SERVICE MANUAL

IC4 4819-4821-4825-4828-4832
LF/FLF/R/FR

04106016_GB

version 2007-22

Service Manual

TABLE DES MATIÈRES

Service Manual

• The machine should not be used by children.

• This ironer must be used exclusively for textiles appropriate for machine ironing, which have been previously and exclusively washed in water.

• Blankets should not be ironed.

• Be careful with synthetic linen and also with printed linen. They can melt and stick on the cylinder.

• Do not iron articles that contain plastic, foam, sponge rubber or similarly textured rubberlike materials.

• Do not iron linens coated with solvent, paint, wax, grease or any easily inflammable products.

CAUTION

Disconnect the machine electrical power supply before doing any repair or servicing work.
Do not use the machine unless it is plugged into a correctly earthed power socket complying with standards in force.

WARNING

The presence of dangerous mechanims inside the machine can cause serious injuries. Respect all safety instructions before doing any work on the machine. Replace protective casings after doing any work.

CAUTION

The temperature of the ironing cylinder after use can reach 200 °C (392 °F) and can cause serious burns if you touch it. Allow the machine to cool down before doing any repair or servicing work.

Service Manual

Ironer

Characteristics	IC4	4819	4821	4825	4828	4832
Ø cylindre						
Gas / Electric heating	**mm**	479	479	479	479	479
Steam heating	**mm**	457	457	457	457	457
Effective working width	**mm**	1910	2120	2540	2750	3170
VIroning speed						
Mini	**m/min**	1,5	1,5	1,5	1,5	1,5
Maxi	**m/min**	9	9	9	9	9
Heating surface						
Gas / Electric heating	**m²**	2,20	2,40	2,90	3,15	3,60
Steam heating	**m²**	2,10	2,30	2,70	3,00	3,40
Capacity max. water evaporation, with 50 % residual moisture and 100 % cylinder utilization (according to ISO 9398-1)						
Gas heating / Dubixium	**kg/h**	35	37	46	51	59
Electric heating / Dubixium	**kg/h**	38	40	48	51	59
Steam heating	**kg/h**	57	63	75	81	93
Net weight						
Gas heating / Dubixium	**kg**	570/---	615/---	685/---	735/---	800/---
Electric heating / Dubixium	**kg**	570/---	615/---	685/---	735/---	800/---
Steam heating	**kg**	610	640	720	780	845
Floor area	**m²**	2,50	2,70	3,10	3,30	3,70
Dimensions						
Overall width	**mm**	2575	2785	3205	3415	3835
Feeder width	**mm**	1910	2120	2540	2750	3170
Width between feet	**mm**	2300	2510	2930	3140	3560
Consumptions						
Gas heating / Dubixium						
Installed electric power	**kW**	1,4	1,4	1,4	1,4	1,4
Maximum electrical consumption	**kWh**	1,2	1,2	1,2	1,2	1,2
Installed heating power	**kW**	39	44	52	56	65
Electric heating / Dubixium						
Installed electric power	**kW**	34,25	37,85	44,60	48,20	54,95
Maximum electrical consumption	**kWh**	32,85	36,45	43,20	46,80	53,55
Installed heating power	**kW**	34,25	37,85	44,60	48,20	54,95
Steam heating						
Installed electric power	**kW**	1,4	1,4	1,4	1,4	1,4
Maximum electrical consumption	**kWh**	1,2	1,2	1,2	1,2	1,2
Max. steam consumption	**kg/h à 900 kPa**	83	92	110	123	141
Inner volume steam cylinder	**dm³**	300	335	398	431	497
Heat loss : 3 % of installed heating power						
Exhaust air max. with no pressure at 15 °C	**m³/h**	830	---	---	---	---
Total pressure with no flow : 880 Pa						
Admissible head loss on evacuation : 200 Pa						

Ironer with length folding

Characteristics	IC4	4819LF	4821LF	4825LF	4828LF	4832LF
Ø cylindre						
Gas / Electric heating	**mm**	479	479	479	479	479
Steam heating	**mm**	457	457	457	457	457
Effective working width	**mm**	1910	2120	2540	2750	3170
VIroning speed						
Mini	**m/min**	1,5	1,5	1,5	1,5	1,5
Maxi	**m/min**	9	9	9	9	9
Heating surface						
Gas / Electric heating	**m²**	2,20	2,40	2,90	3,15	3,60
Steam heating	**m²**	2,10	2,30	2,70	3,00	3,40
Capacity max. water evaporation, with 50 % residual moisture and 100 % cylinder utilization (according to ISO 9398-1)						
Gas heating / Dubixium	**kg/h**	35	37	46	51	59
Electric heating / Dubixium	**kg/h**	38	40	48	51	59
Steam heating	**kg/h**	57	63	75	81	93
Net weight						
Gas heating / Dubixium	**kg**	670/---	720/---	815/---	850/---	935/---
Electric heating / Dubixium	**kg**	670/---	720/---	815/---	850/---	935/---
Steam heating	**kg**	700	755	835	870	950
Floor area	**m²**	2,50	2,70	3,10	3,30	3,70
Dimensions						
Overall width	**mm**	2575	2785	3205	3415	3835
Feeder width	**mm**	1910	2120	2540	2750	3170
Width between feet	**mm**	2300	2510	2930	3140	3560
Consumptions						
Gas heating / Dubixium						
Installed electric power	**kW**	1,4	1,4	1,4	1,4	1,4
Maximum electrical consumption	**kWh**	1,2	1,2	1,2	1,2	1,2
Installed heating power	**kW**	39	44	52	56	65
Electric heating / Dubixium						
Installed electric power	**kW**	34,25	37,85	44,60	48,20	54,95
Maximum electrical consumption	**kWh**	32,85	36,45	43,20	46,80	53,55
Installed heating power	**kW**	34,25	37,85	44,60	48,20	54,95
Steam heating						
Installed electric power	**kW**	1,4	1,4	1,4	1,4	1,4
Maximum electrical consumption	**kWh**	1,2	1,2	1,2	1,2	1,2
Max. steam consumption	**kg/h à 900 kPa**	83	92	110	123	141
Inner volume steam cylinder	**dm³**	300	335	398	431	497
Heat loss : 3 % of installed heating power						
Exhaust air max. with no pressure at 15 °C	**m³/h**	830	---	---	---	---
Total pressure with no flow : 880 Pa						
Admissible head loss on evacuation : 200 Pa						

Ironer with feeding and length folding

Characteristics	IC4	4819FLF	4821FLF	4825FLF	4828FLF	4832FLF
Ø cylindre						
Gas / Electric heating	**mm**	479	479	479	479	479
Steam heating	**mm**	457	457	457	457	457
Effective working width	**mm**	1910	2120	2540	2750	3170
VIroning speed						
Mini	**m/min**	1,5	1,5	1,5	1,5	1,5
Maxi	**m/min**	9	9	9	9	9
Heating surface						
Gas / Electric heating	**m²**	2,20	2,40	2,90	3,15	3,60
Steam heating	**m²**	2,10	2,30	2,70	3,00	3,40
Capacity max. water evaporation, with 50 % residual moisture and 100 % cylinder utilization (according to ISO 9398-1)						
Gas heating / Dubixium	**kg/h**	35	37	46	51	59
Electric heating / Dubixium	**kg/h**	38	40	48	51	59
Steam heating	**kg/h**	57	63	75	81	93
Net weight						
Gas heating / Dubixium	**kg**	670/---	720/---	815/---	850/---	935/---
Electric heating / Dubixium	**kg**	670/---	720/---	815/---	850/---	935/---
Steam heating	**kg**	700	755	835	870	950
Floor area	**m²**	2,50	2,70	3,10	3,30	3,70
Dimensions						
Overall width	**mm**	2575	2785	3205	3415	3835
Feeder width	**mm**	1910	2120	2540	2750	3170
Width between feet	**mm**	2300	2510	2930	3140	3560
Consumptions						
Gas heating / Dubixium						
Installed electric power	**kW**	1,4	1,4	1,4	1,4	1,4
Maximum electrical consumption	**kWh**	1,2	1,2	1,2	1,2	1,2
Installed heating power	**kW**	39	44	52	56	65
Electric heating / Dubixium						
Installed electric power	**kW**	34,25	37,85	44,60	48,20	54,95
Maximum electrical consumption	**kWh**	32,85	36,45	43,20	46,80	53,55
Installed heating power	**kW**	34,25	37,85	44,60	48,20	54,95
Steam heating						
Installed electric power	**kW**	1,6	1,6	1,6	1,6	2
Maximum electrical consumption	**kWh**	1,3	1,3	1,3	1,3	1,6
Max. steam consumption	**kg/h à 900 kPa**	83	92	110	123	141
Inner volume steam cylinder	**dm³**	300	335	398	431	497
Heat loss : 3 % of installed heating power						
Exhaust air max. with no pressure at 15 °C	**m³/h**	830	---	---	---	---
Total pressure with no flow : 880 Pa						
Admissible head loss on evacuation : 200 Pa						

Ironer with rear load removal

Characteristics	IC4	4819R	4821R	4825R	4828R	4832R
Ø cylindre						
Gas / Electric heating	**mm**	479	479	479	479	479
Steam heating	**mm**	457	457	457	457	457
Effective working width	**mm**	1910	2120	2540	2750	3170
VIroning speed						
Mini	**m/min**	1,5	1,5	1,5	1,5	1,5
Maxi	**m/min**	9	9	9	9	9
Heating surface						
Gas / Electric heating	**m²**	2,20	2,40	2,90	3,15	3,60
Steam heating	**m²**	2,10	2,30	2,70	3,00	3,40
Capacity max. water evaporation, with 50 % residual moisture and 100 % cylinder utilization (according to ISO 9398-1)						
Gas heating / Dubixium	**kg/h**	35	37	46	51	59
Electric heating / Dubixium	**kg/h**	38	40	48	51	59
Steam heating	**kg/h**	57	63	75	81	93
Net weight						
Gas heating / Dubixium	**kg**	770/---	810/---	860/---	940/---	1070/---
Electric heating / Dubixium	**kg**	770/---	810/---	860/---	940/---	1070/---
Steam heating	**kg**	790	830	900	995	1100
Floor area	**m²**	4,20	4,65	5,55	6,00	6,95
Dimensions						
Overall width	**mm**	2575	2785	3205	3415	3835
Feeder width	**mm**	1910	2120	2540	2750	3170
Width between feet	**mm**	2300	2510	2930	3140	3560
Consumptions						
Gas heating / Dubixium						
Installed electric power	**kW**	1,4	1,4	1,4	1,4	1,4
Maximum electrical consumption	**kWh**	1,2	1,2	1,2	1,2	1,2
Installed heating power	**kW**	39	44	52	56	65
Electric heating / Dubixium						
Installed electric power	**kW**	34,25	37,85	44,60	48,20	54,95
Maximum electrical consumption	**kWh**	32,85	36,45	43,20	46,80	53,55
Installed heating power	**kW**	34,25	37,85	44,60	48,20	54,95
Steam heating						
Installed electric power	**kW**	1,4	1,4	1,4	1,4	1,4
Maximum electrical consumption	**kWh**	1,2	1,2	1,2	1,2	1,2
Max. steam consumption	**kg/h à 900 kPa**	83	92	110	123	141
Inner volume steam cylinder	**dm³**	300	335	398	431	497
Heat loss : 3 % of installed heating power						
Exhaust air max. with no pressure at 15 °C	**m³/h**	830	---	---	---	---
Total pressure with no flow : 880 Pa						
Admissible head loss on evacuation : 200 Pa						

Ironer with feeding and rear load removal

Characteristics	IC4	4819FR	4821FR	4825FR	4828FR	4832FR
Ø cylindre						
Gas / Electric heating	**mm**	479	479	479	479	479
Steam heating	**mm**	457	457	457	457	457
Effective working width	**mm**	1910	2120	2540	2750	3170
VIroning speed						
Mini	**m/min**	1,5	1,5	1,5	1,5	1,5
Maxi	**m/min**	9	9	9	9	9
Heating surface						
Gas / Electric heating	**m²**	2,20	2,40	2,90	3,15	3,60
Steam heating	**m²**	2,10	2,30	2,70	3,00	3,40
Capacity max. water evaporation, with 50 % residual moisture and 100 % cylinder utilization (according to ISO 9398-1)						
Gas heating / Dubixium	**kg/h**	35	37	46	51	59
Electric heating / Dubixium	**kg/h**	38	40	48	51	59
Steam heating	**kg/h**	57	63	75	81	93
Net weight						
Gas heating / Dubixium	**kg**	770/---	810/---	860/---	940/---	1070/---
Electric heating / Dubixium	**kg**	770/---	810/---	860/---	940/---	1070/---
Steam heating	**kg**	790	830	900	995	1100
Floor area	**m²**	4,20	4,65	5,55	6,00	6,95
Dimensions						
Overall width	**mm**	2575	2785	3205	3415	3835
Feeder width	**mm**	1910	2120	2540	2750	3170
Width between feet	**mm**	2300	2510	2930	3140	3560
Consumptions						
Gas heating / Dubixium						
Installed electric power	**kW**	1,4	1,4	1,4	1,4	1,4
Maximum electrical consumption	**kWh**	1,2	1,2	1,2	1,2	1,2
Installed heating power	**kW**	39	44	52	56	65
Electric heating / Dubixium						
Installed electric power	**kW**	34,25	37,85	44,60	48,20	54,95
Maximum electrical consumption	**kWh**	32,85	36,45	43,20	46,80	53,55
Installed heating power	**kW**	34,25	37,85	44,60	48,20	54,95
Steam heating						
Installed electric power	**kW**	1,6	1,6	1,6	1,6	2
Maximum electrical consumption	**kWh**	1,3	1,3	1,3	1,3	1,3
Max. steam consumption	**kg/h à 900 kPa**	83	92	110	123	141
Inner volume steam cylinder	**dm³**	300	335	398	431	497
Heat loss : 3 % of installed heating power						
Exhaust air max. with no pressure at 15 °C	**m³/h**	830	---	---	---	---
Total pressure with no flow : 880 Pa						
Admissible head loss on evacuation : 200 Pa						

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DESCRIPTION

The machines described in this hanbook have a ironing capacity of 190, 210, 250, 280, 320 cm wide depending on the type. They are available with steam, electric, gas or thermal fluide heating.

A version of the machine with a fully automatic folding system enables one or two persons to dry, iron and fold sheets longitudinally.
Another version with a mechanical system allows the washing to come out at the back of the machine.

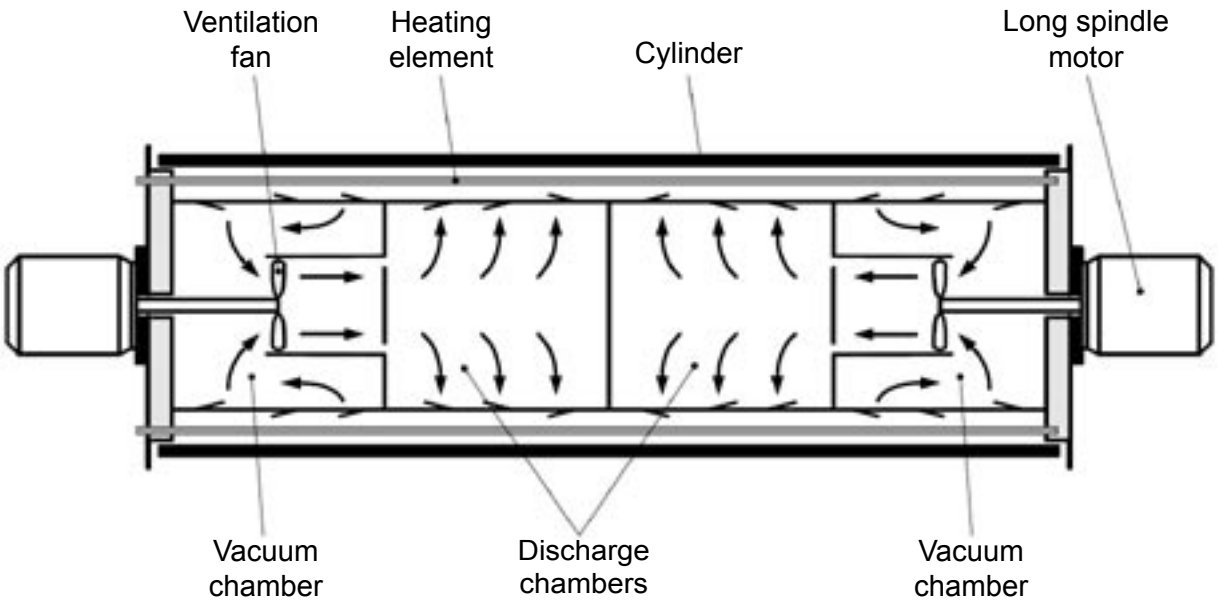
The ironing speed is adjustable as a function of the density (weight/m²) and humidity of the washing.

The electrically heated dryers-ironers can be equipped with a temperature regulation system for the heating cylinder using circulating heat. Machines fitted with a Dubixium cylinder have a normal electric heating device.

This system provides an excellent tool to optimise the performance of the dryer-ironer for those clients who mainly carry out staggered ironing. It prevents suddenly heating cut-outs caused by partial use of the whole length of the machine (Patent No. 9608471).

The unused calories on the sides of the cylinder are redistributed towards the centre, where the demand is greatest (please see the diagram below).

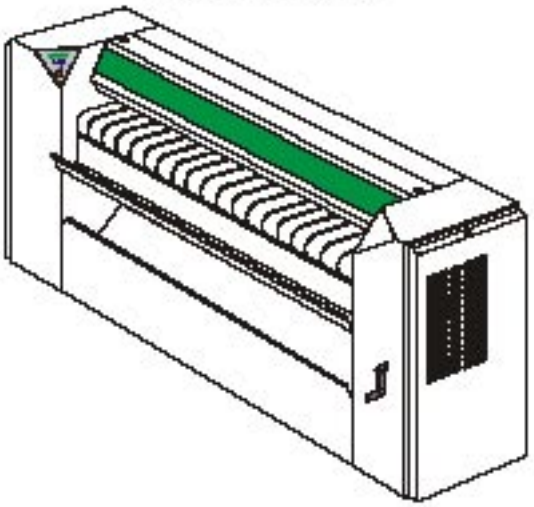
In this way, it is possible to limit the rise in temperature on the sides of the cylinder and the fall in temperature in the centre of the cylinder.

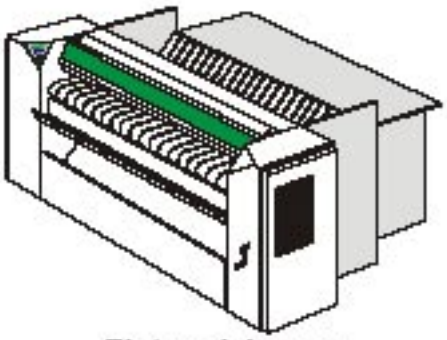


Flatwork ironer folder (LF)

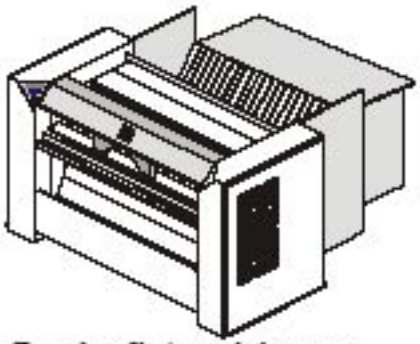
Feeder flatwork ironer folder (FLF)

Flatwork ironer





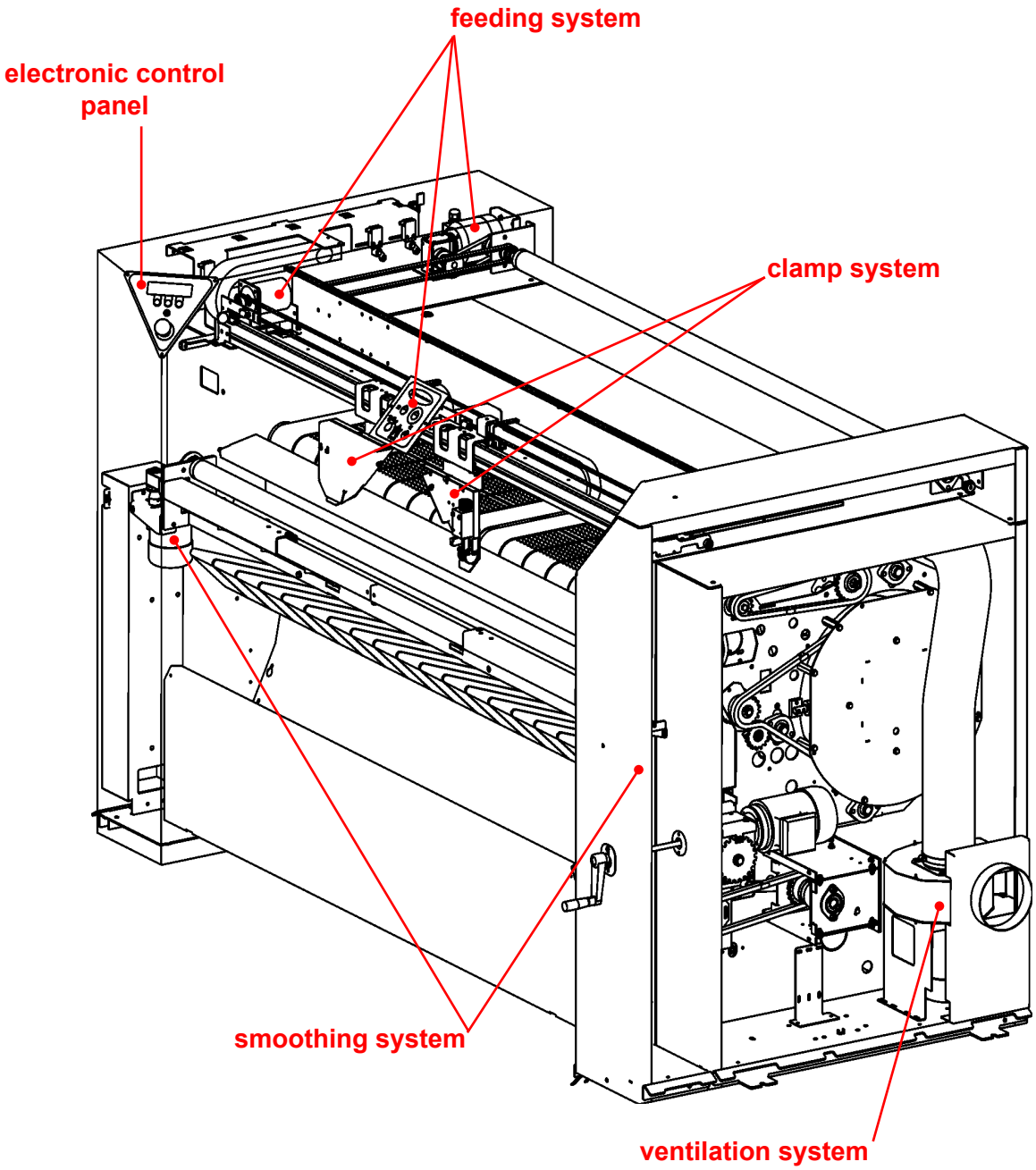
Flatwork ironer with rear load removal (R)

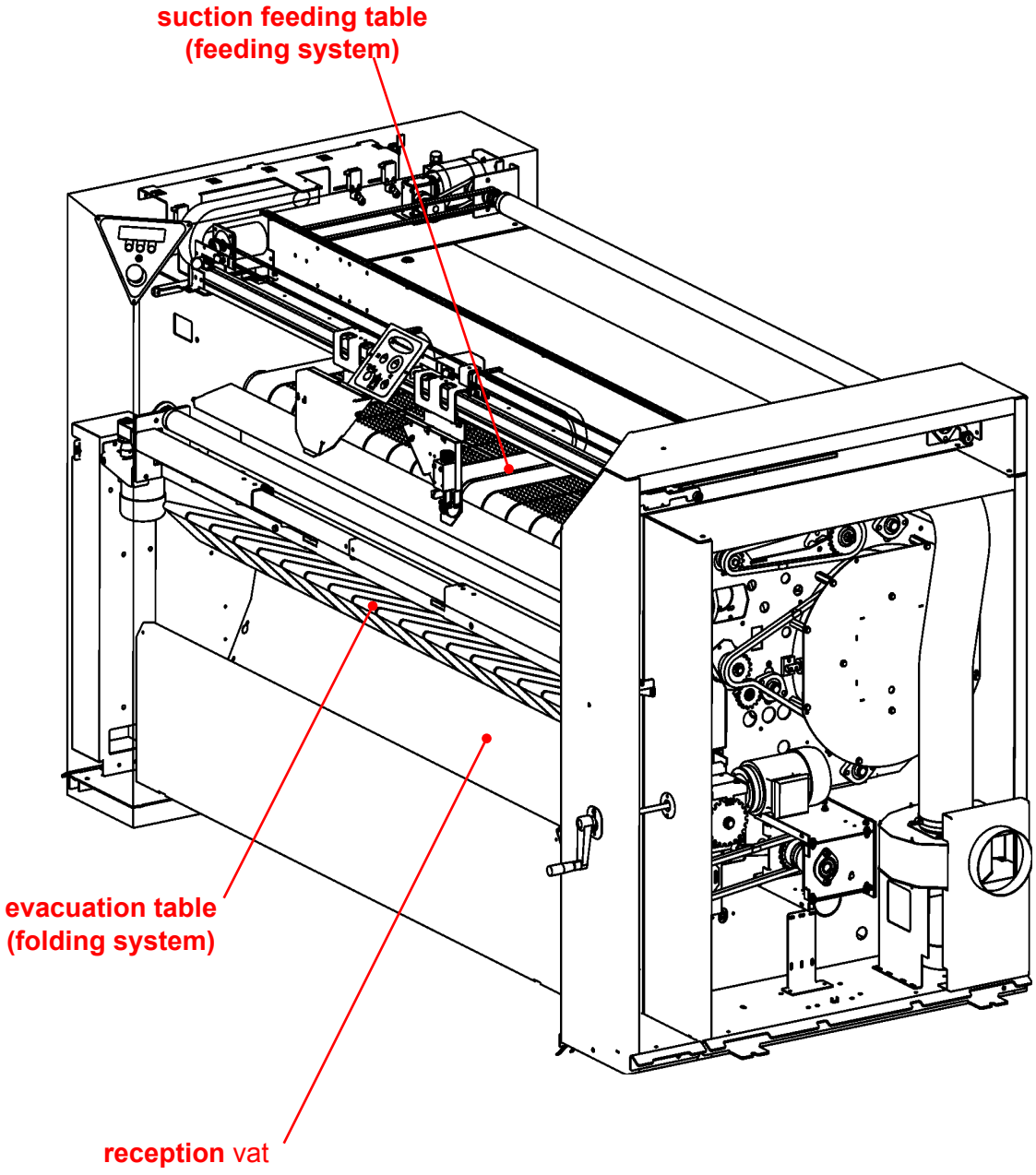


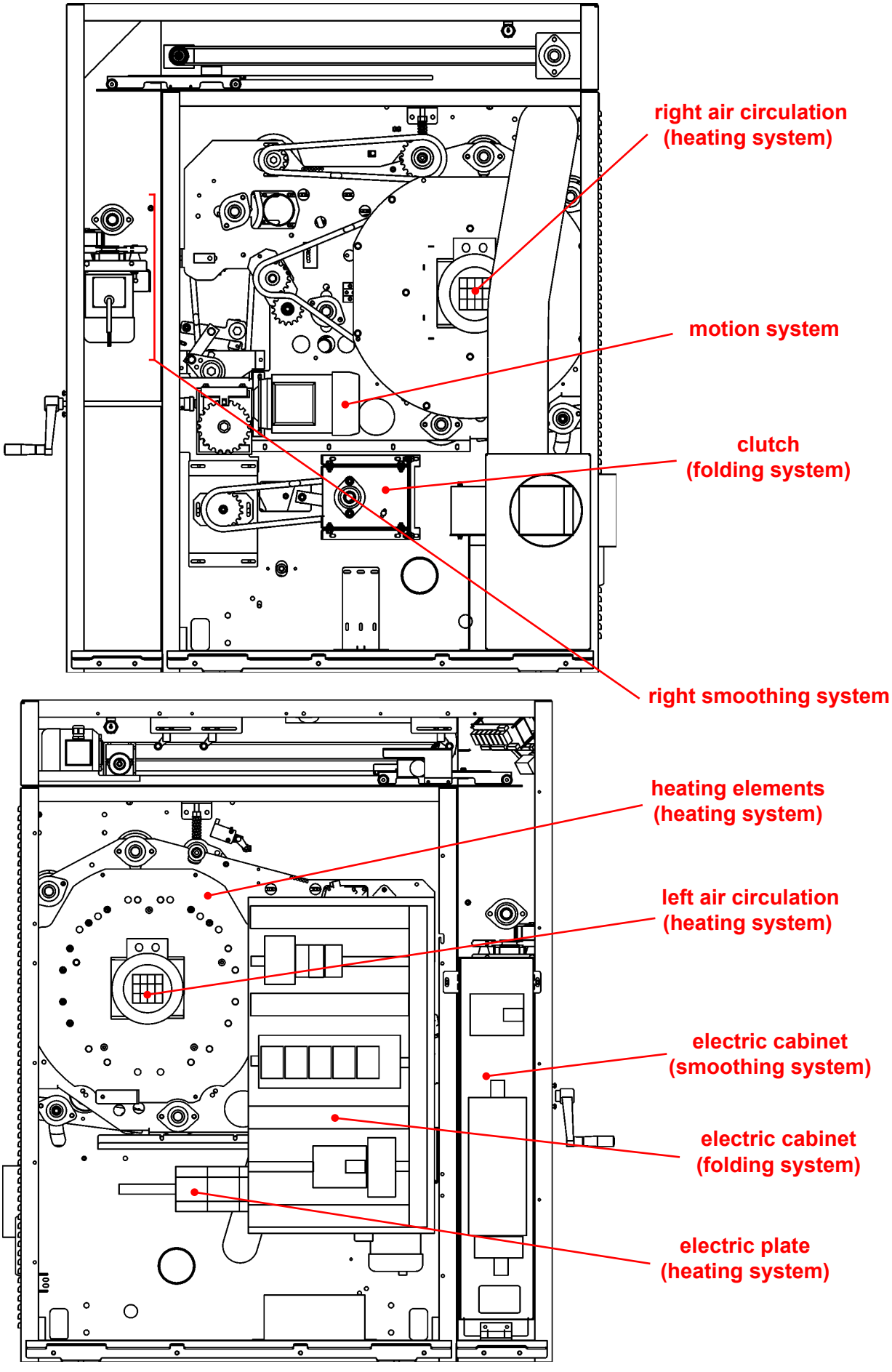
Feeder flatwork ironer with rear load removal (FR)

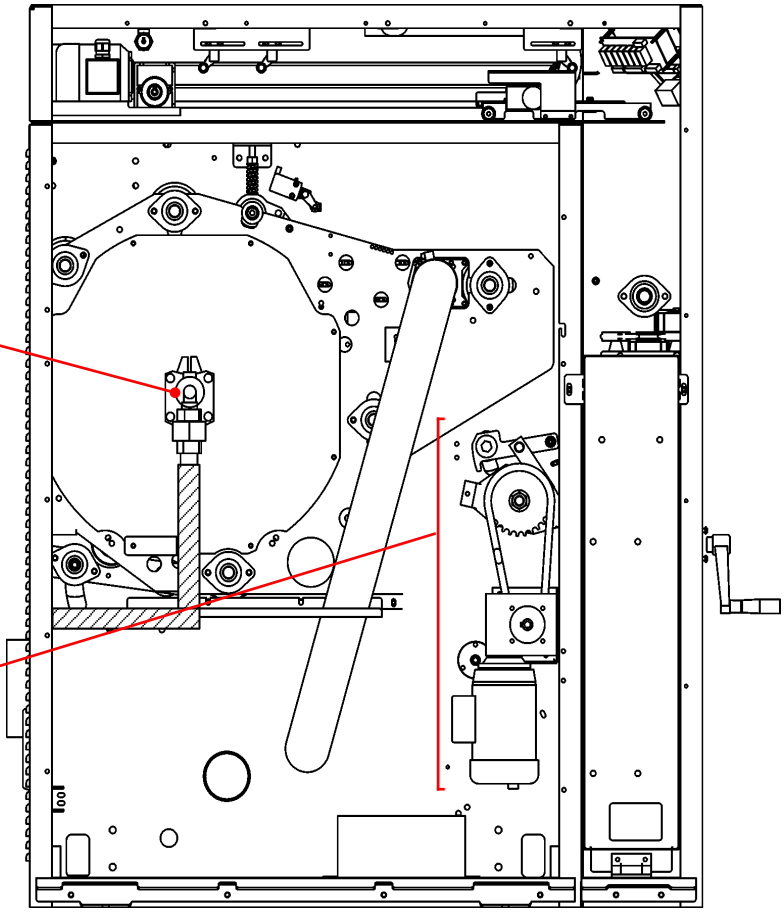
OPERATION

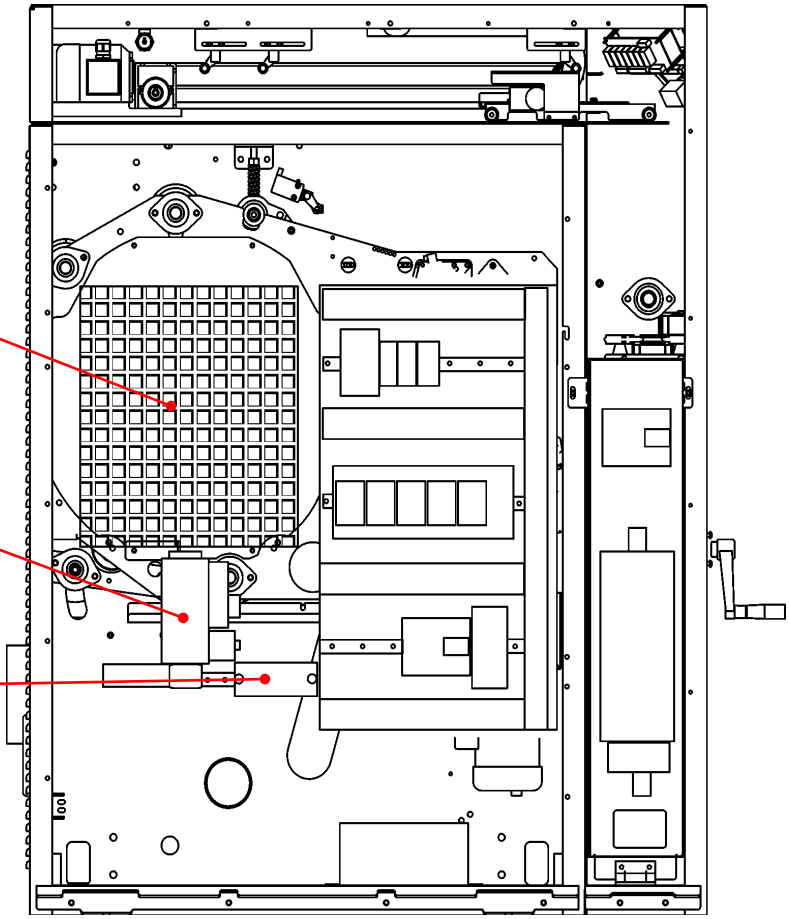
This section is an overview of the different functions of the machines. Most functions are then presented in detail in the other sections of this manual.




suction feeding table
(feeding system)
evacuation table
(folding system)
reception vat


right air circulation (heating system)
motion system
clutch (folding system)
right smoothing system
heating elements (heating system)
left air circulation (heating system)
electric cabinet (smoothing system)
electric cabinet (folding system)
electric plate (heating system)


rotating steam joint
(heating system)
eject / evacuation
(folder system)


motion
(feeding system)
gaz pipe burnig
(gaz heating system)
electrovalve
(gaz heating system)
gaz heating control plate
(gaz heating system)

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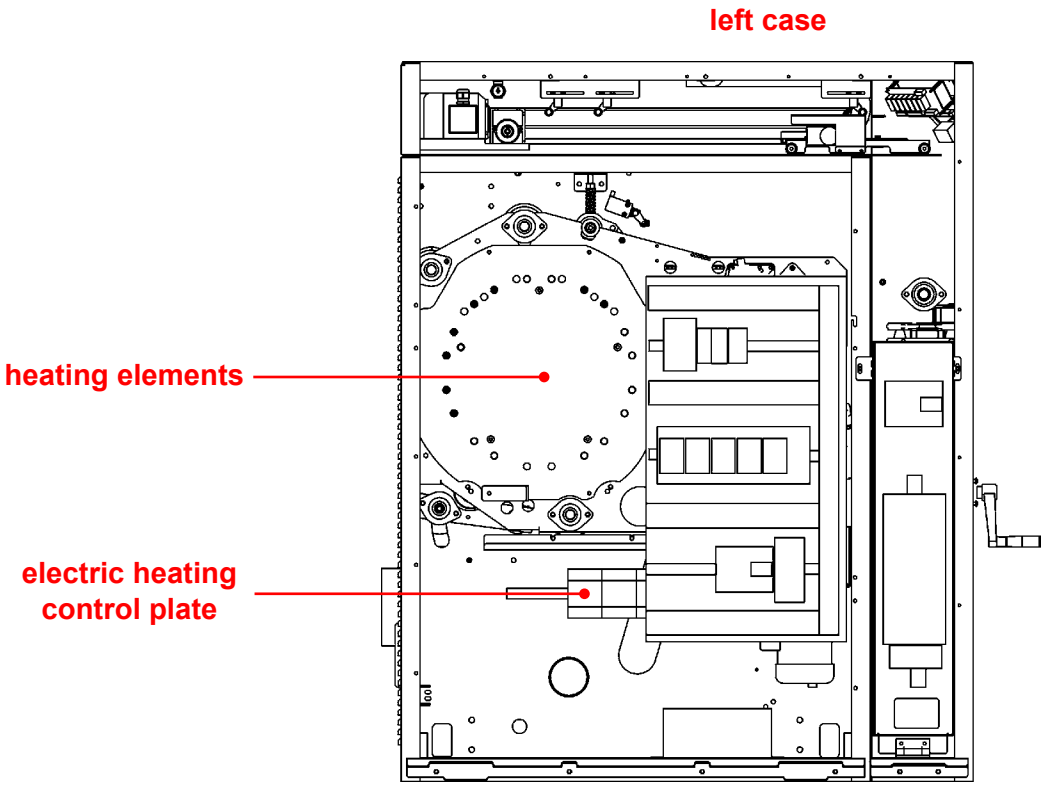


DESCRIPTION :

The system « Electric heating » includes the following elements :

* 9 Heating elements

* 1 Heating control plate :
  - 3 heating contactors : **KM6, KM7 & KM8**

* 3 Temperature sensor : **B20, B21 & B22**

* 1 Temperature safety sensor : **B3** (& B1 DUBIXIUM option)

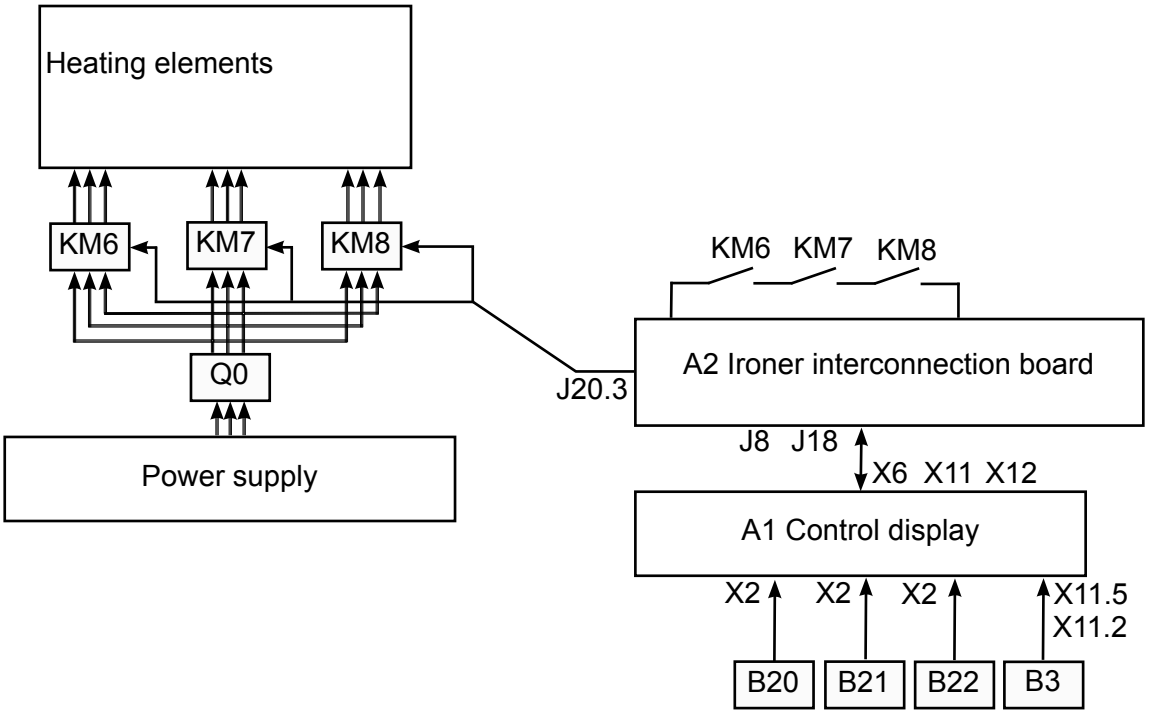
The heating elements are fitted on a bracket housed inside the ironing cylinder.

The KM6, KM7, and KM8 contactors are fitted on the machine's electrical heating base plate. They are accessible by removing the left cover on the machine.

The three temperature probes B20 (left sensor), B21 (centre sensor), B22 (right sensor) and the safety sensors B3, B1 are fitted in direct contact with the ironing cylinder. They are accessible through the front of the machine under the folding table.

Heating element power according to the type of machine:

IC4 4819	3650W / 400V
IC4 4821	4050W / 400V
IC4 4825	4800W / 400V
IC4 4828	5200W / 400V
IC4 4832	5950W / 400V



OPERATION :

Heating elements :

Powered on and off by the KM6, KM7, and KM8 contactors, the heating elements are used to heat the ironing cylinder.

Contactors : ***KM6, KM7 & KM8***

Controlled by the ironer interconnection board A2 (J20-3), the KM6, KM7, and KM8 contactors power on and off the heating elements.

Temperature sensor : ***B20, B21 & B22***

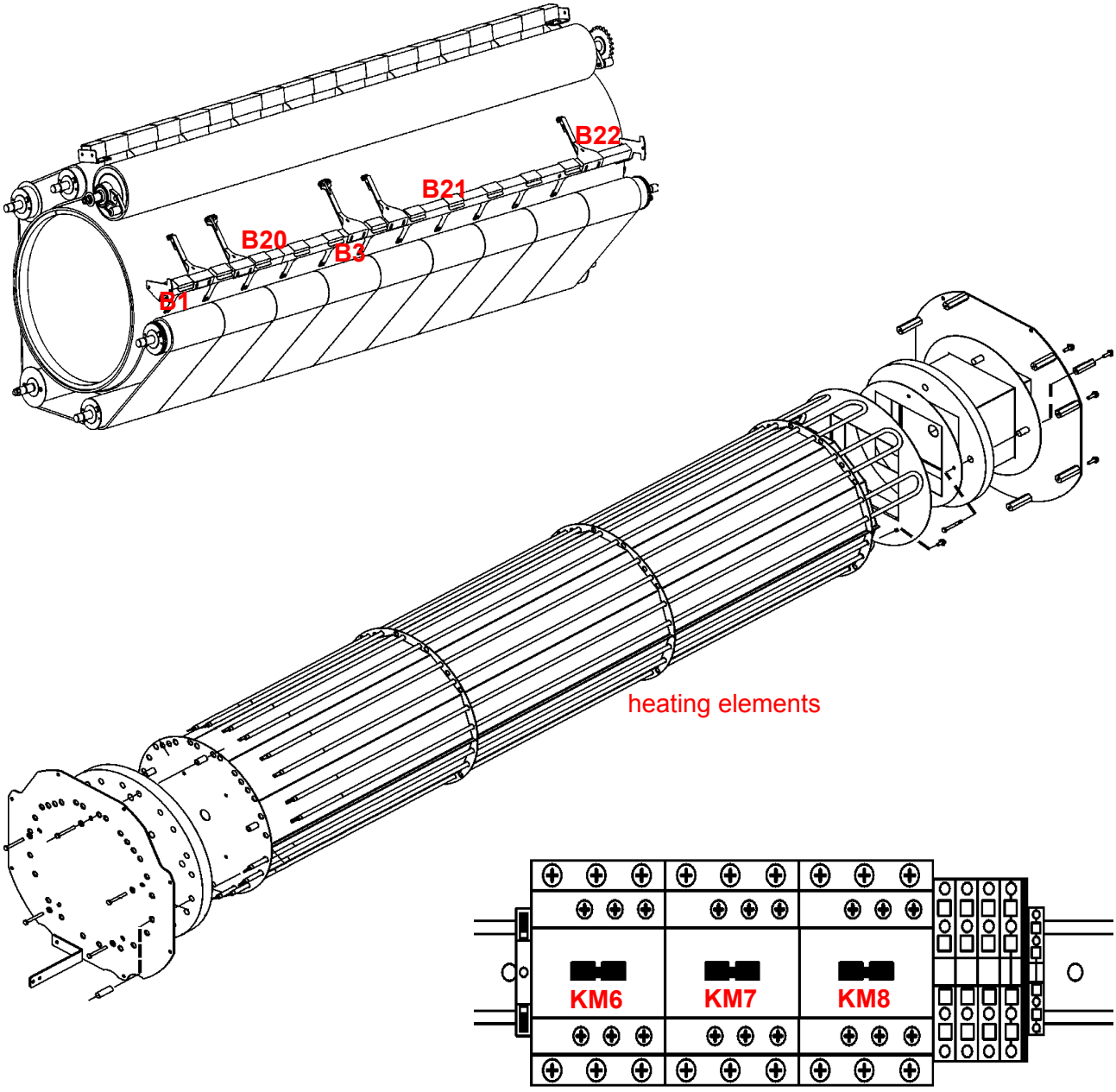
Connected to control display A1 (X2), the three temperature sensors B20 (left sensor), B21 (centre sensor) and B22 (right sensor) are used by A1 control display to regulate the temperature of the ironing cylinder.

Overheating condition :

Overheating on side	= 1	when	B20 >225°c ou B22 > 225°c
	= 0	when	B20 et B22 < 195°c
Overheating on center	= 1	when	B21 > 244°c
	= 0	when	B21 < 244°c

Temperature safety sensor : ***B3***

Connected to A1 control display (X11-4 and X11-5), safety sensor B3 is used by A1 control dysplay to stop the machine's heating when the temperature of the ironing cylinder exceeds 240°C.



REPAIR :

Heating elements :

Checking
- Check the wiring and the power supply.
- Check the ohmic value of each resistors with a ohmmeter. If the ohmic value is equal to 0, it means that the resistor is faulty.

Replacing
- Remove the right and left covers.
- Disconnect the heating elements on the left-hand side.
- Remove the right and left end flanges.
- Pull out the resistor bracket and the heating elements from the ironing cylinder.
- Change the faulty resistor(s)..
- Refit the parts in the reverse sequence.

REPAIR :

***Contactors :* KM6, KM7 & KM8**

Checking
- Check the wiring.
- Power on the machine, supply the contact coil manually, and check the contacts. If the contacts do not stick, this means the contactor is faulty.

Replacing
- Remove the left cover.
- Disconnect the wires on the faulty contact.
- Remove the faulty contact, and replace.
- Refit the parts in the reverse sequence.

***Temperature sensor (PT100) :* B20, B21, B22**
***and Safety sensor :* B3**

Checking the B20, B21, and B22 temperature sensors (PT100))
- Check the wiring.
- Using an ohmmeter, check the sensor's ohmic value. For a room temperature 21°C, the ohmic value must range from 107.79 to 108.57 ohms. Otherwise, the sensor is faulty.

Checking the B3 safety sensor
- Check the wiring.
- Using an ohmmeter, check the ohmic value of the sensor. If the ohmic value is different from 0, the sensor is faulty.

Replacing
- Disconnect the faulty sensor from A1 control display
- Remove the sensor from its location, accessible under the feeding table.
- Connect the new sensor on A1 control display.
- Fit the new sensor in its appropriate location

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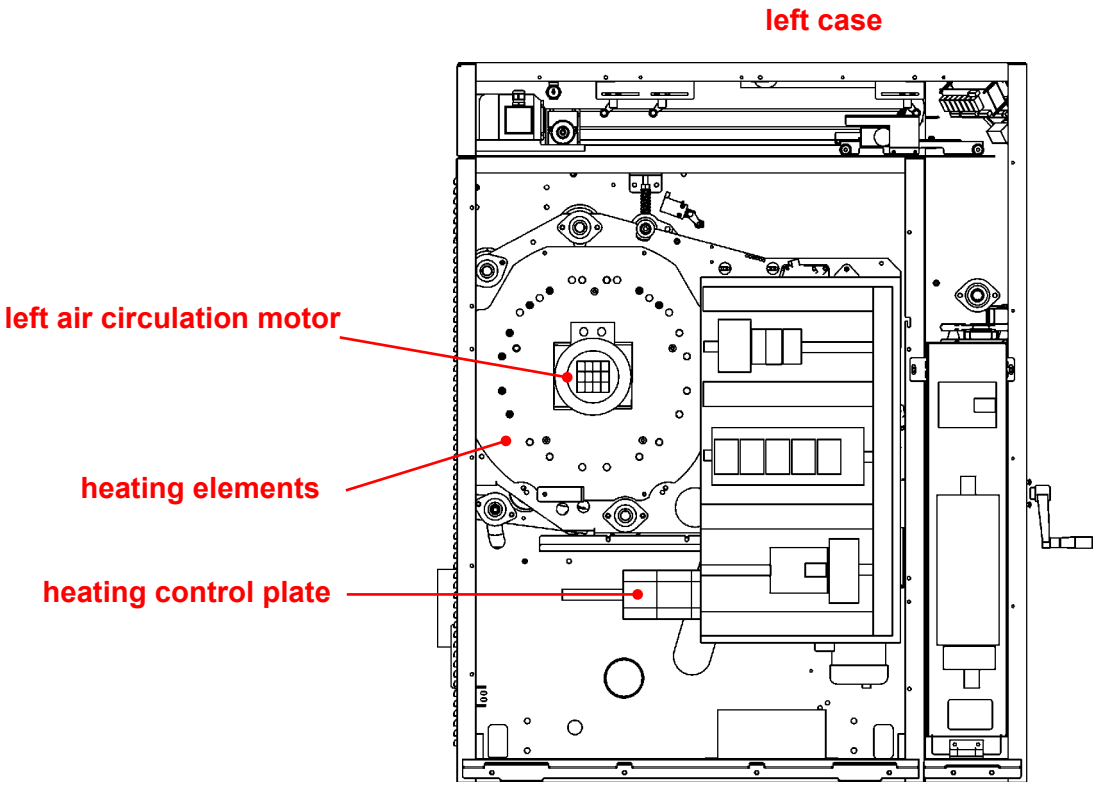


DESCRIPTION :

The system « Electric heating with air ciculation » includes the following elements :

* 9 Heating elements

* 1 Air cirulation control plate :
  - 3 Contactors : **KM6, KM7 & KM8**
  - 2 Motor contactors : **KM9 & KM10**
  - 1 Three-pole breaker : **Q2**

* 2 Ventilation motors: **M4 & M5**

* 3 Temperature sensors : **B20, B21 & B22**

* 1 Temperature safety sensor : **B3** (& B1 DUBIXIUM option)

The heating elements are fitted on a bracket housed inside the ironing cylinder.

Both ventilation motors M4 (left side) and M5 (right side) are fitted at both ends of the ironing cylinder. They are accessible by removing the machine's right and left covers.

