SKIDRILLER®

User manual

MADE IN SWEDEN

Thank you!

Thank you for choosing to upgrade your ski shop with the next-generation tools from us at www.nomoreboots.se.

The SkiDriller™ is revolutionizing the process of drilling skis.

We simply took all the “wall-hanging” drill templates and put them into the world’s first desktop ski drilling machine.

There’s room for as many templates as you need. In one machine.

We think that’s pretty smart!

On top of that, the SkiDriller™ is easy to handle and of course drills perfect holes for you.

About the SkiDriller™

The SkiDriller™ is developed with insights from industry partners and contains verified template data directly from the binding manufacturers.

It is a professional tool designed in Sweden for use in ski shops by trained personnel. It is intended to assist with drilling holes in skis for the mounting of ski bindings.

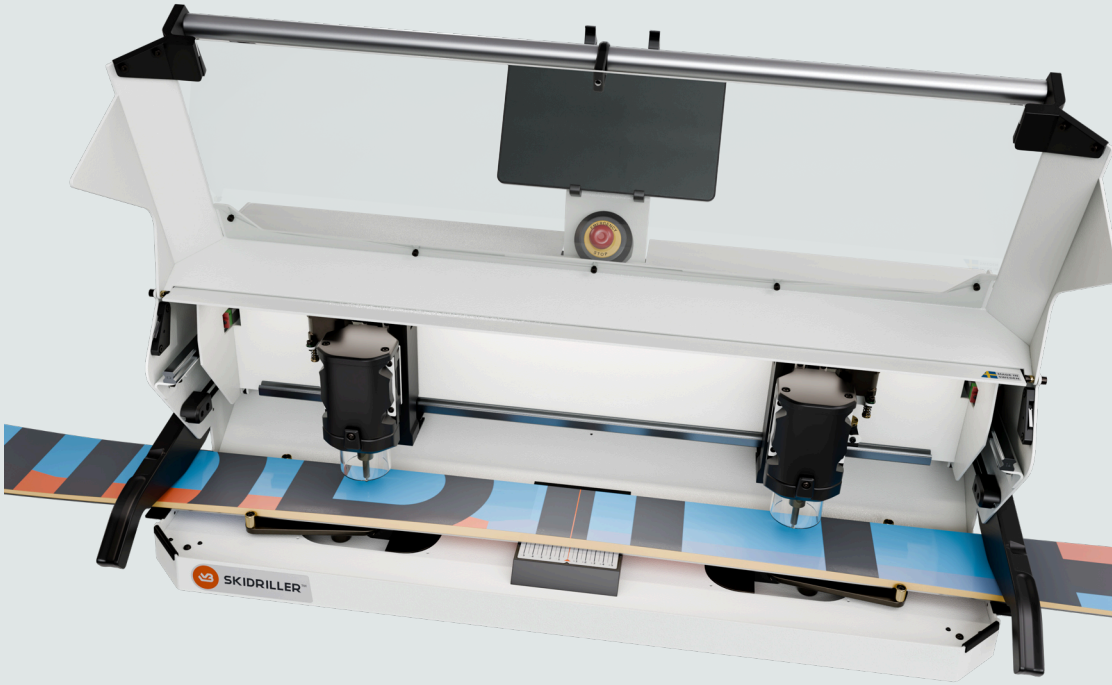
It delivers three core benefits: Simplicity, Quality and Workspace optimization – converting physical drilling templates to digital templates and changes a manual process to an automatic process.

The machine creates a smart workflow without complications.

SkiDriller™ is designed for accuracy from the ground up with carefully selected components, CNC technology and a pat.pending proprietary control logic that adapts the drilling cycle to each ski.

Features like "Top-sheet probing", "Automatic drill force system", and "Safe probe mode" ensure consistent and perfect results. You will get flawless holes every time.

The simple user interface requires minimal learning, allowing even new staff to get started right away.



Unique Features

TSP™ - Top Sheet Probing

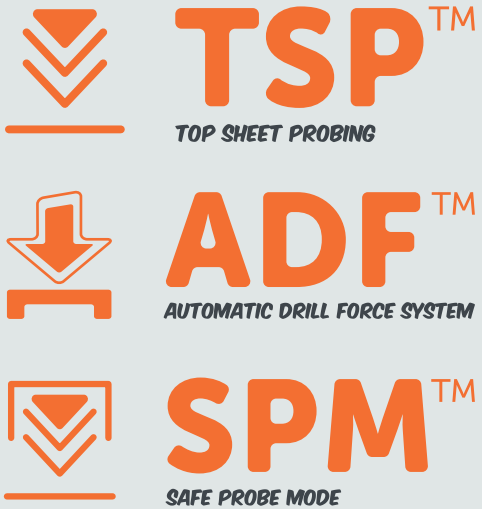
As all skis differ in thickness and shape, the SkiDriller™ is equipped with our Top Sheet Probing which makes sure we can drill skis with prefect precision.

ADF™ - Automatic Drill Force System

The patent pending ADF™ system enables unique control of the drilling speed regarding the hardness of the ski.

SPM™ - Safe Probe Mode

The SPM™ feature lets you to restart the drilling operation in the case of an unexpected interruption as a power outage.



General instructions

User manual version 1.0

This manual is intended for personnel in ski shops and ski workshops and focuses on how to operate the SkiDriller™.

The section dealing with safety must be read and understood by all those carrying out operations with the Skidriller™ or performing maintenance on the SkiDriller™.

In this manual you will learn everything you need to set up your SkiDriller™, use it, perform routine maintenance, basic troubleshooting and more.

