

MEP Labeler

Addendum: Setup and Maintenance

- Read this addendum and the MEP manual carefully before operating the labeler.
- One person should be assigned to maintain the labeler. Only this primary operator should make adjustments to the labeler. This primary operator should train additional operators. However, adjustments should be made by, or under the careful supervision of the primary operator.

Setup of the Labeler

The labeler has been setup and tested at St. Patrick's of Texas prior to delivery. The labeler arrives with a roll of St. Patrick's labels. All aspects of the labeler operation have been tested by St. Patrick's, including the photocell and timer.

The final adjustments, *and the only adjustments*, needed are

1. Bottle Diameter Adjustment
2. Bottle Height Adjustment
3. Photocell adjustment
4. Timer adjustment (if doing front and back labels)

Do NOT make any other adjustments to the labeler. Contact St. Patrick's in advance if you believe some other adjustment needs to be performed.

We recommend using the roll of St. Patrick's labels to perform the initial bottle height and bottle diameter adjustments.

1. Bottle Diameter Adjustment: Position the moveable rollers such that there is $\sim 1/4$ " gap between the rollers and the bottle.
2. Bottle Height Adjustment: Raise or lower the bottle platform to change height of labels on bottle.
3. Now replace St. Patrick's labels with your labels. Run unit. If labeler applies more labels than needed (for example 3 when applying back and front), then photocell must be adjusted.

Adjusting Photocell. See Fig. 1.

Photocell adjustment is specific to label and backing paper and is influenced by room lighting. Do not operate in sunlight.

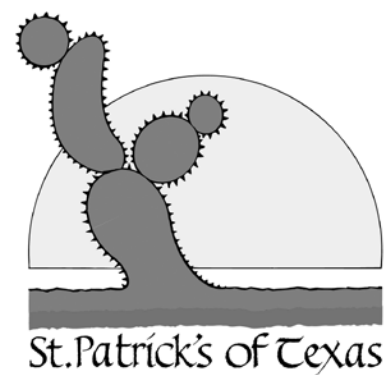
The technique that will always work is the following:

- Put labels on machine
- Turn photocell adjustment screw to ~ 3 o'clock position.
- Turn the labeller on
- Turn the photocell adjustment screw counterclockwise (small increments) until the machine stops when a label is passed in front of it.

4. Adjust timer. [when applying front and back labels]. Increase or decrease the timer delay to center back label.



Fig. 1. Photocell adjustment.



This manual and parts are available online.

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Periodic Maintenance

1. Keep labeler clean and dry. Do not store in humid or wet area.
2. Remove front cover and lubricate the chain annually. Aerosol spray of lithium grease works well.

DO NOT

1. DO NOT use OZONE to clean a labeler. Ozone will destroy all rubber and plastic components and should NEVER be used on equipment with rubber or plastic components.
2. DO NOT use a HOSE or PRESSURE WASHER to clean a labeler. Simply wipe down with clean damp cloth. Pressure washers should NEVER be used on equipment with bearings or electrical components.
3. DO NOT use METABISULFITE (or any harsh chemicals) for cleaning or sanitizing. Metabisulfite is not a sanitizer nor a cleaner and should NEVER be used as such. Metabisulfite is corrosive to most metals including stainless steel.

Problems and Solutions

Problem: Nothing happens when bottle is placed on bottle stand.

Solution 1: Emergency Stop button is pushed in. Pull it out.

Solution 2: Turn off unit and wait 30 seconds before turning it back on.

Problem: Three or more labels are applied per cycle.

Solution 1: Adjust photocell. If room lighting has changed, the photocell may need to be readjusted.

Solution 2. Do not operate in direct sunlight---this blinds the photocell.

Problem: Bottle spins out from between the rollers.

Solution: Moveable rollers must be moved closer to the bottle---gap ~1/4".

Problem: Black rubber sleeve moves up (or down) on roller.

Solution: See Fig. 2. Place compressed air nozzle between sleeve and white roller. Pull up or down on rubber sleeve while applying compressed air to reposition the black rubber sleeve.



Fig. 2. Use compressed air to reposition black sleeve.

CONDITIONS OF SALE AND WARRANTY

- 1. Read carefully this operator's handbook before operating our Etc 240 labelling machine.
- 2. M.E.P. guarantees his Etc 240 labelling machine in case of breakages caused by faulty components or incorrect assembly.
- 3. Our Etc 240 labelling machine has a 12-month warranty which starts from the shipping date from St. Patrick’s of Texas. This warranty is valid only for the first owner of the labelling machine.
- 4. Warranty only consists in replacing the damaged parts and it does include neither refunds for losses caused by the stopping of the machine nor any cost of labour or any transport cost to send the labelling machine to a repair shop.
- 5. Any repair or modification made to the machine by unauthorized personnel will make the warranty decline.
- 6. We cannot be held responsible for damages due to incorrect use of the labelling machine, lack in carrying out the maintenance operations or problems arisen during transport.
- 7. M.E.P. reserves the right to introduce changes without previous notice to the Etc 240 labelling machine; however, the supply of spare parts of the previous models will be guaranteed.

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1. DESCRIPTION OF THE Etc 240 LABELLING MACHINE

Our Etc 240 semi automatic labelling machine makes it possible to use self-sticking labels and allows you to put front and back labels on both cylindrical and square bottles.

Our Etc 240 labelling machine is almost entirely made of stainless steel or synthetic materials (such as delrin or rubber) which are resistant to wear; the only parts made of carbon steel are the internal mechanisms but they are galvanized.

All moving mechanisms are supported by ball-recirculating elements in order to guarantee both a higher precision of functioning and a higher resistance to wear.

SAFETY SYMBOLS:



General danger



Caution: refer to the operator's handbook



Caution: 230 Volt tension.



Caution: rotating gears. Severing of fingers.

2. TECHNICAL DETAILS

This labelling machine is suitable for self-sticking labels located on a continuous band which is wound round on a bobbin. When using cylindrical bottles, it is possible to put a single label or both front and back labels but they have to be located on the same band.

When using square bottles, it is also possible to apply only one label or two labels on the opposite sides (that is, front and back labels which can be different, but they must be located on the same band); in this case, it is necessary to repeat the operation a second time with the same square bottle.

