BSS 13-II

ASCOLITE®
Button securing system

BSS 13-II
Automatic button shank wrapping machine

Handling instruction manual

Ascolite AG
Grubenstr. 56
8045 Zurich
Switzerland
+41 44 912 00 00
www.ascolite.com
info@ascolite.com

BSS 13-II

+41 44 912 00 00
www.ascolite.com
info@ascolite.com

Index

Contents

1 Safety Instructions

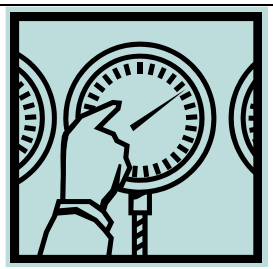
1. Do not operate the machine without all safety guards and doors in place.

2. This machine must only be operated by persons who have been fully instructed to do so.

3. This machine must only be used for the purpose it was designed for.

4. When carrying out any maintenance work or exchanging any parts ensure that the electricity and air supply to the machine are disconnected wherever possible.
   In certain cases it is helpful to check parts or settings with the power on –
   TAKE CARE NOT TO BURN YOURSELF ON THE HEATING FORK –

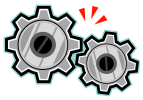
5. Maintenance work must only be carried out by suitably trained and qualified people.

 UNPLUG **ELECTRICITY** BEFORE REPAIR	 DON'T TOUCH HOT HEATING FORK !
 **AIR PRESSURE**	**ROTATING ARM** – KEEP HANDS CLEAR! 

2 Preparation

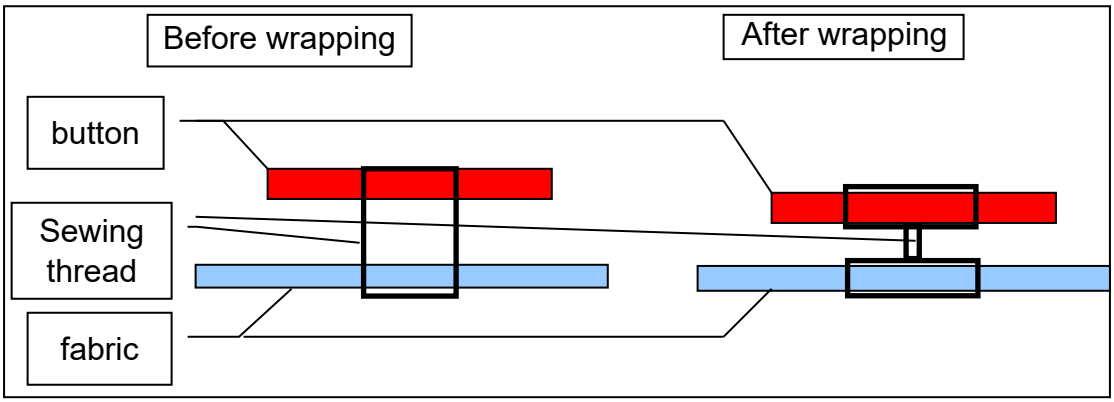
2.1 Important notes

To avoid any possible damage to the machine or trouble with it, the following instructions must be followed:

110 – 250 V 	1. Before connecting the machine to the electrical supply ensure it is single phase between 110 and 250 V
No wet air 	2. Before connecting the machine to the pneumatic supply, ensure that the air and is free of excess water
Min.4.5 bar 	3. and is able to supply at least 1 meter cubed/hour (0.7 cfm) 4.5 bar minimum. The indication 0.55 on the digital meter is ideal.
	4. Check that all parts appear to be in good condition. Any worn parts should be replaced immediately.

2.2 *Minimum Shank Length Essential for Safe Button Shanks*

Without a minimum distance, there is no space for the wrapping.
Attach your buttons not flat, but keeping enough distance to the fabric:

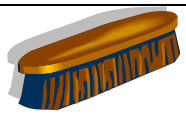
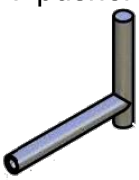


Minimum distance between fabric and buttons	**BEFORE wrapping**	AFTER wrapping
SHANK BUTTONS BLAZER etc.	**2 mm**	1 mm
SHIRTS: collar and sleeves	**3 mm**	1 mm
SHIRTS: front placket buttons	**2.5 mm**	1 mm
JACKETS or RAINCOATS	**4 mm**	2 mm
PANTS	**3.5 mm**	2 mm
THICK COATS	**4.0 mm *)**	3 mm
LEATHER JACKETS:	**4.0 mm *)**	3 - 4mm depending on thickness
	***) = Depending on fabric thickness 4-5 mm**	3 - 4mm depending on thickness

