

Alpha-doc

Automatic Punching Machine

Operating Instructions



Alpha-Doc Mk4 version 100-120V (us)
Issue : 1.1
Serial number AL4.022 onwards
(Starting May 2012)

To: Installation Agent

***After installing this machine, always
leave this manual on the machine.***

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Patent Pending*

ALPHAM4/V1

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Introduction

Thank you for buying an α pha-doc® Punching Machine from James Burn International SA. This instruction manual has been prepared to help you get the most from your new machine.



NOTICE



Read this manual thoroughly before installing your α pha-doc® Punching Machine.

It is essential that you read all the instructions to ensure a safe and correct manner for operating the machine. Misuse of the machine could be extremely dangerous and lead to injury.

This manual contains recommendations and instructions for installing, adjusting, operating and maintaining your punching machine.

Failure to read this manual could result in personal injury or damage to your equipment, for which we accept no liability.

This manual is a necessary and permanent part of your punching machine and must be kept with the machine.

Note:

This manual gives you general guidelines for installing and operating your punching machine. It does not cover every question you may have or every situation that can occur, in which case you should contact your agent or one of the JBI offices listed overleaf.

Also in an ongoing effort to improve the quality and performance of this punching machine, James Burn International S.A. reserves the right to carry out changes to the machine.

Introduction

If you have any questions about your Punching Machine or this manual, please contact your local James Burn International agent or office shown below :

Your local James Burn International agent or office

1. Installation



Important Precautions for Installation

- 1.1 Keep your machine away from the radiators and other sources of heat. The ambient temperature has to be lower than 24°. Do not block the ventilation openings.
- 1.2 Do not place the machine against a wall : allow 0.5m minimum all around the machine to facilitate tool changing.
- 1.3 Avoid locating the machine near other machines likely to transmit electro-magnetic interference (for instance : welding outfit, radio, compressors, portable phones...).
- 1.4 Before switching the machine ON, read the operating instructions and before first time use, read the precautions to be taken.
- 1.5 Power Supply : The machine needs to be connected to a 100-120 V (us) supply with earth (imperative) to secure the electrical safety (Protection : circuit-breaker 16 A curve C).

NOTE : Avoid neutral load on the installation, this is equipped with electronics generating leakage current which can activate upstream protections.

2. General

2.1 Working Speed and Mode

The machine is equipped with three working speeds and four working modes as shown below and whose selection is possible on the keyboard of the machine.

- | | |
|---|-----------------------|
| a. Speed (90) : plain good quality copying paper | 90 strokes per minute |
| b. Normal (80) : plain copying paper | 80 strokes per minute |
| c. Card (70C) : plain copying paper with card board | 70 strokes per minute |
| d. Index (70I) : tab sheets | 70 strokes per minute |

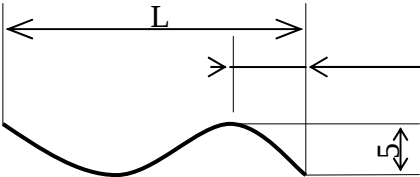
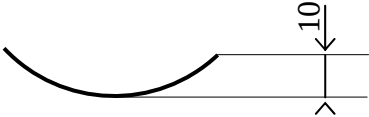
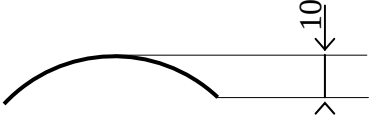
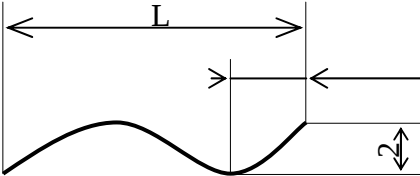
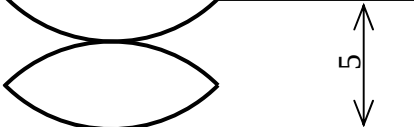
2.2 Paper Tolerances

2.2.1

G.S.M. BRACKET (weight of the paper per square meter)	Between 70gsm and 250gsm
MINIMUM SIZE OF PAPER	138mm x 138mm
MAXIMUM SIZE OF PAPER	350mm x 330mm
MAXIMUM TOLERANCE OF PAPER SIZE IN THE SAME PILE	0.5 mm

2. General

2.2.2 You will find below the different shapes of warping or any kind of out of shape material which our machine can allow :

	- 1 - LOCATED ON THE SIDE OF THE PICK-UP OF THE SHEET – CURVED DOWNWARDS.
	- 2 - SPREAD OVER ALL THE SHEET – CURVED UPWARDS.
	- 3 - SPREAD OVER ALL THE SHEET – CURVED DOWNWARDS.
	- 4 - LOCATED ON THE SIDE OF THE PICK-UP OF SHEET – CURVED UPWARDS.
	- 5 - MIXED WARPING SPREAD OVER THE SHEET.



CAUTION

It is possible to punch acetate or similar paper only if each sheet is interleaved with 10 sheets minimum (plain copying paper) without any responsibility on our part insofar as the acetate may have a diversified composition. It is advisable to contact us and to send us some samples before any trial. We will advise you on the feasibility of its use.

N.B. Make sure that you are using antistatic acetate

2. General

2.3 Paper Jams

If the paper jams repeatedly at the outlet :

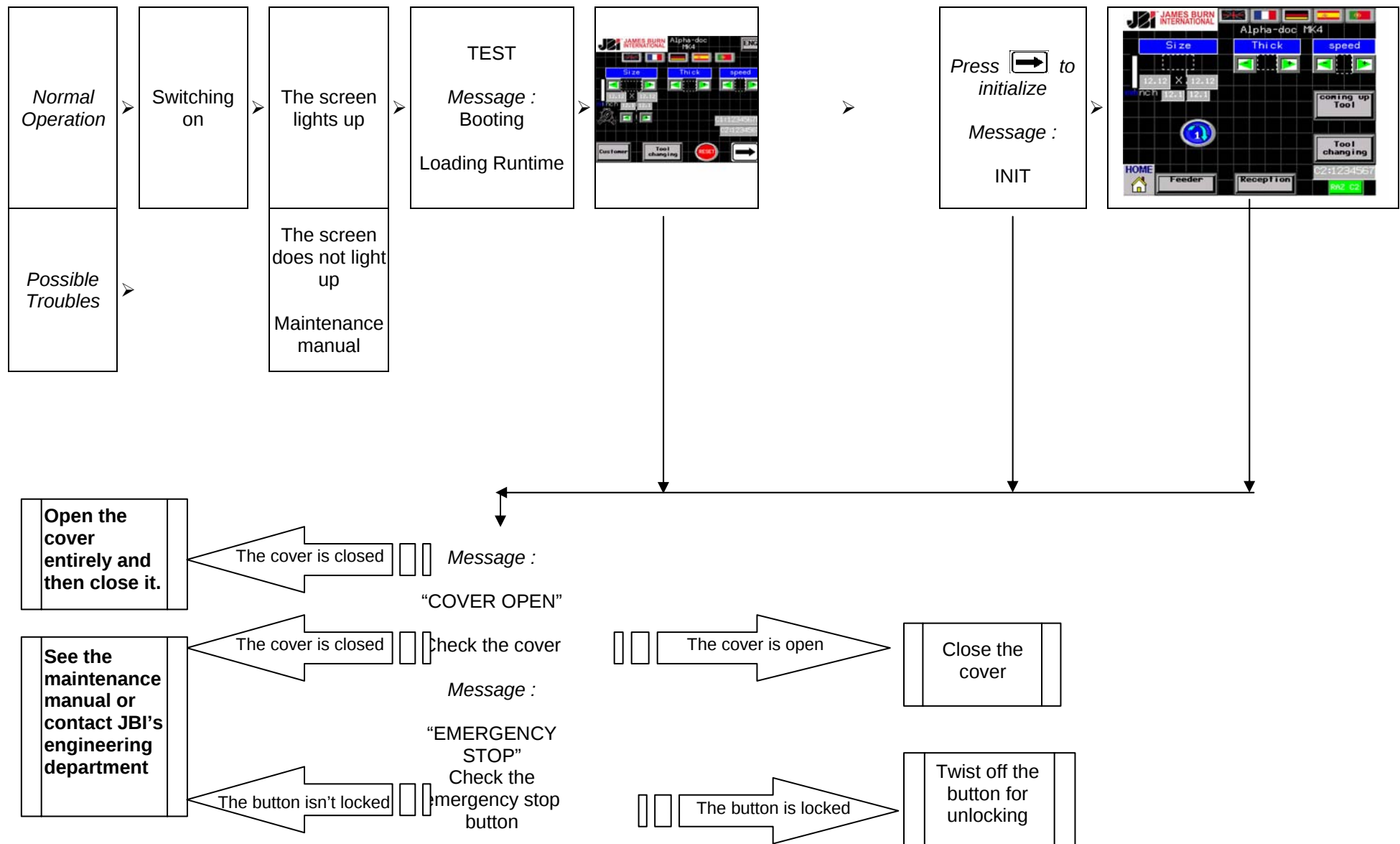
- 2.3.1 Check the direction of the warping of the paper located in the feeder and compare this with the tolerances mentioned in Section 2.2.2.
- 2.3.2 In case you have to cope with one or more situations, turn your paper so that you obtain either case no. 1 or 3. It will improve both the pick-up of the paper and the reception.
- 2.3.3 Check whether you meet the aforementioned restrictions (see Section 2.2).
- 2.3.4 Always use a paper of good quality if possible.
- 2.3.5 When the paper has just been photocopied, it is advisable to let it cool down for a quarter of an hour before punching it.