The labels regard to the supporting band have to be disposed, as follows (see picture 1):

A dimension: more than 42 mm

B dimension: more than 42 mm

C dimension: maximum 25 mm

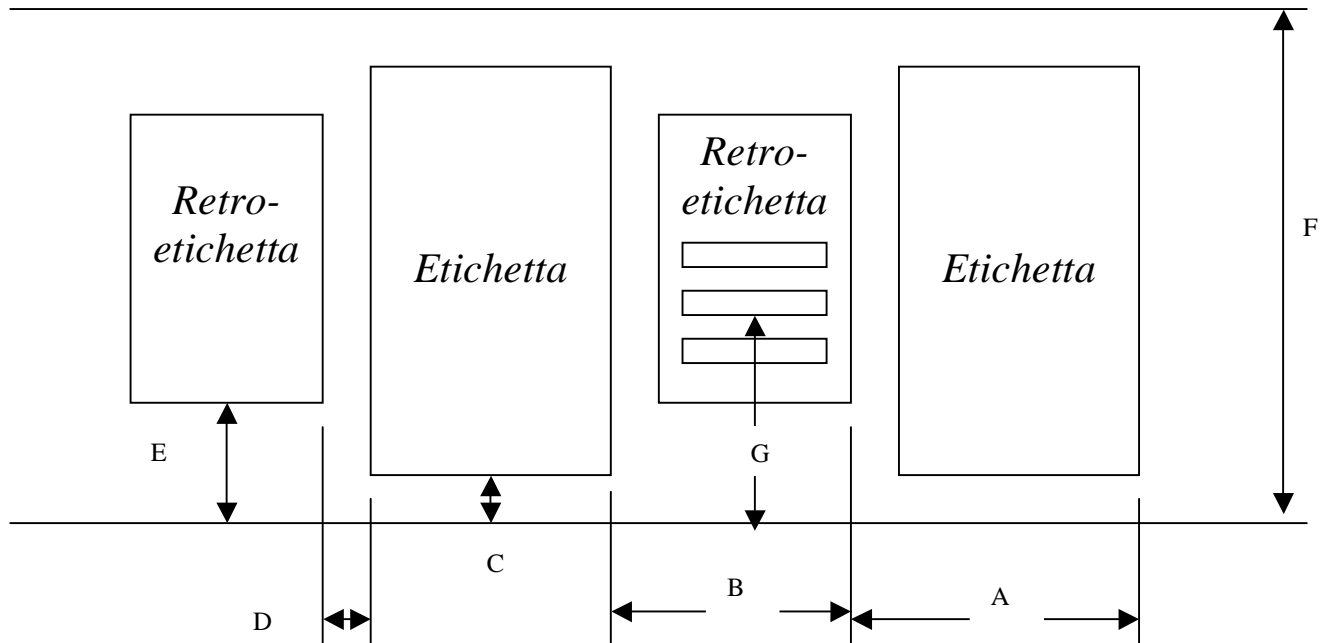
D dimension: more than 3 mm

E dimension: maximum 25 mm

F dimension: maximum 160 mm

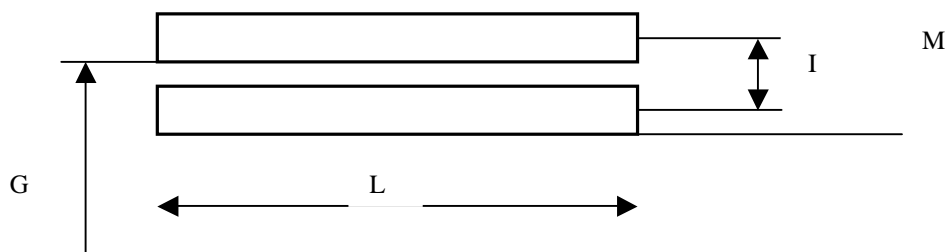
G dimension (space between labels band and lower part of the second print line): the standard version is preset at 22 mm

Label and back label plan



Picture 1.

Print plan



Picture 2.

The stamp has the following lay-out (see picture 2):

types height 3 mm (different types can be requested when placing the order)

possibility to print on 3 lines

H dimension and I dimension: preset at 6,25 mm (these dimensions are referred to the print lines barycentre)

L dimension: preset at 35 mm

types width: 3 mm

possibility to fit up to 11 types into each line

M dimension: preset at 15,5 mm

When types height different from 3 mm is requested, the M dimension must be recalculated on the basis of the new types height.

Bobbin maximum external diameter: 200 mm

Inner diameter of the spool bobbin: 65 - 75 mm

Bobbin wound round counterclockwise (bobbin unwinding on the machine clockwise), labels on the external part of the bobbin

Cylindrical bottles

Diameter of the bottles between 60 mm and 112 mm

Square bottles

Side of the bottles between 65 mm and 80 mm

Our Etc 240 labelling machine is supplied as a bench version; as an option, it can be provided with a stainless steel wheeled support.

Etc 240 labelling machine:

height: 600 mm

width: 470 mm (when equipped with stamping device: 800 mm)

front length: 800 mm

weight: 60 kg

Etc 240 labelling machine with a stainless steel wheeled support:

height: 1120 mm

width: 490 mm (when equipped with stamping device: 810 mm)

front length: 800 mm

weight: 75 kg

Single-phase feeding: 230 Volt, 50 Hz
rotation speed (two motors): 1380 r.p.m.
power: 0.3 KW

The labelling time, that is the time between the bottle being located on the bottle platform and the labelled bottle being taken back, is 3,5 seconds for cylindrical bottles.

With square bottles it takes about 2 seconds for each label to be applied.

