



SM CRIMP 2000 Operators Manual



SM CONTACT

ZAC de la Bonne Rencontre - 20 à 22 Voie Gallo-Romaine
77860 QUINCY VOISINS

Tel : 00.33 (01).64.63.66.66 - Fax : 00.33 (01).64.63.67.22

E-mail: smcontact@smcontact.fr

TECHNICAL DATA

Drive:Three-phase motor with worm gear

Stroke:35 mm

Crimping rate:Up to 4,000 strokes/h

Motor power:0.25kW

Supply voltage110V or 230 V single phase

Power consumption:2 A

Power frequency:50 Hz

Sound level:< 75 db (A)

Dimensions:W=291 x H 340 x D 490 mm

Weight:59 kg (with tool cassette)

CONTENTS

1	SAFETY FIRST	4
1.1	Presentation	4
1.2	The general safety device	4
2	COMPLETENESS OF CONSIGNMENT	5
2.1	Ordering spare parts and requesting Customer Service.....	6
3	INITIAL START-UP	6
3.1	Safety devices	6
3.2	Power connection	6
3.3	Starting the machine.....	7
3.4	Keypad / Functions / Indicated Messages	8
3.4.1	The key 'MODE'	8
3.4.2	The key 'RESET'	10
3.4.3	The keys + and -	10
3.5	Splice band feeding system : How to install a new reel and to introduce the banding.....	10
3.6	Checking the crimping height and clincher centring (assuming these have been correctly set, otherwise see section accordingly).....	12
3.6.1	Centring the clincher	12
3.6.2	Controlling the crimping height	13
4	EXCHANGING THE TOOLING CASSETTE	14
5	DISMANTLING THE tooling AND REPLACING SPARE PARTS	16
5.1	Opening the tooling	16
5.2	Replacing the punch and/or the guide	17
5.3	Replacing the anvil.....	19
5.4	Replacing the cutting block.....	20
5.6	Setting up the cutting-block.....	22
5.7	The slice stop	22
5.8	Replacing and centring the clincher	23
6	THE tooling STORAGE DEVICE	25
6.1	View and data modifications of the technical datasheet	25
6.2	Updating the data of the technical sheet into the memory.	27
7	DISMANTLING AND REASSEMBLING	28
7.1	The frontal compartment	28
7.2	The right-hand safety cover	28
7.3	The left-hand safety cover	29
7.4	The front panel	29
7.5	The belt.....	31
7.6	The gear motor	33
7.7	The convertor parameters	34
	The parameters are handed with the technical sheet on the USB key.	34
7.8	List of inputs and outputs	34
7.8.1	Inputs	34
7.8.2	Outputs.....	34
8	TRANSPORTATION	35
8.1	Lifting/transporting the machine manually.....	35
8.2	Transportation in a vehicle	35
9	POSSIBLE ERRORS: HOW TO RECTIFY THEM?	35
9.1	Punch guide centring problem	37
9.2	Punch guide colliding or too far from the top of the clincher.....	37
9.3	Splice shape imperfect.....	38
9.4	Display is showing error "index the pin"	39

1 SAFETY FIRST

1.1 Presentation

- These operating instructions relate to the SM CRIMP 2000 crimping press.
- The SM CRIMP 2000 is state of the art in design and operationally reliable.
- It is used exclusively for producing spliced crimped connections.
- Any use over and above this application is deemed to be other than for its intended purpose.
- The following potential hazards exist in the event of use other than the intended purpose, or with improper use:
 - Danger to life and limb.
 - Danger to the machine.
 - Danger to other material assets.
- The machine should be operated only by personnel trained in its use. The new owner of the machine or his representative has been instructed in and made aware of the operation of the machine and all sensitive details. He is responsible for the further training of his personnel.
- Any person involved with the operation, maintenance, repair, or inspection of the crimping press at the user's premises must have read and understood the Operating Instructions and, in particular, this Section on "Safety".
- The responsibilities relating to operation of the machine must be clearly stipulated and adhered to.

1.2 The general safety device

1. In addition to the information in these Operating Instructions, the general accident prevention regulations of your country must be observed.
2. Before starting work, you must familiarise yourself with all the functions and controls and how they work.
3. Safety devices must be checked once per shift for externally visible damage or defects. Damage must be rectified without delay. Do not continue operating with safety devices off!
4. The safety devices must never be removed or put out of operation.

- You may be subject to very serious injury if you remove or disable the safety devices.
- Following removal for any necessary setting-up, repair or maintenance work, the safety devices must be properly re-installed immediately before resuming production.
- Always withdraw disconnect the power for any setting-up, repair or maintenance work.
- The machine's power cable must always be freely accessible.



Left-hand safety covers

Finger guard

Right-hand safety covers

- The components to be processed should preferably be brought to the machine with both hands.
- The machine must never be operated with the safety covers or finger guard removed.
- Any materials that are caught in the clincher should not be removed before the machine has been switched off.
- The machine must always be switched off before changing the splice band reel.
- Switch off the machine before any intervention into the machine and when changing the tooling.
- Only qualified personnel should perform adjustment and maintenance operations.
- See Sections 8 for transportation of the machine, either manually or by vehicle.

The manufacturer is not liable for damage arising from failure to observe the Operating Instructions. We reserve the right to make technical modifications for reasons of quality enhancement or extended application, or for production reasons.

SM CONTACT is not obliged to supply spare parts hereby.

2 COMPLETENESS OF CONSIGNMENT

Your delivery should contain the parts listed below:

- SM CRIMP 2000 Splicing Crimping Press.
- Power cable.
- Foot pedal.
- Operating Instructions, including:

Please check that the consignment is complete and that there is no concealed or obvious transport damage.



2.1 Ordering spare parts and requesting Customer Service.

Please note:

When ordering spare parts or seeking customer service, please provide the following:

- Part numbers from the enclosed spare parts list.
- Machine Serial and Model number.
- Tool Cassette number.

3 INITIAL START-UP

3.1 Safety devices

1. The machine must only be operated with the safety devices on!
2. Never extend your hands into the danger area!
3. Should a fault or an accident occur, immediately press the E-Stop (Emergency) button and disconnect the power cable.

