

USER MANUAL

Ref. no. 0458-395-5352



SMART SET AUTOMATION

THANK YOU FOR CHOOSING A LOGOSOL MACHINE!

We are very pleased that you have demonstrated your confidence in us by purchasing this product, and we will do our utmost to meet your expectations.

Logosol has been manufacturing sawmills since 1989. In that time we have supplied approximately 50,000 machines to satisfied customers the world over.

We care about your safety as well as we want you to achieve the best possible results with your equipment. We therefore recommend that you take the time to carefully read this user manual from cover to cover in peace and quiet before you begin using the product.

We hope you get a lot of satisfaction from the use of your new equipment.



Bengt-Olov Byström
Founder and chairman,
Logosol in Härnösand, Sweden



Read through the user manual carefully and make sure you understand its contents before you use the equipment.



This user manual contains important safety instructions.



WARNING! Incorrect use can result in serious or fatal injuries to the operator or others.



LOGOSOL continuously develops its products.
For this reason, we must reserve the right to modify
the configuration and design of our products.
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SAFETY INSTRUCTIONS

KEY TO SYMBOLS



WARNING! This symbol means that you should pay particular attention and is always followed by information about the relevant risk.



This symbol is followed by important information or instructions. Pay particular attention when this symbol appears in the manual text.



For your own safety and the safety of others, do not use the equipment without first having read and understood all the contents of this user manual.



WARNING! Cutting tools: Incorrect use can lead to life-threatening injuries. Band blades are extremely sharp and dangerous.



Always use protective gloves (class 1) when working with the band sawmill or handling band blades. Risk of sustaining cuts when handling band blades. Band blades and engine parts can be hot after sawing.



Always use approved hearing protection when working with the machine. Even short exposure to high frequency noise can damage your hearing. Always use closefitting safety goggles when working with the machine or handling band blades. Under certain circumstances the use of respiration protection may be necessary. This would mainly apply if you are sawing dry wood or sawing indoors.



Always wear approved protective footwear with saw protection, steel toe-caps and nonslip soles when working with the machine or handling band blades.



Always wear full-length protective trousers when working with the machine or handling band blades. Never wear loose-fitting clothing, scarves, neck chains, etc., that can get caught in the machine during operation. Secure loose hair before working with the band sawmill.

SAFETY INSTRUCTIONS

THE SAFETY EQUIPMENT OF THE BAND SAWMILL



WARNING! Risk of serious injury.



Read the safety instructions for the sawmill in its user manual, 0458-395-5301, before using the machine. Pay particular attention to the safety distance for other persons than the operator [Illustration 1] as the automation of the machine increases the risk of injuries.



WARNING! Never use the machine if the safety equipment is defective.



The safety equipment must be checked and maintained.

Here is a description of the safety features of the Smart Set control, and their functions.

Emergency stop on the control unit

On the control unit there is an emergency stop that shuts off both the control panel and the engine.

Enabling switch on the control panel

The enabling switch is a lock between the operator and the control panel. To be able to run the software, the enabling switch button has to be pressed down.

OPERATOR



WARNING! Whenever the machine is used, approved personal protective equipment must always be used.



Persons under the age of 18 may not work with the band sawmill or handle band blades.



Never work with the machine or handle band blades if you are tired, if you have consumed alcohol or if you are taking medication that can impair your vision, judgement, reaction times, mobility, alertness or otherwise cause negative side effects.

THE WORKSITE



Always keep an ABC fire extinguisher (min. 3 kg) easily accessible at the worksite.



Always keep a fully-stocked first-aid kit easily accessible at the worksite.

