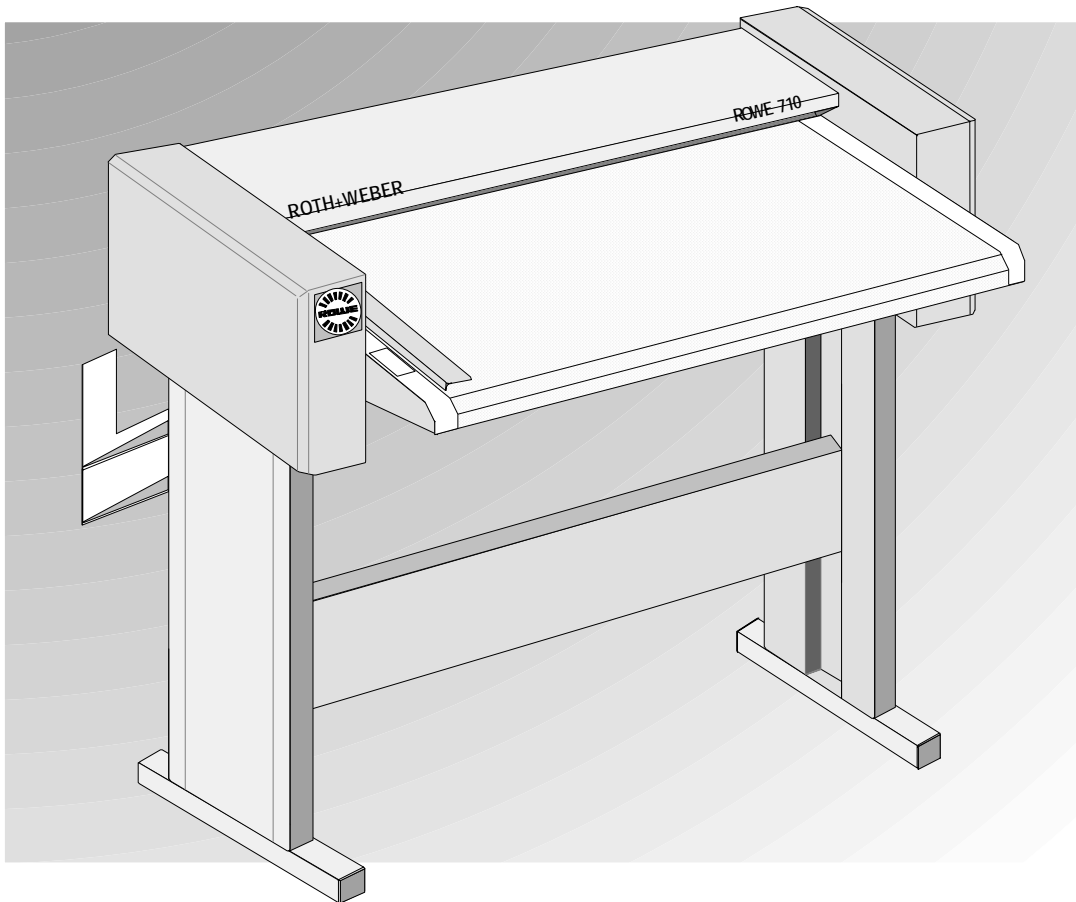




ROWEFOLD 710-2

INSTRUCTION MANUAL



Technische Änderungen vorbehalten.