3.2 Power connection

- Only qualified personnel must perform any work on the electrical system, such as connection to power, maintenance or repairs.
- Even with the Emergency Stop button pressed, parts of the machine still carry live voltage.

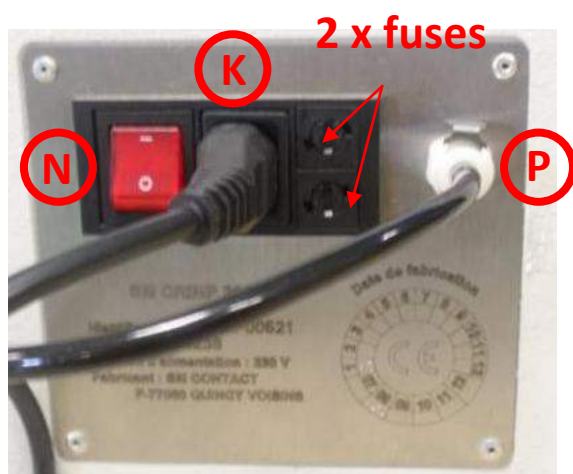
The connection is made via the power cable delivered with the machine. It must be ensured that the operating voltage corresponds with the mains voltage (230 V/110V). Actuating the power switch on the rear starts the crimping press.

3.3 Starting the machine.

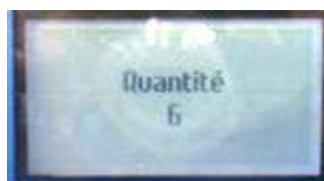
- Connect power cable (K).
- Connect foot pedal cable (P)
- Turn on the main switch (N) (if the switch is in the off position (lamp not lit), the machine is not live).
- Unlock Emergency Stop button by turning it to the right.



- Main Switch module



- The machine is ready



3.4 Keypad / Functions / Indicated Messages

The power switch, in the form of a toggle switch with a red knob (N) is located at the top on the rear of the machine.

All the other controls and display components are located on the front of the machine.

If the Emergency Stop button is depressed (see picture 8), no crimping cycle can take place. If the Emergency Stop button is depressed and you press on the foot pedal, "Emergency Stop" is indicated but the cycle does not start.

The following functions can be regulated with 4 buttons on the front of the machine:



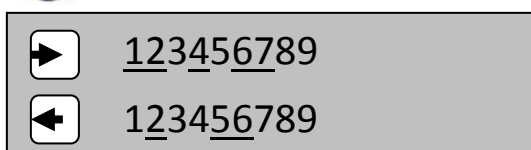
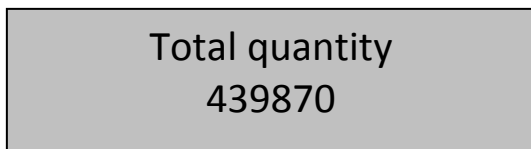
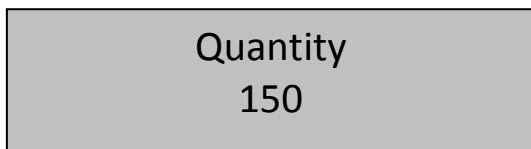
Pic.. 8



Pic. 9

3.4.1 The key 'MODE'

From the main screen display, access those following functions:



Put the counter en zero through reset:

When the display shows up « Quantity », Rest 5 seconds on the bottom « reset » to put back the quantity at zero on the counter.

Note: The total quantity cannot be put at zero

Show the normal operating state of the machine:

- The figures highlighted on the first line show the inputs activities.
- The figures highlighted on the second line show the outputs activities. See chapter 7.8

Version
1.24



Please be aware, that the soft version noted on this view is only indicative information

Lamplight



Use the keys + and – to activate or disengage the lamp light

Choose
your language



Use the key + and – to select the language:
French, English, German, Spanish, Italian, Japanese, Chinese, or Korean. Press the key 'MODE' to confirm the selection.

Only if the tooling memory is programmed.

Cassette SM CRIMP



Use the key + and – to scroll the tooling technical data: Components to crimp, spare parts, crimping height, pull force, type of splice.

Enter the access code
0000

Restricted to manufacturer

3.4.2 The key 'RESET'

The 'RESET' key allows you to return automatically to the main display and deleting any error messages.

3.4.3 The keys + and -

The keys + and – have two different functions:

- In the main display, under quantity, the keys + and – allow you to control to the feeding system.
- In the others displays, the keys + and – allow you to scroll the menu options.

3.5 Splice band feeding system : How to install a new reel and to introduce the banding



- Position the splice banding reel vertically
- Remove the safety film



- Install the reel onto the shaft.
- The tag with the reference must be facing the operator.
- Unwind the ribbon.



- Cut off the bent section of banding.



- Position the banding at the entrance of the feeding system.



The serrations of the banding must be facing down.



- While holding the banding at the entrance of the feeding system, press the key +. This button also works as the forward feed button.



- Verify that the banding is not bent after it exits the feed rollers. If the banding is not straight, cut it with cutting pliers.
- Under no circumstances, should the banding be distorted, this will cause a feeding problem.



- The banding should not be bent when inserted into the tooling.



- While holding the banding at the entrance of the cutting block, press key +.



- Keep pressing the + key until the feeding motor system stops automatically.
- The banding must form a curve toward the highest point of the frame.

3.6 Checking the crimping height and clincher centring (assuming these have been correctly set, otherwise see section accordingly).

In order to eliminate any risk of damaging the tool, we would recommend checking the two following parameters, prior to starting the first cycle:

- clincher centring
- Crimping height.

Important recommendation:



Before you cycle the press either by turning the hand wheel or by using the foot pedal, it is strongly recommended that you first check that the punch and clincher will not collide. Otherwise these components would be severely damaged on initial impact.

Before this check, we recommend to make 10 to 20 cycles with the splice band inserted in the tool (**without the clincher and clincher holder**). This ensures that all the parts of the upper tool have taken their correct position.

3.6.1 Centring the clincher

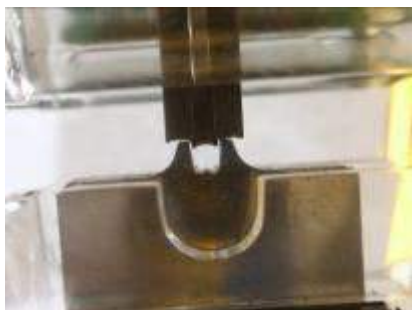
This operation must be done without splice band and lamp light. Place the clincher and clincher holder back on the machine.