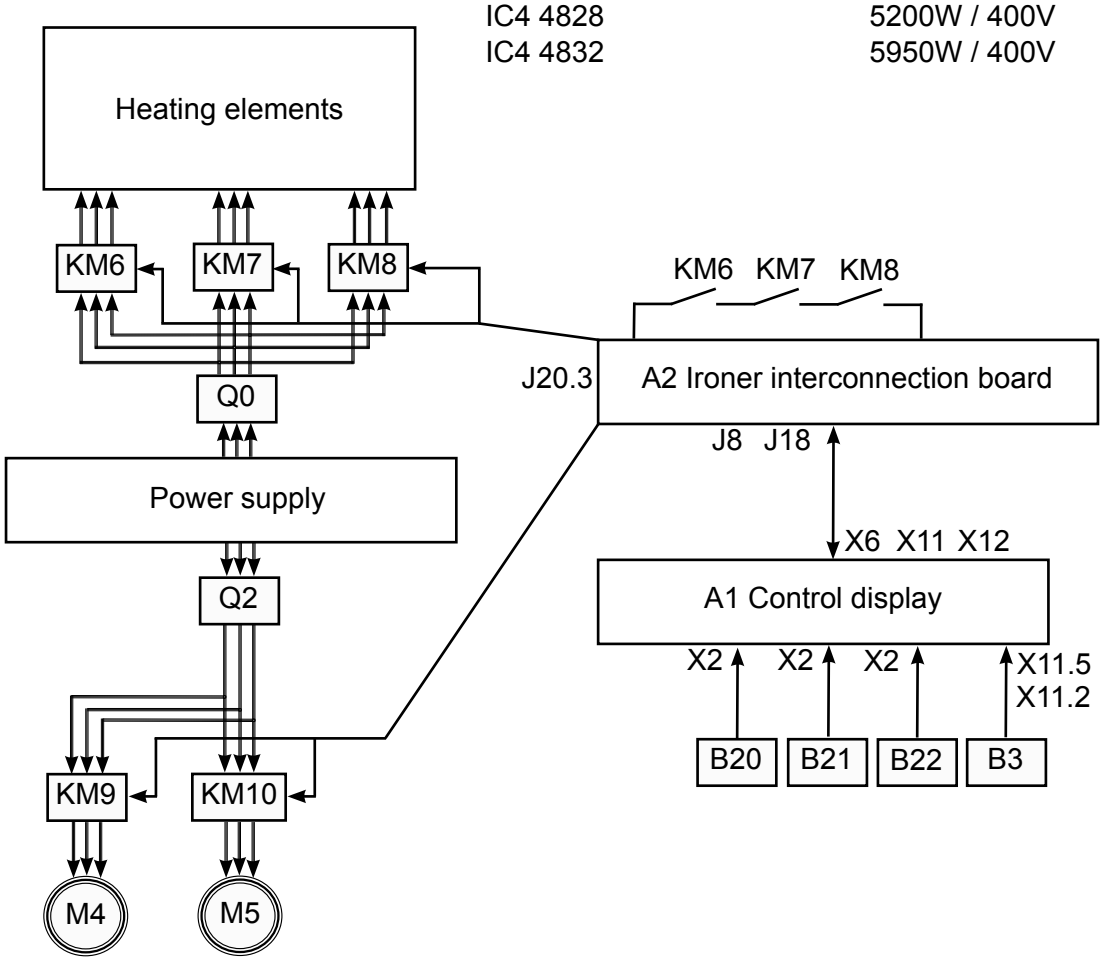
The KM6, KM7, and KM8 contactors are fitted on the machine's electrical heating base plate. They are accessible by removing the left cover on the machine.

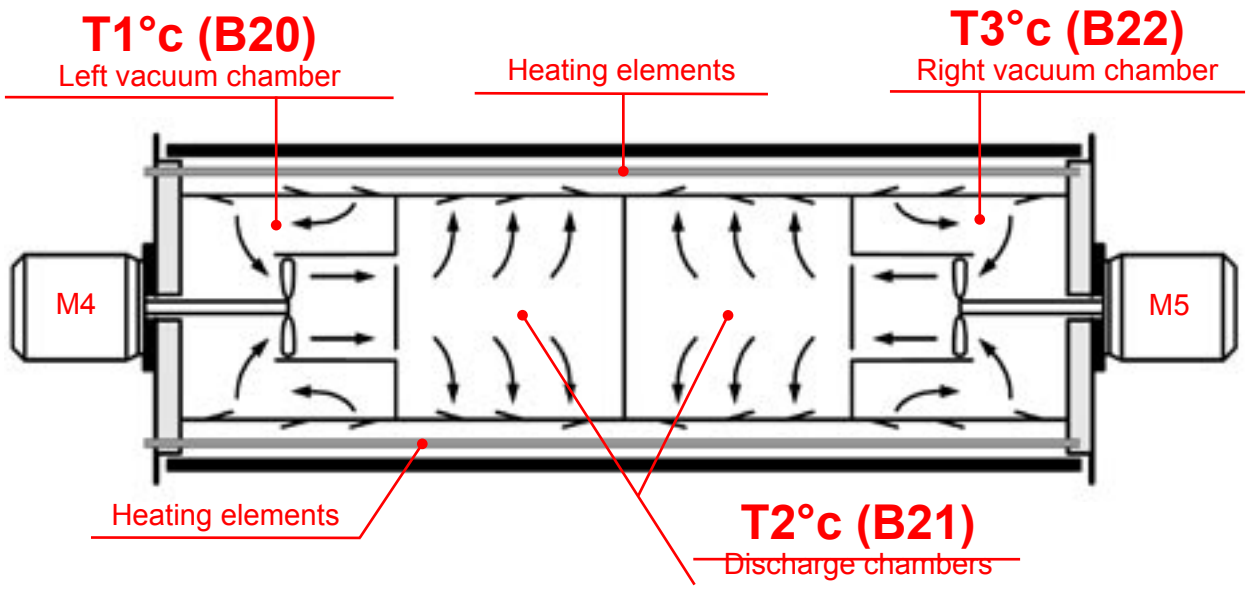
The three temperature probes B20 (left sensor), B21 (centre sensor), B22 (right sensor) and the safety sensors B3, B1 are fitted in direct contact with the ironing cylinder. They are accessible through the front of the machine under the folding table.

DESCRIPTION :

Heating element power according to the type of machine:

IC4 4819	3650W / 400V
IC4 4821	4050W / 400V
IC4 4825	4800W / 400V
IC4 4828	5200W / 400V
IC4 4832	5950W / 400V





OPERATION :

Heating elements :

Powered on and off by the KM6, KM7, and KM8 contactors, the heating elements are used to heat the ironing cylinder.

Contactors : ***KM6, KM7, KM8, KM9 & KM10***

Controlled by the A2 ironer interconnection board (J20-3), the KM6, KM7, and KM8 contactors power on and off the heating elements.

Controlled by the A2 ironer interconnection board (J20-4 and J20-5), the KM9 and KM10 contactors power on and off the rotating heat motors. .

Air circulation motors : ***M4 & M5***

Protected by circuit breaker Q2 and controlled by the KM9 and KM10 contactors, the M4 (left side) and M5 (right side) motors used to create rotating heat in the ironing cylinder. They operate independently and must not be swapped, i.e. left motor M4 is controlled by KM9 and right motor M5 is controlled by KM10.

Start-up condition :

Motor M4 (left side)	= 1	if	B20 > B21
	= 0	if	B20 < B21
Motor M5 (right side)	= 1	if	B22 > B21
	= 0	if	B22 < B21

Temperature sensors : ***B20, B21 & B22***

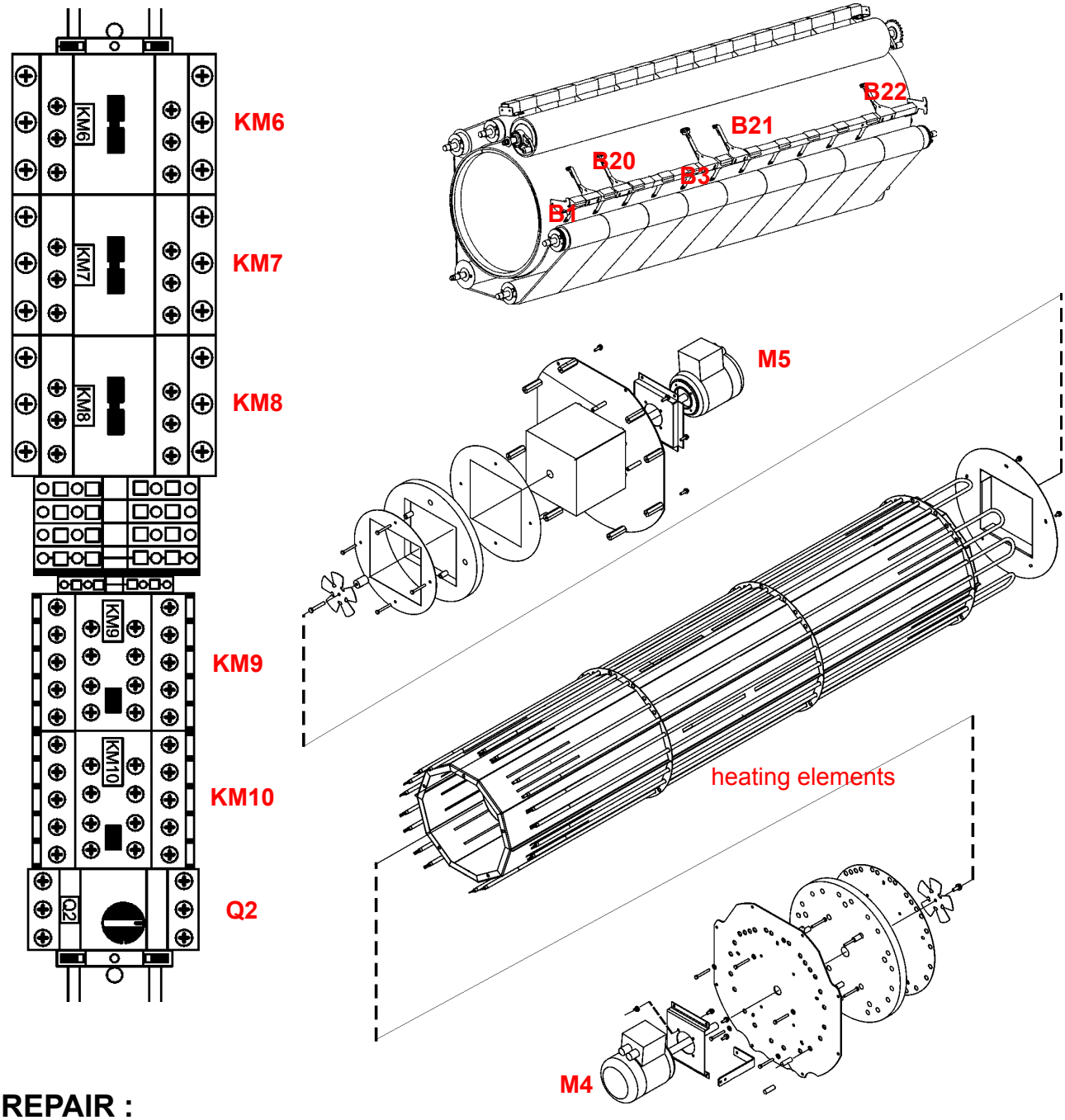
Connected to A1 control display (X2), the three temperature sensors B20 (left sensor), B21 (centre sensor) and B22 (right sensor) are used by A1 control display to regulate the temperature of the ironing cylinder.

Overheating condition :

Overheating on side	= 1	when	B20 >225°c or B22 > 225°c
	= 0	when	B20 & B22 < 195°c
Overheating on center	= 1	when	B21 > 244°c
	= 0	when	B21 < 244°c

Temperature safety sensors : ***B3***

Connected to A1 control display (X11-4 and X11-5), safety sensor B3 is used by A1 control display to stop the machine's heating when the temperature of the ironing cylinder exceeds 240°C.



REPAIR :

Heating elements :

Checking
- Check the wiring and the power supply.
- Check the ohmic value of each resistors with a ohmmeter. If the ohmic value is equal to 0, it means that the resistor is faulty.

Replacing
- Remove the right and left covers.
- Disconnect the heating elements on the left-hand side.
- Remove the right and left end flanges.
- Pull out the resistor bracket and the heating elements from the ironing cylinder.
- Change the faulty resistor(s)..
- Refit the parts in the reverse sequence.

REPAIR :

***Contactors :* KM6, KM7, KM8, KM9 & KM10**

Checking
- Check the wiring.
- Power on the machine, supply the contact coil manually, and check the contacts. If the contacts do not stick, this means the contactor is faulty.

Replacing
- Remove the left cover.
- Disconnect the wires on the faulty contact.
- Remove the faulty contact, and replace.
- Refit the parts in the reverse sequence.

***Air circulation motors :* M4 & M5**

Checking
- Check the wiring.
- Power on the machine, supply contacts KM9 and KM10, and check that the motors are running. Otherwise, the motors are faulty.

Replacing
- Remove the right and left covers.
- Disconnect the heating elements on the left-hand side.
- Remove the right and left end flanges.
- Remove the turbine from the faulty motor
- Remove the faulty motor, and replace.
- Refit the parts in the reverse sequence.

***Temperature sensors :* B20, B21, B22**
***Safety sensors :* B3**

Checking the temperature sensors B20, B21, and B22 (PT100))
- Check the wiring.
- Using an ohmmeter, check the sensor's ohmic value. For a room temperature 21°C, the ohmic value must range from 107.79 to 108.57 ohms. Otherwise, the sensor is faulty.

Checking the B3 safety sensor
- Check the wiring.
- Using an ohmmeter, check the ohmic value of the sensor. If the ohmic value is different from 0, the sensor is faulty.

Replacing
- Disconnect the faulty sensor from A1 control display.
- Remove the sensor from its location, accessible under the feeding table.
- Connect the new sensor on A1 control display.
- Fit the new sensor in its appropriate location.

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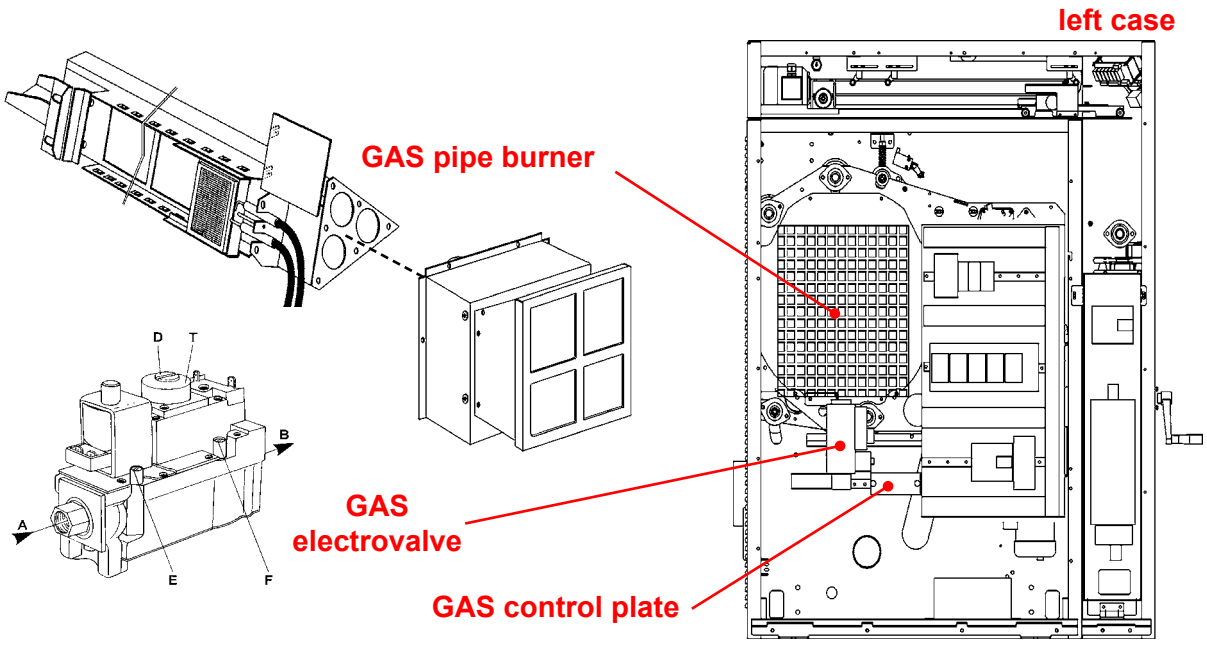


DESCRIPTION :

The system « Gas heating » includes the following elements :

* 1 Gas pipe burner

* 1 Gas electric control board :
  - 1 Electrode assembly : **E1/E2**
  - 1 Pressure switch : **B4**
  - 1 Ignitor : **RV500**
  - 1 Time-limit relay : **KA7**
  - 2 Relays : **KA8 & KA9**

* 1 Electrovalve : **Y1/Y2**

* 3 Temperature sensors : **B20, B21 & B22**

* 1 Temperature safety sensors : **B3** (B1 Dubixium option)

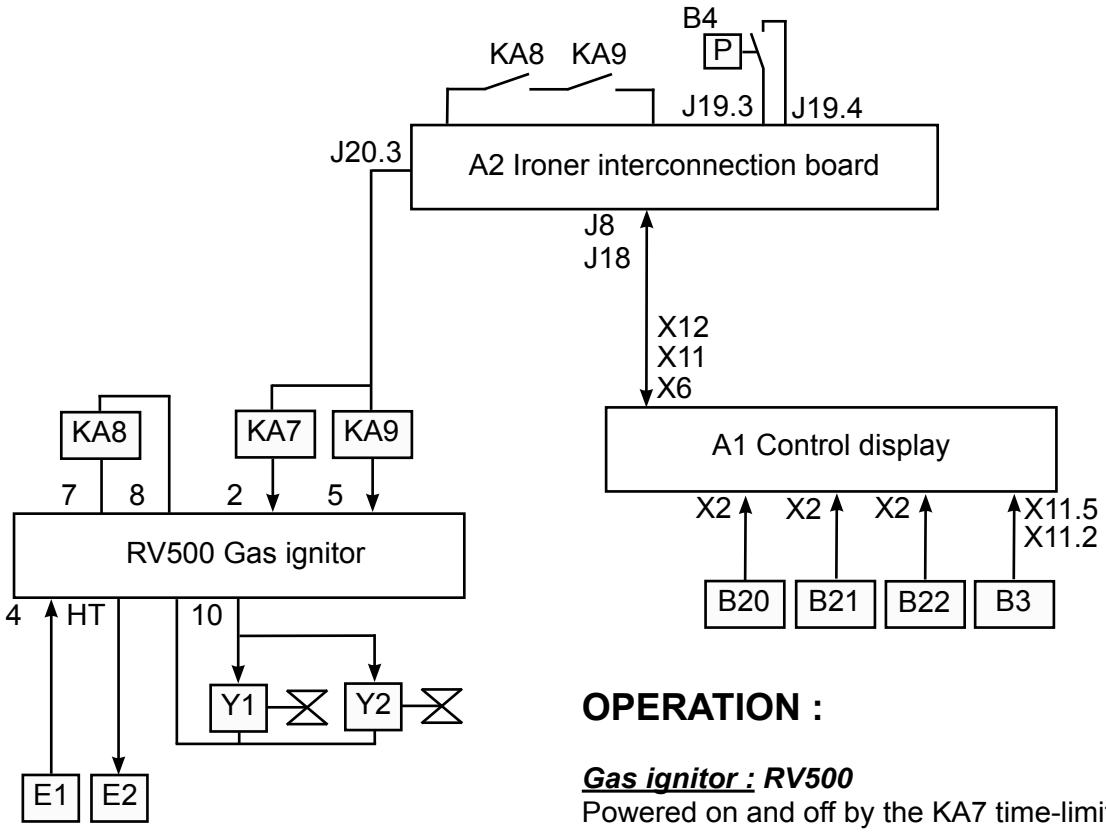
The gas ramp is housed inside the ironing cylinder.

The pressure switch B4, the RV500 ignitor, the KA7 time-limit relay, and the two KA8/KA9 relays are fitted on the gas heater's electric base plate. They are accessible by removing the machine's left cover.

The Y1/Y2 electrovalve is fitted on the gas ramp. It is accessible by removing the left cover on the machine.

The E1/E2 electrode assembly is fitted on the gas ramp. It is accessible by pulling the ramp out of the ironing cylinder.

The three temperature probes B20 (left sensor), B21 (centre sensor), B22 (right sensor) and the safety sensors B3, B1 are fitted in direct contact with the ironing cylinder. They are accessible through the front of the machine under the folding table.



OPERATION :

Gas ignitor : RV500
Powered on and off by the KA7 time-limit relay, the RV500 gas ignitor controls the Y1/ Y2 gas electrovalve and the E1/E2 electrode set.

Time-limit relay : KA7

Controlled by the A2 ironer interconnection board (J20-3), the KA7 time-limit relay is used to power on and off the RV500 gas ignitor.

Relay fault gas ignitor : KA8

Connected to the RV500 gas ignitor (7 and 8), the KA8 relay is activated when an anomaly appears on the gas ramp ignition.

Error condition: KA8 is activated 30 seconds after a heating request without heating.

Gas electrovalve set : Y1/Y2

Connected to the RV500 gas ignitor (6 and 10), the Y1/Y2 electrovalve is activated when heating initiation is requested.

Electrode set : E1/E2

Connected to the RV500 gas ignitor (4 and HT), the E2 electrode is used to create the electric arc required by gas combustion, and the E1 electrode to detect the presence of a flame on the gas ramp.

Pressostat B4 :

Connected to the A2 ironer interconnection board (J19-3 & J19-4), the B4 pressostat stops the

***Temperature sensors :* B20, B21 & B22**

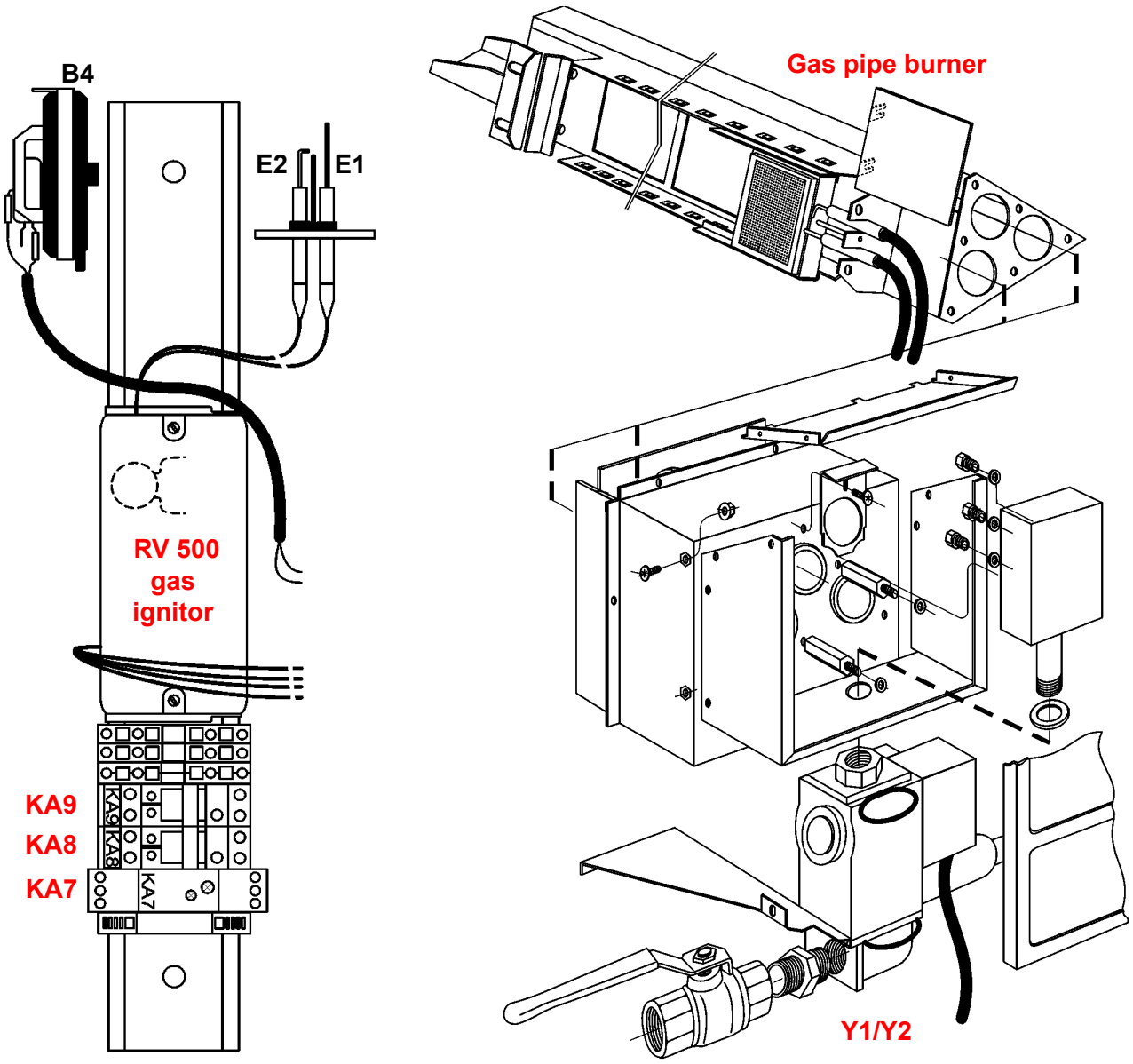
Connected to A1 control display (X2), the three temperature sensors B20 (left sensor), B21 (centre sensor) and B22 (right sensor) are used by A1 control display to regulate the temperature of the ironing cylinder.

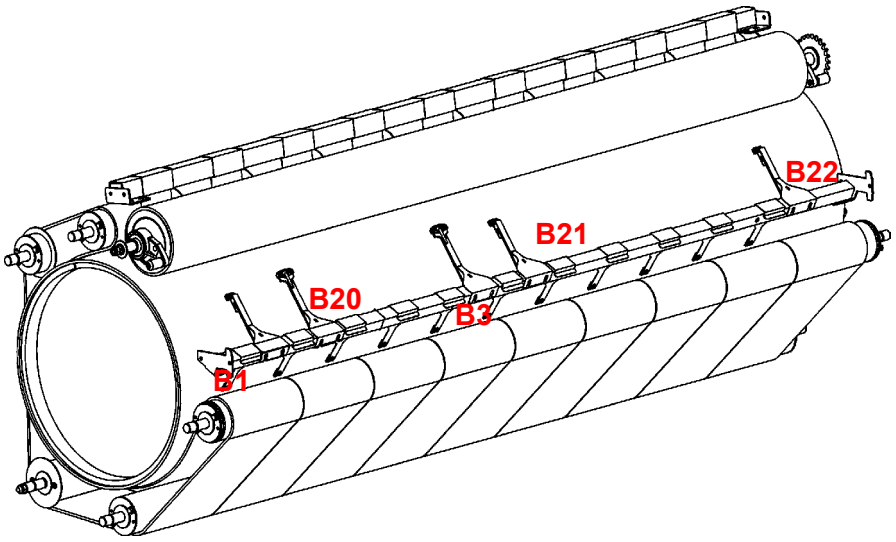
Overheating condition :

Overheating on side	= 1	when	B20 >225°c or B22 > 225°c
	= 0	when	B20 & B22 < 195°c
Overheating on center	= 1	when	B21 > 244°c
	= 0	when	B21 < 244°c

***Temperature safety sensors :* B3**

Connected to A1 control display (X11-4 and X11-5), safety sensor B3 is used by A1 control display to stop the machine's heating when the temperature of the ironing cylinder exceeds 240°C.





REPAIR :

<u>Gas ignitor :</u> RV500

Checking
- Check the wiring.
- Power on the gas ignitor, and check the actuation of the gas electrovalve and electrode. Otherwise, the ignitor is faulty.

Replacing
- Remove the left cover.
- Disconnect the cables from the ignitor.
- Remove the ignitor and fit a new one.
- Reconnect the cables onto their terminals.
- Refit the parts in the reverse sequence.

<u>Relay fault gas ignitor :</u> KA8

Checking
- Check the wiring.
- Supply the relay coil and check the contacts. If the contacts do not stick, the relay is faulty.

Replacing
- Remove the left cover.
- Remove the faulty relay, and replace.
- Refit the parts in the reverse sequence.

Gas electrovalve set : ***Y1/Y2***

Checking
- Check the wiring.
- Using an ohmmeter, check the ohmic value of coil. If the ohmic value is different from 0, the electrovalve is faulty. .

Replacing
- Cut the gas supply.
- Remove the left cover.
- Disconnect the wires.
- Disconnect the gas feed.
- Remove the locking lug.
- Disconnect the electrovalve from the leader.
- Fit the new electrovalve on to the leader.
- Refit the parts in the reverse sequence.

Electrode set : ***E1/E2***

Checking
- Check the wiring.
- Check the condition of the ceramics (cracks...)
- Power on the machine, check that an electric arc is generated by the E2 electrode.

Replacing
- Disconnect the gas supply.
- Remove the right and left covers.
- Disconnect the gas feed.
- Remove the locking lug.
- Disconnect the wires from the electrovalve.
- Remove the ventilation pipes on the left side.
- Remove the flame guard on the left side.
- Pull out the gas pipe burning on the right side.
- Remove the electrode's protection cover.
- Remove the electrode and fit a new one.
- Refit the parts in the reverse sequence.

Temperature sensors : ***B20, B21, B22***
Safety sensors : ***B3***

Checking the temperature sensors B20, B21, and B22 (PT100))
- Check the wiring.
- Using an ohmmeter, check the sensor's ohmic value. For a room temperature 21°C, the ohmic range value must be from 107.79 to 108.57 ohms.

Otherwise, the sensor is faulty.

Checking the B3 safety sensor
- Check the wiring.
- Using an ohmmeter, check the ohmic value of the sensor. If the ohmic value is different from 0, the sensor is faulty.

Replacing
- Disconnect the faulty sensor from A1 control display.
- Remove the sensor from its location, accessible under the feeding table.
- Connect the new sensor on A1 control display.
- Fit the new sensor in its appropriate location

REPAIR :

***Pressostat gas :* B4**

Checking

- Check the wiring.
- Check the rotation direction of fan turbine.
- Check that the air and gas evacuation are clean.
- Power ON the machine, with a multimeter check the current value of the pressostat. If the value is different from 0, it means that the pressostat is faulty.

Remplacing

- Remove the right cover.
- Disconnect the wires.
- Remove the faulty pressostat, and replace.
- Refit the parts in the reverse sequence.

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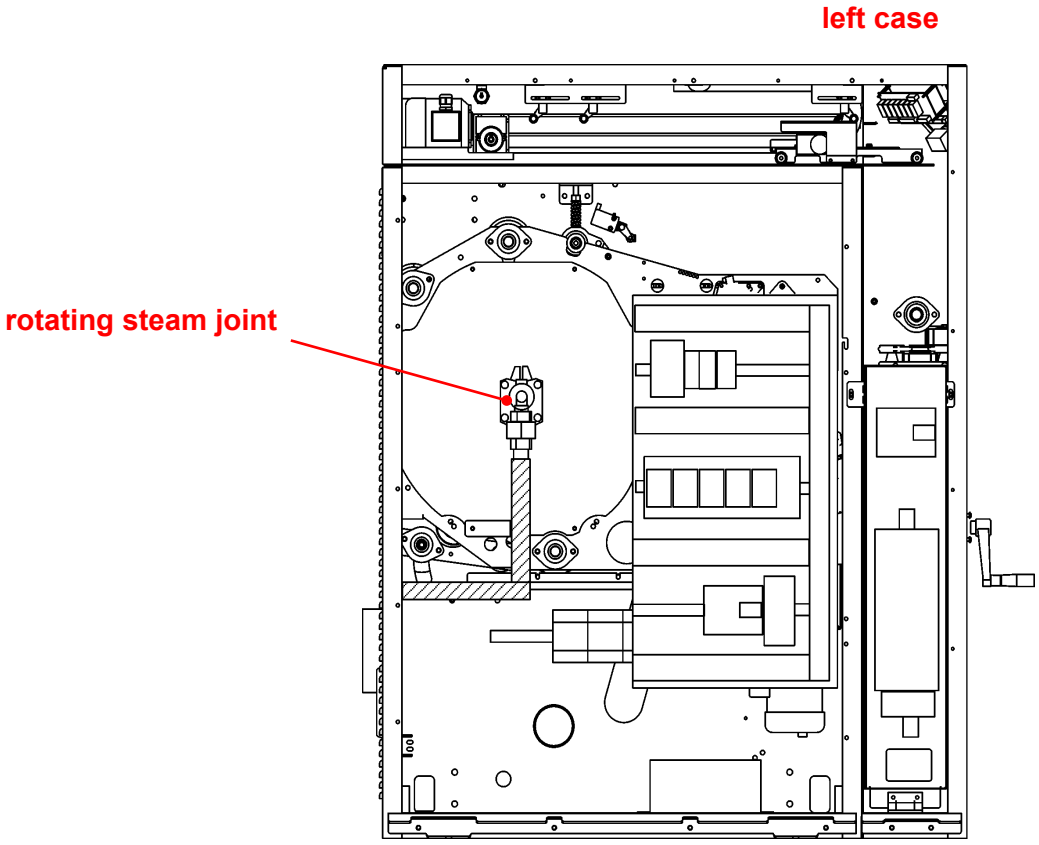


DESCRIPTION :

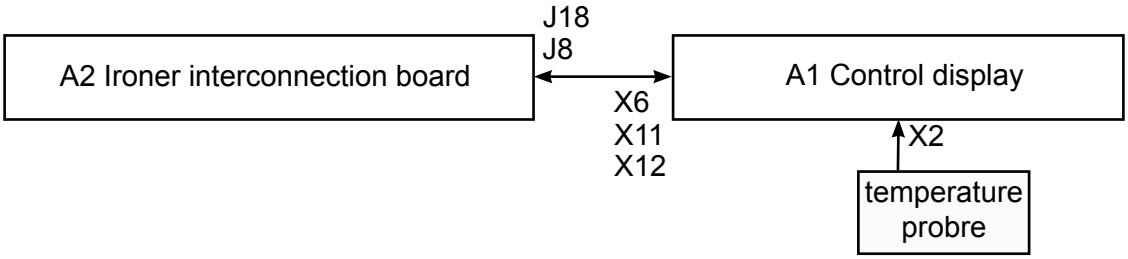
The system « Steam heating » includes the following elements :

* 1 Rotating steam joint

* 1 Temperature probe

The temperature probe is fitted on the rotating steam joint and is accessible by removing the machine's left cover and the protection cover.

The rotating steam joint is fitted in the ironing cylinder and is accessible by removing the left cover on the machine and the protection cover.



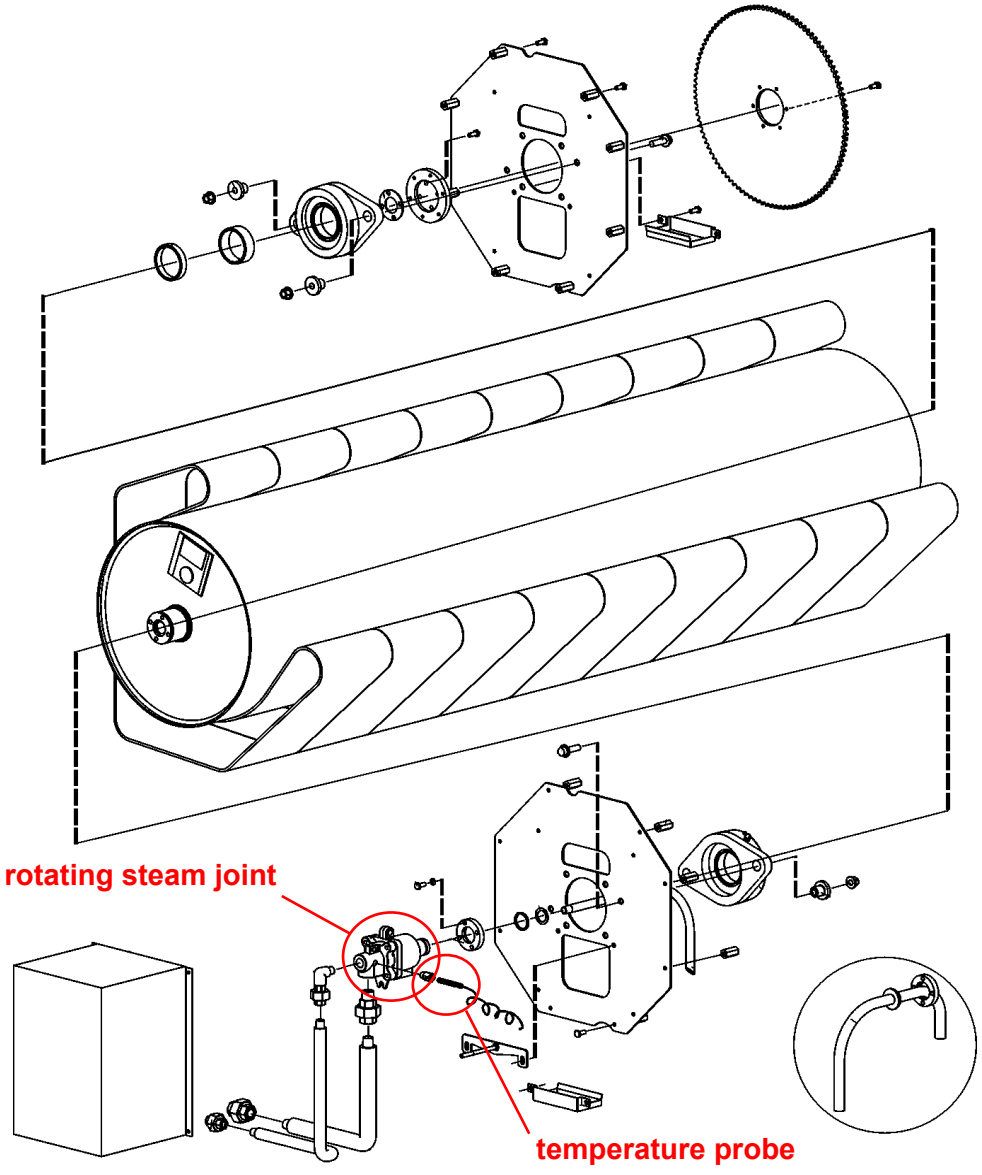
OPERATION :

Temperature probe :

Connected to A1 control display (X2), the probe is used by the A1 control display to display the steam temperature.

Rotating steam joint :

Fitted between the steam inlet and the ironing cylinder, the rotating joint is used to distribute steam and recover water (from condensation) during the rotation of the ironing cylinder.



REPAIR :

Temperature probe :

Checking
- Check the wiring.
- Check correspondence with the following table :

Correspondence Pressure Steam / Temperature

Manometric pressure in KPa (Bar)	300 (3)	400 (4)	500 (5)	600 (6)	700 (7)	800 (8)	900 (9)	1000 (10)
Temperature in °C	143	151	158	164	169	174	179	183

Replacing
- Remove the left cover.
- Remove the protection cover.
- Disconnect the probe cables from the A1 control display (X2).
- Remove the probe and fit a new one.
- Refit the parts in the reverse sequence.

Rotating steam joint :

Checking
- Check sealing.

Replacing
- Stop the steam.
- Remove the left cover.
- Remove the steam injection protection cover.
- Remove the steam pipes.
- Remove the steam rotating joint from the heating cylinder.
- Fit the new joint.
- Refit the parts in the reverse sequence.

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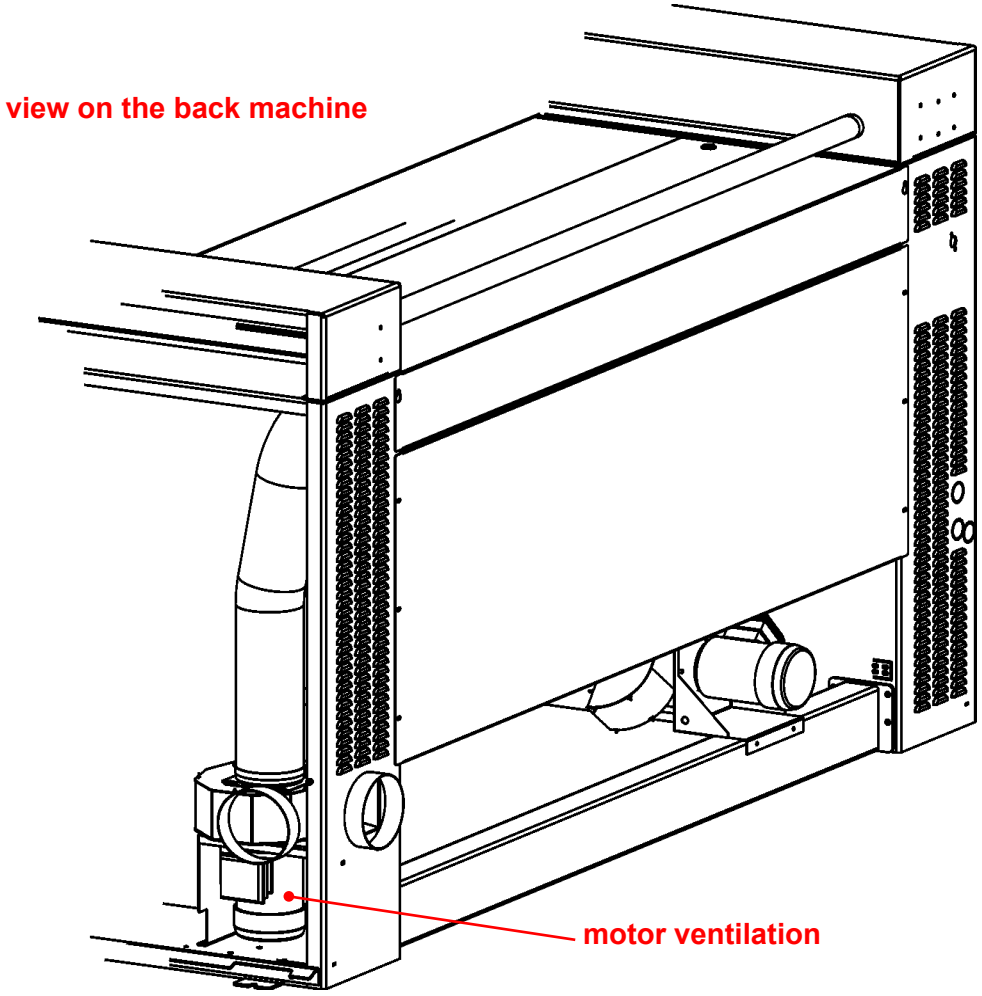


DESCRIPTION :

The system « Ventilation » includes the following elements :

* 1 Ventilation motor : **M1**

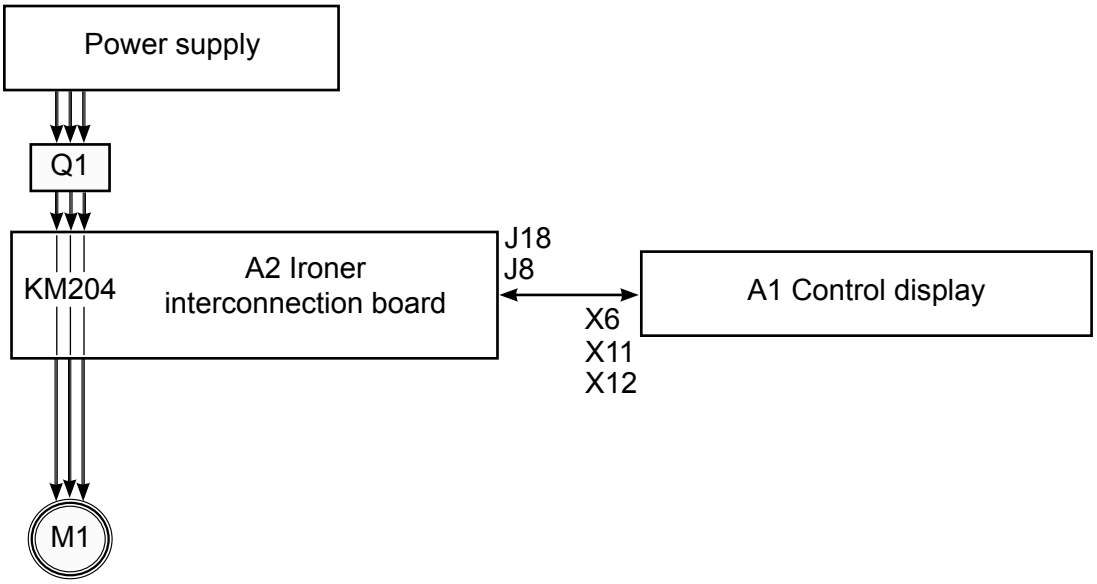
* 1 Three-pole breaker : **Q1**

* 1 Contactor : **KM1**

The M1 ventilation motor is fitted onto the machine's frame. It is accessible by removing the right cover in the machine.

The Q1 circuit breaker is fitted in the machine's electric cabinet. It is accessible by removing the left cover.

The KM1 contactor is fitted on the A2 ironer interconnection board. It is accessible by removing the left cover on the machine.



OPERATION :

Ventilation motor : M1

Powered on and off by the KM1 contactor on the A2 ironer interconnection board (J3-3, J3-4 and J3-5), the M1 ventilation motor is used to ventilate the machine and evacuate steam generated by ironing, as well as non-burnt gases (gas heating).

Contactor : KM1

Fitted on the A2 ironer interconnection board the KM1 contactor is used to power on and off the M1 ventilation motor.

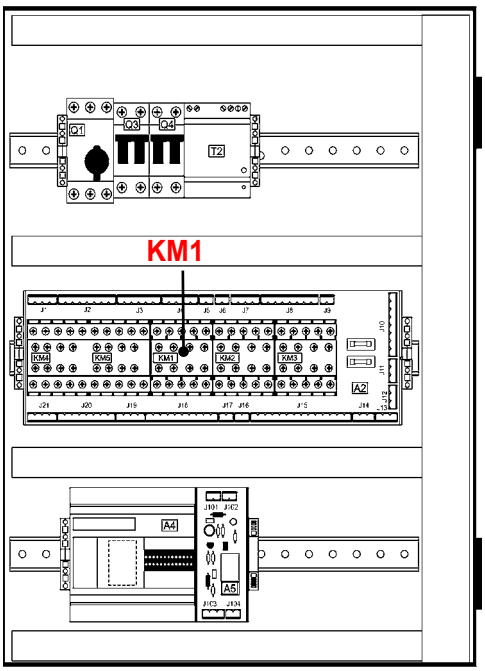
Three-pole breaker : Q1

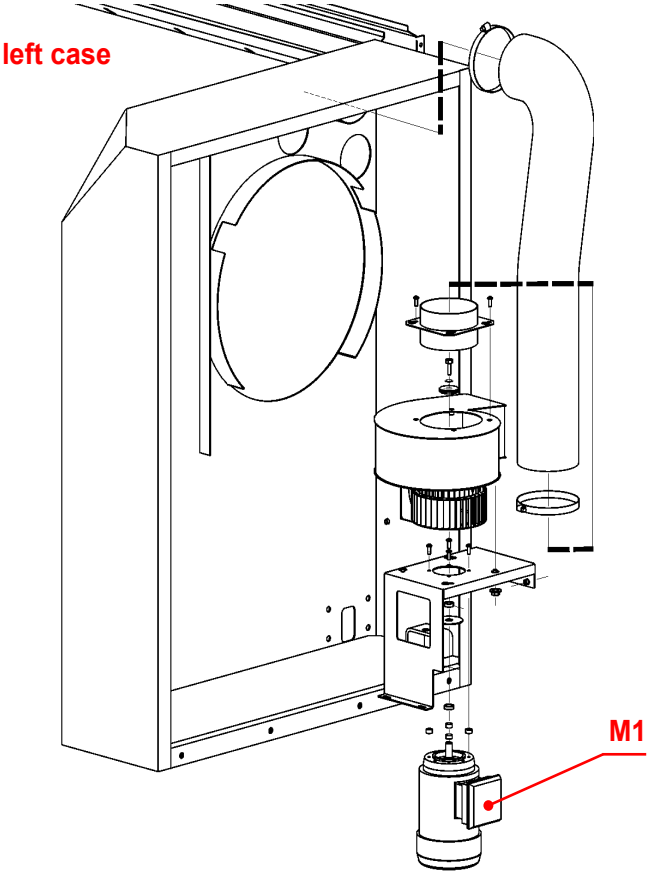
Connected between the power supply (L11, L12, and L13) and the A2 ironer interconnection board (J1-2, J1-3, and J1-4), the Q1 circuit breaker is used to secure the M1 motor against any power surge problem.

To know :

Adjustement of the tube of aspiration of condensation :

IC4	4819/4821	= Ø 86	(to leave the 2 precuts)
	4825	= Ø 103.4	(to withdraw 1 precut)
	4828/4832	= Ø 120	(to withdraw 2 precuts)





REPAIR :

<u>Ventilation motor :</u> M1

Checking
- Check the wiring.
- Power on the machine and check that the M1 motor is running. Otherwise, the motor is faulty.

Replacing
- Remove the right cover on the machine.
- Remove the extensible hose.
- Separate the turbine from the motor.
- Remove the motor from its bracket.
- Fit the new motor.
- Refit the parts in the reverse sequence.

<u>Contactor :</u> KM204

Checking
- Check the wiring.
- Start the machine and check that the contacts on the contactor stick or whether the motor is running. Otherwise, the contactor is faulty.

Replacing
- Remove the left cover on the machine.
- Disconnect all the wires connected to the interconnection base plate.
- Change the interconnection base plate.
- Refit the parts in the reverse sequence.

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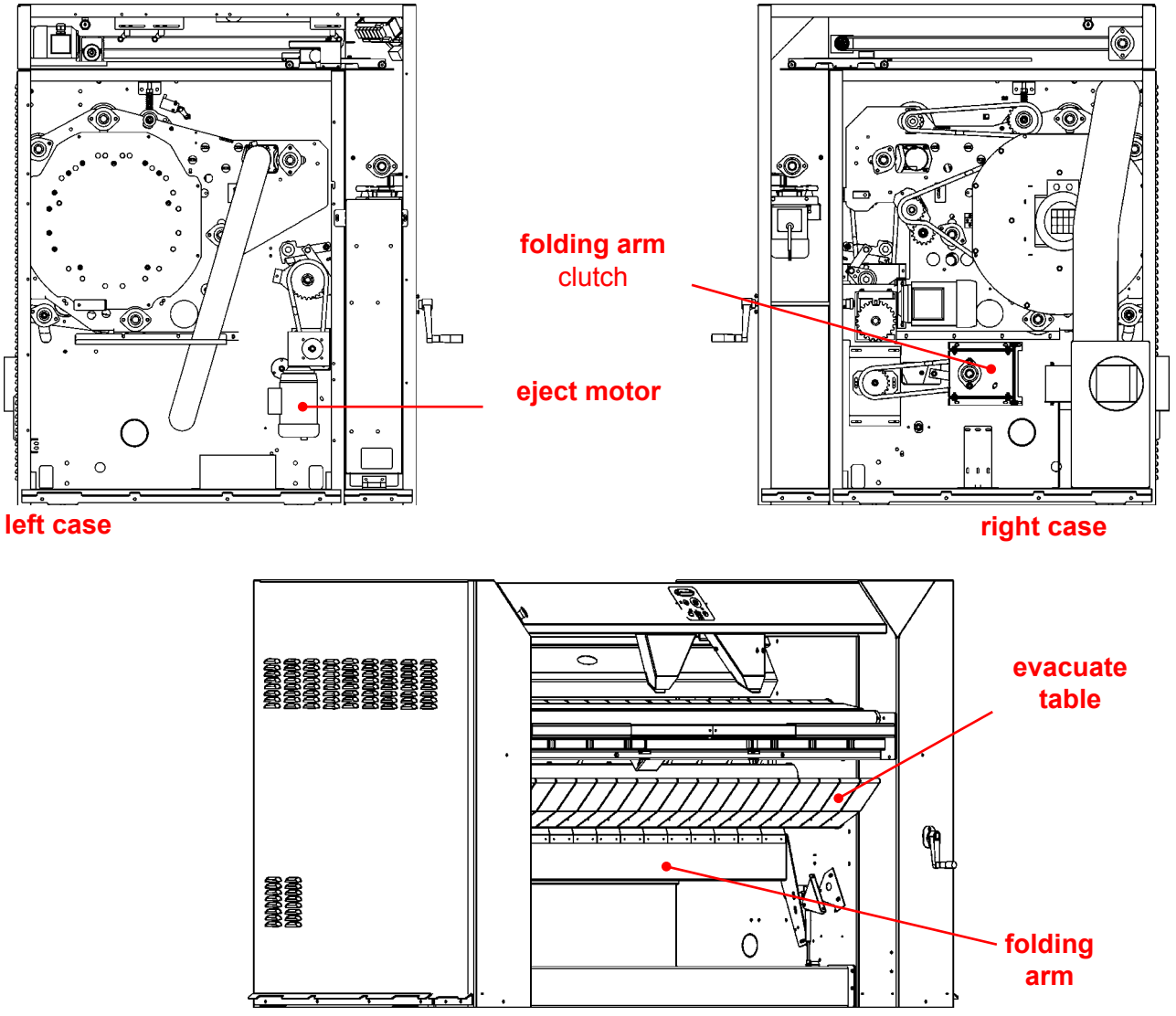


DESCRIPTION :

The system « Longitudinal folding » includes the following elements :

* 2 Photocells : **B6 et B7**

* 1 Rotation detection : **B8**

* 2 Position sensors : **B9 & B10**

* 2 Positions switch : **S8 & S9**

* 3 Contactors : **KM3, KM4 & KM5**

* 1 Folding arm clutch : **Y5**

* 1 Motor reducer (sheet evacuation) : **M3**

* 1 PLC : **TWIDO A4**

The B6 photocell (sheet present at feeding table) is fitted onto the feeding table. It is accessible by the front of the machine.