ROTH+WEBER

57520 Niederdreisbach / Germany Tel. 02743 / 2013 Fax: 02743 / 2018

INSTRUCTION MANUAL

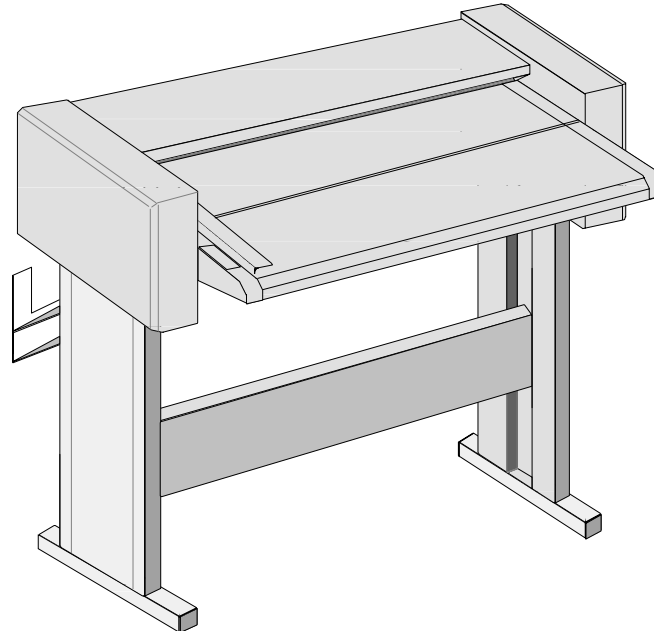


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1.0 SAFETY INSTRUCTIONS

This instruction manual contains safety remarks in all relevant sections, as well as warnings related to possible danger. For this purposes, these symbols are being used:



Important

shows application tips and other important information.



Caution

Indicates immediate threat or danger.



Before mounting and commissioning read the Instruction Manual and safety instructions and conform to them.

Make sure that each operator reads the manual and keep it always available near the machine.



Do not remove any screwed-on parts. Make sure that no foreign matters enter into the machine !

Before carrying out any work on the electrical or mechanical part of the machine, separate the system from the main voltage !

Withdraw power supply cord !

Ensure that you have easy and save access for the power supply cord !

Never bridge safety switch !

First check that main voltage corresponds with voltage indicated on type label !

The connection must only be done via a protected contact plug, matching the cutoff condition, according to VDE (VDE=Electrical Regulatory Authority) 0100 section 410, so that protection against electrical stroke is ensured !

1.1 Safety Data Sheets

Exclusion of responsibility:

The following exclusion of responsibility applies to all Safety Data Sheets of the Instruction Manual. This Safety Data Sheet has been written to the best of our knowledge and serves as compact instruction for the safe operation of this product.

We reserve the right to update Safety Data Sheets if new information is available. It is up to the customer to assess the suitability of such information for complying with safety measures.

In case of doubt, the user should contact the producer in order to be sure that he got the latest edition of the Safety Data Sheet.

Should any limitation to responsibility be allowed according to ruling law, we do not assume any responsibility for any inaccuracies in this documentation.

1.2 General Remarks

Any warranty work must done by us, on principle, or by a dealer authorized by us. Have maintenance or repair work done by the appropriate service.

**1.3 Safety Data Sheet - ROWEFOLD 710**

Type	ROWEFOLD 710	
Manufacturer	Roth + Weber Maschinenfabrik GmbH 57520 Niederdreisbach Germany	
Discription	Folding machine for the processing of copying material	
Folding Speed	15 m/min	
Dimensions	Width: 1290 mm	Depth: 1010 mm
Weight	Height: 945 mm	95 kg
Tension	220 - 240 V	
Frequency	50 - 60 Hz	
Nominal current	0.4 A	
Connected load	75 VA	
Mains connection	Power supply cord with earthed plug	
Sound level	55 dB(A) when working, at operator position	
Space volume	Recommendation 50 m ³	
Fresh air intake	Recommendation 30m ³ /h - natural fresh air	
Room temperature	Recommendation 10°C - 35°C	
Relative air humidity	Recommendation 15% - 85%	
Folding volume	approx. 200m ² , over 8 hours	
Foldable Materials	Copy normal paper	60 - 110 g/m ² Coloured paper
80 g/m ²	Plotter normal paper	60 - 110 g/m ²
	Electrostatical material	80 g/m ²
	Diazo paper	60 - 110 g/m ²
Format size	Length (Length folding)	400 bis 2500 mm
	Length (Cross folding)	400 bis 1500 mm
	Width	960 mm
	Package width during CF	305 mm
Directive	CE 73 / 23 / EWG (93 / 68 / EWG) CE 89 / 336 / EWG	



Notes	Instruction Manual and Safety Instructions must be adhered to.
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Exclusion of warranty applies to the contents of this Safety Data Sheet.

1.4 Intended use of ROWEFOLD 710

The intended use of the ROWEFOLD 710 is to fold copying paper. Any different use, beyond the application purposes mentioned herein, are not as directed. With this folding machine plans are length and cross folded according to DIN-Standard.

Intended use means also:

- Adhering to Instruction Manual.
- Complying with Safety Instructions.
- Check that local main voltage corresponds with voltage indicated on type label.