Using the hand wheel, bring the punch down slowly until the punch is in middle of the clincher.



Be careful, if the punch is not correctly positioned compared to the clincher, do not complete the cycle.



Continue slowly turning the hand wheel by monitoring the movement of the punch downwards from the side (with a magnifier if necessary). Stop turning as soon as the tip of the punch enters into the clincher.

The clincher is correctly centred if the clearance between the punch and the flanks of the clincher is identical to the left and right.

- If the centring is correct, check the crimping height.
- If the centring is not correct, refer to the manual for performing adjustments.

3.6.2 Controlling the crimping height

When delivering a machine with the tooling, our technical department will indicate the crimping height listed on the technical datasheet.

OUTIL SM CRIMP 2000			
CODE ARTICLE	DESIGNATION		
01-07938	OUTIL	4 B	112 134 9 S
COMPOSANTS	SECTION	REGLAGE CONSEILLE	
Multibrin+Bobine		E5	



E5

Before putting the machine into production, it is advised to verify if the dimensions of the connections are compatible with our recommendations. Refer to the technical data sheet and check the information.

H2	L1
2,90	4,31



The tooling can also be delivered independently from the machine. This can have the obligation updating the information 'under advice set-up' with the customer's technical datasheet.

4 EXCHANGING THE TOOLING CASSETTE

This operation must be done only with the index pin.

- Press the key '-', and remove the banding from the tooling.
- Next, press the 'Emergency Stop' switch button

❖ DISMANTLING



Unscrew the clincher holder.



In order to not damage the finger guard, pull the clincher holder forward.



Remove the tooling mounting screw.



Remove the tooling

❖ SETTING-UP



Ensure that contact surfaces are perfectly clean, and have no conductors or insulation residues adhering to them.



Push both tool sliders in the tooling upwards using the end of a screw-driver.



Lay new tooling on the machine. Tap lightly with the first to introduce both centring pins.

The instantaneous contact of the tooling with the machine must make a clear "CLICK". This metallic sound indicates that both surfaces are perfectly in contact with each other.



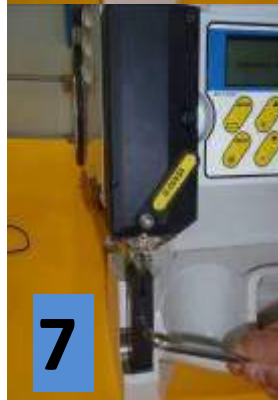
Tighten the tooling mounting screw



Ensure that the clincher mounting surface is perfectly clean, and has no conductors or insulation residues adhering to it.



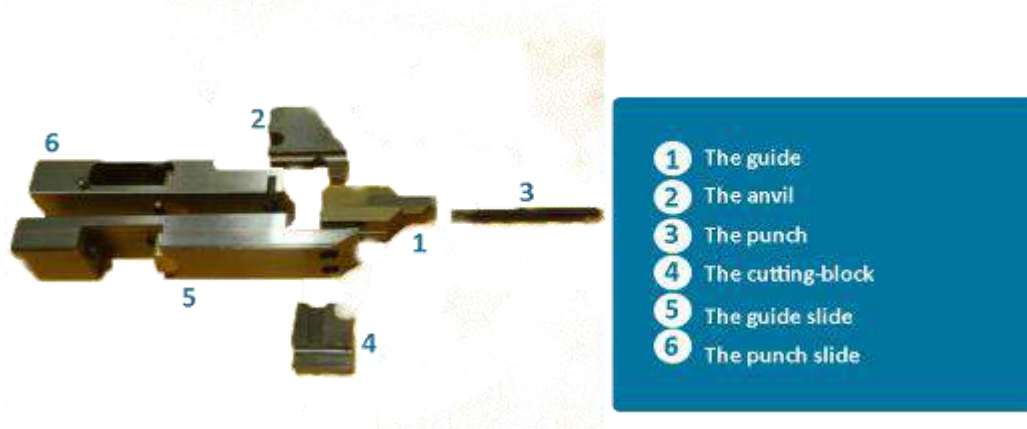
In order prevent damaging to the finger safety shield; introduce the clincher holder carefully



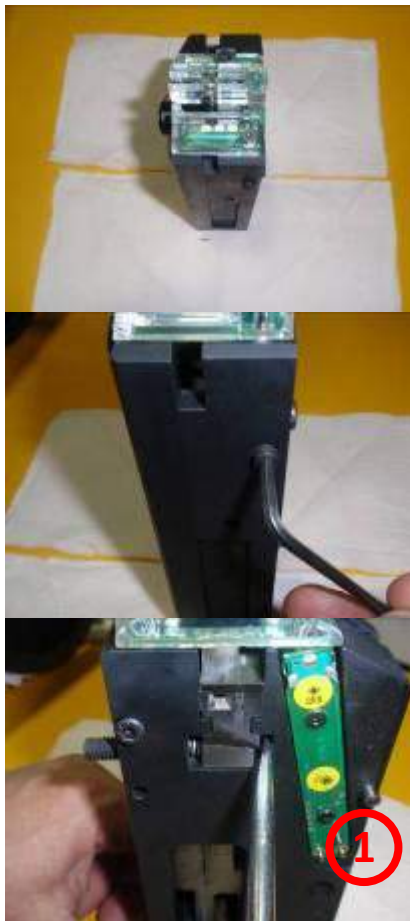
Tighten the clincher mounting screw.

5 DISMANTLING THE TOOLING AND REPLACING SPARE PARTS

The names of the spare parts that constitute the tooling:



5.1 Opening the tooling



- Place the tooling onto a clean surface.
- When handling the tooling, be careful not to damage the finger guard.

- Loosen the screw of the cutting block.
- The screw should be placed 8 to 10 mm above the face of the tooling.

- Push the cutting block slightly sideways with small screwdriver.

① Contact sonde



- Remove the front screw on the cover of the tooling.
- Remove the screw located on the rear of the tooling.
- Slowly open the cover of the tooling.
- Place all of the components on a clean surface.

