PROSHARP®

LEADING PERFORMANCE

ProSharp AS 2001

ORIGINAL INSTRUCTIONS

Read the installation and operating instructions carefully before using the machine. Usage that is not in accordance with the instruction manual and/or disregard safety instruction, may cause injury or death, and damage the machine.

Installation instructions

1. **Unpacking and installation:**
   Open the transportation box by unscrewing the locks on both sides of the transportation box.

2. Place the machine on a steady table on a height between 80-100 cm.

3. Cut all cable ties.

4. Plug the power cord of the machine and vacuum cleaner. Place the NDT3 diamond tool to the diamond holder.

5. Use the machine in a warm, dry and well lit room.

6. After usage of the machine clean the machine and the working space properly. Push down the emergency stop button. Before transportation make sure that the grinding wheel arm is steadily locked so it can't move during transportation. Unplug the power cords. Place the machine into the transportation box and lock it.

Operation instructions:

1. When starting the machine turn the key on the emergency stop switch. All lights on the "SHARP" button will start to blink. Test the grinding wheel by pushing once the "DRESS" button. Grinding wheel should now run steadily. Push the button again and the wheel will stop. Dress the grinding wheel for desired radius of hollow (see dressing of the grinding wheel on page 9.)

Safety precautions:

WARNING! When using electric tools basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury. Read all these instructions before attempting to operate this product and save these instructions. The use of any accessory or attachment other than one recommended in this instruction manual may present a risk of personal injury.

1. Always use eye, ear and breathing protection. Always connect a vacuum cleaner to the machine to minimize dust occurring outside the machine.

2. Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.

3. Do not expose the machine into rain. Do not use the machine in damp or wet locations. Keep work area well lit. Keep work area clear. Cluttered areas and benches invite injuries. Do not use the machine in the presence of flammable liquids or gases.

4. Guard against electric shock. Avoid body contact with earthed or grounded surfaces (e.g. pipes, radiators, ranges, refrigerators)

5. Keep other persons away. Do not let persons, especially children, not involved in the work touch the machine or the extension cord and keep them away from the work area. Make workshop kip proof with padlocks, master switches, or by removing starter keys. Do not overreach. Keep proper footing and balance at all times. Do not stand on the machine.

6. Never leave tool running unattended. Turn power off. Don't leave tool until it comes to a complete stop.

7. Use right tool. Do not use the tool for purpose not intended. Don't force the machine. It will do the job better and safer at the rate for which it was designed.

8. When not in use always disconnect the power cords.

9. Stay alert. Watch what you are doing, use common sense and do not operate the machine when you are tired.

10. Check damaged parts. Before further use of the machine, it should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service centre otherwise indicated in this instruction manual. Have defective switches replaced by an authorized service centre. Do not use the machine if the switch does not turn it on and off.

11. Store the machine properly in a dry locked-up place, out of reach of children.

12. Never yank the cord to disconnect it from the socket. Keep the cord away from heat, oil and sharp edges. Use proper extension cord. When tool is used outdoors, use only cords intended for outdoor use and so marked. Make sure your extension cord is in good condition. Be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating.