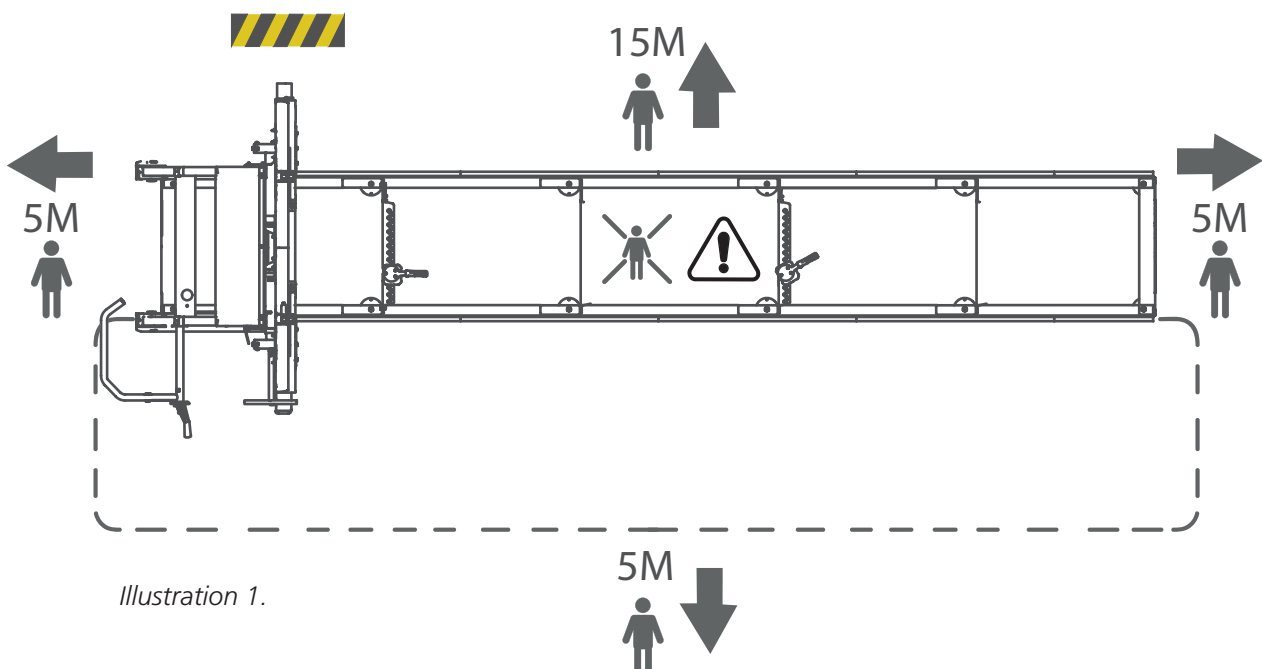


Illustration 1.

START AND STOP

START

1. Open the fuel valve by moving the fuel control lever to the right until it reaches the position "ON".
2. To start a cold engine, move the choke control lever to closed position (the control lever in its left position). To start a hot engine, leave the choke control lever in its open position (the control lever in its right position).
3. Turn the ignition key to the "ON" position and start the engine with the key.
4. With the software running, press the start button at the same time as the enabling switch button is being pressed down.
5. This brings the engine up to its operating speed and the band blade starts rotating.
6. If the choke is in its closed position, gradually move the control lever towards its open position as the engine gets hotter.

STOP

You stop the band blade by releasing the control lever or the enabling switch button. Then the band blade will stop and the engine will go to idle. After that, turn off the engine by turning the ignition key to the "OFF" position, and then close the fuel valve.