5.2 Replacing the punch and/or the guide

To dismantle the tooling, refer to chapter 5.1



- Holding the tooling in your left hand, you must now check that the sliders can easily slide up and down simultaneously.
- Do not turn the tooling; avoid any damage on cutting-block and anvil.



- Separate the punch slider from the punch-guide slider by rotating the punch slider as shown on the picture.
- Ensure that the punch pin does not fall on the floor.



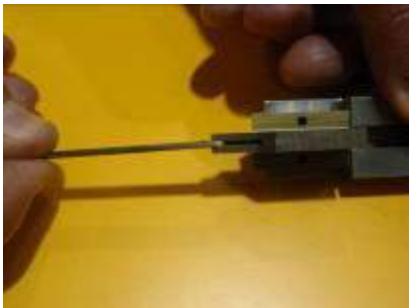
- It's now possible to separate the punch from the punch-guide.
- Ensure that you don't lose the punch pin



- To replace the punch-guide pin, unscrew the bolts.



- The new punch-guide can now be installed.
- Before tightening the screw, be sure that punch guide is facing upward.



- Introduce the punch at the guide extremity.



Do not grease the punch.



Only punches for 4mm splice profiles are symmetrical (punches for 2 and 6mm splice profiles have an offset hole).

In the case of 2 or 6mm punch, the hole must be placed close to the slider body.



- Grease the punch and guide slider face (no grease on the punch and inside the punch-guide).



- Lightly grease components on all sides.
- You can now fit the new punch.

5.3 Replacing the anvil

To dismantle the cassette, refer to chapter 5.1



- Holding tooling in your left hand, you must now check that the sliders can easily slide up and down inside it.
- To do this, take a screwdriver and first push the punch guide slider and then the punch slider up and down. (The punch slider is difficult to move because it is pressing the anvil sideways. This resistance is normal).



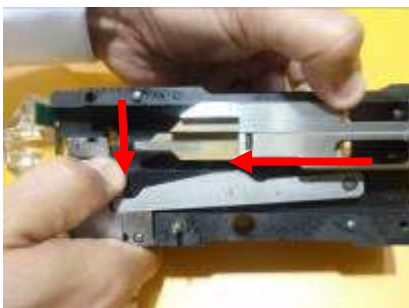
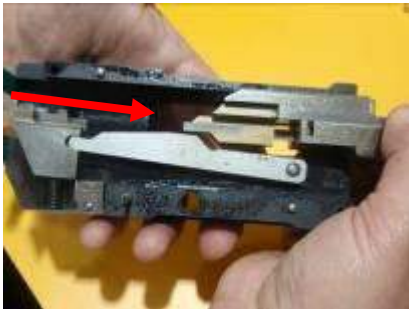
- Undo the old anvil.
- Clean the anvil using a degreaser.
- Lubricate both faces of the anvil.
- Lubricate the anvil spring.
- Place the new anvil.



- Before re-assembling, clean up every part of the tooling.
- You can now fit the new anvil.

5.4 Replacing the cutting block

To dismantle the tooling, refer to chapter 5.1



- Holding tooling in your left hand, you must now check that the sliders can easily slide up and down inside it.
- To do this, take a screwdriver and firstly push the punch guide slider and then the punch slider up and down. (The punch slider is difficult to move because it is pressing the anvil sideways. This resistance is normal).
- Remove the anvil
- By pushing behind, slightly slide the cutting block.
- Clean up the cutting-block location with degreaser.
- Replace the anvil.
- Before re-assembling, clean up every part of the tooling.

5.5 Closing the cassette



- If you need to make a splice stop adjustment, it is recommended to place the punch-guide and punch sliders as indicated on the picture.
- Please check that there are no residues left.



- Place the tooling cover and screw the support.



- Once the tooling is closed, check the guide slider and the punch slider.
- To do so, introduce a screw driver as indicated in the picture and push up and down.



- You should not have any restrains in the sliding.

5.6 Setting up the cutting-block



- The punch and guide sliders need to be placed in the lower part.
- Press firmly the cutting-block against the guide.

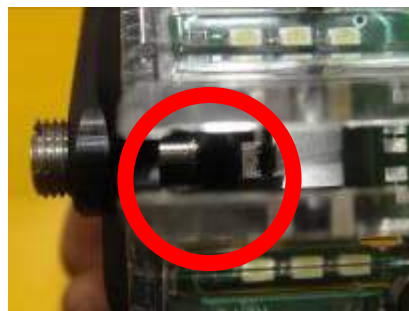


- Tighten the pressure screw until full compression of the spring.
- Don't over-compress the spring.

5.7 The slice stop



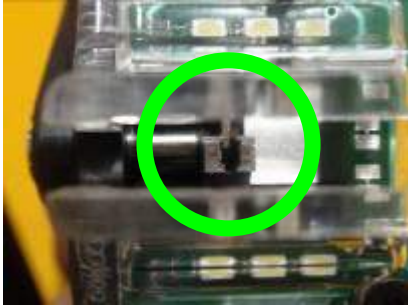
- Remove the stop splice screw



- Move back the stop splice in order to move it away from the guide.



- Tighten slightly and stop if you get any resistance.



- The right position of the stop splice is important for realising a good splice.

5.8 Replacing and centring the clincher



- Undo the clincher screw of the clincher holder.



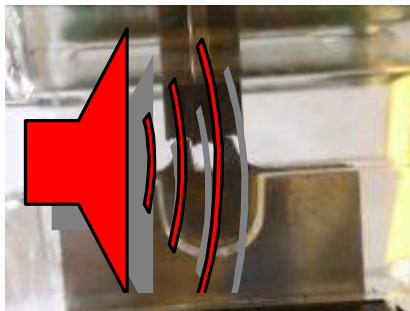
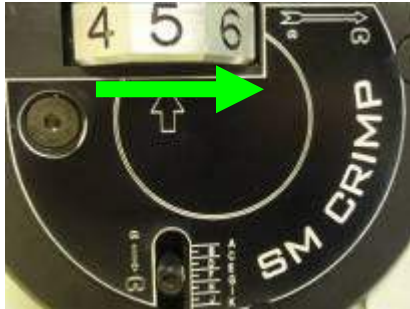
- Slide the clincher toward yourself in order to remove it from the holder.
- Check if there are no residues left.