It is understood that this manual may be translated into other languages. In the event of any discrepancy, the English version shall prevail.

SkiDriller™ technical support: If you will need technical assistance, please check the last sections of this manual where you will find a troubleshooting guide and contact information to the technical support.

The No More Boots AB company reserves the right to change the product specifications or this manual without notice in specifications and models and also to discontinue models. The right is also reserved to change any specifications or parts, at any time, without incurring any obligation to equip same on models manufactured prior to date of such change. Specifications used are based on the latest product information available at the time of publication.

The continuing accuracy of this manual cannot be guaranteed.

All photographs and illustrations used in this manual may not depict actual models or equipment, but are intended as representative views for reference only.

Certain features or systems discussed in this manual might not be found on all models in all marketing areas.

Always use original spare parts, service tools and accessories.

You will find the latest version of the manual at:
www.nomoreboots.se/skidriller/manual

QuickStart installation guide

1. Unbox.
2. Remove paddings, transportation covers and rail blockers.
3. Place the SkiDriller™ on a flat stable surface.
4. Install drill bits.
5. Connect the power cable and turn on the power switch.
6. Configure tablet and connect to Wi-Fi.
7. Run “Start-up program”.
8. Done!

Disclaimer

Please read this manual carefully before using the Ski Driller™. Non-compliance with the information in this manual or assembly instructions may result in injuries, inferior results, or damage to the SkiDriller™.

Since we cannot control the conditions in which you operate the SkiDriller™, we do not accept responsibility for any losses, injuries, damages, or expenses arising from or associated with improper use of the SkiDriller™ such as: Deviation from the instructions provided in this manual, modification of the hardware or the software, use with incomplete or incorrect or outdated mounting pattern data, failure to verify binding model and correct binding placement according to the binding manufacturer's guidelines before drilling, failure to verify mounting specifications according to the ski manufacturer's guidelines before drilling, the assembly, handling, storage, use, or disposal of the product.

The SkiDriller™ must only be used by educated staff. Ensure that anyone working with the SkiDriller™ understands and comprehends the contents of this manual. If you are not sure how to use the SkiDriller™, contact your reseller.

The SkiDriller™ must not be used to anything other than its purpose and always according to the instructions in this manual.

Always make sure the SkiDriller™ is fully functional before use. A non-functional SkiDriller™ must not be used at any time.

Only the manufacturer or authorized representatives are allowed to disassemble the SkiDriller™ or to do maintenance of the SkiDriller™ and must always use original replacement parts.

SkiDriller™ is a support tool - it does not replace professional judgement, precision or experience. Final inspection and approval of the drilling and binding installation remain the responsibility of the ski shop or authorized representative.

The SkiDriller™ database is updated regularly. It is the user's responsibility to ensure that the device has the latest version installed. The manufacturer is not liable for errors resulting from the use of outdated information.

We reserve the right to modify or revise this manual; users can download the latest version of this manual on our website.

Simplified Declaration of Conformity

The manufacturer, No More Boots AB (reg no. 559027-6647), hereby declares that the product SkiDriller™ is in conformity with **Directive 2006/42/EG** and with **2014/30/EU.** The full texts of the Declaration of Conformity are available at www.nomoreboots.se/skidriller/doc.

Safety instructions

Ensure the SkiDriller™ is placed and operated on a stable, suitable workbench or surface capable of supporting its weight and dimensions with no possibility of tipping or falling. The surface must be level.

Keep the workplace clean, well-lit and the work bench in correct height. The recommended workstation height is 850–1000 mm above the floor. Ensure there is at least 30cm of free space at the back of the SkiDriller™ and make sure there is enough space on the sides of the machine to accommodate the skis to be drilled without them touching any other object.

SkiDriller™ is intended for indoor use only. Do not expose the machine to rain or wet conditions.

Always pay attention during operation, as high-speed rotating drill bits or unstable components can be dangerous if the machine is used incorrectly. Please carefully read the safety instructions below to avoid unnecessary casualties.

Always wear suitable work clothes and recommended personal protective equipment (PPE). Use of PPE, such as protective eye covers, nonslip shoes and gloves with good grip will reduce the risk of injury.

Be observant and use the SkiDriller™ with common sense. Do not use the SkiDriller™ ™ when you are tired or under influence by drugs, alcohol or medicines.

Keep children and bystanders away when operating the SkiDriller™.

Avoid loose clothing, long hair, and loose jewellery, as they can get caught in the SkiDriller™.

Do not put your hands close to the spindle or machining area. Keep the protective cover closed when operating the SkiDriller™. SkiDriller™ has a safety function that immediately stops all motions in the machine, including both axis movement and spindle rotation, when the safety cover opens.

Do not leave the SkiDriller™ unattended while it is drilling.

Please be aware of the sharpness of the drill bits during installation and other operations.

Drilling will generate heat. Inappropriate parameters will cause fire hazards. Make sure a fire extinguisher is in your vicinity.

If an emergency situation occurrs when machining, such as the ski being loose, components are being damaged, unusual sounds coming from the machine, etc. Press the emergency stop button, all ongoing operations will stop immediately.

The Main Hood has a built in safety function that immediately stops all operations if the Main Hood opens during operations.

The SkiDriller™ can only be powered by the provided 230VAC 50HZ or 110VAC 60HZ power outlet.

Do not use the machine if the power cable is damaged. Never disassemble the power supply.

Disconnect the SkiDriller™ from the electrical grid by holding and pulling out the plug – not the cord.

Never disconnect electrical parts when the SkiDriller™ is on and operating.