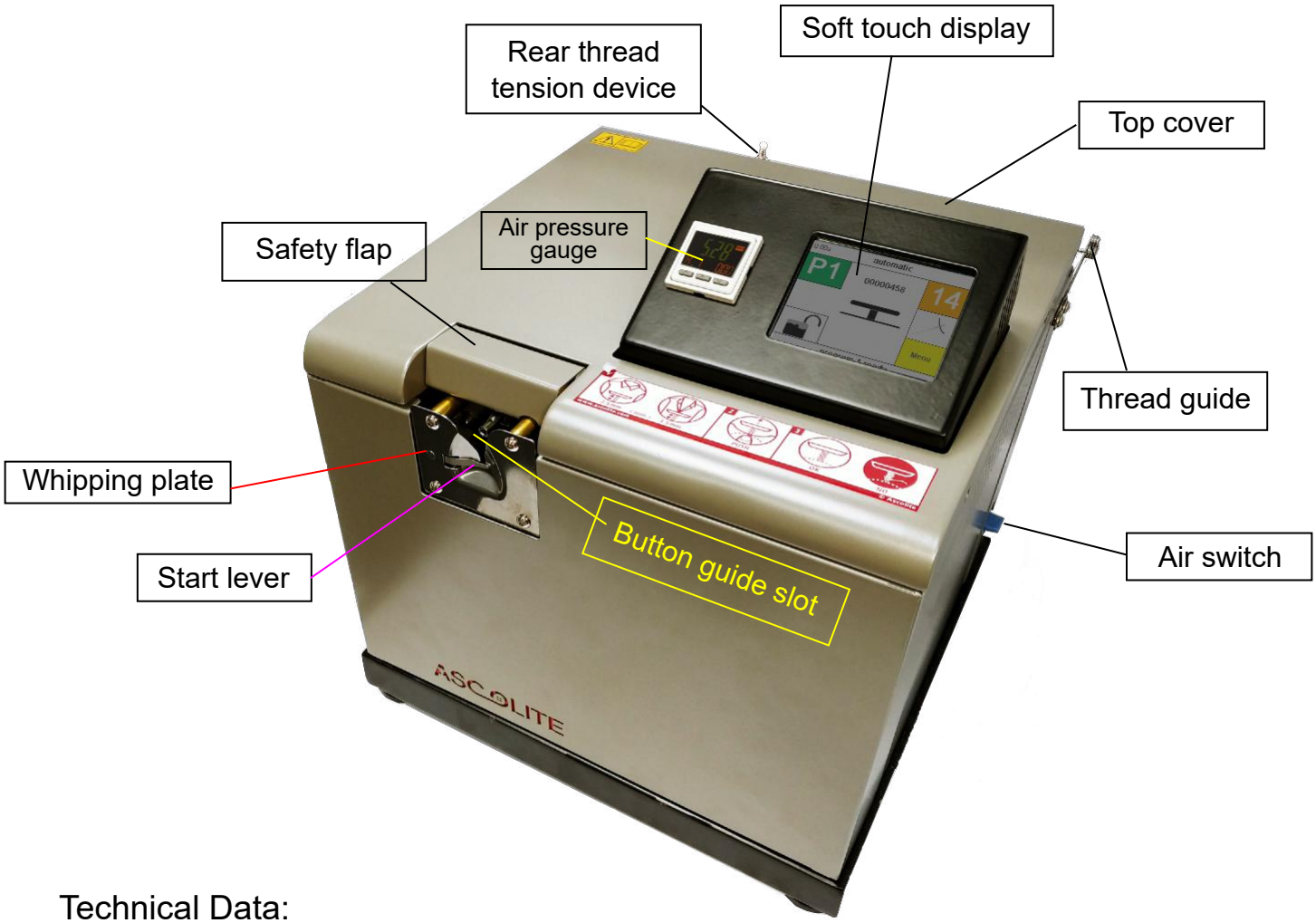
Ascolite Button shank regulator clamp

Ascolite offers a handy and **inexpensive attachment for regulating the button shank length**
suitable for every mechanical or electronic standard button sewing machine.
Please contact us and ask for our “Ascolite Shank Regulator”.

2.3 Routine Maintenance

Cleaning Heating fork 	In order for the BSS 13-II to work efficiently the **heating fork** requires regular cleaning. Frequency depends upon the number of buttons wrapped per day at least once a week. Ascolite is providing a cleaning set. Please remove the whipping plate and apply Cutter cleaner to the hot heating fork surface then wipe off all residue with dry rug. TAKE CARE NOT TO BURN YOURSELF!
 Waste threads	The only other routine maintenance that should be required is cleaning. Every 50,000 cycles open the front cover and remove any excess thread waste pieces that may not have been extracted by the vacuum.
Centre rod (shaft) 	**1.** the **shaft rod** that the button holder is fastened to - lightly grease once every two weeks.
T-pusher 	**2.** the **'T' pusher** for button support: To ensure that the pusher continues to function efficiently a small amount of grease should be applied to the part of the metal pusher that slides inside the plastic clamp. Lightly grease once every two months.

3 General View of the Machine

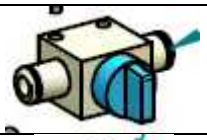
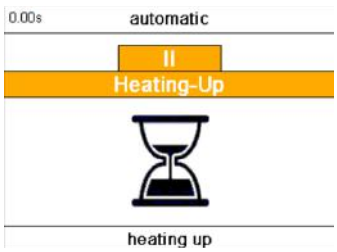
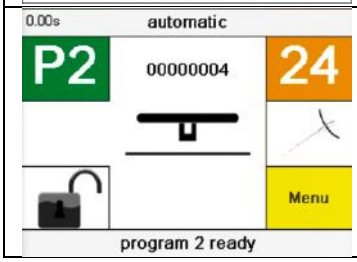


Technical Data:

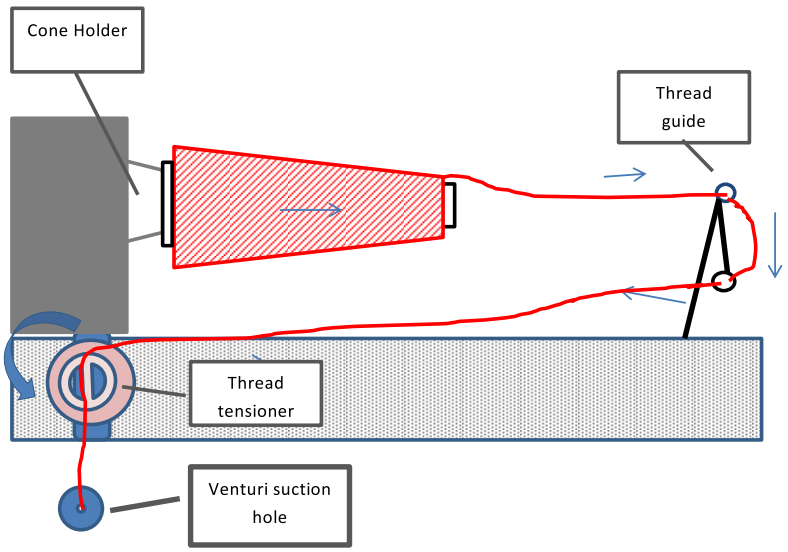
Box Dimensions 47 x 39 x 40 cm,
Gross weight: 14 Kgs
50/60 Hz
110 - 250 Voltage
Air supply: Min required 4.5 bar (66 psi) 1m^3/h, air tube:8mm
Wattage consumption 31 Watts.

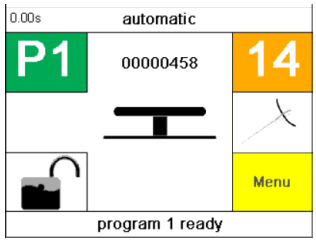
4 Operating Instructions

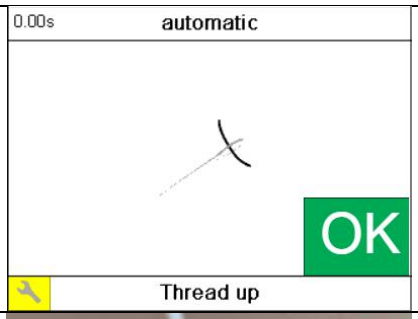
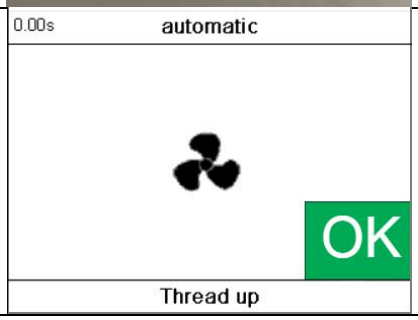
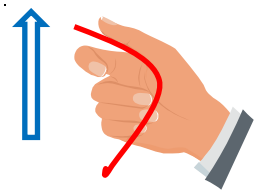
4.1 *Switching On the Machine*

	To switch on the machine first turn on the air supply switch. This is the blue headed twist switch mounted on the right hand side machine.
	The power should then be switched on by pressing the switch that is mounted on the back face of the machine.
	The machine will then be in warm up mode and the display will indicate that the warming up process is taking place. The machine will not run until it has warmed up, which will take about 3 min
	The recommended required air pressure is 5.5 Bar. The minimum required air pressure is 4.5 Bar. If the air pressure is below 4.5 Bar, the display of the digital meter will turn in red colour and the machine will not operate. This will prevent the malfunctioning of the machine because of lack of air pressure. Please check the air supply.
	If the air has not been switched on / plugged in, you get this message. Switch the air on. If the air is below 4.5 bar the machine will not be able to operate and the display will show No Air.
	After switching the air on, the machine goes to normal working mode and you can see the main menu on the display.

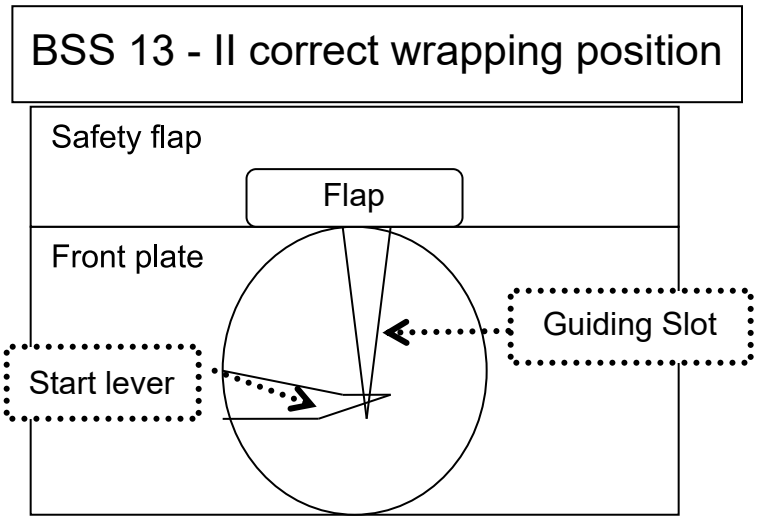
4.2 Threading Up Procedure



Threading up	
	Guide the thread 1. Through the thread guide 2. Through the slot in the pink tap 3. Then under the spring display 4. Always start with minimum tension and then only increase as much to get a tight slim button shank
	Touch the needle icon to start thread up.
	Remove any thread that may remain inside the whipping wheel.