- Release the screw with a 13mm wrench.

112	134	9	S
REGLAGE CONSEILLE			
E5			

- While changing the clincher, check that the data are similar into the set-up system and SM Contact.
- To do so, refer to the technical datasheet.



- If the clincher corresponds to the current tooling, it's advised to cycle up the punch 1 or 2 turns before any adjustments are made.
- If it's the same clincher, cycle the punch up in order to avoid any collision between the clincher and the punch.
- With a magnet, place the new clincher into the clincher place.
- The clincher should be able to move into the clincher holder. If not, you need to replace the clincher holder.
- Using the hand wheel, cycle the press manually until the punch reaches the centring of the clincher.
- Continue to slowly turn the hand wheel while monitoring the movement of the punch downwards from the side.
- Stop rotating the wheel when you hear a 'BIP' noise.
- Lift up the alphabetical indicator while turning the number dial.
- At every graduation, the punch goes down to 0.04mm. Stop turning when the cursor game is completely deleted



- Tighten the clincher screw.



- Turn the wheel to place the press at top dead centre.



- Tighten the screw of the crimp height adjustment dial.

6 THE TOOLING STORAGE DEVICE

The integrated memory allows storing information given in the technical datasheet of the tooling. When setting-up the tooling, the data is automatically transferred in the electronically card of the machine.

This function allows transferring quickly the different set-up parameters to the spare parts listing, to the pulling force that you should obtain in the connection.

6.1 View and data modifications of the technical datasheet

The transferred data into the storage device comes from the technical datasheet and is transformed into excel data.



PJ11-244		ENGINEERING DATA SHEET	
-----------------	--	-------------------------------	--

TOOLING CASSETTE			
------------------	--	--	--

ARTICLE Nr.	TOOL	DESIGNATION	B	50	9
M-01120					
COMPONENT	SECTION	RECOMMEND. ADJUST.			
C000237 - (0,04*7) C000217 - (0,20*16)	K000241 = 0,55 mm²	With Number M- M-			



TOOLING SPARE PARTS			
---------------------	--	--	--

ARTICLE Nr.	DESIGNATION	PUNCH	1P2-50-9
1	28-00049	PUNCH	1P2-50-9
2	28-00016	PUNCH GUIDE	1G2-50
3	28-00036	CLINCHER	1MB2-50
4	28-00035	CUTTING BLOCK	1BC2
5	01-03006	ANVIL	1EH2-50
6		CENTRING PLATE	



SPICE	
-------	--

SPICE LENGTH [mm]	5,08
SPICE TYPE	2-25 CN
PULL FORCE [N]	17

CRIMP SIZE (+/- 0,05 mm)		
	H2	L1
	1,03	1,71



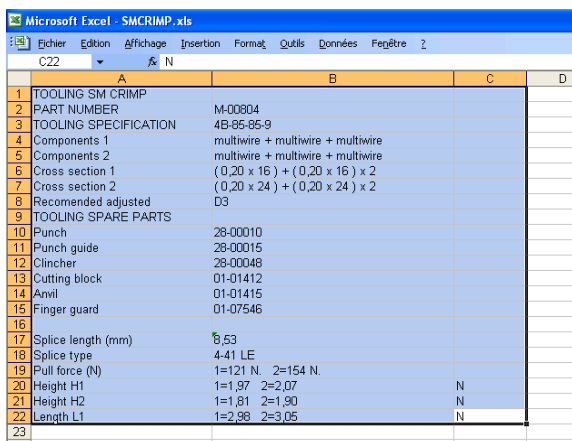

MACHINE CONFIGURATION	
-----------------------	--

SOFTWARE	SHCRIMP_V.403
NOTORRECTOR	NBS
FINGER CHARD	SI-3728
TYPE DE MACHINE	SHCRIMP 2000
TARIF OPTIL	
CFM ADMITTED	YES

Under only a specific request to our customer service department, we can send you the updated version of the technical datasheet. This allows us to follow the evolution of the tooling. The folder that you receive is named 'SMCRIMP.xls'.

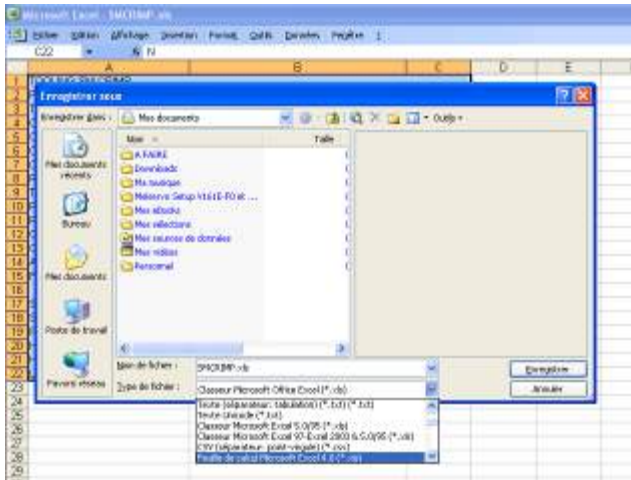


Do not rename the folder as the machine only recognizes the SM CRIMP name.



	A	B	C	D
1	TOOLING SM CRIMP			
2	PART NUMBER	M-00804		
3	TOOLING SPECIFICATION	4B-85-85-9		
4	Components 1	multiwire + multiwire + multiwire		
5	Components 2	multiwire + multiwire + multiwire		
6	Cross section 1	(0,20 x 16) + (0,20 x 16) x 2		
7	Cross section 2	(0,20 x 24) + (0,20 x 24) x 2		
8	Recommended adjusted	D3		
9	TOOLING SPARE PARTS			
10	Punch	28-00010		
11	Punch guide	28-00015		
12	Clincher	28-00048		
13	Cutting block	01-01412		
14	Anvil	01-01415		
15	Finger guard	01-07546		
16				
17	Splice length (mm)	5,53		
18	Splice type	4-41 LE		
19	Pull force (N)	1=121 N 2=154 N		
20	Height H1	1=1,97 2=2,07	N	
21	Height H2	1=1,81 2=1,90	N	
22	Length L1	1=2,98 2=3,05	N	
23				
24				

Once the alterations have been made, use the function 'save as'.