3. INSTRUCTIONS FOR USE

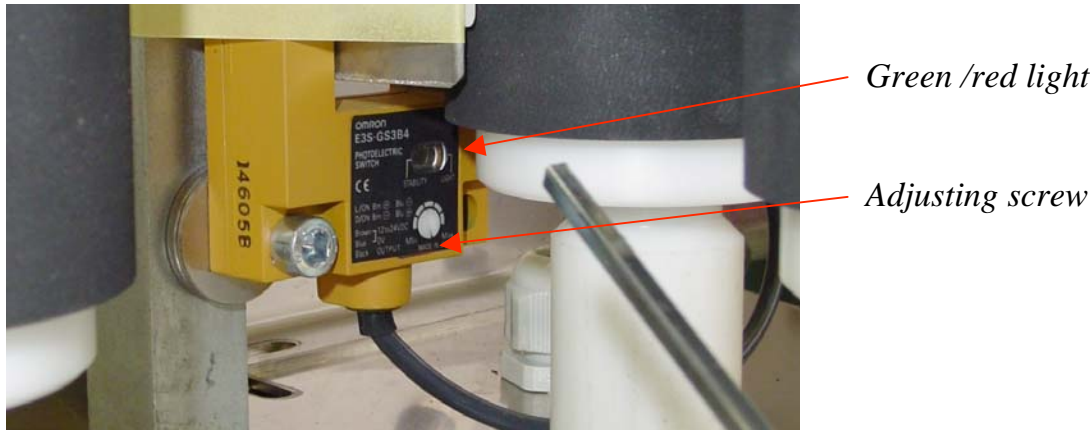
In our Etc 240 labelling machine bottles must be placed vertically into the three rollers on the machine, so that they start a lever sensor which makes the machine start. Functioning consists in the two mobile rollers coming near and pressing the bottles against another bigger roller. Bottles start rotating while the band where labels are located is drawn and made pass on a blade which makes it turn 360°. This makes a label come off the band (or a couple of labels, front-and back labels) and it be applied on the bottle. Now the two mobile rollers go back, the labelled bottle can be taken off and a new one can be inserted. When using square bottles, they must be placed vertically into the housing of a special mobile carriage that must be assembled in the place of the device made up by the two mobile rollers that is used for cylindrical bottles.

The bottles being placed there touch a lever sensor that starts the carriage motor which begins to move almost parallelly to the blade where the labels run and tangentially to the roller located at the end of the blade. In the dragging of the labels band the labels come off and are applied onto the bottles. The rotating roller located at the end of the blade helps to press the labels against the bottles and makes it easier for them to be applied.

4. OPERATING DIRECTIONS

The Etc 240 labelling machine must be placed on an even ground, in a lit up room and far enough from other machines.

This machine must be used by an operator at a time and when the machine is operating nobody else should be near.



Picture 3.

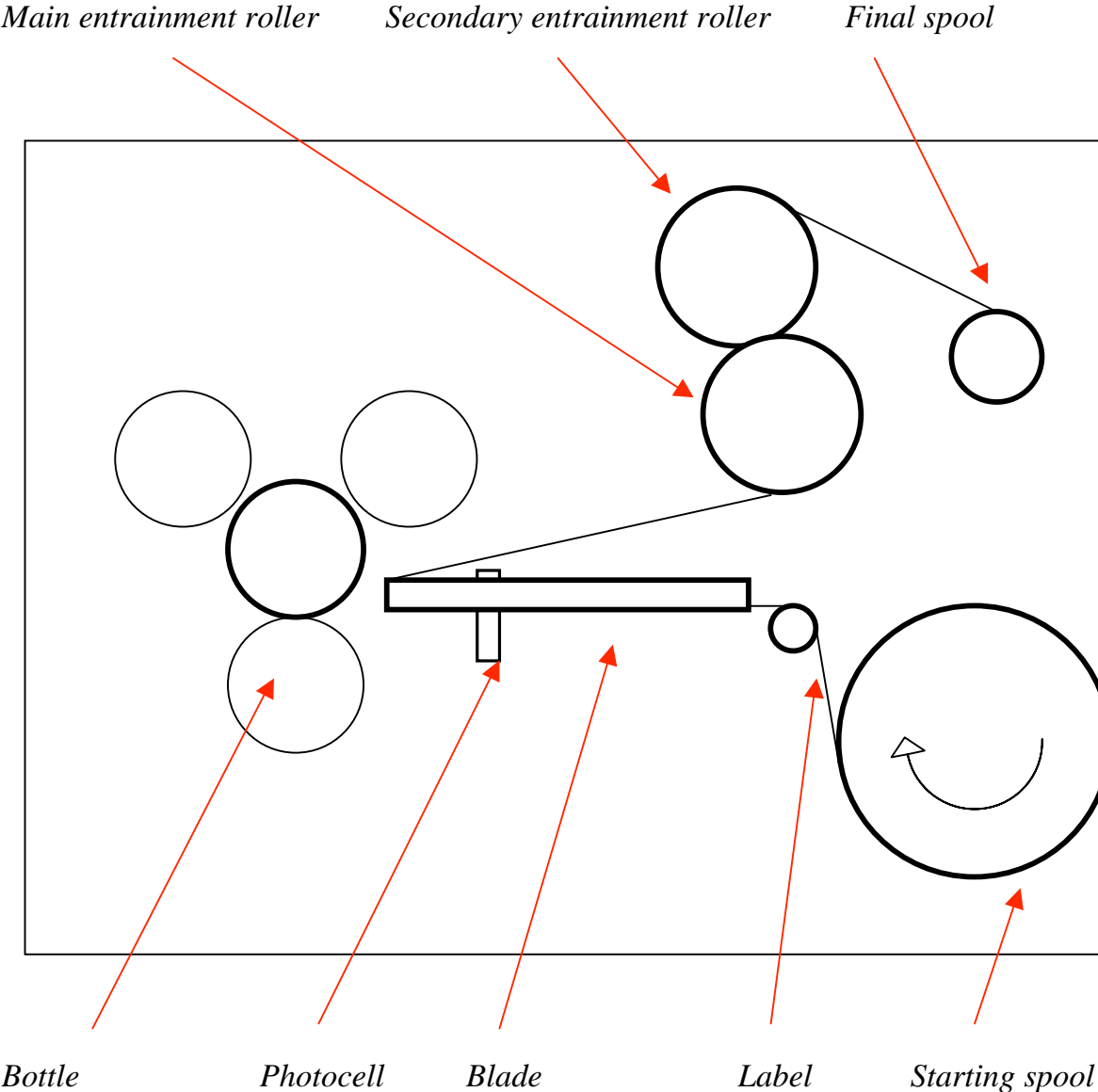
In order to avoid anomalies in functioning, check the right degree of sensitivity of the photocell. To do this, insert the band edge with a label on it into the photocell fork. When the band without any label on it is inserted, a green warning light turns on; whereas, when the band with labels on it is inserted, the red warning light turns on (see picture 3). In case this does not happen, the adjusting screw must be screwed or unscrewed. When it is turned clockwise, the photocell degree of sensitivity increases; so, if when inserting the band without any label on it the green warning light does not turn on, then the adjusting screw must be screwed.

