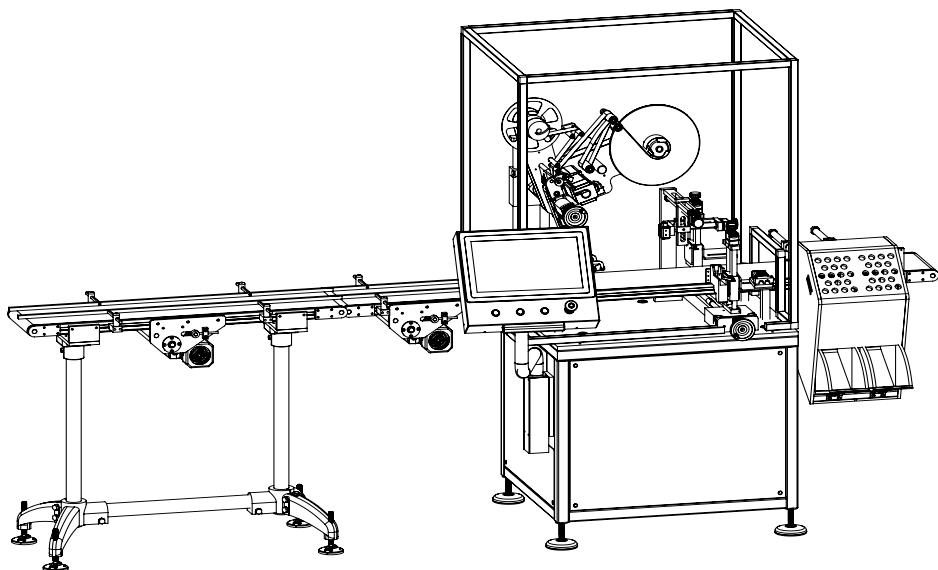




USER MANUAL

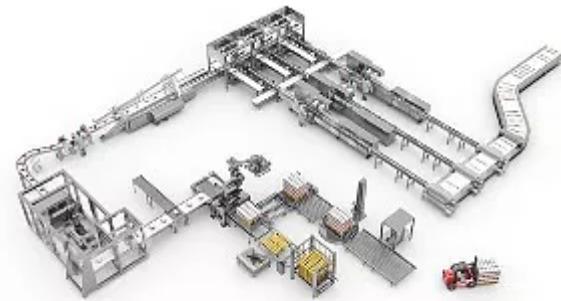


AUTOMATIC LINEAR SELF TOP LABELLING MACHINE

M-ETK-A04

YOUR INNOVATIVE SOLUTION PARTNER





Turnkey Liquid Line
Solutions



Customer-Specific Solution



R&D

About us

Started production in a small workshop in Topçular in 1978, Elektromag has become one of the leading companies in the Turkish packaging machinery sector with its 14,000 m² closed area and its 70 employees. In the rapidly developing packaging industry, our customers are in search of affordable yet high quality and high capacity machines. Along with the technological developments in existing machines, Elektromag aims to engineer, manufacture and introduce simple and high capacity machines.

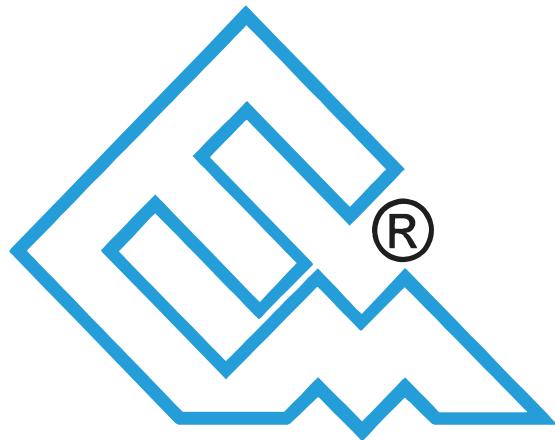
Our Production Programme

AUTOMATIC MACHINE

- Plastik Bottle Unscrambler machine
- Blow air bottle cleaning machine
- Liquid Filling without gases product
- Capping
- Labelling
- Open Cartoning
- Cartoning
- Bundle
- Cartoning
- Packaging Machine
- Security Band Machines
- Shrinking Machinery
- Body Sleeve Machinery
- Datamatrix Coding Machinery
- Ampul Labelling

SEMI-AUTOMATIC MACHINES

- Capping
- Filling



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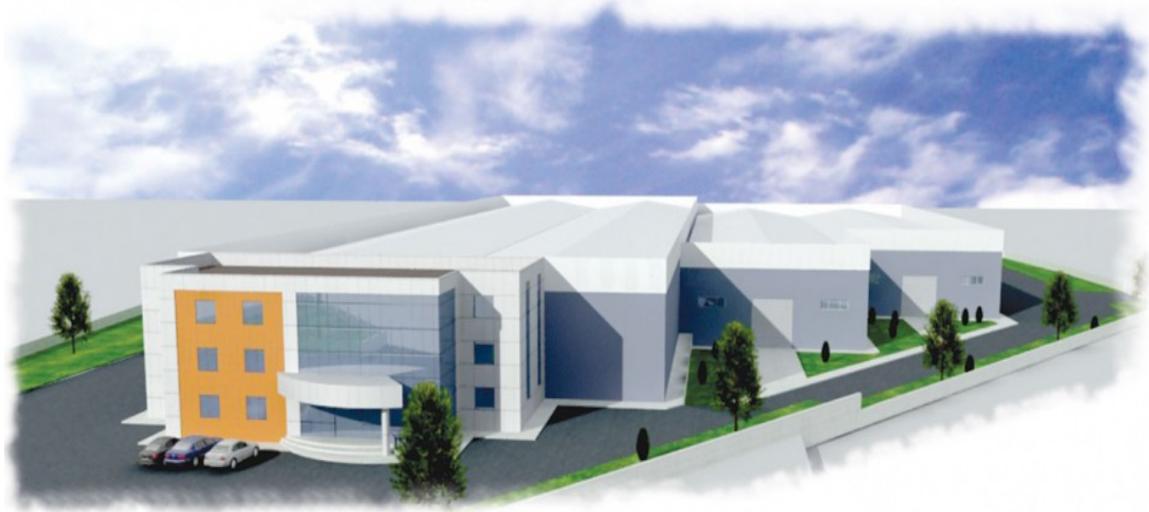
The data in this user manual is based on general data about the method of operation of parts and machinery. It is known the published date, we have reserved the right to make changes without notice.

This document is valid for given version machines. The manufacturer therefore assumes no responsibility for any damage or injury caused by deviating from the technical specifications of the specified machine.

All possible care was taken in creating this document, but the manufacturer does not accept responsibility for errors or any consequences

PLEASE READ THIS DOCUMENT FOR YOUR SAFETY.

2021



The ongoing success of Elektromag depends on quality, which is the most important competitive factor of today. The quality of the product and company for our company is an inseparable whole.

Our Quality Policy:

- To continuously improve and improve quality management system .
- To ensure that the product is completely suitable for the purpose used.
- To ensure that the customer can obtain the product on time and in accordance with Sunday prices, to reflect the latest technological developments on the products, not to fall behind the technology.
- To increase the customer's confidence in the company's competence.
- To ensure that all employees are qualified and qualified in their fields and to reinforce them through training.
- Ensure a regular, clean and reliable working environment
- To ensure that the instructions, procedures and job descriptions used within the company are adhered to one by one.
- Working in accordance with national laws and regulations



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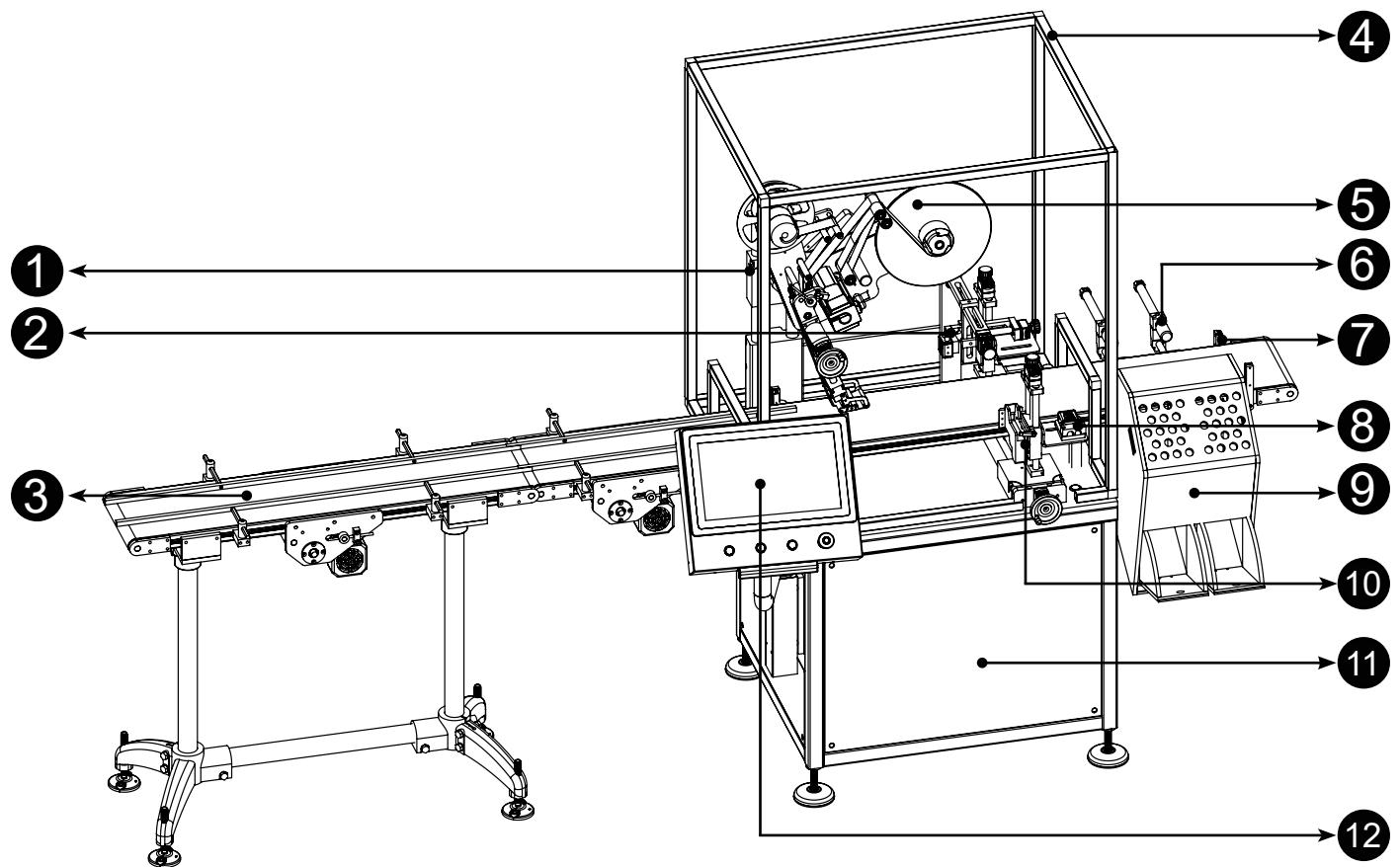
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INFORMATION

1





1) Module Setting Group

7) Product Runaway Photocell

2) Camera (Label Control)

8) Camera (OCR PHC Control)