In the area 'Folder type', select CSV (use the semi-colon; to separate data).



To be transferred into the tooling memory, the name must be SMCRIMP.xls

PS: Our customer Service saves all customer information related to your tooling. In case of parameters modifications, please send your folder SMCRIMP.xls to smcontact@smcontact.fr.

6.2 Updating the data of the technical sheet into the memory.



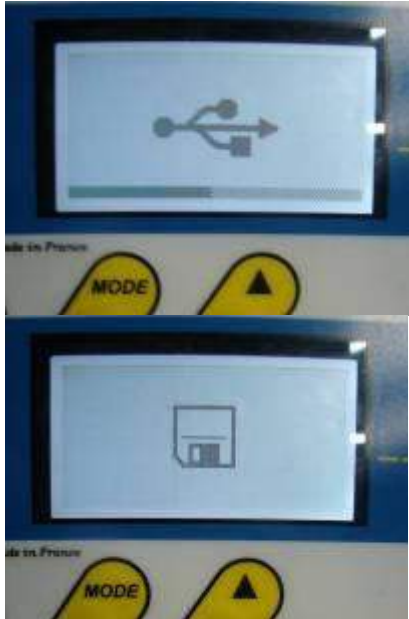
- Copy the folder SMCRIMP.xls into a USB key.



- Put the machine under sub-voltage
- The screen display must show 'quantity'.
- The tooling must be on the machine when proceeding to data transfer.



- On the machine right inside, insert your USB key.



- The parameters are uploading.
- Do not remove the key.

- Parameters are uploaded



- You can remove the key

7 DISMANTLING AND REASSEMBLING

7.1 The frontal compartment



If more space is required for crimping larger components, the front compartment can be removed. This is secured by two screws behind the blue plastic box. After removing the compartment, place the two screws back in the holes so that they do not get misplaced.

7.2 The right-hand safety cover



- Remove the wheel



- Remove the 4 screws.

7.3 The left-hand safety cover



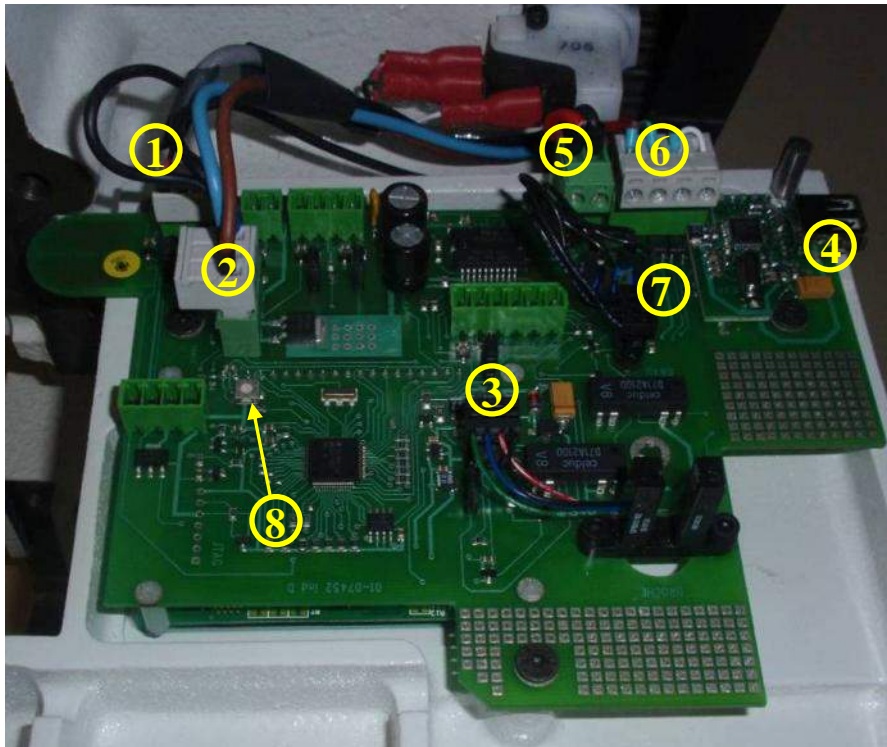
- Remove the 4 screws.

7.4 The front panel



- Remove the lower screw.

- Undo the screw on the top left side.



① FOOT PEDALE

② POWER

③ FORK SENSOR

④ USB CONNECTOR

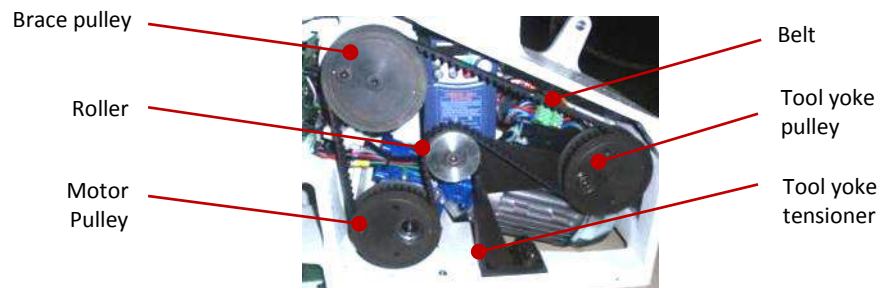
⑤ RIBBON ADVANCE MOTOR

⑥ DRIVER

⑦ EMERGENCY STOP

⑧ POTENTIOMETER

7.5 The belt



- Unplug the power cable.
- Remove the right-hand safety cover.
- Unscrew the two support screws of the belt bracket tension pulley.

- Remove the tension pulley bracket.
- Remove the belt.

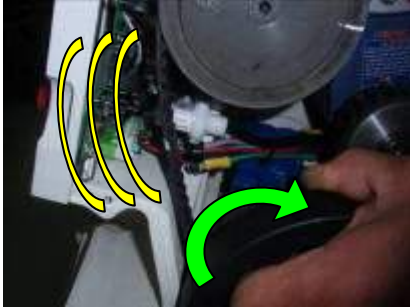
- Put a 243 Loctite drop on the screw threads on the machine.



