

Technical manual

saelen.fr

SAELEN TS INDUSTRIE

Original Notice

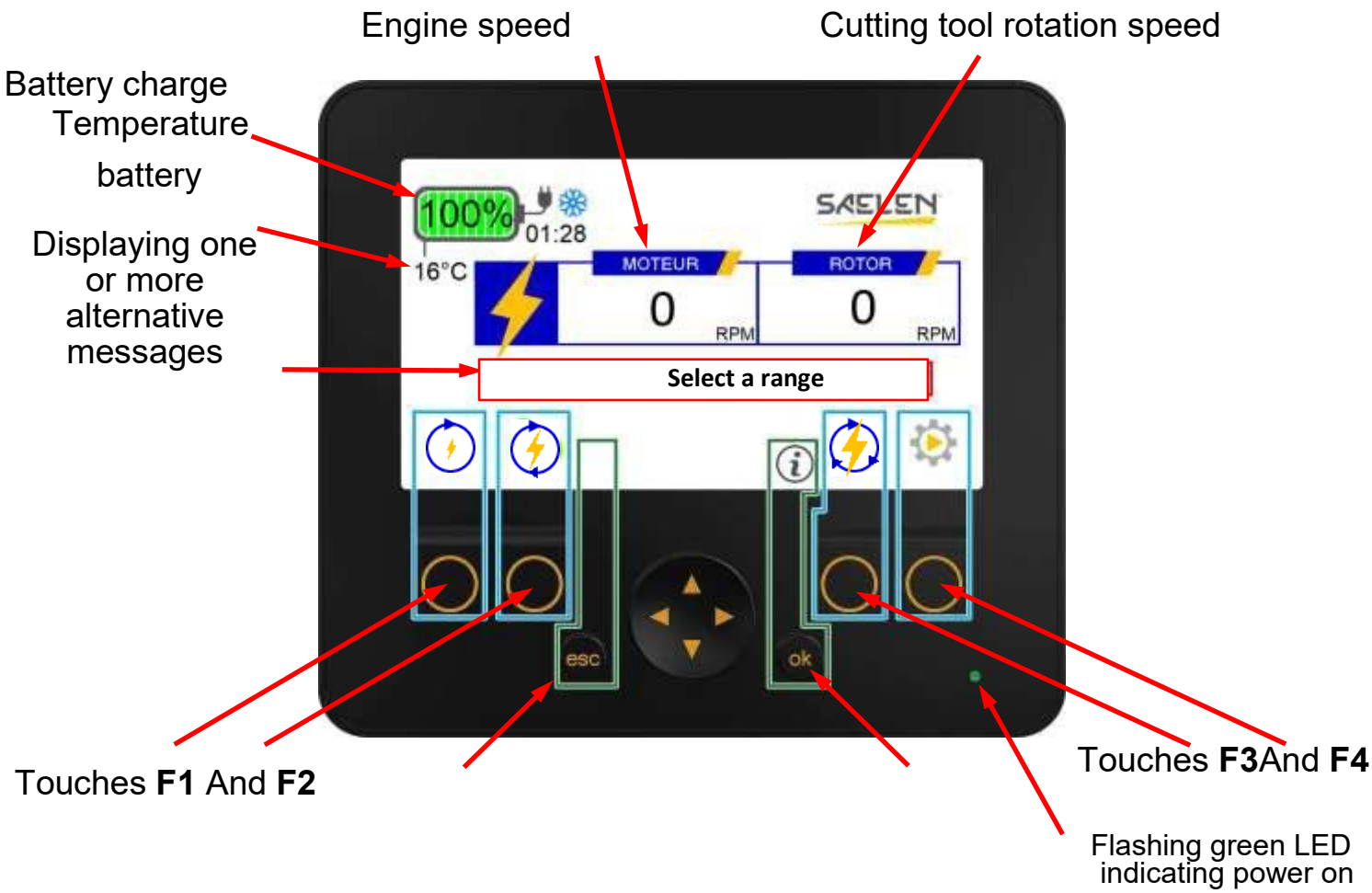
TS.COCKPIT



Available functions

1. Permanent display of engine speed
2. Permanent display of the cutting tool rotation speed
3. Display of daily hours
4. Flashing green LED indicating power on
5. Reverse feed roller to release the cutting tool during NoStress intervention
6. Different NoStress usage ranges depending on the type of wood to be shredded
7. Service management: engine and battery maintenance intervals
8. Safety sliding belts (ideal for rental)
9. Engine stop and anti-start safety if engine hood or chimney open
10. Memory malfunctions
11. 5 languages available: French, German, English, Spanish, Dutch

Description of the main screen



It is strictly forbidden to modify the TS.COCKPIT's factory settings. Any modifications to the safety features or programming made outside our factory are the sole responsibility of the person who made the changes.