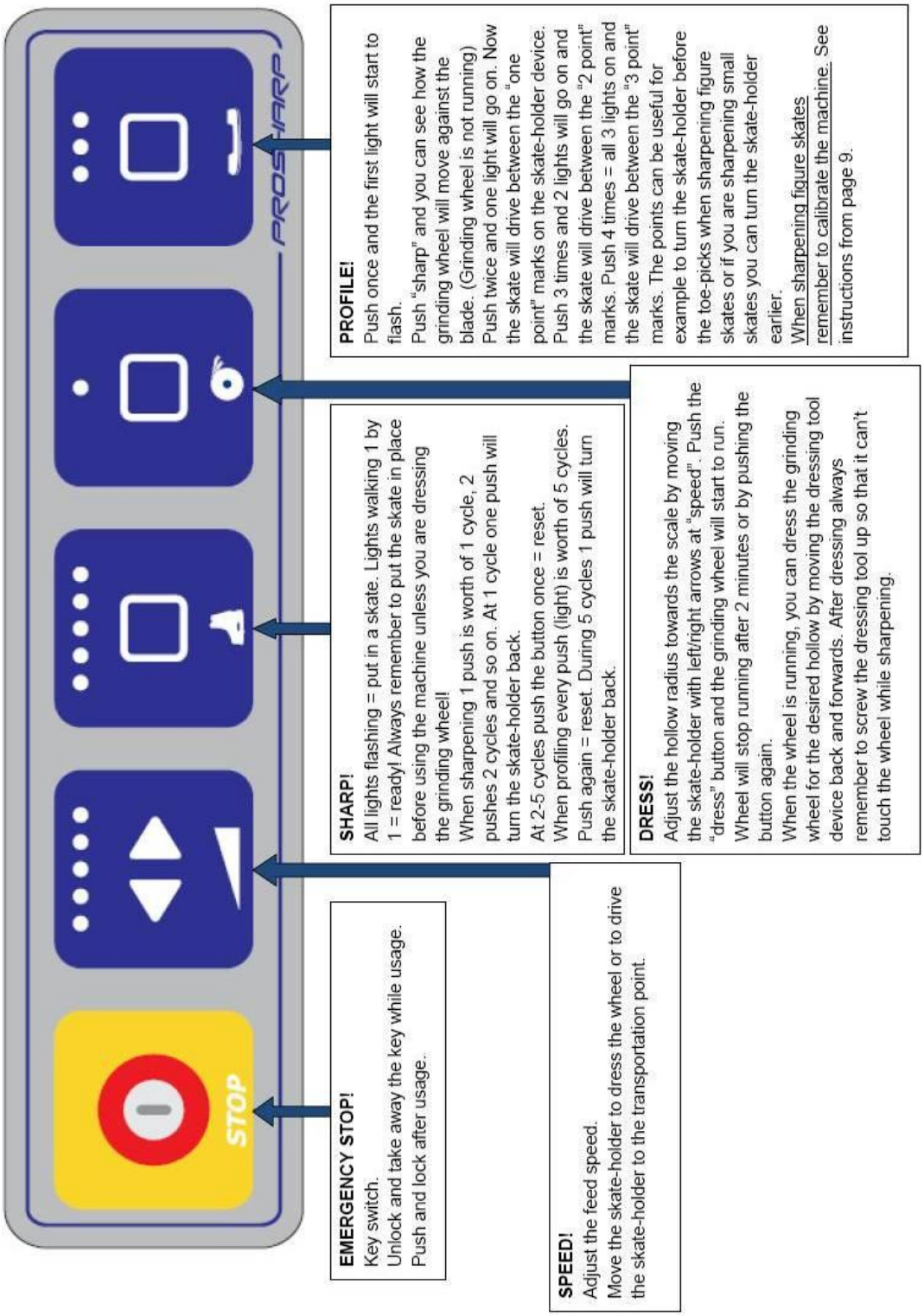
13. Avoid unintentional starting. Ensure switch is in "off" position when plugging in.

14. This electric machine should be repaired by qualified persons using original spare parts, otherwise this may result in considerable danger to the user.

15. Maintain the machine with care. Follow instruction for lubricating and changing accessories. Inspect machine cords periodically and if damaged have them repaired by an authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean and free from oil and grease.

16. Disconnect machine before servicing; when changing accessories, such as grinding wheels and diamond tools. Detailed instructions how the change the grinding wheel are on page 11 in this operation instruction manual. Other parts than those recommended by the manufacturer may present a risk of personal injury.

Control Panel Manual



EMERGENCY STOP!
Key switch.
Unlock and take away the key while usage.
Push and lock after usage.

SPEED!
Adjust the feed speed.
Move the skate-holder to dress the wheel or to drive the skate-holder to the transportation point.

SHARP!
All lights flashing = put in a skate. Lights walking 1 by 1 = ready! Always remember to put the skate in place before using the machine unless you are dressing the grinding wheel!
When sharpening 1 push is worth of 1 cycle, 2 pushes 2 cycles and so on. At 1 cycle one push will turn the skate-holder back.
At 2-5 cycles push the button once = reset.
When profiling every push (light) is worth of 5 cycles. Push again = reset. During 5 cycles 1 push will turn the skate-holder back.

DRESS!
Adjust the hollow radius towards the scale by moving the skate-holder with left/right arrows at "speed". Push the "dress" button and the grinding wheel will start to run. Wheel will stop running after 2 minutes or by pushing the button again.
When the wheel is running, you can dress the grinding wheel for the desired hollow by moving the dressing tool device back and forwards. After dressing always remember to screw the dressing tool up so that it can't touch the wheel while sharpening.