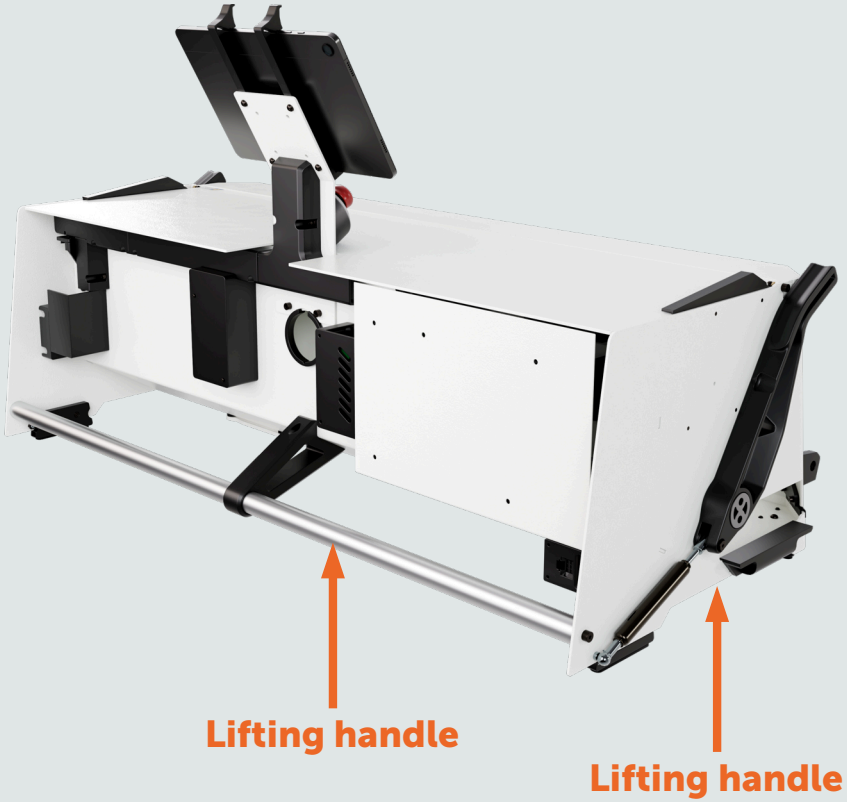
Safety symbols

Label	Meaning	Location
	Keep hands clear of moving parts such as machine axis, spindles etc.	On the machine floor
	Caution, sharp cutters when cleaning the machine and installing drill bits.	On the machine floor

Unboxing

The SkiDriller™ is delivered on an EU pallet and the net weight of the SkiDriller™ is ≈ 55kg/110lb. We suggest moving the SkiDriller™ by two people wearing gloves to ensure personal and machine safety. Use the designated lifting handles and place the SkiDriller™ on a suitable stable and level surface.

1. Remove transport covers and fasteners.
2. With the help of another person, lift the SkiDriller™ and place it on a stable level surface.
3. Remove protective paddings and rail blockers.