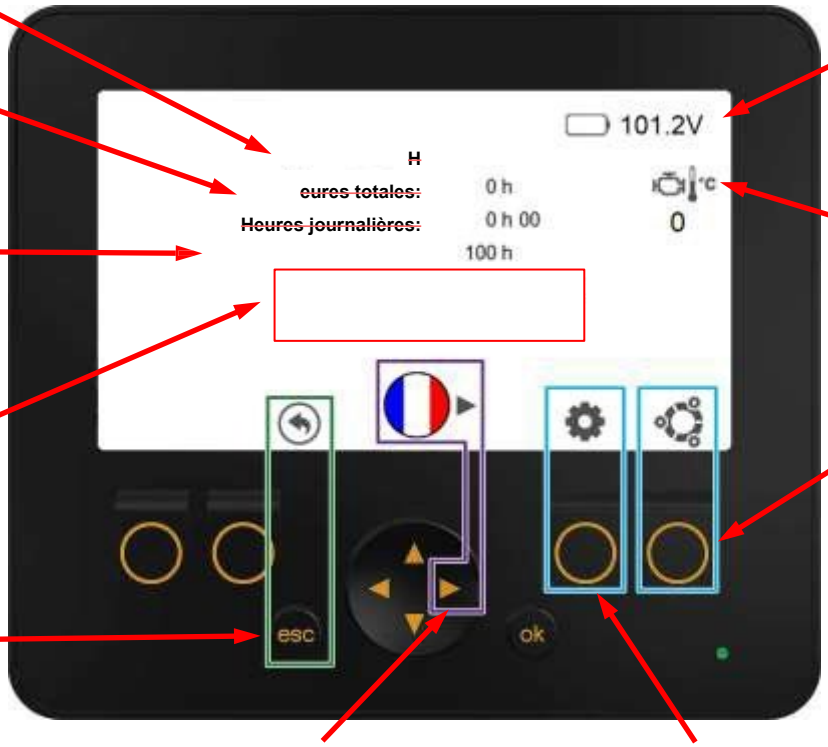
The values given in the following pages are given for information purposes only.

Description of indicators and symbols

	Working preset1
	Working preset2
	Working preset3
	Short press: custom grinding range Long press: access site settings page
	Selected function
	Return to previous screen
	Access to the next screen
	Defect History
	Machine and motor control states
	Reset daily counter
	Validation service
	Validation of the action performed

	Battery in winter mode
	Battery charging
	Battery voltage
	Engine temperature
	Review to be done Motor, drive, or battery fault(s) requiring machine inspection
	Motor, drive, or battery fault(s) requiring the machine to be shut down
	Motor or drive malfunction

Description of the secondary screen



~~Heures totales~~

Daily hours

Next service due date

Fault code and message

See page 13

Touch **Scarf.**
Return to the previous screen page

Battery voltage

Engine temperature

Poster page « **States**» engine commands and data

See below

Navigation arrow**RIGHT**
Press repeatedly to cycle through the different available languages:
French, German, English, Spanish, Dutch

Allows access to the history of the latest faults

See engine error codes page 13

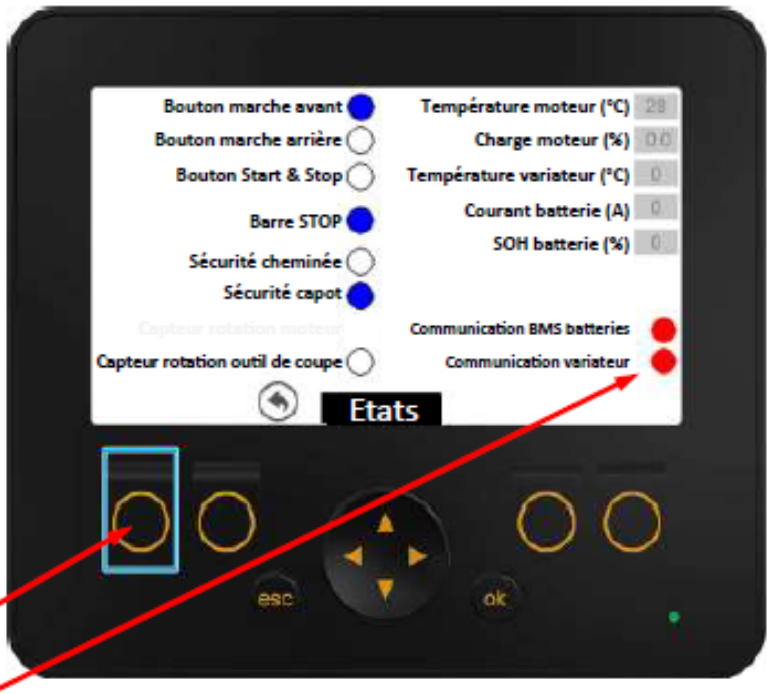
Each machine control has an activation indicator light:

○ = Control not activated

● Control activated Sur

For exemple :

- The yellow forward button is held down
- The red STOP bar is held down
- -The engine hood is open

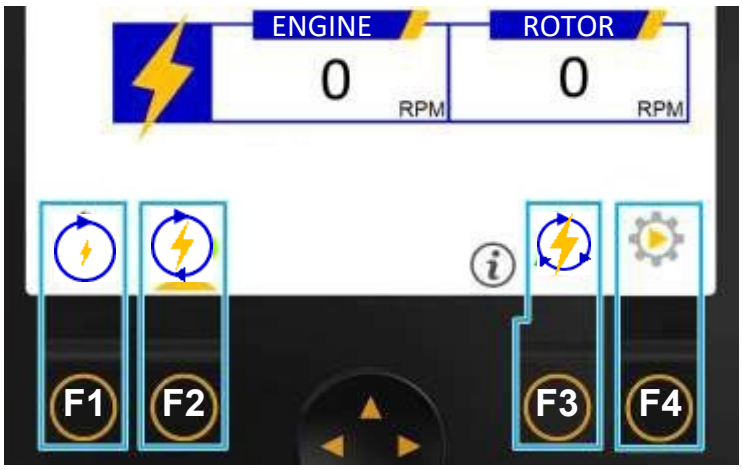


Cutting tool sensor signal check:
Ignition on, cutting tool stopped, the circle is white (regardless of the position of the index finger in front of the sensor). When the cutting tool is rotating, the circle turns blue.
If the rotor is stopped, place your finger in front of the sensor and press the F1 key: the circle turns blue during this time = sensor OK.
CAN communication indicators:

● = communication OK

● = problem ofcommunication

NoStress settings Choices



The **TS.COCKPIT** has 4 setting of engine usage with associated NoStress ranges.

Each key has its own pictogram which will be displayed under the logo of the selected key. *Above range 2 has been selected.*

F1 key : the engine will settle at a very moderate engine speed, the NoStress management of the feed roller also adapts to this engine speed.

Suitable for shredding medium-sized pruning branches.

This range greatly promotes energy saving while considerably reducing nuisances. sound effects for the environment.

F2 key : This is the most suitable operating range for grinding. It defines an average engine speed using its own NoStress range.

Suitable for shredding leafy branches and temporarily for shredding conifers and plants.

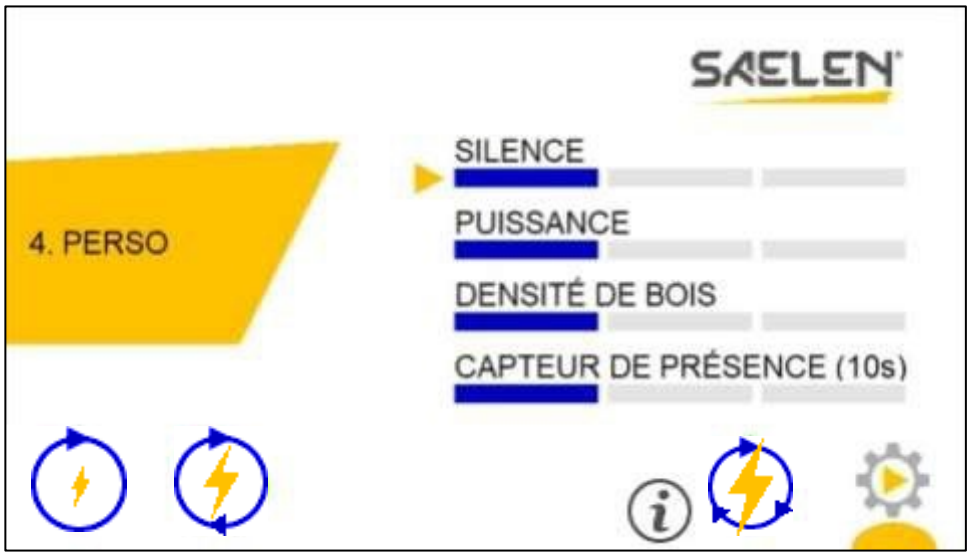
This setting also promotes, to a lesser extent, energy savings and nuisances sound by optimizing the machine's performance as much as possible.

Touche F3 : This range is the "boost" of the machine. It uses the maximum authorized engine speed, using the maximum power of the engine and the ventilation for ejecting the crushed material, in extreme conditions of use.