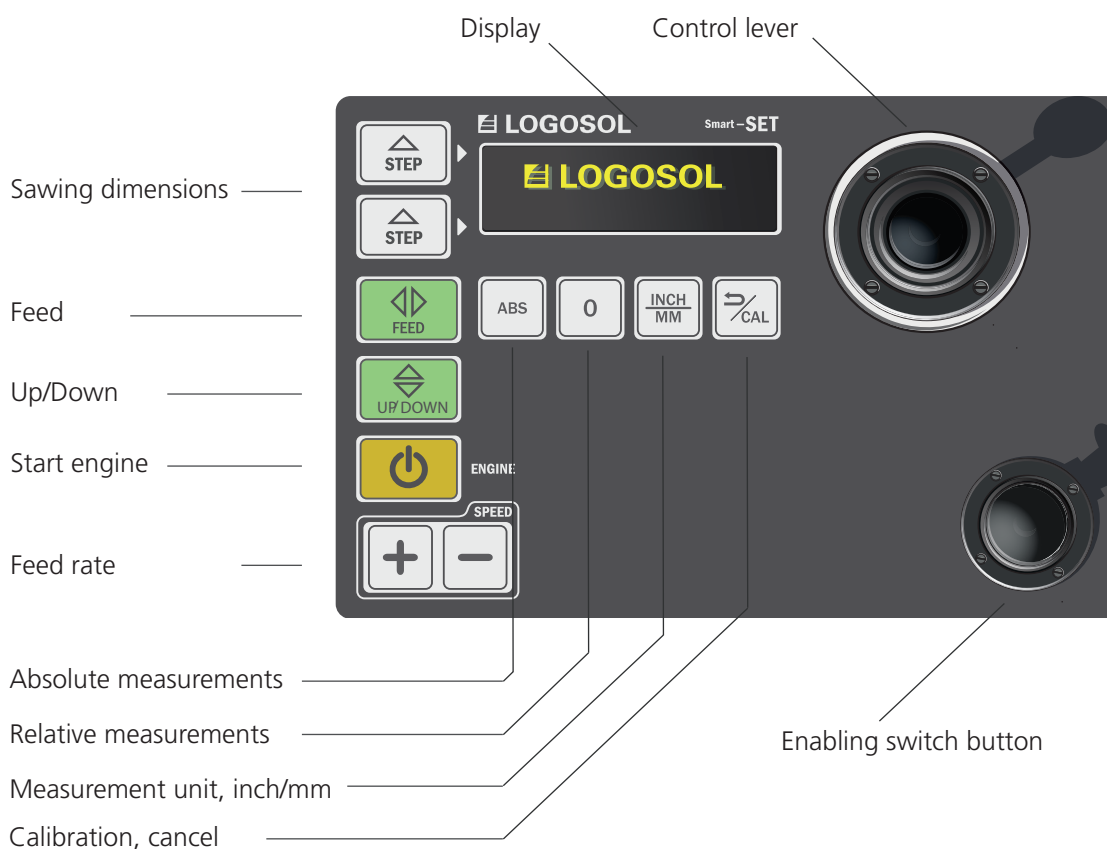
EMERGENCY STOP

Activate the emergency stop by pressing the emergency stop button. The emergency stop has to be reset after it has been used.

FUNCTIONS

The control unit

The control unit of the Logosol Smart Set has a display, a set of programs, setting keys, an enabling switch button and a control lever. To use a function you select the desired one on the control panel. Then, to be able to execute the command, the enabling switch button has to be pressed down at the same time as the operation is carried out by the control lever. If the enabling switch button is released, the machine will stop.



Control lever

The control lever of the Smart Set control unit is progressive, i.e. it performs operations at an increasing rate depending on how far from the centre it is pushed.



The control lever is only used in the directions forward/back.

Enabling switch button

The enabling switch button is a safety function. It is superior to the control unit and has to be kept pressed down if the machine is to be activated.



FUNCTIONS

PROGRAM KEYS



Up / Down

Up / Down activates the ability to move the sawhead vertically.



Sawhead position / Start

The feed key is used for running the sawhead back and forth over the rails.



REV UP ENGINE

Activates the engine to enabling sawing operation. The engine revs up and then runs at working rpm until the control lever is released.



STEP MODE

Step mode is two adjustable modes that enable you to quickly repeat a preset value of the saw cut.

SETTINGS



ABS

Absolute measurements means that the display will show the distance between the bottom of the sawblade and the top of the log bed.



0

The 0 key creates a zero point for the position of the sawhead. The value shown on the display will then start out from this point.