PROFILE!
Push once and the first light will start to flash.
Push "sharp" and you can see how the grinding wheel will move against the blade. (Grinding wheel is not running)
Push twice and one light will go on. Now the skate will drive between the "one point" marks on the skate-holder device.
Push 3 times and 2 lights will go on and the skate will drive between the "2 point" marks. Push 4 times = all 3 lights on and the skate will drive between the "3 point" marks. The points can be useful for example to turn the skate-holder before the toe-picks when sharpening figure skates or if you are sharpening small skates you can turn the skate-holder earlier.
When sharpening figure skates remember to calibrate the machine. See instructions from page 9.

Designation

- ProSharp AS 2001-Allpro is a skate sharpening machine and should be used only to sharpen ice skates.

Safety Information and Recommendations

- Before using the machine check the grinding wheel for cracks. If there are cracks in the wheel (can be caused in transport), change the wheel to a new wheel before grinding.
- The skate sharpening machine AS 2001 may only be used for grinding skates.
- Only original special balanced ProSharp grinding wheels, may be used in the machine.
- When the wheel has worn down to ~5" (125mm) it must be changed.
- Change of the wheel may only be done when the main power is switched off.
- Please notice that the protective equipment, according to signs, must be used when grinding with the machine.
- Maximum speed of the grinding wheel: 4440 RPM (35 m/s)
- Capacity of the machine: 300W

Hazards

- The skate sharpening machine AS 2001- Portable is equipped with grinding tools which may cause injury.
- Children and visitors must be kept away from the machine and be at a safe distance from the working area.
- The operator must stand in front of the machine.
- The operator may never bend over- put his hands on the machine or in other way increase the risk of injury moments.
- Dangerous grinding dust comes from the machine and therefore the operator must always use eye- and mouth protection.
- Before using the machine check if there are any transport damages on the machine.

Explanation of symbols marked on the skate sharpener ProSharp AS 2001-Allpro

= **Always use mouth/breathing protection when using the skate sharpener!**

= **Always use ear protection when using the skate sharpener!**

= **Always use protective eye glasses when using the skate sharpener!**

= **Beware of electric shock!**

= **Read the original instructions carefully before using the skate sharpener!**

= **Beware of rotating grinding wheel!**

= **Never lay your hands on the machine when the sharpening procedure is on!**

Connection

- Connect tab single-phase A.C, 100-240 VAC 50-60 Hz.
- Connect the dust-cleaners power cord to the side of the machine for automatic start of dust-cleaner when grinding. Connect dust-cleaners hose to the machine.

Placement

- The machine must be placed on a flat, steady workbench with a height between 80 to 100 cm.
- The working area must be well lit. Keep work area clear. Cluttered areas and benches invite injuries.

Issuing

- During use of the machine, dust will occur and this dust must be taken away.
- Clean the machine between every grinding.

Engagement

- For information regarding the grinding machine the responsible operator must inform other users about safety and maintenance instruction.
- For safety reasons, modifications of the machine or its design are not allowed.

Maintenance

- The AS 2001 is manufactured for low maintenance demands.
- In your own interest and for your own safety, control and cleaning must be done before, during and after grinding.
- Remove the plug before carrying out any adjustment, servicing or maintenance.

Important!

- All operators must read and understand instructions regarding operation and maintenance contained in this manual, before using the machine.
- People under 18 years of age may NOT use the machine!
- Never move the skate-holder by hand. Only use the arrows to move the skate-holder.
- Only non-flammable vacuum cleaners should be connected to the AS 2001.

The ProSharp AS 2001- Allpro delivery includes:

- 1 Skate Sharpening Machine ProSharp AS 2001- Allpro
- 1 Grinding wheel MA70
- 1 Dressing-tool NDT3
- 10 Contouring templates
- 1 Power cord
- 1 19mm wrench for grinding wheel change
- 2 Keys for the use of the emergency button
- 1 Transportation-box
- 1 Operating instruction manual

Technical Data

- Voltage 1 x 100-240 VAC
- Cycles 50-60 Hz
- PowerPmotors: 300W, Poutlet: 200W, Ptotal: 2300W
  Power outlet for the vacuum cleaner MAX 2000W
- Weight 50kg (including the transportation box and detachable parts)
- Length 1300 mm
- Width 370 mm
- Height 370 mm
- Noise level 100dB

Business name and manufacturer

Eriksson Teknik AB

Hirsvägen 4

86241 Njurunda

SWEDEN

T. +46 60 15 85 80

F. +46 60 15 83 80

E. support@prosharp.com

Authorized service representative

ProSharp AB

Hirsvägen 4

86241 Njurunda

SWEDEN

T. +46 60 15 85 80

E. order@prosharp.com

Maintenance Instructions

Change of the grinding wheel and all service work may only be done when the main power is switched off.