Any arbitrary conversions and modifications are not allowed and will release the manufacturer from any responsibility and liability for any damages arising from such measurements.

Safety means, casings, covers etc. should not be removed or made ineffective.

We reserve the right to technical modifications when serving safety and improvement.

Roth + Weber expressly reserves the right to technical modifications and further development.

Roth + Weber has no obligation to retro-fitting of technical modifications on machines already installed.

1.5 Qualification of operating personnel of the ROWEFOLD 710

For all work with or on the machine the Safety Instructions and remarks contained in the Instruction Manual must be adhered to.

The operating personnel has an obligation:

- To abstain from all working mode which could jeopardize the safety and functional performance of the ROWEFOLD 710.
- To make sure that only trained and authorized personnel will be working with the ROWEFOLD 710.
- To state any changes which could jeopardize the safety and functional performance of the ROWEFOLD 710.
- Before carrying out any maintenance and repair work on the ROWEFOLD 710, separate the system from the main voltage.

1.6 Possible danger sources of the ROWEFOLD 710



In general, the ROWEFOLD 710 has to be disconnected from the power supply before intervening!

An intervention at the machine can be carried out at the following mentioned points:

- Side door on the left
When touching the electrical supply, there is the danger of a current impact.
When intervening the gear-tooth system of the folding roller there is the danger of injuring.
- Side door on the right
When touching the wiring, there is the danger of a current impact.
When intervening in the gear-tooth system, there is also the danger of injuring.
- Covering sheet metal at the front (under conveyor table)
When intervening in the gear-tooth system of the folding roller and within the gap between folding roller and paper guide plate, there is the danger of injuring.

1.7 Recycling and disposal

The total weight of ROWEFOLD 710 amounts to 95 kg.

This is allotted to approx.:

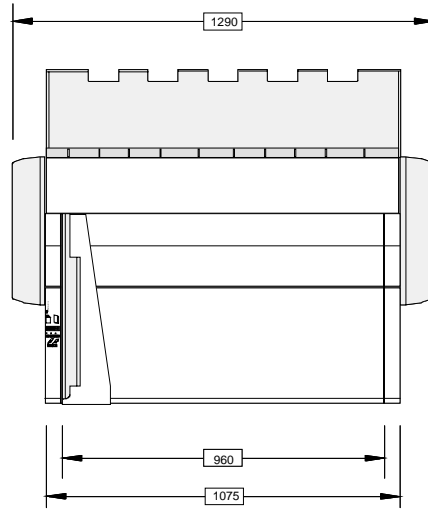
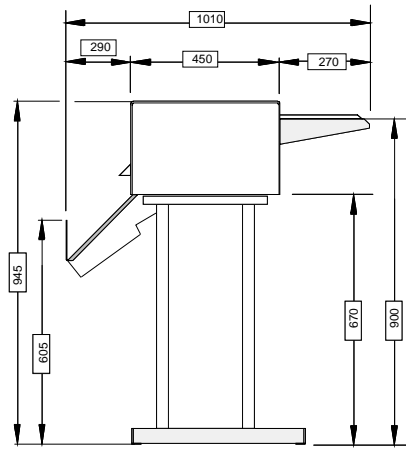
87 kg steel and stainless steel
4 kg stepping motors and transformers
3 kg plastic and rubber
1 kg electronical parts

When reaching the end of the life time of ROWEFOLD, it must be disposed, according to the regulations of waste disposal applying at that point in time.