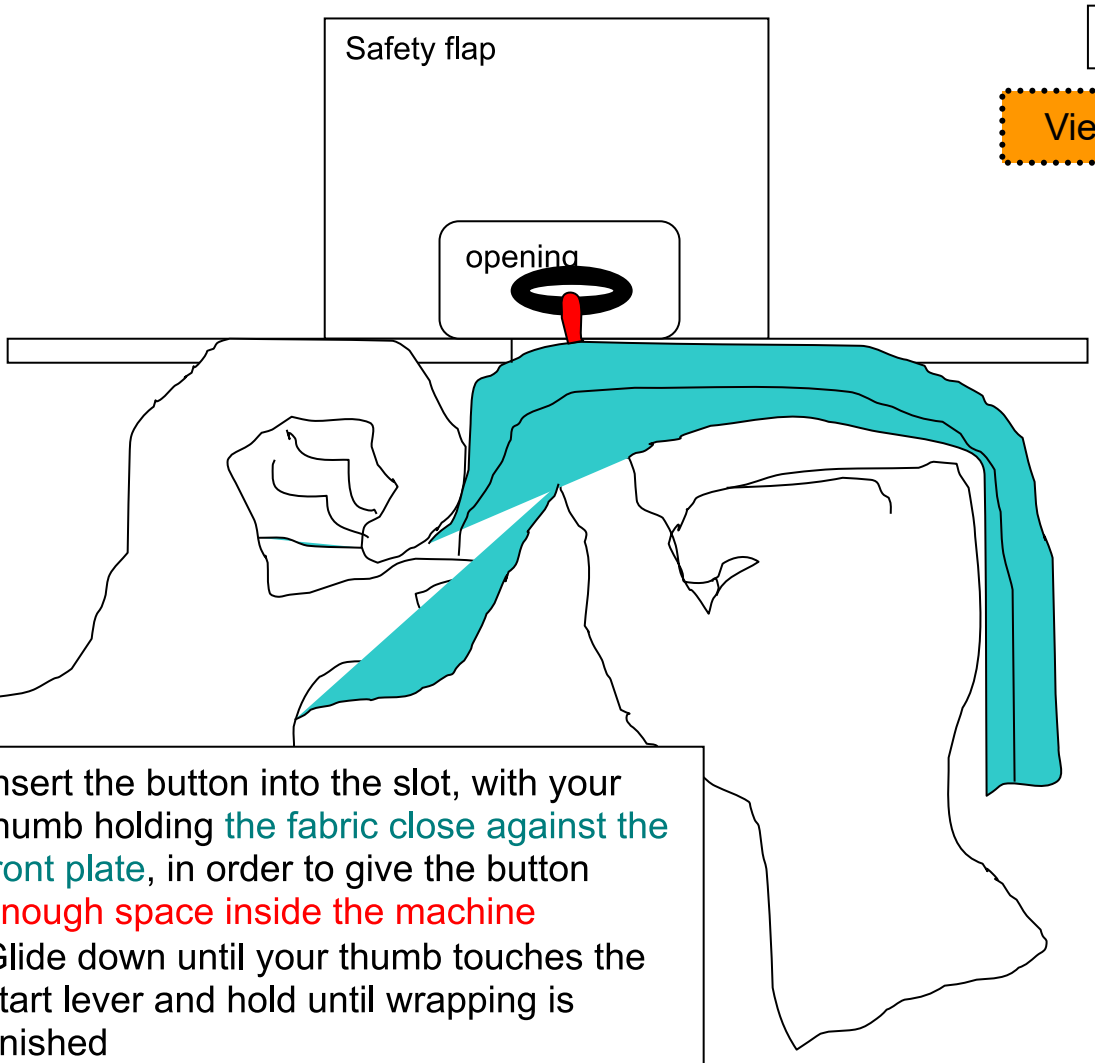
	Needle icon will appear on display Press the needle icon
	Pull out a piece of thread of 20 cm and let it hang above the venture entry opening.
	Touch the ventilator icon to start aspiration of the thread. Then pass OK
	**Keep the thread in your fingers.**
	**When the machine has taken the thread, rip off the end in an upward movement.** **Now the machine is threaded and ready**

4.3 Correct wrapping handling



BSS 13 - II

View from front side



BSS 13 - II

View from above

- Insert the button into the slot, with your thumb holding the fabric close against the front plate, in order to give the button enough space inside the machine
- Glide down until your thumb touches the start lever and hold until wrapping is finished
- DON'T PULL BACK, DON'T PULL DOWN