The B7 photocell (sheet present at folder feed) is fitted at the outlet of the ironer, under the feeding table. It is accessible by the front of the machine.

The B8 rotation detection (metering system) is fitted on the machine's movement motor reducer. It is accessible by removing the machine's right cover.

The position sensors of the B9 (front) and B10 (back) folding arms are fitted on the machine's frame on the folding arm's rotation axis. They are accessible by removing the machine's left cover.

The S8 position switch (eject roller position) is set on the machine's frame at ejection roller height. It is accessible by removing the machine's left cover.

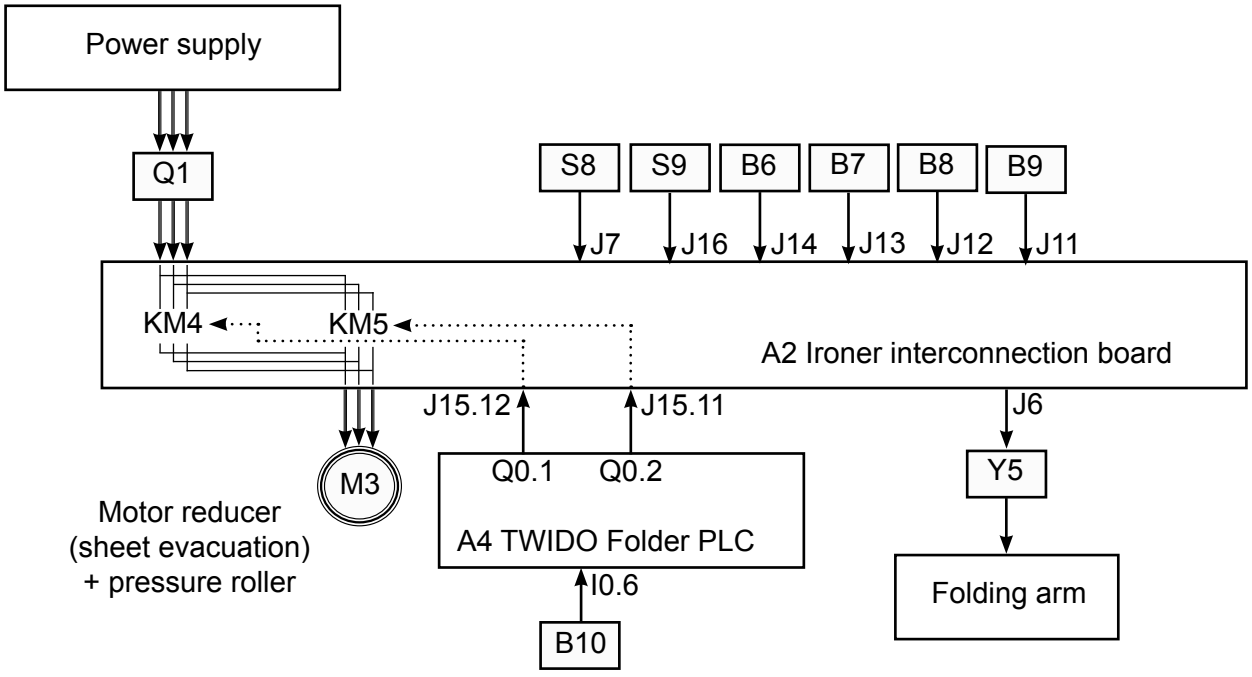
The S9 end stop (reception vat position) is set on the machine's left side frame, under the receiver tray. It is accessible by the front of the machine.

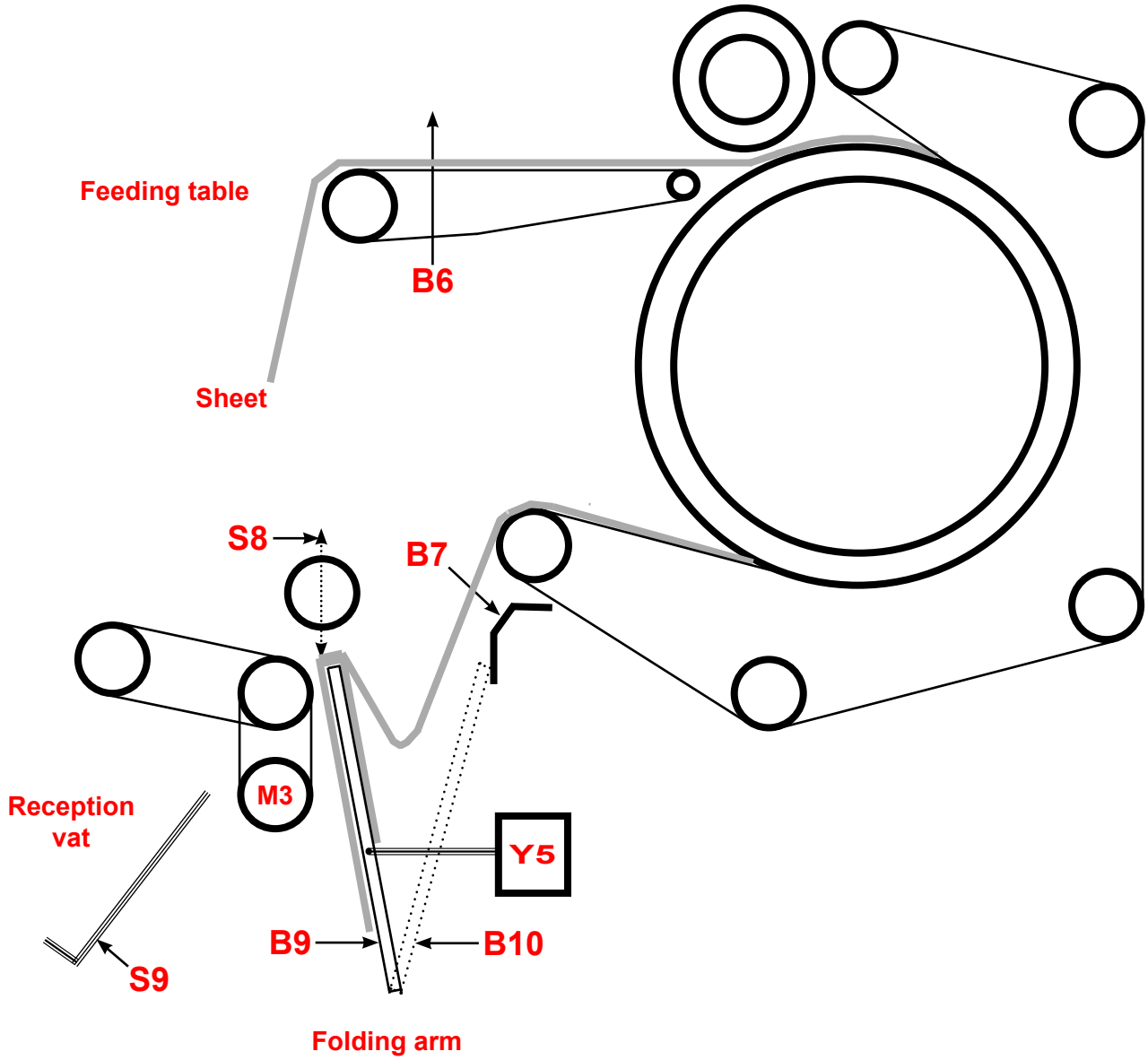
The three KM3, KM4, and KM5 contactors are fitted onto the A2 ironer interconnection board. They are accessible by removing the machine's left cover.

The Y5 clutch is fitted onto the machine's frame, on the level of the folding arm. It is accessible by removing the machine's right cover.

The M3 motor reducer (sheet evacuation) is fitted onto the machine's frame. It is accessible by removing the machine's left cover.

The PLC TWIDO is fitted in the machine's electrical cabinet. It is accessible by removing the machine's left cover.





OPERATION :

Photocells : ***B6 & B7***

Connected to the A2 ironer interconnection board (J-14) , the B6 photocell is used by the A4 folder PLC (I0.1) to detect the sheet on the feeding table and to determine the lenght of the sheet for the folding.

Connected to the A2 ironer interconnection board (J-14) , the B7 photocell is used by the A4 folder PLC (I0.2) to detect the sheet on the ironing cylinder out and to determine the lenght of the sheet for the folding

Positions switch : ***S8 & S9***

Connected to the A2 ironer interconnection board (J7-1/J7-2 and J7-3/J7-4), the S8 position switch is used by the A4 folder PLC to detect the position (up/down) of the presser roller.

Connected to the A2 ironer interconnection board (J16-1 and J16-2), the S9 position switch is used by the A4 folder PLC to detect the position of the front reception vat.

Contactors : ***KM3, KM4 & KM5***

Fitted on the A2 ironer interconnection board and controlled by the Q0.0 output on the A4 folder PLC, the KM3 contactor is used to power on and off the clutch of the Y5 folding arm.

Fitted on the A2 ironer interconnection board and controlled by the Q0.1 output on the A4 folder PLC, the KM4 contactor is used to power on and off the M3 motor reducer to eject the piece of clothing.

Fitted on the A2 ironer interconnection board and controlled by the Q0.2 output on the A4 folder PLC, the KM5 contactor, in one pulse, is used by the M3 motor reducer to perform a reverse direction rotation to lift the eject roller.

Folding arm clutch : ***Y5***

Connected to the A2 ironer interconnection board (J6), the clutch is controlled by the KM3 contactor. It is used to tilt the folding arm forward and back along the length of the piece of clothing measured by the A4 folder PLC.

Motor reducer : ***M3***

Connected to the A2 ironer interconnection board (J-1), the M3 motor reducer (sheet evacuation) is protected by the Q1 circuit breaker and controlled by the KM4 and KM5 contactors. It is used to evacuate the piece of clothing once folded

Position sensors : ***B9 & B10***

Connected to the A2 ironer interconnection board (J-11), the B9 position sensor is used by the A4 folder PLC (I0.5) to detect that the folding arm is on FRONT position.

Connected to the A4 folder PLC input I0.6, the B10 position sensor is used by the A4 folder PLC to detect that the folding arm is on BACK position.

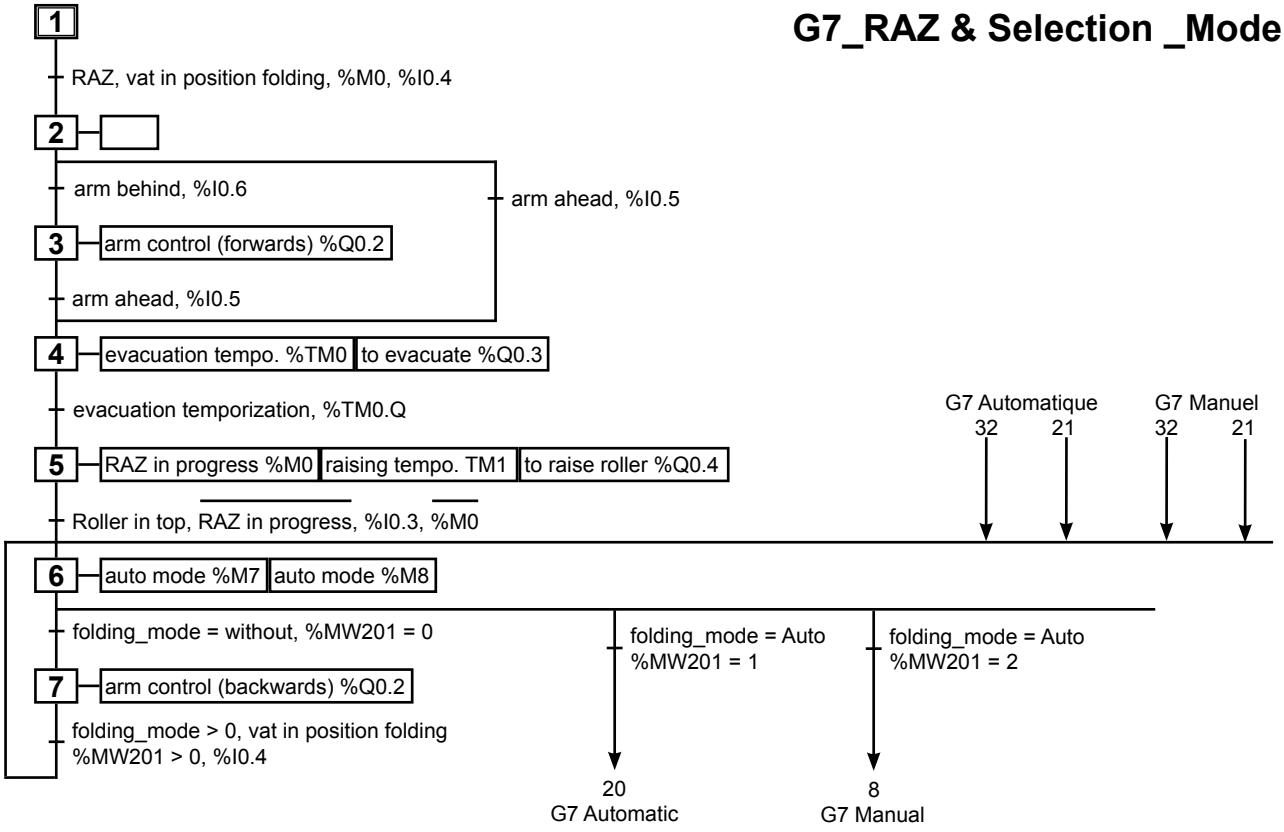
Rotation detection : ***B8***

Connected to the A2 ironer interconnection board (J-11), the B9 position sensor is used by the A4 folder PLC (I0.0) and DIAMMS system to measure the lenght of the sheet.

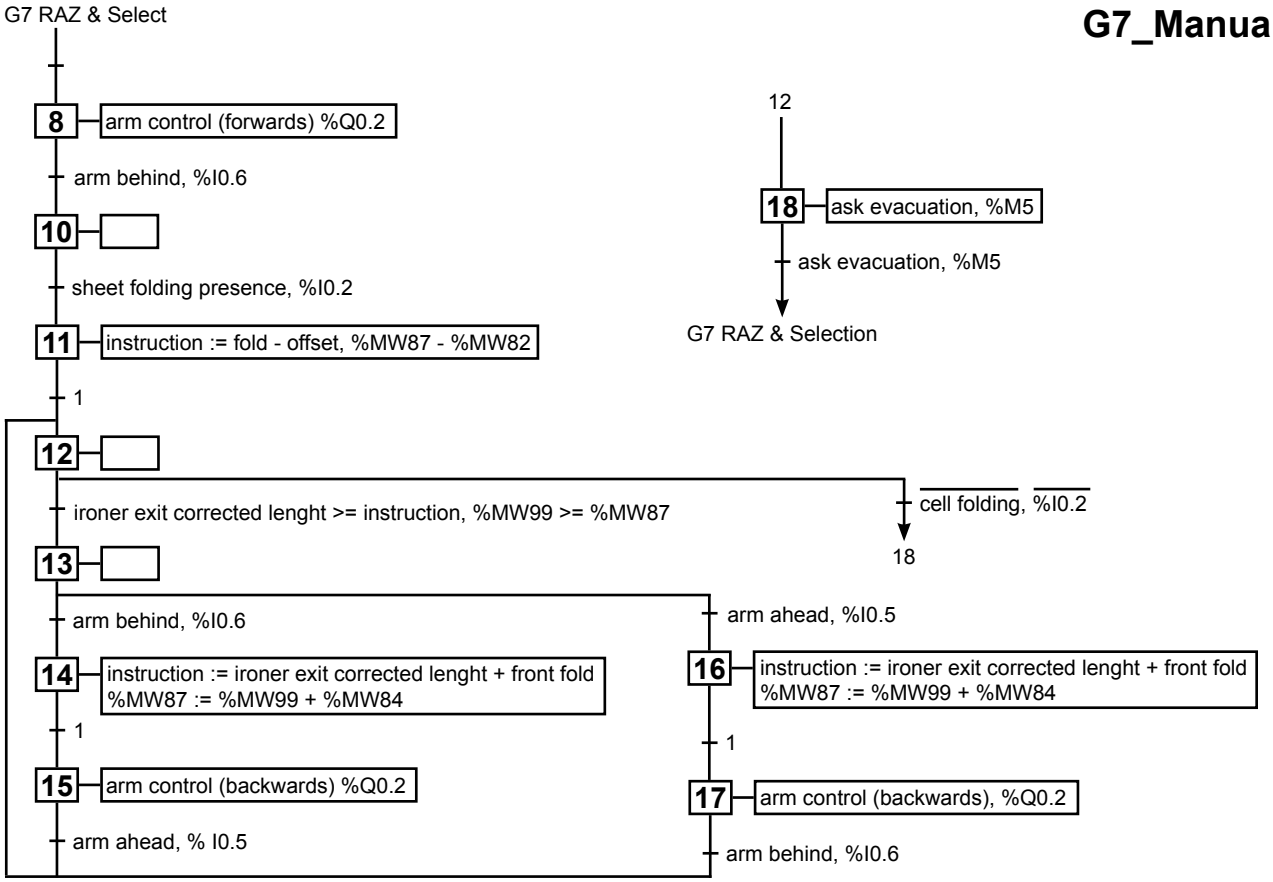
TWIDO Folder PLC :

GRAFCET :

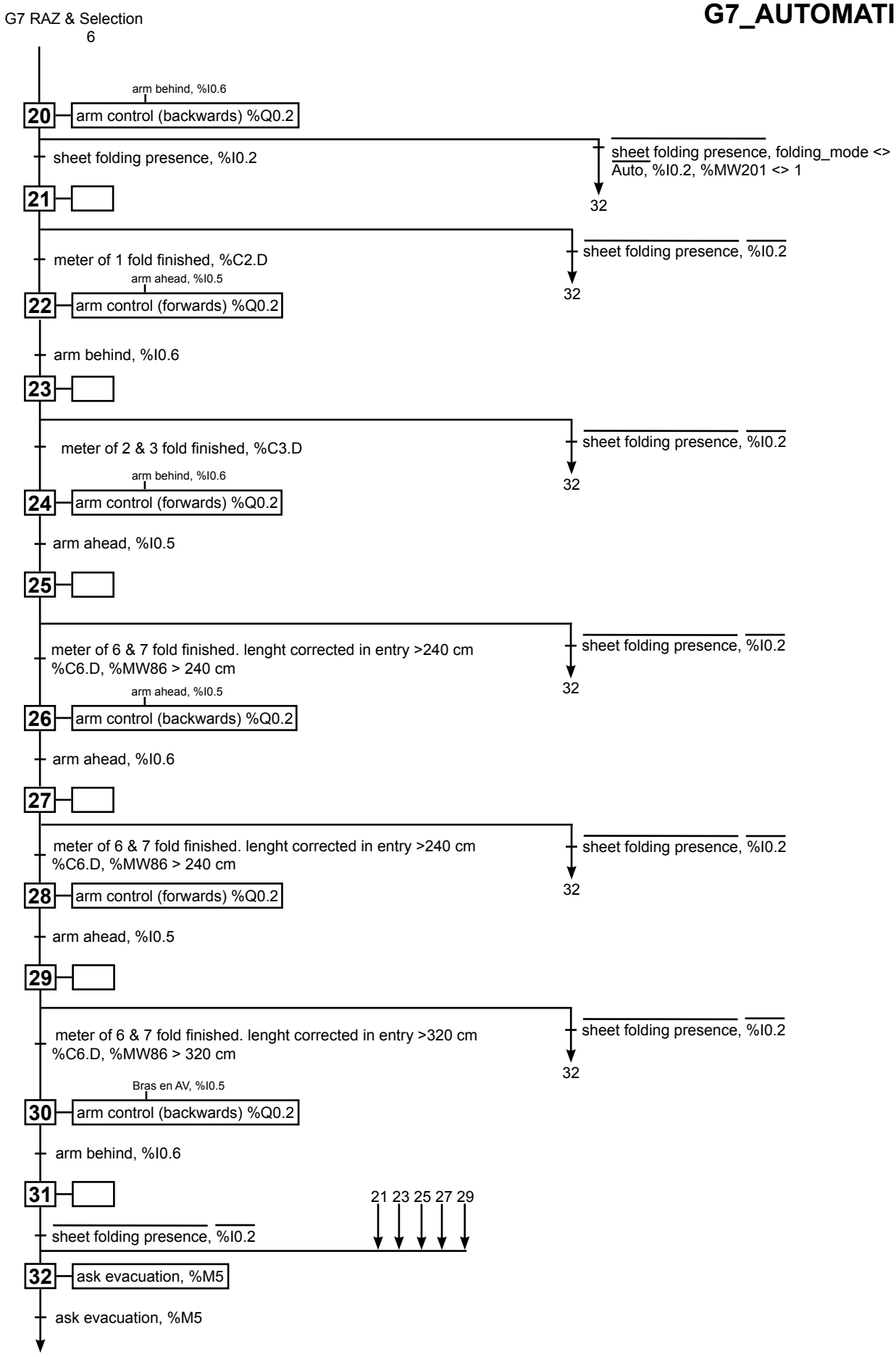
G7_RAZ & Selection _Mode



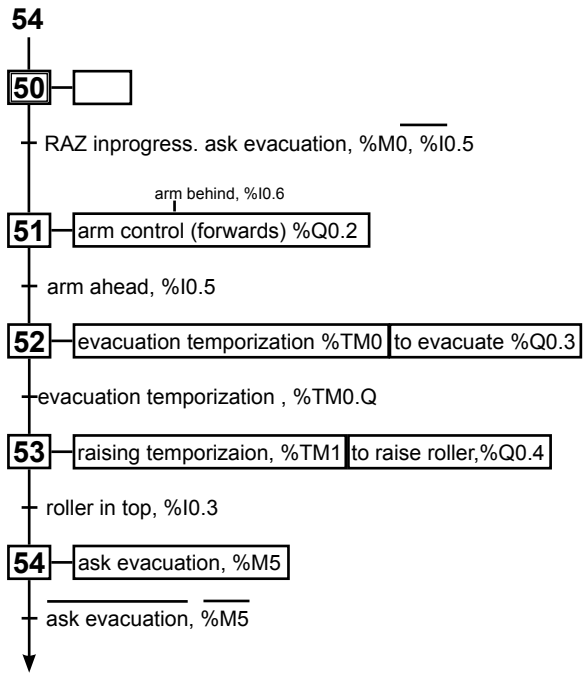
G7_Manual



G7_AUTOMATIC



G7_Evacuation



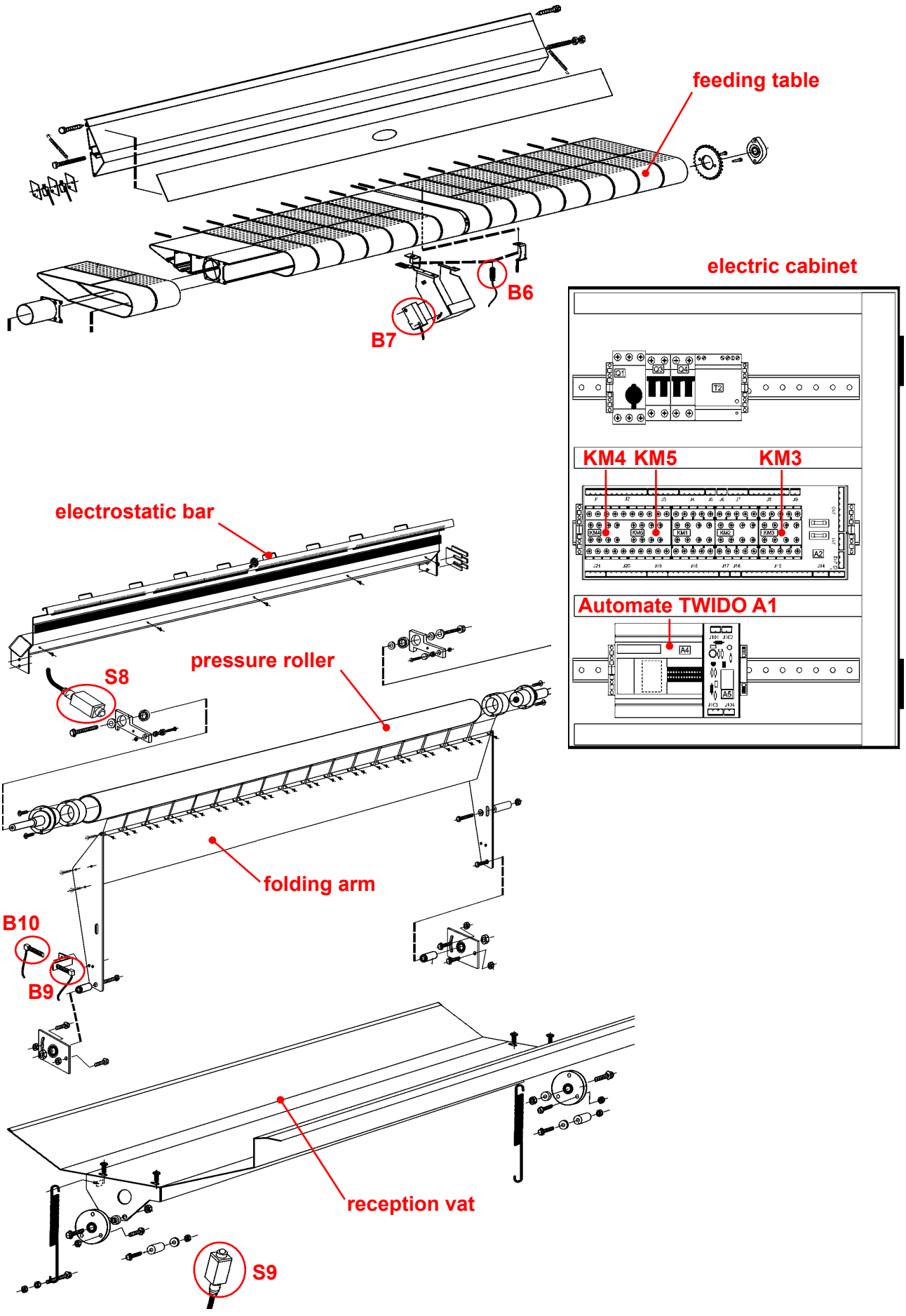
For any modifications about PLC programmes (folding length, temporisation ...)

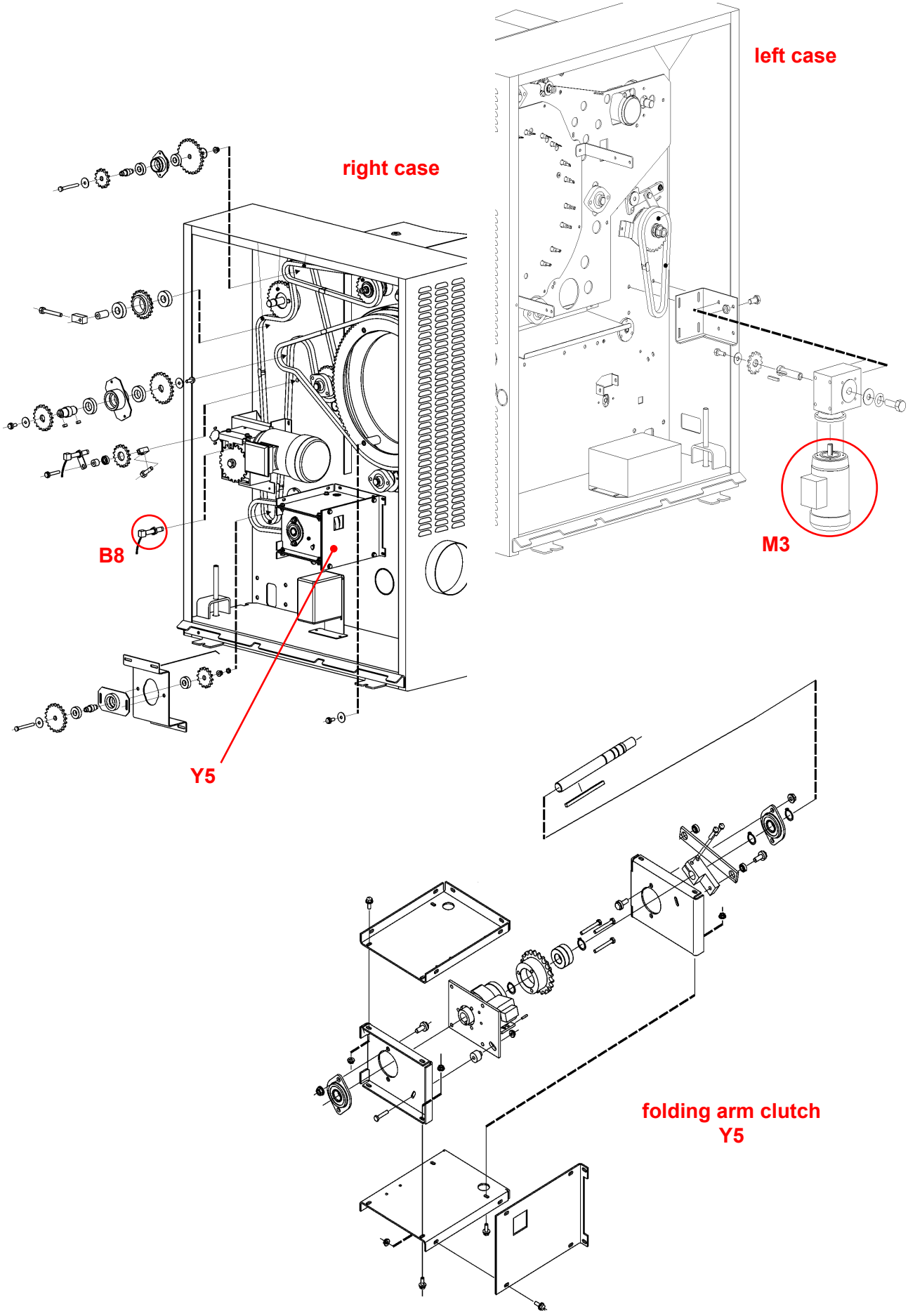
see **Chapiter 16 'PLC TWIDO'**.

INPUTS/OUTPUTS FOLDER PLC :

Inputs :	**I0.0**	**: B8**	**detector**	**«Metering»**
	I0.1	**: B6**	**detector**	**«Sheet present on feeding table»**
	I0.2	**: B7**	**detector on reflector**	**«Sheet present before folding»**
	I0.3	**: S8**	**position switch**	**«Position sheet eject roller»**
	I0.4	**: S9**	**position switch**	**«Position reception vat»**
	I0.5	**: B9**	**detector**	**«Position FR folding arm»**
	I0.6	**: B10**	**detector**	**«Position RR folding arm»**
	I0.7	**:**		**«Power OK»**
	I0.8	**:**	**free**	
	I0.9	**:**	**free**	
	I0.10	**:**	**free**	
	I0.11	**:**	**free**	
	I0.12	**:**	**free**	
	I0.13	**:**	**free**	

Outputs	**Q0.0**	**:**	**«Control Clutch of folding arm»**
	Q0.1	**:**	**«Sheet evacuation»**
	Q0.2	**:**	**«Stop sheet evacuation and rise eject roller»**
	Q0.3	**:**	**free**
	Q0.4	**:**	**«Antistatic bar»**
	Q0.5	**:**	**free**
	Q0.6	**:**	**free**
	Q0.7	**:**	**free**
	Q0.8	**:**	**free**
	Q0.9	**:**	**free**


feeding table
B6
B7
electric cabinet
KM4 KM5
KM3
Automate TWIDO A1
electrostatic bar
S8
pressure roller
folding arm
B10
B9
reception vat
S9


left case
right case
B8
M3
Y5
folding arm clutch
Y5

REPAIR :

***Photocells :* B6 & B7**

Checking the B6 cell

- Check the wiring.
- Power on the machine, check the following conditions :

sheet presence :	B6 indicator on A4 folder PLC input I0.1 indicator on
no sheet present :	B6 indicator off A4 folder PLC input I0.1 indicator off

- If the conditions above are not correct, the cell is faulty.

Replacing the B6 cell

- Disconnect the cell's wires from the A2 ironer interconnection board
- Remove the cell and replace it with the new one.
- Connect the wires of the new cell onto the A2 ironer interconnection board
- Calibrate the new cell.

Calibrating the B6 cell

- Power off the machine.
- Place an object at about 7 cm away from the cell.
- Press the button on the cell for at least 10s.
- If the indicator on the cell is lit when an object is set at 7 cm away from the cell, the setting is OK.

Checking the B7 cell

- Check the wiring.
- Power on the machine, check the following conditions :

sheet presence :	B7 indicator off A4 folder PLC input I0.2 indicator off
no sheet present :	B7 indicator on A4 folder PLC input I0.2 indicator on

- If the conditions above are not correct, the cell is faulty.

Changing the B7 cell

- Remove the cell from its bracket.
- Disconnect the cell wires from the A2 ironer interconnection board
- Connect the wires of the new cell
- Fit the new cell onto the bracket
- Adjust the cell in respect of the reflector fastened on the end stop of the folding arm

Rotation detection : ***B8***

Checking
- Check the wiring.
- Machine running, check that the detector's indicator is blinking, otherwise, the detector is faulty.

Replacing
- Remove the machine's left cover.
- Remove the detector from its bracket.
- Disconnect the orange wire from the detector.
- Connect the orange wire to the new detector.
- Fit the new detector to the bracket.
- Adjust the detector to ensure it detects the pulses created by the rotation detection disc.
- Close the cover.

Position sensors : ***B9 & B10***

Checking
- Check the wiring.
- Power on the machine, check that the I0.5 and I0.6 inputs on the A4 folder PLC are lit when a metallic object is laid on the detectors B9 and B10. Otherwise, the detectors are faulty

Replacing
- Remove the machine's left cover.
- Remove the faulty detector from its bracket.
- Disconnect the orange cable from the detector.
- Connect the orange cable on the new detector.
- Fit the new detector on the appropriate bracket.
- Set the detector according to the arm's position.
- Close the cover.

Positions switch : ***S8 & S9***

Checking
- Check the wiring.
- Using an ohmmeter, check the ohmic value between the switch's two contacts in the actuated position. If the value is other than 0, the switch is faulty

Replacing
- Remove the machine's left cover for the S8 switch.
- Remove the switch from its housing.
- Disconnect the switch cable.
- Connect the cable on the new switch.
- Fit the new switch in its appropriate location.
- Close the cover.

***Contactors :* KM3, KM4 & KM5**

Checking
- Check the wiring.
- Power on the machine, supply the contact coil manually, and check the contacts. If the contacts do not stick, the contactor is faulty.

Replacing
- Remove the left cover.
- Disconnect the cables on the faulty contactor.
- Remove the contactor and fit a new one.
- Reconnect the cables.
- Close the cover.

***Folding arm clutch :* Y5**

Checking
- Check the wiring.
- Check the power supply voltage (= 230V) on the clutch electromagnet, if the voltage is correct and if the folding arm does not tilt, the clutch is faulty

Replacing
- Remove the machine's right cover.
- Separate the clutch from the folding arm.
- Loosen the chain by untightening the clutch housing.
- Remove the chain by unclipping it.
- Remove the clutch housing.
- Disconnect the cables from the clutch housing.
- Fit the new clutch housing.
- Refit the chain on the new clutch housing.
- Refit the folding arm onto the new clutch housing.
- Close the cover.

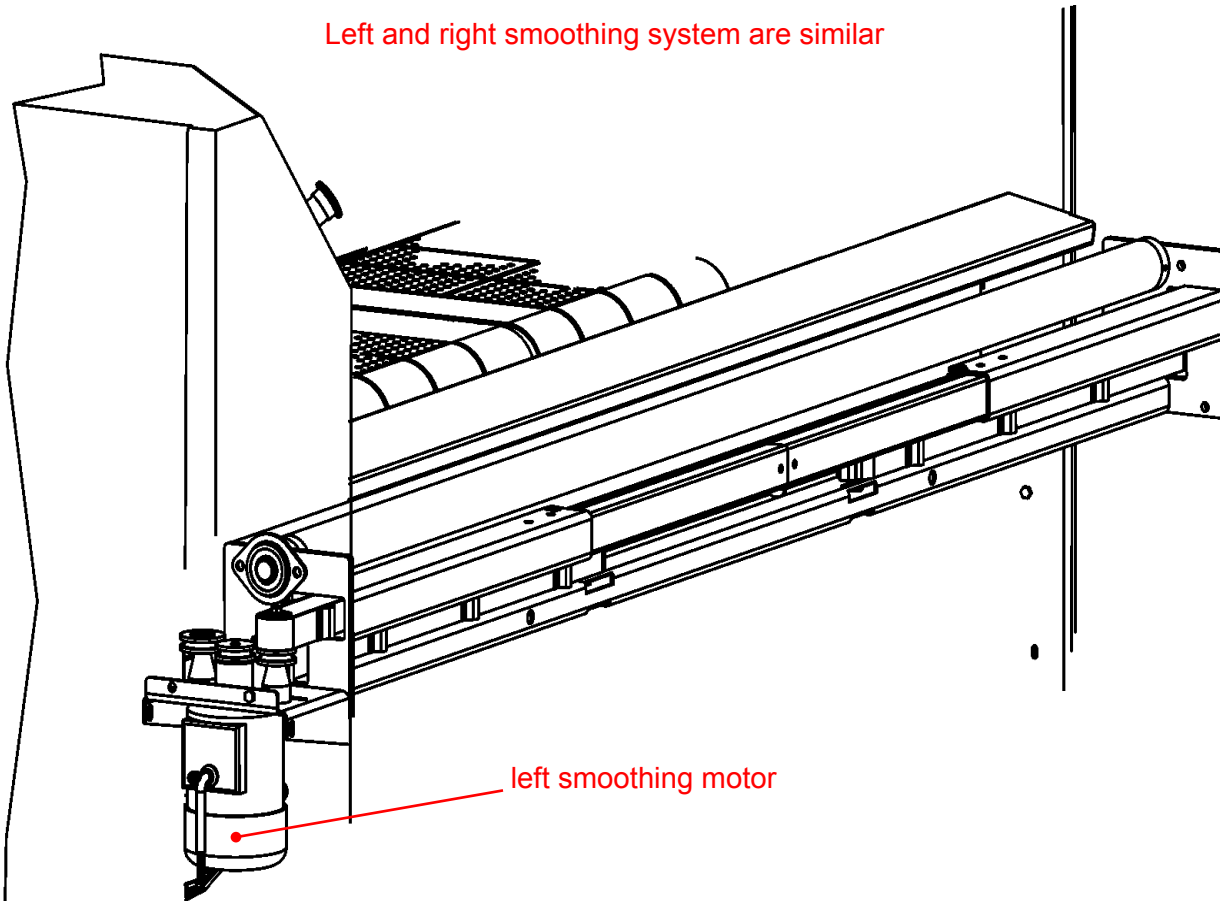
***Motor reducer :* M3**

Checking
- Check the wiring.
- Power on the machine, check that the evacuation table is activated when actuating the KM4 contactor manually. Otherwise, the motor reducer is faulty.

Replacing
- Remove the machine's left cover.
- Loosen the chain by untightening the motor reducer bracket.
- Remove the chain from the motor reducer.
- Remove the bracket + motor reducer assembly.
- Remove the motor reducer from its bracket.
- Fit the new motor reducer on the bracket.
- Refit the bracket + motor reducer assembly while refitting the chain.
- Tighten the chain while adjusting the bracket.
- Close the cover.

Service Manual

Service Manual



DESCRIPTION :

The system « smoothing » includes the following elements :

* 2 Moteurs : **M3 & M4**

* 1 Contacteur : **KM203**

* 1 Inductive detector : **B203**

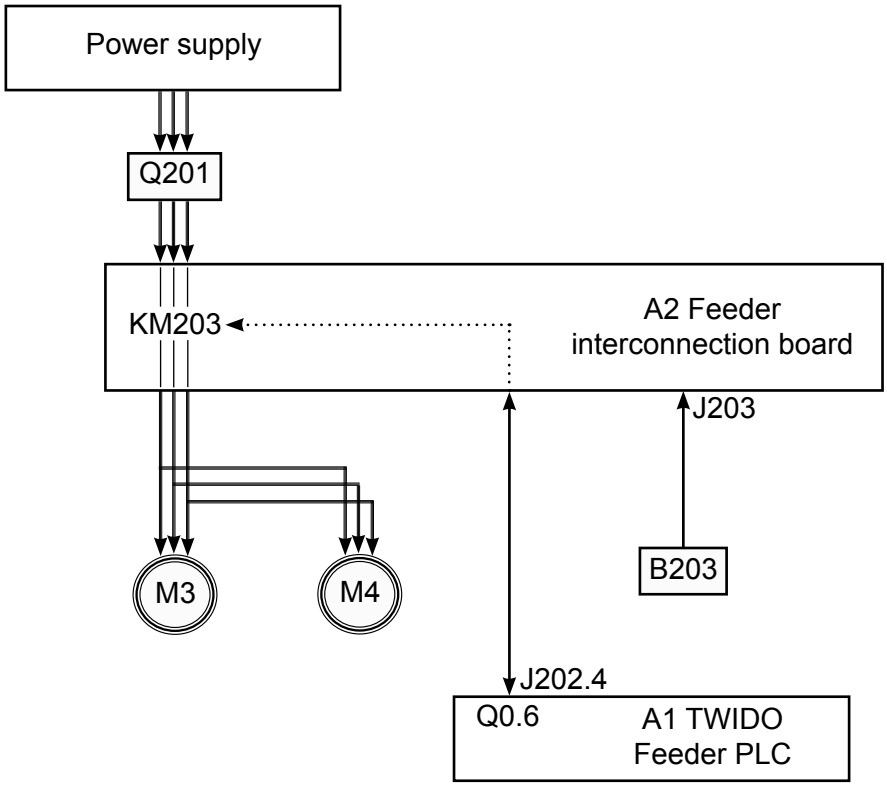
* 1 PLC : **TWIDO A1**

The M3 and M4 smmothing motors are fitted on each side of the machine. They are accessible by removing the right and left covers on the feeder.

The KM203 contactor is fitted on the A2 feeder interconnection board. It is accessible by removing the feeder's left cover.

The induction detector B203 is fitted on the smoothing bracket. It is accessible by the front of the machine

The TWIDO PLC is fitted in the feeder's electric cabinet. It is accessible by removing the machine's left cover.



OPERATION :

Smoothing motors : ***M3 & M4***

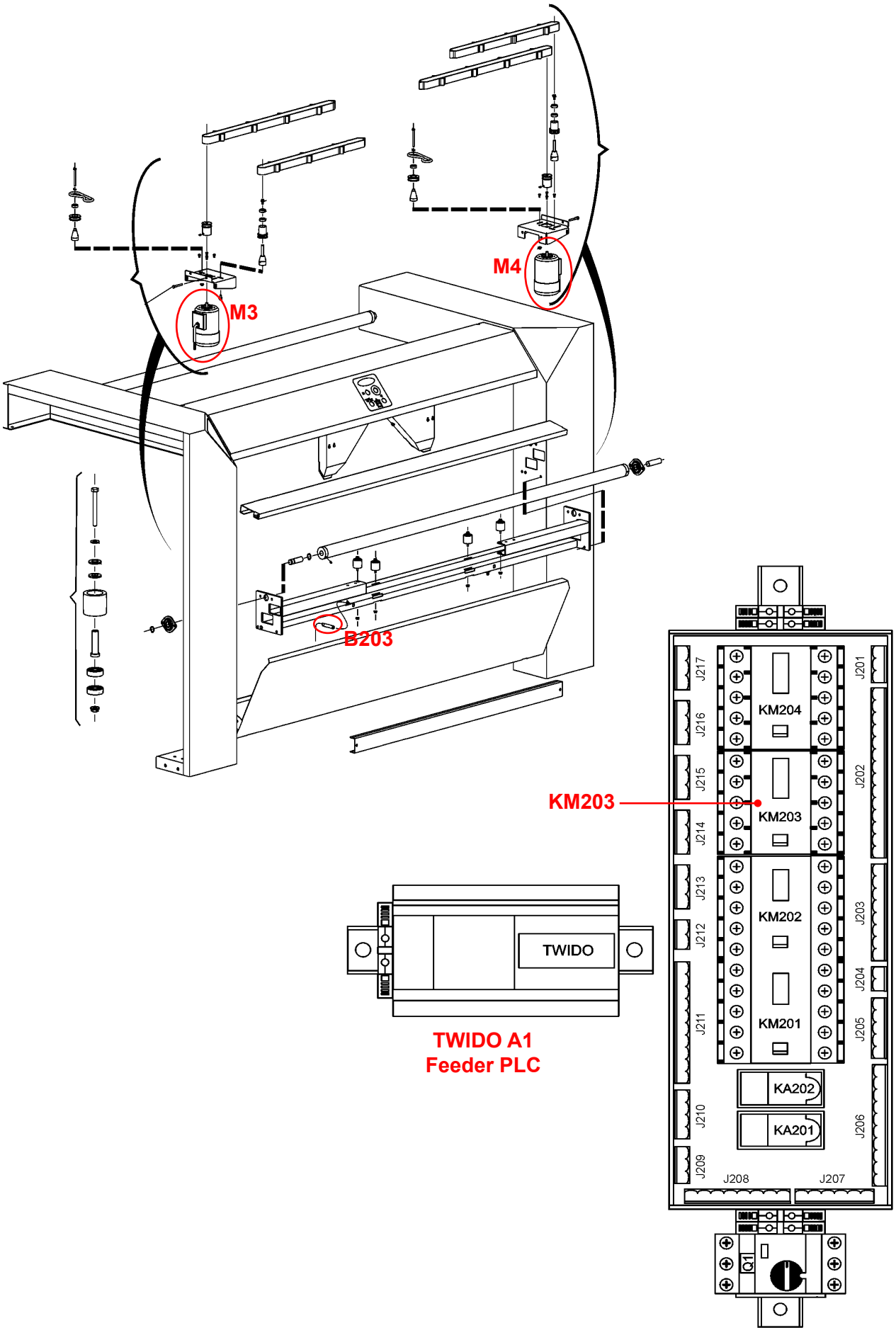
Connected to the A2 feeder interconnection board (J215 and J214), the M3 and M4 motors are powered on and off by the KM203 contactor.

Contactor : ***KM203***

Connected to the A2 feeder interconnection board, the KM203 contactor is controlled by the Q0.6 output on the A1 feeder PLC and powers on and off the M3 and M4 smoothing motors.

Inductive detector : ***B203***

Connected to the A2 feeder interconnection board (J209), the induction detector allows the A1 feeder PLC to stop smoothing.


M3
M4
B203
KM203
TWIDO
TWIDO A1
Feeder PLC
KM204
KM203
KM202
KM201
KA202
KA201
Q1
J201
J202
J203
J204
J205
J206
J207
J208
J209
J210
J211
J212
J213
J214
J215
J216
J217

REPAIR :

***Smoothing motors :* M3 & M4**

Checking
- Check the wiring.
- Power on the machine, supply the coil on the KM2 contactor manually, and check that the motors are running. Otherwise, the motors are faulty.

Replacing
- Remove the left cover..
- Remove the belts.
- Disconnect the motor's power supply cables.
- Remove the motor from its bracket and fit a new one.
- Reconnect the power supply cables onto the new motor.
- Refit the belts.
- Close the cover.

***Contactor :* KM203**

Checking
- Check the wiring.
- Power on the machine, supply the contactor coil manually, and check that the M3 and M4 motors are running. Otherwise, the contactor is faulty.

Replacing
- Remove the left cover.
- Disconnect all the cables connected on the A2 feeder interconnection board.
- Change the A2 feeder interconnection board.
- Refit the parts in the reverse sequence.

***Inductive detector :* B203**

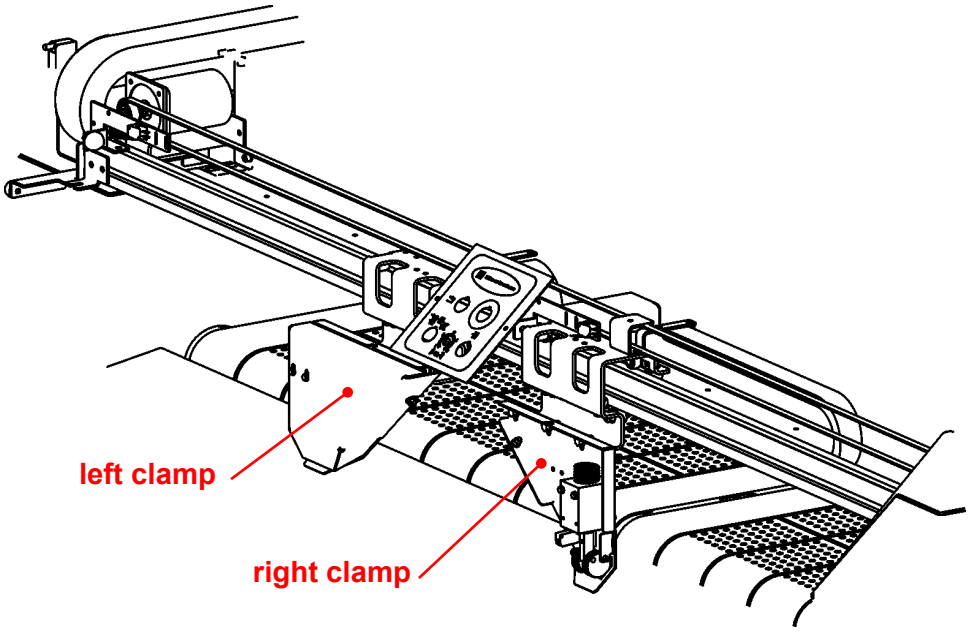
Checking
- Check the wiring.
- Power on the machine, hide the detector, and check that the indicator for the I0.12 input for A1 feeder PLC is lit. Otherwise, the detector is faulty.

Replacing
- Remove the detector from the smoothing bracket.
- Disconnect the cables from the detector on the A2 feeder interconnection board.
- Fit the new detector
- Connect the cables of the new detector on the A2 feeder interconnection board.

Cell calibration
- Power on the machine.
- Place an object about 7 cm away from the cell.
- Press the cell button for at least 10 seconds.
- If the indicator on the cell is lit when an object is set at 7 cm away from the cell, this means the setting is OK

Service Manual

Service Manual



DESCRIPTION :

The system « Feeding clamps » includes the following elements :

* 2 Electromagnets : **E1 & E2**

* 2 Relays : **KA1 & KA2**

* 2 Inductive detectors : **B201 & B202**

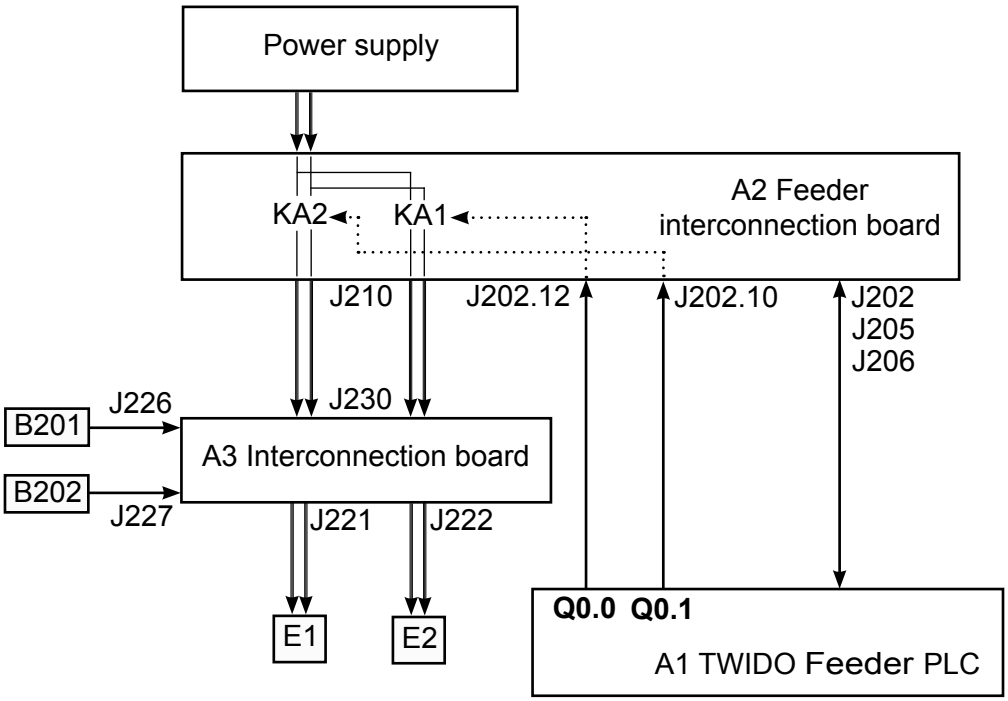
* 1 PLC : **TWIDO A1**

The E1 and E2 electromagnets are fitted on the feeding clamps. They are accessible by removing the protection covers on the clamps

The KA1 and KA2 relays are fitted on the A2 feeder interconnection board. They are accessible by removing the feeder's left cover.