Afterwards, place the labels band on the machine. To do this, remove the fastening cone from the starting spool (see picture 6), insert the labels bobbin and relocate this cone again using some strength downwards so that the bobbin adheres to the shaft.

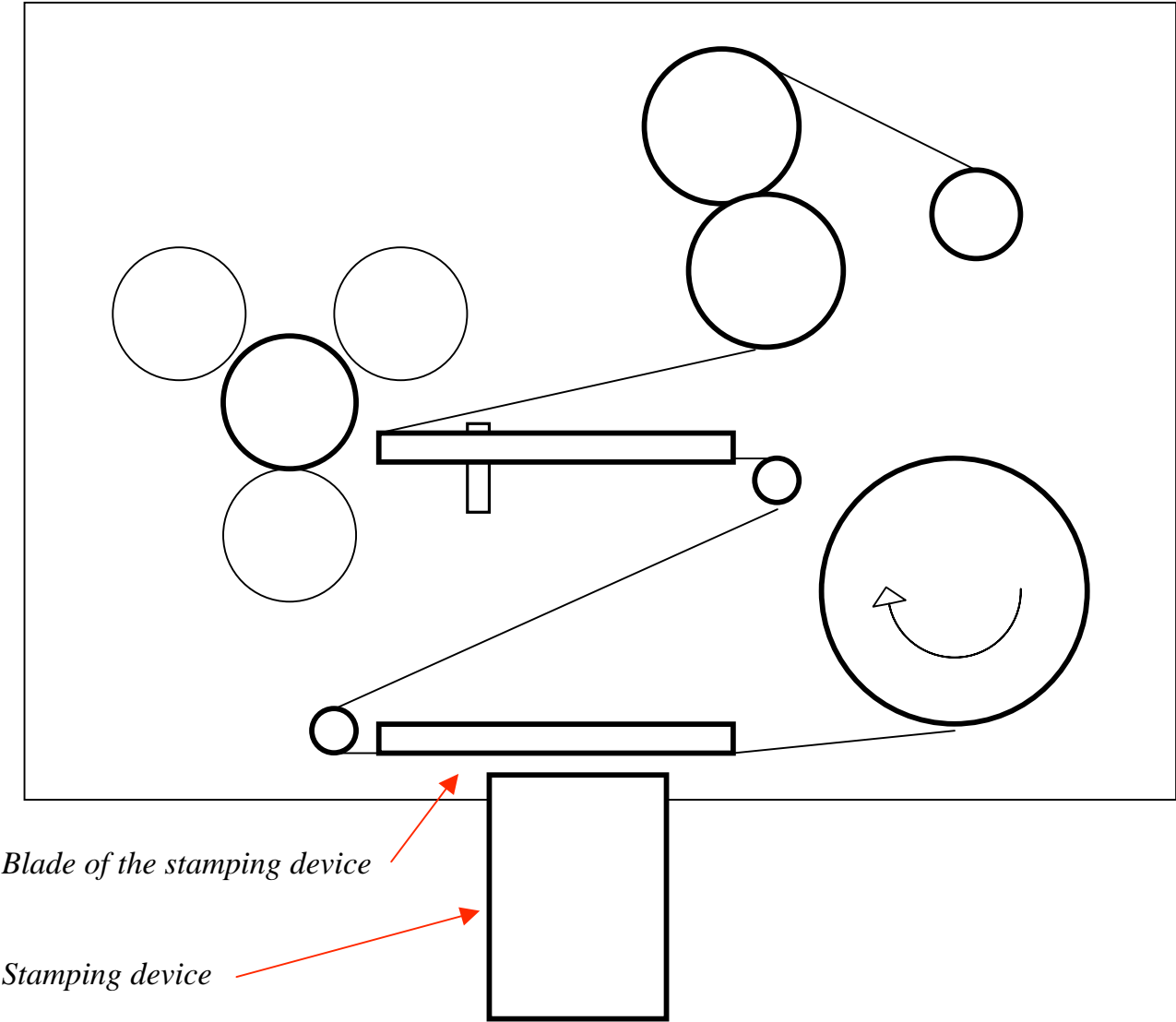
The band must be located on the machine so that it follows the way of picture 4.

Labels must pass between two rollers which are kept pressed one against the other by a spring which is a little stiff (see picture 4, entrainment rollers).

To carry out this operation, the two rollers must be spaced out and the labels band must be put inside them, paying attention to keep it in line with the height of the starting-and final spool as far as possible.