3) Enter Conveyor

9) Reject Collecting Box

4) Cabinet

10) Videojet Coding

5) Module Group

11) Chasis

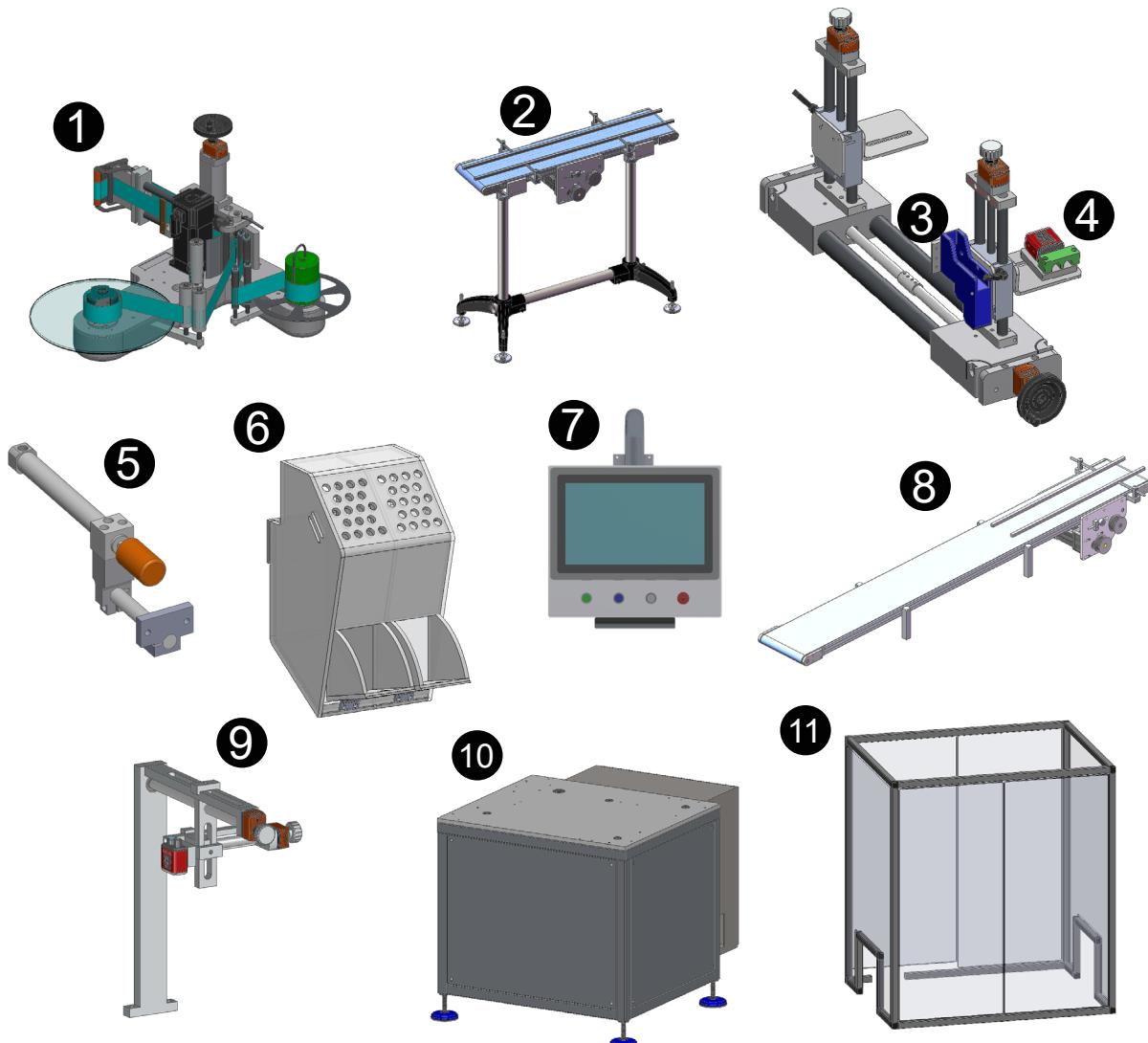
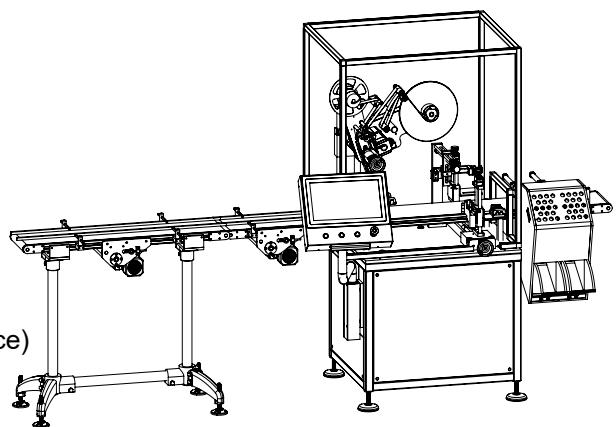
6) Eject Piston

12) HMI (Human Machine Interface)

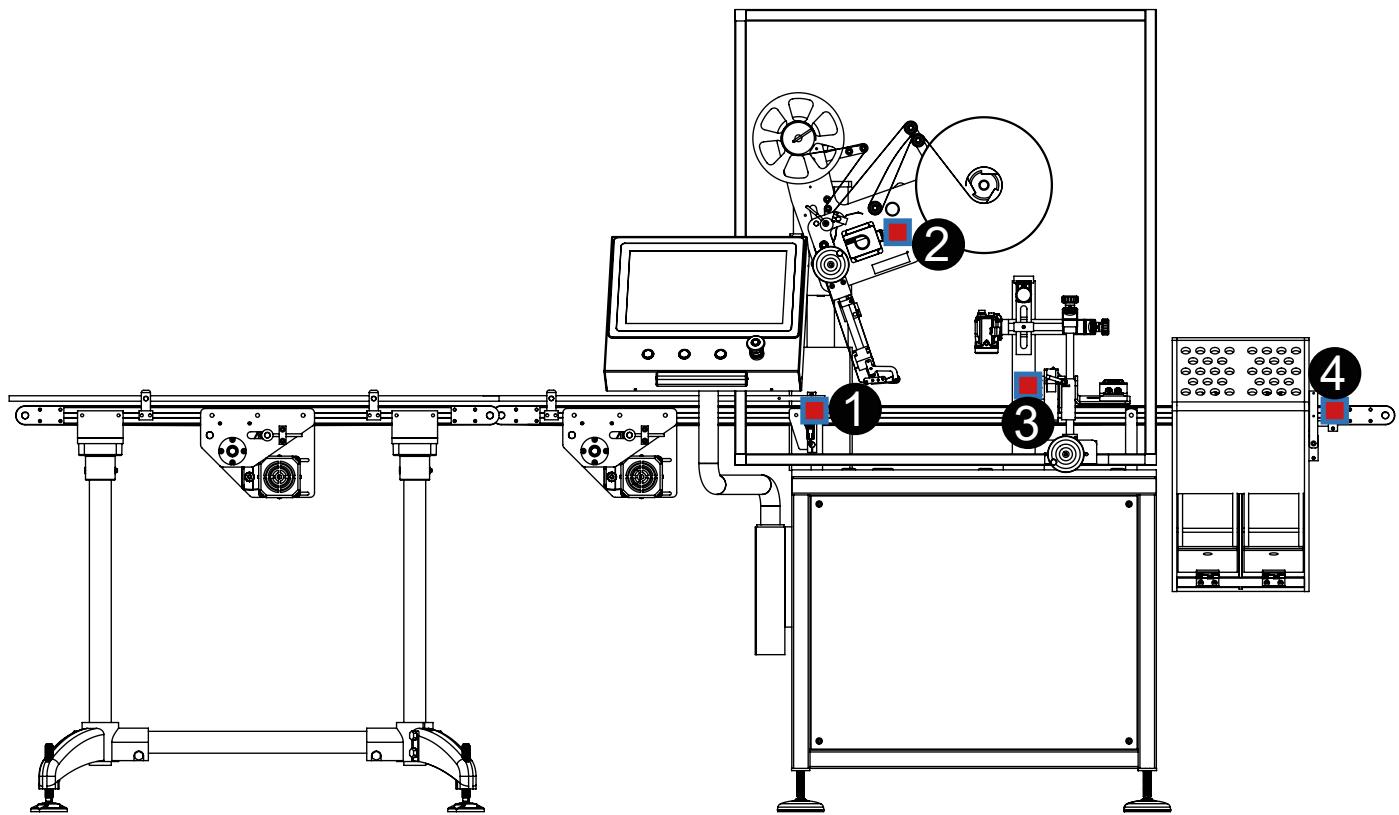


1.1 Main Components

- | | |
|------------------------------------|------------------------------------------|
| 1) Module Group | 7) Conveyör |
| 2) Enter Conveyor | 8) Camera (Label Control) |
| 3) Videojet Coding | 9) Chasis |
| 4) Camera (OCR PHC Control) | 10) Cabinet |
| 5) Eject Piston | 11) HMI (Human Machine Interface) |
| 6) Reject Collecting Box | |



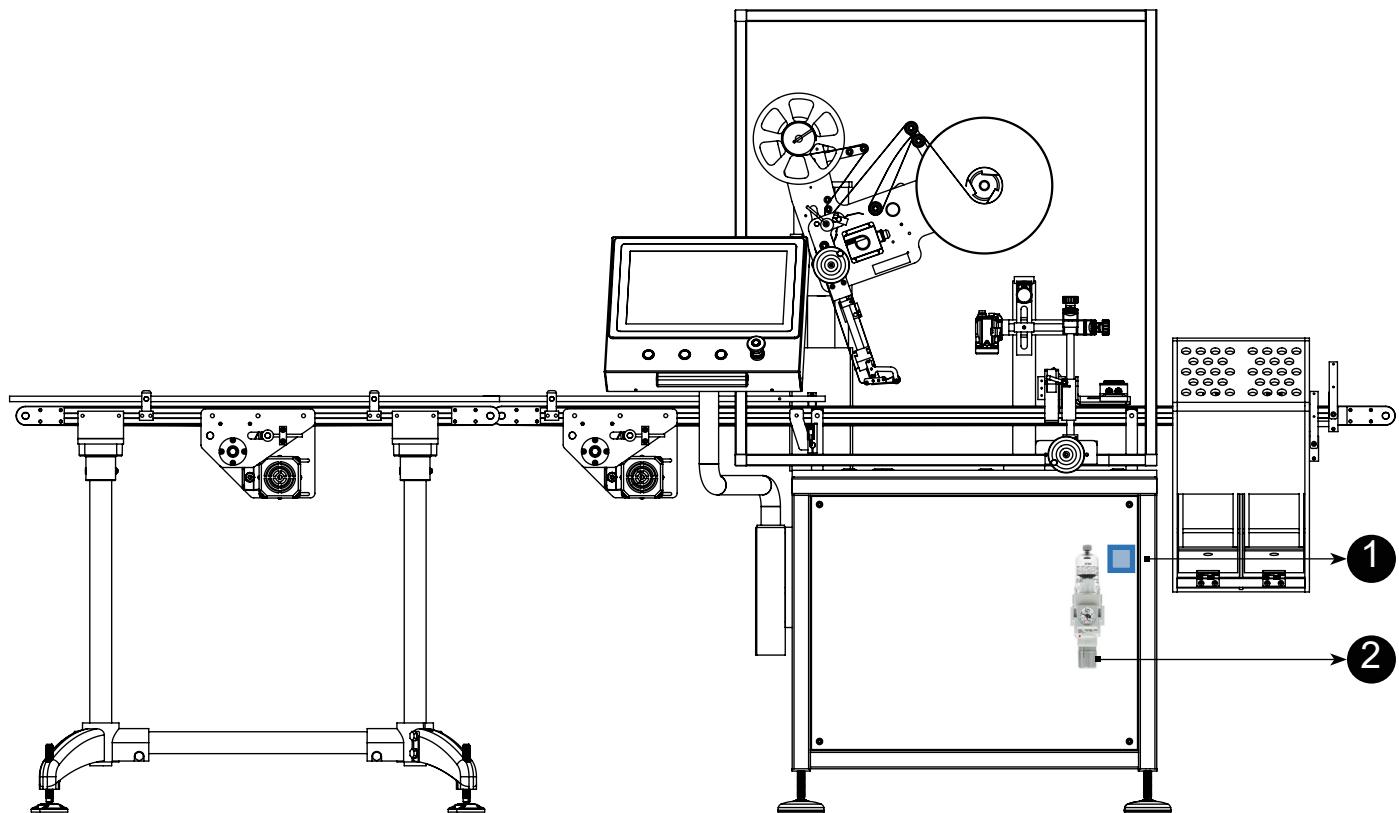
1.2 Sensors



Ind.	Sensor No	Def.	Duty
1	S1	Label Start Sensor	Check the presence of enter from the conveyor. When it sees the box, it sends a start signal to the label.
2	S2	Label Finish Photocell	Checks the presence of the label. If the photocell does not see the label, The Machine Stops.
3	S7	Print Start Photocell	After seeing the box, it starts the print process.
4	S6	Prod. Runaway Photocell	It stops the machine by seeing the damaged and unlabeled box that is not rejected.
5	S3	Enter Empty Photocell (Opt)	Check the presence of inbox from the conveyor. If the input is empty, the machine will not work.
6	S4	Exit Full Photocell (Opt)	Checks the full status of the exit conveyor. The machine will not work if the exit is full.
7	S10	No Air Sensor (Opt)	Checks the condition of air in the machine.