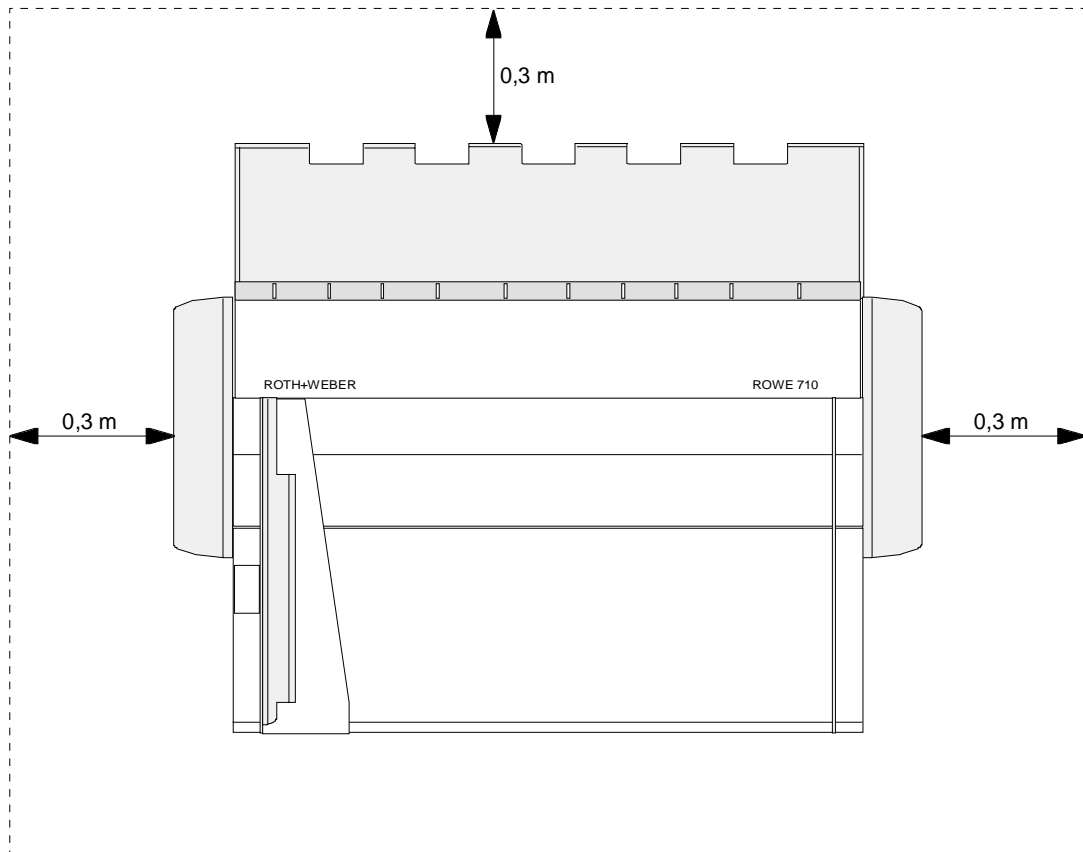
2.0 TECHNICAL DATA

Space required:	1,3 m ²
Weight:	approx. 95 kg
Voltage supply:	230 V, 1NAC, 50/60 Hz
Nominal current:	0,4 A
Connected load:	100 VA
Folding speed:	15 m/min
Folding programmes:	210 Length folding, without tape 198 " " " 190 - 20 Length folding, with tape 185 - 25 " " 180 - 30 " " 210 P Length folding, without intermediate fold (package) 190 - 20 free 190 - 20 free 297 Cross folding 305 " 210 " 280 "
Folding length:	ab 400 mm bis 2500 mm (Length folding) 80 g/m ² ab 400 mm bis 1500 mm (Cross folding) 80 g/m ²
Dimensions:	1290 x 945 x 1010 mm (widthxheightxdepth)



3.0 SET-UP

The folding machine must be placed horizontally aligned onto a firm ground.
Keep a minimum distance of 0.3 meters between wall and back side of machine.



3.1 Connection of machine

Before connecting machine to the power supply, the machine must be completely mounted.
The connection must only be done via a protected contact plug, matching the cutoff condition, according to VDE (VDE=Electrical Regulatory Authority) 0100 section 410, so that protection against electrical stroke is ensured.