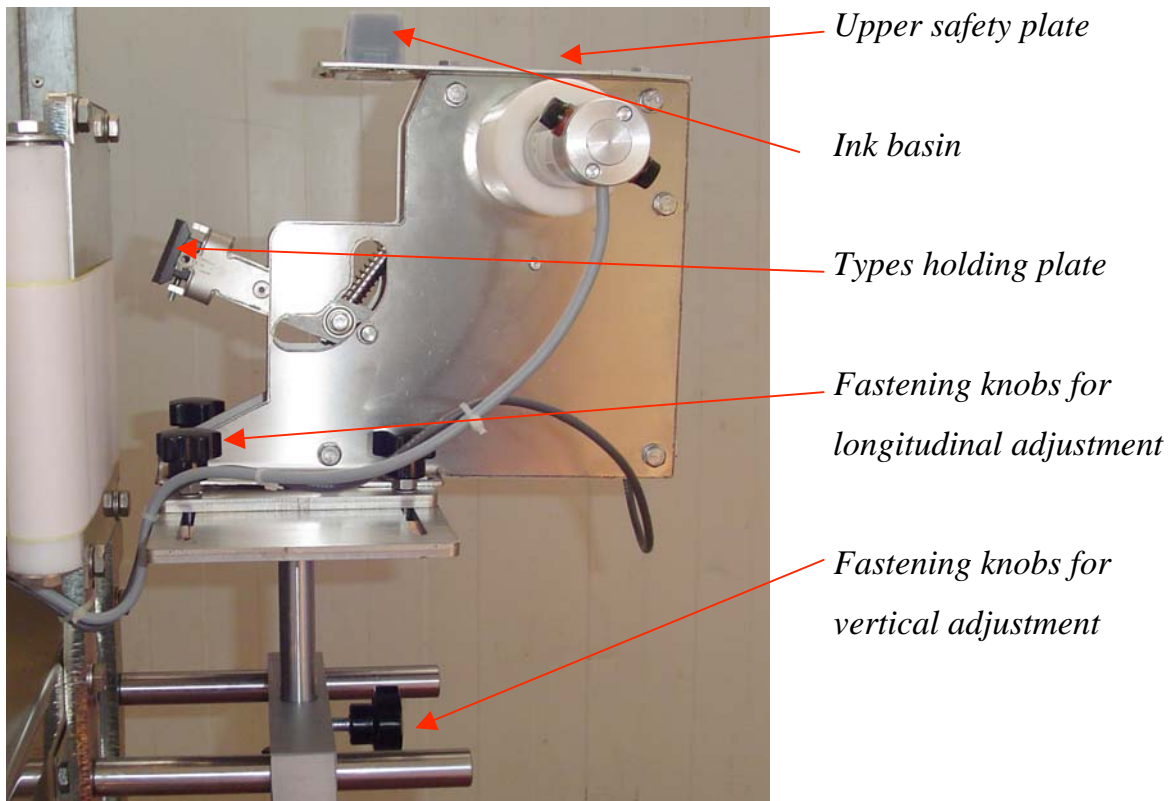
Without stamping device



Equipped with stamping device

Picture 4.

When changing from cylindrical bottle size to square bottle size the disposition of the labels band remains the same.



Picture 5.

In case the labelling machine is equipped with an optional stamping device, at the front of the control board there is the respective starting lever switch.

At the end of the labelling operation the stamping device, if put into action, starts automatically and makes a stamp on the part of label which is still on the blade. The stamping operation takes the time necessary for the operator to place a new bottle on the machine.

When using cylindrical bottles the stamping device makes a stamp each time a bottle touches the lever sensor, apart from one label or a couple of labels being applied.

In the case of square bottles, when using one label the stamping device makes a stamp on each label at each bottle passage. When using also the second label, it is necessary to start the respective lever of the control board and the stamp is made on alternate labels at alternate passages of the bottle (in fact, to apply two labels a square bottle must be made pass twice).

It is possible to write up to three lines by laying on the holding plate (see picture 5) the numerical types the machine is equipped with. To lay the types, one can start the

stamping device (by putting a bottle on the bottle platform, for example) and stop it by pressing the red quick-stop push-button in the middle of its run. Now it is possible to arrange the stamp wanted using the special tweezers. The types have a dovetail; so, to arrange them on the holding plate, it is necessary to insert them sideways and drag them to the spot wanted using the tweezers.

This labelling machine is equipped with five sets of numerical types from "0" to "9" and two indelible ink basins.

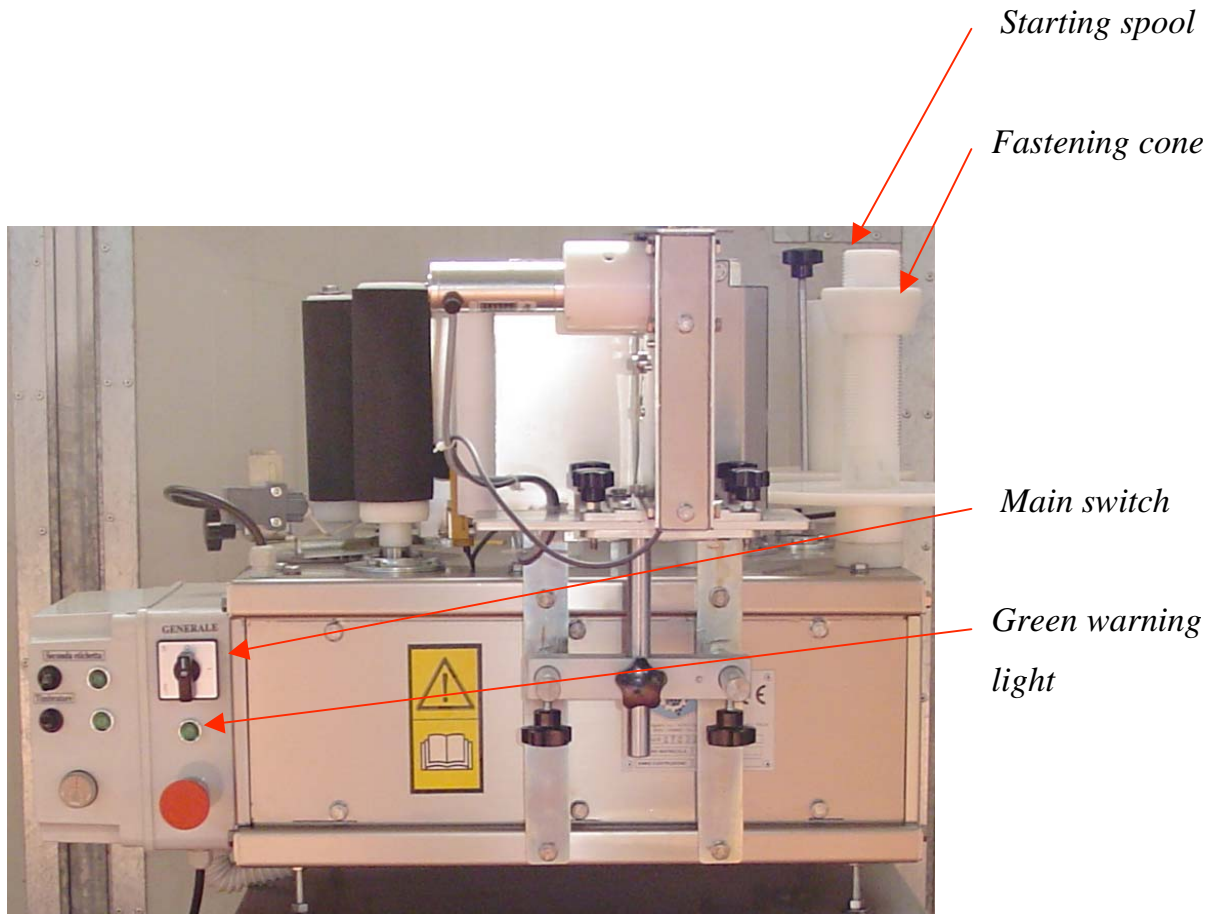
Before starting work, open one of the two ink basins, place it in the upper part of the stamping device (see picture 5) and insert it under the plate by pushing it until it gets stuck.