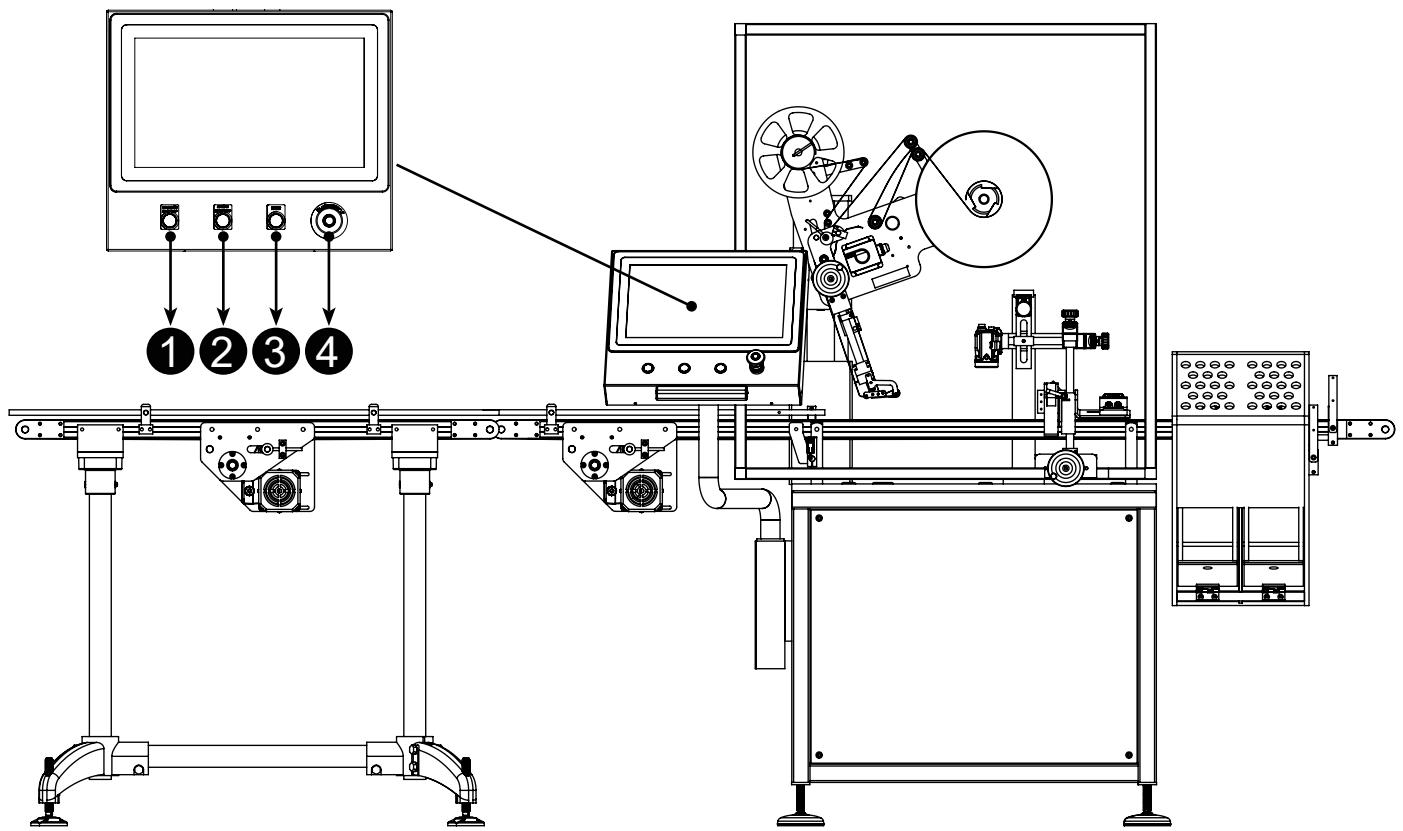


1.3 Valve and Conditioner



No	Valve No	Def.	Duty
1	Y1	Eject Piston Valve	The valve that controls the Eject piston.
2		Conditioner	Controls the intake of air into the machine. Adjust the pressure. It filters the air.

1.4 Butonlar



No	Button No	Def.	Duty
1	B2	Conveyor (START / STOP)	Starts or stops the conveyor.
2	B3	Machine (START / STOP)	Start or stop the Labelling
3	B4	Reset	Reset the Alerts.
4	B1	Emergency Stop Button (STOP)	It is used to stop the machine instantly in an emergency.
5	Q1	Pacho Switch	It is used to energize or cut the machine.



1.5 Üretici tanım plakası

ELEKTROMAG MAKİNA

Ç.O.S.B 15.Sokak No.3
59500 - ÇERKEZKÖY / TEKİRDAĞ
Tel. 0282.726.13.14
Fax. 0282.726.14.43
www.elektromag.com.tr

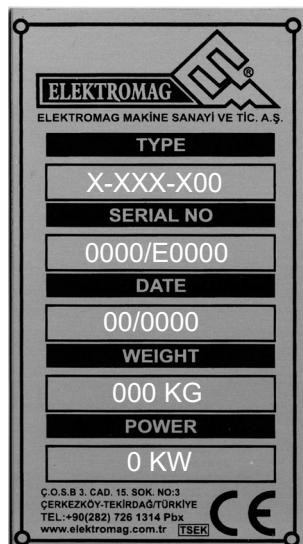
1.6 Servis ve teknik destek

Bu kılavuz dışında kalan ayar, bakım ve bilgi için lütfen üreticiye başvurun. Size her zaman yardım etmeye hazırız. Aramadan önce aşağıdaki verilere sahip olduğunuzdan emin olun:

- Makine Modeli
- Seri Numarası

1.7 Makine tanım plakası

Tanım plakası aşağıdaki gibidir.



- Machine Model
- Serial Num.
- Prod. Date
- Weight
- Energy Req.

1.8 Expected Usage

This particular model of machine is designed and manufactured for the purpose of labeling only in the specified bottle types.

- **Label should be following properties:**

- Inner dia: 74 mm
- Outer dia: Max. 300 mm

Any use other than specified or of different size or different type the use of materials is considered inappropriate. The machine is intended for professional industrial use in all cases..

1.9 Necessary environmental conditions

Rain, hail, snow, fog, dust, etc. with an ambient temperature not exceeding 5°C and 45°C to ensure the smooth operation of the machine it should be kept indoors for protection purposes. The working area should be clean, adequately lit and free of explosive gases.

1.10 Technical Specifications

Machine Dimension	3100L x 1300W x 1800H (mm)
Conveyor Height	Standart 900mm (± 50 mm)
Construction	Aliminium and Stainless steel construction
Control Unit	Beckhoff brand PLC Control system
Conveyor width space	90-310 mm
Prod. Dia. space	20-300 mm
Label giving speed	30 m/dak
Label Height settings	20-230 mm
Label Roll Outer Dia.	Maks. 300 mm
Label Roll Inner Dia.	74 mm
Air Requirement	6-8 Bar
Electric Requirement	220V, 50Hz, 0.7 kW
Weight	~350 kg
Energy Requirement	2 kW



1.11 Destructions

Destruction occurs at the end of the machine's lifetime, which has a life of more than ten years under normal operating and maintenance conditions .When disposing of the machine at the end of its life, all components must be disposed of in appropriate dumps in accordance with applicable legislation. Send used oils to appropriate collection centers.

Before disposal, plastic or rubber parts, as well as electrical and electronic components, must be separated. Parts made entirely of plastic, aluminum and steel can be recycled when taken to appropriate collection centers.



1.12 Warranty

General Warranty Terms

- 1- Machinery; electrical, electronic, hydraulic, pneumatic and automation equipment except (these parts are covered by manufacturer's warranty) against manufacturing and assembly defects are covered by our company warranty. Other than the technical conditions required by the user and the machine (voltage fluctuations, causes of compressed air, etc.) failures caused by running with ELEKTROMAG company has been excluded from the warranty coverage in the failures that occur as a result of the intervention of non-certified users.
- 2- Warranty period starts from the date of shipment and is 2 (two) years or 3000 (eight thousand)hours is guaranteed.
- 3- During the warranty period, the period of maintenance, repair and replacement due to manufacturing and assembly errors shall be added to the warranty period, and this period shall include: starting from the date of application to the station and to the manufacturer or seller company for its replacement.
- 4- As a result of the failure of our product due to manufacturing and assembly errors within the warranty period, maintenance and repair of our factory will be done free of charge without the cost of Labor and spare parts. However, the transportation, accommodation and costs of the technical service that will go to the service operations that require on-site repair are the customer's own.
- 5- If it is not possible to repair the defects caused by manufacturing and assembly faults within the warranty period, the necessary parts/parts will be replaced in accordance with the report to be given by our maintenance and repair company.
- 6- To fulfill our warranty obligations in accordance with the relevant provisions of the Consumer Protection Law dated 3/2/1995 and numbered 4077 if so, we accept and undertake to make the situation public by the Ministry of Industry and trade.
- 7- Consumers must notify the manufacturer of maintenance, repair and cases by fax or mail.
- 8- If the consumer is a injured part, the Ministry of Industry and trade must apply to the General Directorate of measurements and Quality Control.



Special Warranty Terms

- 1-Our company is not responsible for any damage that may occur during the transportation and placement of the customer.
- 2- The warranty is valid only for failures that may occur in this machine and our company cannot be held responsible for the damage of any other goods or persons during the operation of the machine, and cannot claim any rights or compensation under any name.
- 3- Failures that may occur within the warranty period are only resolved by our service personnel. The warranty is void in the event that other persons interfere with the machine without our written agreement.
- 4- The determination of the faults within the scope of the warranty and the manner and method of their removal belong to our service personnel. Defective parts can be repaired or replaced with new ones. The repair of the faults within the warranty period can be done at the place where the machines are located or at our company's shipping costs depending on our request.
- 5- In order to resolve a complaint within the scope of the warranty, we will be given sufficient time by the customer and, when necessary, we will provide assistance and tools and equipment.
- 6- In order for the warranty to be valid, the customer must have made all payments to ELEKTROMAG in full and on time.
- 7- If damage is done on the warranty certificate, the original serial number on the machine is removed or destroyed, this warranty shall be void.
- 8-The warranty shall remain in force in the event that the obligations and responsibilities of the customer written in this document, user manual and catalogue are fully fulfilled.



1.13 The persons who authorized to operate the machine

The following are the people who can work on the machine after once you have received all the necessary instruction in this guide;

Security Manager

The security manager will ensure that all people running the machine receive all the instructions set out in this manual. Occupational Safety Training should be provided.