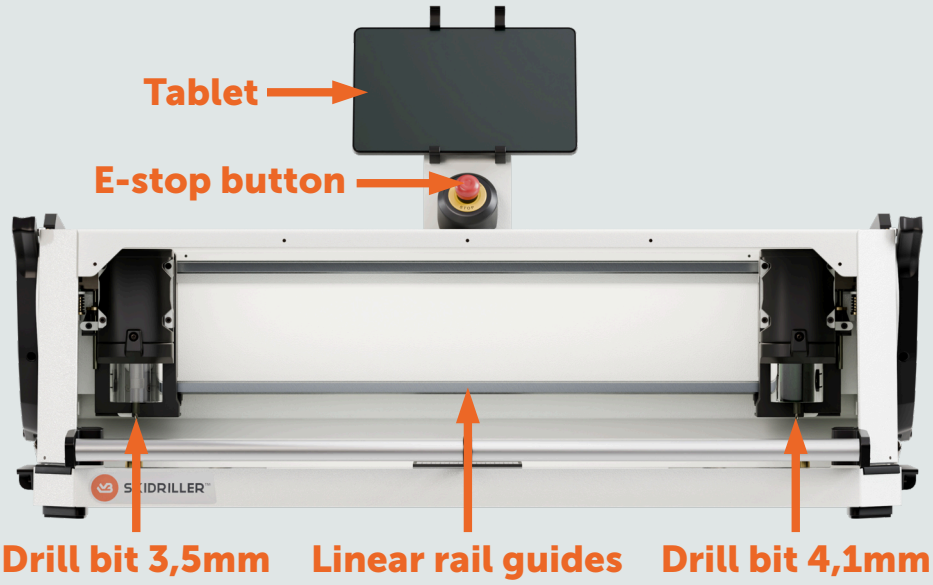
Contents of the package

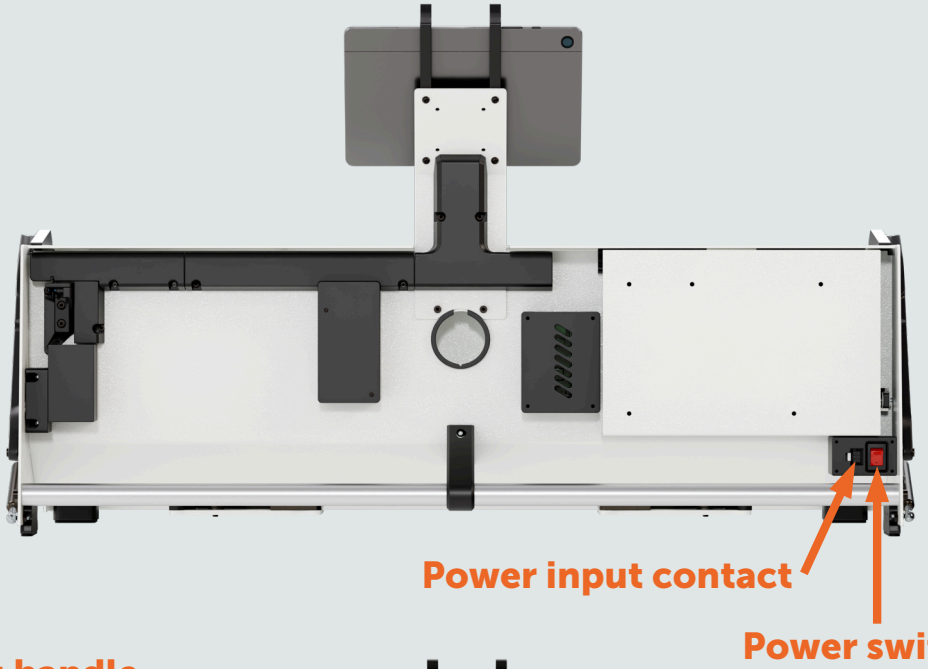
Your SkiDriller™ package includes the basic tools and accessories needed for assembly and setup. Make sure all tools and accessories listed are delivered with the SkiDriller™. Contact your seller if anything is missing.

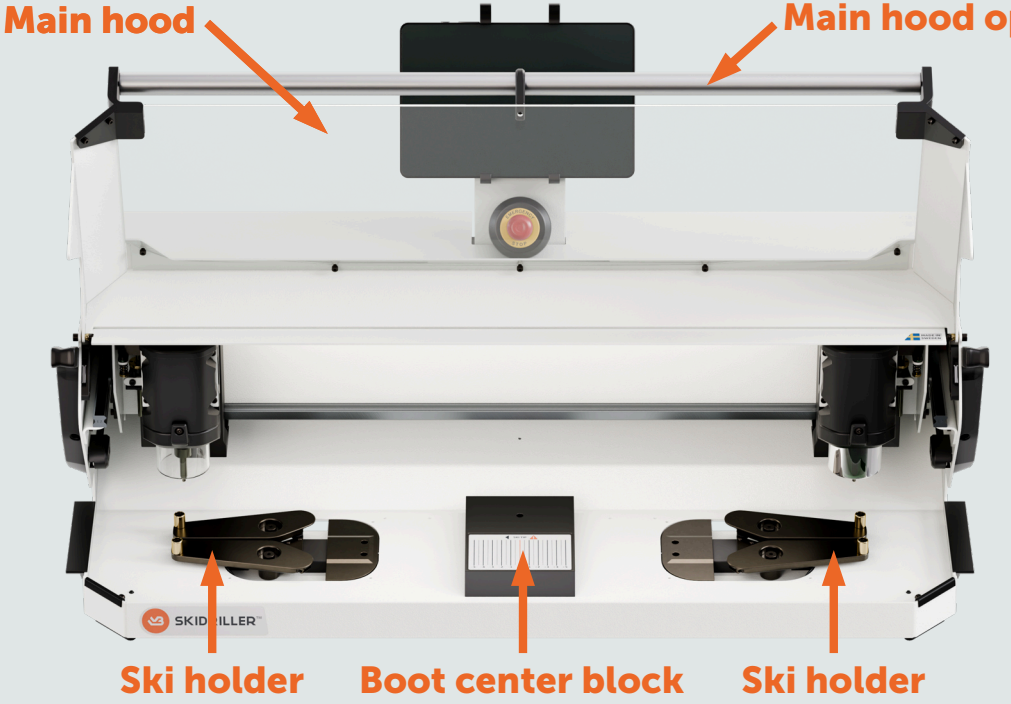
Parts List:

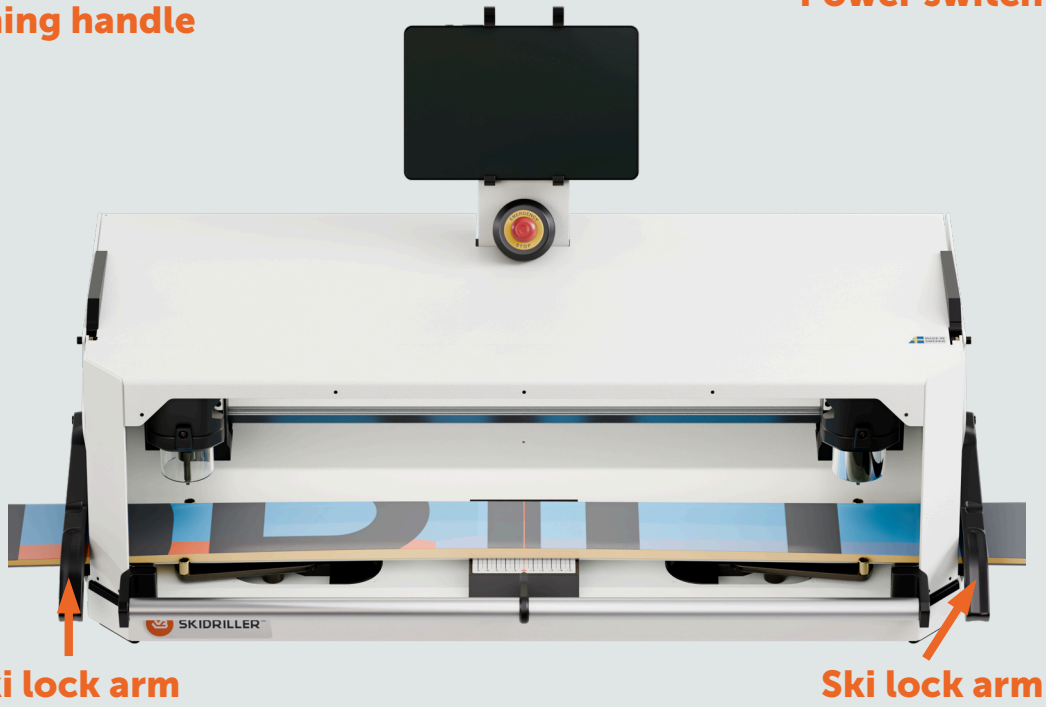
- Wrench #13
- Wrench #17
- 1 Drill bit 3,5mm
- 1 Drill bit 4,1mm
- Power cable + Power supply unit
- Calibration template
- User manual
- Tablet