In the rest position the types holding plate is in touch with the ink basin. During its working run the types holding plate moves, rotates, stamps and goes back to its starting position, so that it closes and prevents the ink from staying in touch with the air for a long time. It is easier to place the basin when the stamping device is in the middle of its run (see picture 5).

At the end of work, clean the stamp types using blotting paper, take off the ink basin and close it by means of the special ink-pad. This operation has to be carried out when the stamping device is in the middle of its run, too.

The position of the stamping device can be adjusted in the same direction as the label blade by changing the position of its fastening knobs and moving them to a different one among the four longitudinal longholes located on the stamping device plane.

It is possible to adjust the height of the stamping device, too. In this case, after loosening the respective fastening knob, pay attention because the stamping device can move freely around its supporting rod now, and it can be lifted or fall down. The adjustment up or down of the stamping device allows you to make it place the stamp where you want or inside a window especially created on the labels.



Timer *Stamping* *Quick-stop* *Second label*
device switch *push-button* *switch*

Picture 6.

Change of the bottle size

When using cylindrical bottles the device made up by the two rubber rollers must be assembled; whereas, in case square bottles must be labelled, the device made up by the sliding carriage must be assembled.

In order to disassemble the two devices, first of all disconnect the cable located in the side of the machine by turning the blocking lever and take out the mobile part of the current-tap (see picture 7).

If you want to disassemble the device for square bottles, unscrew the three screws that hold it; this is integral with the support located on the machine (see picture 7).

In case you want to disassemble the device for cylindrical bottles, take out completely the two fastening knobs (see picture 8).

The machine recognizes the bottle size and then chooses the right starting logic with regard to the current-tap of the device connected.

Square bottles

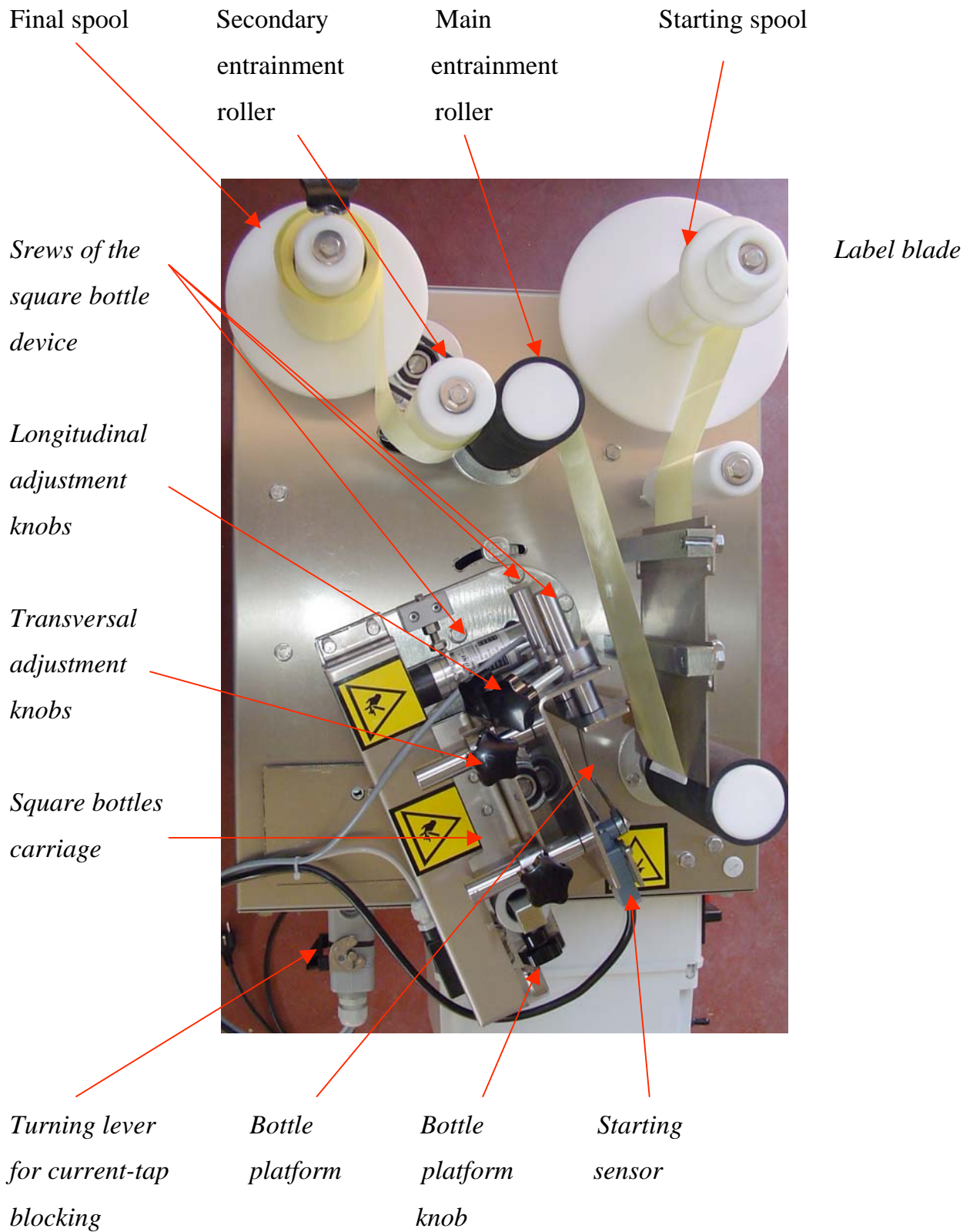
First of all adjust the position registers with regard to the dimensions of the bottles used. Adjustments can be done in the direction of the blade on which the labels glide or in the direction perpendicular to it. They can be made by moving the two reference elements held in position by two fastening knobs (see picture 7).

It is possible that during the assembly the carriage moved from its work beginning position; so, it is advisable to let the machine do a complete cycle by pressing the special starting sensor.