Operator

The operator must have experience gained under the guidance of expert staff. He can only perform the operations assigned to him in this manual. Under no circumstances is it appropriate for the machine to be operated by untrained persons.

Mechanical Maintenance Technician

Mechanical maintenance technician should have general machine experience and also special experience in this machine model.

Electrical Maintenance Technician

The electrical maintenance technician should have the experience of the electrical panel as well as the experience of the electrical panel and the electrical components in this machine.

Manufactured Company

For other actions not mentioned in this manual or assigned to a person other than those mentioned above, contact ELEKTROMAG.



SECURITY

2



2.1 Safety Information

The security manager is responsible for informing employees about the risks associated with the use of the machine. It also has to train workers until they can ensure their own safety and the safety of others.

Failure to pay attention to Basic Rules and precautions during operation, maintenance or repair of the machine can cause accidents. Potentially dangerous situations must be eliminated or reported before accidents occur. The operator must be aware of potential hazards and have the necessary training, work capability and tools.

ELEKTROMAG does not accept responsibility for accidents or damage caused by improper use of the machine. The enterprise is obliged to observe applicable safety.

There are safety warning signs on the machine. Safety warning signs are described in the guide. The operator must fully comply with these safety signs. Failure to comply may cause serious damage to itself and its environment.



ATTENTION!

Failure to comply with these warnings may result in injury to the operator.



ATTENTION!

Failure to comply with these warnings may damage the machine.

ELEKTROMAG cannot predict every possible danger. The warnings in this guide are not all inclusive. Ensure that there is no danger to yourself or anyone else if instruments, procedures and working methods not recommended by ELEKTROMAG are used.

Use only the original part recommended by ELEKTROMAG



ELEKTROMAG does not accept responsibility for the use of non-genuine spare parts

2.2 Safety Instructions



ATTENTION !

The instructions below do not prevent all hazards that may be encountered while using the machine. Following these warnings, along with the operator's common sense and experience, is the only sure way to prevent accidents.

The presence of a technician may be necessary during Special Operations (change of parts, maintenance, loading etc.).

The operator and technician should work together. The responsible operator is obliged to check that it is working under the security conditions.

If an operation or intervention is required that is not included in the manual, consult ELEKTROMAG before proceeding.

Access to the work area or machine intervention is not permitted except for the responsible operator and the authorized person.

In the event that the customer attaches an accessory to the machine that cannot be supplied by ELEKTROMAG, they are obliged to carry out the necessary checks to ensure compliance with the safety conditions. In all cases, ELEKTROMAG does not accept responsibility for any potential problems arising from the use of this section.

The machine should not be operated in an abrasive or explosive environment.

Keep the machine away from objects that could damage its operation and cause injury to people.

Wet or oily floors can cause accidents. Immediately clean and dry any liquid or oil stains that occur during any work done on the machine.

Avoid using flammable or toxic solvents such as gasoline, benzene, ether, or alcohol for cleaning.

Avoid prolonged contact with solvents and inhalation of vapors. Keep away from outdoor or heat sources. Provide adequate ventilation.

Prolonged overloads or disruptions can cause electrical motors and electrical equipment to overheat, resulting in the emission of harmful fumes. Turn off the power immediately and fan the media. Do not approach the machine until the resulting smoke is removed.

Never use drain water with a pipe in case of fire, use a CO₂ fire extinguisher tube instead



When compressed air is used to clean the machine, the operator, any assistant and maintenance technician must wear protective clothing, protective glasses and masks to protect them from possible flying debris.

Employees should use work gloves, shoes, and hearing protection when the acoustic radiation pressure at work exceeds 85db (A), as required .Wear the appropriate work clothes. For long hair, use a hairnet to avoid the risk of entanglement.

The manual must always be kept at hand so that it can be consulted to check the correct working cycle. In the event that this guide is lost or damaged, a backup copy must be requested from the Elektromag.

Structural damage, renovations, alterations or improper repairs may alter the protection capacity of the machine and therefore the warranty may expire. Only ELECTROMAG technicians can make any changes.

Note that when a red warning light is on, there is a fault in the machine, and therefore the type of error must be identified before proceeding.

During maintenance operations on the machine, a note should be placed on the machine, preferably on the control panel that says "**DO NOT OPERATE THE MACHINE**".

When conducting authorized intervention of a special technical maintenance nature, inspection or repair, the assigned person may be required to disable (partially or completely) some of the safety devices and to open or remove protective guards. It is the personal responsibility of the authorized person after completing the task to ensure the operation of these security devices and the related guards.

To Climb the machine is forbidden.

Electrical cables, switches, buttons, etc. do not touch with wet hands.

There is a red emergency button on the control panel or chassis to stop the machine.



2.3 Safety Tags and Markings

Safety tags are available on the machine.

ATTENTION !



Make sure all safety signs are not damaged. Tags should be cleaned by using cloth. Never use a solvent material. Replace damaged labels with new labels available from Electromag. If the label is part of a machine that is being replaced, make sure that a new label is pasted.

The Warning Signs in the Machine

As a result of risks and identification, the manufacturer has affixed a minimum warning label to the machine. Other warning signs that must be affixed to the machine about possible risks are the customer's responsibility. The user is obliged to change the warning labels in case of wear or damage.

ATTENTION !



Removal of safety tags and/or warning signs is strictly prohibited. The manufacturer does not accept any responsibility for the safety of the machine if this provision is not taken into account.

ATTENTION !



Exposure of people to moving parts of the machine can create dangerous situations for their safety. It is strictly forbidden to operate the machine until the provided fixed protection components are installed correctly. Tampering with or removing machine guards is strictly prohibited.

Do not interfere with your hand until the machine stops!



Attention! Electrical Hazard



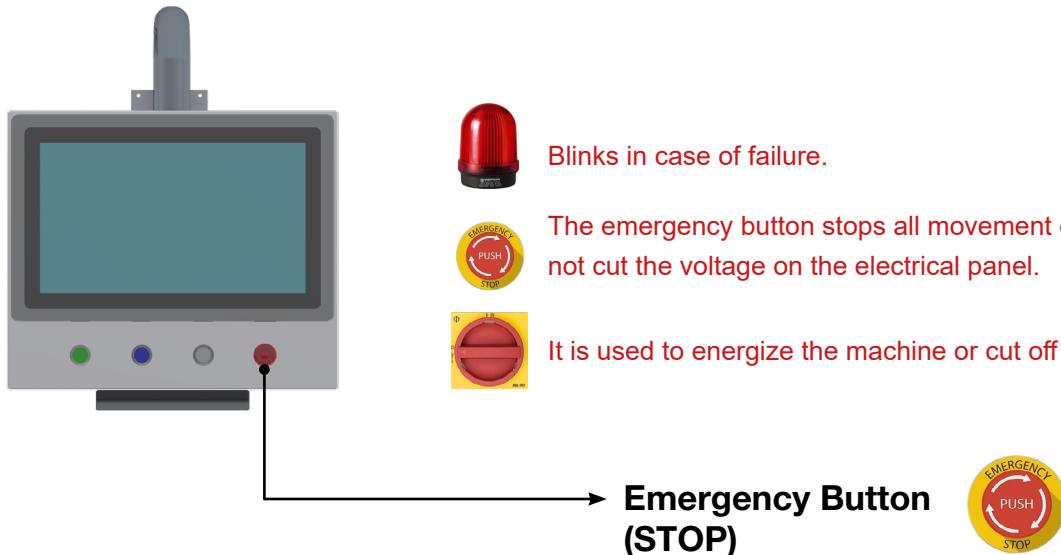
Attention ! Hand Stuck



Attention! Moving Band



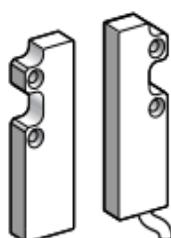
2.4 Safety and Production Devices



ATTENTION !

Specified components have special Prevention for security . In case of failure or wear, replacement must be made using parts supplied or permitted by the manufacturer.

Protection covers should not be removed while the machine is running.



Safety final safe switch security components doors and covers the way it tracks. When a protected cover is attempted to be opened during the operation, the switches will stop the machine because they will be non-interactive.



ATTENTION!

At the end of the original safety, any changes to the switches are strictly prohibited and automatically result in the loss of all approvals.

2.5 The Remains Risks

The manufacturer recommends full compliance with the instructions, procedures, recommendations contained in this manual and the applicable safety regulations, including the use of both machine-fitted and personal safety equipment.

Attention!



As a measure of security interests, the operation of security devices should be checked regularly. Additional hazards or risks of unforeseen consequences no mechanical, electrical or pneumatic modifications are strictly prohibited, so as not to create them.

The risks that remain within the scope of machine foresight are as follows::

Lack of adequate lighting If the machine is placed in a dark area, provide a 24-volt portable lamp (for maintenance only)

Electrical risk due to needed maintenance Only trained personnel are allowed to intervene. Insulated work clothes if necessary (gloves etc.) should be worn.

Attention!



Before connecting to the power supply, ensure that the AC current at the installation point does not exceed the appropriate value on the meter. If this is not the case, the necessary action must be taken at the customer's expense.

Risk of misuse in the presence of explosives or flammable substances The machine should not be used in flammable powders or in areas containing flammable liquids that may evaporate.

The risk of working in humidity environment

Follow the limitations described in this guide. Section 1.5 the necessity of environmental conditions.

The risks that may occur when moving the machine

It is recommended that the machine or its parts be removed from the point provided, removed to the minimum height required by appropriate means, and moved at slow speed by checking whether the persons assisting in the operation are at a safe distance from the item being carried.

Before moving, make sure the passageways are clean and there are no loose objects in the machine. It is important that to avoid sudden movements or movements that may be dangerous to people in the area, the experienced people should do this thing.

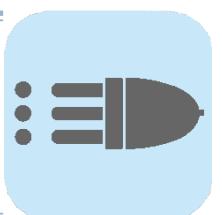
Risk of failure in Panel, safety, protection and emergency stop circuits

Panel, safety, protection and emergency stop systems may not work in case of circuit failure. It is therefore recommended that their functionality be checked periodically.



TRANSPORTATION AND INSTALLATION

3



3.1 Transportation

It is the customer's job to ensure that the support Surface power is sufficient to carry the weight of the machine (Weight 950~Kg).

Lift and move the machine using a Forklift. Place both forks of the forklift, as in the representative picture . (Take into account the center of gravity) .



When carrying the machine using a forklift, lift the load up 200mm above the ground and tilt it backwards. Consider the height of the workspace when lifting the machine .Make sure the passageway is clean and there are no loose objects in the machine before you start the moving.

Before attempting to move the machine, the following initial preparations must be made:

- Make sure the machine is not fixed to the floor
- Remove all removable parts
- Block all moving parts to avoid damage during transport
- Use sufficient lifting equipment for specified weight
- Empty/remove the product from the machine.



3.2 Settlement

Attention!



Before starting the docking process, a preliminary visual scan of the machine must be performed to determine any damage during the transport phase.

In the event of damage to one or more components during settlement, ensure that necessary precautions are taken when informing the manufacturer about the problem and the path to be applied. The machine will operate within the expected technical parameters as long as it is properly placed or secured on the workshop floor.

Attention!



Only properly trained and experienced persons can make electrical connections.

3.3 Machine Elektric Connection

Electric Connection to the machinery:

Line Connection

3.4 Pne bağlantı

Attention!

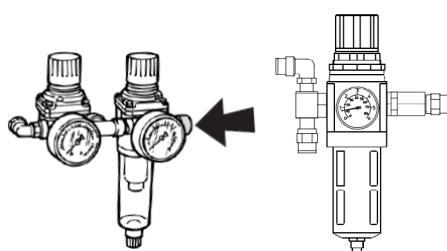


Only properly trained and experienced persons can connect the pneumatic system.
Suitable personal protective equipment shoul be use during connection process

To ensure the correct operation of the machine, the pneumatic supply system must be at 4 - 6 bar pressure. Connect the(representation) arrow to the point in the image shown below.