MEASUREMENT UNIT

The display can show measurements in inches or millimetres. To choose measurement unit you press the key inch/mm.



CAL / Back

This key activates the calibration function of the machine.

FUNCTIONS

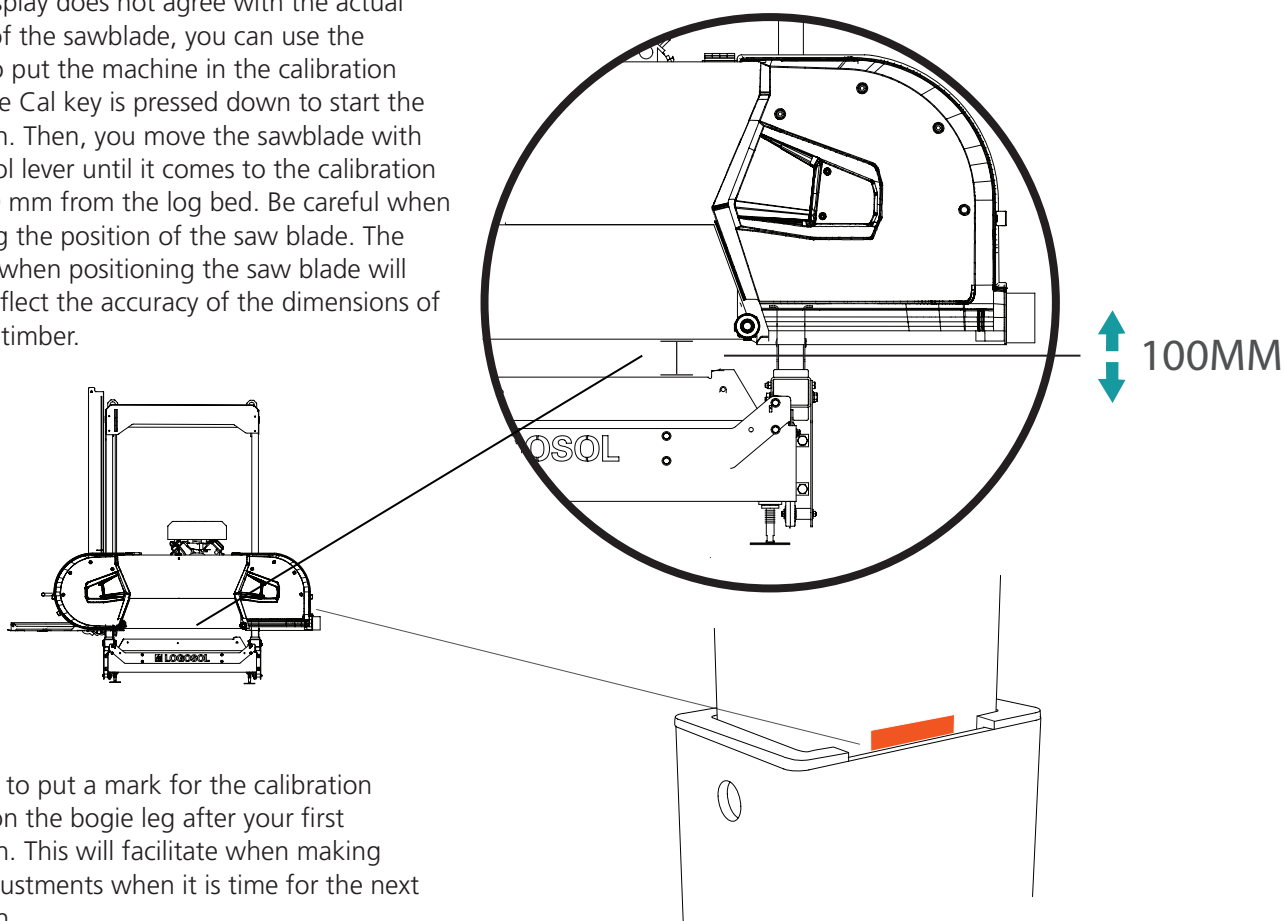
Calibration

At each start-up, the machine asks for the measurement between the sawblade and the log bed. If the value shown on the display does not agree with the value on the machine scale, the calibration value has been changed and the machine has to be recalibrated. This operation is carried out in the calibration mode.