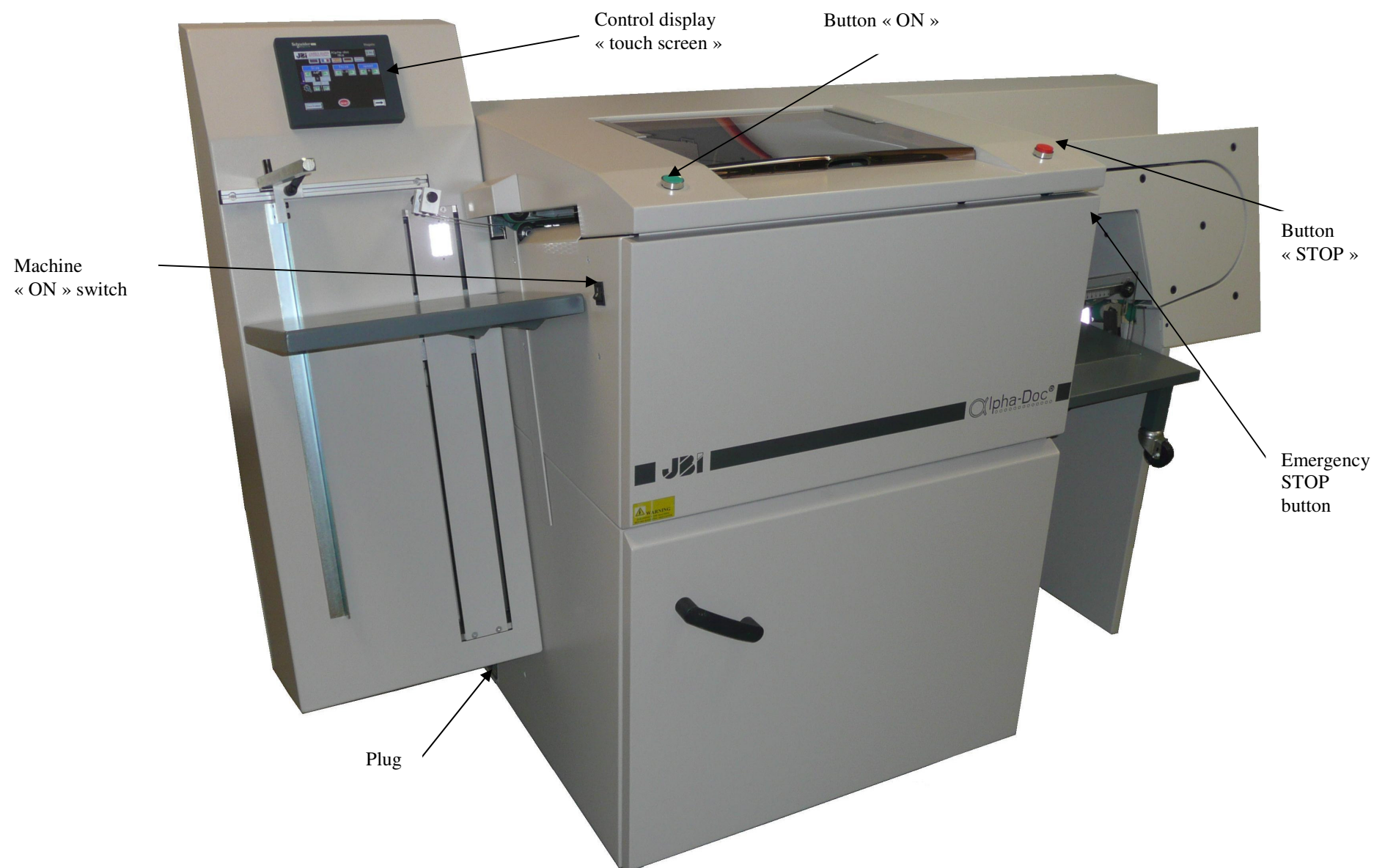
CAUTION

The storage of the paper before punching is of great importance : on cooling the paper may be susceptible to warping, hence the importance of stacking the paper correctly.

3. Switching On



4. Buttons settling



5. Operation

5.1 Changing Size

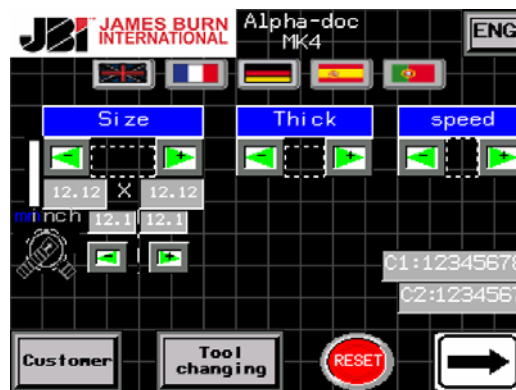
5.1.1 All paper sizes that can be selected :

1 : A4P	297.0X210.0
2 : A4L	210.0X297.0
3 : A5P	210.0X148.0
4 : A5L	148.0X210.0
5 : US/2P	215.9X137.7
6 : US/2L	137.7X215.9
7 : USP	279.4X215.9
8 : USL	215.9X279.4
9 : FLSP	330.2X215.9
10 : FLSL	215.9X330.2
11 : CUST1	***.X***.
12 : CUST2	***.X***.
13 : CUST3	***.X***.
14 : CUST4	***.X***.



NOTA : Don't forget to retract the foot stops or the head stops, located less than 7mm before the square of lateral jogging respect to the paper size selected.

5.1.2 Procedure

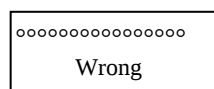
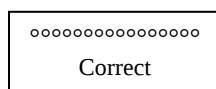


To select the size press  or  to find the right size

5.1.3. Check the punching

The punching tools are centered respect to the machine.

Press  or  (see the above screen) for adjusting the paper size.



From – 9,5mm to +7,5mm respect the “0” position



This adjustment has to be used for formats with uneven number of holes.

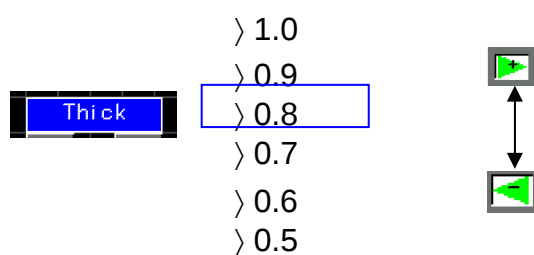
Example :

For an A4P format with 33 holes in 3:1” pitch press the key  up to 4,2 to get the correct position.

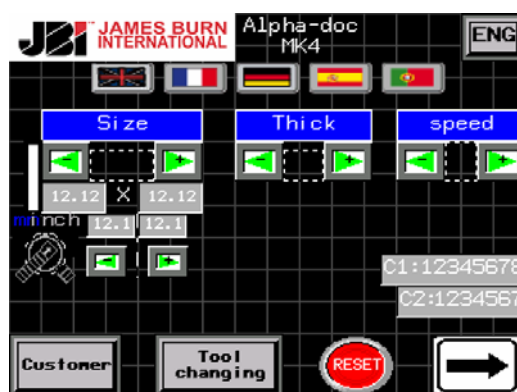
5. Operation

5.2 Setting the Punching Thickness

5.2.1 Thicknesses that can be selected



5.2.2 Procedure

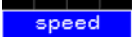


To select the thick press  or  to find the thick

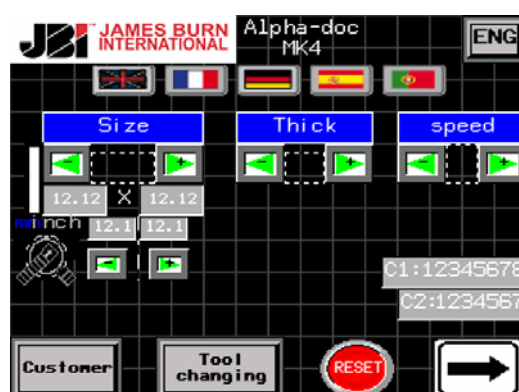
5. Operation

5.3 Setting Speed (90), Normal (80), Card (70C) or Index (70I) Selection

5.3.1 Initial Menu

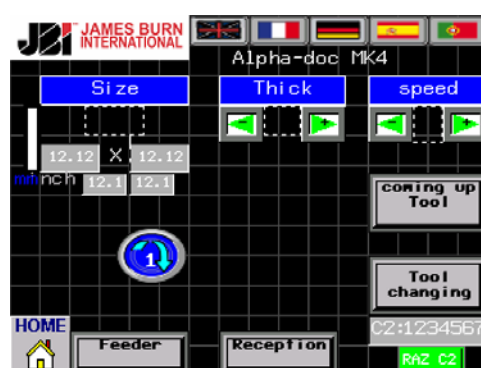
	>	90		90 cycles/min
	>	80		80 cycles/min
	>	70C		70 cycles/min
	>	70I		70 cycles/min + 3 solenoids TABS

5.3.2 Procedure



NOTE : By selecting the 70I Index mode you will activate the 3 solenoids located on the square of the side lay gauge (if you have this option – see Section 6.1).
By selecting the 70C Card mode you will operate in low speed (70 strokes per minute), useful for difficult work with card board or sensitive paper.

Then press on  “INIT”



Launch the cycle, 2 possibilities :

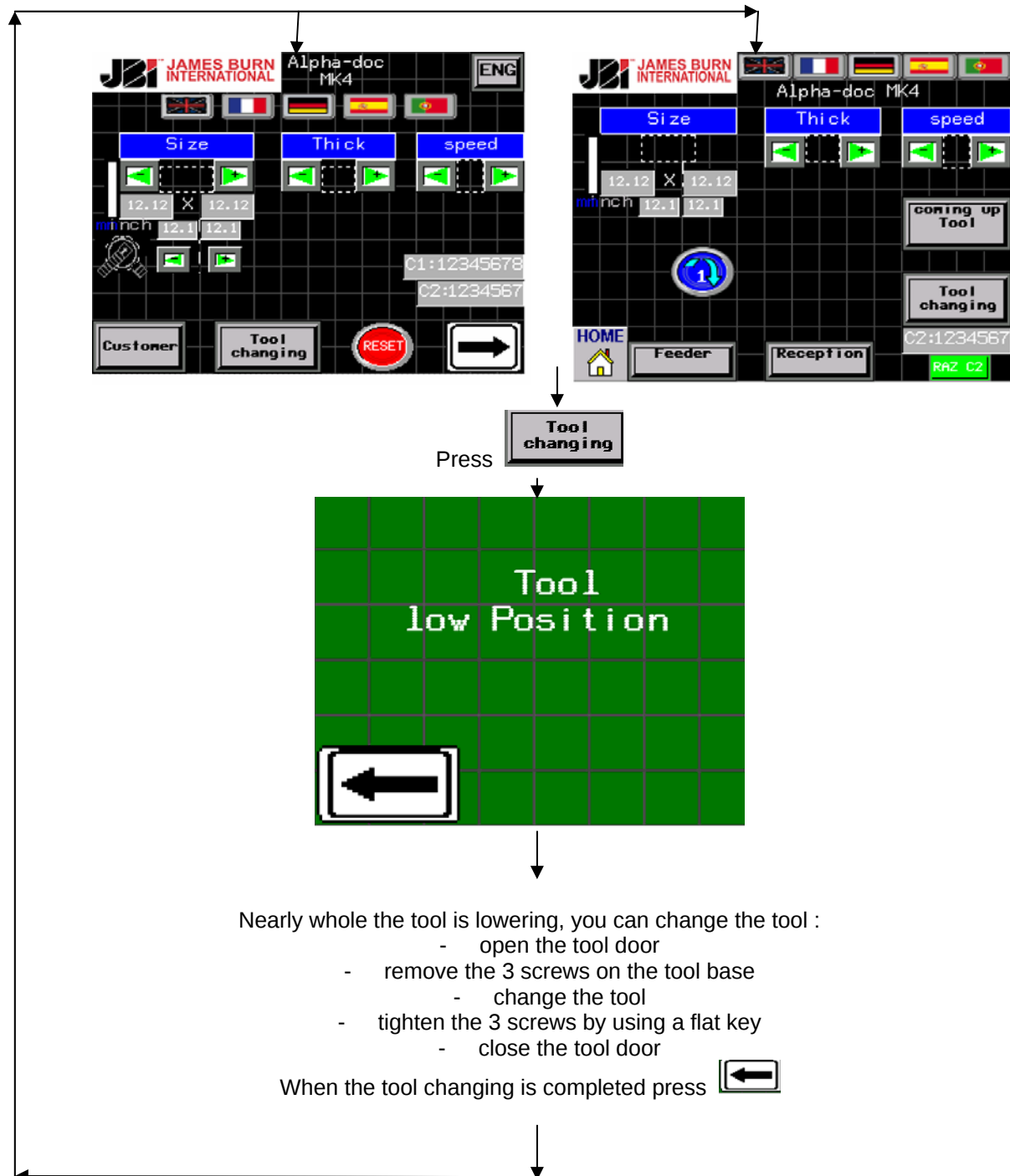
- 1) Press  : launch 1 cycle to validate the paper format
- 2) Press the “ON” button (see Section 4)