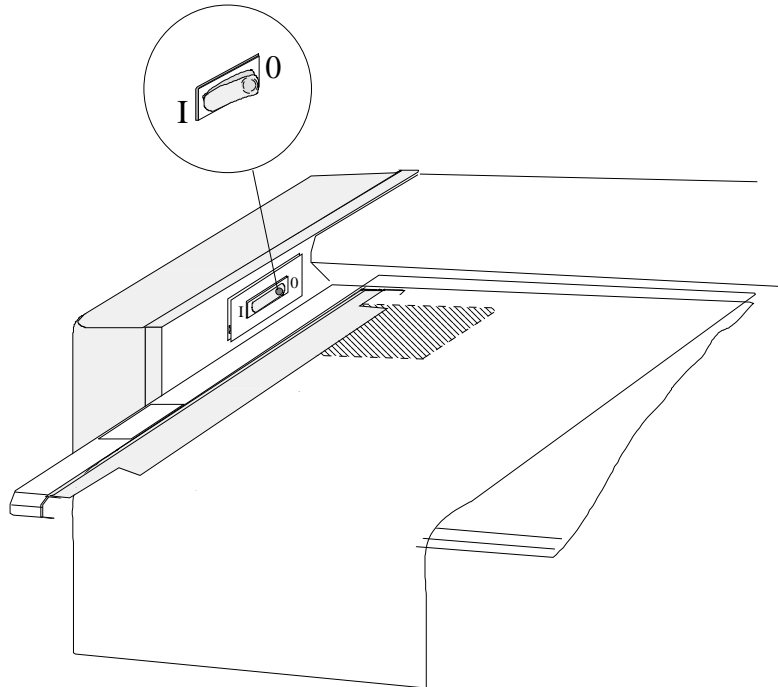


Check whether power supply corresponds with voltage stated on the type plate beforehand !

4.0 FOLDING SEQUENCES

4.1 Switching on and selection of programmes

Switch into operation with main switch on left machine side.
 The pilot lamp lights up in position I.
 The folding programs can be selected on the operator panel.
 The folding program last used appears on the panel.



4.2 Folding sequences length folding

Preselect folding program before applying the plan.

- The LED lights up on key Fan Folding.
- The program is preselected with the help of the arrow key.

The plan to be folded is put against the rule with the lettering facing downward and the title block in front. The drive is started automatically. Push the plan into the machine until it is gripped by the rolls and drawn into the machine. Long plans must be guided alongside the rule with both hands during the feed-in.

The plan must enter the machine in a straight way.

For exact folding, plans must be cut rectangularly.

Plans must not run into the machine beyond the red markings.

A sufficiently large feeding distance has to be made sure, i.e. the measuring section at the feed table must only be covered again when all sensors have gotten free for one time.

Take folding packages out of the collecting tray in time to avoid back draughts.

After folding, the pack runs into the rear upper tray and the drive is cut off automatically.

4.3 Folding sequences cross folding

The cross folding function is recognized automatically.

Preselect folding program before applying the plan.

- The LED lights up on key QF
- The program is preselected with the help of the arrow key.

The plan to be folded is put against the rule with the lettering facing downward and the title block in front. The drive is started automatically.

Push the plan forward until it is gripped by the rolls.



When entering the crossfolder, the plan must be guided with both hands.

After folding, the plan is delivered to the rear upper or lower tray, according to the number of cross folds.