The size of the pipe feeding the line should be at least 3/8'.

Connect the(representation) in the image to the point indicated by the arrow.



3.5 Starting

After you have completed all the connections described in the previous section, run the machine.

If the phase sequence is incorrectly connected, the phase control part on the panel does not energize the machine.

Correct phase sequence.

Ensure that all machine units are installed correctly .

Ensure that all utilities, both electrical and pneumatic, are connected correctly.

Make sure there is no problem with the machine, the mechanical operating range and the security guards (doors) are working properly.

Check security systems: emergency button, door switches etc.

The work area consists of objects (cables, pipes, etc.) that can create obstacles and hazards for employees. make sure it is free.

Check the function of the buttons and display on the main control panel and the accuracy of the relationship between the command and the function.

Adjust the pressure of the pneumatic system.

Attention!



Electrical and pneumatic connections must be made by persons authorized to mount and maintain the machine and use the necessary personal protective equipment. Check that there are no air leaks in the valves at the joints. Installation and adjustment of the equipment must be done when the machine is stopped and power supplies are disabled. By adjusting or adjusting machinery and equipment to prevent any danger that may come to humans or the machine before starting any relevant activity, ensure that the work area is free of unauthorized people or unnecessary tools and that there are no obstacles.



3.6 Installation of Label

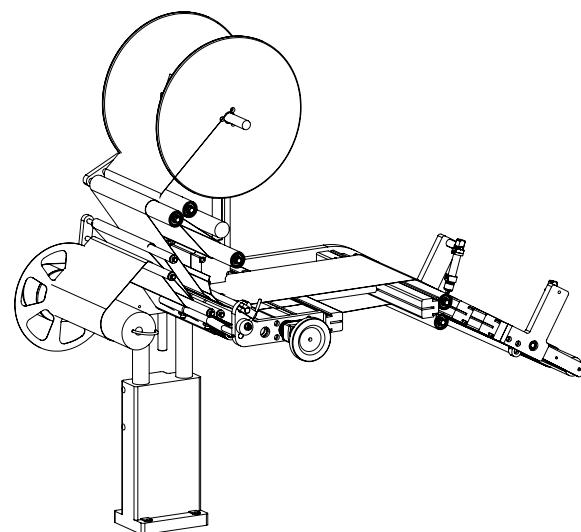
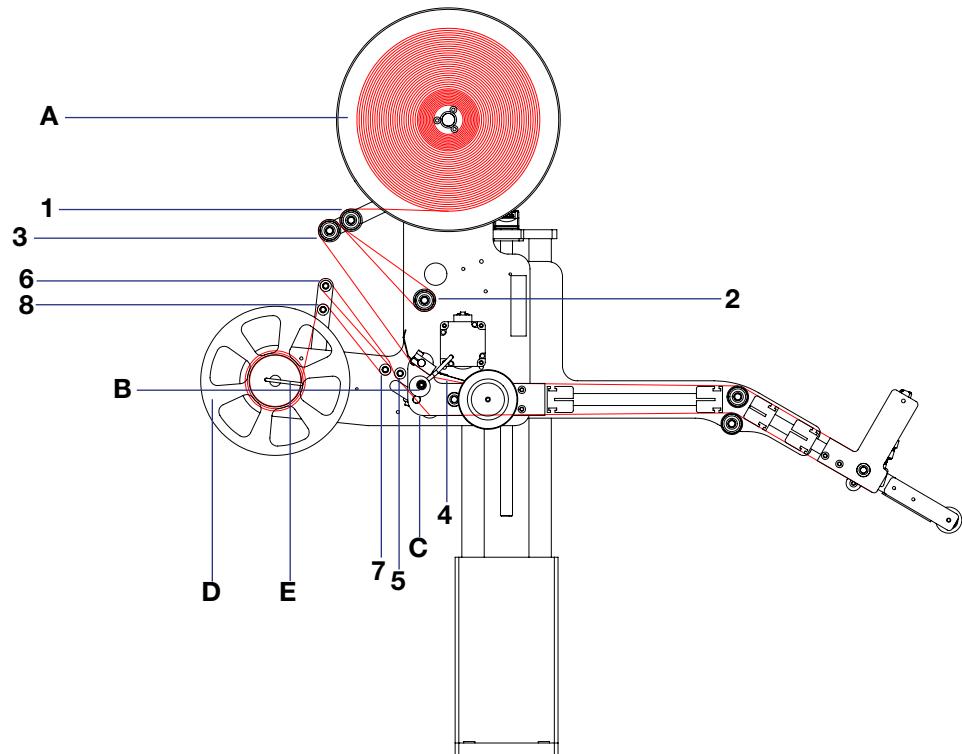
Follow the weaving diagram shown in this guide.

Place the label roll on the label support roller.

Make sure the stock roll is well secured.

Place the label roll in Holder (A) and place it in 1, 2, and 3, respectively. run it through the rollers. Loosen the tightening sheet (B) and pass the label between the sheet and have it conveyed via Route 4. Pass through the back of the roller (X). Adjust the position of the stabilizer shoes and sensors during Operation.

Loosen the tightening roller (C) and slide it through the sheet. Circle the rollers 5, 6, 7, 8 in the direction of the Arrow, respectively, and wrap the blank label in the collection Module (D) (remove the stabilizer pin first) insert the pin (E) to secure the label.



STARTING

4

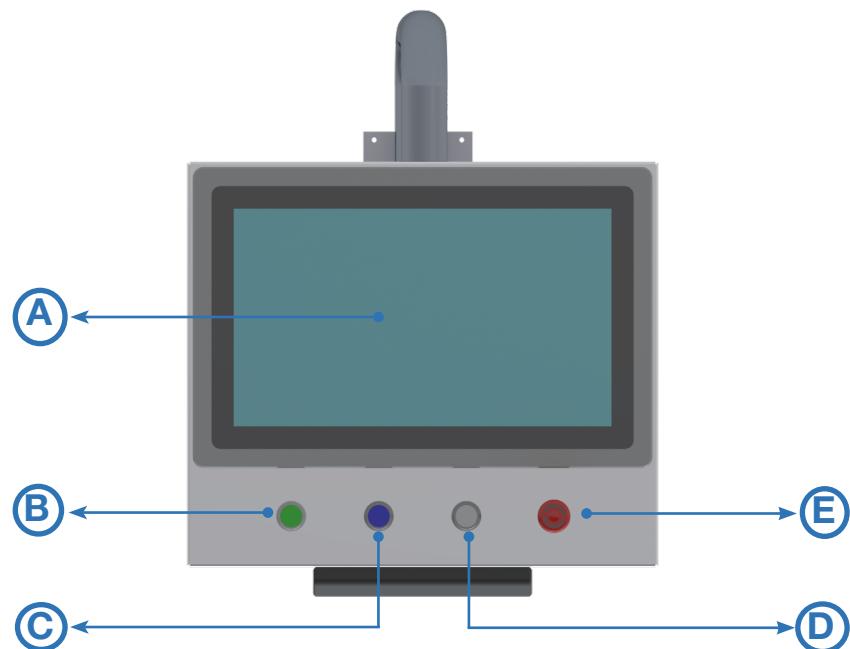


Attention!

Unauthorized use of the machine is prohibited.

Operators and maintenance personnel carrying out approved activities on the machine should be properly trained to use personal protective equipment, such as safety shoes and gloves, and to avoid hazards arising from these activities.

4.1 Description of Controller



(A) Operator Console

Touchable HMI that is controlled Production Information, Receipt entry, time adjustment, etc.

(B) Conveyor Start \Stop

Conveyor(Open\Close)

(C) Machine (start/stop)

Machine (open / close)

(D) Emergency Stop Button

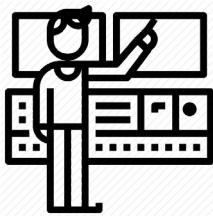
The emergency stop button stops the entire function of the machine but does not stop the power.

(E) Load Separator

Open/Close of the machine



4.2 Operator Console



The interface designed for this particular machine model provides information in the capacity of the operator and technician. The program includes authority restriction. The level groups defined in the program are as follows:

- 1. Level:** Operator
- 2. Seviye:** Maintenance
- 3. Seviye:** Specialist
- 4. Seviye:** Manager

Within level groups, the administrator can define a new user. All users opened under a group of that group he gets his powers.

When the user is logged in, all operations are registered in the System menu with the date, time, and user stamped. A comment window (Image-4.1) will open for you to type the reason for all the value entries you will make. Write a short comment explaining the change you've made. In addition to registering every change made on the machine, comments are also registered.

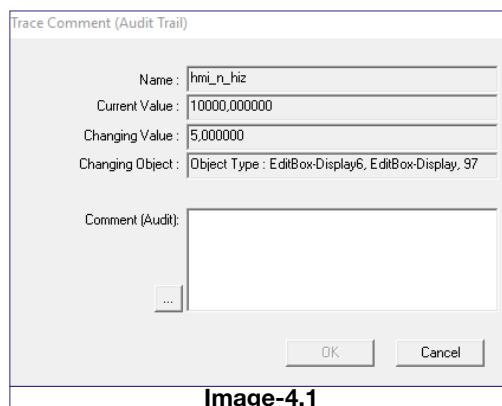


Image-4.1

Production Planning

In order for the labeling process to be in the desired amount and format, there must be Production Planning first.

Production Planning Process;

- From pre-production activities, that is, how much labeling will be,
- What will be the capacity requirement of production,
- Determination of the necessary machinery and labor quality for production,
- Making the most appropriate job loading by bringing suitable people to jobs and machines,
- It consists of the activities of creating the necessary production plan and program with the requested quantity and available capacity, as well as activities such as determining the need for material resources necessary for all these jobs.

Attention!

Before starting production, you should consider all the safety and warnings contained in the user's guide.



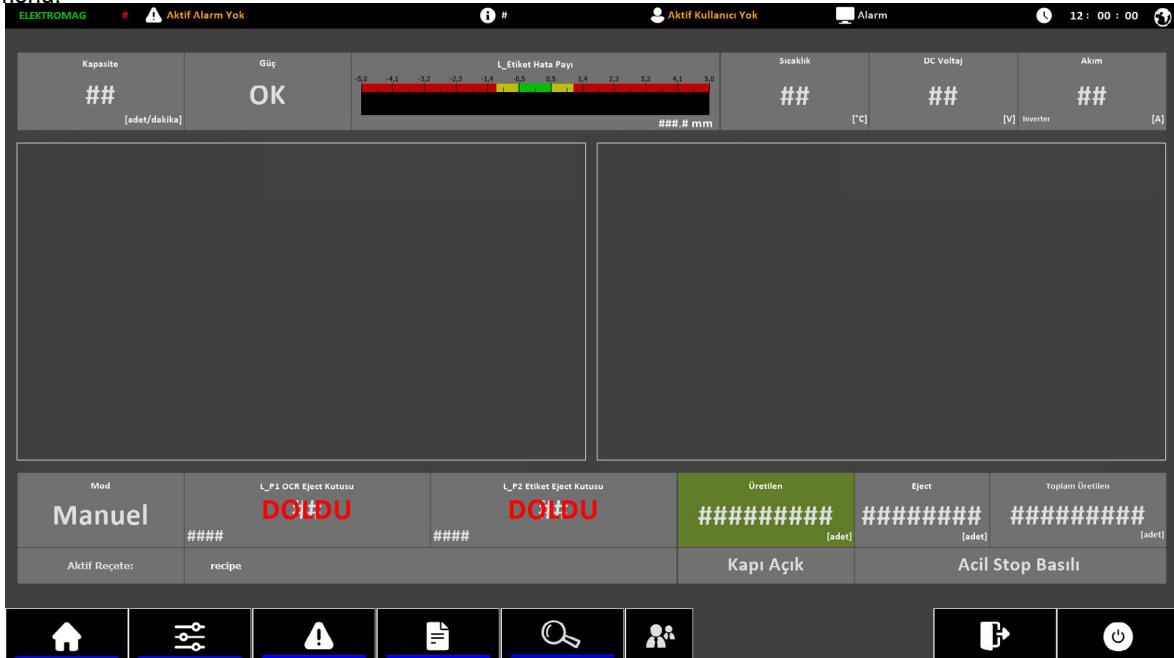
Otherwise, failure to comply with these warnings and safety measures may lead to all kinds of accidents.