In case the bottle carriage is in the work beginning position, if you press the starting sensor the carriage moves in the direction of the blade towards the rubber roller and once you release it, it goes back to its initial position.

If the carriage is not in its initial position, the sensor must be pressed and then released so that the carriage begins to move and goes back to its initial position (it moves in the opposite direction with regard to the rubber roller).

In case the carriage is in its initial position and the sensor is pressed and then released when the carriage is still moving, it stops in its final position; to make it go back, press and then release again the starting sensor.



Picture 7.

It is advisable to adjust the reference in the transversal direction first. Keep in mind that the carriage for square bottles, once is assembled in the machine, can turn around the fastening support. This rotation is opposed by a spring that tends to bring the device back to its initial position. By this mean, the bottles are always pressed against the rubber roller on which the labels glide when they get detached from the band; so the right pressure between labels and bottles is guaranteed.

It is necessary that the bottle carriage can move 2/3 mm away turning when a bottle is between the rubber roller and the transversal reference.

Now connect the machine to the current feeding and bring the main switch to position "1"; the green warning light turns on (see picture 6). Put a bottle into the housing for square bottles of the carriage and check the result obtained. Insert the bottle from above and keep it pressed against the transversal and longitudinal references; make it sure that it starts the starting sensor once it is placed on the bottle platform.

In case the label is not correctly applied on the side of the bottle or it is partially projecting out of the bottle side, move the longitudinal reference of the bottle. To be more precise, this reference must be moved so that the starting of both bottle and label are correctly synchronized.

CAUTION

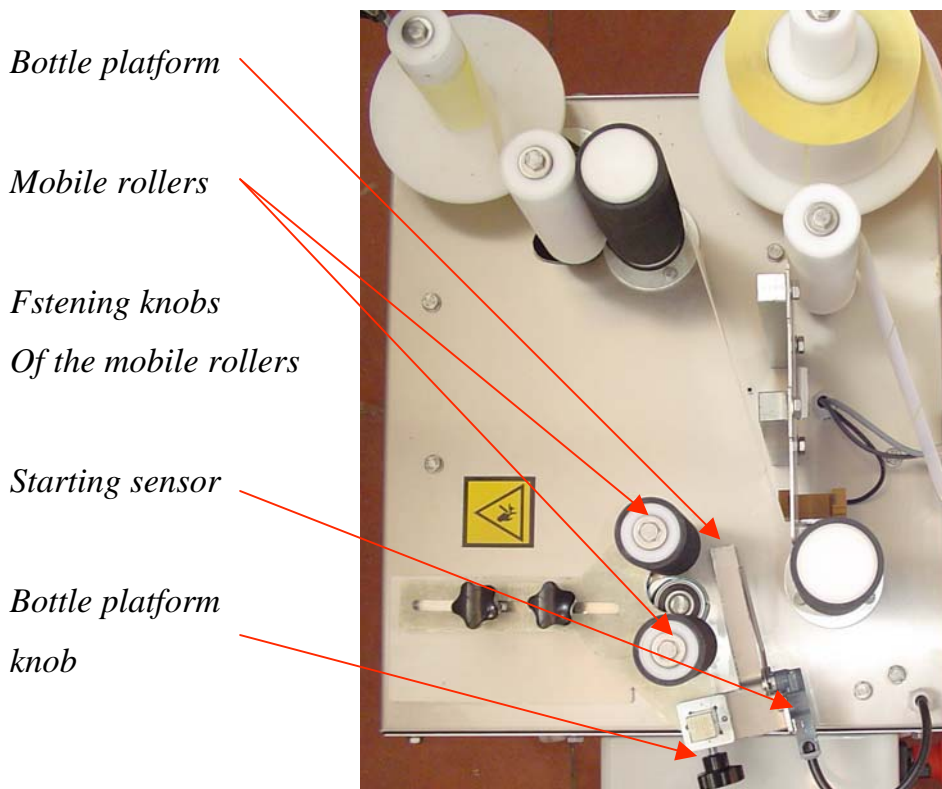
Before starting work check that there are not any foreign objects on the machine. When a bottle has been placed on the bottle platform, move hands away from the machine and bring them near again only once the bottle is labelled.

In case you need to apply a back label different from the front one, start the lever switch in the control board; the green warning light turns on (see picture 6). It is possible to delay the starting of the bottle carriage by adjusting the timer; so, you can centre on the bottle side also the second label and keep the same position of the longitudinal reference.

It is possible to adjust the height of the labels applied on the bottles (the adjustment is about 25 mm altogether). To do this loosen the knob that fastens the bottle platform, change the height of the bottle platform and screw the knob again (see picture 7).

Cylindrical bottles

First of all, adjust the position of the mobile rollers. To do this, loosen the knobs which keep it stationary (see picture 8), place a bottle between the rollers leaning it against the fixed one and move the mobile rollers up to 3 mm near the bottle. To leave less space would make it difficult to position the bottles and take them off; whereas a larger space would not assure the right closing and labels could be applied irregularly.



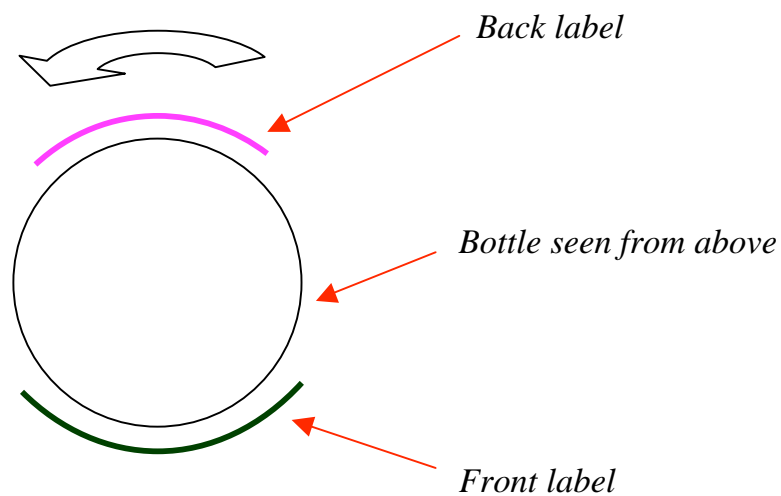
Picture 8.