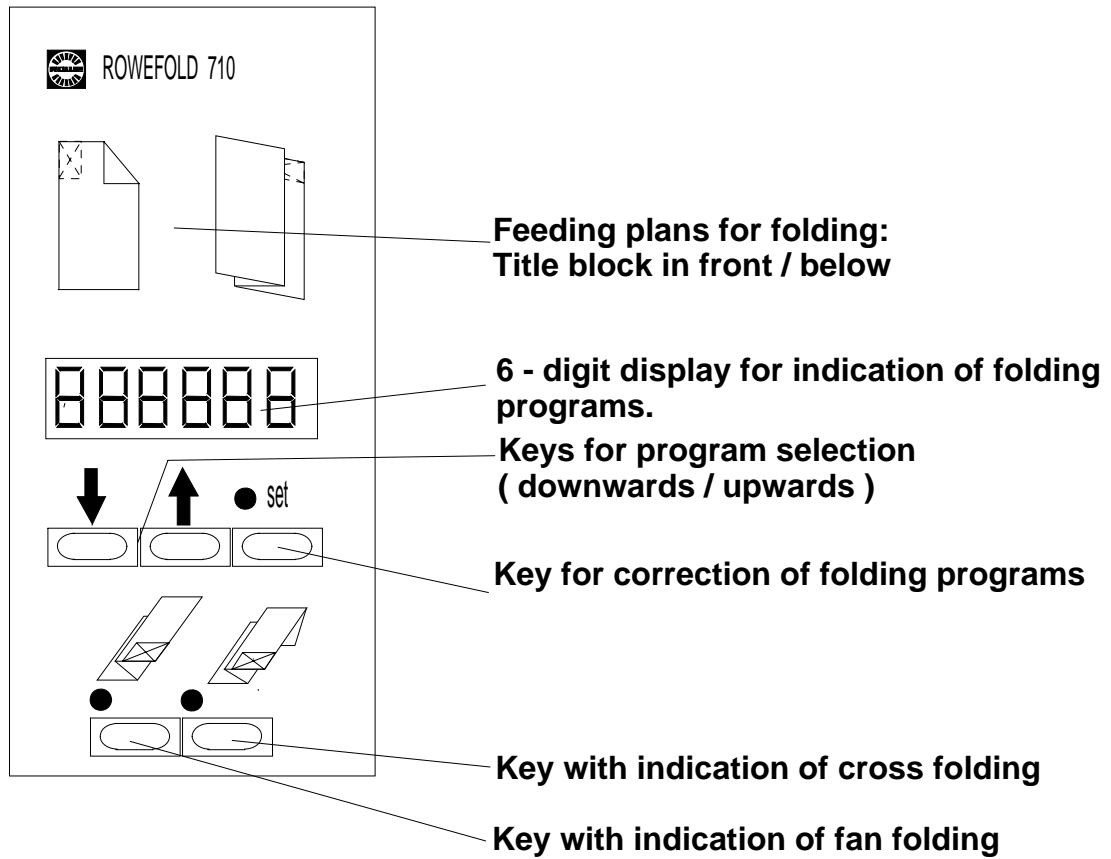
4.4 Switching off

Put the main switch on the left machine side to position 0.

The green pilot lamp goes out.

5.0 OPERATOR PANEL

5.1 Operating elements



5.2 Length folding programmes

After the machine has been switched on, the green pilot lamp on the main switch lights up in position I.

The folding program last used appears on the display (i.g.: 190-20). The LED on key LF lights up.

Selection of program:

By pressing the selection keys (arrow keys) the newly selected program appears (e.g.: LF 2 for fan folding program 2). After letting go the key, it appears for example 210-0 (for folding width 210 mm, filing margin width 0 mm).

The following fan folding programs may be selected:

LF1	190-20	Folding with intermediate fold 190 mm pack width and 20 mm filing margin
LF2	210	Folding with intermediate fold 210 mm pack width
LF3	198	Folding with intermediate fold 198 mm pack width
LF4	185-25	Folding with intermediate fold 185 mm pack width and 25 mm filing margin
LF5	180-30	Folding with intermediate fold 180 mm pack width and 30 mm filing margin
LF6	210 P	Folding without intermediate fold 210 mm pack width
LF7	190-20	
LF8	190-20	

5.3 Cross folding programmes

Normally it is not necessary to select the cross folding function as this is recognized by a sensor positioned in the entry area of the machine.

If the fan folded pack is in excess of a width of 240 mm, the automatic commutation fan/cross must be switched off by pressing key LF 3 for 3 seconds. The indication L-C 1 appears on the display. With the arrow key you can change the number 1 to 0. With L-C 0, the selection of the cross folding function must be made via the corresponding key.

- automatic commutation switched off = 0; LED LF or OF shines continuously
- automatic commutation switched on = 1; LED LF or OF shines intermittently

By pressing the program selecting arrow keys, the corresponding program appears (i.g. QF 1). After letting go the key, the corresponding cross folding program appears (e.g. 305). The following cross folding programmes may be selected:

QF 1	297	297 mm cross fold length
QF 2	306	305 mm cross fold length
QF 3	210	210 mm cross fold length
QF 4	280	280 mm cross fold length

The result is a cross folded pack with a complete cover sheet length (e.g. 297 mm long). The remaining paper is folded into a predefined pattern according to the available length range.

5.4 Setting of folding programmes

Change of folding program:

Press the key set and keep it pressed down. The pack width appearing on the display flashes and can be changed now with the help of the arrow keys. Pressing the key set a second time, also the filing margin width can be changed. The change is made within certain setting ranges.

Pack width:	180 ... 500 mm
Filing margin width (only with fan folds)	10...50 mm or 0 or P
	filing margin 0 - no filing margin
	P - pack folding

The changed setting values have been stored after the third pressing of the key set and are available now.

This offers the possibility to install customer folding programs.

Special case: Pack folding/folding without intermediate fold.
In this case, the pack width must not fall below 210 mm.
When programming a corresponding folding program (e.g. 180 P), the indication jumps again directly to 210 P and by this shows the operator that a folding program 180 mm pack is not possible.