Suitable for shredding conifers and heavy plants thanks to its high-speed motor range for optimum ventilation.

Touch F4 : with a short press, this range allows you to use the machine's personalized settings (silence, power, and wood density).With a long press, the F4 key allows you to display the site settings page

Site setting page



On the main screen, a long press on the F4 key displays the site settings page.

This page allows you to customize the following levels of the machine, depending on the configuration or environment of the site and depending on the number of people loading the machine.

SILENCE : in the example above (1 filled blue rectangle), the machine will operate generating minimal noise

POWER : In the example above (1 filled blue rectangle), the machine will operate using the minimum motor power. This setting helps preserve battery life.

WOOD DENSITY : In the example above (1 filled blue rectangle), the TS.Cockpit will optimize the machine's operation for soft and light plants. Conversely, a setting with 3 filled blue rectangles will optimize operation for harder and heavier plants.

PRESENCE SENSOR *(option)* **:** 4 settings are possible: off, 10 seconds, 20 seconds, 30 seconds.*See operation page 14*

Normal operation and overspeed

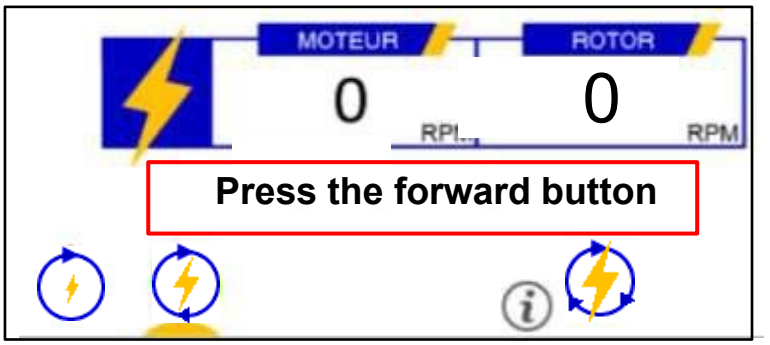
The main rotation speed data taken into account for the control of the operation of the crusher is that of the cutting rotor.

After choosing a range, pressing the Start & Stop button starts the engine.

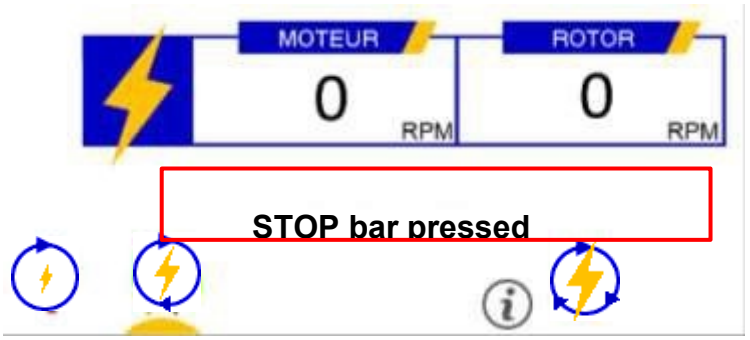
A message "**Press the forward button**» indicates that the minimum speed for the operation of the feeder has been reached.

You can **press the yellow button**forward feeder.



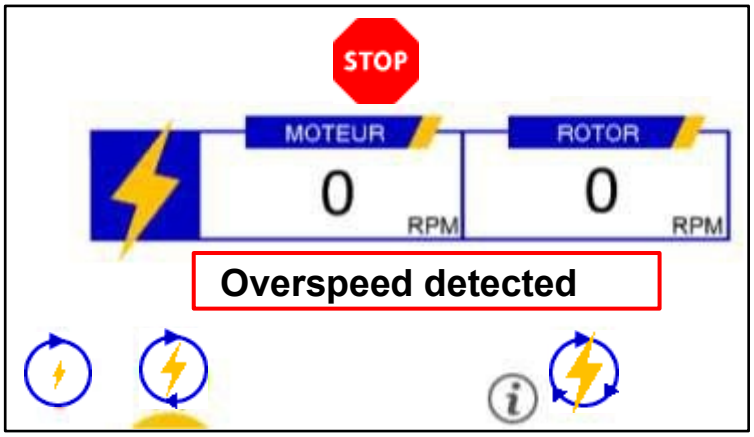


Forward movement with rotating feeder, if you operate the red handrail at the rear of the hopper, the feeder stops and the message "**Barre STOP ap-pressed**» is displayed.



In case of overspeed of the cutting rotor, an icon **STOP rouge** is displayed with the message "**Overspeed detected**", the rotation of the feed roller is stopped to prevent the use of the machine and the motor stops.

Investigate the cause of the problem before restarting the machine.