- Prepare the two screws with tension washers



- Place the tension pulley bracket without tightening the tension washers.
- Orientate the belt as shown in the picture and without turning the belt over, verify the following view.
- The mark position should be as indicated in the picture.
- Place the red mark onto the brace pulley mark.
- Do not change the brace pulley's position. Place the pulley mark onto the pulley motor.
- Terminate positioning operations by placing the belt marker into the belt bracket pulley tensioner.

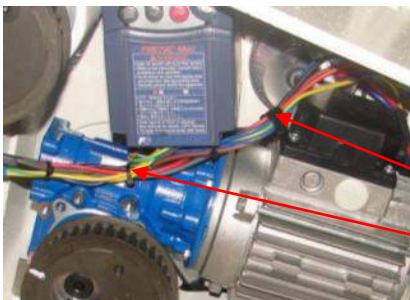


- Slowly tighten the screw of the tensioner pulley bracket until tension washers touch each other.
- Replace the hand wheel and cycle the press back to top dead center.

- To tighten the belt, slowly tighten the first screw of the tool yoke while turning with the hand wheel.
- As long as the belt rounded, tighten the tool yoke.
- When the rounded shape disappears, turn an additional turn.

- Do manually several cycles and verify that the belt is correctly stretched.

7.6 The gear motor



- Unplug the power cable
- Remove the right cover.
- Dismantle the belt and the tension pulley bracket.
- Remove the cable of the cable clamp
- Remove cable of the aluminium clip
- Take a 70/90 mm wedge to place the machine vertically.



- Manually cycle the press several times to verify that the belt has been correctly tightened.
- Tip over the engine on the table

7.7 The convertor parameters

The parameters are handed with the technical sheet on the USB key.

7.8 List of inputs and outputs

7.8.1 Inputs

1 IN1	n/a
2 SWRUB	band contact
3 PEDAL1	pedal n° 1
4 PEDAL2	pedal n° 2
5 BP_SECU	Emergency stop
6 PIN	Pin position
7 CONTROL	crimping validation
8 OUTIL1	n/a
9 OUTIL2	n/a

7.8.2 Outputs

1 READY	ready to crimp
2 FINCYC	end of crimping cycle
3 RSTVAR	reset convertor
4 FWDVAR	convertor controller
5 BKL	lamp light
6 LUM	lamp
7 BUZZER	resounding signal
8 MOTEN	Feeding system controller

8 TRANSPORTATION

8.1 Lifting/transporting the machine manually



The machine (with tooling cassette) weighs 70 kg. It can be carried by hand. It's recommended to lift it by two persons.



Grip the front panel



Grip de back panel

8.2 Transportation in a vehicle

Viewed from the front, the machine's centre of gravity is on the left-hand side. In order that the machine does not tip over, it should rest against a wall on the left side, i.e. the hand wheel must be visible.

9 POSSIBLE ERRORS: HOW TO RECTIFY THEM?

ERRORS	POSSIBLE CAUSE	SOLUTION
None of the lights switch on	No power cable	Make sure the power is on
	The fuses are faulty	Verify the fuses
The screen display is blank	The electronic card is on sub-voltage	Verify the 12V voltage.(chap. 7.4)
	Potentiometer of luminosity	Readjustment of the Potentiometer
	Electronic card out-of-order	Replacement of the carte
The machine stops too far	Convertor speed too quick	Reduce the speed (chap. 9.4)
The machine doesn't start its cycle	Display does not indicate « Quantity »	Press the bottom « Reset » (chap. 3.4.2)
	The foot pedal is out of service	Replace the foot pedal
The machine is slow and the cycle doesn't begin	Driver is HS	Replace the driver
The Splice band is not moving and the main screen displays 'band missing'.	The engine of the feeding system is H.S.	Replace the engin

The machine stops too early and shows a press error	The convertor speed too slow.	Increase the speed (chap. 9.4)	
	The tooling cassette is blocked	Verify the sliding (chapter 5.4)	
	Mechanical block of the machine.	Verify the tool yoke tension (chapter 7.5) : - Pulley - Roller	
	Mechanical block of the brace	Verify the rotation of the brace	
	The spring is broken.	Replace the spring	
The tape is twisted after an advance and the display indicates " ribbon missing"	The anvil is in the tape path	Replace the anvil Replace the cutting bloc	
	There is a problem with the cutting-block and collides with the anvil.	Replace the punch guide Replace the cutting bloc	
		Readjustment of cutting bloc (chapter 5.6)	
	The screw for the stop-splice sensor is not tightened enough	Readjustment of the stop-splice sensor (chap 5.7)	
The tape is twisted after an advance and the display indicates " ribbon missing"	The splice bobbin is unwound causing tangles	Verify the position of the splice band on the machine (chap. 3.5)	
	The Band is hitting in the transport carriage.	Replace the splice band	
	The tool contact touch point is broken.	Chapter 5.1	
	The ribbon skates in the reel of the feeding system	Replace the splice band	
The belt jumps	The tool yoke is broken	Replace the engen roller Replace the presseur roller Replace the tool yoke (chapter 7.5)	
		The tool yoke is not stretched.	Re-tighten the belt(chapter 7.5)
		The motor pulley is loose.	Re-tighten the pulley (chapter 7.5)
	The motor gear is loose.	Re-tighten the four screw of the engine reducer (chapter 7.5) fig.121	
	Excessive flash on the splice.	The punch is broken.	Replace the punch (chapter 7)
Bad alignment of the clincher.		Centring of the clincher (chapter 5.8)	
The punch guide is too high.		Readjustment of the stop-splice sensor (chapter 9.2)	
The band breaks in the clincher.	Punch Guide too low.	Readjustment of the punch guide (chapter 9.2)	
The clincher breaks.	Punch Guide too high.	Readjustment of the punch guide (chapter 9.2)	
	Punch Guide too low.	Readjustment of the punch guide (chapter 9.2)	
The guide breaks.	Punch Guide too high.	Readjustment of the punch guide (chapter 9.2)	
	Multiple splice crimping.	Recommended new training of operator ☺	

9.1 Punch guide centring problem

Check that:

- The upper cassette, lower-clincher holder, contact surfaces both on machine side and on tool side have not been deformed by shock during a disassembly, and have no burrs on any angle.
- The contact surfaces of the tool cassette and the lower-die holder are not contaminated by splice residues.
- The clincher holder is positioned properly and firmly tightened.
- The wires at the rear side of the cassette are correctly positioned inside the grooves.
- The cutter block is correctly positioned. During a dismantling of the cassette, someone forgot to press it out of the cassette before the re-fixing of the cassette cover.
- The stop-splice sensor is not correctly adjusted (see Chapter 5.7)
- The punch is worn or broken (see Chapter 9.3).
- If all the above points are satisfactory, re-adjust the clincher centring. This re-adjustment is likely to be necessary after 1000 crimps, in particular if the cassette has been dismantled. (See Section 5.8).