Correction of fold when there is a small excess of sheet length:

In case a sheet length has a small excess (max. 6 mm) resulting in a semi-fold, this semi-fold is not made but the excess is distributed uniformly over the three last layers.

Example: Length 594 mm (Format A2), folding program 190-20
2 layers 190 mm + 1 layer 210 mm (excess 4 mm)
The folding is: 2 layers 191,25 mm + 1 layer 211,5 mm.

Installation of standard folding programmes:

A new-installation of folding programmes can be necessary when the software-parametres will be lost. The user can make a RESET.

Start main switch by pressing key set. All adjustable parametres in the service mode are now set to standard values, and the following folding programmes are stored in the programmes memory.

6.0 TROUBLE SHOOTING



In general, the machine has to be disconnected from the power supply before intervening !

Remove mains plug !

Never ever remove plug from the machine to switch machine off but always set mains switch to position 0 first !

Never ever shortcut safety switches, because a safe working is not possible !

Possible faults which may occur during transport or the folding process may be easily solved by opening the individual machine parts.

Set machine to stop first and then set mains switch to position "0".

Most of the time, the plans can still be drawn back. If this should not be possible the individual covers may be easily opened with snap buckles.



Diazo material in semi-dry process, copying material in zincoxyde process or with wet development may only be processed in dry condition in this folding machine.

Plotting material partly shows considerable bends. Before folding, the pitch edge has to be manually flattened.

To ensure an exact folding process, plans must be free of statical charging.

6.0 TROUBLE SHOOTING

6.1 Elimination of paper jams

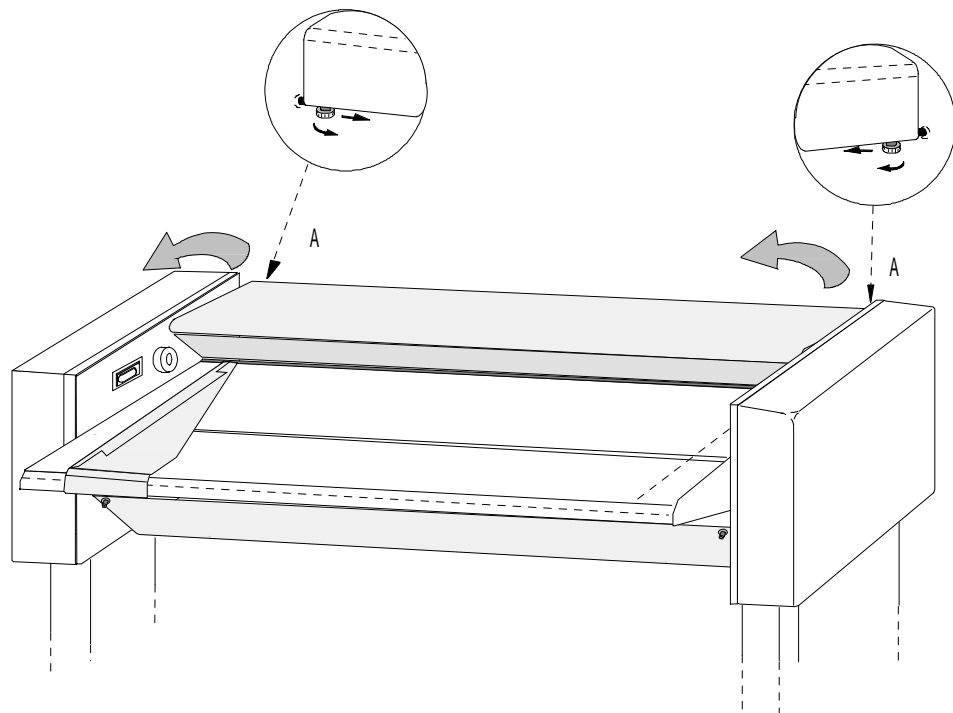
Opening of upper covering:

Shift inside the joint-bolts ((A) at the rear of the machine.

It is possible now to tilt forward the cover towards the feed table.

Loosen joint-bolts of upper transport roll with paper guide and shift it inside. This part can only be opened towards the rear and placed down.

i A safety switch is mounted in the left and right sidebox; it switches off the folder when the covering is open. When closing the covering, maintain a watch to ensure the correct engaging of the bolts, as, otherwise, no proper function will be possible. **engaging**



After having eliminated the fault, close again paper guides and covering / door plate.