SkiDriller™ Overview









Protective covers

The SkiDriller™ is equipped with protective covers to ensure a safe operating process.

Main Hood

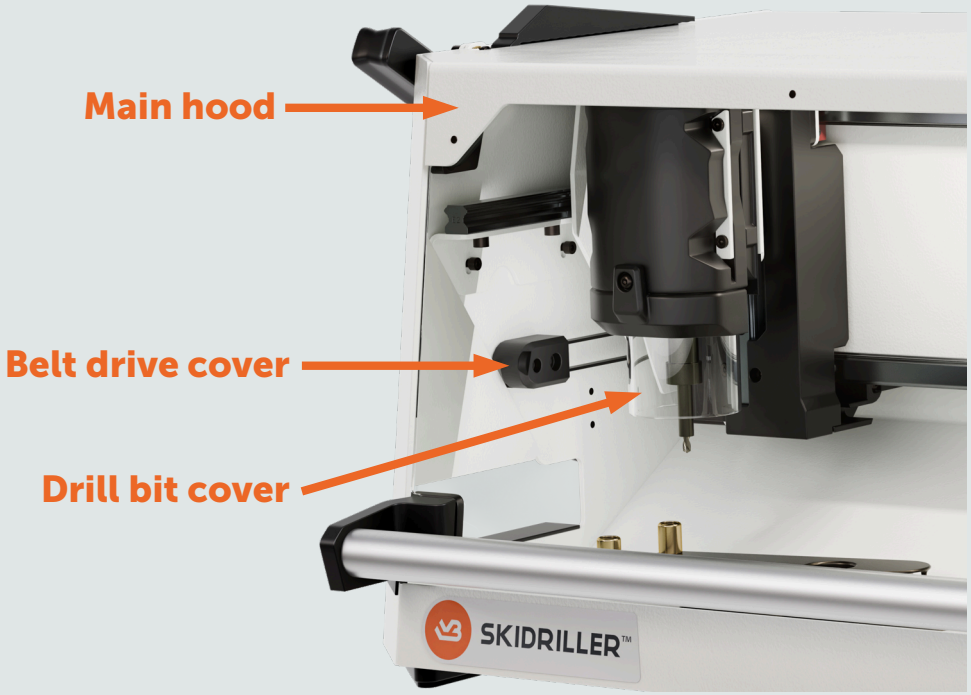
- Is a cover that protects the user during operations and gives the user access to the machine's working area during fastening and removing of skis or when changing drill bits.
- When the hood is fully closed, the machine can be operational.
- When the hood is open or not fully closed, the machine is not operational.

Drill bit cover

- Is a cover that is mounted on the spindle and adds extra protection around the drill bit from drill shavings.

Belt drive cover

- Is protecting the belts from collecting dust and shavings from the drilling process.



Installation and Setup

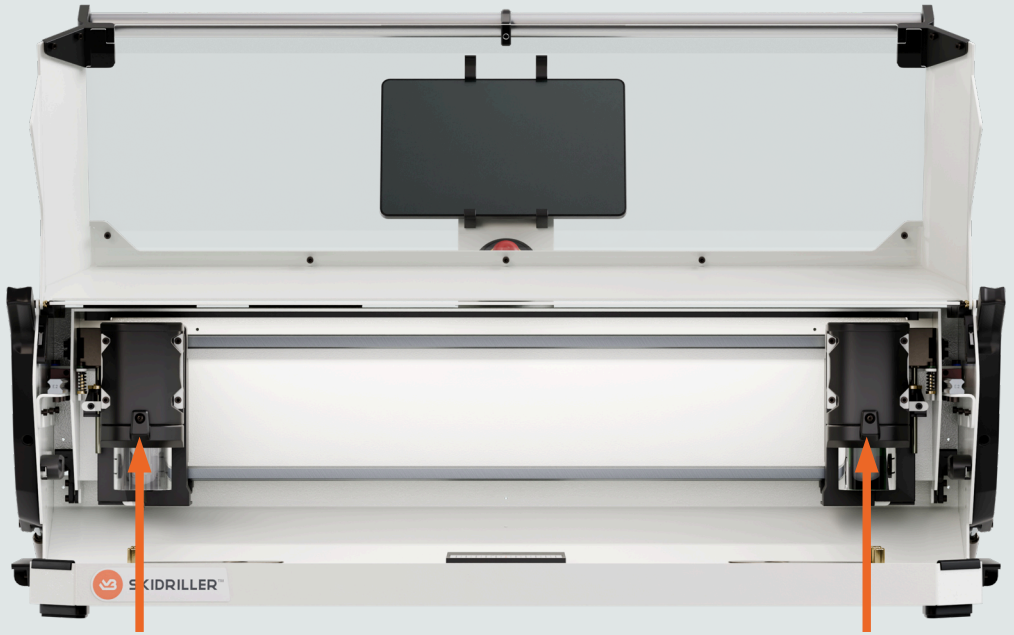
Install drill bits

The SkiDriller™ comes with one 3,5mm drill bit and one 4,1mm drill bit. The drill bits should be attached to the collet chucks on the motors.