CALIBRATION



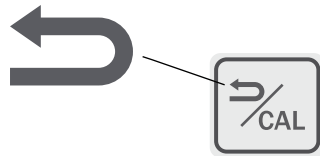
If you, during operation, suspect that the value on the display does not agree with the actual position of the sawblade, you can use the Cal key to put the machine in the calibration mode. The Cal key is pressed down to start the calibration. Then, you move the sawblade with the control lever until it comes to the calibration value 100 mm from the log bed. Be careful when measuring the position of the saw blade. The precision when positioning the saw blade will directly reflect the accuracy of the dimensions of the sawn timber.



One tip is to put a mark for the calibration position on the bogie leg after your first calibration. This will facilitate when making rough adjustments when it is time for the next calibration.

FUNCTIONS

CANCEL COMMAND



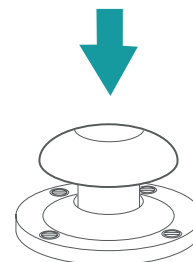
The calibration key has two functions; it also works as a command for cancelling a selected operation. Pressing this button returns the machine to standby mode.

ENABLING SWITCH BUTTON

The enabling switch button is the big button located below the control lever to the right of the control panel. The enabling switch is connected to all the functions of the machine and is to be regarded as a lock between the keypad and the control lever. To execute the selected command, the enabling switch button has to be kept pressed down.



**ENABLING SWITCH
BUTTON**



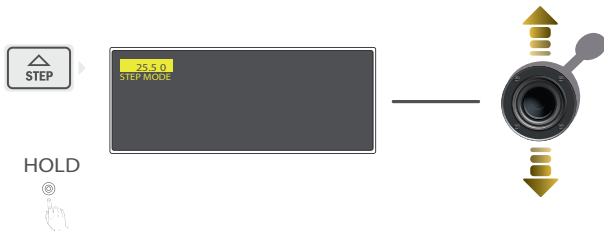
FUNCTIONS

STEP MODE

Step mode is two adjustable modes that enable you to quickly repeat a preset value of the saw cut. When you use Step mode, the machine remembers where the sawhead was positioned when the last cut was made. This means that the sawhead will be lowered to the position of the last cut plus the selected value. The movements are kerf-compensated, i.e. if you use a preset value of 25 mm, the sawn board will be 25 mm. The saw head has then actually moved $25 \text{ mm} + 3 \text{ mm} =$ a kerf-compensated, 25 mm board.

SETTING STEP MODE

Set the Step mode by pressing down one of the step keys. This has to be done with the Smart Set in its standby mode. Keep the sawing dimension key pressed down and then enter the desired value using the control lever. The value will be shown on the display next to the key to which the relevant command is connected.

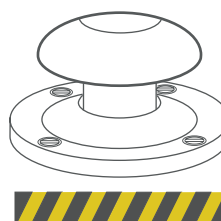


USING STEP MODE

The Step mode is activated by pressing one of the preset step keys. The value will then be shown on the display. To activate the command, you push the control lever forward. Now, the sawhead is lowered down to the position of the previous cut plus the selected value. This means that you can make a cut, raise the sawhead to be able to bring it back over the sawn board, and then use the step function to move the sawhead and cut a new board with exactly the same measurements as the last one.

TURNING OFF THE SMART SET

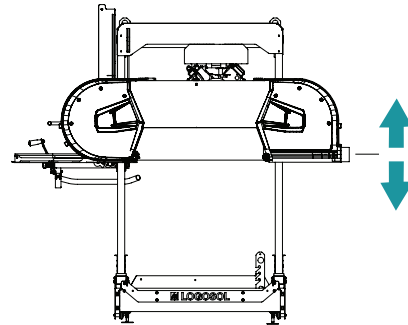
When the work is finished, the machine is switched off by pressing the emergency stop button on the top of the control unit.