To stop the cycle press the “STOP” button (section Section 4)

5. Operation

5.4 Tool Changing

5.4.1 Procedure

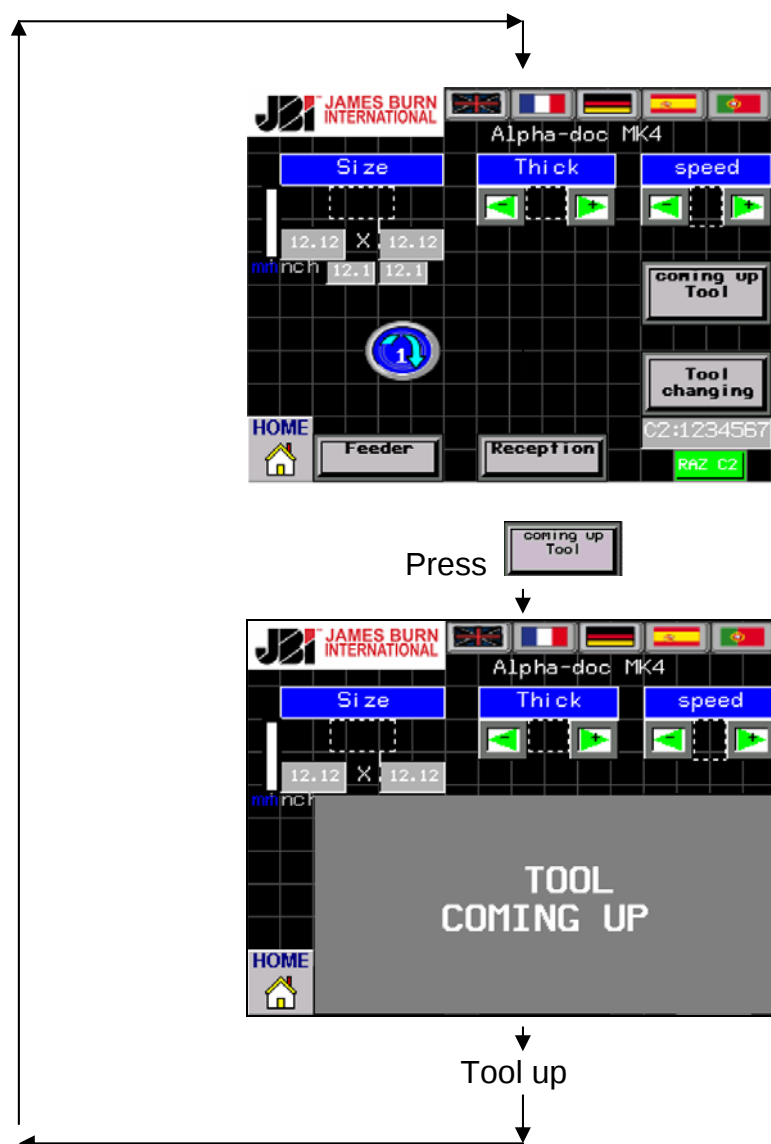


NOTE : The tool must be removed ONLY when it is in the lowered position.

5. Operation

5.5 Tool Raising

5.5.1 Procedure



The tool is raising entirely : instructions to remove paper jam (if necessary) :

- open the PVC cover
- remove sheets by pulling slowly, check that no offcut paper remains
- close the PVC cover

5. Operation

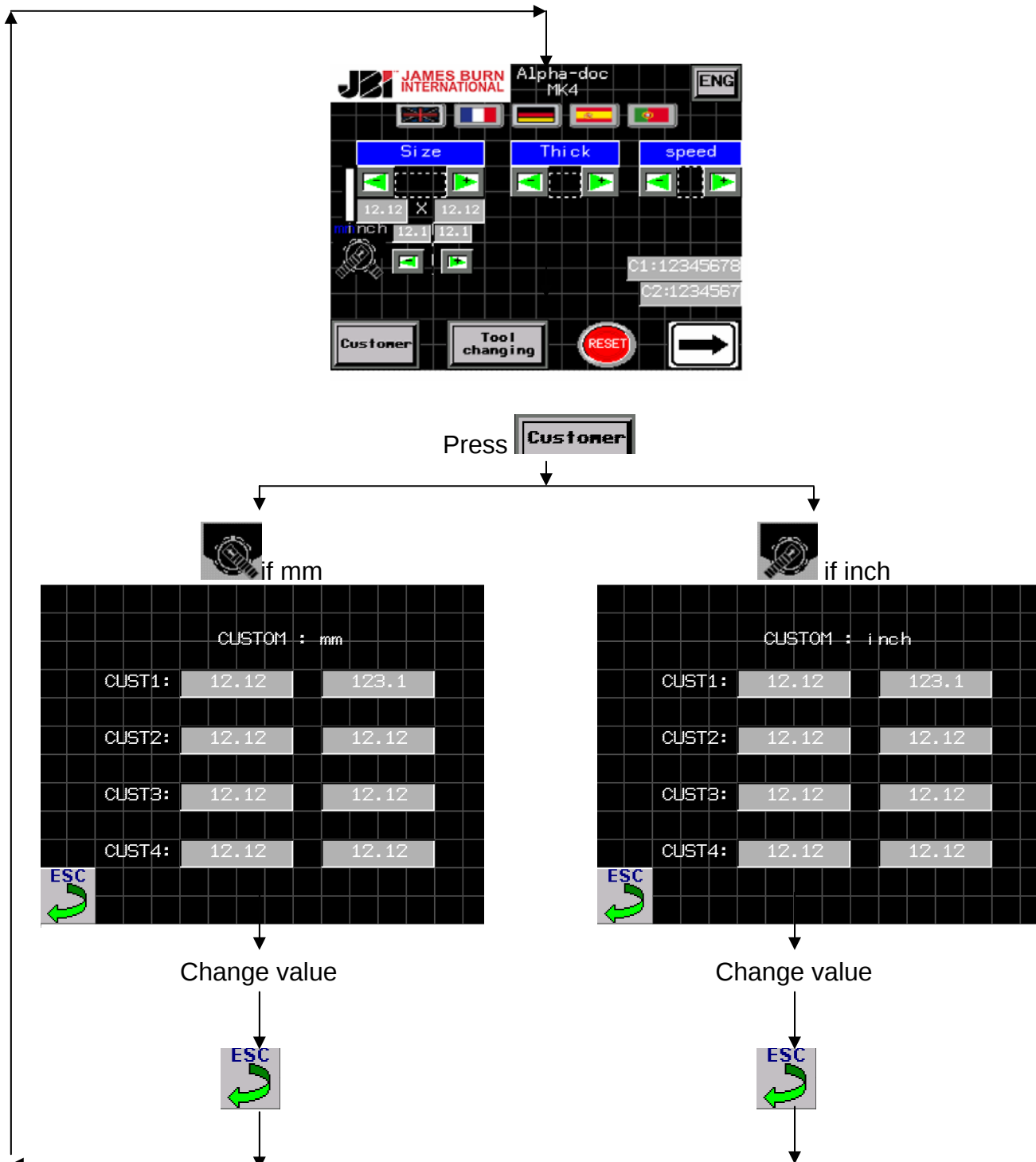
5.6 Loading and Modification of Personalised Formats

5.6.1 4 x Possibilities of Size

```

11 : CUST1 ***X***
12 : CUST2 ***X***
13 : CUST3 ***X***
14 : CUST4 ***X***
  
```

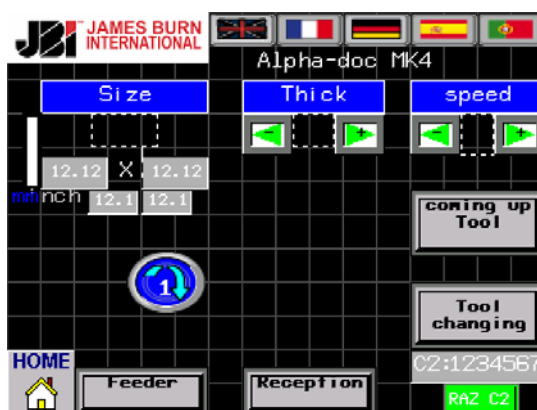
5.6.2 Procedure : select in first mm or inch



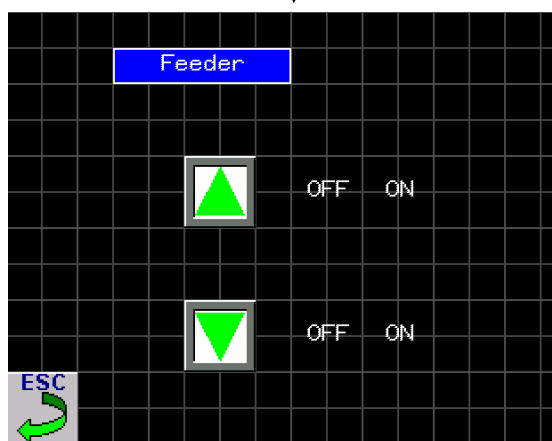
5. Operation

5.7 Use of the High Pile Feeder

5.7.1 Procedure



Go into the feeder menu by pressing on



Press directly on the button  ON or  ON

To return to the READY menu press



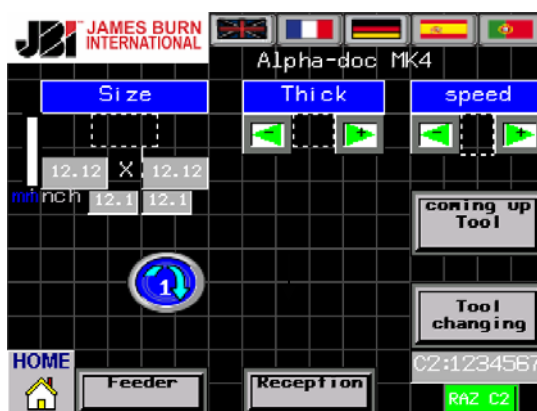
NOTA : possible message

COVER OPEN

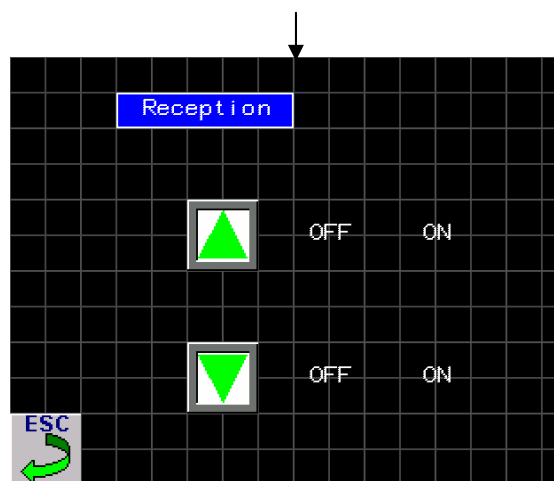
5. Operation

5.8 Use of the High Pile Reception

5.8.1 Procedure



Go into the reception menu by pressing on **Reception**



Press directly on the button  **ON** or  **ON**

To return to the READY menu press



Nota : possible message



6. Options

6.1 Separator

How to select the separator ?

