positioning of label at peeler bar is irregular.	Transmitter and receiver of the label-stop-light barrier of the applicator are not placed exactly above each other (mechanically damaged).	Adjust transmitter and receiver or replace if applicable.
	LED at receiver of label-stop-light-barrier lights permanently.	Check the sensitivity setting.
The desired rate of application cannot be reached with the labeler…	Wrong settings of the labeler, system cycle times are too long.	Inquire Service Technician at Hotline (s. page **7**).
Machine functions occur at random without being initiated.	Loose wiring connections.	Check all connections at labeler.

Correcting adjustments based on labeler result

Based on the labeler result you can draw conclusions from the necessary adjustments.

Correct labeling

If the labeling is performed correctly, the label is

- free from creases,
- straight,
- always at the same position on the product.

No correction is necessary.

Fig. 10-1: Product with correct labeling result

Error at labeling

The label has creases.

Fig. 10-2: Product with creases in the label

Correct the labeling result as follows:

Step	Procedure
1	The application speed of the label may be too fast. Examine and correct the application speed.

The label is beveled on the product.

Fig. 10-3: Product with beveled label

Correct the labeling result as follows:

Step	Procedure
1	The inclination of the tamp plate may be adjusted incorrectly. Examine and correct the inclination of the tamp plate.

Error messages by display

As soon as an error was detected at the labeler, the labeling station stops the application cycle. The labeler changes to standby-mode, the green LED at operator panel goes out and the red LED lights. In the second line of the display an error message is indicated. Its meaning is described as follows:

DISPLAY MESSAGE	DESCRIPTION	CAUSE/ SOLUTION
NOT RESPONDING	This message indicates internal communication problems between controller and motor control.	Possible cause can be loose cable connections (inside and outside of the controller) or strong magnetic fields in the environment. If necessary, please let check by qualified personnel…
PARAMETERS ERROR	The memory-test when switching on the controller resulted in a checksum error.	Activated parameters might be damaged. If the error is still indicated after a new memory test, a chip in the controller is probably damaged. Please contact the Service Hotline (see page 8).
TRIGGER ERROR	The trigger for application comes during application cycle.	Increase the distance between the products or increase the acceleration ramps.
L. EDGE NOT FOUND	The label sensor does not detect label material.	Check the setting of the sensor for label detection. Check whether there are labels on the label liner.

Reset error after troubleshooting by pushing the [Start] or [Stop] button.

11. Index

12. EC Declaration of conformity

DE EG-KONFORMITÄTSERKLÄRUNG gemäß EG-Maschinenrichtlinie 2006/42/EG, Anhang II A

GB EC-DECLARATION OF CONFORMITY according to EC Machinery Directive 2006/42/EC, Appendix II A

FR DECLARATION DE CONFORMITE CE conforme à la directive machine 2006/42/CE, appendice II A

Weber Marking Systems GmbH
Maarweg 33
D-53619 Rheinbreitbach

DE **Wir erklären in alleiniger Verantwortung, dass die Maschine:**
GB We declare under our sole responsibility that the machine:
FR Nous déclarons sous notre responsabilité exclusive que la machine:

Geset 141

DE **auf das sich diese Erklärung bezieht, folgenden Bestimmungen und Richtlinien entspricht:**
GB to which this declaration relates corresponds to the regulations and directives.
FR que concerne cette déclaration, est conforme aux directives et réglementations suivantes:

2006/42/EG
2004/108/EG
2006/95/EG

DE **Bevollmächtigter für die Zusammenstellung der relevanten technischen Unterlagen:**
GB The person authorised to compile the relevant technical documentation:
FR Personne mandatée pour élaborer la documentation technique concernée:

Lutz Krämer
Maarweg 33
D-53619 Rheinbreitbach

Rheinbreitbach, 08.Mai 2013

Prokurist/ *Authorized Officer* **/** signataire autorisé