The 3,5mm should be attached to motor #1

The 4,1mm should be attached to motor #2

1. Place the drill bit with the flat side inside the collet chuck.
2. Tighten the collet nut by hand until it is just tight enough to prevent the drill bit from falling out.
3. Tighten the collet nut further by using the wrench #13 on the collet chuck and the wrench #17 on the collet nut.
4. The drill bit should now be properly secured in the chuck collet.



Control and change of drill bits

We recommend that you regularly inspect the condition of the drill bits and replace it as soon as you notice that it is worn or becoming dull. We are only using the highest quality drill bits to ensure proper quality and the longest possible lifespan. Do not use any other drill bits than recommended since we have not verified the precision and operation with any other drill bit.

The expected average life span of the drill bits under normal conditions and normal usage are for about 200 pairs of skis according to the drill bit manufacturer.

Connecting and disconnecting the power supply unit (PSU)

The power supply input contact is located on the left side of the SkiDriller™.

1. Before you connect or disconnect the power cable to the machine, turn the power switch OFF.
2. Plug the power cable to the machine.
3. Plug the power cable to the wall socket.
4. Turn the power switch ON.

Make sure the PSU can be placed close to the machine and not free hanging. The recommended location of the wall socket is within 300mm from the sides of the machine to avoid the power cord being free hanging or stretched inappropriately within the machines operating area causing someone to trip over the power cord.

Always pull the connector plug, do not pull the cable itself.

WiFi configuration

For the SkiDriller™ to be able to function properly it needs to be connected to internet via WiFi. Make sure you have a good and stable WiFi signal near the machine. If you don't have a good enough WiFi signal, you should fix that first before continuing the configuration.

To connect to the WiFi, follow these steps:

1. Click the "SETTINGS" button.
2. Choose WiFi option.
3. Click the drop-down menu and choose the WiFi network you wish to connect to.
4. Enter your WiFi password.
5. Click "OK"
6. Done!

Check for software and firmware updates!

Make sure you have the latest software and firmware versions installed. You can see which is the latest version at www.nomoreboots.com/skidriller/downloads

First operations after installation

We highly recommend that you perform a few test drills on some old/discarded skis to fully familiarize yourself with the SkiDriller™.

Operating the SkiDriller™

Menu system

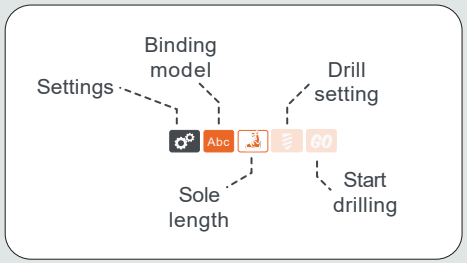
The user interface is very easy to navigate and with just a few steps you can start drilling the hole pattern.

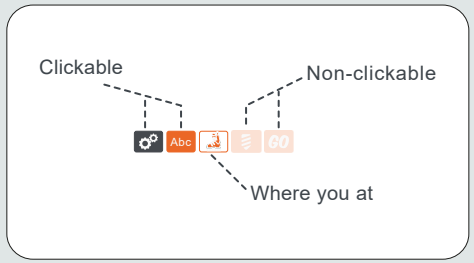
1. Page 1 – Choose binding.
2. Page 2 – Set the boot sole length.

   Max length is 355mm.
   Min length is 180mm.

1. Page 3 – Choose drill bit diameter and drill depth.
2. Page 4 – A summary of your choices. If the settings are ok press "START DRILLING".
3. Page 5 – Shows that the machine is drilling.

Navigation bar



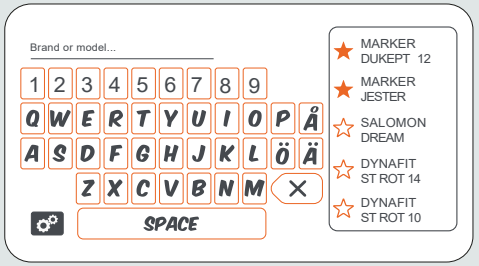


Drill diameter

You must choose the drill bit diameter according to the ski manufacturers specification.

Drill depth

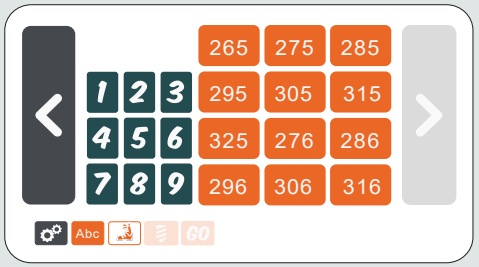
You must choose the drilling depth according to the ski manufacturers specification.



Page 1 - Choose binding

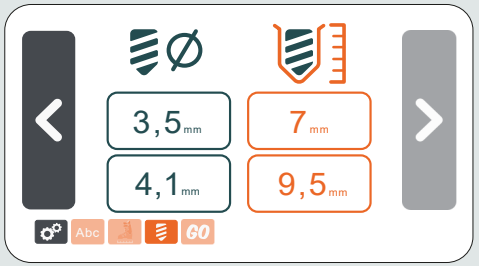
Step 1 to start drilling is to choose the binding you want to drill.

This is the page you will see when turning the machine ON or want to drill a new ski with new settings.