Go into starting position, tool in high position

OR

Press on the «CHANGEOVER OF TOOL» button on the keyboard

- Take a BTR key n°2
- Open the upper cover
- Unscrew the support of separator stop located in front of the feeder at pick-up level, in front of the beak

To select the separator (for mixed papers or cards) :

Move the support to the left

To use only the beak (for standard paper only) :

Move the support to the right



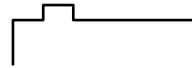
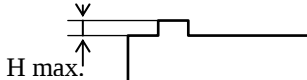
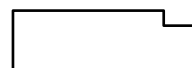
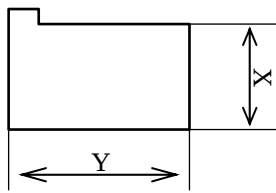
NOTICE : if you experience troubles with sensitive paper or hard paper, you can reduce the speed by selecting the mode Card «70C» (see section 5 page 3)

6. Options

6.2 Tab Option

SIDE LAY GAUGE FOR TABS WITH THREE SOLENOIDS FOR ALPHA-DOC MK4

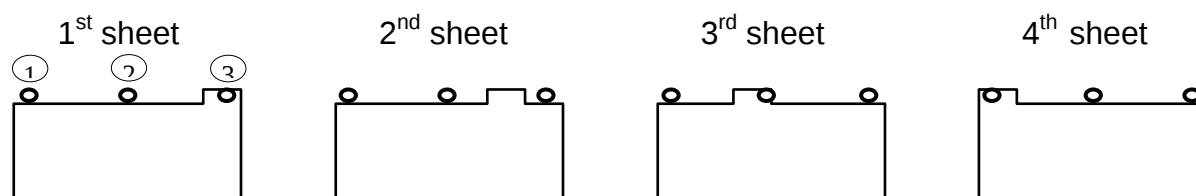
TECHNICAL SPECIFICATIONS

SHEET SIZE	A4 P US P	297 x 210 mm 279.4 x 215.9 mm
FEASIBILITY ONLY ON	ROUND CORNERING TWO SIDES	
MAXIMUM HEIGHT OF TABS	13.5 mm	
MINIMUM NUMBER OF TABS	4	
MINIMUM SIZE of the margin from the edge of the sheet	0 mm	
UNFEASIBILITY	ROUND CORNERING ONE SIDE	
SIZE OF SHEETS	Sheets between each index card must have the same sizes as the basis of the tab (size X) and the same length (dimension Y) with a 0.2mm bracket.	

ADVANTAGES

The second solenoid has to be located in the middle of the sheet to balance the lay gauge. The lay gauge with three solenoids is made possible by the low pressure of the solenoids, which enables the sheets not to be damaged.

EXAMPLES



Two solenoids must always be in jogging operation to ensure the pushing of sheets.

Assembly : Remove the square of side lay gauge to replace by the Tab Option by using a 6-face key to remove the two screws. Connect the two electric wires on the tittle terminal located on the support.



CAUTION
Disconnect the machine before operation.

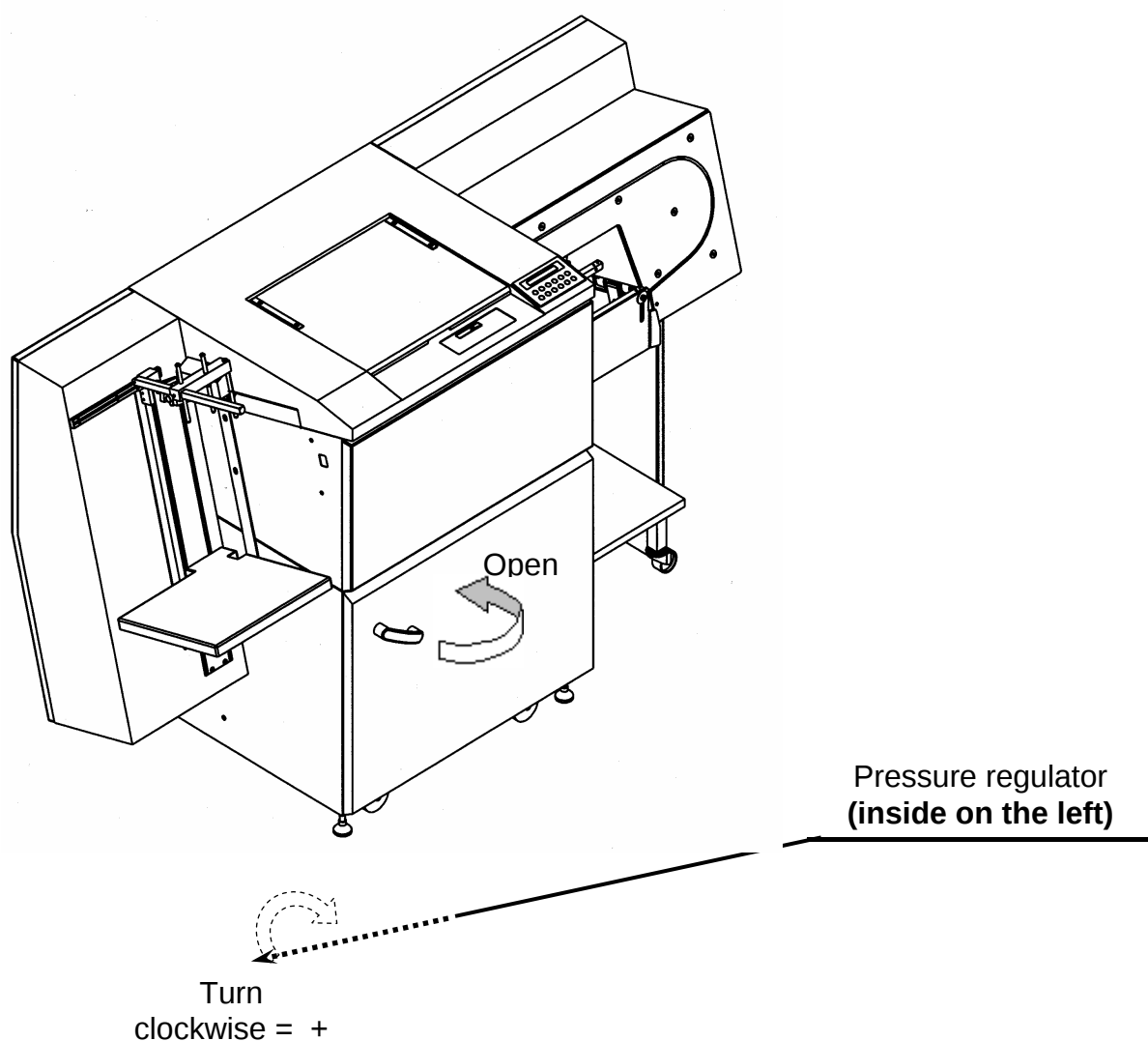
6. Options

6.3 Air Blower Unit

This system makes the separation of sheets easier. You must connect it onto the black PVC tube, located inside the base on the left (operator side) of the machine.

6.3.1 Adjusting of the blower level :

- Open the door of the confetti tray
- Turn the regulator (clockwise) to increase the pressure (from 0 to 1 bar)



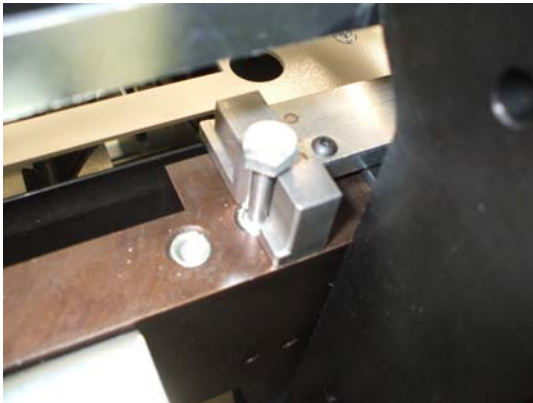
NOTICE

The filter located under the manometer must always be clean and free from water and oil. Check the filter before using and clean it if necessary.

6. Options

6.4 How to fit a Mk3 tool onto a Mk4 Alpha-Doc

1. Press  on the control display to bring the tool beam in low position.
2. Open the rear tool panel.
3. Unlock the Mk4 tool by untightening the 3 screws holding the Mk4 tool in place and remove it.
4. Position the two lateral blocks as shown on pict (1) & (2) and keep them in place with the 2 holding bolts fitted into the tool table up to the threaded head. Do not tighten those bolts yet. Make sure they are in their correct position, i.e. the block marked D on the right side.



pict 1



pict 2

5. Introduce and clamp the Mk3 tool into the tool table between the two lateral blocks as shown on pict (3) & (4).



pict 3



pict 4

6. Lock the Mk3 tool in place by tightening the 3 screws taken from the Mk4 tool.
7. Tighten the two holding bolts of the lateral blocks.

NOTA : When you place the tool, take care to push it against the 2 reference pins (each side)

6. Options

7. Troubleshooting

7.1 Troubleshooting when Switching On

	Message	Check	Message	Note	Action
NORMAL CYCLING		Press on the key « ON »	MACHINE CYCLING	The machine is cycling normally	
POSSIBLE FAULT				One or several actuators are not running	➤ Check the fuses on the 24VC card (electrical box)
POSSIBLE FAULT			CONFETTI TRAY FULL	➤ ➤ ➤	Empty the confetti tray and/or clean the sensor with reflector
POSSIBLE FAULT			JAMMING ON HIGH PILE RECEPTION	➤ ➤ ➤	Remove the paper and/or clean the 2 sensors with reflectors
POSSIBLE FAULT			TOOL OVERLOAD	The motor stops	Check that no paper is jammed in the tool or that there is no hard point on the tool or that there is no electric fault

“ON” button



7. Troubleshooting

7.2 Troubleshooting during cycle

7.2.1 Jamming

During cycle, three types of jamming can occur and stop the machine cycling. After the machine stops, the screen displays one message indicating the type of jamming detected.

Remove paper jammed and press on the F1 key to erase the jamming message.

Message: «**Entry jamming**» or «**Exit jamming**»

To remove sheets under the punching unit :

- Open the perspex cover
- Maintain the upper belt support in high position with one hand
- Pull out the paper with the other hand



NOTICE

If offcut paper remains jammed, close the perspex cover and get the tool into high position (see Section 5.5), then remove the sheets.

Message: «**Reception jamming**»

To remove or replace sheets jammed in reception :

- Proceed as indicated on Section 5.9 to activate the lowering of the reception unit and gain access to sheets.

7.2.2 Four other messages can be displayed :

Message: «**Emergency stop**»

See Section 4

Message: «**Cover opened**»

See Section 3.

Message: «**Confetti tray full**»

This message displays if :

- | | | |
|---|---|------------------------------------|
| - the confetti tray is full | ⇒ | empty the confetti tray |
| - the sensor and/or the reflector are dirty | ⇒ | clean the sensor and the reflector |

Message: «**Tool overload**»

This message displays if :

- Paper is jammed under the tool
- There is an hard point on the tool or the tool is not fitted well
- Tool driving is hard
- There is an electric fault : F4 fuse blown or trouble on the inverter or the motor.