The B201 and B202 induction detectors are fitted on the feeding clamps. They are accessible by removing the protection covers on the clamps

The TWIDO PLC is fitted in the feeder's electric cabinet. It is accessible by removing the machine's left cover.



OPERATION :

Electromagnets : E1 & E2

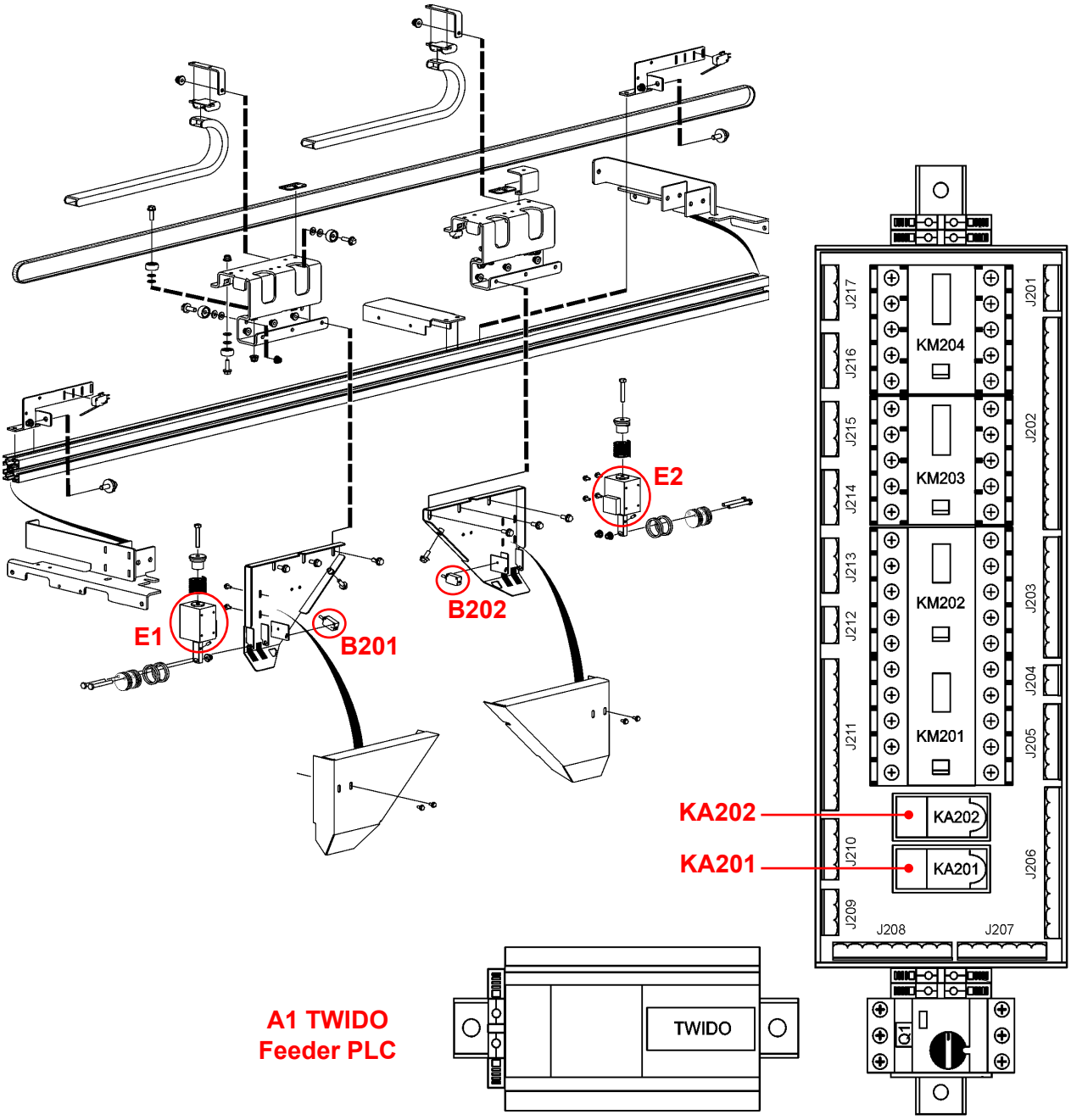
Connected to the A3 interconnection board (J221 and J222), the E1 and E2 electromagnets are powered on and off by the KA1 and KA2 relays. They hold the sheet on the feeding clamps

Relays : KA1 & KA2

Connected to the A2 feeder interconnection board, the KA1 and KA2 relays are controlled by the Q0.0 and Q0.1 outputs on the A1 feeder PLC. They power on and off the E1 and E2 electromagnets.

Inductive detectors : B201 & B202

Connected to the A2 feeder interconnection board (J226 and J227), the induction detectors are used by the A1 feeder PLC to control the E1 and E2 electromagnets.



REPAIR :

***Electromagnets :* E1 & E2**

Checking
- Check the wiring.
- Using a multimeter, check the coil's ohmic value. If it equals 0, the electromagnet is faulty.

Replacing
- Remove the protection cover from the clamp having a faulty electromagnet.
- Disconnect the cables from the electromagnet.
- Remove the electromagnet and replace.
- Refit the parts in the reverse sequence.

***Relays :* KA1 & KA2**

Checking
- Check the wiring.
- Power on the machine, supply the relay coil, and check the contacts. If the contacts do not stick, the relay is faulty

Replacing
- Remove the machine's left cover.
- Disconnect the cables from the A2 feeder interconnection board.
- Change the A2 feeder interconnection board.
- Refit the parts in the reverse sequence.

***Inductive detectors :* B201 & B202**

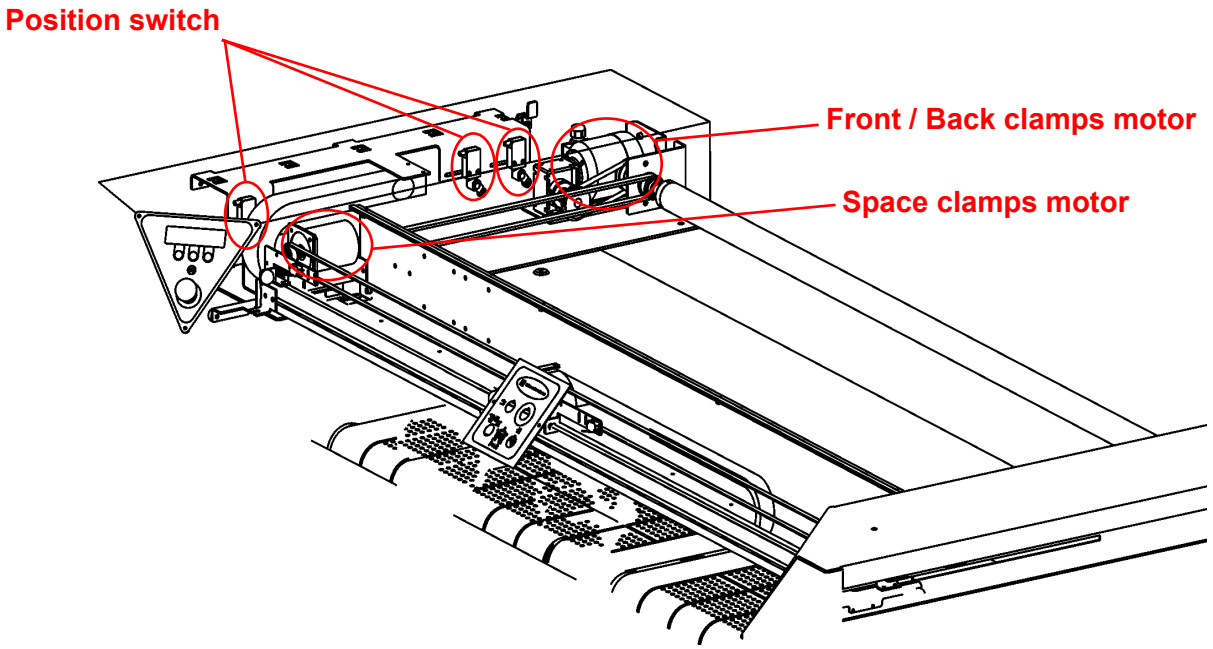
Checking
- Check the wiring.
- Power on the machine, check that the detector indicator is lit when a presence is detected. Otherwise, the detector is faulty

Replacing
- Remove the protection cover on the clamp with a faulty detector.
- Disconnect the cables from the detector.
- Remove the detector and fit a new one.
- Remonter les pièces dans l'ordre inverse.
- Adjust the new detector.

Adjusting the detector
- Place a presence at about 1 cm behind the clamp and adjust the detector to detect this presence

Service Manual

Service Manual



DESCRIPTION :

The system « Feeding motion » includes the following elements :

* 5 Position switchs : **FC4, FC5, FC201, FC202 & FC203**
* 1 Indicator (default) : **H201**
* 3 Pushbuttons : **BP3, BP201 & BP202**
* 1 switch 3 positions : **S201**
* 1 Potentiometer : **P1**
* 1 Motor : **M2**
* 1 Motor-reducer : **M1**
* 1 PLC : **TWIDO A1**
* 2 Contactors : **KM201 & KM202**

The FC4 and FC5 position switchs are fitted on the clamp guiding rail. They are accessible by removing the guiding rail's protection cover.

The FC201, FC202, and FC203 position switchs are fitted on the switch bracket. They are accessible by removing the machine's left cover.

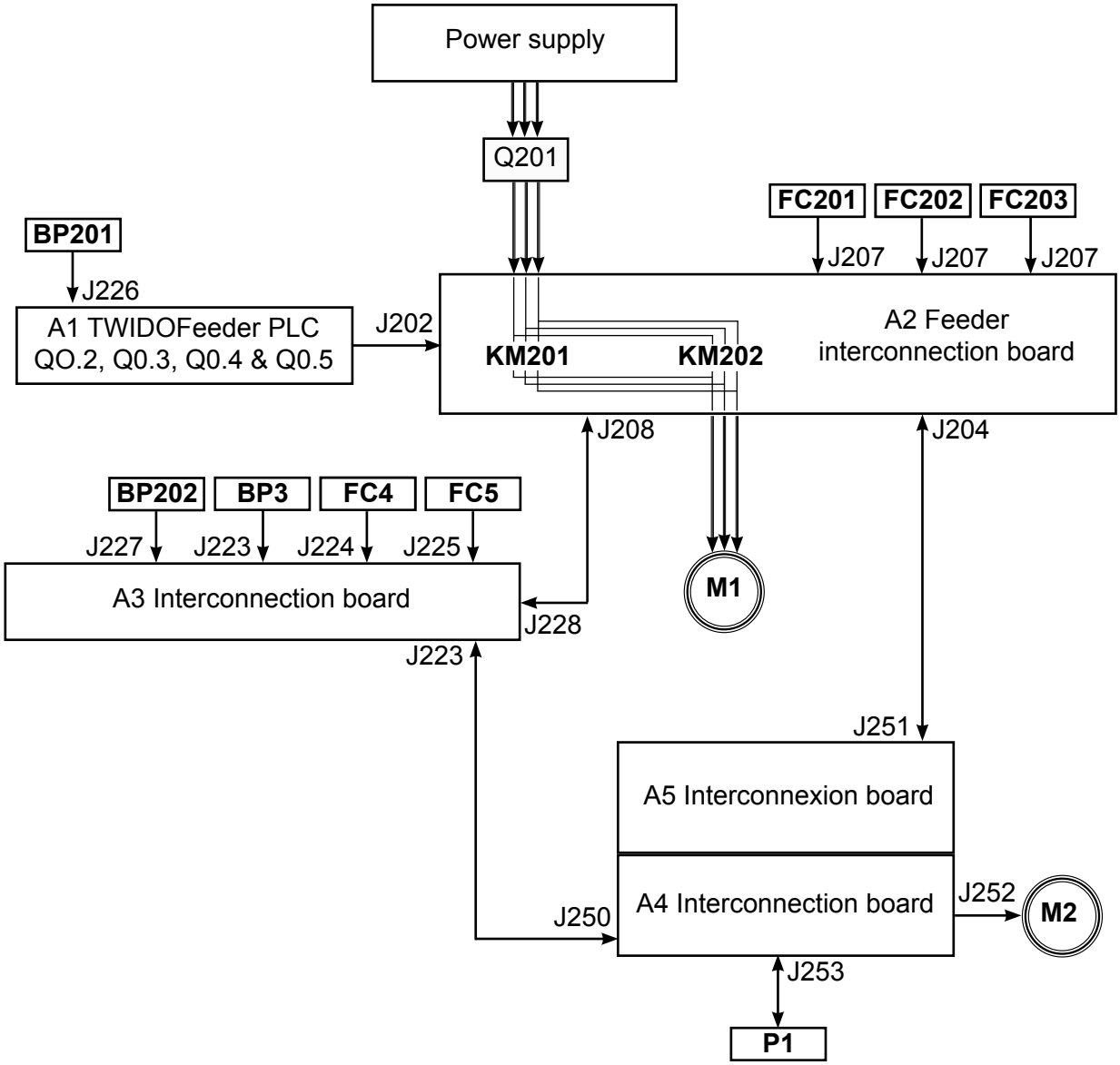
The H201 indicator, the BP3, BP201, BP202 pushbuttons, the 3-position switch and the P1 potentiometer are fitted on the feeder's control panel.

The M1 motor reducer is fitted on the machine's frame. It is accessible by removing the machine's left cover.

The M2 motor is fitted on the clamp guiding rail. It is accessible by removing the guiding rail's protection cover.

The KM201 and KM202 contactors are fitted on the A2 feeder interconnection board. They are accessible by removing the machine's left cover.

The TWIDO PLC is fitted in the feeder's electric cabinet. It is accessible by removing the machine's left cover.



OPERATION :

<u>Position switchs :</u> FC4, FC5, FC201, FC202 & FC203

Connected to the A3 interconnection board (J224), the FC4 end stop is used by the A1 feeder PLC to detect the clamps position when opening up.

Connected to the A3 interconnection board (J225), the FC5 position switch is used by the A1 feeder PLC (I0.9) to detect the position of the claws when they are closing.
Connected to the A2 feeder interconnection board (J207A), the FC201 position switch is used by the A1 feeder PLC (I0.5) to detect the end stop of the feeding carriage in the « clamps forward » mode.
Connected to the A2 feeder interconnection board (J207B), the FC202 position switch is used by the A1 feeder PLC (I0.6) to detect the end stop of the feeding carriage in the « clamps centred » mode.
Connected to the A2 feeder interconnection board (J207C), the FC203 position switch is used by the A1 feeder PLC (I0.7) to detect the end stop of the feeding carriage in the « clamps back » mode.

***Pushbutton indicator :* BP202 / H201**

Connected to the A3 interconnection board (J223), the H201/BP202 pushbutton indicator is used to notify the operator of a fault on the feeder and reset the feeder by pressing it.

***Pushb utton :* BP3 & BP201**

Connected to the A3 interconnection board (J223), the BP3 pushbutton is used by the A1 feeder PLC (I0.0) to stop the machine at any time.
Connected to the A3 interconnection board (J223), the BP201 pushbutton is used by the A1 feeder PLC (I0.1) to start the feeder cycle.

***Switch 3 positions :* S201**

Connected to the A3 interconnection board (J223), the S201 switch is used by the A1 feeder PLC (I0.3 & I0.4) to select 3 different operating modes for the feeder : mode with feeding, mode with semi-automatic feeding, and mode without feeding.

***Potentiometer :* P1**

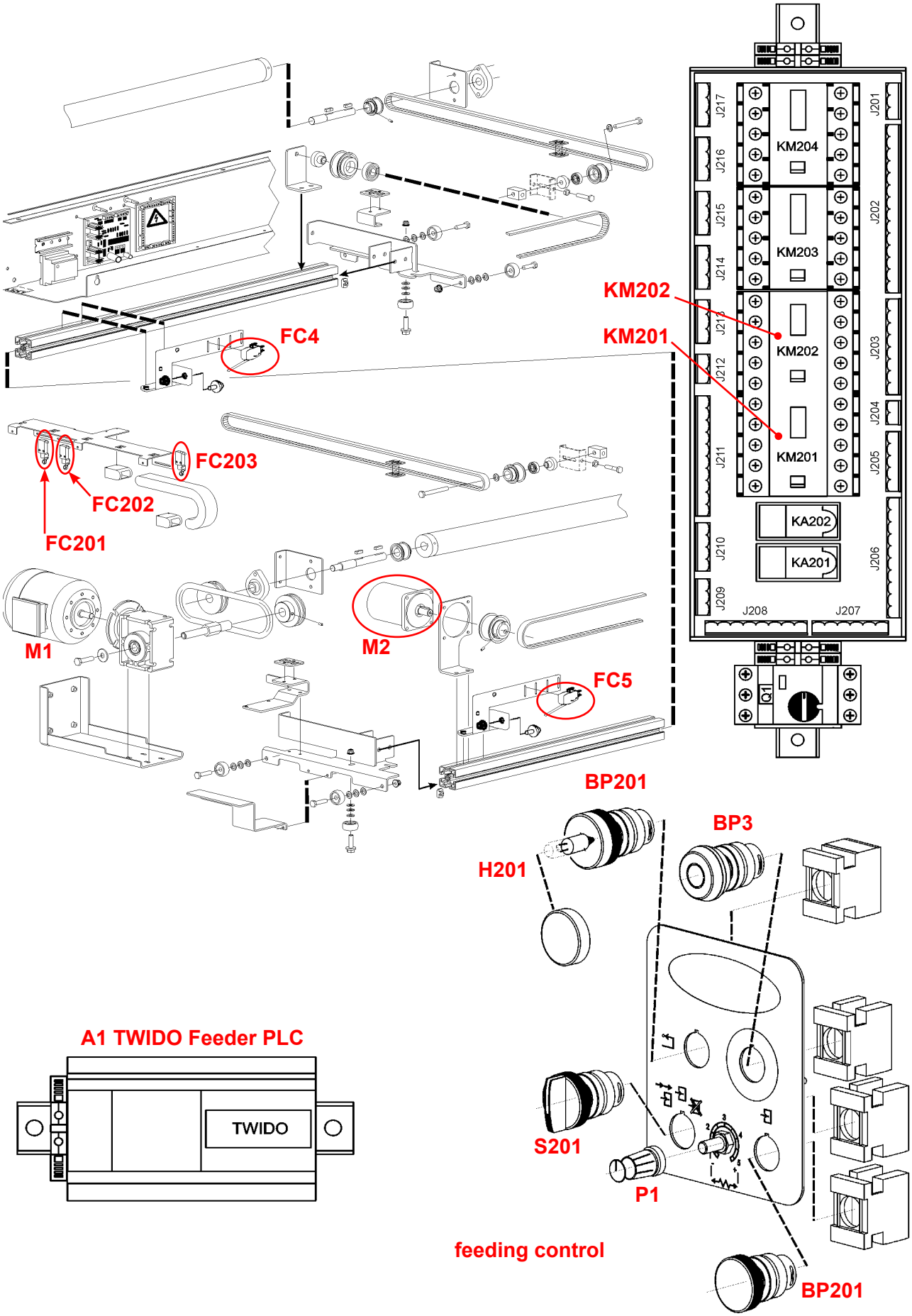
Connected to the A4 interconnection board (J253), potentiometer P1 is used to adjust the clamp strength.

***Motors :* M1 & M2**

Connected in the A4 interconnection board (J252), motor M2 is powered on and off by output Q0.4 on the A1 feeder PLC. It is used to open and close the clamps.
Connected to the A2 feeder interconnection board (J213), the M1 motor reducer is powered on and off by the KM201 and KM202 contactors. It is used to push and pull the clamps to lay the sheet on the feeding table.

***Contactors :* KM201 & KM202**

Connected to the feeder interconnection board A2, the KM201 and KM202 contactors are controlled by the Q0.2 and Q0.3 outputs on the A1 feeder PLC. They are used to power the M1 motor on and off.


FC4
KM202
KM201
FC203
FC202
FC201
M1
M2
FC5
KM204
KM203
KM202
KM201
KA202
KA201
Q1
J201
J202
J203
J204
J205
J206
J207
J208
J209
J210
J211
J212
J213
J214
J215
J216
J217
BP201
BP3
H201
A1 TWIDO Feeder PLC
TWIDO
S201
P1
feeding control
BP201

REPAIR :

***Position switchs :* FC4, FC5, FC201, FC202 & FC203**

Checking
- Check the wiring.
- Power on the machine, actuate the end stops manually one by one, and check on the A1 feeder PLC that the indicator for the end stop actuated is lit. If the indicator corresponding to the end stop actuated is not lit, the end stop actuated is faulty.

- Correspondence of the A1 feeder PLC indicators :

FC4	->	I0.8	FC201	->	I0.5
FC5	->	I0.9	FC202	->	I0.6
			FC203	->	I0.7

Replacing the FC4 and FC5 position switchs
- Remove the protection cover from the clamp guiding rail.
- Disconnect the cables from the faulty end stop.
- Remove the end stop detector from its bracket.
- Fit the new detector on the bracket.
- Refit the parts in the reverse sequence.

***Pushbutton indicator :* BP202 / H201**

Checking
- Check the wiring.
- Check the condition of the lamp’s filament.

Replacing the H201 indicator
- Remove the protection cover from the clamp guiding rail.
- Disconnect the cables from the pushbutton.
- Remove the pushbutton.
- Replace the indicator or button according to the fault.
- Refit the parts in the reverse sequence.

***Pushbutton :* BP3 & BP201**

Checking the BP3 pushbutton
- Check the wiring.
- Using a multimeter, check the pushbutton’s continuity when it is actuated.

Replacing
- Remove the protection cover from the clamp guiding rail.
- Disconnect the cables from the pushbutton.
- Remove the pushbutton and fit a new one.
- Refit the parts in the reverse sequence.

***Switch 3 positions :* S201**

Checking
- Check the wiring.
- Using a multimeter, check the pushbutton’s continuity when it is actuated.

Replacing
- Remove the protection cover from the clamp guiding rail.
- Disconnect the cables from the switch.
- Remove the switch and fit a new one.
- Refit the parts in the reverse sequence.

Potentiometer : P1

Checking
- Check the wiring.
- Using an ohmmeter, check that the value of the potentiometer varies when it is modified. Otherwise, the potentiometer is faulty.

Replacing
- Remove the protection cover from the clamp guiding rail.
- Disconnect the cables from the potentiometer.
- Remove the potentiometer and fit a new one.
- Reconnect the cables
- Refermer le carter.

Contactors : KM201 & KM202

Checking
- Check the wiring.
- Supply manually the coil of the contactors and check that the contacts stick. Otherwise, the contactors are faulty.

Replacing
- Remove the left cover from the machine.
- Disconnect all the cables connected to the A2 feeder interconnection board.
- Change the A2 feeder interconnection board.
- Refit the parts in the reverse sequence

Motors : M1 & M2

Checking M1
- Check the wiring.
- Power on the machines, actuate manually the KM201 and KM202 contactors, and check that the M1 motor is started. Otherwise, the motor is faulty

Replacing M1
- Remove the left cover from the machine.
- Disconnect the supply wires of the motor.
- Remove the drive belt between the reducer and the control satellite.
- Remove the motor reducer bracket from the frame.
- Remove the motor and reducer from the bracket.
- Fit the new motor with the reducer.
- Refit the parts in the reverse sequence

Checking M2
- Check the wiring.
- Check the condition of the 4 carbons in the motor.

Replacing M2
- Remove the protection cover from the feeding clamps guiding rail.
- Disconnect the supply wires from the motor.
- Remove the belt.
- Remove the motor driving pulley.
- Remove the motor from the bracket.
- Fit the new motor.
- Refit the parts in the reverse sequence.

Replacing the carbons
- Remove the motor from the machine's frames.
- Remove the plastic protection of the carbon using a screwdriver.
- Pull the carbon from its housing and fit a new one.
- Refit the parts in the reverse sequence.

1 

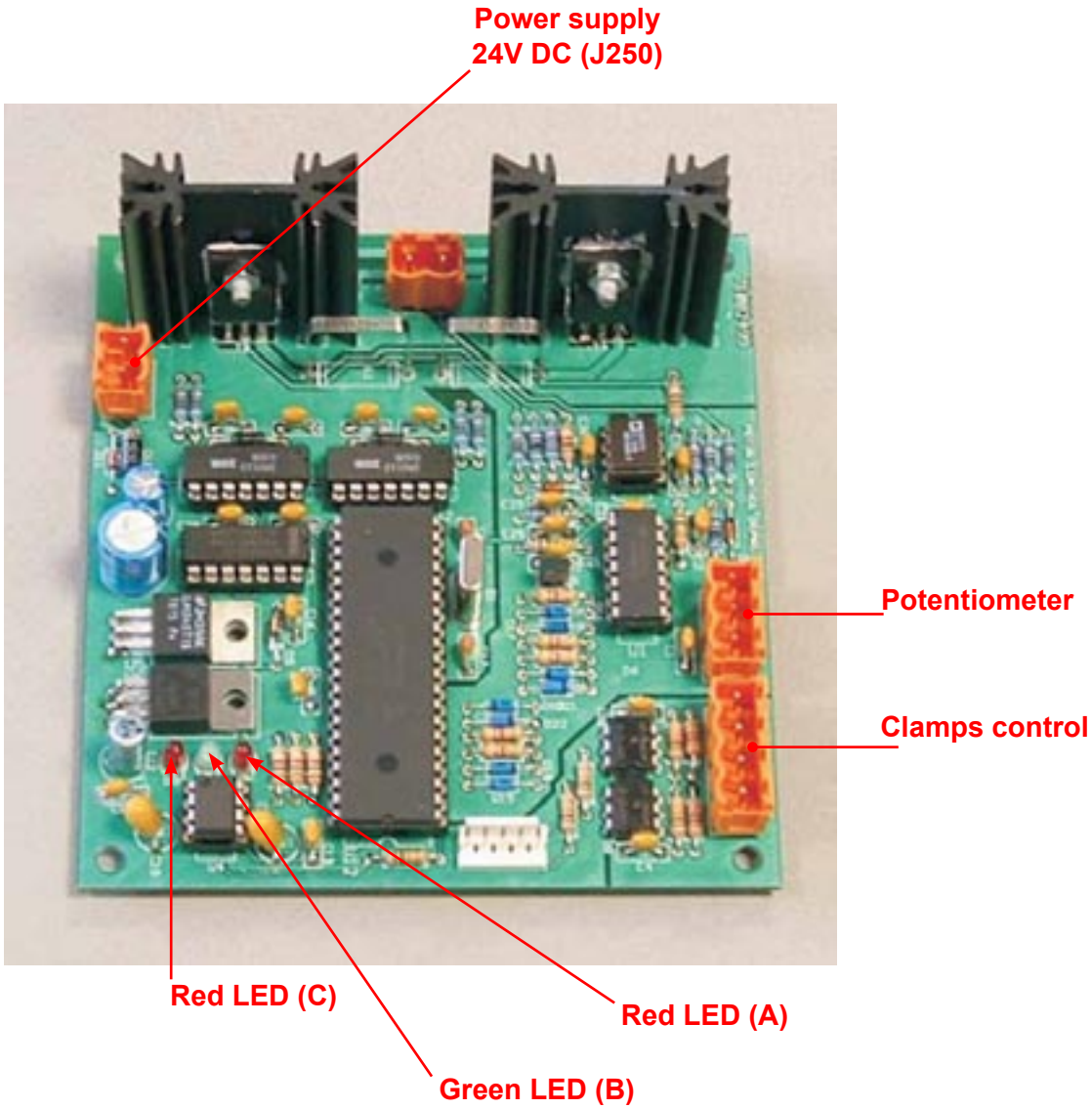
2 

3 

4 

5 

A4 & A5 clamps mouvement control board :



LEDs signification :

Red LED A:	light = speed regulation activated
Green LED B:	blinking = normal operation light permanent = fault off = no supply
Red LED C:	light = regulation activated
Checking	- Check LEDs functioning - Check the supply (24V) from the J250 terminals.

Service Manual

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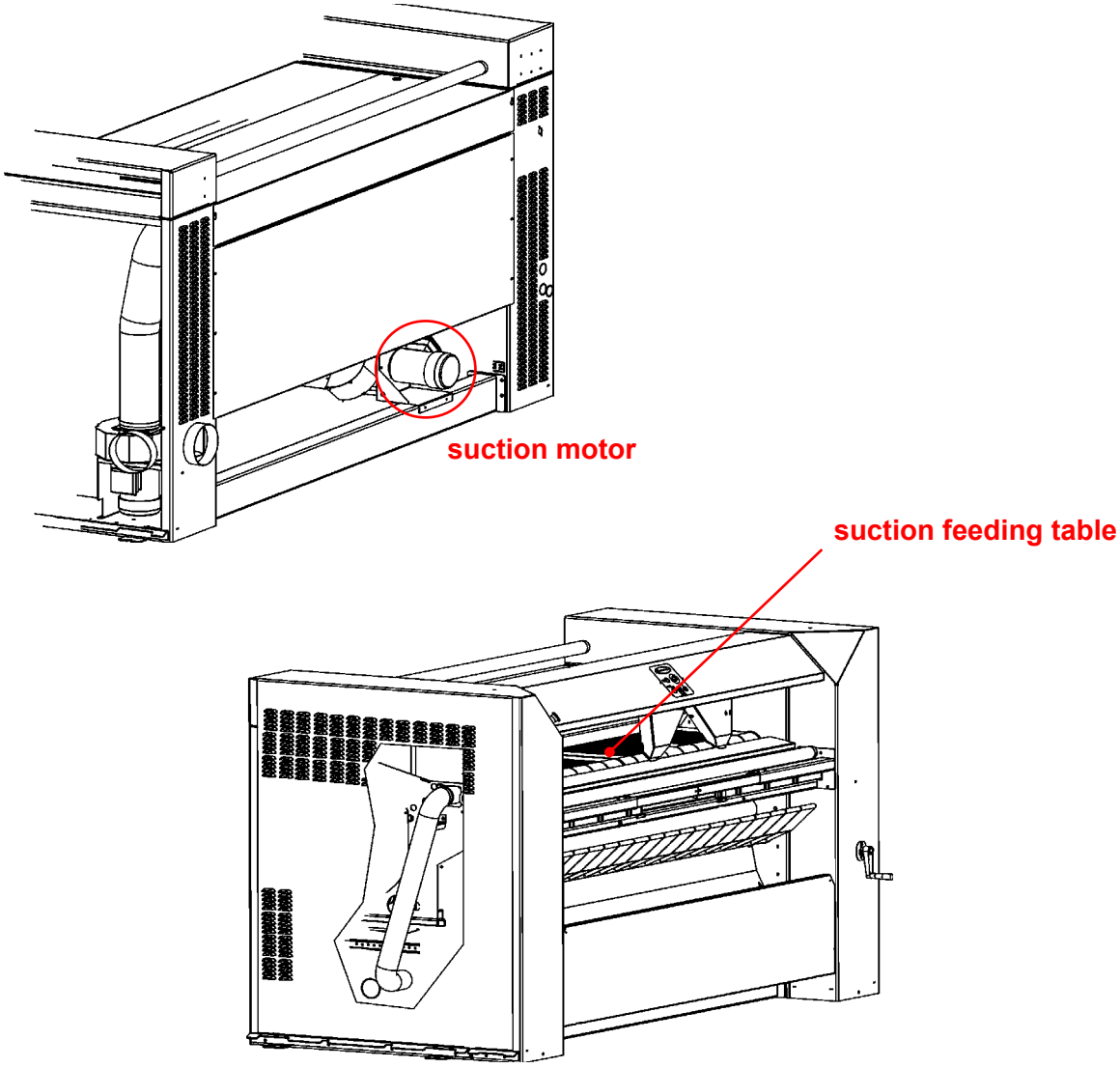


DESCRIPTION :

The system « Suction feeding table » includes the following elements :

* 1 Motor : **M5 (+** M6 for cylinder = 3.2m)

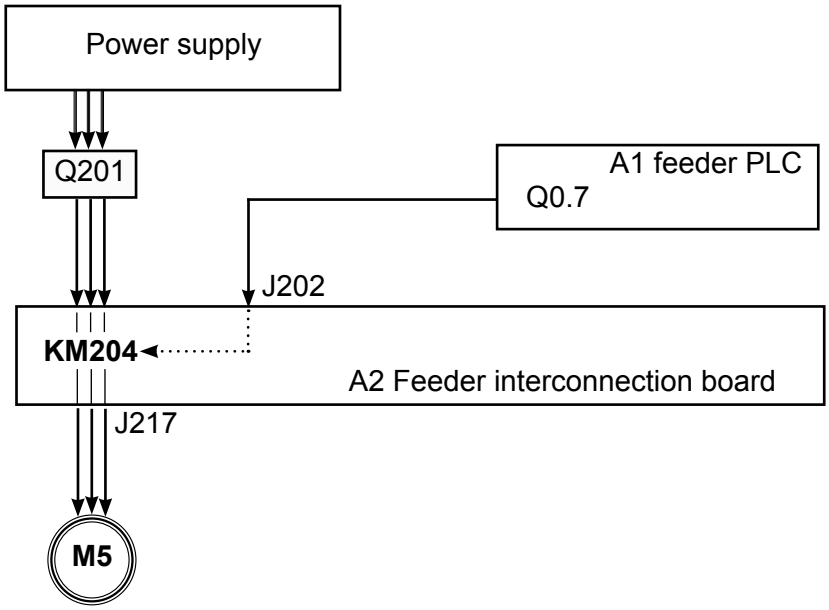
* 1 Contactor : **KM204**

* 1 PLC : **TWIDO A1**

Motor M5 is fitted on the stringer. It is accessible by the back of the machine.

Contactor KM204 is fitted on the A2 feeder interconnection board. It is accessible by removing the machine's left cover.

The TWIDO PLC is fitted in the feeder's electric cabinet. It is accessible by removing the machine's left cover.



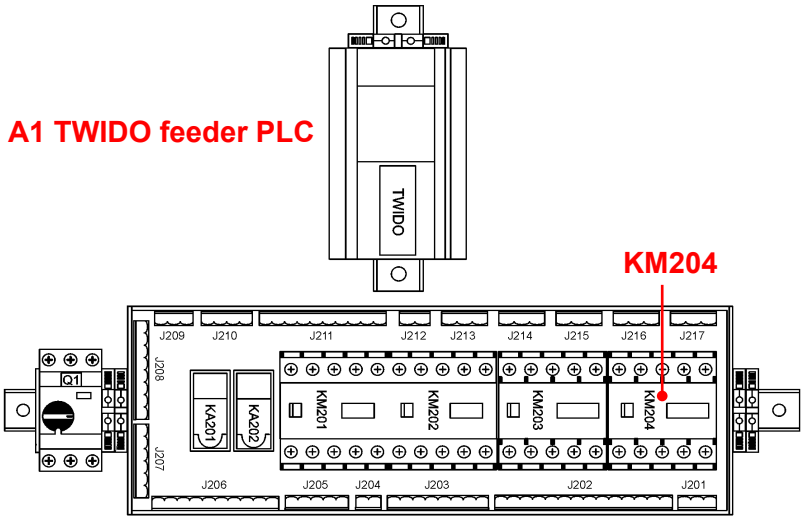
OPERATION :

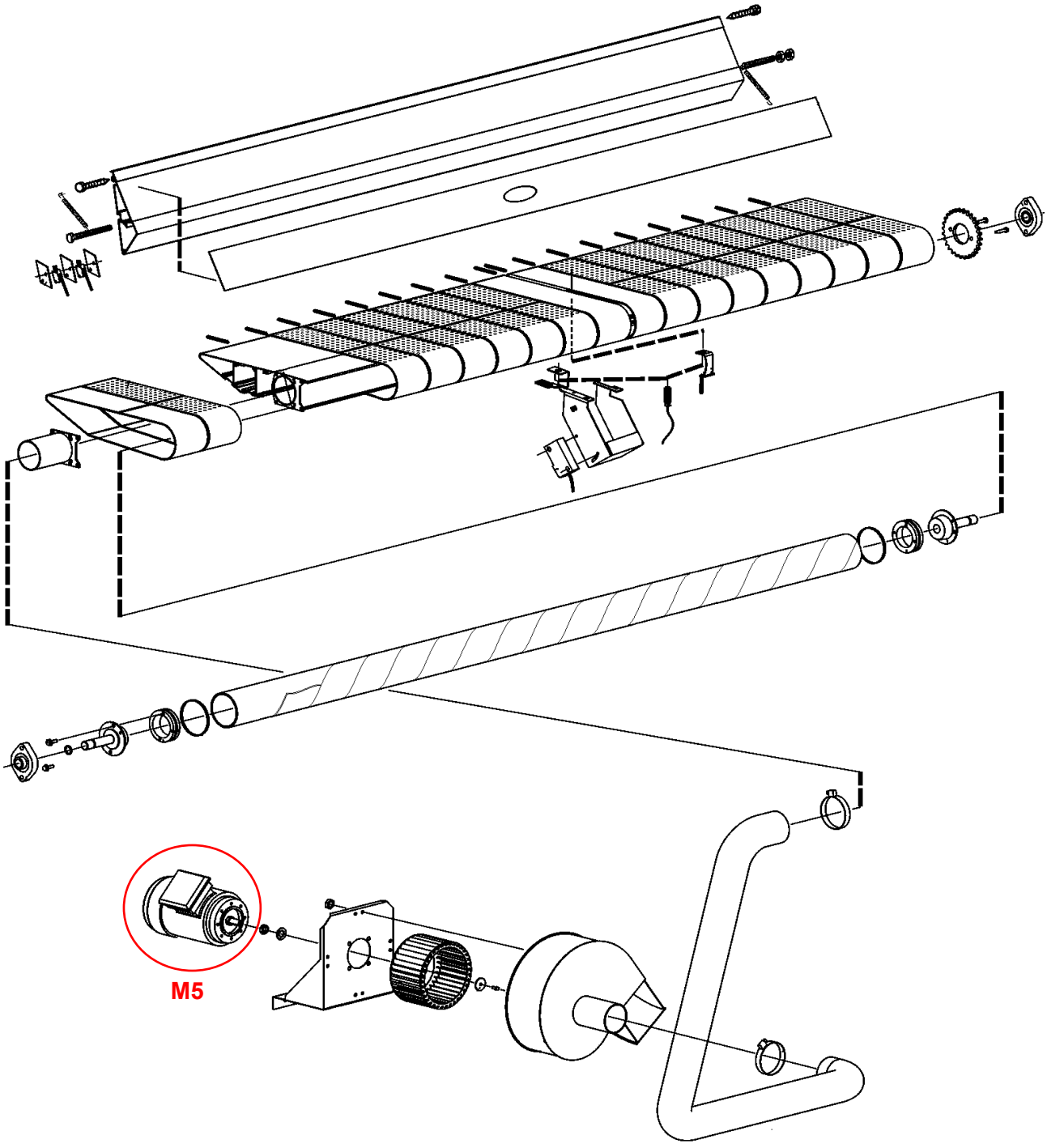
Suction motor : ***M5***

Connected to the A2 feeder interconnection board (J217), the M5 suction motor is powered on and off by the KM204 contactor. It is used to hold the sheet on the feeding table by suction.

Contactor : ***KM204***

Fitted on the A2 feeder interconnection board, the KM204 contactor is controlled by the Q0.7 output on the A1 feeder PLC. It is used to power on and off ventilation motor M5.





REPAIR :

Suction motor : ***M5***

Checking

- Check the wiring.
- Power on the machine, supply the coil on the KM204 contactor manually, and check the motor is running. Otherwise, the motor is faulty.

REPAIR :

Replacing
- Disconnect the cables from the motor.
- Remove the bracket + ventilation motor + stringer volute assembly from the machine.
- Remove the bracket volute.
- Remove the turbine.
- Remove the motor from the bracket and fit a new one
- Refit the parts in the reverse sequence.

Contactor : ***KM204***

Checking
- Check the wiring.
- Power on the machine, supply the contactor coil manually, and check proper operation of the contacts. If the contacts do not stick, the contactor is faulty.

Replacing
- Remove the left cover on the feeding system.
- Disconnect all the cables connected to the A2 feeder interconnection board
- Change the A2 feeder interconnection board.
- Refit the parts in the reverse sequence

Service Manual

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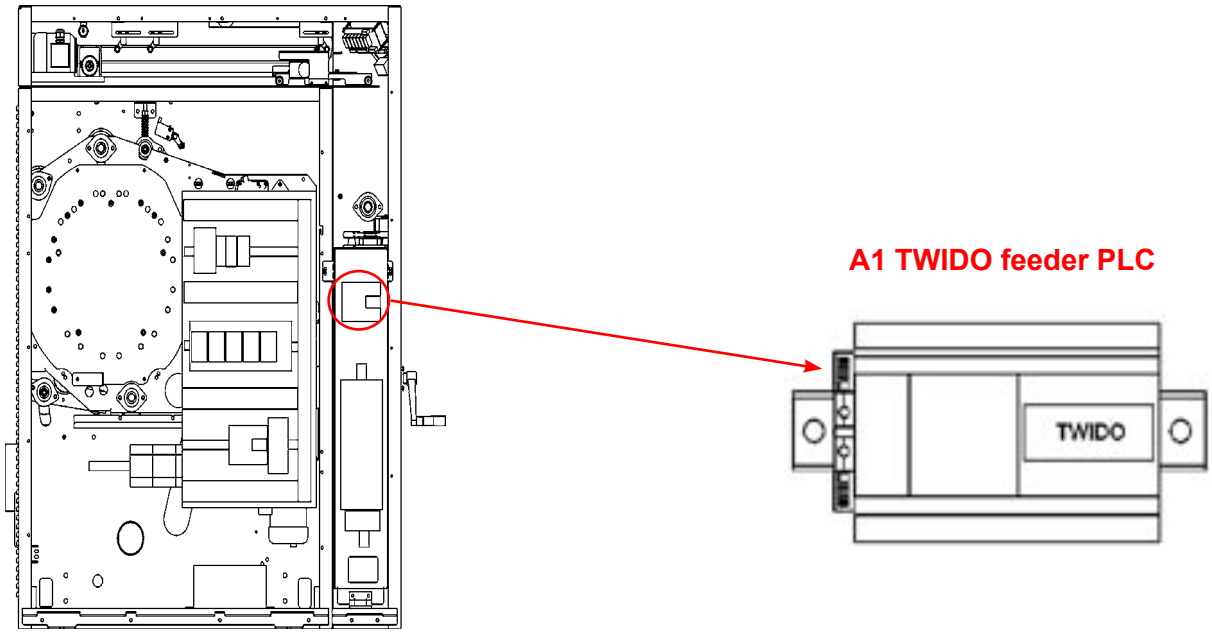


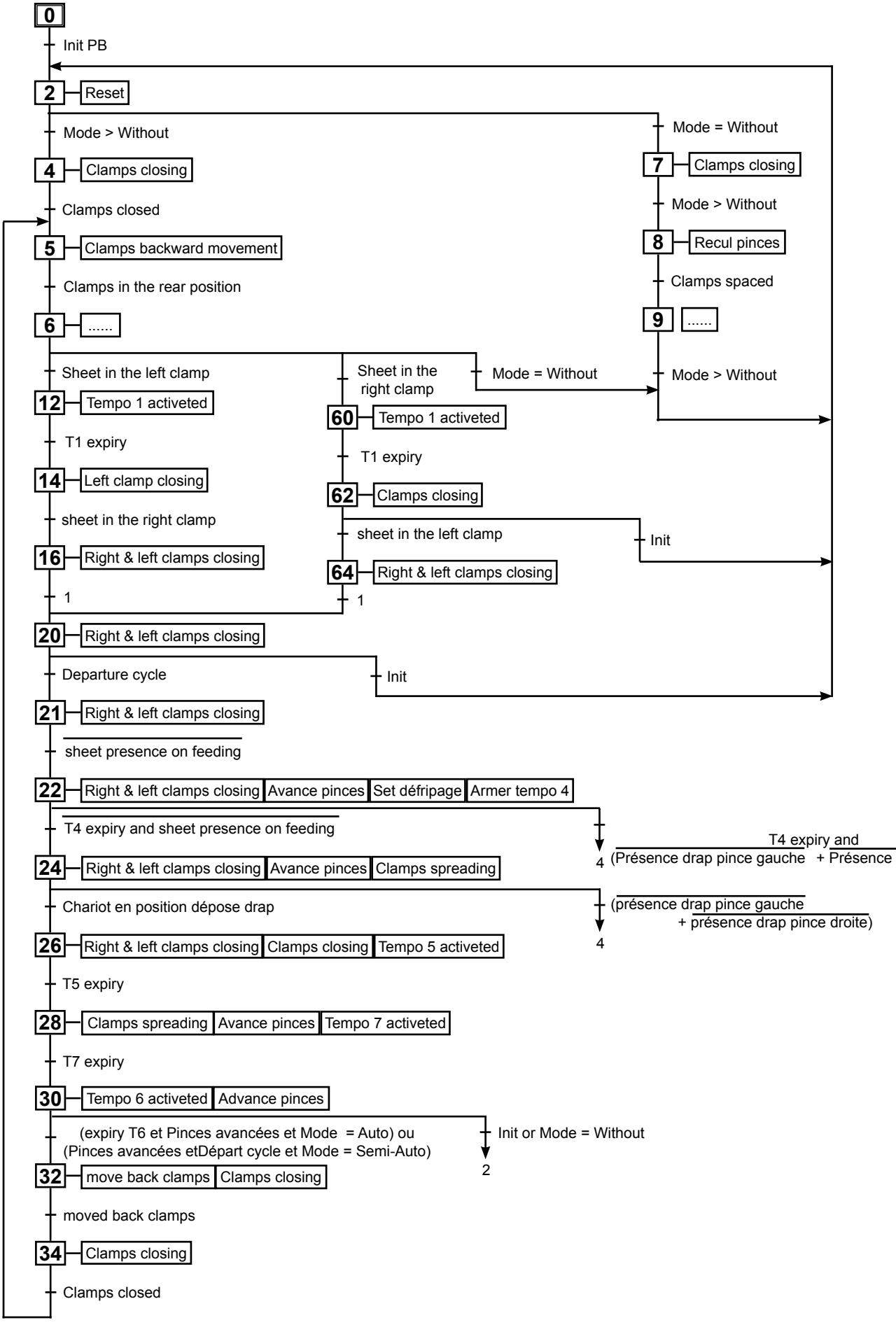
DESCRIPTION :

The TWIDO PLC is fitted in the feeder's electric cabinet. It is accessible by removing the machine's left cover.

OPERATION :

INPUTS/OUTPUTS FEEDER PLC :

Inputs :	**I0.0**	**: ARU**	**pushbutton**	**«Emergency stop»**
	I0.1	**: BP201**	**pushbutton**	**«Start cycle»**
	I0.2	**: BP202**	**pushbutton**	**«Initialisation»**
	I0.3	**: S201**	**3-position switch**	**«Feeding / position 1»**
	I0.4	**: S201**	**3-position switch**	**«Feeding / position 2»**
	I0.5	**: FC201**	**position switch**	**«Return clamps»**
	I0.6	**: FC202**	**position switch**	**«Lay sheet»**
	I0.7	**: FC203**	**position switch**	**«Clamps forward»**
	I0.8	**: FC4**	**position switch**	**«Clamps open»**
	I0.9	**: FC5**	**position switch**	**«Clamps close»**
	I0.10	**: B201**	**detector**	**«Left clamp»**
	I0.11	**: B202**	**detector**	**«Right clamp»**
	I0.12	**: B203**	**detector**	**«Smoothing»**
	I0.13	**: B6**	**detector**	**«Feeding sheet present»**
Outputs :	**Q0.0**	**: KA1**	**relay**	**«Close right clamp»**
	Q0.1	**: KA2**	**relay**	**«Close left clamp»**
	Q0.2	**: KM202**	**contactor**	**«Clamp back»**
	Q0.3	**: KM201**	**contactor**	**«Clamp forward»**
	Q0.4	**:**		**«Open clamps»**
	Q0.5	**:**		**«Close clamps»**
	Q0.6	**: KM203**	**contactor**	**«Start smoothing»**
	Q0.7	**: KM204**	**contactor**	**«Start Suction/Ventilation»**
	Q0.8	**: H201**	**indicator**	**«Fault indicator»**
	Q0.9	**:**	**free**	


0
Init PB
2
Reset
Mode > Without
Mode = Without
4
Clamps closing
7
Clamps closing
Clamps closed
Mode > Without
5
Clamps backward movement
8
Recul pinces
Clamps in the rear position
Clamps spaced
6
.....
9
.....
Sheet in the left clamp
Sheet in the right clamp
Mode = Without
Mode > Without
12
Tempo 1 activeted
60
Tempo 1 activeted
T1 expiry
T1 expiry
14
Left clamp closing
62
Clamps closing
sheet in the right clamp
sheet in the left clamp
Init
16
Right & left clamps closing
64
Right & left clamps closing
1
1
20
Right & left clamps closing
Departure cycle
Init
21
Right & left clamps closing
sheet presence on feeding
22
Right & left clamps closing
Avance pinces
Set défripage
Armer tempo 4
T4 expiry and sheet presence on feeding
4
T4 expiry and
(Présence drap pince gauche + Présence drap pince droit
24
Right & left clamps closing
Avance pinces
Clamps spreading
Chariot en position dépose drap
(présence drap pince gauche
+ présence drap pince droite)
4
26
Right & left clamps closing
Clamps closing
Tempo 5 activeted
T5 expiry
28
Clamps spreading
Avance pinces
Tempo 7 activeted
T7 expiry
30
Tempo 6 activeted
Advance pinces
(expiry T6 et Pinces avancées et Mode = Auto) ou
(Pinces avancées etDépart cycle et Mode = Semi-Auto)
Init or Mode = Without
2
32
move back clamps
Clamps closing
moved back clamps
34
Clamps closing
Clamps closed

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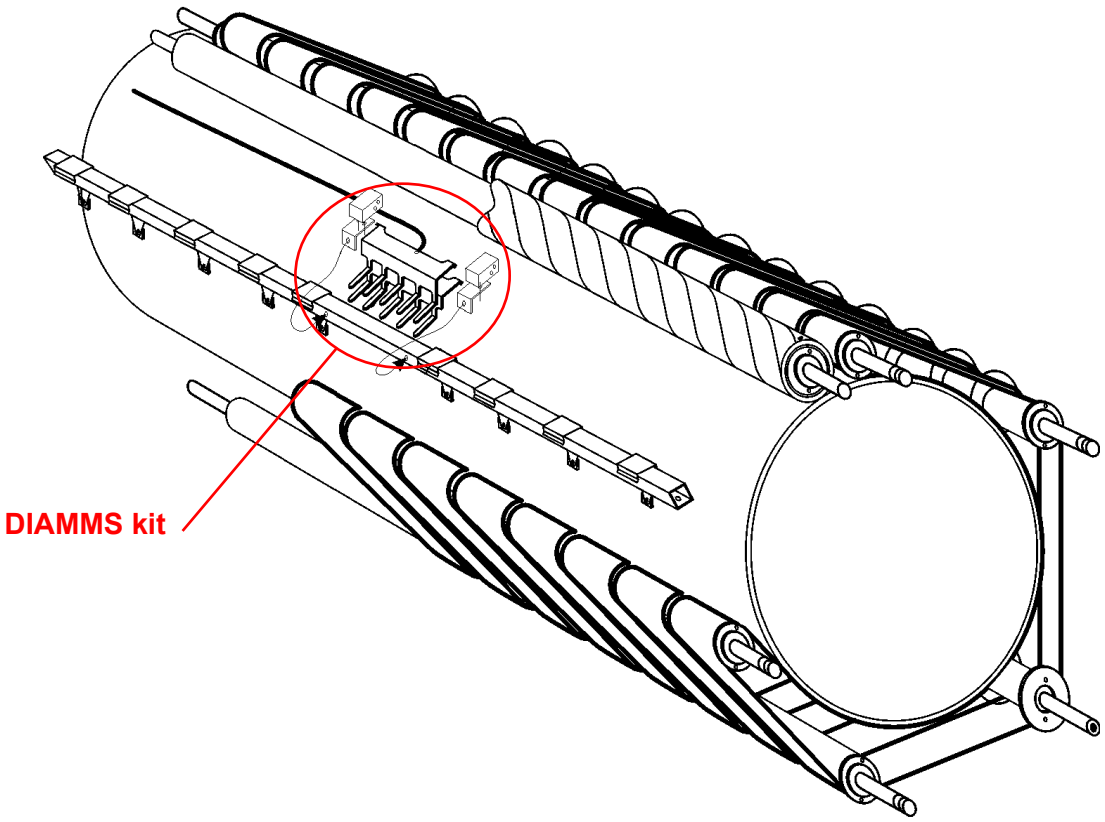


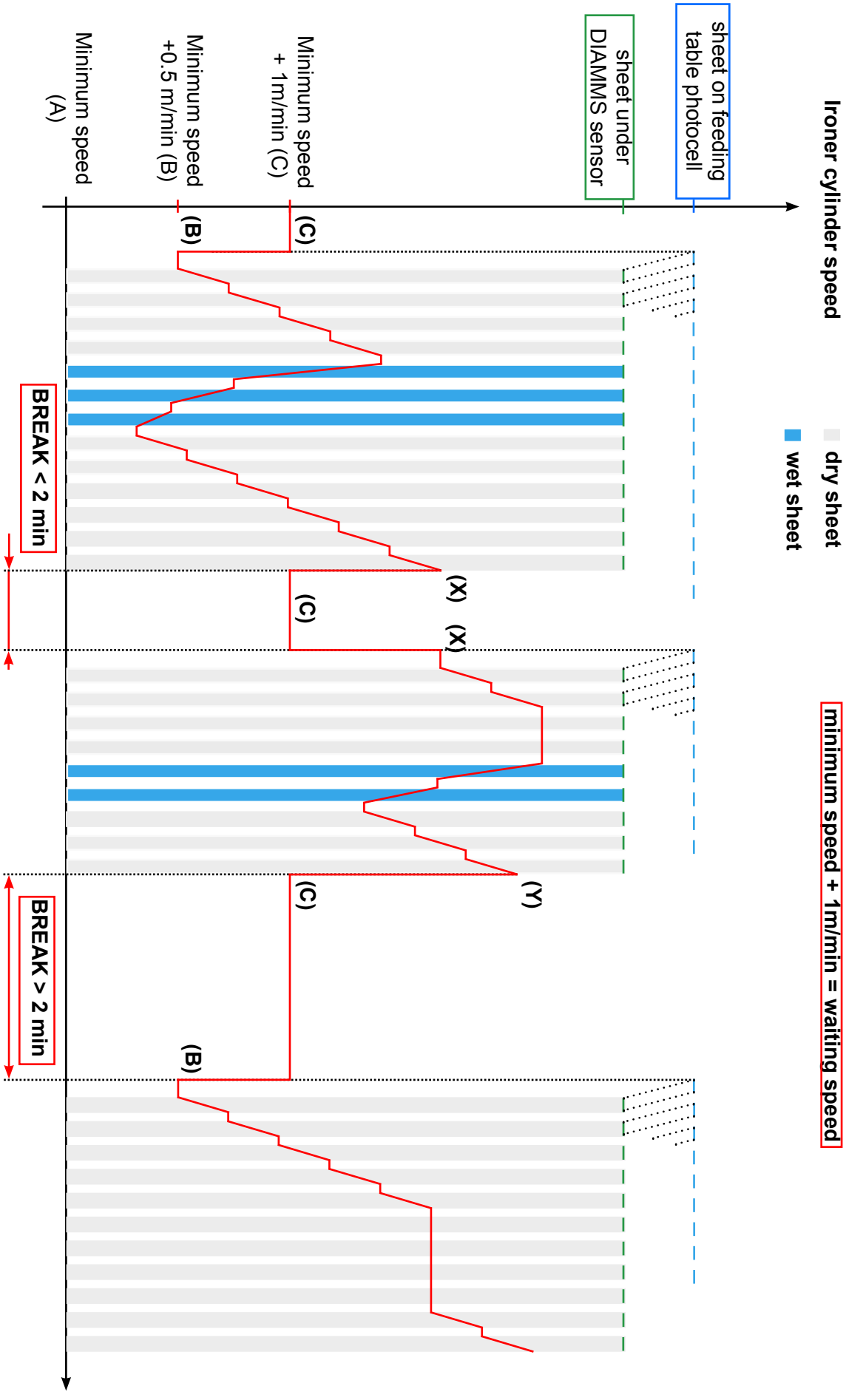
DESCRIPTION :

The DIAMMS kit includes the following elements :

* 2 Humidity sensors comb
* 2 Comb supports
* 2 Corner elements
* 3 m. Cables
* 1 DIAMMS program memory

The DIAMMS kit is fitted on the separator bar. It is accessible by the front of the machine, by removing the feeding tray.