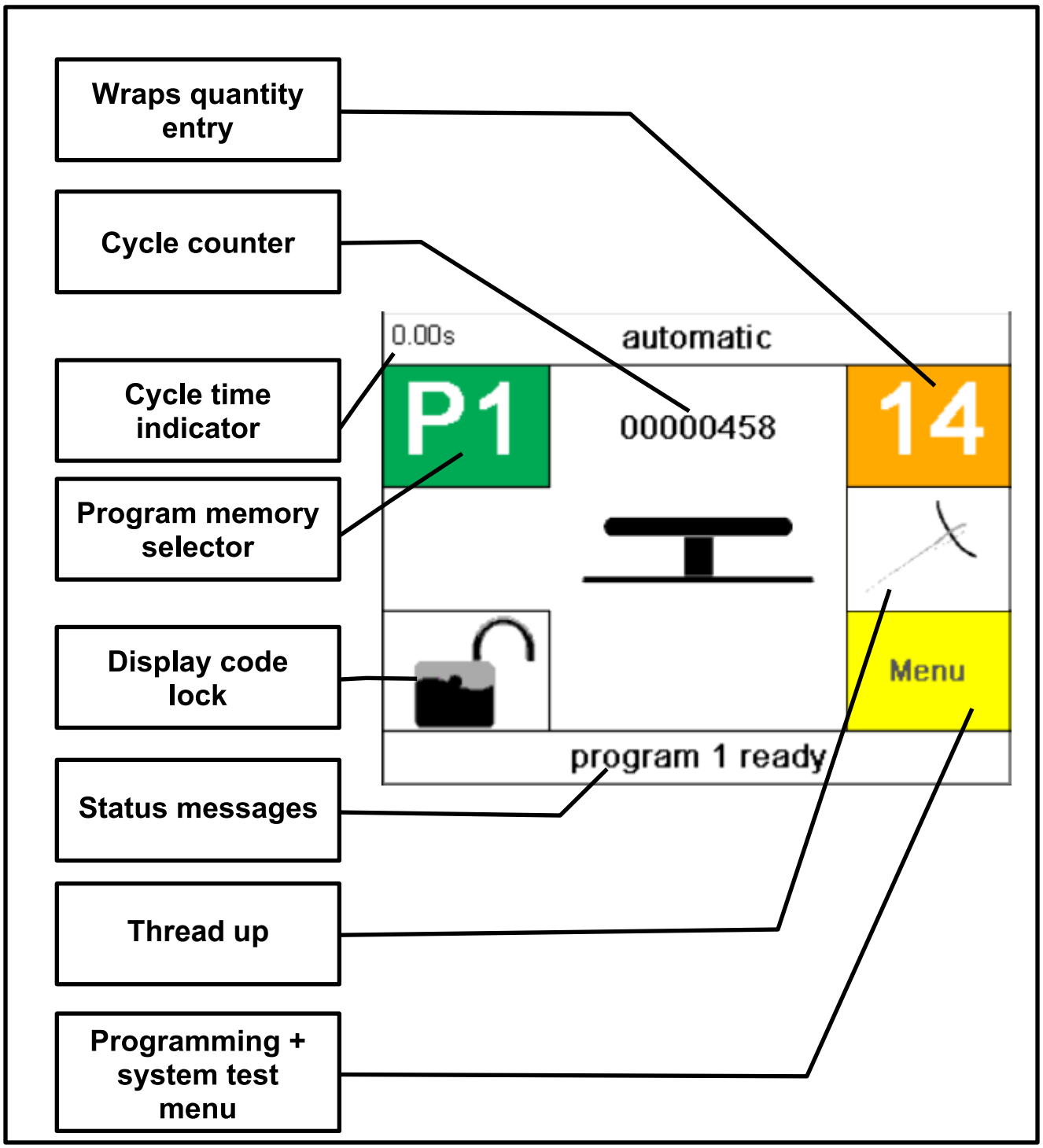
4.4 Advice for wrapping a shank

	Glide down along the steel front plate.
	▪ **HOLD** THE FABRIC CLOSELY **AGAINST THE PLATE**, ALL THE TIME. ▪ SLIDE DOWN THE SLOT UNTIL THE END WHERE YOU **TOUCH** THE START LEVER AND ▪ **STAY THERE** UNTIL THE END OF THE CYCLE.
	Touch the start is enough, the motor will start wrapping. Keep your fingertip on the lever, without forcing.
	▪ **DON'T PULL THE FABRIC BACKWARDS**. ▪ **DON'T LET THE JACKET PULL DOWN**
	• This would pull the button shank out of the slot and leave not enough space for the wrapping and for the heating fork to pass • Wait until the process is finished and then lift out the button and insert the next one.
	**<u>COLOUR CHANGE</u>** • Open the safety flap. • Touch needle symbol, tube will turn up. • Press the ventilator symbol. • Thread in new colour as shown in chapter 4.2.
	**<u>CLEANING</u>:** • When changing from dark to light colours, avoid dark colour parts staining the white shank wrapping: • Clean the heating fork of remaining colour parts while it is hot using Ascolite cleaning set. Cleaning stick : part no 14682 Cleaning pad : part number 14683
	**<u>RESULT</u>:** A slim, tight and neat button shank, in cylindrical shape, without remaining thread tails.

5 Control System

5.1 Display

The BSS 13 - II is fitted with a touch scree display. Through this display all machine functions can be controlled and adjusted. All features can be accessed by pressing the icon buttons on the display.