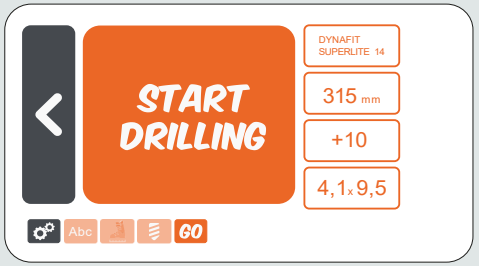
Page 2 - Choose sole length

Next step is to choose the boot sole length for which you want to drill the ski.



Page 3 - Drill settings

Next step is to choose the correct drill bit diameter and drilling depth.



Page 4 - Review your settings & Drill

Next step is to verify your settings and push START DRILLING.

Page 5 - Drilling in progress

This page shows that the drilling process har started.

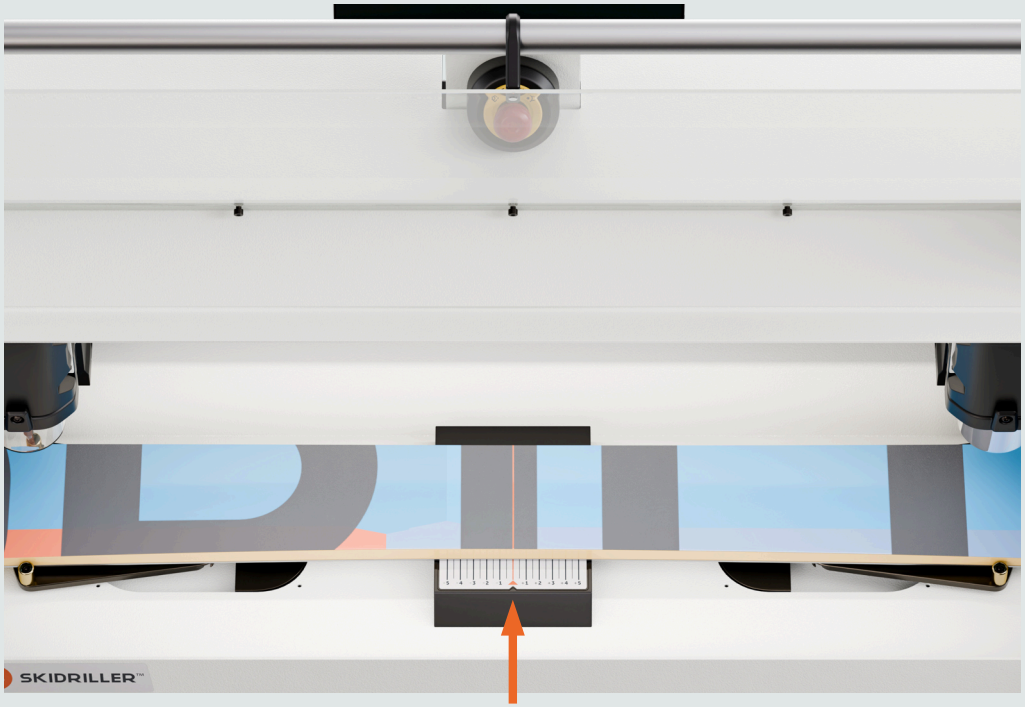
Push ABORT if you want to stop the operation.

Workflow guide

The SkiDriller™ simplifies the process of drilling holes in the skis and improves the precision and quality of the holes to be drilled in the skis.

The general workflow for drilling is as follows:

1. Turn on the power to the SkiDriller™.
2. Wait for the homing process to end.
3. Open the Main Hood.
4. Insert the ski with the tip to the left into the ski holders.
5. Align the boot centre line on the ski with the centreline on the machine.
6. Fix the ski with the lock arms.
7. Close the Main Hood.
8. Select the binding you want to drill the holes for.
9. Set the boot sole length you wish to drill the holes for.
10. Choose drill bit and drill depth according to the manufacturer's recommendations.
11. Click GO!
12. Wait for the drilling process to end and the motor to home.
13. Open the Main Hood.
14. Release the ski from the ski holders and remove it from the SkiDriller™.
15. Inspect and clean the holes from any left-over shavings.
16. Clean any shavings and debris from the machine.
17. a) Push DRILL AGAIN if you want to drill with the same settings.
    b) Repeat from step #4 if you want to drill with new settings.
18. Close the Main Hood.
19. Turn the power off.



Emergency stop button

If any unexpected situation occurs, you can immediately stop the operations of the machine by pressing the Emergency stop button (E-stop button).

When the E-stop button has been activated it cuts the power to the X, Y, and Z step motors and the drill spindles. This means that the drill spindles cannot move along any axis, nor can the drill spindles and the drill bits rotate.

When the E-stop button is pressed the display will show an E-stop symbol and will not be operational.

The E-stop button has a self-locking mechanism when pressed. When pressed, it will stay in activated mode. This means that you will have to turn or pull the E-stop button to release and deactivate it again.

When the E-stop button has been deactivated, you will have to consider two options.

1. Continue drilling from where the operations halted: Use this option if you pressed the E-stop button during the drilling operation and you wish to finish that drill cycle from where it stopped.
2. Restart the complete drill cycle: Use this option if you wish to restart from the beginning of the drill cycle. Choosing this option, all settings will be lost, and you will have to redo them again.

We do not recommend using the E-stop button for stopping the operations in any other case than an emergency situation!

DO NOT USE THE E-STOP TO PAUSE THE MACHINE FOR A LUNCHBREAK!

Maintenance

Regular maintenance of the SkiDriller™ will improve the performance, reduce the likelihood of unexpected downtime and help to extend the life of your machine.