OPERATION : (see next page)


Ironer cylinder speed
sheet on feeding table photocell
sheet under DIAMMS sensor
Minimum speed + 1m/min (C)
Minimum speed +0.5 m/min (B)
Minimum speed (A)
dry sheet
wet sheet
minimum speed + 1m/min = waiting speed
(B)
(C)
(X)
(C)
(X)
(Y)
(C)
(B)
BREAK < 2 min
BREAK > 2 min

REPAIR :

Checking
- Check the wiring.
- Ensure contact between the two humidity sensors comb and check that the value «Moisture» in «Service option» varies, otherwise the sensors comb are faulty.

Replacing
- Remove the reception vat on the feeding table (on FLF)
- Disconnect the wires.
- Remove the 2 sensors comb from the separator bar.
- Fit the new sensors comb and connect them on their respective terminals.
- Perform an adjustment as described above.

SETTING :

In oder to have a DIAMMS system working correctly after replacing the control display, it necessary to set the P1 and P2 potentiometers and to check the parameter «Value of Length» (see next page),

«SERVICE OPTION» ACCESS

The machine has been set in the factory to specific values of heating, folding, temperature, ironing speed, operating language, etc. These values and specifications can be set in the «Service Option» menu.

The parameters must always correspond to the specific type of machine.

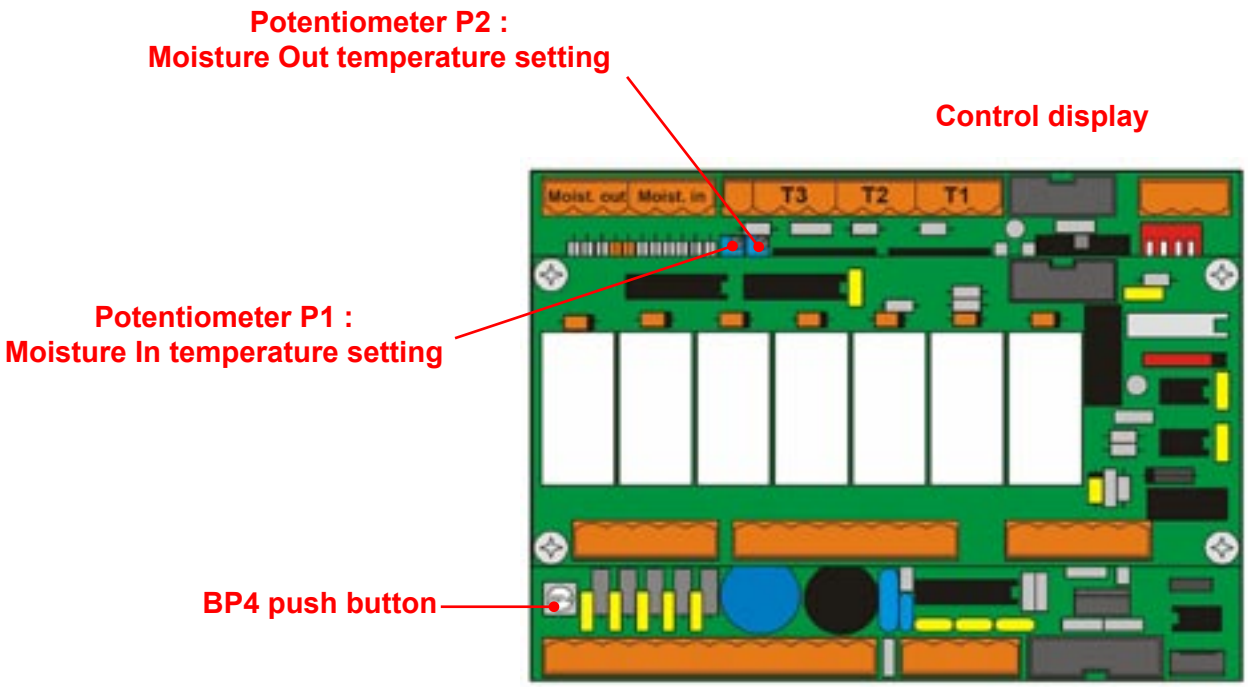
Programming must only be performed by qualified personnel.

- Remove the left-hand side cover.
- Press on the pushbutton (PB4) using an insulated tool.
- After completing the adjustments, put back the left-hand side cover.

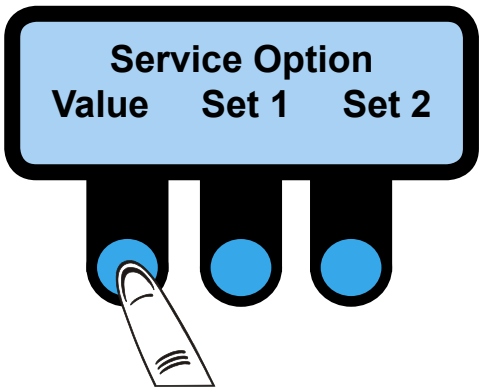
CAUTION

The control display board carries very high voltages.
Maintenance should be carried out by qualified personnel.

SETTING :



Setting of the P1 & P2 potentiometers :

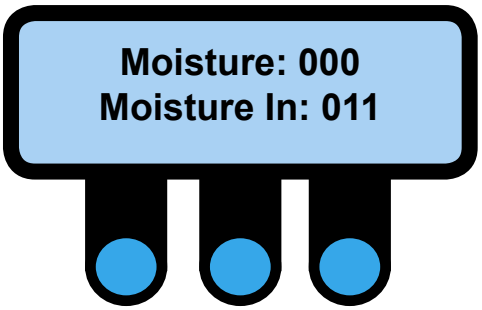


• Press on the push button (PB4) using an insulated tool.

When the pushbutton (BP4) is operated, the «Service Option» menu will appear on the screen.

• Press on «Value».

SETTING :



Scroll menus with the left key up to the menu here aside.

ATTENTION : the setting of the potentiometers (P1 & P2) must be done with running hot ironer (≈ 150°C) and without sheet inside.

• P2 potentiometer :

Turn the screw of the P2 potentiometer in a direction or the other to adjust the value 'Moisture' with a value ***superior to 200*** and only then, lower this value until obtening ***000***.

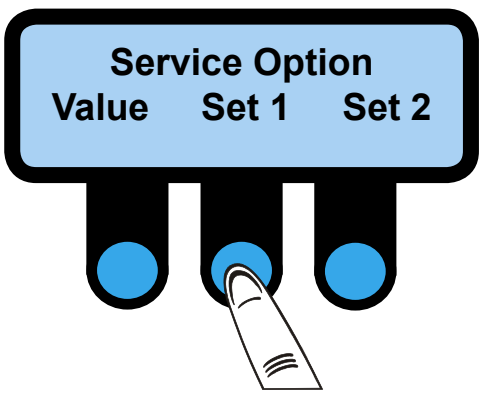
ATTENTION : DON'T LOWER BELOW 000.

• P1 Potentiometer :

Turn the screw of the P2 potentiometer in a direction or the other to adjust the value 'Moisture In' with a value ***superior to 200*** and only then, lower this value until obtening a value ***between 10 and 15***.

• When settings are completed, push on the center key to exit the menu.

Setting of «Value of Lenght» menu :

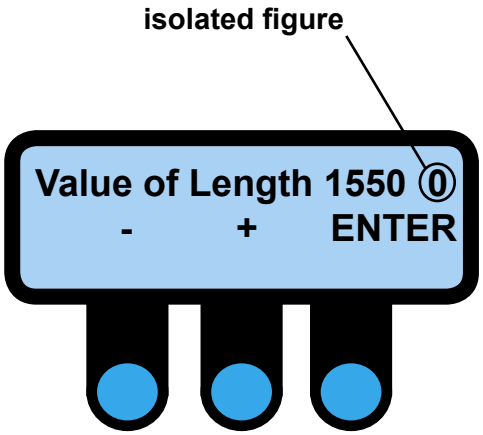


• Press on the push button (PB4) using an insulated tool.

When the pushbutton (BP4) is operated, the «Service Option» menu will appear on the screen.

• Press on «Set 1».

SETTING :



This screen allows to set the distance (in mm) between the cell (B6) of the feeding table and the moisture sensor.

By default, this parameter is adjusted according to the diameter of the ironing cylinder (here 1550 mm).

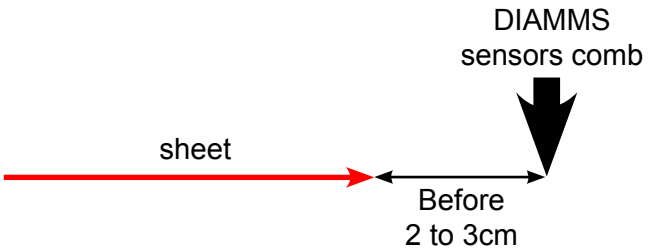
The mini. value is 100 mm and the maxi. value is 2400 mm.

The isolated figure (0 or 1) after the machine parameter indicates if a sheet is under the moisture sensor.

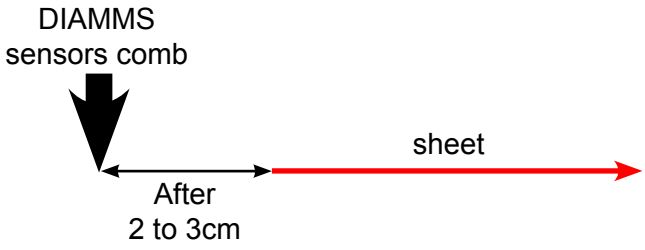
- (0) means there is no sheet under the moisture sensor.
- (1) means there is a sheet under the moisture sensor.
- (-) reduces the ironing length.
  The length setting can be altered in increments of 10 mm by pressing.
- (+) increases the ironing length.
  The length setting can be altered in increments of 10 mm by pressing.
- ENTER confirms the parameters setting.

The DIAMMS has been set in the following conditions :

- The isolated figure = 1



- The isolated figure = 0



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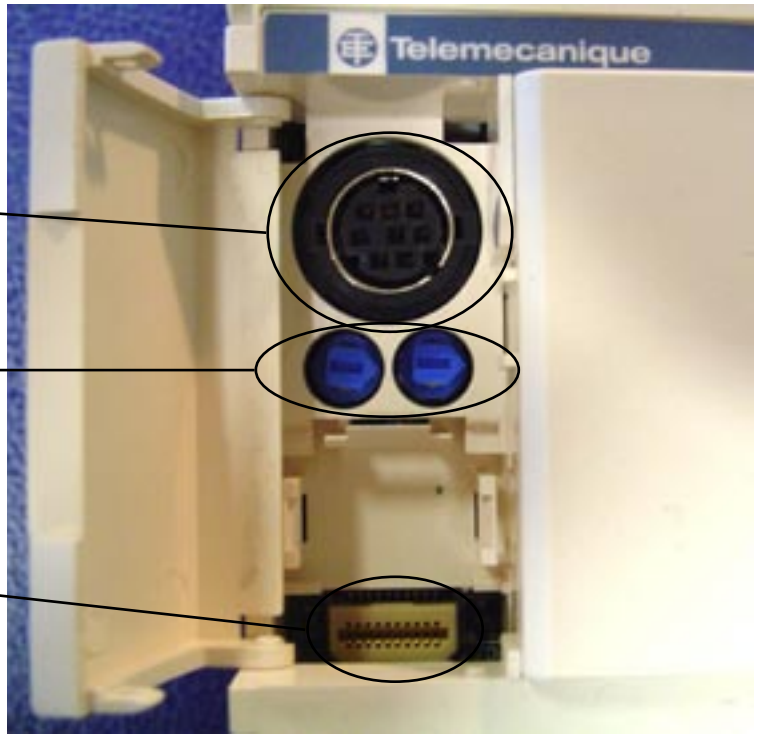
PLC TWIDO



Terminal connector (RS 485, miniDin)

Numeric value (accessible by internal potentiometer)

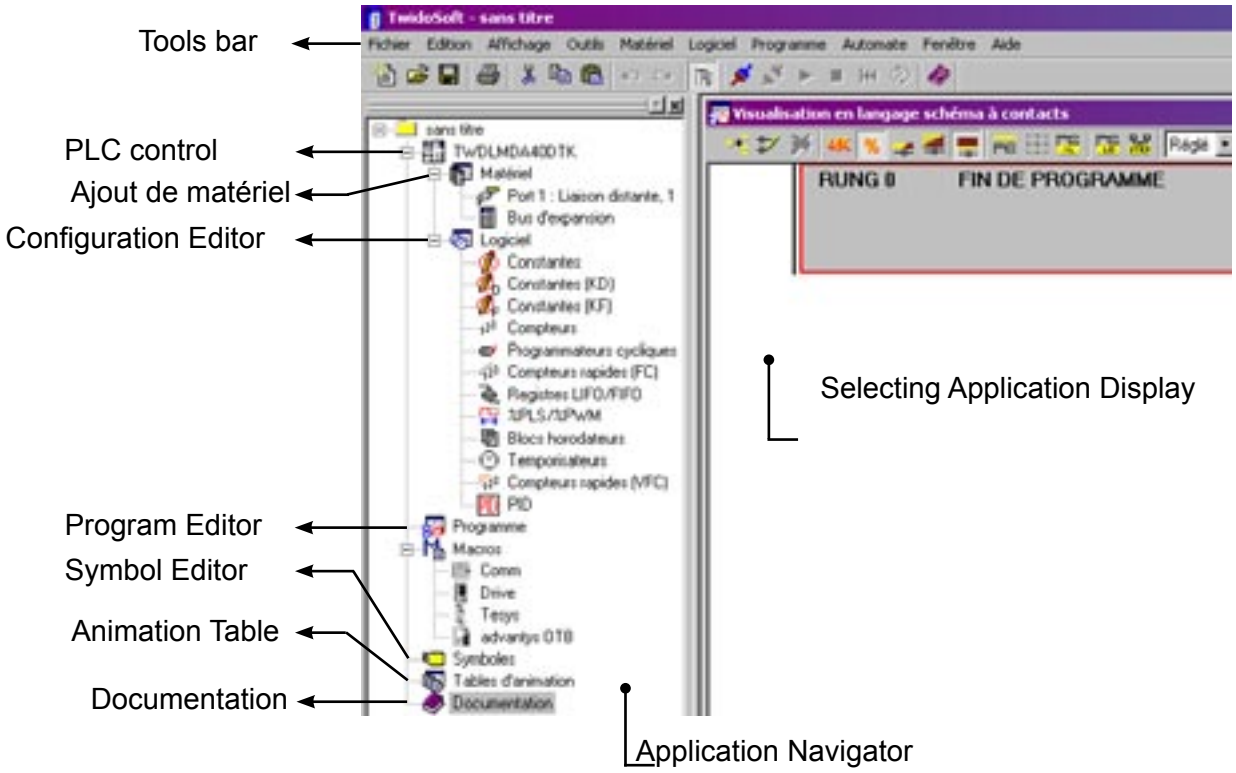
Location for the second communication port (miniDin or Terminal strip)

EQUIPMENT REQUIRED TO USE THE TWIDO :

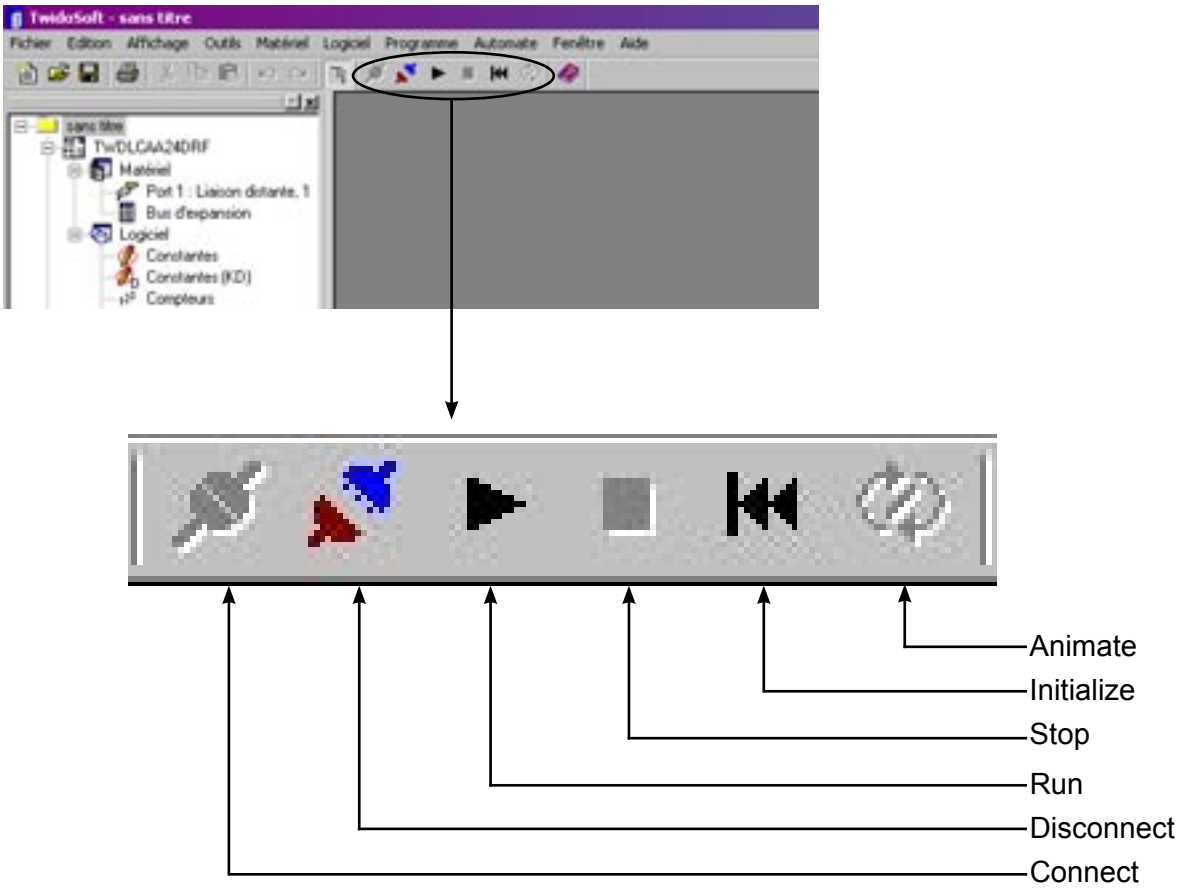
- 1 PC, preferably laptop, for easier use on customer site
- 1 TSXPCX 1031 cable on position 2 (item code: 96072012)
- 1 TWIDOSOFT package from Télémécanique

TWIDOSOFT SOFTWARE

DESCRIPTION OF THE TWIDOSOFT APPLICATION WINDOWS :



SHORTCUT CONNECTION WITH THE PLC:



INSTALLING THE SOFTWARE :

The following instructions explain how to perform the standard installation from the CD-ROM.

1/ Close all applications before installing the software.

2/ Insert the TWIDO SOFT disk in the CD-ROM drive.

3/ The TWIDO SOFT software can be installed in several ways:
- Automatic opening of the Explorer window.
- Double-click the Setup.exe file in the disk's TWIDO SOFT folder.
- Click the Install button in Add/Remove programmes in the Control Panel.
- Select the Run option in the Start menu.
- Right-click the CD-ROM's icon in the Explorer and select Autorun in the menu.

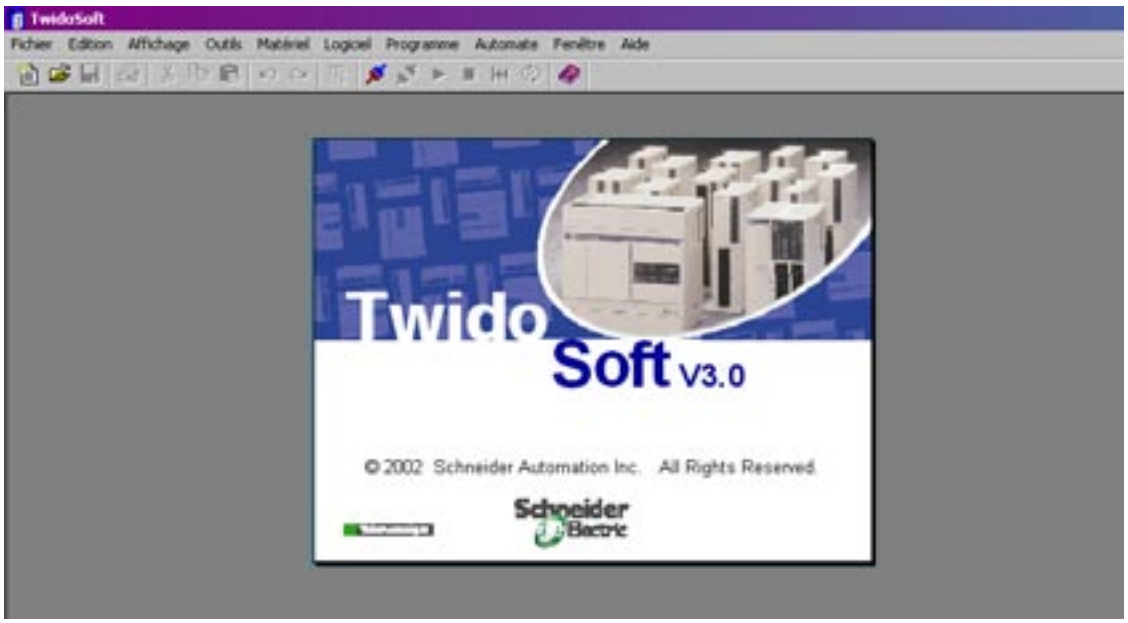
4/ Click «Install» and follow the instructions on screen.

5/ Once the installation is complete, click Complete, and reboot the computer (recommended).

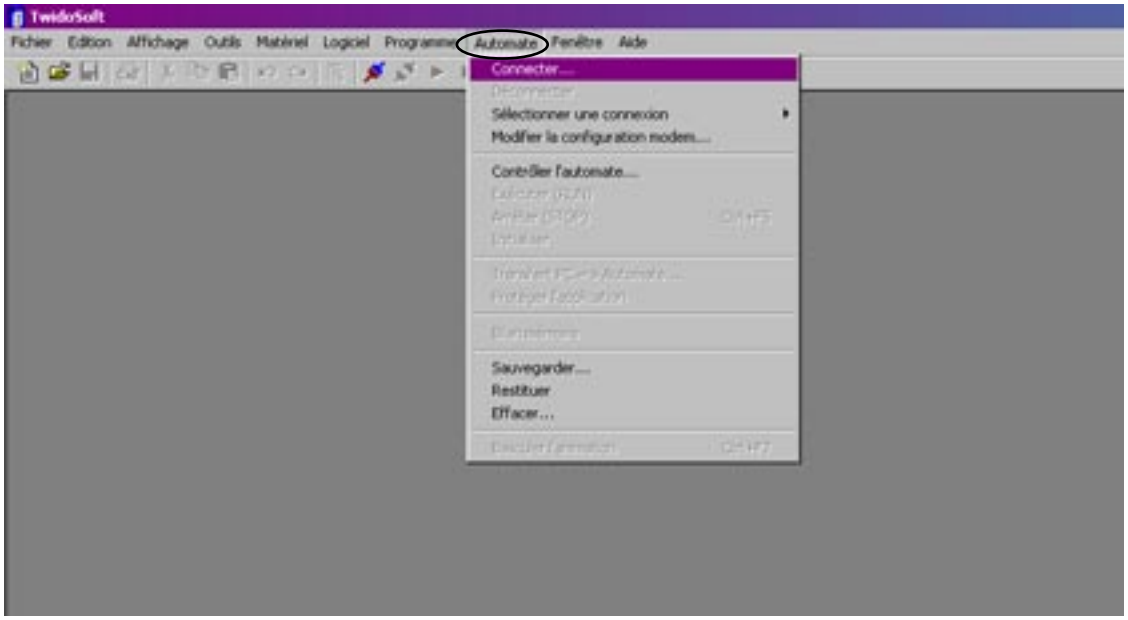
6/ To launch TWIDO SOFT, click the icon  on the desktop.

TO CONNECT WITH PLC :

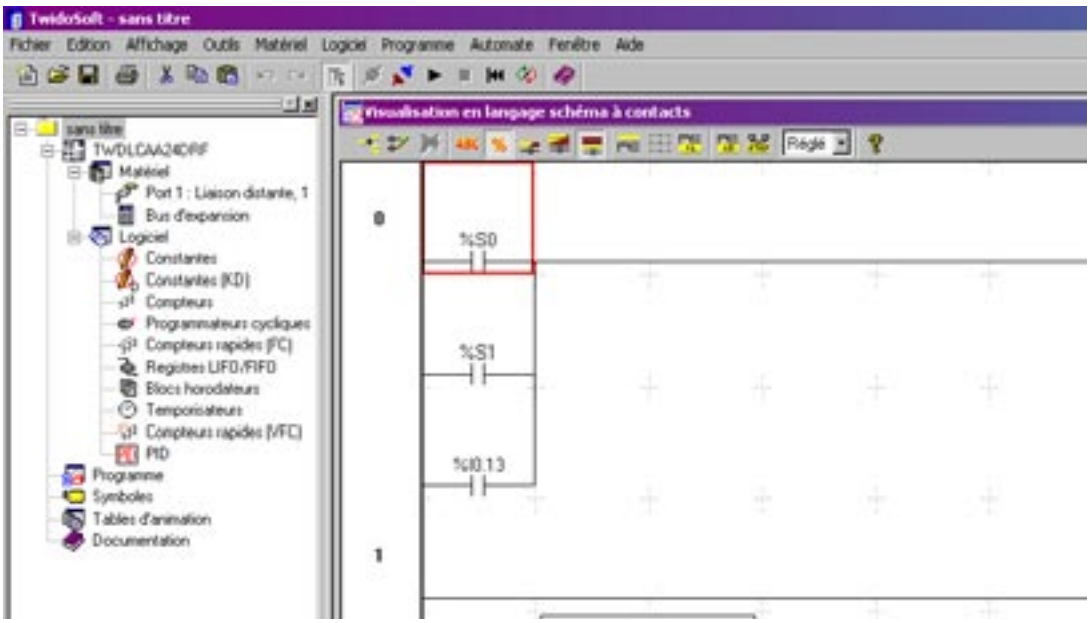
1/ To launch TWIDOSOFT



2/ Click the menu «Automate» and «Connecter», or click the shortcut «Connecter». 



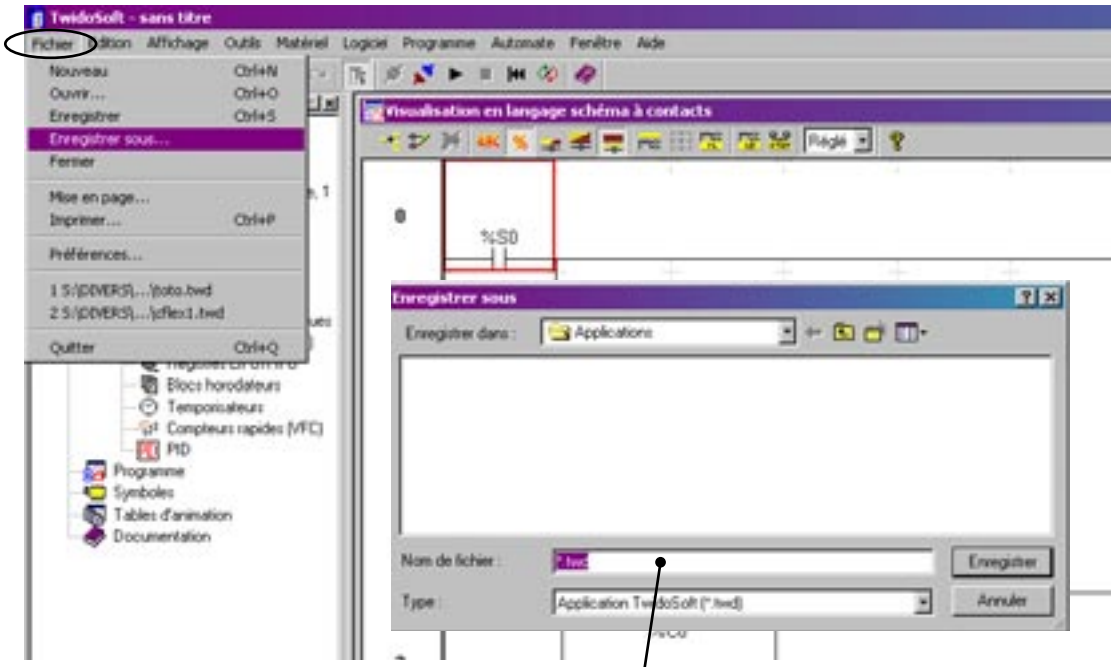
3/ The PLC program is transferred to the PC.



RECOVER THE PROGRAM FROM THE PLC :

Once the PC is connected to the automaton, the automaton program loads automatically on the PC, just save it on the PC.

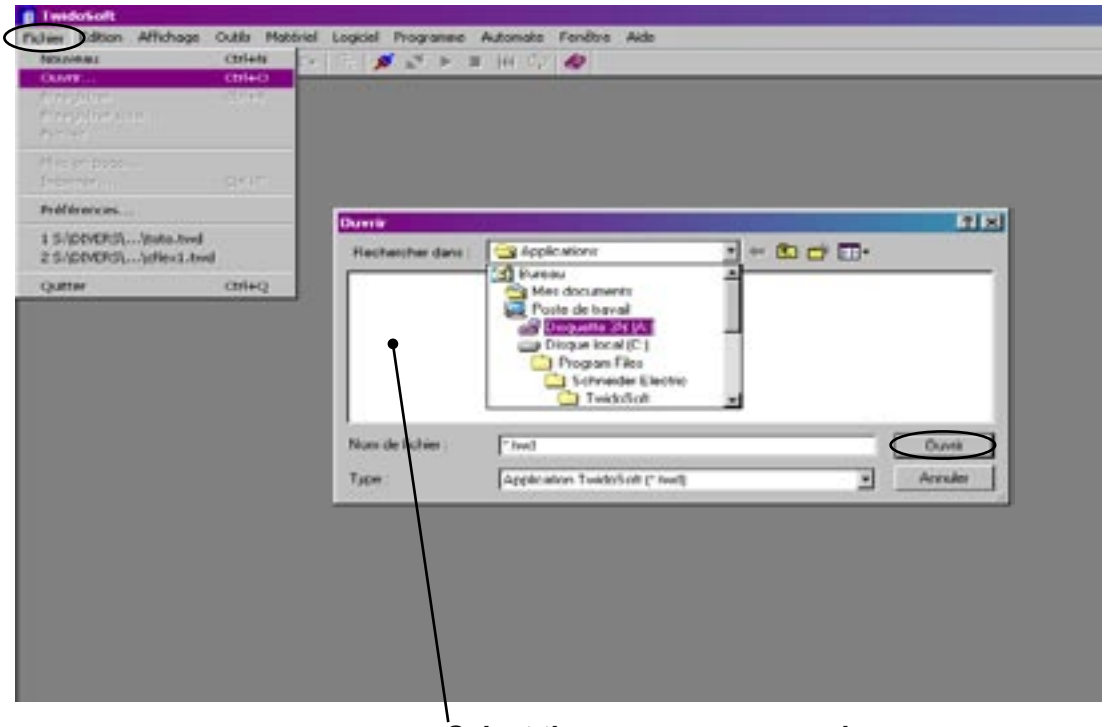
1/ Click the menu «Fichier» and «Enregistrer sous ...».
2/ Name the program and click «Enregistrer».



Enter the name of the programme to find %MW...

OPEN A PROGRAM FROM A DISK :

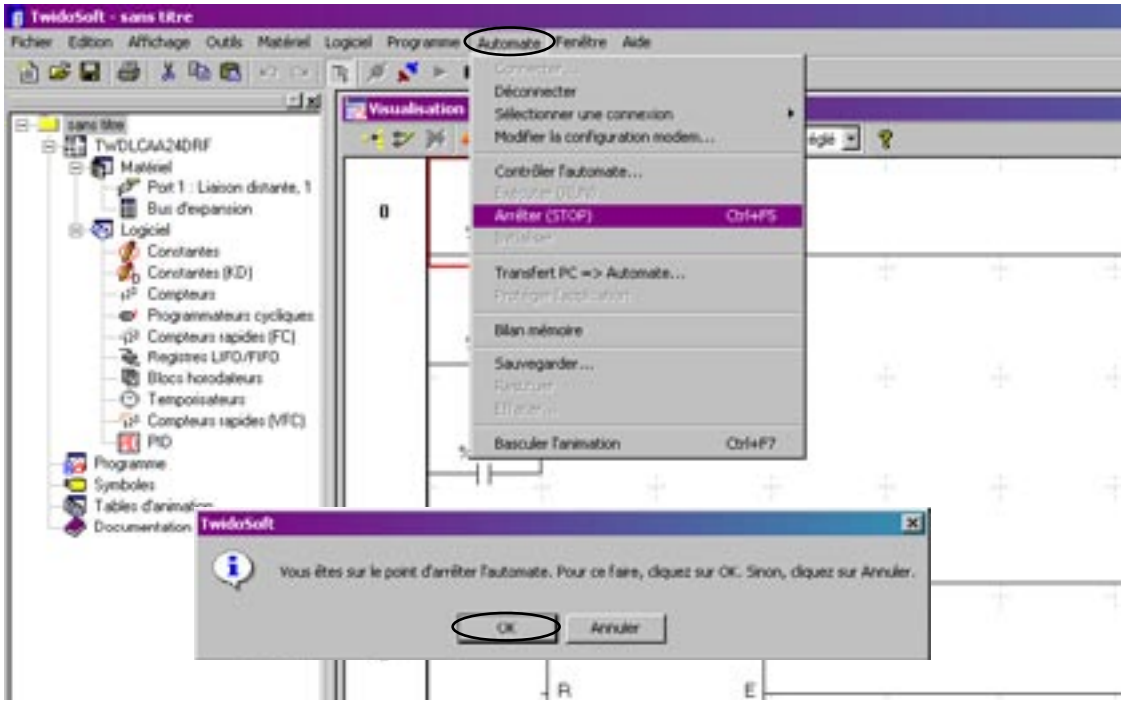
1/ Click the menu «Fichier» and «Ouvrir», or click the shortcut «Ouvrir»
2/ Click the menu «Recherche dans».
3/ Select «Disquette 3$^{1/2}$ (A:)».
4/ Select the program file required and click «Ouvrir» or double-click it.



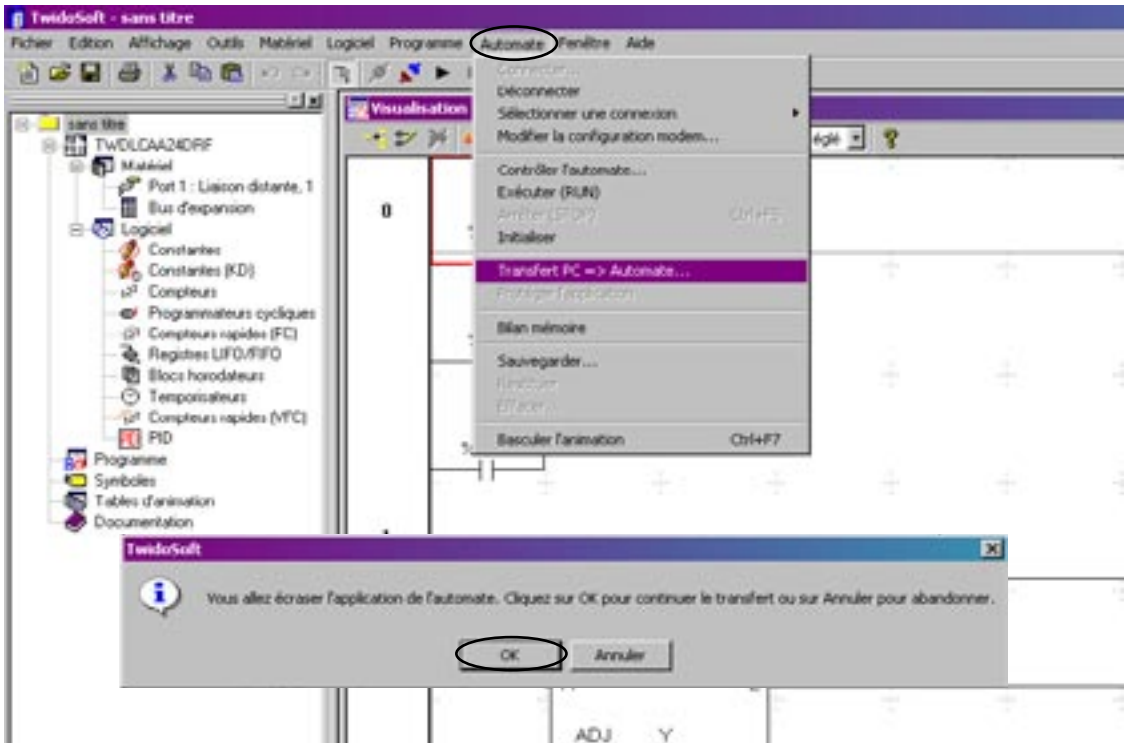
Select the program you need

TRANSFER THE PROGRAM FROM THE PC TO THE PLC :

1/ Click the menu «Automate» et sur «Arrêter (STOP)» or click the shortcut «STOP» to set the automaton to STOP mode.
2/ Click «OK» to validate.

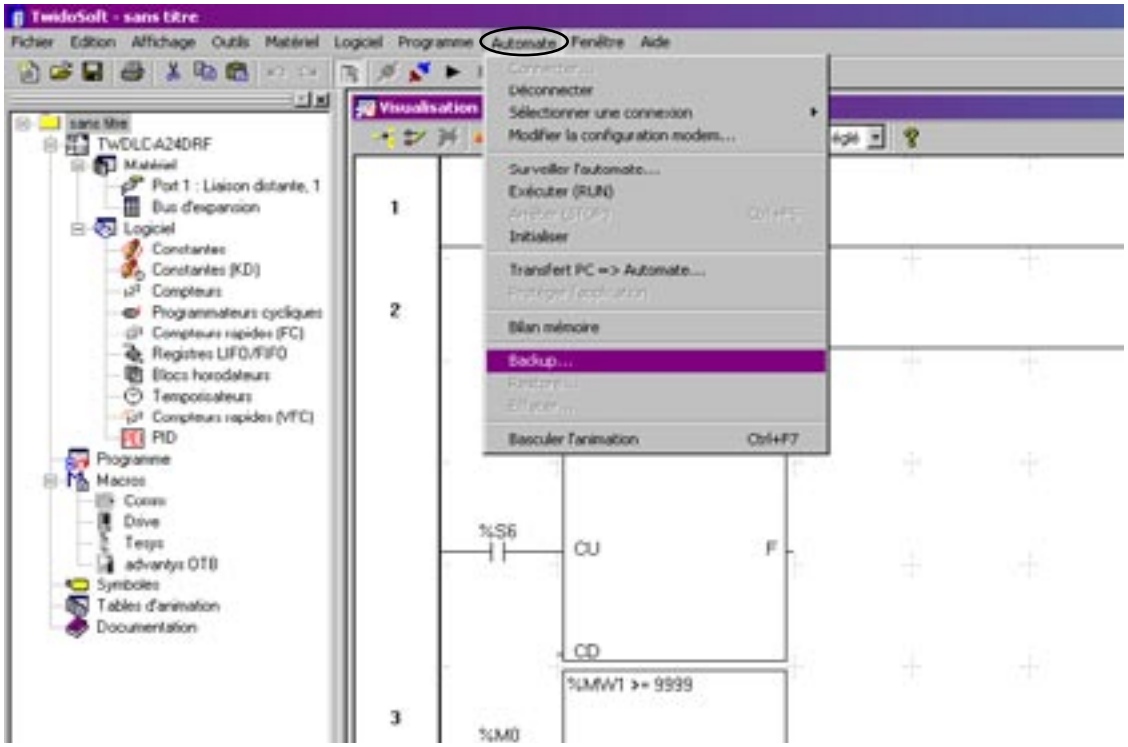


2/ Click the menu «Automate» and «Transfert PC => Automate»
3/ Click «OK» to validate.

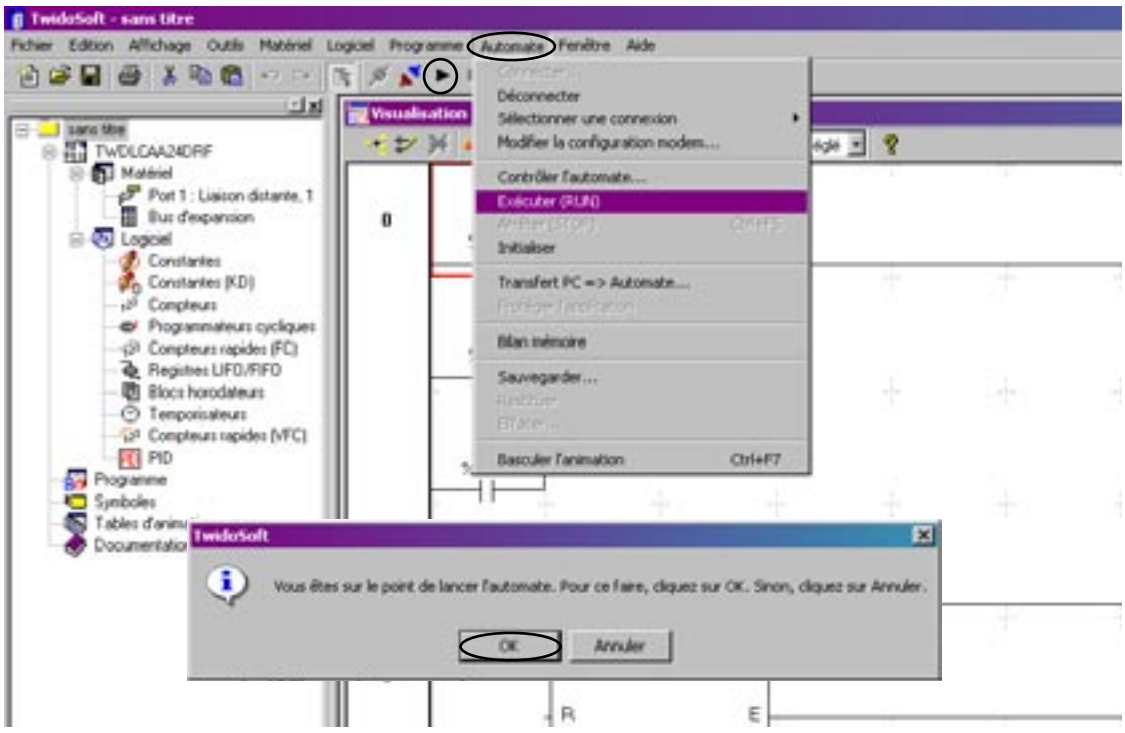


During transfer, the «ERR» indicator on the automaton blinks red.

4/ Click the menu «Automate»
5/ Click «Backup...» to save the program into the EEPROM.

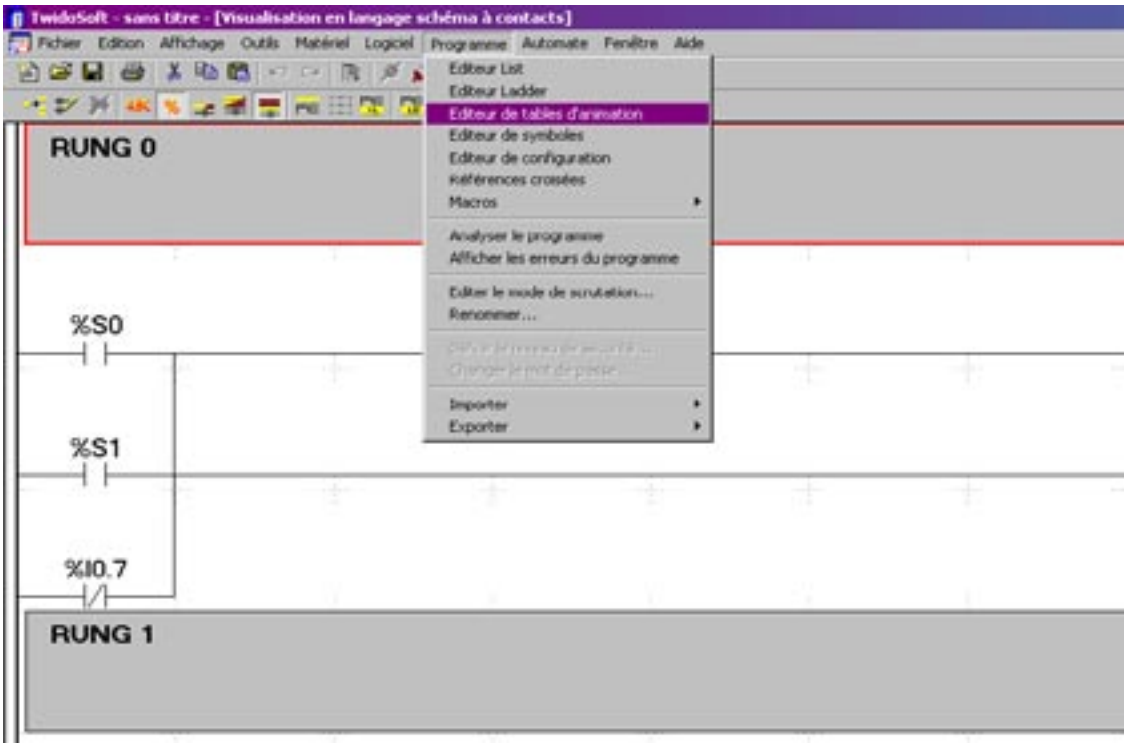


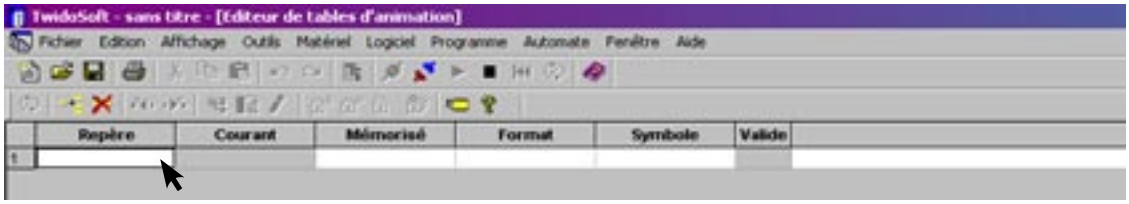
6/ Return the automaton to RUN mode by clicking menu «Automate» and «Exécuter (RUN)».
7/ Click «OK» to validate.