7. Troubleshooting

7.3 Troubleshooting

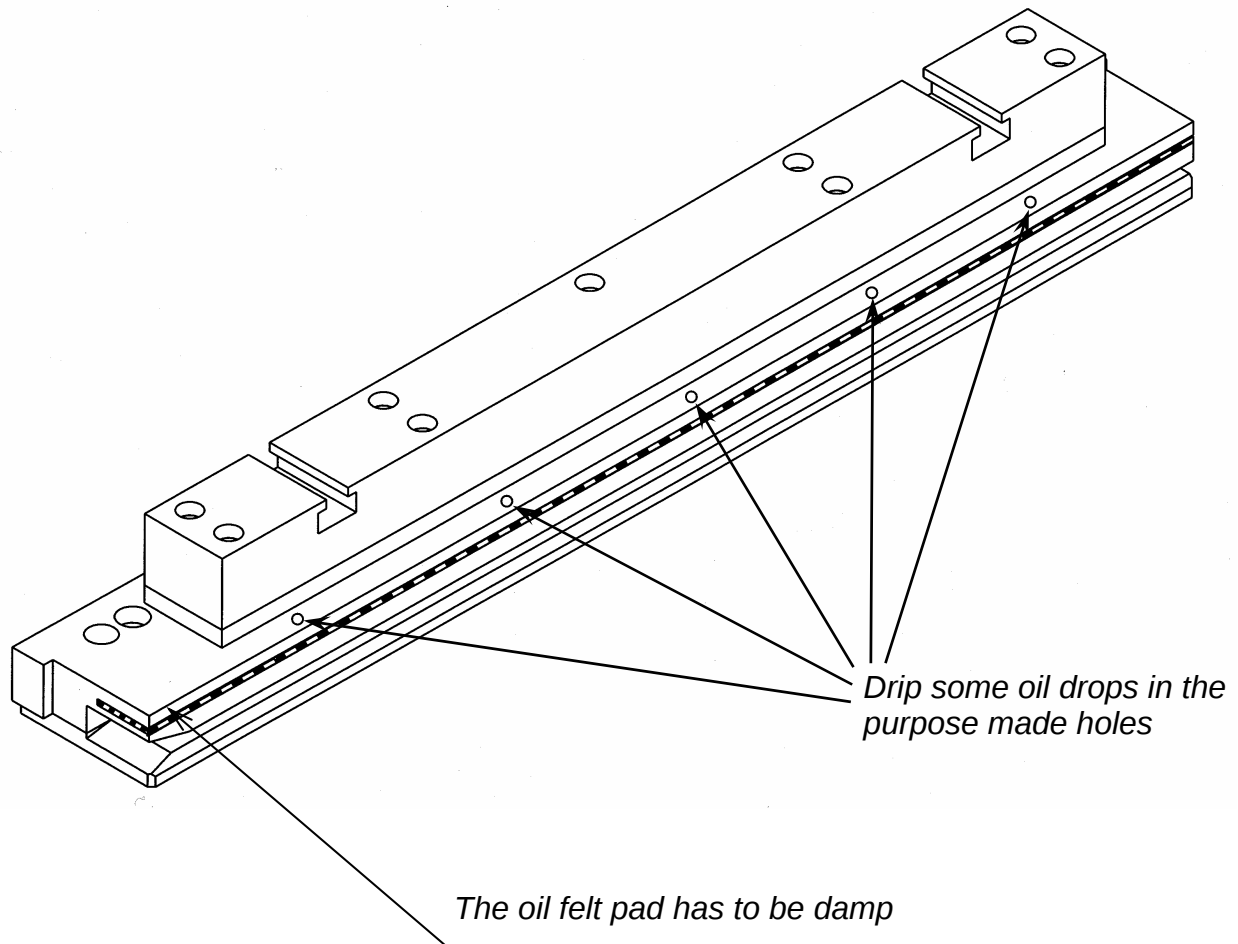
	<i>SIGN</i>	<i>POSSIBLE REASONS</i>	<i>SOLUTIONS</i>
1	The machine doesn't run, when switching on no led lights up	a) no power from the main	a) check if the plug is well switched on.
		b) fuse damaged.	b) check the circuit breaker FL1 in the electric box or call the service engineer.
2	No motion when you press on the buttons on the control board : only the red LED light « electric fault » on.	a) the emergency stop button is engaged	a) disengage the button
		b) the contactor KM1 is locked	b) check its running
3	No motion when you press on any key of the keyboard : the screen remains dark.	a) there is no supply on the PLC	a) check the green led on the PLC or call the service engineer
		b) there is no supply on the 24 Vcc card which drives the actuators	b) check the fuse 1 on the 24 Vcc card or call the service engineer
		c) there is no supply on the inverter	c) check the fuse F4 or the inverter (read message) or call the service engineer.
4	No motion when you press a button on the control board : only the red LED light « jamming » on.	a) there is a paper jam (open the guard to check)	a) close the guard and proceed as indicated on section 7.2.1
		b) no paper (open the guard to check)	b) clean the sensors under the tool and their reflectors
5	No motion when you press one button on the control board : the red led light « confetti tray » on and message « tray full » (see section 7.1)	a) the confetti tray is full	a) empty the confetti tray
		b) the sensor and/or its reflector are dirty	b) clean the sensors under the tool and their reflectors
6	Message « tool overloading » F1 return	a) Paper jammed under the tool b) Hard point on driving or on tool c) Inverter blocked d) fuse F2	a) remove paper b) turn by hand the green belts to check the driving c) check the message and call JBI d) call the JBI after sales service



**NOTICE : NEVER FORCE AN UNIT NEVER INSIST ON AN OPERATION
IN THAT CASE : CALL THE SERVICE DEPARTMENT JBI
FOR REPLACEMENT OF SPARES CALL THE SERVICE DPT JBI**

8. Maintenance

When the machine runs on a normal basis, namely 8 hours a day, the tool has to be lubricated once a week with the oil can which is supplied with this tool.



VERY IMPORTANT

- Check each week that there is no stray confetti inside the table underneath the tool (don't forget to empty the confetti tray regularly)
- When you replace the tool ensure that it is in the lowered position (see Section 5.4).

9. Selling, Transferring or Disposing of your Punching Machine

9.1 Selling or Transferring your Punching Machine

If you sell or transfer your punching machine you must ensure that the machine is in working order, and that the labels and this manual are in legible condition.

Failure to do so could result in you being responsible to whom you sell or transfer your punching machine should it cause personal injury or damage to property.

9.2 Disposing of your Punching machine.

If you dispose of your punching machine you must destroy it, as follows, before you throw it away :

9.2.1 Remove punching tool

9.2.2 Remove the Electrical Module Assembly

9.2.3 Remove the confetti tray

9.2.4 Cut the linking cables

9.2.5 Remove the inverter and the 24VC card of the Electrical Assembly.

9.2.6 Throw away the punching tool, the electrical assembly, the confetti tray, the linking cables, the inverter and the 24VC card in a separate location to the rest of the machine.

Declaration of Conformity

EC DECLARATION OF CONFORMITY

Name of the manufacturer or supplier : **JAMES BURN INTERNATIONAL**

Address : **67 rue du Docteur Blaizot BP 134
61304 L'Aigle cedex (France)**

Description of product : **AUTOMATIC PUNCHING MACHINE**

Name, type or model : **Alpha-doc 100-120V, MKIV, AL4.001 onwards**

Serial number no. :

Standards used, including number, title, issue date and other relevant documentation :

IEC/EN60204-1	2006	<i>Safety of machinery -electrical equipment of machine</i>
CSA/UL/IEC/EN 60950-1	2010	<i>Safety of information technology equipment, including electrical business equipment.</i>
EN / ISO13857	2008	<i>Safety distance</i>
EN / ISO12100-1	2004	<i>Safety of machinery -Analysis-</i>
EN / ISO12100-2	2004	<i>Safety of machinery -Estimate-</i>
EN / ISO13850	2008	<i>Equipment of Emergency stop</i>
EN61000-6-3	2002	<i>Emission of electronic disturbances</i>
EN61000-6-1	2001	<i>Immunity to electromagnetic disturbances</i>

Place of issue : **L'AIGLE (61)**

Name of authorised representative : **Guy VATOME**

Position of authorised representative : **President JBI SAS**

I declare, as the authorised representative, that the above information in relation to the supply/manufacture of this product complies with all the essential health and safety requirements of the EC Machinery Directive (2006/42/CE) and EMC Directive 2004/108/CEE, Low Voltage Directive 2006/95/CE as amended and with the national laws and regulations adopting this Directive.

Signature of authorised representative :



President JBI SAS

Date :

Ref. ALPHA-DOC

Please retain this top part for your information. Should you, however, require service under the terms of our warranty please return this card with a brief description of the problem on the reverse side and send it to the address below. A charge will be made for repairs carried out after the expiry of the Warranty period.

SERVICE REQUEST CARD**ALPHA-DOC MK4 AUTOMATIC PUNCHING MACHINE**

Date of Purchase: _____

Dealer's Name & Address: _____

Date Registration Card sent
to your local agent : _____

Machine Serial No.: _____



ALPHA-DOC

REGISTRATION CARD

PLEASE COMPLETE AND RETURN THIS PART WITHIN 7 DAYS OF RECEIPT OF MACHINE
(see Introduction of this Handbook for relevant JBI address)

Company Name: _____

Address: _____

Tel No.: _____

Type of Business: _____

Dealer's Name & Address: _____

Date of Purchase: _____ Machine Serial No.: _____

What made you aware of the
Punching Machine?☐
Exhibition☐
Advertisement☐
Other User