Before every grinding: Please check that:

1. You have read and understood the safety instructions and all functions.
2. Dust Cleaner is connected

After grinding: Lock the machine and take the key away. Clean the machine from dust with the dust-cleaner and use a dry rag to clean up.
Never use oil or grease. Light fleeting liquid is OK.

After 1-10 pairs: Dress the grinding wheel.

After 200-400 pairs: Time to change grinding-wheel (page 9). The number of pairs/wheel depends on how often you dress the wheel, type of steel etc. **For best grinding result, use only balanced ProSharp grinding wheels MA54, MA70 or MA90.**

After 800-1000 pairs: Check the dressing-tool. The diamond must be pointed and even for best grinding result. Use only special-centered dressing-tool, NDT1 or NDT3, for exact dressing and best grinding-result.

After 2000-3000 pairs: The driving-belt should be perfectly stretched,
Loosen the belt-shroud (2 bolts).
Check the driving-belt by starting the motor. The belt must run even and smooth.
In cause of belt-tension:
Take off the driving belt.
Loosen bolts by motor-shaft (2 M8). Move the motor 2-3 mm to the right. Put the 2 M8 back.
Put the driving belt back.
Test run.
Put the belt-shroud back.

The wire that transports the skate shall be stretched.
Tip the machine forward, check wire on the back.
Check tension of the wire.
In cause of wire-tension:
Loosen nut in center.
Lift off screw and unscrew key nut (one side).
Turn the "body" of the screw 2-3 rounds, or until the wire feels tightened. Lock the key nut (one side).
Put the screw back,' and lock the nut.
Test run without grinding until there is no slippage.

After 3000-5000 pairs: (1-2 seasons) Service should be made by an authorized service technician.

Please contact us for support about the machine!

Dressing of the grinding wheel with regular hollow

1. Make sure that the scale-knob is set at 3.0
2. Choose your hollow and move the skateholder by using the arrows on the control-panel
3. The hollow radius sticker on the skateholder indicates wich hollow you want to dress. Once set, lock the wheel arm.
4. Adjust the diamond tool downwards until it barely touches the surface of the grinding wheel.
5. When you choose to make a regular hollow make sure the knob on the dress units handle is lifted and locked in the upper position.
6. Push the “DRESS” button on the control-panel once. The wheel starts to run.
   Carefully move the handle of the dress unit back and forth until the grinding wheel is fully dressed with a smooth surface.
   Once you are satisfied, press “DRESS” button again to stop the wheel.
   Unlock the wheel arm and screw the diamond tool upwards.

Dressing of the grinding wheel with Channel Z

When you choose to make a radius hollow combined with a channel, choose first the hollow radius, and follow instructions how to dress. Once dressed, let the wheel arm be locked and turn the knob on the dress units handle to its lower position.
Choose S, M or L width of the channel by screwing the Channel Z -thumbscrew in or out to make the tap on the diamonds handle hit it. Follow the scale to see what width you get.

1. Push “DRESS” button and screw down the diamond tool approximately ½-turn (for a 0,5mm deep channel) Dress on side of the wheel by moving the handle until the tap hits the Channel Z -thumbscrew

2. Lift and lock the knob on the dress units handle in its upper position, unlock wheel arm and push the grinding wheel down. Now move the diamond tool over to the other side of the metallic Channel Z thumbscrew while the arm remains in a lower position. Now move the grinding wheel arm up and lock it. Turn the knob on the dress units handle down to its lower position, dress the other side of the wheel until tap hits the Channel Z -thumbscrew (remember not turning the diamond tool since you have dressed the other side to avoid uneven edges). Now you successfully dressed the wheel with desired hollow and width of the channel.

Grinding.