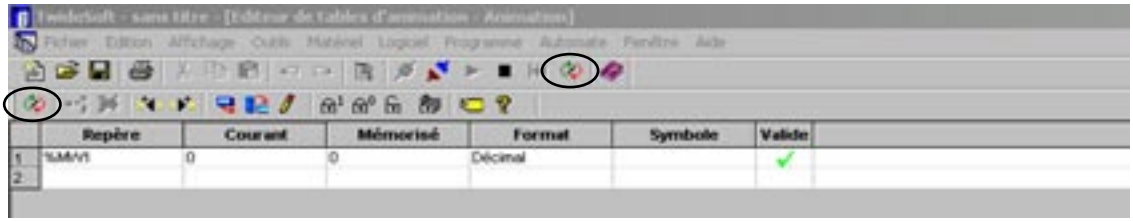
ANIMATION TABLE : (PLC in «RUN» mode)

1/ Click the menu «Programme»
2/ Click «Editeur de tables d'animation»

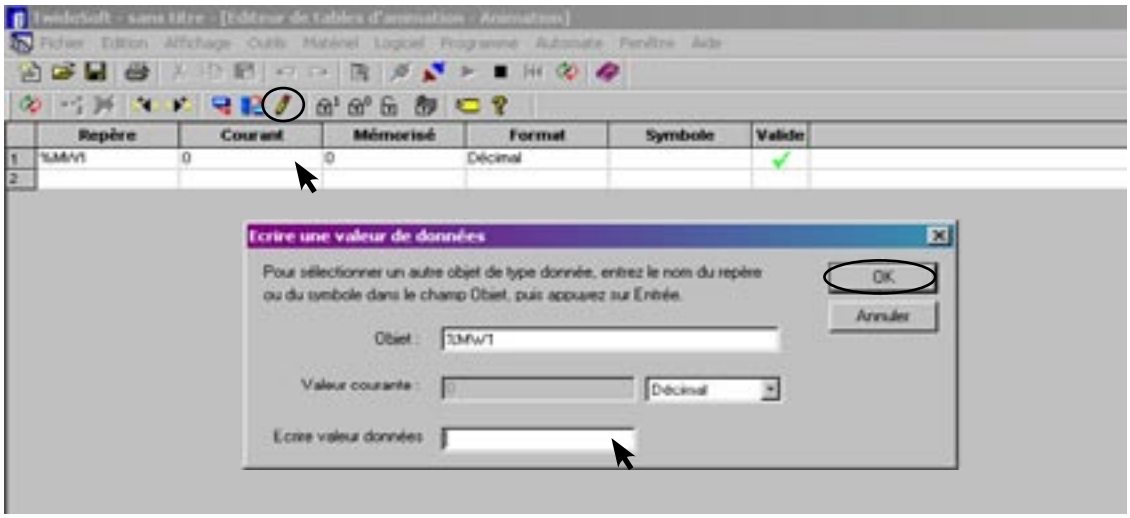




3/ Click case «Repère»
4/ Enter the value for to change and click «Entrée»
5/ Click icon «Basculer l'animation» 

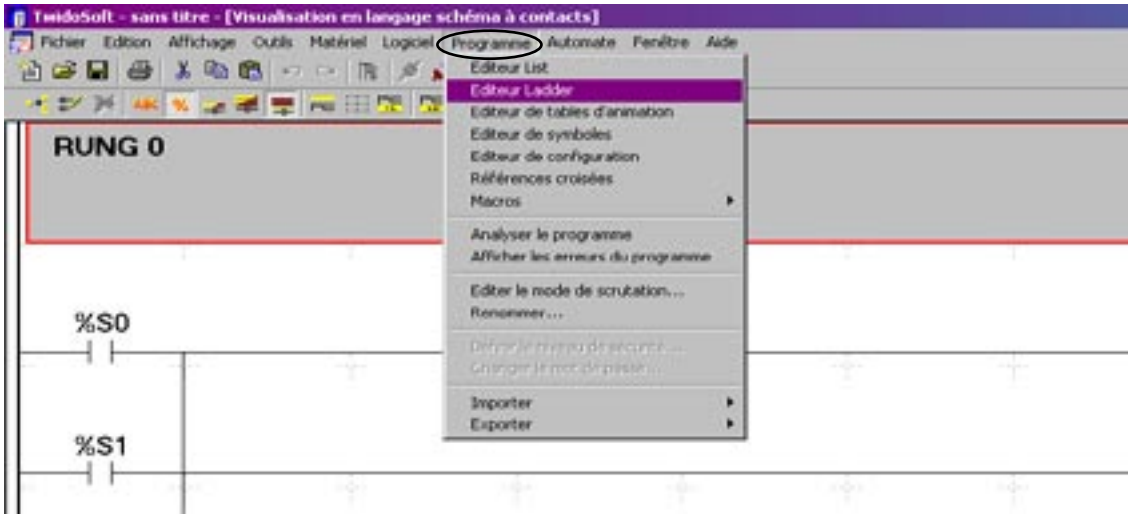


6/ Click case «Courant»
7/ Click icon «Ecrire la valeur»
8/ Enter the new value and click «OK»



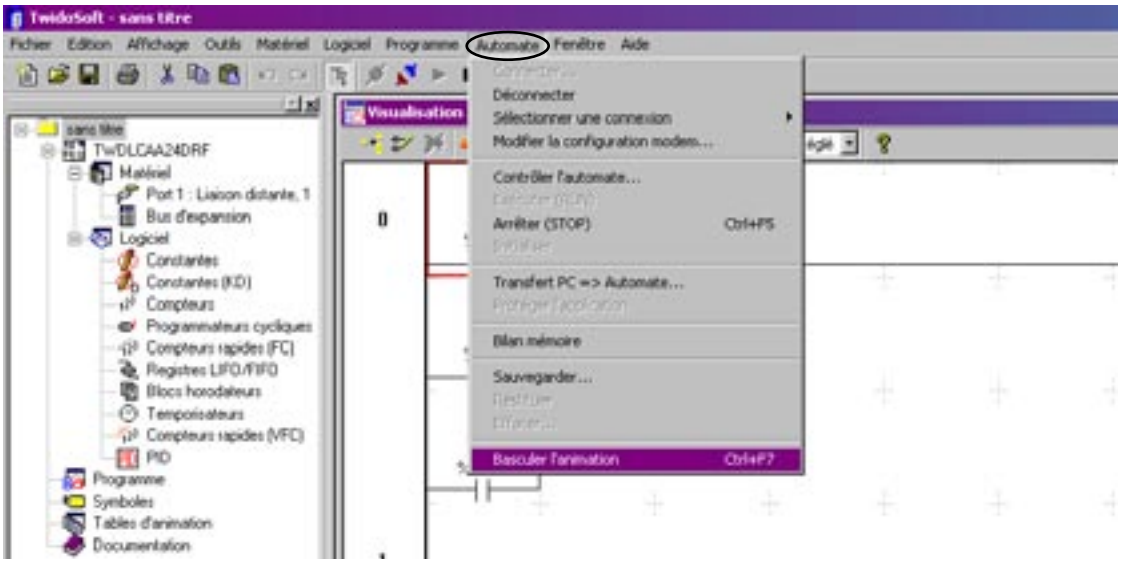
Once the value is found, quit the animation table, return to mode «» to change the program's values.

9/ Click the menu «Programme»
10/ Click «Editeur Ladder»
11/ Go to paragraph «**FIND AND CHANGE VARIANT VALUE**»



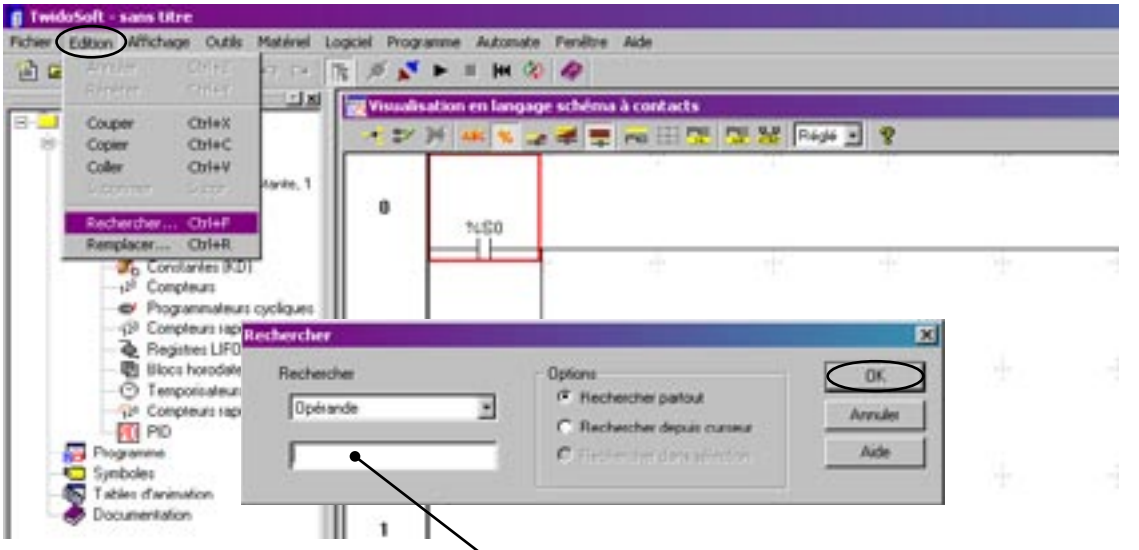
VIEW THE STATUS OF THE VARIABLES IN THE PLC PROGRAM WHEN IN THE «RUN» MODE :

1/ Click the menu «Automate» and «Basculer l'animation» or click the shortcut «Basculer l'animation»



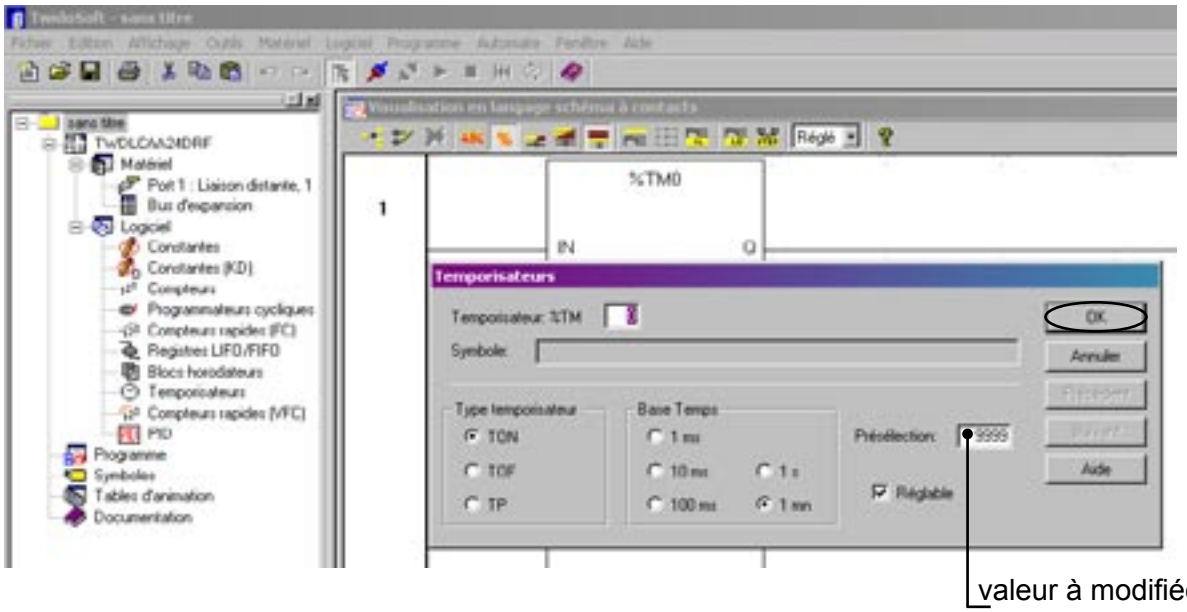
CHANGE THE VALUE OF A TIMER :

1/ Click the menu «Edition» and «Rechercher...» .
2/ Enter the name of the table to find, and click «OK».



Once the timer found, double-click it, and change according to the new values .

3/ Click «OK» to validate.



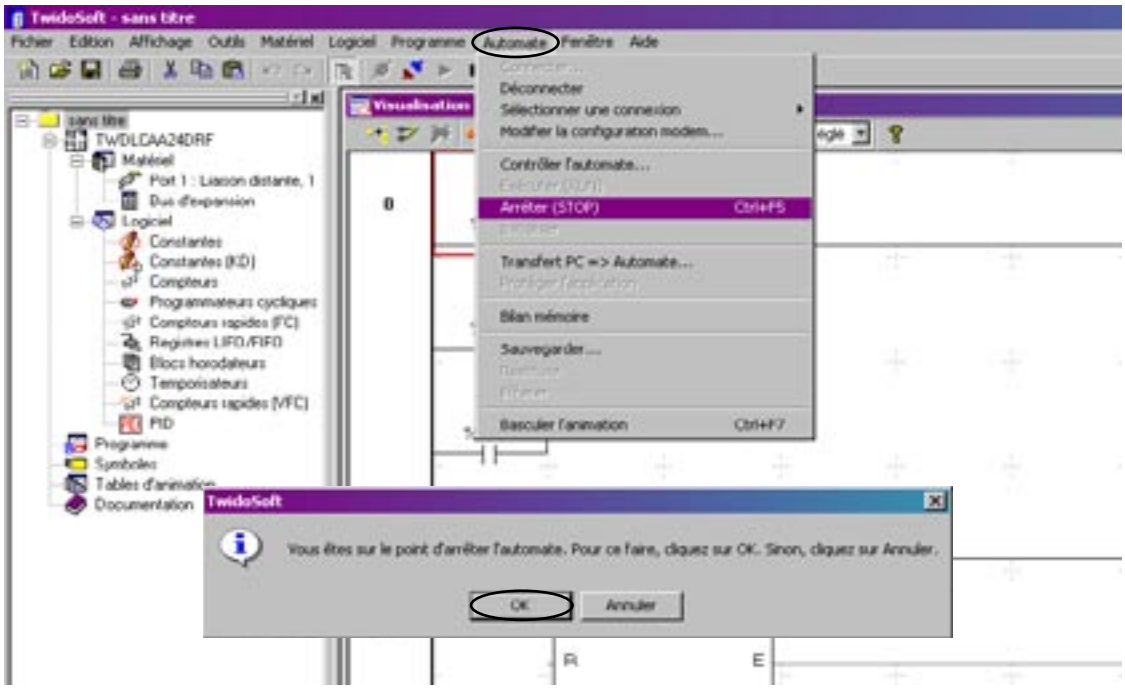
FIND AND CHANGE VARIANT VALUE :

(example value of a fold)

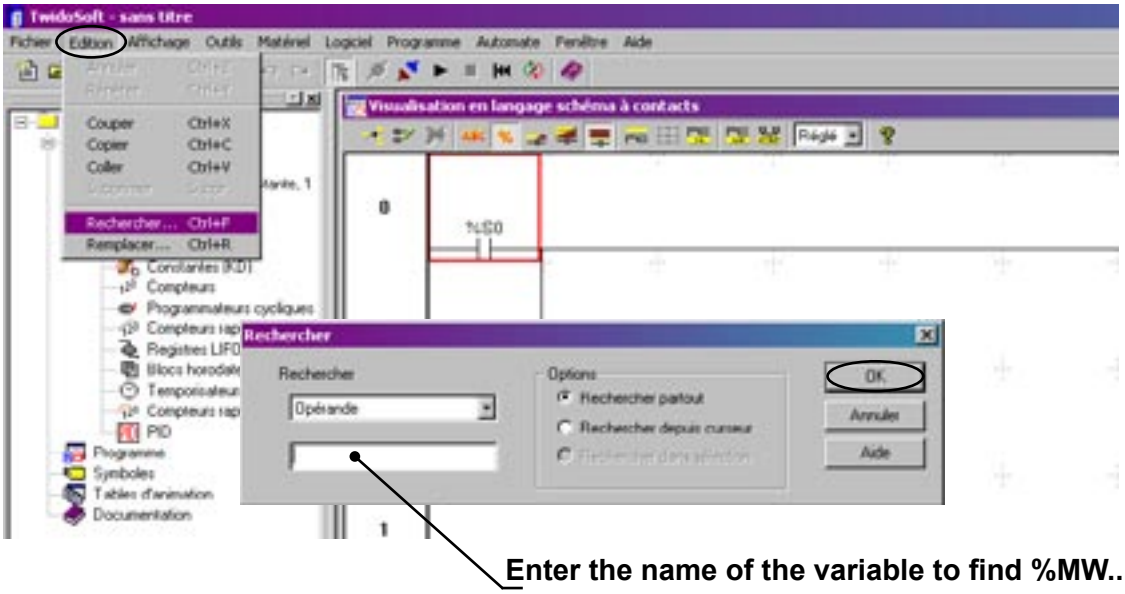
1/ Click the menu «Automate» and «Arrêter (STOP)» or click the shortcut «STOP» ■ to set the PLC to STOP mode.

2/ Click «OK» to validate.

3/ The «RUN» indicator on the automaton blinks in the STOP mode.



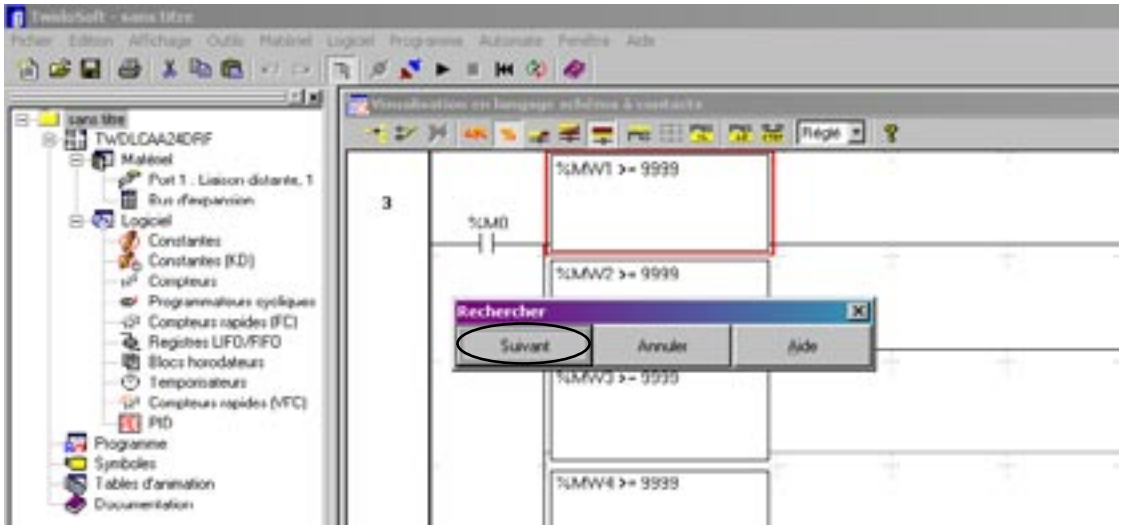
4/ Click the menu «Édition» and «Rechercher...».
5/ Enter the name of the variable to find, and click «OK».



Enter the name of the variable to find %MW...

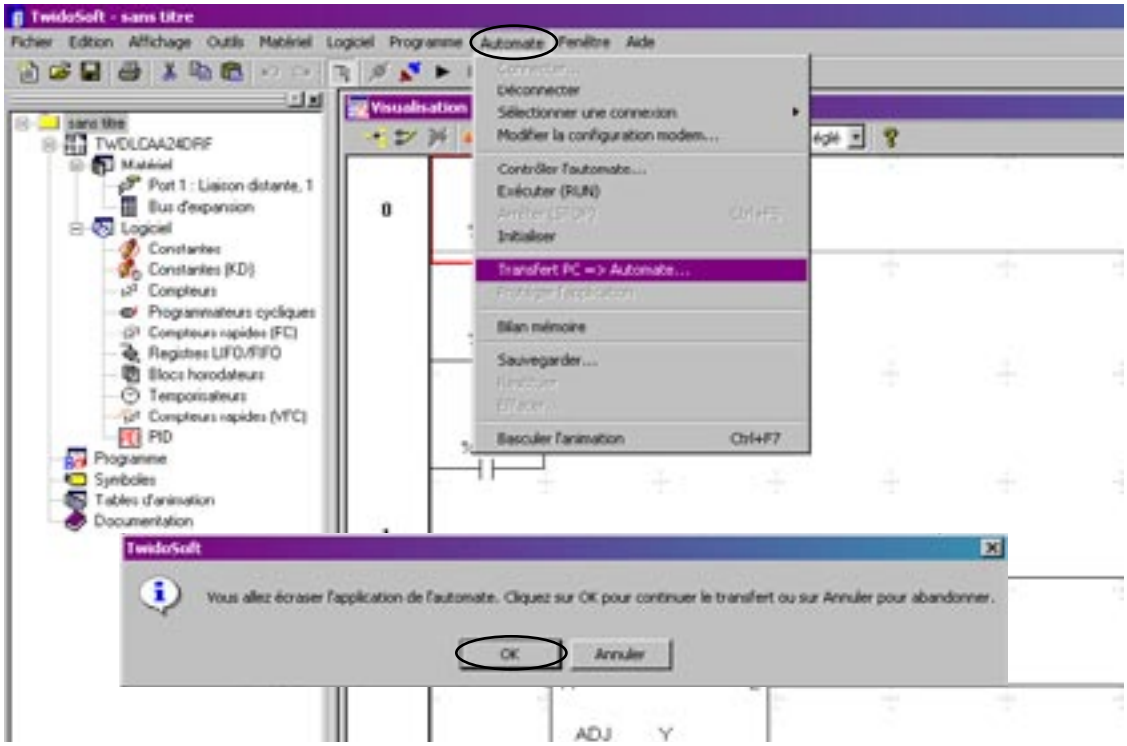
The variable sought is framed in red.

6/ Click «Suivant» to access the next location of the variable to find



To change the value of the variable, double-click the variable and «Enter» to validate.
Once the value of the variable modified, save the program again, and transfer it to the PLC.

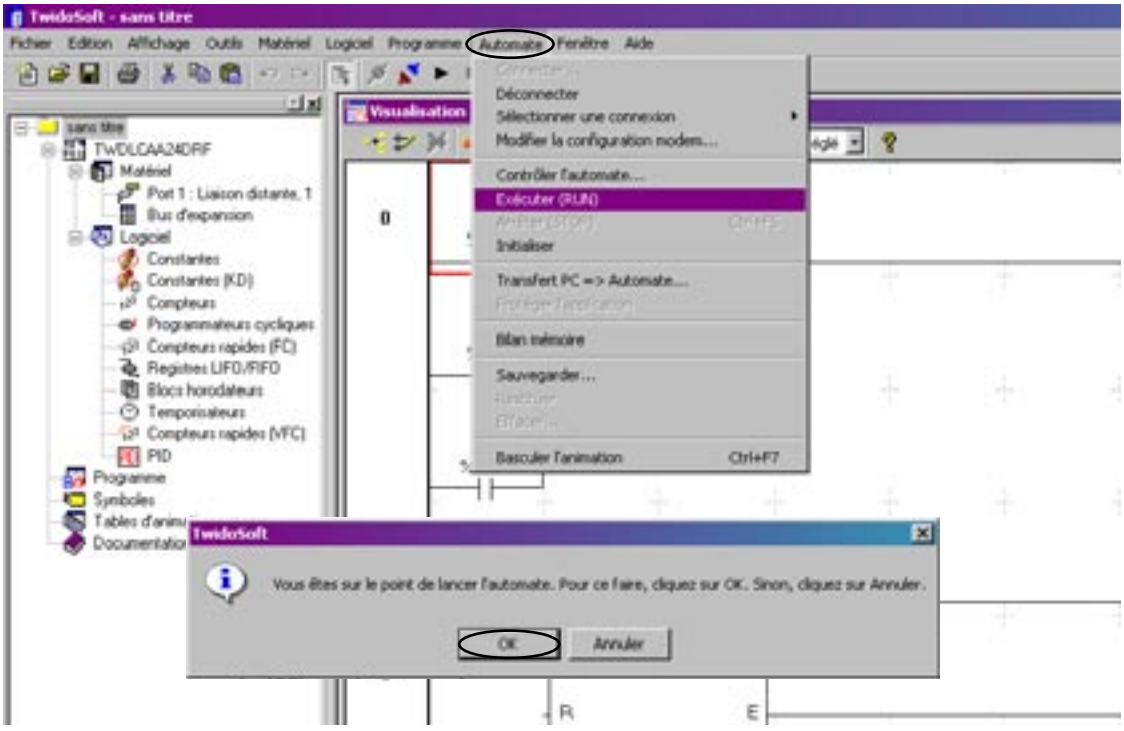
7/ Click the menu «Fichier» and «Enregistrer».
8/ Click the menu «Automate» and «Transfert PC => Automate».
9/ Click «OK» to validate.



During the transfer, the «ERR» indicator on the automaton blinks red

10/ Return the automaton to the RUN mode by clicking the «Automate» and «Exécuter (RUN)». ▶

11/ Click «OK» to validate.



INPUTS/OUTPUTS FOLDER PLC :

Inputs

I0.0	B8 detector	«Metering»
I0.1	B6 detector	«Sheet present on feeding table»
I0.2	B7 detector on reflector	«Sheet present before folding»
I0.3	S8 position switch	«Position sheet eject roller»
I0.4	S9 position switch	«Position reception vat»
I0.5	B9 detector	«Position FR folding arm»
I0.6	B10 detector	«Position RR folding arm»
I0.7		«Power OK»
I0.8	Free	
I0.9	Free	
I0.10	Free	
I0.11	Free	
I0.12	Free	
I0.13	Free	

Outputs

Q0.0	«Control Clutch of folding arm»
Q0.1	«Sheet evacuation»
Q0.2	«Stop sheet evacuation and rise eject roller»
Q0.3	Free
Q0.4	«Antistatic bar»
Q0.5	Free
Q0.6	Free
Q0.7	Free
Q0.8	Free
Q0.9	Free

INPUTS/OUTPUTS FEEDER PLC :

Inputs

I0.0	ARU bouton poussoir	«Arrêt d'Urgence»
I0.1	BP201 bouton poussoir	«Départ cycle»
I0.2	BP202 bouton poussoir	«Initialisation»
I0.3	S201 interrupt 3 positions	«Engagement / position 1»
I0.4	S201 interrupt 3 positions	«Engagement / position 2»
I0.5	FC201 fin de course	«Retour pinces»
I0.6	FC202 fin de course	«Dépose drap»
I0.7	FC203 fin de course	«Avance pinces»
I0.8	FC4 fin de course	«Pinces écartées»
I0.9	FC5 fin de course	«Pinces rapprochées»
I0.10	B201 détecteur	«Pince gauche»
I0.11	B202 détecteur	«Pince droite»
I0.12	B203 détecteur	«Défripage»
I0.13	B6 détecteur	«Présence drap engagement»

Outputs

Q0.0	KA1 relay	«Close right clamp»
Q0.1	KA2 relay	«Close left clamp»
Q0.2	KM202 contactor	«Clamp back»
Q0.3	KM201 contactor	«Clamp forward»
Q0.4		«Open clamps»
Q0.5		«Close clamps»
Q0.6	KM203 contactor	«Start smoothing»
Q0.7	KM204 contactor	«Start Suction/Ventilation»
Q0.8	H201 indicator	«Fault indicator»
Q0.9	Free	

Folding parameters in «PLIVIT» mode :

Length folding setting : 4 folds mode

Length sheet (cm)	MW11 1 fold (+MW4->C2.P)	MW12 2&3 fold (+MW5->C3.P)	MW13 4 fold (+MW6->C4.P)
90 < Length <= 95	%MW300.H **15** 0F	%MW300.B 32 **50**	
95 < Length <= 100	%MW301.H **20** 14	%MW301.B 32 **50**	
100 < Length <= 105	%MW302.H **20** 14	%MW302.B 37 **55**	
105 < Length <= 110	%MW303.H **20** 14	%MW303.B 3C **60**	
110 < Length <= 115	%MW304.H **20** 14	%MW304.B 41 **65**	
115 < Length <= 120	%MW305.H **25** 19	%MW305.B 41 **65**	
120 < Length <= 125	%MW306.H **25** 19	%MW306.B 46 **70**	
125 < Length <= 130	%MW307.H **30** 1E	%MW307.B 46 **70**	
130 < Length <= 135	%MW308.H **30** 1E	%MW308.B 4b **75**	
135 < Length<= 140	%MW309.H **32** 20	%MW309.B 4E **78**	
140 <Length <= 145	%MW310.H **32** 20	%MW310.B 50 **80**	
145 < Length <= 150	%MW311.H **35** 23	%MW311.B 50 **80**	
150 < Length <= 155	%MW312.H **35** 23	%MW312.B 55 **85**	
Arm position	**Front->Back**	**Back->Front**	**Front**

Length folding setting : 6 folds mode

Length sheet (cm)	MW11 1 fold (+MW4->C2.P)	MW12 2&3 fold (+MW5->C3.P)	MW13 4&5 fold (+MW6->C4.P)	MW14 6 fold (+MW7->C5.P)
155 < Length <= 160	%MW360.H **30** 1E	%MW313.H **35** 23	%MW313.B 41 **65**	
160 < Length <= 165	%MW360.H **30** 1E	%MW314.H **40** 28	%MW314.B 41 **65**	
165 < Length <= 170	%MW360.H **30** 1E	%MW315.H **45** 2D	%MW315.B 41 **65**	
170 < Length <= 175	%MW360.H **30** 1E	%MW316.H **50** 32	%MW316.B 41 **65**	
175 < Length <= 180	%MW360.H **30** 1E	%MW317.H **50** 32	%MW317.B 44 **68**	
180 < Length <= 185	%MW360.H **30** 1E	%MW318.H **55** 37	%MW318.B 44 **68**	
185 < Length <= 190	%MW360.H **30** 1E	%MW319.H **60** 3C	%MW319.B 44 **68**	
190 < Length <= 195	%MW360.H **30** 1E	%MW323.H **65** 41	%MW323.B 44 **68**	
195 < Length <= 200	%MW360.H **30** 1E	%MW324.H **69** 45	%MW324.B 45 **69**	
200 < Length<= 205	%MW360.H **30** 1E	%MW325.H **70** 46	%MW325.B 46 **70**	
205 <Length <= 210	%MW360.H **30** 1E	%MW326.H **70** 46	%MW326.B 4B **75**	
210 < Length <= 215	%MW360.H **30** 1E	%MW327.H **75** 4B	%MW327.B 4B **75**	
215 < Length <= 220	%MW360.H **30** 1E	%MW328.H **75** 4B	%MW328.B 50 **80**	
220 < Length <= 225	%MW360.H **30** 1E	%MW329.H **80** 50	%MW329.B 50 **80**	
225 < Length <= 230	%MW360.H **30** 1E	%MW330.H **83** 53	%MW330.B 53 **83**	
230 < Length <= 235	%MW360.H **30** 1E	%MW331.H **85** 55	%MW331.B 55 **85**	
235 < Length <= 240	%MW360.H **30** 1E	%MW332.H **87** 57	%MW332.B 57 **87**	
Arm position	**Front->Back**	**Back->Front**	**Front->Back**	**Front**

Length folding setting : 8 folds mode

Length sheet (cm)	MW11 1 fold (+MW4->C2.P)	MW12 2&3 fold (+MW5->C3.P)	MW13 4&5 fold (+MW6->C4.P)	MW14 6&7 fold (+MW7->C5.P)	MW15 8 fold (+MW8->C6.P)
240 < Length <= 245	%MW360.H **30** 1E	%MW333.H 46 **70**	%MW333.B **45** 2D	%MW334.H 46 **70**	
245 < Length <= 250	%MW360.H **30** 1E	%MW334.B 46 **70**	%MW335.H **50** 32	%MW335.B 46 **70**	
250 < Length <= 255	%MW360.H **30** 1E	%MW336.H 46 **70**	%MW336.B **55** 37	%MW337.H 46 **70**	
255 < Length <= 260	%MW360.H **30** 1E	%MW360.B 50 **80**	%MW338.H **35** 23	%MW338.B 50 **80**	
260 < Length <= 265	%MW360.H **30** 1E	%MW360.B 50 **80**	%MW339.H **40** 28	%MW339.B 50 **80**	
265 < Length <= 270	%MW360.H **30** 1E	%MW360.B 50 **80**	%MW340.H **45** 2D	%MW340.B 50 **80**	
270 < Length <= 275	%MW360.H **30** 1E	%MW360.B 50 **80**	%MW341.H **50** 32	%MW341.B 50 **80**	
275 < Length <= 280	%MW360.H **30** 1E	%MW360.B 50 **80**	%MW342.H **55** 37	%MW342.B 50 **80**	
280 < Length <= 285	%MW360.H **30** 1E	%MW360.B 50 **80**	%MW343.H **61** 3D	%MW343.B 50 **80**	
285 < Length<= 290	%MW360.H **30** 1E	%MW360.B 50 **80**	%MW344.H **65** 41	%MW344.B 50 **80**	
290 <Length <= 295	%MW360.H **30** 1E	%MW360.B 50 **80**	%MW345.H **70** 46	%MW345.B 50 **80**	
295 < Length <= 300	%MW360.H **30** 1E	%MW360.B 50 **80**	%MW346.H **72** 48	%MW346.B 53 **83**	
300 < Length <= 305	%MW360.H **30** 1E	%MW360.B 50 **80**	%MW347.H **77** 4D	%MW347.B 53 **83**	
305 < Length <= 310	%MW360.H **30** 1E	%MW360.B 50 **80**	%MW348.H **80** 50	%MW348.B 55 **85**	
310 < Length <= 315	%MW360.H **30** 1E	%MW360.B 50 **80**	%MW349.H **82** 52	%MW349.B 55 **85**	
315 < Length <= 320	%MW360.H **30** 1E	%MW360.B 50 **80**	%MW350.H **85** 55	%MW350.B 55 **87**	
Arm position	**Front->Back**	**Back->Front**	**Front->Back**	**Back->Front**	

Length folding setting : 10 folds mode

Length sheet (cm)	MW11 1 fold (+MW4->C2.P)	MW12 2&3 fold (+MW5->C3.P)	MW13 4&5 fold (+MW6->C4.P)	MW14 6&7 fold (+MW7->C5.P)	MW15 8 fold (+MW8->C6.P)	10 fold
320 < Length <= 245	%MW360.H **30** 1E	%MW360.B 50 **80**	%MW351.H **70** 46	%MW351.B 2D **45**	%MW352.H **80** 50	
325 < Length <= 250	%MW360.H **30** 1E	%MW360.B 50 **80**	%MW352.B **70** 46	%MW353.H 2D **45**	%MW353.B **80** 50	
330 < Length <= 255	%MW360.H **30** 1E	%MW336.B 50 **80**	%MW354.H **70** 46	%MW354.B 2D **45**	%MW355.H **80** 50	
335 < Length <= 260	%MW360.H **30** 1E	%MW360.B 50 **80**	%MW355.B **75** 4B	%MW356.H 2D **45**	%MW356.B **80** 50	
340 < Length <= 265	%MW360.H **30** 1E	%MW360.B 50 **80**	%MW357.H **75** 4B	%MW357.B 32 **50**	%MW358.H **80** 50	
345 < Length <= 270	%MW360.H **30** 1E	%MW360.B 50 **80**	%MW358.B **80** 50	%MW359.H 32 **50**	%MW359.B **80** 50	
Arm position	**Front->Back**	**Back->Front**	**Front->Back**	**Back->Front**	**Front->Back**	**Front**

Decimal / Hexadecimal conversion table

Decades Units	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
0	**0A**	**14**	**1E**	**28**	**32**	**3C**	**46**	**50**	**5A**
1	**0B**	**15**	**1F**	**29**	**33**	**3D**	**47**	**51**	**5B**
2	**0C**	**16**	**20**	**2A**	**34**	**3E**	**48**	**52**	**5C**
3	**0D**	**17**	**21**	**2B**	**35**	**3F**	**49**	**53**	**5D**
4	**0E**	**18**	**22**	**2C**	**36**	**40**	**4A**	**54**	**5E**
5	**0F**	**19**	**23**	**2D**	**37**	**41**	**4B**	**55**	**5F**
6	**10**	**1A**	**24**	**2E**	**38**	**42**	**4C**	**56**	**60**
7	**11**	**1B**	**25**	**2F**	**39**	**43**	**4D**	**57**	**61**
8	**12**	**1C**	**26**	**30**	**3A**	**44**	**4E**	**58**	**62**
9	**13**	**1D**	**27**	**31**	**3B**	**45**	**4F**	**59**	**63**

Folding parameters in «FIX» mode :

Length sheet	Offset 1st fold	Offset last fold	Nb. of fold				
			4	6	8	10	12
90	5	5	25	–	–	–	–
95	5	5	26	–	–	–	–
100	5	5	28	–	–	–	–
105	5	5	29	–	–	–	–
110	5	5	30	–	–	–	–
115	5	5	31	21	–	–	–
120	5	5	33	22	–	–	–
125	5	5	34	23	–	–	–
130	5	5	35	23	–	–	–
135	5	5	36	24	–	–	–
140	5	5	38	25	–	–	–
145	5	5	39	26	–	–	–
150	5	5	40	27	–	–	–
155	5	5	41	28	21	–	–
160	5	5	43	28	21	–	–
165	5	5	44	29	22	–	–
170	5	5	45	30	23	–	–
175	5	5	46	31	23	–	–
180	5	5	48	32	24	–	–
185	5	5	49	33	24	–	–
190	5	5	+	33	25	–	–
195	5	5	+	34	26	21	–
200	5	5	+	35	26	21	–
205	5	5	+	36	27	22	–
210	5	5	+	37	28	22	–
215	5	5	+	38	28	23	–
220	5	5	+	38	29	23	–
225	5	5	+	39	29	24	–
230	5	5	+	40	30	24	–
235	5	5	+	41	31	25	20
240	5	5	+	42	31	25	21
245	5	5	+	43	32	26	21
250	5	5	+	43	33	26	22
255	5	5	+	44	33	27	22
260	5	5	+	45	34	27	23
265	5	5	+	46	34	28	23
270	5	5	+	47	35	28	23
275	5	5	+	48	36	29	24
280	5	5	+	48	36	29	24
285	5	5	+	49	37	30	25
290	5	5	+	+	38	30	25
295	5	5	+	+	38	31	25

Folding parameters in «FIX» mode :

Length sheet	Offset 1 pli	Offset last fold	Nb. of fold				
			4	6	8	10	12
300	5	5	+	+	39	31	26
305	5	5	+	+	39	32	26
310	5	5	+	+	40	32	27
315	5	5	+	+	41	33	27
320	5	5	+	+	41	33	28
325	5	5	+	+	42	34	28
330	5	5	+	+	43	34	28
335	5	5	+	+	43	35	29
340	5	5	+	+	44	35	29
345	5	5	+	+	44	36	30
350	5	5	+	+	45	36	30

TSX Address	Designation	Mnemo	Comment
%MW0			
%MW1	measured sheet on feeding	L_DRAP	:= LONG_CORE
%MW2			
%MW3			
%MW4	1st fold correction (back fold)	CPLI1	= factory constant fold 1 + KW0
%MW5	2 & 3th fold correction (front fold)	CPLI45	= factory constant fold 23 + KW1
%MW6	4 & 5th fold correction (back fold)	CPLI45	= factory constant fold 45 + KW2
%MW7	6 & 7th fold correction (front fold)	CPLI67	= factory constant fold 67 + KW13
%MW8	8 & 9th fold correction (back fold)	CPLI89	= factory constant fold 89 + KW14
%MW9			
%MW10			
%MW11	1st fold value	RPLI_A1	: = C2.P
%MW12	2 & 3th fold values	RPLI_A23	: = C3.P
%MW13	4 & 5th fold values	RPLI_A45	: = C4.P
%MW14	6 & 7th fold values	RPLI_A67	: = C5.P
%MW15	8 & 9th fold values	RPLI_A89	: = C6.P
%MW16			
%MW17			
%MW18			
%MW19			
%MW80	Free		
%MW81	Fold width in cm	PLI_CM	Octé de poids fort %MW200
%MW82	Offset of 1 fold	RETRAIT	Octé de poids faible %MW200
%MW83	Correction LONG_CORx : = Cx.V + Cx.V * (1/CORR)	CORR	15
%MW84	Fold value when folding arm go to front in cm	PLI_AV	
%MW85	Fold value when folding arm go to back in cm	PLI_AR	
%MW86	Ironer input no correct length in cm	LONG_E	: = C1.V no correct
%MW87	The next fold instruction in manuel	CONS_M	
%MW88	Ironer input length intermediate	INT_LONGE	
%MW89	Data capture stage	ETAP_ACQ	
%MW90	Register destoking stage	ETAP_DESTOCK	

TSX Address	Designation	Mnemo	Comment
%MW91	Ironer outputs correct length in cm	LONG_CORS	
%MW92	Intermediate for 1st fold calcul (manuel)	Sans	
%MW93	Free		
%MW94	Correction when folding arm go to front in cm	AVANT	
%MW95	Correction when folding arm go to back in cm	ARRIERE	
%MW96	Free		
%MW97	Free		
%MW98	Ironer output length intermediate calcul	INT_LONGS	
%MW99	Ironer output length no correct	LONG_S	= C0.V no correct
%MW100	Next fold correction to the front (manuel)	AVANT	
%MW101	Next fold correction to the back (manuel)	ARRIERE	
%MW102	1st fold correction to thr back (manuel)	RPLI_M1	= factory constant fold 1 + KW10
%MW103	2 & 3th fold correction to the front (manuel)	RPLI_M23	= factory constant fold 23+ KW11
%MW104	4 & 5th fold correction to the back (manuel)	RPLI_M45	= factory constant fold 45+ KW12
%MW105	6 & 7th fold correction to the front (manuel)	RPI_M67	= factory constant fold 67 + KW13
%MW106	8 & 9th fold correction to the back (manuel)	RPLI_M89	= factory constant fold 89 + KW14
%MW107	10 & 11th fold correction to the front (manuel)	RPLI_M10_M11	= factory constant fold 10 11 + KW15
%MW108	Reserved 12-13		
%MW109	Reserved 14-15		
%MW110	Reserved 16-17		
%MW199	Mise en forme %MW200	Sans	
%MW200	length fold (Pfort) et offset (Pfaible)	L_PLI_RETRAIT	
%MW201	Folding mode, 0 = without, 1 = Auto, 2 = Manu	MODE_PLI	
%MW202	Folding error	ERREUR	
	0 = no error		
	1 = reception vat		
	2 = roller not raised		

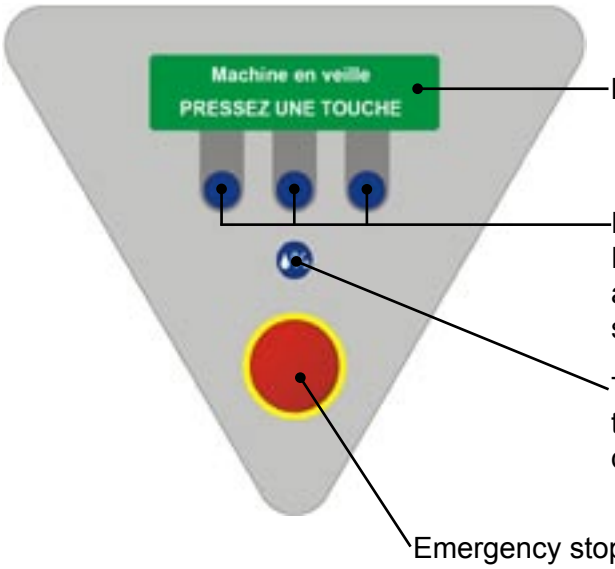
TSX Address	Designation	Mnemo	Comment
%KW0	1st fold fine adjusting to the back (manuel)	RPLI_A1	
%KW1	2 & 3th fold fine adjusting to the front (manuel)	RPLI_A23	
%KW2	4 & 5th fold fine adjusting to the back (manuel)	RPLI_A45	
%KW3	6 & 7th fold fine adjusting to the front (manuel)	RPLI_A67	
%KW4	8 & 9th fold fine adjusting to the back (manuel)	RPL_A89	
%KW10	1st fold fine adjusting to the back (manuel)	RPLI_M1	
%KW11	2 & 3th fold fine adjusting to the front (manuel)	RPLI_M23	
%KW12	4 & 5th fold fine adjusting to the back (manuel)	RPLI_M45	
%KW13	6 & 7th fold fine adjusting to the front (manuel)	RPLI_M67	
%KW14	8 & 9th fold fine adjusting to the back (manuel)	RPLI_M89	
%KW15	10 & 11th fold fine adjusting to the front (manuel)	RPLI_M10_M11	
%M0	Raz activated	RAZ_EN_COURS	
%M2	Validation bit for anticipate fold if the sheet > 1600 mm	PLI_ANTICIPE	
%M3	Floding arm for the front bit relay control	BRAS_AV	
%M4	Floding arm for the back bit relay control	BRAS_AR	
%M5	Evacuation activated		
%M6	Tempo relay bit TM0.Q		
%M7	Manuel mode activated		
%M8	Auto mode activated		
%M10	Tempo relay bit TM4.Q		

TSX Address	Designation	Utilisation	Mnemo	Comment
%C0	ironer outputs counter	Manu - Auto	COMPT_SORTIE	
%C1	ironer inputs counter	Auto	COMPT_ENTREE	
%C2	1 fold counter	Auto	C_PLI_1	
%C3	2 & 3 folds counter	Auto	C_PLI_23	
%C4	4 & 5 folds counter	Auto	C_PLI_45	
%C5	6 & 7 folds counter	Auto	C_PLI_67	
%C6	8 & 9 folds counter	Auto	C_PLI_89	
%C8	Nb folds counter	Manu	C_NB_PLI	

TSX Address	Designation	Config	Mnemo	Comment
TM0	Evacuation table	TON/40 x 100ms		Calcul selon drap et mode de pliage
TM1	Folding arm	TP/20 x 10ms		
TM2	Roller raised	TP/10 x 100ms		
TM4	Antistatic bar	TON/60 x 1s		

Service Manual

Service Manual



X2 Sensor T1 (right side)

X2.1	Earth
X2.2	White
X2.3	Red/Red

X2 Sensor T2 (center)

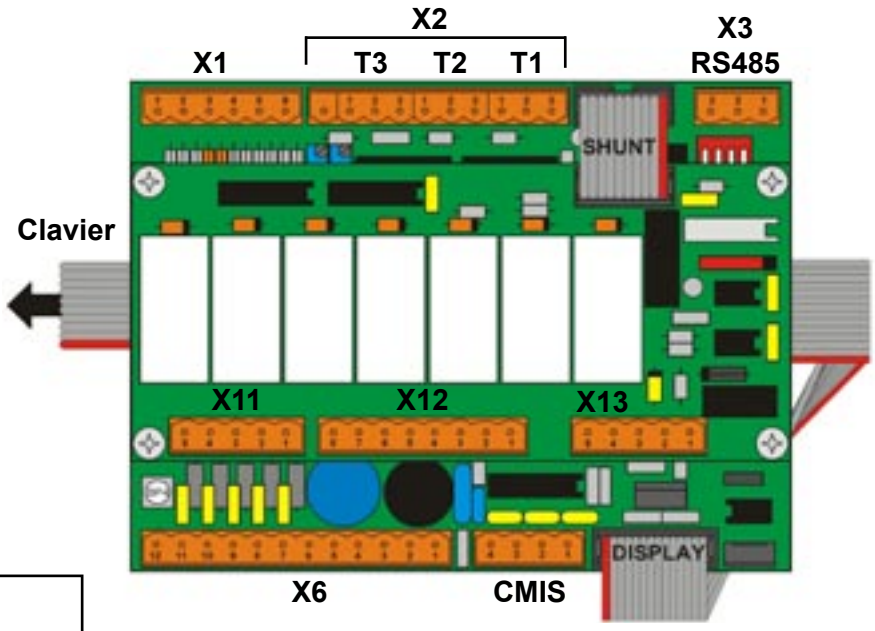
X2.1	Earth
X2.2	White
X2.3	Red/Red

X2 Sensor T3 (left side)

X2.1	Earth
X2.2	White
X2.3	Red/Red

X1 Moisture sensors B24

X1.1	Moisture Out (Black)
X1.2	Moisture Out (Black)
X1.3	Earth Out (Tresse)
X1.4	Moisture In (Option)
X1.5	Moisture In (Option)
X1.6	Earth In (Option)



X11

X11.1	Heating out to 20
X11.2	Shunt to X12.2
X11.3	Not used
X11.4	Safety thermostat B3
X11.5	Safety thermostat B3

X12 Outputs

X12.1	Phase 8 (230V)
X12.2	Shunt to X11.2 Heating
X12.3	C.T. Left 18
X12.4	C.T. Right 17
X12.5	KM1 16 BT On
X12.6	Converter failure.14 BT On
X12.7	Converter failure14 BT Stop
X12.8	Fan ipso 22 BT Arrêt

X13

X13.1	Earth plaiting, speed potentiometer
X13.2	Supply, speed potentiometer
X13.3	Common, speed potentiometer
X13.4	With/without folding 38
X13.5	With/without folding 24

X3 RS485 (PLC)

X3.1	B (White)
X3.2	A (Brun)
X3.3	SG (Black)

CMIS

CMIS.1	RX
CMIS.2	TX
CMIS.3	0V
CMIS.4	12V

X6 Inputs

X6.1	24V
X6.2	0V
X6.3	Earth
X6.4	Not used (24V)
X6.5	Not used (0V)
X6.6	Counting I0.4
X6.7	Gaz failure 25
X6.8	Emergency stop 13
X6.9	KM1 contact 16
X6.10	Table cell 77
X6.11	Not used (24V)
X6.12	Not used (0V)

CONTROL DISPLAY :

See operating handbook, Chapter 3 page 2

MENU / DISPLAY :

See operating handbook, Chapter 3 page 7

SERVICE PROGRAMME :

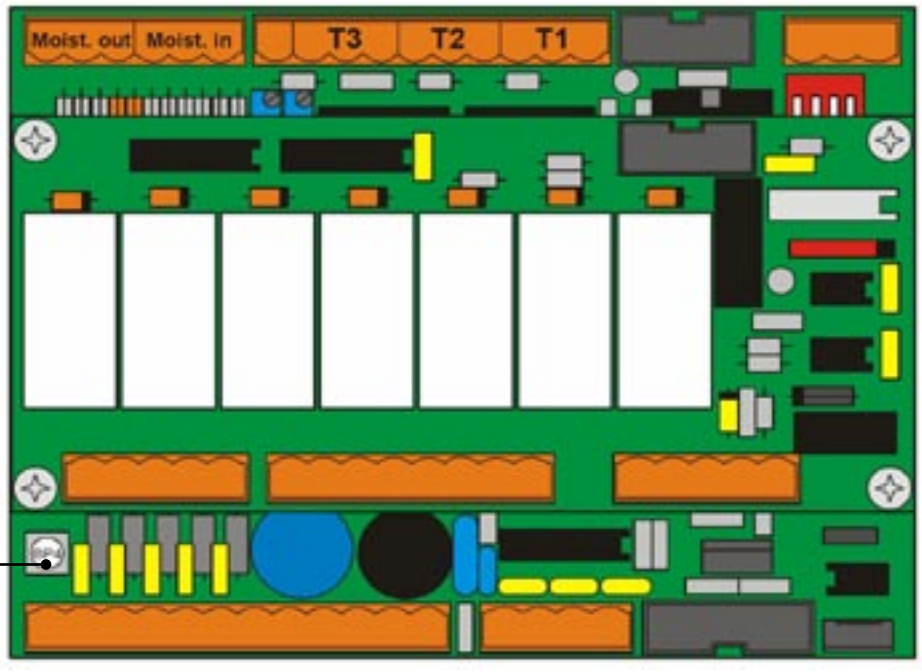
Switching to «Service Option» Mode

The machine has been set in the factory to specific values of heating, folding, temperature, ironing speed, operating language, etc. These values and specifications can be set in the «Service Option» mode menus.
The parameters must always correspond to the specific type of machine.

CAUTION

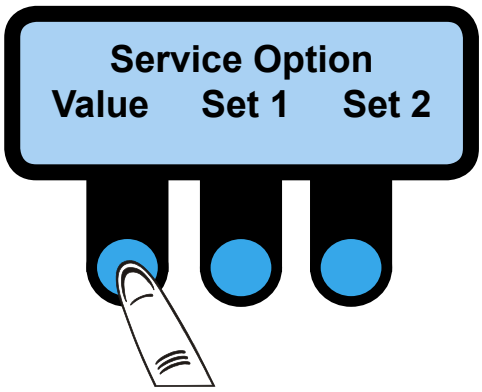
The printed circuit control board carries very high voltages. Maintenance should be carried

- Remove the left-hand side cover.
- Press on the printed circuit pushbutton (PB4) using an insulated tool.
- After completing the adjustments, put back the left-hand side cover.



SELECTING VALUE MODE

Note: pressing the middle button while in any of the menus allows you to exit Value mode and return to Client Mode. The lateral buttons allow to go to the previous menu and to the next menu.

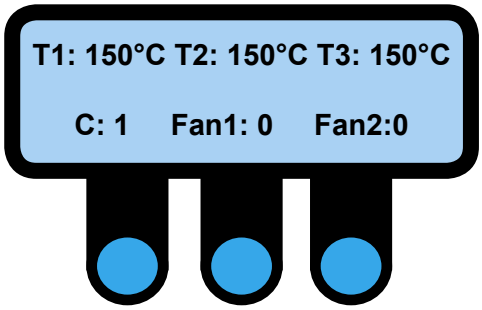


Service Option screen

When the pushbutton of the printed circuit is pressed, the Service Option menu will appear on the screen.

It should be noted that the Service Option menus are only displayed in English.

- The Value option allows you to view the values of the settings (does not allow them to be altered).



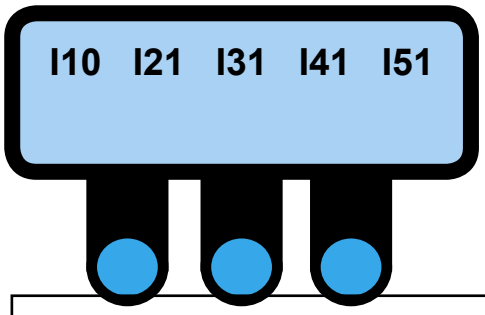
Cylinder temperature and heating parameters display

This screen displays the temperature values during operation.

- Temperature T1 corresponds to the sensor on the left-hand side of the cylinder.
- Temperature T2 corresponds to the sensor at the centre of the cylinder.
- Temperature T3 corresponds to the sensor on the right-hand side of the cylinder.
- The parameter C: gives information on the heating :
  - the digit 0 after the C means that the heating is off
  - the digit 1 after the C means that the heating is on.
- The two following parameters give information on the turning heat option:

  1:0 = turning heat option on the left side is off
  1:1 = turning heat option on the left side is on
  2:0 = turning heat option on the right side is off
  2:1 = turning heat option on the right side is on

It should be noted that pressing the centre button will return you to Client mode.
The left-hand and right-hand side buttons allow you to scroll through the various menus.



Inputs display of the control panel

This screen displays the state of the various inputs of the control panel, coming from the parts of the machine.