In addition, unauthorized use of the machine is prohibited.



Main Menü

Settings and operations related to the machine are performed from this menu.

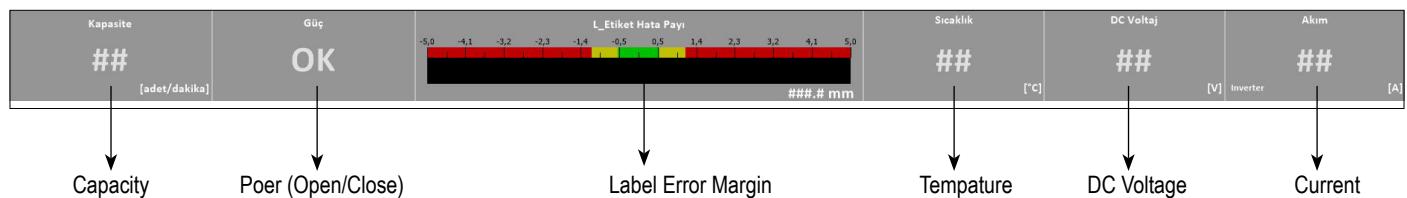


Explanations

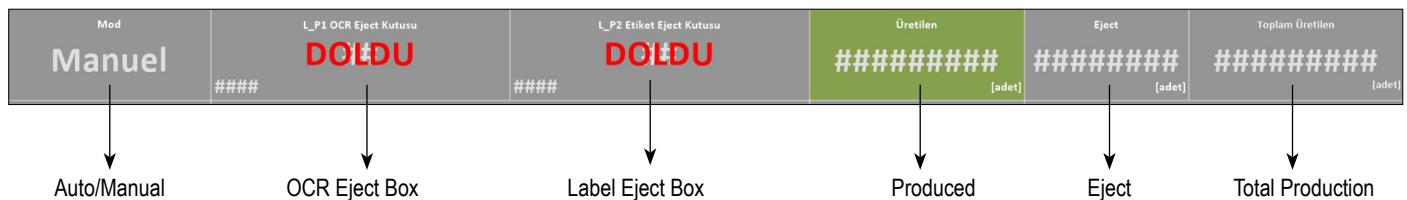
Top Panel



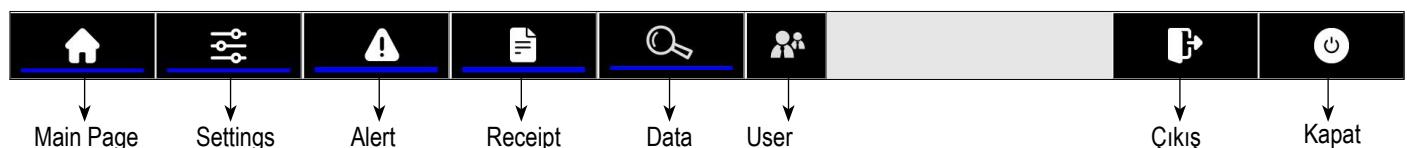
Top Information



Alt Bilgi

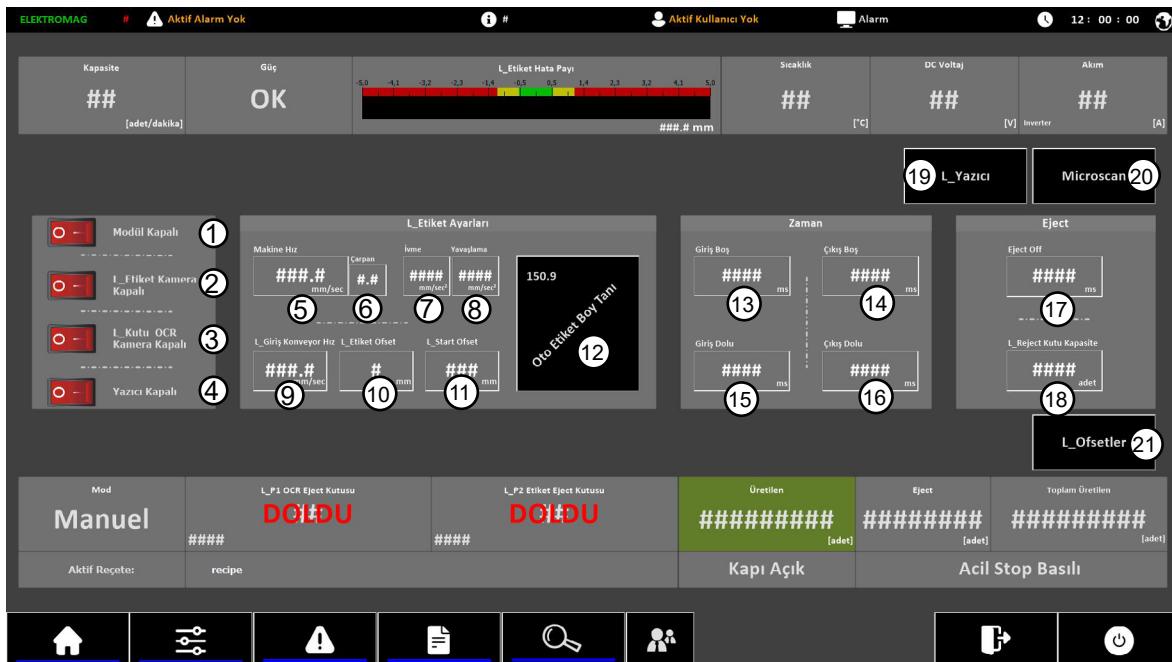


Shortcut



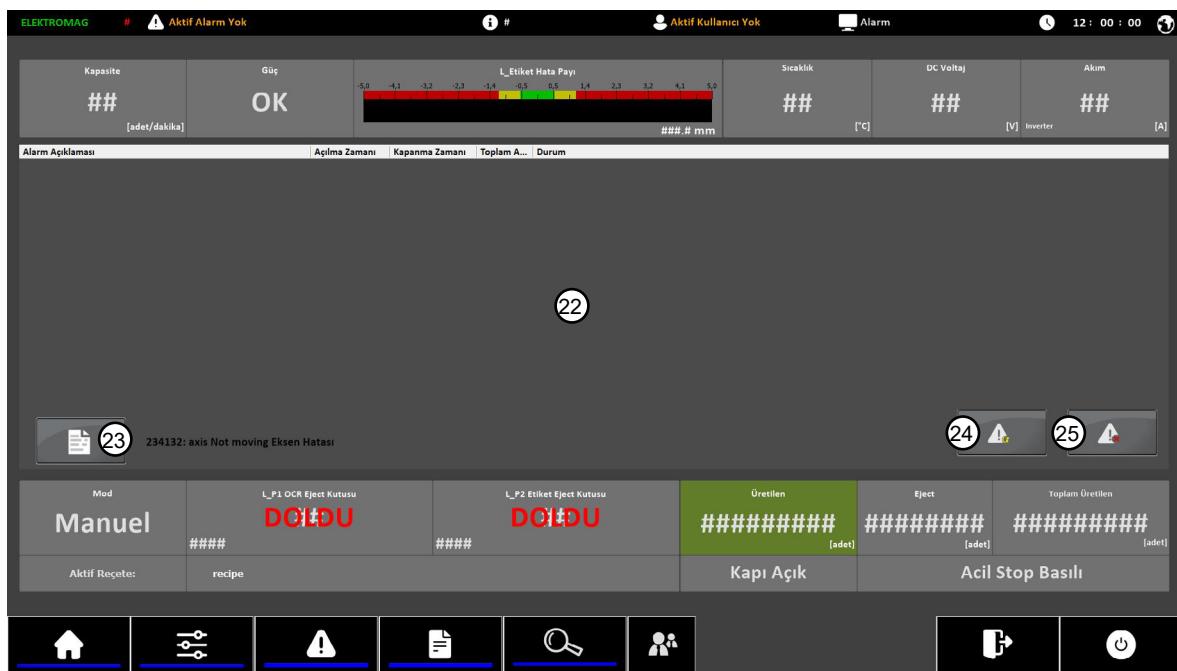
Settings

Settings related to the machine are made from this menu.

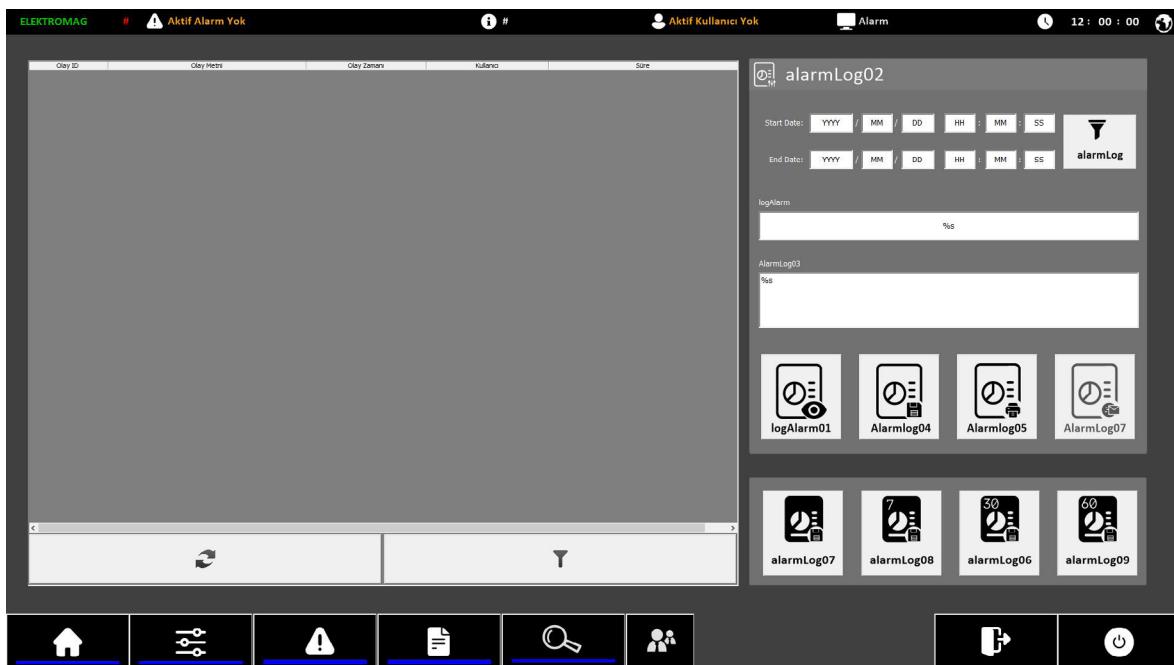


- 1) Module (Open/Close)
- 2) Label Camera (Open/Close)
- 3) Kutu OCR Camera (Open/Close)
- 4) Printer(Open/Close)
- 5) Machine speed
- 6) Machine speed multip.
- 7) Acceleration
- 8) Deceleration
- 9) Enter Conveyor Speed.
- 10) An offset value is entered into the label and the position of the label is determined.
- 11) The value it gives the labelHow many mm after the sensor sees the bottle.
- 12) The label introduces its height to the automatic machine.
- 13) If the sensor does not see the product at the entered ms value, it sends input blank information to the PLC.
- 14) If the sensor does not see the product until the entered ms value, it transmits the output blank information to the PLC.
- 15) If the sensor sees the product at the entered ms value, it sends the input full information to the PLC.
- 16) If the sensor sees the product as much as the ms value entered, it transmits the output full information to the PLC.
- 17) Eject off.
- 18) The capacity of the reject boxes to be entered is determined.
- 19) Printer
- 20) The capacity of the reject boxes to be entered is determined.
- 21) Offsets