1. After dressing your grinding wheel, measure your skate and set the scale knob on the same width as your skates.
2. Clamp the skate in to the skate-holder. The toe of your skate should always point to your left
3. Choose number of grinding cycles by using the “SHARP” button. 1 push is worth of 1 cycle, 2 pushes is worth of 2 cycles and so on. Machine will start after choosing the amount of cycles and will stop automatically once finished.
4. If you want to stop the grinding earlier (during cycles 2-5) just push the “SHARP” again. During 1 cycle push the button and the skateholder will turn back. Push again and it will turn back again.

Notice: The amount of cycles required to sharpen your skates varies depending of the quality and condition of your skates.

For more detailed instructions how to use the electronics and adjustments please take a look at our Instructional Videos at **www.prosharp.com**

Grinding of figure skates and Bandy skates

1. After dressing your grinding wheel, measure your skate and set the scale knob on the same width as your skates.

2. Clamp the skate in to the skate-holder. The toe of your skate should always point to your left.

3. Loosen the two nuts on the Figure skate device and slide it as far to your right as possible and tighten the nuts. (Take notice that the adjustment screw has to be located under the figure skate device).

4. DO NOT SHARPEN YET! Move the sledge forward with the arrows on your control-panel until the grinding wheel is located directly under the toe of your figure skate. Now adjust the hight of your wheel towards the skates toe with the adjustment screw.

5. Once in position, return the skate holder to its home position and start sharpening your skate.

6. Choose number of grinding cycles by using the “SHARP” button. 1 push is worth of 1 cycle, 2 pushes is worth of 2 cycles and so on. Machine will start after choosing the amount of cycles and will stop automatically once finished.

Check the result and the skate is finished.

For more detailed instructions how to sharpen Figure –and Bandy Skates, please take a look at our Instructional Videos at **www.prosharp.com**

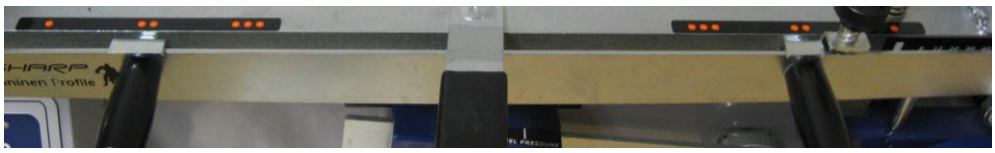
Radius and Gliding surface profiling

1. Choose radius- or gliding surface template.

2. Mark on the skate the desired middle of the ice surface contact.

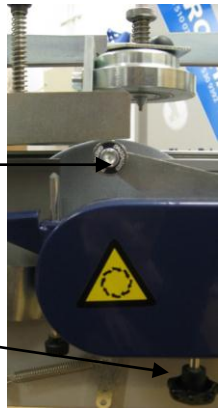
3. Put the skate into the skate-holder and make sure that the skate lies on both rolls. Adjust the middle mark on the skate to be in line with the black *pivot point* on the machine.
Important: Check the thickness of the blade and the hollow radius. Also make sure that the skate-holder is centered sideways over the two rolls so that the pivot point mark is in the middle of the two rolls. The heel of the blade has to be always towards the grinding wheel.

4. Put in the contouring template and make sure that the template is in the correct position and lying in the top of the guide-roll (see pictures 10 & 11). Measure the thickness of the blade and adjust the blade thickness nut to right thickness (See the picture 1). Remember to measure both blades because there are sometimes differences between the blades even in the same pair! HTC-tool is perfect for this!



Picture 10.

5. Push the “PROFILE”-button once. First yellow light will start to flash. Push the “SHARP”-button - now the skate runs without grinding. Push again and the skate-holder will turn back. Now you can see which part of the blade the machine is profiling.



Picture 11.

6. **Gliding surface profiling.** Adjust the template guide-roll height so that the grinding-wheel just about reaches the part of the skate that you will profile and so that about 50% of the blade will be profiled. When the guide-roll is rotating the machine is not profiling. Guide-roll not rotating = profiling. When the guide-roll rotates over the whole template the skate has been profiled from the whole (chosen) length of the blade.

7. **Radius profiling.** Choose a radius template and put the template into the right position. Adjust the guide-roll so that it will profile the desired surface of the blade. At least 50% of the blade from the middle should be profiled. Follow the points 5 & 6 to see how the grinding wheel will run against the blade.

8. Choose the desired blade profiling distance by using the “points” on the skate-holder. Push the “PROFILE” button twice and one light will go on and the skate-holder will drive between the two “one point marks” in the skate-holder. Press 3 times→ 2 lights will go on and the skate-holder will drive between the two “two point marks”. Press 4 times→ 3 lights will go on and the skate-holder will drive between the “3 point marks”. If you don’t choose the distance the skate-holder will drive the whole distance from left to right.