• The parameter I1 give information on the sheet detection cell of the feeding table :

- the digit 0 after this parameter means that there is no sheet on the feeding table
- the digit 1 after this parameter means that there is a sheet on the feeding table

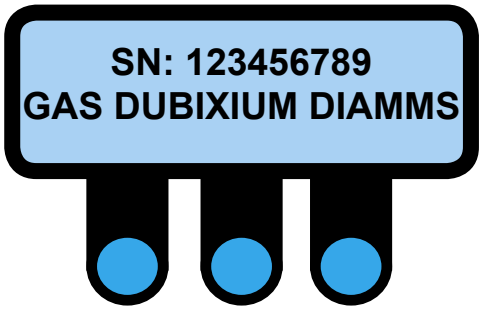
• The parameter I2 gives information on the contactor KM1:
- after this parameter, the digit 0 means that the contactor is open
- after this parameter, the digit1 after this parameter means that the contactor is shut down.

• The parameter I3 gives information on the emergency stop pushbutton:
- after this parameter, the digit 0 means that the emergency stop pushbutton is activated
- after this parameter, the digit 1 means that the emergency stop pushbutton is released

• The parameter I4 gives information on the gas:
- after this parameter, the digit 0 means that there is a gas problem
- after this parameter, the digit 1 means that there is no gas problem

• The parameter I5 gives information on the counting cell, on the reducer outlet.

A correct operation of the cell is indicated by the simultaneous display of the 1 and the 0. Should the digit 0 stays alight, the cell is defective.



Serial number and options display

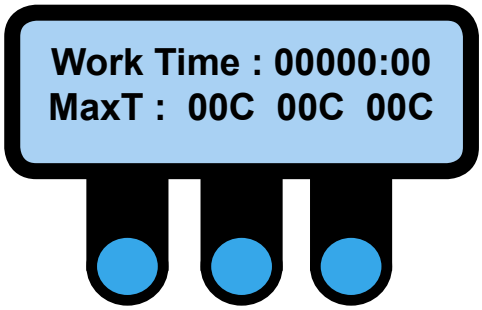
The first line of this screen displays the serial number of the machine (8 digits).

The second line displays the heating:

GAS = gas heated machine
ELEC = electrically heated machine
STEAM = steam heated machine.

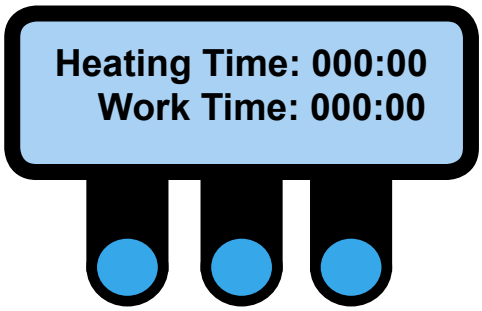
The parameter DUBIXIUM means that the machine is equipped with this type of cylinder.

The parameter DIAMMS means that the control panel is fitted to control this option.



Display the total operating tima and the maximum value readed by the temparatures sensors

This screen displays the total operating time and the maximum value readed by the temperatures sensors (in the event of rupture of the thermal fuse) since the machine was first started-up.
This parameter cannot be reset to zero.

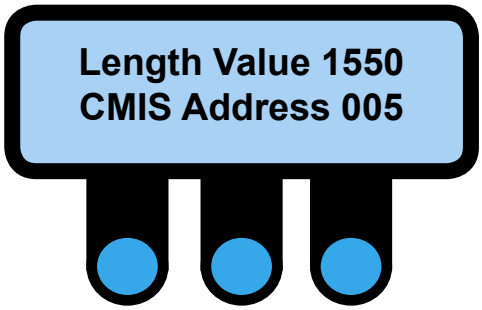


Daily operating time display

The first line of this screen displays the daily operating time of the machine's heating system in hours and minutes.

The second line shows the daily operating time of the machine in hours and minutes.

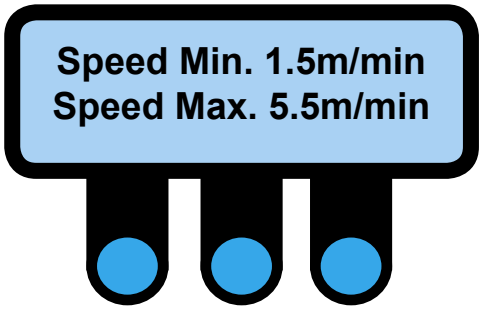
These parameters are reset whenever the sheet counter is reset to zero or the machine is switched on.



Operating parameters

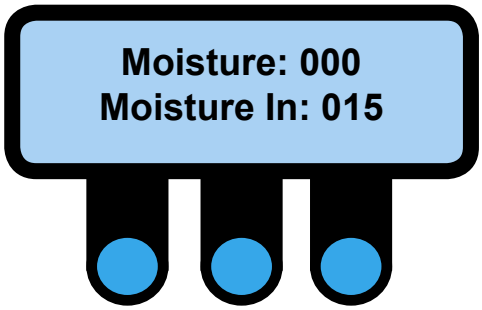
The first line of this screen displays the distance in mm between the cell of the feeding table and the moisture sensor. This value is set in the factory and is not to be altered.

The second line displays the network connection address of the machine when used with the CMIS system (optional PC-based centralised management and information system)



Ironing speed display

This screen displays the maximum and minimum ironing speed values declared during machine startup relative to the frequency converter.



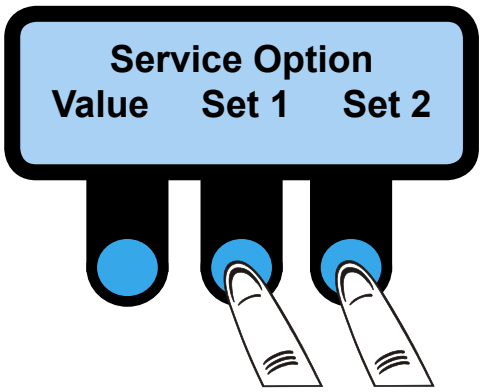
Moisture content display
(Only used when the machine is equipped with the DIAMMS option)

This screen displays the humidity values:

- The first line indicates the moisture content of the linen at the exit of the ironing cylinder. This value does not correspond in any event to the actual moisture content of the linen. It is only indicative.

- The second line has no function, it is reserved for future use. Do not take the value indicated in account, it has no meaning.

SELECTING SET1 & SET2 MODE



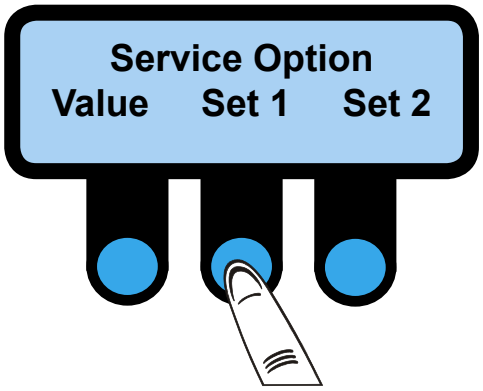
Service Option screen

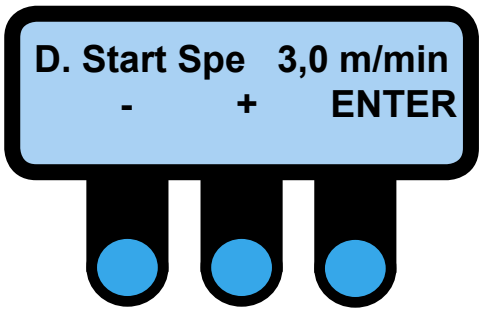
When the printed circuit pushbutton is operated, the Service Option menu will appear on the screen.

It should be noted that the Service Option menus are only displayed in English.

- The Set 1 and Set 2 options allows you to configure the machine's operating parameters.

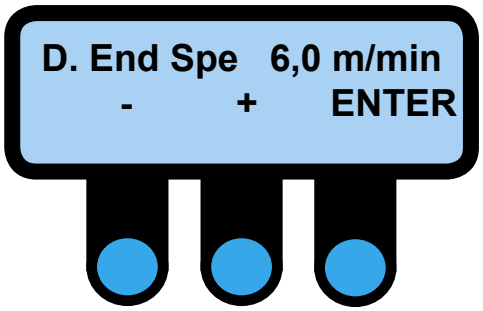
SELECTING SET 1 MODE





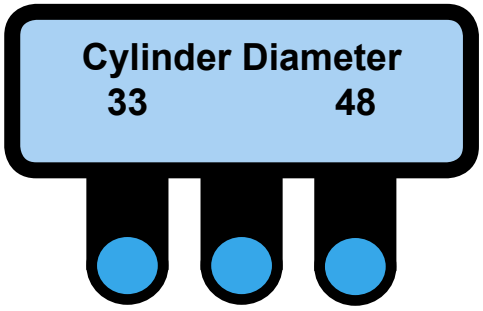
Diamms mini. speed adjust selection screen

This screen allows you to adjust the mini. speed of stating of Diamms (from 1.5 to 9 m/min)



Diamms maximum speed selection screen

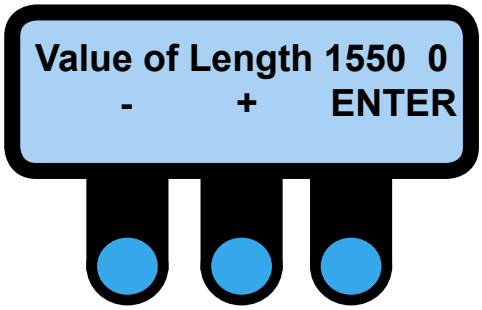
This screen allows you to adjust the maximum speed of Diamms (from 1.5 to 9 m/min)



Cylinder diameter selection screen

This screen allows you to set the cylinder diameter

- 33 = IC4 33xx
- 48 = IC4 48xx



Machine parameter length adjustment screen

This screen allows you to set the distance in mm between the cell of the feeding table and the moisture sensor.

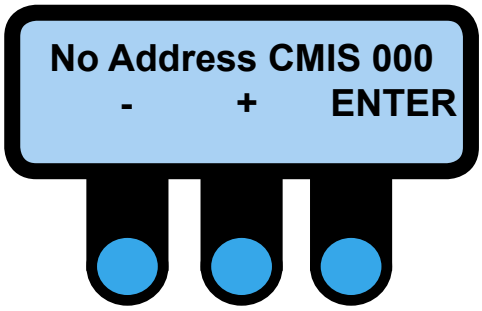
This factory default setting for this parameter is the value displayed (minimum display value = 100 mm ; maximum display value = 2400 mm). It should not be altered.

The isolated figure (0 or 1) after the machine parameter shows if a sheet is beeing ironed or not.

- (0) means there is no sheet beeing ironed.
- (1) means there is a sheet beeing ironed.

Second line:

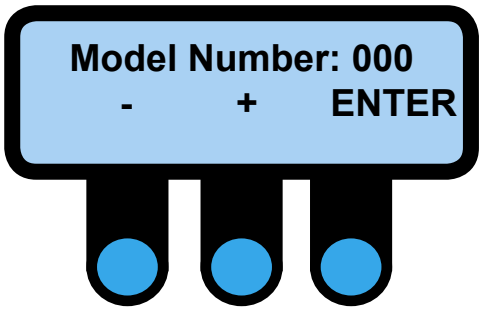
- (-) reduces the ironing length.
  The length setting can be altered in increments of 10 mm by pressing.
- (+) increases the ironing length.
  The length setting can be altered in increments of 10 mm by pressing.
- ENTER confirms the chosen settings.



CMIS address selection screen
(Only used when the machine is equipped with the CMIS)

This screen allows you to enter the value of the CMIS address allocated to the machine. This is the network connection address of the machine when used with the CMIS system (optional PC-based centralised management and information system). The factory default address setting is 000.

- (-) reduces the value (minimum display value = 001).The setting can be altered in increments of 1 by pressing.
- (+) increases the value (maximum display value = 127). The setting can be altered in increments of 1 by pressing.
- ENTER confirms the chosen settings.



Machine model selection screen
(Only used when the machine is equipped with the CMIS)

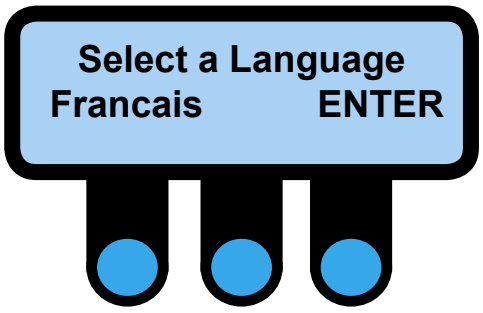
This screen allows you to select a machine model number according to its type and characteristics. This parameter is set in the factory and must not be changed if the machine characteristics remain unchanged. See table of values below.

- (-) reduces the value (minimum display value = 000). The setting can be altered in increments of 1 by pressing.
- (+) increases the value (maximum display value = 127). The setting can be altered in increments of 1 by pressing.
- ENTER confirms the chosen settings.

Table of models

- 4819	: **26**	- 4821	: **31**	- 4825	: **36**
- 4819 R	: **27**	- 4821 R	: **32**	- 4825 R	: **37**
- 4819 LF	:**28**	- 4821 LF	: **33**	- 4825 LF	: 38
- 4819 FLF	: **29**	- 4821 FLF	: **34**	- 4825 FLF	: **39**
- 4819 F-R	: **30**	- 4821 F-R	: **35**	- 4825 F-R	: **40**

- 4828	: **41**	- 4832	: **46**
- 4828 R	: **42**	- 4832 R	: **47**
- 4828 LF	: **43**	- 4832 LF	: **48**
- 4828 FLF	: **44**	- 4832 FLF	: **49**
- 4828 F-R	: **45**	- 4832 F-R	: **50**



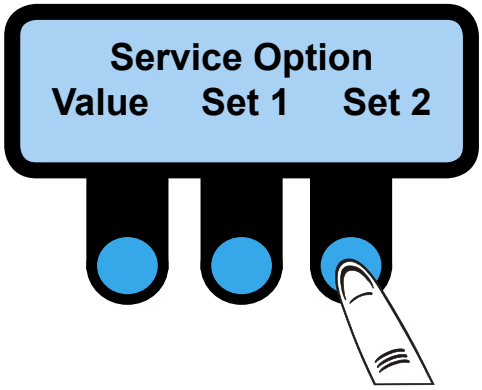
Language selection screen

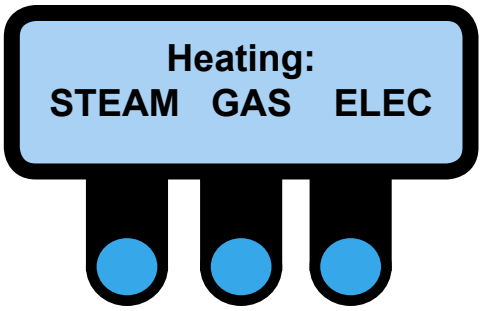
This screen allows you to display the display language chosen by the user.

- The two left-hand keys allow you to scroll through the available languages.
- ENTER confirms your choice..

Note: after answering the last question, the system will exit the service program and return to Client Mode.

SELECTING SET 2 MODE

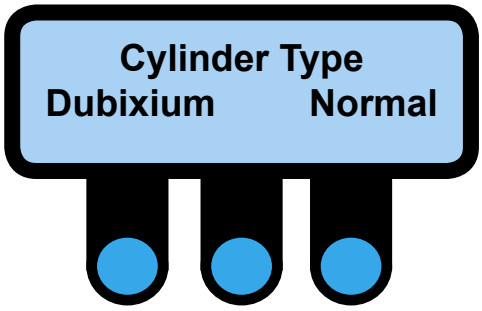




Heating type selection screen

This screen allows you to select the type of heating system used with the machine. This parameter is set in the factory during machine testing and should not normally be altered.

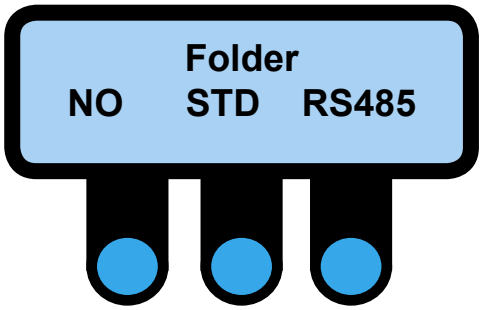
- **STEAM** selects a steam heated machine.
- **GAS** selects a gas heated machine.
- **ELEC** selects an electrically heated machine.



Cylinder type selection screen

This screen allows to select the type of cylinder which is mounted on the machine. You do not have to modify this set which has been set at the factory during the testing phase.

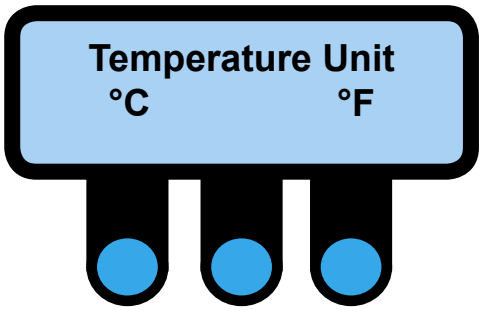
- Dubixium allows to select a machine equipped with a special cylinder.
- Normal allows the selection of a machine



With folding/Without folding option selection screen

This screen allows you to select the machine according to its configuration. This parameter is set in the factory during machine testing and should not normally be altered.

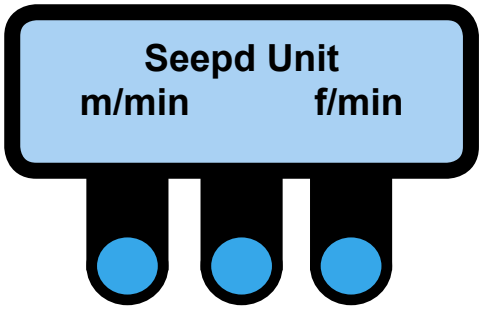
- NO selects a machine that is not equipped with the automatic folding option.
- AUTO selects a machine that is equipped with the automatic folding option.
- MANU selects a machine that is equipped with the folding option with manual setting of the fold length.



Temperature display scale selection screen (°C/°F)

This screen allows you to select the temperature scale used to display the ironing and control temperatures. The default factory setting is degrees Celsius (except for the US market).

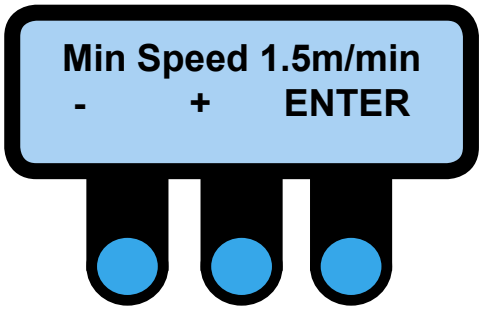
- °C selects a temperature display in degrees Celsius.
- °F selects a temperature



Ironing speed display mode selection screen

This screen allows you to select the units used to display the ironing speed. The default factory setting is m/min (except for the US market).

- m/min selects a display in metres per minute.
- f/min selects a display in feet per minute.

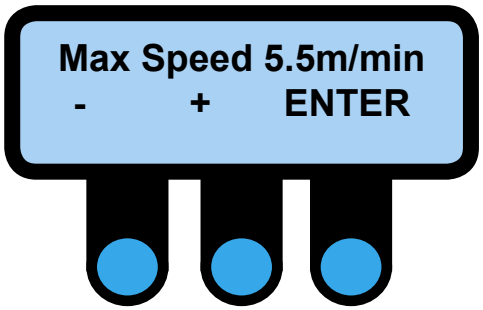


Minimum ironing speed selection screen

This screen allows you to define the minimum ironing speed. The default factory setting is 1.5 m/min (minimum display value = 1 m/min or 3.2 f/min).

- (-) reduces the minimum ironing speed. The speed can be altered in increments of 1/10 of a metre.
- (+) increases the minimum ironing speed. The speed can be altered in increments of 1/10 of a metre or 3/10 of a foot by pressing.
- ENTER confirms the chosen settings.

It should be noted that the minimum ironing speed depends on the converter parameter settings.



Maximum ironing speed selection screen

This screen allows you to define the maximum ironing speed. The default factory setting is 5.5 m/min (minimum display value = 21.5 m/min or 71 f/min).

- (-) reduces the maximum ironing speed. The speed can be altered in increments of 1/10 of a metre or 3/10 of a foot by pressing.
- (+) increases the maximum ironing speed. The speed can be altered in increments of 1/10 of a metre or 3/10 of a foot by pressing.
- ENTER confirms the chosen settings.

It should be noted that the maximum ironing speed

CONTROL DISPLAY UPGRADE :

- Switch off the machine.

- Remove the left cover.

- Disconnect all wires connected to the programmer.

- Remove the panel from its housing.

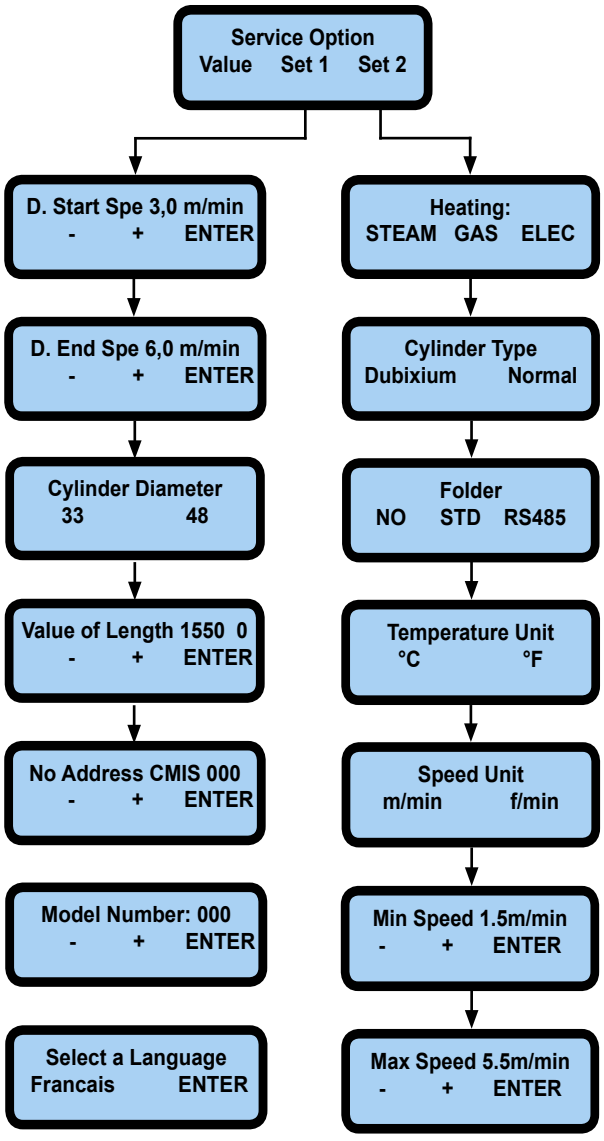
- Remove the upper electronic card from the programmer.

- Remove the language IC, and replace it with the new one.

- Remove the program IC, and replace it with the new one.

- Refit the parts in the reverse sequence.

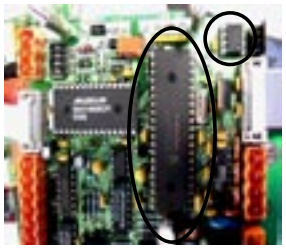
- Start the machine, and check the parameters (type of machine, type of heating, length of the ironing cylinder...).




1


2


3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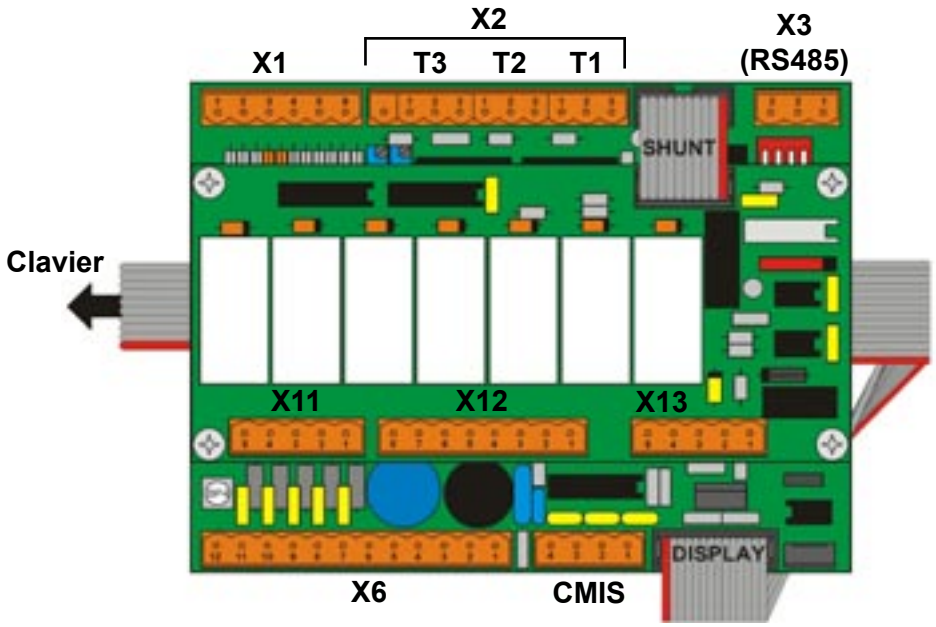
Service Manual

A1 CONTROL DISPLAY BOARD :



X1 Moisture sensor

X1.1	(black)	B24	moisture sensor
X1.2	(black)	B24	moisture sensor
X1.3	(tress)	B24	moisture sensor
X1.4		option	
X1.5		option	
X1.6		option	

X2 Sensor T1 (right side)

X2.1	(tress)	B20	temperature sensor
X2.2	(white)	B20	temperature sensor
X2.3	(red/red)	B20	temperature sensor

X2 Sensor T2 (center)

X2.1	(tress)	B21	temperature sensor
X2.2	(white)	B21	temperature sensor
X2.3	(red/red)	B21	temperature sensor

X2 Sensor T3 (left side)

X2.1	(tress)	B22	temperature sensor
X2.2	(white)	B22	temperature sensor
X2.3	(red/red)	B22	temperature sensor

X3 (RS485 PLC connection

X3.1	(B)	B	TWIDO PLC
X3.2	(A)	A	TWIDO PLC
X3.3	(SG)	SG	TWIDO PLC

X6 (Input)

X6.1	(24)	J8-1	A2 ironer interconnection board (24 Volts)
X6.2	(0)	J8-2	A2 ironer interconnection board (0 Volt)
X6.3	(Earth)	J8-3	A2 ironer interconnection board (Earth)
X6.4		Not used	
X6.5		Not used	
X6.6	(I0.4)	J8-4	A2 ironer interconnection board (B8 counting inductive detector)
X6.7	(25)	J8-5	A2 ironer interconnection board (KA8 Gaz failure)
X6.8	(13C)	J8-6	A2 ironer interconnection board (S11 Emergency stop)
X6.9	(16)	J8-7	A2 ironer interconnection board (KM1 contact)
X6.10	(77)	J8-8	A2 ironer interconnection board (B6 sheet detection photocell)
X6.11		Not used	
X6.12		Not used	

X11

X11.1	(20)	J18-10	A2 ironer interconnection board (gas ignition control)
X11.2	(88)	Shunt to X12.2	
X11.3		Not used	
X11.4	(B3B)	B3	Safety thermosta
X11.5	(B3A)	B3	Safety thermosta

X12 (Outputs)

X12.1	(8)	J18-3	A2 ironer interconnection board (space clamps motor control)
X12.2	(88)	shunt to X11.2	
X12.3	(18)	J18-4	A2 ironer interconnection board (Left electric heating air circulation)
X12.4	(17)	J18-5	A2 ironer interconnection board (Right electric heating air circulation)
X12.5	(16)	J18-6	A2 ironer interconnection board
X12.6	(14)	J18-7	A2 ironer interconnection board
X12.7	(14)	J18-8	A2 ironer interconnection board
X12.8	(22)	J18-9	A2 ironer interconnection board (Fan ipso failure B12)

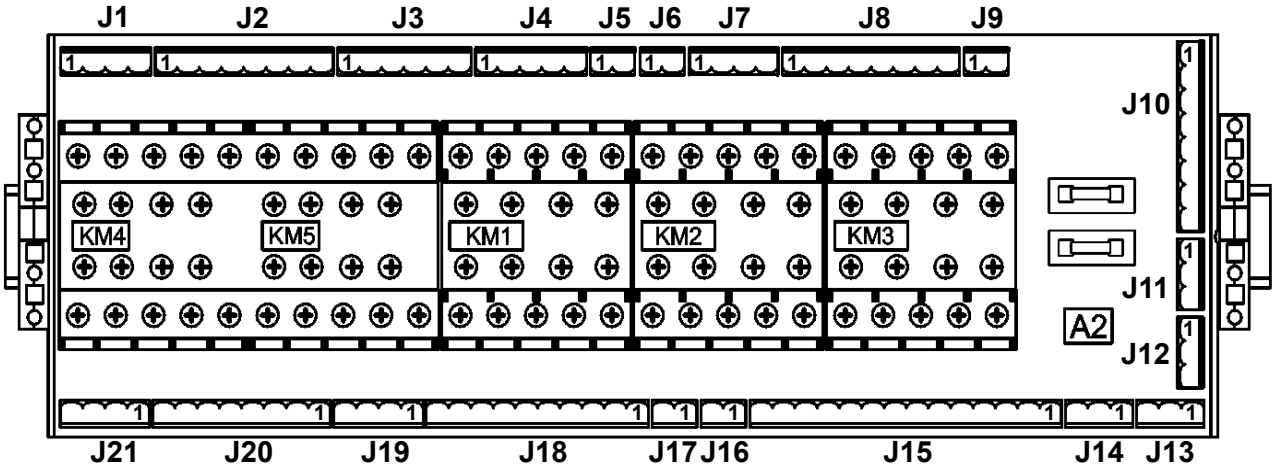
X13

X13.1	(tress)	ground potar speed	
X13.2	(AI)	AI	A3 frequency convertor ATV11
X13.3	(COM)	COM	A3 frequency convertor ATV11
X13.4	(38)	X17-1	With/without folding
X13.5	(24)	X17-2	With/without folding

CMIS

CMIS.1	RX
CMIS.2	TX
CMIS.3	0V
CMIS.4	12V

A2 IRONER INTERCONNECTION BOARD :



J1

J1-1			not used
J1-2	(L101)	M3	linen evacuation
J1-3	(L102)	M3	linen evacuation
J1-4	(L103)	M3	linen evacuation

J2

J2-1	(24)	S1	emergency stop
J2-2	(11)	S1	emergency stop
J2-3	(11)	S2	micro-switch emergency stop
J2-4	(13A)	S2	micro-switch emergency stop
J2-5	(13A)	S10	emergency stop / shunt to J2-7 (13B)
J2-6	(13B)	S10	emergency stop / shunt to J2-5 (13A)
J2-7	(13B)	S11	emergency stop / shunt to J2-8 (13C)
J2-8	(13C)	S11	emergency stop / shunt to J2-7 (13B)

J3

J3-1	(13C)	B12	fan protection
J3-2	(22)	B12	protection
J3-3	(L33)	M1	fan motor
J3-4	(L32)	M1	fan motor
J3-5	(L31)	M1	fan motor
J3-6			not used

J4

J4-1	R1C	A3	frequency converter ATV11
J4-2	R1A	A3	frequency converter ATV11
J4-3	not used		
J4-4	L1	A3	frequency converter ATV11
J4-5	L2	A3	frequency converter ATV11

J6

J6-1	Y5	arm folder clutch	
J6-2	Y5	arm folder clutch	

J7

J7-1	(36)	S8	ejection limit switch
J7-2	(Q0.2)	S8	ejection limit switch
J7-3	(24)	S8	ejection limit switch
J7-4	(I0.3)	S8	ejection limit switch

J8

J8-1	(24)	X6-1	A1 control display board (24 volts)
J8-2	(0)	X6-2	A1 control display board (0 volts)
J8-3	(terre)	X6-3	A1 control display board (Earth)
J8-4	(I0.4)	X6-6	A1 control display board (B8 counting inductive detector)
J8-5	(25)	X6-7	A1 control display board (KA8 fault gaz relay)
J8-6	(13C)	X6-8	A1 control display board (ARU)
J8-7	(16)	X6-9	A1 control display board
J8-8	(77)	X6-10	A1 control display board (B6 sheet detection photocell)

J9

J9-1	(0)	J101-2 ou J102-2	A5 rotation control board (0 Volt)
J9-2	(24)	J101-1 ou J102-2	A5 rotation control board (24 Volts)

J10 (Feeder connection)

J10-1	(77)	J203-1	A2 feeder interconnection board (B6 sheet detection photocell)
J10-2	(24)	J203-2	A2 feeder interconnection board (24 Volts)
J10-3	(16)	J203-3	A2 feeder interconnection board (ARU)
J10-4	(0)	J203-4	A2 feeder interconnection board (0 Volts)
J10-6	(8)	J203-6	A2 feeder interconnection board
J10-7	(5)	J203-7	A2 feeder interconnection board (supply 230 Volts)
J10-8	(6)	J203-8	A2 feeder interconnection board (supply 230 Volts)

J11

J11-1	(bleu)	B9	arm folder inductive detedtor
J11-2	(black)	B9	arm folder inductive detedtor
J11-3	(brun)	B9	arm folder inductive detedtor

J12

J12-1	(bleu)	B8	counting inductive detector
J11-2	(black)	B8	counting inductive detector
J11-3	(brun)	B8	counting inductive detector

J13

J12-1	(bleu)	B7	sheet folding photocell
J11-2	(black)	B7	sheet folding photocell
J11-3	(brun)	B7	sheet folding photocell

J14

J12-1	(bleu)	B6	sheet detection photocell
J11-2	(black)	B6	sheet detection photocell
J11-3	(brun)	B6	sheet detection photocell

J15

J15-1	(6)	L	PLC TWIDO
J15-2	(5)	N	PLC TWIDO
J15-3	(0)	DC IN	PLC TWIDO
J15-4	(I0.0)	I0.0	PLC TWIDO input
J15-5	(77)	I0.1	PLC TWIDO input
J15-6	(I0.2)	I0.2	PLC TWIDO input
J15-7	(I0.3)	I0.3	PLC TWIDO input
J15-8	(I0.4)	I0.4	PLC TWIDO input
J15-9	(I0.5)	I0.5	PLC TWIDO input
J15-10	(16)	I0.7	PLC TWIDO input
J15-11	(Q0.0)	Q0.0	PLC TWIDO output
J15-12	(Q0.1)	Q0.1	PLC TWIDO output
J15-13	(Q0.0)	Q0.0	PLC TWIDO output
J15-14	(0)	COM	PLC TWIDO

J21

J21-1		not used	
J21-2	(L21)	Q1	fan breaker
J21-3	(L22)	Q1	fan breaker
J21-4	(L23)	Q1	fan breaker

J16

J16-1	(24)	S9	reception table limit switch
J16-2	(I0.4)	S9	reception table limit switch

J17

J17-1	(6)	Q4	transformer protection breaker
J17-2	(5)	Q4	transformer protection breaker

J18

J18-1	(24)	shunt to J18-2
J18-2	(24)	shunt to J18-1
J18-3	(8)	X12-1 A1 control display board (space clamps motor control)
J18-4	(18)	X12-3 A1 control display board (left air circulation control)
J18-5	(17)	X12-4 A1 control display board (right air circulation control)
J18-6	(16)	X12-5 A1 control display board (ARU)
J18-7	(14)	X12-6 A1 control display board (frequency converter failure)
J18-8	(14)	X12-7 A1 control display board
J18-9	(22)	X12-5 A1 control display board (B12 fan protection failure)
J18-10	(20)	X11-1 A1 control display board (B4 combution pressure)

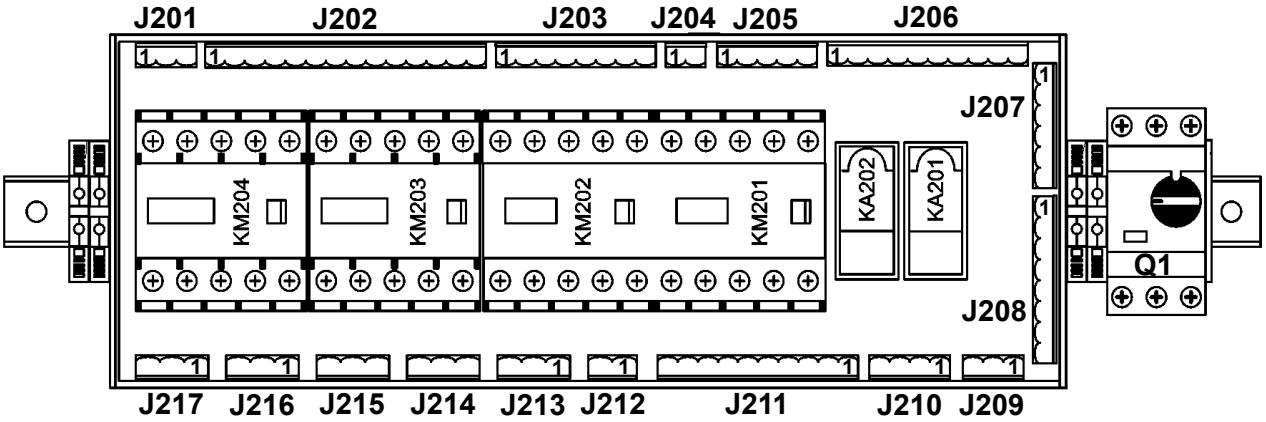
J19

J19-1	(20)	J104-2 rotation control board A5
J19-2	(62)	J104-1 rotation control board A5
J19-3	(62)	B4 combution pressure
J19-4	(26)	B4 combution pressure

J20

J20-1	(7)	KM6, KM7, KM8, KM9 & KM10
J20-3	(26)	KM6, KM7 et KM8 «heating elements»
J20-4	(17)	KM9 left heating air circulation contactor
J20-5	(18)	KM10 right heating air circulation contactor
J20-6	(25)	KM8 failure gas relay KA8 / contactor
J20-7	(24)	KA9 gas ignition power relay / contactor KM6
J20-8		not used

A2 FEEDER INTERCONNEXION BOARD :



J201

J201-1	(L203)	Q201	three-pole breaker
J201-2	(L202)	Q201	three-pole breaker
J201-3	(L201)	Q201	three-pole breaker

J202

J202-1	(258)	Q0.8	TWIDO PLC output
J202-2	(0)	COM2	TWIDO PLC
J202-3	(257)	Q0.7	TWIDO PLC output
J202-4	(256)	Q0.6	TWIDO PLC output
J202-5	(255)	Q0.5	TWIDO PLC output
J202-6	(254)	Q0.4	TWIDO PLC output
J202-7	(16)	COM1	TWIDO PLC
J202-8	(253)	Q0.3	TWIDO PLC output
J202-9	(252)	Q0.2	TWIDO PLC output
J202-10	(251)	Q0.1	TWIDO PLC output
J202-11	(250)	Q0.0	TWIDO PLC output
J202-12	(16)	COM1	TWIDO PLC
J202-13	(6)	L	TWIDO PLC
J202-14	(5)	N	TWIDO PLC

J203 (W10) ironer connection

J203-1	(77)	J10-1	A2 ironer interconnection board (B6 sheet detection photocell)
J203-2	(24)	J10-2	A2 ironer interconnection board (24 Volts)
J203-3	(16)	J10-3	A2 ironer interconnection board (ARU)
J203-4	(0)	J10-4	A2 ironer interconnection board (0 Volts)
J203-5		not used	
J203-6	(8)	J10-6	A2 ironer interconnection board
J203-7	(5)	J10-7	A2 ironer interconnection board (power supply 230 Volts)
J203-8	(6)	J10-8	A2 ironer interconnection board (power supply 230 Volts)

J204 (W11)

J204-1 —*(W11)*— J251-1 A5 supply ciruit of clamps motor
J204-2 —*(W11)*— J251-2 A5 supply ciruit of clamps motor

J205

J205-1	(77)	I0.13	PLC TWIDO input
J205-2	(222)	I0.12	PLC TWIDO input
J205-3	(221)	I0.11	PLC TWIDO input
J205-4	(220)	I0.10	PLC TWIDO input

J206

J206-1	(218)	I0.8	PLCTWIDO input
J206-2	(217)	I0.7	PLC TWIDO input
J206-3	(216)	I0.6	PLC TWIDO input
J206-4	(215)	I0.5	PLC TWIDO input
J206-5	(214)	I0.4	PLC TWIDO input
J206-6	(213)	I0.3	PLC TWIDO input
J206-7	(212)	I0.2	PLC TWIDO input
J206-8	(211)	I0.1	PLC TWIDO input
J206-9	(16)	I0.0	PLC TWIDO input
J206-10	(0)	DC IN	PLC TWIDO input

J207_A

J207-1	(215)	FC201	clamps mouvement position switch
J207-2	(24)	FC201	clamps mouvement position switch

J207_B

J207-1	(216)	FC202	put down sheet position switch
J207-2	(24)	FC202	put down sheet position switch

J207_C

J207-1	(217)	FC203	return clamps position switch
J207-2	(24)	FC203	return clamps position switch

J208 (W7)

J208-1	(211)	J228-1	A3 interconnection board (BP201 departure cycle push button)
J208-2	(212)	J228-2	A3 interconnection board (BP202 init push button)
J208-3	(213)	J228-2	A3 interconnection board (S201 feeding switch 3 positions)
J208-4	(214)	J228-2	A3 interconnection board (S201 feeding switch 3 positions)
J208-5	(218)	J228-2	A3 interconnection board (FC4 spaces clamps position switch)
J208-6	(219)	J228-2	A3 interconnection board (FC5 clamps close togeth position switch)
J208-7	(220)	J228-2	A3 interconnection board (B201 left smoothing inductive detector)
J208-8	(221)	J228-2	A3 interconnection board (B202 right smoothing inductive detector)

J209 (W8)

J209-1	(0)	B203	smoothing inductive detector
J209-2	(222)	B203	smoothing inductive detector
J209-3	(24)	B203	smoothing inductive detector

J210 (W13)

J210-1	(201)	J230-1	A3 interconnection board (E2 right clamps electromagnet)
J210-2	(202)	J230-2	A3 interconnection board (E2 right clamps electromagnet)
J210-3	(203)	J230-3	A3 interconnection board (E1 left clamps electromagnet)
J210-4	(204)	J203-4	A3 interconnection board (E1 left clamps electromagnet)

J211 (W12)

J211-1	not used		
J211-2	not used		
J211-3	not used		
J211-4	(254)	J231-4	A3 interconnection board (space clamps controm)
J211-5	(255)	J231-5	A3 interconnection board (close clamps control)
J211-6	(258)	J231-6	A3 interconnection board (feeding default indicator)
J211-7	(24)	J231-7	A3 interconnection board (24 Volts)
J211-8	(0)	J231-8	A3 interconnection board (0 Volt)
J211-9	(13A)	J231-9	A3 interconnection board (ARU)
J211-10	(13B)	J231-10	A3 interconnection board (ARU)

J212 (W9) ironer connection

J212-1	(13B)	J2-2
J212-2	(13A)	J2-1

J213 (M1)

J213-1	(W)	M1	front / back clamps motor
J213-2	(V)	M1	front / back clamps motor
J213-3	(U)	M1	front / back clamps motor

J214 (M4)

J214-1	(W)	M4	right smoothing motor
J214-2	(V)	M4	right smoothing motor
J214-3	(U)	M4	right smoothing motor

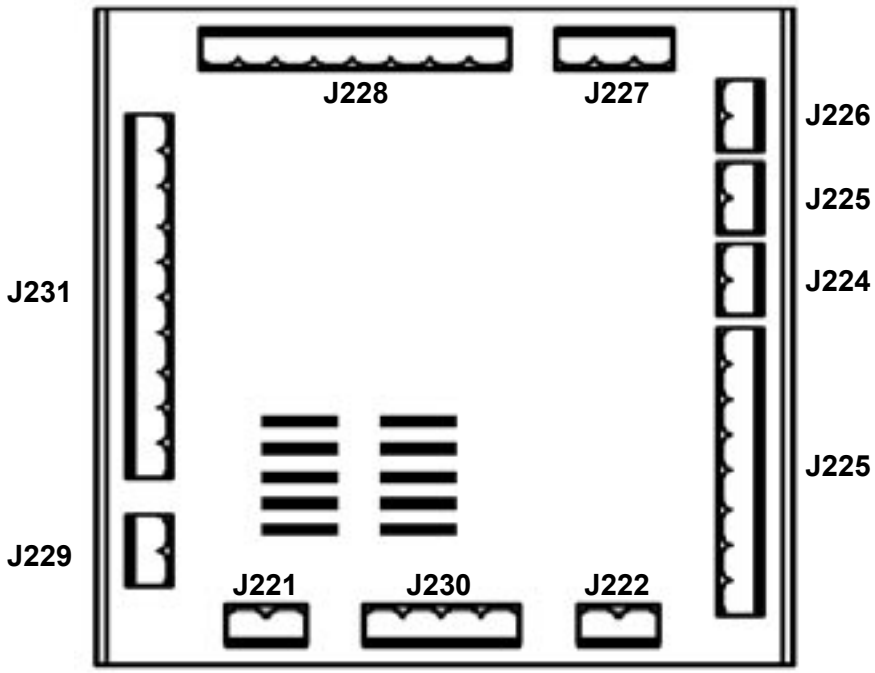
J215 (M3)

J215-1	(W)	M3	left smoothing motor
J215-2	(V)	M3	left smoothing motor
J215-3	(U)	M3	left smoothing motor

J217 (M5)

J217-1	(W)	M5	suction table motor
J217-2	(V)	M5	suction table motor
J217-3	(U)	M5	suction table motor

A3 INTERCONNECTION BOARD :



JJ221 (W15)

J221-1	(204)	E1	left clamps electromagnet
J221-2	(203)	E1	left clamps electromagnet

J222 (W14)

J222-1	(202)	E2	right clamps electromagnet
J222-2	(201)	E2	right clamps electromagnet

J223 (W2)

J223-1	(214)	S201	feeding switch 3 positions
J223-2	(213)	S201	feeding switch 3 positions
J223-3	(212)	BP202	init push button
J223-4	(211)	BP201	init push button
J223-5	(13B)	BP3	emergency stop ARU
J223-6	(13A)	BP3	emergency stop ARU
J223-7	(24)	S201, BP201, BP202 et H201	
J223-8	(258)	H201	fault indicator body

J224 (W3)

J224-1	(218)	FC4	space clamps position switch
J224-2	(24)	FC4	space clamps position switch

J225 (W4)

J225-1	(219)	FC5	clamps close togeth position switch
J225-2	(24)	FC5	clamps close togeth position switch

J226 (W5)

J226-1	(0)	B201	left smoothing inductive detector
J226-2	(220)	B201	left smoothing inductive detector
J226-3	(24)	B201	left smoothing inductive detector

J227 (W6)

J227-1	(0)	B202	right smoothing inductive detector
J227-2	(221)	B202	right smoothing inductive detector
J227-3	(24)	B202	right smoothing inductive detector

J228 (W7)

J228-1	(211)	J208-1	A2 feeder interconnection board (BP201 departure cycles pusch green button)
J228-2	(212)	J208-2	A2 feeder interconnection board (BP202 init push button)
J228-3	(213)	J208-3	A2 feeder interconnection board (S201 feeding switch 3 positions)
J228-4	(214)	J208-4	A2 feeder interconnection board (S201 feeding switch 3 positions)
J228-5	(218)	J208-5	A2 feeder interconnection board (FC4 space clamps position switch)
J228-6	(219)	J208-6	A2 feeder interconnection board (FC5 clamps clos togeth position switch)
J228-7	(220)	J208-7	A2 feeder interconnection board (B201 left smoothing inductive detector)
J228-8	(221)	J208-8	A2 feeder interconnection board (B202 right smoothing inductive detector)

J229 (W17)

J229-1	(0)	J250-1	A4 mouvement control board (0 Volt)
J229-2	(255)	J250-2	A4 mouvement control board (clamps close togeth control)
J229-3	(0)	J250-3	A4 mouvement control board (0 Volt)
J229-4	(254)	J250-4	A4 mouvement control board (space clamps control)

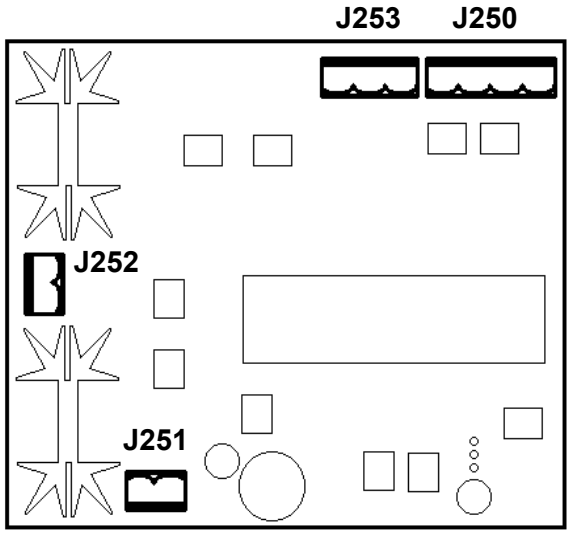
J230 (W13)

J230-1	(201)	J210-1	A2 feeder interconnection board (E2 right clamps electromagnet)
J230-2	(202)	J210-2	A2 feeder interconnection board (E2 right clamps electromagnet)
J230-3	(203)	J210-3	A2 feeder interconnection board (E1 letf clamps electromagnet)
J230-4	(204)	J210-4	A2 feeder interconnection board (E1 letf clamps electromagnet)

J231 (W12)

J231-1			not used
J231-2			not used
J231-3			not used
J231-4	(254)	J211-4	A2 feeder interconnection board (space clamps control)
J231-5	(255)	J211-5	A2 feeder interconnection board (clamps close togeth control)
J231-6	(258)	J211-6	A2 feeder interconnection board (fault indicator body control)
J231-7	(24)	J211-7	A2 feeder interconnection board (24 Volts)
J231-8	(0)	J211-8	A2 feeder interconnection board (0 Volt)
J231-9	(13A)	J211-9	A2 feeder interconnection board (ARU)
J231-10	(13B)	J211-10	A2 feeder interconnection board (ARU)

A4 & A5 CLAMPS MOUVEMENT CONTROL BOARD :



J250 (W17)

J250-1	(0)	J229-1	A3 interconnection board (0 Volt)
J250-2	(255)	J229-2	A3 interconnection board (clamps close togeth control)
J250-3	(0)	J229-3	A3 interconnection board (0 Volt)
J250-4	(254)	J229-4	A3 interconnection board (space clamps control commande)

J251 (W11)

J251-1	(8)	A2 feeder interconnection board (power supply)
J251-2	(5)	A2 feeder interconnection board (power supply)

J252 (W16)

J252-1	M2	space clamps motor
J252-2	M2	space clamps motor

J253 (W2)

J253-1	(1)	P1	clamps motor potentiometer
J253-2	(2)	P1	clamps motor potentiometer
J253-3	(3)	P1	clamps motor potentiometer

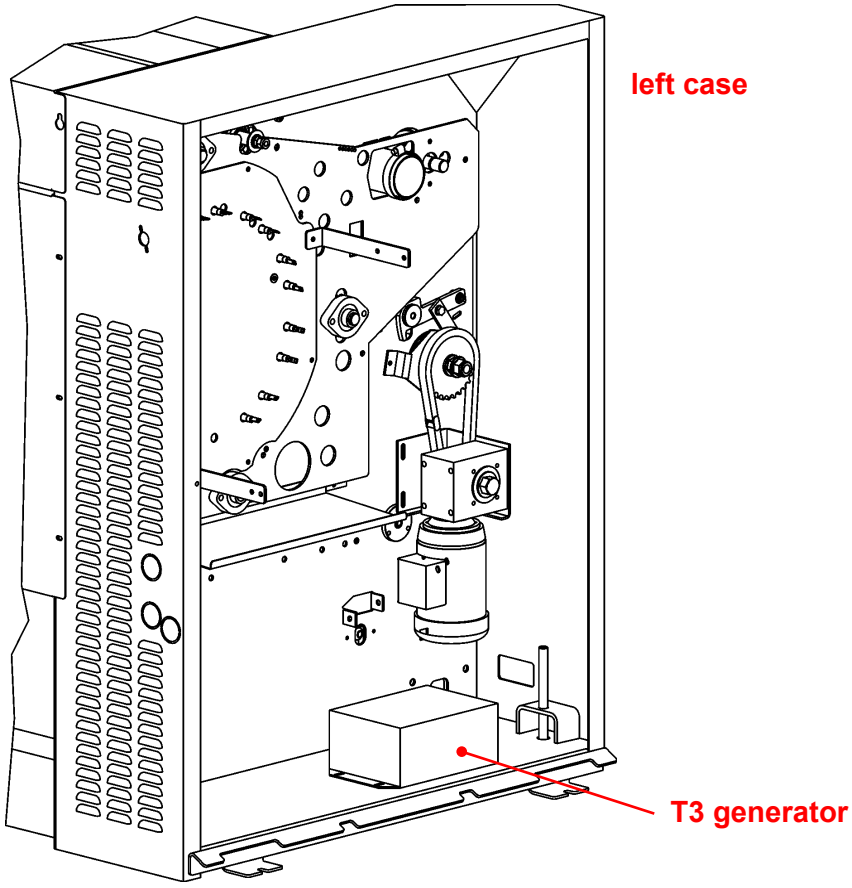
Service Manual

FREQUENCY CONVERTER ATV11 0.37KW CONFIGURATION

1. Switch ON
2. Remouve the shunt (display Rdy) LI1 +24
3. Go to the next setting (arrow)
4. Press 'ENT' for setting
5. Change the values if necessary
6. Press 'ENT' to record the value or to go back setting
7. Press 'ESC' to exit menu or to exit without backup

CODE	FONCTION	SETTING	Type
rdy	convertor ready		Affichage
ACC	Linear acceleration ramp	1	Setting
DEC	Linear deceleration ramp	1	Setting
LSP	Low speed	9.3	Setting
HSP	High speed	54	Setting
itH	Motor thermic protection	1.9	Setting
AiT	U parameter in tension	10U	Setting
drC	Motion Menu		Menu
UFr	Very low speed couple	50	Setting
nCr	Motor nominal current	1.9	Setting
SLP	Sliding conpensation	0	Setting
COS	Motor Cosinus phi	0.81	Setting
Fun	Menu Fonctions		Menu
tCC	Sub Menu inputs converter control	tCt	Menu
tCt	Sub Menu inputs converter control - Starting	LEL	Setting

Service Manual



DESCRIPTION :

The system « electrostatic bar » includes the following elements :

* 1 generator : **T3**

* 1 timer relay : **T4** (only for machine without folding)

* 1 Twido PLC (only for machine with folding)

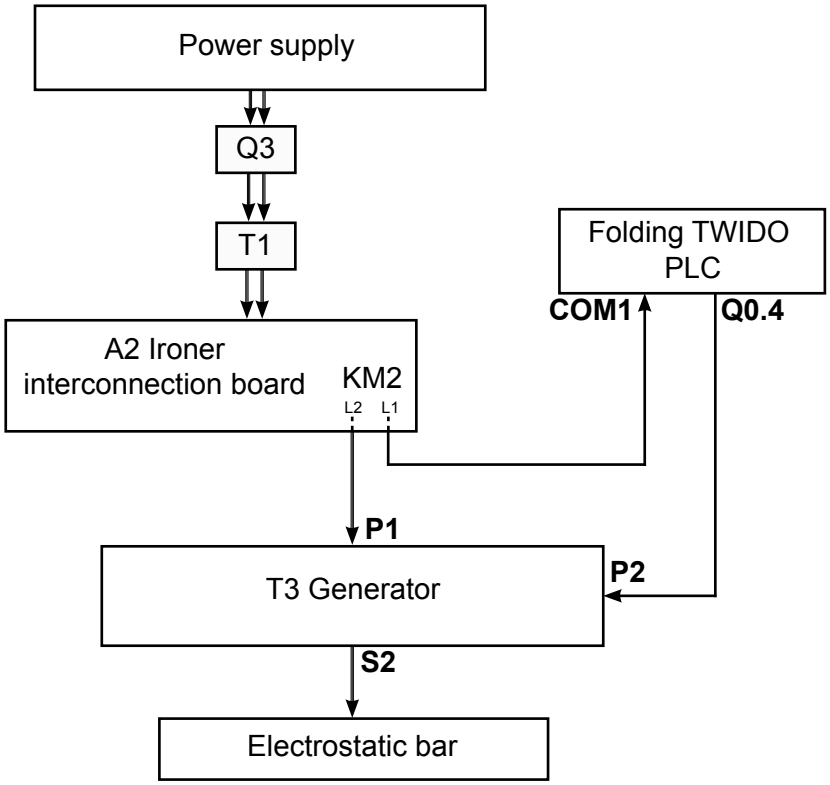
* 1 electrostatic bar

The T3 generator is fitted in the left cas of the machine. It is accessible by removing the left cover of the machine.