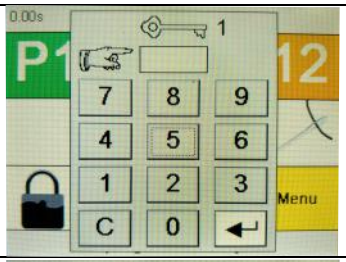
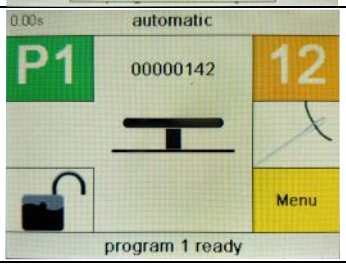


5.2 Number of wraps per button

	Press the **orange** icon for **altering number of wraps**, then + for more or – for less number of wraps, then confirm with ↵ icon. Number of wraps can be registered individually for each P1, P2 and P3 Recommended minimum number of wraps below:

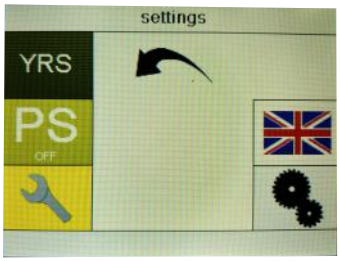
Program	Recommended Number of wraps + minimum
For shirts and blouses	**10-12** wraps (minimum 10)
For jackets	**25 - 30** wraps (minimum 10)
For Coats	**25 - 45** wraps (minimum 10)

5.3 Display code lock

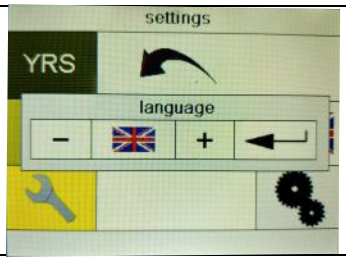
	If the lock on the picture is closed, the operator cannot change the screen or anything in the settings. The display is locked. Useful to avoid erroneous changes by the operator. To lock the screen, touch the padlock symbol.
	In order to unlock, touch the “lock” button, then enter code 131 and confirm with ↵ icon.
	Then the display is free alterable and stays so until locked again.

6 Menu programs and settings

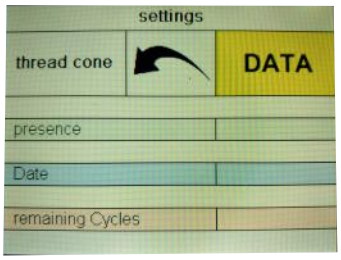
6.1 Access

Settings	
	If you press to the wrench icon, you get to this screen for programming settings and testing in the Technician and factory menu. 5 Options: YRS : To check on the cone the remaining cycles. PS: Sequential wrapping of different button types. Wrench: Technician's menu. Flag: Language choice. Cogwheels: Factory's menu.
Language Selection	Chapter 6.2
YRS	Chapter 6.3
PS	Chapter 6.4
Technician Menu	Chapter 6.5 - 6.11

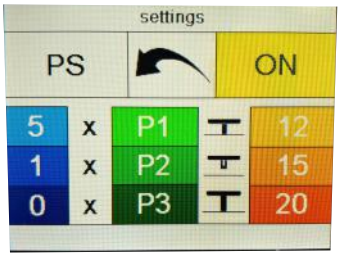
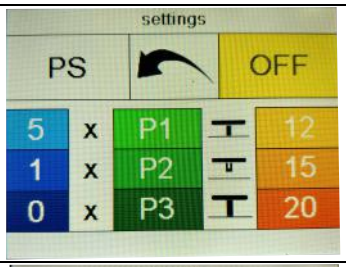
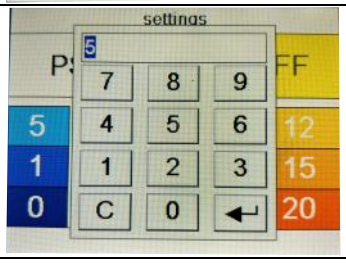
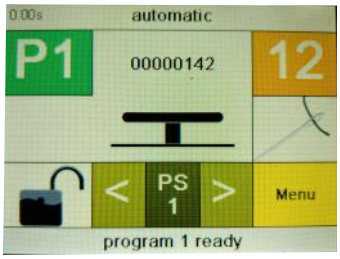
6.2 Language

Language selection	
	**Language** selection: press flag, touch+ / - for choosing your language, then confirm with  icon. 23 Languages are available.
Technicians menu	
	**Technician menu**: This program is open, intended for technicians only. To get access, **enter code 1980**

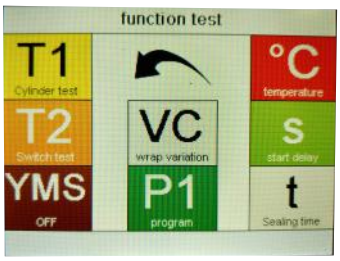
6.3 YRS control

	The YRS program is useful for quality assurance. It makes sure that the factories are only using high quality original Ascolite TF-yarn. The YRS system identifies original Ascolite TF-Yarn cones and the date of first use and the remaining cycles of each cone. **Please make sure you are not wrapping without buttons to avoid wasting credits.**
	If there is no original cone on the cone holder, or the cone is empty, the YRS system shows “error 71 – cones not detected” and the machine doesn’t run before such an original cone with credit left is put on. The same is if the cone is put on half only, or not in line “key and slot.”. Click on Info icon to get more information