FUNCTIONS

UP / DOWN

The Up / Down key is used for activating the ability to move the sawhead vertically with the help of the control lever. In the basic mode, the position is shown as a value on the display. This value shows the distance between the sawblade and the log bed.



CUTTING A LOG

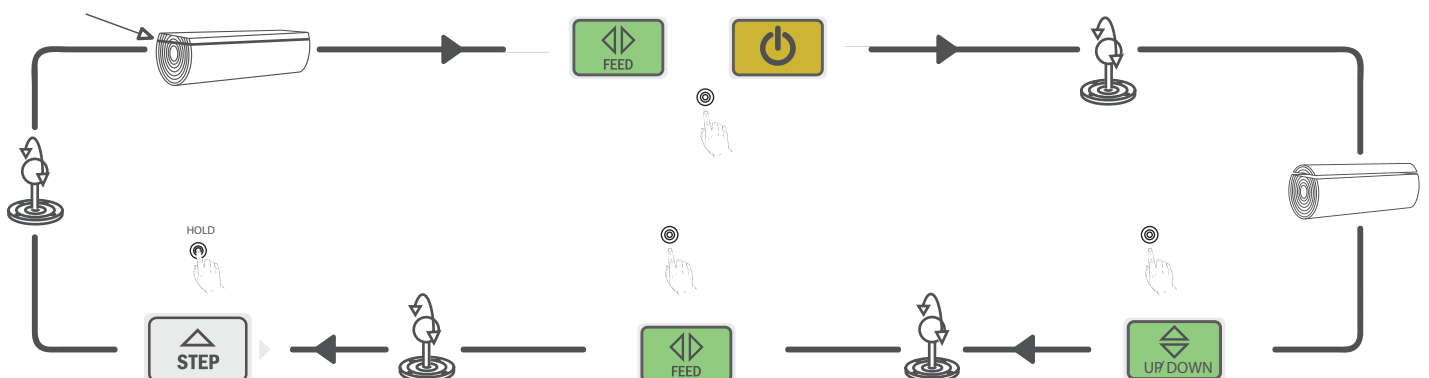
The illustration below shows an example of a workflow, with the steps that are performed by the Smart Set during sawing.

START POSITION

To make a cut, begin by setting the sawblade to the desired height.

Activate the feed and start the engine to enable sawing.

Feed the blade through the log using the control lever.



Prepare the next cut by using a preset depth of cut. Keep the Step key pressed down while using the control lever.

Activate the feed and bring the sawhead back to the start position.

Activate Up / Down to be able to raise the sawhead before bringing it back.

FUNCTIONS

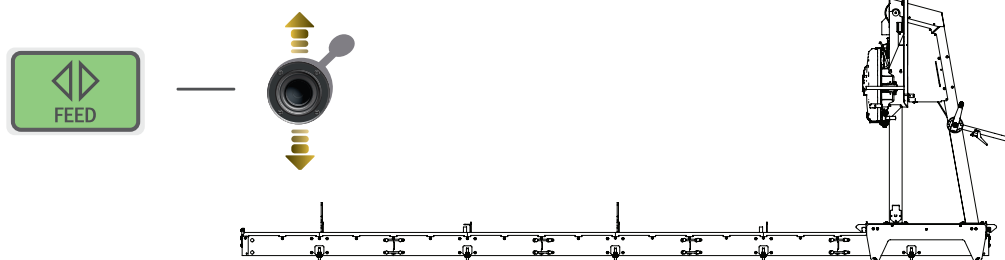
PERFORM FUNCTIONS

To be able to run the different functions in Smart Set, you follow the steps as shown in the illustration below. ① Select the desired function on the keypad, ② Keep the enabling switch button pressed down. ③ Carry out the selected operation with the help of the control lever. If you release the enabling switch button, the operation cannot be performed.