9. Choose the profiling cycles from “SHARP” . 1 push is worth of 5 cycles, 2 pushes is worth of 10 cycles, 3 pushes = 15 cycles, 4 pushes = 20 and 5 pushes = 25 cycles. Press the button again during the profiling = reset. You can also turn the skate-holder device manually during 5 cycles (1 light) by pushing the “SHARP” button in a place where you want to turn the skate-holder back. Also when all lights are shut down you can turn the skate-holder by pushing the “SHARP” button.

1. During the profiling you can adjust the speed of the skate-holder by pushing the arrows from “SPEED”

.

11. **IMPORTANT! Never unclamp the skate before the profiling is finished!**

12. Do the same operation for the other blade but make sure that the profiling will happen in the same distance than for the first blade. Remember to adjust the guide-roll height as for the first blade.

13. Take off the contouring template and adjust the guide-roll down.

14. After the both skates are profiled they need to be sharpened. First you need to dress the grinding wheel and then the blades should be sharpened at least 5-7 times (cycles) after profiling so that the turn-marks on the blades will disappear. See instructions for sharpening and for dressing of the grinding wheel from pages 9 & 10.

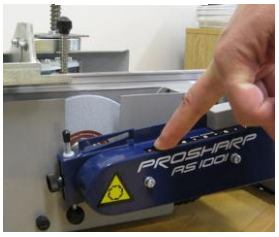
Change of the grinding wheel

Changing of the wheel and all service work may only be done when the main power is switched off. But before switching the power off please read these instructions.

Drive the skate-holder to the left by using the arrows at “SPEED” .
Now switch the power off.

Picture 1.

1. Remove the cover, see picture 3, by loosing the screw to the right and take the cover away.
2. Adjust the wheel towards you by turning the scale knob nut 3 full rounds clockwise. See Picture 1. Now the nut is getting more accessible.
3. Loosen the grinding wheel nut and washer and remove the grinding wheel.
4. Put in a new wheel so that the text label is towards you and tighten it moderately.
5. Adjust the wheel sideways 3 full rounds anti-clockwise to 3.0 mm.
6. Put the cover back.
7. Now switch on the power**.**
8. **After changing the grinding wheel you have to reset the wheel size counter by pressing both arrows down for 3 seconds.** You will hear “beeps” from the machine and the resetting is done. Now you can drive the skate-holder back to the starting position by using the arrows
   and at the same time keeping the wheel-arm down by hand. See Picture 8.
9. Dress the wheel with desired hollow. See instructions for Dressing of the grinding wheel. Page 9.
10. For more detailed instructions how to use the electronics and adjustments please take a look at the control panel manual (Page 4.)



Picture 2.

Picture 3

Warranty

The warranty applies for one year for materials and workmanship. The manufacturer is not responsible for defects or faults that arise from normal usage, negligent maintenance or other neglect, unauthorized tampering, improper use, service or repairs performed by others than those approved by the manufacturer, as well as variations in electrical voltage or other electrical disorders.

The manufacturer is not responsible for costs such as travel expenses, transport costs or costs for repairs not performed by the manufacturer during the warranty period, or for inaccessibility to the machine during the service period in connection with measures to repair any faults covered by the warranty.

The manufacturer will not bear any costs that arise in the form of damage to skates or other property. The buyer shall, at own risk and cost, send the machine or component in question to the manufacturer for assessment of warranty coverage and repair. The machine or component will be returned to the buyer at the manufacturer's expense.

Original

EC DECLARATION OF CONFORMITY

Eriksson Teknik AB

Hirsvägen 4

862 41 Njurunda

SWEDEN

Hereby declares under sole responsibility that the following equipment:

Skate sharpening machine

Model: AS 2001 Serial number: 1201.1800-2200

Origin: Njurunda Manufactured: 2012

Which include the EC declaration is in conformity with the essential health and

Safety requirements of MD2006/42/EG (AFS2008:3), EN 61029-1:2009, EN6100-6-1, EN6100-6-3, EN12100.

The declaration applies only to machinery in the state it was placed on the market and does not include components that are added or actions which are then implemented by the end user.

Njurunda 12.02.13

Location Date

Eriksson Teknik AB

Magnus Eriksson