Before performing any maintenance, the SkiDriller™ must be switched off and have the power cord unplugged.

Daily maintenance

- Clean the SkiDriller™ by removing any shavings, dust and debris by gently using a vacuum cleaner and a soft brush. Be gentle when cleaning the working area.
- Inspect all the moving parts and make sure there are not any loose screws or misaligned components.
- Make sure all the protective covers are fully functional and intact.
- Carefully and slowly move the spindles along the axis and check for any abnormal noises. Do not move the spindles quickly!

Weekly maintenance

In addition to the daily maintenance routine!

- Inspect the drill bits for wear. Replace worn out or dull bits to maintain the precision and quality of the holes to be drilled.
- Check for any software or firmware updates. Always install the latest versions to ensure optimal performance from the SkiDriller™.
- Perform a calibration process with the included calibration template.

Monthly maintenance

In addition to the weekly maintenance routine!

- Inspect the lead screws and rail guides for wear and lubricate if dry with the recommended lubrication.
- Check the electrical wiring for any damage and gently clean from dust and debris.
- Test and verify that the E-stop button and Main Hood work properly.

Test the function of the E-stop button

Do not open the Main Hood during the test!

1. Perform the test by making sure the machine is powered on, the Main Hood is closed, and no ski is installed.
2. Choose a binding, set the sole length,choose 3,6mm drillbit and press TEST DRILL.
3. Press the E-stop button as soon as the spindle starts moving. This should halt all the operations, and the E-stop symbol will show on the display.
4. Reset the E-stop button by pulling it to deactivate it.
5. Click HOME ALL and choose START NEW DRILLING to finish the test.

Test the safety function of the Main Hood

1. Perform the test by making sure the machine is powered on, the Main Hood is closed, and no ski is installed.
2. Choose a binding, set the sole length, choose 3,6mm drillbit and press TEST DRILL.
3. Open the Main Hood by lifting its handle as soon as the spindle starts moving. This should halt all the operations, and the E-stop symbol will show on the display.
4. Close the Main Hood. Make sure there is no movements in the motors.
5. Click HOME ALL and choose START NEW DRILLING to finish the test.

Lubrication of rails and lead screws

The rail guides requires lubrication with grease to function correctly. Lubrication also has a corrosion protection effect. Relubrication is strongly dependent on operating conditions and load.

For lubrication of lead screws we recommend PTFE-reinforced synthetic grease such as Super Lube Synthetic Grease PFTE, Klüber Isoflex, Klüberplex med PTFE, SKF LGMT 2.

Moving the machine

If you need to move or transport the SkiDriller™, please follow the steps below.

1. Put the SkiDriller™ in Transportation Mode by:
    - Unplug the power cord.
    - Insert the Rail Blockers to secure the parts from movements that could damage the machine.
    - Close the Main Hood and make sure it's locked in place.
2. Grab the designated lifting areas to lift the SkiDriller™. Two people are required to lift the machine!
3. Move the SkiDriller™ to the new place.
    - Make sure the area is suitable to handle the weight of the SkiDriller™.
    - Make sure the area is flat and level.

If you are transporting the SkiDriller™ to another location, please make sure you pack the SkiDriller™ properly for the intended type of transport.

It's advisable to use the same packaging materials that the SkiDriller™ was delivered with.

Storage

If the SkiDriller™ must be stored elsewhere during off-season, please follow the steps below:

1. Make sure the SkiDriller™ is properly cleaned.
2. Do not keep skis or any other things fastend in the machine during storage.
3. Store the machine in a dry environment with a tempereature between +5°C and +40°C.

Troubleshooting

The SkiDriller™ will trigger an alarm when encountering any abnormal situation during the operational process.

Always make sure the Main Hood is closed and the E-Stop button is not activated.

Alarm type	Cause
Emergency Stop Symbol	E-stop button is pressed.
Emergency Stop Symbol	The Main Hood is not properly closed.
Cannot connect to controller	Ethernet cable not connected.
Cannot connect to controller	E-stop button is pressed.
Cannot connect to controller	SkiDriller™ Wifi not connected to tablet.
Cannot connect to controller	Need to SSH Wifi settings.

Warranty

The SkiDriller™ is covered by a 24-month warranty for end customers in the EU, and a 12-month warranty for business customers and end customers in the rest of the world.

Consumables and any parts subject to wear and tear are excluded from this warranty.

The warranty period starts on the day the customer receives the goods.

The seller is not liable for any damage caused by improper handling of the purchased product, or damage caused by handling in violation of the information and recommendations given in the official manuals and instructions. The warranty also expires in the event of unskilled interventions and the use of unofficial hardware and software modifications.

Contact information

Designed, developed and assembled by

No More Boots AB
Storgatan 52 B
831 33 Östersund
Sweden

+46730401069
andreas.persson@nomoreboots.com

Specifications

Power

Input voltage	DC 24V	
Consumption	11,67A	
Power supply	External DC power adapter	
Power adapter	Input:	85 ~ 264VAC, 47/63Hz 230VAC, 50Hz, 1.5A
	Output:	24V – 11,67A

Environmental

Operating temperature	Between +5°C and +40°C
Storage temperature	Between +5°C and +40°C
Operating humidity	20% - 85% non-condensing

Noise level

The noise level of the SkiDriller™ is below 70dB (A)

Components

Internet connection	WiFi
Spindles	2x 50W DC Motors
Drill bit collet	ER11
Drill bit	Custom ø3,5mm & ø4,1mm
Display	Android tablet

Dimensions and net weight

Width	950mm
Height	350mm
Depth	414mm
Net weight	≈ 55kg

Product number

SKDR01