Your Name (Mr/Mrs/Miss) _____

Title: _____

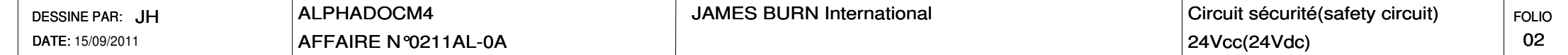
Signature: _____

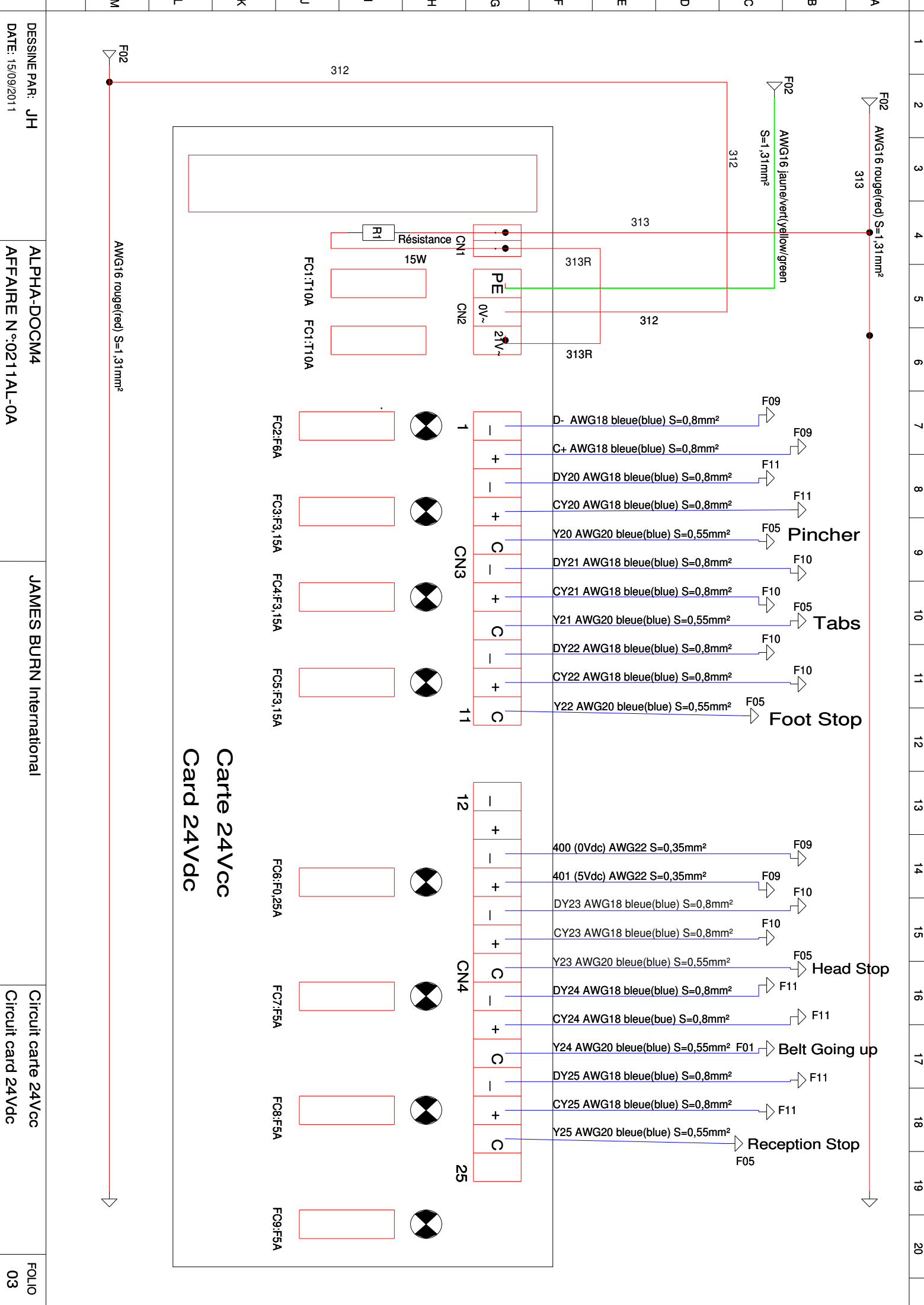


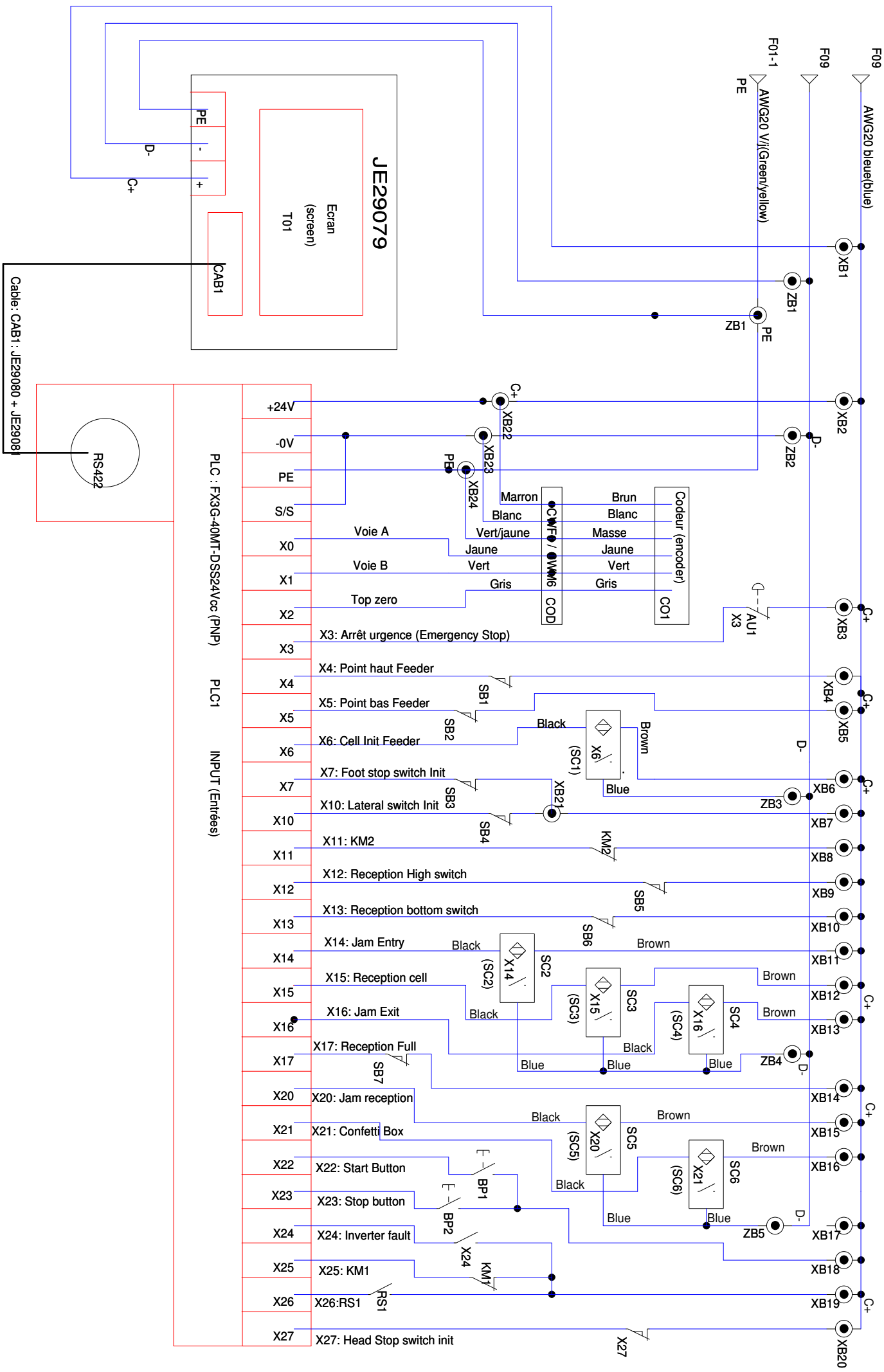
PERFOREUSE ALPHADOXM4 JAMES BURN INTERNATIONAL Punching machine ALPHADOXM4

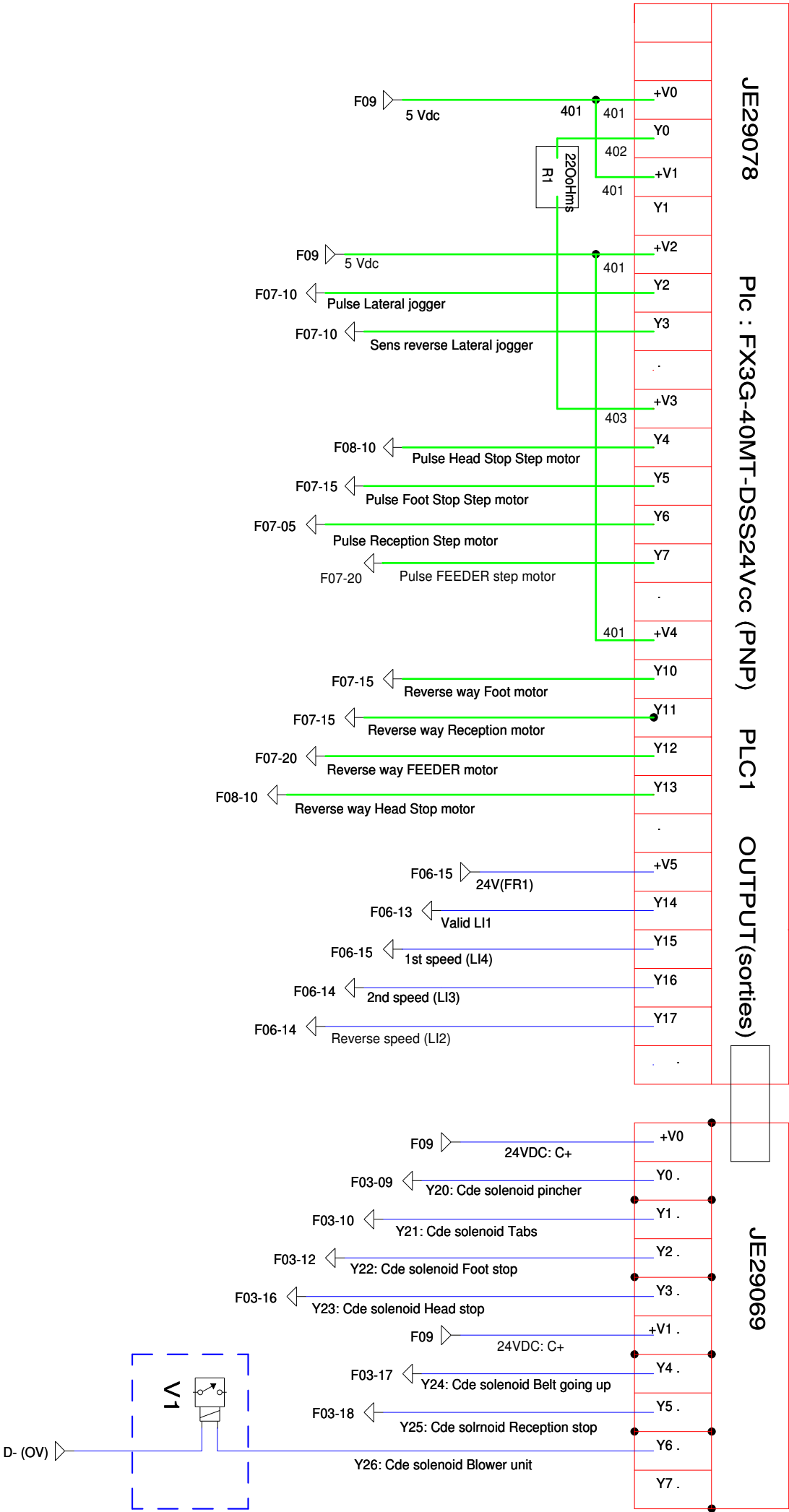
OA	Corriger texte Feeder + Y1 vers Y7	25/05/2012			
00	Creation diagramm	15/09/2011			
IND	MODIFICATION	DATE	IND	MODIFICATION	DATE
DES.		RESP.	DATE		ECH.
JAMES BURN INTERNATIONAL 67, rue du docteur Blaizot 61304 L'AIGLE cedex					
CLIENT					
N° AFFAIRE 0211AL-0A		INDICE 0A		N°	