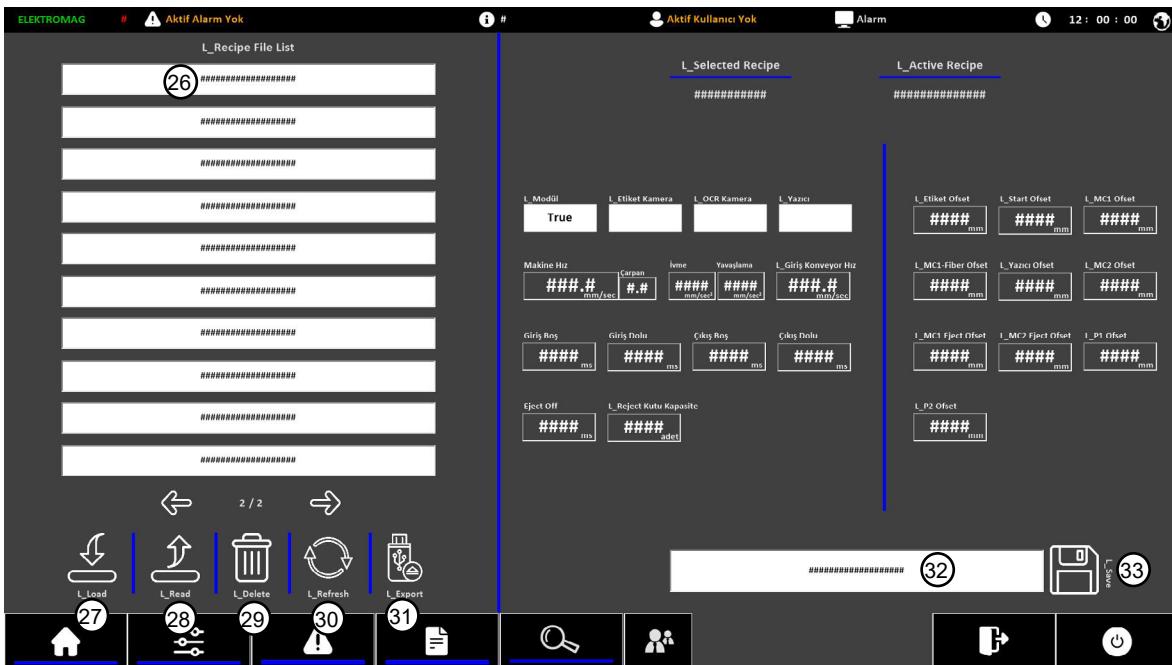


Alert

- 22) Alert information
 23) Alert data.
 24) Alert reset.
 25) Delete alerts.

Alert Data

Receipt



- | | |
|-------------------------------------------------------------|-------------------------------------|
| 26) Recipe list in recipe file | 30) It renews the prescription. |
| 27) Loads of prescriptions. | 31) Exports the recipe. |
| 28) It adds the setting parameters to the recipe interface. | 32) The new recipe name is entered. |
| 29) Deletes the prescription. | 33) saves the prescription. |

Data



Production Planning

In order for the labeling process to be in the desired amount and format, there must be Production Planning first.

Production planning process;

- How much will be the pre-production activities, namely labeling,
- What will be the capacity need of the production,
- Determination of the machinery and labor force required for production,
- Bringing people suitable for the works and machines and performing the most suitable job loading,
- It consists of activities such as creating the required production plan and program with the requested amount and current capacity, and determining the necessary financial resource needs for all these works.

Attention!

Before starting production, you must consider all safety and warnings in the user manual.



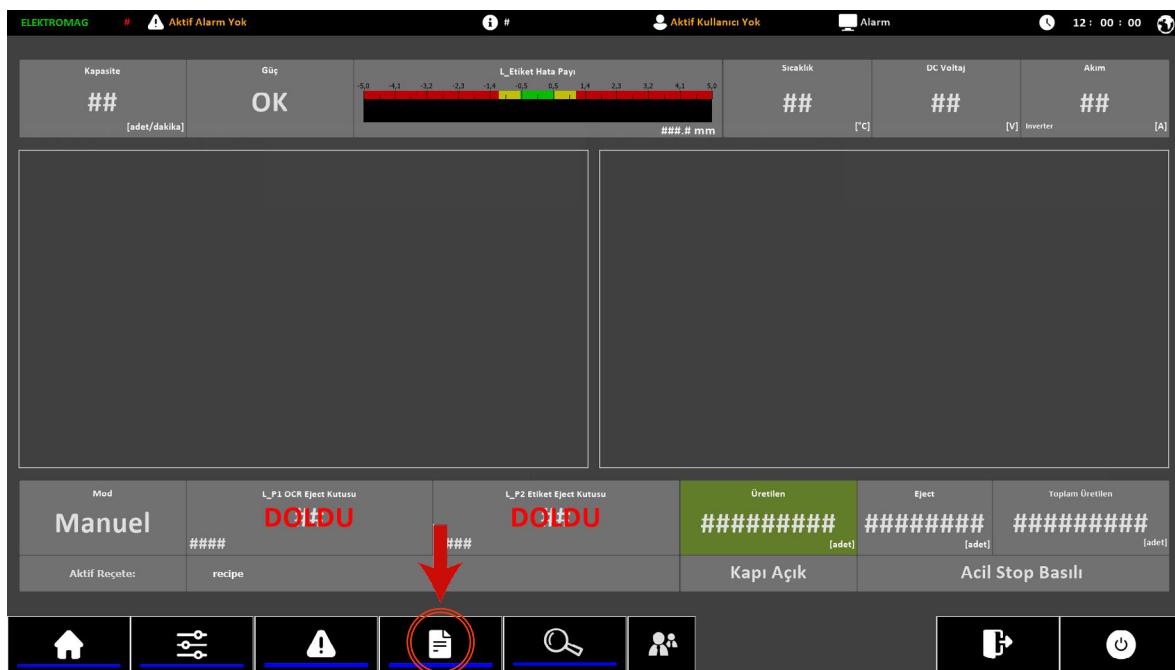
Otherwise, if these warnings and safety precautions are not followed, it may cause all kinds of accidents.

In addition, it is forbidden to use the machine by unauthorized persons.

Adding a Recipe

Follow the instructions below to add a prescription;

1. Take the Pako switch to the I (on) position.
2. Wait for the operator screen to open.
3. Press the Recipe button indicated by an arrow in this menu that opens.

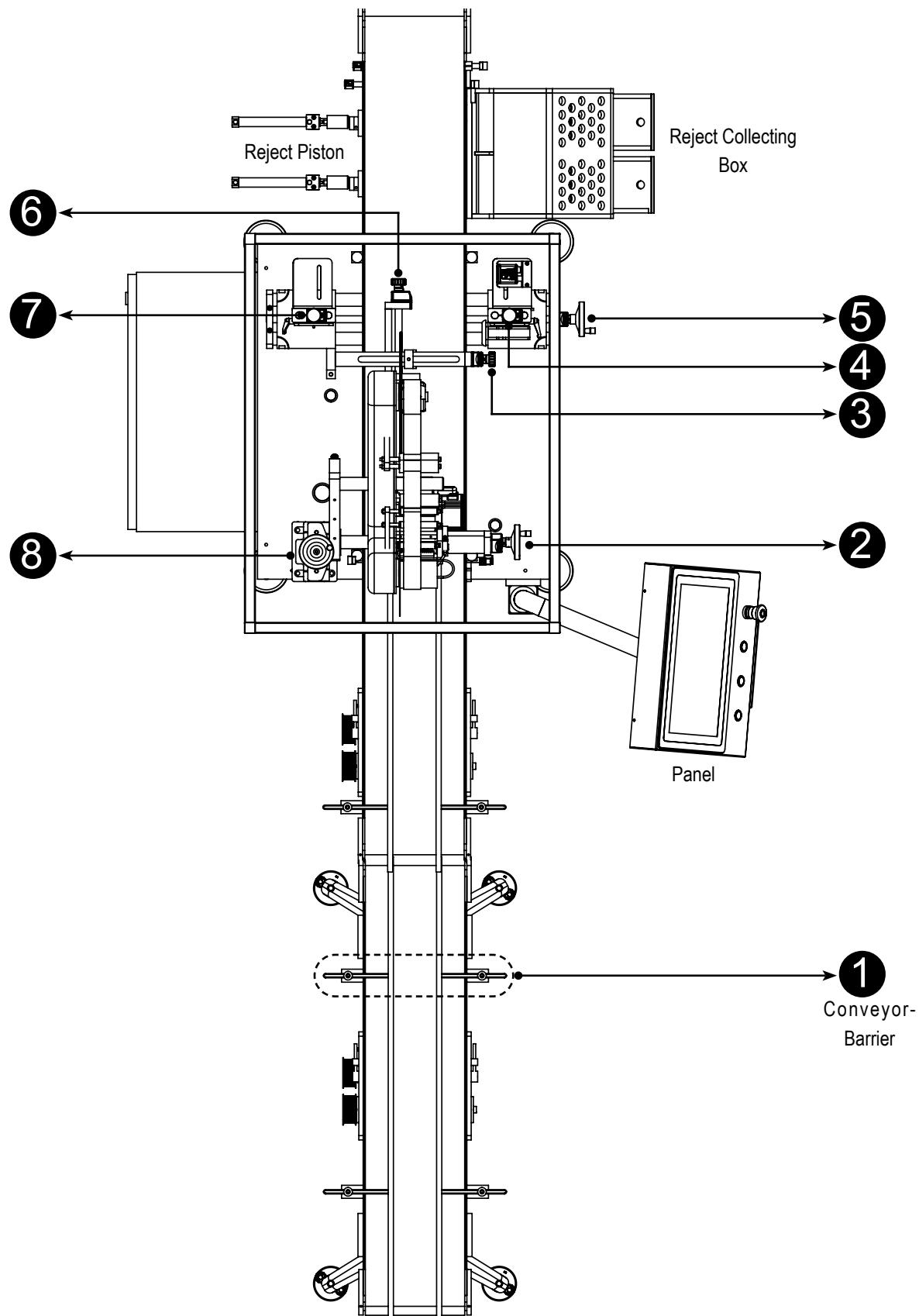


Recipe Add Settings



Follow the instructions below to add a prescription:

1. To create a recipe, first enter the Recipe menu after making the necessary settings related to the machine from the Settings menu.
2. Enter the Recipe Name [6] for which the recipe is to be created.
3. After pressing the Read [3] tab, the previous settings are displayed on the right.
4. Click the Save [7] tab to save the recipe you have created.
5. Saved recipes are displayed in Recipe List [1].
6. Select the recipe you want to use and click the Load [2] tab.
7. The Load [2] tab loads the recipe you want to select.
8. To delete the recipe, press the recipe you want to delete from the list and click the Delete [4] tab.
9. You can refresh the recipe list using the Refresh [5] tab to refresh the list.



4.3 Changement and Settings

1. Conveyor Barrier Settings

- The first place that needs to be adjusted in bottle exchange is conveyor barriers.
- These settings are required for the bottles to be fully centered in a linear fashion.
- Loosen the knobs, position the barriers to fit the bottle diameter, and tighten the knobs.
- Make sure that the barriers are linear.
- A nonlinear barrier leads to bottle jamming.