SLIDE function

The **TS.COCKPIT** controls the slippage ("slippage") of the cutting tool transmission system by constantly comparing the speed difference of the motor pulley with the cutting tool pulley. A percentage of slippage is tolerated in order to protect the transmission (belts). If this value is exceeded, the engine is stopped and two different messages may be displayed.

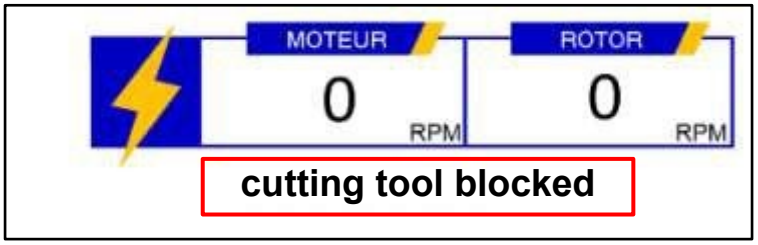
1) <u>As soon as the cutting tool starts rotating:</u>

If message "**Cutting tool blocked**» Different

possible causes of slipping:

- cutting tool blocked by grinding residue remaining in the grinding cell

- broken belts



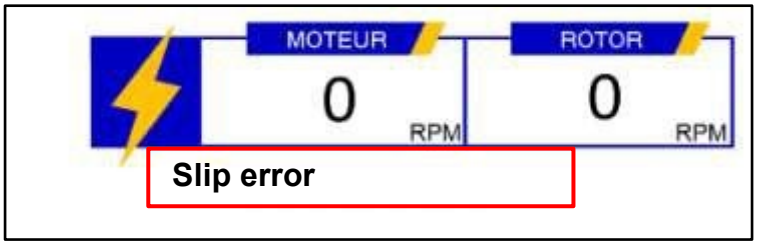
2) <u>During grinding:</u>

If message "**Slip error**» Different possible

causes of slipping:

- cutting tool blocked

- loose or broken belts



From the main screen, press the key**ok** (*i*) to display the secondary screen, below.





Press the keys simultaneously**F1**, **F2**And **ok** to display the screen below





The screen displays the password**0000**The first number on a yellow background can be changed using the directional pad.

1) Press the arrow 3 times ▲ to enter the number**3**

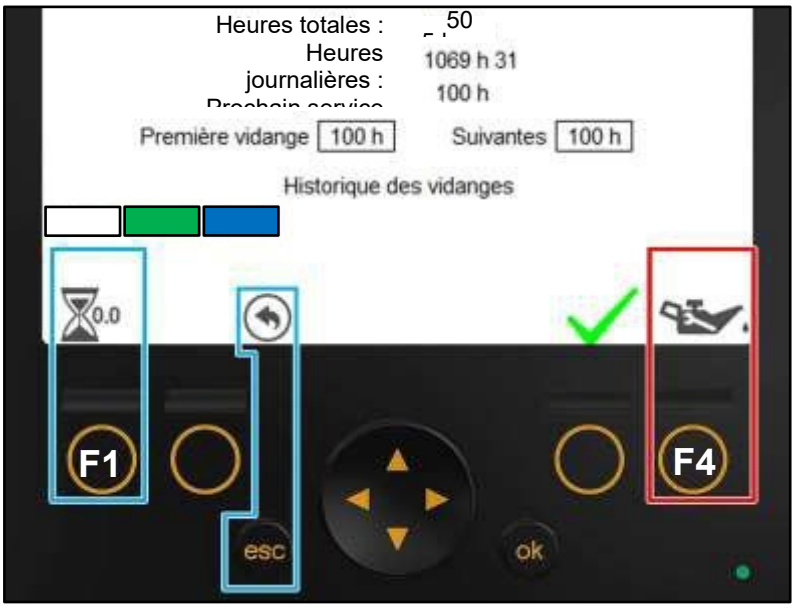
2) Press the arrow 3 times ▶ to validate the**two zero**and arrive at the 4th digit