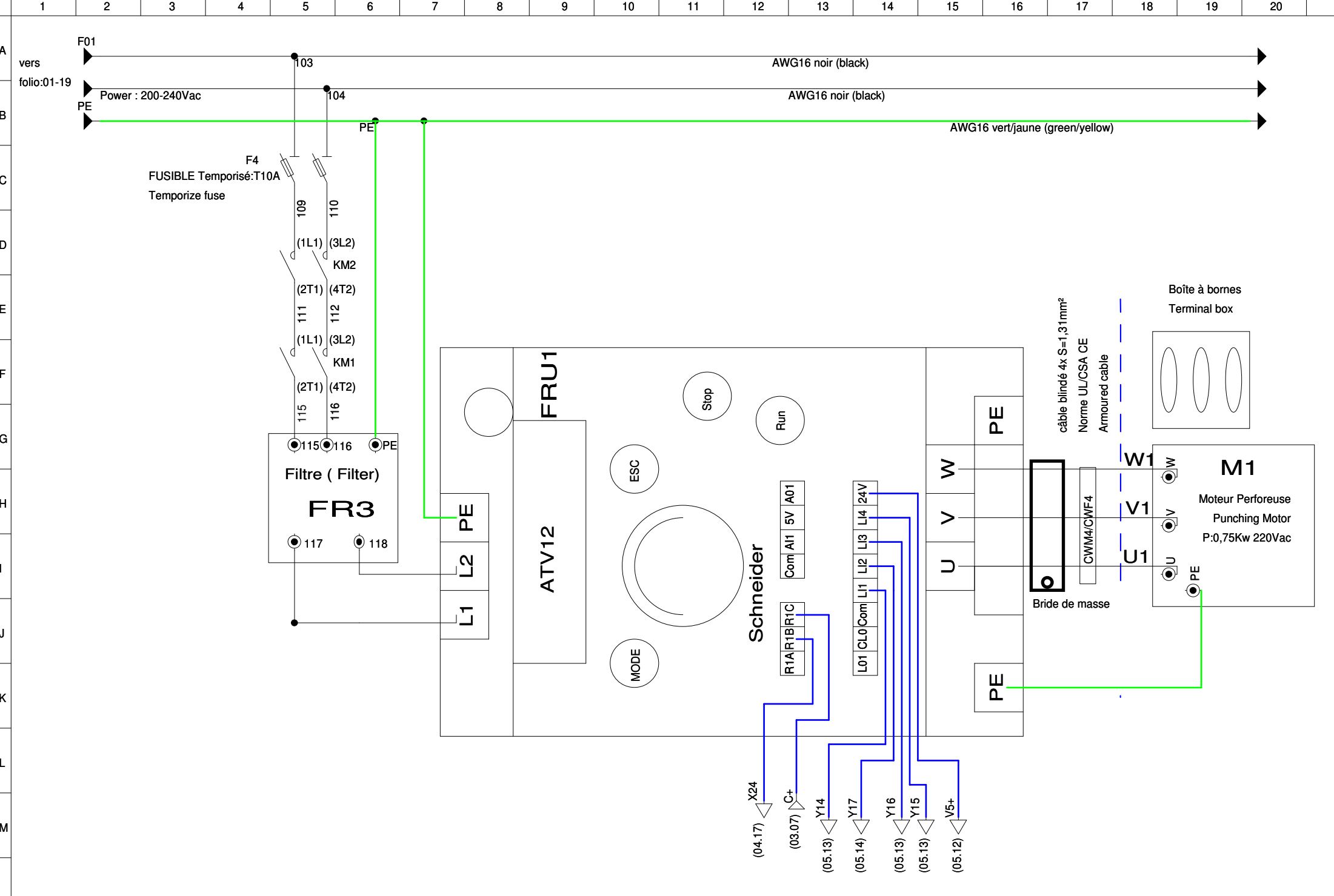
CE PLAN NE PEUT ETRE COMMUNIQUE SANS AUTORISATION

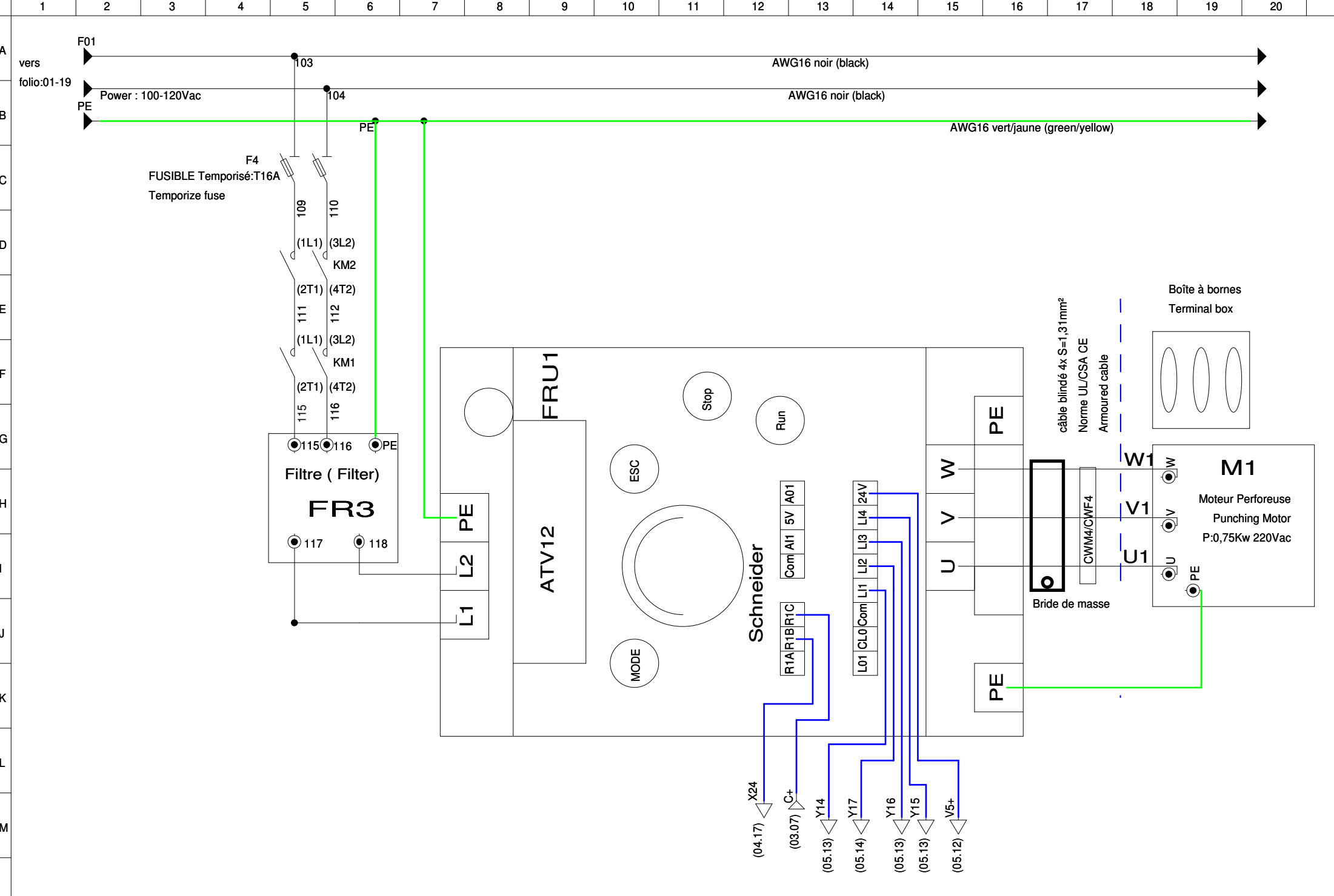


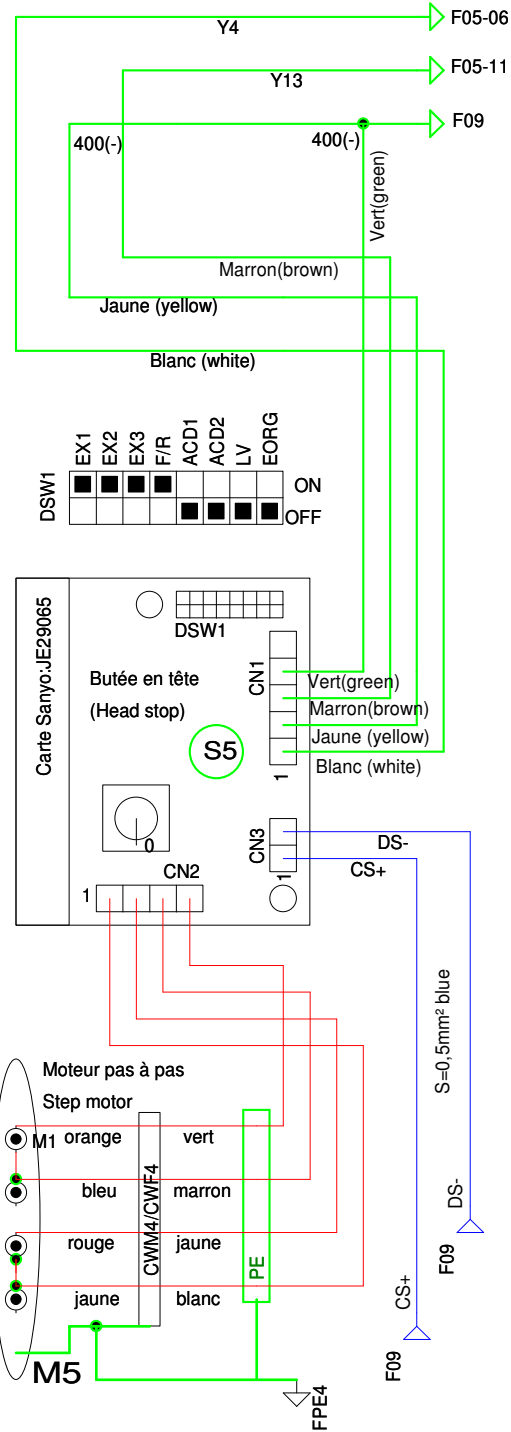




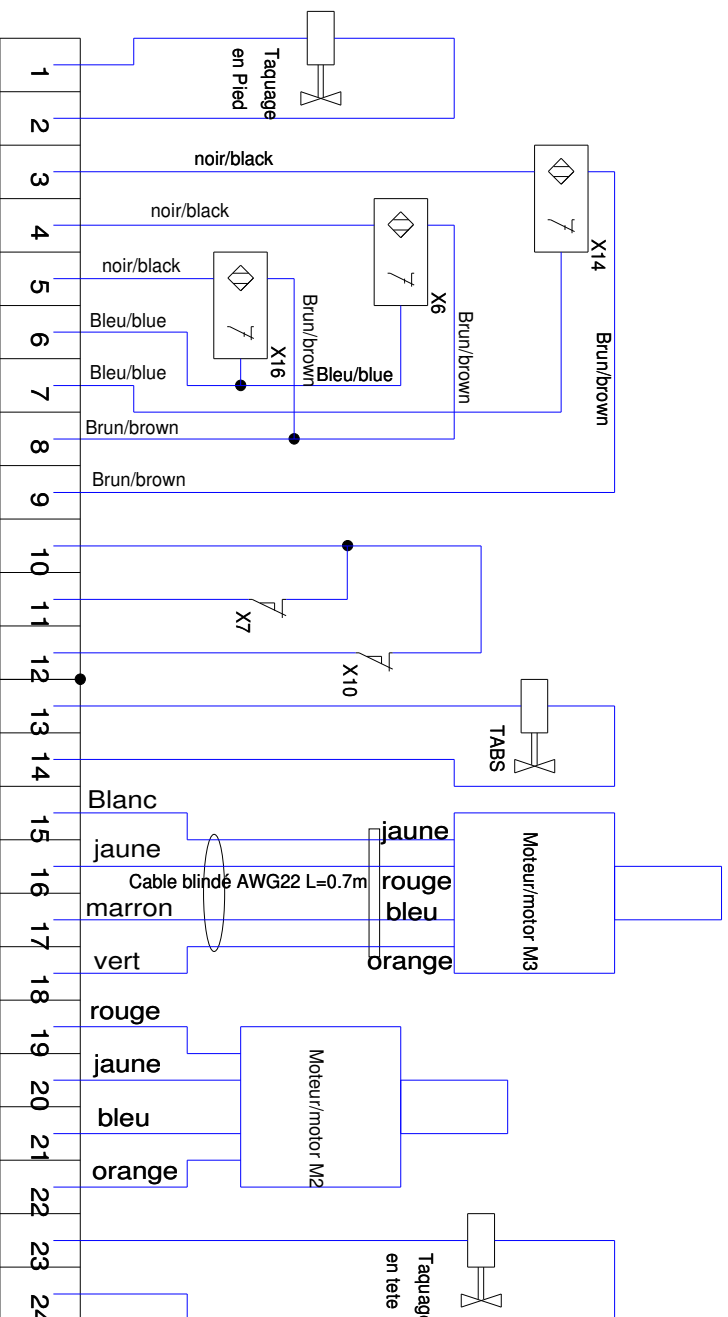
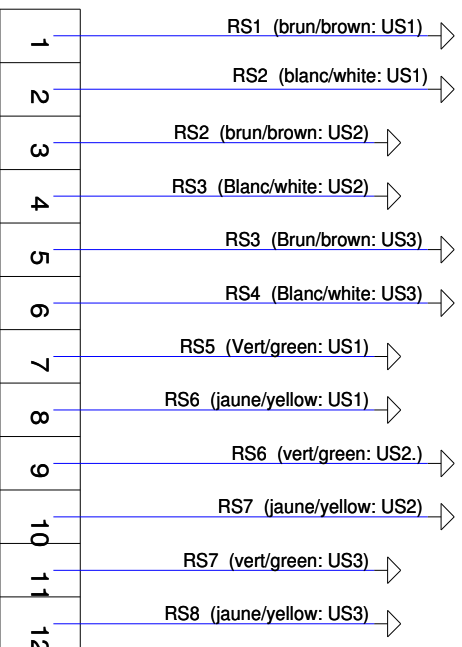