FEED

The feed function is used for moving the sawhead back and forth over the rails. This function is activated with the Feed key, and is then controlled by the control lever. Remember that the enabling switch button has to be kept pressed down to enable the movement.



REVVING UP THE ENGINE

To rev up the engine and start the blade, you have to be in the Feed mode and then press down the Start key. Stop the engine by releasing the control lever to its 0 position.



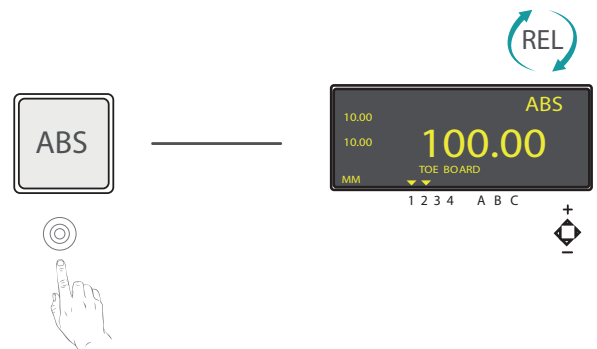
FUNCTIONS

SAWING DIMENSIONS

The Smart Set interface can show different sawing dimensions and units to facilitate for the user in different situations. The default setting of the interface is showing an absolute measurement between the sawblade and the log bed in millimetres.

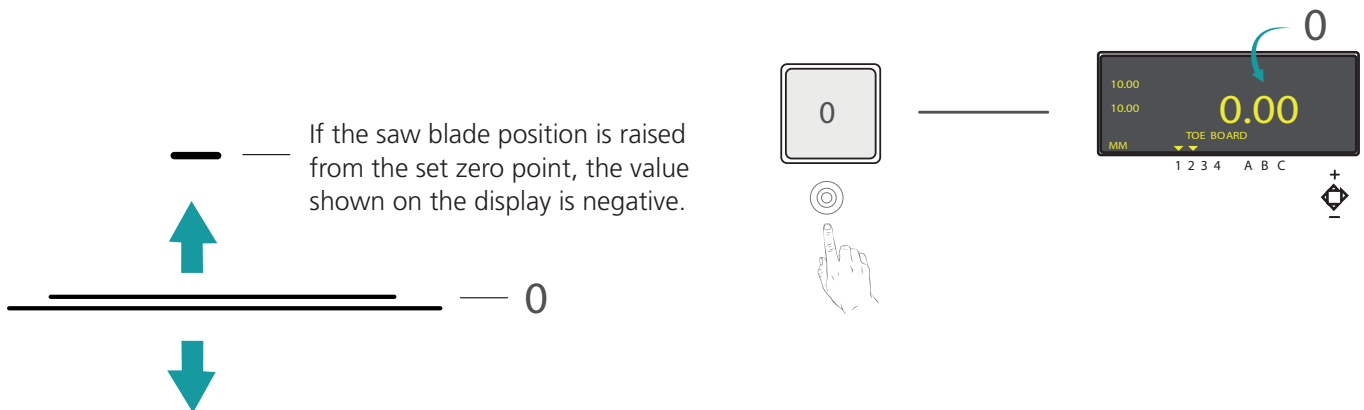
ABSOLUTE MEASUREMENTS

The Smart Set interface initially shows the distance between the log bed and the bottom of the sawblade. The selected measurement is shown in the box called ABS on the display.



RELATIVE MEASUREMENTS

The 0 key creates a new zero point for the log bed position. From this zero point, a new relative measurement is shown for the position of the log bed. If the sawblade is raised from this selected point, a negative value is shown, and if the sawblade is lowered a positive value is shown. On the display, the selected value is shown with the symbol 0. In this mode, the kerf is compensated manually.



INCH/MM

The display can show measurement units in millimeters or inches. To select measurement unit, you press down the Inch/mm key.





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