3) Press the arrow 3 times again ▲ to enter the number**3**

4) Validate the code**3003** by pressing the key**ok**

Resetting the daily counter

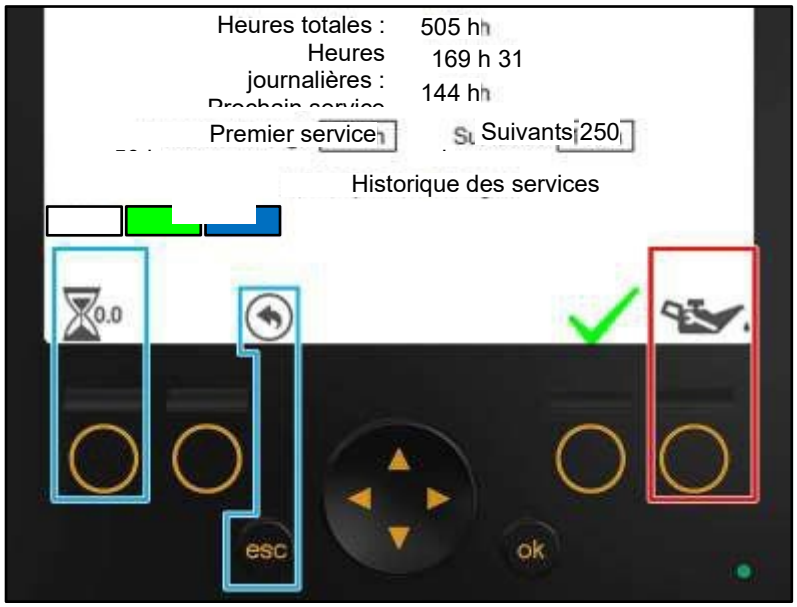
Press the key**F1** to reset the daily hours to zero. Press the key**esc** to exit and return to the main screen.



Validation services

Once the service is performed, press the key**F4** to validate the service. The time it was performed is added to the table.

Press the key**esc** to exit and return to the working page.



Blue background : service provided by the owner**Background green** : service performed by the reseller**White background** : service performed by the factory

USE: **15h** before the deadline, the message "**Provide service**» appears.

When the deadline is exceeded, the background is orange, the triangle flashes the message "**Provide service**» appears.

The secondary screen displays “**Service in** 5 h »

SPN/FMI message in case of default

In the event of a fault (machine, motor, drive, batteries), the screen automatically displays the secondary screen, indicating an SPN/FMI code, and possibly an explanation of the fault.

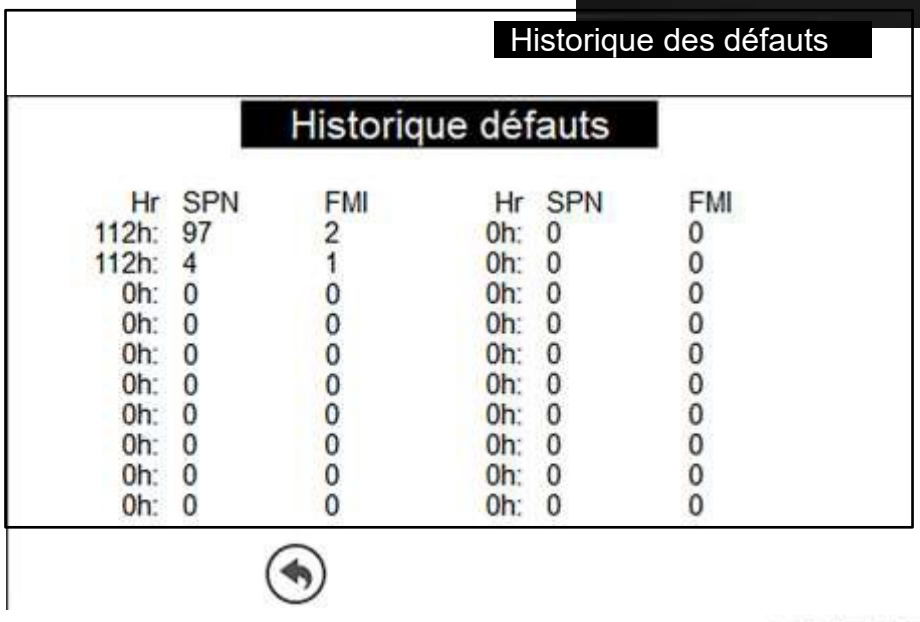
If multiple fault codes are present, they are displayed alternately.



Fault codes are recorded in a history with the number of engine hours at which they occurred.

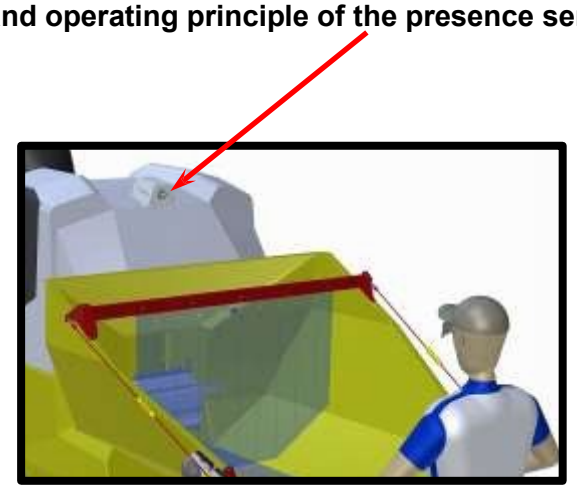
They can be viewed by pressing the key**F3**