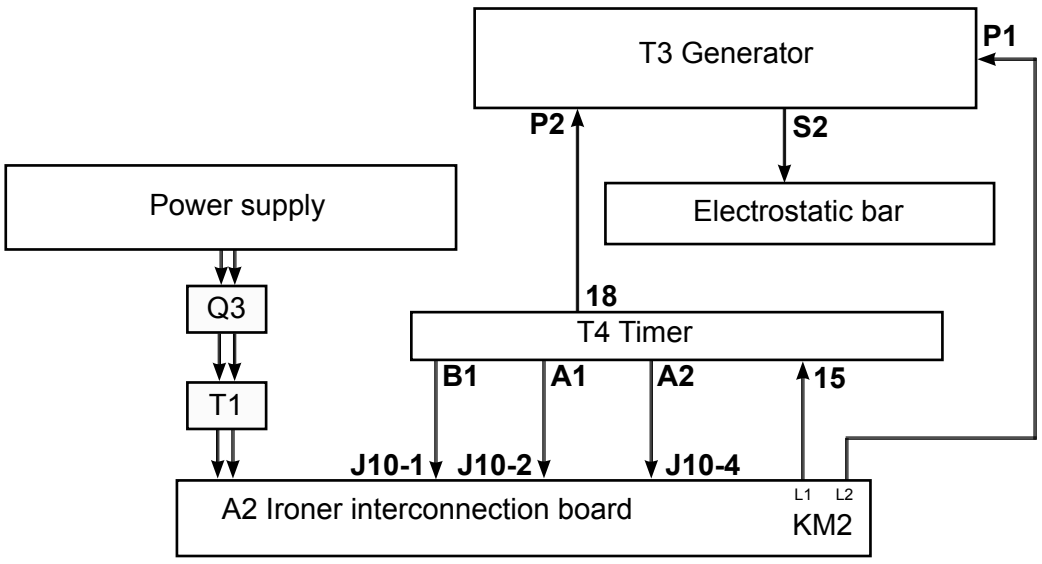
The electrostatic bar is fitted on the folder stop tube. It is accessible by the front of the machine.

The TWIDO PLC is fitted in the electric cabinet of the folder. It is accessible by removing the machine's left cover.

VERSION WITH FOLDING



VERSION WITHOUT FOLDING



OPERATION :

***Generator :* T3**

Controled by the folder PLC (output Q0.4) in version with folding,
the T4 timer relay in version without folding,

the T3 generator supplies the electrostatic bar.

***Timer Relay:* T4**

Connected on A2 Ironer interconnection board (terminals J10-1, J10-2 & J10-4) the timer relay power ON and OFF the electrostatic bar.

Electrostatic bar :

Connected on the T3 generator (terminal S2) the electrostatic bar deletes the electrostatic tension of the linen.

REPAIR :

***Generator :* T3**

Checking
- Check the wiring.
- Power on the machine, cacher la cellule B6 (version whitout folding) or B7 (version with folding), and checked qu'un crépitement se fait au niveau de la barre électrostatique, or approcher un tournevis (isolé de préférence) à 1 cm des picots de la barre et contrôler qu'un arc de cercle se crée.

Replacing
- Remove the left cover.
- Disconnect the wires.
- Remove the faulty generateur, and replace.
- Refit the parts in the reverse sequence.

***Timer Relay :* T4**

Checking
- Check the wiring.
- Power on the machine, alimenter le relais temporisé et contrôler à l'aide d'un multimètre la conductivité (borne 15 & 18). Si le contact ne se fait pas au bout de la temporisation pré-réglée, c'est que le relais temporisé est hors service.

Replacing
- Remove the left cover.
- Disconnect the wires.
- Remove the faulty timer relay, and replace.
- Refit the parts in the reverse sequence.

REPAIR :

Electrostatic bar :

Checking
- Check the wiring.
- Power on the machine, cacher la cellule B6 (version whitout folding) or B7 (version with folding), and checked that there is a decrepitation on the electrostatic bar, or approached un tournevis (isolé de préférence) à 1 cm des picots de la barre et contrôler qu'un arc de cercle se crée.

Replacing
- Remove the left and right cover.
- Disconnect the wires.
- Remove the faulty electrostatic bar by the right side and replace.
- Refit the parts in the reverse sequence.

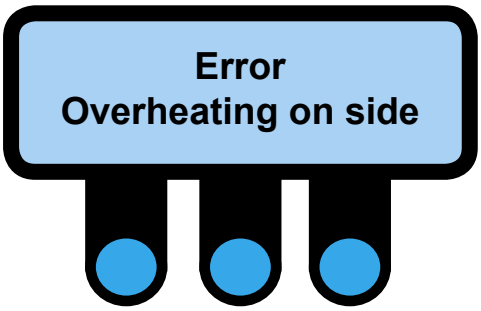
Service Manual

Service Manual

CODE ERRORS ON DISPLAY

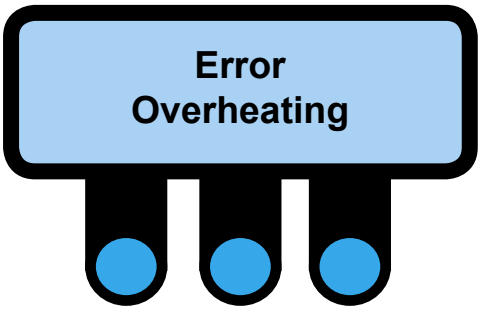
Overheating of cylinder sides *(when feeding is carried out on the centre of the cylinder too often)*

This error displays alternately with the service screen when one of the two sides of the cylinder overheats due to it being partially used. The heating system of the machine will remain shut down while this flashing message is displayed. To continue ironing, allow the cylinder to cool until the flashing display disappears.



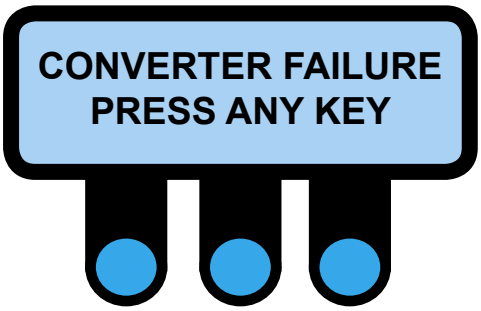
Overheating of centre of cylinder *(when small linen units are too often fed on the centre of the cylinder) :*

This error displays alternately with the service screen when the centre of the cylinder overheats due to it being used laterally. The heating system of the machine will remain shut down while this message continues to be displayed. To continue ironing, allow the cylinder to cool until the flashing display disappears.



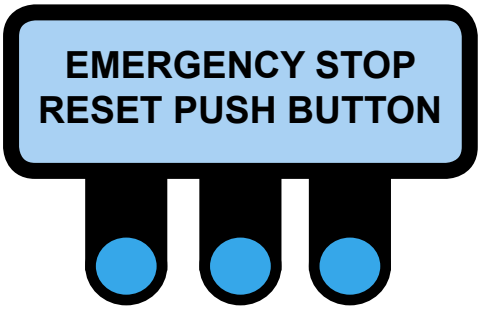
Message : 'Converter failure'

This error displays alternately with the service screen when the converter has developed a fault. Please refer to the converter manual for information repairing the fault.
The machine will only be able to be restarted once the fault has been repaired. To reinitialise the machine, press any key. If the fault remains, switch off then switch back on the power supply using the main switch.



Message : 'Emergency stop-check button'

This error displays alternately with the service screen when the emergency stop button has been triggered. The machine enters safety mode, the heating is turned off and the cylinder stops. Check why the button was pressed and then reset it.

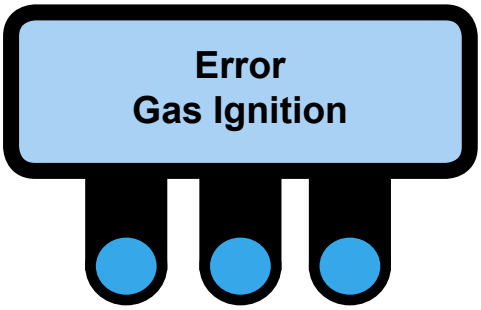


***Message* : 'Emergency stop-check button'** *(next)*

Once the emergency stop button deactivated, the opposite message displays.
Press on any button on the panel to return to the operation mode.

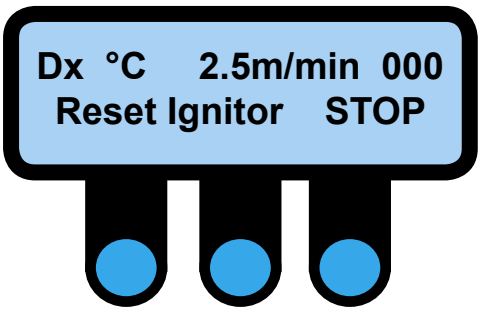
***Message* : 'Gas ignition fault'** *(only on gas-heated machines)*

This error displays alternately with the service screen when the lighting of the gas burners has been requested. If this message has been displayed over 30 seconds, the gas burner is not ignited. The heating system falls into safety state and heating is cut off. Try again and follow the starting procedure.
Press any key to display the following menu. After an additional failure, please check the gas heating running.
If the fault remains, consult your after-sales service.



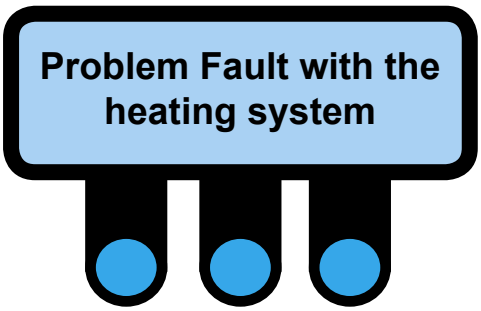
***Message* : 'Reset igniter'**

The message alloaw to reset the igniter or to stop the machine. Press on the left to restart the gas igniter. Press on the right button to stop the machine.



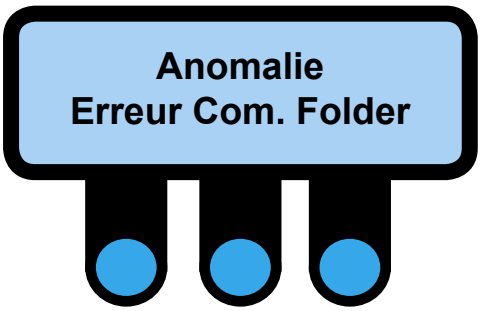
***Message* : 'Problem - fault with the heating system'**

This error displays alternately with the service screen when the cylinder temperature remains below 100°C after a certain time (approximately 20 minutes).
Try to restart the machine.
If the problem continues, please consult the aftersales service department.



***Message* : 'Com. Error Folder'**

This error displays alternately with the service screen when there is a communication failure between the control panel and the folding programmable logic controller.

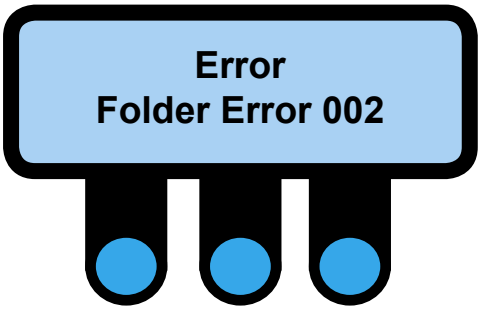


- Check the link between the control panel and the programmable logic controller.
- Check the setting of the programmable logic controller.
- In the Set 2 menu of the service program check the configuration for the control panel. The MANU parameter should be selected.

If the fault remains, consult your after-sales service.

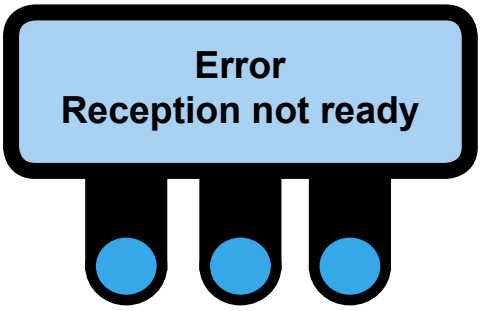
***Message* : 'Folder Error 002'**

This error followed by a number displays alternately with the service screen when a failure in the folder running.
Switch off then switch back on the power supply using the main switch.
If the fault remains, consult the after-sales service.



***Message* : 'Problem - tank positioning error'**

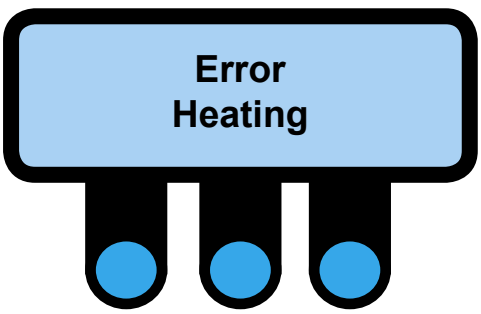
This error followed by a number displays alternately with the service screen when the reception tank on the machine is not in the correct position according to the folding option selected :



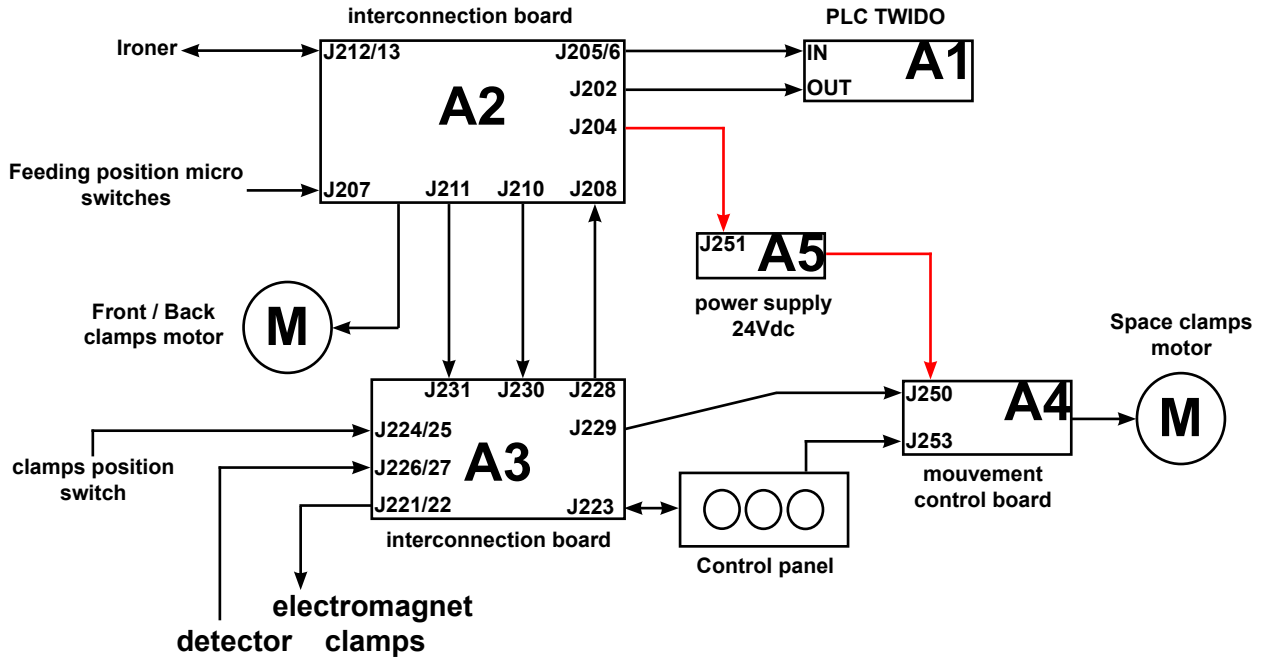
- Raised to use the machine without folding (folding mode: WITHOUT).
- Lowered to use the machine with folding (folding mode: FIX or PLIVIT).

***Message* : 'Error heating'**

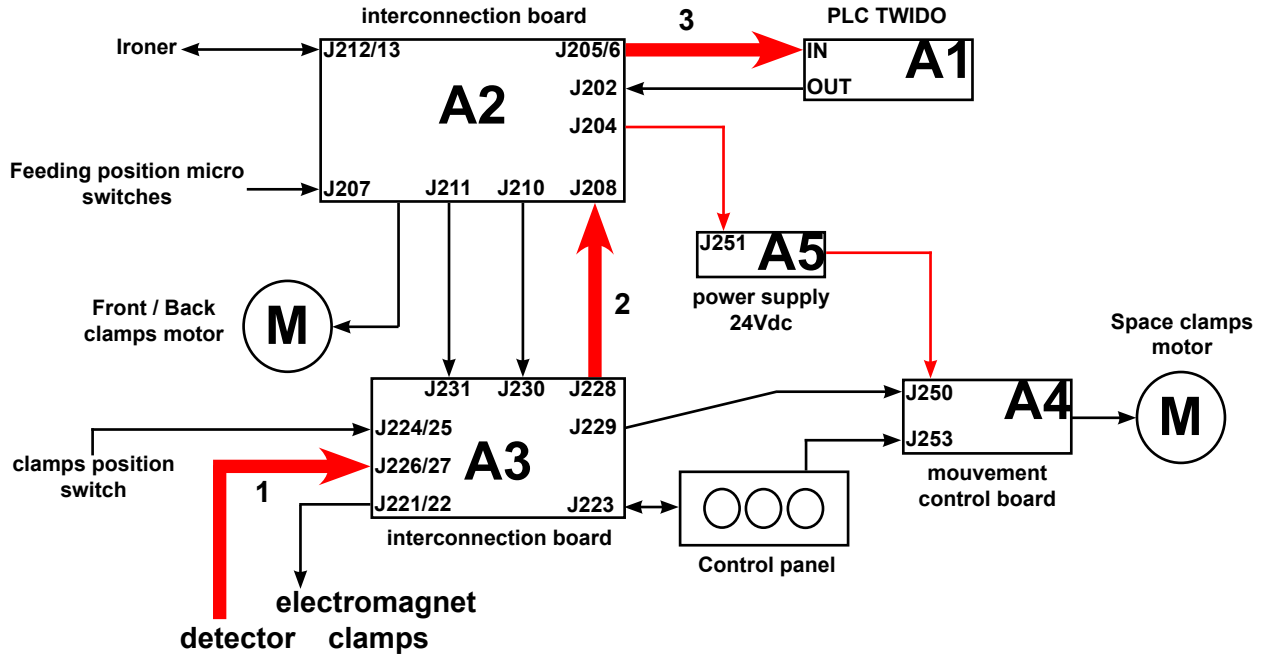
This error displays alternately with the service screen when one of heating information contactors (KM6, KM7 and KM8) is faulty. Check the contactors and change if necessary.



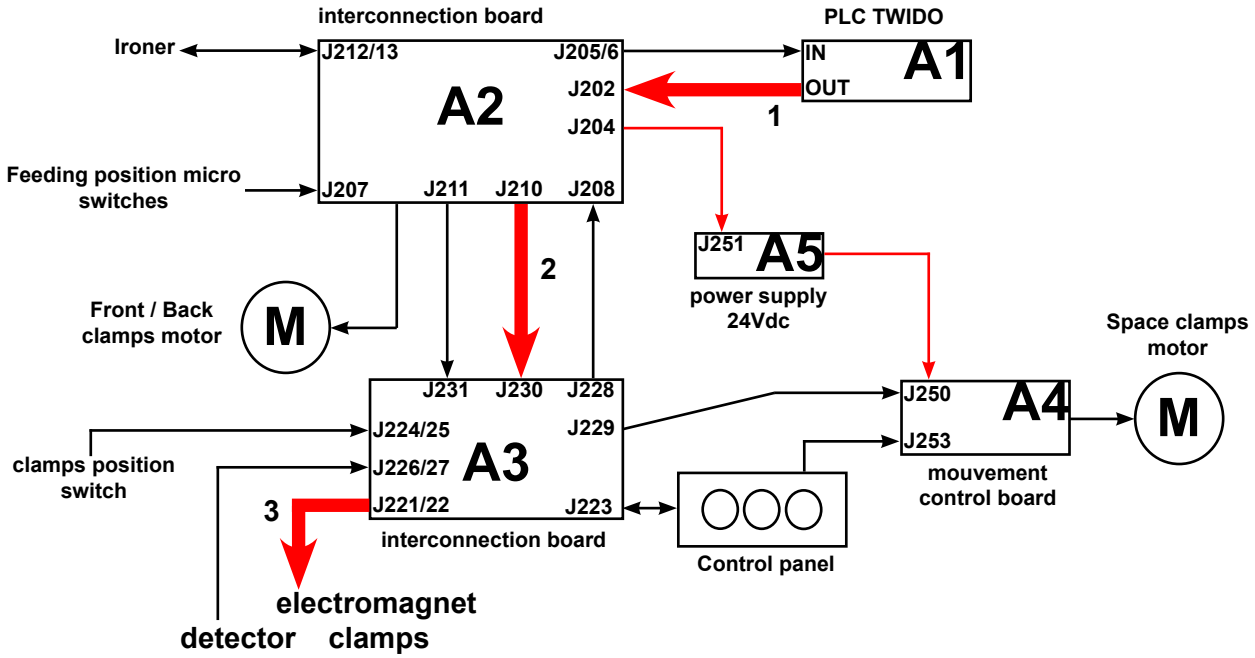
Feeder fonctioning schematic



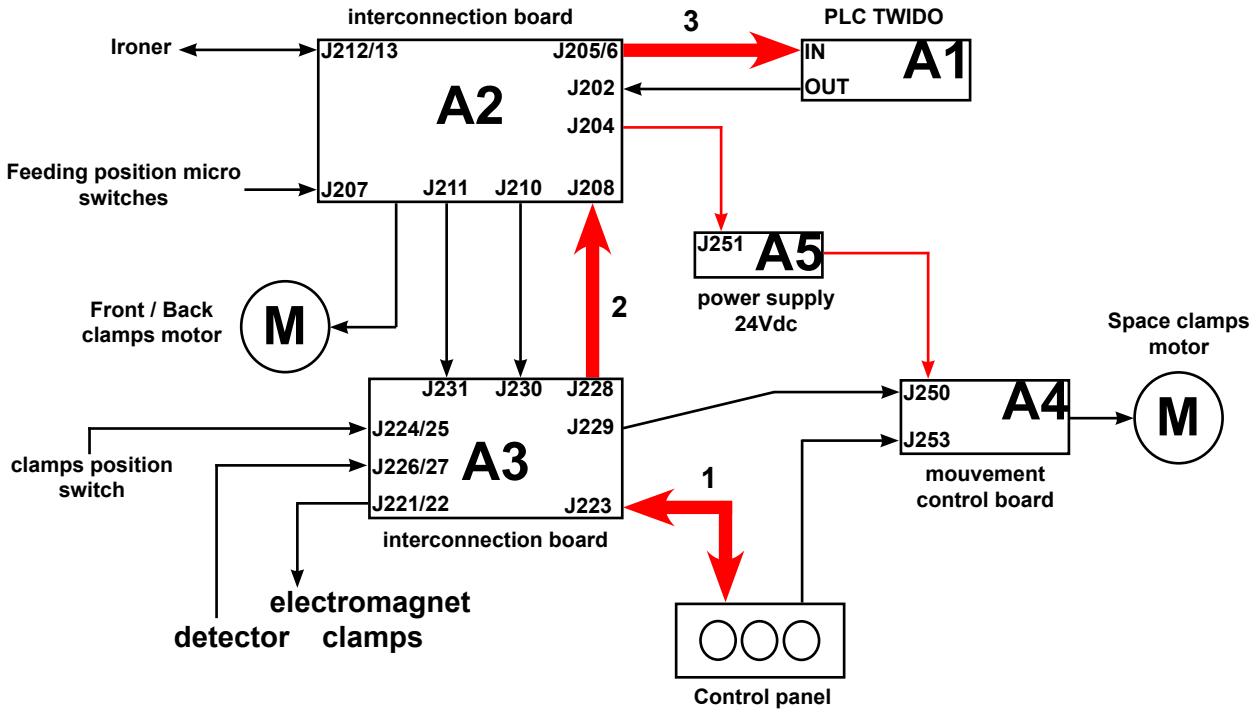
Hanging sheets in the clamps



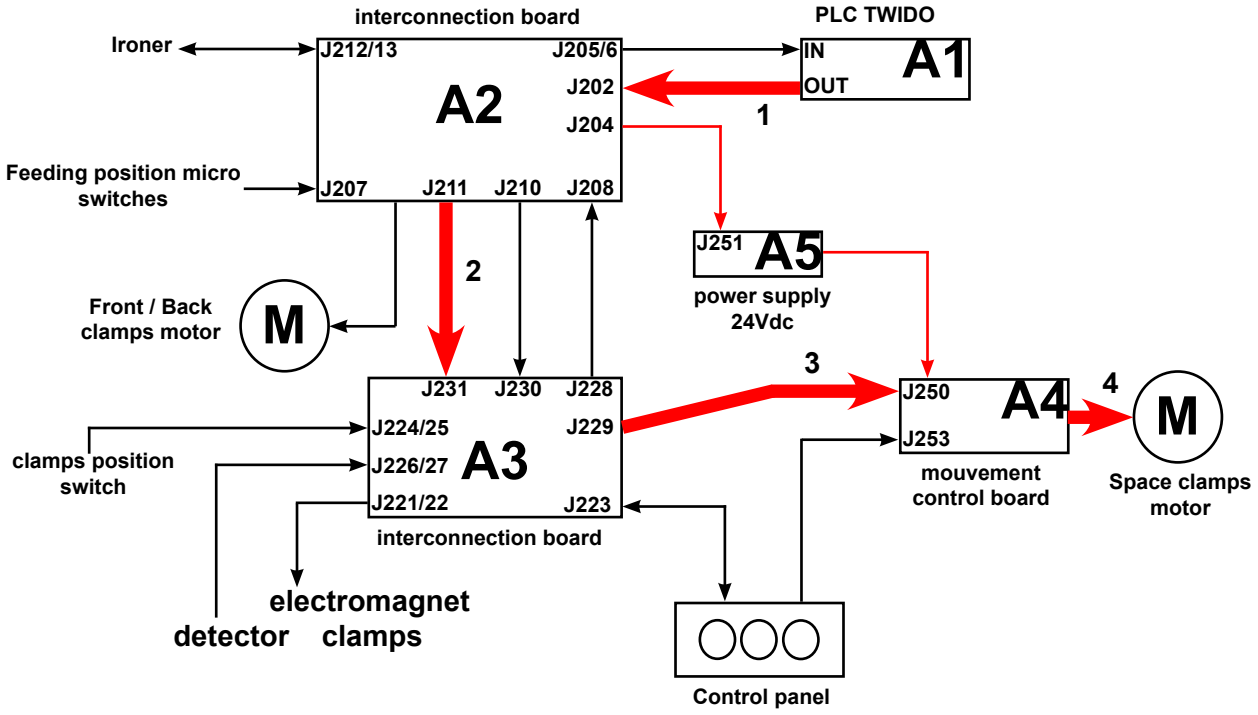
Activation clamps



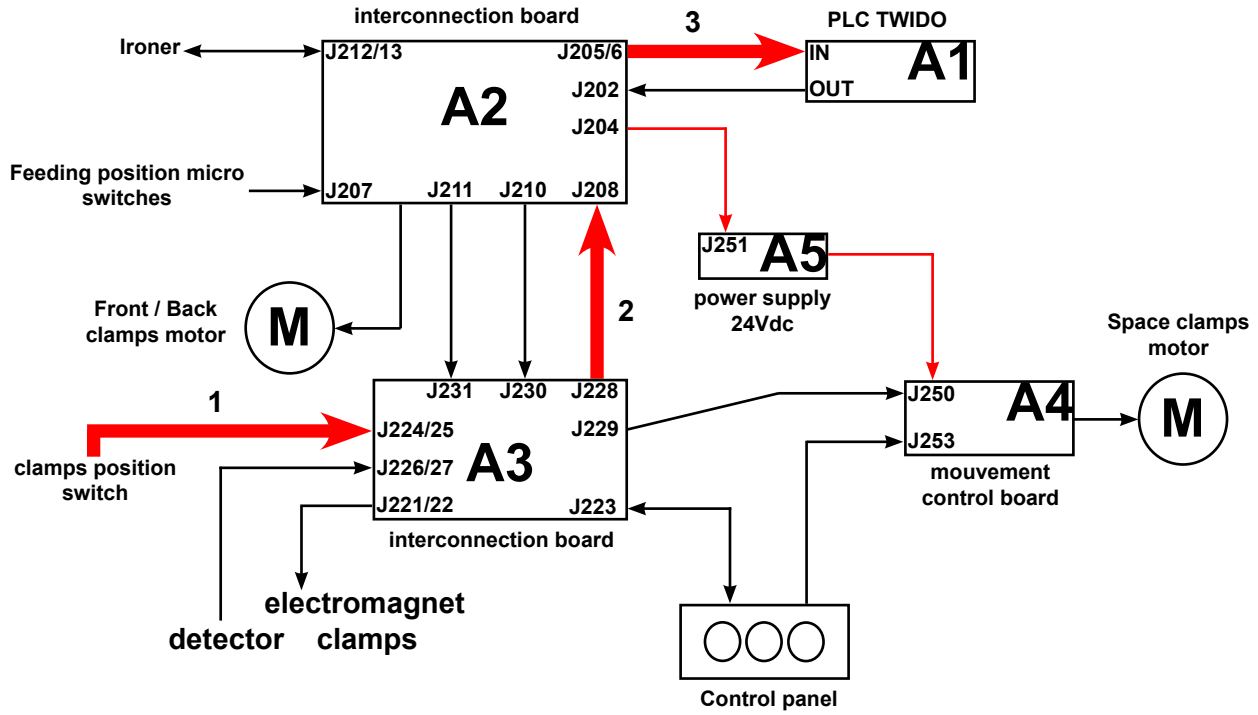
Start feeding



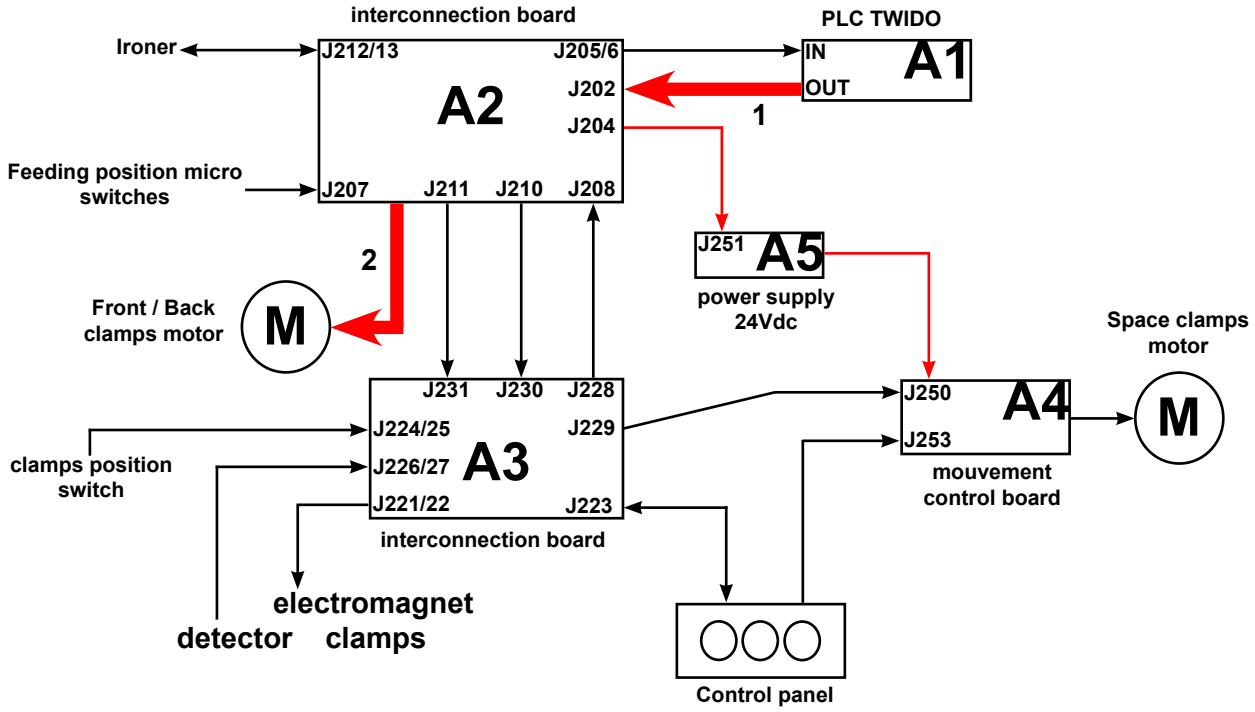
Clamps moving aside



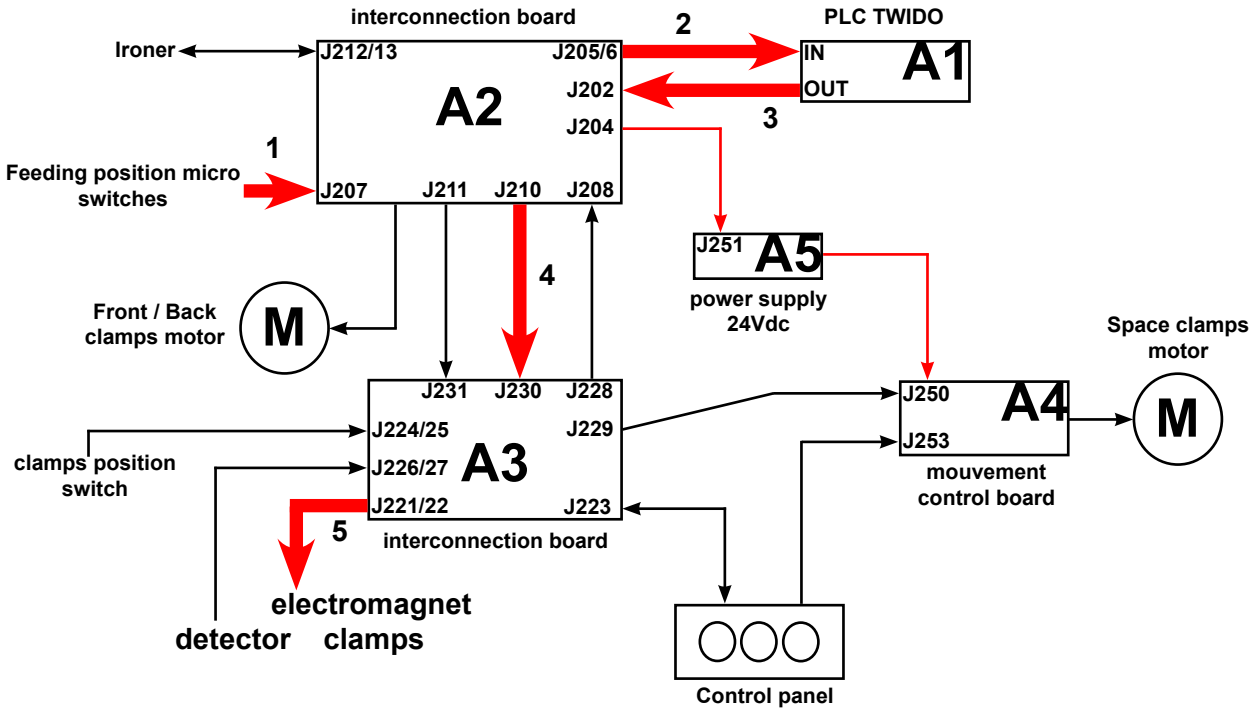
Clamps in position aside



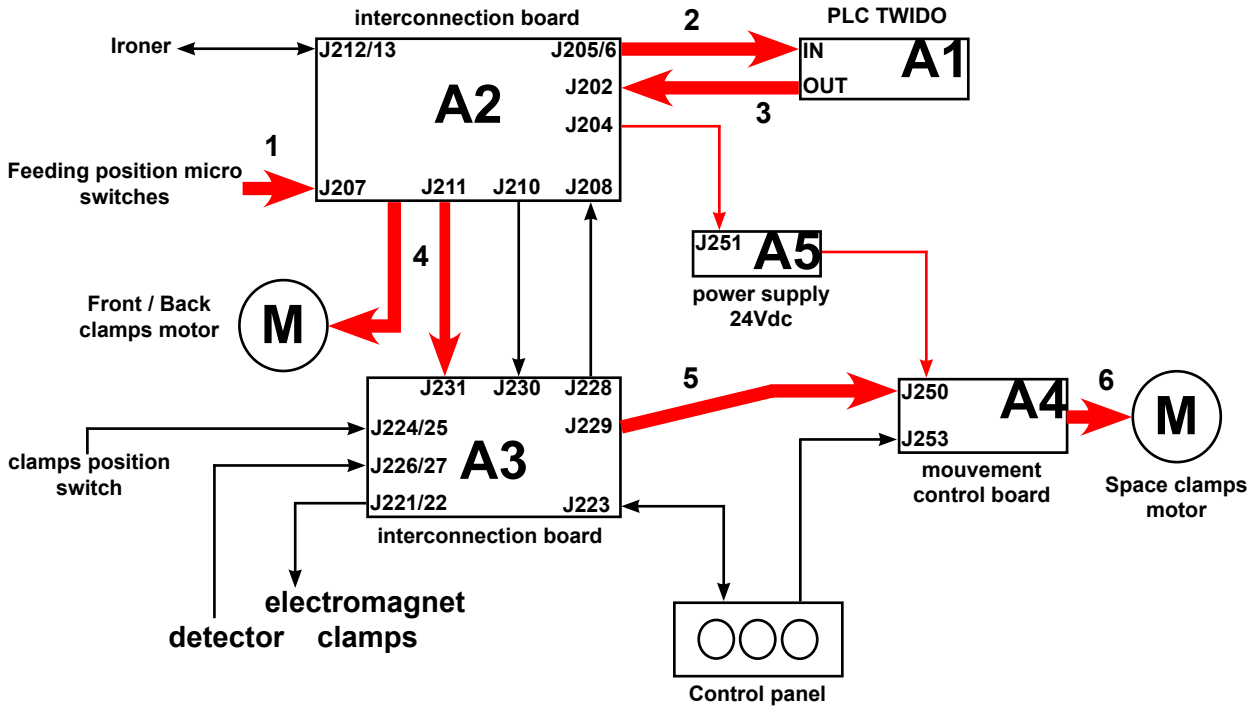
Feeding trolley moving forward



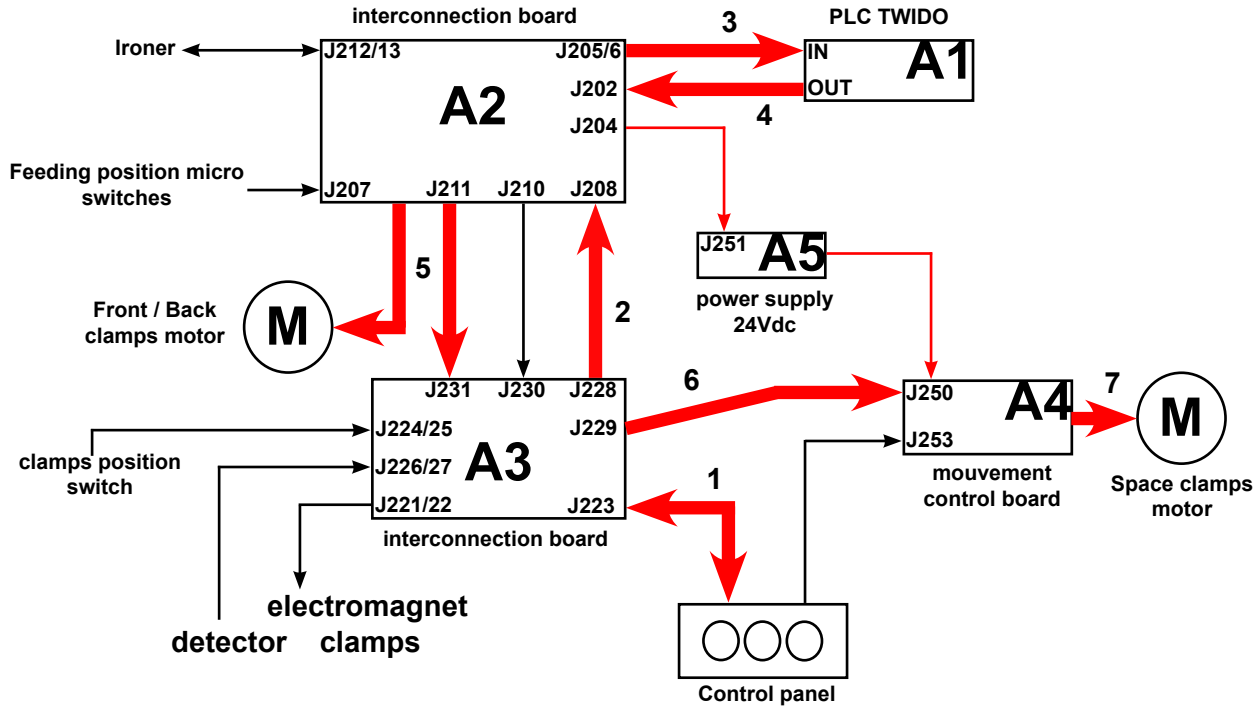
Sheet release



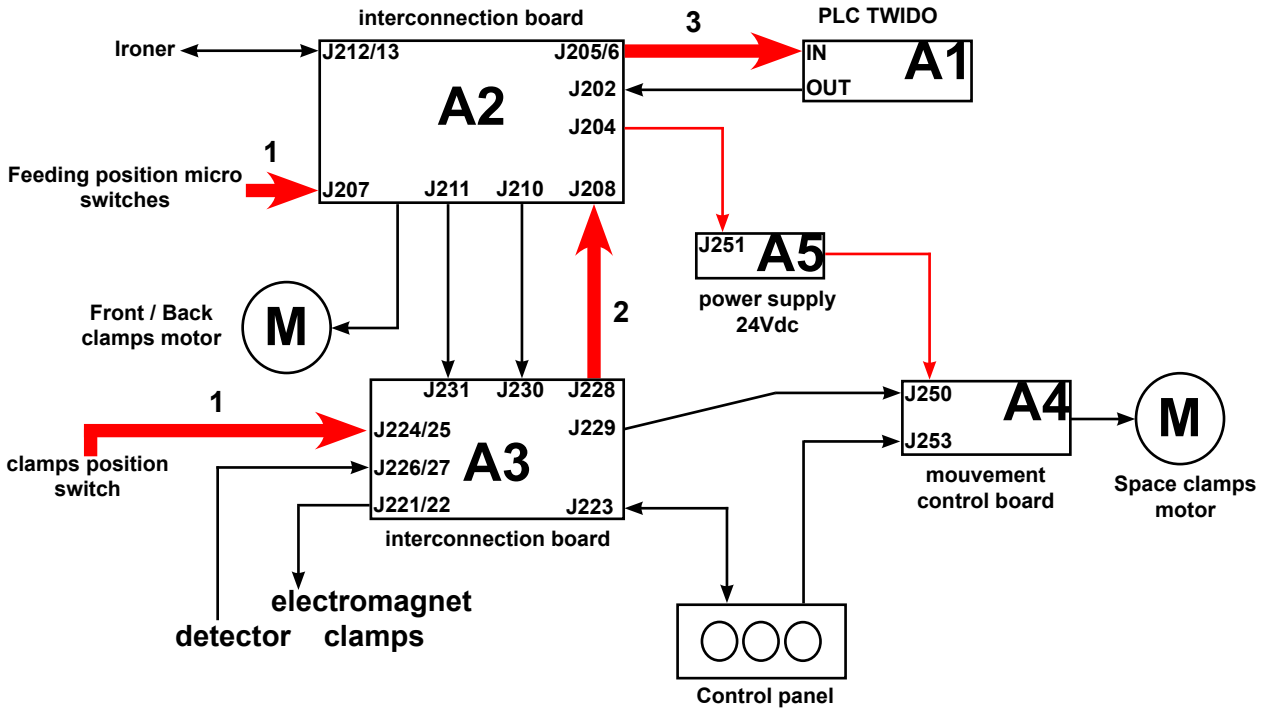
Automatic activation for trolley back



Manual activation for trolley back



Feeding trolley and clamps in initial position



PROBLEME	CAUSE	SOLUTION
- The folding does not work, or works badly		- Reinitialize the machine
	- The sensors are dirty or disturbed	- Check feeding table photocell : B6 / I0.1 (folder PLC input) - Check folding photocell : B7 / I0.2 (folder PLC input) - Check that the eject roller is in high position : S8 / I0.3 (folder PLC input) - Check that the rotation detection blinks : B8 / I0.0 (folder PLC input) - Check folding arm position sensors : B9 / I0.5 (FRONT position) & B10 / I0.6 (BACK position) (folder PLC inputs)
	- The clutch is faulty	- Check clutch : Y5 / Q0.0 (folder PLC output) - Check that the linking between the folding arm and the clutch is OK - Check the coil of the clutch
	- The sheet is not engaged before the B6 feeding table photocell	- Engaged the sheet before the B6 feeding table photocell
- The eject roller does not work, or works badly	- The sensors are dirty or disturbed	- Check the ironing cilynder output B7 photocell : B7 / I0.2 (folder PLC input)

PROBLEME	CAUSE	SOLUTION
- Feeding clamps do not work, or work badly.		- Check inductive detectors : B201 / I0.11 (right) and B202 / I0.10 (left). (feeder PLC inputs) - Check the electromagnets : E1 (right) and E2 (left) - Check the control relays : KA1 (right) and KA2 (left)
- The feeding system does not work, or works badly.		- Check position switchs : FC4 / I0.8 (space clamps) FC5 / I0.9 (clamps close togeth) FC201 / I0.5 (return clamps) FC202 / I0.6 (put down sheet) and FC203 / I0.7 (clamps mouvement) (feeder PLC inputs) - Check the M2 motor carbon brush (space clamps) - Check the A4 control board functionning according to the chapter 12 page 7. - Check the contactors : KM201 / Q0.3 (forward clamps) and KM202 / Q0.2 (backward clamps) (feeder PLC outputs)
- The suction feeding table does not work, or works badly.		- Check the contector : KM204 / Q0.7 (feeder PLC outputs) - Check M5 ventilation motor

PROBLEME	CAUSE	SOLUTION
- The linen becomes yellow	- The linen is not rinsed correctly	- Check if the linen is wellrinsed with phenolphthalein, the quantity of detergent must be : 15 g/kg for prewash 15 g/kg for wash
- DIAMMS system does not work, or works badly.		- Check that the DIAMMS version number is displayed on screen when the machine is switch ON
	- The humidity sensors are faulty	- Check that there is not sort-circuit between humidity sensors - Check humidity sensors cables - Check that the DIAMMS value (Moisture:000 in Value mode) change when a short-circuit is made between humidity sensors
	- The control display is faulty.	- Change the control display
- The antistatique bar does not work, or works badly.		- Check that the antistatic bar is applied - Check Q0.4 folder PLC output
- The heating does not work, or works badly.	*GAS Heating*	
	- The gas supply is faulty	- Check customer gas supply - Check the machine gas electrovalve
	- The gas ignitor is faulty	- Check E1/E2 electrodes
	- Machine air inlet filters are dirty	- Clean machine air inlet filters

PROBLEME	CAUSE	SOLUTION
	ELECTRICAL heating - The contctors are faulty - The heating elements are faulty.	 - Check heating contacts KM6, KM7 and KM8 - Check that the heating elements consume intensity when they are powered - Check the heating elements wires - Check phases
	STEAM Heating - The steam supply is faulty - The non-return valve is faulty	 - Check the customer steam supply - Check the steam electrovalve - Check the non-return valve

PROBLEME	CAUSE	SOLUTION
Anomalies affichées au plastron de commande		
- Error Overheating on side	- The PT100 temperature sensor is faulty - The ironing cylinder is not used on its total surface	- Check the B20, B21 and B22 temperature sensor, for a room temperature 21°C, the ohmic value must range from 107.79 to 108.57 ohms
- Error Overheating	- The PT100 temperature sensor is faulty	- Check the B20, B21 and B22 temperature sensors, for a room temperature 21°C, the ohmic value must range from 107.79 to 108.57 ohms
- CONVERTER FAILURE PRESS ANY KEY	-Something stop the machine motion	- Check that bearings, rollers, sprockets and cylinder are driven - To reinitialise the machine : switch off then switch back on the power supply using the main switch.
- EMERGENCY STOP	- One of the emergency stop buttons has been triggered - The mobile safety protector switchs are faulty	- Check why the button was pressed and then reset it - Check mobile safety protection switchs
- Error Gas Ignition	- The gaz ignition is faulty - The sensors are dirty or disturbed - Overheating	- Check E1 and E2 electrodes - Check the B8 inductive detector (blin-king) / I0.0 (folder PLC input) - Check the B3 safety thermostat
- Error Reception not ready	- The position of the reception vat is badly	- Check the reception vat position