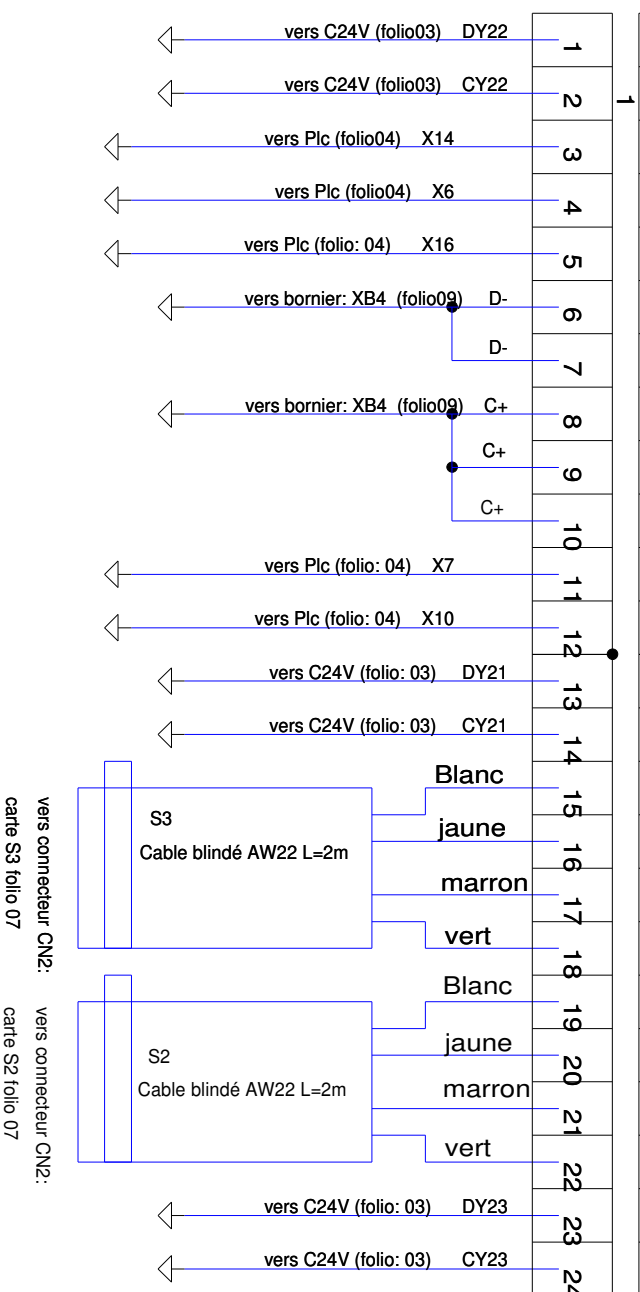
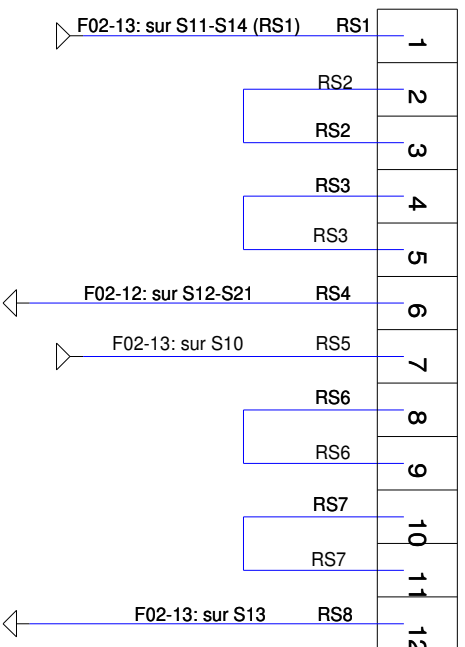




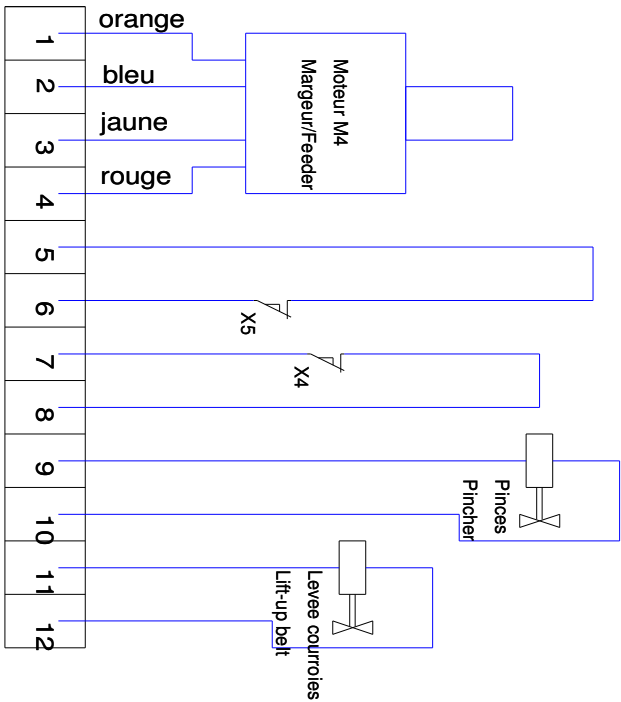
vers US1 - US2 - US3
(Folio 02)



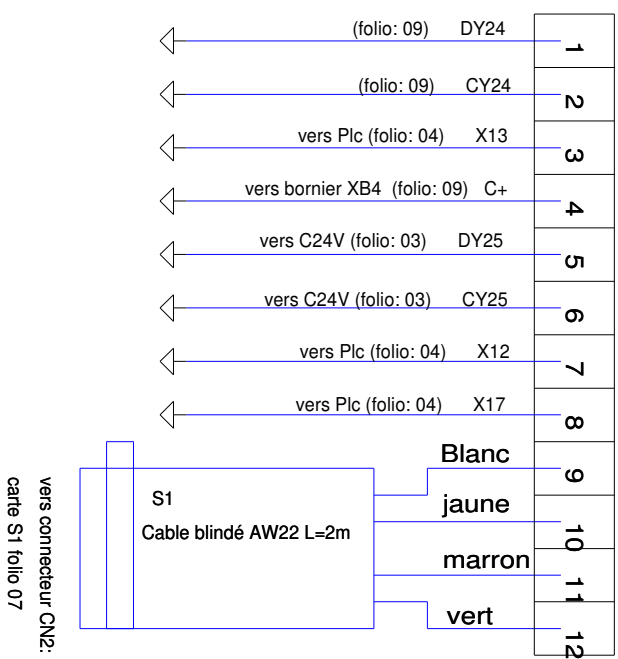
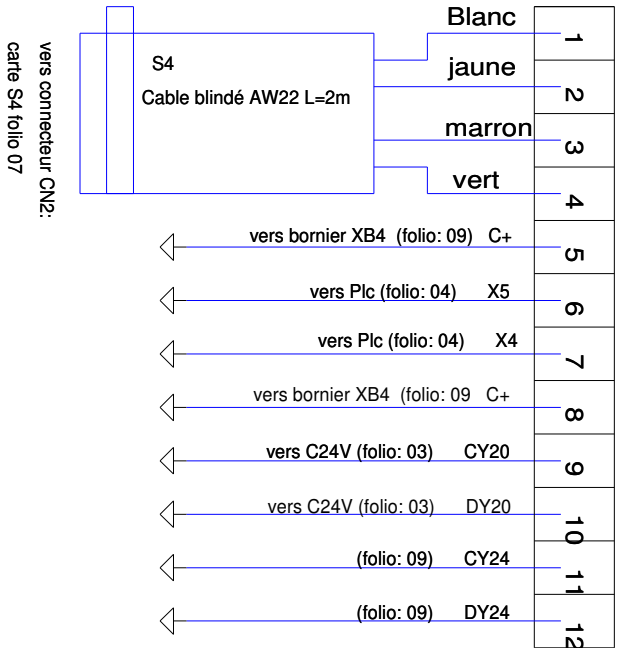
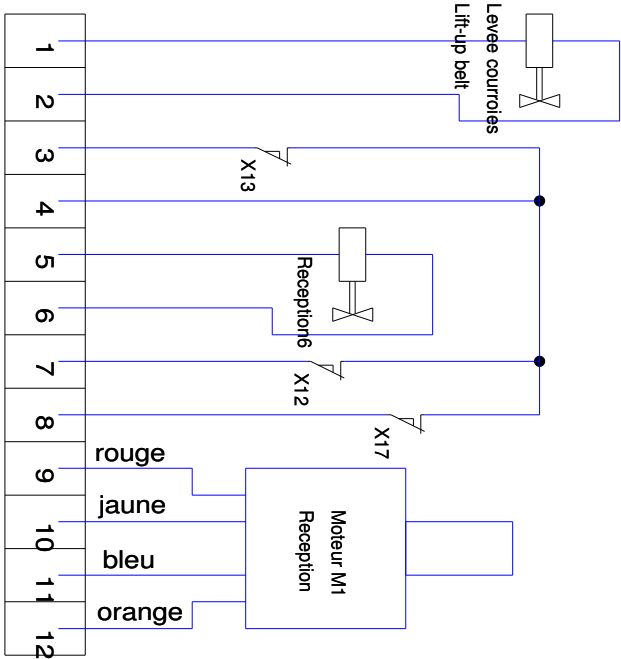
vers Folio 02



Bornier XB2 : Margeur/FEEDER



Bornier XB3: Reception



Bornier XB5: Head stop