Now connect the machine to the current feeding and turn the main switch to position "1"; the green indicator will turn on (see picture 6). The machine is ready for work and it is enough to put a bottle inside the three rollers to have it labelled.

In case one wants to apply a second label too, one has to move the little lever located at the front of the control box (see picture 6). Moving this lever makes a green warning light turn on. Now place a bottle and the second label will be applied.

If you want to put both front-and back labels, and the two labels are not applied correctly, adjust the special adjusting timer (see picture 6).

Refer to the plan of picture 9: by turning the timer knob clockwise, the time between the application of the two labels increases; so, the back label will be moved towards the direction of the arrow, that is counterclockwise. In other words, if you look at the bottle from the front and the space on the right between front-and back label is less than that on the left, the timer knob must be moved clockwise.



Picture 9.

Eventually, it is possible to adjust up to 25 mm in all the height of the labels on the bottles. To do this, loosen the knob that fastens the bottle platform, change the height of the bottle platform and screw it again (see picture 8).

5. FAULTS AND REMEDIES CHECK LIST

CAUTION

Before intervening on the machine always bring the main switch back to the "0" position.

In case labels are applied slightly obliquely on the bottles, you must check that the band lower part is parallel with the edge of the label blade (see picture 7). If it is not so, separate a little the two entrainment rollers using some strength and adjust the band position. The white plastic roller can be moved, whereas the rubber one is fixed.

In case after placing a bottle on the bottle platform the machine does not start, check that the quick-stop pushing button was not pressed (see picture 5). In that case, turn it clockwise and try again. If the problem persists check that the starting sensor (see picture 7, 8) is properly started by the bottle; if it is not so, move it upwards by loosening the respective screws.

If after a bottle has been labelled the labels band is not stretched, one can try to screw down the fixing cone a little bit more (see picture 6).

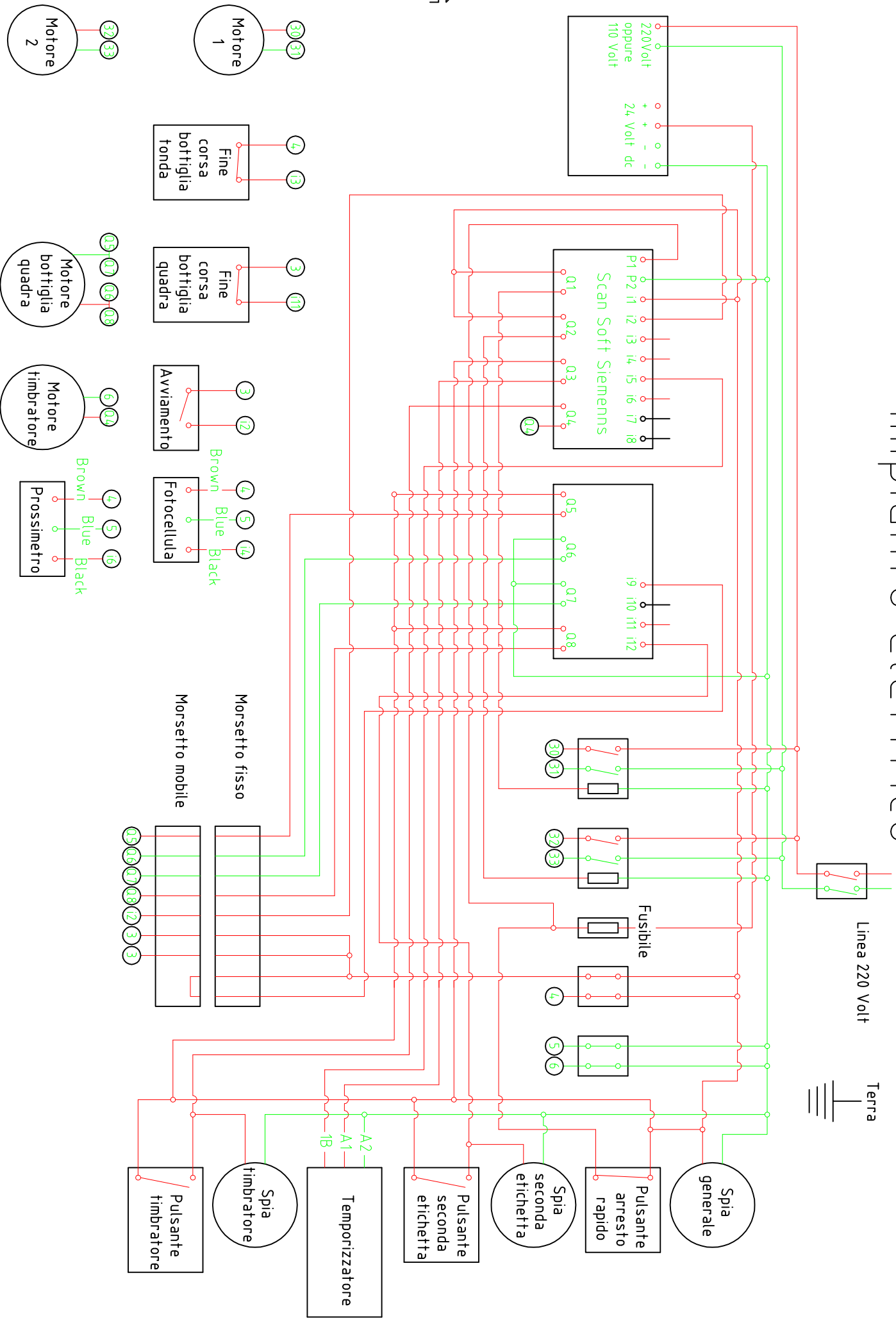
If for whatever reason should come a strange noise from inside the machine, press immediately the quick-stop push-button (see picture 5). You could try to spot the problem by taking off the back panel of the machine, but it is better not to go on trying too long and contact an authorized person.

6. MAINTENANCE

At the end of work it is advisable to remove from the rubber rollers any glue residues. They are unlikely to form, but if they are neglected, after some time, form incrustations hard to be removed. At the end of work always turn the general switch to the "0" position (see picture 6) and disconnect the current feeding cable.

When using the machine after a long stop, it is advisable to lubricate all moving parts. To do this, remove the back panel of the machine and lubricate the drive chain, the linear guides and all the moving parts using grease.

Impianto elettrico



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