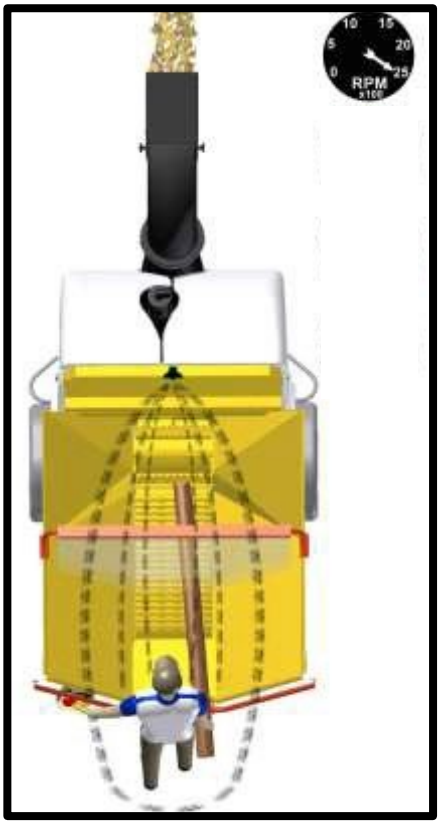




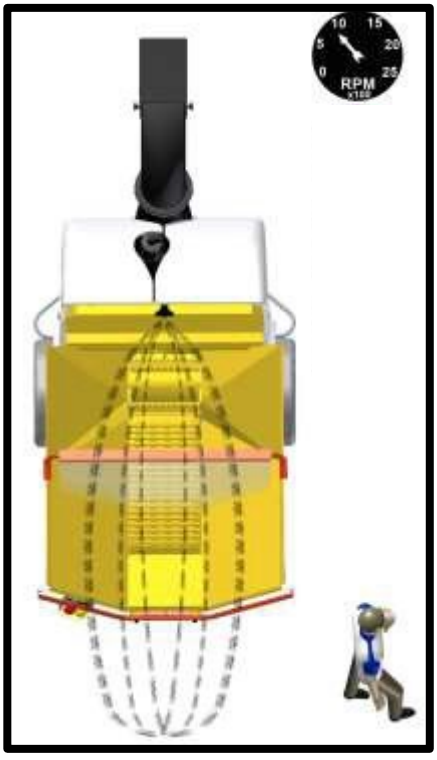
Presence sensor*(option)*

Description and operating principle of the presence sensor





The crusher is a machine that operates continuously at high engine speed, and whose crushing periods alternate with periods of passive no-load operation of varying lengths depending on the configuration of the construction sites. Noise pollution and energy consumption are therefore also always at their maximum.



To avoid these inconveniences and to protect the environment, each time the user leaves the shredder's workstation, after a set time, the presence sensor automatically stops the motor, thus stopping noise pollution and energy consumption. A simple press of the illuminated Start & Stop button at the rear of the machine restarts the motor so that it resumes its working speed.

In addition to the environmental benefits mentioned above, the presence sensor also increases the longevity of all the machine's moving parts: engine, transmission, feed roller, feed belt, motors and hydraulic circuit.

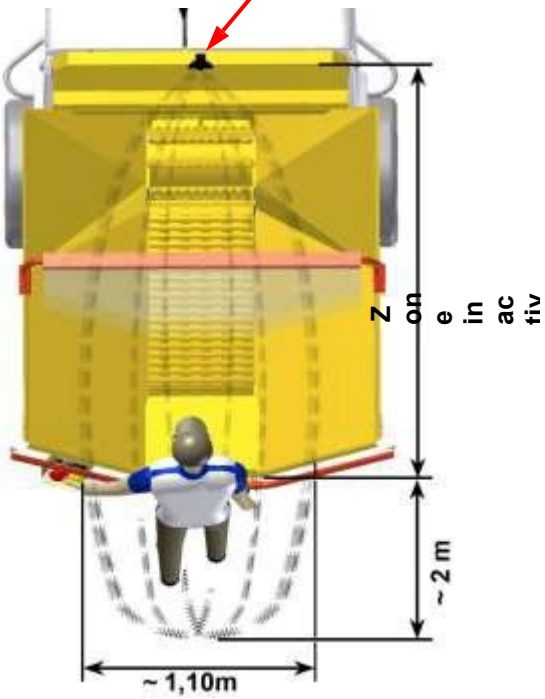
Presence sensor*(option)*

Manipulation

The presence sensor located on the rear of the hood detects the user up to 2m behind the loading hopper and over a width of approximately 1.10m. The area corresponding to the hopper is a dead zone not supported by the sensor.