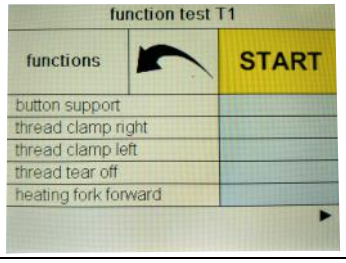
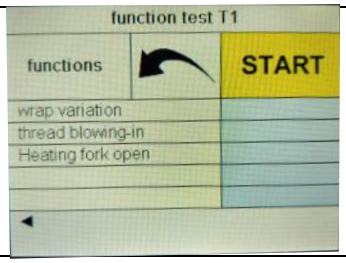
6.4 *Program Sequence Mode PS*

sequential wrapping of different button types	**PS**
	Sometimes you may have different buttons with different shank types or size on one piece of garment. With this program you don't have to switching and changing the program every time, but the sequence programmed switches to the desired button type automatically. e.g. if you have a coat with 3 long shank buttons and 2 cuff buttons with short shanks, you could program a sequence like this:
	Press the icon "OFF" key to switch the PS mode "ON". To switch off again, press the wrench icon to enter the technician menu and touch the "ON" icon again to switch off.
	By pressing of blue icon numbers on the left side of the display, you can modify the qty of each type, By pressing the P icon Program buttons you may change the program nos. and their order sequence.
	This is the working mode screen with PS sequence mode. If you miss one button or do a mistake, you can repeat the same type again by pressing the left hand < arrow key, or jump forward by touching the right hand arrow key >.

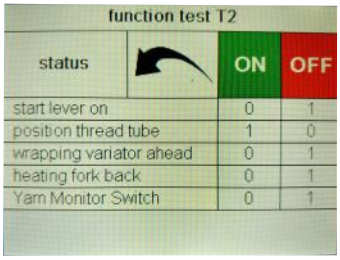
6.5 Technician Menu contents

	When you have entered the code "**1980"** you get access to the technician test menu. It is not only for function tests T1 + T2 but also special options to run the machine: T1 = Cylinder tests (output) T2 = Switch tests (input) YMS = Yarn Monitor Switch (optional) °C = Temperature ON or OFF S = Start Delay setting t = Sealing time setting VC = Wrap variation

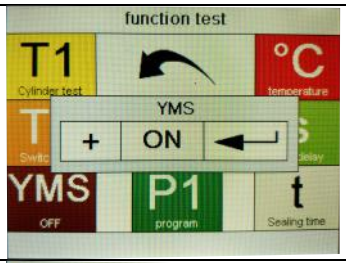
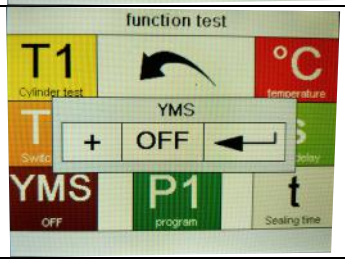
6.6 T1 - Output tests (cylinder functions)

T 1 output test	**Output test** for cylinders: 8 functions.
	Select the function the line and press the Start icon for testing each cylinder function in each line after the other. Press Start again to reverse. This way you can observe the performance of each cylinder. Don't use all functions at the same time to avoid damages
	Press ▶ to get to 2nd page. Press ◀ to get back to 1st page.

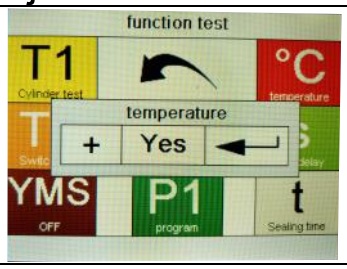
6.7 T2- Input tests (micro switches)

T 2 Input test	Switch Tests
	**Input test** for switches Activate the respective microswitch or parts manually, then the indications should alter from 1 to 0 or from 0 to 1. Turn off the air and move the cylinders manually.

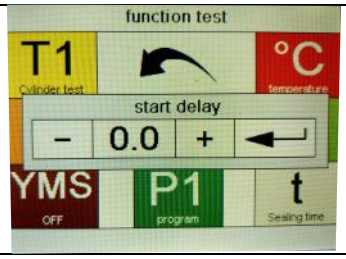
6.8 YMS - Yarn Monitor Switch (optional)

YMS	
	**ON**: Yarn Monitor Switch activated
	**OFF**: Yarn Monitor Switch deactivated
	You can access to mode cover open by pressing the little yellow spanner icon in the left bottom corner of the display. Enter code **1980**, then you can reverse the working mode.
	Keep clear your fingers from the interior of the machine during the cycle. Don’t lift your hand during the cycle. Wait until the end of the cycle to avoid the button or your fingers being hit by the winding arm or the heating fork

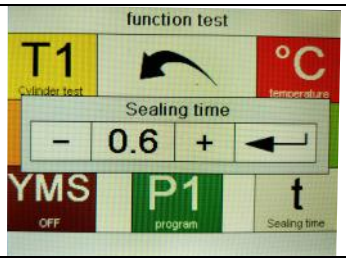
6.9 ° C - Temperature adjustment

° C Temperature adjustment	Temperature can be registered individually for each P1, P2 and P3
	**Temperature** of the heating fork can be set ON and OFF: No: no heating Yes: maximum temperature Normal working temperature setting should always be Yes. For the technician it can be useful to work with no heating to avoid burning

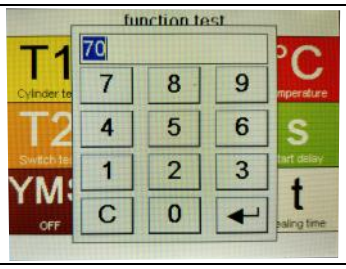
6.10 S - Start Delay

Start delay can be registered individually for each P1, P2 and P3	Start delay can be registered individually for each P1, P2 and P3 **Start delay** is useful in order to avoid that the motor starts to wrap before the button is in place. This can happen if the operator touches the start lever with the fabric, too. This may help the operator to settle even an awkward button into the support.
	In general for P1 set 0 or 0.1 sec.