2. Module Group Settings

- When switching to different size bottle type, adjust with Flywheel (2) to adjust the module back and forth.
- Up-down height adjustment of module is made with Flywheel (8) .
- As a result of the adjustment process, it is recommended to note the numerator value.

3. Coding, (OCR veya PHC) Reading Group Settings

- Back-and-forth adjustment of the reading group (OCR or PHC) is performed by Flywheel (5).
- Encoding, (OCR or PHC) up-and-down height adjustment of the reading group with Flywheel (4) or Flywheel (7) is done.
- As a result of the adjustment process, it is recommended to note the numerator value.

4. Camera (Label Control) Group Settings

- Up-down height adjustment of the camera (label control) group is done by loosening the corresponding nut.
- Back and forth adjustment of the camera (label control) group along the conveyor is done by Flywheel (6).
- Adjusting the camera (label control) group right and left along the conveyor is done with the flywheel (3).



4.4 Operatore Placement



Attention!

It is recommended to have one operator during the working cycle.

4.5 Working Cycle



Attention!

The operator must ensure that there are no unauthorized persons in the work area. There should be no foreign objects on the machine.

Deactivate the emergency button.

Switch the main switch to "I" position. The operator on the machine will explain the screen.

Choose a recipe from the operator panel.

Press conveyor start button (conveyor becomes active).

Press the machine start button (Machine becomes active)

The bottles from the conveyor enter the system and the labeling process begins.

4.6 Unlabelling Product

Sensors that control label and bottle assets are located at the outlet.

In case of unlabeled product at the exit, the bottle is separated from the system by The reject piston.

In 3 consecutive reject cases, the machine stops itself and alarms for operator intervention.

Check it:

- Module group
- Separator group
- Sponge Printed Group
- Rotary printed Group
- Conveyor barrier

Stop the machine immediately if the bottle breaks during the working cycle.

Clean up the remains. Use tear-free gloves against hand amputation. Do not clean with pressure air without wearing protective clothing, mask and glasses.

Check it:

Label

Products in the chamber (in case of bottle breaking, it is recommended to dispose of bottles that have entered the conveyor. Shards of glass can be splattered into bottles that have entered the system by scattering particles that are invisible to the eye)

Working Space



4.7 Unexpected Electrical Fluctuations

In the event of an unexpected voltage surge, short circuit, or engine overheating, the power of the machine may be cut off.

3 phase voltage, phase order, phase loss role Possible over-voltage, low voltage, 3-phase systems and 3-or 4-wire systems during the phase error and Phase loss during the role system power cuts. Power is restored to the system when the voltage is restored and/or phase status is corrected Fuses There are a number of fuses inside the electrical board. Excessive voltage fluctuations can cause them to burn. In this case, turn off the machine by turning the main switch to the '0' position, then turn on the power panel. Using a tester, identify the burning fuse and replace it with another from the same amp.

Driver

There are drivers for the motors within the power board. These drivers control the engine overheating and failure conditions. In case of error or corruption, the driver will give an error. Fault detection can be done with the error code given by the driver. You can get error code information from Elektromag or Omron.



4.8 Alerts

In the event of failure and unexpected situations in the machine, the machine will sound an alarm. These alarms can be seen in the alarms menu on the operator screen.

ALERTS	SOLUTION
Emergency Stop Hold	Deactivated Emergency Stop.
Door Open	Close the door
Prod. Runaway Label	Take the product that is not rejected
Enter Empty	Check the entrance. Fill in the entry.
Exit Full	Check the exit. Clear the exit.
Manual Mod Active	Deactivate manual mode.
Consecutive PHC	Reset the alert. If the problem wouldn't be solved, contact with Elektromag.
Consecutive OCR	Reset the alert. If the problem wouldn't be solved, contact with Elektromag.
Consecutive Label	Reset the alert. If the problem wouldn't be solved, contact with Elektromag.
Label Finish	Feed new Label.
Coding Error	If the encoding does not communicate with the PLC, check its connections. If the problem is not solved, please contact Elektromag.
No Air	Open air.
Overturned Bottle	Fix the overturned bottle. Reset the alarm.
Prod. Runaway OCR	Take the product that is not rejected
Eject Box Full	Empty the eject box.

4.9 Stop The Machine

Press the emergency STOP button to stop all operations of the machine.



MAINTANCE

5



ATTENTION!

Any outstanding maintenance on the machine is performed only by the manufacturer's technicians.

The manufacturer recommends an inspection service every two years to ensure Machine Safety.



Note !

The maintenance technician must register all maintenance performed on the machine in an appropriate registry.



5.1 Information Notes

This section contains a description of the basic controls and maintenance needed to ensure the proper operation of the machine. All other interventions necessary to eliminate errors or operating problems must be done by the manufacturer specifically. For important repairs, it is recommended that you consult Electromag, whose expert staff is at your service at all times. ELEKTROMAG has the expertise of all technological components of the machine and can perform the necessary operations quickly.

5.2 General Safety Rules

Maintenance activities should be carried out for this machine-as indicated below - by specialist technicians trained in a specific discipline:

Mechanical maintenance

Maintenance of electrical systems

It is the duty of the Security Authority to ensure the professionalism and competence of the above mentioned persons.

Before starting maintenance activities, the security official should:

Ensure that the workspace is free of unnecessary materials and foreign personnel.

Ensure that the equipment required by the maintenance technician is at hand and in good condition.

Check that the lighting is adequate and provide a 24 Volt mobile lamp if necessary.

Ensure that the maintenance technician is equipped with the necessary, approved, personal protective equipment for a specific procedure (gloves, protective glasses, shoes, etc.)

Make sure that the maintenance technician reads the instructions in this manual carefully and knows the operation of the machine well.

Before starting maintenance activities, the maintenance technician should:

-Disconnect the electrical and pneumatic feeders from the machine and leave them in a safe state .

ATTENTION!



The main switch must be in the "O" position and must be locked with a padlock to avoid unintentionally reactivating it .The key to the padlock must remain with the maintenance team.

After completion of maintenance and before allowing the machine to return to service, the maintenance technician must check the entire working cycle, operation of the safety devices, and integrity of the protection devices.



Attention!

After each maintenance is complete, the security manager should check the safety status of the machine and the protection devices and confirm that they are operational.

During maintenance, it is recommended that a warning sign prohibiting the operation of the machine be hung on the control panel. Maximum reliability and minimum maintenance costs are the result of a planned maintenance and control program that is meticulously followed throughout the machine life.

During disassembly, mark each part relative to the others to ensure that the correct parts are assembled later. Always lubricate the interior and contact surfaces with the appropriate oil before mounting the unit. Replace all seals and orings with the original parts before mounting the components.

Always check the existence of grounding connections and compliance with regulations. Before starting the machine, ensure that the maintenance personnel are at a safe distance and there are no supplies or tools left with the machine.

5.3 Cleaning

Muayene ve bakım işlemlerine başlamadan önce, makine üzerindeki tüm kirler emme
Before starting the inspection and maintenance procedures, all dirt on the machine should be carefully cleaned with suction sponges and suitable solvents.

Clean all stubborn dirt traces with a soft, dry cloth that leaves no thread, or using a very flexible Hairy brush.

If dirt is difficult to remove using cloths or dry brushes, use a suitable non-flammable liquid solvent with a low level of toxicity. Purchase only solvents suitable for manual use. Check the recommendations given by the manufacturer. WD-40 chemical is recommended for surface cleaning of steel, Aisi 316 and Aisi 304. It is recommended to use dyo wax polish or thin pastry for aluminium surface cleaning. Glazing is recommended for plexic material cleaning. Cleaning with compressed air is recommended.

Attention!

Use cleaning solvents away from open flames and ensure good ventilation of the area. Avoid prolonged exposure of personnel to solvent fumes. Failure to comply with these rules may result in injury to staff. Do not use high pressure sprays for cleaning purposes. Do not use corrosive chemicals on aluminium surfaces for cleaning purposes.



5.4 Maintenance

Attention!



All operations described must be performed in the main switch "O" position and locked with a padlock to prevent involuntary reactivation. The key to the padlock must remain with the maintenance team. Before starting any maintenance or cleaning process, wear appropriate protective clothing such as safety glasses and / or gloves, depending on the work to be done.



Before starting any maintenance or cleaning process, wear appropriate protective clothing such as safety glasses and / or gloves, depending on the work to be done.

Disconnect all power supplies before starting any maintenance, lock and secure the machine. Put the following warning on the control panel:

**MAINTENANCE ONGOING
DON'T OPEN THE MACHINE**

Before starting operations again, check all procedures in accordance with the start procedures.

After each maintenance operation, perform several manual test operations to check that the cycle is working correctly.

Failure to comply with these rules can result in serious injury to staff.

Cleaning personnel are prohibited from removing machine safety devices.

Label Contact Surface Maintenance

As a result of removing the label to the surfaces (module group, conveyor) where the label is moving, the label sticks.

Immediately clean the label from the surface in case of this unwanted situation.

Products that dissolve the adhesive material of the label used and do not damage the surface you are advised to use it.

Belt and Sponge Maintenance

The Belt and sponge on the machine wear out over time.

Wear status check periodically change as needed.

Bearing Maintenance

Bearings lose their function over time. Do not expose the bearings to dust or dirt to increase life span. Periodically lubricate with liquid grease. It is not recommended to lubricate the bearings with solid oil.

Conditioner Periodic Maintenance

Check periodically. Do filter cleaning.

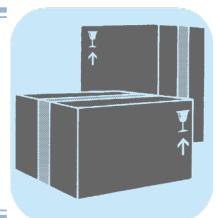
Flywheel shaft maintenance

Periodically it is recommended to lubricate the shafts with proper oil.



SPARE PARTS

6



Wear-exposed components (recommended spare parts)

Contact ELEKTROMAG for spare parts request.



Tel : 0(282) 726 13 14

E-mail : depo@elektromag.com.tr



6.1 Components subject to wear and mechanical stress



Attention!

Components exposed to wear due to their function should be checked at very short intervals and replaced as soon as they show significant signs of wear.

The manufacturer designed and manufactured the machine to last a reasonable amount of time, taking into account the normal working conditions of the customer. However, it is necessary to check all these components periodically very carefully.

If mechanical cracks, permanent or cyclic structural deterioration are encountered, contact the manufacturer and expert technicians who will take the necessary precautions immediately. Electrical cables lose their insulating properties over time, especially when exposed to heat, humidity and temperature. Check its functionality with technical experts.

PRODUCT CODE	EXP.	QTY.
5 PLBM-130-25	130-Z21-25 KONV.BANT MAKARASI (1205 7N)	1 QTY.
5 KZKA-5M-15-410	5M-15-410 KAUÇUK ZAMAN KAYIŞI	2 QTY.
5 KZKA-5M-15-300	5M-15-300 KAUÇUK ZAMAN KAYIŞI	1 QTY.
(KD2LB1302-P9/A/BL) MAVİ	230X4100 BASKI BANT KAYIŞI (KD2LB1302-P9/A/BL) MAVİ	1 QTY
(KD2LB1302-P9/A/BL) MAVİ	230X2295 BASKI BANT KAYIŞI (KD2LB1302-P9/A/BL) MAVİ	1 QTY
5 EFOT-087797-OBT500	087797 OBT500-18GM60-E5-V1 (SOK.CİSİMD.YANS.FOT.)	1 QTY
5 SICK-WF2-40B410	WF2-40B410 ÇATAL FOTOSEL SICK-6028428	1 QTY
5 OMRO-7412-2000-2103	7412-2000-2103 BAR CODE READERS/SMART CAMERAS	1 QTY
5 SICK-WL8G-P2131	WL8G-P2131-0.3m REFL.TRANS.CİSİMD.YANS.FOT.6033186	2 QTY
5 SICK-YF8U13-050VA1XLEA	YF8U13-050VA1XLEAX-M8-3pin 5mt (CİS.YAN.FOT.KAB.)	2 QTY



NOTES