On the other hand, any object, even inert (wall or vehicle for example), located less than 2m behind the shredder will prevent the motor from automatically stopping.

Presence detector



<u>USE:</u> ***For safety reasons, do not change the positioning and inclination of the detector; the aiming height is designed to be high enough to detect adults and not young children.***

A la toute 1ère mise en route, par défaut le capteur de présence n'est pas activé, celui-ci n'arrêtera donc pas le moteur si aucune présence n'est détectée.

1) After switching on the ignition, from the main screen, press the button**F4** to display the site settings screen, below.

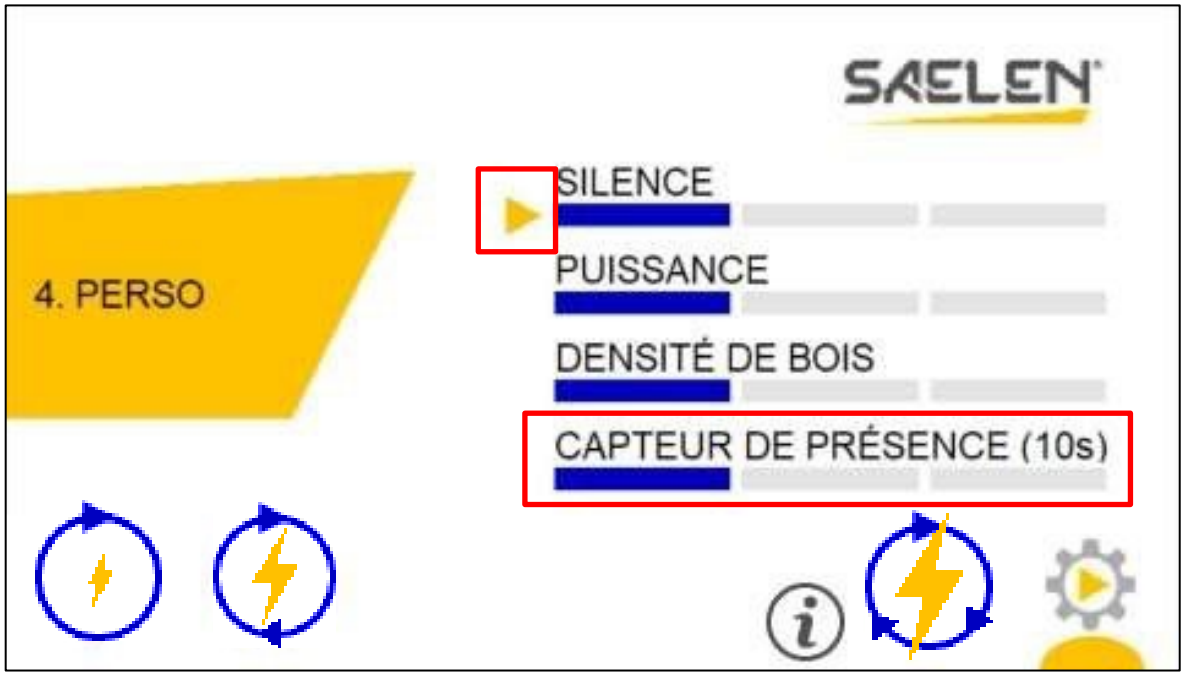




suite

Presence sensor*(option)*

Manipulation *suite*



2) If necessary, move the yellow arrow to the “PRESENCE SENSOR” line using the up arrows and low ▲ ▼

3) Using the arrows ◀ And ▶ select one**time delay of 10, 20,**or**30 seconds**, or completely disable the presence sensor. Here above, the 10-second delay has been selected.

4) Return to the main screen by pressing the key**esc**.

5) Start the engine by choosing a range and then pressing the Start & Stop button.

6) If no presence and no motor load is detected for the selected time, the motor and the feed roller will stop in order to save energy and reduce noise pollution.

7) As long as the user is present in the detection zone, the engine remains at its working speed.

The time delay you selected*(10 seconds in this example)*will remain opera- tional on subsequent reboots until you disable the timeout. tion.

suite

End of grinding function:

If the user has left the detection zone and the timer expires while there is still material to be shredded, the feed roller will continue to rotate and the motor will remain at its high speed to finish the job.

Use: this system does not come into action for small branches of less than 15 to 20mm in diameter.

Reminder: To use the machine without the presence sensor, deselect the time delay on the site settings screen.

Presence detector disturbance:

- Never change the height of the anti-splash mud flap support.
- Do not change the inclination of the detector support.
- Do not leave branches "sleeping" above the mudguard support.
- In case of**very heavy rain**or of**strong wind**.

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