9.2 Punch guide colliding or too far from the top of the clincher

- If the two parts are too far from each other at the lower dead centring position, the splice may not correctly formed, may break, or one side of the splice will be formed in the wrong direction.
- Conversely, in no event should these parts collide.
- The clearance between punch guide and clincher top must be approximately 0,01 – 0,1 mm maximum at B.D.C. (Bottom Dead Centre).

If an adjustment is necessary:

Procedure:

- Disconnect the power cable.
- Remove the Crimp Banding.
- Remove safety cover on the left-hand side.
- Rotate hand wheel until the guide lever is located in its furthest most bottom position.
- Adjust clearance between guide and clincher by lightly turning the Allen screw below the guide lever in or out. (Allen key of 2.5 mm). Adjust at 0.1 mm (make this adjustment with the cassette and clincher mounted).



- Secure again the adjustment with the bolt.

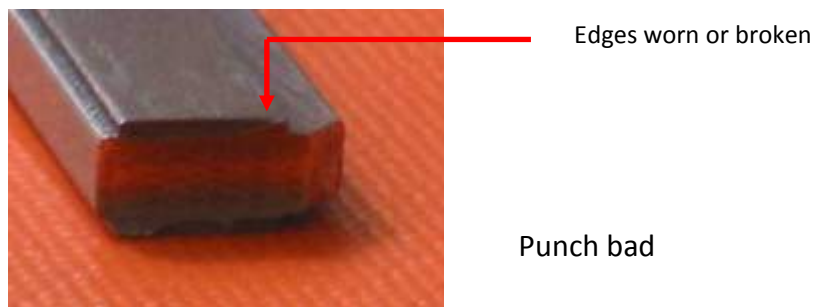
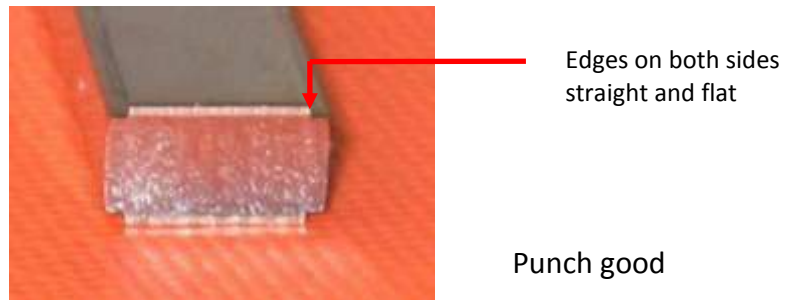
9.3 Splice shape imperfect

Possible causes:

- Clincher not centred
- Clincher worn
- Punch worn or broken.

Note: The side edges at the tip of the punch (seen from below) must be sharp and symmetrical.

(If the punch is small, it may be necessary to use a magnifying glass to observe the tip.)



- Splice's cut is not correct :
 - ☒ Pull the splice out of the cassette and feel the end: no cutting burr should be present.
 - To test this, take the end of the splice between the thumb and forefinger. If a burr is present, check cutting block position (See section 5.6)
 - If result is still not good, the cutting edges of cutter block and punch guide may not be sharp. In this case exchange both parts which are worn out.
- Crimping height to small.
- Tool too small.
- Splice profile thickness not adapted.

If cannot resolve the problem, contact your service representative to send back the parts and some components and wire, and also 1 meter of your splice material for testing and adjustment or repair. (Don't forget writing your name, telephone and fax number), machine and tooling number.

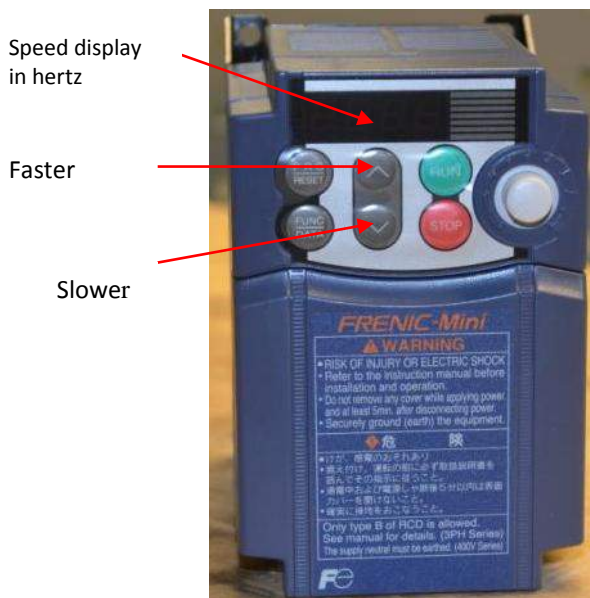
9.4 Display is showing error "index the pin"

The engine runs too fast and exceeds the top dead center before stopping

Reduce the speed of the frequency

The engine is running too slowly and stops before the top dead center :

Increase the speed of the frequency



- ❖ Remove both left and right covers
- ❖ Ask the operator to crimp splices.
- ❖ Look on the left side, when the machine stops. Check if the bearing falls exactly into the radius of the cam.
- ❖ If it rolls further (and comes back), the machine is too fast.
- ❖ Reduce the speed by depressing the arrow button on the motor speed controller until you have reached the correct bearing position (use a pencil to press the buttons, not your finger, because of the belt).

- ❖ The speed controller display indicates the speed of the motor in hertz.

Note: When the speed is too high, the machine makes a hard "klak" sound when it stops.