6.11 t - Sealing Time

t Sealing time	A sealing time of 0.5 sec. is the factory setting and is sufficient
	Sealing time can be registered individually for each P1, P2 and P3. We recommend 0.5 to 0.6 ms.

6.12 VC - Wrap variation

VC	
	VC - Wrap variation Modify the number according to the length of the shank

7 Trouble digest

7.1 *Error Messages*

Error No.	Error message	Next step	Parts or settings to check
21	No serial port	Newstart	1. Turn OFF & ON. 2. If not OK exchange the CB
22	PLC communication error	Confirm OK	1. Press Ok 2. Motor belt too tight. 3. Thread tube not turning smoothly. 4. Thread tube touching the hooks. 5. Motor faulty.
23	Cannot open Com2 (microcontroller)	Newstart	1. Turn OFF + ON. 2. Circiut board faulty
24	Cannot open Com1 (YRS)	Newstart	1. Turn OFF & ON. 2. YRS module faulty. 3. Circuit board faulty.
25	No connection to microcontroller	Newstart	1. Turn OFF + ON. 2. Check Jumpers J1. 3. Check wires. 4. Circuit board faulty.
26	The thread tube cannot reach the reference position	Newstart	1. Press Ok 2. Motor belt too tight. 3. Thread tube not turning smoothly. 4. Thread tube touching the hooks. 5. Motor faulty.
27	Error Temperature harness	Confirm OK	1. Press OK. 2. Check PT2 wire connection. 3. Temperature harness faulty.
28	Low temperature	Confirm OK	1. Press OK. 2. Check HZ2 wire connection. 3. Heating element faulty.
29	Position heating fork	Confirm OK	1. Press OK. 2. Check reed switch heating fork cylinder.
31	No language file	Newstart	1. Turn OFF + ON. 2. Circuit board faulty.
32	No update program found	Confirm OK	1. Re connect the USB memory stick. 2. USB memory stick faulty.
33	No update-list	Confirm OK	1. Re connect the USB memory stick. 2. Update file wrongly downloaded. 3. USB memory stick faulty.
41	Motor does not work	Confirm OK	1. Motor not connected to CB. 2. Motor faulty.
71	No cone (YRS)	Confirm OK	1. Press Ok. 2. Change cone position. 3. No YRS sticker inside cone. 4. YRS sticker not activated. 5. Antenna not connected or faulty. 6. YRS module faulty.

72	Cone used up (YRS)	Confirm OK	1. Press Ok. 2. Use new cone.
73	Error message	Call - check	Please contact Ascolite technical team.
91	Error message	Call – check	CB faulty

7.2 Problems and solutions

Fault	Cause	Solution
Machine is not running when start switch is pressed	No electrical power to machine.	Check supply and main fuse.
	Faulty power supply.	Check 24v power supply.
	Faulty start switch.	Check start switch via. Input check.
	Faulty motor or motor supply.	Check 24v motor supply and then motor.
	Faulty photocell.	Check photocell and its connections.
	Jammed gearbox, belt etc.	Check for free spinning of mechanism
Variation cylinder moving to and fro, display shows “no air”	Not enough air supply	Check if air is on and pressure 5.5
	Air supply is correct but variation cylinder stroke restricted so LED does not light in front position.	Turn restrictor screw R0906 counter-clockwise until LED is on. Fix it with nut again.
Hooks are not catching thread	Motor stopping position incorrect	Check flag settings
	Hooks damaged or set incorrectly.	Check hook settings
Thread breaks during wrapping.	Thread supply not free	Check cone and routing of thread.
	Sharp edges on the tube rim, tension cap or hooks.	Remove any sharp edges and polish.
Thread not caught by the hooks at the end of the cycle	Stopping position of thread tube incorrect.	Adjust the flag
	Thread tube pushed back	Pull it in front again until 5 mm from front panel
	Hooks not clamping the thread correctly.	Check hook condition and setting
	Waste thread not ejecting	Clean hooks Check blowers tubes left and right
Thread not bonding or leaving a tail on the shank.	Heating fork setting incorrect.	Check setting and readjust
	Heating fork dirty or worn or upper arm bent.	Clean fork/replace if worn.
	Final wraps not next to the whipping plate (only possible in variable long shank program).	Readjust speed controls on wrap variation cylinder
Heating up mode doesn’t stop	Heating element burnt out OR contact faulty	Check if heating fork is getting warm.

	Or temperature element and heating element burnt out	1 .If not: check wires first then exchange heating element. 2. If heating element gets warm, check and exchange temperature element too.
Thread wrapping tension not satisfactory.	Tension device worn or set incorrectly.	Check condition of tension device and replace if necessary. Set correctly
	Tension device bent so that no pressure is applied to the critical point	Check that the angle of the tension device is exactly 90 degrees. Bend to suit or replace with new part.
	Thread supply not free	Check cone and routing of thread.
		Adjust rear tension device. With very low tension, it is enough
Power off by itself	When something blocks the motor, the program cuts current automatically to prevent damages to the machine	No fault. After about 10 seconds, the machine will automatically switch on again, restarting.